State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-66
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. 1993 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

Engine Family	Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
PCT0629FZD1	10.3	(629)	Turbocharger Charge Air Cooler

Engine models and codes are listed on attachments.

The following are the certification emission standards for this engine family in grams per brake-horsepower-hour:

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	5.0	0.25

The following are the certification emission values for this engine family in grams per brake-horsepower-hour:

Engine Family	Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
PCT0629FZD1	0.2	3.1	4.6	0.20

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, Section 2035 et seq.).

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 22nd day of October, 1992.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

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1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY DIESEL ENGINES

1.15

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) , (TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	1004226 (3)	4P9310	325 @ 2100	149	
	1004226 (3)	4P9310	325 @ 1800	169	
(F)	1004226 (3)	4P9310	350 @ 1900	175	
	1004226 (3)	4P9310	350 @ 1800	183	
	1004226 (3)	4P9310	350 @ 1900	175	
	1004226 (3)	4P9310	350 @ 1800	183	

(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	1004226 (3)	4P9310	325 @ 2100	149	---
	1004226 (3)	4P9310	325 @ 1800	169	---
(F)	1004226 (3)	4P9310	350 @ 1900	175	---
	1004226 (3)	4P9310	350 @ 1800	183	---
	1004226 (3)	4P9310	350 @ 1900	175	---
	1004226 (3)	4P9310	350 @ 1800	183	---
(G)	4P0509 (1)	4P9310	360 @ 1800	191	---

(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176 (H)	612869 (2)	612880	275 @ 2100	130	---
	612869 (2)	612880	275 @ 2100	130	---
	612869 (2)	612880	275 @ 1800	145	---
(J)	612869 (2)	612880	300 @ 2100	141	---
	612869 (2)	612880	300 @ 2100	141	---
	612869 (2)	612880	300 @ 1800	157	---
	612869 (2)	612880	285 @ 1800	149	---
(K)	4P0509 (1)	4P9310	325 @ 2100	150	---
	4P0509 (1)	4P9310	325 @ 1800	171	---
(L)	4P0509 (1)	4P9310	350 @ 1900	176	---
	4P0509 (1)	4P9310	350 @ 1800	185	---
	4P0509 (1)	4P9310	350 @ 1900	176	---
	4P0509 (1)	4P9310	350 @ 1800	185	---

(1) Injector Group 1047897 (Reference Page No. 16.04-0629FZD-1 through 3)
(2) Injector Group 1047900 Revision No: 0 18 FEB 93

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	RESERVED				
(F)	RESERVED				
(G)	4P0509 (1)	4P9310	360 @ 1800	194	---

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(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0893FPB7

Liter (CID) 14.6 (893) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) EM, SPL (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3406 ATAAC (A)	4P1355(1)	1007558	310 @ 1800 300 @ 1800 285 @ 1600	173 168 177	--- --- ---
(B)	4P1387 (1)	1007551	350 @ 1800 330 @ 1800 330 @ 1600	189 176 201	--- --- ---
(C)	6I3060 (1)	1007551	350 @ 1950	179	---
(D)	4P1355 (1)	1007557	400 @ 2000 400 @ 1800	197 217	--- ---
(E)	1022896 (1)	1007556	425 @ 2000 415 @ 1800	213 222	--- ---
(F)	1022896 (1)	1007556	425 @ 2000 425 @ 1800	213 227	--- ---
(G)	4P1387 (1) 4P1387 (1)	7W7040 7W7040	310 @ 1800 300 @ 1800	175 170	--- ---
(H)	4P1371 (1) 4P2044 (1)	7W7040 7W7040	330 @ 1600 285 @ 1600	201 173	--- ---
(I)	RESERVED				
(J)	6I3060 (1)	7W7040	350 @ 1950	181	---
(K)	4P1387 (1) 4P1387 (1) 4P1387 (1)	7W7040	350 @ 1800	196	---

(1) Basic Fuel Pump 4P7681 (Reference Page No. 16.04-0893FPB-1 through 03).

