

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-377
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 light-duty trucks and medium-duty vehicles:

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems</u>
	<u>Liters (Cubic Inches)</u>		<u>(Special Features)</u>
KFM4.9T5HGG7	4.9	(300)	Air Injection - Pump Exhaust Gas Recirculation Heated Oxygen Sensor Three-Way Catalyst Oxidation Catalyst (Electronic Port Fuel Injection) On-Board Diagnostics (Exempt)

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>Loaded Vehicle</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>
<u>Weight(lbs.)</u>	<u>(Grams per Mile)</u>	<u>(Grams per Mile)</u>	<u>(Grams per Mile)</u>
3751 - 5750	0.50	9.0	1.0

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

<u>Loaded Vehicle</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>
<u>Weight(lbs.)</u>	<u>(Grams per Mile)</u>	<u>(Grams per Mile)</u>	<u>(Grams per Mile)</u>
3751 - 5750	0.23	1.8	0.5

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.) and 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 30th day of June, 1988.

K. D. Drachand, Chief
Mobile Source Division

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 1

Manufacturer Ford Motor Company Engine Family KFM4.9T5HGG7
 Evaporative Family 9HM Engine Type I6
 Liters (CID) 4.9L

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
 ECU-Electronic Control Unit
 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
 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
 DBC-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

Fuel System

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

VEHICLE MODELS:

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

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars _____ light-Duty Trucks XXX Medium-Duty Vehicles XXX Gas XXX Diesel _____
 Manufacturer Ford Motor Company Engine Family KFM4.9T5HGG7
 Liter (CID) 4.9L Eng. Type I6
 Emission Control Sys. (Special Features) AIP/EGR/TWC/OC/OS (EFI)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No. -5F250-
851RR00B	F150 - 4X2			E8TF-AAB	E67E-BB	E8TE-CA or E7TE-DA	E8TA-EC
	RC - SWB	M5X390	4250				
	RC - LWB	M5X572	4500				
		M5X390					
	SC - SWB	M5X390	4500				
			4750				
	SC - LWB	M5X390	4750				
	F250 - 4X2						
	RC - SWB	M5X390	4750				
		M5X572					
	F150 - 4X4						
	RC - SWB	M5X572	4500				
	M5X390						
RC - LWB	M5X572	4750					
	M5X390						
F250 - 4X4							
RC - LWB	M5X572	5000					
BRONCO 4X4							
	M5X572	5000					
	M5X390	4750					
		5000					
			E8TA-FB				

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.

Date of Issue: 5-12-88

Revisions:

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET (continued)

Passenger Cars _____ light-Duty Trucks XXX Medium-Duty Vehicles XXX Gas XXX Diesel _____Manufacturer Ford Motor Company Engine Family KFM4.9T5HGG7Liter (CID) 4.9L Eng. Type I6Emission Control Sys. (Special Features) AIP/EGR/TWC/OC/^{NO5}OS (EFI)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No. -5F250-
751RR00B	F150 - 4X2 RC - LWB	M4-632	4500	E8TF-CMA	E67E-BB	E8TE-DA or E7TE-CA	E8TA-EC
	F250 - 4X2 RC - LWB		4750				
	F150 - 4X4 RC - SWB		4500				
	RC - LWB		4750				
	SC - SWB		5000				
	SC - LWB		5000				
	BRONCO 4X4		5000				
752RR10B	F150 - 4X2 RC - SWB	C6-029 C6-027 C6-029 C6-027 C6-027	4250 4500 4250 4500 4500	E8TF-BPA			E8TA-EC
	RC - LWB		4500				
	SC - SWB/LWB		4750				
	F250 - 4X2 RC - LWB		4750				

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.

Date of Issue: 5-12-88

Revisions:

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET (continued)

Passenger Cars _____ light-Duty Trucks XXX Medium-Duty Vehicles XXX Gas XXX Diesel _____Manufacturer Ford Motor Company Engine Family KFM4.9T5HGG7Liter (CID) 4.9L Eng. Type I6Emission Control Sys. (Special Features) AIP/EGR/TWC/OC/OS (EFI) ^{HOS}

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU)	Fuel System	EGR Valve	Catalyst
				Part No. -12A650-	Part No. -9F593-	Part No. -9F483-	Part No. -5F250-
752QR00B	E150 - 4X2 RV - SWB	C6-029	4250	E8TF-BVA	E67E-BB	E8TE-DA or E7TE-CA	E8UA-GA
			4500				
	C6-027	4250					
		4500					
	RV - LWB	C6-029	4500				
			4750				
	C6-027	4500					
		4750					
	SV - LWB	C6-027	4750				
			5000				
	CW - LWB	C6-027	5000				
			5250				
	E250 - 4x2 RV - LWB SV - LWB	C6-027	4750				
		C6-027	5000				

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.

Date of Issue: 5-12-88

Revisions:

17.02-4

SDS0249G.WP