

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	2KLXL0239ABA	3.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger			Crane, Loader, Tractor, Dozer, Pump, Compressor	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), 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	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ KW < 130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	—	8.2	—	—	—	13	2	31

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 13th day of December 2001.


 R. B. Summerfield, Chief
 Mobile Source Operations Division

U-R-a-0116

Engine Model Summary Form

ATTACHMENT

Manufacturer: **Komatsu**
 Engine category: **Nonroad Over 50 Hp**
 EPA Engine Family: **2KLXL0239ABA**
 Mfr Family Name: **A382**
 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
2002;FR90029	S4D102E-1	110@2500	81	45.3	278@1500	84	28.3	TC
1967;FR90128	S4D102E-1	105@2400	77	41.7	280@1500	85	28.7	TC
1967;FR90131	S4D102E-1	95@2200	73	35.9	283@1500	83	28.1	TC
2148;FR90390	S4D102E-1	91@2300	68	35.2	246@1300	75	22.0	TC
2148;FR90646	S4D102E-1	90@2200	70	34.8	246@1300	77	22.6	TC
2148;FR90720	S4D102E-1	86@2200	65	32.2	246@1300	74	21.6	TC
2456;FR90391	S4D102E-1	86@1900	74	31.5	246@1300	78	22.9	TC
2457;FR90392	S4D102E-1	75@2350	56	29.7	218@1400	66	20.7	TC
2457;FR90395	S4D102E-1	79@2500	57	32.1	218@1400	66	20.7	TC
2359;FR90127	S4D102E-1	85@2500	60	33.9	239@1500	71	23.9	TC
2144;FR90309	S4D102E-1	93@2350	70	36.8	253@1600	75	27.1	TC
2681;FR90653	S4D102E-1	91 @ 2400	68	36.5	260 @ 1600	77	27.8	TC
2657;FR90733	S4D102E-1	110@2500	81	45.4	278@1500	84	28.4	TC
2944;FR90783	S4D102E-1	105 @ 2400	80	43.2	293 @ 1600	89	32.0	TC
8043;FR90844	S4D102E-1	105@2300	76	39.4	290@1500	87	29.3	TC