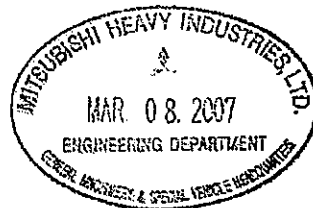


SPECIFICATIONS

MITSUBISHI HIGH SPEED DIESEL ENGINE
 MODEL MITSUBISHI S3L2-W463 KL

FOR REFERENCE ONLY

Expected specifications for EPA Tier 4A



DATE Feb. 19. 2007

MITSUBISHI HEAVY INDUSTRIES, LTD.

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		T. Yamada	R. Nagase	A. Izaka

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1. Principal Particulars of Diesel Engine

General Specification

Standard	All items, unless otherwise specified, are in accordance with JIS and maker's standards	
Model	Mitsubishi S3L2 S3L2-W463KL MHI No. 31B00-01890	
△ Regulations	EPA Interim Tier4	
Type	4 cycle water-cooled, vertical overhead valve, cylinder in line, swirl chamber type	
Number of cylinders	3	
Bore × Stroke	78mm × 92mm	
Piston displacement	1.318 liters	
Compression ratio	22 : 1	
Rotation	Anti-Clockwise rotation as viewed from flywheel side	
Firing order	1-3-2	
Engine weight(Dry)	Approx. 136kg	
Dimensions(Length)	Approx. 548mm	
(Width)	Approx. 440mm	
(Height)	Approx. 615mm	
Inclination(Continuous)	15°	
(Temporary)	30°(Max 30 min.)	
Fuel	ASTM diesel fuel oil No.2-D(JIS K2204 gas oil specification No.2 or 3)	
Lubricating oil	API classification service CD class	
Output(Without fan)	Spec.Rating	Rating at delivery
Rated Power	17.4 ± 0.8kW/2200rpm	16.5 ± 0.8kW/2200rpm
Max.Torque	78.4 ± 4N·m/1800rpm	74.5 ± 4N·m/1800rpm
Fuel consumption	260 ± 8%g/kWh	280 ± 8%g/kWh
Low Idle	1160 ± 25rpm	
High Idle	2400 (+30,-25)rpm	
Rating conditions	ISO 3046, without fan	
	Total barometric pressure: 100kPa	
	Air temperature : 298K	
	Relative humidity: 30%	
Oil consumption	Within 2.7g/kW-h {2.0g/PS-h}	
Fuel injection timing	17° BTDC	
Mean effective pressure	0.73MPa {7.4kgf/cm ² }	
Piston speed	6.7m/s at 2200rpm	

Fuel system

Fuel injection pump	BOSCH type
Fuel injection nozzle	Throttle type
Governor	Mechanical centrifugal type
Fuel filter	Filtering paper type
Min. required fuel feeding head	100mm
Max.static head of leak	200mmHg

Lubricating system

Lubricating system	Forced circulation by trochoid pump
Lubricating oil filter	Filtering paper type, full flow
Oil pressure	0.29MPa~0.39MPa {3~4kgf/cm ² } at duty run 0.098MPa {1.0kgf/cm ² } min. at low idling
Oil capacity	Approx. 6.4 liters (Oil pan high level 5.9 liters, Oil filter etc. Approx. 0.5liters, High ~ Low Approx. 2.7 liters)
Oil dipstick	Standard dipstick
Oil pressure switch	Yes

Cooling system

Cooling system	Forced circulation of fresh water by centrifugal pump with thermostat
Engine water capacity	Approx. 1.8 liters
Cooling fan	Yes; 380mm diameter, 7 blades, suction, F-type
Water pump pulley	PCD 96mm
Pulley ratio	1.21(Crankpulley : Water pump pulley = 116 : 96)
Fan spacer	10mm thickness
Water temp. switch	Yes
Thermo. Unit	No
Thermostat	Open at 76.5deg.C - full open at 90deg.C

Electrical system

Alternator	12V - 50A
Voltage regulator	IC type (Built in alternator)
Regulator set voltage	14.7 ±0.3
Alternator pulley	PCD 65mm
Starting system	Electric starting
Starter motor	12V-1.7kW
Glow plug	10.5V, 9.7A x3
Engine shut off system	Electric solenoid (ETR)

