State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-115

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 Caterpilar. Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

<u>Fuel Type</u> : Diese		Displacement (Cubic Inches)	Exhaust Emission Control Systems and Special Features
Engine Family VCP729EZDARX	<u>Liters</u> 12.0	(729)	Turbocharger Charge Air Cooler Engine Control Module

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:

engine family	in grams per		
J	Carbon M <u>onoxide</u>	Nitrogen <u>Oxides</u>	<u>Particulates</u>
<u>Hydrocarbons</u>		5.0	0.10
1.3	15.5	- avhaust	emission values fo

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

family in grams	per brake norseponer		Nitrogen		د د د
Engine		Carbon M <u>onoxide</u>	<u>Oxides</u>	Pari	. i tes
<u>Family</u>	<u>Hydrocarbons</u>	1.0	4.3		
VCP729EZDARX	0.1	1		+ho matir	rer

BE IT FURTHER RESOLVED: That for the listed engine models, the many rer be it runtiment resolved. That for the fisted engine moders, the materials to demonstrate certification compliance has submitted the materials to demonstrate certification. Board's emission control system warranty provisions (Title 13, Cal Code of Regulations, Section 2035 et seq.).

CATERPILLAR, INC.

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 Executed at El Monte, California this ________day of December 1996. attachments.

Ilm Kowsleli I-R. B. Summerfield, Chief Mobile Source Operations Division

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

HEAV	Y-DUTY DIESES 5	VCP729EZDARX
Manufacturer 12	Compression with Glow Plug Flex-Fuel Dual-Fuel D CNG LNG LPG Other	Cubic Incres RPM Engine Configuration: 16 Spark Diesel X M100 M85 r (specify) 40 CFR 86.1313.9.4 X
Diesel Cert Fuel: 13CCR 2282 Primary Intended Service Class: Exhaust ECS (incl. MFI, TC, CAC	40 CFR 86.1313-90 LHD MHD	HHD X Urban Bus

Engine Model	Rated HP @ RPM	Fuel Rate @ Rated HP mm³/stroke	Fuel Pump & Injector Part No.	ECM/PCM Part No.	Valve Part No	Catalytic Converter Part No.
C-12 - 1 C-12 - 2 C-12 - 3 C-12 - 4 C-12 - 5 C-12 - 6 C-12 - 7 C-12 - 8 C-12 - 9 C-12 - 10 C-12 - 11 C-12 - 12	430 @ 1800 425 @ 1800 424 @ 1800 410 @ 1800 410 @ 1800 410 @ 1800 405 @ 1800 380 @ 1800 380 @ 1800 375 @ 1800 355 @ 1800 355 @ 1800	(lbs/hr) 227 (137.4) 226 (136.9) 226 (136.9) 220 (133.2) 220 (133.2) 208 (125.7) 213 (128.7) 197 (119.4) 192 (116.1) 194 (117.6) 183 (110.6) 183 (110.6)	1372500 1165425 1165425 1165425 1165425 1372500 1165425 1372500 1165425 1165425 1165425	1377484 1283685 1309420 1283668 1283672 1377470 1283679 1220788 1377467 1283675 1249466 1261421		

ISSUE DATE REVISION NO. REVISION DATE	
REVISION DATE	