

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-460  
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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1991 model-year Ford Motor Company exhaust emission control systems are certified as described below for gasoline-powered light-duty and medium-duty trucks:

Engine Family: MFM5.8T5HAL6 Displacement: 5.0 Liters (302 Cu. Inches)  
5.8 Liters (351 Cu. Inches)

Exhaust Emission Control Systems and Special Features:

- Heated Oxygen Sensor
- Secondary Air Injection
- Three-Way Catalyst
- Oxidation Catalyst
- Multipoint Electronic Fuel Injection
- Exhaust Gas Recirculation

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

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight (lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
3751-5750	0.14	2.0	0.5

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered 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" (Title 13, California Code of Regulations, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards 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 Tune-Up Label Specifications" (Title 13, California Code of Regulations, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Code of Regulations, Section 1968) 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 of California Health and Safety Code Section 43205.

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 16<sup>th</sup> day of July, 1990.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

## FORD LIGHT-DUTY TRUCKS

C	= CLUB
K	= CAB
L	= LONG BED
R	= REGULAR
S (1ST CHARACTER)	= SUPER
S (3RD CHARACTER)	= SHORT BED
V	= VAN
W	= WAGON

### EXAMPLES:

RKL MEANS REGULAR CAB, LONG BED

SKS MEANS SUPER CAB, SHORT BED

CWL MEANS CLUB WAGON, LONG CHASSIS

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer FORD MOTOR COMPANY Eng. Family MEM5.8T5HAL6

Pass Cars      Lt-Duty Trucks X Med-Duty Vehicles X Fuel Type Gasoline

Eng. Type V-8 Liter (CID) 5.0L (302) Evap. Family HM

Emission Control System & Special Features TWC, OC, AIR, HO2S, EGR, <sup>MPI</sup>

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

Standards; NMHC: 0.50, CO: 9.0, NOx: 1.0, EVAP: 2.0

C = CLUB  
 K = KAB  
 = LONG  
 R = REGULAR  
 S (1st char.)  
 = SUPER  
 S (3rd. char.)  
 = SHORT  
 V = VAN  
 W = WAGON

Eng. Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (PCME/PROM) Part No. -12A650-	EGR Syst. Part No -9F483-	Catalyst Part No. -5F250-
154RR00N	BRONCO 4X4	A-4	5000	*	F1TF-BEA	E7TE-FA	F1TA-FA
154RR00A			5000				
154TR00N	E150 RVL 4X2		4750		F1TF-BFA		F1TA-GA
154TR00A	RVL		5000				
154TR00N	SVL		5000				
154TR00A	SVL		5250				
154TR00N	CWL		5250				
154TR00A	CWL		5250				
154TR00N	E250 RVL 4X2		5000				
154TR00A	RVL		5250				
154TR00N	SVL		5250				
154TR00A	SVL		5500				
154SR00N	F150 RKL 4X2		4250		F1TF-BBA		F1TA-EA
154SR00N	RKS		4250				
154SR00A	RKL		4500				
154SR00A	RKS		4250				
154SR00N	SKL		4750				
154SR00N	SKS		4500				
154SR00A	SKL		4750				
154SR00A	SKS		4750				
154RR00N	F150 RKL 4X4		4750		F1TF-BEA		
154RR00N	RKS		4500				
154RR00A	RKL		4750				
154RR00A	RKS		4500				
154RR00N	SKL		5000				
154RR00N	SKS		5000				
154RR00A	SKL		5000				
154RR00A	SKS		5000				
154PR10N	BRONCO 4X4		5000		F1TF-XA		F1TA-FA
154PR10A	BRONCO 4X4		5000				
154PR10N	F150 RKL 4X2		4500				F1TA-EA
154PR10N	RKS		4250				
154PR10A	RKL		4500				
154PR10A	RKS		4250				

\* See DPA chart, section 20.09.17.02.

