TECHNICAL MANUAL

Installation, Operation and Maintenance Instructions

GALLEYMASTER

Rack Conveyor Dishwasher

Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996

800-344-4802
Fax: 215-624-6966
www.insingermachine.com

GalleyMaster Series

NSN	MODEL	APL	HEAT
7320-01-537-7467	GalleyMaster 60-LH-S	43A070069	STEAM
7320-01-537-7471	GalleyMaster 60-RH-S	43A070070	
7320-01-537-7473	GalleyMaster 85-LH-S	43A070071	
7320-01-537-7476	GalleyMaster 85-RH-S	43A070072	
7320-01-537-7477	GalleyMaster 135-LH-S	43A070068	
7320-01-537-7507	GalleyMaster 135-LH-S (W/UL)	43A070067	
7320-01-537-7478	GalleyMaster 135-RH-S	43A070066	
7320-01-537-7502	GalleyMaster 135-RH-S (W/UL)	43A070065	
7320-01-537-7481	GalleyMaster 185-LH-S	43A070064	
7320-01-537-7515	GalleyMaster 185-LH-S (W/UL)	43A070063	
7320-01-537-7485	GalleyMaster 185-RH-S	43A070062	
7320-01-537-7518	GalleyMaster 185-RH-S (W/UL)	43A070061	
7320-01-537-7488	GalleyMaster 250-LH-S	43A070060	
7320-01-537-7519	GalleyMaster 250-LH-S (W/UL)	43A070059	
7320-01-537-7491	GalleyMaster 250-RH-S	43A070058	
7320-01-537-7522	GalleyMaster 250-RH-S (W/UL)	43A070057	
7320-01-537-7561	GalleyMaster 60-LH-E	43A070056	ELECTRIC
7320-01-537-7896	GalleyMaster 60-RH-E	43A070055	
7320-01-537-7899	GalleyMaster 85-LH-E	43A070054	
7320-01-537-7900	GalleyMaster 85-RH-E	43A070053	
7320-01-537-7907	GalleyMaster 135-LH-E	43A070052	
7320-01-537-7917	GalleyMaster 135-LH-E (W/UL)	43A070051	
7320-01-537-7909	GalleyMaster 135-RH-E	43A070050	
7320-01-537-7922	GalleyMaster 135-RH-E (W/UL)	43A070049	
7320-01-537-7912	GalleyMaster 185-LH-E	43A070048	
7320-01-537-7926	GalleyMaster 185-LH-E (W/UL)	43A070047	
7320-01-537-7913	GalleyMaster 185-RH-E	43A070046	
7320-01-537-7930	GalleyMaster 185-RH-E (W/UL)	43A070044	
7320-01-537-7914	GalleyMaster 250-LH-E	43A070045	
7320-01-537-7935	GalleyMaster 250-LH-E (W/UL)	43A070039	
7320-01-537-7916	GalleyMaster 250-RH-E	43A070043	
7320-01-537-7936	GalleyMaster 250-RH-E (W/UL)	43A070042	
7320-01-537-2379	PUL1-L-NSU (PWR UNLDR LH)	43A070041	
7320-01-537-1497	PUL1-R-NSU (PWR UNLDR RH)	43A070040	

Thank you for purchasing this quality Insinger product.

On the space provided below please record the model, serial number and start-up date of this unit:

Model:_____

Serial Number:_____

Start-Up Date:_____

When referring to this equipment please have this information available.

Each piece of equipment at Insinger is carefully tested before shipment for proper operation. If the need for service should arise please contact your local Authorized Insinger Service Company.

A Service Network Listing is provided on our web site, www.insingermachine.com or call Insinger at 800-344-4802 for your local authorized servicer.

Please read the Insinger Limited Warranty and all installation and operation instructions carefully before attempting to install or operate your new Insinger product.

To register your machine for warranty by phone, fax or the internet or for answers to question concerning installation, operation, or service contact our Technical Services Department:

TECHNICAL SERVICE CONTACTS

Factory Support

Insinger Machine Company:
6245 State Road
Philadelphia, PA 19135
800-344-4802
215-624-4800
215-624-6966 (Fax)
www.insingermachine.com

Authorized Service Agencies

California:
Magna Mechanical
724 Ave. B, Suite A
National City, CA 91950
619-239-8008

Florida:
AMSEC LLC, Mayport Division
2920 Mayport Road
Atlantic Beach, FL 32233
904-247-1632
904-247-5381 (Fax)

Virginia:
D. W. Boyd Company
4003 Colley Ave.
Norfolk, VA 23508
757-423-2268
757-423-1868 (Fax)

TABLE OF CONTENTS

Part 1
Technical Information 3-14
- Introduction
- Cut-sheets & Installation Drawings
- Warranties

Part 2
Start-Up Instructions 15
- Start-Up Procedures

Part 3
Cleaning Instructions 16-17
- Daily and Weekly Procedures

Part 4
Maintenance & Repair Procedures 18-26
- Maintenance & Repair Procedures
- Basic Service Guide
- Troubleshooting

Part 5
Spare Parts List 27-30

Part 6
Installation Instructions 31-35

Part 7
Electrical Schematics & Replacement Parts 36-49
- Machine Wiring Diagrams
- Control Panel Layout & Component Drawings

Part 8
Replacement Parts 50-80
- Overall Assembly Drawings for: GalleyMaster
- Drain Assembly
- Motor/Pump Assembly
- Conveyor & Chain Tensioner Assemblies
- Rinse Converter
- Scrap Screen Arrangement
- Top Baffles and Curtain Location
- Drive Mechanism Assembly
- Final Rinse Assemblies
- Electric Heaters & Boosters
- Steam Coils, Injectors and Boosters
- Discharge Lines Assemblies
- Rear Track Assemblies

GalleyMaster Series

INTRODUCTION

Purpose

The purpose of this technical manual is to provide installation, operation, cleaning and maintenance directions.

A section is provided for replacement parts.

Scope

This manual contains all pertinent information to assist in the proper installation, operation, cleaning, maintenance, and parts ordering for Insinger GalleyMaster series dishwashers

The **installation instructions** are intended for qualified equipment installers. The **operation and cleaning instructions** are intended for the daily users of the equipment. The **maintenance and parts sections** are intended for qualified service and/or maintenance technicians. Replacement parts may be ordered directly from our factory or from your local Insinger Authorized Service Agency. You can speak to the **Insinger Technical Services Department, 800/344-4802**, or e-mail us at **service@insingermachine.com**. When calling for warranty information or replacement parts please provide the model and serial number of your Insinger Equipment. These important numbers should be noted in this manual on the spaces provided on the opening page.

NSF 3-2003 requirements for detergent and chemical sanitizer dispensers.

This machine must be operated with an automatic detergent dispenser and, if applicable, an automatic chemical sanitizer feeder, including a visual means to verify that detergents and sanitizers are delivered or a visual or audible alarm to signal if detergents and sanitizers are not available for delivery to the respective washing and sanitizing systems. Please see instructions for electrical and plumbing connections located in this manual and in the feeder equipment manual.

Definitions

Throughout this guide you will find the following terms: WARNING, CAUTION, & NOTE.

WARNING indicates potential physical danger.
CAUTION indicates potential equipment damage.
NOTE indicates helpful operating hints or tips.

You will visually be able to identify each as shown below:

WARNING:
Indicates potential physical danger.

NOTE:
Indicates helpful operating hints or tips.

CAUTION:
Indicates potential equipment damage.

SAFETY SUMMARY

The following general safety notices supplement the specific warnings and cautions appearing in this manual:

All service except for routine shut-down procedures and operator's troubleshooting procedures must be performed by qualified maintenance personnel.

Prior to any work on the dishwasher involving service of electrical, steam, or water systems, the dishwasher and booster heater must be de-energized by turning the electrical supply power "Off" and closing appropriate steam and water valves.

The following is a summary of the warnings and cautions appearing in the text of this manual to alert personnel to potentially hazardous situations:

WARNINGS

Warning definition: A warning designates potential bodily harm.

Do not open the access doors while the machine is running, as hot water is being sprayed inside the machine. Machines have an interlock to stop the machine if either door is opened, but some hot water may escape.

Inside of the machine is hot. Allow the machine to cool to 110° F. before proceeding. Wear rubber gloves.

Float switches, probes and heating elements must be cleaned daily. Accumulations of grease, minerals or debris will cause faulty operation of detergent monitoring and heating systems. Use Scotch-Brite or equivalent cleaning pads on heavy dirt.

Inside of the machine is hot. Allow the machine to cool to 110° F. before proceeding. Wear rubber gloves.

Do not use a hose to clean the exterior of the machine.

Turn off power supply to the control enclosure. This inspection should only be done by a qualified electrician.

Prior to any work on the dishwasher involving service of electrical, steam, or water systems, the dishwasher and booster must be de-energized by turning the electrical supply power "Off" and closing appropriate valves.

Wear rubber gloves while performing the following steps. Do not drink, eat or smoke.

Troubleshooting of certain electrical functions requires access to live electrical circuits inside the electrical control enclosure. Troubleshooting or repair of the electrical equipment should only be done by a qualified electrician.

Prior to any work on the dishwasher involving service of electrical, steam, or water systems, the dishwasher and booster must be de-energized by turning the electrical supply power "Off" and closing appropriate valves.

Wear rubber gloves while performing the following steps. Do not drink, eat or smoke.

Troubleshooting of certain electrical functions requires access to live electrical circuits inside the electrical control enclosure. Troubleshooting or repair of the electrical equipment should only be attempted by a qualified electrician.

The following steps require testing with machine power on. These tests should only be made by a qualified electrician.

All portions of the installation must comply with applicable Navy shipboard regulations, specifications, and requirements.

The dishwasher, booster heater, and unloader must be securely bolted to deck plates.

Dangerous voltages are present on connections to the electrical control enclosure and electric booster heater. Observe normal safety precautions for high voltage electrical equipment when connecting to the local distribution system. All work should be done by a qualified electrician.

At startup, and after any draining of the electric booster, turn off the 440 volt power to the booster during the initial operation of the final hot fresh rinse. This will allow the booster reservoir to fill and trapped air to be purged without overheating of booster heating elements.

CAUTION:
Caution definition: A caution designates potential equipment harm.

The operator should become thoroughly familiar with the equipment and these operating instructions prior to starting the machine.

Be careful not to damage parts during cleaning.

The plunger pin must enter into the hole in the boss of the vertical manifold to lock the manifold in position. If the pin is not in the hole, the manifold will come off when the pumps are started.

Do not over-tighten nuts, or studs may be broken.

Insinger

Project _____
Item _____
Quantity _____
CSI - 11400 _____
Approval _____
Date _____

GalleyMaster™

Scullery Rack Conveyor Dishwasher

- Modular “take-apart” design fits through a 26” x 66” watertight hatch and navigates interior passageway turns
- Tank heaters easily removable from inside tank
- Integral vent cowl system with dampers
- Hermetically sealed and tank mounted thermometers
- Patented CrossFire™ wash system

STANDARD FEATURES

- Heat Options
  - Electric – 5 x 7.5 KW low watt density electric immersion heaters and 54 KW electric booster with low temp cut-off
  - Steam – 2 stainless steel steam coils and steam booster with low temp cut-off
- Vacuum breaker on all incoming water lines
- Pressure reduction valve and line strainer
- Locking plungers and keys on spray pipes
- Color-coded curtains
- Low water protection
- Permanent legs on the rinse tank, at the split line
- Easily cleaned crowned hood top
- External conveyor drive system (HTD) with frictionless overload release
- Inspection doors with welded handles and splash guards
- 2 safety catches on each door
- Electrical interlock switch on each door
- Hermetically sealed in-line thermometer for final rinse
- Manifold clean-out brush
- S/S frame, legs, feet and front panels
- Manual tank fills
- Connection points for detergent and rinse aid dispensers
- Detergent probe hole in bottom of wash tank
- Bulk-head mounted NEMA 12 control panel
- NEMA 4 control switches
- Plastic 20” x 20” racks

OPTIONS

- ☐ Power loader
- ☐ Power unloader
- ☐ Rack limit switch

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6245 State Road · Philadelphia, PA 19135 · PH: 800-344-4802 · FX: 215-624-6966 · www.insingermachine.com

Additional Information

Capacity Per Hour	60 Racks 85 Racks 135 Racks 185 Racks 250 Racks
Tank Capacity	24 gallons (wash) 24 gallons (rinse)
Motor Size	1 hp (wash) 1 hp (rinse) 1/15 hp (conveyor)
Electric Usage	15 kW wash tank 22.5 kW rinse tank 54 kW rinse booster
Steam Consumption at 20 psi min	55 lbs/hour wash tank 82 lbs/hour rinse tank 109 lbs/hour rinse booster
Final Rinse Flow at 20 psig	4.0 gallons/minute (240 gal/hr) at 140 F min.
Final Rinse Consumption at 20 psi min.	34 gallons/hour 0.75 gallons/rack
Exhaust Requirement	200 scfm entrance 500 scfm exit
Peak Rate Drain Flow	14 gal/min
Shipping Weight	400 lbs.

Current Draw Amps	Steam	Electric
440/3/60	4.9	4.9 amps (motor and controls) 16.5 amps (wash tank heater) 24.8 amps (rinse tank heaters) 59.5 amps (rinse booster)

Note: Due to product improvement we reserve the right to change information and specifications without notice.

FUNCTIONAL DESCRIPTION

The GalleyMaster Dishwasher consists of a wash section and a rinse section, each with a solution tank, upper spray chamber, and front access door. Solutions in each tank are heated to the operating temperatures (150° F. wash, 160°rinse) by either submerged steam coils or electric immersion heaters. Dishware is carried in 20" by 20" racks, through the wash and rinse sections, by a double chain conveyor system.

In the tank of each section, a centrifugal pump draws the hot solution through a suction strainer and then forces the solution under pressure to the upper and lower spray manifolds, where the solution exits through slots and impacts against the dishware in the moving rack. The spent solutions return to their respective tanks through the scrap trays, where debris from the dishware is captured for later disposal.

In the wash tank, the detergent strength is maintained by a concentration sensing controller and detergent supply reservoir.

A hot fresh final rinse zone follows the recirculated rinse zone. The incoming fresh water supply is first reduced to 20 psig. by a pressure reducing valve and then heated to 180° F. (minimum) by either a steam powered heat exchanger or an electrically powered booster heater, located adjacent to the dishwasher. The hot rinse water enters the rinse chamber through upper and lower rinse manifolds, and exits through rinse nozzles and impacts against the dishware in the moving rack. The spent rinse water returns to the re-circulated rinse tank through the scrap screens.

Both the steam and electric powered boosters have a low water temperature interlock that prevents or interrupts washing when the water in the booster is below 180° F.

The residual heat in the final rinse water helps to maintain the recirculated rinse tank temperature. The additional volume of fresh rinse water, when added to the rinse tank, increases the solution level and then overflows into the drain, carrying away any floating grease and debris.

A feed pump injects a conditioner into the final hot rinse water. This conditioner improves the rinsing and drying of the dishware by promoting a "sheeting" action of the rinse water.

A remote electrical control enclosure contains magnetic contactors, overload protection for the pump and drive motors, control relays, selector switches, and pilot lights.

A second machine mounted enclosure contains similar controls for the optional power unloader.

DATA CHARACTERISTICS

Manufacturer:
Insinger Machine Company, Philadelphia, PA

Type:
Insinger GalleyMaster Dishwasher with rack capacity, hand of feed, tank heat, booster, and unloader options.

Characteristics:
Type: Double tank, rack conveyor dishwasher.
Capacity: (based on 20" by 20" racks, manually loaded).

Modular Construction:
If required, the GalleyMaster Dishwasher may be partially disassembled for passage through a standard 26" x 66" hatch.

Tank Capacities:
Wash Tank: 24 gal.
Rinse Tank: 24 gal.

Rinse Water Requirements:
Final rinse flow: 4.0 gpm at 20 psig.
Wash tank make-up: 0.9 gpm (max) at 20 psig.
Supply temperature: 140° F. minimum.

Model	Racks per hour	Conveyor Speed (ft/min)
GalleyMaster	60	1.6
GalleyMaster	85	2.3
GalleyMaster	135	3.7
GalleyMaster	185	5.1
GalleyMaster	250	7.0

Ventilation (Exhaust) Requirements:

Entrance: 200 scfm
Exit: 500 scfm

Electrical Power Requirements:
Power supply: 440 vac, 3 phase, 60 Hz.

Operating current::

Steam heated:
4.9 amps (dishwasher & booster)

Electrically heated:
4.9 amps (motors & controls)
16.5 amps (wash tank heater)
24.8 amps (rinse tank heaters)
59.5 amps (booster)

Power loader: 0.8 amps additional
Power unloader: 0.9 amps additional

Steam Requirements (Steam heat option only):
Pressure (dry saturated steam):
16 psig. minimum
50 psig. Maximum

Pressure to booster must be regulated to 16-25 psig.

Flow Rates:
Wash tank heat: 55 lb/hr
Rinse tank heat: 82 lb/hr
Booster: 109 lb/hr

Component Ratings:
Wash Heater: (2): 7.5 KW each
Rinse Heaters (3): 7.5 KW each
Electric booster: 54 KW

Wash and Rinse Pumps: 1.0 hp each
Conveyor Drive Gearmotor: 1/15 hp

Unloader Pushout Gearmotor: 1/4 hp
Unloader Roller Gearmotor: 1/15 hp
Loader Roller Gearmotor: 1/3 hp

Weight:
Shipping: 1175 lbs.

Operating: 950 lbs.

Volume:
Crated: 59" lg. x 40" w. x 76" h.

INSINGER MACHINE COMPANY LIMITED WARRANTY

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it, then for a period of either 15 months from the date of shipment from Insinger or 1 year (12 months) from the date of installation, that said Insinger product shall be free from defects in material and workmanship. Whichever one of the two aforestated limited warranty time periods is the longest shall be the applicable limited warranty coverage time period.

Insinger may require reasonable proof of your date of purchase; therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the repair or replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger, this may be done through an Authorized Service Agency. Furnish serial number of machine with shipment and send to:

Insinger Machine Company
6245 State Road
Philadelphia, PA 19135-2996

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid.

This limited warranty does not cover any failure or accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, acts of God or improper maintenance or service, or failure to perform normal and routine maintenance as set out in the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet). Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing and or cleaning process.

Service must be done by either Insinger Appointed Service Agencies or agencies receiving prior authorization from Insinger.

All warranty work must be done during normal working hours, unless purchaser receives prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchant-ability and fitness or limited warranties as of this date, January 1, 1998. Some states do not allow limitation on how long an implied warranty lasts so this limitation may not apply to you.

Insinger is not liable for any special, indirect or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation nor exclusion may not apply to you.

Insinger does not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment: and no such representations are binding on Insinger.

INSINGER MACHINE COMPANY LIMITED WARRANTY
COMMERCIAL MARINE USE

Insinger Machine Company, Inc. (Insinger) hereby warrants to the original retail purchaser of this Insinger Machine Company, Inc. product, that if it is assembled and operated in accordance with the printed instructions accompanying it (installation manual), then for a period of 18 months from the date of installation on board the vessel, that said Insinger product shall be free from defects in material and workmanship.

Insinger may require reasonable proof of your date of equipment install, therefore, you should retain your copy of invoice or shipping document.

This limited warranty shall be limited to the replacement of parts which prove defective under normal use and service and which on examination shall indicate, to Insinger's satisfaction, they are defective. Any part that is claimed to be defective and covered by this limited warranty must be returned to Insinger. Furnish serial number of machine with shipment and send to:

Insinger Machine Company, Inc.
6245 State Road
Philadelphia, PA 19135-2996

If Insinger's inspection confirms the defect and the claim, Insinger will repair or replace such part without charge and return it to you freight or postage prepaid. If part damages are not covered, Insinger will contact the customer and advise.

If a factory trained authorized technician is required to repair or replace defective parts or material during the 18 month warranty period, the cruise line will be responsible for the payment of travel expense and a minimum of four hours labor.

Labor will be billed to the customer at a reduced rate of $40.00 per hour. If sailing with a vessel is required, then an eight hour per day minimum will apply.

This limited warranty does not cover accident, abuse, misuse, alteration, misapplication, improper installation, fire, flood, or improper maintenance or service, or failure to perform normal and routine maintenance as set out in the instruction booklet (operating instructions) or for improper operation or failure to follow normal operating instructions (as set out in the instruction booklet).

Insinger is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing, caring and or cleaning process.

Warranty service must be done by either Insinger Appointed Service Agencies or agencies, customers galley engineers receiving prior authorization from Insinger.

There are no other express warrants except as set forth herein and any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this express written limited warranty. This limited warranty supersedes all other express warranties, implied warranties of merchantability and fitness or limited warranties as the above date.

Insinger does not authorize any person or company locally or overseas to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return or replacement of its equipment; and no such representations are binding on Insinger.

GENERAL INFORMATION

INTRODUCTION

This technical manual provides information for the installation, operation, inspection and maintenance of the GalleyMaster series of dishwashers manufactured by Insinger Machine Company, Philadelphia, PA.

EQUIPMENT DESCRIPTION

The GalleyMaster dishwasher is a double tank, rack conveyor dishwasher used for the washing of plates, glassware, and small utensils in 20" by 20" racks. The machine processes the racks through recirculated wash, recirculated rinse and fresh hot rinse zones at various conveyor speeds, depending on the specific machine model.

The GalleyMaster dishwashers are replacements for earlier 20M-NSU units. Footprint, services (verify wash tank heat electric circuit capacity) and function are the same.

EQUIPMENT SUPPLIED

Dishwashers are supplied with wash and rinse tank and fresh rinse water booster heating options as follows:

Heat Option	Wash Tank	Rinse Tank	Booster Heat
Steam	Steam Coil	Steam Coil	Steam
Electric	15.0 kW heater	22.5 kW heater	54 KW heater

In addition to the tank and booster heat options listed above, the dishwasher may be supplied with optional accessories as follows:

Power rack unloader, located at the machine exit.
Power rack loader, located at the machine entrance.

Dishwashers are designed for left to right, or right to left conveyor operation, as specified at time of order.

Each dishwasher is supplied with a loose electrical control enclosure which should be mounted adjacent to the machine by the installing activity.

The following may also be supplied; quantities vary by machine as specified on the applicable order:

Plate racks.
Cup, bowl and cutlery racks.
Cylinder transport rack.
Stainless steel cylinders.
Plastic cylinders
Manifold cleanout brushes.

DETERGENT AND RINSE ADDITIVE DISPENSERS

This machine must be operated with an automatic detergent feeder, including a visual means to verify that the detergents are delivered or a visual or audible alarm to signal if detergents are not available for delivery to the washing system. Please see instructions for electrical and plumbing connections located in this manual and in the feeder equipment manual.

The requirement for a detergent dispenser and a rinse additive dispenser to be supplied by the manufacturer of this dishwasher has been deleted by the Navy's Life Cycle Manager for Shipboard Food Service Equipment.

Contact your local port detergent supplier for detergent and rinse additive dispensing equipment to meet the above requirement.

Questions should be addressed to:

Naval Surface Warfare Center
Carderock Division
Ship Systems Engineering Station
Naval Business Center
5001 South Broad Street
Philadelphia, PA 19112

POC: James Brechka, 215-897-7311
james.brechka@navy.mil

INTRODUCTION

The GalleyMaster Dishwasher is a heavy duty machine designed for daily use in a naval shipboard environment.

CAUTION:

The operator should become thoroughly familiar with the equipment and these operating instructions prior to starting the machine.

CONTROLS AND INDICATORS (ELECTRICALLY HEATED MACHINES)

ITEM	CONTROL	TYPE	FUNCTION
1	Control power switch	Off-On selector switch on control panel	Controls 24 vac power to control circuit
2	Control power light	Yellow pilot light on control panel	Signals control power state
3	Start switch	Green pushbutton on control panel	Starts pumps and conveyor(s)
4	Stop switch	Red pushbutton on control panel	Stops pumps and conveyor(s)
5	Wash tank heat indicator	Yellow pilot light on control panel	Signals heating element energized in wash tank
6	Rinse tank heat indicator	Yellow pilot light on control panel	Signals heating elements energized in rinse tank
7	Check conveyor indicator	Red pilot light on control panel	Signals conveyor jam
8	5 amp circuit breaker	White circuit breaker on control panel	Over-current protection for control circuit
9	Water ball valves	Valve located on respective piping string	Opens or closes incoming water line
10	Damper blade position control	Handle (90° rotation) at vent duct connections	Regulates vent duct exhaust flow
11	Wash tank water level sight glass	Porthole located on front of wash tank	Indicates level of water in wash tank
12	Rinse tank water level sight glass	Porthole located on front of rinse tank	Indicates level of water in rinse tank
13	Thermometers - wash and rinse	Dial gauges located on front of wash and rinse tanks	Indicate water temperature in wash and rinse tanks
14	Thermometer - final rinse	Dial gauge located on top of final rinse piping	Indicates final rinse temperature
15	Pressure gauge - final rinse	Dial gauge located on top of final rinse piping	Indicates final rinse pressure
16	Temperature control - wash and rinse	Round slotted adjustment knob located on the wash or rinse tank temperature control board in the control panel	Regulates temperature of the wash and rinse tank water
17	Low water level switch	Float switch located in wash and rinse tanks	Disables respective tank heating element(s)
18	High water temperature limit switch	Thermostat on wash and rinse heaters	Disables respective tank heating element(s)
19	Final rinse temperature control	Slotted adjustment screw located inside the lower front of the booster	Controls temperature of final rinse water
20	Final rinse high temperature limit switch	Manual reset thermostat located inside the lower front of the booster	Disables booster heating elements

CONTROLS AND INDICATORS (STEAM HEATED MACHINES)

ITEM #	CONTROL	TYPE	FUNCTION
1	Control power switch.	Off-On selector switch on control panel.	Controls 24 vac power to control circuit.
2	Control power light.	Yellow pilot light on control panel.	Signals control power state.
3	Start switch.	Green pushbutton on control panel.	Starts pumps and conveyor(s).
4	Stop switch.	Red pushbutton on control panel.	Stops pumps and conveyor(s).
5	Wash tank heat indicator.	Yellow pilot light on control panel.	Signals steam coil energized in wash tank.
6	Rinse tank heat indicator.	Yellow pilot light on control panel.	Signals steam coil energized in rinse tank.
7	Final rinse heat indicator.	Yellow pilot light on control panel.	Signals booster steam flow energized.
8	Check conveyor indicator.	Red pilot light on control panel.	Signals conveyor jam.
9	5 amp circuit breaker.	White circuit breaker on control panel.	Over-current protection for control circuit.
10	Water and steam ball valves.	Valve located on respective piping string.	Opens or closes incoming steam or water line.
11	Damper blade position control.	Handle (90° rotation) at vent duct connections.	Regulates vent duct exhaust flow.
12	Wash tank water level sight glass.	Porthole located on front of wash tank.	Indicates level of water in wash tank.
13	Rinse tank water level sight glass.	Porthole located on front of rinse tank.	Indicates level of water in rinse tank.
14	Thermometers - wash and rinse.	Dial gauges located on front of wash and rinse tanks.	Indicate water temperature in wash and rinse tanks.
15	Thermometer - final rinse.	Dial gauge located on top of final rinse piping.	Indicates final rinse temperature.
16	Pressure gauge - final rinse.	Dial gauge located on top of final rinse piping.	Indicates final rinse pressure.
17	Temperature control - wash and rinse.	Round slotted adjustment knob located on the wash or rinse tank temperature control board in the control panel.	Regulates temperature of the wash and rinse tank water.
18	Low water level switch.	Float switch located in wash and rinse tanks.	Disables respective tank steam coil.
19	Final rinse temperature control.	Left slotted adjustment screw inside the round dual thermostat on front of steam booster.	Controls temperature of final rinse water.
20	Final rinse low temperature cutoff switch.	Right slotted adjustment screw inside the round dual thermostat on front of steam booster.	Disables pumps and conveyor(s) when water is below 180° F.

START-UP PROCEDURE

1. Before starting the machine, inspect the inside of each tank and make sure that:
   a. The drain overflow tube is in place.
   b. The suction strainer is in place over the pump intake.
   c. The scrap screens are clean and in place.
   d. The upper and lower spray manifolds are securely installed.
   e. The plastic plugs at the ends of all manifolds are installed and hand tight.
   f. The wash and rinse tank drain valves are closed.
   g. The entrance, center, and exit curtains are in place.
2. Check that the booster hot water supply valve is open and all electric power services are on.
3. Fill the detergent dispenser reservoir in accordance with the detergent supplier's recommendations. Only flake, beaded, or pelletized detergents should be used.
4. Connect the rinse injector supply line to a source of rinse water conditioner.
5. Using the manual valves on the top of the machine, fill the wash and rinse tanks to the level of the overflow tube. Portholes on the front of the machine indicate this water level. Water level should be at the red line in the center of the porthole. Close the manual valves after filling is complete.
6. Close both access doors on the front of the machine.
7. On electrically heated machines, turn the Control Power switch on the electrical control enclosure to the "On" position. The adjacent yellow pilot light will come on.
8. On steam heated machines, open the wash tank, rinse tank, and booster steam supply valves. On the electrical control enclosure, turn the Control Power switch to the "On" position. The adjacent yellow pilot light will come on.
9. At this point, for both steam and electrically heated machines, the thermostatically controlled tank heat will be activated. Allow the wash tank temperature to reach 155° F. and the rinse tank temperature to reach 165° F. before washing dishes.

NOTE:
The pumps and conveyor(s) will not start if the water in the rinse booster is below 180° F. Allow time for the water to reach this temperature.

WARNING:
Do not open the access doors while the machine is running, as hot water is being sprayed inside the machine. Machines have an interlock to stop the machine if either door is opened, but some hot water may escape.

10. Start the machine by pressing the green "Start" pushbutton. Pumps and conveyor(s) will start. Operate the machine for 3 minutes to allow time for detergent to be dispensed (automatically) from the detergent dispenser and mix with the wash tank water.
11. When the tanks have reached the operating temperatures, and detergent has been added and mixed, washing may begin. Insert a rack of soiled dishware into the machine entrance. The machine conveyor will automatically transport the rack through the wash, rinse, and final hot rinse zones, and then eject the rack from the machine exit. On machines with power unloaders, the conveyor will transfer the rack onto the unloader rollers, from which the rack will be automatically ejected at 90° to the path of the machine conveyor.
12. During operation, periodically add water to the wash and rinse tanks to maintain the water levels at the centers of the portholes on the front of the machine.
13. Temporarily stop machine operation (using the red "Stop" pushbutton) if no dishware will be washed for a 3 to 5 minute period.

NOTE:
Overloading racks will impede the proper cleaning of dishware.

On machines with power loaders, slide the rack into the power loader. The rollers of the power loader will move the rack onto the machine conveyor.

CONVEYOR OVERLOAD PROTECTION

The conveyor chains move in a smooth continuous motion. Driving power is transmitted from a gearmotor, through a timing belt and sprocket assembly, to the conveyor drive shaft.

Conveyor jams or overloads will cause the drive belt tension to increase, activating an electrical switch which will stop the pumps and conveyor drive motor. A red "Check Conveyor" light on the electrical control enclosure will come on.

To restore conveyor motion, open the access doors, clear the jam or remove the overload, close the doors, and restart the machine.

SHUT-DOWN PROCEDURE

1. The machine should be cleaned at the end of each meal service. Press the "Stop" pushbutton to stop the pumps and conveyor(s).
2. Turn the Control Power switch to the "Off" position. Adjacent yellow pilot light will go off.
3. Drain the wash and rinse tanks by opening the drain valves.

WARNING:
Inside of the machine is hot. Allow the machine to cool to 110° F. before proceeding. Wear rubber gloves.

Remove the upper and lower wash and rinse spray manifolds:

1. On each manifold, pull the head of the spring pin plunger (item 30, Fig. 7-1) straight out, about 1/4". Rotate the plunger head 90° to hold the pin in the retracted position.

2. Move the manifold straight out, away from the vertical discharge tube. After about 1/4" of movement, the manifold may be rotated to aid in removal.

Remove the following from the inside of the machine:
1. Wash and rinse scrap trays and tray spacers.

2. The entrance, center, and exit curtains.

Remove the wash and rinse pump suction strainers and overflow tubes from their respective openings, and place on tank bottom.

Remove the end plugs from the wash and rinse manifolds and clean with the provided brush. Flush after cleaning and replace plugs.

Clean and flush the scrap trays and tray spacers, the pump suction strainers, the drain overflow tubes, and the curtains.

Clean and flush the entire inside of both tanks, the upper wash and rinse chambers, and doors. Wipe the inside of each drain body and the outside of the seal on each overflow tube (Fig. 7-5). Pay special attention to moving float switches (Fig. 6-13), detergent dispenser probes, electric heater elements (Fig. 6-2) and steam coils (Fig. 7-7).

CAUTION:

Be careful not to damage the above parts during cleaning.

WARNING:
Float switches, probes and heating elements must be cleaned daily. Accumulations of grease, minerals or debris will cause faulty operation of detergent monitoring and heating systems. Use Scotch-Brite or equivalent cleaning pads on heavy dirt.

Use a small wire or pin to clean mineral accumulations from the final hot rinse nozzles.

Replace the wash and rinse spray manifolds:

1. Slide the hub of each manifold over the boss on the vertical discharge tube. The slots in the manifold hub must engage the pins in the boss of the vertical discharge tube.

2. When the slots in the manifold hub are fully engaged over the pins, rotate the plunger head 90°. The plunger pin must enter into the hole in the boss.

CAUTION:
The plunger pin must enter into the hole in the boss of the vertical manifold to lock the manifold in position.
If the pin is not in the hole, the manifold will come off when the pumps are started.

Replace all removed parts in reverse order. Re-install wash and rinse pump suction strainers and overflow tubes.

NOTE:
Center curtain has a yellow stripe.
Enter and exit curtains have red stripes.

Doors should remain open to allow interior surfaces to dry. Drains should be closed.

SCHEDULED MAINTENANCE

The GalleyMaster Dishwasher is a rugged and simple machine. The scheduled maintenance described in this chapter is mostly a periodic set of inspections and cleaning.

WEEKLY REQUIREMENTS FOR INSPECTION AND MAINTENANCE

Inspect for external leakage.
Inspect the outside of the machine, including all piping, piping components, rinse water booster, and the tank side and bottom seams for leakage. Tighten or repair as necessary.

Inspection of probes and moving float switches.
Stop the machine and drain both tanks, see page ____ for detailed instructions.

WARNING: **Inside of the machine is hot. Allow the machine to cool to 110° F. before proceeding. Wear rubber gloves.**

After draining, manually move each float switch to verify that there is no binding or sticking. See Figure 6-13. Check all electrical probes for dirt and mineral accumulation. Clean as required.

De-liming.
Accumulated mineral deposits must be removed from the inside surfaces of the machine on a periodic basis. The frequency of de-liming depends on the hardness of the water, the type and concentration of detergents used, and the amount of washing time. Until the proper frequency can be determined, de-lime on a weekly schedule. Follow the instructions supplied with the de-liming chemicals.

Exterior Cleaning.
Wipe down the exterior surfaces of the machine, using a commercial stainless steel cleaner.

WARNING: **Do not use a hose to clean the exterior of the machine.**

QUARTERLY REQUIREMENTS FOR INSPECTION AND MAINTENANCE

Check and adjust final rinse pressure.

The final hot rinse pressure must be 20 psig. while the rinse water is flowing. Adjust the pressure reducing valve during a rinse cycle (CW to increase, CCW to decrease pressure).

If the supply pressure to the booster is 20 psig. or greater, and the rinse pressure is below 20 psig and can not be increased, the strainer in the pressure reducing valve may be clogged. Clean the strainer per 6.2.1.

Clean steam strainers (steam heated machine only).

Close the manual valves on the wash tank, rinse tank, and booster steam supplies.

Remove the plug and strainer basket from each "Y" type steam strainer and flush clean.

Replace strainer and plug.

Open steam supply valves.

Inspect condensate traps (steam heated machines only).

Condensate traps (Fig. 6-14; Fig. 7-7, item 13; Fig. 7-8, item 23;) are located below the steam booster and below each tank.

Check to see that each trap is operating correctly, allowing condensate to flow when the supply valve is open. A condensate trap that is stuck shut, possibly due to corrosion, will not allow the condensate to flow, and no heat will be released within the booster or tank. A trap that is stuck open will not allow the heated unit to reach full operating temperature. A faulty trap should be replaced.

Inspect inside of control enclosures and junction boxes.

TROUBLESHOOTING

This chapter contains information to assist the operator and/or maintenance personnel in troubleshooting abnormal operation. Personnel involved must be familiar with the description of the equipment and the functioning of all components, as described in Chapters 2 and 3.

The following tables list the more common symptoms which may be experienced, their causes, and the recommended corrective action. The tables are separated into operator and maintenance actions.

WARNING: **Prior to any work on the dishwasher involving service of electrical, steam, or water systems, the dishwasher and booster must be de-energized by turning the electrical supply power "Off" and closing appropriate valves.**

Wear rubber gloves while performing the following steps. Do not drink, eat or smoke.

Troubleshooting of certain electrical functions requires access to live electrical circuits inside the electrical control enclosure. Troubleshooting or repair of the electrical equipment should only be done by a qualified electrician.

> **NOTE:**
> This section covers actions that can be performed by the operator, without the use of tools.

OPERATOR'S TROUBLESHOOTING GUIDE

SYMPTOM OF TROUBLE	POSSIBLE CAUSE	SOLUTION
1. Machine will not operate.	a. No power. b. Control circuit breaker tripped.	a. Move POWER switch to ON. b. Reset circuit breaker.
2. Tank will not hold water.	a. Drain overflow tube not installed. b. Pump petcock opened. c. Drain not closed.	a. Install drain overflow tube. b. Close pump petcock. c. Close drain.
3. Tank fills beyond overflow level.	a. Obstruction in drain overflow tube. b. Clogged drain line.	a. Remove obstruction b. Remove drain overflow tube (water is HOT!),if water does not drain, maintenance must "snake" drain line.
4. Water leaks from around door.	a. Door is not seated. b. Clogged spray pipes.	a. Check for proper seating. b. Clean with brush provided.
5. Weak or ineffective wash or rinse spray.	a. Clogged spray pipes. b. Manifolds not installed properly. c. Suction strainer clogged.	a. Clean with brush provided. b. Ensure proper placement of upper and lower manifolds. c. Clean suction strainer.
6. Weak or ineffective final rinse spray.	a. Lime deposit on spray nozzles. b. Low water pressure. c. Closed supply valve.	a. Clean nozzles. b. Should be 20 PSI flowing. c. Open valve.
7. Poor washing results.	a. Scrap screens clogged. b. Pump suction strainer clogged. c. Spray arms clogged.	a. Remove and clean screens. b. Remove and clean suction strainer. c. Clean with brush provided.
8. Conveyor overload stops conveyor motion.	a. Foreign object caught in conveyor chain.	a. Remove object.
9. Tank and/or booster will not hold specified temperature.	*For Electric Heat:* a. Booster power off. b. Tank power off. c. Control power off. d. Tank empty or low. *For Steam Heat:* e. Steam turned off. f. Control power off. g. Tank empty or low.	*For Electric Heat:* a. Check circuit breaker. b. Check circuit breaker. c. Turn control power switch on. d. Fill tank. *For Steam Heat:* e. Turn steam supply on. f. Turn contol power switch on. g. Fill tank.

> **NOTE:**
> This section covers actions that can be performed by qualified maintenance personnel.

MAINTENANCE TROUBLESHOOTING GUIDE

SYMPTOM OF TROUBLE	POSSIBLE CAUSE	SOLUTION
1. Machine will not operate.	a. No power. b. Blown fuse/breaker. c. Power shut off at disconnect switch. d. Motor overload protection tripping. e. Door magnet missing.	a. Check power supply. If red tagged, verify maintenance complete and remove tag. b. Replace fuse; reset breaker and troubleshoot source of problem. c. Move disconnect switch to ON. d. If motor overload trips repeatedly, check overload setting and motor current. e. Replace magnet.
2. Tank will not hold water.	a. Drain overflow tube not installed. b. Pump petcock open. c. Drain not closed d. Dirty or worn V seal on overflow tube.	a. Install drain overflow tube. b. Close pump petcock. c. Close drain. d. Clean or replace V seal.
3. Tank fills beyond overflow level.	a. Obstruction in drain overflow tube. b. Clogged drain line.	a. Remove obstruction. b. Remove overflow tube (water is HOT!), if water does not drain, clean the drain line with a "snake."
4. Water leaks from around door.	a. Door is not seated. b. Clogged spray pipes.	a. Check for proper seating and repair as necessary. b. Clean with brush provided.
5. Weak or ineffective wash or rinse spray.	a. Clogged spray pipes. b. Manifolds not installed properly. c. Suction strainer clogged. d. Pump motor running in the wrong direction. e. Pump impeller worn. f. Pump blockage.	a. Clean with brush provided. b. Ensure proper placement of upper and lower spray pipes. c. Clean suction strainer. d. Correct electrically, proper pump direction indicated by arrow on pump housing. e. Replace pump impeller. f. Clean obstruction through pump inspection plate.
6. Weak or ineffective final rinse spray.	a. Lime deposit on spray nozzles. b. Closed supply valve. c. Low water pressure. d. Final rinse nozzles worn. e. Clogged line strainer. f. Worn solenoid diaphragm.	a. Clean or replace nozzles. b. Open valve. c. Adjust to 20 PSI flowing. d. Replace final rinse nozzles. e. Remove line strainer and clean. f. Replace with repair kit.
7. Final rinse spray will not turn off.	a. Clogged final rinse solenoid valve. b. Worn diaphragm in final rinse solenoid valve. c. Solenoid valve still powered up.	a. Turn off water supply, disassemble valve & clean internal parts of lime & scale. b. Turn off water supply, disassemble valve and replace with repair kit. c. Check final rinse actuating circuit for proper operation.

> **NOTE:**
> This section covers actions that can be performed by qualified maintenance personnel.

MAINTENANCE TROUBLESHOOTING GUIDE

SYMPTOM OF TROUBLE	POSSIBLE CAUSE	SOLUTION
8. Water hammer.	a. Excessive line pressure.	a. Install shock arresters.
9. Machine vibrates (See also water hammer, #8.)	a. Worn motor bearing. b. Reversed pump rotation.	a. Replace motor. b. Correct electrically, proper pump direction indicated by arrow on pump housing.
10. Tank and/or booster will not hold specified temperature.	a. No power. b. Thermostat not adjusted or defective. c. Heat circuitry not working. d. Thermometer inaccurate or defective. *For Electric Heat:* e. Power turned off. f. Immersion heaters limed or defective. g. Low level float switch stuck in down position. *For Steam Heat* h. Steam turned off. i. Low level float switch stuck in down position. j. Not enough steam. k. Steam solenoid clogged. l. Worn solenoid piston and seat. m. Steam condensate trap clogged. n. Clogged line strainer.	a. Check power supply. b. Adjust or replace thermostat. c. Troubleshoot heat circuitry using wiring diagram provided in this manual. d. Replace thermometer. e. Turn power on. f. De-lime or replace immersion heaters. g. Clean or replace float switch. h. Turn steam supply on. i. Clean or replace float switch. j. Adjust steam pressure per machine specs. k. Turn off steam supply, disassemble valve and clean internal parts. l. Turn off steam supply, remove and replace valve. m. Turn off steam supply: disassemble steam trap and clean, repair or replace. n. Turn off steam supply and clean strainer.
11. Poor washing results.	a. Scrap screens clogged. b. Pump suction strainer clogged. c. Spray arms clogged.	a. Remove and clean screens. b. Remove and clean suction strainer. c. Remove and clean with brush provided.
12. Tank heat coming on with no water in tank.	a. Low level float switch dirty or defective.	a. Clean or replace level float. b. Troubleshoot heater control circuitry using wiring diagram provided in this manual.

CORRECTIVE MAINTENANCE

This chapter contains instructions for maintenance and replacement of components that can be damaged or fail in normal operation.

MAINTENANCE AND REPAIR PROCEDURES

WARNING:

Prior to any work on the dishwasher involving service of electrical, steam, or water systems, the dishwasher and booster must be de-energized by turning the electrical supply power "Off" and closing appropriate valves.

