

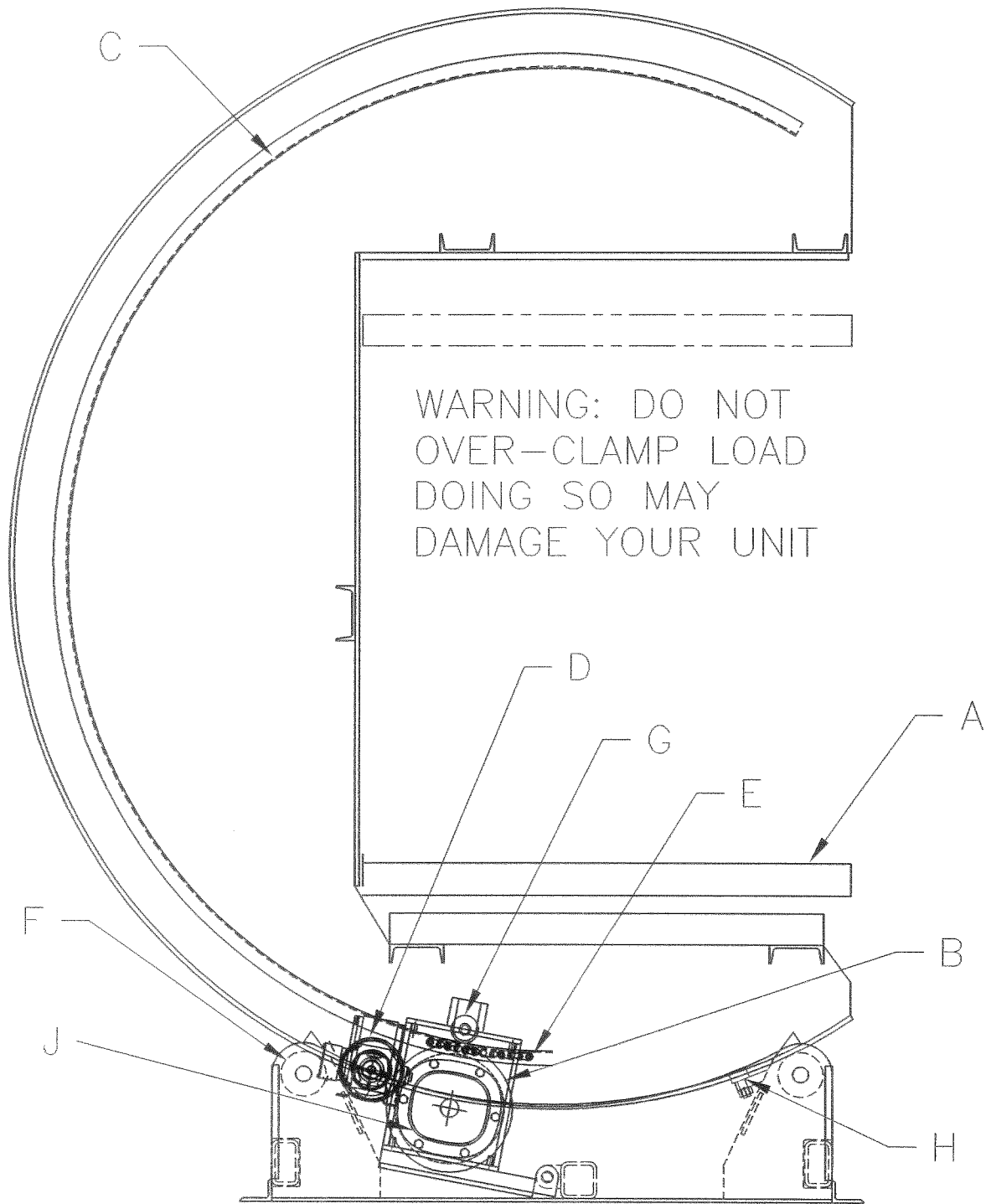


UPENDER INVERTER



PARTS AND SERVICE MANUAL

Air Technical Industries
7501 Clover Avenue
Mentor, Ohio 44060
Phone: 440-951-5191
Fax: 440-953-9237
www.airtechnical.com



- A) SCISSORS LIFT TABLE
- B) SPROCKET #80-2
- C) #80-2 1" PITCH CHAIN
- D) BRAKEMOTOR
- E) CHAIN TENSIONER
- F) MAIN ROLLER
- G) REDUCER SUPPORT ROLLER
- H) SIDE ROLLER
- J) IRONMAN GEAR REDUCER

GENERAL INFORMATION

You are now the proud owner/user of an Air Technical Industries, Upender/Inverter (UI) with scissor-type, hydraulic-cylinder operated platform.

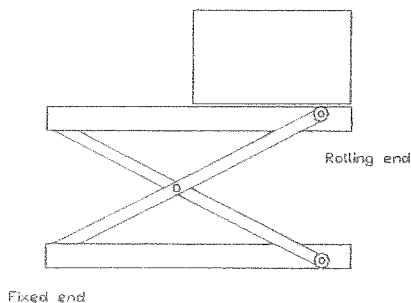
The UI with scissor-type, hydraulic-cylinder operated platform is a highly versatile machine that is designed to perform a wide range of lifting, feeding, accumulating, aligning, transporting, upending, rotating, tilting and moving operations. All units are electric motor powered. On all UIs there are three control options: (1) pedestal control mounted on the unit, (2) foot operated remote control or (3) push button remote control.

The units have the load capacity rating and serial number typed on a label plate attached to one side of the lift platform. The capacity is a net capacity rating for a lift furnished with the standard steel platform. The relief valve of the hydraulic pump has been set to raise the rated capacity, plus a small amount for overload. If there are other fixtures, conveyors, etc. mounted to the platform—deduct the weight of these from the load rating to obtain the net capacity. Units should not be overloaded beyond the established capacity, as damage may result.

NOTE: The unit is not for moving or lifting personnel unless it is specifically intended for that purpose. The equipment is not intended for lifting objects over personnel.

UNBALANCED LOADING

Stabilization of the hydraulic scissor lift provided is basically for balanced loads. NEVER exceed 50% of the rated capacity on either end or sides of the platform. For unbalanced loading please consult the factory.



OPERATING CHARACTERISTICS

The hydraulic system, usually contained in the base of the unit, consists of a directly coupled motor-pump combination, oil reservoir, solenoid operated lowering valve and all necessary plumbing. The hydraulic pump is a positive displacement design, and operates at a usual working pressure of 1200-1500 PSI. A fine mesh screen is provided for protection of the pump. This screen is located adjacent to the output port of the reservoir. A pre-

adjusted, built-in, relief valve protects the pump discharge from the effects of overloading.

