EXECUTIVE ORDER U-R-004-0468 New Off-Road

Compression-Ignition Engines

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-02-003;

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 YEAR | ENGINE FAMILY | DISPLACEMENT (liters) | FUEL TYPE | USEFUL LIFE (hours) | | |
|--|---------------------|--------------------------|-------------------------------|---------------------|--|--|
| 2013 | DJDXL03.0208 | 2.4, 3.4 | Diesel | | | |
| | FEATURES & EMISSION | | TYPICAL EQUIPMENT APPLICATION | | | |
| Electronic Direct Injection, Turbocharger, Charge Air Cooler, Smoke Puff Limiter, Electronic Control Module | | | Generator Set | | | |

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), 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 | EMISSION STANDARD CATEGORY | | EXHAUST (g/kw-hr) | | | | OPACITY (%) | | | |
|----------------|----------------------------------|------|-------------------|-----|----------|-----|-------------|-------|-----|------|
| POWER CLASS | | | NMHC | NOx | NMHC+NOx | co | PM | ACCEL | LUG | PEAK |
| 37 ≤ kW < 56 | Tier 4 Final | STD | N/A | N/A | 4.7 | 5.0 | 0.03 | 20 | 15 | 50 |
| | | FEL | | | | | 0.30 | | | |
| . , | | CERT | | | 3.9 | 1.0 | 0.22 | 14 | 3 | 22 |

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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).

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 December 2012.

Annette Hebert, Chief

Mobile Source Operations Division

FO#: U-R-004-0468

Engine Model Summary Form

John Deere Power Systems Manufacturer:

Engine category: Nonroad Cl EPA Engine Family: DJDXL03.0208 Mfr Family Name:

12-17-2012

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| 1. Engine code 5030HF295B 4024HT011B 4024HT011A 4024HLV11B 4024HLV11A | 2. Engine Model 5030H 4024H 4024H 4024H 4024H | 3. kW@RPM (SAE Gross) 55.0@2200 49.0@2600 46.0@2600 49.0@2400 45.0@2400 | 4. Fuel Rate: mm/stroke@peak kW (for diesel only) 48.8@2200 46.9@2600 44@2600 49.9@2400 46.2@2400 | 5. Fuel Rate: (kg/hr)@peak kW (for diesels only) 13.7@2200 12.4@2600 11.7@2600 12.2@2400 11.3@2400 | 6. Torque (Nm) @RPM (SEA Gross) 344@1650 230@1950 219@1950 256@1800 227@1800 | 7. Fuel Rate: mm/stroke@peak torque 66.4@1650 56.5@1950 54.6@1950 61@1800 55.6@1800 | 8. Fuel Rate: (kW/hr)@peak torque 14.0@1650 11.2@1950 10.9@1950 11.2@1800 10.2@1800 | 9. Emission Control Device Per SAE J1930 EM EC SP/ EM EC SP/ EM PC SPL EM PC SPL EM PC SPL |
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| 481, 200 | | | | | | | | |
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