State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-442
Relating to Certification of New Motor Vehicles

GENERAL MOTORS CORPORATION

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
K3G2.8T5XAS6	2.8 (173)	Air Injection - Pump Exhaust Gas Recirculation Oxygen Sensor Three-Way Catalyst (Electronic Port Fuel Injection) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

Loaded Vehicle Weight(lbs.)	Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
0-3750	0.39	9.0	1.0
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

Loaded Vehicle Weight(lbs.)	Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
0-3750	0.25	5.8	0.4
3751-5750	0.24	7.4	0.3

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 lbs. loaded vehicle weight class are certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifing the listed models in the 0-3750 lbs. loaded vehicle weight class to the optional NOx standard by providing evidence that there are sufficient projected sales of vehicles certifying to the primary NOx emission standard, or is allowed a delay in implementation under small volume manufacturer provisions, or is allowed a delay in implementation under the "in lieu" standards, or is certifying passenger cars weighing more than 5250 lbs. loaded vehicle weight.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.).

Vehicles 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 attachment.

Executed at El Monte, California this 24th day of February, 1988.

K. D. Drachand, Chief
Mobile Source Division

17-K3G2.8T5XAS6-1A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Executive Order No.: A-6-442

Engine Family: K3G2.8T5XAS6

Evaporative Family: KBO-3C

Engine Displacement Liters (Cubic Inches) - Type: 2.8 (173)

Exhaust Emission Control System (Special Features): AIP/EGR/OS/TWC(EFI/OBD)

ABBREVIATIONS:

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

Fuel System
CFI,DID,DIP,EPFI,HOS,MPFI,OS,SFI
nV-nVenturi Carburetor
VV-Variable Venturi

Other Abbreviations
A/C-Air Conditioning
CID Cubic Inch Displacement
ETW-Equivalent Test Weight
FC-Forward Control
HD-Heavy Duty
RI-Rail & Injector
RWD-Rear Wheel Drive
FWD-Front Wheel Drive
4WD-Four Wheel Drive
TBI-Throttle Body Injection
4x2-Two Wheel Drive
4x4-Four Wheel Drive
6x4-Four Wheel Drive

Exhaust Emission Control System
AIP-Air Injection Pump
AIV-Air Injection Valve
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control (Diesel Only)
EM-Engine Modification
DBC-Dual Bed Catalyst
HOS-Heated Oxygen Sensor
OC-Oxidation Catalyst
OS-Oxygen Sensor
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
TWC-Three-Way Catalyst
WUOC-Warm-up Oxidation Catalyst
WUTWC-Warm-up Three-Way Catalyst

Special Features
CCV-Combustion Chamber Valve
CFI-Central Fuel Injection or Throttle Body Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EPFI-Electronic Port Fuel Injection
IC-Intercooler/Aftercooler
MPFI-Mechanical Port Fuel Injection
OBD-On-Board Diagnostics
SC-Supercharger
SFI-Sequential Fuel Injection
TC-Turbocharger

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17-K3G2.8T5XAS6-Index 1A

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SUPPLEMENTAL DATA SHEETS AND CERTIFICATION REVIEW SHEET

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17-K3G2.8T5XAS6-4A	001	Supplemental Data Sheet
17-K3G2.8T5XAS6-5A	001	Supplemental Data Sheet
17-K3G2.8T5XAS6-6A	01-28-88	Certification Review Sheet

NOTES:

(1) See page one for abbreviations and family information.

(2) Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment.

(3) If two test weights are listed, the lower weight will be used for testing.

(4) Letter derivative codes are the same as corresponding numeric codes except as indicated.

17-K3G2.8T5XAS6-2A

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Executive Order No. A-6-442

VEHICLE MODELS: C C 1 0 7 0 3 + E 6 3 (EXAMPLE)

Digit 1
Selling Division

C-Chevrolet
T-GMC Truck

Digit 2
Chassis Type

C-Conventional 4x2
G-Forward Control 4x2 (Body Frame Integral)
K-Conventional 4x4
M-Forward Control 4x2 (Body Frame Integral)
P-Forward Control 4x2 (Conventional)
R-Conventional 4x2
[illegible]-S10/15 4x2
[illegible]-S10/15 4x4
V-Conventional 4x4

