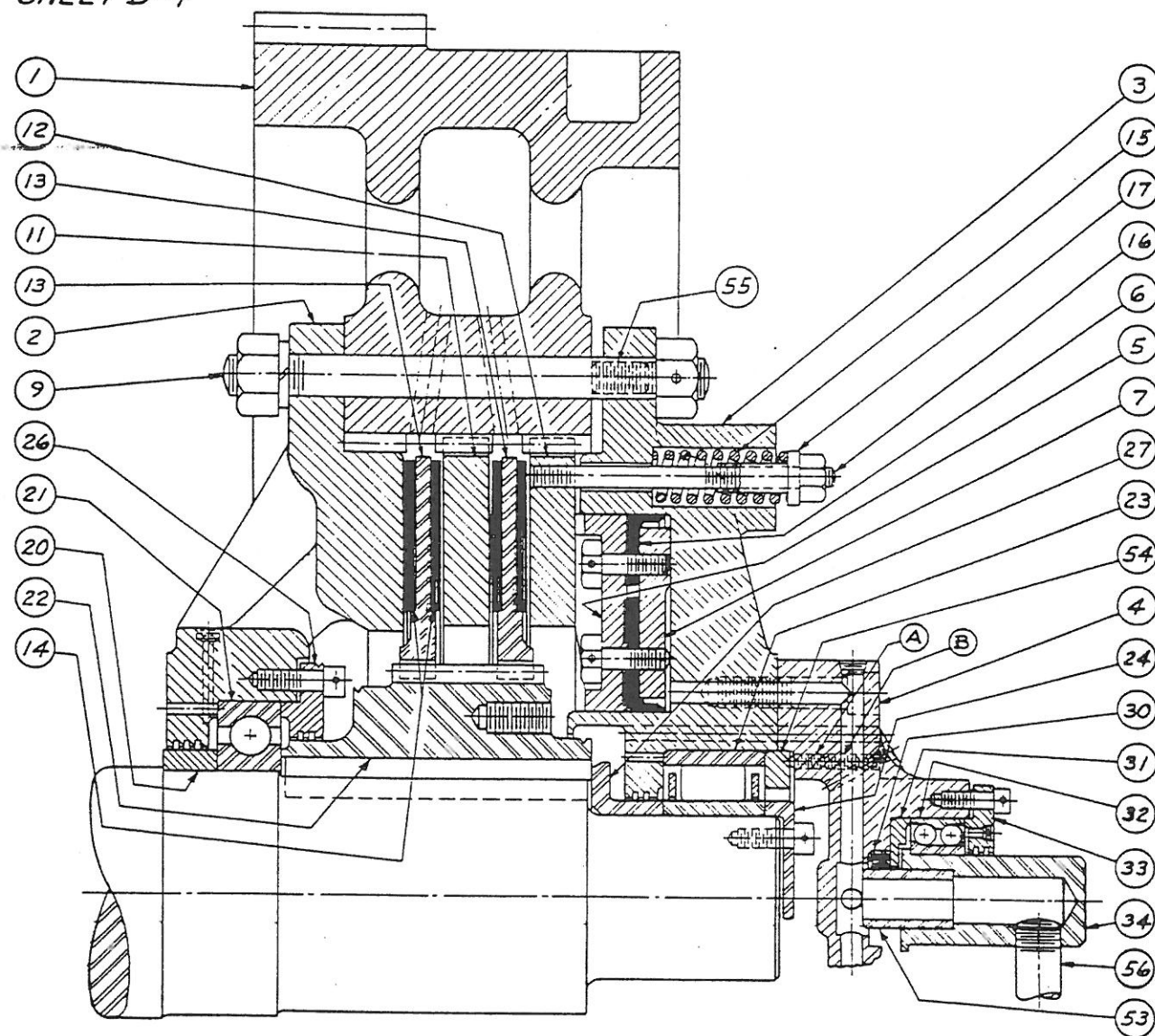


1" AND 1 1/2" F.M.  
SHEET B-4



WHEN ORDERING REPLACEMENTS STATE SERIAL NUMBER AND SIZE STAMPED ON NAME PLATE OF MACHINE AND DESIGNATE PART BY BOTH NAME AND NUMBER.

