

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-14-012;

**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)
2019	KFPXL03.4BSD	3.4	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Electronic Direct Injection, Electronic Control Module, Turbocharger, Diesel Oxidation Catalyst, Exhaust Gas Recirculation, (Charge Air Cooler for F5DFL413B*H only)			Tractor, Loader, Dozer, and Other Industrial Equipment	

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 STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 56	Tier 4 Final	OPTIONAL STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	3.6	1.8	0.02	--	--	--

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Parts I-D" adopted October 20, 2005 and last amended October 25, 2012.

**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 hereby supersedes Executive Order U-R-015-0384 dated November 9, 2018.

**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 at El Monte, California on this 8<sup>th</sup> day of February 2019.



Annette Hebert, Chief  
 Emissions Compliance, Automotive Regulations and Science Division

## Engine Model Summary Template

Attachment: Pg 1/1

Date: 1/30/19

Eo #: U-R-015-0324-1

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate:	5.Fuel Rate:	6.Torque @ RPM (SEA Gross)	7.Fuel Rate:	8.Fuel Rate:	9.Emission Control Device Per SAE J1930
				mm/stroke @ peak HP (for diesel only)	(lbs/hr) @ peak HP (for diesels only)		mm/stroke@peak torque	(lbs/hr)@peak torque	
KFPXL03.4BSD	F5HFL463D*G	F5HFL463D*G	74 @ 2200	64	N/A	236 @ 1400	78	N/A	DDI ECM TC DOC EGR.
KFPXL03.4BSD	F5HFL463B*G	F5HFL463B*G	58 @ 2500	48	N/A	185 @ 1400	64	N/A	DDI ECM TC DOC EGR.
KFPXL03.4BSD	F5HFL463C*G	F5HFL463C*G	64 @ 2500	54	N/A	193 @ 1400	68	N/A	DDI ECM TC DOC EGR
KFPXL03.4BSD	F5DFL463B*G	F5DFL463B*G	64 @ 2300	66	N/A	204 @ 1500	54	N/A	DDI ECM TC DOC EGR
KFPXL03.4BSD	F5DFL463A*G	F5DFL463A*G	74 @ 2300	61	N/A	229 @ 1500	76	N/A	DDI ECM TC DOC EGR
KFPXL03.4BSD	F5HFL463A*G	F5HFL463A*G	74 @ 2500	59	N/A	233 @ 1400	77	N/A	DDI ECM TC DOC EGR
KFPXL03.4BSD	F5DFL463C*G	F5DFL463C*G	58 @ 2300	48	N/A	181 @ 1500	60	N/A	DDI ECM TC DOC EGR
KFPXL03.4BSD	F5DFL413B*H	F5DFL413B*H	74 @ 2300	60	N/A	309 @ 1500	70	N/A	DDI ECM TC CAC DOC EGR

CAC only on this rating