

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-27-60-1  
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. 1991 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems</u> <u>and Special Features</u>
MMT0728FAF1 (25)	11.9	(728)	Turbocharger Charge Air Cooler
MMT0728FAG2 (26)	11.9	(728)	Turbocharger Charge Air Cooler
MMT0728FAH3 (27)	11.9	(728)	Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons</u> <u>gm/bhp-hr</u>	<u>Carbon</u> <u>Monoxide</u> <u>gm/bhp-hr</u>	<u>Nitrogen Oxides</u> <u>gm/bhp-hr</u>	<u>Particulates</u> <u>gm/bhp-hr</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for these engine families, except that compliance with the carbon monoxide emission standard has been demonstrated pursuant to the Code of Federal Regulations, Title 40, Part 85, Subpart A, Section 86.088-23(c)(2)(1):

<u>Engine Family</u>	<u>Hydrocarbons</u> <u>gm/bhp-hr</u>	<u>Nitrogen Oxides</u> <u>gm/bhp-hr</u>	<u>Particulates</u> <u>gm/bhp-hr</u>
MMT0728FAF1	0.1	4.7	0.20
MMT0728FAG2	0.0 (0.04)	4.6	0.17
MMT0728FAH3	0.1	4.4	0.24

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 provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

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

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

This Executive Order replaces Executive Order A-27-60 issued on March 28, 1991.

Executed at El Monte, California this 2nd day of May, 1991.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
 HEAVY-DUTY DIESEL ENGINES

Manufacturer Mack Trucks, Inc. Engine Family 25 (MMT0728FAF1)

Liter (CID) 11.9 (728) Eng. Type 6

Emission Control Sys. and (Special Features) TC, CAC  
 (Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng. Code)	Fuel Pump Mfr. P/N 313GC	Injector Mfr. P/N 114GC	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap Catalyst Mfr. P/N
E7-350	BOSCH 5188-P12	BOSCH 325	350 @ 1800	219.1	N/A
E7-300	BOSCH 5188-P8	BOSCH 325	300 @ 1950	180.5	N/A
EM7-300	BOSCH 5188-P10	BOSCH 325-P2	300 @ 1750	191.7	N/A
EM7-275	BOSCH 5188-P4	BOSCH 325-P3	275 @ 1750	173.5	N/A
E7-250	BOSCH 5188-P6	BOSCH 325-P3	250 @ 1950	149.3	N/A
EM7-250	BOSCH 5188-P2	BOSCH 325-P3	250 @ 1750	159.4	N/A

Revisions:  
 042090

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer Mack Trucks, Inc. Engine Family 26 (MMT0728FAG2)

Liter (CID) 11.9 (728) Eng. Type 6

Emission Control Sys. and (Special Features) TC, CAC  
(Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng.Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap Catalyst Mfr. P/N
E7-400	BOSCH 5191-P1	BOSCH 325	400 @ 1800		N/A
E7-350	BOSCH 5191-P1	BOSCH 325	350 @ 1800	192.3	N/A
E7-300	BOSCH 5191-P1	BOSCH 325-P2	300 @ 1700	171.8	N/A

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1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
 HEAVY-DUTY DIESEL ENGINES

Manufacturer Mack Trucks, Inc. Engine Family 27 (MMT0728FAH3)

Liter (CID) 11.9 (728) Eng. Type 6

Emission Control Sys. and Special Features TC, CAC  
 (Use abbreviations per SAE J1930 Jun88)

Engine Model (Eng.Code)	Fuel Pump Mfr. P/N	Injector Mfr. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP cc/stroke	Part. Trap Catalyst Mfr. P/N
EM7-300	BOSCH 5191-P1 313GC	BOSCH 325-P2 114GC	300 @ 1750	169.9	N/A
EM7-275	BOSCH 5191-P1	BOSCH 325-P3	275 @ 1750	156.2	N/A
EM7-250	BOSCH 5191-P1	BOSCH 325-P3	250 @ 1750	143.3	N/A

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