

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-49

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Caterpillar 1988 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds.

| <u>Engine Family</u> | <u>Displacement<br/>Liters (Cubic Inches)</u> | <u>Exhaust Emission Control Systems<br/>(Special Features)</u> |
|----------------------|---|--|
| JCT0636DAA8          | 10.4 (636)                                    | Engine Modification  |

Engine models and codes are listed on attachments.

The following are emission standards for this engine family:

| <u>Hydrocarbons<br/>gm/bhp-hr</u> | <u>Carbon<br/>Monoxide<br/>gm/bhp-hr</u> | <u>Nitrogen Oxides<br/>gm/bhp-hr</u> | <u>Particulates<br/>gm/bhp-hr</u> |
|-----------------------------------|--|--------------------------------------|-----------------------------------|
| 1.3                               | 15.5                                     | 6.0                                  | 0.6                               |

The following are the certification emission values for this engine family:

| <u>Hydrocarbons<br/>gm/bhp-hr</u> | <u>Carbon<br/>Monoxide<br/>gm/bhp-hr</u> | <u>Nitrogen Oxides<br/>gm/bhp-hr</u> | <u>Particulates<br/>gm/bhp-hr</u> |
|-----------------------------------|--|--------------------------------------|-----------------------------------|
| 1.2                               | 2.6                                      | 6.0                                  | 0.6                               |

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California this 22<sup>nd</sup> day of October, 1987.

  
K. D. Drachand, Chief  
Mobile Source Division

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family JCT0636DAA8 Code B

Liter (CID) 10.4 (636) Engine Type V8

Emission Control Sys. and (Special Features) EM (PCV)

| Engine Model     | Fuel Injection Pump Manufacturer Part Number | Injector Manufacturer Part Number | Maximum Rated hp at rpm | Fuel Rate mm <sup>3</sup> /stroke (lbs/hr) | Maximum Rated Torque at RPM | Fuel Rate mm <sup>3</sup> /stroke (lbs/hr) |
|------------------|--|-----------------------------------|-------------------------|--|-----------------------------|--|
| 3208 DINA Code B | *Caterpillar 9Y0485                          | Caterpillar 7W7024                | 165 @ 2200              | 63 (62.7)                                  | 470 @ 1400                  | 72 (45.1)                                  |

\*Basic Fuel Pump 7C8929 (Reference Page No. 16.05.01-0636DAA-1).

Date of Issue 17 SEP 87 Revisions:

## 1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Caterpillar Inc. Engine Family JCT0636DAA8 Code B  
 Evaporative Family NA Engine Type V8  
 Liters (CID) 10.4 (636)

## ABBREVIATIONS

Ignition System

CA -Centrifugal Advance  
 ECU -Electronic Control Unit  
 EI -Electronic Ignition  
 ESAC-Electronic Spark Advance  
 Control  
 VA -Vacuum Advance  
 VR -Vacuum Retard

Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV-nVenturi Carburetor

Exhaust Emissions  
Control System

AIP -Air Injection-Pump  
 AIV -Air Injection-Valve  
 DBC -Dual Bed Catalyst  
 EGR -Exhaust Gas  
 Recirculation  
 EIC -Electronic Injection  
 Control  
 EM -Engine Modification  
 OC -Oxidation Catalyst  
 OS -Oxygen Sensor  
 HOS -Heated Oxygen Sensor  
 SPL -Smoke Puff Limiter or  
 Throttle Delay  
 TOC -Trap Oxidizer,  
 Continual  
 TOP -Trap Oxidizer,  
 Periodical  
 TWC -Three-Way Catalyst  
 WUOC -Warm-Up Oxidation  
 Catalyst  
 WUTWC-Warm-Up Three-Way  
 Catalyst

Special Features

CCV -Combustion  
 Chamber Valve  
 CFI -Central Fuel  
 Injection or  
 Throttle Body  
 Injection  
 DID -Diesel  
 Injection-Direct  
 DIP -Diesel  
 Injection-  
 Prechamber  
 EFI -Electronic  
 Fuel Injection  
 IC -Intercooler or  
 Aftercooler  
 MFI -Mechanical Fuel  
 Injection  
 OBD -On-Board  
 Diagnostics  
 TC -Turbocharger  
 ATAAC-Air-to-Air  
 Aftercooled  
 PEEC -Programmable  
 Electronic  
 Engine Control  
 PCV -Positive  
 Crankcase  
 Ventilation

VEHICLE MODELS:

Engine: Front \_\_\_\_\_ Mid. \_\_\_\_\_ Rear \_\_\_\_\_  
 Drive: FWD \_\_\_\_\_ RWD \_\_\_\_\_ 4WD Full Time \_\_\_\_\_ 4WD Part Time \_\_\_\_\_