State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-117-1
Relating to Certification of New Motor Vehicles

ROLL A LONG ENGINEERING, INC.

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 Roll A Long Engineering, Inc. exhaust emission control systems for 1977 model-year light-duty trucks are certified for the engine family described below:

Engine Family: Toyo Kogyo CWBT
Engine: 140 CID
Transmission: 4 and 5-Speed Manual, 3-Speed Automatic
Exhaust Emission Control Systems: Air Injection, Exhaust Gas Recirculation, Oxidation Catalyst

Model: 4 Runner

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

Engine Family	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
CWBT	.7	6	1.4

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 24 day of August, 1977.

G. C. Hass

G. C. Hass, Chief
Vehicle Emissions Control Division

1977 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

[ ] Passenger Cars [X] Light-Duty Trucks

Manufacturer ROLL A LONG ENGINEERING, INC. Executive Order No. A-117-1 Page 1

Engine Family Toyo Kogyo CWBT Engine (CID) 140. Engine Code CWBT-M CWBT-A

Emission Control System AI + EGR + OC +10%(A/C) Yes [ ] No [X]

Vehicle Models (If Coded see attachment)	Trans	Inertia Weight	Distributor Type C,V 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
4 Runner	M-4 M-5 A-3	3000	Mitsubishi Electric Corporation T3T60771	Hitachi DCJ328-31 for manual transmission DCJ328-32 for automatic transmission	3725 no service	1) 6 ± 1° BTDC @ 700-900 RPM in neutral (with distributor vacuum line disconnected). 2) *4.0 ± 0.5% (without AI; disconnect air hose between air pump and check valve, and plug the port of the check valve). 3) *800 ± 50 RPM in neutral for manual trans. 700 $\pm^{50}_{0}$ RPM in "D" range for automatic trans. (See label attached) *All accessories off.

Comments

Date of Issue 082577.

Abbreviations

Distributor
C-Centrifugal Advance
V-Vacuum Advance
R-Vacuum Retard
HEI-High Energy Ignition
EI-Electronic Ignition

Fuel System
EFI, FI
nV-nVenturi Carburetor

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