

CLINTON'S

Kansai

FLAT ACTION THREAD CUTTER WITH
SELF CONTAINED AIR MOTOR

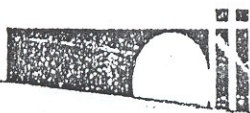
MODEL 2200FCA-V-C

FOR

KANSAI 8003-W-8042

CHAINSTITCH
&
COVER STITCH

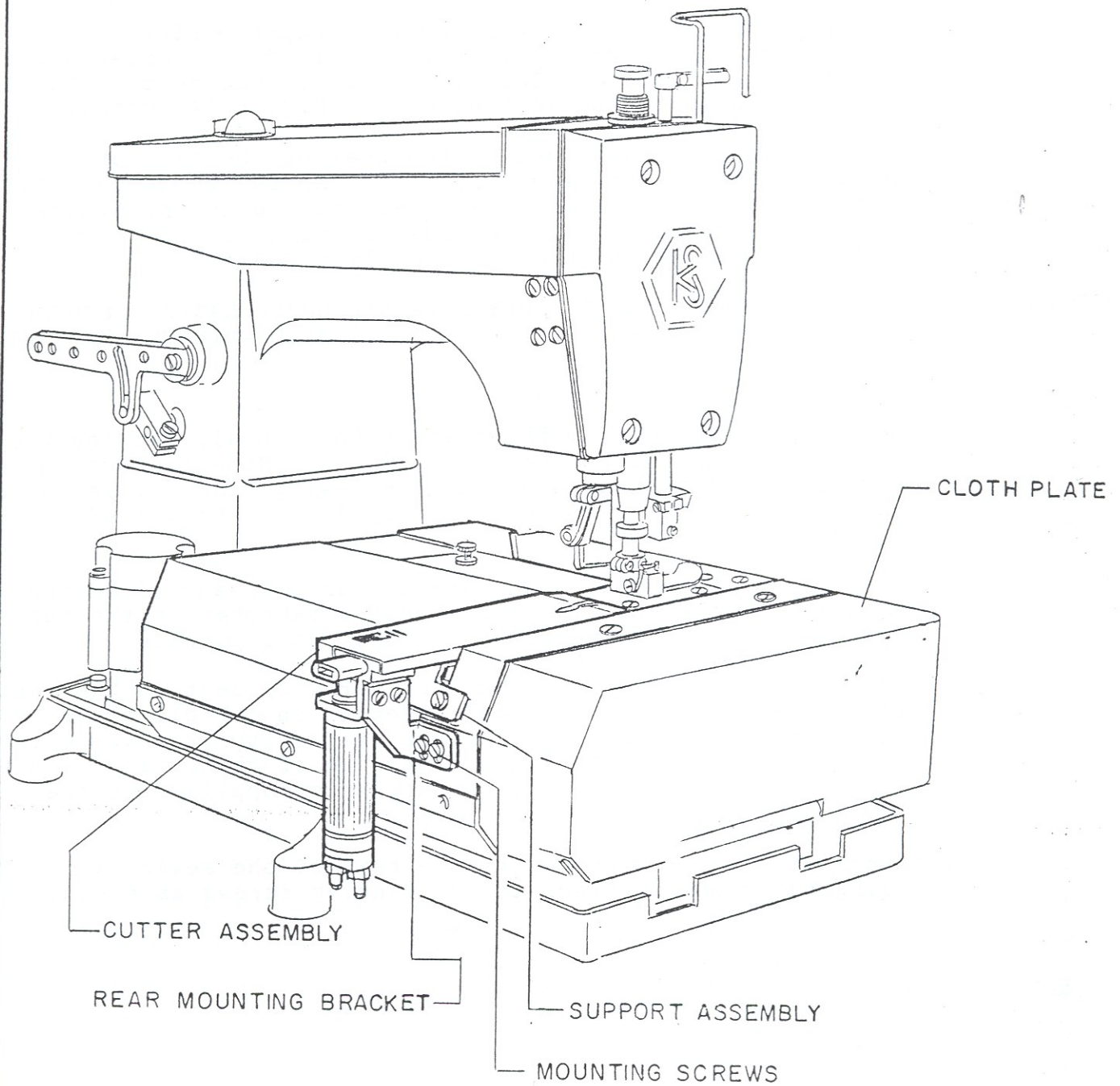
SERVICE MANUAL



CLINTON INDUSTRIES INC.

LOJA

TYPICAL INSTALLATION INSTRUCTIONS
MODEL 2200 FCA FOR KANSAI 8003D/W-8042
(CLINTON ASSEMBLY N^o. 80-0473-02)



I. GENERAL DESCRIPTION

- A. The Clinton Model 2200FCA is a compact self contained air motor cutter for Flatbed/Chainstitch machines. This unit, when pulsed, operates at approximately 2000 RPM. It contains carbide tipped blades.
- B. The cutter is installed behind the throat plate and cleanly cuts the threads at both ends of a sewn fabric. The cutting action is automatic at the leading edge and by operator handling at the completion of the sewing cycle.
- C. Clean filtered air is necessary for proper performance and long life. A 5 micron filter is supplied when ordered with the filter, oiler, regulator, and gage. See section VI for proper Cleaning & Lubricating of F.O.R.G. & Air Motor.
- D. Two fittings are attached to the rear of the air motor. The brass fitting is the input fitting. Approx 25 to 30 P.S.I. are required. The stainless steel fitting is the exhaust fitting. Attached to the exhaust fitting is a 24" length of 1/4" dia. tubing which acts to minimize noise.

CAUTION: DO NOT DISASSEMBLE OR APPLY EXTERNAL UNREGULATED PRESSURE TO THE AIR MOTOR ASSEMBLY. THIS ACTION WILL VOID THE WARRANTY.

II. INSTALLATION PROCEDURE

- A. Select a template from the rear of the manual, showing the mounting of the cutter to your machine. Note the cut-out dimensions of the table behind the sewing head. This may be outlined from the template and shaped with the use of a drill and a saber saw.
- B. Remove the cloth plate and fabric guard, if any, from the machine. Using the dimensions on the sketches in the rear of the manual, trim these pieces to the required size.
- C. Remove the top oil cover mounting screw closest to the throat plate. Place the 2200 Cutter Assembly on the oil cover, with the mounting lug snugly set into the cavity from where the screw was removed. Lock the front lug of the cutter with the mounting screw supplied (if no screw is supplied use the existing screw).
- D. Fasten the motor assembly to the rear of the sewing machine using the mounting bracket and mounting screws as shown.

III. AIR CIRCUIT

(When using the Electric Eye refer to the Air Circuit in Electric Eye Manual).

VENTURI SYSTEMS SUPPLIED WITH CLINTON CUTTERS SHOULD BE INSTALLED AS FOLLOWS:

- A. Install the air valve assembly between the motor and the treadle.
- B. Place the venturi as close to the cutter as space permits. Do not exceed a distance of two (2) feet from the cutter.
- C. Keep the vacuum and air lines free of knots or kinks.
- D. Check for proper line air pressure (approximately 80 to 90 PSI).
- E. Run the output exhaust tube of the motor & venturi into a waste container. This will cut down the noise level. (The container should have an exhaust port to prevent back pressure). Vacuum lines from the cutter and venturi to the waste container should be down hill.
- F. See drawing #ML2100-28 & ML2100-29 for the installation of the Air Valve Assembly and Venturi.

IV. OPERATION

- A. Set the regulator between 25 & 30 PSI.
- B. With Venturi adjusting screw closed, loosen the nut on the Venturi. Turn the screw counterclockwise one half turn at a time, until the desired vacuum pull is reached. Then lock the nut on the adjusting screw. In most applications, 1 to 2 full turns of the screw will provide sufficient vacuum. (YOU ARE NOW READY FOR OPERATION)

NOTE: USE ONLY THE AMOUNT OF VACUUM NEEDED FOR EFFECTIVE OPERATION. TOO MUCH VACUUM MAY INTERFERE WITH MATERIAL FEED, AND CAUSE UNNECESSARY WASTE OF COMPRESSED AIR.

V. TROUBLE-SHOOTING

A. Cutter Assembly not Cutting

1. Remove the cutter from the machine leaving the air line attached. Remove the guard from cutter and check to see if the motor is turning by depressing the treadle. If the motor is turning go to step 2; if not, remove the screw holding the link to the motor eccentric (be careful not to lose the bushing located in the link). Again check to see if the motor is turning. If not go to section V, item B.

