

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-403
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 1988 model-year General Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
J2G3.8V8XEBO	3.8 (231)	Exhaust Gas Recirculation Three-Way Catalyst Oxygen Sensor (Electronic Fuel Injection) (On-Board Diagnostics - some models)

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>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.41	7.0	0.7

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

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per Mile</u>
0.18	0.9	0.4

BE IT FURTHER RESOLVED: That the listed models were 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 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 in Attachment A 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.

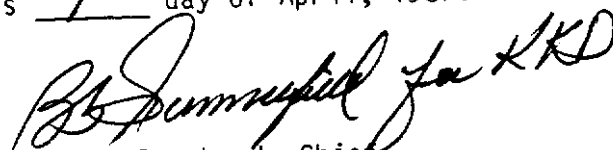
BE IT FURTHER RESOLVED: That the vehicle models listed in Attachment B have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned 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 7th day of April, 1987.


K. D. Drachand, Chief
Mobile Source Division

17-J2G3.8V8XEBO-1A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer: General Motors Corporation Executive Order No.: A-6-403
Engine Family: J2G3.8V8XEBO Evaporative Family: JBO-2D
Engine Displacement Liters (Cubic Inches) - Type: 3.8 (231) V6
Exhaust Emission Control System (Special Features): EGR, TWC, OS (EFI)(1)
EGR, TWC, OS (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, CL, DID, DIP, EFI, MFI
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
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
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-Warm-up Oxidation Catalyst
WUTWC-Warm-up 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

(1) No OBD - "OBD Exempt" statement on tune-up label.

ISSUED: 03-05-87

REV. NO.: 001

0259T

17-J2G3.8V8XEBO-2A

(For CARB Use Only)
(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
GASOLINE-FUELED PASSENGER CARS

Executive Order No. A-6-403

VEHICLE MODELS:

1 J U 2 7 (EXAMPLE)

Digit 1
Selling Division

Digit 2 - Body Designation

1-Chevrolet
2-Pontiac
3-Oldsmobile
4-Buick
6-Cadillac

A-Celebrity, 6000, Cutlass Ciera, Cutlass Cruiser, Century
B-Caprice, Safari Wagon, Custom Cruiser, LeSabre/Electra Wagon
C-Ninety-Eight Regency, Electra, DeVille, Fleetwood, Limousine
D-Brougham
E-Toronado, Riviera, Eldorado, Reatta
F-Camaro, Firebird, Trans Am, Formula
G-Monte Carlo, El Camino, Caballero
H-Bonneville, Delta 88 Royale, LeSabre
J-Cavalier, Sunbird, Firenza, Skyhawk, Cimarron
K-Seville
L-Corsica, Beretta
N-Grand Am, Calais, Somerset/Skylark
P-Fiero
T-Lemans
V-Allante
W-Grand Prix, Regal, Cutlass Supreme
Y-Corvette
Z-Commercial Chassis

Digit 3
Trim Level

Digits 4 & 5 - Body Style

07-2Dr Sport Coupe	47-2Dr Hardtop Coupe
08-2Dr Hatchback Coupe	57-2Dr Hardtop Coupe
11-2Dr Notchback Coupe/Sedan	67-2Dr Convertible Coupe
19-4Dr Sedan	68-4Dr Hatchback Sedan
23-4Dr Auxiliary Seat Sedan	69-4Dr (Notchback) Sedan
27-2Dr (Notchback) Coupe	77-2Dr Hatchback Coupe
33-4Dr Auxiliary Seat Sedan	80-2Dr Sedan Pickup
35-4Dr Station Wagon	87-2Dr Hatchback Coupe
37-2Dr Hardtop Coupe	90-Commercial Chassis
	97-2Dr Hardtop Coupe

Engine: Front

Drive: FWD

ISSUED: 03-05-87

REV. NO.: 001

0259T

17-J2G3.8V8XEBO-3A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403
(No OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (RI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
1	3AJ19 3AJ37 3AM19 3AM37 3AS19 3AS37 4AH19 4AH27 4AL19 4AL27 3AJ35 3AM35 4AH35 4AL35	A4	3375	16078954	25529476	17086704	25101080, 25103333
			3500				
1A				16081254			
2	3HN37 3HY37 4HP37 2HX69 2HZ69 3HN69 3HV37 3HY69 4HP69 4HR37 4HR69		3625	16078974			25100635, 25101078
2A				16081274			

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.

