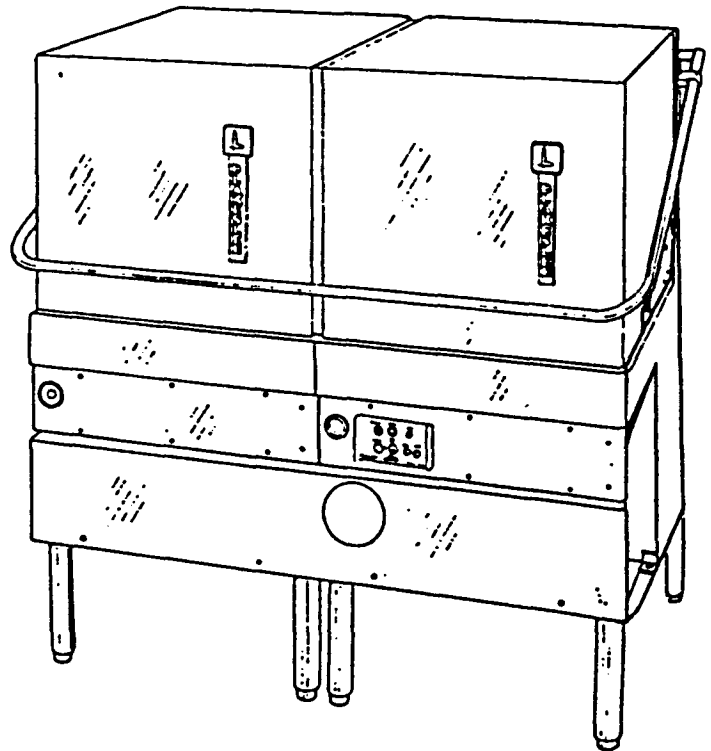
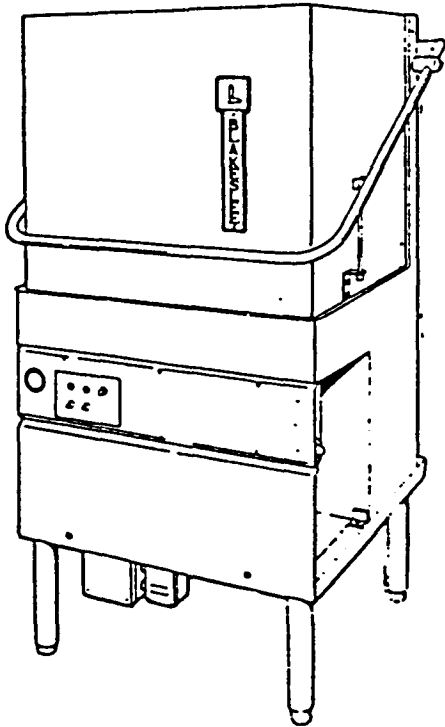


# OWNER'S MANUAL

## D-8/DD-8 HIGH TEMP DISHWASHER



BLAKESLEE  
1844 South Laramie Avenue  
Chicago, IL 60804  
Phone: (708) 656-0660

BLAKESLEE  
66 Crockford Boulevard  
Scarborough Ontario, Canada M1R 3C3  
Phone: (416) 751-2625

Listed below are items NOT covered under warranty.

**1. Lighting of Gas Pilots.**

At the time of installation the gas pilots and burners should be adjusted. Continued failures of pilot lights would indicate dirty gas lines, improper original adjustment or intermittent drafts blowing out the flame.

**2. Replacing Fuses or Resetting Overloads.**

Replacing a blown fuse or resetting an open overload breaker is a very simple procedure and is the owner's responsibility. If the machine continues to blow fuses or open the overload breaker, contact you nearest authorized Blakeslee Service Center.

**3. Adjusting Tank Heats.**

Heat adjustments are covered in this Manual and must be adjusted depending upon desired results.

**4. Proper Loading of Dishes.**

It is important the machine owner's personnel observe the instructions outlined in paragraph 2-2.

**5. Cleaning Drain Valves.**

Foreign articles lodged in the drain valve seat should be removed as a part of normal daily cleaning.

**6. Cleaning Rinse or Wash Nozzles and Line Strainers.**

Keeping a dishwasher clean and removing obstructions from the nozzles and line strainers will be a periodic function of the machine owner's personnel. The cleaning periods will vary depending upon impurities in the water supply and cleanliness of the washing operation.

**7. Final Rinse Water.** (High Temperature Dishwashers Only)

Most frequent of all complaints in any dishwashing machine is that of poor final rinse. It is the responsibility of the owner to provide 180° to 195° (plus) water at 15-25 lb. flow pressure through clean unobstructed water lines. If the machine has a factory equipped final rinse water booster, the owner must supply the booster with a minimum of 140° temperature water.

**8. Electric Boosters and Garbage Disposals.**

Although these units may have been purchased with the machine, they are warranted by the individual manufacturer. Consult the nearest factory authorized representative for these particular items.

**9. Overtime Charges.**

All warranty work is performed during normal daytime working hours (8 AM — 4:30 PM Monday through Friday). If warranty is requested at other times, the owner will be required to pay the overtime premium for all labor charges.

**10. Chemical Dispenser.** (Low Temperature Dishwashers Only)

Replacement and lubrication of the blue hose used in the chlorine dispenser pump is a simple procedure and the owner's responsibility. Refer to Owners Manual for further instructions.

Blakeslee  
Service Department

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# SECTION 1

## DESCRIPTION

### 1-1. GENERAL DESCRIPTION

The machine door is counterbalanced and opens to provide easy access to the inside of the machine.

The machine can be easily changed from a straight thru to corner model by the simple movement of one track rail. (See Figure 1-1).

If your machine is a single D8, and is to be used in a corner, the right side must always be positioned against one wall (see Figure 2-5). DD8 machines, if used in a corner, should have been ordered so that the operating controls are placed in the control box of the tank that is farthest from the corner. (Left tank or right tank.)

### 1-2. DOOR SAFETY SWITCH

All machines are equipped with a door safety switch. (See Figure 1-2). The machine will not operate when door is open. If the door is accidentally opened during an automatic cycle, the machine operation will stop. (Some models may be equipped with Optional Door Safety Lock. See para. 5-22 for description of lock.) When the door is closed, the operator must press the start button again to finish the wash cycle. If the door was opened when the machine was in the rinse cycle, the machine will automatically finish the rinse cycle when the door is closed again.

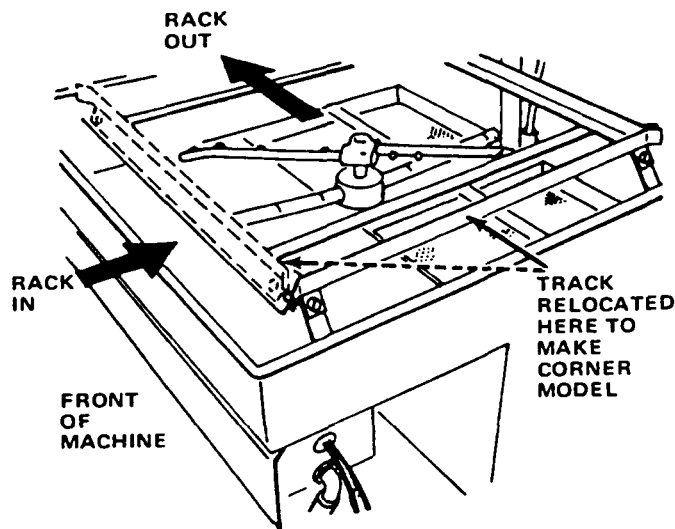


Figure 1-1. Relocating Track to Convert Straight-thru to Corner Model.

### 1-3. MOTOR

Machine is equipped with a 1 HP 1725 RPM motor. D8's have one, DD8's have 2.

### 1-4. CONTROL CIRCUIT

All machines are supplied with a 115 volt, A.C. control circuit.

### 1.5. VACUUM BREAKER

The fill line has a vacuum breaker installed in it to prevent any back flow of water into the fresh water supply line. If a negative pressure develops in the supply line, the loss of pressure permits a check valve inside the breaker to drop, sealing the orifice while at the same time a vent opens admitting air to the system to break the vacuum.

### 1-6. HEATERS

Wash tank water is heated by electricity, steam coil, steam injection, or gas. Electrically heated machines are available in 208, 240, 440, or 480 volts only.

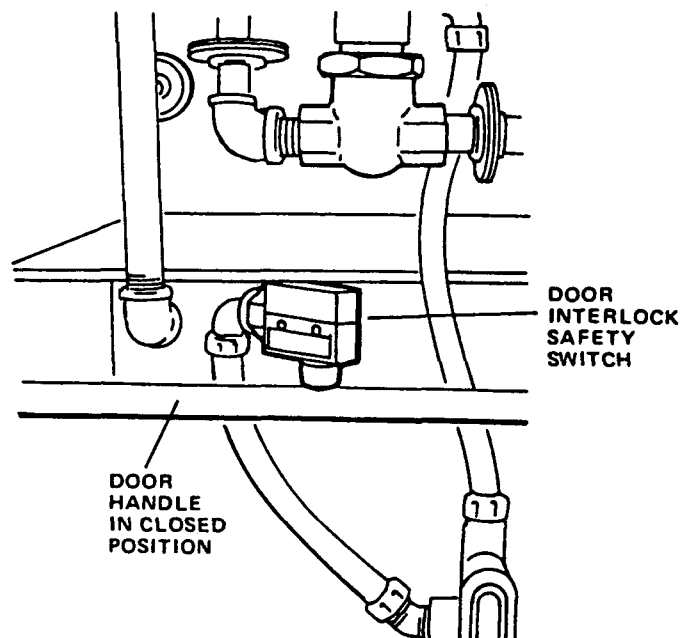


Figure 1-2. Door Safety Switch

### **1.7. AUTOMATIC OR TIMED TANK FILLED (Optional)**

All machines can be supplied with an automatic or timed tank fill. (See para. 5-20 & 5-21 for description).

### **1-8. Final Rinse Boosters (Optional)**

Machine can be equipped with an optional built-in electric booster, remote mounted electric booster, or remote mounted steam booster. These boosters are designed to raise rinse water temperature from 140° F to 180-195°. (Refer to para. 5-2 for description).

### **1-9. Heat and Voltage Field Changeover**

One of the most desirable features of the D8 Dishwasher is it can easily be field converted to different tank heats and voltage. All of the tank heats fit on the same mounting bracket. All that is necessary to convert from one type of heat to another is to order the kit for the type of heat desired and make the wiring changes as described below, in the parts list pages of this manual and the wiring diagram, W-3-17715. figure 15F-20 of Modular Dishwasher Service Manual. (NOTE: to keep the cost of conversion as low as possible, it will be necessary to purchase a few electrical components such as flexible waterproof conduit, wire, etc. locally).

Following are the complete assemblies needed for tank heat conversion.

<b>Natural Gas</b>	<b>W-0-17966</b>
<b>L.P. Gas</b>	<b>W-0-17967</b>
<b>Steam Injector</b>	<b>W-3-12988</b>
<b>Steam Coil</b>	<b>W-3-13129</b>
<b>Electric</b>	<b>W-0-95377</b>

NOTE: Electric heat not available for 115 volt machines.

Additional conversion installation note.

When changing either to or from single to three phase electrical power, the wash pump motor must be changed. The motor protection fuses must also be changed. See parts description in figure 6-11 and wiring diagram, figure 15F-20 of Modular Dishwasher Service Manual.

When changing from 115 volts to 208, 230, 440, or 480 volts, single or 3 phase, a transformer must be added. The motor protection fuses must also be changed (see parts description in figure 6-11 and wiring diagram, figure 15F-20 of Modular Dishwasher Service Manual.

## SECTION 2 INSTALLATION

### 2-1. PLUMBING & ELECTRICAL CONNECTIONS

Various plumbing connections are tagged "180° water," "steam," "gas," etc.

NOTE: Installation must be made by qualified workmen observing all applicable Sanitary, Safety & Electrical Codes.

### 2-2. LOCATION

Place dishwasher in its proper location. (See figure 2-5 or 2-6). Maintain 34-1/4"  $\pm$  3/4" height. (See figure 2-2). Level dishwasher by turning adjustable feet. INITIAL SETTING OF DISHWASHER MUST BE LEVEL TO PERMIT HOOD TO OPEN AND CLOSE PROPERLY. If one side of the door has an excessive gap after the dishwasher is leveled, adjusting one of the front legs up or down will remedy this. (See figure 2-3). Do not make any service connections until machine is set and leveled and doors open and close properly.

### 2-3. DISH TABLE

Dish table should be lipped into the dishwasher. (See figure 2-4). Use silicone type sealer between dish tables and dishwasher. Secure with stainless steel (S/S) truss head screws.

### 2-4. ELECTRICAL CONNECTIONS

Check machine data plate before making any electrical connections. Connections must agree with data plate (figure 2-1) on machine. A fused disconnect switch or circuit breaker (not furnished) MUST be installed in the electrical supply line for the dishwasher. This service connection must meet all national and local electrical code requirements. All connections are made at one common connection in control box. (See figure 2-9). Control box cover is hinged. Remove the six 1/4 x 20 screws and swing cover open to the right. (See figure 2-9).

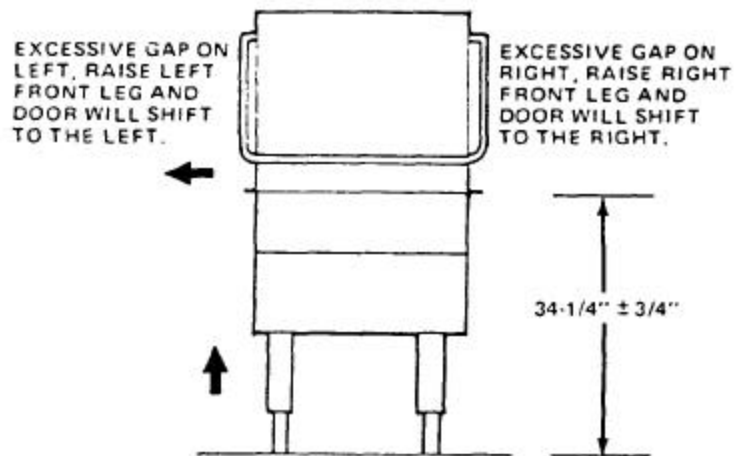


Figure 2-2. Leveling Diagram

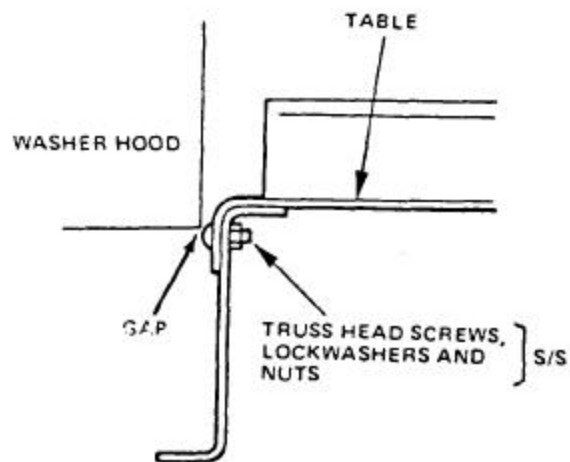


Figure 2-3. Attaching Table to Tank

NOTE: If machine has optional electrical booster, refer to section 5 for separate electrical connection information.

CAUTION: Before attempting to connect electrical service connections, be sure incoming power is turned off.

### 2-5. PUMP ROTATION

The pump motor(s) must rotate in a clockwise direction (when facing front of dishwasher). An arrow on the side of the motor(s) (see figure 2-7) indicates direction motor shaft(s) must turn for correct washing action. This rotation is factory checked but must be rechecked before using the machine.


 <b>BLAKESLEE</b>			
<b>POWER REQUIREMENT</b>			
MOD. _____	SER. NO. _____	CIR. DIA. NO. _____	
VOLTS _____	PH. _____	HZ. _____	AMP. _____ HP. _____
<b>BRANCH CIRCUIT PROTECTION REQUIREMENT</b>			
SUPPLY CIRCUIT CONDUCTORS (MINIMUM AMPACITY) _____			
CIRCUIT-BREAKERS (MAXIMUM AMPACITY) _____			
TIME-DELAY FUSES (MAXIMUM AMPACITY) _____			
W-2-20878			

Figure 2-1. Data Plate

**NOTE:** Check both motors on Double D8.

**NOTE:** ALWAYS DISCONNECT ALL POWER GOING TO DISHWASHER BEFORE MAKING ANY OF THESE CHANGES.

## 2-6. FILL RINSE

Final rinse water will be used to fill dishwasher. Therefore, this supply line should have a water temperature of 180-195°F and a flow pressure of 15 to 25 P.S.I. at the dishwasher.

**NOTE:** If machine is equipped with either a machine mounted booster, or a remote mounted booster, water supply temperature must be 140°F minimum.

If the supply pressure is below 15 P.S.I., an optional booster pump will be required. If the supply pressure is over 25 P.S.I., a pressure reducing valve (optional) will be required. Connect a 3/4" pipe to the line strainer. (Figure 2-4). If the run is over 20 ft., use a larger pipe to insure proper flow pressure.

**CAUTION:** Before attempting to connect electrical service connections, be sure incoming power is turned off.

## 2-7. DRAINS

Connect the tank drain(s) (figure 2-5 or 2-6) to the sewer connection using 2" pipe (figure 2-8). Because of the hot water that is used in dishwashers, grease traps are usually not very effective. If a grease trap is required, it must be installed below the drain line and have a capacity of 40 gallons per minute.

## 2-8. HEATING SYSTEMS - Refer to Figs. 2-6 and 2-7 For Installation Information

### 2-9. ELECTRIC HEATER

Machines that are electrically heated are available in 208, 240 or 440-480 volts, single or three phase only. They are pre-wired at the factory and only one common connection is necessary. L1 and L2 for single phase, L1, L2 and L3 for three phase. (See figure 2-9.) Additional instructions are inside the control box. Be sure wire size is adequate to carry entire amperage load. The temperature is controlled by the thermostat located in the control box.

### 2-10. GAS HEATER

Check tag attached to gas valve for type of gas (L.P. or Natural) to be used with the equipment.

**NOTE:** If tag is missing, Natural or L.P. gas can be determined by checking the gas control valve. Natural gas valve has a pressure regulator, L.P. gas does not. (See figure 2-10.)

Check that all fittings are tight. Connect gas supply to control valve, conforming to all local codes.

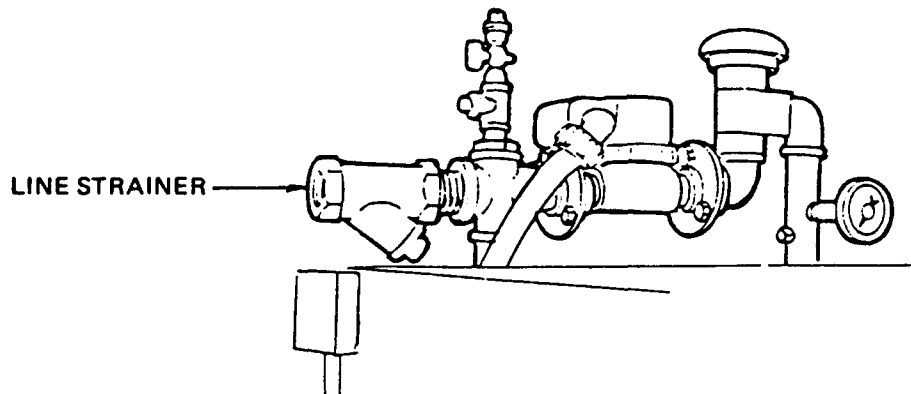


Figure 2-4

**TOP VIEW OF MACHINE**

**SPLASHGUARD RECOMMENDED**

**WALL A WITH CORNER MOUNTED MACHINES ONLY**

**WALL B**

**16"**

**3" Min.**

**front of machine**

**4" Min.**

**17"**

**A**

**13-3/16"**

● fitting pointed down

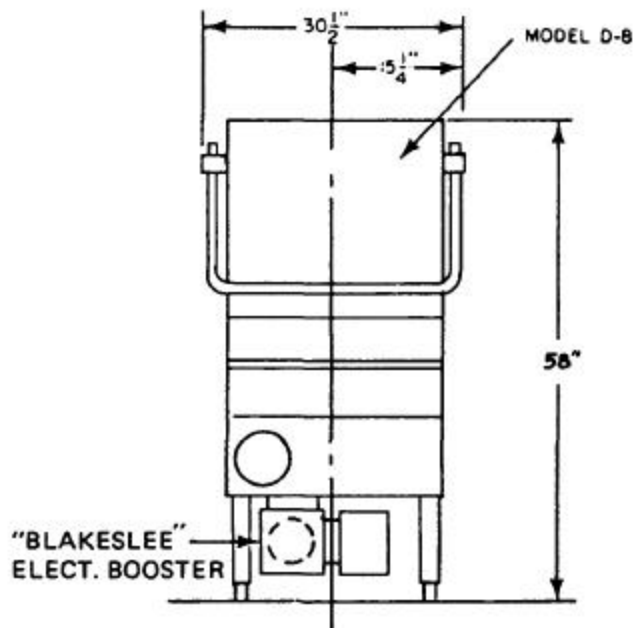
◐ direction of fitting

**- SPLASHGUARD RECOMMENDED**

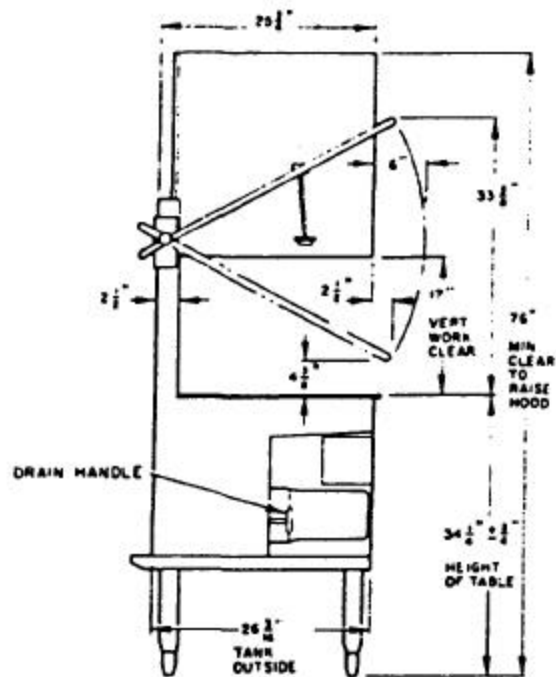
**-WALL A WITH CORNER  
MOUNTED MACHINES ONLY**

- fitting pointed down
- ◀○ direction of fitting

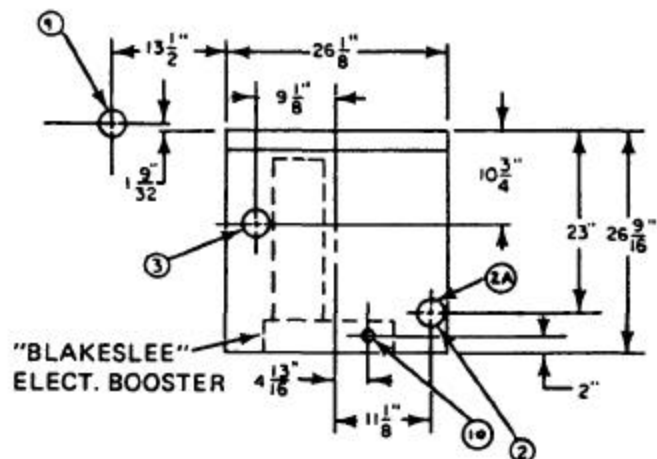
◀ direction of fitting



**"BLAKESLEE"—  
ELECT. BOOSTER**



HEIGHT  
OF TAB



**Figure 2-5 (Continued on next page)**



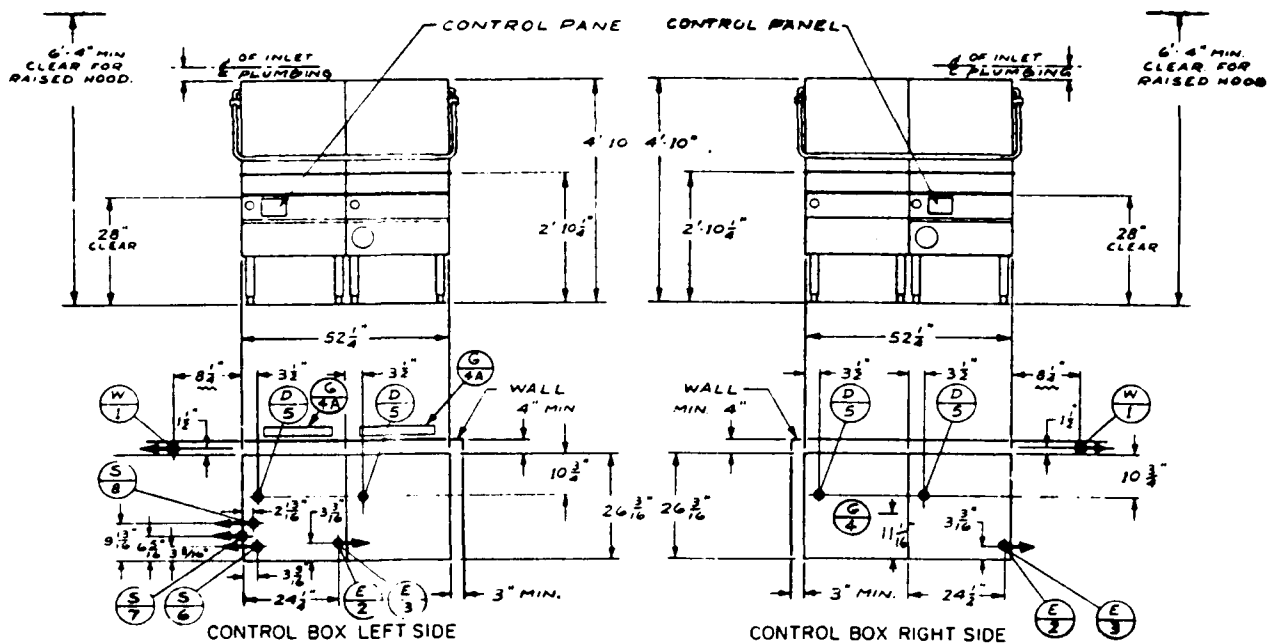
### SERVICE CONNECTION INFORMATION

Service No. Connection	Fitting	Function	Dim. from Floor Inches
1 180°F Hot Water Inlet	3/4" NPT Fem.	Tank Fill and Final Rinse	60-1/4"
2 Electric 15 Amps 7.5 Amps 4 Amps 3-8 Amps 1.9 Amps	1-1/8" Dia. Hole	1 HP Motor and Controls 113/60/1 230/60/1 208/60/3 230/60/3 460/60/3	25"
2A Electric 12Amps 13 Amps 12 Amps 5.7 Amps	1-1/8"	Tank Heater 230/60/1 208/60/3 230/60/3 460/60/3	25"
3 Drain	2" NPT Male	Waste to Sewer	12-1/2"
4 Gas Inlet	1/2" NPT Fem.	Gas Tank Heat	10-1/4"
5 Gas Flue	19-3/4" x 1" 500 x 25 mm	Gas Burner Vent	16"
Steam 6 Injector	3/4" NPT Fem.	Steam Tank Heat	10"
Steam 7 Coil-In	3/4 "NPT Fem.	Steam Tank Heat	10"
Steam 8 Coil-Out	1/2" NPT Fem.	Steam Tank Heat	10"
9 140° Water Inlet	3/4"	Tank Fill & Booster Inlet	5-3/4"
10 Electric 60 Amps 39 Amps 34 Amps 16 Amps	1-5/16"	Blakeslee Built-in Booster 230/60/1 208/60/3 230/60/3 460/60/3	5-3/8"

Tank requires 18.5 gallons of hot water to fill. Final rinse requires maximum of 130 gals per hour of 140° hot water at 20 P.S.I. Total steam requirement 25 lbs. cond/hr at 20 P.S.I.