Wear rubber gloves while performing the following steps. Do not drink, eat or smoke.

Troubleshooting of certain electrical functions requires access to live electrical circuits inside the electrical control enclosure. Troubleshooting or repair of the electrical equipment should only be attempted by a qualified electrician.

Clean fresh hot rinse strainer.

Close the rinse water shut-off valve:
Steam booster: Figure 7-8, item 16.
Electric booster: Figure 7-9, item 13.
Electric booster (hood mount): Figure 7-10, item 14.

The strainer is located within the pressure reducing valve. See Figure 6-1. Loosen the large hex nut on the bottom of the valve. Remove the nut with the attached strainer assembly. It is not necessary to remove the strainer screen from the assembly.

Clean the strainer screen and flush with water or a blast of compressed air.

Replace strainer assembly and tighten the large hex nut.

Open the rinse water shut-off valve.

Clean the strainer screen and flush with water or a blast of compressed air.

Replace strainer assembly and tighten the large hex nut.

Open the rinse water shut-off valve.

Operate the machine, using a rack to actuate the final rinse. When the final rinse is operating, adjust the rinse water pressure to 20 psig.

Removal and replacement of electric tank heater. See Figure 6-2.

Turn off dishwasher power at the main disconnect switch. Drain the appropriate tank.

Remove the external heater cover and disconnect the three power wires. Save the paper insulating strip.

Remove the 3 screws attaching the conduit bracket (with conduit attached) to the brass heater plug. Remove the conduit bracket. One heater in each tank has a capillary probe from a high temperature cut-off switch attached to a heater element. If replacing this heater, remove the 2 hose clamps that hold the capillary to the heater element and move the capillary to the side. Remove the 2 inch brass hex nut from the heater plug. Withdraw the heater from the inside of the tank.

Clean the tank hole and install a new heater, brass washer, and gasket in the tank hole. Use plumber's putty between the brass hex nut and the outside of the tank. Install the brass hex nut and tighten securely. If the capillary probe was removed, clamp the capillary to the UPPERMOST heater element. Replace the conduit bracket and 3 screws and tighten securely.

Reconnect the power wires and replace the paper insulating strip. Replace the heater cover. Fill the tank and check for leaks.

Removal and replacement of thermometers.

If a thermometer is suspected of being defective, first check the unit against a reference thermometer and compare readings. Tolerance is plus or minus 2° F.

To remove a thermometer, first turn the Control Power switch on the electrical control enclosure to the "Off" position. Tanks do not need to be drained to replace thermometers.

Wash and rinse thermometers. See Figure 6-3.

1. Remove the thermometer guard from the outside of the tank.

2. Using a wrench on the hex of the thermometer (behind the dial), unscrew the thermometer from the thermometer well. Do not unscrew by turning the dial case.

3. Install a new thermometer. Use Teflon tape on the threads, so the thermometer is "snug" with the 100° mark at 12 o'clock. Use a wrench on the hex but do not overtighten.

4. Replace the thermometer guard.

Final hot rinse thermometer. See Figure 6-4.

Using a wrench on the hex boss of the rinse thermometer stem, unscrew the thermometer from the tee in the final rinse line, and replace with a new unit.

Overload relay settings and functions. See Figure 6-5.

Overload current setting. Lift the plastic cover. With a small screwdriver, align the set point on the overload setting dial with the value for the motor nameplate full load current for 440 volts. The nominal full load current for 440 volt operation of a typical 3 phase motor is:

1 hp. (pump)	2.2 amps
1/3 hp. (loader)	0.8 amps
1/4 hp. (unloader pushout drive)	0.7 amps
1/15 hp. (unloader roller & conveyor drive)	0.16 amps

Auto reset selection. The overload relay is factory installed in the auto reset configuration. A blue shutter appears in the reset selector window. Always use this configuration. If set to the manual reset function (which may be the case with a replacement part), a white plastic cover with an "H" covers the reset selector window. To change to auto reset, lift the plastic cover. Use a small screwdriver to pry off and discard the "H" cover. Slide the blue shutter downward until a faint "click" is heard.

Reset test. To test the overload trip function, press the red Stop button. The NC auxiliary contact (only) will open as long as the Stop button is pressed in. This contact is wired in series with other overload relay NC auxiliary contacts and, when opened, will stop all motors.

Adjust tank temperature.

The wash tank temperature should be 150° to 155° F. The rinse tank temperature should be 160° to 165° F.

Temperature adjustment. Tank temperature is sensed by a thermistor on the tank wall and regulated by a temperature control board in the electrical control enclosure. See Figure 6-6. Locate the tan adjustment pot with slot on the wash or rinse tank temperature control board. Rotate in small increments (CW to increase, CCW to decrease temperature) and allow tank temperature to stabilize between adjustments.

Control board replacement. To replace the tank heat temperature control board or thermistor, disconnect and tag all wires, and then remove the board or thermistor.

Adjust rinse booster temperature.

The booster water outlet temperature should be 190° to 195° F.

Steam heated booster. The temperature controller is on the front of the booster. Unscrew the round cover. See Figure 6-7. The water outlet temperature control switch is on the left, marked "Temp Set 190° F." Use a hex key to rotate the pointer and change the setting. Higher scale settings correspond to higher outlet temperatures. While the rinse is operating, turn the pointer in 1/2 scale increments and observe the rinse temperature over several rinse cycles.

The switch on the right is the low water temperature interlock switch, factory set at 180° F.

To remove this thermostat, first close the manual hot water valve. Disconnect and tag all wires. Remove the electrical conduit from the thermostat housing. Unscrew the entire thermostat assembly from the pipe tee on the booster.

Electrically heated booster.

The thermostat is located inside the lower front of the booster. Remove the access plate marked "Remove for access to thermostats and high limit switch". See Figure 6-8. Rotate the slotted screw "G" in small increments CCW to lower temperature. Rotate nut "F" CCW, while holding "G" against high stop, to raise temperature. Allow tank temperature to stabilize between adjustments. Note that 1/6 turn is approximately 12° F. Observe the rinse temperature over several rinse cycles.

Inspection and repair of solenoid actuated valves.

Solenoid valves are used on the machine for controlling steam to the booster heater and wash and rinse tank coils (steam heated machines) and the flow of final hot rinse water. If the valve in question will not close, or will not open, inspect the valve.

Preliminary electrical check.

> WARNING:
> **The following steps require testing with machine power on. These tests should only be made by a qualified electrician.**

1. A solenoid valve is opened by a mechanical plunger which is lifted when voltage is applied to the valve coil. Make sure there is voltage to the coil. If the solenoid valve will not open and there is no voltage at the coil, the problem is somewhere in the solenoid control circuit (thermostat, wires, or other controls).

2. If the valve will not open and there is correct voltage to the coil, disconnect all power to machine and remove the coil. Visually check for signs of heat discoloration or carbon deposit due to a short circuit in the coil. Check the coil winding with a meter for electrical continuity. No continuity means an open coil and it must be replaced.

Inspection and repair of final rinse solenoid valve. See Figure 6-9.

1. Disconnect electrical power supply to machine. Shut off water supply to the valve. Remove clip on top of molded coil and remove nameplate, coil, and flux-plate from solenoid base sub-assembly.

2. Unscrew 4 hex screws bolts and remove base sub-assembly, core assembly, and core spring. Remove diaphragm spring, diaphragm assembly, and body gasket.

3. Inspect rubber diaphragm for wear, deterioration, or holes. Inspect all parts for dirt, wear, lime build-up or physical damage. Clean or replace as required.

   A repair kit (D2930-RK) is available to rebuild this valve. If the seat or the bottom half of the valve is worn or badly corroded, the entire valve must be replaced.

4. Reverse procedure to re-assemble valve. Note that

Inspection and repair of steam solenoid valves. See Figure 6-10.

1. Disconnect electrical power supply to machine. Shut off water supply to valve. Remove clip on top of molded coil and remove nameplate, coil, and spring washer from solenoid base sub-assembly.

2. Unscrew and remove solenoid base sub-assembly, core assembly, core spring, and solenoid base gasket.

3. Remove bonnet screws, valve bonnet, piston assembly, lip seal, support, inner and outer body gaskets.

4. Inspect all parts for wear, deterioration, dirt, lime build-up or physical damage. Clean or replace as required.

A repair kit (D2490-R3-RK) is available to rebuild this valve. If the bottom half of the valve is worn or badly corroded, the entire valve must be replaced.

5. Reverse procedure to re-assemble valve.

Removal and replacement of recirculating pump.

Before disassembling a pump, drain the tank and remove the suction strainer (inside tank). Inspect the pump inlet for foreign objects.

Working parts of pump can be serviced by removing the pump motor and impeller adapter (held on by four (4) 3/8" dia. hex head screws) from the pump body. See

> NOTE:
> It is not necessary to remove pump body from the machine.

Repair or replace pump motor or impeller as required.

Removal and replacement of conveyor drive sprockets. See Figure 6-11.

Removal.

Rotate the spring loaded idler arm to release drive belt tension and remove the drive belt.

Take both screws (A) out completely. Insert one screw into hole B (with threads in the bushing only). Use this screw as a jackscrew to disengage the bushing.

Replacement.

Clean the bores of the sprocket, bushing, and shaft. Do not oil these surfaces. Place one drop of oil on each screw. Insert the bushing into the sprocket. Align the two sprocket holes A (with threads) and the bushing holes A (with threads). Thread the screws into the holes A.

Place the key on the shaft and slip the entire sprocket and bushing onto the gear motor or conveyor shaft.

Replace the drive belt. Align the sprockets and drive belt and alternately tighten the screws.

Removal and replacement of sight glass (porthole).

Drain the appropriate tank.

Remove the 4 screws and lock nuts and remove the entire assembly from the outside of the tank. Clean the tank surfaces.

Replace the parts of the assembly per Fig. 6-12. Use silicone sealant on each screw, behind the lock nut. Tighten the screws until snug. Note that the stainless steel ring is NOT designed to touch the tank wall when screws are tightened.

Fill the tank and check for leaks.

Removal and replacement of liquid level float switch.

Turn off dishwasher power at the main disconnect switch. Drain the appropriate tank.

Disconnect the two switch electric wires. Remove the hex nut and remove the switch from the inside of the tank.

Clean the tank surfaces. Replace the switch, with the rubber washer on the inside of the tank. See Fig. 6-13.

Fill the tank and check for leaks.

This section lists replaceable parts, referenced to part breakdown drawings.
No listing has been provided for parts of permanently assembled items, or for those items which are not suited to field replacement.

All parts are available from the Insinger Machine Company, Philadelphia, Pennsylvania 19135.

RECOMMENDED GALLEYMASTER SERIES SPARE PARTS LIST

Item	Part Number	NIIN	Description	Quantity	Rec. Spares
1	D2468- GF3B 1BG	01-164-4867	Pump motor only	 2	 1
2	D2884 D2887	01-529-1105	Gearmotor (250, 185) Gearmotor (135, 85, 60)	1 1	1 1
3	3075-K009 SUP-2A UP-15	01-513-6343 01-528-3958 00-565-3123	Pump assembly with motor	2 2 2	1 1 2
4	974-185		Drive mechanism assembly		
	D2963		Cam follower Timing belt (-250 & -135) Timing belt (-185 & -85) Timing belt (-60)	1 1 1 1	1 1 1 1
5	SK-4753	01-531-1162	End plug retainer	14	14
6	D2-554-2A	01-228-7749	Pipe plug, 3/4-10	14	14
7	D514	00-409-5695	Discharge gasket	4	2
8	D530	01-145-9071	Suction gasket	4	2
9	975-56F	01-442-7556	Bushing, conveyor drive, front	1	1
11	D2956	01-528-2541	Thermometer, wash/rinse	2	2
12	975-176	01-528-4296	Thermometer guard	2	2
15	D2242	01-217-1128	Vacuum breaker repair kit		3
16	975-49A		Final rinse components		
	D1041	01-161-6370	Metering valve	1	1
	975-131	01-528-3613	Spray pipe, upper	1	1
	D2-554-2A	01-228-7749	Pipe plug, 3/4-10	2	2
	D2699	01-528-6280	Spray nozzle, upper	6	6
	975-51	01-520-9591	Spray pipe, lower	1	1
	D2286	01-168-3663	Spray nozzle, lower	3	3
18	D2953	01-528-4331	Ball valve, 1/2”	2	2

RECOMMENDED GALLEYMASTER SERIES SPARE PARTS LIST

Item	Part Number	NIIN	Description	Quantity	Rec. Spares
19	975-56R	01-445-4688	Bushing, conveyor drive, rear	1	1
22	D2272	01-446-6691	Spray nozzle, CrossFire	2	2
24	D2715A-LS	01-528-4094	Door latch, left side	2	2
25	D2715A-RS	01-528-6777	Door latch, right side	2	2
26	D2955	01-528-4470	Thermometer, final rinse	1	1
27	975-181		Suction strainer assembly	2	2
28	D2-104	01-443-2894	Shaft bearing, front	1	1
29	975-58	01-445-4687	Shaft bearing, rear	1	1
30	D2935		Spring pin plunger	4	2
32	975-42	01-211-0900	Driven sprocket (take-up)	2	2
34	DE5-37	01-359-5463	Magnet & switch	2	2
36	D2958	01-528-4293	Sight glass (porthole)	2	2
37	9014-011	01-442-9624	Conveyor chain, front	1	1
38	9014-012	01-442-9623	Conveyor chain, rear	1	1
39	975-180		Drain assembly		
	954-50A		Upper valve body	2	2
	954-50B	01-307-0277	Lower valve body	2	2
	954-50C	01-529-6298	O-ring nut	2	2
	975-180-OF	01-528-3608	Overflow tube assembly	2	2
	D2-557	01-164-3687	U cup seal	2	4
	954-9	01-528-9373	Sealing washer	2	2
	D2-549	01-165-2308	O-ring	2	2
	D-305A	01-528-9372	Drain jam nut	2	2
	D2-550	01-165-2309	O-ring	2	2
41	975-10	01-163-8812	Curtain, enter & exit	2	4
42	975-11	01-163-8811	Curtain, center	1	2
63	SK-1433	01-523-8802	Pressure gauge, final rinse	1	1
64	D2930	01-428-6905	Solenoid valve, final rinse	1	1
65	D2930-RK	01-528-4335	Repair kit, FR solenoid	2	
67	D2-580	01-496-7839	O-ring, manifold	4	8

RECOMMENDED GALLEYMASTER SERIES SPARE PARTS LIST

Item	Part Number	NIIN	Description	Quantity	Rec. Spares
Additional electrical parts—Steam heated machines					
	DE9-167	01-319-5987	Fuse, FNQ-R-1	2	2
	DE2-52	01-415-2313	Overload relay, pump	2	1
	DE2-91	01-523-9176	Overload relay, conveyor	1	1
	DE1-109	01-529-2102	Contactor	1	1
	DE2-38	01-353-6320	Relay	3	1
	DE9-251	01-528-4294	Temperature control board	2	1
	DE7-31	01-390-0813	Float delay timer	2	1
	DE9-252	01-523-7616	Temperature sensor	2	1
	DE9-92	01-390-1705	Bulb, pilot light	5	5
	DE5-4	01-528-2043	Microswitch	2	1
	DE5-60	01-444-5589	Liquid level switch	2	2
Additional parts—Steam heated machines					
	D2102	01-147-5634	Steam trap	3	3
	D2490-R3	01-331-0540	Steam solenoid valve	3	1
	D2490-R3-RK	01-501-6393	Steam valve repair kit		3
	D2301	01-171-0199	Thermostat, booster	1	1
	D2507	01-265-3181	Pressure relief valve	1	1

RECOMMENDED GALLEYMASTER SERIES SPARE PARTS LIST

Item	Part Number	NIIN	Description	Quantity	Rec. Spares
Additional electrical parts—Electric heated machines					
	DE9-167	01-319-5987	Fuse, FNQ-R-1	2	2
	DE2-52	01-415-2313	Overload relay, pump	2	1
	DE2-91	01-523-9176	Overload relay, conveyor	1	1
	DE1-109	01-529-2102	Contactor	3	1
	DE2-38	01-353-6320	Relay	3	1
	DE9-251	01-528-4294	Temperature control board	2	1
	DE7-31	01-390-0813	Float delay timer	2	1
	DE9-252	01-523-7616	Temperature sensor	2	1
	DE13-LE73	01-310-0693	Electric heater 7.5 kW	5	3
	DE9-92	01-390-1705	Bulb, pilot light	4	4
	DE5-4	01-528-2043	Microswitch	2	1
	DE5-60	01-444-5589	Liquid level switch	2	2
	DE5-61	01-437-7026	Hi-temp cut-off switch	2	2
Additional electrical parts—Power Unloader					
	1189-59	01-446-5323	Chain cam	1	1
	DE5-63	01-447-8805	Lever switch	1	1

INSTALLATION

WARNING:
All portions of the installation must comply with applicable Navy shipboard regulations, specifications, and requirements.

UNPACKING

The GalleyMaster Dishwasher, with booster heater, vent collars, and optional power loader, is shipped from the factory securely bolted to a single shipping pallet. The optional power unloader is shipped on a separate pallet.

Carefully remove all external protective crating.

Remove all fasteners holding the dishwasher and component parts to the pallet.

Check that the following items have been received:

Qty.	Description
1	Dishwasher.
1	Booster heater (electric or steam).
AR	Optional items, as specified.
AR	Plate, cup, bowl and cutlery racks.
2	Manifold cleanout brushes.
2	Technical manuals.

INSTALLATION

Partial disassembly.

If required, the GalleyMaster Dishwasher may be partially disassembled for passage through a standard 26" x 66" hatch. If disassembly is not required, go directly to 8.2.6.

Vent collar removal and replacement.

To remove each vent collar:

1. Remove eight (8) #10-32 jam nuts and lock washers.
2. Slide vent collar off of the eight (8) weld studs.
3. Place vent collar in safe, retrievable location.

Reinstall vent collars by reversing above process. Torque nuts to 65 inch-lbs.

CAUTION:

Do not overtighten nuts, or studs may be broken.

Removal and replacement of optional power loader.

Disconnect and tag the electrical wires between the loader and the machine.

Disconnect the loader from the machine housing by removing the nuts and bolts that join the two sections.

Reinstall the loader by reversing above process.

Separation of machine.

Remove the hot water piping between the booster heater and the dishwasher by "breaking" the two unions on this line. Disconnect and tag the electrical wires and conduit between the booster and the machine.

Locate the connecting links on the front and rear conveyor chains, disconnect chains and remove from the dishwasher.

Separate the wash and rinse drain line by "breaking" the union.

On the top of the dishwasher housing, disconnect the copper hot water tube from the fitting on the wash section.

Disconnect and tag the wash section electrical wires and conduits from the junction box on the front of the dishwasher. The junction box should remain attached to the rinse section frame.

Disconnect the wash section from the rinse section by removing the nuts and bolts inside the machine that join the two sections. Save the cork gaskets for reassembly.

Remove the four bolts that join the base frame sections.

NOTE:
The two round legs on the base frame at the split line are for temporary support of the dishwasher after separation. They are not needed to support the assembled machine.

Remove conveyor drive cover at the exit end. If needed for hatch clearance, remove the conveyor drive sprocket and shaft. See Figure 7-4.

Reassembly of machine.

Prepare for reassembly by replacing the gaskets between the machine sections. Apply a thin coating of RTV Silicone Sealant to each side of the gasket. All bolt holes should be aligned and visible through the gasket holes.

Align the wash and rinse sections and bolt together. Tighten the screws by alternating from one side of the housing to the other.

Bolt the base frames together and reconnect the drain line. When replacing the drive chains, make sure that the chain with the drive lugs is on the rear track.

Reconnect the copper water tube on the top of the wash section.

Replace the hot water piping between the booster heater and the dishwasher. Reconnect the electrical wires and conduit between the booster and the machine.

NOTE:
The conveyor drive cover is replaced after the machine is positioned and bolted to the deck.

Replace vent collars and power loader (8.2.2 and 8.2.3) as required.

Continue with the following steps.

Mechanical and Piping.

Position the dishwasher and booster heater and install deck plates per standard procedures.

Install the optional power unloader.

1. Position the unloader at the exit of the dishwasher. Place the flange of the unloader table over the lip of the dishwasher rinse tank. Install and tighten the screws and nuts between the unloader and dishwasher housing.

2. Connect the drain line at the unions between the unloader and the machine.

3. Install deck plates per standard procedures.

Bolt the legs of the dishwasher, booster heater, and optional power unloader to the deck plates.

WARNING:
The dishwasher, booster heater, and unloader must be securely bolted to deck plates.

Connect a hot water supply line (140° F. minimum) to the valve on the water inlet to the booster heater (1/2" for steam booster, 3/4" for electric booster). Inlet water pressure should not be less than 20 psig. with water flowing, nor more than 125 psig static. Use unions in the piping system to facilitate the replacement of individual components.

Connect a 1/2" hot water supply line (140° F. minimum) to each manual fill valve on the top of the machine. Inlet water pressure should not be more than 125 psig static. Use unions in the piping system to facilitate the replacement of individual components.

Connect a 2" pipe to the drain line below the machine. DRAIN LINE MUST BE SUPPORTED.

Connect a 4" by 12" exhaust duct to the vent collar at each end of the machine. Ducts should exhaust 200 scfm from the entrance and 500 scfm from the exit connections.

Connect a 3/4" line to the drain fittings on the front and back bottoms of each vent collar.

For steam heated machines, make the following connections:

1. 3/4" supply line to valve at wash tank steam inlet.
2. 3/8" condensate return line to the wash tank trap.
3. 3/4" supply line to valve at rinse tank steam inlet.
4. 3/8" condensate return line to the rinse tank trap.
5. 3/4" supply line to valve at booster steam inlet.
6. 3/8" condensate return line to the booster trap.

For machines with the optional power loader, connect a drain line to the 1-1/2" sink drain on the bottom of the loader.

Install the detergent dispenser and rinse injector systems in an easily accessible location, above the operating level of the wash tank. A fresh water feed tube may be connected from the dishwasher wash tank fill piping to the water inlet of the detergent controller. See figure 8-15 for an example. As required, make connections between the detergent controller and the detergent reservoir. Any detergent discharge tubing should enter the machine at an elevation above the wash tank.

Connect the feed tube from the rinse injector pump outlet to the tee on the final hot rinse piping. See figure 8-15 for an example.

WARNING:
Dangerous voltages are present on connections to the electrical control enclosure and electric booster heater. Observe normal safety precautions for high voltage electrical equipment when connecting to the local distribution system. All work should be done by a qualified electrician.

NOTE:
Mounting hardware for the electrical control enclosure and the electrical power cables from the electrical control enclosure and electric booster heater to the ship's local distribution panel are to be furnished by the installing activity.

Electrical.

Install the electrical control enclosure on a bulkhead adjacent to the dishwasher. Controls should be easily accessible by the operator.

Install the 440 volt power wires between a circuit breaker in the ship's local distribution panel and the dishwasher electrical control enclosure. Separate services are required for:

1. Power for motors and controls.
2. Power for electric wash tank heaters.
3. Power for electric rinse tank heaters.

NOTE:
Power requirements for the dishwasher and heaters are listed in Table 1-1.

For electric booster heaters only, install separate 440 volt power wires between a circuit breaker in the ship's local distribution panel and the 440 volt connections inside the booster main cover panel.

Install the power and control wires between the electrical control enclosure and the junction box on the dishwasher. Numbered terminals are provided in each enclosure for all wires. See figure 8-13 (electric heated machines) or figure 8-14 (steam heated machines).

Connect the detergent dispenser controller to an appropriate source of power. 24 vac terminals (1 amp max) are available in the electrical control enclosure for dispensers operating on 24 vac. Figure 8-12 identifies these terminals. Voltage is present when the wash pump operates. Also connect the probe (on the bottom of the wash tank) to the controller.

Connect the rinse injector to an appropriate source of power. 24 vac terminals (1 amp max) are available in the electrical control enclosure for injectors operating on 24 vac. Voltage is present when the final rinse operates. Figure 8-12 identifies these terminals.

For machines with the optional power unloader, connect the wires and conduit (separated for shipment) between the machine and the junction box on the unloader.

Check-Out of the Installation

Perform the Start-up Procedure.

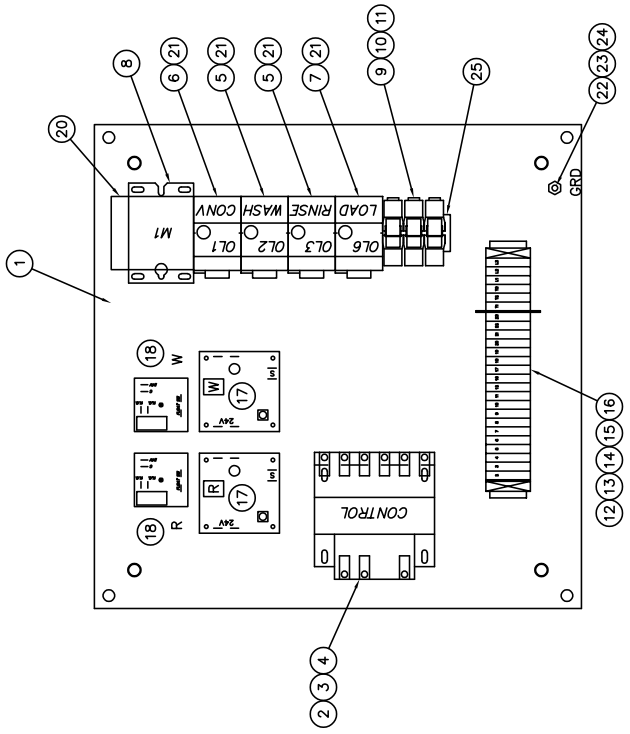
WARNING:
At startup, and after any draining of the electric booster, turn off the 440 volt power to the booster during the initial operation of the final hot fresh rinse. This will allow the booster reservoir to fill and trapped air to be purged without overheating of booster heating elements.

Verify that pump and motor rotations are correct. An arrow on the pump casting indicates the correct direction. Observe direction of loader roller rotation and unloader chain motion.

Inspect all plumbing joints for leakage and verify that water is running freely through the drains.

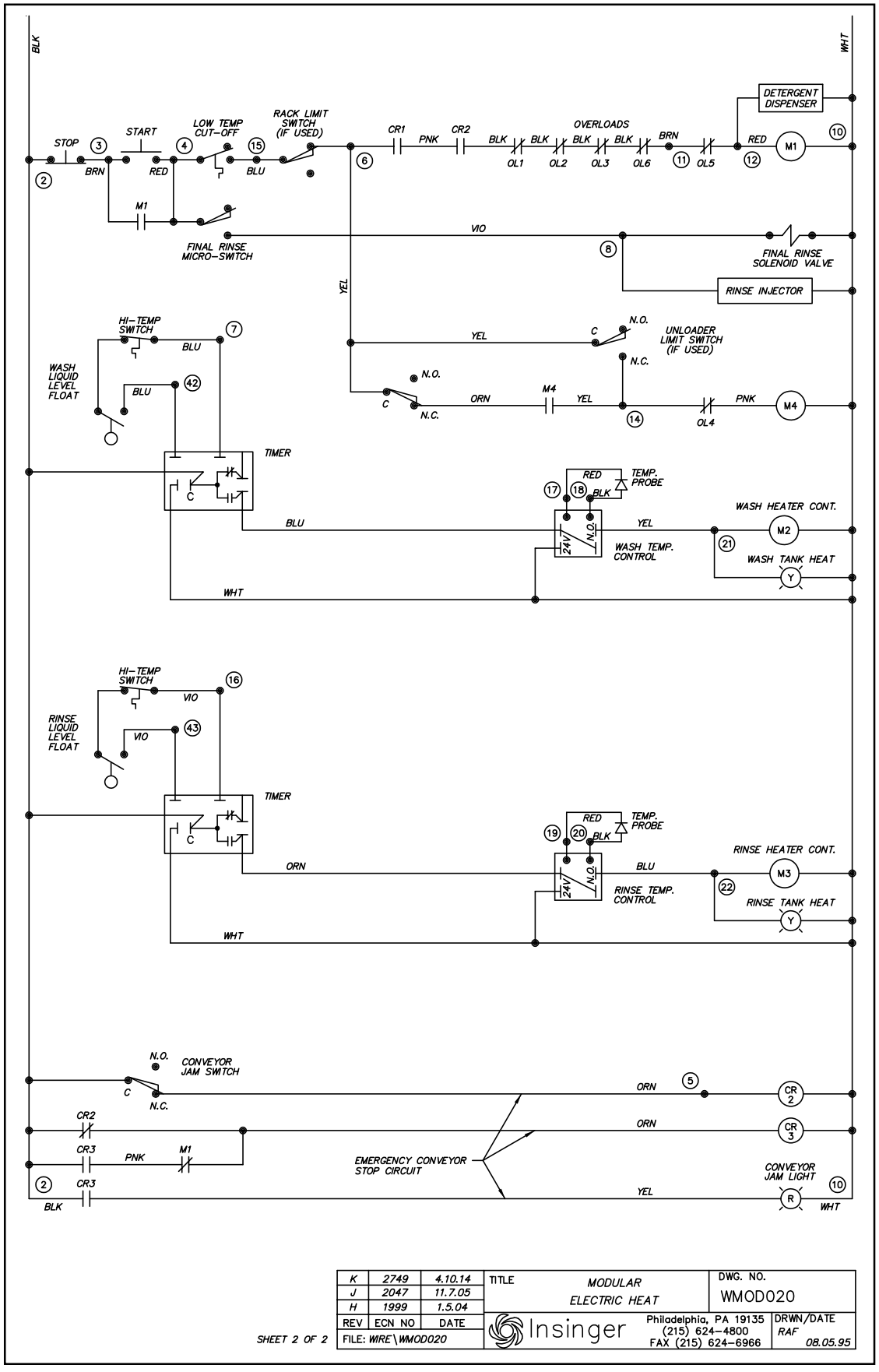
With the machine at operating temperature, and with the shipboard exhaust system operating, adjust the damper blade position in each vent duct connection. Starting with fully open blades, close each blade until a small amount of vapor escapes from the entrance and exit ends of the machine. Then open each blade a small amount and lock the handle position with the wing nut.

ITEM	DESCRIPTION	PART NO.	QTY
1	COMPONENT MOUNTING PLATE	SK-4668	1
2	TRANSFORMER (150 VA, 24 VAC)	5950-02281	1
3	FUSE BLOCK KIT (150 VA XFMR)	DE9-164	1
4	FUSE (150 VA XFMR) FNQ-R-1 (ATQR1)	DE9-167	2
5	OVERLOAD RELAY (1 HP WASH/RINSE PUMP) 440/3/60 1.6-2.5 A	DE2-52	2
6	OVERLOAD RELAY (1/15 HP CONV DRIVE) 440/3/60 .16-.25 A	DE2-91	1
7	OVERLOAD RELAY (1/3 HP LOADER) 440/3/60 .63-1 A	DE2-49	AR
8	CONTACTOR (MOTORS) 30 A RES	DE1-109	1
9	RELAY BASE	5945-01118	3
10	RELAY	5945-01117	3
11	RELAY HOLD DOWN SPRING	5345-02313	3
12	DIN RAIL (35 mm)	4797-00460	1
13	TERMINAL BLOCK	DE3-141	25
14	END COVER	DE3-142	1
15	PARTITION PLATE	DE3-143	1
16	TERMINAL END CLAMP	DE3-144	2
17	TEMPERATURE CONTROL BOARD	5955-02284	2
18	FLOAT DELAY TIMER	5960-02286	2
19	TEMPERATURE SENSOR (NOT SHOWN)	5025-02318	2
20	AUXILIARY CONTACT, NO/NC	DE1-115	1
21	OVERLOAD BASE	6405-02316	AR
22	GROUNDING STUD	5320-00542	1
23	LOCKWASHER, 1/4"	5330-00390	1
24	HEX NUT, 1/4-20	5325-00727	1
25	DIN RAIL (35 mm) HIGH	DE9-216	1
26			
27			
28			



SHEET 1 OF 2

TITLE	STEAM MODULAR CONTROL PANEL LAYOUT		
Insinger	Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966	DRWN/DATE	MFJ 2.7.96
U	4.15.21	FILE: SKETCH\SK-2677	
T	2749 4.30.14	SCALE	DWG. NO.
S	2291 2.27.09	1/4	SK-2677
REV	ECN NO DATE		



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J	2047	11.7.05
H	1999	1.5.04
FILE: WIRE\WMOD020		

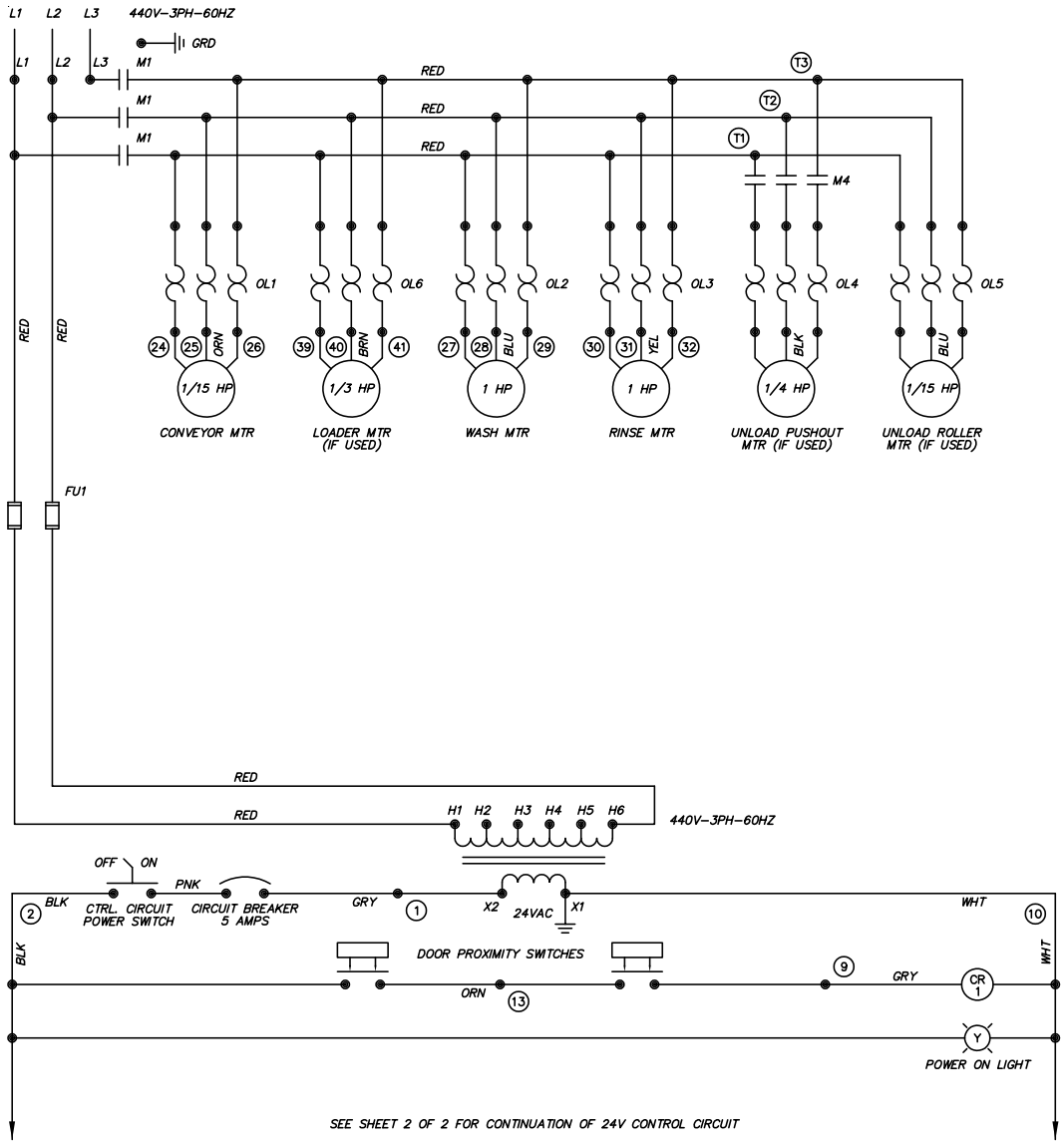
SHEET 2 OF 2

TITLE: MODULAR ELECTRIC HEAT

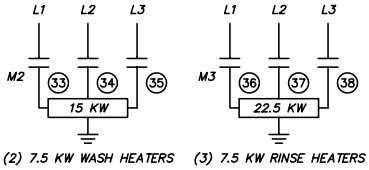
DWG. NO.: WMOD020

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

DRWN/DATE: RAF 08.05.95



NOTE:
1. THREE SEPARATE ELECTRICAL SERVICES ARE NECESSARY:
   1- MOTORS/CONTROLS
   2- WASH IMMERSION HEATERS
   3- RINSE IMMERSION HEATERS



REV	ECN NO	DATE
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J	2047	11.7.05
H	1999	1.5.04

FILE: WIRE\WMOD020

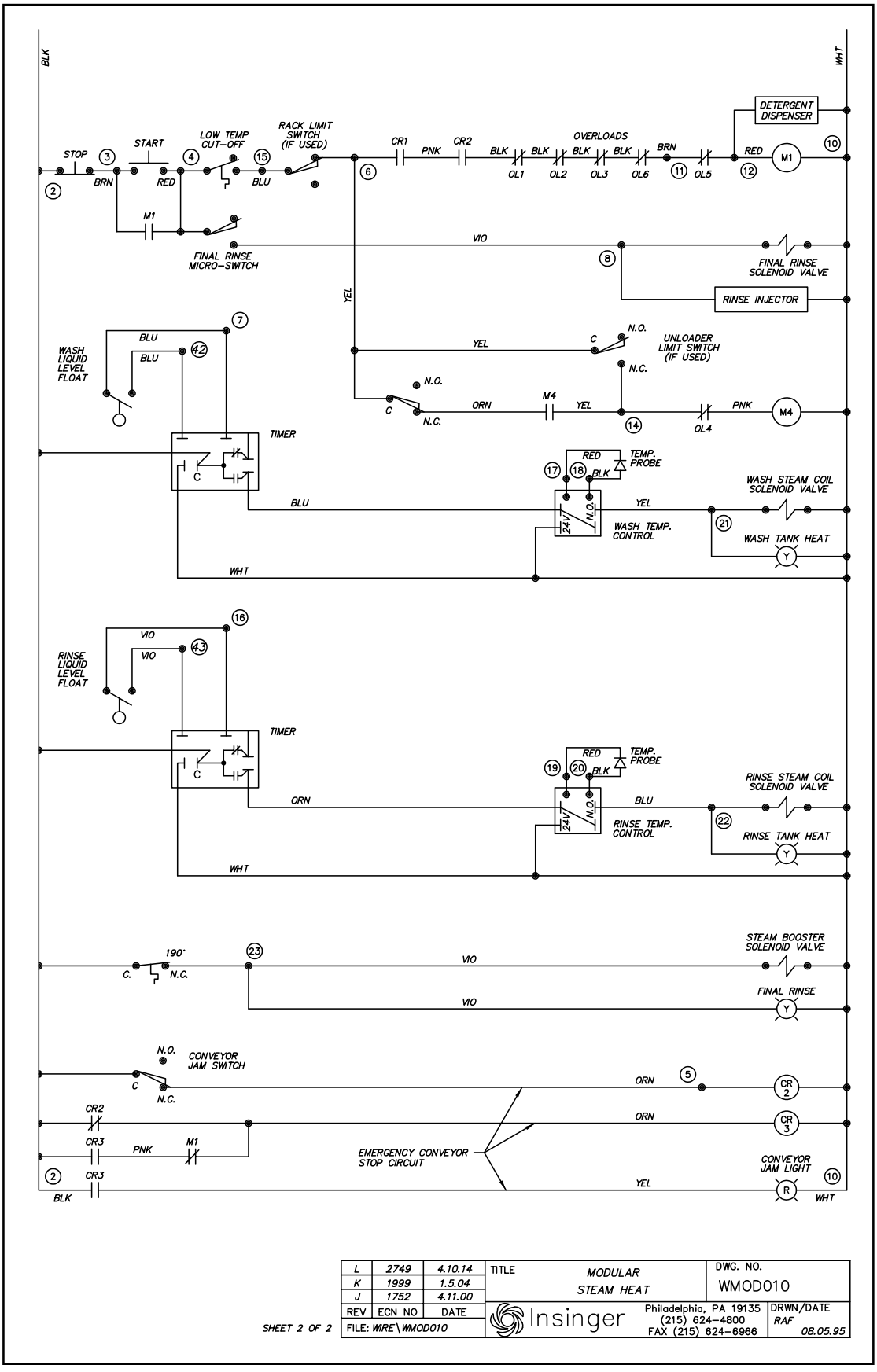
TITLE: MODULAR ELECTRIC HEAT

DWG. NO. WMOD020

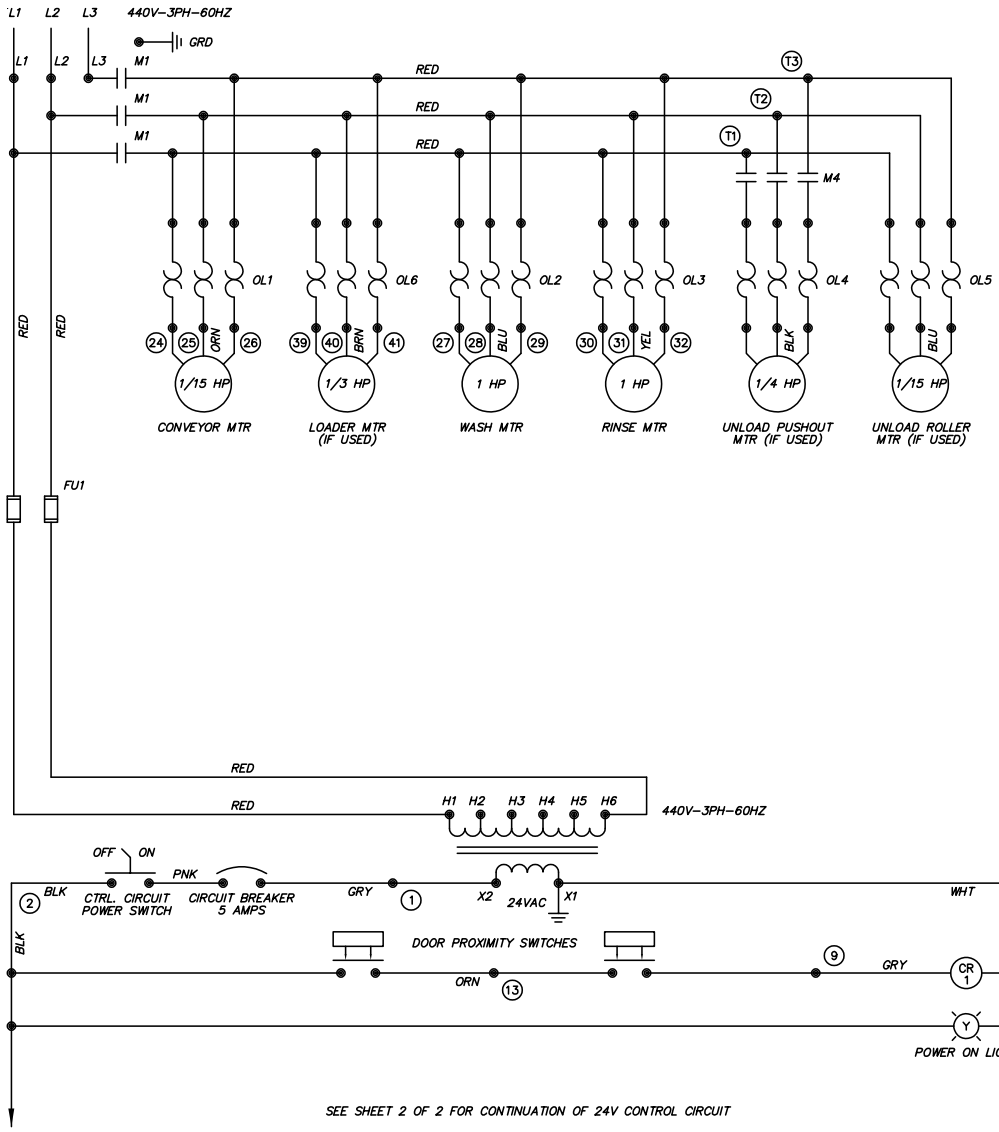
Insinger Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966

