

 AIR RESOURCES BOARD	DAIMLER AG	EXECUTIVE ORDER U-R-016-0083 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)
2009	9MBXL15.9RJA	11.95, 15.93	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Crane, Loader, Dozer, Compressor and Industrial Equipment	

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):

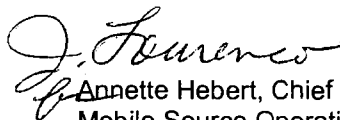
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225≤KW<560	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.9	0.5	0.07	10	1	14

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 17th day of October 2008.


 Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **Daimler AG**
 Engine category: **Nonroad CI**
 EPA Engine Family: **9MBXL15.9RJA**
 Mfr Family Name: **SERIES 500**
 Process Code: **New Submission**

U-R-016-0083

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
502LA.E3A/1	OM502LA	644 @ 1800	295	232	2065 @ 1300	317	180	TC, ECM, CAC (all ratings)
502LA.E3A/2		603 @ 1800	277	218	1991 @ 1300	302	172	
502LA.E3A/3		563 @ 1800	258	203	1991 @ 1300	307	175	
502LA.E3A/4		523 @ 1800	241	190	1770 @ 1300	269	153	
502LA.E3A/5		496 @ 1800	230	181	1770 @ 1300	269	153	
502LA.E3A/6		469 @ 1800	219	172	1696 @ 1300	257	146	
502LA.E3A/7	V	443 @ 1800	208	164	1585 @ 1300	242	138	
501LA.E3A/1	OM501LA	422 @ 1800	260	155	1475 @ 1300	296	127	
501LA.E3A/2		389 @ 1800	239	142	1364 @ 1300	271	117	
501LA.E3A/3	V	349 @ 1800	221	131	1275 @ 1300	259	111	