

## METAL STITCHING REPAIRS STRENGTHEN RELATIONSHIP METAL STITCHING REPAIR SAVES TIME FOR DREDGING COMPANY

Goltens received an enquiry from a local dredging company in Mussafah Abu Dhabi, to repair a badly damaged vibration damper cover on an MAN engine from a heavy-duty cutter suction dredger in the company's fleet. The cover had been inspected by the engine maker and deemed to be beyond repair and advised the cover be scrapped.

This was accepted by the owners however the lead time for a new cover was several months and they needed to attempt an emergency repair to have the vessel back in service to complete the ongoing operations.

The damaged cover was inspected and Goltens reported the results of its findings and proposed a repair procedure to metal stitch the cover.

Goltens' In-Situ specialists started by joining the larger parts together prior to metal stitching along the full length of the cracks. The finished stitching covered a length of 1.45 meters (57"). The stitching was then coated with a layer of Belzona to ensure the integrity of the unit.

With the stitching complete, the cover was delivered to Goltens' machine shop to check the dimensions after repair. The cover was mounted on a horizontal boring machine and dial gauges were used to check flatness and parallelism. The inspection showed the repair had left the cover slightly twisted with the hole pitches not matching the mating flange. The cover was skimmed on all machine faces to ensure parallelism and all the fastening holes were plugged and re-drilled and tapped.

### REPAIRS CONSISTED OF:

- Metal stitching 1.45 meters of damaged cover and surface coating repair with Belzona
- Plugging and re-drilling of fastening holes
- Finish machining to ensure parallelism and flatness

### RESULTS:

This scope was carried out over a 48 hour period and the cover was put into service on delivery back to client. After three month's of service the cover plate was still in operation while the original was being delivered from the maker.

### PROJECT FACTS: Metal Stitching Repair

Vessel Type: Heavy Duty Cutter Suction Dredger  
Engine Type: MAN B&W  
Surface Stitched: 1.45 meters (57").