2. Remove the blade assembly from the cutter housing. Blow out any lint or thread built-up inside the housing.
3. Check to see if there is any thread or lint trapped between the movable blade and the stationary blade. Clean if required.
4. Visually check the blades for any nick or chips in the carbide. If the blades are nicked or chipped return the blades to Clinton Industries Inc. for re-sharpening.
5. If there are no nicks or chips and the blade housing is clean re-assemble the unit and check to see if the unit is cutting.
6. If it is not cutting loosen set screw item 19 # 30-0995-01, then turn blade adjusting screw, item 15, # 33-0102-03 1/8 one turn at a time checking after each turn to see if the blades will cut. When they start cutting lock set screw # 30-0995-01 and remount the unit to the machine.

NOTE: DO NOT OVER ADJUST THE BLADES: THIS MAY CAUSE PREMATURE FAILURE OF CUTTING UNIT.

B. Motor not turning.

1. Disconnect the air input tube (brass fitting) and place a few drops of Clinton Ind. air motor cleaner fluid into the input fitting. Turn the motor eccentric by hand a few times to get the cleaner into the motor. Then connect the air input tube to the unit and see if the motor turns. Repeat the above instruction if necessary.
2. When the motor is turning disconnect the air input tube and place a few drops of Clinton air motor lube into the same brass fitting. Connect the input tube to the unit, re-assemble and remount to the machine.

C. Vacuum System Inoperative

1. Check for clogging in the cutter, hoses and the venturi.
2. Check for excessive moisture in the vacuum hoses.
3. Make sure all hoses are secured properly and not kinked or knotted.
4. Clean the filter on the F.O.R.G. as may be necessary.

VI. CLEANING OF AIR MOTOR & AIR FILTER

A. Unlike mechanical driven chain cutters, the air motor driven chain cutters are equipped with a precision designed air motor which is practically maintenance free. But, in plants where the compressed air shows the presence of water and other contaminants, certain measures should be taken. This includes the following:

1. Cleaning the air filter.
2. Flushing and lubricating the air motor. For this purpose there are two different solutions available from Clinton. (1) An air motor cleaning solution (Clinton part #10-1243-01) and (2) an air motor lubricating fluid (Clinton part #10-1244-01).

B. A visible coating of dirt or contaminants on the filter element or excessive RPM drop or stalling of air motor may be an indication that cleaning and lubrication are necessary.

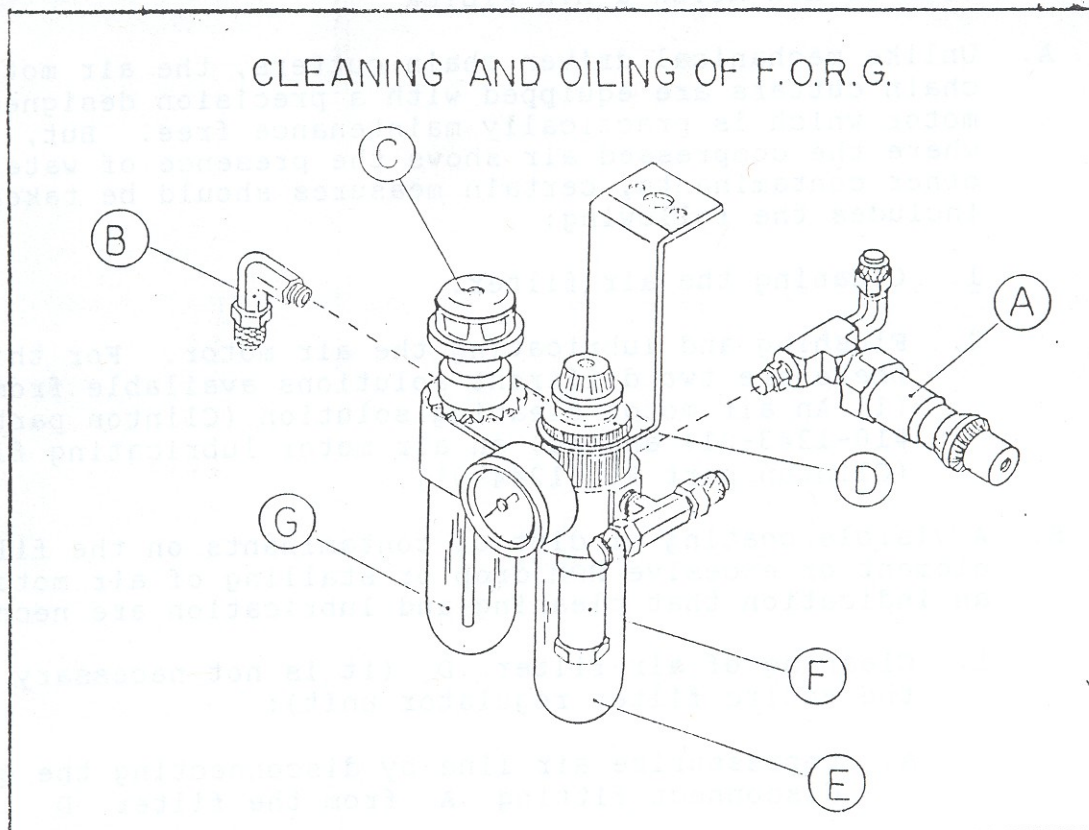
1. Cleaning of air filter D (it is not necessary to remove the entire filter regulator unit):
 - a. Depressurize air line by disconnecting the quick disconnect fitting A from the filter D.
 - b. Remove the plastic bowl E by turning the bowl counter clockwise.
 - c. Blow away any visible dirt or contaminants off the filter element F. If this doesn't remove all the dirt, wash the filter element with household soap or replace it.
 - d. Wash filter plastic bowl with household soap and put it back on the filter unit.

NOTE: IF AFTER CLEANING THE FILTER, STALLING AND DROP OF RPM OF THE AIR MOTOR STILL EXIST, CLEANING AND LUBRICATION OF THE AIR MOTOR MAY BE NECESSARY. IN THAT CASE FOLLOW THESE INSTRUCTION:

C. Air Motor Flushing and Lubrication.

1. Disconnect air supply line from the F.O.R.G. unit (filter, oil, regulator, and gauge unit) Fig. 1, by removing the female quick disconnect A.
2. Disconnect air motor inlet tubing at the oiler B solution bottle, fill the air motor inlet tubing with the motor cleaner (part #30-2501-01) and connect the tubing back to the oiler fitting.

CLEANING AND OILING OF F.O.R.G.



3. Reconnect the air supply and operate the cutter for approximately one minute, or until all the solution has been flushed out of the motor inlet tubing. This action will force the cleaning solution into the air motor, therefore, flushing all the contaminants out of it. Repeat this step if necessary.

D. Lubrication of Air Motor

1. Disconnect air supply line and air motor inlet tubing as indicated above in steps A and B.
2. Using the nozzle of the air lubricant solution bottle (part #30-2502-01) put 5 to 6 drops of lubricant into the air motor inlet tubing and connect inlet tubing back to the oiler fitting B.
3. Remove oiler plastic bowl G and fill it with the lubricant solution.
4. Reconnect the air supply line A and operate the cutter for approximately one minute. Adjust the oiler adjusting screw C to the almost close position. Only a light mist of oil should be entering the air stream.

