

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-31-19
Relating to Certification of New Motor Vehicle Heavy-Duty 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. 1987 model-year diesel engines have shown compliance with the transient test procedure and standards and are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HHM0065FAA2	396 (6.5)	Engine Modification (Diesel Injection-Direct) (Turbocharger) (Intercooler)

Engine models and codes are listed on attachments.

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

<u>Engine Family</u>	<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>
HHM0065FAA2	0.6	2.3	5.5	0.4

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.

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

Executed at El Monte, California this 23rd day of September, 1986.


K. D. Drachand, Chief
Mobile Source Division

10.00.00

1987 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Manufacturer HINO MOTORS, LTD Engine Family HHM0065FAA2
 Evaporative Family Engine Type L-6, 4 Stroke Cycle, TC-IC
 Liters (CID) 6.485 (396)

ABBREVIATIONS

Ignition System

- CA-Centrifugal Advance
- EEC-Electronic Engine Control
- EI-Electronic Ignition
- ESAC-Electronic Spark Advance Control
- VA-Vacuum Advance
- VR-Vacuum Retard

Exhaust Emissions Control System

- AIP-Air Injection-Pump
- AIV-Air Injection-Valve
- CL-Closed Loop
- EGR-Exhaust Gas Recirculation
- EM-Engine Modification
- OC-Oxidation Catalyst System
- SPL-Smoke Puff Limiter or Throttle Delay
- TOC-Trap Oxidizer, Continual
- TOP-Trap Oxidizer, Periodical
- TR-Thermal Reactor
- TWC-Three-Way Catalyst System

Special Features

- CCV-Combustion Chamber Valve
- CFI-Central Fuel Injection
- DID-Diesel Injection-Direct
- DIP-Diesel Injection-Prechamber
- EFI-Electronic Fuel Injection
- IC-Intercooler or aftercooler
- MFI-Mechanical Fuel Injection
- TC-Turbocharger

Fuel System

- CFI, CL, DID, DIP, EFI, MFI
- nV-nVenturi Carburetor

VEHICLE MODELS:

ne: Front x Mid. Rear

Drive: FWD RWD x 4WD Full Time 4WD Part Time

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HEAVY-DUTY DIESEL ENGINES

Manufacturer HINO MOTORS, LTD. Engine Family HHM0065FAA2
 Liter (CID) 6.485 (396) Eng. Type L-6, 4 Stroke Cycle, TC-IC
 Emission Control Sys. and (Special Features) Engine Modification (D1D) (TC) (IC)

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)
H06C-TH	Nippon Denso 22010-5001	Nippon Denso 23610-1590	225@ 2,700	92 (81.2)	470@ 1,600	94.5 (49.4)

Date of Issue August 1, 1986 Revisions: