

# ***NOISE ANALYSIS ON COOLING WATER PUMP HOUSING A MB23***

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## ***ABSTRACT***

*The cooling water pump is one of the vital components in the cooling system in the MB23 area which functions to maintain the optimal temperature in production equipment. However, an increase in noise levels was found in the Cooling Water A MB23 pump housing which could indicate potential mechanical damage or decreased pump performance. This study aims to analyze the source and level of noise in the pump housing and determine the main cause. The methods used include measuring the noise level using a sound level meter at several points around the pump housing, frequency spectrum analysis using vibration analysis software, and physical and mechanical inspection of the pump components. The results of the analysis showed that the noise level exceeded the set standard limits and was sourced from imbalance and wear on the bearing housing. The proposed improvement recommendations are to add meat and replace bearings that are no longer suitable for use. By implementing this recommendation, it is expected that the noise level can be reduced so as to increase work comfort and extend the service life of the pump.*

***Keywords:*** noise, cooling water pump, housing, noise analysis, MB23