

Fig. 23: Positioning Tensioner Pulley Pin Holes Towards Water Pump
Courtesy of CHRYSLER CORP.

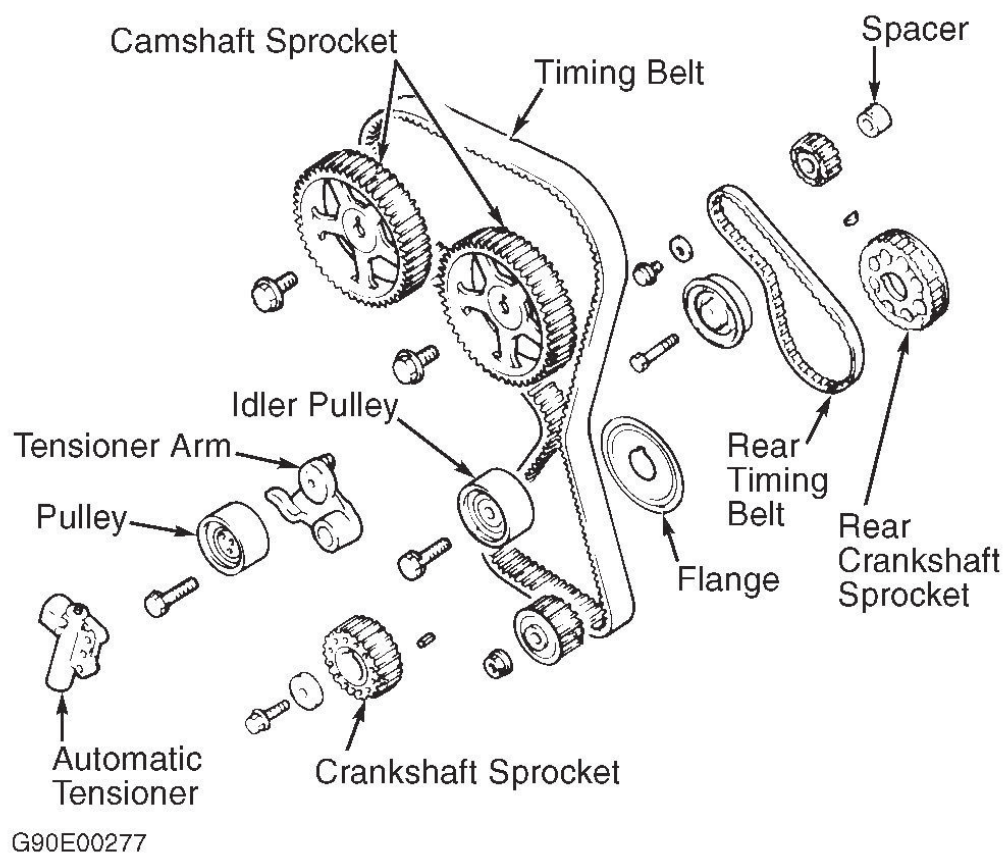
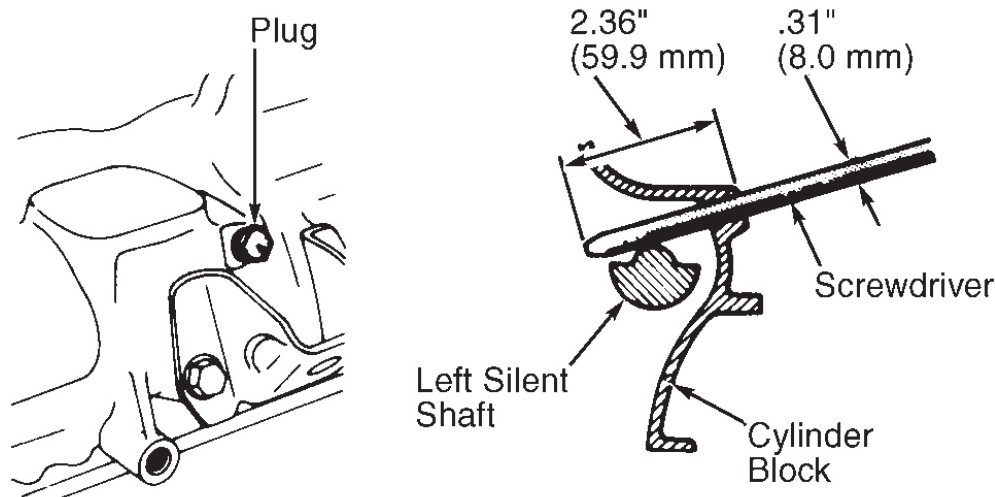


