

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-319
Relating to Certification of New Motor Vehicles

FORD MOTOR COMPANY

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 Ford Motor Company exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HFM5.0V5HBC7	302 (5.0)	Air Injection - Pump Exhaust Gas Recirculation Dual Three-Way Catalyst Dual Oxidation Catalyst Dual Heated Oxygen Sensors (Electronic 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:

<u>Hydrocarbons Grams per Mile</u>	<u>Carbon Monoxide Grams per Mile</u>	<u>Nitrogen Oxides Grams per mile</u>
0.39	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	0.3	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 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.) and with Health and Safety Code Section 43204.

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 29th day of July, 1986.



K. D. Drachand, Chief
Mobile Source Division

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Manufacturer Ford Motor Company Engine Family HFM5.OV5HBC7
 Evaporative Family 7HM Engine Type V8 ~~Otto Cycle~~
 Liters (CID) 5.0 (302)

ABBREVIATIONS

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
 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 Injection-Prechamber
 ✓EFI-Electronic Fuel Injection
 IC-Intercooler or aftercooler
 MFI-Mechanical Fuel Injection
 TC-Turbocharger

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor

VEHICLE MODELS:

VEHICLE LINE

BODY STYLE

NAME PLATE

Mark VII 63D

2 door

Lincoln Mark VII
 Lincoln Mark VII
 Bill Blass Designer Series

Mark LSC 63D

2 door

Lincoln Mark VII LSC

Continental 54D

4 door

Lincoln Continental
 Givenchy Designer Series

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VEHICLE MODELS:

<u>VEHICLE LINE</u>	<u>BODY STYLE</u>	<u>NAME PLATE</u>
Ford 74K	Station Wagon	LTD Crown Victoria LTD Crown Victoria LX LTD Country Squire LTD Country Squire LX
Ford 66K	2 door	LTD Crown Victoria LTD Crown Victoria LX
Ford 54K	4 door	LTD Crown Victoria LTD Crown Victoria LX
Mercury 74K	Station Wagon	Grand Marquis Grand Marquis LX
Mercury 66K	2 door	Grand Marquis Grand Marquis LX
Mercury 54K	4 door	Grand Marquis Grand Marquis LX
Mustang 66B	2 door	Mustang LX
Mustang 61B	3 door	Mustang LX Mustang GT
Mustang B2L	Convertible	Mustang LX Mustang GT
Thunderbird 63D	2 door	Thunderbird Thunderbird LX
Cougar 66D	2 door	Cougar LS Cougar XR-7
Town Car 54D	4 door	Lincoln Town Car Lincoln Town Car Signature Series Lincoln Town Car Cartier Designer Series

Engine: Front XX Mid. _____ Rear _____
 Drive: FWD _____ RWD XX 4WD Full Time _____ 4WD Part Time _____

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Passenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____

Manufacturer Ford Motor Company Engine Family HFM5.0V5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 Otto Cycle

Emission Control Sys. (Special Features) EEC(EFI)/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type Manual	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
721PROOA	MUST-61B (9.9) (non-GT)	M5X335	3500	E7SF-BA	E6TE-AB	E6AE-CA E6AE-DA (alt)	E6ZC-BA (-5F250-)
	MUST-61B (9.0) (GT)						
	MUST-66B (10.1)		3375				
	MUST-B2L (10.2)		3625				
721PROON	MUST-61B (9.0) (non-GT)		3500				
	MUST-61B (8.2) (GT)						
	MUST-66B (9.2)		3375				
	MUST-B2L (9.3)		3625				

Comments: See page one for abbreviations and evaporative emission family identification. PI refer to manufacturer's HP list 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.

Date of Issue 7-22-86

Revisions:

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Passenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____

Manufacturer Ford Motor Company Engine Family HFMS.0V5HBC7

Liter (CID) 5.0L (302) Eng. Type _____

Emission Control Sys. (Special Features) EEC/EFI/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
622LR10A	MRK7-63D (10.1)	AOX070	4000	E6SF-LC	E6TE-AB	E6AE-CA E6AE-DA (alt)	E6LC-BA (-5F250-)
722FROOA	TBR3-63D (8.1) COUG-66D (9.1) COUG-66D (Cougar XR7) (10.1) <u>1/</u> (10.6) <u>2/</u>	AOX059	3750	E7SF-GB	E67E-BB E67E-BA (alt) E59E-AB (alt)	E6AE-CA E6AE-DA (alt)	E6SC-AA (-5F250-) E6SC-AA (-5E212-)
722FROON	TBR3-63D (7.4) COUG-66D (8.3) COUG-66D (Cougar XR7) (9.2) <u>1/</u> (9.6) <u>2/</u>		3625 3750				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list 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.
1/ P22560VR15 @ 30/30 psi 2/ P22560VR15 @ 26/26 psi

