

FORD MOTOR COMPANY

EXECUTIVE ORDER A-010-2342-1 New Engines for Diesel or Incomplete **Medium-Duty Vehicles** Page 1 of 2

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 ²	FUEL TYPE ¹	STANDARDS & TEST PROCEDURE	ENGINE SIZES (L)	ECS & SPECIAL FEATURES ³	OBD COMPLIANCE				
2022	NFMXH06.7P4B	TC, DFI, CAC, EGR, EGRC, PTOX, DOC, Diesel Diesel 6.7 SCR-U, NOXS, UQS									
	ENGINE (L)	OBD COMPLIANCE									
See attached for engine models and ratings											
* *											

^{* =}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;

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.).

	NMHC		NOx		NMHC+NOx		со		P	М	нсно		
	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	0.050	0.050	
CERT	0.003	0.000	0.15	0.10	* *		0.5 0.03		0.001 0.000		0.002	0.000	
NTE	0.21		0.30 *		19.4		0.	02	0.075				

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;

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		CO ₂	OU.	N.O.							
g/bhp-hr	FTP	SET	CH₄	N₂O							
STD	563	*	0.10	0.10							
FCL	546	*	*	*							
FEL	562	*	0.10	0.10							
CERT	542	*	0.03	0.05							
4											

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; VOCATIONAL=vocational engine; FCL=family certification level; CERT=certification level; CO2=carbon dioxide; CH4=methane; N2O=nitrous oxide;

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).

CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a BF=bi fuel; DF=dual fuel; FF=flexible fuel;

² SULEV / ULEV / LEV=super ultra / ultra / box emission vehicle;

3 ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; NAC=NOx adsorption catalyst; SCR-U / SCR-N=selective catalytic reduction – urea / -- ammonia; WU (prefix)=warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; HO2S/O2S=heated/oxygen sensor; HAFSiAFS=heated/air-fuel-ratio sensor (a.k.a., universal or linear oxygen sensor); WR-HO2S=wide range oxygen sensor; TBI=throttle body fuel injection; SFI/MFI=seroleutial/multi port fuel injection; DGI=direct gasoline injection; GCARB=gaseous carburetor; IDI/DDI=indirect/direct diesel injection; TC/SC=turbo/ super charger; CAC=charge air cooler; EGR / EGR-C=exhaust gas recirculation / cooled EGR; PAIR/AIR=pulsed/secondary air injection; SPL=smoke puff limiter; ECM/PCM=engine/powertrain control module; EM=engine modification; AMOX=Ammonia Oxidation Catalyst; NOXS=NOx sensor; 2 (prefix)=parallel; (2) (suffix)=in series;



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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: The listed engine models are conditionally certified in accordance with 13 CCR Section 1968.2(k) (deficiency and fines provisions for certification of malfunction and diagnostic system) because the on-board diagnostic II (OBD) system of the listed engine models has been determined to have four deficiencies. The listed engine models are approved subject to the manufacturer paying a fine of \$50 per engine for the third through fourth deficiencies in the listed test group 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 2022 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 \$40,725 per engine pursuant to HSC Section 43154.

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 Executive Order A-010-2342 dated July 13, 2021.

Executed on this 3rd day of March 2022.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: A-010-2342-1 Family: NFMXH06.7P4B Attachment Last Revised: 1/7/2022

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fue		Peak Torque -	Peak Torque -	Peak Torque -	Peak Torque -				
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Fuel	Fuel Units	OBD	GHG	Special	Notes
Super Duty	NTFETRDN	N/A	V8	6.7	Liters	330	horsepower	2600	123.7	lb/hr	825	lb-ft	2000	101.9	lb/hr	Partial with Fines	Vocational	Non- Emergency vehicles	TC,DFI,CAC, EGRC, OC/PTOX, SCRC, NOXS, RDQS
Super Duty	NTFETRDQ	N/A	V8	6.7	Liters	330	horsepower	2600	123.7	lb/hr	825	lb-ft	2000	101.9	lb/hr	Partial with Fines	Vocational	Emergency Vehicles	TC,DFI,CAC, EGRC, OC/PTOX, SCRC, NOXS, RDQS