

## KEM EQUIPMENT, INC./KODIAK MARINE

EXECUTIVE ORDER U-W-015-0072 New Spark-Ignition Marine Engines

Pursuant to the authority vested in California Air Resources Board by Health and Safety Code Sections 43013, 43018, 43101, 43102 and 43104; 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 spark-ignition marine engine and emission control systems (ECS) produced by the manufacturer are certified as described below. Production engines shall be in all material respects the same as those for which certification is granted.

| MODEL<br>YEAR   | ENGINE FAMILY  | FUEL TYPE  | DISPLACEMENT (cc) | LEVEL OF CLEANLINESS                       |  |
|---|----------------|--|-------------------|--|--|
| 2019  | KKEMM05.3DIM   | Gasoline   | 5300              | Super Ultra Low Emission<br>("Four Stars") |  |
| EQUIPMEN  | NT APPLICATION | ECS & SPECIA   | ENGINE TYPE       |  |  |
| Inboard   | d & Sterndrive | Three Way Cata<br>Heated Oxyg<br>Direct Fuel<br>On-Board Diagnosti | 4-Stroke          |  |  |
| ENGINE<br>MODELS<br>(rated<br>power in<br>kilowatts,<br>kW) |                |  |                   |  |  |

The following are the hydrocarbon plus oxides of nitrogen (HC+NOx) and carbon monoxide (CO) exhaust emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2442(b)) and certification emission levels in grams per kilowatt-hour (g/kW-hr) for this engine family. Engines in this engine family shall discharge no crankcase emissions into the ambient atmosphere in conformance with 13 CCR Section 2442(b).

|                     | HC+NOx (g/kW-hr) | CO (g/kW-hr) |  |  |
|---------------------|------------------|--------------|--|--|
| STANDARD            | 5.0              | 75.0         |  |  |
| CERTIFICATION LEVEL | 4.5              | 25.5         |  |  |

This engine family shall not be used to determine compliance through corporate averaging.

BE IT FURTHER RESOLVED: That for the listed engines, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Sections 2443.1, 2443.2 and 2443.3 (emission control, consumer, and environmental labels), Section 2444.2 (on-board engine malfunction detection system), and Sections 2445.1 and 2445.2 (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 August 2019.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Model Year: \_\_\_\_2019

Manufacturer Name: KEM Equipment, Inc. / Kodiak Marine

Engine Family: KKEMM05.3DIM

SI MARINE ENGINE SUPPLEMENTAL INFORMATION

Page: 3 of 5 Issued: 4/10/2019

S11. MODEL SUMMARY (Use an asterisk (\*) to identify worst-case engine model used for certification testing.)

| ſ  | S12.   | S13.   |   | S14.  |   | S15.   | S16.   | S17.  | S18.   | S19.   |
|--|--|--|---|---|---|--|--|---|--|--|
| -  | Engine<br>Model  | Engine<br>Code   | Sales Codes<br>(Check ALL<br>appropriate)   |   | Eng. R  | Rated<br>Power<br>(kW)   | Rated<br>Speed<br>(RPM)  | Peak<br>Torque<br>(N-m)   | Peak<br>Torque<br>Speed<br>(RPM)   |  |
| -  |  |  | Calif.<br>Only  | 49-<br>State  | 50-<br>State  | (00)   | (((**)   | (1 (1 191)  | (1411)   | (RPM)  |
|  | Marine 5.3L<br>Cert  | 5.3DIM   |   |   | Х   | 5300   | 251  | 5000  | 480  | 5000   |
| -  | A STANDAY OF MANAGEMENT OF TANAH STOP AND  |  |   |   |   |  | PRINCES OF STREET S   |   | Antabadasantan saasa (PAS) BASS (PAS)  |  |
| - Contraction of the Contraction |  |  |   |   |   |  |  |   |  |  |
| -  |  |  |   |   |   | MALES AND  |  | Maked and the relative section (APP to the Property December 2)   | ATTENDED CONTRACTOR OF THE STATE OF  |  |
|  |  |  |   |   |   |  |  |   |  |  |
|  |  | AND COLUMN TO THE PROPERTY OF  |   |   |   |  |  | MAN, OLD AND STEP AND OLD AND STEP AND | The state of the s |  |
| ***************************************  |  | Company of the state of the sta |   | wantan na manana na |   |  |  |   |  |  |
| - American mandana   |  |  |   |   | MO GROUP RAY INCOME PROGRAMMENT AND A STATE OF THE STATE |  |  |   |  |  |
|  | in a description of the international contraction of the state of the  |  | -   | STANLARKEET PER TEMPERATURE (BESSELEN TEMPERATURE)  |   | nga digital kanada sa kanada kana   |  |   |  |  |
|  |  |  | Basel Constitution of the |   |   |  |  |   |  |  |
| ***************************************  |  |  |   | ***************************************   |   |  |  |   |  |  |
| -  | And Committee and all the second and a second and a second and a second and a second   | CAMERO COMPANIA MENTRA COMPANIA PARA PARA PARA PARA PARA PARA PARA PA  | NAMES AND ASSESSED OF SPRINK AND  |   |   | ALLEGO POR MATERIA MATERIA POR PARTICIPA POR |  |   | THE O'CH MANUAL VALUE AND DESCRIPTION OF THE O'CH THE O'C | AND THE PROPERTY OF THE PROPER |
| Anomanana dans   |  |  |   |   |   |  |  |   |  | percent and action of factor can describe an extraordisc factor and action of the second section of the section of t |
| The same of the sa |  |  |   | -   |   |  |  |   |  |  |
|  |  |  |   |   |   |  | CONTRACTOR CONTRACTOR OF CONTRACTOR CONTRACT |   |  |  |
| The state of the s | and area dans to be taken the destroy of the destro |  | her zahodowa down or sezim officion   | MENNINGEN AND AND AND AND AND AND AND AND AND AN  | -consist of distance made   |  |  |   |  |  |
| -  |  |  |   |   |   |  |  |   |  |  |