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A REVIEW OF THE DEVELOPMENTS OF ORC AND ABSORPTION REFRIGERATION WASTE HEAT RECOVERY SYSTEMS FOR MARINE APPLICATIONS

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ABSTRACT

The utilization of the heat energy lost during combustion process is a critical problem for energy conversion for marine application. In the maritime shipping sector, around 50% of the energy supplied by the fuel is lost to the surroundings. Practical methods to save the energy lost have been investigated extensively to use the low-grade energy for power production, heat generation, and water desalination. In this paper, a review of the available waste heat recovery systems is presented, highlighting the common methods having higher energy utilization potential for marine applications. This study helps to outline the suitable waste heat recovery technologies that are suitable to use for each desired outcome onboard of naval ships, and achieve higher efficiencies.

KEYWORDS: *Absorption, Development, Maritime, ORC,Waste Heat Recovery*