Gas burner flue not furnished on steam or electrically heated machines. When gas heated machines are specified dimensions marked \*\* are increased by 2" (50 mm).

**Figure 2-5 (Continued from previous page)**



#### SERVICE CONNECTION INFORMATION DD8

MK. NO.	SERVICE CONNECTION	FITT.	FUNCTION	DIM. FROM FLOOR
	180° MIN.	1"	TANKS FILL INLET AND FINAL RINSE INLET	60-1/4"
	ELECTRIC 30 AMPS 15AMPS 8 AMPS 7.2 AMPS 3.6 AMPS	1-1/8"	CONTROL PANEL AND 2 MOTORS 115/60/1 230/60/1 208/60/3 230/60/3 460/60/3	25"
	ELECTRIC 24 AMPS 26 AMPS 24 AMPS 11.4 AMPS	1-1/8"	2 TANK HEATERS - TOTAL 5.0 KW 230/60/1 208/60/3 230/60/3 460/60/3	25"
	GAS INLET	1/2" NPT FEM.	GAS TANK HEAT	10-1/4"
	GPS FLUE	19-3/4"	GPS BURNER VENT	16"
	(2) DRAINS	2"	CONNECTS TO WASTE	12-1/2"
	STEAM	3/4"	TANK HEAT-INJECTOR	10"
	STEAM	3/4"	TANK HEAT-COIL-IN	10"
	STEAM	3/4"	TANK HEAT • COIL-OUT	10"

TANKS REQUIRE 37.0 GAL'S OF HOT WATER TO FILL.  
FINAL RINSE REQUIRES MAX. OF 260 GAL'S PER HOUR  
OF 140° HOT WATER.

TOTAL STEAM REQUIREMENT **50 LBS. COND./HR AT  
20 P.S.I.**

Figure 2-6. DOS Rough In Information

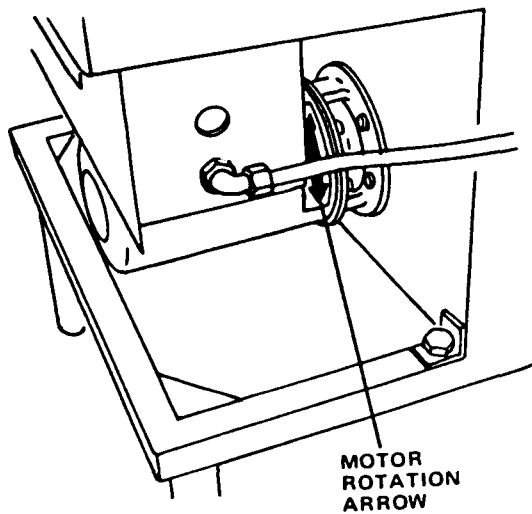


Figure 2-7. Motor Rotation Checking

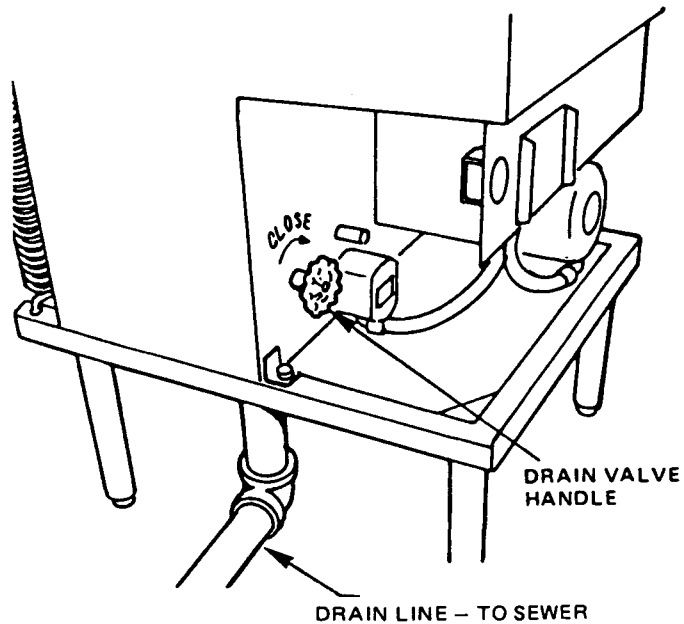


Figure 2-8. Drain Installation

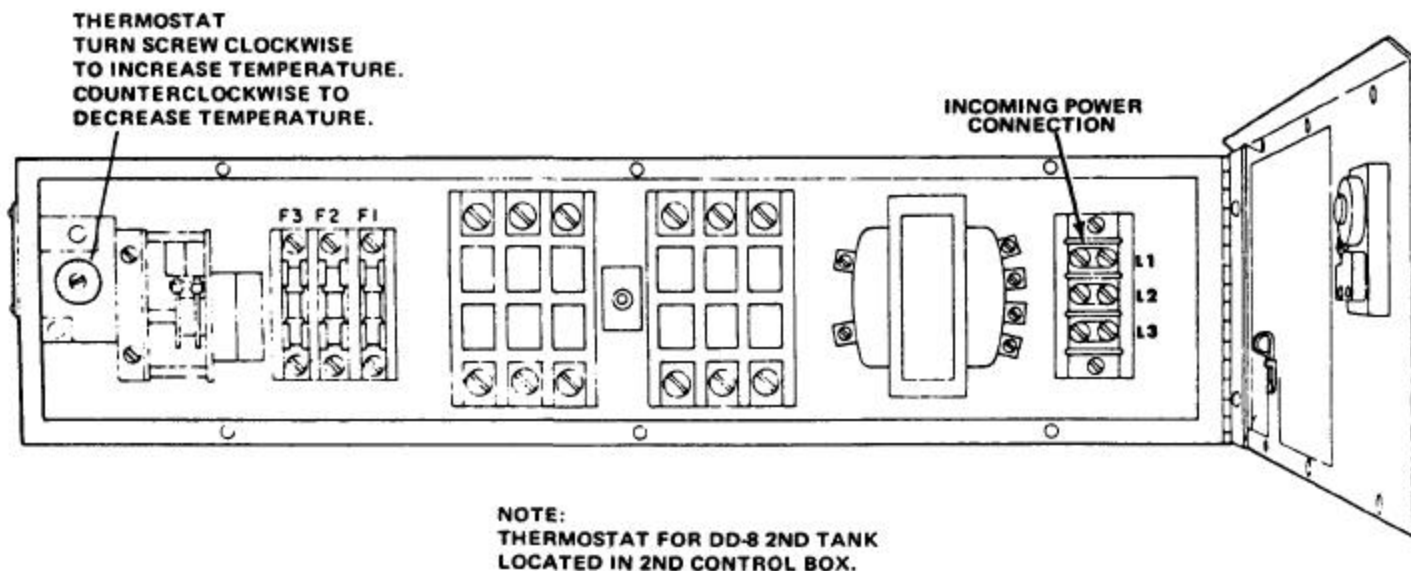


Figure 2-9. Power Connections

Natural gas valve has a pressure regulator for minor adjustment. L.P. Gas pressure must be regulated by the customer's pressure regulator.

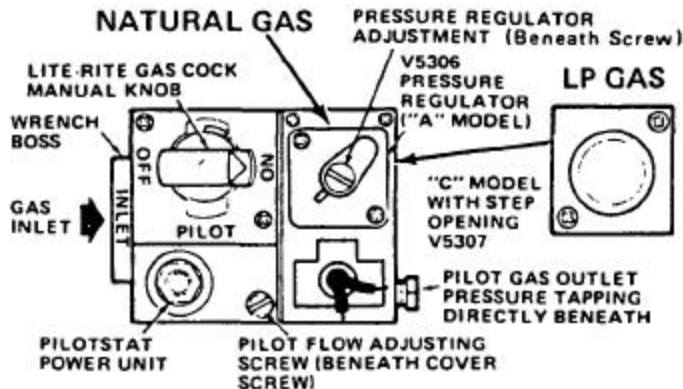


Figure 2-10. Gas Control Valve

#### PILOT LIGHTING PROCEDURE

1. Slightly depress control knob and turn clockwise to OFF. Wait 5 minutes for all unburned gas to vent. REMEMBER that L.P. gas does not vent upward naturally. Therefore, if you have been unsuccessful in lighting the pilot, within a short period of time, the area must be exhausted with a fan, or equivalent, to blow out L.P. gas before attempting to relight the pilot.
2. Turn the control knob to PILOT, depress it completely, and light the pilot burner. The knob must be held down about 1 minute before the pilot burner will stay lit after releasing the knob.
3. Turn the knob to ON, and set the thermostat located in control box for desired wash tank temperature (150-160°F).

**CAUTION:** DO NOT TURN GAS HEAT ON UNTIL WASH TANK IS FILLED WITH WATER.

**NOTE:** Main burner is equipped with a non-adjustable orifice (0.052 for L.P. gas and 0.078 for Natural gas.)

#### PILOT FLAME ADJUSTMENT

The pilot flame should envelop 3/8 to 1/2 inch of the tip of the thermocouple (figure 2-11). Remove pilot adjustment cover screw (figure 2-10). Turn inner adjustment screw clockwise to decrease or counterclockwise to increase pilot

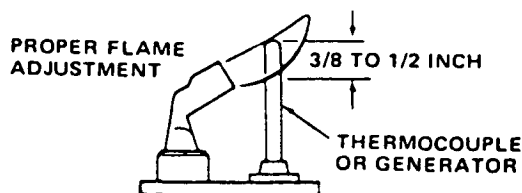


Figure 2-11. Pilot Flame Height

flame. BE SURE TO replace cover screw after adjustment to prevent possible gas leakage.

#### GAS VENTS

Gas heated machines are furnished with flues. These do not have to be connected to any vents. The temperature is controlled by the thermostat located in the control box.

#### 2-11. STEAM INJECTION HEATER

Connect incoming steam line to steam line tagged "incoming steam". This will be the line strainer. It is recommended that a steam shut-off valve and pressure gauge (not supplied with machine) be installed close to the dishwasher for servicing. The tank water temperature is controlled by the thermostat located in the control box. (See figure 2-9).

#### 2-12. STEAM COIL HEATER

Connect incoming steam line to line tagged "steam supply." This will be the line strainer. It is recommended that a steam shut-off valve and pressure gauge (not supplied with machine) be installed close to the dishwasher for servicing.

Connect condensate return line to condensate trap.

**CAUTION:** CONDENSATE LINE MUST RUN PARALLEL OR DOWN FROM THE DISHWASHER. IF CONDENSATE LINE HAS TO BE RUN VERTICAL, A CONDENSATE PUMP MUST BE INSTALLED.

The tank water temperature is controlled by the thermostat located in the control box. (See figure 2-9.)

#### 2-13. ELECTRICAL DETERGENT & RINSE INJECTOR CONNECTIONS

**WARNING:** DISCONNECT ALL POWER BEFORE MAKING ANY ELECTRICAL CONNECTIONS.

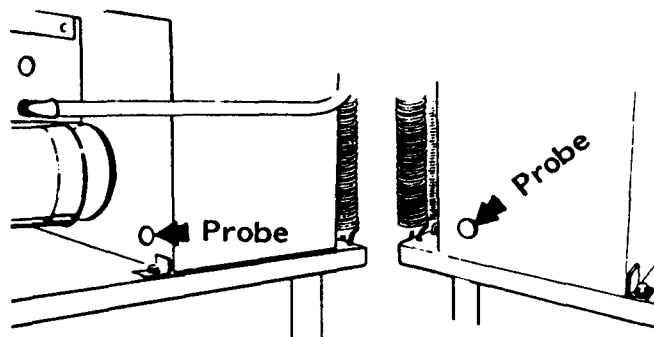
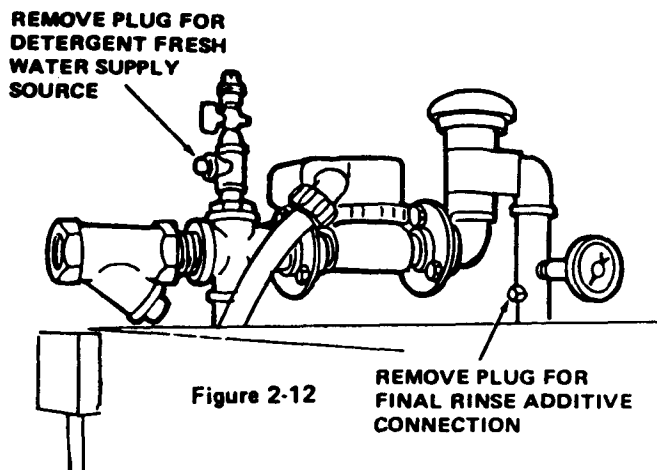
Connect primary leads of detergent-rinse injector transformer to F1 and F2 (top side of fuse block). (See figure 2-15, page 10.) POWER IS AVAILABLE AT THIS POINT DURING THE WASH CYCLE.

The voltage at this point is the same as the primary (incoming) machine voltage. Customer's incoming power line provides fuse protection.

DO NOT connect detergent equipment to lines IT1 or IT2 or any other source. This will defeat the fuse protection for the pump motor and VOID the machine WARRANTY.

Connect secondary leads of detergent-injector transformer to dispensing equipment.

A connection tap is provided for fresh water for detergent and final rinse equipment (see figure 2-12).



**Figure 2-13.**  
**Location of Detergent**  
**Probe Hole After 6-1-81**

**Figure 2-14.**  
**Location of Detergent**  
**Probe Hole Before 6-1-81**

Figure 2-12, 2-13 and 2-14 is not applicable for current production models.

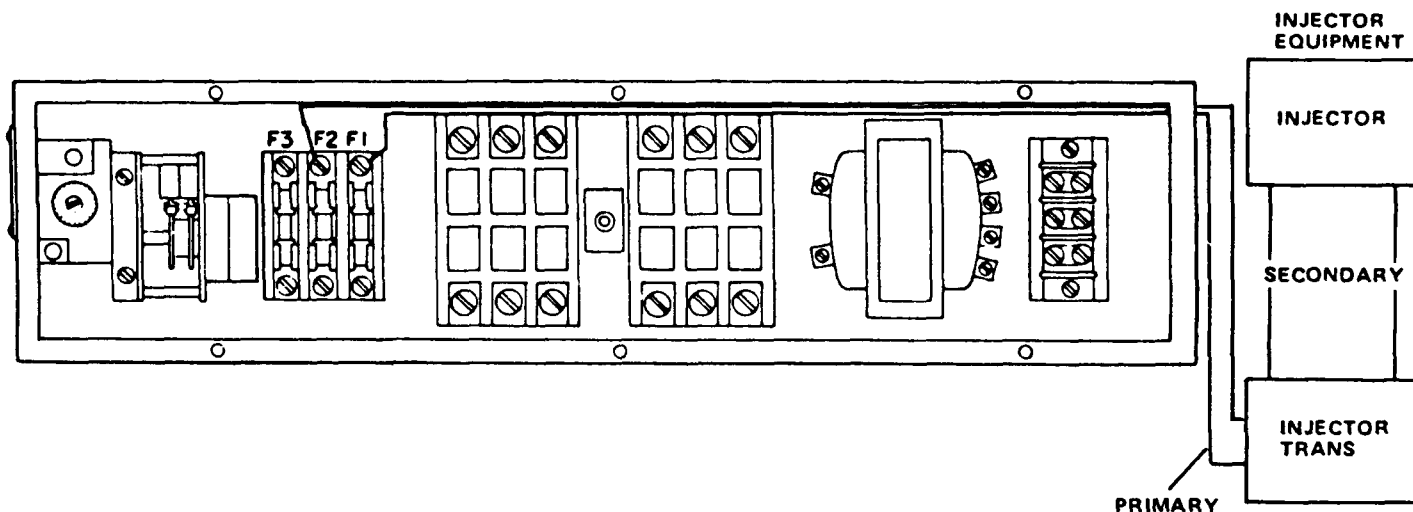
A connection tap is provided for the injection of final rinse additive (see figure 2-12)

There is also a prepunched hole on the front of each dishwasher tank - adjacent to the right side of the dishwasher pump motor. This is for the detergent probe. (See figure 2-13). This hole was put on all machines shipped after approximately 6-1-81.

Before 6-1-81 there were prepunched holes on the side of the dishwashers for detergent probes (see figure 2-14). These holes are covered with carbon steel caps. If these holes are not used, replace the caps with stainless steel caps.

Connect secondary leads of detergent-injector transformer to dispensing equipment. A detergent equipment control box knockout for 1/2" conduit is located next to the incoming power knockout.

**NOTE:** It is highly recommended that a separate detergent dispenser be used for each tank of a DD8.



**Figure 2-15. Detergent Injector Hook-Up**

# SECTION 3 OPERATION

## 3-1. PREPARING THE DISHWASHER FOR OPERATION

- Close drain (s) by turning handle of drain valve (see figure 2-8) clockwise as far as it will go. Be sure standpipe guide is in position. (See figure 3-1), Place scrap screens in position. (See figure 3-2). Be sure all wash arms and lower final rinse arm(s) are in position and spin freely. Tighten (turn clockwise) lower spindle and upper wash rotor nut by hand.
- Scatter the initial charge of detergent in scrap trays. Replenish as needed unless automatic detergent dispenser has been added by others.
- Close the counterbalanced three way door.
- Fill dishwasher tank with water. Flip HEAT/FILL switch item 4. Figure 3-3 to "FILL" (down) position. Leave it in this position for 3 minutes to fill tank. Flip HEAT/FILL switch to "ON" (up) position to turn on tank heater.
- Observe wash tank thermometer item 6, figure 3-3. It should register between 150°-160°F. If, after a short period of time, this temperature is not attained adjust thermostat in control box (figure 2-9.)

NOTE: ADJUSTING THE THERMOSTAT IS A USER FUNCTION AND IS NOT COVERED UNDER WARRANTY.

## 3-2. AUTO TANK FILL-Optional

If machine is equipped with optional automatic tank fill, machine will start filling with water automatically when machine "HEAT/FILL" switch is flipped "ON" (up). Wait approximately 3 minutes for machine to fill. NOTE: This option will automatically keep water to within 3 inches of

the top of the standpipe as long as the machine is on. When the machine is cycled, the final rinse water will bring the wash water up to the top of the standpipe.

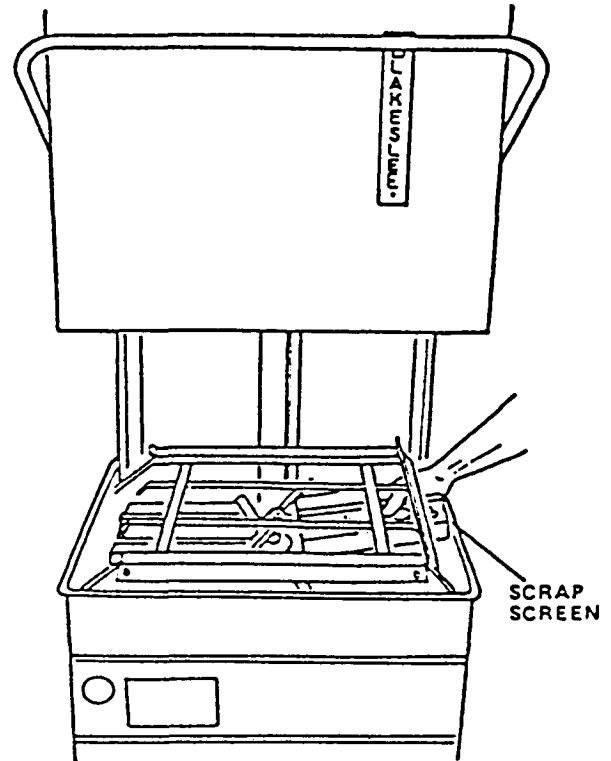


Figure 3-2. Installing Scrap Screens

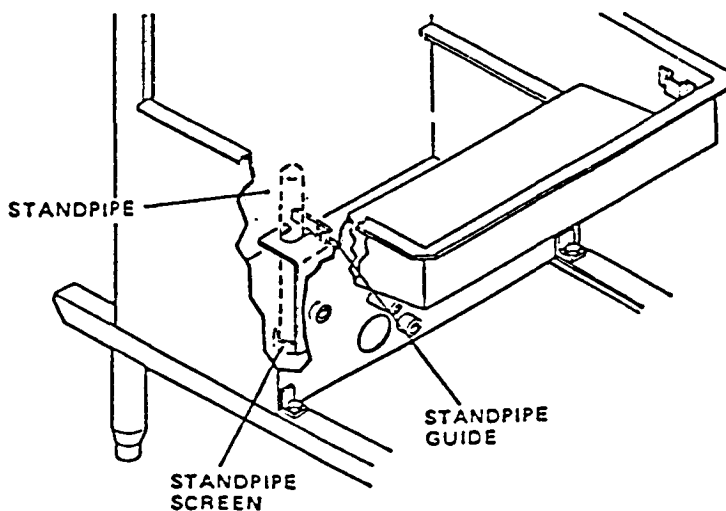


Figure 3-1. Standpipe Guide

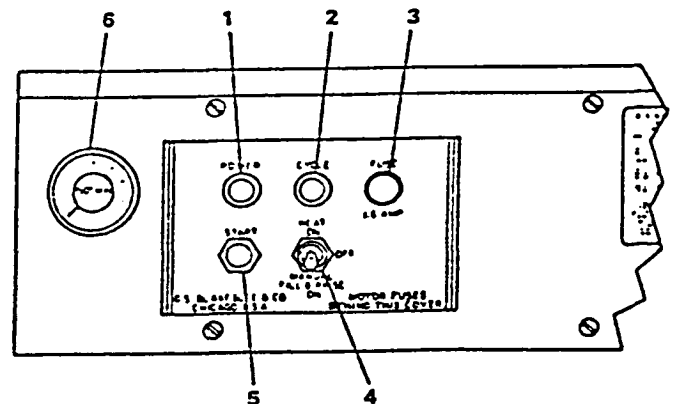


Figure 3-3. Standard Front Panel and Thermometer Single and Double D8

- |   |                                   |
|---|-----------------------------------|
| 1. Red Power Light                      | 5. Cycle Start Push Button Switch |
| 2. Amber Cycle Light                    | 6. Thermometer                    |
| 3. Fuse                                 |                                   |
| 4. Heat On/Manual Fill and Rinse Switch |                                   |

### 3-3. TIMED TANK FILL (Optional)

HEAT/FILL switch, for this option, is a spring return type. To activate Timed Tank Fill flip HEAT/FILL switch to "FILL" position and hold for 2 seconds. Switch will return to "OFF" position by spring action. Timer continues to fill tank.

NOTE: This lever should only be depressed at beginning of an operation when the machine does not have any water in it. After the machine is operating the final rinse water will keep the tank full of water.

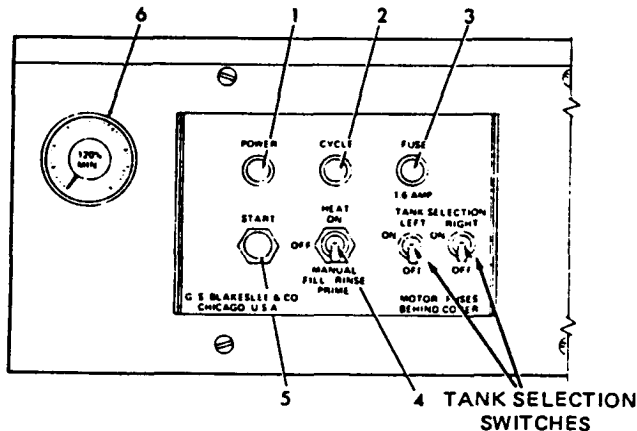


Figure 3-3A. Front Panel and Thermometer  
(Shown with optional tank selection switches)  
DD8 Only

### 3-3A. TANK SELECTION (Optional on DD8 Only)

This option enables either left, right or both tanks to be operated during each automatic or manual cycle. It enables an operator to cycle only one tank during non rush periods. In most cases, it also enables the machine to operate on one tank even if the second tank is inoperable.

### 3-4. SOILED DISHTABLE OPERATION

If your dishroom personnel observe these simple work rules, your dishwashing operations will be fast and smooth, and your dish breakage held to a minimum.

Instruct your bus boys or waitresses that leftover food must be removed from dishes before placing them in stacks. See figure 3-5. This will assure maintaining cleaner wash water and reduced detergent costs.

Certain items are self-stacking, such as plates or trays. Food soil should be removed from these items and the plates should be placed in manageable stacks. An area on the soiled dish table should be designated as a "build-up-area." The stacks of dishes should be held in the build-up area and, if possible, stacks of like items should be placed next to each other. Racks can then be filled with like items when operator begins washing.

