

File

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-713
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 Order G-45-9;

IT IS ORDERED AND RESOLVED: That Ford Motor Company 1997 model-year exhaust emission control systems are certified as described below for light-duty trucks:

Emission Standard Category: Transitional Low-Emission Vehicle (TLEV)

Fuel Type: Gasoline

Engine Family: VFM4.028G2HK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Dual Three Way Catalytic Converters
- Dual Heated Oxygen Sensors (two)
- Exhaust Gas Recirculation
- Sequential Multiport Fuel Injection

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

The non-methane organic gases (NMOG), carbon monoxide (CO), oxides of nitrogen (NOx), and formaldehyde (HCHO) TLEV certification exhaust emission standards for this engine family in grams per mile are:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
3751-5750	50,000	0.160	4.4	0.7	0.018	12.5
	100,000	0.200	5.5	0.9	0.023	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.98

The certification exhaust emission values set forth for NMOG reflect application of a 0.98 RAF for 1997 model-year TLEVs. The TLEV certification exhaust emission values for this engine family in grams per mile are:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Miles</u>	<u>NMOG</u>	<u>CO</u>	<u>NOx</u>	<u>HCHO</u>	<u>CO (20°F)</u>
3751-5750	50,000	0.144	2.1	0.3	0.001	4.1
	100,000	0.170	2.5	0.4	0.001	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is verifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average NMOG exhaust mass emission requirements as set forth 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 under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the running loss and useful life standards applicable to 1995 and subsequent model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles," and the listed vehicle models comply with those standards.

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" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, 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 Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty vehicles and Engines").


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 provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the vehicle manufacturer has demonstrated compliance with the exhaust emission standards at 50 degrees Fahrenheit as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles."

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 26th day of July 1996.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1997 MODEL YEAR SUPPLEMENTAL DATA SHEET
 EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
 PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

E.O.# A-10-713

Mfgr. FORD MOTOR COMPANY

Exhaust Engine Family: VFM4.028G2HK

Engine Code Types: CA X 49S 50S

Evap Emissions Family: VFM1120AYMED

Exh Std: Tier-0 Tier-1 TLEV X LEV ULEV ZEV EPA TIER-0 TIER-1

Evap Std: 50K X Useful Life with R/L In-Use Exh Std: Full In Use X Alt In Use

Veh Class(es): PC LDT1 LDT2 X MDV1 MDV2 MDV3 MDV4 MDV5

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1,MDV1,MDV2,MDV3,MDV4)

Exh Cert Fuel(s): Indo Ph2 X Diesel: 13 CCR 2282 or 40CFR 86.113-90 or -94
 M85 CNG LPG Other (specify)

Fuel Type(s): Dedicated Flex Fuel Dual-Fuel
 Gasoline X Diesel M85 CNG LPG Other (specify)

Hybrid: Type A B C , APU Cycle (eg., Otto, Diesel, Turbine)

Engine Config V-Block Displacement: 4.0L (244) Liters (Cubic Inches)

Valves/Cyl: 2 Rated HP: 200 @ 5250 RPM

Engine: Front X Mid Rear Drive: Fwd RWD X 4WD-FT 4WD-PT

Exhaust Control System and Special Features 2TWC, 2HO2S(2), EGR, SFI
 (Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
758VR00A	EXPLORER 2WD	A(TCB)	4250	13.3	F77C-AHA	F77E-EA	F77A-ED(LH)
758VR00A	EXPLORER 2WD	A(TCB)	4500	13.3		alt:F77E-FA	F77A-CC(RH)
758WR00A	EXPLORER 4WD	A(TCB)	4500	13.3	F77C-ANA	"	"
758WR00A	EXPLORER 4WD	A(TCB)	4750	13.3		"	"
758VR05A	EXPLORER 2WD	A(TCB)	4250	13.3	F77F-AHB	"	"
	EXPLORER 4WD	" "	4500	13.3	"	"	"
			4750	13.3	"	"	"
758VR06A	EXPLORER 2WD	" "	4250	13.3	F77F-AHC	"	"
			4500	13.3	"	"	"
	EXPLORER 4WD	" "	4500	13.3	"	"	"
		" "	4750	13.3	"	"	"
758VR10A	EXPLORER 2WD	" "	4250	13.3	F77F-AHD	"	"
			4500	13.3	"	"	"
	EXPLORER 4WD	" "	4500	13.3	"	"	"
		" "	4750	13.3	"	"	"

Engine Family: VFM4.028G2HK

20.09.17.02-1

Issue Date: 07-12-96

Revised: **OCT 24 1996**

E.O.# A-10-713

1997 MODEL YEAR SUPPLEMENTAL DATA SHEET
EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY

Exhaust Engine Family: VFM4.028G2HK

Engine Code Types: CA X 49S___ 50S___

Evap Emissions Family: VFM1120AYMED

Exh Std: Tier-0___ Tier-1___ TLEV X LEV___ ULEV___ ZEV___ EPA TIER-0___ TIER-1___

Evap Std: 50K X Useful Life with R/L___ In-Use Exh Std: Full In Use X Alt In Use___

Veh Class(es): PC___ LDT1___ LDT2 X MDV1___ MDV2___ MDV3___ MDV4___ MDV5___

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1,MDV1,MDV2,MDV3,MDV4)

Exh Cert Fuel(s): Indo___ Ph2 X Diesel: 13 CCR 2282___ or 40CFR 86.113-90___ or -94___
M85___ CNG___ LPG___ Other (specify)

