State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-71
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
PCT0893FZE3	14.6	(893)	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
PCT0893FZE3	0.1	1.1	4.8	0.12

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 17th day of February, 1993.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

E.O. # A-13-71

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0893FZE3

Liter (CID) 14.6 (893) Fuel Type #2 Diesel (.25% Sulfur) Engine Config. I6

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
3406E					
A	613024 (1)	1022016	375 @ 1800	206	---
B	4P5412 (2)	1026231	435 @ 1800	238	---

(1) Basic Fuel Injection F.P. 1022014 (Reference Page No. 16.04-0893FZE-1)
(2) Basic Fuel Injection F.P. 1026230 Revision No:

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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
3406E					
F	RESERVED				
G	1095038	1042239	355 @ 1800	191	---
			355 @ 1800	191	
H	1095038	1042239	375 @ 1800	204	---
			375 @ 1800	204	---
J	1095021	1042233	475 @ 1800	270	---
			475 @ 1800	266	---
			475 @ 1800	270	---
			475 @ 1800	266	---
K	1095021	1042233	455 @ 1800	250	---
			455 @ 1800	246	---
L	1095038	1042239	410 @ 1800	231	---
			410 @ 1800	227	---
			410 @ 1800	231	---
			410 @ 1800	227	---

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Caterpillar Inc. Engine Family PCT0893FZE3

Liter (CID) 14.6 (893) 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
3406E					
F	RESERVED				
G	1095038	1042239	355 @ 1800	191	---
			355 @ 1800	191	
H	1095038	1042239	375 @ 1800	204	---
			375 @ 1800	204	---
J	1095021	1042233	475 @ 1800	270	---
			475 @ 1800	266	---
			475 @ 1800	270	---
			475 @ 1800	266	---

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F	RESERVED				
G	1095038	1042239	355 @ 1800 355 @ 1800	191 191	---
H	1095038	1042239	375 @ 1800 375 @ 1800	204 204	--- ---

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HEAVY-DUTY DIESEL ENGINES

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(Use abbreviations per SAE J1930 JUN 88)

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3406E					
A	6I3024 (1)	1022016	375 @ 1800	206	---
			375 @ 1800	206	---
B	4P5412 (2)	1026231	435 @ 1800	238	---
C	6I3897 (3)	1034563	355 @ 1800	198	---
			355 @ 1800	198	---
D	4P5412 (2)	1026231	435 @ 1800	238	---
			435 @ 1800	238	---
			435 @ 1800	238	---
E	4P5412(4)	1042233	435 @ 1800	239	---
			435 @ 1800	239	---
			435 @ 1800	236	---
			435 @ 1800	236	---

(1) Basic Fuel Injection F.P. 1022014
(2) Basic Fuel Injection F.P. 1026230
(3) Basic Fuel Injection F.P. 1034562
(4) Basic Fuel Injection F.P. 1095021

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			435 @ 1800	238	---
			435 @ 1800	238	---

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(2) Basic Fuel Injection F.P. 1026230
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