State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-24
Relating to Certification of New Motor Vehicle Engines

CATERPILLAR TRACTOR COMPANY

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-45-3;

IT IS ORDERED AND RESOLVED: That Caterpillar Tractor Company 1978 model-year diesel-powered engines in heavy-duty motor vehicles with manufacturer's gross vehicle weight rating greater than 8500 pounds are certified for the engine family, codes and models described below:

Family	Engine Size (CID)	Type
13	636	V-8-Natural Aspiration Exhaust Gas Recirculation

Models and Engine Codes as listed in attachment.

Section 43200, Part 5, 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 decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following recommended values:

Engine Family	HC + NOx gm/bhp-hr	CO gm/bhp-hr	HC gm/bhp-hr	NOx gm/bhp-hr
13	Not applicable	5	0.5	4.7

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.

Executed at El Monte, California, this 23 day of November, 1977.

G. C. Hass

G. C. Hass, Chief
Vehicle Emissions Control Division

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

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Engine Family 13 Engine (CID) 636

Emission Control Systems EGR Type V8-NA

Engine Model	Fuel Injection Pump Mfgr. Part Number	Injector Mfg. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP	Basic Initial Timing
3208	Caterpillar Tractor 9N2431	Stanadyne 9N3299 9N3979*	200 HP @ 2800 RPM	63 mm^3/stroke 79.6 lbs/hr	16° BTDC (static)
		9N3979*	175 HP @ 2800 RPM**	54 mm^3/stroke 68.2 lb/hr**	

Comments

Date of Issue 11-23-77

* R.C. #78-13-3R (4-10-78) KDD letter 8-16-78
** Derated engine approved by EPA 7-11-78

Abbreviations

Type
NA - Natural Aspiration
TC - Turbocharged
TCA- Turbocharged and Aftercooled

Emission Control Systems
AC - Aftercooler
EGR - Exhaust Gas Recirculation
TD - Throttle Delay