Digit 3
Series/GVWR Range

1-3400 to 7300 lbs
2-6400 to 8600 lbs
3-7400 to 14500 lbs

Digits 4 & 5
CA Dimension/Model Type

05-Blazer/Jimmy, Step-Van/Valve Van
06-S10/15
07-42"/Pickup, Chassis-Cab
08-FC or Motor Home Chassis, Step-Van/Value Van
09-56"/Suburban, Chassis-Cab, Pickup
10-60" FC Chassis, Chevy Van/Vandura, Sportvan/Rally, Chassis-Cab, Step-Van/Value Van
11-Motor Home Chassis
13-Chevy Van/Vandura, Sportvan/Rally, Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan
14-84"/FC or Motor Home, Chassis, Chassis-Cab, Step-Van/Value Van
16-Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan
18-Motor Home Chassis

Digits 6 & 7
Cab or Body Style

03-Conventional Cab (S10/15, C-K, R-V Models)
-Cutaway Van/Vandura Special, Hi-Cube Van/Magnavan (G Models)
05-Chevy Van/Vandura
06-Suburban/Sportvan/Rally with Panel Rear Doors
16-Blazer/Jimmy
32-Motor Home Chassis
42-Forward Control Chassis, Step-Van/Value Van
43-Bonus Cab, Crew Cab
53-Extended Cab (S10/15 Models)

Digits 8, 9 & 10
Body Ordering Code

ZW9-Base Body
C6P-HD Chassis; 8600 lb GVWR
C7C-HD Chassis; 10500 lb GVWR
C7E-HD Chassis; 11000 lb GVWR
E31-Hi-Cube Van (10' Steel 96" Wide)
E32-Step-Van/Value Van (Steel)
E33-Step-Van/Value Van (Aluminum)
E34-Hi-Cube Van (10' Steel 82" Wide)
E36-Hi-Cube Van/Magnavan (10'Aluminum)
E37-Utility Box (Aluminum)
E38-Hi-Cube Van/Magnavan (12' Steel)
E39-Hi-Cube Van/Magnavan (12' Aluminum)
E62-Stepside/Fenderside Pickup
E63-Fleetwide/Wideside Pickup

Engine Location: Front (All Vehicles)
Drive Axle Location: See Chassis Type; All 4x2 Vehicles are RWD

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS___ LIGHT DUTY TRUCKS_X_ MEDIUM DUTY VEHICLES___ GAS_X_ DIESEL___

Liters (CID): 2.8 (173) Type: V-6 Executive Order No. A-6-442

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
21	CS10603+E63	M5	3250	16069231	17087087	17086720	25103262,
	CS10803+E63		3250				25104271
	CS10653+E63		3375				
22	CS10603+E63		3250				
	CS10803+E63		3375				
	CS10653+E63		3375				
23	CS10516		3500	16069241	17087087:S Trk		
	CT10603+E63		3625		17087088:T Trk		
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		3875				
24	CS10516		3625				
	CT10603+E63		3750				
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		4000				
25	CS10603+E63	A4	3250	16082891	17087086		
	CS10803+E63		3375				
	CS10653+E63		3375				
	CS10516		3625				

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002

PW012-5

17-K3G2.8T5XAS6-4A

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS___ LIGHT DUTY TRUCKS_X_ MEDIUM DUTY VEHICLES___ GAS_X_ DIESEL___

Liters (CID): 2.8 (173) Type: V-6 Executive Order No. A-6-442

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
26	CS10603+E63	A4	3250	16082891	17087086	17086720	25103262
	CS10803+E63		3375				
	CS10653+E63		3500				
	CS10516		3625				
27	CS10603+E63		3250	16082901	17087086		
	CS10803+E63		3375				
	CS10653+E63		3375				
	CT10516		3625				
28	CT10603+E63		3250				
	CT10803+E63		3375				
	CT10653+E63		3500				
	CS10516		3625				
29	CT10603+E63		3750	16082911	17087088		
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		3875				
30	CT10603+E63	A4	3750				
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		3875				

Comments: See page one for abbreviations and family information. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS___ LIGHT DUTY TRUCKS_X_ MEDIUM DUTY VEHICLES___ GAS_X_ DIESEL___

Liters (CID): 2.8 (173) Type: V-6 Executive Order No. A-6-442

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
31	CT10603+E63	A4	3750	16082921	17087088	17086720	25103262
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		3875				
32	CT10603+E63		3750				
	CT10803+E63		3750				
	CT10653+E63		3875				
	CT10516		3875				
33	CS10803+ZW9		3875	16069191	17087086		
34	CS10803+ZW9		3875				

Comments: See page one for abbreviations and family information. Please refer to manufacturer's HP lists for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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