HOFFMAN

A UNITYLAB CORP. BRAND

INSTRUCTION MANUAL & PARTS LIST

BC SERIES

www.hoffman-ny.com

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Table of Contents

1.0 Introduction

This instruction manual and parts list covers all models of the BC Series Press. The equipment furnished with any particular press varies according to the model purchased and the specifications detailed on the sales contract. Illustrations in this manual cover basic models of the BC Series Press and the most frequently specified optional equipment. Information on special items and controls is available on request. Contact your dealer for such data.

The BC Series Press is designed with constant attention to quality performance and operator safety. It is constructed of highest quality materials and rigorously tested at the factory.

1.1 PRELIMINARY DELIVERY INSPECTION

Inspect crate and press for shipping damage and shortage. Any damage or shortage in shipment should be noted on the freight bill before it is signed. Call the carrier immediately and report all damage or shortage and arrange to file a claim. The carrier is responsible for the safe arrival of the equipment.

1.2 MACHINE REGISTRATION

To activate the Warranty coverage on your Hoffman Steam equipment, please register your product at www.hoffman-ny.com

1.3 RESHIPPING

Close press head. To prevent upper press plate from lifting off lower press plate, secure a wood block between high pressure cylinder and press “Y” piece. Then feed a sling of sufficient strength (strong enough to lift 1100 lbs.) under the “Y” piece of the press to lift the press onto a wooden skid. Bolt the press to the skid.

1.4 STORAGE

Cover the machine with a Plastic Sheet. Store in a clean, oil-free environment with a relative humidity of 60 to 80.

1.5 CAPABILITIES, THEORY OF OPERATION

This pressing machine is designed to dry and finish garments. A certain amount of moisture must be present in the garment for proper pressing. This moisture allows the fibers in the garment to become pliable and thus subject to forming. The head on the machine is steam heated at a substantially elevated temperature. When the head is closed, moisture in the garment is driven off and the shape of the head is imparted to the garment. When the garment becomes dry, the fibers set into position. This in effect removes wrinkles from smooth areas of the garment and sets a crease where garments overlap.

1.6 REQUIRED EQUIPMENT

The press requires a Compressed Air source to drive the pneumatic components in the machine. See Chapter 3 Section 3.5 for details.

The press requires a Steam source to provide the heat necessary to finish and dry the garment. See Chapter 3 Section 3.3 for details.

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1.7 SPECIAL TOOLS

This press does not require special tools for installation or operation. Standard pipe wrenches and crescent wrenches are required for installation or maintenance.

1.8 TEST EQUIPMENT

Two types of pressure gauges are necessary for trouble shooting a Steam Pressure Gauge and an Air Pressure Gauge.

The Steam Pressure Gauge must be capable of withstanding the heat generated by 125 psi steam (approx. 350 deg. Fahrenheit). The gauge should have a range of 0 to 200 psi.

The Air Gauge must have a range of 0 to 180 psi.

WARNING

TURN OFF THE AIR SUPPLY TO THE MACHINE AND TAG WITH THE PROPER NOTICE BEFORE WORKING ON THE MACHINE LINKAGE OR ACTUATION ELEMENTS ON THE HEAD AND BUCK.

WARNING

TURN OFF THE STEAM SUPPLY TO THE MACHINE AND TAG WITH THE PROPER NOTICE BEFORE MAKING ANY ADJUSTMENTS OR REPAIR TO THE STEAM SYSTEM, VALVES, ETC.

1.9 MACHINE SHIPPING DATA

Table 1.9.1

Model	Dimensions (inches)			Shipping Weight (lbs.)	Machine Weight (Lbs.)
	Height	Depth	Length		
BC Series	63	41	48	613	580

1.10 SERVICE INPUT CONNECTIONS AND CONDITIONS *

Table 1.10.1

Model	Item	SIZE or other parameter
ALL MODELS	Air Inlet	3/8 N.P.T.
	Steam Inlet	1/2 N.P.T.
	Steam Return	1/2 N.P.T.
	Vacuum	1 ¼ N.P.T. (utilities & toppers) 2 N.P.T. (all leggers)
	Floor Loading	Approx. 140 lbs./sq. ft.**

* Self-Contained press may have some of these connections pre-piped.
** Approx. 120 lbs./sq. ft. for Self-Contained presses.

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2.0 SAFETY AND PRECAUTIONS

It is vital that the purchaser of a BC Series Press reads these instructions and fully understands them before installing or operating the press. Supervisors must assure that the personnel operating this pressing machine have been instructed on and understand the operating and safety features of the press. Instruction and understanding are imperative, along with safe working habits of the operator, to assure worker safety.

2.1 SAFETY NOMENCLATURE

NOTES, CAUTIONS and WARNINGS, are used throughout this instruction manual to emphasize important and critical instructions.

NOTE: A NOTE IS USED TO EMPHASIZE OPERATING PROCEDURES AND CONDITIONS THAT ARE ESSENTIAL TO HIGHLIGHT.

CAUTION

A CAUTION IS USED TO INDICATE A HAZARDOUS SITUATION, WHICH MAY RESULT IN PERSONAL INJURY OR DAMAGE TO THE MACHINE.

WARNING

A WARNING IS USED TO INDICATE A HAZARDOUS SITUATION, WHICH HAS SOME PROBABILITY OF DEATH OR SERIOUS PERSONAL INJURY.

2.2 SAFETY FEATURES

The following are safety features of the BC Series Presses:

2.2.1 DRY CLEANING NUMATIC BC Series

1. Automatic Head steam delay until head approaches closed position.
2. Two-Hand close operation.
3. 3/8 inch Locking Safety Control Adjustment. (Refer to Chapter 5 Section 5.2.2 for details.)
4. Release Bar on all Dry-Cleaning Presses.
5. All heads and bucks are hydrostatically tested for structural integrity on all BC Series Presses, both Dry-Cleaning and Laundry type.
6. Loss of air pressure results in press being opened by counterbalance springs.

2.2.2 LAUNDRY BC Series

1. Two-Hand close operation.
2. 3/8 inch Locking Safety Control Adjustment (Refer to Chapter 5 Section 5.2.2 for details).
3. Release Bar on all Laundry Presses.
4. All heads and bucks are hydrostatically tested for structural integrity on all BC Series Presses, both Dry-Cleaning and Laundry type.
5. Loss of air pressure results in press being opened by counterbalance springs.

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2.3 SAFETY GUARD OPTION (Standard on some models)

The manufacturer provides, as optional equipment, a Safety Guard system, which provides safety for the operator and other personnel in the press area. A trip ring arrangement surrounding the press head will be activated during the closing of the machine by an object in the head/buck closure area and will cause the pressing head to immediately return to the open position. The manufacturer strongly recommends that such optional safety equipment be installed.

2.4 SAFETY SUMMARY

The following are general safety precautions that are not related to any specific instructions and therefore do not appear elsewhere in this manual. These are recommended precautions that personnel must understand and apply during all phases of operation and maintenance.

WARNING

DO NOT OPERATE OR SERVICE THIS MACHINE BEFORE READING AND UNDERSTANDING THIS INSTRUCTION MANUAL.

WARNING

IT IS THE RESPONSIBILITY OF THE PURCHASER OF THIS MACHINERY TO TRAIN OPERATING PERSONNEL IN THE PROPER MANNER OF OPERATION. IT IS FURTHERMORE UNDERSTOOD THAT HOFFMAN/NEW YORKER ASSUMES NO RESPONSIBILITY FOR INJURY, DISABILITY OR DEATH RESULTING FROM IMPROPER OPERATION OF, REMOVAL FROM, OR BYPASSING THEREOF ANY ELECTRICAL OR MECHANICAL SAFETY DEVICES INCORPORATED IN THE DESIGN AND MANUFACTURING OF THIS MACHINERY.

WARNING

COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND LAWS REGARDING THE INSTALLATION OF THIS MACHINE IS REQUIRED.

WARNING

THIS MACHINE DEVELOPS HIGH TEMPERATURES AND USES PRESSURIZED STEAM AND AIR, AS WELL AS HIGH ELECTRICAL VOLTAGES. BEFORE SERVICING THIS MACHINE, DISCONNECT SOURCES OF ELECTRICITY, STEAM AND AIR. BLEED AIR AND STEAM FROM THE MACHINE. ENSURE THAT THE HEAD, BUCK AND ALL HEATED SURFACES ARE COOL AND ALL MECHANISMS ARE IN THE ZERO POSITION.

WARNING

DO NOT OPERATE THIS MACHINE UNLESS ALL OPERATING DEVICES, CLOSE VALVES/SWITCHES, RELEASE VALVE/SWITCHES ARE PRESENT AND ARE IN PROPER WORKING ORDER.

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WARNING

OSHA'S LOCKOUT/TAGOUT STANDARD (29 CFR 1910.147) REQUIRES THAT ALL ENERGY SOURCES BE TURNED OFF AND "LOCKED OUT" WHILE MACHINES ARE BEING SERVICED OR MAINTAINED.

WARNING

WHEN SERVICING THIS MACHINE, USE ONLY APPROVED HOFFMAN/NEW YORKER REPLACEMENT PARTS.

WARNING

DO NOT ATTEMPT TO MODIFY THE CLOSING MECHANISM OF THE MACHINE. THESE MACHINES HAVE CONTROL SYSTEMS WHICH WILL PREVENT THE OPERATOR FROM EXPERIENCING INJURY.

Two-Hand Close machines ensure that the operator has both hands out of the machine while the press is closing. Releasing any Close button while the machine is closing will cause the press to immediately open.

WARNING

DO NOT REMOVE THE HEAD SAFETY GUARD, AND/OR THE FOOT PEDAL GUARD. THE GUARD(S) PROTECT THE OPERATOR FROM INJURY.

Removing guarding is a direct violation of the American National Standards ANSI Z8.1-1990 Standard for Safety.

Removing or modifying the closing and/or safety mechanisms on the machine, and/or operating the machine under conditions not in conformance with this manual is a direct violation of the American National Standards ANSI Z8.1-1990 Standard for Safety.

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3.0 GENERAL INSTALLATION INSTRUCTIONS

All presses are tested and adjusted with steam, air and vacuum before leaving the factory. Presses furnished with a Grid Plate are padded and the Grid Plate installed. The padding for presses furnished without a Grid Plate is bundled and tied to the press.

3.1 LOCATION

Remove the press from the shipping carton. Place in a location with sufficient room around the press for cleaning and servicing. If natural light is available, position the press so that light falls on the buck from end to end rather than front to back. If artificial lighting is used, the light should be placed so that light falls on the buck without shadow. The press should be set in a level position on a solid floor. Use metal shims, if necessary, to level the press. Four 9/16-inch anchor bolt holes are provided in the press base for anchoring.

The head is blocked and strapped in the closed position for shipping. Ensure that the block is in place. Cut strapping. Press down on the head while the wood block at the rear of the press is removed. After removing the wood block, keep clear of the linkage springs, etc. when allowing the head to open.

WARNING

AFTER REMOVING THE WOOD BLOCK, KEEP CLEAR OF LINKAGE SPRINGS, ETC. WHEN ALLOWING THE HEAD TO OPEN.

CAUTION

ENSURE FLOOR BEARING CAPACITY IS ADEQUATE FOR THE FLOOR LOAD IMPOSED BY THE PRESS.

3.2 INSTALLATION CONNECTIONS

Figure 3.1 illustrates the location of various supply connections.

3.3 STEAM SUPPLY

The quality of the steam furnished to the press affects the functioning of the press and the quality of the finished garment. The steam must be dry and free from entrained moisture.

CAUTION

IT IS EXTREMELY IMPORTANT THAT NO ALKALI FROM A RAW WATER SOURCE OR FROM BOILER TREATING COMPOUNDS BE CARRIED OVER BY THE STEAM. ANY ALKALI IN THE STEAM SUPPLY WILL CAUSE FAILURE OF THE HEADS AND BUCKS DUE TO CHEMICAL EROSION.

If there is any doubt about the quality of the steam supply, a steam specialist should be consulted.

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3.3.1 STEAM DEMAND

The steam demand per press will vary depending upon the head and buck size. The average steam demand for a 42-inch utility press is 1 boiler horsepower. The average steam demand for a 52-inch utility press is 1 ¼ boiler horsepower. The above figures cover the steam demand at the press and do not include losses in the steam line feeding the press. Steam demand for a specific press is available upon request.

3.3.2 STEAM PRESSURE

The steam pressure at the press should be between 80 and 100 pounds per square inch (gauge pressure). Steam pressure below 80 psi is too wet. Maximum rated steam input pressure for the BC Series Press is 125 psi. In no case should the press be operated at a pressure greater than the maximum rated pressure.

WARNING

IF THE STEAM SUPPLY IS AT A PRESSURE ABOVE THE RECOMMENDED RANGE, PROVISIONS SHOULD BE MADE FOR A PRESSURE REDUCING VALVE.

3.3.3 STEAM INLET CONNECTION

A steam connection for ½ inch pipe is located on the right rear of the press frame. The steam connection should be taken from the top of the supply line and provided with a strainer, union and a globe valve. The globe valve will allow use of other machines on the steam line should service be required. The strainer will increase the life of the steam valves and the steam trap.

The strainer must be periodically cleaned. A dirty strainer will restrict the steam.

As a general rule, the supply header should be larger than the connection made to the press. The steam header should be pitched down, so the condensate flows to the end of the header. A steam trap should be at the end of the header, and after the trap a check valve.

A properly insulated steam line will supply drier steam than an uninsulated line. Insulation will also reduce the cost of operating a boiler and help maintain low ambient temperatures.

3.3.4 STEAM RETURN CONNECTION

The steam return connection for a ½ inch pipe is provided on the left rear of the press frame. Install an inverted bucket trap or a good thermostatic or thermodynamic steam trap, a strainer and a horizontal swing check valve. The steam trap must discharge into a return line, which terminates in a vented receiving tank. Do not connect to a return line with back pressure or to a high pressure return.

The trap should be lower than the steam return connection so all condensate accumulates lower than the return line. The strainer should be on the inlet side of the trap. The swing check valve should be on the discharge side of the trap.

3.4 VACUUM CONNECTION

The vacuum exhaust connection for a 1 ¼ inch or 2 inch pipe, depending upon the buck model, is located on the left side of the press directly below the table. The press is furnished with an air-operated vacuum valve. The vacuum line must be connected to a motor driven vacuum unit in accordance with the instructions furnished with the vacuum unit.

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3.5 AIR CONNECTION

The air connection to the press is made to the air line filter system located on the left side of the press frame. The connection is 3/8 inch pipe size and should be made with a union and a shutoff valve. The supply line size should be sized so there is no appreciable drop in pressure while the machine is being operated.

The minimum connection should be ¾ inch pipe size to the press from a larger supply header.

NOTE: QUALITY OF AIR MUST BE COOL, CLEAN AND DRY.

NOTE: GALVANIZED PIPE SHOULD BE USED ON ALL AIR CONNECTIONS. GALVANIZED PIPE WILL AID IN MINIMIZING THE AMOUNT OF FOREIGN PARTICLES BEING INTRODUCED INTO THE PRESS, AND WILL INCREASE THE LIFE OF ALL AIR VALVES.

3.5.1 COMPRESSED AIR QUALITY

The quality of the compressed air supplied determines the effective, trouble free operation of the press. Air supply to the press should be maintained at 80 psi with a variation of no more than 5 psi. An air regulator with a minimum flow capacity of 20 CFM should be installed in the supply line. The supply air must be cool, clean and dry. Dirt, water and oil or an emulsion of oil and water will cause failure of the press control valves and cylinder packing cups. The air line filter included in the press air circuit is a safeguard and is not intended to correct for a deficiency in the air supply. An after cooler and a good separator and filter, preferably automatic, should be installed at the compressor.

CAUTION

MAXIMUM RATED AIR INPUT PRESSURE FOR THE BC Series Press IS 80 PSI.

3.5.2 AIR CONSUMPTION

BC Series Presses are provided with a 6-inch diameter cylinder. The free air consumption per cycle at 80 pounds per square inch pressure is calculated as follows:

Example: The air consumption for a UP Press with a 6 inch diameter cylinder operated five times a minute would be as follows (a 6 inch diameter cylinder consumes .20 cubic feet/ stroke):

.20 cubic feet x 5 cycles per minute = 1.00 cubic feet air (CFM) at 80 psi.

Thus, the air compressor must have a minimum capacity greater than the connected load. A properly sized compressor should run three quarters of the time maximum. A compressor that operates full time is overloaded.

3.6 ELECTRIC CONNECTIONS

Presses equipped with Electric Clock Timers or Programmers require connection to a standard 120 volt, single phase, 60 cycle grounded outlet rated at a minimum of 3 amps per timer. 220 volt, single phase, 60 cycle and 50 cycle Timers or Programmers are provided upon customer request.

Self-Contained power requirements are listed in the Self-Contained section of the manual.

