

Rev.

1

# ENGINE SPECIFICATIONS

Engine Model	Engine series	3CD1T(Stage 3A / Interim Tier4)
	Model No.	3CD1T-BKZP1
Customer		EXPORT
Application		General power
Drawing No.		C1-1023-000-0

Symbol	Date	Revision Record	Issue No.
0	: 6th Nov. 2008	: For confirmation of volume engine specifications.	:
1	: 8th Jan. 2009	: Revision	:
	:	:	:
	:	:	:

ISUZU MOTORS LIMITED  
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## Engine Specifications

Model No. 3CD1T-BKZP1

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Engine Model	Model No. 3CD1T-BKZP1
Application	General power
Approved exhaust emission cert.	EPA, ARB-OR : Interim Tier-4, EC stage-3A
Engine type	Four cycle, Water cooled, In-line, Direct injection type
No. of cylinders-bore x stroke	3 - 84.0 mm x 90.0 mm
Total piston displacement	1.496 L
Compression ratio	19 to 1

## Engine performance

## Rating

Test conditions	Standard atmospheric condition
Conforming standard JPN;JIS D0006-1 US;SAEJ1349 EU;ISO15550	With AC generator and cooling fan With air cleaner and exh. silencer

Rated Output	: 29.1 kW / 2800 min <sup>-1</sup>
Maximum Torque	: 119 Nm / approx. 1900 min <sup>-1</sup>
Fuel consumption at rated	: 264 g/kw.h
No load max. speed	: 2995 ± 25 min <sup>-1</sup>
Low idle speed	: 900 ± 25 min <sup>-1</sup>
Type of fuel	: Diesel fuel only ( JPN:JIS-NO.2, US:ASTM-2D, EU:EN590 )
Engine dry weight	: Approx. 151 kg
Dimensions	: L 613.0 x W 509.0 x H 756.0 ( With cooling fan )
Firing order	: 1 - 3 - 2 - 1
Rotating direction	: Clockwise viewed from cooling fan

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## Fuel system

Fuel injection pump	Distributor type
Fuel injection nozzle	Hole type
Fuel filter	Paper element type
Governor type	Centrifugal-all speed governor

## Lubrication system

Lubricating system	Forced feed type
Oil grade	API class CD, SAE grade 10W30
Lubricating pump	Trochoid pump type
Oil filter	Paper element
Oil capacity	max : 6.7 L min : 3.9 L
Oil pressure(reference)	4.5 kgf/cm <sup>2</sup> at rated output

## Cooling system

Heat exchanger	None
Coolant pressure	max. 0.9 kgf/cm <sup>2</sup>
Cooling fan	Dia.360 - 7 blades - Puller, crank pulley/fan pulley = 110/110
Coolant capacity	2.0 L (engine only)

## Air cleaner

None

## Breather system

Closed type

## Starting aid

Air heater

1

## Starter

12V - 1.7kW

## Generator

12V - 40A

## Allowable inclination angle

Longitudinal : 30(25) deg, Lateral : 30(25) deg  
intermitted, (continuous)

## Fuel injection timing

FIR 4 (±1.0)

## Engine color

Black

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Loose parts

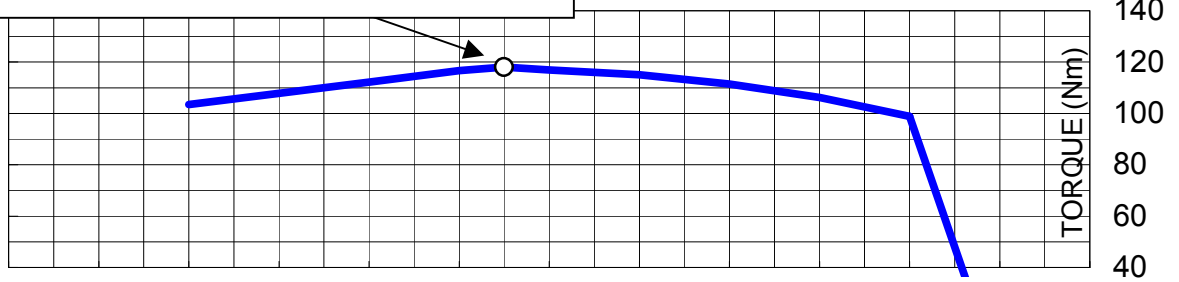
No.	Parts No.	Item	Qty	Remarks
1	Z14110-07760	LABEL, FUEL OIL CAUT	1	
2	586401-7420	JOINT,BREATEHR	1	
3	586401-7430	HOSE CMP, BREATHER	1	
4	586401-0860	PIPE, TAIL	1	
5	586401-0820	CLAMP	1	
6	586400-0240	PUMP, FUEL FEED	1	
7	586400-0830	SEPARATOR ASSY	1	
8	586400-0550	DIODE	1	
9	586400-0560	REALY, GLOW	2	
10	586400-1240	TIMER, GLOW PLUG	1	
11	586400-2190	TIMER	1	