The operating principle provides that the pump is operated to raise the platform and the pump is stopped when the table attains the desired raised height. A check valve between the pump holds the hydraulic cylinder at the raised height.

FOR LOWERING THE PLATFORM

The solenoid is energized to allow fluid to return from the hydraulic cylinder to the reservoir. An adjustable flow control valve is connected in the return line to limit the lowering speed under full load conditions.

All automatic controls, added to the lift table, must include provisions for immediately shutting off the pumping unit at the top travel of the table and de-energizing the solenoid at the bottom travel of the table.

BASIC OPERATING INSTRUCTIONS

ELECTRIC OPERATION:

TO RAISE PLATFORM:

(1) Insure unit is connected to the correct power source
(2) Depress "up" button or foot pedal—unit, the platform will raise and continue until the button or foot pedal is released

CAUTION: DO NOT CONTINUE TO OPERATE BEYOND THE FULL EXTENSION OF THE CYLINDER

TO LOWER PLATFORM: Depress "down" button or pedal, the unit will lower and continue to lower until the button or foot pedal is released.

TO ROTATE UNIT CLOCKWISE: Depress "clockwise" button and the unit will continue to rotate until the button is released or limit switch is engaged.

TO ROTATE UNIT COUNTER-CLOCKWISE: Depress "counter-clockwise" button and the unit will continue to rotate until the button is released or limit switch is engaged.

INSTALLATION SUGGESTIONS PERMANENTLY ANCHORED OR PLACED IN A PIT

SEE EXHIBIT 3

Permanent installation may be subject to local codes, rules and regulations, permits and inspection. Check your local and national codes and regulations first.

The illustration (EXHIBIT 3) shows the most desirable position of the unit for the greatest stability.

The unit can be moved with a lift truck or slings placed around the base frame—caution should be used not to deform the frame or the platform.

surfaces and rollers, hydraulic connections, electrical systems and general functions. The unit should be cleaned and clear of accumulation of debris, water, etc. Consideration must be given to a means for the prevention of such conditions.

Maintain oil level with lift fully raised. Oil level should be approximately 1 to 2 inches from the bottom of the tank.

Recommended hydraulic oils (non-foaming)

NORMAL CONDITIONS:

CHEVRON EP-9	STANDARD OIL
DURO AWS-150	ATLANTIC RICHFIELD
TELI US #32	SHELL OIL
DTE #24	MOBILE OIL

HIGH TEMPERATURE:

CHEVRON EP-15	STANDARD OIL
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The use of multi-grade motor oils with SAE 510-10W-20W/20 or SAE 10W-20W-30 non-detergent is permissible where the above oils are not readily available.

NOTE: Do not use hydraulic fluids which contain additives that may swell or dissolve certain packing materials normally used in systems designed for petroleum oils. For special fluids consult the factory.

CAUTION: Over-filling the hydraulic tank will cause overflow when the table is lowered.

Periodically scheduled greasing of the unit provides the opportunity for general inspection, insuring the proper maintenance of the equipment.

TROUBLE SHOOTING SERVICE SUGGESTIONS

1) PLATFORM WILL NOT RAISE:

- A. CHECK THE POWER SUPPLY AND ELECTRICAL CIRCUIT

Pump motor starter (if provided). On new installations of 3 phase motors, if the lift does not start raising in approximately 10 seconds, reverse line leads.

(WARNING: Do not run the pump backwards or without hydraulic oil)

- B. CHECK OIL LEVEL
(WARNING: Do not overfill)

With lift in full up position, oil level should be 1 to 2 inches above bottom of the tank

1. LOWERING VALVE STUCK IN OPEN POSITION

Flush lowering valve by operating up and down controls simultaneously

2. LIFT MOVES SLOWER THAN SPECIFIED RATE OR WILL RAISE ONLY PARTIAL LOAD:

- A. CHECK LINE VOLTAGE UNDER LOAD CONDITION

Low voltage affects speed and capacity

- B. SUCTION LINE MAY LEAK
Tighten fittings

- C. RELIEF VALVE MAY LEAK
Remove foreign matter from valve and adjust to ¼ turn beyond what is required to lift load

- D. INSPECT LOWERING VALVE
Disassemble valve and look for foreign material under valve seat

- E. CHECK FILTER IN TANK FOR FOREIGN MATERIAL

3. LIFT SLOWLY WITH LOWERING VALVE CLOSED:

- A. INSPECT CHECK VALVE
Remove cap, spring and ball and inspect for foreign matter

- B. FLUSH LOWERING VALVE
By operating up and down controls simultaneously. This should be done with no load

- C. DISASSEMBLE LOWERING VALVE
Look for foreign material under valve seat

4. PLATFORM WILL NOT LOWER:

- A. TEST VALVE COIL FOR OPERATION

Check voltage at coil

- B. LOWERING VALVE CLOSED

Open valve and adjust for lowering speed

- C. VELOCITY FUSES

Flow adjustment instructions for velocity fuses

5. PLATFORM WILL NOT RAISE FULL VERTICAL TRAVEL:

- A. CHECK FOR LOW OIL LEVEL

- B. IF FOAM IS VISIBLE IN TANK OIL

Check for leaks in suction line between pump and tank

6. PLATFORM WILL NOT MAINTAIN HEIGHT AND LOWERS SLOWLY WHEN DOWN BUTTON IS NOT DEPRESSED.

- A. Check the pressure relief valve, do to an overload on the table, the relief valve may have activated. Debris can be entrapped not

allowing the valve to close. Take the relief valve apart and clean it completely. Reassemble and adjust to ¼ turn beyond what is required to lift load.

- B. The check valve may need cleaning or replacement.
- C. Clean the strainer in the tank for foreign matter.
- D. Check and clean the lowering valve for debris.

7. PLATFORM DOES NOT LOWER SMOOTHLY:

- A. RUN LIFT UP AND DOWN

Under load to purge air from hydraulic system

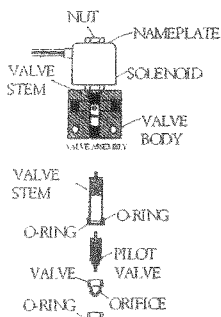
8. IF HYDRAULIC CYLINDER APPEARS TO BE LEAKING THROUGH TOP AIR VENT HOLE:

- A. RAISE AND LOWER TABLE

Raise and lower the table (under load) to maximum, if oil is still leaking through vent hole-check cylinder packing.

