E.O. Book

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-9
Relating to Certification of New Motor Vehicles

ISUZU MOTORS LIMITED

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 Isuzu Motors Limited exhaust emission control systems for 1978 model-year light duty trucks are certified for the vehicles described below:

Engine Family: G180ZL-E
Engine: 110.8 CID
Transmission: 4-speed manual, 3-speed automatic
Exhaust Emission Control Systems: Air Injection, Exhaust Gas Recirculation, Oxidation Catalyst

Models and Engine Codes as listed in attachment.

The following are the recommended values to be listed on the window decal required by California Assembly-Line Test Procedures for 1978 model-year vehicles:

Engine Family	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
G180ZL-E	0.4	8	1.6

BE IT FURTHER RESOLVED: That the above models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (13 California Administrative Code, Section 2290) for the aforementioned model year, or have been granted a temporary exemption from the aforementioned "Specifications" by Executive Order AA-20 series.

BE IT FURTHER RESOLVED: That the above models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-powered Motor Vehicles except Motorcycles".

ISUZU MOTORS LIMITED EXECUTIVE ORDER A-20-9

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 7 day of September, 1977.

G. C. Hass, Chief
Vehicle Emissions Control Division

Issued: 090777.

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

LUV-2 label revised by RC JPK-079 on 103177.

Manufacturer Isuzu Motors Limited Executive Order No. A-20-9 Page 1

Engine Family G180ZL-E Engine (CID) 110.8

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 Emissions Control System
AI-Air Injection
CAI-Catalyst Air Injection
CAB-Chamber Air Bleed
DD-Dual Displacement
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
TC-Turbo Charged
TR-Thermal Reactor
TWC-Three Way Catalyst (Feedback Control)

EGR Syst. Service
I-Inspect, repair/replace as needed
R-Replace

California: LUV-1 and LUV-3.

LOW ALTITUDE CERTIFICATION

VEHICLE EMISSION CONTROL INFORMATION
ISUZU MOTORS LIMITED

ENGINE TUNE-UP CONDITIONS
MAKE ALL ADJUSTMENT AT NORMAL OPERATING TEMPERATURE, CHOKE OPEN, AIR CLEANER INSTALLED, DISTRIBUTOR AND IDLE COMPENSATOR VACUUM LINES DISCONNECTED AND PLUGGED, ALL ACCESSORIES OFF, DASHPOT FULLY BOTTOMED IF INSTALLED, AND TRANSMISSION IN NEUTRAL BOTH MANUAL AND AUTOMATIC. UNPLUG AND RECONNECT BOTH VACUUM LINES WHEN ADJUSTMENTS ARE COMPLETED.
SET PARKING BRAKE AND BLOCK DRIVE WHEELS.

IDLE SPEED AND IDLE MIXTURE SETTING PROCEDURE (IDLE SPEED DROP)
1. TURN THE IDLE MIXTURE ADJUST SCREW ALL THE WAY IN AND BACK OUT 3 TURNS.
2. ADJUST THROTTLE ADJUST SCREW TO 900 RPM.
3. ADJUST SETTING OF IDLE MIXTURE ADJUST SCREW TO ACHIEVE THE MAXIMUM SPEED.
4. RESET THROTTLE ADJUST SCREW TO 900 RPM.
5. TURN IDLE MIXTURE ADJUST SCREW CLOCKWISE(LEAN) UNTIL ENGINE SPEED IS DOWN TO 850 RPM.
6. RESET IDLE MIXTURE ADJUST SCREW 1/2 TURN COUNTERCLOCKWISE(RICH).
7. RESET THROTTLE ADJUST SCREW TO 900 RPM.
8. IF AIR CONDITIONER IS INSTALLED: TURN A.C. ON MAX. COLD AND HIGH BLOWER. OPEN THE THROTTLE TO APPROX. 1/3 AND ALLOW THE THROTTLE TO CLOSE. (THIS ALLOWS THE SPEED-UP SOLENOID TO REACH FULL TRAVEL.) ADJUST THE SPEED-UP CONTROLLER ADJUSTING SCREW TO SET IDLE AT 900 RPM.
9. ADDITIONAL PROCEDURE IF DASHPOT IS INSTALLED : MAINTAIN THE ENGINE SPEED BETWEEN 2,400 RPM AND 2,800 RPM. SET THE DASHPOT TO CONTACT THE DASHPOT SHAFT END WITH THE DASHPOT LEVER, AND THEN FULLY TIGHTEN THE LOCK NUT.

IGNITION TIMING SETTING PROCEDURE
1. SET IDLE SPEED TO 900 RPM.
2. CONNECT TIMING LIGHT LEAD TO NUMBER 1 CYLINDER.
3. ALIGN MARK ON CRANKSHAFT PULLEY TO TIMING MARK WITH TIMING LIGHT AIMED TOWARD TIMING MARK.

OC, AI AND EGR EXHAUST EMISSION CONTROL		CATALYST	
		BUICK OPEL	LUV
EVAPORATIVE FAMILY		CRK-P	CRK-L
ENGINE FAMILY		G180Z-B	G180ZL-E
ENGINE DISPLACEMENT		110.8 C.I.D. (1.8 LITRE)	
IDLE SPEED		900 RPM	
IDLE MIXTURE		IDLE SPEED DROP	
IGNITION TIMING		6° BTDC AT 900 RPM	
DWELL ANGLE		52°	
BREAKER POINT GAP		0.018 IN. (0.45 MM)	
SPARK PLUG GAP		0.030 IN. (0.75 MM)	
VALVE LASH (COLD)	IN.	0.006 IN. (0.15 MM)	
	EXH.	0.010 IN. (0.25 MM)	

SEE SHOP MANUAL FOR ADDITIONAL INFORMATION.

