

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-2-12
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-45-3, and G-45-4;

IT IS ORDERED AND RESOLVED: That 1982 model-year Fuji Heavy Industries Ltd. exhaust emission control systems are certified as described below for gasoline-powered passenger cars.

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
CFJ1.8V2FAA2	109 (1.8)	Air Injection - Valve Exhaust Gas Recirculation Three Way Catalyst with Closed Loop

Vehicle Models, Transmissions, Engine Codes and Evaporative Emission Control Families as listed on attachments.

The following are the emission standards for this engine family to be listed on the window decal required by California Assembly-Line Test Procedures for 1982 model-year vehicles:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.41	7.0	0.7

The following are the certification emission values for this engine family:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.20	2.6	0.6

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered 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" (Title 13, California Administrative Code, Section 2290) for the aforementioned model year.


BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1981 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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 in El Monte, California this 29th day of June, 1981.


K. D. Drachand, Chief
Mobile Source Control Division

1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Fuji Heavy Industries Ltd. Executive Order No. A-2-12 Page 1
 Engine Family CFJ1.8V2FAA2 Evaporative Family RU
 Engine CID (Liters) 109 (1.8)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard

Exhaust Emissions Control System

AIP-Air Injection-Pump
 AIV-Air Injection-Valve
 CL-Closed Loop
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 OC-Oxidation Catalyst System
 TR-Thermal Reactor
 TWC-Three Way Catalyst System

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 MFI-Mechanical Fuel Injection
 TC-Turbocharged

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor
 VV-Variable Venturi

Vehicle Models

- ✓AF4 (SUBARU 1800 2-door Hatchback) (1)
- ✓AB4 (SUBARU 1800 4-door Sedan) (1)
- ✓AW4 (SUBARU 1800 Hardtop) (1)
- AF5 (SUBARU 1800 2-door Hatchback 4WD) (2)
- AT5 (SUBARU 1800 4WD Open M.P.V. "BRAT") (2)
- ✓AM4 (SUBARU 1800 Station Wagon) (1)
- ✓AM5 (SUBARU 1800 Station Wagon 4WD) (2)

DRIVE SYSTEM: (1) Front engine/Front transaxle drive
 (2) Front engine/Front transaxle and rear axle drive

1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars Light-Duty Trucks Medium-Duty Vehicles Gas Diesel

Manufacturer Fuji Heavy Industries Ltd. E.O. #A-2-12

Engine Family CFJ1.8V2FAA2 CID (liter) - Type 109 (1.8) H04

ECS (Special Features) AIV, EGR, TWC/CL

Engine Code	Vehicle Models (If Coded see attachment)	Trans.	Equiv. Test Weight	Ign. System CA, VA, EI Mfgr. Part No.	Fuel System 1-2V Mfgr. Part No.	EGR Valve Part No.	Label Ident. Part No.
C1.8V2-MA	AF4 AB4, AW4	M5	2375	Nippondenso 100291-0080	Hitachi CDP306-14	APDQ72-3	See page 1B
C1.8V2-MAA	AB4, AW4		2500				
C1.8V2-WA	AF5, AT5	M4		D4R80-03	DCP306-15	APDQ72-6 AEY78-11	
C1.8V2AA	AF4, AB4, AW4	A3		100291-0080	DCP306-16	APDQ72-4	See Page 1C
C1.8V2-MB	AM4	M4	2625				
C1.8V2-MBA		M5					
C1.8V2-WB	AM5	M4		D4R80-03		APDQ72-6 AEY78-11	
C1.8V2-WBA			2750				
C1.8V2-AB	AM4	A3	2625	100291-0080	DCP306-16	APDQ72-4	See page 1C

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

*Add 10% to dyno test HP for air conditioning usage.

Date of Issue -
Revisions:

1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Fuji Heavy Industries Ltd. Executive Order No. A-2-12 Page 1B

VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY-CFJ1.8V2FAA2 (109 CID) AIV/TWC+EGS/EGR
EVAPORATIVE EMISSION FAMILY-RU

CATALYST

ENGINE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS

MAKE IDLE ADJUSTMENT WITH ENGINE AT NORMAL OPERATING
TEMPERATURES AND LIGHTS OFF.