TROUBLE SHOOTING SERVICE SUGGESTIONS
NORMALLY CLOSED SOLENOID LOWERING VALVE

EXHIBIT 5
NORMALLY CLOSED SOLENOID LOWERING VALVE



SERVICE

In the event the valve malfunctions, check for a burned out coil and/or foreign material in the valve causing failure of valve to close. Check for possible low line voltage.

DISASSEMBLE PROCEDURE

Remove nut on top of solenoid. Slide off valve stem. The stem is threaded into the valve body. Use a wrench to remove the valve cartridge from the body. The valve seat is held in the valve stem by an o-ring and can be removed by grasping firmly and pulling apart. Carefully remove the valve from the seat.

REASSEMBLY PROCEDURE

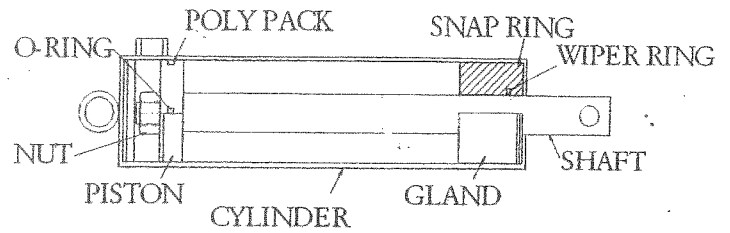
Reassemble in the same manner as disassembly. Make sure the valve spool and seat are clear of debris and foreign material. Check the o-rings for damage and replace as needed. Use care in reassembly to avoid o-ring damage.

REPAIR PARTS

When ordering repair parts specify the valve model number, pipe size, and coil voltage that appears on the nameplate on top of the solenoid.

HYDRAULIC CYLINDER

EXHIBIT 6



PHYSICAL SIGNS OF INTERNAL PROBLEMS

- 1. HYDRAULIC FLUID LEAKING OUT OF THE AIR BREATHER HOLE

(Single acting cylinder) The poly pack needs to be replaced

- 2. DOUBLE ACTING CYLINDER OPERATES TO SLOW OR DOES NOT OPERATE

The poly pack needs to be replaced

- 3. VISIBLE LEAKAGE AROUND TOP OF GLAND

The "O" ring needs to be replaced

- 4. RUBBING NOISE OR SQUEAL (EXCEPT NEW CYLINDERS)

The poly pack needs to be replaced

- 5. JERKING MOTION OF SHAFT

Air in hydraulic system purge air

PHYSICAL SIGNS OF EXTERNAL PROBLEMS

- 1. VISIBLE LEAKAGE NEAR PORTS
At bottom near end, and on cylinder-tube wall-replace cylinder

- 2. BENT ROD/SHAFT
Straighten or replace

- 3. BINDING CYLINDER
Check pivot points

- 4. SCORED OR RUSTY ROD SHAFT
Replace wiper ring and if necessary the shaft

Defective and worn parts should be replaced. We suggest a cylinder repair kit to replace all worn poly packs, "O" rings and wipers. Rebuild the cylinder provided there has been no physical damage to the cylinder or any vital components.

For a smoother "break-in" period on new or rebuilt cylinders, we recommend to add STP or equal to the cylinder walls and shafts.

NOTE: To prevent any accidents when performing maintenance of the hydraulic cylinders, lower the platform, remove the top or hinge top up, or place a suitable support (stop) between the rollers and the end of the frame.

REPAIR PARTS

Repair kits are available from the factory. When ordering parts, specify the cylinder bore and whether it is single acting or double acting.

DISASSEMBLY PROCEDURE

A repair kit should always be on hand before disassembly since parts can become damaged when the piston is withdrawn and passes over the snap ring groove on the cylinder wall. Discard any such damaged parts and replace with new. Disassemble as follows:

1. Push the gland back into the cylinder until snap ring is free.
2. Remove the snap ring and pull out shaft, gland and piston assembly.

To replace poly pack, "O" rings and wipers, it is only necessary to spring the parts out of the grooves and remove them longwise over the lands of the piston and glands.

ASSEMBLY PROCEDURE

Clean piston and cylinder and remove any scratches or burrs that might damage sealing parts or prevent proper sealing function.

Lubricate lands and grooves and install new parts. Reassemble piston/rod assembly, gland and snap ring in the reverse order of disassembly.

PUMPS

ADJUSTMENTS

The built-in relief valve is set at 2000PSI at factory. Do not readjust to exceed this setting as full load working pressure is 1700 PSI.

SERVICE

Do not attempt to replace gears, bearings, shafts or other major parts of the pump. Order a replacement pump head, identified by the nameplate data, stamped on pump body and plate. When assembling pump on motor, be sure the intermediate coupling slot aligns with motor shaft tang.

CAUTION

Do not operate this pump against the relief valve by overloading or in the extreme raised position any period greater than five seconds. When "Automatic Return" controls are used provision must be made to stop the pump immediately upon reaching the raised position.

Do not run the standard pumping unit continuously or use on applications requiring more than five starts per minute in continuous service. A special pump unit, externally mounted, equipped with a continuous duty motor and normally open by-pass valve can be furnished for high frequency starts.

WARRANTY

Air Technical Industries products are unconditionally guaranteed against defects in workmanship and materials; unless otherwise agreed in writing, the seller makes no other warranties expressed or implied, which extends beyond the description of the goods.

- A. One year on all structural parts and components
- B. Ninety (90) days on electrical and hydraulic components

Before any repairs are made or damaged equipment returned, written permission must be obtained from Air Technical Industries. Labor to replace defective components is not considered part of the warranty.

NOTE: Does not apply to 48 x 48 units

RE: Proximity sensors inside clamp frame of Upender Inverter

The limit switches included on the Upender Inverter that are installed in the frame are not intended for the purpose of limiting clamp travel. They are related to a hydraulic function and can be disregarded as they serve no active purpose related to your regular operation of the equipment.

The reason they are installed is to act as a "pressure-reducing" safety feature, and to understand their purpose requires a little background into the operation of the hydraulic scissors lift that is used as the clamping device. The force required to lift a load is dependent on the angle of the hydraulic cylinders and the scissors. The highest force and therefore, highest pressure required is with the lift in its lowest position, what we call "break load pressure". As the lift raises, this angle improves (improved mechanical advantage) and therefore less force (and pressure) is required to continue to lift the load.

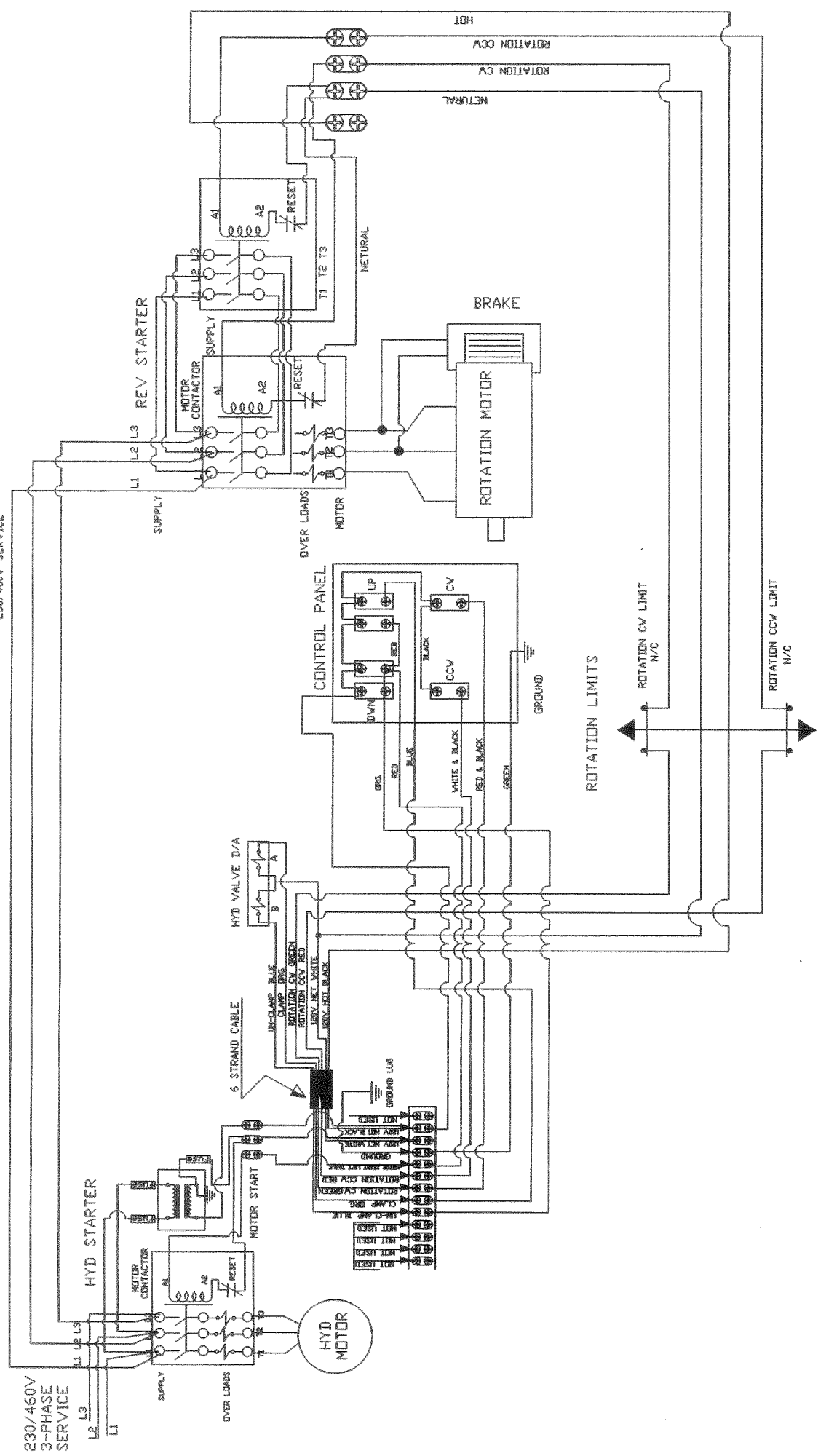
If you have a small load that requires the clamp to be closed approximately 50% or more, the pressure required to raise that load may be several hundred PSI less than the break load pressure and so once the load is clamped, before the built-in, factory pre-set pressure relief valves are activated, all that additional pressure will go into the clamping force, potentially damaging the load or causing internal damage in the clamp itself. So we have installed this pressure reducing safety feature to reduce the pressure relief setting once the clamping reaches a certain level where the required pressure to lift the load is significantly reduced.

If your load is very large and almost fills the fully open clamp, you will never engage this feature. It is still important for the operators to know not to over-clamp the load, as this feature does not operate precisely, and depending on the type of load, the clamping force may still need to be engaged carefully. Further, if the unit is loaded in the inverted position where the clamp comes down from the top, then very little pressure is required to operate the clamp, and so the same concern may exist throughout the range of travel. Basically, the safest method of operation is to never operate the clamping function for more than 2 seconds after touching the load.