DRWN/DATE RAF 08.05.95

SHEET 1 OF 2



L	2749	4.10.14	TITLE: MODULAR STEAM HEAT	DWG. NO. WMOD010
K	1999	1.5.04		
J	1752	4.11.00		
REV	ECN NO	DATE	Insinger Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966	DRWN/DATE RAF 08.05.95
SHEET 2 OF 2	FILE: WIRE\WMOD010			



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L	2749	4.10.14
K	1999	1.5.04
J	1752	4.11.00
FILE: WIRE\WMOD010		

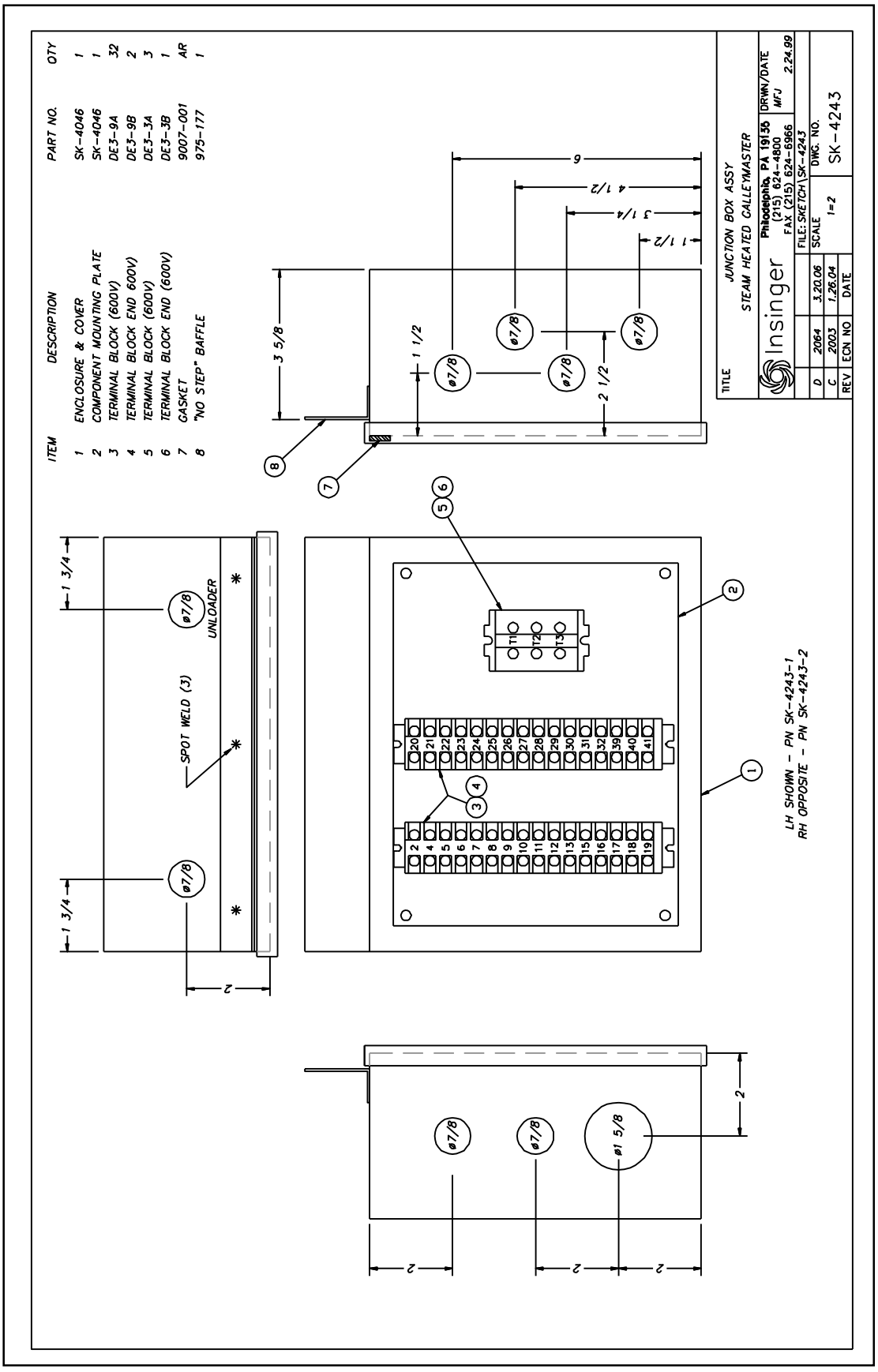
TITLE: MODULAR STEAM HEAT

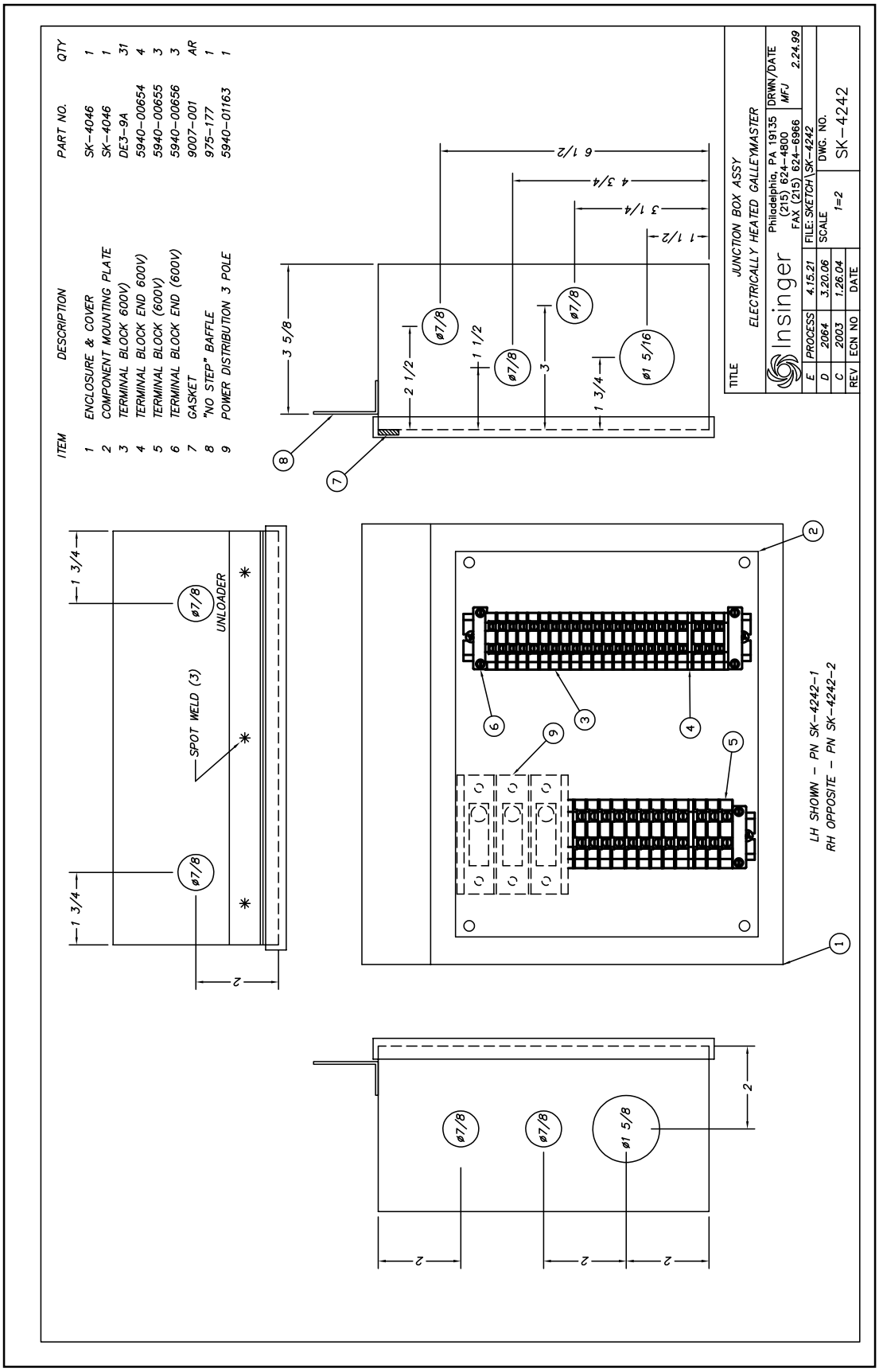
DWG. NO. WMOD010

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

DRWN/DATE RAF 08.05.95

SHEET 1 OF 2


ITEM
DESCRIPTION
PART NO.
QTY
1 ENCLOSURE & COVER SK-4046 1
2 COMPONENT MOUNTING PLATE SK-4046 1
3 TERMINAL BLOCK (600V) DE3-9A 32
4 TERMINAL BLOCK END 600V) DE3-9B 2
5 TERMINAL BLOCK (600V) DE3-3A 3
6 TERMINAL BLOCK END (600V) DE3-3B 1
7 GASKET 9007-001 AR
8 "NO STEP" BAFFLE 975-177
TITLE
JUNCTION BOX ASSY
STEAM HEATED CALLEYMASTER
Insinger
Philadelphia, PA 19136
(215) 624-4800
FAX (215) 624-6966
DRWN/DATE MFJ 2.24.99
FILE: SKETCH1 SK-4243
SCALE 1=2
DWG. NO. SK-4243
D 2064 3.20.06
C 2003 1.26.04
REV ECN NO DATE
SPOT WELD (3)
UNLOADER
LH SHOWN - PN SK-4243-1
RH OPPOSITE - PN SK-4243-2


ITEM DESCRIPTION PART NO. QTY
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2 COMPONENT MOUNTING PLATE SK-4046 1
3 TERMINAL BLOCK 600V) DE3-9A 31
4 TERMINAL BLOCK END 600V) 5940-00654 4
5 TERMINAL BLOCK (600V) 5940-00655 3
6 TERMINAL BLOCK END (600V) 5940-00656 3
7 GASKET 9007-001 AR
8 "NO STEP" BAFFLE 975-177 1
9 POWER DISTRIBUTION 3 POLE 5940-01163 1
TITLE
JUNCTION BOX ASSY
ELECTRICALLY HEATED GALLEYMASTER
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
DRWN/DATE MFJ 2.24.99
E PROCESS 4.15.21
D 2064 3.20.06
C 2003 1.26.04
REV ECN NO DATE
FILE: SKETCH\SK-4242
SCALE 1=2
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SPOT WELD (3)
UNLOADER
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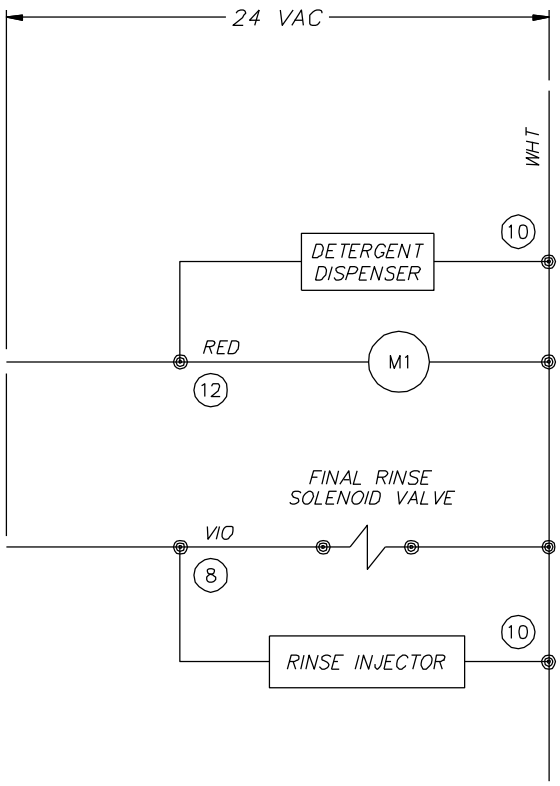
RH OPPOSITE - PN SK-4242-2



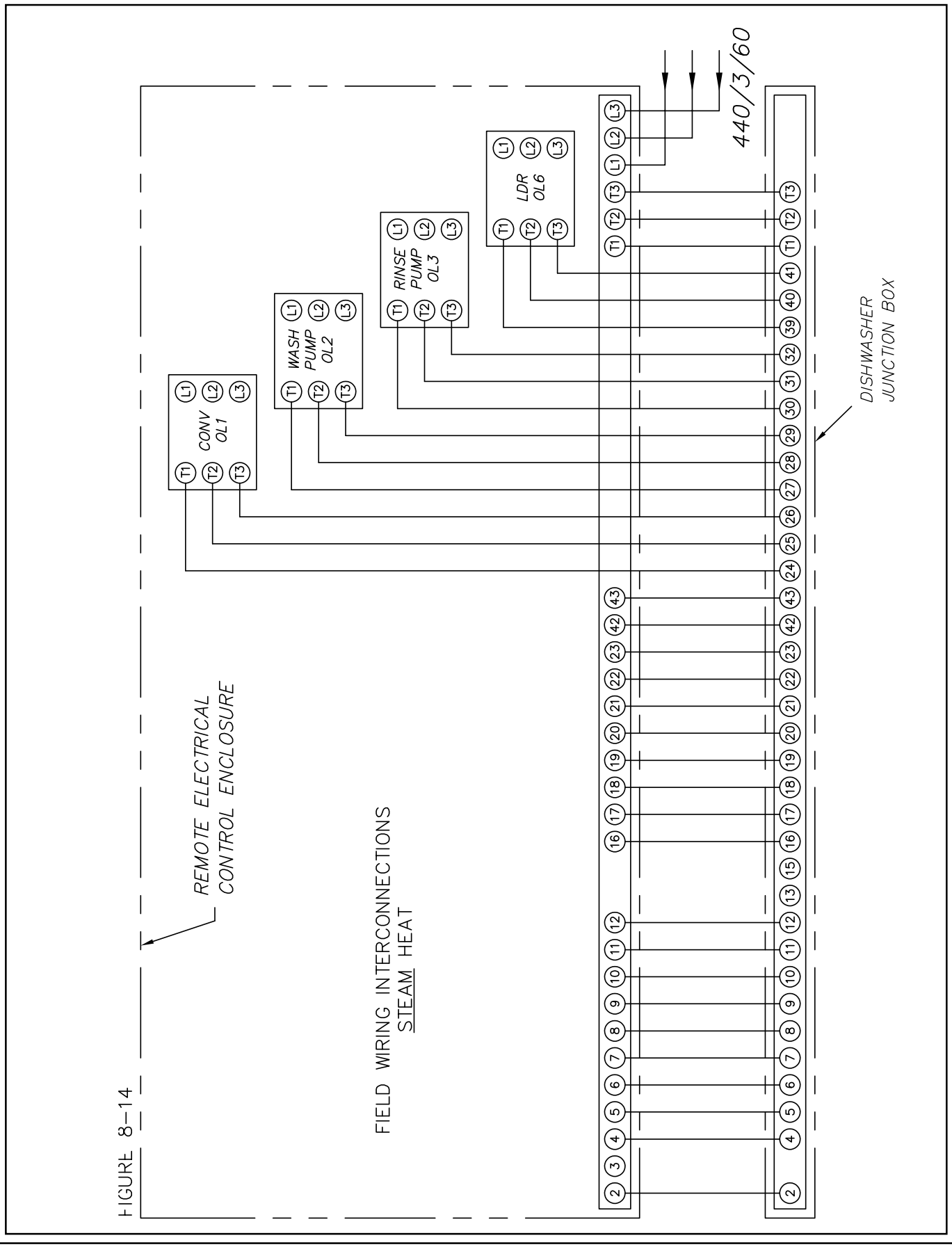
DETERGENT DISPENSER & RINSE INJECTOR CONNECTIONS

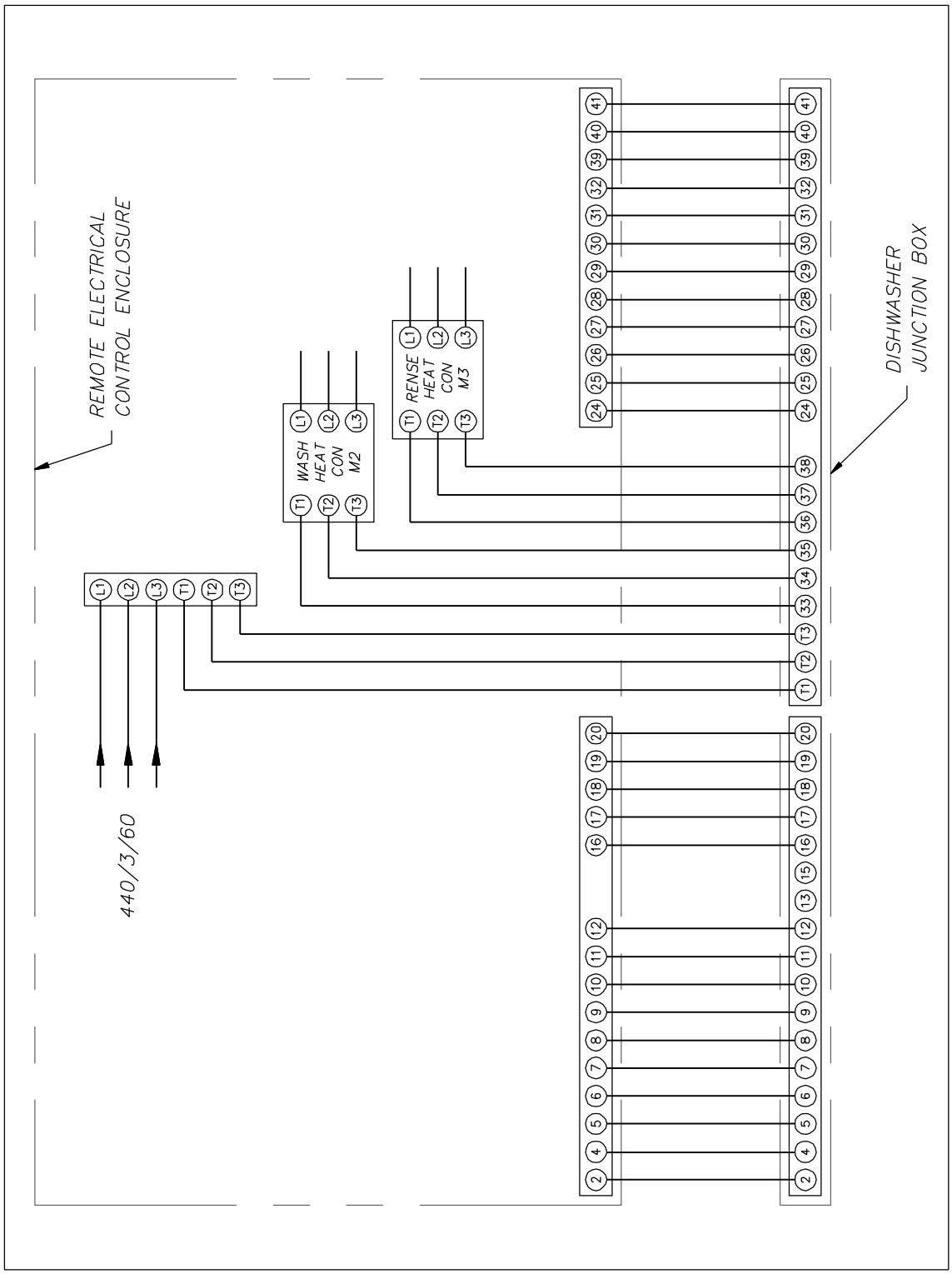
24 VAC ONLY

1 AMP MAX FOR DET DISP – 1 AMP MAX FOR RINSE INJ

8-20

SKETCHA\SK-3849


440/3/60
LDR OL6
RINSE PUMP OL3
WASH PUMP OL2
CONV OL1
DISHWASHER JUNCTION BOX
REMOTE ELECTRICAL CONTROL ENCLOSURE
FIELD WIRING INTERCONNECTIONS
STEAM HEAT
FIGURE 8-14


REMOTE ELECTRICAL
CONTROL ENCLOSURE
DISHWASHER
JUNCTION BOX
WASH
HEAT
CON
M2
RENSE
HEAT
CON
M3
440/3/60

ITEM	DESCRIPTION	PART NO.	QTY
1	ENCLOSURE	DE9-39	1
2	COMPONENT MOUNTING PLATE	DE9-39A	1
3	CONTACTOR 30 A RES	DE1-109	1
4	OVERLOAD RELAY (1/4 HP) .63-1 A 440/3/60	DE2-49	1
5	OVERLOAD RELAY (1/15 HP) .16-.25 A 440/3/60	DE2-91	1
6	DIN RAIL (35 mm)	4797-00460	1
7	TERMINAL	5940-00655	10
8	TERMINAL END	5940-00656	6
9	OVERLOAD BASE	6405-02316	2
10	AUXILIARY CONTACT, NO/NC	DE1-115	1
11	MOUNTING ENDS	5940-00654	2
12	Screw, #8-32 x 3/8" Round Head	5305-00724	8
13	SCREW, 10-32 X 3/8 FLAT HD CROSS	5305-00725	1

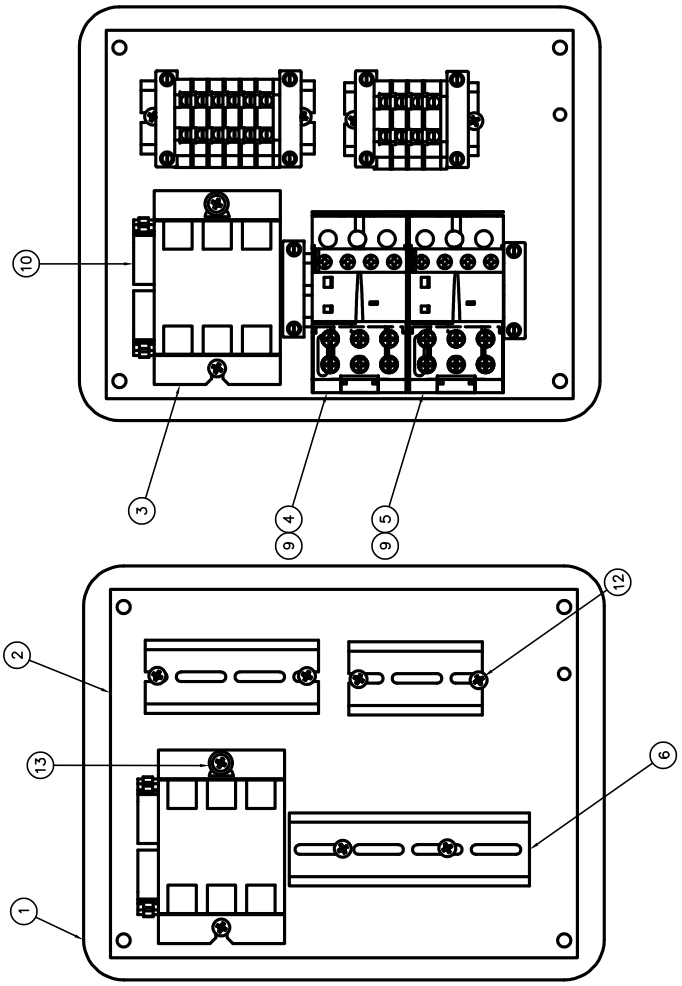
TITLE: MODULAR POWER UNLOADER
CONTROL PANEL LAYOUT

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

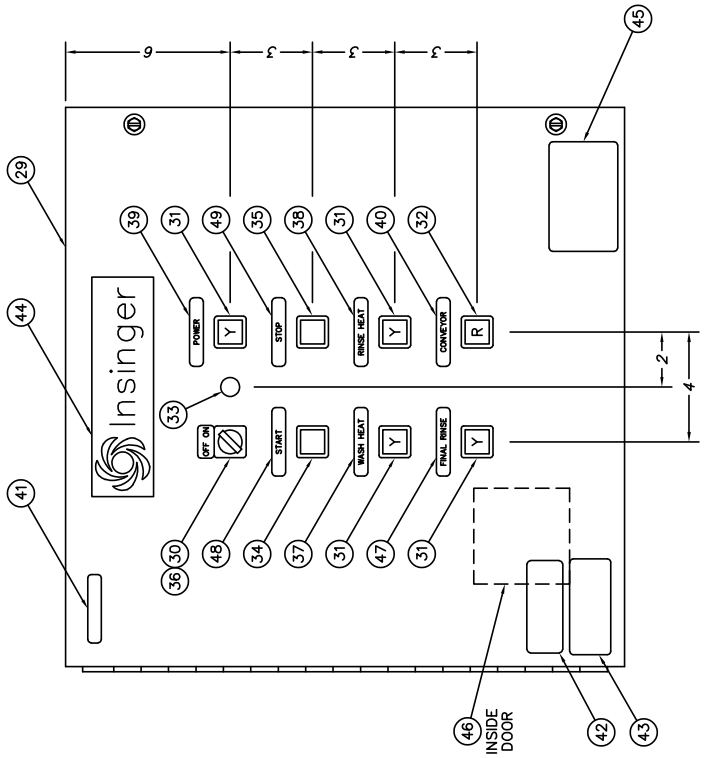
DRWN/DATE: MFU 2.7.96

REV	ECN NO	DATE
L	PROCESS	4.16.21
K	1752	10.01.18
J	1752	4.11.00

FILE: SKETCH | SK-3473
SCALE: 1=2
DWG. NO.: SK-3473



ITEM	DESCRIPTION	PART NO.	QTY
29	ENCLOSURE, 20 X 20 X 8	975-226	1
30	SELECTOR SWITCH ASSY	DE8-58	1
31	PILOT LIGHT ASSY - YELLOW	5995-02290	4
32	PILOT LIGHT ASSY - RED	5995-02291	1
33	CIRCUIT BREAKER (5A)	5925-02293	1
34	PUSHBUTTON ASSY, START	DE8-64	1
35	PUSHBUTTON ASSY, STOP	DE8-65	1
36	LEGEND PLATE, OFF - ON	DE5-35	1
37	LABEL "WASH TANK HEAT"	SK-2556A	1
38	LABEL "RINSE TANK HEAT"	SK-2556B	1
39	LABEL "POWER"	SK-3121	1
40	LABEL "CHECK CONVEYOR"	SK-3218	1
41	LABEL "DISCONNECT....BEFORE SERVICING"	SK-2548	1
42	LABEL "CAUTION TURN POWER.....OFF"	SK-3192	1
43	LABEL "THIS MACHINE.....LESS THAN 180""	SK-1997	1
44	INSINGER LOGO	SK-2723	1
45	LABEL "DANGER HIGH VOLTAGE....."	SK-3458	1
46	DATA DECAL	SK-3917	1
47	LABEL "FINAL RINSE"	SK-2235	1
48	LABEL "START"	SK-4650	1
49	LABEL "STOP"	SK-4651	1
50			
NOT SHOWN	ELECTRIC IMMERSION HEATER (7.5 KW)	DE13-LE73	4



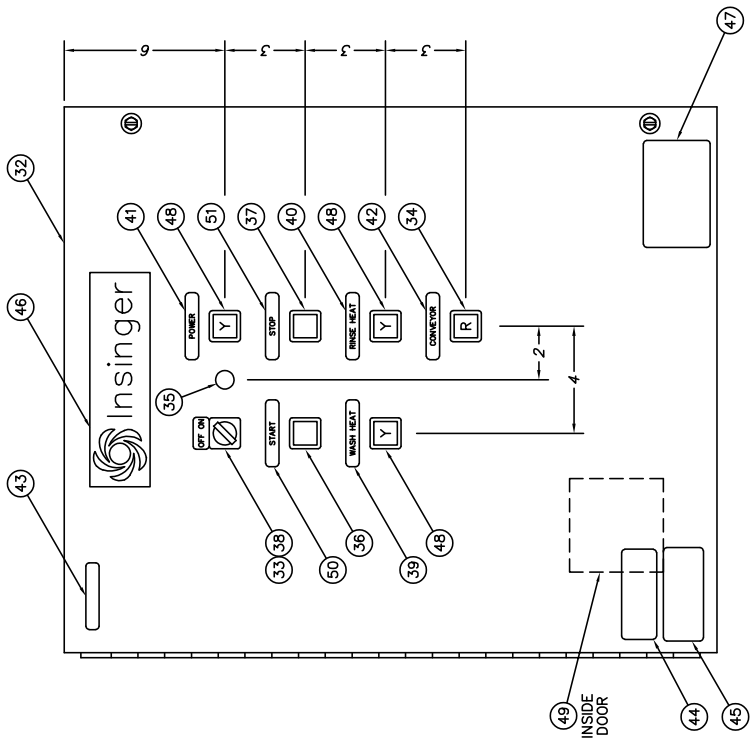
SHEET 2 OF 2

TITLE	STEAM MODULAR CONTROL PANEL LAYOUT		
Insinger	Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966	DRWN/DATE	MFJ 2.7.96
U	4.15.21	FILE: SKETCH\SK-2677	
T	2749 4.30.14	SCALE	DWG. NO.
S	2291 2.27.09	1/4	SK-2677
REV	ECN NO DATE		

ITEM	DESCRIPTION	PART NO.	QTY
29	GROUNDING STUD	5320-00542	1
30	LOCKWASHER, 1/4"	5330-00390	1
31	HEX NUT, 1/4-20	5325-00727	1
32	ENCLOSURE 24 X 20 X 8	975-225	1
33	SELECTOR SWITCH ASSY	DE8-58	1
34	PILOT LIGHT ASSY - RED	5995-02291	1
35	CIRCUIT BREAKER (5A)	5925-02293	1
36	PUSHBUTTON ASSY, START	DE8-64	1
37	PUSHBUTTON ASSY, STOP	DE8-65	1
38	LEGEND PLATE, OFF - ON	DE5-35	1
39	LABEL "WASH TANK HEAT"	SK-2556A	1
40	LABEL "RINSE TANK HEAT"	SK-2556B	1
41	LABEL "POWER"	SK-3121	1
42	LABEL "CHECK CONVEYOR"	SK-3218	1
43	LABEL "DISCONNECT.....BEFORE SERVICING"	9600-01936	1
44	LABEL "CAUTION TURN POWER....OFF"	SK-3192	1
45	LABEL "THIS MACHINE.....LESS THAN 180"	SK-1997	1
46	INSINGER LOGO	SK-2723	1
47	LABEL "DANGER HIGH VOLTAGE....."	SK-3458	1
48	PILOT LIGHT ASSY - YELLOW	5995-02290	3
49	DATA DECAL	SK-3917	1
50	LABEL "START"	SK-4650	1
51	LABEL "STOP"	SK-4651	1
NOT SHOWN			
	ELECTRIC IMMERSION HEATER (7.5 KW)	DE13-LE73	5
	HIGH TEMPERATURE CUT-OFF SWITCH	DE5-61	2

SHEET 2 OF 2

TITLE	ELECTRIC GALLEYMASTER CONTROL PANEL LAYOUT		
Insinger	Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966	DRWN/DATE	MFJ 2.7.96
U	PROCESS 4.16.21	FILE: SKETCH\SK-3359	
T	2749 4.30.14	SCALE	DWG. NO.
S	2291 2.27.09	1/4	SK-3359
REV	ECN NO DATE		



WEIGHT OF COMPLETE CONTROL BOX ASSEMBLY IS 50 LBS.

ITEM	DESCRIPTION	PART NO.	QTY
1	COMPONENT MOUNTING PLATE	SK-4667	1
2	TRANSFORMER (150 VA, 24 VAC)	5950-02281	1
3	FUSE BLOCK KIT (150 VA XFMR)	DE9-164	1
4	FUSE (150 VA XFMR) FNQ-R-1 (ATQR1)	DE9-167	2
5	OVERLOAD RELAY (1 HP WASH/RINSE PUMP) 440/3/60 1.6-2.5 A	DE2-52	2
6	OVERLOAD RELAY (1/15 HP CONV DRIVE) 440/3/60 .16-.25 A	DE2-91	1
7			
8	OVERLOAD RELAY (1/3 HP LOADER) 440/3/60 .63-1 A	DE2-49	AR
9	CONTACTOR (15 KW WASH TANK HEAT) 440/3/60 30 A RES	DE1-109	1
10	CONTACTOR (22.5 KW RINSE TANK HEAT) 440/3/60 30 A RES	DE1-109	1
11	CONTACTOR (MOTORS) 30 A RES	DE1-109	1
12	RELAY BASE	5945-01118	3
13	RELAY	5945-01117	3
14	RELAY HOLD DOWN SPRING	5345-02313	3
15	DIN RAIL (35 mm)	DE9-84	1
16	DIN RAIL (15 mm)	4797-00708	1
17	TERMINAL SECTION (300 V)	5940-00704	AR
18	TERMINAL END COVER PLATE	5940-00705	1
19	TERMINAL END CLAMP	5940-00706	2
20	TEMPERATURE CONTROL BOARD	5955-02284	2
21	FLOAT DELAY TIMER	5960-02286	2
22	TEMPERATURE SENSOR (NOT SHOWN)	5025-02318	2
23			
24	AUXILIARY CONTACT, NO/NC	DE1-115	1
25			
26	TERMINAL BLOCK END CLAMP	5940-00656	6
27	TERMINAL SECTION (600 V)	5940-00655	13
28	TERMINAL END PLATE	5940-00654	1

SHEET 1 OF 2

TITLE: ELECTRIC GALLEYMASTER
CONTROL PANEL LAYOUT

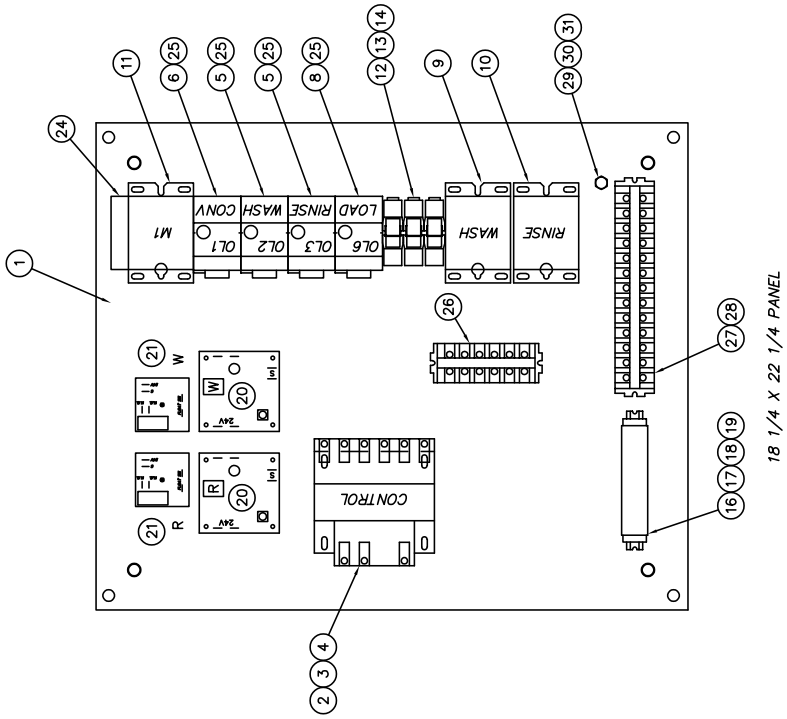
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

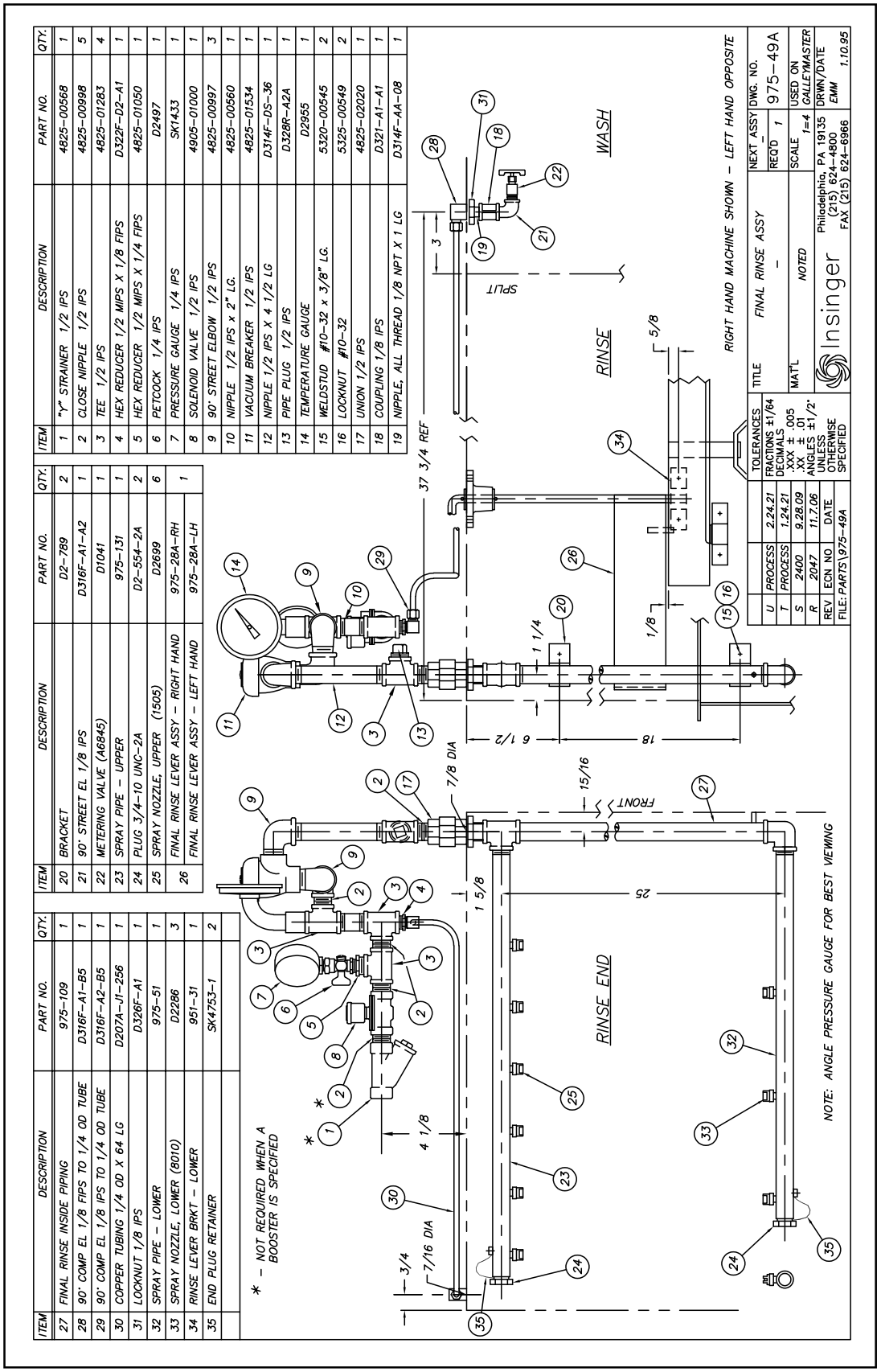
DRWN/DATE MFJ 2.7.96

U	PROCESS	4.16.21	FILE: SKETCH1
T	2749	4.30.14	SCALE
S	2291	2.27.09	1/4
REV	ECN NO	DATE	

SK-3359

DWG. NO.
SK-3359





ITEM	DESCRIPTION	PART NO.	QTY.
1	"Y" STRAINER 1/2 IPS	4825–00568	1
2	CLOSE NIPPLE 1/2 IPS	4825–00998	5
3	TEE 1/2 IPS	4825–01283	4
4	HEX REDUCER 1/2 MIPS X 1/8 FIPS	D322F–D2–A1	1
5	HEX REDUCER 1/2 MIPS X 1/4 FIPS	4825–01050	1
6	PETCOCK 1/4 IPS	D2497	1
7	PRESSURE GAUGE 1/4 IPS	SK1433	1
8	SOLENOID VALVE 1/2 IPS	4905–01000	1
9	90° STREET ELBOW 1/2 IPS	4825–00997	3
10	NIPPLE 1/2 IPS x 2" LG.	4825–00560	1
11	VACUUM BREAKER 1/2 IPS	4825–01534	1
12	NIPPLE 1/2 IPS X 4 1/2 LG	D3144F–DS–36	1
13	PIPE PLUG 1/2 IPS	D328R–A2A	1
14	TEMPERATURE GAUGE	D2955	1
15	WELDSTUD #10–32 x 3/8" LG.	5320–00545	2
16	LOCKNUT #10–32	5325–00549	2
17	UNION 1/2 IPS	4825–02020	1
18	COUPLING 1/8 IPS	D321–A1–A1	1
19	NIPPLE, ALL THREAD 1/8 NPT X 1 LG	D314F–AA–08	1
20	BRACKET	D2–789	2
21	90° STREET EL 1/8 IPS	D316F–A1–A2	1
22	METERING VALVE (A6845)	D1041	1
23	SPRAY PIPE – UPPER	975–131	1
24	PLUG 3/4–10 UNC–2A	D2–554–2A	2
25	SPRAY NOZZLE, UPPER (1505)	D2699	6
26	FINAL RINSE LEVER ASSY – RIGHT HAND	975–28A–RH	1
	FINAL RINSE LEVER ASSY – LEFT HAND	975–28A–LH	
27	FINAL RINSE INSIDE PIPING	975–109	1
28	90° COMP EL 1/8 FIPS TO 1/4 OD TUBE	D316F–A1–B5	1
29	90° COMP EL 1/8 IPS TO 1/4 OD TUBE	D316F–A2–B5	1
30	COPPER TUBING 1/4 OD X 64 LG	D207A–U1–256	1
31	LOCKNUT 1/8 IPS	D326F–A1	1
32	SPRAY PIPE – LOWER	975–51	1
33	SPRAY NOZZLE, LOWER (8010)	D2286	3
34	RINSE LEVER BRKT – LOWER	951–31	1
35	END PLUG RETAINER	SK4753–1	2

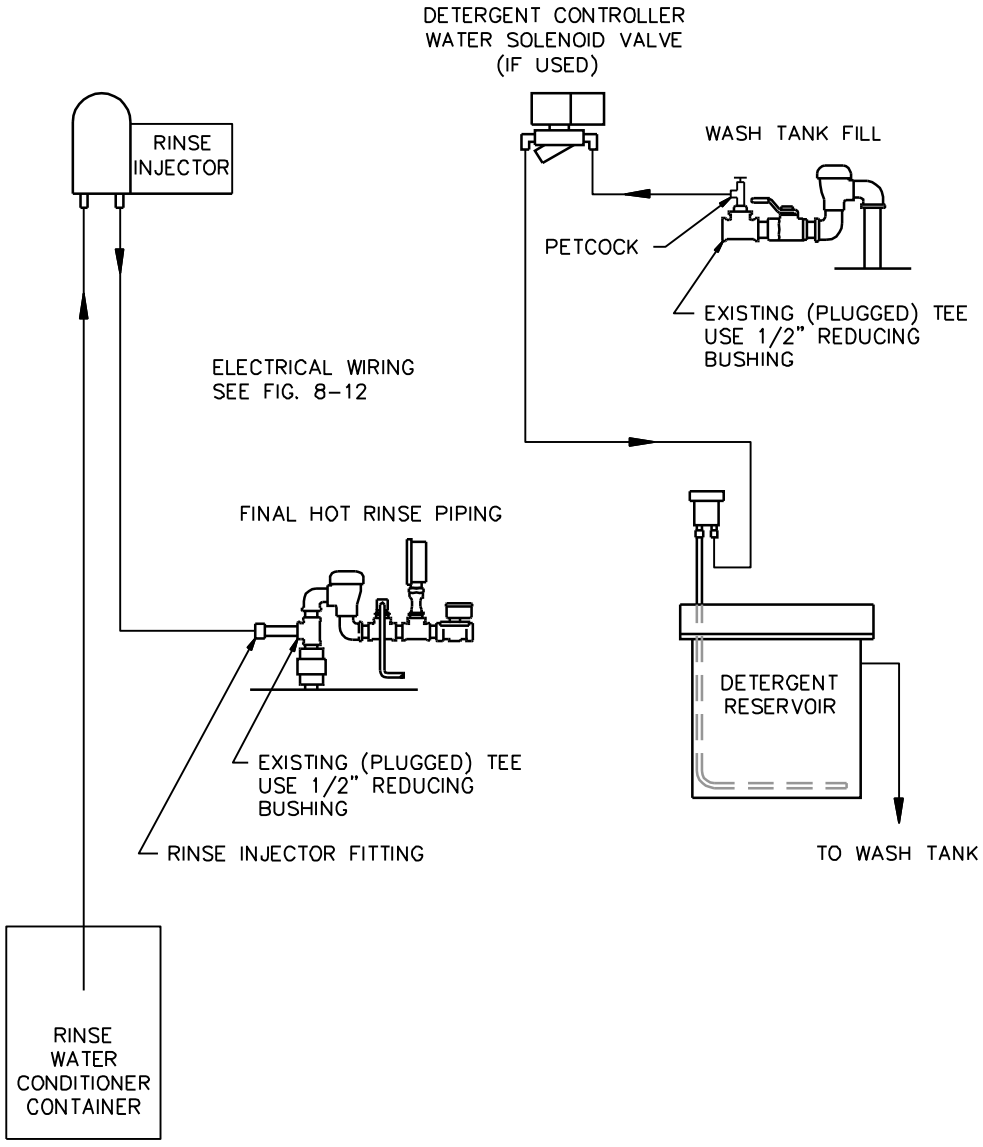
REV	ECN NO	DATE	PROCESS	2.24.21
U	PROCESS	2.24.21		
T	PROCESS	1.24.21		
S	2400	9.28.09		
R	2047	11.7.06		

