ABSTRACT

GEARBOX FAILURE ANALYSIS OF CRADLE SHIP LOWERING ENGINE AT SLIPWAY DOCK

By

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PT. Indonesia Marina Shipyard has many facilities that can be used to repair a ship. The place is called Dock. Dock has some supporting facilities for ship repairing. One type of dock is Slipway dock.

Slipway dock is a tool to pull the hull from the sea to be brought to the dock. Slipway dock has a component such as diesel machine, electric motor gearbox, rope, cradle, and rail. Problems often occur when the ship was going down from the slipway, which is at Cradle towing boats and motor gearbox. At the time the ship will be deployed, gearbox receive a heavy burden. The burden of this ship cannot be detained by the teeth of the gearbox, causing the occurrence of misgear or do not stick between the teeth on the gearbox which allows the stagnated Cradle.

In the Field project has analyzed the cause of his slip-gear on the gearbox lowering engine cradle at slipway dock. This can be determined by the amount burden to be borne by the gears in gearbox. The cause of his slip gear on the gearbox is influenced by the load, service life of gearbox and lack of maintenance. Higher the load more higher of load that gearbox must be bear.

Keywords: gearbox, loads, gear