State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-6-11

Relating to Certification of New Heavy-Duty
Off cond Equipment English

ISUZU MƏTORS, 178.

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 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, Ltd. 1999 modelyear engines with rated power between 175 and 750 horsepower and exhaust emission control systems are certified as described below in heavy-duty offroad equipment:

<u>Typical Equipment Usage</u>: Excavator

<u>Fuel Type</u>: Diesel

Engine Family	Displacement Liters Cubic		<u>s</u>
XSZXL13.7DTA (13DTA)	13.7 839	Turbocharger	

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM) certification exhaust emission standards in grams per brake horsepower-hour (g/hp-h), and the opacity-of-smoke emission standards in percent (%) during acceleration (Accel), lugging (Lug), and peak (Peak) modes for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

Exhaust Emissions (g/hp-h)			Smoke Opacity (%)			
<u>THC</u>	<u>co</u>	<u>NOx</u>	<u>PM</u> _	Accel	Lug	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx, and PM exhaust emissions certification values in grams per brake horsepower-hour, and the opacity-of-smoke emissions certification values in percent for this engine family are:

<u>Exhaust Emissions (g/hp-h)</u>			Smoke Opacity (%)			
THC	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	Luq	<u>Peak</u>
0.2	0.7	6.3	0.3	14	10	26

BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

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, Sections 2425 et seq.).

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

Executed at El Monte, California this $\frac{26^{17}}{100}$ da

oundary 1999

R. B. Summerfield, Chief Mobile Source Operations Division

E.O. # 4-R-6-11

199<u>9</u> AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY - DUTY OFF- ROAD DIESEL ENGINES

Page 1 of 1

Monotectorer	in the leaf	ne Motors Umate		Frie	ra-Eamily	XSZXI 16	70175
All Cara and En	g Fam - CA,	408	0\$ <u></u> ≥	Cert	Test Procedu	eci Akt	_ EPA×
Valve / Ports pe	er Cylinder	4		Stro	kes per Comb	ustion Cycle	4
Maximum Rated	d Power:	319	HP <u>(</u> 2	238.1 <u>k\</u>	<u>N)</u> @	2000	RPM
Ignition: Cor	mpression $\underline{\hspace{0.1in}}^{\hspace{0.1in}\chi}$	Compre	ession with (Glow Plug			Spark
Fuel Type(s):		Flex-FueL					
Diesel Cert Fue	el: 40 CFR 8	6.1313- 94 <u>×</u>		Oth	ner (specify)		·
Primary Service	e Equipment :	-		Hydraulid	c Excavator		
Exhaust ECS (€	e.g., OC, TWC,	PTOX, IFI, TC, C	AC):			C SAE J1930 JUI 	N 93)
Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm³ / stroke (lbs / hr)	Fuel P & Injec Part N	ctor	ECM/PCM Part No.	EGR Valve Part No.	PTOX Catalytic Converter Part No.

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm³ / stroke (lbs / hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX Catalytic Converter Part No.
13DTA- A 13DTA- B	319 / 2000 305 / 1750	175.6 (117.2) 184.6 (107.7)	Pump 115602980 (×)	N/A	N / A	N/A
13DTA- C 13DTA- D	235 / 2000	130.0 (86.7) 135.9 (79.3)	Injector 115311156 (×)			

 (\times) : Suffix any figure from 0 to 9.

Issue Date: Sept. 22, 1998 1999 NCIE