

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-784  
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 1998 model-year Ford Motor Company exhaust emission control systems are certified as described below for medium-duty vehicles:

Fuel Type: Gasoline

Engine Family: WFMXA04.6BAA Displacement: 4.6 Liters (280 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

- Dual Three Way Catalytic Converters (two)
- 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 certification exhaust emission standards for this engine family in grams per mile are:

<u>Test 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>
5751-8500	50,000	0.39	5.0	1.1	12.5
	120,000	0.56	7.3	1.53	n/a

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

<u>Test 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>
5751-8500	50,000	0.11	1.4	0.3	4.8
	120,000	0.13	1.7	0.52	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 medium-duty vehicle phase-in 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" (Title 13, California Code of Regulations, Section 1960.1(h)(2)).

BE IT FURTHER RESOLVED: That under the submitted medium-duty vehicle phase-in compliance plan, if the manufacturer incurs "Vehicle Equivalent Debits" for the aforementioned model year due to the manufacturer's failure to produce and deliver for sale in California the equivalent quantity of medium-duty vehicles certified to low-emission vehicle and/or ultra-low-emission vehicle exhaust emission standards required by the above-referenced standards and test procedures, all "Vehicle Equivalent Debits" incurred 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).

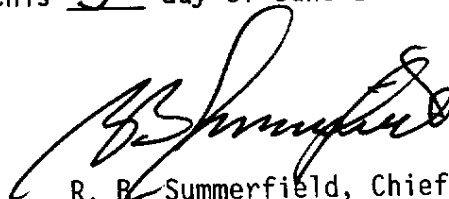
BE IT FURTHER RESOLVED: That the manufacturer is certifying the listed vehicle models with a partially complying on-board diagnostic system for the aforementioned model year pursuant to Title 13, California Code of Regulations, Section 1968.1(m)(6.2) ("Malfunction and Diagnostic System Requirements--1994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

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 5<sup>th</sup> day of June 1997.



R. B. Summerfield, Chief  
Mobile Source Operations Division

E.O.# 1-10-784

1998 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: WFMXA04.6BAA

Engine Code Types: CA X 49S     50S    

Evap Emissions Family: WFMXE0160B0G, WFMXE0160B0F, WFMXE0155B1G, WFMXE0160B1F, WFMXE0155B0G

*Evap Test Proc: Pt. Source*

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

Evap Std: 50K     Useful Life with R/L X

*OR VR = No*

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

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

*Service Accum: Mod AMA*

Exh Cert Fuel(s): Indo X Ph2     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 8 Displacement: 4.6L (280) Liters (Cubic Inches)

Valves/Cyl: 2 Rated HP: 215 @ 4500 RPM

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

Exhaust Control System and Special Features 2TWC(2) 2HOLS(2) EGR SEI  
(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.
848WR05A	E150 RVL	A (DU)	6000	*	F8UF-PB	F7UE-AA	F8UA-HB (RH) F8UA-CB (LH)
848WR05N	E150 CWL	A (DU)	6000				
848WR05A	E150 CWL	A (DU)	6000				
848WR05N	E150 RVL-RV	A (DU)	6000				
848WR05N	E150 RVL	A (DU)	6000				
848WR05A	E150 RVL-RV	A (DU)	6000				
848PR05N	F250 RKL 2WD	A (DU)	6000		F85F-JA	F65E-BA	F75A-FD (LH) F75A-DF (RH)
848PR05N	F250 RKL 2WD	A (DU)	6000				
848TR05N	F250 RKL 2WD	A (DU)	6000		F85F-KA		
848TR05N	F250 RKL 2WD	A (DU)	6000				
848PR05A	F250 RKL 2WD	A (DU)	6000		F85F-JA		
848PR05A	F250 RKL 2WD	A (DU)	6000				
848TR05A	F250 RKL 2WD	A (DU)	6000		F85F-KA		
848TR05A	F250 RKL 2WD	A (DU)	6000				
848PR05N	F250 SKS 2WD	A (DU)	6000		F85F-JA		
848TR05N	F250 SKS 2WD	A (DU)	6000		F85F-KA		
848PR05A	F250 SKS 2WD	A (DU)	6000		F85F-JA		

