

INTRODUCTION

Model UVGD offers your choice of atmospheric, vacuum only, or vacuum and gas double seaming.

RANGE: 2" to 6¼" diameter, up to 7" tall.
Change parts are required for each size can.

CAPACITY: 10 Cans Per Minute - Atmospheric
6 Cans Per Minute - Vacuum
4 Cans Per Minute - Vacuum and Gas

Capacity is based on 15" Hg of vacuum. Actual capacity may vary based on dexterity of operator and amount of vacuum pulled.

OPERATION

ATMOSPHERIC: The chamber door remains open and neither the vacuum or gassing features are used. Operator positions can with top on the base plate and steps on the foot treadle (265); the can is double seamed automatically and the machine stops in a neutral position. Operator steps on treadle trip (269), removes can and repeats the operation.

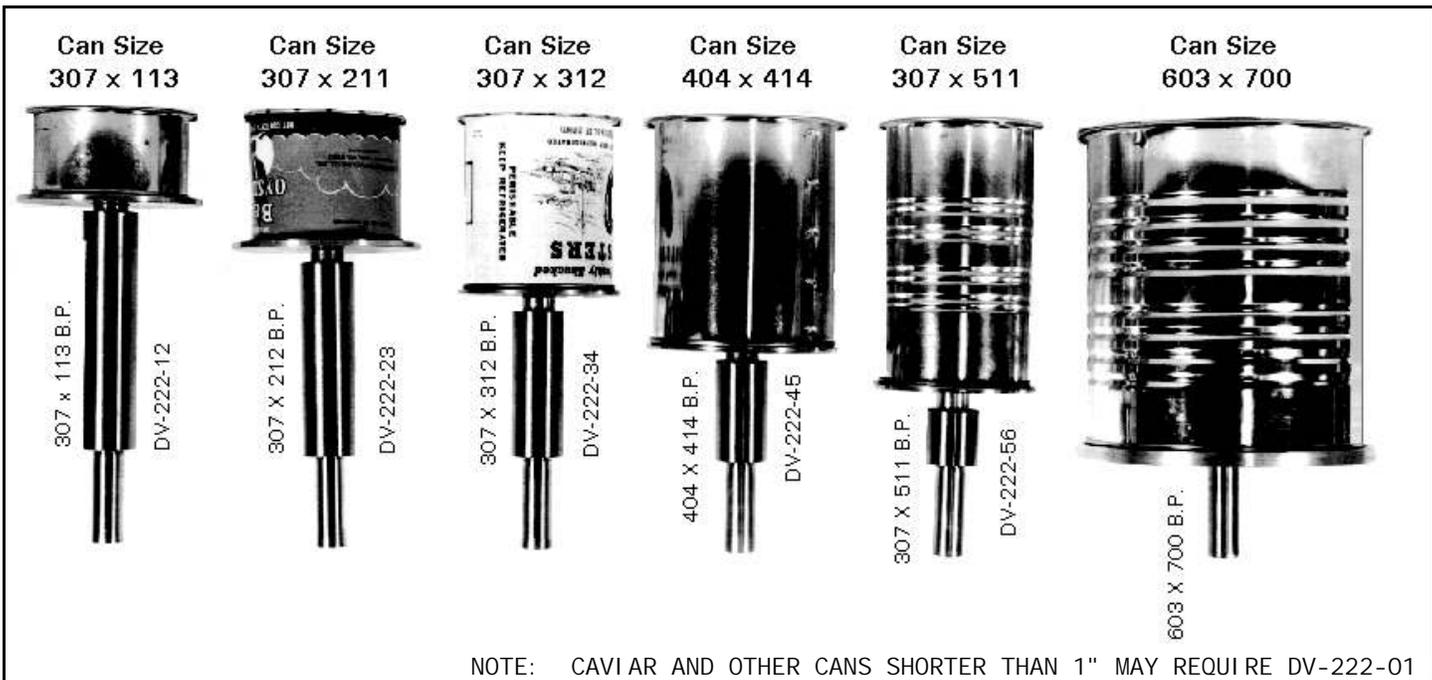
VACUUM: Operator positions filled can on the base plate and places top against seaming chuck. Operator closes chamber door, turns ball valve for preset vacuum value and steps on the foot treadle (265) which raises the can into position with the seaming chuck. The can is double seamed automatically and the machine stops in neutral position. Operator steps on treadle trip (269), releases chamber vacuum, opens door, removes can and repeats the operation.

VACUUM THEN GAS: The procedure is the same for vacuum closing except a separate lever, located near the vacuum valve lever, is operated to admit a regulated amount of gas at the appropriate time before stepping on the foot treadle to activate the seaming cycle. [Gas regulator and tank are not provided by Dixie Canner.]

CAUTION

BEFORE OPERATING YOUR DIXIE DOUBLE SEAMER REVIEW THIS MANUAL, supplementary information pertaining to the Vacuum Pump, Regulator, Motors and other auxiliary or accessory items furnished with this machine. Also make certain that:

1. The machine is properly connected to your electrical supply.
2. Auxiliary and accessory items are properly attached.
3. Oil filling port on the vacuum pump is filled to recommended levels. *IMPORTANT* Use only SAE 20 motor oil. Capacity is 0.5 quart.
4. All moving parts are oiled. These parts will require periodical oiling to prevent unnecessary wear.
5. The machine is properly adjusted for the cans to be closed. Inspect machine adjustments periodically to assure proper results.
6. The machine is cleaned and oiled as needed. If used occasionally or inactive for more than a few days, give special attention to servicing before and after storage.



BASE PLATE PRESSURE ADJUSTMENTS

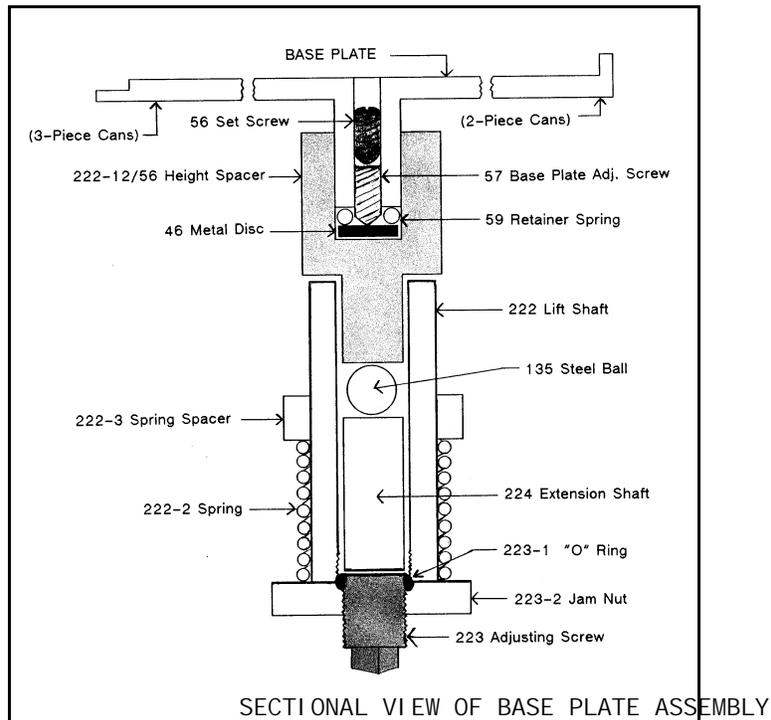
Proper base plate pressure is required to produce essential body hook and to prevent the can from slipping during the seaming cycle.

Initially, the machine was set-up and adjusted to close cans size 603 x 700 then changed and tested for closing other size cans. Before shipping the machine was equipped and tested to close the cans specified on your order. To make minute adjustments or to change to cans shorter than 6" proceed as follows:

1. Cans 6" to 7" tall do not require a height spacer. Base plate pressure adjustments are made by turning the adjusting screw (223) after loosening jam nut (223-2) at the lower end of base plate lift shaft (222).
With a can and top locked into position with the seaming chuck, adjust the screw (223) "snugly" and then tighten the jam nut (350). After making seam roll adjustments and closing a test can, final adjustments are made to produce the proper hooks.
2. Cans shorter than 6" require a height spacer and a separate base plate which has an adjusting screw (57) and set screw (56) in it's stem. After loosening the set screw with a screwdriver inserted into the hole, the adjusting screw can be turned with fingers to the proper setting.

The "O" ring (223-1) and the jam nut must be tightened to prevent leaks into the vacuum chamber.

The steel ball (135) and the extension shaft (224) must be cleaned and oiled periodically; to remove them, first remove the adjusting screw. After making adjustments, tighten jam nuts or set screw.



NEUTRAL POSITION

The machine is in a neutral position when both cam rolls (20) are in their innermost position and both seaming rolls are in their outermost position.

TIMING THE MACHINE

"Timing" and "in a neutral position" are synonymous. The machine is properly timed (or in neutral position) when both cam rolls (20) are at their innermost position and both seaming rolls (1st and 2nd) are at their outermost position. There are ten (10) revolutions per seaming cycle. Therefore, with power to the machine ON, by pressing the actuator on the clutch/brake assembly to turn the clutch/brake assembly one revolution at a time, the machine will have been "timed" by or before the 9th revolution. Then turn the power OFF, which allows the revolutions counter to "reset" while the machine is in a neutral position. Turn power ON again and continue closing cans.

If it should be necessary to turn the clutch/brake assembly less than a full revolution, proceed as follows. Turn power to machine OFF. Press the actuator one time to release the clutch brake. Grasp the collar (508) by hand, OR, use a wrench to turn the chuck shaft, to turn the assembly in a clockwise direction as needed. Turn power to machine ON and verify that the machine is now in time.

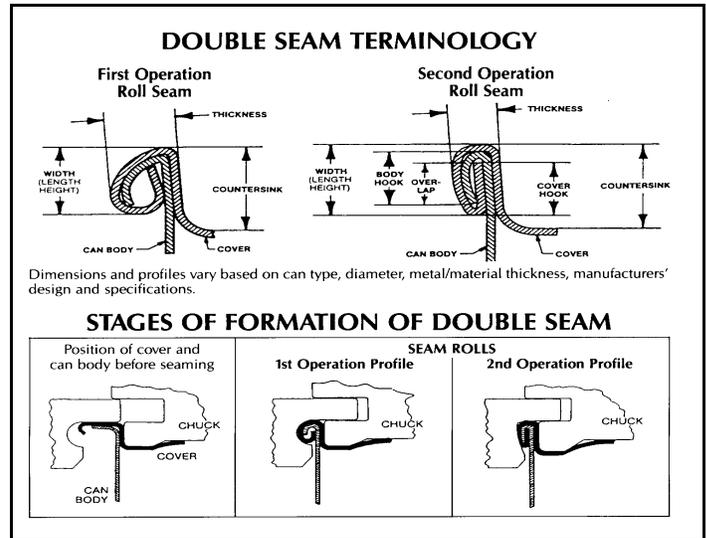
SEAMING ROLL ADJUSTMENTS

There are ten (10) revolutions per seaming cycle, five (5) for each seaming roll. The function of the first operation seam roll is to curl the cover hook and body hook into proper position. The function of the second operation seam roll is to complete the sealing of the can.

FIRST OPERATION

1. Put machine in neutral position.
2. With power ON, press and release the actuator on the clutch/brake assembly four (4) times. Turn machine OFF, then press the actuator ONE more time to release the clutch brake. Then manually turn the clutch ONE HALF revolution. Grasp the collar (508) by hand, OR, use a wrench to turn the chuck shaft, to turn the assembly in a clockwise direction. These 4½ revolutions of the clutch/brake assembly places the first operation seam roll in its innermost position with the chuck.
3. While power to machine remains OFF, loosen lock nut (16) and adjust set screw (17-A) until the first operation seam roll is snugly in position with the chuck. While holding the first operation gauge wire (40) in position between the chuck lip and the ground profile of the first operation seam roll, tighten the lock nut. The larger

diameter gauge wire (40) is the approximate THICKNESS of the first operation seam. Final adjustments may be made after a can is closed and the double seam inspected.



SECOND OPERATION

1. Turn power to machine ON which will automatically complete the fifth revolution. Press and release the actuator FOUR times and turn power to machine OFF. This is a total of nine (9) revolutions from the beginning and puts the second operation seam roll into its innermost position with the chuck.
2. Adjust the second operation seam roll into position. Use the second operation gauge wire (41) to fit the seam roll snugly in position with the chuck then tighten the lock nut. The small diameter gauge wire (41) represents the approximate THICKNESS of the second roll seam. Final adjustments may be made after a can is closed and the double seam inspected.
3. Press the actuator ONE time and turn power to machine ON to complete the 10th revolution and cycle. This will return the machine to its neutral position.
4. Close a can, tear down and inspect the double seam. Make final adjustments of the seaming rolls and base plate pressure to produce essential body hook, cover hook, overlap and tightness recommended by the container manufacturer or for a hermetically sealed can. NOTE: If you are unable to obtain the essential measurements recommended or a hermetically sealed container, you may need seam rolls with different profiles.

CHANGING FROM ONE SIZE CAN TO ANOTHER

Change parts consisting of a chuck, a base plate and a height spacer may be required for each different can diameter, top or style. Also, a different set of seaming rolls may be required for each. Your can manufacturer or supplier

may recommend the seam roll profiles for your cans. Dixie stocks or may be able to furnish the seam roll profile needed. Therefore, make sure you have the correct change parts available when changing your machine from one can size to another, then proceed as follows.

1. Put seam rolls in neutral position.
2. Loosen lock nuts (16) and adjust set screws (17-A) until both seaming roll levers (206) are back as far as they will go. If needed, change seaming rolls and/or reposition seam levers on the splined shafts (204). Leave the seaming roll levers backed into this position until after the chuck has been changed.
3. Change chucks. Make certain that the new chuck is properly tightened into position against the shoulder of the chuck shaft. **CAUTION:** (a) Use an open end wrench at the flat surface on the chuck shaft and the chuck wrench while loosening or tightening the chuck. Otherwise, the clutch/brake unit may be damaged. (b) If it is necessary to reposition 206 and 204, make certain the lip of each seaming roll runs freely in the chuck groove when in their innermost (seaming) position after the cap screws (322) are tightened.

CHANGING CHUCKS

To remove the chuck, hold the chuck shaft with a 5/8" wrench on the cut side of the shaft, located in the exposed area under the gear housing. Then place the two pins of the chuck wrench (44) provided with your seamer) into two of the four holes located on the bottom of the chuck. [The pins of the chuck wrench will fit into either diagonal or adjacent holes depending on the diameter of the chuck.] To loosen, turn the chuck to the left. Finish removing the chuck by hand.

To install a new chuck, hold the chuck shaft with a 5/8" wrench, as described above, while using your hand to thread the chuck onto the lower end of the chuck shaft. Turn to the right to thread the chuck onto the chuck shaft. Use the chuck wrench, as described above, to tighten snugly.

4. When necessary remove and reset the seam roll levers (206) so the seam rolls will be about 1/2" from the chuck lip. Minimum travel of the seam roll levers is desired when turning the adjusting screws. **CAUTION:** Use a box wrench to loosen or tighten the bolt securing the seaming roll levers in position on the splined seam roll lever drive shaft. After tightening the bolt make certain that the lip of each

seaming roll runs freely in the chuck groove when they are in their innermost (seaming) position and if necessary repeat the adjustment until the seaming roll levers are properly secured into position on the splined shaft.

5. Install the proper base plate and height spacer for the can to be closed. Adjust the base pressure and seaming rolls as outlined above.

ADJUSTING THE CAN TOP RETAINER

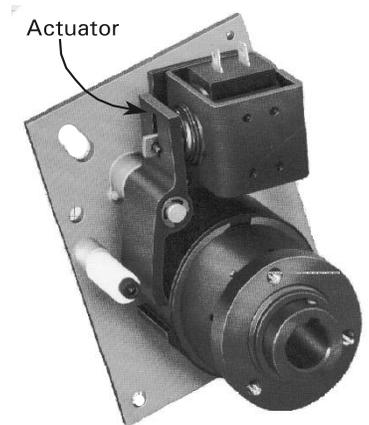
The purpose of the can top retainer (DV-201-5) is to hold the can top in position on the chuck, separated from the can, when desired. It is adjusted into position as follows:

1. After the machine has been properly equipped and adjusted for the size cans to be closed, place can top snugly into position on the chuck.
2. Adjust the can top retainer so the plunger is snugly against the can top curled edge and tighten the thumb screw.
3. If necessary, relocate the thumb screw to another hole. This allows a greater range of adjustments. Minute adjustments may be made by adjusting the lock nut and plunger.

Magnets are pressed in chucks fabricated for steel or tin can tops to hold the tops in position on the chuck.

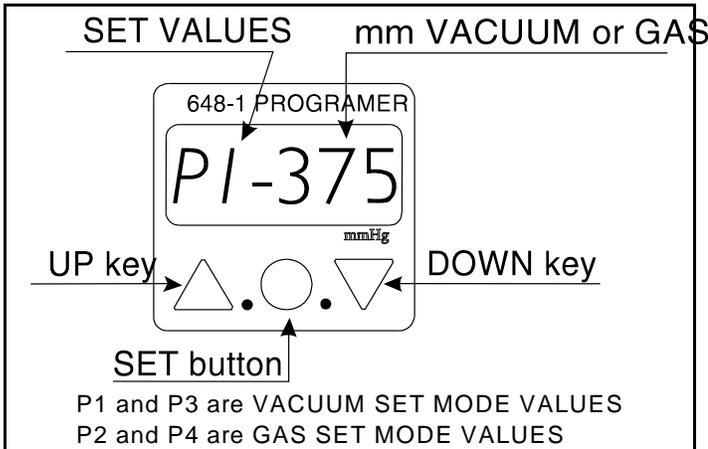
CLUTCH/BRAKE/SOLENOID ASSEMBLY

WARNING: The clutch/brake/solenoid assembly is very complex. Care should be used when removing this unit to avoid irreparable damage.



