

QUALITY FOR A LIFETIME!

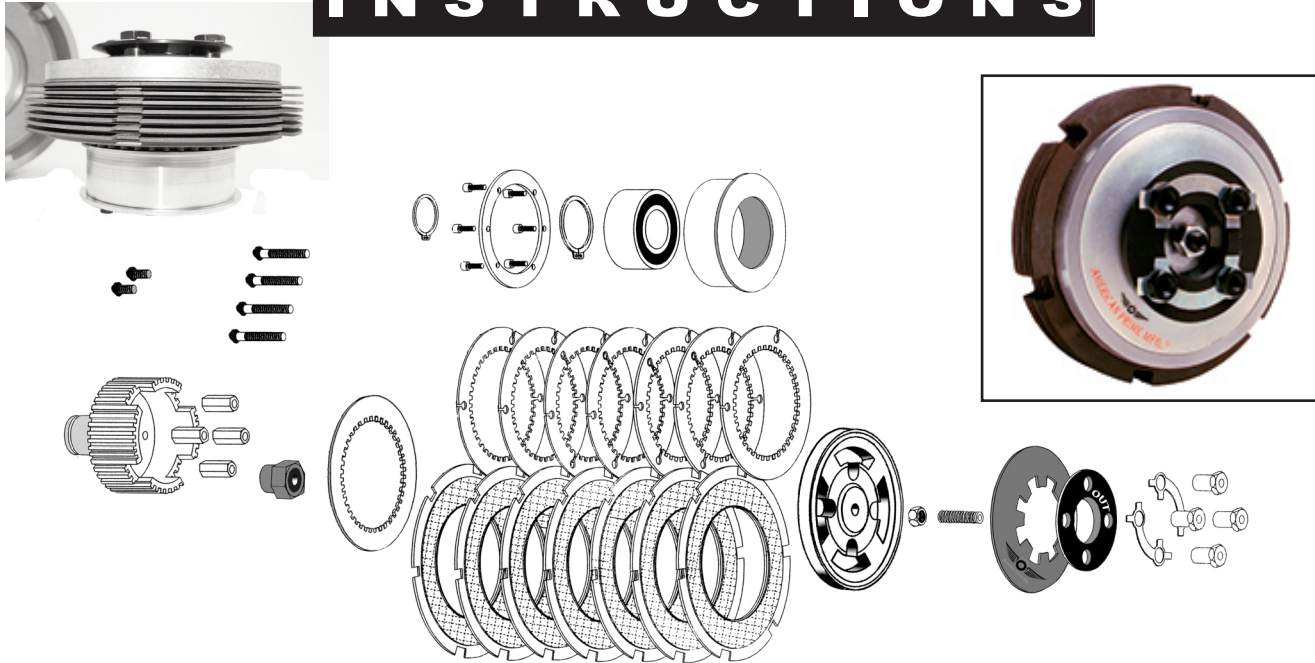


PERFORMANCE YOU CAN FEEL!

COMP MASTER™ CLUTCH

1056-0002 / For All 1936-1984 Big-Twin Applications

INSTALLATION INSTRUCTIONS



Congratulations!!!!!! You have just purchased an American Prime Mfg.® Comp Master™ clutch, the best performance upgrade on this world. Please follow the directions for a simple, trouble free installation!

If you have any questions about this installation please contact American Prime Mfg. and a knowledgeable technician will assist you! Thank you for purchasing a Comp Master™ clutch!

The **American Prime Mfg.** clutch for early-model (1936-1984) Big-Twin motorcycles upgrades the clutch in two ways: First, by increasing the friction area by almost 50%. Second, by replacing the coil-spring clutch-pack with our proprietary diaphragm spring design. Diaphragm-spring operated clutches have proven to be more durable than typical coil spring clutch packs, when utilized in street & high-performance motor vehicle applications. **Comp Master™** Clutch installs quickly into the existing clutch basket (belt or chain) by removing the OEM hub and caged (loose) bearings, and installing the **Comp Master™** Clutch hub adapter assembly and clutch pack! The **Comp Master™** Clutch will easily transmit **ALL** your motor's horsepower to the transmission without slipping or grabbing! Smooth and easy hand-control makes this high performance **Comp Master™** Clutch a must have for any 1936-1984 Big-Twin Harley motorcycle!

