

Customer Military Vessel - Ship Repair Yard, NW
Sector Marine
Date January 2012
Ref no. 20025

APPLICATION EXAMPLE

Repairs to 42" engine cylinders

Situation

During a major re-fit of the vessel it was discovered that the engine block was passing water past the O-rings in each of the eight 42" cylinders. Cooling water had been passing the sealing face and contaminating the oil. Before the engine could be re-built the O-ring sealing faces had to be repaired.

Implication

The engine could not be brought back into service without the O-rings sealing properly. The only other alternative was to bring in a specialist "on site" machining company machine out the pitting and then to acquire new liners which would have run into tens of thousands of pounds.

Solution

The corroded rings (three in each cylinder) were blasted using a vacuum blast system to keep the dust to a minimum. Each O-ring sealing face was re-built using Resimac metal filled epoxy paste and left to cure. The cured material was then sympathetically hand dressed back to specification by highly skilled technicians.

Facts

Each cylinder had to be done independently due to lack of space for storage for the liners within the engine room. A works procedure was developed which embraced heating / post curing and working alongside the shipyards engineers to facilitate continuity of works and allow the completion of all 8 liners in 10 days.

