

ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0120 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	3SZXL02.8CTA	2.8	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger			Tractor, 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	EMISSION STANDARD CATEGORY	EXHAUST (g/kw-hr)			OPACITY (%)					
POWER CLASS			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				13	8	25

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 September 2002.

Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Engine category: Nonroad CI Isuzu Motors Limited

EPA Engine Famy: 3SZXL02.8CTA

Mfr Family Name: NA

Process Code:

New Submission

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	1.Engine Code 4JB1TBACA-02 4JB1TBACA-05 4JB1TBACA-06
(53	1.Engine Code 2.Engine Model 4JB1TBACA-02 4JB1T 4JB1TBACA-05 4JB1T 4JB1TBACA-06 4JB1T
(57.2 kw)	3.BHP@RPM (SAE Gross) 76.2@2200 →79.4@3000 70.8@2700
	4. Fuel Rate: mm/stroke @ peak HP (for diesel only) 58.3 @ 2200 48.1 @ 3000 44.8 @ 2700
	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only) 28.5@2200 32.1@3000 26.9@2700
	6.Torque @ RPM (SEA Gross) 178.5@2000 175.0@2000 158.4@1800
	7.Fuel Rate: mm/stroke@peak torque 58.8@2000 51.9@2000 46.2@1800
	8.Fuel Rate: (lbs/hr) @peak torque 26.2 @ 2000 23.1 @ 2000 18.5 @ 1800
	8.Fuel Rate: 9.Emission Control (lbs/hr) @peak torque Device Per SAE J1930 26.2 @ 2000 EM,TC,DD1 23.1 @ 2000 EM,TC,DD1 18.5 @ 1800 EM,TC,DD1