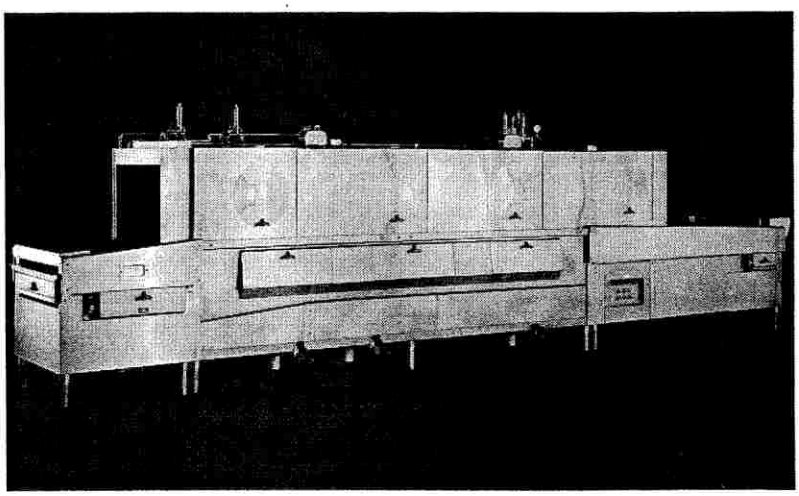
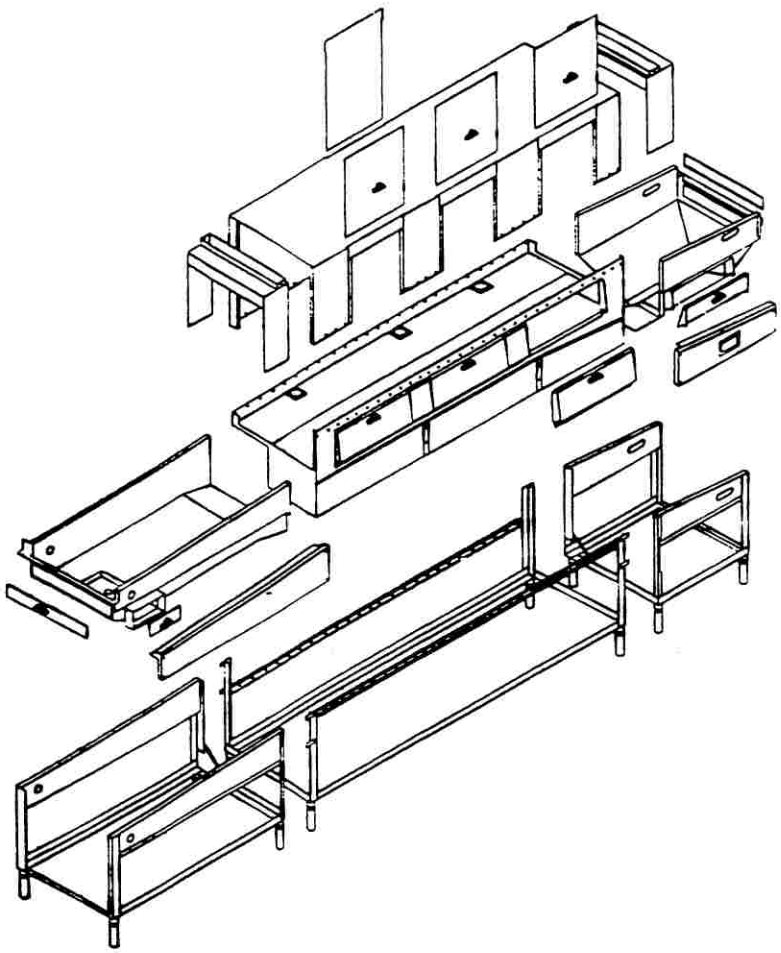
INSTRUCTION & PARTS MANUAL

FLIGHT



STERO
Dishwashing Machines

THE STERO COMPANY
FLIGHT TYPE
DISHWASHER
PARTS MANUAL



Stero

THE STERO COMPANY
3200 LAKEVILLE HWY.
PETALUMA CA. 94954
707 762-0071

TOLL FREE CALL 800 762-7600

The Stero Company

WARRANTY POLICY

This warranty is in lieu of all other warranties, expressed or implied, including without limitation any implied warranty of merchantability, fitness for a particular purpose or non-infringement, and of any other obligation or liability on the part of Stero, whether in contract, strict liability, tort or otherwise.

The Stero Company warrants this equipment to be free from defects in material and workmanship, under normal use and operation, for a period of one (1) year from the date of initial start up or eighteen (18) months from the date of shipment from the factory, whichever comes first. This warranty is conditioned upon the customer's maintenance and care as outlined in the service manual and upon return of the warranty registration card. Repairs will be performed during Stero's authorized service agencie's normal business hours. If the customer requires after hours service the customer will be responsible for the overtime premium.

Machine is warranted only for the initial place of installation. Removal of machine automatically terminates the warranty.

Stero shall have no liability under this warranty unless the customer promptly notifies Stero or it's factory authorized service agent of any alleged defects. All defective parts become the property of Stero and must be returned to Stero, or it's agent, at Stero's expense, within thirty (30) days from the date of the part's replacement. Parts replaced within the warranty carry only the unexpired portion of the machine's warranty. Not covered by this warranty are changes (parts and/or labor) necessitated by or damage resulting from: water conditions, accident, alteration, improper use, abuse, tampering, improper installation or failure to follow operating and maintenance procedures. Examples of the foregoing, but without limitations are: (1) Damage to the machine resulting from excessive concentrations of chlorine or de-liming acid solutions; (2) Use with utility service other than designated on the rating plates; (3) Improper connection to utility service; (4) Inadequate or excessive water and/or steam pressure; (5) Leaks caused by faulty installation; (6) Component failures caused by water leaks due to faulty installation; (7) Failure to comply to local building codes; (8) Failures due to deposits resulting from water or steam conditions, detergents, chemicals, or improper cleaning; (9) Resetting breakers, overloads, or safety thermostats; (10) Adjustments of thermostats after 90 days of operation; (11) Improper opening of utility supply valves; (12) Cleaning drain valves, line strainers, rinse nozzles, etc.; (13) Improper installation or malfunction of chemical dispensing equipment supplied by others; and (14) Failure to provide regular maintenance and daily cleaning as outlined in the service manual. In no event will Stero be liable for loss or damage to or loss of use of facilities or other property, additional labor costs, loss of revenue, loss of anticipated profits, or other damages of any kind what so ever, whether direct, indirect, incidental or consequential.

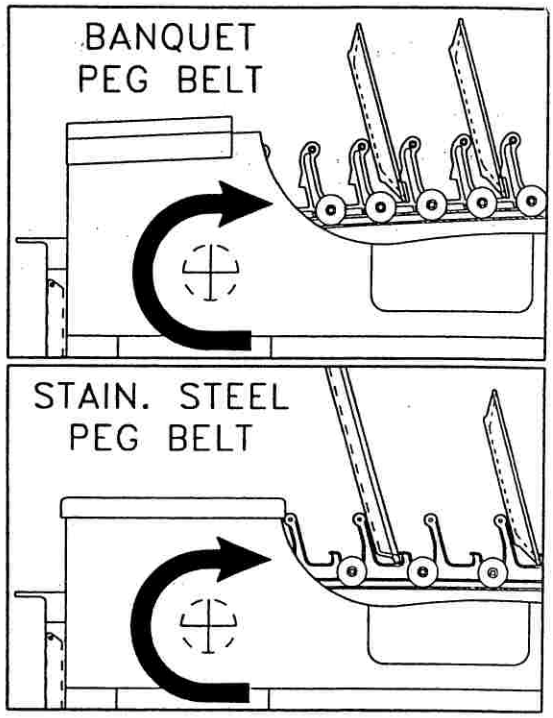
UL 73 Grounding Instructions:

This Appliance must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

CONVEYOR BELT INSTALLATION INSTRUCTIONS

1- Before installing the conveyor belt, remove the stainless steel guards from both ends of the machine.

2- It is not necessary to loosen the conveyor drive V-belts. The woodruff key was removed from the lower drive pulley at the factory and taped to the gear box. This allows the lower pulley to freewheel while pulling the conveyor belt over the drive sprockets and through the machine during installation.

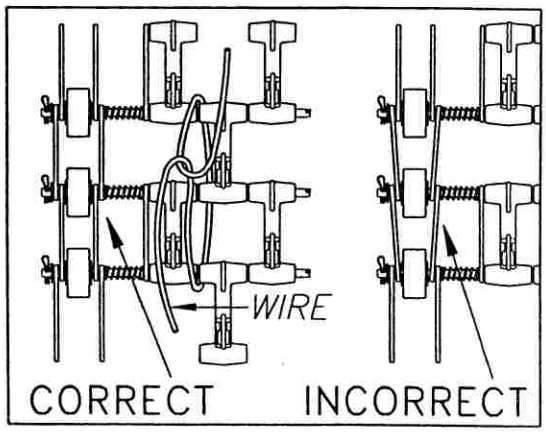


3- Check the belt illustration drawing for correct belt direction. The top of plates and trays should lean back toward the load operator. The bottom of plates and trays should enter the machine first.

4- Open or remove all doors to allow access to the belt's track guides. Place a heavy rope through the main section of the machine, over the lower spray manifolds, and attach it to the leading end of the peg belt. While one installer pulls the rope, another should guide the belt over the upper track guides through the machine.

5- Once the belt reaches the unload end of the machine, route the rope back through the machine under the lower spray manifolds. Pull and guide the belt over the lower track guides, and over the load end sprockets.

6- Attach the ends of the belt temporarily with large wire ties or wire. Pull the joint to the unload section where there is more room for assembly. Assemble the belt links to match existing pattern. Install the stainless connecting rod, rollers, springs, flat washers and cotter pins to secure the belt together.

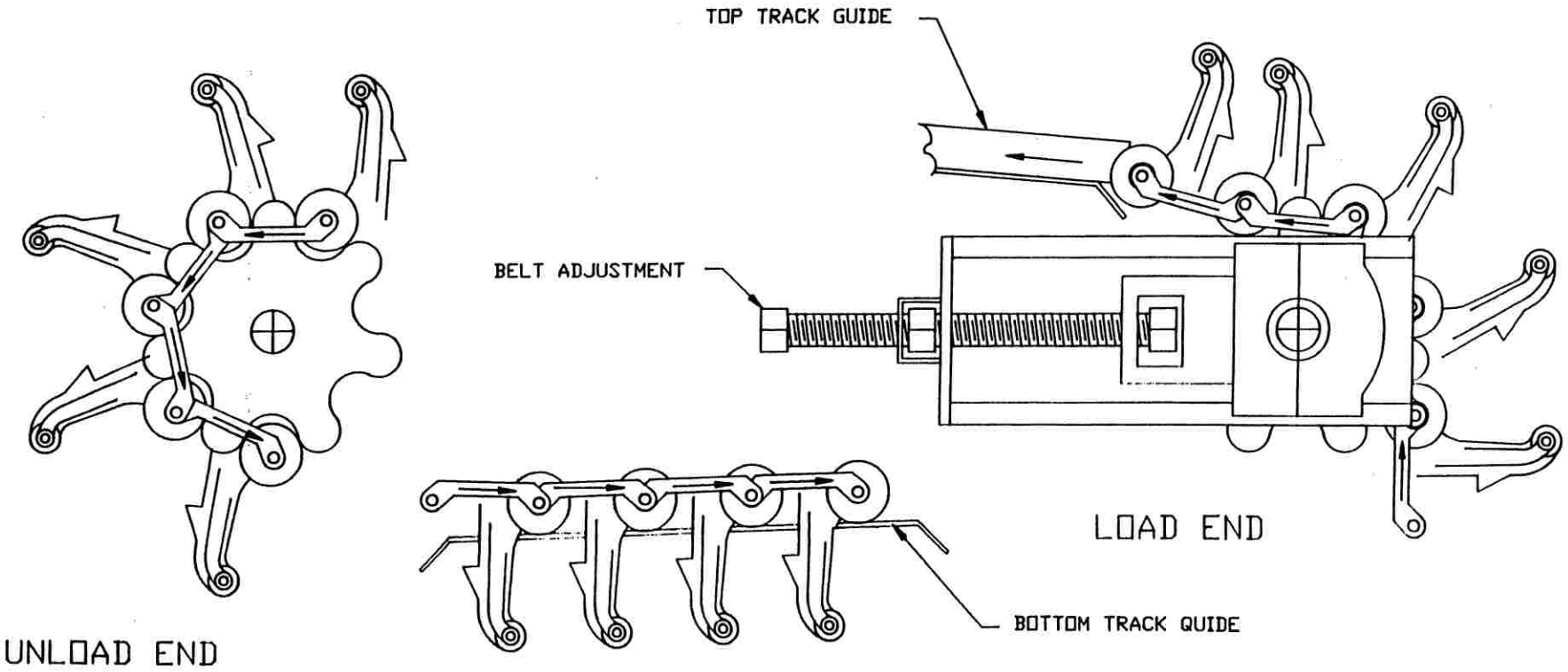


7- There are two adjustable take-up bearings at the load end of the machine. Adjust the slack in the belt by tightening the take-up bearings evenly. Measure the distance between the shaft and the end of machine on each side, the distances should be equal. A properly adjusted belt will sag approximately one inch between the lower track guides.

8- Realign the key slot in the lower drive pulley with the slot in the gearbox shaft, and install the woodruff key. Align the pulleys with a straight edge, so the V-belts run true and tighten the drive pulley's set screw.

9- Test the conveyor belt operation. The V-belts should slip when approx. 100 pounds of force against the conveyor belt's travel. This test is accomplished by trying to stop the conveyor belt with both hands. It should stop when approx. 100 pounds of force is exerted. To adjust the tension of the V-belts, loosen the four conveyor drive mounting bolts and move the assembly to tighten or loosen the belts.

10- Replace the stainless steel guards, panels, doors and install the curtains.



TO INSTALL BELT START FEED AT LOAD END OF MAHINE

INSTALLATION INSTRUCTIONS

SET THE MACHINE IN PLACE.

LEVEL THE MACHINE BY ADJUSTING THE FEET AS REQUIRED.

MAKE ALL PLUMBING CONNECTIONS AS INDICATED ON THE TAGS FASTENED TO THE MACHINE.

(NOTE: MAKE AS MANY CLEANOUTS AS POSSIBLE IN THE DRAIN LINE, USING TEES WITH PIPE PLUGS IN EACH TEE INSTEAD OF ELBOWS, AS IT IS VERY IMPORTANT TO KEEP THE LINES CLEANED OUT.)

MAKE ALL ELECTRICAL CONNECTIONS AS INDICATED ON THE TAGS FASTENED TO THE OUTLETS ON THE MACHINE. ALL ELECTRICAL INTER-CONNECTING IS DONE ON THE MACHINE AT THE FACTORY.

ADJUSTMENT AND TESTS

WATER AND STEAM LINES MUST BE BLED BEFORE FINAL CONNECTION TO THE MACHINE IN ORDER TO REMOVE ANY SOIL AND DIRT WHICH HAS ACCUMULATED.

WHEN STEAM HEAT EXCHANGER IS SUPPLIED THE TRAP ON SAME MUST BE BLED.

CHECK INLET AND OUTLET WATER TEMPERATURES TO CONFORM TO THE FOLLOWING REQUIREMENTS, IN ORDER TO ASSURE SATISFACTORY OPERATIONS

COLD WATER - INLET LINE TO FILL VALVE OF SCRAPPER TANK, FOR COLD WATER AQUASTAT (WHEN SUPPLIED)

140°F - INLET LINE TO FILL VALVE OF SCRAPPER TANK (WHEN SUPPLIED)

140°F - INLET LINE TO FILL VALVE OF WASH TANK

140°F - INLET LINE TO HEAT EXCHANGER (WHEN SUPPLIED)

180°F - OUTLET FROM HEAT EXCHANGER (WHEN SUPPLIED)

180°F - INLET TO FINAL RINSE

180°F - INLET TO POWER RINSE FILL VALVE (WHEN SUPPLIED)

THE MOTOR, HEAT EXCHANGER, AND ALL OTHER ADJUSTABLE PARTS ARE CONNECTED AND SET AT THE FACTORY AND NEED NO FURTHER ADJUSTMENTS.

ELECTRICAL

THIS WAREWASHING UNIT HAS BEEN THOROUGHLY
ESTED UNDER ACTUAL OPERATING CONDITIONS WITH
OT WATER, STEAM (WHEN USED), AND THE ELECTRICAL
L WORKING PROPERLY. WHEN THE UNIT HAS BEEN
EASSEMBLED PROPERLY AND ALL SYSTEMS CONNECTED,
NE OF THE MOST IMPORTANT THINGS TO REMEMBER
: THE FINAL ELECTRICAL CONNECTION
O THE MAIN POWER SUPPLY. WHEN CONNECTING IT TO
SINGLE OR THREE PHASE SYSTEM, AND THE
ECTRICIAN TURNS ON THE EQUIPMENT FOR THE FIRST
ME, HE SHOULD CHECK TO SEE THAT THE MOTORS ARE
JNNING IN THE PROPER DIRECTION. IF NOT, THEN HE
HOULD SWITCH TWO OF THE LEADS, RE-CHECK ROTATION,
ECURE CONNECTIONS MAKING SURE THEY ARE TIGHT
ND INSULATED. THE VARIOUS PUMP UNITS, VALVE
RCUITS, ETC., HAVE ALL BEEN PHASED OUT AND CHECK-
O OUT AT THE FACTORY AND NEED NO ATTENTION.

ALWAYS REFER TO THE WIRING DIAGRAM BEFORE REMOVING OR INSTALLING, OR DOING ANY WORK ON THE ELECTRICAL SYSTEM.

FINAL RINSE BOOSTER

THE FINAL RINSE BOOSTER SUPPLIED WITH THE EQUIPMENT IS SIZED SO AS TO SUPPLY ADEQUATE GALLONAGE OF 180°F TO 190°F WATER PER MINUTE TO THE FINAL RINSE. TO DO THIS, IT SHOULD HAVE AN INCOMING WATER SUPPLY OF 140°F OF AT LEAST 20 TO 25 POUNDS FLOW PRESSURE. IF BOOSTER I STEAM HEATED IT SHOULD ALSO HAVE ADEQUATE STEAM SUPPLY OF AT LEAST 15 TO 40 POUNDS. WATER AND STEAM LINES TO THE BOOSTER SHOULD BE SIZED AS INDICATED ON THE DRAWINGS OR CALLE FOR IN THE SPECIFICATIONS. THE ELECTRICAL POWER SUPPLY TO THE BOOSTER SHOULD BE OF THE RE-QUIRED VOLTAGE AND PHASING AS CALLED FOR IN THE DRAWINGS OR SPECIFICATIONS.

THE TEMPERATURE IN THE FINAL RINSE IS CONTROLLED BY A FENWALL THERMOSWITCH UNI IF IT BECOMES NECESSARY TO ADJUST THE FINAL RINSE TEMPERATURE, REFER TO THE THERMOSTAT SECTION FOR PROCEDURE. THE TANK HEAT IN THE POWER WASH AND POWER RINSE TANK IS ALSO CONTROLLED BY A THERMOSWITCH. IF IT BECOMES NECESSARY TO ADJUST THESE TEMPERATURES, PLEASI REFER TO THE THERMOSTAT SECTION WHICH CONTAIN: THE NEEDED INFORMATION AS TO HOW TO CORRECT.

PREVENTATIVE MAINTENANCE

PREVIOUSLY, DAILY MAINTENANCE HAS BEEN RECOMMENED. IT IS SURPRISING HOW MANY FUTURE REPAIRS WILL BE PREVENTED BY THIS. UNDER THIS SECTION, LET'S CONSIDER A FEW POINTS.

1. PUMP MOTOR: ALL OF THE PUMP MOTORS ARE FITTED WITH GREASE SEALED BALL BEARINGS, AND DO NOT NEED TO BE OILED OR GREASED FOR LIFE.

2. GEAR BOX: THE MOTOR GEAR UNIT ALSO HAS SEALED IN BEARINGS AND DOES NOT NEED TO BE GREASED. HOWEVER, AN INSPECTION OF THE OIL LEVEL IN THE GEAR BOX SHOULD BE MADE AT LEAST ONCE A YEAR.

3. STRAINERS: HOT AND COLD WATER LINES TO THE MACHINE ARE EQUIPPED WITH LINE STRAINERS, AND ARE EASILY RECOGNIZED. THEY ARE LOCATED CLOSE TO THE SOLENOID VALVES. BEFORE THE FINAL RINSE CONNECTION IS MADE, THESE LINES SHOULD BE BLOWN SO AS TO CLEAR OUT ANY SCALE OR SEDIMENTS FROM LODGING IN THE EQUIPMENT TO WHICH THEY ARE CONNECTED. AS IT BECOMES NECESSARY TO CLEAN THE STRAINERS, REMOVE THE PLUG AT BOTTOM OF THE STRAINERS, CLEAN AND REINSTALL.

PUMP MAINTENANCE

UNDER THIS SECTION, WE ARE CONCERNED WITH THE CENTRIFUGAL PUMP. AFTER A CERTAIN LENGTH OF TIME, SOMETIMES MANY YEARS, IT MAY BE NECESSARY TO REPLACE A PUMP SEAL. THESE ARE CERAMIC SEALS. PROCEED AS FOLLOWS.

A. THE PUMP JNIT IS HELD ON TO THE PUMP HOUSING BY FOUR SCREWS. REMOVE SAME. THE PUMP UNIT SHOULD NOW COME OFF.

B. REMOVE CAP SCREW IN END OF IMPELLER SHAFT. IF THE UNIT HAS BEEN IN USE A LONG TIME, IT MAY BE NECESSARY TO USE A PULLER. THIS EXPOSES THE SEAL. IT IS NOT NECESSARY TO TAKE THE MOTOR APART TO REMOVE THE SEAL.

C. WORK THE ENTIRE SEAL RING OUT WITH A SCREW DRIVER, AND CLEAN THE SEAL HOUSING THOROUGHLY.

D. REINSTALL NEW SEAL IN SAME WAY AS THE OLD ONE WAS REMOVED. *(IF NECESSARY, REFER TO THE EXPLODED VIEW IN THE MOTOR SECTION OF THIS MANUAL.)*

E. AFTER SEAL IS PROPERLY INSTALLED IN THE HOUSING:
   1. REMOUNT IMPELLER ON SHAFT.
   2. CLEAN MOUNTING SURFACE ON PUMP HOUSING AND END BELL.
   3. REMOVE OLD GASKET, IF DAMAGED.
   4. INSTALL NEW GASKET.
   5. REMOUNT MOTOR ON PUMP HOUSING.
   6. TIGHTEN ALL FOUR SCREWS EVENLY AND SECURELY.

UNIT IS READY FOR USE

DAILY MAINTENANCE

CLEANLINESS IS ONE OF THE MOST IMPORTANT THINGS IN ANY SCULLLERY. CLEAN EQUIPMENT PREVENTS REPAIR PROBLEMS, AND MOST IMPORTANT OF ALL, IT GIVES YOU CLEAN, SANITARY WARE.

THIS IS BEST ACCOMPLISHED BY ESTABLISHING A DAILY PROCEEDURE, AND BY SELECTING A SUPERVISOR, IF POSSIBLE, TO SEE THAT IT IS PROPERLY DONE.

AT THE END OF EACH SHIFT OR WASHIHNG PERIOD, THE FOLLOWING STEPS WILL INSURE PROPER RESULTS.

1. SHUT OFF POWER TO THE MACHINE. IF THE MACHINE IS STEAM HEATED, TURN OFF STEAM SUPPLY.

2. OPEN ALL DOORS AND REMOVE WASH MANIFOLDS, SCRAP SCREENS, AND CURTAINS (IF CURTAINS ARE SOILED). THE MANIFOLD END CAPS SHOULD BE REMOVED AND MANIFOLDS SHOULD NOW BE CLEANED IN A SINK, OR FLUSHED OUT WITH A HOSE. IT IS NOT NECESSARY TO USE A BRUSH.

3. WASH, SCRUB, AND RINSE DOWN THE INSIDE OF THE MACHINE. ALL REFUSE IN BOTTOM OF TANKS SHOULD BE FLUSHED DOWN THE DRAIN VALVES. WHEN TANKS ARE CLEAN, INSPECT THE DRAIN VALVES. REMOVE ANY FOREIGN MATTER THAT MIGHT REMAIN BETWEEN THE POPPET AND THE SEAT OF THE VALVE.

4. CLEAN THE EXTERIOR OF THE MACHINE WITH A GOOD ACCEPTABLE STAINLESS STEEL CLEANER. LEMON OIL MAY BE USED.

5. THE FLOOR AROUND THE BASE OF THE MACHINE AND UNDER TABLE MAY ALSO BE CLEANED TO PREVENT SOIL ACCUMULATION.

6. ALL INTERIOR COMPONENTS REMOVED FROM THE MACHINE SHOULD NOW BE REINSTALLED.

7. LEAVE ALL THE DOORS OPEN TO ALLOW THE INTERIOR OF THE MACHINE TO DRY.

ALWAYS REMEMBER- A CLEAN MACHINE IS A WELL MAINTAINED MACHINE

YOU CAN'T GET CLEAN WARE OUT OF A DIRTY MACNINE!

SERVICE

THIS *STERO* WAREWASHING SYSTEM HAS BEEN
ANUFACTURED SO AS NOT ONLY TO GIVE GOOD
/AREWASHING RESULTS, BUT ALSO IS A STURDY
IECE OF EQUIPMENT, DESIGNED WITH THE IDEA IN
IND TO GIVE TROUBLE - FREE SERVICE. HOWEVER,
F FROM TIME TO TIME, PROBLEMS ARE EXPERIENCED,
ERVICE SHOULD BE KEPT DOWN TO A MINUMUM IF
ROPER INSTALLATION INSTRUCTIONS AND CLEANING
ROCEDURES HAVE BEEN FOLLOWED.

TO INSURE GOOD WASHING AND RINSING, CORRECT
EMPERATURE, AS INDICATED ON THE VARIOUS
HERMOMETERS LOCATED ON THE TOP OF THE
IACHINE, SHOULD BE MAINTAINED. THE TEMPERATURE
N THE VARIOUS TANKS SUCH AS POWER WASH AND
OWER RINSE ARE MAINTAINED THROUGH THERMOSTATS.
HESE HAVE BEEN SET BY THE MANUFACTURER UNDER
IPERATING CONDITIONS. THE SAME IS TRUE OF THE
INAL RINSE BOOSTER. IF THE CORRECT WATER
EMPERATURE SUPPLYING THE BOOSTER IS MAINTAINED,
OOD RESULTS SHOULD BE OBTAINED.

A GOOD COMMERICAL DETERGENT OF THE NON-
UDSING TYPE SHOULD BE USED, AND IF A RECOGNIZED
/ETTING AGENT IS USED IN THE FINAL RINSE, CLEAN,
RY WARE WILL RESULT.

INSTRUCTIONS FOR
FENWAL
DIFFERENTIAL EXPANSION
THERMOSWITCH UNITS

PRINCIPLE OF OPERATION:

The Thermoswitch Control is constructed with two silver contacts mounted on, but electrically insulated from, curved struts of low expansion coefficient. This assembly is mounted under tension or compression in a seamless drawn brass or stainless steel tube. Changes in temperature cause the shell to expand or contract, which exerts more or less tension or compression on the struts, causing the contacts to make or break.

BASIC TYPES:

The shell of the Thermoswitch Control contains information regarding electrical rating, temperature range, and contact action. Should the shell of the unit be inserted, immersed, or otherwise obscured in such a manner as to make reference to the impossible, general operating characteristics may be quickly determined if the catalogue number of the device is known. If the 5th digit of the catalog number is even (or zero), the contacts close on the decreasing temperatures. If the 5th digit of the catalog number is odd, the contacts close on increasing temperatures. Reference to the fourth digit will quickly determine whether the unit is tension or compression operated. Should the digit be "2" or "7", the unit is compression operated, should be other than "2" or "7", the unit is tension operated. Tension operated units may be subjected to momentary temperature exposure of 100°F above their set point. They also may be subjected to a temperature below therir set point without danger. Tension operated Fenwal Thermoswitch units may be set below 0°F but compression operated units are recommended if rapid temperature changes in excess of 100°F or extreme temperature overshoots are to be encountered. Fenwal compression operated units may be exposed to a temperature of 100°F indefinitely, and to temperatures 40 above their set temperatures for short periods of time. The limit of exposure being subject to many application variations. When in doubt, the factory should be consulted.

INSTALLATION & ADJUSTMENT TIPS

THE HEX HEAD OR THREADED TYPE can be installed like any pipe fi Avoid applying undue torque to the unit. Torque in excess of 3 foot pounds for the standard size (5/8" dia. shell) or 70 foot for the heavy duty (13/16" diam. shell) will offset the control bration. If threaded units are installed in a pipe tee, the te should be large enough to allow adequate circulation of the flu around the temperature sensitive section of unit.

DON'TS

Do not handle the unit with pliers or force it into position either by hand or with tools, or apply excessive torque in tightening threaded units. Do not subject unit to deformation of the shell. Do not thermally shield unit from medium it is to control.

TESTING & ADJUSTING

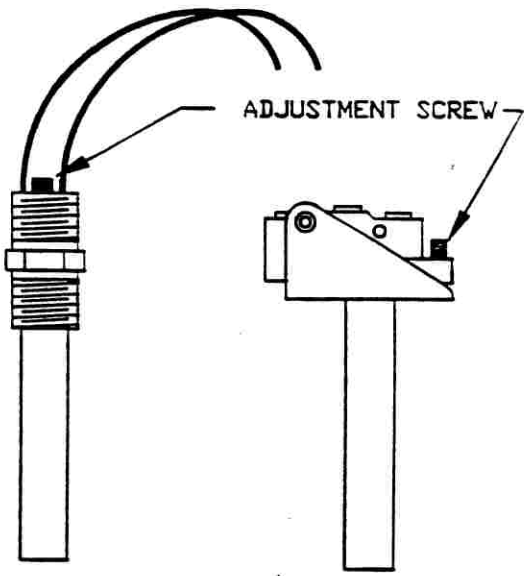
The arrow on the head of THERMOSWITCH units indicated direction in which adjusting screw should be turned to increase the temperature setting. Each full turn of the adjusting screw will change the temperature the approximate number of degrees indicated by the table.

After the THERMOSWITCH unit has been installed, final adjustment can be made by allowing the unit to operate for several cycles to permit the controlled system to stabilize and then adjust to desired temperatures. The system should then be cooled to ambient temperature, reheated and stabilized to check the setting.

Where extremely accurate temperature control is desired, several read-adjustments may be necessary to stabilize the THERMOSWITCH Control after which the adjustment will be maintained.

CAUTION

DO NOT turn the adjusting screw in any further than is necessary for operation. Do not remove adjusting screw from unit as this voids the Standard Guarantee. Incorrect replacement or over adjustment will permanently damage the element assembly. See Diagrams on back page for effect of mechanical overadjustment or severe thermal overshoot.



TURN ADJUSTMENT SCREW CLOCKWISE TO RAISE TEMPERATURE

BELT MACHINE OPERATING INSTRUCTIONS

1. CLOSE ALL DRAIN VALVES, INSTALL CURTAINS, STRAINER PANS AND CLOSE ALL DOORS. THE DOOR SAFETY SWITCHES WILL PREVENT THE MACHINE FROM OPERATING WITH THE DOORS OPEN.

2. TURN ON "CIRCUIT BREAKERS".

3. TURN "SAFETY-SWITCH" TO ON POSITION.

4. PUSH "FILL-SWITCH" PILOT LIGHT WILL ILLUMINATE UNTIL ALL TANKS FILL TO THERE PROPER LEVEL 1/2" TO 1" BELOW OVERFLOWS.
   IF YOUR MACHINE IS NOT EQUIPPED WITH AUTOMATIC FILL, MANUALLY OPEN THE FILL VALVES UNTIL WATER OVERFLOWS FROM THE TANKS, THEN CLOSE THE VALVES.

5. PUSH "BOOSTER-SWITCH" PILOT LIGHT WILL ILLUMINATE.

6. PUSH "TANK HEAT SWITCH" PILOT LIGHT WILL ILLUMINATE ONLY AFTER ALL TANKS ARE FULL. WAIT 15 TO 60 MINUTES TO ALLOW TANKS TO REACH PROPER WORKING TEMPERATURES.

7. TO START PUMPS PUSH START SWITCH ON CONTROL PANEL DOOR. TO START CONVEYOR BELT PUSH START SWITCHES ON EITHER END OF MACHINE.

   IF YOUR MACHINE IS EQUIPPED WITH A SHUT DOWN TIMER, THE PUMPS AND CONVEYOR BELT WILL START FROM ANY START SWITCH ON MACHINE.

   WHEN WARE ON THE CONVEYOR BELT TRIPS THE FINAL RINSE RAKE, THE SHUT DOWN TIMER WILL RESET.

8. PLACE SOILED WARE ON CONVEYOR BELT, WARE WILL CONVEY THROUGH MACHINE. CONVEYOR BELT WILL STOP WHEN WARE HAS REACHED CONVEYOR STOP SWING BAR.

   TO RESTART CONVEYOR REMOVE CLEAN WARE FROM BELT, PUSH START SWITCH ON EITHER END OF MACHINE.

   TO RESTART CONVEYOR IF MACHINE IS EQUIPPED WITH SHUT DOWN TIMER, REMOVE CLEAN WARE FROM BELT. CONVEYOR WILL AUTOMATICALLY RESTART.

9. THE TEMPERATURE GAUGES MEASURE THE TEMPERATURE OF THE WATER FLOWING THROUGH THE MANIFOLDS. THE PUMPS AND FINAL RINSE MUST BE IN OPERATING BEFORE A VALD READING CAN BE OBTAINED. THE FINAL RINSE FLOW PRESSURE SHOULD BE ADJUSTED TO 20 PSI.

10. TURN "TANK HEAT SWITCH(ES)" OFF BEFORE DRAINING TANKS.

11. TURN "BOOSTER SWITCH" OFF

12. TURN "SAFETY SWITCH" OFF AT THE END OF THE OPERATING PERIOD.

13. CLEAN THE MACHINE IN ACCORDANCE WITH THE DAILY MAINTENANCE PROCEDURES.

ASSEMBLING INSTRUCTIONS

1. POSITIONING MAIN SECTION OF DISHWASHING MACHINE

If dishwasher is to be installed against any existing wall, a distance of 18" minimum between back of machine and wall must be kept. This must be adhered to in order to service motors, take-ups and bearings.

2. LEVELING MACHINE

It is very important to level machine from left to right and from front to back. This accomplished by screwing feet in or out.

3. INSTALLING LOAD AND UNLOAD ENDS
(If machine has been shipped in more than one piece)

Remove all stainless enclosure panels to facilitate installation of load and unload sections. Apply mastic material to surfaces of tank ends before setting load and unload sections in place. It is very important to line up all drains, water, and electrical boxes before bolting sections together all inter plumbing connections have unions to join them together and are color coded. Electrical connections between load, main and unload sections have cutter boxes which are mounted on frame. The cutter boxes on the main section of machine have terminal blocks. Each terminal connection is numbered and all wires connected to the terminal block are color coded. Wires from load and unload sections have a fan strip connector which are also color coded, and are connected to terminal blocks located on main section. After load and unload sections are securely fastened, tighten all plumbing and electical connection final leveling of machine may be necessary after installing load and unload sections.

PLUMBING AND WATER

Below are listed problems that may be encountered and corrected by the installer or operator, and can be adjusted by the proper service personnel.

The machine consists of the following main components. There is a power scrapper, a power wash, a power rinse and a final rinse. This section is concerned with the water supply to these four main components.

POWER SCRAPPER, POWER WASH AND POWER RINSE

Tanks are filled automatically through valves located on the top of the machine. If water does not flow through these valves in the open position, check for line obstructions beyond the machine, such as a closed supply valve.

If either of these tanks loses water, and does not fill to the strainer power level, check if drain valves are in open or closed position. Drain valves to each tank should be in the closed position while filling.

FINAL RINSE

The final rinse is supplied through a solenoid valve located on top of the machine. If the final rinse fails to operate, check final rinse valve on top of the machine for correct operation. If solenoid valve is operating properly, opening and closing, check supply line beyond machine.

INFRARED SECTION ADDENDUM

INSTALLATION INSTRUCTIONS

1. Set the machine in place.

2. Level the machine from side to side, and front to back.
   a. Place a level on turned out lip or tank.
   b. Adjust level of machine by screwing adjustable feet in or out as necessary.

3. Dish tables can now be set in place.
   a. The dish table(s) lip or turndown MUST be sealed with silicone or similar sealing compound. This compound must be applied so that it is compressed between the table lip and the machine tank. Be generous with this compound, this is a vital part of the installation to prevent leaks.

   b. The dish table lip must be tightly secured to the vertical edge of the machine tank. This is to allow maximum area for clearance. If the tables interfere with any mechanical parts, it will cause premature wear of the machine and will NOT be covered under the machine warranty.

PLUMBING CONNECTIONS

1. Make all plumbing connections as indicated by the tags fastened to the machine connections points.

NOTE: Make as many clean outs as possible in the drain line using tee's with pipe plugs in each tee instead of elbows, as it is very important to keep the lines cleaned out.

COMPLY WITH ALL LOCAL PLUMBING CODES.

ELECTRICAL CONNECTIONS

1. Make all electrical connections as indicated on the tags fastened to the outlets on the machine. All electrical inter-connecting is done on the machine at the factory.

This ware washing unit has been thoroughly tested under actual operating conditions with hot water, steam (when used), gas (when used), and the electrical, all working properly. When the unit has been reassembled properly and all systems connected, one of the most important things to remember is the FINAL ELECTRICAL CONNECTIONS to the main power supply. When connecting it to a single or three phase system, and when the electrician turns on the equipment for the first time, the electrician should check to see that the motors are running in the proper direction. If not, then the electrician should switch two of the leads, re-check rotation, secure connections making sure they are TIGHT AND INSULATED. The various pump units, valve circuits, etc. have all been phased out and checked out at the factory and should need no attention.

COMPLY WITH ALL LOCAL ELECTRICAL CODES.

INFRARED GAS HEAT CONTROL SYSTEMS

1. The infrared gas tank heat option on your machines will include a RESET button on the main electrical control box or panel. This feature is on the infrared machines only. The purpose of the RESET is to "stage" the control circuit for operation. In the case of a power outage or interruption, the control is locked out and ***will not operate*** until the circuit is reset by depressing the RESET button. This is a safety feature, and must not be bypassed.

Note: All of the infrared gas heated machines use a 120v control circuit regardless of the voltage of the machine voltage.

ALWAYS DISCONNECT OR TURN MAIN POWER SUPPLY OFF TO MACHINE BEFORE PERFORMING ANY MAINTENANCE OR SERVICE ON YOUR STERO EQUIPMENT.

INFRARED GAS VENTING INSTRUCTIONS

Your Stero dishwasher equipped with infrared gas tank heat will be supplied from the factory with a stainless steel exhausting system which terminates approximately 5 1/2" above the hood of the dishwasher, always in the rear of the machine. Since your Stero dishwasher with infrared gas tank heat is not intended to be directly connected to a ventilation system, an air gap must be provided. Do not make a sealed connection to the machine exhaust stack system. Refer to Stero drawing no. C20-1384 for factory recommended venting. Also, always refer to the National Fuel Gas Code book for venting requirements.

All venting must be made to the atmosphere.

COMPLY WITH ALL LOCAL VENTING CODES.

ADJUSTMENTS AND TESTS

1. Water and steam lines must be bled before final connection to the machine in order to remove any soil and dirt which may have accumulated.

2. When steam heat exchanger is supplied, the trap on same must be bled.

3. When infrared gas heat exchanger is supplied, you must make sure that you have sufficient gas pressure in the lines for proper operation. Natural gas manifold pressure must be 3" water column. LP gas must be 8" water column. Measure the manifold pressure at the 1/8" NPT pressure taps on the gas valves with a manometer.

4. Check inlet and outlet water temperatures to meet the following requirements, in order to assure satisfactory operation.

cold water - inlet line to fill valve of scrapper tank, and for cold water aquastat when supplied.
140°F - inlet line to fill valve of wash tank.
140°F - inlet line to heat exchanger (when supplied).
180°F - outlet from heat exchanger (when supplied).
180°F - final rinse measured at the dish.
180°F - inlet to power wash and power rinse fill valve (when supplied)

5. The motor(s), heat exchanger(s), gas regulator(s), orifice(s), and all other adjustable parts are connected and set at the factory and should need no further adjustments.

CONVEYOR MACHINE OPERATING INSTRUCTIONS

1. Close all drain valves, install curtains, strainer pans, and close all doors. The door safety switches will prevent the machine from operating with the doors open.

2. Turn on the circuit breakers.

3. Turn SAFETY switch to the ON position.

4. Depress the RESET button (if equipped with the infrared gas tank heat option), this will stage the control circuit.

Note: If there is an power outage or an interruption to the power supply, the control is manually locked out and *will not operate* until the circuit is reset by depressing the RESET button. This is a safety feature, and must not be bypassed.

FINAL RINSE BOOSTER

The final rinse booster supplied with the equipment is sized so as to supply adequate gallonage of 180°F to 195°F water per minute to the final rinse. To do this it should have an incoming water supply of 140°F of at least 20 to 25 psi flow pressure. If the booster is steam heated , it should also have an adequate steam supply of at least 15 to 40 psi. Water and steam lines to the booster should be sized as indicated on the drawings or called for in the specification. The electrical power supply to the booster should be of the required voltage and phasing as called for in the drawings or specifications.

The temperature in the final rinse is controlled by a **FENWALL** thermostat unit. If it becomes necessary to adjust the final rinse temperature, refer to the thermostat section for the proper procedure. The tank heat in the power wash and power rinse tanks are also controlled by a thermostat. If it becomes necessary to adjust these temperatures, please refer to the thermostat section which contains the needed information as how to adjust them.

INFRARED BURNER SYSTEM AND OPERATING SEQUENCE

Your Stero dishwasher equipped with the infrared gas heaters is based on a simple operating premise and parts, when coupled together with good maintenance, will provide long reliable service. The following parts make up the "system". Refer to the exploded isometric views further on in this manual for part identification and relation to assembly.

1. Adjustable gas regulator(s).
2. Electromechanical gas valve(s).
3. Silicon carbide hot surface igniter(s).
4. Flame sensor(s).
4. Air blower(s).
5. Electromechanical air switch(es) with air line(s) connected to the blower(s).
6. Controller(s).
7. Gas lines from valves to mixing chamber(s).
8. Orifice(s).
9. Cylindrical infrared gas burner(s).
10. Stainless steel heat exchanger(s).
12. Heat recirculation box(es) and exhaust tube(s).
13. Gaskets, fastners, and brackets.

All of the components require simple tools for disassembly and reassembly and are generally straight forward. 1. The gas plumbing connections should be made with a good acceptable pipe compound to eliminate leakage. This includes the plumbing to the machine common gas line(s), the regulator(s), gas valve(s), gas line(s) from the valve to the mixing chamber(s), plumbing connection(s) to the infrared gas burner(s). Never over tighten the connections for this may cause undue breakage or premature part failures.

Your Stero dishwasher should require no initial adjustments, however, upon initial installation , servicing or replacement of parts consider the following operating sequence for proper operation. The system(s) are designed to run on both *natural, and LP gas.* All of the components will be preset at the factory. Upon part replacement or servicing, the system may need to be readjusted to meet the original factory specifications.

SEQUENCE OF EVENTS

After machine is installed to the manufacturers specifications and to all local and state codes, the *INFRARED GAS TANK HEAT SYSTEMS* will operate in the following sequence.

I. DISHWASHER WITH AUTO-START OPTION.

1. Turn the main power supply to the dishwasher on.
2. Switch the gas valve(s) to the **ON** position.
3. Turn the **SAFETY** switch located on the main electrical control box or panel to the ON position.
4. Depress the **RESET** button located on the main electrical control box or panel, which will "stage" the control circuit.
5. Fill the machine with water to the proper level(s).
6. Depress the **TANK HEAT** button(s) located on the main electrical control box or panel, and if the thermostats, high limits, and low water cutoff float switches are satisfied, the following should take place:

a. The blower(s) will start, and the **BLOWER** light located on the main electrical control box or panel will illuminate indicating operation.

b. The air switch(es) will then read the blower pressure and complete the circuit.

c. The igniter(s) will then heat up to temperature.

d. The gas valve(s) will then open and start the mix of air/fuel in the burner(s), and the **BURNER** light located on the main electrical control box or panel will illuminate indicating operation.

e. Ignition of the burners will then take place, and the system(s) should run smoothly and quietly.

To turn the burner(s) off, depress the illuminated **TANK HEAT** button(s), and the system(s) will turn off.

II. DISHWASHER WITH MANUAL-START OPTION.

1. Turn the main power supply to the dishwasher on.
2. Switch the gas valves to the **ON** position.
3. Depress the **RESET** button located on the main electrical control box or panel, which will "stage" the control circuit.
4. Fill the machine with water to the proper level(s).
5. Depress the **TANK HEAT** button(s) located on the main electrical control box or panel, and if the thermostats, high limits, and low water cutoff float switches are satisfied, the following should take place:

a. The blower(s) will start, and the **BLOWER** light located on the main electrical control box or panel will illuminate indicating operation.

b. The air switch(es) will then read the blower pressure and complete the circuit.

c. The igniter(s) will then heat up to temperature.

d. The gas valve(s) will then open and start the mix of air/fuel in the burner(s), and the **BURNER** light located on the main electrical control box or panel will illuminate indicating operation.

e. Ignition of the burners will then take place, and the system(s) should run smoothly and quietly.

To turn the burner(s) off, depress the illuminated **TANK HEAT** button(s), and the system(s) will turn off.

Preventive maintenance continued.

4. Conveyor system: On the drive mechanism which moves the conveyor bar(s), all moving parts should be regularly greased with a good multi purpose lithium grease, and/or the use of a good lubricating oil such as WD-40 is recommended on all moving parts of the machine to aid in the life of the machine.

5. Electrical switches: Some of the switches such as the TANK HEAT, FILL, BOOSTER, use lights internal to the switches. If the bulb fails, immediate replacement is recommended. The face of the switch unscrews for easy replacement of the bulbs. These switches are illuminated for the purpose of safe operation of the equipment.

6. Infrared burners and system: Even though the system is protected by the frame of the machine, and sheet metal surrounding the blower(s), periodical inspection of components for damage or blockage is recommended. The blower intake area should be checked for obstructions and wiped free of dirts and oils on a regular basis.

7. Rinse savers: The rinse saver pan located in the final rinse area of your dishwasher should be checked regularly for obstructions in the pipes, and proper adjustment of the flapper to allow for flow of final rinse water not to exceed 2 gallons per minute in the wash tank(s).

8. Wash arms: All wash arms should be checked regularly for obstructions and securely kept in place with all end caps attached.

10. Drain valve(s): All of the drain valves should be checked for obstructions and proper operation. A leaking seat on a drain valve can cost you in unnecessary water, soap, and energy consumption.

11. Curtains: All of the curtains should cleaned regularly and checked for wear and tear. Replace if necessary.

9. Leaks: All leaks should be fixed whenever they occur.

DAILY MAINTENANCE

Cleanliness is one of the most important things in any scullery. Clean equipment prevents repair problems, and most important of all, it gives you *clean, sanitary ware.* This is best accomplished by establishing a daily procedure, and by selecting a supervisor, if possible, to see that it is properly done.

At the end of each shift or washing period, the following steps will insure proper results from your Stero dishwasher.

1. SHUT OFF ALL POWER TO THE MACHINE BEFORE CLEANING OR SERVICING. If the machine is steam heated, turn off the steam supply to the machine. If gas heated, turn off the gas supply to the machine.

2. Drain the machine.

3. Open all doors and remove wash arms, scrap screens, and curtains. The wash arm end caps should be removed and the wash arms should now be cleaned in a sink, or flushed out with a hose.

4. Wash, scrub, and rinse down the inside of the machine. All refuse in the bottom of the tanks should be flushed down the drain(s). Remove any foreign matter that might remain between the drain poppet and the seat of the drain(s).

5. Clean the exterior of the machine with a good, acceptable stainless steel cleaner. Lemon oil may be used.

6. The floor around the base of the machine and under the table should also be cleaned to prevent soil accumulation.

7. All interior components removed from the machine should now be reinstalled. Leave all the doors open to allow the interior of the machine to air dry.

Always remember, a clean machine is a well maintained machine. You can't get clean, sanitized ware from a dirty machine!

Operating instructions continued

5. Turn valve on at each gas valve.

6. Push the FILL button. The light will illuminate until all of the tanks fill to their proper level with 140°F - 150°F water.
6a. If your machine is not equipped with automatic fill, manually open the fill valves until the water reaches the overflow level, then close the valves.

7. Push the BOOSTER button (if equipped), and the light will illuminate.

8. Push the TANK HEAT button. The light will illuminate.

Note: Tank heat will not operate until all of the tanks are filled. Wait a sufficient amount of time to let the tanks reach the desired operating temperatures.

9. After the tanks are heated to the proper operating temperatures, push the START button (if equipped). Pumps and conveyor drive will operate. If your machine is equipped with automatic start, the start up of the machine is activated by placing a rack into the load end of the machine. The machine will stop automatically when the shut down timers pre-set time expires. The time is reset when another dish rack is inserted.

10. When the dish rack reaches the final rinse, it will trip the final rinse lever and the final rinse will spray sanitizing water over the ware.

11. The temperature gauges measure the temperature of water flowing through the manifolds. The pumps must be operating before a valid reading can be obtained. Verify that temperature readings comply with the ranges on the gauges.

12. The final rinse flow pressure should be adjusted to 20 psi for correct rinse flow over the ware.

13. An optional table limit switch will stop the conveyor drive and pump motors when a dish rack approaches the end of the clean dish table.

14. Turn the TANK HEAT switch(es) off before draining the tanks.

15. Turn the SAFETY switch off at the end of the operating period, or before cleaning or servicing the dishwasher.

16. Clean the machine in accordance with the daily maintenance procedures. Remember, *you cannot get clean, sanitized ware from a dirty machine!*

PREVENTIVE MAINTENANCE

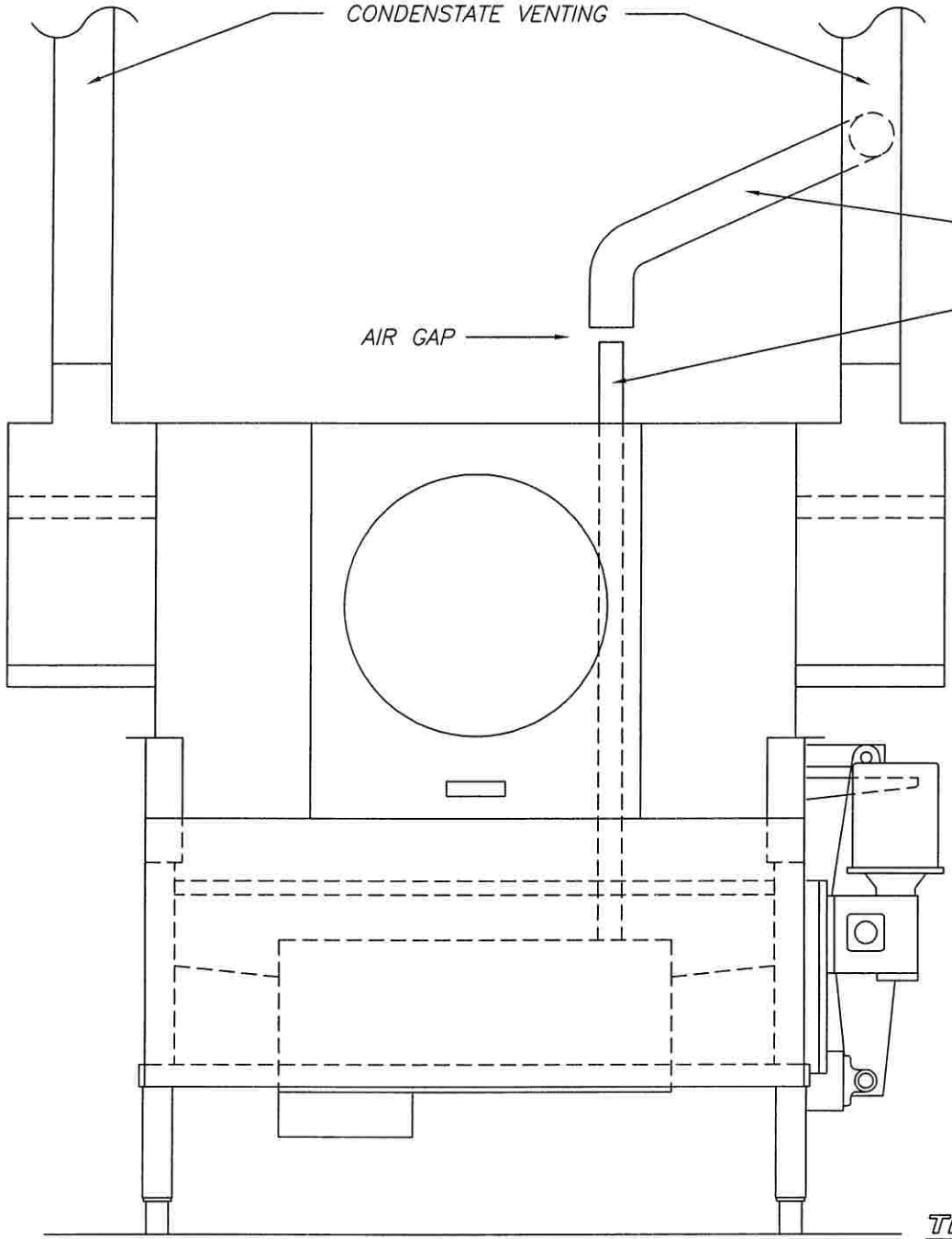
It is surprising how many future repairs will be prevented by completing regular maintenance.

1. Pump motor(s): All of the pump motors are fitted with grease sealed ball bearings, and do not require grease or oiling for the life of the motor(s).

2. Gear box: The motor gear unit also has sealed bearings and does not require grease or oiling for the life of the motor. However, an inspection of the oil level in the gear box should be made at least once a year. We recommend a good brand of SAE90 gear oil be used.

3. Line strainers: Hot and cold water lines to the machine are equipped with line strainers, and are easily recognized. The are located close to the solenoid valves. Before the final rinse connection is made, these lines should be blown out so as to clear out any scale or sediments from lodging in the equipment which they are connected to. As it becomes necessary to clean the strainers, remove the plug at the bottom of the strainers, clean, and reinstall.

ALL DIMENSIONS ARE IN DECIMAL INCHES UNLESS STATED OTHERWISE.
BREAK ALL SHARP EDGES.



NOTE: ALL FABRICATION BY OTHERS FOR VENTING MUST MEET OR EXCEED ALL LOCAL CODES. AS A BY PRODUCT OF OUR VERY HIGH EFFICIENCIES, SOME CONDENSATION IS PRESENT IN THE EXHAUST. ALL STERO COMPONENTS FOR EXHAUSTING THE I.R. HEATERS ARE FABRICATED OUT OF T304 18–8 STAINLESS STEEL.

INTEGRAL DRAFT HOODS ARE NOT RECOMMENDED FOR OUR SYSTEMS BECAUSE OF THE LOW EXHAUST TEMPERATURES AND THE LOW STACK DRAFT.

FACTORY RECOMMENDED EXHAUST
TIE–IN TO CONDENSATE VENTING – INDIRECT CONNECTION.

COMPLY WITH ALL LOCAL CODES AND FABRICATING REQUIREMENTS.

TYPICAL 1 5/8" DIAMETER STAINLESS STEEL EXHAUST STACK.

TYPICAL FLUE TEMPERATURES – 125–145° F
TYPICAL FLUE DRAFT – +.1" W.C.

TYPICAL SINGLE BURNER CONVEYOR DISHWASHER.

THE STERO COMPANY 3200 LAKEVILLE HIGHWAY PETALUMA, CALIFORNIA 94954 PHONE: (707)762–0071 FAX: (707)762–5036

TITLE: RECOMMENDED VENTING, I.R. GAS DISHWASHER		
MATERIAL: NOTED		DIMENSION TOLERANCE: FRAC.± 1/64" ,DEC. ±.005"
DATE: 5/27/1999	PROPRIETARY AND CONFIDENTIAL DATA THIS DOCUMENT AND CONTAIN PROPRIETARY OR CONFIDENTIAL DATA OF THE STERO COMPANY. NO DISCLOSURE REPRODUCTION OR USE OF ANY PART THEREOF MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE STERO COMPANY.	SCALE: 1=12 ART #
DRAWN BY: LN		SHEET # 1 OF 1 DRAW. # A20–1384

BELT MACHINE TROUBLE SHOOTING GUIDE

PROBLEM	LOOK FOR	CORRECTION
PUMP MOTOR KICKING OUT	(1 CHECK MOTOR ROTATION. (2 CHECK LINE VOLTAGE. (3 BROKEN GLASS, DISH. SILVER, ETC. IN PUMP HOUSING. (4 PLUGGED MANIFOLDS.	(1 CHANGE MOTOR ROTATION. (2 CHECK WITH VOLTMETER. (3 REMOVE PUMP MOTOR & CLEAN PUMP HOUSING. CHECK INTAKE & DISCHARGE SIDE OF PUMP. (4 REMOVE AND CLEAN UPPER AND LOWER MANIFOLDS.
CONVEYOR WON'T RUN	(1 POSITION OF CONVEYOR SWING BAR. (2 CHECK CONVEYOR STOP REED SWITCH. (3 TRIPPED CIRCUIT BREAKER. (4 CHECK POSITION OF FORWARD–OFF–REVERSING SWITCH. (5 CHECK VARIABLE SPEED POTENTIOMETER (6 CHECK VOLTAGE TO CONVEYOR P.C. CONTROL BOARD. (7 CHECK VOLTAGE TO CONVEYOR DRIVE MOTOR. (8 CHECK BRUSHES ON CONVEYOR DRIVE MOTOR. (9 LOSE V–BELTS.	(1 CONVEYOR SWING BAR MUST BE IN THE DOWN POSITION TO OPERATE. (2 CHECK AND REPLACE IF NECESSARY! (3 CHECK CIRCUIT BREAKER MOUNTED ON CONVEYOR CONTROL PANEL. (4 MOVE SWITCH TO FORWARD POSITION. (5 CHECK TO INSURE SWITCH IS SET ABOVE 50. (6 CHECK WITH VOLTMETER. (115V. AC.) (7 VOLTAGE TO CONVEYOR MOTOR 0–90 VOLTS D.C. (8 REPLACE IF WORN. (9 TIGHTEN V–BELTS.
MACHINE RUNS FOR A FEW SECONDS THEN SHUTS OFF	(1 CHECK LOW WATER CUT–OFF FLOAT SWITCHES. (2 OPEN DRAIN VALVE. (3 CHECK SETTING ON SHUT DOWN TIMER.	(1 CHECK OPERATION OF LOW WATER CUT–OFF FLOAT SWITCHES. (2 CLOSE DRAIN VALVE. (3 RESET TIME ON TIMER.
MACHINE IS NOT WASHING PROPERLY.	(1 PLUGGED MANIFOLDS. (2 PUMP MOTOR KICKED OUT. (3 CHECK WASH TEMPERATURE. (4 EMPTY DETERGENT CONTAINER. (5 LOW WATER LEVEL IN TANK.	(1 REMOVE AND CLEAN UPPER AND LOWER MANIFOLDS. (2 RESET OVERLOAD ON MOTOR. (3 ADJUST WASH TEMPERATURE. 150 TO 165F. (4 REPLACE CONTAINER. (5 ADJUST FILL FLOAT SWITCH.
MACHINE IS NOT RINSING PROPERLY	(1 PLUGGED FINAL RINSE SPRAYERS. (2 UPPER & LOWER FINAL RINSE PIPES OUT OF ALIGNMENT. (3 DEFECTIVE FINAL RINSE VALVE. (4 LOW FINAL RINSE PRESSURE. (5 CHECK FINAL RINSE TEMPERATURE. (6 CHECK FINAL RINSE RAKE FOR PROPER OPERATION.	(1 REMOVE AND CLEAN. (2 ADJUST UPPER & LOWER SPARY PATTERN. (3 CHECK & REPLACE IF NECESSARY. (4 FLOW PRESSURE SHOULD BE 15 TO 20 LBS. ADJUST PRV. VALVE. (5 ADJUST BOOSTER THERMOSTAT, CHECK INCOMING WATER TEMP. TO BOOSTER FRIST. (140° F) (6 ADJUST RAKE AS NEEDED.

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BELT MACHINE TROUBLE SHOOTING GUIDE

PROBLEM	LOOK FOR	CORRECTION
MACHINE WILL NOT COME UP TO TEMPERATURE (ELECTRIC TANK HEAT)	(1 TRIPPED CIRCUIT BREAKER.	(1 RESET CIRCUIT BREAKER.
	(2 TANK HEAT SWITCH	(2 CHECK TO INSURE TANK HEAT SWITCH IS ON.
	(3 BLOWN FUSE.	(3 TEST FUSE'S ON TANK HEAT CONTACTORS.
	(4 TRIPPED HIGH LIMIT.	(4 RESET HIGH LIMIT.
	(5 CHECK LINE VOLTAGE.	(5 CHECK LINE VOLTAGE WITH VOLTMETER.
	(6 CHECK AMPERAGE	(6 CHECK ELEMENTS FOR PROPER AMPERAGE DRAW.
	(7 LIME BUILD UP ON ELEMENTS.	(7 DELIME TANKS.
	(8 THERMOSTATS OUT OF ADJUSTMENT.	(8 ADJUST THERMOSTATS, REPLACE IF NECESSARY.
	(9 VENT DAMPERS INCORRECTLY SET.	(9 ADJUST DAMPERS.
MACHINE WILL NOT COME UP TO TEMPERATURE (STEAM TANK HEAT)	(1 STEAM SUPPLY VALVE CLOSED.	(1 OPEN STEAM SUPPLY VALVE.
	(2 STEAM RETURN VALVE CLOSED.	(2 OPEN STEAM RETURN VALVE.
	(3 DEFECTIVE STEAM VALVE.	(3 CHECK FOR PROPER OPERATION.
	(4 DEFECTIVE STEAM TRAP.	(4 CHECK FOR PROPER OPERATION.
	(5 LOW STEAM PRESSURE.	(5 15 TO 40 LBS PRESSURE.
	(6 THERMOSTATS OUT OF ADJUSTMENT.	(6 ADJUST THERMOSTATS, REPLACE IF NECESSARY.
	(7 LIME BUILD UP ON COILS.	(7 DELIME TANKS.
	(8 FILL VALVES STAYING OPEN.	(8 CHECK FILL VALVES AND AUTO FILL FLOAT SWITCHES.
	(9 VENT DAMPERS INCORRECTLY SET.	(9 ADJUST DAMPERS.
FINAL RINSE WILL NOT COME UP TO TEMPERATURE (STEAM BOOSTER)	(1 STEAM SUPPLY VALVE CLOSED.	(1 OPEN STEAM SUPPLY VALVE.
	(2 STEAM RETURN VALVE CLOSED.	(2 OPEN STEAM RETURN VALVE.
	(3 DEFECTIVE STEAM VALVE.	(3 CHECK FOR PROPER OPERATION.
	(4 DEFECTIVE STEAM TRAP.	(4 CHECK FOR PROPER OPERATION.
	(5 LOW STEAM PRESSURE.	(5 15 TO 40 LBS PRESSURE.
	(6 THERMOSTATS OUT OF ADJUSTMENT.	(6 ADJUST THERMOSTATS, REPLACE IF NECESSARY.
	(7 WATER TEMPERATURE AT INLET LOW.	(7 WATER AT INLET SHOULD BE 140° F.
	(8 FINAL RINSE FLOW PRESSURE SET INCORRECTLY.	(8 FLOW PRESSURE SHOULD BE 15 TO 20 LBS. ADJUST PRV. VALVE.
	(9 DEFECTIVE FINAL RINSE VALVE.	(9 CHECK FOR PROPER OPERATION.
	(10 CHECK MIXING VALVE.	(10 ADJUST MIXING VALVE.
	(11 BOOSTER LIMED UP.	(11 CLEAN OR REPLACE BOOSTER.
	(12 RUPTURED BOOSTER.	(12 REPLACE BOOSTER.

BELT MACHINE TROUBLE SHOOTING GUIDE

PROBLEM	LOOK FOR	CORRECTION
MACHINE WILL NOT FILL	(1 CLOSED WATER SUPPLY VALVE.	(1 OPEN SUPPLY VALVE.
	(2 PLUGGED LINE STRAINER.	(2 REMOVE AND CLEAN SCREEN.
	(3 DEFECTIVE FILL VALVE.	(3 CHECK OPERATION OF VALVE. REPLACE IF NECESSARY.
	(4 DRAIN VALVE OPEN.	(4 CHECK SEAT FOR FOOD PARTICLES "O" RING BROKEN OR OUT OF PLACE.
	(5 DEFECTIVE FILL RELAY.	(5 CHECK TO INSURE RELAY IS ENERGIZING WHEN FILL SWITCH IS PUSHED INWARD.
	(6 DEFECTIVE FILL SWITCH.	(6 CHECK CONTACT BLOCKS ON FILL SWITCH TO INSURE THEY ARE CLOSING.
	(7 DEFECTIVE FLOAT SWITCH.	(7 CHECK OPERATION OF FLOAT SWITCHES ADJUST AS NEEDED.
MACHINE WILL NOT HOLD WATER	(1 FOOD PARTICLES HOLDING DRAIN VALVE FROM SEATING.	(1 CHECK DRAIN VALVE SEAT.
	(2 DRAIN NOT CLOSING.	(2 ADJUST DRAIN LINKAGE BETWEEN DRAIN VALVE BODY AND FOOT LEVER.
	(3 DEFECTIVE DRAIN O RING.	(3 REPLACE O RING.
MACHINE OVERFILLS	(1 DEFECTIVE FILL VALVE.	(1 CHECK OPERATION OF VALVE. REPLACE IF NECESSARY.
	(2 DEFECTIVE FILL FLOAT SWITCH.	(2 CHECK OPERATION OF FLOAT SW. ADJUST AS NEEDED.
	(3 COLD WATER AQUASTAT VALVE OPEN.	(3 CHECK TEMPERATURE IN SCRAPPER TANK.
	(4 FINAL RINSE VALVE STAYING OPEN.	(4 CHECK FINAL RINSE VALVE AND FINAL RINSE RAKE FOR PROPER OPERATION.
MACHINE WILL NOT START.	(1 TRIPPED CONTROL CIRCUIT BREAKER.	(1 RESET CONTROL CIRCUIT BREAKER.
	(2 SAFETY SWITCH.	(2 TURN SWITCH TO ON POSITION.
	(3 BLOWN CONTROL FUSE.	(3 TEST FUSE REPLACE IF BLOWN.
	(4 DEFECTIVE DOOR SAFETY SWITCH.	(4 CHECK DOOR SWITCHES.
	(5 DEFECTIVE DOOR SAFETY SWITCH CONTROL RELAY.	(5 CHECK TO INSURE CONTROL RELAY IS ENERGIZING WHEN DOORS ARE CLOSED.
	(6 LOW WATER LEVEL IN TANKS.	(6 CHECK WATER LEVEL IN TANKS. WATER SHOULD BE 1/2" BELOW OVERFLOW BELL.
	(7 DRAIN VALVE OPEN.	(7 CHECK SEAT FOR FOOD PARTICLE "O" RING BROKEN OR OUT PLACE.
	(8 CHECK LOW-WATER CUT-OFF FLOAT SWITCHES. (WASH & RINSE TANKS)	(8 CHECK OPERATION OF LOW WATER CUT-OFF FLOAT SWITCHES, ADJUST OR REPLACE IF NECESSARY.

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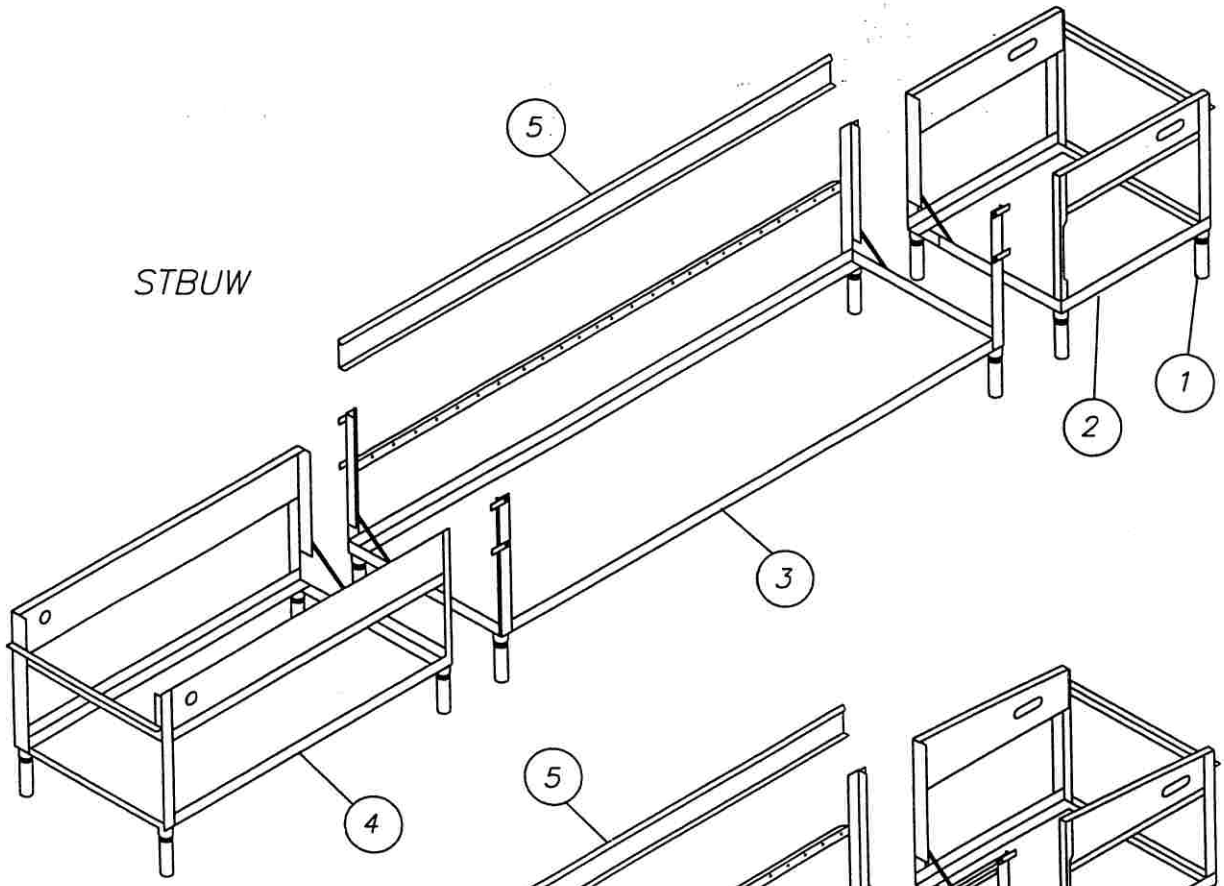
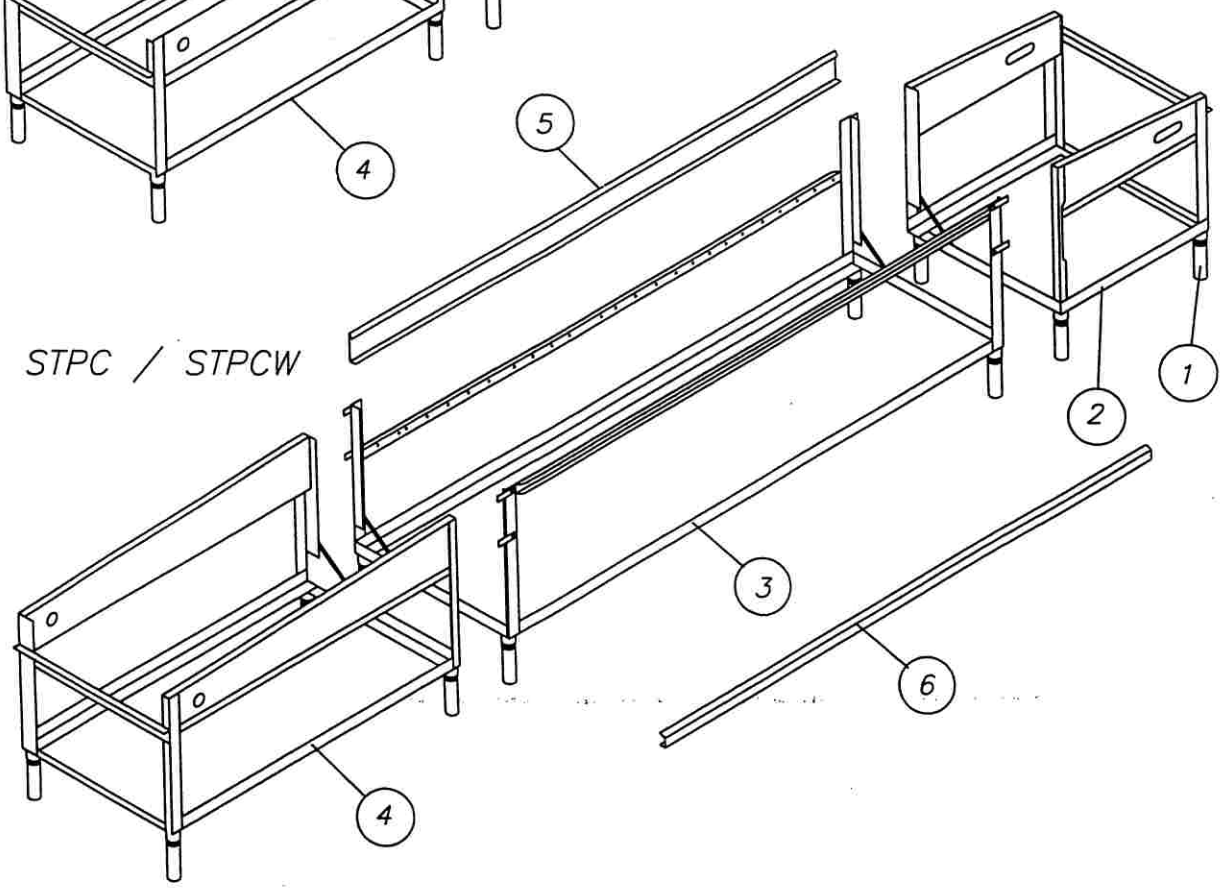
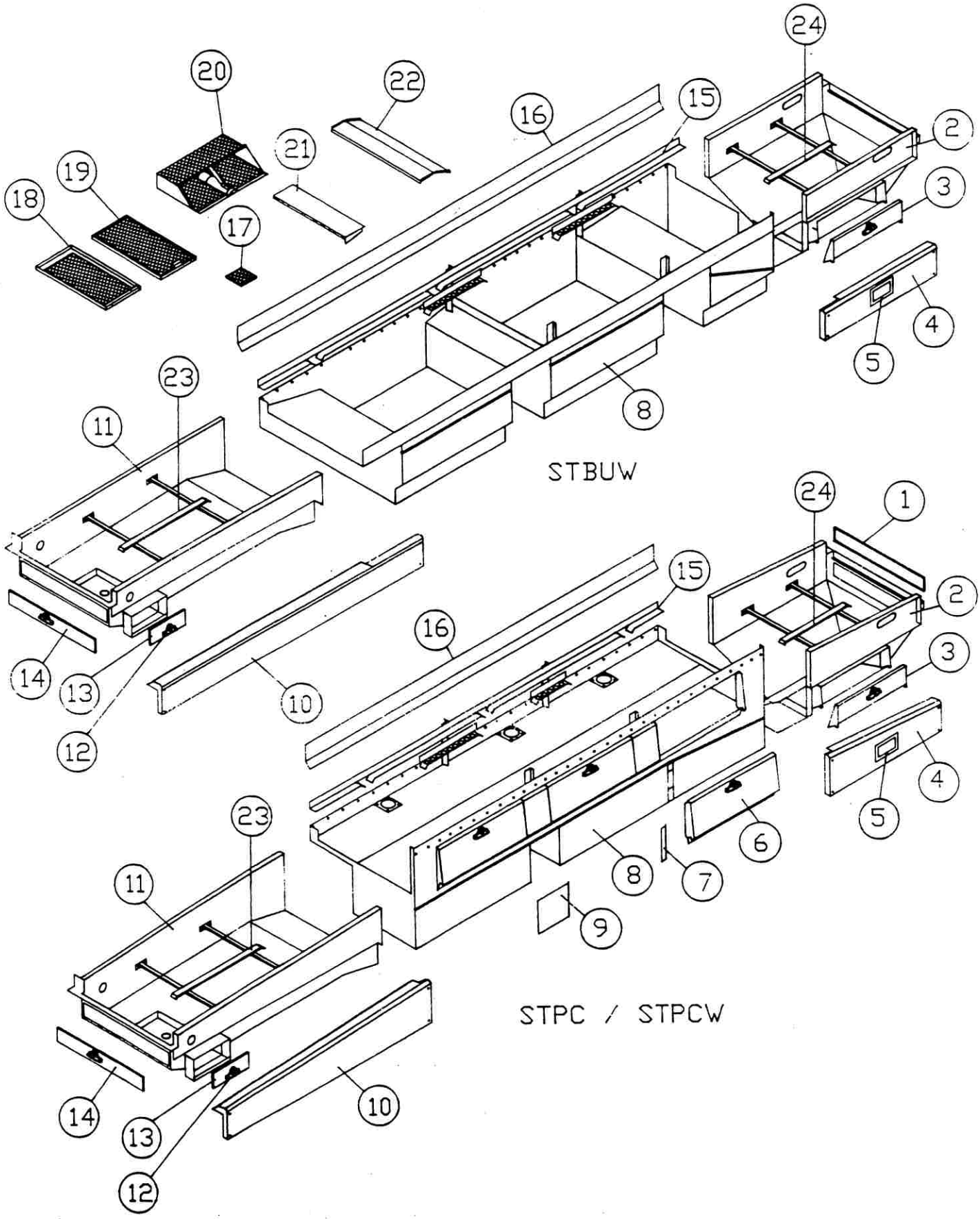




FRAMES

STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	FOOT		B10-1347
2	FRAME, LOAD END		*
3	FRAME, MAIN SECTION		*
4	FRAME, UNLOAD END		*
5	NUT GUARD PANEL REAR		*
6	NUT GUARD PANEL FRONT		*
	* CALL FACTORY AND SUPPLY MODEL		
	AND MACHINE SERIAL NUMBER		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STBUW
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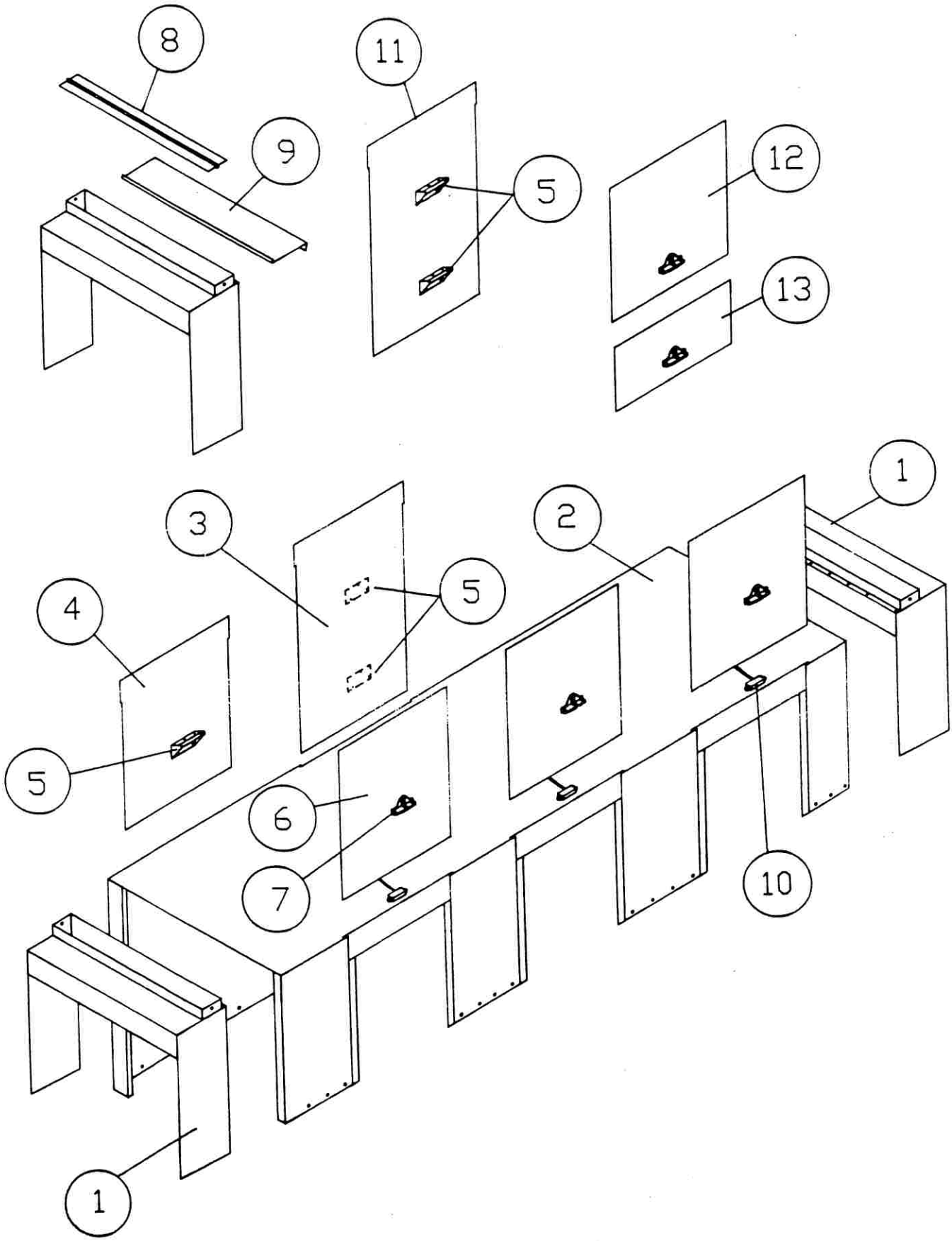
STPC / STPCW

TANK ASSEMBLY

STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	DOOR, LOAD END		A10-4846
2	LOAD END PAN ASSEMBLY		*
3	DOOR, SCRAPPER CLEAN OUT		B10-3126
4	GUARD, LOAD END		*
5	ACCESS COVER		A10-3154
6	DOOR, MAIN TANK		A10-2984
7	SPACER PANEL		*
8	TANK ASSEMBLY, MAIN SECTION		*
9	ELEMENT COVER PANEL		*
10	GUARD, UNLOAD END		*
11	UNLOAD END PAN ASSEMBLY		*
12	DOOR HANDLE		B59-1448
13	SIDE, UNLOAD END CLEAN OUT DOOR		A10-2987
14	DOOR, END, UNLOAD END		A10-4846
15	BELT TRACK MAIN SECTION		*
16	BELT ROLLER GUARD		*
17	DRAIN SCREEN		A10-2616
18	STRAINER PAN, WASH-RINSE TANK		A10-1530
19	STRAINER PAN, SCRAPPER TANK		A10-3108
20	SCRAP BASKET		B10-3079
21	STRAINER PAN SPACER		A10-4918
22	WATER DIVETER	STPC	A10-3017
	WATER DIVETER	STPCW	A10-3019
23	BELT SUPPORT, UNLOAD END		*
24	BELT SUPPORT, LOAD END		*
	* TO ORDER SUPPLY MODEL AND MACHINE SERIAL NUMBER		
	ENCLOSURE PANELS ALSO AVAILABLE SUPPLY MACHINE		
	MODEL AND SERIAL NUMBER		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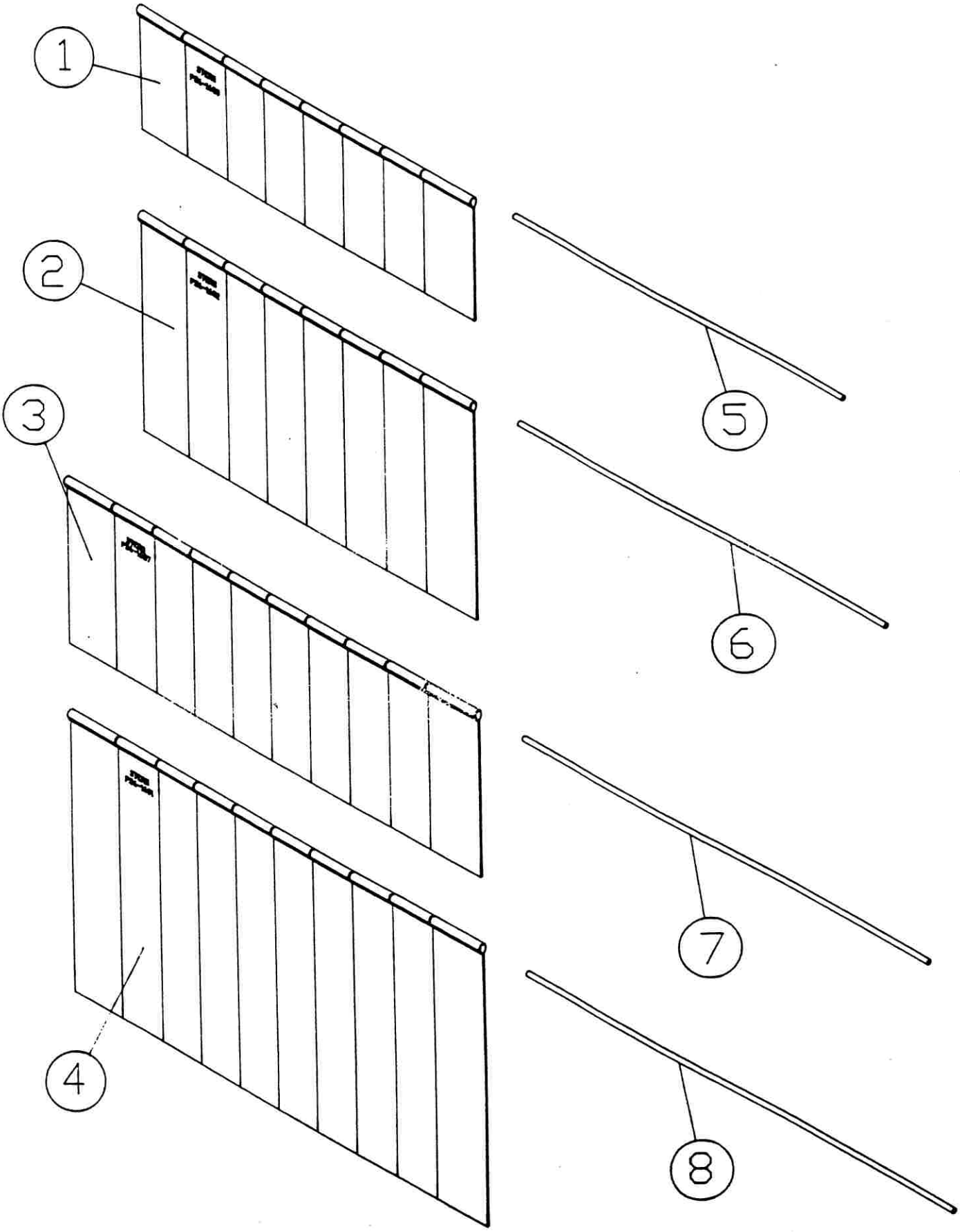
3
2
5
4
5
6
7
10
1

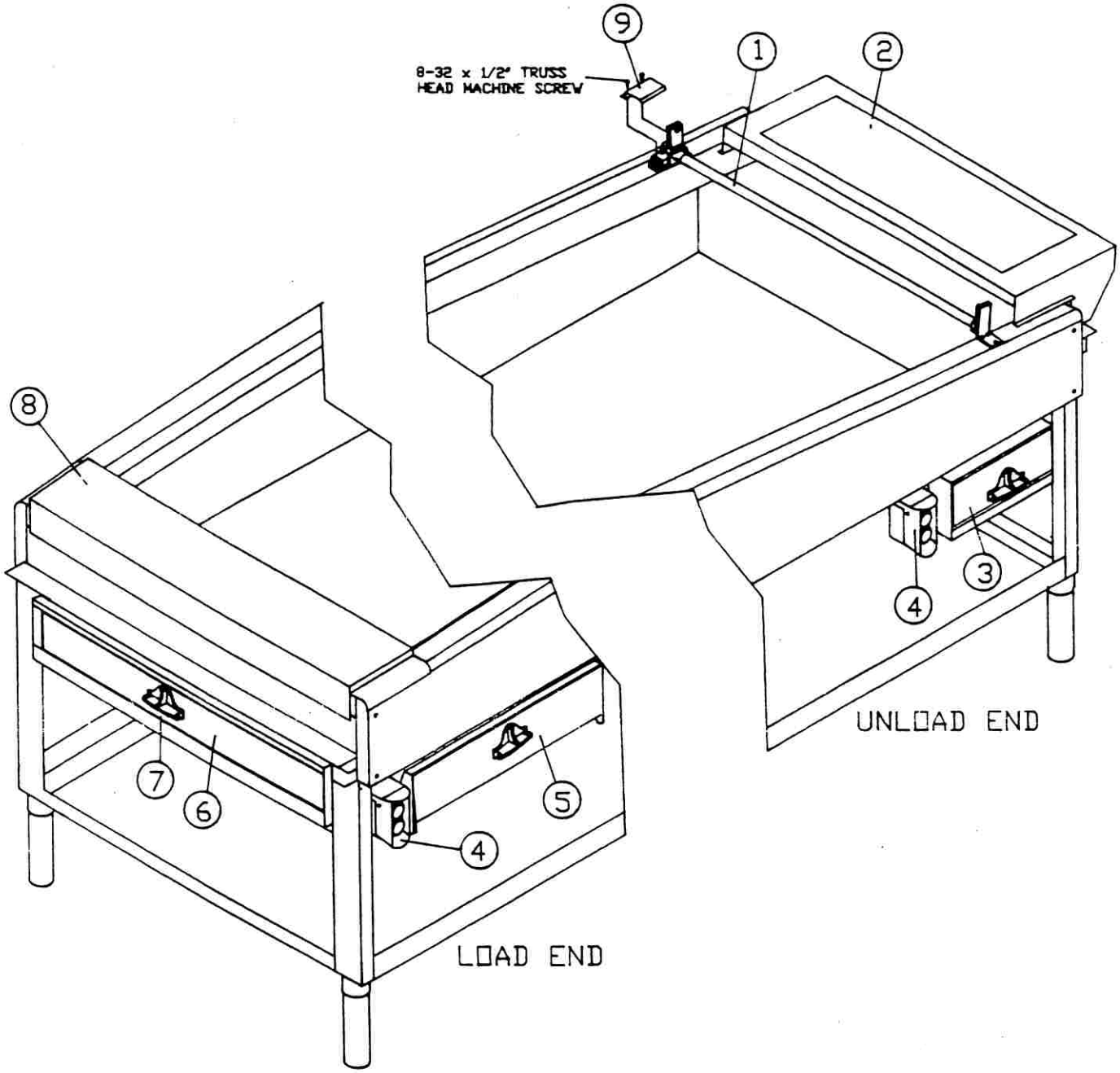
HOOD ASSEMBLY
STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	VENT COWL	STPCW	A10-2970
	VENT COWL	STPC	A10-2969
2	HOOD		*
3	DOOR, REAR PULL OUT		*
4	DOOR, FRONT OPTIONAL PULL OUT		*
5	DOOR HANDLE, LIFT OUT STYLE		A10-3314
6	DOOR, FRONT		*
7	PLASTIC DOOR HANDLE		B59-1448
8	VENT DAMPER	STPCW/STBUW	A10-3164
	VENT DAMPER	STPC	A10-3163
9	VENT SPLASH SHIELD		*
10	DOOR SAFETY SWITCH		B10-4274
11	DOOR, FRONT PULL OUT	STBUW	*
12	UPPER DOOR OF 2 PIECE DOOR		*
13	LOWER DOOR OF 2 PIECE DOOR		*
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		
	FOR EXTENDED LENGTH DRYING		
	HOODS INDICATE OVER-ALL LENGTH		
	DESIRED AND LENGTH OF EXISTING		
	UNLOAD SECTION		


1
2
3
4
5
6
7
8

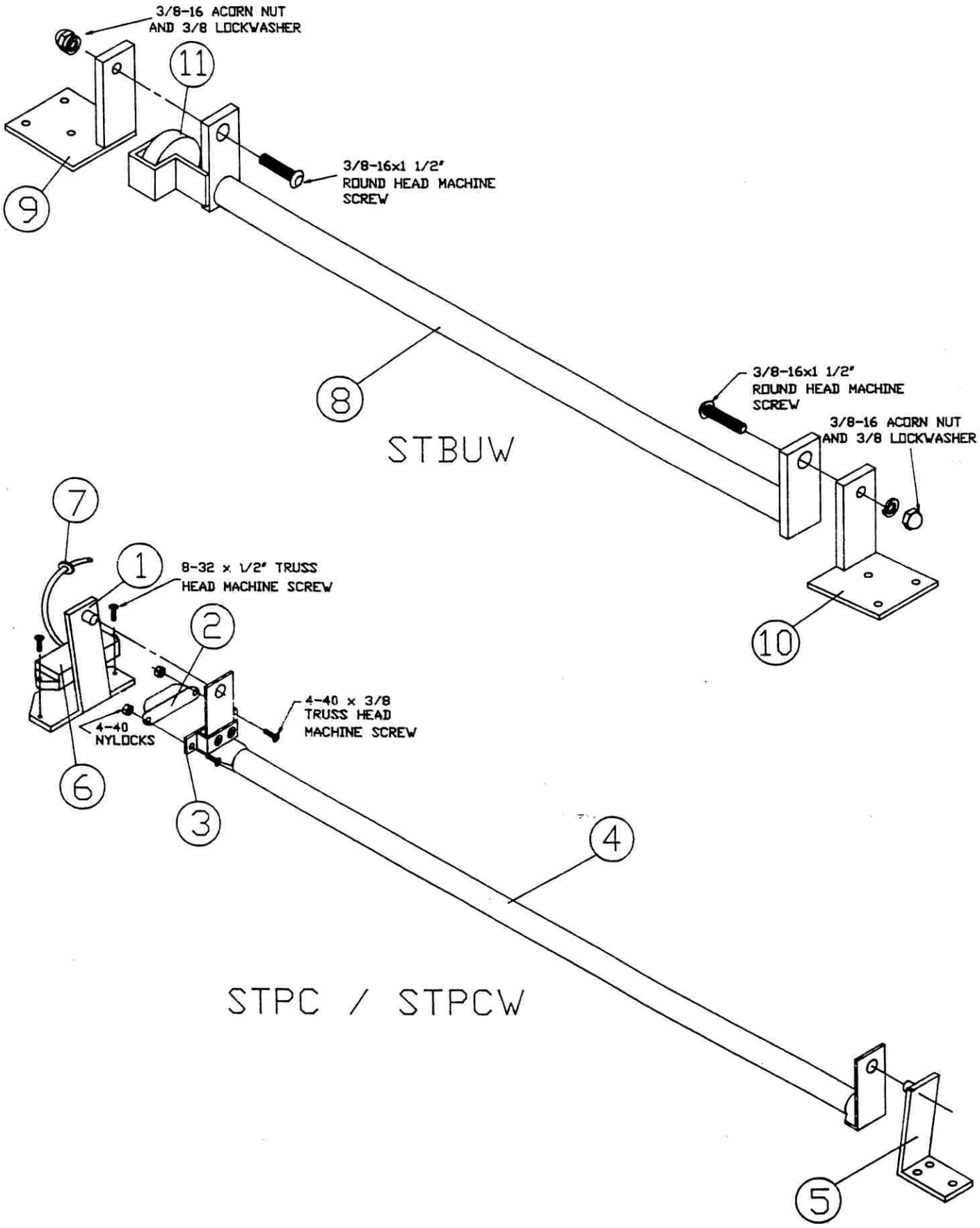
CURTAINS & RODS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	CURTAIN, SHORT 25 1/2x 8"	STPC	P56-1683
2	CURTAIN, LONG 25 1/2x 15"	STPC	P56-1682
3	CURTAIN, SHORT 31 1/2x 11 1/4"	STPCW	P56-1687
4	CURTAIN, LONG 31 1/2x 19"	STPCW	P56-1691
5	ROD, VENT COWL 25" LONG	STPC	A10-3103
6	ROD, MAIN SECTION 28" LONG	STPC	A10-3102
7	ROD, VENT COWL 31" LONG	STPCW	A10-3105
8	ROD, MAIN SECTION 34 1/4" LONG	STPCW	A10-3104


9
8-32 x 1/2" TRUSS
HEAD MACHINE SCREW
1
2
8
3
4
7
6
5
4
UNLOAD END
LOAD END

LOAD / UNLOAD ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	SAFETY SWITCH ASSEMBLY	*	B10-4773
2	UNLOAD TABLE	STPCW	B10-2943
	UNLOAD TABLE	STPC	B10-2942
3	DOOR UNLOAD END		A10-2987
4	START / STOP ASSEMBLY	**	B10-2053
5	SIDE DOOR, LOAD END		B10-3126
6	DOOR, LOAD END		A10-4846
7	DOOR HANDLE		B59-1448
8	LOAD END COVER PLATE	STPCW *	B10-3117
9	SAFETY SWITCH COVER		A10-3949
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		
	FOR SAFETY SWITCH COMPONENTS		
	SEE PAGE 11		
	** FOR START/STOP SWITCH		
	COMPONENTS SEE PAGE 71		


3/8-16 ACORN NUT
AND 3/8 LOCKWASHER
11
9
3/8-16x1 1/2"
ROUND HEAD MACHINE
SCREW
8
3/8-16x1 1/2"
ROUND HEAD MACHINE
SCREW
3/8-16 ACORN NUT
AND 3/8 LOCKWASHER
10
STBUW
7
1
8-32 x 1/2" TRUSS
HEAD MACHINE SCREW
2
4-40 x 3/8
TRUSS HEAD
MACHINE SCREW
4-40
NYLOCKS
6
3
4
STPC / STPCW
5

SAFETY SWITCH ASSEMBLY

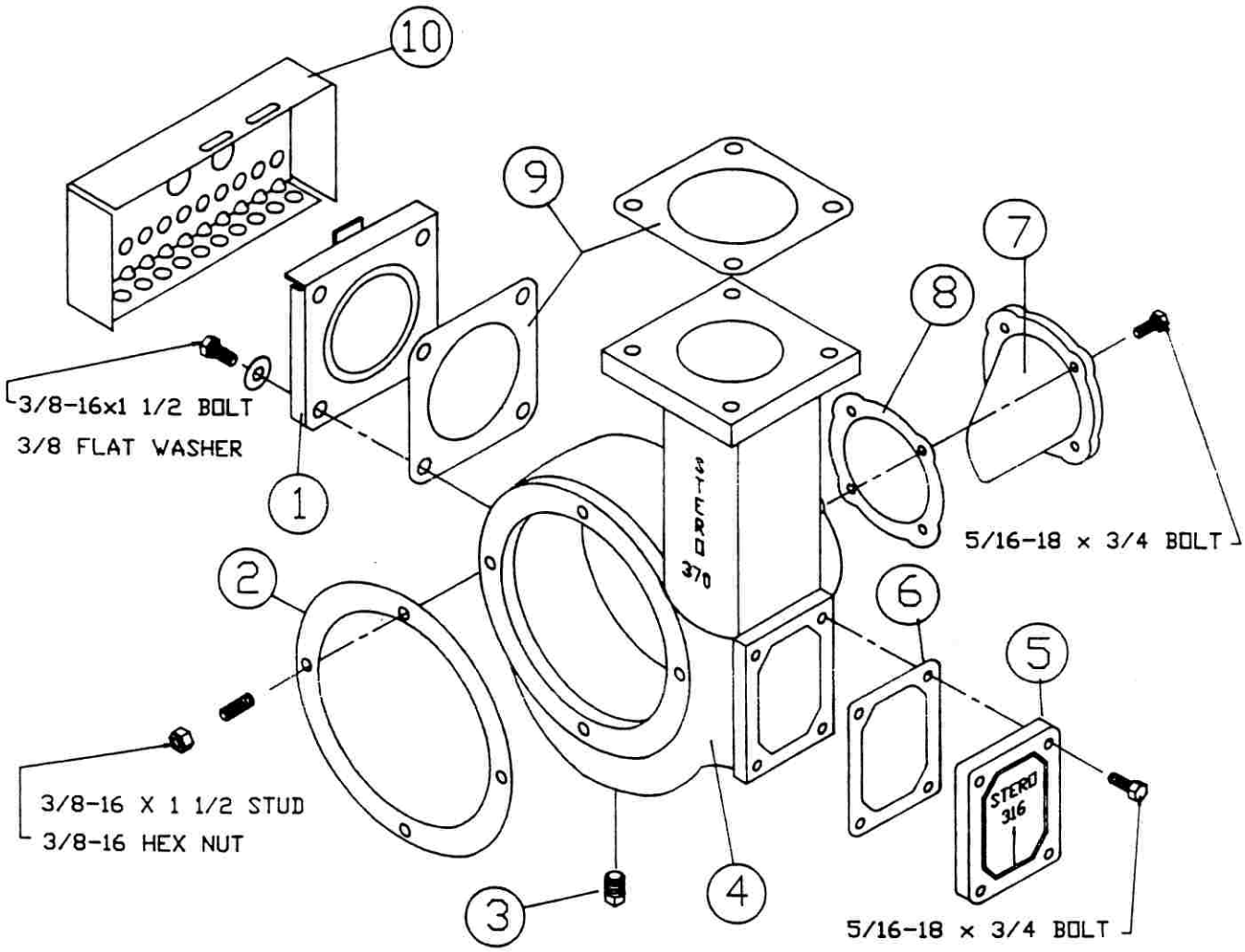
ITEM	DESCRIPTION	REMARKS	PART NO.
1	BRACKET ASSEMBLY		A10-4769
2	MAGNET		A10-4275
3	MAGNET BRACKET ONLY		A10-3075
	MAGNET BRACKET AND MAGNET ASSEMBLY ITEM 2 & 3		A10-3074
4	SWING BAR	STPCW *	B10-4771
	SWING BAR	STPC *	B10-4772
5	SWING MOUNTING BRACKET		A10-4770
6	REED SWITCH		B10-4274
7	GROMMET		P57-2516
8	SWING BAR	*	A10-4974
9	LEFT SUPPORT BRACKET		A10-4969
10	RIGHT SUPPORT BRACKET		A10-4970
11	MAGNET ASSEMBLY		A10-4975
	COMPLETE ASSEMBLY ITEMS 1 THRU 6	STPCW *	B10-4773
	COMPLETE ASSEMBLY ITEMS 1 THRU 6	STPC *	B10-4872
	COMPLETE ASSEMBLY ITEMS 7 THRU 10	STBUW *	B10-4985
*	SUPPLY MACHINE MODEL AND SERIAL		
	NUMBER WHEN ORDERING		

PUMPING SYSTEMS

SIDE PUMP ASSEMBLY

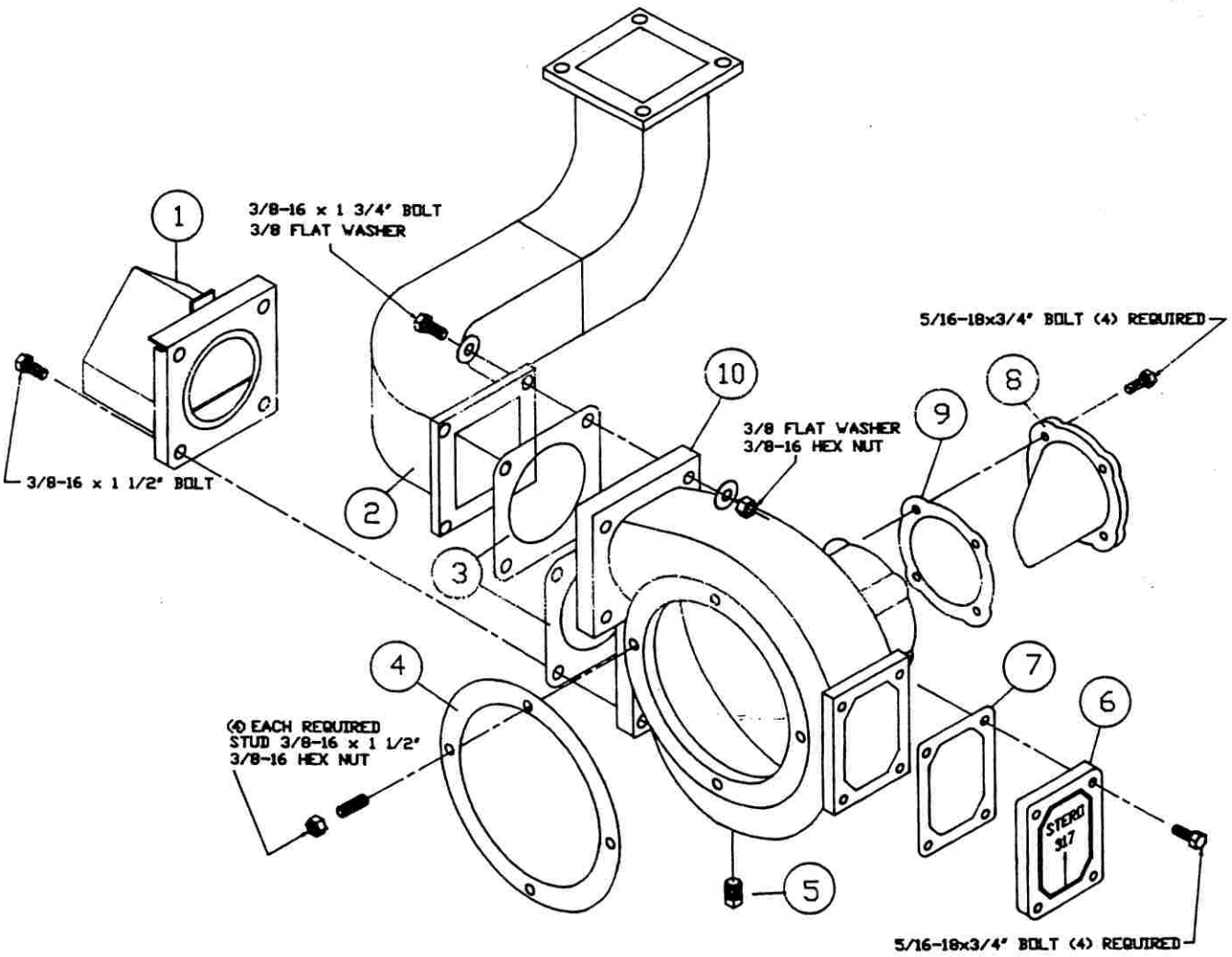
REAR PUMP ASSEMBLY

MOTOR ASSEMBLY


10
9
7
8
3/8-16x1 1/2 BOLT
3/8 FLAT WASHER
1
5/16-18 x 3/4 BOLT
2
6
5
3/8-16 X 1 1/2 STUD
3/8-16 HEX NUT
3
4
5/16-18 x 3/4 BOLT

