ISUZU MOTORS LIMITED

EXECUTIVE ORDER U-R-006-0336 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)	
2010	ASZXL15.7HXA	15.7	Diesel	8000	
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION		
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation			Excavator, 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	EMISSION STANDARD CATEGORY	EXHAUST (g/kW-hr)				OPACITY (%)				
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT			3.6	0.8	0.17	17	8	30

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 2009.

Annette Hebert, Chief

Mobile Source Operations Division

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Summary
Model
Engine

ATTACHMENT

U-R-006-0336 8127129

		DFI,	
9.Emission Control Jevice Per SAE J1930	ECM, TC, CAC, EGR	ECM, TC, CAC, DFI, EGR	ECM, TC, CAC, DFI, EGR
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	340.4@1500 170.3@1500	161.7@1800 1460@1500 291.3@1500 145.8@1500)1800 123.0@1800 1165@1500 245.6@1500 122.9@1500 ECM
7.Fuel Rate: mm/stroke@peak torque	340.4@1500	291.3@1500	245.6@1500
6.Torque @ RPM (SEA Gross)	1660@1500	1460@1500	1165@1500
4.Fuel Rate: 5.Fuel Rate: Ustroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM (for diesel only) (SEA Gross)	182.6@1800	161.7@1800	123.0@1800
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	304.1@1800	269.3@	204.9@
3.BHP@RPM (SAE Gross)	532.4@1800	WG1XDHAA-02 AH-6WG1X 462.6@1800	348.7@1800
2.Engine Model	AH-6WG1X	AH-6WG1X	AH-6WG1X
Engine Family 1.Engine Code 2.Engine Model	6WG1XDHAA-01	6WG1XDHAA-02	SZXL15.7HXA 6WG1XDHAA-03 AH-6WG1X 348.7@1800 3
Engine Family	ASZXL15.7HXA 6WG1XDHAA-01 AH-6WG1X	ASZXL15.7HXA 6	ASZXL15.7HXA