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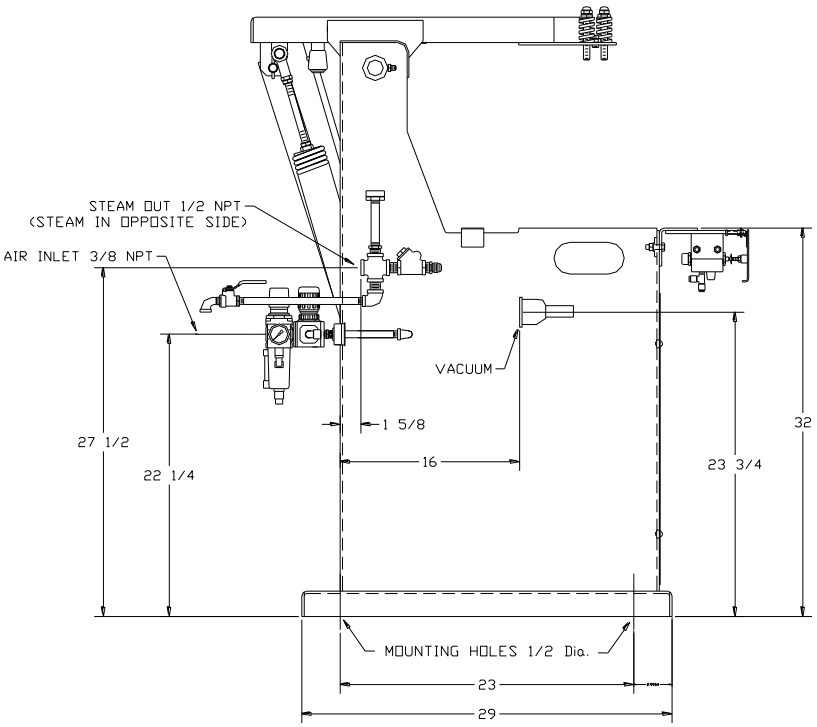
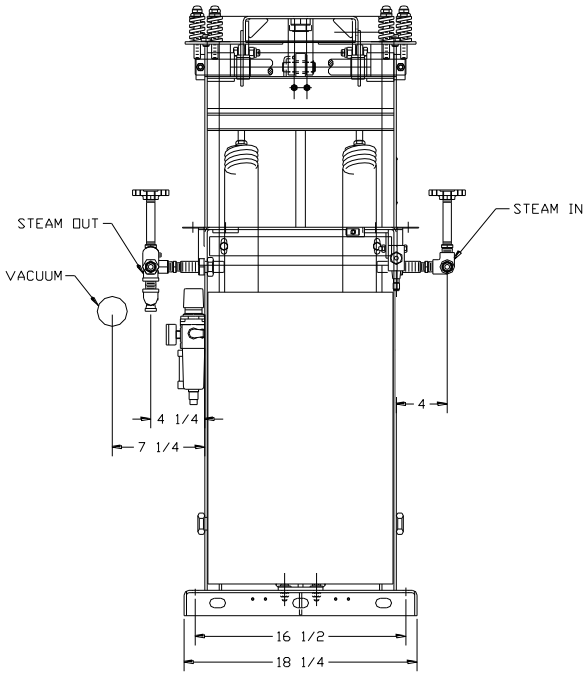
Figure 3.1 - Installation Dimensions





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4.0 OPERATION

4.1 OPERATING INSTRUCTIONS

To begin operation, ensure Air Pressure is supplied to the press at 80 psi. Ensure Steam is supplied to the press at 60-100 psi. Allow 45 minutes for press to reach required temperature.

4.1.1 LOCKING WITH REGULATED PRESSURE

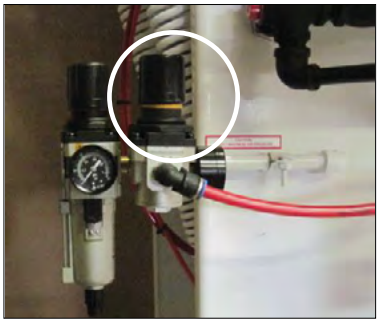
1. Turn the Operating Selector Switch to the lock mode.
2. The press will close when both close buttons are pressed.

   If supplied, Automatic Head Steam, a timed top steam cycle, begins just before the head is fully closed. The head steam will remain ON for a timed period, controlled by a needle valve bleed principle.

   When the head is within 3/8 inch of the buck the lock valve is actuated. This valve locks the press. See Chapter 5 Section 5.2.2 “Locking Safety Control.”

   NOTE: THE CLOSING BUTTONS ON THE TABLE MUST CONTINUE TO BE HELD IN THE DEPRESSED POSITION TO KEEP THE PRESS CLOSED UNTIL THE LOCKING FUNCTION HAS BEEN ACTUATED. THIS LOCK FUNCTION IS AUTOMATIC AND WILL OCCUR WHEN THE HIGH PRESSURE PILOT VALVE IS ACTUATED AND THE UPPER PRESSING PLATE IS IN CONTACT WITH THE LOWER PLATE. RELEASE OF THE CLOSING BUTTONS PRIOR TO LOCKING WILL CAUSE THE PRESS TO OPEN.

   Pressing pressure may be adjusted by turning the knob on the pressure regulator located next to the Filter/Regulator assembly. See photo below. Turn the knob to set the appropriate pressure according to fabric type.



3. The press head will remain in a locked position under regulated pressure until the release bar is actuated which will open the press.

   As the head opens, Post Vacuum, if supplied, will activate and remain ON for a timed period. It is controlled by a needle valve similar to the needle valve mentioned above for timing the automatic head steam.

WARNING

OPERATE THE PRESS ONLY IF BOTH CLOSE BUTTONS ARE OPERATING PROPERLY. IF THE MACHINE CLOSES WHEN ONLY ONE BUTTON IS PRESSED, IMMEDIATELY CALL FOR SERVICE. DO NOT OPERATE THE MACHINE IN THIS STATE. THE MALFUNCTIONING VALVE MUST BE REPLACED OR REPAIRED.

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4.1.2 RELEASE

Pressing inward on the release bar (located under the table center) opens the release valve, dumping air from the high pressure cylinder through the muffler on the high pressure pilot valve.

For units with Timer Release Function, the pressing of the release bar will override the timer release.

4.1.3 NON-LOCKING WITH REGULATED PRESSURE

1. Turn the Operating Selector Switch to the Non-Lock Mode.
2. The press will close when both close buttons are pressed.

   NOTE: THE CLOSING BUTTONS ON THE TABLE MUST REMAIN IN THE DEPRESSED POSITION TO KEEP THE PRESS CLOSED. RELEASE OF THE CLOSING BUTTONS WILL CAUSE THE PRESS TO OPEN.

   If supplied, Automatic Head Steam, a timed top steam cycle, begins just before the head is fully closed. The head steam will remain on for a timed period, controlled by a needle valve bleed principle.

3. The press will remain closed under regulated pressure until the close buttons are released to open the press.

   As the head opens, Post vacuum, if supplied, will activate and remain on for a timed period. It is controlled by a needle valve similar to the needle valve mentioned above for timing the automatic head steam.

WARNING

OPERATE THE PRESS ONLY IF BOTH CLOSE BUTTONS ARE OPERATING PROPERLY. IF THE MACHINE CLOSES WHEN ONLY ONE BUTTON IS PRESSED, IMMEDIATELY CALL FOR SERVICE. DO NOT OPERATE THE MACHINE IN THIS STATE. THE MALFUNCTIONING VALVE MUST BE REPLACED OR REPAIRED.

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5.0 MAINTENANCE AND ADJUSTMENTS

WARNING

TURN OFF THE AIR SUPPLY TO THE MACHINE AND TAG WITH THE PROPER NOTICE BEFORE WORKING ON THE MACHINE MOTION LINKAGES OR THE AIR SYSTEM. NO AIR SHOULD REMAIN IN THE MACHINE. BLEED THE AIR FILTER UNTIL EMPTY AND TEST BY TRYING TO CLOSE THE PRESS.

WARNING

TURN OFF THE STEAM SUPPLY TO THE MACHINE AND TAG WITH THE PROPER NOTICE BEFORE MAKING ADJUSTMENTS OR REPAIRS TO THE STEAM SYSTEM, VALVES, ETC. ALL STEAM MUST BE EXHAUSTED FROM THE MACHINE. OPEN THE DRAIN VALVE ON THE STEAM RETURN LINE TO ENSURE THAT ALL STEAM IS EXHAUSTED.

WARNING

DISCONNECT THE ELECTRIC POWER SUPPLY AND TAG WITH THE PROPER NOTICE BEFORE MAKING REPAIRS TO OR OPENING ELECTRIC BOXES OR RACE-WAYS ON THE MACHINE'S ELECTRIC SYSTEM.

5.1 PRESS STEAM FLOW ADJUSTMENTS

The Head Steam flow rate can be adjusted on the air-operated Head Valve by raising or lowering the screw (See Figure 6.27, Item 14). Lowering the screw will decrease the steam flow.

The Buck Steam flow rate can be adjusted on the air-operated buck Valve by loosening the lock out nut (See Figure 6.26, Item 13) and turning the cylinder body (See Figure 6.26, Item 9). The air supply tube to this cylinder must be disconnected to permit rotation of the cylinder. Turning the cylinder body into the valve decreases steam flow.

NOTE: EXCESSIVE TURNING OUT OF THE CYLINDER TO INCREASE FLOW WILL CAUSE VALVE LEAKAGE.

5.1.1 HEAD STEAM TIMING ADJUSTMENT

Locate Head Steam Timing Valve, AP-1652 (See Figure 6.16). All timing adjustments are controlled by this needle valve. To increase the time the head steam is on, screw the needle in (clockwise). To decrease the time, screw the needle out (counterclockwise).

5.1.2 VACUUM TIMING ADJUSTMENT

Locate Vacuum Timing Valve, AP-1652, (See Figures 6.32, 6.33 & 6.34). All timing adjustments are controlled by this needle valve. To increase the time the vacuum is on, screw the needle in (clockwise). To decrease the time, screw the needle out (counterclockwise).

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5.2 PRESS MOTION ADJUSTMENTS

5.2.1 CLOSING SPEED CONTROL VALVE (Ref. Air Circuits)

Adjust the speed of closing the press by adjusting the Closing Cylinder Speed Control Valve, AP-1671 (See Figures 6.32, 6.33 & 6.34). The valve is located on the incoming air supply line, inside the machine frame, next to the spring assembly.

If the head closes slowly, turn handle counterclockwise to open valve. After each turn, test closing speed until satisfied.

If the head closes quickly, turn handle clockwise to close valve. After each turn, test closing speed until satisfied.

5.2.2 LOCKING SAFETY CONTROL

Proper adjustment of the Lock Safety System is a key consideration. If the press advances to the locking mode with more than the 3/8 inch between the Head and the Buck (correct clearance), the Lock Valve is out of adjustment.

To set the valve clearance correctly: (See Figure 6.10)

1. Loosen the adjustment screws on the Lock Valve, located just under the “Y” PIECE on the main press frame.
2. Move the Valve to the bottom of the adjustable range.
3. Place a semi-rigid spacer with a thickness of 3/8 inch, (a magazine will do), with an area of approximately 90 square inches between the Head and Buck.
4. Close the machine and attempt to lock the press. With the head down, move the Lock Valve up till the machine just locks. Release the machine and re-tighten the nuts on the Lock Valve.
5. After the Valve has been repositioned, retest the machine to determine if the Locking Valve has moved.

Under no circumstances should the press lock with an object greater than 3/8 inch between the head and buck. After the adjustment has been made, test with a spacer 3/8 inch in thickness.

5.2.3 HEAD SAFETY GUARD (Standard on some models)

There are two types of Safety Guard, Electronic and Pneumatic.

The Electronic Guard has a reset button mounted on the Safety Guard Control Box. This guard requires a 120 VAC power source.

The Pneumatic Guard has a reset switch mounted under the table or on the side of the press frame.

5.2.4.1 ELECTRONIC SAFETY GUARD

The Electronic Head Safety Guard has three major components, which acting together, allow the head of the machine to fully close. They are the Trip Ring surrounding the head, the Control Box, and the Interlock Valve that allows air to flow to the Close Valve. The position of the Trip Ring is the only adjustable part of the Safety Guard. The Trip Ring MUST be set at least ONE INCH below the rim of the Head.

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To adjust the Trip Ring, loosen the locking screws on the Plungers. Adjust ring to the proper height. Re-tighten the locking screws. Test the Guard. Any object placed around the perimeter of the Buck should cause the Head to open when in contact with the Guard. The Guard must trip before the Head comes into contact with the object.

5.2.4.2 PNEUMATIC SAFETY GUARD

The Pneumatic guard consists of a Trip ring, Sensing Valves, Reset Valve and an Interlock Valve. The Trip ring is the only adjustable part of the Safety Guard. The Trip Ring must be set at least ONE INCH below the rim of the head.

To adjust the Trip Ring, loosen and remove the screws that hold the Guard in position. Move the Guard to the proper position and re-insert the screws. Test the guard so that any object placed around the perimeter of the Buck causes the Head to open when in contact with the Guard. Make sure the Guard trips before the Head contacts the object.

WARNING

THE SENSING VALVES LOCATED ON THE GUARD TRIP RING CROSS SUPPORTS MUST HAVE THE VALVE PLUNGER WITHIN 1/16 INCH OF THE GUARD TRIP RING CROSS SUPPORT.

5.3 MAINTENANCE RECOMMENDATIONS

The table following this section lists periodic inspection and servicing recommendations. The balance of this section discusses specific conditions and items.

It is a good idea to keep maintenance records on a personal schedule. Keeping a periodic maintenance schedule will ensure that you get the most from your investment.

Replace any part showing any sign of wear. Visual observations of the state of the machine should be kept on any maintenance record.

5.3.1 BUCK PADDING

Depending on the particular model buck, the padding may be a Spring Pad, a Rubber Pad or built up padding of cotton, flannel and cover. The Buck Padding should be cleaned and inspected weekly. Hard, burned, powdery, worn or uneven padding should be replaced. When replacing Buck Padding, use identical padding to the original factory installation. Care should be taken when tightening cover strings. Attach springs with the head down to hold the padding in place. Open the Head, smooth wrinkles, and draw strings tight. Tie securely and tuck under edges.

WARNING

CHECK THE LOCK SAFETY CONTROL AFTER CHANGING THE BUCK PADDING. DIFFERENT PADDING THICKNESS CAN AFFECT THE SETTING OF THE LOCK SAFETY. READJUST IF NECESSARY.

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5.3.2 HEAD COVERING

Depending on the model, the head pressing surface may be a polished surface with no covering, a matte finish with no covering, covered with a "NOMEX" type cloth or other fabric. Grid plates have a wire screen insert fitted within the plate.

Grid plates should be carefully fitted to follow the contour of the head. For good results heads must be kept clean and should be cleaned at least weekly. Use a soft cotton rag and be careful to avoid scratching the pressing surface.

WARNING

CHECK THE LOCK SAFETY CONTROL AFTER CHANGING THE HEAD COVERING. DIFFERENT COVERING THICKNESS CAN AFFECT THE SETTING OF THE LOCK SAFETY. READJUST IF NECESSARY.

5.3.3 LUBRICATION

Check monthly and lubricate the following as required:

a. Cylinder Piston Rods (light machine oil)

b. Bearings and pivots (light machine oil)

5.3.4 AIR FILTER/REGULATOR

The air filter/regulator is located on the side of the press frame. The standard filter/regulator comes equipped with a manual drain.

5.4 TABLE OF PERIODIC INSPECTION RECOMMENDATION

Frequency	Item	Maintenance
Daily	Head	Wipe with a damp cloth.
	Air Filter	Drain
	Cover Cloths and Padding	Inspect for dirt, excessive wear. Replace if necessary.
	Safety Guard	Test for proper operation.
Weekly	Air Filter	For sediment. Blow down through drain petcock.
Monthly	Cylinder Pistons Rods	For lubrication. Use light machine oil.
	Bearings and Pivots	For lubrication. Use light machine oil.
Quarterly	Air Filter element	Inspect for clogging. Replace element if needed.
General	Inspect machine parts for wear.	Worn pivots, bearings or leaking valves, should be replaced.

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5.5 CORRECTIVE PROBLEM AND DETERMINATION

Condition	Reasons	Causes
Does not close	Mechanical binding	• Linkage • Air Cylinder • Spring tension to high
	No air to press	• External of press
	No air to close cylinder	• Close valve not open • Air Cylinder shuttle valve stuck • Speed control valve closed • Filter clogged
	Air Cylinder	• Leaking seals
No auto head steam	Mechanical binding	• Linkage • Actuator • Valve
	Actuator cylinder	• Seals leak
	No air to actuator cylinder	• Shut-off valve closed • Tank valve stuck • Valve clogged • Bleed valve wide open
	Head Valve	• Motion adjustments do not open valve • Valve seized
Does not Lock	Lock poppet valve does not open	• Buck Padding too thick - adjust lock valve
	Tank valve does not open	• Replace
	Lock valve does not open	• Replace
	Defective lock poppet valve	• Repair or Replace
	Tank Valve (painted red)	• Leaks • Replace
	Restrictor (painted white)	• Clogged, clean
	Release Valve - valve open or leaking	• Repair or Replace
Does not Release	Mechanical binding	• Linkage • Spring tension to low • Air Cylinder
	Air cylinder air not dumped	• Release valve does not open • Lock pilot valve does not close

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Condition	Reasons	Causes
No Auto Post Vacuum	Mechanical binding	• Actuator • Vacuum valve
	Actuator cylinder	• Seals leak
	No air to actuator cylinder	• Shut-off valve closed • Tank valve stuck • Bleed valve wide open • No air from exhaust of Quick Exhaust Valve
	Vacuum Valve	• Valve seized
No Pedal Vacuum	Mechanical binding	• Actuator • Vacuum Valve
	Floor Valve (air)	• Not working • Replace
	Shuttle Valve	• Shuttle Valve stuck • Replace
No Pedal Buck Steam	Mechanical binding	• Actuator • Buck Valve
	Foot Valve (air)	• Not working • Replace
	Valve & Actuator Assembly	• Actuator seals leak • Valve motion adjustment does not open seat

5.6 MISCELLANEOUS SERVICE CONDITIONS

5.6.1 WET HEAD OR BUCK

This condition can be caused by clogged check Valves in the Steam Return Line, permitting condensate to back up into the Head and/or Buck. Leaking Head or Buck Steam Valves can give the same result.

Steam pressure below 60 psi does not have enough heat to keep the machine at a temperature sufficient to ensure dry spray steam.

5.6.2 STEAM SYSTEM

Problems in the steam system can often be traced to clogged valves, traps, fittings etc., in the press steam return line. In the manufacture of presses, weld slag, sand and metal chips, are present in the new Heads and Bucks. Every effort is made to remove all this material during manufacture, however, 100% success cannot be assured. Therefore, the manufacture recommends daily “blow down” of the steam system for the first few weeks of operation. This blow down will help to remove any particles in the machine.

5.6.3 AIR SYSTEM

Leaks in the press air system can cause malfunctions of the press. Leaking air lines will cause insufficient air pressure, and reduce the performance of the machine. Leaking air lines or fittings should be repaired and tightened.