Some items will not readily stack, such as coffee cups, glasses, soup bowls. These items should be placed directly into racks so that they can be transported with a minimum of effort. See figure 3-6. In racks these items also are not exposed to breakage. Racks, when filled, should be placed in the build-up area. This organized, orderly separation of tableware is essential to dishroom efficiency and reduced breakage. **THE BETTER ORGANIZED YOUR SOILED DISHTABLE, THE FASTER YOUR ENTIRE OPERATION, AND THE LESS YOUR BREAKAGE COSTS.**

Silverware should be soaked in a sink or container to keep food particles from drying. When ready for washing, the

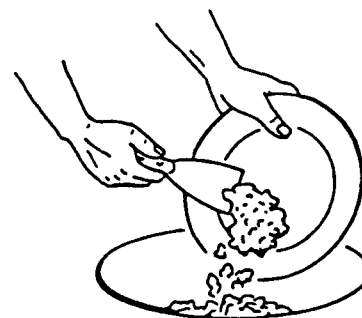
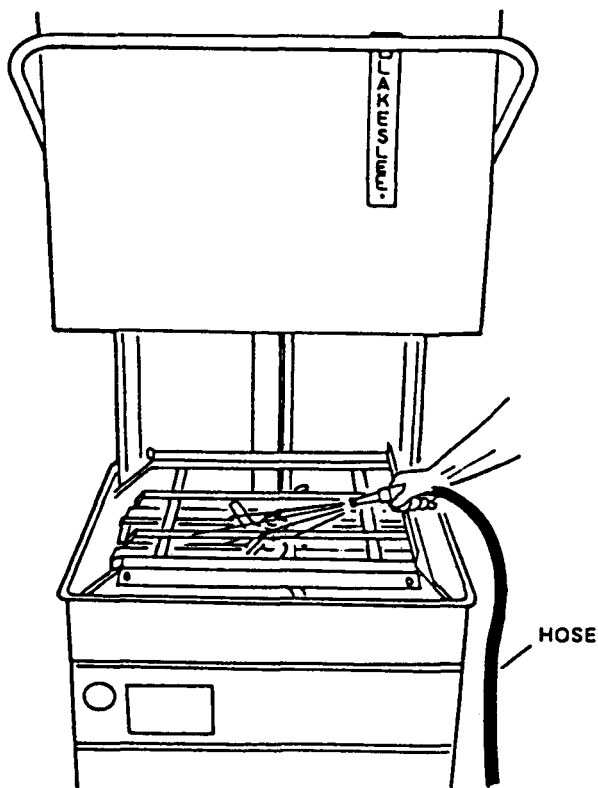
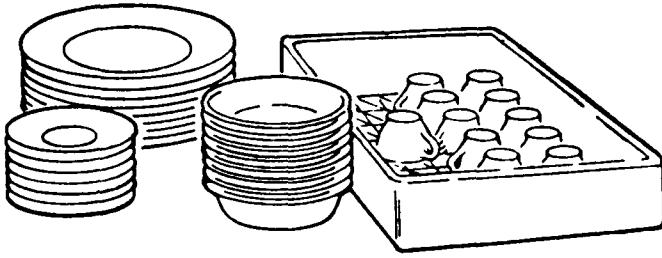


Figure 3-5. Scrapping Dishes before Stacking



**Figure 3-6. Build-up Area**

silverware should be placed either in a flat rack or vertical silverware holder and sent through the dishwasher.

**NOTE:** When placing silver in flat racks, do not overload the rack. You should be able to see the bottom of the rack in many places after it is loaded.

**IMPORTANT:** As much as possible, keep soil from entering dishwashing machine. This will reduce detergent consumption and will make the machine easier to clean.

### 3-5. LOADING MACHINES

All plates of the same size should be washed at the same time to eliminate sorting dishes at the clean end of the machine. If possible, all glasses, cups, etc. should likewise be sent through the machine at the same time to eliminate rack sorting. The machine should be operated as close to 100% efficiency as possible for a brief period while the build-up area is being cleared. Dishes from the build-up area should be quickly processed through the machine so the loading operator can return to his normal scrapping and stacking function.

Better results can be obtained from a DD8 dishwasher if one tank is used exclusively for china and the other tank is used for glasses and silver.

### 3-6. OPERATING THE DISHWASHER

a. After filling the wash tank and adding detergent, raise the door and slide the rack into the dishwasher. (Center of both tanks in a DD8.)

b. Close the door (dishwasher has a safety switch figure 1-2 that will prevent the machine from operating if the door is open.)

#### c. Automatic Operation

Momentarily depress START button. Machine will automatically wash and rinse one rack of dishes. Automatic CYCLE light (figure 3-3) will be on during the entire automatic cycle. When the cycle is over, the light will turn off. If the door is opened during the automatic cycle, the machine will stop. The automatic cycle will have to be restarted when the door is closed again. This feature provides a complete cycle to insure proper cleaning of the rack of dishes or added articles.

To avoid being splashed, it is advisable to wait approximately 5 seconds before opening the door, after stopping the machine.

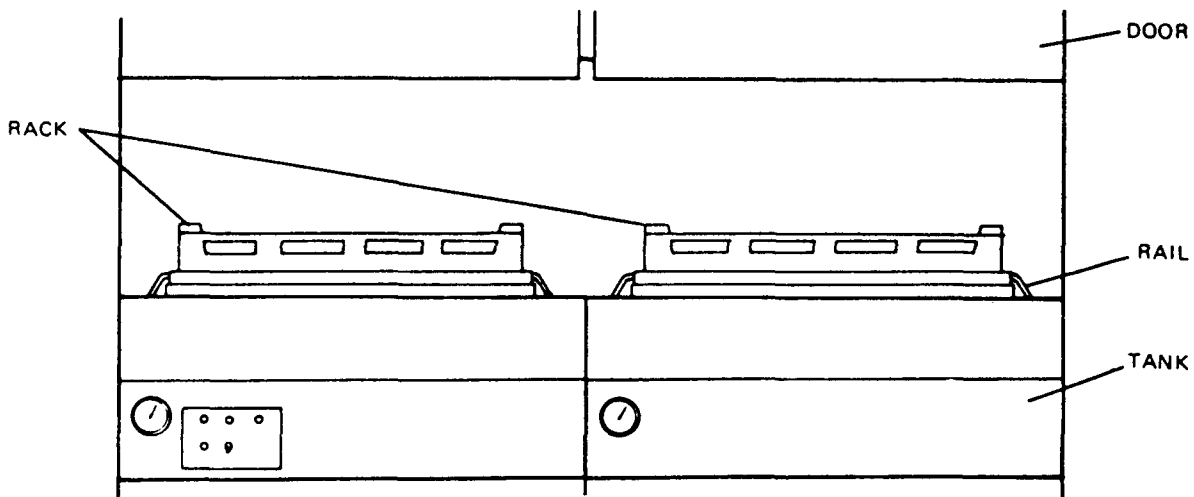
#### d. Manual Operation

##### Wash Cycle

The only time manual wash is necessary is because of a timer or some other electrical failure. Close the hooded door, flip HEAT/FILL switch to "ON," depress and hold START button. Minimum wash time is 45 seconds.

##### Rinse

On some rare occasion, it may be desirable to operate the rinse cycle longer than programmed in the timer. Simply flip the HEAT/FILL switch to "FILL." Machine will rinse as long as the switch remains in the "FILL" position. Not applicable with machine equipped with Timed Tank Fill (Optional). If the machine timer has failed and the machine is being operated manually, the ware must be rinsed for a minimum of 12 seconds after a normal wash cycle.



**Figure 3-7. View of Racks with Door Raised (DD8)**



**3-7. SHUT DOWN and CLEANING**

- a. Turn off main power switch.
- b. Flip HEAT/FILL switch to "OFF" position.
- c. Drain machine by turning drain valve counterclockwise as far as it will go (figure 2-8). Raise washer door.
- d. Clean your dishtables and rinse in fresh water. Be sure to leave scrap screens in machine while doing this.
- e. REMOVE scrap screens, empty them, and clean with a scrub brush in sink. Place on dishtable. DO NOT hit sides of scrap screens on trash containers.
- f. Inspect Revolving Wash Rotors for blockage of any opening and ease of rotation. Remove and clean if required (see para. 4-4.)
- g. Lift retainer on stand pipe guide (figure 3-1).

Remove standpipe and screen. Clean thoroughly in water with wire brush.

- h. Wash and clean *INSIDE OF MACHINE* using a hose. (See figure 3-4.)
- i. Leave DOOR open to dry interior of machine.
- j. Thoroughly clean dishwashing area.
- k. Clean and refill Detergent Dispenser (if machine has this optional equipment) as instructed by your detergent supplier.
- l. Replace standpipe and screen, flip stand pipe retainer lever in place.

Additional Blakeslee Racks  
W-0-16428 ..... Multipurpose Rack  
W-0-16429 ..... Combination Rack

## SECTION 4

# MAINTENANCE & LUBRICATION

### 4-1. MOTOR

No Lubrication required

### 4-2. PUMP

No Lubrication required

### 4-3. DOORS

No Lubrication required

### 4-4. WASH ARMS

- a. Wash arms (upper and lower) should turn freely and continue turning for a few seconds after being whirled by hand.
- b. If the scrap screens are not properly in place, obstructions, such as prune seeds or bones, may clog the wash arm nozzles. The wash arms are easily removed for cleaning.
- c. To remove the lower wash arm, first lift off the rinse arm, then unscrew the spindle bearing pin (item 8, figure 6-4). Lift off lower wash arm.
- d. The upper wash arm(s) is removed by removing the wash rotor nut (item 12, figure 6-6).

### 4-5. FINAL RINSE ARM & NOZZLES

- a. The rinse nozzles will need frequent cleaning if the water contains much lime or other solids.
- b. The hole in the rinse nozzle on the lower rinse arm may be cleaned with a wire and paper clip. Push the scale or obstruction into the rinse arm, then unscrew the end plugs and flush out the tubes by operating the rinse. The lower rinse arm may be lifted straight off the bearing pin and thrust washer assembly.
- c. The upper final rinse nozzles can be cleaned with a wire brush and by inserting the end of a paper clip thru the nozzle. Then remove the 1/2" pipe cap at the end of the final rinse line and flush out the line (item 28, figure 6-5).

### 4-6. PUMP MOTOR OVERLOAD PROTECTION

#### a. Wash Motor(s)

Wash Motor protection is provided by Slow-Blow type cartridge fuses. In the event a foreign article jams the pump impeller, the motor will draw an excessive amount of current and open (blow) the fuse(s). After clearing the foreign article from the pump, the fuse(s) must be replaced before the pump motor will operate.

WARNING: SEE FIGURE 6-11, ITEM 29 FOR LOCATION OF FUSES.

#### IMPORTANT:

An open (blown) fuse must always be replaced with the same size and type of fuse(s). INCREASING THE FUSE SIZE OR RATING WILL ELIMINATE THE MOTOR PROTECTION AND VOID THE MACHINE MOTOR WARRANTY. Refer to figure 6-11, items 1 thru 3A, for the proper fuse size. It is suggested that spare fuses be purchased and kept on hand. These fuses can be obtained from your Blakeslee parts distributor or authorized service agency. Refer to the authorized service distributor and service agency listing booklet that was packaged with the machine for the one in your area.

### 4-7. TROUBLESHOOTING

#### WASH PUMP MOTOR WILL NOT START (EITHER TANK)

1. Automatic timer defective.  
Operate wash pump manually (see paragraph 3-6d). If pump will run on manual but not automatic, this indicates a defective timer.
2. Motor overload fuses blown.  
Check the three fuses for continuity (see items 1 thru 3, figure 6-11).  
Check junction box above motor if not working.

NOTE: If overload fuses are blown (open) this indicates either a defective motor or a foreign object has jammed the pump impeller. Turn off power supply, drain tank and check and remove any obstruction in the tank and pump intake.

#### MACHINE WILL NOT START

1. Main source of power off. Check power supply from customer's fuse or circuit breaker.
2. Control fuse blown open. Check control fuse for continuity.
3. Door safety switch not actuated or defective. Be sure door is fully closed and rear portion of door handle has activated (closed) the switch. (See figure 1-2).

#### NO TANK HEAT

1. HEAT/FILL switch not "ON" or defective. Flip the switch to "ON" position. If red "POWER" light comes on, switch is good. Check further.
2. Main gas valve, steam valve or electrical heating circuit breaker not turned on. Check.

3. Thermostat set too low or defective. Open control box and turn thermostat clockwise until heat comes on.

**NOTE:** If heat comes on, do not leave thermostat at this high setting. Adjust to obtain 150°-160°F wash tank temperature on wash tank thermometer (figure 2-12, page 8). If turning thermostat clockwise does not start the heating cycle, check for the following::

- a. Defective thermostat
- b. Defective Gas valve
- c. Steam solenoid or heating contactor, whichever is on your machine.
- d. Dirty line strainer
- e. Steam pressure too low (should be 10 lbs. min.)
- f. Defective steam trap (steam coil heated machine only)

**NOTE:** The heater is designed to maintain a temperature only. Door of dishwasher should always remain closed when machine is on but not being used.

#### **WASH TANK WATER FOAMING**

1. Wash tank water very dirty. Change wash tank water.
2. Poor pre-scrapping procedure. Scrap dishes better.
3. Excessive protein being put into dishwasher.
4. Improper detergent. Check with detergent representative.

#### **POOR WASHING RESULTS**

1. Poor scrapping procedures. Scrap dishes better.
2. Scrap screens blocked with soil. Empty screens.
3. Machine water dirty or contaminated. Change water.
4. Wash tank water temperature too low (See section 2-8)
5. Detergent dispenser empty. Fill dispenser.
6. Pump impeller clogged. (Refer to para. 2-5 pump motor.)
7. Wash pump running backwards. (Refer to para. 2-5 for pump rotation.)
8. Wash rotor clogged and/or not rotating. (Refer to para. 4-4 on wash rotor.)
9. Water conditioner causing spotting. Consult with detergent representative.

10. Dishes or silver improperly racked. Refer to para. 3-4 for operating instructions.)

11. Poor final rinse. Refer to para. 2-6.

#### **NO FINAL RINSE**

1. Line strainer dirty or sticking final rinse solenoid valve. For proper operation, the solenoid valve must be free of foreign material at the valve seat. A critical period for a valve is soon after installation. Pipe compound or metal shavings from the installation may lodge at the valve seat and prevent the valve from completely opening or closing. A dirty line strainer (see figure 2-4) will also allow foreign material to pass.

#### **REMEDY**

Shut off the water supply and using a wrench, unscrew the end of the line strainer and drain. Clean and replace line strainer and cap. Operate final rinse. If final rinse still does not operate, turn water supply off again and unscrew bonnet of solenoid valve and clean. If after doing the above, the final rinse continues to malfunction, call your Blakeslee service technician.

#### **INSUFFICIENT RINSE TEMPERATURE**

Final Rinse

1. Final rinse booster turned off (remote mounted booster only).
2. Separate electrical supply to electric booster turned off.
3. Booster inoperative or booster thermostat set too low.
4. Adjust thermostat (refer to figure 2-9). Optional equipment (see section on boosters).
5. Water temperature of building supply water to booster too low.
6. Water supply line pressure from booster to dishwasher too low or not insulated to prevent heat loss.
7. Steam boosters only.
  - a. Insufficient steam supply to booster (minimum of 10 lbs. flow pressure required).
  - a. Defective steam trap.
  - c. Condensate line not level or going down.

#### **POOR FINAL RINSE RESULTS**

1. Water supply pressure too low (must be 15-25 lbs. flow pressure) (See para. 2-6.)
2. DD8 supply line size too small. Flow rate for DD8 is 18 GPM. Incoming water supply line should be 1" inside diameter.

3. Final rinse temperature too low. (See troubleshooting NO FINAL RINSE TEMPERATURE.
4. High time content or other foreign material in the water. High lime content or other foreign material will cause severe spotting. Consult your detergent representative for possible remedies.
5. Final rinse nozzles clogged. See para. 4-5 on cleaning final rinse nozzles.
6. Dirty wash water in dishwasher. Clean dishwasher.

#### **DISHWASHER TANK(S) NOT HOLDING WATER**

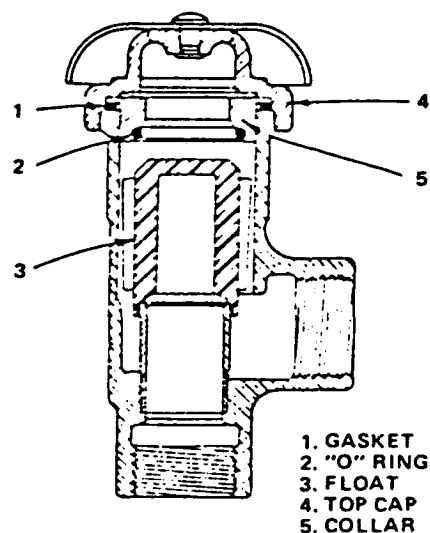
1. Drain valve(s) open or not fully closed. Turn valve(s) clockwise until it hits a positive stop.
2. Foreign material around drain seat preventing positive sealing of drain plug. Clean dishwasher and drain screen. (See para. 3-7).
3. Worn or damaged standpipe drain plug. Clean or replace.

#### **DISHWASHER WILL NOT DRAIN**

1. Clogged drain screen. Empty dishwasher by bailing water out of wash tank with pan, etc. Clean screen.
2. Customer's drain line plugged or too small. Consult your local plumber.

#### **VACUUM BREAKER LEAKING**

1. Deposits on the float will prevent operation of the vacuum breaker. Shut off water supply and remove the threaded top cap (4) (figure 4-1). Lift off the



**Figure 4-1. Vacuum Breaker**

collar (5) with the "O" ring (2), then remove the gasket (1). Withdraw the float (3) and clean thoroughly. At reassembly, make sure the "O" ring is not damaged and is properly seated in its groove.

Genuine Blakeslee Repair Kits that are available for these vacuum breakers:

W-1-12357 (Sloan Valve)  
 W-1 -12351 (Febco Valve)  
 W-1-14835 (Consolidated Valve)

Please specify if your valve is manufactured by Sloan or Febco. You will find the name on the cap.

## SECTION 5

### OPTIONAL EQUIPMENT

#### 5-1. GENERAL

Extra equipment for the D8 dishwashing machine, available from Blakeslee includes hot water boosters, automatic tank fill, timed fill, etc. This section contains information regarding proper use and maintenance of this equipment.

#### 5-2. HOT WATER BOOSTERS

The hot water booster is used to raise the final rinse water temperature to 180°F-195°F, which is the temperature recommended by the National Sanitation Foundation and required by many health departments. To attain this temperature, the water supply to the booster must be maintained at 140°F. Three types of boosters are available. (1) Remote mounted electric, (2) steam boosters and (3) machine mounted electric boosters. (D8 only)

NOTE: If the temperature of the incoming water is less than 140°F, an oversize electric booster will probably be necessary.

#### 5-3. Steam Hot Water Booster (Model CD)

**5-4. STEAM LINE.** The steam inlet line is equipped with a line strainer (1, figure 5-1) and solenoid valve (2); the solenoid valve is controlled by an electric thermostat. A steam trap (3) on the steam outlet assures efficient heating. Periodic cleaning of the strainer is recommended. No operator control of this system is required.

**5-5. HOT WATER INLET LINE.** The inlet piping contains a line strainer (4), pressure gauge (6), and pressure relief valve (7). Periodic cleaning of the line strainer is recommended. The pressure regulator is adjustable (see paragraph 5-8). The pressure gauge indicates the flow pressure of the final rinse water when the final rinse is in operation. The gauge should be observed periodically to assure good final rinse action. Good final rinse results are obtained when the flow pressure is between 15 and 25 P.S.I., preferably 20 P.S.I.

To prolong the life of the gauge, turn gauge cock (9), off (Lever horizontal) when not observing pressure.

**5-6. HOT WATER OUTLET LINE.** The thermostat sensing bulb is in the hot water outlet line. See paragraph 5-8 for adjustment.

#### 5-7. CLEANING

**LINE STRAINERS.** The water outlet and steam inlet line strainers protect the solenoid valves from dirt. Every month, clean the strainer as described under TROUBLESHOOTING, "No Final Rinse". Be sure water and steam supplies are turned off and pipes are cool.

**LIME DEPOSITS.** If lime deposits are a problem in your area, every 9 to 12 months delime the booster heat exchanger. Remove the heat exchanger and submerge it in a tub of deliming solution. Follow the instructions of the deliming product manufacturer for mixing the solution and for length of time of soaking; 48 to 60 hours soaking time is generally required. After soaking, be sure to wash and rinse the heat exchanger thoroughly before installing it on the booster.

#### 5-8. ADJUSTMENTS

**THERMOSTAT.** Remove cover of thermostat enclosure (8, figure 5-1). Turn thermostat adjusting screw clockwise to increase temperature, and counter-clockwise to decrease.

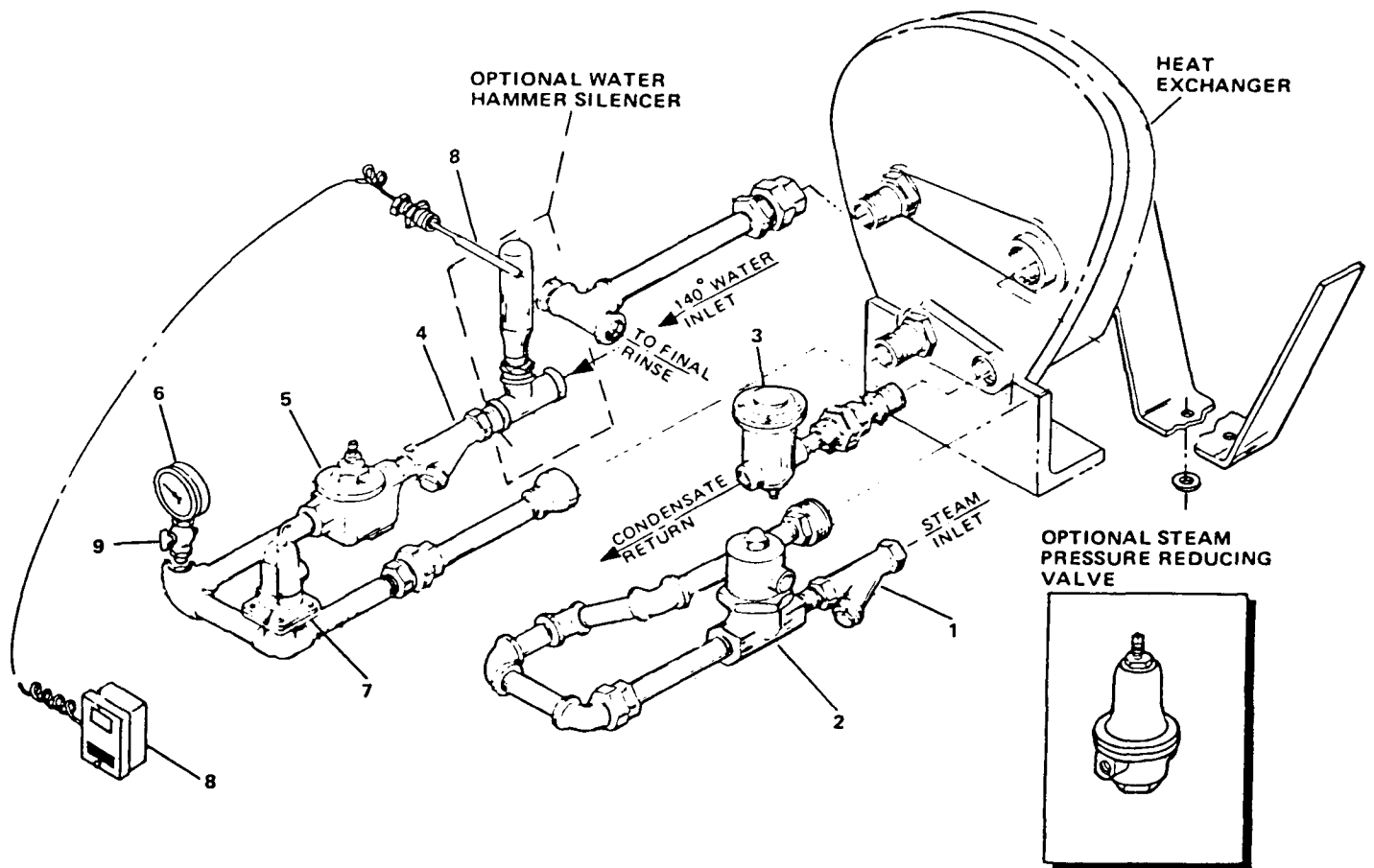
**PRESSURE REGULATOR.** If the final rinse flow pressure is not between 15 and 25 psi, adjust the pressure regulator (5, figure 5-1) observing the following:

- Loosen the 1/2" lock nut. Flip HEAT/FILL switch to "FILL" position.
- With the final rinse water flowing through the pressure regulator, adjust to the correct pressure.
- To increase the flow pressure, turn the screw clockwise. Turning the screw counterclockwise will decrease the flow pressure.
- After the proper pressure is attained, hold the 1/2" square head screw in place and tighten the lock nut.

#### 5-9. INSTALLATION

Position the booster so that pressure gauge can be observed by machine operator. Use the adjustable feet on the booster to level the unit. Figure 5-2 indicates dimensions for the plumbing connections.

**BOOSTER LOCATION.** Booster location with respect to the steam supply, hot water supply and dishwashing machine is important for efficient booster operation. Position the booster as close to these items as possible. If the booster is positioned 20 feet or more from the dishwasher, though the final rinse water is 180°F when it leaves the booster, the exposed piping through which the water travels will cool the water. The same situation applies to the booster hot water supply. Similarly, when steam is carried over a long distance through an exposed pipe, a pressure loss and temperature loss results. The booster cannot operate effectively with long distances of exposed piping. If the booster is located too far from the dishwasher, it is recommended that an optional final rinse low temperature control be installed in the dishwasher.



- |                         |                          |
|-------------------------|--------------------------|
| 1. STEAM INLET STRAINER | 6. PRESSURE GAUGE        |
| 2. SOLENOID VALVE       | 7. PRESSURE RELIEF VALVE |
| 3. STEAM TRAP           | 8. THERMOSTAT            |
| 4. HOT WATER STRAINER   | 9. GAUGE COCK            |
| 5. PRESSURE REGULATOR   |                          |

Figure 5-1. Steam Hot Water Booster

**BOOSTER TO DISHWASHER CONNECTIONS.** Final rinse supply piping is 3/4 inch N.P.T. for D8, 1" N.P.T. for DD8. Connect wires of steam solenoid (2, figure 5-1) to wires marked #2 and #4 in the control panel terminal strip. Protect the wires with a 1/2 inch conduit.

**SUPPLY AND CONDENSATE CONNECTIONS.** When connecting the hot water and steam inlet piping, include a shut-off valve at each inlet. The water piping must be a minimum of 3/4". For D8, 1" N.P.T. for DD8. The steam pipe must be a minimum of 1-1/2" for a C1 booster. Pipe sizes must be increased on runs over 50 ft.

The hot water inlet tee is 3/4 inch N.P.T. The steam inlet strainer size is as follows: Model C1 booster is 3/4 inch N.P.T.; Model C2 booster is 1 inch N.P.T. We suggest supply pipes be wrapped with insulation material. The condensate return is 1/2 inch N.P.T.

