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Delivery in Hyundai Mipo Dockyard - 50,000 DWT Product/Chemical Tanker

SMC is pleased to report the Delivery Ceremony in Hyundai Mipo Dockyard Co., LTD. Ulsan Korea: Hull No. H2535, the fifth unit from the series of 10 x 50,000 DWT Product/ Chemical tankers IMO Type II ordered by Oman Shipping Company S.A.O.C.

Vessel's principal particulars: LOA = 183.0m, B = 32.2m, D = 19.1m, T d/s = 11.0/13.2m. Propelled by MAN B&W 6G50ME-B9.3 with EGB Low Load tuning and developing 5,344 KW x 82.7 RPM at NCR the vessel will operate at the speed of 14 knots. The vessel is classed by ABS and built to Marshall Islands flag requirements.

ABS Classification notes: +A1(E), Oil/Chemical Tanker, IMO Ship Type 2, ESP, +AMS, +ACCU, CSR, AB-CM, VEC-L, TCM, UWILD, SPMA, CPS, CRC, GP, BWT, PMA, CPP, POT, ENVIRO.

Delivery of H2535 was on 4th February 2016.

Waldemar Soltysiak
Project Manager

Delivery of MT "Torm Torino" - 50,000 DWT Product/Chemical Tanker

SMC is pleased to report delivery of MT "Torm Torino", Hull No. S3090 in Sungdong Shipbuilding and Marine Engineering Co., Ltd., South-Korea. This is the fifth vessel delivered from the series of 6 x 50,000 DWT Product/ Chemical tanker (IMO Type: II/III) ordered by TORM A/S.

Vessel's principal particulars: LOA = 183.0m, B = 32.2m, D = 19.1m, T d/s = 11.0/13.3m. Propelled by MAN B&W 6G50ME-B9.3 with ECT Part Load tuning and developing 6,219 KW x 83.9 rpm at NCR the vessel will operate at the speed of 15 knots. All vessels in the series are classed by LR and built to Singapore flag requirements.

Classification notes: +100A1, Double Hull Oil and Chemical Tanker, Ship Type 2 and Ship type 3, CSR, ESP, ShipRight (CM, ACS(B)), *IWS, LI, SPM4, +LMC, IGS, UMS. Descriptive Notes: COW (LR), ETA, ShipRight (BWMP(S, T), IHM, SERS, VECS, SCM)).

Torm Torino departed from the shipyard on 19th January 2016 on her maiden voyage to Tianjin to load Caustic soda for Gladstone in Australia.

Praveen Singh Tomar
Site Manager

Delivery of MV "Majestic" - 2,345 TEU Container

SMC is pleased to report Delivery of MV "Majestic" in Yangfan Group Co., Ltd, Zhejiang East Coast Shipyard, China, Hull No. 2300, the eighth unit from the series of 12 x 2,345 TEU container vessels ordered jointly by Bernhard Schulte and J.P.Morgan.

Vessel's principal particulars: LOA = 189.0m, B = 30.4m, D = 16.9m, T d/s = 8.5/10.5m. Propelled by main engine MAN B&W 6G60ME-C9.2 Tier II, 12,832KW x 97rpm at NCR the vessel will operate at the speed of 18.85 knots. From H2297 to H2300 are dual class by LR and CCS and all other vessels in the series are classed by LR and built to Singapore flag requirements.

Classification notes: LR +100A1 Container Ship, Ship Right (SDA, FDA plus(25 N/A), ACS(B), CM), LI, *IWS, ECO (IHM, EEDI-3), +LMC, UMS, NAV1, Descriptive Notes: ShipRight(SCM, SERS, (BWMP(T)).

The vessel was named on 1st July 2015 by Mr. Isaac Dacy and was delivered on 2nd December 2015.

Christian Wihelm
Site Manager

Overview of Antifouling Technology

B.R.Kim
General Manager
New Building Sales Division
Chugoku Samhwa Paints, Ltd / Korea

HISTORY

'Marine Bio Fouling' is the settlement and growth of marine organisms on structures immersed in seawater, including the ship's hull.

