



FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER U-R-015-0473
New Off-Road
Compression-Ignition Engines

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	MFXPLO6.7SDA	6.7, 4.5	Diesel	8,000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Engine Control Module, Turbocharger, Charge Air Cooler, Diesel Oxidation Catalyst, Selective Catalytic Reduction - Urea, Ammonia Oxidation Catalyst			Tractor, Loader, Generator Set, 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 (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), 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	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.05	0.30	--	0.02	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 130 ≤ kW ≤ 560 power category 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 14th day of January 2021.

Allen Lyons, Chief
Emissions Certification and Compliance Division

Attachment: Engine Models

EO #: U-R-015-0473

Family: MFXPL06.7SDA

Attachment Last Revised: 12/29/2020

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
F4HFE613 R*B	F4HFE61 3R*B		I6	6.7	Liters	245.22	horsepower	2000	130	mm3/stroke	962.962963	lb-ft	1300	188				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 X*B	F4HFE61 3X*B		I6	6.7	Liters	226.46	horsepower	2000	111	mm3/stroke	742.2222222	lb-ft	1500	135				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 S*B	F4HFE61 3S*B		I6	6.7	Liters	226.46	horsepower	2000	116	mm3/stroke	877.037037	lb-ft	1300	162				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 J*B	F4HFE61 3J*B		I6	6.7	Liters	221.1	horsepower	2200	106	mm3/stroke	766.6666667	lb-ft	1500	144				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 J*B	F4DFE61 3J*B		I6	6.7	Liters	221.1	horsepower	2200	106	mm3/stroke	766.6666667	lb-ft	1500	144				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 G*B	F4HFE61 3G*B		I6	6.7	Liters	210.38	horsepower	2200	102	mm3/stroke	677.7777778	lb-ft	1600	127				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 K*B	F4HFE61 3K*B		I6	6.7	Liters	202.34	horsepower	2200	97	mm3/stroke	696.2962963	lb-ft	1500	129				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 K*B	F4DFE61 3K*B		I6	6.7	Liters	202.34	horsepower	2200	97	mm3/stroke	696.2962963	lb-ft	1500	129				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 M*B	F4DFE61 3M*B		I6	6.7	Liters	187.6	horsepower	2200	94	mm3/stroke	648.1481481	lb-ft	1500	122				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 D*B	F4HFE61 3D*B		I6	6.7	Liters	234.5	horsepower	2100	115	mm3/stroke	781.4814815	lb-ft	1500	144				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 B*B	F4HFE61 3B*B		I6	6.7	Liters	255.94	horsepower	2200	118	mm3/stroke	859.2592593	lb-ft	1500	157				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 B*B	F4DFE61 3B*B		I6	6.7	Liters	255.94	horsepower	2200	118	mm3/stroke	859.2592593	lb-ft	1500	157				DDI ECM TC CAC DOC SCR-u AMOX

F4HFE613 E*B	F4HFE61 3E*B		I6	6.7	Liters	268	horsepower	2100	130	mm3/stroke	866.666667	lb-ft	1800	163	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 C*B	F4HFE61 3C*B		I6	6.7	Liters	274.7	horsepower	2100	133	mm3/stroke	881.4814815	lb-ft	1800	164	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 H*B	F4DFE61 3H*B		I6	6.7	Liters	235.84	horsepower	2200	106	mm3/stroke	814.8148148	lb-ft	1500	148	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 H*B	F4HFE61 3H*B		I6	6.7	Liters	235.84	horsepower	2200	106	mm3/stroke	814.8148148	lb-ft	1500	148	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 F*B	F4HFE61 3F*B		I6	6.7	Liters	284.08	horsepower	2200	131	mm3/stroke	859.2592593	lb-ft	1500	155	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 A*B	F4HFE61 3A*B		I6	6.7	Liters	250.58	horsepower	2200	115	mm3/stroke	788.8888889	lb-ft	1600	143	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 U*B	F4HFE61 3U*B		I6	6.7	Liters	250.58	horsepower	2200	118	mm3/stroke	859.2592593	lb-ft	1500	157	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 1*B	F4HFE61 31*B		I6	6.7	Liters	281.4	horsepower	2200	130	mm3/stroke	851.8518519	lb-ft	1500	154	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 4*B	F4HFE61 34*B		I6	6.7	Liters	294.8	horsepower	2200	139	mm3/stroke	881.4814815	lb-ft	1700	163	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 V*B	F4HFE41 3V*B		I4	4.5	Liters	172.86	horsepower	2100	129	mm3/stroke	525.9259259	lb-ft	1500	148	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 W*B	F4HFE41 3W*B		I4	4.5	Liters	162.14	horsepower	2100	120	mm3/stroke	518.5185185	lb-ft	1500	146	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 H*B	F4HFE41 3H*B		I4	4.5	Liters	150.08	horsepower	2200	111	mm3/stroke	488.8888889	lb-ft	1600	137	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 H*B	F4DFE41 3H*B		I4	4.5	Liters	150.08	horsepower	2200	111	mm3/stroke	488.8888889	lb-ft	1600	137	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX

F4HFE413 4*B	F4HFE41 34*B		I4	4.5	Liters	128.64	horsepower	2200	91	mm3/stroke	437.037037	lb-ft	1500	124	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 4*B	F4DFE41 34*B		I4	4.5	Liters	128.64	horsepower	2200	91	mm3/stroke	437.037037	lb-ft	1500	124	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 3*B	F4HFE41 33*B		I4	4.5	Liters	138.02	horsepower	2200	98	mm3/stroke	471.1111111	lb-ft	1500	132	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 3*B	F4DFE41 33*B		I4	4.5	Liters	138.02	horsepower	2200	98	mm3/stroke	471.1111111	lb-ft	1500	132	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 1*B	F4HFE41 31*B		I4	4.5	Liters	158.12	horsepower	2200	112	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 1*B	F4DFE41 31*B		I4	4.5	Liters	158.12	horsepower	2200	112	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 2*B	F4HFE41 32*B		I4	4.5	Liters	152.76	horsepower	2200	109	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 2*B	F4DFE41 32*B		I4	4.5	Liters	152.76	horsepower	2200	109	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 X*B	F4HFE41 3X*B		I4	4.5	Liters	142.04	horsepower	2100	105	mm3/stroke	453.3333333	lb-ft	1500	127	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE413 K*B	F4HFE41 3K*B		I4	4.5	Liters	167.5	horsepower	2200	120	mm3/stroke	525.9259259	lb-ft	1500	149	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE413 K*B	F4DFE41 3K*B		I4	4.5	Liters	167.5	horsepower	2200	120	mm3/stroke	525.9259259	lb-ft	1500	149	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 6*B	F4HFE61 36*B		I6	6.7	Liters	175.54	horsepower	2200	83	mm3/stroke	615.5555556	lb-ft	1500	114	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE613 6*B	F4DFE61 36*B		I6	6.7	Liters	175.54	horsepower	2200	83	mm3/stroke	615.5555556	lb-ft	1500	114	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX

F4HFE613 7*B	F4HFE61 37*B		I6	6.7	Liters	207.7	horsepower	2100	100	mm3/stroke	685.1851852	lb-ft	1500	125	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 B*B	F4DFE41 4B*B		I4	4.5	Liters	132.66	horsepower	2200	97	mm3/stroke	448.1481481	lb-ft	1500	127	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 C*B	F4DFE41 4C*B		I4	4.5	Liters	123.28	horsepower	2200	90	mm3/stroke	414.8148148	lb-ft	1500	118	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 D*B	F4DFE41 4D*B		I4	4.5	Liters	113.9	horsepower	2200	85	mm3/stroke	391.1111111	lb-ft	1500	111	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 E*B	F4DFE41 4E*B		I4	4.5	Liters	143.38	horsepower	2200	101	mm3/stroke	481.4814815	lb-ft	1500	132	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE617 L*B	F4DFE61 7L*B		I6	6.7	Liters	296.14	horsepower	2100	142	mm3/stroke	949.6296296	lb-ft	1400	179	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE617 M*B	F4DFE61 7M*B		I6	6.7	Liters	266.66	horsepower	2100	128	mm3/stroke	884.4444444	lb-ft	1400	167	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE615 B*B	F4HFE61 5B*B		I6	6.7	Liters	194.3	horsepower	1800	99	mm3/stroke	569.6296296	lb-ft	1800	99	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE615 C*B	F4HFE61 5C*B		I6	6.7	Liters	223.78	horsepower	1800	114	mm3/stroke	656.2962963	lb-ft	1800	114	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE615 D*B	F4HFE61 5D*B		I6	6.7	Liters	261.3	horsepower	1800	130	mm3/stroke	766.6666667	lb-ft	1800	130	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE615 E*B	F4HFE61 5E*B		I6	6.7	Liters	298.82	horsepower	1800	150	mm3/stroke	876.2962963	lb-ft	1800	150	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 M*B	F4HFE61 3M*B		I6	6.7	Liters	187.6	horsepower	2200	94	mm3/stroke	648.1481481	lb-ft	1500	122	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE414 C*B	F4HFE41 4C*B		I4	4.5	Liters	123.28	horsepower	2200	90	mm3/stroke	414.8148148	lb-ft	1500	118	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX

F4HFE617 L*B	F4HFE61 7L*B		I6	6.7	Liters	296.14	horsepower	2100	142	mm3/stroke	949.6296296	lb-ft	1400	179	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE617 M*B	F4HFE61 7M*B		I6	6.7	Liters	266.66	horsepower	2100	128	mm3/stroke	884.4444444	lb-ft	1400	167	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE415 A*B	F4HFE41 5A*B		I4	4.5	Liters	168.84	horsepower	1800	141	mm3/stroke	494.8148148	lb-ft	1800	141	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE613 8*B	F4HFE61 38*B		I6	6.7	Liters	190.28	horsepower	2550	84	mm3/stroke	629.6296296	lb-ft	1400	119	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE614 A*B	F4HFE61 4A*B		I6	6.7	Liters	284.08	horsepower	2500	125	mm3/stroke	859.2592593	lb-ft	1500	155	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 Z*B	F4DFE41 4Z*B		I4	4.5	Liters	171.52	horsepower	2200	125	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE414 Z*B	F4HFE41 4Z*B		I4	4.5	Liters	171.52	horsepower	2200	125	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 Y*B	F4DFE41 4Y*B		I4	4.5	Liters	164.82	horsepower	2200	120	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE414 Y*B	F4HFE41 4Y*B		I4	4.5	Liters	164.82	horsepower	2200	120	mm3/stroke	518.5185185	lb-ft	1500	145	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 X*B	F4DFE41 4X*B		I4	4.5	Liters	151.42	horsepower	2200	112	mm3/stroke	471.1111111	lb-ft	1500	132	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE414 X*B	F4HFE41 4X*B		I4	4.5	Liters	151.42	horsepower	2200	112	mm3/stroke	471.1111111	lb-ft	1500	132	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4DFE414 W*B	F4DFE41 4W*B		I4	4.5	Liters	142.04	horsepower	2200	106	mm3/stroke	437.037037	lb-ft	1500	124	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX
F4HFE414 W*B	F4HFE41 4W*B		I4	4.5	Liters	142.04	horsepower	2200	106	mm3/stroke	437.037037	lb-ft	1500	124	mm3/stroke				DDI ECM TC CAC DOC SCR-u AMOX