**NOTE:** The condensate return line must always be pitched down. Condensate return lines that are level or run uphill require the addition of a condensate return pump.

**5-10. SUPPLY PRESSURE AND TEMPERATURE REQUIREMENTS.** Booster output (180°F water) is measured in gallons per hour (gph). The output requirement for a particular machine is the sum of final rinse water (in gph). To obtain a desired output, inlet water temperature and steam supply pressure must correspond as indicated in the booster sizing chart. For example, the model C1 booster is capable of providing 250 gph (at 20 pounds flow pressure) of 180°F final rinse water when the inlet water temperature is 140°F and the flowing steam supply pressure is 5 pounds. If inlet water temperature is 120°F instead of 140 F, the booster will not produce the required 180 F final rinse water without raising the steam flow pressure to 7.5 pounds. The booster sizing chart is included here to assist you in making sure adequate supply conditions are available for effective booster operation.

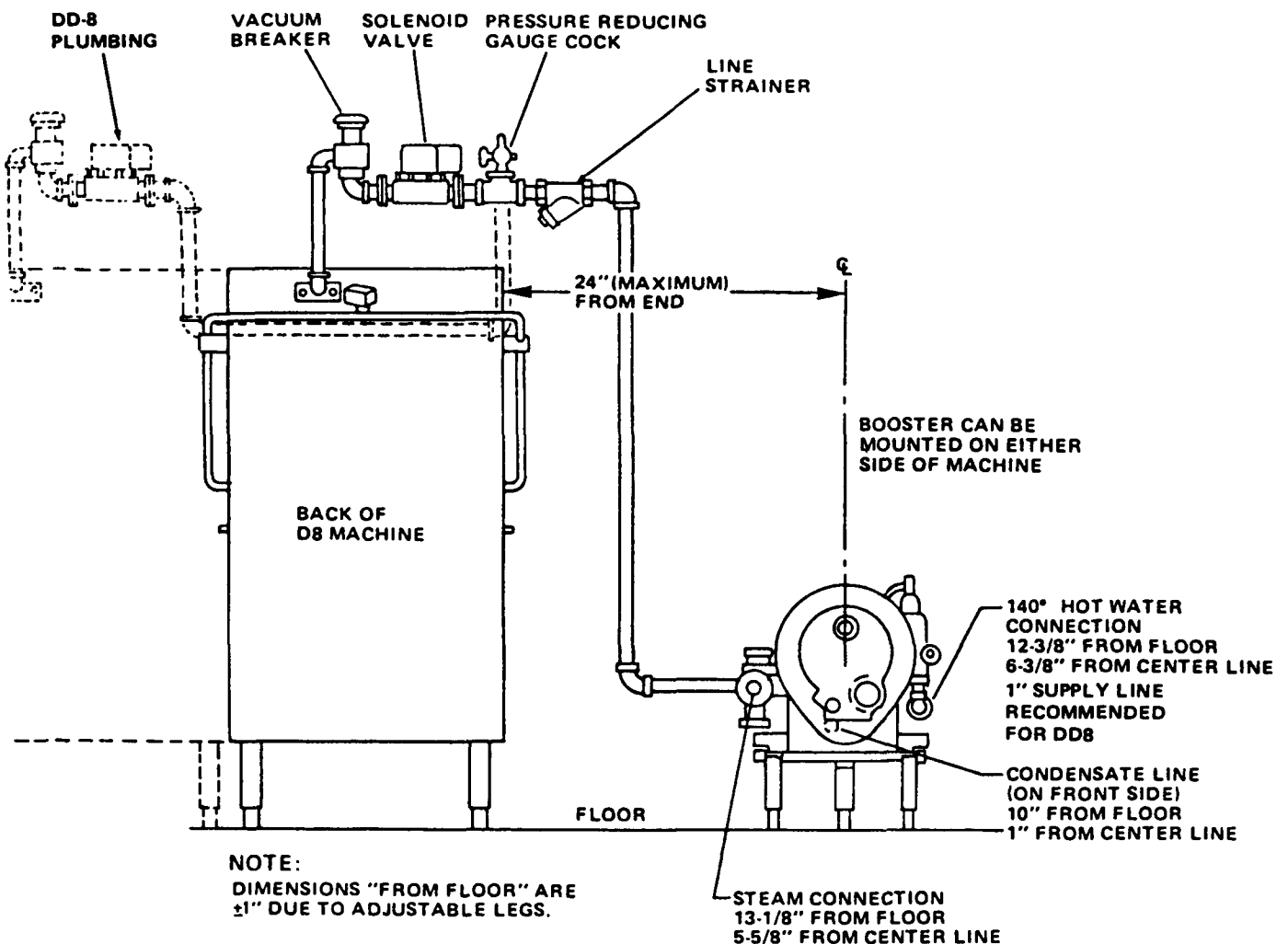


Figure 5-2. Steam Booster Installation

**Previous Page**

**TABLE 5-1.  
STEAM BOOSTER SIZING CHART**

Steam Pressure	Gallons Per Hour 180°F.			
	Rinse with supply water at temperatures shown			
	C1 BOOSTER			
	100°F	120°F	140°F	150°F
5 lb.	175	215	250	270
10 lb.	240	300	370	400
15 lb.	300	360	470	510

**TABLE 5-2.  
D8 FINAL RINSE WATER CONSUMPTION**

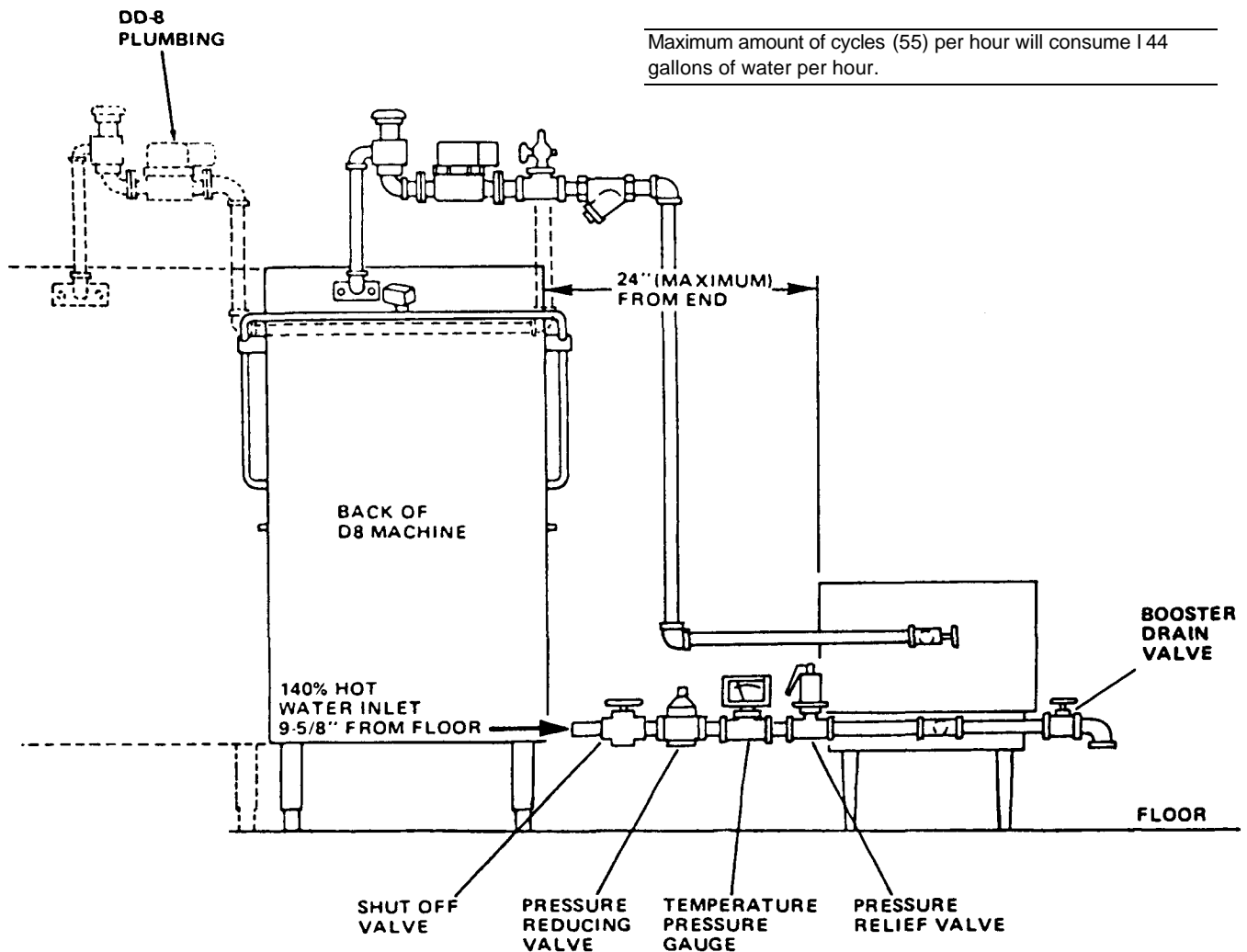
Maximum Amount of Final Rinse Water Consumed per Cycle @ 20 Lbs. Flow Pressure is 1.3 gallons (Flow rate is 1.4 Gallons Per Minute).

Maximum Amount of Cycles (55) Per Hour will consume 72 gallons of water per hour.

**TABLE 5-3.  
DD8 FINAL RINSE WATER CONSUMPTION**

Maximum amount of final rinse water consumed per cycle @ 20 lbs. flow pressure is 2.6 gallons (flow rate is 2.8 gallons per minute).

Maximum amount of cycles (55) per hour will consume 144 gallons of water per hour.



**Figure 5-3. Remote Electric Booster Installation**



### 5-11. Remote Electric Hot Water Booster

This electric hot water booster uses electric heating elements to heat the final rinse water. The elements are controlled by a thermostat. When installing, make provisions for future service especially access to front cover assembly. Whenever possible, connect the machine using pipe unions.

**5-12. HOT WATER INLET LINE.** The inlet piping includes a pressure regulator, pressure-temperature gauge, and a relief valve. The pressure relief valve is preset and requires no further adjustment. The pressure-temperature gauge should be observed periodically during final rinse operation. If the temperature indication is below 140 F, the hot water source may not be hot enough for the booster to be effective; the temperature of the hot water entering the booster may have to be raised to 140°F. (NOTE: Refer to electric hot water boosters water temperature recovery. Table 5-4 and to D8 final rinse water consumption Table 5-2 or DD8 final rinse water consumption Table 5-3. Similarly, the hot water supply pressure must be maintained between 15 and 25 psi. The pressure regulator is adjustable (paragraph 5-15). It may be that the booster is too small and a larger booster should be installed.

**HOT WATER OUTLET LINE.** The outlet piping connects to a strainer, gauge cock and solenoid valve shown in figure 5-3. Periodic cleaning of the strainer is recommended. The gauge cock is provided for use as described in paragraph 5-5. The thermostat is adjustable (refer to paragraph 5-15).

### 5-14. CLEANING

**LINE STRAINER.** The water outlet line strainer protects the solenoid valve from dirt. Every month, clean the strainer as described in paragraph 5-7. Be sure water supply is turned off and pipe are cool.

When making a new installation the sediment and mineral deposits in the existing lines, will probably break loose and clog the dishwasher line strainer. Clean the strainer daily until this condition clears up.

### 5-15. ADJUSTMENTS

**THERMOSTAT.** The thermostat is pre-set at factory and should require no further adjustment. Should minor adjustment be required, remove cover located on lower right-hand

corner of front of booster and turn thermostat knob clockwise to increase temperature, and counter-clockwise to decrease.

**PRESSURE REGULATOR.** If the hot water supply flow pressure is not between 15 and 25 psi, adjust the pressure regulator observing the following. Same as steam booster adjustment (paragraph 5-8.) To increase the flow pressure, turn the screw clockwise. Turning the screw counterclockwise will decrease the flow pressure.

### 5-16. INSTALLATION

Use the adjustable legs on the booster to level the unit. Figure 5-3 indicates dimensions for the plumbing connections.

**BOOSTER LOCATION.** Booster location with respect to the hot water supply and dishwashing machine is important for efficient booster operation. Position the booster as close to these items as possible. If the booster is positioned 20 feet or more from the dishwasher, though the final rinse water is 180°F when it leaves the booster, the exposed piping through which the water travels will cool the water.

The same situation applies to the booster hot water supply. The booster cannot operate effectively with long distances of exposed piping.

**PIPING CONNECTIONS.** The controls described in paragraph 5-12 are shipped as separate items. Figure 5-3 indicates the proper sequence for connecting these items. Use 3/4 inch N.P.T. size fittings and pipe for D8, 1" N.P.T. for DD8. Include a shut-off valve at the hot water inlet as indicated in the figure. We recommend the hot water supply piping be wrapped with insulation material.

**ELECTRICAL CONNECTIONS.** Connect control wires of the booster to wires No. 2 and No. 4 in the machine control panel (as noted in wiring diagram). Protect control wires in electrical conduit. Connect the booster power wiring to a properly rated power supply, properly fused, and properly protected in conduit.

**TABLE 5-4**  
**ELECTRIC BOOSTER TEMPERATURE RECOVERY TABLE**  
**(IN GALLONS PER HOUR)**

DEGREE FAHRENHEIT RISE	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
10.5 kw	108	86	72	62	54	48	43	39	36	33	31
12 kw	123	99	82	70	62	55	49	45	41	38	35
13.5 kw	138	111	92	79	69	62	55	50	46	43	40
15 kw	154	123	103	88	77	68	62	56	51	47	44
17kw	176	142	118	101	88	79	71	64	59	55	51
18 kw	184	148	123	105	92	82	74	67	62	57	53
24 kw	246	197	164	141	123	109	99	90	82	76	70
27 kw	276	223	185	158	138	123	111	101	92	85	79
30 kw	308	246	205	176	154	137	123	114	103	94	88

## 5-17. MACHINE MOUNTED BOOSTER (Available on D8 Only)

A machine mounted booster is bolted under the left front of the D8 machine. This unit uses electric heating elements to raise the temperature of the hot water from 140°F to 180-195°F. When installing the D8 be sure not to obstruct the front of the booster or the control box located next to the booster so that these components can be serviced.

### 5-18. Installation

This unit is a low pressure, semi closed heater tank. One end must always be open to the atmosphere. During installation of machine, do not connect electrical power to booster until plumbing to booster is completed.

Hot water inlet (pressure line) must always connect to line strainer, pressure regulator, gauge and solenoid valve (see figure 5-4) which is supplied with the unit. Water inlet plumbing can be changed from left to right as desired. Inlet plumbing on a standard machine enters from the left (when facing front of machine) as shown in figure 5-4. If right hand inlet is required, the 3/4" x 8" brass pipe must be replaced with a 3/4" x 24" brass pipe. Customer should

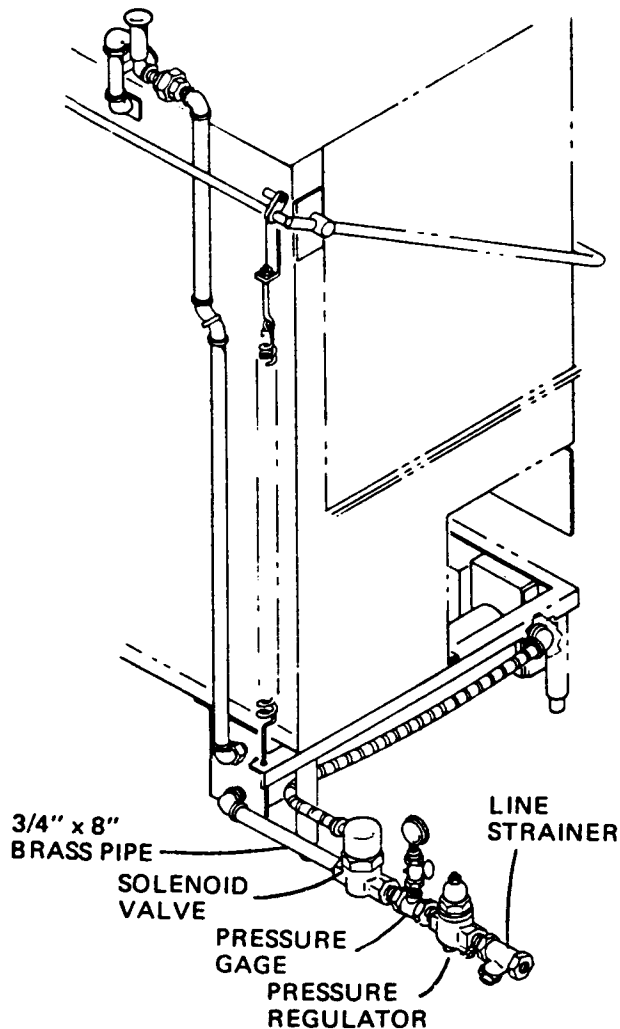


Figure 5-4. Machine Mounted Electric Booster Installation

supply the 24" pipe. Outlet line from the booster must go directly from the top of the booster to the final rinse vacuum breaker. See figure 5-4. **DO NOT, UNDER ANY CIRCUMSTANCES BREAK INTO THIS LINE AND INSTALL A VALVE, PRESSURE RELIEF VALVE, ETC. THIS LINE MUST BE LEFT OPEN TO THE ATMOSPHERE.** Detergent representatives can tap into the final rinse line to install rinse additives, providing they do not block or restrict the water flow.

The unit comes complete with 110V electrical control wiring. It is necessary to supply and connect a separate 208-240 volt or 3-phase to the booster control box for the heating elements. Refer to rating plate on control box for exact requirements. Be sure this circuit is fused properly.

**NOTE:** When installing a new machine, **DO NOT** turn on electrical power to booster until the dishwasher has filled with water and operated through one cycle. This will assure that the booster is full of water and purged of air.

### CONTROLS

The inlet plumbing includes a pressure regulator, pressure gauge and line strainer. The temperature gauge is installed on top of the machine in the final rinse line. The pressure and temperature gauges should be checked periodically during final rinse operation. If the temperature falls below 180°F, this is an indication that either the thermostat is set too low or that the incoming water temperature is below 140°F (see Electric Booster Recovery Chart Table 5-4). Final rinse flow pressure should be between 15 to 25 IDS, preferably 20 lbs. Adjust pressure regulator by loosening hex head bolt and turning square head shaft clockwise to increase pressure, counterclockwise to decrease. Turn gauge cock, located below pressure gauge, off when not observing gauge.

The thermostat for the machine mounted booster is located in the booster control box. (See figure 6-15, item 9). Turn thermostat clockwise to increase temperature, counterclockwise to decrease temperature.

The High Limit cut-off is located in the booster tank (see figure 6-15, item 18). Its function is to turn off the booster in the event it overheats. When this occurs, manually reset the unit as follows:

- 1) Turn off all power to machine.
- 2) Remove screws from front of booster (see figure 6-15).
- 3) Push in red button of the High Limit Cut-off in. See figure
- 4) Turn power back on. Turn machine on. Wait a few minutes until water in booster gets hot.
- 5) Operate dishwasher and check final rinse temperature and pressure.

6) Replace front cover.

#### **5-19. Cleaning**

Clean line strainer (figure 5-4) weekly. CAUTION: Be sure water line coming to booster is off and booster is off.

After cleaning line strainer, DO NOT turn booster on until dishwasher has been filled with water and has completed one full cycle.

#### **5-20. AUTOMATIC TANK FILL**

This option consists of a float switch (see figure 6-12) connected in parallel with the manual fill switch. When the machine is turned on and the machine is empty or the water level is below 6-3/4" the float switch contacts will close, energizing the fill solenoid, permitting water to flow into the tank. The switch will open, de-energizing the fill solenoid when the water level reaches approximately 9". This is enough water to operate the dishwasher.

The final rinse water will bring the water level up to the top of the standpipe (approximately 12") after completing 1 or 2 automatic cycles.

Placing the float switch a few inches below the high water level prevents the water turbulence from turning the switch off and on during an automatic wash cycle.

#### **5-21. TIMED FILL**

This option is used to fill the machine with water when it is empty. Usually at the start of a day's operation or after

cleaning the machine. It should NOT be used to add small amounts of water to the tank. The option consists of a spring return toggle switch HEAT/FILL button located in the front panel (4, figure 3-3) and a timer. Depressing the switch for 2 seconds operates the timer for 3 minutes. The timer contacts bypass (parallel) the manual fill switch and will energize the fill and rinse solenoid valve.

In most cases, this is more than enough time to fill the tank. Any excess water will flow out the standpipe and down the drain. If the timed fill button is actuated when the machine is full or nearly full, the fill water will go out the skimmer of the standpipe down the drain and be wasted.

#### **5-22. DOOR SAFETY LOCK**

This lock is located on the top rear of the counterbalanced three way door. (See figure 6-14). Purpose of this device is to prevent the door from being opened when the machine is in operation. The device consists of an electrical solenoid and mechanical link. The solenoid is energized during an entire automatic cycle. When energized the solenoid pulls a stop pin over the top of the door bumper preventing the door from being raised or opened.

#### **5-23. TANK SELECTION (DD8 Only) See Figure 3-3A**

This option enables either left, right or both tanks to be operated during each automatic or manual cycle. It enables an operator to cycle only one tank during non rush periods. In most cases, it also enables the machine to operate on one tank even if the second tank is inoperable.

## SECTION 6

# ILLUSTRATED PARTS LIST

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#### IMPORTANT

**When ordering parts please specify machine Model No. and Serial No.  
Order parts from your local authorized Blakeslee Service Agency or Parts Distributor.**

**Credit will not be issued for returned piece parts of an assembly.**

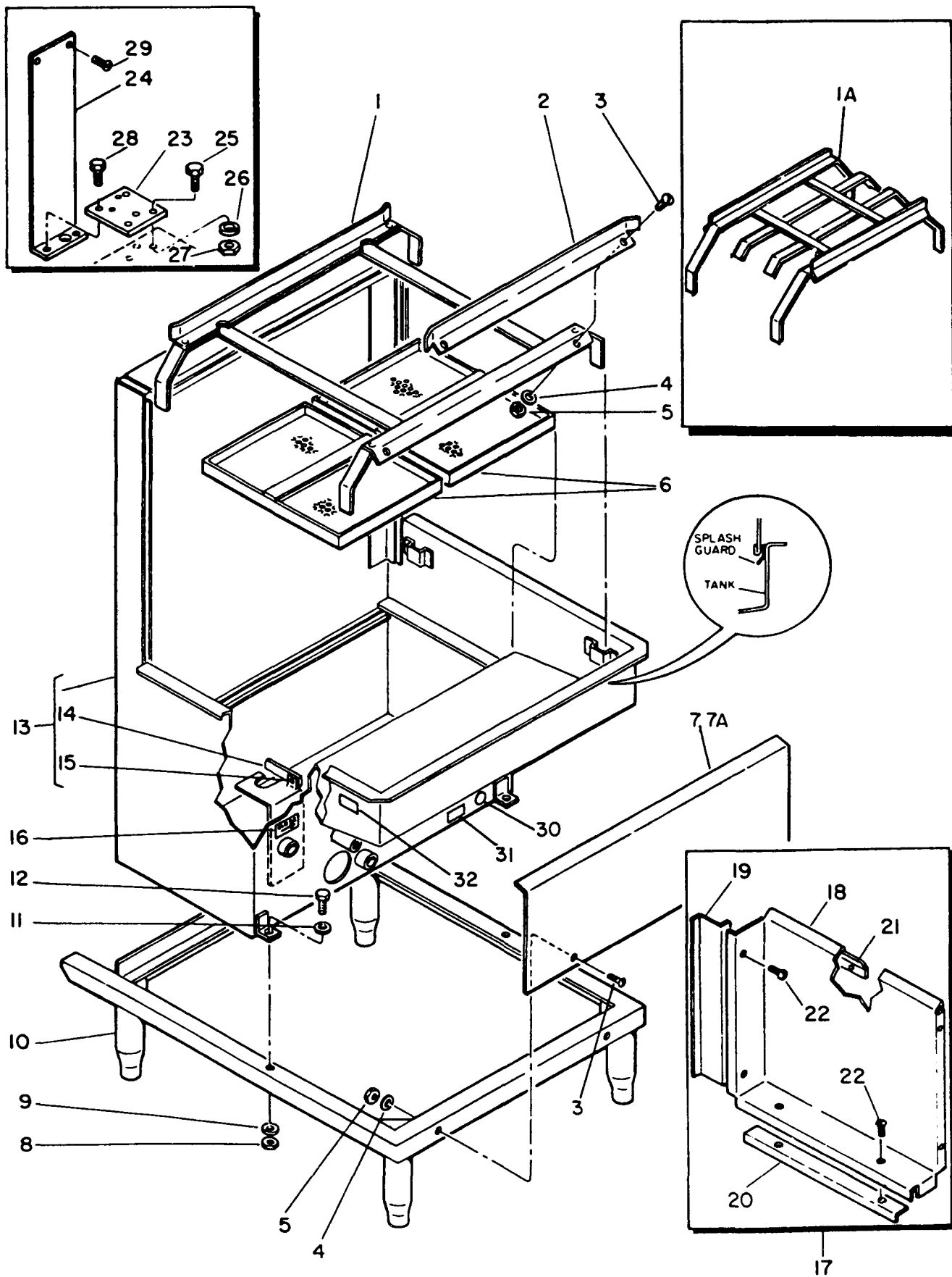


FIG. 6-1. BASE, TANK & TRACKS

**FIG. 6-1. BASE, TANK & TRACKS**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-3-13075	TRACK ASSY	1
1A	W-3-97352	TRACK ASSY FOR 1/2 RACKS (Std. in DD8)	1
2	W-2-13072	INTERCHANGEABLE TRACK GUIDE	1
3	W-1-7850	SCREW, TRUSS HD. 1/4-20 x 1/2" lg. S/S	4
4	W-1-7007	LOCKWASHER, 1/4"S/S	4
5	W-1-7146	NUT, HEX 1/4-20 S/S	4
6	W-3-12555	SCRAP TRAY ASSY	2
7	W-1-17810	FRONT PANEL D8	1
7A	W-2-95951	FRONT PANEL D D8	1
8	W-0-14785	3/8" NUT PLATED	4
9	W-1-17245	3/8" LOCKWASHER PLATED	4
10	W-3-17766	BASE ASSY (STD)	1
	W-3-12512	BASE ASSY (OPTIONAL S/S)	A/R
11	W-1-7522	3/8" FLAT WASHER - PLATED	4
12	P-1-17230	CAPSCREW, 3/8-16 HEX HD PLATED	4
13	W-3-17841	TANK ASSY	1
14	W-1-5629	• RIVET, .182 dia. x 11/32 lg. S/S	1
15	W-1-18649	• LEVER, Stand Pipe Guide	1
16	W-1-20629	LABEL, "Close"	1

