3-29. ROTARY TABLE CLUTCH (Figure 3-35).

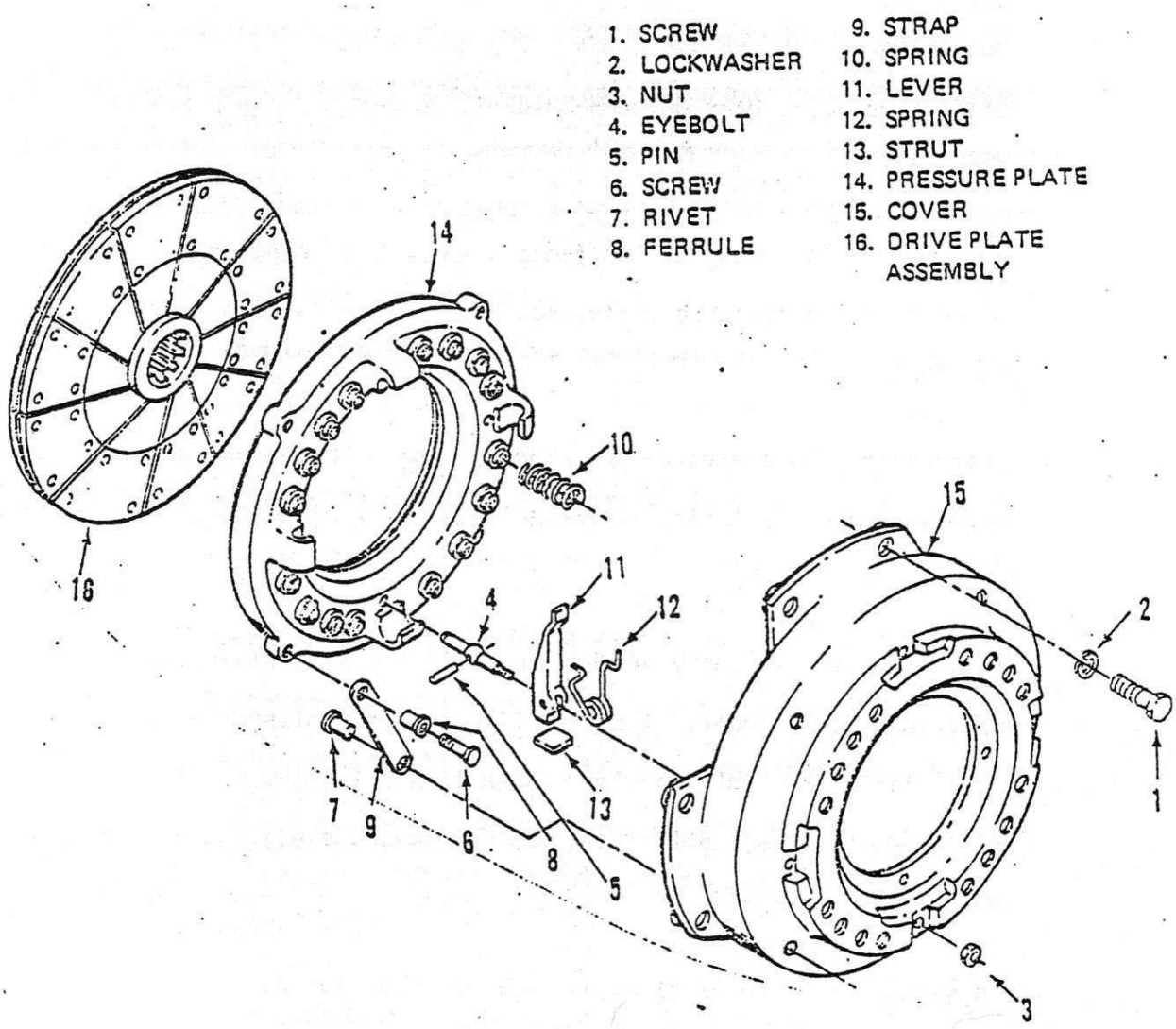


Figure 3-35. Rotary Table Clutch

BORG & BECK ROTARY TABLE CLUTCH

The Model 12E Borg and Beck clutch is a spring-loaded automotive type clutch.

Disassembly: The removal of the Borg & Beck clutch is the same as the Spicer Model 12SP, with one exception. The Borg & Beck clutch requires a special shouldered bolt, Part NO. XFM-20468-S, to connect the pressure plate to the flywheel.

This clutch is preset at the factory and requires no shims. If work needs to be done on the pressure plate, you must either replace it or send it back to the factory.

Inspection: As stated before, the driving disc linings are the parts most likely to need replacing. Always inspect the pilot bearing and clutch release bearing for wear.

Assembly: The assembly of the clutch is the same operation as disassembly, only in reverse order. A shaft, like the transmission driving gear, is useful in centering the driving disc before tightening the bolts in the flywheel. After the bolts are all tightened, remove the shaft. The transmission can then be bolted in place.

Adjustment: There is no adjustment on this clutch.

SPICER ROTARY TABLE CLUTCH:

The clutch is a Model 12SP Spicer. It is a spring-loaded automotive type.

Disassembly: In order to work on the clutch, it is first necessary to remove the transmission and clutch housing. After the transmission and clutch housing have been removed, remove the capscrews which hold the clutch to the flywheel. This is all that is necessary to remove the clutch and replace the clutch disc. Usually this will be the only replacement needed. Should the body or pressure need repair, proceed to disassemble as follows:

Unhook the three pullback springs from the pressure plate. This disconnects the pressure plate from the rest of the clutch and also releases the flywheel ring. The flywheel ring can be lifted from the body of the clutch. It should not be necessary to remove the adjuster plates but, if they are, the number of shim washers between them and the flywheel ring should be carefully noted and replaced as taken off. These were properly adjusted before leaving the factory and should not need changing.