Pitch: one of the first biofouling solutions was a material called "pitch" which was made from boiling pine tar into a liquid. It was originally used to create watertight seals between wooden seams, but soon its antifouling properties were recognized.

Copper: "copper sheathing" was the next common antifouling method for wooden ships. Studies discovered that copper sheathing corrosion in seawater caused the dissolution of copper, subsequently preventing biofouling from occurring due to copper's toxicity in significant concentrations.

Steel ships required the development of new antifouling methods, with copper sheathing being no longer available because of the galvanic corrosion occurring between two different metals (if not separated). In the 20th century, antifouling paints replaced copper sheathing, with copper powder contained in natural polymers used in the anticorrosive coatings formulas.

PRESENT TECHNOLOGIES

Development in antifouling technology focuses on efficient ways to dissolve cuprous oxide (Cu_2O) in sea water:

A. $1/2Cu_2O + H^+ + 2Cl^- \longleftrightarrow CuCl_2^- + 1/2H_2O$

B. $CuCl_2^- + Cl^- \longleftrightarrow CuCl_3^{2-}$

Reaction "A" is reversible and influenced by kinetics, whereas reaction "B" is reversible instantaneous and can be considered in equilibrium at all times. When dissolved O_2 is present in sea water, the copper complexes are oxidized to Cu^{2+}, which is the main biocidal species formed from Cu_2O.

Self-polishing copolymer is the current major technology dissolving method, after old-fashioned insoluble matrix and hydration type antifouling coating formulations.

Self-polishing copolymer paints containing booster biocides were introduced to combat biofouling organisms with resistances to copper toxicants, increasing both the lifespan and functionality of self-polishing copolymer paints. Previously, Tributyltin (TBT) was the most widely used booster biocide, extremely hydrophobic, allowing producers to provide increased control of both the polishing and antifouling rates.

However, TBT showed adverse effects on marine plants and animals from concentrations of TBT > 1ng/L, therefore TBT based paints were banned by IMO in January 2008.

Further research led to the development of self-polishing TBT-free antifouling systems, with biocide release mechanisms of hydrolysis polymers, very close to that of TBT antifouling paints though without the harming polymer.

Another type is silicone foul release coatings. On the silicone polymer surface, it is difficult for marine growths to settle and they are easily detached due to the paint film's low surface energy. Adjusting the surface energy of silicone coatings prevents adhesion of marine organisms.

NEW CHALLENGE

The adverse effects caused by the biological settlement:

- Hull's high frictional resistance, due to generated roughness, leading to an increase of weight and subsequent potential speed reduction and loss of maneuverability. To compensate for this, higher fuel consumption is needed [1, 2]. The increase in fuel consumption can be up to 40% [3] and in overall voyage can cost as much as 77% [4].
- An increase of the frequency of dry-docking operations. A large amount of toxic waste is generated during this process [4, 5].
- Introduction of species into environments where they were not naturally present (invasive or non-native species) [6, 7].

Up to date, no single antifouling technology is perfect at preventing marine biological fouling for all vessel types, despite developing the recipes of conceptual mixture-model systems where the efficacy contributions of different biocides are balanced to minimize the environmental risks [8].

And at the same time, global warming and worsening environment circumstances are requiring new, innovative solutions to overcome insufficient antifouling performance of current technologies.

Recently one unique material, not cuprous oxide, nor agricultural toxic material, received a lot of attention. A Swedish company found remarkable anti-barnacle efficiency from a new substance (barnacles are the highest risk marine organism, with high fouling tendency and strong adherent character).

Over the years, CHUGOKU MARINE PAINTS, LTD. (CMP) has researched the most balanced antifouling formulations with this new substance. Significant performance of the new generation with less toxicity.

Significant performance of the new generation with less toxicity

CMP R&D director, Mr. Masashi Ono said: "The new generation will change the paradigm of the conventional way of antifouling and many customers will not need to worry about biofouling any longer. Regardless this success, continuous research & development will be conducted for better and better solutions".

