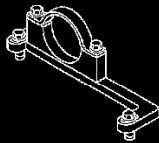


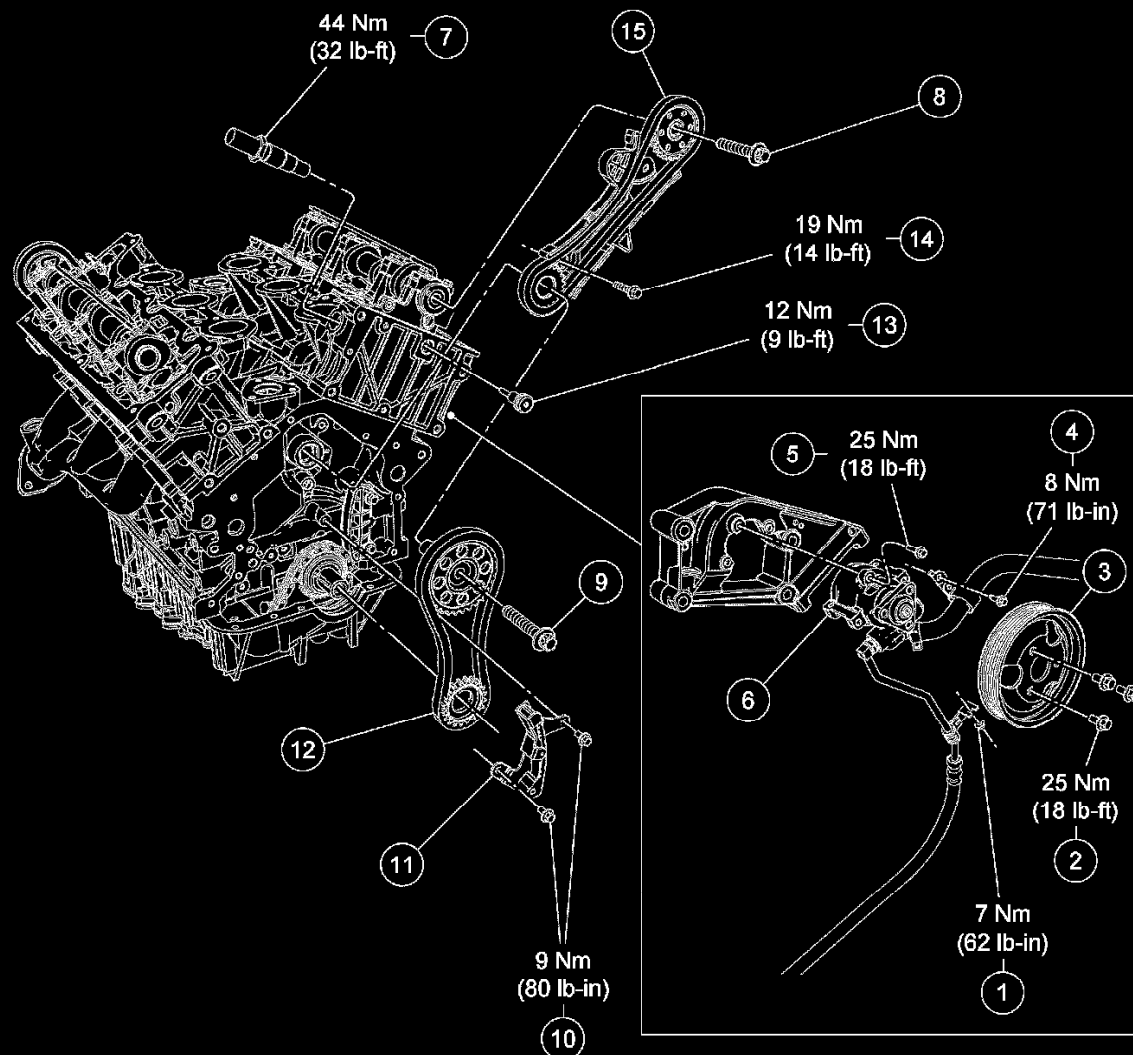


Timing Components: Procedures**Timing Drive Components - Camshaft Drive Cassette, LH****Timing Drive Components - Camshaft Drive Cassette, LH**