Fig. 24: Exploded View Of Timing Belt & Related Components
Courtesy of MITSUBISHI MOTOR SALES OF AMERICA.



CAUTION: Ensure this alignment procedure is followed for left silent shaft. If balance weight is incorrectly positioned, excessive engine vibration will result. Weight must be in position, as illustrated, when timing marks are aligned.

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Fig. 25: Holding Silent Shaft Stationary

Courtesy of MITSUBISHI MOTOR SALES OF AMERICA.

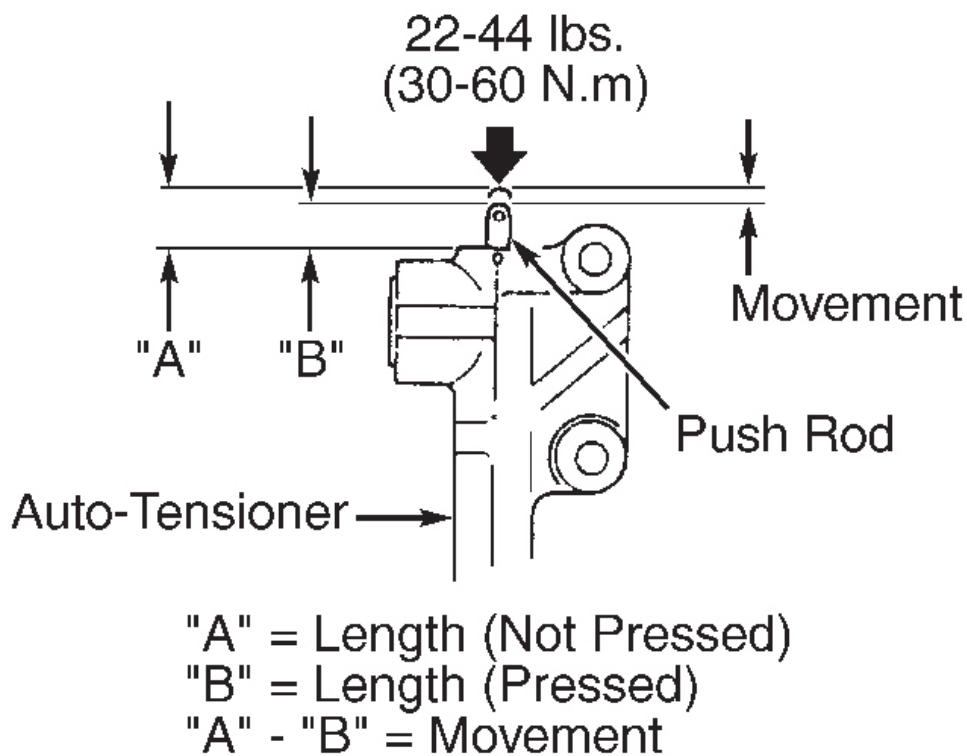
Inspection (General)

Check belt teeth for damage and oil contamination. Inspect belt for glossy, hardened or non-elastic surface. Ensure belt is not cracked, separated or showing canvas fiber. Inspect sprockets for damage. Check water pump for leakage, spin water pump pulley and check for roughness or binding. Replace components if damaged.

Inspection (Belt Tensioner)

Inspect automatic hydraulic tensioner, before reinstallation.

