

697 CPCB II 81.5 KW ENGINE SPECIFICATIONS		
ENGINE CATEGORY(Domestic/Imported)		Domestic
GENSET CATEGORY(Constant Speed/Variable Speed)		Constant Speed
NAME AND ADDRESS OF THE ENGINE MANUFACTURER (Type Approval Certificate Owner)		M/s TATA MOTORS LIMITED.
ADDRESS OF THE MANUFACTURING PLANT/S		Pune
1	ENGINE	
1.1	Engine Type	Compression Ignition, Direct Injection
1.2	Engine Layout (INLINE/V)	INLINE
1.3	Type of Aspiration	Turbocharged & Intercooled
1.4	Working principle (Four-Stroke/Two-Stroke)	Four-Stroke
1.5	Emission Compliant	CPCB-II
1.6	Bore (mm)	97
1.7	Stroke (mm)	128
1.8	Number of Cylinders	6
1.9	Firing Order	1-5-3-6-2-4
1.10	Engine Displacement (l)	5.7
1.11	Type of fuel used	Diesel
1.12	Gross Rated Power (kW)	81.5
1.13	Rated Speed (RPM)	1500
1.14	Frequency (Hz)	50
1.15	Max No Load Speed (rpm)	1590 ±15
1.16	Piston Speed (m/s)	6.4
1.17	Over load Capability	10% Overloading capability
1.18	Compression Ratio (With Tolerance)	17.5 : 1
1.19	Type of combustion chamber (Hemispherical / squish/others)	Re-Entrant Toroidal Type
1.20	Max. Dry Weight kg	500 kg appx
1.21	Max. Wet Weight kg	520 kg appx
2	COOLING SYSTEM	
2.1	Type	Liquid cooled
2.2	Nature of liquid and proportion	Water : Coolant (50:50)
2.3	Circulating pump yes/no	Yes
2.4	Circulating pump type	Centrifugal

2.5	Drive ratio	1.34 : 1
2.6	Thermostat type and setting	SOT 88°C ± 2°C
2.7	Minimum CAP Pressure (Psi)	7
2.8	Max. Top tank temperature	100° C
3	LUBRICATING SYSTEM	
3.1	Type of lubrication	Forced Lubrication
3.2	Minimum oil pressure	1
3.3	Minimum oil pressure	8
3.4	Maximum oil temperature	125° C
3.5	Oil sump capacity low	12
3.6	Oil sump capacity high	14
3.7	Total system oil capacity	15.5
3.8	Lubricating oil grade	SAE 15W40 CI4 +
4	AIR INTAKE SYSTEM	
4.1	Air filter type	Dry Type
5	FUEL SYSTEM	
5.1	Type of injection System	Mechanical Inline
5.2	Make	Bosch India Ltd
5.3	Injection timing deg BTDC (specify tolerance)	09 deg ± 1 BTDC
5.4	Governor	
A	Type	Bosch Mechanical- RSV type
6	ELECTRICALS	
6.1	Starter Motor Type/Voltage	Positive engagement /12 V
6.2	Charging Alternator Specifications	12 V
7	COLD START	
7.1	Cold start capability	Min. 5° C to be assessed through trials