California Environmental Protection Agency AIR RESOURCES BOARD	MITSUBISHI HEAVY INDUSTRIES, LTD.	EXECUTIVE ORDER U-R-035-0228 New Off-Road Compression-Ignition Engines
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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		DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours) 8000	
2007	7MVXL65.4BBA	65.4	Diesel		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler		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):

RATED EMISSION			EXHAUST (g/kw-hr)				OPACITY (%)			
	STANDARD CATEGORY		НС	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
KW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT			6.0	0.7	0.17			

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

day of January 2007.

Annette Hebert, Chief Mobile Source Operations Division

DITCAC 8.Fuel Rate: 9.Emission Contro (Ibs/hr)@peak torque Device Per SAE J15 U-K-035-0228 ¥ mm/stroke@peak torque (7.Fuel Rate: ₹
 4. Fuel Rate:
 5. Fuel Rate:

 mm/stroke @ peak HP
 (lbs/hr) @ peak HP

 6. Torque @ RPM

 (for diesel only)
 (for diesels only)
ΔA 1132 703 3.BHP@RPM (SAE Gross) 2923@1800 Engine Family 1.Engine Code 2.Engine Model S16R-PTAW2 S16R-Y2PTAW2-1 SI6R-YZPTAW-1 7MVXL65.4BBA

Engine Model Summary Template

ATTACHMENT 1 OF 1