

KUBOTA CORPORATION

EXECUTIVE ORDER U-L-016-0126 New Off-Road Large Spark-Ignition Engines Above 19 Kilowatts

Pursuant to the authority vested in California Air Resources Board by the 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-14-012:

IT IS ORDERED AND RESOLVED: That the following new large spark-ignition engines and emission control systems produced by the manufacturer are certified for use in off-road equipment as described below. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY NAME	ENGINE DISPLACEMENT (liters)	FUEL TYPE		
2019	KKBXB01.5PFA	1.5	Gasoline, LPG, CNG, Gasoline-LPG Dual Fuel, LPG-CNG Dual Fuel, Gasoline-LPG-CNG Multi-Fuel		
DURABILITY HOURS		IAL FEATURES & CONTROL SYSTEMS	TYPICAL EQUIPMENT USAGE		
5000	Heated Multiport F	ay Catalytic Converter, Oxygen Sensor (2), uel Injection (Gasoline), Fuel Mixer (LPG, CNG)	Aerial Lift, Generator, Sweeper, Tractor/Tug, Riding Mower		
ENGINE MODELS (rated power in kilowatt, kW)		See Attachment			

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) exhaust certification emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2433(b)(1)) and certification emission levels for this engine family in grams per kilowatt-hour (g/kW-hr). Engines within this engine family shall have closed crankcases in conformance with 13 CCR Section 2433(b)(3).

(g/kW-hr)	HC+NOx	со		
Exhaust Standards ,	0.8	20.6		
Certification Levels	0.2	7.0		

The following is the evaporative hydrocarbon emission standard (13 CCR Section 2433(b)(4)) and certification emission level for this engine family in grams per gallon of fuel tank capacity (g/gallon).

Evaporative Certification Method	HC Certification Level (g/gallon)	HC Certification Standard (g/gallon)			
Design Based	N/A	0.2			

BE IT FURTHER RESOLVED: That for the listed engines for the aforementioned model-year, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2433(c) (certification and test procedures), 13 CCR Section 2434 (emission control labels), and 13 CCR Sections 2435 and 2436 (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

__ day of November 2018.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

Attachment 1 of 1

Model Year: 2019

Manufacturer Name: KUBOTA Corporetion
Engine Family: KKBXB01.5PFA
OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

Page: 6
Issued:
Revised:
E.O.#: V- (- 0) 6

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S12. MODEL SUMMARY (Use an asterisk (*) to identify worst-case engine model used for certification testing.)

12. MODEL SUMMARY		(Use an asterisk (*) to identify worst-case engine model used for certification testing.)							
S13.	S14.		S15.		S16.	S17.	S18.	S19.	S20.
Engine Model	Engine Code	Sales Codes (Check ALL appropriate)		Eng. Displ.	Rated Power	Rated Speed	Peak Torque	Peak Torque Speed	
ogei		Calif. Only	49-State	50-State	(Liters)	(kW)	(RPM)	(N.M)	(RPM)
WG1605-G- ET	WG1605- G-ET01			Х	1.537	40.48	3600	113.40	2700
WG1605-GL- ET	GL-ET01			Х	1.537	40.48	3600	113.40	2700
WG1605- GLN-ET*	WG1605- GLN- ET01			х	1.537	40.48	3600	113.40	2700
WG1605-L- ET	WG1605- L-ET01			Х	1.537	38.05	3600	110.00	2550
WG1605-LN- ET	WG1605- LN-ET01			Х	1.537	38.05	3600	110.00	2550
WG1605-N- ET	WG1605- N-ET01			Х	1.537	35.30	3600	100.70	2600

WG1605-G-ET	is for Gasoline
WG1605-GL-ET	is for Gasoline and LPG
WG1605-GLN-ET	is for Gasoline and LPG and NG
	is for LPG
WG1605-LN-ET	is for LPG and NG
WG1605-N-ET	is for NG
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