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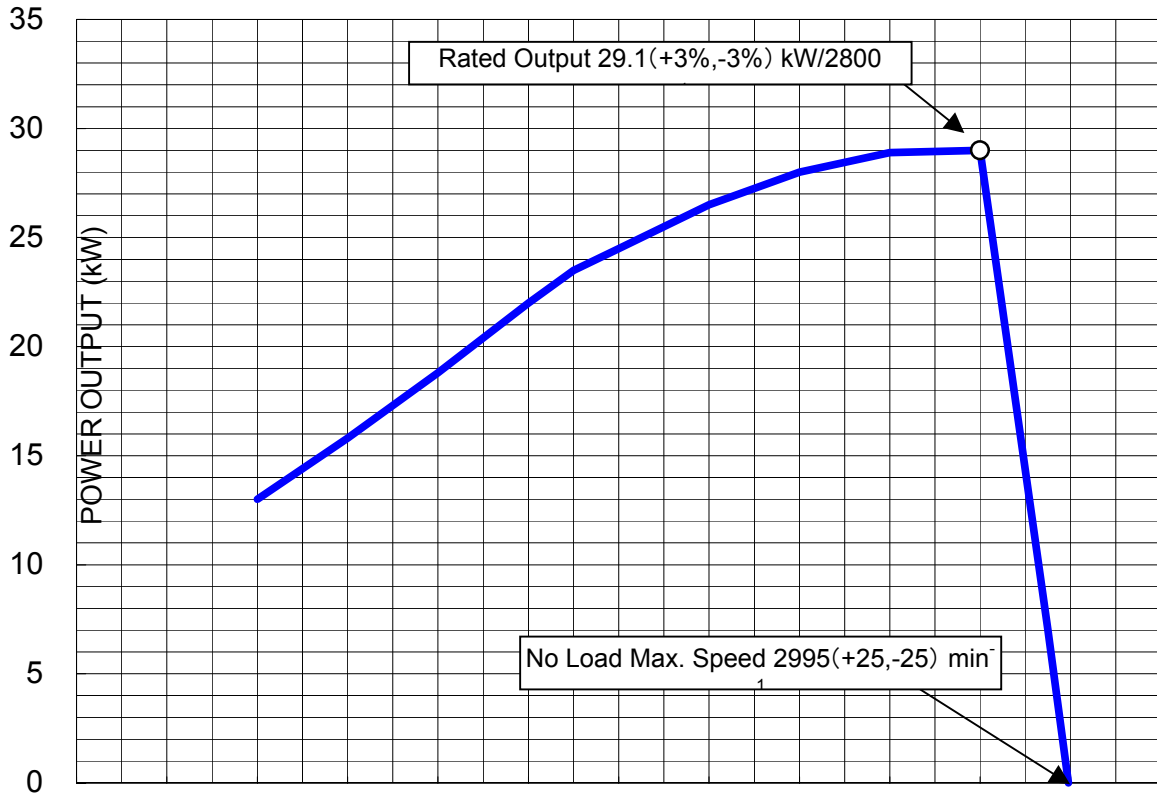
**3CD1T-KZP01  
PERFORMANCE CURVE**

Conditions	Rating
Atmospheric conditions	Standard: JIS D0006 (NET)
	Standard: SAE 1349 (with Fan)
Break-in time	0.1hr
Fan speed ratio	110/110=1.0
Cooling fan	φ360-Puller
Air cleaner	With
Alternator	With
Exh. silencer	With

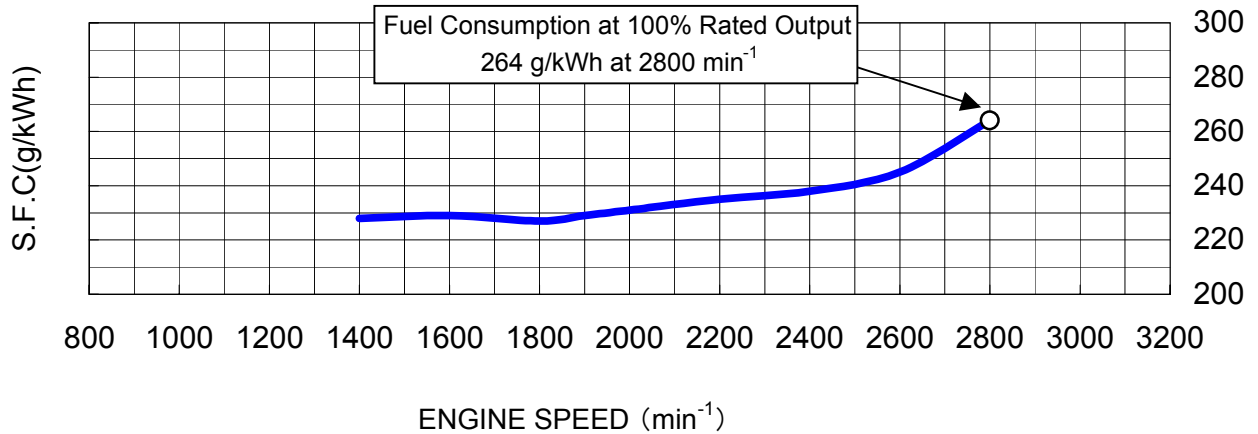
Maximum torque 119.0(+5%,-5%) Nm/1900 min<sup>-1</sup>



Rated Output 29.1(+3%,-3%) kW/2800



Fuel Consumption at 100% Rated Output  
264 g/kWh at 2800 min<sup>-1</sup>



## Engine specifications Revision chart

Customer : EXPORT

Engine Model : 3CD1T-BKZP1

Application : General power

Rev. No.	IS No.	Date	Page	Item	Previous	Current	Description (Reason of change)
0	IS-08-187-0	17 <sup>th</sup> April '08	Specifications for volume production				
1	IS-08-187-1	8 <sup>th</sup> Jan. '09	Revision				
			P2	Approved exhaust emission cert.	Tier-3/EC stage 3	Interim Tier-4/Stage-3A	Correction
			P3	Starting aid	Glow plug	Air heater	Correction