#### State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-2-89 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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1994 model-year Fuji Heavy Industries, Ltd. exhaust emission control systems are certified as described below for passenger cars:

Fuel Type: Gasoline

Engine Family: RFJ1.8VJGFEK Displacement: 1.8 Liters (111 Cubic Inches)

#### Exhaust Emission Control Systems and Special Features:

Pulsed Secondary Air Injection Exhaust Gas Recirculation Heated Oxygen Sensor Three Way Catalytic Converters (Two) Sequential Multiport Fuel Injection

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

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

Non-Methane <u>Miles</u> <u>Hydrocarbons</u>		Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>
50,000	0.25	3.4	0.4
100,000	0.31	4.2	n/a

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

Non-Methane <u>Miles</u> <u>Hydrocarbons</u>		Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>
50,000	0.15	1.3	0.2
100,000	0.17	1.5	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 non-methane organic gas (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 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 on January 14, 1993, the Air Resources Board adopted the repeal of the currently-effective requirement that each manufacturer certify a minimum of 80 percent of its projected sales of 1994 model-year California-certified passenger cars and light-duty trucks to the phase-in standards for NMHC, or the more stringent standards in section 1960.1(g)(2) of Title 13, California Code of Regulations. If the repeal of such requirement does not become effective, the manufacturer shall submit a plan for compliance with the requirement; passenger cars and light-duty trucks not meeting such phase-in or more stringent standards shall be certified only to the extent allowed under the requirement.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles".

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 2290).

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 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 for 1988 and Subsequent Model-Year Passenger Cars, Light-duty Trucks, and Medium-Duty Vehicles with Three-Way Catalyst Systems and Feedback Control" (Title 13, California Code of Regulations, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed vehicle models have been exempted from compliance with the "Malfunction and Diagnostic System Requirements-1994 and Subsequent Model-Year Passenger Cars, Light-duty Trucks, and Medium-Duty Vehicles and Engines" pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(2.0) 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 \_\_\_\_\_\_\_

day of July, 1993.

R. B. Summerfield
Assistant Division Chief

Mobile Source Division

1994 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O.# A-2-89 Page 1

Ifacturer Fuji Heavy Industries Ltd. Eng. Family RFJ1.8VJGFEK

Pass Car x Lt-Duty Truck Med-duty Vehicle Fuel Type Gasoline

Engine Config. HO4 Liter (CID) 1.8(111) Evaporative Family RFJ1030BYM02

Exhaust ECS & Special Features (incl. CARB, MPI, etc.) PAIR, EGR, HO2S, TWC(2), SFI

(Use abbreviations per SAE J1930 Jun88)

Engine: Front x Mid. Rear Drive: FWD x RWD 4WD-FT x 4WD-PT

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Eng. Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (ECU.PROM) Part No.	EGR Syst. Part No.	Catalyst Part No.
R1.8BLM (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2 R1.8BLMA .25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC22 GF22 GC22 GF22 GC21, GC22	M-5	2750 (2625)# 2750 2750 2875 3000 2750 2875 2875 3000 (2875)# 3000 (2875)# 3000 3125 (3000)#	6.5 7.0 7.1 7.4 7.7 8.1 7.2 7.2 6.5 7.7 7.9 7.3 7.8 8.0 8.5 8.9 8.9	Electronic Control Unit: Fuji's Part No. 22611AB740	EGR Valve: Mitsubishi K005T75072, A550 Fuji's Part No. 14710AA550	20805AA780

<sup>#</sup>The model is tested at higher ETW in accordance with 40 CFR 86.084-26(a)(2).

Date of Issue: May 31, 1993 Revisions:

<sup>\*1</sup> Exhaust emissions standards at 50,000-mile point.

<sup>\*2</sup> Exhaust emissions standards at 100,000-mile point.

1994 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O.# A-2-89 Page 2 rfacturer Fuji Heavy Industries Ltd. Eng. Family RFJ1.8VJGFEK Pass Car x Lt-Duty Truck Med-duty Vehicle Fuel Type Gasoline Engine Config. HO4 Liter (CID) 1.8(111) Evaporative Family RFJ1030BYM02 Exhaust ECS & Special Features (incl. CARB, MPI, etc.) PAIR, EGR, HO2S, TWC(2), SFI (Use abbreviations per SAE J1930 Jun88) Engine: Front\_x Mid.\_\_\_ Rear\_\_\_ Drive: FWD\_x RWD\_\_\_ 4WD-FT\_x 4WD-PT\_\_\_ Veh. Models Trans. Eng. Equiv. EGR Ign. Sys. (If Coded Type: Catalyst Code/ RLHP Test (ECU.PROM) Syst. (Cert see A-Auto Part No. Part No. Part No. Weight M-Man. Std.) Attachmt.) GC22 2875 6.0 A-4Fuji's Part Electronic EGR Valve: R1.8BLA GF22 2875 6.8 Control Mitsubishi No. (0.25/3.4/0.4)\*16.6 Unit: K005T75072, Front: GC22 3000  $(0.31/4.2/NA)^{*2}$ 6.9 20805AA780 Fuji's Part A550 7.2 3125 No. Fuji's Rear: GF22 (3000)#7.6 22611AB740 | Part No. 20805AA800 GC22, GC24 2875 6.6 R1.8BLAA 14710AA550 6.6 (0.25/3.4/0.4)\*1 GC25 3000 6.3 /n.31/4.2/NA)\*2 7.3 GC22, GC24 3000 7.6 7.4 **GF25** 3125 7.0 7.3 GC25 3125 7.6 7.9GF22, GF24 3125 8.4 7.9 3250 **GF25** 8.4

