

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-104
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 1998 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: WFJXV02.2BCB Displacement: 2.2 Liters (135 Cubic Inches)

Exhaust Emission Control Systems & 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 1998 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	0.069	1.8	0.1	0.001	6.1
100,000	0.075	2.1	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 16th day of April 1997.


R. B. Summerfield, Chief
Mobile Source Operations Division

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Fuji Heavy Industries Ltd. Exh Engine Family: WFJXV02.2BCB (System #1)
 Evap Std: 50K Useful Life with R/L _____ Evap Engine Family: WFJXR01251BB
 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 _____
 NMOG Test Proc.: Std R/L Test Proc.: Pt. Source ORVR: Yes
 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
 Service Accum.: AMA Evap TP: CA (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							
W2.2TMA (CA)	LEGACY 4D AWD L	M-5	3250 (3125)#	7.2	Electronic Control Unit: Fuji's Part No. 22611AD57A 22611AD58A	None	Fuji's Part No. Front: 20805AB08A Rear: 20805AB09A
	LEGACY SW AWD L						
	LEGACY SW AWD Bighton		3250	7.8			
	IMPREZA 2D AWD L				Electronic Control Unit: Fuji's Part No. 22611AD790		Fuji's Part No. Front: 20805AB100 Rear: 20805AB110
	IMPREZA 4D AWD L		3000	7.4			
	IMPREZA SW AWD L						
	IMPREZA SW AWD Outback		3125	7.5			
		8.8					

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

Date Issued: 3/14/'97

Revisions: _____

1998 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Fuji Heavy Industries Ltd. Exh Engine Family: WFJXV02.2BCB (System #2)
 Evap Std: 50K Useful Life with R/L Evap Engine Family: WFJXR01251BB
 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
 NMOG Test Proc: Std R/L Test Proc: Pt. Source ORVR: Yes
 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): EGR, HO2S(2), TWC(2), SFI
 Srevice Accum: AMA Evap TP: CA (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							
W2.2TAA (CA)	LEGACY 4D AWD L	A-4	3250	7.2	Electronic Control Unit: Fuji's Part No. 22611AD57A 22611AD58A	EGR Valve: Mitsubishi K005T75071 Fuji's Part No. 14710AA611	Fuji's Part No. Front: 20805AB08A Rear: 20805AB09A
	LEGACY SW AWD Brighton		3375 (3250)#	7.8			
	LEGACY SW AWD L		3375				
	IMPREZA 2D AWD L		3125	7.6	Electronic Control Unit: Fuji's Part No. 22611AD790	EGR Valve: Mitsubishi K005T75073 Fuji's Part No. 14710AA611	Fuji's Part No. Front: 20805AB100 Rear: 20805AB110
	IMPREZA 4D AWD L						
	IMPREZA SW AWD L						
	IMPREZA SW AWD Outback						
		8.2					

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

Date Issued: 3/14/'97

Revisions: _____