DIGITAL VACUUM AND GAS PROGRAMER (648)

The 648 Digital Vacuum and Gas Programmer reads in millimeters. The 375 displayed in the diagram equals approximately 15" Hg. A convenient equation is 25 x inches Hg = mm. Calibrations are in increments of 5 mm. Since the vacuum pump is rated 29.8" Hg, the maximum recommended vacuum value which may be entered is 745 mm. The lowest recommended value for setting vacuum or gas is 25 mm which approximates 1" Hg. Use your finger to set a desired value in the program as explained below.



1. Press the SET button until **F-1** is indicated (within 1 sec.)
NOTE: Release the SET button immediately once **F-1** has appeared to avoid changing the factory programming.

2.

Press the SET button until P1 appears on the display followed by the current P1 value. (In the diagram above, 375 represents the current setting for the P1 mode). Release the SET button.

Proceed to Step 3 if you do not want to change the current setting for P1.

Press the \triangle key to increase the vacuum value for P1, or press the ∇ key to decrease the vacuum value for P1.

3. Press the SET button until P2 appears on the display followed by the current P2 value. Release the SET button.

Proceed to Step 4 if you do not want to change the current setting for P2.

Press the \triangle key to increase the gas value for P2, or press the ∇ key to decrease the gas value for P2.

4. Press the SET button until P3 appears on the display followed by the current P3 value. Release the SET button.

Proceed to Step 5 if you do not want to change the current setting for P3.

Press the \triangle key to increase the vacuum value for P3, or press the ∇ key to decrease the vacuum value for P3.

5. Press the SET button until P4 appears on the display followed by the current P4 value. Release the SET button.

Proceed to Step 6 if you do not want to change the current setting for P4.

Press the \triangle key to increase the gas value for P4, or press

the ∇ key to decrease the gas value for P4.

6. Press the SET button again. The display will show "0." The vacuum and gas values selected in the previous steps are now programmed into memory and the procedure is complete.

Example - Vacuum Only:

- A. Set the digital programmer to stop the vacuum pump at 18" Hg (450 mm) by setting the P1 mode at 450.
- B. See OPERATION for seaming instructions.

Example - Vacuum Then Gas:

- A. Set the digital programmer to stop the vacuum pump at 20" Hg (500 mm) by setting the P1 mode at 500.
- B. Set the digital programmer to replace vacuum (with gas) to 5" Hg (125 mm) by setting the P2 mode at 125.
- C. See OPERATION for seaming instructions.

Note: The number of times the P1 + P2 and P3 + P4 vacuum and gas values will be performed (i.e., number of flushes) is set with the Command Center.

(Above examples may be adjusted to change high and low vacuum/gas settings within the entire range.)

CHANGING THE 648-1 TO DISPLAY inHg

The 648-1 Digital Programmer may be programmed to display inches of Hg. To change the display settings:

1. Press and hold the SET button until the display reads U-1. Release the SET button.
2. Press the \triangle or ∇ key until the display reads U-5 (wherein the U represents Unit Set Mode and the 5 indicates inHg).
3. Press the SET button to store your changes to the display mode.
4. Set desired values as per above instructions, substituting inHg values for mmHg values.

NOTES AND TROUBLESHOOTING

- ▶ Machine won't operate:
 1. Solenoid (666) in vacuum and gas pipes won't open or close, or the solenoid in the clutch-brake assembly (502-1) doesn't work, or
 2. Direct Drive Motor doesn't run — check FUSES.
Open electrical box on rear of machine. Study the schematic drawing on the inside of the door, which details the fuses (3) and their individual function. The black, 3-section fuse box is located at the bottom-right section in the electrical box. Each of the sections have two (2) fuses — one is a spare. Proceed to replace the top fuse, one section at a time until problem is solved. Order spare fuses as needed. NOTE: Two fuses are 4 amp and one is 10 amp.
IF PROBLEM is not a "blown" fuse, your electrician may locate and correct a loose connection in the wiring — or contact the factory.
- ▶ Motor and vacuum pump operate and can lifts properly, but will not seam. Check the switch (670) to verify that it is positioned properly to make contact with the right can lever (232) when the can lift system has been engaged. Reposition switch as necessary.
- ▶ Vacuum pump "labors" or cuts off. 1st, check filter (412) and clean if dirty. 2nd, disconnect the union between the filter and vacuum chamber, then swivel elbow to expose inside of pipe and if clogged, clean and reconnect the union.
- ▶ Oil in the vacuum pump should be changed after 500 operating hours or every three months, whichever comes first.
- ▶ Machine won't stop, continues running. Check the clutch-brake (502-1) to see if the Magnet (664-A) is in place. The Sensor (664) needs the magnet in place on the clutch-brake to count each revolution. Use "Krazy Glue" to replace the magnet if needed.
- ▶ Power "accidentally" turned OFF during a seaming cycle will cause the machine to be "out of time" or "not in neutral."

CHANGE PARTS AND REPAIR PARTS

Photographs of parts, assemblies, machine sections, base plates and height spacers with the corresponding part number are shown on other pages. A Parts/Price List is furnished separately. When ordering parts, always furnish both the part number and the name of the part.

When ordering change parts for cans, always send six (6) loose tops and can bodies of the size can(s) to be closed. Each different size or style of lid requires a separate chuck; each different height or style of container requires a separate base plate and/or height spacer. Different can or lid styles and/or diameters may require different seam rolls.

REPAIR PARTS AND REBUILDING SERVICE

A complete stock of parts is maintained by Dixie Canner Equipment Co., Athens, Georgia, USA. Parts may be ordered as needed to replace worn or damaged parts.

Your Dixie Model UVGD machine may be returned to Athens, Georgia for complete rebuilding at a nominal service charge, plus the cost of parts needed. When returning the machine for the rebuilding service please observe the following:

1. Return the complete machine and include several cans and tops of the exact size and type closed. Properly crate the machine and cans for safe delivery and return shipment, and prepay the shipping cost.
2. Write a letter authorizing the rebuilding service and mention any problem with the machine. Also mention particular instructions concerning return shipment, urgency, and other pertinent instructions.

