

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-15
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: 20R(TC)
Engine: 133.6 CID
Transmission: 3 Speed Automatic, 4 Speed Manual or 5 Speed Manual
Exhaust Emission Control Systems: Air injection, exhaust gas recirculation, engine modification, oxidation catalyst

Model: Hilux Pickup Truck - 1
Hilux Pickup Truck - 2
Hilux Cab and Chassis

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>
20R(TC)	0.3	8	1.4

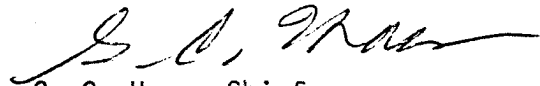
BE IT FURTHER RESOLVED: That this certification is contingent upon Toyota Motor Company, Ltd. affixing a permanent catalyst overheat warning label on the driver's sun-visor of all catalyst-equipped vehicles. This label must be approved by the Executive Officer.

BE IT FURTHER RESOLVED: That this certification is also contingent upon Toyota Motor Company, Ltd. listing in the owner's manual the operating cautions associated with a catalyst-equipped vehicle. This listing must be approved by the Executive Officer.

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

Manufacturer Toyota Motor Company, Ltd. Executive Order No. A-14-15 Page 1

Engine Family 20R(TC) Engine (CID) 133.6 Engine Code _____

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

Vehicle Models (If Coded see attachment)	Trans	Inertia Weight	Distributor	Fuel System	EGR System	Tune-Up Specification (1) Basic Timing (2) Idle Mixture (3) Idle Speed
			Type	Type	Part No.	
			Mfgr. Part Number	Mfgr. Part Number	Service**	
Hilux Pickup Truck Pickup Truck 2	M/T4 M/T5	2750	Nippondenso 19100-38020	Aisan Kooyo 21100-38160	25620-38100	(1) 8° BTDC@800RPM in neutral; vacuum line remain connected to distributor. (2) Lean Drop idle (See attached sheet)
Hilux Cab and Chassis	M/T4	3500	19100-38011		25620-38120	(3) 800 RPM in neutral

Comments ** No Service
 Shift speed (1 to 2) 10 mph, (2 to 3) 20 mph, (3 to 4) 30 mph, (4 to 5) 40 mph
 Axle ratio: 4.111

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

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 Engine Family 20 R(TC) Engine (CID) 3.6 Engine Code _____
 Emission Control System AI-EGR-EM-OC +10%(A/C) Yes No

Vehicle Models (If Coded see attachment)	Trans	Inertia Weight	Distributor Type C,V, TI 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
Hilux Pickup Truck 1 Pickup Truck 2	A/T3	2750	Nippondenso 19100-38011	Aisan Kogyo 21100-38150	25620-38120	(1) 8°BTDC @ 850 RPM in neutrals vacuum line remain connected to distributor. (2) Lean drop idle (See attached sheet) (3) 850 RPM in neutral

Comments ** No service
 Axle Ratio: 4.111

Date of Issue October , 1976

Abbreviations

Distributor
 C-Centrifugal Advance
 V-Vacuum Advance
 VR-Vacuum Retard
 TI - Transistorized Ignition
 EI-Electronic Ignition
Fuel System
 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
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Toyota Lean Idle Drop Method

Manufacturer: Toyota Motor Company, Ltd.
Engine Family: 20 R(TC)

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

- (1) Coolant temperature 190°F
- (2) Choke valve fully open

Before adjusting the idle mixture, the basic timing, 8° BTDC @ 800 RPM (manual transmission(M/T) or 8° BTDC @ 850 RPM, (automatic transmission (A/T) and idle speed, 800 RPM (M/T) or 850 RPM (A/T), must be within specifications. All adjustments must be made in neutral with all accessories (wipers, heater, air conditioning, etc.) off.

Adjust the idle mixture screw to obtain the maximum engine speed (engine RPM). Readjust idle speed screw to return engine speed to 870 RPM (M/T) or 920 RPM (A/T). Repeat attempt to increase the engine speed by adjusting idle mixture screw and again readjusting the engine speed back to 870 RPM (M/T) or 920 RPM (A/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 at 800 RPM (M/T) or 850 RPM (A/T) is obtained.