

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2021	MFPXL03.4ADD	3.4	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer			Loader, Tractor, Dozer, and Other Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NO_x), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO_x), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NO _x	NMHC+NO _x	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final / ALT 5% NO _x	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	3.40	N/A	N/A	N/A	--	--	--
		CERT	0.01	3.11	--	0.03	0.01	--	--	--

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That for the listed engine models which include engines from different power categories in the same engine family, the manufacturer is complying with the more stringent set of standards from the $56 \leq \text{kW} < 130$ power categories in conformance with the incorporated Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed on this 30th day of December 2020.



Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-015-0446

Family: MFPXL03.4ADD

Attachment Last Revised: 12/11/2020

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
F5HFL413 B*A	F5HFL41 3B*A		I4	3.4	Liters	110	horsepower	2200	84.7	mm3/stroke	339	lb-ft	1400	102.3				DDI, ECM, TC, CAC, EGR,DOC PTOX
F5HFL413 J*A	F5HFL41 3J*A		I4	3.4	Liters	96	horsepower	2000	79.0	mm3/stroke	305	lb-ft	1400	91.0				DDI, ECM, TC, CAC, EGR,DOC PTOX
F5DFL413 J*A	F5DFL41 3J*A		I4	3.4	Liters	106	horsepower	2300	80	mm3/stroke	329	lb-ft	1500	98.7				DDI, ECM, TC, CAC, EGR,DOC PTOX
F5DFL413 K*A	F5DFL41 3K*A		I4	3.4	Liters	98	horsepower	2300	74	mm3/stroke	301	lb-ft	1500	90.5				DDI, ECM, TC, CAC, EGR,DOC PTOX
F5DFL413 L*A	F5DFL41 3L*A		I4	3.4	Liters	84	horsepower	2300	64.5	mm3/stroke	260	lb-ft	1500	77.7				DDI, ECM, TC, CAC, EGR,DOC PTOX
F5DFL413 1*A	F5DFL41 31*A		I4	3.4	Liters	98	horsepower	2300	76	mm3/stroke	313	lb-ft	1200	96				DDI, ECM, TC, CAC, EGR,DOC PTOX