

3.19-2 DRAWWORKS WITH MECHANICAL CLUTCHES

A. Disassembly:

The drawworks consists of two drums, spiral bevel gear, oil bath, lubricated roller bearings, individual friction clutches controlled by a single lever or individual levers and single self-energizing brake on each drum.

To disassemble the drawworks, it will first be necessary to remove the guard and disconnect the drive shaft from the flange on the bevel gear box. Then remove the eight 1/2" bolts holding the drawworks frame to the drill frame. This will let the drawworks be lifted as a unit from the drill.

After removal of the brake bands and clutch controls, remove the two end plates and anchor bolts through the bevel gear box. The bevel gear box, drums and clutches may be removed from the drawworks frame.

The clutch collar will slip off the end of the shaft. Next, pull the lock pin out on the clutch adjusting ring and back off until clutch plates are free. Remove XTD-6958-A cover plate. Loosen the jam nut on the setscrew in the clutch hub and remove the set screw. This will let the clutch hub be removed from the shaft. Utilization of a puller will simplify this task. The drum can now be removed from the drum shaft.

Special attention should be given the 14297 spacer. Inspect the "O" ring for wear as this seals off the oil from the drum, preventing it from getting into the clutch. By removing the plate on end of the drum, inspect the grease seal and remove bearings and spacer from drum. The inner bearing should be installed with the shield to the outside of the drum.

3.19-2 DRAWWORKS WITH MECHANICAL CLUTCHES (CONT'D)

The bevel gear box adjustments and inspections are the same as the rotary table in every respect except the ring gear is riveted to the drum shaft or adapter flange.

B. Reassembly:

Assembly is accomplished in reverse order of disassembly.

NOTE: To adjust the Twin Disc E-214 clutch, pull the spring loaded pin, slip a wire into the hole provided and rotate disc clockwise to tighten. With the clutch engaged, the rollers should travel as far up the taper of the sliding cone as possible and still be on the taper. Release pin into nearest notch. This is a critical adjustment. If the clutch is too tight, you lose efficiency. If the clutch is too loose, the rollers go past the taper on the cone and you lose efficiency again, plus the danger of the clutch not disengaging itself when released.

RACINE Hydraulics

model # PUR PSS040EL 01

serial # 0026571

List # 923601 0701

on top 221582

8" pulley