

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-320
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>
HFM2.5V5HCH9	140,150 (2.3, 2.5)	Air Injection-Valve Exhaust Gas Recirculation Three-Way Catalyst Heated Oxygen Sensor (Central 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	1.7	0.5

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 31st day of July, 1986.



K. D. Drachand, Chief
Mobile Source Division

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Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9
 Evaporative Family 7FMC Engine Type ~~Otto Spark~~ I-4
 Liters (CID) (140/150) 2.3/2.5

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:

Tempo/Topaz (4 door ATX, MTX)
 Taurus (4 door ATX, MTX)
 (Station Wagon MTX only)
 Sablè (4 door ATX only)

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.3L (140) Eng. Type ~~Otto Spark~~ I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/~~EE~~ (CFI)

Engine Code	Vehicle Models (If Coded see attachment) <u>1/2/3/</u> (Dyno Hp) <u>3/</u>	Trans. Type <u>ALL</u> <u>A-3</u>	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	CFI Part No. -9C973-	Part No. -9F483-	Part No. -5E212-
726TROOA	Tempo-66D (1/2/) <u>2-dr</u>	ATO48 (2wd)	2875	E73F-NA	E73E-DB	E73E-BA	E73C-AA (2wd) E73X-AA (4wd)
	Topaz-66D (1/2/3/)	ATO48 (2wd)	2875				
	Tempo-66D (1/2/)	AWO44 (4wd)	3125				
	Topaz-66D (1/2/3/)	AWO44 (4wd)	3000				
	Tempo-54D (1/2/) <u>4-dr</u>	ATO48 (2wd)	3000				
	Topaz-54D (1/2/3/)	ATO48 (2wd)	3000				
	Tempo-54D (1/2/)	AWO44 (4wd)	3125				
	Topaz-54D (1/2/3/)	AWO44 (4wd)	3125				
	Tempo-66D (1/2/)	ATO48 (2wd)	2875				
	Topaz-66D (1/2/3/)	ATO48 (2wd)	2875				
726TROON	Tempo-66D (1/2/)	AWO44 (4wd)	3000				
	Topaz-66D (1/2/3/)	AWO44 (4wd)	3000				
	Tempo-54D (1/2/)	ATO48 (2wd)	2875				
	Topaz-54D (1/2/3/)	ATO48 (2wd)	2875				
	Tempo-54D (1/2/)	AWO44 (4wd)	3125				
	Topaz-54D (1/2/3/)	AWO44 (4wd)	3125				

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.3L (140) Eng. Type Otto Spark I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/~~FF~~ (CFI)

Engine Code	Vehicle Models (If Coded see attachment) $\frac{1/}{2/}$ (Dyno Hp) $\frac{3/}$	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	CFI Part No. -9C973-	Part No. -9F483-	Part No. -5E212-
25PROOA/N	Topaz-660 (A/C $\frac{1/2/3/}{}$) (non A/C $\frac{1/2/3/}{}$)	MTX-321B	2875	E73F-GB	E73E-CB	E73E-BA	E73C-AA
25PR10A/N	Tempo-54D (A/C $\frac{1/2/}{}$) (non A/C $\frac{1/2/}{}$)	MTX-321B	2875				
	Topaz-54D (A/C $\frac{1/2/3/}{}$) (non A/C $\frac{1/2/3/}{}$)	MTX-321B	2875				
25PROOA	Tempo-66D (A/C $\frac{1/2/}{}$)	MTX-321B	2875				
25PR10A							
25PROON	Tempo-66D (non A/C $\frac{1/2/}{}$)	MTX-321B	2750				
25PR10N							

For more see for abbreviations and evaporative emission family identification.

