## PERKINS ENGINES COMPANY LTD.

EXECUTIVE ORDER: U-R-022-0382 New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

**IT IS ORDERED AND RESOLVED:** The engines and emission control systems produced by the manufacturer as described below are certified 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	Combustion Cycle	Fuel Operation	Fuel Type(s)	Engine Operation				
2024	RPKXL07.0VM1	Diesel	Dedicated	Diesel	Variable and Constant Speed				

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Exhaust Gas Recirculation (EGR), Electronic Control Module (ECM), Turbocharger (TC), Diesel Oxidation Catalyst (DOC), Periodic Trap Oxidizer (PTOX), Selective Catalytic Reduction – Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX)	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (\*).

		Crit	eria	Smoke Opacity				
Applicable Standard	NMHC	NOx	СО	PM	ACL	LUG	PEAK	
	STD	0.19	0.40	3.5	0.02	*	*	*
Tier 4 Final 130 ≤ kW ≤ 560	FEL	*	*	*	0.01	*	*	*
100 = KVV = 000	NTE	0.28	0.60	4.4	0.02	*	*	*

**BE IT FURTHER RESOLVED:** Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

**BE IT FURTHER RESOLVED:** For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

**BE IT FURTHER RESOLVED:** The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this /2th day of October 2023.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

## ATTACHMENT: ENGINE MODELS

Family: RPKXL07.0VM1 EO Number: U-R-022-0382 Date Applicable: 09/12/2023

				Peak Power				Peak Torque					
Model	Code	Trim	Config	Displacement	Power	Speed	Fueling	Torque	Speed	Fueling	ECS Num	GHG	Notes
-	-	-	-	L	hp	rpm	lb/hr	lb-ft	rpm	lb/hr	-	-	-
1206J-E70TTA/C7.1	4884/2200	N/A	16	7.01	275	2200	99.5	927	1400	84	1	N/A	N/A
1206J-E70TTA/C7.1	4886/2200	N/A	16	7.01	202	2200	72.5	725	1400	64.5	1	N/A	N/A
1206J-E70TTA/C7.1	4888/2200	N/A	16	7.01	202	2200	73	725	1400	63.5	1	N/A	N/A
1206J-E70TTA/C7.1	4890/2200	N/A	16	7.01	302	2200	111.3	946	1400	86.7	1	N/A	N/A
1206J-E70TTA/C7.1	4892/2200	N/A	16	7.01	225	2200	80.4	805	1400	73	1	N/A	N/A
1206J-E70TTA/C7.1	4894/2200	N/A	16	7.01	302	2200	111.3	940	1400	85.5	1	N/A	N/A
1206J-E70TTA/C7.1	4896/2200	N/A	16	7.01	250	2200	89.3	895	1400	82.1	1	N/A	N/A
1206J-E70TTA/C7.1	4898/2200	N/A	16	7.01	225	2200	80.4	805	1400	73	1	N/A	N/A
1206J-E70TTA/C7.1	4900/2200	N/A	16	7.01	250	2200	88.7	895	1400	81.3	1	N/A	N/A
1206J-E70TTA/C7.1	4922/2200	N/A	16	7.01	269	2200	111.3	918	1400	86.7	1	N/A	N/A
1206J-E70TTA/C7.1	4924/2200	N/A	16	7.01	248	2200	100.6	908	1400	58.9	1	N/A	N/A
1206J-E70TTA/C7.1	4936/2200	N/A	16	7.01	227	2200	83.3	805	1400	75.1	1	N/A	N/A
1206J-E70TTA/C7.1	6224/2000	N/A	16	7.01	225	2000	82.3	845	1400	80.2	1	N/A	N/A
1206J-E70TTA/C7.1	4902/1800	N/A	16	7.01	321	1800	115.4	935	1800	115.4	1	N/A	N/A
1206J-E70TTA/C7.1	6318/1800	N/A	16	7.01	274	1800	82.7	720	1800	82.7	1	N/A	N/A
1206J-E70TTA/C7.1	6316/1500	N/A	16	7.01	268	1500	93.2	940	1500	93.2	1	N/A	N/A
1206J-E70TTA/C7.1	6750/2000	N/A	16	7.01	205	2000	85.3	1186	1400	71.7	1	N/A	N/A
1206J-E70TTA/C7.1	6754/2000	N/A	16	7.01	246	2000	85.3	1107	1400	71.7	1	N/A	N/A