PURCHASE SPECIFICATIONS

FOR

CUMMINS KTA-50-G DIESEL ENGINES FOR LAND DRILLING RIGS

FOR

OIL RIG APPLICATIONS



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ISSUED BY

CONTROL EQUIPMENT ENGINEERING DIVISION BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL

CUMMINS KTA50-G GENERATOR DRIVE SPECIFICATIONS

BASIC FEATURES

4-Stroke Cycle, Turbocharged/Aftercooled, V-16 Cylinder Diesel Engine.

1800 RPM Engine Output

Standby Power Rating 1490 BHP [1112 kWm*]
Prime Power Rating 1350 BHP [1007 kWm*]
Continuous Power Rating 1180 BHP [880 kWm*]

1500 RPM Engine Output

Standby Power Rating 1300 BHP [970 kWm*]
Prime Power Rating 1180 BHP [880 kWm*]
Continuous Power Rating 1020 BHP [761 kWm*]
Refers to gross power available from engine, not generator set.
Bore and Stroke 6.25x6.25 in. [159x159 mm]
Displacement 3067 cu. in. [50 L]
Lube System Oil Capacity 38.5 U.S. gal. [146 L]
Coolant Capacity 40.5 U.S. gal. [153 L]
Net Weight with Standard
Accessories, Dry 11,470 lb. [5200 kg]
Approx. Overall Dimensions:
Width 51.1 in. [1298 mm]
Length 108.8 in. [2764 mm]
Height 65 in. [1651 mm]
Bypass filters are included in total.

RATING GUIDELINES:

Standby Power Rating is applicable for supplying emergency electric power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Standby Power rating. **Prime Power Rating** is applicable for supplying electric power in lieu of commercially purchased power. Prime Power is the maximum power available at variable load for an unlimited number of hours. A 10% overload capability is available.

OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

The engine may be operated at:

- 1800 RPM up to: 5000 ft. [1525 m] and 104 °F [40 °C] without power deration.
- 1500 RPM up to: 5000 ft. [1525 m] and 104 °F [40 °C] without power deration.

For sustained operation above these conditions derate by: 4% per 1,000 ft. [300 m] and 1% per 10 $^{\circ}$ F [2% per 11 $^{\circ}$ C].

PERFORMANCE:

Standard Conditions:

Data Shown Above Are Based On:

- Engine operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer; not included are battery charging alternator, fan and optional driven components.
- Engine operating with diesel fuel corresponding to grade No. 2D per ASTM D975.
- ISO-3046, Part 1, Standard Reference Conditions of: 29.53 in. Hg. [100 kPa] barometric pressure (361 ft. [110 m] altitude), 77 °F [25 °C] air temperature and a relative humidity of 30%.