FILE: PARTS\975–49A

TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XX ± .01
.XXX ± .005
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED

TITLE: FINAL RINSE ASSY –
MAT'L: NOTED
SCALE: 1=4
NEXT ASSY
REQ'D 1
DWG. NO. 975–49A
USED ON GALLEYMASTER
DRWN/DATE EMM 1.10.95

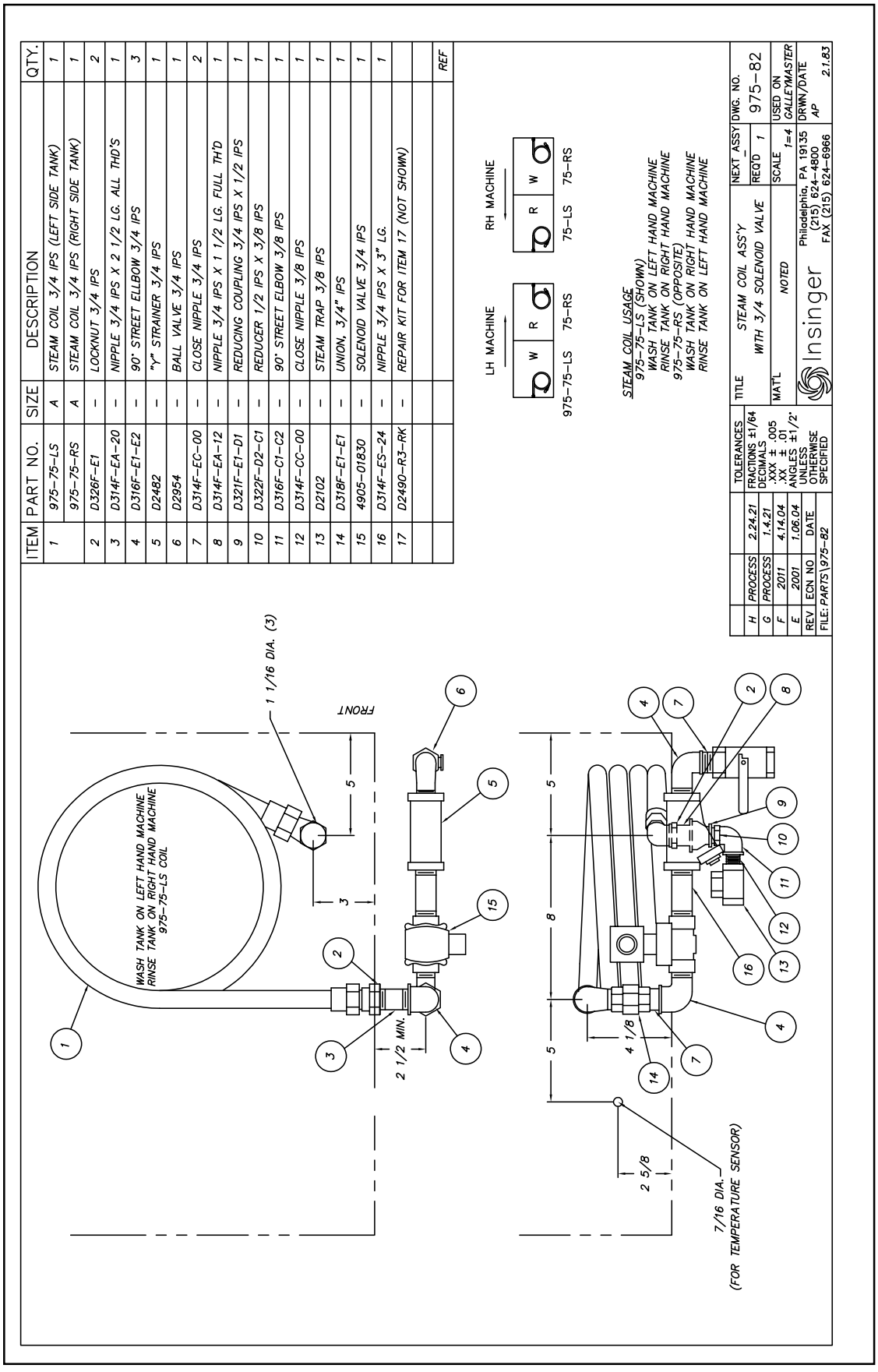
FIGURE 8–15

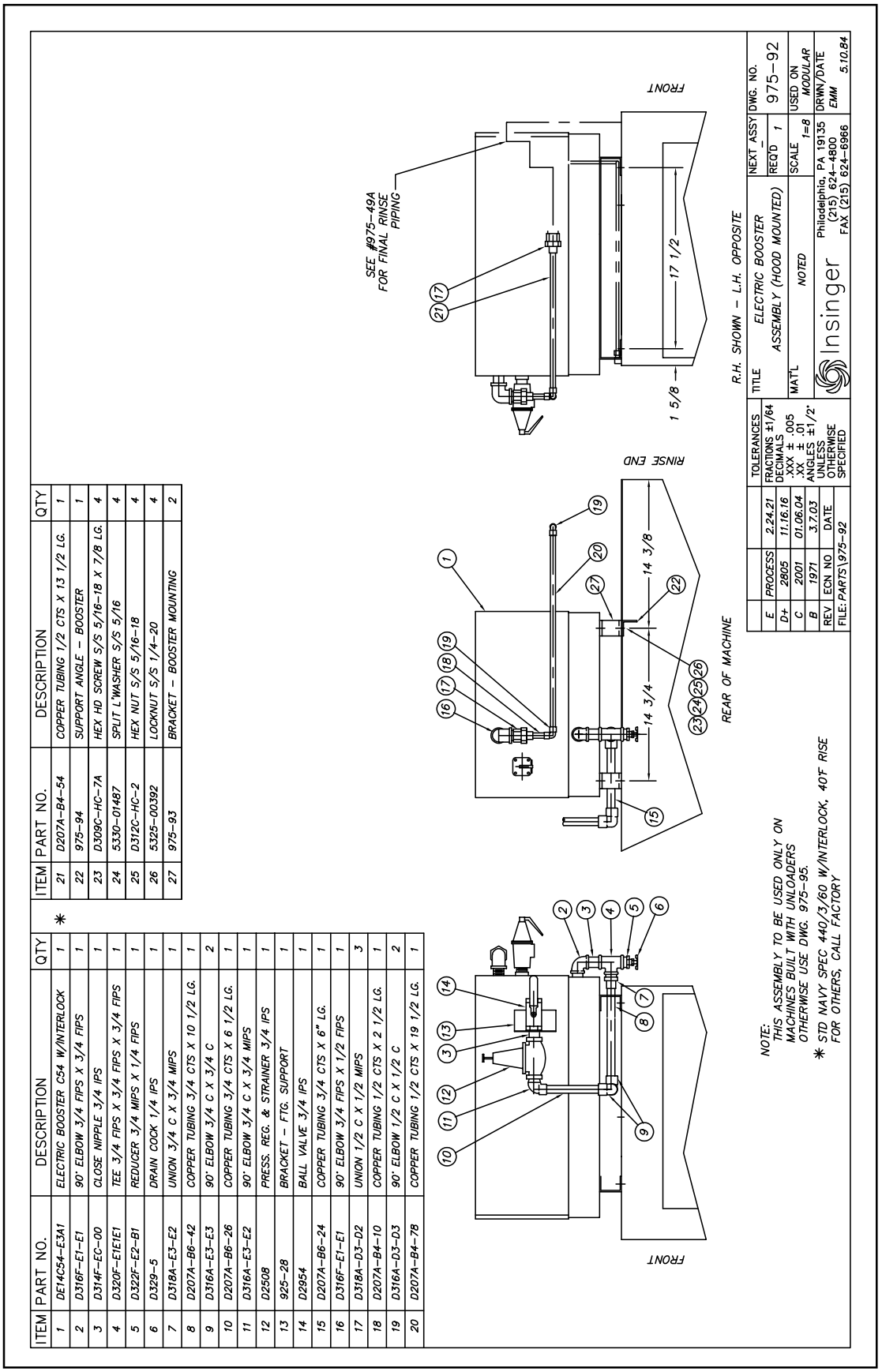


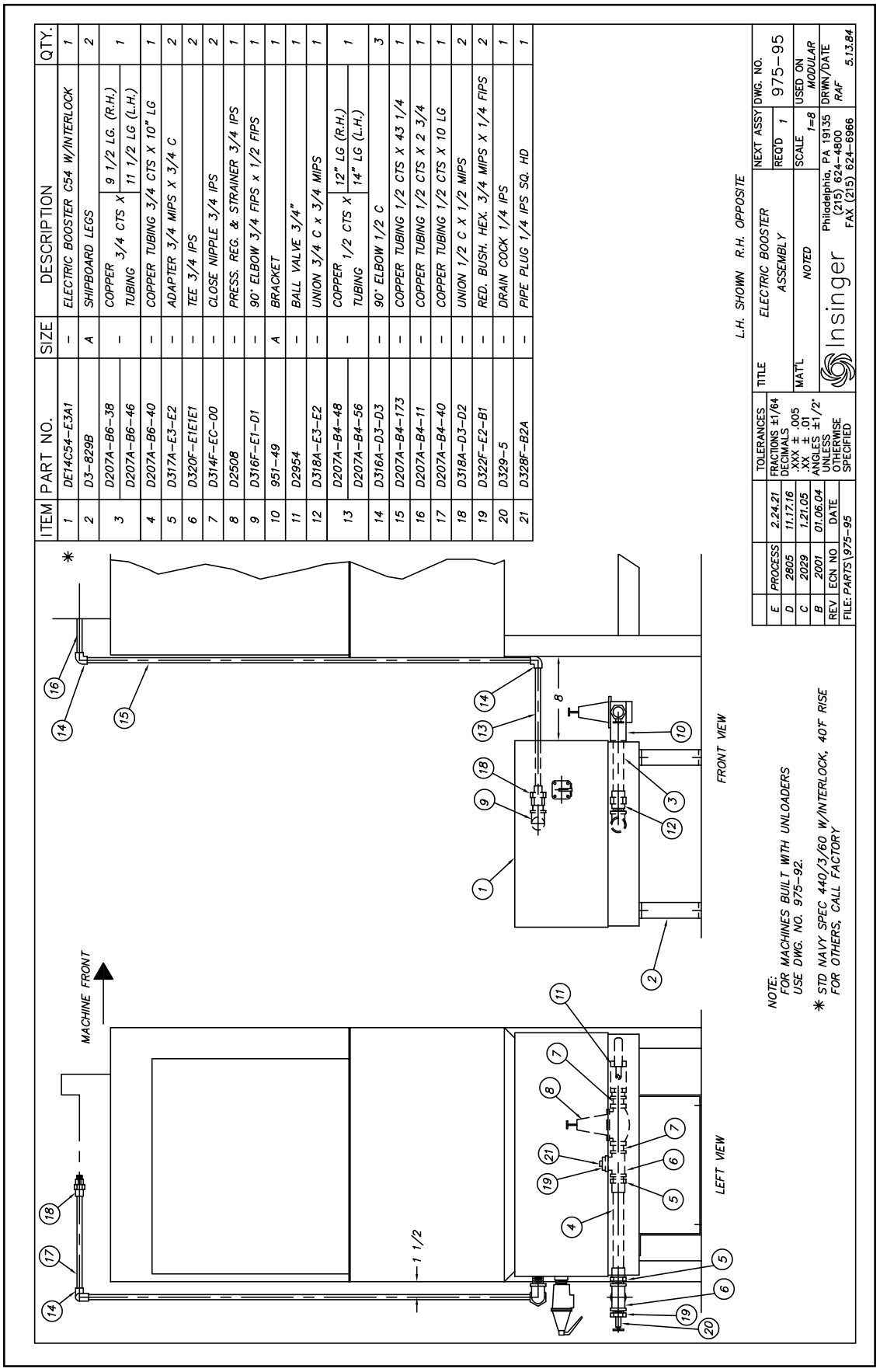
DETERGENT DISPENSER AND RINSE INJECTOR PLUMBING EXAMPLES

8–23

SKETCHA\SK–3900


ITEM | PART NO. | SIZE | DESCRIPTION | QTY.
1 | 975-75-LS | A | STEAM COIL 3/4 IPS (LEFT SIDE TANK) | 1
975-75-RS | A | STEAM COIL 3/4 IPS (RIGHT SIDE TANK) | 1
2 | D326F-E1 | – | LOCKNUT 3/4 IPS | 2
3 | D314F-EA-20 | – | NIPPLE 3/4 IPS X 2 1/2 LG. ALL THD'S | 1
4 | D316F-E1-E2 | – | 90° STREET ELLBOW 3/4 IPS | 3
5 | D2482 | – | "Y" STRAINER 3/4 IPS | 1
6 | D2954 | – | BALL VALVE 3/4 IPS | 1
7 | D314F-EC-00 | – | CLOSE NIPPLE 3/4 IPS | 2
8 | D314F-EA-12 | – | NIPPLE 3/4 IPS X 1 1/2 LG. FULL TH'D | 1
9 | D321F-E1-D1 | – | REDUCING COUPLING 3/4 IPS X 1/2 IPS | 1
10 | D322F-D2-C1 | – | REDUCER 1/2 IPS X 3/8 IPS | 1
11 | D316F-C1-C2 | – | 90° STREET ELBOW 3/8 IPS | 1
12 | D314F-CC-00 | – | CLOSE NIPPLE 3/8 IPS | 1
13 | D2102 | – | STEAM TRAP 3/8 IPS | 1
14 | D318F-E1-E1 | – | UNION, 3/4" IPS | 1
15 | 4905-01830 | – | SOLENOID VALVE 3/4 IPS | 1
16 | D314F-ES-24 | – | NIPPLE 3/4 IPS X 3" LG. | 1
17 | D2490-R3-RK | – | REPAIR KIT FOR ITEM 17 (NOT SHOWN) | 1
REF
LH MACHINE
RH MACHINE
W R
975-75-LS 75-RS
975-75-LS 75-RS
STEAM COIL USAGE
975-75-LS (SHOWN)
WASH TANK ON LEFT HAND MACHINE
RINSE TANK ON RIGHT HAND MACHINE
975-75-RS (OPPOSITE)
WASH TANK ON RIGHT HAND MACHINE
RINSE TANK ON LEFT HAND MACHINE
H PROCESS 2.24.21
G PROCESS 1.4.21
F 2011 4.14.04
E 2001 1.06.04
REV ECN NO DATE
FILE: PARTS\975-82
TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
OTHERWISE SPECIFIED
TITLE
STEAM COIL ASS'Y
WITH 3/4 SOLENOID VALVE
MATL
NOTED
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY
REQ'D 1
SCALE 1=4
DWG. NO.
975-82
USED ON
GALLEYMASTER
DRWN/DATE
AP 2.1.83
WASH TANK ON LEFT HAND MACHINE
RINSE TANK ON RIGHT HAND MACHINE
975-75-LS COIL
1 1/16 DIA. (3)
FRONT
5
3
2 1/2 MIN.
8
4 1/8
2 5/8
7/16 DIA.
(FOR TEMPERATURE SENSOR)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16


ITEM | PART NO. | DESCRIPTION | QTY
1 | DE14C54-E3A1 | ELECTRIC BOOSTER C54 W/INTERLOCK | 1 *
2 | D316F-E1-E1 | 90° ELBOW 3/4 FIPS X 3/4 FIPS | 1
3 | D314F-EC-00 | CLOSE NIPPLE 3/4 IPS | 1
4 | D320F-E1E1E1 | TEE 3/4 FIPS X 3/4 FIPS X 3/4 FIPS | 1
5 | D322F-E2-B1 | REDUCER 3/4 MIPS X 1/4 FIPS | 1
6 | D329-5 | DRAIN COCK 1/4 IPS | 1
7 | D318A-E3-E2 | UNION 3/4 C X 3/4 MIPS | 1
8 | D207A-B6-42 | COPPER TUBING 3/4 CTS X 10 1/2 LG. | 1
9 | D316A-E3-E3 | 90° ELBOW 3/4 C X 3/4 C | 2
10 | D207A-B6-26 | COPPER TUBING 3/4 CTS X 6 1/2 LG. | 1
11 | D316A-E3-E2 | 90° ELBOW 3/4 C X 3/4 MIPS | 1
12 | D2508 | PRESS. REG. & STRAINER 3/4 IPS | 1
13 | 925-28 | BRACKET - FTG. SUPPORT | 1
14 | D2954 | BALL VALVE 3/4 IPS | 1
15 | D207A-B6-24 | COPPER TUBING 3/4 CTS X 6" LG. | 1
16 | D316F-E1-E1 | 90° ELBOW 3/4 FIPS X 1/2 FIPS | 1
17 | D318A-D3-D2 | UNION 1/2 C X 1/2 MIPS | 3
18 | D207A-B4-10 | COPPER TUBING 1/2 CTS X 2 1/2 LG. | 1
19 | D316A-D3-D3 | 90° ELBOW 1/2 C X 1/2 C | 2
20 | D207A-B4-78 | COPPER TUBING 1/2 CTS X 19 1/2 LG. | 1
ITEM | PART NO. | DESCRIPTION | QTY
21 | D207A-B4-54 | COPPER TUBING 1/2 CTS X 13 1/2 LG. | 1
22 | 975-94 | SUPPORT ANGLE - BOOSTER | 1
23 | D309C-HC-7A | HEX HD SCREW S/S 5/16-18 X 7/8 LG. | 4
24 | 5330-01487 | SPLIT L'WASHER S/S 5/16 | 4
25 | D312C-HC-2 | HEX NUT S/S 5/16-18 | 4
26 | 5325-00392 | LOCKNUT S/S 1/4-20 | 4
27 | 975-93 | BRACKET - BOOSTER MOUNTING | 2
NOTE:
THIS ASSEMBLY TO BE USED ONLY ON MACHINES BUILT WITH UNLOADERS OTHERWISE USE DWG. 975-95.
* STD NAVY SPEC 440/3/60 W/INTERLOCK, 40'F RISE FOR OTHERS, CALL FACTORY
FRONT
REAR OF MACHINE
RINSE END
FRONT
SEE #975-49A FOR FINAL RINSE PIPING
14 3/8
14 3/4
17 1/2
1 5/8
R.H. SHOWN - L.H. OPPOSITE
E PROCESS 2.24.21
D+ 2805 11.16.16
C 2001 01.06.04
B 1971 3.7.03
REV ECN NO DATE
FILE: PARTS\975-92
TOLERANCES
FRACTIONS ±1/64
DECIMALS .XXX ± .005 .XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
TITLE ELECTRIC BOOSTER ASSEMBLY (HOOD MOUNTED)
MAT'L NOTED
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY
REQ'D 1
SCALE 1=8
DWG. NO. 975-92
USED ON MODULAR
DRWN/DATE EMM 5.10.84



ITEM	PART NO.	SIZE	DESCRIPTION	QTY.
1	DE14C54-E3A1	–	ELECTRIC BOOSTER C54 W/INTERLOCK	1
2	D3-829B	A	SHIPBOARD LEGS	2
3	D207A-B6-38 / D207A-B6-46	–	COPPER TUBING 3/4 CTS X (9 1/2 LG. (R.H.) / 11 1/2 LG (L.H.))	1
4	D207A-B6-40	–	COPPER TUBING 3/4 CTS X 10" LG	1
5	D317A-E3-E2	–	ADAPTER 3/4 MIPS X 3/4 C	2
6	D320F-E1E1E1	–	TEE 3/4 IPS	2
7	D314F-EC-00	–	CLOSE NIPPLE 3/4 IPS	2
8	D2508	–	PRESS. REG. & STRAINER 3/4 IPS	1
9	D316F-E1-D1	–	90° ELBOW 3/4 FIPS x 1/2 FIPS	1
10	951-49	A	BRACKET	1
11	D2954	–	BALL VALVE 3/4"	1
12	D318A-E3-E2	–	UNION 3/4 C x 3/4 MIPS	1
13	D207A-B4-48 / D207A-B4-56	–	COPPER 1/2 CTS X (12" LG (R.H.) / 14" LG (L.H.)) TUBING	1
14	D316A-D3-D3	–	90° ELBOW 1/2 C	3
15	D207A-B4-173	–	COPPER TUBING 1/2 CTS X 43 1/4	1
16	D207A-B4-11	–	COPPER TUBING 1/2 CTS X 2 3/4	1
17	D207A-B4-40	–	COPPER TUBING 1/2 CTS X 10 LG	1
18	D318A-D3-D2	–	UNION 1/2 C X 1/2 MIPS	2
19	D322F-E2-B1	–	RED. BUSH. HEX. 3/4 MIPS X 1/4 FIPS	2
20	D329-5	–	DRAIN COCK 1/4 IPS	1
21	D328F-B2A	–	PIPE PLUG 1/4 IPS SQ. HD	1

L.H. SHOWN R.H. OPPOSITE

REV	PROCESS	DATE
E	PROCESS	2.24.21
D	2805	11.17.16
C	2029	1.21.05
B	2001	01.06.04
REV	ECN NO	DATE

FILE: PARTS\975-95

TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED

TITLE: ELECTRIC BOOSTER ASSEMBLY
MAT'L: NOTED
NEXT ASSY: REQ'D 1
SCALE: 1=8
DWG. NO. 975-95
USED ON MODULAR
DRWN/DATE RAF 5.13.84

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

NOTE:
FOR MACHINES BUILT WITH UNLOADERS USE DWG. NO. 975-92.

* STD NAVY SPEC 440/3/60 W/INTERLOCK, 40°F RISE FOR OTHERS, CALL FACTORY

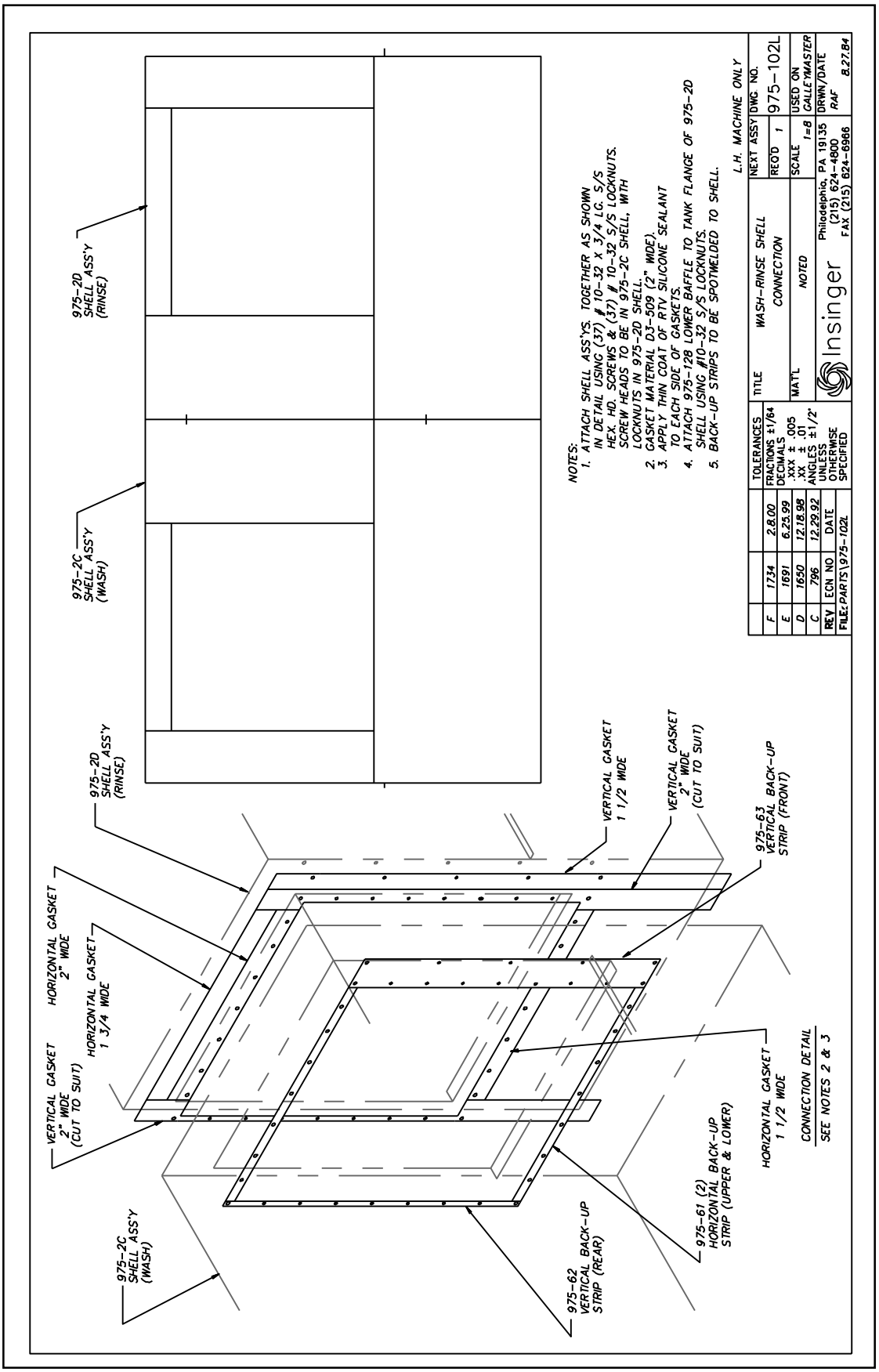
MACHINE FRONT

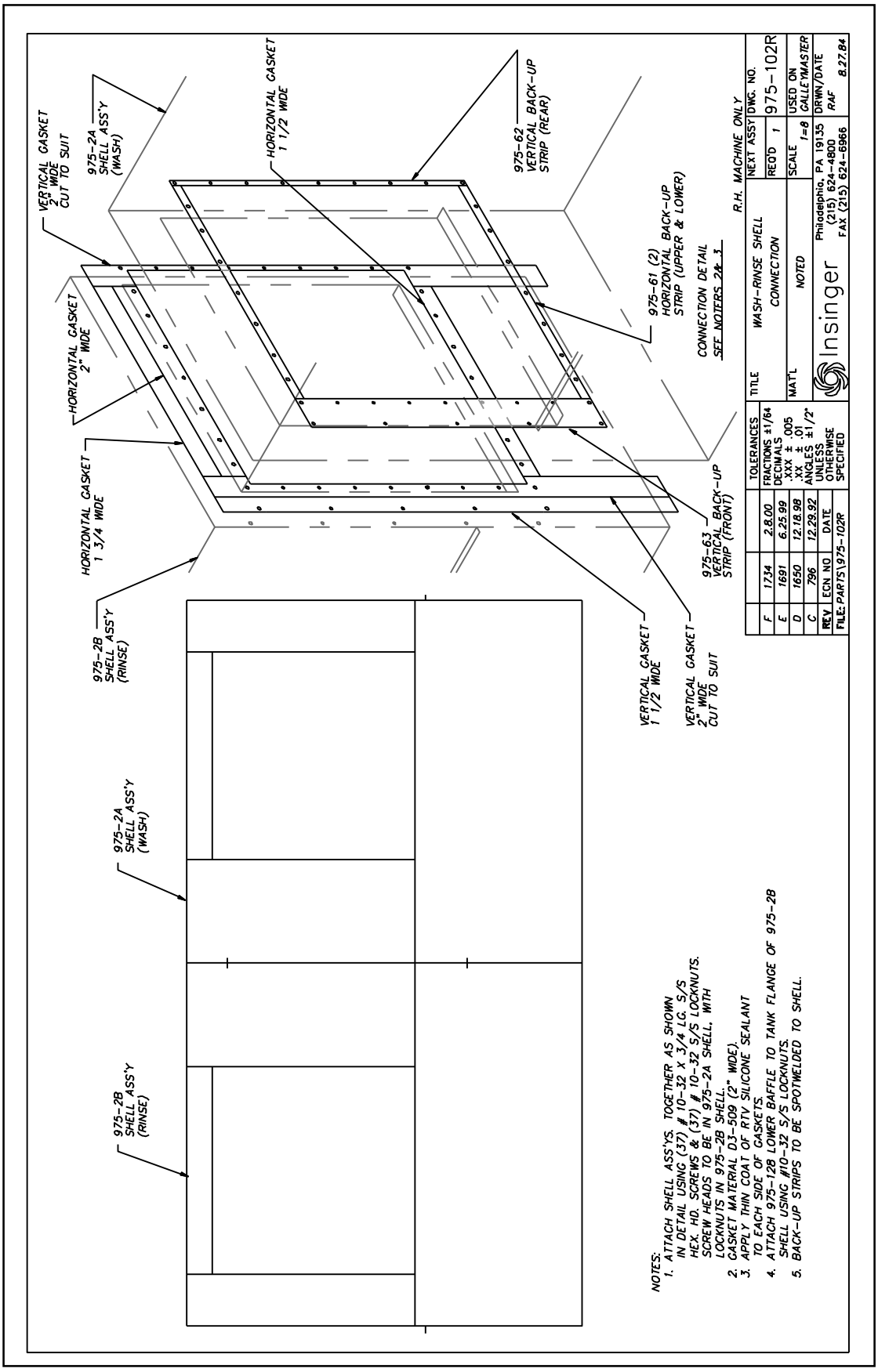
FRONT VIEW

LEFT VIEW

1 1/2

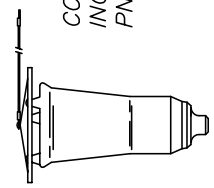
8

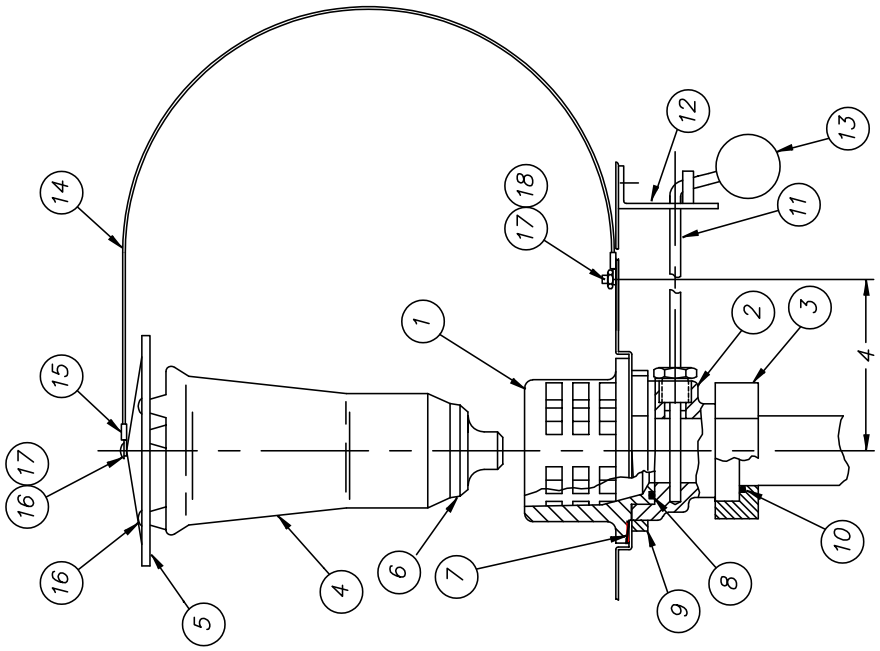

975-2D SHELL ASS'Y (RINSE)
975-2C SHELL ASS'Y (WASH)
975-2D SHELL ASS'Y (RINSE)
975-2C SHELL ASS'Y (WASH)
NOTES:
1. ATTACH SHELL ASS'YS. TOGETHER AS SHOWN IN DETAIL USING (37) # 10-32 X 3/4 LG. S/S HEX. HD. SCREWS & (37) # 10-32 S/S LOCKNUTS. SCREW HEADS TO BE IN 975-2C SHELL, WITH LOCKNUTS IN 975-2D SHELL.
2. GASKET MATERIAL DJ-509 (2" WIDE).
3. APPLY THIN COAT OF RTV SILICONE SEALANT TO EACH SIDE OF GASKETS.
4. ATTACH 975-128 LOWER BAFFLE TO TANK FLANGE OF 975-2D SHELL USING #10-32 S/S LOCKNUTS.
5. BACK-UP STRIPS TO BE SPOTWELDED TO SHELL.
L.H. MACHINE ONLY
TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
TITLE
WASH-RINSE SHELL CONNECTION
MAT'L
NOTED
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY
REQD 1
SCALE 1=8
DWG. NO.
975-102L
USED ON
GALLEYMASTER
DRWN/DATE
RAF 8.27.84
F 1734 2.8.00
E 1691 6.25.99
D 1650 12.18.98
C 796 12.29.92
REV ECN NO DATE
FILE:PARTS\975-102L
975-63 VERTICAL BACK-UP STRIP (FRONT)
VERTICAL GASKET 1 1/2 WIDE
VERTICAL GASKET 2" WIDE (CUT TO SUIT)
HORIZONTAL GASKET 2" WIDE
HORIZONTAL GASKET 1 3/4 WIDE
VERTICAL GASKET 2" WIDE (CUT TO SUIT)
975-2D SHELL ASS'Y (RINSE)
975-2C SHELL ASS'Y (WASH)
975-62 VERTICAL BACK-UP STRIP (REAR)
975-61 (2) HORIZONTAL BACK-UP STRIP (UPPER & LOWER)
HORIZONTAL GASKET 1 1/2 WIDE
CONNECTION DETAIL
SEE NOTES 2 & 3


VERTICAL GASKET 2" WIDE CUT TO SUIT
975-2A SHELL ASS'Y (WASH)
HORIZONTAL GASKET 1 1/2 WIDE
975-62 VERTICAL BACK-UP STRIP (REAR)
HORIZONTAL GASKET 2" WIDE
975-61 (2) HORIZONTAL BACK-UP STRIP (UPPER & LOWER)
CONNECTION DETAIL SEE NOTERS 2& 3
R.H. MACHINE ONLY
HORIZONTAL GASKET 1 3/4 WIDE
975-2B SHELL ASS'Y (RINSE)
975-63 VERTICAL BACK-UP STRIP (FRONT)
VERTICAL GASKET 1 1/2 WIDE
VERTICAL GASKET 2" WIDE CUT TO SUIT
975-2A SHELL ASS'Y (WASH)
975-2B SHELL ASS'Y (RINSE)
NOTES:
1. ATTACH SHELL ASS'YS. TOGETHER AS SHOWN IN DETAIL USING (37) # 10-32 x 3/4 LG. S/S HEX. HD. SCREWS & (37) # 10-32 S/S LOCKNUTS. SCREW HEADS TO BE IN 975-2A SHELL, WITH LOCKNUTS IN 975-2B SHELL.
2. GASKET MATERIAL DJ-509 (2" WIDE).
3. APPLY THIN COAT OF RTV SILICONE SEALANT TO EACH SIDE OF GASKETS.
4. ATTACH 975-12B LOWER BAFFLE TO TANK FLANGE OF 975-2B SHELL USING #10-32 S/S LOCKNUTS.
5. BACK-UP STRIPS TO BE SPOTWELDED TO SHELL.
F 1734 2.8.00
E 1691 6.25.99
D 1650 12.18.98
C 796 12.29.92
REV ECN NO DATE
FILE: PARTS\975-102R
TOLERANCES
FRACTIONS ±1/64
DECIMALS .XX ± .005 .XXX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
TITLE WASH-RINSE SHELL CONNECTION
MAT'L NOTED
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY
REQ'D 1
SCALE 1=8
DWG. NO. 975-102R
USED ON GALLEYMASTER
DRWN/DATE RAF 8.27.84

	ITEM	PART NO.	DESCRIPTION	QTY.
		954-50	DRAIN ASS'Y (COMPLETE)	-
	1	3100-01535	UPPER VALVE BODY	1
	2	3100-01536	LOWER VALVE BODY	1
	3	4820-01537	O-RING NUT	1
+	4	954-50D	OVERFLOW TUBE	1
+	5	D-193	SKIMMER CAP	1
+	6	D2-557	"U" CUP SEAL - DRAIN SEAT	1
	7	954-9	SEALING WASHER	1
	8	4010-01539	O RING	1
	9	4820-01542	DRAIN JAM NUT	1
	10	4010-01540	O RING	1
	11	954-5	DRAIN HANDLE ASSEMBLY	1
	12	954-8	BRACKET	1
	13	D2-507	BALL	1
+	14	D2966	WIRE ROPE X 16" LONG	1
+	15	D2967	STAMPED EYELET	2
+	16	5305-02597	SCREW, PH, 10-32 X 1/2	4
+	17	5325-00549	LOCKNUT, 10-32	2
	18	5320-00545	WELD STUD, 10-32 X 3/8	1

COMPLETE OVERFLOW ASSY
INCLUDES ITEMS MARKED "+"
PN 975-180-OF





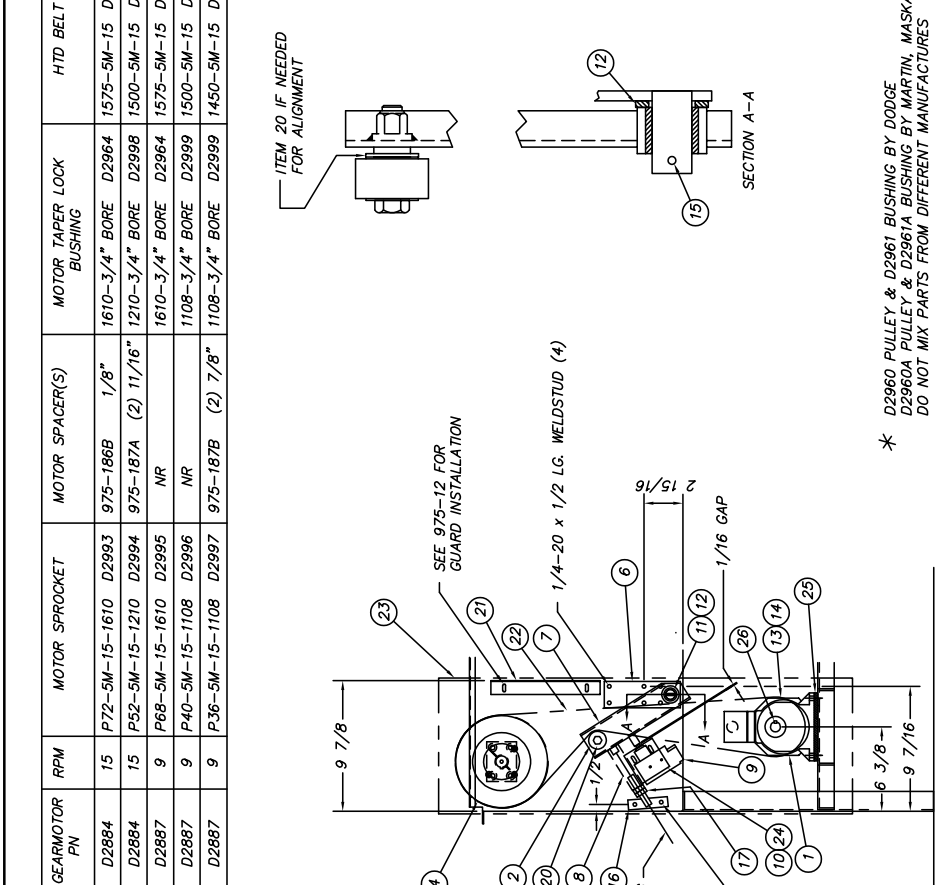
TOLERANCES	TITLE	NEXT ASSY	DWG. NO.
FRACTIONS ±1/64 DECIMALS .XXX ± .005 .XX ± .01 ANGLES ±1/2° UNLESS OTHERWISE SPECIFIED	DRAIN ASSEMBLY	REQ'D	975-180
	MAT'L: NOTED	SCALE: 1/4	USED ON: MODULAR
	insinger Machine Company Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966		DRWN/DATE: MFJ 1.12.04

REV	ECN NO	DATE
B	PROCESS	4.16.21
A	2003	1.26.04

FILE: PARTS\975-180

MODEL NUMBER	GEARMOTOR PN	RPM	MOTOR SPROCKET	MOTOR SPACER(S)	MOTOR TAPER LOCK BUSHING	HTD BELT
GalleyMaster 250	D2884	15	P72-5M-15-1610 D2993	975-186B 1/8"	1610-3/4" BORE D2964	1575-5M-15 D3000
GalleyMaster 185	D2884	15	P52-5M-15-1210 D2994	975-187A (2) 11/16"	1210-3/4" BORE D2998	1500-5M-15 D3001
GalleyMaster 135	D2887	9	P68-5M-15-1610 D2995	NR	1610-3/4" BORE D2964	1575-5M-15 D3000
GalleyMaster 85	D2887	9	P40-5M-15-1108 D2996	NR	1108-3/4" BORE D2999	1500-5M-15 D3001
GalleyMaster 60	D2887	9	P36-5M-15-1108 D2997	975-187B (2) 7/8"	1108-3/4" BORE D2999	1450-5M-15 D2968

ITEM	PART NO.	DESCRIPTION	QTY.
1	SEE CHART	GEARMOTOR, 1/15 HP	1
2	D2963	CAM FOLLOWER, 1-3/8 OD	1
3	D2960A*	SPROCKET, DRIVEN, 112 T	1
4	D2961A*	TAPER LOCK BUSHING, 2012-7/8" BORE	1
5	1397-4R	ADJUSTABLE SPRING STOP (RH SHOWN)	1
	1397-4L	ADJUSTABLE SPRING STOP (LH NOT SHOWN)	1
6	975-185	PIVOT SHAFT WELDMENT	1
7	975-184R	IDLER ARM (RH SHOWN)	1
	975-184L	IDLER ARM (LH NOT SHOWN)	1
8	D351	SPRING	1
9	D2215A	MICROSWITCH	1
10	975-140	MICROSWITCH BRACKET	1
11	D2771	BUSHING, 1 O.D. x 3/4 I.D. x 7/8 LG.	1
12	D2-525	WASHER, 7/8 I.D. x 1.375 O.D. x 1/8 THK.	1
13	SEE CHART	SPROCKET, MOTOR	1
14	SEE CHART	TAPER LOCK BUSHING, MOTOR	1
15	D311-1	COTTER PIN, 1/8 DIA. x 1 1/2 LG.	1
16	975-196	SHIM - SPRING STOP	AR
17	D312C-LC-1	HEX JAM NUT, 1/2-13	2
18	D309C-JC-14A	HHCS, 3/8-16 X 1-3/4 LG	1
19	5325-00539	SEAL NUT, 3/8-16	1
20	5330-00364	FLATWASHER, 3/8	AR
21	975-138	MECHANISM GUARD BRACKET	1
22	SEE CHART	HTD BELT	1
23	975-195	MECHANISM GUARD, HTD DRIVE	1
24	975-197	SHIM - MICROSWITCH BRACKET	AR
25	SEE CHART	MOTOR SPACER(S)	AR
26	-	KEY, 3/16 (WITH MOTOR)	REF



NOTES:
1. SPRING TO BE COMPRESSED TO 3 9/16.

