



PERFORMER RPM CAMSHAFT / LIFTERS / LUBE KIT

For 343-401 c.i.d. AMC V8 Engines

CATALOG # 7132

INSTALLATION INSTRUCTIONS

- These instructions are designed to give general installation guidelines. A complete step-by-step procedure manual would require many pages. If you are a novice or just learning to work on automotive engines, we recommend consulting either Chilton or Motors automotive manuals before you begin. You may also wish to contact an experienced mechanic. Be advised: Improper installation may result in **LOW MILEAGE, POOR PERFORMANCE, COSTLY REINSTALLATION AND EVEN ENGINE DAMAGE.** Installing a camshaft is a complex procedure. Please follow these instructions carefully. Failure to do so may void your warranty.
- Before you begin the removal and installation process, please examine the kit for possible shipping damage. If the camshaft is damaged, contact your dealer immediately. Also, make sure you have all the recommended tools and parts as listed below. As you read through these instructions the first time, use the preparation checklist to check off the exact items you will need.
- *Performer RPM* camshafts are ground specifically for use with the corresponding *RPM Air-Gap* manifold #7530 or #7531, and Performer RPM Cylinder Heads #60119 or 60139. All are dyno-matched and street proven to work as a team to give you better driveability and performance. For best results, use the Edelbrock manifold/heads/camshaft package with the carburetor and headers we recommend. The Performer RPM camshafts are designed for use with modified or high performance cylinder heads (Such as Edelbrock Performer RPM) and valve train components. High performance adjustable rocker arms must be used with screw-in rocker arm studs and guide plates. Stock cylinder heads may require machining to install screw-in studs. Hardened steel pushrods **MUST** be used with guide plates.

PREPARATION CHECKLIST

Tools & Equipment For Installation

- Box and Open End Wrenches
- Socket Set
- Distributor Wrench
- Pliers (Channel Locks and Hose Clamp)
- Screw Drivers (Regular and Phillips)
- Torque Wrench
- Hammer
- Gasket Scraper or Putty Knife
- Timing Light Vacuum Gauge
- Rags
- Water Bucket
- Harmonic Balancer Puller
- Masking Tape (for tagging hoses and electrical wires)
- Engine Oil and Filter
- Crankshaft Dampener Puller

Hardware & Parts To Buy

- Gaskets - Fel-Pro #MS 96011, OEM or equivalent
- Pipe Plugs, if needed
- Edelbrock Gasgacinch #9300
- RTV Silicone Sealant
- Chalk
- Paper and Pencil
- Radiator Coolant
- Crane # 99838 Valve Springs (For stock iron cylinder heads)
- Edelbrock Performer-Link True Rolling Timing Chain and Gear Set, #7818
- Teflon Tape
- Front Cover Oil Seal, OEM or equivalent
- Adjustable Rocker Arms with Screw-in Studs and Guideplates
- Hardened Steel Pushrods

REMOVAL OF ENGINE PARTS BEFORE CAMSHAFT INSTALLATION

Be sure to keep all parts in order
**WARNING! DO NOT REMOVE RADIATOR CAP OR
RADIATOR HOSES WHILE ENGINE IS HOT!**

