

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-838  
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 1999 model-year Ford Motor Company exhaust emission control systems are certified as described below for light-duty trucks:

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

Fuel Type (Certification Fuel): Gasoline (Indolene)

Engine Family: XFMXT04.02DN Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

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

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

The non-methane organic gas (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:

| Loaded Vehicle Weight (lbs.) | Miles   | NMOG  | CO  | NOx | HCHO  | CO (20°F) |
|------------------------------|---------|-------|-----|-----|-------|-----------|
| 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       |

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

| Loaded Vehicle Weight (lbs.) | Miles   | NMOG  | CO  | NOx | HCHO  | CO (20°F) |
|------------------------------|---------|-------|-----|-----|-------|-----------|
| 3751-5750                    | 50,000  | 0.056 | 1.8 | 0.1 | 0.001 | 5.0       |
|                              | 100,000 | 0.066 | 2.3 | 0.2 | 0.001 | 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 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 and Smog Index Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

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."

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 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").

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 15<sup>th</sup> day of July 1998.



R. B. Summerfield, Chief  
Mobile Source Operations Division

SUPERSEDED

1999 MODEL YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET Page 1  
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exh Eng Fam: XFMXT04.02DN Evap Fam: XFMXE0105BBE  
 All Engine Codes in Engine Family: CA X 49S \_\_\_ 50S \_\_\_ AB965 \_\_\_ ORVR: Yes \_\_\_ No X  
 Exh Std: CA Tier-1 \_\_\_ , TLEV X , LEV \_\_\_ , ULEV \_\_\_ , SULEV \_\_\_ , EPA TIER-1 \_\_\_  
 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)  
 Fuel Type(s): Dedicated X Flex Fuel \_\_\_ Dual-Fuel \_\_\_ Bi-Fuel \_\_\_  
 Gasoline X Diesel \_\_\_ M85 \_\_\_ CNG \_\_\_ LPG \_\_\_ Other (specify) \_\_\_  
 Exh Emiss Test Fuel(s): Indo X CBG \_\_\_ CNG \_\_\_ LPG \_\_\_ M85 \_\_\_ Other (specify) \_\_\_  
 Diesel: 13 CCR 2282 \_\_\_ or 40CFR 86.113-90 \_\_\_ or -94 \_\_\_  
 Evaporative Emission Test Procedure: California \_\_\_ Federal X  
 Service Accumulation: Std AMA \_\_\_ Mod AMA \_\_\_ Mfr. ADP X Other (Specify) \_\_\_  
 NMOG Test Procedure: N/A \_\_\_ Std X Equip \_\_\_ R/L Test Procedure: SHED \_\_\_ Pt Source X  
 Engine Configuration: V-6 Displacement: 4.0L (244) Liters (Cubic Inches)  
 Valves/Cyl: 2 Rated HP: 160 @ 4200 RPM  
 Engine: Front X Mid \_\_\_ Rear \_\_\_ Drive: FWD \_\_\_ RWD X 4WD-FT \_\_\_ 4WD-PT X  
 Exhaust Control System and Special Features: 2TWC, TWC(2), 2HO2S(2), SFI, EGR  
 (Use abbreviations per SAE J1930 JUN93)

| Engine Code<br>(also list<br>CA/49ST/50ST) | Vehicle Models<br>(if coded see<br>attachment) | Trans. Type<br>A4-Automatic<br>M5-Manual | ETW<br>or<br>Test Wt | DPA<br>or<br>RLHP | Ignition<br>(ECM/PCM)<br>Part No. | EGR<br>System<br>Part No. | Catalytic<br>Converter<br>Part No. |
|--|--|--|----------------------|-------------------|-----------------------------------|---------------------------|------------------------------------|
|--|--|--|----------------------|-------------------|-----------------------------------|---------------------------|------------------------------------|

|             |                    |    |           |            |          |         |  |
|-------------|--------------------|----|-----------|------------|----------|---------|--|
| 9LTMBBA A/N |                    | M5 |           |            | XL5F-ALA | F87E-AA | XL54-5F250-BO<br>(CC-RH/LH)<br>XL54-5E212-DO<br>(UB) |
|             | MAZDA 4x2 SCS 2DR  | "  | 3750      | 11.3/12.4" | "        | "       | "  |
|             | MAZDA 4x2 SCS 4DR  | "  | 3875      | "          | "        | "       | "  |
|             | MAZDA 4x4 RCS      | "  | 3875      | 13.0/14.3" | "        | "       | "  |
|             | MAZDA 4x4 SCS 2DR  | "  | 4000      | "          | "        | "       | "  |
|             | MAZDA 4x4 SCS 4DR  | "  | 4250      | "          | "        | "       | "  |
|             | RANGER 4x2 SCS 2DR | "  | 3750/3875 | 11.3/12.4" | "        | "       | "  |
|             | RANGER 4x2 SCS 4DR | "  | 3875      | "          | "        | "       | "  |
|             | RANGER 4x4 RCS     | "  | 3875      | 13.0/14.3" | "        | "       | "  |
|             | RANGER 4x4 RCL     | "  | 3875/4000 | "          | "        | "       | "  |
|             | RANGER 4x4 SCS 2DR | "  | 4000      | "          | "        | "       | "  |
|             | RANGER 4x4 SCS 4DR | "  | 4250      | "          | "        | "       | "  |

MODELS BELOW EQUIPPED WITH P245/75R16 TIRES

|  |                    |   |           |            |   |   |   |
|--|--------------------|---|-----------|------------|---|---|---|
|  | MAZDA 4x4 RCS      | " | 3875      | 12.3/13.5" | " | " | " |
|  | MAZDA 4x4 SCS 2DR  | " | 4000      | "          | " | " | " |
|  | MAZDA 4x4 SCS 4DR  | " | 4250      | "          | " | " | " |
|  | RANGER 4x4 RCS     | " | 3875      | "          | " | " | " |
|  | RANGER 4x4 RCL     | " | 3875/4000 | "          | " | " | " |
|  | RANGER 4x4 SCS 2DR | " | 4000      | "          | " | " | " |
|  | RANGER 4x4 SCS 4DR | " | 4250      | "          | " | " | " |

• WITH A/C

Engine Family: XFMXT04.02DN  
 Issue Date: JUN 06 1998  
 Revised: