DIAGNOSTIC 6

ECS & SPECIAL FEATURES 3

## **CUMMINS INC.**



**ENGINE FAMILY** 

**ENGINE** 

SIZES (L)

MODEL YEAR

Pursuant to the authority vested in 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 on-road motor vehicles with a manufacturer's GVWR over 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

FUEL TYPE 1

STANDARDS

INTENDED

SERVICE

YEAR	ENGINETAMIET		SIZES (L)		PROCEDURE CLASS 2		ECS & SPECIAL FEATURES	DIAGNOSTIC					
2023	PCEXH0408BCD		6.7 Diesel		Diesel	MHDD	DDI, TC, CAC, ECM, EGR-C, OC, PTOX, SCR-U, AMOX	OBD(\$)					
PRIMARY ENGINE'S IDLE EMISSIONS CONTROL 5		ADDITIONAL IDLE EMISSIONS CONTROL 5											
	30g	30g N/A											
ENGINE (	NGINE (L) ENGINE MODELS / CODES (rated power, in hp)												
6.7	6.7 B6.7 360 / BCDM1 (360) B6.7 360EV / BCDME1 (360) (Emergency Vehicle Rating)												
	* =not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13, California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc; L=liter; hp=horsepower; kw=kilowatt; hr=hour;												
					nol fuel; MF=multi t	fuel a.k.a. <b>BF</b> =	bi fuel; <b>DF</b> =dual fuel; <b>FF</b> =flexible fuel;						
1 2	•	, ,		ban bus; <b>HDO</b> =heavy duty Otto;									
SECS=emission control system; TWC/OC=three-way/oxidizing catalyst; NAC=NOx adsorption catalyst; SCR-U / SCR-N=selective catalytic reduction – urea / – ammonia; WU (pref													

catalyst; DPF-diesel particulate filter; PTOX-periodic trap oxidizer; HQS/IOSashpioni catalyst; SPF-diesel particulate filter; PTOX-periodic trap oxidizer; HQS/IOSashpioni catalyst; DPF-diesel particulate filter; PTOX-periodic trap oxidizer; HQS/IOSashpioni catalyst; DASS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DPF-diesel particulate filter; PTOX-periodic trap oxidizer; DASS-heated/oxygen sensor; HAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SPI/ISSAShpioni catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; Catalyst; DASS-heated/oxygen sensor; BAFS/IAFS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; Catalyst; DASS-heated/ain-fuel-ratio sensor (a.k.a., universal or linear oxygen

5 ESS=engine shutdown system (per 13 CCR 1956.8(a)(6)(A)(1); 30g=30 g/hr Nox (per 13 CCR 1956.8(a)(6)(C); APS=internal combustion auxiliary power system; ALT=alternative method (per 13 CCR 1956.8(a)(6)(D); Exempt=exempted per 13 CCR 1956.8(a)(6)(B) or for CNG/LNG fuel systems; N/A=not applicable (e.g., Otto engines and vehicles);

EMD=engine manufacturer diagnostic system (13 CCR 1971); OBD(F) / (P) / (\$)=full / partial / partial with a fine / on-board diagnostic;)

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 heavyduty 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.).

in	NMHC		NOx		NMHC+NOx		со		PM		нсно	
g/bhp-hr	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET	FTP	SET
STD	0.14	0.14	0.20	0.20	*	*	15.5	15.5	0.01	0.01	*	*
CERT	0.004	0.000	0.10	0.06	*	*	0.05	0.00	0.001	0.000	*	*
NTE	0.21		0.	30	,	*	19.4		0.02		*	

g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; SET=Supplemental emissions testing; NTE=Not-to-Exceed; STD=standard or emission test cap; FEL=family NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide;

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 April 18, 2019.

	PRIMARY INTENDED SERVICE CLASS: Vocational											
In g/bhp-hr	(	CO <sub>2</sub>	au.									
	FTP	SET	CH₄	N₂O								
STD	545	*	0.10	0.10								
FCL	567	*	*	*								
FEL	584	*	0.10	0.11								
CERT	561	*	0.02	0.09								

g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; SET=Supplemental emissions testing; CL=family certification level; CERT=certification level; CO₂=carbon dioxide; CH₄=methane; N₂O=nitrous oxide; STD = standard or emission test cap; FEL=family emission limit; VOCATIONAL=vocational 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.

## **CUMMINS INC.**



**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.

**BE IT FURTHER RESOLVED:** Except in vehicle applications exempted per 13 CCR 1956.8(a)(6)(B), engines in this engine family certified under 13 CCR 1956.8(a)(6)(C) [30 g/hr NOx] and section 35.B.4 of the incorporated "California Exhaust Emissions 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 April 18, 2019, shall be provided with an approved "Certified Clean Idle" label that shall be affixed to the vehicle into which the engine is installed.

BE IT FURTHER RESOLVED: The listed engine models is conditionally certified in accordance with 13 CCR Section 1971.1 (k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the heavy-duty on-board diagnostic (HD OBD) system has been determined to have five deficiencies, and therefore is approved subject to the manufacturer paying a fine of \$125 per engine for the third through fifth deficiencies in the listed engine family that is produced and delivered for sale in California. On a quarterly basis, the manufacturer shall submit to California Air Resources Board reports of the number of engines produced and delivered for sale in California and pay the full fine owed for that quarter pursuant to this conditional certification. Payment shall be made payable to the State Treasurer for deposit in the Air Pollution Control Fund no later than thirty (30) days after the end of each calendar quarter during the 2023 model-year production period. Failure to pay the quarterly fine, in full, in the time provided, may be cause for the Executive Officer to rescind this conditional certification, effective from the start of the quarter in question, in which case all engines covered under this conditional certification for that quarter and all future quarters would be deemed uncertified and subject to a civil penalty of up to \$42,450 per engine pursuant to HSC Section 43154.

Engines certified under this Executive Order must 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 Executive Order A-021-0760 dated September 20, 2022.

Executed on this <u>23rd</u> day of February 2023.

Robin U. Lang, Chief

**Emissions Certification and Compliance Division** 

Rolin U. Lang

Attachment: Engine Models EO #: A-021-0760-1 Family: PCEXH0408BCD Attachment Last Revised: 9/7/2022

						Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue	el .	Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Mode	l Code	e Tr	rim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
В6	.7 BC	CDM1	360	L6	6.7	Liters	360	horsepower	2500	56.4	kg/hr	800	lb-ft	1800	41.9	kg/hr	Partial with Fines	Vocational	N/A	N/A
В6	.7 BCI	DME1 3	360EV	L6	6.7	Liters	360	horsepower	2500	56.4	kg/hr	800	lb-ft	1800	41.9	kg/hr	Partial with Fines	Vocational	N/A	Emergency Rating Only