

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)
2008	8PKXL04.4NM2	4.4	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter			Crane, Loader, 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 3	STD	N/A	N/A	4.7	5.0	0.40	20	15	50
		CERT	--	--	4.1	0.8	0.36	12	6	18

**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-022-0108 dated December 21, 2007.

Executed at El Monte, California on this 30<sup>th</sup> day of May 2008.

  
 Annette Hebert, Chief  
 Mobile Source Operations Division

Engine Model Summary Template

U-R-022-0108-1

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Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930	CAC
8PKXL04.4NM2	1	2972/2200	100.4@2200	83.6	40.3	304@1400	98.7	30.3	DDI TAA TC	CAC
8PKXL04.4NM2	2	3056/2400	99.9@2400	76.6	40.3	302@1400	96	29.5	DDI TAA	
8PKXL04.4NM2	3	3056/2300	99.9@2300	77.5	39.1	302@1400	96	29.5	DDI TAA	
8PKXL04.4NM2	4	3056/2200	99.9@2200	79.2	38.2	302@1400	96	29.5	DDI TAA	
8PKXL04.4NM2	5	3054/2400	93.9@2400	76	40.0	291@1400	95	29.2	DDI TAA	
8PKXL04.4NM2	6	3054/2300	93.9@2300	76.5	38.6	291@1400	95	29.2	DDI TAA	
8PKXL04.4NM2	7	3054/2200	93.9@2200	77.5	37.4	291@1400	95	29.2	DDI TAA	
8PKXL04.4NM2	9	3055/2300	91.2@2300	76.5	38.6	285@1400	95	29.2	DDI TAA	
8PKXL04.4NM2	10	3055/2200	91.2@2200	77.5	37.4	285@1400	95	29.2	DDI TAA	
8PKXL04.4NM2	8	3496/2200	99.9@2200	83.5	40.3	295@1400	98.1	30.1	DDI TAA	
8PKXL04.4NM2	11	3500/2200	99.9@2200	83.5	37.4	295@1400	93.3	28.6	DDI TAA	
8PKXL04.4NM2	12	3500/2300	93.9@2300	76.1	38.4	291@1400	93.6	28.7	DDI TAA	
8PKXL04.4NM2	13	3499/2200	100.4@2200	83.1	40.1	299@1400	97	29.8	DDI TAA	