

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-42
Relating to Certification of New Motor Vehicle Engines

ISUZU MOTORS LIMITED

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That the following Isuzu Motors Limited 1985 model-year diesel engines have shown compliance with the optional transient standards and are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
FSZ0235DAA3	235 (3.9)	Engine Modification (Diesel Injection - Direct)
FSZ0235EAA6	235 (3.9)	Engine Modification (Diesel Injection - Direct) (Turbocharged)
FSZ0353DAB1	353 (5.8)	Engine Modification (Diesel Injection - Direct)
FSZ0353EAB4	353 (5.8)	Engine Modification (Diesel Injection - Direct) (Turbocharged)

Engine models and codes are listed on attachments.

The following are the certification emission values for these engine families:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>
FSZ0235DAA3	1.1	4.9	4.4
FSZ0235EAA6	0.6	2.5	4.8
FSZ0353DAB1	1.1	3.9	4.8
FSZ0353EAB4	0.5	1.8	4.3

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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).

Engines 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.

Executed at El Monte, California this 19th day of December, 1984.



K. D. Drachand, Chief
Mobile Source Division

Manufacturer	<u>ISUZU MOTORS LIMITED</u>	Executive Order No.	<u>A-20-42</u>
Engine Family	<u>FSZ0235DAA3, FSZ0235EAA6</u> <u>FSZ0353DAB1, FSZ0353EAB4</u>	Evaporative Family	<u>NA</u>
		Engine CID (Liters)	<u>235 (3.851)</u> <u>353 (5.785)</u>

ABBREVIATIONS

<u>Ignition System</u>	<u>Exhaust Emissions Control System</u>	<u>Special Features</u>
CA-Centrifugal Advance	AIP-Air Injection-Pump	CCV-Combustion Chamber Valve
EEC-Electronic Engine Control	AIV-Air Injection-Valve	CFI-Central Fuel Injection
EI-Electronic Ignition	CL-Closed Loop	DID-Diesel Injection-Direct
ESAC-Electronic Spark Advance Control	EGR-Exhaust Gas Recirculation	DIP-Diesel Injection-Prechamber
VA-Vacuum Advance	EM-Engine Modification	EFI-Electronic Fuel Injection
VR-Vacuum Retard	OC-Oxidation Catalyst System	IC - Intercooler
	TOC-Trap Oxidizer Continual	MFI-Mechanical Fuel Injection
	TOP-Trap Oxidizer Periodical	TC-Turbocharged
	TR-Thermal Reactor	
	TWC-Three-Way Catalyst System	

Fuel System

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

VEHICLE MODELS: NA

DRIVE SYSTEM: NA Engine/ NA -Wheel Drive

1985 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

E.O. #A-20-42

Manufacturer ISUZU MOTORS LIMITED Page 2
 Engine Family FSZ0235DAA3 CID(Liter)-Type 235 (3.851) - L4
 ECS and (Special Features) EM (DID)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
4BD1H	DIESEL KIKI CO., LTD. 8941573502 8941573512 8941778730	DIESEL KIKI CO., LTD. 1153001340	88 BHP 3200 RPM	55.1 mm ³ /stroke	894403270

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HEAVY-DUTY DIESEL ENGINES

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Manufacturer ISUZU MOTORS LIMITED

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Engine Family FSZ0235EAA6

CID(Liter)-Type 235(3.851)-L4

ECS and (Special Features) EM(DID,TC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
4BD1TH	DIESEL KIKI CO., LTD. 8941699192 8941573532 8941778750	DIESEL KIKI CO., LTD. 1153001420	100 BHP 3000 RPM	68.9 mm ³ /stroke	894178690

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HEAVY-DUTY DIESEL ENGINES

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Manufacturer ISUZU MOTORS LIMITED Page 4
 Engine Family FSZ0353DAB1 CID(Liter)-Type 353 (5.785) - L6
 ECS and (Special Features) EM (DID)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
6BD1H	DIESEL KIKI CO., LTD 1156017150 1156017160 1156017170 1156017180 1156017191	DIESEL KIKI CO., LTD 1153001340	126 HP 3200 RPM	53.2 mm ³ /stroke	185886231

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HEAVY-DUTY DIESEL ENGINES

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Engine Family FSZ0353EAB4

CID(Liter)-Type 353 (5.785) - L6

ECS and (Special Features) EM (DID; TC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
6BDTH	DIESEL KIKI CO., LTD 1156014081 1156014121 1156015690 1156015870 1156015911 1156018070	DIESEL KIKI CO., LTD 1153001420	155 HP 3000 RPM	68.5 mm ³ /stroke	185886233

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