California Environmental Protection Agency

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 engines and emission control systems 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	APKXL03.3XM1	3.3	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION				
Mechanical Direct Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter			Cranes, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment			

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 CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
CLASS			нс	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
37 <u><</u> kW < 56	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT			4.7	0.7	0.31	12	3	17

BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(B) -Table 1b listed above has been permitted pursuant to Endnote 3 of the same table.

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.

16 Executed at El Monte, California on this day of November 2009.

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Annette Hebert, Chief Mobile Source Operations Division

Attachment 1 ab 1

Engine Model Summary Template

0-8-022-0142

10-24-202-01

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8.Fuel Rate: 9.Emission Control (bs/hr)@peak torqueDevice Per SAE J1330	TC DDI JAK CIJE SUL	
	22.3	19.8
7.Fuel Rate: mm/stroke@peak torque	97	86
6.Torque @ RPM (SEA Gross)	236@1400	216@1400
5.Fuel Rate: bs/hr) @ peak HP (for diesels only)	31.5	28.9
4.Fuel Rate: mm/stroke @ peak HP (I (for diesel only)	87	80
	80.5@2200	73.8@2200
2.Engine Model	3312/2200	3456/2200
3.BHP@RPM Engine Family 1.Engine Code 2.Engine Model (SAE Gross)	÷	7
Engine Family	APKXL03.3XM1	APKXL03.3XM1