

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-105-1  
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: WFJXV02.5DCD 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 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	0.095	1.3	0.1	0.001	6.5
100,000	0.107	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 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.

Executive Order A-2-105 dated March 24, 1997 is superseded and replaced by Executive Order A-2-105-1.

Executed at El Monte, California this 16<sup>th</sup> 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: WFJXV02.5DCD  
 Evap Std: 50K\_x Useful Life with R/L      Evap Engine Family: WFJXE01101BA  
 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       
 NMOG-Test Proc.: Std x Equiv      R/L Test Proc.: Pt Source x ORVR: No x  
 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: 2.5 / Liters 150 / 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  
 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 750ST							
W2.5TMA	FORESTER 5D AWD Base FORESTER 5D AWD L FORESTER 5D AWD S	M-5	3375	10.3	Electronic Control Unit:	EGR Valve: Mitsubishi K005T75071	Fuji's Part No.
W2.5TAA	FORESTER 5D AWD L FORESTER 5D AWD S	A-4	3500	10.1 9.1	Fuji's Part No. 22611AC980	Fuji's Part No. 14710AA530	Front: 20805AB100 Rear: 20805AB110

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

Date Issued: 1/17/'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: WFJXV02.5DCD  
 Evap Std: 50K x Useful Life with R/L      Evap Engine Family: WFJXE01101BA  
 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       
 NMOG Test Proc.: Std x R/L Test Proc.: Pt Source x ORVR: No x  
 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: 2.5 /      Liters 150 /      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  
 Service Accum: Std AMA x 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							
W2.5TMA	LEGACY 4D AWD GT	M-5	3375	7.3	Electronic Control Unit: Fuji's Part No. 22611AD61A 22611AD62A	EGR Valve: Mitsubishi K005T75071 Fuji's Part No. 14710AA530	Fuji's Part No. Front: 20805AB08A Rear: 20805AB09A
	LEGACY SW AWD Outback		3500	9.2			
	LEGACY SW AWD GT			7.9			
W2.5TAA	LEGACY 4D AWD GT	A-4		7.0			
	LEGACY 4D AWD SUS		3500 (3375)#	8.4			
	LEGACY SW AWD Outback		3500	9.2			
	LEGACY SW AWD GT		3625 (3500)#	7.7			
W2.5TMA	IMPREZA 2D AWD RS	M-5	3125		Electronic Control Unit: Fuji's Part No. 22611AD810		Fuji's Part No. Front: 20805AB100 Rear: 20805AB110
W2.5TAA	IMPREZA 2D AWD RS	A-4	3250 (3125)#				

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

Date Issued: 3/14/'97

Revisions: