

Development of a Single Drive for the Accessories Components in IC Engine

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Abstract : Generally all the IC engines, alternators, air conditioner compressors, oil pumps and coolant pumps are driven by a crankshaft utilizing V-belt drivers. An increase in the number of idle pulleys results in the increase of frictional power. Further, components like idler and belt tensioner are also needed to run the belt drive which adds to the frictional power. The aspiration of this paper is to minimize the friction power by introducing a new system that could combine all the accessories in one shaft within a single casing. This is conceptualized to minimize the friction power, service and maintenance cost, space and also time. The validation of this work can be executed through a simpler drive transmitting power from the crank shaft.

Keywords : single drive, idler pulley, belt tensioner, friction power, casing, space and cost

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