

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-333
Relating to Certification of New Motor Vehicles

TOYOTA MOTOR CORPORATION

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 Toyota Motor Corporation 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: WTYXT03.4DBP Displacement: 3.4 Liters (206.1 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

Sequential Multiport Fuel Injection
Heated Oxygen Sensors (two)
Three Way Catalytic Converter

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 1998 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	0.116	2.0	0.2	0.002	5.3
	100,000	0.128	2.3	0.3	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 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."

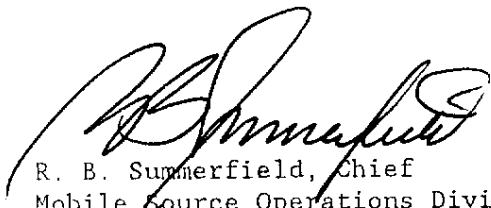
BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the 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.

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 10th day of June 1997.



R. B. Summerfield, Chief
Mobile Source Operations Division

1998 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: WTYXT03.4DBP Evap Fam: WTYXE0095AE0
 All Eng Codes in Eng Fam: CA ___ 49S ___ 50S x AB965 ___ , ORVR: YES ___ NO x
 Exh Std: CA Tier-1 ___ TLEV x LEV ___ ULEV ___ SULEV ___ , US EPA Tier-1 x
 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 ___
 CNG ___ LNG ___ LPG ___ M85 ___ Other (specify) _____
 Exh Emiss Test Fuel(s): Indo ___ CBG x CNG ___ LPG ___ M85 ___ Other (specify) _____
 Diesel: 13 CCR 2282 ___ 40 CFR 86.113-90 ___ 40 CFR 86.113-94 ___
 Evaporative Emission Test Procedure: California ___ Federal ___
 Service Accum: Std AMA x Mod AMA ___ Mfr ADP ___ Other (specify) _____
 NMOG Test Procedure: N/A ___ Std x Equip ___ R/L Test Proc: SHED x Pt Source ___
 Engine Configuration: V-6 Displacement: 3.4 Liters 206.1 Cubic Inches
 Valves per Cylinder: 4 Rated HP1: 190@4800*1*4 RPM
 Rated HP2: 183@4800*2*3 RPM
 Engine: Front x Mid ___ Rear ___ Drive: FWD ___ RWD x*2*4 4WD-FT ___ 4WD-PT x*1*3
 Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,HO2S(2),TWC

(use abbreviations per SAE J1930 JUN93)

- Note *1 : Applied to truck line TOYOTA TACOMA 4WD.
- Note *2 : Applied to truck line 4RUNNER 2WD.
- Note *3 : Applied to truck line 4RUNNER 4WD.
- Note *4 : Applied to truck line TOYOTA TACOMA 2WD.

Engine Code (also list CA/49S/50ST)	Vehicle Models (if coded see attachment)	Trans. (M5, A4, etc.)	ETW or Test Wt	DPA or RLHP	Ignition (ECM/PCM) Part No.	EGR system Part No.	Catalytic Converter Part No.
1	VZN170L-CRMDKAB VZN170L-CRMGKAB	M5	3875	14.5/14.6	89661-04410*5 89661-04411*6 89661-04412*8	N/A	S99*1*4 S91*2*3
	VZN185L-GKMGKA		4250	12.2/13.3	89661-3D360*5 89661-3D361*6 89661-3D361*8		
2	VZN170L-CRMDKAB VZN170L-CRMGKAB		3875	15.9/16.0	89661-04410*5 89661-04411*6 89661-04412*8		

- *5 : Before 98-TR-2
- *6 : After 98-TR-2 and before 98-TR-15
- *7 : After 98-TR-2/98-TR-3 and before 98-TR-15
- *8 : After 98-TR-15
- *9 : Before 98-TF-8
- *10 : After 98-TF-8

1998 MODEL-YEAR AIR RESOURCES BOARD CERTIFICATION REVIEW SHEET
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: WTYXT03.4DBP Evap Fam: WTYXE0095AE0
All Eng Codes in Eng Fam: CA 49S 50S x AB965 , ORVR: YES NO x
Exh Std: CA Tier-1 TLEV x LEV ULEV SULEV , US EPA Tier-1 x
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
CNG LNG LPG M85 Other (specify) _____
Exh Emiss Test Fuel(s): Indo CBG x CNG LPG M85 Other (specify) _____
Diesel: 13 CCR 2282 40 CFR 86.113-90 40 CFR 86.113-94
Evaporative Emission Test Procedure: California Federal
Service Accum: Std AMA x Mod AMA Mfr ADP Other (specify) _____
NMOG Test Procedure: N/A Std x Equiv R/L Test Proc: SHED x Pt Source
Engine Configuration: V-6 Displacement: 3.4 Liters 206.1 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 190@4800*1*4 RPM
Rated HP2: 183@4800*2*3 RPM
Engine: Front x Mid Rear Drive: FWD RWD x*2*4 4WD-FT 4WD-PT x*1*3
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	<u>Sect/Page#</u>		<u>Sect/Page#</u>	
1	Authorized Representative	01.02.00	22	Gen std, increase in Emiss,
2	Fuel Specifications	03.00.00		Safety, Meets all Reqmts
3	Test Equipment	04.00.00	23	Driveability Statement
4	Test Procedure	05.00.00	24	Adjustable Parameters
5	Mileage Accumulation Route	02.04.00	25	Tamper Resistance Method(s)
6	Emission Warranty Statement	17.10.00	26	Fill Pipe Specifications
7	Maint: Cert/Req'd/Recm'd	06.00.00	27	High Altitude Compliance
8	Emiss Label/Vac Hose Diag	07.00.00	28	OBD Sys incl Marked Revisions
9	Evap Control System	19.00.00	29	I & M Test Procedure & Data
10	Engine Parameters	20.01.00	30	50 Degree F Compliance
11	Fuel System	08.01.00.00	31	Manufacturer's RAF
12	Ignition System	08.01.00.00	32	Phase-In Plans: ORVR Cert Std
13	Exhaust Control System	20.02.00		Full Range Misfire Monitoring
14	Proj Sales(LDT/MDV Split)	17.13.00		LEV CAT Monitoring-1.5 x std
15	Vehicle Description	20.02.08		0.020" Orifice-Based Leak Chk
16	Evap Bench Test Procedure	13.02.02		MDV VEC Calculation
17	R/L Temp & Press Profiles	19.06.00&12.01.03	33	NMOG Fleet Average Calculation
18	EDV Selection	02.03.02	34	AB965 Credits/Withdrawals
19	Prod Veh same as Test Veh	17.01.01	35	EPA Certificate
20	Emission Label Durability	07.00.00	36	Equiv NMOG Proc-ARB Approval
				N/A
21	Test Vehicle Information	Durability	Emission	Emission
	C/O or C/A MY & ID	Data Vehicle	Data Vehicle	Data Vehicle
	Vehicle Log Page(s)	C/O <u> 95-DT2 </u>	<u> 97-VCK4 </u>	<u> 97-VCK2 </u>
	Zero Mile Book Page(s)	<u> 20.03.04 </u>	<u> 20.03.04 </u>	<u> 20.03.04 </u>
	Maint Logs & Engr Eval	<u> 17.12.01(95MY) </u>	<u> 20.03.06 </u>	<u> 20.03.06 </u>
		<u> 17.12.02(95MY) </u>		

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