



**MarineLINE®**

## North Sea Tankers Drives Shipping Success Using the MarineLine® Cargo Tank Coating System



TECHNICAL REPORT

In a 'textbook case study' on how to use the MarineLine® cargo tank coating system for its fleet of chemical and product tankers, North Sea Tankers demonstrates how and why operational efficiencies are achieved on a daily basis.

In an interview with Mr. Niclas Kappelin, Managing Director of North Sea Tankers (NST), he explains why MarineLine® has made a profitable difference in his company's transport of various chemical and product cargoes.

NST was formed in 2007 in Rotterdam, The Netherlands. Today, the company operates a fleet of sophisticated chemical vessels in sizes between 5,000 and 8,000dwt in Northwest Europe. NST carries hundreds of different grades of chemicals

and petroleum products that are shipped between European ports for major oil companies and larger chemical producers.

He adds, "In our market, with so many short voyages being performed in a small defined area, this is key for success. The versatility of MarineLine® allows us to load any type of product on these vessels, in any sequence, without imposed constraints from the cargo tank configuration/coating. This is vital for our fleet efficiency."



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## CURRENT FLEET OF CHEMICAL TANKERS MANAGED BY NORTH SEA TANKERS

MT/Name	Built	Type	DWT	CBM	Tank Coating
Bomar Mars	2007	Chemical/ Oil Tanker	6,167 MT	6,677	MarineLine®
Bomar Mercury	2008	Chemical/ Oil Tanker	7,003 MT	7,894	MarineLine®
Bomar Venus	2006	Chemical/ Oil Tanker	6,180 MT	6,814	MarineLine®
Bomar Ceres	2009	Chemical/ Oil Tanker	6,064 MT	6,562	MarineLine®
Bomar Pluto	2008	Chemical/ Oil Tanker	6,090 MT	6,529	MarineLine®
Bomar Sedna	2008	Chemical/ Oil Tanker	8,025 MT	8,970	MarineLine®
Bomar Vesta	2008	Chemical/ Oil Tanker	6,308 MT	7,082	MarineLine®
Minitank Five	2007	Chemical/ Oil Tanker	8,083 MT	8,789	MarineLine®
Northsea Sense	2005	Chemical/ Oil Tanker	5,135 MT	5,619	Phenolic Epoxy
Northsea Alpha	2010	Chemical/ Oil Tanker	8,615 MT	9,862	Phenolic Epoxy
Northsea Beta	2010	Chemical/ Oil Tanker	8,615 MT	9,862	Phenolic Epoxy
Northsea Logic	2007	Chemical/ Oil Tanker	5,565 MT	6,352	MarineLine®
Northsea Pioneer	2009	Chemical/ Oil Tanker	6,267 MT	7,078	MarineLine®
Northsea Rational	2006	Chemical Tanker	5,675 MT	6,497	MarineLine®
Pallas Glory	2005	Chemical Tanker	3,476 MT	4,087	MarineLine®

### A HISTORY WITH MARINELINE®

Mr. Kappelin says NST has operated vessels with MarineLine® for 9 years. “The characteristics of the coating suit our trade very well. A well maintained and monitored MarineLine® coating, with its very smooth surface, assists NST in gaining a quick turnaround time in port, and providing effective cleaning from the wide range of products we transport. The glossy surface of MarineLine®

eliminates sources of contamination possibilities that other coatings exhibit where last cargoes can become trapped inside pores in the coating,” he says.

NST’s operations department monitors the coating condition regularly of all vessels, receiving a full monthly coating report from ship crews to assess suitability for the customers’ products we carry.

A close to perfect coating condition is required for

many of the sensitive products NST transports, so it is imperative to have an ongoing dialogue with the crews onboard to ensure that this quality compliance is transmitted to everyone involved.

NST's cargo operations experience from its current 12 MarineLine® coated vessels is extremely positive. Mr. Kappelin explains that after measuring the total of 750 cleaning operations that these 12 vessels have undergone on an annual basis through the last nine years, NST has an impressive record for tank cleaning results, both in terms of quality of the end result and the speed in tank preparations/cleaning.

“Once NST has a good vessel in service, our aim, together with our partners, is to maintain the quality to the highest possible standard. This is very much applicable to the coating condition as well, so like anything else, attention and care is essential. Without hands on involvement and attention to details, we would not be able to perform to the standard our customers require. Detail orientation is imperative and as an operator in a demanding transportation segment, it's important to be involved in the operations and work with the crew, using any opportunity to avoid any possibility of a coating deterioration. We have seen other vessels where this lack of detail has affected tank coating condition,” says Mr. Kappelin.

