

Press Information

OFFSHORE SUPPLY VESSEL PROP SHAFT METAL SPRAYED BY METALOCK FOR A QUICK RETURN TO SERVICE

Using its metal spraying expertise Metallock Engineering UK has recovered a 6.5 metre long propeller shaft on an offshore supply vessel enabling a standard size split bearing to be used on reassembly rather than a special. The repair became necessary following a primary section journal failure on the 160mm diameter shaft.

The shaft was removed from the vessel and transported to a workshop in Suez, Egypt where it was set up in a lathe and checked for concentricity. The 250mm long bearing area was pre-machined down to 158.5 mm diameter and the surface fine sand blasted to prepare it for metal spraying. Once the surface was perfectly clean the adjoining areas were masked off and the bearing area metal sprayed to provide a 3mm deposit depth of Sulzer Metco SM8447 wire material. This material is a moderately hard, self bonding coating for hard bearing and wear resistant applications and was applied using an arc spraying technique. The shaft was then remachined under Metallock supervision and to prevent the sharp cutting tool damaging the outer edges of the sprayed material, turning was carried out from the centre of the bearing area outwards, left and right.

The options facing the vessel's operator were a new shaft, or machining the existing shaft to accept a smaller specially made bearing. Both could have taken weeks, time that the operators did not have. Having used Metallock before, there was no hesitation in contracting them to carry out the thermal spraying work. In the words of an operator spokesman, "We opted for the quickest route to recover the shaft and get the vessel back into service. Although we have used Metallock before, it has not been for this type of work, but we are very satisfied with the result".



The bearing area was metal sprayed to provide a 3mm deposit depth of Sulzer Metco SM8447 wire material, a moderately hard, self bonding coating for hard bearing and wear resistant applications.

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