State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-94

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 Caterpillar, Inc. 1996 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Compressed Natural Gas (CNG only)

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
TCP638FZKAEK	10.5	638	Engine Control Module Turbocharger Charge Air Cooler Oxygen Sensor Three Way Catalytic Converter Warm Up Three Way 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:

Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.2	15.5	4.0	0.05

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

Engine Family	Non-Methane Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
TCP638FZKAEK	0.7	6.3	0.7	0.02

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.).

BE IT FURTHER RESOLVED: That the listed engine family is certified for use in urban buses.

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 12th day of October 1995.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

E.O. # A-13-94

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer: Caterpillar Inc. Engine Family: TCP638FZKAEK

Displacement: 10.5 / Liters: 638 / Cubic Inches

Maximum Rated Power: 250 HP @ 2100 RPM Engine Configuration: 16

Ignition: Compression ____ Compression with Glow Plug ____ Spark X

Fuel Type (s): Dedicated ____ Flex-Fuel ____ Dual-Fuel ____ Diesel ____ M100 ____ M85 ____

CNG X 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 ____ Urban Bus X

Exhaust ECS (incl. MFI, TC, CAC) CAC, TC, ECM, TWC, O2S, WU-TWC

(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP ft³/min (lbs/hr)	Carburetor Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
G3306	250 @ 2100	34.5 (87.8)	101-6932	101-6939	---	108-5436 108-5439 117-8857 (PRE-CAT)

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