

# SPECIFICATIONS

MITSUBISHI HIGH SPEED DIESEL ENGINE  
MODEL MITSUBISHI L3E-W26ADMA

For *REFERENCE*

APPLICATION  
FOR APPROVAL



PLEASE RETURN AFTER APPROVAL

APPROVED		REMARKS		
DATE · SIGNATURE				
DATE Feb. 28. 2007 MITSUBISHI HEAVY INDUSTRIES, LTD.				
CHG	DATE	APPROVED	CHECKED	DRAWN
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△	Mar. 17. 2008			

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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 L3E L3E-W26ADMA (MHI No. 30L00-06460)	
△ Regulations	EPA & CARB Tier2 certified (Marine engine) Engine Family; 8MVXL01.0M2B First character "8" is the "Model Year" Engine code; "L3E-A 20kW" 94 /25/EC as amended by 2003/44/EC Engine type; "L3E-A 20kW"	
Type	4 cycle water-cooled, vertical overhead valve, cylinder in line, swirl chamber type	
Number of cylinders	3	
Bore × Stroke	76mm × 70mm	
Piston displacement	0.952 liters	
△ Compression ratio	22 : 1	
Rotation	Anti-Clockwise rotation as viewed from flywheel side	
Firing order	1-3-2	
Engine weight(Dry)	Approx. 85kg	
Dimensions(Length)	Approx. 504mm	
(Width)	Approx. 392mm	
(Height)	Approx. 504mm	
Inclination(Continuous)	25°	
(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 CF or CH-4 class	
Output(Without fan)	Spec. Rating	Rating at delivery
	Breaking in around 50hr	Breaking in around 0.25 hr
Rated Power	20.0kW {26.8HP}/3600rpm	19.0kW {25.5HP}/3600rpm
Rating tolerance	±5% of nominal	
Fuel consumption(Without fan)	292g/kW-h {215g/HP-h}	321g/kW-h {235g/HP-h}
Tolerance	±8%	
Low Idle	900(+50,0)rpm	
High Idle	3800(+30,-10)rpm	
Rating conditions(Without fan)	ISO 3046	
	Total barometric pressure : 100kPa	
	Air temperature : 298K	
	Relative humidity : 30%	
Oil consumption	Within 2.7g/kW-h {2.0g/HP-h}	
Fuel injection timing	19°BTDC	
Mean effective pressure	0.70MPa {7.1kgf/cm <sup>2</sup> }	
Piston speed	8.4 m/s at 3000rpm	

**Fuel system**

Fuel injection pump	BOSCH type
Fuel injection nozzle	Throttle type
Governor	Mechanical centrifugal type
Fuel filter	No
Fuel pump	Mechanical type
Min. required fuel feeding head	100mm
Max.static head of leak pipe (return)	200mmHg

**Lubricating system**

Lubricating system	Forced circulation by gear pump
Lubricating oil filter	Filtering paper type, full flow
Oil pressure	0.29MPa~0.39MPa{3~4kgf/cm <sup>2</sup> } at duty run 0.098MPa{1.0kgf/cm <sup>2</sup> } min. at low idling
Oil capacity	Approx. 3.6 liters (Oil pan high level 3.1 liters,Oil filter etc. Approx. 0.5 liters, High ~ Low Approx. 1.3liters)
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	No
Water pump pulley	PCD 87mm
Pulley ratio	1.26 ( Crankpulley : Water pump pulley = 110 : 87 )
Fan spacer	No
Water temp. switch	Yes
Thermo. Unit	No
Thermostat	Open at 71.0deg.C - full open at 85deg.C(loose supply)

**Electrical system**

Alternator	No
Starting system	Electric starting
Starter motor	12V-1.2kW
Glow plug	10.5V,9.7A x 3
Engine shut off system	Electric solenoid (ETS)

**Intake and Exhaust system**

Intake manifold(cover)	No
Exhaust manifold	No
Induction Resistance	Max 1.96kPa{0.2mH <sub>2</sub> O}
Exhaust Back Pressure	Max 6.57kPa{0.67mH <sub>2</sub> O}