American Prime Manufacturing Inc. 8205 Secura Way, Santa Fe Springs, CA 90670
www.americanprimemfginc.com / E-mail: info@apmnc.us

SAFETY FIRST

When performing work on any motorcycle, and prior to starting this installation disconnect BOTH battery cables! If the motorcycle is on a lift, fasten it securely to prevent it from falling! Read and become familiar with the Comp Master™ clutch instructions before starting. For safety, use only the proper tools for this installation!

STEP 1:

This is the APM Comp Master™ clutch. Get familiar with it before disassembling it for installation! Strip the clutch basket of all the OEM clutch components such as bearing cage & bearings, clutch plates, pressure plate, coil springs etc!

Note the position of the new lock-clips P/N1058-0106

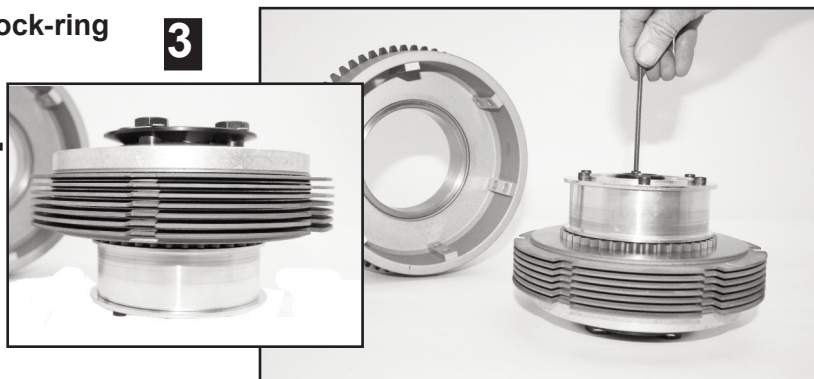


STEP 2:

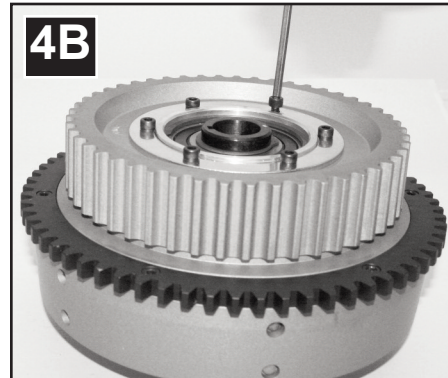
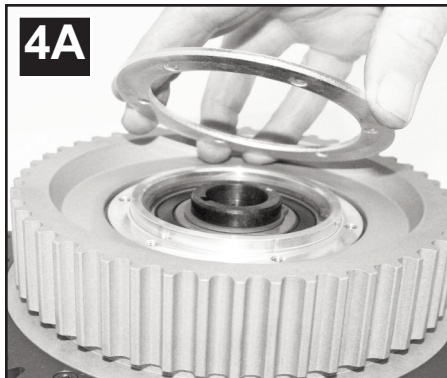
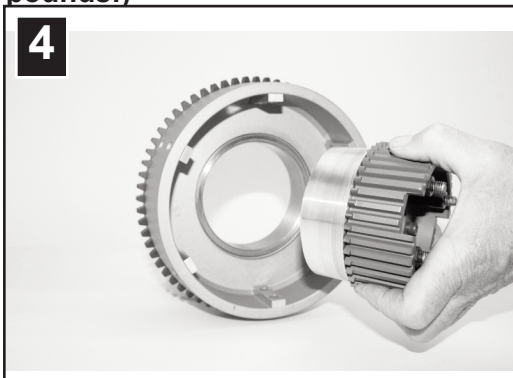
To prepare the Comp Master™ clutch for installation disassemble the pressure plate assembly and clutch pack while noting the exact sequence of the components for reference during reassembly! See the exploded view on page 6 of this installation guide.

