

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-16-30
Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

DAIMLERCHRYSLER AG

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Crane, Compressor

Engine Power Ratings Range: 175 – 750 horsepower, inclusive

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YMBXL15.9RJA	15.9	967	Turbocharger Charge Air Cooler Engine Control Module

The engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission certification standards and certification values in grams per brake horsepower-hour (g/bhp-h) for total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

	<u>Exhaust Emissions (g/bhp-h)</u>				<u>Smoke Opacity (%)</u>		
	<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
Standard	1.0	8.5	6.9	0.4	20	15	50
Certification	0.1	0.4	5.1	0.04	12	1	19

BE IT FURTHER RESOLVED: That the listed engine models comply with "Exhaust Emission Standards and Test Procedures—Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with "Emission Control Labels—1996 and Later Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2425 *et seq.*).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 14th day of February 2000.



R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

Manufacturer: DaimlerChrysler AG

Process Code: New Submission

E.O.: U-R-16-30

EPA Engine Family: YMBXL15.9RJA

NA

Manufacturer Family Name:

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
502 LA.E1/1	OM 502 LA	563 @ 1800	250	197.0	1991 @ 1080	293	138.5	TC, ECM, CAC
502 LA.E1/2	OM 502 LA	523 @ 1800	230	181.2	1770 @ 1080	261	123.4	TC, ECM, CAC
502 LA.E1/3	OM 502 LA	469 @ 1800	205	161.5	1696 @ 1080	249	117.7	TC, ECM, CAC
502 LA.E1/4	OM 502 LA	536 @ 2000	234	184.3	1696 @ 1080	244	115.3	TC, ECM, CAC
502 LA.E1/5	OM 502 LA	469 @ 2000	206	162.3	1548 @ 1080	223	105.4	TC, ECM, CAC
502 LA.E1/6	OM 502 LA	402 @ 2000	178	140.2	1401 @ 1080	202	95.5	TC, ECM, CAC
502 LA.E2/1	OM 502 LA	601 @ 1800	270	211.8	1991 @ 1200	292	152.9	TC, ECM, CAC
502 LA.E2/2	OM 502 LA	510 @ 1800	226	177.3	1770 @ 1200	256	134.0	TC, ECM, CAC