

NAME: TERMS OF VALIDITY OF TECHNICAL SPECIFICATIONS FOR  
TEDOM GAS ENGINES

This regulation contains notes, terms, and warnings necessary for accurate application of technical specification of a TEDOM stationary combustion engine.

## Notes:

1. Engine rating is measured and given in accordance with ISO 3046/1 (standard reference conditions: 25 °C (77°F) and 100 kPa (29.61 "Hg)
2. No overload for the engine rating given is allowed for the engines.
3. If the engines are used in higher altitudes or different climatic conditions, engine rating correction given in the technical specification needs to be used. If such corrections are not given in the specification, the rating needs to be converted to surrounding conditions in accordance with the ISO 3046/1 standard.
4. Fuel consumption figures are valid for standard reference conditions and reference fuel composition. Fuel consumption tolerance is +5 % of the full load data.
5. Engine efficiency figures given in the specification are deduced from stated fuel consumption, i.e. are valid for standard reference conditions and reference fuel composition.

For other than reference conditions, it is possible to verify the efficiency as follows:

$$Eta_{std} = \frac{P_{cor}}{Q_{pal} * Hu_{pal}}$$

$Eta_{std}$  ... efficiency in standard reference conditions

$P_{cor}$  ..... power corrected to standard reference conditions in accordance with ISO 3046/1

$Q_{pal}$  ..... real fuel consumption

$Hu_{pal}$  ... fuel heat power

Note: Correcting cannot express the impact of real fuel composition (different from reference composition) on the overall efficiency achieved.

6. The tolerance of heat transfer to both the cooling water and the exhaust pipe is ±8 % of the full load data
7. The tolerance of heat transfer to the gas aftercooler is ±8 % of the full load data.
8. The tolerance of heat transfer to the environment (via radiation) is ±25 % of the full load data.
9. The tolerance of heat transfer to the lubricating oil is ±20 % of the full rated load data. If the heat transfer to the lubricating oil = 0, the lubricating oil heat is included in the figure for heat transfer to the cooling water.

				REPLACES REGULATION:
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10. Heat transfer to the cooling liquid:
  - If the heat transfer to the lubricating oil = 0, then the heat transfer of the cooling liquid = cooling liquid heat + oil cooler heat.
  - If the heat transfer to the lubricating oil > 0, then the heat transfer of the cooling liquid = only the cooling liquid heat.
11. Heat performance figures are stated for standard reference conditions.
12. Listed emission productions represent maximal values of rated load. Depending on the fuel metering system used, engine re-tuning may be required for partial load operation. Consult special emission .settings with the manufacturer.
13. Sucked air temperature is measured on the inlet to the air filter.
14. Specification figures are valid for gas temperature of 25 °C on the mixer inlet.
15. Stated spark advance is valid for fuel with minimum specified methane number. For other methane numbers, the spark advance needs to be consulted with the manufacturer.
16. Unless stated otherwise, figures given in the specification are valid for 90 °C outlet temperature of the cooling liquid.
17. The values given in Technical Specifications apply for the new engine, i.e. for the engine into Technical attendance I (TA I) – see the Maintenance Plan.