ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0345New 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)		
2011	BSZXL03.0IXA	3.0	Diesel			
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Electron Coole	ic Direct Injection, Turboo r, Electronic Control Modi Recirculation	charger, Charge Air ule, Exhaust Gas	Excavator, Vibrating Roller, Asphalt Finisher, 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)						OPACITY (%)		
			HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK	
75 ≤ kW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50	
		CERT			3.7	0.6	0.13	15	2	32	

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 October 2010

Annette Hebert, Chief

Mobile Source Operations Division

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Isuzu Motors Ltd.

ATTACHMENT Engine Model Summary Template

CARB EO. U-R-006- 0345 DATE: 8/12/11

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (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.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
BSZXL03.0IXA	4JJ1XDIAA-01	AI-4JJ1X	127.4@2200	89.0@2200	43.5@2200	309.8@1800	95.0@1800	_	ECM, TC, CAC, DFI, EGR
BSZXL03.0IXA	4JJ1XDIAA-02	AI-4JJ1X	123.4@2200	86.7@2200	42.4@2200	309.8@1800	95.0@1800	38.0@1800	ECM, TC, CAC, DFI, EGR
BSZXL03.0IXA	4JJ1XDIAA-03	AI-4JJ1X	127.4@2500	79.3@2500	44.1@2500	301@2000	93.9@2000	41.8@2000	ECM, TC, CAC, DFI, EGR
BSZXL03.0IXA	4JJ1XDIAA-04	AI-4JJ1X	103.3@2200	72.8@2200	35.6@2200	284@1600	85.9@1600	30.6@1600	ECM, TC, CAC, DFI, EGR
BSZXL03.0IXA	4JJ1XDIAC-01	CI-4JJ1X	126.1@2200	88.5@2200	43.3@2200	306.6@1800	93.9@1800	37.6@1800	ECM, TC, CAC, DFI, EGR