

SEE E.O. A-14-121-1

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-121
Relating to Certification of New Motor Vehicles

TOYOTA MOTORS 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 1988 model-year Toyota Motors Corporation exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

| <u>Engine Family</u> | <u>Displacement Liters (Cubic Inches)</u> | <u>Exhaust Emission Control Systems (Special Features)</u> |
|----------------------|---|--|
| JTY2.4T5FBB0 | 2.4 (144.4) | Air Injection - Valve Exhaust Gas Recirculation Heated Oxygen Sensor Three-Way Catalyst (Electronic Port Fuel Injection) |

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

The following are the emission standards for this engine family:

| <u>Loaded Vehicle Weight</u> | <u>Hydrocarbons Grams per Mile</u> | <u>Carbon Monoxide Grams per mile</u> | <u>Nitrogen Oxides Grams per Mile</u> |
|--------------------------------------|--|---|---|
| 0-3750 | 0.39 | 9.0 | 1.0 |
| 3751-5750 | 0.50 | 9.0 | 1.0 |

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

| <u>Loaded Vehicle Weight</u> | <u>Hydrocarbons Grams per Mile</u> | <u>Carbon Monoxide Grams per Mile</u> | <u>Nitrogen Oxides Grams per Mile</u> |
|--------------------------------------|--|---|---|
| 0-3750 | 0.15 | 0.8 | 0.2 |
| 3751-5750 | 0.22 | 2.4 | 0.2 |

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 loaded vehicle weight class were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

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.

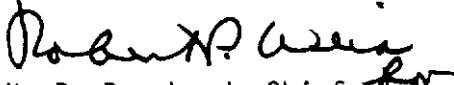
BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

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.) and, for some of the listed vehicles in the 0-3750 loaded vehicle weight class, with Health and Safety Code Section 43204.

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 26th day of August, 1987.


K. D. Drachand, Chief *for*
Mobile Source Division

Manufacturer Toyota Motor Corporation Engine Family JTY2.4T5FB80
 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

Exhaust Emissions Control System

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
 TOP-Trap Oxidizer, Periodical
 TWC-Three-Way Catalyst
 WUOC-Warm-Up Oxidation Catalyst
 WUTWC-Warm-Up Three-Way Catalyst

Special Features

CCV-Combustion Chamber Valve
 CFI-Central Fuel Injection
 DID-Diesel Injection-Direct
 DIP-Diesel Injection-Prechamber
 EFI-Electronic Fuel Injection
 IC-Intercooler or aftercooler
 MFI-Mechanical Fuel Injection
 OBD-On-Board Diagnostics
 TC-Turbocharger

Fuel System

CFI, CL, DID, DIP, EFI, MFI
 nV-nVenturi Carburetor

VEHICLE MODELS :

| <u>1. Truck 2WD*</u> | <u>2. 1-ton Truck 2WD*</u> | <u>3. Cab & Chassis 2WD**</u> | <u>4. Truck 4WD*</u> | <u>5. 4-Runner 4WD**</u> |
|----------------------|----------------------------|-----------------------------------|----------------------|--------------------------|
| RN50L-SREA | RN55L-MRHEA | RN55L-KREA3W | RN61L-MREA | RN61LV-MDEA |
| RN55L-SDÉA | -SRHEA | -KRTEA3W | -MSEA | |
| -SREA | | -SREA3W | RN66L-MDEA | |
| -MSCEA | | -SRTEA3W | -PDEA | |
| -PSCEA | | RN75L-KRTEA3W | -MSCEA | |
| RN70L-SDCEA | | -PRTEA3W | -MDCEA | |
| -PSCEA | | | -PDCEA | |
| | | | -PSCEA | |

Engine: Front 1 thru 5 Mid. _____ Rear _____

Drive: FWD _____ RWD 1,2,3 4WD Full time _____ 4WD Part time 4,5

* 2 yr/24K emission warranty
 ** 5 yr/50K emission warranty

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 2Passenger Cars Light-Duty Trucks Medium-Duty Vehicles Gas Diesel Manufacturer Toyota Motor Corporation Engine family JTY2.4T5FBB0Liter (CID) 2.4 (144.4) Eng. Type 4 cyl. in-lineEmission Control Sys. (Special Features) AIV + EGR + HOS + TWC (EFI)

| Engine code | Vehicle Models (If Coded see attachment) (Dyno Hp: Refer to 08.13.03.00) | Trans. Type | Equip. Test Weight | Ign. System EEC, EI, ESAC Part No. [Computer] [Knock *1 sensor] | Fuel System CL, EFI Part No. [Computer] [Air flow meter] [Injector] | EGR Valve Part No. | Catalyst Part No. |
|-------------|--|-------------|----------------------------------|---|--|-----------------------|----------------------|
| 1 thru 4 | RN55L-MRHEA -MSCEA | M5 | 3,000 3,125 | 89661-35130 89615-35030 89615-35040 | 89661-35130 22250-35020 23250-35030 | 25620-35100 | 18450-73040 |
| 5 thru 8 | RN55L-KREA3W -KRTEA3W RN75L-KRTEA3W | M4 | 4,000 | 89661-35140 89615-35030 89615-35040 | 89661-35140 22250-35020 23250-35030 | 25620-35130 | |
| 9 thru 12 | RN50L-SREA RN55L-SDEA -SREA -PSCEA -SRHEA RN70L-SDCEA -SRCEA | A4 | 2,875 3,000 3,125 3,250 | 89661-35130 89615-35030 89615-35040 | 89661-35130 22250-35020 23250-35030 | 25620-35100 | |
| 13 thru 16 | RN55L-SREA3W -SRTEA3W -PRTEA3W | | 4,000 | 89661-35140 89615-35030 89615-35040 | 89661-35140 22250-35020 23250-35030 | 25620-35130 | |
| 17 thru 20 | RN61L-MREA -MSEA RN66L-MDEA -MDCEA -MSCEA | M5 | 3,500 3,625 | 89661-35130 89615-35030 89615-35040 | 89661-35130 22250-35020 23250-35030 | 25620-35100 | |

| Engine code | Vehicle Models (IF Coded see attachment) (Dyno Hp: Refer to 08.13.03.00) | Trans. Type | Equiv. Test Weight | Ign. System EEC, EI, ESAC Part No. [Computer] [Knock sensor]*1 | Fuel System CL, EFI Part No. [Computer] [Air flow meter] [Injector] | EGR Valve Part No. | Catalyst Part No. |
|-------------|--|-------------|--------------------|--|--|--------------------|-------------------|
| 21 thru 24 | RN61LV-MDEA | M5 | 3,750 3,875 | 89661-35130 89615-35030 89615-35040 | 89661-35130 22250-35020 23250-35030 | 25620-35130 | 18450-73040 |
| 25 thru 28 | RN66L-PDEA -PDCEA -PSCEA | A4 | 3,625 3,750 | | | | |

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.