

Rev.

ENGINE SPECIFICATIONS

Engine Model	Base Model 6BG1
	Model No. 6BG1TRW-02
Customer	Isuzu Australia Ltd.,
Application	General Industrial
Drawing No.	DI1-8070
Emission Regulation	Corresponding EPA Tier-2/EC Stage-II

Revision	Date	Revision Record	Issue No.
0	20-Nov-12	Issued	:
:	:	:	:
:	:	:	:
:	:	:	:

ISUZU MOTORS LIMITED	Approval	Check	Issue
Sales Engineering Group	Akihiko Tajima		
Powertrain Business Division	Group Leader	Manager	Staff

Engine Specification

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Manufacturer	ISUZU MOTORS LIMITED		
Engine Model	Base Model	6BG1	Model No. 6BG1TRW-02
Application	General Industrial		
Engine type	Four cycle, water cooled, direct injection type, over head valve type		
No. of cylinders - bore x stroke	6 Inline - 105.0 mm x 125.0 mm		
Total piston displacement	6.494 liter		
Compression ratio	18		

Engine performance	Rating
Conditions	: Standard atmospheric condition
	: Breaking time 30 hours
	: With AC generator and cooling fan
	: Without air cleaner and exh. silencer
Rated output	: $121.6 \pm 2.9 \text{ kW} / 2200 \text{ min}^{-1}$
Maximum torque	: More than $553.6 \text{ Nm} / 1800^{+100}_0 \text{ min}^{-1}$
Fuel consumption (at rated output power)	: $247 \pm 13.6 \text{ g} / \text{kW.h}$
High idle speed	: $2500^{0}_{-50} \text{ min}^{-1}$
Low Idle speed	: $900 \pm 25 \text{ min}^{-1}$
Type of fuel	: Diesel fuel (JPN:JIS-NO.2, US:ASTM-2D, EU:EN590)
Engine dry weight	: Approx. 490 kg
Engine Dimensions (L x W x H)	: 1200.5mm x 672mm x 957mm (with Fan)
Firing order	: 1 - 5 - 3 - 6 - 2 - 4
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	:	Gear type, Camshaft driven, Full forced pressure
Oil pressure indicate device	:	Oil pressure warning switch
Oil filter	:	Combined & Full flow , Paper element type
Cooling fan	:	600mm dia., sucker, 6-blade, plastic
Water pump	:	Impeller type, Belt driven from crankshaft pulley
Thermostat	:	Wax pellet type
Starter	:	12V-2.5kW, Magnetically actuated type
Alternator	:	12V-60A, AC type, IC regulator build in type, Belt driven from crankshaft pulley
Pre-heating device	:	Glow plug, Conventional type
Engine stop device	:	Fuel cut lever
Power take off	:	Without
Inclination limit	:	All direction 35deg
Lubrication oil capacity	:	Maximum 21.5 litter - Minimum 17.0 litter (Oil pan only)
Cooling water capacity	:	12 litter (Engine only)

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Injection timing : 9 ±1 deg BTDC

Initial injection pressure : 16.7/ 19.6 MPa

Compressive pressure : 3.04MPa at 200rpm engine speed

Valve clearance	Valve	Valve Clearance	Valve timing	
			Open	Close
	Inlet	0.4mm at cold	19.0deg BTDC	47.0deg ABDC
			0.33 rad.	0.82 rad.
	Exhaust	0.4mm at cold	57.0deg BBDC	15.0deg ATDC
			0.99 rad.	0.26 rad.

Paint : Clear

Recommended lubrication oil : API classification, Service CD class, SAE10W-30

Shipped loose parts

No.	Parts Name	Qty
1	Switch Asm; Starter	1
2	Resistance; Control	1

ISUZU

**6BG1TRW-02
Performance**

Condition	JIS D0006 / ISO 9249
Atmospheric Condition	25 deg C
Braking time	30 hours
Cooling Fan	With 600mm dia., sucker, 6-blade, PP
Air Cleaner	NONE
Alternator	With (No Load)
Exhaust Silencer	NONE

