

INDIAN MARITIME DEVELOPMENT

Foreign players developed Indian industries, especially in the fields of salvage, dredging, charter ship management and ship manning. The list of foreign firms setting up shop in India is growing. The Indian government is promoting public-private partnerships (PPPs) to bring private-sector efficiency into the development of quality public services. Over the last couple of years India has emerged as one of the leading PPP markets in the world, due to some of the policies adopted and institutional initiatives taken by the government. These include 100 % FDI (foreign direct investment) being automatically allowed for port development projects and 100 % income tax exemption for a period of 10 years. Port traffic has increased from 368 million tons in 2001 to 935 million tons in 2013. According to the 'India Maritime Agenda', port throughput is expected to increase to 2,500 million tons by 2020. The cargo growth outlook for the Indian port sector continues to be positive in the medium to long term, driven by the domestic demand for coal, power and other sectors; crude oil, to meet the domestic petroleum demand; and containers, given the cost and logistical advantages associated with containerization. Short term uncertainty may, however, be associated with particular cargo categories, like imported coal, due to uncertainties plaguing the power sector and persistent delays in the execution of green-field power projects; iron ore, due to unresolved policy issues; and containers, due to the weak global environment affecting the EXIM trade.

A NEW MARITIME CRANE CONCEPT

The new, innovative TCC 14000-400 D Litronic® from Liebherr has two completely different applications. When the crane is used as an offshore crane fixed to a floating installation (barge), it is capable of lifting heavy loads up to a maximum of 400 tonnes, with the outreach of 21 meters.

It can also operate onshore as a mobile harbour crane with high lifting capacities. For the undercarriage, the drive technology

of a Liebherr mobile harbour crane was combined with a newly designed steel construction consisting of a central, X-shaped structure with four mounted outriggers. For travelling operation, the base structure is fitted with 48 wheel sets characteristic of the conventional mobile harbour crane.

The multi-purpose crane, having the dead weight of approximately 1,100 tonnes, was assembled in the port of Baku, Azerbaijan. It is currently used for the construction of oil platforms in the Caspian Sea.



Figure 1.
The multipurpose crane.

Source: <http://www.liebherr.com/en-GB/144818.wfw>.

MAERSK LINE, MSC AND CMA CGM TO ESTABLISH AN OPERATIONAL ALLIANCE

Maersk Line, MSC Mediterranean Shipping Company S.A. and CMA CGM have in principle agreed to establish a long-term operational alliance for the East – West trades, called the P3 Network. The aim is to improve and optimise operations and service offers.

The P3 Network will control 2.6 million TEU (initially 255 vessels in 29 loops) on three trade routes: Asia – Europe, Trans-Pacific and Trans-Atlantic.

While the P3 Network vessels will be operated independently by a joint vessel operating centre, the three lines will continue to have fully independent sales, marketing and customer service functions.



Figure 2.
P3 Network vessel.

Source: <http://www.maerskpress.com/NEWS-ROOM/maersk-line-msc-and-cma-cgm-to-establish-an-operational-alliance/s/fdbf6c2e-1dad-4a7c-8d15-e2572055fa27>.

Improving customer services

The P3 Network will provide customers with more stable, frequent and flexible services.

Each of the lines will offer more weekly sailings in their combined network than they do individually. For example, the P3 Network plans to offer 8 weekly sailings between Asia and Northern Europe. In addition, the P3 Network will offer more direct ports of call.

The improved network is expected to reduce the number of disruptions experienced by customers due to cancelled sailings.

In order to provide customers with a consistent service offer across the network, the lines will establish an independent joint vessel operating centre.

Need for efficiency

The declining volume growth and over-capacity in recent years have stressed the need for the improvement of operations and efficiency in the industry, prompting the creation of other operational alliances such as G6 and CKYH. Using the P3 Network, the lines expect to be able to improve their efficiency through better utilisation of the vessel capacity.

Subject to approval

The lines intend to start operating in the 2nd quarter of 2014, but the starting date depends on the prior approval of the relevant competitors and other regulatory authorities.

In addition, the establishment of the P3 Network depends on the lines agreeing on definitive contracts. The finalisation and signing of the contracts are planned for the 4th quarter of this year.

FIRST TRIPLE-E NAMED MÆRSK MC-KINNEY MØLLER

The Maersk Line's newest vessel, the first from the Triple-E series, was named this morning in a ceremony at the Daewoo Shipbuilding & Marine Engineering (DSME) shipyard in Okpo, South Korea. It bears the name of the late Mærsk Mc-Kinney Møller, who passed away in April 2012 at the age of 98.

The Maersk Line CEO, Søren Skou, opened the ceremony by welcoming all the special guests and recounting the important tradition of the naming ceremonies in Maersk, from the first event in 1906 when Peter Mærsk was welcomed as the second vessel in the fleet.

