State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-31-24

Relating to Certification of New Heavy-Duty Motor Vehicle Engines
HINO MOTORS, LTD.

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 Hino Motors, Ltd. 1992 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

| Engine Family | Liters | (Cubic Inches) | Exhaust Emission Control Systems and Special Features |
|---------------|--------|----------------|---|
| NHM03.8FAAX | 3.8 | 234 | Turbocharger Charge Air Cooler |
| NHM06.5FAA5 | 6.5 | 396 | Turbocharger Charge Air Cooler |

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 <u>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:

| Engine Family | Hydrocarbons | Carbon <u>Monoxide</u> | Nitrogen <u>Oxides</u> | <u>Particulates</u> |
|------------------|--------------|---------------------------|---------------------------|---------------------|
| NHM03.8FAAX | 0.4 | 1.3 | 4.2 | 0.19 |
| NHM06.5FAA5 | 0.8 | 1.4 | 4.6 | 0.22 |

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all materials 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.

Executed at El Monte, California this _____ day of February, 1992.

R. B. Summerfield / Assistant Division Chief

Mobile Source Division

Sheets added by Requirement of Mail out 90-36 & Other Information

E.O.# A-31-24

01.00.00 1992 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

NHM03.8FAAX Manufacturer HINO MOTORS, LTD. Engine Family Engine Type L-4, 4 Stroke cycle, Liters (CID) $\frac{3.839}{(234)}$

Emission Control Sys. & Special Features EM (DID, 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 |
|-----------------------------|-----------------------|----------------------|-------------------|--------------------------------------|------------------------------------|
| W04C-TH | Nippon Denso | Nippon Denso | 150 @ | 0.094 | N/A |
| | 22010-6383 | 23610-1822 | 2,800 | | 1 |
| | (Mech. T/M) | | | | |
| | 22010-6870 | | | | |
| | (Auto. T/M) | | | | |
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17.00.00.00 Sheets added by Requirement of Mail out#90-36 & Other Information

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01.00.00 1992 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

MHOD

| Manufacturer_ | HINO MOTORS, LTD. | Engine Family NHM06.5FAA5 |
|---------------|--|--|
| Liters (CID) | 6.485 (396) | Engine Type $\underline{L-6}$, 4 Stroke cycle |
| Emission Cont | trol Sys. & Special Feat ations per SAE J1930 Jun | uresEM (DID, TC, C <i>AC</i>) 88) |

| 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 |
|-----------------------------|-----------------------|----------------------|-------------------|--------------------------------------|------------------------------------|
| H06C-TM | Nippon Denso | Nippon Denso | 225 @ | 0.107 | N/A |
| | 22010-6333 | 23610-1790 | 2,500 | | |
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01.00.00 1992 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

MHDD

| Manufacturer_ | HINO M | OTORS | LTD. | Engine Family NHM06.5FAA5 |
|-----------------|--------|-------|-------|----------------------------------|
| manor according | | | | |
| Liters (CID) | 6.485 | (3 | 196) | Engine Type L-6, 4 Stroke cycle, |

Emission Control Sys. & Special Features EM (DID, 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 |
|-----------------------------|-----------------------|----------------------|-------------------|--------------------------------------|-------------------------------------|
| H06C-TN | Nippon Denso | Nippon Denso | 200 @ | 0.094 | N/A |
| | 22010-6343 | 23610-1790 | 2,500 | | |
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Sheets added by Requirement of Mail out #90-36 & Other Information

01.00.00 199_2 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY DIESEL ENGINES

MHDO.

Manufacturer HINO MOTORS LTD. Engine Family NHMO6.5FAA5

Liters (CID) 6.485 (396) Engine Type L-6, 4 Stroke cycle,

Emission Control Sys. & Special Features EM (DID, 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 |
|-----------------------------|-----------------------|----------------------|-------------------|--------------------------------------|------------------------------------|
| | | | | | |
| H06C-TP | Nippon Denso | NipponDenso | 180 @ | 0.088 | N/A |
| | 22010-6840 | 23610-1910 | 2,500 | | |
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