

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-105

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-45-9;

IT IS ORDERED AND RESOLVED: That the following 1997 model-year Caterpillar, Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control</u> <u>Systems and Special Features</u>
VCP403DZDAAA	6.6	(403)	Turbocharger Charge Air Cooler Smoke Puff Limiter Oxidation Catalytic Converter

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.10

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

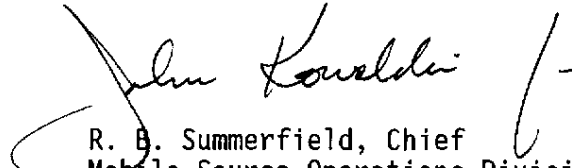
<u>Engine</u> <u>Family</u>	<u>Hydrocarbons</u>	<u>Carbon</u> <u>Monoxide</u>	<u>Nitrogen</u> <u>Oxides</u>	<u>Particulates</u>
VCP403DZDAAA	0.2	1.0	4.4	0.07

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 16<sup>th</sup> day of December 1996.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer Caterpillar Inc. Engine Family VCP403DZDAAA  
 Displacement 6.6 / Liters 403 / Cubic Inches  
 Maximum Rated Power: 215 HP @ 2600 RPM Engine Configuration: 16  
 Ignition: Compression X Compression with Glow Plug \_\_\_\_\_ Spark \_\_\_\_\_  
 Fuel Type (s): Dedicated X Flex-Fuel \_\_\_\_\_ Dual-Fuel \_\_\_\_\_ Diesel X M100 \_\_\_\_\_ M85 \_\_\_\_\_  
 CNG \_\_\_\_\_ LNG \_\_\_\_\_ LPG \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Diesel Cert Fuel: 13CCR 2282 \_\_\_\_\_ 40 CFR 86.1313-90 \_\_\_\_\_ 40 CFR 86.1313-94 X  
 Primary Intended Service Class: LHD \_\_\_\_\_ MHD X HHD \_\_\_\_\_ Urban Bus \_\_\_\_\_  
 Exhaust ECS (incl. MFI, TC, CAC) CAC, OC, SPL, TC

(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm <sup>3</sup> /stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
3116 - 1	215 @ 2600	96 (84.3)	1018673	---	---	(1)
3116 - 2	200 @ 2600	92 (80.2)	1018673			
3116 - 3	195 @ 2600	91 (79.5)	1018673			
3116 - 4	185 @ 2600	85 (74.1)	1018673			
3116 - 5	170 @ 2600	79 (68.9)	1018673			

(1) Catalytic Converter Part Nos.

1030632	1044819	1144315	1230221
1030633	1044821	1173161	1261458
1030634	1044823	1173162	1288616
1030635	1044826	1173265	

ISSUE DATE	09 SEPT 96						
REVISION NO.							
REVISION DATE							