Clamping mechanism and hydraulic powerpack parts

Motor						POWER CORD						
ITEM	HP	QTY	VOLTS	PHASE	TYPE	Part Number	ITEM	10	110VOLT	1 PHASE	16-3	PE316AC80
	1	1	110	1	TANG	PETM11110		8'-0"	110VOLT	1 PHASE	12-3	PEEW03120
	1	1	220	3	TANG	PETM13220		8'-0"	220/440	3 PHASE	12-4	PEEW04120
	1	1	110	1	SHAFT	PESM11110		ITEM 11 DIN CONNECTOR W/CORD W/ LOWERING VALVE				
	1	1	220/440	3	SHAFT	PESM13110		ITEM 12 LOWERING VALVE WITH DIN CONNECTOR				
	1	1	575	3	SHAFT	PESM13575		12 VOLT		1/4" NPT		M2HLV0122DIN
	2	1	110	1	TANG	PETM21110		110 VOLT		1/4" NPT		M2HLV110VDIN
	2	1	220	3	TANG	PETM23220		110 VOLT		3/8" NPT		M2HLV1103DIN
	2	1	110	1	SHAFT	PESM21110		ITEM 13 VENT PLUG PH03VENT0				
	2	1	220/440	3	SHAFT	PESM23220		ITEM 14 HYDRAULIC HOSE				
	2	1	380	3	SHAFT	PESM23380		1/4"	10"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020100
	2	1	575	3	SHAFT	PESM23575			12"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020120
	3	1	110	1	TANG	PETM31110			16"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020160
	3	1	220	3	TANG	PETM33220			18"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020180
	3	1	110	1	SHAFT	PESM31110			24"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020240
	3	1	220	1	SHAFT	PESM31220			36"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020360
	3	1	220/440	3	SHAFT	PESM33220			48"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020480
	3	1	380	3	SHAFT	PESM33380			60"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020600
	3	1	575	3	SHAFT	PESM33575			72"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020720
	5	1	220	3	TANG	PETM53220			84"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020840
	5	1	220/440	3	SHAFT	PESM53220		3/8"	96"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE020960
	7.5	1	220/440	3	SHAFT	PESM75322			12"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030120
	7.5	1	380	3	SHAFT	PESM75338			16"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030160
	7.5	1	575	3	SHAFT	PESM75357			18"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030180
	10	1	220	3	SHAFT	PESM10322			24"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030240
	10	1	575	3	SHAFT	PESM10357			36"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030360
	4AM	1	AIR MOTOR		SHAFT	PN4AM0000			48"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030480
	6AM	1	AIR MOTOR		SHAFT	PN6AMFRV0			60"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030600
	8AM	1	AIR MOTOR		SHAFT	PN8AMFRV0			72"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030720
									84"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030840
									96"	HYDRAULIC HOSE WITH M/F ENDS		M2HOSE030960
ITEM 2 PUMP							ITEM 15	3/8" x 1/4" O-RING ADAPTER				PH6405060400
	HP	QTY	SIZE	TYPE		Part Number	ITEM 16	2 3/8" FL X 1/4" NPT M RN-T				PH2605060406
	1	1	0.48	Tang		PHP0048T0	ITEM 17	1/4" NPT M X 1/4" F 90 ELL				PH5502040400
	1	1	0.48	Shaft		PHP0048S0	ITEM 18	1/4" CLOSE NIPPLE				PH5404N04CLS
	2	1	0.96	Tang		PHP0096T0	ITEM 19	3/8" FLARE X 3/8" O-RING ELL				PH6801060600
	2	1	0.96	Shaft		PHP0096S0	ITEM 20	3/8" NPT M X 1/4" NPT F 90 ELL				PH5502060400
	2	1	1.44	Tang		PHP0144T0	ITEM 21	3/8" NPT F ALL THREE SIDES				PH5605060606
	2	1	1.44	Shaft		PHP0144S0	ITEM 22	VALVE BASE				
	3	1	1.93	Tang		PHP0193T0		HXV/WK	1/4"			PHSP02D03
	3	1	1.93	Shaft		PHP0193S0		BOSCH	3/8"			PHSP03D03
	3	1	2.41	Tang		PHP0241T0		SPERRY	3/8"			PHSP03PRT
	3	1	2.41	Shaft		PHP0241S0	ITEM 23	HYDRAULIC VALVE				
	5	1	2.89	Tang		PHP0289T0		BOSCH	12 VOLT			PHV4W1201
	5	1	2.89	Shaft		PHP0289S0		BOSCH	24 VOLT			PHV4W2401
	5	1	3.86	Tang		PHP0386T0		BOSCH	110 VOLT			PHV4W1150
	5	1	3.86	Shaft		PHP0386S0	ITEM 24	1/4" X 1 1/2" NIPPLE				PH5404N04150
	7.5	1	5.30	Shaft		PHP0561C0	ITEM 25	3/8" NPT F THREE SIDES				PH5605060606
	7.5	1	6.55	Shaft		PHP0672C0	ITEM 26	PRESSURE RELIEF VALVE				PHMPPRV10
	10	1	7.87	Shaft		PHP0787C0	ITEM 27	PNEUMATIC VALVE				PNUMATIC0
	10	1	8.96	Shaft		PHP0883C0	ITEM 28	PNEUMATIC SOLENOID VALVE				
	15	1	12.31	Shaft		PHP120000		COMPACT				PHAVSA000
	20	1	13.44	Shaft		PHP1344C0		COMPACT				PHAVDA000
ITEM 3 FLOW CONTROL VALVE							ITEM 29 MOTOR/PUMP COUPLINGS					
	1		1/4"	FLOW CONTROL		PH02MFCV0	LOVEJOY	4375" BORE				PTL090070
	2		1/4"	FLOW CONTROL		PH02MFCV0	LOVEJOY	5" BORE				PTL090080
	3		1/4"	FLOW CONTROL		PH02MFCV0	LOVEJOY	625" BORE				PTL090100
	5		3/8"	FLOW CONTROL		PH03MFCV0	LOVEJOY	875" BORE				PTL090140
	7.5		3/8"	FLOW CONTROL		PH03MFCV0	LOVEJOY	5" BORE				PTL100080
	10		3/8"	FLOW CONTROL		PH03MFCV0	LOVEJOY	625" BORE				PTL100100
	15		1/2"	FLOW CONTROL		PH04MFCV0	LOVEJOY	75" BORE				PTL100120
ITEM 4 TANK CONSULT FACTORY							LOVEJOY	875" BORE				PTL100140
ITEM 5 PUSHBUTTON							LOVEJOY	1" BORE				PTL100180
	2		2 BUTTON			PE2STAPB0	LOVEJOY	1.125" BORE				PTL100180
	4		4 BUTTON			PE4STAPB0	LOVEJOY	1.25" BORE				PTL100200
	6		6 BUTTON			PE6STAPB0	LOVEJOY	1.375" BORE				PTL100220
	8		8 BUTTON			PE8STAPB0	LOVEJOY	1.4375" BORE				PTL100230
ITEM 6 FOOT PEDAL							LOVEJOY	625" BORE				PTL110100
	SINGLE ACTING			2 PEDAL		PETWINFP0	LOVEJOY	75" BORE				PTL110340
	DOUBLE ACTING			2 PEDAL		PETWINFP2	LOVEJOY	875" BORE				PTL110140
	AIR MOTOR			2 PEDAL		PNAFFP34F0	LOVEJOY	1.625" BORE				PTL110158
ITEM 7 TANK STRAINER PH0403STR							ITEM 30 1 AIR LINE PNAFAH400					
ITEM 8 HANDY BOX							CALL AIR TECHNICAL INDUSTRIES TODAY FOR YOUR PARTS AND ALL YOUR MATERIALS HANDLING NEEDS					
	LID					PEPC2X400	1-440-951-5191 VOICE					
	BOX					PE224HB00	1-440-953-9237 FAX					
ITEM 9 MOTOR CORD							1-888-857-6272					
	1'-6"		110VOLT	1 PHASE	16-3	PEEW03160						
	1'-6"		10VOLT	1 PHASE	12-3	PEEW03120						
	1'-6"		220/440	3 PHASE	12-4	PEEW04120						

