

Auxiliary Power Units for Light-Duty Vehicles, Trucks, Ships, and Airplanes

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Ralf Peters

Abstract

The demand on electricity in mobile applications increases in nearly all future prospects. Reasons for such a development are electric devices for more comfort and a guaranteed energy supply during idling mode. Today combustion engines and turbo jet engines were applied as auxiliary power units (APU) on-board of trucks and air planes. Fuel cells are envisaged as an environmental friendly and high efficient energy conversion system for future systems. Usually for logistical reasons, APUs must use the same fuel as the main engine. This will be kerosene or JET A-1 for air planes and diesel for trucks and ships. This contribution will show the requirements of different applications and will give an overview about today's developments.

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