The 20 ships are called the 'Triple-E' class for the three main purposes behind their creation — the economy of scale, energy efficiency and environmental improvement — the ships will set a new industry benchmark for size and fuel efficiency. Four-hundred metres long, 59 metres wide and 73 metres high, the Triple-E is the largest vessel of any type on water today. Its 18,000 TEU (twenty-foot container) capacity is large enough to hold 111 million pairs of sneakers.

The Triple-E is the largest ship in the world, and it sets new standards in the container industry, not just in size, but also in energy efficiency and environmental performance. With unique design features for lower speeds and maximum efficiency, this vessel will emit 50 % less CO₂ per container moved than the current average on the Asia-Europe route.

The Maersk Line has ordered a total of 20 of these vessels, which will be gradually introduced into the existing route between Asia and Northern Europe (AE10) over the next couple of years.

BULK CARRIER RAGA & ITS "AERO CITADEL"

The Imabari Shipbuilding Co., Ltd. completed a 95,000 DWT bulk carrier, RAGA, at its Marugame Shipyard. The bulk carrier is unique in that it has adopted a next-generation superstructure called the Aero-Citadel, which according to the shipyard offers significant advantages in both air resistance and antipiracy measures.

The Aero-Citadel has a slim streamlined shape and includes the accommodation quarters, engine room, and funnel casing. This superstructure can reduce the wind pressure during navigation by 25-30 % based on wind tunnel testing. For example, the fuel consumption of a Capesize bulk carrier navigating at normal output against about 9m/sec head wind (Beaufort 5 class) will decrease by 2 %. Moreover, the new design incorporates marine use LED lighting in the accommodation and engine room lighting systems, which reduces the electric power required for lighting by approx. 50 %.

Name	Raga
Type.....	Bulk Carrier
Shipbuilder.....	Imabari Shipbuilding
Ship-owner.....	Higaki Sangyo Kaisha
Length, o.a.....	234.9 m
Length, b.p.....	227 m
Breadth	38 m
Depth.....	19.9 m
DWT/GT	95,666/50,615
Main engine	Hitachi-MAN B&W 6S60ME-C
.....	(Mark 8) diesel x 1 unit
MCR.....	12,950kW x 101min ⁻¹
NCR.....	11,010kW x 95.7min ⁻¹
Speed, Service:.....	15 knots
Complement.....	25
Classification.....	NK
Registry.....	Panama



Figure 3.

Bulk carrier Raga & its "Aero Citadel".

Source: Maritime Reporter & Engineering News - December 2013 edition.

SHIP BREAKING ENDS

Ship breaking is one of the most dangerous industries. According to the EU Commission, it is six times more likely to die at work in the Indian ship breaking industry than in the Indian mining industry, and according to a recent report from Sustainalytics, 1,000 people died in the Bangladesh ship breaking industry over a 10 year period.

NGOs argue that beaching must end now. The Maersk Line has the responsible ship recycling policy. Since 2006, they recycled 23 ships responsibly, and sent none to the beach.

The real answer to the problem is global regulation that would raise the legally acceptable minimum standard for ship recycling. In 2009, the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships was adopted. Yet, only two countries have ratified it in 2013.

The Hong Kong Convention is not perfect – actually it doesn't ban beaching, but merely makes it a lot harder to scrap ships this way. But it is the best we have, and if it entered into force, it could be improved over time.



Figure 4.

Ship breaking.

Source: <http://www.shipbreakingplatform.org/photo-gallery-gadani-pakistan-2012/>.

If the health and safety statistics of the ship breaking industry are not enough of an argument in favour of the Hong Kong Convention, here is another one: Over the coming decades, steel will get scarcer and therefore more expensive, which means we need to become better at steel recycling.

When ships are scrapped on beaches, it is less likely that the materials are recycled to their full potential. Taking ships to proper recycling yards, like the ones in China, will allow a far better recycling of the steel for reuse in new ships and other constructions.

