File



State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-23-242
Relating to Certification of New Motor Vehicles

HONDA MOTOR CO., LTD.

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year Honda Motor Co., Ltd. exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Ultra-Low Emission Vehicle (ULEV)

Fuel Type: Compressed Natural Gas (CNG)

Engine Family: XHNXV01.6KA4 Displacement: 1.6 Liters (97 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converter
Heated Oxygen Sensors (two)
Exhaust Gas Recirculation
Sequential Multiport Fuel Injection
Warm Up Three Way Catalytic Converter

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The ULEV certification exhaust emission standards for this engine family in grams per mile are:

| Miles | Non-Methane Organic Gases | Carbon Monoxide | Nitrogen Oxides | Formaldehyde |
|---|---|---|---|---|
| 50,000 | 0.040 | 1.7 | 0.2 | 0.008 |
| 100,000 | 0.055 | 2.1 | 0.3 | 0.011 |

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a reactivity adjustment factor (RAF) for CNG-fueled passenger car ULEVs, and the addition of the product of the methane exhaust emission value and a RAF for methane emission of CNG-fueled passenger car ULEVs.

Reactivity Adjustment Factor for NMOG Mass Emission: 0.43

Reactivity Adjustment Factor for Methane Mass Emission: 0.0047

The ULEV certification exhaust emission values for this engine family in grams per mile are:

| Miles | Non-Methane Organic Gases | Carbon Monoxide | Nitrogen Oxides | Formaldehyde |
|---|---|---|---|---|
| 50,000 | 0.002 | 0.1 | 0.02 | 0.0005 |
| 100,000 | 0.002 | 0.1 | 0.02 | 0.0005 |

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models shall be clearly labeled as "low-emission motor vehicle" pursuant to the requirements of Health and Safety Code Section 43802(a).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves 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.).

Vehicles 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 attachment.

Executed at El Monte, California this 14th day of December 1998.

R. B. Summerfield, Chief
Mobile Source Operations Division

1999 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

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Manufacturer: HONDA Exh Engine Family: XHNXV01.6KA4 Evap./Refueling Family: XHNXR0000CNG
All Engine Codes in Engine Family: CA ___ 49S ___ 50S X AB965 ___, ORVR: YES X 1/ NO ___
Exh std: CA Tier-1 ___ TLEV ___ LEV ___ ULEV X SULEV ___, US EPA Tier-1 ___
Veh Class(es): PC X LDT1 ___ LDT2 ___ MDV1 ___ MDV2 ___ MDV3 ___ MDV4 ___ MDV5 ___
Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
Fuel Type(s): Dedicated X Flex-Fuel ___ Dual-Fuel ___ Bi-Fuel ___ Gasoline ___
Diesel ___ CNG X LNG ___ LPG ___ M85 ___ other (specify) _____
Exh Emiss Test Fuel(s): Indo ___ CBG ___ CNG X LPG ___ M85 ___ other (specify) _____
Diesel: 13 CCR 2282 ___ 40 CFR 86.113-90 ___ 40 CFR 86.113-94 ___
Evaporative Emission Test Procedure: California ___ Federal ___
Service Accum: Std AMA ___ Mod AMA ___ Mfr ADP X Other (specify) _____
NMOG Test Procedure: N/A ___ Std ___ Equiv X, R/L Test Proc: SHED ___ Pt Source ___
Engine Configuration: L-4 Displacement: 1.6/97 Liters/Cubic Inches
Valves per Cylinder: 4 Rated HP: 110 @ 6500 RPM, Engine: Front X Mid ___ Rear ___
Drive: FWD X RWD ___ 4WD-FT ___ 4WD-PT ___
Exhaust ECS (e.g., MFI, EGR, TC, CAC): WU-TWC/TWC/HO2S(2)/EGR/SFI
(use abbreviations per SAE J1930 JUN93)

| Engine Code (also list CA/49ST/50ST) | Vehicle Models (if coded see attachment) | Trans. (M5, A4 etc.) | ETW or Test Wt. | DPA or RLHP | Ignition (ECM/PCM) Part No. | EGR System Part No. | Catalytic Converter Part No. |
|---|---|---|---|---|---|---|---|
| XKA3/1 (50ST) | Civic GX | L4 | 2875 | Twin: 7.5 (BS) Single: 8.6 (BS) | PCM: 37820-PDN-A021 | EGR Valve: EE01 | WU-TWC:JA TWC :JB |

NOTE 1/: Refueling receptacles on Honda's natural gas-fueled vehicles comply with the receptacle provisions of the ANSI/AGA NGV1 standard 1994.