HELPFUL HINTS — TROUBLESHOOTING

Until the operator is familiar with the mechanics of your can closing machine and learns to recognize irregularities in the essential requirements of the double seam, the outline below is intended to help notice obvious defects and list some causes that may serve as a guide in correcting minor troubles.

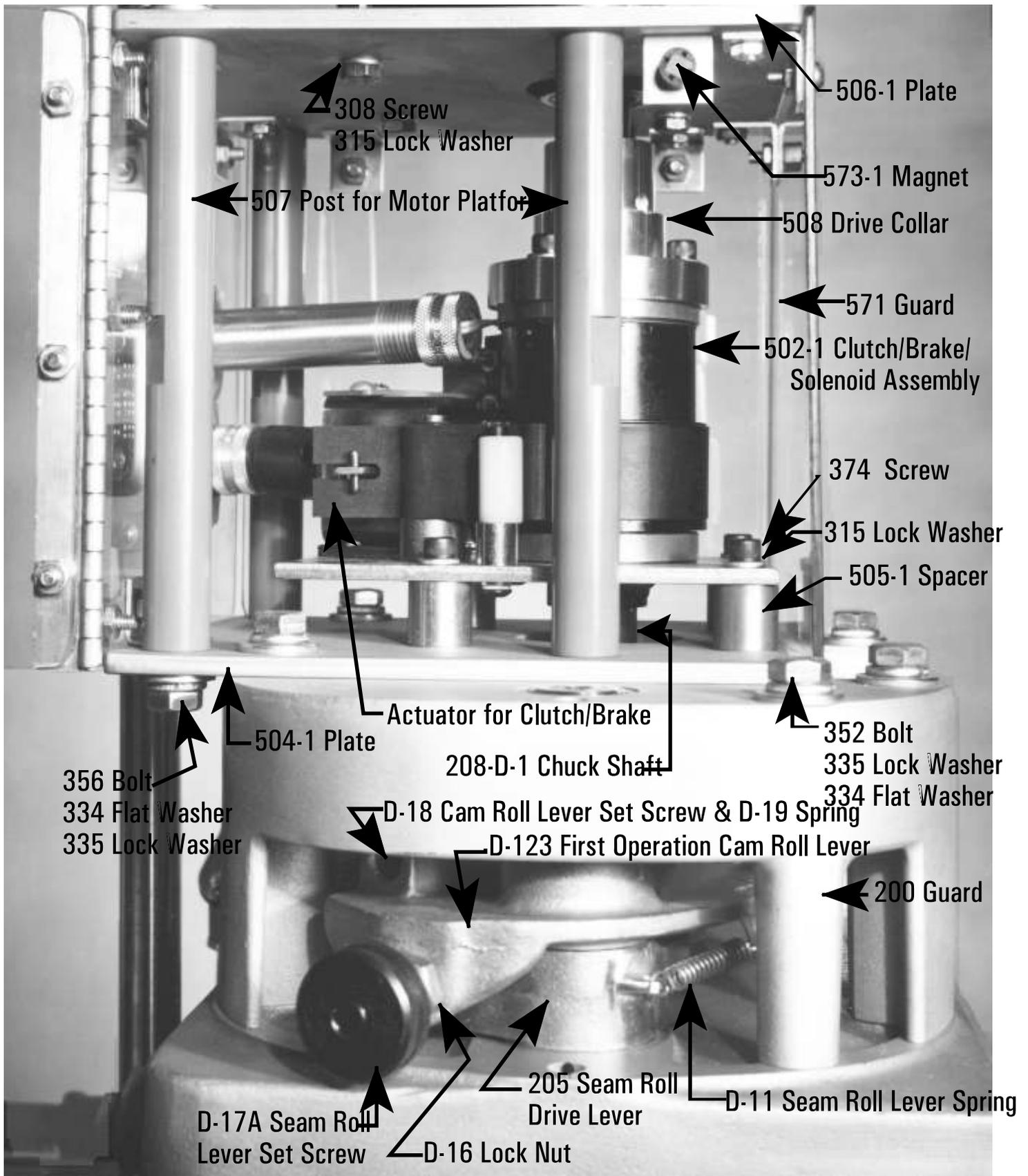
MECHANICAL DEFECTS AND COMMON CAUSES

- A. Can slips during seaming operation
 - 1. Damage or lack of oil in the base plate, lift shaft, height spacer or steel ball
 - 2. Insufficient base plate pressure
 - 3. Worn or wrong size chuck
 - 4. Seaming rolls binding on pins
- B. Machine operates with undue noise or "locks"
 - 1. Machine not properly timed
- C. Unusually loose seaming rolls
 - 1. Seaming roll or pins worn
- D. Seaming rolls do not return to neutral position
 - 1. Seaming roll levers binding
 - 2. Seaming lever spring weak or broken
 - 3. Machine not properly timed
- E. Machine seems to "labor" or freeze tight
 - 1. Needs oil.
 - 2. Too much base plate pressure
 - 3. Seaming rolls too tight
 - 4. Misalignment of moving parts