**OPTIONAL ITEMS**

17	W-2-13330	SPLASH GUARD COMPONENT ASSY (For corner model machines)	A/R
18	W-3-13322	• SPLASH GUARD	1
19	W-2-13324	• REAR MOUNT, Splash Guard	1
20	W-1-13323	• BOTTOM MOUNT, Splash Guard	1
21	W-1-13329	• HANG ING STRIP, Splash Guard	1
22	W-1-8491	• SCREW, Truss Hd., 1/4-20 x 5/8" S.S.	4
23	W-2-12967	BRACKET, Detergent Dispenser	A/R
24	W-3-12968	BRACKET, Rinse Injector	A/R
25	W-1-9677	SCREW, Hex Hd., 1/4-20 x 3/4" S/S	3
26	W-1-7007	LOCKWASHER, 1/4"	7
27	W-1-7146	NUT, Hex 1/4-20	3
28	W-1-7118	SCREW, Hex Hd., 1/4-20 x 1/2" S/S	2
29	W-1-5999	SCREW, Rd Hd., 1/4-20 x 1/2" S/S	2
30	W-1-8422	PLUG FOR DETERGENT DISPENSER PROBE HOLE	1
31	W-0-95681	DETERGENT DISPENSER LABEL	
32	W-1-95041	WARNING LABEL DRAIN ON THIS SIDE	1

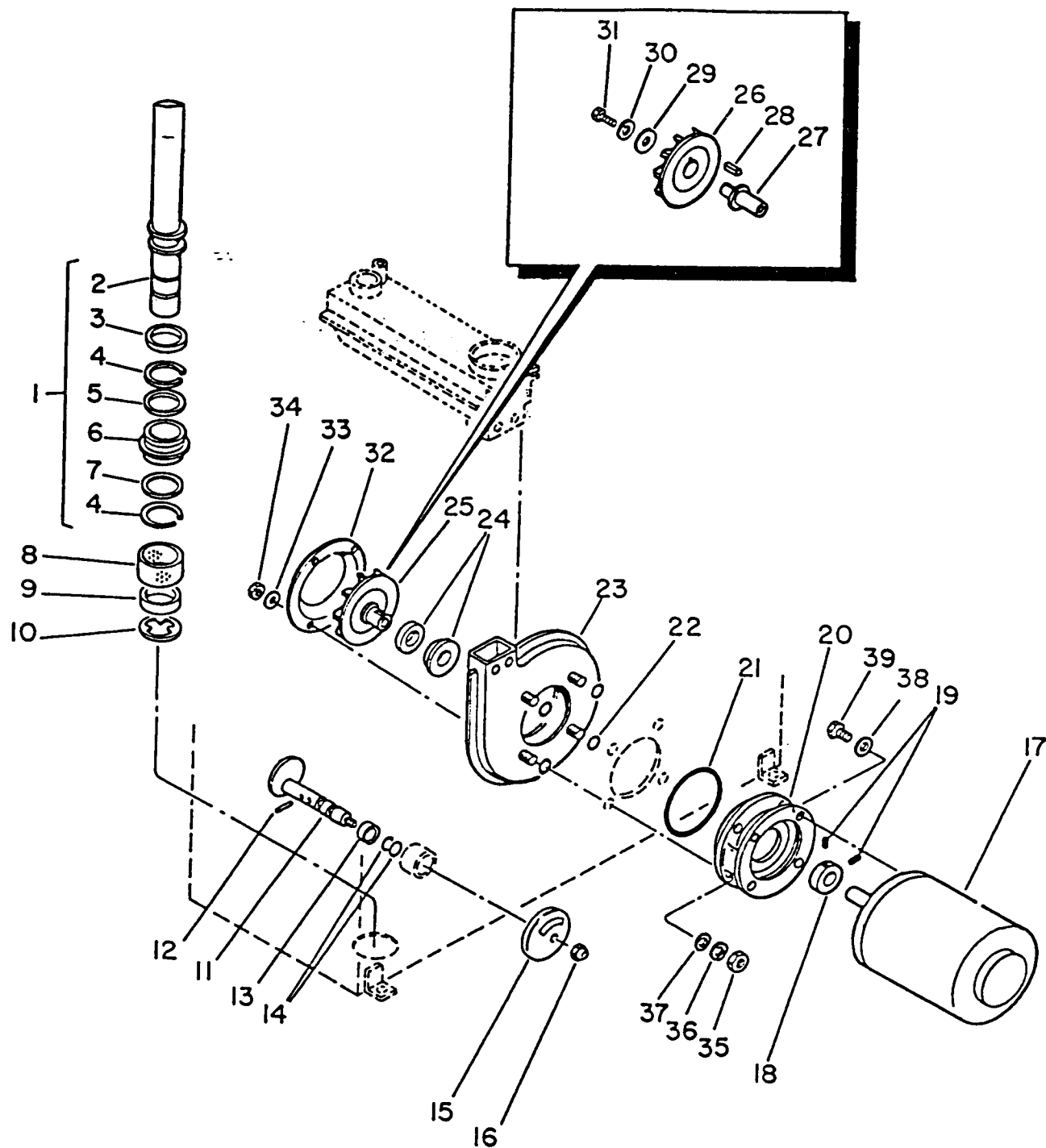


FIG. 6-2. STAND PIPE, PUMP & DH.

FIG. 6-2. STAND PIPE, PUMP &amp; DRAIN

ITEM NO.	PART NO.	DESCRIPTION	QTY. REQD.
1	W-1-17847	STAND PIPE ASSY	1
2	W-1-17837	• STAND PIPE	1
3	W-1-18641	• DRAIN STRAINER RETAINER	1
4	W-0-18647	• RETAINING RING	2
5	W-0-18645	• PLUG RET, WASHER (1-7/8" DIA.)	1
6	W-1-18427	• DRAIN PLUG	1
7	W-0-18646	• PLUG, RET. WASHER (1-1/2" DIA.)	1
8	W-1-18642	STRAINER, Drain Seat	1
9	W-1-18644	RING, Drain Seat	1
10	W-1-18648	GUIDE RING, Stand Pipe	1
11	W-1-14802	CAM SHAFT ASSY	1
12	W-0-14895	GROOVE PIN, Cam Shaft	2
13	W-1-13905	SPACER, Cam Shaft	1
14	W-1-10340	"O" RING	2
15	W-1-2924	KNOB, Cam Shaft	1
16	W-0-18794	STOP NUT, Elastic 5/16-18	1
17	W-0-17798	MOTOR, 1 H.P., 115/230V, 1 Ph, 60 Hz (Used on 115& 230 Single Phase machines)	1
17A	W-0-8247	MOTOR, 1 H.P., 208/240, 480 3 Ph, 60 Hz (Used on 208/240/440/480V Three Phase machines)	1
17B	W-0-16241	1 H.P. MOTOR 115/230V 1 Ph, 50 Hz (Export only)	1
17C	W-0-16300	1 H.P. MOTOR 220/440V 3 Ph, 50 Hz (Export only)	1
18	W-1-17794	COLLAR, Impeller Shaft	1
19	W-1-7117	SETSCREW, 5/16" x 3/8"	2
20	W-4-13087	BRACKET, Pump Case & Motor	1
21	W-0-13088	QUAD RING	1
22	W-1-13446	"O" RING	4
23	W-3-14849	PUMP CASE	1
24	W-2-2255	PUMP SEAL	1
25	W-2-17762	IMPELLER ASSEMBLY, consisting of:	1
26	W-2-95673	• 5" DIA. IMPELLER	1
27	W-2-95252	• IMPELLER SHAFT	1
28	M-1-1658	• 3/16 Sq. x 3/4" Lg. Key	1
29	1-5587	• 11/32 x I.D., 1-1/4 O.D.S.S. Washer	1
30	W-1-7598	• 5/16 X S.S. LOCKWASHER	1
31	W-1-7621	• 5/16-18 x 3/4 S.S. HEX HD. MACH. SCREW	1
32	W-2-12535	PUMP EYE	1
33	W-1-7007	LOCKWASHER, 1/4" S/S	4
34	W-1-7146	NUT, Hex 1/4-20	4
35	W-0-14785	NUT, Hex 3/8-16 PLATED	4
36	P-1-17245	3/8" LOCKWASHER PLATED	4
37	W-1-8523	3/8" SEAL WASHER	4
38	P-1-17245	3/8" LOCKWASHER PLATED	4
39	W-1-7656	SCREW, 3/8-16 x 1"lg. Hex Hd. PLATED	4
<b>Machines manufactured after 1/98 with suffix AAB and up.</b>			
20	74505	MOTOR MOUNTING BRACKET	1
21	75004	"O" RING	1
23	75761	PUMP WELDMENT	1
*	5871	GASKET	1

\*Items not illustrated.



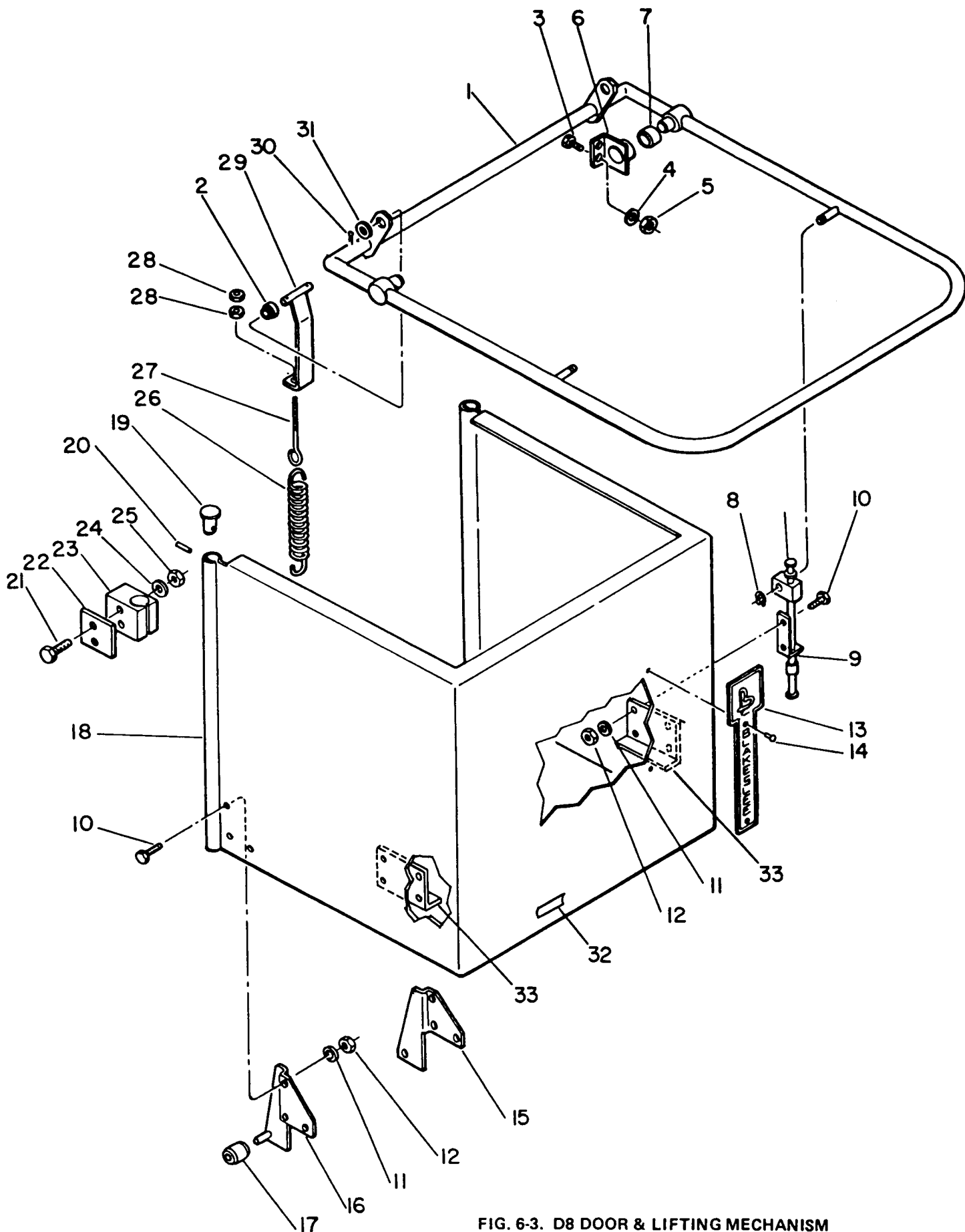


FIG. 6-3. D8 DOOR & LIFTING MECHANISM

**FIG. 6-3. D-8 DOOR & LIFTING MECHANISM**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-3-12017	DOOR HANDLE ASSY	1
2	W-0-16554	• BEARING, Oilite Flange	2
3	W-1-8148	SCREW, 3/8" x 3/4" S/S HEX HEAD BOLT	4
4	W-1-7524	LOCKWASHER, 3/8" S/S	4
5	W-1-5998	NUT, Hex 3/8" S/S	4
6	W-1-14723	SUPPORT BRACKET, Door Handle	2
7	W-0-14733	BEARING, Oilite Sleeve	2
8	W-0-12015	RETAINING RING, 3/8	2
9	W-1-12023	LINKAGE ASSY, Door	2
10	W-1-7850	SCREW TRUSS HD 1/4" x 1/2" S/S	14
11	W-1-7007	LOCKWASHER S/S	14
12	W-1-7146	1/4" NUT HEX S/S	14
13	W-2-16380	NAMEPLATE, Door	1
14	W-0-20593	1/8" S/S BLIND RIVET	2
15	W-2-13431	BRACKET, Roller, R.H.	1
16	W-2-13430	BRACKET, Roller, L.H.	1
17	W-1-14720	ROLLER, Door	2
18	W-3-14708	DOOR HOOD ASSY	1
19	W-1-14712	• PLUG, Bumper	4
19A	W-1-20895	DOOR PLUG - Optional - Used with Door Safety Lock Only	1
20	W-0-17738	• GROOVE PIN, 1/8" dia. x 1/2" lg.	4
21	W-1-12607	SCREW, 1/4-20 x 1-1/2" lg. S/S	4
22	W-1-12026	STIFFENER, Door Guide	2
23	W-1-12511	GUIDE, Door	2
24	W-1-7007	LOCKWASHER, 1/4" S/S	2
25	W-1-7146	NUT, 1/4-20 S/S	2
26	W-1-12987	SPRING, Extension	2
27	W-0-14093	EYEBOLT	2
28	W-0-14786	NUT, Hex 5/16-18	4
29	W-2-17739	BRACKET ASSY, Spring	2
30	W-0-16053	COTTER PIN	2
31	W-1-12836	WASHER, Flat	2
32	W-1-95370	ENERGY SAVER LABEL	1
33	W-1-95829	SPLASH SHIELD	2

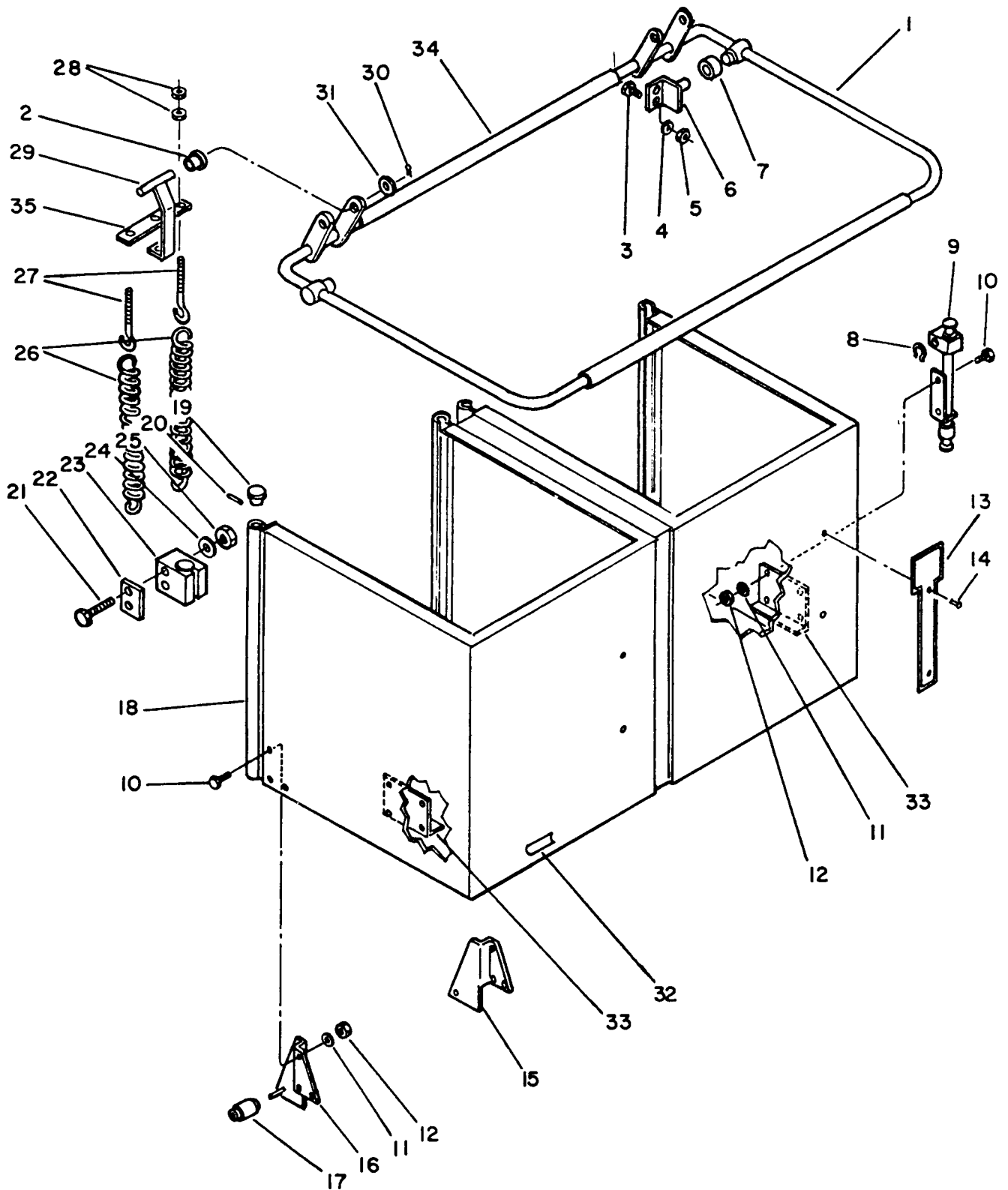


FIG. 6-3A. DD8 DOOR & LIFTING MECHANISM

**FIG. 6-3A. DD8 DOOR & LIFTING MECHANISM**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-3-95944	DOOR HANDLE ASSY	1
2	W-0-16554	• BEARING, Oilite Flange	2
3	W-1-8148	SCREW, 3/8" x 3/4" S/S HEX HEAD BOLT	4
4	W-1-7524	LOCKWASHER, 3/8"S/S	4
5	W-1-5998	NUT, Hex 3/8" S/S	4
6	W-1-14723	SUPPORT BRACKET, Door Handle	2
7	W-0-14733	BEAR ING, Oilite Sleeve	2
8	W-0-12015	RETAINING RING, 3/8	2
9	W-1-12023	LINKAGE ASSY, Door	2
10	W-1-7850	SCREW TRUSS HD 1/4" x 1/2" S/S	14
11	W-1-7007	LOCKWASHER S/S	14
12	W-1-7146	1/4" NUT HEX S/S	14
13	W-2-16380	NAMEPLATE, Door	1
14	W-0-20593	1/8" S/S BLIND RIVET	2
15	W-2-13431	BRACKET, Roller, R.H.	1
16	W-2-13430	BRACKET. Roller, L.H.	1
17	W-1-14720	ROLLER, Door	2
18	W-3-97682	DOOR HOOD ASSY	1
19	W-1-14712	• PLUG. Bumper	4
19A	W-1-20895	DOOR PLUG - Optional - Used with Door Safety Lock Only	1
20	W-0-17738	• GROOVE PIN. 1/8" dia. x 1/2" lg.	4
21	W-1-12607	SCREW, 1/4-20 x 1-1/2-lg.S/S	4
22	W-1-12026	STIFFENER, Door Guide	2
23	W-1-12511	GUIDE, Door	2
24	W-1-7007	LOCKWASHER, 1/4" S/S	2
25	W-1-7146	NUT, 1/4-20 S/S	2
26	W-1-12987	SPRING, Extension	2
27	W-0-14093	EYEBOLT	2
28	W-0-14786	NUT, Hex 5/16-18	4
29	W-2-95946	BRACKET ASSY, Twin Springs	2
30	W-0-16053	COTTER PIN	2
31	W-1-12836	WASHER, Flat	2
32	W-1-95370	ENERGY SAVER LABEL	1
33	W-1-93829	SPLASH SHIELD	1
34	W-1-97687	HANDLE REAR TIE WELDMENT (Included with W-3-95944A)	1
35	W-2-95949	SPRING TIE BAR	1

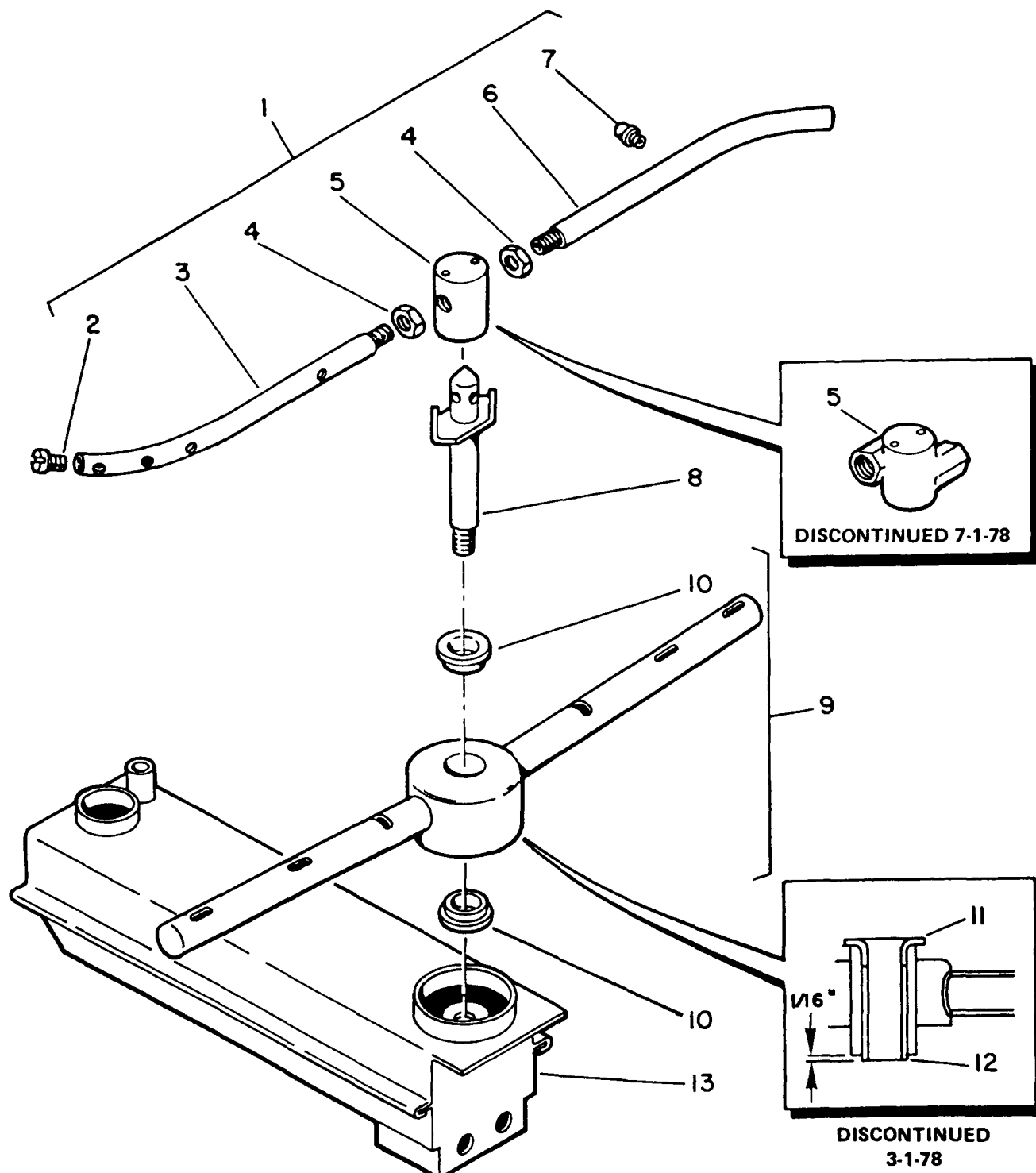


FIG. 6-4. LOWER RINSE & WASH ARMS

**FIG. 6-4. LOWER RINSE & WASH ARMS**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-2-2279	RINSE ARM ASSY	1
2	W-1-2296	• RINSE PLUG	2
3	W-2-14513	• RINSE ARM, Left	1
4	W-0-14516	• JAM NUT 1/2-20.S/S	2
5	W-1-14515	• REVOLVING RINSE HEAD	1
6	W-2-14514	• RINSE ARM, Right	1
7	W-1 -2426	• RINSE FLOODING NOZZLE, Lower	10
8	W-1-2731	RINSE SPINDLE ASSY	1
9	W-3-17756	WASH ROTOR ASSY	1
10	W-1-20844	• BUSHING (Used after 1-1-78)	2
11	W-1-2519	• BUSHING (Used before 1-1-78)	1
12	W-1-8149	• SLEEVE, Bronze (Used before 1-1-78)	1
13	W-3-14853	LOWER MANIFOLD ASSY	1

NOTE: Item 10, Nylon Bushing, and Item 12, Bronze Sleeve, are not interchangeable. When replacing wash arm bushings, a bronze sleeve must replace a worn bronze sleeve, and a nylon bushing must replace a worn nylon bushing.

