DC: DRY CARGO international

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FEATURES

- Grab Manufacturers
- Self Unloaders
- Maritime Insurance
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DCi

On the front cover the latest successes designed by Logmarin Advisors and equipped with Liebherr's and Bedeschi's cargo handling equipment. Vale's world's largest floating terminal, **Ore Fabrica** *operating in Subic Bay and* **Princesse Chloe** *operating at Muara Pantai (Indonesia) at an average loading rate over 50,000 tpd. To push the environmental safeguard to the most positive limit, Logmarin has recently designed the* **Capricorn Cat** *for the Fitzroy Terminal Project in Queensland.*

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APRIL 2012 issue

featuring...

Some positive dry bulk trade pointers

Events likely to have a restraining impact on dry bulk trade, over the next twelve months, have been prominent in recent weeks. Yet there are clear signs of rising import demand for raw materials, fuels and agricultural commodities in many countries. Overall seaborne movements of dry bulks can be expected to continue growing moderately through 2012.

Evidence of a pickup in the USA, and expectations of a revival in Japan, provide some useful positive contributions to the outlook for the global economy. But growth in China and India has been slowing. And prospects for the European Union are still highly uncertain, amid statistics suggesting that the region currently is in or near recession, accompanied by forecasts of only very marginal (+0.2%) GDP growth for this year as a whole.

Grain

Estimates of world soyabeans and meal trade, within the grain (including soya) sector, have been revised downwards. As shown by table 1, some growth is still expected, but it now seems likely to be small. USDA calculations point to a 1% increase during the current 2011/12 crop marketing year ending September, raising the total to 147.2m tonnes.

Robust imports into China are the main feature. Strongly expanding usage of both soyameal in livestock feed, and soyoil in food manufacturing and home cooking, coupled with limited domestic harvests of soyabeans, is reflected in China's soya imports continuing upwards. Other Asian countries also may need extra beans and meal volumes, but European purchases could decline.

Iron ore

Potential for further growth in global seaborne iron ore trade this year is clear, although the picture is mixed. Much depends on China's performance as the dominant importer. Another sizeable expansion of Chinese imports is foreseeable, but prospects for other key buyers are not especially bright. The EU's volume may be flat, while Japan's imports could be slightly higher.

A new report by Australia's Bureau of Resources and Energy Economics gives a more optimistic overview. The BREE forecast suggests that world iron ore trade (including land movements, but mainly seaborne) could grow by 74mt or 7% in 2012, reaching 1,149mt. In addition to a large rise in China, imports into Japan, Europe, South Korea and Taiwan are all expected to strengthen.

Coal

Despite environmental concerns, coal trade is still very much a growth sector. Competition from natural gas as a power station fuel has greatly intensified in the past few years. But the other main alternatives to coal for electricity generation, nuclear power and wind , are seen as problematical in many countries due to issues of safety (for nuclear), and reliability (for wind energy).

Consequently, seaborne coal import demand globally remains on an upwards trend, and another sizeable increment in 2012 is foreseeable. Within the dominant steam coal sector, among key buyers, a positive outlook for imports into India is one of the highlights, while additional volumes into China are also envisaged and there are positive signs elsewhere in Asian countries.

Minor bulks

Steel products comprise a large portion of the minor dry bulks category. Worldwide seaborne trade in finished and semi-finished steel products is estimated to have increased by over 6% last year, reaching around 280mt. In 2012 activity in the main construction and manufacturing markets in many steel importing countries may not support such a large rise.

Bulk carrier fleet

The world bulk carrier fleet's growth is expected to remain rapid this year, while decelerating. The Panamax (60–99,999dwt) size group may be an exception. Figures shown in table 2 suggest that this fleet's expansion in 2012 could prove slightly faster, at 15%. Newbuilding deliveries seem set to sharply exceed last year's high volume, accompanied by extra scrapping.

TABLE 1: WORLD SOYABEANS AND SOYAMEAL IMPORTS (MILLION TONNES)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12*
European Union	37.5	39.2	34.2	33.4	34.2	33.4
China	28.8	38.0	41.3	50.4	52.6	55.3
Other Asia	24.1	23.5	23.1	25.7	26.4	27.1
Others	31.6	32.6	30.0	30.3	32.0	31.4
World total	**122.0**	**133.3**	**128.6**	**139.8**	**145.2**	**147.2**
% change from previous year	+5.8	+9.3	−3.5	+8.6	+3.9	+1.4

source: US Dept of Agriculture (09 Mar 2012) *Oct/Sep marketing years* **forecast*

TABLE 2: PANAMAX (60-99,999 DWT) BULK CARRIER FLEET (MILLION DEADWEIGHT TONNES)

	2007	2008	2009	2010	2011	2012
Newbuilding deliveries	6.7	6.4	7.0	15.7	23.6	28.5
Scrapping	0.2	1.1	2.1	0.7	5.0	5.5
Losses	0.1	0.1	0.1	0.0	0.0	0.0
Plus/minus adjustments	0.1	1.4	1.6	0.5	0.1	0.0
World fleet at end of year	**108.2**	**114.8**	**121.2**	**136.7**	**155.4**	**178.4**
% change from previous year-end	+6.4	+6.0	+5.6	+12.8	+13.7	+14.8

source: Clarksons (historical data) & BSA 2012 forecasts **forecast*

by Richard Scott, Bulk Shipping Analysis, Tel: +44 (0)12 7722 5784; Fax: +44 (0)12 7722 5784; e-mail: bulkshipan@aol.com

CONFERENCE SCHEDULE

2–3 May
8th Annual Indian Iron and Steel Conference
New Delhi, India
Metal Bulletin Events
T: (UK): +44 (0) 20 7779 7999
T: (US): +1 212 224 3570
E: Hotline@euromoneyplc.com
W: http://www.metalbulletin.com

7–11 May
28th International Coal Supply Contracts and Transport Logistics
Jakarta, Indonesia
Coaltrans Conferences Ltd
T: +44 (0)20 7779 8945
F: +44 (0)20 7779 8946
E: coaltrans@euromoneyplc.com
W: www.coaltrans.com

8–10 May
PTXi — International Powder & Bulk Solids 2012
Chicago, USA
UBM Canon
T: +1 310/445 4200
F: +1 310/996 9499
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www.canontradeshows.com

2–3 May
8th Annual Indian Iron and Steel Conference
Delhi, India
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T: +44 (0) 20 7779 7390
F: +44 (0) 20 7779 7389
W: www.metalbulletin.com

20–22 May
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Amsterdam, The Netherlands
Dry Cargo International
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F: +44 1206 562566
E: info@dc-int.com
W: www.drycargoevents.com

22–24 May
Breakbulk Europe 2012
Antwerp, Belgium
Breakbulk Events
T: +32 2 808 4355
T: +1 973 776 8657
E: events@breakbulk.com
W: www.breakbulkevents.com

23–24 May
Coaltrans Mongolia
Ulaanbaatar, Mongolia
Coaltrans Conferences Ltd
T: +44 (0)20 7779 8945
F: +44 (0)20 7779 8946
E: coaltrans@euromoneyplc.com
W: www.coaltrans.com

3–7 June
The 37th International Technical Conference on Clean Coal & Fuel Systems
Coal Technologies Associates
T: +1 301 330 2256
E: BarbaraSak@aol.com
W: www.coaltechnologies.com

3–6 June
18th Coaltrans Asia
Bali, Indonesia
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Yara buys 20% stake in Canada's IC Potash Group

Norwegian fertilizer maker Yara is to pay $40 million Canadian for new shares in Canada's IC Potash Group (ICP), paying a near 50% premium for a 19.9% stake to secure access to potash supplies.

As part of the deal, Yara said it had also entered into an off-take arrangement for 30% of all products produced by ICP's Ochoa project in New Mexico for a period of 15 years, and discussed the possibility of establishing a jointly held entity for the purpose of marketing the project's products.

ICP is to issue to Yara, the world's biggest nitrate-based fertilizer maker, some 30.13 million common shares in ICP at a price of $1.32 per share. Yara said it currently has no current intention to acquire additional securities in the firm.

With ICP shares recently closing at $0.89 Canadian per share, the payment represents at a 48.3% premium.

"Through the ownership in ICP, Yara gets an upstream exposure on potash which reduces and mitigates the financial impact of being structurally short on the nutrient," Yara's Chief Executive Joergen Haslestad said in a statement.

Toronto-listed ICP plans to start commercial production of potash magnesium sulphate (SOP) — a non-chloride based potash fertilizer used in the cash crop and horticultural industries — in the last months of 2015, with an estimated annual production of 700,000 metric tonnes.

"We make this deal primarily to get access to this important nutrient," Yara spokesman Espen Tuman said.

Glencore and Xstrata to merge

Glencore and Xstrata have confirmed that, in principle, the two companies have agreed to merge, which will create the world's fourth largest raw materials company with a market value of $90 billion. Glencore will issue 2.8 shares for each Xstrata share to create the equal joint venture. In 2011, the combined turnover of both groups was $209.4 billion.

Barry Cross

BHP Billiton declares 'force majeure' at Bowen Basin mines

The world's biggest miner, BHP Billiton is declaring *force majeure* at its coal mines in Australia's Bowen Basin due to prolonged union strikes and heavy rain, in a move that could spur prices of metallurgical coal.

About 3,500 unionized workers have been staging rolling work stoppages at the mines since mid-2011 and Australia's eastern state of Queensland, where the mines are located, was lashed by heavy flooding last year and heavy rain this year.

BHP Billiton operates seven coal mines in the Bowen Basin that supply about a fifth of the world's metallurgical coal, or coking coal used in steelmaking.

"Now that this very important supply block is dropping out of the market, it's got the potential of driving prices up... I'd say within the next few days we'll see life (in prices)," Tom Price, an analyst with UBS in Sydney, said.

The mines, owned by BHP Billiton Mitsubishi Alliance (BMA), a joint venture between BHP and Mitsubishi Development Pty Ltd, have an annual capacity of about 58mt (million tonnes).

UBS's Price estimated that the strikes and heavy rains have resulted in 2–3mt of lost production this year.

But after about 16 months of tense negotiations between BHP and the worker's union, the declaration of a *force majeure* did not come as a surprise to the market, industry experts said.

BHP's stock price was up 51 cents, or 1.47%, at $35.12 per share.

In late March, the mining workers' union announced it was stepping up its strike actions.

BHP said it planned to hold a ballot for employees to vote on a proposed contract toward the end of April, but Stephen Smyth, a spokesman for the union, said he was confident such an agreement would be voted down.

The union has already voted down two of BHP's proposed contracts. The main points of contention in the negotiations have not been pay for unionized workers, but conditions such as work hours and scheduling.

Even without the industrial actions, however, BMA's production would be suffering the impact of recent rains, Smyth said.

"A lot of the mines are filled with water. There's next to no coal to be transported to the ports," he said.

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Asian Coal Trade 2012

Dr Tim Jones, e-coal.com

Asia continues to be the main centre of activity in the international coal market as 2012 progresses, although the firm drive felt from China in recent times has been relatively quieter during the past few months.

In the latest news from the coal markets, in Australia, Rio Tinto is understood to have agreed the price of hard coking coal for the April quarter with Korea's Posco at US$206/t FOB (free on board). The price is in line with Teck's recent settlement in Korea. Spot prices for the reference brand hard coking coal were flat following the settlement, with Queensland shippers understood to be asking around US$205–206/t FOB. Following the quarterly contract price settlements the spot price softened by a couple of dollars per tonne compared with the level in late February. Meanwhile in Canada, reports suggest Teck sold a trial cargo of hard coking coal to a new customer in China for about US$175/t FOB. There have also been reports that the producer has excess tonnage on the pads at the ports.

In China, the metallurgical coke export market remains stagnant at the time of writing as Chinese prices remain well above the international market level amid relatively low demand. The spot price is being reported at a little under US$500/t FOB for 12% ash material and has been around the same level for several weeks. Buyers in the international market have been looking elsewhere for their coke supplies and have been offered tonnage at about US$100–140/t FOB less than the Chinese price. The main supplier countries being seen in the market at present include Colombia and Japan, with the Brazilian steel mills taking some Colombian product recently.

In the thermal coal markets, the Indonesian Coal Price Reference for March has been set at US$112.87/t FOB vessel. This is an increase of US$1.29/t compared with the price set for February, amid a softening thermal coal spot market. The government relies on the opinions of journalists reporting elsewhere in setting this price reference. Korea's Kosep is in the market seeking 900kt of bituminous coal for delivery during July to August. Specifications include CV 5,700kcal/kg NAR [net as received] (min). In Taiwan, Taipower has received offers of 5.55Mt of coal following its recent tender seeking 1.125mt (million tonnes) for delivery during May to August. Price envelopes have not yet been opened at the time of writing.

There has been a long-running industrial dispute in Australia, and BHP Billiton appears to be digging in over its position regarding a new enterprise bargaining agreement at the BMA mines in Queensland's Bowen Basin. Union members numbering some 3,500 are continuing their campaign involving industrial action at the hard coking coal operations in the state. Union members at BHP Billiton Mitsubishi Alliance started their latest industrial action at the Norwich Park and Saraji coking coal mines with a 10-day action from 25 February. A two day stoppage was also affecting operations at the Blackwater, Crinum, and Peak Downs mines. The ongoing dispute over the new enterprise bargaining agreement does not appear to be any closer to resolution.

Still in Australia, Port Waratah Coal Services has put the environmental impact assessment for its proposed Terminal 4 development on display for public comment. The $5bn project on Kooragang Island would have a capacity of 120mtpa (million tonnes per annum) and would increase total capacity at Newcastle to 331mtpa. The plans, however, come amid a perceived tightening in planning and environmental regulations and procedures in New South Wales

The Indonesian government has issued new regulations

PROMPT SPOT PRICES FOR THERMAL COAL 2011

(US$/t)
(FOB basis 6,700kcal/kg GAD) ash, 15% max, sulphur 1% max

Location	11 Mar 11	4 Mar 11	% change
South Africa	119.25	119.35	–0.08
Colombia	118.10	118.50	–0.34
Venezuela	118.50	119.00	–0.42
Russia Baltic	121.00	121.40	–0.33
Poland	121.20	122.00	–0.66
Newcastle	129.00	130.00	–0.77
Queensland	130.00	130.00	0.00
China	133.50	134.00	–0.37
Russia East	132.50	132.50	0.00
Banjarmasin	117.50	118.45	–0.80
Mahakam	119.50	120.20	–0.58

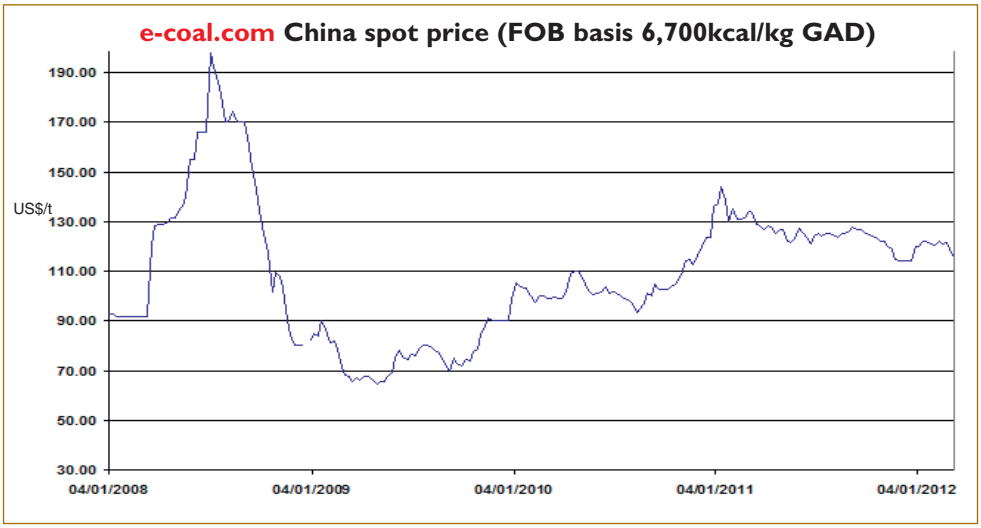
Prices are FOB vessel except Banjarmasin and Mahakam River which are FOB barge Source: e-coal.com

PROMPT SPOT PRICES FOR THERMAL COAL 2012

(US$/t)
(FOB basis 6,700kcal/kg GAD) ash, 15% max, sulphur 1% max

Location	5 Mar 12	2 Mar 12	% change
South Africa	105.15	104.20	0.91
Colombia	100.00	100.00	0.00
Venezuela	101.00	101.00	0.00
Russia Baltic	106.60	105.50	1.04
Poland	106.65	105.75	8.85
Newcastle	110.00	114.25	–3.72
Queensland	110.75	114.90	–3.61
China	116.00	119.00	–2.52
Russia East	114.50	117.30	–2.39
Banjarmasin	101.20	105.00	–3.62
Mahakam	103.00	106.75	–3.51

Prices are FOB vessel except Banjarmasin and Mahakam River which are FOB barge Source: e-coal.com

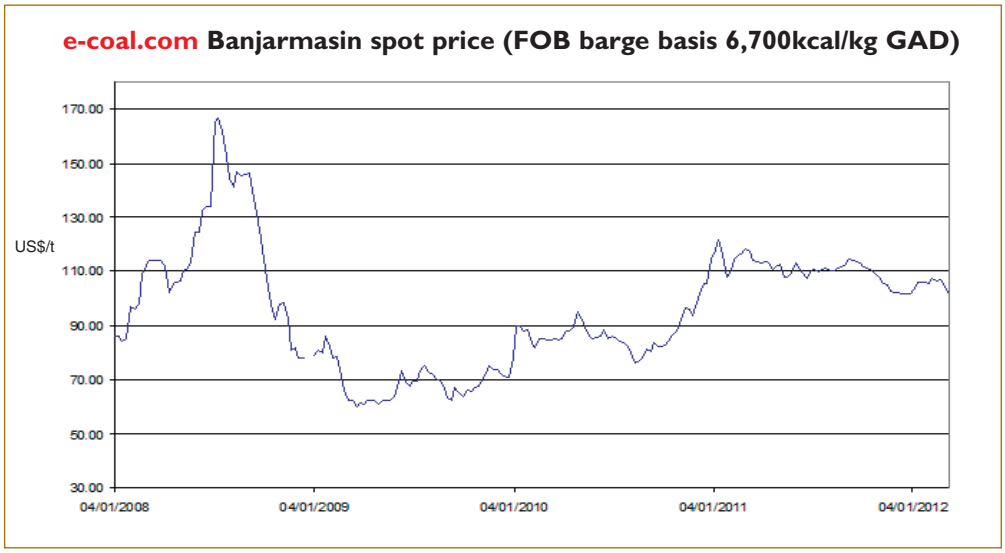


requiring foreign investors in the coal sector to reduce their share of a project to a maximum of 49% by the tenth year of coal production. The move has rattled some industry players around the world, although the Indonesian government has had this type of regulation, in various forms, from the early days of the modern coal industry expansion there in the 1990s.

At the beginning of March, the pressure appeared to be on for the Australian coking coal exporters as the rest of the world's shippers waited to see what reference price they agreed with the Japanese in the wake of Canadian settlements in Korea.

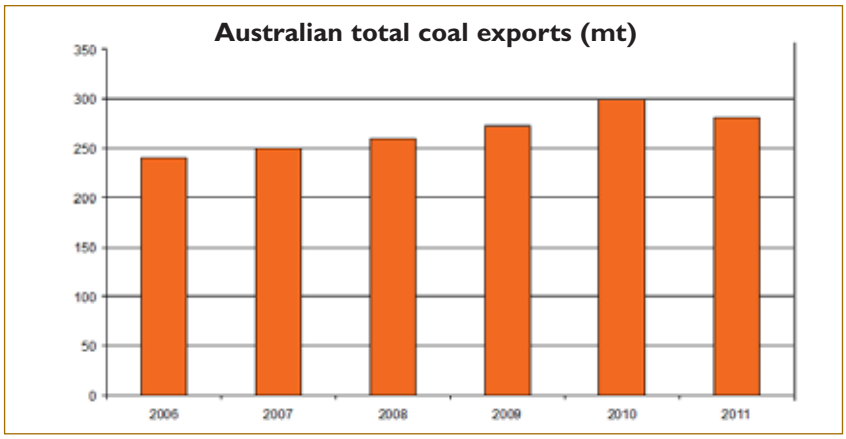
South African spot business seems to be confined to Asia now, with the European market having little influence. It was noted at the time that prices being paid for coal delivered to Asia in 2013 were about 5% higher than the then prompt spot price at Richards Bay.

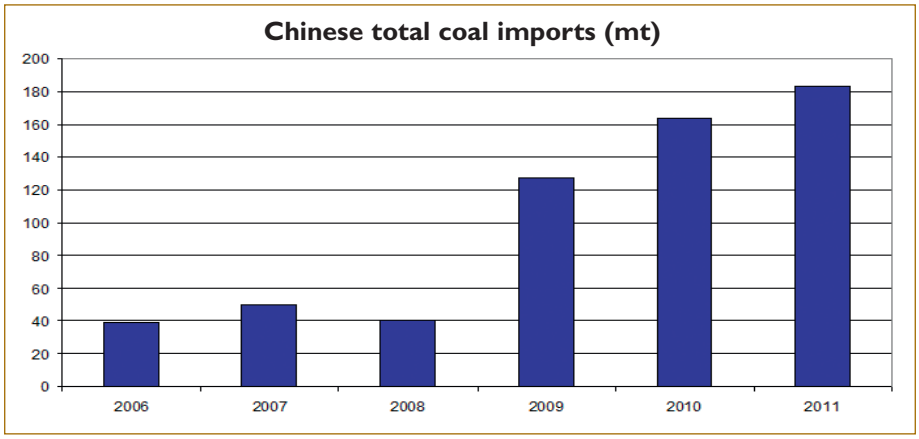
The coking coal spot market in Queensland softened over the course of the first week of March, with the latest quarterly contract settlement not helping to bolster the spot market. Spot prices for the reference brand were being quoted at US$206/t FOB after a decrease of some US$2/t since the end of February. No deals had been reported, and it was conceivable that the Australian prompt spot price may yet prove to be a little higher compared with the latest Canadian contract price. The Japanese steel mills were reported to be negotiating with the Australian shippers, who were understood to be expecting a higher quarterly contract price for the April quarter. Without any confirmed deals being done, and in a thin spot market, speculation had been growing, with the latest rumour suggesting the Chinese had purchased a cargo of premium quality hard coking coal from Australia for about US$175/t FOB. The Australians would not normally sell at such a discount to the market, especially during contract negotiations with the major customers. Perhaps the rumour can



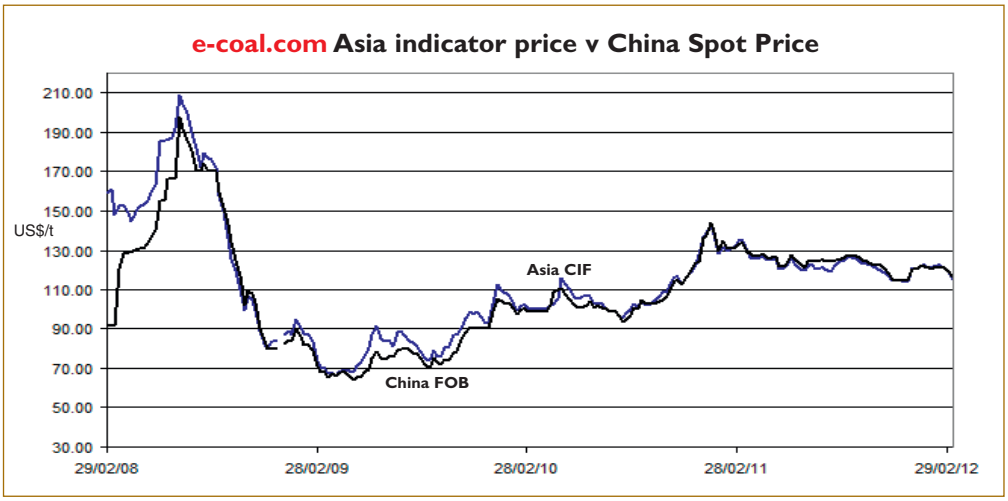
be attributed to a trader or buyer with a particular position.

By early March in Canada, Teck was understood to have settled the quarterly contract price of hard coking coal for the April quarter with Korea's Posco at US$206/t FOB. The price was close to market expectations over the previous couple of weeks as the shipper was believed to have been offering at US$210/t FOB while Posco was aiming for close to US$200/t FOB. The price represents a decrease from the previous level of US$235/t FOB amid a softening market since the start of 2012. Some observers believe this new price could set the floor for the hard coking coal quarterly contract price this year, with some optimism that Asian steel demand will improve in the second half. US exporters have also been signalling their expectation of an improvement later in the year.





In the thermal coal market, the Colombian exporters appear to be winning favour in Asia once again, with Kowepo reported to have awarded 160kt of the business to the Colombians following its tender seeking 170kt of coal. The coal specifications included ash 20% (max) adb, and CV 5,600kcal/kg NAR (min). Rumours of Colombian coal being sold for around US$89/t FOB in late February may be linked to renewed



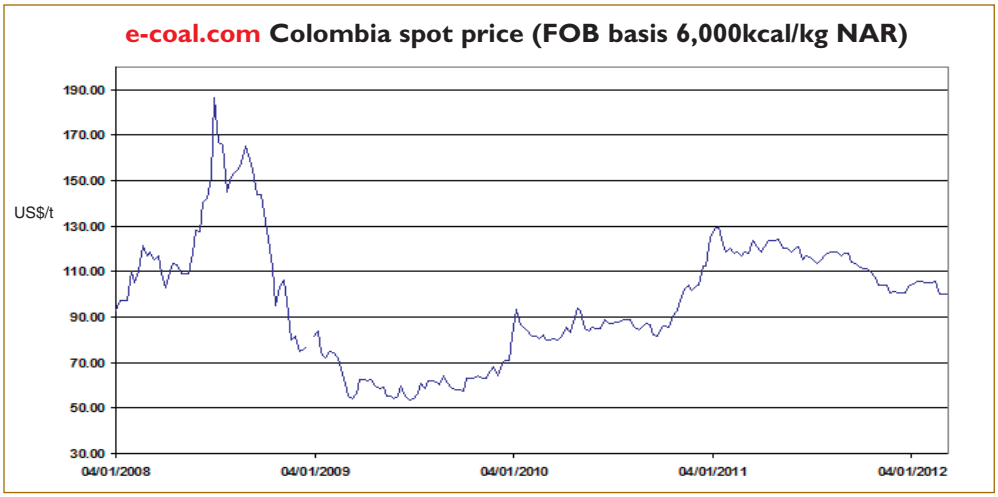
Asian activity, and may result in some misleading price reporting elsewhere if the coal quality is not recognized, as happened a couple of years ago. Higher ash material with poorer qualities would not be typical of the established markets in Europe and the Mediterranean, but with ongoing weak demand there, the Asian deals may dominate for a while again this year.

On a local basis in South Asia, Indonesia's Bayan Resources has agreed terms on a 10-year contract to supply thermal coal to the new 1,320MW power station being built by India's Gayatri Projects. Indonesian shippers were also expecting some trade in Taiwan when Taipower issued a tender seeking 1.125mt of sub-bituminous coal for delivery in 15 Panamax cargoes during May to August. Meanwhile, there seems to be a conflict between the Indian government and Coal of India Limited. Although the government directed the miner to increase imports of coal to satisfy demand, the acting chairman is reported to have stated that CIL is not in the coal import business.

Indonesian state generator PLN is forecasting its coal demand will increase to 100mtpa by 2015. Forecasts for consumption in 2012 suggest 57mt will be reached. From 2014 the utility's import demand could increase.

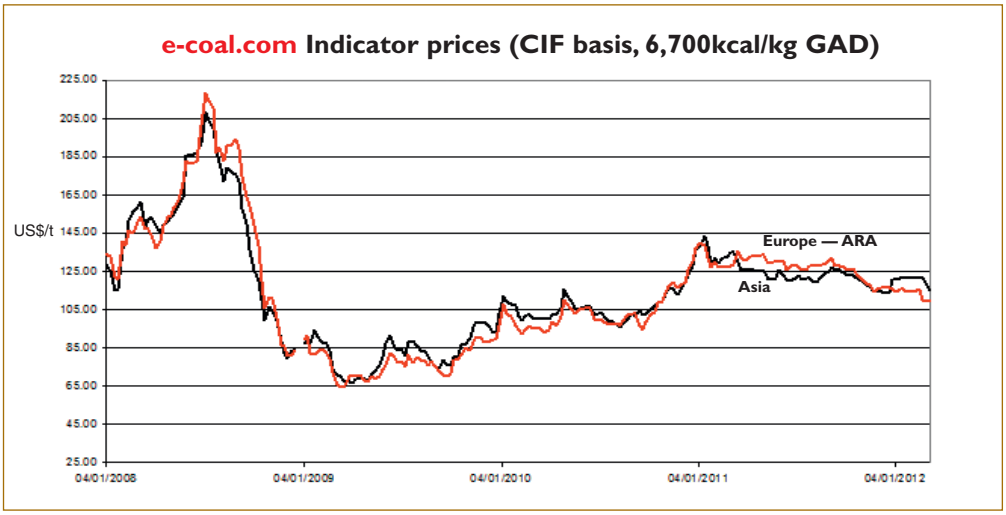
In late February, some analysts in the banking sector were revising down their forecast for the reference price of thermal coal for 2012 between the Australian shippers and the Japanese EPCs from US$125/t FOB basis 6,700kcal/kg GAD (gross air dried) to about US$120/t FOB. This came amid a spot market at Newcastle in which the then current price was some US$4.00/t FOB less than this forecast contract level.

The Chinese spot price of 12% ash metallurgical coke remained well above the price in the international market at about US$490/t FOB with no deals reported in late February. For comparison, Japanese material with 12% ash was said to be priced at about US$365/t FOB and had been rising in price during that month. The cheapest material available in the international coke market at the time appeared to be the Colombian 12.5% ash product which had been reported on offer for about US$320/t FOB.

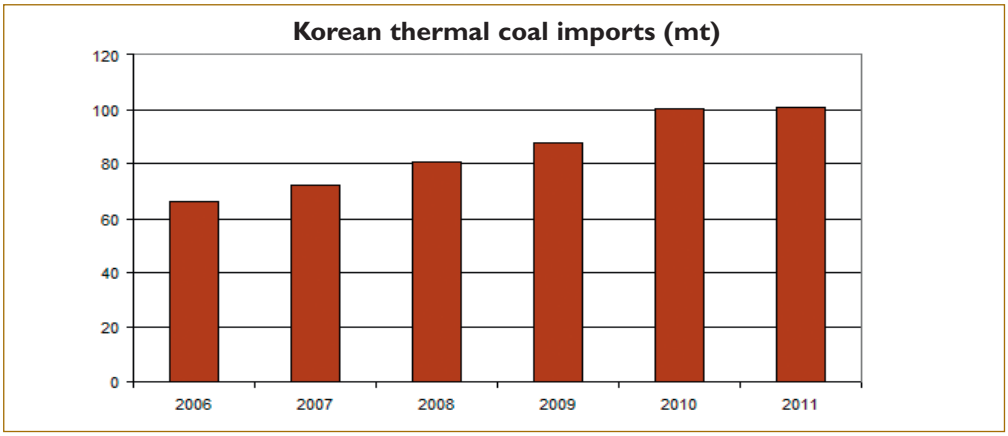


Of relevance to the coking coal markets are reports that the Chinese steel makers are expected to increase the price of exported steel by around US$30/t. Reports indicate that April contract prices for thick plate and hot rolled material have risen to around US$640/t FOB.

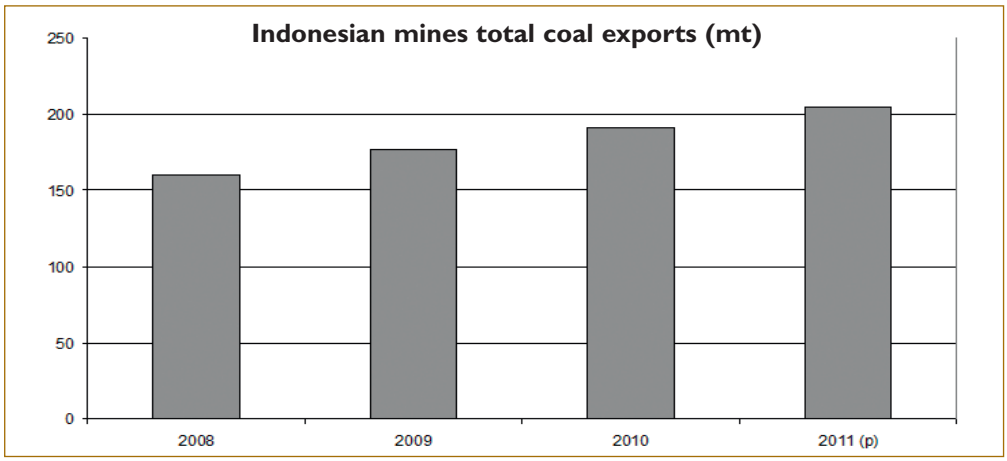
In the middle of February, Chinese thermal coal buyers were understood to have been bidding around US$85–90/t FOB for lower CV high ash material at Newcastle. No deals had been reported, but some misleading price reports



emerging from Australia were anticipated if the coal quality is not understood and taken into account. The price of China's Shanxi hard coking coal in the domestic market is reported to be around US$250/t which could lead to an increase in interest for imported material. The delivered spot price of Australian and Canadian hard coking coal would be some US$20/t less to the Chinese ports at the time of writing.



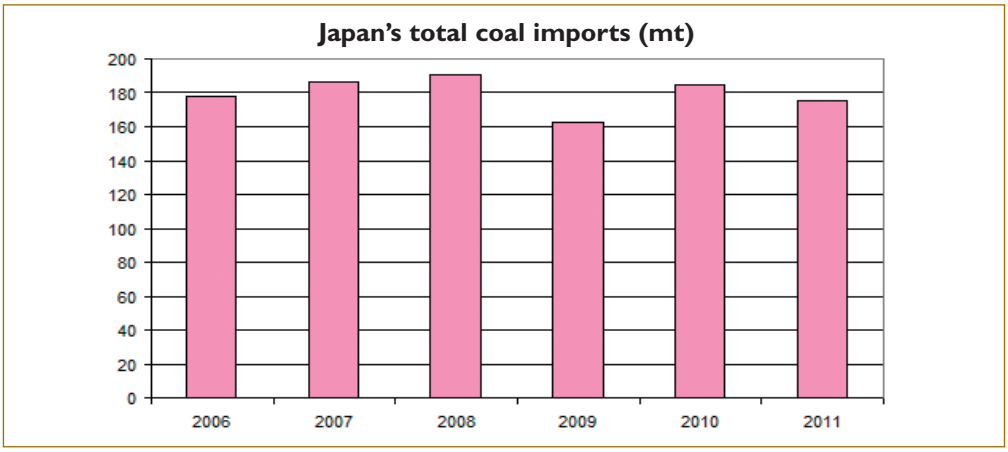
In February, the Indonesian Coal Price Reference was set at US$111.58/t FOB which was an increase of US$2.29/t compared with January. The number was a few cents higher than the then e-coal.com Mahakam Spot Price. The government receives its royalties based on the number for future coal exports and domestic sales, but uses spot prices published elsewhere and from other countries to derive the number. Since its launch, the number appears to hover several percent above or below the prompt spot market and it has been noted that it does not necessarily move in the same direction as the prevailing market each month.

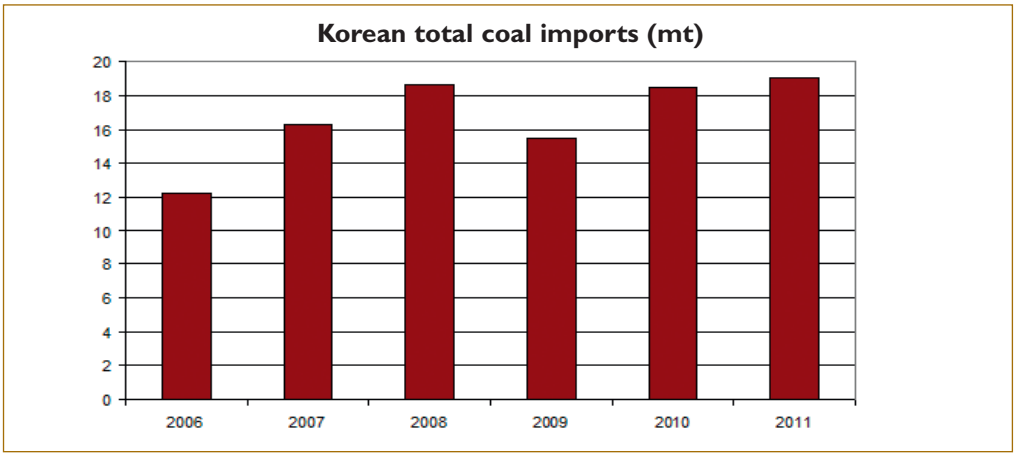


Kowespo issued a tender in February seeking 170kt of coal with specifications including CV 5,600kcal/kg NAR (min) and ash 20% adb (max). Delivery is required by 1 May and Colombian and South African coal is to be offered on a CFR (cost and freight) basis. Meanwhile, Taipower was reported to have awarded the business to Peabody Coaltrade with 150kt of coal, Glencore (150kt), Kideco (150kt), and Nefill Energy (150kt) following its tender seeking 600kt of sub-bituminous coal for delivery during March to June. Specifications included CV 4,800kcal/kg GAR (min). The prices are understood to be in the range US$124.44-128.00/t CIF (cost, insurance, freight) evaluated.

In some encouraging financial news but some uncertain corporate news in the beginning of February, BHP Billiton announced an increase in earnings of 9.7% for the half year to December 2011 compared with the same period in 2010, reaching US$37.4bn. A profit of US$15.69bn was recorded for the period, which was an increase of 5.8% compared with the same period in 2010. Hard coking coal prices were reported to be 31% higher compared with the year-ago period, and export thermal coal prices were 22% higher. A little earlier, BHP Billiton announced that half yearly production records were set at New South Wales Energy Coal, and Cerrejon Coal in Colombia. Global operations recorded a total of 35.379mt of thermal coal produced during the December half year. This was an increase of 5% compared with the same period in 2010. Total coking coal production across the company's operations worldwide reached 17.784mt in the December half year which was a decrease of 2% compared with the same period in 2010. Volumes in Queensland remained below capacity due to stoppages associated with ongoing labour negotiations, and the impact of previous wet weather. Industrial action continues to be a threat to production this year.

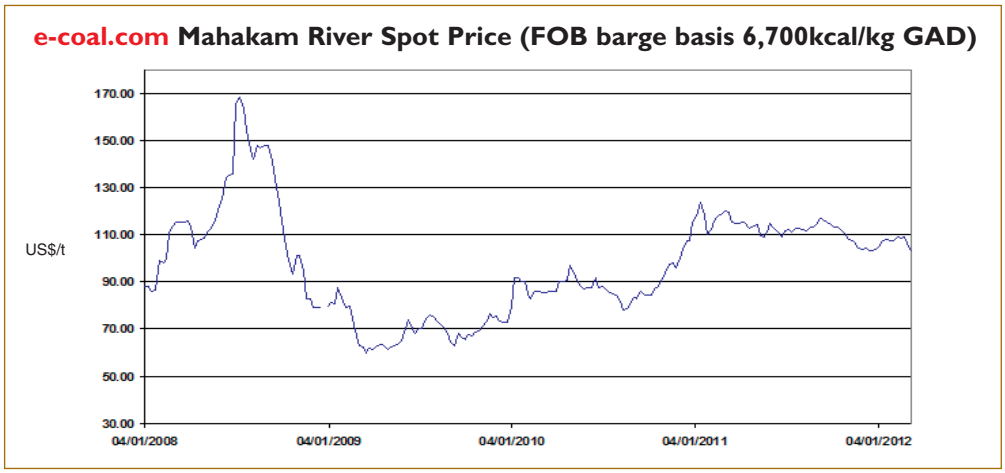
Rio Tinto reported total production of hard coking coal was 8.815mt in 2011 which was a decrease of 2% compared with the previous year. Bad weather impacted production during the first half of 2011. Production of semi-soft coking coal totalled 2.86mt, which was a decrease of 7% compared with 2010, and





thermal coal output reached 17.79mt in 2011, which was 3% lower than in the previous year.

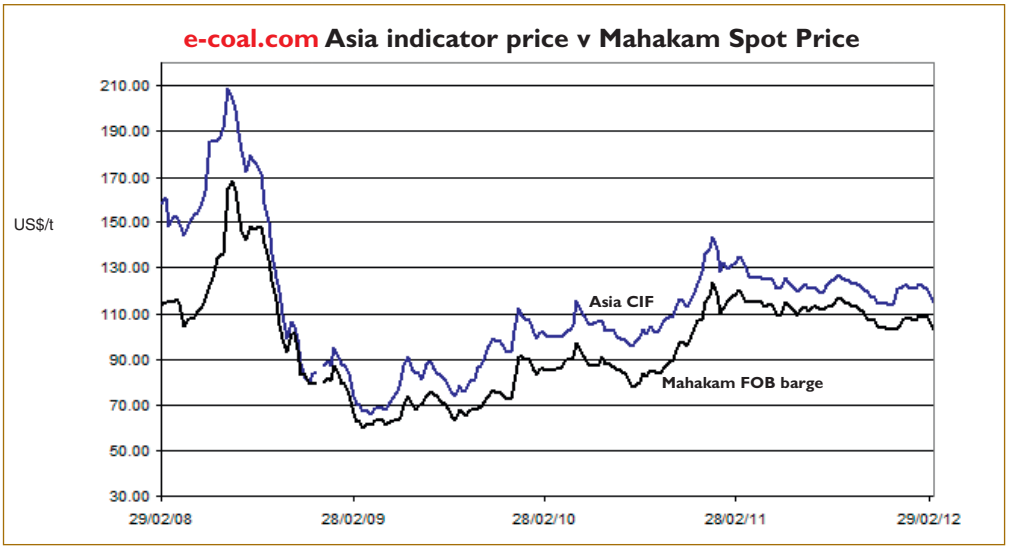
The Asian steel makers were rumoured to have purchased several cargoes of metallurgical coke from the Ukraine in early 2012. Prices are unconfirmed, but Indian buyers were reported to be paying around US$355/t CIF. This price was lower than the settlements for contract deals for Czech and Polish material at around US$410/t FOB on average for Q1. This suggests the material being sold to India from Europe is at the lower end of the quality range. The price of 12.0% ash metallurgical coke in supplier countries was close to US$350/t FOB at the time, except for China where reports indicated a price of around US$490/t FOB which would be pricing the Chinese out of the export market, and no trades had been reported from there. At the same time, Korea's Kosep was in the market seeking 380kt of coal in two tenders. The first sought 120kt of coal with specifications including CV 5,500kcal/kg NAR (min), and the second was looking for 260kt of coal with CV 4,600kcal/kg NAR (min). Delivery is required during 25 March to 30 June.



Coal procurement news from Sri Lanka is not normally that prominent, but Lanka Coal was understood to have issued a tender seeking 1.5mtpa of thermal coal in February. The coal is for the Dehiwala plant and, at the time of writing, offers were due by 28 March giving shippers plenty of time to consider their options.

Taipower was reported to have awarded the business to Advance Trading (525kt), Flame (300kt), and Glencore (300kt) following its tender in January seeking 1.125mt of coal for delivery during March to June. The Indonesian material is understood to have been priced in the range US$124.93–127.00/t CIF evaluated.

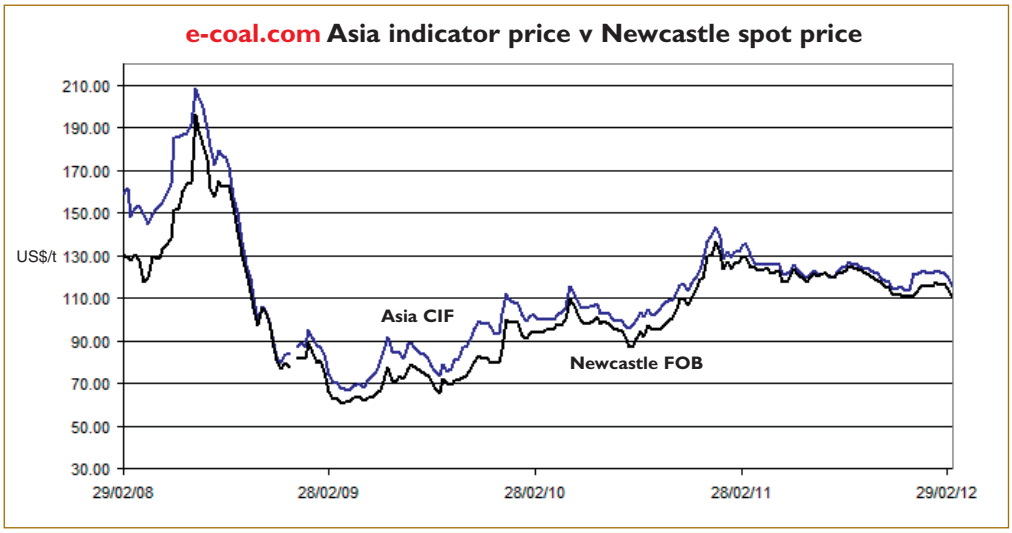
At the end of January, China reported that imports of coal reached 182.4mt in 2011 which was an increase of 11% compared with 2010. China Coal produced 102.79mt of coal in 2011 which was an increase of 8.9% compared with 2010. The country's second largest coal producer also recorded an increase of 13.8% in coal sales to reach 133.46mt. Only 740kt of the coal it produced was exported. In another growing economy, the Indian government has given Coal India Limited a target of producing 464mt of coal in FY2012. Around 440mt could be achieved in the current financial year, and the next target appears unlikely to be achieved. India's need for imported coal is expected to continue to grow. Around that time, Coal India cancelled a tender issued in February 2011 to develop two coal blocks in Mozambique after the favoured bidders took a different approach to the project. Coal India is aiming to begin coal production there by 2015 and is expecting to restart the tender process in the second half of 2012.

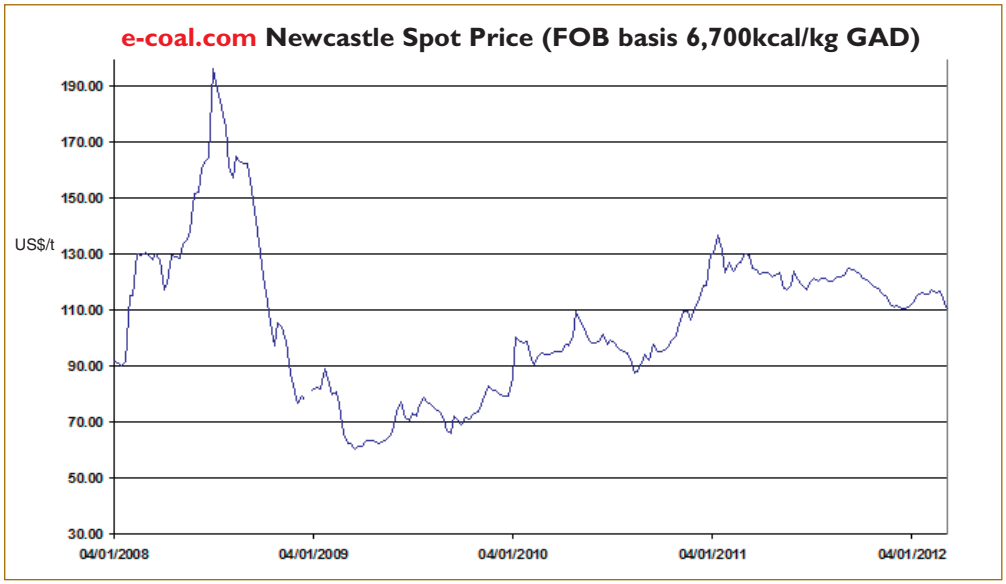


The Philippines coal sector reported that domestic coal

production increased in 2011 to reach 7.61mt compared with 6.29mt in 2010, which was an increase of 21%. The main producing region is still Semirara, with around 169kt produced at Zamboanga Sibugay. Indonesia and China have been key suppliers to the Philippines in recent years.

In the result of tenders issued in January, Korea's Kosep awarded the business to Australian, Indonesian, and Russian suppliers. The Genco was seeking 390kt of coal for delivery during 25 January to 30 April. A Capesize cargo of Australian coal was believed to have been purchased at about US$110.50/t FOB basis 6,700kcal/kg GAD, while a Capesize cargo of Russian material was understood to have been priced at about US$113.50/t FOB same basis. Two Panamax cargoes of Indonesian coal were rumoured to have been priced at about US$95.00/t FOB adjusted to basis 6,700kcal/kg GAD. Meanwhile, Taipower issued a tender seeking 600kt of sub-bituminous coal for delivery in eight Panamax cargoes during March to June 2012. Specifications included CV 4,800kcal/kg GAR, sulphur 0.4% (max) adb, and TM 30% (max) arb. Taipower was also seeking 1.125mt of sub-bituminous coal in 15 Panamax cargoes for delivery during March to June. Specifications included CV 5,000kcal/kg GAR (min), sulphur 1.1% (max) adb, and TM 28% (max) arb.

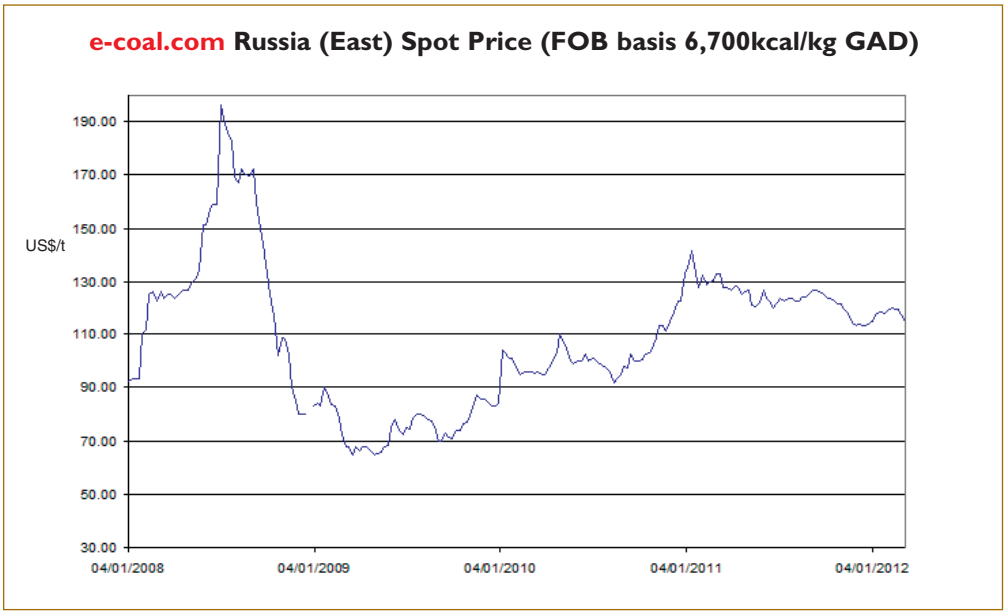


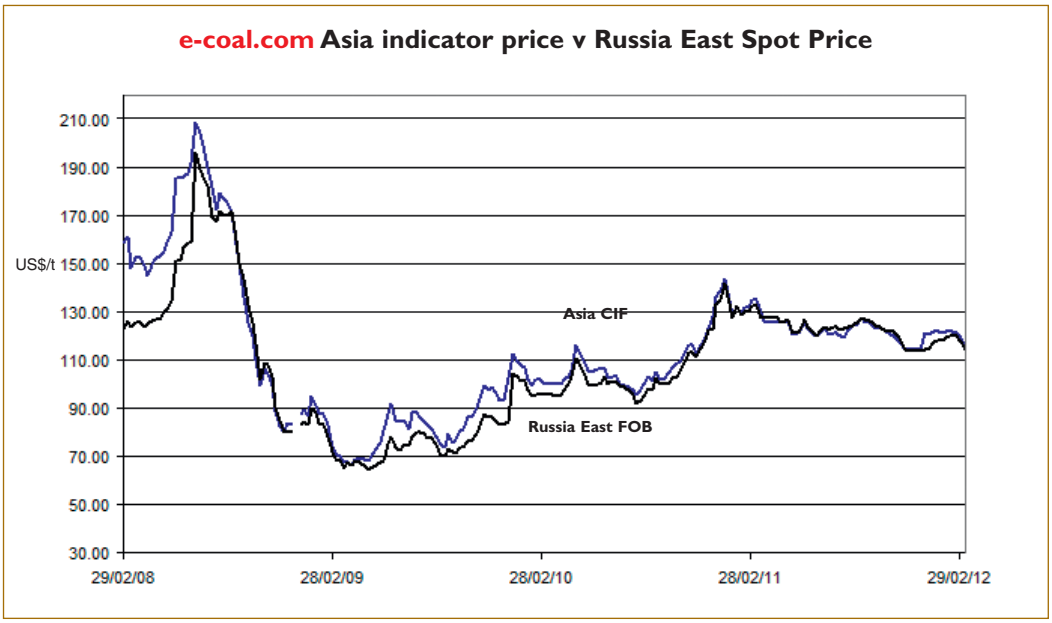


In Australia, the Queensland government is planning to increase levies and taxes on the coal industry later this year. The plans could raise $95m from 2013 through a cash-only tender process for coal exploration on new land. There will also be a transfer duty imposed on exploration permits which could raise another $30m.

Infrastructure development continues, and in Australia BHP Billiton has announced that the Goonyella to Abbot Point rail project is on track. Notice has been given to the Queensland government of a proposed rail corridor alignment to the port for multiple rail lines including a dedicated line for BHP Billiton and partners in the Bowen Basin. Coking coal export capacity in this project could reach 60mtpa.

As 2012 got under way, unconfirmed reports suggested that





Australia's Jellinbah reached agreement on hard coking and PCI (pulverized coal injection) coal contract prices for the first quarter of 2012. The Lake Vermont hard coking coal brand is believed to have been priced at US$230/t FOB in line with contract prices settled earlier between other shippers and the Japanese steel mills. The Jellinbah and Lake Vermont PCI brands are said to have been priced at US$171/t FOB. These levels suggested the market may have reached close to bottom, at least for this quarterly contract business. Spot prices have been softening since the earlier deals were agreed, and although buyers were expected to seek lower Q2 quarterly contract prices in the coming weeks, a recovery in demand, particularly from China could help to maintain a floor on contract prices. Meanwhile, Wesfarmers was understood to have settled the price of the Curragh hard coking coal brand for Q1 2012 with the Japanese steel mills and other Asian customers at US$230/t FOB.

In the anthracite market, Korea's Kowepo issued a tender seeking 100kt of Vietnamese anthracite for delivery during March to May. Specifications suggest the Genco is not necessarily seeking premium material, with a rather low minimum calorific value being considered. Vietnam is currently reducing its export tonnage as the country conserves the resource for its own consumption. This tender may be an indication of the new expectations of buyers.

The Asian region looks set to be the main driving force for coal this year with its major producers and consumers. Initial reports suggested a total of 360mt of coal was produced by the world's largest thermal coal exporting country, Indonesia in CY2011. The Indonesian Coal Mining Association is understood to be forecasting an increase in output of around 30mt in 2012 bringing the total to 390mt as demand within Indonesia and in the Asian markets increases. Meanwhile in Australia, coal exports at Newcastle reached 114mt in CY2011 which was an increase of 11% compared with 2010. A further increase in exports is forecast for 2012, and production in New South Wales is also forecast to increase by as much as 50mt or 30% this year. While a long lull continues in the European coal markets, the worst appears to be well behind the Asian players now.

DCi

Dr Tim Jones is Director of e-coal.com Consultancy and Editor of the weekly publication Coal Market Intelligence *which covers 11 spot markets worldwide, gives key information on the latest deals and tenders, company news, people and jobs, industrial relations, and ports, shipping, and freight rates.*

Asian agribulk

imports expected to increase

Agribulk trades into China and other parts of Asia have grown in volume in recent years. As the continent's middle class swells and dietary demands evolve, more imports will be needed in the future, writes Michael King.

The importance of the agribulk trades to the overall health of the dry bulk market often gets underplayed. However, on certain trades they are, particularly for vessels smaller than the iron ore and coal dependent Capesize segment, absolutely critical, not least because lanes from South America into Asia suck tonne-miles out of the fleet.

Illustrating the point in March was the eloquent Jack Scoville, an analyst with The Price Group. "The beans are leading the charge and there's more talk that China is interested in getting some summer US shipments," he said. "The ports in South America look like they're going to be full right through next month so we might continue to see business come here to the United States and see this price support."

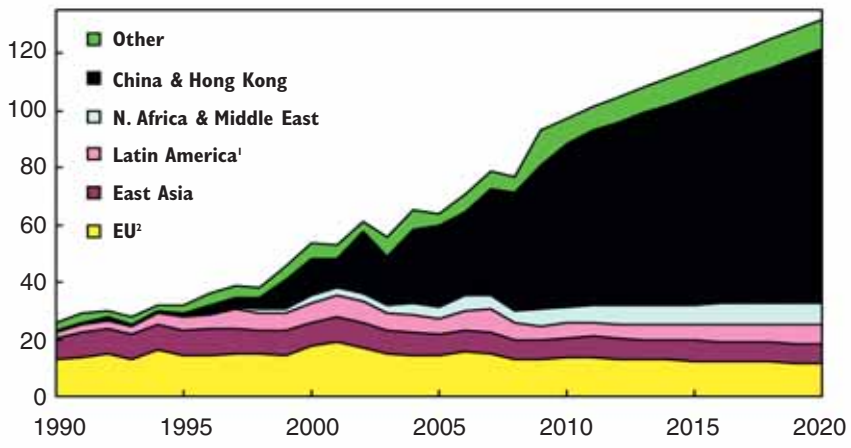
Strong seasonal grain and soyabean demand has, as Scoville noted, been one of a limited number of positives that vessel operators and owners have been able to cling to as freight rates have been decimated by excess vessel supply over the last 12 months.

As with so many cargoes, China has been the world's most dynamic importer and market shaper in recent years. China's importance to the bulk trade was made loud and clear last year when it became the largest buyer of US farm goods with $20 billion in purchases.

High levels of demand for grains continued in the early part

Global soyabean imports

(million metric tonnes)



[1] Includes Mexico; [2] Excludes intra-EU trade

of this year as China's grain imports, both from the US and South America, rose to their highest level in at last seven years. A total of 1.64mt (million tonnes) of cereals and cereal flour were purchased from overseas markets in March, compared with 280,000 tonnes a year earlier. About 70% of the cereal imported by China in March was corn, according to agricultural research company Shanghai JC Intelligence.

The country also saw wheat imports in the first two months of the year increase by more than 200% compared to 2011, while barley imports increased 144%.

Similar growth has been even more apparent in the soyabean sector where China now accounts for more than 50% world trade. China's imports rose 14% year-on-year in the first quarter when imports reached 12.5mt and analysts expect further increases as the year progresses.

The world's biggest soyabean importer is forecast to buy some 58mt of the oilseed in the 2011/12 season, up 5.5% from a year earlier and a new record.

The main reason for rising imports of grains and soyabeans to China, and to a less extent South East Asia, is the rapid economic growth enjoyed by Asia over the last two decades. Rising incomes are prompting a major change in food consumption patterns, most notably a shift towards dairy and meat consumption which is spurring both food and livestock feed demand. "In emerging countries, economic growth results in the rise of a new middle class," said analyst Christophe Pelletier. "A change of diet is the first change that takes place when the standard of living increases. People switch from staple foods such as rice or wheat to higher quantities of animal protein."

Different animal productions have different levels of feed efficiency. So, for example, it takes about 1.8kg of feed to produce 1kg of chicken meat, but 3kg of feed to produce 1kg of pig meat. "With a population of 1.5 billion, an increase of meat consumption of 30kg would result in the need to produce 3 times 30 times 1.5 billion," explained Pelletier. "The need for feed, excluding grass, would be between 100 and 150mt of grains."

Pelletier points out that the relative consumption of Western countries will shrink dramatically in the years ahead as Asia's buying power further bulges. In 2000 the USA represented about 5% of the world population and consumed about 25% of the world's resources. By 2030 those figures will fall to 4% and 4%, with similar declines also expected in the European Union and Japan.

By contrast, India and China will stake ever larger shares of world consumption as their economies thrive, transforming agriculture and shipping markets in the process. "Estimates are that the middle class from China and India combined will represent about 45% of the world middle class by 2030," said Pelletier. "Market demand and therefore world prices will be dictated by the demand from these two countries and not by Western countries anymore," (see graph on p17).

Given that China's farmland has shrunk 8.33 million hectares

Noble Group targets agribulk supply chains for growth

The Noble Group has taken some journey. Less than a decade ago the company was a highly successful commodities trader. Fast forward and today the company, which is based in Hong Kong but listed in Singapore, is a major supplier of a whole range of cargoes with the infrastructure in place to ensure delivery.

Although group net profit last year fell to US$ 431 million from $606 million a year earlier, revenues climbed 42% to reach a staggering $80.7 billion, up from just $1.8 billion ten years earlier.

Noble's agriculture division generated volumes of 44.2mt (million tonnes) in FY 2011, up from 31mt a year earlier. Revenue also shot up, from $12.2 billion in FY 2010 to $18.3 billion in FY2011.

Volumes handled totalled an amazing 220mt, up 19% year-on-year. To put the company's transformation into perspective, volumes handled in 2001 were just 38mt and the 100mt threshold was not breached until 2007.

What Noble's managers realized some years ago as commodity majors tied up production resources, was that trading alone was no longer enough to ensure successful longevity. The conclusion reached was that heavy investment in fixed assets — farm land, mines, distribution centres, ports and processing plants — was required. Noble now operates in over 140 locations managing a diversified portfolio of essential raw materials, integrating the sourcing, marketing, processing, financing and transportation of those materials.

Essentially the company sources commodities in low cost producers such as Brazil, Argentina, Australia and Indonesia and supplies them to high growth demand markets including China, India and the Middle East generating profits at every step in the pipeline.