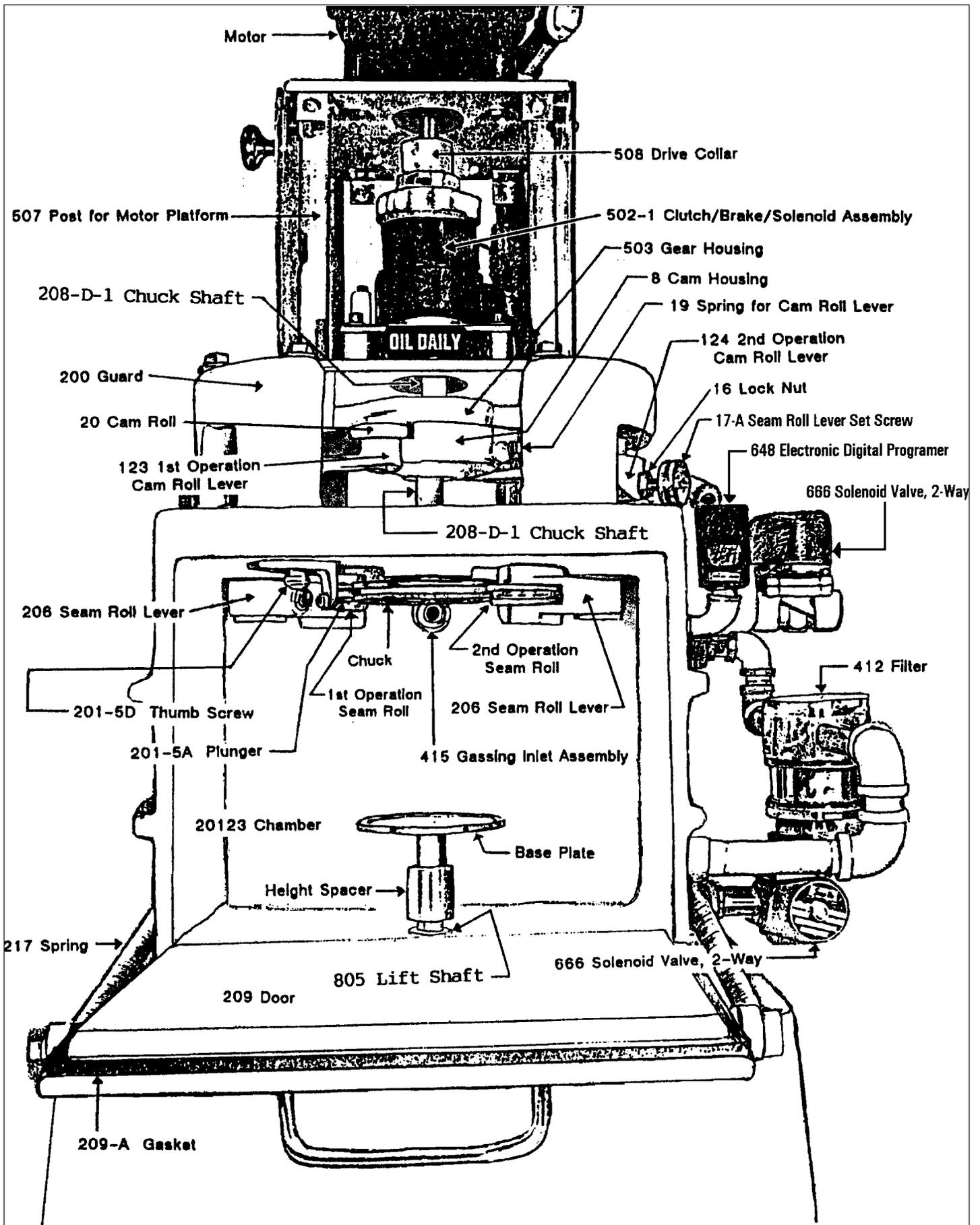
DOUBLE SEAM DEFECTS and COMMON CAUSES

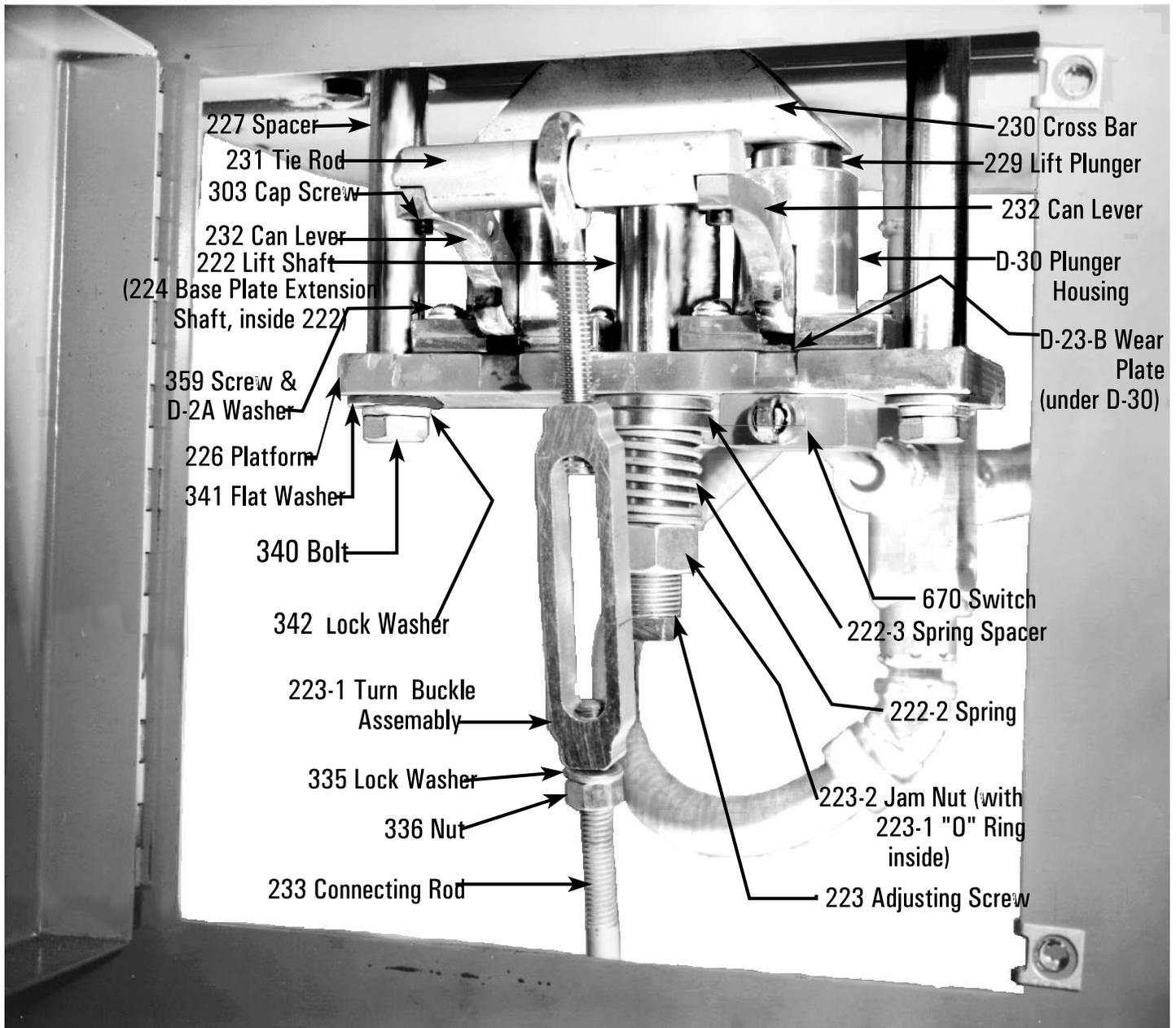
- A. Cut over. Unusually sharp edge at top inside edge of seam
 - 1. 1st or 2nd operation seam roll set too tight
 - 2. Worn seam rolls or worn chuck

