

## ABSTRACT

**Alfin Adiriyanto**, NIT, 49124562.T, 2017 *Analysis Of Water On Discharge Clean Oil Side In Lubricating Oil Purifier Mitshubisi SJ-10F In The MT. Lady Hilde*, Diploma IV Teknik, Merchant Marine Polytechnic Semarang, Supervisor I: H.Mustholiq, M.M.M Mar.E, Supervisor II : Capt. Sidrotul Muntaha, M.Si., M.Mar

Lubricating oil purifier used for separate the lube oil with solid and liquid impurities. The problems on lube oil is water contained on lube oil in discharge clean oil side purifier. The limitation water on lube oil in lubricating oil purifier must be less than 0,2%. The writer got the results of this weekly test water on lubricating oil increased 0,03-0,13% in two weeks. The results was still in normal condition, but to solve the problem of increasing water contained on lubricating oil in last two weeks the writer makes some water test on cleaned lubricating oil.

The results of weekly test were found some factors caused water on discharge clean oil side lubricating oil purifier. The result of this research reported that factors caused water discharge on clean oil side lubricating oil purifier mitshubisi sj-10f are less gravity disc, high temperature of purified lubricating oil, low throughput, large sealing water, and decreasing of bowl round.

Implications from water discharge on clean oil side in lubricating oil purifier mitshubisi sj-10f are hydrogen embrittlement, corrosion, decreasing of oil quality, aeration and lather formation, damaging film layer, and microbiology contamination. Those implications bring bad effect for auxiliary engine components. Auxiliary engine components can be damaged physiely. The efforts to prevent water discharges on oil side are using right gravity disc, regulating purified temperature accurately, setting throughtput correctly, setting amount of sealing water, using good quality water, and doing maintenance regularly. Additional, advices from this research are doing maintenance regularly and operating purifier based on manual book.

**Keywords:** Analysis, discharge clean oil side, lubricating oil purifier, fault tree analysis, MT. Lady Hilde.