

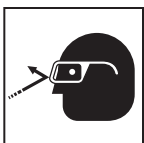
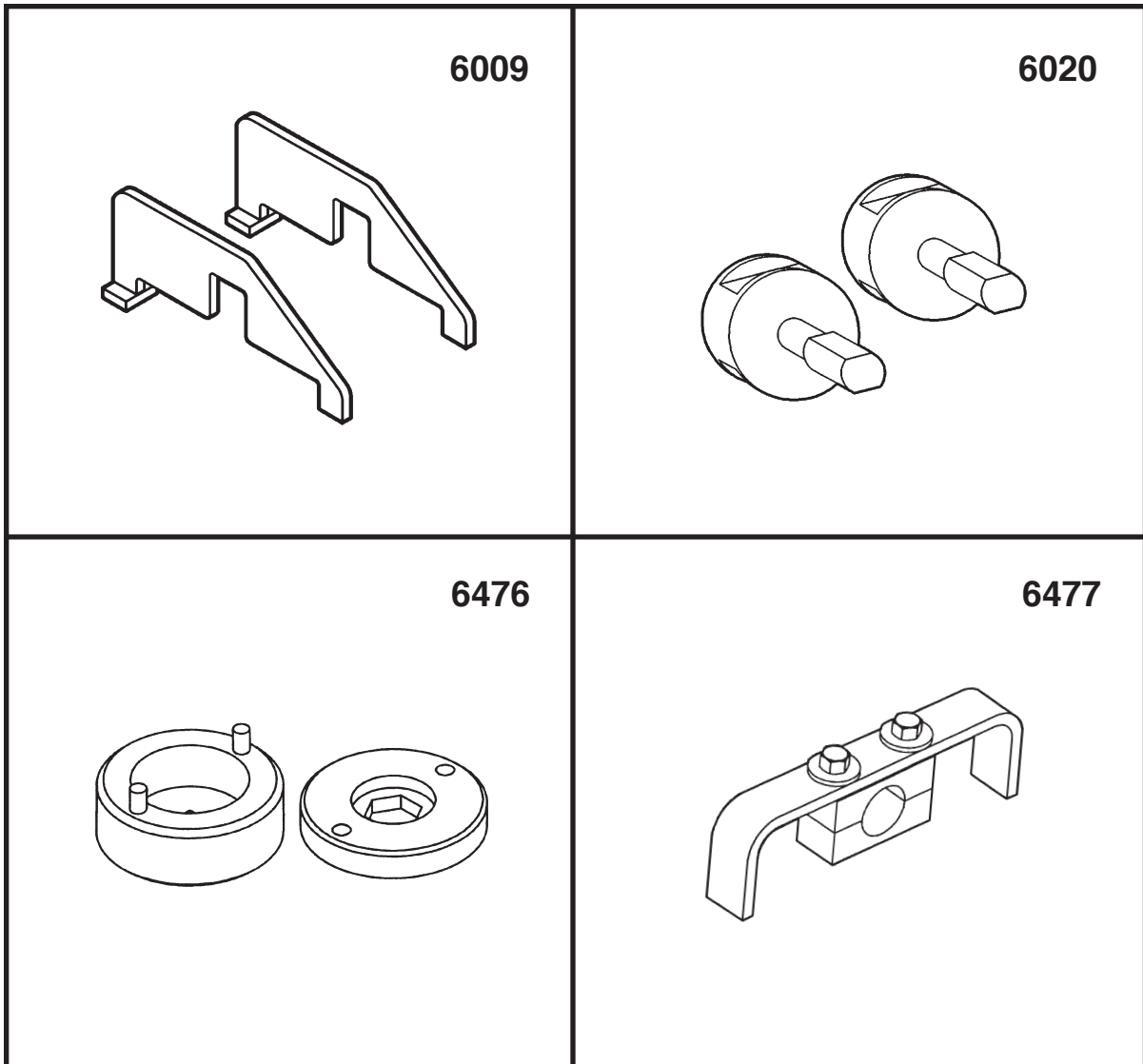


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Form No. 107265

Parts List &  
Operating Instructions for: **6487**

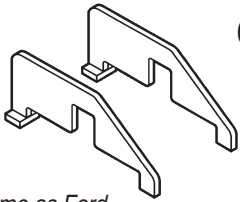
## Cam Service Set for Ford V8 / V10 Modular Engines



**CAUTION:** To prevent personal injury when using these tools, wear eye protection that meets ANSI Z87.1 and OSHA standards.

