

## ABSTRACT

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Distributor valve is functioning as a plunger regulator that works directly to move the piston through the air starting valve in the cylinder head. This air supply is obtained from an air vessel, so the air performs parallel work, in addition to adjusting to the distributor valve as well as for air start pushing the piston from TMA to TMB. Initial start air traffic systems used on the main engine on board generally use air systems, with high pressure pressurized air media. The pressurized air injection is carried out in the appropriate order of firing order for the required rotation direction. The air supply is stored in the air jar (bottles) that are ready for use at any time. Therefore, the valve distributor must be well maintained, so that the initial start process of operating the main engine can take place properly.

The method used in this thesis is the method of fishbone analysis and fault tree analysis as a method to determine the problem factors and events that exist in the problem. The formulation of the problem of this research is the factor of what causes the start failure on the diesel engine parent, what impact is caused, and what efforts are made to the problem.

Based on the results of this study it can be concluded that the cause of start failure in diesel engine is distributor valve not working not optimal which is caused by damage of seat starting air valve, wear piston ring and valve air in less wind bottle caused by damaged suction valve and press on compressor . By carrying out the correct and appropriate manual book procedures in the maintenance and repair of the passenger air system (distributor valve system). It is expected that the initial start system on the diesel engine does not fail and can work normally again. So that the shipping activities can run smoothly and the company does not suffer losses caused by disruption of ship operations. At the end of the thesis the authors present conclusions and suggestions.

**Keywords** : *Distributor valve system.*