

APPLICATION STORY

Idle Trucks Are The Devil's Workshop

Did you know that an idling heavy duty truck (like an 18 wheeler) can consume over \$1,000 worth of fuel per month? Very often at truck stops all across America, they idle. They idle while the driver sleeps (so he can keep warm or cool). They idle so he can watch American Idol, keep a beer cold or listen to the Charlie Daniels band.

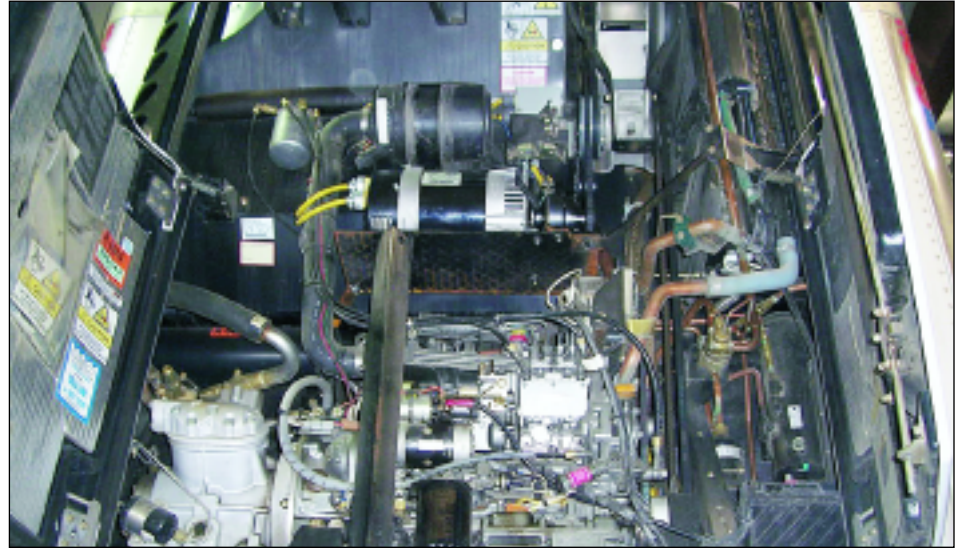
"The accessory . . . incorporates an Ogura electric clutch which is belt driven from the reefer's diesel engine."

Besides the fuel wasted, there's lots of pollution from the big diesel's exhaust.

What to do? There are several ideas out there, but one of the best now gearing up for production is a

device designed by RJM trucking. Randy McCombs, the company President, explains it this way:

Many over-road Class 8 trucks (18 Wheelers) carry "reefers". These are separate diesel engine powered refrigeration units mounted on the front/top of their trailers to keep foodstuff or beverages (beer) cold during transportation. RJM figured that these reefers already have the additional power plants needed to handle the small driver comfort loads. You see, if you just need to keep the driver comfortable, you don't need to have that big diesel running at idle all the time! His idea was to use the separate diesel powered reefer unit as the alternative power source. He designed a clutched AC generator accessory to attach to existing



Clutch Generator System Installed in Reefer

Carrier and Thermo King power reefer units. The accessory (shown here) incorporates an Ogura electric clutch which is belt driven from the reefer's diesel engine. When the big rig is stopping for the night and power is needed, it automatically switches on the electric clutch and AC generator, which draws very little additional power from the smaller reefer engine. Also Mr. McCombs points out that the reefers fuel is 48 cents per gallon less expensive than the big engines!



RJM AC Generator with Ogura Clutch

The device is coupled to a control box that will sense the conditions of the engine and ignition system to make sure the conditions are just right to deliver heat, TV or a cold beer to our overland trucker.

This box switches the Ogura clutch on and off as needed. When the truck engine is running, the clutch is powered down and there is no additional load on the reefer unit.

Key to the system is Oguras 515609 Mobile 12 VDC, high torque clutch. With its double pole, quad flux design and flexible mounting hub configuration, it is the perfect



Beta Test Platform

fit for RJM's custom pulley and the one inch AC generators input shaft.

These devices are in Beta testing on trucks across America's roads right now and scheduled for mass production soon. So far, with many tens of thousands of miles logged in, there have been no problems. Once RJM Trucking is satisfied that the devices will hold up for many hundreds of thousands of miles, that baby is going to hit the road in full production.

Ogura and RJM Trucking are doing our part to keep the air clean and to keep the devil out of business.