

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-318  
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>
HFM3.8V5HHC7	231 (3.8)	Air Injection - Pump Exhaust Gas Recirculation Dual Oxidation Catalysts Three-Way Catalyst Dual Oxygen Sensors (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>
0.31	3.8	0.6

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 1<sup>st</sup> day of August, 1986.



K. D. Drachand, Chief  
Mobile Source Division

Manufacturer Ford Motor Company Engine Family HFM3.8V5HHC7  
 Evaporative Family 7FM Engine Type V6 ~~Otto Cycle~~  
 Liters (CID) 3.8 (231)

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:

<u>Vehicle Line</u>	<u>Body Style</u>	<u>Nameplate</u>
Thunderbird	2-DR Sedan	Thunderbird Thunderbird LX
Cougar	2-DR Sedan	Cougar Cougar LS

Drive: Front   x   Mid.        Rear         
 Drive: FWD        RWD   x   4WD Full Time        4WD Part Time

1987 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Passenger Cars x Light-Duty Trucks \_\_\_\_\_ Medium-Duty Vehicles \_\_\_\_\_ Gas x Diesel \_\_\_\_\_

Manufacturer Ford Motor Company Engine Family HFM3.8V5HHC7

Liter (CID) 3.8 (231) Eng. Type V6

Emission Control Sys. (Special Features) EEC/AIP/EGR/CL/OC/TWC/CFI

Engine Code	Vehicle Models (If Coded see attachment)  (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) -12A650- Part No.	Fuel System -9C973- Part No.	EGR Valve -9F483- Part No.	Catalyst  Part No.
-16A-ROOA	Thunderbird (8.1 & 9.7)* Cougar (9.1 & 10.3)	A40D	3500	E73F- -PA	E7SE- -CA	E4AE- -AA or E4AE- -AC or E7SE- -AA	Underbody COC E6SC-5F250- BA
-16A-ROON	Thunderbird (7.4 & 8.8) Cougar (8.3 & 9.4)						Toeboard TWC E6SC-5F212- BA
-16N-ROOA	Thunderbird (8.1 & 9.7) Cougar (9.1 & 10.3)	A3	3500	E73F- -CA	E6SE- -DA		
-16N-ROON	Thunderbird (7.4 & 8.8) Cougar (8.3 & 9.4)						

Comments: See page one for abbreviations and evaporative emission family identification.  
 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.  
 \*The second (greater) Dyno HP value listed applies to vehicles with optional P215/70HR14 tires.

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