

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-664  
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 1996 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: Gasoline

Engine Family: TFM4.028G2EK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems and 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 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:

<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 1996 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	0.106	1.0	0.2	0.003	3.7
	100,000	0.144	1.4	0.2	0.003	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 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 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 the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) 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 provisions (Title 13, California Code of Regulations, 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 9th day of August 1995.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: TFM4.028G2EK  
 Engine Code Types: CA X 49S\_\_\_ 50S\_\_\_ Evaporative Emissions Family: TFM1045AYPBA  
 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\_\_\_ 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-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 TWC(2) SFI, 2HO2S, EGR, HO2S  
 (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.
558TR15A/N	Ranger/Mazda 4x2	A4			F57F-CUA	F3DE-AA F37E-CA	F57A-BD
	SC SWB		3875	11.2			
	SC SWB		3875	12.3*			
	Ranger/Mazda 4x4						
	RC LWB		3875#	12.0			
	RC SWB		3875	12.0			
	RC LWB		4000	13.2*			
	RC SWB		3875#	13.2*			
	SC SWB		4250	12.0			
	SC SWB		4250	13.2*			

\* with air conditioning  
# per R/C 4.0-124

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY Exhaust Engine Family: TFM4.028G2EK  
 Engine Code Types: CA X 49S\_\_\_ 50S\_\_\_ Evaporative Emissions Family: TFM1045AYPBA  
 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\_\_\_ 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-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 TWC(2)/SFI, 2HO2S, EGR, HO2S  
 (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.
658TR10A/N	Ranger/Mazda 4x2	A4			F57F-CUB	F3DE-AA F37E-CA	F57A-BD
	SC SWB		3875	11.2			
	SC SWB		3875	12.3*			
	Ranger/Mazda 4x4						
	RC LWB		3875#	12.0			
	RC SWB		3875	12.0			
	RC LWB		4000	13.2*			
	RC SWB		3875#	13.2*			
	SC SWB		4250	12.0			
	SC SWB		4250	13.2*			

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 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\_\_\_ 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-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 TWC(2)SFI, 2HO2S, EGR, HO2S  
 (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.
658TR11A/N	Ranger/Mazda 4x2	A4			F57F-CUC	F3DE-AA F37E-CA	F57A-BD
	SC SWB		3875	11.2			
	SC SWB		3875	12.3*			
	Ranger/Mazda 4x4						
	RC LWB		3875#	12.0			
	RC SWB		3875	12.0			
	RC LWB		4000	13.2*			
	RC SWB		3875#	13.2*			
	SC SWB		4250	12.0			
	SC SWB		4250	13.2*			

\* with air conditioning  
# per R/C 4.0-124