- B. Cut or fractured seam
 - 1. Seam rolls set too tight
- C. Droop or lap in double seam at or near can body side seam
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Worn 1st operation seam roll
- D. Excessive countersink depth
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Chuck not properly seated in can top
 - 4. Chuck groove worn
- E. False seam. Body hook and cover hook do not overlap
 - 1. Can top not properly seated on can
 - 2. Damaged can flange or can top curl
- F. Long body hook
 - 1. Too much base pressure
- G. Long cover hook
 - 1. 1st operation seam roll set too tight
- H. Short body hook
 - 1. Insufficient base pressure
 - 2. 1st operation seam roll set too tight
 - 3. 2nd operation seam roll set too loose
- I. Short cover hook
 - 1. Too much base pressure
 - 2. 1st operation seam roll set too loose
 - 3. Worn 1st operation seam roll
 - 4. Excessive countersink depth
- J. Cover hook or body hook not uniform
 - 1. Base plate or plunger worn
 - 2. Chuck or seam rolls out of alignment
- K. Droops, vees, wrinkles
 - 1. Excessive base pressure
 - 2. 1st operation seam roll too loose or worn
 - 3. 2nd operation seam roll too tight
 - 4. Defects in can body or top
 - 5. Incorrect seam roll profiles



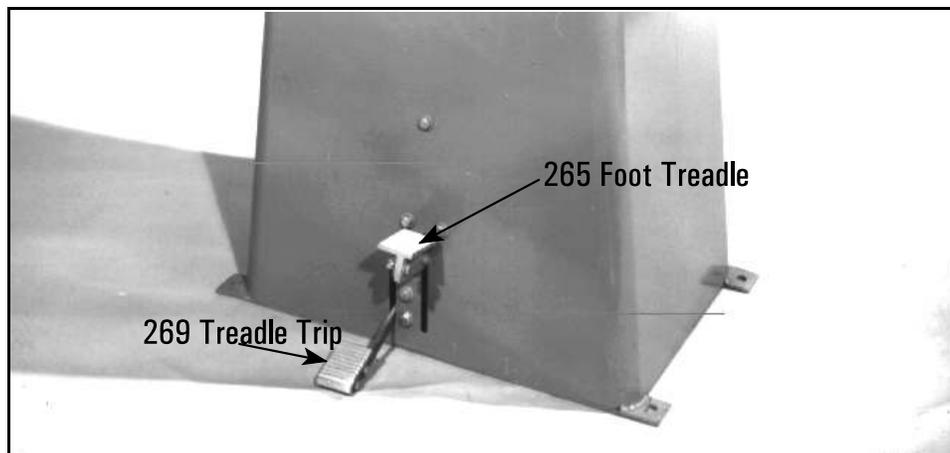
View from Left Side