Date of Issue 7-22-86 Revisions: 7-8-87 (R/C 5.0-9)

19 87 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEETPassenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____Manufacturer Ford Motor Company Engine Family HFM5.OV5HBC7Liter (CID) 5.0L (302) Eng. Type V8 Otto CycleEmission Control Sys. (Special Features) EEC/EFI/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
722PROOA	MUST-61B (9.9) (non-GT)	AOX074 AOX070	# 3625	E7SF-EA	E6TE-AB	E6AE-CA E6AE-DA (alt)	E6ZC-BA (-5F250-)
	MUST-61B (9.0) (GT)						
	MUST-66B (10.1)		3500				
	MUST-B2L (10.2)		# 3750				
722PROON	MUST-61B (9.0) (non-GT)		# 3500 <u>2/</u>				
	MUST-61B (8.2) (GT)						
	MUST-66B (9.2)		3500				
	MUST-B2L (9.3)		# 3750				
			<u>2/</u> Dual Cert				



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Passenger Cars X Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas X Diesel _____

Manufacturer Ford Motor Company Engine Family HFM5.0V5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 Otto Cycle

Emission Control Sys. (Special Features) EEC/EFI/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System EEC IV Part No. -12A650-	Fuel System Part No. -9F593-	EGR Valve Part No. -9F483-	Catalyst Part No.
722QROOA	LNCP-54D (13.3) FORD-74K (13.1) <u>1/</u> (13.8) <u>2/</u> FORD-66K (12.6) <u>1/</u> (13.5) <u>2/</u> FORD-54K (12.6) <u>1/</u> (13.5) <u>2/</u> (14.3) <u>3/</u> MERC-74K (13.1) <u>1/</u> (13.8) <u>2/</u> MERC-66K (12.6) <u>1/</u> (13.5) <u>2/</u> MERC-54K (12.6) <u>1/</u> (13.5) <u>2/</u>	AOX059	4250	E7SF-NA	E67E-BB E67E-BA (alt) E67E-AA (alt) E67E-AB (alt)	E6AE-CA E6AE-DA (alt)	E6AC-BB (-5E212-) E6AC-BB (-5E214-)

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 Manufacturer Ford Motor Company Engine Family HFM5.0V5HBC7
 Liter (CID) 5.0L (302) Eng. Type V8 Otto Cycle
 Emission Control Sys. (Special Features) EEC(EFI)/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
722QROON	FORD-74K (11.9) <u>1/</u> (12.5) <u>2/</u>	AOX059	4250	E7SF-NA	E67E-BB E67E-BA (alt)	E6AE-CA E6AE-DA (alt)	E6AC-BB (-5E212-)
	FORD-66K (11.5) <u>1/</u> (12.3) <u>2/</u>		4000		E67E-AA (alt)		E6AC-BB (-5E214-)
			4250		E67E-AB (alt)		
	FORD-54K (11.5) <u>1/</u> (12.3) <u>2/</u> (13.0) <u>3/</u>						
	MERC-74K (11.9) <u>1/</u> (12.5) <u>2/</u>						
	MERC-66K (11.5) <u>1/</u> (12.3) <u>2/</u>						
MERC-54K (11.5) <u>1/</u> (12.3) <u>2/</u>							

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Passenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____

Manufacturer Ford Motor Company Engine Family HFMS.0V5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 ~~Otto~~ Cycle

Emission Control Sys. (Special Features) EEC(EFI)/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
722RROOA	MRK7-63B(10.1)	AOX068 AOX059	4000	E7SF-GB	E67E-BB E67E-BA (alt) E59E-AA (alt) E59E-AB (alt)	E6AE-CA E6AE-DA (alt)	E6LC-CB (-5F250-) E6LC-BC (-5E212-)
722SROOA	FORD-66K (12.6) <u>1/</u> (13.5) <u>2/</u> FORD-54K (12.6) <u>1/</u> (13.5) <u>2/</u> (14.3) <u>3/</u> MERC-66K (12.6) <u>1/</u> (13.5) <u>2/</u> MERC-66K (12.6) <u>1/</u> (13.5) <u>2/</u>	AOX069	4250	E7SF-JA			E6AC-BB (-5E212-) E6AC-BB (-5E214-)

