### State of California AIR RESOURCES BOARD

### EXECUTIVE ORDER A-20-173 Relating to Certification of New Motor Vehicles

#### ISUZU MOTORS LIMITED

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That 1999 model-year Isuzu Motors Limited exhaust emission control systems are certified as described below for light-duty trucks:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: XSZXT02.22HK Displacement: 2.2 Liters (134 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Three Way Catalytic Converter Heated Oxygen Sensors (two) Exhaust Gas Recirculation Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The non-methane organic gas (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) TLEV certification exhaust emission standards for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	_CO_	NOx	нсно	CO (20°F)
3751-5750	50,000	0.160	4.4	0.7	0.018	12.5
	100,000	0.200	5.5	0.9	0.023	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for NMOG reflect application of a 0.98 RAF for 1999 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

Loaded Vehicle Weight (lbs.)	Miles	NMOG	<u>co</u>	<u>NOx</u>	нсно	CO (20°F)
3751-5750	50,000 100,000	0.106 0.118	2.0 2.4	0.3	0.0002 0.0003	9.6 n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves 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.).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

Vehicles 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 attachment.

Executed at El Monte, California this

day of July 1998.

R. B. Summerfield, Chief Mobile Source Operations Division

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# 1999 MODEL - YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT - DUTY TRUCKS AND MEDIUM - DUTY VEHICLES

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Manufacturer: ISUZU MOTORS LIMITED Exh Eng Fam: XSZXT02.22HK Evap. Fam: XSZXT0095ME0
All Engine Codes in Engine Family: CA 49S 50S x AB965 ORVR Yes No x
Exh. Std : CA Tier-1 TLEV_X LEV ULEV ; US EPA NLEV_X
Veh Class(es): PC LDT 1 LDT 2_x MDV1 MDV2 MDV3 MDV4 MDV5
Signal Cert Std for Multi-Class Eng Eng.
Signal Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1, MDV1, MDV2, MDV3, MDV4)
Fuel Type(s): Dedicated Flex-Fuel Dual-Fuel Bi-Fuel Gasoline x Diesel
CNG LNG LPG M85 Other (specify)
Exh. Emiss Test Fuel(s): Indo CBG_x CNG LPG M85 Other (specify)
Diesel: 13 CCR 2282 40 CFR 86.113- 90 40 CFR 86.113- 94
Evaporative Emission Test Procedure : California Federal x
Service Accum: Std AMA x Mod AMA Mfr ADP Other (specify)
NMOG Test Procedure: N/A Std x Equiv R/L Test Proc: SHED Pt Source x
Engine Configuration: L4 Displacement: 2.2 / Liters 134 / Cubic inches
Valve per Cylinder : 4 Rated HP : 130 @ 5200 RPM
Engine: Front x Mid Rear Drive: FWD RWD x 4WD-FT 4WD-PT x
Exhaust ECS (e.g., MFI, EGR, TC, CAC) : SFI, TWC, EGR, HO2S (2)
(use abbreviations per SAE J1930 JUN 93)
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Engine Code	Vehicle Models	Trans.	ETW	DPA	Ignition	EGR	Catalytic
(also list	(if coded see	(M5, A4	or	or	(ECM / PCM)	System	Converter
CA/49ST/50ST)	attachment)	etc.	Test Wt.	RLHP	Part No.	Part No.	Part No.
222H- 2 (50ST)	XO - R1A XO - R1B XO - R1C	<b>M</b> 5	3750	13.6	ECM 8093617390	25180481	TWC 8251655950

XO - R1A: RODEO 2WD, Long Wheelbase, P215 tire XO - R1B: RODEO 2WD, Long Wheelbase, P235 tire XO - R1C: RODEO 2WD, Long Wheelbase, P245 tire

Date Issued: 1 - 12 - 98 Revisions: 4- 20- 98 (99B- 01)

E.O. # A- 20- 173

## 1999 MODEL - YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT - DUTY TRUCKS AND MEDIUM - DUTY VEHICLES

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Exh. Std: CA Veh Class(es):	s in Engine Famil Tier- 1 TL PC LDT 1	y: CA EV_x LDT:	49 <u>S</u> LEV 2_x_MD'	50S <u>.</u> —ULEV √1ME		ORVR: Yes US EPA N MDV4	NLEV <u>x</u> MDV5
Signal Cert Std f	or Multi-Class En	g Fam :	<u>N/A</u> (sp	ecify: N/A	N, LDT1, MDV1, N	ADV2, MDV3, I	MDV4)
Fuel Type(s):	Dedicated X	Flex-FueL	Dua	al-Fue <b>L</b>	Bi-Fuel	Gasoline x	Diesel
	CNG LNG.	LPG.	M85	Oth	er (specify)		
Exh. Emiss Test	Fuel(s): Indo	_ CBG _x	_ CNG	_ LPG	M85 Ot	her (specify)	
	Diesel :	13 CCR 2	2282	40 CFR 8	36.113- 90	40 CFR 86 1	13- 94
Evaporative Emi	ssion Test Proced	lure: Ca	lifornia	Fede	eral x	40 01 11 00.1	
Service Accum:	Std AMA_x	Mod AM	A	Mfr ADP	Other (spe	cify)	
<b>NMOG Test Prod</b>	edure: N/A	Std x	Equiv	R/L	Test Proc · SHI	ED Pt Sc	HICO V
<b>Engine Configura</b>	ation: <u>L4</u>	Displace	ment :	22 / "	litare		_ Cubic inches
Valve per Cylinde	er:4	D.0p.000.	Rated	HP 1			RPM
Engine : Front	_xMidF	lear	Drive:	EWD			
Evhauet ECS (a)	g., MFI, EGR, TC	CAC) .	Dilve .			VD-FT	4WD-PT <u>x</u>
Exhibitation (6.)	g., MICI, EGIC, 10	, CAC) :			TWC, EGR, HO2		
			(Us	se apprevia	itions per SAE J1	930 JUN 93)	
					************		***********************
Engine Code	Vehicle Models	Trans.	ETW	DPA	Ignition (FCM)	EGR	Catalytic

Engine Code	Vehicle Models	Trans.	eTW	DPA	Ignition	EGR	Catalytic
(also list	(if coded see	(M5, A4	or	or	(ECM / PCM)	System	Converter
CA/49ST/50ST)	attachment)	etc.	Test Wt.	RLHP	Part No.	Part No.	Part No.
222H- 1 (50ST)	WO - S3B WO - S3C	M5	3875	14.5	ECM 8093617390	25180481	TWC 8251655950

WO - S3B : AMIGO 4WD, Short Wheelbase, P235 tire WO - S3C : AMIGO 4WD, Short Wheelbase, P245 tire

Date Issued: 1 - 12 - 98 Revisions: 4- 20- 98 (99B- 01)