

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-472  
Relating to Certification of New Heavy-Duty Motor Vehicle Engines

FORD MOTOR COMPANY

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 Ford Motor Company 1991 model-year gasoline engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
MFM07.0BGA7	7.0 (429)	Secondary Air Injection Exhaust Gas Recirculation Heated Oxygen Sensor Multipoint Electronic Fuel Injection

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>
1.9	37.1	5.0

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

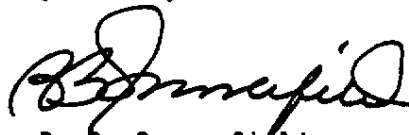
<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Nitrogen Oxides gm/bhp-hr</u>
MFM07.0BGA7	1.2	18.8	3.9

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 (Health and Safety Code Section 43205.5 and Title 13, California Code of Regulations, 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 attachments.

Executed at El Monte, California this 13<sup>th</sup> day of November, 1990.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

E.O.# A-10-472

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Ford Motor Company Engine Family MFM07.OBGA7 (L7.OA)  
 Evaporative Family HR Engine Type V-8  
 Liters (CID) 7.0L (429)

ABBREVIATIONS:

<u>Ignition System</u>	<u>Exhaust Emissions Control System</u>	<u>Fuel System</u>
DLI-Distributorless Ignition	AIR-Secondary Air Injection	DI-Direct Injection (Diesel)
EI-Electronic Ignition	ECTS-Engine Coolant Temp Sensor	EIC-Electronic Injection Control (Diesel)
PCME-Powertrain Control Module	EGR-Exhaust Gas Recirculation	IC-Intercooler or Aftercooler
	EM-Engine Modification	IDI-Indirect Diesel Injection
	HO2S-Heated Oxygen Sensor	MPI-Multipoint Electronic Fuel Injection
	KS-Knock Sensor	SC-Supercharged
	MAP-Manifold Absolute Pressure Sensor	SMPI-Sequential Multipoint Electronic Fuel Injection
	OC-Oxidation Catalyst	TAA-Turbocharged, Air to Air (Diesel)
	O2S-Oxygen Sensor	TAW-Turbocharged, Air to Air to Water (Diesel)
<u>Special Features</u>	SABV-Secondary Air Bypass Valve	TBI-Throttle Body Electronic Fuel Injection
MIL-Malfunction Indicator Light	SASV-Secondary Air Switching Valve	
OBD-On Board Diagnostics	SPL-Smoke Puff Limiter	
	TOC-Trap Oxidizer: Continuous	
	TOP-Trap Oxidizer: Periodic	
	TPS-Throttle Position Sensor	
	TWC-Three Way Catalyst	
	TWC+OC-Three Way Catalyst Plus Oxidation Catalyst	
	WUOC-Warm Up Oxidation Catalyst	
	WUTWC-Warm Up Three Way Catalyst	

VEHICLE MODELS: F600, F700, F800

Engine: Front XXX Mid      Rear       
 Drive: FWD      RWD XXX 4WD Full Time      4WD Part Time     

Engine Family: M7.OA

Issue Date	10-11-90	20.17.02.00-1					
Revised							

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY DUTY ENGINES

E.O. # A-10-472

Manufacturer Ford Motor Company Engine Family MFM07.OBGA7 (M7.OA)

Liters (CID) 7.0L (429) Eng. Type V-8

Emission Control Sys. (Special Features) AIR/EGR/HO2S/MPI  
(Use abbreviations per SAE J1930 Jun88)

Engine Code	Rated HP @ RPM	Ign. System or PCME	Fuel System	EGR Valve	Catalyst
		Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
1-87H-R00	235 @ 3600 230 @ 3500	F1TF-GA	FOTE-DA	E7TE-GA	NONE
1-88H-R00	235 @ 3600	F1TF-HA	FOTE-DA	E7TE-GA	NONE
* 1-87H-R05	235 @ 3600 230 @ 3500	F1TA-GA	FOTE-DA	E7TE-GA	NONE
* 1-88H-R05	235 @ 3600	F1TF-HA	FOTE-DA	E7TE-GA	NONE

Comments: See 20.17.02.00-1 for abbreviations and 20.17.02.00-4 for evaporative emission family identification.

\* R/C 7.0-HD-2

Engine Family: M7.OA

Issue Date	10-11-90	20.17.02.00-2					
Revised	10-30-90						