

## FPT INDUSTRIAL S.p.A.

## EXECUTIVE ORDER U-R-015-0478-1 New Off-Road

New Oπ-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	MFPXL03.4DEP	3.4	Diesel 8,00						
SPECI	AL FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION						
	onic Direct Injection, Elect Irger, Exhaust Gas Recirc Catalyst, Periodic Tra	ulation, Diesel Oxidation	Loader, Tractor, Dozer, Pump, Gener	ator Set and Other					

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				EXHAUST (g/kw-l	OPACITY (%)				
	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	СО	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			4.1	1.4	0.004			

**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.

This Executive Order hereby supersedes Executive Order U-R-015-0478 dated January 15, 2021.

Executed on this 26th day of May 2021.

Allen Loons, Chief

**Emissions Certification and Compliance Division** 

Attachment: Engine Models EO #: U-R-015-0478-1 Family: MFPXL03.4DEP Attachment Last Revised: 5/5/2021

Model Code				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	Trim	Config							Units	Peak Torque	Units	Speed (rpm)	Peak Torque - Fue	Units	OBD	GHG	Special	Notes
	F5HGL41 3E*X		14	3.4	Liters	74	horsepower	2200	60	mm3/stroke	424	N-m	1200	96	mm3/stroke				DDI ECN TC EGR DOC PTOX
	F5HGL41 3D*X		14	3.4	Liters	74	horsepower	2500	57	mm3/stroke	424	N-m	1200	96	mm3/stroke				DDI ECM TC EGR DOC PTOX
F5DGL413 E*X	F5DGL41 3E*X		14	3.4	Liters	74	horsepower	2300	58	mm3/stroke	309	N-m	1500	70	mm3/stroke				DDI ECM TC EGR DOC PTOX
	F5HGL41 5A*X		14	3.4	Liters	74	horsepower	1800	65	mm3/stroke	424	N-m	1200	91	mm3/stroke				DDI ECM TC EGR DOC PTOX
	F5DGL41 3H*X		14	3.4	Liters	74	horsepower	2300	58	mm3/stroke	375	N-m	1500	8	mm3/stroke				DDI ECM TC EGR DOC PTOX