ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0127 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	3SZXL04.3GXA	4.3	Diesel		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION		
Direct Diesel Injection, Turbocharger, Charge Air Cooler			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		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS	STANDARD		HC	NOx	NMHC+NOx	СО	РМ	ACCEL	LUG	PEAK
37 ≤ KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT		6.8				4	2	77

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 1674 day of September 2002.

Allen Jons, Chief

Mobile Source Operations Division

Engine Model Summary Form

Engine category: Nonroad Cl Manufacturer: Isuzu Motors Limited

EPA Engine Family: 3SZXL04.3GXA

Mfr Family Name: NA Process Code:

New Submission

EO No. U-R-006-0127

Page 1 of 1

	4BG1XABGA-05	4BG1XABGA-04	4BG1XABGA-03	4BG1XABGA-02	4BG1XABGA-01	1.Engine Code
(7)	CC-4BG1T	CC-4BG1T	CC-4BG1T	CC-4BG1T	CC-4BG1T	1.Engine Code 2.Engine Model
(74.0 km)	90.8@2150	52.0@1750	85.6@1800	63.1@2200	-> 99.2@2200	3.BHP@RPM (SAE Gross)
	70.0@2150	49.0@1750	76.1@1800	50.4@2200	75.3@2200	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)
	33.4@2150	19.1@1750	30.5@1800	24.7@2200	36.8@2200	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)
	236.0@1600	157.3@1400	262.1@1400	157.3@1400	262.1@1400	6.Torque @ RPM (SEA Gross)
	75.1@1600	48.8@1400	79.4@1400	48.8@1400	79.4@1400	7.Fuel Rate: mm/stroke@peak torque
	26.7@1600	15.2@1400	24.7@1400	15.2@1400	24.7@1400	8.Fuel Rate: (lbs/hr) @peak torque
	EM,TC,CAC,DP7	EM, TC, CAC, DUI	EM, I C, CAC, DDI	EM,TC,CAC,DDI	EM,TC,CAC,DDI	8.Fuel Rate: 9.Emission Control (lbs/hr) @peak torque Device Per SAE J1930