

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-52
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR INC.

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 Inc. 1989 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds.

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
KCT0636EPC2	10.4 (636)	Smoke Puff Limiter (Diesel Injection - Direct) (Turbocharger)
KCT0629FZD6	10.3 (629)	Electronic Injection Control (Diesel Injection - Direct) (Turbocharger) (Intercooler)

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
1.3	15.5	6.0	0.60

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

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>	<u>Particulates gm/bhp-hr</u>
KCT0636EPC2	0.8	2.2	5.4	0.43
KCT0629FZD6	0.3	4.0	5.9	0.37

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 Code of Regulations, 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 attachments.

Executed at El Monte, California this 26th day of September, 1988.



K. D. Drachand, Chief
Mobile Source Division

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINESHMDD

Manufacturer Caterpillar Inc. Engine Family KCT0629FZD6
 Liter (CID) 10.3L (629) Engine Type 16
 Emission Control Sys. and (Special Features) EM, EIC (IC, OBD, TC, DID)

Engine Model	Fuel Injection Pump Manufacturer Part Number	Injector Manufacturer Part Number	Maximum Rated hp at rpm	Fuel Rate mm ³ /stroke (lbs/hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/hr)
3176 Code C	*Caterpillar 9Y9920	Caterpillar 9Y6020	300 @ 2100	142 (100.3)	1150 @ 1300	216 (94.4)
			300 @ 2100	142 (100.3)	975 @ 1100	216 (80.0)
			300 @ 2000	148 (99.3)	1150 @ 1300	216 (94.4)
			300 @ 1900	154 (98.3)	1150 @ 1100	223 (82.5)
			300 @ 1800	161 (97.4)	1150 @ 1100	223 (82.5)
			285 @ 1800	154 (93.1)	1150 @ 1100	223 (82.5)
			285 @ 1700	161 (92.1)	1150 @ 1100	223 (82.5)
Code D	*Caterpillar 9Y9920	Caterpillar 9Y6020	325 @ 2100	147 (103.7)	1225 @ 1300	220 (96.3)
			325 @ 2000	153 (103.0)	1225 @ 1300	220 (96.3)
			325 @ 1900	161 (102.6)	1225 @ 1200	225 (90.8)
			310 @ 1800	161 (97.5)	1225 @ 1200	225 (90.8)

*Basic Fuel Pump GP. (Injector GP) 9Y9923 (Ref. 16.05.01-0629FZD-1)

Date of Issue 01 SEP 88 Revisions:

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINESMHDDManufacturer Caterpillar Inc. Engine Family KCT0636EPC2Liter (CID) 10.4L (636) Engine Type V8Emission Control Sys. and (Special Features) EM, SPL (DID, TC)

Engine Model	Fuel Injection Pump Manufacturer Part Number	Injector Manufacturer Part Number	Maximum Rated hp at rpm	Fuel Rate mm ³ /stroke (lbs/hr)	Maximum Rated Torque at RPM	Fuel Rate mm ³ /stroke (lbs/hr)
3208 Code A	*Caterpillar 7C8970 or 9Y4547	Caterpillar 4W7016	250 @ 2600	83 (96.3)	640 @ 1500	97 (65.4)
			225 @ 2600	75 (87.5)	600 @ 1400	87 (54.6)
			210 @ 2600	70 (81.5)	560 @ 1400	80 (50.2)

*Basic Fuel Pump 7C8930 (Ref. 16.05.01-0636EPC-1)

Date of Issue 01 SEP 88 Revisions: _____