Sheet No. 1 of 2

Issue Date: December 10, 2008 Rev. B



Same as Ford  
No. 303-380  
(T91P-6256-A).

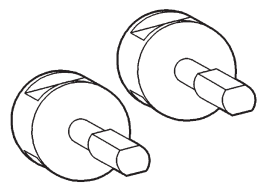
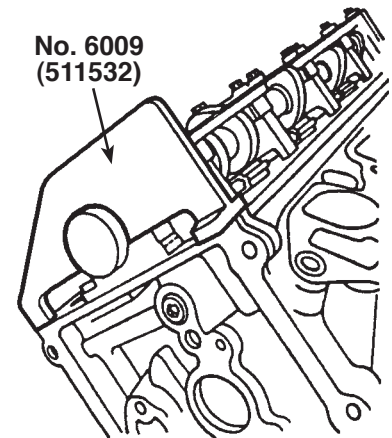
## 6009 Ford Camshaft Positioning Tool

*Application:* 1991 – 1998 4.6L 2V V8 Crown Victoria, Grand Marquis  
1997 – 1998 4.6L & 5.4L V8, 6.8L V10 Econoline  
1997 – 1998 4.6L & 5.4L V8 F-Series Truck  
1997 – 1998 5.4L V8 Expedition  
1998 5.4L V8 Navigator

**CAUTION:** To prevent damage to valves and pistons, do NOT rotate the crankshaft and/or camshaft(s) when removing the timing chain(s) and installing the cylinder heads.

Because this is not a free-wheeling engine, if it has “jumped time,” there will be damage to the valves and / or pistons which will require the removal of the cylinder heads. The cam sprocket should be disassembled from the camshaft only when one of the components must be replaced.

1. Remove all necessary components to access the timing chains.
2. Rotate the engine to No. 1 TDC.
3. Install No. 6009 (511532) on flats of the camshaft as shown to prevent accidental rotation of the camshafts.
4. Perform camshaft service as required.
5. Refer to the vehicle service manual for the correct camshaft-to-crankshaft timing procedure.



No. 6020 (511555; same as  
Ford No. 303-413 / T92P-6256-A)  
must be used with No. 6009 (511532;  
same as Ford No. 303-380 / T91P-6256-A).

## 6020 Ford Camshaft Positioning Tool

*Application:* 1992 – 1998 4.6L 2V V8 Crown Victoria, Grand Marquis  
1997 – 1998 4.6L & 5.4L V8, 6.8L V10 Econoline  
1997 – 1998 4.6L & 5.4L V8 F-Series Truck  
1997 – 1998 5.4L V8 Expedition  
1998 5.4L V8 Navigator

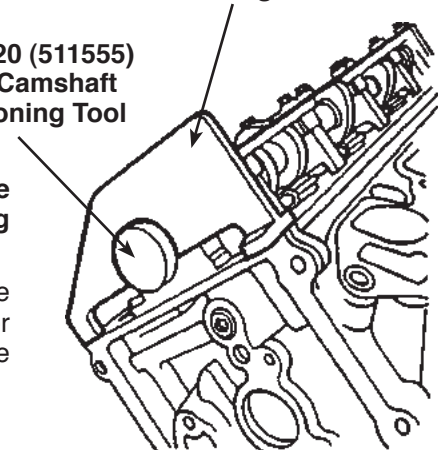
No. 6009 (511532)  
Ford Camshaft  
Positioning Tool

No. 6020 (511555)  
Ford Camshaft  
Positioning Tool

**CAUTION:** To prevent damage to valves and pistons, do NOT rotate the crankshaft and/or camshaft(s) when removing the timing chain(s) and installing the cylinder heads.

