

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0212

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)		
2005	5KLXL11.0DD5	11.0	Diesel	8000		
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Direct Dies	el Injection, Turbocharge Engine Control Mo	er, Charge Air Cooler, dule	Dump Truc	ck .		

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	EMISSION STANDARD				EXHAUST (g/kw-l	ır)		OI	PACITY (%	(a)
CLASS	CATEGORY		нс	NOx	NMHC+NOx	co	РМ	ACCEL	LUG	PEAK
130 <u><</u> kW < 225	Tier 2	STD	N/A	N/A	6.6	3.5	0.20	20	15	50
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT			5.9	0.7	0.15	7	2	19

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

29TH

_ day of November 2004.

Allen Wons, Chief

Mobile Source Operations Division

U-R-005-0212

Manufacturer: KOMATSULTD.

Process Code: Running Change.

EPA Engine Family: 5KLXL11.0DD5

Manufacturer Family Name: SAA6D125E-3

EPA Engine Family: _	mily: SKLALILIAUDS	COOK					S Elial Data	a Emission Control
anging Code	2 Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP	5.Fuel Rafe: (lbs/hr) @ peak HP	6.Torque @ RPM (SEA Gross)	7.Fuel Kate: mm/stroke@peak t	(lbs/hr)@peak torque	Device Per SAE J1930
2000			(for diesel only)	(for diesels only)	CANCOLOR COLOR COMPANION CONTRACTOR CONTRACT	on the second se	enterden octobre entercontraction contraction of the second	(for diesels only)
address electron respective en en electron elect				0,7	1157@1100	221	103	NEW, ENT. C. CAC
1000	CANEDIOSE 3	335@2000	173	116	0041@7611	177		
7007	0740D122L-3	200			000001400	185	87	EM,EC
000	CAA6D125F.3	274@2000	143	96	330@1400	20		
200	2 7631 7000) i		700	074@1400	190	68	LIMI, EC
2011	SAA6D125F-3	283@2000	149	201	27 + 16			
1102	2 122 122 12		700	115	1011@1400	199	26	בואיני כו
2013	SAA6D125E-3	347@1850	991	2			000	FMEC
202			CL.	307	1003@1400	199	28	/ / / / / / / / / / / / / /
2011	SAA6D125F-3	301@2000	961	3	200			
107	200000)	000	116	1011@1400	199	26	
2015	SAA6D125E-3	347@1850	188	2	101			
2	, 101							