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.3L (140) Eng. Type ~~Otto Spark~~ I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/HC (CFI)

Engine Code	Vehicle Models (If Coded see attachment) $\frac{1/}{2/}$ (Dyno Hp) $\frac{3/}$	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No.	CFI Part No.	Part No.	Part No.
		<u>ALL</u>		Part No. -12A650-	CFI Part No. -9C973-	Part No. -9F483-	Part No. -5E212-
725QROOA	Tempo-66D (1/2/)	MTX 360C	2875	E73F-HB	E73E-BB	E73E-BA	E73C-AA
	Topaz-66D (1/2/3/)	MTX 360C	2875				
	Tempo-54D (1/2/)	MTX 360C					
	Topaz-54D (1/2/3/)	MTX 360C	2875				
725QROON	Tempo-66D (1/2/)	MTX 360C	2750				
	Topaz-66D (1/2/3/)	MTX 360C	2750				
	Tempo-54D (1/2/)	MTX 360C	2875				
	Topaz-54D (1/2/3/)	MTX 360C	2875				

nts: See page one for abbreviations and evaporative emission family identification.

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.3L (140) Eng. Type Otto Spark I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/~~FF~~ (CFI)

Engine Code	Vehicle Models (If Coded see attachment) $\frac{1/}{2/}$ (Dyno Hp) $\frac{3/}$	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	CFI Part No. -9C973-	Part No. -9F483-	Part No. -5E212-
726RROOA	Tempo-66D (<u>1/2/</u>)	AT043	2875	E73F-KA	E73E-AC	E73E-BA	E73C-AA
	Topaz-66D (<u>1/2/3/</u>)	AT043	2875				
	Tempo-54D (<u>1/2/</u>)	AT043	2875				
	Topaz-54D (<u>1/2/3/</u>)	AT043	3000				
726RROON	Tempo-66D (<u>1/2/</u>)	AT043	2875	E73F-KA	E73E-AC	E73E-BA	E73C-AA
	Topaz-66D (<u>1/2/3/</u>)	AT043	2875				
	Tempo-54D (<u>1/2/</u>)	AT043	2875				
	Topaz-54D (<u>1/2/3/</u>)	AT043	2875				

Notes: See page one for abbreviations and evaporative emission family identification.

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.5L (150) Eng. Type ~~Otto Spark~~ I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/~~PI~~ (CFI)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp) $\frac{1/}{2/}$	Trans. Type <u>ALL</u> <u>A-3</u>	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	CFI Part No. -9C973-	Part No. -9F482-	Part No. -5E212-
720TROOA	Taurus-54D (<u>1/2/</u>)	AT047	3250	E7DF-ZA	E6AE-CB	E53E-AC	E7DC-DA
	Sable-54D (<u>2/</u>)	AT047	3375				
720TROON	Taurus-54D (<u>1/2/</u>)	AT047	3250	E7DF-ZA	E6AE-CB	E53E-AC	E7DC-DA
	Sable-54D (<u>2/</u>)	AT047	3375				

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

Manufacturer Ford Motor Company Engine Family HFM2.5V5HCH9

Liter (CID) 2.5L (150) Eng. Type ~~Otto Spark~~ I-4

Emission Control Sys. (Special Features) EGR/EGS/AIV/TWC/~~PF~~ (CFI)

Engine Code	Vehicle Models (If Coded see attachment) <u>1/ ALL</u> <u>2/ M-5</u> (Dyno Hp) <u>3/</u>	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System CFI	EGR Valve	Catalyst
				Part No. -12A650-	Part No. -9C973-	Part No. -9F483-	Part No. -5E212-
719SR03A	Taurus-54D (Sedan) (<u>2/3/</u>)	MTX 360C	3250	E7DF-LA	E6AE-DA	E53E-AC	E7DC-DA
	Taurus-74D (Sta Wagon) (<u>1/</u>)	MTX 360C	3375				
719SR03N	Taurus-54D (Sedan) (<u>2/3/</u>)	MTX 360C	3250				
	Taurus-74D (Sta Wagon) (<u>1/</u>)	MTX 360C	3375				

Comments: See page one for abbreviations and evaporative emission family identification.