

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-34
Relating to Certification of New Motor Vehicle 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 1982 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
CCT1099FPA4	1099 (18.0)	Engine Modification (Turbocharger, Aftercooler)
CCT0636DCAX	636 (10.4)	Exhaust Gas Recirculation
CCT0638FPAX	638 (10.5)	Engine Modification (Turbocharger, Aftercooler)
CCT0893FPAX	893 (14.6)	Engine Modification (Turbocharger, Aftercooler)
CCT0636EPAX	636 (10.4)	Engine Modification (Turbocharger)

Engine Models and Codes as listed on attachments.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the engine manufacturer furnish a decal with each engine sold or delivered to a vehicle manufacturer. The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following certification emission values:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Hydrocarbons + Nitrogen Oxides gm/bhp-hr</u>
CCT1099FPA4	0.1	1	4.8
CCT0636DCAX	0.6	6	5.4
CCT0638FPAX	0.2	2	5.4
CCT0893FPAX	0.4	2	4.5
CCT0636EPAX	0.6	3	5.7

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BE IT FURTHER RESOLVED: That Caterpillar Tractor Company has provided to the Executive Officer 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 and attachment.

Executed at El Monte, California, this 14th day of August, 1981.



K. D. Drachand, Chief
Mobile Source Control Division

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Engine Family — Evaporative Family N/A

Engine CID (Liters) —

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 EEC-Electronic Engine Control
 EI-Electronic Ignition
 ESAC-Electronic Spark Advance Control
 VA-Vacuum Advance
 VR-Vacuum Retard

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

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor
 VV-Variable Venturi

MFI-Mechanical Fuel Injection
 TC-Turbocharged

Engine Family

Engine Model

CCT1099FPA4

3408

CCT0636DCAX

3208

CCT0638FPAX

3306

CCT0893FPAX

3208--Code B

CCT0636EPAX

3406--Code C

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HEAVY-DUTY DIESEL ENGINESManufacturer Caterpillar Tractor CompanyPage 2Engine Family CCT1099FPA4CID(Liter)-Type 1099 (18.0) V8ECS(Special Features) EM (TC, AC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
3408	Caterpillar 9N3326	Caterpillar 7N9843	450 @ 2100	191	
			425 @ 2100	179	
			400 @ 2100	169	
			425 @ 1950	191	
			400 @ 1950	179	

Date of Issue - 081381

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Engine Family CCT0636DCAX

CID(Liter)-Type 636 (10.4) V8

ECS(Special Features) EGR

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
3208	Caterpillar 8N5642*	Caterpillar 1W5829	200 @ 2800	63	
			175 @ 2800	54	

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* Revisions- 10/22/81() Corrections fo fuel pump part numbers

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Tractor Company Page 4
 Engine Family CCT0638FPAX CID(Liter)-Type 638 (10.5) I6
 ECS(Special Features) EM (TC, AC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum $\frac{3\text{HP}}{\text{mm}^3/\text{stroke}}$	Label Ident.
3306	Caterpillar 6N5359*	Caterpillar 9N2845	270 @ 2200	148	
			270 @ 2100	154	
			245 @ 2200	134	
	Turbocharger 9N1289 9N1287				

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*Revisions-10/22/81:Corr'ns to fuel pump P/Ns

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Engine Family CCT0893FPAX

CID(Liter)-Type 893 (14.6) I6

ECS(Special Features) EM (TC, AC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm ³ /stroke	Label Ident.
3406 Code C	Caterpillar 9N6102 Turbocharger Airesearch 9N6301 9N6302 9N2702 9N2703	Caterpillar 9L6884	380 @ 2100	210	
			300 @ 2100	166	
			300 @ 1900	177	
			350* @ 1800	214*	

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Revised -10/24/81:9/17/81 Add'n of new derating

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 Engine Family CCT0636EPAX CID(Liter)-Type 636(10.4)
 ECS (Special Features) EM (TC)

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 CODE B	Fuel Injection Pump 1W6742	Stanadyne 1W5829	210 HP @ 2600	77 @ 2600	2W0360
	Turbocharger Airesearch 1W7271		200 HP @ 2600	73 @ 2600	

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