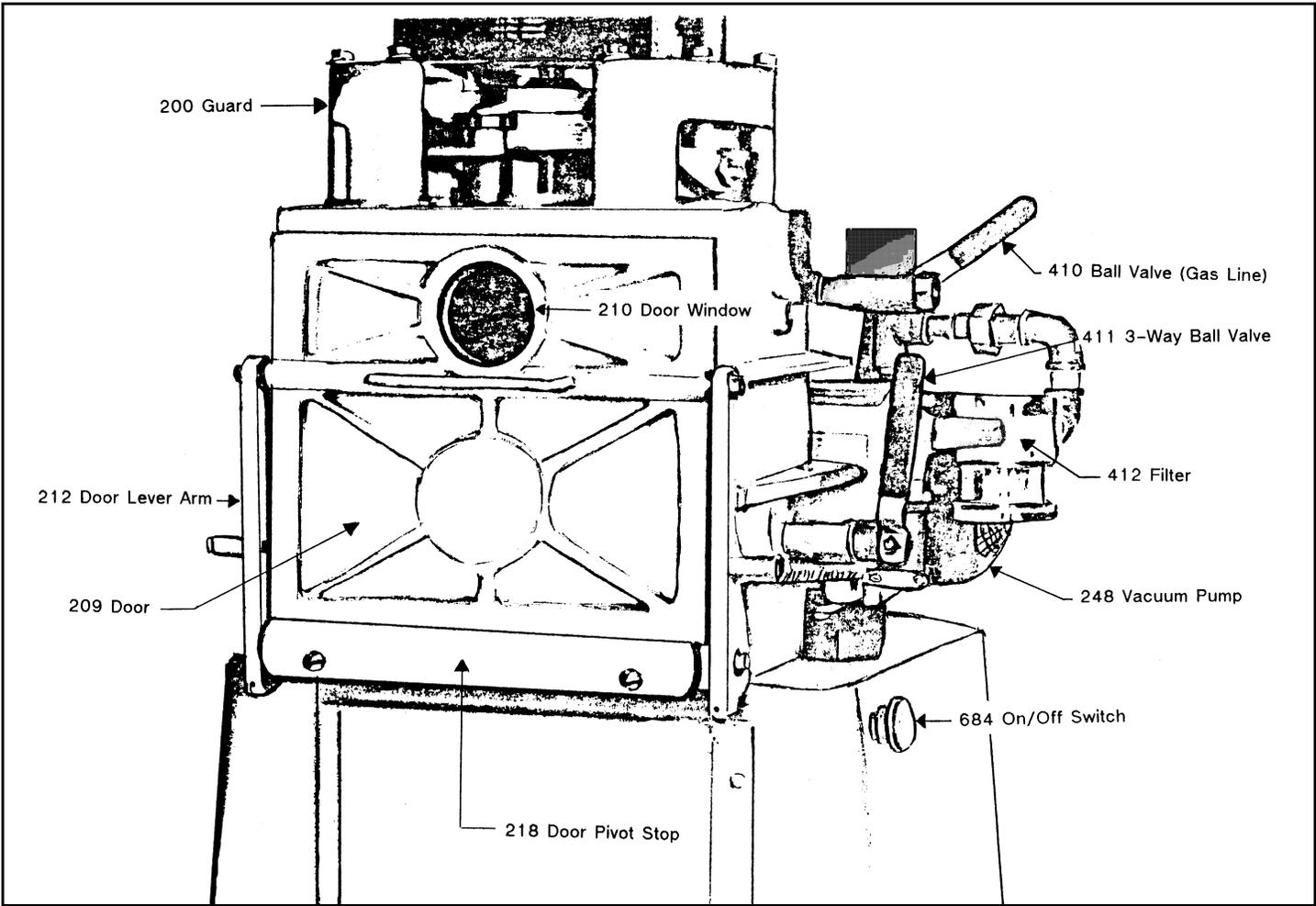


- 227 Spacer
- 231 Tie Rod
- 303 Cap Screw
- 232 Can Lever
- 222 Lift Shaft
- (224 Base Plate Extension Shaft, inside 222)
- 359 Screw & D-2A Washer
- 226 Platform
- 341 Flat Washer
- 340 Bolt
- 342 Lock Washer
- 223-1 Turn Buckle Assembly
- 335 Lock Washer
- 336 Nut
- 233 Connecting Rod
- 230 Cross Bar
- 229 Lift Plunger
- 232 Can Lever
- D-30 Plunger Housing
- D-23-B Wear Plate (under D-30)
- 670 Switch
- 222-3 Spring Spacer
- 222-2 Spring
- 223-2 Jam Nut (with 223-1 "O" Ring inside)
- 223 Adjusting Screw

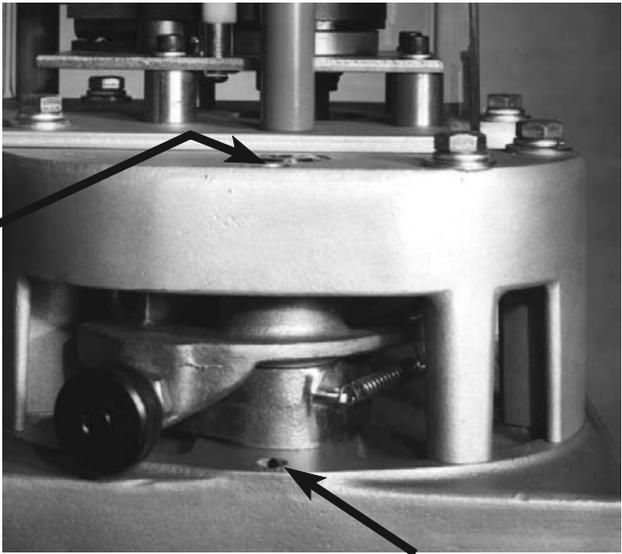
View from inside Cabinet



- 265 Foot Treadle
- 269 Treadle Trip



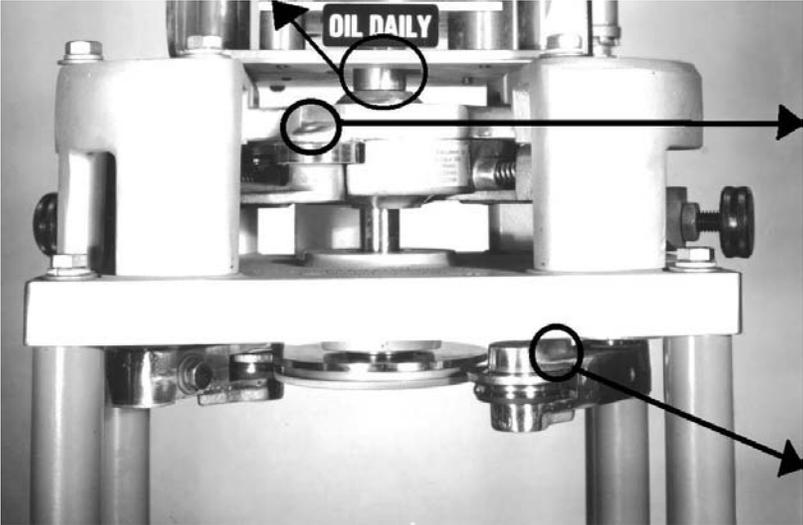
Oil through holes indicated on top of left and right guards (200) to reach cam roll levers (123 and 124).



View from Left Side

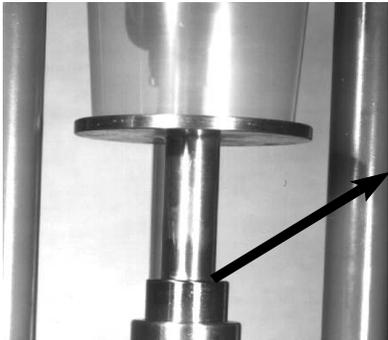
Oil through holes indicated on both sides of top plate (201) to lubricate both seam roll levers (206)

Oil Chuck Shaft 208-D-1 accessible through large hole in 504-1 plate inside plexiglass guard.



Oil through hole in tabs of 503 Housing Cover (front and back) to lubricate both 20 Cam Rolls.

Oil through holes in both 206 Seam Roll Levers to lubricate 1st and 2nd seam rolls.



Oil inside lift shaft and base plate stem regularly.

OILING LOCATIONS