

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0238 New Off-Road Compression-Ignition Engines

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-02-003;

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)		
2006	6KLXL0359ABC	5.9	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel Injection, Turbocharger, Charge Air Cooler			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 (%)			
			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 2	STD	N/A	N/A	6.6	5.0	0.30	20	15	50
		CERT	"		5.8	0.7	0.16	12	1	29

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 17 day of October 2005.

-Allen Lyons, Chief

Mobile Source Operations Division

Engine Model Summary Form

U-R-005-0238

Komatsu Ltd. Manufacturer:

Engine category: Nonroad Cl
EPA Engine Family. 6KLXL0359ABC

Mfr Family Name: C403

New Submission Process Code:

8.Fuel Rate: 9.Emission Control (Ibs/hr)@peak torque Device Per SAE J1930	"DDI,TG,CAC"	"DDI,TC,CAC"	"DULIGGAC	"DDI,TC,CAC"	
8.Fuel Rate: (lbs/hr)@peak torque	43.6	41.5	2,17	41.5	50.4
mm/stroke@peak torque	98	82	102	88	100
6.Torque @ RPM (SEA Gross)	460@1500	416@1500	495@1500	432@1400	522@1500
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	55.3	58.2	65.8	49.9	999
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	78	78	100	74	66
3.BHP@RPM m (SAE Gross)	150@1950	145@2200	166@1950	128@2000	173@2200
	SAA6D102E-2	SAA6D102E-2	SAA6D102E-2	SAA6D102E-2	8604;FR91466 SAA6D102E-2 173@2200
	2678 FR90650 SAA6D102E-2	8111;FR91001	8105;FR90997 SAA6D102E-2	8265;FR9903	8604;FR91466