Date	of	Issue:_	May	31,	1993	Revisions:
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<sup>#</sup>The model is tested at higher ETW in accordance with 40 CFR 86.084-26(a)(2).

<sup>\*1</sup> Exhaust emissions standards at 50,000-mile point.

<sup>\*2</sup> Exhaust emissions standards at 100,000-mile point.

#### Vehicle Models

### Engine Family <u>RFJ1.8VJGFEK</u>

GC21: IMPREZA 4-door Sedan

GC22: IMPREZA 4-door Sedan LE

IMPREZA 4-door Sedan AWD LE

GC24: IMPREZA 4-door Sedan L

IMPREZA 4-door Sedan AWD L

GC25: IMPREZA 4-door Sedan LS

IMPREZA 4-door Sedan AWD LS

GF22: IMPREZA Wagon LE

IMPREZA Wagon AWD LE

GF24: IMPREZA Wagon L

IMPREZA Wagon AWD L

GF25 IMPREZA Wagon LS

IMPREZA Wagon AWD LS

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1994 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O. # A-2-61 Page 1
Manufacturer Full Heavy Industries Ltd. Eng. Family RFJ1.8VJGFEK
Pass Car x Lt-Duty Truck Med-duty Vehicle Fuel Type Gasoline
Engine Config. HO4 Liter (CID) 1.8(111) Evaporative Family RFJ1030BYM02
Exhaust ECS & Special Features (incl. CARB, MPI, etc.) PAIR, EGR. HO2S, TWC(2), SFI
(Use abbreviations per SAE J1930 Jun88)
Engine: Front x Mid. Rear Drive: FWD x RWD 4WD-FT x 4WD-PT

Eng. Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (ECU.PROM) Part No.	EGR Syst. Part No.	Catalyst Part No.
R1.8BLM (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2 R1.8BLMA (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC21, GC22 GC24 GF22 GF24 GC22 GF22, GF24 GC21, GC22	M-5	2750 2750 2875 (2750)# 3000 (2875)# 2875 3000 2750 2875 2875	6.5 6.5 5.9 7.0 7.2 6.6 7.1 7.4 7.7 8.1 7.2 7.2 6.5 7.7	Electronic Control Unit: Fuji's Part No. 22611AB740 R/C #94-11 22611AB741	EGR Valve: Mitsubishi K005T75072, A550 Fuji's Part No. 14710AA550	Fuji's Part No. Front: 20805AA780 Rear: 20805AA800
	GF24 GF25 GC22 GC24, GC25 GF22 GF24, GF25		3000 (2875)# 3000 3000 (2875)# 3000 3000	7.7 7.9 7.3 7.9 7.3 8.1 7.8 8.1 7.8 8.5 8.5 8.9		10h 257-1/2	

Date of Issue: May 31, 1993 Revisions: 012-9/1/'93 023-4/19/194 1290

<sup>#</sup>The model is tested at higher ETW in accordance with 40 CFR 86.084-26(a)(2).
#1 Exhaust emissions standards at 50,000-mile point.
#2 Exhaust emissions standards at 100,000-mile point.

1994 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O. # A-Z-89 Page 2
Manufacturer Full Heavy Industries Ltd. Eng. Family RFJ1.8VJGFEK
Pass Car x Lt-Duty Truck Med-duty Vehicle Fuel Type Gasoline  Engine Config. HOH Liter (CID) 1.8(111) Evaporative Family RFJ1030BYM02  Exhaust ECS & Special Features (incl. CARB, MPI, etc.) PAIR, EGR, HO2S, TWC(2), SF1  (Use abbreviations per SAE J1930 Jun88)
Engine: Front x Mid. Rear Drive: FWD x RWD 4WD-FT x 4WD-PT

