

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-166

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 1998 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

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	
WSZXH07.84RA (6HK1X)	7.8	476

Exhaust Emission Control
Systems and Special Features

Charge Air Cooler
Turbocharger
Engine Control Module

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:

<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	4.0	0.10

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

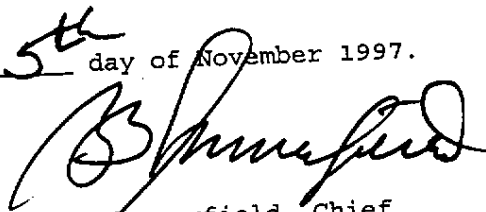
<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
0.2	2.0	3.8	0.09

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 5th day of November 1997.



R. B. Summerfield, Chief
Mobile Source Operations Division

E.O. # A-20-1661998 MODEL - YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
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Manufacturer ISUZU MOTORS LIMITED Engine Family WSZXH07.84RA
 Displacement: 7.8 / Liters 476 / Cubic Inches
 All Eng Codes in Eng Family: CA 49S 50S x Strokes/Cycle: 4 Valve /Cylinder: 4
 Ignition: Compression Compression with Glow Plug x Spark
 Fuel Type(s): Dedicated x Flex-Fuel Dual-Fuel Bi-Fuel Diesel x CNG
 LNG LPG M85 M100 Other (specify)
 Diesel Cert Fuel: 13 CCR 2282 40 CFR 86.1313-90 40 CFR 86.1313-94 x
 Maximum Rated Power: 197 / 227 HP @ 2400 / 2400 RPM Engine configuration: 1-6
 Exhaust ECS (e.g., OC, EGR, PTOX, IFI, TC, CAC): ECM, CAC, TC
 (use abbreviations per SAE J1930 SEP 91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ / stroke (lb / hr)	Fuel Pump & Injector Part No.	ECM / PCM Part No.	EGR Valve Part No.	PTOX / Catalyst Converter Part No.
6HK1XN (784RA-1)	197 HP 2400 RPM	100.2 mm ³ / stroke (80.3 lb/hr)	Fuel Pump 8943905730 Injector 8943908131	8943917090	N/A	N/A
6HK1XS (784RA-2)	227 HP 2400 RPM	117.2 mm ³ / stroke (93.9 lb/hr)	Fuel Pump 8943905730 Injector 8943908131	8943917080	N/A	N/A

Date Issued : September 1, 1997

Revisions :