

## ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0163 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)			
2004	4SZXL01.1DNA	1.1	Diesel	5000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Loader, Pump, Compressor, Generator Set, Other Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon 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	EMISSION STANDARD			E	XHAUST (g/kW-	nr)	·	Of	PACITY (%	<u> </u>
CLASS	CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Tier 2	STD	N/A	N/A	7.5	5.5	0.60	20	15	50
		CERT			5.9	1.4	0.36	8	9	19

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 \_\_\_\_\_\_ day of December 2003.

Allen Lyons, Chief

Mobile Source Operations Division

## Engine Model Summary Form

ATTACHMENI

Isuzu Motors Limited

New Submission

Process Code:

BA Engine Family 4SZXL01.1DNA

Mfr Family Name: NA

Nonroad Cl

Engine category:

Manufacturer:

2.Engine M	3.BHP@RPM 1.Engine Code 2.Engine Model W (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.Fueł Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@oeak torque	8.Fuel Rate: 9.Emission Control (Ibs/hr)@peak torque Device Per SAE 14030
- 4	3LB1 (9, 9, 26.7@3450 3LB1 21, 2, 28.4@3450	23.5@3450 22.7@3550 23.8@3450	13.5@3450 13.5@3550 13.7@3450	48.5@2000 47.6@2000 52.4@2000	24.8@2000 23.9@2000 25.9@2000	8.3@2000 8.0@2000 8.6@2000	EM,IDI EM,IDI