State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-45
Relating to Certification of New Motor Vehicle Heavy-Duty Engines

CATERPILLAR TRACTOR COMPANY

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 Tractor Company 1986 model-year diesel engines have shown compliance with the optional transient test procedure and standards and are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

Engine Family	Displacement Cubic Inches (Liters)		Exhaust Emission Control Systems (Special Features)
GCT0636FPA9	636	(10.4)	(Diesel Injection-Direct) (Turbocharger) (Aftercooler)

Engine models and codes are listed on attachments.

The following are the certification emission values for these engine families:

Engine Family	Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr
GCT0636FPA9	1.0	2.3	3.6

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 26th day of March 1986.

K. D. Drachand, Chief
Mobile Source Division

E.O. #A-13-45

1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer CATERPILLAR TRACTOR CO. Page 2

Engine Family GCT0636FPA9 CID(Liter)-Type 636 (10.4) V8

ECS (Special Features) (TC, AA/AC DID)

Engine Model	Fuel Injection Pump Manufacturer Part Number	Injector Manufacturer Part Number	Maximum Rated hp and rpm	Fuel Rate at Maximum hp mm^3/stroke	Label Identification
3208	CATERPILLAR 7C1645	CATERPILLAR 4W7016	300 @ 2800	95	
	TURBOCHARGER 7C2510 7C3856				
					7C0965-1 EMISSIONS LABEL
					7C0970 CARB LABEL

Date of Issue - 13 FEB 86

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1986 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Caterpillar Tractor Co. Executive Order No. A-13-45 Page 1

Engine Family GCT0636FPA9 Evaporative Family N/A

Engine CID (Liters) 636 (10.4) V8

ABBREVIATIONS

Ignition System

CA -Centrifugal Advance
EEC-Electronic Engine Control
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
VV -Variable Venturi

Exhaust Emissions Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
CL -Closed Loop
EGR-Exhaust Gas Recirculation
EM -Engine Modification
OC -Oxidation Catalyst System
TR -Thermal Reactor
TWC-Three Way Catalyst System

Special Features

CCV -Combustion Chamber Valve
CFI -Central Fuel Injection
DID -Diesel Injection-Direct
DIP -Diesel Injection-Prechamber
MFI -Mechanical Fuel Injection

TC -Turbocharged
AC -Aftercooled
AA/AC-Air-to-Air and Aftercooled

Engine Family	Engine Model
GCT0636FPA9	3208

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