- 1 MAIN GEAR
- 2 INNER CLUTCH FLANGE.
- 3 OUTER CLUTCH FLANGE.
- 4 AIR DISTRIBUTOR HOUSING.
- 5 CLUTCH PISTON.
- 6 CLUTCH PISTON PACKING.
- 7 CLUTCH PISTON FOLLOWER RING.
- 9 CLUTCH TIE BOLTS.
- 11 CLUTCH CENTER DRIVING PLATE.
- 12 CLUTCH OUTER DRIVING PLATE.
- 13 CLUTCH FRICTION PLATES.
- 14 CLUTCH FRICTION SEGMENTS AND RIVETS.
- 15 CLUTCH RELEASE SPRINGS.
- 16 CLUTCH RELEASE SPRING STUDS.

- 17 CLUTCH RELEASE SPRING ADJ. NUTS.
- 20 CLUTCH BEARING SPACER RING.
- 21 CLUTCH INNER BEARING.
- 22 CLUTCH PINION.
- 23 CLUTCH OUTER BEARING.
- 24 CLUTCH SHAFT END PLATE.
- 26 INNER CLUTCH BRG. RETAINER RING.
- 27 CLUTCH PINION RETAINER RING.
- 30 AIR DISTRIBUTOR AIR SEAL.
- 31 AIR DISTRIBUTOR BRG. SPACER RING.
- 32 AIR DISTRIBUTOR BEARING.
- 33 AIR DISTRIBUTOR END CAP.
- 34 AIR DISTRIBUTOR SPINDLE.
- 53 AIR DISTRIBUTOR SPINDLE BUSHING.
- 54 OUTER CLUTCH BRG. CLAMP RING.
- 55 CLUTCH ADJUSTING SET SCREWS.
- 56 CLUTCH AIR SUPPLY LINE.

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CLEVELAND (17), OHIO.

### ADJUSTMENT

THE CLUTCH MUST RELEASE PROMPTLY A MINIMUM OF  $\frac{3}{16}$ " AS MEASURED ON SPRING STUDS (16) WHEN AIR IS EXHAUSTED. IF QUICK OPENING DOES NOT RESULT FROM ADJUSTMENT OF RELEASE SPRINGS (15), INVESTIGATE.

WHEN TRAVEL OF PISTON EXCEEDS  $\frac{5}{16}$ " IT SHOULD BE REDUCED TO  $\frac{3}{16}$ " AS FOLLOWS:

- 1- RELEASE NUTS ON CLUTCH TIE BOLTS (9).
- 2- BACK OUT ALL CLUTCH ADJUSTING SET SCREWS (55) A DISTANCE NECESSARY TO REDUCE TRAVEL TO  $\frac{3}{16}$ ".
- 3- TIGHTEN NUTS ON FOUR CLUTCH TIE BOLTS (9), SPACED 90°, CAREFULLY CHECKING THAT SPACE BETWEEN OUTER CLUTCH FLANGE (3) AND HUB OF MAIN GEAR RIM (1) IS UNIFORM. TIGHTEN ALL SET SCREWS (55) AGAINST MAIN GEAR RIM (1), THEN TIGHTEN REMAINING TIE BOLTS (9).
- 4- RECHECK SPACE BETWEEN OUTER FLANGE AND MAIN GEAR RIM FOR UNIFORMITY.

