

# 1982 Isuzu Diesel 4 Tune-Up

## TUNE-UP

I-Mark, P'UP

### ENGINE IDENTIFICATION

The first four digits of engine identification code are used to identify engine models. Code is stamped on left rear corner of cylinder block.

#### ENGINE CODE

Application	Code
I-Mark (1800 cc)	4FBI
P'UP (2300 cc)	C223

### ENGINE COMPRESSION

Warm engine to normal operating temperature. Remove sensing resistor, glow plug connectors, glow plugs and fuel cut solenoid connector. Disconnect fusible link wire of "Quick Start" system at harness connector. Install compression gauge adapter (J-29762) and compression gauge. Operate starter and read compression at 300 RPM.

#### COMPRESSION SPECIFICATIONS

Compression Ratio	22:1
Compression Pressure	
Normal (New Engine)	441 psi (31 kg/cm <sup>2</sup> )
Minimum	
I-Mark	370 psi (26 kg/cm <sup>2</sup> )
P'UP	398 psi (28 kg/cm <sup>2</sup> )

### VALVE CLEARANCE

**CAUTION:** Before adjusting valves, check rocker arm shaft bracket bolts for looseness and tighten as necessary.

1) Rotate crankshaft until No. 1 piston is at TDC of compression stroke. Measure valve clearance between adjusting screw and valve stem end cap. With No. 1 piston at TDC, adjust intake valves on cylinders No. 1 and 2, and exhaust valves on cylinders No. 1 and 3.

2) Rotate crankshaft 1 complete revolution until No. 4 piston is at TDC of compression stroke. Adjust intake valves on cylinders No. 3 and 4, and exhaust valves on cylinders No. 2 and 4.

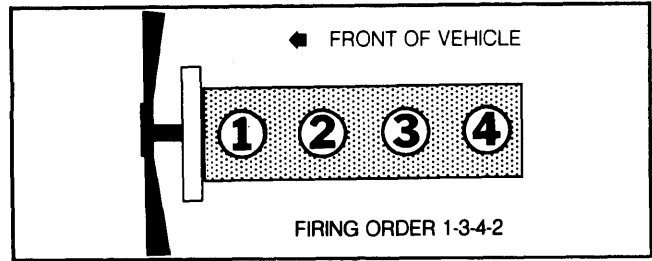
#### VALVE CLEARANCE SPECIFICATIONS

Application	Intake in. (mm)	Exhaust in. (mm)
I-Mark		
Hot & Cold	.010 (.25)	.014 (.35)
P'UP		
Hot	.015 (.37)	.015 (.37)
Cold	.016 (.40)	.016 (.40)

### VALVE ARRANGEMENT

I-Mark — I-E-I-E-I-E-I-E (Front-to-rear)  
P'UP — E-I-I-E-E-I-I-E (Front-to-rear)

Fig. 1: Diesel Firing Order Illustration



### IDLE SPEED

Set parking brake and block drive wheels. Connect tachometer to warm engine and start engine. Check that idle speed is correct with accelerator lever touching idle adjusting screw. To adjust, loosen lock nut and turn adjusting screw until idle speed is set to specifications. Tighten lock nut.

#### IDLE SPEED SPECIFICATIONS

Application	Idle RPM
I-Mark	
Man. Trans.	575-675
Auto. Trans.	675-775
P'UP	700-800

