

FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER U-R-015-0511

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)								
2022	NFPXL12.9TSS	12.9	Diesel	8,000								
SPE	CIAL FEATURES & EMISSI	ON CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION									
Charge Ai		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	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A	
		FEL	N/A	0.23	N/A	N/A	N/A	N/A	N/A	N/A	
		CERT	0.004	0.14		0.02	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>28th</u> day of December 2021.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment: Engine Models EO #: U-R-015-0511 Family: NFPXL12.9TSS Attachment Last Revised: 11/9/2021

Model		Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel		Peak Torque -	Peak Torque -	Peak Torque - Fuel					
	Code									Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fue	Units	OBD	GHG	Special	Notes
F3HFE613B*B	F3HFE613B*B	N/A	16	12.9	Liters	545	horsepower	2100	270	mm3/stroke	1778.52	lb-ft	1400	325	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613A*B	F3HFE613A*B	N/A	16	12.9	Liters	563	horsepower	2100	277	mm3/stroke	1740.74	lb-ft	1500	323	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613C*B	F3HFE613C*B	N/A	16	12.9	Liters	523	horsepower	2100	256	mm3/stroke	1740.74	lb-ft	1500	322	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613D*B	F3HFE613D*B	N/A	16	12.9	Liters	515	horsepower	2100	254	mm3/stroke	1672.59	lb-ft	1400	310	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613F*B	F3HFE613F*B	N/A	16	12.9	Liters	496	horsepower	2100	244	mm3/stroke	1715.56	lb-ft	1500	318	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613G*B	F3HFE613G*B	N/A	16	12.9	Liters	464	horsepower	2100	232	mm3/stroke	1490.37	lb-ft	1400	272	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE613H*B	F3HFE613H*B	N/A	16	12.9	Liters	429	horsepower	2100	215	mm3/stroke	1483.7	lb-ft	1500	274	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE615C*B	F3HFE615C*B	N/A	16	12.9	Liters	473	horsepower	1800	261	mm3/stroke	1388.15	lb-ft	1800	261	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DO SCR-u AMOX
F3HFE615B*B	F3HFE615B*B	N/A	16	12.9	Liters	509	horsepower	1800	280	mm3/stroke	1494.07	lb-ft	1800	280	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DC SCR-u AMOX
F3HFE615A*B	F3HFE615A*B	N/A	16	12.9	Liters	568	horsepower	1800	313	mm3/stroke	1666.67	lb-ft	1800	313	mm3/stroke	N/A	N/A	N/A	DDI ECM TC CAC DC SCR-u AMOX