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Passenger Cars X Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas X Diesel _____

Manufacturer Ford Motor Company Engine Family HFMS.OV5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 ~~Otto Cycle~~

Emission Control Sys. (Special Features) EEC/~~EFI~~/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
722SROON	FORD-66K (11.5) <u>1/</u> (12.3) <u>2/</u>	AOX069	4000	E7SF-JA	E67E-BB E67E-BA (alt)	E6AE-CA E6AE-DA (alt)	E6AC-BB (-5E212-) E6AC-BB (-5E214-)
	FORD-54K (11.5) <u>1/</u> (12.3) <u>2/</u> (13.0) <u>3/</u>						
	MERC-66K (11.5) <u>1/</u> (12.3) <u>2/</u>						
	MERC-54K (11.5) <u>1/</u> (12.3) <u>2/</u>						

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Passenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____

Manufacturer Ford Motor Company Engine Family HFM5.OV5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 ~~Otto Cycle~~

Emission Control Sys. (Special Features) EEC(EFI)EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System EEC IV Part No. -12A650-	Fuel System Part No. -9F593-	EGR Valve Part No. -9F483-	Catalyst Part No.
723RROOA	LNCP-54D (13.3) FORD-74K (13.1) <u>1/</u> (13.8) <u>2/</u> FORD-66K (12.6) <u>1/</u> (13.5) <u>2/</u> FORD-54K (12.6) <u>1/</u> (13.5) <u>2/</u> (14.3) <u>3/</u> MERC-74K (13.1) <u>1/</u> (13.8) <u>2/</u> MERC-66K (12.6) <u>1/</u> (13.5) <u>2/</u> MERC-54K (12.6) <u>1/</u> (13.5) <u>2/</u>	AOX061	4250	E7SF-UA	E67E-BB E67E-BA (alt) E59E-AA (alt) E59E-AB (alt)	E6AE-CA E6AE-DA (alt)	E6AC-BB (-5E212-) E6AC-BB (-5E214-)

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Passenger Cars Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas Diesel _____

Manufacturer Ford Motor Company Engine Family HFMS.OV5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 ~~Otto Cycle~~

Emission Control Sys. (Special Features) EEC(EFI)EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type AOD	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
23RROON	FORD-74K (11.9) <u>1/</u> (12.5) <u>2/</u>	AOX061	4250	E7SF-UA	E67E-BB E67E-BA (alt) E59E-AA (alt) E59E-AB (alt)	E6AE-CA E6AE-DA (alt)	E6AC-BB (-5E212-) E6AC-BB (-5E214-)
	FORD-66K (11.5) <u>1/</u> (12.3) <u>2/</u>		4000				
	FORD-54K (11.5) <u>1/</u> (12.3) <u>2/</u> (13.0) <u>3/</u>		4250				
	MERC-74K (11.9) <u>1/</u> (12.5) <u>2/</u>						
	MERC-66K (11.5) <u>1/</u> (12.3) <u>2/</u>						
	MERC-54K (11.5) <u>1/</u> (12.3) <u>2/</u>						

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Passenger Cars X Light-Duty Trucks _____ Medium-Duty Vehicles _____ Gas X Diesel _____

Manufacturer Ford Motor Company Engine Family HFMS.0V5HBC7

Liter (CID) 5.0L (302) Eng. Type V8 Otto Cycle

Emission Control Sys. (Special Features) EEC/EFI/EGR/EGS/AIP/TWC

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type Manual	Equiv. Test Weight	Ign. System	Fuel System	EGR Valve	Catalyst
				EEC IV Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No.
21PRO5A *	MUST-61B (9.9) (non-GT)	M5X335	3500	E7SF-BB *	E6TE-AB	E6AE-CA E6AE-DA (alt) E7AE-AA * (alt)	E6ZC-BA (-5F250-)
	MUST-61B (9.0) (GT)		# 3500				
	MUST-66B (10.1)		3625				
	MUST-B2L (10.2)						
21PRO5N *	MUST-61B (9.0) (non-GT)		3500				
	MUST-61B (8.2) (GT)						
	MUST-66B (9.2)		# 3375 <u>2/</u>				
	MUST-B2L (9.3)		3625 ^v				

2/ Dual Cert.