

ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0135

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	3SZXL01.5YNB	1.5	Diesel	5000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection			Loader, Tractor, Pump, Compressor, Excavator, Lift			

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
19≤ KW < 37	Tier 1	STD	N/A	N/A	9.5	5.5	0.80	20	15	50
		CERT			9.0	4.9	0.46	6	8	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 _

__ day of November 2002.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Isuzu Motors Limited Manufacturer:

Engine category: Nonroad CI
EPA Engine Family: 3SZXL01.5YNB

Mfr Family Name: NA

New Submission Process Code:

ATTACHMENT

EO U-12-006-0135

ntrol J1930		_	•	
9.Emission Control Device Per SAE J193	EW,DD	EM,DD	EM,DD	EM,Db/
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	10.3@2000	8.7@2000	8.7@2000	9.1@1800
7.Fuel Rate: mm/stroke@peak torque	30.7@2000	26.1@2000	26.1@2000	30.4@1800
6.Torque @ RPM (SEA Gross)	70.8@2000	65.7@2000	65.7@2000	70.1@1800
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	16.2@3250	13.1@3000	13.1@3000	11.9@2350
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	29.8@3250	26.0@3000	26.0@3000	30.4@2350
3.BHP@RPM (SAE Gross)	3LD2 (27.8437.2@3250	33.2@3000	33.2@3000	30.6@2350
2.Engine Model	3LD2 (27.	3IRL4N	3LD2	3LD2
1.Engine Code 2.Engine Model	3LD2NABDA-01	3IRL4NBDA-01	3LD2NABDA-02	3LD2NABDA-03