CALIFORNIA AIR RESOURCES BOARD	ROLLS-ROYCE SOLUTIONS AMERICA INC.	EXECUTIVE ORDER: U-R-052-004 New Off-Road Compression-Ignition Engines Page 1 of
AIR RESOURCES BOARD	INC.	

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	RMDDL76.3XTM	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems						
[1]: Electronic Direct Injection (DDI), Charged Air Cooler (CAC), Exhaust Gas Recirculation (EGR), Electronic Control Module (ECM), Turbocharger (TC)	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 (*).

	Criteria				Smoke Opacity			
Applicable Standard	NMHC	NOx	СО	PM	ACL	LUG	PEAK	
	STD	0.19	3.5	3.5	0.04	*	*	*
Tier 4 Final ELSE > 560 kW	FEL	*	*	*	*	*	*	*
	NTE	0.24	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 4th day of December 2023.

olin U. Lana

Robin U. Lang, Chief **Emissions Certification and Compliance Division**

ATTACHMENT: ENGINE MODELS

Family: RMDDL76.3XTM EO Number: U-R-052-0041 Date Applicable: 11/8/2023

		e Trim	Config [Peak Power			Peak Torque		Speed Fueling		GHG	Notes
Model Code	Code			Displacement	Power	Speed	Fueling	Torque	Speed		ECS Num		
-	-	-	-	L	kW	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-	-
12V4000C15	7268	90 degr.	V12	57.2	1150	1800	445	7351	1494	515	1	N/A	
12V4000C65	7266	90 degr.	V12	57.2	1864	1800	697	10409	1710	726	1	N/A	
16V4000C55	7342	90 degr.	V16	76.3	2400	1800	676	13403	1710	708	1	N/A	
12V4000C65	7267	90 degr.	V12	57.2	1864	1900	673	9861	1805	695	1	N/A	
16V4000C65	7312	90 degr.	V16	76.3	2400	1800	676	13403	1710	708	1	N/A	
12V4000T95R	7269	90 degr.	V12	57.2	1680	1900	610	9035	1400	621	1	N/A	
16V4000T95	7331	90 degr.	V16	76.3	2400	1900	693	13403	1710	708	1	N/A	
12V4000C55	7305	90 degr.	V12	57.2	1750	1900	632	9258	1805	633	1	N/A	
12V4000T95L	7302	90 degr.	V12	57.2	1939	1900	701	10427	1400	713	1	N/A	
12V4000T95	7303	90 degr.	V12	57.2	1865	1900	670	10030	1400	686	1	N/A	
16V4000C45	7343	90 degr.	V16	76.3	2400	1800	676	13403	1710	708	1	N/A	
12V4000C35	7304	90 degr.	V12	57.2	1500	1800	561	9588	1494	655	1	N/A	
12V4000C25	7330	90 degr.	V12	57.2	1250	1800	474	7990	1494	549	1	N/A	
12V4000T25L	7357	90 degr.	V12	57.2	1500	1800	561	9588	1494	655	1	N/A	