State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-383 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 28, 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		ispiacement s (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
KFM1.9V5HMK4	1.9	(113)	Exhaust Gas Recirculation Heated Oxygen Sensor Air Injection-Valve Dual Bed 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:

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

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

Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	
(Grams per Mile),	(Grams per Mile)	(Grams per Mile)	
0.17	2.5	0.6	

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 providing 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 "Maifunction 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 $\frac{q_{\omega}}{2}$ day of August, 1988.

K. D. Drachand, Chief Mobile Source Division

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

VA-Vacuum Advance EM-Engine Modification Fuel Injection VR-Vacuum Retard SPL-Smoke Puff Limiter or Throttle Delay Injection Throttle Delay TOC-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical DBC-Dual Bed Catalyst OC-Oxidation Catalyst Injection Fuel System TWC-Three-Way Catalyst WUC-Warm-Up Oxidation Catalyst WUTWC-Warm-Up Oxidation Catalyst Injection-Direct DID-Diesel Injection-Direct MFFI, HOS, OS, OS-Oxygen Sensor OS-Oxygen Sensor DIP-Diesel Injection-Direct NV-Nariable Venturi Carburetor HOS-Heated Oxygen Sensor DIP-Diesel Injection-Direct VEHICLE MODELS: Escort-61D - 3DR Sedan SC-Supercharger IC-Intercooler Oxygler VEHICLE MODELS: Escort-61D - EXP Engine: Front x Mid. Rear Rear Drive: FWD x RWD 4WD Full Time 4WD Part Time Issue Date 6-24-88 17.00.00.00-2 Revised			<u>Page 1</u>			
ABBREVIATIONS Ignition System CA-Centrifugal Advance CGU-Electronic Control Unit ESAG-Electronic Syark Advance Control VA-Vacuum Advance VR-Vacuum Advance VR-Vacuum Retard Fuel System Fuel System CFI, DID, DIP, EFFI, WUCG-Warn-Up Oxidation Catalyst CFI, DID, DIP, EFFI, WUCG-Warn-Up Oxidation Catalyst CFI, DID, DIP, EFFI, WUCG-Warn-Up Oxidation Catalyst CFI, DID, DIP, EFFI, WUGG-Warn-Up Oxidation Catalyst CFI, DIP, CFI, WUTWC-Warn-Up Three-Way Catalyst CFI, DIP, CFI, DIP, EFFI, WUTWC-Warn-Up Three-Way Catalyst CFI-Central Fuel Injection or Throttle Body Injection CFI-Electronic Port Fuel Injection CFI-Electronic Port Fuel Injection CFI-Electronic Port Fuel Injection CFI-Sequential Fuel Injection DID-Diesel Injection DID-Diesel Injection DID-Diesel Injection DIP-CT CO-Combustion Chamber TC-Turbocharger TC-	Manufacturer Ford Motor Compa	Engine Family KFM1.9	•			
ABBREVIATIONS Ignition System CA-Centrifugal Advance ECU-Electronic Control Unit ECU-Electronic Control Unit ESAC-Electronic Spark Advance COntrol VA-Vacuum Advance VR-Vacuum Advance VR-Vacuum Retard VA-Vacuum Retard VR-Vacuum Retard Fuel System CFI-Central Fuel Injection or Valve ECR-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, Continual TOP-Trap Oxidizer, Periodical DBC-Dual Bed Catalyst OC-Oxidation Catalyst OC-Oxidation Catalyst WUTC-Warm-Up Three-Way Catalyst WUTC-Warm-Up Three-Way Catalyst OS-Oxygen Sensor WFI-Nest, OS, Oxygen Sensor WFI-Nest, OS, Oxygen Sensor WV-Variable Venturi Carburetor VV-Variable Venturi Carburetor VV-Variable Venturi Carburetor VEHICLE MODELS: Escort-67D - EXP Engine: Front x Mid. Rear Drive: FVD x RWD 4WD Full Time 4WD Fart Time Issue Date 6-24-88 T7.00.00.00-2 Revised AIP-Air Injection - Pump AIV-Air Injection - Pump CFI-Central Fuel Injection or Throttle Body Injection On Firethal Injection Control Control Unjection or Tortute Dady Injection Tortut	Evaporative Family 9HMB	Engine Type 1-4				
Ignition System CA-Centrifugal Advance ECU-Electronic Control Unit EI-Electronic Ignition EI-Electronic Ignition ESAG-Electronic Ignition ESAG-Electronic Ignition ESAG-Electronic Ignition ESAG-Electronic Ignition ECH-Ekhaust Gas Recirculation Control VA-Vacuum Advance VR-Vacuum Advance VR-Vacuum Retard SPL-Smoke Puff Limiter or Throttle Delay TOG-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical DBG-Dual Bed Catalyst OC-Oxidation Catalyst TWC-Three-Way Catalyst OS-Oxygen Sensor Fuel System Fuel Nos, Os, nV-nVenturi Carburetor WV-Variable Venturi Carburetor WV-Variable Venturi Carburetor VEHICLE MODELS: Escort-61D - 3DR Sedan Escort-67D - EXP Engine: Front x Mid. Rear Drive: FWD x RWD 4WD Full Time 4WD Part Time TISSUE Date 6-24-88 17,00.00.00-2 Revised AIP-Air Injection - Pump AIV-Air Injection - Pump EIC-Electronic Port Throttle Body Injection Throttle Body Injection CFI-Central Fuel Injection or Throttle Body Injection SFI-Sequential Fort Fuel SFI-Sequential Fort Fuel Injection SFI-Sequential Fuel Injection DID-Diesel Injection DID-Diesel Injection DID-Diesel Injection CFI-Central Fuel Injection or Throttle Body Injection SFI-Sequential Fort Fuel SFI-Sequential Fort Fuel Injection SFI-Sequential Fuel Injection DID-Diesel Injection		Liters (CID) 1.9L	(113)			