** A/C MARUAL*

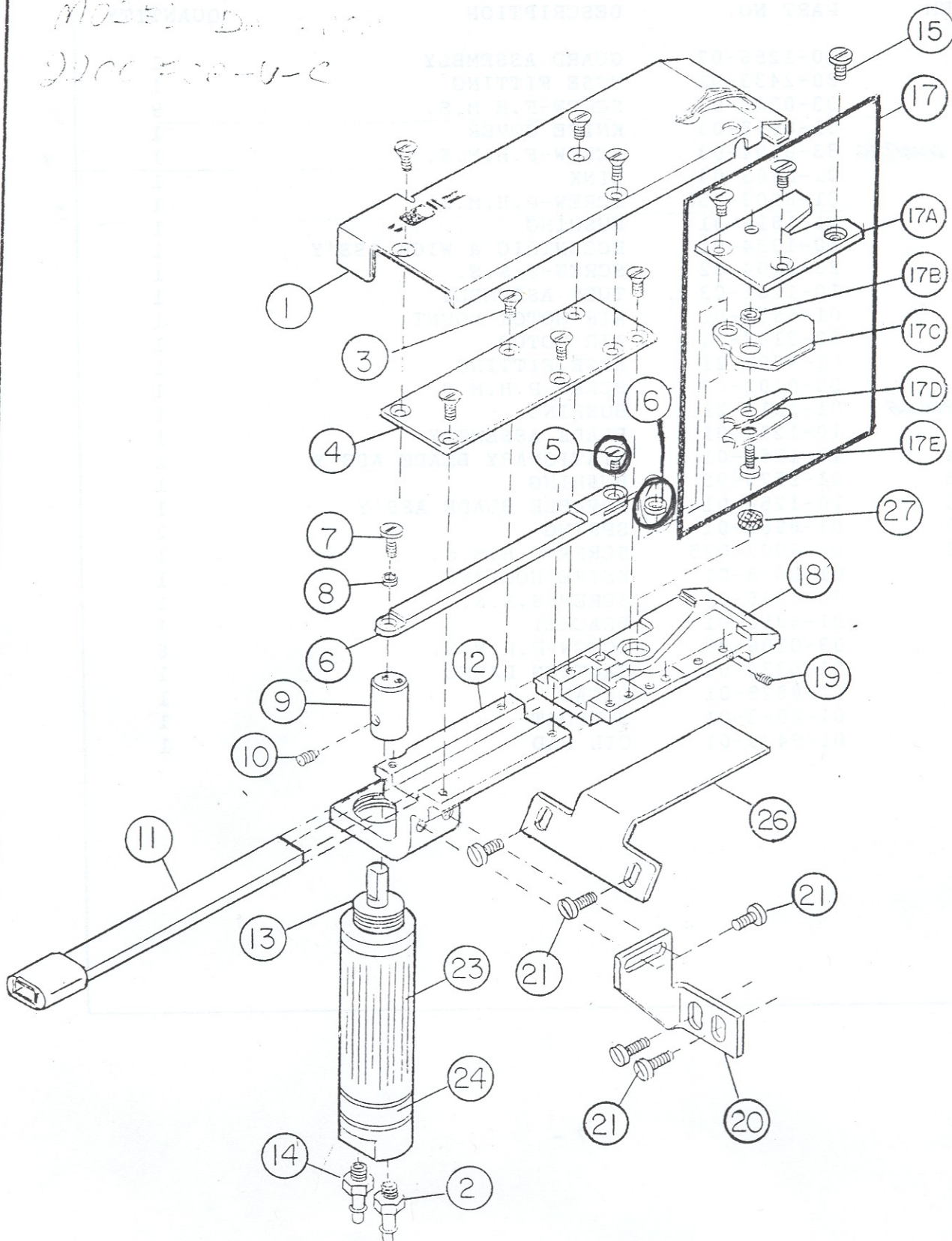
GALONERO

KANSAI SPECIAL

ML 2200-7-1A

CUTTER ASSEMBLY BREAKDOWN
MODEL 2200 FCA FOR KANSAI 8003D / W-8042
(CLINTON ASSEMBLY N^o. 80-0473-02)

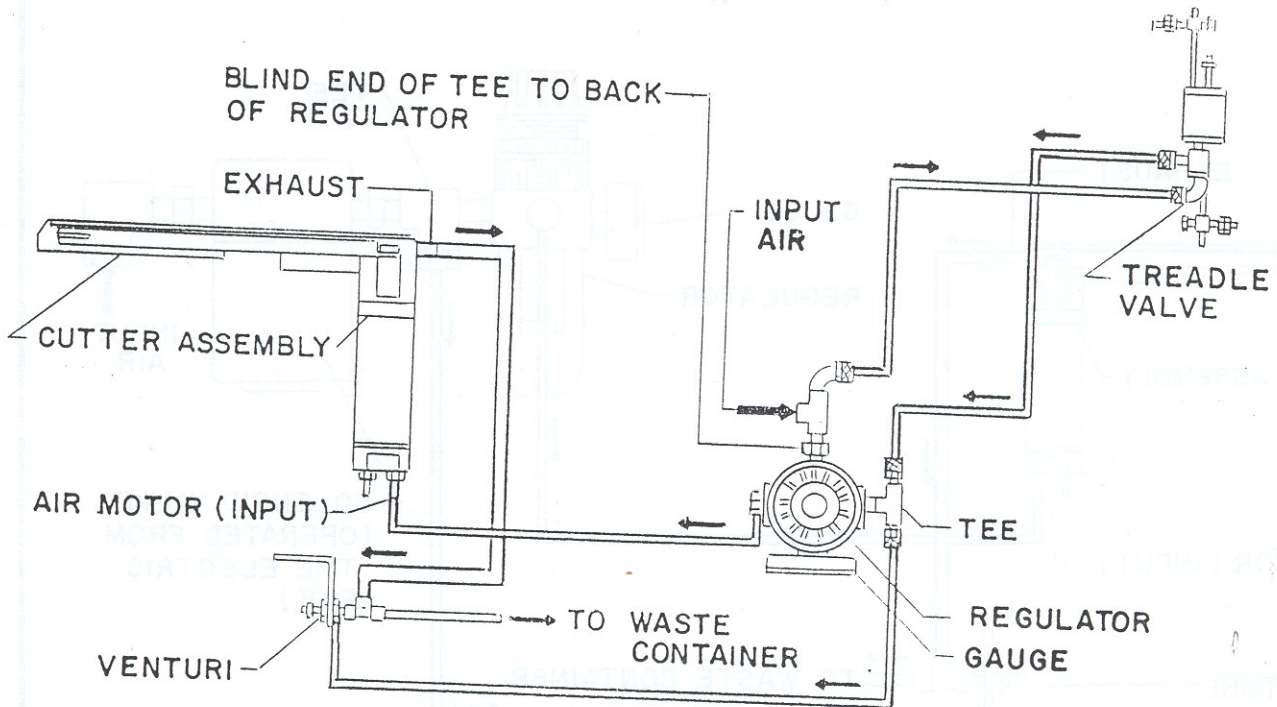
MODEL 2200 FCA
2200 FCA-U-C



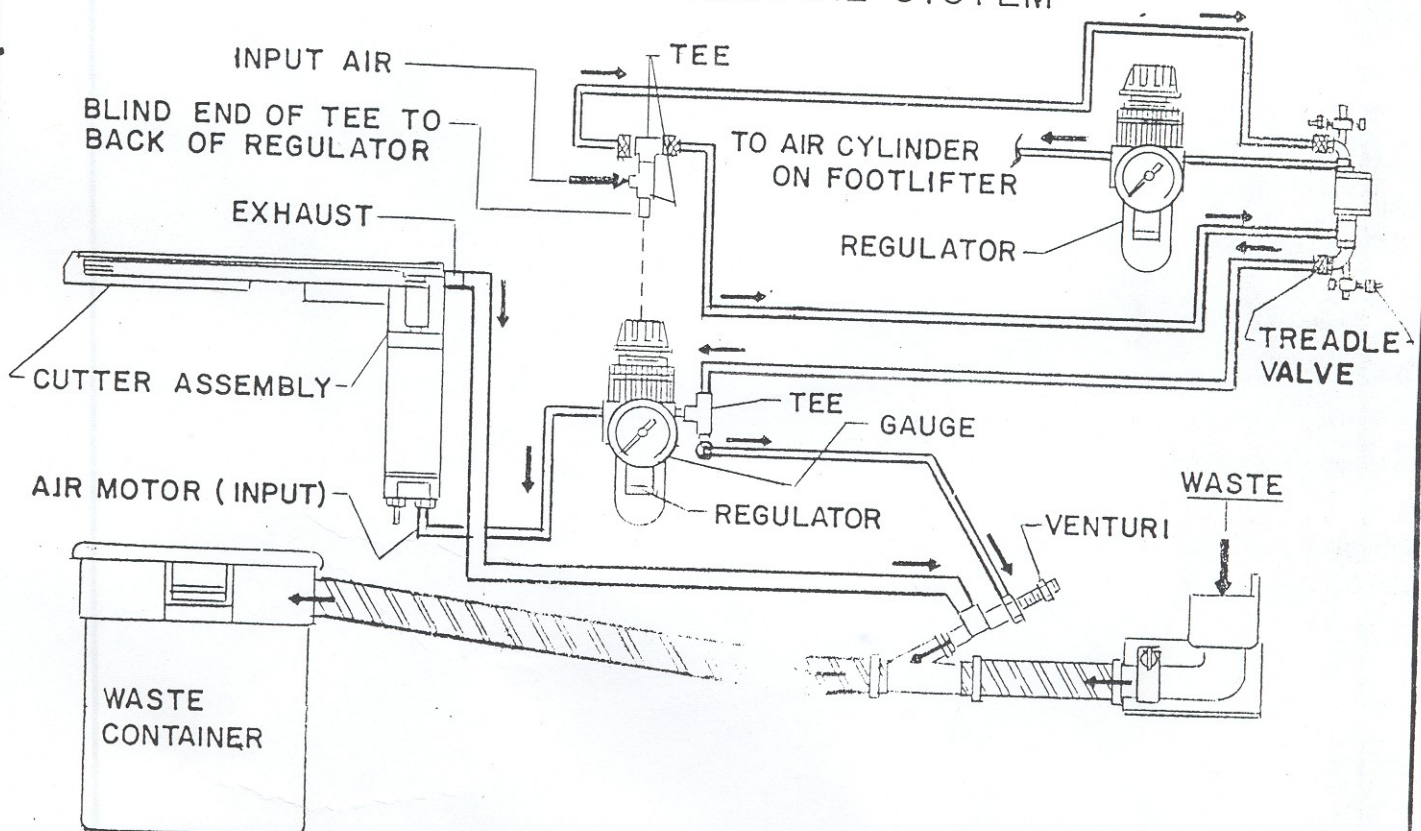
CUTTER ASSEMBLY BREAKDOWN
80-0473-02, KANSAI 8003-W-8042