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEETManufacturer FORD MOTOR COMPANY Eng. Family MF5.8T5HAL6Pass Cars      Lt-Duty Trucks X Med-Duty Vehicles X Fuel Type GasolineEng. Type V-8 Liter (CID) 5.0L (302) Evap. Family HMEmission Control System & Special Features TWC, OC, AIR, HO2S, EGR, MPIEngine: Front      Mid.      Rear X Drive: FWD      RWD X 4WD-FT      4WD-PT X

Standards; NMHC: 0.50, CO: 9.0, NOx: 1.0, EVAP: 2.0

Engine Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (PCME/PROM) Part No. -12A650-	EGR Syst. Part No -9F483-	Catalyst Part No. -5F250-
154PR10N	F150 SKL 4X2	A-4	4750	*	F1TF-XA	E7TE-FA	F1TA-EA
154PR10N	SKS		4750				
154PR10A	SKL		4750				
154PR10A	SKS		4750				
154PR10N	F150 RKL 4X4		4750				
154PR10N	RKS		4500				
154PR10A	RKL		4750				
154PR10A	RKS		4500				
154PR10N	SKL		5000				
154PR10N	SKS		5000				
154PR10A	SKL		5250				
154PR10A	SKS		5000				
154PR10N	F250 RKL 4X2		4750				
154PR10A	RKL		4750				
154PR10N	F250 RKL 4X4		5000				
154PR10A	RKL		5250				

\* See DPA chart, Section 20.09.17.02.

ENGINE FAMILY: M5.8TAL

20.09.17.02 - 2

ISSUED: 6-29-90

REVISED:

1991 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer FORD MOTOR COMPANY Eng. Family MF5.8T5HAL6

Pass Cars      Lt-Duty Trucks X Med-Duty Vehicles X Fuel Type Gasoline

Eng. Type V-8 Liter (CID) 5.8L (351) Evap. Family HM

Emission Control System & Special Features TWC, OC, AIR, HO2S, EGR, <sup>MPZ</sup>

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

Standards; NMHC: 0.50, CO: 9.0, NOx: 1.0, EVAP: 2.0

Engine Code/ (Cert Std.)	Veh. Models (If Coded see Attachmt.)	Trans. Type: A-Auto M-Man.	Equiv. Test Weight	RLHP	Ign. Sys. (PCME/PROM) Part No.	EGR Syst. Part No	Catalyst Part No.
164RR00N	BRONCO 4X4	A-4	5250	*	F1TF-ATA	E8TE-AA	F1TA-JA
A			5250				
N	E150 RVL 4X2		4500				F1TA-KA
A	RVL		5000				
N	SVL		5000				
A	SVL		5250				
N	CWL		5500				
A	CWL		5500				
N	E250 RVL 4X2		5250				
A	RVL		5500				
N	SVL		5500				
A	SVL		5500				
N	F150 RKL 4X2		4500				F1TA-HA
N	RKS		4500				
N	RKL		4500				
A	RKS		4500				
N	SKL		5000				
N	SKS		4750				
A	SKL		5000				
A	SKS		4750				
N	F150 RKL 4X4		4750				
N	RKS		4750				
A	RKL		5000				
A	RKS		4750				
N	SKL		5250				
N	SKS		5000				
A	SKL		5250				
A	SKS		5000				
N	F250 RKL 4X2		4750				
A	RKL		5000				
N	F250 RKL 4X4		5250				
A	RKL		5250				

\* See DPA chart, section 20.09.17.02.

