

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 engine and emission control systems produced by the manufacturer are certified as described below for use in diesel or incomplete medium-duty vehicles with a manufacturer's GVWR from 10,001 to 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	EMISSION STD CATEGORY <sup>2</sup>	FUEL TYPE <sup>1</sup>	STANDARDS & TEST PROCEDURE	ENGINE SIZES (L)	ECS & SPECIAL FEATURES <sup>3</sup>	OBD COMPLIANCE	
2023	PFMXE06.7P4B	ULEV	Diesel	Diesel	6.7	[1]: TC, DDI, CAC, EGR, ECM, PTOX, DOC, SCR-U, AMOX	OBD(P)	
<b>ENGINE MODELS / CODES (rated power, in hp)</b>							<b>ENGINE (L)</b>	<b>OBD COMPLIANCE</b>
See attachment for engine models and ratings								
<sup>*</sup> =not applicable; <b>GVWR</b> =gross vehicle weight rating; <b>13 CCR xyz</b> =Title 13, California Code of Regulations, Section xyz; <b>40 CFR 86.abc</b> =Title 40, Code of Federal Regulations, Section 86.abc; <b>L</b> =liter; <b>hp</b> =horsepower; <b>kw</b> =kilowatt; <sup>1</sup> <b>CNG/LNG</b> =compressed/liquefied natural gas; <b>LPG</b> =liquefied petroleum gas; <b>E85</b> =85% ethanol fuel; <b>MF</b> =multi fuel a.k.a <b>BF</b> =bi fuel; <b>DF</b> =dual fuel; <b>FF</b> =flexible fuel; <sup>2</sup> <b>SULEV / ULEV / LEV</b> =super ultra / ultra / low emission vehicle; <sup>3</sup> <b>ECS</b> =emission control system; <b>TWC/OC</b> =three-way/oxidizing catalyst; <b>NAC</b> =NOx adsorption catalyst; <b>SCR-U / SCR-N</b> =selective catalytic reduction – urea / – ammonia; <b>WU (prefix)</b> =warm-up catalyst; <b>DPF</b> =diesel particulate filter; <b>PTOX</b> =periodic trap oxidizer; <b>HO2S/O2S</b> =heated/oxygen sensor; <b>HAFS/AFS</b> =heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); <b>WR-HO2S</b> =wide range oxygen sensor; <b>TBI</b> =throttle body fuel injection; <b>SFI/MFI</b> =sequential/multi port fuel injection; <b>DGI</b> =direct gasoline injection; <b>GCARB</b> =gaseous carburetor; <b>IDI/DDI</b> =indirect/direct diesel injection; <b>TC/SC</b> =turbo/ super charger; <b>CAC</b> =charge air cooler; <b>EGR / EGR-C</b> =exhaust gas recirculation / cooled EGR; <b>PAIR/AIR</b> =pulsed/secondary air injection; <b>SPL</b> =smoke puff limiter; <b>ECM/PCM</b> =engine/powertrain control module; <b>EM</b> =engine modification; <b>AMOX</b> =Ammonia Oxidation Catalyst; <b>NOXS</b> =NOx sensor; <b>2 (prefix)</b> =parallel; <b>(2) (suffix)</b> =in series;								

Following are: 1) the FTP exhaust emission standards, or family emission limit(s) as applicable, under 13 CCR 1956.8; 2) the SET and NTE limits under the applicable California exhaust emission standards and test procedures for heavy-duty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, for this engine family. “Diesel” CO, SET and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For flexible- and dual-fueled engines, the CERT values in brackets [ ] are those when tested on conventional test fuel. For multi-fueled engines, the STD and CERT values for default operation permitted in 13 CCR 1956.8 are in parentheses.). <sup>4</sup>

	NMHC		NOx		NMHC+NOx		CO		PM		HCHO	
	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
<b>STD</b>	0.14	0.14	0.20	0.20	*	*	15.5	15.5	0.01	0.01	0.050	0.050
<b>FEL</b>	*	*	0.08	0.08	*	*	*	*	*	*	*	*
<b>CERT</b>	0.002	0.000	0.04	0.06	*	*	0.1	0.02	0.002	0.001	0.0000	0.001
<b>NTE</b>	0.21		0.12		*		19.4		0.02		0.075	

<sup>4</sup> **g/bhp-hr**=grams per brake horsepower-hour; **FTP**=Federal Test Procedure; **SET**=supplemental emissions testing; **NTE**=Not-to-Exceed emission limit; **STD**=standard or emission test cap; **FEL**=family emission limit; **CERT**=certification level; **NMHC/HC**=non-methane/hydrocarbon; **NOx**=oxides of nitrogen; **CO**=carbon monoxide; **PM**=particulate matter; **HCHO**=formaldehyde; (rev: 2014-01-03)

**BE IT FURTHER RESOLVED:** The manufacturer has demonstrated compliance with the Greenhouse Gas Emission Standards as specified in Title 13 CCR 1956.8 and the incorporated “California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy Duty Diesel-Engines and Vehicles” (HDDE Test Procedures) adopted December 12, 2002, as last amended September 9, 2021.

PRIMARY INTENDED SERVICE CLASS: Vocational				
In g/bhp-hr	CO <sub>2</sub>		CH <sub>4</sub>	N <sub>2</sub> O
	FTP	SET		
<b>STD</b>	563	*	0.10	0.10
<b>FCL</b>	539	*	*	*
<b>FEL</b>	555	*	0.10	0.10
<b>CERT</b>	521	*	0.03	0.08

<sup>4</sup> **g/bhp-hr**=grams per brake horsepower-hour; **FTP**=Federal Test Procedure; **SET**=Supplemental emissions testing; **STD** = standard or emission test cap; **FEL**=family emission limit; **FCL**=family certification level; **CERT**=certification level; **CO<sub>2</sub>**=carbon dioxide; **CH<sub>4</sub>**=methane; **N<sub>2</sub>O**=nitrous oxide; **VOCATIONAL**=vocational engine; **TRACTOR**=tractor engine

**BE IT FURTHER RESOLVED:** Certification to the FEL(s) / FCL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) / FCL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

**BE IT FURTHER RESOLVED:** The listed engine models have been certified to the optional emission standards and test procedures in 13 CCR 1956.8 applicable to diesel or incomplete MDV with a 10,001-14,000 pounds GVWR and shall be subject to 13 CCR 2139(c) (in-use testing of engines certified for use in diesel or incomplete MDV with a 10,001-14,000 pounds GVWR).

**BE IT FURTHER RESOLVED:** For the listed engine models the manufacturer has submitted the 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 manufacturer has elected to include engine models in this engine family which are identified for "emergency vehicle use only". These "emergency vehicle use only" engines are exempt from requirements imposed pursuant to California law and the regulations adopted pursuant thereto for motor vehicle pollution control devices per California Vehicle Code Section 27156.2. The manufacturer must clearly label these engines for "emergency vehicle use only" on the engines' emission control label.

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

This Executive Order hereby supersedes and cancels Executive Order A-010-2458 dated January 31, 2023.

Executed on this 24th day of July 2023.



Robin U. Lang, Chief  
Emissions Certification and Compliance Division

**ATTACHMENT: ENGINE MODELS**

Family: PFMXH06.7P4B EO Number: A-010-2458-1 Date Applicable: 7/18/23

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	-	-	-
Super Duty	PTFHTRDN	N/A	V8	6.7	330	2200	230.11	950	1800	236.7	1	Vocational	N/A
Super Duty	PTFHTRDQ	N/A	V8	6.7	330	2200	230.11	950	1800	236.7	1	Vocational	Emergency