EXECUTIVE ORDER: U-R-019-0213 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	RDICL01.8LEB	Diesel	Dedicated	Diesel	Variable and Constant Speed

Emission Control Systems	Special Features
[1]: Exhaust Gas Recirculation (EGR), Diesel Oxidation Catalyst (DOC), Electronic Direct Injection (DFI), Turbocharger (TC), Charge Air Cooler (CAC), Electronic Control Module (ECM)	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 hydrocarbon plus oxides of nitrogen (NMHC+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 (\*).

			Criteria				Smoke Opacity			
Applicable Standard	NMHC+NOx	СО	PM	ACL	LUG	PEAK				
	STD	4.7	5.0	0.03	*	*	*			
Tier 4 Final 37≤ kW < 56	FEL	*	*	*	*	*	*			
07 = RVV = 00	NTE	5.9	6.2	0.04	*	*	*			

**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  $19 \le kW < 56$  power categories into a single engine family. The listed engine models comply with the more stringent set of standards of the  $37 \le kW < 56$  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 \_\_\_\_\_ day of December 2023.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

## ATTACHMENT: ENGINE MODELS

Family: RDICL01.8LEB EO Number: U-R-019-0213 Date Applicable: 11/20/2023

					Peak Power			Peak Torque						
Model	Code	Trim	Config	Displacement	Power	Speed	Fueling	Torque	Speed	Fueling	ECS Num	GHG		Notes
-	-	-	-	L	kW	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-		-
DM01-LEP00	DM01P	N/A	13	1.794	45	2600	51.9	202	1800	62.8	1	N/A	N/A	
DM01-LEP01	DM01P	N/A	13	1.794	41	2500	49.1	190	1600	60.5	1	N/A	N/A	
DM01-LEP02	DM01P	N/A	13	1.794	41	2200	55.2	190	1600	60.5	1	N/A	N/A	
DM01-LEP03	DM01P	N/A	13	1.794	36.7	2500	44.5	180	1600	54.9	1	N/A	N/A	
DM01-LEP04	DM01P	N/A	13	1.794	31.3	2200	41.1	155	1600	47.6	1	N/A	N/A	
DM01-LEP05	DM01P	N/A	13	1.794	24.6	2400	32.5	110	1600	35.3	1	N/A	N/A	
DM01-LEE00	DM01P	N/A	13	1.794	31.3	2200	41.1	155	1600	47.6	1	N/A	N/A	
DM01-LEE01	DM01P	N/A	13	1.794	36.4	2200	47.7	180	1600	54.9	1	N/A	N/A	
DM01-LEE04	DM01P	N/A	13	1.794	24.6	2400	32.5	110	1600	35.3	1	N/A	N/A	
DM01-LEG00	DM01PP	38.1 kW	13	1.794	38.1	1800	62	202	1800	62	1	N/A	N/A	
DM01-LEG00	DM01PP	30.2 kW	13	1.794	30.2	1500	60.8	192	1500	60.8	1	N/A	N/A	
DM01-LEE20	DM01P	N/A	13	1.794	24.6	2400	32.5	110	1600	35.3	1	N/A	N/A	
DM01-LER00	DM01P	N/A	13	1.794	36.4	2600	35.1	165	1800	50.1	1	N/A	N/A	
DM01-LEG01	DM01PP	29.5 kW	13	1.794	29.5	1800	47.6	156.4	1800	47.6	1	N/A	N/A	
DM01-LEG01	DM01PP	26.0 kW	13	1.794	26.0	1500	51	165.5	1500	51	1	N/A	N/A	
DM01-LEG02	DM01PP	36.4 kW	13	1.794	36.4	1800	58.4	193	1800	58.4	1	N/A	N/A	
DM01-LEG02	DM01PP	29.1 kW	13	1.794	29.1	1500	56.1	185	1500	56.1	1	N/A	N/A	
DM01-LEE05	DM01P	N/A	13	1.794	31.3	2200	41.1	155	1600	47.6	1	N/A	N/A	
DM01-LEE06	DM01P	N/A	13	1.794	36.4	2200	47.7	180	1600	54.9	1	N/A	N/A	
DM01-LEE07	DM01P	N/A	13	1.794	36.4	2200	47.7	180	1600	54.9	1	N/A	N/A	
DM01-LEA00	DM01P	N/A	13	1.794	36.9	2400	45.6	200	1600	60.1	1	N/A	N/A	
DM01-LEA01	DM01P	N/A	13	1.794	29.3	2350	37.9	160	1400	49.2	1	N/A	N/A	
DM01-LEE08	DM01P	N/A	13	1.794	30.2	2400	38.9	176	1600	54.9	1	N/A	N/A	