### FOR DISASSEMBLY OF CLUTCH FROM SHAFT

- 1- BLOCK UP GEAR RIM WITH STENCIL "TOP" UPPERMOST BY WEDGING BENEATH RIM (1).
- 2- REMOVE AIR SHAFT GUARD AND DISCONNECT UNION IN AIR SUPPLY LINE (56).
- (OPTIONAL) 3- REMOVE AIR DISTRIBUTOR HOUSING (4) AND OUTER BEARING CLAMP RING (54). (OPTIONAL)
- 4- REMOVE CLUTCH TIE BOLTS (9) LEAVING TOP TWO HALFWAY IN HOLES. SLIDE OUTER FLANGE (3), WITH PISTON (5), AND OUTER DRIVING PLATE (12) AS A UNIT OUT HORIZONTALLY TILL THEY CAN BE LIFTED. THEN SLIDE REMAINING CLUTCH PLATES (11) AND (13) OUT OF GEAR RIM (1).
- 5- REMOVE SHAFT END PLATE (24), INNER RACE OF BEARING (23), AND PINION RETAINER RING (27).
- 6- PULL CLUTCH PINION (22) WITH STUDS AND CLAMP ACROSS SHAFT END.
- 7- REMOVE GEAR RIM (1) BY UNSCREWING THREE CAP SCREWS FROM INNER FLANGE (2).
- 8- REMOVE INNER FLANGE (2) WITH INNER CLUTCH BEARING (21), AND CLUTCH BEARING RETAINER RING (26) AS A UNIT.
- 9- REMOVE INNER BEARING RETAINER RING (26) AND DRIVE INNER CLUTCH BEARING (21) FROM INNER FLANGE (2) BY MEANS OF DRIFT PIN.
- 10- TO REMOVE ANNULAR PISTON (5) FROM OUTER FLANGE (3), UNSCREW RELEASE SPRING ADJ. NUTS (17), FIRST NOTING WHERE THEY WERE SET. REMOVE SPRINGS (15), AND OUTER DRIVING PLATE (12). THE CLUTCH PISTON ASSEMBLY PULLS OUT FROM CYLINDER, BUT TO AVOID DAMAGE TO LIPS OF PISTON PACKING (6), REASSEMBLE WITH PARTS UNCLAMPED. WITH OUTER FLANGE (3) LYING HORIZONTALLY, PLACE FOLLOWER RING (7) IN CYLINDER, INSERT PISTON PACKING (6) WITH BOLT HOLES MATCHING, INSTALL PISTON (5) AND BOLT ASSEMBLY TOGETHER INSIDE CYLINDER, WIRING TOGETHER ALL CAP SCREW HEADS.
- 11- WHEN REASSEMBLING CLUTCH BE CERTAIN TO DRIVE CLUTCH PINION (22) TIGHT HOME. WIRE TOGETHER ALL CAP SCREW HEADS INSIDE OF CLUTCH. IF DISTRIBUTOR HOUSING (4) HAS BEEN REMOVED FROM OUTER CLUTCH FLANGE (3) (STEP 3 OPTIONAL) BACK OFF LOCKING SET SCREWS "B" AND SET SCREWS "A" SLIGHTLY. BOLT DISTRIBUTOR HOUSING (4) SECURELY TO OUTER CLUTCH FLANGE (3), TIGHTEN SET SCREWS "A" AGAINST OUTER BRG. CLAMP RING (54) AND LOCK WITH SET SCREWS "B".

### FOR DISASSEMBLY OF ROTARY AIR DISTRIBUTOR

- 1- DISCONNECT UNION IN AIR LINE (56), REMOVE SCREWS FROM END CAP (33) AND PULL DISTRIBUTOR SPINDLE (34) WITH BEARING (32) AND BUSHING (53).
- 2- PULL BEARING SPACER RING (31) AND AIR SEAL (30).
- 3- FOR REPLACEMENT OF AIR SEAL USE ANY STANDARD SEAL ( $1\frac{3}{8}$ " I.D. x  $2\frac{1}{4}$ " O.D. x  $\frac{1}{2}$ " WIDE).

### LUBRICATION

THE INNER CLUTCH BEARING (21), OUTER CLUTCH BEARING (23), AND AIR DISTRIBUTOR BEARING (32) SHOULD BE LUBRICATED WITH A MODERATE AMOUNT OF GREASE AT TWO WEEK INTERVALS; EXCESS GREASE WILL ONLY FORCE PAST CAPILLARIES AND THROW TO OUTSIDE OF CLUTCH.

### AIR PRESSURE REGULATION

A REGULATING VALVE TO MAINTAIN PRESSURE AS INDICATED ON GAUGE OR GUARD IS PROVIDED WITH MACHINE. THIS REGULATES TORQUE OF CLUTCH TO SAFE CAPACITY OF MACHINE. CLUTCH WILL SLIP AND MACHINE WILL STALL ONLY FROM OVERLOAD.

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