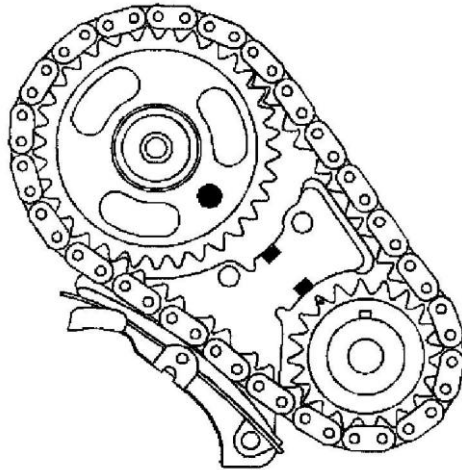




## 2001 Chevrolet Cavalier L4-2.2L

### Timing Chain: Service and Repair



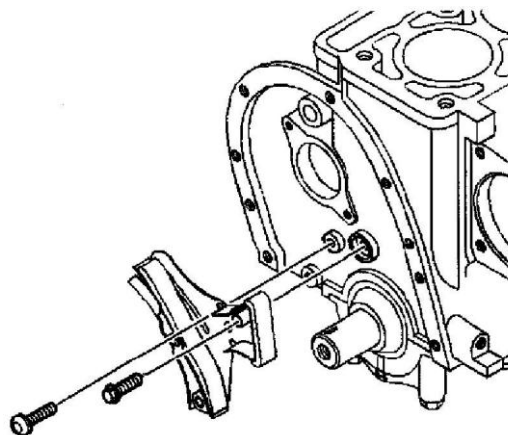
#### Timing Chain and Sprockets Replacement Removal Procedure

Tools Required: J22888-20 Crankshaft Sprocket Puller

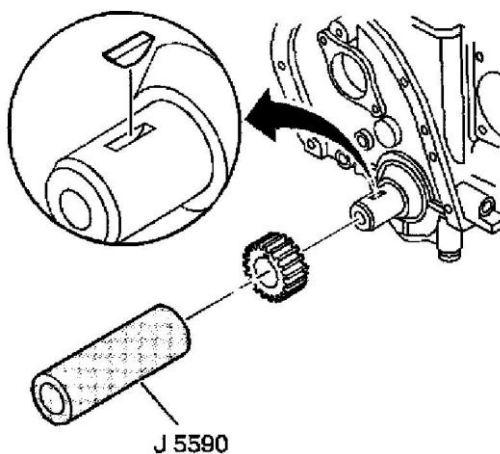
Caution: Be sure the ignition key is in the off position, unless otherwise instructed in these procedures.

1. Disconnect the negative battery cable.
2. Remove the crankcase front cover. Refer to Engine Front Cover Replacement. See: Timing Cover/Service and Repair 3. Align the crankshaft sprocket and camshaft sprocket timing marks with the alignment tabs on the timing chain tensioner.

Important: Before removing the timing chain, measure the distance between the hole in the bracket and the unworn surface of the timing chain tensioner shoe. If the distance between the hole and the unworn surface of the timing chain tensioner shoe is more than 8 mm (0.314), replace the tensioner, timing chain, and both sprockets.

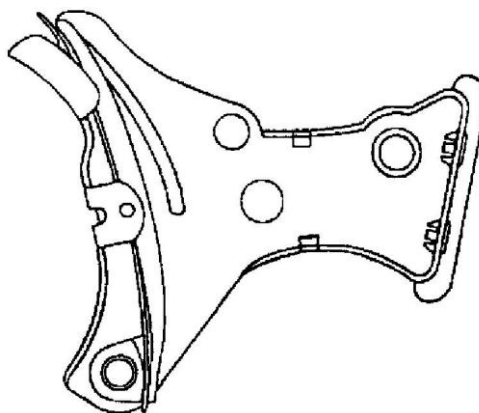


4. Remove the timing chain tensioner bolts.
5. Remove the camshaft sprocket bolt.
6. Remove the camshaft sprocket and timing chain.
7. Remove the Torx bolt and the tensioner assembly.
8. Remove the crankshaft sprocket using J22888-20 Tools Required: J 5590 Crankshaft Sprocket Installer

