

**ISUZU**

**DIESEL**

# **4JJ1X** **ENGINE** & Turn-Key & Accessories



# 4JJ1X ENGINE



Isuzu Diesel Engines

## Data Summary

Off-Highway Diesel Engine Model & Spec

**ISUZU**  
DIESEL

				4JJ1XYGV01 12V	4JJ1XYBW01 12V BW02 12V GCPTO
Performance	US EPA Off-Highway Emission Certification		Tier 3		
	EC Off-Highway Emission Certification		Stage 2		Stage 3A
	Rated Speed*	RPM	1800		2500
	Rated Power (SAE J1995 GROSS)*	KW HP	75	101	98 131
	Full-Load Fuel Consumption*	G/KW-HR LB/HP-HR	209	0.344	210 0.345
	Alternator Output	V-A	12V-110		
Size	Height	MM IN	812	32.0	842 33.1
	Width	MM IN	748	29.4	739 29.1
	Length	MM IN	884	34.8	977 38.5
Weight		KG LB	320	705	325 717
Basic Characteristics	Flywheel Housing / Flywheel		SAE #3 / 11.5" & 10" combo		
	Gear Case PTO Spline / Pad (optional)		(standard on BW02)	SAE 7/8" / SAE "B-B" & "A-A" 2-bolt	
	Displacement	L CUBIC IN	3.0 183		
	Number of Cylinders		4		
	Electronic High Pressure Common Rail Fuel Injection System		YES		
	Charge Air Cooler System (Required)		YES		
	Cooled Exhaust Gas Recirculation (EGR) System		YES		
Lubricating Oil System	Engine-mounted oil filter.				
Fuel System	Shipped-loose fuel filters and fuel pump to be remotely mounted.				
Control System	SAEJ1939 CAN BUS				
	Shipped-loose ECM to be remotely mounted and connected to engine harness, starter, alternator, fuel pump, off-engine sensors, fuses, relays, diagnostic connector and machine interface connector via supplemental harness and ECM enclosure.				
Cooling System	Radiator				
	Heat Rejection to Coolant*	MJ/HR BTU/MIN	170	2686	205 3239
	Cooling Fan Air Flow Rate @ Restriction	M³/MIN CFM	90	3178	134 4732
		KPA IN H₂O	0.29	1.2	0.69 2.8
	Coolant Flow Rate*	LPM GPM	70	18.5	95 25.1
	Max Allowed Engine Coolant Outlet Temp	°C °F	99 210		
	Max Allowed Coolant Pump Inlet Restriction	KPA IN HG	10 3.0		
	Charge Air Cooler (CAC)				
	Heat Rejection to CAC*	MJ/HR BTU/MIN	43	679	58 916
	Air Flow Rate*	M³/MIN CFM	8.2	290	9.2 325
	Max Allowed CAC Out Rise Above Ambient	°C °F	25 45		
	Max Allowed System Restriction	KPA IN H₂O	13.3 53.4		
	Fuel Cooler				
	Fuel Flow Rate	LPM GPH	1.3 21		
	Heat Rejection to Fuel Cooler	KCAL/HR BTU/MIN	800 53		
	Max Allowed Engine Fuel Inlet Temp	°C °F	60 140		
Air Cleaner System	Air Flow Rate*	M³/MIN CFM	8.2	290	9.2 325
	Max Allowed System Restriction	KPA IN H₂O	2.5 10.0		
Exhaust System	Exhaust Flow Rate*	M³/MIN CFM	13.3	468	17.2 607
	Max Allowed System Restriction	KPA IN HG	5 1.5		
Diagnostics	On-Board Diagnostics				

\*Curve available - For curves and additional technical information and details, please go to [www.isuzuengines-info.com](http://www.isuzuengines-info.com)

If you need assistance with access, navigation, etc., please contact your ISUZU representative.

ISUZU offers turn-key engine accessory kits for the above systems and more to allow quick and easy engine installation, turn-key engine operation, equipment testing, equipment sales and service.

For a list of available kits, please see the next page (Turn-Key Engine Accessories).

## Turn-Key Engine Accessories

Off-Highway Diesel Engine Model & Spec



4JJ1XYGV01 12V 4JJ1XYBW01 12V  
BW02 12V GCPTO  
Kit #

### Drive System

Flywheel Pilot Bearing Carrier	9-12339-061-1	included on eng
Gear Case PTO	N/A	N/A (included)
Air Compressor	N/A	N/A (4H1-002)

### Lubricating Oil System

Oil Filter Hoses + Bracket	engine-mounted oil filter
Remote Oil Drain Hose + Valve	6G4-005

### Fuel System

Fuel Filter Hoses + Bracket	5C7-034
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### Control System

Supplemental Harness (Short), OR		5Y5-081
Supplemental Harness (Long)		5Y5-085
Alternator Adapter Harness		5Y5-080
ECM Enclosure (with controls), OR		5Y3-088
ECM Enclosure (without controls)		5Y3-089
Extension Harness	6 FT, OR	5Y5-050
	10 FT, OR	5Y5-051
	20 FT	5Y5-052
Murphy PowerView SAEJ1939 CAN Display, OR		5Y3-091
Remote Control Panel		5Y3-090
Mating Connector Kits (if above Control System kits are not used)		
Master		5Y5-025
Electric Fuel Pump		5Y5-042
Alternator		5Y5-044

### Cooling System

Cooling Module (Radiator + CAC + Fuel Cooler)	5F1-218	
Cooling Fan	push incl on eng	pull incl on eng
Upper and Lower Coolant Hoses	5F1-243	
Hot (Turbo-to-CAC) Pipe	5F1-196	5F1-168
Cold (CAC-to-Engine) Pipe	5F1-167	5F1-167 (5F1-174)

### Air Cleaner System

Air Cleaner, Bands, Pipes, and Hoses	5M3-073	5M3-089
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### Exhaust System

Exhaust Pipe		
Vertical Muffler w/Rain Cap	N/A	5L2-083
	5L2-071	5L2-070

### Service Diagnostic Tools

EMPS3 Diagnostic Tool (PC based)	X-99960-041-0
ECM Pin-Out Box	X-99960-042-0

For a reference drawing of the above and other kits, please see the next page (Turn-Key Accessories Model Views).

Many other optional kits are available, up to and including assembled power units.

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