



Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 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 compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2002	2SZXL02.8CTA	2.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Tractor, Excavator	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbons (HC), oxides of nitrogen (NO_x), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NO_x), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	7.2	--	--	--	13	8	25

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 22nd day of October 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

E0 U-R-006-0898

ATTACHMENT

Manufacturer: **Isuzu Motors Limited**
 Engine category: **Nonroad CI**
 EPA Engine Family: **2SZXL02.8CTA**
 Mfr Family Name: **NA**
 Process Code: **New Submission**

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
4JB1TBACA-01	4JB1T 61.4	82.3@3000	53.6@3000	35.8@3000	178.5@2000	58.8@2000	26.2@2000	EM, TC, D, D I
4JB1TBACA-02	4JB1T	76.2@2200	58.3@2200	28.5@2200	178.5@2000	58.8@2000	26.2@2000	EM, TC, D, D I
4JB1TBACA-03	4JB1T	71.3@3000	45.4@3000	30.3@3000	160.2@2000	50.9@2000	22.6@2000	EM, TC, D, D I
4JB1TBACA-04	4JB1T 48.2	64.6@2200	50.0@2200	24.5@2200	160.2@2000	50.9@2000	22.6@2000	EM, TC, D, D I
4JB1TBACA-05	4JB1T	79.4@3000	48.1@3000	32.1@3000	175.0@2000	51.9@2000	23.1@2000	EM, TC, D, D I
4JB1TBACA-06	4JB1T	70.8@2700	44.8@2700	26.9@2700	158.4@1800	46.2@1800	18.5@1800	EM, TC, D, D I