Engine Family: WFMXA04.6BAA  
Issued: MAY 05 1997  
Revised:

1998 SUPPLEMENTAL DATA SHEET  
 Section 20.09.17.02 cont.

E.O.# A-10-784

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.
848TR05A	F250 SKS 2WD	A (DU)	6000	*	F85F-KA	F65E-BA	F75A-FD (LH)
848PR05N	F250 SKS 2WD	A (DU)	6000		F85F-JA		F75A-DF (RH)
848TR05N	F250 SKS 2WD	A (DU)	6000		F85F-KA		
848PR05A	F250 SKS 2WD	A (DU)	6000		F85F-JA		
848TR05A	F250 SKS 2WD	A (DU)	6000		F85F-KA		
848TR05N	F250 RKL 4WD	A (DU)	6000		F85F-KA	F65E-BA	F75A-GD (LH)
848TR05A	F250 RKL 4WD	A (DU)	6000		F85F-KA		F75A-EG (RH)
848TR05N	F250 SKS 4WD	A (DU)	6000		F85F-KA		
848TR05A	F250 SKS 4WD	A (DU)	6000		F85F-KA		
848UR05A	Expdtn 2WD	A (DU)	6000		F85F-UA	F65E-BA	F75A-FD (LH)
848UR05A	Expdtn 4WD	A (DU)	6000				F75A-DF (RH)
747SR05N	F250 RKL 2WD	M (RE)	6000		F75F-MB	F65E-BA	F75A-FD (LH)
747SR05N	F250 RKL 2WD	M (RE)	6000				F75A-DF (RH)
747TR05N	F250 RKL 2WD	M (RE)	6000		F75F-NB		
747TR05N	F250 RKL 2WD	M (RE)	6000				
747SR05A	F250 RKL 2WD	M (RE)	6000		F75F-MB		
747SR05A	F250 RKL 2WD	M (RE)	6000				
747TR05A	F250 RKL 2WD	M (RE)	6000		F75F-NB		
747TR05A	F250 RKL 2WD	M (RE)	6000				
747SR05N	F250 SKS 2WD	M (RE)	6000		F75F-MB		
747SR05N	F250 SKS 2WD	M (RE)	6000				
747TR05N	F250 SKS 2WD	M (RE)	6000		F75F-NB		
747TR05N	F250 SKS 2WD	M (RE)	6000				
747SR05A	F250 SKS 2WD	M (RE)	6000		F75F-MB		
747SR05A	F250 SKS 2WD	M (RE)	6000				
747TR05A	F250 SKS 2WD	M (RE)	6000		F75F-NB		
747TR05A	F250 SKS 2WD	M (RE)	6000				
747SR05N	F250 RKL 4WD	M (RE)	6000		F75F-MB	F65E-BA	F75A-GD (LH)
747TR05N	F250 RKL 4WD	M (RE)	6000		F75F-NB		F75A-EG (RH)
747SR05A	F250 RKL 4WD	M (RE)	6000		F75F-MB		
747TR05A	F250 RKL 4WD	M (RE)	6000		F75F-NB		
747SR05N	F250 SKS 4WD	M (RE)	6000		F75F-MB		
747TR05N	F250 SKS 4WD	M (RE)	6000		F75F-NB		
747SR05A	F250 SKS 4WD	M (RE)	6000		F75F-MB		
747TR05A	F250 SKS 4WD	M (RE)	6000		F75F-NB		

