State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-31-32

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-45-9;

IT IS ORDERED AND RESOLVED: That the following 1996 model-year Hino Motors, Ltd., diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Engine Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
THM3.8C7DARW	3.8	(234)	Turbocharger Charge Air Cooler Engine Control Module

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	5.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

Engine Family	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
THM3.8C7DARW	0.6	2.2	4.8	0.09

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 10th day of January 1996.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

E.O.# A-31-32

01.00.00 199 6 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET Page 1
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: HINO MOTORS, LTD. Engine Family: THM3.8C7DARW

Displacement: 3.839 / Liters 234 / Cubic Inches

All Eng Codes in Eng Family: CA___ 49S___ 50S x Strokes/Cycle: 4 Valves/Cylinder: 2

Ignition: Compression x Compression with Glow Plug___ Spark___

Fuel Type(s): Dedicated X Flex-Fuel___ Dual-Fuel___ Bi-Fuel___ Diesel x CNG___
LNG___ LPG___ M85___ M100___ Other (specify)___

Diesel Cert Fuel: 13 CCR 2282___ 40 CFR 86.1313-90___ 40 CFR 86.1313-94 x

Maximum Rated Power: 150 HP @ 2,800 RPM Engine Configuration: I-4

Exhaust ECS (e.g., OC, EGR, PTOX, IFI, TC, CAC): TC, CAC, ECM
(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
W04C-TM	150 @ 2,800	91.0 (55.5)	Fuel Pump; Zexel Corp. Mech T/M: 696 (22000-8391) Auto T/M: 697 (22000-8401) Injector: Zexel Corp. Nozzle & holder set: 4M (23600-2671) Nozzle holder: - (23620-2321) Nozzle assy: 998 (23640-2251) ( ):Hino Inventory No.	ECM; Injection pump control computer assy: 89560-2671	-	-

Date Issued:

Revisions: