Cetifornia Environmental Protection Agency	EXECUTIVE ORDER U-R-042-0015
AIR RESOURCES BOARD MITSUBISHI FUSO TRUCK AND BUS	New Off-Road
CORPORATION	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	4MFTL11.9D2A	11.945	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION				
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Crane, Loader and Excavator			

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		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS	CATEGORY		НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 <u><</u> KW<225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
225 <u><</u> KW<450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT			5.9	0.8	0.16	 	10	33

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 2004.

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Allen Eyons, Chief Mobile Source Operations Division

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DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI, EM, ECM, TC, CAC 8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930 u-R-043-0015 68.6 76.4 76.4 80.7 88.7 76.4 88.7 98.0 mm/stroke@peak torque 6D24-TLA2A 7.Fuel Rate: 191 191 173 147 190 191 190 196 Process Code: New Submission 6.Torque @ RPM (SAE Gross) 890 @ 1400 745 @ 1400 940 @ 1400 940 @ 1200 940 @ 1400 940 @ 1200 940 @ 1200 940 @ 1500 Manufacturer Family Name: (lbs/hr) @ peak HP (for diesels only) 5.Fuel Rate: 122.0 105.0 122.0 120.7 122.0 125.7 89.6 120.7 mm/stroke @ peak HP (for diesel only) 4.Fuel Rate: 150 128 181 183 183 177 181 183 Manufacturer: Mitsubishi Fuso Truck and Bus 3.BHP@RPM (SAE Gross) 242 @ 2100 335 @ 2130 286 @ 2100 332 @ 2000 335 @ 2000 332 @ 2000 335 @ 2000 335 @ 2000 4MFTL11.9D2A 2.Engine Model 6D24-TLA2A 6D24-TLA2B 6D24-TLA2C 6D24-TLA2D 6D24-TLA2E 5D24-TLA2Q 6D24-TLA2J 6D24-TLA2K EPA Engine Family: 6D24TLA2C-US 6D24TLA2E-US 6D24TLA2A-US 6D24TLA2B-US 6D24TLA2D-US 6D24TLA2K-US 6D24TLA2Q-US 6D24TLA2J-US 1.Engine Code

10/27/03

SUMMARY	
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DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC DDI,EM,ECM,TC,CAC 8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930 U-R-042-0015 88.2 78.9 93.0 78.9 78.9 mm/stroke@peak torque 6D24-TLA2F 7.Fuel Rate: 189 169 186 169 169 Process Code: New Submission 6.Torque @ RPM (SAE Gross) 870 @ 1400 870 @ 1400 907 @ 1500 870 @ 1400 933 @ 1400 Manufacturer Family Name: (Ibs/hr) @ peak HP (for diesels only) 5.Fuel Rate: 113.3 100.0 113.3 100.0 100.0 4.Fuel Rate: mm/stroke @ peak HP (for diesel only) 170 150 170 150 150 Manufacturer: Mitsubishi Fuso Truck and Bus 316 @ 2000 266 @ 2000 266 @ 2000 3.BHP@RPM (SAE Gross) 316 @ 2000 266 @ 2000 4MFTL11.9D2A 2.Engine Model 6D24-TLA2M 6D24-TLA2N 6D24-TLA2P 6D24-TLA2F 6D24-TLA2L EPA Engine Family: 6D24TLA2M-US 6D24TLA2N-US 6D24TLA2F-US 6D24TLA2L-US 6D24TLA2P-US 1.Engine Code