

KOMATSU LIMITED

EXECUTIVE ORDER U-R-005-0347 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)			
2010	AKLXL0275AAH	4.5	Diesel	8000			
SPECIAL	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
Direct Dies	sel Injection, Turbocharge Engine Control Mo	er, Charge Air Cooler, dule	Loader, Tractor, Dozer, Pump and 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER			нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
56 <u><</u> KW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
			N/A	N/A	3.8	1.4	0.26	1	1	3

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 _____

Annette Hebert, Chief

Mobile Source Operations Division

day of October 2009.

Page 1 % 1

9-24-109

Engine Model Summary Template

EO#: U-R-005-0347

DDI TC CAC, ECM 8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930 DDI TC CAC 32.3 28.1 7.Fuel Rate: mm/stroke@peak torque (l 11 96 4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM (for diesel only) (for diesels only) (SEA Gross) 326@1300 301@1300 41.5 38.7 84 86 3.BHP@RPM (SAE Gross) 99@2200 99@2000 Engine Family 1. Engine Code 2. Engine Model AKLXL0275AAH 1472;FR91668 SAA4D107E-1 1702;FR91619 SAA4D107E-1 AKLXL0275AAH