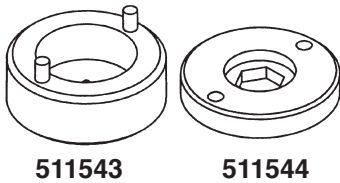
Because this is not a free-wheeling engine, if it has “jumped time,” there will be damage to the valves and / or pistons which will require the removal of the cylinder heads. The cam sprocket should be disassembled from the camshaft only when one of the components must be replaced.

1. Remove all necessary components to access the timing chains.
2. Rotate the engine to No. 1 top dead center.
3. **Disassembly:** Install No. 6020 Camshaft Positioning Tool (511555) and No. 6009 Cam Positioning Tool (511532) into each camshaft end, as shown, before removing timing chain tensioners and chains to prevent valve train damage.
4. **Assembly:** Install No. 6020 Camshaft Positioning Tool (511555) and No. 6009 Cam Positioning Tool (511532) into each camshaft end, as shown, before installing timing chains and tensioners to prevent valve train damage.



## 6476 Ford Camshaft Positioning Tool Set

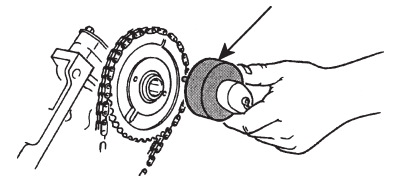
*Application: 1997 – 2006 4.6L & 5.4L Econoline  
 1997 – 2004 4.6L & 5.4L F-Series Truck  
 1997 – 2004 5.4L V8 Ford Expedition  
 1998 – 2004 5.4L V8 Lincoln Navigator  
 1997 – 2006 6.8L V10 Econoline*



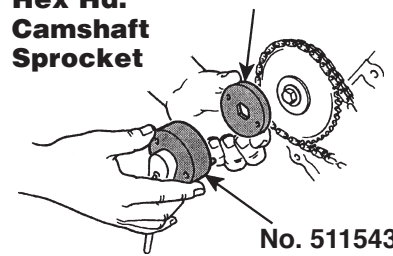
511543 is the same as Ford No. 303-569 (T96T-6256-AR1); 511544 is the same as Ford No. 303-570 (T96T-6256-AR2).  
 Use this tool set with No. 6477 (511545) Ford Camshaft Holding Tool.

- Two-hole Camshaft Sprocket:**  
 Use No. 511543 to position the camshaft sprocket (2-hole) on the engine as shown.
- 18 mm Camshaft Sprocket:**  
 Use No. 511543 with No. 511544 to position the camshaft sprocket (18 mm hex hd.) on the engine as shown.
- Service the timing chain as required according to procedures in the vehicle service manual.
- Torque the fasteners to factory specifications.

**2-Hole Camshaft Sprocket** No. 511543

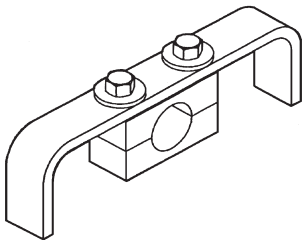


**18 mm Hex Hd. Camshaft Sprocket** No. 511544  
 No. 511543



## 6477 Ford Camshaft Holding Tool

*Application: 1997 – 2006 Windsor V8 Econoline  
 1997 – 2004 Windsor V8 F-Series Truck  
 1997 – 2006 5.4L V8 Econoline  
 1997 – 2004 5.4L V8 Expedition, F-Series Truck  
 1998 – 2004 5.4L V8 Lincoln Navigator  
 1997 – 2006 6.8L V10 Econoline*



Same as Ford No. 303-557 (T96T-6256-B).

Use this tool with No. 6476 (511543 and 511544) Ford Camshaft Positioning Tool Set.

- Install No. 6477 (511545) on the camshaft as shown.
- Torque hex hd. bolts at 20 ft.·lbs. to ensure correct clamping force.
- Repair the engine as required according to instructions in the vehicle service manual.

**Important: Each bolt must be engaged by the same number of threads in the bottom clamp to ensure correct clamp alignment.**

