


*F. Hill*

	ISUZU MOTORS LIMITED	<b>EXECUTIVE ORDER U-R-006-0096</b> New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2002	2SZXL03.1CNC	3.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection			Compressor, Generator, Lift, Excavator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	7.2	--	--	--	12	12	9

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 22<sup>nd</sup> day of October 2001.

  
 R. B. Summerfield, Chief  
 Mobile Source Operations Division

# Engine Model Summary Form

Manufacturer: **Isuzu Motors Limited**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **2SZXL03.1CNC**

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Mfr Family Name:  
 Process Code: **Running Change, Jan. 25, 2002**

1. Engine Code	2. Engine Model	3. BHP @ RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke @ peak torque	8. Fuel Rate: (lbs/hr) @ peak torque	9. Emission Control Device Per SAE J1930
4JG1NAACA-01	A-4JG1	50.2 @ 1800	48.0 @ 1800	19.2 @ 1800	153.5 @ 1600	53.5 @ 1600	19.0 @ 1600	EM, D, I
4JG1NAACA-02	A-4JG1	51.1 @ 1900	49.3 @ 1900	20.8 @ 1900	153.5 @ 1600	53.5 @ 1600	19.0 @ 1600	EM, D, I
4JG1NAACA-03	AA-4JG1	56.2 @ 2100	41.2 @ 2100	19.0 @ 2100	139.4 @ 1800	43.3 @ 1800	17.1 @ 1800	EM, D, I
4JG1NAACA-04	B-4JG1	57.5 @ 2300	44.2 @ 2300	22.4 @ 2300	141.4 @ 1600	44.7 @ 1600	15.7 @ 1600	EM, D, I
4JG1NAACA-05	AA-4JG1	53.1 @ 2100	44.6 @ 2100	20.8 @ 2100	141.6 @ 1800	45.6 @ 1800	18.3 @ 1800	EM, D, I
4JG1NAACA-06	BB-4JG1	57.5 @ 2300	44.2 @ 2300	22.4 @ 2300	141.4 @ 1800	44.7 @ 1800	15.7 @ 1800	EM, D, I
4JG1NAACA-07	CC-4JG1	54.9 @ 2100	45.2 @ 2100	21.1 @ 2100	137.9 @ 1800	45.2 @ 1800	18.1 @ 1800	EM, D, I
4JG1NAACA-08	CC-4JG1	53.7 @ 2100	44.6 @ 2100	20.8 @ 2100	141.4 @ 1800	45.6 @ 1800	18.3 @ 1800	EM, D, I
4JG1NAACA-09	BB-4JG1	55.0 @ 2200	43.9 @ 2200	21.5 @ 2200	139.4 @ 1800	44.5 @ 1800	17.8 @ 1800	EM, D, I
4IRJ7NACA-01	4IRJ7N	62.9 @ 2500	44.2 @ 2500	24.3 @ 2500	148.1 @ 1800	46.7 @ 1800	18.3 @ 1800	EM, D, I

# Engine Model Summary Form

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Manufacturer: **Isuzu Motors Limited**  
 Engine category: **Nonroad CI**  
 EPA Engine Family: **2SZXL03.1CNC**  
 Mfr Family Name: **NA**  
 Process Code: **Running Change, July 3, 2002**

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1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
4JG1NAACA-01	A-4JG1	50.2@1800	48.0@1800	19.2@1800	153.5@1600	53.5@1600	19.0@1600	EM,DFI <i>DFI</i>
4JG1NAACA-02	A-4JG1	51.1@1900	49.3@1900	20.8@1900	153.5@1600	53.5@1600	19.0@1600	EM,DFI
4JG1NAACA-03	AA-4JG1	56.2@2100	41.2@2100	19.0@2100	139.4@1800	43.3@1800	17.1@1800	EM,DFI
4JG1NAACA-04	B-4JG1	57.5@2300	44.2@2300	22.4@2300	141.4@1600	44.7@1600	15.7@1600	EM,DFI
4JG1NAACA-05	AA-4JG1	53.1@2100	44.6@2100	20.8@2100	141.6@1800	45.6@1800	18.3@1800	EM,DFI
4JG1NAACA-06	BB-4JG1	57.5@2300	44.2@2300	22.4@2300	141.4@1800	44.7@1800	15.7@1800	EM,DFI
4JG1NAACA-07	CC-4JG1	54.9@2100	45.2@2100	21.1@2100	137.9@1800	45.2@1800	18.1@1800	EM,DFI
4JG1NAACA-08	CC-4JG1	53.7@2100	44.6@2100	20.8@2100	141.4@1800	45.6@1800	18.3@1800	EM,DFI
4JG1NAACA-09	BB-4JG1	55.0@2200	43.9@2200	21.5@2200	139.4@1800	44.5@1800	17.8@1800	EM,DFI
4JG1NAACA-10	CC-4JG1	57.4@2400	44.6@2400	23.8@2400	140.3@1800	45.2@1800	18.1@1800	EM,DFI
4IRJ7NACA-01	4IRJ7N	62.9@2500	44.2@2500	24.3@2500	148.1@1800	46.7@1800	18.3@1800	EM,DFI