VEHICLE LINE	ETW LIMIT	CDT	NOM A/C DPA	TRLHP	CDT	A/C DPA	TRLHP
F-150 4X2	4250	13.23	14.6(EPA)	19.80	12.33	16.0(EPA)	21.25
TRANS: ADD	4500	14.01	14.6(ADJ)	19.80	13.06	16.0(ADJ)	21.24
	4750	14.44	14.6(C)	20.28	13.27	16.0(C)	22.06
	5000	15.20	14.6(ADJ)	20.28	13.97	16.0(ADJ)	22.06
TRANS: E400	4250	12.92	14.1(MA)	20.28	12.14	15.5(MA)	21.58
	4500	13.68	14.1(MA)	20.28	12.86	15.5(MA)	21.57
	4750	14.44	14.1(C)	20.28	13.57	15.5(C)	21.58
	5000	15.20	14.1(MA)	20.28	14.29	15.5(MA)	21.57
TRANS: M4 MANUAL	4250	13.91	14.9(C)	18.83	12.98	16.3(C)	20.18
	4500	14.73	14.9(MA)	18.83	13.74	16.3(MA)	20.19
	4750	15.15	14.9(ADJ)	19.33	14.31	16.3(MA)	20.46
	5000	15.95	14.9(MA)	19.32	15.06	16.3(MA)	20.47
TRANS: M500 MANUAL	4250	13.62	14.5(C)	19.23	12.80	15.9(MA)	20.47
	4500	14.42	14.5(MA)	19.24	13.55	15.9(MA)	20.47
	4750	14.67	14.5(C)	19.96	13.77	15.9(C)	21.26
	5000	15.44	14.5(MA)	19.96	14.50	15.9(MA)	21.26
F-150 4X4	4500	12.76	15.3(MA)	21.74	11.95	16.7(MA)	23.21
AUTO TRANS. FIRESTONE P235 TIRES	4750	13.47	15.3(C)	21.74	12.61	16.7(C)	23.22
	5000	13.95	15.3(MA)	22.09	13.15	16.7(MA)	23.44
	5250	14.65	15.3(C)	22.09	13.80	16.7(C)	23.45
AUTO TRANS. ALL OTHER TIRES	4500	11.88	15.3(MA)	23.35	11.23	16.7(MA)	24.70
	4750	12.54	15.3(C)	23.35	11.85	16.7(C)	24.71
	5000	12.96	15.3(MA)	23.78	12.22	16.7(MA)	25.22
	5250	13.61	15.3(C)	23.78	12.83	16.7(C)	25.22
M500 MANUAL TRANS.	4500	13.08	15.6(MA)	21.21	12.52	17.0(MA)	22.16
	4750	13.80	15.6(MA)	21.21	13.21	17.0(MA)	22.16
	5000	14.53	15.6(C)	21.21	13.91	17.0(C)	22.16
	5250	15.26	15.6(MA)	21.21	14.61	17.0(MA)	22.16
M4 MANUAL TRANS.	4500	13.08	15.9(MA)	21.21	12.52	17.3(MA)	22.16
	4750	13.80	15.9(MA)	21.21	13.21	17.3(MA)	22.16
	5000	14.53	15.9(C)	21.21	13.91	17.3(C)	22.16
	5250	15.26	15.9(MA)	21.21	14.61	17.3(MA)	22.16
F-250 4X2	4500	14.38	14.6(MA)	19.29	13.63	16.0R(MA)	20.35
	4750	15.18	14.6(C)	19.29	14.39	16.0R(C)	20.35
	5000	15.98	14.6(MA)	19.29	15.15	16.0R(MA)	20.35
F-250 4X4	5000	13.16	16.9(C)	23.42	12.56	18.3R(C)	24.54
BRONCO 4X4	5250	13.82	16.9(MA)	23.42	13.19	18.3R(MA)	24.54
(FSTM. P235 TIRES)	5000	15.35	13.9(C)	20.08	14.53	15.3R(C)	21.21
	5250	16.12	13.9(MA)	20.08	15.26	15.3R(MA)	21.21
(ALL OTHER TIRES)	5000	14.26	13.9(E)	21.61	13.51	15.3(E)	22.81
	5250	14.98	13.9(E)	21.60	14.19	15.3(E)	22.81
ECONOLINE E-150 VAN/CLUB WAGON	4500	12.23	16.4(MA)	22.68	11.58	17.8(MA)	23.95
	4750	12.91	16.4(MA)	22.68	12.23	17.8(MA)	23.94
	5000	13.59	16.4(MA)	22.68	12.87	17.8(MA)	23.95
	5250	14.27	16.4(C)	22.68	13.52	17.8(C)	23.94
	5500	14.95	16.4(MA)	22.68	14.16	17.8(MA)	23.94
ECONOLINE E-250 VAN/SUPERVAN	4750	12.70	17.1(MA)	23.05	11.83	18.5(MA)	24.76
	5000	13.37	17.1(MA)	23.05	12.45	18.5(MA)	24.76
	5250	14.04	17.1(C)	23.05	13.07	18.5(C)	24.76
	5500	14.71	17.1(MA)	23.05	13.69	18.5(MA)	24.76

R = RADIAL TIRES (E) = ESTIMATED (RR) = REQUESTED REVISION  
 B = BIAS TIRES (C) = CERTIFICATION TEST DATA (EPA) = EPA DATA  
 (CB) = ESTIMATED COOKBOOK DATA (ADJ) = DPA ADJUST (HIGHER THAN CERT DPA)  
 (MA) = MASS ADJUSTED CDT (CO) = CARRY OVER DATA

Engine Family M5.8TAL

Issue Date	JUN 26 1990	20.09.17.02-4
Revised		