1. Disconnect the battery.
2. Drain radiator coolant. Drain plug will normally be located on lower right or left side of the radiator facing the engine.
3. Remove radiator and air conditioning condenser, if so equipped. In some cases, the front grille may have to be removed. Measure distance from front cover to grille or brackets that may interfere with camshaft against the length of the camshaft.
4. Remove the gas cap to relieve pressure. Disconnect fuel line and plug. Replace gas cap.
5. Disconnect all linkage from carburetor such as throttle, throttle springs, transmission, cruise control and automatic choke.
6. Tag and remove coil wires and sensor wires.
7. Tag and remove vacuum lines.
8. Remove distributor cap and wires, rotate engine until rotor points towards number 1 terminal in cap and pointer on front cover is on top dead center (TDC) and remove distributor. Note the approximate position of the distributor housing in relation to the manifold to assist in getting the distributor properly located during re-installation.
9. Remove valve covers.
10. Remove carburetor and intake manifold. Remove and discard intake manifold gasket.
11. Remove rocker arms and pushrods. NOTE: Late model engines- Intake and exhaust rocker arms of each cylinder pivot on a bridged pivot assembly which is secured to cylinder head by two cap screws. WARNING: Cap screws should be loosened alternately one turn at a time to avoid breaking bridge. Keep rockers and pushrods in order for reassembly.
12. Remove hydraulic valve lifters.
13. Remove crankshaft pulley, and using a suitable puller, crankshaft dampener.
14. Remove two front oil pan bolts. Remove bolts securing timing chain cover. NOTE: Bolts vary in length and must be installed in same location as removed. Pull cover forward until free of locating dowel pins. NOTE: The front cover oil seal should be replaced before the front cover is re-installed.

15. Remove fuel pump and fuel pump pushrod. Rotate engine until timing marks are aligned as in *Figure 2*.
16. Remove bolts retaining camshaft sprocket. Remove sprocket and chain.
17. Remove crank sprocket using a gear puller.
18. Remove camshaft.

• VALVE SPRINGS

WARNING ABOUT YOUR WARRANTY: In order for this cam and lifter kit to be covered under ANY WARRANTY, you must use the correct valve springs. Edelbrock cylinder heads are sold with the correct valve springs installed. For factory cast iron cylinder heads, use Crane #99838 valve springs. Failure to do so could cause the cam lobes to wear excessively and could cause additional engine damage.

1. This camshaft is designed to function with springs with spring pressures of 120 lbs. closed and 320 lbs. open.

• LIFTERS

1. New lifters must be used with a new camshaft. Use only the lifters supplied with your kit.
2. Check to make sure all lifters fit freely in lifter bores.

• INSTALLATION INSTRUCTIONS

1. Coat cam lobes and bottom of each lifter with MOS2 lube supplied with your kit. This will prevent cam lobe and lifter wear from occurring during initial engine start up. Do NOT pre-oil or "pump-up" lifters before installation as this may hold valves off the valve seat leading to loss of compression and/or bent valves during initial engine start up.

2. Install new camshaft with new sprockets and timing chain align timing marks as shown. See *Figure 2*.

CAUTION: When using *Performer-Link True Rolling Timing Chain and Gear Set #7818* with an Edelbrock cam and lifter kit, straight up timing alignment is achieved. If any other timing gear set is used, it is necessary to check camshaft position for correct timing alignment. This requires indexing the camshaft with a degree wheel to verify timing alignment. O.E.M. or non-Edelbrock timing gear sets are not recommended for use with Edelbrock camshafts. Use locking compound material on bolt

threads holding gear to cam. Torque to factory recommendations (30 ft./lbs.).

