

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-27-63

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. 1993 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control</u> <u>Systems and Special Features</u>
PMT0728FAB5 (19)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter
PMT0728FAC6 (20)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter Engine Control Module
PMT0728FAD7 (24)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter
PMT0728FAE8 (26)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter Engine Control Module
PMT0728FAF9 (29)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter
PMT0728FAGX (31)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter Engine Control Module
PMT0728FAH0 (33)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter Engine Control Module

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
PMT0728FAJ4 (34)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter
PMT0728FAL6 (36)	11.9	(728)	Turbocharger Charge Air Cooler Smoke Puff Limiter Engine Control Module

Engine models and codes are listed on attachments.

The following are the certification emission standards for these engine families in grams per brake horsepower-hour:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for these engine families in grams per brake horsepower-hour, except that compliance with the carbon monoxide emission standard has been demonstrated pursuant to Title 40, Code of Federal Regulations, Part 86, Subpart A, Section 86.091-23(c)(2)(i):

<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
PMT0728FAB5	0.1	4.6	0.19
PMT0728FAC6	0.1	4.3	0.15
PMT0728FAD7	0.1	4.6	0.19
PMT0728FAE8	0.1	4.8	0.16
PMT0728FAF9	0.1	4.0	0.16
PMT0728FAGX	0.1	4.5	0.13
PMT0728FAH0	0.1	4.6	0.13
PMT0728FAJ4	0.1	4.5	0.17
PMT0728FAL6	0.1	4.4	0.12

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, 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.

Executed at El Monte, California this 27th day of January, 1993.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MACK TRUCKS, INC Engine Family 19 (PMT0128FAB5)
 Liters (CID) 11.9 (728) Fuel Type DIESEL^{25%} Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
E7-300	300 @ 1950	182.2 (123.6)	3136C5788-P8 1146C325	N/A	N/A
E7-250	250 @ 1950	150.8 (102.3)	3136C5788-P6 1146C325-P3	N/A	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAK TRUCKS, INC Engine Family 20(PMTCT28FACG)
 Liters (CID) 11.9 (728) Fuel Type DIESEL^{25% S} Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) ECM, TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
EM7-275	275 @ 1750	156.2 (95.1)	3136C5204-P1 1146C325-P3	1M5532-P2	N/A
EM7-250	250 @ 1750	143.3 (87.2)	3136C5204-P1 1146C325-P3	1M5532-P1	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAEK TRUCKS, INC Engine Family 24(PMTC728FADT)
 Liters (CID) 11.9 (728) Fuel Type DIESEL^{125%^S} Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
EM7-275	275 @ 1750	175.3 (106.7)	313CC5188-P4 1146C325-P3	N/A	N/A
EM7-250	250 @ 1750	161.0 (98.0)	313CC5198-P2 1146C325-P3	N/A	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAK TRUCKS, INC Engine Family 26 (PMT0129FAES)
 Liters (CID) 11.9 (728) Fuel Type DIESEL^{25% S} Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) ECM, TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
E7-400	400 @ 1800	226.8 (142.0)	3136C5204-PI 1146C325	1M5532-P16	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAEK TRUCKS, INC Engine Family 29(PMT0728FAF9)

Liters (CID) 11.9 (728) Fuel Type DIESEL^{25%} Engine Config. I-6

Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
E7-350	350 @ 1800	221.4 (138.6)	313005788 P12 11460325	N/A	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MACK TRUCKS, INC Engine Family 31(PMTC728FAGX)
 Liters (CID) 11.9 (728) Fuel Type DIESEL 25% S Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) ECM, TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
<u>E7-300</u>	<u>300 @ 1800</u>	<u>156.4 (97.9)</u>	<u>313605204-P1 11460325-P2</u>	<u>1M15532-P13</u>	<u>N/A</u>

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAEK TRUCKS, INC Engine Family 33(PMT0728FAH0)

Liters (CID) 11.9 (728) Fuel Type DIESEL^{25%} Engine Config. I-6

Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) ECM, T.C., SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
EM7-300	300 @ 1750	162.8 (99.1)	313665204-P1 11460325-P2 OR 11460325-P3	1MS532-P14	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MAEK TRUCKS, INC Engine Family 34(PMTC728FAJ4)
 Liters (CID) 11.9 (728) Fuel Type DIESEL ^{25% S} Engine Config. I-6
 Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
EM7-300	300 @ 1750	193.7 (117.9)	3136C5189-PI0 1146C325-PL	N/A	N/A

Revisions:

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
 HEAVY-DUTY DIESEL ENGINES

Manufacturer MACK TRUCKS, INC Engine Family 36(PMTC0728FAL6)

Liters (CID) 11.9 (728) Fuel Type DIESEL^{25%} Engine Config. I-6

Exhaust ECS & Special Features (ECM/PCM, PTOX, IFI, etc.) ECM, TC, SPL, CAC
 (Use abbreviations per SAE J1930 MAY91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lbs/hr)	Fuel Pump & Injector P/N	ECM/PCM P/N	Part. Trap/ Catalyst P/N
E7-350	350 @ 1900	189.2 (115.3)	313605204-P1 11460325	1M5532-P15	N/A

Revisions: _____