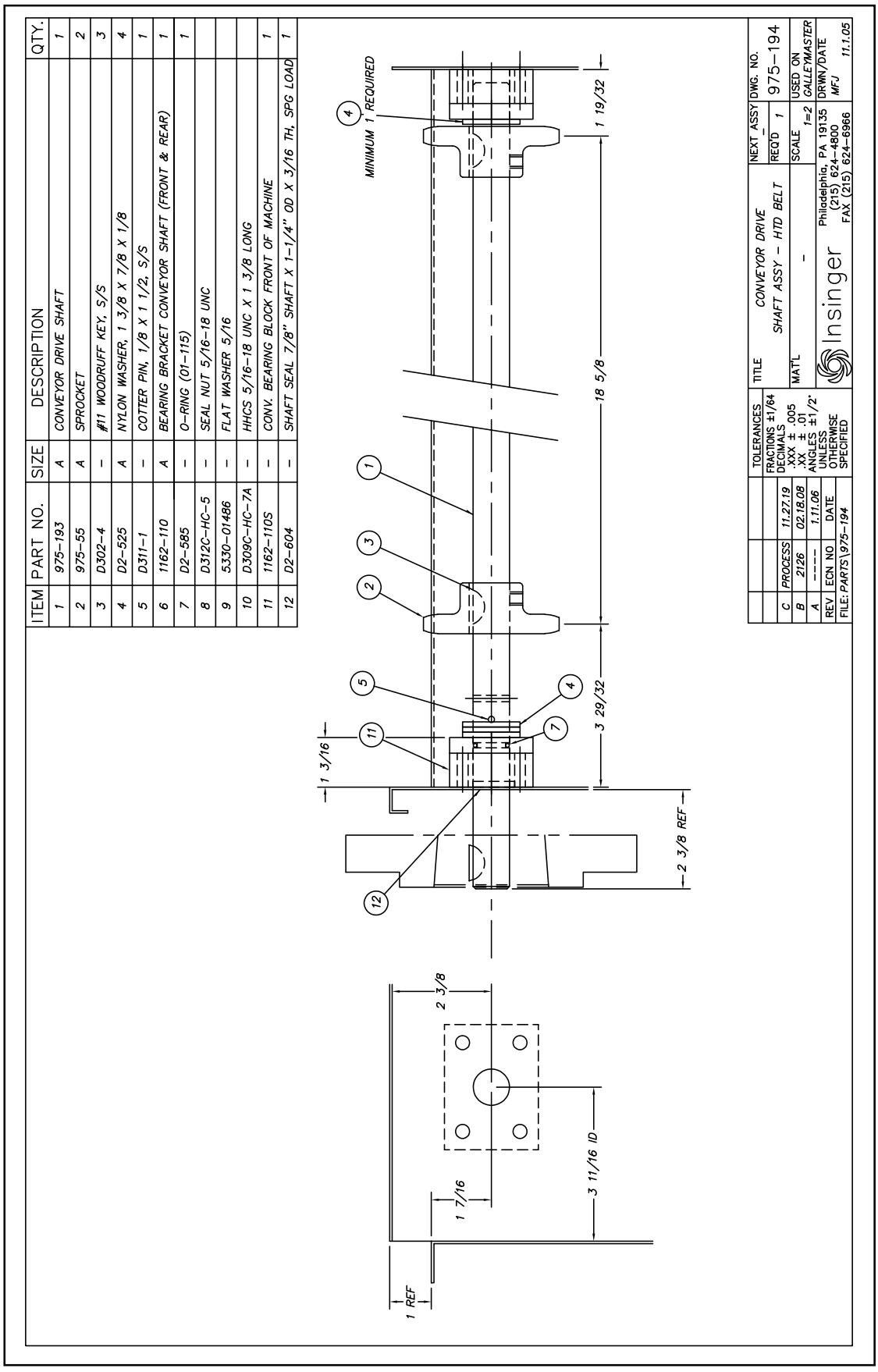
REV	ECN NO	DATE
D	PROCESS	4.16.21
C	2708	11.27.13
B	2068	6.14.06
A	-----	1.24.06

FILE: PARTS\975-183

TOLERANCES
FRACTIONS ±1/64
DECIMALS
XXX ± 005
XX ± 01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED

TITLE DRIVE MECHANISM ASSY HTD BELT
MAT'L NOTED
Insinger Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966

NEXT ASSY _ REQ'D 1
DWG. NO. 975-183
SCALE 1:8
USED ON GALLEYMASTER
DRWN/DATE MFJ 10.25.05



ITEM	PART NO.	SIZE	DESCRIPTION	QTY.
1	975-193	A	CONVEYOR DRIVE SHAFT	1
2	975-55	A	SPROCKET	2
3	D302-4	-	#11 WOODRUFF KEY, S/S	3
4	D2-525	A	NYLON WASHER, 1 3/8 X 7/8 X 1/8	4
5	D311-1	-	COTTER PIN, 1/8 X 1 1/2, S/S	1
6	1162-110	A	BEARING BRACKET CONVEYOR SHAFT (FRONT & REAR)	1
7	D2-585	-	O-RING (01-115)	1
8	D312C-HC-5	-	SEAL NUT 5/16-18 UNC	
9	5330-01486	-	FLAT WASHER 5/16	
10	D309C-HC-7A	-	HHCS 5/16-18 UNC X 1 3/8 LONG	
11	1162-110S	-	CONV. BEARING BLOCK FRONT OF MACHINE	1
12	D2-604	-	SHAFT SEAL 7/8" SHAFT X 1-1/4" OD X 3/16 TH, SPG LOAD	1

		TOLERANCES
		FRACTIONS ±1/64
		DECIMALS .XXX ± .005
		.XX ± .01
		ANGLES ±1/2°
		UNLESS OTHERWISE SPECIFIED
C	PROCESS	11.27.19
B	2126	02.18.08
A	-----	1.11.06
REV	ECN NO	DATE
FILE: PARTS\975-194		

TITLE	CONVEYOR DRIVE SHAFT ASSY - HTD BELT
MAT'L	-
NEXT ASSY	-
REQ'D	1
SCALE	1=2
DWG. NO.	975-194
USED ON	GALLEYMASTER
DRWN/DATE	MFJ 11.1.05

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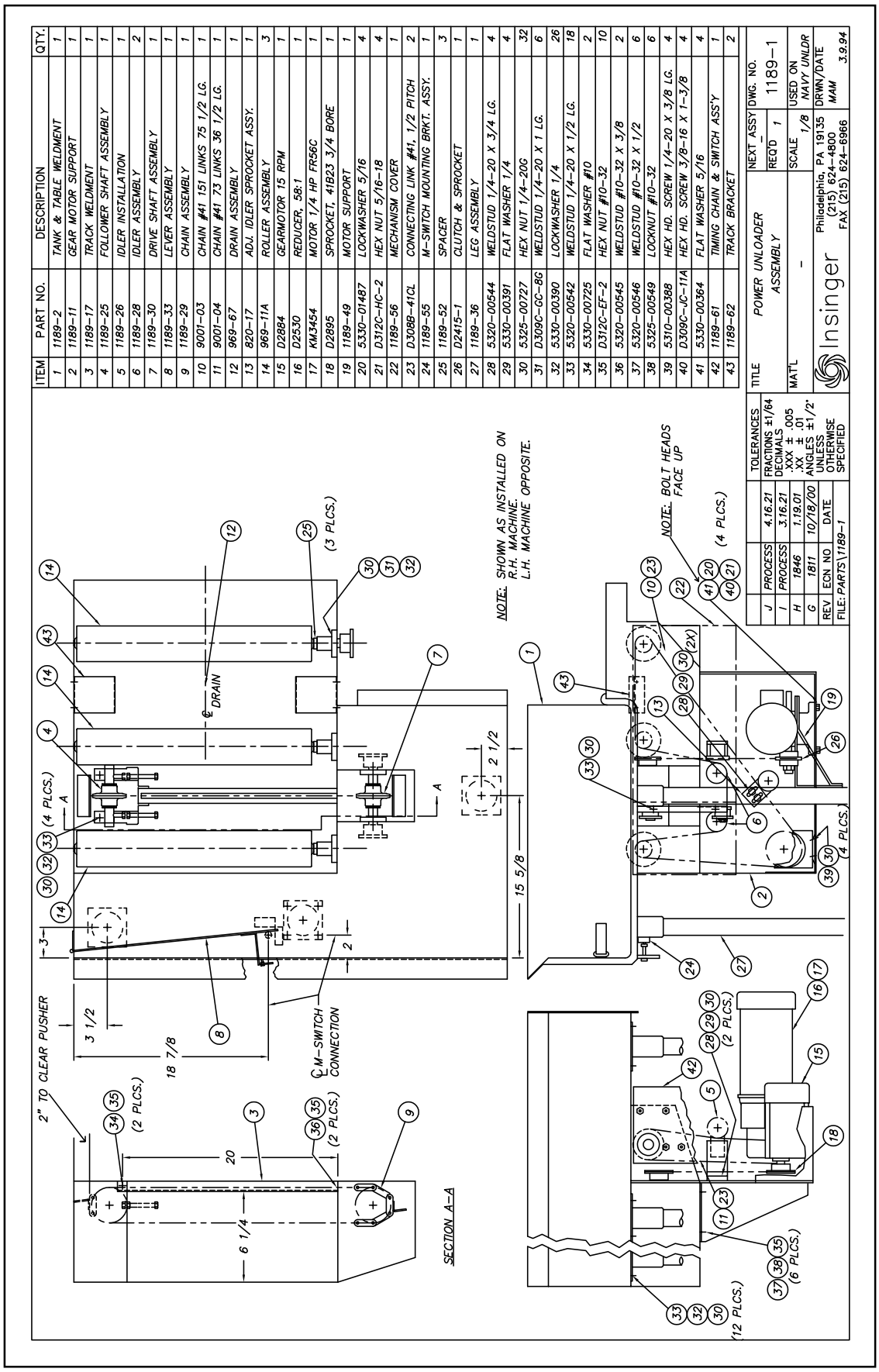


ITEM	PART NO.	DESCRIPTION	QTY.
1	1189-2	TANK & TABLE WELDMENT	1
2	1189-11	GEAR MOTOR SUPPORT	1
3	1189-17	TRACK WELDMENT	1
4	1189-25	FOLLOWER SHAFT ASSEMBLY	1
5	1189-26	IDLER INSTALLATION	1
6	1189-28	IDLER ASSEMBLY	2
7	1189-30	DRIVE SHAFT ASSEMBLY	1
8	1189-33	LEVER ASSEMBLY	1
9	1189-29	CHAIN ASSEMBLY	1
10	9001-03	CHAIN #41 151 LINKS 75 1/2 LG.	1
11	9001-04	CHAIN #41 73 LINKS 36 1/2 LG.	1
12	969-67	DRAIN ASSEMBLY	1
13	820-17	ADJ. IDLER SPROCKET ASSY.	1
14	969-11A	ROLLER ASSEMBLY	3
15	D2884	GEARMOTOR 15 RPM	1
16	D2530	REDUCER, 58:1	1
17	KM3454	MOTOR 1/4 HP FR56C	1
18	D2895	SPROCKET, 41B23 3/4 BORE	1
19	1189-49	MOTOR SUPPORT	1
20	5330-01487	LOCKWASHER 5/16	4
21	D312C-HC-2	HEX NUT 5/16-18	4
22	1189-56	MECHANISM COVER	1
23	D3088-41CL	CONNECTING LINK #41, 1/2 PITCH	2
24	1189-55	M-SWITCH MOUNTING BRKT. ASSY.	1
25	1189-52	SPACER	3
26	D2415-1	CLUTCH & SPROCKET	1
27	1189-36	LEG ASSEMBLY	1
28	5320-00544	WELDSTUD 1/4-20 X 3/4 LG.	4
29	5330-00391	FLAT WASHER 1/4	4
30	5325-00727	HEX NUT 1/4-20G	32
31	D309C-GC-8G	WELDSTUD 1/4-20 X 1 LG.	6
32	5330-00390	LOCKWASHER 1/4	26
33	5320-00542	WELDSTUD 1/4-20 X 1/2 LG.	18
34	5330-00725	FLAT WASHER #10	2
35	D312C-EF-2	HEX NUT #10-32	10
36	5320-00545	WELDSTUD #10-32 X 3/8	2
37	5320-00546	WELDSTUD #10-32 X 1/2	6
38	5325-00549	LOCKNUT #10-32	6
39	5310-00388	HEX HD. SCREW 1/4-20 X 3/8 LG.	4
40	D309C-JC-11A	HEX HD. SCREW 3/8-16 X 1-3/8	4
41	5330-00364	FLAT WASHER 5/16	4
42	1189-61	TIMING CHAIN & SWITCH ASS'Y	1
43	1189-62	TRACK BRACKET	2

REV	ECN NO	DATE
J	PROCESS	4.16.21
I	PROCESS	3.16.21
H	1846	1.19.01
G	1811	10/18/00

FILE: PARTS\1189-1

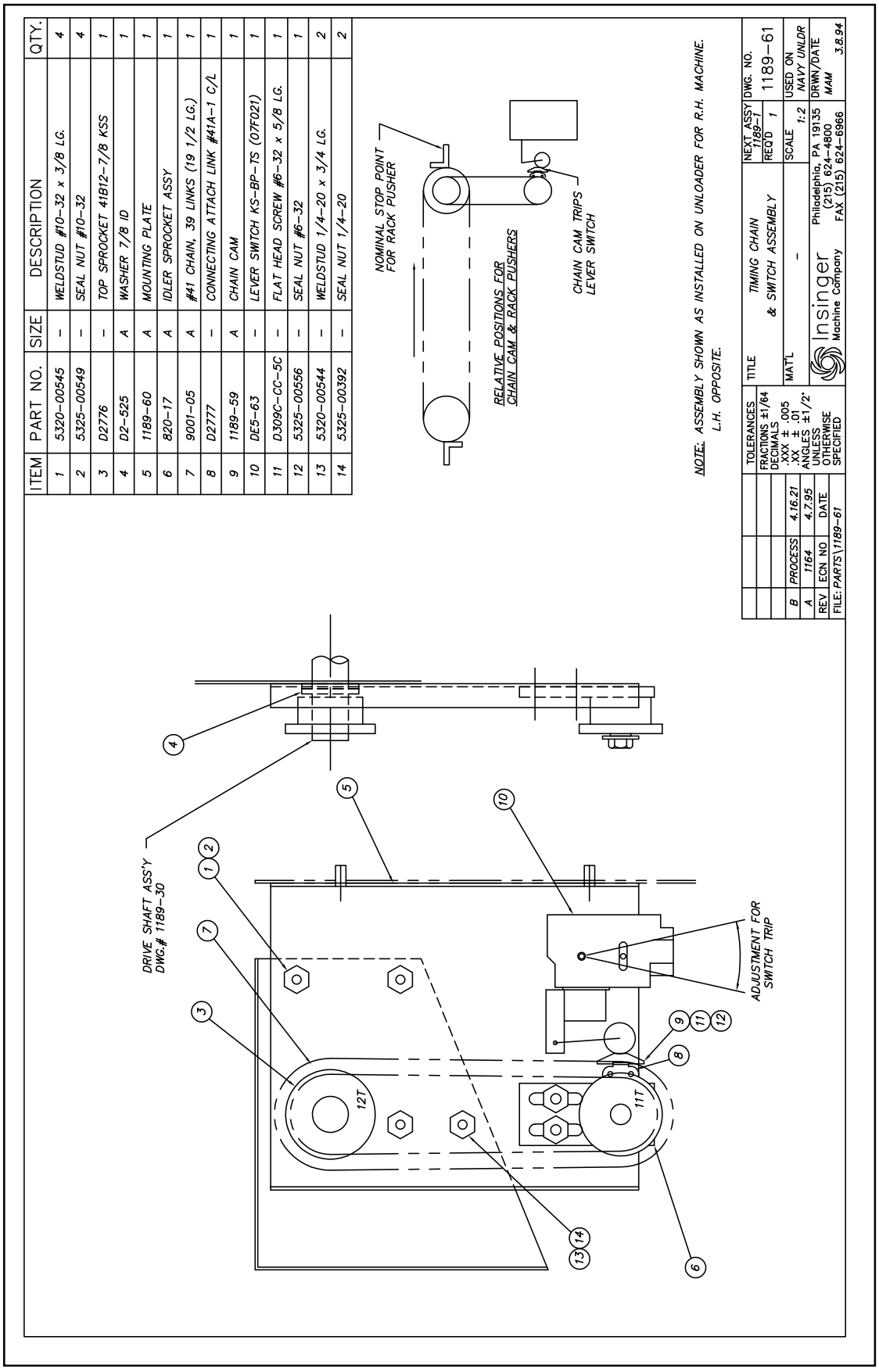
TOLERANCES
FRACTIONS ±1/64
DECIMALS .XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED

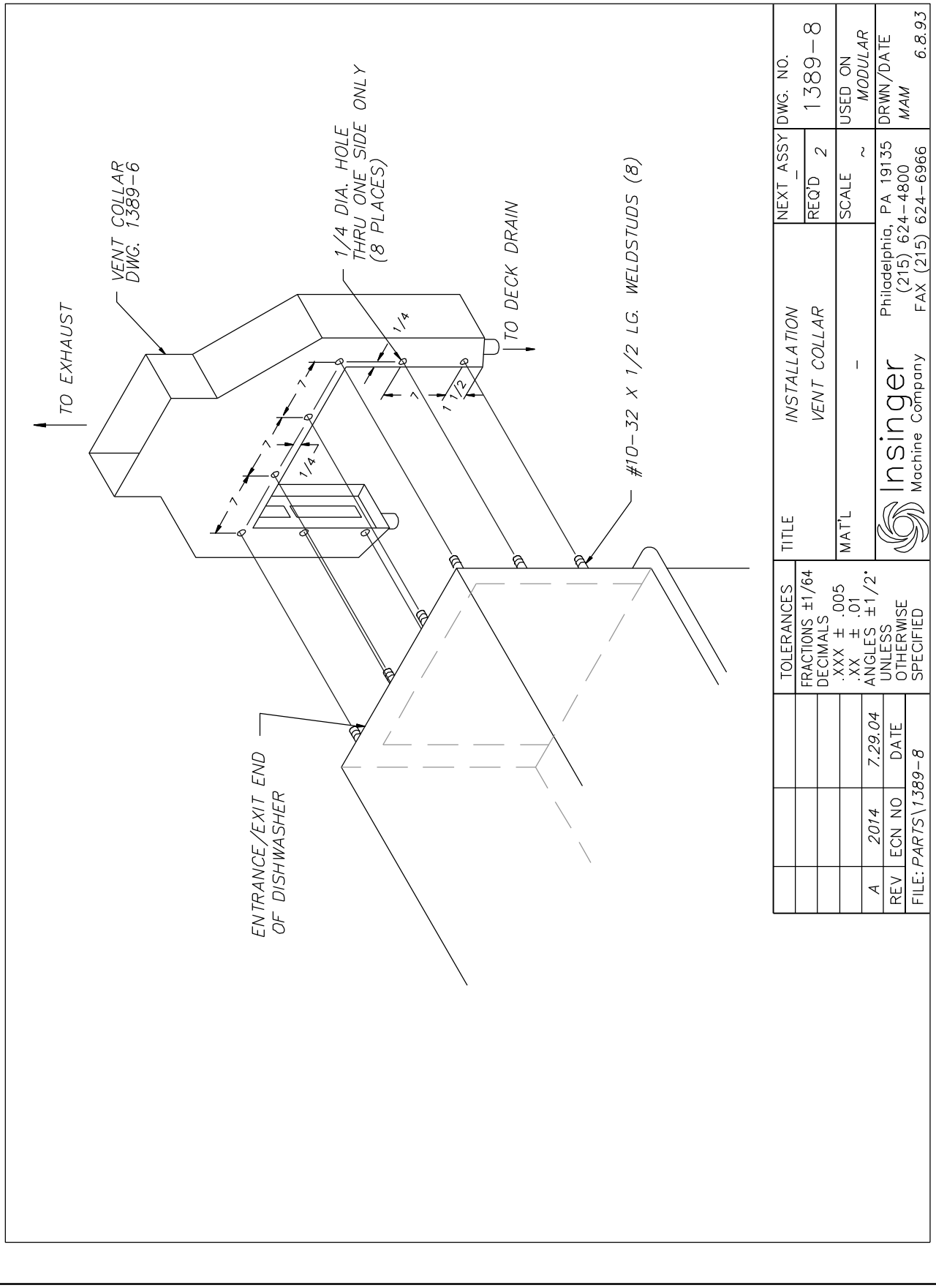
TITLE: POWER UNLOADER ASSEMBLY
MAT'L: -
NEXT ASSY: -
REQ'D: 1
SCALE: 1/8
DWG. NO.: 1189-1
USED ON: NAVY UNLDR
DRWN/DATE: MAM 3.9.94

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

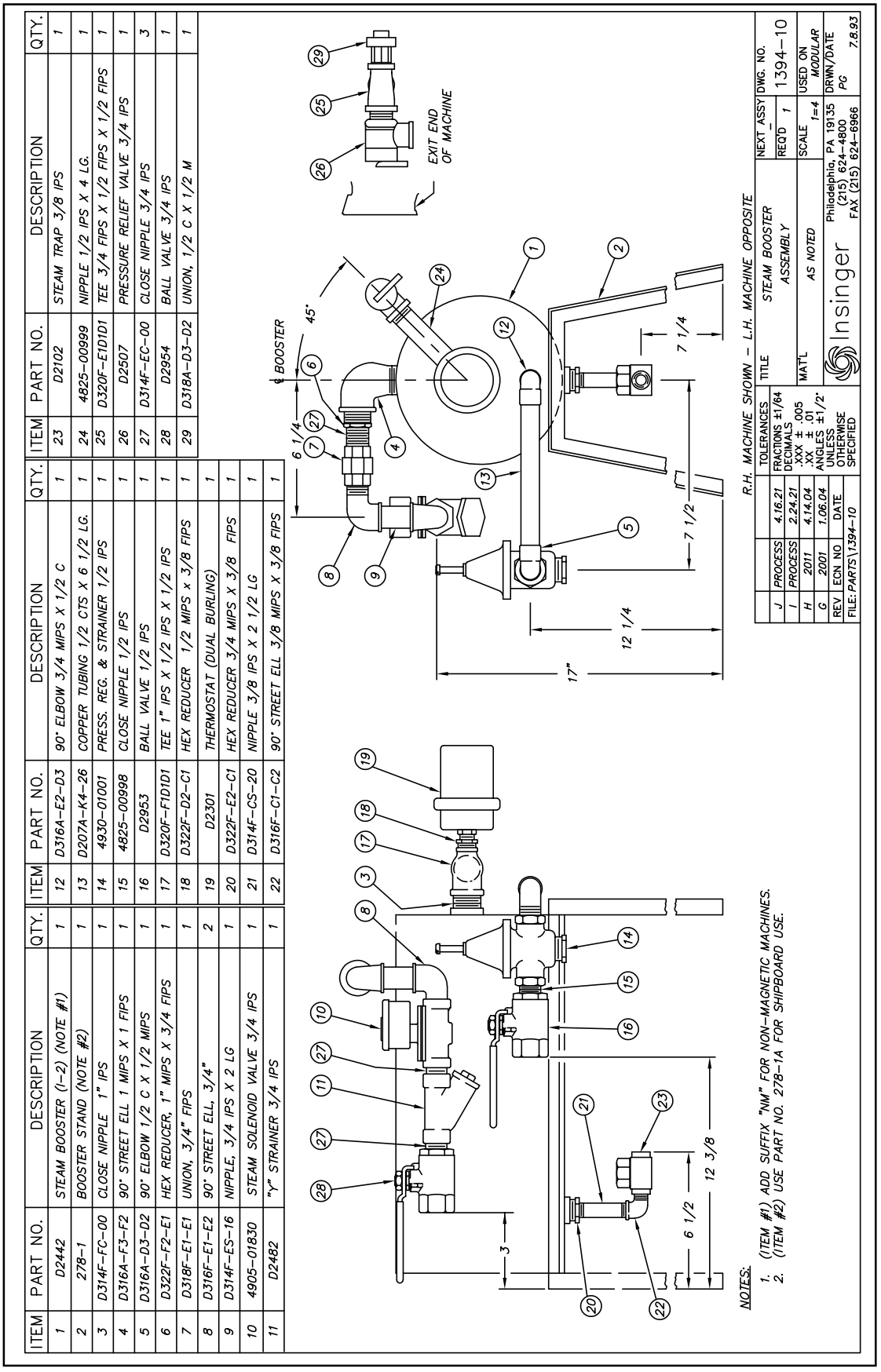
NOTE: SHOWN AS INSTALLED ON R.H. MACHINE. L.H. MACHINE OPPOSITE.

NOTE: BOLT HEADS FACE UP


ITEM | PART NO. | SIZE | DESCRIPTION | QTY.
1 | 5320-00545 | - | WELDSTUD #10-32 x 3/8 LG. | 4
2 | 5325-00549 | - | SEAL NUT #10-32 | 4
3 | D2776 | - | TOP SPROCKET 41B12-7/8 KSS | 1
4 | D2-525 | A | WASHER 7/8 ID | 1
5 | 1189-60 | A | MOUNTING PLATE | 1
6 | 820-17 | A | IDLER SPROCKET ASSY | 1
7 | 9001-05 | A | #41 CHAIN, 39 LINKS (19 1/2 LG.) | 1
8 | D2777 | - | CONNECTING ATTACH LINK #41A-1 C/L | 1
9 | 1189-59 | A | CHAIN CAM | 1
10 | DE5-63 | - | LEVER SWITCH KS-BP-TS (07F021) | 1
11 | D309C-CC-5C | - | FLAT HEAD SCREW #6-32 x 5/8 LG. | 1
12 | 5325-00556 | - | SEAL NUT #6-32 | 1
13 | 5320-00544 | - | WELDSTUD 1/4-20 x 3/4 LG. | 2
14 | 5325-00392 | - | SEAL NUT 1/4-20 | 2
NOMINAL STOP POINT FOR RACK PUSHER
RELATIVE POSITIONS FOR CHAIN CAM & RACK PUSHERS
CHAIN CAM TRIPS LEVER SWITCH
NOTE: ASSEMBLY SHOWN AS INSTALLED ON UNLOADER FOR R.H. MACHINE. L.H. OPPOSITE.
TOLERANCES
FRACTIONS ±1/64
DECIMALS .XXX ± .005 .XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
TITLE
TIMING CHAIN & SWITCH ASSEMBLY
MAT'L -
Insinger Machine Company
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY 1189-1
REQ'D 1
SCALE 1:2
DWG. NO. 1189-61
USED ON NAVY UNLDR
DRWN/DATE MAM 3.8.94
B PROCESS 4.16.21
A 1164 4.7.95
REV ECN NO DATE
FILE: PARTS\1189-61
DRIVE SHAFT ASS'Y DWG.# 1189-30
ADJUSTMENT FOR SWITCH TRIP
12T
11T


TO EXHAUST
VENT COLLAR
DWG. 1389-6
1/4 DIA. HOLE
THRU ONE SIDE ONLY
(8 PLACES)
TO DECK DRAIN
#10-32 X 1/2 LG. WELDSTUDS (8)
ENTRANCE/EXIT END
OF DISHWASHER
1/4
7
7
7
7
1/4
7
1 1/2
TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS
OTHERWISE
SPECIFIED
TITLE
INSTALLATION
VENT COLLAR
MAT'L
–
NEXT ASSY
–
REQ'D 2
SCALE
~
DWG. NO.
1389-8
USED ON
MODULAR
DRWN/DATE
MAM 6.8.93
Insinger
Machine Company
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
A 2014 7.29.04
REV ECN NO DATE
FILE: PARTS\1389-8

ITEM	PART NO.	DESCRIPTION	QTY.
1	D2442	STEAM BOOSTER (1-2) (NOTE #1)	1
2	278-1	BOOSTER STAND (NOTE #2)	1
3	D314F-FC-00	CLOSE NIPPLE 1" IPS	1
4	D316A-F3-F2	90° STREET ELL 1 MIPS X 1 FIPS	1
5	D316A-D3-D2	90° ELBOW 1/2 C X 1/2 MIPS	1
6	D322F-F2-E1	HEX REDUCER, 1" MIPS X 3/4 FIPS	1
7	D318F-E1-E1	UNION, 3/4" FIPS	1
8	D316F-E1-E2	90° STREET ELL, 3/4"	2
9	D314F-ES-16	NIPPLE, 3/4 IPS X 2 LG	1
10	4905-01830	STEAM SOLENOID VALVE 3/4 IPS	1
11	D2482	"Y" STRAINER 3/4 IPS	1
12	D316A-E2-D3	90° ELBOW 3/4 MIPS X 1/2 C	1
13	D207A-K4-26	COPPER TUBING 1/2 CTS X 6 1/2 LG.	1
14	4930-01001	PRESS. REG. & STRAINER 1/2 IPS	1
15	4825-00998	CLOSE NIPPLE 1/2 IPS	1
16	D2953	BALL VALVE 1/2 IPS	1
17	D320F-F1D1D1	TEE 1" IPS X 1/2 IPS X 1/2 IPS	1
18	D322F-D2-C1	HEX REDUCER 1/2 MIPS x 3/8 FIPS	1
19	D2301	THERMOSTAT (DUAL BURLING)	1
20	D322F-E2-C1	HEX REDUCER 3/4 MIPS X 3/8 FIPS	1
21	D314F-CS-20	NIPPLE 3/8 IPS X 2 1/2 LG	1
22	D316F-C1-C2	90° STREET ELL 3/8 MIPS X 3/8 FIPS	1
23	D2102	STEAM TRAP 3/8 IPS	1
24	4825-00999	NIPPLE 1/2 IPS X 4 LG.	1
25	D320F-E1D1D1	TEE 3/4 FIPS X 1/2 FIPS X 1/2 FIPS	1
26	D2507	PRESSURE RELIEF VALVE 3/4 IPS	1
27	D314F-EC-00	CLOSE NIPPLE 3/4 IPS	3
28	D2954	BALL VALVE 3/4 IPS	1
29	D318A-D3-D2	UNION, 1/2 C X 1/2 M	1



NOTES:
1. (ITEM #1) ADD SUFFIX "NM" FOR NON-MAGNETIC MACHINES.
2. (ITEM #2) USE PART NO. 278-1A FOR SHIPBOARD USE.

REV	ECN NO	DATE
J	PROCESS	4.16.21
I	PROCESS	2.24.21
H	2011	4.14.04
G	2001	1.06.04

FILE: PARTS\1394-10

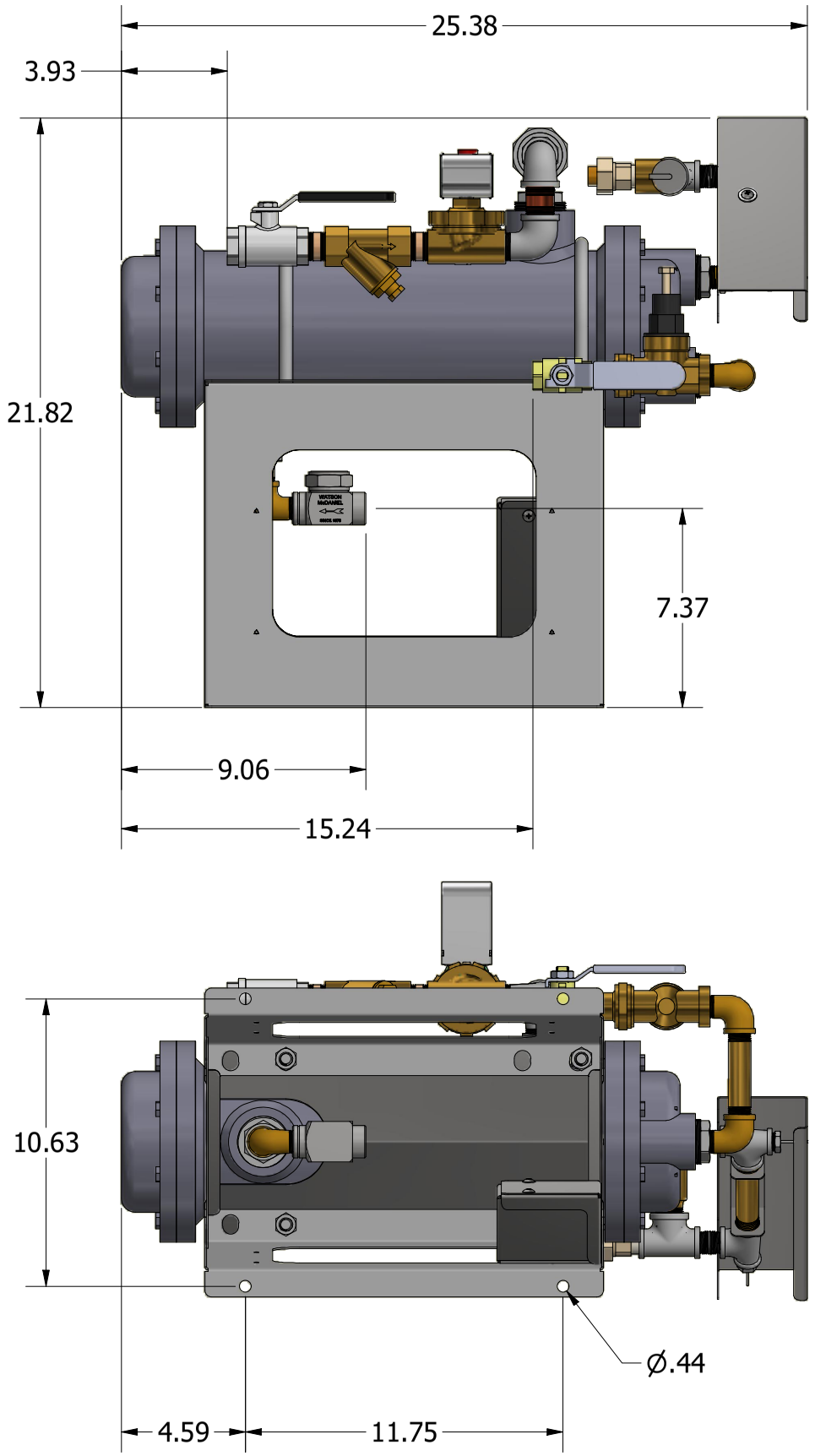
TOLERANCES UNLESS OTHERWISE SPECIFIED: FRACTIONS ±1/64, DECIMALS .XXX ± .005, .XX ± .01, ANGLES ±1/2°

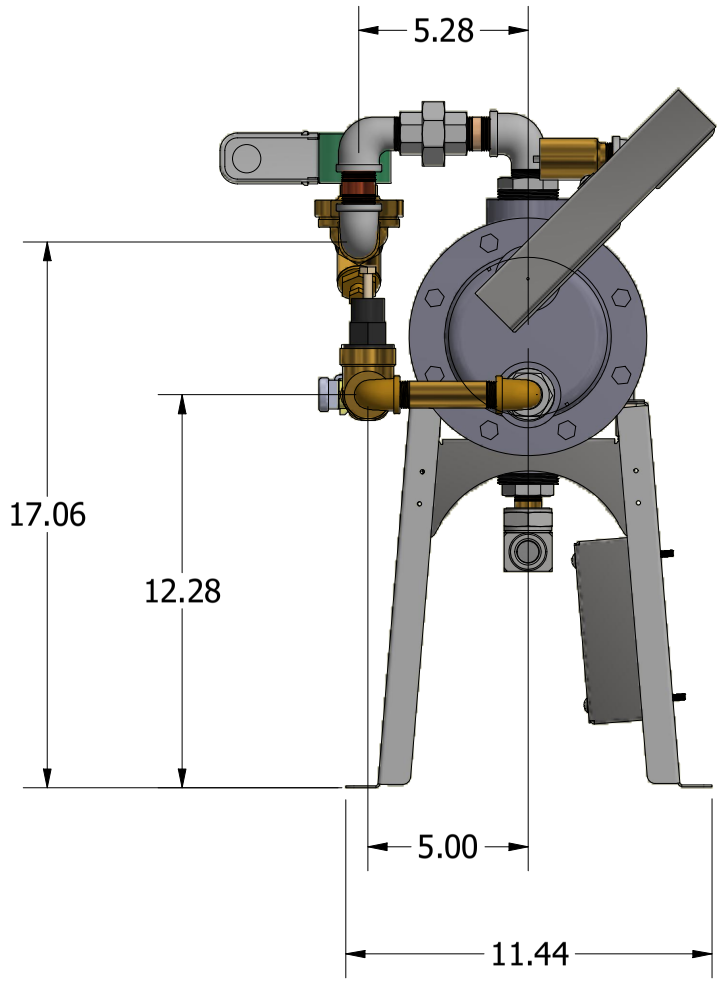
TITLE: STEAM BOOSTER ASSEMBLY

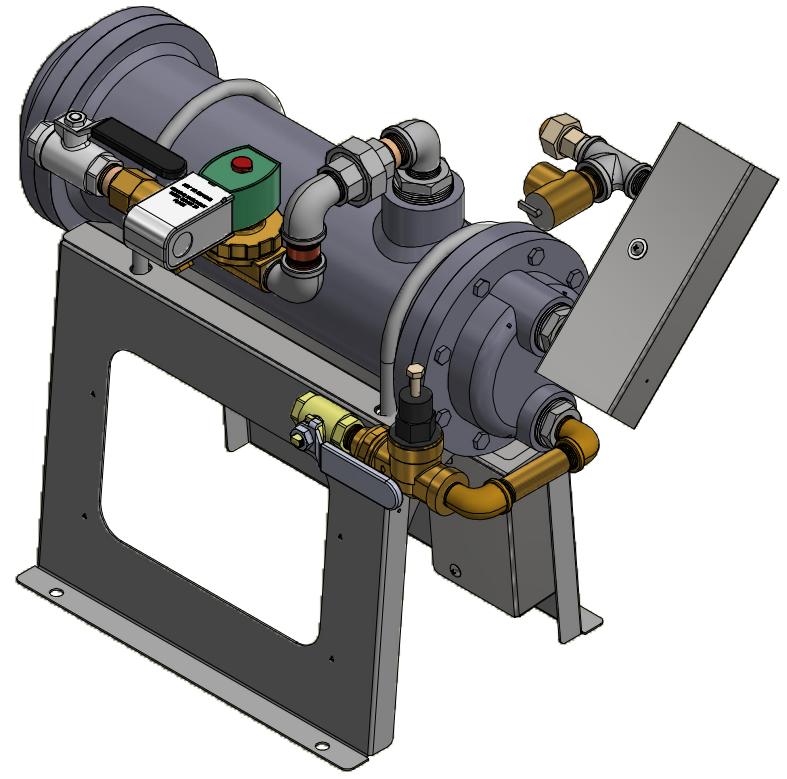
MAT'L: AS NOTED

Insinger Philadelphia, PA 19135 (215) 624-4800 FAX (215) 624-6966

NEXT ASSY: —
REQ'D: 1
SCALE: 1=4
DWG. NO. 1394-10
USED ON MODULAR
DRWN/DATE PG 7.8.93







REV	CHANGE	DESCRIPTION	DATE	APPROVED
I	2978	Change to Thrush Steam Booster	12/15/2021	CF
H	2011		4/14/04	
G	2001		1/6/04	
F	1916		2/14/02	

NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, PA. 19135

DRAWN BY: Chance
DATE:

