EFFECT OF CORROSION RATE OF FISHERING BOAT PROPELLERS ON VARIOUS SEAWATER MEDIADISTANCE AND PROCESSING TIME ELECTROPLATING

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ABSTRACT

Electroplating is a method used to give certain properties to the surface of a workpiece where it is hoped that the object will experience improvement and resistance, especially to corrosion. This research is intended to protect boat components in the form of propellers as the main mover which has an important role in the boat when it is operated. This research was carried out using varying distances of 20 cm, 25 cm and 30 cm with a time of 15, 20 and 25 minutes. It was found that the corrosion rate value of the boat propeller specimen experienced the lowest weight loss after being soaked in 7 liters of sea water with a mixture of 350 ml of NaCl for a period of 336 hours. There was a variation in the cathode anode distance of 20 cm with a coating time of 25 minutes, experiencing a weight loss of 0 .01 gram and got a corrosion rate value of 0.871 mpy. The specimen that experienced the highest reduction was found at a cathode anode distance variation of 30 cm with a coating time of 15 minutes, a weight loss of 0.06 grams and a corrosion rate value of 5,226 mpy.

Keywords *: Boat propellers, Aluminium, Electroplating, Corrosion Rate*