State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-325
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 passenger cars:

Fuel Type: Gasoline

Engine Family: WTYXV04.0DBB Displacement: 4.0 Liters (242.2 Cubic Inches)

Exhaust Emission Control Systems and Special Features:

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

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:

| Miles | Non-Methane Hydrocarbons | Carbon Monoxide | Nitrogen Oxides | Carbon Monoxide (20°F) |
|---|---|---|---|---|
| 50,000 | 0.25 | 3.4 | 0.4 | 10.0 |
| 100,000 | 0.31 | 4.2 | 0.6 | n/a |

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

| Miles | Non-Methane Hydrocarbons | Carbon Monoxide | Nitrogen Oxides | Carbon Monoxide (20°F) |
|---|---|---|---|---|
| 50,000 | 0.14 | 1.0 | 0.4 | 3.1 |
| 100,000 | 0.18 | 1.5 | 0.5 | 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 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 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 "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 4th day of September 1997.

R. B. Summerfield, Chief
Mobile Source Operations Division

17.11.00

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

Manufacturer: TOYOTA Exh Eng Fan WTYXV04.0DBB Evap Fam: WTYXE0115AE1

Eng Codes in Eng Fam:CA ___ 49S ___ 50S x AB965 ___ , ORVR: YES ___ NO x

Exh Std: CA Tier-1 x TLEV ___ LEV ___ ULEV ___ SULEV ___ , US EPA Tier-1 x

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

Single Cert Std for Multi-Class Eng Far 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 x CBG ___ 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 x

Service Accum: Std AMA ___ Mod AMA ___ Mfr ADP x Other (specify) ___

NMOG Test Procedure: N/A x Std ___ Equiv ___ R/L Test Proc: SHED x Pt Source ___

Engine Configuration V-8 Displacement: 4.0 Liters 242.2 Cubic Inches

Valves per Cylinder: 4 Rated HP1: 290@6000 RPM

Engine: Front x Mid ___ Rear ___ Drive: FWD ___ RWD x 4WD-FT ___ 4WD-PT ___

Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,2HO2S(2),2TWC
(use abbreviations per SAE J1930 JUN93)

| 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. |
|---|---|---|---|---|---|---|---|
| 1,4,4R1, 4R2,4R3, | UCF20L-AEAGKA | L5 | 4250 | 7.7 | 89661-50430*1<br>89661-50431*2<br>89661-50432*3<br>89661-50433*4<br>89661-50434*5<br>89662-50010*6<br>89661-50560*7 | N/A | LH:Q04, RH:Q03 |
| 3,6,6R1, 6R2,6R3, | UZZ30L-ACAZKA | L5 | 4000 | 9.0 | 89661-24530*1<br>89661-24531*2<br>89661-24532*3<br>89661-24533*4<br>89661-24534*5<br>89662-24010*6<br>89661-24610*7 | N/A | LH:Q08, RH:Q07 |

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

Note *1 : Before running change 98-TR-4.
*2 : After running change 98-TR-4 and before running change 98-TR-8.
*3 : After running change 98-TR-8 and before running change 98-TR-10 and before field fix 98-TF-1.
*4 : After running change 98-TR-10 and before running change 98-TR-15.
*5 : After running change 98-TR-15.
*6 : After field fix 98-TF-1and before field fix 98-TF-4. *7 : After field fix 98-TF-4.

VEHICLE MODELS: LS 400 UCF20L-AEAGKA ~~SC 300~~/SC 400 UZZ30L-ACAZKA

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

Manufacturer: TOYOTA Exh Eng Fam: WTYXV04.0DBB Evap Fam: WTYXE0135AE1
ll Eng Codes in Eng Fam: CA __ 49S __ 50S x AB965 __ , ORVR: YES __ NO x
Exh Std: CA Tier-1 x TLEV __ LEV __ ULEV __ SULEV __ , US EPA Tier-1 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) _____
Exh Emiss Test Fuel(s): Indo x CBG __ 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 x
Service Accum: Std AMA __ Mod AMA __ Mfr ADP x Other (specify) _____
NMOG Test Procedure: N/A x Std __ Equiv __ R/L Test Proc: SHED x Pt Source __
Engine Configuration: V-8 Displacement: 4.0 Liters 242.2 Cubic Inches
Valves per Cylinder: 4 Rated HP1: 300@6000 RPM
Engine: Front x Mid __ Rear __ Drive: FWD __ RWD x 4WD-FT __ 4WD-PT __
Exhaust ECS (e.g., MFI, EGR, TC, CAC): SFI,2HO2S(2),2TWC
(use abbreviations per SAE J1930 JUN93)

| 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. |
|---|---|---|---|---|---|---|---|
| 2, 5,5R1, 5R2,5R3, | UZS160L-BEAQKA | L5 | 4000 | 8.9/9.4 | 89661-3A460*1<br>89661-3A461*2<br>89661-3A462*3<br>89661-3A463*4<br>89661-3A464*5<br>89662-30010*6<br>89661-30050*7 | N/A | Q09 |

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

Note *1 : Before running change 98-TR-4.
*2 : After running change 98-TR-4 and before running change 98-TR-8.
*3 : After running change 98-TR-8.and before running change 98-TR-10 and before field fix 98-TF-1.
*4 : After running change 98-TR-10 and before running change 98-TR-15.
*5 : After running change 98-TR-15.
*6 : After field fix 98-TF-1 and before field fix 98-TF-4..
*7 : After field fix 98-TF-4.

VEHICLE MODELS:

~~SC 300~~/GS 400
UZS160L-BEAQKA


Issued : 07/29/97 98-TR-4 : 09/30/97 98-TR-8 : 11/14/97 98-TR-10 : 12/09/97 98-TR-15 : 02/05/98
98-TF-1 : 03/06/98 98-TF-4 : 02/19/99