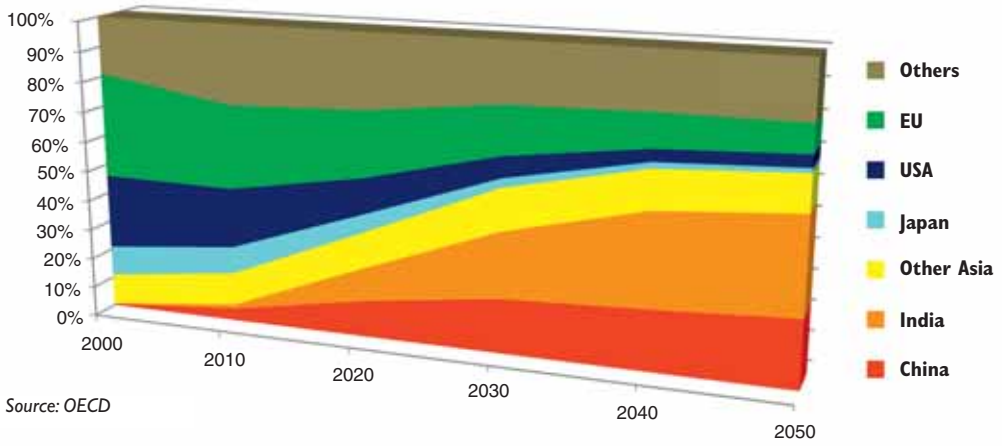
In South America the company operates an extensive network of warehouses and elevators across Brazil, Argentina, Uruguay and Paraguay. After sourcing oilseeds and grains directly from farmers and producers, they are transported to export elevators in Argentina and barge loading facilities in Paraguay and Brazil for export. Output is shipped directly to the company's own processing facilities places such as China, where Noble is one of the leading oilseed processors.

One of the key figures in the company's emergence as a world leader by pursuing its strategy of investing in supply chains was Ricardo Leiman, recruited from Louis Dreyfus where he was Global Agribusiness chief in 2006 specifically to implement the plan.

Initially chief operating officer, he was quickly promoted to chief executive officer and helped the company successfully steer a path through the global financial crisis of 2009. However, such are the expectations at Noble that the company's third quarter loss last year — prompted defaulting US cotton farmers, a plunge in carbon credits in Europe and a drop in global commodities demand last summer — saw his resignation tendered in November.

In February Yusuf Alireza, a former executive at Goldman Sachs, was appointed as his replacement and took up the position on 16 April. Prior to taking the fall for Noble's first quarterly loss in 14 years, Leiman had helped oversee the fastest growth in Noble's history. Alireza takes up the reigns knowing just how high the stakes are at one of Asia's leading commodities players.

Shares of global middle class consumption 2000–2050



Source: OECD

in the past 12 years and land under cultivation has already fallen almost to the government's 120 million hectare limit, it is expected that much of this increased demand will have to be imported in the years ahead.

"Grain imports are on a rising trend in China because of limited arable land, water and labour at a time when demand is growing amid increasing incomes and changing diets," said Li Qiang, managing director and chairman at agricultural research company Shanghai JC Intelligence.

Food 2040, a recent report from the US Grains Council which forecasts demand trends in Asia, agreed that changing diets in China will provide a major boost for grain and feed demand.

"In 2040, the global food and agriculture market will be heavily shaped by Chinese preferences, needs, and developments," said the report. "As China develops its food and agriculture system and the supporting infrastructures, and as its growing income boosts food consumption, the country's influence in global markets will be far-reaching, well beyond the impact of market size alone. It will shape and redefine global agribusiness, biotechnology, food processing, logistics, and trade — increasingly from a position of strength." The report argued that growing demand for meat in Asia will continue to fuel demand for bulk grains. It also found that trade growth in future would be dominated by specialized grain products such as identity preserved and nutrient enhanced. "East Asia will eventually develop an advanced intermodal logistics system to monitor and transport the specialty grains needed to satisfy consumers' demand for specialty and niche food products," said the report.

The upshot of these trends? Analyst company Intl FCStone, forecasts that by 2015/16 China's corn imports could soar to 28mt. Meanwhile, the U.S. Department of Agriculture expects China's soyabean imports to rise to over 80mt by 2020 (see chart on p15). The volumes are not comparable to the growth rates from the coal and iron sectors, but for owners of Handy and Supramax vessels, they will be greatly appreciated.

Good monsoon leads to significant rise in production of foodgrains

Indian authorities have compelling reasons to exercise discretion to a fault when the decision involves allowing exports of foodgrains or a soft commodity like sugar, *writes Kunal Bose*. This is because the primary responsibility of Indian government is to ensure enough food for a population of 1.2 billion. At the same time, the government must at all times keep enough stocks of foodgrains and sugar in its warehouses from where supplies could be drawn in a bad crop year. Sugar producer Om Prakash Dhanuka says "in a populous country like ours, the government has to be concerned about supply side deficiencies. Thankfully, stung by popular disquiet about unacceptably high inflation in food prices in the past couple of years, supply side problems for the first time are holistically addressed. We have heard promises in two consecutive national budgets of steps being initiated to improve farm productivity, staunching crop losses by creating adequate storage capacity and striking a fine balance between rewarding farmers for their efforts and affordable food prices for consumers."

The fate of Indian farm production being still largely dependent on the behaviour of monsoon, once in every few years when drought visits the country, supply side derailment is unavoidable. As recently as in 2009/10 crop season (July to June) severe drought in most parts of the country saw foodgrains production slipping 16.3mt (million tonnes) to 218.1mt with disastrous consequences for their prices and exports. One important lesson learnt from that scary experience is that irrigation coverage for rice, oilseeds and pulses requires very substantial stepping up and that too quickly. Mercifully, well over 90% land under wheat (around 26 million hectares) and sugarcane (close to 5 million hectares) has access to irrigation water. Finance Minister Pranab Mukherjee is aware that he has to find money for a more universal coverage of all food crops under irrigation network along with breakthrough research in agriculture, dissemination of technology and adequate provision of farm inputs for attainment of higher levels of productivity. Dhanuka points out "India will have to do a lot of catching up in most crops to be in approximation with best global parameters."

Aided by good monsoon, the country's foodgrains production rose significantly to 244.78mt, including 90.98mt of rice and 86.87mt of wheat in 2010/11. This time it is proving to be even better with rains more evenly spread across most parts of the country and also a long winter to boot. *The Economic Survey* says, according to the "second advance estimates, production of foodgrains during 2011/12 is estimated at a record 250.42mt." Foodgrains production spurt is on account of good showing by rice and wheat. While rice production is estimated at 102.75mt, agriculture secretary PK Basu will not rule out the possibility of wheat output climbing to 90mt or more. He says, "It's still a speculation. But if the current situation continues, maybe we can achieve that. The weather is so good, with no major pest attacks

so far." In any case, wheat already has moved ahead of production target of 84mt for 2011/12. Output of pulses and coarse cereals is, however, likely to fall behind last year's level on account of less planting.

No wonder in the wake of two consecutive good harvests, the country's grain stocks on 1 March 2012 was up year on year by 18% to 54.52mt, substantially more than buffer norms, including the extra food security reserve. The government is, therefore, in a position to be liberal in wheat and rice exports while domestically it has to implement the proposed food security law requiring supply of subsidized grains to 75% of rural and 50% of urban households. Dispensation under the law will claim 63mt of grains, that is, 8mt more than under the current regime. This is, however, no deterrent to India being gung ho about exports of both rice and wheat in the current as well as in the next season. A feeling of 'food security' led the government to remove the four-year export ban on cheaper varieties of rice in September 2011. India rejoining the rice exporters' fraternity proved to be of much relief for importing countries like Indonesia and in the Middle East and Africa. Elaborating on the point, Samarendu Mohanty, chief economist with the International Rice Research Institute, says India's return as rice exporter prevented a spike in world prices of the commodity. "India came as a saviour. The timing was so perfect because Thailand was implementing in the same month its rice mortgage programme when it increased domestic rice price by nearly 50%. It pretty much boiled down to: if Thailand had increased rice prices like that, then global prices would rise accordingly. But that didn't happen because of India," says Mohanty. In an identical vein, All India Rice Exporters Association president Vijay Setia says even as costs are up in a regular exporting nation like Thailand, re-emergence of India as a seller in the world market has "helped in stabilizing prices." Indian rice is also coming cheaper than the one of Vietnamese origin.

World buyers are showing preference for Indian rice which at between $500 and $530 a tonne is selling at a big discount over the Thai grain priced at $600 a tonne. What automatically followed was India marching ahead of Thailand in terms of volume of rice exports. Besides the official scheme to guarantee prices, floods damaging crop robbed Thai rice of some competitive edge in the world market. This is happening in a year when according to the Food and Agriculture Organization, global rice production is up 3% to 480.4mt. Trade officials say, Thai rice exports in the current year could be down by 1mt to 9mt. But what about India? The general consensus here is that the season will see the country exporting at least 6mt, including 3.5mt of normal rice and 2.5mt of long grain aromatic basmati rice, much in demand all over the Middle East. Exports of the latter variety got a boost with the government finally accepting the trade suggestion to lower the minimum export price to $700 a tonne from $900 a tonne. A trade official says, "we no doubt have significant price advantage over some of our rival countries. But we are finding that our shipping infrastructure is not geared to handle such large volumes efficiently. I am, however, confident that India will be able to maintain rice exports at this level in the next few years at least going by our inventories overflowing storehouses." Indian rice exports to post gains of at least 3.8mt this season are likely to weigh on futures which posted first annual rise of 4% in three years in 2011 on the Chicago exchange.

But unlike rice, Indian wheat at this point suffers price disadvantage in the world market. This will explain the slow progress of Indian wheat exports. The government put a ban on wheat exports in 2007 and the decision was reversed in September 2011. Trade officials say due to time wasted in removing the ban, the country could not take advantage of high global wheat prices in the early part of 2011/12. Therefore, as India failed to take advantage of the bull phase, it will, according to US Development Agency end this season with wheat export shipments of only 700,000 tonnes. The Agency believes in the event Indian wheat achieves price parity with grains of other origins in 2012/13, then exports could more than double to 1.5mt. The point is once the country completes harvesting the current wheat crop by May, it will be sitting on mountains of stocks. That should ideally lead the country to export 5mt or more. The rider is the government needs to permit exports from its stock and at current world prices with subsidy. The USDA, however, says "the government is unlikely to subsidize exports of government wheat due to local political and WTO commitment concerns."

Local production falling considerably short of internal requirements, India remains the world's largest buyer of pulses with over 15% share of global imports of the commodity. Annual imports of pulses, the main source of protein for a large section of Indian population, range from 2.5mt to over 4mt. Production of this highly sensitive commodity being inadequate, the government goes on extending the ban on exports of pulses on a yearly basis. However, exports of 10,000 tonnes of chickpeas and organic pulses and lentils have been allowed with certain conditions. As India is to attempt a breakthrough in pulses production technology to keep pace with the rising demand for the commodity, the government is pushing private groups to explore the possibility of buying or taking land on long lease in African countries for growing pulses there for the purpose of their buyback. African soil, even its wasteland is seen to be ideal for growing pulses. Basu says that he has asked Indian Institute of Foreign Trade to prepare a report on the feasibility of Indian private sector venturing into pulses production in Africa. The government will have to work out the ideal institutional mechanism to extend sovereign support to private parties acquiring farm land abroad with guaranteed buyback of harvest. Agricultural scientist Jaishankar says growing pulses in Africa is an exciting idea, "but the process has to be handled with utmost care." What, however, should help India in this outing is its good political relations with African nations.

"Sugar stands as an outstanding example of how official procrastination at the beginning of the current season (October to September) denied the benefits of high world prices for both raws and whites at that point. Who didn't know in November–December that India would be producing a bumper 26mt this season on the back of 24.40mt a year ago? The denial of early exports not only stopped us from cashing in on high world prices but it also subject us to price erosion in the domestic market under the weight of high stocks," says Dhanuka. In any case, New Delhi has so far sanctioned exports of 3mt in three equal tranches. Dhanuka says "there is still going to be enough sugar in our kitty for the government to let us export another 1mt." Sugar mills are confident that exports of the order of 2mt to 4mt could be made sustainable replacing now on, now off shipments abroad provided a link is established between sugar prices and cane cost.

Port of Stockton expands rail tracks by a mile

The Port of Stockton in California, in a public–private partnership with Union Pacific Railroad and Metro Ports, added 5,825 feet of new track to the east port interchange tracks, forming a loop that will allow inbound and outbound trains to operate without interfering with operations at the its east complex.

The $1.2 million track extensions enable the port to receive an additional three bulk cargo unit trains of export iron ore or coal per week, increasing capacity to six weekly. Due to the expansion, the port plans to employ up to 18 additional daily longshore workers to move cargo between the trains and ships. The typically mile-long strings of hopper cars in the bulk-unit trains deliver iron ore and coal bound for China.

"We've gotten heavily into the iron ore and coal export business," said Mark Tollini, deputy port director. "This extension doubles our capacity, enabling us to accommodate the demand for additional volume."

The Port of Stockton began handling iron ore shipments in 2011. It became the port's largest single export, with shipments reaching close to 800,000 metric tonnes. These ore shipments contributed to export volumes surpassing imports for the first time in recent history.

The track was constructed by Industrial Railways Construction Co. and completed ahead of schedule in just 100 days. The project was managed by Central California Traction, the short-line railroad that serves the port on behalf of BNSF and UP. The extended tracks improve interchanges between all the rail companies and reduce rail equipment dwell time at the port.

The Port of Stockton is one of only two US West Coast ports that handle export iron ore.

About the Port of Stockton, California

The Port of Stockton is an international port with 35-foot draught and secure 24/7 access. With more than 2,000 acres, and plenty of room to grow, the port provides multiple services and handles import/export cargo such as containers, steel, wind energy components, ro/ro and heavy lift/project cargo.

In addition, the port offers warehousing, refrigeration, cold storage and distribution centres. It has seven million square feet of US Dept. of Agriculture-approved storage. The port has excellent access to I-5 and I-580 and is jointly served by the BNSF and UP railroads that can carry cargo to and from the port from locations throughout their respective networks. The port is located in Foreign Trade Zone #231.

ISSA encourages ship suppliers to 'go green'

Ship suppliers are being encouraged to ensure 'green' measures are central to their core business practices.

The International Shipsuppliers & Services Association (ISSA) is encouraging its members to implement green policies and achieve internationally-recognized environmental standards under its flagship Green ISSA initiative.

ISSA President Jens Olsen said: "We believe that the modern ship supply industry must have environmental considerations at the heart of its business practices and we encouraged to see that many of our members are already working towards achieving international environmental standards."

ISSA, which has almost 2,000 members worldwide, is strongly encouraging its members to achieve the International Organization for Standardization's ISO 140000 certification. Standards for environmental management systems are set out in ISO14001:2004, while ISO14004:2004 gives general guidelines for companies initiating environmental policies.

In addition to complying with international regulations, there are numerous ways in which ship suppliers can ensure their business takes proper consideration of environmental concerns including:

- minimizing waste;
- introducing biodegradable packaging;
- ensuring fridges and freezers are operating efficiently and economically;
- avoiding unnecessary delivery journeys to vessels; and
- using vehicles with low emissions or that run on eco-fuels.

Olsen pointed out: "In addition to helping the environment, some of these measures can save companies money themselves — particularly by consolidating deliveries to ports which now charge fees of up to $100 per visit."

Environmental measures are on the agenda for discussion during the forthcoming ISSA Annual Convention meeting in Cadiz, Spain, from 25–26 May.

ISF launches on-board training book for engine ratings

In order to take account of the 2010 amendments to the IMO STCW (Standards of Training, Certification and Watchkeeping) Convention, which came into force in January 2012, and which for the first time will make it mandatory for trainee engine ratings to provide evidence of structured on board training, ISF has updated its widely used *On Board Training Record Book for Engine Ratings*.

This is the second in a series of newly updated training record books, closely following the publication of a revised *On Board Training Record Book for Deck Ratings*.

The revised ISF Book contains structured on-board training tasks formulated around the competence standards stipulated by STCW 2010, including those adopted by IMO for the new grade of 'Able Seafarer Engine'.

Most Flag States are in due course expected to require many existing engine ratings to be certificated as Able Seafarer Engine as part of their minimum safe manning requirements.

As the principal international employers' organization for ship operators, representing national shipowners' associations from 30 countries and about 80% of the world merchant fleet, ISF wishes to ensure that rating trainees make the best use of their seagoing service.

ISF Secretary General, Peter Hinchliffe explained: "The competence of marine engineers, whether ratings or officers, is critical to safety and environmental protection. The updated ISF Book enables trainees and their companies to monitor, record and evaluate their on board training in a structured manner in accordance with the new STCW Convention requirements."

Bureau Veritas issues EEDI certificate for first of Sinopacfic's new bulkers

Major international classification society Bureau Veritas has issued its first EEDI (Energy Efficiency Design Index) certificate to the Ultramax geared bulk carrier *JS Amazon*, the lead ship in a new generation of 'CROWN63' vessels developed by China's Sinopacific Shipbuilding Group with bulk carrier expert Setaf-Saget.

The 63,300dwt vessel is designed for the carriage of bulk cargoes, including coal, iron ore, grain and cement, as well as a range of dangerous cargoes. Its GHG (Green House Gas) performance when measured in accordance with IMO's Energy Efficiency Design Index is 20% better than the requirement under MARPOL Annex VI and already reaches the Phase II requirement normally set for the years 2020/2024. Its deadweight was achieved as a result of an advanced design fully compliant with the Common Structural Rules. The vessel can carry 5.2% more cargo than other bulk carriers of comparable size.

Speaking in Yangzhou on 27 February 2012, at a press conference organized by Sinopacific Shipbuilding Group, Bernard Anne, managing director of BV's Marine Division, said, "This vessel marks the start of a new series of ships which will be exemplary contributors to a greener and cleaner world, shaping the image of shipping for the future. It also represents a celebration of the achievement of outstanding new design concepts and the re-enforcement of strong and successful, long-established levels of co-operation. Bureau Veritas, Sinopacific Shipbuilding Group and bulk carrier expert Setaf-Saget have been working together for many years in the best kind of partnership – one built on trust and a long-term commitment to shipbuilding quality and innovation. BV has been delighted to work with Greenseas, the in-house design office of the Sinopacific Group, which has a proven ability to deliver high-quality designs for energy-efficient ships.

"EEDI is aimed at producing ships which are ahead of industry standards, with optimized fuel consumption and the highest standards of quality and safety to meet the demanding criteria for bulk carriers engaged in worldwide service today. The 'CROWN63' series demonstrates to the world that the shipping and shipbuilding industries can bring to the market an exemplary generation of new ships which are safeguarding the future of our planet.

Working with Sinopacific and a number of different owners, BV has classed 42 vessels of the 'CROWN58' series of Supramax bulk carriers already delivered or still under construction. It is also responsible for the classification of 32 vessels on order in the 'CROWN63' series, and anticipates more to come.

Bernard Anne, who attended the naming ceremony for the JS Amazon in Yangzhou on 28 February, concluded, "In a world where safety and environmental responsibility demands are paramount, BV is always keen to work with partners such as Sinopacific on the development of ground-breaking designs and quality newbuildings."

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IMO grants Final Approval to Siemens' ballast water management system

The Maritime Environmental Protection Committee of the United Nations' International Maritime Organization (IMO) has granted Siemens Final Approval for its Sicure ballast water management system. The Final Approval is based on a directive issued by the IMO, a specialized agency of the United Nations, which requires all deep-sea vessels to operate IMO-approved ballast water management systems. The objective is to avoid the spread of alien aquatic organisms and pathogens carried in untreated ballast water. The IMO directive will come into force in the near future and will entail retrofitting approximately 50,000 sea-going vessels worldwide.

For its Sicure system, the Siemens Industry Automation Division received Basic Approval back in 2010, as the first leg of a two-tier certification process by the IMO. By granting Final Approval, the IMO confirms the new Siemens ballast water management system's environmental compatibility and compliance with the safety standards.

The Sicure system is a further development of the Chloropac system, which has seen 35 years of successful ship-board use for treating seawater cooling circuits. The electrolytic system produces hypochlorite from the salt contained in seawater.

The Sicure system consists of a filtration stage followed by electrochlorination and a dosing unit which precisely meters the addition of hypochlorite. Electrochlorination occurs in a sidestream of the ballast water main. Only about 1% of the ballast water to be treated is carried through the system's electrolysis cells. This makes for small system components which are easily integrated into existing vessels. Another key advantage of the Sicure system lies in the fact that it is not only used for treating ballast water but also for treating cooling water circuits on board. Since ballasting occurs only during very short periods in a ship's lifetime, conventional ballast water systems remain idle 95% of the time. By contrast, the Sicure system can be used all the time, eliminating the need for an additional system for treating cooling water. The Siemens system is particularly suited for vessels above a gross tonnage of 35,000.

Water treatment equipment is an important part of Siemens' marine technology product offering. Siemens also specializes in the design, manufacture and commissioning of electrical ship propulsion systems for all types of merchant vessels, naval vessels and submarines worldwide.

The Siemens Industry Sector (Erlangen, Germany) is a major global supplier of innovative and environmentally friendly products and solutions for industrial customers. With end-to-end automation technology and industrial software, solid vertical-market expertise, and technology-based services, the sector enhances its customers' productivity, efficiency, and flexibility. With a global workforce of more than 100,000 employees, the Industry Sector comprises the Divisions Industry Automation, Drive Technologies and Customer Services as well as the Business Unit Metals Technologies.

The Siemens Industry Automation Division (Nuremberg, Germany) supports the entire value chain of its industrial customers — from product design to production and services — with an unmatched combination of automation technology, industrial control technology, and industrial software. With its software solutions, the Division can shorten the time-to-market of new products by up to 50%. Industry Automation comprises five Business Units: Industrial Automation Systems, Control Components and Systems Engineering, Sensors and Communications, Siemens PLM Software, and Water Technologies.

SiCURE and Chloropac are trademarks of Siemens and/or its affiliates in some countries.

VIKING achieves 8-year track record of constant growth

Global success in the crucial offshore market and around-the-world export growth are behind yet another solid financial report from fast-expanding VIKING Life-Saving Equipment, which joins a long list of Danish exporters that are defying today's economic difficulties.

In 2011, VIKING Life-Saving Equipment A/S, global manufacturer of safety equipment for the maritime, offshore and fire industries, continued its seemingly unstoppable and increasingly global expansion, lifting turnover and profits, and creating more than 200 new jobs.

Eight years of solid growth in a market that can be as turbulent as the seas for which its products are designed. That's the glowing picture for the privately owned, Esbjerg-based company, which has moved from humble beginnings as a manufacturer of liferafts to its position today as the leading global solution provider of marine safety products and services.

Despite difficult market conditions, VIKING managed to achieve a record turnover of DKK 1.442 billion, representing an increase of some 14% in comparison with 2010. Operating profit was DKK 120.6 million, up 23% on 2010. The average number of employees climbed from 1397 in 2010 to 1557 for the 2011 fiscal year, with year-end staff numbers at 1,646.

The 2011 market was influenced by increasing competition, accompanied by several consolidations. Markets were also affected by the European debt crisis. Pressure was particularly high in the Southern European market, traditionally a stronghold of the maritime industry. Reductions were felt, too, in the number of newbuilds, although this was countered by growth in the overall number of vessels in service and firm demand for replacement and servicing – both of which are key competencies for VIKING.

Henrik Uhd Christensen, CEO of VIKING, points out "VIKING's controlled diversification within the safety industry has allowed us to adjust appropriately to changing market conditions. It is our combination of a high quality product portfolio, a unique network and customized solutions that is difficult for our competitors to match."

With the focus on being close to customers, the company is pursuing increased globalization via network expansion in all aspects of its operations. During 2011, for example, new locations and stock points were established at Port Klang, Malaysia; Kaohsiung, Taiwan; Cairo, Port Suez and Alexandria, Egypt; Mersin, Turkey; Split, Croatia; Brest, France; Santos, Brazil and Colon, Panama. In addition to network expansion, VIKING has developed several unique products and services that raise safety standards, particularly for the offshore market.

In recent years, much of the growth in the company's service revenues has been provided by VIKING's Shipowner Agreements: "Given today's volatile markets, our customers are extremely keen on servicing contracts that help them to predict the costs of servicing their safety equipment without jeopardizing any important parameters.

Development in these agreements during 2012 will bolster the phenomenal success we've had with our Shipowner Agreements to date. VIKING's safety competence and 50 years of experience combined with the unique safety network and customized solutions simply make us a stronger global partner," says VIKING CEO, Henrik Uhd Christensen.

Shipping confidence rises

while new investment appetite wanes

Overall confidence levels in the shipping industry increased slightly in the three months ended February 2012, to reach their highest level since May 2011, according to the latest Shipping Confidence Survey from international accountant and shipping adviser Moore Stephens. This is the third successive quarter in which there has been a small uptick in confidence. Rates are expected to increase over the coming year in the three main tonnage sectors covered by the survey. But the number of respondents expecting to make a major new investment over the next twelve months fell to its lowest figure for three years, despite a fall in the number of those anticipating an increase in finance costs.

In February 2012, the average confidence level expressed by respondents in the markets in which they operate was 5.5 on a scale of 1 (low) to 10 (high). This is marginally up on the figure of 5.4 recorded in the previous survey in November 2011. It compares with the 5.8 recorded one year previously, in February 2011, and to the 5.9 figure posted in February 2010. The survey was launched in May 2008 with a confidence rating of 6.8.

Confidence was up among owners (rising from 5.3 last time to 5.6), charterers (4.9 to 5.0) and brokers (5.2 to 5.6). But managers (down from 5.6 to 5.2) were alone among all respondents in being less confident about the market this time, having been the most optimistic in the previous survey. Confidence was up in Europe, from 5.1 to 5.3, although the region remained the least optimistic of all geographic sectors covered by the survey. Meanwhile, confidence was down in Asia, from 5.8 to 5.7, and in both North America and Latin America

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(from 5.8 to 5.6 and from 6.4 to 5.7 respectively).

Although confidence levels improved marginally over the three-month period covered by the survey, a number of respondents expressed concern about the current state of the industry. "There are too many ships," said one. "Freight levels cannot go much lower and we will be bumping along the bottom for a while. Apart from owners causing their own malaise by over-ordering ships, structural changes — such as China subsidizing its own maritime industry — will keep a lid on developments in certain sectors."

A number of respondents counselled patience. "Some market sectors are very depressed," said one, "but a re-balancing is already under way. We have to be patient. It will be at least three to five years until margins become reasonable."

A number of respondents, however, saw reasons for greater optimism. "We firmly believe that the markets will pick up over the next twelve months, although the gains will be quite low," said one, while another insisted, "We think fourth-quarter 2012 will signal a turning-point for the industry."

The role of the banks was uppermost in the minds of a number of respondents. One emphasized, "Numerous owners are unable to make their mortgage payments, and a large majority will be unable to keep up just the interest payments. The banks may be ready to announce further rounds of write-offs to avoid tax and to please the markets. It's only a matter of time before more shipowners are drawn into the firing line. We are seeing operators dropping out of the market or vessels being handed over or taken back due to non-payment of hire. The margins have gone for speculators, and charterers can now be very selective and are driving rates down. It is amazing that we haven't seen more established names affected already. Owners are managing to keep the banks at bay with the book value of ship assets, but if the assets were written down to true market values then we would see another story."

In common with previous surveys, a high percentage of respondents expressed concern about overtonnaging. One remarked, "It is unbelievable that some owners are still ordering new ships, given the current economic problems and the general perception that rates will remain low when the vessels now on order eventually enter service."

Predictably, political and economic factors — and their likely impact on the industry — continued to occupy the thoughts of respondents. One felt that, "The upcoming US elections in November will act as a catalyst in allowing new money to flow into the system," while another said, "The continued inability of western governments to either control their spending or exit the euro makes bad times more likely."

The overall number of respondents expecting to make a major investment or significant development over the next twelve months fell, on a scale of 1 to 10, from 5.2 to 4.9, the lowest figure since the 4.8 recorded in February 2009. All categories of respondent were less confident than in the previous survey, most notably charterers, whose expectation rating in respect of major investments was down from 5.8 to 4.9, the lowest figure recorded by this category of respondent since the 4.8 returned in May 2008. This reverses a trend whereby charterers had emerged over the life of the survey as the category of respondent most confident of making a major investment. This time, the rating for owners was down from 5.5 to 5.2 and, for managers, from 5.4 to 5.2. Over the life of the survey, the highest overall expectation rating is the 6.0 recorded in August 2010.

Expectations of major investments were down in all

geographic areas covered by the survey. In Asia, the fall was from 5.2 to 5.0 (the lowest figure since November 2009), while in Europe it was from 5.1 to 4.8, the lowest figure for that region for three years and equal to its lowest rating in the life of the survey. The figures for Latin America (6.6 to 5.2) and North America (5.1 to 5.0) were also down.

Demand trends, competition and finance costs continue to dominate the top three factors cited by respondents overall as those likely to influence performance most significantly over the coming twelve months. Overall, 22% of respondents (down from 24% last time) cited demands trends as the most significant performance-affecting factor, with 20% (up from 17% last time) identifying competition. Finance costs (unchanged at 17%) featured in third place, followed by fuel costs (up 3 percentage points to 12%).

Fuel costs were in fact the second most significant factor for charterers, despite being cited by fewer respondents in this category (23%) than last time (26%). Demand trends (unchanged at 24 cent) was the leading performance-influencing factor for charterers, with competition — up significantly from 15% to 23% — in third place.

Although demand trends remained the number one performance-affecting factor for owners, it was cited by only 21% of such respondents, as opposed to 26% last time. Finance costs (up one percentage point to 18%) were in second place, followed by competition, at 17%. For managers, meanwhile, competition and demand trends (both up 2 percentage points on last time to 19%) occupied the top two places, with finance costs in third place at 16%.

Geographically, demand trends remained the most significant factor for respondents in Asia and Europe (both 22%, compared with 18% and 26%, respectively, in November 2011). In Asia, competition assumed increasing importance for respondents (up from 17% last time to 21%), with finance costs in third place at 15%. In Europe, competition (up 2 percentage points to 18%) shared second place with finance costs, down from 19% last time. In North America, meanwhile, demand trends (up from 25% to 28%) pushed competition (down from 26% to 25%) into second place, with finance costs in third place with 15%.

There was an 8 percentage-point drop (from 57% to 49%) in the number of respondents overall who expected finance costs to increase over the next twelve months — the lowest figure since November 2010. There was also a 2 percentage-point increase, from 6 to 8%, in the number of respondents who thought that finance costs would come down during the coming year — still some way short of the 25% who thought likewise three years ago, in February 2009. The numbers of owners and

managers expecting finance costs to rise was down (from 57% to 46%, and from 56% to 45%, respectively), but 48% of charterers were expecting increases as opposed to 46% last time.

Fewer respondents in both Asia and Europe were anticipating an increase in finance costs compared to last time (down from 54% to 49% and from 61% to 48%, respectively). The same was true of North America (down from 47% to 38%).

According to one respondent, "Never before have we been confronted with a situation where the banks appear not to understand the industry, seemingly preferring statistics above a clear understanding of the business. If they stopped providing billions of dollars for even more unnecessary fleet expansions on the part of certain companies, the financing of other small, medium-size and niche operators would be assured."

The survey revealed that respondents are now more confident of rate increases than they were three months previously. In the tanker sector, the number of respondents expecting rates to increase over the coming year was up from 30% to 35%. Charterers were alone in recording a fall (from 40% to 35%) in expectation of higher rates, against an 8 percentage-point increase, to 15%, in their numbers who thought that tanker rates would fall.

In the dry bulk sector, meanwhile, all the indicators pointed upward. There was a 15 percentage-point increase, from the all-time survey low of 23% to a more optimistic 38%, in the overall number of respondents who thought that dry bulk rates would rise over the next twelve months. Even charterers were looking up rather than down, with 44% of their number (the highest since August 2010) anticipating higher rates, as opposed to just 33% in the previous survey. In August 2011, jut 8% of charterers expected dry bulk rates to increase. The number of owners anticipating higher bulk rates, meanwhile, was up from 20% (another all-time low) to 35%, while 38% of managers thought that rates were on the way up, as opposed to 31% last time.

In the container ship market, 31% of respondents overall expected rates to increase over the next twelve months, as opposed to 23% last time. Charterers led the way, with a 13 percentage-point increase to 26%, which nevertheless still left them trailing managers (up from 23% to 30%), and owners, up 5 percentage points to 28%. All these figures, however, were well down on those for one year ago. In February 2011, 56% of owners, 47% of managers, and 40% of charterers said they thought containers ship rates were likely to increase.

Moore Stephens shipping partner, Richard Greiner, says, "Nobody could accuse the shipping industry of being faint-hearted. Despite public confirmation that an increasing number of big industry names are in financial difficulty; despite there being too many ships to carry the cargo available to them for the foreseeable future; despite the prohibitive cost of fuel; and despite an ailing world economy, confidence in the shipping industry still increased slightly over the past three months. In fact, confidence today is higher than it was three years ago, in February 2009.

"Confidence is contagious, as is the lack of it. Although confidence in the shipping industry is significantly down compared to what it was when we launched our survey in May 2008, it is still holding up better than many had predicted. In part, that is due to a belief in the product and the service on offer. Shipping people know their industry. Although it is possible to carry anything from pins to elephants by other means of transportation, ships remain the only viable option for an overwhelming amount of the cargo that has to be carried on global routes. So, even if the supply-demand equation is currently out of kilter, there is both a need and a demand for shipping, and that is ultimately good for confidence.

"Almost without exception, owners, managers, charterers and brokers expect rates to go up over the coming twelve months, albeit starting from a chronically low base point. Improving rates may be too late for some, but could be the saviour of others as they seek to demonstrate to the banks and other investors that there is a genuine prospect of more money coming in.

"Shipping is not the only industry which has lost some of its household names. There may be more casualties to come. But higher rates are what is needed, particularly in an industry which, historically, has been accused of under-selling itself. Respondents to our survey this time exhibited a reduced appetite for finding money to spend on new investments over the coming year, but that may change if there is more money to spend — particularly if the cost of borrowing comes down.

"Meanwhile, there have been encouraging signs in the past couple of months in connection with efforts to address the worldwide economic downturn. Europe's plan for bailing out Greece may be more of a short-term palliative than a long-term solution, and there remain serious doubts about other euro economies such as those of Italy, Portugal and Spain. But it is a start, and one that coincides with indications that the beginnings of a recovery may be under way in the US economy.

"Shipping has a long way to go before it returns to the rude health which made it such an attractive investment opportunity for so many just a few years ago. Given the way that environmental and safety regulations are driving up the cost of operating in today's industry, it is unlikely to attract, for the foreseeable future, those looking to make a quick killing before exiting the market. They will not be missed. Shipping prides itself on its competitiveness, but the last thing it needs at the moment is more transient competition.

"Sometimes, the circulation of confidence is better than the circulation of money. The shipping industry is managing to maintain the former, but will need more of the latter in order to take the next step towards recovery."

The Moore Stephens Shipping Confidence Survey includes responses from key players worldwide in the international shipping industry to a targeted, web-based survey by the Moore Stephens Shipping Industry Group. Responses were received from owners, charterers, brokers, advisers, managers and others. Moore Stephens LLP is noted for a number of industry specializations and is widely acknowledged as a major shipping and insurance adviser. Moore Stephens LLP is a member firm of Moore Stephens International Limited, one of the world's leading accounting and consulting associations, with 636 offices of independent member firms in 100 countries, employing 21,197 people and generating revenues in 2011 of $2.3 billion. DCi

Maritime insurance

Piracy is costing the shipping industry a staggering $7–12 billion a year according to a report released by the One Earth Future Foundation — a figure that is highlighted in the soaring maritime insurance premiums facing ship and cargo owners.

Recent reports also showed that world governments are shelling out at least $1.3bn trying to control the problem.

The piracy action affects marine insurance markets in total — that is, underwriting considerations, terms of cover, and premiums payable by the shipowners. The steep increase in sea-piracy cases has had serious implications for insurance. It affects all the shipping companies placing 'extra insurance costs' on them — and should come as no surprise that the payment of ransom to pirates has substantially raised the cost of claims.

Reports suggest that shipowners navigating the Gulf of Aden are seeing insurance premiums for kidnap and ransom (K&R) increase by ten times as piracy escalates.

And that is not the only problem shipowners face when it comes to escalating insurance costs. For those who have protection models in place, they must bear the premiums and problems associated with being the employer — essentially meaning if someone, namely their armed guard, gets shot on board their vessel, it is their problem and no one else's, to deal with.

Another hurdle to overcome is the issue of some Registries not allowing armed guards to board a client vessel: if an owner takes a guard on board and his flag forbids it, his insurance will be void.

However, there are ways for ship and cargo owners to bring the costs down — and increase the protection of their vessels at the same time.

There are significant savings to be gained in insurance premiums by employing a service that will give your vessel full-scale security and protection against potential pirate attacks.

A view held by many insurers is that a shipowner who decides to use maritime security — such as that offered by Typhon — is reducing the risk of being kidnapped and held for ransom.

Amid the growing reports that piracy is on the rise year-on-year, Typhon, headed up by founder and CEO Anthony Sharp, has emerged with plans to protect convoys of up to ten ships with an armed vessel, complete with helicopter. For the first time it will allow shipowners and charterers to hire, on a commercial basis, an ocean-going close protection vessel (CPV) to provide a comprehensive protection model for their crews, ships and cargoes.

Typhon plans to offer shipowners a comprehensive security solution to protect their vessels whilst in transit through the Gulf of Aden, the Indian Ocean and the Arabian Sea and will provide an armed patrol craft that will be launched from its CPV. This capability will be supported by unmanned aerial vehicles (UAVs) deployed in a watch-keeping/detection role.

Protecting vessels against piracy is not a new concept in itself but so far it's been done primarily via vessel protection details: ships buying protection pick up a security team from one port

BIMCO publishes much-anticipated GUARDCON contract

BIMCO has announced the publication of the GUARDCON standard contract for the employment of security guards on vessels. This brand new contract has been developed to provide shipowners and private maritime security companies (PMSC) with a clearly worded and comprehensive standard contract to govern the employment and use of security guards, with or without firearms, on board merchant vessels. While BIMCO would not like to see the use of armed security guards on ships becoming institutionalized, it recognizes that, while the industry awaits a more permanent long-term solution, armed guards currently provide an effective deterrent to piracy attacks.

BIMCO's Chief Officer Legal and Contractual Affairs, Grant Hunter said "In response to shipowners' increasing demand for security services, an ever growing number of private maritime security companies have entered the market to meet that demand. In the absence of a standard contract for these services, shipowners and their P&I Clubs are currently faced with the difficult and time-consuming task of assessing large numbers of contracts from these security companies, all with varying terms and conditions. GUARDCON's objective is to create a contractual benchmark for the employment of security services so that minimum levels of insurance cover for PMSCs are established and that adequate safeguards are put in place to ensure that liabilities and responsibilities are properly addressed and that all necessary permits and licences are obtained."

According to BIMCO Deputy Secretary General, Søren Larsen, "GUARDCON has been drafted in just a little over three months by a small group of experts drawn from shipowners, underwriters, P&I Clubs and lawyers with first-hand experience of working with contracts for security services. The speed at which GUARDCON has been drafted is a considerable credit to the drafting group whose members devoted many long hours free of charge to the project."

The members of the drafting team are Tor Langrud, Wilhelmsen, Norway (Chairman); Daniel Carr, Stolt-Nielsen, USA; Chris South, West of England P&I Club; Andrew Moulton, Ascot Underwriters; Stephen Askins, Ince & Co; and Elinor Dautlich, Holman Fenwick Willan.

The drafting work was not however conducted in isolation; consultations were conducted with PMSCs and insurance underwriters during the process and the drafts were also carefully scrutinized by members of the International Group of P&I Clubs. BIMCO's own influential Documentary Committee also played their usual essential role by thoroughly reviewing GUARDCON to ensure it met the standards expected of a BIMCO standard contract.

BIMCO has also published Guidance on the Rules for the Use of Force (RUF) to accompany GUARDCON which will

undoubtedly be of great assistance to owners and private maritime security companies when drawing up and agreeing RUF for their own purposes.

About BIMCO

BIMCO is the largest of the international shipping associations representing ship-owners controlling around 65% of the world's tonnage and with members in more than 120 countries drawn from a broad range of stakeholders having a vested interest in the shipping industry, including managers, brokers and agents. The association's main objective is to protect its global membership through the provision of quality information and advice, and while promoting fair business practices, facilitate harmonization and standardization of commercial shipping practices and contracts. In support of its commitment to promote the development and application of global regulatory instruments, BIMCO is accredited as a non-governmental organization (NGO) with all relevant United Nations organs. In an effort to promote its agenda and objectives, the association maintains a close dialogue with Governments and diplomatic representations around the world including maritime administrations, regulatory institutions and other stakeholders within the areas of EU, the USA and Asia.

and drop it off at another.

Sharp said: "Typhon's protection model is different — it's based on putting an exclusion zone around a convoy and protecting that zone, as well as the client vessel, helped by the deployment of UAVs that, at 10,000ft, can spot potential threats miles away. It's a model built on prevention rather than aggression."

The model will also encompass onshore operations room support in the UAE and London, and provision of real-time intelligence on latest pirate locations. This also solves the issue of Registries not allowing guards on board, as Typhon will protect vessels without actually being on the ship.

But one of Typhon's biggest sales points is insurance. Sharp is keen to point out that a huge difference between his model and

all the others out there is that Typhon will negotiate reduced insurance rates.

He added: "Rates have skyrocketed because it's costing the industry $12bn a year when you add everything up. The ransoms paid out so far have been in the range of $280m to $1.2bn."

Following discussions with insurance brokers, Sharp is aware that some shipowners who elect to deploy solely 'ride-on' guards are receiving 45–50% discounts on their kidnap and ransom insurance premiums.

Sharp said: "Typhon's service offering goes further and is a much deeper service than solely providing guards. I have no doubt in my mind that we will be able to negotiate unbeatable rates for our clients.

"I have been told that Typhon's protection model goes beyond any current models and would therefore be seen to reduce the insurance risk even further.

"It is my expectation that insurer syndicates would see us as a very positive development in the market and shipowners using our services will be offered even further reductions in their premiums."

Typhon is owned and run by CEO Anthony Sharp, with ex-military chairman of commodities trading giant Glencore, Simon Murray, on board as chairman.

General Lord Dannatt, the UK's ex-Chief of General Staff and current Constable of the Tower of London and General Sir Jack Deverell, the former Commander in Chief of the Allied Forces Nato, are on board as non-executive directors.

Prevention is better than cure, says AtoBviaC

It is no secret that piracy attacks are becoming more audacious and that methods necessary to combat such attacks are becoming more extreme. Local restrictions often mean that shipowners can't always obtain reliable armed protection, attacks are now expected up to 120 nautical miles off the coast of some areas and concern exists over moves to ban ransom payments — the choices for operators are fraught with difficulty.

AtoBviaC Plc has recently introduced a new Anti-Piracy Routeing Tool in the BP Shipping Marine Distance Tables. "The Anti-Piracy Control allows ship operators to make informed decisions on voyages which may need to avoid piracy areas," says Captain Trevor Hall, Director of AtoBviaC. "With the amount of uncertainty in the industry and the depressed freight rates currently being experienced, the implication of avoiding piracy has to be carefully measured.

Piracy control on.

"The AtoBviaC tool enables the ship operator to select routes based on the most current intelligence, and accurately calculate the time and fuel implications of the voyage. In many cases this can work out to be considerably more accurate than the other available options and provides a level of self-determination that is missing from other solutions."

Anti- Piracy Routeing from AtoBviaC within the BP Shipping Marine Distance Tables is based upon information on piracy activity obtained on a regular basis from the Joint War Committee bulletins, and from specific routeings requested by ship operators. All routes calculated are navigable, taking account of the need to keep suitable distances off shoals, wrecks, coasts and obstructions and also avoid oil field development areas. The routes are reviewed weekly and updates are issued at two-monthly intervals or more frequently if significant changes need to be made.

Piracy control off.

The BP Shipping Marine Distance Tables are widely used within the marine industry and contains all ports, offshore terminals and transhipment areas needed by its many users, particularly: Worldscale; oil tankers; gas carriers (LNG & LPG); the container trade and the bulk shipping of coal and ore.

'Not paying ransoms would be massively detrimental'

Foiled: the capture of Somali pirates.

Any move at government level to ban the payment of ransoms to pirates would have a massively detrimental effect on the risk to the world's seafarers and the global economy, according to Alastair Evitt, Managing Director of Meridian Marine Management, president of InterManager and the newly appointed chairman of the Save Our Seafarers Campaign.

Addressing the opening session of this year's Connecticut Maritime Association (CMA) conference in Stamford, USA, Evitt said not only would such a ban have an impact on the willingness of any crew to transit high risk areas, but any owner who then did not pay a ransom for his crew and vessel would be unlikely to ever attract a crew again.

Responding to comments that came out of the recent London conference on Somalia where governments called for a move to not pay ransoms to pirates, he said many vessels would be forced to reroute with the subsequent effect on costs. "And for those forced to transit pirate areas, insurance premiums would become prohibitive — to say nothing of the fact that in many cases vessels would become a total loss after six months," he said.

"I for one would not sanction one of Meridian's vessels transiting the high risk area — if there was no ultimate solution in the event of a vessel and her crew being held captive."

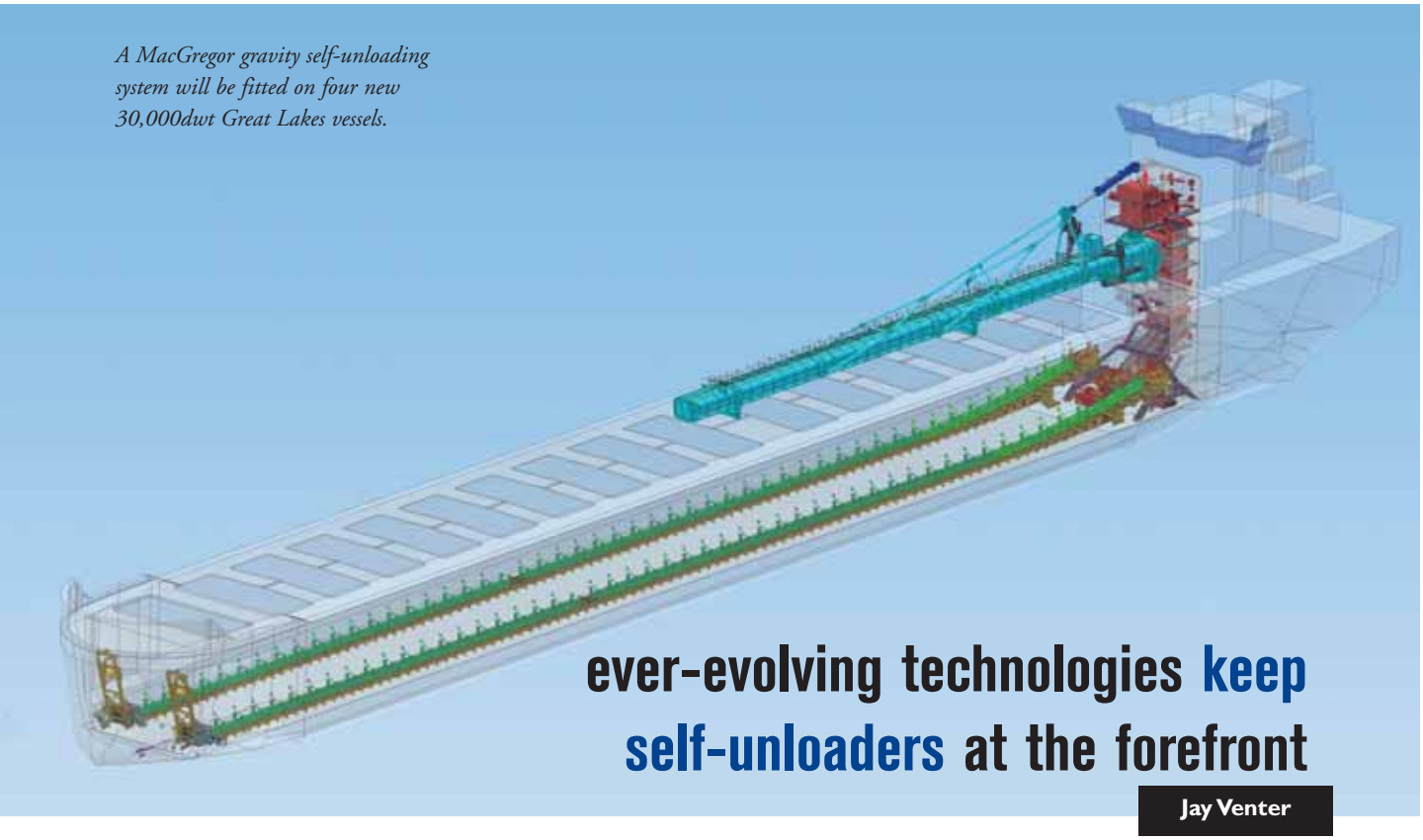
Addressing conference delegates, he said: "I speak as Chairman of the Save Our Seafarers campaign when I say that we are opposing this apparent change of political will and hope we can rely on your support."

Referring to the future for the seafarer, Evitt said crew recruitment, retention and development would resurface as a major challenge as the shipping industry recovers from this recession: "What will tomorrow's crews expect by way of remuneration (to make up for stagnant salaries): social media onboard and security to name but a few. As an industry I believe we will also have to pay more attention to cultural issues and onboard integration."

Working as part of a team is essential in difficult economic times, and never more so than when it comes to the interaction between ship operators and suppliers. "Shipoperating requires joined-up thinking between everyone involved and your ship supplier should be seen as a key team player who can make a significant contribution if they are allowed to," he said.

So how can ship managers provide better services to their clients? Evitt said: "InterManager is investing both time and money in the development of operational and safety key performance indicators and is convinced that with the right measurement tools, facilitating improved management services to our principles will be the next game changer in our sector."

Self-unloading vessels



A MacGregor gravity self-unloading system will be fitted on four new 30,000dwt Great Lakes vessels.

ever-evolving technologies keep self-unloaders at the forefront

Jay Venter

Great Lakes self-unloaders will benefit from increased capacities and fewer flow disruptions

FOUR 30,000DWT LAKERS WILL BE THE FIRST BULK CARRIERS TO BENEFIT FROM CARGOTEC'S NEW MACGREGOR FULL FLOW GATES AND FULLY ENCLOSED BOOMS WHICH PROMISE TO OFFER NEW STANDARDS IN ENVIRONMENTAL PROTECTION AND EFFICIENCY

Commercial ports on North America's Great Lakes handle around 150mt (million tonnes) of dry bulk cargo a year, mostly carried by self-unloaders. The Lakes contain about one-fifth of the world's fresh water, and ship operators in the region are keenly aware of the need to protect this resource.

Shipping operations on the lakes have entered a period of renewal and have fully embraced the need to minimize their environmental impact, and four new 30,000dwt Lakers will be able to do just that with MacGregor self-unloading systems onboard. The vessels are on order at Nantong Mingde Heavy Industry Stock Co Ltd in China for a Canadian owner. They will trade on the Great Lakes, and cargoes to be handled include coal, aggregates, iron ore pellets, coarse and fine salt, grain, potash, clinker, ilmenite, bentonite, gypsum and coke.

As part of their MacGregor gravity self-unloading systems from Cargotec, these will be the first vessels to feature the new MacGregor space-saving full-flow gate under the hold, and a fully enclosed boom conveyor.

"The Canadian customer already has one of the biggest fleets of gravity self-unloaders in the world, and they are convinced that the MacGregor self-unloading system is both cost and time effective, ensuring high capacities and high standards of environmental protection," says Pankaj Thakker, sales manager for Cargotec's self-unloading systems.

"They chose our systems for a number of reasons. We are an innovative company with new and interesting products such as the MacGregor enclosed boom and the MacGregor full flow gate. "The new enclosed closed boom is dust-proof and more environmentally friendly than the traditional framework design. Its totally-enclosed conveyor system ensures extended lifetime for the installed equipment and also provides operators with good access and serviceability compared with competitors' systems.

"Also, the new gate allows a bigger cargo hold opening in comparison with our competitors. This ensures a better capability to deal with hard-to-handle materials."

Thakker says other factors influencing the choice of equipment included Cargotec's knowledgeable self-unloader team, the company's global presence and more than 50 years experience of designing and delivering gravity systems for the marine environment, along with its strong after-sales service organization.

MacGregor equipment for the four lakers is scheduled for delivery between May 2012 and July 2013. Each gravity self-unloading system's rated capacity will be 4,360tph (tonnes per hour) for coal and 5,450tph for aggregates. Each system comprises: 100 newly-developed MacGregor full flow gates; two hold conveyors; two cross conveyors; a C-conveyor lifting arrangement; and a new MacGregor enclosed boom.

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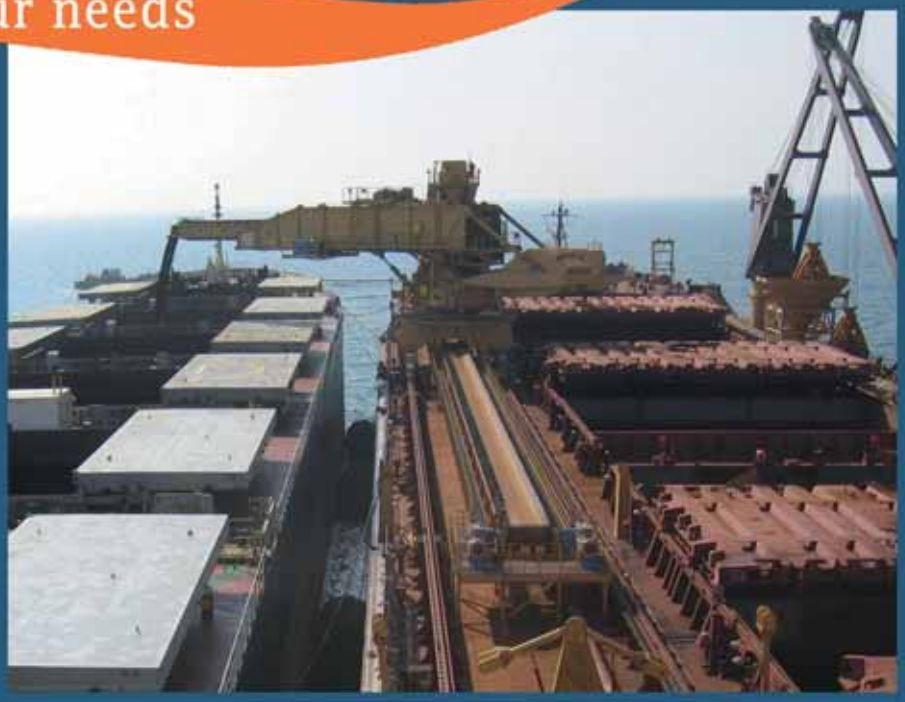

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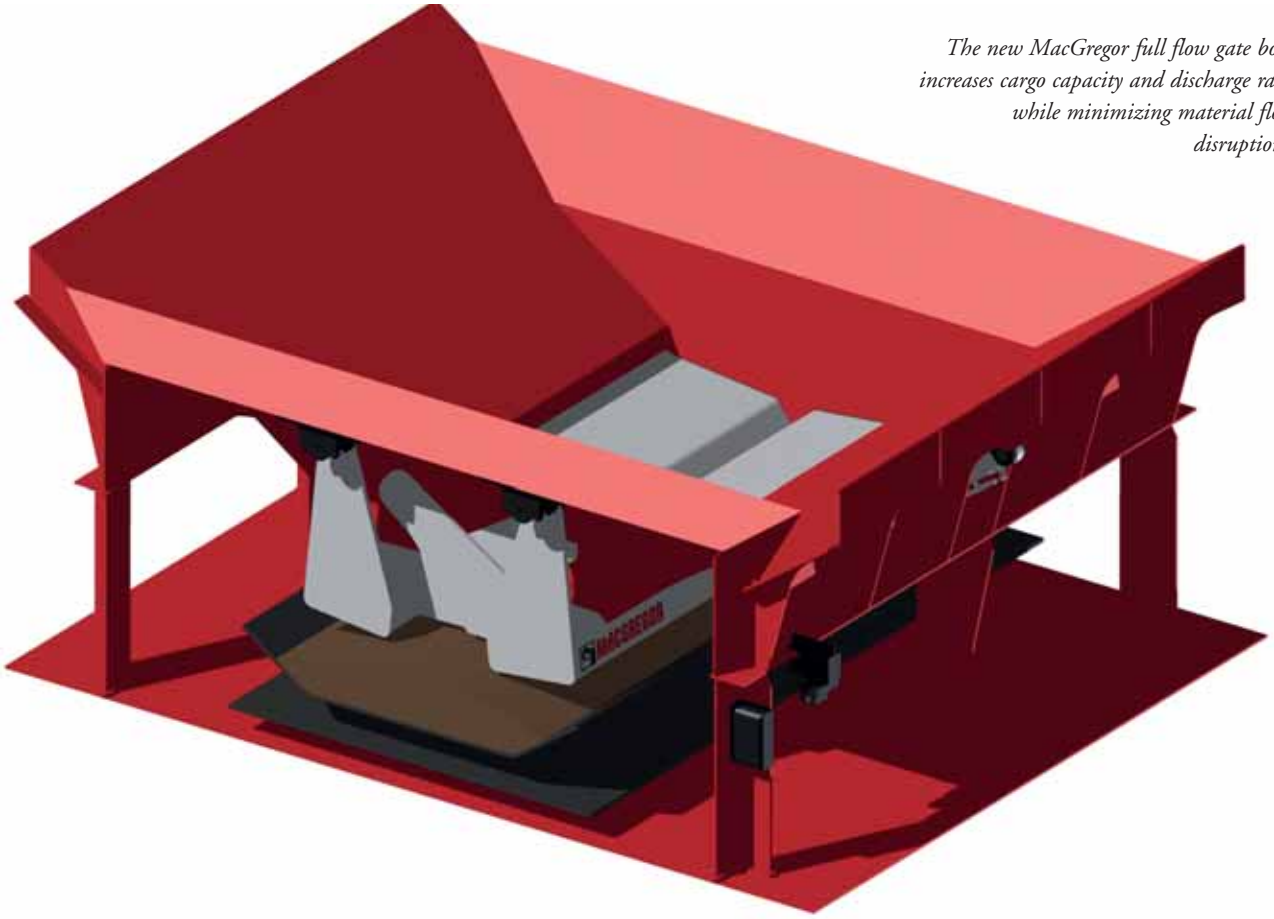

The new MacGregor full flow gate both increases cargo capacity and discharge rates while minimizing material flow disruptions.

Environment-minded technology

"Reduced environmental impact is being demanded all over the world," says Thakker. "And Cargotec's MacGregor technology helps in a variety of ways. Its self-unloading systems offer the highest cargo transfer efficiencies, reducing energy use and time in port. This arrangement also guarantees to reduce dust emissions to an absolute minimum with the use of a fully enclosed boom conveyor.

"Our new space-saving gates and a fully enclosed boom conveyor, simply add to our range of environmentally responsible technologies.

"Cargo gates are the first element of a ship's gravity unloading system. They allow the cargo to fall on to the conveyor belt running below the cargo holds in a controlled manner. The MacGregor full flow gate has a wide opening that both increases cargo capacity and discharge rates while minimizing material flow disruptions . It also requires much less space than traditional gates, so there is more available for revenue earning cargo," explains Thakker.

The boom conveyor is the final element of a ship's bulk self-unloading system, transferring the cargo to the receiving facility. Up to now, boom conveyors have been equipped with conveyor covers, water spray nozzles and dust collectors to reduce spillage and keep dust emissions to a minimum. "Modern requirements are for dust-free operations for the benefit of crew, stevedores and the local environment," says Thakker. "Thanks to its ingenious design, the MacGregor closed boom has an optimal support structure with a smooth upper surface to prevent ice formation and a smooth inner bottom surface for easy cleaning. The new boom will also benefit from an increased life span because the components are well protected against the external elements."

"There are safety benefits too. Service and inspection is much easier and safer than with a traditional system. Access to boom conveyors has not always been particularly easy. In the new enclosed boom, walkways alongside the belt allow safe and easy access, eliminating the problems of handling heavy, unwieldy access cover plates."

The new MacGregor enclosed boom reduces dust emissions to an absolute minimum.

Growth doesn't happen by chance

Tirelessly and step by step, Italy-based Logmarin Advisors has grown to achieve a leading position in the design of dry-bulk material sea-borne supply chains.

Logmarin Advisors really puts its shoulder to the wheel, and achieves great results. Despite the persistent global economic downturn, the business has kept growing up to 2011's 40%. And the outlook for 2012 is so far very promising.

The *FC Blitz* designed by Logmarin is the second unit, delivered in 2012, after Vale's world's largest floating terminal *Ore Fabrica*. Both vessels are already contributing to the supply and receiving rings of coal and iron ore supply chains, respectively in Indonesia and China.

Four floating cranes are at various construction stages and will be delivered from July to October 2012; at that time Logmarin's 'fleet' of floating terminals will comprise 16 units, all born in the space of only five years.

FC Blitz is owned by PT MBSS, a major presence in the Indonesian bulk cargo logistics market, operating a modern and expanding fleet of barging and floating cranes and providing reliable integrated services, offering coal suppliers the opportunity to deal with only one partner and sparing them the complications of having to deal with a number of different organizations.

The FC Blitz *designed by Logmarin is the second unit, delivered in 2012, after Vale's world's largest floating terminal* Ore Fabrica.

It is well known that Indonesian coal exports rely heavily on floating facilities which must nowadays lead to high loading rates and easy maintenance. To achieve this objective, experience has shown that the designing stage is by far the most important as it is at that point that the success of a whole project can be determined — especially the major savings and long lifetime. Proven technology must be carefully adapted and assembled to the needs of the specific supply chain, which can't be considered as identical each time.

The floating crane *Blitz* was built under RINA's (Italian Classification Society) and Logmarin's surveillance/supervision. Motion-dampening bilge keels are fitted on each side to the extent of about three-quarters of the length of the pontoon; structural anti-rolling fins are also fitted in way of the stern skegs. Moreover, like its 'royal' sister floating terminal *Princesse Chloe*, the *Blitz* has been double bowed, applying the Genoese company's floating crane concept that reduces the sensitivity to adverse weather conditions, compared with standard floating cranes.