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6.0 DRAWINGS & PARTS LIST

Figure 6.1 – 73087 (rev. N) Common Assembly
Figure 6.2 – 73096 (rev. E) Linkage Assembly
Figure 6.3 – 73371 (rev. A) Spring Assembly
Figure 6.4 – 73009 (rev. B) Release Bar Assembly
Figure 6.5 – 72592 (rev. E) Release Valve Assembly
Figure 6.6 – (omitted)
Figure 6.7 – Button Assembly
Figure 6.8 – 72597 (rev. B) Lock/No Lock Valve Assembly
Figure 6.9 – 73132 (rev. E) Pedal Assembly
Figure 6.10 – 73220 (rev. A) Roller Valve Assembly
Figure 6.11 – 13 (omitted)
Figure 6.14 – 72742 (rev. H) Steam Inlet Assembly
Figure 6.15 – 72733 (rev. M) Steam Outlet Assembly
Figure 6.16 – 72590 (rev. C) Head Steam Actuator
Figure 6.17 – 19 (omitted)
Figure 6.20 – 73214 6" (rev. J) Air Cylinder Assembly
Figure 6.21 – 73217 (rev. H) Cylinder Circuit Assembly (2) Button Close
Figure 6.22 – 73219 (rev. K) Cylinder Circuit Assembly W/Head Hesitation (2) Button Close
Figure 6.23 – 74597 (rev. A) Cylinder Circuit Assembly Button Close, Lever Lock
Figure 6.24 – 70076 (rev. C) 1 ¼" Air Actuator Assembly
Figure 6.25 – 0851158 - 6" Cylinder Assembly
Figure 6.26 – 22070-N Air-Operated Buck Valve Assembly
Figure 6.27 – HF-70A Head Valve Assembly
Figure 6.28 – Vacuum Valve Assembly
Figure 6.29 – 70179 (rev. F) 2 Way Manual Valve Assembly
Figure 6.30 – 70178 (rev. H) 3 Way Manual Valve Assembly
Figure 6.31 – 26684-N 3 (rev. F) Way Pilot Valve Assembly
Figure 6.32 – 52630 (rev. G) Air Circuit (1) Button Close, Lever Lock W/Optional Release Timer
Figure 6.33 – 52451 (rev. J) Air Circuit (2) Button Close, W/Optional Release Timer
Figure 6.34 – 52776 (rev. D) Air Circuit, UP-46T
Figure 6.35 – (omitted)
Figure 6.36 – (omitted)
Figure 6.37 – (omitted)
Figure 6.38 – Iron System Components
Figure 6.39 – 52720 (rev. F) Air Circuit UPL Presses with Optional Release Timer
Figure 6.40 – 75061 (rev. B) Cylinder Circuit Assembly UPL Press Two Button Close
Figure 6.41 – Model #74 and #78 Timer
Figure 6.42 -Model #131 and #167 Timer

For Original Quality Parts: 1-800-484-3013

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Figure 6.1 – Common Assembly
For drawing refer to next page

Item	Part No.	Description	Qty.
1	73086	Standard Frame Weldment	1
2	73096	Standard Linkage Assembly	1
3	109855	Standard Front Panel	1
4	73214	Air Cylinder Assembly	1
5	0150659-3	Filter - Regulator	1
7	73009-1	Release Actuator Assembly	1
8	72733-2	Steam Outlet Assembly	1
9	72742-1	Steam Inlet Assembly	1
10	20263-21	Bumper Stud	1
11	19048	Bumper	1
12	0700585	“Y” Piece Bearing	2
13	AP-615	“Y” Piece Shaft	1
14	20263-5	Head Mounting Stud	4
15	18804	Spring Adjusting Nut	4
16	AP-869	Acorn Nut	4
17	037182	Oscillation Stud	2
18	05021	1”-14 Jam Nut	1
19	0505 3	/8-16 Jam Nut	2
20	046602	3/8-16 x 1” Allen Head Cap Screw	2
21	0460946	1/4-20 Speed Nut	4
22	02369	1/4-20 x ½ Round Head Machine Screw	4
23	028390	Hoffman/New York Serial Plate	1
24	0285043	Drive Screw	4
25	0171671	Tube Clamp	1
26	046758-1	Button Head Screw ¼-20 x ½	1
27	0150808C	Pressure Regulator	1

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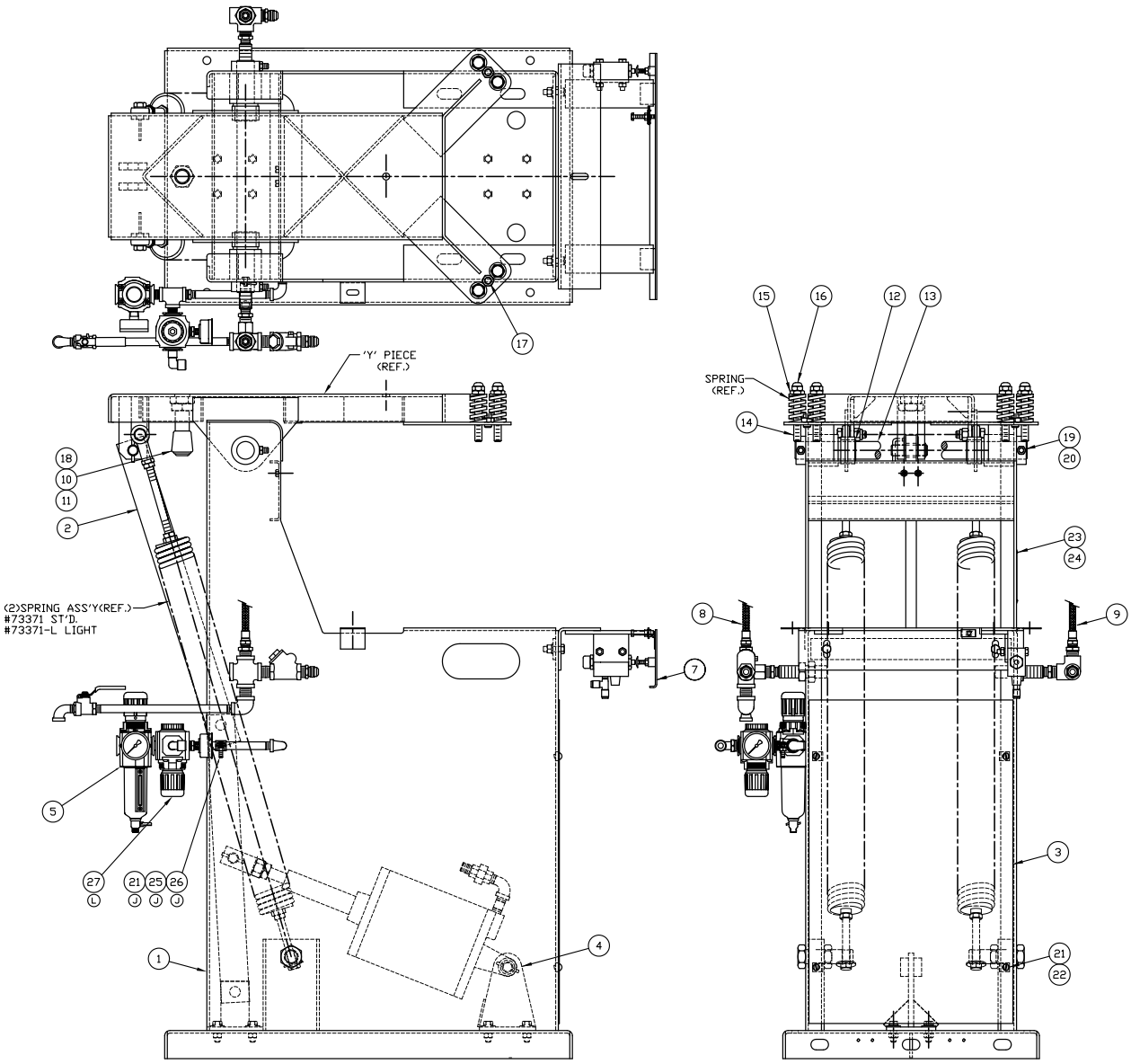
Figure 6.1 - 73087 (Rev. N) Common Assembly



NOTE: OPTIONAL 1.5 HP BLOWER/VACUUM MOTOR (NOT SHOWN)
Order P/N 0764082 – 220/60/1PH or
P/N 0764083 – 220/60/3PH

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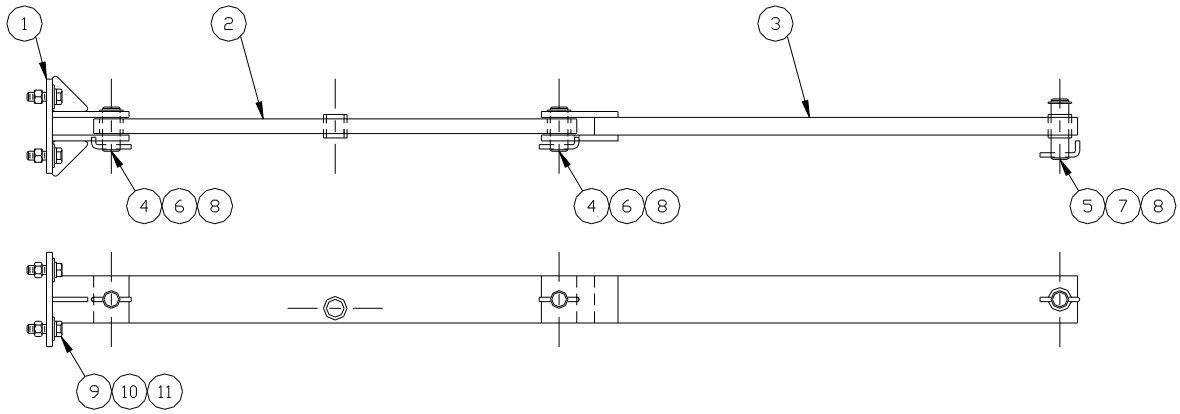
Figure 6.2 – 73096 (Rev. E) Linkage Assembly



Item	Part No.	Description	Qty.
1	73091	Toggle Pivot Mount	1
2	13093	Bottom Toggle Link	1
3	73094	Top Toggle Link	1
4	20195-1	Pivot Shaft	2
5	20195-3	Pivot Shaft	1
6	19308-1	Anti-Rotation Pin	2
7	19308	Anti-Rotation Pin	1
8	20833	E-Ring	3
9	046434	3/8-16 x 1 ¼ Hex Head Cap Screw Grade 5	4
10	0524	3/8 Lock Washer	4
11	0514	3/8 Flat Washer	4

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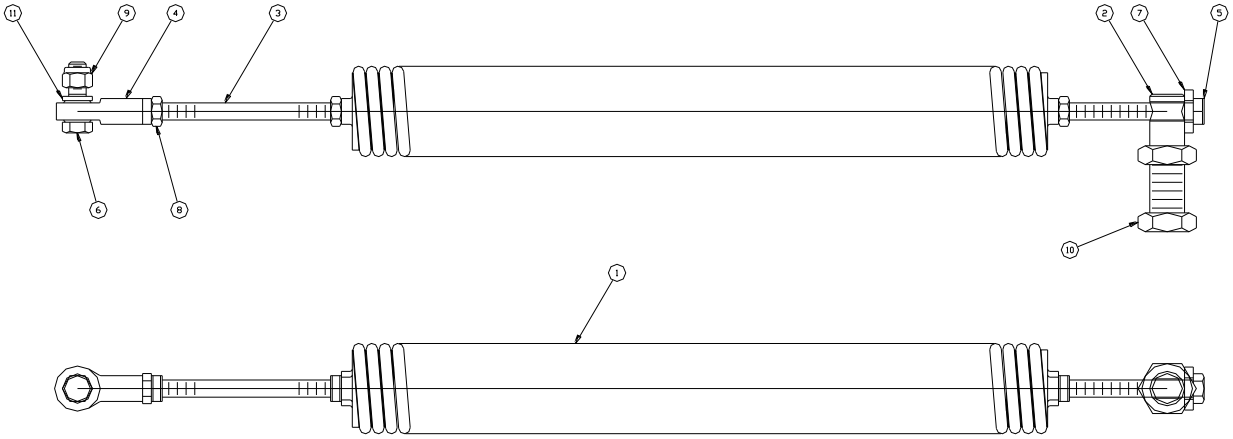
Figure 6.3 – 73371 (Rev. A) Spring Assembly



Item	Part No.	Description	Qty.
1	73309-1	Standard Spring Assembly	1
2	110326	Spring Anchor	1
3	20260-44	Spring Mounting Rod	1
4	AP-1002	Rod End	1
5	AP-1684-10	1/2-20 x 6" Spring Bolt	1
6	04666	1/2-13 x 1 ¾ Hex Head Cap Screw	1
7	23453	Spacer	1
8	05066	1/2-20 Jam Nut	3
9	050101	1/2-13 Lock Nut	1
10	05019	1"-8 Jam Nut	2
11	0526	1/2 Lock Washer	1

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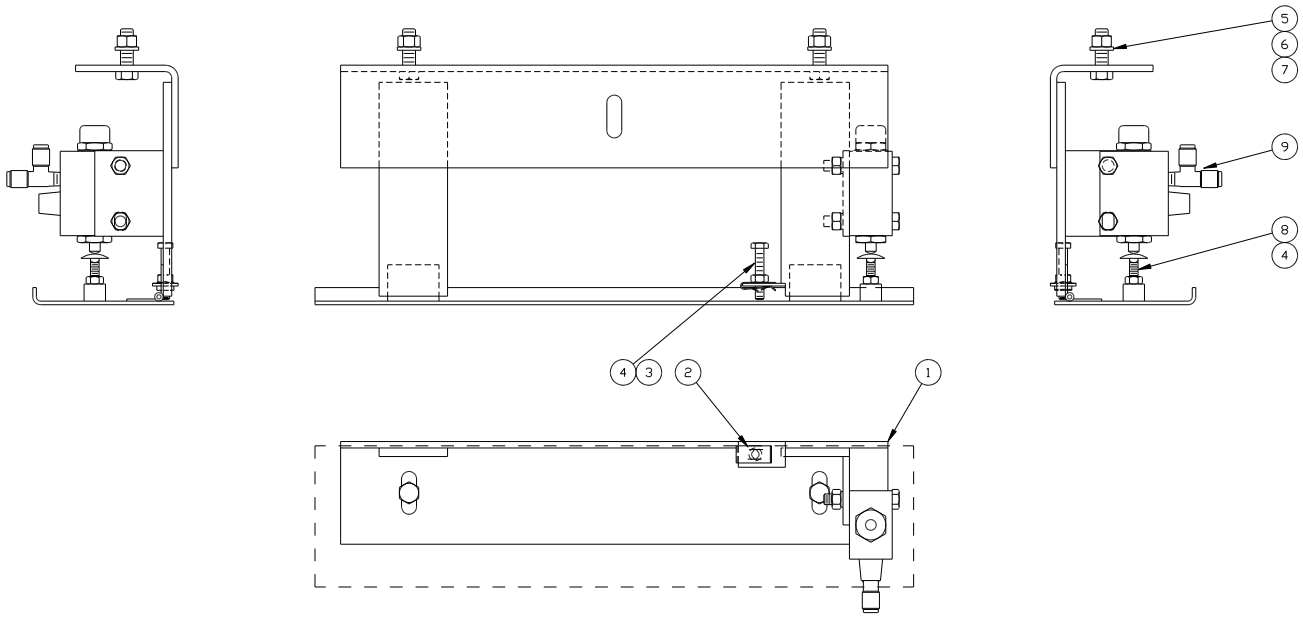
Figure 6.4 – 73009 (Rev. B) Release Bar Assembly
For drawing refer to next page



EXAMPLE: LONG VALVE ACTUATOR ASSEMBLY

Item	Part No.	Description	Qty.			
			-1	-1	-5	-6
1	72932-1	Release Bracket Long-Valve	1	-	1	-
	72932-3	Release Bracket Short-Valve	-	1	-	-
	74562	Release Bracket X Long-Valve	-	-	-	1
2	0460805	1/4-20 Speed Nut	1	1	1	1
3	0465	1/4-20 x 1 ½ Hex Head Cap Screw	1	1	1	1
4	04910	1/4-20 Hex Nut	2	2	2	2
5	04634	3/8-16 x 1 ¼ Hex Head Cap Screw	2	2	2	2
6	0524	3/8 Lock Washer	2	2	2	2
7	04912	3/8-16 Hex Nut	2	2	2	2
8	067246	1/4-20 x 1 ¼ Step Bolt	1	1	1	1
9	72592	Release Valve Kit Standard	1	1	-	-
	72592-L	Release Valve Kit Laundry	-	-	1	1

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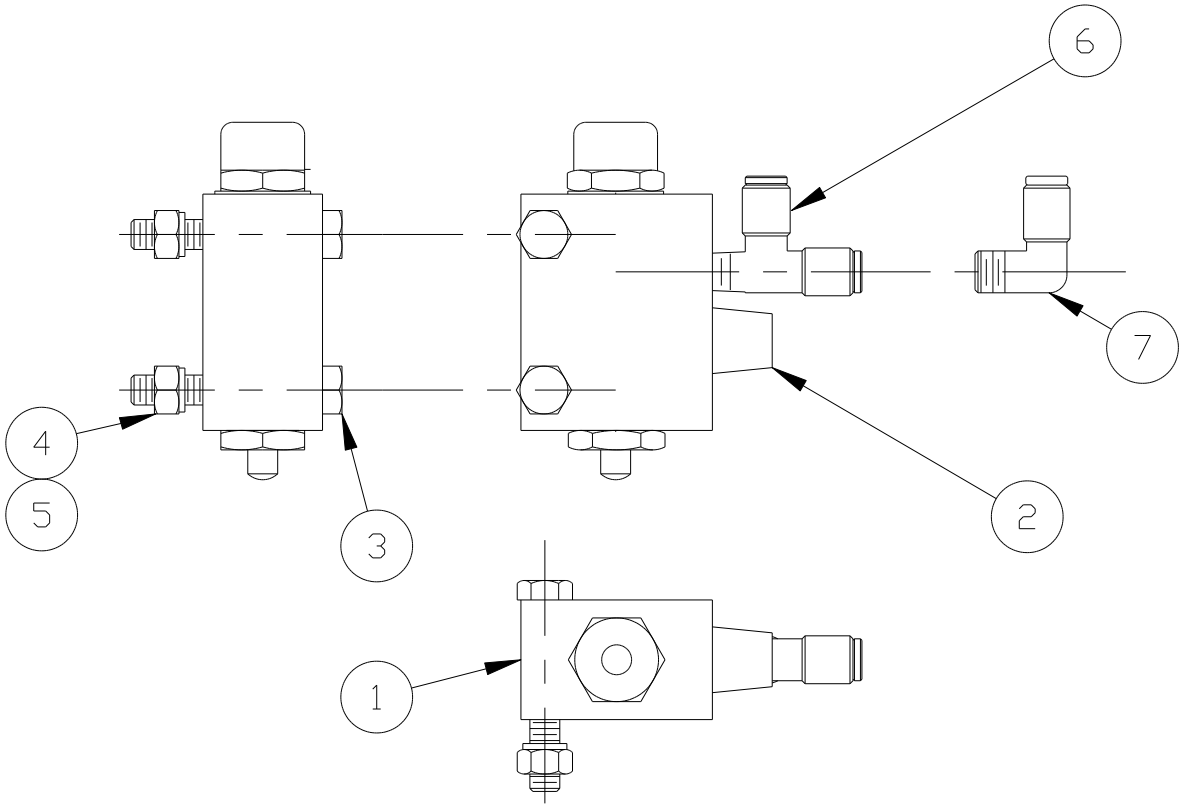
Figure 6.5 – 72592 (Rev. E) Release Valve Assembly



Item	Part No.	Description	Qty./Assembly	
			72592	75592-L
1	70179	Release Valve Assembly	1	1
2	0150784	Muffler	1	1
3	04622-1	5/16-18 x 2 Hex Head Cap Screw	2	2
4	0523-1	5/16 Lock Washer	2	2
5	04911-1	5/16-18 Hex Nut	2	2
6	0150878	1/8P x 1/4T x 1/4T Run Tee	1	-
7	0150854	1/8P x 1/4T x 90	-	1

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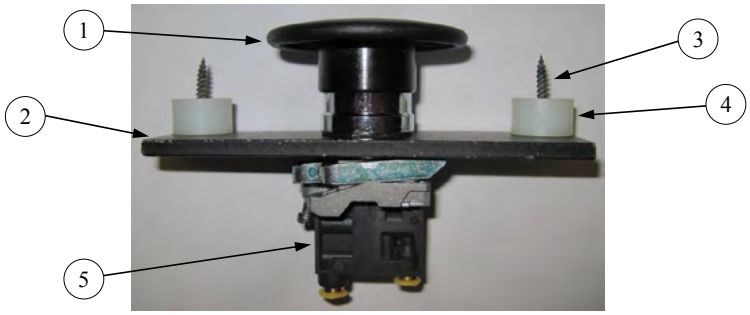
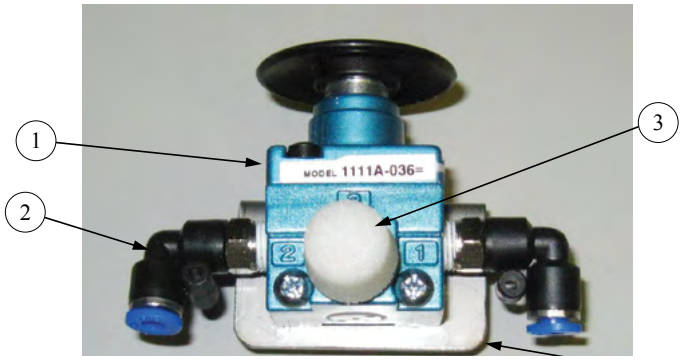
Figure 6.7 – Closing Button Assembly



Item	Part No.	Description
1	0150987	Push Button w/Mtg. Base & Switch
2	108721-3	Bracket
3	038171	#6 x 1 1/4 FH Phillips Screw
4	0515009	Flat Washer Nylon
5	0150987-1	Switch (PXBB3911)

Alternate Closing Button Assembly



Item	Part No.	Description
1	0151029	Push Button Valve
2	0581149	Elbow Fitting, Swivel, 5/32T x 1/8P
3	0150784	Muffler
4	114266	Bracket

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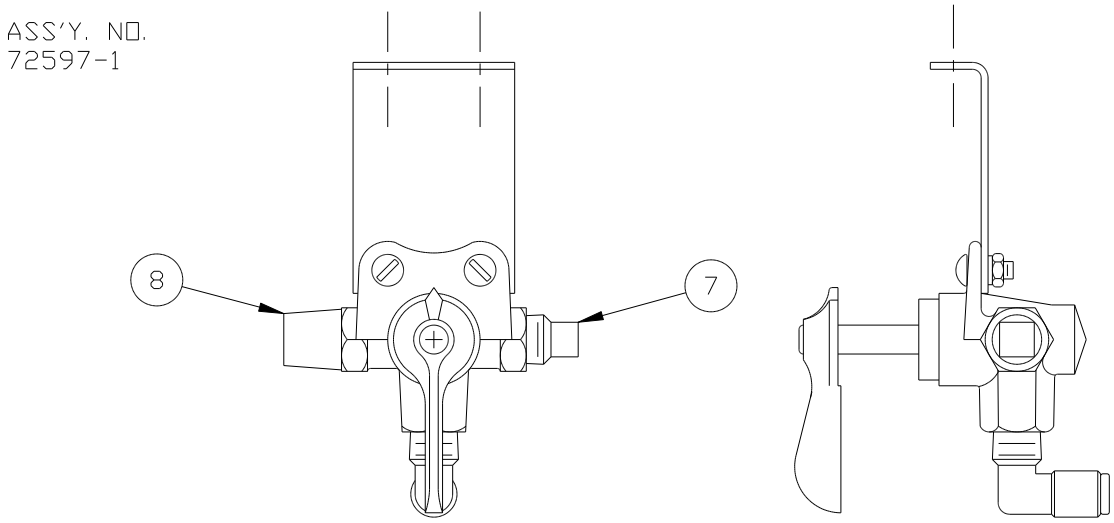
Figure 6.8 – 72597 (Rev. B) Lock/No Lock Valve Assembly



Item	Part No.	Description	Qty./Assembly
			72597-1
1	AP-1803	Bracket	1
2	AP2384-1	3 Way Valve	1
3	02325	10-32 x ½ Round Head Machine Screw	2
4	0460812-1	#10 Lock Washer	2
5	0493-1	10-32 Hex Nut	2
6	0150859	1/4P – 1/4T Elbow	1
7	0192	1/4P Plug	1
8	0150784	1/4P Muffler	1

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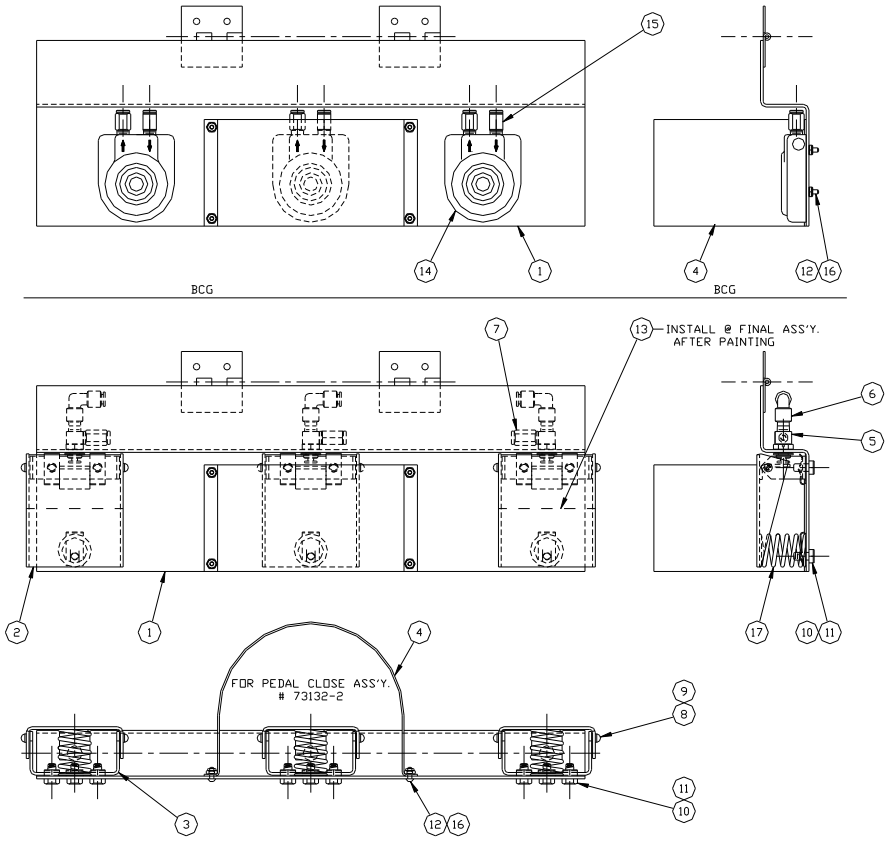
Figure 6.9 – 73132 (Rev. E) Pedal Assembly



Item	Part No.	Description	Qty.			
			73132-1	-2	-3	-4
1	109862	Pedal Bracket Weldment UP	1	1	-	-
	109862-G	Pedal Bracket Weldment UPG	-	-	1	1
2	109863-1	Pedal Weldment	2	3	-	-
3	109863-4	Pedal Mount	2	3	-	-
4	108054	Pedal Guard	-	1	-	1
5	24318	3/2 Way Tac Valve	2	3	-	-
6	0150897-1	1/8P x 1/4T Female Elbow	2	3	-	-
7	0150798-2	10-32 x 1/4T Straight Connector	2	3	-	-
8	0460811-1	#8 Lock Washer	4	6	-	-
9	02314	8-32 x ½ Round Head Machine Screw	4	6	-	-
10	0460805	1/4-20 Speed Nut	6	9	-	-
11	0461-1	1/4-20 x ½ Hex Head Cap Screw	6	9	-	-
12	0232-1	6-32 x 3/8 Round Head Machine Screw	-	4	4	10
13	0762970	2" Black Tread Tape	6"	9"	-	-
14	0850962	Air Pedal	-	-	2	3
15	0150852	1/8P x 1/4T Straight Connector	-	-	4	6
16	050137-1	6-32 Nylock Nut	-	4	4	10
17	0610548	Spring	2	3	-	-

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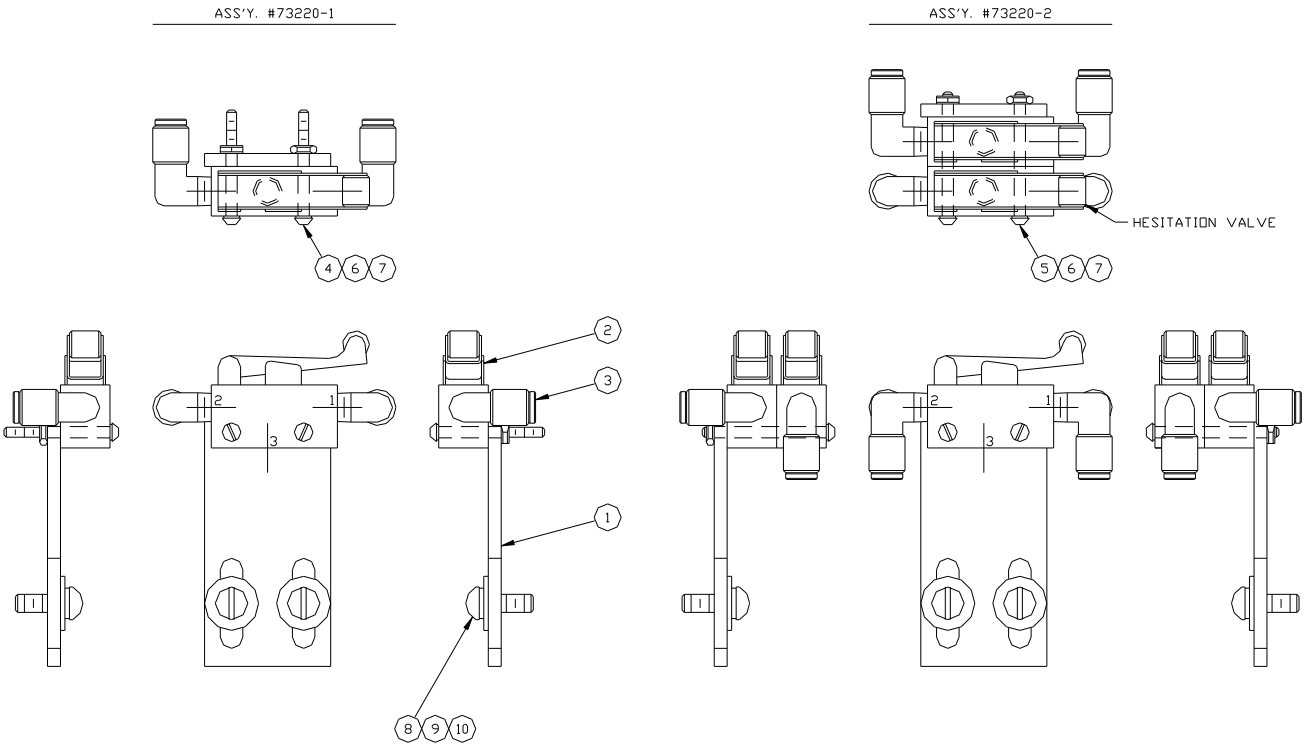
Figure 6.10 – 73220 (Rev. A) Roller Valve Assembly



Item	Part No.	Description	Qty./Assembly	
			73220-1	73220-2
1	109311	Mounting Bracket	1	1
2	015626	3/2 Roller Valve	1	2
3	0150854	1/8P – 1/4T Elbow	2	4
4	0239	6-32 x 1 ½ Round Head Machine Screw	2	-
5	02310	6-32 x 1 ¾ Round Head Machine Screw	-	2
6	05214	#6 Lock Washer	2	2
7	0491	6-32 Hex Nut	2	2
8	02371	1/4-20 x ¾ Round Head Machine Screw	2	2
9	0522	1/4 Lock Washer	2	2
10	0512	1/4 Flat Washer	2	2

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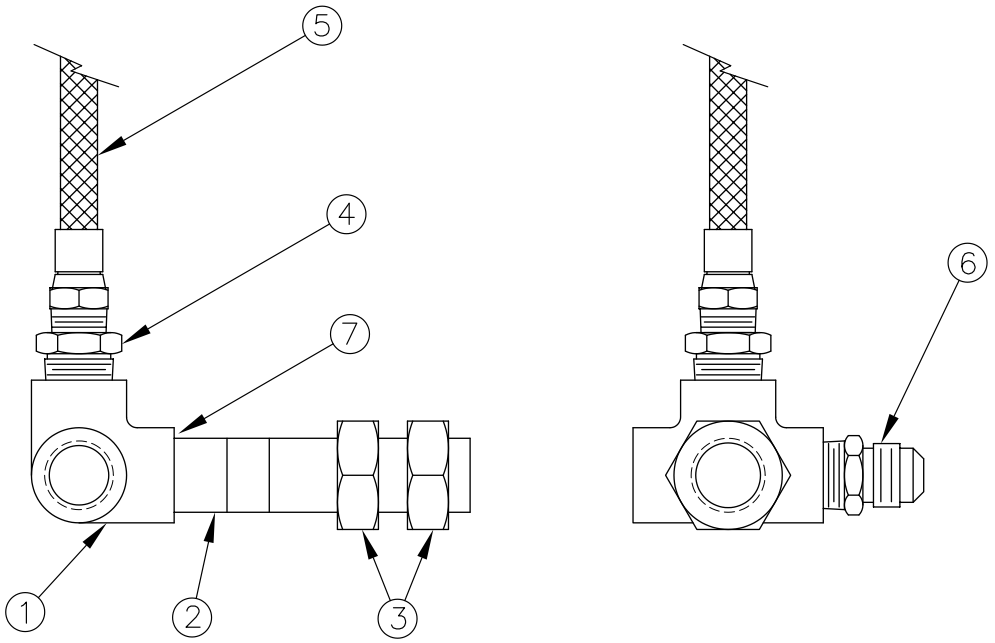
Figure 6.14 – 72742 (Rev. H) Steam Inlet Assembly



Item	Part No.	Description	Qty./Assembly
			72742-1
1	20898	1/2 Side Outlet Tee	1
2	21441-1	Pipe Support	1
3	05017	7/8-9 Jam Nut	2
4	031328	1/2 x 3/8 Reducer Bushing	1
5	06568	3/8 x 26" Flex Steam Hose	1
6	20560	1/2P x 1/2T Flare Connection	1
7	0763650	Thread Sealant, Loctite #577	0.2 oz

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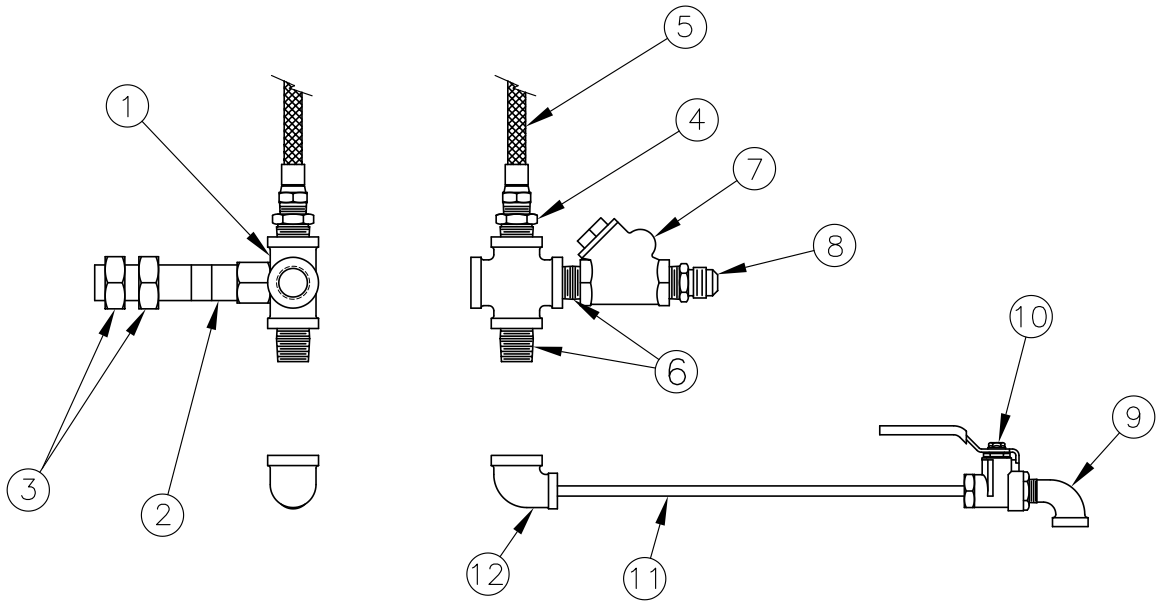
Figure 6.15 – 72733 (Rev. M) Steam Outlet Assembly



Item	Part No.	Description	Qty./Assembly
			72733-3
1	27024	1/2 Side Mount Cross	1
2	21441-1	Pipe Support	1
3	05017	7/8-9 Jam Nut	2
4	031328	1/2 x 3/8 Reducer Bushing	1
5	06585-1	3/8 x 25" Flex Steam Hose	1
6	047139	1/2 Close Nipple	2
7	20383	1/2 Swing Check	1
8	20560	1/2P x 1/2T Flare Connection	1
9	03311	1/4 x 90° Street Elbow	1
10	25319	1/4 Ball Valve	1
11	04765	1/4 x 10" Long Nipple	1
12	03319	1/2 x ¼ x 90° Reducer Elbow	1

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Figure 6.16 – 72590 (Rev. C) Head Steam Actuator
For drawing refer to next page.

