

KUBOTA CORPORATION

EXECUTIVE ORDER U-L-016-0170 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-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 | FUEL TYPE | | | |
|------------------|--|--|--|--|--|
| 2024 | RKBXB02.5HFA | Gasoline, Liquefied Petroleum Gas (LPG), Compressed Natural Gas (CNG), Gasoline-Liquefied Petroleum Gas Dual Fuel, Liquefied Petroleum Gas-Compressed Natural Gas Dual Fuel, Gasoline-Liquefied Petroleum Gas- Compressed Natural Gas Multi Fuel | | | |
| DURABILITY HOURS | EMISSION CONTROL SYSTEMS & SPECIAL FEATURES | EQUIPMENT APPLICATION | | | |
| 5000 | Three-Way Catalytic Converter (TWC), Heated Oxygen Sensors (HO2S) (2), Multiport Fuel Injection (MFI), Gaseous Fuel Mixer (MIX) | Forklift, Aerial Lift, Sweeper, Compressor, Tractor/Tug | | | |

Engines certified by this Executive Order are further described in 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).

| | HC+NOx (g/kW-hr) | CO (g/kW-hr) | | |
|---------------------|------------------|--------------|--|--|
| EXHAUST STANDARD | 0.8 | 20.6 | | |
| CERTIFICATION LEVEL | 0.4 | 6.7 | | |

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 | | |

*not applicable

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 on this 15th day of December 2023.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

For CARB Use Only
Executive Order: U-L-016-0170
Attachment __1_of__1_

Date: _____ Engine Family: RKBXB02.5HFA

Model Summary

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

| 513. Engine Model | | \$15. | | \$16. | \$17. | \$18. | \$19. | \$20. | |
|----------------------|------------------|---|--|-------|---------------------------------|------------------|-------------------|---------------------|-------------------------|
| | \$14. | Sales Codes (Check all appropriate) CA Only 49-State 50-State | | | | | | | |
| | Engine Code | | | | Engine Displacement (Liters) | Rated Power (kW) | Rated Speed (RPM) | Peak Torque (FT-LB) | Peak Torque Speed (RPM) |
| WG2503-G-ET | WG2503-G-ET01 | | | х | 2.491 | 43.10 | 2700 | 168.1 | 1800 |
| WG2503-G-ET | WG2503-G-ET01L | | | Х | 2.491 | 43.10 | 2700 | 168.1 | 1800 |
| WG2503-GL-ET | WG2503-GL-ET01 | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-GL-ET | WG2503-GL-ET01L | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-GLN-ET* | WG2503-GLN-ET01 | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-GLN-ET | WG2503-GLN-ET01L | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-L-ET | WG2503-L-ET01 | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-L-ET | WG2503-L-ET01L | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-LN-ET | WG2503-LN-ET01 | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-LN-ET | WG2503-LN-ET01L | | | Х | 2.491 | 43.80 | 2700 | 172.4 | 1400 |
| WG2503-N-ET | WG2503-N-ET01 | | | Х | 2.491 | 40.70 | 2700 | 161.6 | 1200 |
| WG2503-N-ET | WG2503-N-ET01L | | | Х | 2.491 | 40.70 | 2700 | 161.6 | 1200 |
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