The *FC Blitz* operates at Muara Pantai, East Kalimantan, Indonesia and is capable of loading in excess of 500,000 tonnes of coal per month, at an average daily rate ranging between 25,000 and 28,000 tonnes, on Cape and Panamax size vessels respectively.

The main dimension (in metres) are: lengths 91.5, width 24.4, depth 5.5. The floating crane is equipped with two (relatively small) Liebherr CBG 300 heavy duty four-rope grab cranes and Peiner SMAG scissor grabs.

The crane's control system records data about all individual components in load collectives, all alarm signals and failures as well as peak values. The lifetime of components can thus be analysed and plans for preventative maintenance and spare parts supply can be established.

Specific features for open water conditions include specially designed heavy duty hoisting winches, a strengthened boom, heel trim alarm systems and emergency operation functions.

Much of the strength that enables Logmarin to 'swim against the tide' comes from "the ability to create innovative and efficient solutions and to keep as open-minded as possible when facing a new challenge, with no standard option, but to fit the project to the needs of the client." says Mario Terenzio, managing director.

Logmarin is part of a strategic business alliance established in 2010 with cargo handling manufacturers Bedeschi and Liebherr, under the name of Bulk Logistic Landmark (BLL).

BLL is founded on the synergies, the individual strengths and the networks of each of the three partners. On one side they all can continue doing what they do best, but Bedeschi, Liebherr and Logmarin together can now also offer their customers a larger variety of integrated products and services (software and hardware) whenever possible, sparing them the trouble of interacting with many organizations thus optimizing the flow of dry bulk materials through cost-effective solutions (shore terminal, storage facilities, floating terminals, self-discharging vessels, floating cranes, etc.).

One of the successes of the alliance is *Princess Chloe* (owned and operated by PT Mitra Swire CTM). She has two heavy duty Liebherr cranes, which work in conjunction with a cargo handling system comprising hoppers, conveyors and a shiploader that perform at an average daily rate exceeding 50,000 tonnes (that is 62% higher than the contractual one). The best daily average loading rate achieved so far is 56,471 tonnes. In addition to this level of performance, the fuel consumption is very low (less than a glass of diesel for each tonne of coal loaded), making the whole system even more efficient.

Nowadays, floating terminal technology has matured and there is a wealth of knowledge from many examples of floating terminals in operation for dry bulk, oil and gas all over the world and the trend towards utilization of this alternative is still growing.

Prospective clients who are considering a transloading operation should always seriously consider engaging a consulting engineering firm with actual experience in this specific offshore field, to determine the most favourable system to suit their specific needs, both technically and commercially to oversee project implementation from beginning to commissioning.




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State-of-the-art technology drives operational and environmental performance on CSL's new Trillium Class vessels

Artist rendering of CSL's Trillium-class Panamax-size specialty self-unloading vessel.

In the autumn of 2012, CSL International will welcome the first of its three new Trillium-class Panamax-size specialty self-unloading vessels. The three vessels will join the CSLI Pool throughout 2012/13 along with two other ships of the same class and design currently under CSL-supervised construction by Klaveness.

Inspired by the three petals of its namesake flower, the Trillium Class represents the three tenets of CSL's sustainability philosophy as well as the three areas in which the new vessels will excel: fuel efficiency, operational performance and environmental sustainability.

"CSL recognizes that investing in sustainable technologies makes good business sense not only because it reduces the environmental impact of operations, but because it significantly improves operational and energy efficiency," notes Paul Cozza, president of CSL International. "The Trillium class is a reflection of CSL's corporate philosophy whereby the protection of the environment is inseparable from the long-term growth and viability of the company."

Featuring the most advanced technology available in the industry today, the Trillium-class vessels have been built to respond to the evolving business needs of customers with the most environmentally-friendly solutions. From reductions in NOx, SOx and other air emissions, to fuel efficiency and waste and pollution management, CSL's new ships will meet or exceed compliance to current and anticipated environmental regulations.

Beginning with the hull, the Trillium custom design developed by Deltamarin enhances fuel efficiency and manoeuvrability by featuring an innovative cylindrical type bow and an aft end configuration with stern and rudder bulbs, and large propeller diameter. A new high quality hull coating increases speed and power by removing any attached fouling with TBT-free antifouling biocides, thus preventing marine growth with no negative impact on the environment.

Trillium ships feature IMO Tier II main engines, more powerful than any comparable vessel engine and specifically conceived to increase fuel efficiency and control NOx and particulate matter emissions.

The innovative use of variable-frequency drives (VFD) on the new vessels enhances thruster speed and power control, and reduces pollution risk by eliminating the need for hydraulic oil in the thruster propellers. The VFD also better adapts the ship to long passages in restricted waters by keeping the machinery off, (less idling time) but always within seconds of being available. Utilizing 'just enough' power to control any process, including thruster, ventilation, ballasting and cooling instead of running at full speed, the use of VFD means fewer generators have to be on line to start machinery, which results in reductions in fuel consumption.

The introduction of Power Take-Off (PTO) generation from the main engine is also more efficient and economical as it reduces the running hours and fuel consumption of auxiliary engines.

The Trillium design features a comprehensive fuel management system that allows for the real-time monitoring of fuel oil consumption for optimum operating ranges. The system also evaluates other performance influencing factors including hull fouling, propeller roughness, and the functioning of currents and the main engine.

The new VFD-driven self-unloader (SUL) system allows for soft starting and has the ability to precisely adjust unloading rates to meet customer demands. Dust suppression is also significantly enhanced on the Trillium class vessels through feeder gates, boom dust enclosures, dust collectors and foam spray dust suppression systems.

Extensive oil pollution prevention measures have been put in place including the installation of a centrifuge-type Oily Water Separator (OWS) to obtain very low oil concentrations. The OWS is fitted with a 'white box' recorder to track the timing and location of treatment and discharging.

A seawater lubricated stern tube bearing system also eliminates stern tube oil pollution risk and reduces the potential for pollution caused by fishing nets and other leak sources.

All available scrubbers and ballast water treatment systems are currently being studied and analysed for suitability of installation on the Trillium-class vessels. Space has been reserved on the ships and additional generator power put in place to accommodate the installation of the new scrubber and ballast water treatment systems.

Other innovative features of the Trillium Class Panamax vessel include platform optimization, energy efficient LED lighting, low velocity high and low water intake for ballast, the use of a less harmful onboard refrigerant and grey and black waste water management.

"The SUL Panamax carrier is already considered one of the most environmentally efficient ships," said Cozza. "With the introduction of the Trillium Class Panamax-size specialty self-unloading vessel, CSL will be taking the technology several steps further, benefitting our customers, our industry and most of all, our environment and our communities."

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HWY GO H_2O

Bright future ahead for the Great Lakes & St. Lawrence Seaway

Maritime traffic for the 2012 shipping season got under way in the Port of Duluth-Superior with the departure of the Mesabi Miner *in the early morning hours of Friday 16 March.*

The Great Lakes St. Lawrence Seaway System is a deep draught waterway extending 3,700km (2,340 miles) from the Atlantic Ocean to the head of the Great Lakes, in the heart of North America. The St. Lawrence Seaway portion of the System extends from Montreal to mid-Lake Erie. Ranked as one of the outstanding engineering feats of the twentieth century, the St. Lawrence Seaway includes 13 Canadian and 2 US locks.

A vital waterway

The Great Lakes and St. Lawrence River have been major North American trade arteries since long before the US or Canada achieved nationhood. Today, this integrated navigation system serves miners, farmers, factory workers and commercial interests from the western prairies to the eastern seaboard.

Virtually every commodity imaginable moves on the Great Lakes Seaway System. Annual commerce on the System exceeds 180mt (million metric tonnes), and there is still ample room for growth. Some commodities are dominant:

- iron ore for the steel industry;
- coal for power generation and steel production;
- limestone for construction and steel industries;
- grain for overseas markets;
- general cargo, such as iron and steel products and heavy machinery; and
- cement, salt and stone aggregates for agriculture and industry.

The primary carrier vessels fall into three main groups: the resident Great Lakes bulk carriers or 'lakers'; ocean ships or 'salties'; and tug-propelled barges. US and Canadian lakers move cargo among Great Lakes ports, with both nations' laws reserving domestic commerce to their own flag carriers. Salties flying the flags of other nations connect the Lakes with all parts of the world.

To realize the magnitude of this commerce, consider the impact of some typical cargoes:

- one 1,000ft-long Great Lakes vessel carries enough iron ore to operate a giant steel mill for more than four days;
- a similar 'super laker' carries enough coal to power Greater Detroit for one day; and
- a Seaway-size vessel moves enough wheat to make bread for every resident of New York City for nearly a month.

For every tonne of cargo, there are scores — often hundreds — of human faces behind the scenes. On board, there are the mariners themselves, while shore side there are lock operators and longshoremen, vessel agents and freight forwarders, ship chandlers and shipyard workers, stevedores and terminal operators, Coast Guard personnel and port officials, railroad workers and truck drivers — a wide web of service providers.

Opened to navigation in 1959, the St. Lawrence Seaway part of the system has moved more than 2.5 billion metric tonnes of cargo in 50 years, with an estimated value of more than $375 billion. Almost 25% of this cargo travels to and from overseas ports, especially Europe, South America, the Middle East, and Africa.

From Great Lakes/Seaway ports, a multi-modal transportation network fans out across the continent. More than 40 provincial and interstate highways and nearly 30 rail lines link the 15 major ports of the system and 50 regional ports with consumers, products and industries all over North America.

A shared resource facing multiple demands

Since its inception in 1959, over 2.5 billion tonnes of cargo valued in excess of $375 billion has been transported via the

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Ready... set... sail at Duluth-Superior as season begins

Maritime traffic for the 2012 shipping season got under way in the Port of Duluth-Superior with the departure of the *Mesabi Miner* in the early morning hours of Friday 16 March (see picture on p41).

Having wintered at Midwest Energy Resources Company's Superior terminal, the vessel was 'first out' of the port this season — loaded with coal and headed for Presque Isle, Mich. This is the first of her three intra-lake deliveries prior to the opening of the locks at Sault Ste. Marie ('Soo Locks') at 1200hrs on Saturday 24 March. The *John G. Munson* also took on an early season coal cargo in the Twin Ports on 20 March for delivery across Lake Superior.

Thanks, in large part, to minimal ice cover on the Great Lakes this year, the Port of Duluth-Superior started to see a handful of Canadian-flag lakers arriving on the weekend of 23–24 March from winter layup in Thunder Bay to take on cargo bound for the lower lakes. They then secured their place in line with the rest of the downbound traffic at the Soo Locks prior to opening. Likewise, there was a line-up of upbound lakers on the eastern side of the Locks, which means that the Twin Ports saw regular maritime traffic patterns resume that last week of March.

Of the vessels that spent the winter in the Twin Ports, deck departments on eight began showing up for fit-out in mid- to end-March, including crews of the: *Edwin H. Gott, Roger Blough, American Spirit, American Century, Walter J. McCarthy* and *John J. Boland (*in addition to the *Munson* and *Miner)*. The *American Victory* and *Edward L. Ryerson* will remain in layup at Fraser Shipyards where they have been since 2008 and 2009, respectively.

The opening of the Soo Locks each year marks the official start to the 2012 Great Lakes commercial navigation season. The Soo is the gateway that allows vessels — some measuring more than 1,000 feet in length — to move raw materials like iron ore, coal, limestone, cement and salt between Lake Superior and Lakes Michigan, Huron and Erie. It is also one of 16 sets of locks along the Great Lakes St. Lawrence Seaway (GLSLS) that allow oceangoing ships ('salties') to move breakbulk and project cargoes into this nation's heartland and deliver Midwestern grains to Europe, the Middle East and North Africa.

The port's first oceangoing vessel ('saltie') to transit the full GLSLS system in 2012 was the *Arubaborg*, which arrived on Friday 6 April at 12.38pm. The Seaway locks (the Montreal/Lake Ontario section and the Welland Canal) reopened for business on 22 March, but it takes a few weeks for Duluth-Superior to see its first saltie in port. That 'first ship' to pass beneath the Aerial Lift Bridge this month will be greeted by maritime officials with a welcoming ceremony and will also qualify a winner for the annual 'First Ship Contest' sponsored by the Duluth Seaway Port Authority and Visit Duluth. Last year, the port's first saltie, the *Federal Leda,* arrived on April 11.

"There were some ups and downs during 2011, though the Port of Duluth-Superior ended last year's shipping season on a positive note — topping 37mt [32 million short tonnes]," noted Adolph Ojard, executive director of the Duluth Seaway Port Authority, "That performance was led by a 17% increase in iron ore shipments and strong deliveries of limestone, salt, cement and general cargo."

"While it's too early to speculate on grain, the outlook for 2012 is just as strong if not slightly better," said Ojard. "Grain exports face stiff competition in overseas markets; spring and durum wheat exports will depend on world supply and demand plus competitive ocean freight rates. We expect to see more general cargo, with at least a dozen shipments of wind components and other project cargo commitments on the books. Coal volume should increase with additional exports contracted to Europe. The iron mining industry is still the biggest economic driver for shipping here in the Twin Ports; iron ore shipments mirror both domestic and global demand for steel and pellet production on Minnesota's Iron Range. Absent any major changes in the world economy, plants will continue to run at maximum capacity, and the 2012 shipping season should be steady and strong."

Close to 1,000 ships will visit the Port of Duluth-Superior this year, moving roughly 40mt of cargo – iron ore, coal, grain, limestone, cement, salt, wind turbine components and more. The largest tonnage port by far on the Great Lakes, cargo movements through the Port of Duluth-Superior support 11,500 jobs and contribute over $1.5 billion in business revenues to the local/regional economy.

Seaway. The St. Lawrence Seaway Management Corporation (SLSMC), on behalf of the Government of Canada, and the Saint Lawrence Seaway Development Corporation (SLSDC), on behalf of the United States Government, are dedicated to managing the Seaway channels and locks based upon the precepts found in the three 'pillars' of sustainability:

- **environmental** – the SLSMC and SLSDC work diligently in overseeing transits into their waters, such that marine carriers move cargo in a manner that minimizes their environmental footprint;
- **economic** — the SLSMC and SLSDC adapt new work practices and procedures and leverage technology to further refine their operations. The end result is a transportation system that moves tonnage cost effectively, reinforcing stakeholders' economic competitiveness.
- **social** — the SLSMC and SLSDC continue to advocate the advantages of moving cargo via the Great Lakes Seaway System, recognizing that marine transportation is the most energy efficient mode, having a very advantageous greenhouse gas footprint.

Superior fuel economy

The marine mode of transportation exhibits the best fuel economy of any mode. When compared to transportation by rail and truck, the marine mode can move a tonne of cargo much further on a single litre of fuel. Given the design characteristics of a vessel's hull, vessels actually operate more efficiently when loaded to capacity.

Reducing greenhouse gas emissions

Superior fuel economy also plays a key role in explaining the marine mode's advantageous performance in terms of

greenhouse gas emissions. As we face the challenge of lowering our carbon footprint and reducing the level of greenhouse gases emitted each year, the marine mode provides a unique opportunity thanks to its superior fuel economy.

Marine fuels

Vessels sailing within the St. Lawrence Seaway and the Great Lakes use a wide variety of fuels. The actual fuel used depends upon the type of engine and auxiliary power units installed in the vessel, and the vessel's trading pattern. Most vessels, whether oceangoing or dedicated to the lake trade use heavy fuels varying from Intermediate Fuel 60 to Intermediate Fuel 700. The number indicates the viscosity or thickness. Vessels with steam propulsion normally use heavy fuels in the Intermediate Fuel 380 to Intermediate Fuel 700 range in their boilers whereas diesel-propelled ships consume lighter blends between Intermediate Fuel 60 and Intermediate Fuel 320. Marine diesel oil is also consumed by some vessels, and this fuel consists primarily of distillate fuel with a very small quantity of heavy fuel added or gas oil which is pure distillate available in several grades. Heavy fuel supplies bunkered (sold) on the Great Lakes typically has a sulphur content ranging from 1.5% to 2%. In comparison, distillate fuels usually have .005% sulphur content.

Environmentally friendly technologies

According to Ken Westcar, marine market manager with Toromont Marine Power Systems located in Toronto, Ontario, new or repowered vessels on the Great Lakes Seaway System are fitted with engines having exhaust emission limits in compliance with International Maritime Organization (IMO) or US Environmental Protection Agency (EPA) rules. These rules are increasingly stringent, and revised International Maritime Organization standards coming into effect on 1 January 2011 (IMO II) require a significant reduction in nitrogen oxide emissions from engines installed after that date. Most shipowners are now specifying IMO II/Environmental Protection Agency Tier 2 compliant engines well in advance of the deadline.

For vessels that were once powered by steam, engine replacements featuring modern marine diesels combined with the installation of exhaust gas heat recovery devices and shaft driven alternators has, in some cases, reduced the vessels' nitrogen oxide emissions by 75% or more. Most fleets have engine update programs that will substantially reduce nitrogen oxide and particulate emissions on the Great Lakes when burning traditional fuels.

Improving air quality

Air quality is an important factor in determining quality of life. The simple fact is that ships move a lot more cargo per unit of horsepower. Even if ships are not quite as clean per unit of horsepower, they burn

Seaway opens 54th navigation season

The St. Lawrence Seaway Management Corporation (SLSMC) predicted that cargo shipments would rise by about 3% to 38.6mt (million tonnes) for 2012 as it marked the official opening of its 54th navigation season on 22 March at Lock 3 of the Welland Canal. Exports of coal are expected to be a bright spot, as producers in Montana route their product by rail to Great Lakes ports, where the cargo is loaded onto lakers and brought to the Port of Quebec via the Seaway. The coal is subsequently transshipped to ocean vessels destined for Europe, avoiding congested coastal ports.

Rob Bryson from Parrish and Heimbecker's Hamilton operation, and Donald Gallienne from Aluminerie Alouette, served as keynote speakers at the event. Canadian agribusiness firm Parrish and Heimbecker, has invested $30 million in expanding its grain handling facilities strategically located at the Port of Hamilton, testifying to the enduring value of the Seaway in cost effectively moving grain. Aluminerie Alouette, the largest aluminium smelter in North America, uses the Seaway to transport substantial volumes of aluminium ingots on a tug/barge combination from its facility in Sept-Îles (Quebec) to Great Lakes ports in the US. Both speakers testified to the critical role that marine transportation plays in their respective firms' ability to compete effectively in a global marketplace.

The tug/barge used to transport the aluminium ingots, McKeil Marine's Wilf Seymour/Alouette Spirit, served as the opening vessel at Lock 3 of the Welland Canal. "McKeil is honoured to be part of the Seaway opening celebration," said Steve Fletcher, President of McKeil Marine Limited. "Our company's innovative marine solutions provide shippers with a cost effective and environmentally friendly means of moving cargo. The Seaway has been a strong advocate in shifting more cargo onto our waterways, which also serves to ease pressure on congested road and rail links."

As a result of the tug and barge operation, tens of thousands of truckloads are being shifted from two and four lane highways to the Seaway. "We are pleased to see continued momentum in the burgeoning tug and barge sector," said Bruce Hodgson, Director of Market Development for the SLSMC. "The Aluminerie Alouette shipments serve as a great example of how marine transportation directly supports the operation of a major North American business and, at the same time, bolsters our quality of life.

Canadian and international carriers are in the process of building new vessels, with some scheduled to begin transiting Seaway waters in 2012. Collister Johnson Jr., Administrator of the US Saint Lawrence Seaway Development Corporation, noted that with carriers investing hundreds of millions of dollars in fleet renewal, the Seaway system's future is bright. "Marine transportation is already the most energy efficient means of moving cargo, and these new vessels will increase energy efficiency by up to 40% in addition to offering leading edge emissions performance," said Johnson.

A recently published economic impact study, commissioned by Marine Delivers, demonstrates the significant role that the Great Lakes/Seaway system plays in supporting the Canadian and US economies. Some 227,000 jobs and $34 billion in economic activity are supported by the movement of goods within the Great Lakes/Seaway waterway.

much less fuel to move a tonne of cargo. When viewed from this perspective, the marine mode once again becomes the transportation mode of choice, as burning less fuel equates to fewer emissions being vented into the air.

Reducing congestion on land

A single Seaway-sized laker can carry about 25,000 tonnes of cargo. To carry an equivalent amount of cargo, you would need to assemble a fleet of 870 large trucks or 225 rail cars.

Moving more cargo via the marine mode provides the opportunity to reduce the amount of congestion on our busy highways and railroads.

Moving cargo safely

The marine mode of transportation is the clear winner when it comes to safety. Accident definitions and reporting criteria differ somewhat by mode as well as in the reporting methods employed in Canada and the United States. However, estimates of standardized frequencies of accidents and their consequences in terms of deaths and injuries are published by the US Bureau of Transportation Statistics (National Transportation Statistics Report). These statistics show that moving cargo via the marine mode is the safest means available.

Minimizing spills, noise, and congestion

Quality of life cannot be defined strictly by the price of goods on a supermarket shelf. It is important to consider what it takes to get the goods to market. These factors include not only energy efficiency, emissions, and safety, but also factors such as spills, noise and congestion that the movement of goods brings about.

'Spills' in this context refers to harmful discharges into the environment occurring as a consequence of freight transportation. Within this definition, are included cargo leakages, accidental or deliberate spills, and discharges of materials used in the transportation process — most prominently fuels or lubricants used by vehicles or vessels.

Noise from transport is commonly held to be a nuisance, particularly by those living near airports, rail marshalling yards, and highways. Noise is difficult to measure in ways which represent the nuisance that it produces.

In the absence of any quantitative evidence, it can only be conjectured how noise nuisance differs among the three freight modes. However, in view of the relative proximity of transport operations to residential areas, as well as the inherent nature of the transportation equipment and engines, it is proposed that trucks impose the greatest noise nuisance per tonne-km while vessels impose the least amount of noise nuisance.

Traffic congestion impacts a number of factors, including delays in shipments, increased greenhouse gas emissions, higher air contamination, and increased noise. In the absence of quantified estimates for traffic conditions in the region bordering the Great Lakes and the St. Lawrence Seaway, only conjecture of qualitative rankings is possible. It is clear from the nature of

Canada's Navitrans Shipping Agencies

Navitrans Shipping Agencies has been established for over 25 years and serves worldwide ship owners, charterers, brokers and all of the shipping industry.

With its expertise in the agency business, it is able to assist any operator or charterer when calling any port in Canada, East and West Coast. Navitrans specializes in a range of products including grain, iron ore, steel, wood, coal, liquid and any other products which trade in Canada. Navitrans is also an agent for various cruise vessels which call at ports on the West and East Coasts of Canada, St Lawrence, Great Lakes and the North of Canada.

Navitrans Shipping Agencies are available 365 days per year to assist any operator and/or charterer when their vessels call at Canada's ports and need assistance with operations including loading and/or discharging, inspections, repairs, medical assistance and any husbandry items the vessel may require during her transit and port stay.

Navitrans guarantees a quick, positive, efficient response to its customers, and its wide experience with a range of contacts mean that it can help with any matters that arise.

The company's major clients are the grain houses as it handles many grain charterers; clients also include some esteemed owners and operators worldwide. Customers come back to Navitrans time and time again, due to the quality of service and its round-the-clock availability.

Challenges faced include the various inspections that vessels are required to undergo (either for grain loading or port state control), but with its experience, it can prepare all vessels ahead of time. Also, in the winter, the weather plays a very big role when preparing a vessel and her crew. Again, Navitrans's expertise, and its 25 years in the business and in the region, mean that it can prepare all parties ahead of time.

marine traffic that there are few, if any, delays on the water.

In terms of rail, some serious congestion occurs around Chicago, the largest US rail hub, and the location of substantial transshipment activity. Considering truck traffic, there is severe congestion during rush hours in all of the major cities, and some cities such as Toronto are experiencing increasing congestion even within the daytime period between rush hour peaks.

Green Marine – an industry first

The St. Lawrence and Great Lakes marine industry is taking action to strengthen its environmental performance. For the first time in North America, all sectors of the marine industry have united to voluntarily adopt an environmental programme designed to drive a process of continuous improvement along this major maritime corridor.

The programme, entitled, 'Green Marine', is being spearheaded by an alliance of the marine industry associations in Canada and the United States:

- American Great Lakes Ports Association
- Canadian Shipowners Association
- Chamber of Marine Commerce
- Ontario Marine Transportation Forum
- Shipping Federation of Canada
- St. Lawrence Economic Development Council (SODES)
- St. Lawrence Shipoperators and
- United States Great Lakes Shipping Association

Both Seaway entities have been members of Green Marine community since its inception.

Port of Hamilton enjoys strongest year on record

Parrish & Heimbecker, monolithic dome construction.

The Port of Hamilton is the largest Canadian port on the Great Lakes and handles more than 10mt (million tonnes) of highly diversified cargo annually.

The port was built on a long tradition of moving bulk and breakbulk cargo. From its earliest days, after the first canal was built in 1832 to connect Hamilton Harbour to Lake Ontario, bulk and breakbulk commodities have been imported and exported through Hamilton.

With its deep water access, growing industrial base, the advent of the steam-powered engine in the mid-1800s and the introduction of the railway, Hamilton established itself as a marine transportation hub.

The port is strategically located, with direct intermodal connections to key markets in Central Canada and the United States. It is serviced by both Class 1 railways, and has easy access to the Queen Elizabeth Way and Ontario's 400 series of highways. Approximately 600 vessels call at the port every year.

2011 TONNAGE

Overseas	1,264,161
Domestic & USA	8,776,049
Total Tonnes	**10,040,210**

Record year

In 2011, the Port of Hamilton was able to strengthen its cargo diversification strategy significantly driving the port's overall strategic plan. Notably, there was a:

- 35% growth in agricultural;
- 52% growth in general cargo; and a
- 12% growth in asphalt.

There were 108 calls from overseas vessels and 475 calls from domestic and USA vessels: a total of 583 vessel calls.

Tenants

The year 2011 was another busy one for the Port of Hamilton with over $32m in new contracts signed and third parties investing over $25m. Over 400 permanent jobs were retained and created in North Hamilton as a result of the key projects. The investments will also create over 150 direct short-term jobs with close to 100 indirect jobs.

Bermingham Foundation Solutions

Construction equipment manufacturer Bermingham Foundation Solutions is now expanding its current facility on port property.

Bermingham had previously considered leaving the city as a suitable site was not available, so this expansion allows the company to keep more than 170 jobs in Hamilton.

Richardson International – Riley Verheist (plant manager, Richardson) & Bruce Wood (HPA).

Parrish & Heimbecker

Agribusiness Parrish & Heimbecker has signed a long term lease with the port. The company is strategically located with the Ontario farmers. Infrastructure investments at the Parrish & Heimbecker facilities include two monolithic domes (see picture on pxx), which changes Hamilton's landscape.

Lafarge Canada Inc

The company expanded into a new home at Pier 22 allowing it to consolidate its operations and streamline transportation of materials. Of particular note:

- Lafarge and Hamilton Port Authority (HPA) are investing $20m in site improvements;
- Lafarge expects to occupy over 2m square feet;
- shipping up to 1m tonnes annually; and
- the move has the potential to take 15,000 trucks a year off Burlington Street.

Fluke Transportation Group – 450 Sherman

The well-known Hamilton trucking and warehousing company, Fluke Transportation Group, occupies over 200,000ft^2 and has a flexible agreement for additional warehouse space that allows Fluke to pay for utilized space while growing its warehouse business. HPA has invested over $1m in building improvements.

Richardson International Limited

Richardson is investing over $5.5m to expand its grain handling facilities, which will increase handling and shipping capacity. Enhancements include the addition of a third receiving pit and elevation leg, two new truck beam scales and 2,000ft^2 of office space.

Lafarge has been able to consolidate its operations at its new home at Pier 22.

Port of Québec breaks 2008 record for freight handled

View from the air (©Québec Port Authority).

The year 2011 was a record-breaking one for the Port of Québec, with nearly 29mt (million tonnes) of freight handled — well ahead of the previous record of just under 27.2mt set in 2008.

The port achieved these impressive tonnage numbers largely by maintaining and expanding transshipment of the main classes of freight it handles for sectors such as the mining, steel, petroleum, agrifood, and construction industries. In 2011 the port got back on the path of continued growth after a dip in traffic that hit ports around the world in 2009 in the wake of the global financial and economic crisis.

Mining and steel industry products

Products for the mining and steel industries — especially iron ore and iron ore concentrate, other ores, nickel, copper, and zinc — make up a significant portion of total freight handled at the Port of Québec. St. Lawrence Stevedoring is the main outfit involved in transshipping and warehousing these products. In 2011 tonnage of both iron ore and iron concentrate and their derivatives increased substantially buoyed by consistent demand from overseas markets, a trend likely to continue in 2012. Other metals stand to follow suit, particularly copper, which also displayed strong growth in 2011.

These mining products should keep flowing: with rail links and state-of-the-art mining freight-handling infrastructure, the Port of Québec is well positioned to service many new projects connected to the Plan Nord. Specifics on the actual opportunities these projects will bring are expected in the coming months.

Coal transshipment was another area of robust growth in 2011, with further growth expected through 2012 in response to unflagging demand. Like other ores and concentrates, coal transshipped through the Port of Québec travels to European and Asian markets, bolstering Québec City's status as the main transshipment port linking the St. Lawrence Seaway to the rest of the world.

Agrifood products

Grain transshipment remained relatively stable from 2010 to 2011. Numbers for the Bunge terminal reflect this, though tonnage was slightly down in 2011. Bunge, the Port of Québec's main grain terminal, has handled 3–4mt annually in recent years.

The terminal mainly transships grain from Western Canada, but also services regional producers from throughout Québec.

Bulk vessel in port (©Québec Port Authority).

In 2011 the Sillery Distribution Center (CDS), which also handles grain, completed construction of a new indoor warehouse space that will allow it to meet growing demand stemming from new contracts signed with partners. From 2010 to 2011, CDS's total tonnage handled shot up 20%. The terminal is partially owned by Coop Fédérée, which also handles fertilizers at the Port of Québec. The Coop's tonnage figures may have slipped compared to 2010, but 2011 was a good year nonetheless.

Raw sugar is also transshipped by St. Lawrence Stevedoring from its Anse-au-Foulon terminal to a Toronto refinery that singlehandedly determines demand — slightly down in 2011.

Construction industry products

For a third year running the cement terminal operated by Béton Provincial in the Estuary sector registered record tonnage — proof positive that this Québec Port Authority (QPA) partner is flourishing and ready to take full advantage of the opportunities of an industry well served by this terminal.

Conclusion

A wide range of products and terminals with the flexibility to handle them efficiently: these are unquestionably the Port of Québec's two great strengths, and the factors driving the ongoing development of Port operations. QPA continues to work closely with its partners to enhance its terminals' capacity and flexibility. One key goal is to optimize the use of available space to meet growing demand forecast for the coming years.

PORT OF QUÉBEC TRAFFIC

January to December 2010 & 2011 (tonnes)

	2010	2011
Dry bulk	11,276,319	13,770,423
Liquid bulk	13,124,966	15,138,152
Breakbulk	75,863	43,841
Total	**24,477,148**	**28,952,416**
Vessel traffic		
Total ship calls	1,172	1,367

Large-scale project planning with a view to boosting the port's overall capacity will continue in 2012.

©Québec Port Authority.

The Port of Québec's pivotal role in freight transshipment to and from the Great Lakes will undoubtedly bring opportunities in the coming years, including bulk products for the energy sector. The port is also extremely well positioned to service mining projects connected with the Plan Nord, particularly those located in central Québec and the James Bay area. With its rail connections and state-of-the-art infrastructure, the Port of Québec has what it takes to handle these mining products quickly and efficiently.

The prospects for the years ahead look good for the port and its partners as they move forward with efforts to make the most of the port's potential, operations, and economic spinoffs.

Dockside bulk handling (©Québec Port Authority).

Cargo handling along the St Lawrence Seaway

In October 2009, Logistec Corporation, a diversified cargo handler in eastern Canadian and US ports, acquired, through its wholly-owned subsidiary, Logistec Stevedoring Inc., 100% of Rideau Bulk Terminals Inc. Rideau Bulk has a long history in the cargo-handling industry with many years of providing value-added services to customers, primarily in salt. Rideau is an ideal fit in Logistec's network of facilities due to common customers with its existing facilities and from the strategic locations along the Seaway.

Rideau Bulk Terminals – Johnstown; loading white marble aggregate.

Rideau Bulk operates in four ports along the St. Lawrence Seaway located between Montréal (QC) and Toronto (ON). It also operates two inland terminals in the Ottawa (ON) region. Its main activity is to receive road salt from self-unloaders, and occasionally from bulkers, and do the stockpiling, storage and truck loading for the three major salt companies serving eastern Canada. With Logistec's expertise in handling various types of commodities, we hope to expand the service offering at our Rideau Bulk terminals into such commodities as aggregates, fertilizers, and soil and offer services such as inland transportation, bagging, cargo distribution and consolidation and, of course, stevedoring.

The addition of these terminals to its existing network provides Logistec with an opportunity to expand its services, allowing its customers to extend their reach to new locations and markets. The facilities that are located along the Seaway include Prescott, Picton, and Morrisburg. Logistec's Ottawa inland terminal offers cross-docking facilities with the CN railway and handles forest products and general cargo along with salt deliveries for de-icing of local businesses. Its other inland terminal is located in North Gower and provides distribution of salt, soil and other bulk commodities.

Rideau Bulk's low cost and customer-oriented operations make it ideal for all types of cargoes destined for nearby markets between Montreal and Toronto.

Logistec provides high quality cargo-handling services to marine and industrial customers through a strong network of strategically located facilities in the Great Lakes, the St. Lawrence River and on the Eastern Seaboard of North America.

THE PLACES WE WORK

Whether in Contrecoeur (QC), as seen above, or at our other bulk facilities, such as Laurier Terminal in Montréal (QC) or Brunswick (GA), Logistec provides customers with innovative solutions for their bulk cargo-handling needs.

www.logistec.com

LOGISTEC

St. Lawrence Stevedoring: serving the region for over a century

St. Lawrence Stevedoring (SLS), a division of Quebec Stevedoring Company Ltd, has been operating since 1908.

SLS is located in the Port of Quebec, the deepest water port leading to the St. Lawrence Seaway and Great Lakes System accommodating vessels drawing up to 15 metres. As such, it is the transloading terminal in/out for oceangoing vessels (Handymax, Panamax and Capesize Vessels) and Laker type vessels (Canada Steamship and Algoma).

- SLS is one of the largest 'dual purpose' transloading terminal on North America's Eastern Seaboard;
- the terminal has a water depth of 15 metres at low tide;
- SLS can accommodate all size vessels up to 175,000dwt: Handymax, Panamax and Capesize vessels;
- the main commodities that transit through the terminal are iron ore, coal, scrap metal, copper and nickel concentrates, alumina, gypsum, salt, raw sugar and alloys;
- SLS receives and ships bulk products from all over the world, and has the expertise to handle products of all kinds.

SLS handles over 20 different kind of cargoes totalling more than 9.5mt (million metric tonnes). Its biggest cargoes are iron ore and coal shipments. These are received by Laker-type vessels from the Great Lakes in shipments of approximately 25,000 metric tonnes and reloaded onto oceangoing vessels with shipments of anywhere between 90,000 tonnes and 126,000 tonnes. It is important to note that the opposite, receiving by ocean going vessels and reloading into lakers is also very frequent.

SLS continues to invest year after year in order to meet and satisfy its customers' requirements.

The chart shows a shipping comparison chart in regards to shipments transit times out of the Great Lakes St. Lawrence Seaway System vs. the Mississippi and New Orleans option.

DISTANCE & TRANSIT TIMES

Distance and transit time to the Port of Québec Via the Northern Corridor (Seaway System)		
Superior (Wisconsin)	5.5 days by Laker	1,307 miles

Distance and transit time to the Port of New Orleans Via the Mississippi		
Superior (Wisconsin)	21.3 days by barge	1,718 miles

Port of Québec distance and transit time to Europe and Asia		
Rotterdam	9 days	3,000 miles
Shanghai	35.5 days	12,200 miles

Port of New Orleans distance and transit time to Europe and Asia		
Rotterdam	14 days	4,854 miles
Shanghai	29.5 days	10,067 miles

Transit time — in sailing days

From/to	**via Northern Corridor**	New Orleans
From Superior (Wisconsin)		
Rotterdam	**14.5**	35.3
Shanghai	**41**	50.8

Quebec Stevedoring Company

- founded in 1978, Quebec Stevedoring (QSL) is a privately owned company dedicated to providing customized solutions for the preparing, handling, transshipment and storage of cargo;

- through acquisitions and new start-ups, QSL has grown to include 9 subsidiaries;
- 27 terminals are part of QSL's ever growing network;
- QSL's workforce consists of 350 staff members and 1,200 longshoremen;
- yearly, QSL's highly versatile network of maritime terminals accommodates over 1,000 inbound and outbound vessels from around the world;
- over 12mt of dry bulk and general cargo are handled annually, safely and effectively;
- QSL's network offers 19 million square feet of outdoor storage and 2 million square feet of indoor storage;
- continuous investments are made to remain at the cutting edge of technology;
- QSL's engineering team ensures that the proper technology is customized to meet its client's needs; and
- comprehensive services are offered to build long-term relationships with QSL's clients.

Port of Québec

Open year round, the Port of Québec offers world-class port and marine services, and can accommodate vessels with draughts of up to 15m. All terminals have efficient rail and road connections.

The port is located 1,300km from the Atlantic Ocean and less than 200km from the beginning of the St. Lawrence Seaway, giving it easy access to the Great Lakes and Midwest markets.

A total of 25mt of cargo are handled annually and approximately 1,000 vessels (cargo and cruise ships) dock year-round.

The Port of Québec is composed of 15 different terminals (public, single product, multi-commodities, private and dedicated terminals).

Commodities such as iron ore (fines, pellets and chips), a variety of concentrates, grains, chemicals and petroleum products, fertilizers, sugar, cement, scrap metals, coking coal and coal are transshipped in huge volumes every year.

TWO-WAY CARGO

The Port of Thunder Bay handles wind turbines and oversized project cargo destined for Western Canada. Grain, coal, and potash exist as backhaul cargoes for European and North African destinations.

PROJECT CARGO

GRAIN

FOR MORE INFORMATION CONTACT:

THUNDER BAY PORT AUTHORITY

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portofthunderbay.ca

Canada

PORT OF THUNDER BAY

Thunder Bay embarks on new navigation season

Another navigation season is under way in the Port of Thunder Bay and, although it is still early, port officials are optimistic that the success of the 2011 season will continue through 2012. Overall cargo tonnage in 2011 was 7.6mt (million tonnes), up 11% from 6.9mt in 2010.

Grain shipments accounted for nearly 6.3mt, or 82% of the port's total cargo tonnage. This represents a 20% increase in grain shipments over 2010, due largely to a surge in canola shipments. Canola volumes shipped through the port doubled from 700,000 tonnes in 2010 to more than 1.4mt in 2011 — a port record for the commodity. Other grains that helped boost the port's tonnages in 2011 include oats and wheat, with year-over-year increases of 32% and 13%, respectively.

The high tonnage of canola can be attributed to a strong Western Canadian crop yield in 2011. Experts are predicting another good season for canola, with seeded acres in Western Canada expected to be near record levels. Wheat acres are set to rebound from low levels in 2011 that resulted from spring flooding.

Another area officials expect to see continued success in is the port's project cargo business, which has been growing steadily for the past seven years. The Port of Thunder Bay is regaining recognition as Canada's Gateway to the West — an important link in the supply chain for heavy, dimensional cargoes destined for mine sites, wind farms, and the Oilsands in Western Canada. Project cargo volumes handled at Keefer Terminal, the Port's general cargo facility, reached a record high 100,000 freight tonnes in 2011.

The Port of Thunder Bay's project cargo business has grown steadily over the last seven years.

Examples of project cargoes handled last year include wind turbine blades and nacelles for the Greenwich Wind Farm in Dorion, ON, mining equipment for the Bell Creek Mill in Timmins, ON, and wind turbine blades destined for the Diavik Diamond Mine in Yellowknife, in Canada's Northwest Territories.

The project cargo initiative was started by the Thunder Bay Port Authority in an effort to accomplish its strategic objective of diversifying and increasing the port's cargo. Project cargo volumes have climbed every year, and the trend is likely to continue in 2012. "We expect to see further increases," says Tim Heney, CEO of the Port Authority, "We've developed a very competitive gateway, and offering back-haul grain for foreign ships delivering project cargo is certainly a benefit for the shipper." Thunder Bay has the advantage of being an export port for Western Canadian grain being shipped to markets in Europe, North Africa and South America.

Other advantages of Thunder Bay include direct access to CN and CP railways and the TransCanada Highway, abundant skilled labor, and significant laydown areas for storage and staging which are constantly being expanded to satisfy demand. And, coming in 2012, a Liebherr LHM 320 Mobile Harbour Crane for Keefer Terminal. Standing ten stories high, the LHM 320 was a bold investment by the Port Authority in partnership with the Northern Ontario Heritage Fund Corporation that will increase the port's competitiveness in the project cargo market.

The crane has a 104-tonne lifting capacity at an 18.5 metre outreach. It can reach even further for lighter lifts, and has impressive capacity for clamming bulk cargo out of a ship – up to 1,100 tonnes an hour. "This crane will make a difference in our cargo handling efficiency, it is the only one of its kind west of Montreal on the Seaway," added Heney.

www.fednav.com

FEDNAV

We are committed to environmentally responsible business and operating practices.
View our environmental policy at **www.fednav.com**

Fednav Group: serving the Great Lakes and beyond

For over 65 years, the Fednav Group has established itself as a major presence in the international shipping business by combining innovative and practical solutions with technical and commercial experience.

Fednav Limited, a privately owned company, is Canada's largest ocean-going, dry-bulk shipowning and chartering group. Its primary activities are in the transportation of bulk and breakbulk cargoes on a worldwide basis. Headquartered in Montreal, the group has offices in London, Tokyo, Antwerp, Hamburg, Singapore, Brisbane, and Rio de Janeiro, as well as a number of local offices in the United States and Canada.

The group is also engaged in the servicing of vessels and handling of cargo through its terminals and by its agencies. In 2010, the direct economic impact of the Group in Quebec amounted to over $110 million. It employs 250 people and more than 1,000 crew members.

Fednav invests $400 million in the renewal of its fleet

On 13 March this year, Fednav Limited, marked the first visit of its latest addition to its fleet to Canada. The Port of Trois-Rivières welcomed the *Federal Sable*, a bulk carrier of 37,200dwt. This new addition will reduce the environmental impact of the Fednav fleet while introducing a period of growth and renewal for the fleet.

The *Federal Sable* arrived on the St. Lawrence River with a cargo of 35,000 tonnes of ilmenite from Madagascar to Rio Tinto, Fer et Titane, in Sorel. It then loaded 28,000 tonnes of wheat from the Les Élévateurs des Trois-Rivières Ltée to Tema, Ghana.

The *Federal Sable* is the first in a series of 15 new vessels commissioned from Japanese and Chinese shipyards. Fednav has ordered eight ice-class vessels (including the *Federal Sable*) of 37,200dwt from the Ouhua shipyard in China, to be delivered in 2012. Fednav has also ordered four 55,000dwt bulk carriers for its long-standing Japanese partners, Sumitomo Corporation and Oshima shipyard. These ships are designed to navigate ice in winter in places like the St. Lawrence, and will be delivered between 2012 and 2014. Finally, the company will also acquire three bulk carriers of 35,300dwt from Oshima that will be in operation in 2012 and 2015. These 15 ships represent an investment of over $400 million.

The welcoming ceremony took place in the presence of Mark L. Pathy, President and Co-CEO of Fednav, Danielle St-Amand, MNA for Trois-Rivières, Yves Lévesque, Mayor of Trois-Rivières, Gaétan Boivin, President and CEO of the Port Authority of Trois-Rivières, as well as several customers and partners. Following the ceremony a reception was attended by numerous partners and the maritime community of Trois-Rivières.

FEDNAV FLEET — OWNED

Ship	Flag	Built	SDWT	Ice Class
Arctic	Canada	1978	28,418	ASPPR AC4 eq
Federal Agno	Hong Kong	1985	29,643	1A
Federal Asahi	Hong Kong	2000	36,563	1C
Federal Fuji	Bahamas	1986	29,531	A
Federal Hudson	Hong Kong	2000	36,563	1C
Federal Hunter	Hong Kong	2001	36,563	1C
Federal Kivalina	Hong Kong	2000	36,563	1C
Federal Kumano	Hong Kong	2003	36,489	1C
Federal Kushiro	Marshall Islands	2004	32,762	None
Federal Maas	Barbados	1997	34,167	1C
Federal Mackinac	Marshall Islands	2004	27,782	None
Federal Margaree	Marshall Islands	2005	27,782	None
Federal Nakagawa	Hong Kong	2005	36,489	1C
Federal Oshima	Hong Kong	1999	36,563	1C
Federal Polaris	Marshall Islands	1985	29,536	1A
Federal Progress	Hong Kong	1989	36,790	1A
Federal Rhine	Barbados	1997	34,167	1C
Federal Rideau	Hong Kong	2000	36,563	1C
Federal Sable	Marshall Islands	2012	37,168	1C
Federal Saguenay	Barbados	1996	34,167	1C
Federal Schelde	Barbados	1997	34,167	1C
Federal Seto	Hong Kong	2004	36,489	1C
Federal Shimanto	Marshall Islands	2001	32,787	None
Federal Skeena	Marshall Islands	2012	37,168	1C
Federal St Laurent	Barbados	1996	34,167	1C
Federal Sutton	Marshall Islands	2012	37,168	1C
Federal Venture	Hong Kong	1989	38,130	1A
Federal Welland	Hong Kong	2000	36,563	1C
Federal Weser	Marshall Islands	2001	37,038	1C
Federal Yoshino	Marshall Islands	2001	32,845	None
Federal Yukon	Hong Kong	2000	36,563	1C
Umiak I	Canada	2006	31,992	ASPPR AC4 eq

Mark Pathy declared: "This investment by Fednav demonstrates its confidence in sustained growth of its activities and a particular listening to its customers."

The design of the *Federal Sable* gives several environmental benefits:

- The ship reduced its emissions of greenhouse gases by more than 8% because it has lower fuel consumption than the previous ship of the fleet of Fednav and greater cargo capacity;
- The *Federal Sable* is equipped with a 'Tier II' engine type that significantly reduces nitrogen oxide emissions, a gas that contributes to global warming. Fednav is committed to equipping all its new vessels of this type of engine, two years before the regulation comes into force.
- The design of the ship allows the installation of a ballast water treatment system. Space in the engine room is reserved for this purpose and more powerful pumps were installed. Fednav is also testing new methods for treating ballast water on one of its ships.

The 37,200dwt Federal Sable.

Fednav Group's FALLine

Since 1959, Federal Atlantic Lakes Line (FALLine), a division of Fednav International Ltd., has operated a continuous, scheduled cargo liner service from North European ports into the St. Lawrence and the Great Lakes. Carrying mainly steel and steel products such as coils, wire rods, slabs, billets, as well as project and break-bulk general cargoes, it emphasizes flexible scheduling to meet each customer's specific needs. FALLine, together with Federal Marine Terminals and Fednav Direct, offers a complete, seamless logistics service delivering cargo directly to its customers.

FALLine is dedicated to developing value-added service beyond conventional ocean transport. It continues to extend its partnership with long-standing customers in the areas of logistics and inventory control and is committed to cultivating relationships with new customers.

FEDNAV FLEET — CHARTERED

Ship	Flag	Built	SDWT	Ice Class
Federal Baffin	Panama	2007	55,400	1C
Federal Danube	Cyprus	2004	37,038	1C
Federal Elbe	Cyprus	2003	37,038	1C
Federal Ems	Cyprus	2002	37,038	1C
Federal Franklin	Panama	2008	55,300	1C
Federal Katsura	Panama	2005	32,594	1D
Federal Leda	Cyprus	2003	37,038	1C
Federal Mattawa	Liberia	2005	27,782	None
Federal Miramichi	Antigua & Barbuda	2005	27,781	None
Federal Power	Cypriot	2000	17,451	1A
Federal Sakura	Panama	2005	32,594	1D
Federal Yukina	Hong Kong	2010	35,300	1C
HAL Pendant	Cypriot	2003	17,472	1A
Maple Grove	Panama	2007	53,474	None
Maple Hill	Panama	2006	53,452	None
Neptune Pioneer	Panama	2007	56,000	None
Ocean Breeze	Hong Kong	2006	52,289	None
Orsula	Marshall Islands	1996	34,167	1C
Triton Seagull	Panama	2007	56,000	None
Utviken	Bahamas	1987	30,052	C
Vega Eternity	Panama	2002	52,466	None
Vega Rose	Panama	2007	55,711	None
Windsor Adventure	Panama	2008	56,000	None

Pathy said: "The environment is one of our priorities when we acquire new ships. It is important to us and to our customers that our ships not only meet but go beyond environmental regulations in Canada and around the world."

Characteristics of the Federal Sable

- **Length:** 190 metres (approximately the length of two Canadian football fields).
- **Beam:** 28.3 metres (the length of two buses placed end to end).
- **Capacity:** 36,000 tonnes of bulk cargo (equivalent to 360 railcars or 1,000 trucks).
- **Flagged:** Marshall Islands.
- **Classification:** Ice-Class 1C, Lloyd's Register.
- **Built:** Zhejiang Ouhua Shipbuilding Co. Ltd., China.
- **Named after:** The Sable River, Nova Scotia, Canada.
- **Number of crew:** 22 (all Indian).

Port of Tyne's record year brings business boost across the North East of the UK

The Port of Tyne has announced a record year of growth of cargo volumes handled in 2011.

The port, one of the UK's major deep sea ports, has increased tonnage of cargoes handled by 66% compared with 2010 and has broken its own records for handling bulk cargoes in the form of wood pellets, cars and containers. Total tonnage recorded for 2011 increased by 2.1mt (million tonnes) to 5.3mt.

The impact of this on the UK's North East economy and jobs is huge. According to an economic impact study by consultants, Arup, the port's operations in 2011 added over £460 million to the economy of the North East region and supported almost 9,500 jobs — an increase of 700 since 2010.

The boom in volumes is a direct result of over £100 million investment over the last ten years in the port's infrastructure, increasing capacity and improving services. This included dredging the river to its deepest ever level of 10 metres and consequently the port can now accommodate 83% of the world's cargo ships and 96% of the world's cruise ships.

The port directly employs nearly 500 people in its five business areas — Conventional and Bulk Cargo, Car Terminals, Cruise and Ferries, Logistics (containers, warehousing and distribution) and Estates.

The largest increase was in Conventional and Bulk Cargo, where there was a 116% increase in volumes handled. Coal imports almost trebled, rising by 1.3mt to 2.1mt, while wood pellet tonnage reached 800,000 tonnes in the first full year's operation of the new wood pellet handling facility.

Car imports and exports rose to a record 667,000 — a 20% increase being achieved partly as a result of the port's greater capacity with the benefit of the first full year of a new third car terminal. Demand for components at Nissan, along with rising consumer demand for retail goods, helped drive a 25% increase in the number of containers handled, to a record 71,000 TEUs.

The port's business received a further boost with increases in passenger numbers — nearly 600,000 passengers travelled through the International Passenger Terminal.

Chief Executive Andrew Moffat said the success reflected the ongoing strategic investment programme. Over ten years more than £100 million has been invested in facilities and infrastructure such as the purpose-designed wood pellet handling facilities which are the largest in Europe, improving the fleet of highly visible trucks, providing new warehousing, and adding working river vessels such as the latest dredger, the *Sir Bobby Robson*.

He said: "We set out to transform the business three years ago and ensure it remains commercially successful. Our aim is a sustainable and vibrant Port of Tyne and we have focused on understanding our customers' needs and on developing employees who are the people who have achieved these great results this year.

"The volumes achieved in 2011 are a result of both the significant capital investments we have made to enhance our capacity and capabilities and of course a reflection of the markets in which we are operating.

"However another factor is the cultural change we are seeing in the business. Gaining the 'Investors in People' standard has provided a platform for us to put best practice in developing our people into place.

"And it is also good news that the outlook for 2012 is very positive, showing signs of further growth in bulk cargo, cars, containers and passengers."

James Ramsbotham, chief executive of the North East Chamber of Commerce, said: "As one of only two UK regions that has a positive balance of trade, our success is closely linked with our ability to export.

"The NECC has constantly championed the critical role that good transport infrastructure plays in helping to deliver that success and in building the future wealth of the region.

"I am delighted that the Port of Tyne's investment can be seen to have led directly to additional trade, which is excellent news for one of our major ports and great news for the whole region."

The Port of Tyne in North East England is one of the UK's major deep sea ports — a vital trading gateway to Europe and beyond.

The port is leading developments in renewable energy — in 2010 it commissioned Europe's largest biomass handling and storage facility and with its asset base and geographical location, is well placed to meet the needs of the emerging offshore wind turbine manufacturing industry.

PT Indonesia Bulk Terminal – natural transport hub for Indonesia's coal trade

PT Indonesia Bulk Terminal (IBT) is the developer and operator of the Pulau Laut Coal Terminal which is a common user terminal situated on the southern tip of the island of Pulau Laut in Indonesia's South Kalimantan Province.

Demand for coal as a major global energy resource is continuing to grow rapidly and the Pulau Laut Coal Terminal offers a secure, reliable and cost effective means of stockpiling, blending and loading Indonesian coal to meet this demand.

IBT handled 11.99mt (million tonnes) in 2007 compared with 9.69mt in 2006. The increase in throughput is due to continuous efficiency improvements in adopting best practices.

Pulau Laut is located adjacent to the Java Sea and the Makassar Strait and lies on major domestic and international shipping routes. This strategic location and the sheltered deep water anchorage of the IBT terminal in the south of the island represent a natural transport hub for Indonesia's significant coal trade.

Terminal Operations

IBT offers shippers the peace of mind operation of consolidating cargo on the stockpile. Furthermore, with an independent

on-site laboratory, IBT allows shippers quick insight on the cargo quality. Shippers can also opt to blend cargo of various qualities, as IBT is equipped for blending multiple cargo quality to the desired quality within good accuracy.

IBT currently has eight stockpile pads capable of storing eight Panamax-size cargoes.

Dry cargo (coal), is discharged from barges using 4 x 750tph (tonnes per hour) luffing /slewing grab cranes into hoppers. From hoppers, coal is fed onto conveyors and is carried to the stockpile or direct loading onto vessels. A fleet of 5 x Caterpillar D10 bulldozers is used for stockpile management and coal reclaiming for shiploading. Shiploading is carried out utilizing two fixed luffing slewing ship loaders with a capacity of 3,000tph.

Blending option adds value to the cargo as shippers can mix and match the available sources to derive at their desired quality. The onsite automatic sampling facility offers a systematic sampling process according to the desired ISO or ASTM standards that shippers may select and coupling with the onsite laboratory, certificates are issued promptly.

Utilization of the terminal is maintained at 75% and is measured by the ship-loading berth occupancy rate. This is kept at 75% in order to minimize vessel queuing time for shippers shipping through the terminal.

IBT is continuously looking at improvement initiatives to raise the throughput of the terminal. Current evaluation includes future stockpile expansion and a higher cargo handling rate.

Infrastructure

The company currently employs in excess of 200 personnel of which 75–80% are recruited and trained from the local area. Onsite housing is available for customers use to supervise loading operations and for Indonesia Bulk Terminal personnel. Catering, cleaning and medical services are provided to personnel through onsite facilities. A medical clinic is also located onsite which is staffed by qualified medical personnel.

Potable and industrial water for the terminal operations comes from a dam located within the site with this water being chemically treated and filtered before use. The industrial water used in stockpile management is recirculated from settling ponds after re-filtration.

Power is provided through an onsite diesel generating station with a capacity of 7MW which includes back-up systems to ensure continuous power supply. Onsite storage tanks provide fuel for the power station, terminal mobile equipment, maintenance equipment and the berthing tugs.

The terminal operates a 1,250-metre certified airstrip located 10km from the site with a regular service now being operated between Banjarmasin and the terminal with 18-seat commuter aircraft.

The government maintains a harbour master's office at the terminal which provides port health, customs and immigration services. These services can be arranged through a number of shipping agents with international links that have permanent offices on site.

Port of Indonesia Bulk Terminal specifications

Location

Country:	Indonesia
State:	South Kalimantan

Capacity

Operations Commencement:	1998
Annual Throughput Capacity:	12 million tonnes

Barge Discharging

Discharging Wharfs:	2
Discharging Rate (nominal:)	1,500tph
Discharging Method:	Gear & Grabs

Stockpiling

Number of Stockpiles:	8
Total Stockpile Capacity:	800,000 tonnes
Stockpiling Method:	Overhead conveyor/tripper
Stockyard Equipment:	4 bulldozers

Shiploading

Coal Reclaim Method:	Bulldozer into underground stockpile dischargers
Blending:	Possible
Number of Shiploaders:	2
Shiploading Rate (nominal):	3,000tph

Shipping

Maximum Vessel Size:	80,000dwt
Maximum LOA:	230m
Maximum Beam:	36m
Sailing Draft:	14.5m
Number of Berths:	1
Wharf Length:	288m

Services

Quality Assurance:	ISPS-certified
Sampling:	During barge discharging & shiploading, on-site independent superintending company
Environmental:	Dust suppression/monitoring of coal with water spray management.

Adani raises money

Adani Enterprises is finalizing a $1.5 billion loan to replace a $2 billion bridging loan that was taken out last year to buy an Australian coal terminal. The deal is expected to be signed by the end of March, with the debt shared between the Commonwealth Bank Of Australia, National Australia Bank, Westpac Banking Corp and two large Japanese financial institutions. The original loan, which was taken out to buy Abbott Point Coal Terminal, must be repaid by the end of May. *BC*

Iron ore terminal at Ennore wants 'in' on coal traffic bonanza

At the Indian port of Ennore, where coal traffic has increased by around 40%, the established Chettinad International Coal Terminal is trying to prevent Sical Iron Ore Terminals from handling coal too. Both operators have recently invested heavily in building their terminal businesses and were commissioned on 28 January 2011.

Following the inauguration, iron ore traffic all but disappeared from the port while coal traffic increased exponentially. The loss of iron ore was due to a ban on the export of this commodity introduced by the state of Karnataka, resulting in none whatsoever coming to the port from April to December last year.

In contrast, Chettinad reported traffic of 9mt of coal in the last three quarters of 2011, effectively growth of 42%.

The coal terminal has clauses in its concession agreement prohibiting the entry of competition in the coal markets for the first few years of its concession. Nevertheless, the chairman of Ennore Port clearly believes that something has to be done given that the iron ore export terminal has idle capacity. *BC*

NSW declines bid to build new coal export port

The government of New South Wales has rejected a request by the billionaire Nathan Tinkler to build a $2.7 billion coal export terminal on the east coast of Australia. In a statement, the government pointed out that the site would be more suited to handling a raft of commodities, including containers and other dry bulks, not just coal. The projected terminal would have competed directly with a AU$5 billion project promoted by Port Waratah to expand its own existing port facilities at Newcastle. Significantly, last year, Tinkler's attempt to buy Abbot Point Coal Terminal lost out to a bid by India's Adani Group, which offered AU$1.8 billion. *BC*

Ukraine builds deepwater terminal

The Ukrainian Port of Yuzhny in the Black Sea will soon have a new modern bulk handling terminal. The project is being realized by Portinvest LLC, which manages port assets of System Capital Management (SCM) — the biggest Ukrainian business group. The company plans that by 2016 Yuzhny port will be 21 metres deep, which will make it the deepest port in North-Western coast of the Black Sea.

The Law of Ukraine On Sea Ports adopted recently will facilitate the project implementation. The new legislation and existing concession regulations will drive the port sector development

Portinvest has allocated $250m for the project and won support of the Ukrainian Ministry of Infrastructure. The government has shortlisted the hydro-technical works at Yuzhny to the amount of around $160m and the development of railroad as priority strategic projects for Ukraine and will cover their costs.

"The project in Yuzhny is a strategic step both for the company and the regional infrastructure. The strategy of the SCM Group's transport business development, particularly Portinvest holding, is supported by the research conducted by Roland Berger Strategy Consultants," said Aleksandr Smyrnov, CEO of Portinvest.

The new terminal will provide a wide range of quality services in handling of steam and coking coal, iron ore concentrate and pellets with the annual capacity of 18mt (million tonnes). The facility will offer additional services such as cargo storage, weighting of cargo in railcars, magnetic cleaning and crushing of coal and automatic sampling for cargo quality analysis.

The project will help cargo owners to optimize their freight costs significantly. Capesize loading is possible only by means of 'top up at anchorage' in Ukraine today, which takes 22–30 days. In 2011, Capesize vessels (170,000–230,000dwt) called at Ukrainian ports 90 times and the number is expected to increase by a third in 2012. The new terminal can handle these cargoes within four days alongside the berth without the additional top-up at anchorage.

In 2011, Ukrainian ports exported and transited 26m tonnes of iron ore, mostly to China. Exports can go up today only through the construction of new deep-water terminals. Forecasts suggest that iron ore exports with Cap size vessels can increase up to 10–12mt per year.

Ukraine's imports of coking coal need deep water ports and new technology as well. In 2011, the national steel industry imported over 10mt of coal. Sea deliveries accounted for 3.2mt and are expected to reach 5mt. By the time the deep water terminal in Yuzhny is launched, Ukraine will be able to meet all its needs for imported quality coking coal with sea deliveries (10–12mt annually). In particular, Metinvest, one of the biggest players in the mining and steel industry, imports quality coal from own mines in the US. Other major Ukrainian steel companies, such as Arcelor Mittal and the Industrial Union of Donbass, also have regular deliveries from North America. The new terminal will also handle 150,000–170,000dwt vessels with quality coking coal from Australia.

Volumes and delivery geography of coal and coke exports through Ukrainian ports will remain unchanged in the short term. Last year, Ukraine exported 12mt to the countries of the Persian Gulf, Black and Mediterranean seas and India (including transits from Russia). Modern facilities, a favourable location, year-round navigation in the region and high environmental standards ensured with help of technology solutions add to the advantages of the project in Yuzhny,

Additional information

The Port of Yuzhny is situated at the north-western coast of the Black Sea in the non-freezing Maly Adzhaliksky Liman. It is the second biggest port in Ukraine and fourth in the Azov and Black Sea region. The primary cargo traffic destinations include the Black and Mediterranean Seas, the USA, Latin America, Middle East and South-East Asia.

