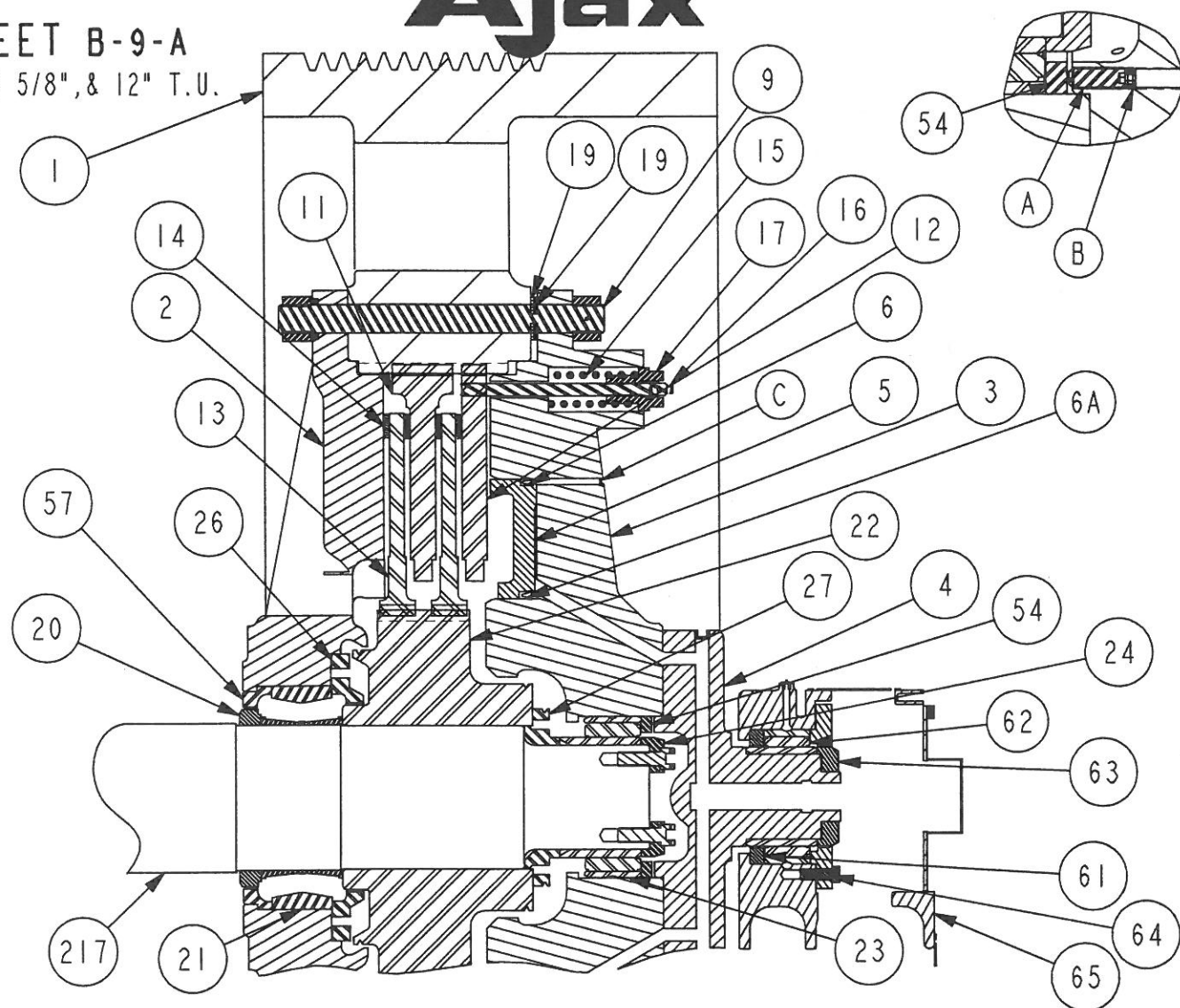


# Ajax

SHEET B-9-A

7", 7 5/8", & 12" T.U.



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|----------------------------------|--|
| 1 CLUTCH FLYWHEEL RIM            | 20 CLUTCH BEARING SPACER RING                |
| 2 INNER CLUTCH FLANGE            | 21 TAPERED ROLLER BEARING                    |
| 3 OUTER CLUTCH FLANGE            | 22 CLUTCH PINION                             |
| 4 AIR DISTRIBUTOR CAP            | 23 CYLINDRICAL ROLLER BEARING                |
| 5 CLUTCH PISTON                  | 24 CLUTCH SHAFT END PLATE                    |
| 6 CLUTCH PISTON PACKING - OUTER  | 26 INNER CLUTCH BEARING RETAINER RING        |
| 6A CLUTCH PISTON PACKING - INNER | 27 CLUTCH PINION RETAINER RING               |
| 9 CLUTCH TIE BOLT W/NUTS         | 54 OUTER CLUTCH BEARING CLAMP RING           |
| 11 CLUTCH OUTER DRIVING PLATE    | 57 INNER CLUTCH FLANGE INSERT                |
| 12 CLUTCH OUTER DRIVING PLATE    | 61 BEARING SPACER RING                       |
| 13 CLUTCH FRICTION PLATE         | 62 OUTBOARD BEARING                          |
| 14 CLUTCH FRICTION SEGMENT       | 63 OUTBOARD BEARING INNER RACE RETAINER RING |
| 15 CLUTCH RELEASE SPRING         | 64 BEARING RETAINER CAP                      |
| 16 CLUTCH RELEASE SPRING STUD    | 65 OUTBOARD BEARING HOUSING                  |
| 17 CLUTCH RELEASE SPRING NUT     | 217 PINION SHAFT                             |
| 19 CLUTCH ADJUSTMENT WASHER      |  |

