

SPECIFICATIONS

MITSUBISHI HIGH SPEED DIESEL ENGINE
MODEL MITSUBISHI S4S

(FORKLIFT TRUCK)

**FOR REFERENCE
ONLY**



DATE July.17.2003

MITSUBISHI HEAVY INDUSTRIES, LTD.

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CHG	DATE	APPROVED	CHECKED	DRAWN
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			J. Fujisawa	

1. Principal Particulars of Diesel Engine

Standard	All items, unless otherwise specified, are in accordance with JIS and maker's standards
Model	Mitsubishi S4S (MHI No. 32A00-02970)
Type	4 cycle water-cooled, vertical overhead valve, cylinder in line, swirl chamber type
Number of cylinders	4
Bore × Stroke	94mm × 120mm
Piston displacement	3.331 liters
Compression ratio	22:1
Rotation	Anti-Clockwise rotation as viewed from flywheel side
Firing order	1-3-4-2
Output(JIS D0006, Without Fan) (Without Balancer)	Max ; 42.3 ± 1.9kW/2300 ⁰ ₋₁₀₀ rpm Max. Torque: 183 ⁺³ ₋₁₀ N · m/1800rpm (High idle 2460 ± 30rpm) (Low idle 750 ± 20rpm)
Engine weight(Dry)	Approx. 245kgf
Dimensions(Length)	Approx. 651mm
(Width)	Approx. 558mm
(Height)	Approx. 710mm
Inclination(Continuous)	15°
(Temporary)	20°

Fuel	ASTM diesel fuel oil No.2-D(JIS K2204 gas oil specification No.2 or 3)
Lubricating oil	API classification service CD,CF-4 class
Fuel consumption	Approx. 252g/kW · h at standard air conditions
Oil consumption	Within 2.7g/kW · h(2.0g/HP · h)
Fuel injection timing	5° BTDC at 0.5mm CAM LIFT of Inj. Pump
Speed regulation	Steady state speed regulation at rated speed, within 13%
Mean effective pressure	0.66MPa
Piston speed	9.2m/s at 2300rpm
Fuel injection pump	Distributor type
Fuel injection nozzle	Throttle type
Fuel filter	Filtering paper type
Lubricating system	Forced lubrication by trochoid gear pump
Lubricating oil filter	Filtering paper type, full flow
Oil pressure	0.19~0.39MPa(2~4kgf/cm ²) at duty run 0.1MPa(1.0kgf/cm ²) min. at low idling
Oil capacity	10 liters (Oil pan 9 liters, high level, Oil filter etc. 1 liters)
Cooling system	Forced circulation of fresh water by centrifugal pump with thermostat
Engine water capacity	Approx. 5.5 liters

Alternator	12V - 50A
Voltage regulator	IC type (Built in alternator)
Starting system	Electric starting, Starting moter 12V-2.2kW, With heater plugs 10.5V-9.7A
Eng. stop solenoid (Rated) (Fuel cut-off valve)	12V
Resistance	8Ω (at 23°C)
Closing circuit voltage	Min 6.3V (at 23°C)
Opening circuit voltage	Max 2.5V (at 23°C)
Fuel inlet depression	Within ±15kPa
Allowable Exhaust Back Pressure	Max 6.7kPa(50mm mercury)
Allowable Air Intake Resistance	Max 1.96kPa(Max.200mm water) (Initial stage)
Engine color	Clear lacquer