According to the Centre for Transport Strategies, Ukrainian sea ports handled 155mt of cargo in 2011, which is 6.8mt more than in 2010. Iron ore accounted for 26mt, or 17%. The volume of bulk cargo increased by 10.8mt, or 13%, and the amount of grain grew by 2.6mt, or 16 % year-on-year.

Extension planned for Elbehafen Brünsbuttel

Germany's Elbehafen Brunsbuttel, a universal port in the private ownership of Brunsbuttel Ports GmbH/SCHRAMM group, is going to be extended this year. Brunsbuttel Ports GmbH, port operator and owner of the infrastructure, is investing a total of about €15 million to improve the middle berth in the multi-purpose port Elbehafen. On 28 March this year, a building contract for piling of a new bulkhead, the biggest single building action within the extension project, was signed at Brunsbuttel with Tiefbau GmbH Unterweser (TAGU), a Company of Ludwig Freytag group.

With this step, the Elbehafen Brunsbuttel, inaugurated in 1968, is going to be improved as deepwater port. Ten years ago the bulkhead on the Eastern side of the port was partly renewed. Now the middle area of the Elbehafen, which is the universal berth for bulk freight and general cargo, especially for unit loads such as wind power stations, is being refitted for the future demands over the next 40 years.

The first step of the construction project is a new, more sustainable bulkhead to be set and piled. For this major part of the whole project, the order was placed on 28th March 2012 with the company TAGU, which is a specialist in water construction work. TAGU had won the tender earlier this year.

The contract covers an order volume of about €10 million; construction work will start in April/May this year and will be done during running operation of the Elbehafen. "We are very pleased to assign TAGU being an experienced company, focusing on the demands of us as port operator. Next to their practical experience, for us their flexibility of the building company was of major importance, to guarantee running operation of cargo handling with minimal disturbances," says Frank Schnabel, managing director of Brunsbuttel Ports GmbH.

Going by today's project plans, piling work should be finished in late autumn 2012. After piling is finished, the pier panel in the middle port and the pier rail tracks will be renewed until next year and the berth will be partly deepened. All work should be finished by autumn 2013.

With this investment the Elbehafen focuses even more on handling of unit loads such as project cargo or wind power stations for onshore and offshore, whereas the strategic policy to react flexible as universal port to the market's demands keeps highest priority. "It means that the Elbehafen optimizes its function as flexible handling place for specially huge and heavy goods whilst still fulfilling all demands in handling and storage of dry goods, such as building material, on highest flexible level as

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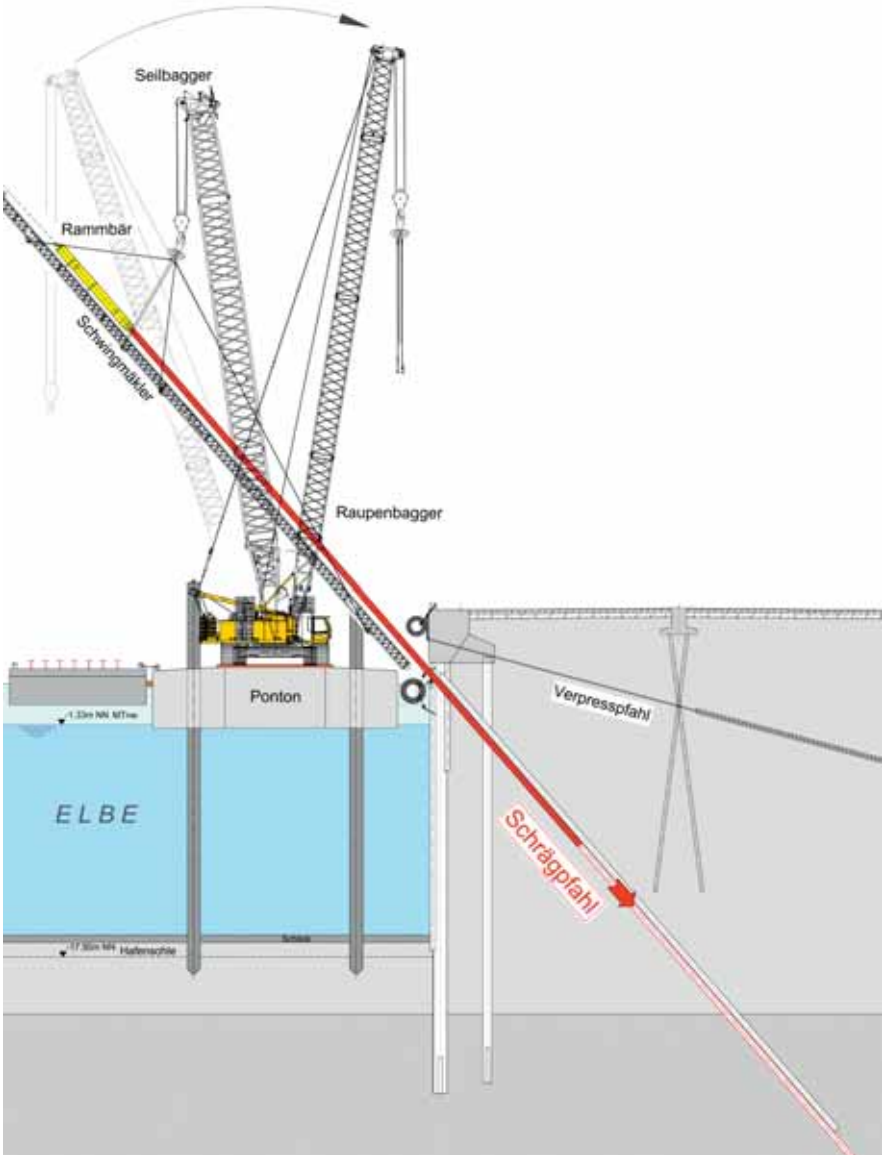
well. We keep to our strategy as universal port with three main areas and improve our position in the developing project business at the same time," Schnabel explains.

Next to these actions, building on the new administration building is coming on nicely. This project with an investment of more than €5 million was initiated and started last year. Completion is planned for the beginning of 2013 when the owners alongside Brunsbuttel Ports, egeb.Wirtschaftsförderung and Sartori & Berger GmbH & Co. KG, move into their new offices. The old administration building will be demolished to extend that area as port storage area. "With these two important building projects, we focus consequently on further growth of our group of ports," Schnabel says. "In addition we are going to invest significantly in the Elbehafen's superstructure for handling liquids, general and bulk cargo. Our staff numbers also grow continuously. At the moment we have about ten vacancies, especially in the port's operational area.

The group of ports of SCHRAMM group is on the road to success, and not only at Brunsbüttel. With co-operation at the heavy lift Rendsburg Port at the Kiel-Canal and with the logistical project coal power plant at Hamburg-Moorburg, further milestones in the group's development are taking place.



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PEBCO® chutes solve wide range of bulk handling problems

PEBCO® is a major manufacturer, offering services in the engineering and supply of ruggedly built equipment to control and load dry bulk materials. PEBCO® designs and manufactures customized gates, valves, diverters, mass flow feeders, air slides, dustless loading spouts, telescopic chutes, Cleveland Cascade® Chutes and systems for barge, ship, truck and railcar loading.

Since 1977, PEBCO®'s corporate headquarters have been located in Paducah, Kentucky; on the western edge of the Kentucky coal fields and south of the Illinois basin coal fields. The company has been servicing mines, industries and utilities involved in fossil fuels for over 30 years. Through years of experience and service, PEBCO® has grown to global prominence with headquarters in the United States and representation throughout the world.

Over the years PEBCO® has assembled a team of specialists with a wide array of experience in various types of bulk material control. PEBCO®'s engineering team treats each application individually and custom tailors 80% of products to exact customer specifications. Seeking solutions to unique material handling problems, PEBCO®'s experience, versatility, and innovation have lead to the development of several patented products, features and options for equipment used in the dry bulk solids handling industry. As a result, it has patented products that demonstrate the innovation of the company in the field of moving, storing, and weighing bulk solids. The company's patents include: Rolling Blade® Gate, Mass Flow Feeder control technology, Uni-Load® chute and the Cleveland Cascade® chute.

PEBCO® is a company dedicated to standing behind what it designs, manufactures, and sells. It offers an array of standard products, while at the same time seeking solutions to unique material handling problems. Utilizing the matrix system of management, it co-ordinates the functions of: engineering, procurement, fabrication, installation, and preventative maintenance and service.

The company's systems are specially designed to best serve the needs of its customers. Each project is evaluated on an individual basis allowing for customer requirements, product characteristics, environmental considerations and other elements. Its total commitment to its customer is to supply equipment and systems that incorporate the most practical and most advanced technological approaches, yet keeping in mind the economic considerations of the project. The company totally controls design, manufacturing and testing.

Telescopic chute

PEBCO® engineering offers a better way to alleviate the problem of severe dusting at material handling and storage sites. PEBCO®'s telescopic chute contains the product as it free falls to the ground and has a dual cable hoisting system for chute stability and smooth, even actuation. This heavy weldment is provided with PEBCO® flange detail for attachment to the customer provided head chute.

Construction can be of any number of sections, diameters and lengths based upon individual requirements. The chute sections can be fabricated out of various materials of construction. The top (stationary) section size diameter is calculated based on flow, bulk density and product size. Remaining chute sections increase in diameter by approximately 4". The bottom section of the chute is typically provided with two tilt switches for sensing chute contact with the material pile. The chute rises automatically as pile height increases.

The drive assembly, integral or remote, is located at the top of the Telescopic Chute. The motor driven wire rope hoist lifts and lowers the chute. End-travel control is by means of a geared rotary limit switch arrangement, driven directly from the hoist.

PEBCO® offers several options for the telescopic chute which help meet individual application requirements. Some of the options include:

- local or remote control panels with a wide range of control options;
- electrical for hazardous or extreme environments;
- dust suppression system;
- product spreaders; and
- gimbals.

PEBCO® manufactures a full line of truck, railcar, barge and shiploading telescoping chutes. PEBCO® can provide customized gates, valves, diverters, mass flow feeders, air slides and dustless loading spouts. It all comes down to innovation, advanced engineering tools, and experience.

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Flexco unveils MHP heavy-duty precleaner

Flexco recently announced the addition of the MHP Precleaner to its line of heavy-duty belt cleaners. The MHP Heavy-Duty Precleaner features the largest, most abrasion-resistant urethane blade offered by Flexco. Multiple material path options and extended pole lengths ensure the cleaner fits each application perfectly.

The large blade on the MHP Precleaner provides an extended life so the cleaner can run longer and more efficiently. A variety of material path options and a faceted profile design with continuous blade edge renewal improves cleaning efficiency throughout the life of the blade. The moulded-in wear line available on all Flexco MegaShear™ blades makes routine visual maintenance checks easy.

The rugged three-piece pole design on the MHP Precleaner provides additional strength, and extended pole lengths to fit varying conveyor or chute wall widths. Dual tensioners come standard for both spring (PST) and air/nitrogen (PAT) systems.

The MHP Heavy-Duty Precleaner is made from heavy-duty steel with corrosion-resistant powder coating and is ideal for rugged mining applications.

"When combined with the MHS Secondary Cleaner, a system is developed that delivers maximum cleaning power to get the job done," said Ryan Grevenstuk, product manager for Flexco. "In applications where excess water is present, a third component, the MDWS Dry Wipe, can also be incorporated."

Flexco provides the world's belt conveyors with efficient, safe products, services, and solutions for splicing, belt cleaning, belt tracking, spillage, and slippage. The company is based in Downers Grove, Illinois, USA and operates subsidiaries in Australia, Chile, China, England, Germany, India, Mexico, Singapore, and South Africa. Flexco markets its broad line of products through a worldwide network of distributors, under the Flexco®, Mineline®, CoreTech™, and Tasman Warajay Technology™ names.

RDS debuts Loadmaster iX at Scotplant 2012

Effective stock control has never been so important given the challenges businesses face in the current economic climate. To help make the most efficient use of product, time and machinery, RDS Scotland will be exhibiting its new Loadmaster iX range of on-board weighing systems for medium to large wheeled loaders at Scotplant 2012, which will take place from 27–28 April at Ingliston, Edinburgh in Scotland.

Loadmaster iX benefits from additional standard features including temperature compensation enhancing system performance particularly on machines with a wide variation in operating temperature and angle compensation providing an additional level of precision beneficial on most sites and not only those with obvious slopes.

In addition, the Loadmaster iX range offers effective management of weighing data. The Loadmaster 8000iX has an integral SD card port for the fast and efficient transfer of data between loader and weighbridge or office PC and enables pre-registered customer reference data to be uploaded directly to the instrument.

RDS will also be exhibiting the trade-approvable Loadmaster 9000i. When fitted to a wheeled loading shovel, this on-board weighing scale effectively transforms the loader into a mobile weighbridge which conforms to MID Class Y(b) levels of accuracy.

The company has recently gained approval via the UK National Measurements Office to self-verify its instruments. Subject to formal training by RDS, this approval extends to all EU RDS distributors. This will dramatically speed up verification times and reduce end user costs.

Also on show at Scotplant will be the Liftlog 100+. Designed specifically for forklift trucks it offers weighing and load monitoring functions with an internal alarm to warn when load threshold is approached and at the overload point. The Liftlog 100+ also offers a totalizing feature. Negating the need to travel to a floor-mounted platform scale often sited in a remote part of the warehouse, the Liftlog 100+ provides a time-efficient means of check weighing.

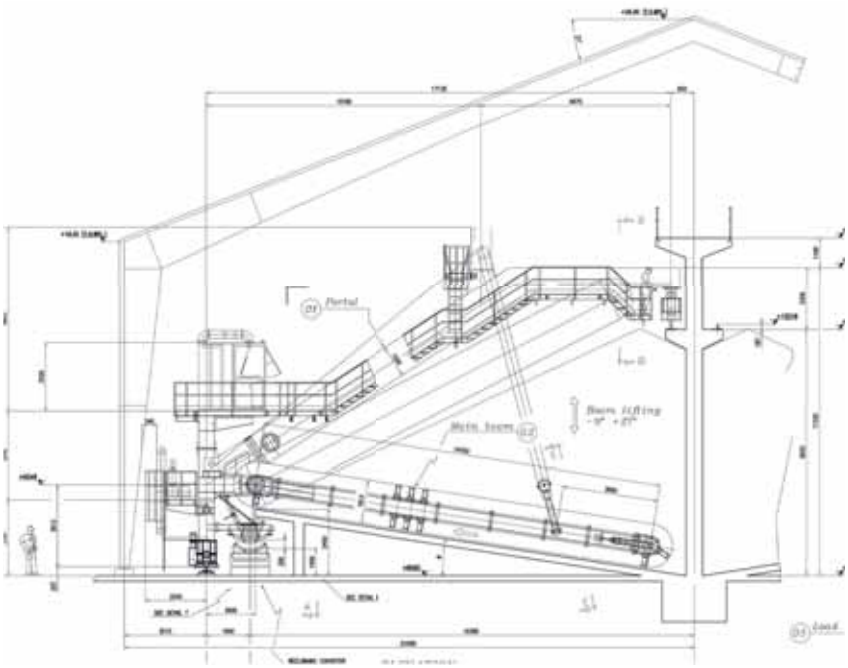
SMB Shiploading

Ships all over the world are being loaded with know-how from SMB

Whenever bulk-material, stored in the acclivity, is to be loaded back onto the conveyor belt, a portal-scraper (reclaimer) made by **SMB** comes in play. With drag-chains or bucket-chain-conveyors, the bulk-material is automatically loosened and then transported.

SMB designs and manufactures the entire scope which includes:

- Plant engineering
- Reclaimer
- Conveying system
- Shiploader



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Highlight of the month

The types of Reclaimers manufactured by SMB:

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- Portal Reclaimer
- Bucket Elevator
- Cantilever Reclaimer

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Fluidization Silo-Flo
Conductivity MLA 900

SMB Logistics

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Two more Samson feeders for Portugal

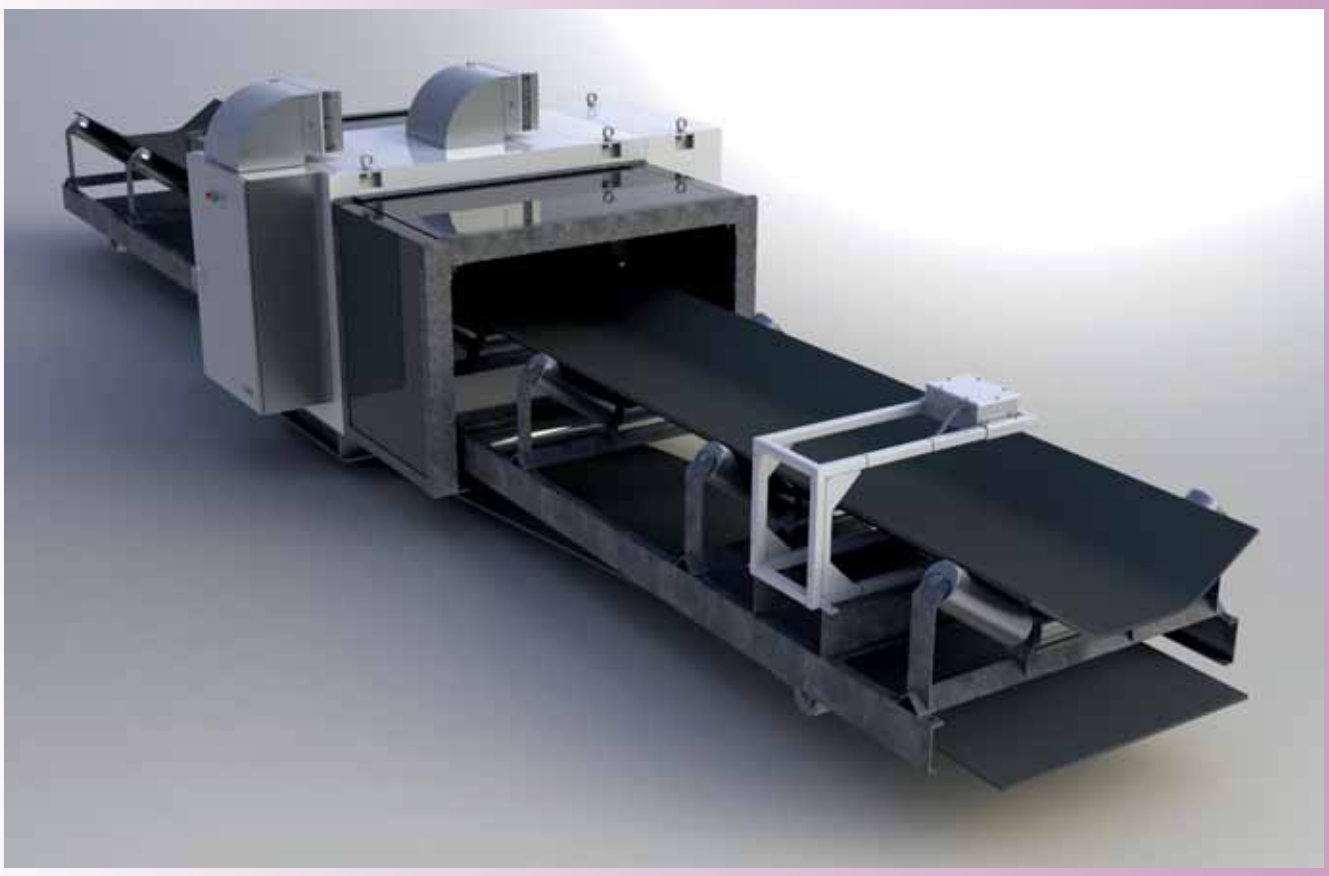
Early this year the Secil plants Outao and C.M.P. Maceira will take delivery of two SAMSON® feeders for the handling of alternative fuels from Aumund Fördertechnik. At the end of March a SAMSON® 380 with a centre distance of 8.8 metres and a conveying capacity of 90 tonnes per hour will be supplied to C.M.P. Maceira. The machine, which will be delivered to Secil-Outão in May, is almost identical in construction but features a centre distance of 8 metres. This confirms for 2012 the longstanding continuing trend of employing the SAMSON® feeder for the handling of alternative fuels.

While the mobile conveyor has to date predominantly been used for the reception of corrective materials and additives, nowadays the so-called alternative fuels play an ever more important role. They are employed worldwide by cement producers for the improvement of the carbon footprint as well as for cost reduction.

Energy-bearing materials such as sewage slag, residues from manufacturing industry, biomass or industrial and domestic wastes with their widely varying material properties demand a flexible machinery concept. The SAMSON® has already tested this flexibility in many applications. In contrast to traditional transfer points, the machine not only receives the material but actively extracts it from the truck. In this way a controlled material flow is guaranteed irrespective of whether the materials are wet, sticky, dusty, heavy or abrasive. In addition, the machine requires no special structural preparation and is very quickly ready for operation in various locations.

The machine also makes short-term intermediate material storage possible. The model which features a greater belt width can convey any bulk material reliably without bridge formation or spillage.

On-line analysis of coal with Scantech systems



On-line analysis of coal is the analysis of coal on a conveyor belt. The largest companies in Indonesia, China, Taiwan, Vietnam and Thailand are all using this technology, first developed in Australia by Scantech. The key to the successful implementation of Scantech on-line analysis is that results are presented in real time and, if required, operators can make immediate changes to their operations to ensure product quality.

Dual Energy Transmission (DUET) is the most commonly used on-line ash measurement technique. The COALSCAN 2100 makes use of this technology. New developments in the DUET ash measurement technology permit coal depths up to 400mm in some cases to be measured. This technology is perfectly suited to monitoring the loading of ships from barges where multiple coal sources may be blended to meet contract specifications. For example, in Indonesia, operators have to manage up to 72 x 1.5 kg samples per barge (8,000 tonnes) and then send those samples to shore for analysis. Control over coal deliveries can instead be maintained by a COALSCAN 2100 monitoring the coal quality in real time. However, this measurement technique can have problems of inaccuracy due to changes in ash mineralogy. Fortunately, there are now methods for coping with this.

On conveyor belt elemental analysers, known as the COALSCAN 9500X, are now available to analyse the entire stream, avoiding not only the operating and capital costs of sampling, but also the sensitivity of older technologies to variation in ash mineralogy. This technology is known as Prompt Gamma Neutron Activation Analysis (PGNAA). As well as measuring ash, this technology measures the ash oxides and many other parameters useful for efficient plant control. There have been four generations of this analyser, with the latest model requiring minimal maintenance, has very low levels of external radiation and drift-free analysis.

The modern designed analysers, such as the COALSCAN 9500X, are now installed directly around the primary belt, and so measure all the material of interest. Direct on-belt analysis of the material of interest has numerous advantages, the most important being that all of the material of interest is 'seen' by the analyser, so that there can be no errors from sampling, both by the by-line sampling technique and that used by laboratories for analysis.

Analysers that employ PGNAA technology have the capability to measure the concentration of a number of key elements. With the measurement of the sulphur, and with the use of blending software, the end

user can control SOX output levels from the stack by adding a low concentration sulphur coal with a higher concentration coal to produce a resultant product that will ensure that emission levels are within the regulatory levels.

These technologies can all be combined with the microwave moisture monitor, so that a complete analysis of the coal is available in real time. Scantech also produces stand alone moisture monitors. The TBM 210 was developed about 25 years ago. The Scantech moisture analyser measures both the changes in phase and attenuation of the microwave signal, making it the most accurate analysers on the market. It is installed at many sites to assist, for example, monitoring moisture levels in of coal shipments, optimizing washery performance and maintaining appropriate levels of dust suppression. The TBM 230 has recently been introduced. This new moisture monitor penetrates coal bed depths up to about 600mm.

The results from on-line analysis are updated every one, two or five minutes as compared with the laboratory analyses of samples, which may be available hours or even days after the coal has been processed. This delay is even longer for samples collected in remote barge loading facilities. Further, it must also be recognized that no matter how accurate the laboratory analysis is, it is always based on a few grams of sample. There will always be errors involved with sampling, dividing, crushing and then preparing a few grams of sample to represent many thousands of tonnes of coal.

To maintain each analyser, Scantech has developed an extensive service network. The analysers are inherently very reliable and remote access via the internet to most analysers results in any problems usually being rectified very quickly. Additionally, a worldwide group of service agents and Scantech's own service engineers are available for remote and rapid on site support.

Analysers can be used in many applications; at the mine, the preparation plant, to control train/vessel loading, to monitor received coal at the power station and to measure the coal quality fed to the bunker. Operators can control their plants according to the coal quality they are actually processing, not what they think they are processing. This leads to more efficient plant operations and better asset management. On-line analysis allows more efficient use of the resource, more effective process control and more cost effective methods of mining, processing and burning of coal. On-line analysis should be viewed not simply as an alternative to laboratory analysis. The most beneficial on-line analyser installations are generally those where the user has realized the advantages that real time analysis can bring to their process.

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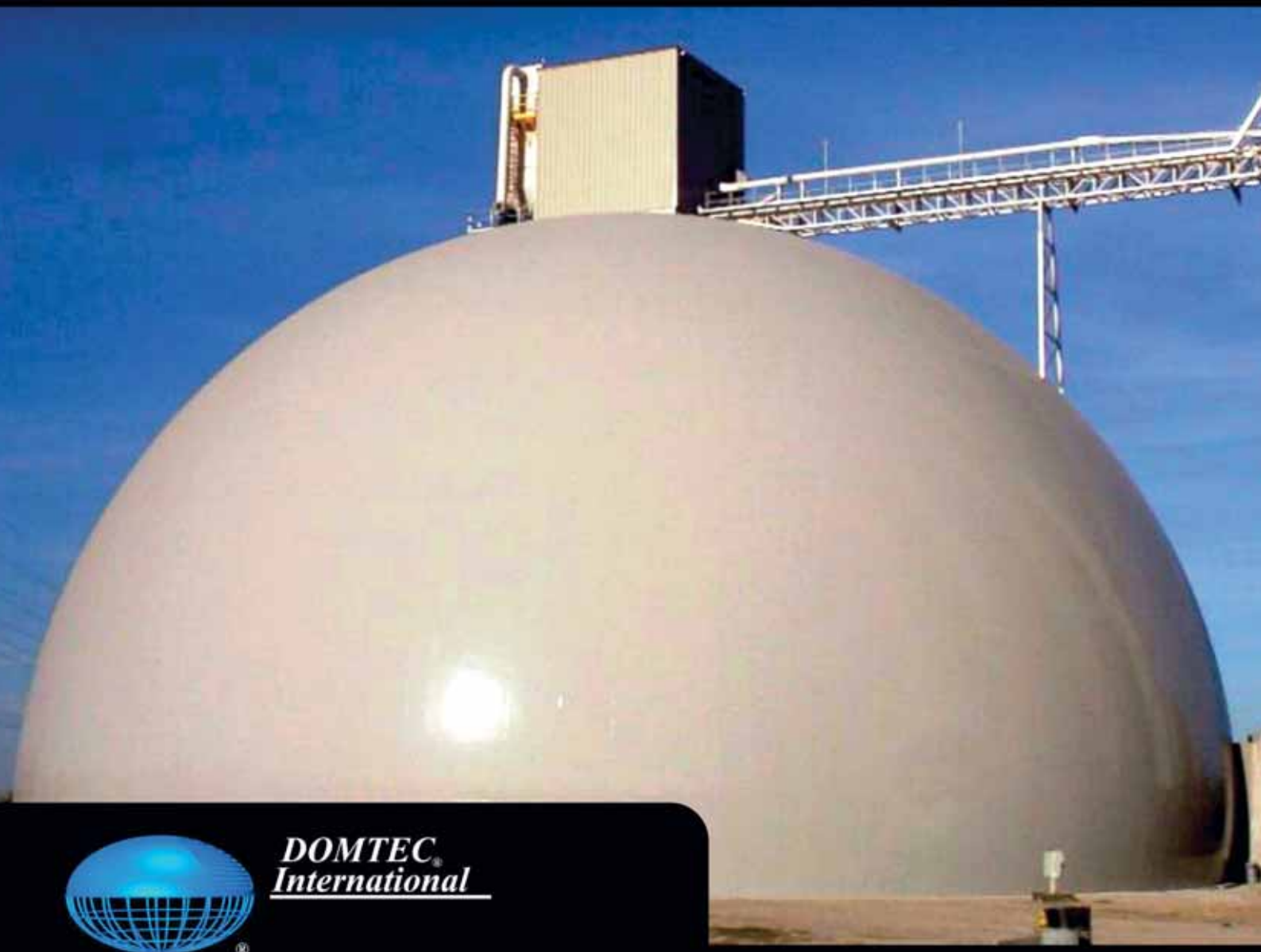

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Integrated truck discharge and feeding

Cementos Argos coal intake with tipping platform integrated to a SAMSON™ 1600 Series feeder.

Integrating a hydraulic truck tippler with a Samson™ surface feeder provides an economical and flexible solution for the intake of coal from high-cube road trucks for fuel to the new kiln line at Cementos Argos plant at Cartagena in Columbia, *writes Barry Woodbine of the Aumund Group.*

The Samson™ 1600 Series installation will receive roadborne coal from large highway trucks providing a buffer holding capacity and controlled rate discharge directly to an overland conveyor. However, the trucks are not reversing to the receiving unit in-line and tipping in the usual way using their own hydraulic tipping gear. In this case, the trucks drive over the unit and are tipped on an integrated platform along with a hydraulically operated truck buffer to ensure the trailer is properly positioned and to eliminate any risk of truck movement with the platform fully raised. The tipping operation may be automatically controlled using a system of level sensors and positional detectors to avoid over-charging the Samson™ entry section, whilst maintaining best possible unloading rate and fast truck release combined with maximum safety in operation. Furthermore, the truck drives over the horizontal entry section of the receiving unit and continues in the same direction eliminating the delays often associated with reversing these extremely large high capacity road trucks.

To facilitate the drive over arrangement, an opening door, able to support the fully loaded truck, is provided above the Samson™ entry and raised when the truck has passed the entry. A traffic lamp system is included on the incoming truck ramp to ensure the truck does not attempt to enter the system till the drive over door and platform are fully lowered and the ongoing conveyor and associated handling equipment is running and able to accommodate the truck contents.

Samson at UK power plant

A good example is the Kingsnorth power plant operated by E-ON in the UK where a recent Samson™ installation receives various types of biomass fuels which are injected into the main plant coal stream. Kingsnorth is a 1,940MW dual-fired power station with the capability to burn biomass material, which can substitute up to 10% of the coal consumed. Typically the biomass used is an agricultural co-product which is sourced from the UK and Europe. At Kingsnorth the Samson™ intake was shoehorned into the existing plant using screw conveyors to meter and convey the biomass from the Samson™ and discharge to a vertical bucket elevator and onward handling system.

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Drive-over platform with simple compacted ramps each side for vehicular access.

For this application the massive Samson™ 1600 Series has a potential holding capacity of 120 tonnes and able to swallow the entire truck contents easily if the unit is running empty. With a discharge rate of 400tph (tonnes per hour), the unit is rapidly cleared of coal feeding simply into an intermediate feed boot of the associated overland conveyor system. Drive is transferred to the Samson™ head shaft via tandem reduction gears and direct coupled hydraulic motors sharing a common power unit mounted to a fully enclosed plant room servicing both the receiving unit and the tipping platform plus associated drive over doors.

The drive-over-doors concept was pioneered by B&W at the Rugby Cement new works expansion back in 1997 where three units were supplied handling a combination of coal, petcoke and clay based on the Samson™ 800 Series sub-floor feeders. Using the driver doors eliminated the need for grills to support the truck as it passes over the entry with no risk of consequent bridging or blockage particularly when handling wet and sticky materials in relatively larger lump sizes.

With more than 600 units operational worldwide, the B&W Samson™ is now an established solution for the intake of solid fuels, such as coal and petcoke, at cement, power and paper plants for example, plus exotic alternative fuels and biomass used to substitute coal to reduce the plant carbon footprint. Thanks to the wide apron belt design the receiving unit is able to handle a range of alternative fuel types such as vine prunings and, at the other end of the scale, sewage sludge for example with dry solids content down to around 20%. This flexibility in operation, being able to switch easily from one fuel to another, plus surface installation eliminating any deep pits or underground hoppers is a very attractive proposition especially for plant upgrades and addition of biomass fuels to an existing power plant.

Cementos Argos S.A., with headquarters in Medellín, Colombia, is the largest producer in Columbia and the fifth largest cement producer in Latin America exporting to 27 countries. In addition to cement, its interests include aggregates, mortar, ready-mixed concrete, lime and other minerals. The new line at Cartagena will increase the group cement production capacity by 5,250 tonnes per day and includes a new kiln with five stage pre-heater plus clinker cooler and vertical roller mills for the finished cement all supplied as a package by FLS of Denmark through their US project center, based in Bethlehem, Pennsylvania.

About the Aumund Group

The Aumund Group is long established and well respected in the cement industry delivering world class materials handling and storage solutions from the quarry through to the finished cement silos and at every stage between. In particular for the reliable handling of hot clinker Aumund is a major supplier, incorporating a unique blend of engineering excellence and technical innovation to deliver the absolute reliability demanded in the modern mega cement plant. The manufacturing companies, Aumund Fördertechnik GmbH, Schade Lagertechnik GmbH and B&W Mechanical Handling Ltd. are consolidated under the umbrella of the Aumund Group along with Aumund Logistik GmbH. In conjunction with the headquarters of the manufacturing companies, the global business is supported in eight locations in Asia, Europe, North and South America by own subsidiaries plus worldwide by an extensive network of agents covering four continents with equipment operating in over 100 countries.

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Bulk handling grabs remain a mainstay of the bulk handling market

Jay Venter

Whether it is the handling of coal and iron ore or the loading and unloading of grain, animal feed, scrap metal, minerals, biomass or other bulk goods, Nemag ensures that the work will get done as efficiently as possible. All Nemag products are made in close consultation with clients, in order to guarantee that their needs are met. That is why Nemag's grabs have such a strong reputation around the world.

The company is particularly focusing on the design and manufacture of high end bulk handlings grabs.

Its customers are large-scale bulk handling companies, steel plants and coal-fired power stations that handle very large quantities of bulk such as coal and iron ore.

These customers all share the same high berth occupancy degree, combined with the fact that they use relatively small quantities of grabs to handle huge tonnages of cargo.

Nemag has experienced a continuing demand during the last year, with numerous new opportunities for the near future and that is reflected in its order book.

Especially in the economic difficult market of recent years, all Nemag's clients are forced to investigate the return on all their investments, including the grabs. The most important aspect in this respect is the running cost of an installation and its equipment. The reason many big stevedoring companies choose to operate a Nemag grab is because it ensures the lowest maintenance cost per tonne against the highest productivity.

Says Riny Stoutjesdijk, sales manager at Nemag, "When using this kind of equipment, it is of paramount importance to realize that investment cost of a grab is of relative small importance compared to the total life cycle costs; every experienced stevedoring company knows that."

Nemag spends a lot of time on research and development. Together with its customers, research institutes and universities, Nemag continuously works on technological improvements and refinements. The company investigates new materials, experiments with new types of grabs to increase efficiency for unloading cargo and to lowering the costs per transshipped tonne.

"Furthermore, we are always looking for ways to meet the increasingly strict environmental regulations. This way, we help our client to fulfill their responsibility toward the environment",

says Stoutjesdijk. "We design products customized to the client's wishes, to enable the balanced and economically optimized handling of his specific goods. Naturally, this is based on technical concepts that have proven their value in practice. This is why the Nemag approach appeals to clients."

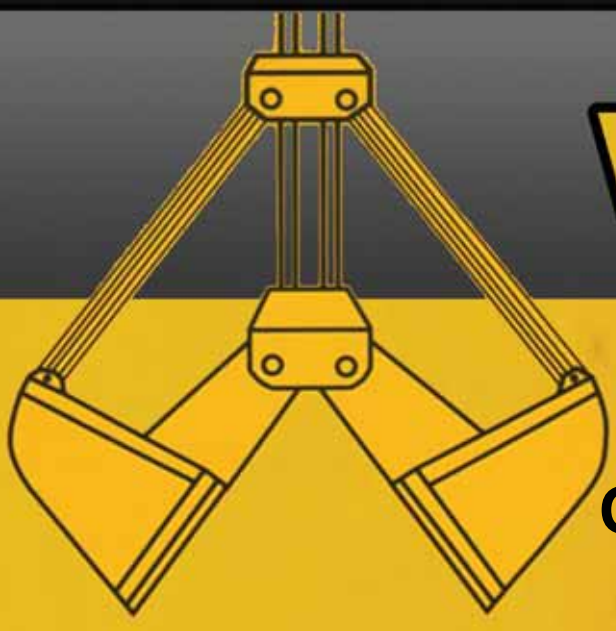
And this appeal is shown by the numerous contracts Nemag has been awarded with, both in- and outside Europe.

Nemag recently delivered huge 80-tonne SWL scissors grabs to Konecranes destined for Nippon Steel Corporation in Japan, as well as various clamshell grabs for UK-based Associated British Ports (ABP) and for the new ZPMC ship-unloaders of Vale, *Praia Mole,* at Vitoria, Brazil.

Also existing Nemag customers have opted for Nemag grabs again this year, at various locations of TataSteel, as well as new customer, Rietlanden Terminals in Amsterdam, which placed repetitive orders for new environmentally friendly Nemag clamshell grabs for handling steam coal.

Furthermore, Nemag started co-operation with Delft University recently and is investing in ground breaking development of new simulation software to create rapid prototyping of grabs: this will accelerate development of existing and possibly new grab designs, which will contribute further to Nemag's slogan "*Designing grabs which result in the lowest costs per tonne material transferred*".

ORTS GmbH turns 40 this year!



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KRÖGER: making its grabs in Germany

MANUFACTURER CELEBRATES 50TH ANNIVERSARY OF FOUNDING – SUCCESS ON THE ASIAN MARKET

In the world's harbours, international waste processing facilities and in local gravel pits; wherever the best materials and technologies are required, you'll find KRÖGER grabs at work. For over 50 years, this German company has only ever used a combination of quality and high-tech. Its numerous innovations and completely maintenance-free products have made the company one of the market leaders in many different countries.

Above all, KRÖGER has achieved recognition through its hydraulic grabs. This model is increasingly in demand in inland harbours and sea ports. Recently, the principle of maintenance-free technology has become a trademark of KRÖGER and its large grabs. This selling point is unique in the world. In Turkey, India or Eastern Europe: whenever large goods transfer machines or mobile cranes are used, you will find that they are increasingly being fitted with two or more bucket grips like the models KZH and KMH made in Germany.

Whilst transfer sites for bulk goods, waste processing sites and gravel pits make up KRÖGER's traditional business, the company has also recently broken into a new market: the very large area of fuel surrogates. Unbreakable grabs are also needed in this area too — and KRÖGER can deliver — no matter whether you need two or more fold grabs. The combination of high flexibility and first class service and warranty terms is also a product of the company's decades of experience.

The foundations for global success were laid down as early as 1962, when Werner Kröger founded his machine plant in Sonsbeck. Eleven years later the first grabs were produced. The company focused on two and four cable grabs for the

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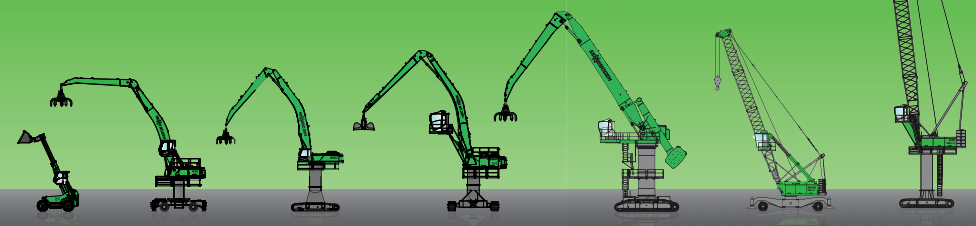

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construction industry and OEMs. Just five years later came the next coup: in 1975 KRÖGER began producing cable grabs for gravel and sand extraction underwater. This specialist equipment was not only extremely efficient but was constantly improved over the course of time. It's no coincidence that KRÖGER products set new depth records time and again. Current example: with an underwater cable grab, model UWS, from KRÖGER, which has a volume of 8m³, a 26-tonne rock was extracted from Lake Lucerne (Switzerland) at a depth of 180m!

The company can thank the business foresight of its founder for its ability to quickly acquire new areas of the market for its grabs. As early as 1977, KRÖGER delivered its first grabs for harbour and industry transfer. A quantum leap took place four years later providing the basis for global success: the company presented the first maintenance-free cable grab.

The stormy developments in the Lower Rhine were carefully followed by the markets. In order to guarantee solid, international development over the long-term, the Kröger family decided to acquire the former Ruhkohle AG (today Evonik) in 1988. What no one could know back then was that group affiliation would not last. As early as 1993, KRÖGER became an independent company once more. The next innovation came in the same year: in the factory the first cable, motor-powered and hydraulic grabs were produced for the waste and slag disposal industries.

One of KRÖGER's trademark characteristics has always been a high degree of independence, which was required to establish new developments on international markets. This principle remained unaltered by the paradigm shift that took place within the company in 2008. The management decided to sell a share of the company to Elbe Partners Industries GmbH, Hamburg. This decision provided new money for further development of the company and to reinforce old strengths. KRÖGER, which principally produces custom-made and, generally, maintenance-free large grabs was integrated within Elbe Industrietechnik GmbH just one year after the change of ownership. This medium-sized industrial group, with its sister companies FMS Fränkischer Maschinen- und Stahlbau (Gochsheim, Bayern) and Oswald Metzen (Bitburg, Germany), rests on the private shareholder structure of Elbe Partners and guarantees sustainable, financial stability. This allows synergy potentials within the group to be utilized and mutual customers and markets to be served whilst retaining the independence of the individual companies.

Strengthened, KRÖGER continued to lengthen the list of its records. In 2011, the world's largest floating digger stationed near Freiburg in South Germany was fitted with a gigantic and above all maintenance-free underwater 12002 UWS-7 grab. This conversion increased the digger's volume capacity from 7.5 to 13.5m³ with the result that now 27 tonnes of material could be extracted with every lift sequence.

Of course, the reason behind the fitting of the new grab was not to break records but to increase efficiency. Due to the increasing depths at which the gravel industry is working, the trend towards significantly larger systems with very high grab volumes is growing. This combination is the only real option that ensures efficient extraction over the long-term. KRÖGER has been able to not only fulfil these new demands with respect to underwater cable grabs but also with hydraulic and motor-driven, underwater grabs. With a volume capacity of 12m³, KRÖGER currently supplies the largest equipment parts within this sector in Europe. These grabs from Germany also allow depths far in excess of 100 metres to be worked even under very difficult conditions at the bottom.

These are just some of the many, spectacular examples that KRÖGER has been able to deliver over the past few years. All the signs also point towards growth in the future. Just recently, DEMAG Cranes ordered 19 refuse grabs for use in China and Finland. Contracts for waste incineration plants and gravel extraction were also concluded with the globally-active crane manufacturer KW Mannheim. KRÖGER is also an original equipment manufacturer for the German crane manufacturer Sennebogen and has supplied large grabs with volume capacities of 25m³ for its Greene Line and Crane Line models. It is clear that KRÖGER's principle of maintenance-free and permanently greased grabs is becoming increasingly popular — even in harbours in Turkey and India, where motor and hydraulic grabs are particularly popular.

Hands-on experience key to Mack Manufacturing's success

Mack Manufacturing is a global provider of industrial material handling attachments, specializing in heavy-duty hydraulic grapples and buckets for overhead cranes, mobile cranes, and ship's gear. Established in 1942, Mack continues to operate as a family-owned business committed to the development of highly skilled welders, fabricators, and support staff. Mack's head office facility in Theodore, Alabama, USA, is fully equipped to complete every step of attachment manufacturing and remanufacturing tasks under one roof, from engineering to precision machining to final finish.

For four generations, the people at Mack Manufacturing have been learning the company's quality heritage the right way: hands on! Since the beginning in 1942, every family member has come into the business with a personal appreciation of the craft. While the company has evolved and has developed the required knowledge and skills to support its thriving multifaceted enterprise, Mack's family values remain firmly rooted in its pride of workmanship.

Mack Manufacturing has a unique corporate structure that reflects the values that its founder set in 1942. It's a 'quality first' culture that you can't just create overnight. 'Quality First'…longer life…increased productivity…reduced operating costs…it all begins with quality. And for industrial material handling attachments, quality means Mack Manufacturing.

With more than 30 years experience supplying equipment for ships and ports, Mack has worked with its customers to help them assess the optimum bucket size and type to match the equipment and cargoes they require. Mack's goal is to move the

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maximum amount of material over the longest possible lifecycle. That's how its customers get the best value from its products. Mack's design team is always encountering new challenges to meet customer applications, and new opportunities to improve its customer's productivity.

Mack maintains its own onsite engineering staff and technology, supporting its professional staff in customer service and quality assurance. Its production services are built on a highly experienced manufacturing team providing the trade skills to operate and maintain our comprehensive fabrication machinery from plasma burning to precision machining to final finish.

The shared insights and experience of the team help Mack to maintain field support capabilities that are among the best in the industry. Sales, service and engineering staff are fully initiated into Mack's inside procedures and processes before they are assigned to represent the company in the field. Their personal experience is the key to delivering the expert onsite training that helps customers to maximize the service life and productivity of the equipment. Mack's programme of continuous improvement and innovation begins with the insights of its people in the field, working with its customers to anticipate changing applications and trends, and bringing that knowledge back to the factory.

Mack Manufacturing has the experience and expertise to provide customers with the right attachment for their application, whatever bulk material customers need to handle. The company's commitment to bringing better ideas to customers extends to customizing any product to suit the specialized needs of any process or application. No matter what the product — from light grains or wood chips to scrap iron or pig iron — Mack has the right attachment to handle it.

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Beco wins large order from Tunisia

BV Beco Vianen in the Netherlands has received a large order from a Tunisian customer for its products. The order includes eight remote-control 5,000-litre one-rope clamshell buckets; one remote-control 12,000-litre mechanical bucket; and spare parts.

The RC (remote control) system means that it is possible to stop and start the opening of the clamshells several times.

The clamshell buckets will be used to handle a variety of bulk material at a range of Tunisian ports such as Tunis, Bizerte and Sfax.

The clamshell buckets, like all Beco's grabs and clamshell buckets, have been manufactured of high tensile steel 690 + S355 and wear resistant material, hardness HB400.

About Beco

Beco is a company with a broad assortment of products and services, and has an excellent manufacturing plant in Vianen. The company is fully equipped to offer services as a partner in all national and international grab, dredging and earth-moving activities.

For more than 80 years Beco has been providing high-end, ready-to-use technological solutions. It offers solid, uncompromising products. The company prides itself in its ability to provide solutions to taxing technical challenges: Beco shows the customer the effective way forward with its tailor-made solutions for every situation. Custom work is available in every imaginable format and finish.

Akerbergs grabs, lowest price ≠ lowest cost

Akerbergs is a Danish company with more than 30 years of experience in sales, service and maintenance of all kinds of cranes and port equipment, but especially mobile harbour cranes in the Scandinavian market. For new sales Akerbergs today works in close cooperation with Liebherr, producer of mobile harbour cranes and material handling equipment, and Akerbergs is its representative in Finland, Norway, Sweden and Denmark.

But regardless of what kind of crane one is talking about, it can never do any work without some kind of auxiliary equipment. In the simplest form, the hook for simple lifting purposes, or more advanced, a container spreader or a grab for handling of bulk material. Before, many people just looked into what kind of material they should handle, for example: A clamshell grab for handling coal, grain, wood pellets and so on, or a poly grab or 'orange peel' grab for handling iron scrap, pig iron and similar.

Today however, everybody is looking for more and more efficiency and therefore the cranes with grabs becomes bigger and bigger, enabling one man to handle more and more material within the hour. So today we see grabs of 60m³ capacity or more attached to harbour mobile cranes. Such a grab has the size of a bus and the weight is more or less the same! This weight has to be hoisted every single time the crane makes a lift regardless if the grab is empty or full and therefore it has become increasingly necessary to have a grab design with high volume and at the same time low weight, without compromising the strength of the grab. And at the same time it is very essential that the grab has a good digging ability to ensure that the grab is as full as possible each time it digs into the cargo. In that way the crane can perform a higher payload for each cycle and in the end a bigger capacity.

Akerbergs has through the years worked with different grab suppliers with great success, but in a more and more demanding market the company three years ago chose to work with Verstegen, which has been in the market for more than 60 years. During this period Verstegen has developed and refined the design of its grabs to become one of the absolute best suppliers of four-rope grabs in the world. By using steel with a high amount of hardness, as well as extreme toughness, Verstegen has been able to use less material in constructing its grabs and thereby achieved having a light weight product, without compromising quality and lifetime of the grabs.

It is clear that there has come an increased focus on value for money in the past few years after the financial crises, and the customers need to pay full attention to both efficiency and maintenance cost. The new buzz-words 'life cycle cost' have also entered the grab market and lowest price is not necessarily equal to lowest cost anymore.

This has been the strong message towards the customers and in the last couple of years it has resulted in orders for more than ten grabs in Scandinavia and the Baltics for Akerbergs. The biggest being a 60m³ clamshell grab for wood chip handling in Port of Odense in Denmark, and the smallest a couple of 6m³ poly grabs for iron scrap handling in Liepajas Osta in Lithuania.

Akerbergs expects a continuously increasing focus on efficiency throughout the port equipment business, both in relation to time and energy consumption. Together with its principals, Akerbergs does its utmost to meet the requests from customers throughout Scandinavia.

CALIM GRABS, working towards cost-effective & efficient grabs

CALIM GRAB INDUSTRY, established in 1970, specializes in the manufacturing of international seagoing cargo handling grabs and has delivered over 2,000 grabs worldwide to date.

The company's personnel is continuously working to develop and build the most efficient and cost-effective grabs. With the experience gained in this field, the number of models CALIM GRABS has developed by now has reached 30. Besides a standard product range, the company also develops unique solutions for specific situations upon customer demand.

Independence, experience and expertise in the professional grabs and the equipment sector with certified assurance, are just a few of the characteristics that make CALIM an excellent choice when it comes to tailored national and international solutions. The products are world standard, and the company is proud of owning a modern machine park that is adaptable to technologic developments in the world.

CALIM GRABS' products can be seen all over ports, cement & steel factories and on ships in Turkey and increasingly in other countries. High-standard technology and reliable products are the result of respect for the requirements of the market in combination with incremental improvement and implementation of experience gained throughout decades.

CALIM GRABS aims to continue to be a reliable name in the machine industry.

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Euromec has over 50 years of experience in the handling of all types of material, which puts it at the forefront of European production. The company's mission is to achieve the optimum balance between experience and continuous development to better respond to the market demand. The company manufactures large and sophisticated lifting equipment to handle a wide range of materials in various fields: harbours; cement works; iron and steel; metals; forest products etc.

Euromec's products undergo strict quality-control procedures in accordance with ISO 9001:2000 and Gost-R rules to ensure the best result for the customer.

Large harbours, important steelworks and cement-works have already opted to purchase reliable and durable products from Euromec. Based on its many years' experience in the field of mechanical and electrohydraulic maintenance, Euromec supplies its products with a concrete and efficient support system during the installation and maintenance phases.

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Focus on stockyard systems

Louise Dodds-Ely

SAMMI: a wide range of handling systems, including stockyard equipment

Italian manufacturer Sammi specializes in material handling equipment and machinery. It has been supplying a wide range of systems to meet the diversified needs of users for over 30 years.

Its business covers the whole lifecycle of the equipment supplied, starting from R&D, engineering, manufacturing, commissioning, maintenance and through after-sales service to meet its customers expectations.

Sammi has given *Dry Cargo International* details of some of the recent contract awarded or completed around the world.

Hopper to receive limestone from vertical tunnel.

Major projects

In the middle of 2011, the company was awarded a contract for the engineering and supply of a system for limestone crushing,

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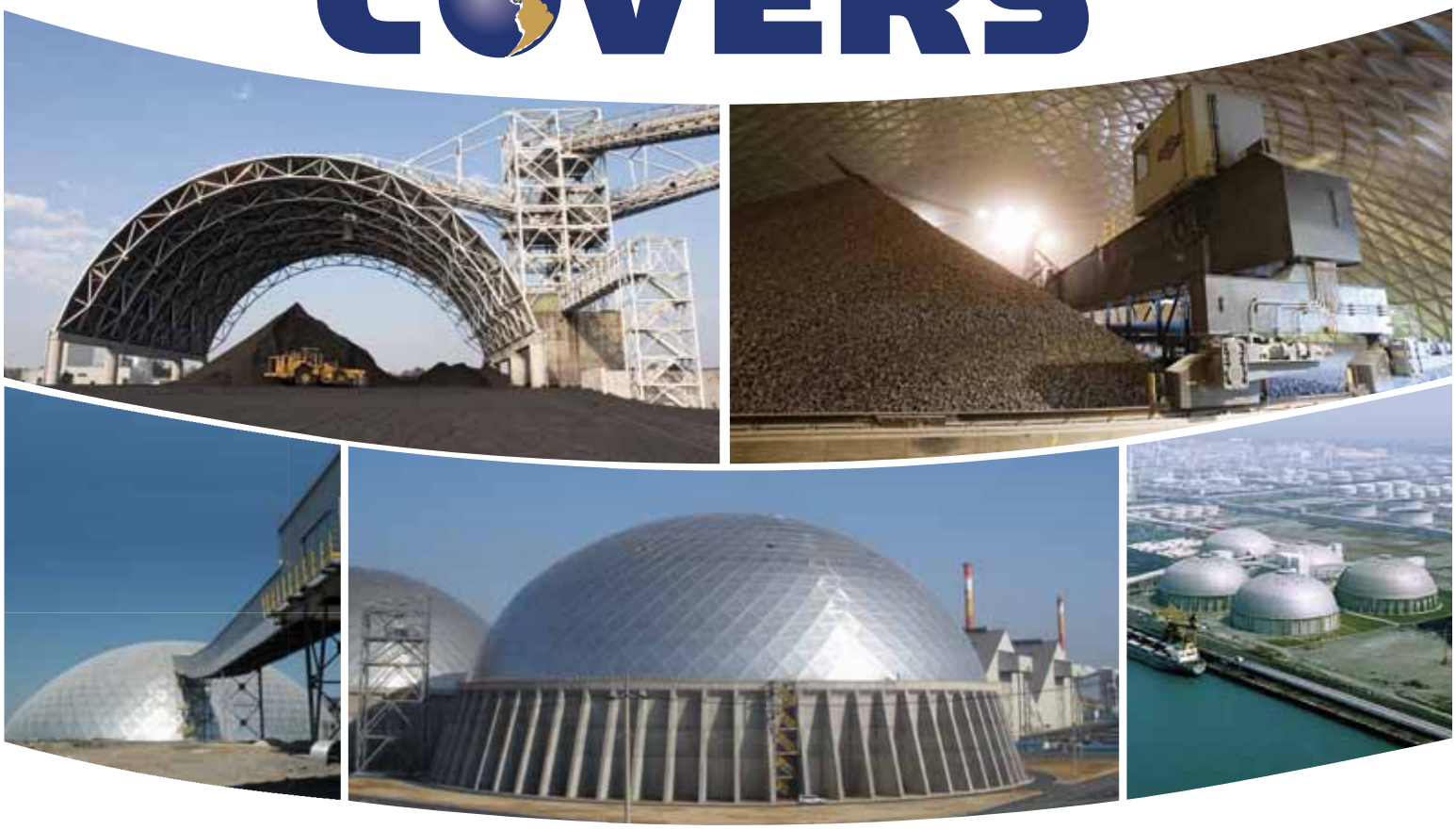

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Rushing mill erection works inside underground chamber.

transportation through belt conveyors and stockpile formation.

Sammi is also committed on other projects. Among these, one of the most notable is the order awarded by the company on the end of 2011 for the complete design, supply, erection and commissioning services for a coal handling and storage system for Italcementi group (Ciment Calcia) to be installed in Couvrot, France.

The new installation can be divided in two main parts:

- **coal storage facilities:** which includes truck unloading station, receiving hopper, one 50m-long (250tph [tonnes per hour]) belt conveyor to transport the coal to a transfer and sieving station. From this station, coal can be either transported to a storage area or diverted to another conveyor if over-sized.
- **coal recovery facilities:** which includes one 250m-long belt conveyor with an altitude variation of 25m (100tph) to transport coal from storage to the existing crusher feeding facility which will be revamped with a new 110m^3-capacity hopper and a set of Redler mass conveyor to feeds the crusher.

To date, the engineering phase is completed and equipment is being manufactured in Sammi's premises. The new plant is expected to come into service at the beginning of September 2012.

One important feature of project is that the design has been developed fully in accordance with directive Atex 94/9/EC regulations.

Stockpile conveyor.

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Another important project recently won by the company (in 2011) consists of a complete handling and storage system to be installed in the existing warehouses of grain terminal in Ravenna, Italy.

The system includes a truck unloading station, receiving hopper, bag type dust-suppression filters, belt extractor for material recover from hopper and to feed one 600tph bucket elevator which transports the material to a set of belt conveyors to feed either the existing conveyor lines or to transfer the material onto the new tripper conveyor, which will be installed in height inside an existing building to stock grain, cereals and flours.

Also this plant has been designed and fully comply with directive Atex 94/9/EC regulations for equipment installed in potentially explosive atmosphere.

To reduce potentially dangerous dust spillage, each conveyor will be provided with cover hoods for the whole length and pocket filters on both loading and discharge sections.

The rated capacity of conveyor system is 1,200tph for a total storage capacity of about 15,000t inside the building (covered area). The peculiarity is that the system is almost entirely installed underground, in view of a quarry expansion project: a new vertical tunnel of height 150m and diameter 4m, chamber and horizontal tunnel have been excavated. Inside the underground chamber one hopper for limestone vertical receiving, feeder and crushing mill will be installed.

Bucket elevator at a grain terminal in Ravenna, Italy (600tph).

After being reduced in size, material will be transported via belt conveyor system to the outside.

In addition to that, the belt conveyor which transports limestone to the outside is plain-curved with a radius of 600m, to fit the geometry of the excavation.

Belt conveyors for transshipper Bulk Borneo *(Picture courtesy of Coeclerici Logistics SpA).*

On the outside, one transfer point will be installed between conveyors which allows the second (inclined) conveyor to form limestone stockpile.

On March 2012 Sammi successfully completed the commissioning of the sulphur handling and shiploading system installed on the transshipper *Bulk Kremi*, owned by Coeclerici Logistics. The system was fully described on pp109–113 of the November 2011 issue of *Dry Cargo International*.

This month (April 2012), the company will start commissioning the transshipper conveyor system on the *Bulk Borneo* transshipper, which consists of a coal handling and shiploading system with a rated capacity of 2,000tph.

The vessel is owned by Coeclerici Logistics SpA. The deck conveyor equipment includes double charging hoppers, belt conveyors and two continuous shiploaders, both slewing and luffing-type. The *Bulk Borneo* is designed to load vessels up to Capesize draught.

Transshipper Bulk Kremi *(picture courtesy of Coeclerici Logistics SpA).*

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QMASTOR solutions provide comprehensive stockyard management functionality and decision support tools that help bulk terminals, mining companies, and other organizations dealing with dry bulk cargo maximize profitability, streamline operations, and optimize complex supply chains. Sophisticated technology enables management to plan, record, track, optimize, account, reconcile, and report the tonnage, quality, and value of materials in the stockyard. This functionality is fully integrated with all other areas of the supply chain to enable complete visibility across the enterprise. Solutions include:

- **QMASTOR Pit to Port™:** a decision support system that provides a transparent view of supply chain operations from 'pit' to the point of export or consumption. It delivers a single, accurate picture of stockyard operations to help reduce operating costs and increase efficiencies. Pit to Port enables each stockyard to control grade at a very intricate level to ensure no mistakes are made when delivering on contracts.
- **QMASTOR PortVu®:** an award-winning integrated bulk terminal management system that manages the complexities of stockyards, inter-modal transportation, and vessels while ensuring equipment is scheduled and utilized efficiently. PortVu can be interfaced to a terminal control system to provide necessary information on stockpile position for yard equipment instructions, task and route management, vessel load and hatch plans, and belt weightometers for accurate data reconciliation and reporting.
- **QMASTOR Horizon™:** an advanced planning and scheduling system enabling complex supply chains to be modelled, planned, scheduled, and optimized simply and efficiently. The solution can be used across the entire supply chain, or for specific processes and functions including terminal stockyard asset utilization and inventory management.
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QMASTOR solutions have been helping companies maximize profitability and optimize end-to-end coal and mineral supply chains for over 25 years. They have been recognized industry-wide for delivering a significant, measurable return-on-investment with awards including the International Bulk Journal IT Solutions award and the Australian Bulk Handling IT Solutions award.

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Triple Point's Commodity Management platform enables over 400 customers in 35+ countries to profitably manage exposure to energy and raw materials across industries, including energy, metals, minerals, agriculture, transportation, shipping, consumer products (CP), industrial manufacturers, and big box retailers. Triple Point was named a 'Leader' in Gartner's ETRM Magic Quadrant for its completeness of vision and ability to execute in 2009, 2010, 2011, and 2012. Founded in 1993, it employs over 800 staff in 14 offices and support centres around the globe.

From concept to installation with N.M. Heilig B.V.

N.M. Heilig B.V. is manufacturer of durable installations and components for the bulk industry. In-depth knowledge, ingenuity and over 30 years of practical experience mean that the company is able to supply high-quality technical products. About 250 highly skilled and enthusiastic employees divided over five subsidiaries within Europe give their energy to serve the clients of N.M. Heilig B.V. The company is a specialist in the design, production and construction of elaborate installations.

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Commodities handled by the company include coals, iron ore, slags, sand and gravel, fertilizer, minerals, sugars, municipal solid waste, construction and demolition waste, green (bio) waste, plastics and paper/cardboard. Most installations are supplied as turnkey solutions, but individual components are also supplied to many leading companies in the bulk handling industry. The company delivers both mobile and fixed-position systems.

This article focuses on N.M. Heilig B.V.'s stockyard equipment. In recent years, the company has built a large amount of stockyard equipment, including high-capacity stackers and mobile equipment for stockyards.

