State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-26-13
Relating to Certification of New Off-Road Compression-Ignition Engines

ISHIKAWAJIMA-SHIBAURA MACHINERY CO., LTD.

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment:

Model Year: 2001

Typical Equipment Usage: Generator

Fuel Type: Diesel

| Engine Family | Engine Displacement (liters) | Useful Life (hours) | Emission Control Systems and Special Features |
|---|---|---|---|
| 1H3XL1.33J3C | 1.330 | 3000 | Indirect Diesel Injection |

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The exhaust emission certification standards and certification values for hydrocarbons (HC), oxides of nitrogen (NOx), or non-methane hydrocarbons plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) (units are expressed in grams per kilowatt-hour (g/kw-hr)), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

| Engine Power Rating (kw) | Emission Standard Category | | Exhaust Emissions (g/kw-hr) | | | | | Smoke Opacity (%) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | HC | NOx | NMHC+NOx | CO | PM | Accel | Lug | Peak |
| 8≤KW<19 | Tier 1 | Standard | N/A | N/A | 9.5 | 6.6 | 0.80 | N/A | N/A | N/A |
| | | Certification | -- | -- | 7.0 | 2.9 | 0.65 | -- | -- | -- |

BE IT FURTHER RESOLVED: That the listed engine models also comply with "Emission Control Labels— 1996 and Later Off-Road Compression-Ignition Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2425 and 2426).

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

Executed at El Monte, California this 17TH day of January 2001.

FOR
R. B. Summerfield, Chief
Mobile Source Operations Division

Model Year: 2001 ATTACHMENT
Manufacturer: Ishikawajima-Shibaura Machinery Co., Ltd
Engine Family: 1H3XL1.33J3C

Issued: 11/6/98
Revised: 11/6/2000
E.O. Number: U-R-26-13

## Small Off-Road Engine Model Summary Form

Units for Table: hp

| Worst Case? | 47. Model Designation | 48. Sales Code | 49. Displ (cc) | 50. Bore/ Stroke | 51. Ignition Timing | 52. Max Power | 53. Rated Speed (RPM) | 54. Rated Torque | 55. Torque Speed (RPM) | 56. Emiss Control Sys |
|---|---|---|---|---|---|---|---|---|---|---|
| X | 18/1800C | 50-State | 1330 | 84/80 | N/A | 17.6 | 1800 | N/A | N/A | IFI |