APPLICATION GUIDE

20310, 20311
Chevrolet Small Block Engines:
V6 200, 229, 262
V8 262, 265,267,283,302,305,307,327,350L,400
(Except with Factory Roller Cam)

20315, 20316
Chevrolet Small Block Engines:
(with Factory Roller Cam)
V6 262 V8 305,350

20320, 20321
Chevrolet Big Block Engines:
V8 396, 400, 402, 427, 454

20325, 20326
Chevrolet Big Block Gen VI Engines:
V8 454, 502

20360, 20361
Chrysler Big Block Engines:
(with 3 Bolt Cam)
V8 383, 400, 413, 426 Hemi

20330, 20331
Pontiac Engines:
V8 287, 316, 326, 347, 350M, 350P, 370, 389, 400, 421, 428, 455

20340, 20341
Ford Small Block Engines:
V8 289, 302, 5.0L 302 H/O, 351 Windsor, 351W H/O

20345, 20346
Ford Engines:
V8 351C, (2BBL & 4BBL), 351M, 400

20350, 20351
Ford Big Block Engines:
V8 429, 460

STANDARD WARRANTY POLICY

DUE TO THE INTENDED USE OF PERFORMANCE APPLICATIONS, JEG'S WARRANTIES THIS PRODUCT FOR 90 DAYS FROM THE DATE OF PURCHASE. INSTALLATION OF THESE PARTS COULD AFFECT THE VEHICLE MANUFACTURERS WARRANTY COVERAGE.

JEG'S IS NOT LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE ITEM PURCHASED.

WARNING: Not Legal For Sale on Pollution Controlled Vehicles. Modifications of the timing system may cause increased emissions. Refer to local, state, and federal vehicle emission regulations before installing this product. Installation of this product may be illegal under certain local, state, and federal laws.

JEG'S Performance Products
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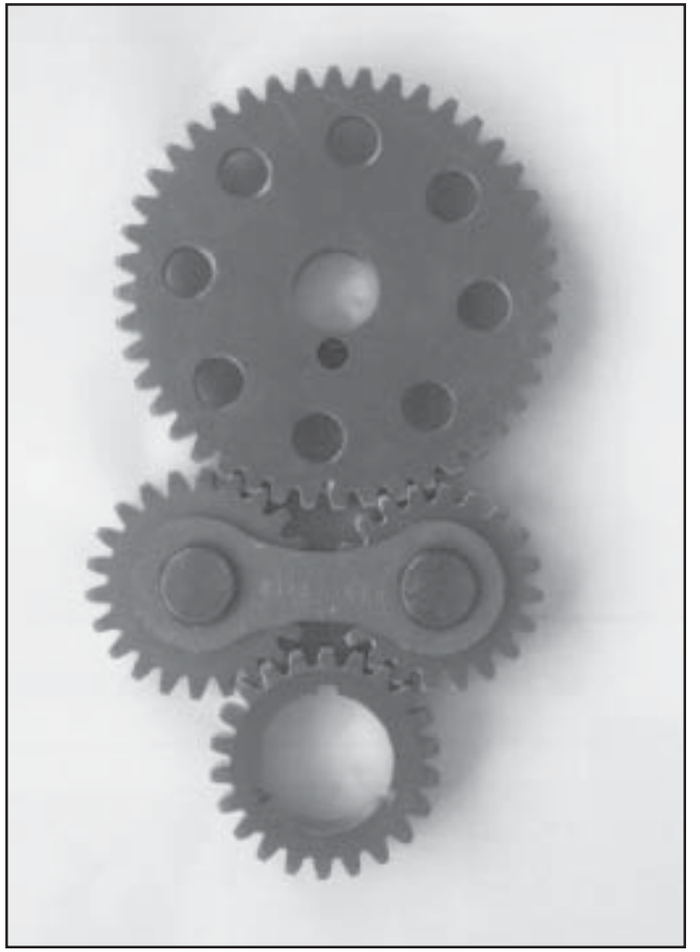
GEAR DRIVE
INSTALLATION INSTRUCTIONS

Small Block Ford (20340, 20341)
Ford 351C, 351M & 400 (20345, 20346)
Big Block Ford (20350, 20351)



INSTALLATION INSTRUCTIONS

Ford Small Block (20340, 20341)
Ford 351C, M & 400 (20345, 20346)
Ford Big Block (20350, 20351)
THIS SET IS DESIGNED TO ENHANCE AND INCREASE NOISE QUALITY. ALL GEARS ARE MADE FROM A HIGH ALLOY STEEL, CASE HARDENED TO PROVIDE A DURABLE, HIGH STRENGTH, HIGH WEAR RESISTANT SET.

This set is equipped with a 3 keyway crank gear to provide standard factory timing, 4 degrees camshaft advance, and 4 degrees camshaft retard. Aligning “0”, “A”, & “R” mark on crank gear with the “0” mark on cam gear provides these 3 valve timing options.

