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with an efficient project management team and a highly skilled workforce, we could guarantee to deliver the projects we undertake timely and professionally.



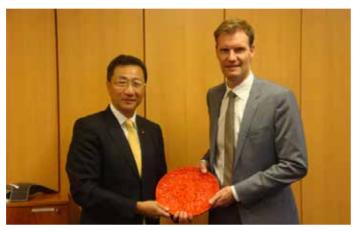
OCTOBER 2014

MISSION STATEMENT To be a world leader in ship repair, conversion, new building and offshore marine engineering, we maintain trusting relationships with our customers, employers, and partners, yielding best returns for shareholders, society and environment. Depending on our talented engineers working alongside

CSG President Liang Yanfeng visits Maersk Line and Maersk Supply Service

From October 7 to October 9, a COSCO Shipyard Group delegation, led by the president, Liang Yanfeng, visited Maersk Line and Maersk Supply Service in Copenhagen, Denmark.

During their meeting with Maersk Line's Chief Operating Officer, Mr. Soren Toft, Liang Yanfeng conveyed warm regards from COSCO Group's Chairman, Ma Zehua, and President, Li Yunpeng. Liang also spoke about the current situation and long-term strategy of the COSCO Shipyard Group and expressed our wish to maintain a good cooperative relationship with Maersk in the ship repair, conversion and newbuilding sectors. Mr. Soren Toft warmly welcomed the COSCO delegation on behalf of Maersk Line and expressed his thanks to



the COSCO Shipyard Group for providing a first-rate service to the Maersk fleet; he acknowledged the COSCO Shipyard Group as a reliable partner in China and expressed their wish to further strengthen the partnership.

During a pleasant meeting with the Chief Executive Officer

of Maersk Supply Service, Mr. Carsten Plougmann Andersen, the two sides reviewed the order for four subsea supply vessel newbuilds Maersk Supply Service recently placed in COSCO (Dalian) Shipyard. Liang expressed his thanks to Maersk Supply Service for entrusting COSCO with its first

offshore marine newbuilding order in China, and said COSCO would allocate our best project team and resources to ensure the work was of the highest quality and repay them for their trust. Mr. Andersen spoke highly of COSCO's proactive cooperation on the project and said that COSCO would be a strong candidate when it came to considering where to order future newbuilding projects.

During his stay in Denmark, Liang also visited the renowned design company OMT and attended the first Danish Maritime Fair. Liang was accompanied by COSCO (Dalian) Shipyard GM Gao Yongqiang, COSCO (Zhoushan) Shipyard GM Dong Yezong and COSCO Shipyard Commercial Headquarters Assistant GM Xiao Zijian.

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A new life: Fire damaged roro successfully restored in COSCO Zhoushan Shipyard



Tidewater top management visits COSCO Guangdong Shipyard

On October 9, the Chief Operating Officer of the American owner Tidewater, Mr. Jeff Gorski, Global Technical Manager, Mr. Archie Morgan, and Senior New Construction Site Manager, Mr. Tony Hearne, paid a visit to COSCO (Guangdong) Shipyard. The yard's GM, Huan Yueshi, and COSCO Shipyard **Group Commercial Headquarters** Assistant GM, Lu Hua, warmly received the delegation. The two sides held in-depth exchanges regarding the latest progress of the platform supply vessels

which are currently under construction at the yard.

The delegation visited the yard's exhibition hall and inspected the first vessel of the UT771CDL PSV series. Mr. Jeff Gorski fully recognised the yard's control over the quality, safety and progress of the project. He encouraged the yard to keep up the good work, offering some good suggestions and giving advice which would help the yard further improve their performance.



MES top management visits COSCO Dalian Shipyard

On October 12, a delegation from Mitsui Engineering & Shipbuilding Co. Ltd (MES), led by the President, Mr. Takao Tanaka, and Chief Operating Officer of Modec, Mr. Shigeru Usami, paid a visit to COSCO (Dalian) Shipyard. The delegation was warmly received by the President of the COSCO Shipyard Group, Liang Yanfeng, and the COSCO (Dalian) Shipyard GM, Mr. Gao Yongqiang.

