

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-45-9;

**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)
2002	2PKXL03.9AM1	3.99	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Smoke Puff Limiter			Agricultural Tractor and 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):

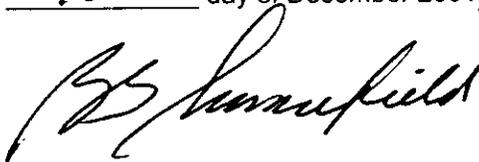
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75≤KW<130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	--	7.7	--	--	--	6	3	10

**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 18<sup>th</sup> day of December 2001.



R. B. Summerfield, Chief  
 Mobile Source Operations Division

# Engine Model Summary Form

UR-0220023

AT. THERMAMENT 1 OF 1

Manufacturer: Perkins Engines Company Ltd  
 Engine category: Nonroad CI  
 EPA Engine Family: 2PKXL03.9AM1  
 Mfr Family Name: AS EPA  
 Process Code: New Submission

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
1987/1800		116.7 @ 1800	105.0	42.3	340.4 @ 1800	105.0	42.3	N/A
1934/2000		111.3 @ 2000	91.0	40.5	328.2 @ 1400	97.0	30.4	N/A
1934/2100		113.3 @ 2100	90.0	40.0	328.2 @ 1400	97.0	30.4	N/A
1934/2200		114.7 @ 2200	89.0	43.6	328.2 @ 1400	97.0	30.4	N/A
5587/2000		108.9 @ 2000	91.0	40.5	322.3 @ 1400	97.0	30.4	N/A
5587/2100		110.9 @ 2100	90.0	40.0	322.3 @ 1400	97.0	30.4	N/A
5587/2200		112.1 @ 2200	89.0	43.6	322.3 @ 1400	97.0	30.4	N/A
1986/2100		119.1 @ 2100	96.0	44.0	320.1 @ 1500	93.0	31.0	N/A
1986/2200		121.1 @ 2200	95.0	46.4	320.1 @ 1500	93.0	31.0	N/A
1986/2300		122.0 @ 2300	94.0	47.6	320.1 @ 1500	93.0	31.0	N/A
5701/2100		116.8 @ 2100	96.0	44.0	314.2 @ 1500	93.0	31.0	N/A
5701/2200		118.7 @ 2200	95.0	46.4	314.2 @ 1500	93.0	31.0	N/A
5701/2300		119.5 @ 2300	94.0	47.6	314.2 @ 1500	93.0	31.0	N/A
1938/2300		122.0 @ 2300	93.5	46.9	328.8 @ 1600	102.0	35.7	N/A
1938/2200		121.6 @ 2200	95.0	45.6	328.8 @ 1600	102.0	35.7	N/A
1938/2100		119.7 @ 2100	96.5	44.3	328.8 @ 1600	102.0	35.7	N/A
Caterpillar		122.0 @ 2300	93.5	46.9	328.8 @ 1600	102.0	35.7	N/A
Caterpillar		111.3 @ 2000	91.0	40.5	328.2 @ 1400	97.0	30.4	N/A
Caterpillar		113.3 @ 2100	90.0	40.0	328.2 @ 1400	97.0	30.4	N/A
Caterpillar		114.7 @ 2200	89.0	43.6	328.2 @ 1400	97.0	30.4	N/A
1987/1500		104.6 @ 1500	110.7	26.2	366.3 @ 1500	110.7	26.2	N/A
Caterpillar 3054		116.7 @ 1800	105.0	42.3	340.4 @ 1800	105.0	42.3	N/A

DPF, T<sub>2</sub>, CAC, SPL