- Check rod end of hydraulic tensioner for wear. Measure distance from tensioner rod end to tensioner housing. Distance should be .47" (11.9 mm). If protrusion is out of specification, replace tensioner.
- Check hydraulic belt tensioner for leakage. If any hydraulic fluid is detected leaking from tensioner, replace tensioner.
- Press the rod of the tensioner down with the force of 22-24 lbs. (98-196 N). If rod retracts more than .039" (1mm), replace tensioner. See **Fig. 26**.
- Replace hydraulic tensioner, if rod can be easily pushed into hydraulic tensioner.
- Check belt tensioner pulley, idler pulley and "B" belt tensioner pulley for leakage, roughness or binding in rotation. Replace components if damaged.



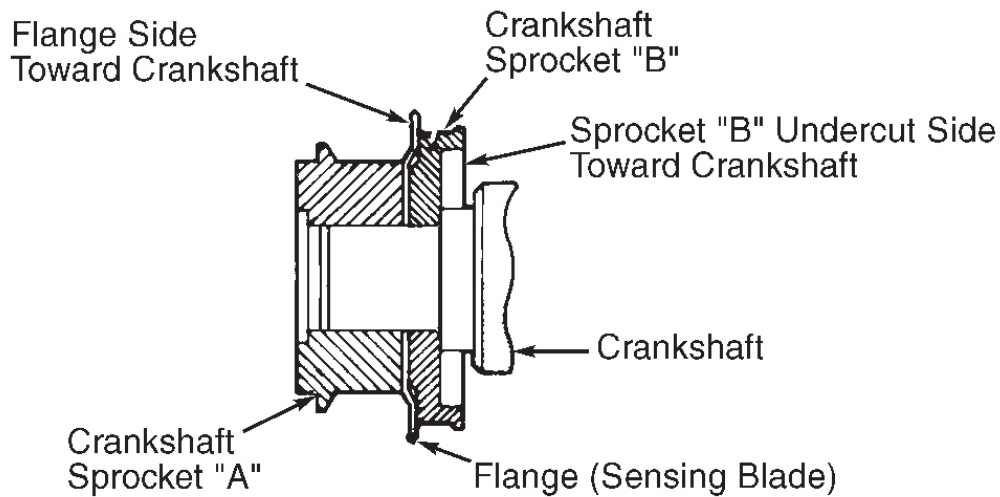
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Fig. 26: Measuring Push Rod Movement

Courtesy of MITSUBISHI MOTOR SALES OF AMERICA.

Installation (Turbo)

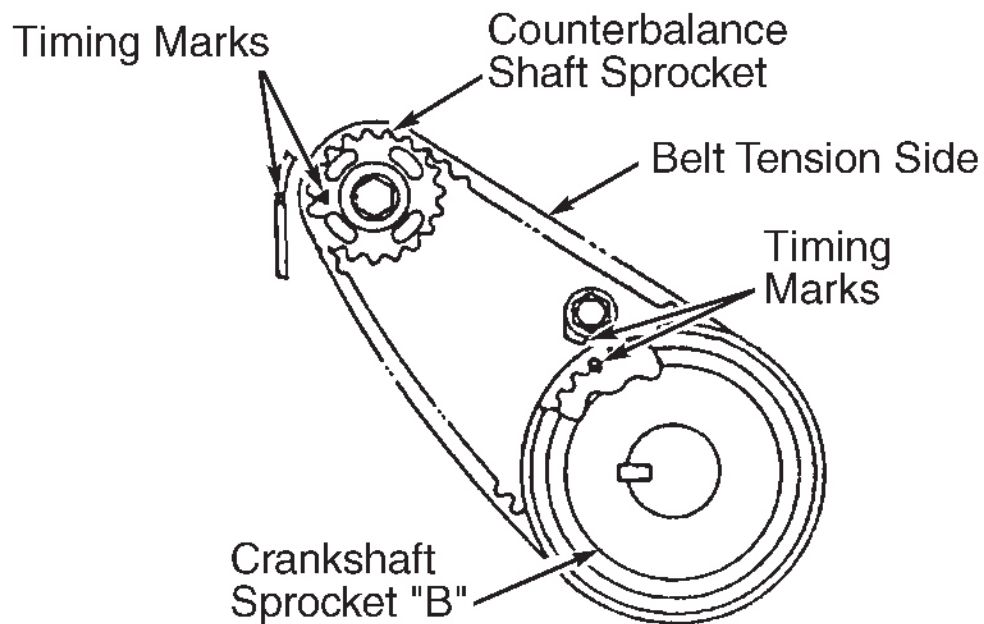
1. Install rear timing belt covers (if removed). Install rear crankshaft sprocket and flange. See **Fig. 27**. Align mark on sprocket with mark on engine case. See **Fig. 28**.
2. Install left silent shaft spacer (if equipped) and sprocket. Align timing marks on silent shaft sprocket with timing marks on engine case. See **Fig. 28**.



