

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	RJCBL04.8S12	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Electronic Direct Injection (DDI), Electronic Control Module (ECM), Exhaust Gas Recirculation (EGR), Turbocharger (TC), Charge 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/kW-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 130 ≤ kW ≤ 560	STD	0.19	0.40	3.5	0.02	*	*	*
	FEL	*	*	*	*	*	*	*
	NTE	0.28	0.60	4.4	0.03	*	*	*

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: That the manufacturer has elected to combine engines from the 75 ≤ kW ≤ 560 power categories into a single engine family. The listed engine models comply with the more stringent set of standards of the 130 ≤ kW ≤ 560 power category in accordance with Section 1039.230(e) of 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 24th day of January 2024.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RJCBL04.8S12 EO Number: U-R-049-0073 Date Applicable: 1/17/2024

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-	-
C1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
C1C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
D1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
D1A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E1A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E1C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
I2A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
I2A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
I2C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
I2C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
L1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
L1C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
V1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
V1C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
W1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
W1C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
F1C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E2A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E2C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E3A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
E3C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
A1A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
A1C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
H1A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
H1C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
I3A	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
I3C	448 TA4-129	N/A	I4	4.765	173.3	2000	109	413	1500	149	1	N/A	N/A
L2A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
L2C	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A
C2A	448 TA4-108	N/A	I4	4.765	145.2	2000	109	413	1500	122	1	N/A	N/A