Mr. Takao Tanaka inspected the FPSO "Algarve", which is nearing

completion. He expressed his appreciation to the yard for once again efficiently accomplishing the FPSO conversion project. Liang Yanfeng expressed his thanks to MES and Modec for their support over the years. The two parties agreed that, together, they would strengthen communication on follow-up projects, constantly explore new ways of cooperation and embrace any opportunities and challenges presented by the global offshore marine market.

COSCO Zhoushan Technology Centre recognised at provincial-level

Recently, having been comprehensively evaluated, having presented, and defended, dissertations and having received joint approval from the relevant departments of the provincial government, the COSCO (Zhoushan) Shipyard Technology Centre has been acknowledged to be a leading technical centre at a provincial-level.

Under the direct lead of the COSCO Shipyard Group Technology Centre, the COSCO (Zhoushan) Shipyard Technology Centre is devoted to the study of advanced shipbuilding and offshore marine engineering technology. The staff has successfully developed 30 projects with intellectual property rights.

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COSCO Dalian: Second jack-up launched



On October 21, a jack-up drilling rig, being built for the British buyer, Foresight Limited, was launched in COSCO (Dalian) Shipyard.

Based on the LeTourneau Super 116E design, the rig measures 70.09 metres LOA, 62.8 metres in breadth and 7.92 metres in depth. Each leg measures 145.3 metres in height. The rig is capable of working in water depths of 350 feet and has a drilling depth of 30,000 feet. It is classed by ABS. This is the second jack-up drilling rig COSCO (Dalian) has undertaken to build for Foresight Limited.



Photo of the month

Twin tower by the pier

Photographer: Guo Yuhong

COSCO Guangdong: Sea trials completed on first platform supply vessel

On September 29, in the shadow of the night, a platform supply vessel (PSV) headed smoothly towards COSCO (Guangdong) Shipyard after its 5-day sea trials. This was the first PSV to be built by COSCO (Guangdong) Shipyard for the American buyer Tidewater. During the sea trials, due to the joint efforts of the buyer and the yard, all commissioning and inspection work was completed. The buyer expressed their satisfaction with the results.

COSCO (Guangdong) has undertaken to build a total of four



PSVs for Tidewater. Classed by ABS, the vessel measures 83.75

metres LOA, 18 metres in breadth and 7 metres in depth.

COSCO Zhoushan: Sea trials completed on first platform supply vessel

On Septemebr 19, a platform supply vessel, being built by COSCO (Zhoushan) Shipyard for the Hongkong buyer, the E-Sunrse Group, returned to the yard aftercompleting successful sea trials, during which the FiFi fire fighting system, DP2 dynamic positioning system, crew habitability (HAB) and the use of Failure Modes and Effects Anaysis (FMEA) were tested and verified.

This is the first of four PSVs COSCO (Zhoushan) has undertaken to build for the



E-Sunrise Group. Classed by ABS, the vessel measures 83.75 metres

LOA, 18 metres in breadth and 7 metres in depth.



COSCO Guangdong: Tender drilling barge pontoon launched

On October 20, a tender drilling barge, being built for the Singaporean buyer, Energy Drilling, was launched in COSCO (Guangdong) Shipyard with the help of a 25,000-dwt semisubmersible barge.

The pontoon module measures 101 metres LOA, 63 metres in breadth and 31 metres in depth. The pontoon itself measures 92 metres in length, 16 metres

in breadth and 7.5 metres in height. Since steel-cutting, the yard and the buyer have worked closely with each other, jointly producing the construction plan which they continue to optimise as the project progresses, laying a firm foundation for the offshore installation of the deck package, living quarters, bow deck, 400-t crane and helicopter deck.



October 1, 1908

Henry Ford's Model T, a "universal car" designed for the masses, went on sale for the

October 4, 1957

The Space Age began as the Russians launched the first

satellite into orbit. Sputnik I weighed just 184 lbs. and transmitted a beeping radio signal for 21 days.

October 12, 1492

After a 33-day voyage, Christopher Columbus made his first landfall in the New World in the Bahamas. He named the first land sighted El Salvador, claiming it in the name of the Spanish Crown. Columbus was seeking a western sea route from Europe to Asia and believed he had found an island of the Indies. He thus called the first island natives he met

October 21, 1879

Thomas Edison successfully tested an electric incandescent lamp with a carbonized filament at his laboratory in Menlo Park, New Jersey, keeping it lit for over 13 hours.