Item	Part No.	Description	Qty.
1	70076	Cylinder Assembly	1
2	AP-1648	Cylinder Mounting Stud	1
3	0509	1/2-13 Jam Nut	2
4	21949	3/8-16 Clevis	1
5	0505	3/8-16 Jam Nut	1
6	20107	5/16 x 1" Clevis Pin	1
7	60701	5/16 x 1 ¼ Clevis Pin	1
8	05325	1/8 x ¾ Cotter Pin	2
9	03310	1/8 Street Elbow	1
10	0471	1/8 Close Nipple	1
11	0321	1/8 Tee	1
12	AP-1545	Shut-Off Valve	1
13	22827	Check Valve	1
14	20536	1/4T Ferrule	1
15	20535	1/4T Nut	1
16	AP-1652	Needle Valve	1

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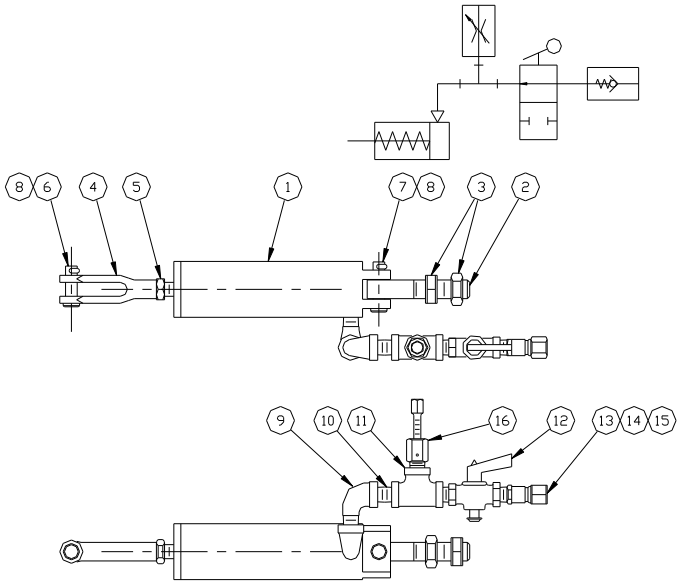
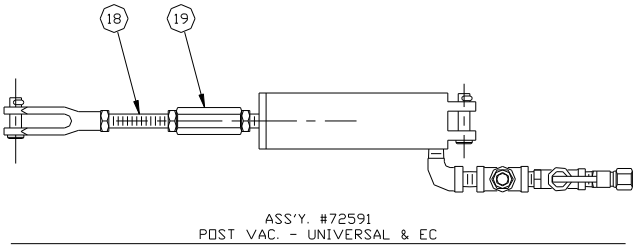
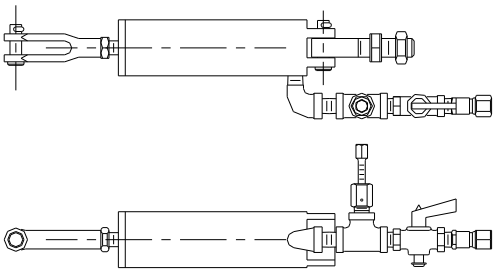
Figure 6.16 – 72590 (Rev. C) Head Steam Actuator



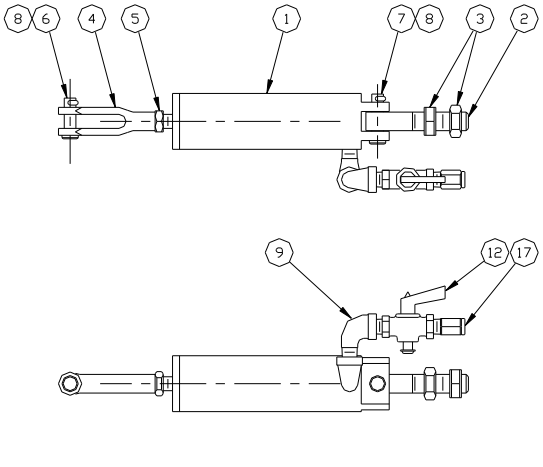
ASS'Y. #72590
AUTO HEAD STEAM - UNIVERSAL



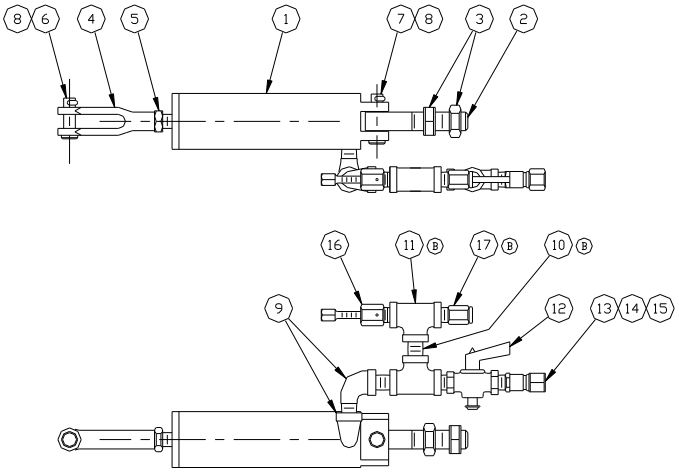
ASS'Y. #72591
POST VAC. - UNIVERSAL & EC



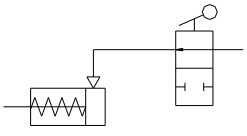
ASS'Y. #72590BC
AUTO HEAD STEAM - BC



ASS'Y. #72754
M/P HEAD STEAM - UNIVERSAL



ASS'Y. #72708 (B)
TIMER HEAD STEAM - UNIVERSAL



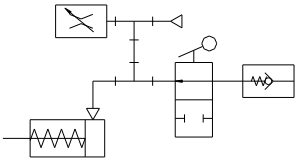


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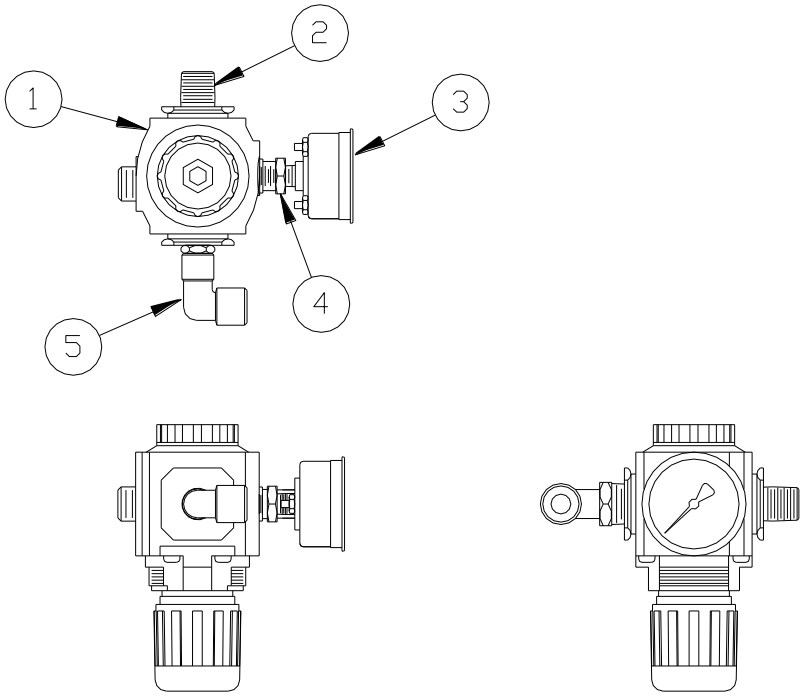
Figure 6.17 – 76248 Pressure Regulator Assembly



Item	Part No.	Description	Qty.
1	0150808	Pressure Regulator	1
2	04793	Close Nipple, 3/8	1
3	026153	Gauge, 0 to 100 PSI	1
4	03111	Hex Reducer, 3/8 x 1/4	1
5	0150868	Elbow, Male, 3/8T x 3/8 NPT	1
	0150808R	Rebuild Kit for 0150808 (Includes diaphragm assembly, valve assembly, valve spring, bottom plug o-ring)	

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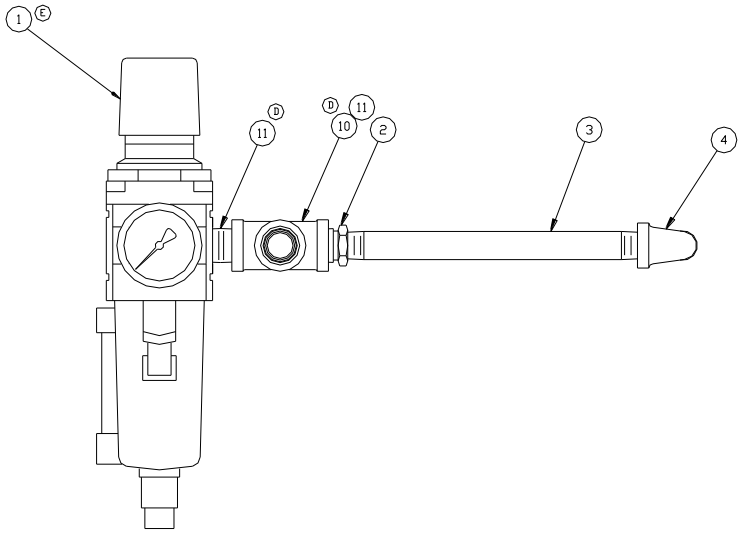
Figure 6.18 – 73385 (Rev. E) Filter - Regulator Assembly



Item	Part No.	Description	Qty.
1	0150659-3	Filter-Regulator Assembly	1
2	03111	3/8 x ¼ Hex Reducer	1
3	04757	1/4 x 6” Nipple	1
4	03311	1/4 Street Elbow	1
10	0323	Tee, 3/8	1
11	04793	Close Nipple, 3/8	2

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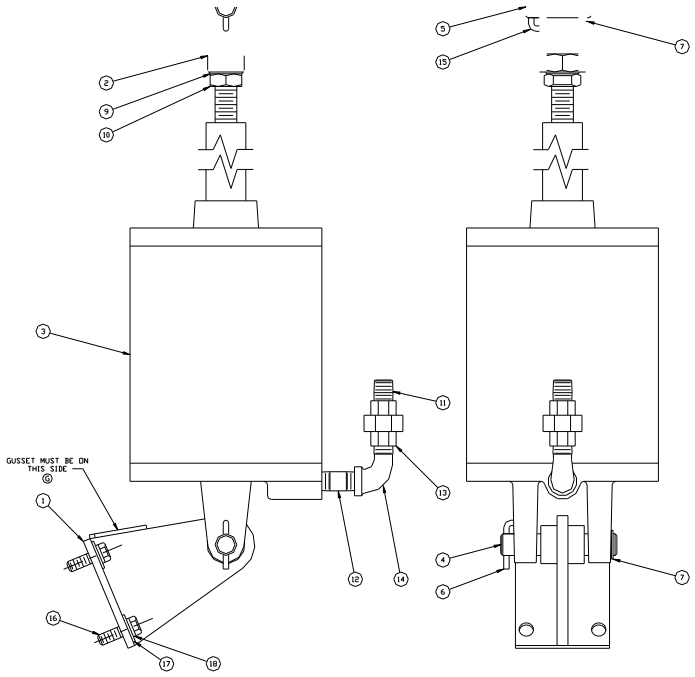
Figure 6.20 – 73214 (Rev. J) 6" Air Cylinder Assembly



Item	Part No.	Description	Qty.
1	73090	Cylinder Pivot Mount	1
2	73095	Cylinder Clevis	1
3*	0851158	Aluminum Cylinder Assembly	1
	Or 72437		
4	AP-675	Cylinder Pivot Shaft	1
5	20195-2	Clevis Pivot Shaft	1
6	19308	Anti-Rotation Pin	1
7	20833	E-Ring	2
9	20835	3/4 Lock Washer Internal Tooth	1
10	05024	3/4-16 Jam Nut	1
11	04793	3/8 Close Nipple	1
12	04794	3/8 x 1 ½ Nipple	1
13	20702	3/8 Union	1
14	20723	3/8 Street Elbow	1
15	19308-1	Anti-Rotation Pin	1
16	046434	3/8-16 x 1 ¼ Hex Head Cap Screw Grade 5	4
17	0514	3/8 Flat Washer	4
18	0524	3/8 Lock Washer	4

***Note:** When ordering parts, give Model & Serial Number of machine.

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Figure 6.21 – 73217 (Rev. H) Cylinder Circuit Assembly (2) Button Close
For drawing refer to next page.

Item	Part No.	Description	Qty./Assembly	
			73217	73217-T
1	26684	Poppet Valve Assembly	1	1
2	089562	Muffler	1	1
3	015487	3/2 Valve Normally Closed	1	1
4	015609	Quick Exhaust Valve	2	2
5	015629	3/2 Valve Normally Closed	1	1
6	22827	Check Valve	1	1
7	AP-2607	Restrictor	1	1
8	0471	1/8 Close Nipple	1	1
9	04747	1/4 Close Nipple	3	3
10	04793	3/8 Close Nipple	2	2
11	03111	3/8 x ¼ Hex Reducer	3	3
12	03310	1/8 Street Elbow	1	1
13	0311	1/8 Cross	1	1
14	0322	1/4 Tee	2	2
15	20535	1/4 Compression Nut	2	2
16	20536	1/4 Ferrule	2	2
17	0150854	1/8P – 1/4T Elbow	4	4
18	0150862	1/4P – 3/8T Elbow	1	1
19	0150860	Swivel Elbow 1/4T x 1/4NPT	1	1
20	0150852	1/8P – 1/4T Straight Connector	1	0
21	0150878	1/8P – 1/4T Male Run Tee	1	2
22	0150784	1/4 Muffler	2	2
23	01509247	1/8 Muffler	1	1
24	20211	1/4 Outside Diameter Nylon Tubing	11”	11”
25	AP1671	1/4 Speed Control Valve	2	2
26	0150882	Swivel Elbow 1/4NPTF x 3/8T	1	1
27	03322	3/8 - 1/4 Red. Elbow	1	1
28	0850858	1/4P-1/4T Straight Connector	1	1

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Figure 6.21 – 73217 (Rev. H) Cylinder Circuit Assembly (2) Button Close

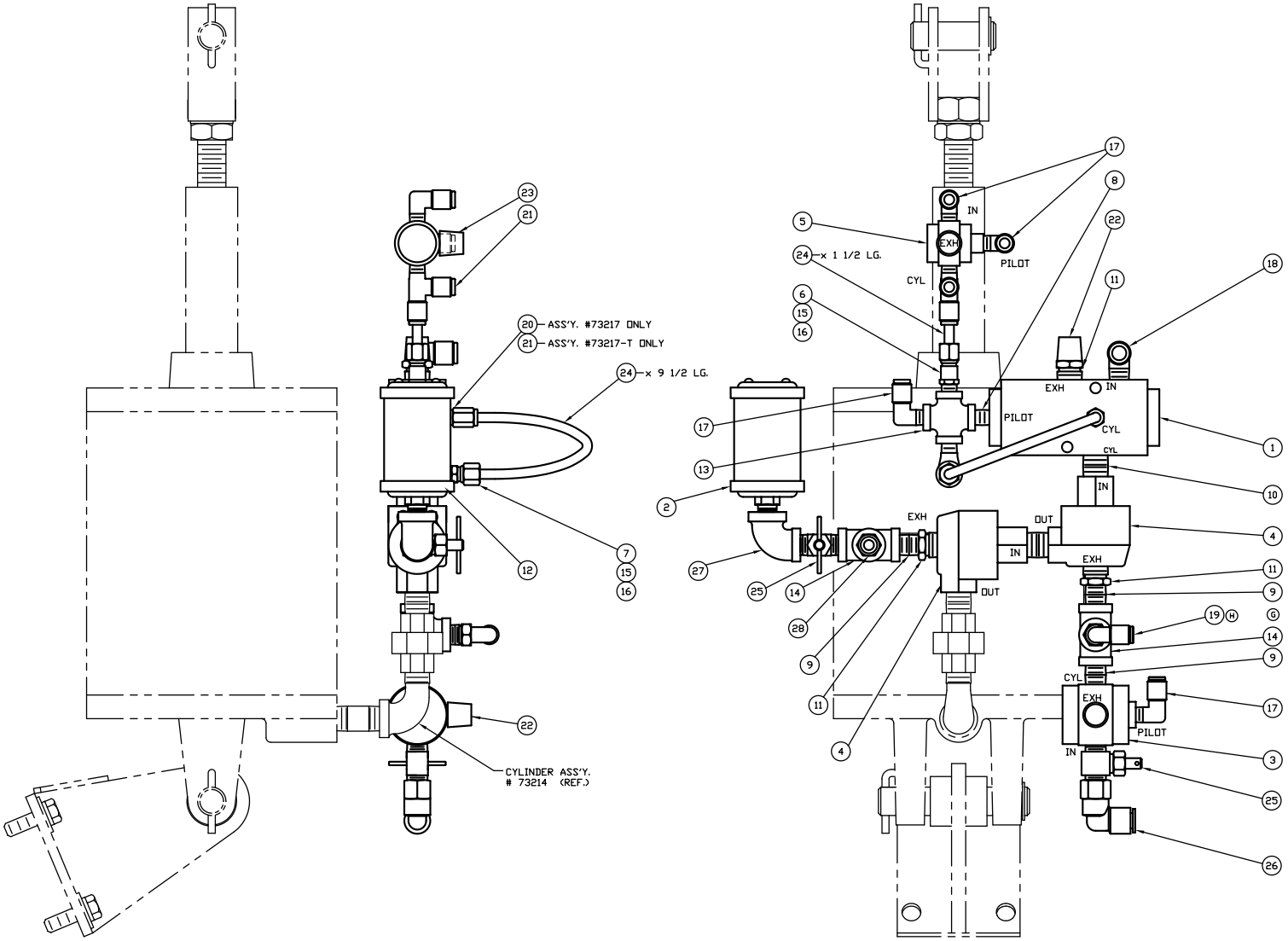

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Figure 6.22 – 73219 (Rev. K) Cylinder Circuit Assembly W/Head Hesitation (2) Button Close
For drawing refer to next page.

