AIR CLUTCH PARTS LIST

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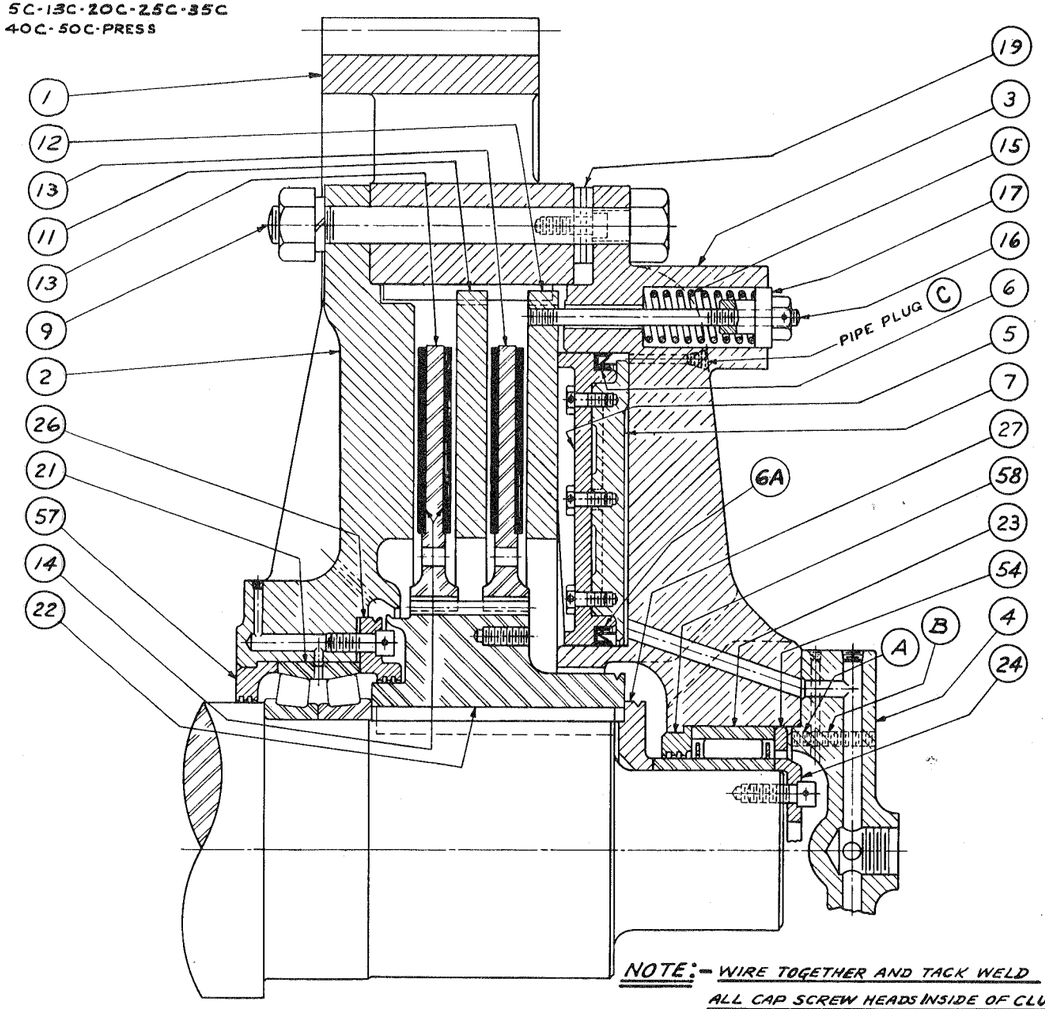
SHEET B-7

5C-13C-20C-25C-35C
40C-50C-PRESS



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 CAP.
5 CLUTCH PISTON.
6 & 6A CLUTCH PISTON PACKING. (INNER & OUTER)
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.
19 CLUTCH ADJ. WASHERS.
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.
54 OUTER CLUTCH BRG. CLAMP RING.
57 INNER CLUTCH FLANGE INSERT.
58 OUTER CLUTCH FLANGE INSERT.

THE AJAX MANUFACTURING COMPANY
CLEVELAND (17), OHIO.

AIR CLUTCH INSTRUCTIONS

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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 OPENING DOES NOT RESULT FROM ADJUSTMENT OF RELEASE SPRINGS (15), INVESTIGATE.

