State of California AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-11-25 Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

CASE CORPORATION

Pursuant to the authority vested in the Air Resources Board at Sections 43000.5, 43013, and 43018 of the Health and Safety Code; and

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

IT IS ORDERED AND RESOLVED: That the following diesel engines and exhaust emission control systems produced by the manufacturer are certified as described below for use in heavy-duty off-road equipment:

Model Year: 2000

Typical Equipment Usage: Crane, Loader, Tractor, Dozer, Pump, and Compressor

Engine Power Ratings Range: 175 - 750 horsepower, inclusive

Fuel Type: Diesel

| Engine Family | Disp | olacement | Exhaust Emission Control Systems and Special Features Turbocharger Charge Air Cooler |
|---------------|---------------|---------------------|--|
| YX9XL0505ABB | <u>Liters</u> | <u>Cubic Inches</u> | |
| (B413) | 8.3 | 505 | |

The 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 in grams per brake horsepower-hour (g/bhp-hr) for total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM), and the opacity-of-smoke certification standards and certification values in percent (%) during acceleration (Accel), lugging (Lug), and the peak-values from either mode (Peak) for this engine family are as follows (Title 13, California Code of Regulations, Section 2423):

| Exhaust Emissions (g/bhp-hr) | | | Smoke Opacity (%) | | | | |
|------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|-------------------------|-----------------------|-------------------------|
| Standard Certification | <u>THC</u> 1.0 0.3 | <u>CO</u> 8.5 0.5 | <u>NOx</u> 6.9 5.4 | <u>PM</u> 0.4 0.2 | <u>Accel</u> 20 7 | <u>Lug</u> 15 2 | <u>Peak</u> 50 16 |

BE IT FURTHER RESOLVED: That the listed engine models comply with "Exhaust Emission Standards and Test Procedures—Heavy-Duty Off-Road Diesel-Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model-year.

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

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 et seq.).

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

Executed at El Monte, California this 30⁷²² day of December 1999.

Raphael Surnouty R. B. Summerfield, Chief

Mobile Source Operations Division

Engine Model Sr mary Form

Nonroad Over 50 Hp Case Corporation Engine category: Manufacturer:

YX9XL0505ABB

EPA Engine Family:

B413 Mfr Family Name:

New Submission Process Code:

| Control AE J1930 | + | |) > | | |
|---|--------------|--------------|------------------------|----------------------|--------------|
| 9.Emission Control Device Per SAE J193 TC TC |) 22 | TC | TC | 1C | |
| 8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930 71.8 TC TC TC | 71.8 | 71.8 | 64.1 | 59.5 | |
| 7.Fuel Rate: mm/stroke@peak torque 142 | 67 <i>L</i> | 142 | | 118 | |
| 6.Torque @ RPM (SEA Gross) 750@1500 | 750@1500 | 750@1500 | 7.50@1.500 660@4E00 | 000@1000 646@1500 | 000199010 |
| 5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only) 91.0 | 91.0 | 91.0 | 91.0 | 81.8 | 80.8 80.8 |
| 4.Fuel Rate: mm/stroke @ peak HP (for diesel only) | 123 | 123 | 123 | 110 | 109 |
| 3.BHP@RPM (SAE Gross) 240@2200 | 240@2200 | 240@2200 | 240@2200 | 215@2200 | 215@2200 |
| 2.Engine Model 6TA-830 | 6TA-830 | 6TA-830 | 6TA-830 | 6TA-830 | 6TA-830 |
| 1.Engine Code 2062;FR9878 | 2062;FR90162 | 2062;FR90541 | 2062;FR90503 | 2007;FR9875 | 2007;FR90163 |