For one of its clients, N.M. Heilig B.V. has built a turnkey solution to unload bulk carriers with 90,000 tonnes of sandstone all at once. The challenge for the company was to be able to unload the carriers within 30 hours, saving a great deal of money in terms of shipping costs. To date, the N.M. Heilig B.V. installation has transported 5mt (million tonnes) from bulk carriers to land. The design, production and assembly of the installation was achieved in a three-month period over the winter months.

For a steel manufacturer N.M. Heilig B.V. has recently

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"A man who stops advertising to save money is like a man who stops a clock to save time"

- Henry Ford

designed, produced and assembled a new boom for a stockyard stacker. The conveyor is 33 metres long, the belt runs at a speed of 3m/s for a capacity of 1,500tph (tonnes per hour). It is equipped with a hydraulic tensioning device.

N.M. Heilig B.V. also manufactures mobile stockyard equipment. The equipment is positioned for movement on wheels, or tracks if required. For example, last month N.M. Heilig B.V. handed over three mobile conveyor systems and a hopper for coal handling. All of these were designed for the port handling industry, with extra attention for painting systems, safety components and the use of robust components.

One of N.M. Heilig B.V.'s clients unfortunately had a fire accident with its stacker in the field. N.M. Heilig B.V. received the order to deliver a completely new boom, with a capacity of 3,000tph for cokes. The new boom will be delivered this month (April 2012), after completion of the assembly in the workshop.

The complete boom, with a length of 38 metres and a weight of 42 tonnes, will be transported from the workshop to site by special road transport. The truck has to drive about 5km backwards to be able to come into its final position on site.

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BRUKS Rockwood's includes stockyard equipment

BRUKS Rockwood Inc., headquartered in Alpharetta, Georgia, USA, is a major manufacturer specializing in designing, installing and maintaining bulk material handling systems for the paper, energy, port terminal and minerals industries. BRUKS Rockwood is a division of BRUKS Group headquartered outside of Stockholm, Sweden, and part of the JCE Group of companies. BRUKS Rockwood's innovative designs help manufacturers move their bulk materials more efficiently with automated systems that reduce labour and equipment costs, reduce product waste/loss, improve the quality of the delivered material, and reduce ongoing maintenance costs in harsh environments.

Product lines/services

BRUKS Rockwood offers a wide range of product lines for handling bulk materials, from material receiving, processing, storage, reclaim, and delivering to the process. Although the company custom designs equipment to suit nearly any application; its standard equipment supply for bulk handling includes truck unloading equipment, stacker/reclaimer technology, and shiploaders.

Each play a pivotal role in the successful operation of an efficient bulk materials system, with the most recent projects for BRUKS Rockwood including the handling of sulphur pril, coal, petroleum coke, and wood pellets, and biomass. Careful attention must be paid to the each design for handling a variety of goods with differing material characteristics, from viscosity, delicacy, combustibility, and dusting.

Recent activity

Over the last couple of years BRUKS Rockwood has seen steady growth in the demand for automated stacker/reclaimers in the bio energy industry. It has just completed a couple of major projects in the Unites States, including the complete material handling system for Ameresco's Savannah River Site and DTE Energy in Bakersfield, California.

Both fully automated systems, wood fuel is received by truck dumpers, cleaned and sized, and stacked in circular piles with the BRUKS Rockwood circular stacker/reclaimer (COSR). Based on boiler demand, material is automatically reclaimed at a controlled, variable rate to the boiler. Both facilities were commissioned on 2011, each producing approximately 40MW power.

BRUKS Rockwood has also experienced rapid growth in export terminals handling both bio fuels and coal. This is largely due to increasing European demand for wood pellets produced in the United States to help meet their renewable energy targets. Many terminals are upgrading their on-site storage and reclaim capabilities in order to efficiently load the new super-sized Cape vessels, which will entail high capacity reclaimers and ship loaders.

Kinder Morgan is now loading coal into oceangoing vessels using the newest shiploader design in the BRUKS Rockwood portfolio. The machine installed at the International Marine Terminal in Port Sulphur, Louisiana, was successfully commissioned in January, 2012. The loader has a

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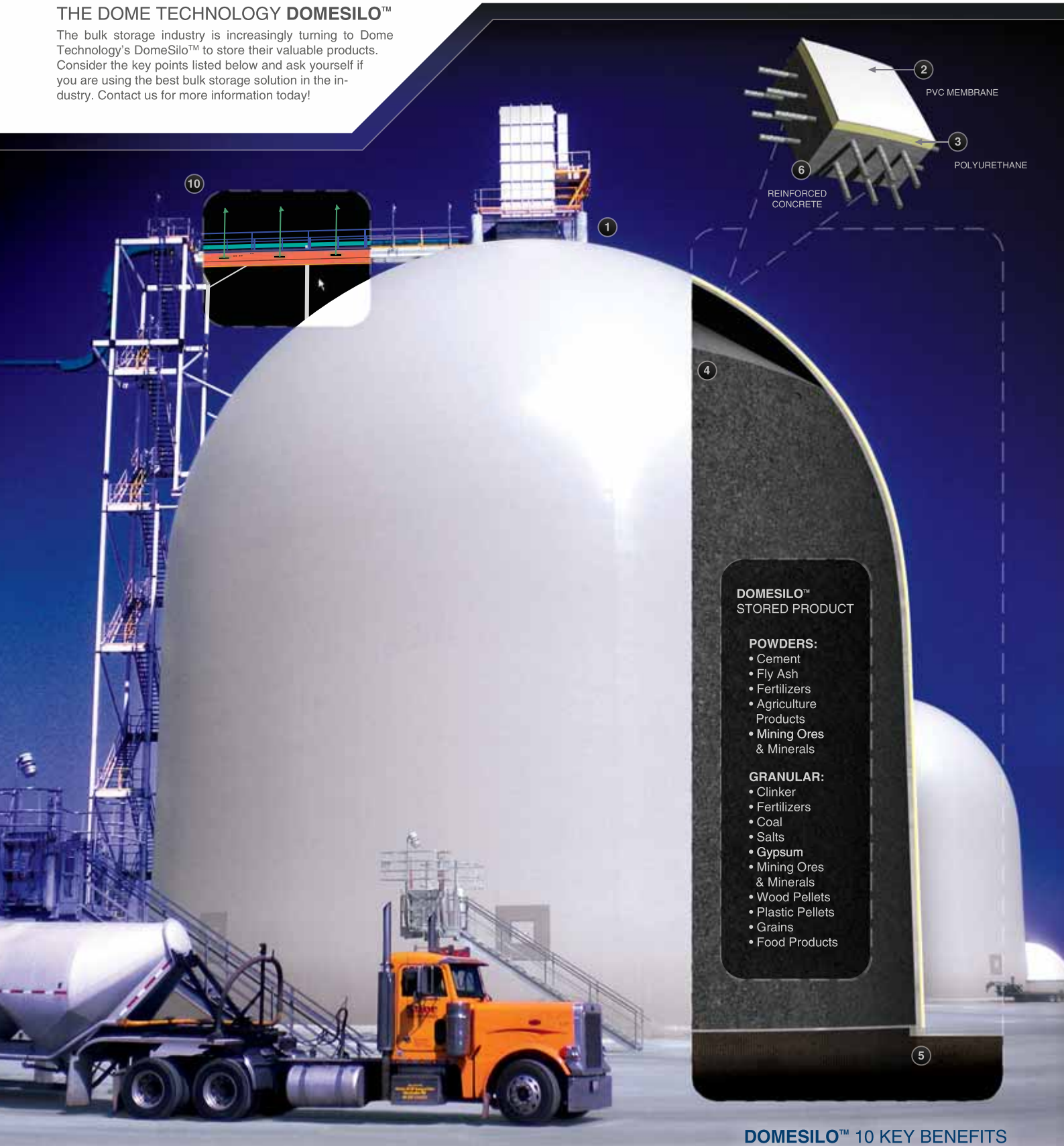

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design capacity of 5,000tph (tonnes per hour). Utilizing travelling, slewing and luffing features, the machine is capable of efficiently loading vessels in place. This design drastically reduces dock time and manpower requirements while providing maximum vessel size flexibility. This machine was delivered and commissioned in less than one year's time.

BRUKS Rockwood has now completed the delivery and commissioning of a 220ft cantilevered stacker for Duke Energy. The stacker will be an integral part of Duke's coal receiving system. The robust stacker design will allow for automated stacking in a high capacity system (2,500tph). It is designed to build a circular/conical pile without the use of intermediate supports. This cantilevered design provides for unobstructed access to the pile and the base of the machine.

BRUKS Rockwood has received a contract to provide the Port of Lake Charles with a circular polar stacker. The machine will be equipped with a shuttling feature that will enable the port to maximize their storage volume in a restricted space. The machine will be designed to accommodate both petroleum coke and coal.

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Metso Bulk Materials Handling Group's equipment for the bulk stockyard

Metso is a global supplier of technology and services to customers in the process industries, including mining, construction, pulp and paper, power, and oil and gas. The company's home office is located in Finland but over 30,000 professionals based in over 50 countries deliver sustainability and profitability to customers worldwide.

Metso's products include grinding, crushing, screening, process equipment, pyro equipment and bulk materials handling. This article will focus on the company's Bulk Materials Handling Group.

Bulk Materials Handling specializes in equipment for loading, unloading and storing bulk products such as coal, iron ore, limestone, wood chips, potash, grain, fertilizer and sundry other bulk materials.

With over 250 designers and engineers, a comprehensive product line and an unparalleled range of services, Metso customers large and small can expect positive results. The company's Bulk Materials Handling Group main office is located in Pittsburgh, Pennsylvania, with three additional engineering and design offices located in Sorocaba, Brazil, Johannesburg, South Africa, and Mumbai, India.

The core product line is the result of mergers between several major bulk materials handling companies. Serving customers since 1889, Metso is the original equipment manufacturer for McNally Wellman, Stephens-Adamson, Cable Belt, Strachan & Henshaw (BMH), Dravo Wellman, McDowell Wellman, McNally Pittsburg, NICO, Mead Morrison, MKT Corporation, PECO, Nolan HCM and Svedala.

The primary machines that Metso supplies are: rotary rail car dumpers and train positioners, bucketwheel stacker reclaimers, portal scraper stacker reclaimers, continuous barge unloaders, cable belt conveyors, MEC crane unloaders, grab bucket unloaders, apron feeders, wobbler feeders, rail car and barge pullers, en-masse conveyors and conveyor accessories.

Metso supplies these machines to terminal operators and power plants. These facilities handle any type of bulk material such as: coal, sulphur, wood chips, limestone, gypsum and various ores. The company's competition includes: Sandvik, Krupp, Heyl and Patterson, and EMS-Tech.

Metso has seen a recent surge in activity for yard machines in North America. A brief summary of its most recent projects for stacker reclaimers is provided.

Recently completed projects

- **a portal stacker reclaimer for gypsum:** Metso has recently supplied and put into service a machine for the handling of gypsum for a major utility located on the east coast. This is a circular style machine. It has a stack out rate of 400tph (tonnes per hour) and a reclaim rate of 1,500tph. This machine is located in an enclosed building and has been running successfully for over one year.
- **a portal stacker reclaimer:** Metso has recently supplied and put into service a machine for the handling of coal for a major utility located in western Canada. This is a linear style machine. It has a stack out rate of 550tph and a reclaim rate of 450tph. This machine, operating in extreme outdoor conditions, has been running for over one year.

New projects currently in the design stage

- **a portal stacker reclaimer for handling potash at a new green field site:** Metso is supplying a portal stacker reclaimer for handling potash for a client located in the central United States. The machine has a stack out rate of 1,200tph and a reclaim rate of 800tph. It will be in an enclosed storage building.
- **a bucket wheel stacker reclaimer for coal handling:** Metso is supplying two bucket wheel reclaimers for a major utility on the east coast. These are duplicate machines that have a 132 foot boom with a stack out rate of 4,400tph and a reclaim rate of 4,400tph. These machines are replacing existing machines in an existing coal storage yard.
- **a bucket wheel reclaimer for handling coal:** Metso is supplying a bucket wheel stacker reclaimer for a major Gulf coast utility. This machine has a 45 foot boom with a reclaim rate of 3,000tph. This machine is replacing an existing machine in a coal storage yard.

The above three contracts are all currently in the design stage and will soon go to fabrication to be supplied to the customers by the end of 2012.

Metso prides itself on providing custom designed machines for the industry. It looks at the application in which the client is utilizing the machine and determines the best total cost solution for that application. This includes not only the capital cost but we also take into consideration the ease of the following factors: erection, service and spare parts.

Another very important point that facilitates Metso's success in supplying its machines is that it provides services to the customer long after the supply of the machines are completed.

Metso's two greatest assets are the experience of its people and its extensive archives of drawings and specifications. Together, they assure accurate technical field services and parts supply for systems and equipment, designed, manufactured and supplied by Metso.

Metso's field service engineers have specialized experience working on both old and new bulk handling, coal prep and heavy equipment. They are trained to search for the cause of problems and to use their knowledge of similar machines and the latest available technology to help maintain and improve customer operations. Metso's parts technicians provide a highly specialized service to customers through its parts supply programmes. Original-designed replacement parts are supplied.

As can be seen, the market is improving on two fronts. One is that there are many machines in North America that are over 25 years old. They have reached the point where it is no longer cost effective to repair the machines and the entire machine has to be replaced. Metso has also seen an upswing in the market for expansion and green field sites for export facilities. All of these facilities will need the bulk materials handling equipment that Metso supplies to the industry.

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High level of activity at TAIM WESER's bulk materials handling business unit

TAIM WESER has consolidated its international position within the stockyard machinery market with various turnkey projects undertaken in the last few years all over the world. At the moment the level of activity is very high at TAIM WESER's facilities and, through its bulk materials handling business unit, the company is currently involved in various projects in Europe, North Africa, Middle East and South America.

Europe

TAIM WESER has just started up a big stockyard machinery facility consisting of two storage plants, one for petcoke and the other for sulphur, including two portal scraper reclaimer machines, 600tph (tonnes per hour) of capacity, two luffing stacker machines, 500tph of capacity, the complete belt conveyors system and truck loading bays.

North Africa

In this region of the world TAIM WESER has finished the erection of one luffable and slewable boom type stacker machine and one bucketwheel boom type reclaimer machine, for iron ore pellet stockyard, both machines running on a 555m-long common rail track.

The stacker machine has a nominal capacity of 3,000tph and a maximum capacity of 4,000tph and it is equipped with a 40-metre-long boom; the bucketwheel reclaimer machine has a nominal capacity of 750tph and a maximum capacity of 1,000tph, and it is equipped with 40-metre-long boom.

Moreover, TAIM WESER has completed the start-up of another project for two phosphate washing plants, which includes a 12,000-metre-long belt conveyor system designed in two flights, together with the supply of three bucketwheel reclaimers with a capacity of 3,600tph and boom length of 50 metres.

Middle East

TAIM WESER is supplying six luffable and slewable combined stacker/reclaimers of the bucketwheel type for iron ore, pellets, lump ore and lime at a steel complex. The machines have a capacity of 1,500tph stacking and 600tph reclaiming and a boom of 40 metres length.

South America

TAIM WESER is working on the turnkey supply of a conveyor belt system and stockyard machinery installation for a new big port terminal. The project includes four combined bucketwheel stacker/reclaimers for iron ore, with capacities of 10,000tph stacking and 12,000tph reclaiming and 60m boom length. The supply also includes the complete belt conveyors system with a total length of 13,000 metres.

TAIM WESER: Experience and Innovation

TAIM WESER has been supplying bulk handling solutions for over 100 years and it is able to provide optimum solutions to the needs of its customers within a range of industries, such as the power sector, ports, iron and steel, fertilizers, mining, petrochemical and cement. Its equipment can be used to handle a wide range of materials including, grain, fertilizers, coal as well as petcoke and minerals.

TAIM WESER supplies all types of reclaimers (bridge, scraper, cantilever, portal and bucketwheel machines), fixed or travelling stackers and combined stacking and reclaiming machines, which allows it to customize solutions for its clients, depending on the type of material to be handled, type of storage and environmental conditions.

TAIM WESER provides either individual specialized equipment or turnkey installations, integrating all key elements and auxiliary equipment giving its clients tailor-made solutions. The company works with the latest technology and its product range covers all the necessary equipment for unloading, conveying, storing, reclaiming and loading of bulk materials, having supplied equipment and turnkey plants in more than 50 countries worldwide.

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3D vision systems for stockyard automation enter the global market

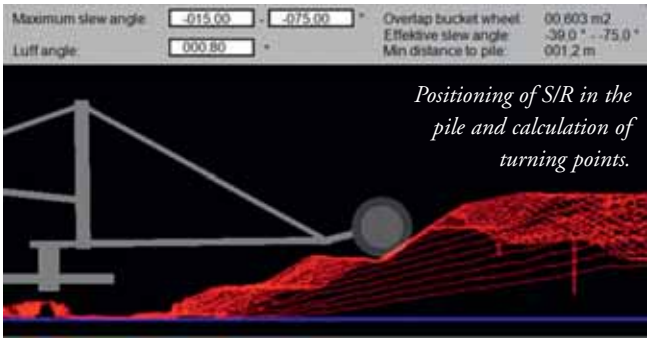
Reclaimer with 3D scanner and RTK GPS.

While stockyards were managed entirely manually until the late 1990s, automation has become more and more common today. However, with the first generation of PLC-based stockyard automation systems, operators had to sacrifice on reclaim performance especially when working on non-standard or manually modified piles. Due to the lack of detailed information about the pile shape, the reclaimer slews out of the pile frequently digging air instead of coal or iron ore.

'Air digging' due to lack of terrain model.

iSAM AG, a Germany-based automation technology supplier, initiated the development of advanced 3D (three-dimensional) vision systems for stacker/reclaimers (S/R) in 2000 and the first operational systems were installed at Hansaport, Hamburg and EMO, Rotterdam between 2000 and 2005.

Using a 3D terrain model allows for the pre-determination of the best turning point for each slew, based on a minimum overlap between the bucket wheel and the stockpile. This avoids not only slewing out of the pile; the system will also deliver the same performance as an experienced operator starting with the first cut to any pile.



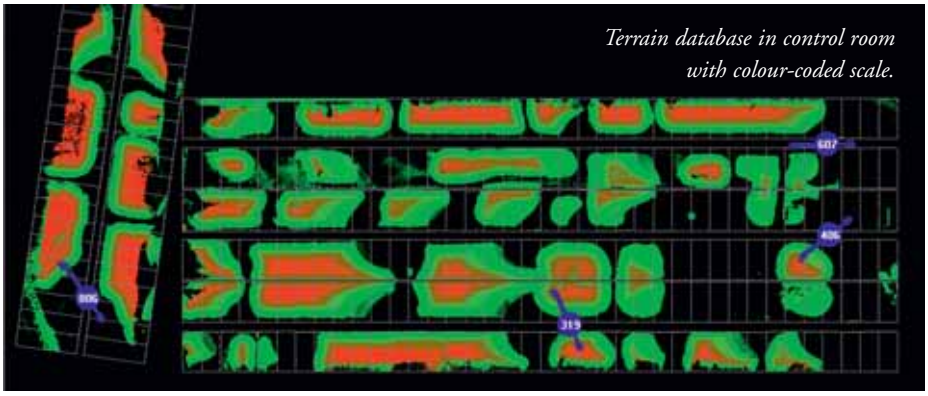
Positioning of S/R in the pile and calculation of turning points.

During reclaiming, possible collision hazards are checked continuously based on the terrain database and a new cut (bench) will be selected when necessary. In the example shown above, the S/R most probably has to change to a lower bench within a few more meters to avoid colliding with the pile.

A key issue for the successful automation was the accuracy of the terrain model. A typical bucket cuts between 0.3m (small reclaimer, iron ore) and 1.5m (large reclaimer, coal) into the pile and allows a positioning error of +/-10–20cm at the maximum, before performance gets reduced (when cutting too shallow) or the bucket wheel motor is overloaded (when cutting too deep).

The iSAM team overcame these problems by using advanced 3D scanners and RTK GPS receivers delivering cm-level accuracy anywhere on the stockyard. The resulting real-time terrain model is not only used for the automation, it also a very useful tool for terrain management.

After the installations in European ports had proved that they were at least as good as the best operators, other markets followed quickly. The 1st system in North America was installed at Westshore Terminals, Vancouver, in 2010 and, as this article is being published, Port Hedland in Australia is making the change.



Terrain database in control room with colour-coded scale.

Having introduced the technology a decade ago, iSAM AG has now become renowned as a provider of 3D stockyard automation with nearly 30 systems installed and a global support network reaching from North America via Europe to the growing Asia-Pacific region.

SCHADE portal scraper for chrome ore to be supplied to Kazakhstan

Early in 2012 SCHADE Lagertechnik is to deliver a portal scraper (rail track: 48m, conveying capacity: 500tph [tonnes per hour]) for chrome ore to JSC TNK Kazchrome. It will be employed in Aktobe near the Russian border, in north-west Kazakhstan. The ore deposits located there have attracted a few more important companies apart from JSC TNK Kazchrome. Kazchrome is part of the ENRC Group and is a major ferrochrome producer. The company operates several large ferrochrome plants in Kazakhstan.

The new portal scraper spans the stockpiled ore and travels back and forth longitudinally over the stockpile. In this instance and owing to the abrasiveness of the material, SCHADE is employing a scraper chain furnished with a wing roller, the bearing being arranged directly on the shaft. The latter was especially developed for highly abrasive bulk materials. The drag link conveyor chain will be used in particular where chain lubrication is not permitted. It is furnished with hardened bolts and bushings which keep the wear factor at a low level. Each link of the bushed chain is additionally equipped with bearings and wing rollers which run in the chain guide. The rollers are furnished with bearings and special seals. An automatic chain tensioning device also ensures a low maintenance requirement. The drive shaft sits in sealed bearings and is fitted with two welded tumblers featuring exchangeable special steel tooth segments.

The portal scraper transports the bulk material away in layers from the side slope and guides it over a concrete ramp onto a belt conveyor which is arranged longitudinally adjacent to the stockpile. At the end of the bulk material stockpile the scraper boom lowers by a depth of cut. Then the scraper carries away the next layer in the opposing direction of travel. This process is repeated until the stockpile has been reclaimed in its entirety.

Reclamation takes place automatically, the cutting and grading of the stockpile is usually performed manually by the operators in Aktobe. During reclamation chains and drives run continuously whilst the angle of slope of the stockpile and the front ends of the stockyard are monitored automatically. This monitoring enables the scraper to travel up to the headwall, save for a minimal safety distance. Simultaneous monitoring of the angle of slope prevents the collapse of the side of the stockpile.

About SCHADE Lagertechnik

SCHADE Lagertechnik GmbH is among the leading manufacturers worldwide of equipment for bulk material stockyards and blending beds for all major sectors. The company was founded in 1879 and is today headquartered in Herne. It has gained an outstanding reputation worldwide for its modern stockyard and homogenizing concepts. It has belonged to the AUMUND Group since 2001.

About the AUMUND Group

The AUMUND Group is active worldwide. The conveying and storage specialist has special expertise at its disposal when dealing with bulk materials. With a high degree of individuality, both its technically sophisticated as well as innovative products have contributed to the AUMUND Group today being a major force in the market in many areas of conveying and storage technology. The manufacturing companies AUMUND Fördertechnik GmbH (Rheinberg, Germany), SCHADE Lagertechnik GmbH (Herne, Germany), B&W Mechanical Handling Ltd. (Ely, Great Britain) as well as AUMUND Logistik GmbH (Rheinberg, Germany) are consolidated under the umbrella of the AUMUND Group. In conjunction with the headquarters of the manufacturing companies, the global conveying and storage technology business is spearheaded by a total of eight locations in Asia, Europe, North and South America.

Chrome and its uses

Today chrome is used primarily for the production of corrosion and heat-resistant alloys (e.g. chrome-vanadium steel) and is needed for iron and steel production (ferrochrome steels). In the metallurgical industry the metal alloy chrome is indispensable and is used here mainly in the form of ferrochrome. This material cannot be used in the production of stainless steel as ferrochrome lends it the decisive corrosion resistance and hygiene properties. Chrome creates the shine and attractive appearance of the end product. In iron metallurgy it provides, among others, a higher resistance to heat and wear.

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Tenova TAKRAF's stackers and reclaimers are widely used in the bulk industry

Tenova TAKRAF stackers and reclaimers are suitable for raw materials handling in cement, power, fertilizer, chemical industries and ports. They are used for homogenizing beds apart from providing buffer storages in process plants.

Stockpiling of materials is carried out by stacker equipped with a travelling arrangement. The boom is kept as close as possible to the pile top to prevent dust generation. Luffing/slewing stackers are used for creating triangular or trapezoidal shaped piles according to chevron, windrow or strata methods of stacking. The PLC on the machine is pre-programmed to carry out the stacking procedure. The stacker and also other yard equipment can be operated and monitored from a remote location like the central control room, using wireless radio wave technology.

Scraper reclaimers reclaim bulk material uniformly from stacked piles using blades and load it back onto a yard belt conveyor. The simple moving process of the scraper reclaimer facilitates a fully automatic operation and facilitates the delivery of a homogeneous material flow. Tenova TAKRAF delivers side, portal, and bridge type scraper reclaimers for circular and longitudinal stockpiles.

Bridge-type reclaimers provide the best blending effect, when working in tandem, with a predefined stacking method. Tenova TAKRAF bridge type scrapers are equipped with full width harrow. The large harrow covers almost the entire cross section of the stockpile and gives a huge advantage of perfect homogenization of the material. Being large sized, the harrow also needs a short traverse across the pile by means of a hydraulic cylinder, which guarantees minimum wear and maintenance. Depending on the size of the blending yard and material off-take, the bridge reclaimer can be designed for a capacity of 2,500tph (tonnes per hour) and pile width of 50 metres and above.

Portal reclaimers are suited for wide stockpiles and high capacities during reclaiming. The design of the portal allows a high degree of flexibility, which allows a single machine reclaiming different materials depending on the need of the process plant

Side scraper reclaimers, also known as cantilever or pylon type, are flexible and lightweight machines. They provide an economical solution for small to large stockyards handling different materials. Side scraper reclaimers are available in two designs: one works on a concrete ramp arranged on the entire length of the stockyard and the other is equipped with an inclined trough. The inclined trough is an integral part of the machine and offloads the material reclaimed from the pile to the yard belt conveyor.

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Circular stockyard system — this system has a circular form and contains only one continuous pile. The input and output flow of the circular system go via the centre of the system. The material is discharged by a belt conveyor at the top of the central column to the boom conveyor. The boom conveyor in turn forms the circular stockpile in a programmed sequence. The reclaimer can be bridge type reclaimer which is reclaiming from a fully formed pile. The output from the reclaimer is discharged to the central hopper at the bottom of the central column and is carried away by a belt conveyor. This ensures that building up and reclaiming of a continuous pile can be carried out simultaneously.

The advantages of this system are many — it requires less space, saves money owing to covered storage, allows 360° rotation and endless piling, provides high blending efficiency with no end cone effect, requiring no change of pile and above all encourages a relatively simple and automatic operation.

The circular system can also be arranged for working with portal type and side scraper.

In the last five years, over 200 machines for a variety of stockyard operations have been supplied by Tenova TAKRAF located in Chennai (India) to major cement manufacturers and power producers in India and other parts of the world, particularly in Middle East and Africa.

Holcim (ACC and Ambuja), Ultratech, Shree Cements, Vicat, Madras Cements, Chettinad Cements, Shah Cement, Tokyo Cement, Bharati Cement, Dangote, Mombasa Cement, Neyveli Lignite Corporation, Athena Power, Lafarge and Arabian Cement are some of the proud owners of Tenova TAKRAF equipment.

The design of bulk material facilities requires a specialist knowledge that goes beyond the traditional disciplines of civil, structural, mechanical and electrical/ controls engineering. This specialist knowledge stems from proper comprehension of materials and the type of handling process involved. Tenova TAKRAF's decades of experience in efficient transportation play a key role in each of its success stories.

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Radial telescopic stockpiling coal directly from trucks in stockyard.

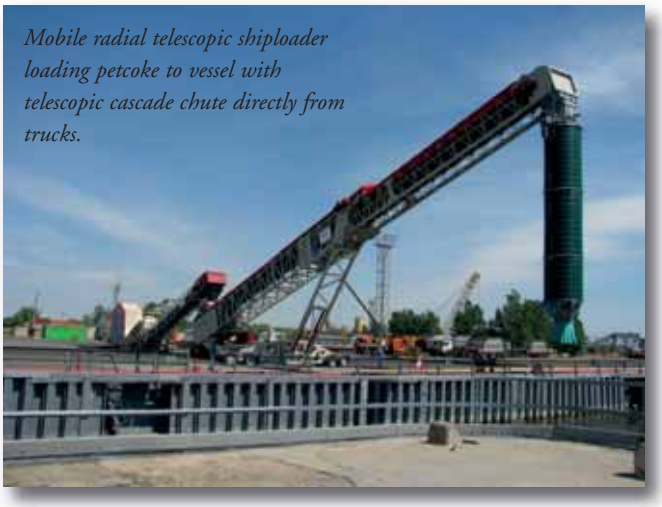
maximum operational flexibility and mobility

Telestack Limited continues to excel in providing innovative mobile bulk material handling systems to its worldwide customer base. The success derives from achieving sustainable value for the client; using mobile bulk handling technology to enhance operational efficiency, minimize environmental impact and maximize flexibility.

Traditional ship-unloading in ports and terminals varies from the fully integrated ship to stockyard system incorporating grab cranes, hoppers, conveyors and stackers/reclaimers for fully dedicated berths. Alternatively, the system for multi-cargo berths operates grabs, hoppers, trucks to the specific stockyards. The main issue with the latter system, is how to efficiently stack the material in a safe and environmentally friendly manner? Telestack mobile stacking and truck unloading solutions are particularly effective when stockpiling multi-cargo in a remote stockyard which allow the customer to stockpile differing types and grades of materials in various locations.

For ports which operate multi-cargo berths/stockyards, Telestack's unique mobile equipment can offer the flexibility to stockpile up to heights of 17 metres at a rate up to 2,500tph (tonnes per hour) using a range of truck unloaders and mobile radial telescopic conveyors. This automatic stockpiling system eliminates the segregation, degradation and compaction of the material within the stockpile, which ensures the material characteristics are maintained. Also, it can be used as a back-up stacking system in the event of failure or during statutory maintenance of a dedicated stacker/reclaiming system (see picture above and bottom left). This stockpiling unit can be installed with a crawler tracked dolly unit or wheeled dolly unit for full site mobility in harsh ground conditions. This site mobility ensures the operator can use this equipment anywhere within the stockyard when required. In many instances, these units are multifunctional, utilized for both stockpiling and shiploading applications up to Panamax-size vessels, with the radial telescopic features offering maximum manoeuvrability and flexibility during both processes.

In many applications, a fully automated integrated system would not be feasible to the particular port and inland terminal with lower capacities, which could not justify the high capital expenditure of the overland conveyor and stacker/reclaimer systems. As shown in the picture below, the popular method for multi-cargo berths would include grabs, hoppers, trucks to the specific stockyards. These trucks would transfer the bulk



Mobile radial telescopic shiploader loading petcoke to vessel with telescopic cascade chute directly from trucks.

Typical ship-unloading application with grab crane discharging into hoppers which feed directly to trucks, which unload in the stockyard.

Half-full or half-empty?

Breakbulk EUROPE

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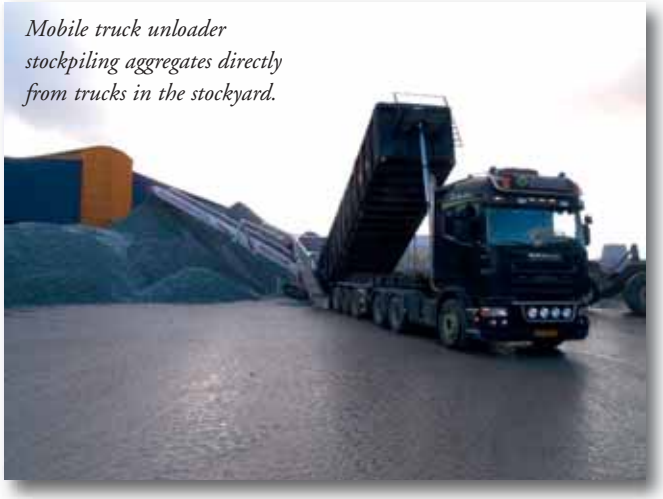
material directly to the stockyard. Primarily, these trucks would dump the material within the stockyard, then loading shovels or excavators would be used to stockpile the material, either with a loading shovels driving up and down stockpiles or a number of excavators used to achieve the required stockpile height and capacity, as shown in the picture below.

This is not an effective stacking method, with extensive contamination and double handling of the material, which leads to increased operational and production costs. The Telestack mobile solutions offer a range of mobile truck unloaders and stackers which can eliminate these common problems.

Mobile truck unloader stockpiling aggregates directly from trucks in the stockyard.

In specific stockpiling applications directly from trucks, Telestack offers a range of mobile truck unloaders which can transfer the load directly from the trucks to a stockpile. This unit can include a radial facility, which again allows maximum flexibility to stockpile up to 10 metres. This efficient stockpiling method eliminates the double handling of the material and allows the operator to stockpile directly from this single unit. Also, the mobility of this unit means it can be easily moved around the stockyard depending the requirements of the operator.

This range of truck unloaders can be used in conjunction with the radial telescopic stacker to achieve the greater stockpile height and capacity if required. The combination of these two mobile units for both stockpiling and shiploading, offer the customer complete flexibility, safety and efficiency, taking into consideration required stockpile heights, capacities and types/grades of materials within typical multi-cargo berths.



Mobile truck unloader stockpiling aggregates directly from trucks in the stockyard.

The overall benefits of this range of equipment includes:

- dual functionality, both for shiploading and ship-unloading operations, which eliminates overhead costs for secondary equipment;
- ease of transport from stockyard to quayside;
- range of truck unloaders utilized as a stacker/shiploader or feeding the radial telescopic stackers;
- wide range of dust suppression/containment and trimming facilities;
- operational movements range from in line, radial, parallel and many more;
- hatch changes normally only require parallel movement — no need to reverse out if the vessel is geared;
- cost-effective solutions compared to other competitors; and
- customized solutions to meets the needs of any application.

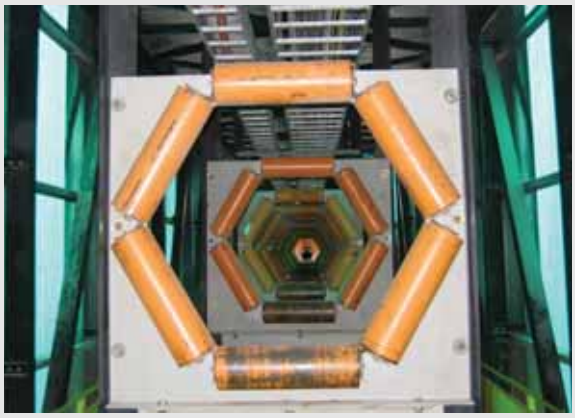
These mobile systems highlight Telestack's aim to provide for the specific needs of each application to ensure the equipment is efficient and reliable during these types of operations, all from one experienced supplier.

Telestack will be exhibiting at the Bulk Ports, Terminals & Logistics 2012 conference and exhibition which will take place in Amsterdam, The Netherlands, from 20–22 May. Telestack's factory sales team will be on stands 6 & 7, where they will be exhibiting the company's full range of equipment of mobile bulk material handling solutions. DCi

Mobile truck unloader and tracked mounted radial telescopic stacker/shiploader.

BATEMAN

Bateman Engineered Technologies



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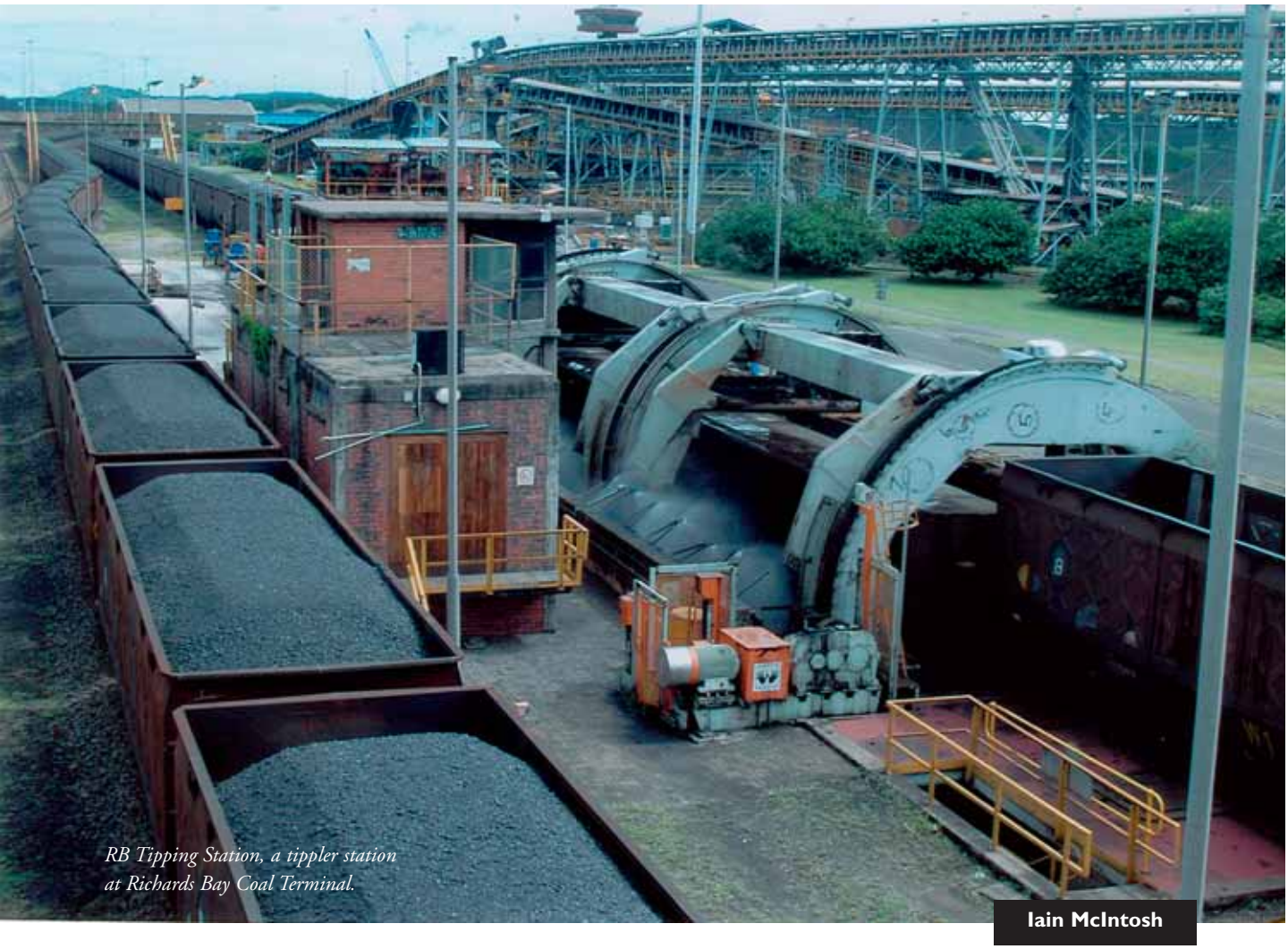
South Africa regional report



RB Tipping Station, a tippler station at Richards Bay Coal Terminal.

Iain McIntosh

Overview

Whilst 2011 had been expected to be a slower year for bulk exports, growth the second half of the year saw accelerated performance across all sectors resulting in rise of nearly 9mt (million tonnes) to 141.5mt and a 6.6% rise over 2010 volumes which were also ahead of the global growth in bulk trade. This was largely achieved through better than expected iron ore shipments from Saldana and a second half of year improvement in coal railings which helped export flows from Richards Bay. Durban also saw growth through increasing manganese ore exports as well as a significant upswing in grain exports.

The forecast for the period 2012-2013 is extremely healthy and comes on the back of significant landside infrastructure projects that are already in progress or will start and complete over the period 2013–2016 laying the foundation for exports to rise to in excess of 200mt by 2016. Even in the short term, both Saldana (iron ore) and Richards Bay (coal) will play a significant role in raising total bulk exports by 8–9% per annum over the coming year and 2013. This will force increased demand for both Capesize and Panamax tonnage at the same time. Main port exports and total bulk exports are tabled below.

There have been significant developments on both the political and industrial fronts in South Africa over the last few months and these are very positive. Indirectly one of the most positive outcomes is a clear path on development of gateway ports for South Africa's key bulk exports. This can be clearly outlined as:

SOUTH AFRICAN DRY BULK EXPORTS 2007–2013 (MILLION TONNES)

Port/year	2007	2008	2009	2010	2011	2012 E	2013 E
Richards Bay	74.1	73.9	68.9	75	76	84	90
Durban	3.75	5.56	5.6	5.6	7	7.5	8.5
Port Elizabeth	3.1	3.42	2.8	4.1	4.6	4.9	4.9
Saldanha	30.9	32.1	43.6	47.4	53.3	57	65
Other	0.55	0.62	0.8	0.6	0.6	0.6	0.6
Total bulk	**112.4**	**115.6**	**121.7**	**132.7**	**141.5**	**154**	**169**
Growth %	0.7	2.8	5.3	9.0	6.6	8.8	9.7

Source: TNPA monthly data

- **iron ore** — Saldahna Bay which will see rail and port upgrades;
- **manganese ore** — firmly decided as Eastern Cape (Nqgura port) with rail and port upgrades; and
- **coal** — Richards Bay with rail upgrades.

More detail on this can be seen in the review of major bulks but it is important after some uncertainty about the way iron ore and manganese ore channels would develop as well as the shortcomings of coal railing that a clearly defined strategy and action is now clear.

For the last two years, a debate has been in place on whether to nationalize the mining industry and it has been damaging the more so given the governments consistent lukewarm approach and inability to finalize the debate which led to huge uncertainty in the international arena. The positive news is that, in early February, Susan Shabangu — the minerals resources minister — finally issued the government's position on this firstly at the mining Indaba at Cape Town. This was reinforced by President Jacob Zuma during his State of the Nation speech on 9 February and laid the nationalization debate to rest. There are conditions of course, but mostly surrounding future tax regimes for mining in order to channel more taxes through the state for re-development etc.

During President Zuma's speech there was significant commitment to improving the rail infrastructure with a commitment to allocate a minimum ZAR 200–300 billion rand (US$27–37 billion) in allocation for various rail project developments to help roads by getting more freight onto rail. Some of these developments are outlined in the below review of the major bulks.

The important aspect of the speech, and the last two to three months, represent a significant shift and clear policy outlook to developing South Africa's mineral wealth in a more efficient manner. The outlook is extremely positive and as many of these projects will start to complete in 2015 onwards we can expect to see massive upward shift in SA bulk exports over the next five years.

Review of the major SA bulks

Coal trade

The inability of South Africa to export coal to the full potential of Richards Bay Coal Terminal's (RBCT) capacity of 91mtpa (million tonnes per annum) has been well documented in recent years. This also happened at a time when global trade in steam coal grew from 558mt in 2007 to 715mt in 2011. The main shortcoming in this was TFR's (Transnet Freight Rail) inability to rail sizeable volume to the terminal for a variety of reasons. The good news is that TFR does appear to have turned the corner and coal railing rose dramatically in the second half of 2011 through increased locomotive use, jumbo wagons and improvement in driver skills. By the fourth quarter of 2011 TFR was railing an annualized equivalent of 72mtpa to RBCT. In addition upgrades to the Maputo line has seen increasing throughput via the Matola terminal in Maputo. The export of steam coal through South Africa's main three gateway ports is detailed in the table at the bottom of this page, showing a conservative forecast for 2012.

These figures are encouraging and TFR enhancements to the coal line to RBCT look set to achieve their aim of 81mtpa by 2014. In addition coal railings to Maputo are already running at 3mtpa and can increase to 4.5mtpa (current port capacity) but rail is currently running ahead of the supply of coal.

The exciting development in the coal sector is the recent signing of an agreement between TFR and Swazi Rail to build a 146km rail line between the two countries at a cost of US$2.2 billion, which will create an additional capacity of 15mtpa on the coal line by diverting non coal bulk over the Swazi route to Richards Bay. Work is expected to start during 2012 and the line will be commissioned by 2016 therefore suggesting a move from existing enhancements of 81mtpa in 2015 to 96mtpa by 2016 once the new line commences operation.

Looking further ahead to the future, South Africa's main coal fields in Mpumalanga are at their maximum capacity and will move into decline in the coming years whilst the big development for the future is the Waterberg coal fields to the north west of the country on the Botswana border. Significant challenges are ahead for rail and infrastructure but the TFR initiative is already under way to raise capacity to 23mtpa by 2017 and currently this is at feasibility study phase 2. Construction of upgraded loops can be expected to start 2013/2014 and is essential for continued growth of exports in the coal sector.

As for trading volumes from Richards Bay the graph on p141 highlights the now well established switch from Europe (Atlantic) trading to Asia (Pacific Trading). During 2011, India volumes actually decreased but were adequately replaced by a massive surge in exports to China in the fourth quarter, which was previously a small destination for South African coal. China volumes reached over 11mt in 2011. It can be expected that China will continue to take increased volumes of coal and presents the market for growth for the increased volume through RBCT; however, China sales can often be governed by price arbitrage so are volatile. The volumes to India look solid into the future and more so with India demand of imports showing continued strong growth for 2012/2013 due to increasing shortage of domestic supply against massive power station builds.

Overall therefore, a very positive outlook for coal exists. After recent years of negative sentiment, the corner appears to have been turned and looks very exciting for the coming years.

Iron ore trade

The ongoing success story in South African bulk exports over recent years continues to be the exceptional growth of iron ore exports through the port of Saldanha from exports of 25mtpa in 2005 to over 53mpta in 2011. Also, since growth accelerated in 2008, there has been a marked swing towards Pacific basin supply with all export growth heading to China and, to a lesser

COAL TRADES

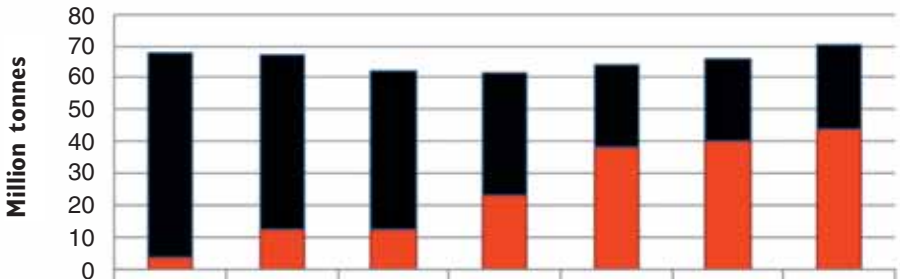
Total SA coal (mtpa)	2007	2008	2009	2010	2011	2012 (E)
RBCT	66.8	61.8	61.1	63.8	65.5	70
Durban	0.95	1.5	1.2	1	1.2	1.4
Maputo	1.1	1.2	1.4	1.6	2.2	3.5
Total SA coal	**68.85**	**64.5**	**63.7**	**66.4**	**68.9**	**74.9**

extent, Japan; this is a natural progression for many supplier countries. South Africa can compete well in tonne miles and price per tonne, with Brazil for the large China market enjoying an approximate US$6 per tonne advantage for a 160K Capesize vs. Tubarao to Qingdao. We have detailed below volumes by main destination forecasting through to 2013 where Saldahna exports can potentially reach 65mt.

Once again the next challenge facing the iron ore industry is the next level of upgrade to facilities in a high demand market. The Sishen-Saldahna line is delivering just over 50mtpa of iron ore through Saldahna and will have the ability to rise to 60mtpa during 2012/2013 since completion of the Phase 1C upgrade. At feasibility study stage is the ability to deliver over 80mtpa; this will require further investment by TFR using increased trains on the line and would entail an additional 9–10 passing places on the 800km track to facilitate the higher velocity of throughput. With the new locomotives being purchased by Transnet, this will add more capacity to the line to deliver this growth path. This upgrade is assured as part of the large infrastructure build being rolled out by state-owned Transnet over the next five years.

From a production perspective in the Northern Cape, Kumba and Assmang have plans to add 39mtpa of production and largely via beneficiation technology to convert ore types into valuable saleable product. This assures volume delivery through the planned upgrade of the Sishen-Saldahna line. A further development could also take place in the North Eastern province of Limpopo via the Phoenix project (3.4mtpa) and Zandriveirspoort (5–8mpta) adding 8–11mtpa of production.

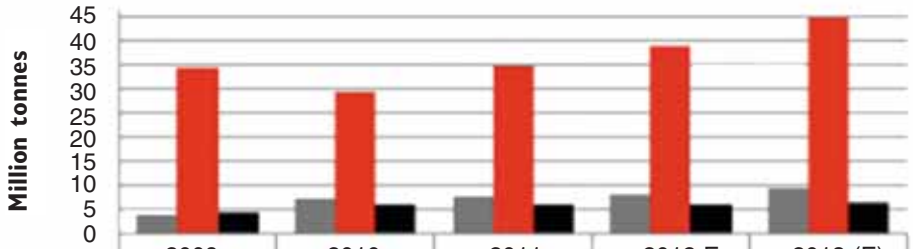
Richards Bay – Atlantic vs. Pacific Basin



	2006	2007	2008	2009	2010	2011	2012(E)
Atlantic	64.2	54.8	49.3	38.2	25.9	25.8	28
Pacific	4	12	13	23	38	40	44

Source data – SA Revenue stats & AfriCoal.

Saldahna Iron Ore Exports — 79% Pacific Basin



	2009	2010	2011	2012 E	2013 (E)
Europe	3.9	7.2	7.5	8.1	9.4
China	34.3	29.6	35.1	39	45
Japan	4.1	5.7	5.8	5.8	6.5

Source data – Trademap.org

Whilst initially concerns existed over ability to deliver this product to port, the coal line developments mentioned earlier would free up sufficient non coal line capacity to also deliver ore to Richards Bay in the future.

To illustrate the changing mix of iron ore deliveries, the map below from Kumba — the largest iron ore producer in South Africa — graphically illustrates the switch to Pacific Basin trading from their 2011 annual report.

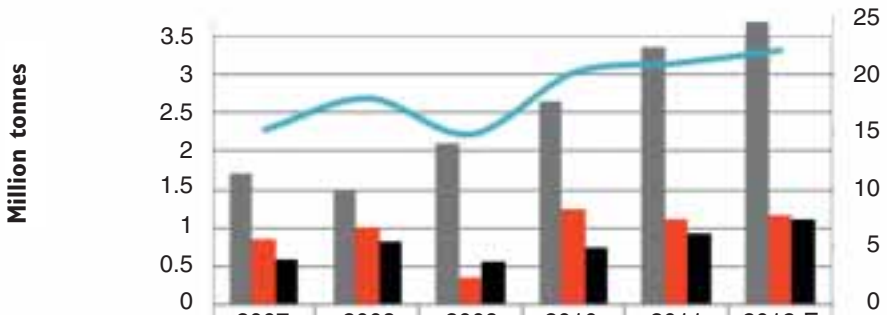
Manganese ore trade

South African exports of manganese ore grew again in 2011, and look set to grow further in coming years. Manganese ore is another commodity where South Africa enjoys well above average global resource (in excess of 75% of known global reserves), yet does not fully exploit its comparative advantage due to shortcomings on the mine to port local landside operation.

The graph on the right highlights the continuing upward trend of exports and destination markets.

The current main export gateway is Port Elizabeth Bulk Terminal. However, this is already at maximum capacity (5mtpa) and, during 2011, one of the main contributions to Durban's increased bulk exports was an increase in bulk loading of manganese ore which reached 1.8mt (this is compared with only 800,000 tonnes in 2008). The reasons for this are the capacity shortfall through Port Elizabeth and available rail capacity from the mines in the Northern Cape which only serve the Port Elizabeth corridor. This is an expensive overflow operation and needs to be addressed urgently. In the short term, there is also a considerable upswing in manganese ore being packed in containers through a slightly cheaper option of using the road to Bloemfontein and then rail via the large new container port of Nqgura (Coega). This has gathered some momentum in 2012; however, containers are realistically only able to handle maybe 800–900,000 tonnes per annum.

Manganese Ore ex South Africa 2007–2012



	2007	2008	2009	2010	2011	2012 E
China	1.7	1.47	2.1	2.66	3.36	3.70
Europe	0.84	1.01	0.35	1.23	1.11	1.15
Japan	0.59	0.82	0.55	0.73	0.93	1.1
World Export	15.3	18	14.9	20.2	21	22.1

Source data – Trademap.org and Clarksons.

The positive news therefore is that part of the ZAR 300 billion roll out of infrastructure build will involve Transnet Freight Rail (TFR) upgrading the Hotazel – Port Elizabeth rail line to a heavy haul line with larger trains and this would realize increased capacity to approximately 16mtpa once complete. At the same time, Transnet ports' commitment to vacate Port Elizabeth terminal remains in place and, in tandem with the rail upgrade, will relocate the manganese terminal to the new deep water Port of Nqgura by 2016/2017. Nqgura provides minimum 14 metre draught and would allow increased vessel size from the current Handymax/Supramax size to increased use of Panamax vessels which will help price competitiveness of moving ore to market. As reported before, there is further logic to the Coega IDZ/Nqgura gateway given that a manganese alloy plant is opening shortly in Coega and also steel manufacturing. Both of these need manganese ore as an input and can add beneficiation to exports as well.

Richards Bay Coal Terminal, with a clear view of the coal yards.

Kumba iron ore facility and its loading station.

The only short term negative is the gap in lower cost export capability will continue for at least another two to three years given the time it will take to bring rail and port capacity on line and therefore in the short term whilst bulk exports will increase through various gateways much of the growth in export will accrue to workaround operations such as container operators.

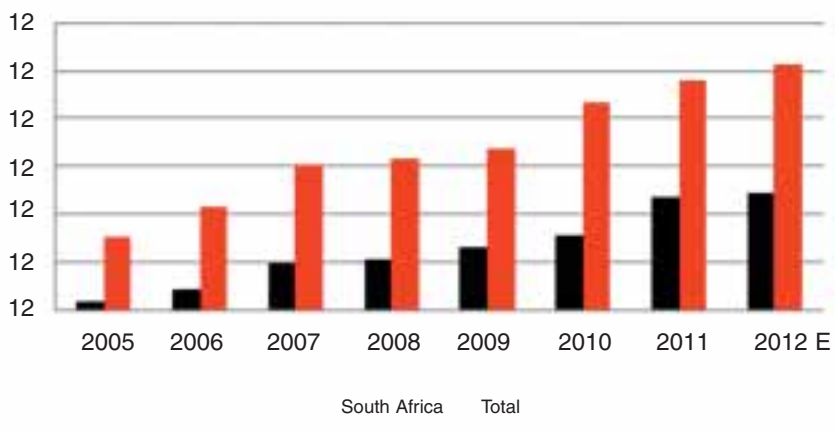
Chrome ore trade and beneficiation

One of the most interesting trade developments in recent years has been China's thirst for chrome ore. Chrome ore is the first stage prior to smelting to a much higher value ferrochrome product. China has no local resource whilst South Africa has approximately 65% of the global resource of chrome ore. South African-installed ferrochrome capability (furnaces) are the most efficient in the world at 4.8mt per annum, but are under utilized due to electricity shortages. Ferrochrome production is also worth 3.5 times more employment than chrome ore production. For South Africa, with high unemployment, the case for renewed and increased beneficiation in this sector is strong, especially given the vastly increased contribution to GDP.

With reduced South African ferrochrome production in recent years, at the same time China's demand for Chrome Ore has risen dramatically as it imports more ore to feed its own ferrochrome furnaces. Whilst China initially imported around 3mtpa in 2005, this rose to just under 10mtpa in 2011 and a direct correlation with South Africa as a major supplier and resource holder is evident as South Africa now accounts for 50% of Chinese imports. Indeed, the benefit this increased export has provided is demand for more Handymax and Supramax tonnage ex South Africa; however, this is a short-sighted view in isolation.

There is a debate raging currently to restrict or short-term beneficiate chrome ore by the SA industry (ferro producers) via an export tax of US$ 100 per tonne on exports of chrome ore. This is approximately 43% of the current spot price of chrome ore and would certainly add value to the chain in the short term until electricity supply can increase ferrochrome production. Whilst there are merits for and against this, and certainly a potential impact on chrome ore exports, the wider concern is that if nothing is done then South Africa will continue to lose market share of ferrochrome production and, ultimately, create a price collapse should no action be taken in respect of chrome ore pricing when currently shut down furnaces return to production. Other suppliers such as Turkey and Oman are also considering curbing chrome ore exports and Zimbabwe has already done this with an outright ban on ore exports. This is currently a highly emotive area for South Africa right now and the outcome ahead is uncertain however it does look likely that some form of action will be taken to curb this unhealthy current situation.

China Chrome Ore Imports (in million tonnes)



Liebherr to supply its 100th mobile harbour crane to Africa

Shipment of Liebherr mobile harbour cranes.

Liebherr is celebrating a major milestone. In April 2012, its one hundredth mobile harbour crane for the African continent is going to be delivered to APM Terminals Apapa.

In 1976, just two years after entering the mobile harbour crane business, Liebherr supplied its first two LHMs to Africa. Dedicated to container handling, both mobile harbour cranes were destined for Libya. In the next two decades business was poor due to serious stability issues, quests for independence as well as low economic development in various African countries.

However, two deliveries to ports in South Africa and Namibia mark the significant turnaround in 1996. These machines represent the first LHMs suitable for bulk handling in Africa. From that point on business has been back on track. In 2001, a first remarkable peak was achieved with seven LHM deliveries to customers in Namibia and Nigeria.

The ongoing economic development in several African countries has favoured an increased demand for highly competitive and top quality products, which provide maximum flexibility. Liebherr's innovative cargo handling solutions perfectly meet these requirements. Consequently, mobile harbour crane deliveries to Africa virtually exploded in recent years. Since 2007, even more than 70 Liebherr mobile harbour cranes have started operation in Africa. Impressive is not only the number, but also the diversity of sales regarding models and applications which covers container and bulk handling as well as general cargo operation. Despite a noticeable global trend towards bulk handling, most of the African ports still prefer container handling configuration.

In 2007, the Tunisian stevedoring and handling company STAM ordered its first LHMs and thereby became part of this success story. Due to the very positive experience with these three machines the company has invested in four additional LHMs in the past two years. "Currently, we have seven LHMs in operation in three Tunisian ports. Five LHMs are totally dedicated to container handling, the other two operate general cargo, dry bulk and containers. These cranes offer utmost performance, are robust and impress by state-of-the-art technology", states Sami Battikh, STAM's purchasing director.

When it comes to geographical distribution, Nigeria accounts for almost one quarter of all Liebherr mobile harbour cranes in Africa with a total of 24. Algeria follows closely with 21 LHMs in operation. Moreover, Algeria plus its neighbour countries Libya and Tunisia represent Africa's most populated region with altogether 43 machines. However, recent development shows that the southern and western regions of the continent are catching-up, mainly driven by Nigeria and South Africa respectively.

Ports and Cargo Handling Services Limited is a subsidiary of the SIFAX group, which is operating in the maritime, aviation and oil and gas industries in Africa's leading LHM market Nigeria. Ports and Cargo operates terminal 'C' of the Tin Can Island Port, Lagos. In 2008 the company acquired four Liebherr mobile harbour cranes type LHM 400, equipped with Cycoptronic® including Teach-In feature for faster and safer cargo handling. "LHM's high safety standards and ultra-modern design simplifies operation of such a heavy-duty machine. Its unique flexibility makes it easy to work with two cranes at very close hatches at the same time," Captain Luc Deruyver, group managing director, confirms.

Another Nigerian company trusting in Liebherr products is Inter-Bau Construction Limited. The well-known construction company ordered two Liebherr mobile harbour cranes type LHM 180 for the Onitsha River Port project in 2010. The cranes handle a wide variety of break bulk cargoes and the occasional container, an area where growth is expected. Additionally the machines can also be adapted for bulk handling if needed. "Due to superior technology advantage, reasonable pricing and excellent after sales support, Liebherr was the preferred vendor. Their high degree of professionalism impressed throughout the buying process," says Sir Nath Okechukwu, owner and chairman of the group.

Regarding Liebherr's competitive product range, so far LHM 400 and LHM 250 represent the most important models in Africa, each with 19 machines in operation. Considering the quite recent market launch of the LHM 550 in 2010, this type truly has potential to become the best selling mobile harbour crane in Africa with already eight machines in operation and several orders in the backlog. The global trend towards heavy-duty cranes may even increase the demand for LHM 550s, which is the second biggest mobile harbour crane in Liebherr's portfolio. In addition to that, Liebherr wants to further expand its market presence in Africa with its newest model, type LHM 420, designed for versatile and efficient cargo handling with a maximum lifting capacity of 124 tonnes.

In 2011, only a few months after market introduction of Pactronic®, four LHM 550s equipped with Liebherr's innovative hybrid drive system started operation in Africa. This cutting-edge technology provides several key advantages for both crane operators, Sogester in Angola and Intel Nigeria Limited. In terms of turnover capacity, this accumulator allows an increase by 30% leading to notably shorter demurrage. Additionally, Pactronic® leads to a reduction of fuel consumption as well as CO_2 and exhaust emissions in the range of 30% depending on the operation.

In April 2012, Liebherr is going to deliver its one hundredth mobile harbour crane, type LHM 550, to APM Terminals Apapa. Their fleet will then comprise nine heavy-duty machines operating at terminals in Benin, Luanda and Apapa. Being one of Liebherr's major customers in Africa, APM Terminals Apapa has played an important role in reaching this 100th delivery milestone in early 2012.

Dry bulk handling LHMs in action.

South African customer places large order for mobile harbour cranes

Liebherr-Werk Nenzing has received a large order from Transnet Port Terminals for the delivery of six state-of-the-art mobile harbour cranes. In January 2012, Liebherr-Werk Nenzing GmbH and Transnet Port Terminals in Durban, South Africa, signed a contract for the delivery of six mobile harbour cranes of the latest generation. These high-performance cranes, type LHM 550, are suitable for a wide range of applications.