\* See DPA Summary Sheet, Section 20.09.17.03

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.
848TR05A	F250 SKS 2WD	A (DU)	6000	*	F85F-KA	F65E-BA	F75A-FD (LH)
848PR05N	F250 SKS 2WD	A (DU)	6000		F85F-JA		F75A-DF (RH)
848TR05N	F250 SKS 2WD	A (DU)	6000		F85F-KA		
848PR05A	F250 SKS 2WD	A (DU)	6000		F85F-JA		
848TR05A	F250 SKS 2WD	A (DU)	6000		F85F-KA		
848TR05N	F250 RKL 4WD	A (DU)	6000		F85F-KA	F65E-BA	F75A-GD (LH)
848TR05A	F250 RKL 4WD	A (DU)	6000		F85F-KA		F75A-EG (RH)
848TR05N	F250 SKS 4WD	A (DU)	6000		F85F-KA		
848TR05A	F250 SKS 4WD	A (DU)	6000		F85F-KA		
848UR05A	Expdtn 2WD	A (DU)	6000		F85F-UA	F65E-BA	F75A-FD (LH)
848UR05A	Expdtn 4WD	A (DU)	6000				F75A-DF (RH)
747SR05N	F250 RKL 2WD	M (RE)	6000		F75F-MB	F65E-BA	F75A-FD (LH)
747SR05N	F250 RKL 2WD	M (RE)	6000				F75A-DF (RH)
747TR05N	F250 RKL 2WD	M (RE)	6000		F75F-NB		
747TR05N	F250 RKL 2WD	M (RE)	6000				
747SR05A	F250 RKL 2WD	M (RE)	6000		F75F-MB		
747SR05A	F250 RKL 2WD	M (RE)	6000				
747TR05A	F250 RKL 2WD	M (RE)	6000		F75F-NB		
747TR05A	F250 RKL 2WD	M (RE)	6000				
747SR05N	F250 SKS 2WD	M (RE)	6000		F75F-MB		
747SR05N	F250 SKS 2WD	M (RE)	6000				
747TR05N	F250 SKS 2WD	M (RE)	6000		F75F-NB		
747TR05N	F250 SKS 2WD	M (RE)	6000				
747SR05A	F250 SKS 2WD	M (RE)	6000		F75F-MB		
747SR05A	F250 SKS 2WD	M (RE)	6000				
747TR05A	F250 SKS 2WD	M (RE)	6000		F75F-NB		
747TR05A	F250 SKS 2WD	M (RE)	6000				
747SR05N	F250 RKL 4WD	M (RE)	6000		F75F-MB	F65E-BA	F75A-GD (LH)
747TR05N	F250 RKL 4WD	M (RE)	6000		F75F-NB		F75A-EG (RH)
747SR05A	F250 RKL 4WD	M (RE)	6000		F75F-MB		
747TR05A	F250 RKL 4WD	M (RE)	6000		F75F-NB		
747SR05N	F250 SKS 4WD	M (RE)	6000		F75F-MB		
747TR05N	F250 SKS 4WD	M (RE)	6000		F75F-NB		
747SR05A	F250 SKS 4WD	M (RE)	6000		F75F-MB		
747TR05A	F250 SKS 4WD	M (RE)	6000		F75F-NB		

R/C 4.6-102

848UR10A	Expdtn 2WD	A (DU)	6000		F85F-UC	F65E-BA	F75A-FD (LH)
848UR10A	Expdtn 4WD	A (DU)	6000				F75A-DF (RH)

