ABSTRACT

Farid Ainun Najib, 2018, NIT : 50134995.T "*Bevel helix gear damage analysis from mechanism system of anti-heeling pump on MV MOL Glide*", minithesis of Technical Program, Diploma IV Program, Merchant Marine Polythecnic Semarang, Supervising professor I: H. Amad Narto, M.Pd, M.Mar.E and Supervising professor II: Tony Santiko, S.ST, M.Si.

In the cargo operation process of full container ship's type, usually done by gentry at the port. The process of cargo operation can be done very quickly due to the operation of several gentry at one time. with the transfer of cargo by gentry, it certainly affects the balance of the ship. This is where the role of anti-heeling pump and automatic system plays, to balance the ship with the heel sensor readings in real-time. But on MV MOL Glide, pump performance was damage in the bevel helix gear that can't use for support the balance of the ship during cargo operation.

The research method used is the method of Strength, Opportunity, Weakness, Threat (SWOT), which is one method to pursue the factors that cause damage by determining factor weight, support, and urgency comparison, which is further detailed in the summary table of values for reference create an organizational map matrix. Data collection techniques are done through observation, documentation and literature study directly on subjects related to anti-heeling pumps.

The results obtained from the anti-heeling pump damage research are due to lack of maintenance and supervision of the pump operation, so that signs of damage are not realized and result in fatal damage. To overcome the above problems in order to perform that pump can operate normally there are need for serious improvement and supervision of Chief Engineer by increasing awareness, for the continuity and maintenance of pumps in the future, so that signs of damage that may be detected early.

Keywords : pump, anti-heeling, bevel helix gear.