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State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-10-346 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 1988 model-year Ford Motor Company emission control systems are certified as described below for gasoline-powered light-duty trucks and medium-duty vehicles:

Engine Family	Displacement Liters (Cubic Inches)		Exhaust Emission Control Systems (Special Features)
JFM5.8T5HAC3	5.0 5.8	(302) (351)	Air Injection - Pump Exhaust Gas Recirculation Three-Way Catalyst Oxidation Catalyst Oxygen Sensor (Electronic Port Fuel Injection) (On-Board Diagnostics)

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

The following are the emission standards for this engine family:

Loaded Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per mile	Nitrogen Oxides Grams per Mile
3751-5750	0.50	9.0	1.0

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

Loaded Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile	
3751-5750	0.35	5.1	0.8	

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 Administrative Code, 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 Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed in Attachment A also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ... " (Title 13, California Administrative Code, 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 regulations (Title 13, California Administrative Code, 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 230

day of July, 1987.

K. D. Drachand, Chief. Mobile Source Division

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manufacturer Ford Motor Con	Engine Family <u>JFM5.8T5</u> Engine Type V-8	
Evaporative Family 8HM	Liters (CID) 5.0L (302)	5.8L (351)
ABBREVIATIONS		
Ignition System	Exhaust Emissions Control System	Special Features
CA-Centrifugal Advance ECU-Electronic Control Unit EI-Electronic Ignition ESAC-Electronic Spark Advance Control VA-Vacuum Advance VR-Vacuum Retard	AIP-Air Injection-Pump AIV-Air Injection-Valve DBC-Dual Bed Catalyst EGR-Exhaust Gas Recirculation EIC-Electronic Injection Control EM-Engine Modification OC-Oxidation Catalyst OS-Oxygen Sensor HOS-Heated Oxygen Sensor SPL-Smoke Puff Limiter or Throttle Delay TOC-Trap Oxidizer, Continual	CCV-Combustion Chamber Valve CFI-Central Fuel Injection or Throttle Body Injection DID-Diesel Injection- Direct DIP-Diesel Injection- Prechamber
ruel System CFI, CL, DID, DIP, EFI, MFI nV-nVenturi Carburetor	TOP-Trap Oxidizer, Periodical TWC-Three-Way Catalyst WUOC-Warm-Up Oxidation Catalyst WUTWC-Warm-Up Three-Way Catalyt	EFI-Electronic Fuel Injection IC-Intercooler or Aftercooler MFI-Mechanical Fuel Injection OBD-On-Board Diagnostics TC-Turbocharger

VEHICLE MODELS:

see attached pages

Engine:	Front <u>x</u>	Mid	Rear	
Drive:	FWD	RWD x	4WD: Full Time	4WD Part Timex

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Passenger (Cars L	ight-Duty	Trucks X	Medium-Dut	y Vehicles $\frac{X}{A}$	Gas	<pre>C Diesel</pre>
Manufacture	er	FORD MO	TOR COMPAN	<u>VY</u> Eng	gine Family _	JFM5.8T5HA	VC3
Liter (CID)	5.0L	(302) 5.8L	(351)	Eng	g. TypeV	-8	
Emission Co	ontrol Sys.	and (Specia	al Feature	es) AIP/EGI	R/TWC/HOS/OC	(EFI)	
Engine Code	 Vehicle : Models	Trans. Type	Equiv. Test Weight	 Ign. System (ECU)	Ruel System EFI	ECR Valve	 Catalyst
(= v = _)		 L4	 	Part No. -124650-	Part No. -9F593-	Part No. -9F483-	•
754SR11A/N	F150 4x2 RC SWB LWB SC SWB LWB F250 4x2 RC LWB	AOX071	4250 4250 4500* 4750 4750	E8TF- <i>G</i> A 	E5TE-AB or E5TE-BB	E7TE-FA	E8TA-LA
754RR11A/N	F150 4x4 RC SWB LWB SC SWB LWB F250 4x4 RC LWB Bronco	AOX071 AOX076 AOX076 AOX076 AOX071	4750 4750 5000 5000 5250* 5000 5250*	ESTF-EA	E5TE-AB or E5TE-BB	E7TE-FA	E8TA-MA

Comments: See Page One for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing. *with A/C