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Fig. 27: Installing Crankshaft Sprockets

Courtesy of MITSUBISHI MOTOR SALES OF AMERICA.



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Fig. 28: Aligning Rear Timing Belt

Courtesy of MITSUBISHI MOTOR SALES OF AMERICA.

3. Install rear timing belt and tensioner. Hold tensioner tightly against belt while tightening bolts. To check tension, depress belt with finger midway between sprockets. Deflection should be 0.20-0.28" (5.1-7.1 mm).

NOTE: Intake and exhaust camshaft sprockets look similar. Exhaust sprocket uses timing mark on right with dowel pin hole on top. Intake sprocket uses timing mark on left with dowel pin hole on top.

4. Install crankshaft sprocket and bolt. Tighten to specification. Install camshaft sprockets (if removed). Tighten camshaft sprocket bolts to specification while holding hexagon area of camshaft. Install idler pulley. See appropriate **TORQUE SPECIFICATIONS** table.
5. Retract automatic tensioner rod into tensioner housing by placing tensioner assembly in a soft-jaw vise. Push rod back into automatic tensioner in small increments until both rod and housing holes are aligned. See **Fig. 19** . Install a .055" (1.4 mm) diameter wire into holes.
6. Remove automatic tensioner from vise with wire attached. Install tensioner, tighten bolts to 21 ft. lbs. (28 N.m). Install tensioner pulley on tensioner arm (if it has been removed). Ensure pin holes of tensioner pulley shaft are left of pulley center bolt (this position will give the most clearance when installing belt). Temporarily tighten center bolt.

NOTE: Intake and exhaust camshaft sprockets look similar. Exhaust sprocket uses timing mark on right with dowel pin hole on top. Intake sprocket uses timing mark on left with dowel pin hole on top.

7. Ensure camshaft sprocket timing marks align. See **Fig. 22** . Outer marks on sprockets should be aligned with cylinder head surface.
8. When exhaust camshaft sprocket is released, camshaft will rotate one tooth in counterclockwise direction. Ensure this rotation is compensated for when installing timing belt. Rotate crankshaft and oil pump sprockets to align timing marks. Ensure rod or Phillips screwdriver installed during removal is still in place.
9. Install timing belt on intake camshaft sprocket. Use spring clip to hold belt on sprocket. See **Fig. 31** .
10. Install wrench on both camshaft sprocket bolts, to keep sprockets aligned. Install timing belt around exhaust camshaft sprocket, while holding camshaft sprocket bolt, so timing mark on camshaft sprocket is aligned with timing mark.
11. Install another spring clip on timing belt and camshaft sprocket to hold belt on sprocket. Install timing belt in following sequence: around idler pulley, oil pump sprocket, crankshaft sprocket and tensioner pulley.
12. Ensure timing marks are aligned. Loosen center bolt on tensioner pulley, rotate pulley downward toward timing belt until belt does not sag. Note location of pin holes in tensioner pulley. Pin holes should be at about the 6 o'clock position with the pulley lightly against the timing belt.
13. Remove both spring clips. Remove wrench from camshaft sprocket bolts. Ensure all timing marks are aligned. Remove rod or Phillips(R) screwdriver from silent shaft access hole. Install plug into block.
14. Install Set Screw (MD998738) in support bracket until set screw end contacts tensioner arm. See **Fig. 29** . Rotate set screw until wire pin can be removed from automatic tensioner. Remove set screw. Tighten tensioner pulley center bolt to 35 ft. lbs. (48 N.m).