# State of California AIR RESOURCES BOARD

# EXECUTIVE ORDER A-2-10 Relating to Certification of New Motor Vehicles

### FUJI HEAVY INDUSTRIES LTD.

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43100, 43102, 43103, and 43835; 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 Fuji Heavy Industries, Ltd. exhaust emission control systems are certified as described below for 1981 model-year gasoline-powered passenger cars.

Engine Family	Displacement Cubic Inches (Liters)	Exhaust Emission Control Systems (Special Features)				
BFJ1.8V2FA9	109 (1.8)	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 certification emission values to be listed on the window decal required by California Assembly-Line Test Procedures for 1981 model-year vehicles:

Engine Family	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides
	Grams per Mile	Grams per Mile	Grams per Mile
BFJ1.8V2FA9	0.14	2.4	0.5

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", amended June 26, 1980.

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 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That Fuji Heavy Industries Ltd. has provided to the Executive Officer 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 at El Monte, California this

D. Drachand, Chief

Mobile Source Control Division

# 1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

anufacturer _	Fuji Heavy Industries, Ltd.	Executive Order No. A-2-10	Page1	
igine Family	BFJ1.8V2FA9	Evaporative Family SU		
ABBREVIATIONS		Engine CID (Liters) <u>109 (1.8)</u>		
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 DI-Diesel Injection EFI-Electronic Fuel Injection MFI-Mechanical Fuel	
Fuel System CFI, DI, EFI, MFI nV-nVenturi Carburetor VV-Variable Venturi		Engine Type HO-Horizontally Opposed	Injection TC-Turbocharged	
Ver	nicle Models			
	(SUBARU 1800 2-doo   (SUBARU 1800 4-doo   (SUBARU 1800 Hardt	r Sedan)		

AM4 (SUBARU 1800 Station Wagon)

AF5 (SUBARU 1800 2-door Hatchback 4WD)

AM5 (SUBARU 1800 Station Wagon 4WD)

AR5 (SUBARU 1800 4WD Open M.P.V. "BRAT")

E.O. #A -2-10

# 1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

X Passe	enger Cars Li	ght-Duty	Trucks	Medium-Du	ıty Vehicles	X Gas	Diesel
Manut	facturer Fuji	Heavy I	ndustrie	s, Ltd.	Page	AL	
Engir	ne Family BFJ1	.8V2FA9			Engin Code	е	
	(Special Features)		R, TWC/CL		CID (Liter)- Type	109 (1.8) 4-	Н0
Engine Code	Vehicle Models (If Coded see attachment)	Trans.	Equiv. Test We <b>ig</b> ht	Ign. System CA, VA, EI Part No.	Fuel System 1-2V Part No.	EGR Valve	Label Ident. Part No.
B1.8-M B1.8-M-005 <sup>(3)</sup>	AF4, AB4, AW4	M-4 M-5	2375	Nippondenso 029100-7220 or	Hitachi DCP306-12	APDQ72-3 (Hitachi) or	See Page 1B
B1.8-M-006(4) B1.8-M-007(5)	AM4		2500	420857332		AEY78-8 (Atsugi)	
B1.8-W B1.8-W-005 <sup>(3)</sup>	AF5	M-4		Hitachi D4R80-03		APDQ72-6 (Hitachi)	
B1.8-W-006(4) B1.8-W-007(5)	AM5		2625	or 429878110		AEY78-11 (Atsugi)	
B1.8-WB-0 B1.8-WB-0	AR5 007(5) 005 <sup>(3)</sup>		2500		Hitachi DCP306-13		
B1.8-A,	AB4, AW4	A-3		Nippondenso	Hitachi		[
B1.8-A-001(1) B1.8-A-007(5)			2375	029100-7220 or 420857332	DCP306-12		
	AM4		2625				
B1.8MF(2 B1.8-MF-005 <sup>(3</sup> B1.8-MF-006(4 B1.8-MF-007(5	)	M-5	2375	Nippondenso 029100- 7210	Hitachi DCP306-12	APDQ72-3 or AEY78-8	
Commonts. See page one for abbreviations and evaporative emission family identification							

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 - August 4, 1980

- (1) Added per running change 81-1.
- (2) Added per running change 81-2.
- (3) Added per running change/field fix 81-5.
- (4) Added per running change/field fix 81-6.
- (5) Added per running change/field fix 81-7.

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## 1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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#### VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY-BFJ1.8V2FA9 (109 CID) TWC/EGR EVAPORATIVE FAMILY-SU

# CATALYST

ENGINE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS

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

IDLE SPEED  $\cdots$  800 ± 100 RPM IN "N" OR "P" POSITION

IDLE MIXTURE ..... BELOW 0.5 % CO

IGNITION TIMING · · · · · · · 8 ± 2 DEGREES BTDC AT 800 RPM

ADJUST WITH VACUUM LINE DISCONNECTED FROM DISTRIBUTOR.

VALVE LASH  $\cdots$  0.010 ± 0.001 IN. INTAKE VALVE 0.014 ± 0.001 IN. EXHAUST VALVE

ADJUST WITH ENGINE COLD.

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

THIS VEHICLE CONFORMS U.S. EPA REGULATIONS APPLICABLE TO 1981 MODEL YEAR NEW MOTOR VEHICLES AND ALSO COMPLIES WITH STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1981 MODEL YEAR NEW PASSENGER CARS WHEN SOLD IN THE STATE OF CALIFORNIA.

COMPLIANCE DEMONSTRATED BELOW 4000 FEET.



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#### VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY-BFJ1.8V2FA9 (109 CID) TWC/EGR EVAPORATIVE FAMILY-SU

## CATALYST

ENGINE TUNE-UP SPECIFICATIONS AND ADJUSTMENTS

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

IDIE SPEED · · · · · · · · 700 ± 100 RPM IN NEUTRAL

IDLE MIXTURE .... BELOW 0.5 % CO

IGNITION TIMING · · · · · · · 8 ± 2 DEGREES BTDC AT 700 RPM

ADJUST WITH VACUUM LINE DISCONNECTED FROM DISTRIBUTOR

VALVE LASH ..... 0.010 ± 0.001 IN. INTAKE VALVE

0.014 ± 0.001 IN. EXHAUST VALVE

ADJUST WITH ENGINE COLD.

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

THIS VEHICLE CONFORMS U.S. EPA REGULATIONS APPLICABLE TO 1981 MODEL YEAR NEW MOTOR VEHICLES AND ALSO COMPLIES WITH STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1981 MODEL YEAR NEW PASSENGER CARS WHEN SOLD IN THE STATE OF CALIFORNIA.

COMPLIANCE DEMONSTRATED BELOW 4000 FEET.



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