

PERKINS ENGINES COMPANY LTD.

EXECUTIVE ORDER U-R-022-0040 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 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)		
2003	3PKXL02.6UB1	2.6	Diesel	8000		
	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Loader and Tractor			

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	EXHAUST (g/kw-hr)				OPACITY (%)				
CLASS	CATEGORY		HC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
37 <u><</u> KW<75	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT		4.3				1	2	2

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 24th day of December 2002.

/n Allen Lyons, Chief

Mobile Source Operations Division

ATTACHMENT 1 OF 1

Engine Model Summary Form

Perkins Engines Company Ltd anufacturer:

Nonroad CI ngine category:

PA Engine Family: 3PKXL02.6UB1

U-R-022-0040

fr Family Name: AS EPA

rocess Code:

New Submission

9.Emission Control evice Per SAE J1930		٥	₫	<u>o</u>	₫
8.Fuel Rate: 9.Emission Control lbs/hr/@peak torque Device Per SAE J1930	19.0 - 20.9	19.0 - 20.9	19.0 - 20.9	19.0 - 20.9	19.0 - 20.9
7.Fuel Rate: mm/stroke@peak torque (lb:	39.0 - 43.0	39.0 - 43.0	39.0 - 43.0	39.0 - 43.0	39.0 - 43.0
6.Torque @ RPM (SEA Gross)	117 @ 1600	117 @ 1600	117 @ 1600	117 @ 1600	117 @ 1600
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	20.2 - 21.9	19.7 - 21.7	19.5 - 21.7	19.4 - 21.3	19.2 - 21.2
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	41.5 - 45	40.5 - 44.5	40.0 - 44.0	39.8 - 43.8	39.5 - 43.5
3.BHP@RPM (SAE Gross)	55.0 @ 2600	53.5 @ 2500	52.0 @ 2400	50.5 @ 2300	49.0 @ 2200
Engine Code 2.Engine Model	1913/2600	1913/2500	1913/2400	1913/2300	1913/2200
. Engine Code					