

PERKINS ENGINES COMPANY LTD.

EXECUTIVE ORDER U-R-022-0120-2 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 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			FUEL TYPE	USEFUL LIFE (hours)		
2008	8PKXL03.3XM1	3.3	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Diesel 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	EMISSION		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
37 ≤ 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			4.3	0.7	0.29	18	2	30

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.

This Executive Order hereby cancels and replaces Executive Order U-R-022-0120-1 dated May 30, 2008.

Executed at El Monte, California on this

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day of June 2008.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

Attachment, page 1 of 1

SPL			>
8.Fuel Rate: 9.Emission Control STOL. (Ibs/Int)@peak torqueDevice Per SAE J1930	22.3 CMC DDITAPA TC	ANT IDD	Mariana, Mariana, Amerika, Am
8.Fuel R≊te: ibs/hr)@peak torqueD	22.3 C	20.0	
7.Fuel Rate: mm/stroke@peak torque (236@1400 97 22.3	87	
6.Torque @ RPM (SEA Gross)	236@1400	216@1400	
5.Fuel Rate: (lbs/hr) @ peak HP 6, (for diesels only)	31.5	29.7	
4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM (for diesel only) (SEA Gross)	87	82	
3.BHP@RPM (SAE Gross)	331212200 00.5@2200	73.8@2200	ELI-S.
3.BHP@RPM Engine Family 1.Engine Code 2.Engine Model (SAE Gross)	1 3312/2200 to 80.5@2200	3456/2200	
1.Engine Code			
Engine Family	8PKXL03.3XM1		The same time time time time time time time ti