State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-27-62 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. 1992 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

| Engine Family | Displacement <u>Liters (Cubic Inches)</u> | | Exhaust Emission Control Systems and Special Features |
|------------------|--|-------|--|
| NMT0728FAA6 (19) | 11.9 | (728) | Turbocharger Charge Air Cooler Smoke Puff Limiter |
| NMT0728FAB7 (20) | 11.9 | (728) | Turbocharger /ECM Charge Air Cooler Smoke Puff Limiter |
| NMT0728FAC8 (24) | 11.9 | (728) | Turbocharger Charge Air Cooler Smoke Puff Limiter |
| NMT0728FAK7 (33) | 11.9 | (728) | Turbocharger & & CM Charge Air Cooler Smoke Puff Limiter |

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:

| Hydrocarbons | Carbon <u>Monoxide</u> | Nitrogen Oxides | <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 86.088-23(c)(2)(i):

| Engine Family | Hydrocarbons | Nitrogen Oxides | <u>Particulates</u> |
|----------------------|---------------------|-----------------|---------------------|
| NMT0728FAA6 | 0.1 | 4.6 | 0.19 |
| NMT0728FAB7 | 0.1 | 4.3 | 0.15 |
| NMT0728FAC8 | 0.1 | 4.6 | 0.19 |
| NMT0728FAK7 | 0.1 | 4.6 | 0.13 |

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 $\frac{2}{2}$ day of October, 1992.

R. B. Summerfield

Assistant Division Chief Mobile Source Division

| Manufacturer | MACK TRUCKS, INC. | | Engine Family 19 (NMT0728FAA6) | | |
|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|--------------------------------------|---|
| Liters (CID) _ | 11.9 (729 |) Fuel Type | DIESEL | Engine Confi | g. <u>I-6</u> |
| Exhaust ECS & (Use abbreviat | Special Featu ions per SAE | Jres | C, CRC, SPC | | |
| 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 |
| E7-300 | Bosch 5188-P8 | Bosch 325 | 300 @ 1950 | 182,2 | N/A |
| E7-250 | Bosch | Bosch | 250 @ 1950 | 150.8 | N/A |

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| Manufacturer | MACK TRUCKS | , INC. | Engine F | amily 20 (NI | MT0728FAB7) |
|-------------------------------|----------------------------------|---------------------------------------|---------------------|--------------------------------------|--|
| Liters (CID) _ | 11.9 (729 |) Fuel Type_D | IESEL | Engine Confi | J |
| Exhaust ECS & (Use abbreviat | | es 11930 Jun88) | re, ere, e | SFL | هر مستورد و مستورد المستورد و مستورد و |
| 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 |
| EM7-275 | Bosch 5191-P1 5201-P1 | Bosch 325-P3 325-P3 | 275 @ 1750 | 156.2 | N/A |
| EM7-250 | Bosch 5191-P1 5201-P1 | Bosch 325-P3 325-P3 | 250 @ 1750 | 143.3 | N/A |

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| Manufacturer_ | MACK TRUCKS | S, INC. | Engine | Family 24 (NE | MT0728FAC8) |
|------------------------------|---------------------------------|-------------------------|---------------------|--|---|
| Liters (CID) | 11.9 (729 | Fuel Typ | e DIESEL | Engine Confi | ig. <u>I-6</u> |
| Exhaust ECS & (Use abbrevia) | Special Featur tions per SAE | res | , CAC, SPI | | |
| 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 |
| EM7-275 | Bosch 5188-P4 | Bosch 325-P3 | 275 @ 1750 | 175,3 | N/A |
| EM7-250 | Bosch 5188-P2 | Bosch 325-P3 | 250 @ 1750 | 161.0 | N/A |

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| Manufacturer_ | MACK TRUCK | S, INC. | Engine | Engine Family 33 (NMTO728FAK7) | | |
|-------------------------------|--------------------------------|-------------------------------|-------------|--|---|--|
| Liters (CID) | 11.9 (729 |) Fuel 1 | ype DIESEL | Engine Confi | g. <u>I-6</u> | |
| Exhaust ECS & (Use abbreviat | Special Featu ions per SAE | res <u> </u> | TC, CAC, SP | 1 | | |
| Engine Model (Eng. Code) | Fuel Pump Mfr. P/N 313GC | I Injector I Mfr. P/N I 114GC | | Fuel Rate @ Rated HP cc/stroke | Part, Trap/ Catalyst Mfr. P/N | |
| EM7-300 | Bosch 5191-P1 5201-P1 | Bosch 325-P2 | 300 @ 1750 | 169,9 | N/A | |