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	RESERVED				
(F)	RESERVED				
(G)	4P0509 (1)	4P9310	360 @ 1800	194	---

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(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	RESERVED				
(F)	RESERVED				
(G)	4P0509 (4)	1062232	360 @ 1800	194	---

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(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020
(4) Basis Fuel Pump 1047900

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

Exhaust Emission Control Sys. and (Special Features) EN, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176 (H)	612869 (2)	1062254	275 @ 2100	130	---
	612869 (2)	1062254	275 @ 2100	130	---
	612869 (2)	1062254	275 @ 1800	145	---
(J)	612869 (2)	1062254	300 @ 2100	141	---
	612869 (2)	1062254	300 @ 2100	141	---
	612869 (2)	1062254	300 @ 1800	157	---
	612869 (2)	1062254	285 @ 1800	149	---
(K)	4P0509 (1)	1062232	325 @ 2100	150	---
	4P0509 (1)	1062232	325 @ 1800	171	---
(L)	4P0509 (1)	1062232	350 @ 1900	176	---
	4P0509 (1)	1062232	350 @ 1800	185	---
	4P0509 (1)	1062232	350 @ 1900	176	---
	4P0509 (1)	1062232	350 @ 1800	185	---

(1) Injector Group 1047897
(2) Injector Group 1047900

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176 (H)	612869 (2)	612880	275 @ 2100	130	---
	612869 (2)	612880	275 @ 2100	130	---
	612869 (2)	612880	275 @ 1800	145	---
(J)	612869 (2)	612880	300 @ 2100	141	---
	612869 (2)	612880	300 @ 2100	141	---
	612869 (2)	612880	300 @ 1800	157	---
	612869 (2)	612880	285 @ 1800	149	---
(K)	4P0509 (1)	4P9310	325 @ 2100	150	---
	4P0509 (1)	4P9310	325 @ 1800	171	---
(L)	4P0509 (1)	4P9310	350 @ 1900	176	---
	4P0509 (1)	4P9310	350 @ 1800	185	---
	4P0509 (1)	4P9310	350 @ 1900	176	---
	4P0509 (1)	4P9310	350 @ 1800	185	---

(1) Injector Group 1047897 (Reference Page No. 16.04-0629FZD-1 through 3)
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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176					
(A)	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 2100	128	---
	612869 (2)	612880	275 @ 1800	144	---
(B)	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 2100	140	---
	612869 (2)	612880	300 @ 1800	156	---
	612869 (2)	612880	285 @ 1800	148	---
(C)	4P0509 (1)	4P9310	325 @ 2100	146	---
	4P0509 (1)	4P9310	325 @ 1800	168	---
(D)	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
	4P0509 (1)	4P9310	350 @ 1900	173	---
	4P0509 (1)	4P9310	350 @ 1800	181	---
(E)	RESERVED				
(F)	RESERVED				
(G)	4P0509 (4)	1062232	360 @ 1800	194	---

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(1) Basic Fuel Pump 4P9510
(2) Basic Fuel Pump 612870
(3) Basic Fuel Pump 4P8020
(4) Basis Fuel Pump 1062233

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0629FZD1

Liter (CID) 10.3 (629) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. 16

Exhaust Emission Control Sys. and (Special Features) EM, (DI,TC,CAC)

(Use abbreviations per SAE J1930 JUN 88)

Engine Model (Eng. Code)	Fuel Pump MFR. P/N	Injector MFR. P/N	Rated HP @ RPM	Fuel Rate @ Rated HP mm^3/stroke	Part. Trap/ Catalyst MFR. P/N
3176 (H)	612869 (2)	1062254	275 @ 2100	130	---
	612869 (2)	1062254	275 @ 2100	130	---
	612869 (2)	1062254	275 @ 1800	145	---
(J)	612869 (2)	1062254	300 @ 2100	141	---
	612869 (2)	1062254	300 @ 2100	141	---
	612869 (2)	1062254	300 @ 1800	157	---
	612869 (2)	1062254	285 @ 1800	149	---
(K)	4P0509 (1)	1062232	325 @ 2100	150	---
	4P0509 (1)	1062232	325 @ 1800	171	---
(L)	4P0509 (1)	1062232	350 @ 1900	176	---
	4P0509 (1)	1062232	350 @ 1800	185	---
	4P0509 (1)	1062232	350 @ 1900	176	---
	4P0509 (1)	1062232	350 @ 1800	185	---

(1) Injector Group 1062255
(2) Injector Group 1062233

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