Item	Part No.	Description	Qty.
1	26684	Poppet Valve Assembly	2
2	-	-	-
3	015487	3/2 Valve Normally Closed	1
4	015609	Quick Exhaust Valve	2
5	015629	3/2 Valve Normally Closed	1
6	22827	Check Valve	1
7	20702	3/8 Union	1
8	AP-1652-1	Needle Valve	1
9	AP-2607	Restrictor	1
10	0150717	Speed Control Muffler	2
11	0471	1/8 Close Nipple	2
12	04747	1/4 Close Nipple	2
13	04793	3/8 Close Nipple	4
14	04795	3/8 x 2" Nipple	1
15	03111	3/8 x ¼ Hex Reducer	3
16	0150858	1/4P – 1/4T Straight Connector	1
17	0150864	Straight Connector 3/8P – 1/4T	1
18	03310	1/8 Street Elbow	1
19	0323	3/8 Tee	1
20	0322	1/4 Tee	1
21	0321	1/8 Tee	1
22	0311	1/8 Cross	1
23	0191	1/8 Plug	1
24	20535	1/4 Compression Nut	2
25	20536	1/4 Ferrule	2
26	0150854	1/8P – 1/4T Elbow	3
27	0150862	1/4P – 3/8T Elbow	2
28	-	-	-
29	0150878	1/8P – 1/4T Male Run Tee	2
30	0150784	1/4 Muffler	2
31	0150924	1/8 Muffler	1
32	20211	1/4 Outside Diameter Nylon Tubing	11"
33	0150911	1/8P x 5/32T Elbow	1

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Figure 6.22 – 73219 (Rev. K) Cylinder Circuit Assembly W/Head Hesitation (2) Button Close

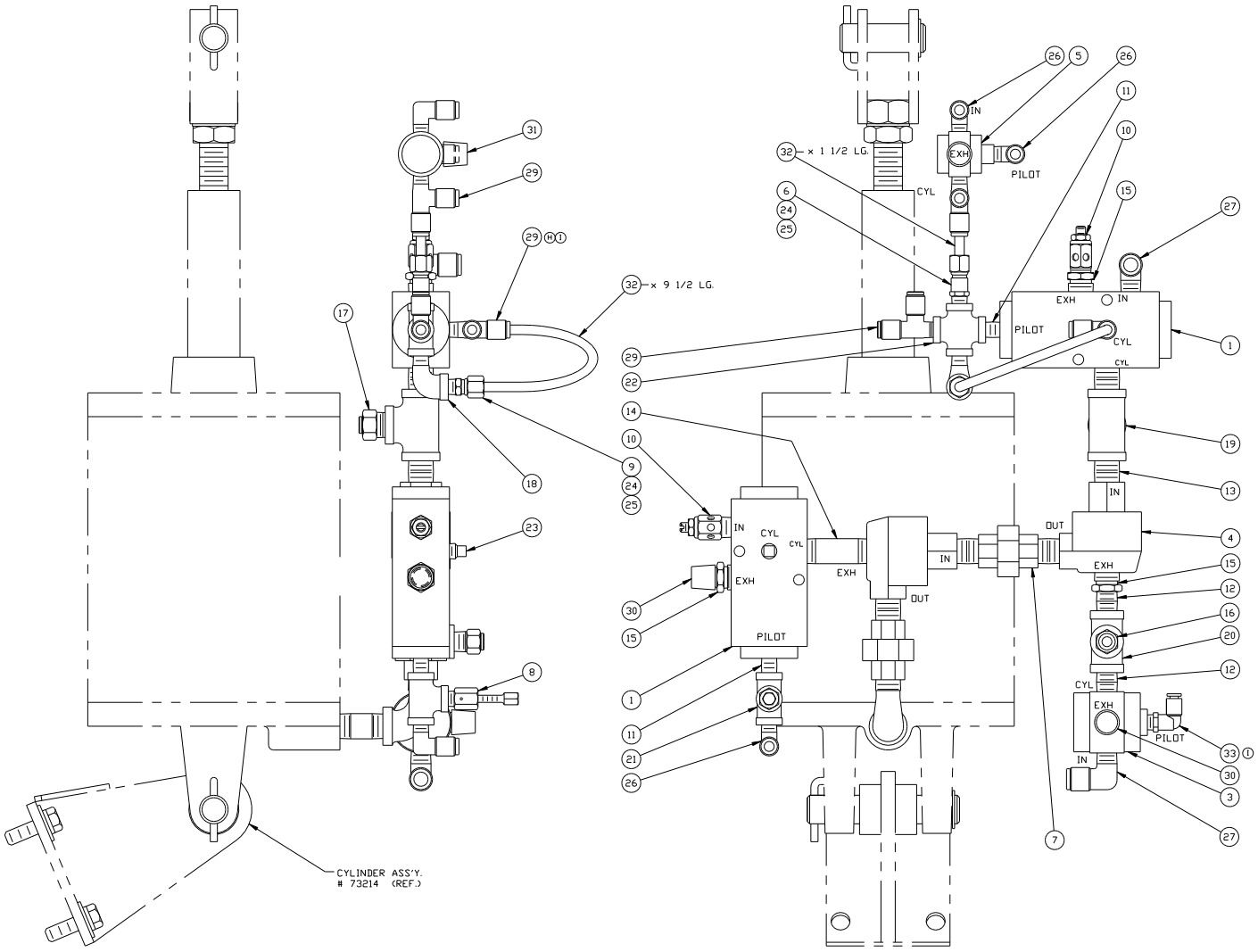

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Figure 6.23 – 74597 (Rev. A) Cylinder Circuit Assembly Button Close, Lever Lock
For drawing refer to next page.

Item	Part No.	Description	Qty./Assembly	
			74596	74597-T
1	26684	Poppet Valve Assembly	1	1
2	089562	Muffler	1	1
3	015487	3/2 Valve Normally Closed	1	1
4	015609	Quick Exhaust Valve	2	2
5	22827	Check Valve	1	1
6	AP-2607	Restrictor	1	1
7	0471	1/8 Close Nipple	1	1
8	04747	1/4 Close Nipple	1	1
9	04793	3/8 Close Nipple	3	3
10	03111 3	/8 x ¼ Hex Reducer	2	2
11	03310	1/8 Street Elbow	1	1
12	0311	1/8 Cross	1	1
13	20535	1/4 Compression Nut	2	2
14	20536	1/4 Ferrule	2	2
15	0150854	1/8P – 1/4T Elbow	2	2
16	0150862	1/4P – 3/8T Elbow	1	1
17	0150852	1/8P – 1/4T Straight Connector	1	0
18	0150878	1/8P – 1/4T Male Run Tee	0	1
19	0150784	1/4 Muffler	2	2
20	20211	1/4 Outside Diameter Nylon Tubing	9.5″	9.5″
21	AP1671	1/4 Speed Control Valve	2	2
22	0150882	Swivel Elbow 1/4NPTF x 3/8T	1	1
23	03322	3/8 - 1/4 Reducer Elbow	1	1

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Figure 6.23 – 74597 (Rev. A) Cylinder Circuit Assembly Button Close, Lever Lock

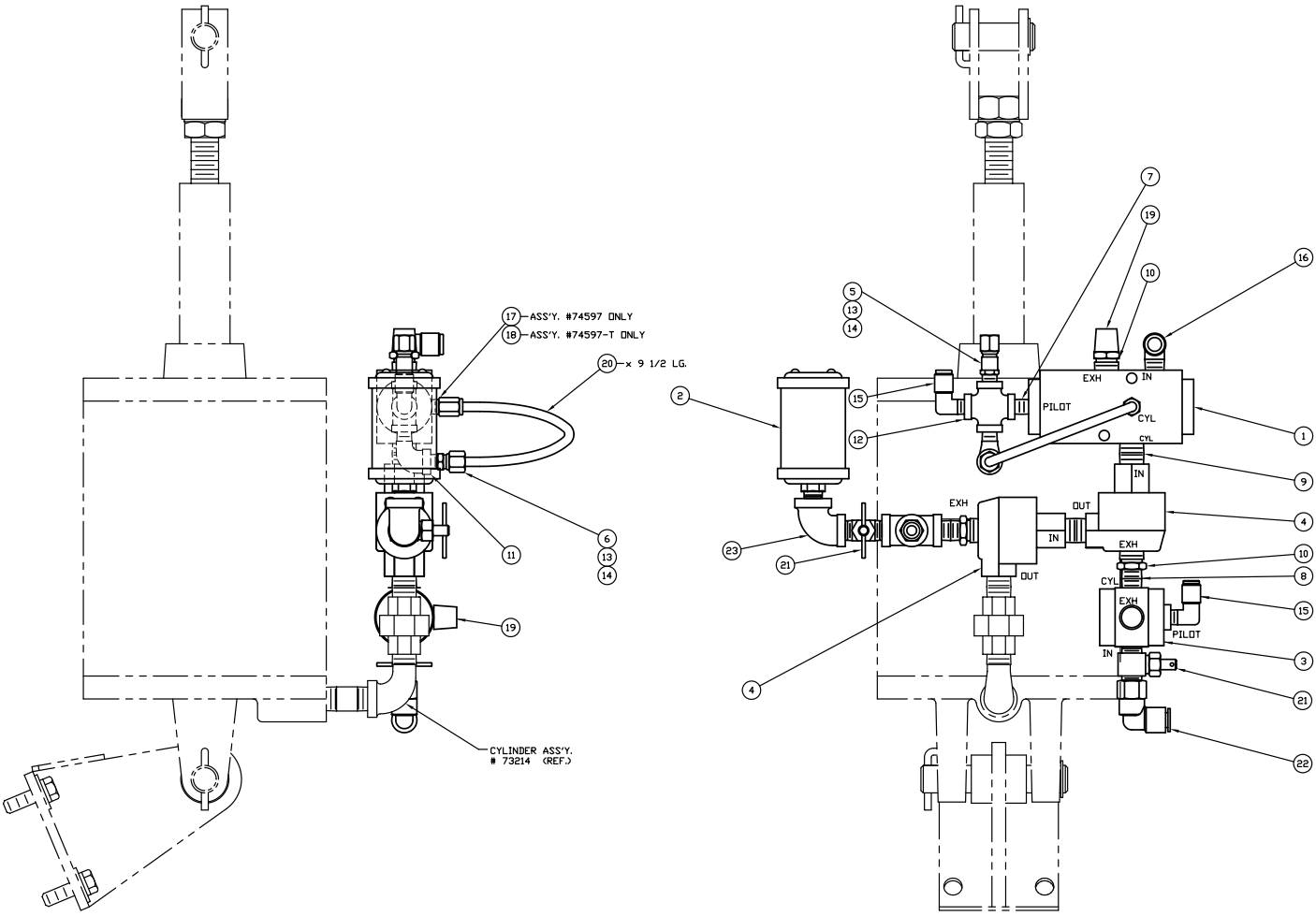

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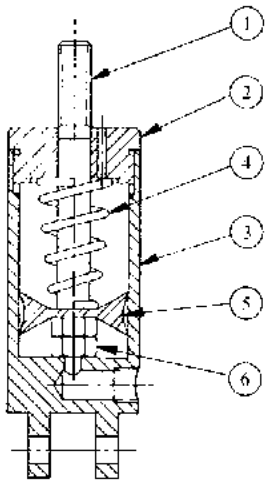
Figure 6.24 – 70076 (Rev. C) 1 ¼" Air Actuator Assembly



Item	Part No.	Description
1	21511-N	Piston Shaft
2	100169	End Cap
3	100168	Cylinder Body
4	21514-N	Spring
5	26686-N	Piston Cup
6	050100-1	¼-20 Lock Nut
	70076	1 ¼ Actuator Complete

Figure 6.25 –0851158 6" Cylinder

0851158* Aluminum Cylinder Assembly

Cylinder Repair Kit p/n 0151024

***NOTE:** Your machine may have steel cylinder assembly p/n 72437. When ordering parts, provide Model & Serial Number of machine

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Figure 6.26 – 22070N Air Operated Buck Valve Assembly
For drawing refer to next page.

Item	Part No.	Description
1	HF70-17	Disc and Holder Assembly
2	21622-1	Piston Shaft
3	20136	1/8 x ¾ Spring Pin
4	20135	Spring
5	20129	Retaining Washer
6	20137	“O” Ring Shaft Seal
7	21522N	Piston Cup
8	050100	1/4 Hex Nut
9	21619-1	Cylinder Body
10	21621	End Cap
11	14600-1L	Valve Body
12	14600-5	Body Lock Nut
13	14600-6	Guide Lock Nut
14	14600-7T	Body Gasket
	21518	Air Cylinder Assembly
		Items 1 Through 10
		Buck Valve Complete
	0150804	Repair Kit

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Figure 6.26 – 22070-N Air-Operated Buck Valve Assembly

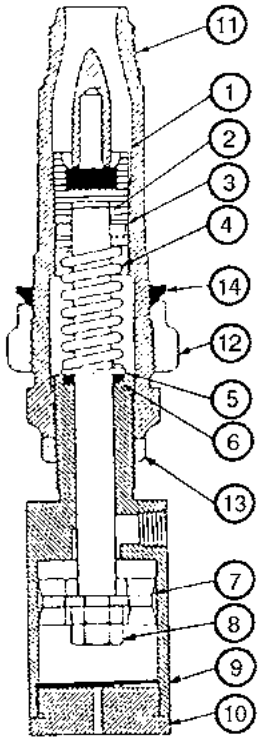

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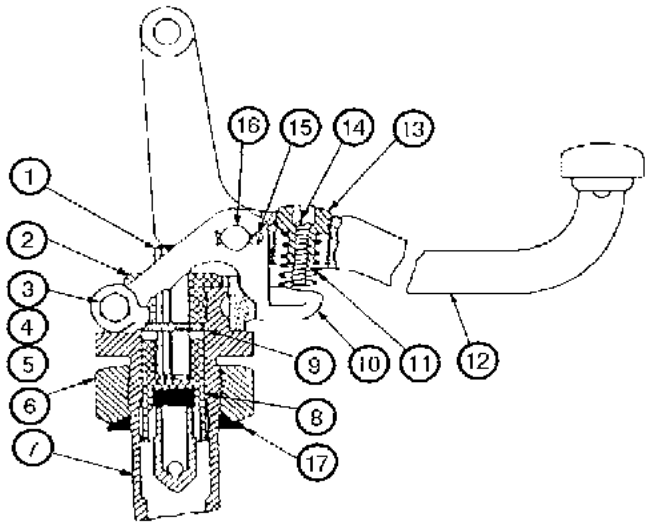
Figure 6.27 – HF-70A Head Valve Assembly



Item	Part No.	Description
1	HF70-19	Valve Stem
2	HF70-20	Stem Guide
3	0466	1/4 x 1 ¾ Hex Head Cap Screw
4	04910	1/4 Hex Nut
5	0522	1/4 Lock Washer
6	HF70-2	Body Lock Nut
7	HF70-1	Valve Body
8	HF70-17	Disc and Holder Assembly
9	HF70-21	Stem Seal
10	HF70-4	Bracket
11	HF70-9	Handle Spring
12	HF70-23	Handle Assembly
13	HF70-11	Spring Plug
14	HF70-10	Adjusting Screw
15	0531	1/16 x ½ Cotter Pin
16	HF70-22	Bracket Pin
17	HF70-3T	Body Gasket
		Head Valve Assembly Complete
	HF-70A	Items 1 Through 16
	0150806	Repair Kit