ISSUED: 03-05-87

REV. NO.: 001
002
004

0259T/25T

17-J2G3.8V8XEBO-4A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS MEDIUM DUTY VEHICLES GAS X DIESEL

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403
(No OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.
				(ECU) PART NO.	(RI) PART NO.		
3	3HN37	A4	3500	16078984	25529476	17086704	25100635, 25101078
	3HY37						
	4HP37						
	2HX69		3625				
	2HZ69						
	3HN69						
	3HV37						
	3HY69						
	4HP69						
	4HR37						
	4HR69						

16081284

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.

ISSUED: 03-05-87

REV. NO.: 001
002
004

259T/25T

17-J2G3.8V8XEBO-5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403 (OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (RI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
10	2HY69		3750	16070944	25530398	17088012	25100635
10A				16078644			
11	3HN37 3HY37 4HP37 2HX69 2HZ69 3HN69 3HV37 3HY69 3CW69 3CX69 4CF69 4CW69 4CX69 4HP69 4HR37 4HR69		3500 3625	16059104			
11A				16078624			

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.

ISSUED: 03-05-87

REV. NO.: 001
002
003
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0259T/25T

17-J2G3.8V8XEBO-6A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS___ MEDIUM DUTY VEHICLES___ GAS X DIESEL___

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403 (OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM	FUEL SYSTEM	EGR VALVE PART NO.	CATALYST PART NO.	
				(ECU) PART NO.	(RI) PART NO.			
12	3HN37 3HY37 4HP37 2HX69 2HZ69 3CW69 3CX69 3HN69 3HV37 3HY69 4CW69 4CX69 4HP69 4HR37 4HR69 3CV69 4CF69	A4	3500 3625 3750		16070914	25530398	17088012	25100635
12A				16078634				
14	4EZ57 3EZ57		3625 3750	16059114				
14A				16078654				
15	4EZ57 3EZ57		3625 3750	16070924				
15A				16078664				
16	4EC97		3625	16059124				
16A				16078674				

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.

SUED: 03-05-87

REV. NO.: 001 003
002 004

0259T/25T

17-J2G3.8V8XEBO-5A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS ___ MEDIUM DUTY VEHICLES ___ GAS X DIESEL ___

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403 (OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETW	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (RI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.
10	2HY69		3750	16070944	25530398	17088012, 17088157	25100635
10A				16078644, 16122514			
11	3HN37 2HX69 2HZ69 3HN69 3HV37 3HY37 3HY69 3CW69 3CX69 4CF69 4CW69 4CX69 4HP37 4HP69 4HR37 4HR69		3500 3625	16059104			
11A				16078624, 16122494			

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.

ISSUED: 03-05-87

 REV. NO.: 001 006
 002 007
 003 008
 004
 005

J259T/25T

17-J2G3.8V8XEBO-6A

(For CARB Use Only)

(1988)

AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

PASSENGER CARS X LIGHT DUTY TRUCKS ___ MEDIUM DUTY VEHICLES ___ GAS X DIESEL ___

Liters (CID): 3.8 (231)

Type: V6

Executive Order No. A-6-403 (OBD)

ENG CODE	VEH MODELS	TRANS TYPE	ETH	IGN SYSTEM (ECU) PART NO.	FUEL SYSTEM (RI) PART NO.	EGR VALVE PART NO.	CATALYST PART NO.	
12	3HN37 2HX69 2HZ69 3CN69 3CX69 3HN69 3HV37 3HY37 3HY69 4CW69 4CX69 4HP37 4HP69 4HR37 4HR69 3CV69 4CF69	A4	3500 3625 3750		16070914	25530398	17088012, 17088157	25100635
12A				16078634, 16122504				
14	4EZ57 3EZ57		3625 3750	16059114				
14A				16078654, 16122524				
15	4EZ57 3EZ57		3625 3750	16070924				
15A				16078664, 16122534				
16	4EC97		3625	16059124				
16A				16078674, 16122544				

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.

SSUED: 03-05-87

REV. NO.: 001 003 006 008
002 004 007

0259T/25T