

METALOCK CLOCKS UP ITS TENTH PROP SHAFT BRACKET LINE BORE FOR DUKE CLASS FRIGATES

Using two line boring set-ups to machine inboard and outboard propeller shaft 'A' bearing brackets simultaneously, Metallock Engineering UK has speeded up the procedure dramatically for Type 23 frigates at the Scotstoun shipyard for BAE SYSTEMS Marine. Since introducing this procedure, Metallock has line-bored brackets on five of the twin-screw frigates and two vessels for the Malaysian navy.

A predetermined datum was provided by the customer in the form of a taut piano wire from the centre of the engine drive shaft out through to the main 'A' bracket bore centre. The intermediate bracket(inboard) is about 12 metres from the stern gland seal and the larger main bracket(outboard), 20 metres. Using that datum, Metallock set up their two line boring machines enabling both bores to be machined at the same time.

In the new forged/fabricated 'A' brackets there was 50mm of green material to be removed from each bore and 40mm from each end face to give a length of 832mm for the intermediate bracket and 1658mm for the main. Finished bores were stepped to ease fitting of the bushes which were pulled into place. The intermediate steps from 685mm to 686.5mm and the main had two steps from 685mm through 686.5mm to 688mm diameter.

Support brackets to accept Metallock's boring bar assemblies were welded to the 'A' brackets. Four sets accommodated drive and support facilities to machine two brackets at a time and on completion of the procedure on one side of the vessel, assemblies were moved to the remaining pair of 'A' brackets.



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