

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	2KLXL0505AAA	8.3	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
75 ≤ KW < 130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
130 ≤ KW < 225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		CERT	0.4	7.4	--	0.7	0.33	5	2	11

**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 13<sup>th</sup> day of December 2001.



R. B. Summerfield, Chief  
Mobile Source Operations Division

# Engine Model Summary Form

## ATTACHMENT

U-12-005 223

Manufacturer: **Komatsu**  
 Engine category: **Nonroad Over 50 Hp**  
 EPA Engine Family: **2KLXL0505AAA**  
 Mr. Family Name: **A412**  
 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
1943;FR90416	S6D114E-1	215@2200	111	82.3	642@1500	127	64.0	DVI, TC
1943;FR90118	S6D114E-1	205@2200	106	78.9	636@1500	125	63.4	TC
1943;FR9873	S6D114E-1	205@2200	106	78.9	636@1500	125	63.4	TC
1943;FR9870	S6D114E-1	185@2200	96	71.0	575@1500	110	55.8	TC
1943;FR90417	S6D114E-1	185@2200	96	71.0	575@1500	110	55.8	TC
1943;FR9871	S6D114E-1	190@2200	98	73.0	590@1500	116	58.5	TC
2061;FR90177	S6D114E-1	201@2500	99	83.7	574@1500	110	55.8	TC
2061;FR90041	S6D114E-1	177@2500	87	73.7	507@1500	98	49.5	TC
2185;FR90040	S6D114E-1	215@2500	106	89.1	610@1500	119	60.0	TC
2120;FR90119	S6D114E-1	173@2380	87	68.9	496@1600	98	51.8	TC
2556;FR90510	S6D114E-1	165 @ 1850	100	62.2	615 @ 1300	125	54.6	TC
2556;FR90794	S6D114E-1	165 @ 1800	100	62.2	615 @ 1300	125	54.6	TC
2060;FR90914	S6D114E-1	170@1900	99	63.6	599@1500	121	61.4	TC