

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-16
Relating to Certification of New Motor Vehicles

TOYOTA MOTOR COMPANY, LTD.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That Toyota Motor Company, Ltd. exhaust emission control systems for 1977 model-year light-duty trucks are certified for the engine family described below:

Engine Family: 2F(C)
Engine: 257.9 CID
Transmission: 4 Speed Manual
Exhaust Emission Control Systems: Air injection, exhaust gas recirculation, thermal reactor

Models: Land Cruiser Softtop (2/4)*
Land Cruiser Softtop (4/4)**
Land Cruiser Hardtop (2/4)*
Land Cruiser Hardtop (4/4)**
Land Cruiser Station Wagon (2/4)*

* (2/4) means a transfer case can either be switch to two wheel drive or four wheel drive

** (4/4) means permanent four wheel drive

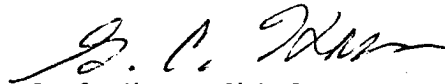
The following are the recommended values to be listed on the window decal required by California Assembly-Line Test Procedures for 1977 model vehicles:

| <u>Engine Family</u> | <u>Hydrocarbons Grams per Mile</u> | <u>Carbon Monoxide Grams per Mile</u> | <u>Nitrogen Oxides Grams per Mile</u> |
|----------------------|----------------------------------------|-------------------------------------------|-------------------------------------------|
| 2F(C) | 0.6 | 13 | 1.6 |

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Department of Motor Vehicles, the California Highway Patrol, and the Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California, this 28 day of October, 1976.



G. C. Hass, Chief
Division of Vehicle Emissions Control

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Engine Family 2F(C) Engine (CID) 257.9 Engine Code _____

Emission Control System AI-EGR-EM-TR +10%(A/C) Yes No

| Vehicle Models (If Coded see attachment) | Trans | Inertia Weight | Distributor Type C,V,VR, Mfgr. Part Number | Fuel System Type 1-2V Mfgr. Part Number | EGR System Part No. Service** | Tune-Up Specification (1) Basic Timing (2) Idle Mixture (3) Idle Speed |
|----------------------------------------------------------------------------------|-------|----------------|-----------------------------------------------------|--------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land Cruiser Softtop (2/4) Softtop (4/4) Hardtop (2/4) Hardtop (4/4) | M/T4 | 4000 | Nippondenso 19100-61600 | Aisan Kogyo 21100-61073 | 25620-61042 | (1) 7° BTDC @ 650 ± 50 RPM in neutral; all vacuum lines remain connected to distributor. (2) Lean drop idle (See attached sheet) (3) 650 RPM in neutral |
| Land Cruiser Station Wagon | | 4500 | | 21100-61063 | 25620-61032 | |

Comments Axle ratio: 4.111
 ** No Service

Date of Issue October , 1976

Abbreviations

Distributor

C-Centrifugal Advance
 V-Vacuum Advance
 VR-Vacuum Retard
 TI-Transistorized Ignition

EI-Electronic Ignition

Fuel System

EFI, FI
 nV-nVenturi Carburetor
 VV-Variable Venturi

Exhaust Emission Control System

AI-Air Injection
 CAI-Catalyst Air Injection
 EFI-Electronic Fuel Injection
 EGR-Exhaust Gas Recirculation
 EM-Engine Modification
 EFE-Early Fuel Evaporation
 ESAC-Electronic Spark Advance Control
 FI-Fuel Injection

OC-Oxidation Catalyst

PAI-Pulse Air Injection

RC-Reduction Catalyst

TR-Thermal Reactor

TWC-Three Way Catalyst

λ-Air Fuel Ratio Sensor

*Service

I-Inspect, repair/replace as needed

R-Replace

Toyota Lean Idle Drop Method

Manufacturer: Toyota Motor Company, Ltd.
Engine Family: 2F(C)

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All adjustments must be made with engine at normal operating temperature.

- (1) Coolant temperature 180°F
- (2) Choke valve fully open

Before adjusting the idle mixture, the basic timing, 7° BTDC @ 800 RPM (manual transmission (M/T)), and idle speed, 650 RPM (M/T), must be within specifications. All adjustments must be made in neutral with all accessories (wipers, heater, air conditionings, etc.) off.

Adjust the idle mixture screw to obtain the maximum engine speed (engine RPM). Readjust idle speed screw to return engine speed to 690 RPM (M/T). Repeat attempt to increase the engine speed by adjusting idle mixture screw and again readjusting the engine speed back to 690 RPM (M/T). When it is no longer possible to increase engine speed by adjusting the mixture screw, the idle mixture screw must be adjusted until the idle speed of 650 RPM (M/T) is obtained.