RE-DESIGN OF PLUMBING SYSTEM
KM. MUSTHIKA KENCANA II

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Abstrac

The use of marine transportation vessels as generally need a relatively long travel time, and therefore required a good infrastructure and facilities, one of water supply system which can be sufficient and appropriate to serve the needs of a large passengers capacity.

PT. Dharma Lautan Utama has roro passenger ship which one of his ship is MV. Musthika Kencana II, with a capacity of 750 passengers and 42 cargo trucks and 35 small cars. MV. Musthika Kencana II has shipping route to Surabaya-Balikpapan-Batulicin.

The problem which raised in the MV. Musthika Kencana II is the clean water can not be used at any time by the passengers but only at certain hours, other than that in MV. Musthika Kencana II does not have a holding tank (waste water collection unit) as well as fire hydrant system that is inefficient.

To be able to meet the demand of fresh water needed to provide fresh water tank with a volume of 98.5 m³. Holding tanks are needed to accommodate the waste water is 5.13 m³ to 54.5 m³ and black water for grey water.

Re-design of plumbing system in MV. Musthika Kencana II. is expected to be a solution to the problems raised in the MV. Musthika Kencana II, owned by PT. Dharma Lautan Utama.

Keywords: MV. roro passengers, MV. Musthika Kencana II, sanitation systems, water supply system and waste water distribution, fire hydrant, plumbing.