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Introduction of Tribini site team

The Tribini project consists of two modern 2700 TEU fuel-efficient container vessels being built by Ouhua shipyard, Zhejiang for Owner Tribini Capital. SMC has been requested to provide supervision cover for this project.

The Tribini project SMC site team is headed by Site Manager Mr. Kyzysztof Samalczak, who comes with a vast experience on supervision and plan approval. A team of two hull inspectors, two machinery inspectors, two paint inspectors and a Secretary, supports him.

The first vessel is at pre-launching stage and due for delivery June 2016, while the second vessel is at block stage and is scheduled for delivery in September 2016.

Supervisors of Tribini site team

Krzysztof Samelczak
Site Manager

Huanliang Lin
Paint Supervisor

Ioan Hodosan
Machinery Supervisor

Guoyu Lu
Hull Supervisor

Tingzhi Xu
Hull Supervisor

Bosong Shen
Machinery Supervisor

Zhixing Yan
Paint Supervisor

Vivian Wu
Secretary

BIMCO launches "SUPERMAN"contract for new building supervision services

BIMCO has now launched a new standard contract for ship managers to provide supervision services for shipbuilding and conversion projects. The contract, code named SUPERMAN, is a valuable new addition to BIMCO's existing suite of ship management agreements. Developed by a team of industry experts, SUPERMAN is a comprehensive and clearly worded agreement setting out a ship manager's duties and obligations when providing ship construction-related supervisory services.

Captain Ajay Hazari , who headed the team that drafted the contract said: "SUPERMAN satisfies the demand for a balanced, industry-recognised, standard contract form for newbuilding supervision services and it completes BIMCO's suite of 'cradle to grave' ship management services and related commercial contracts."

SUPERMAN is modelled closely on the widely used SHIPMAN 2009. At SUPERMAN's heart are the key clauses of SHIPMAN dealing with issues such as: manager's authority, liabilities and, termination.

All of which have been adapted to suit this particular set of services. Like SHIPMAN, the supervision contract will provide users with a range of optional services to suit the needs of users. Options include: site supervision, guarantee claims handling, plan approval, and technical specification review.

Other members of the SUPERMAN drafting team were Steve Davies of Graig Shipping, Maurizio Bergamaschi of D'Amico Shipping, ***Krzysztof Kozdron of Schulte Marine Concept***, Charlotte Kirk of International Transport Intermediaries Club (ITIC) and Justin Turner of law firm Curtis Davis Garrard.

The SUPERMAN Agreement is now available to users of BIMCO's IDEA•2 contract editing system. Explanatory notes setting out the background to the clauses can be found on BIMCO's website along with a sample copy of the contract.

BSM and BS engage with Shipping Community in Japan

By Robin Thuillier (BSM)

BSM underpinned its reputation as a global player in the shipping industry when it joined with BS in hosting a reception past Wednesday in Tokyo to engage with the shipping community and recognize the long-standing relationships that have been developed with Japanese partners over a 40 year period.

In addition to more than 120 guests in leadership and senior management positions, the reception was attended by the German Ambassador to Japan, Dr. Hans Carl von Werthern, and the Management Boards of BS and BSM including Dr. Heinrich Schulte and Capt. Norbert Aschmann.

Norbert Aschmann said: "BSM has been present in Japan over many years and we value the strong relationships and business that we have been able to develop with our esteemed customers during this time.

We were delighted to see so many at the reception and look forward to their continued support and to further expanding our business in Japan with existing and new customers."

BSM will next be hosting an exhibition stand and technical seminar at the forthcoming Sea Japan conference and exhibition in April, showcasing its comprehensive shipmanagement and maritime solutions capabilities.

China to implement Sox Emission Controls

by Stephen Nolan

China to implement Sox Emission Controls in three key areas, China Pearl River Delta, the Yangtze River Delta and Bohai Rim Area. Discussion with the classification societies confirms there are three phases of introduction and implementation of the requirements with the rules different between The Yangtze Delta and the other two areas - China Pearl River Delta and Bohai Rim Area.

