

## DAIMLER AG

EXECUTIVE ORDER U-R-016-0084 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	9MBXL12.8RJB	12.8	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Crane, Loader, Tractor, Dozer, Pump, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
225 <u>&lt;</u> KW<450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT			3.6	0.8	0.10	8	1	10

**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 October 2008.

Annette Hebert, Chief

Mobile Source Operations Division

## ATTACHMENT 1 OF 1

## Engine Model Summary Form

Manufacturer:

Daimler AG

Engine category: Nonroad CI

EPA Engine Family: 9MBXL12.8RJB

Mfr Family Name: OM460LA

Process Code:

**New Submission** 

u-2-016-0084

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
Vertical	Mount							
460LA.E3A/2	OM460LA	449 @ 1800	268	159.4	1475 @ 1300	290	124.6	TC, ECM, CAC
460LA.E3A/3	1	422 @ 1800	253	150.0	1475 @ 1300	290	124.6	(all ratings)
460LA.E3A/4		396 @ 1800	237	140.6	1401 @ 1300	277	118.5	
460LA.E3A/5	Ì	349 @ 1800	210	124.2	1291 @ 1300	256	109.3	
460LA.E3A/6	ĺ	325 @ 1800	197	116.5	1180 @ 1300	239	102.4	
460LA.E3A/7	į	295 @ 1800	179	106.4	1032 @ 1300	211	90.5	
460LA.E3A/1	ĺ	483 @ 1800	292	172.7	1622 @ 1300	318	136.5	
460LA.E3A/8		503 @ 1800	298	176.0	1586 @ 1300	310	132.5	
460LA.E3A/9	V	503 @ 1800	298	176.0	1586 @ 1300	310	132.5	
Horizontal	Mount							
460hLA.E3A/1	OM460hLA	523 @ 1800	318	188.1	1475 @ 1300	290	124.6	
460hLA.E3A/2		483 @ 1800	292	172.7	1622 @ 1300	318	136.5	
460hLA.E3A/3	ĺ	449 @ 1800	268	159.4	1475 @ 1300	290	124.6	
460hLA.E3A/4	V	422 @ 1800	253	150.0	1254 @ 1300	244	104.1	