

PRODUCT INFO

N°: PI 002 PG 15

Date: the 07th of July 2015

PRODUCT FAMILY: ALL PRODUCTS
APPLICATION: POWER GENERATION

To: Sales Manager / Dealers

<u>SUBJECT:</u> HEATING OIL usage for FPT Power Generation engines with emission norm up to Stage IIIA



Dear all,

we inform you that the use of heating oil in complete accordance with the value prescribed by the EN590 fuel standard will guarantee and maintain high engine performance over time.

Heating oils covered by the latest version of the following specifications:

- DIN 51603-1 (Germany)
- ÖNORM C 1109 (Austria)
- SNV 181160-2 (Switzerland)

do not affect the engine performance during its life when the full properties are compliant with EN590 fuel standard.

Unique deviations from EN590 specs can be tolerated:

- Cetane number: min 45 (better values from 51 on)
- Fuel density: in the range of 810-850 kg/m3
- Sulphur content: no more than 500 ppm

For sake of clarity the operation with heating oil at the limit of the tolerated deviations could cause:



- engine misfiring (using a light heating fuel with a Cetane Number lower than 51)
- increase of fuel consumption as a consequence of the wider viscosity range if compared with standard diesel fuel
- startability problems at low temperature (below -10°C)

Storage advice:

- Tank Cleaning & Fuel Storage: in heating oil handling and storage please follow the guidelines explained in PD CEN/TR 15367-1:2014 norm "Petroleum products - Guidelines for good housekeeping. Even with top-quality heating oil, the fuel must not be stored in on-site storage tanks for more than 6 months.
- Engine long Inactivity: if storage periods longer than 3 months are necessary, the engine must run on pure Diesel fuel for 20 hours to flush the heating fuel out of the engine fuel system prior to storage. The same procedure has to be repeated at the end of every third month of storage.

Notice:

- 1) The use of heating oil or fuel must follow the rules of taxation in force.
- 2) FPT is not responsible for failures or damage resulting from The usage of heating oil not respecting the aforesaid norms and tolerated deviations,
- 3) The usage of heating oil not respecting the aforesaid norms and tolerated deviations will void the FPT engine warranty.

Best regards.