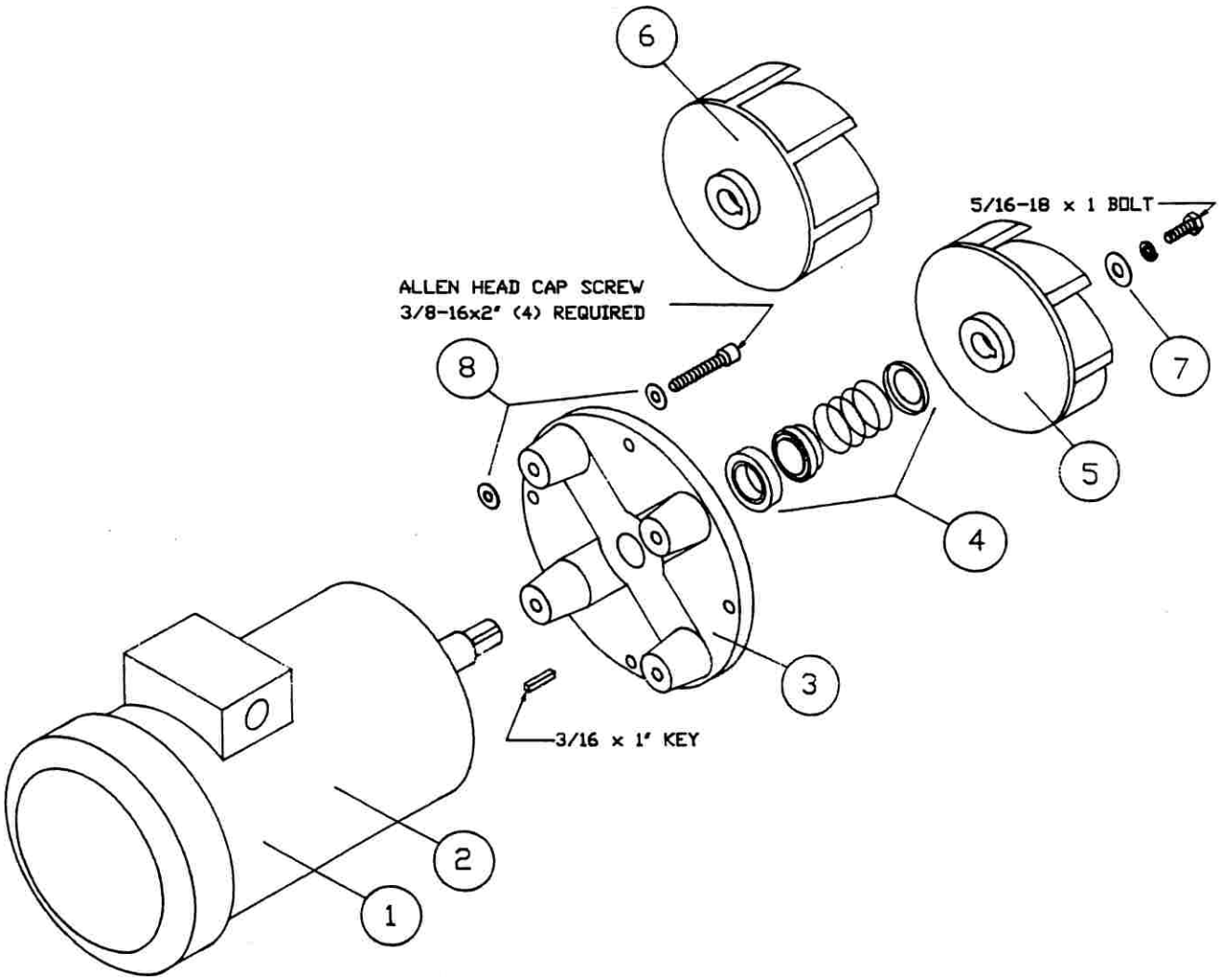
370 PUMP ASSEMBLY
REAR ACCESS MACHINES

ITEM	DESCRIPTION	REMARKS	PART NO.
1	PUMP SUCTION FLANGE		B10-1861
2	MOTOR TO PUMP GASKET		B57-1756
3	DRAIN PLUG		P68-1605
4	PUMP HOUSING #370		C10-1299
5	INSPECTION COVER #316		A10-2441
6	INSPECTION COVER GASKET		A57-1754
7	ROUND INSPECTION COVER #371		A10-1300
8	ROUND INSPECTION COVER GASKET		A57-1755
9	PUMP TO TANK GASKET		B57-1757
10	PUMP INTAKE STRAINER		B10-1504
	PUMP COMPLETE WITH GASKETS AND COVERS		B10-2298


1
3/8-16 x 1 3/4" BOLT
3/8 FLAT WASHER
3/8-16 x 1 1/2" BOLT
2
3
10
3/8 FLAT WASHER
3/8-16 HEX NUT
5/16-18x3/4" BOLT (4) REQUIRED
9
8
4
(4) EACH REQUIRED
STUD 3/8-16 x 1 1/2"
3/8-16 HEX NUT
7
6
STEREO
5
5/16-18x3/4" BOLT (4) REQUIRED

368 PUMP ASSEMBLY
FRONT ACCESS MACHINES

ITEM	DESCRIPTION	REMARKS	PART NO.
1	PUMP SUCTION CAGE		B10-1864
2	MANIFOLD TEE TO PUMP ADAPTOR		*
3	PUMP TO TANK GASKET		B57-1757
4	MOTOR TO PUMP GASKET		B57-1756
5	DRAIN PLUG		P68-1605
6	INSPECTION COVER #317		A10-1753
7	INSPECTION COVER GASKET		A57-1754
8	ROUND INSPECTION COVER #371		A10-1300
9	ROUND INSPECTION COVER GASKET		A57-1755
10	PUMP HOUSING # 368		C10-1089
	COMPLETE PUMP ASSEMBLY		B10-1752
	* PROVIDE MACHINE MODEL AND		
	SERIAL NUMBER		


6
5/16-18 x 1 BOLT
ALLEN HEAD CAP SCREW
3/8-16x2" (4) REQUIRED
8
7
5
4
3
3/16 x 1" KEY
2
1

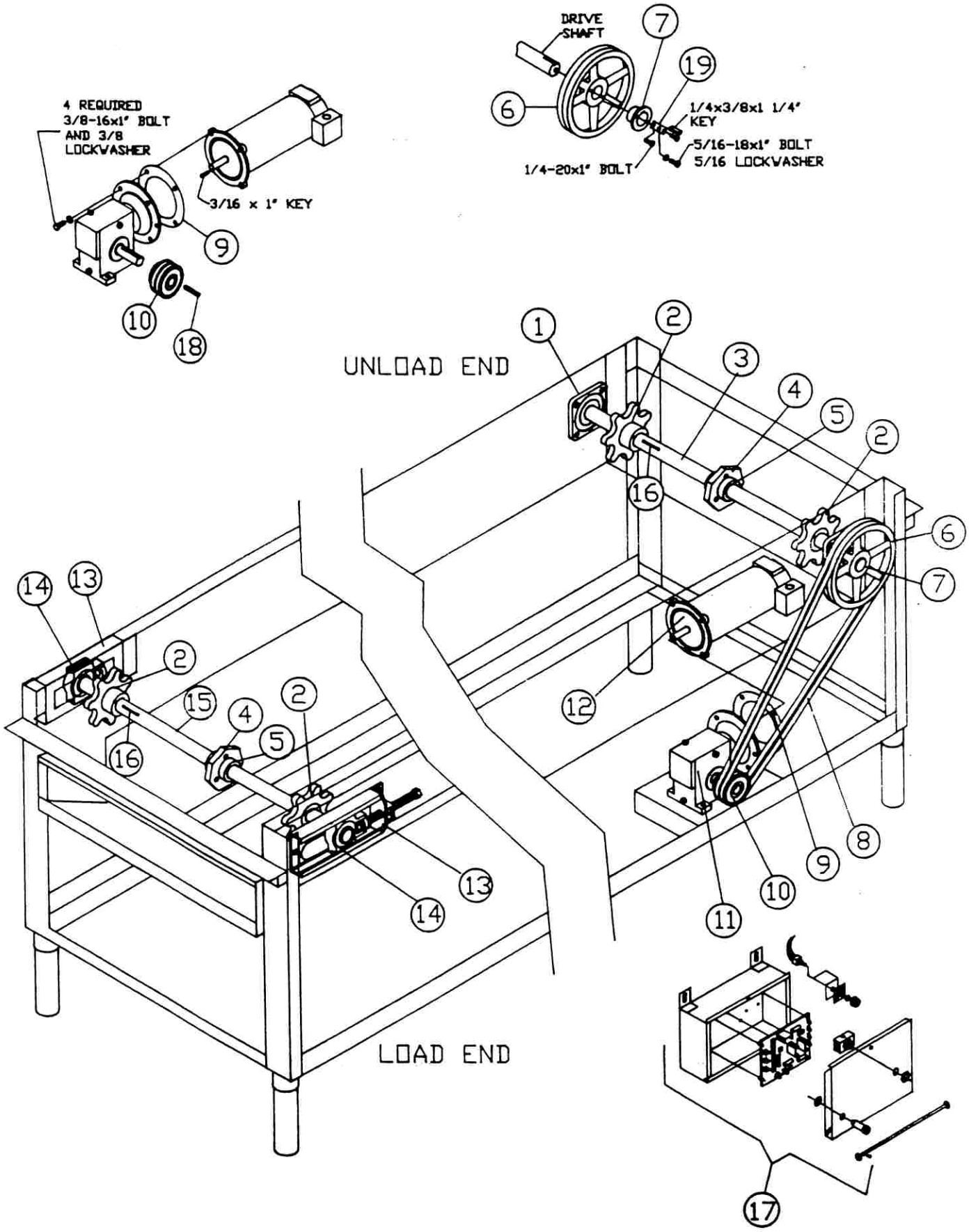
MOTOR ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	MOTOR 2 HP 208-230/460 3 PHASE		P41-1341
2	MOTOR 3 HP 208-230/460 3 PHASE		P41-1342
3	END BELL ADAPTOR #499		C10-1052
4	SHAFT SEAL 1"		P57-1697
5	IMPELLER, WASH / RINSE 2 OR 3 HP	#375	B10-1377
6	IMPELLER, SCRAPPER ONLY	#311	B10-2011
7	SPECIAL HEAVY FLAT WASHER		A10-2014
8	SPACER WASHERS		P67-1909
	MOTOR COMPLETE 2 HP WASH/RINSE		B10-2179
	MOTOR COMPLETE 3 HP WASH/RINSE		B10-2181
	MOTOR COMPLETE 2 HP SCRAPPER		B10-2178
	NOTE: WHEN ORDERING SUPPLY		
	MACHINE MODEL AND SERIAL NUMBER		

DRIVE SYSTEM

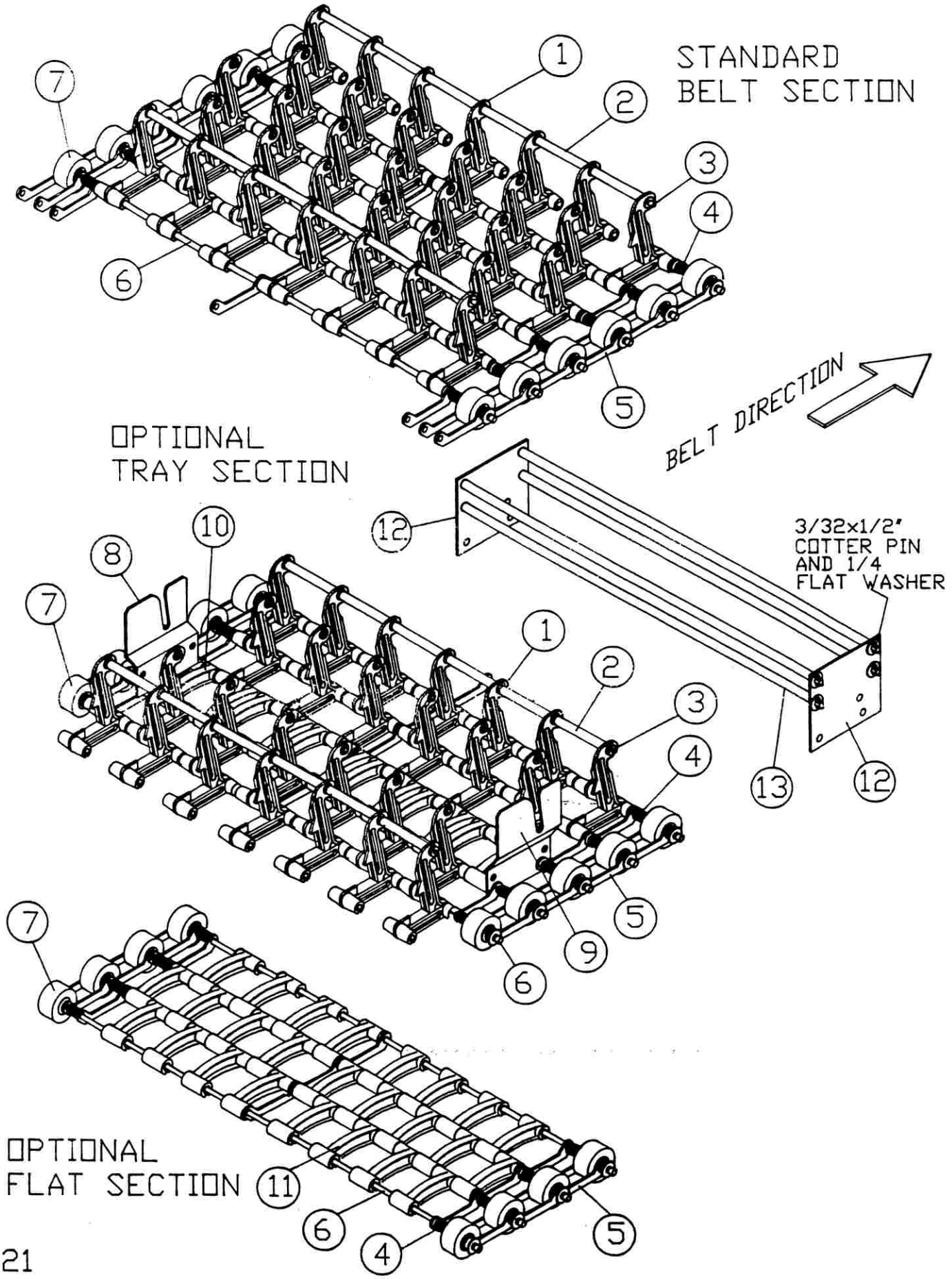
LOAD / UNLOAD

BELT CONVEYOR SECTIONS


DRIVE SHAFT
7
19
6
1/4x3/8x1 1/4" KEY
5/16-18x1" BOLT
5/16 LOCKWASHER
1/4-20x1" BOLT
4 REQUIRED 3/8-16x1" BOLT AND 3/8 LOCKWASHER
3/16 x 1" KEY
9
10
18
UNLOAD END
1
2
3
4
5
2
16
6
7
14
13
2
15
4
5
2
16
12
13
14
11
10
9
8
17
LOAD END

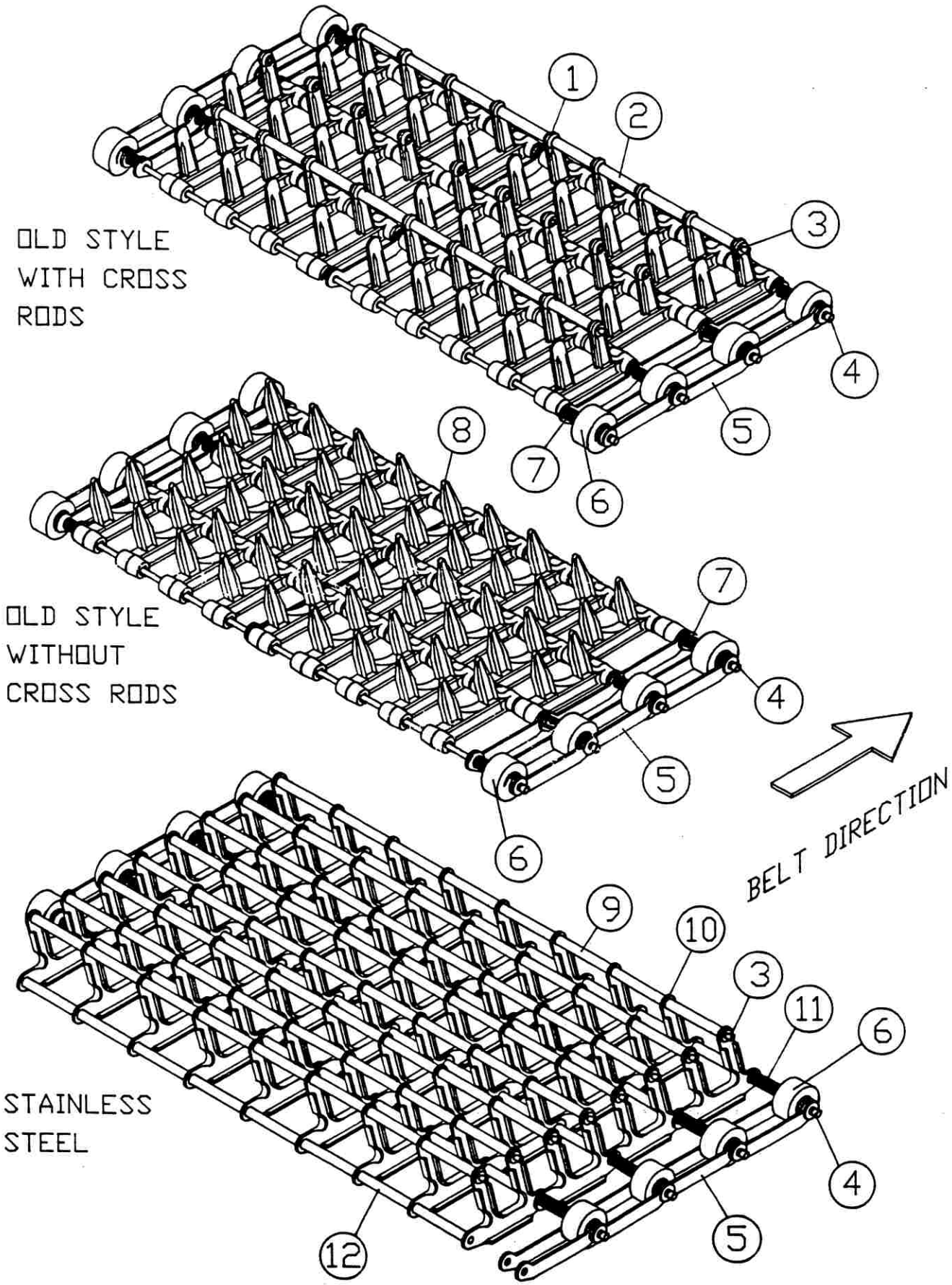
BELT DRIVE ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	BEARING ASSEMBLY, DRIVE END	2 REQUIRED	P66-1978
2	SPROCKET 7 TOOTH	4 REQUIRED	B10-3035
	SPROCKET 5 TOOTH		B10-3032
3	SHAFT, DRIVE END	STPCW/STBUW	B10-1267
	SHAFT, DRIVE END	STPC	B10-1269
4	GUIDE USE WITH 7 TOOTH SPROCKET		B10-1086
	GUIDE USE WITH 5 TOOTH SPROCKET		B10-1309
5	COLLAR, SET SCREW		P66-1979
6	PULLEY, DRIVE END		P66-1975
7	BUSHING		P66-1974
8	V-BELTS	2 REQUIRED	P66-1281
9	GASKET, MOTOR TO GEAR BOX		B57-1020
10	PULLEY, GEARBOX		P66-1972
11	GEAR BOX 73:1 LEFT	STPC/STPCW	P58-1216
	GEAR BOX 73:1 RIGHT	STPC/STPCW	P58-1215
	GEAR BOX 60:1 LEFT OR RIGHT	STBUW **	P58-1337
12	MOTOR, DC 1/2 HP	STPC/STPCW	P41-1213
	MOTOR, DC 1 HP	STBUW **	P41-1214
13	TAKE-UP BEARING HOUSING	2 REQUIRED	P66-1976
14	TAKE-UP BEARING	2 REQUIRED	P66-1977
15	SHAFT, TAKE-UP END	STPCW/STBUW	B10-1268
	SHAFT, TAKE-UP END	STPC	B10-1270
16	KEY		A10-2993
17	DC CONTROLLER	*	B10-3441
18	KEY 1/4 x 2"		P50-1338
19	DRIVE SPROCKET PULLEY RETAINER		A10-4986
	1/2 HP CONVERSION ASSEMBLY		B10-1612
	* FOR DC CONTROLLER COMPONENTS		
	SEE PAGE 73		
	** USED ON MACHINES 25' AND OVER		
	ALSO WITH STAINLESS STEEL BELTS		


STANDARD
BELT SECTION
BELT DIRECTION
OPTIONAL
TRAY SECTION
3/32x1/2"
COTTER PIN
AND 1/4
FLAT WASHER
OPTIONAL
FLAT SECTION

BELT CONVEYOR SECTION

ITEM	DESCRIPTION	REMARKS	PART NO.
1	PEG LINK BANQUET TYPE	2.5" CENTERS	C59-1072
2	CROSS ROD COVER		A59-3026
3	CROSS ROD 3/16x18 5/8"	STPC	A10-2936
	CROSS ROD 3/16x24 1/2"	STPCW	A10-2938
	CROSS ROD 3/16x21 1/2"	**	A10-2937
4	SPRING		A60-1191
5	LINK	2.5" CENTERS	B10-1015
6	BELT ROD 1/4x24 1/8"	STPC	A10-2934
	BELT ROD 1/4x30 1/8"	STPCW	A10-2935
7	ROLLER		A59-1140
8	LEFT HAND BELT TRAY PLATE		A10-4962
9	RIGHT HAND BELT TRAY PLATE		A10-4963
10	FLAT CELCON LINK MODIFIED	2.5" CENTERS	*
11	FLAT CELCON LINK	2.5" CENTERS	B59-1330
12	BELT TRAY PLATE		*
13	BELT TRAY ROD 3/8x25 3/4"	STPCW	A10-2939
	BELT TRAY ROD 3/8x19 5/8"	STPC	A10-2992
	NOTE: ITEMS 12 AND 13 USED ON		
	TRAY BELTS PRIOR TO MARCH 1987		
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		
	** WHEN CROSS RODS EVERY ROW		
	THIS ROD USED EVERY OTHER ROW		
	NOTE: CROSS RODS USE 1/16x3/8"		
	COTTER PINS AND #10 HEAVY S.S. WASHER		
	BELT RODS USE 3/32x1/2"		
	COTTER PINS AND 1/4" S.S. FLAT WASHER		


OLD STYLE
WITH CROSS
RODS
1
2
3
4
5
6
7
8
OLD STYLE
WITHOUT
CROSS RODS
BELT DIRECTION
STAINLESS
STEEL
9
10
11
12

BELT CONVEYOR SECTIONS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	CELCON PEG LINK	3.5" CENTER	B10-1329
2	CROSS ROD COVER		A59-3026
3	CROSS ROD 3/16x18 5/8"	STPC	A10-2936
	CROSS ROD 3/16x24 1/2"	STPCW	A10-2938
4	BELT ROD 1/4x24 1/8"	STPC	A10-2934
	BELT ROD 1/4x30 1/8"	STPCW	A10-2935
5	LINK	3.5" CENTER	B10-2144
6	ROLLER		A59-1140
7	SPRING		A60-1191
8	CELCON POINTED PEG LINK	3.5" CENTER	B10-1328
9	CROSS ROD SPACER		A10-1669
10	STAINLESS STEEL PEG LINK	3.5" CENTER	B10-1016
11	SPRING		A60-1190
12	BELT ROD SPACER		A10-1670
	NOTE: CROSS RODS USE 1/16x3/8"		
	COTTER PINS AND #10 HEAVY S.S. WASHER		
	BELT RODS USE 3/32x1/2"		
	COTTER PINS AND 1/4" S.S. FLAT WASHER		
	NOTE: WHEN ORDERING SUPPLY		
	MACHINE MODEL AND SERIAL NUMBER		

SPRAYING SYSTEMS

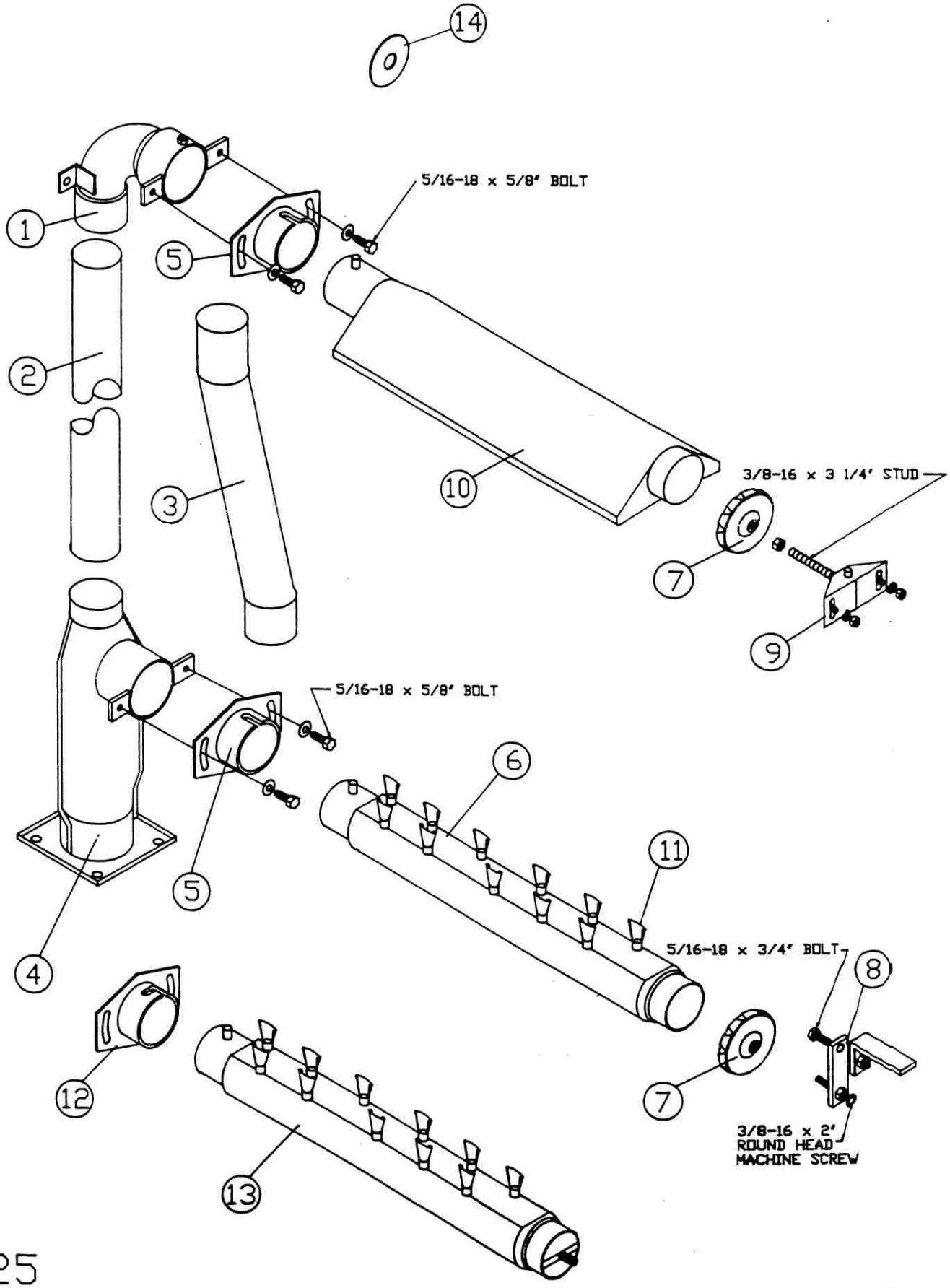
SCRAPPER

WASH / RINSE

FINAL RINSE HIGH TEMP

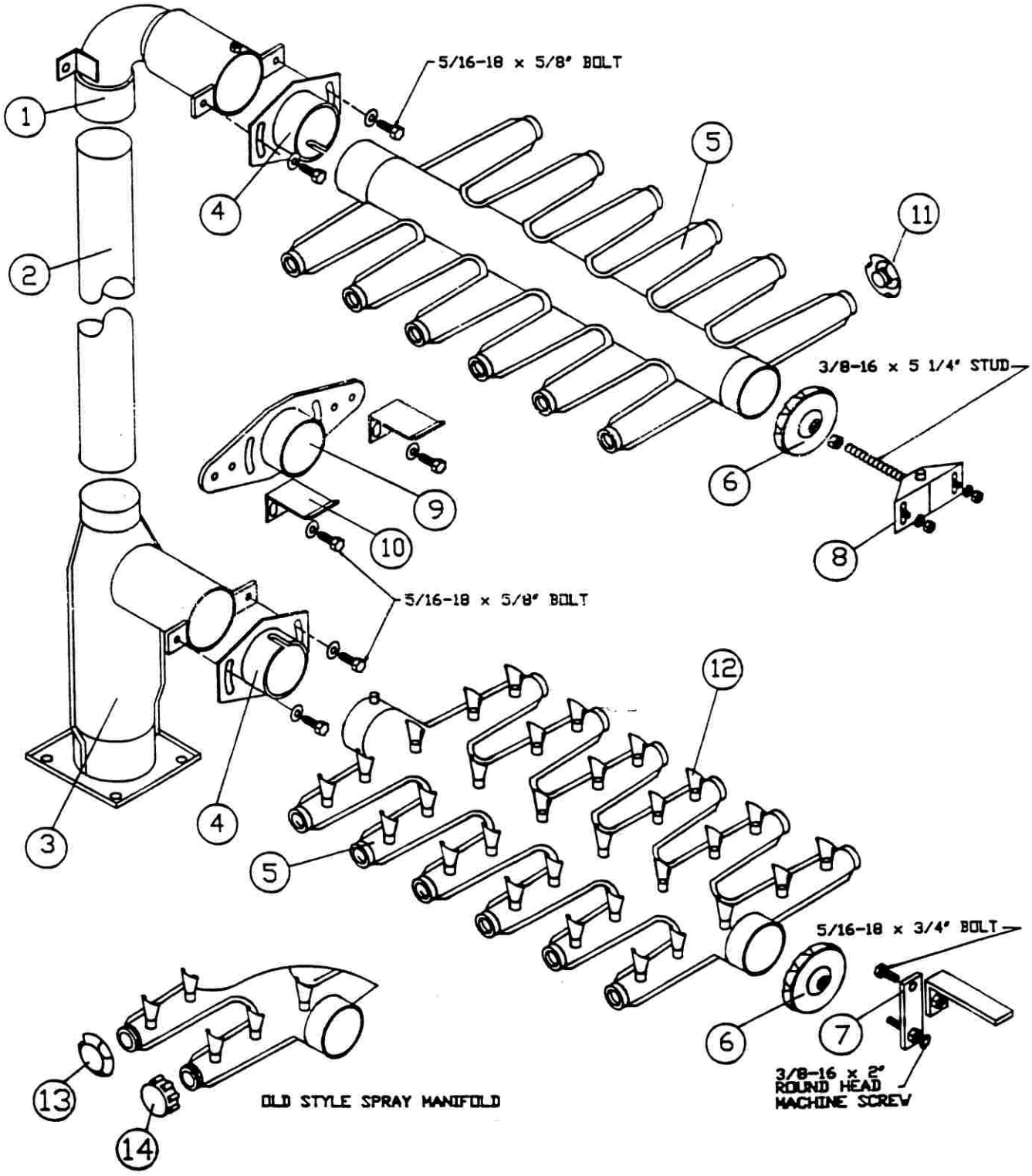
FINAL RINSE LOW TEMP

RINSE RAKE


14
5/16-18 x 5/8" BOLT
1
5
2
3
10
3/8-16 x 3 1/4" STUD
7
9
5/16-18 x 5/8" BOLT
6
11
5
4
5/16-18 x 3/4" BOLT
8
12
7
3/8-16 x 2"
ROUND HEAD
MACHINE SCREW
13

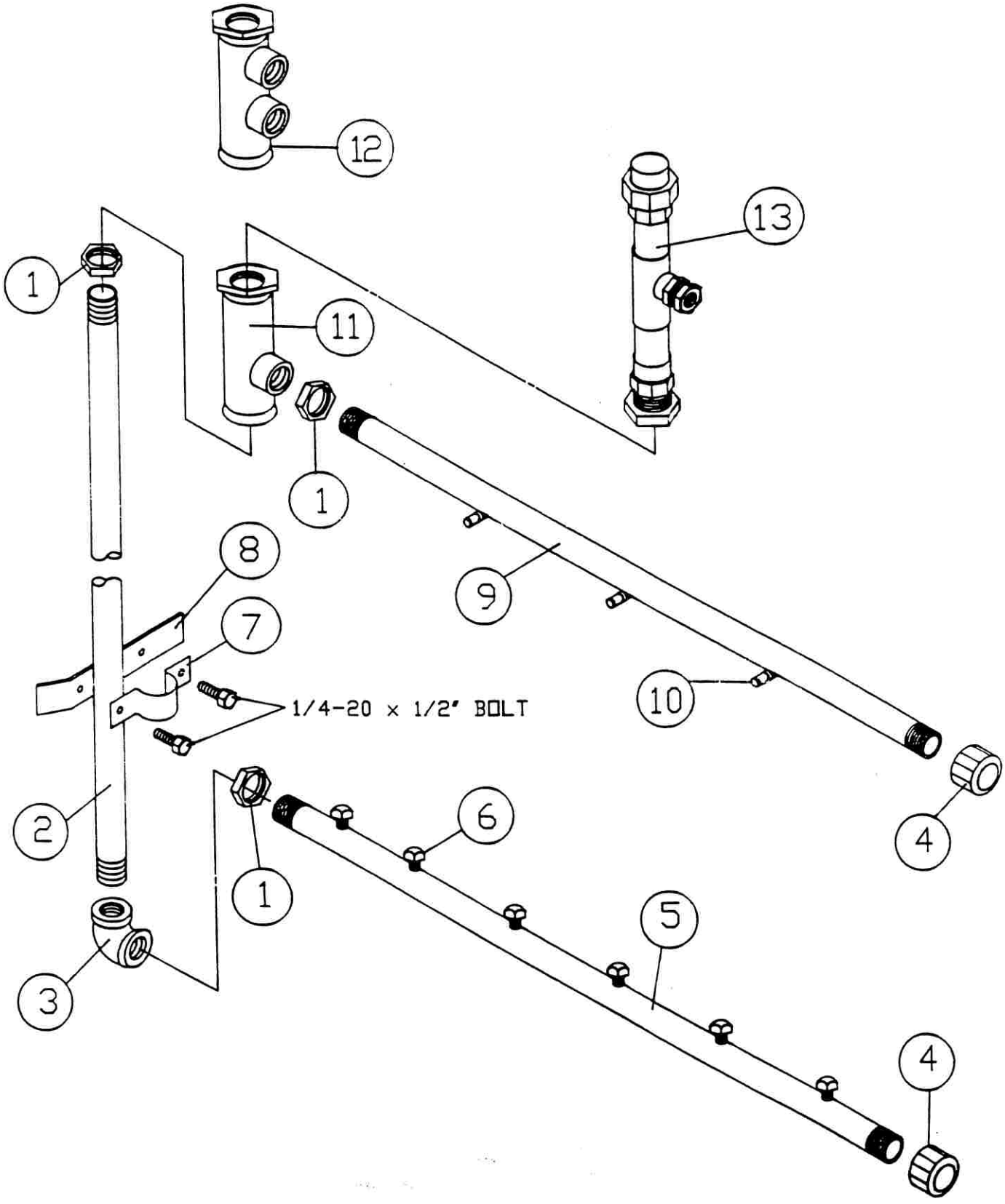
SCRAPPER SPRAY ASSEMBLY
STPC / STPCW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	STANDPIPE ELBOW		B10-1995
2	STANDPIPE 20" SIDE PUMPS	STPC	A10-2929
	STANDPIPE 24" SIDE PUMPS	STPCW	A10-2940
3	STANDPIPE OFFSET 20" REAR PUMPS	STPC	B10-1428
	STANDPIPE OFFSET 24" REAR PUMPS	STPCW	A10-4808
4	STANDPIPE TEE		C10-2931
5	MANIFOLD ADAPTOR		B10-2250
6	LOWER SPRAYER MANIFOLD	STPC	B10-2926
	LOWER SPRAYER MANIFOLD	STPCW	B10-2927
7	MANIFOLD CLAMP HAND GRIP		A10-1868
8	MANIFOLD CLAMP PIVOT		A10-3022
9	UPPER END CLAMP BRACKET ASSEMBLY		A10-3129
10	UPPER SPRAYER MANIFOLD	STPC	C10-1082
	UPPER SPRAYER MANIFOLD	STPCW	C10-1074
11	SPRAY JET, FAN STYLE		A50-1159
12	TWIST LOCK MANIFOLD ADAPTOR	OLD STYLE	*
13	EXAMPLE OF OLD STYLE MANIFOLD		*
14	FLOW RESTRICTOR 3/4"ID 2 1/2"OD		A10-2252
	FLOW RESTRICTOR 1"ID 2 1/2"OD		A10-2253
	FLOW RESTRICTOR 1 1/8"ID 2 1/2"OD		A10-2254
	FLOW RESTRICTOR 1 1/4"ID 2 1/2"OD		A10-2255
	FLOW RESTRICTOR 1 1/2"ID 2 1/2"OD		A10-2256
	SEE PAGE 27 FOR STBUW ASSEMBLY		
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		


