ADJUSTMENT FOR TORQUE LOADS

The output torque of the friction clutch can be varied by varying the air pressure applied to the clutch. To vary the air pressure to the clutch, a pressure regulator and a pressure gage are supplied.

For minimum clutch air pressure and rated air pressure refer to the clutch rating plate attached to your press. A replica of the clutch rating plate is shown in Fig. 1.

ADJUSTMENT FOR WEAR

No clutch adjustment is necessary to compensate for wear. Difference in plate travel with new friction plates, as opposed to plate travel with worn plates, is only a fraction of an inch, and the plates automatically compensate for wear. Engagement is instantaneous in either case.

MAINTENANCE

The clutch is outboard-mounted for accessibility and easy maintenance. Inspection and maintenance can be accomplished without disturbing the drive. Complete clutch disassembly can be made without removing flywheel, driveshaft or gears.

The diaphragm, if damaged, can be detected by the leakage of air through the driving ring vent holes. Replace the diaphragm by removing the retaining nuts which secure the cylinder to the clutch driving ring. Then remove the cylinder, rotary seal and diaphragm together. The cylinder and associated parts should be cleaned before assembly.

Because of the extremely rapid clutch engagement and the absence of slipping, there is normally very little wear of the clutch friction surfaces. However, after long service, when the surfaces become worn or grease-soaked, to the point where they do not pull the full rated load of the press, the discs can be replaced very easily. First remove the air cylinder assembly and outer clutch pressure plate. The friction discs can be slipped off the splined driving hub and new discs inserted.

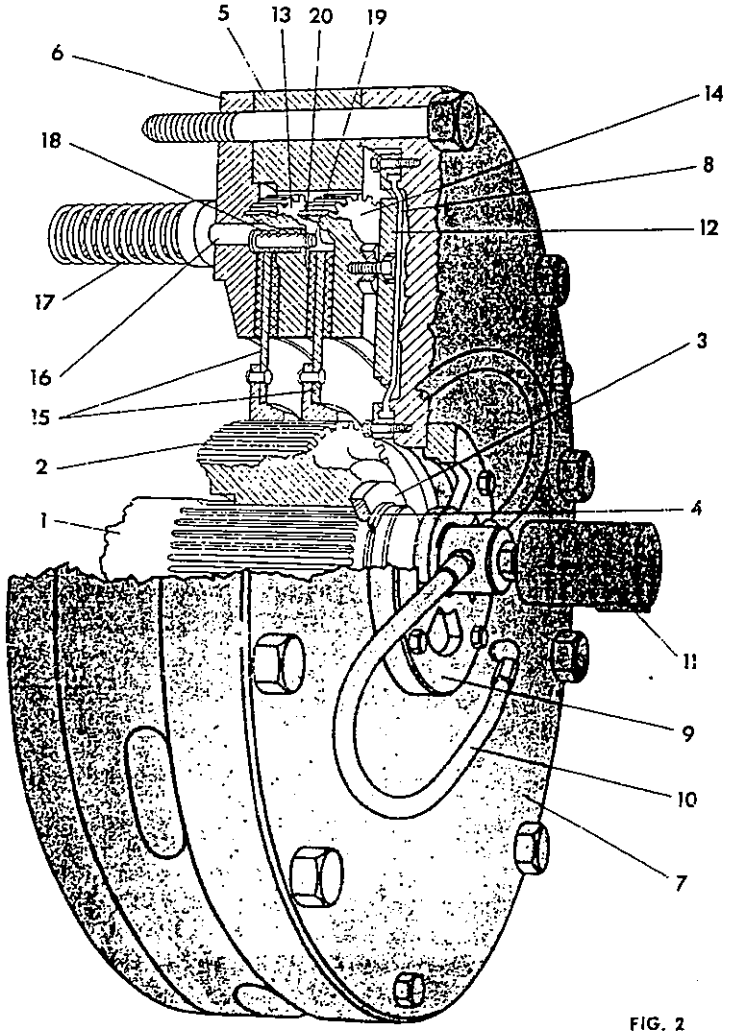

FIG. 2

PARTS LIST

1. Drive Shaft
2. Driving Hub
3. Driving Hub Retaining Ring
4. Clutch Snap Ring
5. Clutch Housing
6. Flywheel Insert
7. Clutch Cylinder
8. Diaphragm
9. Rotary Air Seal Adapter
10. Adapter Tubing
11. Rotary Air Seal
12. Pressure Plate
*13. Inner Pressure Plate
14. Outer Pressure Plate
*15. Friction Discs
16. Spring Plunger
17. Spreader Spring OBSOLETE
*18. Separator Spring
*19. Spring Pin
*20. Snap Ring

* Single Plate Clutch has one driving friction disc (Part No. 15) and does not contain Part Nos. 13, 18, 19 and 20.

NOTE:

Since numbers on this parts list are for reference only and may be duplicated on other parts lists, specify part required by giving reference number and full part name, followed by Form A-6-E.

REPAIRS

When ordering repairs, always state the catalog number of the press and the factory serial number.

NIAGARA MACHINE & TOOL WORKS

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