The ultramodern machines are destined for the RoRo and Maydon Wharf Terminal in Durban. Currently the terminal mainly handles bulk. However, a steady increase in container-handling volume calls for an expansion of existing capacities. Thanks to these new LHM 550s the terminal is optimally prepared for future challenges regarding cargo handling and vessel delays are going to be minimized.

King & Sons, one of the oldest ships' agencies in Southern Africa

King & Sons, one of Southern Africa's most established ships' agencies, was founded in 1881. A division of Grindrod Ships Agencies (South Africa) (Pty) Limited, it was the first ships' agency in South Africa to receive ISO 9001:2000 accreditation for agency services in both liner and non-liner functions.

With integrated state-of-the-art technology and extremely qualified staff, the company is proud to offer its clients a full range of support in both technical and commercial logistics. It is highly experienced in handling vessels ranging from passenger liners, bulk and break-bulk vessels, tug and tow to specialized gas carriers at all Southern African ports from Walvis Bay to Maputo.

King & Sons is one of the oldest ships' agencies in Southern Africa, having been founded on 19 December 1881. Its origin was the agency formed by Captain Don King and Mr W S Bullard, who inaugurated the White Cross Line sailing ship schedule between London and Natal.

The Grindrod Group as it exists today is a result of more than 100 years' service to commerce and industry in the broad transportation field. It has grown as a result of its reputation for excellent service and the acquisition of other companies engaged in complementary activities.

Role of a Ships' Agent

To provide technical, operational and commercial logistics support to ships owners, charterers, cargo owners and receivers in the full logistics chain.

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KingMining.com

Hear from

H.E. Jero Wacik
Minister for Energy and Mineral Resources, Republic Indonesia

Ibu Francesca Hadinata
Managing Director, PT Mitra Bahtera Segarasejati

Garibaldi Thohir
President Director, PT Adaro Energy

Andrew Forrest
Chief Executive, Fortescue Metals Group

Yuji Kakimi
Chief Executive & Director, Chubu Energy Trading

This includes:

- landside management of cargoes, port to door and door to port logistics solutions.
- bunkers, co-ordinate bunker stems with oil major's/arrange barge where necessary and co-ordinate bunker operations as per vessel requirement;
- spares, track and trace, arrange clearance of spares and delivery to vessel;
- stores, co-ordinate vessels/owners' requirements and delivery to vessel;
- arrange guarantee letters, arrange/co-ordinate flights, arrange transportation/immigrations and customs formalities;
- hotel bookings, book inward/outward crew with relevant hotels at preferential rates as and when required;
- crew transport, arrange crew transport at owners/masters request: to doctors, dentist, notaries, hotels etc.;
- cash to master (CTM), arrange/coordinate safe receipt and delivery of cash to masters;
- fresh water supply, arrange/co-ordinate supply of fresh water to vessels as per owners'/masters' requests;
- stowaways, arrange/co-ordinate detention/removal of stowaways with relevant authorities (immigration/ customs/P&I/SAPS) arrange/co-ordinate repatriation as and when required as per South African immigration regulations;
- vessel arrests, arrange/co-ordinate legal processes;
- hospitalization, arrange crew hospitalization as and when required, co-ordinate feedback/doctors reports and repatriations requirements;
- vessel husbandry;
- ship repair co-ordination;
- dry dock arrangements;
- SPM (single point mooring) operations;
- ship owners' protecting agency;
- port agency operations;
- container logistics;
- container rail management; and
- specialist depot storage for ISO tank containers, also providing repairs, preparation, washing and cleaning.

Ports

King & Sons offers full ships' agency services in all major ports in Southern Africa, Mozambique and Namibia.

The ports served are: Durban – South Africa; Richards Bay – South Africa; East London – South Africa; Mossel Bay – South Africa; Port Elizabeth – South Africa; Cape Town – South Africa; Saldanha Bay – South Africa; Beira – Mozambique; Nacala – Mozambique; Maputo – Mozambique; Luderitz – Namibia; and Walvis Bay – Namibia

Major clients

King & Sons' major clients are ship owners, vessel charterers, cargo owners and cargo receivers, cargo shippers.

Dry bulk business

Dry bulk transported in vessels served by King & Sons include:

Coal exports, iron ore exports, sulphur imports, magnetite, corn, ferro chrome and chrome ore, copper concentrate, manganese ore, and maize. Being Part of the greater Grindrod Group, King & Sons is able to provide a full port-to-door and door-to-port logistics solution. DCi

Moving caustic corrosive materials safely

National Bulk Equipment, Inc. (NBE) offers a pneumatic conveying system, specially treated to transfer a highly corrosive, granular material, uses integrated automation to minimize human exposure to the material and to optimize process efficiency with the upstream bulk bag unloading system. To reduce wear, the pneumatic conveying system is constructed of specially coated stainless steel tubing and components. Process-critical components and valves are Teflon® coated. Pneumatically conveyed material is transferred to the downstream wetting process, in batches, based on calls from weigh system sensors. Total system capacity exceeds 9,500 pounds per hour.

NBE integrated automation centralizes system control, communication, monitoring, and reporting using NEMA 12, dust-tight enclosures, and a single, UL listed HMI, designed and built by NBE. Operator exposure to caustic material was eliminated, and operator physical ergonomics were optimized as a result of rigorous NBE risk assessment procedures. NBE expertise in specifying, designing, and manufacturing process systems to application-appropriate codes, standards, and regulations ensured system compliance at start-up.

Packing system enhancement for Wynnstay Feed

The ability to enhance the speed of an existing packing system at the Llansantffraid Mill of Wynnstay Feed Division in Powys, UK, was a major factor in Chronos BTH recently securing an order to enhance a Richard Simon supplied automatic feed packing system.

Wynnstay Feed Division is a major supplier of animal feeds and nutrition products for all species of livestock in Wales, the Borders and Midlands. The company purchases a lot of home grown ingredients and has feed sales in excess of 300,000 tonnes of compound and blended feeds, which are supplied from five locations.

At the Llansantffraid Mill two Richard Simon supplied UBM weighers and Computapak II controllers were used to pack a range of animal feed pellets into bags and Big Bags. Utilizing the original installation and contract documentation Chronos BTH has upgraded the old bagging weigher controllers with SpeedAC NXT weighing controllers mounted in a new control panel in the control room.

To ensure that enhanced packing speed are achieved and matched to the output of the existing automatic open-mouth bag placer, Chronos BTH has supplied a new CHRONO-WEIGH™ E55 bagging weigher. Integrating this weigher into the existing packing systems also allows Wynnstay Feeds to operate the weighers as a duplex pair or as standalone weighers when filling Big Bags.

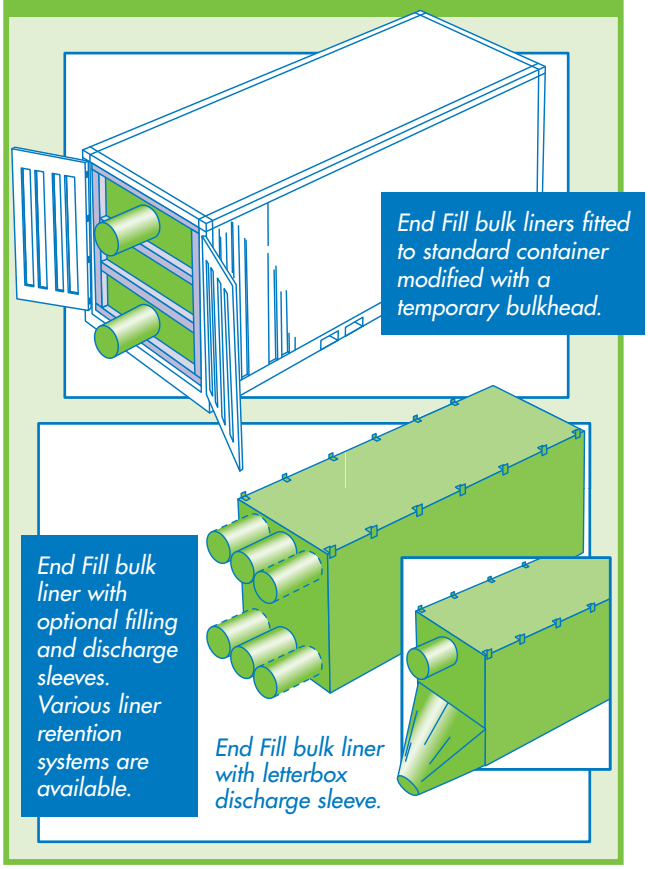
Chronos BTH's flexible customer services capability is demonstrated by their supplying the new equipment to Wynnstay Feeds, whose own engineers installed the equipment. Chronos BTH service engineers then checked the installation before completing the plant commissioning.

Since early 2003, genuine spare parts matched to the original Richard Simon design authority documentation and drawings have been supplied by fellow Premier Tech company; Chronos BTH. That experience and expertise is still available today for service and aftermarket support for the entire Richard Simon product range. This expertise and capability was an important factor in the company's ability to support Wynnstay Feeds on this project.

Chronos BTH Limited incorporates Richard Simon Limited, Verville and Premier Tech Chronos – America for European spares, refurbishments, service, installation and commissioning.

CorrPakBPS offers a complete range of sea bulk container liners designed to transport your dry bulk products safely, efficiently and cost-effectively.

END FILL BULK LINERS

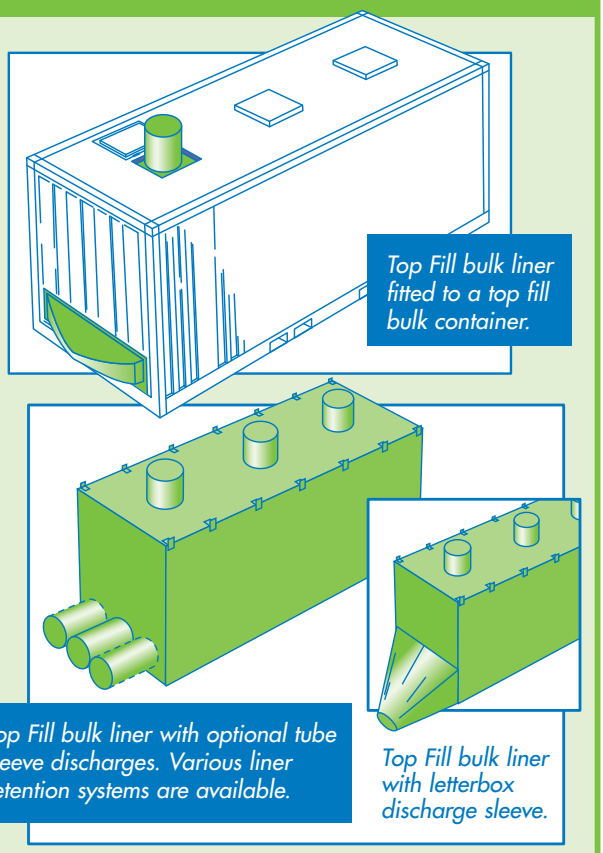


End Fill bulk liners fitted to standard container modified with a temporary bulkhead.

End Fill bulk liner with optional filling and discharge sleeves. Various liner retention systems are available.

End Fill bulk liner with letterbox discharge sleeve.

TOP FILL BULK LINERS

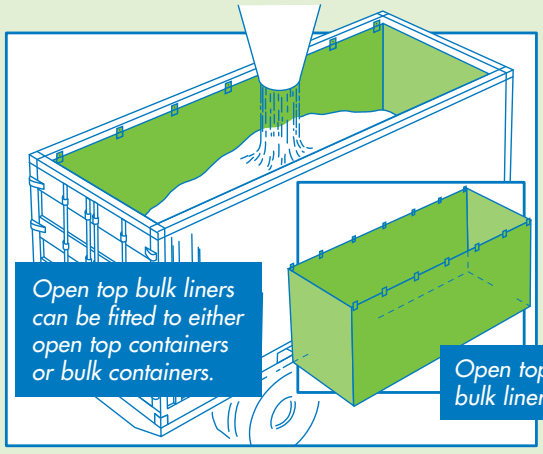


Top Fill bulk liner fitted to a top fill bulk container.

Top Fill bulk liner with optional tube sleeve discharges. Various liner retention systems are available.

Top Fill bulk liner with letterbox discharge sleeve.

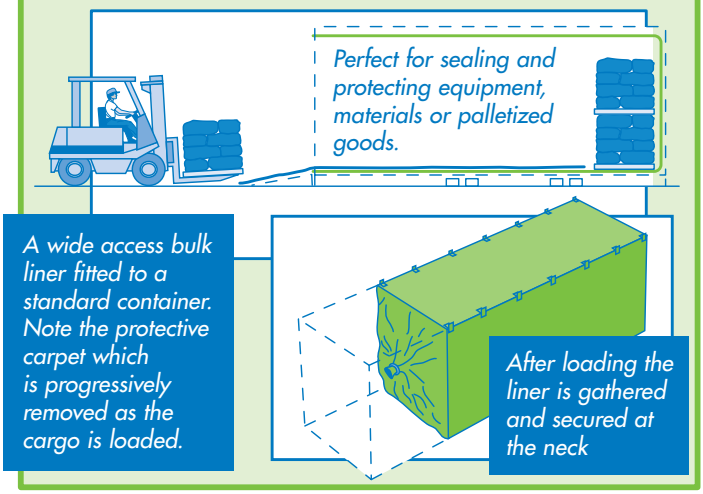
OPEN TOP BULK LINERS



Open top bulk liners can be fitted to either open top containers or bulk containers.

Open top bulk liners

WIDE ACCESS BULK LINERS



Perfect for sealing and protecting equipment, materials or palletized goods.

A wide access bulk liner fitted to a standard container. Note the protective carpet which is progressively removed as the cargo is loaded.

After loading the liner is gathered and secured at the neck

Bulk Liners are the perfect solution for shipment of dry, free flowable goods such as: PE, PVC, PET, PTA resins, sugar, minerals, grains, malt, and other products in flake, granule, powder or pellet form

1888 Hudson Circle
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Starlinger shows conversion line at Chinese expo

After successful installations of AD*STAR sack production machinery in China, the Austrian company Starlinger & Co. GmbH is exhibiting its ad*starKON 60 sack conversion line at the CHINAPLAS exhibition in Shanghai — a first-hand opportunity for bag converters to look at a fully automated process of sack conversion by means of hot air sealing technology. CHINAPLAS is taking place from 18–21 April in Shanghai.

Cost and material saving are important aspects in the production of packaging materials. High-quality packaging that provides adequate protection for the content and at the same time is practical and cost efficient — this is the order of the day. The economical use of raw materials, an extremely low breakage and spillage rate, as well as reusability and recyclability are factors that help to save money.

The AD*STAR concept meets those requirements by combining the best of three worlds: the brick shape and suitability for automatic handling of the paper bag, the tightness and flexibility of a PE film bag and the strength and resistance of a woven PP bag. Made of coated woven polypropylene fabric, the brick-shaped AD*STAR sacks are ideally suited to the high degree of automation which is characteristic for filling dry bulk goods such as cement, fertilizer and chemicals, or foodstuffs like rice and other grains.

The woven structure lends them exceptional strength and reliably protects the packaged goods against spilling and moisture. And an AD*STAR sack weighs much less than the paper or polyethylene film sacks used in the same applications, which means that less raw material is needed for production.

AD*STAR HOT AIR SEALING TECHNOLOGY: NO GLUE NEEDED

In addition to the material characteristics it is the production process that makes AD*STAR sacks special: they are produced without using glue. Instead, the coating on the fabric is plastically softened by applying hot air to bond the valve and bottom patches to the sack.

The Starlinger ad*starKON conversion line combines state-of-the-art technology with outstanding flexibility and high reliability. With a production capacity of up to 60 sacks per minute and an efficiency of more than 85% it achieves an output of 22 million sacks per year.

Machine-oriented operation with touch screen, an integrated quality assurance system and semiautomatic roll changeover ensure a smooth production process with reduced waste and high efficiency. To avoid pin holes in the fabric, the conversion line is equipped with a magnetic transport system as standard. An optional microperforation unit can be added for packaging highly aerated goods without product emission.

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2012

A comprehensive listing of the world's coal terminals, including information on throughput, facilities, storage capacity, vessel size limitation and much more.

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BULK PORTS, TERMINALS & LOGISTICS 2012

The Mövenpick Hotel, Amsterdam, The Netherlands, 20th–22nd May 2012

What will the dry bulk outlook be for 2012/2013?

What are the key issues affecting today's bulk facilities?

Programme Highlights

Short- and medium-term demand outlook for major dry bulk commodities

Current status and outlook on international bioenergy markets and trade: exporters, importers and consequences for logistics

Chinese iron ore demand and changes in Indian iron ore exports

Global and European demand and trades analysis for scrap metal

Bulk carrier supply & demand outlook fleet analysis

Design and Operational Control of Dry Bulk Terminals — how to design or expand a terminal

Opportunities in dry bulk logistics in India

New developments in environmentally friendly bulk handling using Continuous Ship Unloaders

Case Study: J. Müller Agri Terminal — Bulk Specialist at the Lower Weser

Biomass handling at ports and terminals

Attracting Green Ships

Congestions and bottlenecks in the dry cargo logistics supply chain

Dry bulk transshipping goes larger and greener

Current Speakers

Lex de Ridder, Head of Logistics & Industry - The Port of Amsterdam

James Leake, Global Head of Research, Consultancy and Information Strategy — ICAP Shipping International Ltd

Olle Östensson, President — Caromb Consulting

Prof. Andre Faaij, Technical Manager — Copernicus Institute for Sustainable Development

Jeffery Landsberg, President — Commodore Research & Consultancy

Niels Boetje, European Scrap Manager, Cargill Ferrous International — Cargill

David Peel, European Manager - RightShip Pty Ltd

B. Velan, Managing Director — Scorpio Engineering Pvt Ltd

Teus van Vianen, Delft University of Technology — Transport Engineering & Logistics

Antje Tussinger, Corporate & Business Development — J. Müller Aktiengesellschaft

Dr. Holger Lieberwirth, Executive Vice President — TAKRAF GmbH

Adrian Hinderling, Area Sales Manager — Buhler AG

Ekke Oosterhuis, Project Manager Industrial Installations — Haskoning Netherlands

Professor Mike Bradley, Director — The Wolfson Centre — Bulk Solids Handling Technology

Steve Maxwell, Vice President of Coal & Mineral Supply Chain Solutions — Triple Point Technology

Marcel Gorris, Commercial Manager Bulk Logistics & Industry — Port of Amsterdam

Mario Terenzio, Managing Director — Logmarin Advisors Srl

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Grindrod Terminals Head Office
Grindrod Mews, 106
Margaret Mncadi Avenue,
Durban 4001
T: +27 (31) 302 7111
E: grindrod@grindrod.co.za
W: www.grindrod.co.za

AUSTRALIA

BRISBANE
North Queensland Bulk Ports Corporation (NQBP)

Level 24, HSBC Building
300 Queen Street
Brisbane
Queensland
4000
Australia
Contact: Mr Graham Rawlings
General Manager Commercial
T: + 61 7 3224 7729
F: + 61 7 3224 7234
E: grawlings@nqbp.com.au
W: www.nqbp.com.au
Export: Yes
Location: North east Queensland coastline 20 km north of Bowen
Ownership: Ports Corporation of Queensland (PCQ)
Name of Port Authority: Ports Corporation of Queensland (PCQ)
Throughput Capacity: 21mt
Total Storage: 500,000 tonne live stock capacity
1.25 million tonne live & dead stock capacity
Vessel Size Limitation: approx 200,000 dwt
Notional - Length 297m, Draught 17.5m, Beam 47.5m
Additional information: The Port of Abbot Point is Australia's most northerly coal port. It comprises a rail in-loading facility, coal handling and stockpile areas, and a single trestle jetty and conveyor connected to a berth and shiploader, located 2.75km off-shore.

BRISBANE
Queensland Bulk Handling Coal Export Terminal

3 Bulk Terminals Drive
Port of Brisbane
Brisbane
Queensland
4178
Australia
Terminal Manager
T: + 61 7 3895 6500
F: + 61 7 3895 1170
E: qbhlogistics@qbh.com.au
W: www.qbh.com.au
Export: Yes
Location: Australia, East Coast, Queensland, Brisbane
Ownership: Queensland Bulk Handling Pty Ltd
Name of Port Authority: Port of Brisbane Corporation
Throughput Capacity: 8 million tonnes potential per annum
Total Storage: 377,000 tonnes
Vessel Size Limitation: 90,000dwt, length 317m, draught 13.5m

CARRINGTON
Port Waratah Coal Services Limited

PO Box 57
Carrington
New South Wales
2294
Australia
Contact: Mr Graham Davidson
Chief Executive Officer
T: + 61 2 4907 2000
F: + 61 2 4907 3000
E: contact_us@pwcs.com.au
W: www.pwcs.com.au
Export: Yes
Location: New South Wales, Australia
Ownership: Coal Industry & Japanese Customers
Name of Port Authority: Newcastle Port Corporation (NPC)
Throughput Capacity: 102 Mtpa
Total Storage: Kooragang: 370,000 sqm
Carrington: 164,000 sqm
Vessel Size Limitation:
Kooragang: Max LOA 300m, Max Beam 50m, 40,000 – 232,000 dwt.
Carrington: Max LOA 390m, Max Beam 47m, 20,000 – 180,000 dwt.
Additional information: Operates Kooragong and Carrington Coal Terminals at the Port of Newcastle, Australia

DARWIN
P&O Automotive and General Stevedoring

PMB 23
Berrimah
Darwin
Northern Territory
0828
Australia
Contact: Mr Michael Van Brederode
Regional Manager
T: + 61 8 8922 2300
F: + 61 8 8941 0604
E: craig.doudle@poags.com.au
W: www.poags.com.au
Location:
Ownership:
Name of Port Authority:
Throughput Capacity:
Total Storage:
Vessel Size Limitation:

GLADSTONE
Barney Point Coal Terminal

Central Queensland Ports Authority
PO Box 259
Gladstone
Queensland
QLD 4680
Australia
Contact: Mr Peter O'Sullivan
T: + 61 74 976 1471
F: + 61 74 972 3045
E: osullivanp@cqpa.com.au
W: www.gpa.org.au
Export: Yes
Location:
Ownership: Central Queensland Ports Authority (CQPA)
Name of Port Authority: Central Queensland Ports Authority (CQPA)
Throughput Capacity: 4 million tonnes per annum (2004/05)
Total Storage:
Vessel Size Limitation: DWT 90,000 (fully loaded)

GLADSTONE
Gladstone Ports Corporation

PO Box 259
Gladstone
Queensland
4680
Australia
Contact: Ms Dayna Burns
Media & Communications Officer
T: + 61 7 4976 1624
F: + 61 7 4976 3045
E: burnsd@gpcl.com.au
W: www.gpcl.com.au
Export: Yes
Location: Australia
Ownership: Government Owned Corporation
Name of Port Authority: Gladstone Ports Authority
Throughput Capacity: 80mtpa
Total Storage:
Vessel Size Limitation: 220,000dwt

KOORAGANG ISLAND
Newcastle Coal Infrastructure Group

Locked Bag 6003
Hunter Region Mail Centre
Kooragang Island
NSW 2310
Australia
Contact: Mr Paul Beale
General Manager
T: + 61 2 4920 3900
E: enquiries@ncig.com.au
W: www.ncig.com.au
Export: Yes
Location: Kooragang Island, Australia
Ownership:
Name of Port Authority:
Throughput Capacity: May 2010 - Jan 2011: 8.4Mt
Total Storage:
Vessel Size Limitation:
Additional information: 1st stage opened in May 2010 with export capacity of 30Mtpa.
2nd stage due for completion August 2011 - boosting capacity to 53Mtpa.

KOORAGANG ISLAND
PWCS Kooragang Terminal

Curlew Street
Kooragang Island
New South Wales
2304
Australia
Contact: Mr Graham Davidson
General Manager
T: + 61 2 4907 2000
F: + 61 2 4907 3000
E: libby.delgatto@pwcs.com.au
W: www.pwcs.com.au
Export: Yes
Location: NSW, Australia
Ownership: Port Waratah Coal Services Ltd
Name of Port Authority: Port of Newcastle, Australia
Throughput Capacity: 64 Mtpa
Total Storage: 3,000,000 tonnes
Vessel Size Limitation: 300m max LOA, 50m max beam, 40,000 - 232,000 dwt
Additional information: 3 Capesize vessels can be berthed and loaded simultaneously.

MACKAY
Dalrymple Bay Coal Terminal (DBCT)

Martin Armstrong Drive
Hay Point
Mackay
QLD
4740
Australia
Contact: Mr Gavin Springorum
Media & Corporate
T: + 61 7 4943 5645
F: + 61 7 4943 8466
E: andrew.garratt@dbct.com.au
W: www.dbct.com.au
Export: Yes
Location: 40km South of Mackay, Queensland, Australia
Ownership: Queensland Government - leased by Prime Infrastructure (private company)
Name of Port Authority: Ports Corporation of Queensland
Throughput Capacity: 85 million tonnes

Total Storage:
Vessel Size Limitation: Max draught 17.5m, Max dwt 230,000
Additional information: Services 18 Bowen Basin Coal mines. Wharves 3.8km offshore serviced by conveyor system supported on jetties. 3 shiploaders.

MACKAY
Hay Point Coal Terminal (HPCT)
Mail Service 283
Mackay
Queensland
4740
Australia
Contact: Mr Russell Grech
General Manager
T: + 61 7 4943 5201
F: + 61 7 4956 3421
E: russell.c.grech@bmacoal.com
W: www.pcq.com.au
Export: Yes
Location: 40km South of Mackay in Sarina Shire, Queensland, Australia
Ownership: Hay Point Services
Name of Port Authority: Ports Corporation of Queensland
Throughput Capacity: 34 million tonnes per annum
Total Storage:
Vessel Size Limitation:
Additional information: Wharves 1.8km offshore serviced by conveyor systems supported on jetties. 2 shiploaders.

WOLLONGONG
Port Kembla Coal Terminal Limited
Port Kembla Road
Wollongong
New South Wales
NSW 2520
Australia
Contact: Mr Peter Green
General Manager
T: + 61 2 4228 0288
F: + 61 2 4228 7605
E: peter.green@pkct.com.au
W: www.pkct.com.au
Export: Yes
Location: Port Kembla is located 80 km south of Sydney on the East Coast of Australia
Ownership:
Name of Port Authority: Port Kembla Port Corporation
Throughput Capacity:
Total Storage:
Vessel Size Limitation: Max LOA 285m
Additional information: One gantry shiploader - nominal loading rate 1,000 tonnes per hour

BELGIUM

ANTWERPEN
Antwerp Bulk Terminal (ABT)
Haven 750, Delwaidedok
Nieuwe Westweg 14
Antwerpen
B-2040
Belgium
Contact: Mrs Anne De Pauw
PR Manager
T: + 32 9 255 0281
F: + 32 9 259 0895
E: anne.de.pauw@sea-invest.be
W: www.sea-invest.com
Import: Yes
Export: Yes
Location: Port of Antwerp, Belgium.
Ownership: SEA-invest NV
Name of Port Authority: Antwerp Port Authority, www.portofantwerp.be
Throughput Capacity: 40 million mt (in and out)
Total Storage: 126 ha
Vessel Size Limitation: LOA is limited by the Zandvliet and the Berendrecht locks. Their length is 500 m, and vessels with LOA of 360 can enter the port. For vessels with a LOA exceeding this, an authorisation is possible. Maximum draught : 15,56 m F.W.. 2 Capesize bulk terminals and 3 Panamax bulk terminals.
Additional information: Antwerp Bulk Terminal handles, on its 5 bulk terminals in Antwerp, everything which can be handled by grab, ranging from ores, solid combustibles, minerals, to agribulk. It offers covered storage in dedicated bulk warehouses of more than 83.000 m2.

GENT
Arcelor Steel Belgium NV
Arcelor Gent
John Kennedylaan 51
Gent
9042
Belgium
Contact: Mr Koen De Coster
Maintenance manager railway and locomotives
T: + 32 9347 2670
F: + 32 9347 4916
E: info.sidmar@arcelormittal.com
W: www.sidmar.be
Import: Yes
Location: Ghent, Belgium
Ownership: Privately owned port, serving Sidmar Steelworks.
Name of Port Authority: Sidmar
Throughput Capacity: 2.6 mtpa
Total Storage: 1.15 mt
Vessel Size Limitation: Panamax. Max DWT 65,000t, Max LOA - 265m, Max beam - 34m, Max draft - 13.5m

GENT
Ghent Coal Terminal NV - GCT
Skaldenstraat 1
Gent
9042
Belgium
Contact: Mr Bart Laureys
T: + 32 9 255 02 59
F: + 32 9 259 08 94
E: Bart.Laureys@sea-invest.be
W: www.sea-invest.com
Import: Yes
Export: Yes
Location: Alongside the sea canal in the Port of Ghent at berth 2320.
Ownership: GCT, 100% daughter of Sea-invest with head office in the Port of Ghent.
Name of Port Authority: Ghent Port Company AMC
John Kennedylaan 32
9042 Gent - Belgium
Throughput Capacity: 2*25 metric tonnes cranes + 1 ship's loader
Total Storage: 85 ha – 3 million tonnes storage capacity.
Vessel Size Limitation: LOA 265m, Draught 12,50m (FW), Beam 37m.
Additional information: GCT is the biggest solid fuel terminal in Belgium with open air and covered storage facilities, equipped with several screening, crushing, blending and drying installations.

LIEGE
Terval S.A.
Ile Monsin, Route 10
Liege
B-4020
Belgium
Contact: Mr Dirk Schmidt-Holzmann
Administrator
T: + 32 4256 9340
F: + 32 4264 0835
E: dsh@terval.com
W: www.terval.com
Ownership:
Name of Port Authority:
Throughput Capacity:
Total Storage:
Vessel Size Limitation:

OOSTENDE
Ter Polder
Zwaaidok 2
Oostende
B-8400
Belgium
Contact: Mr Fons de Preter
Shipping Manager
T: + 32 59 331 133
F: + 32 59 331 433
E: fons.depreter@terpolder.be
W: www.verhelstlogistics.be
Ownership:
Name of Port Authority:
Throughput Capacity:
Total Storage:
Vessel Size Limitation:

SERAING
CTB Logistics SA
Rue du Pont du Val
Seraing
B-4100
Belgium
Contact: Mr Etienne Baugnee
General Manager
T: + 32 4330 1713
F: + 32 4337 1008
E: etienne.baugnee@euroports.com
W: www.ctblogistics.com
Vessel Size Limitation:

BRAZIL

ITAGUAÍ
CSN – Terminal de Carvão e Minério TECAR
Estrada da Ilha da Madeira
s/no, Porto de Itaguaí
Ilha de Madeira
Itaguaí
Rio de Janeiro
23826-600
Brazil
Contact: Mr Luiz Renato Torres
TECAR General Manager
T: +55 21 8111 9066
F: +55 21 2688 9209
E: renato.torres@csn.com.br
W: www.csn.com.br/tecar
Import: Yes
Location: Sepetiba´s Bay, Madeira island, Itaguaí, RJ
Name of Port Authority: Compania Docas do Rio de Janeiro
Throughput Capacity: 4 million MT per year
Total Storage: 3 stockyards. Year capacity: 8 million tonnes

5 Stockyards. Year capacity: 5.2 millions tonnes
Vessel Size Limitation: Depth 18.5 m – Panamax (until 75,000 tpb) – Cape Size (until 180,000 tpd)

SANTOS
Companhia Docas do Estado de São Paulo - CODESP
Avenida Conselheiro Rodrigues Alves, s/nº - Macuco
Santos
São Paulo
CEP 11015-900
Brazil
Contact: Mr José Di Bella Filho
Director-President
T: + 55 13 3222 5485
F: + 55 13 3222 3068
E: di_bella@uol.com.br
W: www.portodesantos.com.br
Import: Yes
Location: East Coast of South America
Name of Port Authority: Companhia Docas do Estado de São Paulo - CODESP
Total Storage: 1,000,000 sqm storage patios. 500,000 sqm warehouses.
Vessel Size Limitation: Length of received ships, 270m. Ship capacity 70t. The canal of the Port of Saints has depths that vary from 5 to 14 metres.

SANTOS
Tropical Agencia Maritima Ltda.
4th floor
Rua do Comercio, 55
Santos
Sao Paulo
11010-141
Brazil
Contact: Mr Francisco Garcia
CEO
T: + 55 13 3213 8842
F: + 55 13 3219 2550
E: tropical@tropmar.com.br
W: www.tropmar.com.br
Vessel Size Limitation:

BULGARIA

BOURGAS
Bulk Terminal 2A
Port of Burgas JSC
1 Al. Battenberg Str.
Bourgas
8000
Bulgaria
Contact: Mr Dimitar Terziev
Manager
T: + 359 56 822 400
F: + 359 56 822 156
E: headoffice@port-burgas.com
W: www.port-burgas.com
Import: Yes
Location: South East of Bulgaria - south part of Bulgarian Black sea coast.
Ownership: Bulgarian state owned company
Name of Port Authority: Burgas Port Administration Agency
Throughput Capacity: 6,000,000 tpa
Total Storage: 108,000 sqm
Vessel Size Limitation: Draught - 15.5m

CANADA

BELLEDUNE
Port of Belledune
112 promenade Shannon Drive
Belledune
New Brunswick
E8G 2W2
Canada
Contact: Mr Rayburn Doucett
President & CEO
T: + 1 506 522 1203
F: + 1 506 522 0803
E: info@portofbelledune.ca
W: www.portofbelledune.ca
Import: Yes
Location: South shore of the Chaleur Bay in northeastern New Brunswick, Canada.
Vessel Size Limitation: The wharf is capable of accomodating "Cape Size" ships up to 100,000 DWT. However, due to the KONE ship loader limitations, and from operational experience, mostly 80,000 DWT Panamax ships are serviced.
Additional information: Terminal 2 allows for the import of coal to supply the adjacent NB Power Belledune Generating Station.

CONTRECOEUR
Terminal Maritime Contrecoeur Inc
1920 Marie Victorin
Contrecoeur
Quebec
JOL 1CO
Canada
Contact: Mr Norman Desjardins
General Manager
T: + 1 450 587 2073
F: + 1 450 587 8570
E: ndesjard@logistec.com
W: www.logistec.com
Vessel Size Limitation:

DELTA
Westshore Terminals
1 Roberts Bank
Delta
British Columbia
V4M 4G5
Canada
Contact: Mr Denis Horgan
Vice President and General Manager
T: + 1 604 946 3400
F: + 1 604 946 1388
E: horgan@westshore.com
W: www.westshore.com
Export: Yes
Location: Vancouver, British Columba, Canada
Ownership: Westshore Terminals Limited Partnership
Name of Port Authority: Vancouver Fraser Port Authority
Throughput Capacity: 27 million tpa (Upgrading capacity to 33 mmt by 2013)
Total Storage: 315,000 sqm
Vessel Size Limitation: Berth 1: 350m long, 22.9m draught, 260,000 dwt
Berth 2: 263m long, 20.8m draught, 170,000 dwt

MONTREAL
Federal Marine Terminals
Suite 3500
1000 de la Gauchetiere Street West
Montreal
Quebec
H3B 4W5
Canada
Contact: Mr Mike Kirkpatrick
Marketing Manager
T: + 1 514 868 6500
F: + 1 514 878 9168
E: mkirkpatrick@fedmar.com
W: www.fmtcargo.com
Vessel Size Limitation:

MONTREAL
Logistec Corporation
360 St Jacques
Suite 15000
Montreal
Quebec
H2Y 1P5
Canada
Contact: Mr George di Sante
T: + 1 514 844 9381
F: + 1 514 842 1262
E: gdisante@logistec.com
W: www.logistec.com
Vessel Size Limitation:

MONTREAL
Strudes Inc
4700 De La Savane
Suite 218
Montreal
Quebec
H4P 1T7
Canada
Contact: Mr Henry Nowodworski
President

T: + 1 514 731 6951 x 123
F: + 1 514 737 4146
E: nowodworski@strudes.ca
W: www.strudes.ca
Vessel Size Limitation:

North Vancouver
Neptune Bulk Terminals (Canada) Ltd
PO Box 86367
North Vancouver
BC
V71 4K6
Canada
Contact: Mr Tony Nardi
VP Marketing & Transportation
T: + 1 604 985 7461
F: + 1 604 985 8941
E: tnardi@nbtcl.bc.ca
W: www.neptuneterminals.com
Export: Yes
Location: West Coast of Canada, Southwest Coast of the Province of British Columbia in the Port of Vancouver
Ownership: Canpotex Bulk Terminals Limited (50.17%), Elk Valley Coal Partnership (46.35 %), Bunge Canada (3.48%)
Throughput Capacity: 9,000,000 MTPA Coal
Total Storage: 625,000 MT
50,000 metres squared
Vessel Size Limitation: Max LOA 285 Metres
Draft 16.7 Metres
DWT 175,000 MT
Beam 45 metres
Can accept larger to 295 LOA, 50 Beam but not load to full DWT

Prince Rupert
Ridley Terminals Inc
2110 Ridley Island
PO Bag 8000
Prince Rupert
BC
V8J 4H3
Canada
Contact: Mr Dennis Blake
Senior Manager
T: + 1 250 624 9511
F: + 1 250 624 2389
E: dblake@rti.ca
W: www.rti.ca
Export: Yes
Location: North Coast of British Columbia, Canada
Ownership: Canadian Government
Name of Port Authority: Ridley Terminals Inc.
Throughput Capacity: 12 million tonnes per year
Total Storage: 1.2 million tonnes
Vessel Size Limitation: LOA - 325 metres, Draught - 22 metres, DWT - 250,000
Additional information: Terminal has blending capabilities and is known for its fast loading rates and rapid turnaround of vessels.

Quebec City
St Lawrence Stevedoring
Div of Quebec Stevedoring Company Ltd
961 Boulevard Champlain
Quebec City
Quebec
G1K 4J9
Canada
Contact: Mr Geoff Lemont
Vice-President
T: + 1 418 522 4701
F: + 1 418 522 9770
E: glemont@qsl.com
W: www.qsl.com
Import: Yes
Export: Yes
Location: 1300 km from Atlantic Ocean along the St.Lawrence River
Ownership: Quebec Stevedoring Company Ltd
Name of Port Authority: Port Authority of Quebec
Total Storage: Unlimited open storage and warehouse space
Vessel Size Limitation: 150,000 dwt. 15m of water at low tide.
Additional information: 1055 metres of berth space with a water depth alongside of 15.5 metres. Equipped with bridge, revolving and mobile cranes, as well as ship loaders, automated conveyors and stackers.

Sept-Iles
Porlier Express Inc
315 Ave Otis
Sept-Iles
Quebec
G4R 1K9
Canada
Contact: Mr Denis Gagnon
General Manager
T: + 1 418 962 3073
F: + 1 418 962 3067
E: dgagnon@porlier.com
W: www.porlier.com
Location: Quebec, North Shore, St-Lawrence River
Name of Port Authority: Port of Sept-Îles, Port of ArcelorMittal in Port-Cartier
Throughput Capacity: 3.0 Mtons/year
Total Storage: Upon request
Vessel Size Limitation: 14 meter draught, 16 meter draught
Additional information: We are a stevedore and bulk material handler. We provide multimodal tailor made solutions for any special cargo projects for the mining industry.

Sept-Iles
Port of Sept-Îles
1 Mgr Blanche Street
Sept-Iles
Quebec
G4R 5P3
Canada
Contact: Mr Pierre D Gagnon
CEO
T: + 1 418 961 1223
F: + 1 418 962 4445
E: pgagnon@portsi.com
W: www.portsi.com
Location: North shore of the St-Lawrence river , 650 km east of Québec city
Name of Port Authority: Sept-Îles Port Authority
Throughput Capacity: 6 million tonnes
Total Storage: 200,000 sqm
Vessel Size Limitation: Panamax size. 14m draught

Thunder Bay
Thunder Bay Terminals Ltd
McKellar Island
PO Box 1800
Station 'F'
Thunder Bay
Ontario
P7C 5J7
Canada
Contact: Mr John Kepes
T: + 1 807 625 7800
F: + 1 807 623 5749
E: j_kepes@tbaytel.net
W: www.portauthority.thunder-bay.on.ca
Export: Yes
Location: At the head of the Great Lakes/St. Lawrence Seaway System
Name of Port Authority: Thunder Bay Port Authority
Throughput Capacity: 12 million tonnes.
Vessel Size Limitation:
Additional information: A 262 metre berth is available for ships. The site is serviced by road and CP Rail, with CN Rail access for all commodities.

Thunder Bay
Valley Camp Terminal, Inc.
174 Darrel Ave
Thunder Bay
Ontario
P7J 1K4
Canada
Contact: Mr Robert Van Patten
T: + 1 618 655 1201
F: + 1 618 656 1363
E: rmvanpatten@aol.com
W: www.namillyard.com
Vessel Size Limitation:

Valleyfield
Valport Maritime Services Inc
Port de Valleyfield
Boul. Cadieux
Valleyfield
Quebec
J6T 6L4
Canada
Contact: Mr Frank Dunn
Partner
T: + 1 450 377 6686
F: + 1 450 337 2521
E: frank@valport.ca
W: www.valport.ca
Vessel Size Limitation:

Chile

Castilla
Tocopilla
c/o Servicios Integrales de Transitos y Transferencias
Arturo Prat No 1060
Castilla
Tocopilla
2098
Chile
Contact: Mr D Daniel Zarzosa
Captain Port Authority
T: + 56 55 813 279
E: cptocopilla@directemar.cl
Vessel Size Limitation:

Concepcion
Neuling Graneles SA
San Martin
553 Oficina
Concepcion
805
Chile
Contact: Mr Sergio Ulloa
General Manager
T: + 56 41 2254 205
E: sergio.ulloa@neulingsa.cl
Vessel Size Limitation:

Tocopilla
Central Termoelectrica Tocopilla
Avda Dr Leonardo Guzman 0780
Tocopilla
Casilla 1999
Chile
Contact: Mr Andres Tornquist Fernandes
T: + 56 55 813279
F: + 56 55 813279
Vessel Size Limitation:

China

Dalian
Dalian Bay Coal Terminal
1 Gangwan Street
Zhongshan District
Dalian
Liaoning Province
116004
China
Contact: Mr Zang Feng Chiang
T: + 86 411 8263 7873
F: + 86 411 8280 7148
W: www.chinaports.com.cn/dalian.htm
Export: Yes
Vessel Size Limitation:

Dalian
Ganjingzi Coal Terminal
1 Gangwan Street
Zhongshan District
Dalian
116004
China
Contact: Mr Zang Feng Qiang
T: + 86 411 8263 7873
F: + 86 411 8280 7148
Vessel Size Limitation:

Fangcheng
Fangcheng HarbourAdministration
Port Administration Office
22 Youyi Road
Fangcheng
Guangxi Province
China
Contact: Mr Ye Shixiang
Director General
T: + 86 770 289 8141
F: + 86 770 282 2663
W: www.infomarine.gr/china/fangcheng
Export: Yes
Location: Guangxi Province, China
Ownership: Fangcheng Harbour Administration
Throughput Capacity: 4 million tpa
Total Storage: 0.5 Mt
Vessel Size Limitation: Max draught: 11.4m, Max LOA 180m, Max Beam 30m, 70,000dwt

Hong Kong
CLP Power HK Limited
Castle Peak Power Station
Tuen Mun
Hong Kong
China
Contact: Mr Alex Ho Sau Fan
Fuel & Material Handling Manager
T: + 852 2678 5636
F: + 852 2441 2719
E: alexho@clp.com.hk
W: www.clp.com.hk/Pages/home.aspx
Import: Yes
Location: Located 15 km from Victoria Harbour, at western edge of New Territories of Hong Kong
Ownership: Castle Peak Power Company Limited (CAPCO)
Name of Port Authority: Hong Kong Marine Department
Throughput Capacity: 8 million mt coal
Total Storage: 0.8 million mt coal (120,000 meters square)
Vessel Size Limitation: LOA 280m (Trial 305m), Draught 16.8m, Beam 50m

Hong Kong
The Hongkong Electric Company Ltd
44 Kennedy Road
Hong Kong
China
Contact: Mr Francis C. Y. Cheng
General Manager (Generation)
T: + 852 2982 6201
F: + 852 2982 1654
E: mail@hkelectric.com
W: www.hkelectric.com
Import: Yes
Location: West of Lamma Island, Hong Kong
Ownership: The Hongkong Electric Company, Limited
Name of Port Authority: Lamma Power Station
Throughput Capacity: Maximum unloading rate of 3,000 tph
Total Storage: 63,000 sqm
Vessel Size Limitation: Max LOA : 260m
Max Draught : 14.6m
Max dwt : 100,000 MT
Additional information: Two berths available for two coal vessels to be unloaded simultaneously.

Hualien
Hualien Harbour Bureau
No.66 Hai-Ann Road
Hualien
Taiwan
97059
China
Contact: Mr Chung-Hsiung Wang
Director
T: + 886 38 325 131
F: + 886 38 333 757
E: dttpd100@mail.hlhb.gov.tw
W: www.hlhb.gov.tw
Import: Yes
Location: East Coast of Taiwan
Name of Port Authority: Hualien Harbour Bureau
Vessel Size Limitation:

Qingdao
Port of Qingdao Coal Terminal
Gang Qing Road 6
Qingdao
Shadong Province
266011
China
Contact: Mr Chang Dechuan
President
T: + 86 532 298 2011
F: + 86 532 292 2878
E: kefu@qdport.com
W: www.qdport.com/en
Location: In the YellowRiver basin on the Western Pacific Rim
Ownership: Qingdao Port (Group) Co., Ltd
Name of Port Authority: Port of Qingdao
Vessel Size Limitation: Max draft 13.5m.
Additional information: 3 Coal Berths

Shanghai
Shanghai Port Luojing Bulk Terminals
8 Shi Gang Road
Baoshan District
Shanghai
China
Contact: Mr Shao Xue Kang
Managing Director
T: + 86 21 6323 1871
F: + 86 21 6323 0184
Vessel Size Limitation:

Shijiazhuang
Hebei Port Group Co, Inc
35 Yuhuadong Road
Shijiazhuang
Heibei
050019
China
Contact: Mr Edward Wong
Chief, Public Relations
T: + 86 311 8780 0528/+ 86 335 309 4924
F: + 86 311 8790 0111
E: wangcong@portqhd.com
W: www.porthebei.com
Export: Yes
Location: East Coast of China
Ownership: State-owned
Name of Port Authority: Hebei Port and Shipping Management

Authority
Throughput Capacity: Loading rate: 20,000 tpd per loader
Discharging rate: 650,000 tpd
Total Storage: 10 million ton capacity for Coal
Vessel Size Limitation: 150,000 dwt
Additional information: We are the world's largest bulk cargo operator, according to World Port Development, UK.

Zhoushan
Zhoushan Port Haitong Transhipment & Storage Co Ld
Loatangshan Port Area
Dinghai
Zhoushan
316043
China
Contact: Ms Li Yading
General Manager
T: + 86 580 801 0202
W: www.zsport.com.cn/english
Location: North-West of Zhoushan main island
Name of Port Authority: Port of Zhoushan
Throughput Capacity: 4 million tonnes per annum
Total Storage: 38,000 sqm open storage
Vessel Size Limitation:

Colombia

Barranquilla
Port of Puerto Bolivar
International Colombia Resources Corporation
Apartado Aero 52499
Barranquilla
Colombia
Contact: Capt Steve C Catton
Port Superintendent
T: + 57 53 799545
F: + 57 53 502121
E: oprpbv@navescolombia.com
W: www.navescolombia.com/ports/pbolivar.htm
Vessel Size Limitation:

Barranquilla
Sociedad Portuaria Del Norte
Calle 2
No. 41N - 28
Barrio Villanueva
Barranquilla
Atlantico
Colombia
Contact: Mr Carlos Rosado
General Manager
T: + 575 344 57 37
F: + 575 344 6814
E: crosado@spdelnorte.com
W: www.spdelnorte.com
Export: Yes
Location: Lat. 11º 15' North. Long. 74º 14' W
Name of Port Authority: Carbosan Ltda
Throughput Capacity: 3 million tonnes per year
Vessel Size Limitation: 75,000 DWT. Max draft 50ft.

Barranquilla
Sociedad Portuaria Golfo de Morrosquillo SA
Via 40 Las Flores
Cementos Argos SA
Barranquilla
Atlantico
Colombia
Contact: Mr Uriel Duarte
Terminal Director
T: + 575 3619 222 ext 5080
F: + 575 3619 222
E: uduarte@argos.com.co
W: www.argos.com.co
Export: Yes
Location: Colombian North Coast
Ownership: Major cement manufacturer in Colombia
Name of Port Authority: Private terminal
Throughput Capacity: 1.5 mtpa
Total Storage: 45,000 sqm
Vessel Size Limitation: Max LOA 190m, 9.2m FW draught
Additional information: Fixed shiploader, direct loading system.

Barranquilla
Sociedad Portuaria Regional de Barranquilla SA
Carrera 38
Calla 1a Orilla del Rio
Terminal Maritimo y Fluvial de Barranquilla
Barranquilla
Colombia
Contact: Mr Pablo Riveira
Operations Manager
T: + 575 37 16200
F: + 575 37 16310
E: priveira@sprb.com.co
W: www.sprb.com.co
Export: Yes
Location: 22 km from the mouth of the Magdalena River, Colombia's largest inland waterway
Name of Port Authority: Port of Barranquilla
Throughput Capacity: 175,000 tonnes
Total Storage: 57,378 sqm enabling 180,000 tonnes capacity
Vessel Size Limitation: 30,000 dwt
Additional information: Maritime Pier: 1,058 m length, minimum depth 30 feet

Barranquilla
Tolu
c/o Tolcementos
Carrera 58 Nos 75-78
Barranquilla
Colombia
Contact: Mr Enrique Olarte
T: + 57 58 451 288
F: + 57 58 454 548
W: www.navescolombia.com/ports/tolu.htm
Vessel Size Limitation:

Bogota
Santa Marta Coal Terminal
Carbanandes
Transv 19 No 122-42
Bogota
Colombia
Contact: Mr Jairo Caicedo
T: + 57 1 248 7034
F: + 57 3 310 2544330
E: jairoca@cc-net.net
Export: Yes
Location: Atlantic coast of Colombia
Throughput Capacity: 3 million tons/year
Vessel Size Limitation: 75,000 DWT

Santa Marta
Puerto Prodeco
Centro Comercial Prado Plaza
Cra 4 Cl26A Esq 3er
Santa Marta
Colombia
Contact: Mr Andrew Lyons
T: + 57 5 4 21 4400
F: + 57 5 4 21 4698

Soceidad Portuaria Santa Marta
CTS de Colombia
Crra. La. #10A-12
Muelle 6
Soceidad Portuaria Santa Marta
Colombia
Contact: Mr Scott Harcourt
Project Manager
T: + 57 54 211 754
F: + 57 54 233 369
E: scott.harcourt@coopertsmith.com
Vessel Size Limitation:

Croatia

Ploce
Port of Ploce Authority
Trg Kralju Tomoslava 21
Ploce
20340
Croatia
Contact: Captain Ivan Maric
Assistant to Executive Director
T: + 385 20 414 541
F: + 385 20 670 271
E: pfso-maric@port-authority-ploce.hr
W: www.port-authority-ploce.hr
Vessel Size Limitation:

Rijeka
LUKA Rijeka d.d.
Riva 1
Rijeka
Hrvatska
51000
Croatia
Contact: Ms Tatjana Krilić
President
T: + 385 51 496 000
E: marketing@lukarijeka.hr
W: www.lukarijeka.hr
Vessel Size Limitation:

Rijeka
Terminal Bakar
LUKA Rijeka dd
Riva 1
Rijeka
51000
Croatia
Contact: Mr Alen Sikic
Terminal Manager
T: + 385 51 496 000 / 4969 40
F: + 385 51 332 203
E: info@lukarijeka.hr
W: www.lukarijeka.hr
Vessel Size Limitation:

Cuba

Antilla
Nicaro
c/o Agencia de Antilla
Avenida 28 de Enero No 65
Apartado No 33
Antilla
Prov de Holguin
Cuba
Port Manager
T: + 53 24 88248
F: + 53 24 88127

Denmark

Aabenraa
Ensted Transitharbour I/S
Flensborgvej 185
Aabenraa
6200
Denmark
Contact: Mr Chresten Nissen
Harbour Master
T: + 45 99 55 1500
F: + 45 74 62 05 00
E: chrni@dongenergy.dk
W: www.dongenergy.dk
Import: Yes
Export: Yes
Location: Denmark, East coast of Jutland
Ownership: Dong Energy A/S; Vattenfall AB
Throughput Capacity: 2,000tph
Total Storage: 155,000sqm
Vessel Size Limitation: LOA 350m, Draught 18m, DWT 17,000

Aarhus
Cargo Service A/S
Europaplads 16
PO Box 259
Aarhus
DK 8100
Denmark
Contact: Mr Lars Krabbe
Managing Director
T: + 45 8730 8 030
F: + 45 8730 8101
E: info@cargoservice.dk
W: www.cargoservice.dk

Kalundborg
Asnaes Power Station
Asnaes Port Authority
Asnaesvej 16
Kalundborg
4400
Denmark
Contact: Mr Arne Krogh
Manager
T: + 45 59 55 5000
F: + 45 59 55 5004
E: ark@e2.dk
W: www.e2.dk

Dominican Republic

Santo Domingo
Maritima Dominicana SA
PO Box 1301
Carretera Sanchez Km 12 1/2
Santo Domingo
Dominican Republic
Contact: Mr Karsten Windeler
President
T: + 1 809 539 6000
F: + 1 809 539 7200
E: info@mardom.com
W: www.mardom.com
Import: Yes
Location: Itabo Terminal off the Port of Rio Haina, Dominican Republic, South Coast. Port of Barahona, Dominican Republic, South Coast. Port of Manzanillo, Dominican Republic, North Coast
Ownership: Itabo-EGE Itabo\Barahona EGE Haina
Name of Port Authority: Dominican Port Authority - Autoridad Portuaria Dominicana
Throughput Capacity: Combined 2,000,000 MT
Vessel Size Limitation: Itabo max 800 FT LOA, Draught 13.3m, 43.64 FT SW. Barahona max 600 FT LOA, 26 FT SWAD. Manzanillo max LOA 600 FT, 30 FT SWAD

Estonia

Tallinn
AS Coal Terminal
4a, Joe Street
Tallinn
10151
Estonia
Contact: Ms Nadia Manzhos
Office Manager
T: + 372 626 36 52
F: + 372 630 36 53
E: info@coalterminal.ee
W: www.coalterminal.ee
Export: Yes
Location: Eastern part of the largest port in Estonia, Muuga; 210 km from the Russian border
Ownership: Private company
Name of Port Authority: Coal Terminal Operator AS
Throughput Capacity: 5 mln tpa
Total Storage: 350,000 tonnes, 48,000 sqm
Vessel Size Limitation: 120,000 dwt

Tallinn
Muuga (Novotallinskiy)
Maardu tee 57
Tallinn Eesti Vabarifk
Tallinn
EE 0030
Estonia
Contact: Mr Anatoliy Kanaev
Port Director
T: + 372 6 319 205
F: + 372 2 234 313
E: tk@tk.ee

Tallinn
PETROMAKS SPEDIITORI AS
Nolva 9A
Tallinn
10416
Estonia
Contact: Mr Mitrofan Pototski
Ship Agent
T: + 372 6507 612
F: + 372 6507 601
E: pototski@petromaks.com
W: www.petromaks.com
Location: Eastern shore of Baltic Sea
Name of Port Authority: Tallinn port – Paljassaare South
Vessel Size Limitation: Quay No. 31, length 100m, depth 4.5m; Quay No. 32, length 266m, depth 6.5m;
Quay No. 33, length 176m, depth 8.7m
Additional information: One of the two terminals of Paljassaare port. Specializes in offering the stevedoring services on reloading of bulk and general cargoes from the vessels directly to the railcars and back

Viimsi Vald
AS Stivis
1 Koorma Street
Viimsi Vald
74115
Estonia
T: + 372 600 3872
F: + 372 600 3873
E: stivis@stivis.ee
W: www.stivis.ee
Location: Eastern shore of Baltic Sea
Name of Port Authority: Port of Tallinn
Total Storage: 540,000 sqm
Vessel Size Limitation: Berth 5: 6.8m draft, 100m length
Berth 6: 9.5m draft, 160m length

France

Bassens
Sea-invest Bordeaux
Rue Richelieu 1
Bassens
33530
France
Contact: Mr Franck Humbert
T: + 33 557 77 49 51
F: + 33 557 77 82 11
E: franck.humbert@sea-invest-france.com
W: www.sea-invest.be
Location: South West coast of France
Name of Port Authority: Sea-invest Bordeaux
Throughput Capacity: 10,000 MT from 06.00 to 22.00 hrs
Total Storage: 50,000 sqm
Vessel Size Limitation: Max LOA 250m, Max draft 10.50m

Colombes
Sea-Invest France
Immeuble "Le Charlebourg"
14/30 rue de Mantes
Colombes
92711
France
Contact: Mr Florent Massart
T: + 33 232108516
F: + 331 55 66 81 50
E: trampset@sea-invest-france.com

Dunkerque
Sea-Bulk Terminal
Route du Quai à Pondéreux Ouest
Loon-Plage
Dunkerque
59279
France
Contact: Mr Philippe Bertonèche
Terminal Manager
T: + 33 328 28 79 40
F: + 33 328 28 79 15
E: philippe.bertoneche@sea-invest-france.com
W: www.sea-invest.be
Import: Yes
Location: North of France
Ownership: Sea-invest
Name of Port Authority: Sea-Bulk Terminal
Throughput Capacity: 8.6 MT in 2005
Total Storage: 301,500 sqm
Vessel Size Limitation: Max draft 21m. DWT 180,000

Le Havre
CIPHA Multibulk Centre
182 Quai George V
BP 1142
Le Havre
76600
France
Contact: Mr Luc Lefevre
Marketing Manager
T: + 33 232 74 24 80
F: + 33 235 21 38 15
E: lechevallier@shgt.fr
W: www.cipha.fr
Import: Yes
Export: Yes
Location: Southern bank of the Grand Canal du Havre
Ownership: CIPHA
Name of Port Authority: Port of Le Havre Authority
Throughput Capacity: 1.58 million tonnes (2004)
Total Storage: 1 million tonnes
Vessel Size Limitation: 180,000 dwt, Max length 300m
Additional information: Screening and crushing facilities

Le Havre
Coal Terminal
Port of Le Havre Authority
Terre Plein de la Barre
PO Box 1413
Le Havre
Cedex
76067
France
Contact: Mr Eric Esneu
Bulk Traffic Manager
T: + 33 2 32 74 76 05
F: + 33 2 32 74 76 09
E: eric.esneu@havre-port.fr
W: www.havre-port.net
Import: Yes
Export: Yes
Location: North of France
Name of Port Authority: Port of Le Havre Authority
Throughput Capacity: 3 MT per annum
Total Storage: 700,000 tonnes with a storage gantry crane 30t
Vessel Size Limitation: 170,000 dwt, Max draught 17.5m
Additional information: 2 gantry quayside cranes of 30t, 30,000 t/day

Martigues
Carfos
13, Boulevard Maritime
Martigues
13500
France
Contact: Mr Xavier Hauterat
T: + 33 424 06 71 82
F: + 33 424 06 34 94
E: xavier.hauterat@sea-invest-france.com
W: www.sea-invest.be
Location: Fos-sur-Mer, France
Name of Port Authority: Carfos
Total Storage: 250,000 sqm
Vessel Size Limitation: Cape size - Max draft 17m, Max DWT 150,000 MT
Additional information: 1,400,000 MT bauxite
150,000 MT clinker

Montoir-de-Bretagne
Sea-invest Montoir
Rue de la Goélette - BP 36
Montoir-de-Bretagne
44550
France
Contact: Mr Pascal Vialard
T: + 33 240 17 31 71
F: + 33 240 17 31 79
E: pascal.vialard@sea-invest-france.com
W: www.sea-invest.be
Location: South East coast of French Brittany
Name of Port Authority: Sea-invest Montoir
Throughput Capacity: 3,000,000 Mtpa
Total Storage: 160,000 sqm
Vessel Size Limitation: Max LOA 290m, Max beam 45m, Max draught 15.5m
Additional information: Due to restriction for Capesize vessel, please contact us prior fixing

Nantes
Montoir Coal Terminal
Port Atlantique Nantes Saint-Nazaire
18 quai Ernest Renaud
BP 18609
Nantes 44186
France
Contact: Mr Pascal Freneau
Marketing & Advertising Manager
T: + 33 2 40 44 2113
F: + 33 2 40 44 20 01
E: p.freneau@nantes.port.fr
W: www.nantes.port.fr
Import: Yes
Location: Atlantic coast of France. It stretchs 60 kms along the Loire estuary.
Name of Port Authority: Port Atlantique Nantes Saint-Nazaire
Vessel Size Limitation: Max LOA 280m, Max draught 16m, Max DWT 165,000

Nantes
Port Atlantique-Montoir Agri-Bulk Terminal
18 quai Ernest Renaud
BP 18609
Nantes
Cedex 4
44186
France
Contact: Mr Pascal Freneau
Communication Manager
T: + 33 2 40 44 20 06
F: + 33 2 40 44 21 81
E: p.freneau@nantes.port.fr
W: www.nantes.port.fr

Rouen
Sogema
Boulevard Maritime - BP 3
Grand-Couronne Terminal
Rouen
76530
France
Contact: Mr Robert Goudon
Director
T: + 33 232 11 51 01
F: + 33 232 11 51 25
E: r.goudon@sea-invest.fr
W: www.sea-invest.be
Import: Yes
Location: Rouen, West France on Seine river
Ownership: Sogema
Name of Port Authority: Port of Rouen
Throughput Capacity: 700.000 MT
Total Storage: 100,000 sqm
Vessel Size Limitation: Max LOA 280m, DWT 70,000 MT, Max draft 11m
Additional information: Discharge rate : 20,000 MT/day

Sète
Sea-invest Sète
Z.I. portuaire Darse 2
B.P. 68
Sète
Cedex 34201
France
Contact: Mr Pierre de Boutray
T: + 33 467 51 63 10
F: + 33 467 48 30 85
E: p.boutray@sea-invest-france.com
W: www.sea-invest.be
Location: South east of France on Mediterranean Sea
Name of Port Authority: Port of Sète
Throughput Capacity: 800,000 MT/year
Total Storage: 30,000 sqm
Vessel Size Limitation: Max draft 13.50m, Max LOA 225m
Additional information: Project to double storage capacit

Germany

Bremen
Weserport GmbH
Huettenstrasse 20
Bremen 28237
Germany
Contact: Mr Michael Appelhans
Managing Director
T: + 49 421 643 0182
F: + 49 421 643 0164
E: mappelhans@weserport.de
W: www.weserport.de

Bremerhaven
bremenports GmbH & Co. KG
Am Strom 2
Bremerhaven
27570
Germany
Contact: Mr Ronald Schwarze
Marketing
T: + 49 421 30901 612
F: + 49 421 30901 624
E: ronald.schwarze@bremenports.de
W: www.bremenports.de

Duisburg
Rhenus AG & Co. KG
August-Hirsch-Strasse 3
Duisburg
47119
Germany
Contact: Mr Ehrenfried Reemer
T: +49 203 8009 313
F: +49 203 8009 307
E: ehrenfried.reemer@e.rhenus.com

Emden
EVAG Emder Verkehrs und Automotive
Gesellschaft mbH
Schweckendieckplatz 1
Emden
Lower Saxony
26721
Germany
Contact: Mr Torsten Meinke
Area Manager
T: + 49 4921 895 150
F: + 49 4921 895 5150
E: torsten.meinke@evag.com
W: www.evag.com

Hamburg
H J M (H Jürgen Müller GmbH)
1 Hafenstrasse 12-14
Hamburg
21079
Germany
T: + 49 40 725 86 90
F: + 49 40 725 86 929
E: info@hjm-hamburg.de
W: www.hjm-hamburg.de

Hamburg
HANSAPORT
Hafenbetriebsgesellschaft mbH
Am Sandauhafen 20
Hamburg
21129
Germany
Contact: Mr Erhard Meller
T: + 49 40 74003 201
F: + 49 40 74003 222
E: info@hansaport.de
W: www.hansaport.de
Import: Yes
Location: Northern Germany
Ownership: 51% belongs to Salzgitter AG, Salzgitter and 49% to Hamburger Hafen- und Lagerhaus-AG, Hamburg
Name of Port Authority: HANSAPORT Hafenbetriebsges mbH
Throughput Capacity: up to 15 mio tpa
Total Storage: 400,000 sqm
Vessel Size Limitation: max. draft 15,1 m at high tide, 760m long berth

Hamburg
Rhenus Midgard GmbH & Co. KG, Terminal Hamburg
2. Hafenstr. 4
Hamburg
21079
Germany
Contact: Mr Peter Steinmeyer
T: + 49 40 766 003 27
F: + 49 40 766 003 59
E: peter.steinmeyer@de.rhenus.com
W: www.rhenus.com

Leer
Rhenus AG
Hafenstrasse 14
Leer
26789
Germany
Contact: Mr Schröter
T: + 49 491 92512 0
F: + 49 491 92512 66
E: info@de.rhenus.com

Nordenham
Rhenus Midgard GmbH & Co KG
Midgardstr. 50
Nordenham
Lower Saxony
26954
Germany
Contact: Mr Jürgen Kleemeyer
Projects / Marketing & Sales
T: + 49 4731 81 214
F: + 49 4731 81 114
E: juergen.kleemeyer@de.rhenus.com
W: www.rhenus.com
Import: Yes
Export: Yes
Location: Nordenham on the mouth of the River Weser (Germany)
Ownership: Rhenus Midgard GmbH & Co KG
Name of Port Authority: Rhenus Midgard GmbH & Co KG
Throughput Capacity: 2,5 Million tons/a coal
Total Storage: 500.000 tonnes coal - up to 120.000 sqm
Vessel Size Limitation: fully laden panamax and/or partly laden cape size
special permission for more than 270 m loa
arrival draught up to 13,10m (43`) fw
Additional information: Well connected to the hinterland by barge and rail;
The Rhenus Group operates barges and rail and offers the whole logistics to final destinations.

