

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-101  
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 1997 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: VFJ2.2VJG2EK Displacement: 2.2 Liters (135 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

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

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 1997 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	0.093	1.7	0.1	0.0004	4.4
100,000	0.104	1.9	0.1	0.0004	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 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 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 22<sup>nd</sup> day of May 1996.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
 PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Fuji Heavy Industries Ltd. Exh Engine Family: VFJ2.2VJG2EK (System #1)  
 Evap Std: 50K  Useful Life with R/L \_\_\_\_\_ Evap Engine Family: VFJ1110BYME5  
 Exh Std: Tier-0 \_\_\_\_\_ Tier-1 \_\_\_\_\_ TLEV  LEV \_\_\_\_\_ ULEV \_\_\_\_\_ ZEV \_\_\_\_\_ ; EPA Tier-0 \_\_\_\_\_ Tier-1 \_\_\_\_\_  
 Veh Class(es): PC  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)  
 Exh Cert Fuel(s): Indo \_\_\_\_\_ Ph2  Diesel: 13 CCR 2282 \_\_\_\_\_ or 40 CFR 86.113-90 \_\_\_\_\_ or -94 \_\_\_\_\_  
 M85 \_\_\_\_\_ CNG \_\_\_\_\_ LPG \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Fuel Type(s): Dedicated  Flex-Fuel \_\_\_\_\_ Dual-Fuel \_\_\_\_\_ Gasoline  Diesel \_\_\_\_\_ M85 \_\_\_\_\_  
 CNG \_\_\_\_\_ LNG \_\_\_\_\_ LPG \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Hybrid: Type A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_, APU Cycle (e.g., Otto, Diesel, Turbine) \_\_\_\_\_  
 Engine Configuration: H04 Displacement: 2.2 / Liters 135 / Cubic Inches  
 Engine: Front  Mid \_\_\_\_\_ Rear \_\_\_\_\_ Drive: FWD \_\_\_\_\_ RWD \_\_\_\_\_ 4WD-FT  4WD-PT \_\_\_\_\_  
 Exhaust ECS (eg., EGR, MFI, TC, CAC): H02S(2), TWC(2), SFI  
 (use abbreviations per SAE J1930 SEP91)

Engine Code	Vehicle Models	Trans. Type: A-Auto M-Man.	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
CA/49ST /50ST							
T2.2CFMA (CA)	LEGACY 4D AWD L	M-5	3250 (3125)#	7.2	Electronic Control Unit: Fuji's Part No. 22611AD050 22611AD051 (R/C #97-2)	None	Fuji's Part No. Front: 20805AA960 Rear: 20805AA970
	LEGACY SW AWD Bgighton		3250	7.8			
	LEGACY SW AWD L			7.8			

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

Date Issued: 3/22/'96  
 Revisions: 006-7/01/'96

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Fuji Heavy Industries Ltd. Exh Engine Family: VFJ2.2VJG2EK (System #2)  
 Evap Std: 50K x Useful Life with R/L\_\_\_ Evap Engine Family: VFJ1110BYME5  
 Exh Std: Tier-0\_\_\_ Tier-1\_\_\_ TLEV x LEV\_\_\_ ULEV\_\_\_ ZEV\_\_\_ ; EPA Tier-0\_\_\_ 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)  
 Exh Cert Fuel(s): Indo\_\_\_ Ph2 x Diesel: 13 CCR 2282\_\_\_ or 40 CFR 86.113-90\_\_\_ or -94\_\_\_  
 M85\_\_\_ CNG\_\_\_ LPG\_\_\_ Other (specify)\_\_\_\_\_  
 Fuel Type(s): Dedicated x Flex-Fuel\_\_\_ Dual-Fuel\_\_\_ Gasoline x Diesel\_\_\_ M85\_\_\_  
 CNG\_\_\_ LNG\_\_\_ LPG\_\_\_ Other (specify)\_\_\_\_\_  
 Hybrid: Type A\_\_\_ B\_\_\_ C\_\_\_, APU Cycle (e.g., Otto, Diesel, Turbine)\_\_\_\_\_  
 Engine Configuration: H04 Displacement: 2.2 / Liters 135 / Cubic Inches  
 Engine: Front x Mid\_\_\_ Rear\_\_\_ Drive: FWD\_\_\_ RWD\_\_\_ 4WD-FT x 4WD-PT\_\_\_  
 Exhaust ECS (eg., EGR, MFI, TC, CAC): EGR, HO2S(2), TWC(2), SFI  
 (use abbreviations per SAE J1930 SEP91)

Engine Code	Vehicle Models	Trans. Type: A-Auto M-Man.	ETW	DPA	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
CA/49ST /50ST							
T2.2CFAA (CA)	LEGACY 4D AWD L	A-4	3250	7.2	Electronic Control Unit: Fuji's Part No. 22611AD050 22611AD060 22611AD051 22611AD061 (R/C #97-2)	EGR Valve: Mitsubishi K005T75073 Fuji's Part No. 14710AA611	Fuji's Part No. Front: 20805AA960 Rear: 20805AA970
	LEGACY 4D AWD LS		3375	7.0			
	LEGACY SW AWD Brighton		3375 (3250)#	7.8			
	LEGACY SW AWD L		3375	7.8			
	LEGACY SW AWD LS		3500 (3375)#	7.9			

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

Date Issued: 3/22/'96

Revisions: 006-7/01/'96