

 AIR RESOURCES BOARD	ISUZU MOTORS LIMITED	EXECUTIVE ORDER U-R-006-0156
		New Off-Road Compression-Ignition Engines

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-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems 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)
2003	3SZXL04.3FTA	4.3	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Loader, Compressor, 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):

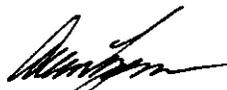
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
		CERT	--	--	6.3	1.4	0.26	12	8	38

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 10TH day of January 2003.



Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **Isuzu Motors Limited**
 Engine category: **Nonroad CI**
 EPA Engine Family: **3SZXL04.3FTA**
 Mfr Family Name: **NA**
 Process Code: **Running Change 2-7-03**

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ATTACHMENT

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
4BG1TABFA-02	DD-4BG1T	108.5@2200	86.5@2200	42.3@2200	297.1@1800	85.0@1800	34.0@1800	EM,TC,DFI DBI
4BG1TABFA-03	DD-4BG1T	109.2@2400	85.4@2400	45.6@2400	297.1@1800	85.0@1800	34.0@1800	EM,TC,DFI
4BG1TABFA-04	DD-4BG1T	107.5@2300	85.8@2300	43.9@2300	294.7@1800	84.3@1800	33.8@1800	EM,TC,DFI
4BG1TABFB-01	DD-4BG1T	106.3@2200	85.8@2200	42.0@2200	286.8@1600	92.7@1600	33.0@1600	EM,TC,DFI
4BG1TABFC-01	DD-4BG1T	120.8@2500	91.4@2500	50.8@2500	305.4@2000	97.8@2000	43.5@2000	EM,TC,DFI
4BG1TABFC-02	DD-4BG1T	107.5@2300	84.5@2300	43.2@2300	294.7@1800	83.5@1800	33.4@1800	EM,TC,DFI
4BG1TABFC-03	DD-4BG1T	108.5@2200	85.6@2200	41.9@2200	297.1@1800	84.2@1800	33.7@1800	EM,TC,DFI
4BG1TABFD-01	DD-4BG1T	106.3@2200	84.9@2200	41.5@2200	286.8@1600	91.8@1600	32.7@1600	EM,TC,DFI ✓

k/c