230/460V SERVICE



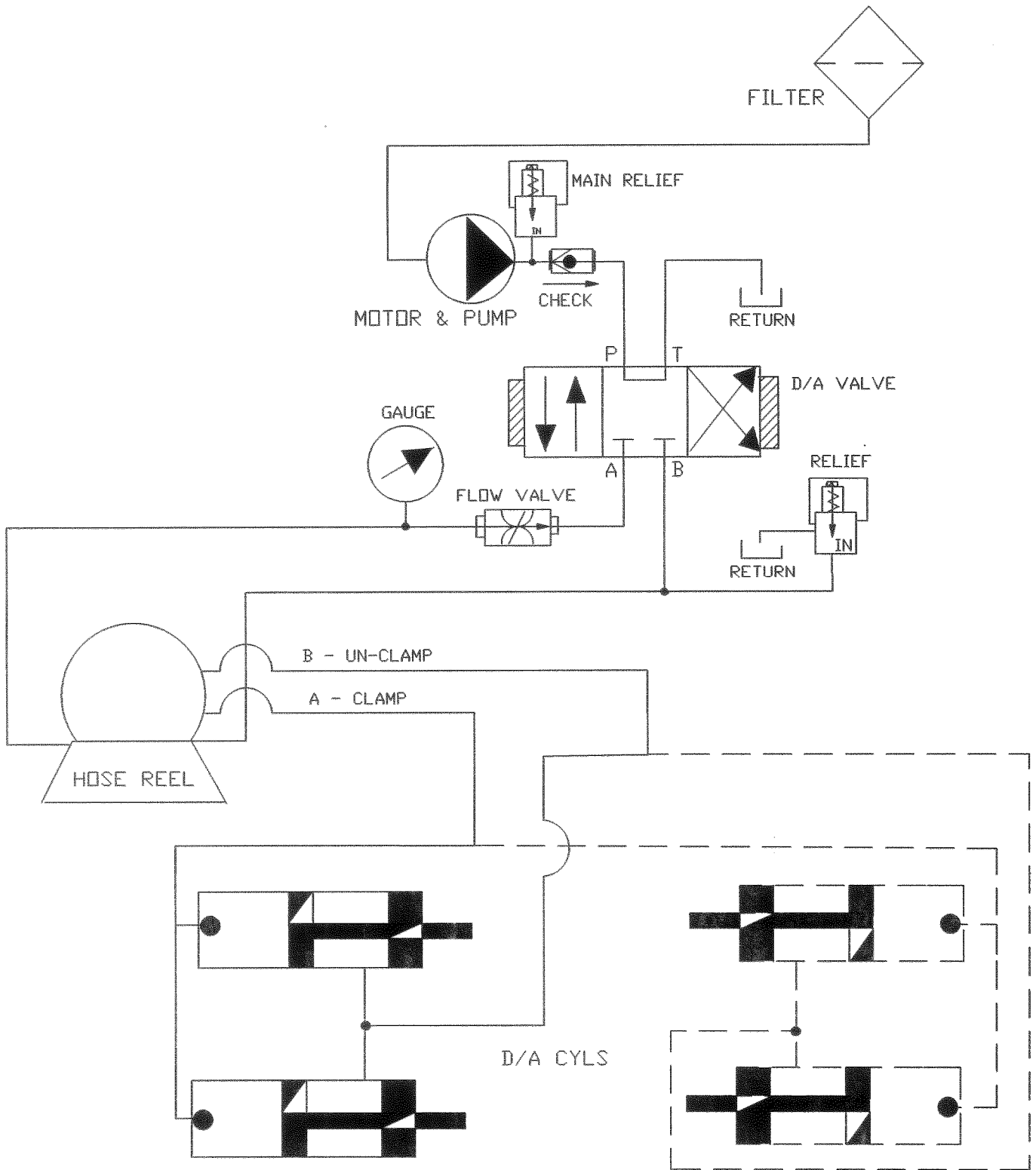
Air Technical Industries
 7501 CLOVER AVE. - MENTOR, OHIO