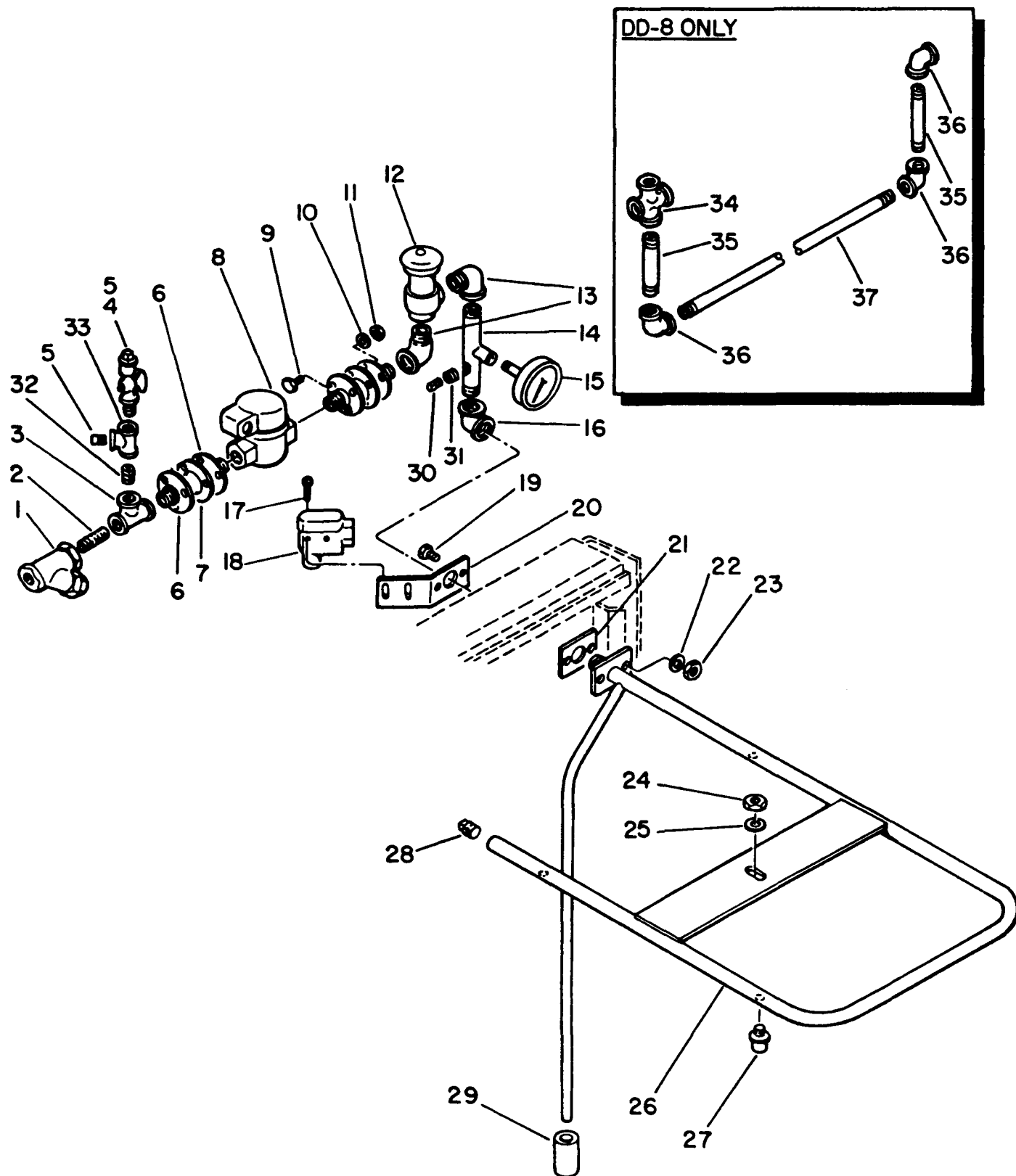


FIG. 6-5. UPPER RINSE & FILL PLUMBING

**FIG. 6-5. UPPER RINSE & FILL PLUMBING**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-1-7026	STRAINER, Line	1
1A	W-1-13385	SCREEN ONLY, For Line Strainer	A/R
2	W-1-7509	NIPPLE, Close 3/4"	1
3	W-1-7508	TEE, Brass 3/4" x 3/4" x 1/4"	1
4	W-1-4082	GAUGE COCK, 1/4"	1
5	W-1-7942	PLUG, 1/4" Brass	1
6	W-1-16383	PIPE FLANGE ASSY, 3/4"	4
7	W-1-14730	GASKET, Flange	2
8	W-1-12488	SOLENOID VALVE, 3/4", 115V	1
9	W-0-14784	SCREW, 5/16-18 x 3/4" Hex Hd	6
10	W-1-5996	LOCKWASHER, 5/16 Cd. Pl.	6
11	W-0-14786	NUT, Hex 5/16-18 Cd. Pl.	6
12	W-1-5913	VACUUM BREAKER (See page 17 for repair kits)	1
13	W-1-7033	ELBOW, Street 3/4". 90°, Brass	2
14	W-1-13317	TUBE ASSY	1
15	W-0-7802	THERMOMETER	1
16	W-1-11065	ELBOW, Reducer 3/4 - 1/2", 90°, Brass	1
17	W-0-18441	SCREW	2
18	W-1-7235	MICROSWITCH	1
19	W-1-8067	SCREW	2
20	W-1-16892	BRACKET, Door Switch	1
21	W-1-12585	GASKET, Upper Rinse	1
22	W-1-7598	LOCKWASHER S/S	2
23	W-1-12574	NUT, Hex 5/16-18	2
24	W-0-14516	JAM NUT, HEX 1/2"-20 UNF S/S	1
25	W-0-13365	LOCKWASHER	1
26	W-3-13354	UPPER RINSE & FILL LINE ASSY	1
27	W-1-8231	NOZZLE, Upper Spray	4
28	W-1-8709	PIPE CAP, 1/2" S/S	1
29	W-1-13433	SLEEVE, Rinse Line	1
30	W-0-97630	1/8" N.P.T. SO HD BRASS PIPE PLUG	1
31	W-0-97629	1/4" TO 1/8" BRASS PIPE REDUCER	1
32	W-1-7683	1/4" CLOSE NIPPLE	1
33	W-0-97628	1/4" N.P.T. BRASS TEE	1
34	W-0-20256	3/4" BRASS CROSS (DD8 only)	1
35	W-0-14323	3/4" x 4-1/2" BRASS NIPPLE (DD8 only)	2
36	W-1-7509	3/4" BRASS NIPPLE (DD8 only)	3



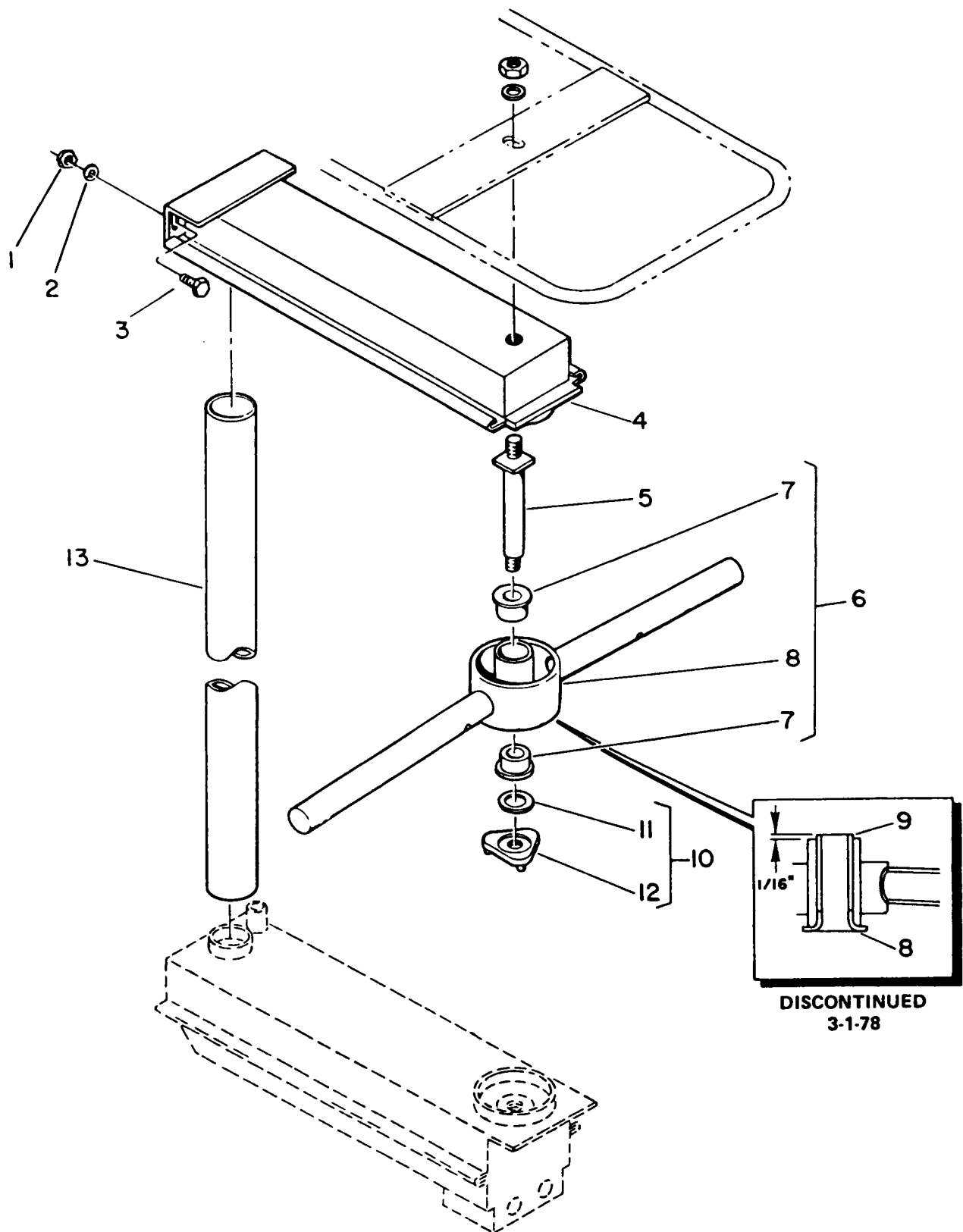


FIG. 6-6. UPPER MANIFOLD & WASH ARM

**FIG. 6-6. UPPER MANIFOLD & WASH ARM**

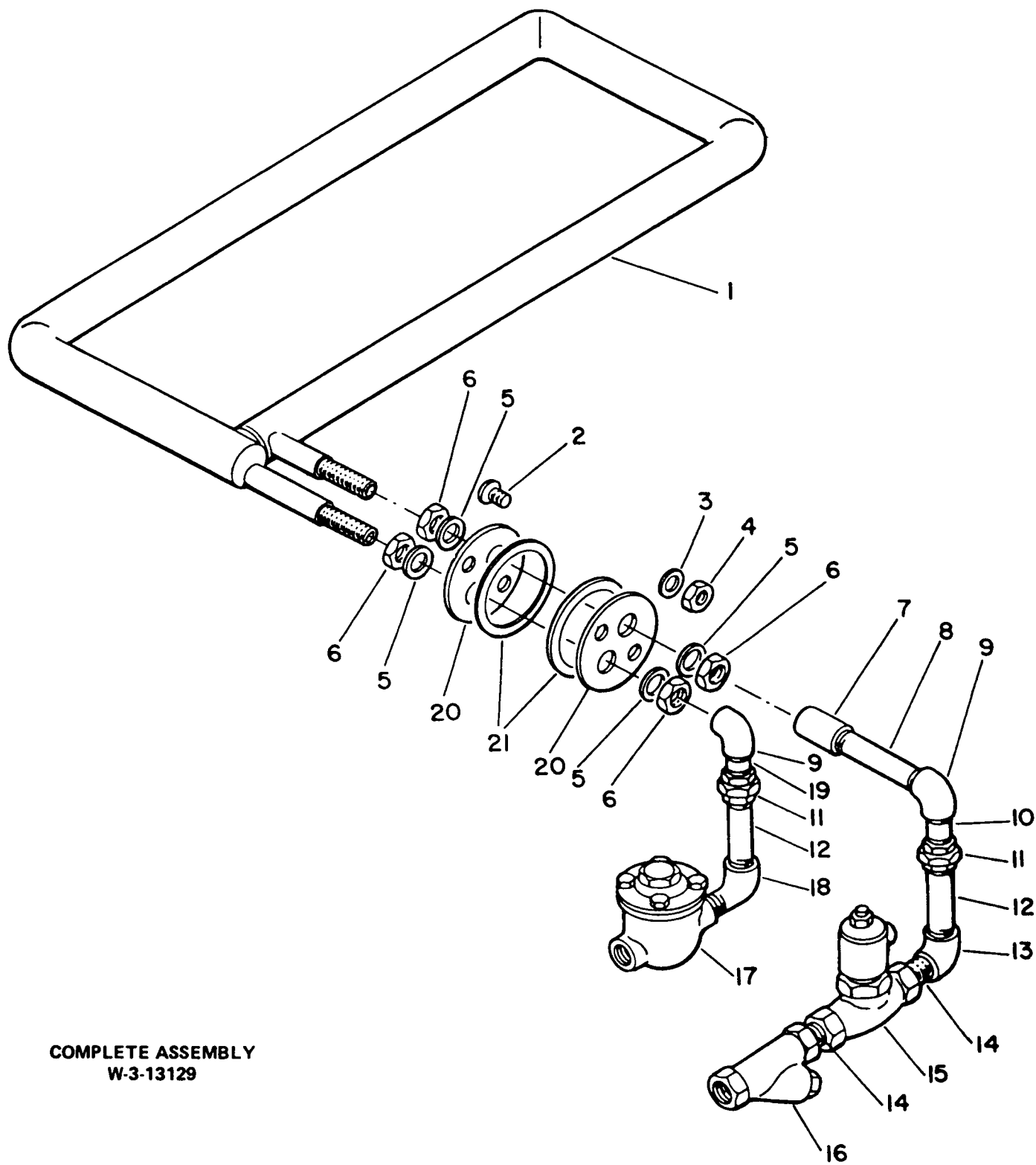
<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-1-12574	NUT, Hex 5/16-18 S/S	2
2	W-1-7598	LOCKWASHER, 5/16"S/S	2
3	W-1-7621	SCREW, Hex Hd 5/16-18 x 3/4" S/S	2
4	W-3-13081	MANIFOLD ASSY, Upper	1
5	W-1-17852	SPINDLE, Upper Wash	1
6	W-3-17756	WASH ROTOR ASSY	1
7	W-1-20844	• BUSHING (Used after 1-1-78)	2
8	W-1-2519	• BUSHING (Used before 1-1-78)	1
9	W-1-8149	• SLEEVE (Used before 1-1-78)	1
10	W-1-2132	NUT ASSY, Wash Arm	1
11	W-1-13118	• WASHER	1
12	W-1-13117	• NUT	1
13	W-1-13559	SUPPLY PIPE, Upper	1

NOTE: Item 7, Nylon Bushing, and Item 9, Bronze Sleeve, are not interchangeable. When replacing wash arm bushings, a bronze sleeve must replace a worn bronze sleeve, and a nylon bushing must replace a worn nylon bushing.



**FIG. 6-7. GAS BURNER ASSEMBLY**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-2-17959	REAR SUPPORT, Gas Burner	1
2	W-3-17816	FLUE ASSY - Discontinued 10-1-81	1
2A	W-3-97706	FLUE ASSY, Used on Production Machines Beginning 10-1-81	1
3	W-4-4575	BURNER ASSY	1
4	W-1-7023	LOCKWASHER, 1/4"	10
5	M-1-3571	SCREW, Hex Hd 1/4-20 x 1/2" lg.	2
6	W-1-7012	NUT, Hex 1/4-20 Cd PI	10
7	W-1-7 582	SCREW, Rd Hd 1/4-20 x 1/2" lg.	10
8	W-0-14185	SCREW, Truss Hd 3/8-16 x 1" lg. S/S	4
9	W-1-17898	COVER, Heater Hole	1
9A	W-1-2223	GASKET	2
10	W-1-17822	MOUNTING PLATE, Gas Cont. Valve	1
11	W-1-7524	LOCKWASHER, 3/8" S/S	4
12	W-1-5998	NUT, HEX 3/8" S/S	4
13	W-1-8131	SCREW, Rd Hd 10-32 x 1/2" lg.	2
14	W-0-7705	CONTROL VALVE (For L.P. Gas)	1
14A	W-0-7642	CONTROL VALVE (For Natural Gas)	1
15	W-1-8491	SCREW, Hex Hd., 1/4-20 x 3/4" lg.	2
16	W-9-14824	NIPPLE, 1/2 x 2" lg. Black	1
17	W-1-7693	ELBOW, Reducing 1/2 to 3/8" - 90° Black	1
18	W-1-7651	TUBE, 1/4 x 17" lg, Alum	1
19	W-2-17817	FRONT SUPPORT, Gas Burner	1
20	W-2-17957	FLUE COVER - Discontinued 10-1-81	1
20A	W-2-97708	FLUE COVER - Used on Production Machines Beginning 10-1-81	1
21	W-0-13334	CONNECTOR, 1/2" Tube to 3/8" Pipe	2
22	W-1-7650	THERMOCOUPLE, 24" lg.	1
23	W-0-16196	PILOT BURNER (For Natural Gas)	1
23A	W-0-16197	PILOT BURNER (For L.P. Gas)	1
24	W-1-18291	SHIELD, Pilot	1
25	W-1-17961	BRACKET, Pilot & Thermocouple	1
26	W-1-7285	LOCKWASHER. No. 10	4
27	W-1-10307	SCREW, Rd Hd 10-32 x 3/8" lg.	2
28	W-1-7637	LOCKWASHER. No. 8 Cd PI	2
29	W-1-13063	SCREW. Rd Hd 8-32 x 3/8" lg Cd PI	2
30	W-0-13335	TUBE, Alum. 1/2" x 7-1/2" lg	1
31	W-1-13982	BURNER VALVE (Std for Natural Gas .078 orifice)	A/R
31A	W-0-13984	• ORIFICE, .078 dia. (Natural Gas)	
32	W-0-20872	BURNER VALVE (Std for L.P. Gas .052 orifice)	A/R
32A	W-0-14374	• ORIFICE, .052 dia. (L.P. Gas)	
33	W-1-7638	SCREW, Truss Hd 10-24 x 3/8"	1
34	W-1-4992	MIXER PLATE, Gas Burner	1
35	W-2-4770	MIXER HEAD	1
36	W-1-7634	NIPPLE, 3/4x1-3/8" lg	1

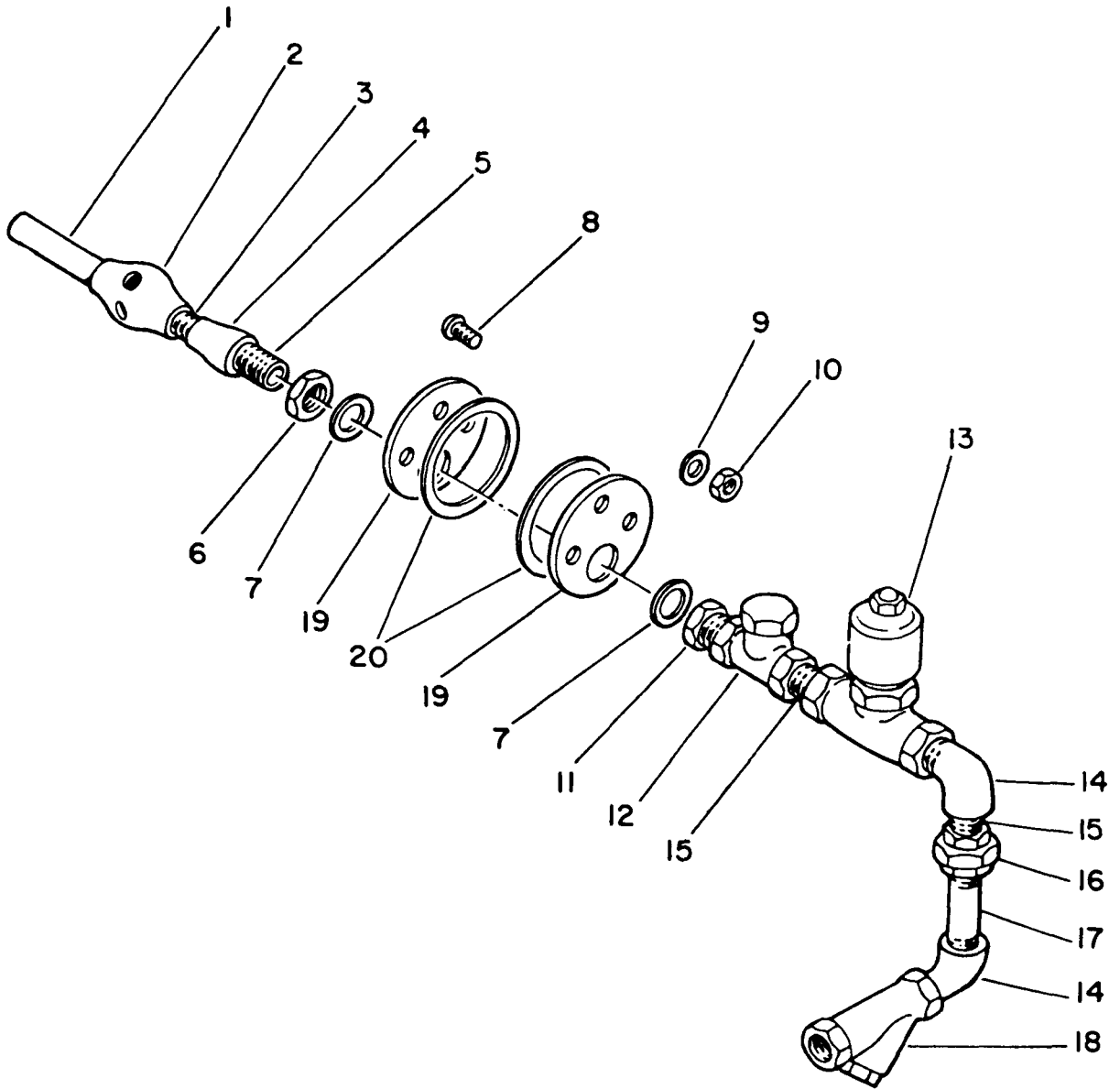


COMPLETE ASSEMBLY  
W-3-13129

FIG. 6-8. STEAM COIL ASSEMBLY (W-3-13129)

**FIG. 6-8. STEAM COIL ASSEMBLY**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-3-13090	COIL ASSY	1
2	W-0-14185	SCREW, Truss Hd. 3/8-16 x 1", S/S	2
3	W-1-7524	LOCKWASHER, Split 3/8", S/S	2
4	W-1-5998	NUT, Hex 3/8-16, S/S	2
5	W-0-17702	GASKET, Copper/Asbestos for 1/2" pipe	2
6	W-0-14267	LOCKNUT, 1/2" N.P.S.L. Brass Pipe	4
7	W-0-13128	COUPLING, 1/2" Blk	1
8	W-0-20258	NIPPLE, 1/2 x 3-1/2" Ig, 8lk	1
9	W-1-10029	ELBOW, 1/2 NPT 90°, Blk	2
10	W-1-14824	NIPPLE, 1/2 x 2" Ig, Blk	1
11	W-1-11957	UNION, 1/2" Bik	2
12	W-0-13127	NIPPLE, 1/2" x 3" Ig, Blk	2
13	W-0-7644	REDUCER ELBOW, 3/4 to 1/2" - 90° Blk	1
14	W-1-7634	NIPPLE, Close, 3/4"	2
15	W-1-12085	SOLENOID VALVE, 115V, 3/4" STEAM	1
15A	W-0-17390	REPAIR KIT, 3/4" Solenoid Valve (less coil)	A/R
15B	W-0-17960	COIL ONLY (STEAM)	A/R
16	W-1-7026	STRAINER, 3/4" Line - Brass	1
16A	W-1-13385	STRAINER SCREEN (UNITED BRASS)	1
16B	W-0-17507	3/4" LINE STRAINER CAP	1
16C	W-0-17506	3/4" LINE STRAINER "O" RING	1
17	W-0-16877	STEAM TRAP 1/2" NPT	1
17A	W-0-18135	STEAM TRAP REBUILDING KIT	1
18	W-1-11947	ELBOW, Street, 1/2" Blk	1
19	W-0-13965	NIPPLE, 1/2" x 1-1/2" Blk	1
20	W-1-13120	MOUNTING PLATE, Steam Coil	2
21	W-1-2223	GASKET, Immersion Heater	2



**COMPLETE ASSY  
W-3-12988**

**FIG. 6-9. STEAM INJECTOR ASSEMBLY (W-3-12988)**

**FIG. 6-9. STEAM INJECTOR ASSEMBLY**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-1-12943	HALF NIPPLE, 3/8 x 2" Brass	1
2	W-1-7027	INJECTOR, Steam - Brass	1
3	W-1-7683	NIPPLE, Close, 1/4" Brass	1
4	W-1-12986	COUPLING, Reducer 1/2" to 1/4" Brass	1
5	W-1-12944	NIPPLE, 1/2 x 2" NPSL - Brass	1
6	W-0-14267	LOCKNUT, 1/2" N.P.S.L. Brass Pipe	1
7	W-0-17702	WASHER, Copper/Asbestos	2
8	W-0-14185	SCREW, Truss Hd. 3/8-16 x 1" S/S	3
9	W-1-7524	LOCKWASHER, 3/8" S/S	3
10	W-1-5998	NUT, Hex 3/8-16	3
11	W-1-8453	BUSHING, Reducer 3/4" to 1/2" Brass	1
12	W-1-7777	CHECK VALVE, 3/4" Brass	1
13	W-1-12085	SOLENOID VALVE, 3/4" NPT, 115V STEAM	1
13A	W-0-17390	REPAIR KIT, 3/4" Solenoid Valve (less coil)	A/R
13B	W-0-17960	COIL ONLY (STEAM)	A/R
14	W-1-14825	ELBOW, STREET 3/4" x 90°, Blk	2
15	W-1-7634	NIPPLE, Close 3/4" Blk	2
16	W-1-11968	UNION, 3/4" Blk	1
17	W-0-14268	NIPPLE, 3/4" x 2" Blk	1
18	W-1-7026	STRAINER, 3/4" Line, Brass	1
18A	W-1-13385	STRAINER SCREEN (UNITED BRASS)	1
18B	W-0-17507	3/4" LINE STRAINER CAP	1
18C	W-0-17506	3/4" LINE STRAINER "O" RING	1
19	W-1-12954	MOUNTING PLATE, Injector	2
20	W-1-2223	GASKET, Immersion Heater	2



