

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	RCEXH0886XDA	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 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), 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	Criteria				GHG				
	NMHC	NOx	CO	PM	CO2 VOCV	CO2 TRAC	CH4	N2O	
Heavy-Duty Diesel Cycle Heavy Heavy-Duty Vocational and Tractor	STD: FTP / SET	0.14	0.050	15.5	0.005	506	436	0.10	0.10
	STD: LLC	0.14	0.200	15.5	0.005	*	*	*	*
	FEL: FTP / SET	*	*	*	*	489	413	0.40	0.10
	FEL: LLC	*	*	*	*	*	*	*	*
	3B-MAW	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 12<sup>th</sup> day of August 2024.

  
Robin U. Lang, Chief  
Emissions Certification and Compliance Division

**ATTACHMENT: ENGINE MODELS**

Family: RCEXH0886XDA EO Number: A-021-0790 Date Applicable: 8/9/2024

Model	Code	Trim	Config	Displacement	Peak Power			Peak Torque			ECS Num	GHG	Notes
					Power	Speed	Fueling	Torque	Speed	Fueling			
-	-	-	-	L	hp	rpm	mm3/stroke	lb-ft	rpm	mm3/stroke	-	-	-
400	XH1		I6	15	400	1900	230	1450	900	276	1	Both	
400	XH2		I6	15	400	1900	230	1650	900	317	1	Both	
400EX	XH3		I6	15	400	1900	230	1650	900	317	1	Both	
400EX	XH4		I6	15	400	1900	230	1750	1000	333	1	Both	
400EX	XH5		I6	15	400	1900	230	1850	1100	350	1	Both	
400ST	XH6		I6	15	400	1900	230	1650	900	317	1	Both	
400ST	XH7		I6	15	400	1900	230	1750	1000	333	1	Both	
400ST	XH8		I6	15	400	1900	230	1850	1100	350	1	Both	
450	XH9		I6	15	450	1900	248	1650	900	317	1	Both	
450	XH10		I6	15	450	1900	248	1750	1000	333	1	Both	
450	XH11		I6	15	450	1900	248	1850	1100	350	1	Both	
450EX	XH12		I6	15	450	1900	248	1750	1000	333	1	Both	
450EX	XH13		I6	15	450	1900	248	1850	1100	350	1	Both	
450ST	XH14		I6	15	450	1900	248	1650	900	317	1	Both	
450ST	XH15		I6	15	450	1900	248	1750	1000	333	1	Both	
450ST	XH16		I6	15	450	1900	248	1850	1100	350	1	Both	
500	XH17		I6	15	500	1900	276	1650	900	317	1	Both	
500	XH18		I6	15	500	1900	276	1850	1100	350	1	Both	
500EX	XH19		I6	15	500	1900	276	1850	1100	350	1	Both	
500ST	XH20		I6	15	500	1900	276	1850	1100	350	1	Both	