

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-27-54

Relating to Certification of New Heavy-Duty Motor Vehicle Engines
MACK TRUCKS, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Mack Trucks, Inc. 1988 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
13, 14	11 (672)	(Acceleration Smoke Puff Limiter) (Turbocharger) (Intercooler)

Engine models and codes are listed on attachments.

The following are emission standards for these engine families except that the demonstration for meeting the carbon monoxide standard has been waived per Subpart A, Part 86, Title 40, Code of Federal Regulations, Section 86.088-23c)(2)(i):

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
1.3	15.5	6.0	0.60

The following are the certification emission values for these engine families:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
13	0.1	5.6	0.51
14	0.5	5.1	0.47

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BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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

BE IT FURTHER RESOLVED: That if the manufacturer exceeds the 5% limit stipulated in 40 CFR 86.088-10(a)(3)(i), penalties as specified in California Health and Safety Code Section 43154 shall apply.

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California this 9th day of December, 1987.


K. D. Drachand, Chief
Mobile Source Division

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1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer Mack Trucks, Inc. Engine Family 13

Liter (CID) 672 CID Eng. Type In-Line 6 Cyl

Emission Control Sys. and (Special Features) ASPL (Turbocharged; Chassis-Charge Air Cooled)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)
EM6-300	Bosch 313GC5175-P4	Bosch 114GC321-P2	300 @ 2100	170.9	1125 @ 1260	218.3

Date of Issue _____

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**1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES**

Manufacturer Mack Trucks, Inc. Engine Family 14

Liter (CID) 672 CID Eng. Type In-Line 6 Cyl

Emission Control Sys. and (Special Features) ASPL (Turbocharged, Chassis Charge Air Cooled,
Four-Valve Head)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/Hr)
EC6-350	Bosch 313GC5173-P4 313GC5173-P16 (Road Speed Governor)	Bosch 114GC318-P8	350 @ 1800	199.3	1277 @ 1250	239.9
EM6-275L	Bosch 313GC5173-P22 313GC5173-P24 (Road Speed Governor)	Bosch 114GC318-P8	275 @ 1750	162.1	1275 @ 1020	248.0
EM6-270	Bosch 313GC5173-P30	Bosch 114GC321	270@2100	142.2	960 @ 1260	177.0

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