5/16-18 x 5/8" BOLT
1
2
4
5
11
3/8-16 x 5 1/4" STUD
6
8
9
10
5/16-18 x 5/8" BOLT
12
3
4
5
5/16-18 x 3/4" BOLT
6
7
3/8-16 x 2"
ROUND HEAD
MACHINE SCREW
13
14
OLD STYLE SPRAY MANIFOLD

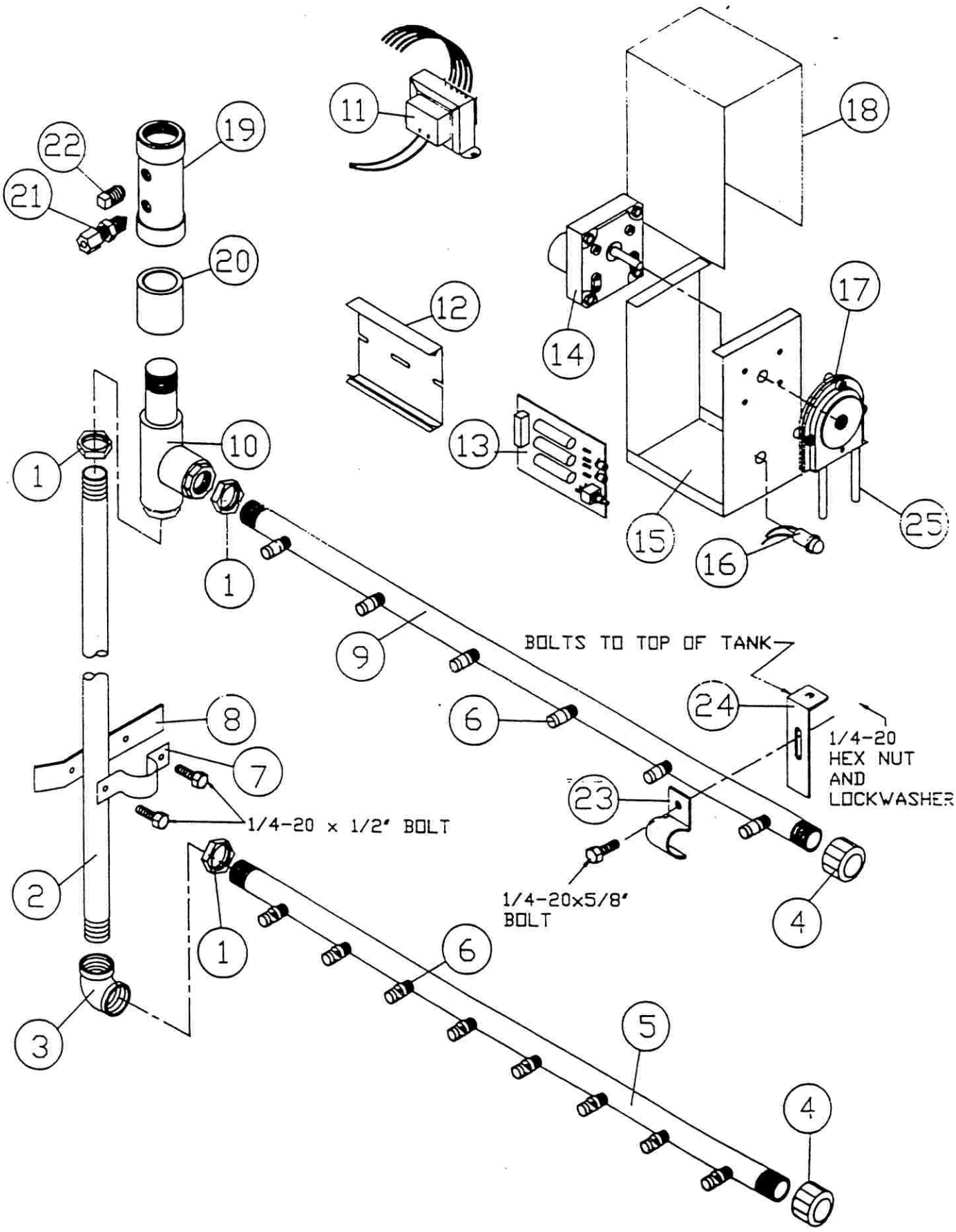
WASH / RINSE SPRAY ASSEMBLY
STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	WASH RINSE STANDPIPE ELBOW		B10-2928
2	WASH RINSE STANDPIPE	24" STPCW	A10-2940
	WASH RINSE STANDPIPE	32" STBUW	A10-2941
	WASH RINSE STANDPIPE	20" STPC	A10-2929
3	WASH RINSE STANDPIPE TEE		C10-2930
4	MANIFOLD ADAPTOR	*	B10-2250
5	UPPER OR LOWER SPRAYER MANIFOLD	STPCW/STBUW	C10-1260
	UPPER OR LOWER SPRAYER MANIFOLD	STPC	C10-1259
6	MANIFOLD CLAMP HAND GRIP		A10-1868
7	MANIFOLD CLAMP PIVOT		A10-3022
8	UPPER END CAP BRACKET ASSEMBLY		A10-3129
9	WASH RINSE MANIFOLD ADAPTOR	OLD STYLE	A10-1988
10	MANIFOLD ADAPTOR ADJUST. BRACKETS		A10-1990
11	MANIFOLD END CAPS		A10-3318
12	SPRAY JET, FAN TYPE		A50-1159
13	MANIFOLD END CAP OLD STYLE		A10-2028
14	MANIFOLD END CAP PLASTIC		A59-2227
	* REPLACES ASSEMBLY ITEMS 9 & 10		
	NOTE: THIS ASSEMBLY ALSO USED		
	IN STBUW SCRAPPER TANK		


12
13
1
11
1
9
8
7
1/4-20 x 1/2" BOLT
10
2
6
4
1
5
3
4

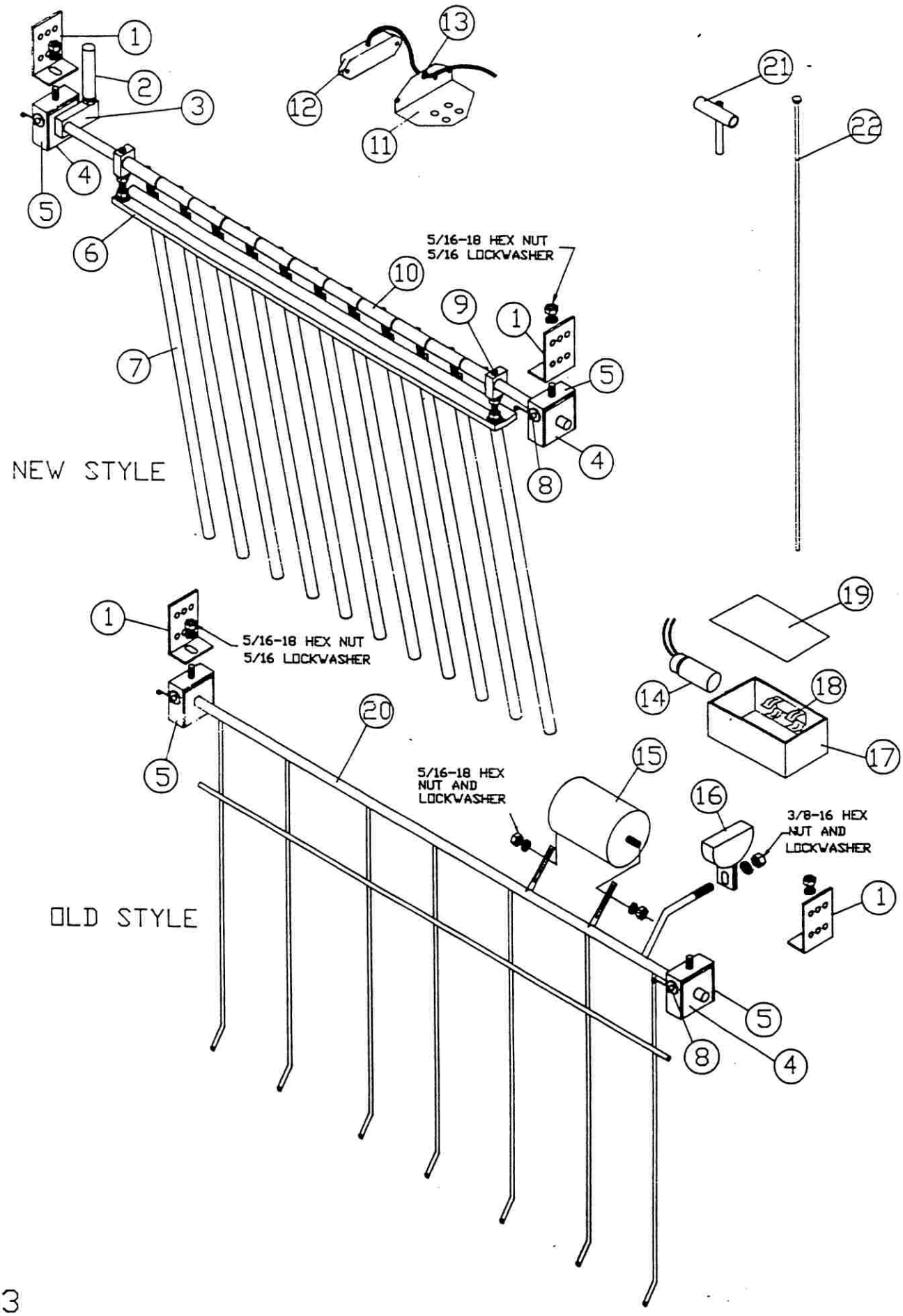
FINAL RINSE SPRAY ASSEMBLY HI TEMP
STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	1/2" S.S. LOCKNUT		A10-1446
2	STANDPIPE 25 1/2"	STPCW	A10-2961
	STANDPIPE 32"	STBUW	A10-2962
	STANDPIPE 21 1/2"	STPC	A10-2960
3	STANDPIPE ELBOW		P68-1478
4	END CAP		P68-1293
5	LOWER SPRAY PIPE	STPCW/STBUW	B10-1608
	LOWER SPRAY PIPE	STPC	B10-1607
6	LOWER SPRAY JETS 6 REQUIRED	STPCW/STBUW	A50-1163
	LOWER SPRAY JETS 5 REQUIRED	STPC	A50-1163
7	BRACKET CLAMP		A10-2141
8	STANDPIPE BRACKET		A10-3249
9	UPPER SPRAY PIPE	STPCW/STBUW	B10-1606
	UPPER SPRAY PIPE	STPC	B10-1605
10	UPPER SPRAY JETS 7 REQUIRED	STPCW/STBUW	B50-1173
	UPPER SPRAY JETS 6 REQUIRED	STPC	B50-1173
11	STANDPIPE TEE		A10-4547
12	STANDPIPE TEE	OLD STYLE	A10-1301
13	TOWER ASSEMBLY		A10-4564


11
18
19
22
21
20
12
17
14
13
10
1
1
9
BOLTS TO TOP OF TANK
24
6
8
7
1/4-20
HEX NUT
AND
LOCKWASHER
23
1/4-20 x 1/2" BOLT
2
1/4-20x5/8"
BOLT
4
1
6
3
5
4
15
16
25

FINAL RINSE SPRAY ASSEMBLY
STPC / STPCW LOW TEMP

ITEM	DESCRIPTION	REMARKS	PART NO.
1	1/2" S.S. LOCKNUT		A10-1446
2	STANDPIPE 24 3/4"	STPCW	A10-4954
	STANDPIPE 20 3/4"	STPC	A10-4953
3	STANDPIPE ELBOW		P68-1478
4	END CAP		P68-1293
5	LOWER SPRAY PIPE 8 HOLES	STPCW	B10-3037
	LOWER SPRAY PIPE 7 HOLES	STPC	B10-3239
6	SPRAY JETS		B10-1870
7	BRACKET CLAMP		A10-2141
8	STANDPIPE BRACKET		A10-3249
9	UPPER SPRAY PIPE 6 HOLES	STPCW	B10-3036
	UPPER SPRAY PIPE 5 HOLES	STPC	B10-3238
10	STANDPIPE TEE		A10-1913
11	TRANSFORMER		P53-1054
12	SNAP TRACK		P52-1049
13	P.C. BOARD		P42-1864
14	D.C. MOTOR		P41-1011
15	HOUSING		A10-4952
16	PILOT LAMP		P49-1721
17	PUMP ASSEMBLY		P41-1001
18	COVER		A10-4951
19	RINSE TOWER		B10-1912
20	CPVC SLEEVE		A10-3288
21	DUCK BILL CHECK VALVE		P68-1982
22	PIPE PLUG		P68-1298
23	PIPE CLAMP		A10-1910
24	PIPE CLAMP BRACKET		A10-2022
25	SQUEEZE TUBE		P68-1005
	NOTE: ITEMS 11, 12, AND 13 MOUNTED IN CONTROL BOX		


NEW STYLE
5/16-18 HEX NUT
5/16 LOCKWASHER
OLD STYLE
5/16-18 HEX NUT
5/16 LOCKWASHER
5/16-18 HEX
NUT AND
LOCKWASHER
3/8-16 HEX
NUT AND
LOCKWASHER

RINSE RAKE ASSEMBLY
STPC / STPCW / STBUW

ITEM	DESCRIPTION	REMARKS	PART NO.
1	BEARING BLOCK YOKE BRACKET		A10-1677
2	MAGNET HOUSING ASSEMBLY		A10-1585
3	CROSS SHAFT FINGER SUPPORT	STPCW *	B10-1667
	CROSS SHAFT FINGER SUPPORT	STPC *	B10-1668
4	RAKE BEARING BLOCK		B50-1203
5	BEARING BLOCK YOKE		A10-1675
6	FINGER BUMPER	STPCW	B10-1663
	FINGER BUMPER	STPC	B10-1664
7	RAKE FINGER 15 1/4"	STPC	A10-3243
	RAKE FINGER 19 1/4"	STPCW	A10-3242
	RAKE FINGER 26 1/2"	STBUW	A10-3241
8	BEARING BLOCK YOKE PIN		A10-1676
9	COUNTER WEIGHT PILLOW BLOCK		A10-1665
10	PIVOT FINGER ASSEMBLY		A10-4825
11	REED SWITCH MOUNTING BRACKET		A10-4273
12	REED SWITCH		B10-4274
13	GROMMET		P57-2516
14	MERCURY SWITCH 3-91		P49-1274
15	COUNTER WEIGHT	STPC	*
	COUNTER WEIGHT	STPCW	*
16	MAGNET ASSEMBLY		B10-1674
17	SWITCH BOX		B10-3150
18	SWITCH BRACKET		P49-1270
19	BOX COVER		B10-3151
20	RAKE ASSEMBLY		*
21	FINGER PIVOT USED PRIOR TO 11-86	*	A10-2862
22	FINGER USED PRIOR TO 11-86	*	A10-2865
	COMPLETE ASSEMBLY NEW STYLE	STPC	C10-4948
	COMPLETE ASSEMBLY NEW STYLE	STPCW	C10-4815
	COMPLETE ASSEMBLY NEW STYLE	STBUW	C10-4949
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		

HEATING COMPONENTS

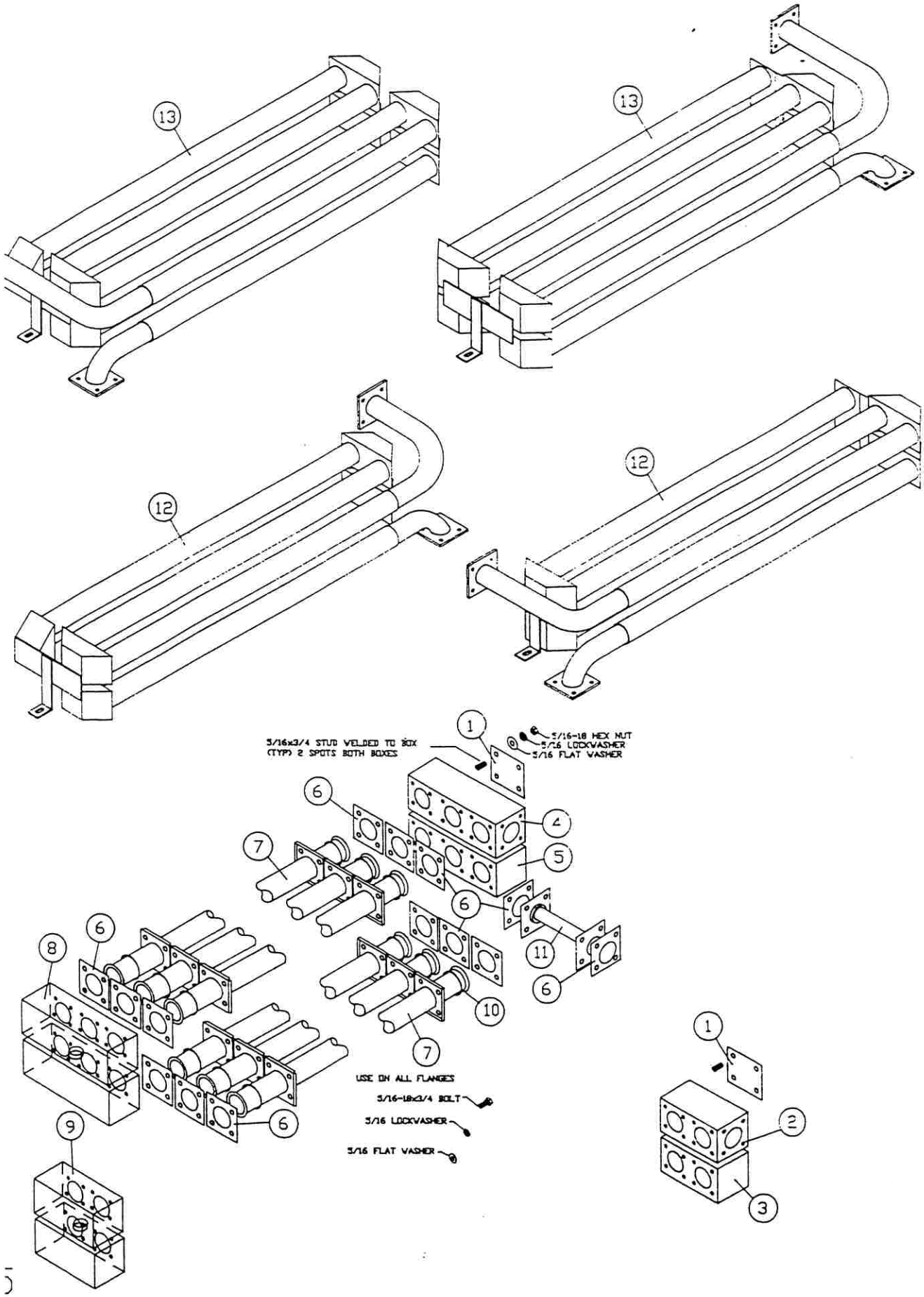
STEAM COILS REAR ACCESS

STEAM COILS FRONT ACCESS

STEAM INJECTORS

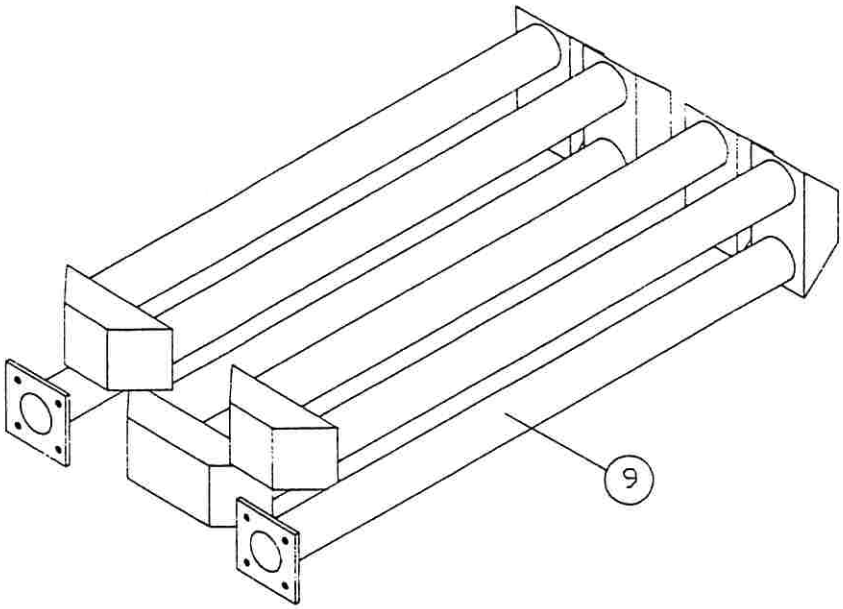
ELECTRIC

BLOWER ASSEMBLY


13
13
12
12
1
5/16x3/4 STUD WELDED TO BOX
(TYP) 2 SPOTS BOTH BOXES
5/16-18 HEX NUT
5/16 LOCKWASHER
5/16 FLAT WASHER
6
4
7
5
6
11
6
8
6
10
7
6
9
USE ON ALL FLANGES
5/16-18x3/4 BOLT
5/16 LOCKWASHER
5/16 FLAT WASHER
1
2
3

STEAM COIL BOX ASSEMBLY
STPC / STPCW REAR ACCESS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	RETAINER PLATE		A10-3983
2	STEAM INLET BOX 2 HOLE	STPC	B10-4756
3	STEAM RETURN OUTLET BOX 2 HOLE	STPC	B10-3981
4	STEAM INLET BOX 3 HOLE	STPCW	C10-3136
5	STEAM RETURN OUTLET BOX 3 HOLE	STPCW	C10-3139
6	STEAM COIL GASKET		A57-2387
7	TUBE ASSEMBLY 44" TANK 31 5/8"	STPC / STPCW	B10-3142
	TUBE ASSEMBLY 54" TANK 42 5/8"	STPC / STPCW	B10-4763
8	TANDEM BOX ASSEMBLY 3 HOLE	STPCW	C10-3131
9	TANDEM BOX ASSEMBLY 2 HOLE	STPC	B10-3976
10	VITON O RING		P57-2451
11	STEAM INLET ASSEMBLY	STPCW	B10-3210
	STEAM INLET ASSEMBLY	STPC	B10-3950
12	WASH/RINSE STEAM COIL ASSEMBLY	STPC **	*
13	WASH/RINSE STEAM COIL ASSEMBLY	STPCW **	*
	COMPLETE ASSEMBLY 44" TANK	STPCW *	B10-3986
	COMPLETE ASSEMBLY 44" TANK	STPC *	B10-3985
	COMPLETE ASSEMBLY 54" TANK	STPCW	*
	COMPLETE ASSEMBLY 54" TANK	STPC	*
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		
	** USED AFTER APRIL 1989		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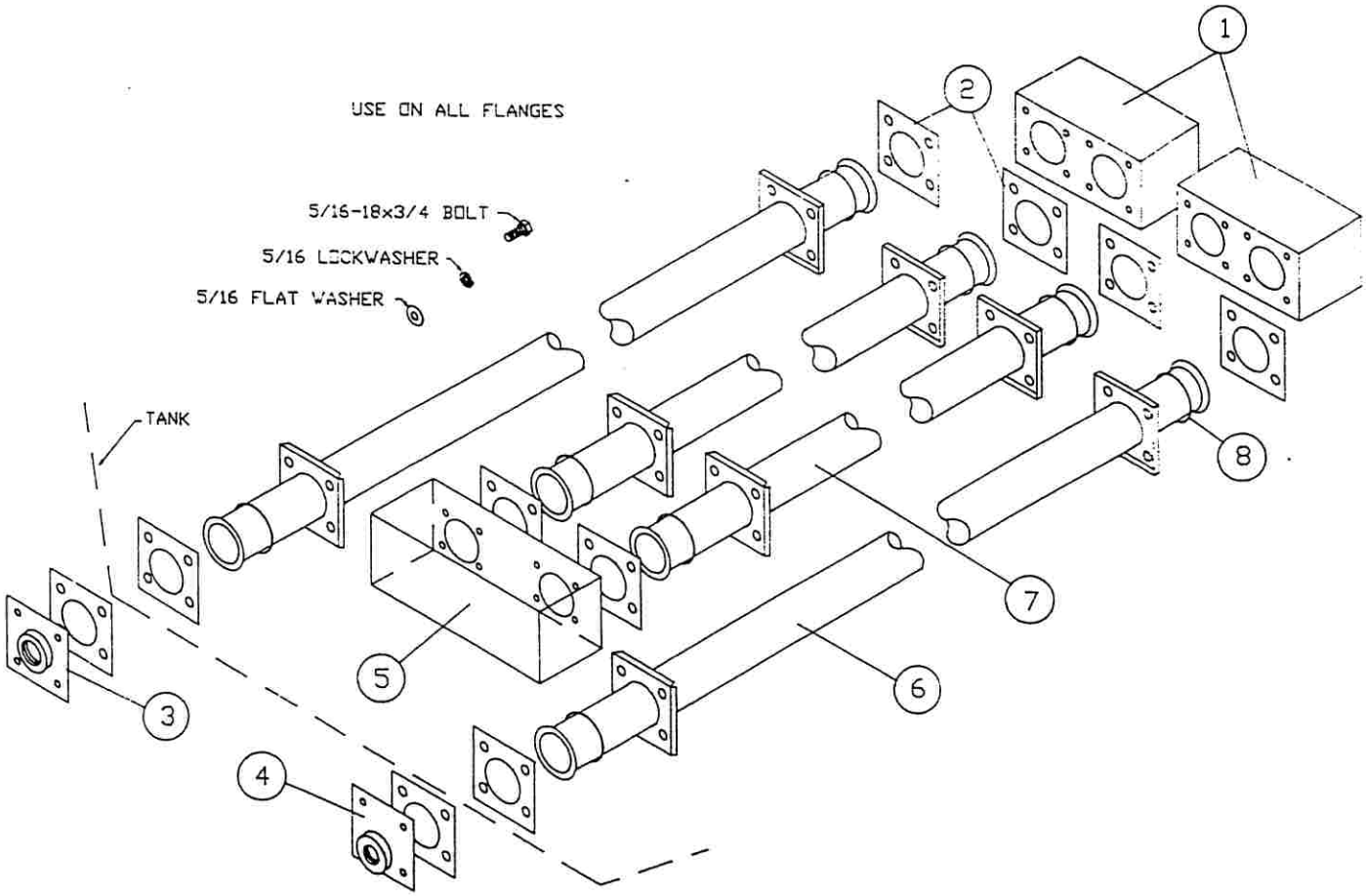

USE ON ALL FLANGES
5/16-18x3/4 BOLT
5/16 LOCKWASHER
5/16 FLAT WASHER
TANK
1
2
3
4
5
6
7
8

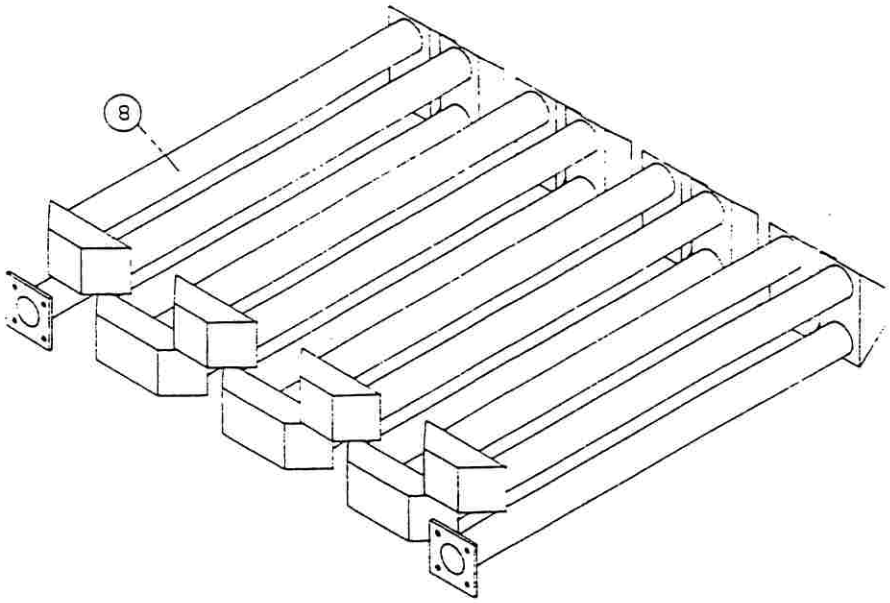
STEAM COIL BOX ASSEMBLY

FRONT ACCESS 44" TANKS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	STEAM RETURN BOX 2 HOLE		B10-3979
2	STEAM COIL GASKET		A57-2387
3	STEAM INLET FLANGE		A10-3332
4	STEAM OUTLET FLANGE		A10-3329
5	STEAM RETURN BOX LARGE 2 HOLE		B10-4758
6	STEAM TUBE ASSEMBLY 22 5/8"	STPCW / STBUW	B10-3990
	STEAM TUBE ASSEMBLY 16 5/8"	STPC	B10-4760
7	STEAM TUBE ASSEMBLY 18 5/8"	STPCW / STBUW	B10-3988
	STEAM TUBE ASSEMBLY 12 5/8"	STPC	B10-4759
8	VITON O RING		P57-2451
9	STEAM COIL ASSEMBLY **		*
	COMPLETE ASSEMBLY *	STPCW / STBUW	B10-4762
	COMPLETE ASSEMBLY *	STPC	B10-4761

* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER

** USED AFTER APRIL 1989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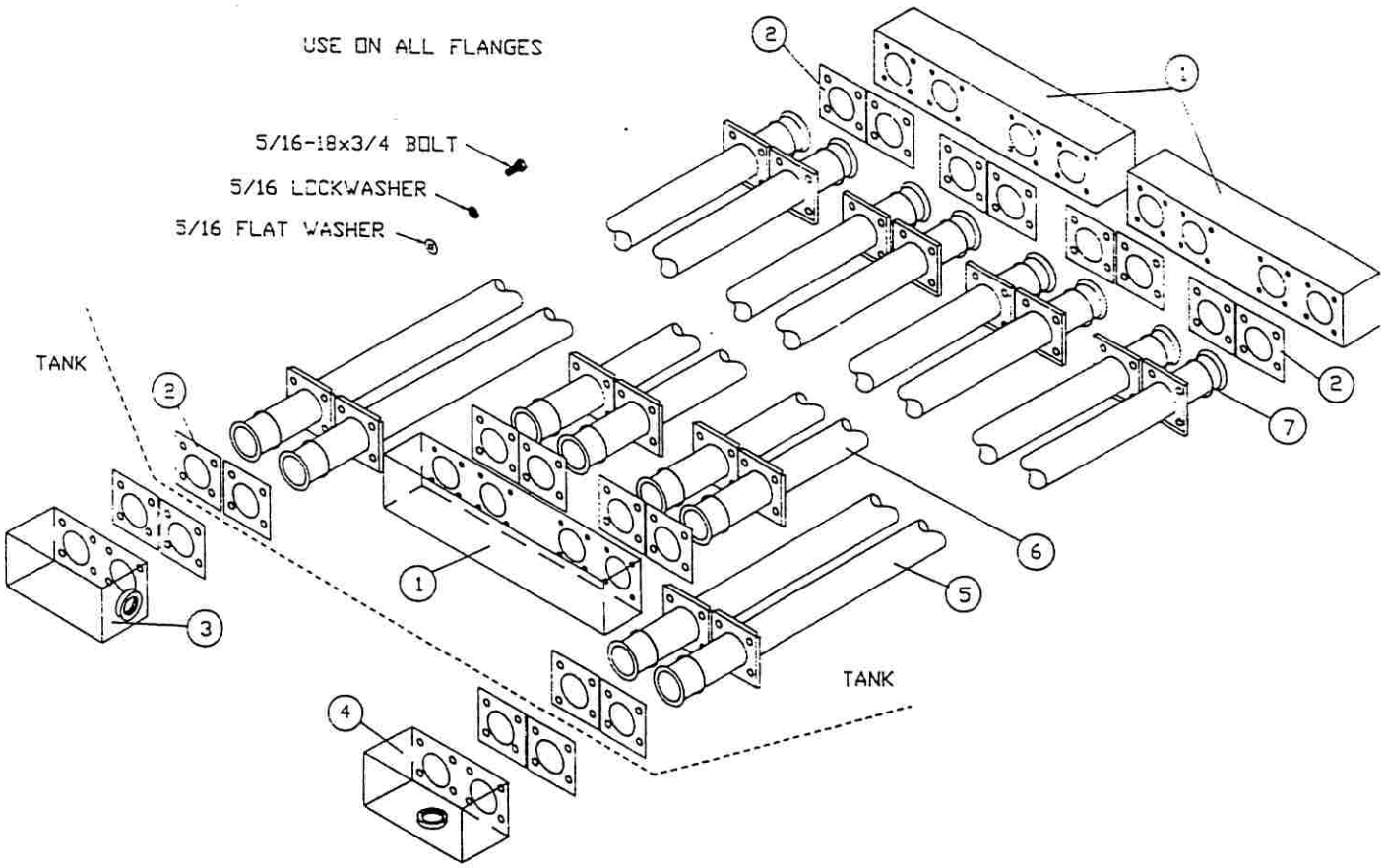
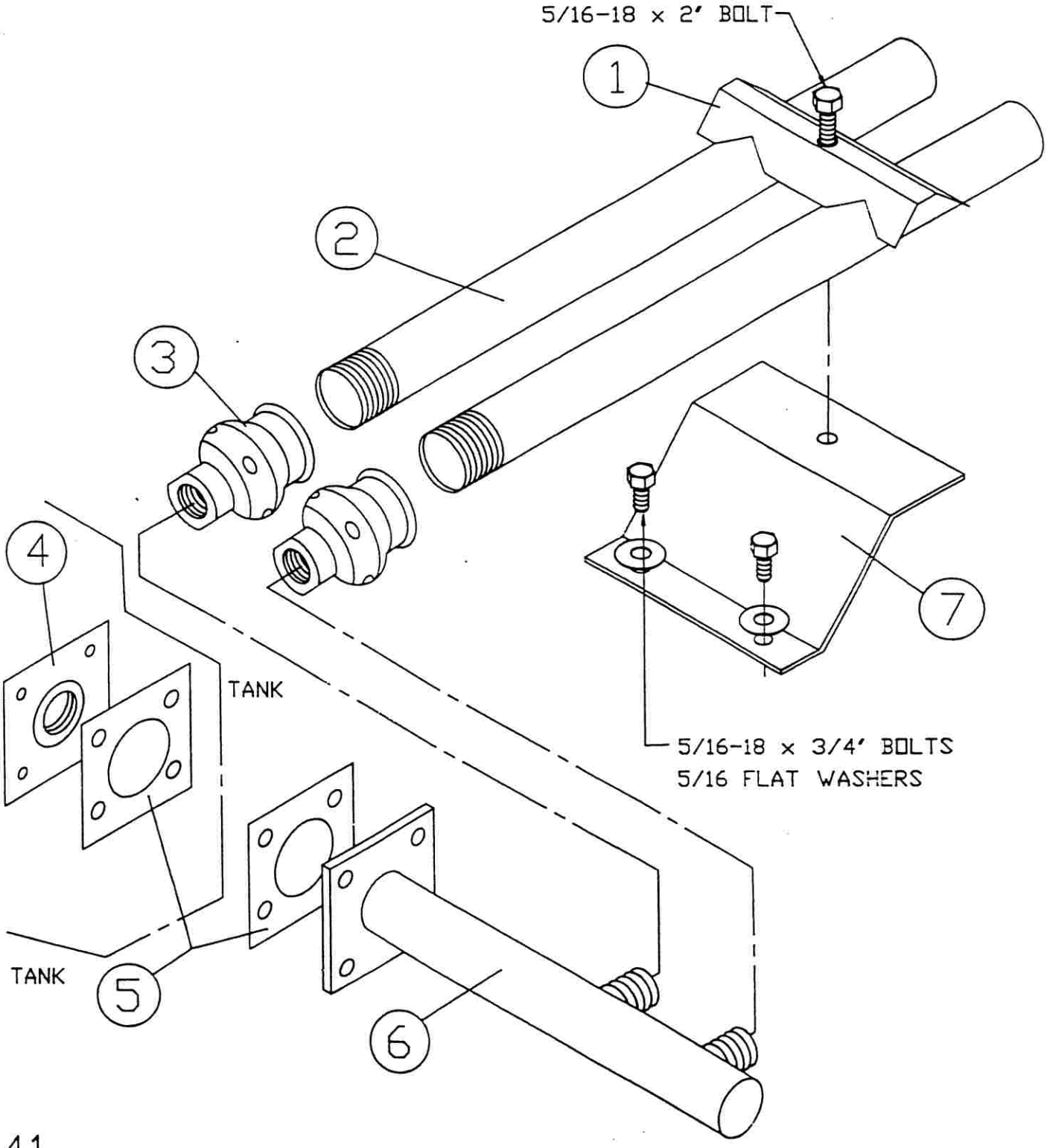

