

# STENA PERFORMANCE MOORING LINES CASE STUDY

**Samson AmSteel®-Blue fits right in on Stena Performance, a P-Max class tanker designed for safety and performance.**



## Stena Performance replaces wire, reaps benefits

**OVERVIEW:** The Stena P-Max class of bulk tankers were built with proactive safety as a central design criterion. Double hull, optimal corrosion control, and redundant and separate systems for propulsion are vital safeguards for proactive safety. Maneuverability, an integrated bridge layout to facilitate safe navigation, and a dedicated, well-trained crew make good arguments that the P-Max class tankers are among the safest vessels sailing today. With this in mind, it's not surprising that the owners, Stena Bulk and Concordia Maritime would recognize the benefits of switching from wire rope to Samson's AmSteel®-Blue high-performance synthetic mooring lines.

**BUSINESS SITUATION:** The benefits—dramatically shorter mooring times, safer mooring operations, and significantly reduced maintenance and cleanup—appealed to both owner/operators and crew alike. Samson high-performance synthetic mooring lines also last significantly longer than the wire ropes they replace.

Some deck crewmembers had experience with AmSteel®-Blue mooring lines on other vessels. They were excited to hear that the lines were being replaced, and that the grease, "fish hooks," and long mooring times were to be a thing of the past.

**THE SOLUTION:** In February of 2008, Samson dispatched an application engineer and a field technician to the Stena Performance to replace the wire rope mooring lines with AmSteel®-Blue. The installation and crew training was scheduled to take place during a passage from St. Croix to Baltimore.

Mooring operations are faster as well as safer. Maintenance, cleanup, and re-lubing is virtually eliminated. Service life is at least 3 times that of similarly sized wire rope. That adds up to significant savings.



Long before the lines were delivered, one of Samson's sales engineers had surveyed the vessel to assess the deck hardware and determine what maintenance should be done before installation. The situation was typical: wire ropes had severely abraded the chocks, fairlead rollers, and the flanges on the split-drum winches. Grinding, needle scaling, and refinishing were required. By the time the vessel had arrived in Baltimore, four days later, the hardware had been cleaned up, resurfaced and repainted, wire had been removed from the winches, and the new mooring lines installed. The crew had been trained on handling the new lines, splicing, and maintenance. ([CONTINUED](#))



*TOP: Typical condition of the load barrel winches when working with wire rope.*

*BOTTOM: Typical chock before resurfacing.*



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THE STRONGEST NAME IN ROPE

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## *CONTINUED FROM OTHER SIDE*

Mooring in Baltimore was a revelation for the crew. What had taken as long as 2.5 to 3 hours at the same port in the past, took about 30 minutes. Lightweight AmSteel®-Blue lines could be sent ashore two at a time, rather than sending separate messenger lines for each line as required by the old wire ropes. Handling the lines was simple and safe, and after the ship was secured, with no grease to foul the decks and hardware, cleanup was nearly eliminated.

**KEY BENEFITS:** AmSteel®-Blue is a direct replacement—size for size—for wire ropes. At least as strong as the wire it replaces, AmSteel®-Blue weighs one-seventh as much. It actually floats. The benefits are obvious—reduced crew required to handle the lines, safer operations with dramatically reduced back injuries, and no dangerous “fish hooks” from broken strands. Mooring operations are faster as well as safer, maintenance, cleanup, and re-lubing is virtually eliminated. Service life is at least 3 times that of similarly sized wire rope. That adds up to significant savings.

To date, at least ten Stena Bulk and Concordia Maritime vessels have been outfitted or retrofitted with AmSteel®-Blue HMPE mooring lines. Stena Bulk and Concordia Maritime chose Samson AmSteel®-Blue to replace wire not only on the grounds of operational safety and a cleaner deck environment but also the dramatic effect on mooring times.

*For more information on Samson's complete line of high-performance ropes specifically designed for offshore applications, visit our website, [SamsonRope.com/offshore](http://SamsonRope.com/offshore), or contact our customer service department.*

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Aft winches, port side, with new AmSteel®-Blue mooring lines installed.



TOP: Drum surface after needle scaling.



BOTTOM: Resurfaced and repainted chock.

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