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 6

PART NUMBER: 1394-10R

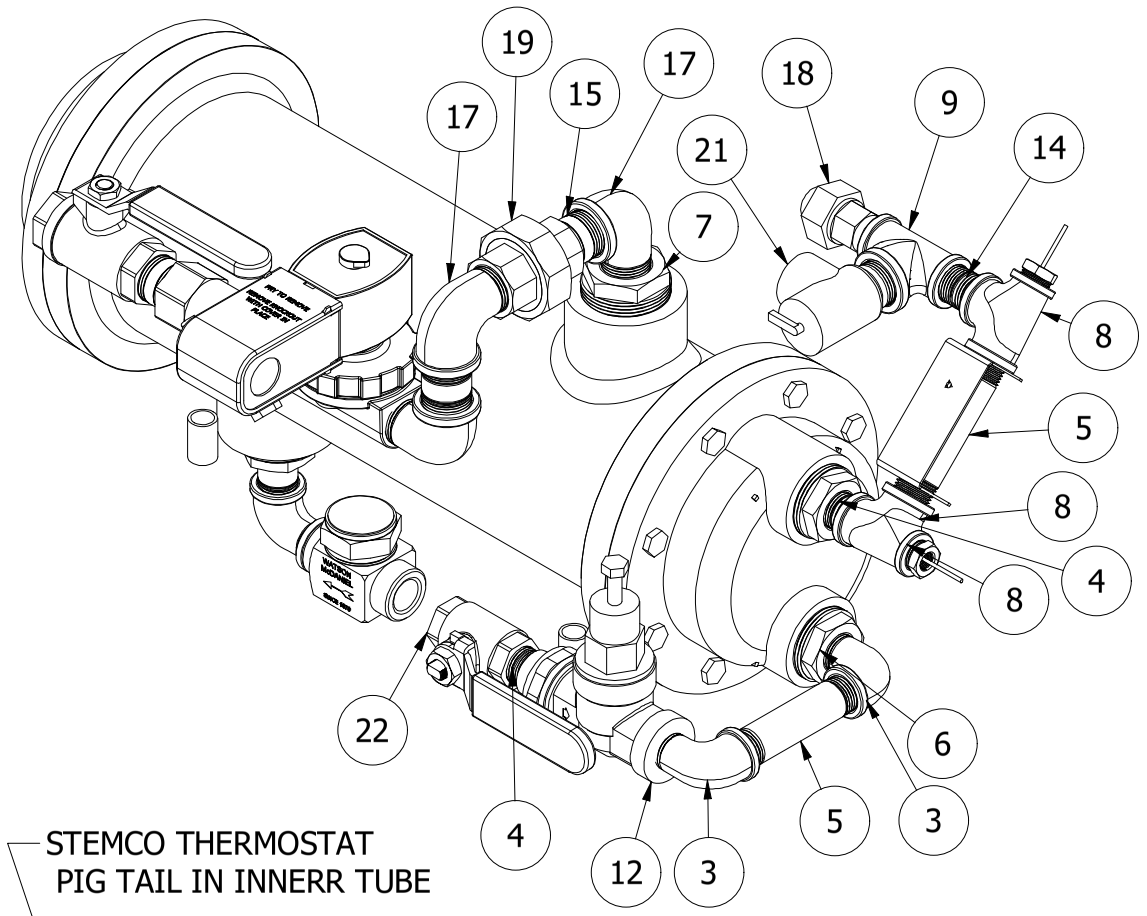
REV: I

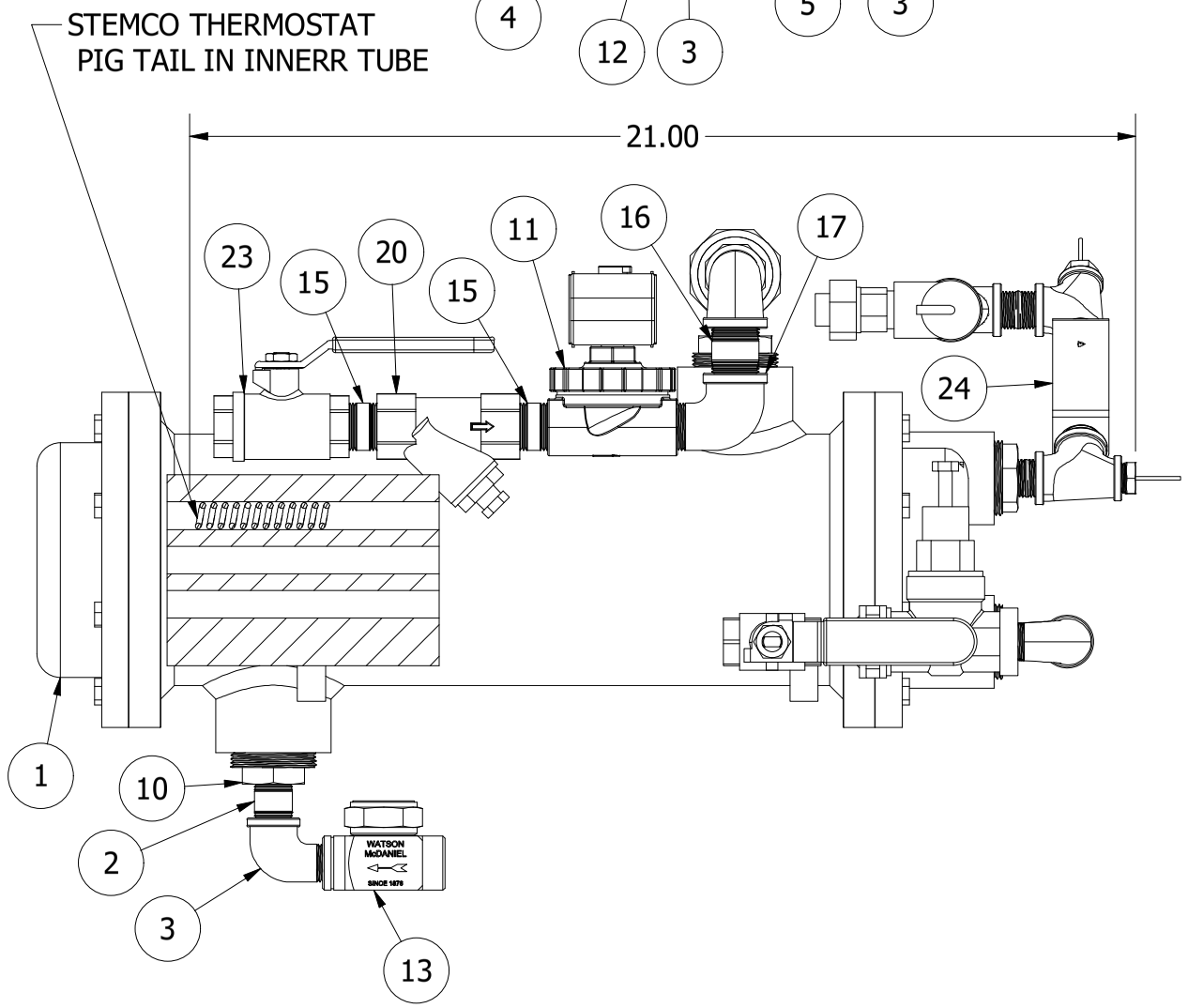
SHEET SIZE: B

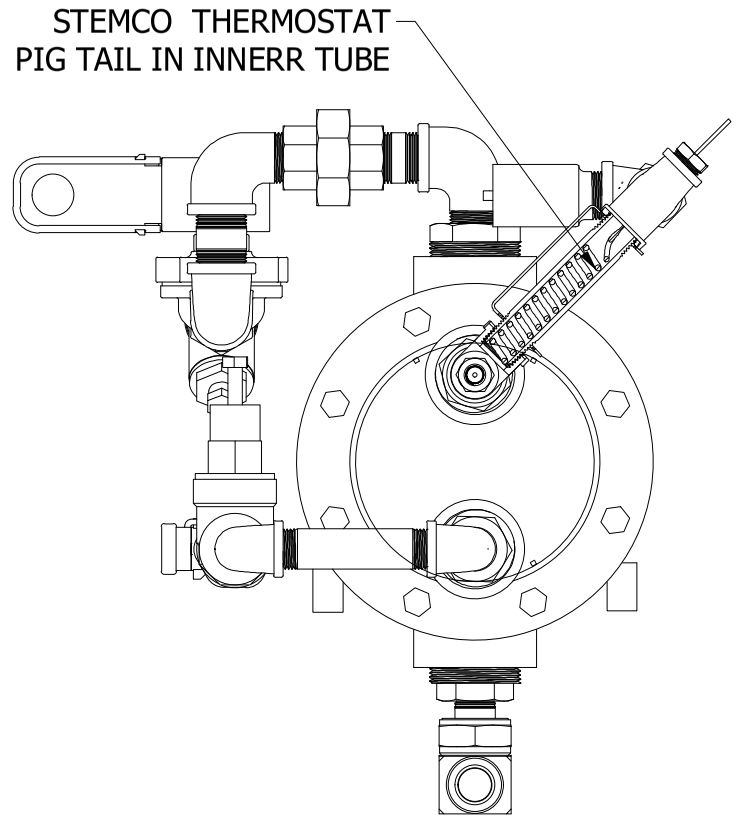
MATERIAL:

RMI:

SHEET 1 of 3







PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	4410-03340	Thrush 120 Steam Booster
2	1	4825-00560	Nipple, 1/2" NPT x 2" Lg Brass
3	3	4825-00997	Elbow, 90 Deg Street 1/2" NPT Brass
4	2	4825-00998	Nipple, Close, 1/2" NPT, Brass
5	2	4825-00999	Nipple, 1/2 NPT x 4" Long Brass
6	2	4825-03333	Bushing 1-1/4M x 1/2F BRASS
7	1	4825-03334	Bushing 1-1/2M x 3/4F BRASS
8	2	4825-03336	Right-Angle Tee Reducer, 1/2 x 3/8 NPT Female
9	1	4825-03337	Inline Tee Reducer, 1/2 x 3/4 NPT Female
10	1	4825-03341	Bushing 1-1/2M x 1/2F BRASS
11	1	4905-01830	Valve, Solenoid 1/2 NPT 24VAC Coil WTR/STM
12	1	4930-01001	Pressure Regulator, 1/2" NPT
13	1	4965-01602	Steam Trap, 1/2NPT Thermodynamic SS
14	1	d314f-ds-12	BRASS NIPPLE 1/2" X 1-1/2"
15	3	D314F-EC-00	BRASS NIPPLE 3/4" X CLOSE
16	1	D314F-ES-16	BRASS NIPPLE, 3/4" X 2"
17	3	D316F-E1-E2	BRASS ST EL 90 DEG 3/4"F X 3/4"M
18	1	D318A-D3-D2	COPPER UNION, 1/2"C X 1/2"M
19	1	D318F-E1-E1	BRASS UNION, 3/4"F
20	1	d2482	Y STRAINER 3/4" WATTS
21	1	D2507	PRESS.RELIEF VALVE 3/4" 125# PSI
22	1	D2953	BALL VALVE,THREADED,2-WAY,1/2"NPT
23	1	D2954	3/4" BALL VALVE

NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, PA. 19135

DRAWN BY: Chance

DATE:

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 4

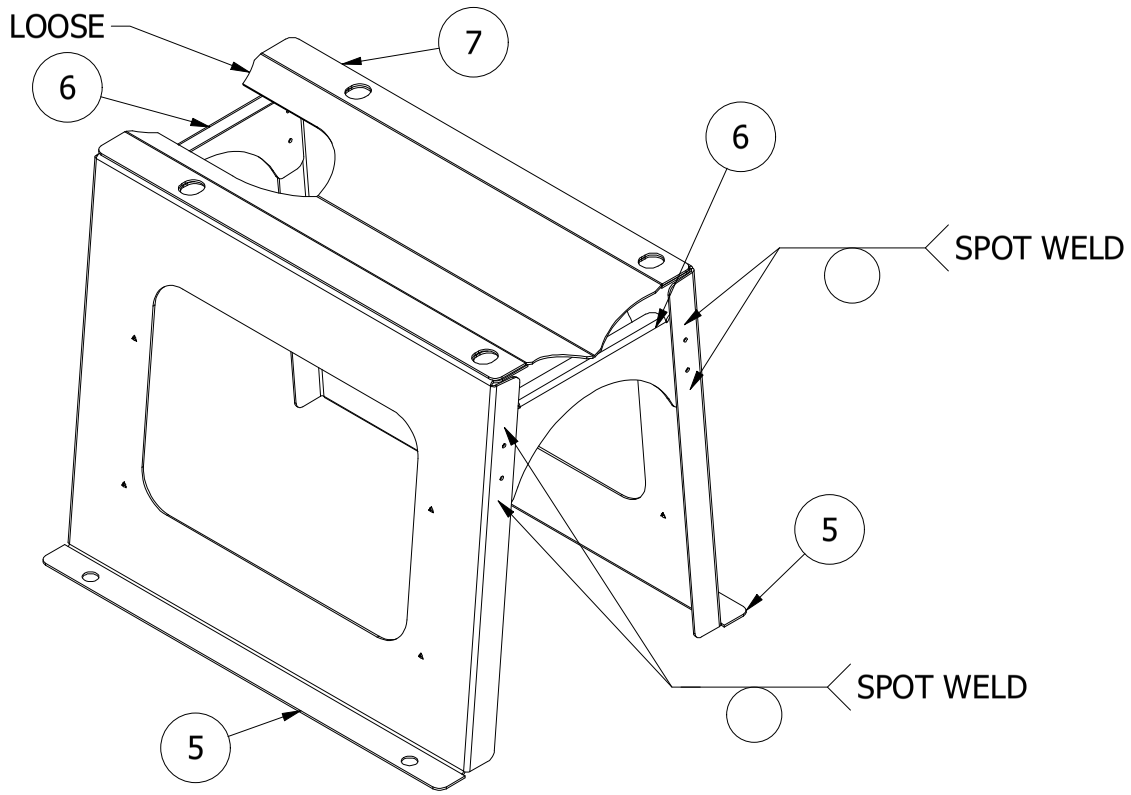
PART NUMBER: 1394-10R

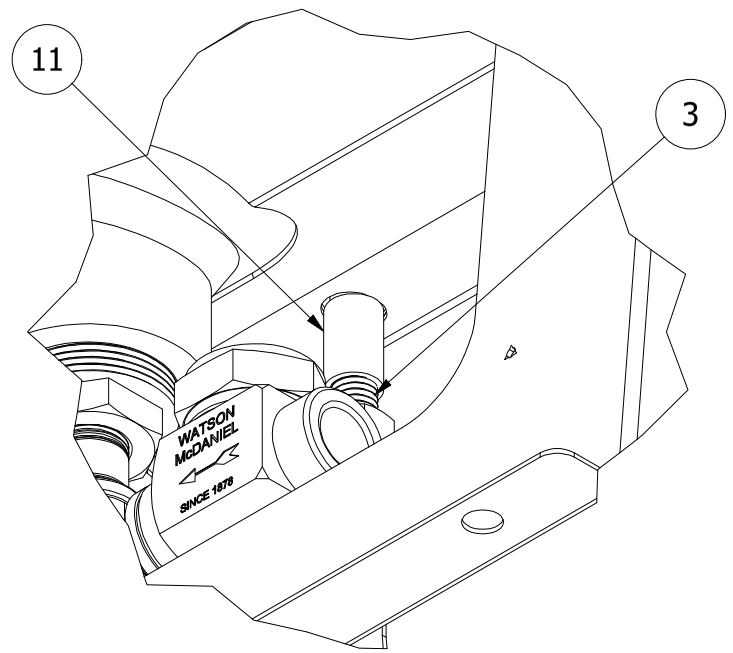
REV: I

SHEET SIZE: B

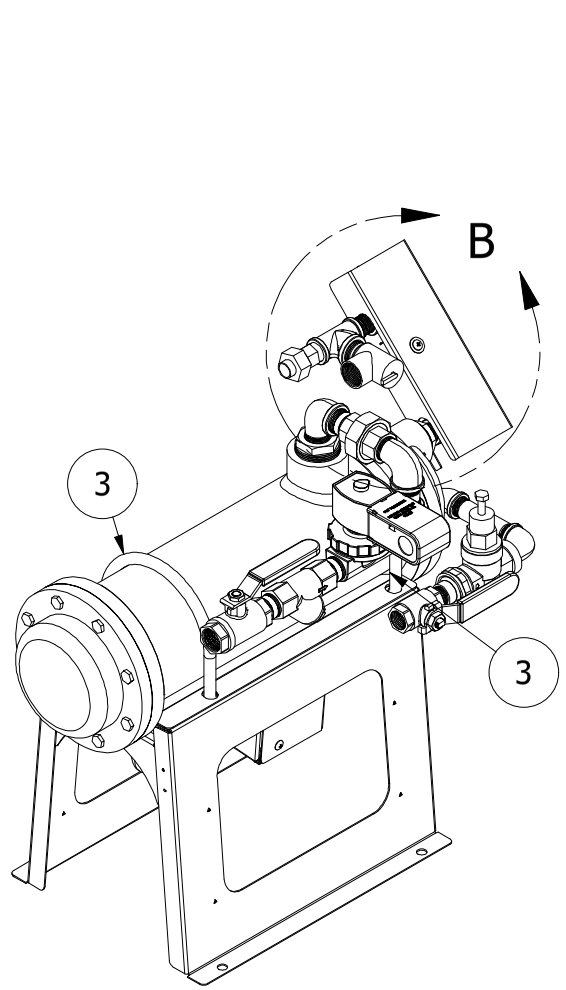
MATERIAL:

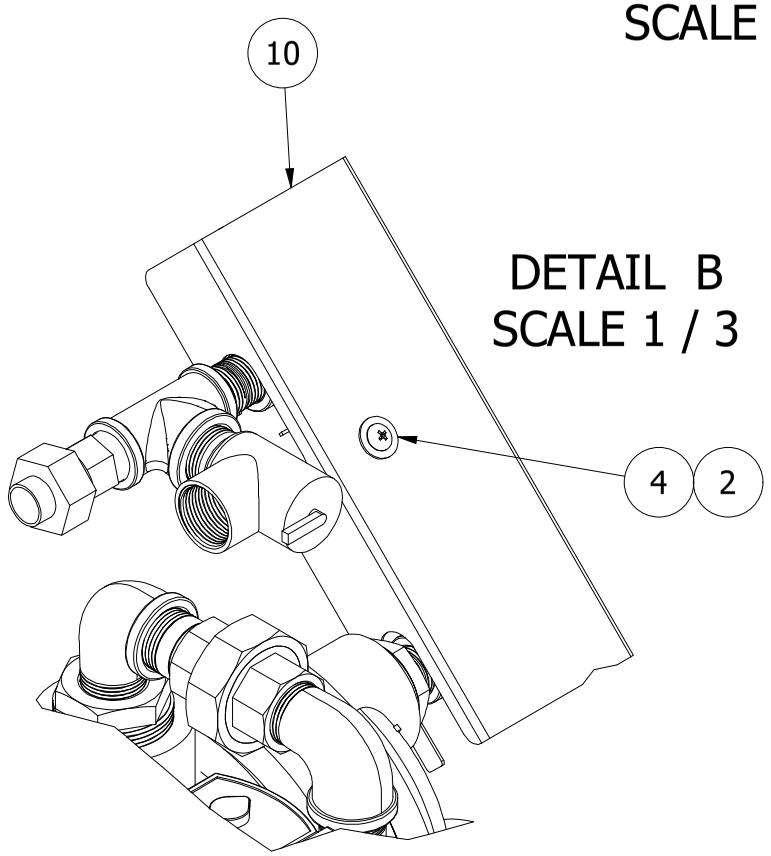
RMI:





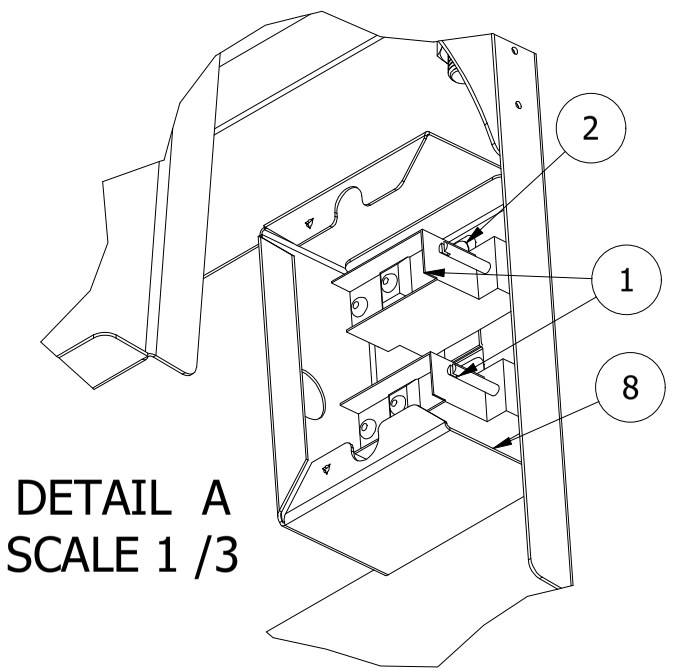
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	5020-03339	STEMCO PIG TAIL THERMOSTAT
2	5	5305-01041	SCREW, 10-32 x 1/2" Phillips Truss
3	2	5315-03338	Zinc-Plated Steel U-Bolt 1/2"-13 Thread Size, 5-5/8" ID
4	1	5330-00548	Washer, #10 Fender 18-8 SS
5	2	7000-03346	Thrush Steam Booster Leg
6	2	7000-03347	Thrush Steam Booster Cross Support
7	1	7000-03348	Thrush Steam Booster Cradle
8	1	7000-03349	Thrush Steam Booster Electrical Box
9	1	7000-03350	Thrush Steam Booster Electrical Box Cover
10	1	7000-03351	Thrush Steam Booster Upper Frount Cover Right
11	4	7500-03344	Bolt Spacer



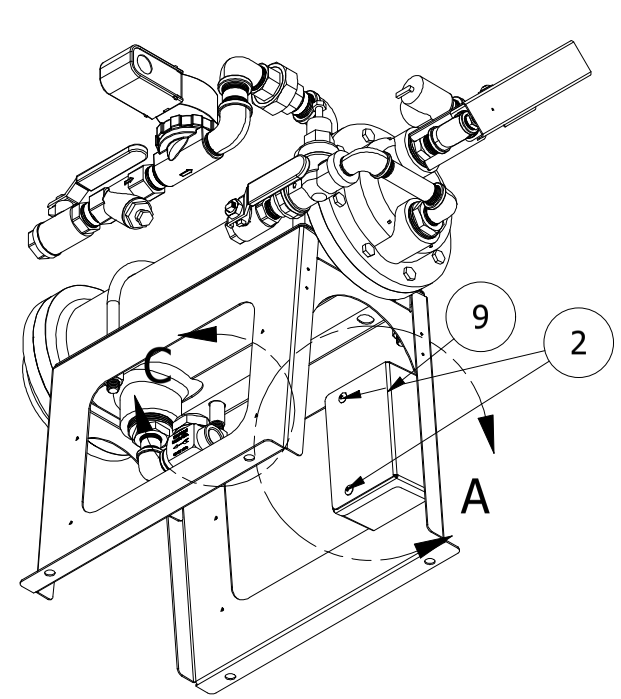


DETAIL B
SCALE 1 / 3

DETAIL C
SCALE 1 / 2



DETAIL A
SCALE 1 /3



NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, PA. 19135

DRAWN BY: Chance
DATE:

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 8

PART NUMBER: 1394-10R

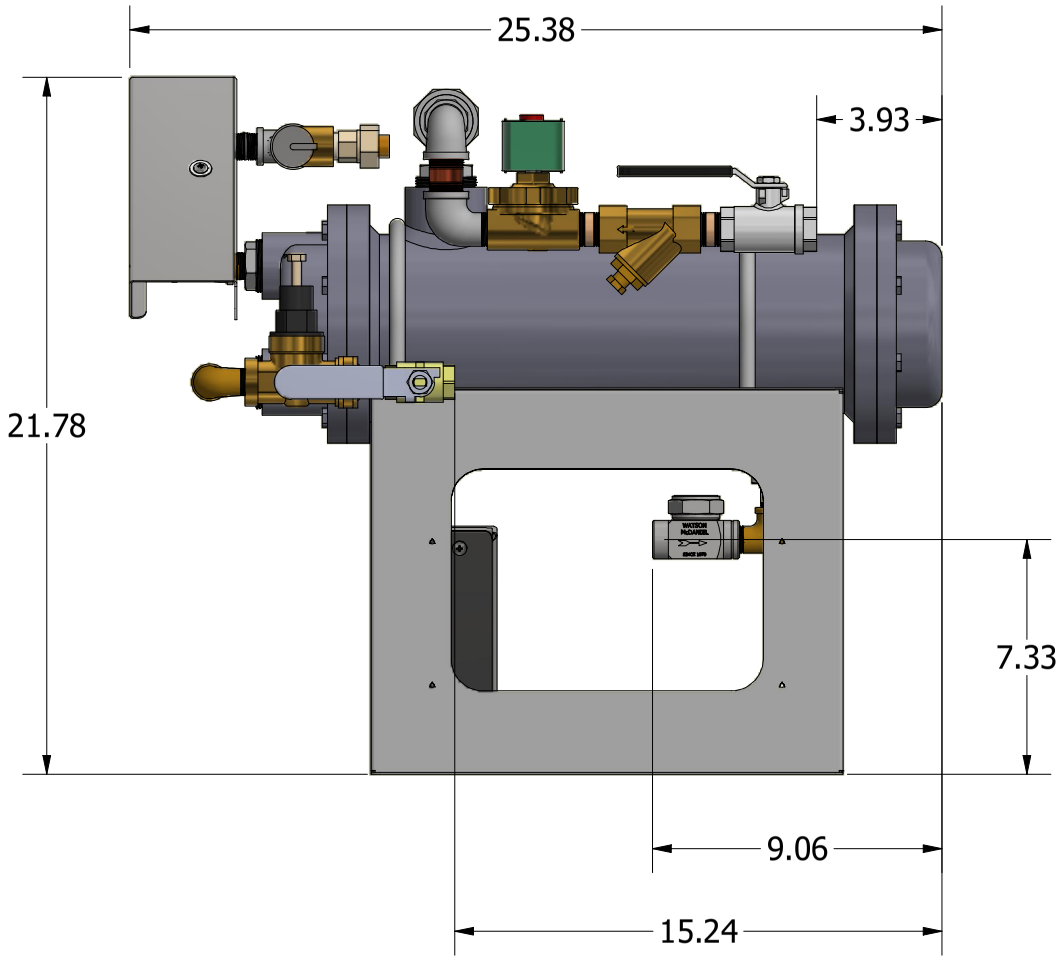
REV: I

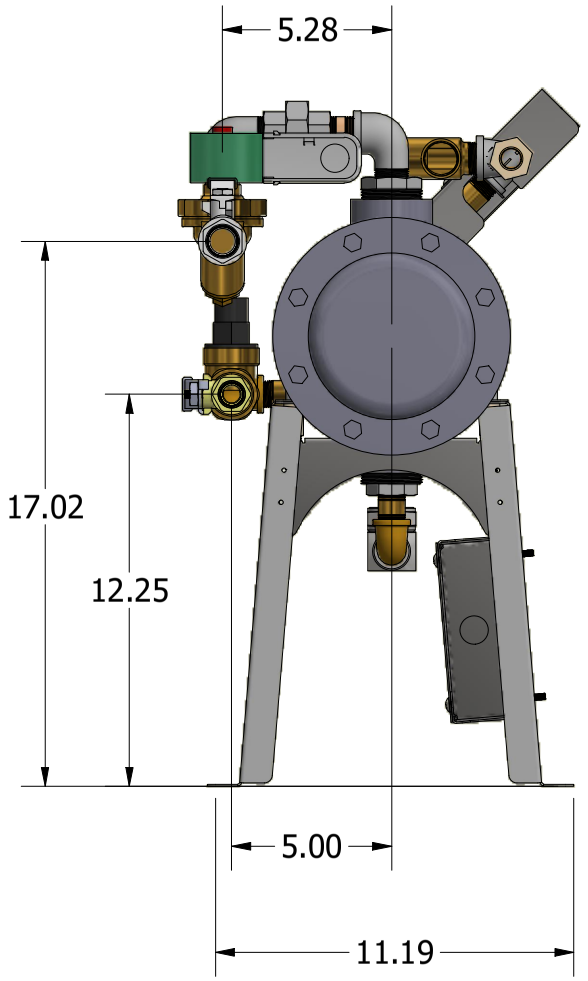
SHEET SIZE: B

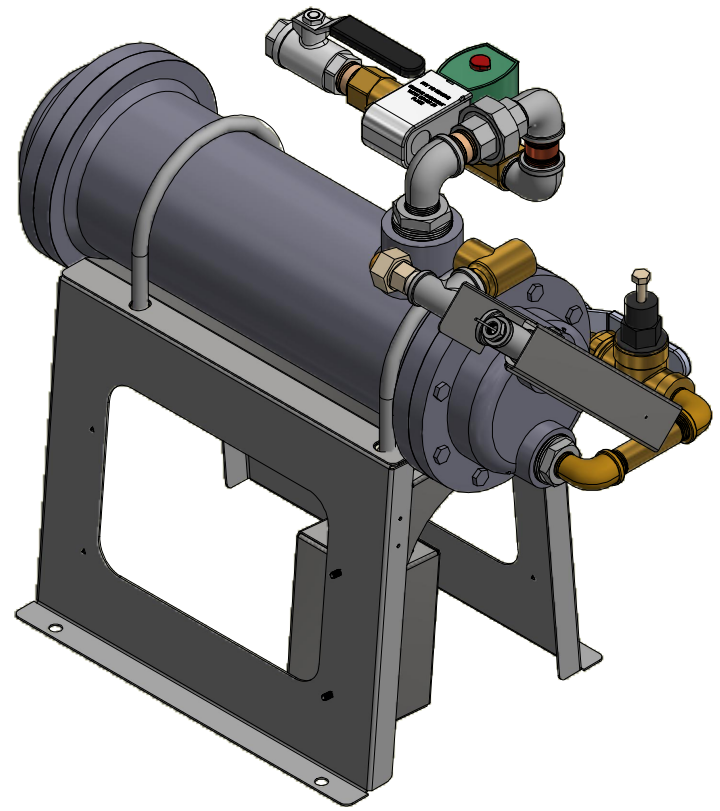
MATERIAL:

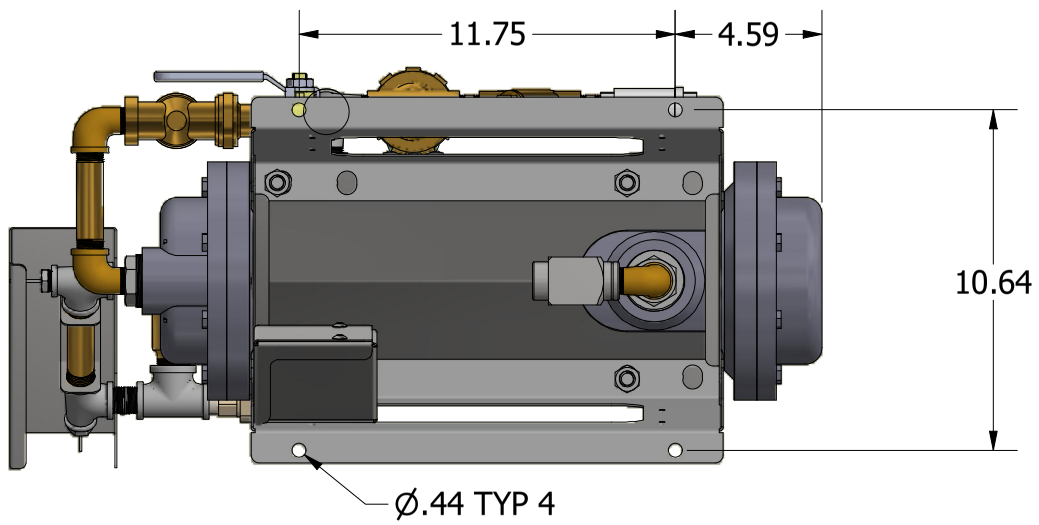
RMI:

SHEET 3 of 3









REV	CHANGE	DESCRIPTION	DATE	APPROVED
I	2978	Change to Thrush Steam Booster	12/15/2021	CF
H	2011		4/14/04	
G	2001		1/6/04	
F	1916		2/14/02	

NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, PA. 19135

DRAWN BY: Chance
DATE: 12/20/2021

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 6

PART NUMBER: 1394-10L

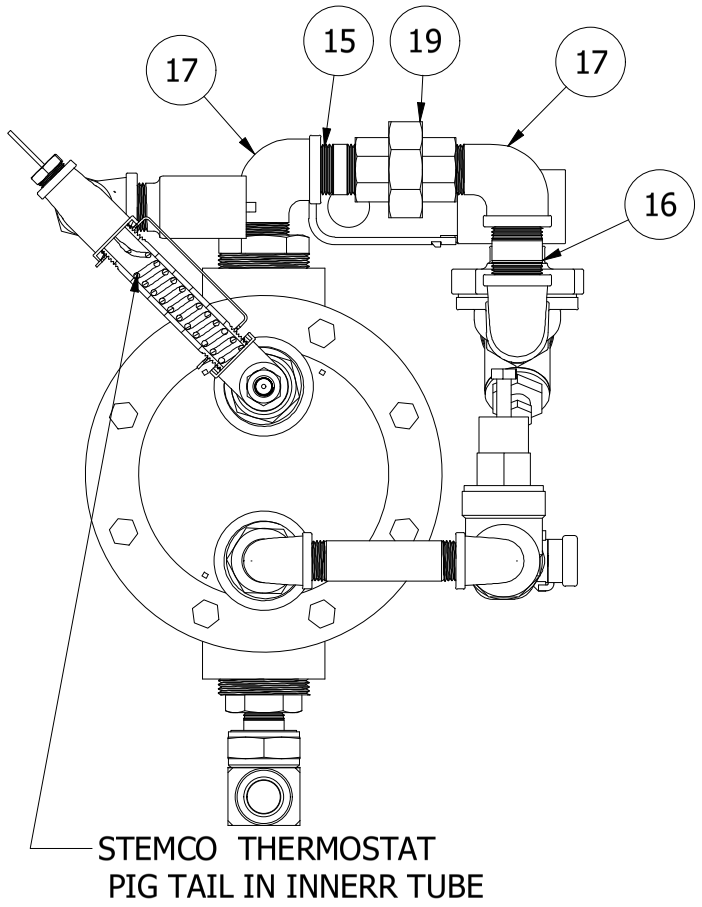
REV: I

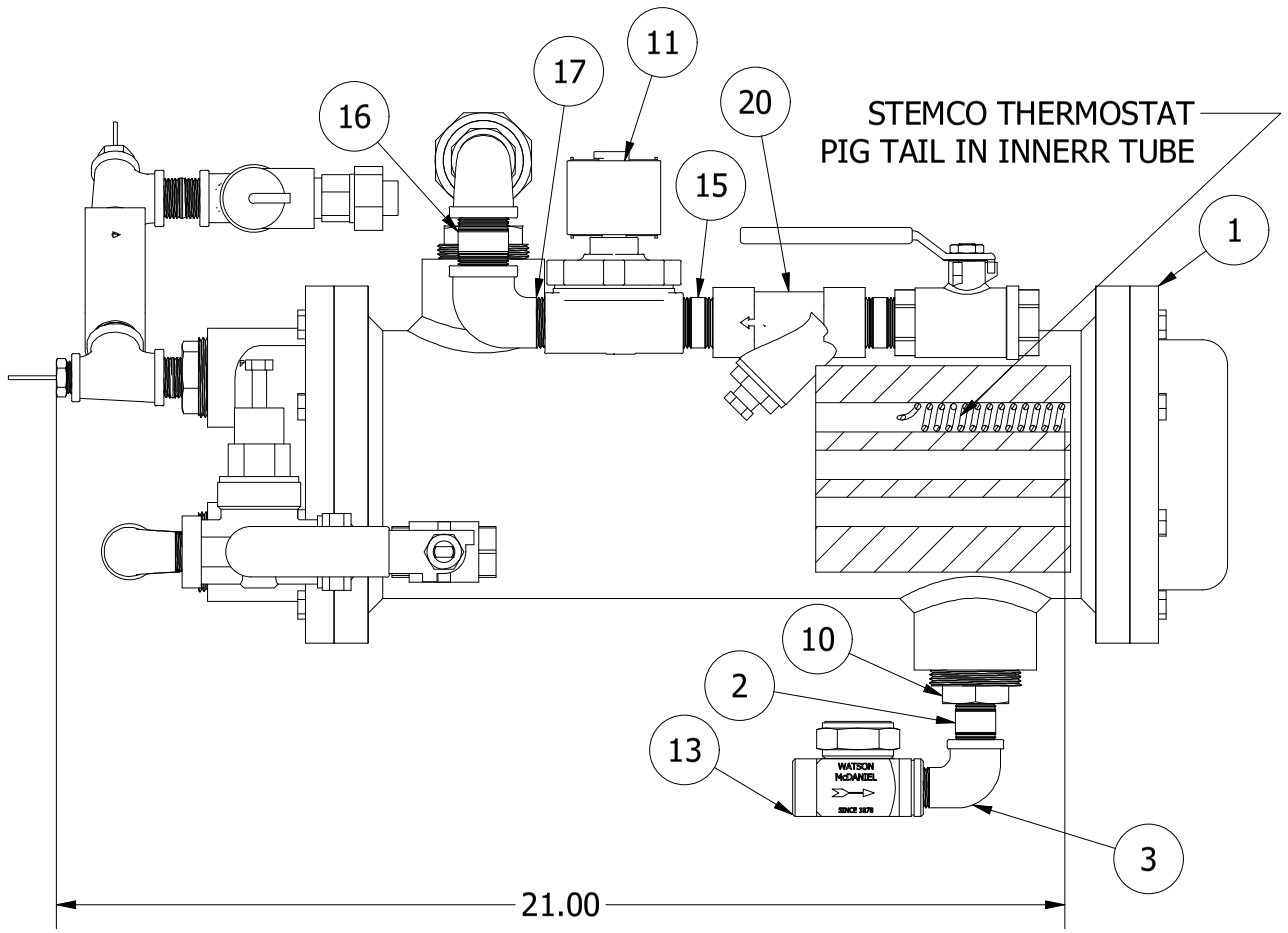
SHEET SIZE: B

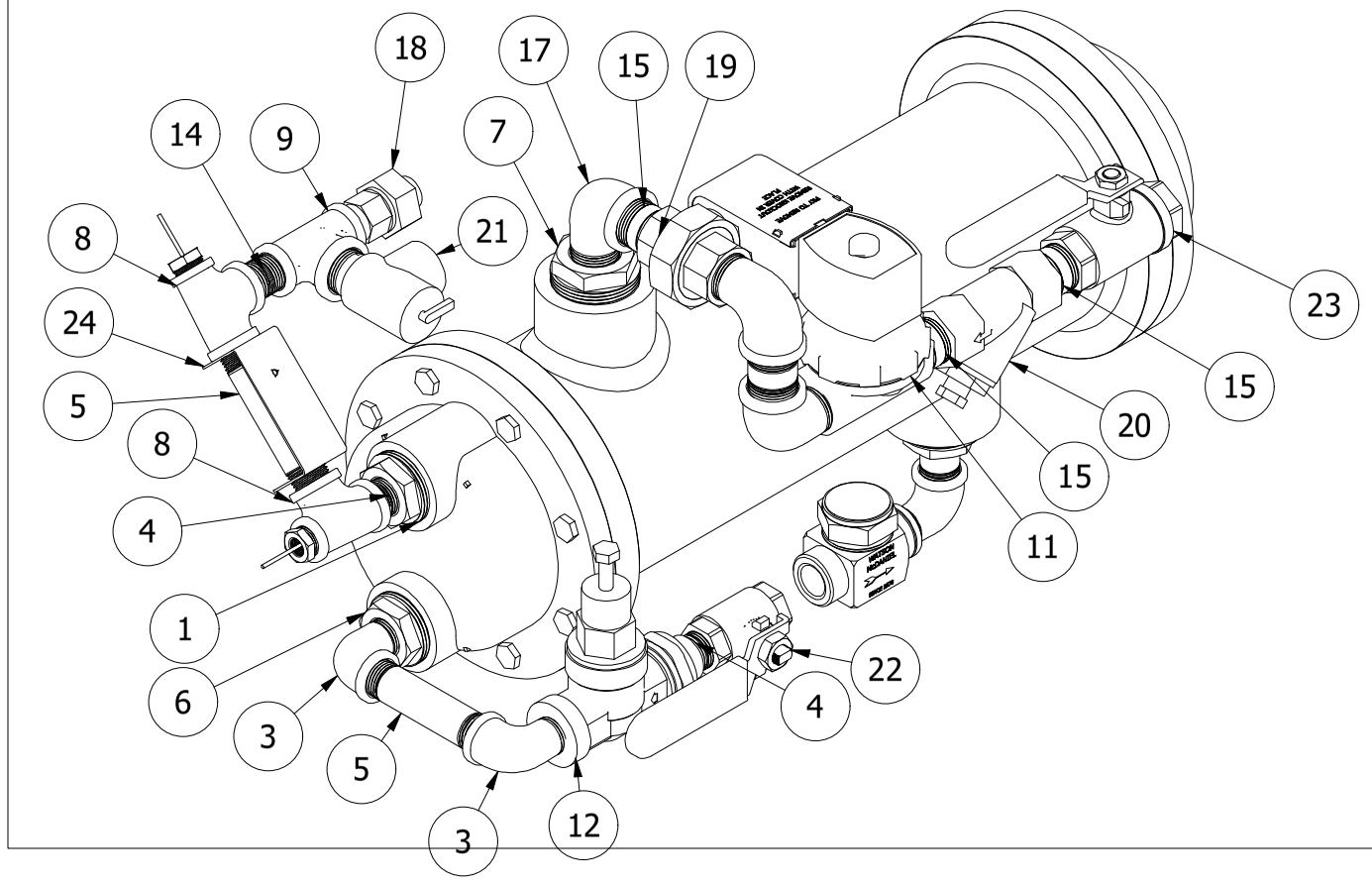
MATERIAL:

RMI:

SHEET 1 of 3







PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
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2	1	4825-00560	Nipple, 1/2" NPT x 2" Lg Brass
3	3	4825-00997	Elbow, 90 Deg Street 1/2" NPT Brass
4	2	4825-00998	Nipple, Close, 1/2" NPT, Brass
5	2	4825-00999	Nipple, 1/2 NPT x 4" Long Brass
6	2	4825-03333	Bushing 1-1/4M x 1/2F BRASS
7	1	4825-03334	Bushing 1-1/2M x 3/4F BRASS
8	2	4825-03336	Right-Angle Tee Reducer, 1/2 x 3/8 NPT Female
9	1	4825-03337	Inline Tee Reducer, 1/2 x 3/4 NPT Female
10	1	4825-03341	Bushing 1-1/2M x 1/2F BRASS
11	1	4905-01830	Valve, Solenoid 1/2 NPT 24VAC Coil WTR/STM
12	1	4930-01001	Pressure Regulator, 1/2" NPT
13	1	4965-01602	Steam Trap, 1/2NPT Thermodynamic SS
14	1	d314f-ds-12	BRASS NIPPLE 1/2" X 1-1/2"
15	3	D314F-EC-00	BRASS NIPPLE 3/4" X CLOSE
16	1	D314F-ES-16	BRASS NIPPLE, 3/4" X 2"
17	3	D316F-E1-E2	BRASS ST EL 90 DEG 3/4"F X 3/4"M
18	1	D318A-D3-D2	COPPER UNION, 1/2"C X 1/2"M
19	1	D318F-E1-E1	BRASS UNION, 3/4"F
20	1	d2482	Y STRAINER 3/4" WATTS
21	1	D2507	PRESS.RELIEF VALVE 3/4" 125# PSI
22	1	D2953	BALL VALVE,THREADED,2-WAY,1/2"NPT
23	1	D2954	3/4" BALL VALVE

NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, PA. 19135

DRAWN BY: Chance
DATE: 12/20/2021

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 4

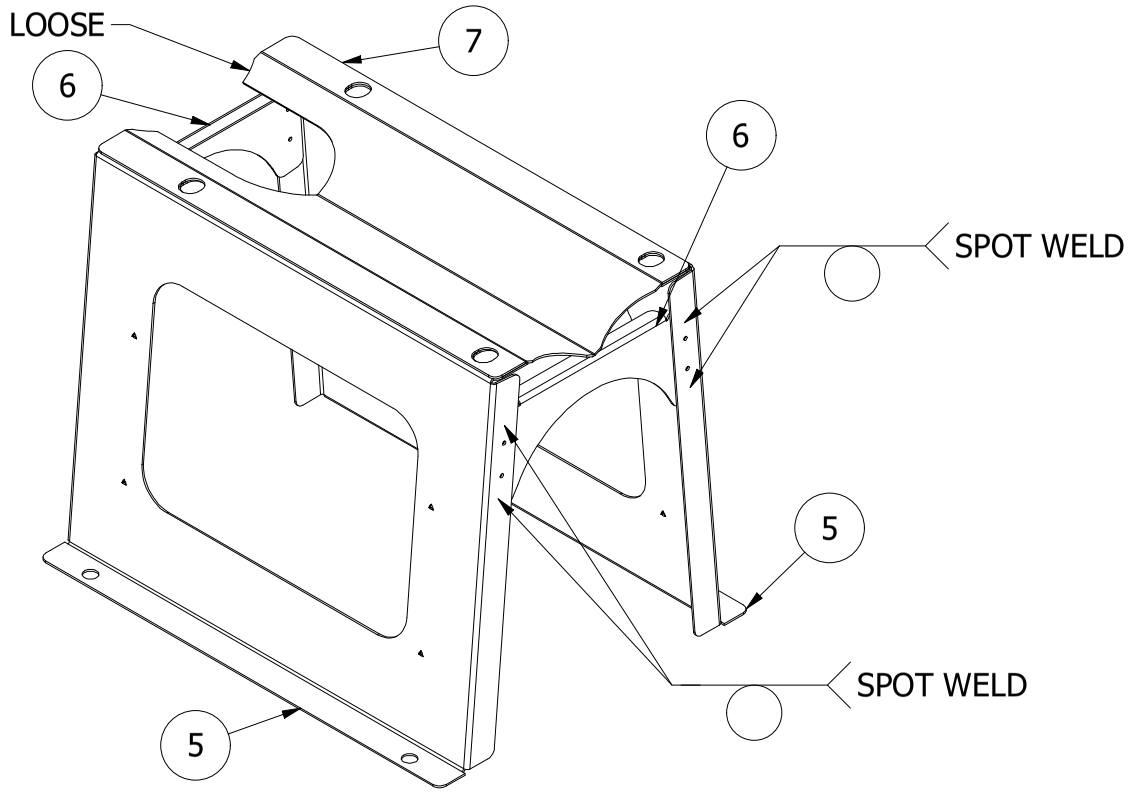
PART NUMBER: 1394-10L

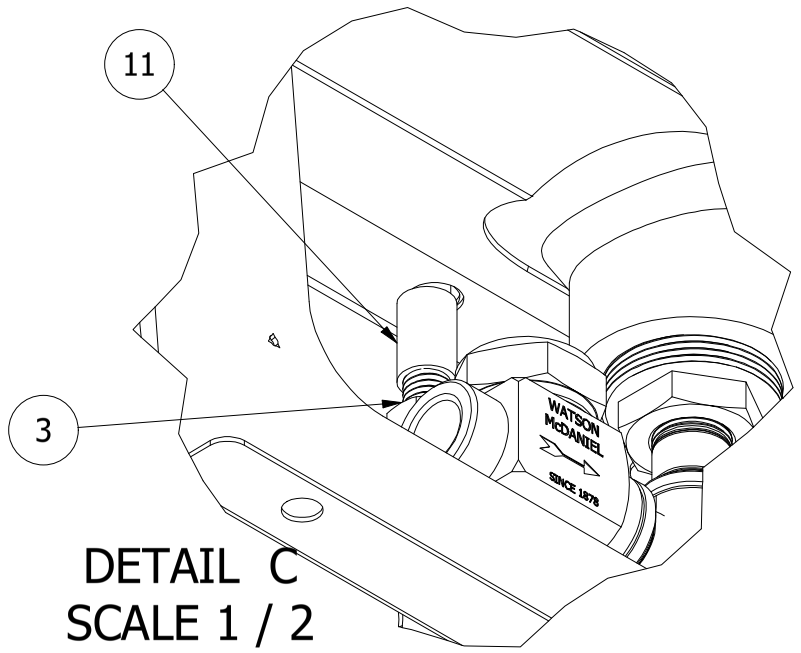
REV: I

SHEET SIZE: B

MATERIAL:

