

## **AB VOLVO PENTA**

## **EXECUTIVE ORDER U-R-014-0196**

New Off-Road Compression-Ignition Engines Page 1 of 1

Pursuant to the authority vested in California 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-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

| MODEL<br>YEAR | ENGINE FAMILY          | DISPLACEMENT (liters)  | FUEL TYPE                     | USEFUL LIFE<br>(hours) |  |  |
|---------------|------------------------|--|-------------------------------|------------------------|--|--|
| 2022          | NVPXL16.1CDD           | 16.1   | Diesel                        | 8,000                  |  |  |
| Si            | PECIAL FEATURES & EMIS | SION CONTROL SYSTEMS   | TYPICAL EQUIPMENT APPLICATION |                        |  |  |
|               |                        | Electronic Control Module,<br>r, Ammonia Oxidation Catalyst,<br>Reduction – Urea | Generator Set                 |                        |  |  |

The engine models and codes are attached.

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

| RATED POWER          | EMISSION             |      | EXHAUST (g/kw-hr) |      |          | OPACITY (%) |      |       |     |      |
|----------------------|----------------------|------|-------------------|------|----------|-------------|------|-------|-----|------|
| CLASS                | STANDARD<br>CATEGORY |      | NMHC              | NOx  | NMHC+NOx | СО          | PM   | ACCEL | LUG | PEAK |
| 560kW < GEN ≤ 900 kW | Tier 4 Final         | STD  | 0.19              | 0.67 | N/A      | 3.5         | 0.03 | N/A   | N/A | N/A  |
|                      |                      | CERT | 0.01              | 0.20 |          | 0.04        | 0.01 | -     |     |      |

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

**BE IT FURTHER RESOLVED:** That the listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer must submit the necessary data by March 31, 2022 to confirm or correct the certification emissions levels on this conditional certification. Failure to submit the necessary data or resolve concerns by the specified date, shall be cause for the Executive Officer to rescind this conditional certification, in which case all engines covered under this conditional certification and introduced into commerce in the State of California shall be deemed uncertified pursuant to Health and Safety Code Section 43153 and subject to civil penalties pursuant to Health and Safety Code Section 43154.

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 20th day of January 2022.

Allen Lyons, Chief

Emissions Certification and Compliance Division

Attachment 1 of 1: Engine Models EO #: U-R-014-0196 Family: NVPXL16.1CDD Attachment Revised: 1/3/2022 Displacement -Peak Power -Peak Power -Peak Power -Peak Power -Peak Torque -Peak Torque -Peak Torque -Peak Torque -Model Code Trim Config Displacement Units Units Speed (rpm) Fueling **Fuel Units** Peak Torque Units Speed (rpm) Fuel **Fuel Units** OBD GHG Special Notes TWD1683 GE | N/A 16 16.1 867 horsepower 1500 275 lb/hr 4118 1500 lb/hr N/A N/A None None

lb/hr

3634

1800

297

N/A

N/A

None

None

297

1800

TWD1683 GE II

N/A 16

16.1

919

horsepower