WHEN TRAVEL OF PISTON EXCEEDS $\frac{3}{8}$" IT SHOULD BE REDUCED TO $\frac{1}{4}$" AS FOLLOWS:

1 - LOOSEN NUTS ON CLUTCH TIE BOLTS (9).
2 - REMOVE SUFFICIENT ADJUSTING WASHERS (19) FROM UNDER HEAD OF SOCKET SCREWS TO REDUCE TRAVEL OF CLUTCH PISTON (5) TO $\frac{1}{4}$", USING SET SCREWS IN OUTER CLUTCH FLANGE (3) AS JACK SCREWS TO LOOSEN OUTER CLUTCH FLANGE (3) TO FACILITATE REMOVAL OF ADJUSTING WASHERS (19).
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 MAIN GEAR (1).

FOR DISASSEMBLY OF CLUTCH FROM SHAFT

1 - BLOCK UP GEAR RIM 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) AND (13) OUT OF GEAR RIM (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 GEAR RIM (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 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 DRIVING PLATE (12). THE PISTON ASSEMBLY PULLS OUT FROM CYLINDER, BUT TO AVOID DAMAGE TO LIPS OF PISTON P'KG. (6 & 6A), REASSEMBLE WITH PARTS UNCLAMPED. WITH OUTER FLANGE (3) LYING HORIZONTALLY, PLACE FOLLOWER RING (7) IN CYLINDER, INSERT PISTON PACKING (6 & 6A) WITH EXPANDERS, INSTALL PISTON (5) AND BOLT ASSEMBLY TOGETHER INSIDE CYLINDER, THEN WIRE 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.
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

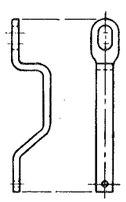
THE CLUTCH INNER BEARING (21), AND CLUTCH OUTER BEARING (23) SHOULD BE LUBRICATED WITH A MODERATE AMOUNT OF GREASE AT TWO WEEK INTERVALS; EXCESS GREASE WILL ONLY FORCE PAST THE RETAINING CAPILLARIES AND THROW TO OUTSIDE OF CLUTCH.

LUBRICATE PISTON P'K'G. (6 & 6A) WEEKLY, WITH HOUGHTON HYDRO-DRIVE M.I.H.-30 OIL, OR EQUIVALENT, THRU PETCOCK IN CLUTCH AIR VALVE.

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.

* A HOOK AS SHOWN IN SKETCH, IS FURNISHED FOR DISASSEMBLY CLUTCH PLATES (11), (12), AND (13).



TO CLEAN CLUTCH CYLINDER

REMOVE PIPE PLUGS (C) IN OUTER CLUTCH FLANGE (3) AND, WITH FLYWHEEL (1) REVOLVING, OPEN CLUTCH VALVE WITH FOOT TREADLE, ALLOWING AIR TO BLOW ANY ACCUMULATION IN CYLINDER TO OUTSIDE.

THE AJAX MANUFACTURING COMPANY
CLEVELAND (17), OHIO.

Tech. Report No: ER0036	Revision: A	AjaxCECO

Clutch Travel and Spring Setting Procedure for 2000 Ton Ajax Forging Press S/N 4491

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. Clutch travel should be between 1/4” and 3/8”.

For clutch adjustment procedure, see Parts and Instruction Sheet “B-7”

The CLUTCH RELEASE SPRINGS have a free length = 8 1/2".

The nominal set length of the CLUTCH RELEASE SPRINGS is 6 3/8” [or 2 1/8” compression].

Insert the (12) CLUTCH RELEASE SPRINGS into counter bores around each CLUTCH RELEASE SPRING STUD. Install the CLUTCH RELEASE SPRING GUIDE CUP over each spring. Secure each with the CLUTCH RELEASE SPRING ADJUSTMENT NUT. Adjust to suggested length by contacting the spring at its free length, measure from the top of the clutch flange boss to the top of the nut, compress the spring 54 mm (2.12") from the free length position. Pin each NUT in place with a cotter pin, using the slotted hole in the NUT and the drilled hole in the STUD for each of the (12) assemblies. Install 1/4” (6 mm) diameter safety cable through the outer holes provided in the (12) STUDS, and secure with (2) cable clips.