

Pursuant to the authority vested in the 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)
2017	HFPXL03.4BPD	3.4	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer			Loader, Tractor, Dozer, 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 CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	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
		FEL	N/A	N/A	N/A	N/A	0.02	N/A	N/A	N/A
		CERT	--	--	4.5	0.1	0.02	--	--	--

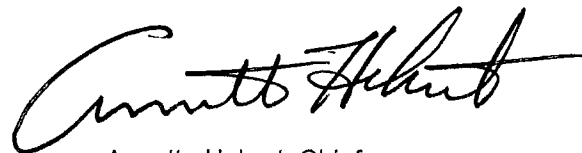
**BE IT FURTHER RESOLVED:** That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of 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 at El Monte, California on this 3 day of February 2017.



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

U-12-015-0346

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**Engine Model Summary Template**

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque.	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HFPXL03.4BPD	F5HFL464D*F	F5HFL464D*F	74 @ 1800	71	N/A	238 @ 1400	74	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464D*F	F5DFL464D*F	74 @ 1800	71	N/A	238 @ 1400	74	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL463B*F	F5DFL463B*F	64 @ 2300	53	N/A	204 @ 1500	64	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL463A*F	F5DFL463A*F	74 @ 2300	60	N/A	229 @ 1500	72	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL463A*F	F5HFL463A*F	74 @ 2500	57	N/A	233 @ 1400	71	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL463C*F	F5DFL463C*F	58 @ 2300	48	N/A	181 @ 1500	57	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL464C*F	F5HFL464C*F	74 @ 2200	61	N/A	236 @ 1400	72	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464C*F	F5DFL464C*F	74 @ 2200	61	N/A	236 @ 1400	72	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL463D*F	F5DFL463D*F	74 @ 2200	61	N/A	236 @ 1400	72	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL464J*F	F5HFL464J*F	74 @ 2500	60	N/A	216 @ 1600	69	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464J*F	F5DFL464J*F	74 @ 2500	60	N/A	216 @ 1600	69	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL464B*F	F5HFL464B*F	63 @ 2500	50	N/A	181 @ 1600	58	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464B*F	F5DFL464B*F	63 @ 2500	50	N/A	181 @ 1600	58	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL464A*F	F5HFL464A*F	67 @ 2200	56	N/A	201 @ 1400	62	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464A*F	F5DFL464A*F	67 @ 2200	56	N/A	201 @ 1400	62	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL464E*F	F5HFL464E*F	60 @ 2200	51	N/A	180 @ 1400	55	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5DFL464E*F	F5DFL464E*F	60 @ 2200	51	N/A	180 @ 1400	55	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL463D*F	F5HFL463D*F	74 @ 2200	61	N/A	235 @ 1400	72	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL463B*F	F5HFL463B*F	58 @ 2500	47	N/A	185 @ 1400	58	N/A	DDI ECM TC EGR DOC PTOX
HFPXL03.4BPD	F5HFL463C*F	F5HFL463C*F	64 @ 2500	52	N/A	193 @ 1400	60	N/A	DDI ECM TC EGR DOC PTOX