California Environmental Protection Agency Air Resources Board	MAN TRUCK & BUS AG	EXECUTIVE ORDER U-R-067-0003 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-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems 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)
2017	HMNBL12.4OR4	12.4	Diesel	8,000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst	Loader, Tractor, Harvester, Agricultural Equipment, Construction Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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 (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.11	0.37	--	0.2	0.02	--	--	--

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 14 day of December 2016.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

U-R-067-0003

ATTACHMENT 1 OF 2

3-27-17

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HMNBL12.4OR4	D2676-R01	LE137	404 kW @ 1850 RPM	292	175.7	2520 NM @ 1350 RPM	342	150.1	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE131	383 kW @ 1950 RPM	266	169.1	2420 NM @ 1350 RPM	325	142.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE521	383 kW @ 1950 RPM	266	169.1	2420 NM @ 1350 RPM	325	142.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE134	353 kW @ 1950 RPM	246	155.9	2305 NM @ 1300 RPM	307	130.1	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE522	353 kW @ 1950 RPM	246	155.9	2305 NM @ 1300 RPM	307	130.1	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE135	323 kW @ 1950 RPM	225	142.9	2108 NM @ 1250 RPM	283	115.3	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE523	323 kW @ 1950 RPM	225	142.9	2108 NM @ 1250 RPM	283	115.3	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE136	294 kW @ 1950 RPM	208	131.8	1916 NM @ 1250 RPM	258	104.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R01	LE524	294 kW @ 1950 RPM	208	131.8	1916 NM @ 1250 RPM	258	104.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX

Engine Model Summary Template

U_R_067-0003

ATTACHMENT 2 OF 2

3-27-17

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HMNBL12.4OR4	D2676-R02	LE137	404 kW @ 1850 RPM	292	175.7	2520 NM @ 1350 RPM	342	150.1	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R02	LE521	383 kW @ 1950 RPM	266	169.1	2420 NM @ 1350 RPM	325	142.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R02	LE522	353 kW @ 1950 RPM	246	155.9	2305 NM @ 1300 RPM	307	130.1	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R02	LE523	323 kW @ 1950 RPM	225	142.9	2108 NM @ 1250 RPM	283	115.3	ECM, DI, TC, CAC, EGR, SCR-U, AMOX
HMNBL12.4OR4	D2676-R02	LE524	294 kW @ 1950 RPM	208	131.8	1916 NM @ 1250 RPM	258	104.9	ECM, DI, TC, CAC, EGR, SCR-U, AMOX