

Rev.

# ENGINE SPECIFICATIONS

Engine Model	<u>Base Model</u> <u>4JG1</u>
	<u>Model No.</u> <u>4JG1TPW-01</u>
Customer	<u>Export Standard</u>
Application	<u>General Industrial</u>
Drawing No.	<u>E3-1039-011-1</u>
Emission Regulation	<u>EPA Tier-2, EC Stage- II</u>

Revision	Date	Revision Record	Issue No.
0	: 14-Jul-08	: Issued	:
	:	:	:
	:	:	:
	:	:	:

ISUZU MOTORS LIMITED	Approval	Check	Issue
Sales Engineering Group	<u>S. NOGAMI</u>	<u>H. Harada</u>	<u>K. Sanada</u>
Powertrain Business Division	Satoshi Nogami	Hideaki Harada	Kaoru Sanada
	Group Leader	Manager	Staff

**Engine Specification**

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Manufacturer	ISUZU MOTORS LIMITED		
Engine Model	Base Model	4JG1	Model No. 4JG1TPW-01
Application	General Industrial		
Engine type	Four cycle, water cooled, direct injection type, over head valve type		
No. of cylinders - bore x stroke	4 Inline - 95.4 mm x 107.0 mm		
Total piston displacement	3.059 liter		
Compression ratio	18.1		

Engine performance	Rating
Conditions	: Standard atmospheric condition
	: Breaking time 30 hours
	: With AC generator No load
	: Without air cleaner and exh. Silencer, and cooling fan
Rated output	: $62.5 \pm 1.3 \text{ kW} / 2500 \text{ min}^{-1}$
Maximum torque	: $263 \pm 13 \text{ Nm} / \text{Approx. } 1800 \text{ min}^{-1}$
Fuel consumption (at rated output power)	: $245 \pm 13 \text{ g} / \text{kW.h}$
High idle speed	: $2775 \pm 25 \text{ min}^{-1}$
Low Idle speed	: $1150 \pm 25 \text{ min}^{-1}$
Type of fuel	: Diesel fuel ( JPN:JIS-NO.2, US:ASTM-2D, EU:EN590 )
Engine dry weight	: Approx. 271 kg
Engine Dimensions (L x W x H)	: 811.5mm x 595.5mm x 778.6mm ( without Fan )
Firing order	: 1 - 3 - 4 - 2
Rotating direction	: Clockwise viewed from cooling fan side
Valve device	: Overhead valve

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Aspiration	:	Turbocharged
Fuel device	:	Injection pump, Bosch In-line type
Injection nozzle	:	Multi-hole type
Governor	:	Centrifugal variable speed type
Fuel feed pump	:	Plunger type, Integrated in injection pump
Fuel filter	:	Paper element type
Lubrication device	:	Trochoid type, Camshaft driven, Full forced pressure
Oil pressure indicate device	:	Oil pressure warning switch
Oil filter	:	Full flow, Paper element type
Cooling fan	:	400mm dia., sucker, 6-blade, plastic (Shipped loose parts)
Water pump	:	Impeller type, Belt driven from crankshaft pulley
Thermostat	:	Wax pellet type
Starter	:	12V-2.2kW, Magnetically actuated type
Alternator	:	12V-50A, AC type, IC regulator build in type, Belt driven from crankshaft pulley
Pre-heating device	:	Glow plug, Quick on start-III (QOS-III) type
Engine stop device	:	Fuel cut lever
Power take off	:	Gear case PTO, 1.2:1 Rotation ratio, Counterclockwise rotation direction viewed from flywheel
Inclination limit	:	All direction 35deg
Lubrication oil capacity	:	Maximum 9.6 litter - Minimum 7.6 litter (Oil pan only)
Cooling water capacity	:	5.0 litter (Engine only)

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Injection timing : 6deg BTDC

Initial injection pressure : 18.1MPa

Compressive pressure : 2.9MPa at 250rpm engine speed

Valve clearance :	Valve	Valve Clearance	Valve timing	
			Open	Close
	Inlet	0.4mm at cold	24.5deg BTDC	55.5deg ABDC
	Exhaust	0.4mm at cold	54.0deg BBDC	26.0deg ATDC

Paint : Clear

Recommended lubrication oil : API classification, Service CD class, SAE15W-40

**Shipped loose parts**

No.	Parts Name	Qty
1	Gasket; Exhaust pipe	1
2	Resistance; Control	1
3	Switch; Starter	1
4	Spacer; Fan t=4.5	1
5	Spacer; Fan t=26	1
6	Cooling Fan Asm	1
7	Bolt; Fan Fix	4

**ISUZU**

**4JG1TPW-01  
Performance Curve**

Condition	JIS D0006 / SAE J1349 / ISO15550
Atmospheric Condition	25 deg C
Braking time	30 hours
Cooling Fan	NONE
Air Cleaner	NONE
Alternator	With (No Load)
Exhaust Silencer	NONE

