

FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER U-R-015-0464 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	MFPXL12.9TDS	12.9	Diesel	8,000						
SPE	CIAL FEATURES & EMISSI	ON CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION							
Charge Ai	Direct Injection, Engine C r Cooler, Diesel Oxidation Reduction – Urea, Ammon	Control Module, Turbocharger, Catalyst, Selective Catalystic ia Oxidation Catalyst	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 POWER	EMISSION			I	EXHAUST (g/kw-l		OPACITY (%)			
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	0.37	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.000	0.16		0.00	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 <u>30th</u> day of December 2020.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-015-0464 Family: MFPXL12.9TDS Attachment Last Revised: 12/23/2020

					Displacement -		Peak Power -	Peak Power -	Peak Power -	Peak Power - Fuel		Peak Torque - Peak Torque -							
Model	Code	Trim	Config	Displacement	Units	Peak Power	Units	Speed (rpm)	Fueling	Units Peak Torque		Units	Speed (rpm)	Peak Torque - Fuel Units		OBD	GHG	Special	Notes
																			DDI ECM
F3DFE613	F3DFFC1																		TC CAC
F*B	3F*B		16	12.9	Liters	665.98	horsepower	2100	333	mm3/stroke	2207.407407	lb-ft	1400	417	mm3/stroke				DOC
ГБ	SF B																		SCR-u
																			AMOX
																			DDI ECM
F3DFE613	E2DEE61																		TC CAC
J*B	3J*B		16	12.9	Liters	594.96	horsepower	2100	297	mm3/stroke	1950.37037	lb-ft	1400	364	mm3/stroke				DOC
, ,	33 6																		SCR-u
																			AMOX
																			DDI ECM
F3DFE613	E3DEE61																		TC CAC
G*B	3G*B		16	12.9	Liters	625.78	horsepower	2100	314	mm3/stroke	2066.666667	lb-ft	1400	386	mm3/stroke				DOC
В	30 6																		SCR-u
																			AMOX