TITLE ELECTRICAL SCHEMATIC
 ALL MODELS 48x48

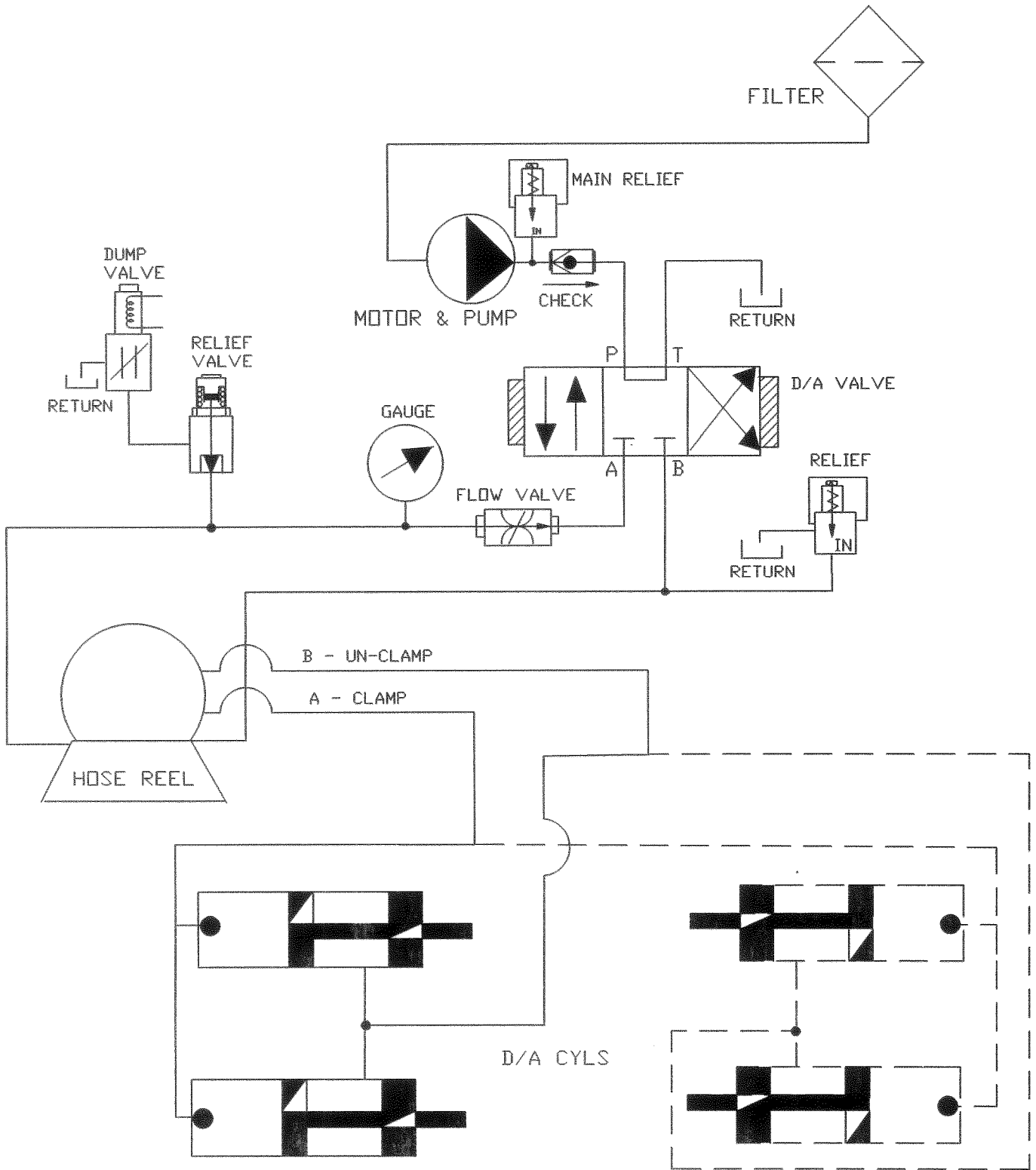
PART No. UT MATERIAL

DATE 7/26/2012 SCALE N.T.S.

DRAWN V/N APPROVED



Air Technical Industries 7501 CLOVER AVE. - MENTOR, OHIO			
TITLE ALL MODELS 48x48			
UI - HYDRAULIC SCHEMATIC			
DWG. Type		MATERIAL	
DRAWN VN	DATE 7/26/2012	SCALE N.T.S.	REVISION -



Air Technical Industries
7501 CLOVER AVE. - MENTOR, OHIO

TITLE ALL MODELS 48x72 OR 54x96			
UI - HYDRAULIC SCHEMATIC			
DWG. Type		MATERIAL	
DRAWN VN	DATE 7/26/2012	SCALE N.T.S.	REVISION -

USE THESE HANDY ORDER BLANKS TODAY

FAX TO 1-440-953-9237

OR CALL TOLL FREE:

1-888-857-6272



7501 CLOVER AVENUE
MENTOR, OH 44060

BILL TO _____

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

ORDER NO. _____ PHONE _____

I am charging \$ _____
to my:



SHIP TO _____ NAME _____

ADDRESS _____

CARD NO.

Ship open account. We are rated in Dunn & Bradstreet.

EXP. DATE

Enclosed is full amount. TOTAL

QTY.	MODEL	DESCRIPTION (please print clearly)	PRICE EACH	TOTAL PRICE

All foreign payments must be in U.S. funds.

Ship via _____

All prices are F.O.B. factory unless marked otherwise.

Prices subject to change without notice.

AMOUNT FOR GOODS	
SALES TAX (OHIO ONLY)	
POSTAGE OR FREIGHT	
TOTAL AMOUNT OF ORDER	
AMOUNT ENCLOSED	

FAX TO ATI: 440-953-9237

I NEED A QUOTE FOR THE FOLLOWING PARTS:

<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____

Table Model # _____	Serial Number _____
COMPANY _____	
NAME _____	TITLE _____
ADDRESS _____	
CITY _____	STATE _____ ZIP _____
PHONE _____	FAX _____

RETURN GOODS AUTHORIZATION POLICY

It is Air Technical Industries policy that any and all returns must have a return goods authorization on file before any credit will be issued. A return goods authorization form can be obtained by calling our Customer Service Department. Any parts or product must be returned and inspected to validate any warranty or defect claim before any credit will be issued. Any items returned without authorization on file will not be issued a credit as no claim has been established.

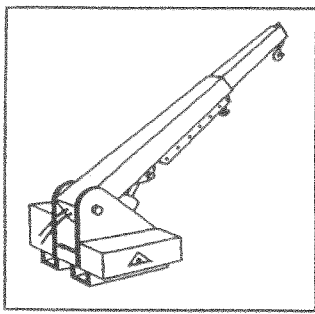
To establish a valid claim the customer must use the following procedure:

- ◆ Call Air Technical Industries customer service department for a Return Goods Authorization form
- ◆ Sign and return by fax a copy for Air Technical Industries file.
- ◆ Use this form as a packing slip for return shipment.
- ◆ Return all parts or products for inspection to validate claim.

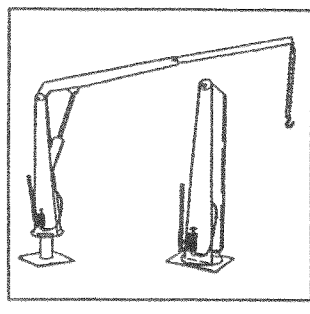
RETURN AND CREDIT POLICY

It is Air Technical Industries policy that any and all returns or warranty claims once established to our satisfaction as a valid claim will be issued a **CREDIT** on the customer's account. This credit can be used for purchase of New Product, Replacement Parts, and Service; **at no time will a cash refund be issued.** If a credit is issued under special circumstances, that credit can only be used as specified in a written agreement made between Air Technical Industries and the customer. This agreement must be made at the time the claim is established. Air Technical Industries has worked under this policy for over 37 years. Air Technical Industries will not change this policy to suit any individual customer regardless of past sales history.