October 21, 1915

The first transatlantic radio voice message was made by the American Telephone and Telegraph Company from Virginia to Paris.

October 27, 1728

British navigator James Cook (1728-1779) was born in Yorkshire, England. He explored

New Zealand, Australia, and the Hawaiian Islands.

October 28, 1914

Dr. Jonas Salk (1914-1995) was born in New York City. In 1952, he developed a vaccine for the dreaded childhood disease Polio (poliomyelitis, became the leading software

also known as infantile paralysis). His vaccine reduced deaths from Polio in the U.S. by



October 28, 1955

Microsoft founder Bill Gates was born in Seattle, Washington, October 28, 1955. In 1975, he co-founded Microsoft with Paul Allen, designing software for IBM computers. By 1980, Microsoft

> company for IBM compatible computers. billionaire by age 31 the world's wealthiest individuals.



Newbuilding & Conversion PandaNews 3

COSCO Dalian: 28,000-cbm LNG carrier newbuild docked

On October 10, a 28,000-cbm LNG carrier, being built for the domestic buyers Dalian Inteh Group and Shanghai Bestway Marine Engineering Design Co., Ltd, was successfully docked in COSCO (Dalian) Shipyard. Whilst the vessel is in dock, liquid cargo tanks will be installed. The vessel is scheduled for delivery in the first half of 2015.

The vessel will incorporate highly advanced LNGC technologies. It will be equipped with a dual fuel driven main engine,

a controllable pitch propeller propulsion system and three C-type independent liquid cargo tanks. During voyages, evaporated natural gas will be collected and utilised as motor fuel, which greatly reduces carbon dioxide emissions and sets a good example for the utilization of clean energy in the transportation sector initiated by the Chinese government. The vessel will be used for offshore transportation of natural gas between large LNG terminals and LNG satellite stations.



COSCO Dalian: Steel-cutting for second 21,000-dwt module carrier

On October 10, the steel-cutting was held for a 21,000-dwt module carrier, being built for the Dutch buyer, BigRoll Shipping, by COSCO (Dalian) Shipyard. This is the second module carrier COSCO (Dalian) has undertaken to build for the buyer. The yard is also responsible for the detailed design and production design of the project.

The vessel will measure 173 metres in length, 40 metres in breadth and 12 metres in depth. It is designed for the transportation of ultra large and heavy modular cargos and indications are that the vessel will be highly competitive in the specialist ship sector.

The vessel incorporates highly



advanced technology in its design. It will be equipped with a dual engine/electric propulsion system and a highly automated integrated control system. With an Ice Class 1AS notation, it will be able to sail in the Arctic and other areas with harsh winter environments.

COSCO Zhoushan lands nine bulbous bow conversions

COSCO (Zhoushan) Shipyard has recently secured another eight bulbous bow conversions from the French owner, CMA Ships, and one from the German owner, NSB. Now, with a track record of 15 successful conversions on containerships of various types and tonnages (including the 4,250-teu, 5,770-teu, 8,200-teu, 8,500-teu, 9,400-teu, 11,000-teu and 11,400-teu series), and another 18 in hand, the yard has established its reputation in the bulbous bow conversion market.

The owners' feedback shows



that, after conversion, the fuel consumption can be reduced by 6% on average, which not only saves a huge amount of money for the owners, but also contributes a lot to protecting the environment.

Coal Hunter and Pascha: Another successful collaboration with Maryville Maritime

Gao Xuejiao

COSCO (Zhoushan) Shipyard

On September 29 and October 1, two sister vessels, "Coal Hunter" and "Pascha" arrived at COSCO (Zhoushan) Shipyard. 13 days later, with all repair items completed, they set out on their new journey. These two vessels belong to our old friend, the Greek owner Maryville Maritime, with whom we have cooperated on seven projects, including these two, since 2012.

Noting that the requested repair schedule was very tight, our ship repair team started making preparations in accordance with the docking specification, in advance of the vessels' arrival. The work scope included modification of the forecastle and poop deck mooring equipment in addition to other general repair items. In order to ensure the vessels sailed on time, the top management of the shipyard paid close attention to the project. The under deck strengthening involved not a simple flat bar or bracket, but a larger framework, and it was especially important to choose the



right position for the access hole to allow access for the materials required for the modification. Under the guidance of the experienced director, the modifications on the two sister vessels were completed at the same time.

