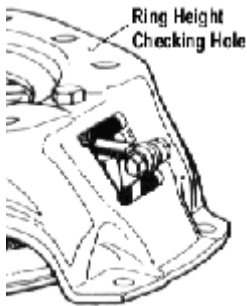


FORM R3001-1 Instructions for single disc sintered iron clutches



470, 470CW, 471, 471CW, 473, 473CW, 670, 670CW, 671, 671CW, 673, 673CW

Ring Height – steel ring: 1.975" Aluminum ring: 1.950"

The ring height is measured from the top of the cover down to the pressure plate when the unit is bolted together. On the top of the cover near one of the spring guides is a 3/16 inch hole with the ring height measurement marked next to it. To measure the ring height, insert the narrow end of a dial caliper through the hole and down flat to the pressure ring. This number is the ring height measurement.

When the ring height moves to 1.985, a .010 wear shim will need to be removed from the flywheel studs between the pressure plate and cover. After reassembling the unit to the flywheel, the ring height should be rechecked and back at 1.975.

Initially setting up the clutch

Install the studs (492) in the flywheel using the 11-inch long style bolt circle. Use loctite 271 (red) when installing.

Place one - .050 shim and 2 or 3 - .010 shims (550 shim set) on each stud. Bolt the pressure plate down to the flywheel with the disc in place and measure the ring height. Add or remove shims as necessary to achieve the ring height listed above. **ADDING SHIMS WILL INCREASE THE RING HEIGHT; REMOVING WILL DECREASE.** Be certain to use the same number of shims on each stud!

NOTE FOR 670 ETC. ALUMINUM PLATE UNITS:

Additional initial shims are included for these units due to the thicker pressure ring. Start with .150-.170 total shim per stand. A shorter pivot ball will be needed, you may also need to trim back the pivot ball boss a little.

Static Pressure: (written on the side of the red cover)

470, 470CW, 670, 670CW 360 lbs. (adjust **counterclockwise** 15 lbs./turn max. seven turns.
(Range: 360-990 lbs.)

471, 471CW, 671, 671CW 800 lbs. (adjust **counterclockwise** 20 lbs./turn max. seven turns.
(Range: 800-1640 lbs.)

473, 473CW, 673, 673CW 1200 lbs. (adjust **counterclockwise** 20 lbs./turn max. seven
turns. (Range: 1200-2040 lbs.)

NOTE: Turn the adjuster out until you start to feel tension on the screw and begin your turn count from this point. To return to the original base pressure, turn the screws in until you feel the pressure relieved from the screw. **DO NOT GO BEYOND THIS POINT AS YOU MAY LOCK THE ADJUSTER SCREW INTO THE ADJUSTER!** Be sure to keep a record of what your clutch is set at for future changes.

Counterweight Adjustment Weights

Counterweights should be installed with the bolt heads in the direction of rotation. RAM offers a gram weight scale under part number 578 and complete counterweight kits part number 570.

Steel Bolt 1/4 x 3/4 7.6g

Aluminum Bolt 1/4 x 3/4 2.2g

Steel Nut (large) 3.3g

Steel Nut (thin) 2.2g

Aluminum Nut 1.1g

Air Gap: .065 Increase/decrease as necessary.

Note: Proper adjustment on the two-step activation switch on the clutch pedal is critical to achieving proper clutch performance. Ideally, the two-step should turn off just before the clutch engages. Check this at home before going to the track with a test light on the switch!

Optimum performance with single disc iron clutches is achieved by leaving at lower RPM's than you may be accustomed to. This allows the clutch to slip some on launch, and drive the engine RPM back up into the power band. Additionally, leaving higher brings the counterweight effect of

the clutch in much stronger and may cause the clutch to appear too aggressive on launch. Try it lower and you will be pleasantly surprised.

Data recording computers:

The most effective tuning tool in your trailer is a data-recording computer. By reading engine, driveshaft, and clutch RPM, you can determine exactly what the clutch is doing off the starting line and through the gears and make educated decisions on how to change your clutch settings. This information also allows us to offer accurate technical assistance.

Maintenance:

To achieve optimum performance it is best to service the unit periodically. Iron clutches will tend to build a glaze over time that makes the clutch more aggressive. How much you slip the clutch will determine the length of time between maintenance. In general, you should service the clutch between every 10-30 runs.

Clutch disc:

The best method for deglazing the disc is to use a disc-cutting machine. If unavailable, use a sanding block to remove the glazed material and floater plate glaze with a coarse 40-grit paper. Work carefully around the disc to maintain its flat surface. Avoid power sanding equipment as it tends to make the disc surface uneven and tapered. Use a new piece of paper for each disc side; the disc is very coarse and wears the sandpaper down quickly. RAM RECOMMENDS A MAXIMUM OF 60-80 RUNS ON IRON DISCS.

Pressure Plate/Flywheel:

Again using coarse sandpaper, remove any discoloration from both of these surfaces. After servicing the clutch reassemble the unit measure the ring height. Remove the wear shims as necessary to set the height back to 1.975". At this point your lever height and spring pressure will be reset to their original positions.