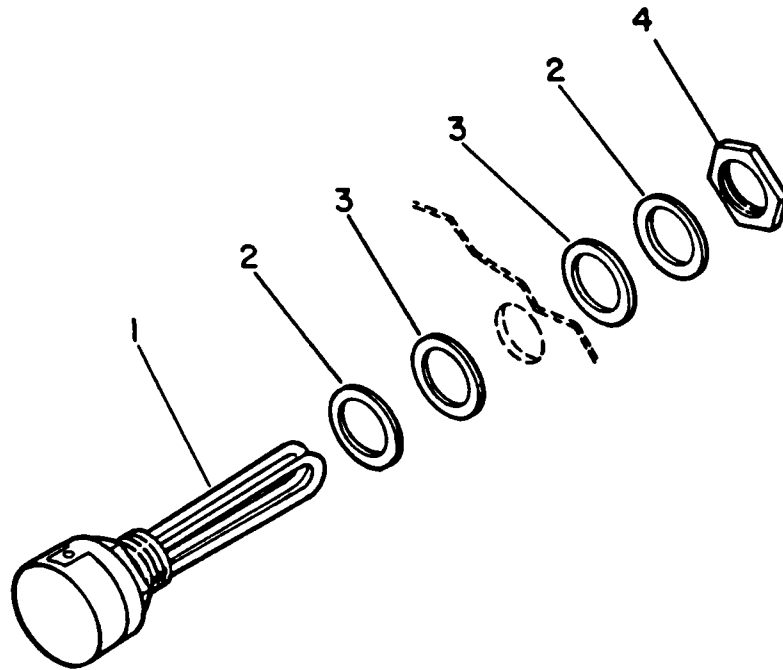


FIG. 6-10. ELECTRIC TANK HEAT W-0-95377 HEATING  
ELEMENT ASSEMBLY

**FIG. 6-10. ELECTRIC TANK HEAT**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-0-95377	HEATING ELEMENT ASSY (Consists of Items 2, 3, 4, and 5)	1
2	W-0-18795	HEATER, 2.5 KW	1
3	W-1-2223	GASKET, Heater	2
4	W-1-12024	WASHER, Heater S/S	2
5	W-1-12025	LOCKNUT, 2" N.P.T.	1
6	W-2-20875	13" ELEMENT WRENCH (For installation - inside tank) (OPTIONAL)	A/R
7	W-2-20876	10" ELEMENT WRENCH (For installation - exterior of tank) (OPTIONAL)	A/R

## SECTION 6. ILLUSTRATED PARTS LIST

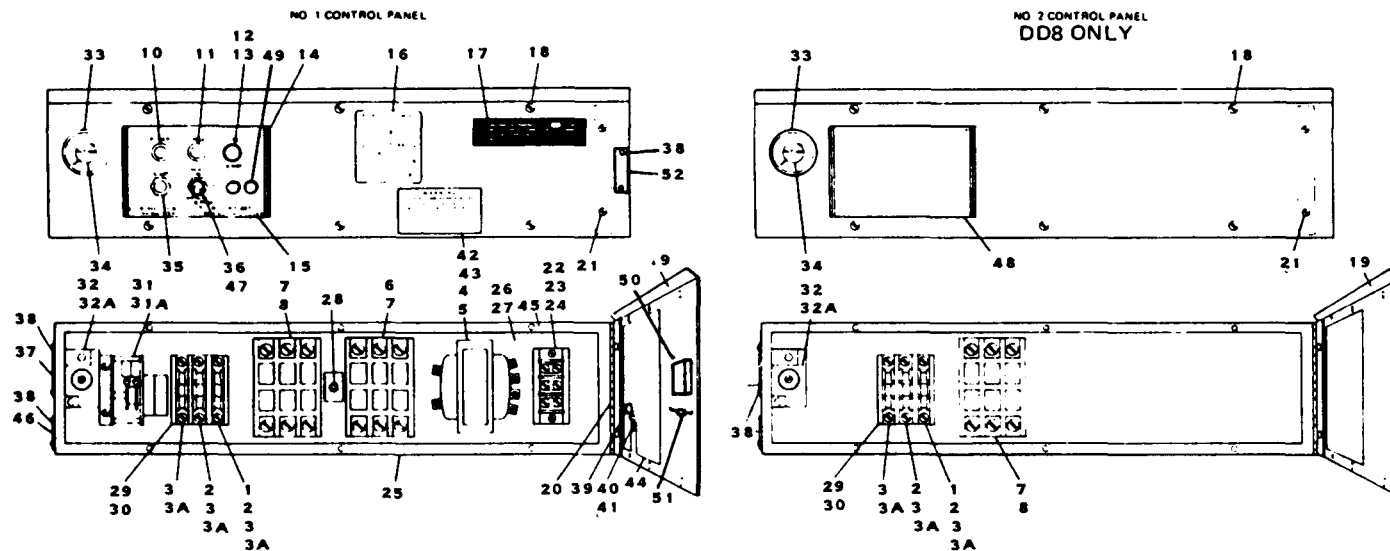
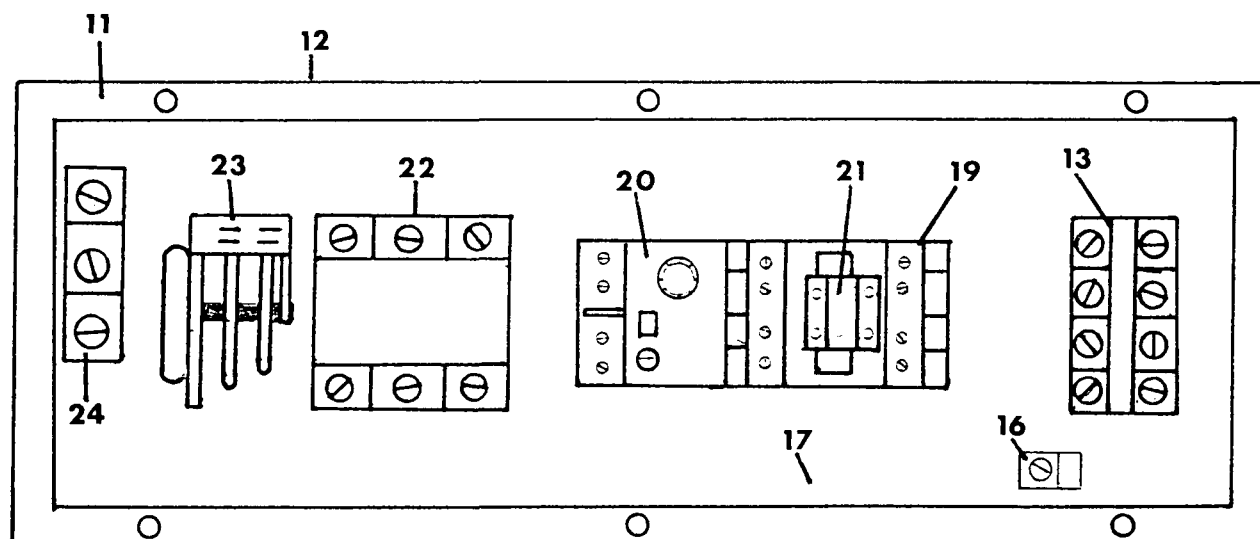
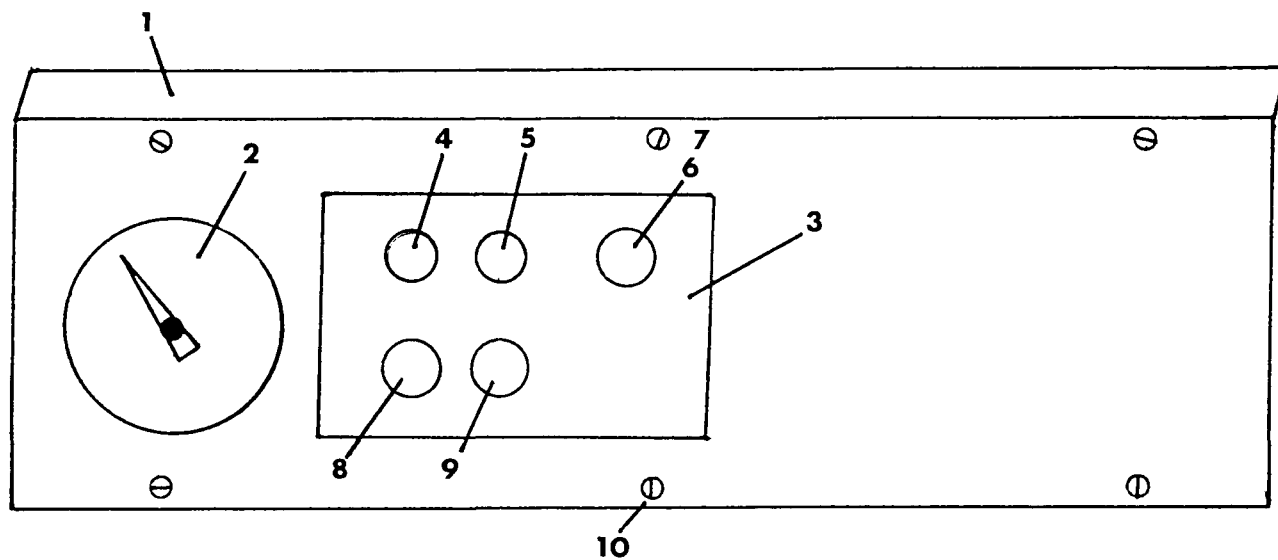


Figure 6-11. Electrical Control Box

ITEM NO.	PART NO.	DESCRIPTION	QTY. REQD.
	W-0-18033	CONTROL BOX ASSY - 230V, 1 Ph or 208/240V, 3 Ph w/Gas or Steam Tank Heat - Includes items 1,2, & 4 thru 48	1
	W-0-18034	CONTROL BOX ASSY - 230V, 1 Ph or 208 - 240/480V, 3 Ph w/Electric Tank Heat - Includes items 3,3A, & 4 thru 48	1
1	W-0-16687	FUSE, 20 Amp. 250V (Used on 115V. 1Ph machines)	1
2	W-0-16688	FUSE, 10 Amp. 250V (Used on 230V. 1Ph machines)	2
3	W-0-16689	FUSE, 8 Amp. 250V (Used on 208/240V, 3 Ph machines)	3
3A	W-0-16690	FUSE, 5 Amp. 500V (Used on 440/480V, 3 Ph machines)	3
4	W-1-7201	TRANSFORMER, .150KVA	1
5	W-1-7646	SCREW, Rd. Hd. 10-32 x 3/8" lg.	4
6	W-1-7209	MOTOR CONTACTOR. 3 Pole	1
7	W-1-7646	SCREW, Rd. Hd. 10-32 x 3/8" lg. (For Contactor)	4
8	W-1-7209	CONTACTOR, 3 Pole (Electric Heat Only)	1
9	W-0-18032	• BASIC CONTROL BOX ASSY-115V, 1Ph w/Gas or Steam Tank Heat (Not Shown)	1
10	W-0-16559	• LIGHT, Red - "Power"	1
11	W-0-16560	• LIGHT, Amber - "Cycle"	1
12	W-1-10765	• FUSE HOLDER	1
13	W-1-10766	• FUSE, 1.6 Amp. Slo-Blo	1
14	W-1-20859	• CONTROL GUARD	1
15	W-2-17708-8	• NAMEPLATE	1
16	W-1-13963	• PATIENT TAG	1
17	W-1-12443	• ELECTRICAL SUPPLY CONNECTION TAG	1
18	W-1-5987	• SCREW, Truss Hd. 10-24 x 1/2" lg. S/S	6

**FIG.6-11. ELECTRICAL CONTROL BOX**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
19	W-2-17731	• PANEL, Front Cover	1
20	W-1-18132	• HINGE, S/S	1
21	W-1-7118	• SCREW, Hex Hd., 1/4-20 x 1/2" lg.	4
22	W-1-12504	• INSULATOR, 1/32 Fiber	1
24	W-1-7999	• SCREW, Mach., Rd. Hd., 8-32x5/8" lg.	2
25	W-3-17726	• CONTROL BOX	1
26	W-2-17716	• CHASSIS PANEL	1
27	P-1-17241	• SCREW, Cut 10-32 x 3/8" lg.	6
28	W-1-13914	• AUXILIARY CONTACT, N/o (2)	1
29	W-0-14811	• FUSE BLOCK, 3 Pole	1
30	W-1-7999	• SCREW, Mach., Rd.Hd., 8-32 x 5/8" lg.	2
31	W-2-14480	• TIMER.60 Sec.115V	1
31A	W-1-7999	• SCREW, Mach., Rd.Hd., 8-32 x 5/8" lg.	1
32	W-1-7768	• THERMOSTAT	1
32A	W-1-13063	• SCREW, Mach., Rd.Hd., 8-32x3/8" lg.	2
33	W-0-13822	• THERMOMETER, Wash	1
34	W-1-95995	• 120 <sup>1</sup> DECAL	1
35	W-1-7202	• SWITCH, "START", Pushbutton	1
36	W-0-16954	• SWITCH, 3 Pos. Toggle	1
37	W-1-8097	• MACHINE NAMEPLATE	1
38	W-1-8096	• SCREW, Self Tapping #4-1/4	8
39	W-0-14255	• EYELET TIE WRAP, 7"	2
40	W-1-11545	• SCREW, Rd. Hd., 10-24 x 1/4"	2
41	W-1-7285	• LOCKWASHER, 10-24	2
42	W-1-8754	• ELECTRIC HEAT WARNING TAG (USED ONLY ON ELECTRICALLY HEATED MACHINES)	1
43	W-1-8752	• GAS HEAT WARNING TAG (USED ONLY ON GAS HEATED MACHINES)	1
44	W-2-17741	• ABBREVIATED WIRING DIAGRAM	1
45	W-2-17804	• CONTROL BOX GASKET ASSY	1
46	W-1-5427	• WASH & RINSE REQUIREMENT PLATE	1
47	W-0-20833	SWITCH, 3 Pos. Toggle - (Spring Return on Fill - Used on Machines with Timer Fill - OPTION ONLY)	1
48		BLANK CONTROL GUARD	1
49	W-0-14479	SWITCH, Toggle	1
50	W-0-20452	1 MINUTE REPEAT CYCLE TIMER, Timed Fill Option	1
50-A	W-0-95940	1 MINUTE POWER INTERVAL TIMER, Timed Fill Option	1
50-B	W-0-20842	5 MINUTE TIMER, Timed Fill Option	1
51	W-0-95934	SILICONE RECTIFIER, Used With Item 50 and 50A	
52	W-2-20878	POWER REQUIREMENT NAME PLATE	



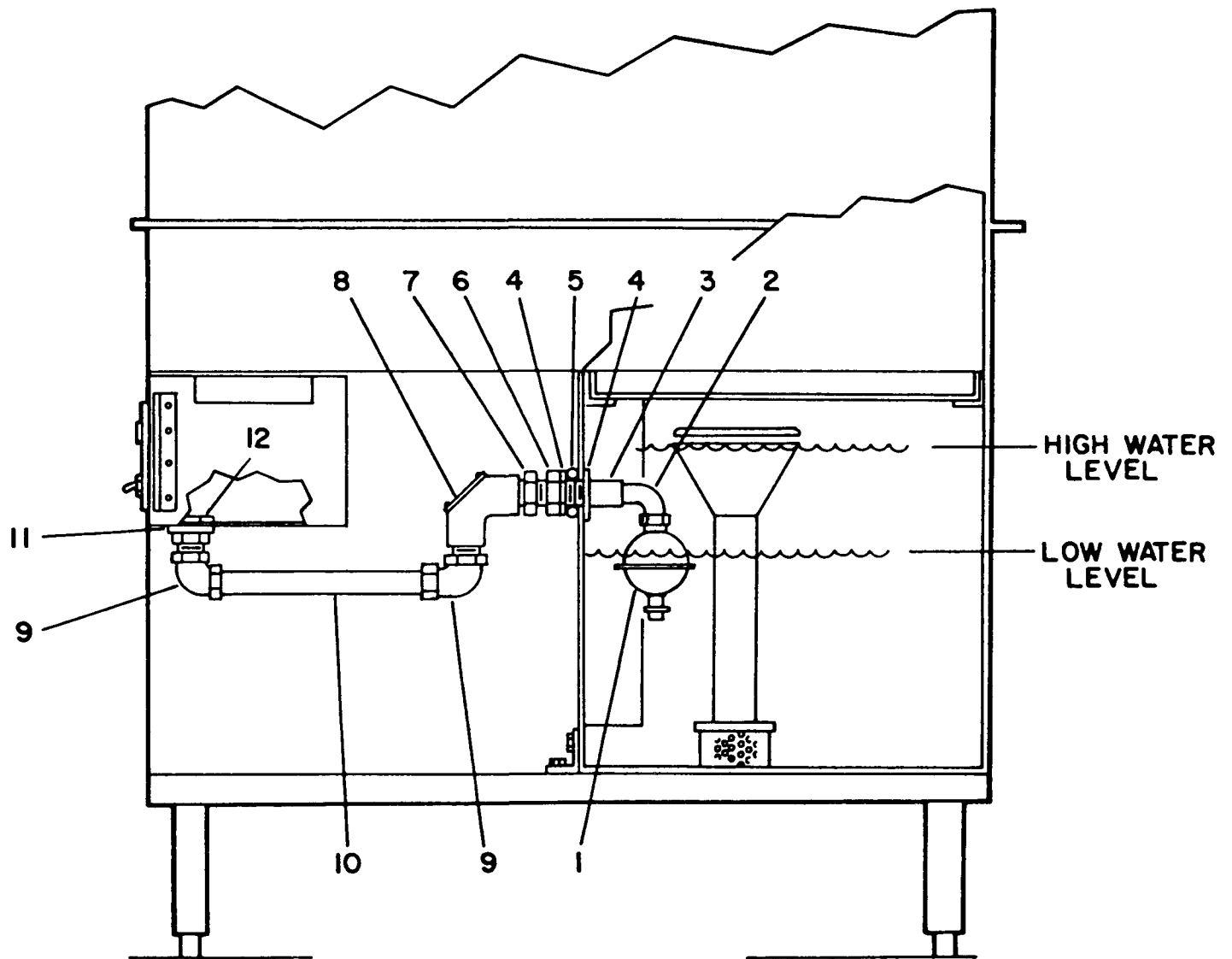
Control Box Assembly

Machines manufactured after 1/98  
with suffix AAA and up.

## CONTROL BOX ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY. REQD.
1	17731	FRONT COVER	1
2	70155	THERMOMETER	1
3	20859	CONTROL GUARD	1
4	16559	POWER LIGHT - RED	1
5	16560	CYCLE LIGHT - AMBER	1
6	10765	FUSE HOLDER	1
7	10766	1-6/10 FUSE SLO-BLO	1
8	7202	PUSH BUTTON SWITCH	1
9	16954	TOGGLE SWITCH	1
10	5987	10-24 x 1/2 S/S TRUSS HD. MACH. SCREW	6
11	17804	CONTROL BOX GASKET	1
12	17726	CONTROL BOX	1
13	16782	TERMINAL BLOCK	A/R
*14	15799	MOUNTING CHANNEL	A/R
*15	7999	8-32 x 3/8 R.H.M.S.	2
16	74114	GROUND LUG	1
17	17716	CHASSIS PANEL	1
18	17241	10-32 x 3/8 SCREW	6
19	70192	MOTOR CONTACTOR	1
20	71605	OVERLOAD RELAY, 115V, 1 Ph.	1
20A	71603	OVERLOAD RELAY, 230V, 1 Ph.	1
20B	71601	OVERLOAD RELAY, 208/240V, 3 Ph.	1
20C	71600	OVERLOAD RELAY, 440/480V, 3 Ph.	1
21	75581	AUX. CONTACT, 2-Pole N/O. 3 Ph. Mach.	1
22	7209	HEAT CONTACTOR	1
23	14480	TIMER	1
24	7768	THERMOSTAT	1
*25	18132	HINGE	1
*26	7118	1/4-20 x 1/2 S/S HEX HD. MACH. SCREW	4
*27	13063	8-32 x 3/8 R.H.M.S.	8
*28	7646	10-32 x 3/8 R.H.M.S.	2
*29	17708	NAME PLATE	1
*30	99705	DATA LABEL	1
*31	74123	WARNING LABEL	1
*32	7201	TRANSFORMER (440V Mach. only)	1
*33	15871	NYLON CABLE CLAMP	2
OPTIONAL EQUIPMENT			
AUTOMATIC TANK FILL CYCLE			
	74235	AUTO FILL TIMER	1
	7202	FILL S START PUSH BUTTON	1
	74241	SWITCH LABEL	1
AUTOMATIC CYCLE			
	73375	SOLID STATE TIMER	1
THERMAL CYCLE EXTENSION			
	73952	TIMER	1
	75452	SOLID STATE RELAY	1

\*Items not illustrated.



COMPLETE ASSY  
W-3-20453

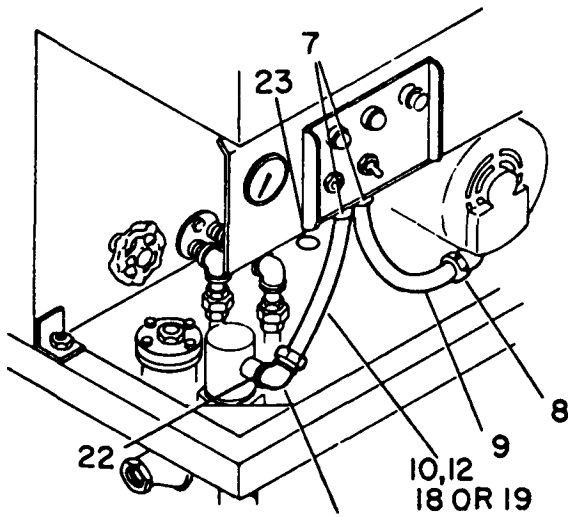
FIG. 6-12. AUTOMATIC TANK FILL "TYPE C"

**FIG. 6-12. AUTOMATIC TANK FILL "TYPE C"**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-0-18865	FLOAT SWITCH, Liquid 3 Amp.	1
2	W-0-20467	ELBOW, Street 1/4" S/S	1
3	W-1-20449	BUSHING, Extension	1
4	W-0-18927	WASHER, Flat S/S	2
5	W-0-18866	"O" RING, 1/2" O.D.	1
6	W-0-18928	LOCKNUT- 1/4" Brass	1
7	W-1-7684	BUSHING, Reducer 1/2" to 1/4"	1
8	W-1-12830	ELBOW, Pulling - 1/2" - 90°	1
9	W-1-7580	CONNECTOR, 3/8 - 90° LIQUID TIGHT CONNECTOR	2
10	W-0-20466	CONDUIT, Liquid Tight 3/8" x 6-1/2" lg	A/R
11	W-1-7587	GASKET ASSY, 1/2"	1
12	W-1-8360	NUT, Drive 1/2"	1