### **WHY MARINELINE®**

When asked why NST uses MarineLine® coated tanks versus other options such as phenol epoxy tank coatings and/or stainless steel, Mr. Kappelin provides several examples. “You can see that the hard glossy surface of a MarineLine® coated tank is outstanding when it comes to performance. Rub your knuckles on the coating's surface and you will feel how smooth it is. There are simply no texture constraints that can be felt from the surface,” he says, while adding “On a Phenol Epoxy surface, it's rather evident that the texture is softer and the painted surface has pores.

Repeating this on a stainless steel bulkhead, your knuckles will most likely bleed from the rough surface. Logically, the smooth surface of the MarineLine® coating achieves the better quality for our operations.”



*Mr. Niclas Kappelin  
Managing Director  
North Sea Tankers*

Mr. Kappelin further points that because MarineLine®'s surface is also free of pores so that provides quicker cleaning time and better cleaning quality. MarineLine® also provides better accessibility to cargo volumes and there are no heat curing constraints that restrict repetitive voyage patterns with the same product.

Mr. Kappelin states, “With the multiple consecutive voyages employed by NST's fleet, there is no other coating except MarineLine® that we are aware of that can handle NST's operational needs. We can't accept constraints such as a softening of coating arising from some chemicals/products we carry, nor can we compromise on cleaning operations coming from bulkheads with pores that retain chemicals.”

When asked about carrying unusual cargoes or difficult sequencing that is now possible with MarineLine®, Mr. Kappelin explains that NST carries large volumes of ethanol in different grades around Europe. These are repetitive, consecutive voyage patterns that occur regularly. He says, “MarineLine® is very suitable for this since we are not faced with any scheduling constraints. Many of our COA (contracts of affreightment) volumes consisting of sensitive products would have to be restricted from stowage in tanks with other types of coatings. This does not happen with MarineLine®.”



## CHANGING A MARKET PERCEPTION

There is a message that NST is working to deliver that there is no difference between MarineLine® coated tanks and Stainless Steel tanks for cargo accessibility, and that basically all cargo volumes NST carries can be loaded on either Stainless Steel or MarineLine® ships.

Mr. Kappelin advises that NW Europe's chemical market has a past history of using Stainless Steel tankers. "But NST's long term trading history in this region, together with our documented superior historical coating condition is providing a very reliable alternative to Stainless Steel tanks," Mr. Kappelin states. "Our contract customers put faith in NST's ability to provide MarineLine® coated tanks for the products we regularly carry," he says, "and ship brokers in regular contact with NST will certainly verify that NST's tonnage quality is superior and that there are no operational constraints to be expected from our vessels' tank coating condition."

From an owner's perspective, NST has found that MarineLine® offers a more competitive price structure than Stainless Steel tonnage, which in turn provides a better long term investment return on the vessels. Furthermore, NST's MarineLine® ships enjoy improved cleaning, ventilation and drying time of the tanks when compared to stainless steel or phenol epoxy tanks. This has a direct positive impact on the voyage economics. "With an average of 60 voyages per year, per vessel, together with the ships in our large fleet, the overall result contribution is becoming very clear," he says.

## MARINELINE® IN THE FLEET

The majority of NST's current tonnage was constructed at Turkish shipyards, says Mr. Kappelin, while several shipyards in Korea and China were also used. MarineLine® was applied on those ships during newbuild construction. Going forward, Mr. Kappelin states that NST will only specify MarineLine® coating for its cargo tanks, and mentions that there are various new projects in place where MarineLine® will be a strategic part of the company's investment.

"Once you make a commitment to cargo tank coatings, taking care of them is important, Mr. Kappelin states. "Our crews use many different cleaning methods for our MarineLine® coated tanks, with guidance from our experienced operations team. The type of cleaning being applied depends on many variables," he says.

NST conducts routine maintenance inspections on its MarineLine® coatings. For minor repairs MarineMend Repair kits from Advanced Polymer Coatings are frequently used to ensure the ship maintains a 'good to perfect coating' at any time, working closely with crews to ensure attention to detail in all coatings repair. This close monitoring has paid off. NST's oldest MarineLine® coated vessel in service was built 2005 and today, 11 years later, the coating condition in all tanks is still "good to perfect," says Mr. Kappelin.

NST promotes MarineLine® to the industry highlighting its superior tank cleaning and acceptance record for the wide range of products that it carries on a regular basis. Mr. Kappelin says, "Our strategy is simple in this respect; to provide hassle free operations to our customers."