ITEM	PART NO.	DESCRIPTION	QUANTITY
1	10-1256-07	GUARD ASSEMBLY	1
2	30-2433-01	HOSE FITTING	1
3	33-0302-03	SCREW-F.H.M.S.	9
4	01-8967-03	KNIFE COVER	1
* 5 <i>PARAFUSO</i>	33-0504-03	SCREW-F.H.M.S.	1
6	01-8983-04	LINK	1
7	01-6003-050	SCREW-P.H.M.S.	1
8	01-1819-31	BUSHING	1
9	10-1334-01	ECCENTRIC & WICK ASS'Y	1
10	33-2104-02	SCREW-S.S.S.	1
11	10-1261-03	TUBE ASSEMBLY	1
12	01-8957-01	AIR MOTOR MOUNT	1
13	30-2147-01	AIR MOTOR	1
14	01-4707-21	HOSE FITTING	1
15	33-0102-03	SCREW-P.H.M.S.	1
* 16 <i>PERDA</i>	01-1819-21	BUSHING	1
17	10-1259-01	BLADE ASSEMBLY	1
17A	10-1257-01	STATIONARY BLADE ASS'Y	1
17B	01-5575-05	BUSHING	1
17C	10-1258-01	MOVABLE BLADE ASS'Y	1
17D	01-8968-01	SPRING	2
17E	01-6003-025	SCREW-P.H.M.S.	1
18	01-8828-01	KNIFE HOUSING	1
19	30-0995-01	SCREW-S.S.S.	1
20	01-8980-01	BRACKET	1
21	33-0106-08	SCREW-P.H.M.S.	6
23	01-5336-01	CAUTION LABEL	1
24	01-8829-01	DECAL	1
26	01-8982-01	SUPPORT	1
27	01-9433-01	OIL PAD	1

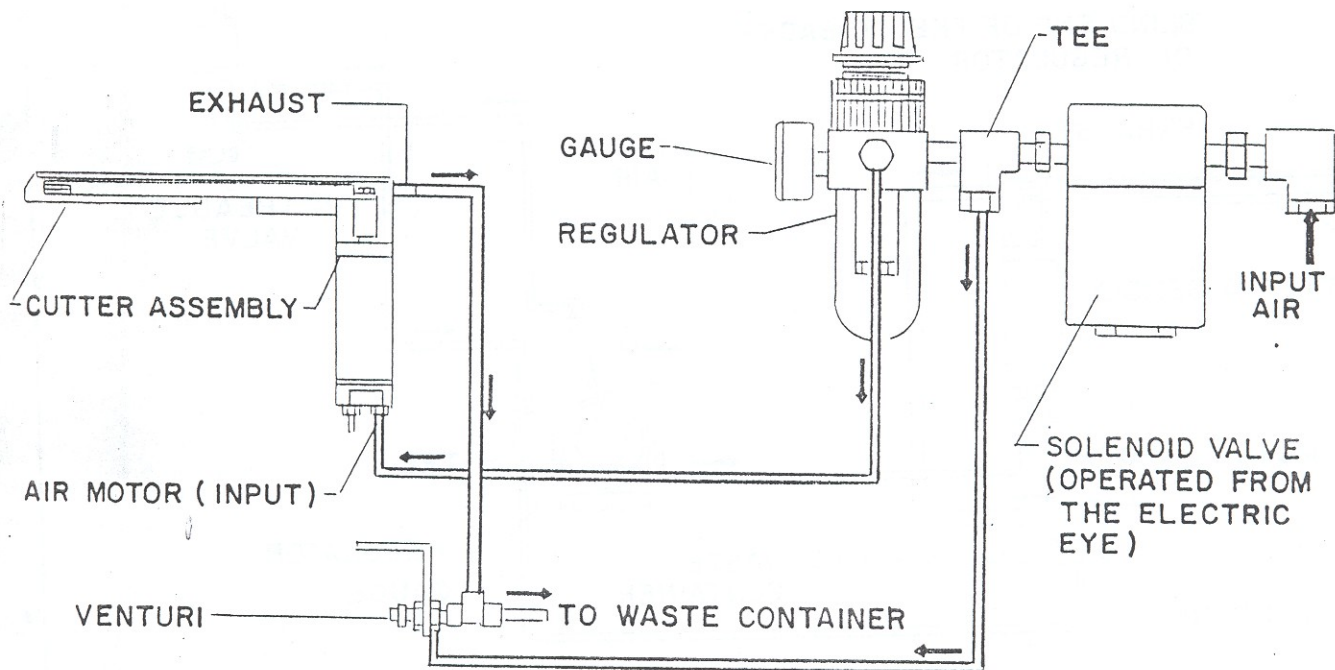
AIR CIRCUIT DIAGRAM THREAD WASTE SYSTEM MODEL 2100, 2200 FCA



