



CASE STUDY

Major 30,000 hour service schedule - Stena Lynx III

Key Parameters: Complete project on time as per original schedule. Itemise and record work completed to assist with manufacturers warranty and vessel insurance claims

Date: October 2008 to March 2009

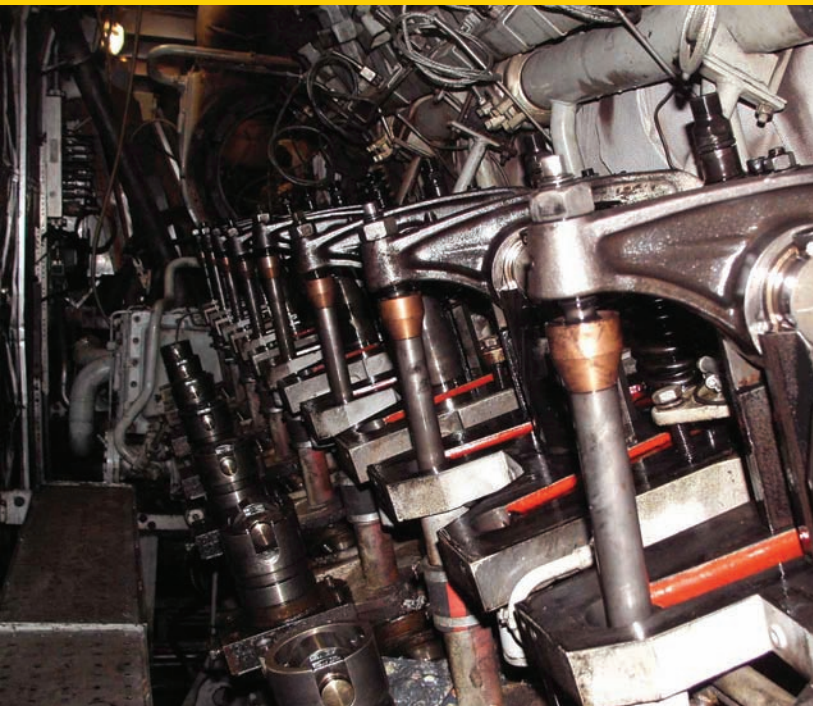
Project Description/Specification

In October 2008, following an initial tendered quote, GSE were contracted by Stena Line to complete major 30,000 hour service schedules onboard Stena Lynx III, during the vessels winter maintenance period whilst berthed in Dublin.

The award of the contract followed on from 2007 when GSE successfully carried out the first major overhaul of the Stena Lynx III, whilst the Vessel was undergoing refit at Northwestern Shiprepairers in Birkenhead.

The project specification detailed specific hourly routines to be completed during the service as per manufacturer's recommendations including; main bearing replacement, gear driven pump overhauls, removal of auxiliary drive casings to examine TV dampers and the replacement of cylinder heads, piston overhaul and charge air cooler service.

Major works included within the schedule included replacement of Christie and Grey engine mounts and subsequent re-alignment of main engine to gearbox. Along with in-depth overhauls of all gear driven pumps, which included re-machining of pump wear plates, metal spray shaft repairs and complete mechanical seal replacement.



“ All additional work carried out during the service was recorded and submitted to the customer as an itemised schedule, to assist with both insurance and manufacturers warranty claims. ”

Incorporated within the service schedule was specialist machining of the port outer engine entablature to accommodate fitting of oversize liners. Whilst machining was being undertaken, pistons and connecting rods from the engine were being examined prior to refitting into the engine. The NDT examinations highlighted serious fatigued defects with cracking of piston crowns, leading to the replacement of 51 Mahle pistons.

Additional defects found and rectified during key stages of the service included replacement of cylinder liners, exchange of cylinder heads and replacement of cylinder cutting rings. All additional work carried out during the service was recorded and submitted to the customer as an itemised schedule, to assist with both insurance and manufacturers warranty claims.

All service work, including initial engine starts and no-load bearing runs had to complete by March 2009, with the Vessel sailing from Dublin to A&P shipyard in Falmouth, to carry out scheduled hull fabrication works. During the delivery sailing GSE completed full power testing of the main engines, along with fine tuning of the governing systems. A comprehensive report was then produced detailing all significant stages during the overhaul schedule, listing all measurements and calibration data.

As one of the world's leading ferry companies, Stena Line are committed to quality servicing and maintenance of it's Vessels. In order to provide both private and freight customers with a reliable and cost effective service during peak season, machinery breakdown and failure is minimised with service support provided by GSE during maintenance periods. GSE also provide 24 hour service support at all times during the season.