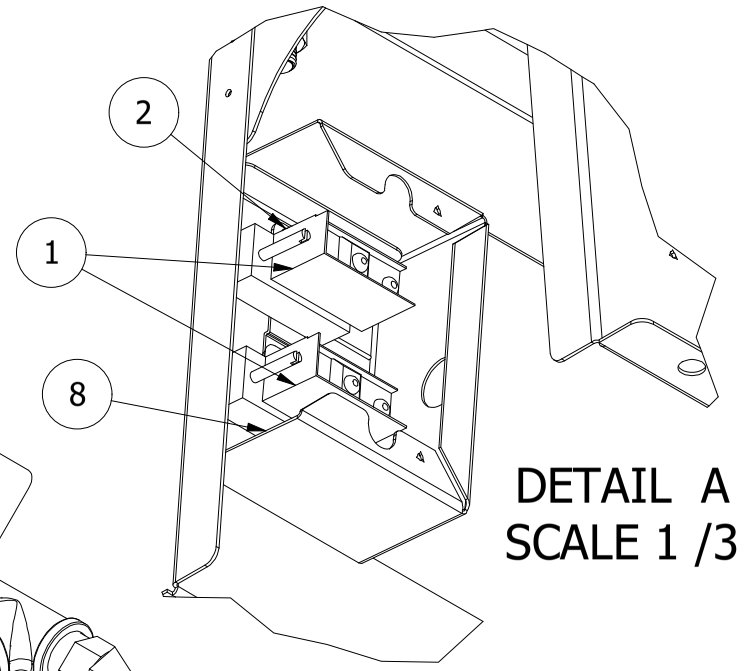
RMI:



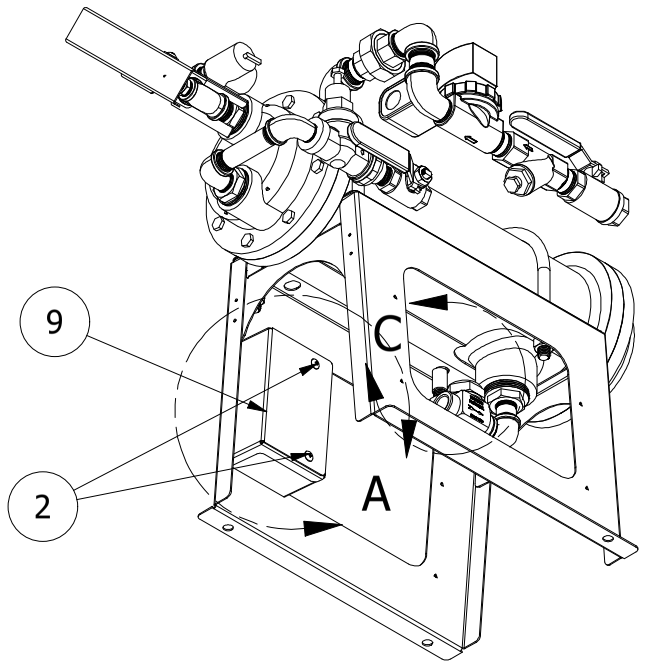


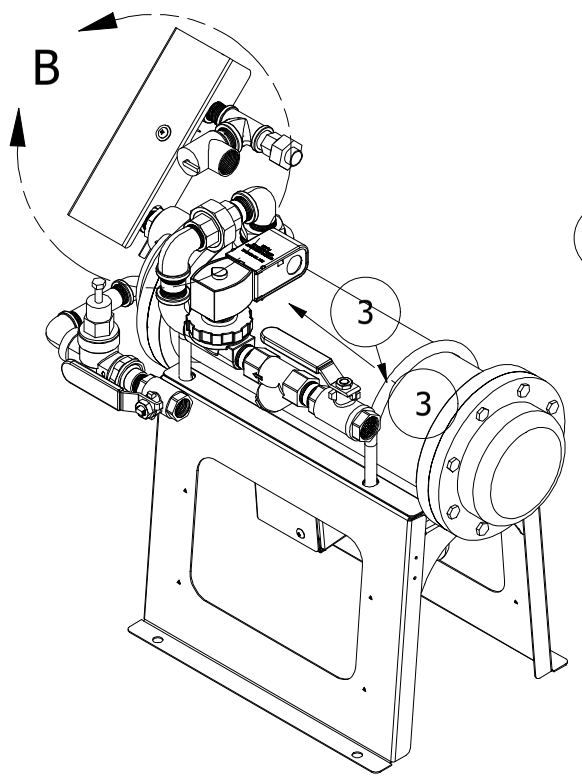
DETAIL C
SCALE 1 / 2

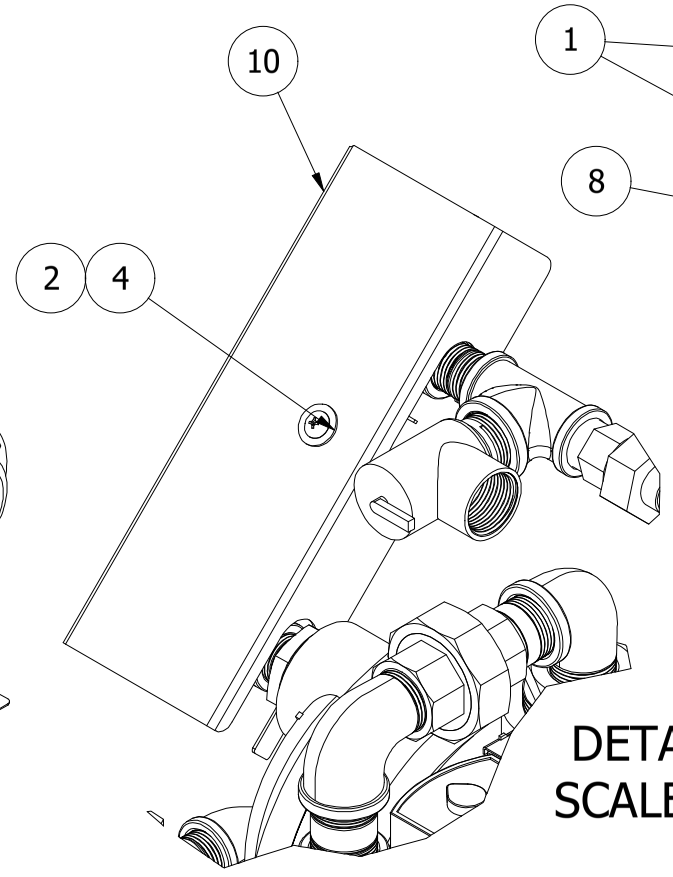
PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	5020-03339	STEMCO PIG TAIL THERMOSTAT
2	5	5305-01041	SCREW, 10-32 x 1/2" Phillips Truss
3	2	5315-03338	Zinc-Plated Steel U-Bolt 1/2"-13 Thread Size, 5-5/8" ID
4	1	5330-00548	Washer, #10 Fender 18-8 SS
5	2	7000-03346	Thrush Steam Booster Leg
6	2	7000-03347	Thrush Steam Booster Cross Support
7	1	7000-03348	Thrush Steam Booster Cradle
8	1	7000-03349	Thrush Steam Booster Electrical Box
9	1	7000-03350	Thrush Steam Booster Electrical Box Cover
10	1	7000-03372	Thrush Steam Booster Upper Frount Cover Left
11	4	7500-03344	Bolt Spacer



DETAIL A
SCALE 1 /3







DETAIL B
SCALE 1 / 3

NEXT ASSY:

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES

.XX	.XXX	FRACTIONS	ANGLES
±.02	±.005	±1/32	±1/2

Insinger
INSINGER MACHINE CO.
6245 STATE ROAD
PHILADELPHIA, P.A. 19135

DRAWN BY: Chance
DATE: 12/20/2021

DESCRIPTION: STEAM BOOSTER ASSEMBLY

SCALE: 1 / 8

PART NUMBER: 1394-10L

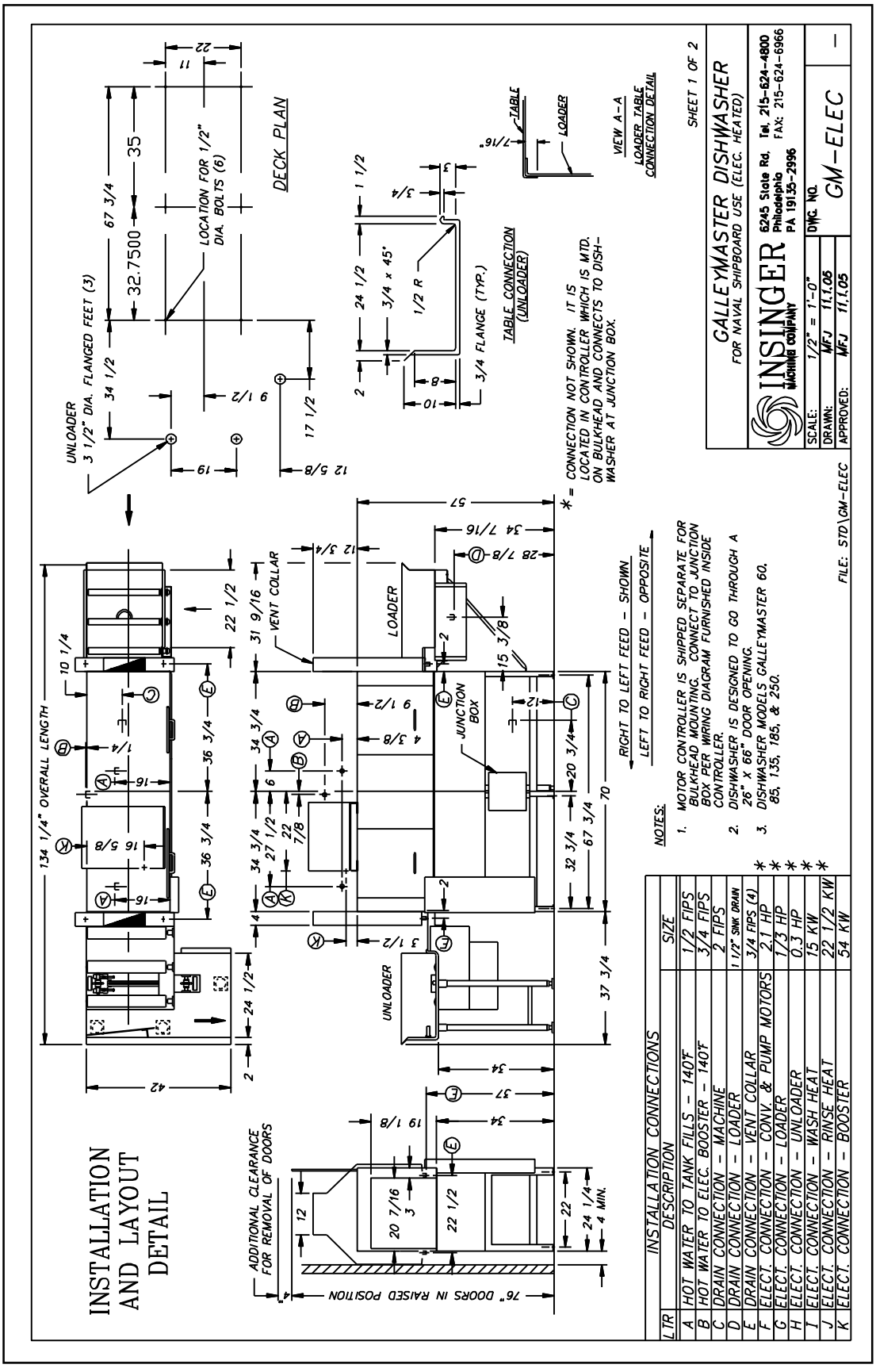
REV: I

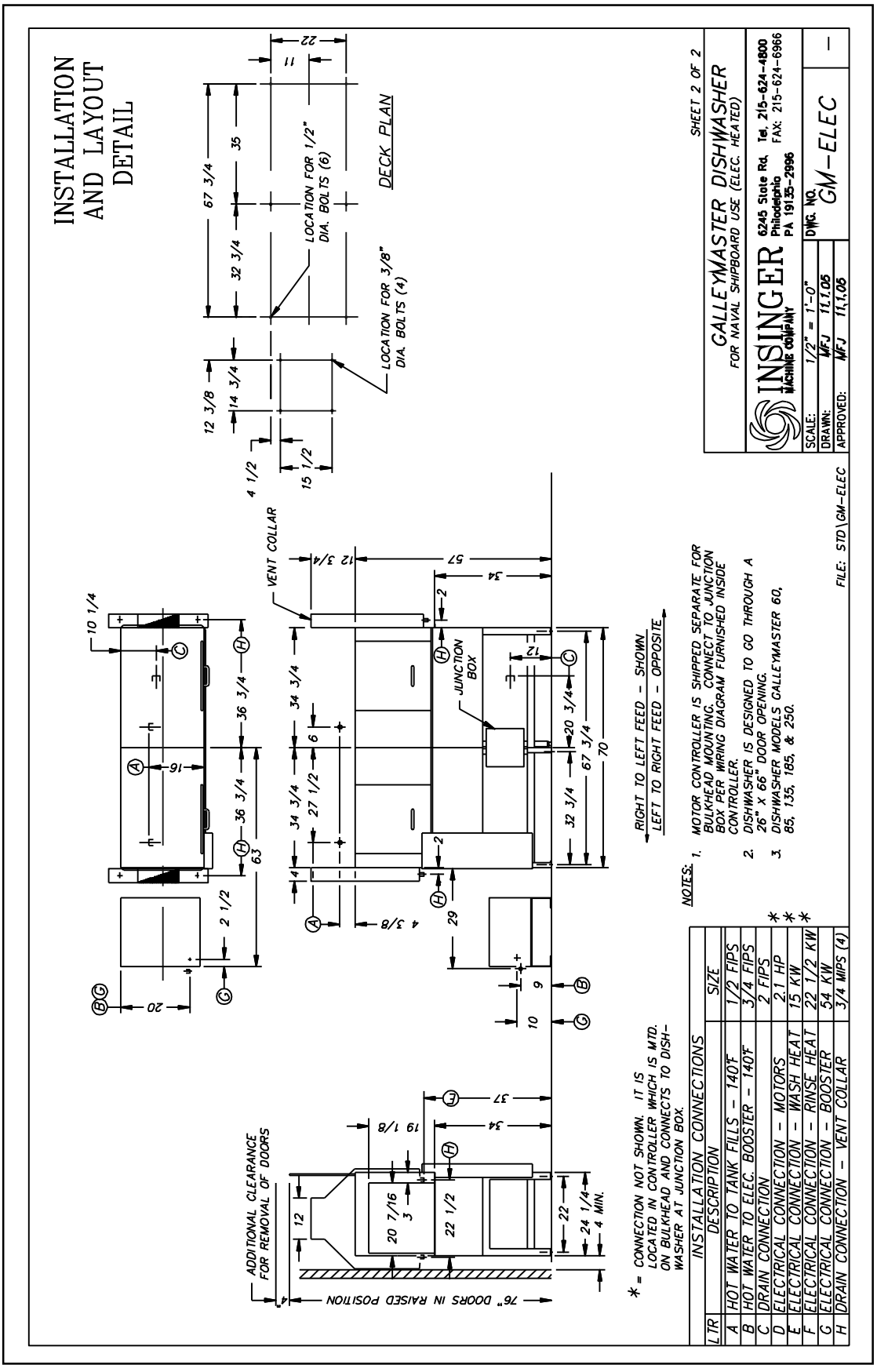
SHEET SIZE: B

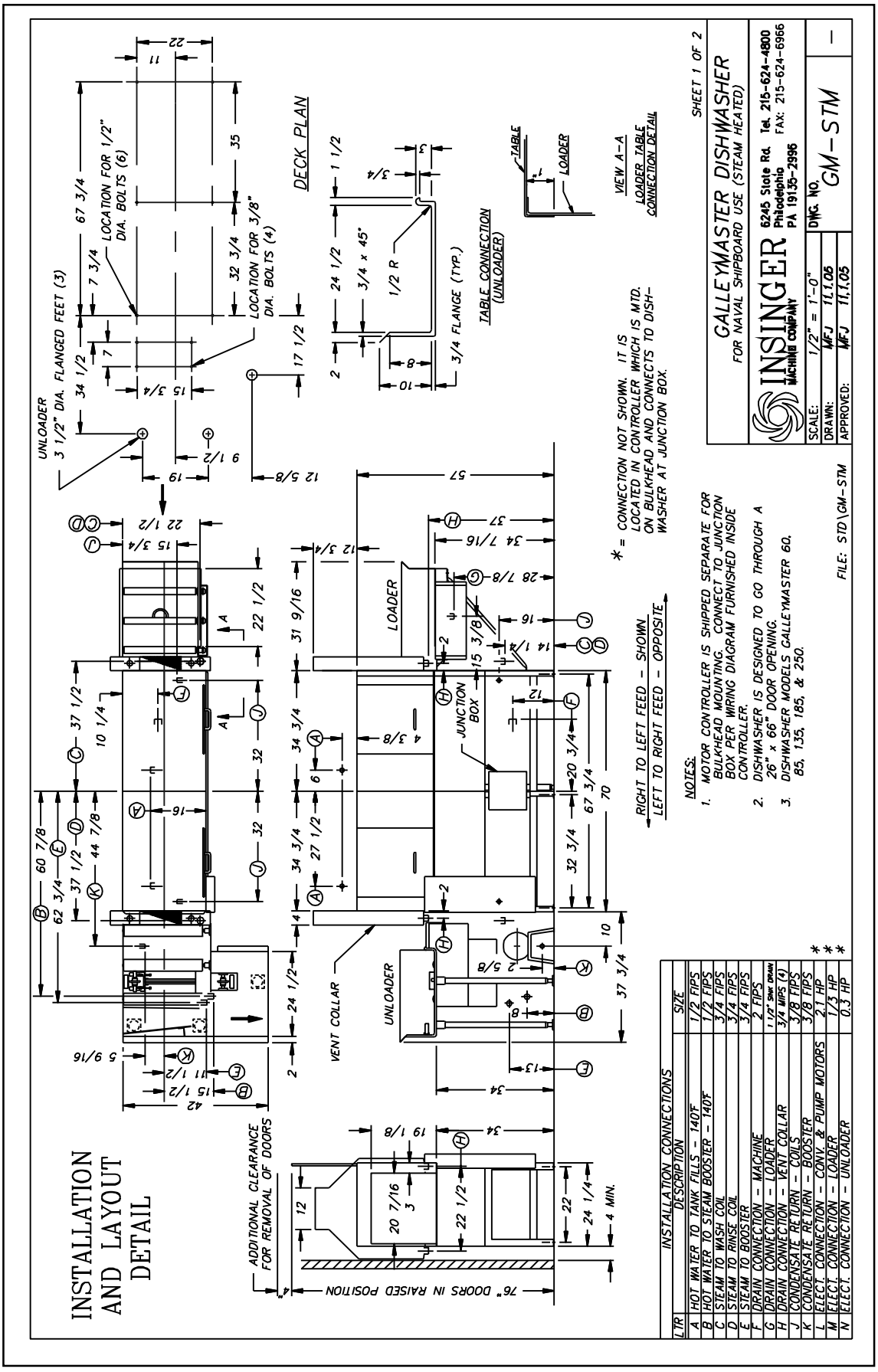
MATERIAL:

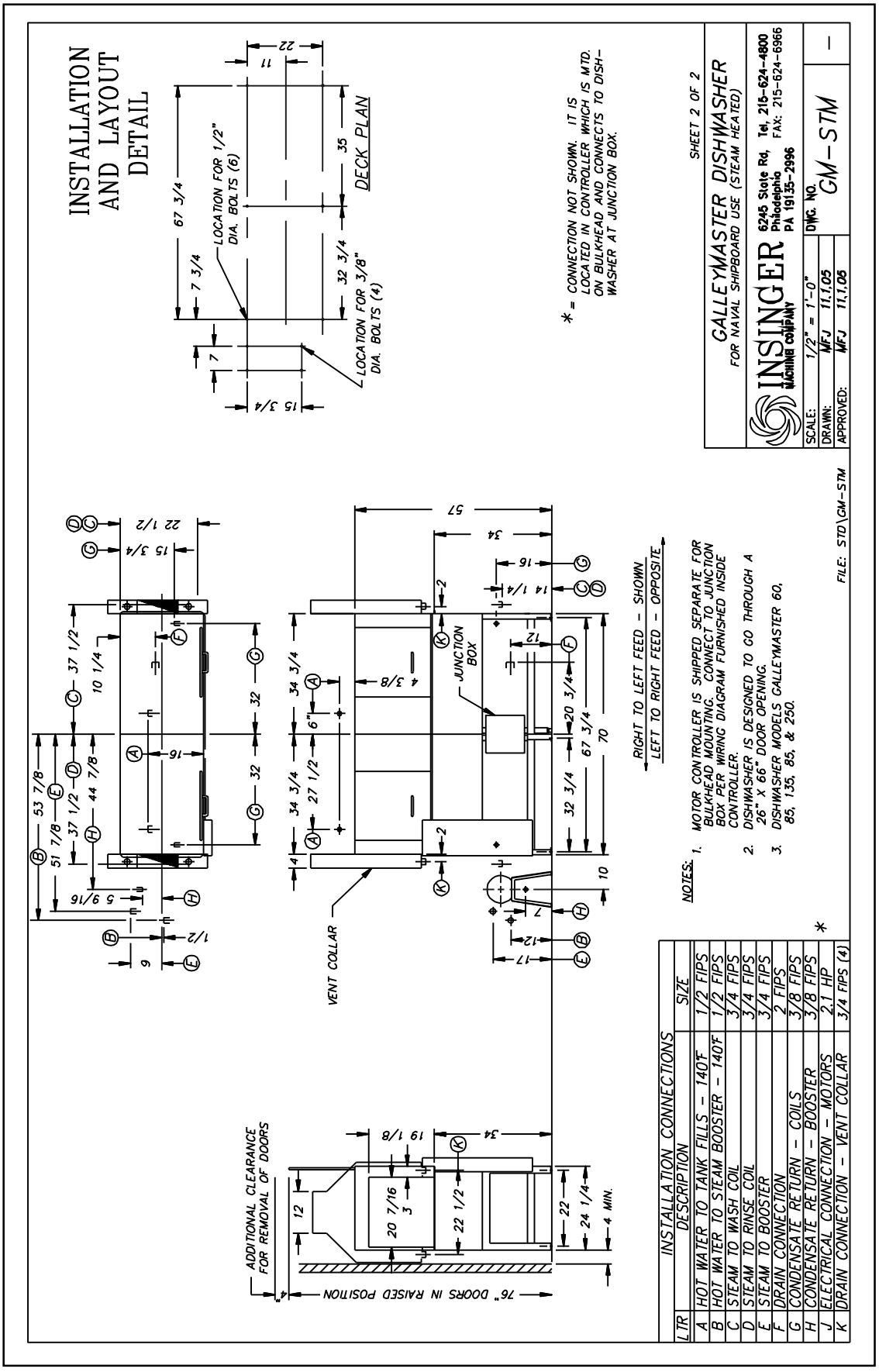
RMI:

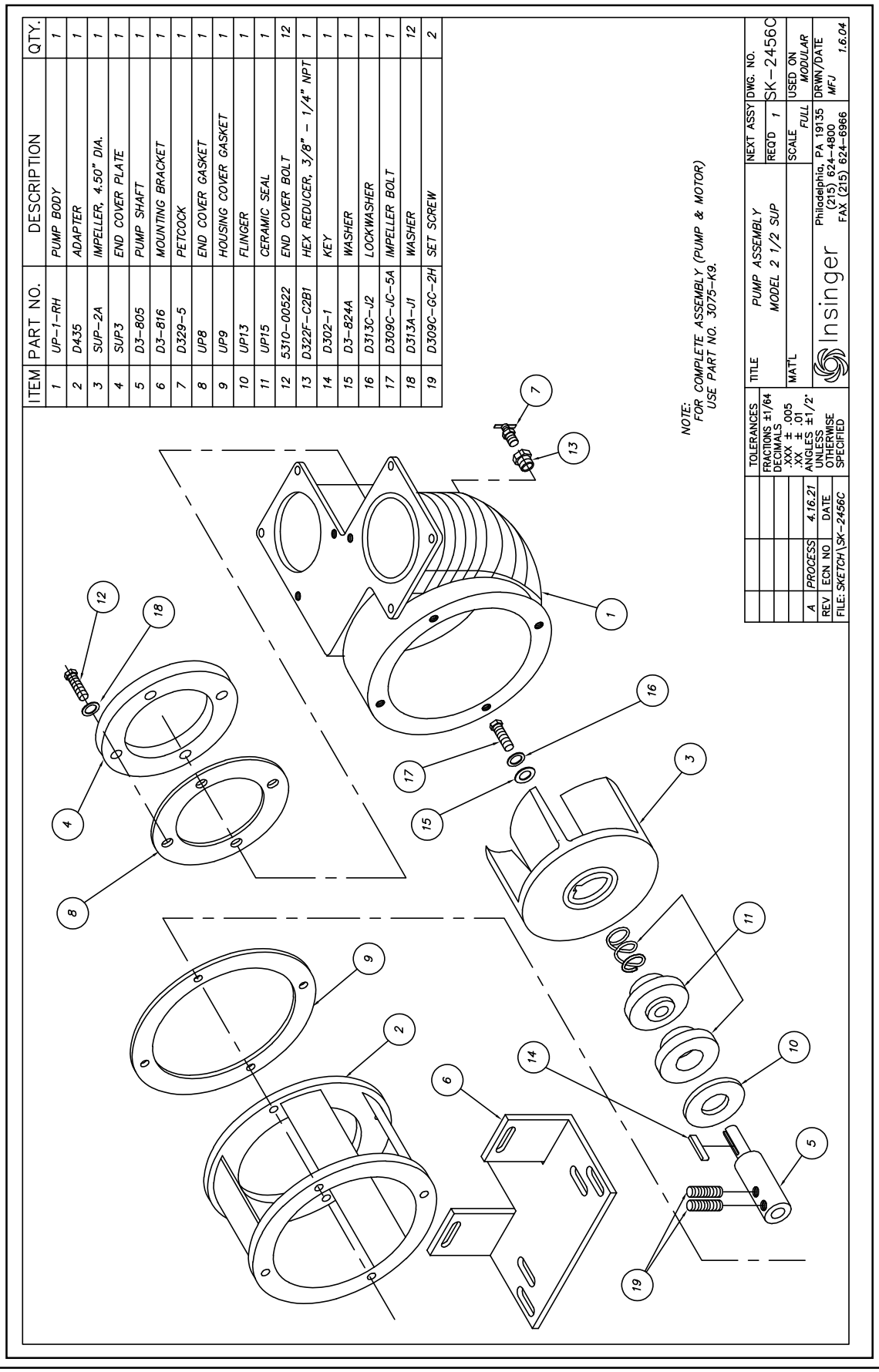
SHEET 3 of 3


INSTALLATION AND LAYOUT DETAIL
DECK PLAN
UNLOADER 3 1/2" DIA. FLANGED FEET (3)
LOCATION FOR 1/2" DIA. BOLTS (6)
TABLE CONNECTION (UNLOADER)
3/4 FLANGE (TYP.)
VIEW A-A LOADER TABLE CONNECTION DETAIL
TABLE
LOADER
* = CONNECTION NOT SHOWN. IT IS LOCATED IN CONTROLLER WHICH IS MTD. ON BULKHEAD AND CONNECTS TO DISH-WASHER AT JUNCTION BOX.
134 1/4" OVERALL LENGTH
VENT COLLAR
JUNCTION BOX
UNLOADER
LOADER
RIGHT TO LEFT FEED - SHOWN
LEFT TO RIGHT FEED - OPPOSITE
ADDITIONAL CLEARANCE FOR REMOVAL OF DOORS
76" DOORS IN RAISED POSITION
NOTES:
1. MOTOR CONTROLLER IS SHIPPED SEPARATE FOR BULKHEAD MOUNTING. CONNECT TO JUNCTION BOX PER WIRING DIAGRAM FURNISHED INSIDE CONTROLLER.
2. DISHWASHER IS DESIGNED TO GO THROUGH A 26" X 66" DOOR OPENING.
3. DISHWASHER MODELS GALLEYMASTER 60, 85, 135, 185, & 250.
INSTALLATION CONNECTIONS
LTR DESCRIPTION SIZE
A HOT WATER TO TANK FILLS - 140°F 1/2 FIPS
B HOT WATER TO ELEC. BOOSTER - 140°F 3/4 FIPS
C DRAIN CONNECTION - MACHINE 2 FIPS
D DRAIN CONNECTION - LOADER 1 1/2" SINK DRAIN
E DRAIN CONNECTION - VENT COLLAR 3/4 FIPS (4)
F ELECT. CONNECTION - CONV. & PUMP MOTORS 2.1 HP **
G ELECT. CONNECTION - LOADER 1/3 HP **
H ELECT. CONNECTION - UNLOADER 0.3 HP **
I ELECT. CONNECTION - WASH HEAT 15 KW **
J ELECT. CONNECTION - RINSE HEAT 22 1/2 KW **
K ELECT. CONNECTION - BOOSTER 54 KW
GALLEYMASTER DISHWASHER
FOR NAVAL SHIPBOARD USE (ELEC. HEATED)
INSINGER MACHINE COMPANY
6245 State Rd. Philadelphia PA 19135-2996
Tel. 215-624-4800
FAX: 215-624-6966
SCALE: 1/2" = 1'-0"
DRAWN: MFJ 11.1.05
APPROVED: MFJ 11.1.05
DWG. NO. GM-ELEC
SHEET 1 OF 2
FILE: STD\GM-ELEC


INSTALLATION AND LAYOUT DETAIL
DECK PLAN
LOCATION FOR 1/2" DIA. BOLTS (6)
LOCATION FOR 3/8" DIA. BOLTS (4)
VENT COLLAR
JUNCTION BOX
ADDITIONAL CLEARANCE FOR REMOVAL OF DOORS
76" DOORS IN RAISED POSITION
RIGHT TO LEFT FEED - SHOWN
LEFT TO RIGHT FEED - OPPOSITE
NOTES:
1. MOTOR CONTROLLER IS SHIPPED SEPARATE FOR BULKHEAD MOUNTING. CONNECT TO JUNCTION BOX PER WIRING DIAGRAM FURNISHED INSIDE CONTROLLER.
2. DISHWASHER IS DESIGNED TO GO THROUGH A 26" X 66" DOOR OPENING.
3. DISHWASHER MODELS GALLEYMASTER 60, 85, 135, 185, & 250.
* = CONNECTION NOT SHOWN. IT IS LOCATED IN CONTROLLER WHICH IS MTD. ON BULKHEAD AND CONNECTS TO DISH-WASHER AT JUNCTION BOX.
INSTALLATION CONNECTIONS
LTR | DESCRIPTION | SIZE
A | HOT WATER TO TANK FILLS - 140°F | 1/2 FIPS
B | HOT WATER TO ELEC. BOOSTER - 140°F | 3/4 FIPS
C | DRAIN CONNECTION | 2 FIPS
D | ELECTRICAL CONNECTION - MOTORS | 2.1 HP *
E | ELECTRICAL CONNECTION - WASH HEAT | 15 KW *
F | ELECTRICAL CONNECTION - RINSE HEAT | 22 1/2 KW *
G | ELECTRICAL CONNECTION - BOOSTER | 54 KW
H | DRAIN CONNECTION - VENT COLLAR | 3/4 MIPS (4)
GALLEYMASTER DISHWASHER
FOR NAVAL SHIPBOARD USE (ELEC. HEATED)
SHEET 2 OF 2
INSINGER MACHINE COMPANY
6245 State Rd. Philadelphia PA 19135-2996
Tel. 215-624-4800
FAX: 215-624-6966
SCALE: 1/2" = 1'-0"
DRAWN: MFJ 11.1.05
APPROVED: MFJ 11.1.05
DWG. NO. GM-ELEC
FILE: STD\GM-ELEC


INSTALLATION AND LAYOUT DETAIL
DECK PLAN
UNLOADER
3 1/2" DIA. FLANGED FEET (3)
LOCATION FOR 1/2" DIA. BOLTS (6)
LOCATION FOR 3/8" DIA. BOLTS (4)
TABLE CONNECTION (UNLOADER)
3/4 FLANGE (TYP.)
VIEW A-A
LOADER TABLE CONNECTION DETAIL
TABLE
LOADER
* = CONNECTION NOT SHOWN. IT IS LOCATED IN CONTROLLER WHICH IS MTD. ON BULKHEAD AND CONNECTS TO DISH-WASHER AT JUNCTION BOX.
RIGHT TO LEFT FEED - SHOWN
LEFT TO RIGHT FEED - OPPOSITE
NOTES:
1. MOTOR CONTROLLER IS SHIPPED SEPARATE FOR BULKHEAD MOUNTING. CONNECT TO JUNCTION BOX PER WIRING DIAGRAM FURNISHED INSIDE CONTROLLER.
2. DISHWASHER IS DESIGNED TO GO THROUGH A 26" x 66" DOOR OPENING.
3. DISHWASHER MODELS GALLEYMASTER 60, 85, 135, 185, & 250.
JUNCTION BOX
LOADER
UNLOADER
VENT COLLAR
ADDITIONAL CLEARANCE FOR REMOVAL OF DOORS
76" DOORS IN RAISED POSITION
INSTALLATION CONNECTIONS
LTR DESCRIPTION SIZE
A HOT WATER TO TANK FILLS - 140°F 1/2 FIPS
B HOT WATER TO STEAM BOOSTER - 140°F 1/2 FIPS
C STEAM TO WASH COIL 3/4 FIPS
D STEAM TO RINSE COIL 3/4 FIPS
E STEAM TO BOOSTER 3/4 FIPS
F DRAIN CONNECTION - MACHINE 2 FIPS
G DRAIN CONNECTION - LOADER 1 1/2" SNK DRAIN
H DRAIN CONNECTION - VENT COLLAR 3/4 MIPS (4)
J CONDENSATE RETURN - COILS 3/8 FIPS
K CONDENSATE RETURN - BOOSTER 3/8 FIPS
L ELECT. CONNECTION - CONV. & PUMP MOTORS 2.1 HP ***
M ELECT. CONNECTION - LOADER 1.3 HP ***
N ELECT. CONNECTION - UNLOADER 0.3 HP
GALLEYMASTER DISHWASHER
FOR NAVAL SHIPBOARD USE (STEAM HEATED)
SHEET 1 OF 2
INSINGER MACHINE COMPANY
6245 State Rd. Philadelphia PA 19135-2996
Tel. 215-624-4800
FAX: 215-624-6966
SCALE: 1/2" = 1'-0"
DRAWN: MFJ 11.1.05
APPROVED: MFJ 11.1.05
DWG. NO. GM-STM
FILE: STD\GM-STM


INSTALLATION AND LAYOUT DETAIL
DECK PLAN
LOCATION FOR 1/2" DIA. BOLTS (6)
LOCATION FOR 3/8" DIA. BOLTS (4)
67 3/4
7 3/4
32 3/4
35
22
11
15 3/4
7
* = CONNECTION NOT SHOWN. IT IS LOCATED IN CONTROLLER WHICH IS MTD. ON BULKHEAD AND CONNECTS TO DISH-WASHER AT JUNCTION BOX.
SHEET 2 OF 2
GALLEYMASTER DISHWASHER
FOR NAVAL SHIPBOARD USE (STEAM HEATED)
INSINGER MACHINE COMPANY
6245 State Rd, Philadelphia PA 19135-2996
Tel. 215-624-4800
FAX: 215-624-6966
SCALE: 1/2" = 1'-0"
DRAWN: MFJ 11.1.05
APPROVED: MFJ 11.1.05
DWG. NO. GM-STM
FILE: STD\GM-STM
RIGHT TO LEFT FEED - SHOWN
LEFT TO RIGHT FEED - OPPOSITE
JUNCTION BOX
VENT COLLAR
ADDITIONAL CLEARANCE FOR REMOVAL OF DOORS
76" DOORS IN RAISED POSITION
4 MIN.
NOTES:
1. MOTOR CONTROLLER IS SHIPPED SEPARATE FOR BULKHEAD MOUNTING. CONNECT TO JUNCTION BOX PER WIRING DIAGRAM FURNISHED INSIDE CONTROLLER.
2. DISHWASHER IS DESIGNED TO GO THROUGH A 26" X 66" DOOR OPENING.
3. DISHWASHER MODELS GALLEYMASTER 60, 85, 135, 85, & 250.
INSTALLATION CONNECTIONS
LTR | DESCRIPTION | SIZE
A | HOT WATER TO TANK FILLS - 140F | 1/2 FIPS
B | HOT WATER TO STEAM BOOSTER - 140F | 1/2 FIPS
C | STEAM TO WASH COIL | 3/4 FIPS
D | STEAM TO RINSE COIL | 3/4 FIPS
E | STEAM TO BOOSTER | 3/4 FIPS
F | DRAIN CONNECTION | 2 FIPS
G | CONDENSATE RETURN - COILS | 3/8 FIPS
H | CONDENSATE RETURN - BOOSTER | 3/8 FIPS
J | ELECTRICAL CONNECTION - MOTORS | 2.1 HP
K | DRAIN CONNECTION - VENT COLLAR | 3/4 FIPS (4)



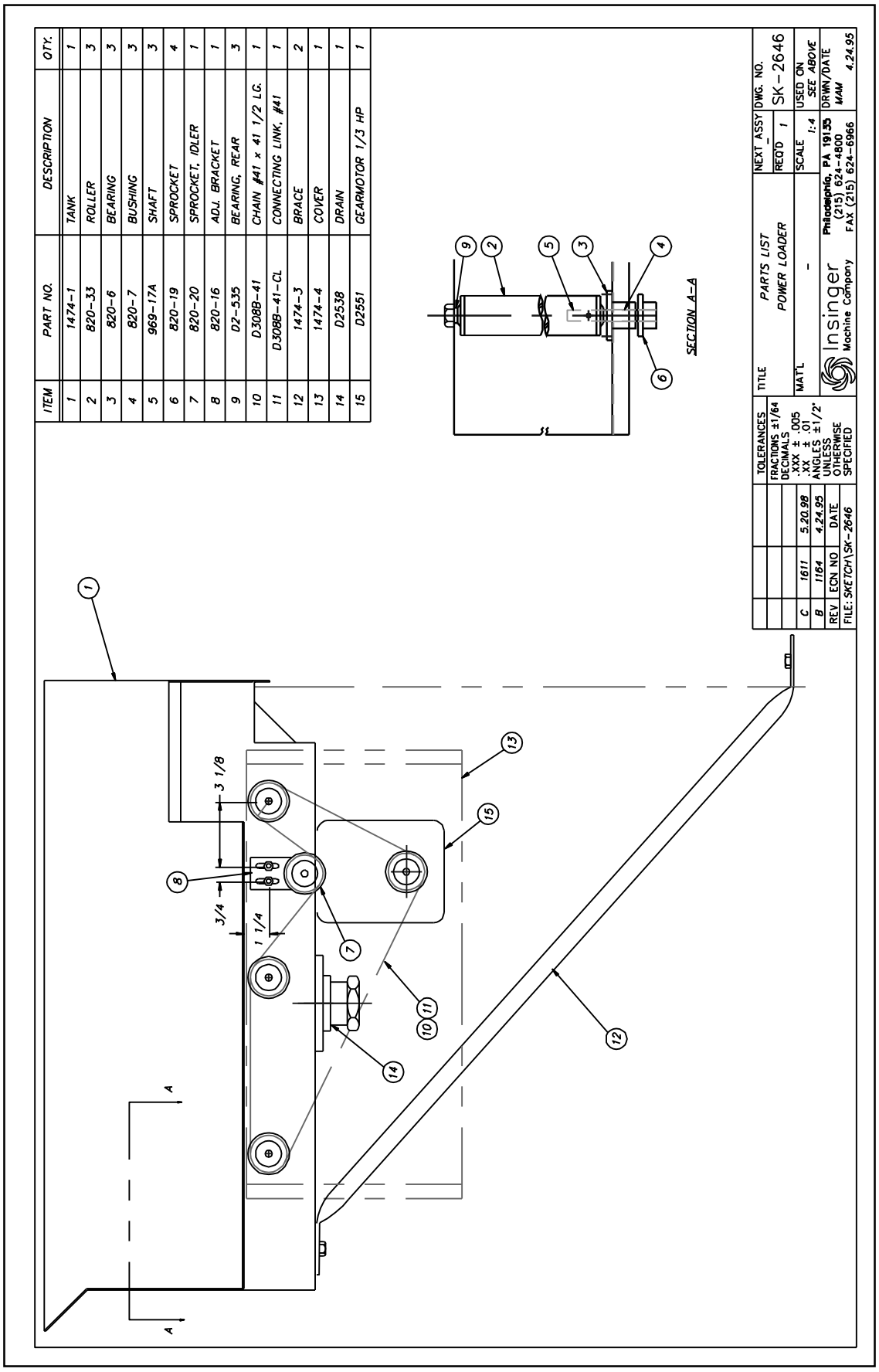
ITEM	PART NO.	DESCRIPTION	QTY.
1	UP-1-RH	PUMP BODY	1
2	D435	ADAPTER	1
3	SUP-2A	IMPELLER, 4.50" DIA.	1
4	SUP3	END COVER PLATE	1
5	D3-805	PUMP SHAFT	1
6	D3-816	MOUNTING BRACKET	1
7	D329-5	PETCOCK	1
8	UP8	END COVER GASKET	1
9	UP9	HOUSING COVER GASKET	1
10	UP13	FLINGER	1
11	UP15	CERAMIC SEAL	1
12	5310-00522	END COVER BOLT	12
13	D322F-C2B1	HEX REDUCER, 3/8" - 1/4" NPT	1
14	D302-1	KEY	1
15	D3-824A	WASHER	1
16	D313C-J2	LOCKWASHER	1
17	D309C-JC-5A	IMPELLER BOLT	1
18	D313A-J1	WASHER	12
19	D309C-GC-2H	SET SCREW	2

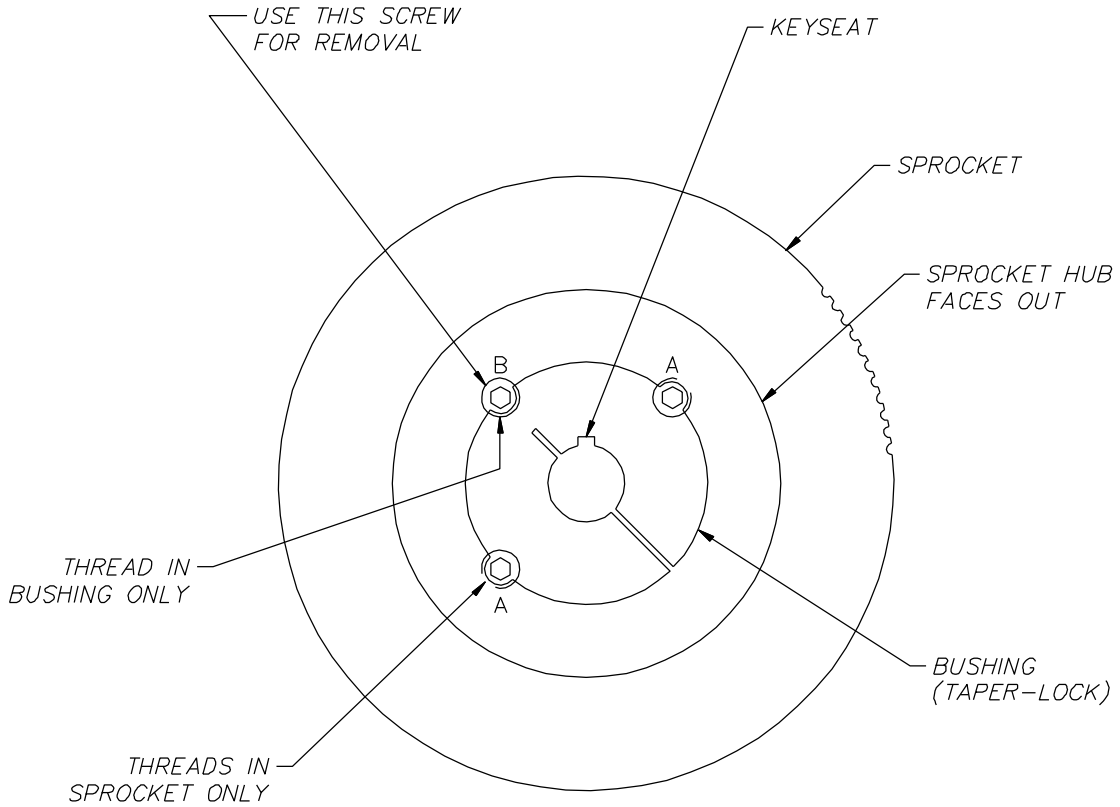
NOTE:
FOR COMPLETE ASSEMBLY (PUMP & MOTOR)
USE PART NO. 3075-K9.

