ABSTRACT

Irfan Prihatinata, NIT : 51145414.T, 2018, "*Analysis of Vertical Shaft Component Damage on LO Purifier at MV. Suryawati*", script Technical Department, Program Diploma IV, Semarang Merchant Marine Polytechnic, Supervisor I: H. Suwondo, M.M., M.Mar.E., Supervisor II: Ir. Boedojo Wiwoho, S.J., M.T.

LO Purifier is auxiliary machinary that use for separate oil from water and sludge with high speed rotation principal works or it's usually called centrifugal force. Lubricating oil product of purification is accommodate in sump tankmain engine. If there is trouble in operational LO Purifier, it can effect the quality of main engine's lubricate. The damage to the vertical shaft component parts must be overhouled and maintenance of the purifier is carried out, especially on the vital part of the LO Purifier which is in the vertical shaft which is one of the main components of the purifier machining. Because of this it is necessary to have a rapid handling of interference to the vertical shaft LO Purifier components so that the quality of lubricating oil for lubrication of the main engine is maintained, namely by making improvements and maintenance to the components of the LO Purifier that are damaged according to the instruction manual book.

Considering the importance of function LO Purifier for quality of Lubricating main engine so this machinery must be treat as well as procedure. In this case the author uses the method fishbone and fault tree analysis, where this method to find the cause and effect of the problems and factors more dominant to be analyzed by using the analysis of fault trees to find out and how to overcome them.

By implementing that procedure, expected the operational system of LO Purifier works optimally so the quality of Lubricating main engine is mantained, voyage is safe and company doesn't lose cost that caused by disruption of ship operations. At the end of script, author presents suggestions and conclusion.

Key Words: LO Purifier, vertical shaft, oil quality lubricated, FISHBONE, FTA.