The ship repair team tried their best to optimize arrangements and followed up on-site, to ensure all jobs proceeded smoothly. Right after the vessels' arrival, our technical supervisor went on board to check and consult with the superintendents, so as to make the drawings more precise; the

quality supervisor on site made sure each job was completed to the satisfaction of the owner; the project manager communicated with the owner regarding the production schedule and any challenges, whilst also monitoring the sailing date and ensuring any additions to the cost were acceptable to the owner.

Before the repairs were completed, we received an email from the owner telling us that, upon completion of the modifications, Coal Hunter and Pascha, along with other vessels



After the 13-day repair, the two vessels sailed smoothly. The successful repair of Coal Hunter and Pascha satisfied the owner who had no doubt in our ability to

arrange and co-ordinate any

assistance we could give.

deliver good service and quality. The projects further strengthened our partnership with Maryville Maritime. The superintendent made a promise that "next time we will also choose COSCO (Zhoushan) Shipyard". Hearing this promise, we knew that due, to our honesty, technical ability, quality and our successful efforts to complete the project on time, we had earned the trust of the owner and, thanks to that trust, we would continue to play a part in each other's future.



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A new life: Fire damaged ro-ro successfully restored in COSCO Zhoushan Shipyard

Ye Min

COSCO (Zhoushan) Shipyard

On the night of August 16, 2012, a roro carrier named "Fior di Levante" docked alongside COSCO (Zhoushan) shipyard's No.8 jetty. Belonging to Mare Nostrum S.A., the vessel was bought from Korea and was registered with KR. In early 2012, a fire occurred in the vessel, which destroyed the area both behind the bridge and above the water line. Electrical equipment and supplies in the accommodation were burnt beyond recognition. Steel plates in the shell, bulkhead and ladder and vent ducts were deformed. Burnt carpet, doorframes and cables laid scattered everywhere, mixed together with sewage. It smelled musty everywhere and we could hardly breathe when we first went in. It was as if the horrible scene in the movie Ghost Ship had been reproduced in reality, and we felt a little afraid walking inside, even in the middle of the day. In most people's view, it would be better to scrap the vessel after such serious damage. To repair it well would be equivalent to building a new vessel.

Fior di Levante was the most seriously fire damaged vessel that I had ever seen.

Normally all detailed drawings should be sent to the shipyard ahead of the vessel's arrival, especially for fire damaged vessels. But the drawings of Fior di Levante were delayed, for various reasons, and all of them were paper versions, instead of the electronic versions, which would enable our technical staff to begin to design immediately. What was more, some important drawings were missing, which made it very difficult for our design team. The owner required that the original structure of the vessel be altered: The structure of the new design was more complicated, with sharper curves, many cabins, thin steel plates and sensitive equipment. It is difficult to comprehend just how great a challenge it was for our designers to meet the owner's requirements.

The project proved to be a great challenge not only technically, but also commercially.















Since the owner didn't give a clear design plan, the work scope couldn't be determined right away, and it was quite difficult for us to quote the price and produce terms and conditions for the contract because we had no similar projects or contracts for reference and comparison. For example, what was a reasonable repair period, how could the date of commencement of the repair be identified, when should the owner be advised to provide materials, what should the bottom line be for the quoted price, how should the project be divided between the yard and the owner, how should the payment clauses be set, how should the estimated repair expense be set, among other things. The owner and our project team had to agree on all these points before the vessel's arrival.

"The conversion of Fior di Levante will be an uphill battle. The whole shipyard must recognize the importance of this project and take great care to ensure we try our best to win the battle and satisfy our ship owner," emphasized Mr. Cao Huadong, the party secretary of COSCO (Zhoushan) Shipyard, when the vessel arrived.

Each time a new vessel arrives at the shipyard, the Technical Department is

the busiest; it was the same with Fior di Levante. Despite the lack of drawings, the Technical Department arranged for all hull and machinery technicians to familiarize themselves with the available drawings and make plans based on this information. Due to the lack of electronic versions of the drawings, we used Tribon instead of traditional CAD. We worked day and night and produced the necessary plans and drawings in record time.

Meanwhile, our site technicians, who were in charge of measurement, inspected the vessel thoroughly with the owner under the August sun, and gathered essential detailed information.