Fig. 2: Idle and Fast Idle Speed Adjustment

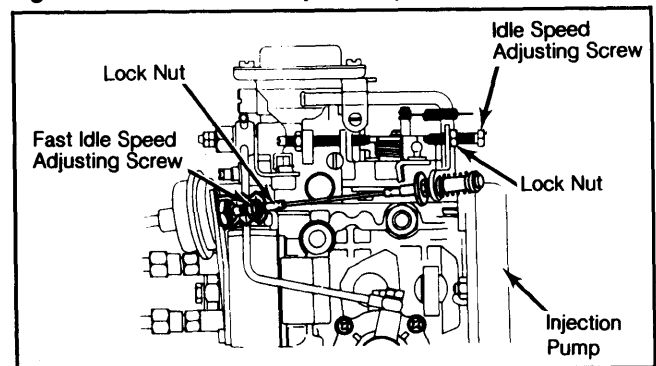
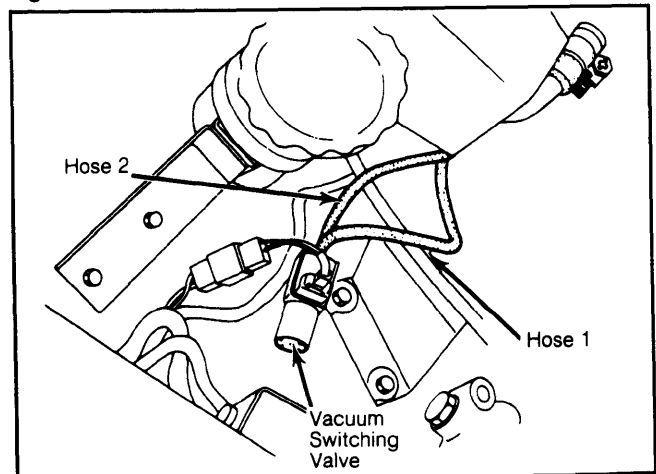


Fig. 3: Fast Idle Vacuum Hose Removal



## TUNE-UP (Cont.)

### FAST IDLE SPEED

Warm engine to normal operating temperature. Connect tachometer. Disconnect hoses 1 and 2 from vacuum switch valve and connect together with tubing. See Fig. 3. Check fast idle speed. If fast idle speed is incorrect, loosen adjusting lock nut and adjust idle speed by moving adjusting nut. See Fig. 2.

### FAST IDLE SPEED

Application	RPM
All Models .....	900-950

## GENERAL SERVICING

### FUEL SYSTEMS

#### FUEL INJECTION

All models use Bosch diesel fuel injection.

### REPLACEMENT INTERVALS

Component	Miles
Oil Filter .....	7500
Air Filter .....	30,000
Fuel Filter .....	30,000

### ELECTRICAL

#### BATTERY

##### BATTERY SPECIFICATIONS

Application	Amp. Hr. Rating
All Models .....	80

#### STARTER

All models use Hitachi starters.

##### STARTER SPECIFICATIONS

Application	Volts	Amps.	Test RPM
All Models .....	11.5	120	4000

#### ALTERNATOR

All models use Hitachi alternators.

##### ALTERNATOR SPECIFICATIONS

Application	Rated Amp. Output
All Models .....	50

#### ALTERNATOR REGULATOR

All models use Hitachi alternator regulators.

##### REGULATOR OPERATING VOLTAGE@68°F (20°C)

Application	Voltage
All Models .....	14.0-14.6

### FLUID CAPACITIES

Application	Quantity
<b>Crankcase (Includes Filter)</b>	
I-Mark .....	5.5 qts. (5.2L)
P'UP .....	5.1 qts. (4.8L)
<b>Cooling System</b>	
I-Mark .....	7.4 qts. (7.0L)
P'UP .....	9.2 qts. (8.7L)
<b>Man. Trans. (SAE 30)</b>	
4-Speed .....	2.6 pts. (1.2L)
5-Speed .....	3.3 pts. (1.6L)
<b>Auto. Trans. (Dexron II)</b>	
I-Mark .....	6.7 qts. (6.3L)
P'UP .....	7.0 qts. (6.6L)
Transfer Case (SAE 30) .....	5.2 pts. (2.5L)
Rear Differential (SAE 90) .....	2.7 pts. (1.3L)
Front Differential (SAE 90) .....	1.7 pts. (0.8L)
<b>Fuel Tank</b>	
I-Mark .....	13.7 gals. (52.0L)
P'UP	
Short Bed .....	13.2 gals. (50.0L)
Long Bed .....	19.1 gals. (72.4L)

## SERVICE SPECIFICATIONS

### BELT ADJUSTMENT

Application	<sup>1</sup> Deflection In. (mm)
All Belts .....	0.4 (10)

<sup>1</sup> — Measured between longest span and depressed with firm thumb pressure.