

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-117

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 Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VCP893EZDARX	14.6 (893)	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:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen 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:

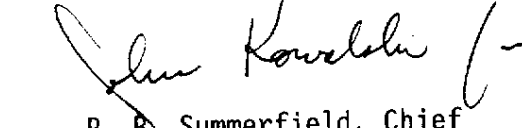
<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
VCP893EZDARX	0.3	1.3	4.5	0.09

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 16th 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	VCP893EZDARX
Displacement	14.6 /	Liters	893 /
Maximum Rated Power:	550	HP @	1800
Ignition: Compression	X	Compression with Glow Plug	Spark
Fuel Type (s): Dedicated	X	Flex-Fuel	Dual-Fuel
		CNG	LNG
		LPG	Other (specify)
Diesel Cert Fuel: 13CCR 2282	40 CFR 86.1313-90		40 CFR 86.1313-94
Primary Intended Service Class:	LHD	MHD	HHD
Exhaust ECS (incl. MFI, TC, CAC)	CAC, ECM, TC		Urban Bus

(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm ³ /stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
3406E - 1	550 @ 1800	292 (176.7)	1171149	1268384	---	---
3406E - 2	550 @ 1800	292 (176.7)	1171149	1269516	---	---
3406E - 3	500 @ 1800	270 (163.4)	1171149	1164359	---	---
3406E - 4	500 @ 1800	265 (160.5)	1171149	1303204	---	---
3406E - 5	500 @ 1800	262 (158.5)	1171149	1303201	---	---
3406E - 6	475 @ 1800	263 (159.1)	1171149	1356047	---	---
3406E - 7	475 @ 1800	260 (157.0)	1171149	1356041	---	---
3406E - 8	475 @ 1800	253 (153.4)	1171149	1286576	---	---
3406E - 9	475 @ 1800	250 (151.3)	1171149	1286572	---	---
3406E - 10	455 @ 1800	256 (154.9)	1171149	1349887	---	---
3406E - 11	455 @ 1800	252 (152.8)	1171149	1349884	---	---
3406E - 12	455 @ 1800	246 (149.2)	1170484	1303196	---	---
3406E - 13	455 @ 1800	243 (147.1)	1170484	1303193	---	---
3406E - 14	435 @ 1800	241 (145.8)	1170484	1324395	---	---
3406E - 15	435 @ 1800	241 (145.8)	1170484	1285599	---	---
3406E - 16	435 @ 1800	236 (142.7)	1170484	1303171	---	---
3406E - 17	435 @ 1800	232 (140.6)	1170484	1303167	---	---
3406E - 18	410 @ 1800	225 (136.4)	1170483	1307146	---	---

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