3.20-2 CLUTCH DISCS - REMOVAL & REPLACEMENT (Wichita W-314 Mechanical Clutch):

A. Disassembly:

Remove bearing and plates from the shaft and the clutch collar will slip off the end of the shaft. Next, pull the lock pin out and back the adjusting ring nut off until clutch plates are free - if they are not already free. This will allow rotation of the adjusting ring to bypass the four clutch levers. Remove plates, discs and springs for inspection. Replace defective parts. Next, the center plates, driving plate and springs are removed. In some instances, where complete circle linings were originally installed, it may be necessary to take a chisel and hit the lining in order to break it in half before it will come out; however, this is very easily done. 1/16" clearance should be between each lining and cast iron plate. Spare linings should be stored in continuous circles to assure concentricity. They should be split into two or three equal segments with a hacksaw to facilitate installation. Linings will fail if they are subjected to excessive heat (about 400°) for long periods.

B. Reassembly:

Check the clutch plates and driving plates for wear and distortion.

The "linkage" in the clutch controls must be kept tight so that clutches will properly engage and disengage at all times. This includes all pins, pin holes, bushings, clevises, etc., which must be either replaced, reworked or adjusted when they become loose; since, if these parts do become worn or loose, the clutch cam will not travel its proper distance and it will not be possible to engage and disengage the clutch properly.

3.20-2 CLUTCH DISCS - REMOVAL & REPLACEMENT (Wichita W-314 Mechanical Clutch):

B. Reassembly (Cont'd):

When the contact points on the pressure ring become badly worn due to the bosses on the cam operating levels working against them with a roller action, the pressure ring can be rotated to a new position because of an extra set of holes in the floating plate. This doubles the life of the pressure ring.

Assembly is accomplished in reverse order of disassembly.
The adjustment of the Wichita W-314 Clutch should be sufficiently tight to drive the load without slippage but it need not be unnecessarily tight which makes the clutch hard to engage and will cause excessive wear of the cam. A little practice will determine the correct amount of tightness. The clutch should be kept adjusted at all times. If it is allowed to "slip," it is very easy to burn up the clutch.

To adjust the Wichita W-314 Clutch, pull the spring-loaded pin, insert a wire into the hole provided and rotate the disc counterclockwise, with a spanner wrench, 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.