State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-11
Relating to Certification of New Motor Vehicles

CATERPILLAR TRACTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by Sections 39018, 39600, 39601, 43101, and 43102 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 Caterpillar Tractor Company 1976 model year diesel-powered engines in heavy-duty motor vehicles are certified for the engine families described below:

Engine Family	Engine Size (CID)	Engine Model	Type
3	636	3208	V-8 - Natural Aspiration
4	638	3306	Inline 6 - Turbocharger
6	893	1693	Inline 6 - Turbocharger
7	893	1693	Inline 6 - Turbocharger-Aftercooler
9	893	3406	Inline 6 - Turbocharger
10	893	3406	Inline 6 - Turbocharger-Aftercooler
11	893	3406	Inline 6 - Turbocharger
12	1099	3408	V-8 - Turbocharger-Aftercooler
15	1099	3408	V-8 - Turbocharger

Section 43200, Part I, Division 26 of the California Health and Safety Code requires that the manufacturer affix a decal to the side window to the rear of the driver or, if there is no such window on the driver's side, to the windshield of the motor vehicle.

The following are the recommended values to be listed on the decal:

Engine Family	Hydrocarbon plus Nitrogen Dioxide grams/brake horsepower-hour	Carbon Monoxide grams/brake horsepower-hour
3	9	6
4	6	1
6	5	1
7	5	1
9	6	1
10	6	1
11	9	3
12	6	1
15	9	3

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executive Order A-3-11 dated December 12, 1975 is hereby rescinded.

Executed at El Monte, California, this 20 day of January, 1976.

G. C. Hass

G. C. Hass, Chief
Division of Vehicle Emissions Control

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 1

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
3	3208	636	NA	Caterpillar 9N1351 or 9N1352	Stanadyne 9L6969	210 HP @ 8800 194 HP @ 8800 178 HP @ 8800 175 HP @ 2800 150 HP @ 2800 185 HP @ 2800	16° BTDC Static	(1)65 (1)61 (1)56 (1)55 (1)47 (1)60	

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 2

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Tune-Up Specification Initial Injection Timing	Tune-Up Specification Fuel Rate	Remarks (Emission System)
4	3306	638	TC	Caterpillar 9N2304	Caterpillar 7S8722	250 HP @ 2200 225 HP @ 2200	12° BTDC Static	(1)139 (1)122	Air Fuel Ratio Control

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 3

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Tune-Up Specification Initial Injection Timing	Tune-Up Specification Fuel Rate	Remarks (Emission System)
6	1693	893	TC	Caterpillar 8S5174	Caterpillar 7S1059	325 HP @ 2100	8° BTDC Static	(1)189	Air Fuel Ratio Control

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 4

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
7	1693	893	TCA	Caterpillar 8S5174	Caterpillar 7S1059	425 HP @ 2100 380 HP @ 2100 375 HP @ 2100	8° BTDC Static	(1)235 (1)208 (1)207	Air Fuel Ratio Control

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 5

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
9	3406	893	TC	Caterpillar 9N588	Caterpillar 4N1251	325 HP @ 2100	10° BTDC Static	(1)190	Air Fuel Ratio Control
						300 HP @ 2100		(1)175	
						300 HP @ 1950		(1)184	
						280 HP @ 2100		(1)160	
						255 HP @ 2100		(1)147	
						255 HP @ 1950		(1)157	

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A. - Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 6

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Tune-Up Specification Initial Injection Timing	Tune-Up Specification Fuel Rate	Remarks (Emission System)
10	3406	893	TCA	Caterpillar 9N72	Caterpillar 4N1251	375 HP @ 2100 360 HP @ 2100 340 HP @ 2100 340 HP @ 1950	10° BTDC Static	(1)211 (1)197 (1)192 (1)200	Air Fuel Ratio Control

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 7

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
11	3406	893	TC	Caterpillar 9N798 or 9N2626	Caterpillar 9N6884	325 HP @ 2100	28° BTDC Static	(1)173	Air Fuel Ratio Control
						300 HP @ 2100		(1)161	
						300 HP @ 1950		(1)168	
				Caterpillar 9N2514 9N2515 or 9N2512 (R.C.76-11-1)		280 HP @ 2100		(1)151	
						280 HP @ 2100		(1)151	
						255 HP @ 2100		(1)138	
						255 HP @ 1950		(1)144	
						280 HP @ 1900		(1)162	
						255 HP @ 1900		(1)147	
						300 HP @ 1900		(1)161	
						305 HP @ 1900		(1)175	
						280 HP @ 1800		(1)167	

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

Amendment 7 (4/2/76)

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Tune-Up Specification Initial Injection Timing	Tune-Up Specification Fuel Rate	Remarks (Emission System)
11	3406	893	TC	Caterpillar 9N798 or 9N2626 Caterpillar 9N2514 9N2515 or 9N2512 (R.C.76-11-1)	Caterpillar 9N6884	275 HP @ 1950	28° BTDC Static	(1)155	Air Fuel Ratio Control

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 8

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
12	3408	1099	TCA	Caterpillar 9L6540	Caterpillar 4N1251	450 HP @ 2100	11° BTDC Static	(1)191	Air Fuel Ratio Control
						425 HP @ 2100		(1)179	
						400 HP @ 2100		(1)169	
				Caterpillar 9N2513 (R.C.76-12-1N)		425 HP @ 1950		(1)191	
						400 HP @ 1950		(1)179	

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A.- Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour

AIR RESOURCES BOARD
SUPPLEMENTAL INFORMATION
1976 MODEL YEAR
HEAVY-DUTY DIESEL ENGINES

Rev. 120176 (REF. Caterpillar 102776 letter)

MANUFACTURER: CATERPILLAR TRACTOR COMPANY

EXECUTIVE ORDER NO. A-13-11 PAGE NO. 9

Engine Family	Engine Models	Engine CID	Method of Aspiration *	Fuel Pump Mfgr. Part No.	Injectors Mfgr. Part No.	Tune-Up Specification Max Rated H.P. and RPM	Initial Injection Timing	Fuel Rate	Remarks (Emission System)
15	3408	1099	TC	Caterpillar 9L6534	Caterpillar 9L6884	400 HP @ 2100	28° BTDC Static	(1)164	Air Fuel Ratio Control
						360 HP @ 2100		(1)150	
				Caterpillar 9N2902 (R.C.76-15-1N)		375 HP @ 1950		(1)160	
						370 HP @ 1900		(1)160	
						380 HP @ 2100		(1)156	

Abbreviations:

*N.A. - Natural Aspiration
T.C. - Turbocharged.
T.C.A. - Turbocharged and After-cooled.

Fuel Rate at Maximum Horsepower
(1) mm^3/stroke
(2) lbs/hour