To help achieve proper mechanical clutch linkage geometry, you will need to measure your flywheel deck height (distance from the flywheel crankshaft flange surface to the clutch friction surface) as shown in FIG. 1. Aftermarket flywheel variances and/or flywheel resurfacing may have reduced your flywheel deck height from the Original Equipment (O.E.) flywheel measurement of 0.960”.

FIG. 1

NOTE: ENGINE SIDE CRANKSHAFT MOUNTING SURFACE.

1. SET THE FLYWHEEL ON A FLAT SURFACE OR BENCH TOP WITH THE FRICTION SURFACE DOWN.
2. MEASURE DOWN THROUGH ONE OF THE CRANKSHAFT BOLT HOLES TO THE BENCH TOP.
3. RECORD AND SAVE THE FLYWHEEL DECK HEIGHT THICKNESS

FIG 2 shows the O.E. clutch fork pivot ball height of 4.750” as measured from the engine block side of the Bellhousing plate (block saver) to the flat of the clutch fork pivot ball. If your flywheel deck height measures between 0.910” and 0.960”, be sure your clutch fork pivot ball height is 4.750”. If your flywheel deck height is less than 0.910” you will need to adjust the clutch fork pivot ball height to accommodate the thinner flywheel as follows:

Enter your flywheel Deck Height measurement here:_______ and SUBTRACT from 0.960” (O.E. standard flywheel deck height) = “Pivot ball adjustment distance”.

Then: SUBTRACT “Pivot ball adjustment distance” from 4.750” (O.E. standard pivot ball height) to find the correct clutch fork pivot ball height.

EXAMPLE: a flywheel deck height of 0.850” SUBTRACT from 0.960” = 0.110”

Use an aftermarket adjustable pivot ball to move the clutch fork pivot ball 0.110” CLOSER to the engine:

0.110” SUBTRACT from 4.750” = 4.640” (adjust the clutch fork pivot ball height to 4.640” in this example.)

These dimensions are for mechanical clutch release systems using Centerforce P/N: N1716 release (O.E. type) bearing. For use with other release bearings and/or if you have questions, please contact or Technical Department at: (928) 771-8422.

Notes:

1) If your flywheel deck height thickness is significantly below the O.E. specification, the clutch disc springs may contact the flywheel crankshaft bolts resulting in improper or failed clutch operation.

2) Centerforce DOES NOT recommend any shims/spacers or aftermarket balance plates to be used between the crankshaft and the flywheel.

PIVOT BALL REFERENCE INFORMATION

NON ADJUSTABLE

GENERAL MOTORS
P/N 3790556 LONG 1.680”
P/N 3729000 SHORT 1.380”

ADJUSTABLE PIVOT BALLS

LAKWOOD P/N: 15501
MR GASKET P/N: 3855
McLEOD P/N: 16908

CONTINUED ON THE BACK SIDE
IMPORTANT

MECHANICAL CLUTCH LINKAGE GEOMETRY FINAL CHECK

Once the clutch assembly, release bearing, clutch fork and Bellhousing are bolted in place you can visually ensure the clutch fork ball stud is adjusted properly. Do not connect the remainder of the clutch linkage at this point. Move the clutch fork by hand until the release bearing contacts the clutch fingers. The outer end of the clutch fork should point towards the engine, ahead of the ball stud centerline as shown in FIG 3. If the outer end of the clutch fork is behind the ball stud centerline (pointing towards the transmission), your clutch linkage geometry is incorrect. Please re-visit the clutch fork pivot ball adjustment instructions or call the Centerforce Tech line at (928) 771-8422 for further assistance. Once the geometry is correct, connect the remainder of the clutch linkage and then adjust to where the clutch engagement point is approximately half-way up the pedal travel. Small adjustments can be made to suit individual driving preferences. Lastly, fully retract the release bearing away from the clutch fingers and visually check to ensure that you have at least 1/4” clutch wear allowance gap between the release bearing and the clutch fingers. Throughout the service life of your clutch, be sure to periodically check the wear allowance gap and adjust as needed. Caution! If the clutch engagement point is at or near the top of your clutch pedal travel – your clutch may be pre-loaded (release bearing too close or touching the clutch fingers). Continued operation with the clutch in a pre-loaded condition will void the warranty and cause poor performance as well as significant damage.

**NOTE** Centerforce tip sheets are for general reference only. Please refer to your owners manual for vehicle specifications.