

Abstract

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The Charge Air as a Primary Heating Fluid for Waste Heat Recovery from Diesel Engines

This paper aims at enhancing the power generated from waste heat recovery systems as a mean for decreasing fuel consumption. The use of the scavenge air as a heating fluid for waste heat recovery applications is introduced. A thermodynamic analysis was performed to study the effect of different operating pressures on the superheated steam yield, power output and dryness fraction. The improvement in efficiency and reduction in fuel and carbon dioxide emission were taken into consideration.