State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-20-10
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 1979 model-year gasoline-powered passenger cars are certified for the vehicles described below:

Engine Family	Displacement Cubic Inches	Exhaust Emission Control Systems (Special Features)
G180Z-B	110.8	Air Injection 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 1979 model-year vehicles:

Engine Family	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
G180Z-B	0.28	5.3	1.2

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 except Motorcycles".

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, or have been granted a temporary exemption from the aforementioned "Specifications" by Executive Order AA-20 series.

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 13 day of July, 1978.

G. C. Hass

G. C. Hass, Chief
Vehicle Emissions Control Division

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Engine Family G180Z-B Engine (CID) 110.8

ABBREVIATIONS

Ignition System
CA-Centrifugal Advance
EI-Electronic Ignition
ESAC
VA-Vacuum Advance
VR-Vacuum Retard

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

Exhaust Emissions Control System
AI-Air Injection
CCAV-Comb. Chamber Air Valve
EFI-Electronic Fuel Injection
EGR-Exhaust Gas Recirculation
EM-Engine Modification

ESAC-Electronic Spark Advance Control
MFI-Mechanical Fuel Injection

OC-Oxidation Catalyst
PAI-Pulse Air Injection
TC-Turbo Charged
TR-Thermal Reactor
TWC-Three Way Catalyst (Feedback Control)
WOC-Warm-up Oxidation Catalyst

Evaporative Emission Family: CRK-P

Vehicle Models:

BUICK OPEL
Coupe
Deluxe Coupe
Sport Coupe
Sedan

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[X] Passenger Cars [ ] Light-Duty Trucks [ ] Medium-Duty Vehicles

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Engine Family G180Z-B Engine (CID) 110.8 Engine Code

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

Eng. Code	Vehicle Models (If Coded see attachment)	Trans.	Inertia Weight Class (Axle Ratio)*	CA,VA Ign. Sys. Distrib. Part No.	Fuel System 1-2V Carb. Part No.	EGR Valve Part No.	Tune-up Specification (1) Basic Timing (2) Idle Mixture (3) Idle Speed
PB-1	BUICK OPEL	M-4, M-5	2,500	Nippon Denso Ltd. 8942099010	Nippon Kikaki Ltd. 8942125280	Automobile Parts Mfg. Co., Ltd. 8942139000	See tune up label on page 3
PB-2		A-3		8942095640	8942125290		

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, equipment and inertia weight class.

*Axle ratio is that of medium duty certification vehicle.

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BUICK
OPEL

VEHICLE EMISSION CONTROL INFORMATION
ISUZU MOTORS LIMITED

CATALYST
OC, AI AND EGR EXHAUST EMISSION CONTROL

EVAPORATIVE FAMILY		CRK-P
ENGINE FAMILY		G180Z-B
ENGINE DISPLACEMENT		110.8 C.I.D.(1.8 LITRE)
IDLE SPEED		900 RPM
IDLE MIXTURE		IDLE SPEED DROP
IGNITION TIMINT		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)

SET PARKING BRAKE AND BLOCK DRIVE WHEELS

ENGINE TUNE-UP CONDITIONS
MAKE ALL ADJUSTMENT AT NORMAL OPERATING TEMPERATURE, CHOKE OPEN, AIR CLEANER INSTALLED, DISTRIBUTOR, IDLE COMPENSATOR AND EGR VACUUM LINES DISCONNECTED AND PLUGGED, ALL ACCESSORIES OFF, DASHPOT FULLY BOTTOMED IF INSTALLED, AND TRANSMISSION IN NEUTRAL(BOTH MANUAL AND AUTOMATIC).

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.

ADDITIONAL PROCEDURE
1. 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.
2. IF DASHPOT IS INSTALLED: MAINTAIN THE ENGINE APEED BETWEEN 2,000 RPM AND 2,400 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 NO. 1 CYLINDER.
3. ALIGN MARK ON CRANKSHAFT PULLEY TO TIMING MARK WITH TIMING LIGHT AIMED TOWARD TIMING MARK.

UNPLUG AND RECONNECT ALL VACUUM LINES WHEN ADJUSTMENTS ARE COMPLETED.

SEE SHOP MANUAL AND MAINTENANCE SCHEDULE FOR ADDITIONAL INFORMATION.

THIS VEHICLE CONFORMS TO U.S.EPA AND CALIFORNIA REGULATIONS APPLICABLE TO 1979 MODEL YEAR NEW MOTOR VEHICLES.

PT. NO. 8942162340