

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-708
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:

Fuel Type: Gasoline

Engine Family: VFM4.028G1EK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

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

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

The certification exhaust emission standards for this engine family in grams per mile are:

| <u>Loaded Vehicle Weight (lbs.)</u> | <u>Miles</u> | <u>Non-Methane Hydrocarbons</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Carbon Monoxide (20°F)</u> |
|-------------------------------------|--------------|---------------------------------|------------------------|------------------------|-------------------------------|
| 3751-5750 | 50,000 | 0.32 | 4.4 | 0.7 | 12.5 |
| | 100,000 | 0.40 | 5.5 | 0.97 | n/a |

The certification exhaust emission values for this engine family in grams per mile are:

| <u>Loaded Vehicle Weight (lbs.)</u> | <u>Miles</u> | <u>Non-Methane Hydrocarbons</u> | <u>Carbon Monoxide</u> | <u>Nitrogen Oxides</u> | <u>Carbon Monoxide (20°F)</u> |
|-------------------------------------|--------------|---------------------------------|------------------------|------------------------|-------------------------------|
| 3751-5750 | 50,000 | 0.09 | 1.3 | 0.16 | 3.4 |
| | 100,000 | 0.12 | 1.6 | 0.19 | n/a |

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average non-methane organic gases (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 50,000-mile evaporative emission standards applicable to 1980 through 1994 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, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model 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" 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.).


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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 1996.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Ford Motor Company Exhaust Engine Family: VFM4.028G1EK

Evap Standard: 50K Useful Life with R/L _____ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0 Tier 1 TLEV LEV ULEV ZEV ; EPA Tier 0 Tier 1

Vehicle Class(es): PC LDT1 LDT2 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 Diesel: 13 CCR 2282 or 40 CFR 86.113-90 or -94
M85 CNG LPG Other (specify) _____

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

Hybrid: Type A B C APU Cycle (e.g., Otto, Diesel, Turbine) _____

Engine Config: V-6 Liter (CID): 4.0 (244.1)

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

Exhaust ECS & Special Features: SFI/2HO2S/EGR/TWC(2)/H025
(Use abbreviations per SAE J1930, Sep 91)

| Engine Code (California) | Vehicle Models | Trans. Type A-Automatic M-Manual | ETW | DPA | Ignition | EGR | Catalyst |
|-----------------------------|------------------|--|-------|-------|-------------------|--------------------|----------|
| | | | | | (PCM) Part No. | System Part No. | Part No. |
| | | | | | -12A650- | -9D475- | -5E212- |
| 757TR00A | Ranger 4x2 SKS | M5 | 3875 | 12.3 | F77F-AEA | F37E-CA | F77A-RB |
| | B-Series 4x2 SKS | M5 | 3875 | 12.3 | | | |
| | Ranger 4x4 RKL | M5 | 4000 | 14.1& | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | Ranger 4x4 SKS | M5 | 4250 | 14.1& | | | |
| | B-Series 4x4 RKL | M5 | 4000 | 14.1& | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 14.1& | | | |
| 757TR00N | Ranger 4x2 SKS | M5 | 3750* | 11.2 | | | |
| | B-Series 4x2 SKS | M5 | 3875 | 11.2 | | | |
| | Ranger 4x4 RKL | M5 | 3875* | 12.8# | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | Ranger 4x4 SKS | M5 | 4250 | 12.8# | | | |
| | B-Series 4x4 RKL | M5 | 3875* | 12.8# | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 12.8# | | | |

* Ford elects to conduct certification tests in the next higher ETW.
& If tire is P215/75R15 use DPA of 13.6.
If tire is P215/75R15 use DPA of 12.4.

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Ford Motor Company Exhaust Engine Family: VFM4.028G1EK

Evap Standard: 50K Useful Life with R/L _____ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0 Tier 1 TLEV LEV ULEV ZEV ; EPA Tier 0 Tier 1

Vehicle Class(es): PC LDT1 LDT2 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 Diesel: 13 CCR 2282 or 40 CFR 86.113-90 or -94
M85 CNG LPG Other (specify) _____

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

Hybrid: Type A B C , APU Cycle (e.g., Otto, Diesel, Turbine) _____

Engine Config: V-6 Liter (CID): 4.0 (244.1)

Engine: Front Mid. Rear Drive: FWD RWD 4WD-FT 4WD-PT

Exhaust ECS & Special Features: SFI/2HO2S/EGR/TWC(2)/HO2S
(Use abbreviations per SAE J1930, Sep 91)

| Engine Code (California) | Vehicle Models | Trans. Type A-Automatic M-Manual | ETW | DPA | Ignition (PCM) Part No. -12A650- | EGR System Part No. -9D475- | Catalyst Part No. -5E212- |
|-----------------------------|------------------|--|-------|-------|---|--------------------------------------|---------------------------------|
| 757TR05A | Ranger 4x2 SKS | M5 | 3875 | 12.3 | F77F-AEB | F37E-CA | F77A-RB |
| | B-Series 4x2 SKS | M5 | 3875 | 12.3 | | | |
| | Ranger 4x4 RKL | M5 | 3875* | 14.1& | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | Ranger 4x4 SKS | M5 | 4250 | 14.1& | | | |
| | B-Series 4x4 RKL | M5 | 4000 | 14.1& | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 14.1& | | | |
| 757TR05N | Ranger 4x2 SKS | M5 | 3750 | 11.2 | | | |
| | B-Series 4x2 SKS | M5 | 3875 | 11.2 | | | |
| | Ranger 4x4 RKL | M5 | 3875 | 12.8# | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | Ranger 4x4 SKS | M5 | 4000* | 12.8# | | | |
| | B-Series 4x4 RKL | M5 | 3875* | 12.8# | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 12.8# | | | |

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If tire is P215/75R15 use DPA of 12.4.

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: Ford Motor Company Exhaust Engine Family: VFM4.028G1EK

Evap Standard: 50K X Useful Life with R/L _____ Evap Family: VFM1045AYPBA

Exhaust Std: Tier 0 ___ Tier 1 X TLEV ___ LEV ___ ULEV ___ ZEV ___ ; EPA Tier 0 ___ Tier 1 ___

Vehicle 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 X Ph2 ___ Diesel: 13 CCR 2282 ___ or 40 CFR 86.113-90 ___ or -94 ___
M85 ___ CNG ___ LPG ___ Other (specify) _____

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

Hybrid: Type A ___ B ___ C ___ APU Cycle (e.g., Otto, Diesel, Turbine) _____

Engine Config: V-6 Liter (CID): 4.0 (244.1)

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

Exhaust ECS & Special Features: SFI/2HO2S/EGR/TWC(2)/HO2S
(Use abbreviations per SAE J1930, Sep 91)

| Engine Code (California) | Vehicle Models | Trans. Type A-Automatic M-Manual | ETW | DPA | Ignition (PCM) Part No. -12A650- | EGR System Part No. -9D475- | Catalyst Part No. -5E212- |
|-----------------------------|------------------|--|-------|-------|--|---|--|
| 757TR10A | Ranger 4x2 SKS | M5 | 3875 | 12.3 | F77F-AEB | F37E-CA | F77A-RB |
| | B-Series 4x2 SKS | M5 | 3875 | 12.3 | | | |
| | Ranger 4x4 RKL | M5 | 3875* | 14.1& | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | Ranger 4x4 SKS | M5 | 4250 | 14.1& | | | |
| | B-Series 4x4 RKL | M5 | 4000 | 14.1& | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 14.1& | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 14.1& | | | |
| 757TR10N | Ranger 4x2 SKS | M5 | 3750 | 11.2 | | | |
| | B-Series 4x2 SKS | M5 | 3875 | 11.2 | | | |
| | Ranger 4x4 RKL | M5 | 3875 | 12.8# | | | |
| | Ranger 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | Ranger 4x4 SKS | M5 | 4000* | 12.8# | | | |
| | B-Series 4x4 RKL | M5 | 3875* | 12.8# | | | |
| | B-Series 4x4 RKS | M5 | 3875 | 12.8# | | | |
| | B-Series 4x4 SKS | M5 | 4250 | 12.8# | | | |

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If tire is P215/75R15 use DPA of 12.4.