California Environmental Protection Agency

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)			
2011	BMMLL03.3N79	3.330	Diesel	8000			
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION				
Mechanic Cool	al Direct Injection, Turb er, Engine Control Modu Recirculation	ocharger, Charge Air le, Exhaust Gas					

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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
			HC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
56 <u>≤</u> KW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT			3.9	0.8	0.15	3	5	4

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 _

28_____ day of January 2011.

Annette Hebert, Chief Mobile Source Operations Division

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ATTA CHMENT 10F1 Engine Model Summary Form

 Manufacturer:
 MAHINDRA & MAHINDRA LTD.,

 Engine category:
 Nonroad CI

 EPA Engine Family.
 BMMLL03.3N79

 Mfr Family Name:
 MAHINDRA & MAHINDRA

Process Code: New Submission

4.Fuel Rate: 5.Fuel Rate: 7.Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM mm/stroke@peak 8.Fuel Rate: 9.Emission Control 3.BHP@RPM 1.Engine Code 2.Engine Model (SAE Gross) (lbs/hr)@peak torque Device Per SAE J1930 (for diesel only) (for diesels only) torque (SAE Gross) 22.05@1400 DOT, TAA. ECM 314N.m@1400 71.29@1400 NA NE479 2WD 80.35@2300 60.49@2300 30.73@2300 22.05@1400 DOT, TAA, ECM, EGR 71.29@1400 NA NE479 4WD 80.35@2300 60.49@2300 30.73@2300 314N.m@1400 ۰ . ΥF

U-R-043-0078 1/24/2011