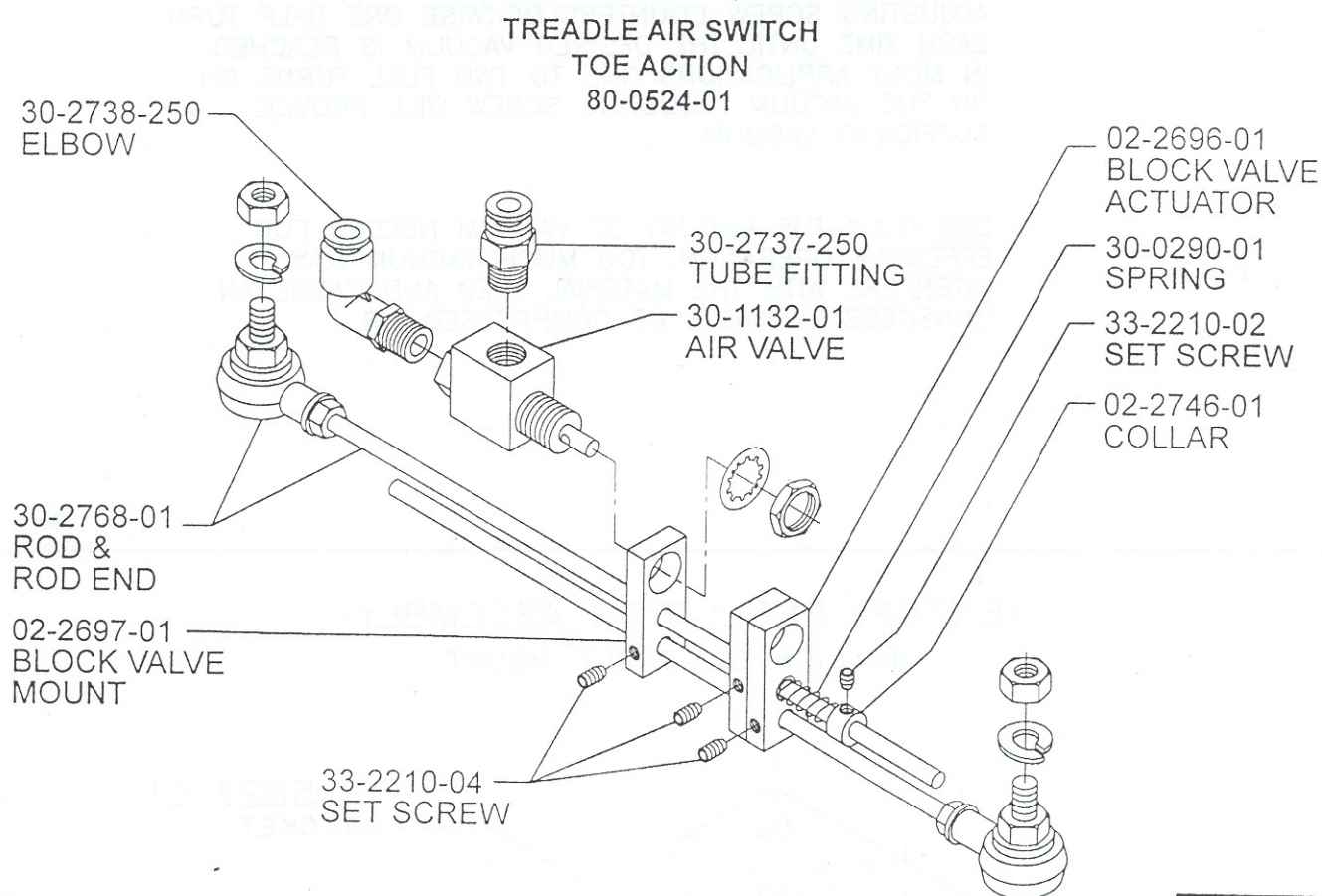
DUAL WASTE REMOVAL SYSTEM



AIR CIRCUIT DIAGRAM
THREAD WASTE SYSTEM
WITH ELECTRIC EYE
MODEL 2100, 2200 FCA

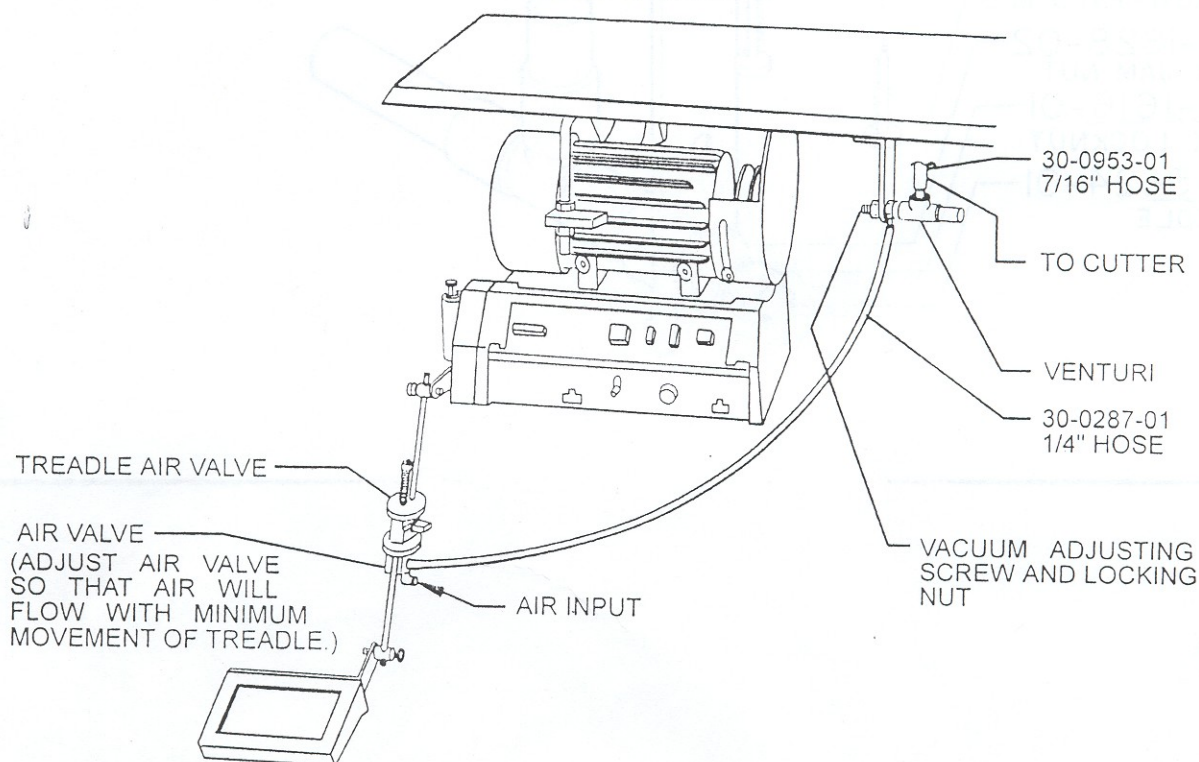


AIR VALVE ASSEMBLY AND VENTURI INSTALLATIONS



INS-2402

VACUUM SYSTEM INSTALLATION TREADLE OPERATED



ML-VENT-2

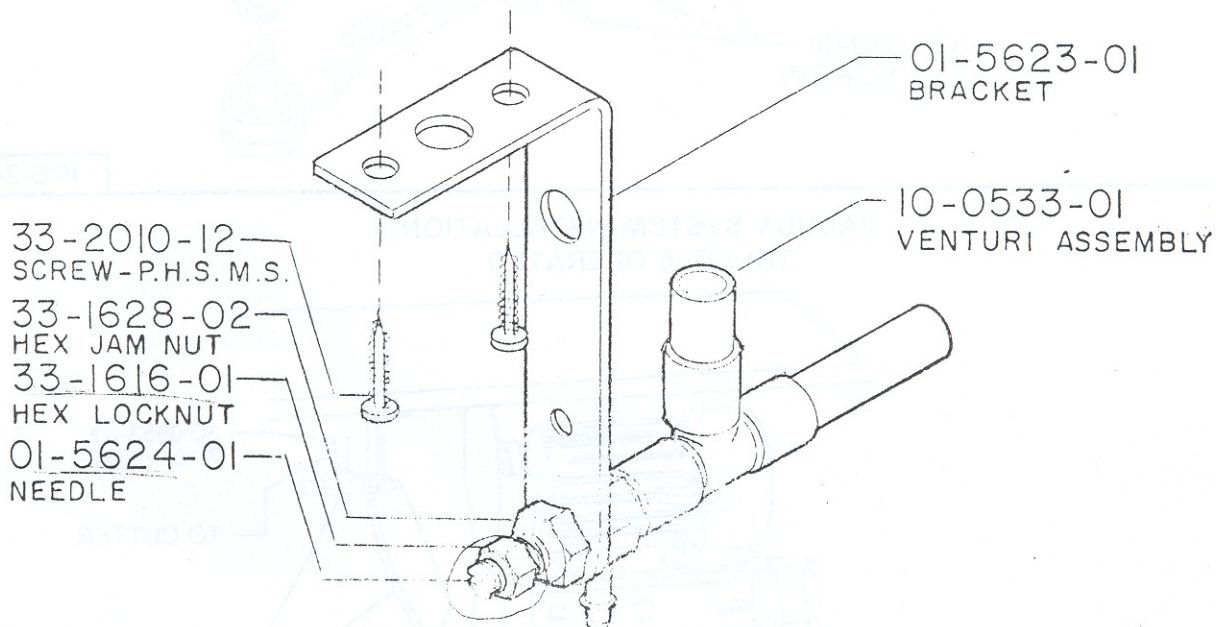
VACUUM SYSTEM INSTALLATION

VACUUM ADJUSTMENTS:

- A. THE VACUUM ADJUSTING SCREW IS PRESET IN CLOSED POSITION. IN ORDER TO OBTAIN VACUUM, TURN THE ADJUSTING SCREW COUNTERCLOCKWISE ONE HALF TURN EACH TIME UNTIL THE DESIRED VACUUM IS REACHED. IN MOST APPLICATIONS ONE TO TWO FULL TURNS ON THE VACUUM ADJUSTING SCREW WILL PROVIDE SUFFICIENT VACUUM.
- B. USE ONLY THE AMOUNT OF VACUUM NEEDED FOR EFFECTIVE OPERATION. TOO MUCH VACUUM MAY INTERFERE WITH THE MATERIAL FEED AND CAUSE AN UNNECESSARY WASTE OF COMPRESSED AIR.

