## Mitsubishi Heavy Industries, Ltd.

EXECUTIVE ORDER U-R-035-0128

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		
2004	4MVXL65.4ABC	65.37	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Pirect Diese	el Injection, Turbocharge Engine Control Mo	er, Charge Air Cooler, dule	Generator			

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):

POWER	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
CLASS			HC	NOx	NMHC+NO <sub>X</sub>	CO	PM	ACCEL	LUG	PEAR
KW > 560	Tier 1	STD	1.3	9.2	N/A	11,4	0.54			
		CERT	0.6	77	-	0.9	0.34	N/A	N/A	N/A

**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 December 2003.

Allen Lyons, Chief 🔑

Mobile Source Operations Division

## ATTACHMENT 10F1

## Engine Model Summary Form

Manufacturer: Mitsubishi Heavy Industries, Ltd.

Engine category: Nonroad Cl

EPA Engine Family. 4MVXL65.4ABC

44035-0128

Mfr Family Name: SRV-TAA

Process Code: New Submission