

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-207  
Relating to Certification of New 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 General Motors Corporation 1981 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>		<u>Exhaust Emission Control Systems (Special Features)</u>
BGM0426FWFO	426	(7.0)	Aftercooler Throttle Delay (Turbocharged)
BGM0552FWG6	552	(9.0)	Aftercooler Throttle Delay (Turbocharged)
BGM0736FWH3	736	(12.1)	Aftercooler Throttle Delay (Turbocharged)
BGM08.2DAB5	500	(8.2)	Engine Modification
BGM08.2EAB8	500	(8.2)	Engine Modification (Turbocharged)

Engine Models and Codes as listed on attachments.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the engine manufacturer furnish a decal with each engine sold or delivered to a vehicle manufacturer. The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following certification emission values:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Hydrocarbons + Nitrogen Oxides gm/bhp-hr</u>
BGM0426FWFO	0.8	3	6.0
BGM0552FWG6	0.7	2	6.0
BGM0736FWH3	0.6	2	5.5
BGM08.2DAB5	0.6	3	5.6
BGM08.2EAB8	0.5	2	5.4

BE IT FURTHER RESOLVED: That General Motors Corporation has provided to the Executive Officer 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.

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

Executed at El Monte, California this 5<sup>th</sup> day of December, 1980.

*K. D. Drachand*

K. D. Drachand, Chief  
Mobile Source Control Division

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Engine Family See Pgs 2-6 Evaporative Family NA

ABBREVIATIONS

Engine CID (Liters) See Pgs 2-6

Ignition System

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

Exhaust Emissions Control System

AIP-Air Injection-Pump  
AIV-Air Injection-Valve  
CL-Closed Loop  
EGR-Exhaust Gas Recirculation  
EM-Engine Modification  
OC-Oxidation Catalyst System  
TR-Thermal Reactor  
TWC-Three Way Catalyst System  
TD - Throttle Delay  
AC - Aftercooler

Special Features

CCV-Combustion Chamber Valve  
CFI-Central Fuel Injection  
DI-Diesel Injection  
EFI-Electronic Fuel Injection  
MFI-Mechanical Fuel Injection  
TC-Turbocharged

Fuel System

CFI, DI, EFI, MFI  
nV-nVenturi Carburetor  
VV-Variable Venturi

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HEAVY-DUTY DIESEL ENGINES

Manufacturer General Motors Corporation

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Engine Family BGM0426FWFO

CID-Type 426 - 6L

ECS (Special Features) Throttle Delay and Aftercooler (Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Label Ident.
6L-71TA	None	7G65 GMC 5229895	235 @ 2100	69.5	8922746
		7G70 GMC 5229900	250 @ 2100	73.6	
		7G75 GMC 5229905	270 @ 2100	79.3	
		7G75 Constant Power 5229905	180 @ 1800 min.	60.8	

Date of Issue - 120880.

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Engine Family BGM0552FWG6

CID-Type 552 - V6

ECS (Special Features) Throttle Delay and Aftercooler (Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM		Fuel Rate at Maximum HP mm <sup>3</sup> /stroke		Label Ident.
			HP	RPM	#1 D.F.	#2 D.F.	
6V-92TA	None	9C70 5229870	218	2100	71.7		8922746
		9C75 5229875	239		76.0		
		9C80 5229880	263		81.2		
		9C85 5229885	285		87.0		
		9C90 5229890	305		92.2		
		9C90 Constant Power 5229890	240	1900	78.1		
6V-92TA		7G65 5229895	216 232	2100	69.3	71.7	
		7G70 5229900	236 253		74.7	77.1	
		7G75 5229905	254 271		79.5	81.9	
		9E65 5229970	222 240	2100	69.9	71.9	
		9E70 5229975	240 260		2100	74.6	76.6

Date of Issue - 120880. Max. rated HP was approx. 3% higher for 7G65,70 & 75 injectors before RC 8, approved on 050681. See page 3A for 9F injectors added by RC 12, on 092881.

1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINESManufacturer General Motors CorporationPage 3AEngine Family BGM0552FWG6CID(Liter)-Type 552 - V6ECS(Special Features) Throttle Delay and Aftercooler (Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM		Fuel Rate at Maximum HP mm <sup>3</sup> /stroke		Label Ident.
			HP	RPM	#1D.F.		
6V-92TA	None	9F80 5226080	288	2100	82.1		8922746
		9F85 5226085	306		87.1		
		9F90 5226090	325		92.1		
		9F90 Constant Power 5226090	240	1800	76.8		

Date of Issue - 092881 - Pg 3A added by RC 12.

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HEAVY-DUTY DIESEL ENGINES

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Engine Family BGM0736FWH3 CID-Type 736 - V8

ECS (Special Features) Throttle Delay and Aftercooler (Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Label Ident.
8V-92TA	None	9C80 4229880	347 @ 2100	79.7	8922746
		9C85 5229885	377 @ 2100	85.5	
		9C90 5229890	405 @ 2100	90.8	
		9C90 Constant Power 5229890	335 @ 1900 min.	80.1	
		9F80 5226080	400 @ 2100	82.5	
		9F85 5226085	425 @ 2100	87.5	
		9F90 5226090	440 @ 2100	92.5	
		9F90 Constant Power 5226090	335 @ 1800 min.	78.1	

Date of Issue - 120880. 9F series injectors added by RC 14, on 100181.

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HEAVY-DUTY DIESEL ENGINES

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 Engine Family BGM08.2DAB5 Liter-Type 8.2 - V8  
 CID-Type 500 - V8  
 ECS (Special Features) Engine Modification

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Label Ident.
V8-8.2	None	4A53 GMC 5229850	165 @ 3000 RPM	52.5	8922577

Date of Issue - 120880.

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HEAVY-DUTY DIESEL ENGINES

Manufacturer General Motors Corporation Page 6  
 Engine Family BGM08.2EAB8 Liter-Type 8.2 - V8  
 CID-Type 500 - V8  
 ECS (Special Features) (Turbocharged) Engine Modification

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Label Ident.
V8-8.2T	None	4B65 GMC 5229965	205 @ 3000 RPM	65.5	8922576
		4C65 GMC 5229915	205 @ 3000 RPM	64.9	

Date of Issue - 120880. 4C65 injector added by RC 9, on 050481.