

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-12  
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 1979 model-year diesel engines 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</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
4BD	235	Engine Modification
6BD	353	Engine Modification

Engine Models and Codes as listed on attachments.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the engine manufacturer furnish a decal with each engine sold or delivered to a vehicle manufacturer. The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following certification emission values:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>
4BD	1.0	3	5.8
6BD	1.2	3	5.6

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 20 day of November, 1978

*G. C. Hass*

G. C. Hass, Chief  
Vehicle Emissions Control Division

1979 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer Isuzu Motors Limited Page 1  
 Engine Family 4BD Engine (CID) 235  
 Emission Control Systems Eng. Modification Type In-line 4

Engine Model	Fuel Injection Pump Mfg. Part Number	Injector Mfg. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Basic Initial Timing
4BD1A	Diesel Kiki Co. Ltd. 5156008670 5156009170	<del>Bosch</del> <i>DIESEL KIKI</i> 5153000890	87 @ 3200	53.9	10° BTD

Date of Issue - 112078. *CORR. 010379.*

Abbreviations

Type

NA - Natural Aspiration  
 TC - Turbocharged  
 TCA - Turbocharged and Aftercooled

Emission Control Systems

AC - Aftercooler  
 EGR - Exhaust Gas Recirculation  
 TD - Throttle Delay

1979 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer Isuzu Motors Limited Page 2  
 Engine Family 6BD Engine (CID) 353  
 Emission Control Systems Engine Modification Type In-line 6

Engine Model	Fuel Injection Pump Mfgr. Part Number	Injector Mfg. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP $\text{mm}^3/\text{stroke}$	Basic Initial Timing
6BD1A	Diesel Kiki Co. Ltd. 5156008240, 5156008850	<i>DIESEL</i> Bosch <i>KIKI</i> 5153000890	130 @ 3200	52.7	10° BTC

Date of Issue - 112078. *CORR. 010379.*

Abbreviations

Type

NA - Natural Aspiration  
 TC - Turbocharged  
 TCA - Turbocharged and Aftercooled


Emission Control Systems

AC - Aftercooler  
 EGR - Exhaust Gas Recirculation  
 TD - Throttle Delay


## 1979 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Isuzu Motors Ltd. Executive Order No. A-20-12 Page 3

Engine Family: 6BD

54 mm		ENGINE EXHAUST EMISSION CONTROL INFORMATION	
	ISUZU MOTORS LIMITED		
	ENGINE FAMILY:	6BD	ENGINE SPECIFICATIONS
	MODEL:	6BD1A	ADVERTISED HP (SAE NET): 130/3200 RPM
	ENGINE DISPLACEMENT:	353 CID	FUEL RATE AT ADV. HP: 52.7 MM <sup>3</sup> /ST.
	EXHAUST EMISSION CONTROL SYSTEM:	EM	VALVE LASH (COLD) IN.: 0.016 IN.
			EXH.: 0.016 IN.
	DATE OF ENGINE MANUFACTURE:		INITIAL INJ. TIMING: 10° BTDC
			IDLE SPEED: 600 RPM
	THIS ENGINE CONFORMS TO U.S.EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 1979 MODEL YEAR NEW HEAVY DUTY DIESEL ENGINES.		
	190 mm		

Engine Family: 4BD

54 mm		ENGINE EXHAUST EMISSION CONTROL INFORMATION	
	ISUZU MOTORS LIMITED		
	ENGINE FAMILY:	4BD	ENGINE SPECIFICATIONS
	MODEL:	4BD1A	ADVERTISED HP (SAE NET): 87/3200 RPM
	ENGINE DISPLACEMENT:	235 CID	FUEL RATE AT ADV. HP: 53.9 MM <sup>3</sup> /ST.
	EXHAUST EMISSION CONTROL SYSTEM:	EM	VALVE LASH (COLD) IN.: 0.016 IN.
			EXH.: 0.016 IN.
	DATE OF ENGINE MANUFACTURE:		INITIAL INJ. TIMING: 10° BTDC
			IDLE SPEED: 600 RPM
	THIS ENGINE CONFORMS TO U.S.EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 1979 MODEL YEAR NEW HEAVY DUTY DIESEL ENGINES.		
	190 mm		

Issued: 112078.