State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-146
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 Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Toyota Motor Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
KTY2.4T5FBE4	2.4 (144.4)	Air Injection - Valve Exhaust Gas Recirculation Three-Way Catalyst Heated 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(lbs.)	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(lbs.)	Hydrocarbons (Grams per Mile)	Carbon Monoxide (Grams per Mile)	Nitrogen Oxides (Grams per Mile)
3751-5750	0.19	1.7	0.3

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evapo$ative 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 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 6th day of September, 1988.

K. D. Drachand, Chief
Mobile Source Division

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Manufacturer Toyota Motor Corporation

Engine Family KTY2.4T5FBE4

Evaporative Family EV-E

Engine Type 4 cyl. in-line

Liters (CID) 2.4 (144.4)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
ECU-Electronic Control Unit
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard

Fuel System

CFI, EPFI, MPFI, SFI,
DID, DIP, HOS, OS
nV-nVenturi Carburetor
VV-Variable Venturi Carburetor

Exhaust Emissions Control System

AIP-Air Injection - Pump
AIV-Air Injection - Valve
EGR-Exhaust Gas Recirculation
EIC-Electronic Injection Control (Diesel Only)
EM-Engine Modification
SPL-Smoke Puff Limiter or Throttle Delay
TOC-Trap Oxidizer, Continual
TOP-Trap Oxidizer, Periodical
DBC-Dual Bed Catalyst
OC-Oxidation Catalyst
TWC-Three-Way Catalyst
WUOC-Warm-up Oxidation Catalyst
WUTWC-Warm-up Three-Way Catalyst
OS-Oxygen Sensor
HOS-Heated Oxygen Sensor

Special Features

CFI-Central Fuel Injection or Throttle Body Injection
EPFI-Electronic Port Fuel Injection
MPFI-Mechanical Port Fuel injection
SFI-Sequential Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
TC-Turbocharger
SC-Supercharger
IC-Intercooler or Aftercooler
CCV-Combustion Chamber Valve
OBD-On-Board Diagnostics

VEHICLE MODELS :

4-Runner 4WD
RN61LG-MDEA
-MSEA
-PDEA
-PSEA
RN61LV-MDEA
-PDEA

Engine: Front x Mid. ____ Rear ____

Drive: FWD ____ RWD ____ 4WD Full time ____ 4WD Part time x

E.O. # A-14-146

1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Passenger Cars ___ Light-Duty Trucks x Medium-Duty Vehicles ___ Gas x Diesel ___

Manufacturer Toyota Motor Corporation Engine family KTY2.4T5FBR4

Liter (CID) 2.4 (144.4) Eng. Type 4 cyl. in-line

Emission Control Sys. (Special Features) AIV + EGR + TWC + HOS (EPFI + OBD)

Engine code	Vehicle Models (If Coded see attachment) (Dyno Hp: Refer to 08.13.02.00)	Trans. Type	Equiv. Test Weight	Ign. System ECU,EI,ESAC Part No. [Computer] [Knock sensor]*1	Fuel System CL, EPFI Part No. [Computer] [Air flow meter] [Injector]	EGR Valve Part No.	Catalyst Part No.
9 thru 12	RN61LG-MDEA -MSEA RN61LV-MDEA	M5	3,875 4,000	89661-35270 89615-35030 89615-35040	89661-35270 22250-35060 23250-35040	25620-35130	18450-35130 (E52)*2
13 thru 16	RN61LG-PDEA -PSEA RN61LV-PDEA	A4	3,875 4,000				

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.

Note *1 Maker : 89615-35030 : MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
89615-35040 : NIPPONDENSO CO., LTD.

Note *2 : Parenthetical information represents identifying marks found on production parts.