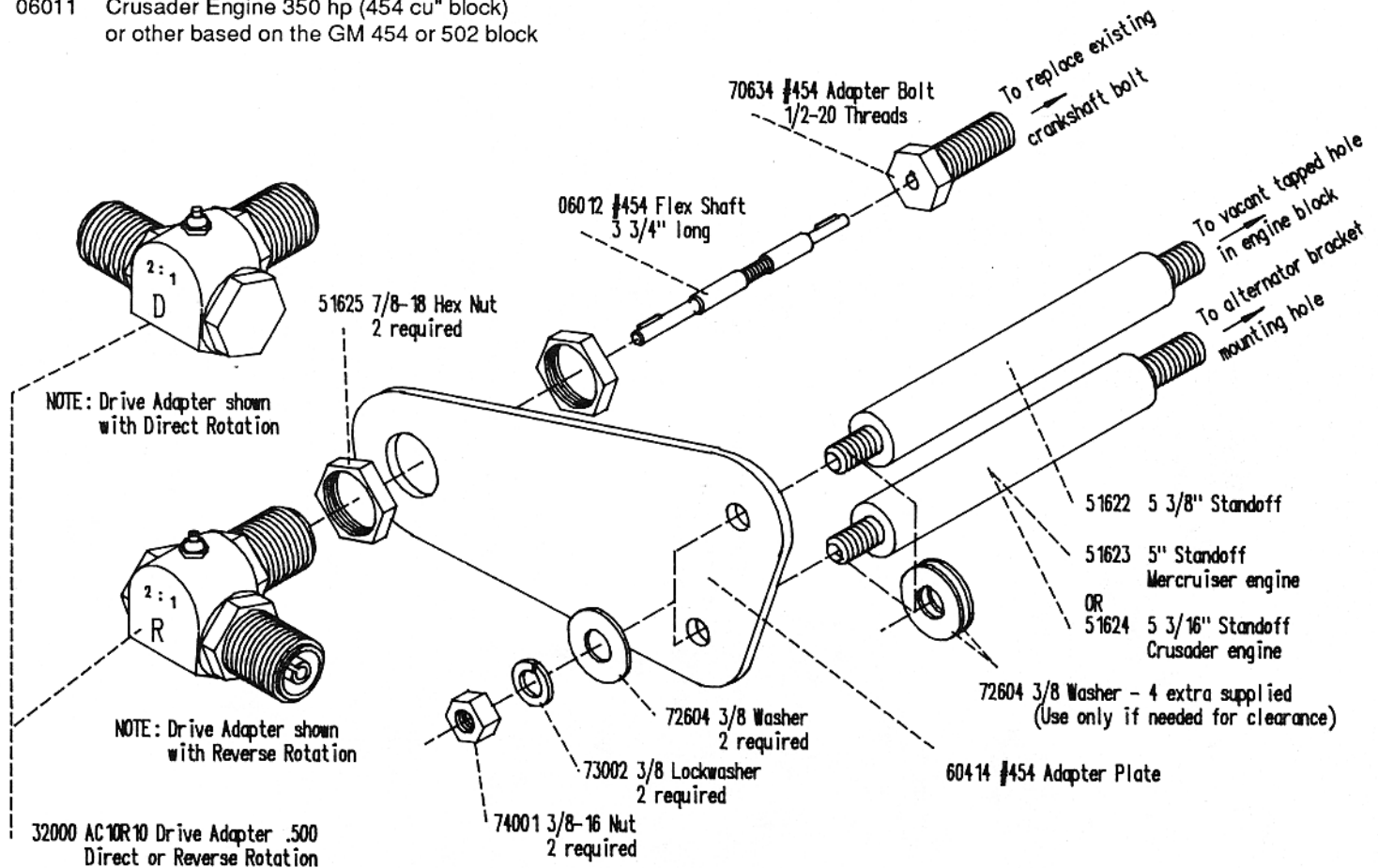


SECTION R - #454 MECHANICAL DRIVE ADAPTER

(Normally shipped with 1-direct rotation and 1-reverse rotation)

(used on the following engines)

| Part # | Description |
|--------|---|
| 06010 | Mercury Engine 330 hp (454 cu" block) |
| 06011 | Crusader Engine 350 hp (454 cu" block) or other based on the GM 454 or 502 block |



NOTE: Most gasoline engines have one engine clockwise and the other engine counter-clockwise rotation.

Drive adapter output rotation may be varied by using "D" direct or "R" reverse drive adapters. Direction of rotation may be changed by switching drive adapters to suit drive cable routing to the synchronizer. See section E for drive cable connections.

NOTE: Please do not remove inside locknut from the threaded fitting as the adapter has a one half reduction ratio. This threaded end with the nuts should be towards the engine. Refer to the drawing above. Please refer to section P for change of rotation procedure.

NOTE: When testing synchronizer at the dock, the engine might "hunt". Once the engines are put under a load, the "hunting" will stop.

INSTALLATION:

- 1) Remove 1/2" SAE cap screw from crankshaft and replace with drilled cap screw from adapter kit.
- 2) Install longer 5 3/8" shoulder standoff in top hole in engine block (hold unused on Mercury and Crusader engines) Do not use any lockwasher on this end.
(The alternator bracket on newer Mercury engines might have to be shortened.)
- 3) Remove alternator adjusting bar cap screw; install shorter (5 3/16" shoulder on Crusader, 5" shoulder on Mercury) stand-off with adjusting bar in place. Do not use any lockwasher on this end.
- 4) Install mounting plate on stand-off as shown and tighten in place.
(To lengthen plate for engine pulley clearance, use two flat washers on each stand-off between stand-off and plate.)
- 5) Using mandrell from kit, check plate alignment with cap screw. Elongate 3/8" holes in plate to correct alignment.
- 6) Install flex shaft in cap screws.
- 7) Install drive adapters in mounting plates, adjust the locknuts so that the flex shaft has:
 - approximately 3/16" - 1/4" of end play
 - proper alignment, flex shaft must be true on center

Correct alignment can be verified by using long nose pliers to check if flex shaft moves freely in and out.

- 8) At time of assembly, lubricate the flex shaft ends especially the tip at the crankbolt. It is recommended that these ends should be lubricated once a season or every 200 engine hours.

Use a good molybdenum base lubricant or other metal adhering lubricant such as "Never Seez", etc.

NOTE: When replacing belts on engine, alignment of flex shaft might change and must be realigned. Keep alignment tool for future use.