

FC 'Princesse Chloe' — setting new standards of excellence

Logmarin and associated marine engineering company, Interprogetti, have developed jointly with Liebherr and Bedeschi an innovative floating crane for open sea transshipment operations on behalf of the Indonesian JV (joint venture) PT MitraSwireCTM.

In the off-shore dry-bulk logistics arena, there are not many technical innovations in sight. Competence, skills optimization, extensive operational experience and a proven track record are the fundamental ingredients for a smooth and reliable operation year after year.

PT MITRA SWIRE CTM is an Indonesian JV between PT Mitra Bahtera Segarasejati and Swire CTM Bulk Logistics.

PT MitraSwireCTM's aim is to be a full and integrated logistics supplier of dry bulk material, from mine to end-user, including ocean transportation.

The JV offers clients the opportunity to deal with only one partner thus optimizing the flow of raw materials through cost-effective solutions and sparing them the trouble of having to interact with many different organizations.

PT MitraSwireCTM also avails itself of the support of Logmarin Advisors (one of the world's leading designers of floating cranes and floating terminals) for the design of its logistics projects and also to oversee project implementation.

PT MitraSwireCTM has always endeavoured to strive for improvement in the performance of its systems. To achieve this goal, the JV has established close working relationships with Logmarin, Liebherr, Bedeschi and SMAG all leading bulk material

handling facilities designers and manufacturers and Rina the Italian classification society (IACS member). The JV's aim is to combine the best know-how and expertise to develop reliable and efficient logistics solutions for the client's specific operational requirements. This is clearly demonstrated by the floating crane *Princesse Abby*, which finds a balance between operational requirements and cost efficiency, thereby giving the best value for money.

During the last 12 months over 3.5mt (million tonnes) of coal has been loaded by the single Liebherr crane fitted on the *FC Abby*. Its daily loading performance is steadily in excess of its guaranteed contractual loading rate of 18,000 tonnes (best daily average performance 27,630 tonnes). Very few single floating cranes can boast a similar throughput quantity while working in open sea.

Princesse Chloe is conceived for open water operation equipped with combined 'roll dampening systems' for pontoon rolling motions attenuation (amplitude, period and acceleration). Therefore, the Logmarin-conceived floating crane concept is less sensitive to the adverse weather conditions as compared with standard floating cranes.

With a daily designed loading rate of 50,000 tonnes the *Princesse Chloe* is capable of loading over 800,000 tonnes of coal monthly. The environmentally friendly coal transfer operation will operate at a daily average rate exceeding 40,000 tonnes and, thanks to the innovative telescopic shiploader (designed by Bedeschi) that is equipped with a distribution chute, loading



SWIRE CTM BULK LOGISTICS

**Together Bridging the Gap
between Supplier and Industry**



Mission:

To provide reliable customised and cost-effective dry-bulk seaborne supply chain services aimed at bridging the gap between Supplier and Industry

Services:

- River and coastal specialized feeders
- Self-unloading vessels and barges
- Floating Cranes
- Floating Terminals
- Ship to Ship, Barge to Ship and Ship to Barge operations
- Handy max to Cape size Shipping
- Integrated seaborne logistics "dry-bulk door to door"

your partner for progress

Monaco: Ph. +377 9798 5900 • Singapore: Ph. +65 6603 9400
www.swirectmbl.com • contacts: bulklogistics@swirectmbl.com

Princesse Chloe



- Design loading rate > 50,000 tpd
- Minimum loading rate
- No limitation on OGV
- Can load from both vessel' side
- Heavy duty designed
- Open sea operation
- Buffer storage availability
- Coal mechanical sampler
- Telescopic ship-loader
 - 2200 tph capacity
 - outreach 42 meters
- Trimming chute
- Dozer lifting device
- Environmental friendly

Design: Logmarin/Interprogetti • **Flag:** Indonesia • **Class:** Rina and BKI

operations are carried out smoothly and efficiently even in case of high coal stowage factor.

Key components are being supplied by world-renowned suppliers such as Liebherr, Peiner Smag, Logmarin, Caterpillar, Bedeschi, Rina, Keppel Subic, etc.

The coal handling equipment designed according to MSC and Logmarin specifications is manufactured in compliance with the highest classifications for heavy-duty work in open water conditions. Double independent electrical generator sets (one set on duty, one stand-by/maintenance, to ensure 24 hours a day non-stop operation), i.e. built in redundancy.

The efficiency of this coal handling facility will enable the coal producer to maximize the vessel's cargo carrying capacity (thus avoiding wasted space in the vessel's holds) and minimize the vessel loading time thus reducing the transportation costs significantly. Therefore, the *Princesse Chloe* has significant competitive advantages over existing transshipper units.

Furthermore the *Princesse Chloe* is designed to have the ability to carry out loading operations on both OGV sides in order to manage the operation in adverse weather conditions.

Continuous improvement is part of MSC and Logmarin's cultures and the *Princesse Chloe* will benefit enormously from the experience and technical and operational feedback gained from similar systems.

In addition to the spare parts recommended by Class, *Chloe* will be provided with a suitable number of spares to perform the operation smoothly. Furthermore, the facility is designed with redundancy built in, giving further assurance of a smooth operation.

Besides conforming with international safety regulations, *Princesse Chloe* is built in compliance with local and customer requirements, applicable safety laws/regulations and will operate in accordance to ISPS/ISM code.

Protection of the environment is an integral part of the MSC's business philosophy. MSC requires that its staff at sea and ashore carry out their duties giving environmental concerns the highest possible priority.

For this reason, the following devices have been built in to

ensure environmentally friendly coal transshipment operations: water spray system to minimize dust emission; spill plates to avoid coal spillage; fully enclosed conveyor system; and coal transfer points to avoid wind-generated dust. A sewage system has been developed to treat dirty water. The diesel engine for power supply has been designed in accordance with the latest standards to reduce emission and special devices have been built in to avoid the spillage of coal at sea.

The floating crane *Princesse Chloe* is under construction at Keppel Subic Shipyard (Philippines) under Registro Italiano Navale (RINA) and Logmarin surveillance/supervision. She will be delivered from the yard in December this year.

Amongst other ship building, conversion and repair projects, Subic yard has built the transshipper units *Bulk Pioneer*, *FC Nicholas*, *Princesse Abby*, *Zeus* and is completing MBSS's *Princesse Rachel* which is due to be delivered on 8 July.

PT MitraSwireCTM is not only offering its client a specific transshipper facility but also the benefit of sharing its extensive technical knowledge, shipping network and offshore operative know-how in order to provide the most cost-effective commodities seaborne supply chain required to ensure the end-users to maintain a competitive edge and reduce any freight disadvantage they may have against competitors.

In other words, PT MitraSwireCTM presents itself as 'a partner for progress' and it wishes to co-operate with its clients to design and jointly operate the most suitable system to bridge the gap between supplier and industry.

Swire CTM Bulk Logistics has been set up as a JV between Swire and CTM. The JV brings together both companies' strengths to deliver value to industries which require improvement in the maritime supply chain.

For example, Kalimantan, Indonesia — coal mines situated in shallow draught coastal areas or up large river systems need to be able to export preferably on the largest ships to achieve the best shipping rates per tonne. Swire CTM Bulk Logistics with its partner PT Mitra (MBSS) enables this process by providing access to OGVs via tug and barging the coal and then via a floating terminal or transshipper, loading the vessel.