



NOTE: WIRE TOGETHER AND TACK WELD ALL CAP SCREW HEADS INSIDE OF CLUTCH

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 CLUTCH FLANGE.
- 3 OUTER CLUTCH FLANGE.
- 4 AIR DISTRIBUTOR CAP.
- 5 CLUTCH PISTON.
- 6 CLUTCH PISTON PACKING.
- 7 CLUTCH PISTON FOLLOWER RING.
- 9 CLUTCH TIE BOLTS.
- 12 CLUTCH OUTER DRIVING PLATE.
- 13 CLUTCH FRICTION PLATE.

- 14 CLUTCH FRICTION SEGMENTS AND RIVETS.
- 15 CLUTCH RELEASE SPRINGS.
- 16 CLUTCH RELEASE SPRING STUDS.
- 17 CLUTCH RELEASE SPRING ADJ. NUTS.
- 19 CLUTCH ADJ. WASHERS.
- 20 CLUTCH BEARING SPACER RING.
- 21 CLUTCH INNER BEARING.
- 22 CLUTCH PINION.
- 23 CLUTCH OUTER BEARING.
- 24 CLUTCH SHAFT END PLATE.
- 26 CLUTCH BRG. RETAINER RING.
- 27 CLUTCH PINION RETAINER RING.
- 54 CLUTCH OUTER BRG. CLAMP RING.
- 57 CLUTCH INNER FLANGE INSERT.
- 58 CLUTCH OUTER FLANGE INSERT.

ADJUSTMENT

THE CLUTCH MUST RELEASE PROMPTLY A MINIMUM OF 1/8", AS MEASURED ON SPRING STUDS(16), WHEN AIR IS EXHAUSTED FROM CLUTCH PISTON (5). IF ADJUSTMENT OF RELEASE SPRINGS (15) DOES NOT RESULT IN QUICK OPENING, INVESTIGATE.

WHEN TRAVEL OF PISTON (5) EXCEEDS 1/4", IT SHOULD BE REDUCED TO 1/8" AS FOLLOWS:

- 1 - LOOSEN NUTS ON CLUTCH TIE BOLTS (9).
- 2 - USING SET SCREWS (SUPPLIED BY CUSTOMER) AT THE SIDE OF CLUTCH TIE BOLTS (9) TO LOOSEN OUTER CLUTCH FLANGE (3) TO FACILITATE REMOVAL OF WASHERS (19), REMOVE SUFFICIENT ADJUSTING WASHERS (19) FROM UNDER THE HEAD OF THE CAP SCREWS TO REDUCE TRAVEL OF CLUTCH PISTON (5) TO 1/8".
- 3 - REMOVE THE SET SCREWS AT THE SIDE OF CLUTCH TIE BOLTS (9) AND TIGHTEN THE CLUTCH TIE BOLT NUTS TO CLAMP THE CLUTCH OUTER FLANGE (3) FIRMLY AGAINST ADJUSTING WASHERS (19).

