

## KOHLER COMPANY

EXECUTIVE ORDER U-R-060-0047 New Off-Road Compression-Ignition Engines

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			FUEL TYPE	USEFUL LIFE (hours)			
2018	JKHXL.442ACF	0.44	Diesel	3000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION				
Mechanical Direct Injection, Diesel Oxidation Catalyst			Pump, Compressor, Generator Set				

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), 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):

POWER CLASS	EMISSION				EXHAUST (g/kw-h	OPACITY (%)				
	STANDARD		NMHC	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
kW < 8	Tier 4 Final	STD	N/A	N/A	7.5	8.0	0.60	N/A	N/A	N/A
		CERT			6.5	1.0	0.48			

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).

BE IT FURTHER RESOLVED: That the certification of the standards in 13 CCR 2423 (b)(1)(A) – Table 1b listed above has been permitted pursuant to Endnote 2 of the same table.

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

day of December 2017.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Attachment 1/1

0-8-060-0047

## **Engine Model Summary Template**

Engine Family	1.Engine Code	2.Engine Model	3.8HP@RPM(5AE Gross)		4. Fuel Rate: mm/stroke @ peak HP (for diesel only)		6.Torque @ RPM (SEA Gross)		mm/stroke	8.Fuel Rate:	Control		
JKHXL.442ACF	NA	KD15 440 DOC (Dual Speed)	8.0	@	3600	18.5	3.7	12.5	@	3600	18.5	3.7	DDI, DOC
JKHXL.442ACF	NA	KD15 440 DOC (Fixed Speed)	8.0	@	3600	18.5	3.7	12.5	@	3600	18.5	3.7	DDI, DOC