Special Tool(s)	
 ST1777-A	Holding Tool, Camshaft Sprocket 303-564 (T97T-6256)
 ST1776-A	Adapter for 303-564 303-578 (T97T-6256-A)
 ST2694-A	Holding Tool, Crankshaft 303-674

Special Tool(s)



N0046065

Item	Part Number	Description
1	W520101	Pressure tube bracket nut
2	N605784	Power steering pump pulley bolt (3 required)
3	3A733	Power steering pump pulley
4	W500213	Suction hose bracket bolt
5	W700839	Power steering pump bolt (3 required)
6	3A674	Power steering pump
7	6K254	Hydraulic chain tensioner
8	6M276	Camshaft sprocket bolt

(Continued)

Item	Part Number	Description
9	6M276	Jackshaft sprocket bolt
10	W500011	Primary chain tensioner bolts (2 required)
11	6M271	Primary chain tensioner
12	—	Primary chain and sprocket assembly
13	6U001	Chain guide bolt
14	W500110	Chain guide bolt
15	6M289	Timing chain and guide assembly

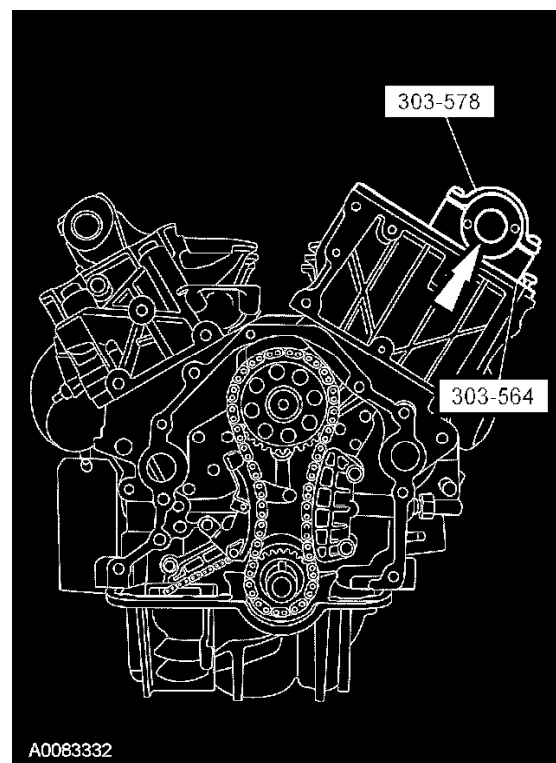
Removal

1. Release the fuel system pressure.
2. Disconnect the battery ground cable.
3. Remove the intake manifold.
4. Remove the engine front cover.
5. Remove all of the roller followers.

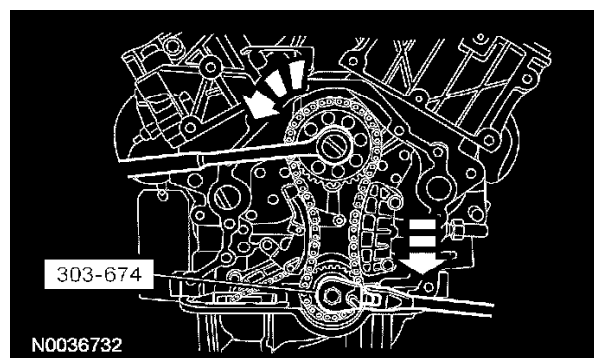
6. **NOTE:** The LH and RH camshafts must be retimed when either camshaft is disturbed.

Turn the crankshaft clockwise to position the No. 1 cylinder at top dead center (TDC).

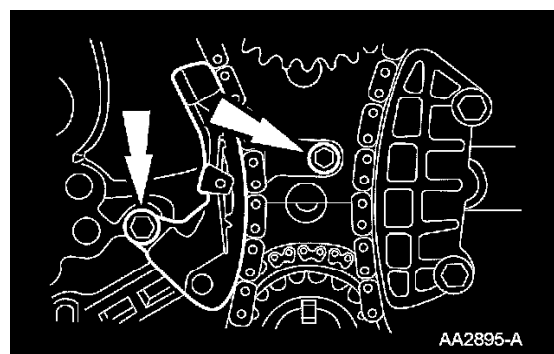
7. Remove the LH hydraulic chain tensioner.
8. Remove the LH camshaft sprocket bolt.
 - Install the special tools and tighten to **10 Nm (89 inch lbs.)**.
 - Remove the LH camshaft sprocket bolt.