3. Install camshaft with timing marks lined up as recommended by factory specifications. See *Figure 2*.
- **PUSHROD AND ROCKER ARM INSTALLATION** - After the cam is installed and timed correctly (*see Figure 2*), install pushrods, lifters and rocker arms. NOTE: High performance adjustable rocker arms must be used with screw-in rocker arm studs and guide plates. Stock cylinder heads may require machining to install screw-in studs. Hardened steel pushrods **MUST** be used with guide plates. Longer than stock pushrods may be required.
 - **VALVE ADJUSTMENT**
 1. Rocker arm adjustment is 1/4 turn of preload beyond zero lash. Install push rods and rocker arm assembly and tighten rocker arm nuts until zero lash is achieved.
 2. Turn rocker arm nuts 1/4 turn past zero lash.
 - **FRONT COVER OIL SEAL REMOVAL & INSTALLATION**
 1. For front seal removal, pry seal out from the inside of the cover. Clean seal bore and apply light coat of suitable sealer such as Edelbrock Gasgacinch #9300 to outer surface of new seal. Drive seal into place from inside cover using suitable tool. When seal contacts outer flange of cover it is installed correctly. Apply a light film of engine oil to lips of neoprene seal.
 - **INSTALL FRONT COVER**
 1. Remove lower locating dowel pin from engine block and clean all gasket surfaces.
 2. Cut both sides of oil pan gasket flush with engine block. Using old gasket as a guide, trim new gasket to correspond to amount cut off at oil pan.
 3. Install front oil pan seal and align tongues of new oil pan gasket pieces with seal and apply suitable sealer such as RTV Silicone sealant to both sides of gaskets and cement into place on cover. Apply suitable sealer to cut-off edges of original oil pan gaskets and place cover into position, then install two front oil pan bolts. Tighten bolts slowly and evenly until cover aligns with upper locating dowel. Install lower dowel through cover and drive into corresponding hole in engine block. Install cover retaining bolts in same location they were removed from and tighten.
5. Torque front timing cover bolts to 25 ft. lbs.
 6. Install front harmonic balancer and torque to 55 ft.-lbs.
 7. Install fuel pump and pushrod.
 8. Install water pump using new gaskets and torque to 4 ft.-lbs.
 9. Install intake manifold using new intake gasket set and torque bolts to 25 ft/lbs.
- **DISTRIBUTOR INSTALLATION AND ENGINE TIMING**
 1. Turn the engine over in direction of rotation until the No. 1 intake valve closes and continue until the pointer on the front cover is approximately five degrees before top dead center (BTDC). See Figure 1 for firing order.
 2. Re-install the distributor with the rotor pointing towards No. 1 terminal in the cap, and with the distributor housing in its original position. If distributor will not drop down all the way to the flange on the engine, it will be necessary to align the distributor shaft with the oil pump drive. Slowly rotate the engine until the distributor drops down against the engine, then continue turning until two complete revolutions are completed and the timing marks once again come to five degrees BTDC.
 3. Lightly tighten the hold-down clamp so that the distributor can still be turned to determine final setting using a timing light with the engine running.
 4. Replace valve covers, carburetor linkage and remaining vacuum and electrical connections.
 5. Engine oil & filter should be changed before and after break-in.
 - **CAMSHAFT & LIFTER RUN-IN**

IMPORTANT: DO NOT ALLOW THE ENGINE TO RUN UNDER 2000 RPM FOR THE FIRST 1/2 HOUR. Vary engine speed between 2000 and 2500 rpm. Slow idle speeds may result in severe cam and lifter wear. **START THE ENGINE AND BRING TO BREAK-IN RPM.**
 - **IMPORTANT NOTES AFFECTING YOUR WARRANTY**

CAM LOBE WEAR - Cam lobe wear is almost non-existent unless mismatched parts are used or installation of the cam and lifters is done improperly.

Most cam damage is caused by the timing gear loosening due to improper torque on bolt. Bolts holding gear to camshaft should be torqued carefully and a locking compound applied to threads of bolts. Before installing your new Performer RPM camshaft, check the gear drive on the distributor and oil pump for any signs of wear. If worn, be sure to replace with a new timing gear set.

- **CAM GEARS AND CAMSHAFT END PLAY** - If cam gear becomes loose, the cam will slide back in the block, causing the lifters to hit the lobes next to them and also the cam bearing journals. If the engine is run after this happens, the bottom of the lifters and the sides of the lobes will become chipped.
- **SPECIAL INSTRUCTIONS**
With the Edelbrock manifold, cylinder head, and camshaft package plus a header installation, a carburetor jet change and ignition change may be required for best performance. Due to the varied applications of years and models of vehicles, no one combination could suffice for all installations. The following procedure is only a guideline and in many cases, the manufacturing specifications for recommended carburetors or timing may be best.
- **CARBURETION**
OEM square-bore 4-bbl - In most cases, carburetor modification for best performance may be found in a plus or minus 2 number jet change.