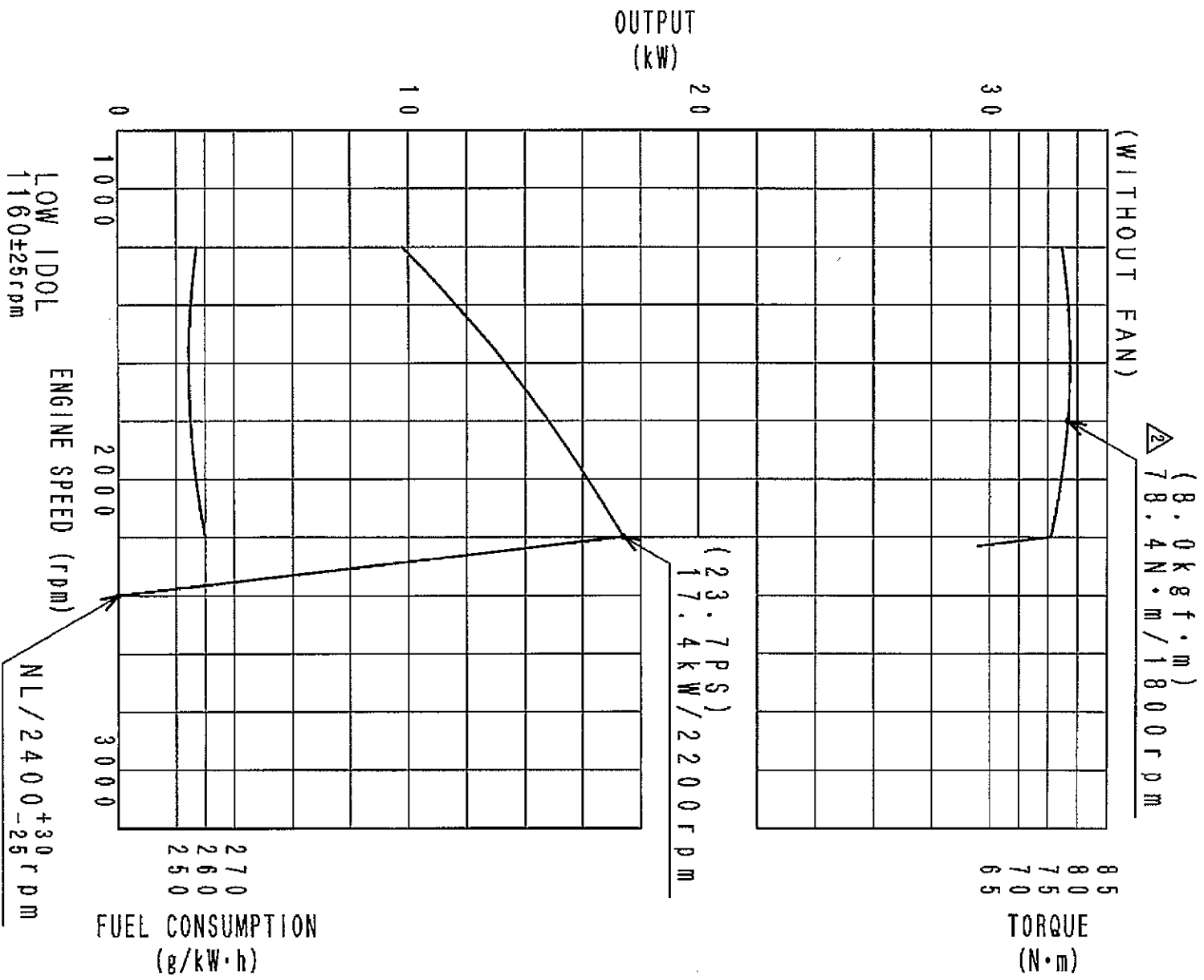
Intake and Exhaust system

Intake manifold(cover)	Upper side way
Exhaust manifold	Rear side way
Induction Resistance	Max 1.96kPa{0.2mH ₂ O}
Exhaust Back Pressure	Max 6.57kPa{0.67mH ₂ O}

<Remarks>

Engine color	Black(MHI standard color)
Flywheel	SAE #7-1/2
Flywheel housing	SAE #5
Clutch bearing	No

MITSUBISHI DIESEL ENGINE
 MODEL S3L2-W463KL
 PERFORMANCE CURVE



ISO 3046 Total barometric pressure : 100kPa
 Air temperature : 298K
 Relative humidity : 30%