CA-Centrifugal Advance ECU-Electronic Control Unit EI-Electronic Ignition ESAG-Electronic Spark Advance Control Control VR-Vacuum Retard WR-Vacuum Retard WR-Vacuum Retard MR-Miniper Modification SPL-Smoke Puff Limiter or Throttle Delay TOC-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical DBC-Dual Bed Catalyst OC-Oxidation Catalyst WUTC-Warm-Up Oxidation Catalyst WUTC-Warm-Up Three-Way Catalyst MUTC-Warm-Up Three-Way Catalyst OS-Oxygen Sensor WV-Variable Venturi Carburetor WV-Variable Venturi Carburetor WW-Wariable Venturi Carburetor WEHICLE MODELS: Escort-61D - 3DR Sedan Escort-67D - EXP Engine: Front x Mid. Rear Drive: FWD x RWD 4WD Full Time 4WD Part Time Tissue Date 6-24-88 17.00.00.00-2 Revised CFI-Central Fuel Injection or Throttle Body Injection MFFI-Mechanical Port Fuel Injection MFFI-Mechanical Port Fuel Injection DID-Diesel Injection DID-Diesel Injection DID-Diesel Injection Throttle Body Injection MFFI-Mechanical Port Fuel Injection MFFI-Mechanical Port Fuel Injection MFI-Mechanical Port Fuel Injection DID-Diesel Injection DID-Diesel Injection Direct DID-Diesel Injection Direct DIP-Diesel Injection CC-Cambustion Chamber Valve OBD-On-Board Diagnostics	ABBREVIATIONS					
ECU-Electronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control (Diesel Only) EN-Engine Modification SPI-Smoke Puff Limiter or Throttle Body TOC-Trap Oxidizer, Continual TOP-Trap Oxidizer, Periodical DBC-Dual Bed Catalyst OC-Oxidation Catalyst ON-NVenturi Carburetor VV-Variable Venturi Carburetor VV-Variable Venturi Carburetor VEHICLE MODELS: Escort-67D - EXP Engine: Front x Mid. Rear Drive: FWD x RWD 4WD Full Time 4WD Part Time Injection or Throttle Body Injection or Throttle Body Injection ON EFFI-Electronic Port Fuel Injection OMFI-Hechanical Port Fuel Injection OMFI-Mechanical Port Fuel Injection OMFI-Mechanical Port Fuel Injection ON-Fi-Sequential Fuel Injection ODID-Diesel Injectio	Ignition System	Exhaust Emissions Control System	Special Features			
Fuel System TWC-Three-Way Catalyst WUCC-Warm-Up Oxidation Catalyst WUCC-Warm-Up Oxidation Catalyst Direct DID-Diesel Injection-Direct CFI, DID, DIP, EFFI, WUTWC-Warm-Up Three-Way Catalyst NP-INCED CATALYST ON CATA	ECU-Electronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control VA-Vacuum Advance	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	Injection or Throttle Body Injection EPFI-Electronic Port Fuel Injection MPFI-Mechanical Port Fuel Injection SFI-Sequential Fuel			
VEHICLE MODELS: Escort-61D - 3DR Sedan Escort-67D - EXP Engine: Front_x_Mid Rear Drive: FWD _x_RWD 4WD Full Time 4WD Part Time Issue Date 6-24-88 17.00.00.00-2 Revised	CFI, DID, DIP, EPFI, MPFI, HOS, OS, nV-nVenturi Carburetor	TWC-Three-Way Catalyst WUOC-Warm-Up Oxidation Catalyst WUTWC-Warm-Up Three-Way Catalyst OS-Oxygen Sensor	DID-Diesel Injection- Direct DIP-Diesel Injection- Prechamber TC-Turbocharger SC-Supercharger IC-Intercooler or Aftercooler CCV-Combustion Chamber Valve			
Drive: FWD AWD Full Time 4WD Part Time Issue Date 6-24-88 17.00.00.00-2 Revised			Diagnostics			
Revised	Drive: FWD <u>x</u> RWD					
		17.00.00.00-2				
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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

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) <u>1.9L (113)</u>						
Emission Co	ontrol Sys. (Specia	al Featur	es) <u>ESA</u>	C.EPFI.AIV.EGR	.DBC.TWC.HOS		
Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. 12A650	Fuel System Part No. 9F593	EGR Valve Part No. 9D475	Catalyst Part No. 5E212
807ER10A with A/C 807ER10N non A/C	Escort GT (6.9) Escort EXP (6.2) Escort GT (6.3) Escort EXP (5.6)		2750	E8EF-AC	E6EE-AB	E7EE-AA	E8EC-AA E9EC-AA (alt.)

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.

Issue Date	6-24-88	17.00.00.00-3
Revised	9-29-88 12-12-	-88