## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-20-152

Relating to Certification of New Heavy-Duty 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-45-9;

IT IS ORDERED AND RESOLVED: That the following Isuzu Motors Limited 1997 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VSZ3.9C6DARA	3.9	(235)	Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments.

The certification exhaust emission standards for this engine family in grams per brake horsepower-hour are:

Total	Carbon	Nitrogen	<u>Particulates</u>
Hydr <u>ocarbons</u>	M <u>onoxide</u>	<u>Oxides</u>	
1.3	15.5	5.0	0.10

The certification exhaust emission values for this engine family in grams per brake horsepower-hour are:

Engine F <u>amily</u>	Total Hydrocarbons	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	<u>Particulates</u>
VSZ3.9C6DARA	0.5	1.1	4.4	0.08
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BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted 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.).

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 and attachments.

Executed at El Monte, California this 18 day of January 1996.

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R. B. Summerfield Assistant Division Chief Mobile Source Division

E.O.#	A-20-152

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Manufa atunan	T S	nTORS LIMITED	Engine	e Family	VSZ3.90	6DARA
	3.0	1	Liters	235 <u>/</u>		OUD THORAL
	in Eng Family	· CA 49S	50S X S1	trokes/tycie:_	<u>4</u> vaives/	Cylinaer.
Tamatatana Con	nnaccion	Cor	npression with Dual-Fuel	Glow Plug	<u>X</u>	3park
	LNC IDC	MAS	M100 0 40 CFR 86.131	ther (specity	<i>)</i>	
Mausimum Datad	Power: 12	9 HP @	2800RPM	Engine	configurat	1011
Exhaust ECS (	e.g., O€, EGR,	, PIUX, IFI, I	C, CAC):(use	abbreviation	s per SAE J	1930 SEP91)
		Fuel Rate	Fuel Pump	50V (BOW	EGR	PTOX /

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm³/stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/ <del>PCM</del> Part No.	EGR Valve Part No.	PTOX / Catalyst Converter Part No.
4BD2-TC (39CAA-1)	129 HP 2800 RPM	80.1 mm³/stroke (50.4 lb/hr)	Fuel Pump 8971320502 8971320512 Injection 71-1380 (8970423221)	Not applicable	Not applicable	Not applicable

Date Issued: Oct. 2, 1995

Revisions: 97H-01