

 AIR RESOURCES BOARD	ISUZU MOTORS LIMITED	EXECUTIVE ORDER U-R-006-0076 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	2SZXL02.2YNA	2.2	Diesel	5000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Indirect Diesel Injection			Loader, Pump, Compressor, Generator, Excavator, Roller, 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	--	--	6.3	1.3	0.38	8	8	12

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 19th day of November 2001.


 R. B. Summerfield, Chief
 Mobile Source Operations Division

Engine Model Summary Form

FE U-R-006-0076

ATTACHMENT

Manufacturer: Isuzu Motors Limited
 Engine category: Nonroad CI
 EPA Engine Family: 2SZXL02.2YNA
 Mfr Family Name: NA
 Process Code: New Submission

kw

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /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 ³ /stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
4LE1NABDA-01	4LE1 35.0	46.9@3000	30.7@3000	20.5@3000	95.9@1600	32.4@1600	11.5@1600	EM,IDI
4LE1NABDA-02	4LE1	34.4@1750	37.3@1750	14.5@1750	103.4@1750	37.3@1750	14.5@1750	EM,IDI
4LE1NABDA-03	4LE1	42.0@3000	28.0@3000	18.7@3000	81.2@1600	37.3@1750	10.2@1600	EM,IDI
4LE1NABDA-04	4LE1	28.2@1750	29.2@1750	11.4@1750	84.6@1750	29.2@1750	11.4@1750	EM,IDI
4LE1NABDA-05	4LE1	46.9@2700	33.7@2700	20.3@2700	103.3@1800	35.7@1800	14.3@1800	EM,IDI
4LE1NABDB-01	4LE1	45.0@2400	35.6@2400	19.0@2400	104.5@1800	37.2@1800	14.9@1800	EM,IDI
4LE1NABDB-02	4LE1	34.5@1750	38.1@1750	14.8@1750	103.4@1750	38.1@1750	14.8@1750	EM,IDI
4LE1NABDB-03	4LE1	30.9@2400	25.2@2400	13.4@2400	80.2@1750	27.7@1750	10.8@1750	EM,IDI
4LE1NABDB-04	4LE1 19.8	26.6@1750	28.0@1750	10.9@1750	79.8@1750	28.0@1750	10.9@1750	EM,IDI
4LE1NABDB-05	4LE1	43.0@2300	34.6@2300	33.9@1900	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDB-06	4LE1	40.7@2300	34.2@2300	17.5@2300	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDB-07	4LE1	41.6@2200	35.2@2200	17.2@2200	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDB-08	4LE1	39.6@2100	35.0@2100	16.4@2100	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDB-09	4LE1	38.0@2000	34.2@2000	15.2@2000	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDB-10	4LE1	36.6@1900	33.9@1900	14.3@1900	103.3@1600	36.3@1600	12.9@1600	EM,IDI
4LE1NABDA-01	AA-4LE1	46.9@3000	30.7@3000	20.5@3000	95.9@1600	32.4@1600	11.5@1600	EM,IDI
4LE1NABDA-02	AA-4LE1	34.4@1750	37.3@1750	14.5@1750	103.4@1750	37.3@1750	14.5@1750	EM,IDI
4LE1NABDA-03	AA-4LE1	42.0@3000	28.0@3000	18.7@3000	81.2@1600	37.3@1750	10.2@1600	EM,IDI
4LE1NABDA-04	AA-4LE1	28.2@1750	29.2@1750	11.4@1750	84.6@1750	29.2@1750	11.4@1750	EM,IDI
4LE1NABDA-05	AA-4LE1	46.9@2700	33.7@2700	20.3@2700	103.3@1800	35.7@1800	14.3@1800	EM,IDI
4LE1NABDB-01	AA-4LE1	45.0@2400	35.6@2400	19.0@2400	104.5@1800	37.2@1800	14.9@1800	EM,IDI
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4LE1NABDB-10	AA-4LE1	36.6@1900	33.9@1900	14.3@1900	103.3@1600	36.3@1600	12.9@1600	EM,IDI