



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

- 1 - FLYWHEEL.
- 2 - INNER FLYWHEEL FLANGE.
- 3 - OUTER FLYWHEEL FLANGE.
- 4 - AIR DISTRIBUTOR CAP.
- 5 - CLUTCH PISTON.
- 6 - CLUTCH PISTON PACKING.
- 7 - CLUTCH PISTON FOLLOWER RING.
- 8 - CLUTCH DRIVING RING.
- 9 - FLYWHEEL TIE BOLTS.
- 10 - CLUTCH INNER DRIVING PLATE.
- 11 - CLUTCH CENTER DRIVING PLATE.
- 12 - CLUTCH OUTER DRIVING PLATE.
- 13 - CLUTCH FRICTION PLATE.
- 14 - CLUTCH FRICTION FACING AND RIVETS.
- 15 - CLUTCH RELEASE SPRINGS.
- 16 - CLUTCH RELEASE SPRING STUDS.
- 17 - CLUTCH RELEASE SPRING ADJ. NUT.
- 18 - CLUTCH ADJ. STUD.
- 19 - CLUTCH ADJ. WASHERS - $\frac{1}{8}$ " AND $\frac{1}{4}$ "
- 20 - FLYWHEEL INNER BRG. SPACER RING

- 21 - FLYWHEEL INNER BEARING.
- 22 - CLUTCH PINION
- 23 - FLYWHEEL SHAFT OUTER BEARING
- 24 - FLYWHEEL SHAFT END PLATE
- 25 - FLYWHEEL INNER BRG. CARRIER.
- 26 - FLYWHEEL INNER BRG. RETAINER RING.
- 27 - CLUTCH PINION RETAINER RING.
- 28 - FLYWHEEL OUTER BRG. CARRIER.
- 29 - FLYWHEEL OUTER BRG. CARRIER RET. RING.
- 39 - CLUTCH ADJUSTING PLUGS.
- ~~40 - CLUTCH CENTER PLATE RELEASE SPRINGS.~~
- ~~41 - CLUTCH CENTER PLATE REL. SPRING STUDS.~~
- ~~42 - CLUTCH CENTER PLATE SPRING COMP. PLUGS.~~
- ~~43 - CLUTCH CENTER PLATE RELEASE PLUNGERS.~~
- ~~44 - CLUTCH ADJ. PLUG SET SCREW.~~
- ~~45 - CLUTCH ADJUSTING PLUGS.~~
- ~~46 - CLUTCH ADJUSTING BOLTS.~~

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ADJUSTMENT

THE CLUTCH MUST RELEASE PROMPTLY A MINIMUM OF $\frac{1}{4}$ " AS MEASURED ON SPRING STUDS (16) WHEN AIR IS EXHAUSTED. IF QUICK MOVEMENT DOES NOT RESULT FROM ADJUSTMENT OF RELEASE SPRING STUDS (15) INVESTIGATE.

WHEN TRAVEL OF THE PISTON EXCEEDS $\frac{7}{16}$ " AS MEASURED ON RELEASE SPRING STUDS (16), IT SHOULD BE REDUCED TO $\frac{1}{4}$ " BY LOOSENING NUTS ON CLUTCH ADJUSTING STUDS (18), AND THEN TRANSFERRING ADJUSTING WASHERS (19) OF PROPER THICKNESS FROM OUTSIDE OF CLUTCH ADJUSTING PLUGS (39) TO INSIDE BETWEEN THE ADJUSTING PLUGS (39) AND THE INNER DRIVING PLATE (10). AFTER TRANSFERRING WASHERS (19) THE ADJUSTING PLUGS (39) SHOULD BE SCREWED IN UP TO THEIR FLANGES. THEN ADJUST NUTS ON CENTER PLATE REL. SPRING STUDS (41) FIG. A, OR RELEASE SET SCREWS (44), AND ADJUST PLUGS (45) FIG. B, SO THAT MOVEMENT OF CENTER DRIVING PLATE (11) AS MEASURED ON SPRING STUDS (41) FIG. A, OR ON BOLTS (46) FIG. B, IS ONE-HALF THE MOVEMENT OF OUTER DRIVING PLATE (12) AS MEASURED ON SPRING STUDS (16).

FOR DISASSEMBLY

- 1 - BLOCK UP RIM OF FLYWHEEL BY WEDGING BENEATH.
- 2 - DISCONNECT UNION IN AIR PIPE AND REMOVE DISTRIBUTOR CAP (4).
- 3 - REMOVE FLYWHEEL TIE BOLTS (9) LEAVING TOP TWO HALF WAY IN HOLES SLIDE OUTER FLYWHEEL FLANGE (3) OUT HORIZONTALLY UNTIL IT CAN BE LIFTED.
- 4 - UNSCREW NUTS ON ADJUSTING STUDS (18) AND SPRING STUDS (41), AND REMOVE WASHERS (19).
- 5 - SLIDE ALL CLUTCH PLATES OUT OF THE DRIVING RING (8).

FOR COMPLETE DISASSEMBLY OF CLUTCH FROM SHAFT.

- 6 - REMOVE OUTER BEARING CARRIER RETAINING RING (29).
- 7 - PULL OUTER BEARING (23) BY REMOVING SHAFT END PLATE (24) AND WEDGING BEHIND PINION RETAINER RING (27).
- 8 - PULL PINION (22) WITH STUDS AND CLAMP ACROSS SHAFT END.
- 9 - REMOVE FLYWHEEL RIM (1) BY UNSCREWING FROM INNER FLANGE (2).
- 10 - UNSCREW INNER BEARING RETAINER RING (26). REMOVE IT AND FLYWHEEL FLANGE (2).
- 11 - DRIVING OR PRYING ON THE END OF BEARING SPACER RING (20) WILL REMOVE INNER BEARING (21) FROM SHAFT.
- 12 - TO REMOVE ANNULAR PISTON FROM CYLINDER, BACK OFF THE RELEASE SPRING ADJUSTING NUTS (17), FIRST NOTING WHERE THEY WERE SET. PISTON PULLS OUT FROM CYLINDER, BUT TO AVOID DAMAGE TO LIPS OF CUP PACKING (6) REASSEMBLE WITH PARTS UNCLAMPED. WITH CYLINDER LYING HORIZONTALLY, LAY FOLLOWER RING (7) IN PLACE, INSERT PISTON CUP PACKING (6) WITH HOLES MATCHING, INSTALL PISTON (5) AND SCREW ASSEMBLY TOGETHER INSIDE CYLINDER.
- 13 - WHEN REASSEMBLING BE CERTAIN TO DRIVE CLUTCH PINION (22) TIGHT HOME. THIS IS VERY IMPORTANT.

LUBRICATION

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

AIR PRESSURE REGULATION

IS PROVIDED BY REGULATING VALVE TO MAINTAIN AIR AT PRESSURE STENCILED ON GAUGE GUARD. THIS REGULATES TORQUE OF CLUTCH TO SAFE CAPACITY OF MACHINE. CLUTCH WILL SLIP AND FLYWHEEL STALL ONLY FROM OVERLOAD.

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