**<Remarks>**

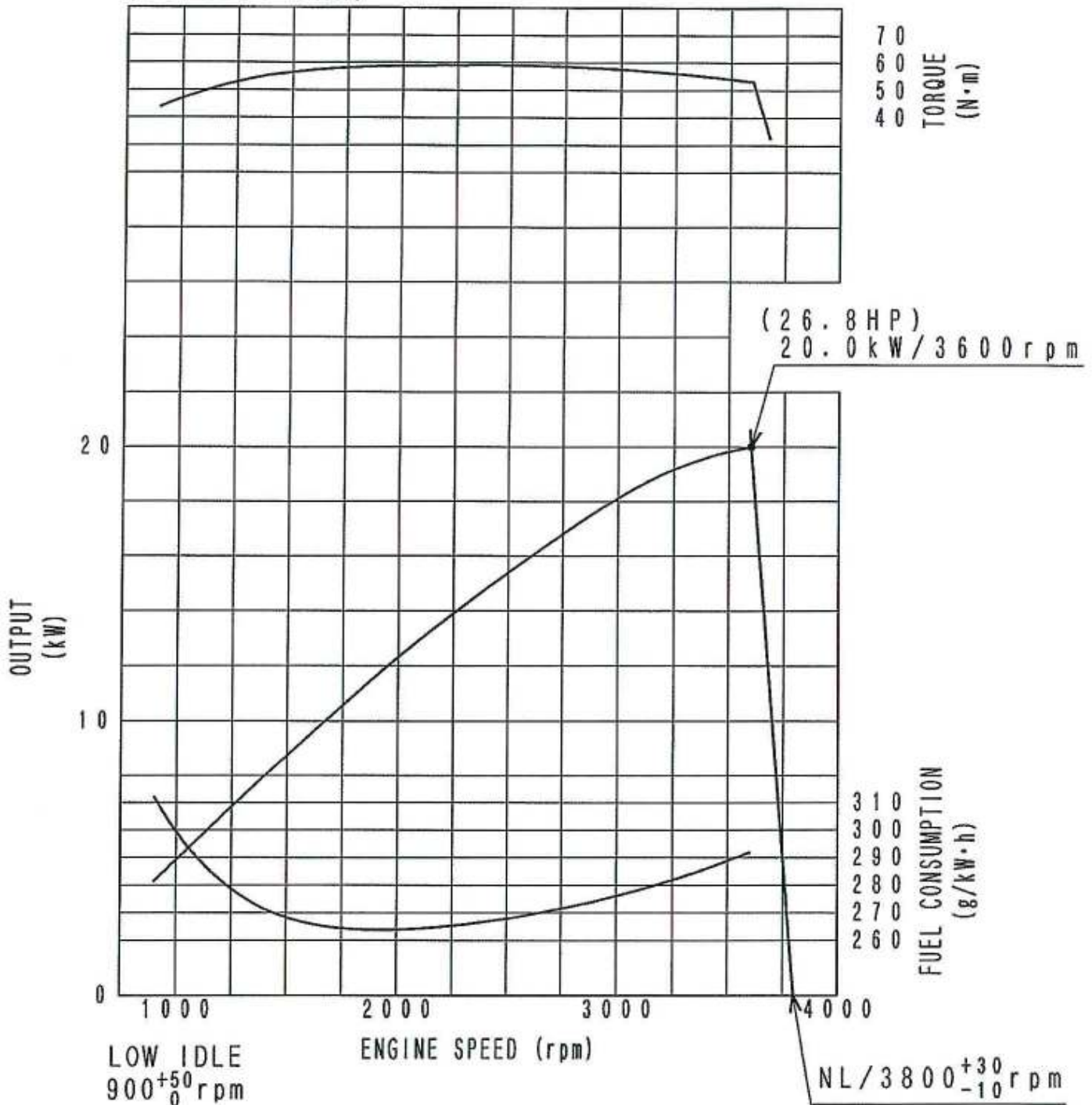
Engine color	Black(MHI standard color)
Flywheel	Yes
Flywheel housing	No
Rear plate	Yes
Side gear PTO	Allowable torque 15.6N-m{ 1.59kgf-m} total of front and rear, Clockwise rotation as viewed from flywheel side, Gear ratio 1:0.867 Gear speed(rpm)=26/30×Engine speed(rpm)

**2. Accessories ( Loose Supply )**

	<b>Parts Name</b>	<b>Parts No.</b>	<b>Q'ty</b>	<b>Remarks</b>	
1	SWITCH,OIL PRESSURE	31A90-00600	1	Attached To Engine	A4
2	SWITCH, THERMO	MM432-104	1		A4
3	SOLENOID ASSY	30L87-00060	1		A4
4	GASKET, EX.MANIFOLD	30L32-03200	1		A4
5	THERMOSTAT(71)	MM432-43901	1	MM432-07801	A4
6	GASKET, THERMOSTAT	MM432-13502	1		A4

MITSUBISHI DIESEL ENGINE  
 MODEL L3E-W26ADMA  
 PERFORMANCE CURVE

(WITHOUT FAN)



ISO 3046

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



