

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-106-A
Relating to Certification of New Motor Vehicles

FUJI HEAVY INDUSTRIES, 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 Fuji Heavy Industries, Ltd. exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: XFJXV02.5DCD Displacement: 2.5 Liters (150 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Three Way Catalytic Converters (two)
- Heated Oxygen Sensors (two)
- Exhaust Gas Recirculation
- Sequential Multiport Fuel Injection

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

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

| <u>Miles</u> | <u>Non-Methane Organic Gases</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Formaldehyde</u> | <u>Carbon Monoxide (20°F)</u> |
|--------------|----------------------------------|------------------------|------------------------|---------------------|-------------------------------|
| 50,000 | 0.125 | 3.4 | 0.4 | 0.015 | 10.0 |
| 100,000 | 0.156 | 4.2 | 0.6 | 0.018 | n/a |

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for non-methane organic gases (NMOG) reflect application of a 0.98 RAF for 1999 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

| <u>Miles</u> | <u>Non-Methane Organic Gases</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Formaldehyde</u> | <u>Carbon Monoxide (20°F)</u> |
|--------------|----------------------------------|------------------------|------------------------|---------------------|-------------------------------|
| 50,000 | 0.076 | 1.5 | 0.1 | 0.001 | 6.3 |
| 100,000 | 0.086 | 1.6 | 0.1 | 0.001 | n/a |

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 vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the "California Refueling Emission Standards and Test Procedures for 1998 and Subsequent Model Motor Vehicles," Title 13, California Code of Regulations, Section 1978, and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

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 vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit 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 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 27th day of April 1998.


R. B. Summerfield, Chief
Mobile Source Operations Division

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

Manufacturer: Fuji Heavy Industries Ltd. Exh Eng Fam: XFIXV02.5DCD Evap Fam: XEJXR01251BB
 All Engine Codes in Engine Family: CA x 49S___ 50S___ AB965___, ORVR: YES x NO___
 Exh Std: CA Tier-1___ TLEV x LEV___ ULEV___ 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: _____ (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
 Fuel Type(s): Dedicated x Flex-Fuel___ Dual-Fuel___ Bi-Fuel___ Gasoline x Diesel___
 CNG___ LNG___ LPG___ M85___ Other (specify)_____
 Exh Emiss Test Fuel(s): Indo___ CBG x CNG___ LPG___ M85___ Other (specify)_____
 Diesel: 13 CCR 2282 ___ 40 CFR 86.113-90 ___ 40 CFR 86.113-94 ___
 Evaporative Emission Test Procedure: California___ Federal x___
 Service Accum: Std AMA x Mod AMA___ Mfr ADP___ Other (specify)_____
 NMOG Test Procedure: N/A___ Std x Equiv___ R/L Test Proc: SHED___ Pt Source x___
 Engine Configuration: 00 Displacement: _____ / 2.5 Liters _____ / 150 Cubic Inches
 Valves per Cylinder: 4 Rated HP: _____ 165 @ _____ 5600 RPM
 Engine: Front x Mid___ Rear___ Drive: FWD___ RWD___ 4WD-FT x 4WD-PT___
 Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI, EGR, HO2S(2), TWC(2)
 (use abbreviations per SAE J1930 JUN93)

| Engine Code (CA/ 49ST/50ST) | Vehicle Models | Trans. A-Auto M-Man. | ETW | DPA | Ignition (ECM/PCM) Part No. | EGR System Part No. | Catalytic Converter Part No. |
|-----------------------------------|-------------------|----------------------------|-----------------|-----------------|--|---|--|
| X2.5TMB (CA) | LEGACY 4D AWD GT | M-5 | 3500 (3375)# | 7.3 | Electronic Control Unit: Fuji's Part No. 22611AD69A (GT) 22611AD70A (SUS, OBK) | EGR Valve: Mitsubishi K005T75071 Fuji's Part No. 14710AA530 | Fuji's Part No. Front: 20805AB08A Rear: 20805AB09A |
| | LEGACY SW AWD OBK | | | 9.2 | | | |
| | LEGACY SW AWD GT | | | 7.9 | | | |
| X2.5TAB (CA) | LEGACY 4D AWD GT | A-4 | 3500 | 7.0 | | | |
| | LEGACY 4D AWD SUS | | | 8.4 | | | |
| | LEGACY SW AWD OBK | | | 3625 (3500)# | 9.2 | | |
| | LEGACY SW AWD GT | | | 3625 | 7.7 | | |

#The model is tested at higher ETW in accordance with 40 CFR 86.094-26(a)(2).

Date Issued: 3/13/98
Revisions: 4/10/98