

THE MARIPORT GROUP LTD.

REPRESENTATIVE PROJECTS IN SELF-UNLOADER APPLICATIONS

Application of Tug–Barge Systems to Grain Handling in South Australia

On behalf of South Australia Co-operative Bulk Handling, undertook a feasibility study of the application of self-unloading tug–barge equipment for grain trans-shipment and lighterage in South Australia.

Self-Unloader Fleet Valuation

For two major self-unloader operators, provided an independent market-based valuation for their international fleet.

Salt Mine Shipping Strategy

Provided advice to a company on the shipment of salt by self-unloader¹ from a new mine, working in an iterative fashion to determine the optimum draft for terminal access. Also provided advice on marketing of their chartered self-unloader in non-salt trades.

Cement Barge Economics and Implementation

Responsible for all economic and commercial advisory services leading to the construction, entry into service and performance evaluation of a self-unloading² cement barge of 9,000 dwt.

Aguathuna Quarry – Shipping and Port Review

Overall review of shipping requirements for a new specialty quarry. Reviewed different self-unloading systems and recommended a simple self-unloading³ tug–barge system that could meet cost and delivery needs.

Barge Purchase and Conversion Analyses

Provided an economic and preliminary technical overview of a tug–barge system to deliver cement clinker and powder cement. Analyzed a range of conversion options and identified the two^{3,4} most appropriate for detailed technical analysis.

Appraisal of Collier Conversion to Self-Unloader

Provided an independent appraisal, at a conceptual level, of the possible conversion of conventional collier vessels to self-unloading configuration. Identified conversion options^{1,4} as well as likely operating costs, and technical and commercial risk associated with the project.

Self-Unloader Market and Rate Analysis

For a major shipper of salt on the Great Lakes, provided a detailed market assessment and rate analysis as background data for shipowner negotiations.

Cement Trades in Australia

For a major Australian cement and clinker producer shipping product via self unload vessels, analysed current operations and contracts and made recommendations regarding current and future trade.

¹ Belt conveyor

² Pneumatic

³ Scraper

⁴ Scooper type

Lakes Self-Unloader Market

- For a shipowner considering entry into the self-unloader business, provided a comprehensive overview and long-term forecast of the self-unloader market in the Great Lakes. The analysis included preliminary costings and trade considerations for different types of self-unloading systems and their application to specific ships in the fleet.
- For Transport Canada Domestic Policy, reviewed the future of Canadian self-unloader fleet. Provided projections regarding fleet size and markets.

The European Market for Self-Unloading Vessels

Evaluated the North European Market for self-unloaders of Handy through Panamax size. The analysis looked at key routes, competition from other self-unloaders and market bulkers, and new construction versus conversion costs and options.

EXPERTISE IN SELF-UNLOADER APPLICATIONS

The Mariport Group has considerable experience in the application of self-unloaders of different types to marine transportation activities. This expertise extends not just to the technical and operational features of the vessel, but also to comparative shore-side costs for conventional or self-unload ships.

We can review the comparative economics of:

- Belt Conveyor types
- Scooper types
- Scraper types
- Pneumatic systems

We have the necessary capability in-house to undertake the conceptual outline of each system, the implications of new subdivision standards, system cost, application and risk; and we can demonstrate whether self-unloaders or conventional ships are most appropriate in a particular client's business. This view may take the commercial perspective of either the shipper or the ship owner.

Where detailed technical input is needed, we have an excellent working relationship with qualified naval architects who have long experience in the design of self-unloaders and conversion of existing ships.

For clients requiring a general background to self-unloaders, we can provide copies of the following professional papers:

- *A Study of Large Self-Unloading Vessels*
SNAME, New York, 1972
- *Speed Versus Cost – The Self-Discharging Ship Option*
Graintrans 82, London
- *Delivered Cost Benefits with Self-Unloading Vessels*
Bulktrans 89, Amsterdam
- *Self-Unloading Vessels for Intra-European Bulk Trades*
Research Round Table, Delft 1992

Articles on self-unloaders published in such journals as *International Bulk Journal* and *Bulk Solids Handling* and Mariport's *Seascope* newsletter can also be provided on request.