

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-404  
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:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
KFM2.9T5FRC7	2.9 (179)	Heated Oxygen Sensor Three-Way Catalyst (Electronic 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:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (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 Weight (lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
3751-5750	0.22	7.2	0.1

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.).

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 13<sup>th</sup> day of September, 1988.

  
K. D. Drachand, Chief  
Mobile Source Division

## 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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Manufacturer Ford Motor Company Engine Family K2.9TRC (KFM2.9T5FRC7)  
 Evaporative Family 9HM Engine Type V6  
 Liters (CID) 2.9 (179)

## 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:

Ranger 4x4  
 SCS

Bronco II 4x2 Utl

Bronco II 4x4 Utl

Engine: 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 X Medium-Duty Vehicles \_\_\_\_\_ Gas X Diesel \_\_\_\_\_  
 Manufacturer Ford Motor Company Engine Family K2.9TRC (KFM2.9T5FRC7)  
 Displacement (CID) 2.9 (179) Eng. Type V6  
 Emission Control Sys. (Special Features) TWC, HOS (EPFI, 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 (EPFI) Part No. -9F593-	EGR Valve (None) Part No.	Catalyst (TWC) Part No. -5E212-
965TR00A/N	Ranger 4x4 SCS (13.3)  Bronco II 4x4 Utl (11.3) (12.4*)	M5	3750  3875*	E9TF-UA	E67E-BB		E97A-DA

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.

\* with air conditioning

Date of Issue: **AUG 26 1988**

Revisions:

## 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars \_\_\_\_\_ light-Duty Trucks X Medium-Duty Vehicles \_\_\_\_\_ Gas X Diesel \_\_\_\_\_Manufacturer Ford Motor Company Engine Family K2.9TRC (KFM2.9T5FRC7)Displacement (CID) 2.9 (179) Eng. Type V6Emission Control Sys. (Special Features) TWC, HOS (EPFI, 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 (EPFI) Part No. -9F593-	EGR Valve (None) Part No.	Catalyst (TWC) Part No. -5E212-
966TR02A/N	Ranger 4x4 SCS (13.3)  Bronco II 4x2 Ut1 (12.4)  Bronco II 4x4 Ut1 (11.3) (12.4*)	A4LD	3750   3875	E9TF-VB	E67E-BB		E97A-DA

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.

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