

Industrial Clutch/Brake disassembly

Caution; Lock and tag per your companies procedure before attempting this procedure. All service work is potentially hazardous. If you are unsure, or uncomfortable with this procedure call for help before beginning procedure. We will be happy to provide a serviceman to complete this job.

Remove covers to expose unit

Remove drip pan and hose

Remove hose supplying fluid to the ROTARY UNION

Using 15/16 combination wrench carefully unscrew ROTARY UNION

Using 1-1/2 combination wrench remove return hose from housing

Remove the fitting screwed into the housing (this fitting must be removed to avoid jamming the cover when pulling housing)

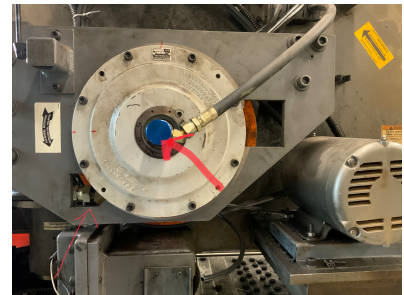
Using 15/16 wrench remove 2 supply hoses

Use 15/16 socket to remove fitting from the housing

Remove 2 small fittings from the bottom of the housing



Remove 8 (8mm) SHCS, replace 2 of the bolts into the jacking hole and EVENLY tighten to Jack housing from assembly



Once the cover breaks loose slowly pull until it is removed. (Cover weighs 75-80 lbs be ready for it)

Set cover aside and inspect for damage to cover or seals. Included in the kit there will be new seals if needed.

The pad assembly on the outside functions as the brake. It is released when hydraulic pressure overcomes the 6 springs actuating the clutch and at the same time releasing the brake. At the same time the clutch pads are engaged with the plate in the rear of the assembly. This is a purely mechanical functions using only one solenoid to accomplish.

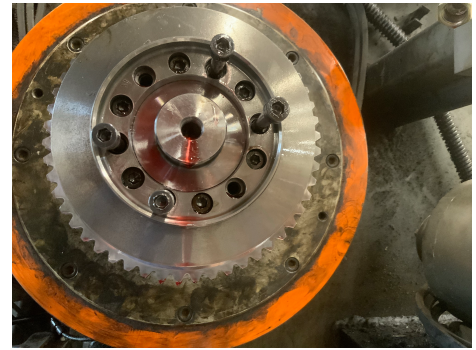
Removing the 4 long SHCS will release the brake assembly

Inspect the pads , and plate for damage. It is very unusual to see much wear at all. Even if the outer pads appear worn they were probably ground to set pack thickness per the chart. Replacing pads must be done carefully as to not make either pack too thick



Be careful not to lose the 4 spacer washers on the plate

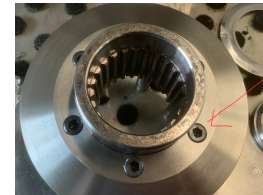
Remove and inspect springs for damage. If replacement is necessary replace all 6.



Remove hub retainer bolt and locking washer using 15/16 socket. Replace retainer on reassembly CNC 2755. Bolt replacement number is CNC 2757

Carefully remove all clutch pads being careful to stack the so that you get them back in the same direction, and order

Remove the clutch plate. Turn it over and inspect for loose/ broken bolts. If plate is damaged replace wit CNC 2786 for 20 ton machines, CNC 2747 for 30 ton machines. New plates will come with new bolts. It is very important to use loctite 242 (removable) when reassembling unit.



Reassembly is mostly reverse of disassembly

Inspect/ replace 3 drive belts as it is a big job later. I also recommend tying an additional set back to ease future change

Once you get the clutch back together you must install the brake pad assembly fixture included in the kit to assist in lining up the pads for reassembly

Notes

I highly recommend acquiring my kit CNC 5500 for reassembly, this kit is listed in the technical support on my website. Realignment of the brake pads will be virtually impossible without it. Include in the kit you will find spare seals, bolts, springs, pads to rebuild the unit. I ship a complete kit, and bill you for anything you use as you do the job.

You will need a fairly complete set of Allen sockets, large wrenches to accomplish the job. It also requires a fair amount of mechanical ability. If in doubt call in an expert and get the machine running. I offer technical advise if needed listed on my website in 1 hour increments.

Nominal pad thickness .180-.190. Nominal plate thickness .120-.125

Hydraulic clutch-brake PAD COUNT 30 ton machines

Clutch PAK. 2.42-2.416 new. .020 wear max 7 sprocket 8 disk

Brake PAK 1.708-1.776. New .05 wear max 5 sprockets 6 disks

20 ton machines

6 pads 5 sprockets for both clutch and brake

1.708-1.776