WHEN ORDERING REPLACEMENTS STATE SERIAL NUMBER AND SIZE STAMPED ON NAMEPLATE OF MACHINE AND DESIGNATE PARTS BY BOTH NAME AND NUMBER

THE AJAX MANUFACTURING COMPANY  
CLEVELAND, OHIO 44117

# Ajax

## ADJUSTMENT

THE CLUTCH MUST RELEASE PROMPTLY A MINIMUM OF 1/4", 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 3/8" IT SHOULD BE REDUCED TO 1/4" AS FOLLOWS:

- 1- LOOSEN NUTS ON CLUTCH TIE BOLTS (9)
- 2- REMOVE SUFFICIENT ADJUSTING WASHERS (19) FROM UNDER HEAD OF SOCKET HEAD CAP SCREWS TO REDUCE TRAVEL OF CLUTCH PISTON (5) TO 1/4", USING SET SCREWS AT SIDE OF CLUTCH TIE BOLTS (9) AS JACK SCREWS TO LOOSEN OUTER CLUTCH FLANGE (3) TO FACILITATE REMOVAL OF WASHERS.
- 3- BACK OFF JACK SCREWS SUFFICIENTLY TO ALLOW NUTS ON CLUTCH TIE BOLTS (9) TO BE DRAWN UP TIGHT WITH OUTER CLUTCH FLANGE (3) SEATING AGAINST ADJUSTING WASHERS (19). ADJUST SET SCREWS TO A FIRM SEAT AGAINST RIM OF FLYWHEEL (1).

## FOR DISASSEMBLY OF CLUTCH FROM SHAFT

- 1 - BLOCK UP FLYWHEEL WITH STENCIL "TOP" UPPERMOST BY WEDGING BENEATH RIM (1).
- 2 - DISCONNECT MAIN AIR SUPPLY LINE AND REMOVE ROTARY AIR DISTRIBUTOR.
- 3 - 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) & (13) OUT OF FLYWHEEL (1).
- 4 - REMOVE SHAFT END PLATE (24), INNER RACE OF BEARING (23) AND PINION RETAINER RING (27).
- 5 - PULL CLUTCH PINION (22) WITH STUDS AND CLAMP ACROSS SHAFT END, AFTER FIRST PULLING KEYS.
- 6 - REMOVE FLYWHEEL (1) BY UNSCREWING CAP SCREWS FROM INNER FLANGE (2).
- 7 - REMOVE INNER FLANGE (2) WITH INNER CLUTCH BEARING (21), AND CLUTCH BEARING RETAINER RING (26) AS A UNIT.
- 8 - TO REMOVE INNER CLUTCH BEARING (21) FROM INNER FLANGE (2), DISASSEMBLE BEARING RETAINER RING (26), THEN DRIVE AGAINST INNER FLANGE INSERT (57), TAKING CARE NOT TO DAMAGE CAPILLARY GROOVES.
- 9 - TO REMOVE OUTER CLUTCH BEARING (23), SLIGHTLY BACK OFF FOUR LOCKING SET SCREWS "B" AND FOUR SET SCREWS "A". THEN REMOVE AIR DISTRIBUTOR CAP (4), AND DRIVE AGAINST OUTER FLANGE INSERT (58), TAKING CARE NOT TO DAMAGE CAPILLARY GROOVES.
- 10 - TO REMOVE ANNULAR PISTON (5) FROM OUTER FLANGE (3), UNSCREW RELEASE SPRING ADJUSTING NUTS (17), FIRST NOTING WHERE THEY WERE SET. REMOVE SPRINGS (15) AND OUTER DRIVING PLATE (12). THE PISTON ASSEMBLY PULLS OUT FROM CYLINDER.
- 11 - WHEN REASSEMBLING CLUTCH BE CERTAIN TO DRIVE CLUTCH PINION (22) TIGHT HOME. WIRE TOGETHER ALL CAP SCREW HEADS INSIDE OF CLUTCH.
- 12 - IF DISTRIBUTOR CAP (4) HAS BEEN REMOVED FROM OUTER CLUTCH FLANGE (3) CHECK THAT LOCKING SET SCREWS "B" AND "A" ARE SLIGHTLY BACKED OFF. BOLT DISTRIBUTOR CAP (4) SECURELY TO OUTER FLANGE (3), TIGHTEN SCREWS "A" AGAINST OUTER CLUTCH BEARING CLAMP RING (54) AND LOCK WITH SCREWS "B".

## LUBRICATION

THE CLUTCH INNER BEARING (21), AND CLUTCH OUTER BEARING (23) SHOULD BE LUBRICATED WITH A MODERATE AMOUNT OF GREASE AT TWO WEEK INTERVALS; EXCESS GREASE WILL ONLY FORCE PAST THE RETAINING CAPILLARIES AND THROW TO OUTSIDE OF CLUTCH. THE AIR LUBRICATION IN THE CLUTCH VALVE AIR LINE PROVIDES LUBRICATING OIL TO THE CLUTCH PISTON PACKINGS (6,6A).

## 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, IF AIR IS KEPT AT PROPER PRESSURE AND VALVES ARE OPENING PROPERLY.

## TO CLEAN CLUTCH CYLINDER

REMOVE PIPE PLUGS (C) IN OUTER CLUTCH FLANGE (3) AND, WITH FLYWHEEL SLOWLY REVOLVING, CYCLE CLUTCH VALVE. ALLOWING AIR TO BLOW ANY ACCUMULATION IN CYLINDER TO OUTSIDE.

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