<Remarks>

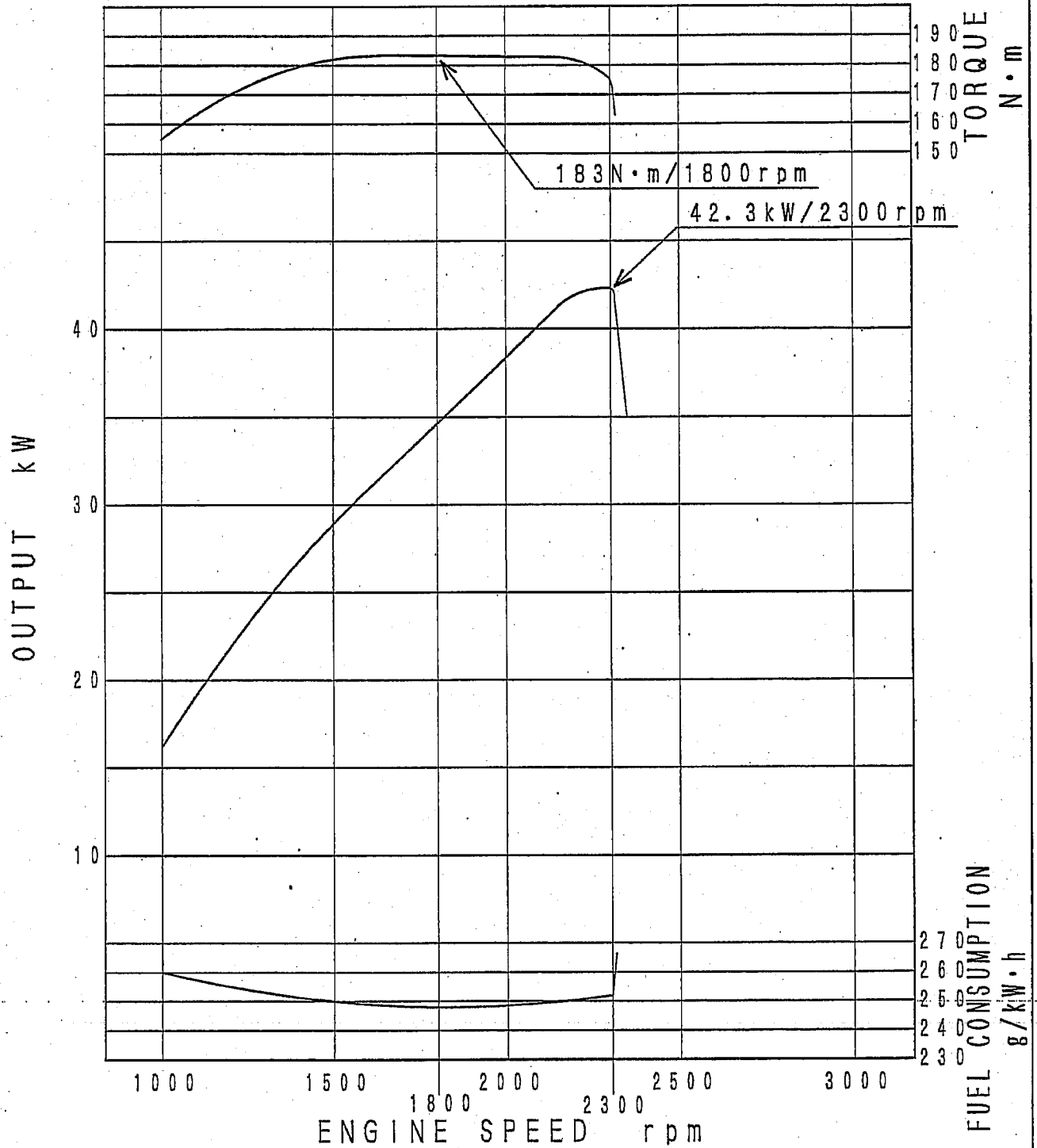
①with Switch, Oil Press. (MM130-066 ... 1)

2. Accessories (Loose Supply)

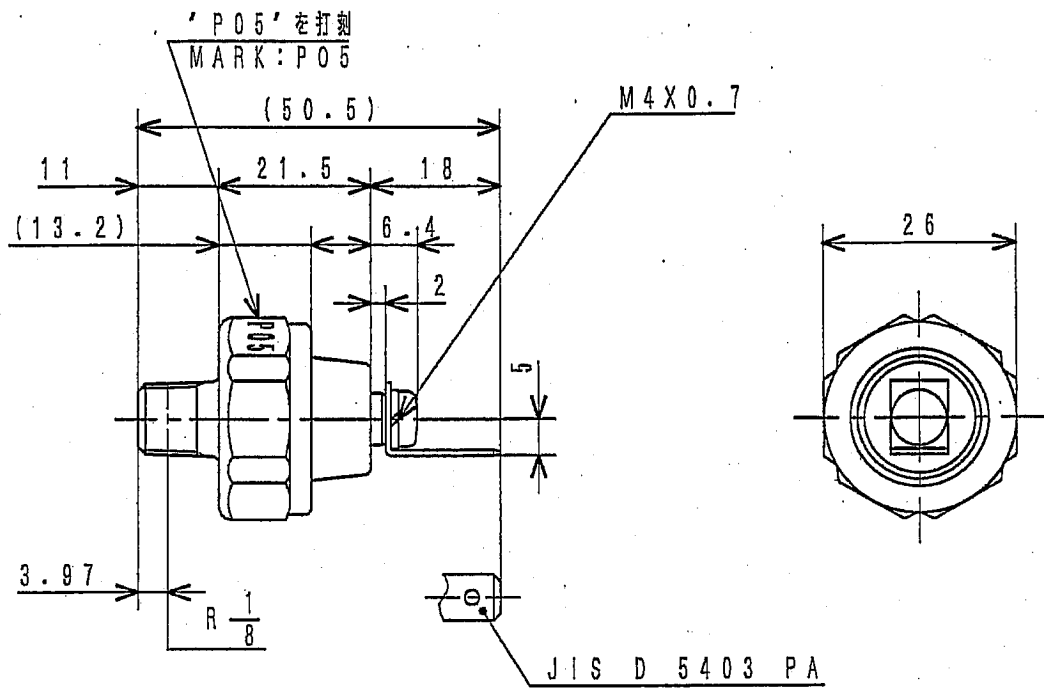
	Parts Name	Parts No.	Q' ty	Remarks
1	SWITCH,OIL PRESSURE	MM130-066	1	Attached To Engine

MITSUBISHI DIESEL ENGINE MODEL S4S PERFORMANCE CURVE

JIS D0006
WITHOUT FAN
WITHOUT BALANCER



PFC-S4S-138



仕様
SPECIFICATIONS

作 動 圧 力 OPERATING PRESS.	49 kPa {0.5 kgf/cm ² }
作 動 電 圧 OPERATING VOLT.	12 V - 5 W 24 V - 5 W

油圧スイッチ
SWITCH, OIL PRESSURE

MM130-066