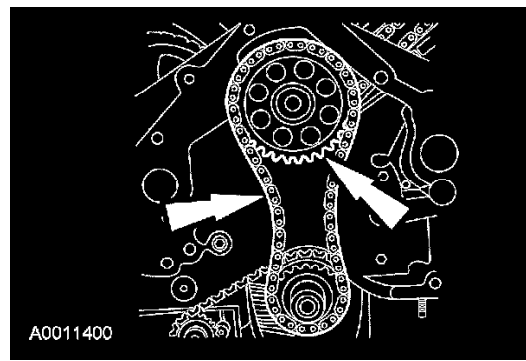
9. Using the special tool to prevent the crankshaft from turning, remove the jackshaft sprocket bolt.



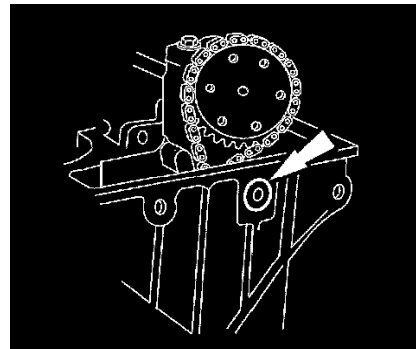
10. Remove the 2 bolts and the primary chain tensioner.



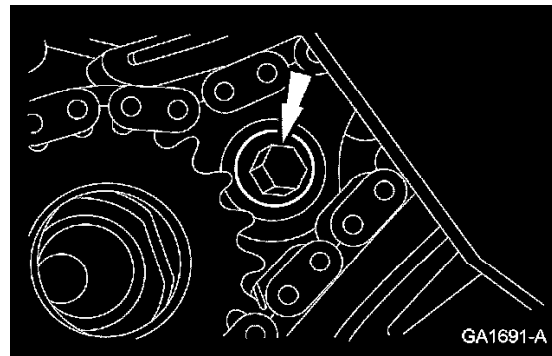
11. Remove the primary chain and sprockets as an assembly.



12. Remove the suction hose bracket bolt.
13. Remove the pressure tube bracket nut.
14. Remove the 3 bolts and the power steering pump pulley.
15. Remove the 3 bolts and position the power steering pump aside.
16. Remove the LH cassette upper bolt.



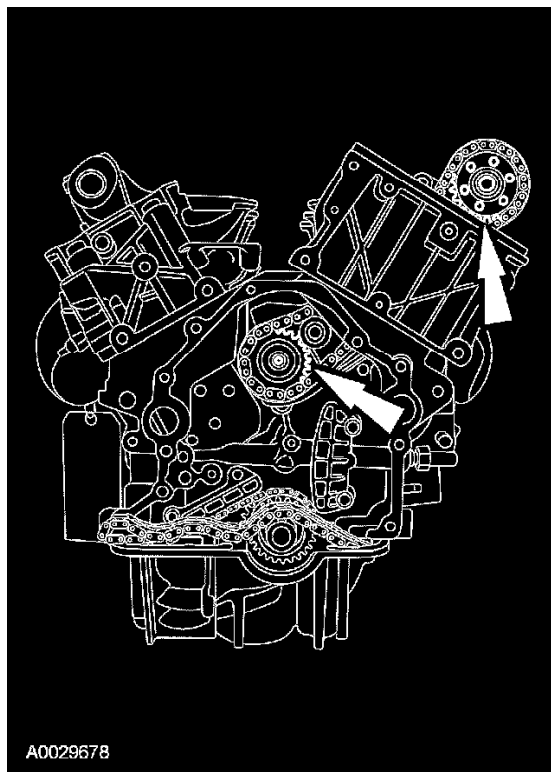
17. Remove the LH cassette lower bolt and the LH cassette.



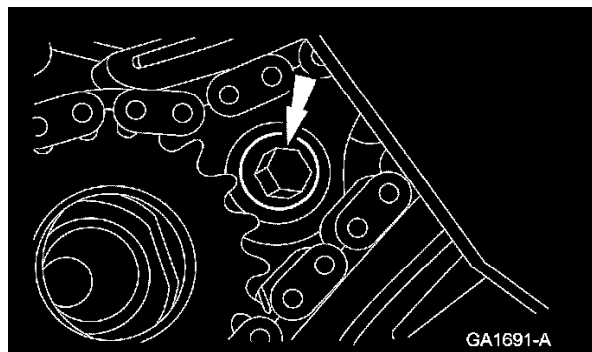
Installation

1. **NOTE:** The camshaft chain sprockets must be oriented correctly.

