MITSUBISHI HEAVY INDUSTRIES, LTD.

EXECUTIVE ORDER U-R-035-0295 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 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)
2010	AMVXL03.3DDE	3.3	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT	
Mechanic	cal Direct Injection, Turbo Cooler	ocharger, Charge Air	Crane, Loader, Tractor, Dozer, Pum and Industrial Eq	np, Compressor, Generator uipment

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			E	EXHAUST (g/kw-l	nr)		OF	PACITY (%	6)
POWER	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
56 <u><</u> KW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT		_	3.9	1.0	0.35	10	3	17

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 24 day of December 2009.

Annette Hebert, Chief

Mobile Source Operations Division

ATTACHMENT 1 CF)

Engine Model Summary Template

4-R-035-0295

Engine Family	4. 3.BHP@RPM mm/str Engine Family 1.Engine Code 2.Engine Model (SAE Gross) (for	2.Engine Model	3.BHP@RPM r (SAE Gross)	4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (Ibs/hr) @ peak HP 6.Torque @ RPM (for diesel only) (for diesels only) (SEA Gross)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)		7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930	ŀ
AMVXL03.3DDE	AMVXL03.3DDE S4S-DT78SSL S4S-DTDPAA 92.5HP@2500	S4S-DTDPAA	92.5HP@2500	99	44	218ftib@1800	67	32	DITAA	
AMVXL03.3DDE	AMVXL03.3DDE S4S-Y3DT7BSSL S4S-DTDPAA 92.5HP@2500	S4S-DTDPAA	92.5HP@2500	99	4	218ftlb@1800	29	32	DIT AA	