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Passenger C	arsL	ight-Duty !	Trucks X	Medium-Dut	y Vehicles	X Gas <u>_}</u>	L Diesel
Manufacture	r	FORD MO	TOR COMPAN	<u>TY</u> Eng	;ine Family _	JFM5.8T5H	IAC3
Liter (CID)	5.0L (30	2) 5.8L (3	51)	Eng	g. Type	V-8	
Emission Co	ntrol Sys.	and (Specia	al Feature	s) AIP/EGR	/TWC/HOS/OC	(EFI)	
Engine Code	Vehicle Models	Trans. Type	Equiv. Test Weight	Ign. System (ECU) =	Ruel System EFI	ECR Valve	Catalyst
		L4		Part No. -124650-	Part No. -9F593-	Part No. -9F483-	
754TR12A/N	E150 Van RV SWB RV LWB SV LWB E150 Bus CW LWB E250 Van RV LWB SV LWB	AOX071	4500 4750* 4750 5000* 5000 5250 5250 5250 5500*	E8FF-AHB	E5TE-AB or E5TE-BB	E7TE-FA	E8VA-NA

Comments: See Page One for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing. * with A/C

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Date of Issue	Revisions:

Pa _{į l} ger C	Cars light-Do			RD SUPPLEMENTAL			e <u>4</u> sel
Manufacture	er <u>Ford Motor Co</u>	npany		Engine Fami	11y <u>JFM5,8T5</u>	łac3	
Liter (CID)	5,8L (351 CID)		·	Eng. Typ	pe <u>V-8</u>		
Emission Co	ontrol Sys. (Specia	al Feature	es) <u>AIP</u>	/EGR/TWC/HOS/O	C (EFI)		
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No5F250-
864SROOA/N	F-150 4x2 RC SWB LWB SC SWB LWB F-250 4x2 RC LWB F-150 4x4 RC SWB LWB F-250 4x4 RC LWB Bronco	C6-036 C6-036 C6-037 C6-036	4500 4500/ 4750# 4750 5000* 5000 4750 5000 5250 5250	E8TF-APA	E5TE-BB	ESTE-AA	E8TA-PA

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Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

D of Issue:

^{*} with A/C

Manufacture	r <u>Ford Motor Co</u> r	npany		Engine Fami	lly <u>JFM5.8T5</u>	łAC3	
Liter (CID)	5.8L (351 CID)			Eng. Typ	oe <u>V-8</u>		
Emission Co	ntrol Sys. (Specia	al Feature	es) <u>AIP</u>	/EGR/TWC/HOS/O	C (EFI)		
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System EFI Part No.	EGR Valve	Catalyst
		A3		-12A650-	-9F593-	-9F483-	-5F250-
864RR00A/N	F-150 4x2 RC SWB LWB SC SWB LWB F-250 4x2 RC LWB	C6-037	4500 4500/ 4750# 4750 5000* 5000	E8TF-ALA	E5TE-BB	ESTE-AA	E8TA-PA
	F-150 4x4 RC SWB LWB SC SWB LWB F-250 4x4 RC LWB		4750 5000 5250/ 5000# 5250				
	Bronco		5250				E8TA-RA

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Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

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Pa; iger C	Page 6 Pager Cars light-Duty TrucksX _ Medium-Duty VehiclesX _ GasX _ Diesel										
				Engine FamilyJFM5.8T5HAC3							
Liter (CID)	5.8L (351 CID)			Eng. Typ	pe <u>V-8</u>						
Emission Co	ontrol Sys. (Specia	al Feature	es) <u>AIP</u>	/EGR/TWC/HOS/O	C (EFI)						
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No5F250-				
864SROOA/N	E-150 Van RV LWB SV LWB	C6-036	5000 5250*/ 5000# 5250 5500*/ 5250#	E8TF-APA	E5TE-BB	E8TE-AA	E8UA-SA				
	E-150 Bus CW LWB		5250 5500*				:				
	E-250 Van RV LWB SV LWB	C6-037	5250 5500* 5500/ 5250#								

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Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

Da of Issue:

^{*} with A/C

anufacture	r <u>Ford Motor Co</u> n	pany		Engine E	Family <u>JFM5.8</u>	BT5HAC3	
iter (CID)	5.8L (351 CID)			Eng. Typ	pe <u>V-8</u>	···	
mission Co	ntrol Sys. (Specia	al Feature	es) <u>AIP</u>	/EGR/TWC/HOS/OG	C (EFI)		
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No -5F250-
64RROOA/N	E-150 Van RV LWB	C6-037	5000 5250*/	ESTF-ALA	E5TE-BB	E8TE-AA	E8TA-SA
	SV LWB		5250*/ 5000# 5250 5500*/ 5250#				
	E-150 Bus CW LWB		5250 5500*				
	E-250 Van RV LWB		5250 5500* 5500/				
	SV LWB		5250#				

Please refer to manufacturer's HP list for correct dyno test HP settings based on model and

equipment. If two test weights are listed, the lower weight will be used for testing.

