State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-374
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 1989 model-year Ford Motor Company exhaust emission control systems are certified as described below for gasoline-powered passenger cars:

Engine Family	Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems (Special Features)
KFM5.0V5HBC1	5.0	(302)	Air Injection-Pump Exhaust Gas Recirculation Oxidation Catalyst Three-Way Catalyst Heated Oxygen Sensor (Sequential Port Fuel Injection) On-Board Diagnostics (Exempted)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
0.39	7.0	0.7

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

Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
0.21	0.3	0.4

BE IT FURTHER RESOLVED: That the listed models are 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 vehicle manufacturer is certifying to the optional NOx standard by provicing evidence that there are sufficient projected sales of vehicles certifying to the primary NOx emission

standard, or is allowed a delay in implementation under small volume manufacturer provisions, or is allowed a delay in implementation under the "in lieu" standards, or is certifying passenger cars weighing more than 5250 lbs. loaded vehicle weight.

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 1988 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 the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) 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.) with the 2 year/24,000 mile warranty provisions of 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 27th day of June, 1988.

K. D. Drachand, Chief
Mobile Source Division

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Ford Motor Company Engine Family KFM5.0V5HBC1

Evaporative Family 9HM Engine Type V8

Liters (CID) 5.0 (302)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Fuel System

CFI, DID, DIP, EPFI,
MPFI, HOS, OS,
nV-nVenturi Carburetor
vV-Variable Venturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection - Pump
AIV-Air Injection - Valve
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control (Diesel Only)
EM-Engine Modification
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
2DBC-Dual Bed Catalyst
OC-Oxidation Catalyst
TWC-Three-Way Catalyst
WUOC-Warm-Up Oxidation Catalyst
WUTWC-Warm-Up Three-Way Catalyst
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor

Special Features

CFI-Central Fuel Injection or Throttle Body Injection
EPFI-Electronic Port Fuel Injection
MPFI-Mechanical Port Fuel Injection
SFI-Sequential Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
TC-Turbocharger
SC-Supercharger
IC-Intercooler or Aftercooler
CCV-Combustion Chamber Valve
OBD-On-Board Diagnostics

VEHICLE MODELS:
FORD-74K 4 DR WAGON (CROWN VICTORIA)
FORD-54K 4 DR SEDAN (CROWN VICTORIA)
LINCOLN-54D 4 DR SEDAN (TOWN CAR)
MERCURY-74K 4 DR SEDAN (GRAND MARQUIS)
MERCURY-54K 4 DR SEDAN (GRAND MARQUIS)
MARK VII-63D 2 DR SEDAN (MARK VII)
MARK VII-63L 2 DR SEDAN (MARK LSC)
MUSTANG-66B 2 DR SEDAN
MUSTANG-61B 3 DR NON-GT HATCHBACK
MUSTANG-HVB 3 DR GT HATCHBACK
MUSTANG-B2L 2 DR CONVERTIBLE

Engine: Front XX Mid._____ Rear_____

Drive: FWD _____ RWD XX 4WD Full Time_____ 4WD Part Time_____

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

assenger Cars X light-Duty Trucks ____ Medium-Duty Vehicles ____ Gas X Diesel ____

anufacturer FORD MOTOR COMPANY Engine Family KFM5.0V5HBC1

iter (CID) 5.0 (302) Eng. Type V8

mission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) EEC IV Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -97483-	Catalyst 2-TWC, 2-OC Part No. -5F250-
821PR10A	MUST 3DR GT (9.0) NON-GT (9.9)	M5	3500 02/	E8ZF-DA E8ZF-DB (alt) E9ZF-DA (alt)	E6TE-AB	E6AE-CA E6AE-DA (alt) E7AE-AA (alt)	E6ZC-BA E6ZB-BB (alt) E7ZC-DA (alt) E8ZC-BA (alt) E8ZC-CA (alt)
	MUST 2DR (10.1)		3500				
	MUST CONV (10.2)		3625				
821PR10N	MUST 3DR GT (8.2) NON-GT (9.0)		3500				
	MUST 2DR (9.2)		3500				
	MUST CONV (9.3)		3625				

omments: See page one for abbreviations and evaporative emission family identification. lease refer to manufactureres HP list for correct dyno test HP settings based on model and quipment. If two test weights are listed, the lower weight will be used for testing.
2/ Actual equivalent test weight (ETW) as shown. However, Ford elects to conduct test in the ext higher ETW.

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars X light-Duty Trucks ____ Medium-Duty Vehicles ____ Gas X Diesel ____

Manufacturer FORD MOTOR COMPANY Engine Family KFM5.0V5HBC1

Liter (CID) 5.0 (302) Eng. Type V8

Emission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) EEC IV Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -97483-	Catalyst 2-TWC, 2-OC Part No.
822LROOA	MARK LSC (8.6)	A-4	4000	EFSF-XD	E6TE-AB	E6AE-CA E6AE-DA (alt) E7AE-AA (alt) E7AE-BA (alt)	E7LC-CA (-5F250- E8LC-AA (alt) E8LC-DA (alt) E8LC-EA (alt)
822MROOA	LINCOLN (13.0)		4250	E7SF-ADB E7SF-ADC (alt) E8SF-ADA (alt)	E67E-BB E59E-AB (alt)		E6AC-BB (-5E212- E8AC-DA (alt) E8AC-EA (alt) E6AC-BB (-5E214- E6AC-BC (alt) E8AC-DA (alt) E8AC-EA (alt)
	FORD/MERC S/W (12.9) SEDAN (11.4)		4250 4000 02/				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufactureres 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.
02/ Actual equivalent test weight (ETW) as shown. However, Ford elects to conduct test in the next higher ETW.