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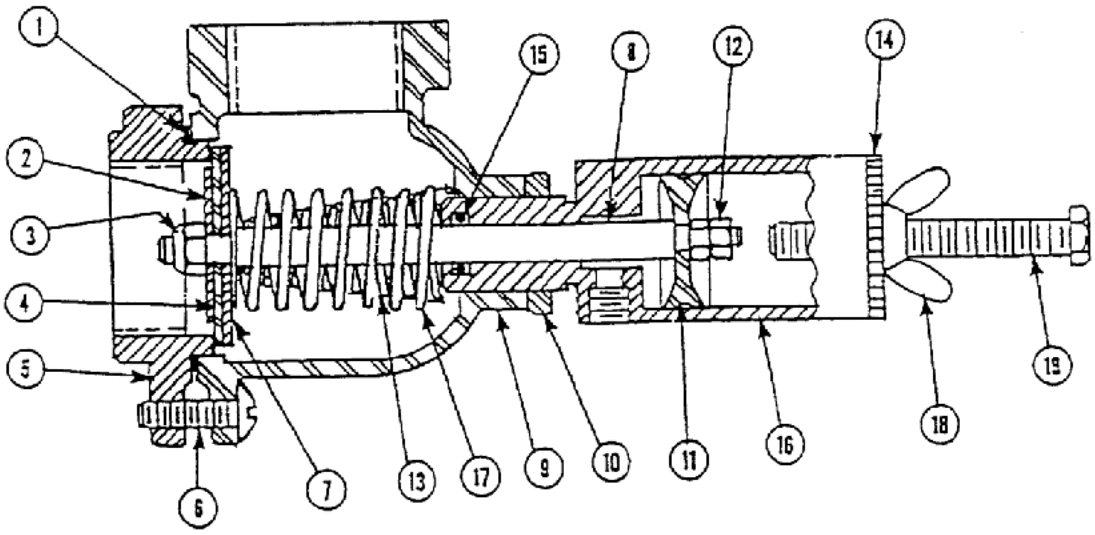
Figure 6.28 – 72305 (Rev. F) & 72306 (Rev. E) Vacuum Valve Assembly



Item	Part No. 1 ¼"	Part No. 2"	Description
1	18721-2	062788	Gasket
2	18721-5	60871	Small Washer
3	050100	050100	1/4-20 Elastic Stop Nut
4	18721-4	062790	Disc (Neoprene)
5	107869	107869	Seat Flange
6	02373	02373	1/4-20 x 1" Round Head Screw
7	18721-8	60872	Washer
8	107865	107865	Stem for Direct Acting Valve
9	107863	107868	Body for Direct Acting Valve
10	14600-6	14600-6	Guide Lock Nut
11	21522	21522	Piston Cup, Double Acting
12	050100	050100	1/4-20 Elastic Stop Nut
13	AP-970-12	AP-970-12	Conical Spring
14	21621	21621	End Cap ¼ Diameter Buck Valve Cylinder
15	0621176	0621176	"O" Ring #AS-110 (.362 I.D. x .103C/S)
16	107864	107864	Cylinder Body, Direct Acting Vac. Valve
17	061172	061172	Valve Spring
18	AP-857	AP-857	5/16-18 Wing Nut
19	04640	04640	5/16-18 x 2 ¾ Bolt
	72305	2306	Vacuum Valve Complete

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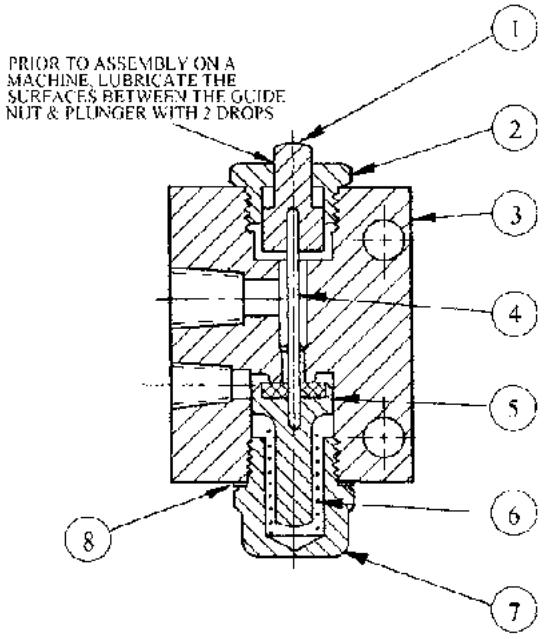
Figure 6.29 – 70179 (Rev. F) 2 Way Manual Valve Assembly



Item	Part No.	Description
1	100343	Plunger
2	100339	Plunger Guide
3	100344	Valve Body
4	AP-400-5	Stem
5	75367	Plunger and Disc Assembly
6	AP2635	Spring
7	100341-2	Valve Spring Nut
8	100408-2	Gasket
	70179	2 Way Valve Assembly Complete

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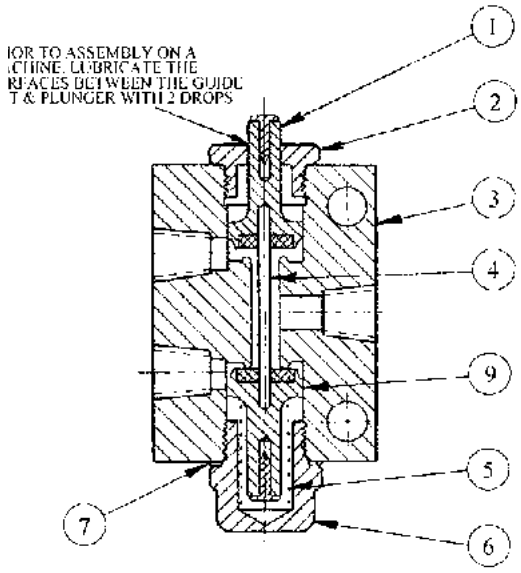
Figure 6.30 – 70178 (Rev. H) 3 Way Manual Valve Assembly



Item	Part No.	Part No.	Description
1	100337	100337	Plunger and Disc Assembly
2	100339	108597	Plunger Guide Nut
3	108861	100338	Valve Body
4	AP-400-5	AP-400-5	Stem
5	100341-1	AP2635	Spring
6	100341-2	100341-2	Valve Spring Nut
7	100408-2	100408-2	Gasket
9	75367	75367	Disc and Holder
10	-	0621178	“O” Ring (not shown)
	70178M	70178S	3 Way Valve Assembly Complete

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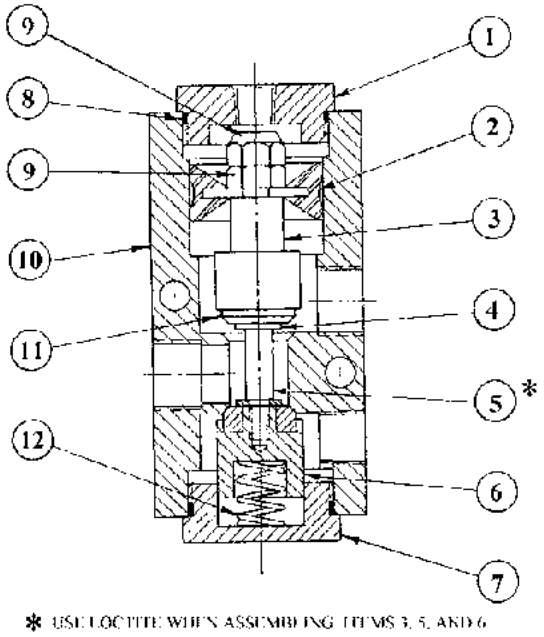
Figure 6.31 – 26684-N (Rev. F) 3 Way Pilot Valve Assembly



Item	Part No.	Description
1	26685	Pilot Cap
2	26686	Piston Cup
3	21986	Cup & Seat Holder
4	21987	Washer
5	21988	Stem
6	26687	Spring & Seat Holder
7	26688	Spring Cap
8	21944	“O” Ring
9	050100	Elastic Stop Nut
10	26689	Body
11	21992	Seat
12	22864	Spring
	26684	3 Way Pilot Valve
	0150814	Repair Kit

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Figure 6.32 – 52630 (Rev. G) Air Circuit (1) Button Close, Lever Lock W/Optional Release Timer

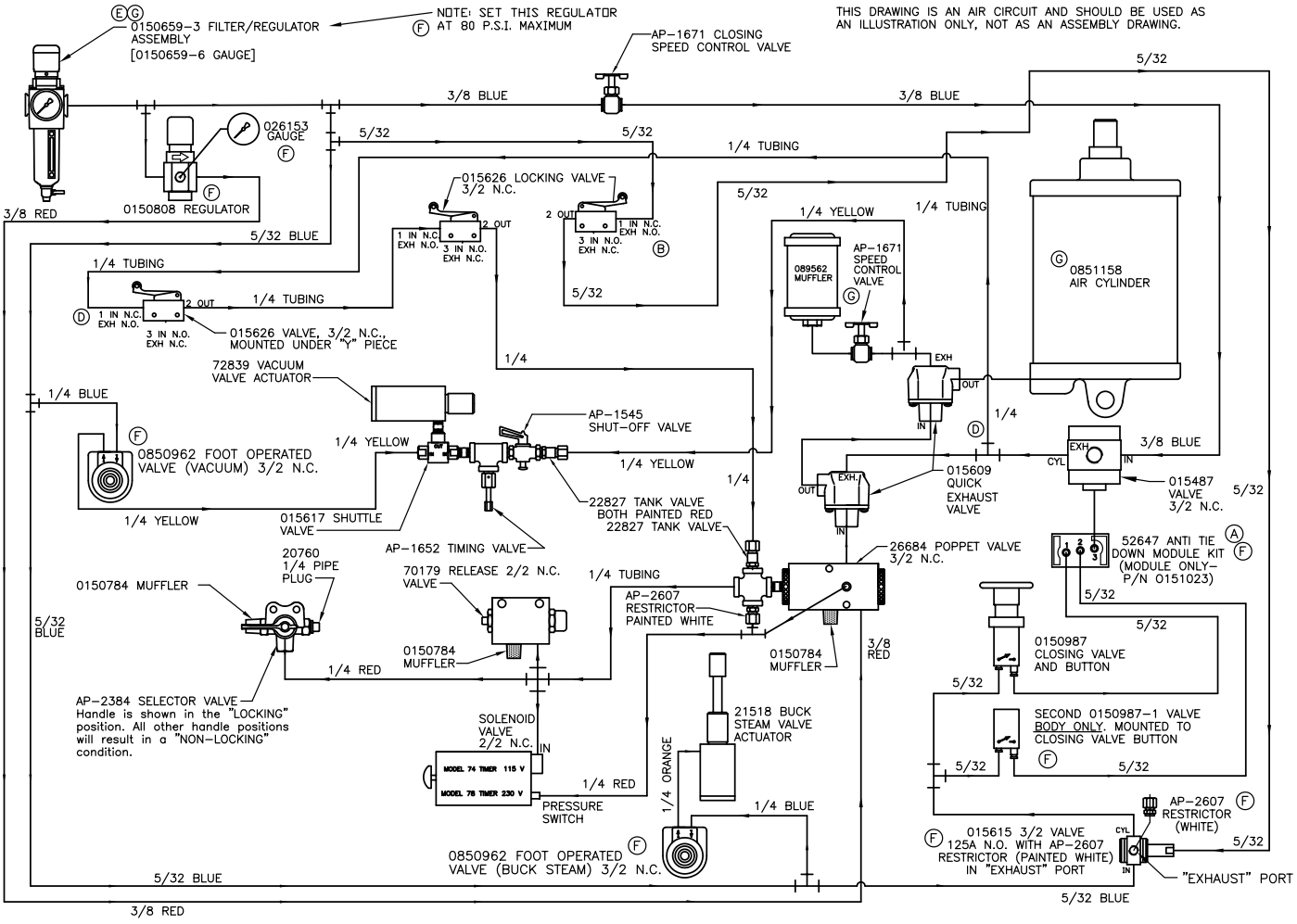

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Figure 6.33 – 52451 (Rev. F) Air Circuit (2) Button Close W/Optional Release Timer

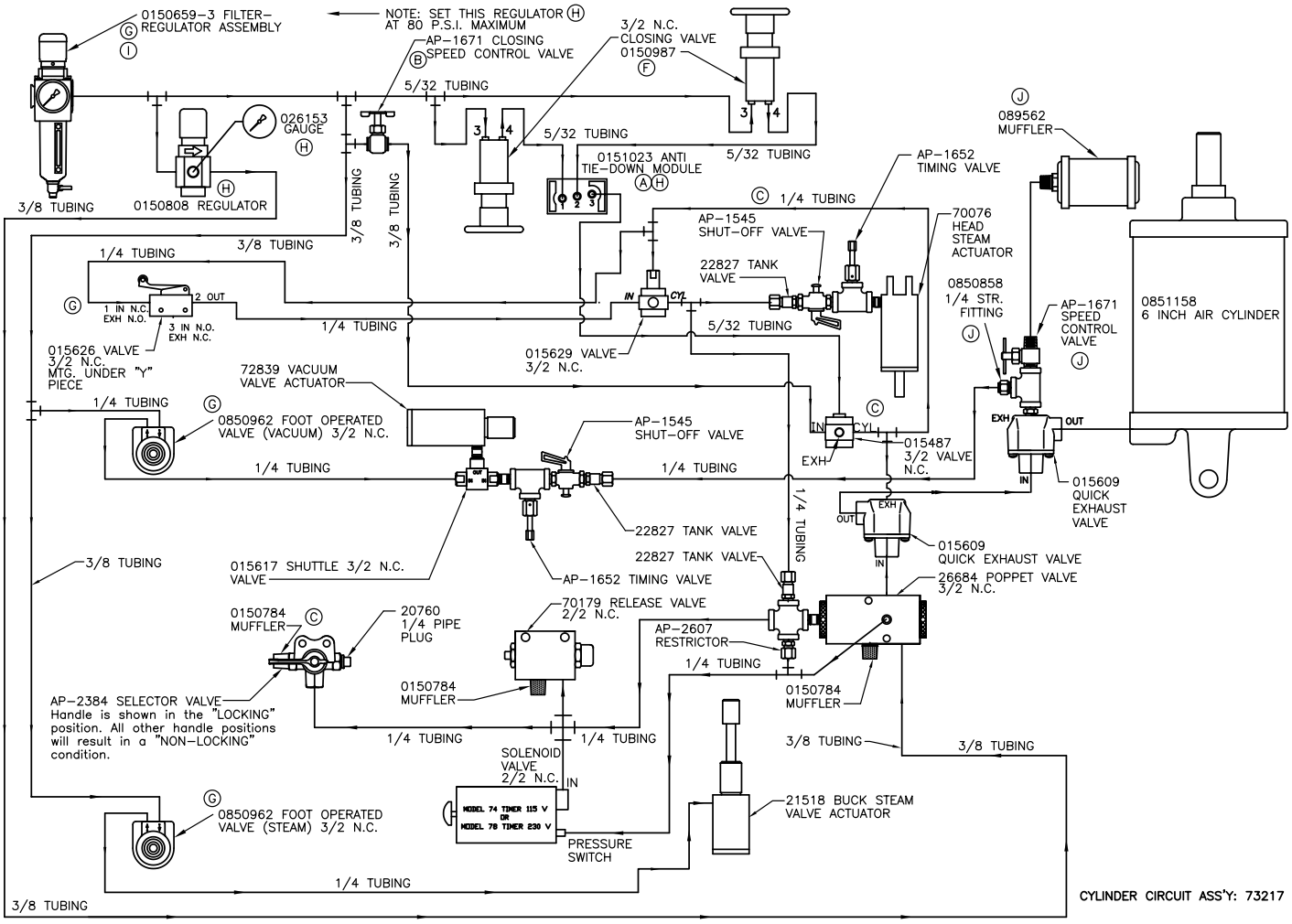

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Figure 6.34 – 52776 (Rev. D) Air Circuit UP-46T

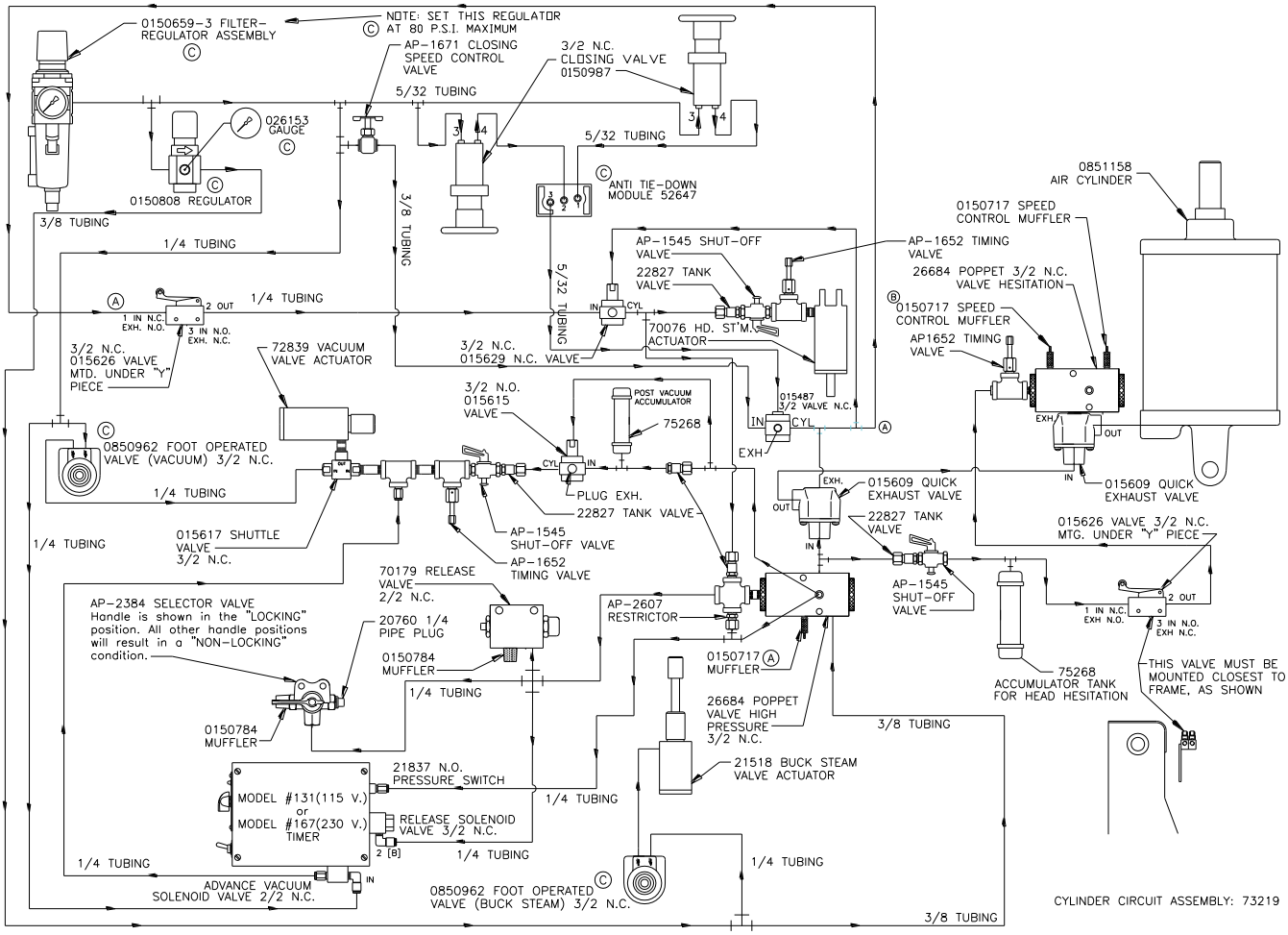

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Figure 6.38 – Iron System Components

