EXECUTIVE ORDER U-R-035-0101

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)					
2004	4MVXL013AAA	1.1, 1.3, 1.5	Diesel						
SPECIAL F	FEATURES & EMISSION (CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
	Indirect Diesel Inje	ction	Tractor, Generator and 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	EMISSION STANDARD		<u> </u>		EXHAUST (g/kw-l		OPACITY (%)			
CLASS	CATEGORY		HC	NOx	NMHC+NOx CO		PM	ACCEL	LUG	PEAK
8 ≤ KW < 19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	20	15	
<u> </u>		CERT			5,4	0.8	0.22	20	10	50

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 $3/5\tau$ day of December 2003.

Allen Lyons, Chief For

Mobile Source Operations Division

Engine Model Summary Form

12-035-0101

ATTACHMENT 1 OF 1

Mitsubishi Heavy Industries, Ltd Manufacturer:

Engine category: Nonroad Cl
EPA Engine Family. 4MVXL01.3AAA

Mfr Family Name: S3L2

New Submission Process Code:

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9.Emission Control Device Per SAE J1930		ū				⊡	iai	IOI		<u> </u>	IDI	ī	ū	ΞΩ	Ō	IQI
8.Fuel Rate: (lbs/hr)@peak torque	R. 1. 8.5	8.3	6.1	6.1	6.1	6.1	5.9	5.9	5.0	5.0	6'9	6.9	5.9	5.9	8.3	7.9
7.Fuel Rate:; mm/stroke@peak torque	28.8	28.0	27.5	27.5	27.5	27.5	22.5	22.5	22.4	22.4	23.2	23.2	22.5	22.5	28.0	28.1
6.Torque @ RPM (SEA Gross)	59.3@1800	58.6@1800	59.3@1350	59.3@1350	59,3@1350	59.3@1350	47.7@1600	47.7@1600	47.7@1350	47.7@1350	62.2@1350	62.2@1350	47.7@1600	47.7@1600	58.6@1800	59.7@1700
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	10.0 4	10.6	8.0	8.0	8.0	8.0	9.1	9.1	9.9	6.6	9.1	9.1	10.3	10.3	10.6	10.1
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	127.7	26.7	27.1	27.1	27.1	27.1	22.1	22.1	22.4	22.4	23.0	23.0	22.3	22.3	26.7	29.3
3.BHP@RPM (SAE Gross)	23.3@2200	24.4@2400	18.9@1800	18.9@1800	18.9@1800	18.9@1800	20.3@2500	20.3@2500	15.2@1800	15.2@1800	21.5@1800	21.5@1800	24.4@2800	24,4@2800	24,4@2400	24.1@2100
2.Engine Model	S3L2	S3L2	S3L2	S3L2	S3L2	S3L2	S3L	S3L	S3L	SaL	S4L	S4L	S3L	S3L	S3L2	S3L2
1.Engine Code	S3L2-W263ES	S3L2-W264ES	S3L2-W261DG	S3L2-W262SD	S3L2-W261W	S3L2-W261CG	S3L-W214R	S3L-W214RH	S3L-W261DG	S3L-W261LG	S4L-W261DG	S4L-W261LG	S3L-W215R	S3L-W215RH	S3L2-Y261KT	S3L2 18.0KW-01