

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-446  
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 medium-duty vehicles:

<u>Engine Family</u>	<u>Displacement</u> <u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems</u> <u>(Special Features)</u>
KGC5.7T5HACX	5.7	(350)	Air Injection - Pump Exhaust Gas Recirculation Oxygen Sensor Oxidation Catalyst Three-Way Catalyst (Central 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:

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751-5750	0.50	9.0	1.0
5751 & larger	0.60	9.0	1.5

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

<u>Loaded Vehicle</u> <u>Weight(lbs.)</u>	<u>Hydrocarbons</u> <u>(Grams per Mile)</u>	<u>Carbon Monoxide</u> <u>(Grams per Mile)</u>	<u>Nitrogen Oxides</u> <u>(Grams per Mile)</u>
3751-5750	0.39	4.6	0.4
5751 & larger	0.32	5.5	1.3

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 18<sup>th</sup> day of February, 1988.

  
K. D. Drachand, Chief  
Mobile Source Division

17-KGC5.7T5HACX-1A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS AND MEDIUM DUTY VEHICLES

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Evaporative Family: KFO-3G

Engine Displacement Liters (Cubic Inches) - Type: 5.7 (350) V-8

ABBREVIATIONS:

Ignition System

CA-Centrifugal Advance  
EIC-Electronic Injection Control  
EI-Electronic Ignition  
ESAC-Electronic Spark Advance Control  
VA-Vacuum Advance  
VR-Vacuum Retard

Fuel System

CI-CL, DID, DIP, EFI, MFI  
nV-nVenturi Carburetor

GM Abbreviations

A/C-Air Conditioning  
FC-Forward Control  
HD-Heavy Duty  
CI-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  
EGR-Exhaust Gas Recirculation  
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  
TR-Thermal Reactor  
TWC-Three-Way Catalyst  
WUOC-Warmup Oxidation Catalyst  
WUTWC-Warmup Three-Way Catalyst

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  
OBD-On Board Diagnostics  
TC-Turbocharger

Engine: Front (all Vehicles)

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

ISSUED: 01-27-88

REV. NO.:

U184V/

17-KGC5.7T5HACX-2A

(For CARB Use Only)  
(1989)

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

Manufacturer: General Motors Corporation  
Engine Family: KGC5.7T5HACX  
Engine Displacement Liters (Cubic Inches) - Type: 5.7 (350) V-8

Executive Order No.: A-6-446  
Evaporative Family: KFO-3G

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)  
-Forward Control 4x2  
(Conventional)  
R-Conventional 4x2  
S-S10/15 4x2  
T-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

ISSUED: 01-27-88

REV. NO.:

0184V/

17-KGC5.7T5HACX-3A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS \_\_\_\_\_ MEDIUM DUTY VEHICLES  X  GAS \_\_\_\_\_ DIESEL \_\_\_\_\_

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS  
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	CG31305 CG31306	A-3	5250 5500	16084691	17087005	17087187	25101074* 25100464**
2	CG31305 CG31306		5250 5500				

\* Front  
\* Rear

Comments: See page one for abbreviations and evaporative emission family identification. 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.

ISSUED: 01-27-88

REV. NO.:

J184V/

17-KGC5.7T5HACX-4A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS \_\_\_\_\_ MEDIUM DUTY VEHICLES  X  GAS \_\_\_\_\_ DIESEL \_\_\_\_\_

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS  
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
3	CG31303+E31	A-3	6000	16084501	17087005	17087187	25101074*
	CG31303+E34						25100464**
	CG31303+E36						
	CG31603+E30		6500				
	CG31603+E38						
	CG31603+E39		6000				
	CG31303+ZW9		8000				
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						

\* Front

\*\* Rear

Comments: See page one for abbreviations and evaporative emission family identification. 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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REV. NO.:

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17-KGC5.7T5HACX-5A

(For CARB Use Only)

(1989)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS \_\_\_\_\_ MEDIUM DUTY VEHICLES  X  GAS \_\_\_\_\_ DIESEL \_\_\_\_\_

Manufacturer: General Motors Corporation

Executive Order No.: A-6-446

Engine Family: KGC5.7T5HACX

Exhaust Emission Control System: AIP/EGR/TWC/OC/OS  
(CFI)(OBD)

Liter (CI): 5.7 (350)

Engine Type: V-8

ENG CODE	VEH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
4	CG31303+E34	A-3	6000	16084501	17087005	17087187	25101074*
	CG31303+E36						25100464**
	CG31603+E30		6500				
	CG31603+E38						
	CG31603+E39		6000				
	CG31303+ZW9		8000				
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						

\* Front

\*\* Rear

Comments: See page one for abbreviations and evaporative emission family identification. 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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