Dry Bulk Terminal Management

Ships moored at harbor terminals for discharge or loading, trains and trucks to be loaded, last minute schedule changes, differences in weights, and myriad handling and invoice agreements—all of these activities and more demonstrate the complexity of dry bulk cargo handling. CGI’s Terminal Management System (TMS) is an innovative solution that supports the core business functions involved in dry bulk terminal management. It provides complete oversight and control over terminal logistics and performs all administrative handling.

THE CHALLENGE

Every day at a terminal is different. Last minute order changes, multiple changes in ownership, uncertain arrival times, last minute contracts, tight contractual deadlines and special invoicing agreements are just a few of the issues that have to be handled efficiently and accurately. The customer is king, and while inefficiencies, errors and losses occur, they need to be identified and addressed on the fly.

Administration is typically unbalanced due to differences between planned weight, operational weight and gauged weight. In general, ERP systems cannot properly handle the imbalance. As a result, many terminals handle administration using a variety of small applications, spreadsheets and manual processes.

Dry bulk terminal operators need to have a good overview and control of all terminal activities, as well as contractual orders, obligations and agreements with customers.

Effective planning in terms of scheduling terminal activities is critical. Many activities are performed in sequence. Last minute changes to one activity can impact the activities that follow. Therefore, workers, customers and systems need to be timely informed of the actual planning. The level of efficiency achieved can mean the difference between a penalty and a bonus.

Also, invoicing must be accurate. It must be in line with the contract, the measured weights, and the activities (e.g., storing, washing, sieving, mixing) related to the cargo.

Any system used to support this planning, informing and invoicing must be easy to use, quick to respond and aligned with the organization’s way of working.

BENEFITS DELIVERED

- Integrated central solution for contracts, orders, planning, measuring, invoicing and reporting
- Clear overview of stock, running processes and planning by visual presentation and clear schematic presentations
- Clear information publishing for customers and agents on a website
- Combined administration of contracted, weighted, gauged and “lost” weights
- High flexibility towards last minute order changes
- Advanced invoicing
- Immediate reporting facilities and extensive information storage for later analysis and reporting
CGI’S SOLUTION

CGI’s approach to supporting dry bulk terminal management covers both technical and organizational aspects. It is essential for a dry bulk terminal system to be aligned with the terminal’s organizational processes. CGI therefore focuses on tailoring its implementation process to the specific rules and requirements of the organization.

Project approach

The implementation generally begins with a number of workshops to determine the actual scope of the implementation and the needs of the organization. The results are mapped to the processes and functionality of CGI’s TMS. Deltas are defined and agreed in terms of procedural and/or technical changes, after which the project plan is adjusted. A typical project contains installation and configuration of the system, tailoring of the system, on-the-job training, and after care and support.

System functionality

Standard TMS functions include:

- Visual representation of the terminal
- Customer management
- Contract management
- Order intake
- Order handling and logistics
- Invoicing
- Stock management
- Execution registration
- Interface with production control systems
- Notifications to external parties
- Reporting

Optional modules include:

- Interface with terminal’s equipment (e.g., weigh bridges, wagon loaders, process control systems, etc.)
- Interface with personnel management (e.g., hour registration, shift planning, etc.)
- Other bespoke functions

WHY CGI?

CGI has extensive experience with requirements capturing, system development, logistics processes, and the administration and organizational issues around the introduction of ERP systems. Our TMS has been developed together with the largest dry bulk terminal in Europe, where it is running to the terminal’s full satisfaction.