According to the overall production plan, the vessel would be docked from the middle of February to avoid the temporary labour shortage during the Spring Festival. When the block drawings didn't reach the workshop on time, our Commercial Department wasted no time contacting the owner, who then confirmed and signed the block drawings before the Spring Festival. This enabled the team to begin making and assembling the blocks.

During the Spring Festival there weren't

enough workers on board. In addition to that, the steel plates were very thin and deformed easily, which extended the working period. We encouraged our subcontract workers to give their best and they did just that. Sometimes they worked day and night and had to have dinner on board. Thanks to their efforts we managed to keep to the planned schedule.

During the block assembly, Mr. Cao Huadong tended to the project himself and together we solved the difficulties one by one. At this time every department in the yard was paying close attention to the vessel.

On August 27, Fior di Levante finished sea trials successfully. Only one day was required, thanks to the good cooperation between the owner and the yard's repair team.

Considering the extra long repair period and very challenging conversion work, we decided to close the project in two steps, as suggested by Mr. Cao Huadong. The first step involved the Commercial Department settling the commercial aspects with the owner. From August 14 to 26, we held continuous discussions with the owner and came to an agreement one day before the sea trials, which eliminated the settlement risk. Secondly, the Production Department organised many special meetings with related departments and the owner to make preparations for the sea trials. As a result, the owner was satisfied with the sea trials and spoke highly of the hard work and professionalism of the yard's staff.

At 12:28 on September 16, a brand new Fior di Levante sailed from the yard's jetty to begin her new voyage. As firecrackers were jubilantly set off, COSCO (Zhoushan) Shipyard finished the 25-month conversion of the ro-ro carrier. Before leaving, the owner's representative, Mr. Gtheodosis, shook our hands and didn't spare words of kindness; he also expressed their wish to continue our cooperation in 2015 on ship newbuilding projects.

Cosmerry Lake: Successful tank coating renewal at COSCO (Zhoushan) Shipyard

Yang Guochen

COSCO (Zhoushan) Shipyard

On the eve of the Chinese National Day, with all repair and conversion jobs completed, the very large crude carrier "Cosmerry Lake" sailed from COSCO (Zhoushan) Shipyard as scheduled.

The 2006-built vessel measures 330 metres LOA, 60 metres in breadth and 29.3 metres in depth. The owner planned a diversified work scope for her docking repair, including the overhaul of pumps, motors and the boiler, main deck sandblasting and coating, a lot of piping renewal in the engine room and bollard modification as well as other general annual repair items. Additionally, the main job was to paint the cargo oil tank top ceiling structures and bottom tank plates, which involved 15 tanks with a total coating area of more than 52,000 square metres. The work locations were scattered throughout the vessel, on the deck and in the engine room, accommodation area, cargo oil tanks and



water ballasting tanks. The repairs required more than 40 tonnes of steel renewal. On receiving the job order and work specifications, a project team was quickly assembled and started to develop a feasible working plan. Full staging was required in all 15 tanks, for sandblasting. After completion of the sand blasting, a great deal more time was required to remove the sand, remove the staging and clean the hold, all of which directly and indirectly increased costs. On the other hand, we needed to control the work quality very carefully, to ensure none of the



work was rejected. Under the time pressure due to the limited repair period, strict quality requirements and even stricter cost control, which was one of the main concerns in the current run-down market, we had to find a way to balance all these factors and make good on our promises to the clients. Based on our previous experience in tank coating, and considering the yard's production capacity at the moment, we decided to use hydraulic ballasting combined with sand sweeping, instead of traditional sandblasting, to achieve the steel plate surface treatment

standard necessary prior to the application of the coating. More than 6,000 square metres of hanging staging was adopted in the top ceiling area and more than 3,000 pieces of wooden planks were used. Challenging as it was, the coating was completed in 40 hours. The project team met daily to summarise the work of the previous day and assign subsequent tasks. During the repair period, both the yard's top management and the owner visited on board many times. The yard's Party Secretary and Executive General Manager, Mr. Cao Huadong, paid very close attention to the project and initiated several meetings focusing on major issues such as labour reserve, safety control, quality improvement and technical innovation. The project was accomplished step by step and finally, after 43 days of hard battle, the upgrade was complete; Before us sat a brand new beauty. We are very proud to have accomplished so much in such a limited time; the project was another golden example of our ship repair abilities.