

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-6-423  
Relating to Certification of New Heavy-Duty 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 1987 model-year diesel engines have shown compliance with the transient test procedures and standards and are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HGM12.7FZA0	775/677 (12.7/11.1)	Electronic Injection Control (Diesel Injection-Direct) (Turbocharger) (Intercooler)

Engine models and codes are listed on attachments.

The following are the certification emission values for these engine families:

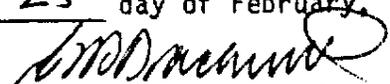
<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>
HGM12.7FZA0	0.35	3.0	4.9

BE IT FURTHER RESOLVED: That the Executive Officer has been provided 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.

Executed at El Monte, California this 25<sup>th</sup> day of February, 1987.

  
K. D. Drachand, Chief  
Mobile Source Division

(For CARB Use Only)  
(1987)

## AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

## HEAVY-DUTY DIESEL ENGINES

Manufacturer: General Motors Corporation

Executive Order No.: A-6-423

Engine Family: HGM12.7FZA0

Exhaust Emission Control System: EIC (DID, TC, IC)

Liter (CID): 12.7L/11.1 (775/677)

ENG MODEL	FUEL INJECTION PUMP MFR PART NO.	INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)
12.7L	NA	1B GMC 8924795	400 @ 2100	191.9 (134.0)	1400 @ 1200	263.2 (105.0)
		2B GMC 8924795	400 @ 1800	214.5 (128.5)	1400 @ 1200	263.2 (105.0)
		3B GMC 8924795	350 @ 2100	168.0 (117.3)	1400 @ 1200	263.2 (105.0)
		4B GMC 8924795	350 @ 1800	188.3 (112.7)	1400 @ 1200	263.2 (105.0)
		5B GMC 8929507 8929797	400 @ 2100	189.6 (132.4)	1400 @ 1200	255.9 (102.1)
		6B GMC 8929507 8929797	400 @ 1800	211.2 (126.4)	1400 @ 1200	255.9 (102.1)
		7B GMC 8929507 8929797	350 @ 2100	166.0 (115.9)	1400 @ 1200	258.1 (103.0)
		8B GMC 8929507 8929797	350 @ 1800	184.8 (110.6)	1400 @ 1200	258.1 (103.0)

ISSUED: 005

REV. NO.: 006  
007

0120S/17S

17-HGM12.7FZAO-22A

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Engine Family: HGM12.7FZAO

Exhaust Emission Control System: EIC (DID, TC, IC)

Liter (CID): 12.7/11.1 (775/677)

ENG MODEL	FUEL INJECTION PUMP MFR PART NO.	INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)
11.1L	NA	1D GMC 5234870	350 @ 1800	185.9 (111.3)	1250 @ 1200	233.6 (93.2)
		2C GMC 5234870	320 @ 2100	150.4 (105.0)	1200 @ 1200	220.6 (88.0)
		3D GMC 5234870	320 @ 1800	168.0 (100.8)	1200 @ 1200	220.6 (88.0)
		4D GMC 5234865	285 @ 2100	135.0 (94.3)	1100 @ 1200	203.8 (81.3)
		5D GMC 5234865	285 @ 1800	150.5 (90.1)	1100 @ 1200	203.8 (81.3)
		6D GMC 5234865	250 @ 2100	120.3 (84.0)	970 @ 1200	181.5 (72.4)
		7D GMC 5234865	250 @ 1800	133.3 (79.8)	1100 @ 1200	203.8 (81.3)
		8D GMC 5234870	320 @ 1800	168.4 (100.8)	1150 @ 1200	211.5 (84.4)

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Engine Family: HGM12.7FZAO

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Liter (CID): 12.7/11.1 (775/677)

ENG MODEL	FUEL INJECTION PUMP MFR PART NO.	INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)	MAXIMUM RATED TORQUE AT RPM	FUEL RATE mm <sup>3</sup> /STROKE (LBS/HR)
11.1L	NA	9D GMC 8929435 8929796	350 @ 1800	183.6 (109.9)	1250 @ 1200	234.3 (93.5)
		10D GMC 8929435 8929796	320 @ 2100	148.9 (104.0)	1200 @ 1200	221.1 (88.2)
		11D GMC 8929435 8929796	320 @ 1800	166.7 (99.8)	1150 @ 1200	212.3 (84.7)
		12D GMC 8929435 8929796	285 @ 2100	133.9 (93.5)	1100 @ 1200	201.3 (80.3)
		13D GMC 8929435 8929796	285 @ 1800	149.0 (89.2)	1100 @ 1200	201.3 (80.3)
		14D GMC 8929435 8929796	250 @ 2100	119.3 (83.3)	970 @ 1200	179.2 (71.5)
		15D GMC 8929435 8929796	250 @ 1800	132.5 (79.3)	1100 @ 1200	201.3 (80.3)
		16D GMC 8929435 8929796	320 @ 1800	166.7 (104.0)	1200 @ 1200	211.1 (88.2)

ISSUED: 007  
0120S/17S

REV. NO.: