

Press Information

METALOCK'S IN-SITU ENGINE BEDPLATE REPAIR SAVES SHIPPING COMPANY 5 MONTHS WAIT FOR REPLACEMENT

Having discovered cracks in one of the main engine bedplate bearing pockets of the MV Aberthaw Fisher, the then owners James Fisher & Sons plc asked Metallock Engineering UK, Coventry if a repair was possible due to a new bedplate not being available for at least 5 months. This would have put the vessel out of commission for an unacceptable period.

Metallock engineers surveyed the damage and submitted proposals for repair which after some discussions and modifications were accepted by Lloyd's Register of Shipping, provided that subsequently they carried out regular inspections. Five years on the vessel, under new ownership, was still fully operational as a diamond mining vessel for Benguela Operations(PTY) Ltd in South Africa.

To effect the repair the damaged bearing pocket was cut out by chain drilling, machining and hand fitting to accept a steel insert. To provide maximum integrity the insert was machined from a single solid piece of steel to precisely match the shape formed in the bedplate, then fitted to ensure full contact on mating faces. It was secured into the bedplate using the well established Metallock cold stitching keys and studs technique.

Once the new bearing pocket was fully stitched into place, a portable milling machine was set up on the bedplate and the top of the insert machined flush to the joint face. At the same setting, the bearing cap joint faces were machined to size. With the new bearing cap fitted, a boring bar was optically aligned true the centreline of the undamaged bearing pockets and the new pocket line-bored to the correct diameter.

The repairs were completed and full engine tests including a two hour long full power trial were conducted. Following these successful trials the MV Aberthaw Fisher was returned to service and after a series of regular inspections by Lloyd's, eventually regained its full classification.



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Metallock Engineering UK

Unit H 5
Pilgrims Walk
Prologis Park
Coventry
CV6 4QG
England
Phone: +44 (0) 24 7636 0084
Fax: +44 (0) 24 7636 0190
E-mail: sales@metallock.co.uk
www.metallock.co.uk



REG IN ENGLAND NO: 469627

VAT. No. GB 646 9227 09