Automotive, Marine, & Gen Set Conversion Data

Automotive rating to ISO 1585(DIN 7020)

The output specified by this maximum intermittent power which should be applied to highway vehicles where great of engine speed and load are required. In this category are trucks, buses, high-speed road rollers. etc
This power rating is not applicable to industrial applications, marine uses and other off-highway vehicles.
Daewoo vehicle catalogs and brochures are based on the above DIN standard and therefore the power ratings given do not apply to non-automotive uses.

Industrial intermittent rating to DIN6270B

The output specified by this rating is the maximum governed horsepower (i. e. maximum effective power) capable of performance an operating where some variances of engine speed and load condition are required for short periods (within one hour). The injection pump and governor are preset to a specified load and engine speed with no allowance for overload. Typical applications are wheel and crawler tractors, mechanical type excavators and power units for rock crushers and yarders.
Engine performance data contained in Daewoo industrial engine catalogs and technical manuals are based on the DIN standard.

Industrial continuous rating to DIN 6270A

The output specified by this rating about 90-95% of the above maximum governed horsepower. In this case, the output must be capable of performing a given operation with sustained load and engine speeds and continuously for a 24-hour period. The injection pump and governor are preset to allow a 10% overload. Typical application are pump units, compressor, refrigeration unit, hydraulic excavators, and low speed road rollers.

Gen Set Drive rating to ISO 3046

Prime : Output available with varying load for the duration of the interruption of the normal source power

Standby : Output available with varying load for a limited time

Marine rating to ISO 3046

(1) Heavy Duty

- Operation hours : unlimited per year, unlimited per day
- Average load application : up to 85%
- Percentages of time at full load : up to 50%

**Application : Fishing trawler, Tug boat, Pushing vessel, Cargo boat, Freighter, Ferry*

(2) Medium Duty

- Operation hours : up to 3,000hr per year, up to 10hrs per day
- Average load application : up to 70%
- Percentages of time at full load : up to 30%

**Application : Fishing trawler, Pilot boat, Escort boat, Passenger boat, Freighter, Ferry, Cruising vessel*

(2) Light Duty

- Operation hours : up to 2,000hr per year, up to 5hrs per day
- Average load application : up to 50%
- Percentages of time at full load : up to 20%

**Application : Fishing trawler, Pilot boat, Escort boat, Passenger boat, Freighter, Ferry, Cruising vessel*

Conversion data

1 hp = 0.7457 kW
1 PS = 0.98632 hp
1 hp = 1.01387 PS
1PS = 0.7355 kW
1 lbft = 0.138255 kgfm
1kgfm = 9.8066 Nm
760 mmHg = 1,013 mbar = 101.3 kPa
1 kgf/cm^2 = 98 kPa
1 cid = 16.38 cm^3
1 g/PS-h = 1.359 g/kW • h
1 lb/hph = 447.38 g/PS • h

$$T(Nm) = \frac{9549.3 \times P\ (kW)}{N\ (min^{-1})}$$

$$T(kgfm) = \frac{716.2 \times P\ (PS)}{N\ (min^{-1})}$$

$$T(lbft) = \frac{5252 \times P\ (hp)}{N\ (min^{-1})}$$