USE ON ALL FLANGES
5/16-18x3/4 BOLT
5/16 LOCKWASHER
5/16 FLAT WASHER
TANK
TANK
1
2
3
4
5
6
7

STEAM COIL BOX ASSEMBLY

FRONT ACCESS 54" TANKS

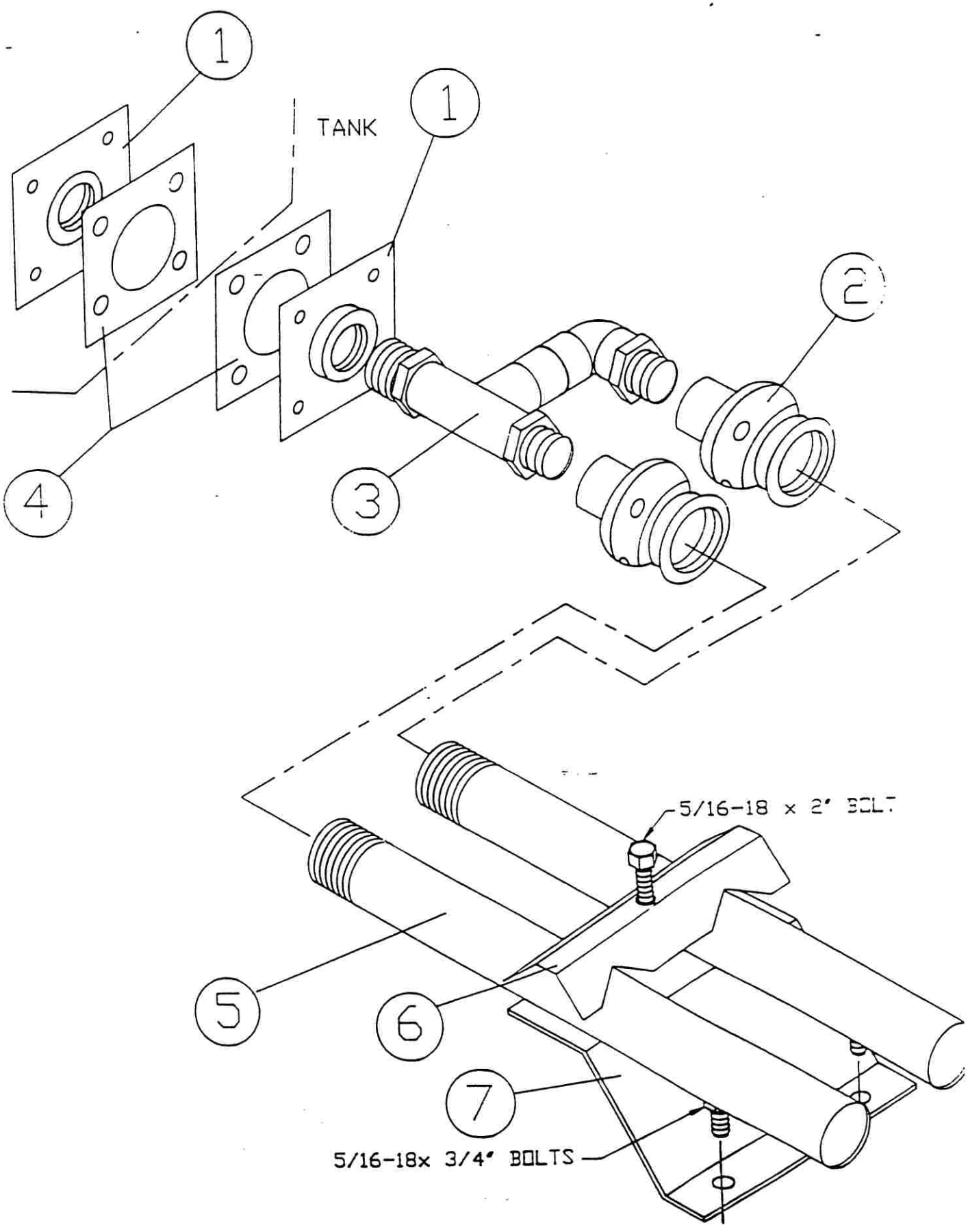
ITEM	DESCRIPTION	REMARKS	PART NO.
1	STEAM BOX 4 HOLES		C10-2326
2	STEAM COIL GASKET		A57-2387
3	STEAM INLET BOX 2 HOLE		B10-4768
4	STEAM OUTLET BOX		B10-4765
5	STEAM TUBE ASSEMBLY 22 5/8"	STPCW / STBUW	B10-3990
	STEAM TUBE ASSEMBLY 16 5/8"	STPC	B10-4760
6	STEAM TUBE ASSEMBLY 18 5/8"	STPCW / STBUW	B10-3988
	STEAM TUBE ASSEMBLY 12 5/8"	STPC	B10-4759
7	VITON O RING		P57-2451
8	STEAM COIL ASSEMBLY	**	*
	COMPLETE ASSEMBLY *	STPCW / STBUW	C10-3987
	COMPLETE ASSEMBLY *	STPC	
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		
	** USED AFTER APRIL 1989		


5/16-18 x 2' BOLT
1
2
3
4
TANK
TANK
5
6
7
5/16-18 x 3/4' BOLTS
5/16 FLAT WASHERS

STEAM INJECTOR ASSEMBLY
STPC / STPCW REAR ACCESS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	STEAM TUBE CLAMP		B10-2126
2	INJECTOR TUBES		A10-4871
3	STEAM SILENCERS		A10-2160
4	FLANGE PLATE 3/4" NPT		A10-3332
5	GASKET		A57-2387
6	INJECTOR MANIFOLD ASSEMBLY		B10-3236
7	TUBE SUPPORT BRACKET		A10-3221
	COMPLETE ASSEMBLY	*	B10-4873

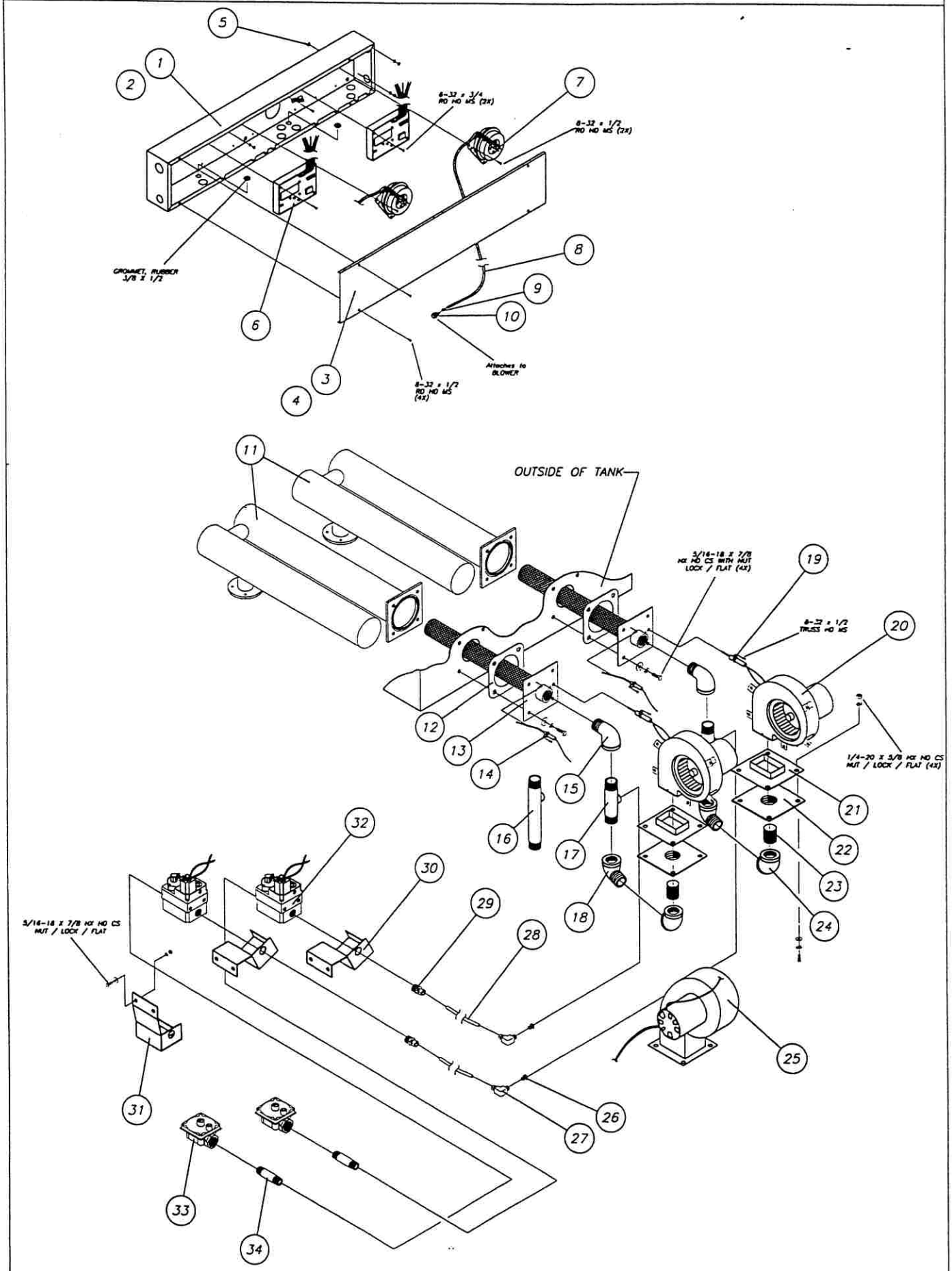
* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER


1
TANK
1
2
4
3
5/16-18 x 2" BOLT
5
6
7
5/16-18x 3/4" BOLTS

STEAM INJECTOR ASSEMBLY
FRONT ACCESS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	FLANGE PLATE 3/4" NPT		A10-3332
2	STEAM SILENCERS		A10-2160
3	INJECTOR MANIFOLD ASSEMBLY		B10-2329
4	GASKET		A57-2387
5	INJECTOR TUBE		A10-4869
6	STEAM TUBE CLAMP		B10-2126
7	TUBE SUPPORT BRACKET		A10-3221
	COMPLETE ASSEMBLY		B10-4868
	* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER		

TANK HEAT ASSEMBLY–DOUBLE BURNER
INFRARED TANK HEAT

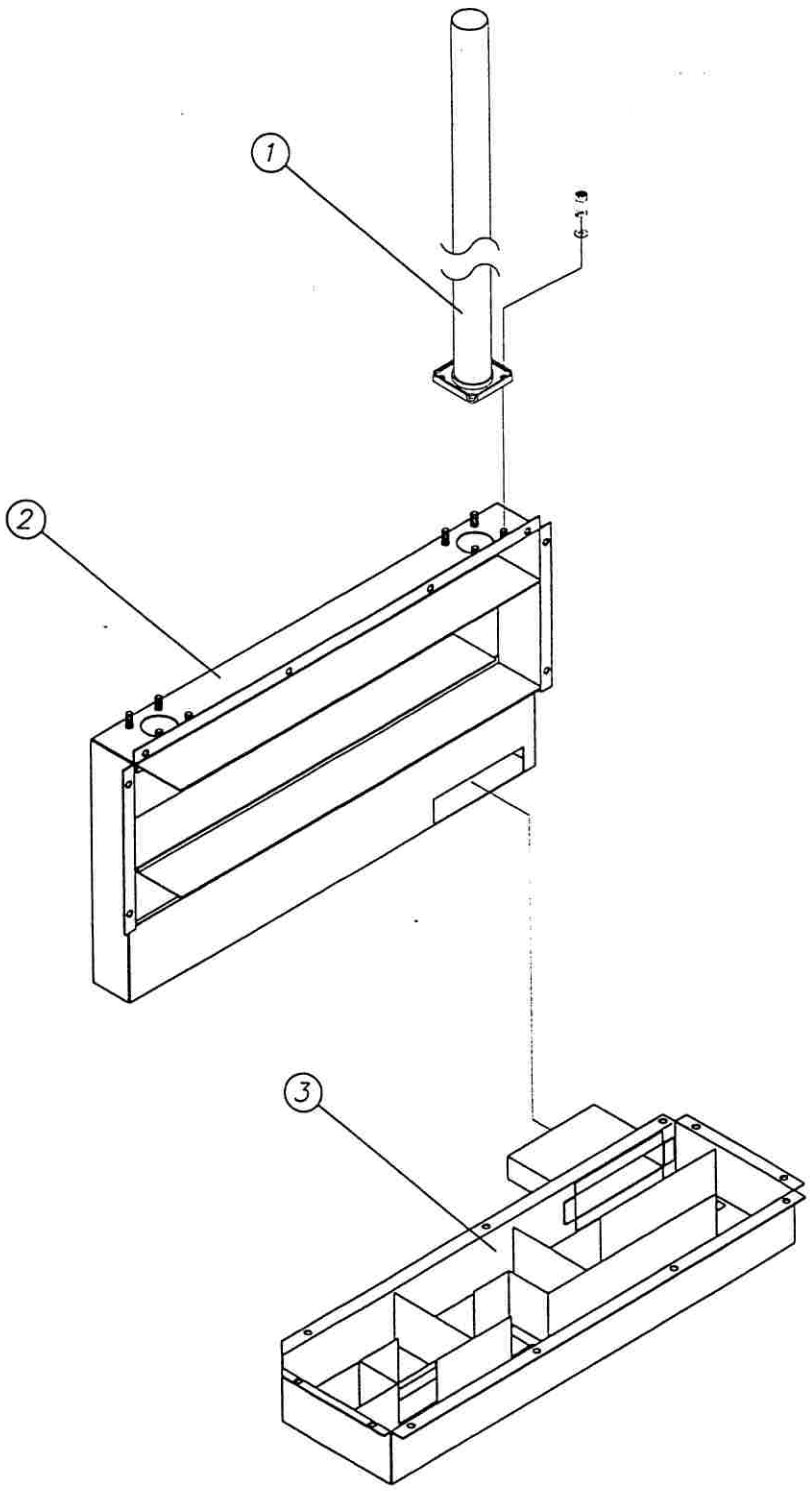


TANK HEAT ASSEMBLY-DOUBLE BURNER
INFRARED TANK HEAT

ITEM	DESCRIPTION	REMARKS	PART NO.
1	BOX, 35.5x6x3 GAS CONTROL	1 REQ.	B105964
2	BOX, 30.5x6x3 GAS CONTROL	1 REQ.	B105967
3	COVER, 30" GAS CONTROL BOX	1 REQ.	B105968
4	COVER, 30" GAS CONTROL BOX	1 REQ.	B105965
5	BUSHING	3 PER BOX	A501556
6	CONTROL, 3/4" POTTED BACK	2 REQ.	P425944
	SET, CONTROL	2 (BOX/HARNESS)	P425794
7	SWITCH, DIAPHRAGM	1 REQ.	P495795
8	TUBE, DIAPHRAGM SWITCH	2 REQ.	P515829
9	RESTRICTOR, AIR	2 REQ.	A105831
10	FITTING, DIAPHRAGM SWITCH	2 REQ.	A105822
11	HEAT EXCHANGER, 23"	2 REQ.	C105906
	HEAT EXCHANGER, 23" RVSD	2 REQ.	C105955
12	GASKET	2 REQ.	B571757
13	BURNER	2 REQ.	P555792
14	SENSOR, FLAME	2 REQ.	P496037
15	ELBOW	2 REQ.	P681623
16	CHAMBER, 8.5" MIXING, 1" N.P.T.	2 REQ.	A106001
17	CHAMBER, 5" MIXING, 1" N.P.T.	2 REQ.	A105821
18	ELBOW	2 REQ.	P681623
19	IGNITER	2 REQ.	P495798
20	BLOWER, DAYTON	2 REQ.	**
21	ADAPTER, BLOWER	2 REQ.	**
22	PLATE, BLOWER	2 REQ.	A106009
23	NIPPLE	2 REQ.	P681585
24	ELBOW	2 REQ.	P681622
25	BLOWER, FASCO	2 REQ.	P415793
26	ORIFICE	2 REQ.	A105827
27	FITTING, ORIFICE	2 REQ.	A105832
28	TUBE, COPPER	2 REQ.	P512013
	TUBE, STAINLESS STEEL	2 REQ.	**
29	FITTING, TUBE COMPRESSION	2 REQ.	P685830
30	BRACKET, GAS VALVE MOUNTING.	2 REQ.	A105810
31	BRACKET, GAS VALVE MOUNTING.	2 REQ.	A105808
32	VALVE, GAS	2 REQ.	P545796
33	REGULATOR, GAS (NATURAL GAS SYSTEM ONLY)	2 REQ.	P545828
34	NIPPLE	2 REQ.	P681654

* TO ORDER - SUPPLY MACHINE MODEL AND SERIAL NUMBER

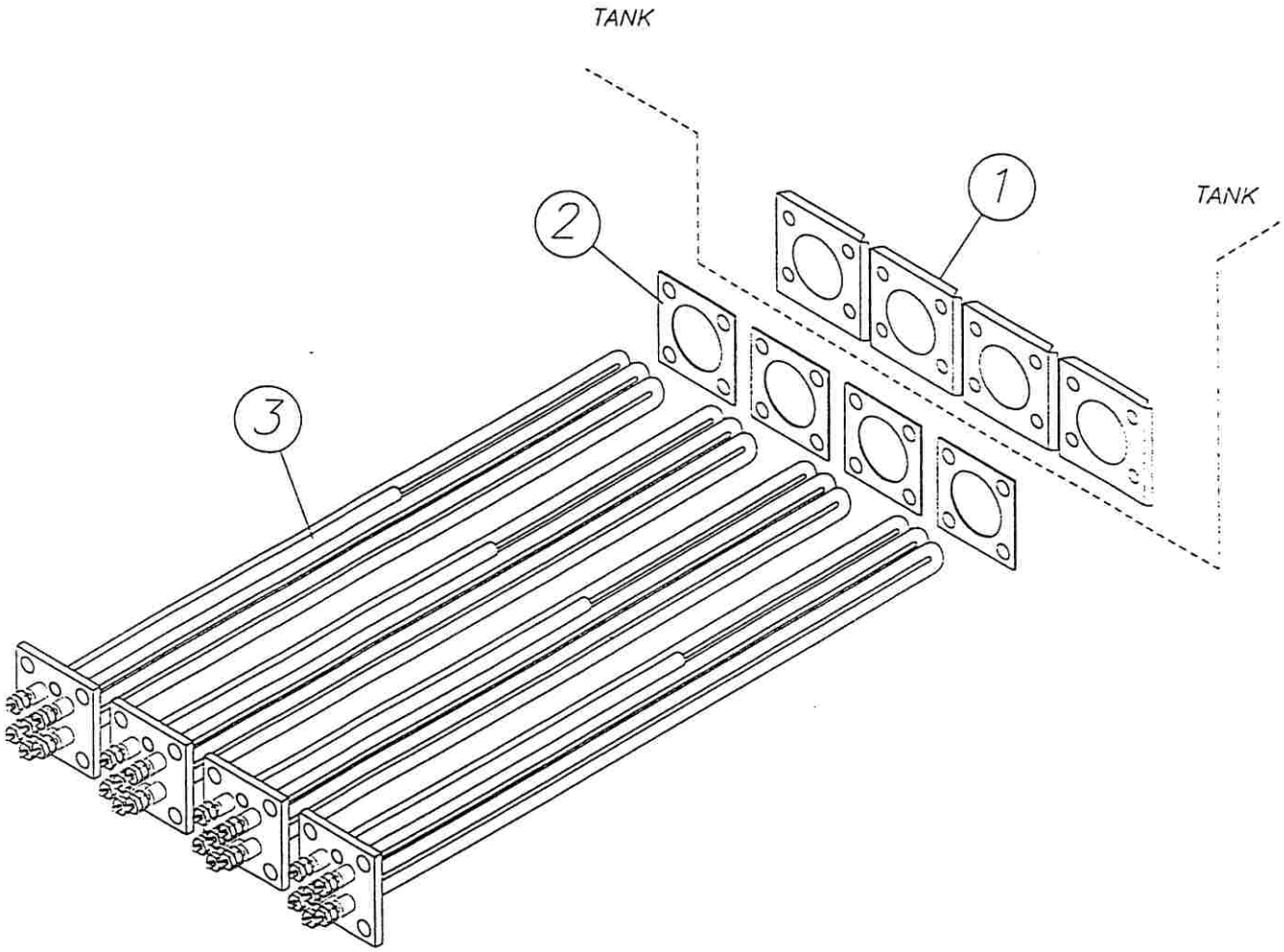
TANK HEAT EXHAUST ASSEMBLY
INFRARED TANK HEAT



TANK HEAT EXHAUST ASSEMBLY
INFRARED TANK HEAT

DESCRIPTION	REMARKS	PART NO.
TUBE, EXHAUST		*
BOX, SECONDARY HEAT RECIRCULATING		*
BOX, PRIMARY HEAT RECIRCULATING		*

* TO ORDER – SUPPLY MACHINE MODEL AND SERIAL NUMBER

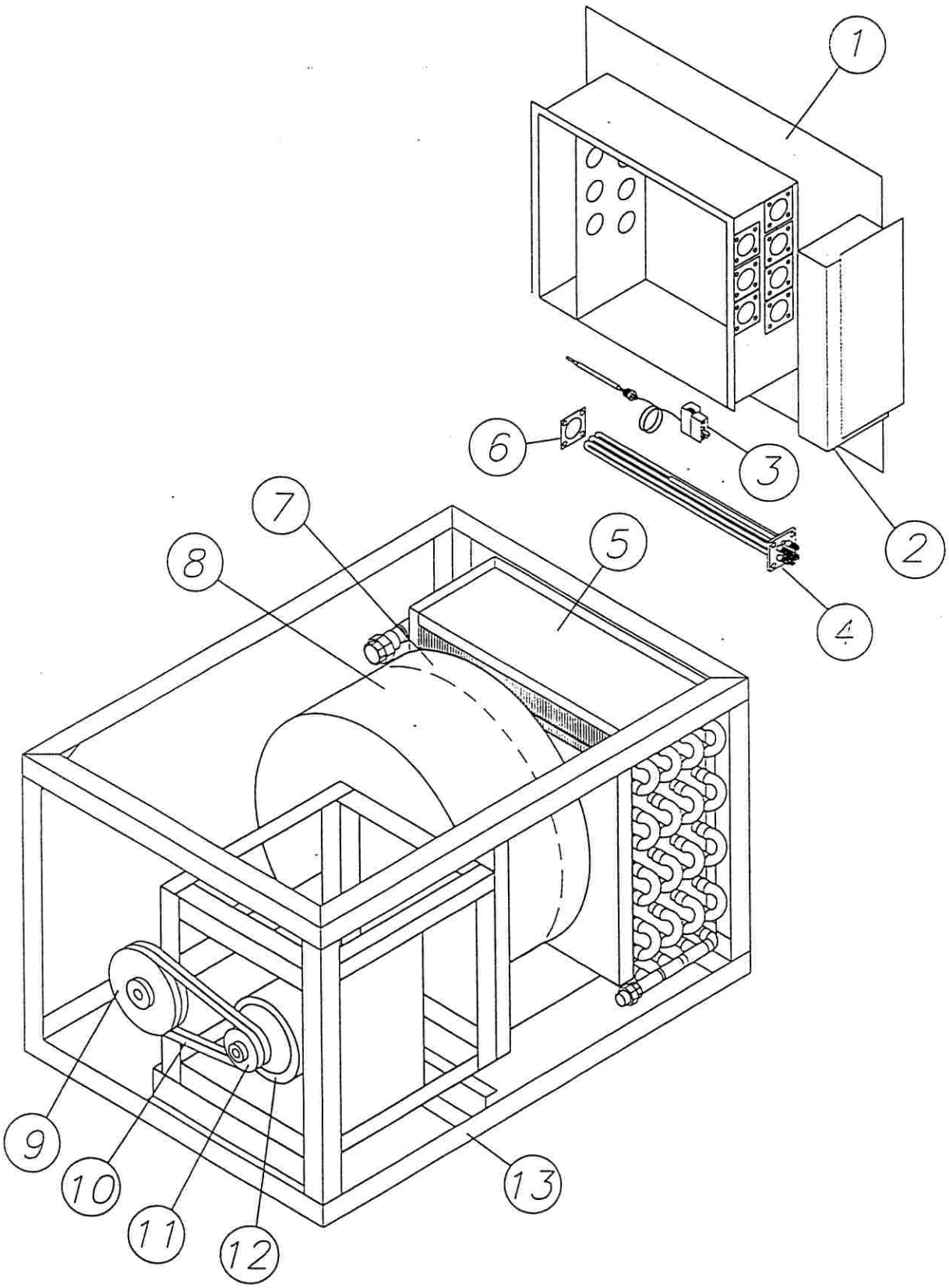

TANK
TANK
1
2
3

ELECTRIC HEAT COMPONENTS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	FLANGE		B10-1502
2	GASKET		A57-2387
3	HEATING ELEMENT	208 VOLT	P55-1131
	HEATING ELEMENT	220 VOLT	P55-1132
	HEATING ELEMENT	480 VOLT	P55-1133

* TO ORDER – SUPPLY MACHINE MODEL AND SERIAL NUMBER

BLOWER UNIT ASSEMBLY

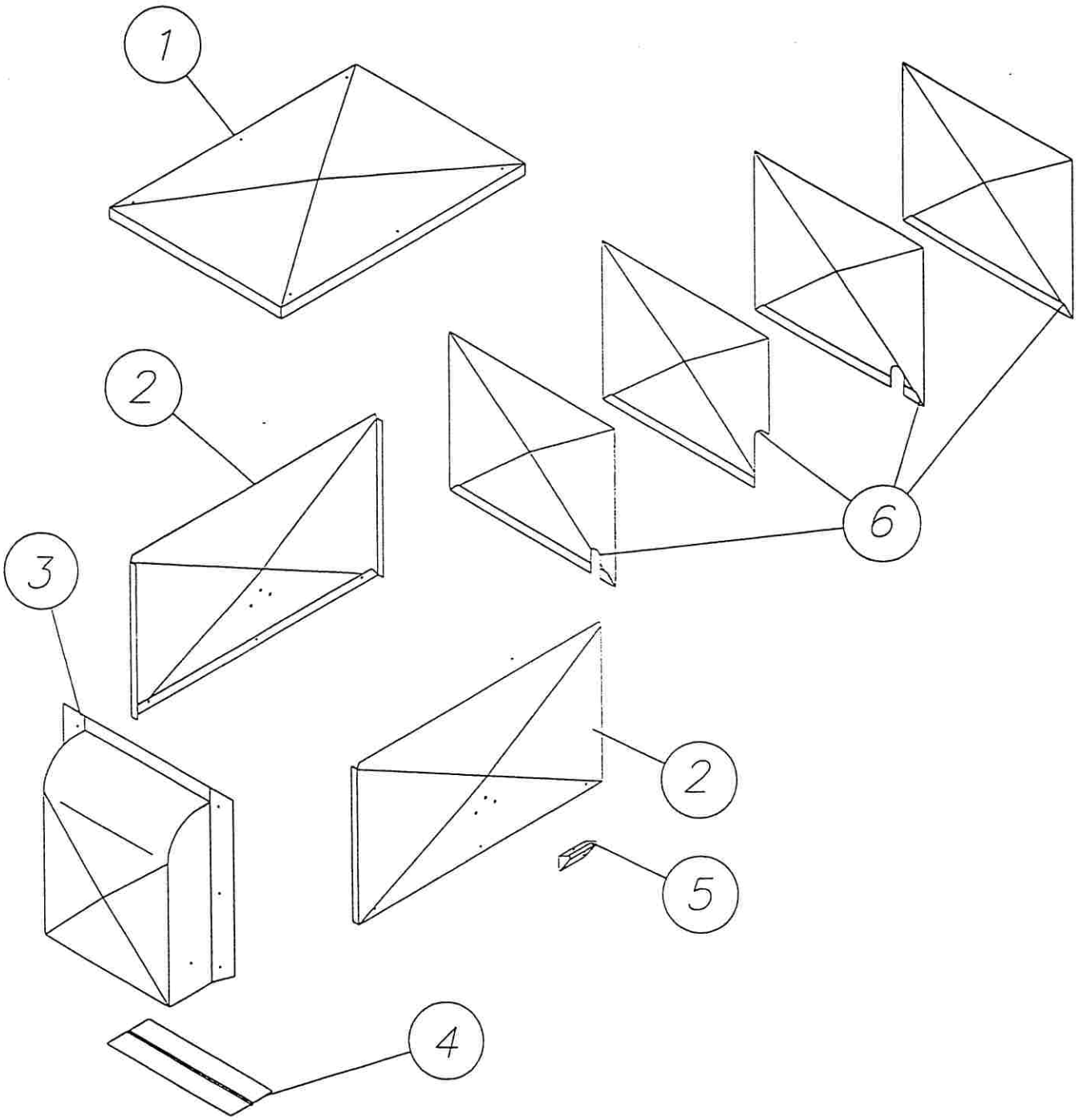


BLOWER UNIT ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	ELECTRIC HEAT HOUSING ASSEMBLY		B10-4984
2	HEATING ELEMENT COVER		*
3	HIGH LIMIT CUT-OFF		P65-1188
4	HEATING ELEMENT	208 VOLT	P55-1131
	HEATING ELEMENT	230 VOLT	P55-1132
	HEATING ELEMENT	480 VOLT	P55-1133
5	STEAM RADITOR ASSEMBLY	*	C10-3100
6	GASKET		A57-2387
7	BLOWER COLLAR		*
8	BLOWER UNIT		P41-1147
9	PULLEY, DRIVEN		P66-2276
10	BELTS	2 REQUIRED	P66-1238
11	PULLEY, MOTOR END	FOOTED	P66-2279
12	MOTOR 2 HP 208-230/460 VOLTS		P41-1719
13	FRAME	*	C10-3039

* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER

BLOWER UNIT PANELS



BLOWER UNIT PANELS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	TOP PANEL		B10-3045
2	SIDE PANEL		B10-3044
3	INTAKE PANEL		B10-3047
4	DAMPER		B10-3050
5	HANDLE STAINLESS STEEL		A10-3314
6	END PANEL SPECIFY TYPE		B10-3048

* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER

INTENTIONALLY
LEFT BLANK

PLUMBING COMPONENTS

BOOSTERS

SPIREC ASSEMBLY

THRUSH ASSEMBLY

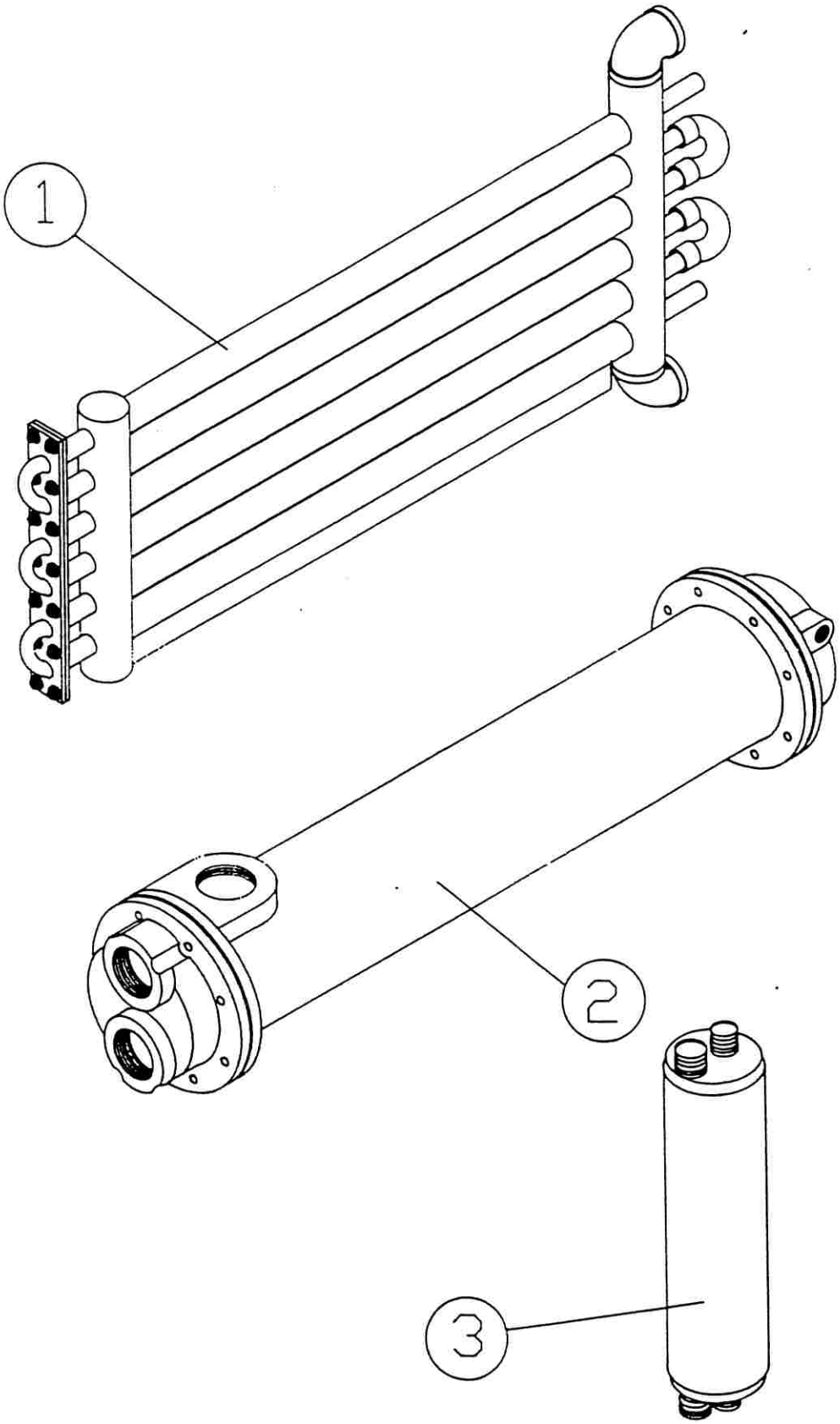
ELECTRIC ASSEMBLY

FINAL RINSE

COMMON PARTS

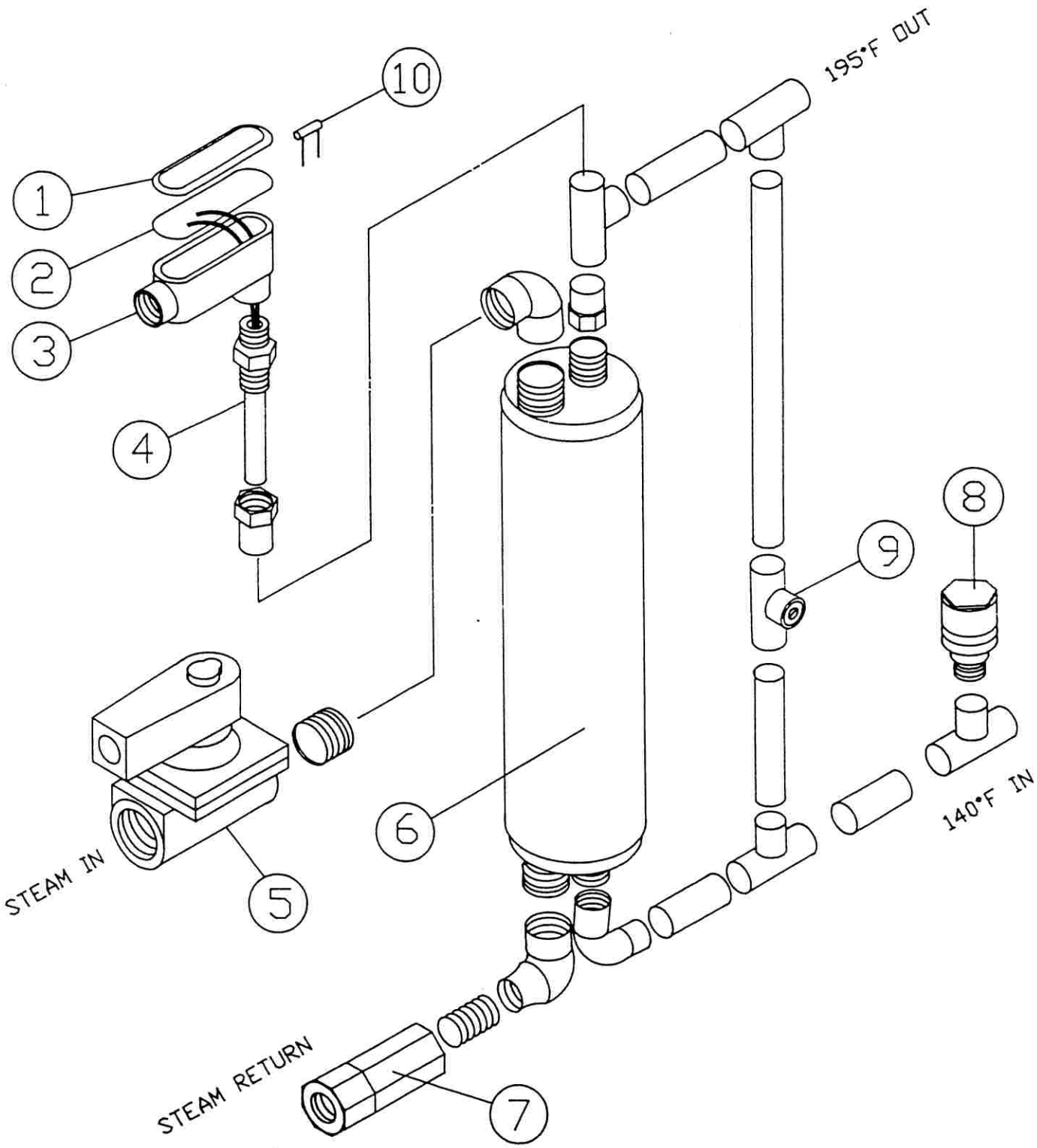
DRAIN AND LEVER

GAUGE ASSEMBLY


1
2
3

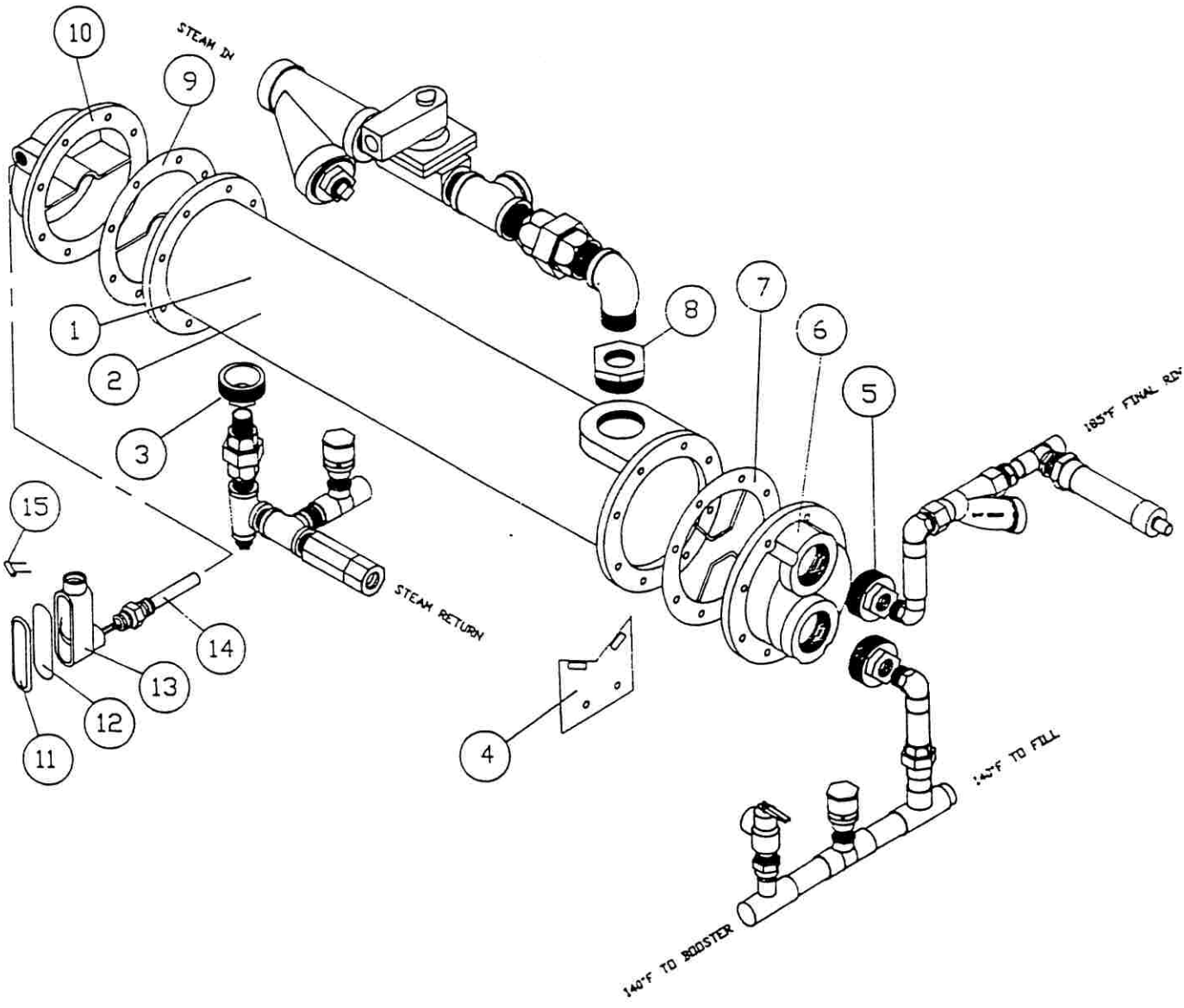
BOOSTER TYPES

ITEM	DESCRIPTION	REMARKS	PART NO.
1	DOUCETTE CTZ 3.2	STEAM	P64-2552
2	THRUSH MODEL # 320	STEAM	P64-1962
	THRUSH MODEL # 380	STEAM	P64-1963
3	SPIREC MODEL K-1	STEAM	P64-2810
	SPIREC MODEL K-2	STEAM	P64-2811


10
195°F OUT
1
2
3
4
8
9
6
STEAM IN
5
140°F IN
STEAM RETURN
7

TYPICAL SPIREC ASSEMBLY

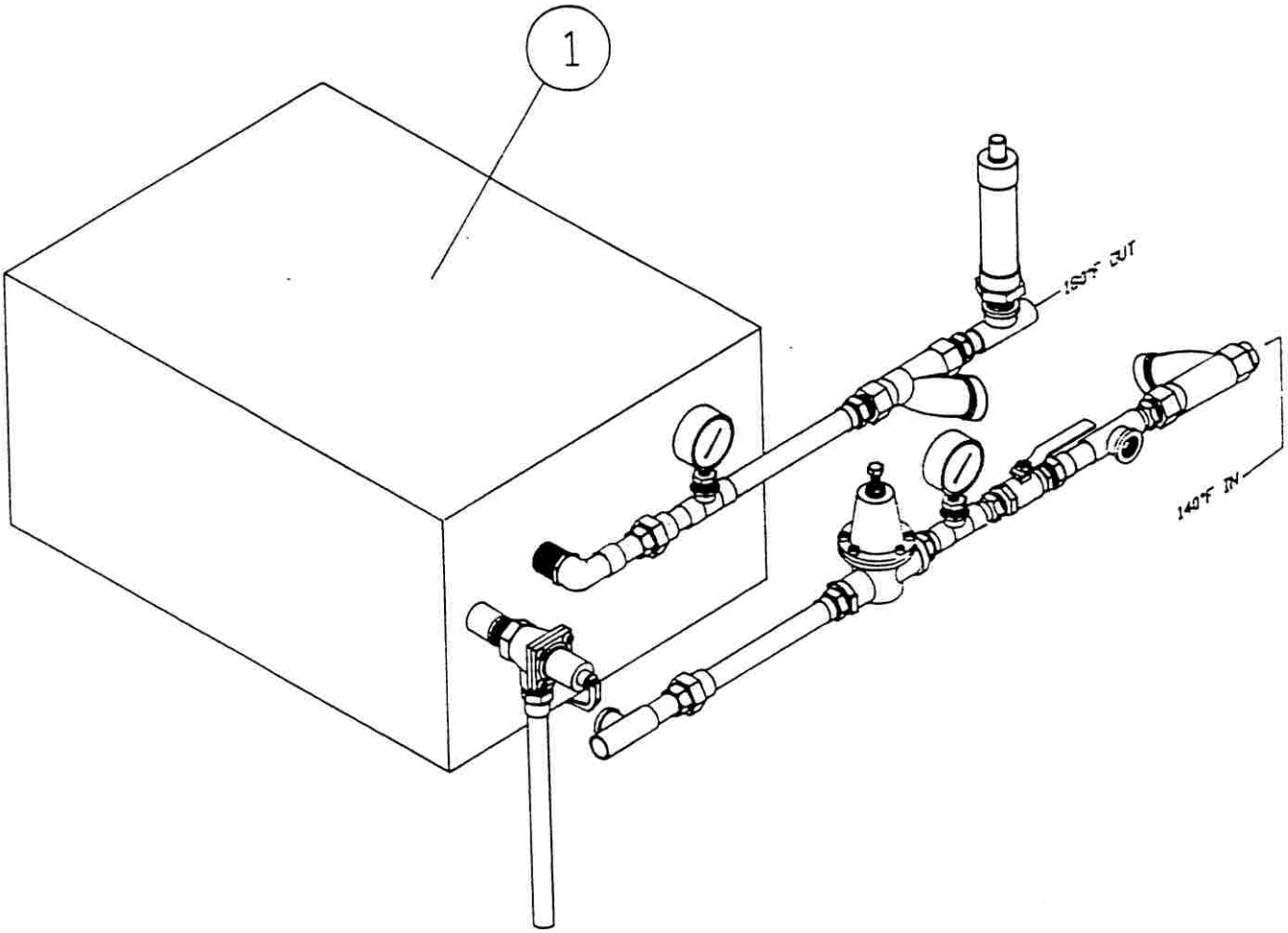
ITEM	DESCRIPTION	REMARKS	PART NO.
1	UNILET COVER		P52-2019
2	UNILET GASKET		P52-2018
3	1/2" INILET BODY		P52-2014
4	CONTACTS OPEN THERMOSTAT (N/C)		P65-1183
5	1" STEAM DIAPHRAM VALVE (ASCO)	*	P54-2840
6	K-2 STEAM BOOSTER		P64-2811
	K-1 STEAM BOOSTER		P64-2810
7	3/4" STEAM TRAP		P61-1168
	1/2" STEAM TRAP		P61-1169
8	1/2" VACUUM RELIEF VALVE		P62-1170
9	MIXING VALVE		P68-2831
10	.001 - 600V CAPACITOR		P49-2461
	* REPLACES P54-1078, P54-2819,		
	AND P54-1068		



PLUMBING PARTS NOT NOTED WILL BE
FOUND IN COMMON PLUMBING PARTS SECTION

THRUSH STEAM BOOSTER.

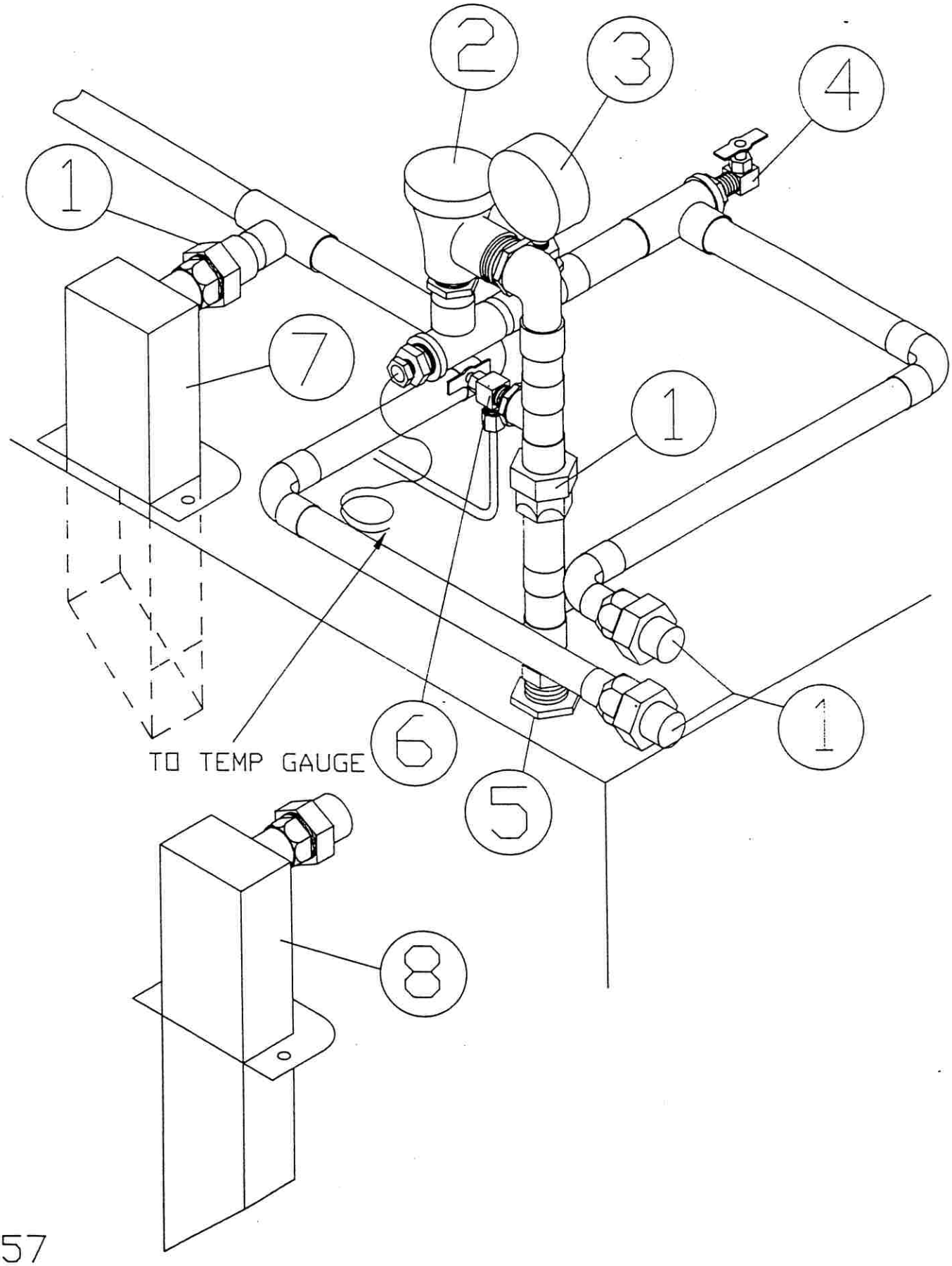
ITEM	DESCRIPTION	REMARKS	PART NO.
1	HEAT EXCHANGER MODEL # 320		P64-1962
2	HEAT EXCHANGER MODEL # 380		P64-1963
3	BUSHING, STEAM RETURN		P68-1608
4	MOUNTING BRACKET		A10-2332
5	BUSHING, 140° INLET AND 180° OUTLET		P68-1610
6	HEADER FLOW END		P64-1966
7	GASKET FLOW END		B57-2235
8	BUSHING, STEAM SUPPLY		P68-1607
9	GASKET RETURN END		B57-2236
10	HEADER RETURN END		C10-2237
11	UNILET COVER		P52-2019
12	UNILET GASKET		P52-2018
13	1/2" UNILET BODY		P52-2014
14	CONTACTS OPEN THERMOSTAT		P65-1183
15	.001 - 600V CAPACITOR		P49-2461
	ITEMS 1 & 2 INCLUDE ITEMS 6,7,9 & 10		



PLUMBING PARTS NOT NOTED WILL BE
FOUND IN COMMON PLUMBING PARTS SECTION

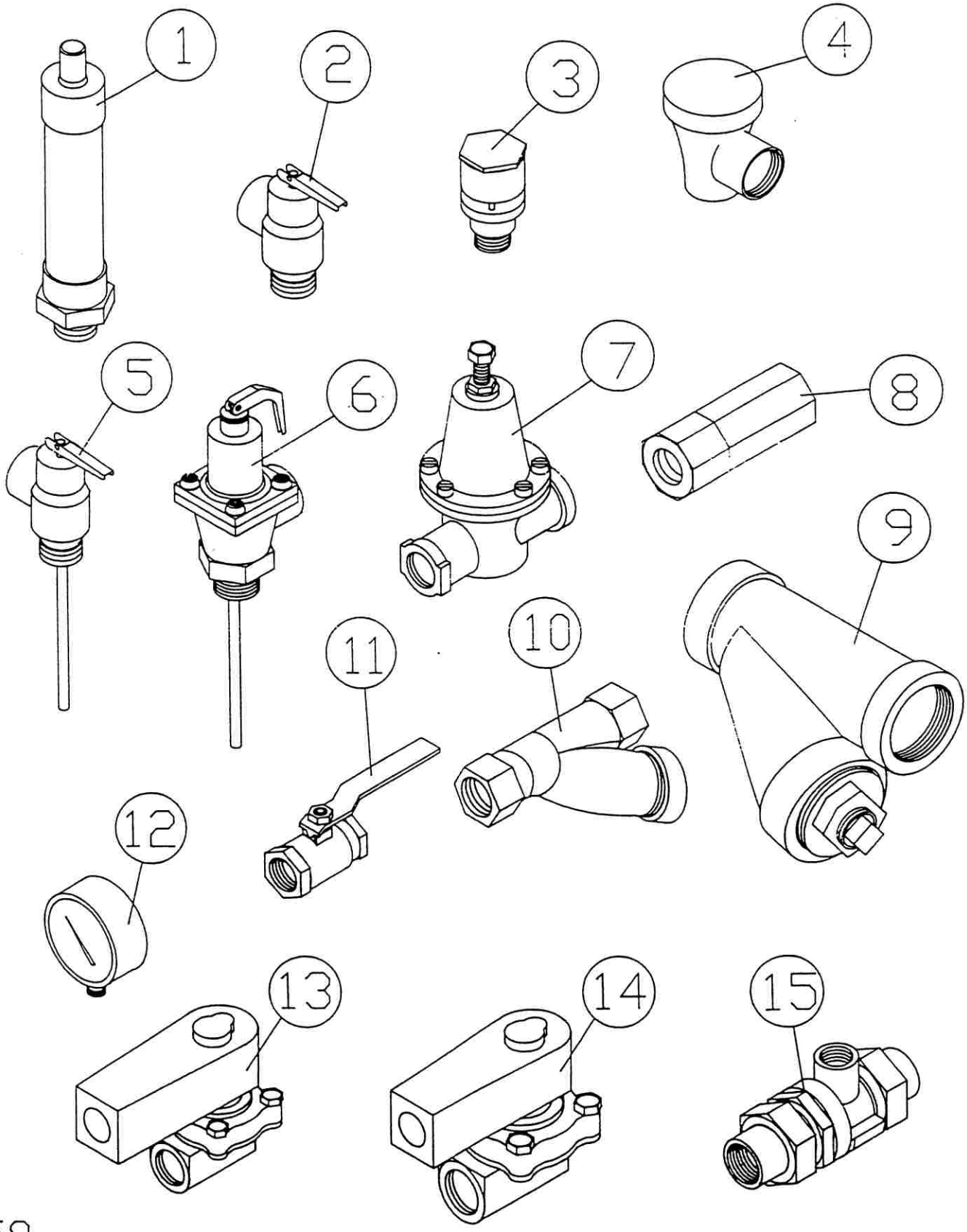
HATCO BOOSTERS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	HATCO C-45 208 VOLT 45 KW	ELECTRIC	P64-2798
	HATCO C-45 240 VOLT 45 KW	ELECTRIC	P64-2799
	HATCO C-45 480 VOLT 45 KW	ELECTRIC	P64-2800
	HATCO C-54 208 VOLT 54 KW	ELECTRIC	P64-2647
	HATCO C-54 240 VOLT 54 KW	ELECTRIC	P64-2648
	HATCO C-54 480 VOLT 54 KW	ELECTRIC	P64-2649


2
3
4
1
7
1
1
6
5
TO TEMP GAUGE
8

FINAL RINSE

ITEM	DESCRIPTION	REMARKS	PART NO.
1	UNION 3/4"		P68-1446
2	VACUUM BREAKER 3/4"		P62-1149
3	PRESSURE GAUGE		P65-1136
4	INSPECTION VALVE		P68-1511
5	LOCKNUT 3/4"		A10-1859
6	NEEDLE VALVE		P68-1510
7	WATER TOWER		B10-2693
8	WATER TOWER		B10-2678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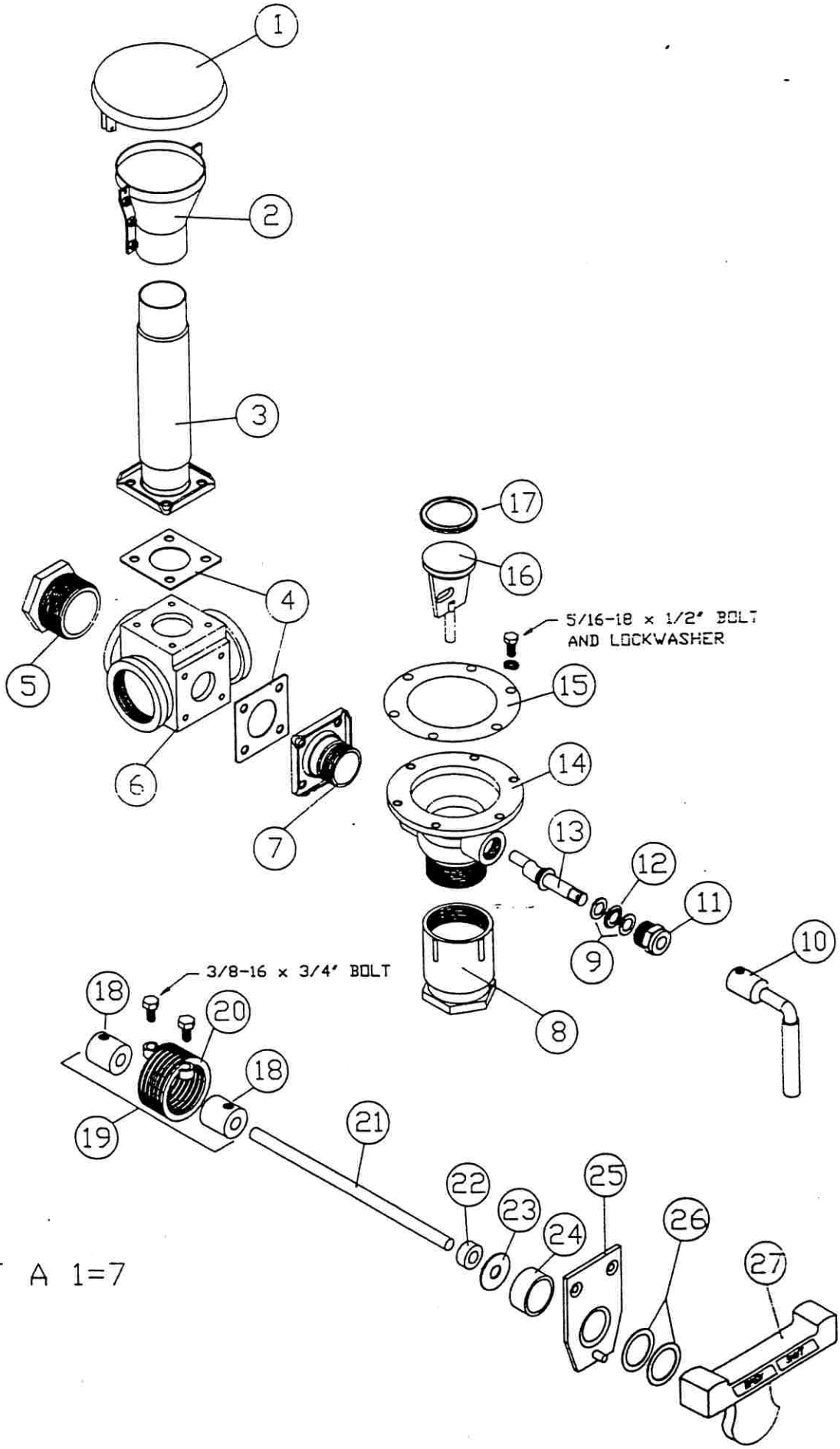
COMMON PARTS PLUMBING

ITEM	DESCRIPTION	REMARKS	PART NO.
1	SHOCK STOP 3/4"		P68-2250
2	PRESSURE RELIEF VALVE # 3L 3/4"		P62-1171
3	VACUUM RELIEF VALVE 1/2"		P62-1170
4	VACUUM BREAKER 3/4"	A	P62-1149
5	PRESSURE & TEMP RELIEF VALVE 100XL		P62-1174
6	HI PRESSURE & TEMP RELIEF VALVE		P62-1173
7	PRESSURE REDUCING VALVE 3/4"	B	P62-1166
8	STEAM TRAP 1/2"		P61-1169
	STEAM TRAP 3/4"		P61-1168
9	LINE STRAINER BLACK IRON 1 1/4"	C	P63-1159
	LINE STRAINER BLACK IRON 1"	D	P63-1158
	LINE STRAINER BLACK IRON 2"	E	P63-1160
10	LINE STRAINER BRASS 3/4"	F/G	P63-1115
11	BALL VALVE 1/2"		P68-1182
	BALL VALVE 3/4"		P68-2453
12	PRESSURE GAUGE 0-100 PSI		P65-1136
13	3/4" PISTON VALVE 120 VOLTS (ASCO)	H/I *	P54-2815
14	1" DIAPHRAM VALVE 120 VOLTS (ASCO) STEAM	J/K	P54-2840
15	BACKFLOW PREVENTER 9D		P62-1918
A	REPAIR KIT		P62-1164
B	REPAIR KIT		P62-1167
C	REPLACEMENT SCREEN		P63-1162
D	REPLACEMENT SCREEN		P63-1161
E	REPLACEMENT SCREEN		P63-1163
F	REPLACEMENT SCREEN		P63-1117
G	REPLACEMENT O RING		P57-1148
H	REPAIR KIT		P54-2821
I	REPLACEMENT COIL 120 VOLTS		P54-2808
J	REPAIR KIT		P54-2842
K	REPLACEMENT COIL 120 VOLTS		P54-2859
	ASCO STEAM REPLACEMENT COIL 120 VOLTS	3/4 OR 1 1/4"	P54-1074
	SKINNER STEAM REPLACEMENT COIL 120 VOLT	3/4 OR 1 1/4"	P54-1065
	ASCO 3/4" STEAM REPAIR KIT		P54-1077
	ASCO 1 1/4" STEAM REPAIR KIT		P54-1081
	SKINNER 3/4" REPAIR KIT		P54-1067
	SKINNER 1 1/4" REPAIR KIT STEAM		P54-1070
	* CAN BE USED STEAM OR HOT WATER		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17
16
5/16-18 x 1/2" BOLT
AND LOCKWASHER
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3/8-16 x 3/4" BOLT
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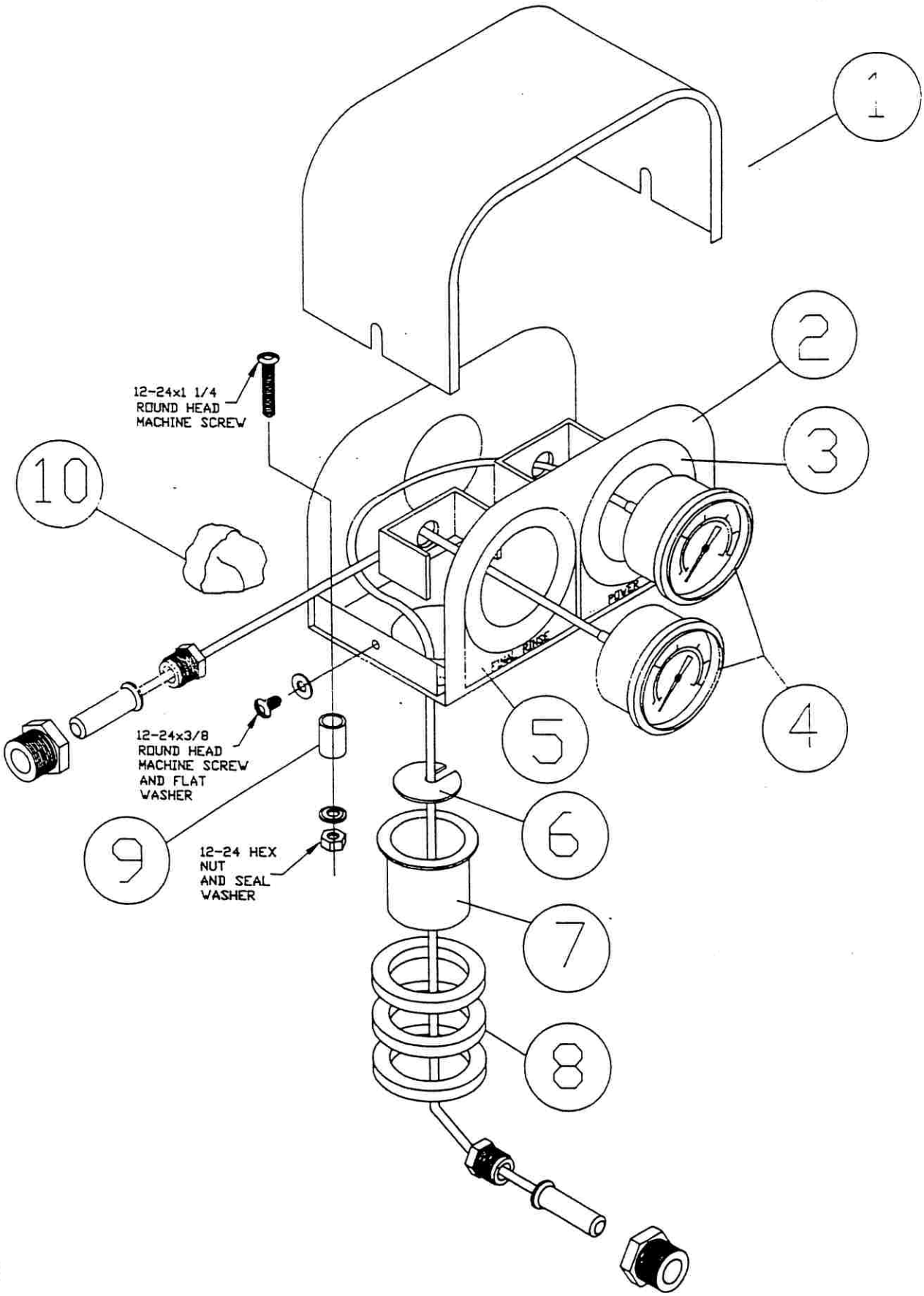
PLOT A 1=7

BELT MACHINE DRAIN AND OVERFLOW ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	FUNNEL COVER		A10-1874
2	OVERFLOW FUNNEL		A10-1873
3	OVERFLOW STAND PIPE TO FUNNEL		A10-1889
4	GASKET		A57-1114
5	PIPE PLUG 2"		P68-1698
6	DRAIN TEE		B10-1871
7	DRAIN TEE ADAPTOR ASSEMBLY		A10-3305
8	DRAIN VALVE 2" CAP ASSEMBLY		A10-2067
9	PACKING RING WASTE VALVE	2 REQUIRED	A10-1183
10	DRAIN HANDLE		A10-4732
11	WASTE VALVE GLAND NUT		A10-1182
12	VITON O RING		P57-2787
13	WASTE VALVE ECCENTRIC ARM		A10-1184
14	WASTE VALVE BODY ONLY		C10--1193
15	WASTE VALVE GASKET		A57-1194
16	VALVE AND STEM	INCLUDES 17	A10-1189
17	VITON O RING		P57-1057
18	CROSS SHAFT COLLAR	2 REQUIRED	A10-1199
19	FOOT LEVER SPRING ASSEMBLY		A10-3199
20	FOOT LEVER SPRING		P60-2008
21	FOOT LEVER SHAFT		A10-3157
22	1/2" SHAFT COLLAR		P66-2009
23	SPACER WASHER 16 GA. S.S.		A10-2449
24	FOOT LEVER SPACER BUSHING		A10-3219
25	S.S. FOOT LEVER BRACKET		A10-3149
26	TEFLON SPACER WASHERS	2 REQUIRED	A10-4955
27	FOOT LEVER CASTING		B44-2448
	WASTE VALVE COMPLETE INCLUDES 9,11,12,13,14,16,&17		A10-1251
	FOOT LEVER ASSEMBLY INCLUDES 18 THRU 27		B10-3198
	OVERFLOW ASSEMBLY INCLUDES 1,2,3,4,6,&7		A10-1875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10
12-24x1 1/4
ROUND HEAD
MACHINE SCREW
12-24x3/8
ROUND HEAD
MACHINE SCREW
AND FLAT
WASHER
12-24 HEX
NUT
AND SEAL
WASHER
POWER
FINAL RINSE

TWIN TEMERATURE GAUGES HOUSING ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	GAUGE HOUSING COVER		B10-2148
2	GAUGE HOUSING		B10-2149
3	LABEL POWER WASH		A69-1456
4	TEMPERATURE GAUGE		P65-1135
5	LABEL FINAL RINSE		A69-1460
6	SEALING CUP WASHER		A10-2155
7	GAUGE SEALING CUP		A10-2150
8	NEOPREME RINGS		A10-2156
9	STAND-OFF LEGS		A10-2070
10	SEALING PUTTY (DUM DUM)		P57-1878