STEP 3:

Remove the 6 socket head bolts and the lock-ring at the rear of the adapter!



STEP 4: Install the APM Comp Master™ clutch hub & adapter into the OEM clutch basket. Use blue thread lock on the socket head bolts and tighten to 80 INCH POUNDS (not foot pounds!)

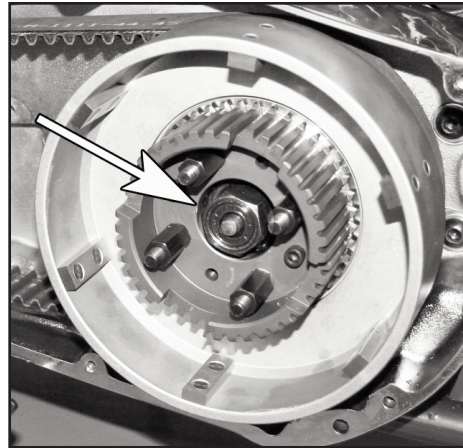


Install the adapter into the basket! Install the lock-ring on the rear of the adapter!!

4C

STEP 4C:

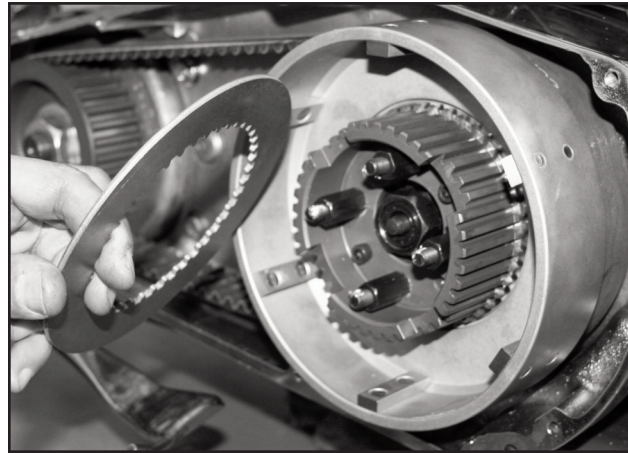
Install the clutch basket/hub assembly onto the transmission main-shaft using two drops of blue thread-lock or equal and tighten the clutch hub nut to 80-90 foot-pounds of torque.



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STEP 5:

First plate installed is the .120" steel plate. It goes all the way to the rear of the clutch hub



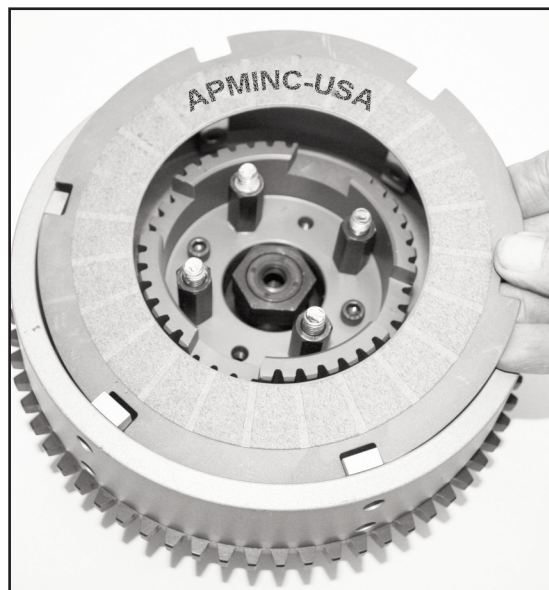
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STEP 6:

Next clutch in is a friction(as shown above) then steel, alternating until all the plates are installed!

