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	RCEXL60.0AAF	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (EDI), Electronic Control Module (ECM), Turbocharger (TC), Charged Air Cooler (CAC), 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 (*).

Applicable Standard		Criteria				Smoke Opacity		
		NMHC	NOx	CO	PM	ACL	LUG	PEAK
Tier 4 Final ELSE > 560 kW	STD	0.19	3.5	3.5	0.04	*	*	*
	FEL	*	*	*	*	*	*	*
	NTE	0.28	4.4	4.4	0.06	*	*	*

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 6th day of July 2023.

Robin U. Lang

Robin U. Lang, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models **EO #:** U-R-002-0861 **Family:** RCEXL60.0AAF **Date Applicable:** 6/9/2023

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel	Peak Torque - Fuel Units	OBD Status	OBD Fines ($)	GHG	ECS #	Notes
QSK60	OK1		16	60	Liters	1864	kilowatt	1900	498	mm3/stroke	10049	N-m	1700	521	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK2		16	60	Liters	1398	kilowatt	1800	394	mm3/stroke	8364	N-m	1500	428	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK3		16	60	Liters	1715	kilowatt	1800	477	mm3/stroke	9309	N-m	1600	475	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK4		16	60	Liters	1491	kilowatt	1800	419	mm3/stroke	8908	N-m	1500	454	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK5		16	60	Liters	1450	kilowatt	1800	407	mm3/stroke	8364	N-m	1500	428	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK6		16	60	Liters	2125	kilowatt	1900	570	mm3/stroke	11831	N-m	1500	596	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK7		16	60	Liters	2013	kilowatt	1900	540	mm3/stroke	11209	N-m	1500	566	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK8		16	60	Liters	2013	kilowatt	1900	550	mm3/stroke	10814	N-m	1700	567	mm3/stroke	N/A	N/A	N/A	[1]	
QSK60	OK9		16	60	Liters	1411	kilowatt	1800	401	mm3/stroke	8506	N-m	1800	438	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK10		16	60	Liters	1864	kilowatt	1900	501	mm3/stroke	10135	N-m	1500	520	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK11		16	60	Liters	1398	kilowatt	1800	394	mm3/stroke	8364	N-m	1500	433	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK12		16	60	Liters	1715	kilowatt	1800	477	mm3/stroke	9309	N-m	1600	475	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK13		16	60	Liters	1491	kilowatt	1800	419	mm3/stroke	8908	N-m	1500	454	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK14		16	60	Liters	1450	kilowatt	1800	407	mm3/stroke	8364	N-m	1500	428	mm3/stroke	N/A	N/A	N/A	[1]	
SSDA16V160E-3	OK15		16	60	Liters	2125	kilowatt	1900	570	mm3/stroke	11831	N-m	1500	596	mm3/stroke	N/A	N/A	N/A	[1]	
SSDA16V160E-3	OK16		16	60	Liters	2013	kilowatt	1900	540	mm3/stroke	11209	N-m	1500	566	mm3/stroke	N/A	N/A	N/A	[1]	
SDA16V160E-3	OK17		16	60	Liters	2013	kilowatt	1900	550	mm3/stroke	10814	N-m	1700	567	mm3/stroke	N/A	N/A	N/A	[1]	
SSDA16V160E-3	OK18		16	60	Liters	2125	kilowatt	1900	570	mm3/stroke	11831	N-m	1500	596	mm3/stroke	N/A	N/A	N/A	[1]	