Mahindra & Mahindra LTD.

EXECUTIVE ORDER U-R-043-0024 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)		
2006	6MMLL02.4NEF	2.394	Diesel	5000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
	Direct Diesel Inje	ction	Tractor			

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 (%)			
POWER CLASS	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
19 <u><</u> KW<37	Tier 2	STD	N/A	N/A	7.5	5.5	0.60	20	15	50
		CERT			5.9	2.2	0.27	8	10	9

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 September 2005.

Allen Lygns, Chief

Mobile Source Operations Division

Engine Model Summary Form ATTACHMENT 1 OF 1

MAHINDRA & MAHINDRA LTD., Manufacturer:

Nonroad CI Engine category:

EPA Engine Family: 6MMLL02.4NEF

MAHINDRA & MAHINDRA Mfr Family Name:

U-R-043-0024

Process Code:

New Submission

8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930	¥ 100 /
8.Fuel Rate: (lbs/hr)@peak tor	12.27 12.27
7.Fuel Rate: mm/stroke@peak torque	52.80 52.80
6.Torque @ RPM (SEA Gross)	163.43@1400 163.43@1400
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	16.51 16.51
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	47.47 47.47
3.BHP@RPM (SAE Gross)	43.5@2100 43.5@2100
1.Engine Code 2.Engine Model	NE342R 2WD NE342R 4WD
1.Engine Code	A A