State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-14-40 Relating to Certification of New Motor Vehicles

TOYOTA MOTOR COMPANY, LTD.

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Sections 43100, 43102, 43103, and 43835; 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 Toyota Motor Company, Ltd. exhaust emission control systems are certified as described below for 1981 model-year gasoline-powered light-duty trucks.

| Engine Family | Displacement Cubic Inches (Liters) | Exhaust Emission Control Systems (Special Features) |
|---------------|---------------------------------------|---|
| BTY4.2T2AB1 | 258 (4.2) | Air Injection Pump Exhaust Gas Recirculation Oxidation Catalyst |

Vehicle Models, Transmissions, Engine Codes and Evaporative Emission Control Families as listed on attachments.

The following are the certification emission values to be listed on the window decal required by California Assembly-Line Test Procedures for 1981 model-year vehicles:

| Engine Family | Equivalent Inertia Weight | | | Nitrogen Oxides Grams per Mile |
|---------------|---------------------------------|------|-----|-----------------------------------|
| BTY4.2T2AB1 | 4000- 599 9 | 0.19 | 3.4 | 1.1 |

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 1981 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That Toyota Motor Company, Ltd. has provided to the Executive Officer all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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

15 day of September, 1980.

4 D. Drachand, Chief

Mobile Source Control Division

1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

| mufacturer _ | Toyota Motor Co., Ltd. | Executive Order No. | A-14-40 | Page | 1 |
|---------------|------------------------|----------------------|-----------|------|---|
| Engine Family | BTY4.2T2AB1 | Evaporative Family _ | EV-F | | |
| ABBREVIATIONS | | Engine CID (Liters) | 258 (4.2) | | |

Ignition System
CA-Centrifugal Advance
EEC-Electronic Engine Control
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
CL-Closed Loop
EGR-Exhaust Gas Recirculation
EM-Engine Modification
OC-Oxidation Catalyst System
TR-Thermal Reactor
TWC-Three Way Catalyst System

Special Features
CCV-Combustion
Chamber Valve
CFI-Central Fuel
Injection
DI-Diesel Injection
EFI-Electronic
Fuel Injection
MFI-Mechanical Fuel
Injection
TC-Turbocharged

Fuel System
CFI, DI, EFI, MFI
nV-nVenturi Carburetor
VV-Variable Venturi

Engine Code

Mode1

1, 2

Land Cruiser Hardtop 4WD Land Cruiser Station Wagon 4WD

| 1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET | | | | | | | |
|--|--|--------|-----------------|----------------------------|---------------------------|-----------------|-----------------|
| Passenger Cars X_ Light-Duty Trucks Medium-Duty Vehicles X_ Gas Diesel | | | | | Diesel | | |
| Manuf | Manufacturer Toyota Motor Company, Ltd. Page 2 | | | | | | |
| Engir | Engine Family BTY4.2T2AB1 Engine Code 1, 2 | | | | | | |
| ECS (| Special Features) | AIP+E | GR_OC | | CID (Liter)- Type | 258 (4.2) I | 6 |
| Engine Code | Code (If Coded see | Trans. | Equiv. Test | Ign. System VA, CA, EI | Fuel System | EGR Valve | Label Ident. |
| | attachment) | | We ig ht | Part No. | Part No. | Part No. | Part No. |
| 1, 2 | Land Cruiser Hardtop 4WD | 4M | 4000 | Nippondenso 19100-61102 | Aisan Kogyo 23100-6150 | 25620- 61071 | See Page 3 |
| 1, 2 | Land Cruiser Station Wagon 4WD | | 4500 | | | | |
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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.

*Add 10% to dyno test HP for air conditioning usage.

Date of Issue -

1981 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Toyota Motor Co., Ltd. Executive Order No. A-14-40 Page 3 Engine Family BTY4.2T2AB1

VEHICLE EMISSION CONTROL INFORMATION

ENGINE FAMILY : BTY4.2T2AB1 257.9 CID

EVAP. FAMILY : EV-F

EXHAUST EMISSION CONTROL SYSTEM AI/EGR/OC

MAKE ALL ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE, CHOKE FULL OPEN, AIR CLEANER INSTALLED, AIR CONDITIONER OFF AND TRANSMISSION IN NEUTRAL.

ENGINE TUNE-UP SPECIFICATIONS

| IDLE SPEED (RPM) | 650 |
|------------------|--------------------------------------|
| IGNITION TIMING | 7° @ 950 MAX. WITH ALL VACUUM HOSES |
| (°BTDC) | DISCONNECTED FROM DISTRIBUTOR AND |
| | SEALED. |
| IDLE MIXTURE | IDLE MIXTURE SCREW IS PRESET AND |
| SETTING | SEALED AT FACTORY. |
| | ADJUSTMENT DURING TUNE-UP IS NOT |
| | RECOMMENDED. |
| FAST IDLE SPEED | 1,800 WITH THE VACUUM HOSES (a), (b) |
| (RPM) | and (c) (REF. VACUUM HOSE INFOR.) |
| | DISCONNECTED AND THE PIPE ENDS |
| | SEALED. |
| VALVE CLEARANCE | INTAKE 0.008 (0.20 mm) |
| (IN.) | EXHAUST 0.014 (0.35 mm) |



TOYOTA MOTOR CO., LTD.

CATALYST

THIS VEHICLE CONFORMS TO U.S. EPA AND STATE OF CALIFORNIA REGULATIONS APPLICABLE TO 1981 MODEL YEAR NEW MOTOR VEHICLES AND HAS DEMONSTRATED COMPLICANCE AT ALTITUDES BELOW 4,000 FEET.