Timing Chain Replacement

Meets NATEF Task: (A1-B-13) Inspect and replace timing belts; adjust as necessary. (P-1)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4 3 2 1**

The timing chain used in many overhead valve (OHV) engines should be replaced whenever there is excessive slack (over 8° as measured at the crankshaft) or noise caused by the loose chain hitting the timing chain cover.

_____ **1.** Drain the cooling system coolant into a suitable container and dispose of it properly or recycle it.

_____ **2.** Remove the accessory drive belt and pulley from the harmonic balancer (vibration damper).

NOTE: On many vehicles it is often necessary to remove the radiator to provide the room necessary to replace the timing chain.

_____ **3.** Remove the harmonic balancer retaining bolt and use a puller (if needed) to remove the harmonic balancer and the timing chain cover.

NOTE: On many engines such as the small block Chevrolet V-8, the front of the oil pan must be loosened to be able to remove the timing chain cover.

_____ **4.** Remove the timing chain and both the crankshaft and camshaft sprockets.

Type of chain used originally = _____
Type of replacement chain = _____

_____ **5.** Install the replacement timing chain and sprockets. Check that the timing marks align.

_____ **6.** Reassemble the front of the engine and torque all fasteners to factory specifications.

Timing chain cover bolt torque specification = _____
Harmonic balancer retaining bolt torque specification = _____
Water pump bolt torque specification = _____

_____ **7.** Refill the cooling system with new coolant and check for leaks.

CAUTION: Be sure to open the cooling system bleeder valves(s), if equipped, to avoid trapping air.