VENTURI REGULATOR ASSEMBLY

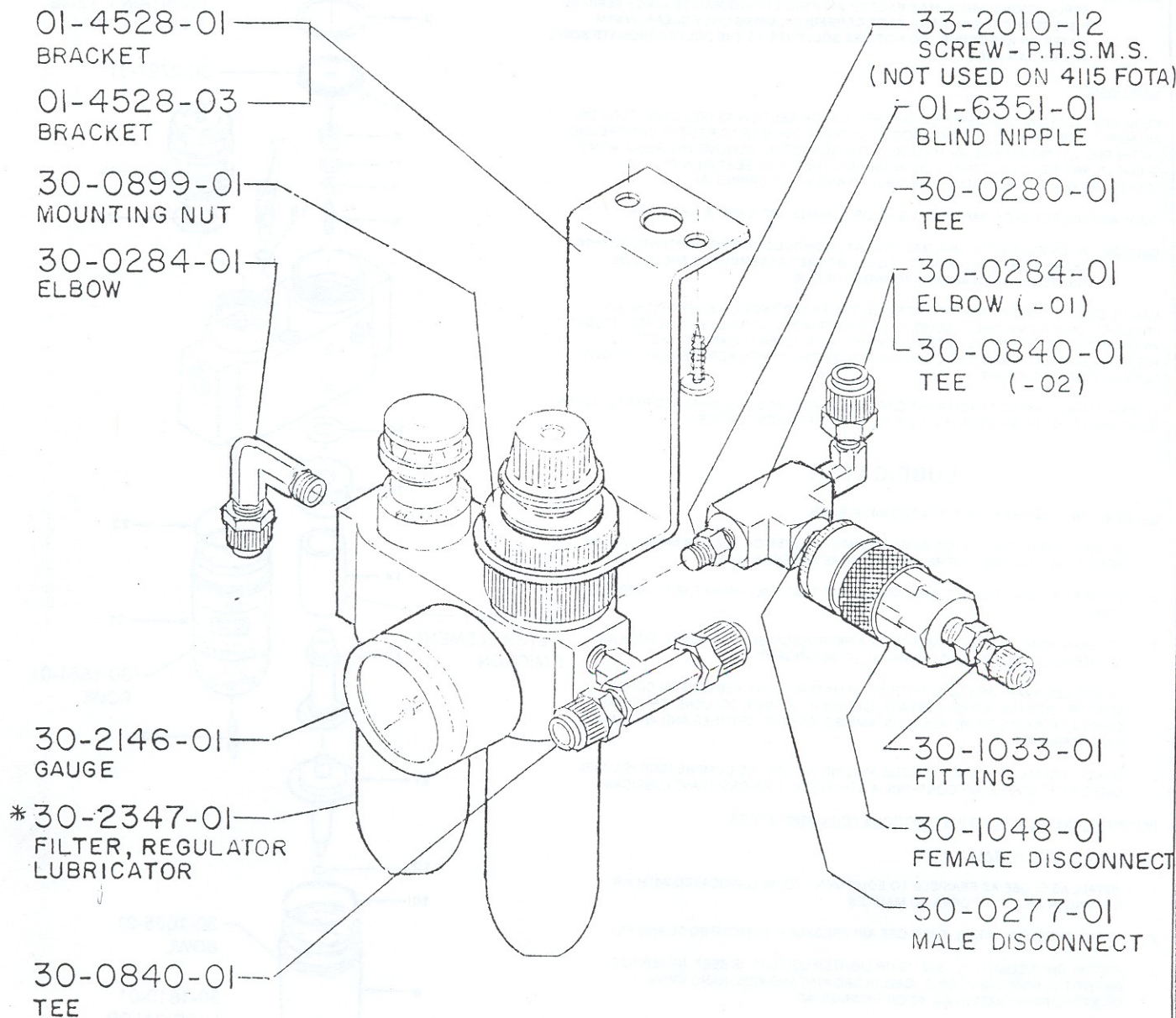
80-0198-02, TABLE MOUNT



FILTER, REGULATOR GAUGE ASSEMBLY

80-0415-01 FOR V, V-WR

80-0415-02 FOR V-FL, V-WR-FL



* NOTE:

SEE ML DRAWING 2100-1 & 2100-2
FOR SPARE PARTS.

OPERATIO

1. AIR ENTER
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AND SETT
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2. AIR THEN
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CAUTION:

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CAUTION

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FILTER/REGULATOR

FILTER, REGULATOR, AND LUBRICATOR

30-2347-01

OPERATION

AIR ENTERS THE INTEGRAL FILTER/REGULATOR UNIT AND IS DIRECTED DOWNWARD THROUGH A SET OF LOUVERS (10) TO IMPART A WHIRLING ACTION. THIS CENTRIFUGAL ACTION CAUSES LIQUID PARTICLES TO BE SEPARATED FROM THE AIR STREAM AND SETTLE TO THE BOTTOM OF THE BOWL. ACCUMULATED LIQUID IS DRAINED MANUALLY (15).

AIR THEN PASSES THROUGH THE SINTERED BRONZE FILTER ELEMENT (11) WHERE SMALLER SIZE FOREIGN PARTICLES ARE REMOVED.

THE CLEAN AIR PASSES THROUGH THE VALVE (5,6,7,8) OF THE REGULATOR AND IS CONTROLLED TO A PRESSURE, DETERMINED BY THE ADJUSTMENT OF THE REGULATOR. PRESSURE IS INCREASED BY ROTATING THE KNOB CLOCKWISE, OR DECREASED BY ROTATING THE KNOB COUNTERCLOCKWISE.

CAUTION: THIS MINIATURE INTEGRAL FILTER/REGULATOR SHOULD NOT BE USED IN APPLICATIONS WHICH MAY EXCEED 250 PSIG. DURING MAINTENANCE PERIODS, INSPECT AND CLEAN EACH PART CAREFULLY, USING ONLY CLEAR, WARM WATER OR KEROSENE. DO NOT USE SOLVENTS AS THE POLYCARBONATE BOWL MAY BE DAMAGED.

MAINTENANCE

REGULATOR SECTION: DISASSEMBLE THE REGULATOR SECTION AS FOLLOWS. TURN OFF AIR SUPPLY. TURN THE ADJUSTING KNOB COUNTERCLOCKWISE TO RELIEVE COMPRESSION ON THE REGULATING SPRING (2). UNSCREW THE BONNET (1), REMOVE THE REGULATING SPRING (2), AND PISTON ASSEMBLY (4). UNSCREW THE VALVE SEAT (5) WITH A 3/8" SOCKET AND REMOVE THE VALVE ASSEMBLY (7) AND VALVE SPRING (8).

CLEAN AND INSPECT EACH PART FOR WEAR OR DAMAGE. REPLACE IF NECESSARY.

CAUTION: WHEN REASSEMBLING, VALVE SEAT (5) SHOULD NOT BE TIGHTENED TO MORE THAN 4 TO 6 INCH POUND TORQUE. BONNET ASSEMBLY (1) SHOULD BE TIGHTENED 50 TO 60 INCH POUNDS TORQUE.

MANUAL DRAIN FILTER SECTION: TO SERVICE THE FILTER SECTION SHUT OFF THE AIR PRESSURE. UNSCREW BOWL ASSEMBLY (14) AND REMOVE "O" RING (9) UNSCREW STUD (13) AND FROM THE STUD REMOVE FILTER ELEMENT (11), LOUVER (10) AND GASKETS (12). THE FILTER ELEMENT SHOULD BE CLEANED PERIODICALLY WITH KEROSENE AND BLOWN OUT WITH COMPRESSED AIR.

AFTER CLEANING, INSPECT EACH PART CAREFULLY. REPLACE ANY DAMAGED PARTS. WHEN REASSEMBLING, TIGHTEN STUD (13) TO 5 TO 10 INCH POUNDS TORQUE.

LUBRICATOR

CAUTION: THIS UNIT HAS A POLYCARBONATE BOWL.

1. BE SURE IT IS NOT MOUNTED WHERE TEMPERATURES OF 125° FOR MORE WILL BE NEAR IT, OR ON A LINE WHERE AIR PRESSURE EXCEEDS 150PSI.
2. BEWARE OF CONDITIONS, FUMES AND FLUIDS THAT WILL HARM THE TRANSPARENT BOWL.
3. TO CLEAN BOWL, RINSE OR WIPE WITH A PETROLEUM SOLVENT ONLY, SUCH AS KEROSENE, OR HOUSEHOLD DISHWASHER DETERGENT.
4. DO NOT USE NEAR, OR CLEAN WITH SUCH MATERIALS AS ACETONE, ALCOHOL, BENZENE, DIOXANE, ETHYL ACETATE, LACQUER THINNER, TOLUENE, CHLORIDE, CARBON TETRACHLORIDE, ALKALIES, AMINES, ESTERS, KETONES AND AROMATIC HYDROCARBONS.
5. DO NOT INSTALL ON A COMPRESSED AIR LINE WHERE THE COMPRESSOR IS LUBRICATED WITH, OR THE AIR CONTAINS, A SYNTHETIC, FIRE-RESISTANT LUBRICANT.

IMPORTANT: INSTALLATIONS INSTRUCTIONS FOR LUBRICATORS.

WHERE AND HOW TO INSTALL:

1. INSTALL AS CLOSE AS FEASIBLE TO EQUIPMENT TO BE LUBRICATED WITH AIR FLOWING IN AND OUT PORTS SO MARKED.
2. TO FILL THE LUBRICATOR, TURN OFF AIR PRESSURE, REMOVE BOWL AND FILL.
3. POUR IN ONLY CLEAN OIL. SAE 10 OR LIGHTER USUALLY IS BEST, NEVER USE ONE OF THE FOLLOWING OILS: CELLULUBE #150 AND #220, KANO KROIL, KEYSTONE PENETRATING OIL #2 OR PYDRAUL AC.
4. AS SOON AS AIR PRESSURE REBUILDS INSIDE THE BOWL, OIL WILL DRIP THROUGH THE SIGHT GAUGE. CONTROL THE RATE OF OIL ENTERING THE AIR STREAM BY TURNING THE ADJUSTMENT SCREW DOWN TO GIVE LESS OIL AND UP TO GIVE MORE OIL. THIS IS A UNIQUE LUBRICATOR. YOU ADJUST THIS TYPE SO THAT WHILE THE SMALLEST AMOUNT OF AIR IS FLOWING THROUGH IT YOU GET THE DESIRED AMOUNT OF OIL FOR THAT FLOW. THE MORE THE AIR FLOW INCREASES, THE MORE OIL YOU WILL NEED AND THE MORE YOU WILL GET AUTOMATICALLY.