DISSASSEMBLY OF CLUTCH FROM PINION SHAFT

- 1 - DISCONNECT CLUTCH AIR SUPPLY AND REMOVE ROTARY AIR DISTRIBUTOR OR CLUTCH VALVE.
- 2 - BLOCK UP THE FLYWHEEL WITH STAMPED WORD "TOP" UPPERMOST BY WEDGING BENEATH RIM (1).
- 3 - REMOVE CLUTCH TIE BOLTS (9), LEAVING THE TOP TWO HALFWAY IN HOLES. SLIDE OUT HORIZONTALLY, UNTIL IT CAN BE LIFTED, THE CLUTCH OUTER FLANGE (3), CONTAINING THE PISTON (5), THE OUTER DRIVING PLATE (12), AND THE OUTER BEARING ASSEMBLY. THEN SLIDE OUT THE CLUTCH FRICTION PLATE (13).
- 4 - REMOVE THE SHAFT END PLATE (24), THE OUTER BEARING CLAMP RING (54), THE INNER RACE OF OUTER BEARING (23), AND PINION RETAINER RING (27).
- 5 - PULL THE CLUTCH PINION KEYS AND REMOVE CLUTCH PINION (22), USING PULLING STUDS AND PLATE ACROSS THE END OF THE PINION SHAFT.
- 6 - UNSCREW CAP SCREWS FROM THE INNER FLANGE (2) AND REMOVE THE FLYWHEEL (1).
- 7 - REMOVE THE INNER FLANGE (2), CONTAINING INNER CLUTCH BEARING (21) AND BEARING RETAINER RING (26).
- 8 - TO REMOVE THE INNER CLUTCH BEARING (21) FROM THE INNER FLANGE (2), DISSASSEMBLE THE BEARING RETAINER RING (26), AND THEN DRIVE AGAINST INNER FLANGE INSERT (57), TAKING CARE NOT TO DAMAGE THE CAPILLARY GROOVES.
- 9 - TO REMOVE THE OUTER CLUTCH BEARING (23), SLIGHTLY BACK OFF FOUR LOCKING HOLLOW SET SCREWS "B" AND FOUR SET SCREWS "A". THEN REMOVE THE AIR DISTRIBUTOR CAP (4) AND DRIVE AGAINST THE OUTER FLANGE INSERT (58), TAKING CARE NOT TO DAMAGE THE CAPILLARY GROOVES.
- 10 - TO REMOVE THE ANNULAR AIR PISTON (5) FROM THE OUTER FLANGE (3), UNSCREW THE RELEASE SPRING NUTS, FIRST NOTING WHERE THEY HAD BEEN SET. REMOVE THE SPRINGS (15) AND THE OUTER DRIVING PLATE (12). THE PISTON ASSEMBLY PULLS OUT FROM THE CYLINDER. TO AVOID DAMAGE TO THE LIPS OF THE PISTON PACKING (6), RE-ASSEMBLE WITH THE PARTS UNCLAMPED. WITH THE OUTER FLANGE (3) LYING HORIZONTALLY, PLACE THE FOLLOWER (7) IN THE CYLINDER, INSTALL THE PISTON PACKING (6) WITH THE HOLES MATCHING, INSTALL PISTON (5) AND BOLT THE ASSEMBLY TOGETHER WHILE INSIDE THE CYLINDER. WIRE TOGETHER ALL THE CAP SCREW HEADS.
- 11 - WHEN RE-ASSEMBLING THE CLUTCH BE CERTAIN TO DRIVE THE CLUTCH PINION (22) TIGHTLY HOME. WIRE TOGETHER ALL CAP SCREW HEADS INSIDE OF THE CLUTCH.
- 12 - IF THE DISTRIBUTOR CAP (4) HAS BEEN REMOVED FROM THE OUTER CLUTCH FLANGE (3), CHECK AND SEE THAT THE LOCKING SET SCREWS "B" AND "A" ARE BACKED OFF SLIGHTLY. BOLT THE DISTRIBUTOR CAP (4) SECURELY TO THE OUTER FLANGE (3). TIGHTEN SCREWS "A" AGAINST THE OUTER BEARING CLAMP RING (54) AND LOCK WITH HOLLOW SET SCREWS "B".

LUBRICATION

THE CLUTCH INNER BEARINGS (21) AND THE CLUTCH OUTER BEARINGS (23) SHOULD BE LUBRICATED WITH A MODERATE AMOUNT OF GREASE AT TWO WEEK INTERVALS. EXCESS FORCES PAST THE GREASE RETAINING CAPILLARIES AND IS THROWN OUTSIDE OF THE CLUTCH. THE PISTON PACKING IS LUBRICATED AUTOMATICALLY BY A CLUTCH AIR OPERATED LUBRICATOR.

AIR PRESSURE REGULATION

THE REGULATOR IS ADJUSTED TO A VALUE ON AN INDICATOR PLATE (75 PSI), INSTALLED ON THE REGULATOR BY AJAX. THIS PRESSURE SETTING ASSURES A SAFE CLUTCH TORQUE CAPACITY, THE CLUTCH SLIPS AND THE MACHINE STALLS ONLY FROM OVERLOAD.

CLUTCH CYLINDER CLEANING

REMOVE PIPE PLUGS (C) IN OUTER CLUTCH FLANGE (3) AND, WITH FLYWHEEL REVOLVING, ACTUATE THE CLUTCH VALVE WHICH ALLOWS THE AIR TO BLOW AWAY ANY ACCUMULATION IN THE CLUTCH CYLINDER.