| California Environmental Protection Agency AIR RESOURCES BOARD | Kawasaki Heavy Industries, Ltd. | EXECUTIVE ORDER U-U-004-0307 New Off-Road Small Spark-Ignition Equipment |
|---|---|---|

Pursuant to the authority vested in the 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-02-003;

**IT IS ORDERED AND RESOLVED:** That the following equipment produced by the manufacturer is certified as described below. Production equipment shall be in all material respects the same as those for which certification is granted.

| MODEL YEAR | ENGINE/EVAPORATIVE FAMILY | DISPLACEMENT (cc) | ENGINE CLASS | FUEL TYPE (CNG/LNG=compressed/liquefied natural gas LPG=liquefied petroleum gas) |
|---|---|---|---|---|
| 2006 | 6KAXS.4942CA | 494 | 4-stroke, ≥ 225 cc | Gasoline |

| DURABILITY HOURS | SPECIAL FEATURES & EMISSION CONTROL SYSTEMS | TYPICAL EQUIPMENT APPLICATION |
|---|---|---|
| 500 | Engine Modification | Walk-Behind Lawnmower, Tractor, Commercial Turf |

| ENGINE CODES/MODELS (rated power in kilowatt, kW) | FH451 (9.2 kW), FH500 (10.0 kW), FH531 (11.0 kW) |
|---|---|

ABBREVIATIONS: EM=engine modification TWC/OC=three-way/oxidizing catalyst WUTWC/WUOC=warm-up TWC/OC O2S=oxygen sensor HO2S=heated O2S EGR=exhaust gas recirculation AIR=secondary air injection PAIR=pulsed AIR MFI=multi port fuel injection SFI=sequential MFI TBI=throttle body fuel injection DFI=direct fuel injection TC/SC=turbo/super charger CAC=charge air cooler 2(prefix)=parallel (2)(suffix)=in series

The following are the exhaust hydrocarbon plus oxides of nitrogen (HC+NOx), carbon monoxide (CO), and particulate matter (PM) emission standards (Title 13, California Code of Regulations, (13 CCR) Section 2403(b)), and certification emission levels in grams per kilowatt-hour (g/kW-hr), and permeation standard (13 CCR Section 2754(b)), and certification level in grams per square meter per day (g/m$^2$/day) for this engine/evaporative family or the component Executive Order. Engines or equipment models powered exclusively with alternative fuel as defined in Section 2751(b)(1) are exempt from complying with evaporative emission requirements. Engines within this engine family shall have closed crankcases in conformance with Section 90.109 of the "California Exhaust Emission Standards and Test Procedures for 2005 and Later Small Off-Road Engines," adopted September, 2003.

| *=not applicable | HC+NOx (g/kW-hr) | CO (g/kW-hr) | PM (g/kW-hr) | FUEL HOSE PERMEATION (g/m$^2$/day) | |
|---|---|---|---|---|---|
| STANDARD | 12.1 | 549 | N/A | STANDARD | CERTIFICATION LEVEL OR COMPONENT EXECUTIVE ORDER |
| FAMILY EMISSION LEVEL | 11.8 | N/A | N/A | | |
| CERTIFICATION LEVEL | 10.1 | 333 | N/A | 15 | C-U-05-006, G-05-018, G-05-017-A, C-U-05-011 |

**BE IT FURTHER RESOLVED:** That the family emission level(s) (FELs), as applicable, is an emission limit declared by the manufacturer for use in the averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable exhaust emission standard for determining compliance of any engine within this engine/evaporative family under 13 CCR Sections 2403(e)(1) and 2407(a).

**BE IT FURTHER RESOLVED:** That for the listed equipment, the manufacturer has submitted, and the Executive Officer hereby approves, the information and materials to demonstrate certification compliance with 13 CCR Section 2404 and 2759 (labeling) and 13 CCR Sections 2405, 2406, 2760, and 2764 (emission control system warranty).

Equipment certified under this Executive Order must conform to all applicable California emission regulations.

Quarterly reports of engines produced in this engine family for sale in California shall be submitted to the Executive Officer no later than 45 days after the end of each calendar quarter.

**This Executive Order is only granted to the engine/evaporative family and model-year listed above. Equipment in this family that is produced for any other model-year is not covered by this Executive Order.**

Executed at El Monte, California on this 6th day of January 2006.

Raphael Susnowitz

for Allen Lyons, Chief
Mobile Source Operations Division