Eng. Code/ (Cert Std.)	Veh, Models (If Coded ses Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (ECU.PROM) Part No.	EGR Syst. Part No.	Catalyst Part No.
R1.8BLA (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC22 GC24 GF22 GF24 GC22 GF22 GF24 GC22	A-4	2875 2875 3000 (2875)# 3000 3125 (3000)# 3125 2875	6.0 5.7 6.8 6.8 6.7 6.4 6.6 6.9 7.2 7.6 7.2 6.6	Electronic Control Unit: Fuji's Part No. 22611AB740 R/C #94-11 22611AB741	EGR Valve: Mitsubishi K005T75072, 4550 Fuji's Part No. 14710AA550	Fuji's Part No. Front: 20805AA780 Rear: 20805AA800
R1.8BLAA (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC24, GC25 GF22 GF24 GF25 GC22 GC24 GC25 GF22, GF24		3000 3000 3000 3125 3000 3125 (3000)# 3125 3125 3125	6.6 6.3 7.5 7.4 7.0 7.4 7.0 7.3 7.6 7.3 7.6 7.3 7.9 8.4 7.9			

Date of Issue: May 31, 1993 Revisi	ons: 012-9/1/193 023-4/19/194
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<sup>#</sup>The model is tested at higher ETW in accordance with 40 CFR 86.084-26(a)(2).
#1 Exhaust emissions standards at 50,000-mile point.
#2 Exhaust emissions standards at 100,000-mile point.

1994 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET E.O. # A-2-89 Page 3
Manufacturer Full Heavy Industries Ltd. Eng. Family RFJ1.8VJGFEK
Pass Car x Lt-Duty Truck Med-duty Venicle Fuel Type Gasoline
Engine Config. HO4 Liter (CID) 1.8(111) Evaporative Family RFJ1030BYM02
Exhaust ECS & Special Features (incl. CARB, MPI, etc.) PAIR, EGR. HO2S, TWC(2), SFI
(Use abbreviations per SAE J1930 Jun88)  Engine: Front x Mid. Rear Drive: FWD x RWD 4HD-FT x 4WD-PT
Engine: Front x Mid. Rear Drive: rwb x Rear Drive: rwb x

Eng. Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (ECU.PROM) Part No.	EGR Syst Part No.	Catalyst Part No.
R1.8BLM-06 (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2 R1.8BLMA-06 (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC21, GC22 GF22 GC22 GF22 GC21 GC22 GF22 GF22 GF22	M=5	2625 2750 2875 (2750)# 2875 2625 2750 (2625)# 2750 2875 3000 (2875)#	7.0 7.1 7.7 7.2 7.2 7.2 7.7 7.8	Electronic Control Unit: Fuji's Part No. 22611AA800	EGR Valve: Hitaohi APDQ54- 113 Fuji's Part No. 14710KA	Fuji's Part No. Front: 20805AA780 Rear: 20805AA800
R1.8BLA-06 (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2 R1.8BLAA-06 (0.25/3.4/0.4)*1 (0.31/4.2/NA)*2	GC22 GF22 GC22 GF22 GC22 GF22 GC22	A-4	2750 2875 2875 3000 2750 2875 3000 (2875)#	6.0 6.8 6.6 7.2 6.6 7.5 7.3	Electronic Control Unit: Fuji's Part No. 22611AA800 22611AB100		

Date of Issue: November 5, 1993 Revisions: 1290

<sup>#</sup>The model is tested at higher ETW in accordance with 40 CFR 86.084-26(a)(2).

\*1 Exhaust emissions standards at 50,000-mile point.

\*2 Exhaust emissions standards at 100,000-mile point.

# E0#A-2-89

#### <u>Vehicle Models</u>

### Engine Family RFJ1.8VJGFEK

1) R1.8BLM, R1.8BLMA, R1.8BLA, R1.8BLAA engine code

GC21: IMPREZA 4-door Sedan

GG22: IMPREZA Madoor Sedan LE IMPREZA 4-door Sedan AWD LE

GC24: IMPREZA 4-door Sedan L IMPREZA 4-door Sedan AWD L

GC25: IMPREZA 4-door Sedan LS IMPREZA 4-door Sedan AND LS

GF22: IMPREZA Wagon LE IMPREZA Wagon AWD LE

GF24: IMPREZA Wagon L IMPREZA Wagon AWD L

GF25: IMPREZA Wagon LS IMPREZA Wagon AWD LS

ii) R1.8BLM-06, R1.8BLMA-06, R1.8BLA-06, R1.8BLAA-06 engine code

GC21: IMPREZA 4-door Sedan

GC22: IMPREZA 4-door Sedan L IMPREZA 4-door Sedan AWD L

GF22: IMPREZA Wagon L IMPREZA Wagon AWD L

Issue Date: 5/31/193

Revision Date: 017-11/5/193