(Page 1 of 2)

State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-381 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 1987 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered medium-duty vehicles:

Engine Family	Displacen Cubic Inches		Exhaust Emission Control Systems (Special Features)
H3G7.4T5FCY2 (HGC7.4T5HAC3)	454	(7.4)	Air Injection Pump Exhaust Gas Recirculation Three-Way Catalyst Oxidation Catalyst Oxygen Sensor (Central Fuel Injection)

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

The following are the emission standards for this engine family:

Equivalent Inertia <u>Weight</u>	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per mile
4000-5999	0.50	9.0	1.0
6000 & larger	0.60	9.0	1.5

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

Equivalent Inertia Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
4000-5999	0.14	4. 2	0.7
6000 & Larger	0.13	2.0	0.8

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 1981 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 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 ______ day of August, 1986.

K. D. Drachand, Chief Mobile Source Division

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2

Evaporative Family: 7F0-3H

(H3C7.4T5HAC3)

Engine CID (Liters) - Type: 454 (7.4) V-8

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

EGR-Exhaust Gas Recirculation

EM-Engine Modification

OC-Oxidation Catalyst System

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

Triochion

Injection-

Prechamber

EFI-Electronic

Central 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.

r ISSUED: 07-14-86

REV. NO.:

(For CARB Use Only) (1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation

Engine Family: H3G7.4T5FCY2

(HGC7.4T5HAC3)

Engine CID (Liters) - Type: 454 (7.4) V-8

VEHICLE MODELS:

CC10703 + E63 (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
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/ Value Van 06 - \$10/1507-42"/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/

Digits 6 & 7 Cab or Body Style

3F0-3H

Executive Order No.: A-6-381

Evaporative Family:

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: 07-14-86

REV. NO.:

Magnavan

18-Motor Home Chassis

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

GAS __ LIGHT DUTY TRUCKS MEDIUM DUTY VEHICLES X DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

CFI

Engine Family: H3G7.4T5FCY2

Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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	CR20903+E62 CR20903+E63 CR20943 CR20906	A-3	5000 5250 6000	16069631	17087021	17087189	25101074* 25100464**
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305 CG31306		5250 6000				
2	CR20903+E62 CR20903+E63		5250				
	CR20943 CR20906		6000				
	CR30903+E62		5250				
	CR30903+E63		6000				
1	CR30943		6500				
1	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				

^{*} 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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS	MEDIUM DUTY	VEHICLES X	GAS	DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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	CR20903+E62		5000	16069691			
	CR20903+E63		5250				
	CR20906		6000				
	CR20943		0000				
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6 500				
	CG31305		5250				
	CG31306		6000				
4	CR20903+E62		5250				
	CR20903+E63						
	CR20943		6000				
	CR20906						
	CR30903+E62		5250				
	CR30903+E63		6000				
	CR30943		6500				
	CV30903+E63		6000				
	CV30943		6500				
	CG31305		5250				
	CG31306		6000				

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS	MEDIUM DUTY VEHIC	LES X	GAS	DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

Engine Type: V-8

ENG CODE VE	EH MODELS	TRANS TYPE	EQUIV TEST WEIGHT	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (TBI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
CF CF CF CF CF CF CF CF CF CF CF CF CF C	20903+ZW9 20943+ZW9 230943+ZW9 230943+ZW9 231003+ZW9 231403+ZW9 231403+ZW9 231403+ZW9 231403+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9 231303+ZW9		8000 6500 6000 6500 6000	16069651			

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS	MEDIUM DUTY	VEHICLES X	GAS	DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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.
6	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
•	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000		,		

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS	MEDIUM DUTY	VEHICLES X	GAS	DIESEL
4 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 				

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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.
7	CR20903+ZW9 CR20943+ZW9 CR30903+ZW9 CR30903+ZW9 CR31003+ZW9 CR31403+ZW9 CV30943+ZW9 CV31003+ZW9 CV31403+ZW9 CV31403+ZW9 CG31303+ZW9		8000 6500 6000 6500 6000	16069671			