- Edelbrock Performer Series #1407 (750 cfm, manual choke) - No modifications necessary.
- Edelbrock Performer Series #1413 (800 cfm, electric choke) - No modifications necessary.
- Edelbrock Thunder Series #1812 (800 cfm, manual choke) - No modifications necessary.
- Edelbrock Thunder Series #1813 (800 cfm, electric choke) - No modifications necessary.

- **IGNITION TIMING**
In most cases, an increase of 10° to 14° will give best performance. Aftermarket ignition curve kits may be used. Vacuum advance line can be connected to direct manifold vacuum for best performance, not ported vacuum. Disconnect vacuum advance when checking timing, then reconnect after timing adjustment.
NOTE: The best combination for any particular vehicle or application must be determined by trial and error using the above information as a guideline.
- **TUBULAR EXHAUST SYSTEM**
A tubular exhaust system is recommended with the Performer RPM package to provide the best performance. Please consult your Edelbrock dealer or the Edelbrock catalog for a listing of available Edelbrock *Tubular Exhaust Systems*. Be sure to check local emission control regulations for legality of camshaft and exhaust system changes.

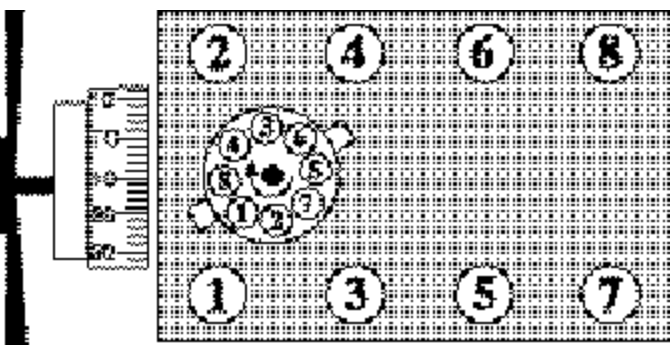


Figure 1 - 304-401 c.i.d AMC V8
Firing Order - 1-2-7-5-6-3-4-8

Turn distributor counter clockwise to advance timing

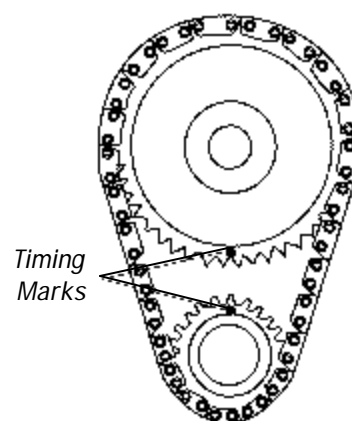


Figure 2 - Timing Chain Sprocket Alignment

CAMSHAFT: Performer RPM
CATALOG #7132
ENGINE: 343-401 c.i.d. AMC V8
RPM RANGE: 1500-6500

CAUTION: Use only Edelbrock Cylinder Heads (Include Proper Valve Springs), or Crane # 99838 Valve Springs with Stock Iron Cylinder Heads. Use stock ratio rocker arms only.

Duration at 0.006" Lift:	Intake: 310°	Exhaust: 320°
Duration at 0.050" Lift:	Intake: 234°	Exhaust: 244°
Lift at Cam:	Intake: 0.325"	Exhaust: 0.340"
Lift at Valve:	Intake: 0.520"	Exhaust: 0.544"

Timing at 0.050" Lift:	Open	Close
Intake:	10° BTDC	44° ABDC
Exhaust:	59° BBDC	5° ATDC

Centerlines:

Lobe Separation: 112° Intake Centerline: 107°

CAUTION: Use Performer-Link Timing Set, #7818. Do not use late model timing sets. They are machined in a retarded position and are not recommended for this camshaft installation. Edelbrock Performer-Link True Rolling Timing Sets feature three keyways for specific timing selection. Always use the "0" or straight-up timing mark when installing Performer RPM camshafts with Performer-Link Timing Sets.