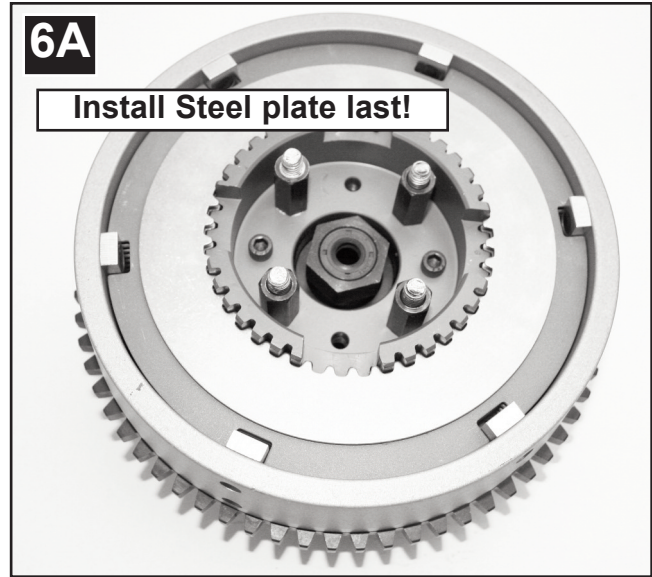
ATTENTION!

If you experience clutch chatter after operation, it is recommended that the friction plates be dipped in primary lubricant for a few seconds then wipe off excess lubricant prior to installation. APM recommends using Type 'F' ATF (Automatic Transmission Fluid) in the primary for best performance with the Comp Master™ clutch.



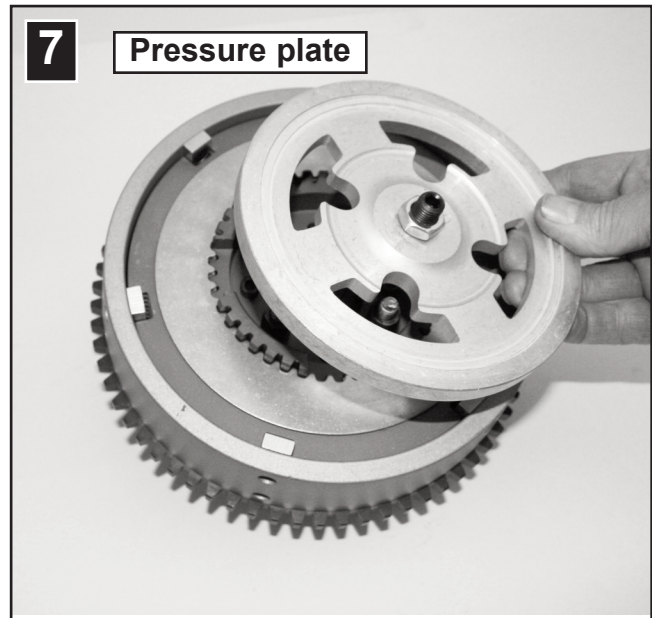
STEP 6A:

Last clutch plate to be installed is a steel drive plate!



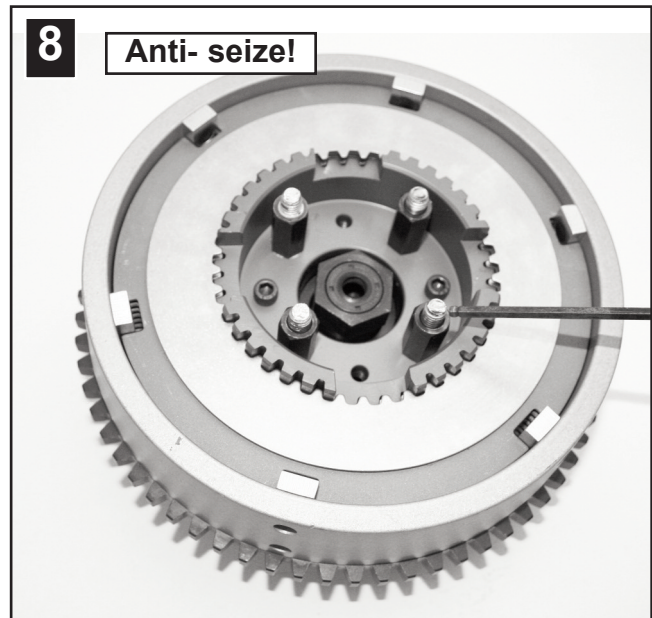
STEP 7:

The billet aluminum pressure plate is installed next, flat surfaces facing inward as shown!