Nuremberg
Hafen Nürnberg-Roth GmbH
Rotterdamer Str 2
Nuremberg
Bavaria
90451
Germany
Contact: Mr Harald Leupold
Managing Director
T: + 49 911 6429 418
F: + 49 911 6429 410
E: h.leupold@gvz-hafen.com
W: www.gvz-hafen.com

Papenburg
Schulte + Bruns GmbH & Co. KG
Papenburg
Germany
Contact: Mr Smidt
T: + 49 4961 8060
F: + 49 4961 806116
E: Schulte-bruns@schulte-bruns.de

Rostock
Bulk Terminal Rostock GmbH
Liebherrstraße 3
Rostock
D-18147
Germany
Contact: Mr Günter Fett
Managing Director
T: + 49 381 6662 120
F: + 49 381 6662 575
E: guenter.fett@portofrostock.de
W: www.portofrostock.de
Import: Yes
Location: German Baltic coast.
Ownership: SHRU Holding GmbH & Co. KG
Name of Port Authority: Hafen-Entwicklungsgesellschaft Rostock mbH
Throughput Capacity: 3.0 Million tonnes
Total Storage: 240,000 tonnes
Vessel Size Limitation: Max 100,000 dwt
Additional information: 20,000 t of coal can be handled daily.

Wilhelmshaven
Rhenus Midgard Wilhelmshaven GmbH & Co KG
Lüneburger Str. 6
Wilhelmshaven
Lower Saxony

26384
Germany
Contact: Mr Jürgen Kleemeyer
Coal Logistics Projects / Marketing & Sales
T: + 49 4731 81 214
F: + 49 4731 81 114
E: juergen.kleemeyer@de.rhenus.com
W: www.rhenus.com
Import: Yes
Location: Coalterminal Niedersachsenbrücke in Wilhemshaven on the River Jade (Germany).
Ownership: Rhenus Midgard Wilhelmshaven GmbH & Co KG
Name of Port Authority: Rhenus Midgard Wilhelmshaven GmbH & Co KG
Throughput Capacity: 2.5 Million tpa coal (under construction for up to 10 Million tpa)
Total Storage: 500,000 tonnes coal (80.000 sqm) - extension up to 3,000,000 tons
Vessel Size Limitation: Fully laden panamax and/or partly laden cape size
loa up to 290m; beam up to 45m, dwt up to 190,000
draught up to 14.33m sw
Additional information: Under construction for fully laden Capesize with abt. up to 240,000 dw and a draught of up to 18.50m sw; discharging rate > 50.000 tpd and storage capacity of abt. 3 Million tons

GHANA

TAKORADI

Takoradi Port Authority

Ghana Ports Authority
PO Box 708
Takoradi
Ghana
Contact: Mr J E Quanash
Port Manager
T: + 233 31 24073
F: + 233 31 22814
E: takoradi@ghanaports.net
W: www.ghanaports.gov.gh

GREECE

ATTICA

Milaki Port-East Mediterranean Coal Terminal

49-51 Sof Venizelou Str
Lycovrissi
Attica
14123
Greece
Contact: Mr Andrew Healey
General Manager
T: + 30 1 2898 111
F: + 30 1 2840 021

THESSALONIKI

Thessaloniki Port Authority SA

1st Pier
Port of Thessaloniki
Thessaloniki
54110
Greece
Contact: Mr Stylianos Aggeloudis
Chairman & CEO
T: + 30 2310 593 105
F: + 30 2310 510 500
E: secretariat@thpa.gr
W: www.thpa.gr
Import: Yes
Export: Yes
Location: Northern Greece
Ownership: TITAN SA, LARCO SA
Name of Port Authority: Thessaloniki Port Authority SA
Throughput Capacity: 2 million tonnes
Total Storage: 150,000 sqm
Vessel Size Limitation: Max LOA: 300 m, Max draught : 12m

HONDURAS

SAN PEDRO SULA

Terminales de Cortes, S.A de C.V

Blvd del Norte 150 mts este
Puente Rio Blanco
Apartado Postal 298
San Pedro Sula
11111
Honduras
Contact: Mr Juan Zelaya
General Manager
T: + 504 551 7011
F: + 504 551 7000
E: gmanager@termisa.com
W: www.termisa.com

INDIA

CHENNAI

Ennore Port Limited

No.23, First Floor,
P.T. Lee Chengalvaraya Naicker Maaligai
Rajaji Salai,
Chennai
600 001
India
Contact: Mr Shri S. Velumani
Chairman
T: + 91 44 25251666
F: + 91 44 25251665
E: svm@epl.gov.in
W: www.ennoreport.gov.in

HALDIA

TM International Logistics Ltd.

Finger Jetty Road
Chiranjibpur
Haldia
East Midnapore(WB)
721604
India
Contact: Mr K.L Bhowmick
Chief of Port Operations
T: + 91 3224 252150
E: kb_hal@tmilltd.com

HYDERABAD

Gangavaram Port Limited

Hansa Crest, 1st Floor
Plot No.62, Road No.1
Jubilee Hills
Hyderabad
Andhra Pradesh
500 033
India
Contact: Mr Sanjay Gupta
Director - Commercial
T: + 91 40 4434 9999
F: + 91 40 4434 9990
E: sgupta@gangavaram.com
W: www.gangavaram.com
Import: Yes
Location: 6 Nautical Miles South West of Visakhapatnam Port, on East Coast of India
Ownership: Consortium Led by Mr. DVS Raju
Name of Port Authority: Gangavaram Port Limited
Throughput Capacity: 30 MMT in Phase -I (with 5 berths: 1 Coal Berth and 1 Iron Ore Berth with along side depth of 20 m, 3 General Cargo Berth with along side depth of upto 15.5 m), Planned Capacity of 200 MMT
Total Storage: Total backup area 2800 acres (11 331 197 sqm) Stackyard area in Phase -I for Coal = 1,55,800 sqm, for Iron Ore = 64,000 sqm , Covered Storage =48,000 sqm
Vessel Size Limitation: For Coal Berth and Iron Ore Berth - Max LOA - 280m , Along Side depth 20m , 200,000dwt
Additional information: GPL has the deepest , most advanced Coal Terminal in India. It has installed, completely mechanized Material Handling System and has ample backup area for storage of Coal and other cargoes.

KARNATAKA STATE

New Mangalore Port Trust

Panamburg
Karnataka State
Mangalore
575 010
India
Contact: Mr Shri P. Tamilvanan
Chairman
T: + 91 824 240 7300
F: + 91 824 2408390
E: nmptchairman@sify.com
W: www.newmangalore-port.com

KOLKATA

Riverine Group

5 A , N . C. DUTTA SARANI
3rd Floor
Kolkata
West Bengal
700001
India
Contact: Mr Shrey Tayal
Director
T: + 91 33 4005 4949
F: + 91 33 4005 4909
E: shreytayal@riverinegroup.co.in
W: www.riverine-group.com

MUMBAI

J.M. Baxi & Co

Sapt Building
2nd Floor
18 J.N. Heredia Marg
Ballard Estate
Mumbai
400 001
India
Contact: Mr John C. Alexander
Senior VP Business Development
T: + 91 22 2270 3779 / 82
F: + 91 22 2210 3629
E: jca@jmbaxi.com
W: www.jmbaxi.com

MUMBAI

Seacrest Marine Services Pvt. Ltd.

201, Remi Biz Court A Wing
Plot - 9, Shah Industrial Estate,
Veera Desai Road,
Andheri (w)
Mumbai
400053
India
Contact: Captain Sanjay Kumar
T: + 91-22-56939660
F: + 91-22-56939665
E: operations@crestsea.com
W: www.crestsea.net

INDONESIA

BANDAR LAMPUNG

PT. Bukit Asam (Persero) Tbk

Jl. Soekarno Hatta Km. 15
Tarahan
Bandar Lampung
DKI Jakarta
Indonesia
Contact: Mr Ansyori Akhmad
Tarahan Coal Terminal General Manager
T: + 62 721 31545/31686
F: + 62 721 31577
E: aakhmad@bukitasam.co.id
W: www.ptba.co.id
Export: Yes
Location: South West of Indonesia on the South Coast 05-31-40 South Latitude and 105-20-40 East Longitude
Ownership: The composition of shareholders by ownership on December 31, 2009 are 65,02% owned by the state and 34,98% owned by Public.
Name of Port Authority: Tarahan Coal Terminal
Throughput Capacity: 12 million tpa
Total Storage: 560,000t
Vessel Size Limitation: 80,000dwt
Additional information: PT Bukit Asam (Persero) Tbk. (PTBA) markets 5(five) different coal types – BA 55, BA 59, BA 63, BA 67, dan BA 70.
Export coal to China, Japan, Malaysia, Taiwan, Vietnam, Thailand and several countries in Europe.

BANJARMASIN

Port of Banjarmasin

PT (Persero) Pelabuhan Indonesia III Banjarmasin
Jl Barito Hilir No 6
Banjarmasin
70117
Indonesia
Contact: Mr Anton Tri Agung
Shipping Superintendent
T: + 62 51 153 670
F: + 62 51 152 552
E: inaport3@pp3.co.id
W: www.pp3.co.id

JAKARTA

Balikpapan Coal Export Terminal

PT Dermaga Perkasapratama
The Landmark Centre Tower B
29th Floor
Jl Jend Sudirman No1
Jakarta
14310
Indonesia
Contact: Mr Edward Djumali
T: + 62 21 570 155
F: + 62 21 570 145
Export: Yes
Location: Balikpapan Coal Export Terminal
Ownership: PT Dermaga Perkasapratama
Throughput Capacity: 9 million tpa
Total Storage: 0.52Mt
Vessel Size Limitation: Max draught 13.3m, Max LOA 230m, Max beam 43m, 80,000dwt

JAKARTA

North Pulau Laut Coal Terminal

PT Arutmin Indonesia
Mid Plaza 2, 9th Floor
Jalan Jenderal Sudirman Kav. 10-11
Jakarta
10220
Indonesia
T: + 62 21 5720012
F: + 62 21 5741689
E: marketing@arutmin.com
W: www.arutmin.com
Export: Yes
Location: Kalimantan, Indonesia
Ownership: PT Arutmin Indonesia
Throughput Capacity: 11 mt yearly
Additional information: Designed to receive 4 barges simultaneously.

JAKARTA

P T Indominco Mandiri

Ventura Building
8th Floor
J1 RA Kartini No 26 Cilandak
Jakarta
12430
Indonesia
Contact: Mr Suriya
President Director
T: + 62 021 750 8376
F: + 62 021 750 8380
E: dharmasubur@cbn.net.id

JAKARTA

PT Indonesia Bulk Terminal

Jl. HR Rasuna Said
Blok X-5, Kav. 1-2
Menara Karya, 23rd Floor
Jakarta
12950
Indonesia
Contact: Mr Bram Surjadi
Marketing
T: + 62 21 5211 265 / + 62 21 25533000 ext 3244
F: + 62 21 522 4341
E: marketing@ibt.co.id
W: www.ptibt.com

JAKARTA

PT. Terminal Batubara Indah

World Trade Centre, 07th floor
Jl. Jend Sudirman Kav. 29-31
Jakarta
12920
Indonesia
Contact: Mrs Lilly
T: + 62 21 5712579
F: + 62 21 571 2597
W: www.pttbi.co.id

JAKARTA

Pulau Laut

World Trade Centre 7 Floor
JL Send
Surdiman Kav 31
Jakarta
12920
Indonesia
Contact: Mr B T Kuan
General Manager
T: + 62 21 522 9250
F: + 52 21 522 4341

KOTABARU

PT Indonesia Bulk Terminal

Pulau Laut Coal Terminal
PO Box. 118 Kalsel
Kotabaru
Kalimantan Selatan
72111
Indonesia
Contact: Mr Wan Yazid
Terminal Manager
T: + 62 5183 8800
F: + 62 5183 8822
W: www.ptibt.com
Export: Yes
Location: Southern tip of Pulau Laut Island, South Kalimantan, Indonesia
Ownership: PT Indonesia Bulk Terminal
Throughput Capacity: 12mtpa, 3,000tph barge discharge
Total Storage: 1.6 million tonnes. 800,000t stockpile capacity
Vessel Size Limitation: 80,000dwt, max LOA 230m, max Beam 36m, max draught 14.5m

LAMPUNG

Pelabuhan Panjang

Dit Jen Perhubungan Laut
Pelabuhan Panjang
Lampung
Indonesia
Contact: Mr Prayitno
Port Manager
T: + 62 721 31098
F: + 62 721 33237

PADANG

Teluk Bayur Coal Terminal

PT Tambang Batubara Bukit

Asam (PTBA)
Jl Tanjung Priok
No 01 Teluk Bayur
Padang
West Sumatra
Indonesia
Contact: Mr Muztav Sjab
Taluk Bayur Coal Terminal Manager
T: + 62 734 4510 96
F: + 62 21 525 4002
E: corsec@bukitasam.co.id
W: www.ptba.co.id
Location: Padang, West Sumatra
Throughput Capacity: 2.5M tpa
Total Storage: 90,000t
Vessel Size Limitation: 40,000dwt

Palembang
Kertapati Coal Terminal
PT Tambang Batubara Bukit Asam (PTBA)
Jl Stasiun Kerata Api
Palembang
South Sumatra
Indonesia
Contact: Mr Dadan Ruswandana
Coal Terminal Manager
T: + 62 711 512 617
F: + 62 711 511 388
W: www.bukitasam.co.id

Ireland
Cork
Port of Cork Company
Custom House Street
Cork
Munster
Ireland
Contact: Ms Sara Dymond
Marketing Executive
T: + 353 21 427 3125
F: + 353 21 427 6484
E: sdymond@portofcork.ie
W: www.portofcork.ie
Import: Yes
Location: South Coast of Ireland
Ownership: Private Commercial Company with Commercial Entity.
Name of Port Authority: Port of Cork Company
Total Storage: See our webpage www.portofcork.ie
Vessel Size Limitation: See our webpage www.portofcork.ie

Dundalk
Dundalk Harbour Commissioners
Harbour Office
40 Quay Street
Dundalk
Co Louth
Ireland
Contact: Captain Frank Allen
Harbour Master
T: + 353 42 9334096
F: + 353 42 35481
E: dundalkport@eircon.net

Turvey
Moneypoint
Electricity Supply Board
Moneypoint Generating Station
Unit 19, Turvey Business Centre
Turvey
County Dublin
Ireland
Contact: Mr Paul Dunne
T: + 353 1 8900466
F: + 353 1 8900575

Israel
Ashkelon
The National Coal Supply Corporation (N.C.S.C)
Ashkelon Coal Terminal
Ashkelon
Israel
T: + 972 3625 7000
F: + 972 3625 7001
E: ncsc@ncsc.co.il
W: www.ncsc.co.il
Import: Yes
Location: South part of Israel's Mediterranean coast
Ownership: Israel Electric Co. (I.E.C)
Name of Port Authority: Eilat Ashkelon Pipeline Co (E.A.P.C)
Throughput Capacity: About 6 million MT per annum
Total Storage: About 900,000 MT.
Vessel Size Limitation: Max LOA: 312m, Max Beam: 50m, Max Draught: 18m,
No DWT/Displ restrictions. Max vertical distance from waterline until the Breastlines panamas is 15m.
Additional information: No wires are allowed for head/Sternlines (total 6). For Breast/Springlines (total 12): if mooring lines are steel-wires they must have long nylon-tails of at least 80m long each.

Hadera
Port of Hadera
PO Box 314
Hadera 38102
Israel
Contact: Mr Yoram Nachshol
Managing Director
T: + 972 4 622 5577
F: + 972 4 634 3034

Hadera
The National Coal Supply Corporation ltd (NCSC)
Hadera Coal Terminal
Hadera
Israel
T: + 972 3625 7000
F: + 972 3625 7001
E: ncsc@ncsc.co.il
W: www.ncsc.co.il
Import: Yes
Location: Mid/north part of Israel's Mediterranean coast
Ownership: Israel Electric Co. (I.E.C)
Name of Port Authority: Ministry of Transport
Throughput Capacity: About 6.5 million MT per annum
Total Storage: About 950,000 MT.
Vessel Size Limitation: Max LOA: 312m, Max Beam: 48m, Max Draught: 18m sw
Maximum Deadweight on arrival Hadera is 200,000 MT.
Displacement: No restrictions.
Max vertical distance from waterline until the Brestlines panamas is 14.7m.
Additional information: No wires are allowed for Headlines, Sternlines and Breastlines (total 12). Springlines (total 4): If Springlines are still wires, they must have long nylon-tails of at least 80m long each.

Italy
Ancona
Ancona Coal Terminal
Ancona
Italy
Contact: Mr Paolo Galli
T: + 39 071 2071664
F: + 39 071 2077736
E: operativo@anconamerci.it

Gaeta & Civitavecchia
Intergroup S.r.l.
Lungomare Caboto 110
Gaeta & Civitavecchia
Rome area
04024
Italy
Contact: Mr Giovanni Migliaccio
General Manager
T: + 39 771 310 077
F: + 39 771 472 114
E: info@intergroup.it
W: www.intergroup.it
Import: Yes
Export: Yes
Location: Central Italy
Ownership: Family-owned company
Name of Port Authority: Port of Rome and Lazio
Throughput Capacity: 9,000 tpd discharge
Total Storage: Up to 110,000 tonnes of coal
Vessel Size Limitation: Gaeta: current draught 10m (increasing to 13m from July 2011)
Civitavecchia: 15m draught.
Additional information: In the warehouse, 5m-high cement walls protect the product and allow creation of different zones dedicated to single clients.
Automated dust-control system and filtering/recycling system for water are installed.

Genova
Terminal Rinfuse Genova SpA
Palazzina Uffici
Calata Rubattino
Genova
16126
Italy
Contact: Mr Vittorio Barzilai
T: + 39 010 248 8620
F: + 39 642 6403
E: vittorio.barzilai@terminalrinfuseitalia.it
W: www.porto.genova.it
Import: Yes
Location: Mediterranean Sea
Ownership: The Genoa Port Authority
Vessel Size Limitation: Max draft 9/11.5m

Piombino
TOP - Terminal Offshore Piombino
(subsidiary of Coeclerici Logistics SpA)
Uff. Circondaiale Marittimo
P. Le Premuda 19
Piombino
Livorno
57025
Italy
Contact: Captain Gianfranco Passalacqua
T: + 39 335 730 1097
F: + 39 02 624 69444
W: www.coeclerici.com
Import: Yes
Location: North West Coast Italy
Ownership: TOP - Terminal Offshore Piombino
Name of Port Authority: Piombino Port Authority
Throughput Capacity: 500,000 MT PY
Total Storage: N/A
Vessel Size Limitation: Max beam 42, Max Airdraught 15
Additional information: Equipped by self discharging conveyor system.
Commercial Contact: Capt. Giordano Scotto
Coeclerici Logistics Spa
Piazza Diaz 7
20123 Milano, Italy
email: newprojects@coeclerici.com

Savona
Port Authority of Savona
Via Gramsci, 14
Savona
17100
Italy
Contact: Ms Renato Pastorino
T: + 39 019 85 541
F: + 39 019 827399
E: authority@porto.sv.it
W: www.porto.sv.it

Vado Ligure (SV)
Terminal Rinfuse Vado
Via Montegrappa 1
Vado Ligure (SV)
17047
Italy
Contact: Mr Vittorio Barzilai
Marketing and Sales
T: + 39 019 216 06253
F: + 39 019 216 06299
E: vittorio.barzilai@terminalrinfuseitalia.it

Japan
Chiyoda-ku
Idemitsu Bulk Terminal-Chiba
c/ Industrial Energy Dpt. Idemitsu Kosan
1-1 Marunouchi 3-chome
Chiyoda-ku
Tokyo
100-8321
Japan
Contact: Mr T Nio
T: + 81 3 3746 8721
F: + 81 3 3746 3645
W: www.idemitsu.co.jp

Hiroshima
Port of Takehara No 1P/S
3035-13 Nagahama
Tadami-cho
Takehara-shi
Hiroshima
729-23
Japan
Contact: Captain Yamada
T: + 81 846 27 0211
F: + 81 846 24 1506
@line:

Hokkaido
Tomato Coal Center
622 Aza-Hamaatsuma
Atsuma-cho
Hokkaido
059-17
Japan
Contact: Mr Masatoshi Machida
T: + 81 1452 83121
F: + 81 1452 83123

Kitakyushu City
Yawata Hibikinada
Port/Harbour Bureau of Kitakushu City
2-7 Nishikaigan
1-Chrome
moji-ku
Kitakyushu City
801
Japan
T: + 81 93 331 1331
F: + 81 93 321 5915

Minatoku
Niihama Coal Centre
Sumitomo Coal Mining
204, 3-Chrome
Nishi-Shimbashi
Minatoku
Tokyo
Japan
Contact: Mr Yoshitoyo Nakayama
Deputy General Manager
T: + 81 3 5404 0410
F: + 81 3 5404 0447

Mubanti
Shukuzu Coal Centre
Koowan-Bu
Hokkaido Muroran-shi
Kaigan-Choo
1-Chrome
Mubanti
Japan
Contact: Mr T Nakamura
Manager
T: + 81 143 244466
F: + 81 143 240011

Toyama
Toyama-Shinko Public Berths
Fushiki Kairiku Unso
Toyamashinko Branch
4-2 Nagonoe
Shinminato-shi
Toyama
Japan
T: + 81 766 82 1118
F: + 81 766 84 3335

Ube City
Port of Ube, Okinoyama Coal Terminal
12-32 Nishihon-machi
1-Chrome
Ube City
Yamaguchi Pref
Japan
Contact: Mr Masayoshi Wanishi
General Manager
T: + 81 335 31 5971
F: + 81 838 31 5885

Wakayama City
Smikin Transport Service
1850 Minato
Wakayama City
Hokkaido Pref
Japan
Contact: Mr Tutomu Oonishi
T: + 81 734 51 5168
F: + 81 734 51 5150

Yokkaichi City
Chubu Coal Centre
2-16 Kasumi
Yokkaichi City
Mie-Pref
510-0011
Japan
Contact: Mr J Deguchi
Director
T: + 81 593 63 0671
F: + 81 593 64 7871

Latvia
Riga
Riga Central Terminal
15 Eksporta Street
Riga
LV-1170
Latvia
Contact: Ms Kristine Vizule
Marketing and PR Manager
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F: + 371 6732 6501
E: Kristine.vizule@rigact.lv
W: www.rigact.lv

Ventspils
AS Ventspils Tirdzniecibas Osta
22 Dzintaru Street
Ventspils
LV3602
Latvia
Contact: Ms Julianna Svedenko
Secretary
T: + 371 36 68757
F: + 371 36 68870
E: Julianna.Svedenko@vto.lv

Ventspils
JSC BALTIC COAL TERMINAL
39B Dzintaru Street
Ventspils
LV-3602
Latvia
Contact: Mr Ilya Sokolov
Chairman of the Board
T: + 371 636 34 000
F: + 371 636 34 001
E: info@balticcoal.com
W: www.balticcoal.com
Export: Yes
Location: Latvia , Ventspils, The Baltic Sea
Name of Port Authority: Ventspils Free Port
Throughput Capacity: 6 mln. coal per year (start at 2008)
Total Storage: 220 000 tonnes
Vessel Size Limitation: 120,000dwt
Max draught 15 m
Additional information: Enclosed storage for coal for all clients,. Service of sorting, crushing and magnetic cleaning of coal.

Luxembourg
Luxembourg
Euroports Holdings S.a.r.l.
4th floor
6, rue Jean Monnet
Luxembourg
Luxembourg
L-2180
Luxembourg
Contact: Mr Richard Jennings
Chief Commercial Officer
T: + 352 621 555 866
F: + 352 26 75 41 05
E: Richard.jennings@euroports.com
W: www.euroports.com
Import: Yes
Export: Yes
Location: Pietarsaari Finland, Rostock Germany, Liege Belgium, Tarragona Spain, Vado Italy, Genoa Italy, Venice Italy (these are the facilities where we handle coal – we have other port locations in Rauma, Antwerp, Le Havre, Changshu)
Ownership: Individual terminals are all owned by Euroports
Name of Port Authority: Various
Throughput Capacity: 15 mill tonnes pa (of coal)
Total Storage: 1.2 mill sq.m (dedicated to coal across our portfolio from a total of nearly 5 mill sq.m)
Vessel Size Limitation: Varies at each port – Handy in Finland to Cape in Spain
Additional information: EUROPORTS is Europe's most diversified port operator. Operating with 16 terminals in 7 countries EUROPORTS is one of the largest port operators in Continental Europe.

Malaysia
Kuantan
Kuantan Port Consortium Son Bhd
PO Box 199
Tanjung Gelang
Kuantan
Pahang Darul Makmur
25720
Malaysia
Contact: Mr IR Ho Phea Keam
Managing Director
T: + 60 9 586 3888
F: + 60 9 583 9393
E: irpkho.kuantanport@ijm.com
W: portal.kuantanport.com.my

Pulau Indah
Westport Malaysia
Kelang Multi Terminal SDN BHD
PO Box 266
Pulau Indah
Port Kelang
42009
Malaysia
Contact: Mr Nathan
T: + 60 3169 4047
F: + 60 3169 4119
E: info@westportmalaysia.com.my
W: www.westportsmalaysia.com/

Seri Manjung
Lumut Maritime Terminal Sdn Bhd
Lekir Bulk Terminal (LBT)
Pulau Lekir 1
Jln Teluk Rubiah
Seri Manjung
Perak
32040
Malaysia
Contact: Mr Amin Bin Halim Rasip
Chief Executive Officer
T: + 603 2141 7728
F: + 603 2141 2995
E: aminrasip@integrax.com.my
W: www.lumutport.com
Import: Yes
Location: On a reclaimed island, South East of Pangkor Island, Perak, West Malaysia (Off the Straits of Malacca)
Ownership: Lekir Bulk Terminal Sdn Bhd
Name of Port Authority: Lumut Maritime Terminal Sdn Bhd
Throughput Capacity: 12.0 million tonnes
Total Storage: About 80 acres (approx 323,752 sqm)
Vessel Size Limitation: Max size - Capemax vessel (LOA 290m, DWT 200,000mt.) Minimum natural depth of 20m alongside the berth.
Additional information: 2 Grab Ship Unloaders with rated capacity of 1500 tph each and 2 import conveyors lines with rated capacity of 3800 tph each. Currently planning to construct a load out facility (Phase 2 - to be ready by 2009).

Mexico
Altamira
Cooper/T. Smith De Mexico SA de CV
Mar Negro KM 0.380
Puerto Industrial
Col. Puerto De Altamira
Altamira
Tamaulipas
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Mexico
Contact: Mr Arturo Encinas
General Director
T: + 52 833 260 45 00
F: + 52 833 260 10 82
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W: www.coopertsmith.com

Morocco
El Jadida
Jorf Lasfar Power Station
Jorf Lasfar Energy
8P 99
Sidi Bouzid
El Jadida
Morocco
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Mozambique
Beira
Largo dos CFM-C
Porto da Beira
PO Box 236
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Sofala
Mozambique
Contact: Mr Carlos Mesquita
General Director
T: + 258 23 345276
F: + 258 23 322636
E: ccfb-trafego@teledata.mz
W: www.cfmnet.co.mz

Maputo
Grindrod Terminals - Maputo
Praca dos Trabalhadores
Porto de Maputo
Maputo
Mozambique
Contact: Mr Rob Lindsay-Rea
Regional Manager Mozambique
T: + 258 843 000 107
E: robl@grindrod.co.mz
W: www.grindrod.co.za
Export: Yes
Location: Maputo Harbour Mozambique
Name of Port Authority: MPDC—Maputo Port Development Company
Throughput Capacity: 210,000mt pm
Additional information: Refurbishment /rehabilitation of facility presently being carried out by Grindrod Terminals.

New Zealand
Lyttelton
Lyttelton Coal Terminal
Private Bag 501
Norwich Quay
Lyttelton
Canterbury
New Zealand
Contact: Mr Peter Davie
Chief Executive
T: + 64 3328 8198
F: + 64 3328 7828
E: peter.davie@lpc.co.nz
W: www.lpc.co.nz
Export: Yes
Location: Mid point of the east coast of the South Island of New Zealand
Ownership: LPC is a publicly listed company.
Name of Port Authority: Lyttelton Port Company Ltd
Throughput Capacity: 4,000,000 tpa. Vessel load rate: 25,000 tpd
Total Storage: 50985 m2 (approx 5 hectares); Can stockpile up to 250,000 tonne
Vessel Size Limitation: Length 230m, Beam 36.5m, Max draught on departure 12.4m
berth pocket depth 13m at chart datum (zero tide), air draught 15m
Additional information: New Zealand's largest coal export facility. Loading achieved through a combination of Bucket Wheel Reclaimer and mobile plant feeding via belt conveyor a jetslinger shiploader.

New Plymouth
Port Taranaki Limited
PO Box 348
New Plymouth
4340
New Zealand
Contact: Mr Roy J Weaver
Chief Executive
T: + 64 6 751 0200
F: + 64 6 751 0886
E: rweaver@porttaranaki.co.nz
W: www.porttaranaki.co.nz

Tauranga
C3 Limited (previously Toll Owens Ltd)
Maritime House
10 Rata Street
Mount Maunganui
Private Bag 12501
Tauranga
Bay of Plenty
3143
New Zealand
Contact: Mr Dean Camplin
Chief Executive
T: + 64 7572 8972
F: + 64 7575 2000
E: Dean.Camplin@C3.co.nz
W: www.c3.co.nz
Location: New Zealand

Pakistan
Karachi
Pak Shaheen Group
36-A/2, Lalazar, Opposite Beach Luxury Hotel
Off M.T. Khan Road
Karachi
74000
Pakistan
Contact: Mr Yussuf Farrukh
COE - Services
T: + 92 21 3285 1800
F: + 92 21 561 2230
E: yfarrukh@pakshaheen.com.pk
W: www.pakshaheen.com.pk

Peru
Callao
ENAPU SA
Port Terminal of Callao
Callao
1No260
Peru
Contact: Mr Luis Vargas Caballero Cooban
President and Chief Executive
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F: + 51 1469 1011
E: principal@enapu.gob.pe
W: www.enapu.com.pe

Moquegua
ILO Port Terminal
Jr Matara
Moquegua
104 100
Peru
Contact: Mr Julio Zamorano Calvo
Ofice Manager
T: + 51 1429 9210
F: + 51 1 465 6717
E: info@enapu.gob.pe
W: www.enapu.com.pe/

Trujillo
ENAPU SA
Salaverry Port Terminal
Calle Cordova s/n
Salaverry
Trujillo
Peru
Contact: Ms Eufrosina Hilda Santa Maria Rubio
Manager
T: + 51 4443 7359
F: + 51 4443 7359
E: tpsalaverry@enapu.com.pe
W: www.enapu.com.pe

Philippines
Makati City
Wilhelmsen-Smith Bell Shipping, Inc.
2294 Pasong Tamo Extension
Makati City
1231
Philippines
Contact: Mr Fausto R Preysler Jr
President & Chairman
T: + 63 2 8167851 to 58
F: + 63 2 8150199 / + 63 2 8136949
E: preysler@smithbell.com.ph
W: www.smithbell.com.ph

Poland
Gdansk
PPS Port Polnocny Co Ltd
23 Budownicych Portu Polnocnego Str
Gdansk
80-601
Poland
Contact: Mr Andrzej Kasprzak
President
T: + 48 58 737 60 52
E: polnocny@portgdansk.pl
W: www.portgdansk.pl
Export: Yes
Location: North West of Poland on central part of sourthern section of Baltic Sea coast.
Ownership: Port of Gdansk Authority SA
Total Storage: 600,000 tons
Vessel Size Limitation: Max length 280m, Max draft 15m

Gdynia
Maritime Bulk Terminal Gdynia Ltd
ul. Weglowa 4
Gdynia
81-341
Poland
Contact: Mr Jan Gogulski
Operating and Marketing Director
T: + 48 58 627 4320
F: + 48 58 621 5354
E: eim@mtmg.gdynia.pl
W: www.mtmg.gdynia.pl
Import: Yes
Export: Yes
Location: North of Poland on the Baltic Sea
Name of Port Authority: Port of Gdynia Authority
Throughput Capacity: about 4 million tonnes per year
Total Storage: 74,348 sqm
Vessel Size Limitation: - Dutch quay: LOA 300m, Depth 13.0m
- Swedish quay: LOA 300m, Depth 10.4m
- Silesian quay: LOA 250m, Depth 8.5m
- Southern Pier of the Danish Quay: LOA 170m, Depth 9.50m
- Liquid Fuels Reloading Post: LOA 210m (min 100m), Depth 11.0m
Additional information: Multipurpose terminal handling:
- dry bulk cargoes (coal and coke, grain and feed, biomass, aggregates, sulphur and other minerals)
- liquids (petrol and chemicals)
- general cargo

Swinoujscie
Port Handlowy Swinoujscie Sp. z o.o.
ul. Bunkrowa 1
Swinoujscie
Zachodniopomorskie
72-602
Poland
Contact: Mr Lukasz Przyszlak
Trade & Marketing Director
T: + 48 91 32 77 524
F: + 48 91 32 77 520
E: lukasz.przyszlak@phs.com.pl
W: www.phs.com.pl
Import: Yes
Export: Yes
Location: North West of Poland

on the Baltic Sea Coast, on the border with Germany.
Ownership: Private Stevedoring Company
Name of Port Authority: Port Handlowy Swinoujscie
Throughput Capacity: 6 million tonnes per year
Total Storage: 175,000sqm for up to 1,200,000 tonnes
Vessel Size Limitation: 13.2m draught, vessels up to 270 metres in length, 42m beam
Additional information: The largest dry bulk cargo centre handling, storing nearly 50% of the country's coal exports and nearly 90% of import. Only Port in Poland that accepts Panamax Size Vessels with coal. Perfect railroad, barge connection with Germany, Czech and Slovakia.

Szczecin

Bulk Cargo - Port Szczecin Sp. z.o.o.

Gdanska 21
Szczecin
Zachodniopomorskie 70-661
Poland
Contact: Mr Bogdan Walczak
Marketing Director
T: + 48 91 4 307 112
F: + 48 91 4 307 115
E: bwalczak@bulkcargo.com.pl
W: www.bulkcargo.com.pl
Import: Yes
Export: Yes
Location: South Coast of the Baltic Sea, North West of Poland
Ownership: Private
Name of Port Authority: Szczecin and Swinoujscie Seaports Authority
Throughput Capacity: 4.0-5.0 mio tpa
Total Storage: 45,000 sqm for up to 250,000 tonnes
Vessel Size Limitation: 9.15 m draught, vessels up to 210 metres in length
Additional information: In our company exported and imported coal can be reloaded in a dedicated handling area, equipped with a new wagon tippler and a 1,000tph shiploader.

Portugal

Aveiro

Socarpor (Aveiro) SA

Av. Dr. Lourenço Peixinho, 15-5B
Apartado 993
Aveiro 3801-301
Portugal
Contact: Capt Ferreira Jorge
Managing Director
T: + 351 234 378 790
F: + 351 234 378 791
E: socarpor@socarpor-aveiro.pt
W: www.socarpor-aveiro.pt

Barreiro

Barreiro Terminal - Atlanport

Sociedade de Exploração Portuária, S.A
Largo Alexandre Herculano
Complexo Industrial da Quimiparque
Apartado 5109
Barreiro
2831-904
Portugal
Contact: Eng Ramalho de Nascimento
Executive Director
T: + 351 21 206 6610/11/12
F: + 351 21 206 6629
E: atlanport@atlanport.pt
W: www.ete.pt/Grupo/Empresas/Atlanport_E.htm

Lisbon

Poço Bispo Multipurpose Terminal - TMPB

ETE - Empresa de Tráfego e Estiva, S.A.
Largo do Corpo Santo, 21
Lisbon
1200-129 Lisboa
Portugal
Contact: Cmdte. Pedro Virtuoso
T: + 351 211 128 039
F: + 351 211 128 045
E: tmpb@ete.pt
W: www.ete.pt/Grupo/Empresas/Ete_E.htm
Import: Yes
Export: Yes
Location: Lisbon, Portugal
Ownership: ETE - Empresa de Tráfego e Estiva, S.A.
Name of Port Authority: Port of Lisbon
Throughput Capacity: 1mtpa including Coal
Total Storage: 20,000t warehousing

Lisbon

Silopor - Empresa de Silos Portuários, S.A

(Beato Bulk Foodstuffs Terminal)
Av. Infante D.Henrique
Terminal Portuário do Beato
Lisbon
1900 Lisboa
Portugal
Contact: Mr Carlos Silva
Trade Manager
T: + 351 21 392 32 61
F: + 351 21 392 32 69
E: carlos.silva@silopor.com
W: www.silopor.pt
Location: Port of Lisbon (West Coast of Portugal)
Name of Port Authority: APL - Administracia do Porto de Lisbon
Throughput Capacity: Unload up to 9,000tpd
Total Storage: 100,000t vertical storage
Vessel Size Limitation: LOA: 180m, Draught 7.5m

Sines

Porto de Sines SA

Apartado 16
Sines
750-953
Portugal
Contact: Ms Anna-Rita Rosa
Marketing
T: + 351 269 860 600
F: + 351 269 860 790
E: ana.rosa@portodesines.pt
W: www.portodesines.pt

Puerto Rico

San Juan

Port of Ponce

Port of the Americas Authority
PO Box 362350
San Juan
00936-2350
Puerto Rico
T: + 1 787 765 2900
F: + 1 787 753 6874
W: www.portoftheamericas.com
Import: Yes
Location: South Coast of Puerto Rico
Ownership: Public
Throughput Capacity: 62,000 short tonnes
Total Storage: 4,000 cubic metres approx
Vessel Size Limitation: Max LOA 1200 ft, Max Draught 50 ft

Romania

Constanta

Comvex SA

Incinta Port Dana 80-84
Constanta
900900
Romania
Contact: Mr Viorel Panait
Terminal Manager
T: + 40 241 639 016
F: + 40 241 639 010
E: viorelpanait@comvex.ro
W: www.comvex.ro

Constanta

SC MINMETAL SA Constanta / Romania

Incinta Port
Berth 64
Constanta
900900
Romania
Contact: Mr Ghebaur Liviu
General Director
T: + 40 241 639 035
F: + 40 241 639091
E: office@minmetal.ro
W: www.minmetal.ro
Import: Yes
Export: Yes
Location: South–East of Europe; South-East of Romania; Black Sea Port – Constanta; Berth 45, 46, 64, 65, 66, 85.
Ownership: S.C. North Star Shipping S.R.L.
Name of Port Authority: Constanta Maritime Port Administration
Throughput Capacity: 4,000,000 tpa
Total Storage: 251.716 m2
Vessel Size Limitation: Max LOA - no restriction, Max draught - 13.5m, DWT - accordingly
Additional information: The main domestic beneficiaries of Minmetal.are : Arcellor Mittal , Lafarge , Energy Coal , Tenaris , Holcim , Voest Alpine , etc

Russia

Tuapse

Port of Tuapse Authority

8 Gorkogo Street
Tuapse
352800
Russia
Contact: Mr O Antonov
General Director
T: + 7 86167 76 4 00
F: + 7 86167 76 4 03
E: map@tuapseport.ru
W: www.tuapseport.ru

Vanino

Vanino Commercial Sea Port, PJSC

1 Zheleznodorozhnaya Str.
Vanino
Khabarovsk Territory
682860
Russia
Contact: Mr Apollon Shengeliya
General Director
T: + 7 421 37 5 09 23
F: + 7 872 140 26 10
E: market@vcsp.ru
W: www.vcsp.ru

Slovenia

Koper

Luka Koper d.d.,Dry Bulk Cargo Terminal

Vojkovo Nabrežje 38
Koper
SI-6501
Slovenia
Contact: Mr Bojan Tomisic M.Sc.
Terminal Manager
T: + 386 5 6656 631
F: + 386 5 6395 027
E: bojan.tomisic@luka-kp.si
W: www.luka-kp.si
Import: Yes
Export: Yes
Location: Northen part of Adriatic Sea; SLOVENIA
Name of Port Authority: Luka Koper
Throughput Capacity: Year 2008; 4,000,000 tonnes Coal, 2,000,000 tonnes Iron Ore
Total Storage: 400,000 tonnes Coal, 350,000 tonnes Iron ore
Vessel Size Limitation: Limit is arrival draught of 17.2m

South Africa

Durban

Grindrod Terminals

P O Box 1
Durban
KwaZulu Natal
4000
South Africa
Contact: Mr Sean Rowan
CEO Grindrod Terminals
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W: www.grindrod.co.za

Durban

Transnet Port Terminals Head Office

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Stalwart Simelane/Stanger Street
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4001
South Africa
Contact: Ms Nonjabulo Hlengwa
GM: Strategic Communication & Corporate Affairs
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F: + 27 31 308 8336
W: www.transnetporterminals.net

Richards Bay

Grindrod Terminals - Richards Bay

5 Titanium Tide
Richards Bay
Kwazulu Natal
3900
South Africa
Contact: Mr Christo Coetzer
Regional Manager
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F: + 27 35 797 9033
E: christoc@grindrod.co.za
W: www.grindrod.co.za

Richards Bay

Richards Bay Coal Terminal

PO Box 56
Richards Bay
KwaZulu Natal
3900
South Africa
Contact: Ms Zama Luthuli
T: + 27 35 904 4045
F: + 27 35 907 7200
E: zluthuli@rbct.co.za
W: www.rbct.co.za
Export: Yes
Location: North east coast of South Africa.
Ownership: Privately owned
Name of Port Authority: National Ports Authority of South Africa
Throughput Capacity: 72 million tonnes pa
Total Storage: 6.7 million tons
Vessel Size Limitation: 17.5m draft

Richards Bay

Transnet Port Terminals

Dry Bulk Terminal
Customer Services Department
PO Box 1793
Richards Bay
KwaZulu Natal
3900
South Africa
Contact: Mr Warren Vickers
Customer Services Manager
T: + 27 35 905 3105
F: + 27 35 905 3216
E: Warren.Vickers@transnet.net
W: www.transnet.net
Import: Yes
Location: The port of Richards Bay is located approximately 160 km north-east of Durban and 465 km south of Maputo on the eastern seaboard of South Africa.
Ownership: Import coking coal: Mittal Steel SA (previously Iscor)
Import met coke: Xstrata & Assmang
Name of Port Authority: Dry Bulk Terminal, S A Port Operations, Port of Richards Bay
Throughput Capacity: Two import berths, discharging a variety of dry bulk products such as coking coal, sulphur, salt, fertilizer, met coke, zinc.
A third import berth is dedicated to discharge of alumina & petcoke for BHP Billiton
Capacity per import berth: 3mt (9 mt for three import berths)
Total Storage: Coking coal shed: 25 000m2 (operated by DBT)
Vessel Size Limitation: Draft: berth 609 & 701 = 14.0m; berth 702 = 17.5m
LOA: Coking coal = 270m; others = 240m
Additional information: DBT is a unique terminal that handles a variety of dry bulk commodities. Deep water and fast vessel turnaround ensure that this is one of the world's leading bulk ports.

Saldanha

Saldanha Bulk Terminal

Private Bag X8
Saldanha
4395
South Africa
Contact: Mr Christopher Gomez
Communications Manager
T: + 27 22 703 4204
F: + 27 22 703 4828
E: christopherg@saportops.co.za

South Korea

Pohang

Port of Pohang

Pohang District Maritime & Port Authority
58-7 Hangku-dong
Pohang
South Korea
T: + 82 562 421 812
F: + 82 562 422 122

Ulsan

Port of Ulsan Public Piers 1&2

Ulsan District Maritime and Port Authority
139-9 Maeam-dong
Ulsan
South Korea
Contact: Mr Jeong Chang-won
T: + 82 52 228 5500
F: + 82 52 228 5549
W: www.ulsan.mltm.go.kr

OVET

www.ovet.nl

Quality in Bulk

Mr. F.J. Haarmanweg 16d
4538 AR Terneuzen
The Netherlands

Tel.: +31 115 676 700
Fax: +31 115 620 316
E-mail: info@ovet.nl

Contact: Mr. Jan Agten
Mr. Bram Peters
Mr. Sander van der Veeke

- 4 floating cranes
- 80,000 T/day capacity
- Screening/crushing facilities
- Terminals in Terneuzen and Vlissingen
- Draft: 16.50 m sw

Spain

Alicante

Port of Alicante

Muelle de Poniente 11
Alicante
03001
Spain
Contact: Mr Luis Charles Lopez
Marketing
T: + 34 96 513 0134
E: lclopez@puertoalicante.com
W: www.portel.es/alicante

Almeria

Carboneras

c/o Autoridad Portuaria de AlmeriaMotril
Muelle de Levante s/n
Almeria
04071
Spain
Contact: Mr Muelle Levante
Port Director
T: + 34 9 50 23 60 33
F: + 34 9 50 23 29 49
E: almeria@apalmeria.com
W: www.apalmeria.com/

Gijón

EBHI - European Bulk Handling Installation

Muelle Marcelino León s/n
El Musel
Gijón
Asturias
33212
Spain
Contact: Mr José Antonio Lago Alba
Managing Director
T: + 34 985 308 748
F: + 34 985 308 123
E: jalago@ebhi.es
W: www.ebhi.es
Import: Yes
Location: North coast of Spain.
Ownership: EBHI
Name of Port Authority: Gijón Port Authority
Throughput Capacity: 5,000 tph , 18 million/year
Total Storage: 150,000 sqm
Vessel Size Limitation: No LOA / DWT limitation . 18m draught (59 feet)
Additional information: Recent upgrades to our facilities: Monitored distance unloading and automatic unloading system and unloading simulator (BAT project).

La Coruña

Muelle del Centenario

Autoridad Portuaria de la Coruna
Avda de la Marina 3
La Coruña
15002
Spain
Contact: Mr Luis Felipe Fernandez Rueda
T: + 34 981 22 74 02
F: + 349 81 205 862
E: explotacion@puertocoruna.com
W: www.puertocoruna.com
Import: Yes
Export: Yes
Location: North West of Spain
Name of Port Authority: A Coruña
Throughput Capacity: 150,000t
Total Storage: 25,000sqm
Vessel Size Limitation: Max. Draught 15.5m

La Coruña

T.M.G.A. SL

Cuesta de la Palloza
1-Entlo
La Coruña
15006
Spain
Contact: Mr Juan Ibanez
Managing Director
T: + 34 981 175690
F: + 34 981 227556
E: jibanez@mconsiflet.com
W: www.tmga.es

La Coruña

Terminales Maritimos de Galicia, S.L.

Muelle Calvo Sotelo S/N
La Coruña
15006
Spain
Contact: Mr Iago Mallo Sanz
Technical Manager
T: + 34 981 12 61 69
F: + 34 981 12 22 35
E: imallo@tmga.es
W: www.tmga.es
Import: Yes
Location: North West of Spain
Name of Port Authority: La Coruña
Total Storage: 8,500sqm
Vessel Size Limitation: Max draught 14m

Los Barrios

Endesa

PO Box 11
Los Barrios
Cadiz
11370
Spain
Contact: Mr Francisco Aamoros
Commercial Department
T: +34 6256 04 167
F: + 34 956 6782 11
E: info@unesa.es

Pto. Alcudia

Transportes Maritimos Alcudia, SA

Teodoro Canet No 26
Pto. Alcudia
Mallorca-Baleares
07400
Spain
Contact: Mr Miguel Oliver
Managing Director
T: + 34 971 545 932/28
F: + 34 971 547 356
E: moliver@tmalcudia.com
W: www.portsdebelears.com
Import: Yes
Location: Eastern Mediterranean Sea
Ownership: Transportes Marítimos Alcudia
Name of Port Authority: Transportes Marítimos Alcudia
Throughput Capacity: 1.316.211.- tn / year (2005)
Total Storage: 3,200 sqm
Vessel Size Limitation: Max LOA 101m, Max Draught 5.9m, Max DWT 6000.
Additional information: Coal imported from Namibia or South Africa via Tarragona, Spain.

Santa Cruz de Tenerife

Port Authority of Tenerife

Avenida Francisco La Roche No 49
Santa Cruz de Tenerife
Canary Islands
Spain
Contact: Mr Manuel Fernandez del Castillo
Port Director
T: + 34 9 22 605400
F: + 34 9 22 605479
E: comercial@puertosdetenerife.org
W: www.puertosdetenerife.org

Santander

Raos Terminal

Puerto de Santander
Paseo de Pereda 33
Santander
Cantabria
E39004
Spain
Contact: Mr Manuel Martin Ledesma
T: + 34 942 314 060
F: + 34 942 314 904
E: info@puertosantander.com
W: www.puertosantander.com

Tarragona

Euroports Iberica TPS

Aptdo. Correos 839
Tarragona
Tarragona
43080
Spain
Contact: Mr Javier Herrera
Commercial Manager
T: + 34 977 22 22 19
F: + 34 977 22 04 59
E: jherrera@europortsiberica.com
W: www.euroports.com
Import: Yes
Export: Yes
Location: North Mediterranean coast of Spain, 60 miles south of Barcelona
Ownership: www.euroports.com
Name of Port Authority: Tarragona Port Authority
Throughput Capacity: 7.5M ttpa
Total Storage: 140,000sqm
Vessel Size Limitation: Max draught 18.5m, fit for Capesize vessels
Additional information: 5 gantry cranes 750 – 2,500 t/h; 3.5Km conveyor belts; shiploader 1,600tph; Installations for transshipment. Railway connection.

Sweden

Helsingborg

Helsingborg Coal Terminal

PO Box 821
Helsingborg
S-25108
Sweden
Contact: Mr Andreas Eriksson
Information Officer
T: + 46 4210 6300
F: + 46 4212 4374
E: andreas.eriksson@port.helsingborg.se
W: www.port.helsingborg.se

Karlstad

Vänerhamn AB

Stuvargatan 1
Karlstad
652 21
Sweden
Contact: Mr Tobias Uhn
Sales Manager
T: + 46 54 14 48 60
F: + 46 54 21 33 16
E: tobias.uhn@vanerhamn.se
W: www.vanerhamn.se

Oxelsund

Oxelosunds Hamn AB

Box 1200
Oxelsund
SE-61324
Sweden
Contact: Mr Bo Ytterstrom
Marketing Manager
T: + 46 155 258 000
F: + 46 1553 4321
E: bo.ytterstrom@oxhamn.se
W: www.oxhamn.se

Västerås

Mälarhamnar AB

Box 3013
Västerås
720 03
Sweden
Contact: Mr Magnus Johansson
Sales Manager
T: + 46 21 150100
F: + 46 21 150145
E: magnus.johansson@malarhamnar.se
W: www.malarhamnar.se
Location: In the lake of Mälaren we have two ports, one in Köping and one in Västerås, Sweden.
Total Storage: 155,000sqm
Vessel Size Limitation: 7 Berths. Recieving ships up to 7000 tonnes net weight.
Additional information: cranes, loaders, Rechstackers, trucks, etc.
Ongoing investments to receive 13 000 tons. Reaching 1/3 of Swedens population within 200 km radius (3 million people.)

Switzerland

Basel

Port of Switzerland

Hochbergerstrasse 160
Basel
CH-4019
Switzerland
Contact: Ms Nina Hochstrasser
Communication Officer
T: + 41 61 639 9597
F: + 41 61 639 9514
E: nina.hochstrasser@portof.ch
W: www.port-of-switzerland.ch
Import: Yes
Location: North East of Switzerland, at the banks of the Rhine river
Ownership: Port area is owned by the community and leased to private companies for operation
Name of Port Authority: Schweizerische Rheinhäfen/ Port of Switzerland
Throughput Capacity: 7 mio tpa
Total Storage: Open storage: 180,000 sqm
Vessel Size Limitation: L 135 m, W 23 m, Draught 3.20 m
Airdraught 7.00 m
Additional information: 132,642 t coal imported in 2010.

Basel

Ultra-Brag AG

Südquaistrasse 55
Basel
CH-4019
Switzerland
Contact: Mr Beat Heydrich
CEO
T: + 41 61 639 72 00
F: + 41 61 639 72 10
E: info@ultra-brag.ch
W: www.u-b.ch

Birsfelden

BIRS Terminal AG

Hafenstrasse 54
Postfach
Birsfelden
CH 4127
Switzerland
Contact: Ms Sabine Schmid
T: + 41 61 377 8032
F: + 41 61 377 8010
E: sabine.schmid@birsterminal.ch
W: www.birsterminal.ch
Import: Yes
Location: East of Basel, Switzerland
Name of Port Authority: Port of Birsfelden
Total Storage: 30,000 sqm open storage

Thailand

Bangpli

S.P. Intermarine Co., Ltd

150/90 Moo 3 Soi Wongsepad
Teparak Road (Km.10)
Bangpli Yai
Bangpli
Samutprakarn
10540
Thailand
Contact: Mr Krithep Suwajanakorn
Marketing Department
T: + 662 385 5335
F: + 662 385 5910
E: info@spintermarine.co.th
W: www.spintermarine.co.th

The Netherlands

Amsterdam

IGMA

Coenhavenweg 3
Amsterdam
BK
1013
The Netherlands
Contact: Mr Niels Boetje
General Manager
T: + 31 20 580 1613
F: + 31 20 682 3267
E: niels_boetje@igma.nl
W: www.igma.nl

Amsterdam

Maja Stuwadoors Rotterdam

PO Box 57196
Amsterdam
1040 BB
The Netherlands
Contact: Mr Arie Holleman
T: + 31 20 684 2194
F: + 31 20 684 7024
E: info@majastuwadoors.nl
W: www.majastuwadoors.nl
Import: Yes
Location: Port of Amsterdam, Rotterdam, Netherlands
Ownership: Privately owned
Name of Port Authority: Maja
Throughput Capacity: approx. 4 million tonnes a year
Vessel Size Limitation: Capesize vessels discharging on the buoys
Additional information: Floating operation with floating cranes in the ports of Amsterdam and Rotterdam. Operating with 8 floating cranes with capacities upto 1.000 mtph.

Amsterdam

OBA - Bulk Terminal Amsterdam

Westhavenweg 70
Amsterdam
1042 AL
The Netherlands
Contact: Mr P J Skotnicki
Managing Director
T: + 31 20 587 3700
F: + 31 20 611 6908
E: piotr.skotnicki@oba-bulk.nl
W: www.oba-bulk.nl
Import: Yes
Export: Yes
Location: IJmuiden & Amsterdam Westhaven with good access via the Amsterdam Rhine canal to the river Rhine.
Ownership: 50% HES Beheer / 50% Ovet Holding
Name of Port Authority: Port of Amsterdam
Throughput Capacity: Total handling capacity more than 100.000 tonnes per day

TEAM WORK AHEAD

A time trial of top cyclists demands the utmost of all team members in a truly coordinated effort. Each cyclist urging and inspiring one another to give a winning performance. EMO operates as a synchronised team in coal and iron ore handling through the Port of Rotterdam. Our team actively meets the demands of your business in unloading and loading vessels, barges and freight trains. EMO is your winning partner in storage and transshipment.

Europees Massagoed- Overslagbedrijf (EMO) B.V. www.emo.nl emo@emo.nl phone +31(0)181-371111

EMO

energising your business

Total Storage: 600,000 sqm open storage (space for 2.5 million tonnes of coal), 25,000 sqm covered storage.
Vessel Size Limitation: Max draught – 17.8m, 180,000dwt, max beam - 45m
Additional information: Annual volume of coal handled approx. 20 million tonnes. Unrivalled de-ironing possibilities through installed magnets on transport belts.

Amsterdam
Rietlanden Stevedores BV
Corsicaweg 10
PO Box 59191
Amsterdam
1040KD
The Netherlands
Contact: Mr Karl Schot
Managing Director
T: + 31 20 506 1144
F: + 31 20 613 0724
E: karl.schot@rietlanden.com
W: www.rietlanden.com
Import: Yes
Location: The Netherlands, Europe
Ownership: LBH Group
Name of Port Authority: Reitlanden Stevedores

Dordrecht
BV Zeehavenbedrijf Dordrecht (ZHD Stevedoring)
PO Box 12
Dordrecht
3300 AA
The Netherlands
Contact: Mr Cornelius van Gulik
Deputy Managing Director
T: + 31 786 111 000
F: + 31 78 6 332 815
E: cvangulik@zhd.nl
W: www.zhd.nl

Europoort - Rt
Ertsoverslagbedrijf Europoort C.V. (EECV)
Markweg 131
Europoort - Rt
Zuid-Holland
3198 NB
The Netherlands
Contact: Mr Sven Wappler
Management Assistant
T: + 31 181 25 77 02
F: + 31 181 25 77 03
E: Info.eecv@thyssenkrupp.com
W: www.eecv.nl
Name of Port Authority: Ertsoverslagbedrijf Europoort C.V. (EECV)
Throughput Capacity: 5.5 million tons
Total Storage: 750,000 tons
Vessel Size Limitation: 180,00 DWT

Ijmuiden
Nebam BV
PO Box 512
Ijmuiden
1970 AM
The Netherlands
Contact: Mr Marcel Botterhuis
Manager Agency Dept
T: + 31 251 495521
F: + 31 251 470279
E: marcel.botterhuis@nebam.nl
W: www.NEBAM.nl

Rotterdam
European Bulk Services (EBS) BV
Elbeweg 117, Port number 5820
3198 LC Europoort-Rotterdam
P.O. Box 1204
180 AE Rozenburg
Rotterdam
Zuid Holland
3180 AE
The Netherlands
Contact: Mr Taco de Vries
Managing Director
T: + 31 181 258 147
F: + 31 181 258 154
E: sales@ebsbulk.nl
W: www.ebsbulk.nl
Location: Rotterdam, The Netherlands
Europoort Terminal and Laurenshaven Terminal
Ownership: HES Beheer
Name of Port Authority: Port of Rotterdam
Throughput Capacity: 11 million tonnes per year (inc. coal)
Total Storage: Covered storage capacity 360,000 m3. Open-air storage capacity 750,000 tons.
Vessel Size Limitation: Depth 14.5 m Laurenshaven
Depth 18.5 m Europoort
Additional information: Two dedicated terminals situated at strategic points to provide a fast, efficient and flexible service.

