

MITSUBISHI HEAVY INDUSTRIES, LTD.

EXECUTIVE ORDER U-R-035-0203 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)
2007	7MVXL01.3AAA	1.1, 1.3, 1.5	Diesel	3000
SPECIAL	FEATURES & EMISSION		TYPICAL EQUIPMENT	APPLICATION
	Indirect Diesel Inje	ection	Tractor, Generator and Ind	ustrial 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			E	XHAUST (g/kw-l	nr)		OF	PACITY (%	5)
POWER CLASS	STANDARD CATEGORY	<u> </u>	нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
8 <u><</u> KW < 19	Tier 2	STD	N/A	N/A	7.5	6.6	0.80	20	15	50
		CERT			5.3	0.7	0.23	4	3	6

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 22 dd day of December 2006.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

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Engine Family	Engine Family 1.Engine Code 2.Engine Model	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	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930
MVXL01.3AAA	3IRL2N	3IRL2N	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	ΙQΙ
MVXL01.3AAA	S3L-W214R	S3L	20.3@2500	22.1	9.1	47.7@1600	22.5	5.9	<u> </u>
MVXL01.3AAA	S3L-W214RH	S3L	20.3@2500	22.1	0.1	47.7@1600	22.5	5.9	Ī
MVXL01.3AAA	S3L-W261DG	S3T	15.2@1800	22.4	6.6	47.7@1350	22.4	5.0	IOI
MVXL01.3AAA	S3L-W261TM	S3L	22.7@2700	24.0	10.7	47.7@1800	24.5	7.3	
MVXL01.3AAA	S3L2 18.0KW-01	S3L2	24.1@2100	29.3	10.1	59.7@1700	28.1	7.9	
MVXL01.3AAA	S3L2-W211RH	S3L2	23.7@2500	24.3	10.0	57.1@1800	27.6	8.2	<u> </u>
MVXL01.3AAA	S3L2-W261CG	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	<u> </u>
MVXL01.3AAA	S3L2-W261DG	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	
MVXL01.3AAA	S3L2-W261IR	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	<u> </u>
MVXL01.3AAA	S3L2-W261ML	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	<u></u>
MVXL01.3AAA	S3L2-W261W	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	<u> </u>
MVXL01.3AAA	S3L2-W262SD	S3L2	18.9@1800	27.1	8.0	59.3@1350	27.5	6.1	ΙQΙ
MVXL01.3AAA	S3L2-W263ES	S3L2	23.3@2200	27.7	10.0	59.3@1800	28.8	8.5	Ω
MVXL01.3AAA	S3L2-W264ES	S3L2	24.4@2400	26.7	10.6	58.6@1800	28.0	8.3	<u> </u>
MVXL01.3AAA	S3L2-Y231NSA	S3L2	24.1@2100	29.3	10.1	59.7@1700	28.1	6.7	Ō
MVXL01.3AAA	S4L-W261DG	S4L	21.5@1800	23.0	9.1	62.2@1350	23.2	6.9	<u> </u>
MVXL01.3AAA	S4L-W263KL	S4L	22.8@2000	20	8.8	59@2000	21	9.5	IQI