

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) |
|---|---------------|-----------------------|-------------------------------|---------------------|
| 2009 | 9HZXL.462C40 | 0.462 | Diesel | 3000 |
| SPECIAL FEATURES & EMISSION CONTROL SYSTEMS | | | TYPICAL EQUIPMENT APPLICATION | |
| Direct Diesel Injection | | | Pump, Generator Set | |

The engine models and codes are attached.

The following are the exhaust certification standards (STD) 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 POWER CLASS | EMISSION STANDARD CATEGORY | | EXHAUST (g/kw-hr) | | | | | OPACITY (%) | | |
|-------------------|----------------------------|------|-------------------|-----|----------|-----|------|-------------|-----|------|
| | | | HC | NOx | NMHC+NOx | CO | PM | ACCEL | LUG | PEAK |
| kW < 8 | Tier 4 | STD | N/A | N/A | 7.5 | 8.0 | 0.80 | N/A | N/A | N/A |
| | | CERT | -- | -- | 6.3 | 5.4 | 0.42 | -- | -- | -- |


BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(A) -Table 1b listed above has been permitted pursuant to Endnote 2 of the same table.

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 12th day of December 2008.


 Annette Hebert, Chief
 Mobile Source Operations Division

Notizenfabrik Holz
 Almond CI

Attachment

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U-R-034-0184

Enzyme Model Summary Template

Notes to Template

| Enzyme Code | Enzyme Model | Enzyme Code | Enzyme Model | Enzyme Code | Enzyme Model | Enzyme Code | Enzyme Model |
|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
| 18A | 18A2 T10/20 | 18A | 18A2 T10/20 | 18A | 18A2 T10/20 | 18A | 18A2 T10/20 |
| 18B | 18B2 T10/20 | 18B | 18B2 T10/20 | 18B | 18B2 T10/20 | 18B | 18B2 T10/20 |
| 18C | 18C2 T10/20 | 18C | 18C2 T10/20 | 18C | 18C2 T10/20 | 18C | 18C2 T10/20 |
| 18D | 18D2 T10/20 | 18D | 18D2 T10/20 | 18D | 18D2 T10/20 | 18D | 18D2 T10/20 |
| 18E | 18E2 T10/20 | 18E | 18E2 T10/20 | 18E | 18E2 T10/20 | 18E | 18E2 T10/20 |
| 18F | 18F2 T10/20 | 18F | 18F2 T10/20 | 18F | 18F2 T10/20 | 18F | 18F2 T10/20 |
| 18G | 18G2 T10/20 | 18G | 18G2 T10/20 | 18G | 18G2 T10/20 | 18G | 18G2 T10/20 |
| 18H | 18H2 T10/20 | 18H | 18H2 T10/20 | 18H | 18H2 T10/20 | 18H | 18H2 T10/20 |
| 18I | 18I2 T10/20 | 18I | 18I2 T10/20 | 18I | 18I2 T10/20 | 18I | 18I2 T10/20 |
| 18J | 18J2 T10/20 | 18J | 18J2 T10/20 | 18J | 18J2 T10/20 | 18J | 18J2 T10/20 |
| 18K | 18K2 T10/20 | 18K | 18K2 T10/20 | 18K | 18K2 T10/20 | 18K | 18K2 T10/20 |
| 18L | 18L2 T10/20 | 18L | 18L2 T10/20 | 18L | 18L2 T10/20 | 18L | 18L2 T10/20 |
| 18M | 18M2 T10/20 | 18M | 18M2 T10/20 | 18M | 18M2 T10/20 | 18M | 18M2 T10/20 |
| 18N | 18N2 T10/20 | 18N | 18N2 T10/20 | 18N | 18N2 T10/20 | 18N | 18N2 T10/20 |
| 18O | 18O2 T10/20 | 18O | 18O2 T10/20 | 18O | 18O2 T10/20 | 18O | 18O2 T10/20 |
| 18P | 18P2 T10/20 | 18P | 18P2 T10/20 | 18P | 18P2 T10/20 | 18P | 18P2 T10/20 |
| 18Q | 18Q2 T10/20 | 18Q | 18Q2 T10/20 | 18Q | 18Q2 T10/20 | 18Q | 18Q2 T10/20 |
| 18R | 18R2 T10/20 | 18R | 18R2 T10/20 | 18R | 18R2 T10/20 | 18R | 18R2 T10/20 |
| 18S | 18S2 T10/20 | 18S | 18S2 T10/20 | 18S | 18S2 T10/20 | 18S | 18S2 T10/20 |
| 18T | 18T2 T10/20 | 18T | 18T2 T10/20 | 18T | 18T2 T10/20 | 18T | 18T2 T10/20 |
| 18U | 18U2 T10/20 | 18U | 18U2 T10/20 | 18U | 18U2 T10/20 | 18U | 18U2 T10/20 |
| 18V | 18V2 T10/20 | 18V | 18V2 T10/20 | 18V | 18V2 T10/20 | 18V | 18V2 T10/20 |
| 18W | 18W2 T10/20 | 18W | 18W2 T10/20 | 18W | 18W2 T10/20 | 18W | 18W2 T10/20 |
| 18X | 18X2 T10/20 | 18X | 18X2 T10/20 | 18X | 18X2 T10/20 | 18X | 18X2 T10/20 |
| 18Y | 18Y2 T10/20 | 18Y | 18Y2 T10/20 | 18Y | 18Y2 T10/20 | 18Y | 18Y2 T10/20 |
| 18Z | 18Z2 T10/20 | 18Z | 18Z2 T10/20 | 18Z | 18Z2 T10/20 | 18Z | 18Z2 T10/20 |



Enzyme Code: 18A-18Z
 Enzyme Model: T10/20

Notes of Abir Haz
Nonroad CI

Attachment

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U-R-634-6187

Engine Model Summary Template

| EPA Use Category | EPA Code | Engine Model | Displacement | | Stroke | | Speed | | Fuel Use | Emission | Emission | Emission | Emission |
|------------------|------------|--------------|--------------|-----------------|------------|------------|-------|-------|----------|----------|----------|----------|----------|
| | | | cc | in ³ | mm | in | rpm | g/kWh | | | | | |
| Nonroad CI | NA | 1840 TAD30 | 2,182,150 | 35 | 3.0 | 17,582,150 | 25 | 3.0 | | | | | |
| | NA | 1840 TAD30 | 6,582,100 | 25 | 2.8 | 17,482,100 | 25 | 2.8 | | | | | |
| | NA | 1840 TAD30 | 6,882,000 | 25 | 2.8 | 17,482,000 | 25 | 2.8 | | | | | |
| | NA | 1840 TAD30 | 6,882,000 | 25 | 2.8 | 17,382,000 | 25 | 2.8 | | | | | |
| NA | 1840 TAD30 | 6,882,000 | 24 | 2.4 | 17,282,000 | 24 | 2.4 | | | | | | |

Nonroad CI
EPA Use Category
EPA Code
Engine Model
Displacement
Stroke
Speed
Fuel Use
Emission
Emission
Emission
Emission

DDI
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