

SPECIFICATION OF 1500 hp ENGINE :

Engine Type	: 12 Cylinder, 4-stroke, V-90 configuration, Turbocharged, Intercooled, CRDI system, liquid cooled Diesel Engine
Swept Volume	: 25 dm ³
Rated Power	: 1103 kW as per ISO 1585 (w/o fan)
Torque backup (min)	: 18% at 60%-65% of rated engine speed
Maximum allowed rated speed	: 2800 rpm
Power at 50% rated speed (min)	: 610 kW
Power at idling speed (min)	: 140 kW
SFC at peak torque speed	: 210 g/kWh (max)
Continuous over speed	: 110% of rated speed
Instantaneous over speed	: 125% of rated speed
Engine Dimensions	: Engine with all its constituents will have the following dimensions: Length : 1910 mm Width : 1025 mm Height : 1140 mm
Engine Life (for Qualification)	: 400 hours as per Driving Cycle (Details as given in Annexure - 'D')
Engine Life (before overhauling)	: 1200 hrs as per the operating profile given at Annexure - 'E'.
Fuel	: Diesel DHPP-A
Oil Sump	: Dry sump
Permissible inclination of Engine during Tilt test	: 35° in any direction. Engine should be able to stop for any duration and start under these inclinations.
Dry weight	: 2300 kg
Starting method	: Electrical and Air starting
Generator Output	: 40 kW (28V)

Smoke	:<0.6 FSN under standard full load condition <1.5 FSN under all conditions (Excluding transients) <4.0 FSN during transients
Fuel Injection system	: CRDI system

Engine Performance parameters are shown below.

Engine Speed	Power	Torque	BMEP
rpm	kW	Nm	bar
2600	1103.00	4051.11	19.56
2400	1093.29	4350.07	21.00
2200	1046.24	4541.29	21.93
2000	981.16	4684.69	22.62
1700	850.95	4780.00	23.08
1560	780.92	4780.30	23.08
1300	610.00	4480.82	21.64
1000	300.00	2864.79	13.83
800	140.00	1671.13	8.07