

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)
2022	NFPXL03.4ESD	3.4	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Turbocharger, Charged Air Cooler, Diesel Oxidation Catalyst, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst, Exhaust Gas Recirculation			Loader, Tractor, Other Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) 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	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.002	0.17	--	0.2	0.02	--	--	--

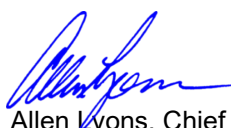
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

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 ≤ 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 4th day of January 2022.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-015-0518

Family: NFPXL03.4ESD

Attachment Last Revised: 12/9/2021

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	Peak Torque - Fuel Units	OBD	GHG	Special	Notes
F5GFL413E*B	F5GFL413E*B	N/A	I4	3.4	Liters	115	horsepower	2200	87	mm3/stroke	374	lb-ft	1500	115	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413F*B	F5BFL413F*B	N/A	I4	3.4	Liters	96	horsepower	2000	79	mm3/stroke	305	lb-ft	1400	93	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413D*B	F5BFL413D*B	N/A	I4	3.4	Liters	114	horsepower	2500	80	mm3/stroke	340	lb-ft	1400	103	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413E*B	F5BFL413E*B	N/A	I4	3.4	Liters	90	horsepower	2500	65	mm3/stroke	283	lb-ft	1400	85	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413A*B	F5BFL413A*B	N/A	I4	3.4	Liters	110	horsepower	2200	86	mm3/stroke	340	lb-ft	1400	103	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413B*B	F5BFL413B*B	N/A	I4	3.4	Liters	96	horsepower	2200	75	mm3/stroke	335	lb-ft	1400	101	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413C*B	F5BFL413C*B	N/A	I4	3.4	Liters	90	horsepower	2200	70	mm3/stroke	307	lb-ft	1300	94	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413D*B	F5GFL413D*B	N/A	I4	3.4	Liters	84	horsepower	2300	64	mm3/stroke	271	lb-ft	1500	81	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413A*B	F5GFL413A*B	N/A	I4	3.4	Liters	115	horsepower	2300	85	mm3/stroke	360	lb-ft	1500	108	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413B*B	F5GFL413B*B	N/A	I4	3.4	Liters	106	horsepower	2300	78	mm3/stroke	345	lb-ft	1500	103	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413C*B	F5GFL413C*B	N/A	I4	3.4	Liters	98	horsepower	2300	72	mm3/stroke	313	lb-ft	1500	93	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413F*B	F5GFL413F*B	N/A	I4	3.4	Liters	106	horsepower	2300	78	mm3/stroke	341	lb-ft	1500	102	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413G*B	F5GFL413G*B	N/A	I4	3.4	Liters	115	horsepower	2300	85	mm3/stroke	359	lb-ft	1500	107	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413N*B	F5GFL413N*B	N/A	I4	3.4	Liters	123	horsepower	2300	91	mm3/stroke	370	lb-ft	1500	113	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413M*B	F5GFL413M*B	N/A	I4	3.4	Liters	82	horsepower	2300	62	mm3/stroke	247	lb-ft	1500	72	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413L*B	F5GFL413L*B	N/A	I4	3.4	Liters	90	horsepower	2300	67	mm3/stroke	271	lb-ft	1500	81	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413K*B	F5GFL413K*B	N/A	I4	3.4	Liters	95	horsepower	2300	70	mm3/stroke	271	lb-ft	1500	81	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413J*B	F5GFL413J*B	N/A	I4	3.4	Liters	101	horsepower	2300	74	mm3/stroke	297	lb-ft	1500	88	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413H*B	F5GFL413H*B	N/A	I4	3.4	Liters	103	horsepower	2300	76	mm3/stroke	299	lb-ft	1700	89	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413T*B	F5GFL413T*B	N/A	I4	3.4	Liters	98	horsepower	2200	72	mm3/stroke	313	lb-ft	1500	93	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413S*B	F5GFL413S*B	N/A	I4	3.4	Liters	101	horsepower	2200	76	mm3/stroke	319	lb-ft	1400	95	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413R*B	F5GFL413R*B	N/A	I4	3.4	Liters	94	horsepower	2200	68	mm3/stroke	293	lb-ft	1400	87	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413P*B	F5GFL413P*B	N/A	I4	3.4	Liters	84	horsepower	2200	62	mm3/stroke	262	lb-ft	1400	78	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413U*B	F5GFL413U*B	N/A	I4	3.4	Liters	115	horsepower	2300	89	mm3/stroke	361	lb-ft	1500	106	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413V*B	F5GFL413V*B	N/A	I4	3.4	Liters	106	horsepower	2300	82	mm3/stroke	352	lb-ft	1500	101	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5GFL413W*B	F5GFL413W*B	N/A	I4	3.4	Liters	98	horsepower	2300	75	mm3/stroke	319	lb-ft	1500	92	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413H*B	F5BFL413H*B	N/A	I4	3.4	Liters	121	horsepower	2200	74	mm3/stroke	363	lb-ft	1400	86	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL415A*B	F5BFL415A*B	N/A	I4	3.4	Liters	125	horsepower	1800	89	mm3/stroke	378	lb-ft	1500	89	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL415B*B	F5BFL415B*B	N/A	I4	3.4	Liters	98	horsepower	1800	68	mm3/stroke	319	lb-ft	1400	74	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR
F5BFL413J*B	F5BFL413J*B	N/A	I4	3.4	Liters	101	horsepower	2300	74	mm3/stroke	297	lb-ft	1500	88	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR