California Environmental Protection Agency Air Resources Board	DAIMLER AG	EXECUTIVE ORDER U-R-016-0101 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)
2013	DMBXL12.8RJB	12.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Oxidation Catalyst, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor

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 (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130≤KW≤560	Interim Tier 4/ ALT NOX	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.04	1.5	--	0.4	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 21 day of December 2012.

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 1

Engine Model Summary Template

U-R-016-0101

12/12/2012

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
DMBXL12.8RJB	460 LA.E3B/1	OM460 LA	523 @ 1800	304.3	178.014251364	1623 @ 1300	287.7	121.553923408	~~DOC~~, TC, ECM, ~~AMOX~~
DMBXL12.8RJB	460 LA.E3B/2	OM460 LA	503 @1800	288.5	168.735006591	1623 @ 1300	286.7	121.132836817	CAC, SCR, OC
DMBXL12.8RJB	460 LA.E3B/3	OM460 LA	483 @ 1800	271.8	158.977336134	1623 @ 1300	286.9	121.196777727	(all ratings)
DMBXL12.8RJB	460 LA.E3B/4	OM460 LA	449 @ 1800	251.3	147.015079317	1623 @ 1300	287	121.236464318	
DMBXL12.8RJB	460 LA.E3B/5	OM460 LA	422 @ 1800	234	136.878245909	1549 @ 1300	275	116.196696135	
DMBXL12.8RJB	460 LA.E3B/6	OM460 LA	396 @ 1800	222.2	129.982189772	1475 @ 1300	262.5	110.876952045	
DMBXL12.8RJB	460 LA.E3B/7	OM460 LA	355 @ 1800	200.7	117.387192954	1364 @ 1300	245	103.517944546	
DMBXL12.8RJB	460 hLA.E3B/1	OM460 hLA	523 @ 1800	304.3	178.014251364	1623 @ 1300	287.7	121.553923408	
DMBXL12.8RJB	460 hLA.E3B/2	OM460 hLA	483 @ 1800	271.8	158.977336134	1623 @ 1300	286.9	121.196777727	
DMBXL12.8RJB	460 hLA.E3B/3	OM460 hLA	449 @ 1800	250.8	146.704230454	1475 @ 1300	263.8	111.445742726	
DMBXL12.8RJB	460 hLA.E3B/4	OM460 hLA	422 @ 1800	236.3	138.192192499	1254 @ 1300	225.2	95.1668311363	