Starting from 1st January 2016, the ships should restrictively implement the existing international conventions and domestic laws and regulations for SOx, PM, NOx emission control.

Emission Control Requirements for Yangtze River Delta

For the Yangtze River Delta area the vessels visiting the Core ports on or after 1st April 2016 must change over to a Low Sulphur Fuel of 0.5% m/m when the vessel is at the berth and are encouraged to change over to a lower 0.1% m/m Low Sulphur Fuel if possible. Further the vessels entering the Yangtze River Delta on or after 1st April 2016 are encouraged to change over to the low Sulphur fuels on approach or entering the ECA.

For the Second Phase the mandatory change over to fuels at the berth of all ports in the Yangtze Delta ECA and change over to the Low Sulphur fuels on entering the ECA the dates are to be advised after the further of evaluation of Ships using fuel oil with Sulphur content no greater than 0.1% m/m at berth and Ships using fuel oil with Sulphur content no greater than 0.1% m/m after entering the ECA. But should not be later than 1st January 2018 for change over at ports and no later than 1st January 2019 for change over when entering the ECA.

The second phase for the Yangtze Delta will be announced after the evaluation of greater restrictions where by the following mandate would apply "Ships must use fuel oil with Sulphur content no greater than 0.1% m/m after entering the ECA".

Emission Control Requirements for other areas

For the other two areas, China Pearl River Delta, and Bohai Rim Area, the change over to the 0.5% m/m at the berth becomes mandatory from 1st January 2017. The changeover to Low Sulphur Fuels at all ports in both areas becomes mandatory on 1st January 2018 and the changeover to Low Sulphur Fuels when entering the ECA becomes mandatory on 1st January 2019.

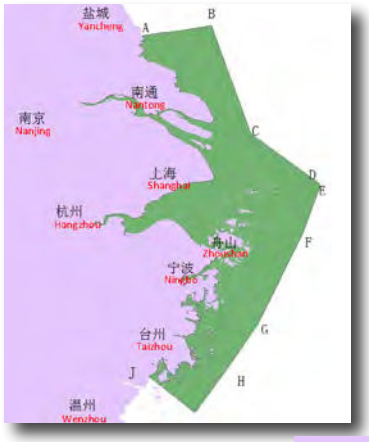
Conclusion at present time:

Phase ONE: Yangtze River Delta – Must C/O at berth for CORE PORTs from 1st April 2016.

Phase TWO: Other areas and only CORE PORTs - Must C/O at berth from 1st January 2017.

Phase THREE: At All Areas – Must C/O at berth for all ports from 1st January 2018.

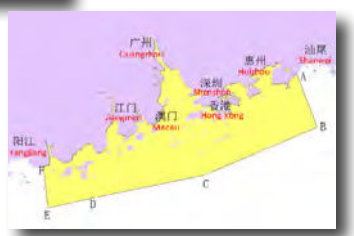
Final Phase: Must C/O when entering any ECA area on China coast from 1st January 2019.



ECA of Yangtzy River Delta

The core ports in this ECA: Shanghai, Ningbo-Zhoushan, Nantong Port

Including: The inland river water area: Nanjing, Zhenjiang, Yangzhou, Taizhou (Jiangsu), Nantong, Changzhou, Wuxi, Suzhou, Shanghai, Jiaxing, Huzhou, Hangzhou, Shaoxing, Ningbo, Zhoushan, Taizhou (Zhejiang).



ECA of Pearl River Delta (exclude Hong Kong and Macau)

The core ports in this area: Shenzhen, Guangzhou and Zhuhai port

ECA of Bohai Rim Area

The core port in this ECA: Tianjin, Qinhuangdao, Tangshan, Huanghuaport

Please refer to webiste: http://www.nepia.com/news/industry-news/new-emission-control-areas-in-china/