BOURBON'S SEISMIC SURVEY SUCCESS WORLD'S LARGEST CHEMICAL TANKER

Bow Pioneer was built for Odfjell SE by Daewoo Shipbuilding & Marine Engineering, designed with two longitudinal corrugated bulkheads with lower stools and transverse corrugated bulkheads with lower stools to have 10 sets (P&S&C) of cargo tanks, and 11 tanks for WB, consisting of four pairs of wing and double bottom tanks, one U-type tank and two water ballast heeling tanks. The ship is equipped with a cargo handling system for the loading, storage and discharging of the intended cargos of IBC ship types 2 & 3, with typical cargos such as Methanol, Vegetable Oils, MEG (Mono Ethylene Glycol), EDC (Ethylene DiChloride), MTBE (Methyl Tert-Butyl Ether), Xylene, Toluene, Cyclohexane, etc., as well as refined petroleum products (products with flash point below 60 deg-C). The ship has a continuous upper deck with forecastle, a raked stem with a bulbous bow, a transom stern with open water type stern frame, a balanced spade rudder with flap and a fixed pitch propeller directly driven by MAN B&W 5S60MC-C8 engine, with the maximum rating of 10,870 kW at 103.7 rpm. Double side and double bottom are provided in the cargo area and the volume of individual cargo tanks does not exceed 3,000 cu.m. The deadweight of the vessel will be 75,000 metric tons at the design draft of 13.2 m, without trim, with the vessel afloat in SW with SG of 1.025, and 81,200 metric tons at the scantling draft of 14 m. The speed of the ship is 14 knots at the designed draft of 13.2 m on even keel at 85% MCR. The vessel is trimmed with Inorganic Zinc Silicate coating for cargo and slop tanks, and stainless steel pipes for cargo related systems. Thirty-one cargo manifolds are arranged on the port and STBD sides with two tiers at the middle length of the ship. One raised catwalk is arranged from the front of the accommodation to the manifold platform area and forecastle deck on the upper deck.

FEWER SEAFARERS IN UK BUT MORE OFFICER CADETS

The latest seafarer statistics of the United Kingdom Department for Transport show that the number of seafarers in the UK continues to decline, with a five percent decrease since 2012, to stand at 22,830 in 2013 – with an eight percent decline in the number of ratings to 8,590, following a previous rise between 2007 and 2011. Ratings are largely employed by the cruise and ferry industry, where the numbers working in catering, hotel and other categories fluctuate more than those working in the deck, engine and general/dual purpose categories. However, the number of officer cadets in training, 1,990, was the highest in over a decade.

In 2013, there were 12,660 non-UK nationals with a valid certificate of equivalent competency (CEC), required to be obtained by officers trained outside the UK before they can work as a deck or engine officer on a UK-flagged vessel. The

main country of origin of CEC-holders was the Philippines, which accounted for 15 percent, followed by India's 10 percent, and Ukraine and the Russian Federation, with nine percent each. Foreign national officers were more likely to be younger than UK officers, with 57 vs. 39 percent under 41 years of age.

GUIDANCE ON SECURITY CERTIFICATION FOR SEAFARERS AGREED (WWW.IMO.ORG)

Guidance on training and certification requirements for ship security officers and seafarers with designated security duties was agreed by IMO to address the practical difficulties seafarers have reportedly experienced in obtaining the necessary security certification under the 2010 Manila amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and STCW Code.

The guidance recommends that, until 1 July 2015, relevant training under section 13 (Training, drills and exercises on ship security) of the International Ship and Port Facility Security (ISPS) Code should be accepted as being equivalent to that required under the STCW Convention and Code.

The guidance was agreed by the Sub-Committee on Human Element, Training and Watchkeeping (HTW), at its first session held on 17-21 February 2014, which expressed a concern that a large numbers of seafarers were reportedly unable to access the approved training courses or be issued certification of security-related training in accordance with the STCW regulations.

The Sub-Committee approved a STCW circular on Advice for port State control officers, recognized organizations and recognized security organizations on action to be taken if seafarers do not hold the certification required in accordance with regulation VI/6 of the STCW Convention and section A-VI/6, paragraphs 4 and 6 of the STCW Code after 1 January 2014.

It also approved a STCW circular on Advice for port State control officers, recognized organizations and recognized security organizations clarifying training and certification requirements for ship security officers and seafarers with designated security duties, which argues that ship security officer (SSO) training encompasses the competence requirements of the STCW Code (section A-VI/6). Therefore, the holders of SSO certificates should not be required to undergo further training and obtain certification.



Figure 5.
HTW training.
Source: Flickr.

NEW SLOP WATER TREATMENT SYSTEM

This is the first order for the new system, strengthening Wärtsilä's position as the marine industry's leading provider of innovative products, solutions and services.

The Wärtsilä slop water treatment system is designed to treat and clean water contaminated with slop or drilling mud. For operators, the large volumes of slop mud mean enormous disposal expenses and represent a potentially significant environmental issue. The drillship for which this first installation is intended, is capable of drilling wells at water depths of up to 10,000 ft (3100 m). Its drill water capacity of 2178 m³ is an indication of the amount of slop water that will be handled by the Wärtsilä slop water treatment system.

The system's processing principles are based on a combination of chemical treatment and dissolved air flotation. The chemicals flocculate and bind together particles, making them easier to separate, in turn allowing flotation by dissolved air which separates both particles and oil from water.

The result is clear water, free of particles and oil, and acceptable for discharging into the environment or for reuse on the rig. The discharge is monitored by an in-line, oil-in-water content meter ensuring that the oil in the water is below the required limits before the water is pumped overboard.

Wärtsilä has a complete innovative offer for wastewater treatment in the oil, gas and maritime industries. It includes oily water separators for controlling bilge media and discharge, Membrane BioReactor Systems to treat grey and black water, seawater desalination plants to produce fresh, potable water, sewage treatment plants, and vacuum collection systems.