THIS VEHICLE CONFORMS TO U. S. E.P.A. REGULATIONS APPLICABLE TO 1978 MODEL YEAR NEW MOTOR VEHICLES.
THIS VEHICLE CONFORMS TO CALIFORNIA REGULATIONS APPLICABLE TO 1978 MODEL YEAR NEW MOTOR VEHICLES.

PT. NO. 8942119200

California: LUV-2 only.

LOW ALTITUDE CERTIFICATION

VEHICLE EMISSION CONTROL INFORMATION
ISUZU MOTORS LIMITED

ENGINE TUNE-UP CONDITIONS
MAKE ALL ADJUSTMENT AT NORMAL OPERATING TEMPERATURE, CHOKE OPEN, AIR CLEANER INSTALLED, DISTRIBUTOR AND IDLE COMPENSATOR VACUUM LINES DISCONNECTED AND PLUGGED, ALL ACCESSORIES OFF, AND TRANSMISSION IN NEUTRAL BOTH MANUAL AND AUTOMATIC.
UNPLUG AND RECONNECT BOTH VACUUM LINES WHEN ADJUSTMENTS ARE COMPLETED.
SET PARKING BRAKE AND BLOCK DRIVE WHEELS.

IDLE SPEED AND IDLE MIXTURE SETTING PROCEDURE (IDLE SPEED DROP)
1. TURN THE IDLE MIXTURE ADJUST SCREW ALL THE WAY IN AND BACK OUT 3 TURNS.
2. ADJUST THROTTLE ADJUST SCREW TO 900 RPM.
3. ADJUST SETTING OF IDLE MIXTURE ADJUST SCREW TO ACHIEVE THE MAXIMUM SPEED.
4. RESET THROTTLE ADJUST SCREW TO 900 RPM.
5. TURN IDLE MIXTURE ADJUST SCREW CLOCKWISE(LEAN) UNTIL ENGINE SPEED IS DOWN TO 850 RPM.
6. RESET IDLE MIXTURE ADJUST SCREW 1/2 TURN COUNTERCLOCKWISE(RICH).
7. RESET THROTTLE ADJUST SCREW TO 900 RPM.
8. IF AIR CONDITIONER IS INSTALLED: TURN A.C. ON MAX. COLD AND HIGH BLOWER. OPEN THE THROTTLE TO APPROX. 1/3 AND ALLOW THE THROTTLE TO CLOSE. (THIS ALLOWS THE SPEED-UP SOLENOID TO REACH FULL TRAVEL.) ADJUST THE SPEED-UP CONTROLLER ADJUSTING SCREW TO SET IDLE AT 900 RPM.

IGNITION TIMING SETTING PROCEDURE
1. SET IDLE SPEED TO 900 RPM.
2 CONNECT TIMING LIGHT LEAD TO NUMBER 1 CYLINDER.
3 ALIGN MARK ON CRANKSHAFT PULLEY TO TIMING MARK WITH TIMING LIGHT AIMED TOWARD TIMING MARK.

OC, AI AND EGR EXHAUST EMISSION CONTROL		CATALYST
EVAPORATIVE FAMILY		CRK-L
ENGINE FAMILY		G180ZL-E
ENGINE DISPLACEMENT		110.8 C.I.D. (1.8 LITRE)
IDLE SPEED		900 RPM
IDLE MIXTURE		IDLE SPEED DROP
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BREAKER POINT GAP		0.018 IN. (0.45 MM)
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VALVE LASH (COLD)	IN.	0.006 IN. (0.15 MM)
	EXH.	0.010 IN. (0.25 MM)

SEE SHOP MANUAL FOR ADDITIONAL INFORMATION.

THIS VEHICLE CONFORMS TO U.S.E.P.A. REGULATIONS APPLICABLE TO 1978 MODEL YEAR NEW MOTOR VEHICLES WHEN COMPLETED AT A MAXIMUM CURB WEIGHT OF 2950 POUNDS AND A MAXIMUM FRONTAL AREA OF 22.8 SQUARE FEET.
THIS VEHICLE CONFORMS TO CALIFORNIA REGULATIONS APPLICABLE TO 1978 MODEL YEAR NEW MOTOR VEHICLES WHEN COMPLETED AT A MAXIMUM CURB WEIGHT OF 2950 POUNDS AND A MAXIMUM FRONTAL AREA OF 22.8 SQUARE FEET.

PT. NO. 8942122650

1978 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

☐ Passenger Cars ☒ Light-Duty Trucks ☐ Medium Duty Vehicles

Manufacturer ISUZU MOTORS LIMITED Executive Order No. A-20-9 Page 2

Engine Family G180ZL-E Engine (CID) 110.8 Engine Code

Emission Control System AI, EGR, OC +10%(A/C) Yes ☐ No ☒

Eng. Code	Vehicle Models (If Coded see attachment)	Trans	Inertia Weight Class	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
LE-1	LUV-1 LUV-2,-3	M-4	2750 3000	Nippon Denso Ltd. 8942065420	Hitachi Co. LTD. 8942063560, 8942137300	Automobile Parts, MFG Co, LTD. 8942108630 No service	See tune up labels on page 1
LE-2		A-3			8942063580, 8942137310		

Comments: No models have special road load HP settings.
See page 1 for abbreviations and model codes.

Date of Issue 090777. Revisions: Carb. PN 8942137300 & 10 added by RC JPK-084 on 122977.