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT	DUTY	TRUCKS	MEDIUM DUTY	VEHICLES	X	GAS	DIESEL
				_			

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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.
8	CR20903+ZW9		8000				
	CR20943+ZW9						
	CR30903+ZW9						
	CR30943+ZW9						
	CR31003+ZW9						
	CR31403+ZW9						
	CV30903+ZW9						
	CV30943+ZW9						
	CV31003+ZW9						
	CV31403+ZW9						
	CG31303+ZW9						
	CG31332+ZW9						
	CG31603+ZW9						
	CG31632+ZW9						
	CG31303+E31		6500				
	CG31303+E34		6000				
	CG31303+E36						
	CG31603+E38		6500				
	CG31603+E39		6000				

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: 07-14-86

(For CARB Use Only) (1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY TRUCKS MEDIUM DUTY VEHICLES X GAS DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

CFI

Engine Family: H3G7.4T5FCY2

Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

Engine Type: V-8

EQUIV IGN SYSTEM FUEL SYSTEM TRANS TEST (ECU) (TBI) EGR VALVE CATALYST ENG CODE TYPE WEIGHT PART NO. PART NO. PART NO. PART NO. VEH MODELS 9 5250 16069621 17087257 CR20903+E62 M-4CR20903+E63 CR20943 6000 CR30903+E62 5250 6000 CR30903+E63 CR30943 6500 CV30903+E63 6000 CV30943 6500 10 CR20903+E62 5250 CR20903+E63 6000 CR20943 CR30903+E62 5500 CR30903+E63 6000 CR30943 6500 CV30903+E63 CV30943 7000 11 CR20903+E62 5250 CR20903+E63 CR20943 6000 CR30903+E62 5250 6000 CR30903+E63 CR30943 6500 CV30903+E63 6000 CV30943 6500

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY	TRUCKS	MEDIUM DUTY	VEHICLES	X	GAS	DIESEL
			_			

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

Engine Family: H3G7.4T5FCY2

Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

Engine Type: V-8

EQUIV IGN SYSTEM FUEL SYSTEM **TRANS** EGR VALVE (ECU) (TBI) CATALYST TEST **TYPE** PART NO. PART NO. PART NO. PART NO. ENG CODE VEH MODELS WEIGHT 12 5250 CR20903+E62 CR20903+E63 CR20943 6000 CR30903+E62 5500 6000 CR30903+E63 6500 CR30943 CV30903+E63 CV30943 7000 16069641 13 CR20903+ZW9 8000 CR20943+ZW9 CR30903+ZW9 CR30943+ZW9 CR31003+ZW9 CR31403+ZW9 CV30903+ZW9 CV30943+ZW9 CV31003+ZW9 CV31403+ZW9

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT	DUTY	TRUCKS	MEDIUM DUTY	VEHICLES X	GAS	DIESEL

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

CFI Engine Family: H3G7.4T5FCY2 Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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.
14	CR20903+ZW9 CR20943+ZW9 CR30903+ZW9 CR30943+ZW9 CR31003+ZW9 CR31403+ZW9 CV30903+ZW9 CV31003+ZW9 CV31403+ZW9		8000				
15	CR20903+ZW9 CR20943+ZW9 CR30903+ZW9 CR30943+ZW9 CR31003+ZW9 CR31403+ZW9 CV30903+ZW9 CV31003+ZW9 CV31003+ZW9			16069681		<u> </u>	

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: 07-14-86

(1987)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LIGHT DUTY	TRUCKS	MEDIUM DUTY	VEHICLES	X	GAS	DIESEL
			-			

Manufacturer: General Motors Corporation

Executive Order No.: A-6-381

CFI

Engine Family: H3G7.4T5FCY2

Exhaust Emission Control System: AIP/EGR/TWC/OC/CL (EFI)

(HGC7.4T5HAC3)

Liter (CID): 7.4 (454)

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.
16	CR20903+ZW9 CR20943+ZW9 CR30903+ZW9 CR30903+ZW9 CR31003+ZW9 CR31403+ZW9 CV30903+ZW9 CV30943+ZW9 CV31003+ZW9 CV31403+ZW9		8000				

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: 07-14-86