

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 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 on-road motor vehicles with a manufacturer's Gross Vehicle Weight Rating (GVWR) over 14,000 pounds. 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)	Intended Vehicle Service Class	Intended GHG Vehicle Type
2024	RCEXH0540LDC	Diesel	Dedicated	Natural Gas (CNG/LNG)	Heavy Heavy-Duty	Vocational and Tractor

Emission Control Systems (ECS)	Special Features
[1]: Throttle Body Injection (TDI), Turbocharger (TC), Charged Air Cooler (CAC), Cooled Exhaust Gas Recirculation (EGR-C), Three-Way Catalyst (TWC), Electronic Control Module (ECM), Heated Oxygen Sensor (HO2S(2))	None

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) as demonstrated on the Federal Test Procedure (FTP) and Supplemental Emission Test (SET) test cycles, and on the Low-Load Cycle (LLC) test cycle, as applicable, and 2) Conformity Factors (CF) as demonstrated using the Three-Bin Moving Average Window (3B-MAW) method, as applicable, for exhaust criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and exhaust greenhouse gas (GHG) pollutants carbon dioxide (CO2) for vocational (VOCV) and tractor (TRAC) vehicles, methane (CH4), and nitrous oxide (N2O) as set forth in 13 CCR 1956.8 and the applicable California test procedures for heavy-duty diesel cycle engines, and 3) family emission limits (FEL) and family certification levels (FCL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per brake horsepower-hour (g/bhp-hr), except as noted, or designated as not applicable (*).

		Crit	eria		GHG				
Applicable Standard	NMHC	NOx	со	РМ	CO2 VOCV	CO2 TRAC	CH4	N2O	
	STD	0.14	0.050	15.5	0.005	506	436	0.10	0.10
Heavy-Duty Diesel Cycle	LLC	0.14	0.200	15.5	0.005	*	*	*	*
Medium Heavy-Duty Vocational and Tractor	FEL	*	*	*	*	500	440	0.65	0.10
	3B-MAW CF	2.0	2.0	2.0	2.0	*	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL or FCL 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 1965 (emission control labels), 13 CCR 1971.1 (on-board diagnostic full or partial compliance), and 13 CCR 2035 et seq. (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models are certified in accordance with 13 CCR Section 1971.1(k) (deficiency and fines provisions for certification of heavy-duty on-board diagnostic (HD OBD) systems with identified deficiencies) and Health and Safety Code Section 43154.

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

Executed on this <u>26th</u> day of July 2023.

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Robin U. Lang, Chief Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RCEXH0540LDC EO Number: A-021-0779 Date Applicable: 7/10/2023

Model	Code	Trim	Config		Peak Power			Peak Torque		Fueling	ECS Num	GHG	Notes
				Displacement	Power	Speed	Fueling	Torque	Speed				
-	-	-	-	L	hp	rpm	kg/hr	lb-ft	rpm	kg/hr	-	-	-
.9N 320	LH1		16	8.9	320	2000	52.6	1000	1300	37.2	1	Vocational	
.9N 300	LH2		16	8.9	300	2100	50.8	860	1300	33.9	1	Vocational	
.9N 280	LH3		16	8.9	280	2200	48.1	900	1300	35.5	1	Vocational	
.9N 260	LH4		16	8.9	260	2200	46.1	660	1300	25.4	1	Vocational	
.9N 250	LH5		16	8.9	250	2000	44.3	730	1300	27.8	1	Vocational	
.9N 320	LH1		16	8.9	320	2000	52.6	1000	1300	37.2	1	Tractor	
.9N 300	LH2		16	8.9	300	2100	50.8	860	1300	33.9	1	Tractor	
.9N 280	LH3		16	8.9	280	2200	48.1	900	1300	35.5	1	Tractor	
.9N 260	LH4		16	8.9	260	2200	46.1	660	1300	25.4	1	Tractor	
.9N 250	LH5		16	8.9	250	2000	44.3	730	1300	27.8	1	Tractor	