

E.C. Board

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-16-17  
Relating to Certification of New Motor Vehicles

TOYO KOGYO CO., 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 Toyo Kogyo Co., Ltd. exhaust emission control systems for 1977 model-year passenger cars are certified for the engine family described below:

Engine Family: REP  
Engine: 40.0 X2  
Transmission: Automatic 3-Speed, Manual 4 & 5 Speed  
Exhaust Emission Control Systems: Air Injection, Thermal Reactor, Exhaust Gas Recirculation for Automatic Transmission only.

Models: Mazda RX-4  
Sedan  
Coupe  
Station Wagon  
Mazda Cosmo  
Coupe

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<br/>Grams per Mile</u> | <u>Carbon Monoxide<br/>Grams per Mile</u> | <u>Nitrogen Oxides<br/>Grams per Mile</u> |
|----------------------|--|---|---|
| REP                  | .35                                    | 4.3                                       | 1.0                                       |

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 21<sup>st</sup> day of October, 1976.

*G. C. Hass by A.D. Anderson*  
G. C. Hass, Chief  
Division of Vehicle Emissions Control

Manufacturer Toyo Kogyo Executive Order No. A-16-17 Page 1  
 Engine Family REP Engine (CID) 40.0 X 2 Code CR-M, CR-A  
 Emission Control System AI + TR + EGR\* +10%(A/C) Yes  No

| Vehicle Models<br>(If Coded see attachment)   | Trans                                   | Inertia Weight | Distributor                      | Fuel System  | EGR System                                    | Tune-Up Specification<br>(1) Basic Timing<br>(2) Idle Mixture<br>(3) Idle Speed   |
|---|---|----------------|----------------------------------|--|---|---|
|   |   |                | Type C,V<br>Mfgr.<br>Part Number | Type 1-4V<br>Mfgr.<br>Part Number  | Part No.<br>Service*                          |   |
| REP<br>Mazda RX-4<br>Sedan<br>Coupe<br><br>St. Wagon<br><br>Mazda<br>Cosmo<br>Coupe | M-4<br>M-5<br>A-3<br><br><br>M-5<br>A-3 | 3000           | Mitsubishi<br>T5T02273           | Hitachi<br>KCH348-80<br>for<br>manual<br><br>KCH348-85<br>for<br>automatic | EGV-1<br>(only for<br>Automatic)<br><br>Clean | See label<br>attached<br>See Page 2<br><br>1) T; 25+4°<br>ATDC<br>L; 5+1°<br>ATDC<br>at idle speed<br><br>2) Less than 0.1%<br><br>3) 750+25<br>in Neutral for<br>Manual<br><br>750+25<br>in "D" Range<br>for Automatic |

Comments \*EGR for automatic transmission only

Date of Issue See R/C # RCREP-2, 7-7-76.  
See E. O. A-16-17-1.

**Abbreviations**

- Distributor  
 C-Centrifugal Advance  
 V-Vacuum Advance  
 VR-Vacuum Retard  
 HEI-High Energy 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

5. Label for Family REP (MAZDA RX-4 & MAZDA COSMO)  
California State

VEHICLE EMISSION CONTROL INFORMATION

MODEL: Mazda RX-4 & Mazda COSMO  
ENGINE DISPLACEMENT: 40.0 CU. IN. x 2  
ENGINE FAMILY: REP  
EXHAUST EMISSION CONTROL TYPE: A.I., T.R. & \*E.G.R.  
(\* AUTOMATIC TRANSMISSION ONLY)  
ENGINE TUNE UP SPECIFICATIONS AND ADJUSTMENTS

BASE COLOR --- WHITE  
LETTERING & FRAME --- BLACK

A. IGNITION TIMING: TRAILING:  $25 \pm 4^\circ$  ATDC AT IDLE SPEED SPECIFIED BELOW  
LEADING:  $5 \pm 1^\circ$  ATDC AT IDLE SPEED SPECIFIED BELOW  
(WITH DIST. VACUUM LINE CONNECTED)

B. IDLE ADJUSTMENT  
FOLLOW THE INSTRUCTIONS BELOW BEFORE CHECKING OR SETTING THE IDLE SPEED AND THE IDLE MIXTURE:  
WARM UP THE ENGINE. TURN OFF ALL ACCESSORIES.  
REMOVE THE FUEL FILLER CAP. PLUG THE IDLE COMPENSATOR HOSE.