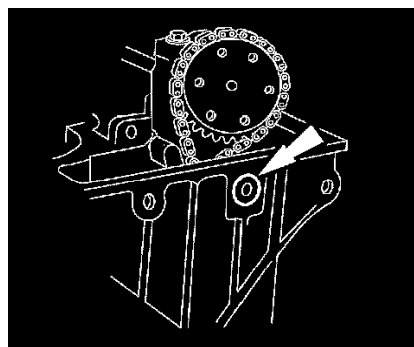
Position the LH cassette.



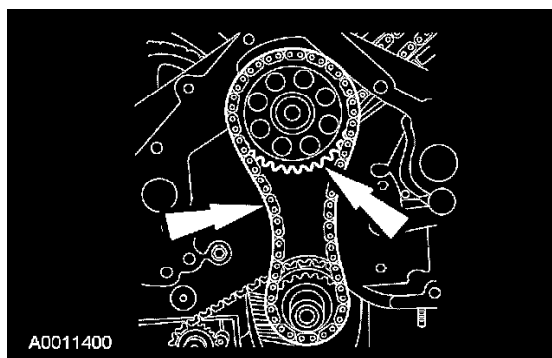
2. Install the LH cassette lower bolt.
 - Tighten to **12 Nm (9 ft. lbs.)**.



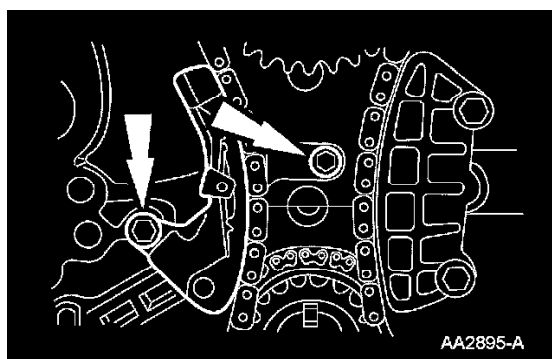
3. Install the LH cassette upper bolt.
 - Tighten to **19 Nm (14 ft. lbs.)**.



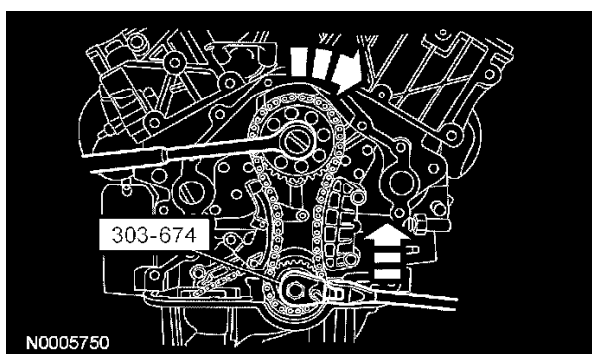
4. Position the power steering pump and install the 3 bolts.
 - Tighten to **25 Nm (18 ft. lbs.)**.
5. Install the power steering pump pulley and the 3 bolts.
 - Tighten to **25 Nm (18 ft. lbs.)**.
6. Install the pressure tube bracket nut.
 - Tighten to **7 Nm (62 inch lbs.)**.
7. Install the suction hose bracket bolt.
 - Tighten to **8 Nm (71 inch lbs.)**.
8. Install the primary chain and sprockets as an assembly.



9. Install the primary chain tensioner and the 2 bolts.
- Tighten to **9 Nm (80 inch lbs.)**.



10. Using the special tool to prevent the crankshaft from turning, tighten the jackshaft sprocket bolt in 2 stages.
- Stage 1: Tighten to **45 Nm (33 ft. lbs.)**.
 - Stage 2: Tighten an **additional 90 degrees**.



11. Loosely install the camshaft sprocket bolt.
12. **NOTE:** The LH and RH camshafts must be retimed when either camshaft is disturbed.

NOTE: The LH hydraulic chain tensioner will be installed during camshaft timing.

Retime the LH and RH camshafts.

13. Install the camshaft roller followers.
14. Install the engine front cover.
15. Install the intake manifold.