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

ger Cars xx Light-Duty Trucks ____ Medium-Duty Vehicles ____ Gas xx Diesel ____

Manufacturer Ford Motor Company Engine Family KFM5.0V5HBC1

Liter (CID) 5.0 (302) Eng. Type V8

Emission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) EEC-IV Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -9F483-	Catalyst 2-TWC, 2-OC Part No.
822MR00N	FORD/MERCURY S/W (11.7) SEDAN (10.4)	A-4	4250 4000	E7SF-ADB E7SF-ADC (alt) E8SF-ADA (alt)	E67E-BB E59E-AB (alt)	E6AE-CA E6AE-DA (alt) E7AE-AA (alt) E7AE-BA (alt)	E6AC-BB (-5E212- E8AC-DA (alt) E8AC-EA (alt) E6AC-BB (-5E214- E6AC-BC (alt) E8AC-DA (alt) E8AC-EA (alt)
822NR00A	MERC S/W (12.9)		4250	E7SF-APB E7SF-APC (alt) E7SF-ZA (alt)			
822NR00N	MERC S/W (11.7)						
822PR12A	MUST 3DR GT (9.0) NON-GT (9.9)		3625	E8ZF-GC E9ZF-EA (alt)	E6TE-AB	E6AE-CA E6AE-DA (alt) E7AE-AA (alt)	E6ZC-BA (-5F250- E6ZC-BB (alt) E7ZC-DA (alt) E8ZC-BA (alt) E8ZC-CA (alt)
	MUST 2DR (10.1)		3500				
	MUST CONV (10.2)		3750				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufactureres HP list for correct dyno test HP settings based on model and ent. If two test weights are listed, the lower weight will be used for testing.

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

assenger Cars xx Light-Duty Trucks ____ Medium-Duty Vehicles ____ Gas xx Diesel ____

anufacturer Ford Motor Company Engine Family KFM5.0V5HBC1

iter (CID) 5.0 (302) Eng. Type V8

mission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -9F483-	Catalyst 2-TWC, 2-OC Part No. -5F250-
822PR12N	MUST 3DR GT (8.2) NON-GT (9.0)	A-4	3625	E8ZF-GC E9ZF-EA (alt)	E6TE-AB	E6AE-CA E6AE-DA (alt) E7AE-AA (alt)	E6ZC-BA E6ZC-BB (alt) E7ZC-DA (alt) E8ZC-BA (alt) E8ZC-CA (alt)
	MUST 2 DR (9.2)		3500				
	MUST CONV (9.3)		3625				
822RR00A	MARK VII (10.4)		4000	E7SF-AKD		E6AE-CA E6AE-DA (alt) E7AE-AA (alt) E7AE-BA (alt)	E7LC-CA E8LC-AA (alt) E8LC-DA (alt) E8LC-EA (alt)

omments: See page one for abbreviations and evaporative emission family identification. lease refer to manufactureres HP list for correct dyno test HP settings based on model and quipment. If two test weights are listed, the lower weight will be used for testing.

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mission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -9F483-	Catalyst 2-TWC, 2-OC Part No.
822QR00A	LINCOLN (13.0)	A-4	4250	E7SF-ABA E7SF-ABB (alt) E8SF-ABA (alt)	E67E-BB E59E-AB (alt)	E6AE-CA E6AE-DA (alt) E7AE-AA (alt) E7AE-BA (alt)	E6AC-BB (-5E212- E8AC-DA (alt) E8AC-EA (alt) E6AC-BB (-5E214- E6AC-BC (alt) E8AC-DA (alt) E8AC-EA (alt)
	FORD/MERCURY S/W (12.9)		4250				
	MERC SEDAN (11.4)		4000 02/				
	FORD SEDAN (11.4)		4000				
822QR00N	FORD/MERCURY S/W (11,7)		4250				
	SEDAN (10.4)		4000				

omments: See page one for abbreviations and evaporative emission family identification. lease refer to manufactureres HP list for correct dyno test HP settings based on model and quipment. If two test weights are listed, the lower weight will be used for testing.

2/ Actual equivalent test weight (ETW) as shown. However, Ford elects to conduct test in he next higher ETW.

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

assenger Cars xx Light-Duty Trucks ____ Medium-Duty Vehicles ____ Gas xx Diesel ____

anufacturer Ford Motor Company Engine Family KFM5.0V5HBC1

iter (CID) 5.0 (302) Eng. Type V8

mission Control Sys. (Special Features) AIP, EGR, OC, TWC, HOS (SFI, OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System (EDFI) Part No. -9F593-	EGR Valve ELECTRONIC Part No. -9F483-	Catalyst 2-TWC, 2-OC Part No.
822SR00A	FORD SEDAN (11.4) MERC SEDAN (11.4)	A-4	4000 4000 02/	E7SF-AFA E7SF-AFB (alt) E8SF-AFA (alt)	E67E-BB E59E-AB	E6AE-CA E6AE-DA (alt) E7AE-AA (alt) E7AE-BA (alt)	E6AC-BB (-5E212- E8AC-DA (alt) E8AC-EA (alt) E6AC-BB (-5E214- E6AC-BC (alt) E8AC-DA (alt) E8AC-EA (alt)
822SR00N	FORD/MERCURY SEDAN		4000				

omments: See page one for abbreviations and evaporative emission family identification. lease refer to manufactureres HP list for correct dyno test HP settings based on model and quipment. If two test weights are listed, the lower weight will be used for testing.
2/ Actual equivalent test (ETW) as shown. However, Ford elects to conduct test in the higher ETW.

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