State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-21 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 modelyear 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)	<u>Type</u>	
9	893	Inline six-Turbocharged	

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	HC + NOx	CO	HC	NOx
Family	gm/bhp-hr	gm/bhp-hr	gm/bhp-hr	gm/bhp-hr
9	Not applicable	1	0.2	5.8

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 day of November, 1977.

S. C. Janer G. C. Hass, Chief

Vehicle Emissions Control Division

8/29/2007

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

Emission Contro	ol Systems		ype <u>16-TC</u>		
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
3406	Caterpillar 9N588	Caterpillar 4N1251	325 HP @ 2100 RPM 300 HP @ 1950 RPM 280 HP @ 2100 RPM 255 HP @ 1950 RPM	190 mm ³ /stroke 135 lbs/hour 184 mm ³ /stroke 121.5 lbs/hour 160 mm ³ /stroke 114 lbs/hour 157 mm ³ /stroke 103.5 lbs/hour	static

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Date of Issue

NA - Natural Aspiration

TC - Turbocharged

TCA- Turbocharged and Aftercooled

Emission Control Systems AC - Aftercooler

EGR - Exhaust Gas Recirculation

TD - Throttle Delay