Mitsubishi Heavy Industries, Ltd.

EXECUTIVE ORDER U-R-035-0080 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)							
2003	3MVXL24.5BAA	24.51	Diesel	8000							
	EATURES & EMISSION	···	TYPICAL EQUIPMENT APPLICATION								
Direct Diesel	Injection, Turbocharg Engine Control Mo	er, Charge Air Cooler, odule	Excavato	r							

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-ł		OPACITY (%)					
POWER CLASS	STANDARD CATEGORY		НС	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK		
450 ≤ KW <560	Tier 1	STD	N/A	N/A	6.4	3.5	0.20	20	15	50		
		CERT			6.3	0.6	0.18	14	1	41		

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 July 2003.

Mobile Source Operations Division

Engine Model Summary Form ATTACHMENT 1 OF 1

Mitsubishi Heavy Industries, Ltd. Manufacturer:

Nonroad CI Engine category:

EPA Engine Family: 3MVXL24.5BAA

Mfr Family Name: SR-TAA

New Submission Process Code:

U-R-035-0080

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7.Fuel Rate: mm/stroke@peak torque	509.5			e Hely control and an artist Maria I supply approximation and managers.									The state of the s	er er ennerer en ennerer i den et Halleman frej proces er en engemen en enner Neces i Andre			announcement of the section and the mean terms of the section of t	A COMPANY OF THE PARTY OF THE P		TO A COMMAND AND A STATE OF THE			
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5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	257.0				agreen delimination of the abbitoty of Congress communications and the													And Address of the second of t			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	496.8	the control of the co				The second secon	\(\frac{1}{2}\)				hadren de de la companya de la comp	4 / 41 / 42 / 42 / 43 / 44 / 44 / 44 / 44 / 44		and the second s						general constant of the second			
3.BHP@RPM (SAE Gross)	684@1650														W. (7)								
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1 Engine Code	S6R-Y2TAA-1		and the format community to the party of the					and a supplying the supplying		7 TOTAL TOTA													