

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-19-095;

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		
2020	LKBXB02.5GFA	2.5	Gasoline, LPG, CNG, Gasoline-LPG Dual Fuel, LPG-CNG Dual Fuel, Gasoline-LPG-CNG Multi Fuel		
DURABILITY HOURS	SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT USAGE		
5000 Three-Way Catalytic Converter, Heated Oxygen Sensor (2), Multiport Fuel Injection (Gasoline), Gaseous Fuel Mixer (LPG, CNG)		Oxygen Sensor (2), uel Injection (Gasoline), Fuel Mixer (LPG, CNG)	Forklift, Sweeper, Tractor/Tug, Pump, Generator		
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	0.1	3.7	

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 <u><u><u></u></u> day of December 2019.</u>

Allen Lyons, Chief Emissions Certification and Compliance Division

Attachment

Model Year: 2020

Manufacturer Name: <u>KUBOTA Corporation</u> Engine Family: <u>LKBXB02.5GFA</u> OFF-ROAD LSI ENGINE SUPPLEMENTAL INFORMATION

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S13.	S14.		S15.		S16.	S17.	S18.	S19.	S20
Engine Model	Engine Cod	Sales Codes (Check ALL appropriate)		Eng. Displ.	Rated Power	Rated Speed	Peak Torque	Peak Torqu Speed	
		Calif. Only	49-State	50-State	(Liters)	(kW)	(RPM)	(N.M)	(RPM)
WG2503-G- ET	WG2503- G-ET01			X	2.491	43.90	2700	166.90	1
WG2503-G- ET	WG2503- G-ET01L			х	2.491	43.90	2700	166.90	1
WG2503-GL- ET	WG2503- GL-ET01			х	2.491	44.50	2700	175.50	1
WG2503-GL- ET				X 1	2.491	44.50	2700	175.50	1
WG2503- GLN-ET*	WG2503- GLN- ET01			X	2.491	44.50	2700	175.50	1
WG2503- GLN-ET	WG2503- GLN- ET01L			x	2.491	44.50	2700	175.50	1
WG2503-L- ET	WG2503- L-ET01			x	2.491	44.50	2700	175.50	1
WG2503-L- ET	WG2503- L-ET01L			Х	2.491	44.50	2700	175.50	1
WG2503-LN- ET	WG2503- LN-ET01			х	2.491	44.50	2700	175.50	1
WG2503-LN- ET		<u></u>		х	2.491	44.50	2700	175.50	1
WG2503-N- ET	WG2503- N-ET01			х	2.491	41.00	2700	158.20	1
WG2503-N- ET	WG2503- N-ET01L			x	2.491	41.00	2700	158.20	1

WG2503-G-ET	is for Gasoline
WG2503-GL-ET	is for Gasoline and LPG
W/G2503-GI NLET	is for Gasoline and LPG and NG
WG2503-L-ET	is for LPG
WG2503-LN-ET	is for LPG and NG
WG2503-N-ET	is for NG