

## DAIMLERCHRYSLER AG

EXECUTIVE ORDER U-R-016-0066 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)
2005	5MBXL12.0RJB	12.0	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT	
Direct Dies	sel Injection, Turbocharg Engine Control M	er, Charge Air Cooler, odule	Loader, Tractor and Indu	strial 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				EXHAUST (g/kw-l	3r)		Of	ACITY (%	•)
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
225 <u>&lt;</u> KW<450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15 _	50
	1	CERT		_	5.2	0.5	0.08	9	2	12

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 2004.

Allen Lyons, Chief

Mobile Source Operations Division

## LARGE ENGINE MODEL SUMMARY

u-B-016-0066	R Final Rater O Emiseion Control	d enb.	111.7 DQL, TC, ECM, CAC 111.7 TC, ECM, CAC 104.6 TC, ECM, CAC 95.2 TC, ECM, CAC 88.2 TC, ECM, CAC
sion	NA 7.Fuel Rate:	mm/stroke@peak torque	284 284 265 241 224
Process Code: New Submission	=amily Name:	6.Torque @ RPM (SEA Gross)	1489 @ 1200 1489 @ 1200 1415 @ 1200 1285 @ 1200 1175 @ 1200
Process Code:	Manufacturer Family Name: 5.Fuel Rate:	(lbs/hr) @ peak HP (for diesels only)	150.7 145.1 134.1 117.9 110.9
	4 Fuel Rate:	mm/stroke @ peak HP (for diesel only)	255 246 227 200 188
r AG	.0RJB	3.BHP@RPM (SAE Gross)	449 @ 1800 422 @ 1800 396 @ 1800 349 @ 1800 325 @ 1800
Manufacturer: DaimlerChrysler AG	ily: 5MBXL12.0RJB	2.Engine Model	OM 457LA OM 457LA OM 457LA OM 457LA OM 457LA
Manufacturer: L	EPA Engine Family:	1 Fnaine Code	457LA.E2/1 OM 457LA 457LA.E2/2 OM 457LA 457LA.E2/3 OM 457LA 457LA.E2/4 OM 457LA 457LA.E2/5 OM 457LA

## LARGE ENGINE MODEL SUMMARY

Manufacturer:	Manufacturer: DaimlerChrysler AG	r AG		Process Code:	Process Code: New Submission	ion	m-p-010-0066	9900
EPA Engine Family:	nily: 5MBXL12.0RJB	0RJB		Manufacturer Family Name:	Family Name:	Ą		
1.Engine Code	4. Puer Kate 3. BHP@RPM mm/stroke @ pe 1. Engine Code 2. Engine Model (SAE Gross) (for diesel on	3.BHP@RPM (SAE Gross)	4.ruel 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	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930
457LA.E2/1	OM 457LA	449 @ 1800	255	150.7	1489 @ 1200	284	111.7	TC, ECM, CAC
457LA.E2/2	OM 457LA	422 @ 1800	246	145.1	1489 @ 1200	284	111.7	TC, ECM, CAC
457LA.E2/3	OM 457LA	396 @ 1800	227	134.1	1415 @ 1200	265	104.6	TC, ECM, CAC
457LA.E2/4	OM 457LA	349 @ 1800	200	117.9	1285 @ 1200	241	95.2	TC, ECM, CAC
457LA.E2/5	OM 457LA	325 @ 1800	188	110.9	1175 @ 1200	224	88.2	TC, ECM, CAC
460LA.E2/1	OM 460LA	422 @ 1900	237	144.0	1254 @ 1200	237	91.6	TC, ECM,CAC