



CASE STUDY

HIGHLIGHTS

COUNTRY/REGION: Oman

END USER: Port of Salalah

PRODUCT: 4 unit Shiploading system of 2 x TB60 All Wheel Travel Shiploaders fed by 2 x Titan dual-feed All Wheel Travel 800-6 Bulk Reception Feeders

APPLICATION: Shiploading

MATERIAL TYPE: Limestone, gypsum and cement clinker

TONNAGE: Up to 1,200tph

Background

At the very heart of the Telestack Ports and Terminals business is their understanding and experience in the industry. Having generated decades of experience in the aggregates and mining and ports and terminals sectors, Telestack are one of the key players in the bulk material handling equipment industry. The division has recently added to their global portfolio with the installation of an innovative and custom design shiploading system for Maersk at Port of Salalah in Oman. Critical to the installation were mobility, dust containment and efficiency all major contributions as to why Telestack was selected to provide the customized shiploading solution.

Port of Salalah are recognized globally as a leading transshipment hub positioned among the world's top ports and continues to play a vital role in the economic future of Oman. Strategically located at the major East-West Shipping Lane, the Port of Salalah is viewed as the region's best located port in order to access the Middle East, Indian Subcontinent and East Africa. The Port (of which APM Terminals holds a minority stake) is currently undergoing an expansion which will double the quay length, and increase dry bulk capacity to 20 million tonnes annually.

Port of Salalah is made up of a Container Terminal with seven berths of up to 18m draft and a General Cargo Terminal of twelve berths of up to 16m draft, with infrastructure to handle the world's largest container vessels, as well

as bulk cargo, bunkering and warehousing. As part of this expansion, Port of Salalah have appointed Telestack in a £4.8 million deal to provide a unique shiploading system to handle the added capacity generated by the infrastructure investment to cater for the export requirements of the local mining, quarrying and cement industries. Commercial Director Malachy Gribben continues, "Endorsements such as the Port of Salalah contract are encouraging as they help to validate our innovative engineering concepts. This is our largest single order ever and is the first system of its kind across the globe. Prior to Telestack, Maersk were loading with grabs and mobile harbor cranes, this process was inefficient, time-consuming and costly, and it also resulted in the double handling of materials.

The commissioning includes two shiploading systems, each suite comprises of a TB60 All Wheel Travel Shiploader fed by a Titan dual-feed All Wheel Travel 800-6 Bulk Reception Feeder. The equipment is designed to load limestone, gypsum and cement clinker at average rates up to 1,200tph to Handymax, Panamax / Post Panamax vessels. The material which will be handled is free flowing, dusty and abrasive so it was vital that Telestack engineers ensured that the equipment would be long-lasting and fully functional throughout the project. The Export TB60 All Wheel Travel Shiploader has a 60m boom length enabling it to load up to post Panamax size. The maximum freeboard height achievable is up to 15metres. A central factor in the design, was the ability to



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maximise hatch coverage and trimming ability enabled as a result of having an independent radial telescopic Shiploader with a separate dual feed truck unloading system.

Dust Containment and Suppression

Dust Containment and Suppression options were taken into significant consideration during the design stage of the shiploading system, both the Titan 800-6 Dual Feed AWT TU and TB60 AWT were customized with galvanized dust covers the entire length of the incline conveyor and side wind plates on the inner conveyor. The two units also have integrated dust extraction filters fitted above the unloading point including an air compressor and dust filter. The TB60 was designed with canvas retractable telescopic dust covers on the inner conveyor as well as a fully enclosed hood at the transfer point from outer to inner. All these additional features will help to ensure that the application is as environmentally friendly as possible and the entire shiploading process is now virtually dust free.

Customized Solution

Russia experiences extreme weather conditions throughout the year, with

temperatures ranging from subzero conditions to plus 35 degrees. To ensure that the units are adaptable to the changing conditions, they were commissioned with anti-condensation heaters on all motors as well as it being fitted with a fully functioning operator control panel which allows it to be controlled internally during the colder temperatures.

Soft handling of material to prevent degradation

Degradation and contamination of material could compromise the composition and size of the product which could, in effect, reduce the selling price per tonne. The implementation of the Telestack system means that double handling of materials is eliminated. This, coupled with the highly abrasiveness of gypsum, limestone and clinker, makes it a very demanding application which is why Telestack engineers incorporated transfer points, feed-boots and ceramic lining to ensure that the unit was hard wearing.

Mobility and Trimming capabilities of system to load vessel as efficiently as possible

These Telestack mobile shiploading

FEATURES

- 60 metre telescopic conveyor
- All Wheel Travel mobility system
- Radial/ Inline/ Parallel/ Crab/ Carousel travel modes
- 0-3,000 tph throughput capacity
- On-board control panel
- On-board diesel generator
- Electric driven conveyors
- Electric hydraulic power pack
- 1000 (40") - 1500mm (60") belting options
- Available in 42m/ 52m/ 58m/ 60m
- Range of dust containment options
- Optional galvanised walkways and LED lighting

systems that are operating in the Port of Salalah represents the new generation of mobile shiploading.

RESULTS

The Telestack Shiploading System offers unrivalled flexibility in a range of applications (stockpiling, bay loading, linking, shiploading and reclaiming.) The mobility options of the units allows for the operator to utilize this technology anywhere on site ensuring a high-production capacity. The All Wheel travel technology is designed to reduce hatch change times, particularly when loading geared vessels or vessels with vertical hatches as the Shiploader boom only needs to be retracted before moving in parallel to the next hatch, thus reducing loading times, maximising production rates, minimising labour on site.



FEATURES

- Dual simultaneous feed system
- All Wheel Travel mobility system
- Radial/ Inline/ Parallel/ Crab/ Carousel travel modes
- On-board control panel
- On-board diesel generator
- Electric driven conveyors
- Electric hydraulic power pack
- 2600mm (102") feeder belts
- 1400mm (56") incline belt
- Hydraulic folding ramps
- Range of dust containment options
- Optional galvanised maintenance platform and LED lighting



Telestack Range of Equipment

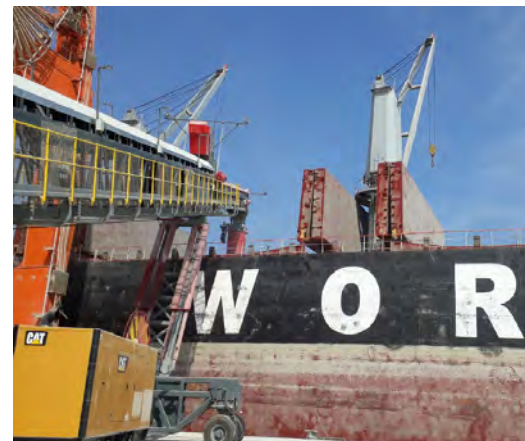
Telestack specialise in the complete design, manufacture, installation and commissioning of mobile, bulk material handling systems for the inland ports and terminals, aggregates and mining sectors. Telestack provide customised mobile solutions and proven results through their wealth of stockpiling experience.

How to Contact Us

Telestack are renowned throughout the globe for their personalized service. The

team of engineering and sales specialists work very closely with you throughout each stage of the process from pre-sales and pre-engineering to ensure that the equipment is specific to your project. Our product portfolio is vast as is our application knowledge. Our experienced sales personnel will happily discuss your project with you and we have a range of global reference sites in multiple applications to tell you about. Call us on +44 2882 251100 or email sales@telestack.com for a preliminary consultation about your project.

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RANGE OF SHIPLOADING EQUIPMENT



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