HOW TO MAINTAIN:

1. PERIODICALLY CLEAN ADJUSTING SCREW NEEDLE VALVE AND SEAT BY SWISHING A CLEANER AND BLOWING OFF WITH AIR.
2. DRAIN OFF ANY CONTAMINANTS OR WATER IF THEY SETTLE IN THE BOTTOM OF THE BOWL.

INS-2100-2A

INS-2100-1B

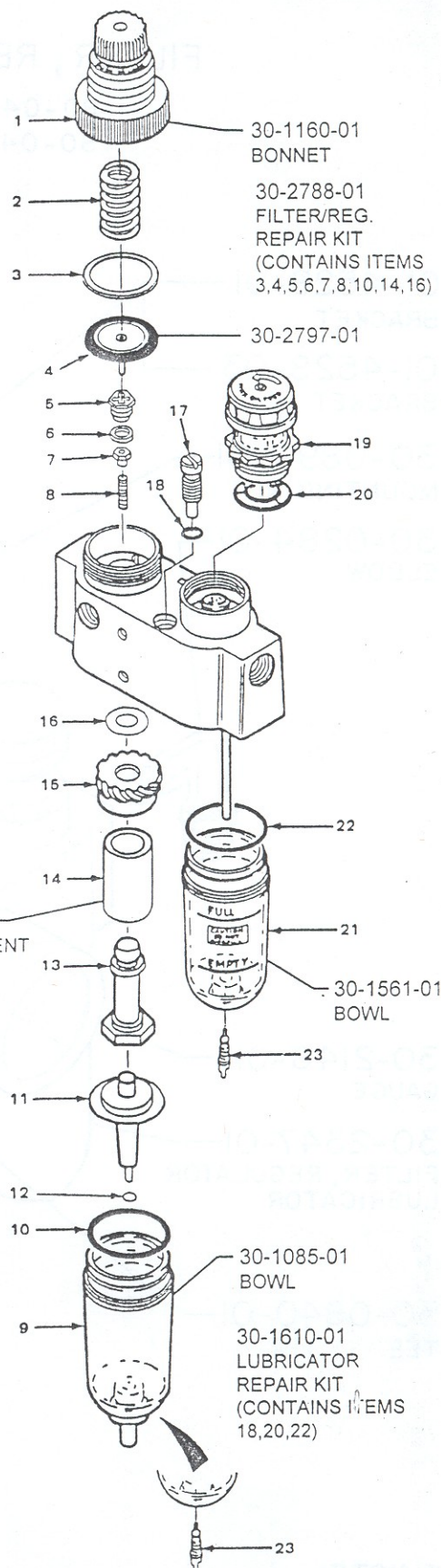
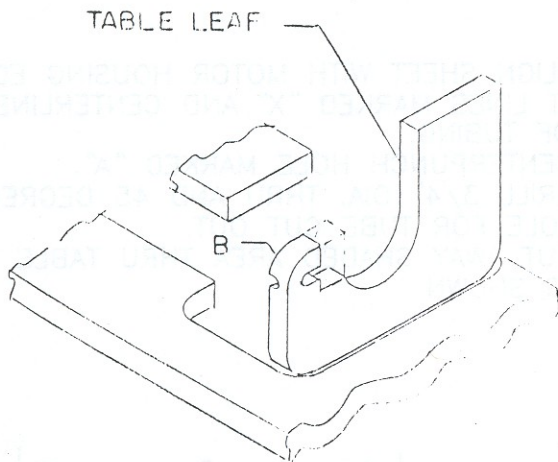


TABLE CUTOUT TEMPLATE FOR CC:2100 FLAT ACTION CUTTER

NOTES:

- 1- ALIGN SHEET WITH MOTOR HOUSING EDGE AT LINES MARKED "X". AND CENTERLINE OF TUBING.
- 2- CENTERPUNCH HOLE MARKED "A".
- 3- DRILL $3/4$ " DIA. THRU AND 45 DEGREE HOLE FOR TUBE CUT OUT.
- 4- CUT AWAY SHADED AREA THRU TABLE TOP. AS SHOWN



UNDERSIDE OF
TABLE LEAF

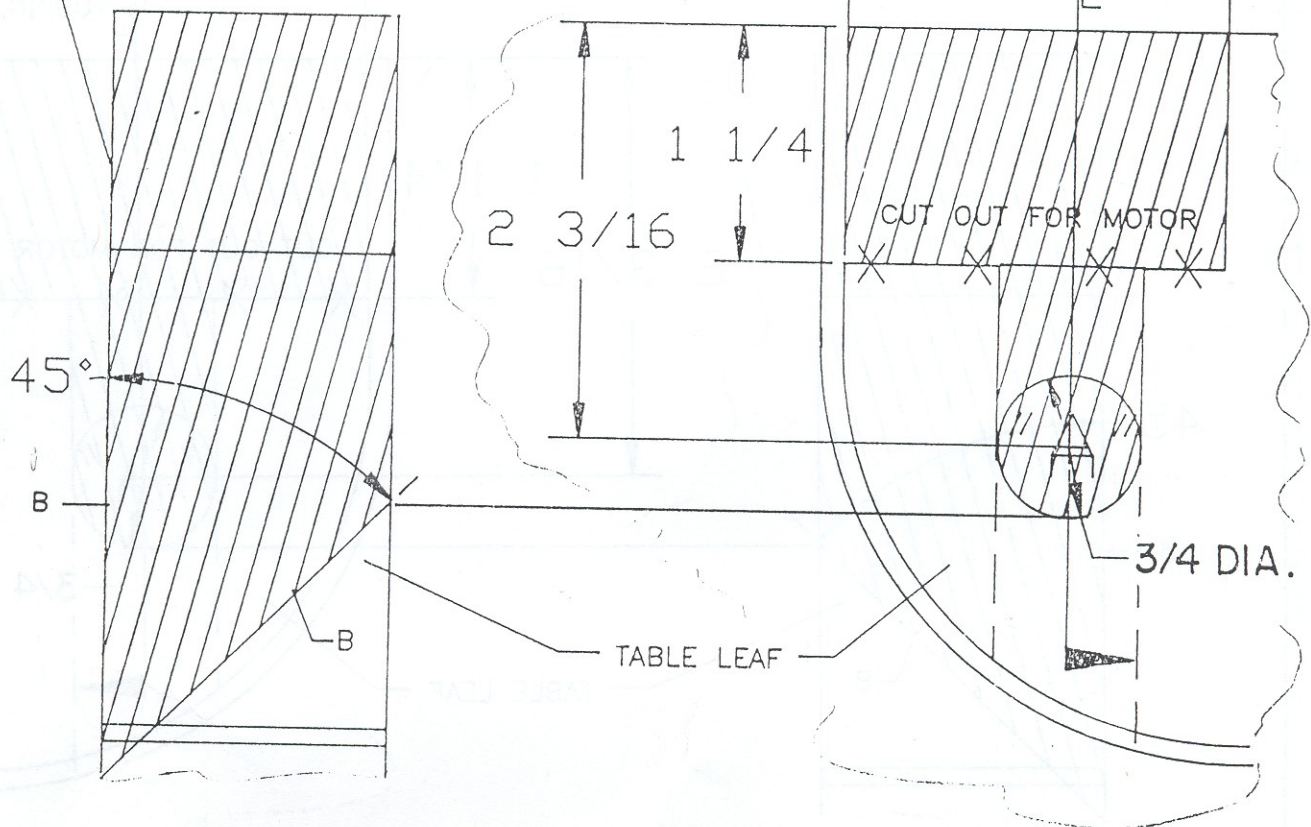
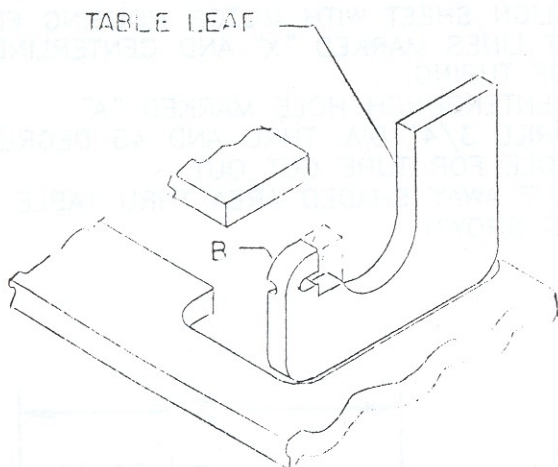