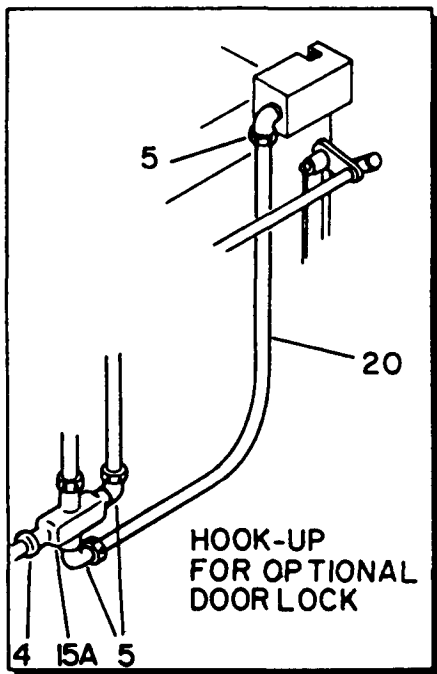


FRONT OF MACHINE

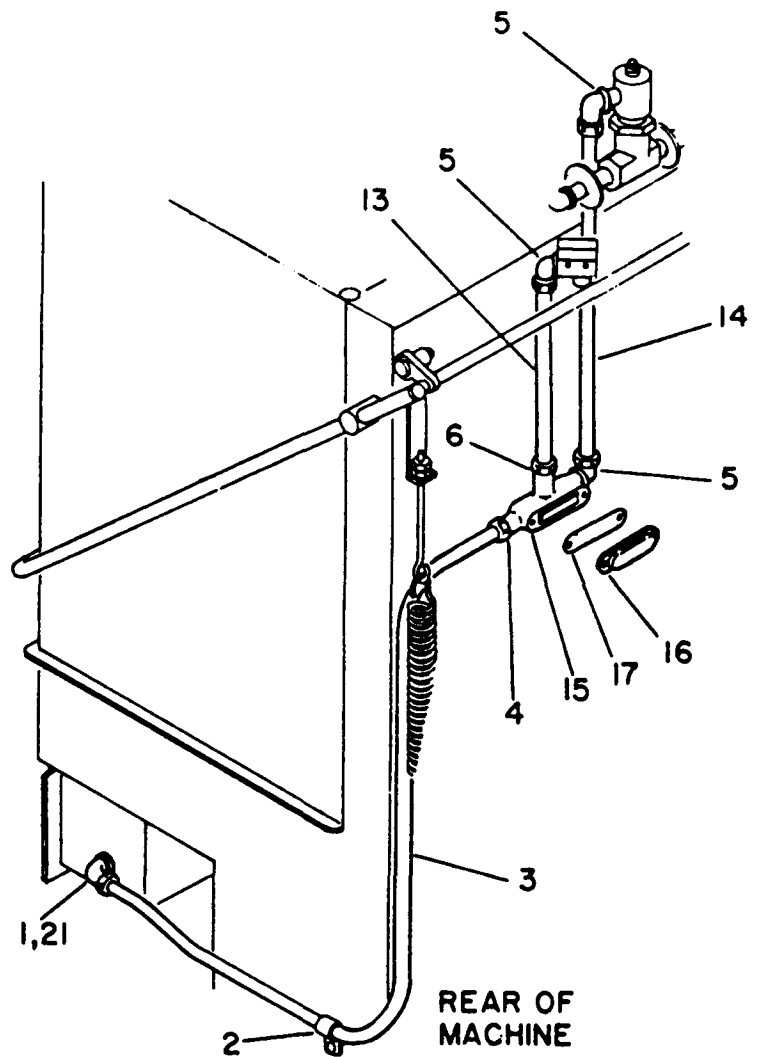


ITEM 8 FOR STEAM  
AND ELECTRIC

ITEM 11 FOR GAS



HOOK-UP  
FOR OPTIONAL  
DOOR LOCK

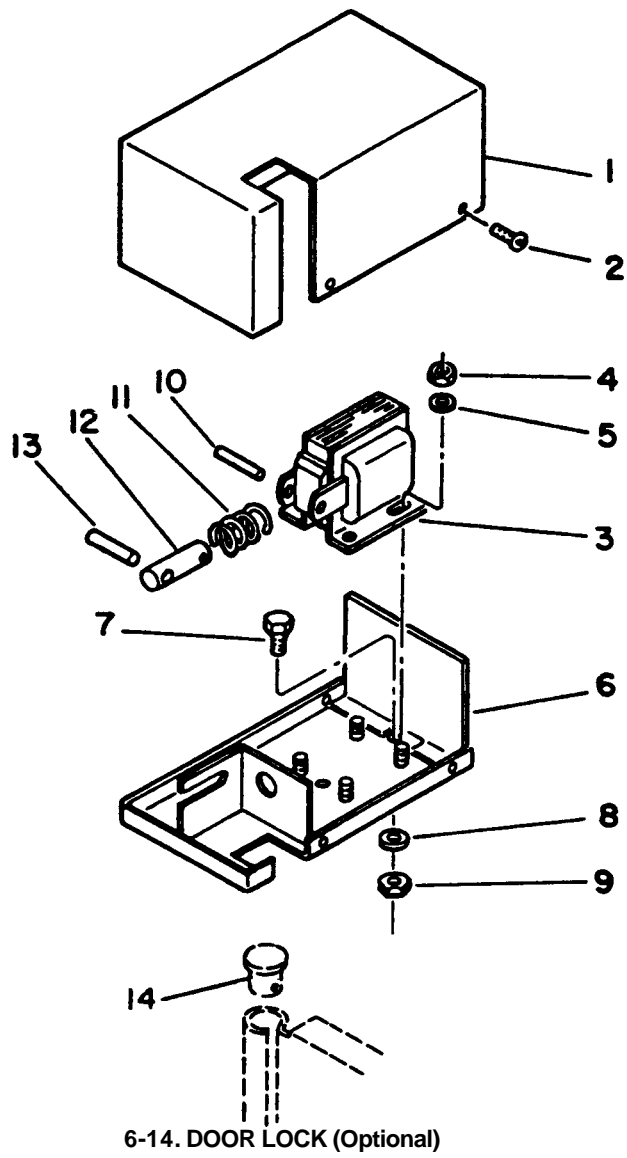


REAR OF  
MACHINE

FIG. 6-13. ELECTRICAL FITTINGS

**FIG. 6-13. ELECTRICAL FITTINGS**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	W-1-7577	1/2" x 90° E.M.T. Conduit Box Connector
2	W-1-12977	1/2" E.M.T. Conduit Strap
3	See Notes	1/2" x 50" lg. E.M.T. Conduit (Custom Bent for Each Machine)
4	W-1-7563	1/2" Straight E.M.T. Box Connector
5	W-1-7580	3/8" 90° Liquid Tight Connector
6	W-1-7654	3/8" Straight Liquid Tight Connector
7	W-1-7617	1/2" Straight Liquid Tight Connector
8	W-1-7583	1/2" 90° Liquid Tight Connector
9	See Notes	1/2" x 11-1/2" Liquid Tight Conduit (For Motor)
10	See Notes	1/2" x 15-1/2" Liquid Tight Conduit (For Electric Heating Element)
11	W-1-8836	1/2" x 45° Liquid Tight Connector
12	See Notes	1/2" x 13" Liquid Tight Conduit (Gas)
13	See Notes	3/8" x 7-1/2" Liquid Tight Conduit
14	See Notes	3/8" x 15-1/2" Liquid Tight Conduit
15	W-1-7572	1/2" Unilet Tee
15A	W-0-20925	1/2" Unilet (4-way)
16	W-1-7573	1/2" Unilet Tee Cover
17	W-1-7574	1/2" Unilet Tee Cover Gasket
18	See Notes	1/2" x 10-1/2" Liquid Tight Conduit (Steam Coil)
19	See Notes	1/2" x 8-1/2" Liquid Tight Conduit (Steam Injector)
20	See Notes	1/2" x 20" Liquid Tight Conduit (Optional Door Lock)
21	W-1-7587	1/2" Junction Box Gasket
22	W-1-8360	1/2" Drive Lock Nut
23	W-1-12437	SNAP BUSHING
NOTES:	W-1-7592	E.M.T. Thinwall Conduit (order 3/8 or 1/2 dia. x 10 ft. length)
	W-1-7589	3/8" Liquid Tight Conduit (order feet req'd.)
	W-1-7590	1/2" Liquid Tight Conduit (order feet req'd.)



**FIG. 6-14. DOOR LOCK ASSEMBLY**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-2-20915	COVER	1
2	W-1-7601	SCREW, Rd Hd. 10-24 X 3/8" lg	4
3	W-0-20839	SOLENOID	1
4	W-1-8132	NUT, Hex 10-24 S/S	4
5	W-1-7285	LOCKWASHER, No. 10 S/S	4
6	W-2-20917	MOUNTING BASE	1
7	W-1-7118	SCREW, Hex Hd 1/4-20 x 1/2" lg	2
8	W-1-7007	LOCKWASHER. 1/4"	2
9	W-1-7146	NUT, Hex 1/4-20	2
10	No Number	PIN, 13/64 x 2" lg - furn'd w/solenoid	1
11	W-0-20919	SPRING	1
12	W-1-20916	SHAFT	1
13	W-0-20918	STOP PIN	1
14	W-1-20895	DOOR BUMPER - Used only with this door lock	Ref.

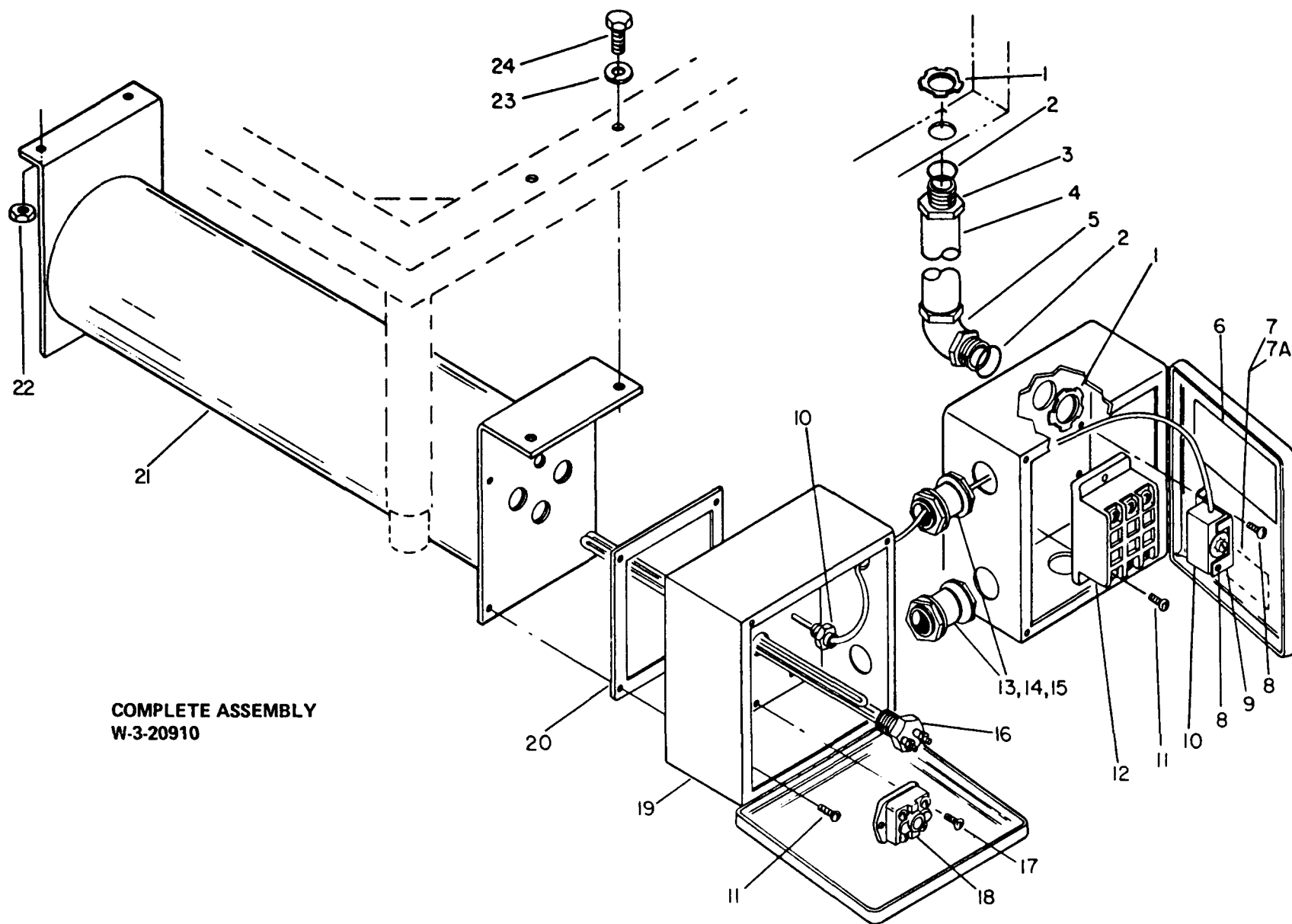


FIG. 6-15. MACHINE MOUNTED FINAL RINSE BOOSTER (SINGLE D8 ONLY)

**FIG. 6-15. MACHINE MOUNTED FINAL RINSE BOOSTER**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-1-8360	LOCKNUT, Tiger Grip	2
2	W-1-8587	GASKET, 1/2"	2
3	W-1-7617	CONNECTOR, Str. 1/2" Liquid Tight	1
4	See note	1/2" x 12" lg. Liquid Tight Conduit	1
5	W-1-8836	45" ELBOW, 1/2" Liquid Tight	1
6	W-2-20914	WIRING DIAGRAM, Abbrev.	1
7	W-2-20878	PLATE, Power Requirement	1
7A	W-1-8096	SCREW, 4-40 x 1/4" lg. Self-tapping	1
8	W-1-8000	SCREW, 6-32 x 1/4" lg. Rd. Hd.	1
9	W-1-16221	BRACKET, Thermostat Mtg.	1
10	W-0-7768	THERMOSTAT w/Capillary	1
11	W-1-8131	SCREW, 10-32 x 1/2" lg. Rd. Hd.	6
12	W-1-7210	CONTACTOR, 60 Amp. 3 Pole	1
13	W-1-12616	NIPPLE, 3/4" Conduit - Insulated	4
14	W-1-7743	GASKET ASSY, 3/4"	4
15	W-1-8171	COUPLER, 3/4" N.P.T. (Galv.)	2
16	W-0-20840	HEATER, Immersion 2.5 K.W.	5
17	W-1-8004	SCREW, 6-32 x 1/2" lg. Rd. Hd.	1
18	W-0-20841	SWITCH, 250° High Limit Cut-Off	1
19	W-2-20908	BOX, Booster Element	1
20	W-1-20912	GASKET ASSY, Booster	1
21	W-3-20909	TANK ASSY, Booster Element	1
22	W-1-7012	NUT, 1/4-20	2
23	W-1-7023	LOCKWASHER, 1/4	2
24	M-1-3571	SCREW, Hex Hd. 1/4-20 x 1/2" lg.	2

NOTE: W-1-7590 1/2" Liquid Tight Conduit (order feet req'd.)

<b>BOOSTER IMMERSION HEATER CHART</b>				
<b>HEATER PART NO.</b>	<b>VOLTAGE</b>	<b>PHASE</b>	<b>K.W.</b>	<b>AMPS</b>
<b>72635</b>	<b>208/240</b>	<b>1</b>	<b>12.0</b>	<b>58</b>
<b>72635</b>	<b>208/240</b>	<b>3</b>	<b>12.0</b>	<b>34</b>
<b>72634</b>	<b>440/480</b>	<b>3</b>	<b>12.0</b>	<b>16</b>
<b>72636</b>	<b>208/240</b>	<b>1</b>	<b>15.0</b>	<b>72</b>
<b>72636</b>	<b>208/240</b>	<b>3</b>	<b>15.0</b>	<b>42</b>
<b>72460</b>	<b>440/480</b>	<b>3</b>	<b>15.0</b>	<b>20</b>
<b>72688</b>	<b>208/240</b>	<b>1</b>	<b>9.0</b>	<b>45</b>
<b>72688</b>	<b>208/240</b>	<b>3</b>	<b>9.0</b>	<b>26</b>
<b>72689</b>	<b>440/480</b>	<b>3</b>	<b>9.0</b>	<b>13</b>

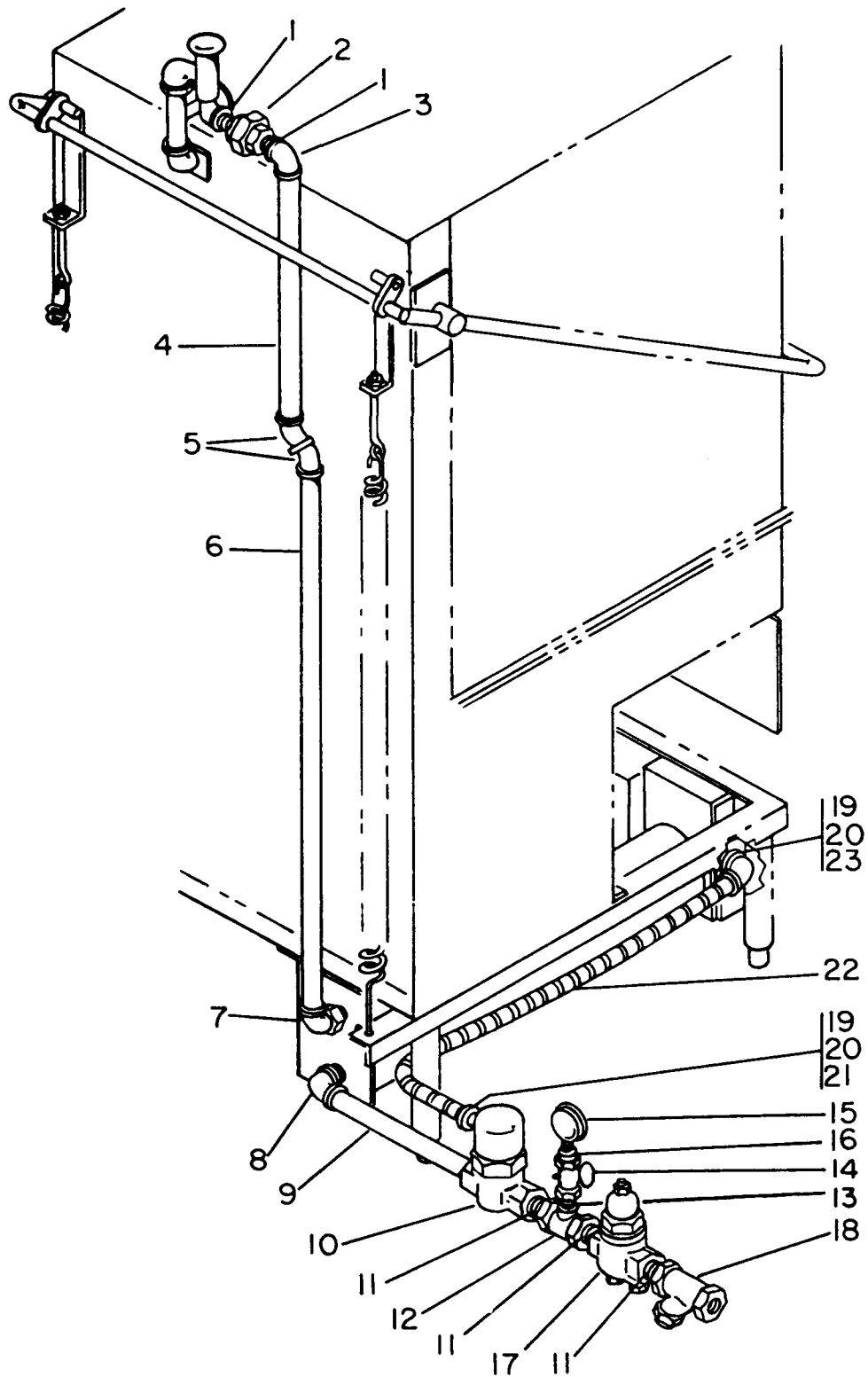


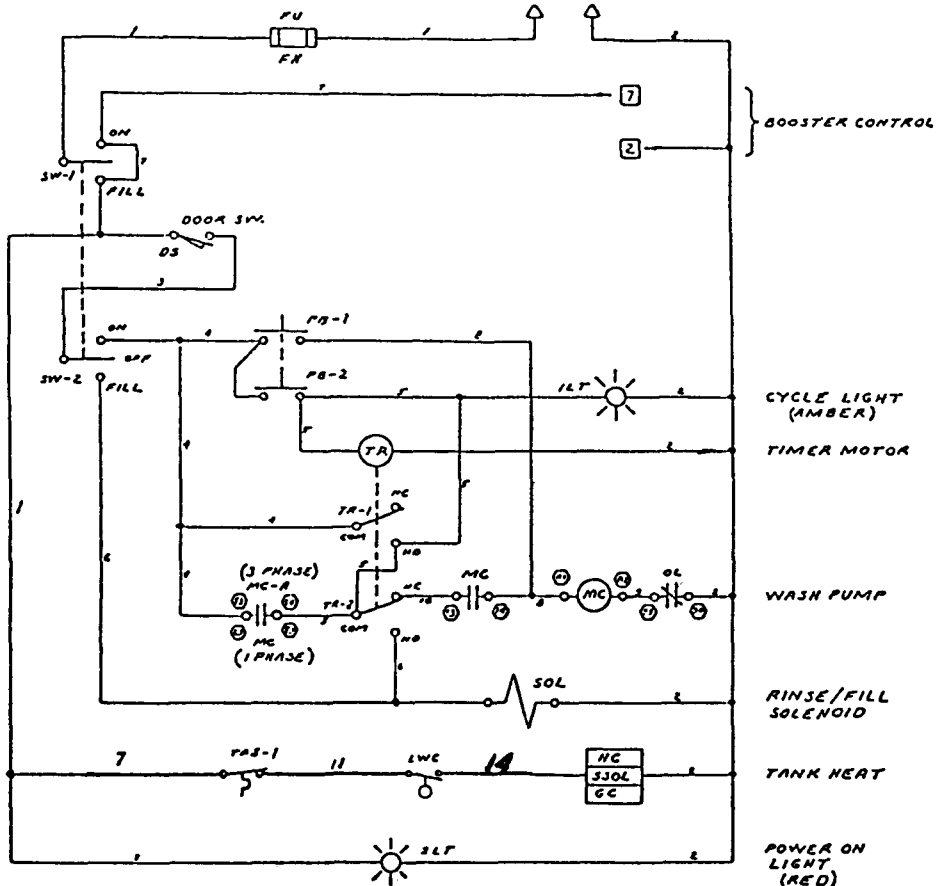
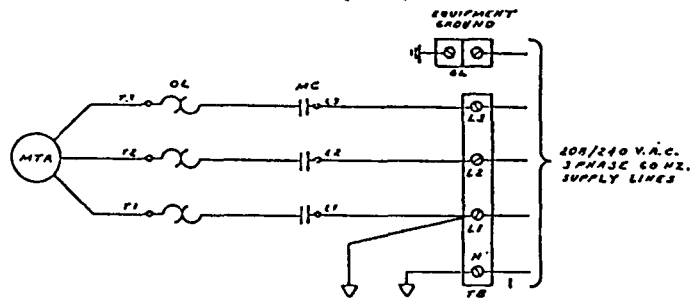
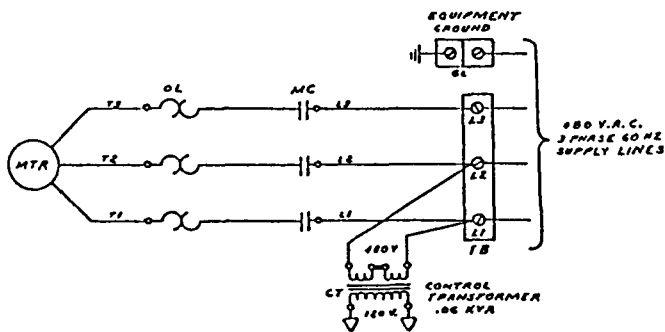
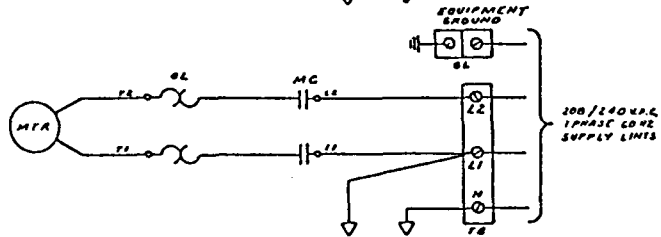
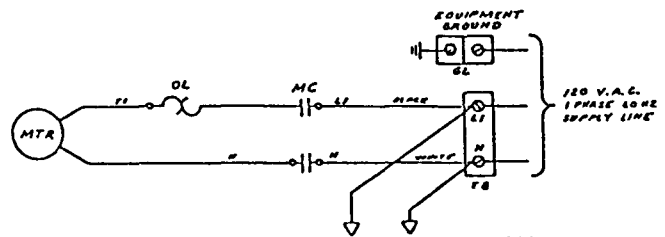
FIG. 6-16. MACHINE MOUNTED BOOSTER PLUMBING & ELECTRICAL  
(SINGLE D8 ONLY)

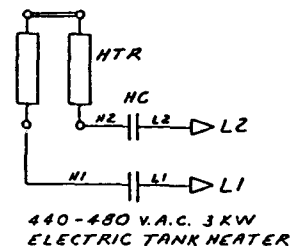
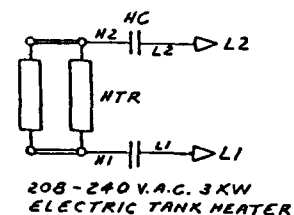
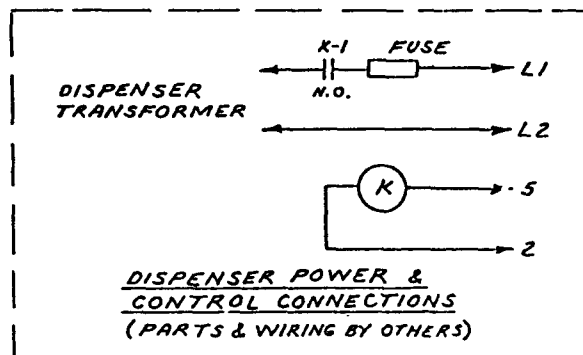
**FIG. 6-16. MACHINE MOUNTED BOOSTER PLUMBING & ELECTRICAL**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QTY. REQD.</b>
1	W-0-14250	NIPPLE, Close 3/4" x 1-1/2" lg. Brass	2
2	W-1-13608	UNION, 3/4" Brass	1
3	W-1-8219	ELBOW, 90° Brass	1
4	W-0-18263	PIPE, Brass 3/4" x 8" lg.	1
5	W-0-18261	ELBOW, 45° Brass	2
6	W-0-95018	PIPE, Brass 3/4" x 38" lg.	1
7	W-1-8217	UNION ELBOW, 3/4" x 90° - Brass	1
8	W-1-8219	ELBOW, 3/4" x 90° N.P.T. - Brass	1
9	W-1-18263	NIPPLE, 3/4" x 8" lg.-Brass	1
10	W-1-12488	SOLENOID VALVE, 3/4", 120V	1
11	W-0-14250	NIPPLE, 3/4" Close	3
12	W-1-7508	TEE, 3/4" x 3/4" x 1/4"	1
13	W-1-7683	NIPPLE, Close 1/4 N.P.T. x 7/8" lg.	1
14	W-1-4082	GAUGE COCK, 1/4 N.P.T.	1
15	W-1-7917	GAUGE, Pressure	A/R
15A	W-0-18194	GAUGE, Pressure - Chrome Plated (Optional)	A/R
16	W-1-7116	PLUG, 1/4" N.P.T. Pipe (Used in place of Pressure Gauge)	A/R
17	W-107916	REGULATOR, Pressure 3/4"	1
18	W-1-7026	STRAINER, 3/4" Brass	1
19	W-1-7587	GASKET ASSY, 1/2"	2
20	W-1-8360	LOCKNUT, Tiger Grip	2
21	W-1-7579	ELBOW, 3/8" x 45°	1
22	See Note	CONDUIT, 3/8 x 31" lg. Liquid Tight	A/R
23	W-1-7580	ELBOW, 3/8" x 90° Liquid Tight	1

**NOTE: W-1-7589 3/8" Liquid Tight Conduit (order feet reqd.)**








#### NOTES:

1. ALL WIRES ARE IDENTIFIED WITH WIRE MARKERS.
2. LINE, MOTOR CIRCUIT AND IMMERSION HEATER WIRES ARE #12 AWG BLACK TYPE MTW 105C 600V.
3. CONTROL CIRCUIT WIRES ARE #16 AWG RED TYPE MTW 105C 600V.
4. TR-1 IS CAM SWITCH LOCATED NEXT TO THE TIMER MOTOR. TR
5. NUMBERS IN THE SQUARE BOXES ☐ ARE BOOSTER CONTROL CIRCUIT CONNECTION POINTS.

21	SSOL	1	SOLENOID VALVE (STEAM)
20	GC	1	GAS CONTROL (L.P.)
			GAS CONTROL (NAT.)
19	HTR	1	3KW IMMERSION HEATER
18	HC	1	CONTACTOR (ELEC TANK HEAT)
17	SOL	1	SOLENOID VALVE
16	TAS	1	THERMOSTAT
15	2LT	1	POWER LIGHT (RED)
14	1LT	1	CYCLE LIGHT (AMBER)
13	TR	1	TIMER, 60 SEC.
12	PB	1	PUSHBUTTON (START)
11	DS	1	DOOR SWITCH
10	SV	1	TOGGLE SWITCH
9	FU	1	1.6 A. FUSE
8	FH	1	FUSE HOLDER
7	MC-A	1	AUXILIARY CONTACT BLOCK (3PH ONLY)
6	CT	1	.06 KVA TRANSFORMER (480V. ONLY)
5	MTR	1	1 H.P. MOTOR 208-240/480 3PH, 60HZ
			1 H.P. MOTOR 115/230V, 1PH, 60HZ
4	OL	1	OVERLOAD RELAY
3	MC	1	25A. MOTOR CONTACTOR
2	GL	1	GROUND LUG
1	TB	1	TERMINAL BLOCK

ITEM	SYM	QUAN	DESCRIPTION
<div>  <b>BLAKESLEE</b>            CHICAGO, ILLINOIS         </div> <div>           Commercial Dishwashing &amp; Kitchen Equipment            - Since 1880 -         </div>			
<b>WIRING DIAGRAM</b> <b>D-8 DISHWASHER</b>			
DR. BY	H. G.	SCALE	N. T. S.
FIRST MADE FOR	D-8	MODEL	DWG. NO. W-3-75590
			DATE 8-7-96