

File

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-300-A  
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 1997 model-year Toyota Motor Company exhaust emission control systems are certified as described below for passenger cars:

Emission Standard Category: Low Emission Vehicle (LEV)

Fuel Type: Gasoline

Engine Family: VTY2.2VJG3GK Displacement: 2.2 Liters (132 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

- Sequential Multiport Fuel Injection
- Exhaust Gas Recirculation
- Air Fuel Ratio Sensor
- Three Way Catalytic Converters (two)
- Heated Oxygen Sensor

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

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

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.075	3.4	0.2	0.015	10.0
100,000	0.090	4.2	0.3	0.018	n/a

Reactivity Adjustment Factor (RAF) for NMOG Mass Emission: 0.94

The certification exhaust emission values set forth for non-methane organic gas (NMOG) reflect application of a 0.94 RAF for 1997 model-year LEVs. The LEV certification exhaust emission values for this engine family in grams per mile are:

<u>Miles</u>	<u>Non-Methane Organic Gas</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Formaldehyde</u>	<u>Carbon Monoxide (20°F)</u>
50,000	0.049	0.7	0.1	0.0005	4.5
100,000	0.051	0.7	0.2	0.001	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 non-methane organic gas (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 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 "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

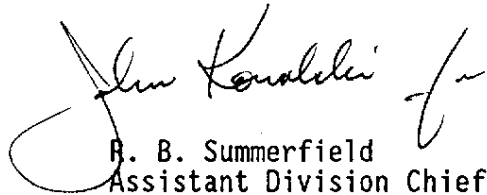
BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned 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 20<sup>th</sup> day of June 1996.

  
R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1997 MODEL-YEAR AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: VTY2.2VJG3GK Evap Fam: VTY1073DYMA1  
 All Eng Codes in Eng Fam: CA x 49S 50S AB96S  
 Exh Std: CA Tier-1 TLEV LEV x ULEV ZEV ; US EPA Tier-1  
 Evap std: 50K x Useful Life with R/L In-Use Exh Std: Full In Use Alt In Use x  
 Veh Class(es): PC x LDT1 LDT2 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)  
 Emiss Test Fuel(s): Indo Ph2 x CNG LPG M85 Other(specify)  
Diesel: 13CCR 2282 40 CFR 86.113-90 40 CFR 86.113-94  
 Service Accum: Std AMA Mod AMA Mfr ADP x Other(specify)  
 NMOG Test Procedure: N/A Std x Equiv R/L Test Proc: SHED Pt Source  
 Hybrid: Type A B C APU Cycle(e.g., Otto, Diesel, Turbine);  
 Engine Configuration: I-4 Displacement: 2.2 / Liters 132.0 / Cubic Inches  
 Valves per Cylinder: 4 Rated HP: 130 @ 5,200 RPM  
 Engine: Front x Mid Rear Drive: FWD x RWD 4WD-FT 4WD-PT  
 Exhaust ECS(e.g., MFI, EGR, TC, CAC): SFI, EGR, A/F S(\*3), TWC(2), HO2S  
 (use abbreviations per SAE J1930 SEP91)

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	SXV20L-CEMDKA	M5	3375	6.7	Before R/C 97-TR-7 : 89661-06370	25620-74320	25051-03010: Front U03*1: Rear U97*2: Rear
2	SXV20L-CEMDKA		3375	7.4	After R/C 97-TR-7 : 89661-06371		

Comment : Please refer to manufacturer's HP list for correct dyno test HP setting based on model and equipment.

- Note \*1 : Maker ; TOYOTA MOTOR CORPORATION
- \*2 : Maker ; TABC, Inc.
- \*3 : A/F S means Air-fuel ratio sensor.

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PASSENGER CARS, LIGHT-DUTY TRUCKS AND MEDIUM-DUTY VEHICLES

Manufacturer: TOYOTA Exh Eng Fam: VTY2.2VJG3GK Evap Fam: VTY1073DYMA1

VEHICLE MODELS:

Camry  
SXV20L-CEMDKA