State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-158

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
VSZ7.1D6DAAW	7.1 (435)	Charge Air Cooler Turbocharger Engine Control Module Oxidation Catalytic Converter

Engine models and codes are listed on attachments.

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

Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	
1.3	15.5	5.0	0.10

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

Engine	Total	Carbon	Nitrogen	<u>Particulates</u>	
<u>Family</u>	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>		
VSZ7.1D6DAAW	0.3	2.1	4.3	0.07	

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

day) of September 1996.

(R. B. Summerfield

Assistant Division Chief Mobile Source Division

E.O. # <u>A- 20- 158</u>

1997 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

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Manufacturer	ISUZU M	OTORS LIMITED	<u> </u>	ngine Family	VSZ7.1	D6DAAW
Displacement:	7.1	1	Liters _	435 /		Cubic Inches
All Eng Codes in Eng Family: CA 49S 50S X Strokes/Cycle: 4 Valve /Cylinder: 2						
Ignition: Com	pression	Co	mpression with	h Glow Plug	_ <u>×</u> _ s	park
Fuel Type(s):	Dedicated $ ot \! igs $	Flex- Fuel	Dual- Fuel _	_ Bi- Fuel _	_ Diesel _	× CNG _
1	LNG LPG	G M85	M100 Ot	her (specify) _		
Diesel Cert Fue	l: 13 CCR	2282 4	0 CFR 86.1313	- 90	40 CFR 86.1	313- 94 <u>×</u>
Maximum Rated						
Exhaust ECS (e.g., OC, EGI	R, PTOX, IFI, T	C, CAC):	ECM, OC	CAC, TC	4000 050 041
			(use	appreviations	per SAE J	1930 SEP 91)
Fruir Madal	Detect UD	Fuel Rate	Fuel Pump	ECM / PCM	EGR Valve	PTOX /
Engine Model (Eng. Code)	@ RPM	@ Rated HP mm³ / stroke		Part No.	Part No.	Catalyst Converter
,		(lbs / hr)				Part No.
			Fuel Pump			
6HE1XN	197 HP	94.3	8943957912			
(71DAW- 5)	2500 RPM	mm³ / stroke (78.6 lb/hr)	8943957922	1815106570	N/A	8943956200
		(70.0 10/111)	Injector			·
			8943946064			
-			Fuel Pump			
6HE1XS	227 HP	108.9	8943957902	-		
(71DAW-6)	2500 RPM	mm³ / stroke		1815106580	N/A	8943956200
		(90.7 lb/hr)	Injector 8943946064			
			0040040004			
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Issued: Apr. 1, 1996

Revisions: 97H- AC- 01