Item	Part No.	Description
1	J633-220	Steam Electric Iron, 220V
2	23083	Hose, 6 Ft.
3	25555-J633	Iron Shoe, Teflon
4	07712	Spring Arm
5	0664124-220	Steam Regulator (SP3) 220V

Figure 6.39 – 52720 (Rev. E) Air Circuit UPL Presses with Optional Release Timer

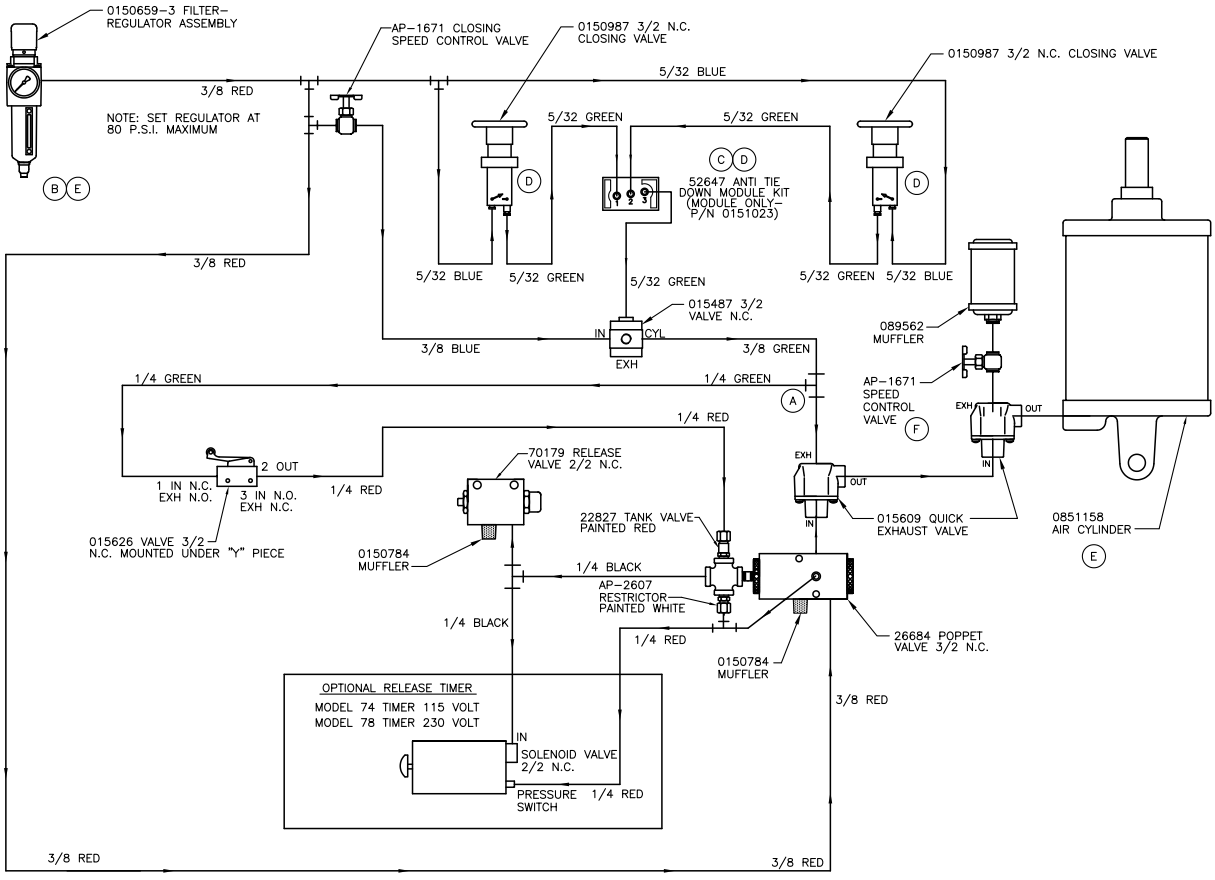

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Figure 6.40 –75061 (Rev. B) Cylinder Circuit Assembly UPL Press Two Button Close
For drawing refer to next page

Item	Part No.	Description	Qty./Assembly	
			75061	75061-T
1	26684	Poppet Valve Assembly	1	1
2	089562	Muffler	1	1
3	015487	3/2 Valve Normally Closed	1	1
4	015609	Quick Exhaust Valve	2	2
5	22827	Check Valve	1	1
6	AP2607	Restrictor	1	1
7	0471	1/8 Close Nipple	1	1
8	04747	1/4 Close Nipple	2	2
9	04793	3/8 Close Nipple	2	2
10	03111	3/8 x 1/4 Hex Reducer	2	2
11	03310	1/8 Street Elbow	1	1
12	0311	1/8 Cross	1	1
13	20535	1/4 Compression Nut	2	2
14	20536	1/4 Ferrule	2	2
15	0150854	1/8P – 1/4T Elbow	2	2
16	0150862	1/4P – 3/8T Elbow	1	1
17	0150852	1/8P – 1/4T Straight Connector	1	0
18	0150878	1/8P – 1/4T Male Run Tee	0	1
19	0150784	1/4 Muffler	2	2
20	20211	1/4 O.D. Nylon tubing	9 1/2	9 1/2
21	0150860	Swivel Elbow 1/4T X 1/4 NPT	1	1
22	0322	1/4 Tee 1 1	1	1
23	AP1671	1/4 Pipe Speed Control Valve	2	2
24	0150882	Swivel Elbow 1/4 NPTF X 3/8T	1	1
25	03322	3/8 X 1/4 Red. Elbow	1	1

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Figure 6.40 –75061 (Rev. B) Cylinder Circuit Assembly UPL Press Two Button Close

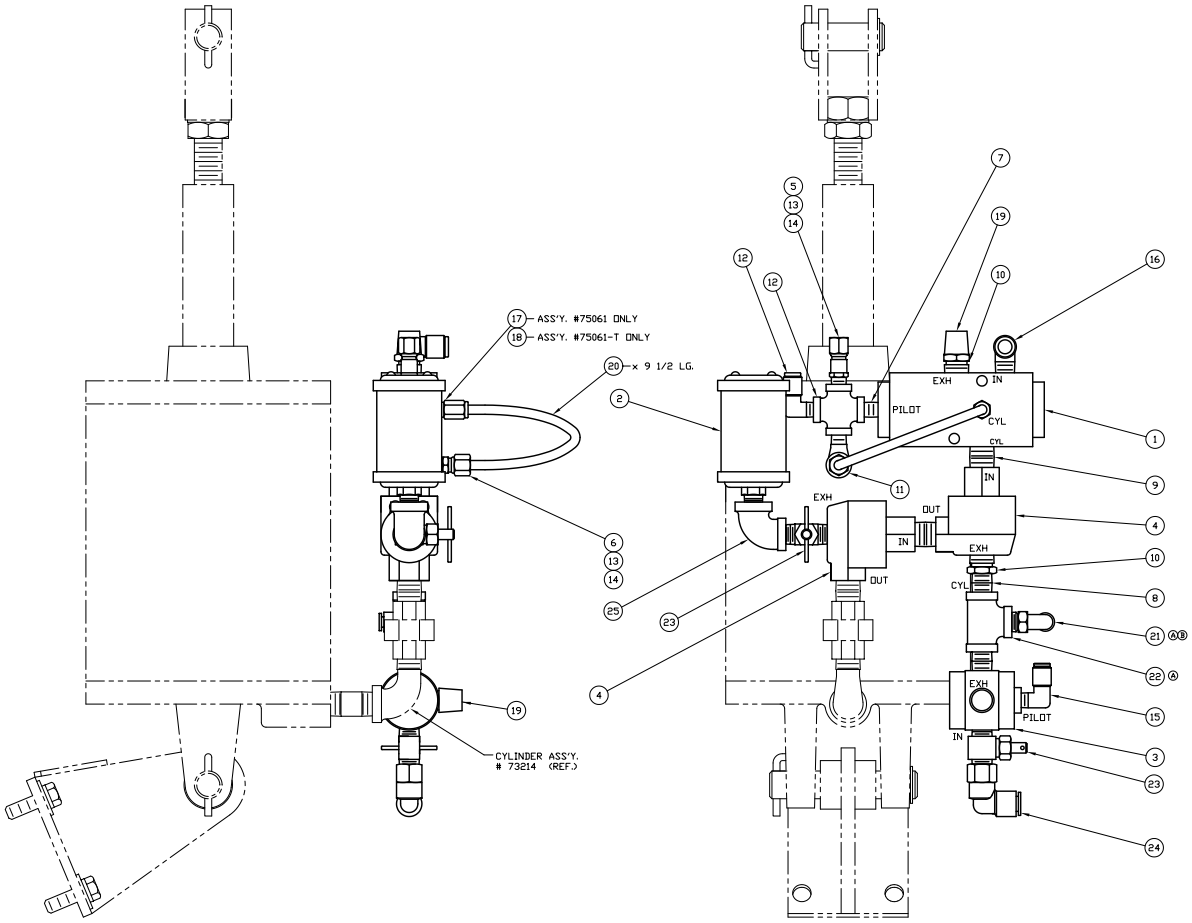

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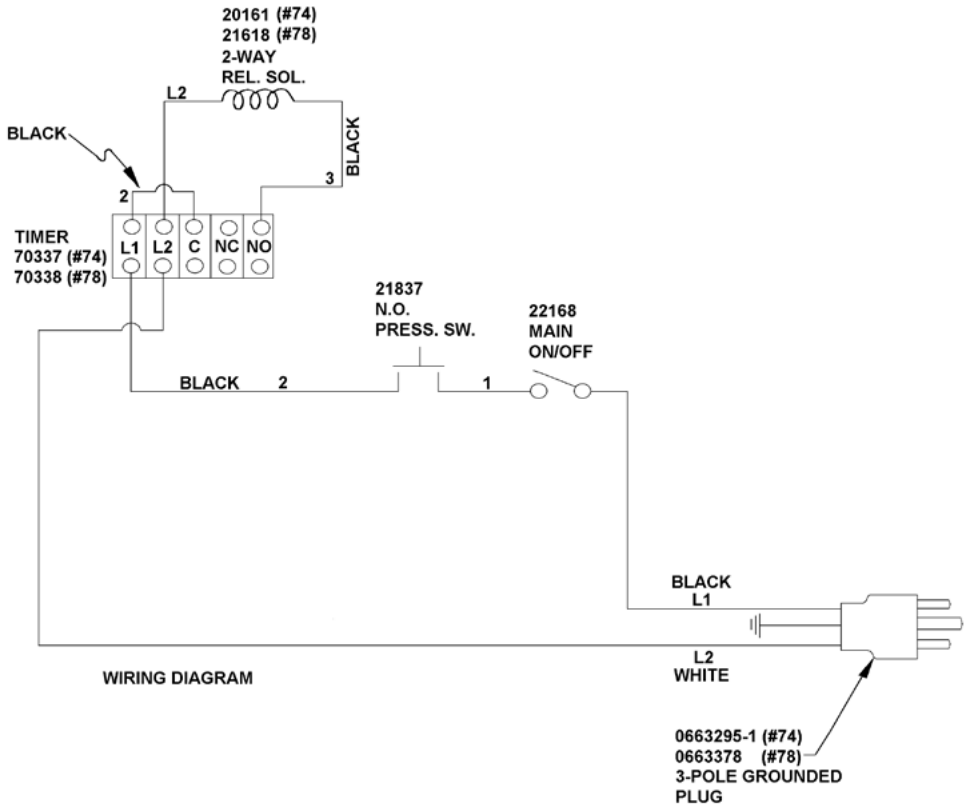
Figure 6.41 – Model #74 and #78 Timer



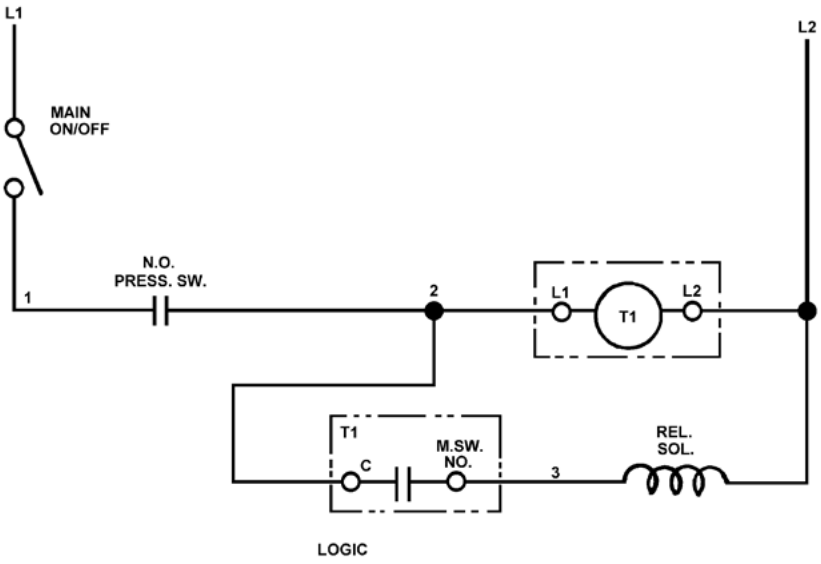


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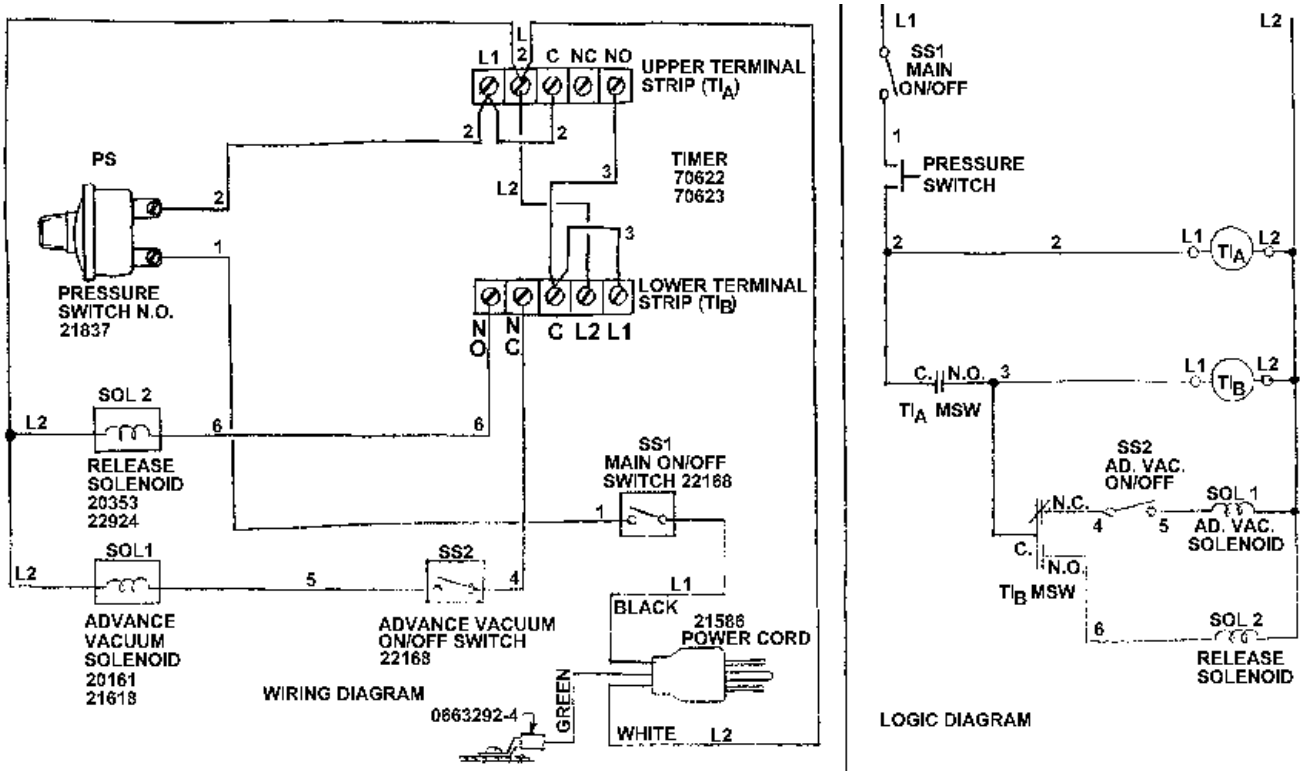
Figure 6.42 – 50494 (Rev. B) Wiring Diagram Model 131 Timer 115V and 167 Timer 230V



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7.0 RECOMMENDED SPARE PARTS LIST

This section provides a listing of spare parts requirements for five or more presses for the BC Series Press.

Quantity	Part No.	Description
1	0150987	Closing Valve Assembly
2	0151023	Anti-Tie Down Module
1	26684	Poppet Valve
2	0150814	Kit for 26684
4	24318	Foot Valve
2	22827	Tank Valve
2	015487	Normally Closed Valve
2	015609	Quick Exhaust Valve
4	0150784	Muffler
1	0150808C	Pressure Regulator
1	72305	1 1/4 Vacuum Valve
2	0150815	Kit for 72305
or		
1	72306	2" Vacuum Valve
2	0150816	Kit for 72306
2	70076	Cylinder Assembly
1	22070-N	Buck Steam Valve
2	0150804	Kit for 22070
1	HF-70A	Head Steam Valve
2	0150806	Kit for HF-70A
1	0851158	6" Cylinder Assembly
2	015626	Actuator Valve
2	73309	Spring Sub-Assembly

For original quality parts call:
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