LOCATION OF THE LABEL

B-1. IDLE SPEED AND SETTING PROCEDURE

MANUAL TRANSMISSION :  $750 \pm 25$  RPM IN NEUTRAL  
AUTOMATIC TRANSMISSION:  $750 \pm 25$  RPM IN "D" RANGE

IF THE IDLE SPEED IS NOT AS SPECIFIED ABOVE, ADJUST THE IDLE SPEED TO 750 RPM BY TURNING THE AIR ADJUST SCREW.

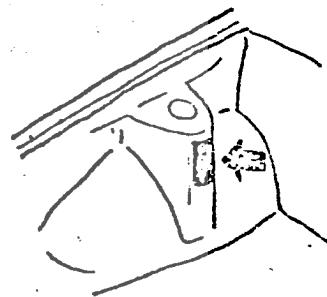
MAZDA RX-4

B-2. IDLE MIXTURE AND SETTING PROCEDURE

CO: LESS THAN 0.1 %

IF THE CO CONCENTRATION IS LESS THAN 0.1 % AND THE ENGINE OPERATION IS STABLE AFTER SETTING THE IDLE SPEED, THE IDLE MIXTURE ADJUSTMENT IS NOT REQUIRED. IF NOT, ADJUST THE IDLE MIXTURE WITH FOLLOWING PROCEDURE.

1. REMOVE THE IDLE LIMITER CAP (PLASTIC CAP) FROM THE MIXTURE ADJUST SCREW (MAS).
2. TURN MAS CLOCKWISE UNTIL THE ENGINE HUNTS SEVERELY.
3. THEN TURN MAS COUNTER-CLOCKWISE IN SMALL STEPS UNTIL CO DECREASES TO 0.1 %. (DO NOT OVERTURN MAS TO GET CO LESS THAN 0.1 %.)
4. FROM THAT POSITION, TURN MAS COUNTER-CLOCKWISE 1/4 TURN. (IDLE CO SHOULD BE LESS THAN 0.1 % AFTER THESE ADJUSTMENTS.)
5. IF THE IDLE SPEED SHIFTS FROM THE SPECIFIED RPM AS THE RESULT OF THE ABOVE PROCEDURE, ADJUST THE IDLE SPEED AND REPEAT THE PROCEDURE 2-4.
6. INSERT THE IDLE LIMITER CAP TO FIX THE MAS POSITION.



MAZDA COSMO

C. HIGH IDLE SPEED

FAST IDLE SPEED: 3,000 - 3,500 RPM UNDER WARM ENGINE CONDITION

FOR DETAILED MAINTENANCE INFORMATION, PLEASE REFER TO THE OWNER'S MANUAL AND THE SERVICE BOOK.

STATEMENT

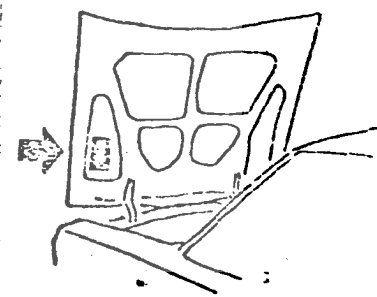
THIS VEHICLE CONFORMS TO U.S.E.P.A. REGULATIONS APPLICABLE TO 1977 MODEL YEAR NEW MOTOR VEHICLES. THIS VEHICLE ALSO CONFORMS TO CALIFORNIA REGULATIONS APPLICABLE TO 1977 MODEL YEAR NEW MOTOR VEHICLES.

THIS VEHICLE IS CERTIFIED AS HAVING DEMONSTRATED CONFORMANCE WITH FEDERAL AND CALIFORNIA EMISSION STANDARDS ONLY AT ELEVATIONS EQUAL TO OR LOWER THAN 1,219 METERS (4,000 FEET)

CATALYST IDENTIFICATION: NON CATALYST

MAZDA Toyo Kogyo Co., Ltd.

190



99

unit; mm

Date: Jul. 14 1976

|     |         |  |  |  |
|-----|---------|--|--|--|
| No. | TK II-2 |  |  |  |
|     | P-31-76 |  |  |  |

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