Fuel Type(s): Dedicated___ Flex Fuel___ Dual-Fuel___
Gasoline X Diesel___ M85___ CNG___ LPG___ Other (specify)_____

Hybrid: Type A___ B___ C___, APU Cycle (eg., Otto, Diesel, Turbine)_____

Engine Config V-Block Displacement: 4.0L (244) Liters (Cubic Inches)

Valves/Cyl: 2 Rated HP: 200 @ 5250 RPM

Engine: Front X Mid___ Rear___ Drive: Fwd___ RWD X 4WD-FT___ 4WD-PT___

Exhaust Control System and Special Features 2TWC,2HO2S(2)EGR, SFI,

(Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST)	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
758VR05A	EXPLORER 2WD	A(TCB)	4250	13.3	F77F-AHA	F77E-EA	F77A-ED(LH)
758VR05A	EXPLORER 2WD	A(TCB)	4500	13.3	" alt:F77E-FA	"	F77A-CC(RH)
758VR05A	EXPLORER 4WD	A(TCB)	4500	13.3	"	"	"
758VR05A	EXPLORER 4WD	A(TCB)	4750	13.3	"	"	"

Engine Family: VFM4.028G2HK

20.09.17.02-2

R/C #4.0-107

Issue Date: 07-12-96

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1997 MODEL YEAR SUPPLEMENTAL DATA SHEET
EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY

Exhaust Engine Family: VFM4.028G2HK

Engine Code Types: CA X 49S 50S

Evap Emissions Family: VFM1120AYMED

Exh Std: Tier-0 Tier-1 TLEV X LEV ULEV ZEV EPA TIER-0 TIER-1

Evap Std: 50K X Useful Life with R/L In-Use Exh Std: Full In Use X Alt In Use

Veh Class(es): PC LDT1 LDT2 X MDV1 MDV2 MDV3 MDV4 MDV5

Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1,MDV1,MDV2,MDV3,MDV4)

Exh Cert Fuel(s): Indo Ph2 X Diesel: 13 CCR 2282 or 40CFR 86.113-90 or -94
M85 CNG LPG Other (specify)

Fuel Type(s): Dedicated Flex Fuel Dual-Fuel
Gasoline X Diesel M85 CNG LPG Other (specify)

Hybrid: Type A B C , APU Cycle (eg., Otto, Diesel, Turbine)

Engine Config V-Block Displacement: 4.0L (244) Liters (Cubic Inches)

Valves/Cyl: 2 Rated HP: 200 @ 5250 RPM

Engine: Front X Mid Rear Drive: Fwd RWD X 4WD-FT 4WD-PT

Exhaust Control System and Special Features 2TWC,2HO2S(2)EGR, SFI,

(Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
758VR06A	EXPLORER 2WD	A(TCB)	4250	13.3	F77F-AHC	F77E-EA	F77A-ED(LH)
758VR06A	EXPLORER 2WD	A(TCB)	4500	13.3	" alt:F77E-FA	"	F77A-CC(RH)
758VR06A	EXPLORER 4WD	A(TCB)	4500	13.3	"	"	"
758VR06A	EXPLORER 4WD	A(TCB)	4750	13.3	"	"	"

Engine Family: VFM4.028G2HK

20.09.17.02-3

R/C #4.0-114

Issue Date: 07-12-96

Revised: JUL 29 1996

1997 MODEL YEAR SUPPLEMENTAL DATASHEET
 EXHAUST/EVAPORATIVE SYSTEM & CALIFORNIA REQUIREMENTS
 PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: VFM4.028G2HK
 Engine Code Types: CA X 49S___ 50S___
 Evap Emissions Family: VFM1120AYMED
 Exh Std: Tier-0___ Tier-1___ TLEV X LEV___ ULEV___ ZEV___ EPA TIER-0___ TIER-1___
 Evap Std: 50K X Useful Life with R/L___ In-Use Exh Std: Full In Use X Alt In Use___
 Veh Class(es): PC___ LDT1___ LDT2 X MDV1___ MDV2___ MDV3___ MDV4___ MDV5___
 Single Cert Std for Multi-Class Eng Fam: N/A (specify: N/A, LDT1,MDV1,MDV2,MDV3,MDV4)
 Exh Cert Fuel(s): Indo___ Ph2 X Diesel: 13 CCR 2282___ or 40CFR 86.113-90___ or -94___
 M85___ CNG___ LPG___ Other (specify)
 Fuel Type(s): Dedicated___ Flex Fuel___ Dual-Fuel___
 Gasoline X Diesel___ M85___ CNG___ LPG___ Other (specify)_____
 Hybrid: Type A___ B___ C___, APU Cycle (eg., Otto, Diesel, Turbine)_____
 Engine Config V-Block Displacement: 4.0L (244) Liters (Cubic Inches)
 Valves/Cyl: 2 Rated HP: 200 @ 5250 RPM
 Engine: Front X Mid___ Rear___ Drive: Fwd___ RWD X 4WD-FT___ 4WD-PT___

Exhaust Control System and Special Features 2 TWC 2 HO2S (2) EGR, SFL
 (Use abbreviations per SAE J1930 SEP91)

Engine Code (also list CA/49ST/50ST	Vehicle Models (if coded see attachment)	Trans. Type A-Automatic M-Manual	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR System Part No.	Catalytic Converter Part No.
758VR11A	EXPLORER 2WD	A(TCB)	4250 4500	13.3 13.3	F77F-AHE alt:F77E-FA	F77E-EA	F77A-ED (LH) F77A-CC (RH)
758WR11A	EXPLORER 4WD	A(TCB)	4500 4750	13.3 13.3	"	"	"