

FPT INDUSTRIAL S.p.A.

EXECUTIVE ORDER: U-R-015-0591 New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in the California Air Resources Board by Health and Safety Code Division 26, Part 5, Chapters 1 and 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: The engines and emission control systems produced by the manufacturer as described below are certified 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	gine Family Combustion Cycle		Fuel Type(s)	Engine Operation			
2024	RFPXL12.9FR2	Diesel	Dedicated	Diesel	Variable and Constant Speed			

Emission Control Systems							
[1]: Electronic Direct Injection (DDI), Electronic Control Module (ECM), Turbocharger (TC), Charge Air Cooler (CAC), Diesel Oxidation Catalyst (DOC), Periodic Trap Oxidizer (PTOX), Selective Catalytic Reduction – Urea/Periodic Trap Oxidizer (SCR+DPF), Ammonia Oxidation Catalyst (AMOX)							

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kW-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

		Crit	eria	Smoke Opacity				
Applicable Standard	Applicable Standard N				PM	ACL	LUG	PEAK
	STD	0.19	0.40	3.5	0.02	*	*	*
Tier 4 Final 130 ≤ kW ≤ 560	FEL	*	*	*	*	*	*	*
100 = KVV = 000	NTE	0.28	0.60	4.4	0.03	*	*	*

BE IT FURTHER RESOLVED: Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

BE IT FURTHER RESOLVED: For the listed engine models, the manufacturer has submitted materials to demonstrate certification compliance with 13 CCR 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control warranty).

BE IT FURTHER RESOLVED: The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed on this /2th day of January 2024.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

Polin U. Lang

ATTACHMENT: ENGINE MODELS

Family: RFPXL12.9FR2 EO Number: U-R-015-0591 Date Applicable: 12/26/23

					Peak Power			Peak Torque					
Model	Code	Trim	Config	Displacement	Power	Speed	Fueling	Torque	Speed	Fueling	ECS Num	GHG	Notes
-	-	-	-	L	kW	rpm	mm3/stroke	N-m	rpm	mm3/stroke	-	-	-
F3HGE613A*V	F3HGE613A*V		16	12.9	441	1800	325	2462	1500	330	1	N/A	
F3HGE615B*V	F3HGE615B*V		16	12.9	411	1800	310	2401	1400	304	1	N/A	
F3HGE613J*V	F3HGE613J*V		16	12.9	348	1900	244	2012	1400	266	1	N/A	
F3HGE613B*V	F3HGE613B*V		16	12.9	420	1800	306	2350	1500	320	1	N/A	
F3HGE613X*V	F3HGE613X*V		16	12.9	347	1900	245	2009	1400	272	1	N/A	
F3HGE613K*V	F3HGE613K*V		16	12.9	390	1900	274	2258	1400	298	1	N/A	
F3HGE615A*V	F3HGE615A*V		16	12.9	450	1800	340	2550	1400	338	1	N/A	
F3HGE613M*V	F3HGE613M*V		16	12.9	466	1700	363	2617	1700	363	1	N/A	
F3HGE613D*V	F3HGE613D*V		16	12.9	400	1700	317	2316	1500	320	1	N/A	
F3HGE613L*V	F3HGE613L*V		16	12.9	415	1900	291	2401	1400	322	1	N/A	
F3HGE613E*V	F3HGE613E*V		16	12.9	350	1700	278	2003	1500	278	1	N/A	
F3HGE613Y*V	F3HGE613Y*V		16	12.9	388	1900	272	2244	1400	304	1	N/A	
F3HGE613Z*V	F3HGE613Z*V		16	12.9	429	1900	300	2484	1400	336	1	N/A	