Pursuant to the authority vested in the California Air Resources Board by 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-19-095;

**IT IS ORDERED AND RESOLVED:** The engines and emission control systems produced by the manufacturer as described below are certified 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 | Combustion Cycle | Fuel Operation | Fuel Type(s) | Engine Operation |
|---|---|---|---|---|---|
| 2024 | RDZXL15.9058 | Diesel | Dedicated | Diesel | Variable and Constant Speed |

| Emission Control Systems | Special Features |
|---|---|
| [1]: Direct Diesel Injection (DDI), Turbocharger (TC), Charge Air Cooler (CAC), Electronic Control Module (ECM), Diesel Oxidation Catalyst (DOC), Selective Catalytic Reduction-Urea (SCR-U), Selective Catalytic Reduction-Urea (SCR-U), Ammonia Oxidation Catalyst (AMOX) | None |

The certified engine models are attached.

The listed engine models comply with the following: 1) emission standard limits (STD) and Not-To-Exceed (NTE) limits, as applicable, for criteria pollutants non-methane hydrocarbons (NMHC), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM), and for smoke opacity as demonstrated during the Acceleration (ACL) and Lugging (LUG) modes, and the peak value (PEAK) in either mode of the Smoke Opacity cycle, as set forth in 13 CCR 2423 and the applicable California test procedures for off-road compression-ignition engines, and 2) family emission limits (FEL) declared by the manufacturer as allowed by the applicable California test procedures, stated in units of gram per kilowatt-hour (g/kWh-hr) and percent opacity (%opacity), respectively, except as noted, or designated as not applicable (*).

| Applicable Standard | | Criteria | | | | Smoke Opacity | | |
|---|---|---|---|---|---|---|---|---|
| | | NMHC | NOx | CO | PM | ACL | LUG | PEAK |
| Tier 4 Final<br>130 ≤ kW ≤ 560 | STD | 0.19 | 0.40 | 3.5 | 0.02 | * | * | * |
| | FEL | * | * | * | * | * | * | * |
| | NTE | 0.28 | 0.60 | 4.4 | 0.03 | * | * | * |

**BE IT FURTHER RESOLVED:** Any declared FEL is the emission limit to which all engines must comply in lieu of the standard limit for certification purposes, subject to the restrictions of averaging, banking, or trading (ABT) programs allowed by the applicable California test procedures.

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

**BE IT FURTHER RESOLVED:** The listed engine models may only be installed in or on equipment such that engine operation is consistent with off-road compression-ignition engines as defined in 13 CCR 2421(a)(39).

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

Executed on this 23rd day of August 2023.

