

KEM EQUIPMENT, INC./ KODIAK MARINE

EXECUTIVE ORDER U-L-013-0151 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 | RKEMB05.7ULE Compressed Natural Gas Liquefied Petroleum Gas | | | |
| DURABILITY HOURS | EMISSION CONTROL SYSTEMS & SPECIAL FEATURES | EQUIPMENT APPLICATION | | |
| 5000 | Three-Way Catalytic Converter (TWC), Heated Oxygen Sensors (HO2S) (2), Sequential Multiport Fuel Injection (SFI) | Forklift, Generator, Sweeper and Pump | | |

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 | 0.5 | 5.2 | | |

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 | * | * | | |

*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 17th day of January 2024.

Robin U. Lang, Chief

Emissions Certification and Compliance Division

LSIL Exhaust Model Summary Template (Tev. Aug 202

Date: 01/05/2024

Engine Family: RKEMB05.7ULE

Model Summary

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

For CARB Use Only Executive Order: U-L-013-0151 Attachment _1_of_1_

| S13. Engine Model | | S15. Sales Codes (Check all appropriate) | | | | | | | |
|----------------------|---------------------|--|----------|----------|---|--------------------------|---------------------------|-----------------------------|---------------------------------|
| | S14. Engine Code | CA Only | 49-State | 50-State | S16. Engine Displacement (Liters) | S17. Rated Power (kW) | S18. Rated Speed (RPM) | S19. Peak Torque (FT-LB) | S20. Peak Torque Speed (RPM) |
| 857-CNG-EL-1* | 5.7L GFI CNG | | | x | 5.7 | 98.2 | 2600 | 376 | 2600 |
| 857-CNG-TYMCO-6BL | 5.7L GFI CNG | | | Х | 5.7 | 98.2 | 2600 | 376 | 2600 |
| 857-LP-BROD* | 5.7 ULE LP | | | X | 5.7 | 112.6 | 2600 | 407 | 1800 |
| 857-LP-HOIST | 5.7 ULE LP | | | x | 5.7 | 101 | 2500 | 407 | 1800 |
| 857-LP-HOIST-1 | 5.7 ULE LP | | | х | 5.7 | 101 | 2500 | 407 | 1800 |
| 857-LP-HR | 5.7 ULE LP | | | X | 5.7 | 101 | 2500 | 407 | 1800 |
| 857-LP-LIFTK | 5.7 ULE LP | | | x | 5.7 | 112.6 | 2600 | 407 | 1800 |
| 857-LP-RICO-2 | 5.7 ULE LP | | | X | 5.7 | 88.4 | 2100 | 407 | 1800 |
| 857-LP-ROYAL | 5.7 ULE LP | | | x | 5.7 | 94.5 | 2300 | 407 | 1800 |
| 857-LP-TAY-5 | 5.7 ULE LP | | | X | 5.7 | 95.9 | 2350 | 407 | 1800 |
| 857-LP-TAT-5 | 5.7 ULE LP | | | X | 5.7 | 97.3 | 2400 | 407 | 1800 |
| 837-LF-1D3 | 3.7 OLE LF | | | ^ | 5.7 | 37.3 | 2400 | 407 | 1000 |
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