Rotterdam
Europees-Massagoed Overslagbedrijf (EMO) BV
PO Box 9000
Maasvlakte RT
Rotterdam
3199 XA
The Netherlands
Contact: Mr Sjaak Roukema
Commercial Manager
T: + 31 181 371113
F: + 31 181 371222
E: j.roukema@emo.nl
W: www.emo.nl
Location: Rotterdam-Maasulante
Throughput Capacity: 60 mio tons
Total Storage: 170 ha of storage, maximum storage capacity of 7 mio tons
Vessel Size Limitation: Draught 23m, max vessel size 360,000 dwt
Additional information: EMO ensures an important part of the supply chain of iron ore and coal needed for the European steel and electricity industry.

Rotterdam
Marcor Stevedoring BV Rotterdam
Dodewaardstraat 14
(Port Number 2175)
Rotterdam
3087 BA
The Netherlands
Contact: Mr Aad Groenenboom
Director
T: + 31 10 299 21 21
F: + 31 10 299 21 22
E: a.groenenboom@marcor.nl
W: www.marcor.nl
Import: Yes
Location: Rotterdam, The Netherlands
Throughput Capacity: 6 million tonnes (including coal)
Total Storage: Unique floating storage capacity that handles about 40,000 tonnes.
Vessel Size Limitation: No limitations, due to flexibility of the equipment to handle any vessel throughout the port of Rotterdam
Additional information: 4 floating cranes with capacity up to 36 mton and 2 floating weighing towers; handling all dry bulk commodities.

Rotterdam
Van Uden Stevedoring
Gustoweg 68
(Port number 385)
Rotterdam
3029 AS
The Netherlands

Contact: Mr Gerard de Jong
T: + 31 10 476 0171
F: + 31 10 476 1927
E: g.dejong@vanudenstevedoring.nl
W: www.vanuden.nl
Location: Rotterdam, The Netherlands
Throughput Capacity: 1.7 million tonnes per year (including coal)
Total Storage: 50,000 sqm
Vessel Size Limitation: Maximum draft facilities are 10.2 meters at high tide and 9.65 meters at low tide

Rozenburg
EP Shipping & Trading BV
PO Box 1050
Rozenburg
3180 AB
The Netherlands
Contact: Mr Eddy Van de Wijingaart (snr)
T: + 31 181 402 788
F: + 31 181 402 689
E: eps@epship.nl
W: www.epship.nl

Schiedam
Nieuwe Waterweg Silo
Nieuwe Waterwegstraat 53-55
(Port 542-543)
Schiedam
3115 HE
The Netherlands
Contact: Mr Jan Maasdam
Manager
T: + 31 10 427 12 30
F: + 31 10 473 75 73
E: jmaasdam@nwssilo.nl
W: www.nwssilo.nl
Location: Rotterdam, The Netherlands
Total Storage: 5000 tonnes
Vessel Size Limitation: draught: 8-8.5m, width: 20-25m, length: 150m

Terneuzen
Ovet BV - Terneuzen Terminal
Mr F.J. Haarmanweg 16 d
Terneuzen
Zeeland
NL-4538 AR
The Netherlands
Contact: Mr Jan Agten
Commercial Manager
T: + 31 115 676 700
F: + 31 115 620 316
E: info@ovet.nl
W: www.ovet.nl
Import: Yes
Export: Yes
Location: The Netherlands, South-West Area (River Scheldt)
Ownership: 1/3 Hes Beheer ; 2/3 Manufrance
Name of Port Authority: Zeeland Seaports
Throughput Capacity: 12 MTA
Total Storage: Terneuzen 160,000 sqm; Flushing: 315,000 sqm
Vessel Size Limitation: Terneuzen - loa 265m, width 34m, draught 12.50m fresh water, type panamax
Vlissingen - loa 310m, no beam restrictions, draught 16.5m salt water, type capesize
Additional information: 4 floating cranes / mobile crane(s) / screening plants / weighbridge / mobile conveyor belt system

Terneuzen
Zeeland Seaports
PO Box 132
Terneuzen
4530 AC
The Netherlands
Contact: Mr Arno Dirkzwager
Public Relations Officer
T: + 31 115 647 400
F: + 31 115 647 500
E: arno.dirkzwager@zeeland-seaports.com
W: www.zeeland-seaports.com
Import: Yes
Export: Yes
Location: South West of the Netherlands, at the entrance of the Westerschelde River, with open access to the Northsea.
Name of Port Authority: Zeeland Seaports
Throughput Capacity: Throughput solid fuels in 2008: 4,500,000
Vessel Size Limitation: Max draught 17,5 LAT

Vlaardingen
Rotterdam Bulk Terminal (R.B.T.) B.V.
Schiedamsedijk 16
(Harbour no. 610)
Vlaardingen
3134 KK
The Netherlands
Contact: Mrs Carola Broers
Director
T: + 31 10 234 35 55
F: + 31 10 234 21 85
E: info@rbtrotterdam.com
W: www.rbtrotterdam.com
Import: Yes
Location: Rotterdam, The Netherlands
Name of Port Authority: Port of Rotterdam
Throughput Capacity: 3.2 million tonnes of dry bulk (2007), 26% coal-cokes
Total Storage: Open storage: 36,000 sqm
Covered storage facilities:
6 x 12,000 cbm steel silos
2 x 3,800 cbm concrete bunkers
4 x 1,900 cbm concrete bunkers
5 x 1,250 cbm concrete bunkers
1 x 2,250 cbm steel silo
1 x 3,000 cbm steel silo
22,000 cbm / 3,700 sqm shed
Vessel Size Limitation: Draught: 11.35m. (High tide 12m)
Quaylength: 525m
Additional information: Storage & handling for all bulk commodities with a 24 hour service.

Vlissingen
Ovet BV - Vlissingen Terminal
Mr F.J. Haarmanweg 16 d
Terneuzen
Zeeland
NL-4538 AR
The Netherlands
Contact: Mr Jan Agten
Commercial Manager
T: + 31 115 676 700
F: + 31 115 620 316
E: info@ovet.nl
W: www.ovet.nl
Import: Yes
Export: Yes
Location: The Netherlands, South-West Area (River Scheldt)
Ownership: 1/3 Hes Beheer ; 2/3 Manufrance
Name of Port Authority: Zeeland Seaports
Throughput Capacity: 12 MTA
Total Storage: Terneuzen 160,000 sqm; Flushing: 315,000 sqm
Vessel Size Limitation: Terneuzen - loa 265m, width 34m, draught 12.50m fresh water, type panamax
Vlissingen - loa 310m, no beam restrictions, draught 16.5m salt water, type capesize
Additional information: 4 floating cranes / mobile crane(s) / screening plants / weighbridge / mobile conveyor belt system

Turkey

Istanbul
Toros Tarim Sanayi ve Ticaret
Ceyhan Terminal
Tekfen Tower, 19th Floor
4 Levent
Istanbul
Marmara
34394
Turkey
Contact: Mr Aydin Erdemir
Vice President - Terminal & Port Activities
T: + 90 212 357 02 02 ext. 284/286
F: + 90 212 357 02 31
E: aydin.erdemir@toros.com.tr
W: www.toros.com.tr

Istanbul
Toros Tarim Sanayi ve Ticaret
Samsun Terminal
Tekfen Tower, 19th Floor
4 Levent
Istanbul
Marmara
34394
Turkey
Contact: Mr Aydin Erdemir
Vice President - Terminal & Port Activities
T: + 90 212 357 02 02 ext. 284/286
F: + 90 212 357 02 31
E: aydin.erdemir@toros.com.tr
W: www.toros.com.tr

Tekkeköy/Samsun
Toros Tarım San. ve Tic. A.
Samsun Ordu Karayolu 14.km
Sanayi Mah
Tekkeköy/Samsun
55300
Turkey
Contact: Mr Ismail Turan
Toros Terminal Opr. Man
T: + 90 2123570202
F: + 90 2123570231
E: ismail.turan@toros.com.tr
W: www.toros.com.tr

UK

Ayr
Ayr
ABP Port Office
Ayr
Ayrshire
KA8 8AH
UK
Contact: Mr P Creswell
Port Manager
T: + 44 1292 281 687
F: + 44 1292 287 787
E: ayr@abports.co.uk
W: www.abports.co.uk

Bootle
E-ON UK Liverpool
Bulk Terminal
Gladstone Dock
Bootle
Merseyside
L20 1BE
UK
Contact: Mr Ken Jones
T: + 44 151 933 0860
F: + 44 151 933 0867
E: ken.jones@eon-uk.com

Bristol
The Bristol Port Company
St Andrews House
St Andrews Road
Avonmouth
Bristol
Avon
BS11 9DQ
UK
Contact: Mrs Jullie Gough
Commercial Executive
T: + 44 117 982 0000
F: + 44 117 982 0698
E: julie.gough@bristolport.co.uk
W: www.bristolport.co.uk
Import: Yes
Location: South West England
Ownership: Private - Bristol Port Company
Name of Port Authority: The Bristol Port Company
Throughput Capacity: 11 million Coal
Total Storage: 700,000 tonnes of Coal
Vessel Size Limitation: LOA 290m
Draught 14.5m
Beam 41m

Canningtown
European Metal Recycling Ltd
Bidden Street
Canningtown
London
E16 4SZ
UK
Contact: Mr Bob Garwood
Southern Director
T: + 44 20 7476 3104
F: + 44 20 7474 5633
E: bob.garwood@emrltd.com
W: www.emrltd.com

Cardiff
ABP South Wales
(Ports of Newport, Cardiff, Barry, Port Talbot & Swansea)
Queen Alexandra House
Cargo Road
Cardiff
South Glamorgan
CF10 4LY
UK
Contact: Mr Matthew Kennerly
Port Director
T: + 44 870 609 6699
F: + 44 2920 835001
E: mkennerly@abports.co.uk
W: www.abports.co.uk
Import: Yes
Export: Yes
Location: South Coast of Wales, UK
Ownership: Borealis 33.34%, GIC 33.33%, Goldman Sachs 23.33%, Infracapital 10%
Name of Port Authority: Associated British Ports
Throughput Capacity: > 20 million tonnes (all cargo)
Total Storage: Extensive development land available
Vessel Size Limitation: Up to 170,000 dwt at Port Talbot

Glasgow
Clydeport Operations
16 Robertson Street
Glasgow
Ayrshire
G2 8DS
UK
Contact: Mr David Jerome
Marketing
T: + 44 1412218733
E: david.jerome@clydeport.co.uk
W: www.clydeport.co.uk
Import: Yes
Location: Located in Fairlie, near Largs on the Ayrshire coast of Scotland
Name of Port Authority: Clydeport
Total Storage: 1.3 million tonnes
Vessel Size Limitation: Outer Berth: DWT 350,000, Max draft 23m
Inner Berth: DWT 95,000, Max draft 19.8m
Additional information: Hunterston has one of the deepest sea entrance channels in northern Europe, which can accommodate the largest cape size vessels afloat. Discharging rates are the fastest in the UK, ensuring efficient and cost effective movement of materials.

Grangemouth
Casper Shipping Ltd
2nd Floor
5 Kerse Road
Grangemouth
FK3 8HQ
UK
Contact: Mr Douglas Couser
Office Manager
T: + 44 1324 486486
F: + 44 1324 486444
E: dcouser@casperltd.com
W: www.casperltd.com
Location: Scotland - Serving: Clydeport Hunterston Coal Terminal
Ownership: Privately Limited Company
Name of Port Authority: Clydeport
Throughput Capacity: 3000 tonnes per hour
Total Storage: 50 Hectare
Vessel Size Limitation: Max Length 380m
Max Draught 26m
Up to 350,000dwt

Grangemouth
Leith Docks
Forth Ports PLC
Carron House
Central Dock Road
Grangemouth
Scotland
SK38TY
UK
Contact: Mr Alan C Burns
T: + 44 131 555 8750
F: + 44 131 555 1212
E: alan.burns@forthports.co.uk
W: www.forthports.co.uk

Grimsby
Associated British Ports - Grimsby & Immingham
Port Office
Cleethorpe Road
Grimsby
North East Lincolnshire
DN31 3LL
UK
Contact: Mr John Fitzgerald
Port Director
T: + 44 1472 359 181
F: + 44 1472 242 488
E: jfitzgerald@abports.co.uk
W: www.abports.co.uk
Import: Yes
Export: Yes
Location: Central Coast of England, Humber International Terminal
Ownership: Associated British Ports
Throughput Capacity: Phase 1 capacity 7.5 million tonnes. Work has commenced on the second phase of the terminal.
Total Storage: Open storage areas for 500,000 tonnes plus 10,000sqm of general purpose warehousing.
Vessel Size Limitation: LOA: 275m (suitable vessels up to 290m accepted with Dock Master's approval)
Beam: 45m
Draught: 14.2m (subject to tidal / siltation conditions)
Approx DWT: 200,000 (partly laden)
Additional information: The first phase of Humber International Terminal is capable of handling vessels carrying cargoes in excess of 100,000 tonnes. The

rail-connected terminal offers 24-hr fully flexible working and is supported bv four 100-tonne mobile harbour cranes.
Work on the second phase of the terminal has commenced and will provide a dedicated bulk-handling facility due to be operational during 2006.

Hull
Hull Agency (Goole)
Casper Shipping Ltd
Saltend Office DL1 (Upper Floor)
Saltend Hedon
Near Hull
East Yorkshire
HU12 8DS
UK
Contact: Mr Don Mussett
T: + 44 1482 891533
F: + 44 1482 891186
E: hull@casperltd.com
W: www.casperltd.com
Import: Yes
Location: Humberside
Ownership: Private limited company
Name of Port Authority: Hull Bulk Handling (Fernwood group) King George Dock Hull
Throughput Capacity: 2,000,000 tonnes 2004 estimated
Total Storage: 17 hectares
Vessel Size Limitation: Beam 25.50m max, Loa 199m (can be exceeded with special permission), Draft 10.4m max (the dock is impounded to 11.3m)
On certain neap tides max draft of vessels entering can be as poor as 9.5m due to water levels in the River Humber

Immingham
Casper Shipping Ltd
Riverside House
East Riverside
Immingham
NE Lincolnshire
DN40 2LZ
UK
Contact: Mr David Healey
T: + 44 1469 575 246
F: + 44 1469 575 589
E: immingham@casperltd.com
W: www.casperltd.com
Import: Yes
Ownership: Private Limited Company
Name of Port Authority: ABP
Throughput Capacity: 7.2 m in 2004
Total Storage: Unlimited
Vessel Size Limitation: LOA 295m – Beam 45m – Max Draught 14.20m
Additional information: Draught depending on tidal conditions, draught planner available on request.

Liverpool
Mersey Docks & Harbour Company
Maritime Centre
Port of Liverpool
Liverpool
Merseyside
L21 1LA
UK
Contact: Mr Eric Leatherburrow
Marketing Services Manager
T: + 44 151 949 6374
F: + 44 151 949 6300
E: eric.leatherburrow@merseydocks.co.uk
W: www.merseydocks.co.uk

Middlesbrough
Casper Shipping Ltd
Cleveland Business Centre
1 Watson Street
Middlesbrough
Cleveland
TS1 2RQ
UK
Contact: Mr Michael Shakesheff
Managing Director
T: + 44 1642 233 570
F: + 44 1642 243 936
E: mshakesheff@casperltd.com
W: www.casperltd.com
Location: Redcar, Hull, Immingham, Blyth and Hunterston

Newport
ABP - Port of Newport
Dock Office
Alexandra Dock
Newport
Gwent
NP20 2UW
UK
Contact: Mr Clive Thomas
Deputy Port Manager
T: + 44 870 609 6699
F: + 44 1633 221285
E: cjthomas@abports.co.uk
W: www.abports.co.uk
Import: Yes
Export: Yes
Location: South-East Wales
Ownership: Port is owned and operated by Associated British Ports
Name of Port Authority: Associated British Ports
Throughput Capacity: Currently circa 2 million tonnes. 1.4 million tonnes imported in 2006.
Total Storage: Circa 100,000 sq m
Vessel Size Limitation: Handymax vessels up to circa 40,000 dwt
LOA- 244m
Beam - 30.1m
Draught - 10.4m
Additional information: Dedicated terminal able to accommodate two vessels of up to 40,000 dwt simultaneously with rail facility for re-loading/discharge to/from South-Wales, the Midlands and beyond. Coal washing, screening and blending available on port estate.

Newport
Newport Stevedores Ltd
Eastway Road, North Dock
Alexandra Dock
Newport
Gwent
NP9 2NP
UK
Contact: Mr Matthew Kennerley
Port Director
T: + 44 1633 220969
F: + 44 1633 221371
E: info@abports.co.uk

Nottingham
Hull Bulk Handling Ltd
Fernwood House
Fernwood Drive
Main Road
Watnall
Nottingham
NG16 1LA
UK
Contact: Mr Charles Holehouse
Managing Director
T: + 44 11 593 893 78
F: + 44 1482 784 895
E: charles.holehouse@fernwood.co.uk
W: www.hullbulk.co.uk
Import: Yes
Export: Yes
Location: East Coast UK, Humber Estuary
Ownership: Privately owned Limited company
Name of Port Authority: Associated British Ports
Throughput Capacity: 3.5 million tonnes per annum
Total Storage: 161880 square metres
Vessel Size Limitation: Max LOA: 198m
Max Beam: 25.5m
Max draught including approach channels 10.4m, basis brackish with an SPG of 1016. Draught in approach channel subject to tidal conditions.
Average vessel size: 30,000 dwt.
Additional information: Hull Bulk Handling is road, rail and barge connected for the onward despatch of all bulk products. Mobile screening and washing plants are also available on site along with 5 acres of tarmac bunkered storage.

South Shields
Port of Tyne
Maritime House
Tyne Dock
South Shields
Tyne & Wear
NE34 9PT
UK
Contact: Mr Andy Fulds
Commercial Manager
T: + 44 191 455 2671
F: + 44 191 454 1460
E: andy.fulds@portoftyne.co.uk
W: www.portoftyne.co.uk
Import: Yes
Location: North East of England on the North Coast
Name of Port Authority: Port of Tyne
Throughput Capacity: 2.2 million tonnes in 2007
Total Storage: 334,603sqm
Vessel Size Limitation: Length = 750m, Beam = 35m, Depth = 12.1m @ Chart Datum
Additional information: The Port of Tyne is Port Operator of the Year, Lloyd's List London Awards 2008 and is the only UK deep river port to provide total supply chain management in-house.

Swansea
ABP - Port of Swansea
Dock Office
Alexandra Dock
Newport
Gwent
NP20 2UW
UK
Contact: Mr Clive Thomas
Deputy Port Manager
T: + 44 870 609 6699
F: + 44 1633 221285
E: cjthomas@abports.co.uk
W: www.abports.co.uk/swansea
Import: Yes
Export: Yes
Location: Swansea, South Wales
Ownership: Port is owned and operated by Associated British Ports
Name of Port Authority: Associated British Ports
Throughput Capacity: Currently circa 0.5 million tonnes. 20k tonnes imported in 2006 and 80k tonnes exported in 2006
Total Storage: Circa 40,000 sq m with development land for expansion
Vessel Size Limitation: Handysize vessels up to circa 30,000 dwt
LOA- 200m
Beam- 26.2m
Draught- 9.9m
Additional information: Two-rail connected terminals for grab discharge/loading as well as specialised soft-loading operation using container-tipping equipment. Adjacent land licensed for storage, screening and blending of coal and other bulk products.

Swansea
ABP Harbour Office
Lock Head
King's Dock
Swansea
West Glamorgan
SA1 1QR
UK
Contact: Mr Clive Thomas
Deputy Port Manager
T: + 44 870 609 6699
F: + 44 1792 332255
E: cjthomas@abports.co.uk
W: www.abports.co.uk

Ukraine
Odessa
Transinvestservice (TIS) Ltd
50 Chapayev Str
Vizirka Village
Kominternovo District
Odessa
67543
Ukraine
Contact: Mr Andrey Stavnitser
Deputy Director
T: + 380 482 300 711
F: + 380 482 300 735
E: mail@tis.ua
W: www.tis.ua

Reni
Port of Reni
188 Dunayskaya Str.
Reni
Odessa
68802
Ukraine
Contact: Mr Sergey Stroya
General Director
T: + 380 4840 43548
F: + 380 4840 41484
E: chief_p@reni.uptel.net
W: www.portreni.com.ua
Import: Yes
Export: Yes
Location: Located within the navigable area of the Danube, between 66.7 and 69.3 miles, at a distance of 63 miles from the estuary (128 km from the Black Sea).
Ownership: Ukraine, Russia, Rumania
Name of Port Authority: Commercial Sea Port of Reni
Throughput Capacity: 3,000 - 4,000 tons
Total Storage: 60,000 sqm
Vessel Size Limitation: The Reni Port is capable of handling any vessels with an adequate draught enabling them to pass the Sulinsky Canal (6-8 m), which connects the Danube with the Black Sea.
Additional information: - receiving and dispatching all kinds of cargoes (liquefied gas, oil products included) by sea, river, railway and motor means of transport in any lots.

USA
Arabi
Associated Terminals of St Bernard
8000 St. Bernard Hwy
Reserve
Arabi
Louisiana
70032
USA
Contact: Mr Zeljko Franks
Vice President
T: + 1 504 277 5101
F: + 1 504 279 8353
E: zfranks@associatedterminals.com
W: www.associatedterminals.com

Argo
Kinder Morgan Terminals
Midwest Regional Office
8500 West 68th Street
Argo
Illinois
60501
USA
Contact: Mr William Patterson
T: + 1 708 496 2891
F: + 1 708 496 2540
E: william_patterson@kindermorgan.com
W: www.kindermorgan.com
Location: Cincinnati, OH, USA
Ownership: Kinder Morgan Terminals
Throughput Capacity: 7,500 tonnes per month
Total Storage: Outside Bulk – 20,000 Tons
Warehouse – 3,000 Tons
Vessel Size Limitation: Max Draft - 11 feet
Additional information: Can handle 3 barges at any one time. Barge to truck/ barge to pad to truck. 3rd party storage of coal

Baltimore
Baltimore Terminal
CNX Marine Terminals Inc.
3800 Newgate Avenue
Baltimore
Maryland
MD 21224-6404
USA
Contact: Mr Chris Marsh
Vice President
T: + 1 410 631 6426
F: + 1 410 631 6425
E: chrismarsh@consolenergy.com
W: www.consolenergy.com
Export: Yes
Location: Baltimore, MD 21224
USA
Ownership: CONSOL Energy Inc.
Name of Port Authority: Maryland Port Administration
Throughput Capacity: 18 million net tpa
Total Storage: 1.3 million tons
Vessel Size Limitation: Cape size.
Dock Length: 1,150 ft., Depth at Dockside: 50 ft., Maximum Draught: 50 ft.
Additional information: Track Accessibility: 4 Inbound - 500 car capacity
Rail Service: NS & CSX

Baltimore
CNX Marine Terminal, Inc.
3800 Newgate Avenue
Baltimore
MD
21224
USA
Contact: Mr Regis Peternal
General Manager
T: + 1 410 631 6419
E: regispeternel@consolenergy.com
W: www.consolenergy.com

Baton Rouge
Louisiana Mid-Stream Terminals, LLC
8280 YMCA Plaza Drive #2
Baton Rouge
LA
70810
USA
T: + 1 985 807 8232
F: + 1 225 767 9648
E: traffic@lamidstream.com

W: www.cooperconsolidated.com
Export: Yes
Location: CGB LaPlace, Louisiana, USA (LMR MP 133-135 AHP)
Name of Port Authority: Ports of South Louisiana
Throughput Capacity: 6 million tonnes
Total Storage: N/A, mid-stream transfer
Vessel Size Limitation: No Restrictions – Governed by SWP Draught
Additional information: Louisiana Mid-Stream One (LMO) - a unique barge-mounted conveying system providing coal and petroleum coke exporters from the Mississippi River with quality control features such as mechanical sampling, magnet, belt scale, and water drainage.

Ceredo
Kanawha River Terminal Inc
Main and River
PO Box 308
Ceredo
West Virginia
25507
USA
Contact: Mr Matt Gaston
Manager
T: + 1 304 526 0753
F: + 1 304 453 5521
Location: Ohio River, Ceredo, WV
Throughput Capacity: 9 million tons

Charleston
Kinder Morgan Terminals - Shipyard River Terminal
Mid Atlantic Regional Office
1801 Milford Street
Charleston
South Carolina
29405
USA
T: + 1 843 843 0543
F: + 1 843 853 3367
W: www.kindermorgan.com
Import: Yes
Location: Charleston, SC, USA
Ownership: Kinder Morgan Terminals
Throughput Capacity: 4,000,000 tonnes per year
Total Storage: 250,000 tonnes Open Storage
50,000 tonnes Covered Storage
Vessel Size Limitation: Max LOA 750 ft
Max beam 106 feet
Max draft 45 feet
Additional information: Two floating gantry cranes for ship discharge. 20,000 MTPD capacity.

Chicago
KCBX Terminals Company
3259 E. 100th Street
Chicago
IL
60617
USA
Contact: Mr Tom Kramer
General Manager
T: + 1 773 933 5302
F: + 1 773 933 5309
E: kramert@kochind.com

Conneaut
Pittsburgh & Conneaut Dock Co.
950 Ford Ave
Conneaut
Ohio
44030
USA
Contact: Mr James Rogers
Senior Manager of Dock Operations
T: + 1 440 599 0242
F: + 1 440 599 0245
E: James.Rogers@cnworldwide.com
W: www.cn.ca

Convent
IC RailMarine Terminal (ICRMT)
7790 LA, Highway 44
Convent
LA
70723
USA
Contact: Mr Bruce Conti
President
T: + 1 225 562 5201
F: + 1 225 562 9948
E: bruce.conti@cn.ca
Import: Yes
Export: Yes
Location: Mississippi River Milepost 161.0 AHP Left descending bank within Port of South Louisiana Boundaries
Ownership: 100% Wholly-owned subsidiary of CN Railroad
Name of Port Authority: South Louisiana
Throughput Capacity: 5-6 million tonnes depending on product
Total Storage: 135,000 sqm
Vessel Size Limitation: Up to Cape size with shifting. Panamax class easily handled. 150' Beam. Over 60' at the dock-access to river controlled by Southwest Pass draught-usually 45'/47'
Additional information: Only lower Mississippi facility that can handle inbound and outbound 110 car unit trains on site. Multi user-product-mode.

Convent
St. James Stevedoring Partners, LLC
9114 Stevedoring Road
Convent
LA
70723
USA
Contact: Mr John C Crane
Vice President
T: + 1 225 562 3919
F: + 1 225 562 3515
E: jcrane@sjstevedore.com
W: www.sjstevedore.com
Import: Yes
Export: Yes
Location: Lower Mississippi River between New Orleans and Baton Rouge on the East Bank
Ownership: Privately owned
Name of Port Authority: St. James Stevedoring Co., Inc.
Throughput Capacity: 25 million tonnes per year at midstream
Total Storage: Two parcels of land totaling 350 acres adjacent to the Mississippi River
Vessel Size Limitation: Vessels are accepted up to the maximum permitted for transiting the lower Mississippi River.
Additional information: St. James owns and operates 14 floating cranes and 6 unloading anchorage facilities. Proximity to barge operations is the key to our success.

Cora
Kinder Morgan Terminals - Cora
Mid Atlantic Regional Office
1801 Milford Street
Charleston
South Carolina
29405
USA
Contact: Mr Brian Feyereisen
T: + 1 843 853 0453
F: + 1 843 853 7971
E: brian_feyereisen@kindermorgan.com
W: www.kindermorgan.com
Location: Cora Terminal, Rockwood, Illinois, USA
Ownership: Kinder Morgan Terminals
Name of Port Authority: Kinder Morgan Terminals
Throughput Capacity: 5MM NT
Total Storage: (3) Warehouses totaling 72,000 NT of storage. Silo cluster of (16) 3,500 ton silos (12 available).
40 acres open storage
Vessel Size Limitation: River Barge Dock. Can accept a 30 barge tow. Can handle 100 barges on site.
Additional information: 3rd party storage of coal

Corpus Christi
Boyd-Campbell Company
210 S.Carancahua
Suite 620
Corpus Christi
Texas
78401
USA
Contact: Mr Sonny Boyd
Manager/Agent
T: + 1 361 884 9321
F: + 1 361 884 9067
E: agency@boyd-campbell.com

Corpus Christi
Port of Corpus Christi - Bulk Terminal
PO Box 1541
222 Power Street
Corpus Christi
TX
78403
USA
Contact: Mr Paul (Skip) Kaup
Bulk Terminal Manager
T: + 1 361 883 1162
F: + 1 361 883 1652
E: paulg@pocca.com
W: www.portofcorpuschristi.com
Import: Yes
Export: Yes
Location: Mid-way along the Texas coast on the Gulf of Mexico
Name of Port Authority: Port of Corpus Christi Authority
Throughput Capacity: 8.2 million tonnes dry bulk as of 2012
Total Storage: 125 acres of open storage and fabrication sites
Vessel Size Limitation: Dry bulk dock 1: Max draught 34ft
Dry bulk dock 2: Max draught 45ft
Additional information: The Port of Corpus Christi has plans drawn to increase capacity within the near future, with new rail loop and rail unloading capacity. Additional loading equipment is also in the future plans. We have acreage available for expansion.

Darrow
Burnside Bulk Marine Terminal
4258 Highway 44
Darrow
LA
70725
USA
Contact: Mr Mike Tenchuk
CEO
T: + 1 225 474 3792
F: + 1 225 474 3719
E: mike.tenchuk@ormet.com
W: www.burnsideterminal.com
Import: Yes
Export: Yes
Location: 30º 08'N, 90º 55'W at Mile 170 above Head of Passes at Mississippi River entrance
Ownership: Ormet Primary Aluminium Corporation
Name of Port Authority: Burnside Bulk Marine Terminal
Throughput Capacity: 6.5 mtpa
Total Storage: 500,000 t
Vessel Size Limitation: Panamax
Additional information: Barge-mounted Amclyde Model 28 High-Speed Clamshell Crane

Darrow
Cooper/Consolidated
PO Box 242
Darrow
LA
70724
USA
Contact: Mr Ed K Laurendine
Snr Vice President
T: + 1 251 431 6156
F: + 1 225 473 6161
E: ed.laurendine@coopertsmith.com
W: www.coopertsmith.com
Import: Yes
Export: Yes
Location: Mobile, U.S.Gulf; U.S East Coast; Mexico Gulf Coast
Ownership: Cooper T Smith Corp.
Throughput Capacity: 10,000,000 tpa

Davant
U.S. United Bulk Terminal
14537 Highway 15
Davant
Louisianna
70040
USA
Contact: Mr Brian Miles
T: + 1 504 301 9193
F: + 1 504 834 2772
E: brian.miles@united-mar.com
W: www.unitedbulkterminal.com

Decatur
ARTCO
4666 Faries Parkway
Decatur
IL
62526
USA
Contact: Mr Kevin Van Meter
Director
T: + 1 217 424 5556
F: + 1 217 451 4122
E: kevin.vanmeter@adm.com
W: www.admworld.com

Decutar
Kinder Morgan Terminals - Decutar
Lower River Regional Office
7116 Highway 22
PO Box 625
Sorrento
LA
70778-0625
USA
Contact: Mr Hans Luetkemeier
Commercial Director
T: + 1 225 675 0308
F: + 1 225 675 8259
E: hans_luetkemeier@kindermorgan.com
W: www.kindermorgan.com/bulk_terminals/
Location: Lower Mississippi River, USA; Hampton Roads, Virginia, USA.
Name of Port Authority: Kinder Morgan Terminals
Throughput Capacity: Approx. 10,000,000 tpa Lower Mississippi River; Approx. 14,000,000 tpa Hampton Roads
Total Storage: Up to 2.2 million tons, Lower Mississippi River; Up to 1.2 million tons, Hampton Roads.
Vessel Size Limitation: Up to mini Capesize vessel, Lower Mississippi River; Up to Capesize vessel, Hampton Roads
Additional information: Kinder Morgan has a number of facilities on several coasts which handle coal. The Kinder Morgan network handled over 31,000,000 tonnes of coal in 2010, including export and domestic movements.

Evansville
Kinder Morgan Terminals - Evansville
Midwest Regional Office
8500 West 68th Street
Argo
Illinois
60501
USA
Contact: Mr Roy Cook
T: + 1 414 769 1901 ext-120
F: + 1 414 769 1144
E: roy_cook@kindermorgan.com
W: www.kindermorgan.com
Location: Evansville, Indiana, USA
Ownership: Kinder Morgan Terminals
Name of Port Authority: Port of Evansville
Throughput Capacity: 7,500 tonnes per month
Total Storage: 3,000 tons
130,000 sq. ft. of heated warehouse space
142' Diameter Dome
Vessel Size Limitation: Max Draught - 9' 6"
Additional information: Can handle 3 barges at one time. Barge to truck/ barge to storage. 3rd party storage of coal.

Georgetown
Stevedoring Services of America (SSA)
609 Kaminski Street
Georgetown
SC
29442
USA
Contact: Mr Buddy Wiggins
Operations Manager
T: + 1 843 971 2900
F: + 1 843 971 2919
E: buddy.wiggins@ssamarine.com

Georgetown
WSI of the Southeast llc
PO Box 1498
Georgetown
SC
29442
USA
Contact: Mr Perry Collins
General Manager
T: + 1 843 527 2823
F: + 1 843 527 1179
E: perry.collins@wsijason.com
W: www.wsijason.com
Additional information: We offer traveling crane operators for self-sustaining vessels in all U.S. ports.

Grand Rivers
Kinder Morgan Terminals - Grand Rivers
Mid Atlantic Regional Office
1801 Milford Street
Charleston
South Carolina
29405
USA
T: + 1 843 722 2878
F: + 1 843 722 5720
W: www.kindermorgan.com

Location: Grand Rivers Terminal, Grand Rivers, Kentucky, USA
Ownership: Kinder Morgan Terminals
Total Storage: 1,000,000 tons
Vessel Size Limitation: Can handle 30' x 200' barges
12' max draft
Can handle up to 70 barges in fleet at one time
Additional information: 3rd party storage of coal

Harvey
United Maritime Group
1831 Manhattan Blvd
Suite F-264
Harvey
LA
70058
USA
Contact: Mr Brian Miles
Director of Sales & Marketing
T: +1 504 301 9193
E: brian.miles@united-mar.com
W: www.unitedmaritimegroup.com
Import: Yes
Export: Yes
Location: US Gulf Coast
Ownership: TECO Transport
Throughput Capacity: 25 million tonnes of dry bulk annually
Total Storage: 5 million tons
Vessel Size Limitation: No 1 Dock: Max LOA 950', Max beam 140'
No 2 Dock: Max LOA 750', Max beam 105'
Additional information: Berthing available for four Panamax vessels at one time

Houston
Cooper/T. Smith Stevedoring
2315 McCarty Drive
Houston
Texas
77029
USA
Contact: Mr Britton Cooper
Vice President Operations
T: + 1 713 675 0017
F: + 1 713 675 2370
E: britton.cooper@coopertsmith.com
W: www.coopertsmith.com

Houston
Tx Tx Corporation
11811 Interstate
10 East
Suite 630
Houston
Texas
77029
USA
Contact: Mr Gary Nixon
T: + 1 713 453 0664
F: + 1 713 453 2756

Jacksonville
Jacksonville Electric Authority
21 West Church St
Jacksonville
FL 32202
USA
Contact: Mr Wanyonyi Kendrick
Chief Information Officer
T: + 1 904 665 7217
E: kendwj@jea.com
W: www.jea.com
Import: Yes
Location: South East United States

Kenova
Big Sandy Terminal Inc
Big Sandy River Road
Kenova
West Virginia
25530
USA
Contact: Mr Phil Rogers
President
T: + 1 304 453 6161
F: + 1 304 453 1117
Location: Neal, WV
Throughput Capacity: 7 million tons
Total Storage: 250,000 tons

Long Beach
Cooper/T. Smith Stevedoring
PO Box 229
Long Beach
California
90801
USA
Contact: Mr Ed Viner
Assistant Vice President/Operations Manager
T: + 1 562 436 2259
F: + 1 562 590 0547
E: ed.viner@coopertsmith.com
W: www.coopertsmith.com

Long Beach
International Transportation Service Inc
PO Box 22704
Long Beach
CA 90801-5704
USA
T: + 1 562 435 7781
F: + 1 562 590 6761
E: ITSVSL@itslb.com
W: www.itslb.com

Louisville
Cooper/T. Smith Stevedoring
Louisville Jefferson Riverport Terminal
6900 Riverport Drive
Louisville
Kentucky
KY 40258
USA
Contact: Mr Joe Knight
Operations Manager
T: + 1 502 935 7226
F: + 1 502 935 7296
E: joe.knight@coopertsmith.com
W: www.coopertsmith.com
Location: Ohio River
Ownership: Jefferson County, KY, and the City of Louisville
Throughput Capacity: 7 million tons
Total Storage: 200,000 tons

Louisville
Kinder Morgan Terminals - Louisville
Midwest Regional Office
8500 West 68th Street
Argo
Illinois
60501
USA
Contact: Mr William Patterson
T: + 1 708 496 2891
F: + 1 708 496 2540
E: william_patterson@kindermorgan.com
W: www.kindermorgan.com
Location: Louisville, Kentucky, USA
Ownership: Kinder Morgan Terminals
Throughput Capacity: 10,000 tonnes per month
Total Storage: 132,000 sq ft warehouse
1 acre of outside storage
Vessel Size Limitation: Max Draft - 11 feet
Additional information: 2 docks which can each handle 1 barge
35 ton bridge crane
225 ton cable crane.
3rd party storage of coal.

Mandeville
Consolidated Terminals & Logistics Company
PO Box 249
Mandeville
LA
70470-0249
USA
Contact: Mr Brent C Mahana
Director of Sales & Marketing
T: + 1 985 871 4403
F: + 1 985 867 3509
E: Brent.Mahana@cgb.com
W: www.ctlconline.com
Import: Yes
Export: Yes
Location: Lower Mississippi River, Arkansas River, Ohio River, Illinois River, Upper Mississippi River
Ownership: Consolidated Terminals & Logistics Company
Name of Port Authority: Ports of S. Louisiana, Ports of Indiana
Throughput Capacity: 20 million tonnes
Total Storage: Various by location
Vessel Size Limitation: Inland River Terminals, Mississippi River Stevedoring
Additional information: Consolidated Terminals & Logistics Company is a Division of CGB Enterprises, Inc.

Mandeville
Cooper/Consolidated
PO Box 249
Mandeville
LA
70470-0249
USA
Contact: Mr Brent C Mahana
General Manager - Sales
T: + 1 985 871 4403
F: + 1 985 867 3509
E: Brent.Mahana@cgb.com
W: www.cooperconsolidated.com
Import: Yes
Export: Yes
Location: US Gulf & Inland River System
Ownership: Cooper T. Smith Stevedoring
Consolidated Terminals & Logistics Company
Name of Port Authority: Ports of S. Louisiana, Ports of Baton Rouge
Throughput Capacity: 20 million tonnes
Total Storage: Various by location
Vessel Size Limitation: No Restrictions – Governed by SWP Draught
Additional information: Services offered – Logistic Package Solutions that can be customized to include all or some of the following: Stevedoring, Barging, Fleeting, Vessel Chartering, Inland Terminaling, Trucking, Rail, Warehousing.

Mason
Coal Network
1111 Western Row Rd.
Mason
Ohio
45040
USA
Contact: Mr Ramesh Malhotra
President
T: + 1 513-398-2625
F: + 1 513-398-5419
E: rmalhotra@uscoalnet.com
Location: Ohio River, Kenova, WV
Throughput Capacity: 2.2 million tons
Total Storage: 40,000 tons

Metropolis
AEP/Cook Coal Terminal
PO Box 870 3316 N. US 45 Rd.
Metropolis
IL
62960
USA
Contact: Mr James Garrett
Manager
T: + 1 618 524 9345
F: + 1 618 524 1969
E: jhgarrett@aep.com

Milwaukee
Milwaukee Bulk Terminals
1900 S Harbour Drive
Milwaukee
WI
53207
USA
Contact: Mr Roy Cook
President
T: + 1 414 769 1901 x120
F: + 1 414 769 1144
E: mbtrnc@aol.com

Mobile
Alabama State Port Authority
PO Box 1588
Mobile
AL
36633
USA
Contact: Mr James K. Lyons
Director
T: + 1 334 441 7202
F: + 1 251 441 7216
E: jlyons@asdd.com
W: www.asdd.com
Import: Yes
Export: Yes
Location: U.S. Gulf of Mexico, Port of Mobile
Ownership: Own
Name of Port Authority: Alabama State Port Authority
Vessel Size Limitation: 45 ft. draught
Additional information: Undergoing an expansion. New import berth. Throughput capacity of 30-32 Million tonnes when complete.

Mobile
Cooper/T. Smith Stevedoring
118 North Royal Street
P O Box 1566
Mobile
Alabama
36602
USA
Contact: Mr John Murray III
VP Operations
T: + 1 251 415 7360
F: + 1 251 431 6200
E: john.murray@coopertsmith.com
W: www.coopertsmith.com

Mobile
McDuffie Coal Terminal
Alabama State Port Authority
PO Box 1588
Mobile
Alabama
36633
USA
Contact: Mr Melvin Barnett
Superintendent - Operations
T: + 1 251 441 7675
F: + 1 251 441 7216
E: mbarnett@asdd.com
W: www.asdd.com
Import: Yes
Export: Yes
Location: Gulf coast of America
Name of Port Authority: Alabama State Port Authority
Throughput Capacity: 20 million tonnes
Total Storage: 2.3 million tonnes ground capacity
Vessel Size Limitation: Max Draught 45ft ,1 ship loader max LOA 980' Beam 180' Air Dr.64'
2 ship un-loaders max LOA 900' Beam 140' Air Draught 85'
Additional information: 3 berths

Monaca
Colona Terminal Services
1755 Pennsylvania Ave
Monaca
Pennsylvania
15061
USA
Contact: Mr Mark McClymonds
President
T: + 1 724 368 8040
F: + 1 724 368 0550
E: sales@colonatransfer.com
W: www.colonatransfer.com
Location: 23.5 mile marker on the Ohio River
Ownership: McClymonds Supply & Transit Co Inc
Name of Port Authority: Pittsburgh Port Authority
Throughput Capacity: Can offload a unit train (130 rail cars) in under twelve hours and offload barges at a rate of 450 tph.
Total Storage: 60 acres of open storage and 60,000 square feet of covered warehouse space
Vessel Size Limitation: Harbor can hold up to 60 barges with 4 barges worked at a time.
Additional information: Colona Transfer serves the greater Pittsburgh area. Our terminal is the northern most point on the Ohio River and we offer access to the bulk commodity markets of the Northeastern United States.

Mount Pleasant
Strachan Shipping Co
950 Houston Northcutt Boulevard
Watermark Plaza, Suite 200
Mount Pleasant
SC
29464
USA
Contact: Mr Bill Adams
T: + 1 843 856 1000
F: + 1 843 856 1013

Myrtle Grove
International Marine Terminals
Myrtle Grove Terminal
18559 HWY 23
Myrtle Grove
LA
70083-9722
USA
Contact: Mr Adam Smith
General Manager
T: + 1 255 675 0308
F: + 1 255 675 8259
E: adam_smith@kindermorgan.com
W: www.kindermorgan.com
Import: Yes
Export: Yes
Location: US Gulf
Ownership: 2/3 Kinder Morgan
1/3 American Electric Power
Name of Port Authority: Plaquemines Parish Port Harbor & Terminal District
Throughput Capacity: 15 million tons
Total Storage: 50 acres
Vessel Size Limitation: Cape sized
Additional information: The terminal operates 24 hours a day, Sundays and holidays included.

New Haven
New Haven
Gateway Terminal
400 Waterfront Street
New Haven
CT
06512
USA
Contact: Mr Tom Dubno
T: + 1 203 230 0778
F: + 1 203 437 7251

New Orleans
Cooper/T. Smith Stevedoring
One Canal Place
365 Canal Street
Suite 1450
New Orleans
LA
70130
USA
Contact: Mr Eric Hansen
Vice President
T: + 1 504 569 2160
F: + 1 504 569 2188
E: eric.hansen@coopertsmith.com
W: www.coopertsmith.com

Newark
Metal Management NE
Foot Hawkins Street
Newark
New Jersey
NJ 07105
USA
Contact: Mr Mike Henderson Jr.
T: + 1 973 344 5575 / 4570
F: + 1 973 344 8155
E: mhendersonjr@mtlm.com
W: www.mtlm.com

Newport News
Dominion Terminal Associates
PO Box 967-A
Newport News
Virginia
VA-23607
USA
Contact: Mr Rick Cole
President
T: + 1 757 245 2275
F: + 1 757 247 9729
E: rcole@dominionterminal.com
W: www.dominionterminal.com
Export: Yes
Location: Newport News, Virginia, USA
Port of Hampton Roads
Ownership: Alpha Natural Resources (40.6 %); Peabody Energy (37 .5 %); Arch Coal Company (21.9 %)
Name of Port Authority: Dominion Terminal Associates
Throughput Capacity: 20 million tpa (net tonnes)
Total Storage: 243,000 sqm
Vessel Size Limitation: 304.8m LOA; 50m beam; 15.24m at MLW

Newport News
Kinder Morgan -Pier IX Terminal
1900 Harbor Access Road
Newport News
Virginia
23607
USA
Contact: Mr Joseph De Matteo
Terminal Manager
T: + 1 757 928 1520
F: + 1 757 928 1560
E: Joseph_DeMatteo@kindermorgan.com
W: www.kindermorgan.com
Import: Yes
Export: Yes
Location: North America East Coast Mid-Atlantic
Ownership: Kinder Morgan Bulk Terminals
Name of Port Authority: Port of Hampton Roads
Throughput Capacity: 12 M tpa
Total Storage: 1.4 MT
Vessel Size Limitation: 1000ft LOA, 150ft Beam, 50ft Draught

Norfolk
Norfolk Southern - Lamberts Point
Coal Business Group
110 Franklin Rd
Roanoke
VA
24042-0026
USA
Contact: Mr Mark H Bower
Group VP Export & Metallurgical Coal Marketing
T: + 1 540 985 6711
F: + 1 540 985 6398
E: Mark.Bower@nscorp.com
W: www.nscorp.com
Export: Yes
Location: Norfolk, VA
Ownership: 100% owned by Norfolk Southern
Name of Port Authority: Norfolk Southern
Throughput Capacity: 40 million net tons/year
Total Storage: No ground storage, cargo assembly in rail cars
Vessel Size Limitation: Draft 50 feet
Additional information: Norfolk Southern offers the premier export coal blending facility in the United States

Norfolk
Virginia Maritime Association
236 East Plume Street
Norfolk
Virginia
23510
USA
Contact: Mr David
Administrator
T: + 1 757 622 2639
F: + 1 757 622 6302
E: vma@portofhamptonroads.com
W: www.portofhamptonroads.com

North Charleston
Cooper/T. Smith Stevedoring
2030 Hayter Street
Building 58A Pier C
North Charleston
South Carolina
29405
USA
Contact: Mr Ronnie Turner
Vice President
T: + 1 843 744 1613
F: + 1 843 554 2975
E: ronnie.turner@coopertsmith.com
W: www.coopertsmith.com

Owensboro
Kinder Morgan Terminals - Owensboro
Midwest Regional Office
8500 West 68th Street
Argo
Illinois
60501
USA
Contact: Mr William Patterson
T: + 1 708 496 2891
F: + 1 708 496 2540
E: william_patterson@kindermorgan.com
W: www.kindermorgan.com
Location: Owensboro, Kentucky, USA
Ownership: Kinder Morgan Terminals
Throughput Capacity: 3,000 tonnes per day
Total Storage: 7,500 tons
Vessel Size Limitation: Max Draft - 9' 6"
Additional information: Can fleet up to 60 barges. Can handle work up to 5 at a time. 3rd party storage of coal.

Philadelphia
Agway
3501 S C Columbus BLVD
Pier 122 South
Philadelphia
19148
USA
Contact: Mr George Moore
Foreman
T: + 1 215 467 5861
F: + 1 215 467 5874
E: wh63man@cropworks.com
W: www.agway.com

Port Allen
Associated Terminals of Baton Rouge/Port Allen
1133 Mahaffey Road
Port Allen
Louisiana
70876
USA
Contact: Mr Barry Hoth
Vice President
T: + 1 985 479 6358
F: + 1 985 479 6360
E: barry@associatedterminals.com
W: www.associatedterminals.com

Port Arthur
Pabtex
209 Taft Ave. Extension
PO Box 3635
Port Arthur
TX 77643
USA
Contact: Mr Greg Alder
Terminal Manager
T: + 1 409 962 8343
F: + 1 409 962 8581
E: gregalder@savageservices.com
W: www.savageservices.com
Export: Yes
Location: Port Arthur, Texas, USA
Ownership: KCS Railroad
Name of Port Authority: Port of Port Arthur
Throughput Capacity: 6 million tons
Total Storage: 900,000 metric tons
Vessel Size Limitation: Panamax vessels. 38 feet + or – 2 feet
Additional information: It is possible to export coal. The main product is petcoke.

Portsmouth
Sprague Energy
Two International Drive
Suite 200
Portsmouth
New Hampshire
03801
USA
Contact: Mr James Therriault
VP Marketing
T: + 1 603 430 5372
F: + 1 603 766 7448
E: jtherriault@spragueenergy.com
W: www.spragueenergy.com

Providence
Waterson Terminal Services.
35 Terminal Road
Providence
RI
02905
USA
Contact: Mr Christopher Waterson
Marketing Director
T: + 1 401 461 9900
F: + 1 401 461 6240
E: chris@watersonllc.com
W: www.watersonllc.com
Import: Yes
Export: Yes
Location: East Coast US
Ownership: Private Terminal
Throughput Capacity: 2 million +
Total Storage: 20+ Acres
Vessel Size Limitation: 40 ft draught. No LOA, beam, or DWT limitations

Reserve
Associated Terminals at Globalplex
1342 Highway 44
Reserve
Louisiana
70084
USA
Contact: Mr Barry Hoth
Vice President
T: + 1 985 479 6358
F: + 1 985 479 6360
E: barry@associatedterminals.com
W: www.associatedterminals.com

Reserve
Associated Terminals LLC
1342 Highway 44
Reserve
Reserve
Louisiana
70084
USA
Contact: Mr Todd Fuller
Sr. Vice President
T: + 1 985 536 4520
F: + 1 985 536 4521
E: todd@associatedterminals.com
W: www.associatedterminals.com

Richmond
Levin-Richmond Terminal Corporation (LRTC)
402 Wright Avenue
Richmond
CA
94804
USA
Contact: Ms Barbara N. O'Neill
Director of Marketing - Bulk Operations
T: + 1 510 307 4009
F: + 1 510 236 0129
E: barbara@levinterminal.com
W: www.levinterminal.com
Import: Yes
Export: Yes
Location: West Coast of the United States
Ownership: Private Marine Terminal
Name of Port Authority: Levin Richmond Terminal
Throughput Capacity: 800,000 tpa
Total Storage: 50,703 sqm
Vessel Size Limitation: Panamax-size vessel
LOA 228.6 m
55,000 MT Max Cargo
Additional information: Also own Richmond Pacific Railroad. Load and Unload unit trains of coal.

Roanoke
Ashtabula Coal Pier
110 Franklin Road
Roanoke
VA
24042
USA
Contact: Mr Randy Carter
Director
T: + 1 540 985 6795
F: + 1 540 985 6398
E: Randy.Carter@nscorp.com
Location: Lake Erie, Ohio
Throughput Capacity: 7 million tons
Total Storage: Up to 1.2 million tons
Vessel Size Limitation: Lakesize

Salt Lake City
Savage Companies
6340 South
3000 East Suite 600
Salt Lake City
Utah
84121
USA
Contact: Mr Nathan Savage
Director Marketing Coal & Petcoke
T: +1 801 944 6600
E: nathans@savagecompanies.com

Sandusky
CT Stevedoring
2705 West Monroe Street
PO Box 2647
Sandusky
OH
44870
USA
Contact: Mr Ron House
General Manager
T: + 1 419 626 0801
F: + 1 419 626 8248
E: Ron.house@coopertsmith.com
W: www.coopertsmith.com

Sandusky
Sandusky Dock Corporation, Pier #3
2705 West Monroe Street
PO Box #899
Sandusky
Ohio
44870
USA
Contact: Mr Jeff Smith
Superintendent
T: + 1 419 626 1215
F: + 1 419 483 1296
E: jeff.smith@nscorp.com
W: www.nscorp.com
Location: Port of Sandusky Harbor at Sandusky, Ohio
Ownership: Norfolk Southern
Throughput Capacity: 7 million tons
Total Storage: 900,000 tons

Seattle
Stevedoring Services of America
1131 SW Klickitat Way
Seattle
WA
98134
USA
Contact: Ms Laurel Hart
PR Manager
T: + 1 206 623 0304
F: + 1 206 623 0179
E: info@ssamarine.com
W: www.ssofa.com

Seward
Aurora Energy Services, LLC.
Seward Coal Terminal
PO Box 1789
903 Port Avenue
Seward
Alaska
99664
USA
Contact: Mr Victor Stoltz
General Foreman
T: + 1 907 224 3120
F: + 1 907 224 3931
E: vstoltz@usibelli.com
Export: Yes
Location: Latitude 60˚ 07' 28" N Longitude 149˚ 07' 00" W South Central Gulf Coast Alaska
Ownership: Terminal Owned by Alaska Railroad Corp. Operated by Aurora Energy Services, LLC

Name of Port Authority: ARRC
Throughput Capacity: 1.5 million MT
Total Storage: 112,500 sqm
Vessel Size Limitation: LOA 274m / Beam 38m / Draught 14.9m
100,000+ dwt
Additional information: Fixed position luffing and slewing type shiploader.
Largest vessel loaded DWT 96,042mt
Loaded summer displacement 111,406mt SSW
Ice Free Year Round Port

St Louis

Cahokia Marine Services

1441 Hampton Avenue
St Louis
MO
63139
USA
Contact: Mr John Brereton
Vice President Marketing
T: + 1 314 647 7529
F: + 1 314 647 8084
E: jbrereton@slay.com

Superior

Superior Midwest Energy Terminal

PO Box 787
Superior
Wisconsin
54880
USA
Contact: Mr Fred Shusterich
Vice President
T: + 1 715 392 9807
F: + 1 715 392 9137
E: fshusterich@midwestenergy.com
W: www.midwestenergy.com

Tampa

Kinder Morgan Terminals - Tampaplex Terminal

Southeast Regional Office
4942 Port Sutton Road
Tampa
Florida
33619
USA
Contact: Mr Marvin Williams
T: + 1 813 620 2705
F: + 1 813 620 2096
E: marvin_williams@kindermorgan.com
W: www.kindermorgan.com
Location: Tampa, Florida, USA
Ownership: Kinder Morgan Terminals
Total Storage: (3) Warehouses totaling 72,000 NT of storage
Silo cluster of (16) 3,500 ton silos (12 available)
40 acres open storage
Vessel Size Limitation: Max Draft - 36 feet
Additional information: 3rd party storage of coal.

Tampa

United Maritime Group

601 S Harbour Island Boulevard
Suite 230
Tampa
Florida 33602
USA
Contact: Mr Cliff Johnson
Vice President, Commercial
T: + 1 813 314 4440
F: + 1 813 273 0248
E: sales@united-mar.com
W: www.unitedmaritimegroup.com
Export: Yes
Location: Davant, Louisiana (south of New Orleans on the Mississippi River)
Ownership: United Maritime Group
Throughput Capacity: Approximately 12M tpa
Total Storage: 1.2M sqm (developed) / 4.4M sqm (total)
Vessel Size Limitation: LOA 229 meters +
Draught 14.3m (controlling draught is the SW pass of the Mississippi River)

Texas City

Oxbow Carbon & Minerals

PO Box 100
Texas City
Texas
77592
USA
Contact: Mr Jimmy Roachell
Facility Manager
T: + 1 409 944 3508
F: + 1 409 944 3551
E: jimmy.roachell@oxbow.com
W: www.oxbow.com

Toledo

CSX Coal Dock

PO Box 8279
Station A
Toledo
OH
43605
USA
Contact: Mr Paul LeCompte
T: + 1 419 697 2353
F: + 1 419 697 2320
E: paul_lecompte@csx.com
W: www.csx.com
Import: Yes
Export: Yes
Location: Western end of Lake Erie at the mouth of the Maumee River.
Ownership: Port of Toledo
Vessel Size Limitation: 1000 ft + dock
Additional information: Traveling Coal Machine with 800ft range. Coal is transferred from rail cars onto vessels for shipment to industries and public utilities scattered throughout the Great Lakes region and overseas.

Toledo

Midwest Terminals of Toledo International, Inc

3518 St. Lawrence Drive
Toledo
OH
43605
USA
Contact: Mr Jason Lowery
Director of Business Development
T: + 1 419 697 2715 / +1 419 897 6868 ext 211
F: + 1 419 691 7016
E: jason.lowery@mwtti.com
W: www.midwestterminals.com
Import: Yes
Export: Yes
Location: Lake Erie at the mouth of the Maumee River
Ownership: Port of Toledo
Vessel Size Limitation: Seaway draught
Additional information: Foreign Trade Zone
Five gantry plus one mobile crane, dry bulk conveyor system, heavy material handling equipment.

Wheelersburg

Norfolk Southern - Wheelersburg Terminal

110 Franklin Road
Roanoke
Virginia
24042-0026
USA
Contact: Mr Randy Carter
Director Industrial Coal Marketing & Transloading
T: + 1 540 985 6795
F: + 1 540 985 6398
E: Randy.Carter@nscorp.com
W: www.nscorp.com
Location: Ohio River at Wheelersburg, OH
Ownership: Norfolk Southern
Throughput Capacity: 9 million tons
Total Storage: 1 million tons

Wilmington

Metropolitan Stevedore Co.

720 East E Street
Wilmington
California
90744
USA
Contact: Mr Rob Waterman
Vice President, Bulk Operations
T: + 1 310 816 6557
F: + 1 310 816 6519
E: rob.waterman@metsteco.com
W: www.metsteco.com

Venezuela

Maracaibo

BDV - Bulkguasare de Venezuela, SA

(subsidiary of Coeclerici Logistics SPA)
Calle 77
Esq. Av 3C - Edif. Los Cerros
Piso 4. of 4B
Maracaibo
Zulia
4001
Venezuela
Contact: Captain Guido Villani
Terminal Manager
T: + 58 414 364 1331
F: + 58 261 793 3576
E: guidus2000@hotmail.com
W: www.coeclerici.com
Export: Yes
Location: Lake of Maracaibo
Ownership: Bulkguasare de Venezuela, SA
Name of Port Authority: Carbones del Guasare
Throughput Capacity: 8,000,000 tpa
Total Storage: 60,000 t
Vessel Size Limitation: 44m beam
Additional information:
Commercial Contact: Capt. Giordano Scotto
Coeclerici Logistics Spa
Piazza Diaz, 7
20123 Milano, Italy
T: + 39 02 62469435
F: + 39 02 62469444
E: newprojects@coeclerici.com

Maracaibo

Carbones del Guasare SA

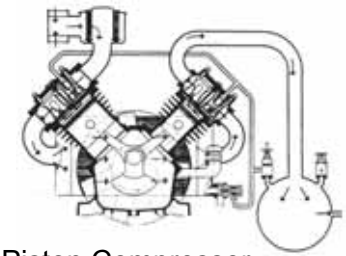
Centro De Operaciones Guasare
Av 9B Edif Banco
Industrial Piso 5
Maracaibo
Zulia
4001
Venezuela
Contact: Mr Jose Rios
Marketing
T: + 58 261 797 3831
F: + 58 261 790 6664
E: jrios@guasare.com
W: www.guasare.com
Export: Yes
Location: Maracaibo, Venezuela
Throughput Capacity: 7.0 mio tpa

Santa Cruz de Mara

Santa Cruz Coal Terminal

Carbones del Guasare SA
Terminal de Embarque
Edificio Banco Industrial, Piso 3
Santa Cruz de Mara
Edo Zulia
4002
Venezuela
Contact: Ms Larissa Chacin
Marketing Manager
T: + 58 261 790 6620
E: lchacin@guasare.com
W: www.guasare.com
Export: Yes
Location: North East of Maracaibo Lake
Name of Port Authority: Carbones del Guasare
Total Storage: 100,000 tonnes Santa Cruz Terminal + 60,000 tonnes in Bulk Wayuu floating station
Additional information: Capacity: 25,000 tonnes per day

www.NEUERO.com

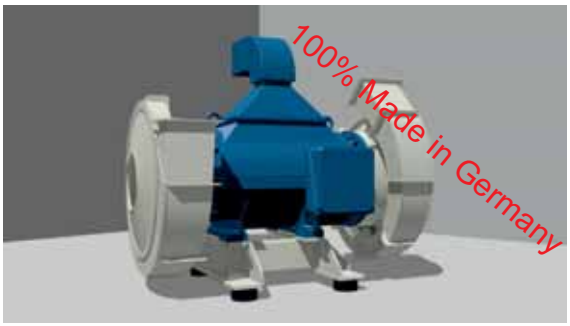

Piston Compressor (<1800)


Roots Blower (1900)


Fan with Air Flow Regulator (1960)


Fan with frequency inverter and automatic belt tension (2000)


TURBO POWER single stage (2009)



TURBO POWER double stage (2011)

MULTIPORT SHIPUNLOADERS ADVANTAGE

- RELIABLE
- LOWEST POWER CONSUMPTION
- EFFICIENT
- 100% BLOWER DIRECT DRIVE - No V-Belts, No cardan joints, No bearing blocks...

With TURBO POWER Direct Drive (single or double) on the motor shaft. With temperature and vibration bearing monitoring control (upper right picture).

NEUERO Industrietechnik für Förderanlagen GmbH
✉ Neuerostr. 1 ● 49324 Melle ● Germany
T: +49 5422 9503 0 ● **F:** +49 5422 9503 50 ● **E:** neuero@neuero.de **H:** www.neuero.de

As maritime needs grow, ClassNK has solutions.

As the world's economy grows and changes, the maritime industry is faced with ever greater challenges. With roughly 20% of the world's merchant fleet under class, we understand the requirements for the future of safe shipping, and we're working to develop new tools and technologies to meet the changing needs of the maritime industry. Learn more about our efforts to advance maritime safety and protect the marine environment at www.classnk.or.jp

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www.classnk.or.jp