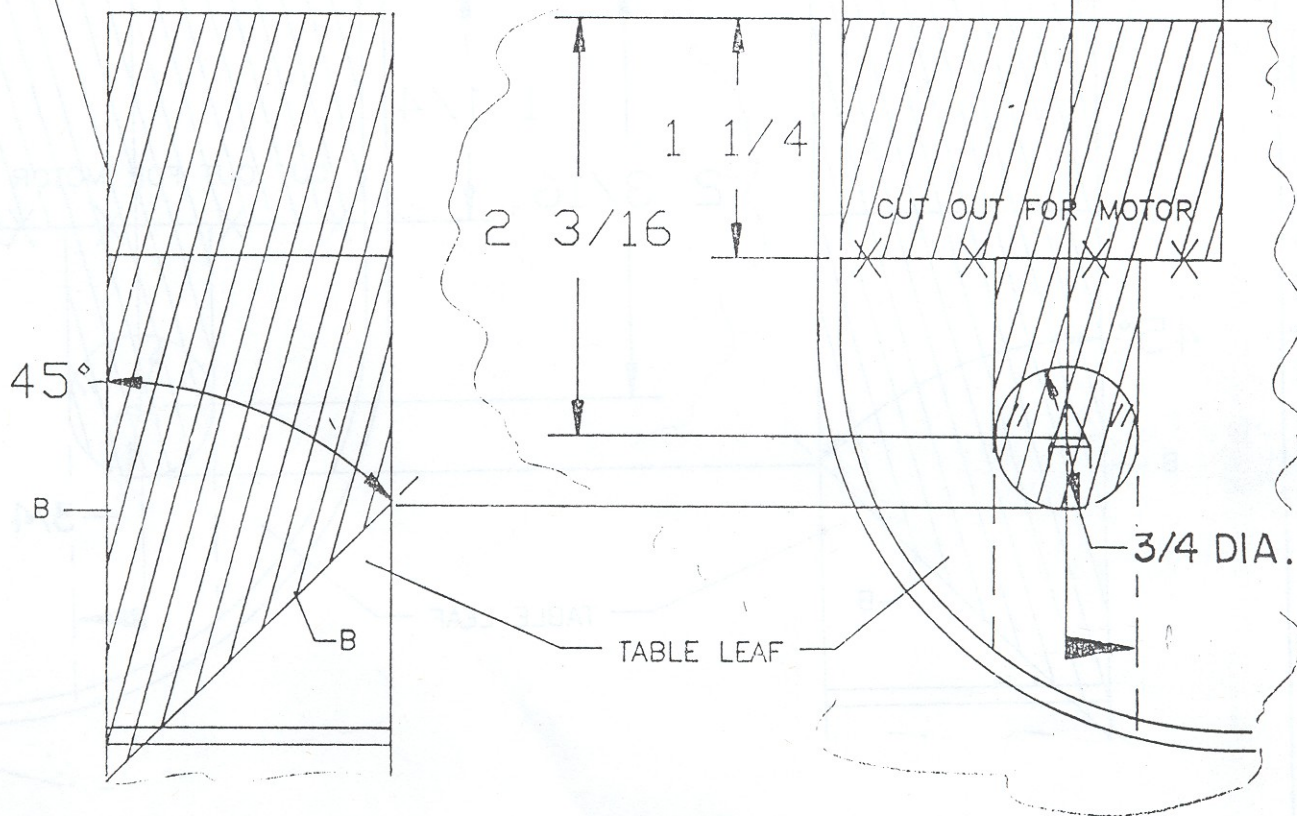
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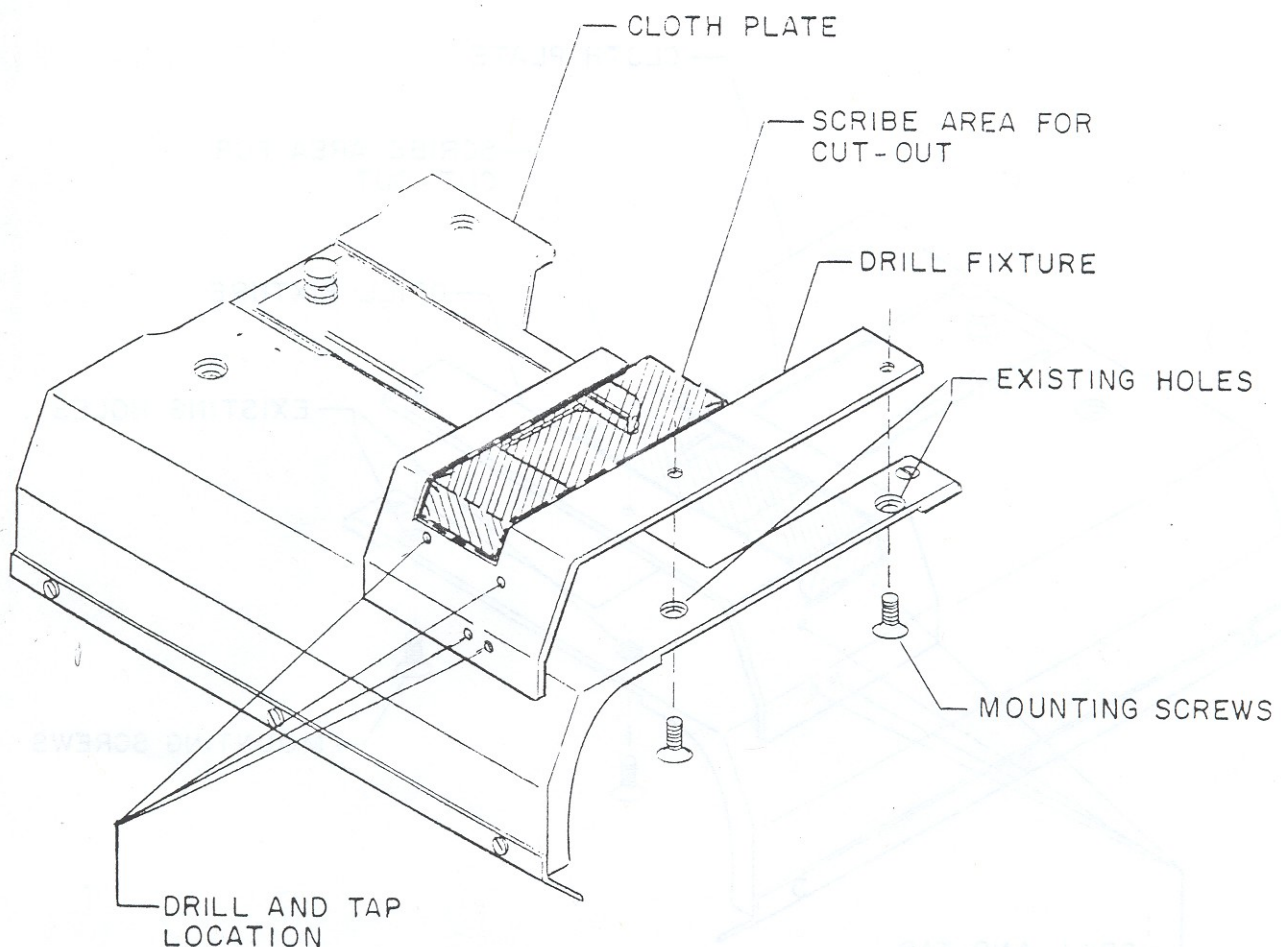
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TABLE LEAF



DRILLING INSTRUCTIONS

MODEL 2200 FCA FOR KANSAI 8003D / W-8042
(CLINTON ASSEMBLY N^o. 80-0473-02)

- 1- REMOVE CLOTH PLATE FROM MACHINE.
- 2- MOUNT DRILL FIXTURE TO CLOTH PLATE USING EXISTING HOLES WITH SCREWS PROVIDED AT LOCATION SHOWN BELOW.
- 3- SCRIBE AREA TO BE CUT-OUT OF CLOTH PLATE.
- 4- DRILL (4) FOUR HOLES WITH BIT PROVIDED.
- 5- REMOVE DRILL FIXTURE, AND TAP (4) FOUR HOLES WITH #6-32 TAP (PROVIDED). CUT OUT AREA ALONG SCRIBED LINES AND CLEAN UP ANY BURRS.
- 6- REMOUNT CLOTH PLATE AND MOUNT CUTTER.



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