Robin U. Lang

Robin U. Lang, Chief
Emissions Certification and Compliance Division

**ATTACHMENT: ENGINE MODELS**

Family: RDZXL15.9058 EO Number: U-R-013-0736 Date Applicable: 8/7/2023

| | | | | | Peak Power | | | Peak Torque | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | Code | Trim | Config | Displacement | Power | Speed | Fueling | Torque | Speed | Fueling | ECS Num | GHG | Notes |
| - | - | - | - | Liters | horsepower | rpm | lb/hr | N-m | rpm | lb/hr | - | - | - |
| TCD16.0V8 | CFYI520U | | V8 | 15.874 | 697.3 | 2100 | 256.6 | 2890 | 1400 | 186.6 | 1 | N/A | |
| TCD16.0V8 | CFYI520V | | V8 | 15.874 | 697.3 | 2000 | 246.2 | 2890 | 1400 | 186.6 | 1 | N/A | |
| TCD16.0V8 | CFYI520W | | V8 | 15.874 | 697.3 | 1900 | 241.5 | 2890 | 1400 | 186.6 | 1 | N/A | |
| TCD16.0V8 | CFYI505U | | V8 | 15.874 | 677.2 | 1800 | 235.1 | 2890 | 1400 | 186.6 | 1 | N/A | |
| TCD16.0V8 | CFYI480U | | V8 | 15.874 | 643.7 | 2100 | 233.3 | 2800 | 1400 | 182.3 | 1 | N/A | |
| TCD16.0V8 | CFYI480V | | V8 | 15.874 | 643.7 | 2000 | 226.6 | 2800 | 1400 | 182.3 | 1 | N/A | |
| TCD16.0V8 | CFYI480W | | V8 | 15.874 | 643.7 | 1900 | 223.7 | 2800 | 1400 | 182.3 | 1 | N/A | |
| TCD16.0V8 | CFYI480X | | V8 | 15.874 | 643.7 | 1800 | 222.3 | 2800 | 1400 | 182.3 | 1 | N/A | |
| TCD16.0V8 | CFYI440U | | V8 | 15.874 | 590 | 2100 | 214.7 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI440V | | V8 | 15.874 | 590 | 2000 | 209.7 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI440W | | V8 | 15.874 | 590 | 1900 | 204.3 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI440X | | V8 | 15.874 | 590 | 1800 | 201.5 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI400U | | V8 | 15.874 | 536.4 | 2100 | 195.9 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI400V | | V8 | 15.874 | 536.4 | 2000 | 191.1 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI400W | | V8 | 15.874 | 536.4 | 1900 | 187.4 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI400X | | V8 | 15.874 | 536.4 | 1800 | 179.9 | 2650 | 1400 | 172.9 | 1 | N/A | |
| TCD16.0V8 | CFYI350U | | V8 | 15.874 | 469.4 | 2100 | 169.8 | 2150 | 1400 | 140.6 | 1 | N/A | |
| TCD16.0V8 | CFYI350V | | V8 | 15.874 | 469.4 | 2000 | 168.8 | 2150 | 1400 | 140.6 | 1 | N/A | |
| TCD16.0V8 | CFYI350W | | V8 | 15.874 | 469.4 | 1900 | 162.1 | 2150 | 1400 | 140.6 | 1 | N/A | |
| TCD16.0V8 | CFYI350X | | V8 | 15.874 | 469.4 | 1800 | 157.5 | 2150 | 1400 | 140.6 | 1 | N/A | |
| TCD16.0V8 | CFYI370U | | V8 | 15.874 | 496.2 | 2100 | 179.1 | 1900 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI390U | | V6 | 11.906 | 523 | 2100 | 196.6 | 2130 | 1400 | 141.3 | 1 | N/A | |
| TCD12.0V6 | CFYI390V | | V6 | 11.906 | 523 | 2000 | 189.9 | 2130 | 1400 | 141.3 | 1 | N/A | |
| TCD12.0V6 | CFYI390W | | V6 | 11.906 | 523 | 1900 | 189.9 | 2130 | 1400 | 141.3 | 1 | N/A | |
| TCD12.0V6 | CFYI370U | | V6 | 11.906 | 496.2 | 1800 | 176.9 | 2130 | 1400 | 141.3 | 1 | N/A | |
| TCD12.0V6 | CFYI360U | | V6 | 11.906 | 482.8 | 2100 | 178.4 | 2080 | 1400 | 137.6 | 1 | N/A | |
| TCD12.0V6 | CFYI360V | | V6 | 11.906 | 482.8 | 2000 | 173.3 | 2080 | 1400 | 137.6 | 1 | N/A | |
| TCD12.0V6 | CFYI360W | | V6 | 11.906 | 482.8 | 1900 | 170.9 | 2080 | 1400 | 137.6 | 1 | N/A | |
| TCD12.0V6 | CFYI350U | | V6 | 11.906 | 469.4 | 1800 | 163.1 | 2080 | 1400 | 137.6 | 1 | N/A | |
| TCD12.0V6 | CFYI330U | | V6 | 11.906 | 442.5 | 2100 | 164.4 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI330V | | V6 | 11.906 | 442.5 | 2000 | 159.9 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI330W | | V6 | 11.906 | 442.5 | 1900 | 155.2 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI330X | | V6 | 11.906 | 442.5 | 1800 | 152.9 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI300U | | V6 | 11.906 | 402.3 | 2100 | 150.4 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI300V | | V6 | 11.906 | 402.3 | 2000 | 146.6 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI300W | | V6 | 11.906 | 402.3 | 1900 | 142.4 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI300X | | V6 | 11.906 | 402.3 | 1800 | 137.9 | 2000 | 1400 | 130.6 | 1 | N/A | |
| TCD12.0V6 | CFYI273U | | V6 | 11.906 | 366.1 | 2100 | 139.9 | 1800 | 1400 | 118.9 | 1 | N/A | |
| TCD12.0V6 | CFYI273V | | V6 | 11.906 | 366.1 | 2000 | 136.6 | 1800 | 1400 | 118.9 | 1 | N/A | |
| TCD12.0V6 | CFYI273W | | V6 | 11.906 | 366.1 | 1900 | 132.9 | 1800 | 1400 | 118.9 | 1 | N/A | |
| TCD12.0V6 | CFYI273X | | V6 | 11.906 | 366.1 | 1800 | 128.9 | 1800 | 1400 | 118.9 | 1 | N/A | |
| TCD12.0V6 | CFYI240U | | V6 | 11.906 | 321.8 | 2100 | 136.4 | 1500 | 1400 | 100.3 | 1 | N/A | |

**ATTACHMENT: ENGINE MODELS**

Family: RDZXL15.9058 EO Number: U-R-013-0736 Date Applicable: 8/7/2023

| | | | | | Peak Power | | | Peak Torque | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model | Code | Trim | Config | Displacement | Power | Speed | Fueling | Torque | Speed | Fueling | ECS Num | GHG | Notes |
| - | - | - | - | Liters | horsepower | rpm | lb/hr | N-m | rpm | lb/hr | - | - | - |
| TCD12.0V6 | CFYI240V | | V6 | 11.906 | 321.8 | 2000 | 119.9 | 1500 | 1400 | 100.3 | 1 | N/A | |
| TCD12.0V6 | CFYI240W | | V6 | 11.906 | 321.8 | 1900 | 117.1 | 1500 | 1400 | 100.3 | 1 | N/A | |
| TCD12.0V6 | CFYI240X | | V6 | 11.906 | 321.8 | 1800 | 113.9 | 1500 | 1400 | 100.3 | 1 | N/A | |