			TOLERANCES	TITLE	PUMP ASSEMBLY
			FRACTIONS ±1/64		MODEL 2 1/2 SUP
			DECIMALS		
			.XXX ± .005	MAT'L	
			.XX ± .01		
A	PROCESS	4.16.21	ANGLES ±1/2°		
REV	ECN NO	DATE	UNLESS		
FILE: SKETCH\SK-2456C			OTHERWISE		
			SPECIFIED		

Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966

NEXT ASSY	DWG. NO.
REQ'D 1	SK-2456C
SCALE FULL	USED ON MODULAR
DRWN/DATE MFJ	1.6.04

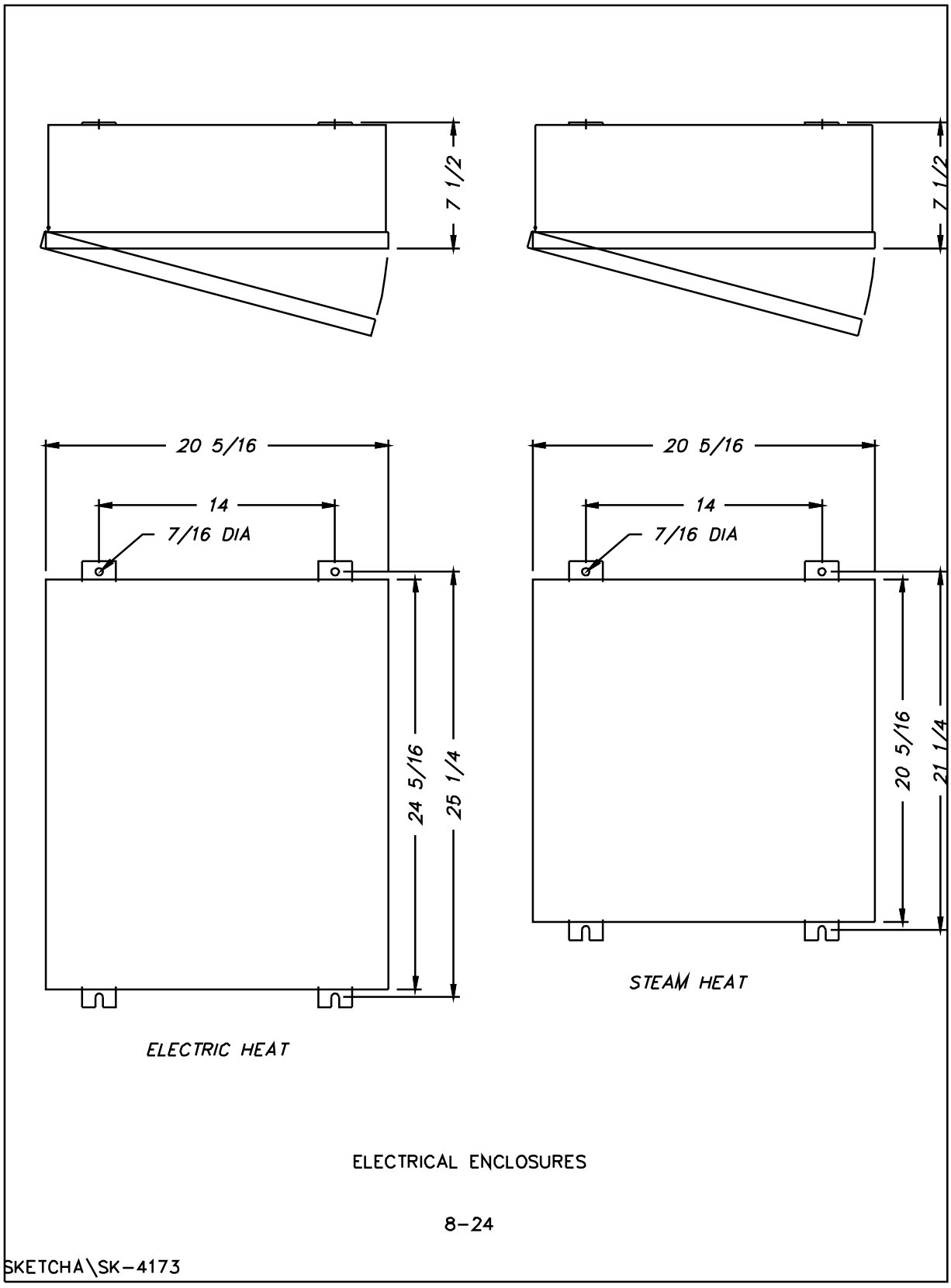

ITEM | PART NO. | DESCRIPTION | QTY.
1 | 1474-1 | TANK | 1
2 | 820-33 | ROLLER | 3
3 | 820-6 | BEARING | 3
4 | 820-7 | BUSHING | 3
5 | 969-17A | SHAFT | 3
6 | 820-19 | SPROCKET | 4
7 | 820-20 | SPROCKET, IDLER | 1
8 | 820-16 | ADJ. BRACKET | 1
9 | D2-535 | BEARING, REAR | 3
10 | D308B-41 | CHAIN #41 x 41 1/2 LG. | 1
11 | D308B-41-CL | CONNECTING LINK, #41 | 1
12 | 1474-3 | BRACE | 2
13 | 1474-4 | COVER | 1
14 | D2538 | DRAIN | 1
15 | D2551 | GEARMOTOR 1/3 HP | 1
SECTION A-A
TOLERANCES
FRACTIONS ±1/64
DECIMALS
.XXX ± .005
.XX ± .01
ANGLES ±1/2°
UNLESS OTHERWISE SPECIFIED
TITLE
PARTS LIST
POWER LOADER
MAT'L -
Insinger Machine Company
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
NEXT ASSY -
REQ'D 1
DWG. NO. SK-2646
SCALE 1:4
USED ON SEE ABOVE
DRWN/DATE MAW 4.24.95
C 1611 5.20.98
B 1164 4.24.95
REV ECN NO DATE
FILE: SKETCH\SK-2646
3 1/8
3/4
1 1/4
A
A



SPROCKET REMOVAL & REPLACEMENT

6-19

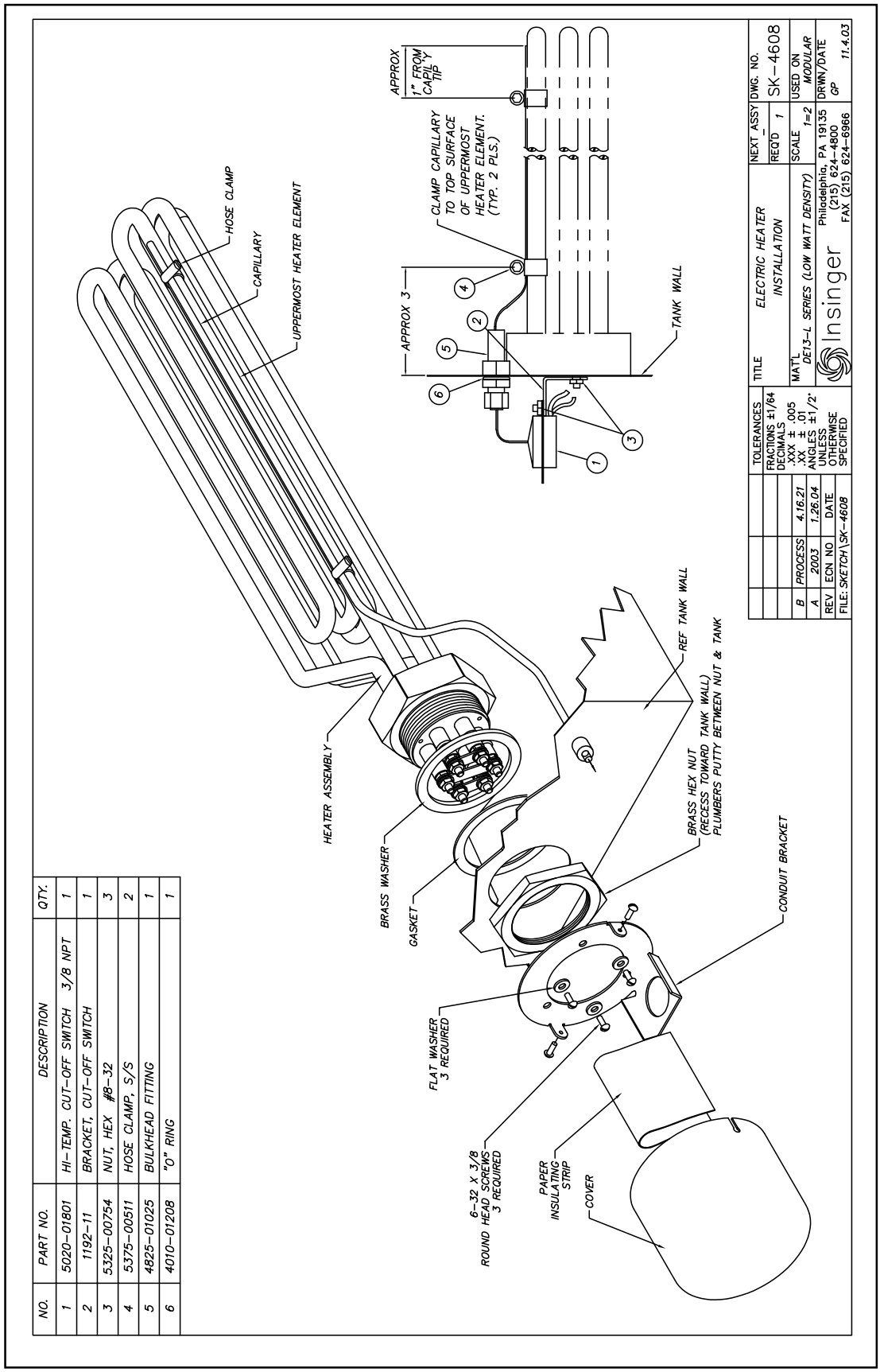
SKETCHA\SK-4114



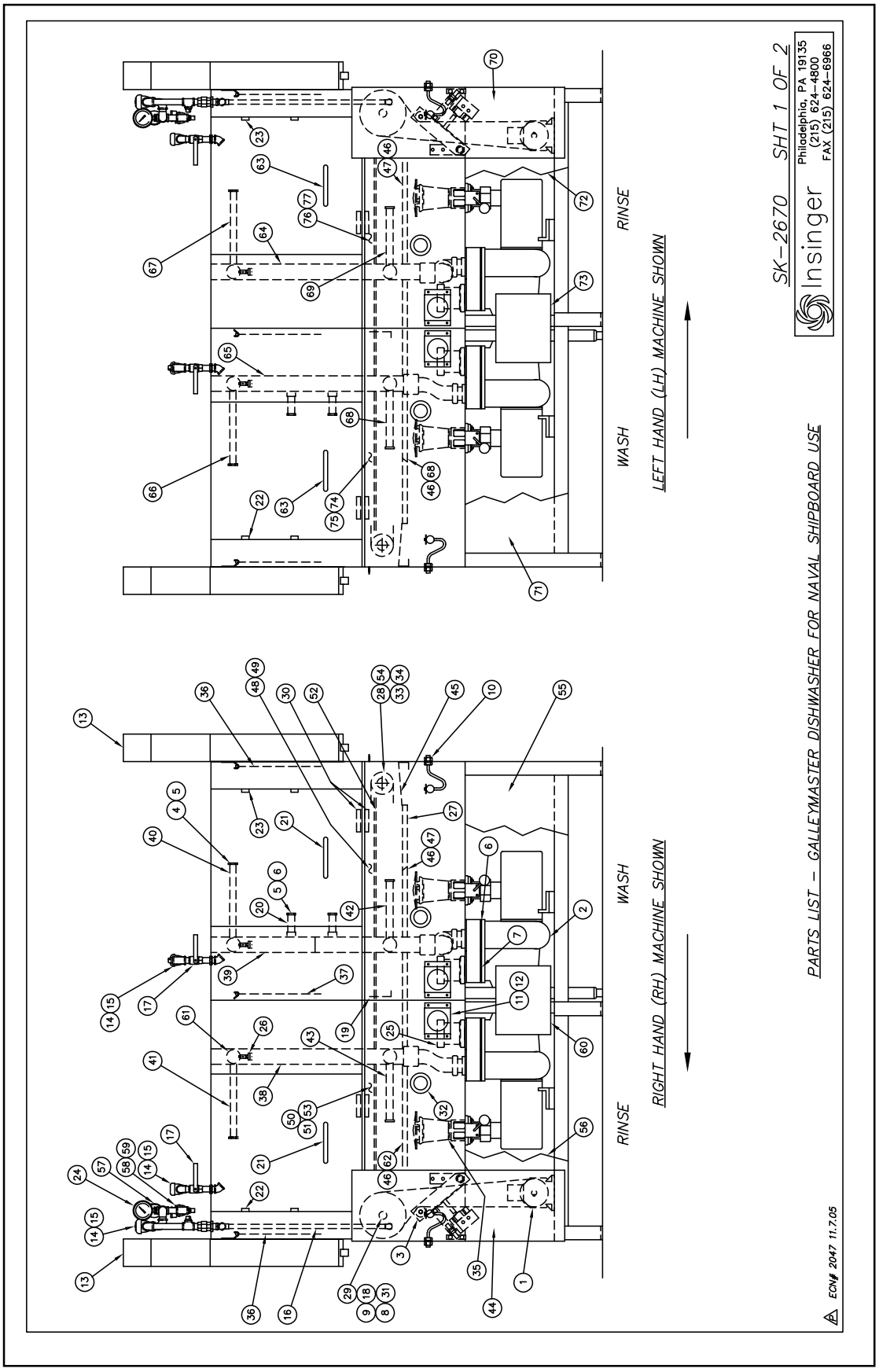
ELECTRICAL ENCLOSURES

8-24

SKETCHA\SK-4173



NO.	PART NO.	DESCRIPTION	QTY.
1	5020-01801	HI-TEMP. CUT-OFF SWITCH 3/8 NPT	1
2	1192-11	BRACKET, CUT-OFF SWITCH	1
3	5325-00754	NUT, HEX #8-32	3
4	5375-00511	HOSE CLAMP, S/S	2
5	4825-01025	BULKHEAD FITTING	1
6	4010-01208	"O" RING	1


SK-2670 SHT 1 OF 2
Insinger
Philadelphia, PA 19135
(215) 624-4800
FAX (215) 624-6966
PARTS LIST - GALLEYMASTER DISHWASHER FOR NAVAL SHIPBOARD USE
LEFT HAND (LH) MACHINE SHOWN
RIGHT HAND (RH) MACHINE SHOWN
WASH
RINSE
ECN# 2047 11.7.05

ITEM	PART NO.	DESCRIPTION	QTY.
1	D2884/D2887	GEARMOTOR (SEE ITEM 3)	1
2	3075-K9	PUMP ASSY W/MOTOR	2
3	975-183	DRIVE MECH. ASSY (SEE FIG. 7-3)	1
4	SK4753-1	END PLUG RETAINER	14
5	D2-554-2A	PIPE PLUG, 3/4-10	14
6	D514	DISCHARGE GASKET	2
7	D530	SUCTION GASKET	2
8	1162-110S	BEARING BLOCK WITH COUNTERBORE	1
9	D2-604	SHAFT SEAL 7/8" SHAFT X 1-1/4" OD X 3/16 TH	1
10	DE5-60	LIQUID LEVEL FLOAT SWITCH	2
11	D2956	THERMOMETER, WASH & RINSE TANKS	2
12	975-176	THERMOMETER GUARD	2
13	1389-6	VENT COLLAR	2
14	4825-01534	VACUUM BREAKER, 1/2	3
15	D2242A	VACUUM BREAKER REPAIR KIT, 1/2	REF
16	975-49A	FINAL RINSE ASSY (SEE FIG. 7-11)	1
17	D2953	BALL VALVE, 1/2	2
18	1162-110	BEARING BRACKET UHMWPE W/HOLES	1
19	975-128	LOWER BAFFLE	1
20	D2272	SPRAY NOZZLE (80200)	2
21	975-154-RH	DOOR, WASH & RINSE- RH MACHINE	4
22	D2715A-LS	DOOR LATCH (LEFT SIDE OF DOOR)	2
23	D2715A-RS	DOOR LATCH (RIGHT SIDE OF DOOR)	2
24	D2955	THERMOMETER, FINAL RINSE	1
25	975-181	SUCTION STRAINER ASSY	2
26	D2935	SPRING PIN PLUNGER	4
27	120-6-54	SCRAP SCREEN	4
28	975-42	DRIVEN SPROCKET (TAKE-UP)	2
29	975-55	DRIVE SPROCKET	2
30	DE5-37	MAGNET/SWITCH	2
31	975-193	CONVEYOR DRIVE SHAFT	1
32	D2958	SIGHT GLASS (PORTHOLE)	2
33	9014-011	CONVEYOR CHAIN - FRONT	1
34	9014-012	CONVEYOR CHAIN - REAR	1
35	975-180	DRAIN ASS'Y. (SEE FIG. 7-5)	2
36	975-10	CURTAIN - ENTER & EXIT (RED STRIPE)	2
37	975-11	CURTAIN - CENTER (YELLOW STRIPE)	1
38	975-189R-RH	DISCH TUBE ASSY, RINSE TANK, RH MACH	1
39	975-190W-RH	DISCH TUBE ASSY, WASH TANK, RH MACH	1
40	975-191L	UPPER MANIFOLD ASSY, WASH, RH MACH	1
41	975-191R	UPPER MANIFOLD ASSY, RINSE, RH MACH	1
42	975-192R	LOWER MANIFOLD ASSY, WASH, RH MACH	1
43	975-192L	LOWER MANIFOLD ASSY, RINSE, RH MACH	1

ITEM	PART NO.	DESCRIPTION	QTY.
44	975-195-RH	DRIVE MECHANISM GUARD, RH MACH	1
45	975-29	SCRAP SCREEN SPACER - ENDS	2
46	975-31	SCRAP SCREEN SPACER - BACK	2
47	975-30R	SCRAP SCREEN SPACER, FRONT, RIGHT SIDE	1
48	975-88-RH	TRACK, FRONT WASH - RH MACHINE	1
49	975-89-RH	TRACK, REAR WASH - RH MACHINE	1
50	975-90-RH	TRACK, FRONT RINSE - RH MACHINE	1
51	975-91-RH	TRACK, REAR RINSE - RH MACHINE	1
52	975-33W	TRACK SUPPORT WASH	1
53	975-33R	TRACK SUPPORT RINSE	1
54	975-41	CONVEYOR FOLLOWER SHAFT	1
55	975-67L-RH	FRONT PANEL, LOAD END - RH MACHINE	1
56	975-67U-RH	FRONT PANEL, UNLOAD END - RH MACHINE	1
57	SK1433	PRESSURE GAUGE, FINAL RINSE	1
58	4905-01000	SOLENOID VALVE 1/2 IPS (FINAL RINSE)	1
59	-	SOLENOID VALVE REPAIR KIT	REF
60	SK-4243-2	JUNCTION BOX (STEAM HEAT) - RH MACHINE	1
	SK-4242-2	JUNCTION BOX (ELECTRIC HEAT) - RH MACHINE	1
61	D580	O-RING - MANIFOLD	1
62	975-30L	SCRAP SCREEN SPACER, FRONT, LEFT SIDE	4
63	975-154-LH	DOOR, WASH & RINSE- RH MACHINE	2
64	975-190R-LH	DISCHARGE TUBE ASS'Y, RINSE TANK, LH MACH	1
65	975-189W-LH	DISCHARGE TUBE ASS'Y, WASH TANK, LH MACH	1
66	975-191R	UPPER MANIFOLD ASSY, WASH, LH MACH	1
67	975-191L	UPPER MANIFOLD ASSY, RINSE, LH MACH	1
68	975-192L	LOWER MANIFOLD ASSY, WASH, LH MACH	1
69	975-192R	LOWER MANIFOLD ASSY, RINSE, LH MACH	1
70	975-195-LH	DRIVE MECHANISM GUARD, LH MACH	1
71	975-67L-LH	FRONT PANEL, LOAD END - LH MACHINE	1
72	975-67U-LH	FRONT PANEL, UNLOAD END - LH MACHINE	1
73	SK-4243-2	JUNCTION BOX (STEAM HEAT) - LH MACHINE	1
	SK-4242-2	JUNCTION BOX (ELECTRIC HEAT) - LH MACHINE	1
74	975-88-LH	TRACK, FRONT WASH - LH MACHINE	1
75	975-89-LH	TRACK, REAR WASH - LH MACHINE	1
76	975-90-LH	TRACK, FRONT RINSE - LH MACHINE	1
77	975-91-LH	TRACK, REAR RINSE - LH MACHINE	1

SK-2670 SHT 2 OF 2

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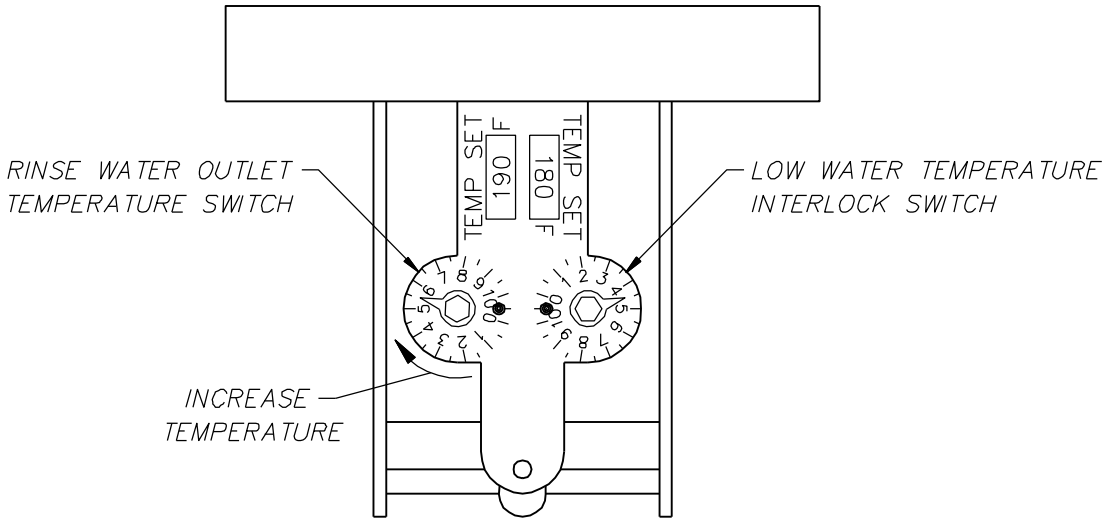
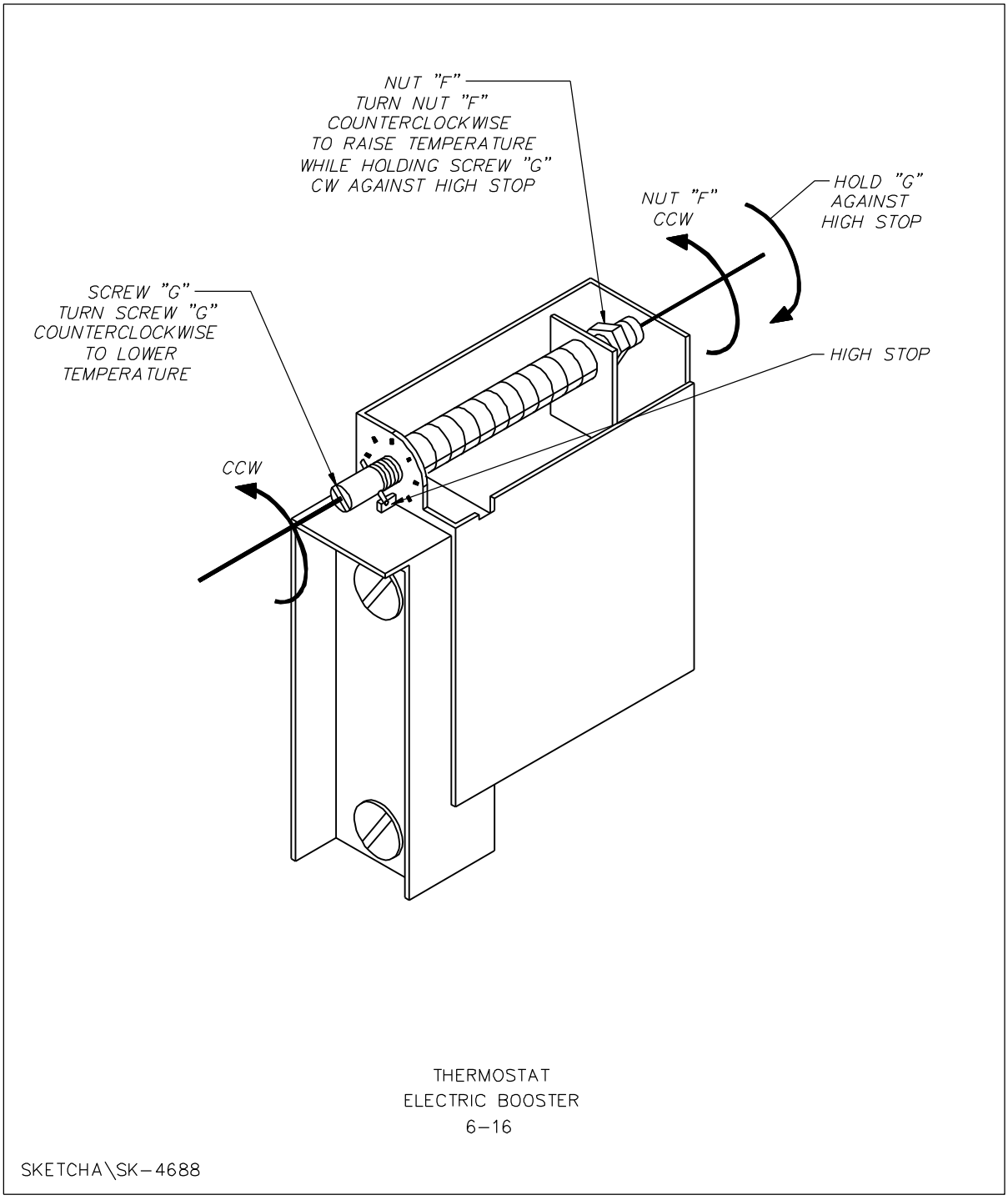
A ECN #2047 11.7.05



BOOSTER TEMPERATURE CONTROLLER
(D2301)

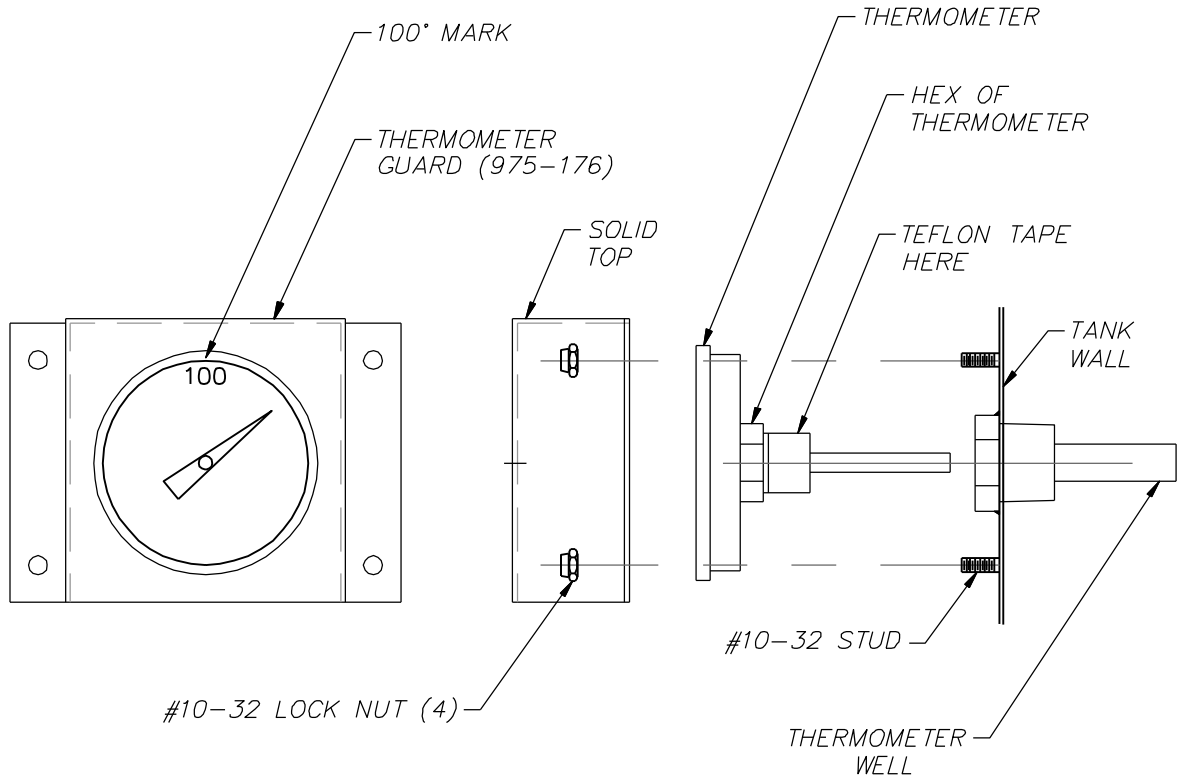
6–15

SKETCHA\SK–4687



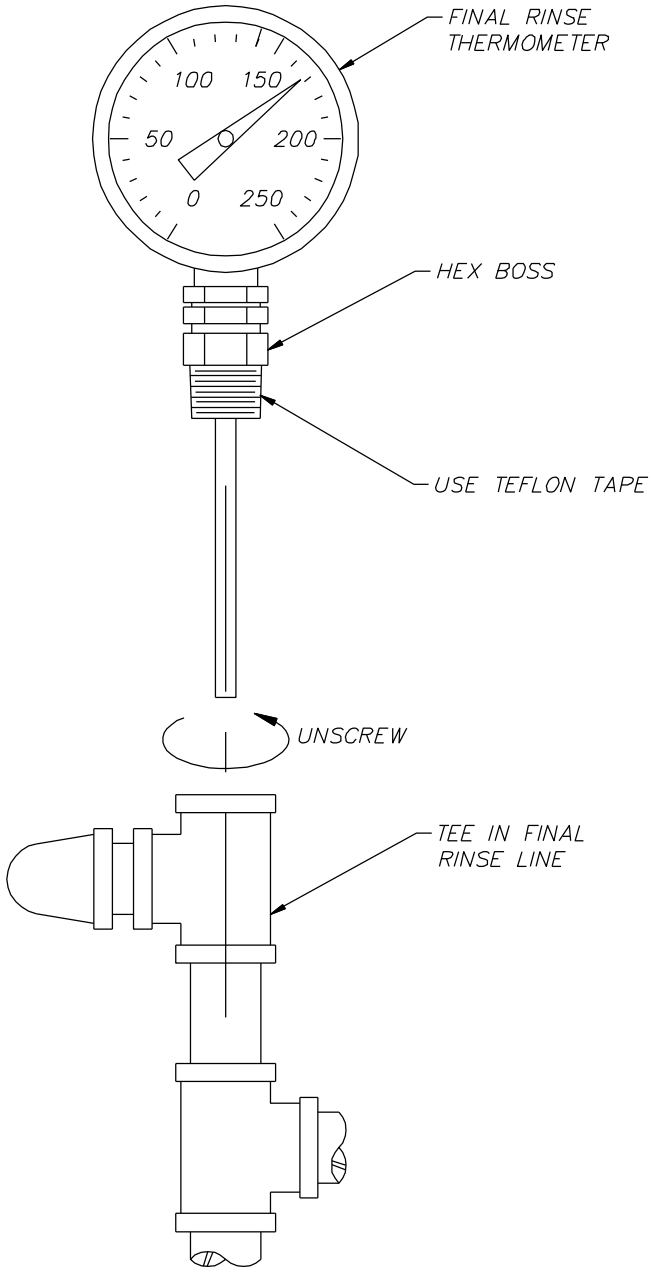
THERMOSTAT
ELECTRIC BOOSTER
6–16

SKETCHA\SK–4688



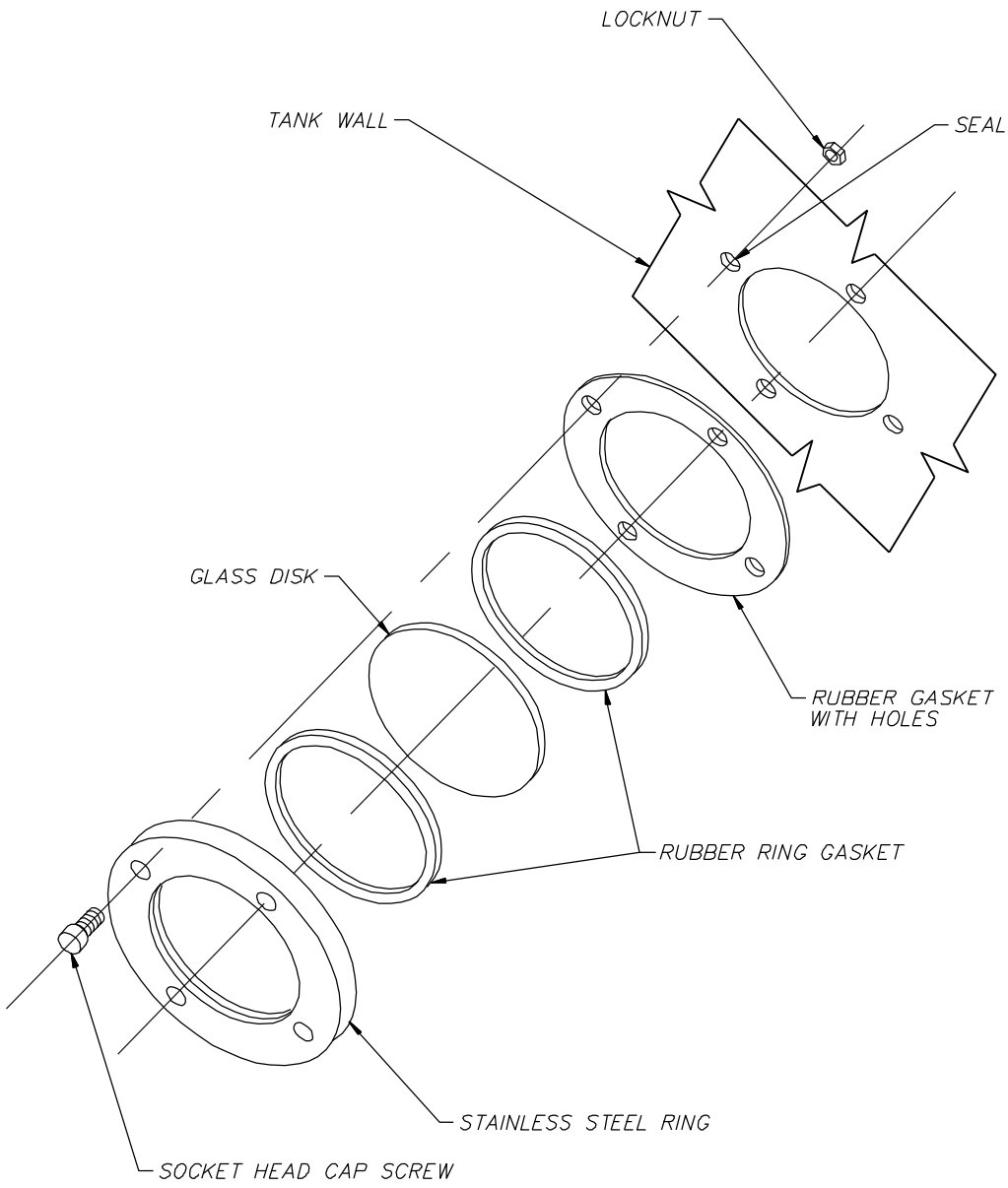
THERMOMETER INSTALLATION
WASH & RINSE TANKS
6-11

SKETCHA\SK-4690



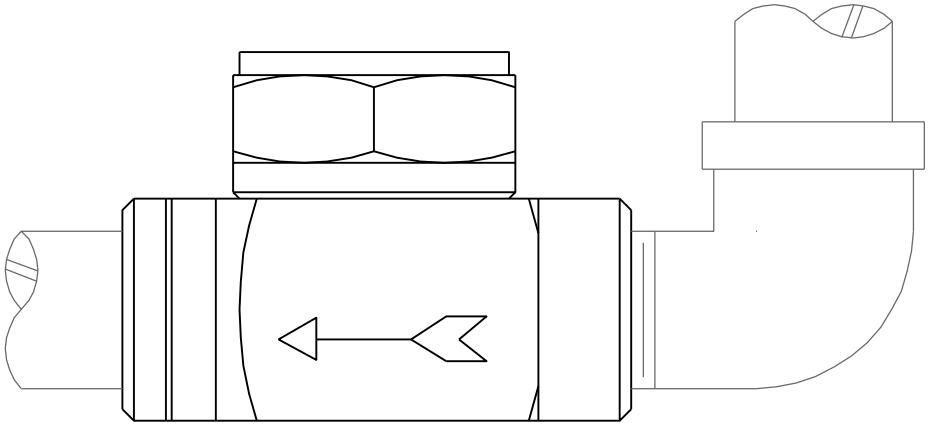
THERMOMETER INSTALLATION
FINAL RINSE
6-12

SKETCHA\SK-4691



SIGHT GLASS (PORTHOLE)
(D2958)
6-20

SKETCHA\SK-4694

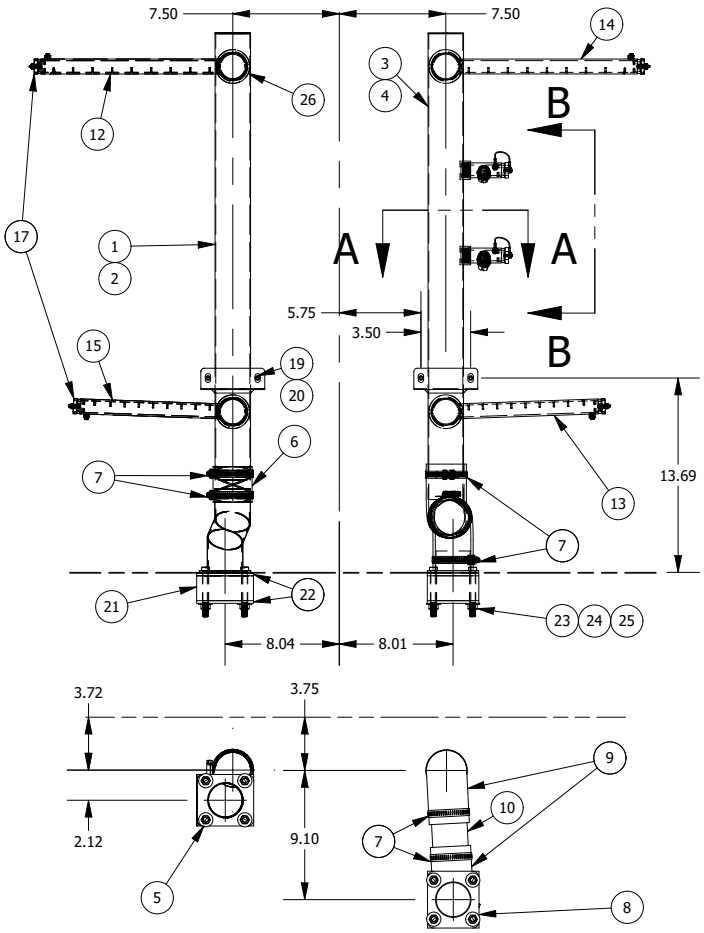


CONDENSATE TRAP

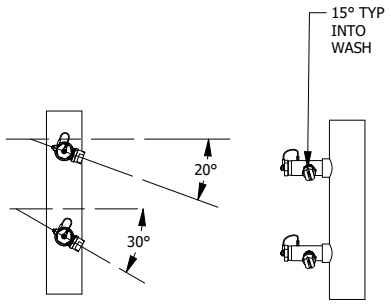
6–22

SKETCHA\SK–4816

1000-07636.idw

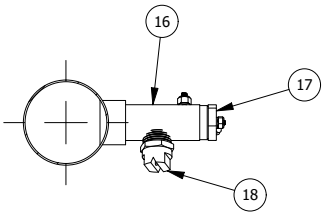


SECTION D-D
SCALE 1 / 12



NOZZLE SLOT ORIENTATION
LOOKING FROM DOOR SIDE

SECTION B-B



SECTION A-A
WASH MANIFOLD ONLY

Item	QTY	Part Number	Description
1	1	975-189R-RH	DISCHARGE TUBE ASSY, RH RINSE
2	1	975-189W-LH	DISCHARGE TUBE ASSY, LH WASH
3	1	975-190W-RH	DISCHARGE TUBE ASSY, RH WASH
4	1	975-190R-LH	DISCHARGE TUBE ASSY, LH RINSE
5	1	7100-03725	WELDMENT, DISCHARGE MANIFOLD
6	1	7500-03331	F-Hose, Wash Manifold 2.50" ID x 2.5" Long
7	6	5375-03330	Clamp, Worm Gear 2-5/16" - 3-1/4" OD Hose (D2733)
8	1	7100-03581	W-Tank Flange Discharge Line 2-1/2" OD
9	2	4725-03742	Hose, 2.5" ID 90-Deg Elbow Silicone
10	1	D207C-C20	Tube 2-1/2 OD X 18 GA X 5 LG
12	1	1000-07611	GALLY MASTER UPPER SPRAY ARM (RIGHT ARM)
13	1	1000-07612	GALLY MASTER LOWER SPRAY ARM (RIGHT ARM)
14	1	1000-07609	GALLY MASTER UPPER SPRAY ARM (LEFT ARM)
15	1	1000-07616	GALLY MASTER LOWER SPRAY ARM (LEFT ARM)
16	2	1162-94	WASH MANIFOLD EXTENSION
17	14	1440-34	END PLUG RETAINER
18	2	D2272	NOZZLE (80-200)
19	4	5325-00392	NUT, 1/4-20 NYLON INSERT LOCKNUT
20	4	5330-00391	WASHER, 1/4" STAINLESS STEEL

NOTES:
1. USE FIXTURE 7900-03706 TO SHOOT STUDS FOR R.H. WASH, L.H. RINSE
2. USE FIXTURE 7900-03739 TO SHOOT STUDS FOR L.H. WASH, R.H. RINSE

R.H. SHOWN L.H. OPPOSITE

Item	QTY	Part Number	Description
21	2	D424B-P	PUMP SHIM
22	4	D514	GASKET
23	8	D309C-JC-26A	HHCS 3/8-16 X 3 1/4 LG
24	8	5325-00539	SEALNUT, 3/8-16
25	8	D313A-J1	COPPER WASHER, 3/8
26	4	D580	O RING (01-029)

Insinger Machine Company
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Philadelphia, PA 19135-2996
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www.insingermachine.com