To disassemble the body of the clutch, it should be put in a press. Place three blocks on release bearing housing and compress far enough to allow the anap ring to clear the top of the bearing housing. The snap ring is then removed from the release sleeve. Slowly release the assembly which will permit removal of release bearing, spring plate and spring. If the press is released too fast, the release bearing may bind on the release sleeve; then, any jar would probably cause the assembly to fly apart with considerable force, due to the compressed release spring.

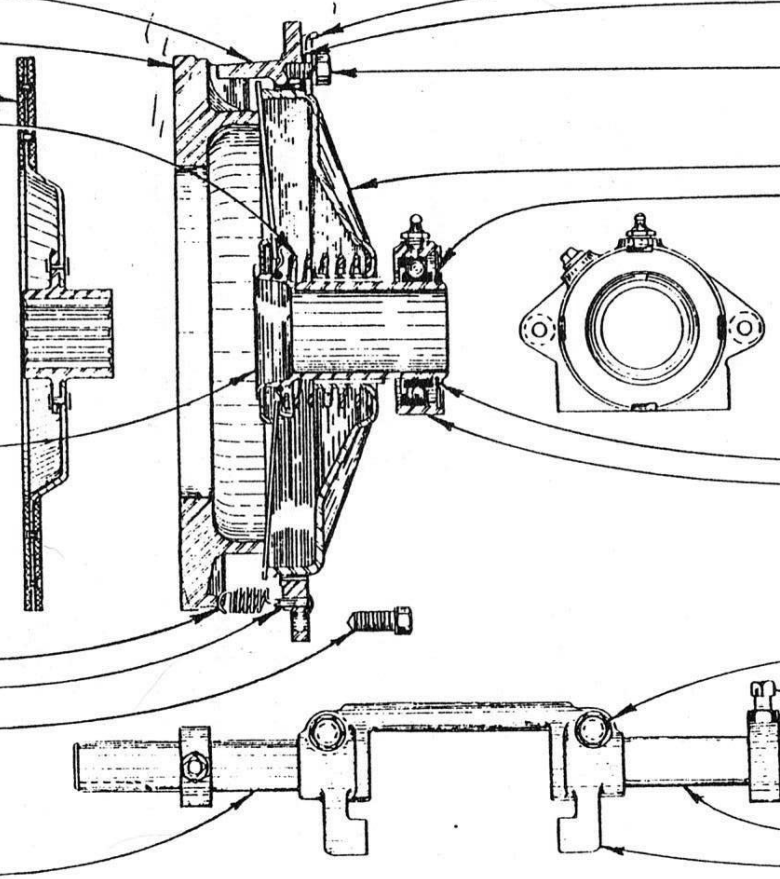
The clutch pilot bearing will probably remain in the flywheel. It should be removed.

IMPORTANT: ALWAYS GIVE OUR SHOP NUMBER OF YOUR DRILL WHEN ORDERING REPAIR PARTS.

MAIN DRILLHEAD CLUTCH

MODEL 85SM-12-SP

XSM-12-SP___ASSEMBLY, CLUTCH_____1
(THIS ASSEMBLY NUMBER IS FOR CLUTCH ONLY AND DOES NOT INCLUDE THE SHIFTER ASSEMBLY.)



XSM-197-C-30___RING_____1
XSM-170-C-37___RING_____1
XSM-127009-X___ASSEMBLY_1
XSM-120-C-55___SPRING____1
XSM-3845-X___ASSEMBLY___1
XSM-230-C-7___SPRING_____3
XSM-100-R___ANCHOR_____3
6C8-B___SCREW, CAP_____12
6-LW___WASHER_____12
14461___SHAFT_____1

XSM-300-C-2___PLATE____3
XSM-160-C-10___SHIM_____18
XSM-500399-8___SCREW, CAP_3
XSM-500356-12___WASHER__3
XSM-5070-X___ASSEMBLY___1
XSM-242-C-14___LOCK_____1
XSM-381-26___RING_____1
XSM-3835-X___ASSEMBLY___1
XSM-212-D___PLUG_____2
XSM-330231___SCREW, CAP__2
XSM-500356-12___WASHER__2
14459___SCREW, SET_____2
6F-N___NUT_____2
14458___COLLAR_____2
XSM-106-C-1278___SHAFT____1
XSM-105-C-112___SHIFTER___1

GEO. E. FAILING COMPANY, ENID, OKLAHOMA, U.S.A.

53-500-9

Inspection: As stated before, the driving disc linings are the parts most likely to need replacing. Always inspect the pilot bearing and clutch release bearing for wear.

Assembly: The assembly of the clutch is the same operation as disassembly, only in reverse order. A shaft, like transmission driving gear, is useful in centering the driving disc before tightening the bolts in the flywheel ring. After the bolts are all tightened, remove the shaft. The transmission can then be bolted in place.

Adjustments and Lubrication: The clutch should need no adjustments, however, if the shims under adjuster plates have been changed, some adjustment may be necessary. If the clutch slips, remove one shim from under each adjusting plate (remove the shim from under a plate and tighten it back before loosening another), but remove the same from under each. If the clutch drags and the throwout bearing has a very short travel, add a shim under each plate. The pilot bearing should be packed with wheel bearing grease before assembling. Oil the throwout bearing with chassis grease.