

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	RCEXH0540LCA	Diesel	Dedicated	Diesel	Medium Heavy-Duty	Vocational and Tractor

Emission Control Systems (ECS)	Special Features
[1], [2]: Electronic Direct Injection (DDI), Turbocharger (TC), Charged Air Cooler (CAC), Engine Control Module (ECM), Cooled Exhaust Gas Recirculation (EGR-C), Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction-Urea (SCR-U), Ammonia Slip Catalyst (AMOX), Periodic Trap Oxidizer (PTOX)	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) Not-To-Exceed limits (NTE) as demonstrated using the Not-To-Exceed test cycle, 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 (*).

Applicable Standard	STD	Criteria				GHG			
		NMHC	NOx	CO	PM	CO2 VOCV	CO2 TRAC	CH4	N2O
Heavy-Duty Diesel Cycle Optional Standard – below 525 bhp Medium Heavy-Duty Vocational and Tractor Clean Idle 30g	STD	0.14	0.050	15.5	0.005	538	461	0.10	0.10
	LLC	*	*	*	*	*	*	*	*
	FEL	*	0.20	*	0.009	541	507	0.10	0.17
	NTE	0.21	0.30	19.4	0.014	*	*	*	*

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: That the listed engine family is certified to the optional standard for engines below 525 brake horsepower as specified in 13 CCR 1956.8(a)(2)(C)3 and section 11.B.5.3.5 of the applicable California test procedures.

BE IT FURTHER RESOLVED: For engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) 30 g/hr NOx and section 11.A.6.3 of the applicable California test procedures, except those in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), the engine manufacturer shall provide an approved "Certified Clean Idle" label to be affixed to the vehicle into which the engine is installed.

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 23rd day of October 2023.



Robin U. Lang, Chief
Emissions Certification and Compliance Division

ATTACHMENT: ENGINE MODELS

Family: RCEXH0540LCA EO Number: A-021-0786 Date Applicable: 10/13/2023

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	lb/hr	lb-ft	rpm	lb/hr	-	-	-
L9 450	LM1		16	8.9	450	2100	160	1250	1200	96	1	Vocational	N/A
L9 400	LM2		16	8.9	400	2200	141	1250	1200	96	1	Vocational	N/A
L9 380	LM3		16	8.9	380	2100	132	1250	1200	96	1	Both	N/A
L9 380	LM4		16	8.9	380	2200	134	1150	1200	87	1	Both	N/A
L9 370	LM5		16	8.9	370	2100	126	1250	1200	96	1	Both	N/A
L9 360	LM6		16	8.9	360	2200	133	1150	1200	86	2	Both	N/A
L9 350	LM7		16	8.9	350	2200	128	1050	1200	77	2	Both	N/A
L9 330	LM8		16	8.9	330	2200	119	1000	1200	73	2	Both	N/A
L9 300	LM9		16	8.9	300	2200	108	860	1200	57	2	Both	N/A
L9 270	LM10		16	8.9	270	2200	96	860	1200	57	2	Both	N/A
L9 260	LM11		16	8.9	260	2200	93	860	1200	57	2	Both	N/A
L9 350	LM12		16	8.9	350	2200	119	1000	1200	73	2	Both	N/A
PX-9 450	LM1		16	8.9	450	2100	160	1250	1200	96	1	Vocational	N/A
PX-9 400	LM2		16	8.9	400	2200	141	1250	1200	96	1	Vocational	N/A
PX-9 380	LM3		16	8.9	380	2100	132	1250	1200	96	1	Both	N/A
PX-9 380	LM4		16	8.9	380	2200	134	1150	1200	87	1	Both	N/A
PX-9 370	LM5		16	8.9	370	2100	126	1250	1200	96	1	Both	N/A
PX-9 360	LM6		16	8.9	360	2200	133	1150	1200	86	2	Both	N/A
PX-9 350	LM7		16	8.9	350	2200	128	1050	1200	77	2	Both	N/A
PX-9 330	LM8		16	8.9	330	2200	119	1000	1200	73	2	Both	N/A
PX-9 300	LM9		16	8.9	300	2200	108	860	1200	57	2	Both	N/A
PX-9 270	LM10		16	8.9	270	2200	96	860	1200	57	2	Both	N/A
PX-9 260	LM11		16	8.9	260	2200	93	860	1200	57	2	Both	N/A
PX-9 350	LM12		16	8.9	350	2200	119	1000	1200	73	2	Both	N/A