State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER R-6-1
Relating to Certification of New Noncomplying Heavy-Duty Motor Vehicle Engines

GENERAL MOTORS CORPORATION

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 the following noncomplying General Motors Corporation 1988 model-year gasoline engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) of 8,501 to 14,000 pounds:

Engine Family	Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems (Special Features)
JGM05.7AGN3	5.7	(350)	Air Injection - Pump Exhaust Gas Recirculation
JGM07.4AGN3	7.4	(454)	Air Injection - Pump Exhaust Gas Recirculation

Engine models and codes are listed on attachments.

The following are the emission standards for hydrocarbons and nitrogen oxides and the upper limit for carbon monoxide emissions for these engine families:

Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr
1.1	37.1	6.0

The following are the certification emission values for these engine families:

Engine Family	Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/bhp-hr
JGM05.7AGN3	0.6	25.3	4.6
JGM07.4AGN3	0.9	24.9	5.3

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

BE IT FURTHER RESOLVED: This Certification is conditioned upon the manufacturer's establishment of a carbon monoxide emissions compliance level at or below the applicable upper limit and paying resultant nonconformance penalties as prescribed in the California Exhaust Emission Standards and Test Procedures for 1987 and Subsequent Model Heavy-Duty Gasoline-Powered Engines and Vehicles and the incorporated 40 CFR 86 Subpart L. If the carbon monoxide emissions compliance level exceeds the applicable upper limit, this Executive Order will be suspended pursuant to the California Exhaust Emission Standards and Test Procedures for 1987 and Subsequent Model Heavy-Duty Gasoline-Powered Engines and Vehicles and the incorporated 40 CFR 86.1114-87(e).

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 14th day of June, 1988.

K. D. Drachand, Chief
Mobile Source Division

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

GASOLINE HEAVY DUTY ENGINES

Manufacturer: General Motors Corporation Executive Order No.: R-6-1

Engine Families: JGM05.7AGN3
JGM07.4AGN3

Engine CID (Liters) - Type: 350 (5.7), 454 (7.4)

ABBREVIATIONS:

Ignition System
CA-Centrifugal Advance
EEC-Electronic Engine Control
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard
ECU-Electronic Control Unit

Fuel System
CFI, CL, DID, DIP, EFI, MFI
nV-nVenturi Carburetor

GM Abbreviations
A/C-Air Conditioning
FC-Forward Control
HD-Heavy Duty
CID-Cubic Inch Displacement
TBI-Throttle Body Injection
RWD-Rear Wheel Drive
4x2-Two Wheel Drive
4x4-Four Wheel Drive
6x4-Four Wheel Drive

Exhaust Emission Cont System
AIP-Air Injection Pump
AIV-Air Injection Valve
CL-Closed Loop
DBC-Dual Bed Catalyst
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control
EM-Engine Modification
OC-Oxidation Catalyst System
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TR-Thermal Reactor
TWC-Three-Way Catalyst System

Special Features
CCV-Combustion Chamber Valve
CFI-Central Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EFI-Electronic Fuel Injection
IC-Intercooler/Aftercooler
MFI-Mechanical Fuel Injection
TC-Turbocharger

Engine: Front (all Vehicles)

Drive: See Chassis Type (Page 2), all 4x2 vehicles are RWD.

ISSUED: 11-09-87 REV. NO.:

0410U

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY GASOLINE ENGINES

Manufacturer: General Motors Corporation Executive Order No.: R-6-1

Engine Family: JGM05.7AGN3 Exhaust Emission Control System: AIP/EGR

Liter (CID): 5.7 (350)

ENG MODEL (ENG CODE)	MAXIMUM RATED HP AT RPM	RATED TORQUE AT RPM	IGNITION SYS (DISTRIBUTOR) MFR PART NO.	FUEL SYSTEM (CARBURETOR) MFR PART NO.	EGR VALVE MFR PART NO.	CATALYST MFR PART NO.
LT9 (1)	185 @ 3600	285 @ 2400	Delco Remy 1103606	Rochester 17088040, 17088041	17084724, 17085920	NA

ISSUED: 11-09-87 REV. NO.:

0410U

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

HEAVY-DUTY GASOLINE ENGINES

Manufacturer: General Motors Corporation Executive Order No.: R-6-1

Engine Family: JGM07.4AGN3 Exhaust Emission Control System: AIP/EGR

Liter (CID): 7.4L (454)

ENG MODEL (ENG CODE)	MAXIMUM RATED HP AT RPM	RATED TORQUE AT RPM	IGNITION SYS (DISTRIBUTOR) MFR PART NO.	FUEL SYSTEM (CARBURETOR) MFR PART NO.	EGR VALVE MFR PART NO.	CATALYST MFR PART NO.
LE8 (1) 454 CID	230 @ 3800	370 @ 2800	Delco Remy 1103717	Rochester 17085212, 17085004	17085919	NA

ISSUED: 11-09-87 REV. NO.:

0410U