

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-31-31

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

| <u>Engine Family</u> | <u>Engine Displacement Liters (Cubic Inches)</u> | <u>Exhaust Emission Control Systems and Special Features</u> |
|----------------------|--|--|
| THM6.5D7DARW | 6.5 (396) | 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:

| <u>Hydrocarbons</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Particulates</u> |
|---------------------|----------------------------|----------------------------|---------------------|
| 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:

| <u>Engine Family</u> | <u>Hydrocarbons</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Particulates</u> |
|--------------------------|---------------------|----------------------------|----------------------------|---------------------|
| THM6.5D7DARW | 0.7 | 2.5 | 4.8 | 0.10 |

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.).

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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-31-31

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HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: HINO MOTORS, LTD. Engine Family: THM6.5D7DARW
 Displacement: 6.485 / Liters 396 / 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: 225 HP @ 2,500 RPM Engine Configuration: I-6
 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 @ ₃ 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. |
|----------------------------|-------------------|--|--|--|--------------------------|--|
| H06C-TV | 225 @ 2,500 | 105 (85.7) | Fuel Pump; Zexel Corp. Mech T/M: 712 (22000-8521) Auto T/M: 713 (22000-8531) Injector: Zexel Corp. Nozzle & holder set: 6V (23600-2681) Nozzle holder: - (23620-2331) Nozzle assy: 999 (23640-2261) ():Hino Inventory No. | ECM; Injection pump control computer assy: 89560-2711 | | |

Date Issued:

Revisions:

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

Manufacturer: HINO MOTORS, LTD. Engine Family: THM6 5D7DARW
 Displacement: 6.485 / Liters 396 / 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: 200 HP @ 2,500 RPM Engine Configuration: I-6
 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 @ 3 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. |
|----------------------------|-------------------|---|--|--|--------------------------|--|
| H06C-TU | 200 @ 2,500 | 94.0 (76.7) | Fuel Pump; Zexel Corp. Mech T/M: 708 (22000-8481) Auto T/M: 709 (22000-8491) Injector: Zexel Corp. Nozzle & holder set: 6V (23600-2681) Nozzle holder: - (23620-2331) Nozzle assy: 999 (23640-2261) | ECM; Injection pump control computer assy: 89560-2701 | | |
| () ; Hino Inventory No. | | | | | | |

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HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: HINO MOTORS, LTD. Engine Family: THM6.5D7DARW
 Displacement: 6.485 / Liters 396 / 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: 180 HP @ 2,500 RPM Engine Configuration: I-6
 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. |
|----------------------------|-------------------|---|--|--|--------------------------|--|
| H06C-TT | 180 @ 2,500 | 87.0 (71.0) | Fuel Pump; Zexel Corp. Mech T/M: 704 (22000-8441) Auto T/M: 705 (22000-8451) Injector: Zexel Corp. Nozzle & holder set: 6T (23600-2691) Nozzle holder: - (23620-2341) Nozzle assy: 000 (23640-2271) () ; Hino Inventory No. | ECM; Injection pump control computer assy: 89560-2681 | | |

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