

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	2PKXL05.9YH1	5.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger 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	--	7.8	--	--	--	6	3	11

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 18th day of December 2001.



R. B. Summerfield, Chief
 Mobile Source Operations Division

Engine Model Summary Form

U-R-022-0028

ATTACHMENT 1 OF 1

Manufacturer: Perkins Engines Company Ltd.
 Engine category: Nonroad CI
 EPA Engine Family: 2PKXL05.9YH1
 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
1947/2200		151.7 @ 2200	81.5	59.0	457.5 @ 1500	92.0	45.5	SPL, TC, DDI
1947/2300		152.3 @ 2300	81.0	61.3	457.5 @ 1500	92.0	45.5	SPL, TC, DDI
1929/2000		144.2 @ 2000	82.0	53.9	433.7 @ 1400	87.0	40.0	SPL, TC, DDI
1929/2100		144.2 @ 2100	80.0	55.4	433.7 @ 1400	87.0	40.0	SPL, TC, DDI
1929/2200		144.2 @ 2200	79.0	57.3	433.7 @ 1400	87.0	40.0	SPL, TC, DDI
1929/2300		144.2 @ 2300	78.0	59.0	433.7 @ 1400	87.0	40.0	SPL, TC, DDI
1941/2000		130.0 @ 2000	72.0	48.0	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
1941/2100		131.4 @ 2100	71.0	50.1	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
1941/2200		130.0 @ 2200	70.0	51.9	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
1941/2300		128.7 @ 2300	71.0	53.8	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
1931/2000		116.5 @ 2000	64.0	42.7	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
1931/2100		117.6 @ 2100	63.5	44.5	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
1931/2200		115.7 @ 2200	61.5	45.2	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
1931/2300		114.0 @ 2300	61.0	46.8	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
1983/1800		165.5 @ 1800	99.0	60.8	483.0 @ 1800	99.0	60.8	SPL, TC, DDI
1940/2500		150.2 @ 2500	79.0	65.5	396.1 @ 1200	86.0	34.0	SPL, TC, DDI
1940/2400		148.2 @ 2400	78.5	62.3	396.1 @ 1200	86.0	34.0	SPL, TC, DDI
1940/2300		143.5 @ 2300	77.0	58.3	396.1 @ 1200	86.0	34.0	SPL, TC, DDI
1940/2200		138.8 @ 2200	78.0	58.0	396.1 @ 1200	86.0	34.5	SPL, TC, DDI
1939/2200		124.0 @ 2200	67.0	48.6	354.0 @ 1400	75.0	34.5	SPL, TC, DDI
1939/2300		127.4 @ 2300	68.0	51.5	354.0 @ 1400	75.0	34.5	SPL, TC, DDI
1939/2400		130.7 @ 2400	69.0	54.6	354.0 @ 1400	75.0	34.5	SPL, TC, DDI
1939/2500		134.0 @ 2500	68.5	56.4	354.0 @ 1400	75.0	34.5	SPL, TC, DDI
2047/2200		140.1 @ 2200	76.4	55.5	421.2 @ 1400	85.5	33.1	SPL, TC, DDI
Caterpillar 3056		130.0 @ 2000	72.0	48.0	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
Caterpillar 3056		131.4 @ 2100	71.0	50.1	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
Caterpillar 3056		130.0 @ 2200	70.0	51.9	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
Caterpillar 3056		128.7 @ 2300	71.0	53.8	380.6 @ 1400	74.0	34.2	SPL, TC, DDI
Caterpillar 3056		116.5 @ 2000	64.0	42.7	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
Caterpillar 3056		117.6 @ 2100	63.5	44.5	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
Caterpillar 3056		115.7 @ 2200	61.5	45.2	341.5 @ 1400	65.5	30.6	SPL, TC, DDI
Caterpillar 3056		114.0 @ 2300	61.0	46.8	341.5 @ 1400	65.5	30.6	SPL, TC, DDI