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Date of Issue:

lanufacture	r <u>Ford Motor Cor</u>	npany		Engine Fami	lly <u>JFM5.8T5</u>	IAC3	 			
iter (CID)	5.8L (351 CID)	·	Eng. Type <u>V-8</u>							
mission Co	ntrol Sys. (Specia	al Feature	es) <u>AIP</u>	/EGR/TWC/HOS/O	C (EFI)					
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No -5F250-			
64SR10A/N	F-150 4x2 RC SWB LWB SC SWB	C6-036	4500 4500/ 4750# 4750 5000* 5000	E8TF-APB	E5TE-BB	ESTE-AA	E8TA-PA			
	F-250 4x2 RC LWB F-150 4x4 RC SWB LWB	C6-037	4750 4750 5000							
	F-250 4x4 RC LWB	C6-037	5250							
	Bronco	C6-036	5250				E8TA-RA			

Please refer to manufacturer's HP list for correct dyno test HP settings based on model and

equipment. If two test weights are listed, the lower weight will be used for testing.

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Date of Issue:

Liter (CID)	5.8L (351 CID)			Engine Family <u>JFM5.8T5HAC3</u> Eng. Type <u>V-8</u>							
	ontrol Sys. (Specia										
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No5F250-				
864RR10A/N	F-150 4x2 RC SWB LWB SC SWB LWB F-250 4x2 RC LWB F-150 4x4 RC SWB LWB SC SWB	C6-037	4500 4500/ 4750# 4750 5000* 5000 4750 5000 5250/ 5000# 5250	E8TF-ALB	E5TE-BB	E8TE-AA	E8TA-PA				

Please refer to manufacturer's HP list for correct dyno test HP settings based on model and

equipment. If two test weights are listed, the lower weight will be used for testing.

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Da f Issue:

Pag ger C	ars light-Du	ity Trucks	<u> X</u> M∈	dium-Duty Vehi	icles <u>X</u> Gas	Page X Dies	el
Manufacture	r <u>Ford Motor Com</u>	pany		Engine H	Family <u>JFM5.8</u>	BT5HAC3	
	5.8L (351 CID)						
Emission Co	ntrol Sys. (Specia	al Feature	es) <u>AIP</u>	EGR/TWC/HOS/O	C (EFI)		
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No5F250-
864SR10A/N	E-150 Van RV LWB SV LWB	C6-036	5000 5250*/ 5000# 5250 5500*/ 5250#	E8TF-APB	E5TE-BB	ESTE-AA	E8UA-SA
	E-150 Bus CW LWB		5250 5500*				
	E-250 Van RV LWB SV LWB	C6-037	5250 5500* 5500/ 5250#				

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and

equipment. If two test weights are listed, the lower weight will be used for testing.

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* with A/C

Da of Issue:

Pa iger C	ars light-Du	ity Trucks	s <u>X</u> Me	edium-Duty Vehi	Icles <u>X</u> Gas	X Dies	sel		
Manufacture	r Ford Motor Cor	npany		Engine Family <u>JFM5.8T5HAC3</u> Eng. Type <u>V-8</u>					
Liter (CID)	5.8L (351 CID)								
Emission Co	ntrol Sys. (Specia	al Feature	es) <u>AIP</u>	EGR/TWC/HOS/O	C (EFI)				
Engine Code	Vehicle Models (If Coded see attachment)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No. -12A650-	Fuel System EFI Part No. -9F593-	EGR Valve Part No9F483-	Catalyst Part No5F250-		
864RR10A/N	E-150 Van RV LWB SV LWB	C6-037	5000 5250*/ 5000# 5250	E8TF-ALB	ESTE-BB	ESTE-AA	E8TA-SA		
	E-150 Bus CW LWB		5500*/ 5250# 5250 5500*						
	E-250 Van RV LWB SV LWB		5250 5500* 5500/ 5250#						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and

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