IDLE SPEED 700 \pm 100 RPM IN NEUTRAL

IDLE MIXTURE BELOW 0.5 % CO

ADJUST WITHOUT SECONDARY AIR-WITH AIR SUCTION HOSE
BLOCKED.

IGNITION TIMING 8 \pm 2 DEGREES BTDC AT 700 RPM

ADJUST WITH VACUUM LINE DISCONNECTED FROM DISTRIBUTOR.

VALVE LASH 0.010 \pm 0.001 IN. INTAKE VALVE

0.014 \pm 0.001 IN. EXHAUST VALVE

ADJUST WITH ENGINE COLD.

ABOVE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS ARE APPLICABLE
TO ALL ALTITUDE. IF THE MODIFICATIONS ARE PERFORMED TO
ENSURE COMPLIANCE WITH EMISSION STANDARDS AT HIGH-ALTITUDE,
REFER TO PAGES TITLED "MAINTENANCE INSTRUCTION AND FUNCTION
OF EMISSION CONTROL SYSTEMS" IN OWNER'S MANUAL.

THIS VEHICLE REQUIRES PERIODIC MAINTENANCE.
REFER TO OWNER'S MANUAL OR SERVICE MANUAL.

THIS VEHICLE CONFORMS TO U.S. EPA REGULATIONS APPLICABLE
TO 1982 MODEL YEAR NEW MOTOR VEHICLES AND ALSO COMPLIES
WITH STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1982
MODEL YEAR NEW PASSENGER CARS WHEN SOLD IN THE STATE OF
CALIFORNIA.

THE MODIFICATIONS INDICATED IN OWNER'S MANUAL ARE!
NECESSARY TO ENSURE EMISSION CONTROL COMPLIANCE WITH U.S.
EPA REGULATION AT HIGH-ALTITUDE WHEN THIS VEHICLE IS SOLD
FOR PRINCIPAL USE AT HIGH-ALTITUDE.



FUJI HEAVY INDUSTRIES LTD. JAPAN

1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Fuji Heavy Industries Ltd. Executive Order No. A-2-12 Page 1C

VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY-CFJ1.8V2FAA2 (109 CID) AIV/TWC+EGS/EGR
EVAPORATIVE EMISSION FAMILY-RU

CATALYST

ENGINE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS

MAKE IDLE ADJUSTMENT WITH ENGINE AT NORMAL OPERATING
TEMPERATURES AND LIGHTS OFF.

IDLE SPEED 800 \pm 100 RPM IN "N" OR "P" POSITION

IDLE MIXTURE BELOW 0.5 % CO

ADJUST WITHOUT SECONDARY AIR-WITH AIR SUCTION HOSE
BLOCKED.

IGNITION TIMING 8 \pm 2 DEGREES BTDC AT 800 RPM

ADJUST WITH VACUUM LINE DISCONNECTED FROM DISTRIBUTOR.

VALVE LASH 0.010 \pm 0.001 IN. INTAKE VALVE

0.014 \pm 0.001 IN. EXHAUST VALVE

ADJUST WITH ENGINE COLD.

ABOVE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS ARE APPLICABLE
TO ALL ALTITUDE. IF THE MODIFICATIONS ARE PERFORMED TO
ENSURE COMPLIANCE WITH EMISSION STANDARDS AT HIGH-ALTITUDE,
REFER TO PAGES TITLED "MAINTENANCE INSTRUCTION AND FUNCTION
OF EMISSION CONTROL SYSTEMS" IN OWNER'S MANUAL.

THIS VEHICLE REQUIRES PERIODIC MAINTENANCE.
REFER TO OWNER'S MANUAL OR SERVICE MANUAL.

THIS VEHICLE CONFORMS TO U.S. EPA REGULATIONS APPLICABLE
TO 1982 MODEL YEAR NEW MOTOR VEHICLES AND ALSO COMPLIES
WITH STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1982
MODEL YEAR NEW PASSENGER CARS WHEN SOLD IN THE STATE OF
CALIFORNIA.

THE MODIFICATIONS INDICATED IN OWNER'S MANUAL ARE
NECESSARY TO ENSURE EMISSION CONTROL COMPLIANCE WITH U.S.
EPA REGULATION AT HIGH-ALTITUDE WHEN THIS VEHICLE IS SOLD
FOR PRINCIPAL USE AT HIGH-ALTITUDE.



FUJI HEAVY INDUSTRIES LTD. JAPAN