\* See DPA Summary Sheet, Section 20.09.17.03

Engine Family: WFMXA04.6BAA

20.09.17.02 - 2

Issued: 05-05-97

Revised: 09-26-97

DPA Summary Sheet

VEHICLE LINE	ETW	NON - AC				A C			
		CDT	CODE	DPA	TRLHP (HP)	CDT	CODE	DPA	TRLHP (HP)
		% = LVW/ALVW (BOTH)				\$ = ALVW			
F-250 4X2 (LD)	5000	15.56	(R)	13.2	19.81	14.58	(R)	14.5	21.14
(PN102)	5250	16.06	(R)	13.2	20.15	15.06	(R)	14.5	21.49
MANUAL OR AUTO E40D TRANS	5500	16.55	(C)	13.2	20.49	15.55	(C)	14.5	21.80
(GAS or NGV)	\$ 6000	17.54	(C)	13.2	21.09	16.52	(C)	14.5	22.39
	\$ 6500	18.53	(C)	13.2	21.62	17.49	(C)	14.5	22.91
-----									
F-250 4X2 (LD)	5000	14.43	(C)	13.8	21.36	13.57	(C)	15.2	22.71
(PN102)	5250	14.98	(R)	13.8	21.60	14.10	(R)	15.2	22.95
AUTO TRANS (4R70W)	5500	15.54	(R)	13.8	21.82	14.62	(R)	15.2	23.19
	\$ 6000	16.64	(C)	13.8	22.23	15.68	(C)	15.2	23.59
	\$ 6500	17.75	(C)	13.8	22.57	16.73	(C)	15.2	23.95
-----									
F-250 4X4 (LD)	5000	13.93	(R)	14.8	22.13	13.17	(R)	16.2	23.40
(PN102)	5250	14.38	(R)	14.8	22.50	13.59	(R)	16.2	23.81
MANUAL OR AUTO E40D TRANS	5500	14.82	(C)	14.8	22.88	14.01	(C)	16.2	24.20
	\$ 6000	15.71	(C)	14.8	23.54	14.85	(C)	16.2	24.91
	\$ 6500	16.60	(C)	14.8	24.14	15.69	(C)	16.2	25.54
-----									
F-250 4X4 (LD)	5000	13.27	(R)	14.8	23.23	12.54	(R)	16.2	24.58
(PN102)	5250	13.72	(R)	14.8	23.59	12.98	(R)	16.2	24.93
AUTO TRANS (4R70W)	5500	14.18	(C)	14.8	23.91	13.42	(C)	16.2	25.26
	\$ 6000	15.09	(C)	14.8	24.51	14.29	(C)	16.2	25.88
	\$ 6500	16.00	(C)	14.8	25.04	15.17	(C)	16.2	26.41
-----									
EXPEDITION 4X2	5000	15.79	(C)	12.5	19.52	14.83	(C)	13.8	20.78
(UN93)	5250	16.47	(C)	12.5	19.65	15.46	(C)	13.8	20.93
4R70W	\$ 5500	17.16	(R)	12.5	19.76	16.10	(R)	13.8	21.06
P255/70R16 A/S TIRE	\$ 6000	18.52	(C)	12.5	19.97	17.37	(C)	13.8	21.29
-----									
4R70W	5000	15.84	(C)	12.8	19.46	14.83	(C)	14.1	20.78
P255/70R16 A/T TIRE	5250	16.44	(C)	12.8	19.68	15.43	(C)	14.1	20.97
	\$ 5500	17.05	(R)	12.8	19.88	16.04	(R)	14.1	21.14
	\$ 6000	18.25	(C)	12.8	20.27	17.25	(C)	14.1	21.44
-----									
EXPEDITION 4X4	5500	15.18	(C)	14.2	22.33	14.52	(C)	15.6	23.35
(UN93)	\$ 6000	16.32	(C)	14.2	22.66	15.21	(C)	15.6	24.32
4R70W	\$ 6500	17.47	(C)	14.2	22.93	16.38	(C)	15.6	24.46
P255/70R16 A/S TIRE									
-----									
4R70W	5500	14.76	(C)	14.5	22.97	14.11	(C)	15.9	24.03
P255/70R16 A/T TIRE	\$ 6000	15.93	(C)	14.5	23.22	14.96	(C)	15.9	24.72
	\$ 6500	17.16	(C)	14.5	23.35	16.00	(C)	15.9	25.04
-----									
4R70W	5500	14.90	(C)	14.9	22.75	14.26	(C)	16.3	23.77
P265/70R17 A/T TIRE	\$ 6000	16.03	(C)	14.9	23.07	14.96	(C)	16.3	24.72
	\$ 6500	17.16	(C)	14.9	23.35	16.06	(C)	16.3	24.95
-----									
<b>E-SERIES (VN127) - (LD)</b>									
ECONOLINE E-150	5250	16.09	(A)	13.5	20.11	15.08	(A)	14.9	21.46
VAN/CLUB WAGON	5500	16.38	(A)	13.5	20.70	15.37	(A)	14.9	22.06
4.6L	6000	17.70	(A)	13.5	20.90	16.63	(A)	14.9	22.24
4R70W	\$ 5500	16.34	(A)	14.0	20.75	15.31	(A)	15.4	22.14
	\$ 6000	17.12	(A)	14.4	21.60	16.08	(A)	15.8	23.00
	\$ 6500	18.55	(A)	14.4	21.60	17.42	(A)	15.8	23.00

(C) Certification Point, (R) Regressed Point, (A) Adjusted Point