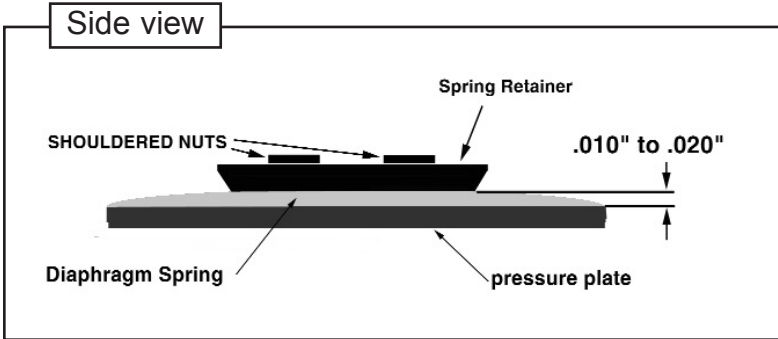
STEP 8:

Dab some high-quality anti-seize on the stud threads of the Comp Master™ Clutch hub! This will prevent the nuts from sticking and cause the studs to come loose when the Comp Master™ Clutch is disassembled.



STEP 9:

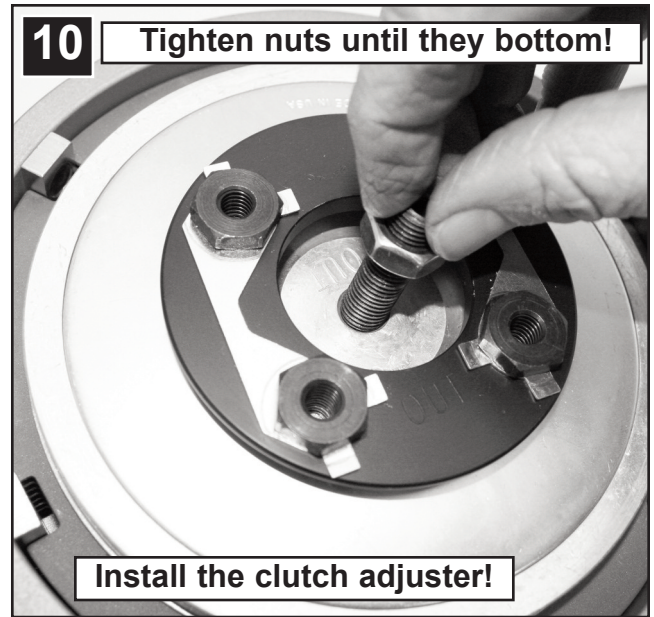
The diaphragm spring & spring retainer are installed next. Spring retainer goes bevel-side in! Tighten the shoulder nuts until they bottom & are snug! The lock-clips (1058-0106) should be installed as pictured. Bend one tab over each nut to keep the nuts from loosening. The diaphragm spring should be compressed to within .010"-to-.020" of being flat. The spring will have a very slight outward bow.



CAUTION: DO NOT OVER-TIGHTEN THE SHOULDER NUTS!

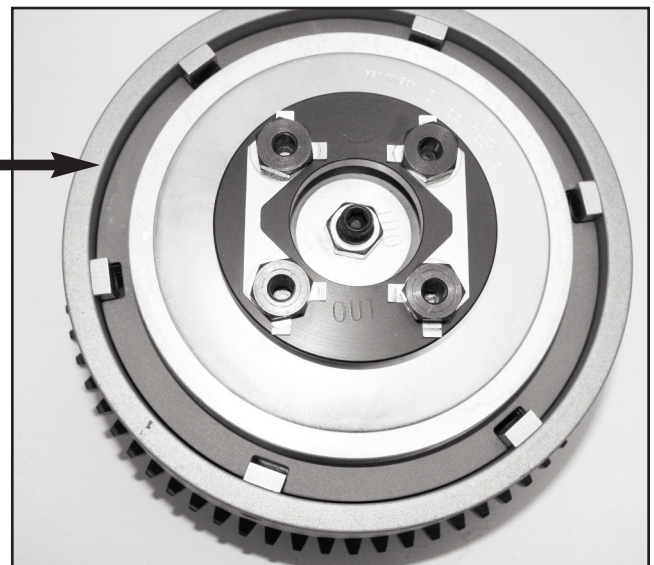
STEP 10:

Install the clutch adjustment screw, and adjust the clutch per the instructions in your Harley-Davidson service manual.



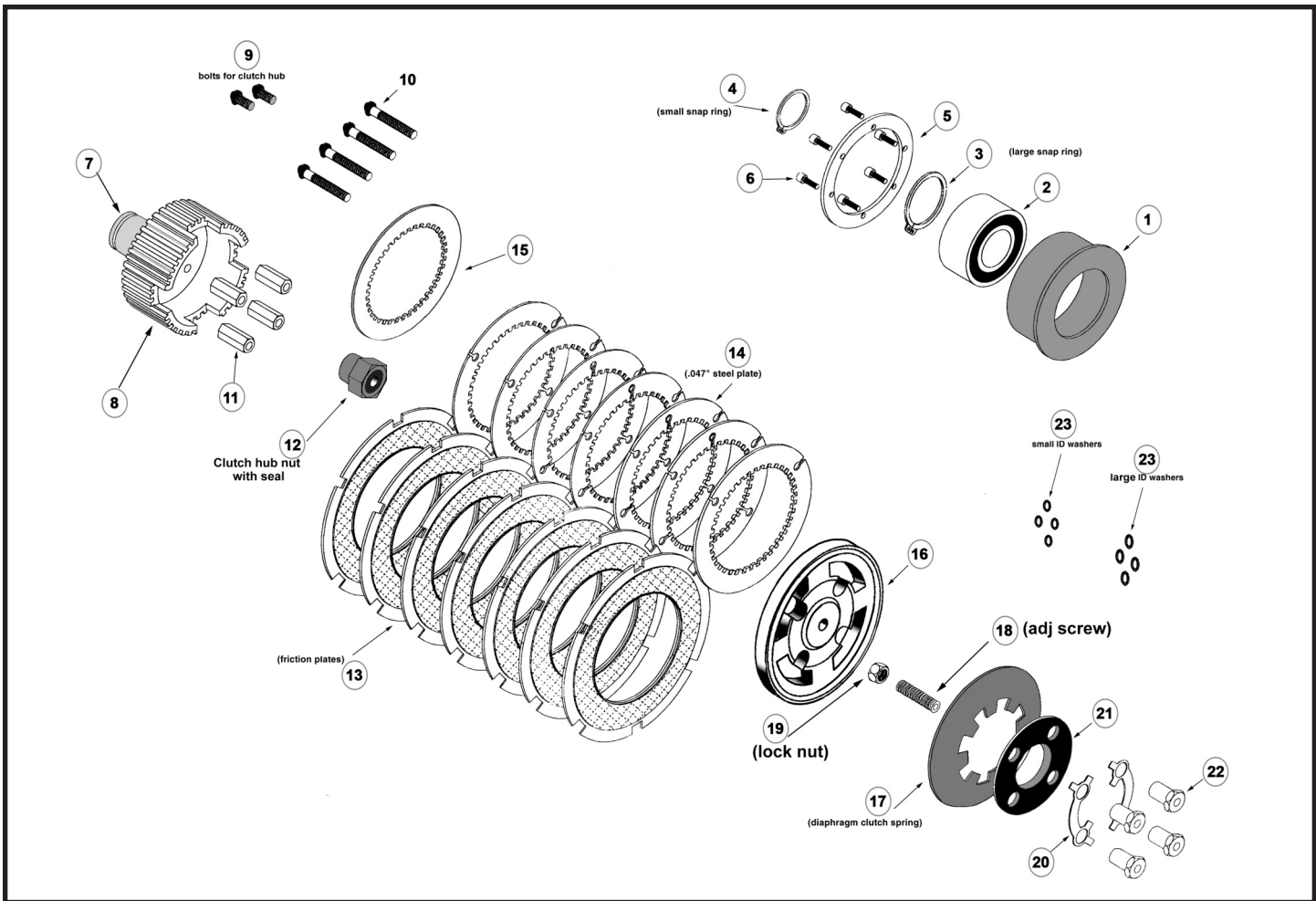
Your finished installation will look like this

Be sure to bend one of the locking tabs over each shoulder nut to keep them tight. APM's Comp Master™ Clutch for pre-Evolution applications eliminates the creep & chatter associated with early style clutch installations. Your early model HD will be easier & safer to operate with the Comp Master™ Clutch installed. A special clutch hub nut is included in every kit!



1056-0002 1936-1984 Big-Twin

- 1) 1-1057-0012 bearing adaptor
- 2) 1-1018-0015 bearing
- 3) 1-1101-0066 large snap ring
- 4) 1-1101-0068 small snap ring
- 5) 1-1057-0013 steel lock ring
- 6) 6-1100-0131 screws for lock ring
- 7) 1-2061-0003 steel inner hub
- 8) 1-1061-0012 aluminum outer hub (1.712")
- 9) 2-1100-0033 screws for clutch hub
- 10) 4-1100-0113 bolts for clutch hub
- 11) 4-2057-0026 nuts for clutch hub screws
- 12) 1-2057-0030 special clutch hub nut & seal
- 13) 7-1054-0006 friction clutch plate
- 14) 7-2060-0006 steel clutch plate (.047")
- 15) 1-1060-0003 steel clutch plate (.120") rear
- 16) 1-2058-0001 pressure plate (aluminum)
- 17) 1-2059-0003 diaphragm clutch spring (medium)
- 18) 1-2057-0005 clutch adjustment screw
- 19) 1-1057-0004 adjustment screw lock-nut
- 20) 2-1058-0106 locking clips
- 21) 1-2059-0200 diaphragm spring retainer
- 22) 4-1057-0015 shouldered nuts for retainer
- 23) 1-2057-0024 washer set (4-and-4)



COMP MASTER™ CLUTCH ADJUSTMENT

As delivered, the Comp Master™ clutch-pack requires no adjustment, having been set at the factory.

After the Comp Master™ clutch has accumulated significant mileage, it may require some adjustment due to normal wear. Use the procedures outlined below if & when adjustment is required. For best performance the diaphragm spring **MUST** be compressed to within .010”-.020” of being flat when the shouldered spring retainer nuts have been properly tightened (bottomed)! This will provide maximum spring pressure to the clutch pack, with minimum hand effort at the handlebar!

Three clutch springs are available: A stock replacement spring (black in color a medium spring for street performance (silver in color), and a competition spring (gold in color) for drag race only applications.

If the diaphragm spring adjustment requires LESS ARCH, this can be accomplished by using one or more of the special .020” washers on each of the shouldered nuts. (photo A)

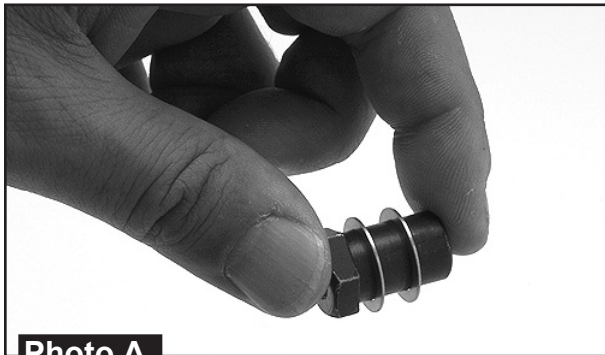


Photo A

If the diaphragm spring adjustment requires MORE ARCH, this can be accomplished by using one or more of the special .030” washers on the clutch hub studs nuts as pictured.

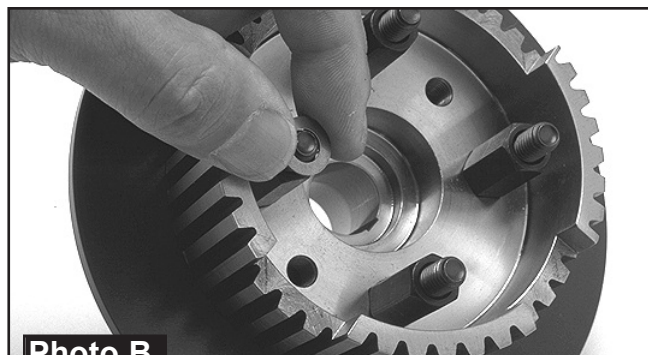


Photo B

The diaphragm spring will be compressed to within .010”-to-.020” of being flat when correctly installed & adjusted

Photo C shows a diaphragm spring that is compressed too far, and needs to be adjusted. Special adjustment washers be added to the clutch hub studs as shown in photo B.



Photo C

This is a diaphragm spring that is correctly adjusted. A little daylight is showing at either edge, because the spring is within .010”-to-.020” of being flat! (Slightly bowed outward) as seen in photo D.



Photo D

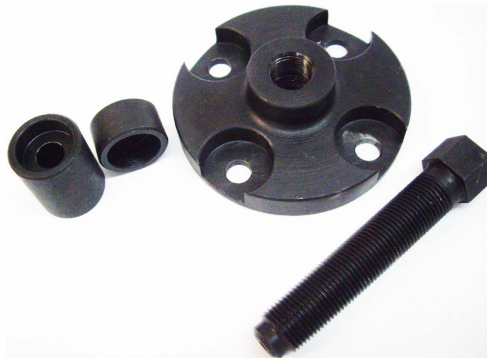
GENERAL WARRANTY

American Prime Mfg. Inc.'s sole obligation and the customer's sole remedy is limited to replacement or repair of products free of charge in the event products fail to perform as warranted for a period of one year from actual date of purchase. Proof of purchase must accompany any warranty claim. In no event shall American Prime Mfg. Inc. be liable for claims for any other damages, whether direct, incidental, foreseeable, consequential, or special (including but not limited to loss of use, revenue or profit), whether based upon warranty, contract, tort (including negligence) or strict liability arising in connection with the sale or the failure of American Prime Mfg. Inc. products to perform in accordance with the stated specifications.

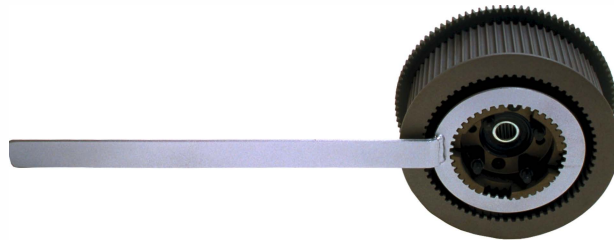
American Prime Mfg. Inc. makes no other warranty of any kind whatsoever, and specifically disclaims and excludes all other warranties of any kind or nature whatsoever, directly or indirectly, express or implied, including, without limitation, as to the suitability, productivity, durability, fitness for a particular purpose or use, merchantability, condition, or any other matter with respect to American Prime Mfg. Inc. products.



COMP MASTER™ CLUTCH TOOLS



1062-0003.....HEAVY DUTY CLUTCH HUB PULLER. FOR USE WITH CHAIN & BELT DRIVE COMP MASTER™ CLUTCH OR PRO CLUTCH ON TAPERED SHAFT 1937 - 1989 BIG TWIN.



1062-0001.....CLUTCH HUB HOLDER. ENGAGES & HOLDS THE HUB SPLINES FOR REMOVAL & FOR INSTALLING CLUTCH HUB NUT.



1062-0008 CLUTCH BASKET HOLDER. ENGAGES DOGS ON CLUTCH SHELL FOR FRONT SPROCKET/PULLEY INSTALL.