

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	MFPXL03.4BPC	3.4	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Turbocharger, 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) 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
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	4.5	0.1	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).

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 6th day of December 2020.



Allen Lyons, Chief
 Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-015-0448

Family: MFPXL03.4BPC

Attachment Last Revised: 11/24/2020

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
F5HFL464 D*F	F5HFL46 4D*F		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74				DDI ECM TC EGR DOC PTOX
F5DFL464 D*F	F5DFL46 4D*F		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74				DDI ECM TC EGR DOC PTOX
F5DFL464 D*F	854F-E34T 3970/1800		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74				DDI ECM TC EGR DOC PTOX
F5DFL464 D*F	C3.4B 3970/1800		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74				DDI ECM TC EGR DOC PTOX
F5DFL463 B*F	F5DFL46 3B*F		I4	3.4	Liters	64	horsepower	2300	53	mm3/stroke	204	lb-ft	1500	64				DDI ECM TC EGR DOC PTOX
F5DFL463 A*F	F5DFL46 3A*F		I4	3.4	Liters	74	horsepower	2300	60	mm3/stroke	229	lb-ft	1500	72				DDI ECM TC EGR DOC PTOX
F5HFL463 A*F	F5HFL46 3A*F		I4	3.4	Liters	74	horsepower	2500	57	mm3/stroke	233	lb-ft	1400	71				DDI ECM TC EGR DOC PTOX
F5DFL463 C*F	F5DFL46 3C*F		I4	3.4	Liters	58	horsepower	2300	48	mm3/stroke	181	lb-ft	1500	57				DDI ECM TC EGR DOC PTOX
F5HFL464 C*F	F5HFL46 4C*F		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72				DDI ECM TC EGR DOC PTOX
F5DFL464 C*F	F5DFL46 4C*F		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72				DDI ECM TC EGR DOC PTOX
F5DFL464 C*F	854F-E34T 3914/2200		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72				DDI ECM TC EGR DOC PTOX
F5DFL464 C*F	C3.4B 3914/2200		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72				DDI ECM TC EGR DOC PTOX
F5DFL463 D*F	F5DFL46 3D*F		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72				DDI ECM TC EGR DOC PTOX
F5HFL464 J*F	F5HFL46 4J*F		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69				DDI ECM TC EGR DOC PTOX
F5DFL464 J*F	F5DFL46 4J*F		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69				DDI ECM TC EGR DOC PTOX

F5DFL464 J*F	854F-E34T 3916/2500		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 J*F	C3.4B 3916/2500		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 B*F	F5HFL46 4B*F		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 B*F	F5DFL46 4B*F		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 B*F	854F-E34T 3912/2500		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 B*F	C3.4B 3912/2500		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 A*F	F5HFL46 4A*F		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 A*F	F5DFL46 4A*F		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 A*F	854F-E34T 3748/2200		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 A*F	C3.4B 3748/2200		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 E*F	F5HFL46 4E*F		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 E*F	F5DFL46 4E*F		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 E*F	854F-E34T 3750/2200		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DFL464 E*F	C3.4B 3750/2200		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 D*F	854F-E34T 3970/1800		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 D*F	C3.4B 3970/1800		I4	3.4	Liters	74	horsepower	1800	71	mm3/stroke	238	lb-ft	1400	74	mm3/stroke				DDI ECM TC EGR DOC PTOX

F5HFL464 C*F	854F- E34T 3914/22 00		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 C*F	C3.4B 3914/22 00		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	236	lb-ft	1400	72	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 J*F	854F- E34T 3916/25 00		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 J*F	C3.4B 3916/25 00		I4	3.4	Liters	74	horsepower	2500	60	mm3/stroke	216	lb-ft	1600	69	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 B*F	854F- E34T 3912/25 00		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 B*F	C3.4B 3912/25 00		I4	3.4	Liters	63	horsepower	2500	50	mm3/stroke	181	lb-ft	1600	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 A*F	854F- E34T 3748/22 00		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 A*F	C3.4B 3748/22 00		I4	3.4	Liters	67	horsepower	2200	56	mm3/stroke	201	lb-ft	1400	62	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 E*F	854F- E34T 3750/22 00		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL464 E*F	854F- E34T 3750/22 00		I4	3.4	Liters	60	horsepower	2200	51	mm3/stroke	180	lb-ft	1400	55	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL463 D*F	F5HFL46 3D*F		I4	3.4	Liters	74	horsepower	2200	61	mm3/stroke	235	lb-ft	1400	72	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL463 B*F	F5HFL46 3B*F		I4	3.4	Liters	58	horsepower	2500	47	mm3/stroke	185	lb-ft	1400	58	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5HFL463 C*F	F5HFL46 3C*F		I4	3.4	Liters	64	horsepower	2500	52	mm3/stroke	193	lb-ft	1400	60	mm3/stroke				DDI ECM TC EGR DOC PTOX