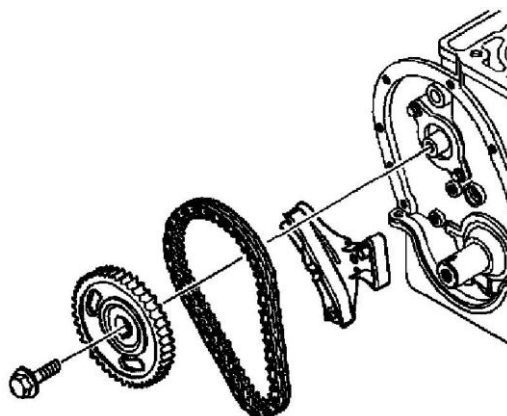


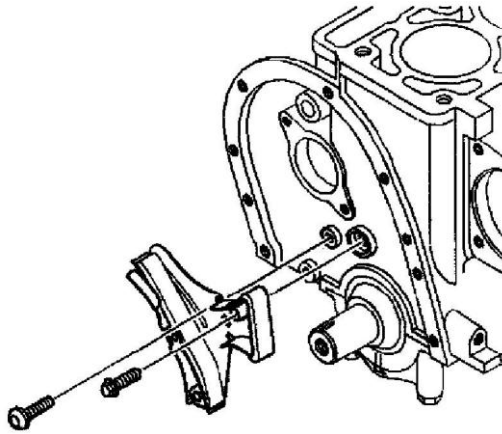
#### Installation Procedure

1. Install the crankshaft sprocket using J 5590. Make sure that the crankshaft sprocket is seated against the crankshaft.
2. Install the timing chain and install the timing chain tensioner.

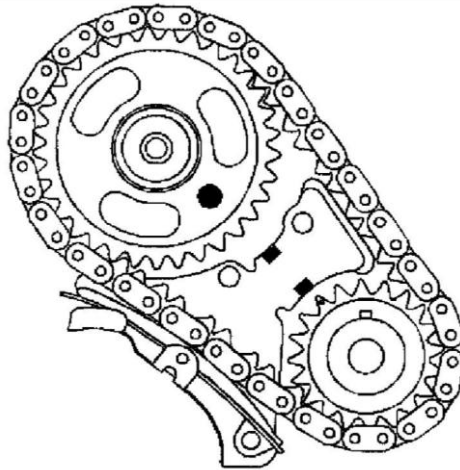


3. Compress the timing chain tensioner spring.
4. Insert a cotter pin or a nail into the hole in the tensioner to retain the timing chain tensioner shoe.





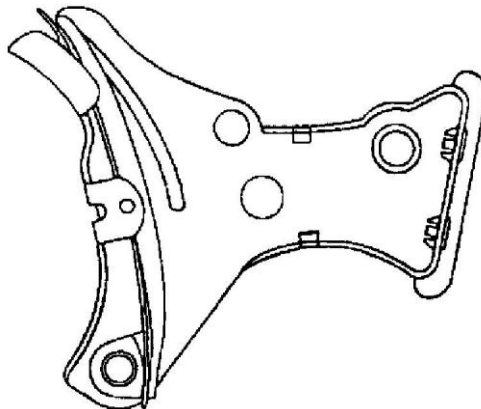
5. Install the timing chain tensioner. Do not tighten the timing chain tensioner bolts.



6. Align the crankshaft timing marks with the tab on the timing chain tensioner.
7. Align the camshaft timing mark with the tab on the timing chain tensioner.

Notice: Use the correct fastener in the correct location. Replacement fastener must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surface unless specified. these coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specification when installing fasteners in order to avoid damage to the parts and system.

8. Install the camshaft sprocket and install the timing chain.
- Tighten: Tighten the timing chain tensioner bolts to 24 N.m (18 lb ft).
- Tighten the camshaft sprocket bolt to 130 N.m (96 lb ft)



9. Remove the cotter pin or nail from the hole in the timing chain tensioner.

10. Install the crankcase front cover. Refer to Engine Front Cover Replacement. See: Timing Cover/Service and Repair 11. Connect the negative battery cable.

Tighten: tighten the bolt to 16 N.m (12 lb ft).