ELECTRICAL SYSTEMS

DOOR ASSEMBLY

CONTROL BOX

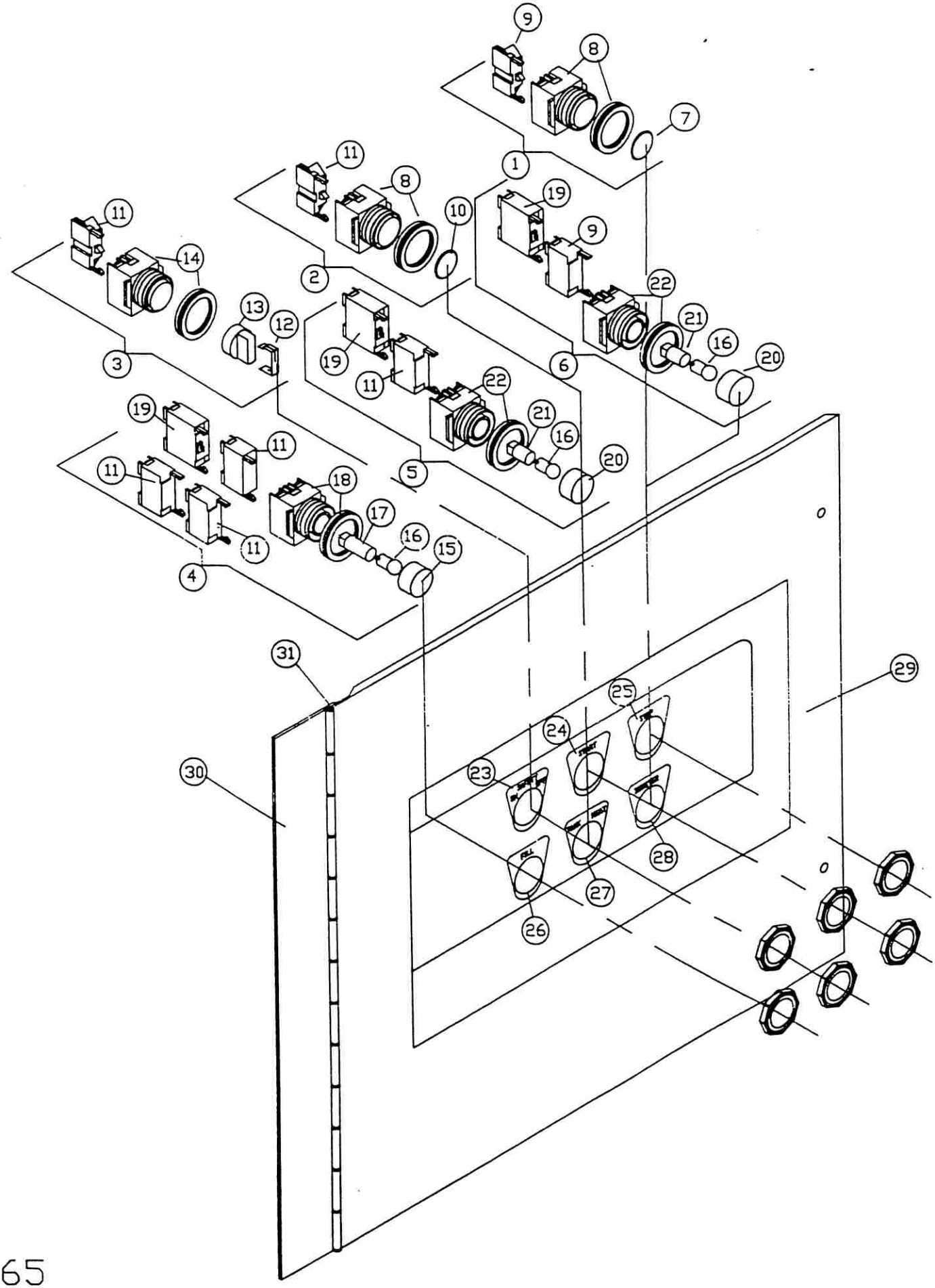
BREAKER BOX

START / STOP

D.C. CONTROLLER

FLOAT SWITCH

THERMOSTATS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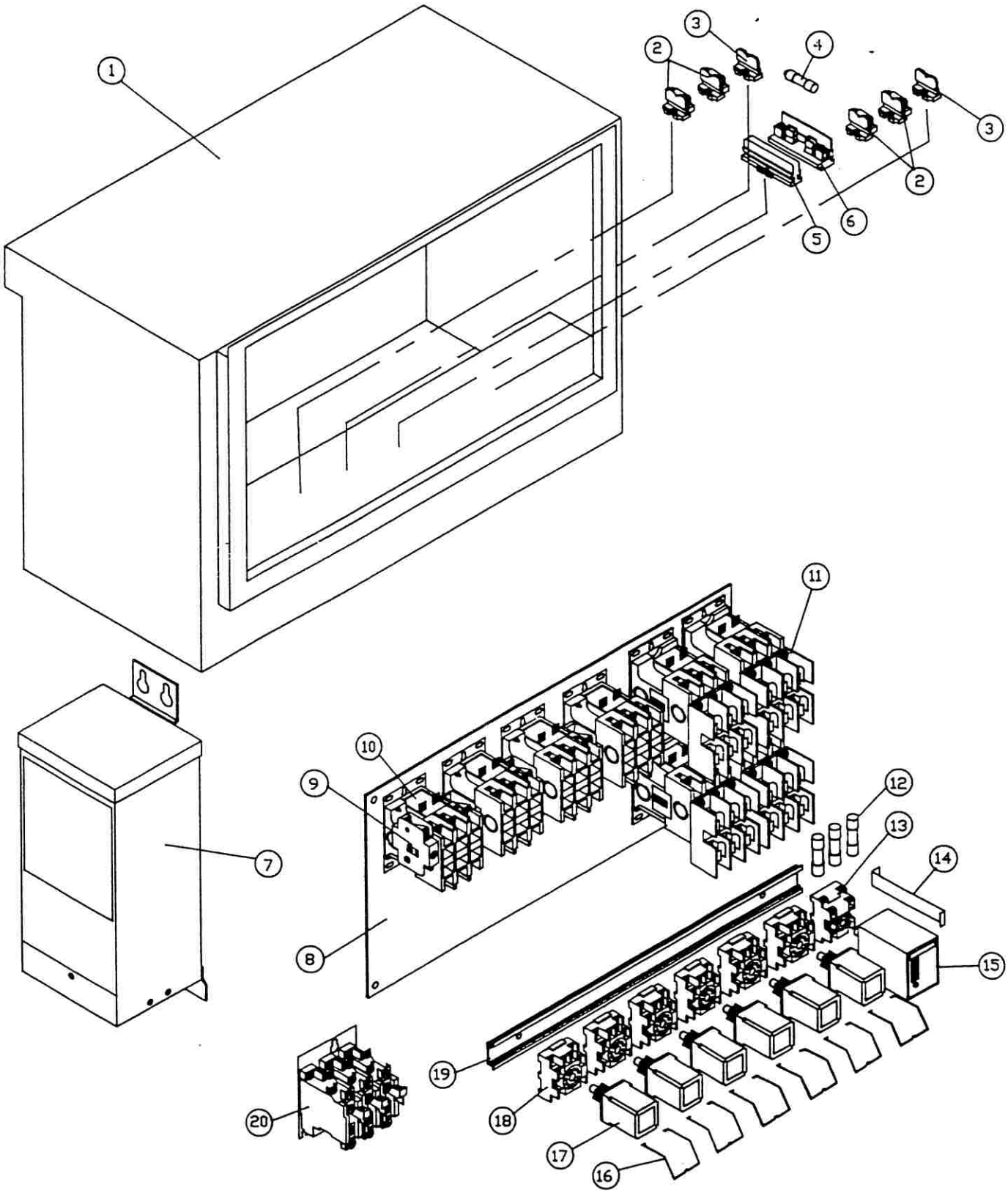
CONTROL BOX DOOR ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	STOP SWITCH ASSEMBLY		A10-1937
2	START SWITCH ASSEMBLY		A10-1936
3	SAFETY SWITCH ASSEMBLY		A10-1930
4	FILL SWITCH ASSEMBLY		A10-3734
5	TANK HEAT SWITCH ASSEMBLY		A10-1934
6	BOOSTER SWITCH ASSEMBLY		A10-4876
7	BUTTON, RED		P49-1315
8	PUSH BUTTON SWITCH		P49-1305
9	CONTACT BLOCK N/C		P49-1304
10	BUTTON, BLACK		P49-1314
11	CONTACT BLOCK N/O		P49-1303
12	COLOR INSERT (WHITE)		P49-1317
13	CONTROL KNOB		P49-1316
14	SELECTOR SWITCH 2 POSITION		P49-1306
15	LENS, GREEN		P49-1312
16	LAMP		P49-1322
17	LAMP HOLDER, LONG		P49-1318
18	PUSH BUTTON SWITCH ILLUMINATED		P49-1310
19	TRANSFORMER 110 VOLT		P49-1301
20	LENS, RED		P49-1311
21	LAMP HOLDER, SHORT		P49-1319
22	PUSH BUTTON SWITCH MAINTAINED ILLUMINATED		P49-1308
23	LABEL, SAFETY ON OFF		A69-4148
24	LABEL, START		A69-1429
25	LABEL, STOP		A69-4138
26	LABEL, FILL		A69-4139
27	LABEL, TANK HEAT		A69-4315
28	LABEL, BOOSTER		A69-4141
29	CONTROL PANEL DOOR		B10-3109
30	PANEL HINGE PLATE		A10-3078
31	PIANO HINGE (SPECIFY LENGTH)		P60-2522
	NOTE: WHEN ORDERING ALWAYS SUPPLY		
	MACHINE MODEL AND SERIAL NUMBER		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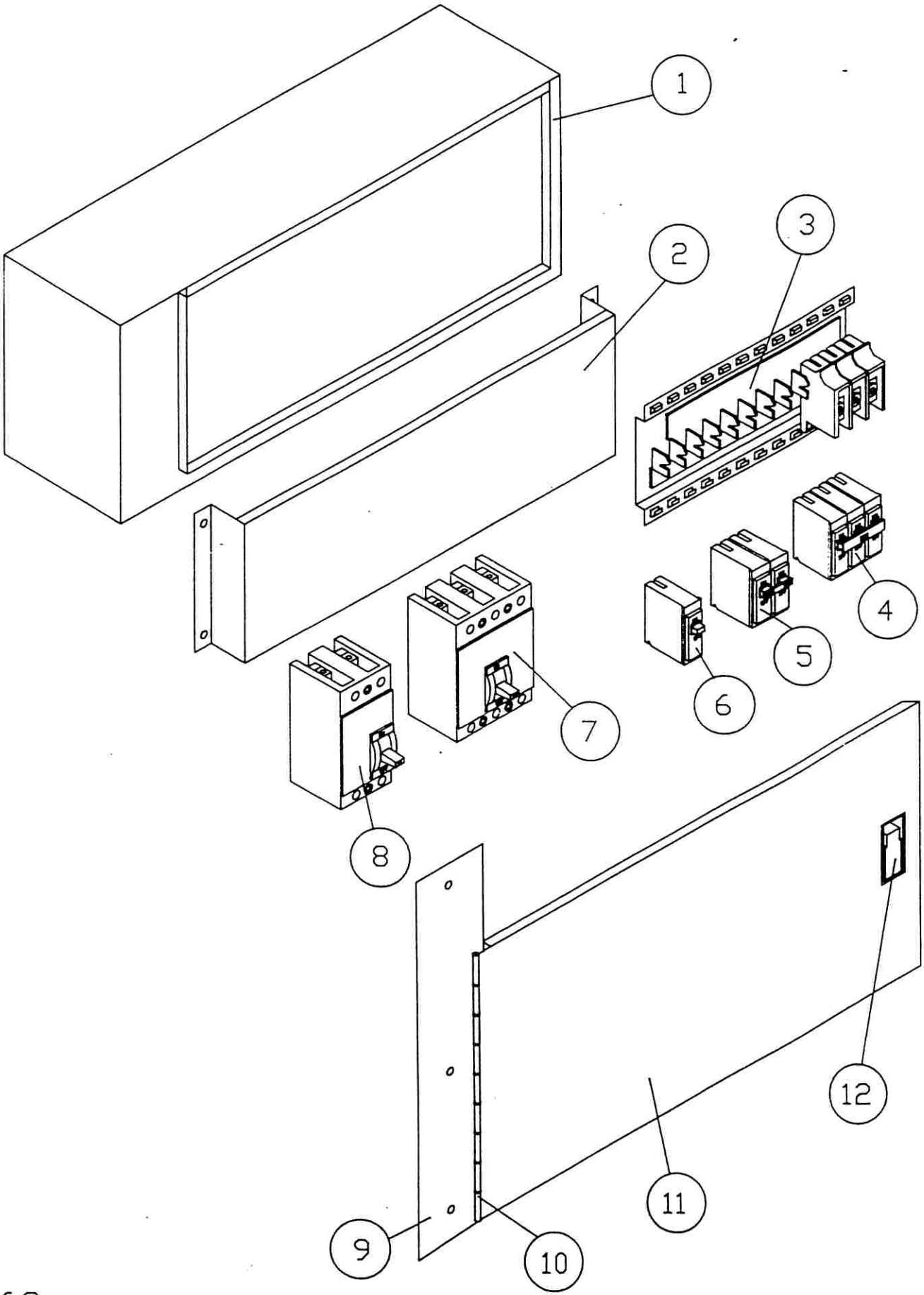
TYPICAL CONTROL BOX

ITEM	DESCRIPTION	REMARKS	PART NO.
1	CONTROL BOX		C10-3084
2	TERMINAL STRIP SECTION		P52-1099
3	TERMINAL STRIP END SECTION		P52-1100
4	FUSE 10 AMPS KTK-R TYPE		P52-1855
	FUSE 20 AMPS KTK-R TYPE		P52-1856
5	FUSE BLOCK END SECTION		P52-1871
6	FUSE BLOCK TERMINAL SECTION		P52-1870
7	TRANSFORMER STEP DOWN 1 KVA		P53-1733
	TRANSFORMER STEP DOWN 2 KVA		P53-1737
	TRANSFORMER STEP DOWN 3 KVA		P53-1734
8	CONTACTOR MOUNTING PLATE		A10-3090
9	AUXILIARY CONTACTOR 1 N/O EB1		P47-1838
	AUXILIARY CONTACTOR 2 N/O EB3		P47-1840
10	CONTACTOR 3 POLE 30 AMPS		P47-1801
	CONTACTOR 3 POLE 40 AMPS		P47-1805
11	CONTACTOR FUSED 3 POLE 40 AMPS		P47-1821
12	FUSES 35 AMP SC TYPE		P52-1748
13	TIMER SOCKET 8 PIN		P47-1741
14	TIMER HOLD DOWN CLIP		A10-2104
15	TIMER ADJUSTABLE 512 SECONDS		P47-1744
16	RELAY HOLD DOWN CLIP		P47-2466
17	RELAY 3 POLE 115V		P47-2464
18	RELAY SOCKET 11 PIN		P47-2465
19	DIN RAIL (SPECIFY LENGTH)		P47-1787
20	OVERLOAD RELAY	*	P47-1830
	* USED WITH BLOWER MOTOR		
	NOTE: WHEN ORDERING ALWAYS SUPPLY		
	MACHINE MODEL AND SERIAL NUMBER		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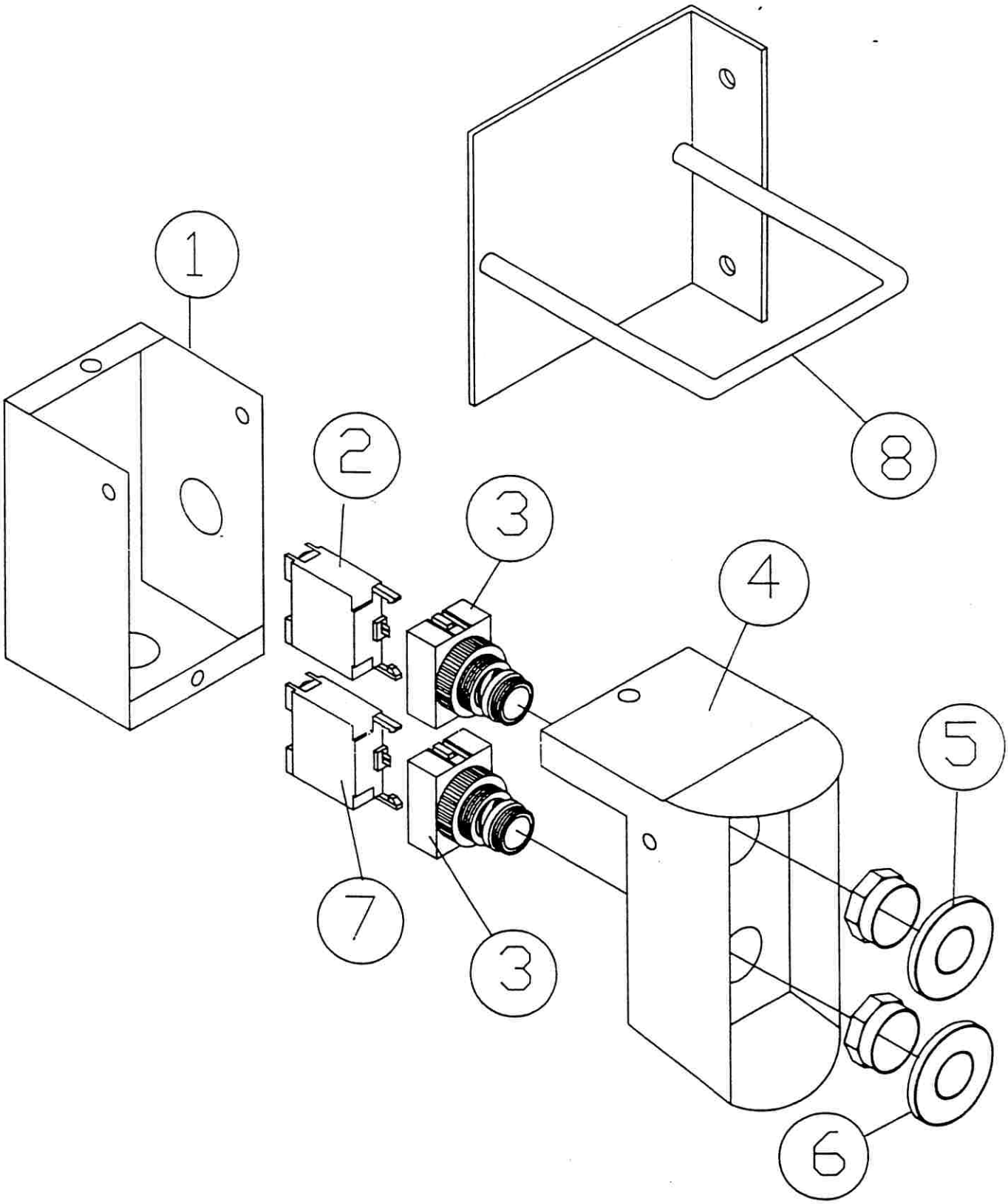
12

BREAKER BOX ASSEMBLY

ITEM	DESCRIPTION	REMARKS	PART NO.
1	BREAKER BOX	*	C10-3063
2	SADDLE, 480 VOLTS		*
3	BASE PLATE, 208/230 VOLT		P48-1764
4	BREAKER, 3 POLE 15 AMPS 220 VOLTS		P48-1778
	BREAKER, 3 POLE 20 AMPS 220 VOLTS		P48-1779
	BREAKER, 3 POLE 30 AMPS 220 VOLTS		P48-1780
	BREAKER, 3 POLE 40 AMPS 220 VOLTS		P48-1781
	BREAKER, 3 POLE 50 AMPS 220 VOLTS		P48-1782
	BREAKER, 3 POLE 60 AMPS 220 VOLTS		P48-1783
	BREAKER, 3 POLE 70 AMPS 220 VOLTS		P48-1784
	BREAKER, 3 POLE 90 AMPS 220 VOLTS		P48-1785
	BREAKER, 3 POLE 100 AMPS 220 VOLTS		P48-1786
5	BREAKER, 2 POLE 15 AMPS 115/220V		P48-1771
	BREAKER, 2 POLE 20 AMPS 115/220V		P48-1772
	BREAKER, 2 POLE 30 AMPS 115/220V		P48-1773
	BREAKER, 2 POLE 40 AMPS 115/220V		P48-1774
	BREAKER, 2 POLE 60 AMPS 115/220V		P48-1775
	BREAKER, 2 POLE 70 AMPS 115/220V		P48-1776
	BREAKER, 2 POLE 90 AMPS 115/220V		P48-1777
6	BREAKER, 1 POLE 15 AMPS 115/220V		P48-1770
7	BREAKER, 3 POLE 15 AMPS 480 VOLT		P48-1792
	BREAKER, 3 POLE 20 AMPS 480 VOLT		P48-1793
	BREAKER, 3 POLE 30 AMPS 480 VOLT		P48-1794
	BREAKER, 3 POLE 40 AMPS 480 VOLT		P48-1795
	BREAKER, 3 POLE 50 AMPS 480 VOLT		P48-1796
	BREAKER, 3 POLE 60 AMPS 480 VOLT		P48-1797
	BREAKER, 3 POLE 70 AMPS 480 VOLT		P48-1798
	BREAKER, 3 POLE 90 AMPS 480 VOLT		P48-1799
	BREAKER, 3 POLE 100 AMPS 480 VOLT		P48-1800
8	BREAKER, 2 POLE 15 AMPS 480 VOLT		P48-1791
9	PANEL HINGE PLATE	*	A10-4884
10	PIANO HINGE (SPECIFY LENGTH)		P60-2522
11	BREAKER BOX DOOR	*	B10-2982
12	DOOR LATCH		P69-1205
	DOOR COMPLETE (ITEMS, 9,10,11,&12)	*	B10-4883

* TO ORDER SUPPLY MACHINE MODEL AND SERIAL NUMBER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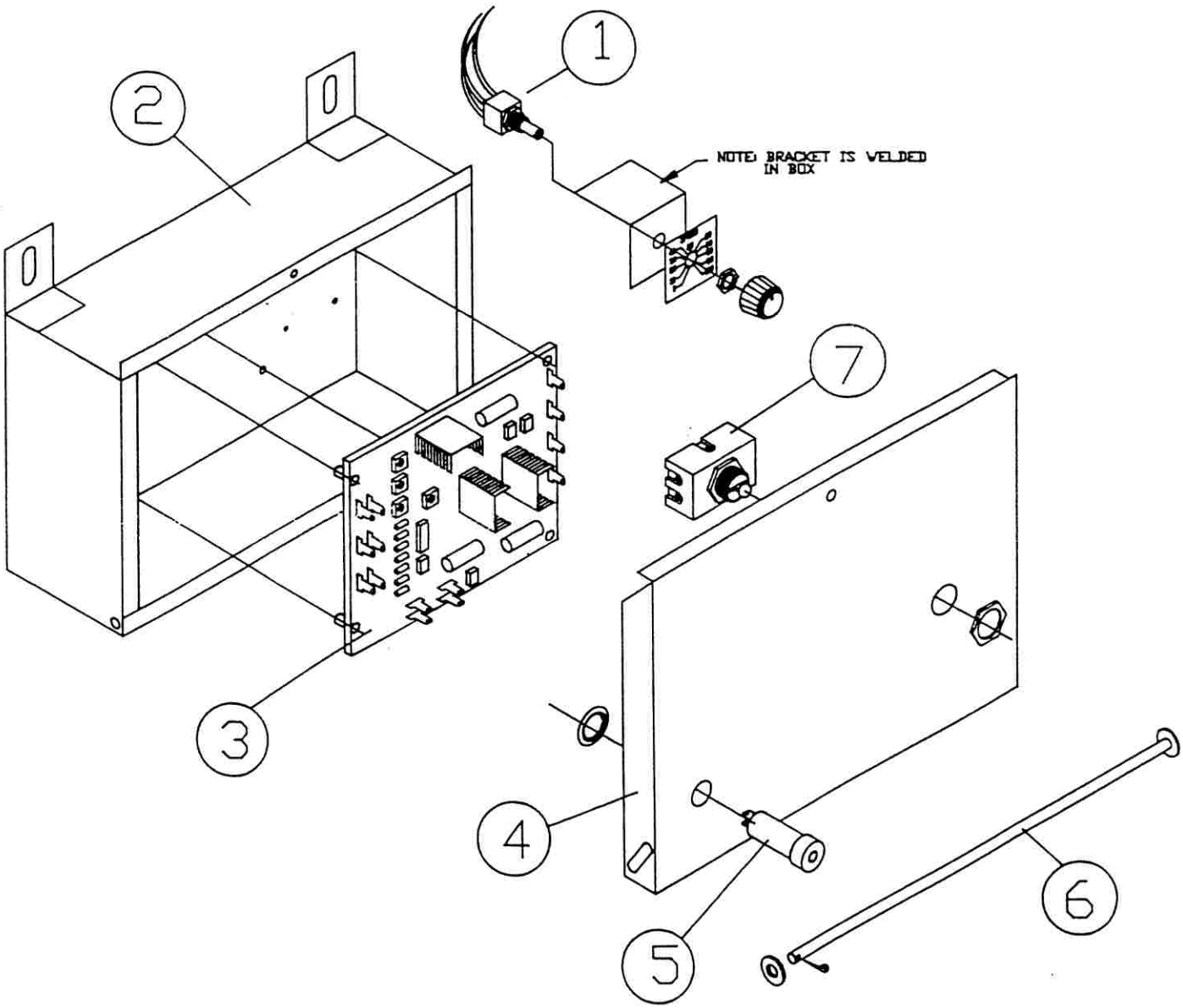
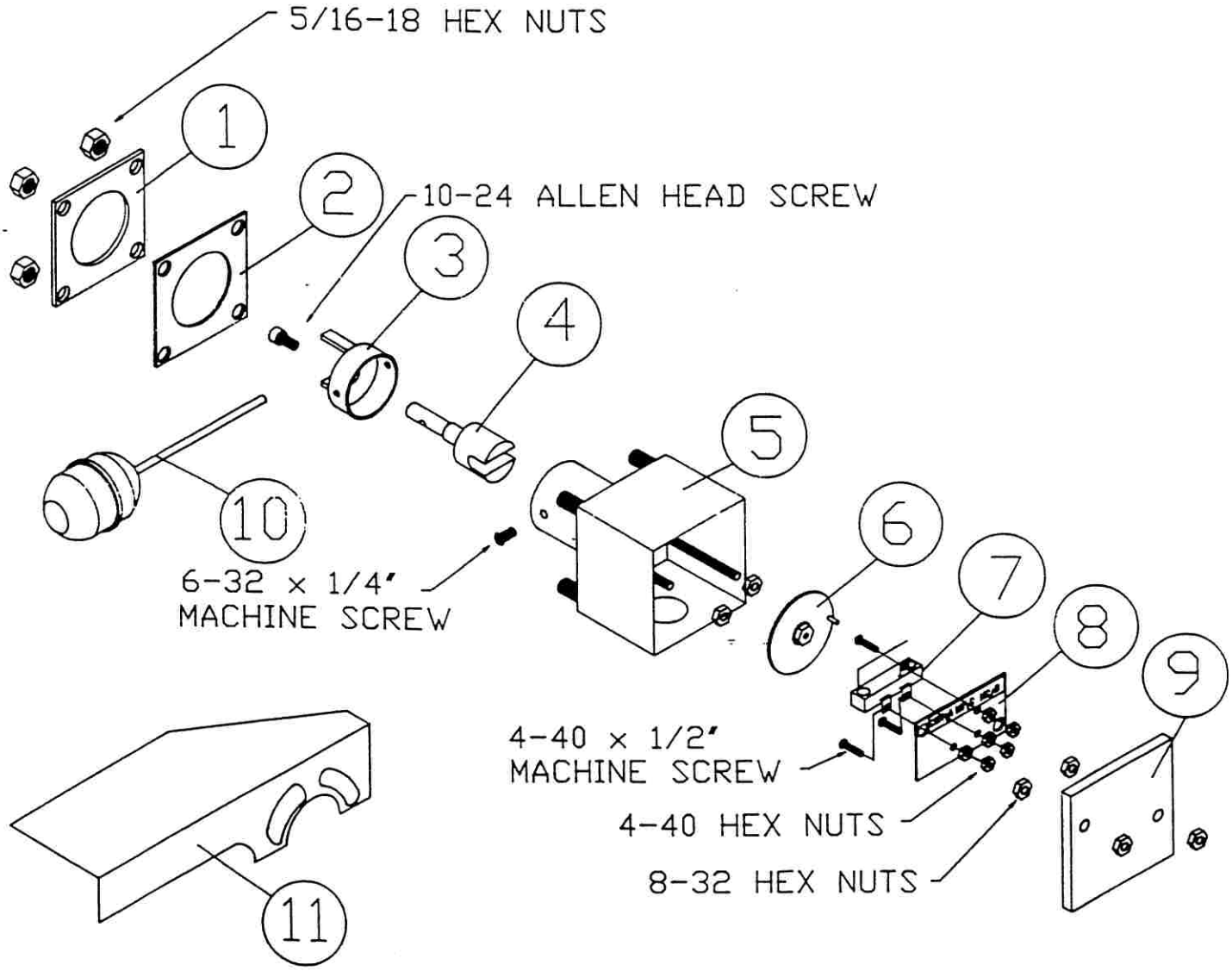
START / STOP SWITCH

ITEM	DESCRIPTION	REMARKS	PART NO.
1	HOUSING		A10-2047
2	CONTACT BLOCK N/O		P49-1303
3	PUSH BUTTON SWITCH		P49-1726
4	COVER		A10-4946
5	MUSHROOM BUTTON BLACK		P49-1727
6	MUSHROOM BUTTON, RED		P49-1728
7	CONTACT BLOCK N/C		P49-1304
8	MOUNTING BRACKET		A10-2057
	START SWITCH COMPLETE (ITEMS 2,3&5)		A10-2051
	STOP SWITCH COMPLETE (ITEMS 3,6&7)		A10-2052
	COMPLETE ASSEMBLY LESS ITEM #8		B10-2053
	COMPLETE ASSEMBLY OLD STYLE	ITEMS 1-8	B10-2300


1
2
NOTE: BRACKET IS WELDED IN BOX
3
4
5
6
7

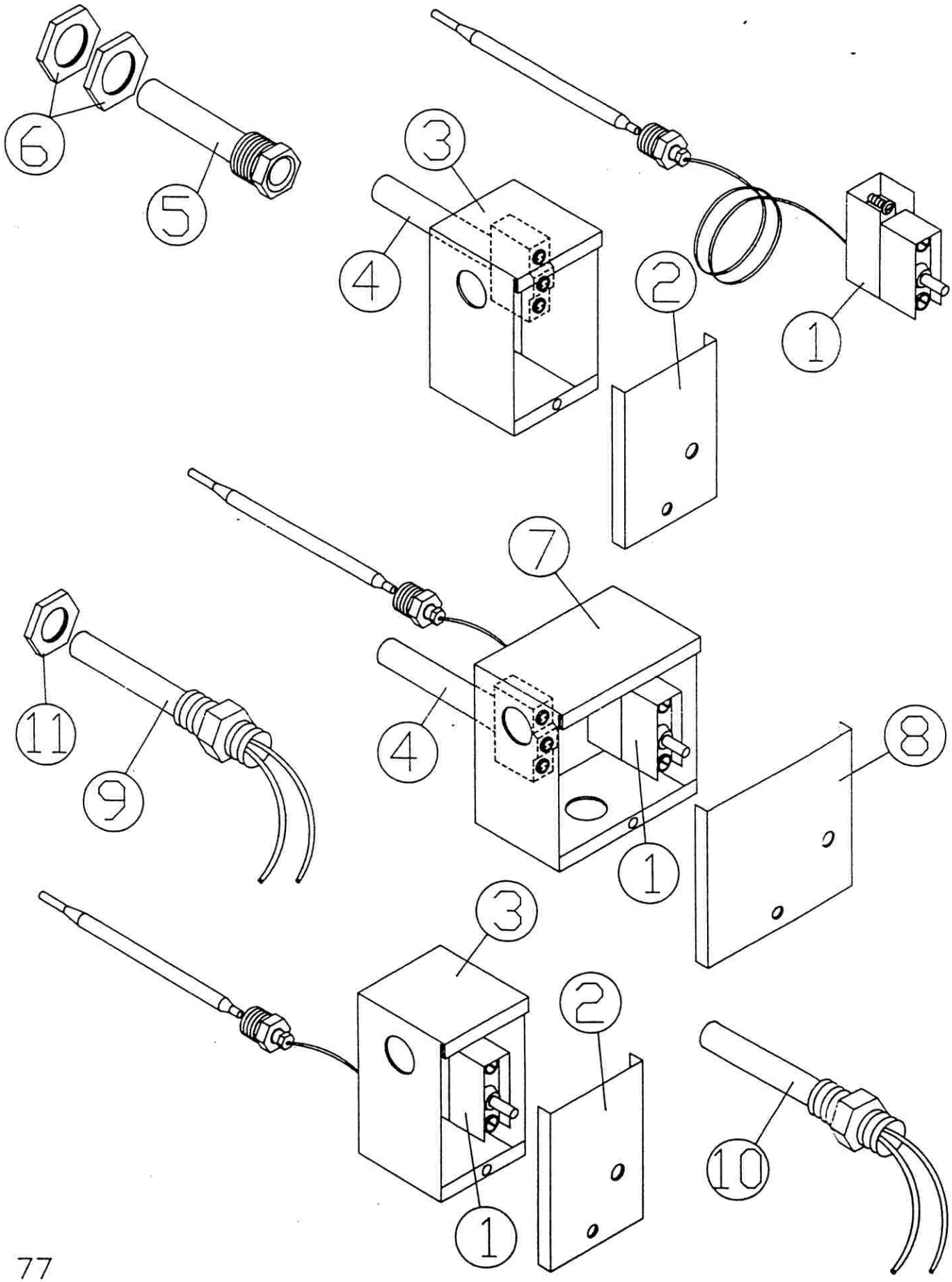
D.C. DRIVE CONTROLLER

ITEM	DESCRIPTION	REMARKS	PART NO.
1	VARIABLE SPEED POTENTIOMETER		P41-1264
2	CONTROL BOX		B10-1798
3	P.C. BOARD 1/2 HP		P42-1248
	P.C. BOARD 1 HP		P42-1247
4	CONTROL BOX COVER		B10-4950
5	CIRCUIT BREAKER 1/2 HP		P48-1265
	CIRCUIT BREAKER 1 HP		P48-1266
6	COVER HINGE		A10-4889
7	FORWARD / OFF / REVERSE SWITCH		P49-1263
	COMPLETE 1/2 HP ASSEMBLY		B10-3441
	COMPLETE 1 HP ASSEMBLY		B10-3442


5/16-18 HEX NUTS
1
2
10-24 ALLEN HEAD SCREW
3
4
5
10
6-32 x 1/4"
MACHINE SCREW
6
7
8
9
4-40 x 1/2"
MACHINE SCREW
4-40 HEX NUTS
8-32 HEX NUTS
11

FLOAT SWITCH ASSEMBLY.

ITEM	DESCRIPTION	REMARKS	PART NO.
1	PRESSURE PLATE		A10-1418
2	GASKET		A57-1419
3	MAGNET COVER		A10-1431
4	SHAFT WITH HORSESHOE MAGNET		A10-4485
5	HOUSING ASSEMBLY		B10-1423
6	ROTOR SWITCH DISC WITH MAGNET		A10-4484
7	MICRO SWITCH		P49-1113
8	MICRO SWITCH MOUNTING PLATE		A10-1434
9	COVER		A10-1424
10	FLOAT		A10-1432
11	FLOAT SWITCH GUARD		B10-2059
	MICRO SWITCH ASSEMBLY ITEMS 7&8		A10-2054
	FLOAT SWITCH COMPLETE		C10-1005


6
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10

THERMOSTATS

ITEM	DESCRIPTION	REMARKS	PART NO.
1	HIGH LIMIT CUT-OFF		P65-1188
2	COVER PLATE		A10-4585
3	THERMOSTAT BOX		A10-4584
4	THERMOSTAT (FENWAL)		P65-1185
5	THERMOSTAT WELL		A10-1858
6	3/4" LOCKNUTS		A10-1859
7	DUAL THERMOSTAT BOX		A10-4587
8	DUAL BOX COVER		A10-4588
9	CONTACTS CLOSE ON TEMP RISE		P65-1184
10	CONTACTS OPEN ON TEMP RISE		P65-1183
11	1/2" LOCKNUT		A10-1446
	THERMOSTAT ASSEMBLY ITEMS 2,3,&4	*	A10-3358
	HIGH LIMIT ASSEMBLY ITEMS 1,2,&3		B10-4583
	DUAL ASSEMBLY ITEMS 1,4,7,&8		B10-4586
	* REPLACES ROUND STYLE ASSEMBLY		

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(877) 762-3200