NOTE: FUEL PUMP ECCENTRIC APPLICATIONS
This gear is for use with one piece fuel pump eccentric (Ford part number C3 AZ-6287-B) generally found in engines manufactured prior to 1975. However, the 2 piece style eccentric can be bolted up. The two piece style is functional and will work if there is sufficient clearance to the front cover. Check the cover clearance for 2 piece eccentric use.

The following applications have a separate spacer on the camshaft in front of the cam sprocket which must be removed and discarded prior to Jeg’s Cam Gear installation. 5.0L (302) H/O & 5.7L (351W) H/O engines to 3/21/84 have this spacer.

Step 1:
Remove stock timing cover. Rotate engine to top dead center of cylinder #1 so that the timing marks on the original crank and cam sprockets are directly lined up with each other, i.e. the mark on the crank sprocket will be at 12 o’clock (straight up) and the mark on the cam sprocket will be at 6 o’clock (straight down).

Step 2:
Remove sprockets and chain.

CAM GEAR INSTALLATION
Step 3 *(figure 1)*:
Lubricate bronze thrust ring and slip over hub on cam gear. Install cam gear on engine and check to see that cam gear seats properly on camshaft locating face. NOTE: The existing bronze thrust plate may have to be loosened up and re-positioned (clearance in thrust plate bolt holes allows off-center installation at factory) to allow cam gear to seat correctly on camshaft. Install washer and cam bolt. Tighten to 20-28 foot-pounds.

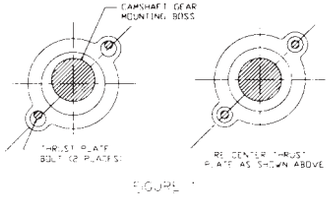
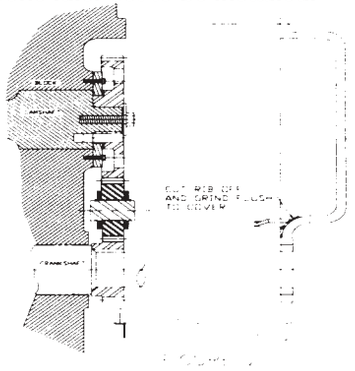


FIGURE 1

Step 4:
Select the keyway for the timing setup desired. Align crank gear keyway to the keystock on the crankshaft. Press, or tap (on hub only) crank gear in place. When using cam retard (R) or cam advance (A), rotate crank 4 degrees to align the mark straight up at 12:00 o’clock (and permit installation of the idler assembly). **CAUTION: DO NOT ROTATE THE CRANKSHAFT BY GRIPPING THE GEAR TEETH.**

TIMING COVER MODIFICATION
Step 5 *(figure 2)*:
IMPORTANT! The rib in the center of the timing cover must be removed and ground of flush to provide room for the dogbone idler set to be installed.



Clearance Test
DOGBONE INSTALLATION
Step 6 *(figure 3)*:
Install dogbone idler assembly as follows; Power Idler (large) gear must be installed on left side. Put idler gear assembly about halfway in (so idler shafts contact cover upon installation). Fit-up cover with gasket in place. Cover should seat completely on gasket face.

DO NOT BOLT IN PLACE. Remove cover and check clearance between idler studs & block. Clearance should measure .005” to .075” for proper operation. If clearance is less than .005”, grind off idler studs as shown to obtain proper clearance.

SMALL BLOCK FORD ONLY: If clearance is greater than .090”, replace left side (large idler side) stud with tapered end stub provided in the kit, reinstall idler assembly and recheck for minimum clearance between block and front cover.

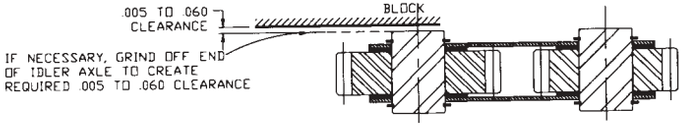


FIGURE 3

In operation, crankshaft gear will force Power Idler (large gear) into tight mesh with camswhaft gear as crankshaft rotates clockwise.
Reverse Idler (small gear) should have free vertical movement of .005”-.075” when power idler gear is in tight mesh with cam and crank gears.

Gear damage will occur from excessive friction if Reverse Idler (small gear) does not have sufficient running clearance.

Alternate Clearance Test
Clearance putty can be used to accurately check axle/Block end clearance. **DO NOT TRAP AXLES** between the block and front cover.

Use clearance putty as follows: place a thin piece of putty between the block and the axle. WITHOUT USING A GASKET, hand tighten the timing cover in place, then remove to check axle/block end clearance. There should be a very thin film of clearance putty remaining oon the Power Idler axle. This assures that after installation of a gasket the proper .005” to .075” clearance is maintained.

Step 7:
Bolt timing cover in place and test.

NOTE: This timing setup requires use of a harmonic balancer, **DO NOT** substitute an aluminum hub.

*Always refer to the proper repair manual for the most specific and detailed instructions.