

FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER U-R-015-0460

New Off-Road Compression-Ignition Engines Page 1 of 1

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	MFPXL08.7T4X	8.7	Diesel 8,000							
SPECIAL	FEATURES & EMISSION O	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
Turboc	nic Direct Injection, Engin harger, Charge Air Cooler elective Catalystic Reduc Oxidation Cataly	r, Diesel Oxidation tion – Urea, Ammonia	Loader, Tractor, Generator Set, 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 (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	EMISSION			I	EXHAUST (g/kw-l	OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final / ALT 5% NOx	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	N/A	0.35	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.000	0.30		0.01	0.02	-		

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).

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-015-0460 Family: MFPXL08.774X Attachment Last Revised: 12/23/2020

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel		Peak Torque -	Peak Torque -	Peak Torque - Fuel					
∕lodel	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fuel 1		OBD	GHG	Special	Notes
																			DDI ECI
2CFF613	F2CFE61																		TC CAC
	3K*B		16	8.7	Liters	412.72	horsepower	2100	200	mm3/stroke	1333.333333	lb-ft	1500	249	mm3/stroke				DOC
																			SCR-u
																			AMOX
																			DDI ECN
	F2CFE61	.	16	8.7	Liters	408.7	horsepower	2100	199	mm3/stroke	1333.333333	lb-ft	1500	248	mm3/stroke				DOC
х* В	3A*B		10	8.7	Liters	408.7	norsepower	2100	155	mms/stroke	1333.33333	ID-IC	1300	240	IIIII3/3tioke				SCR-u
																			AMOX
																			DDI ECN
																			TC CAC
*B	F2CFE61	•	16	8.7	Liters	381.9	horsepower	2100	188	mm3/stroke	1240.740741	lb-ft	1500	224	mm3/stroke				DOC
-В	3B*B																		SCR-u
																			AMOX
																			DDI ECN
2CFF613	F2CFE61																		TC CAC
*B	3C*B		16	8.7	Liters	355.1	horsepower	2100	175	mm3/stroke	1200	lb-ft	1500	217	mm3/stroke				DOC
																			SCR-u
																-			AMOX
																			DDI ECI
2CFE613	F2CFE61	.	16	8.7	Liters	328.3	harranawar	2100	155	mm3/stroke	1118.518519	lb-ft	1500	212	mm3/stroke				TC CAC DOC
*B	3E*B		10	6.7	Liters	328.3	horsepower	2100	155	IIIII5/Stroke	1110.510515	10-10	1500	212	IIIII3/3tioke				SCR-u
																			AMOX
																			DDI ECI
																			TC CAC
	F2CFE61		16	8.7	Liters	301.5	horsepower	2100	140	mm3/stroke	1000	lb-ft	1500	191	mm3/stroke				DOC
*B	3F*B																		SCR-u
																			AMOX
																			DDI ECN
2CEE613	F2CFE61																		TC CAC
*B	3L*B		16	8.7	Liters	368.5	horsepower	2100	181	mm3/stroke	1240.740741	lb-ft	1500	230	mm3/stroke				DOC
	52.5																		SCR-u
																			AMOX
																			DDI ECN
2CFE613J	F2CFE61	.				200.04	1.	2222	4.50	2/	4050 050050		4500	225	2/				TC CAC
В	3J*B		16	8.7	Liters	389.94	horsepower	2200	168	mm3/stroke	1262.962963	lb-ft	1500	225	mm3/stroke				DOC SCR-u
																			AMOX
		-																	DDI ECN
																			TC CAC
	F2CFE61	.	16	8.7	Liters	348.4	horsepower	1800	198	mm3/stroke	1022.222222	lb-ft	1800	198	mm3/stroke				DOC
)*B	5D*B			0.7	Liters	3.0	погосромся	1000	155	ining/stroke	1022122222		1000	130	iiiiio, stroke				SCR-u
																			AMOX
																			DDI ECN
200001	F2CFE61																	1	TC CAC
*B	5C*B		16	8.7	Liters	377.88	horsepower	1800	213	mm3/stroke	1108.148148	lb-ft	1800	213	mm3/stroke				DOC
. В	2C.B																		SCR-u
																			AMOX
																			DDI ECN
2CFE615	F2CFE61	.	1				1.								-, -				TC CAC
*B	5B*B		16	8.7	Liters	414.06	horsepower	1800	236	mm3/stroke	1214.814815	lb-ft	1800	236	mm3/stroke				DOC
																			SCR-u
	-	-	-					-				-				+	-	-	AMOX
																			DDI ECI
2CFE615	F2CFE61	.	16	8.7	Liters	442.2	horsonouses	1800	253	mm3/stroke	1296.296296	lb-ft	1800	253	mm2/strol-s				TC CAC DOC
х* В	5A*B		16	8.7	Liters	442.2	horsepower	1800	255	пппэ/зи оке	1290.290296	ID-IL	1800	253	mm3/stroke				SCR-u
																		1	AMOX

F2CFE613 D*B	F2CFE61 3D*B	16	8.7	Liters	335	horsepower	2200	156	mm3/stroke	1148.148148	lb-ft	1500	211	mm3/stroke		DDI ECM TC CAC DOC SCR-u AMOX
F2CFE613 G*B	F2CFE61 3G*B	16	8.7	Liters	281.4	horsepower	2000	143	mm3/stroke	1042.22222	lb-ft	1500	198	mm3/stroke		DDI ECM TC CAC DOC SCR-u AMOX
F2CFE614 T*B	F2CFE61 4T*B	16	8.7	Liters	408.7	horsepower	2000	200	mm3/stroke	1370.37037	lb-ft	1400	248	mm3/stroke		DDI ECM TC CAC DOC SCR-u AMOX