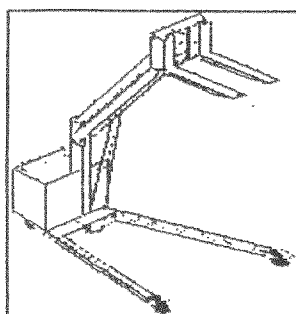
Thank you,
Air Technical Industries



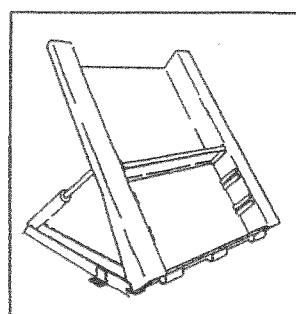
JibMaster



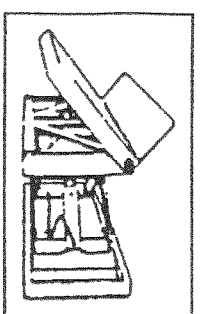
Truck mounted Foldable Crane



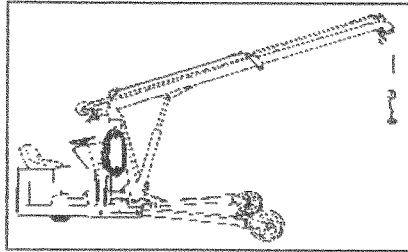
Universal Lift



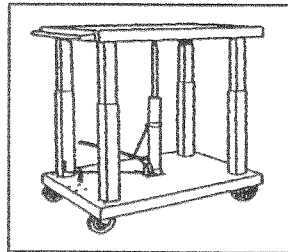
Zero-Low Crate Positioners



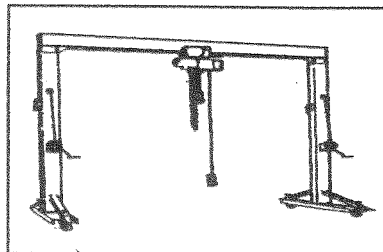
Lift & Tilt Tables



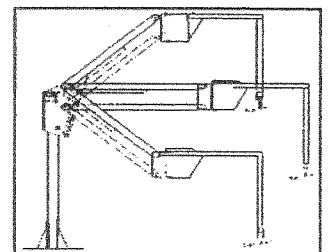
Port-O-Giant



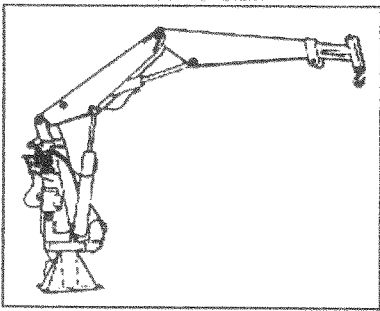
Post Tables



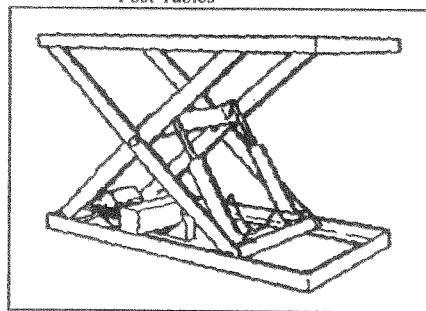
Gantry Cranes



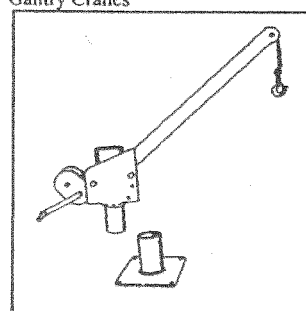
Articulating Manipulator



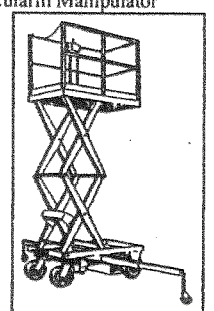
Knuckle Cranes



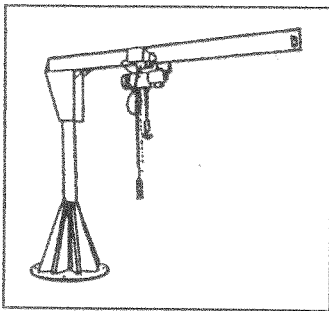
Scissor Lift Tables



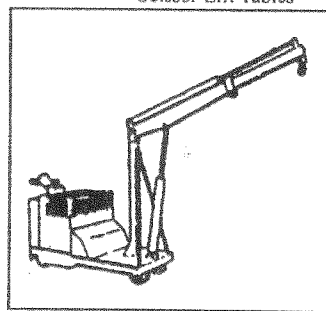
Truck Mounted Pick-Up Crane



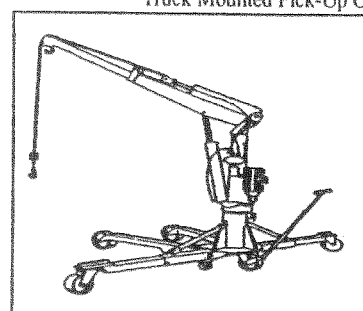
Maintenance Lifts



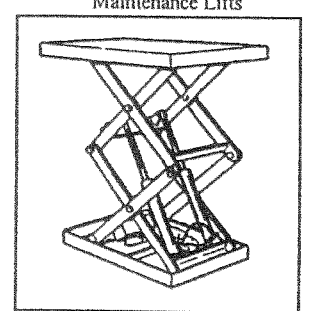
Floor Mounted Jib Cranes



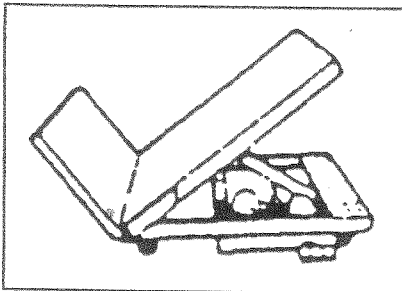
Reversible Boom Crane



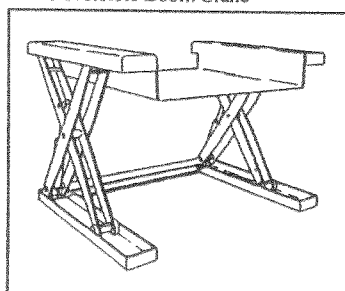
Super Master



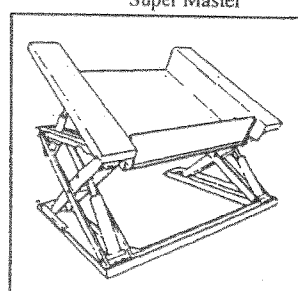
Double Scissor Lift Table



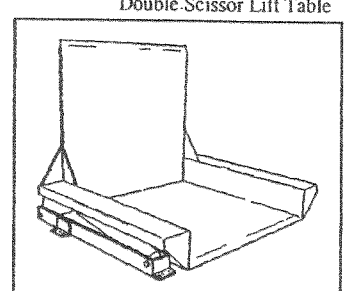
Crate Positioner



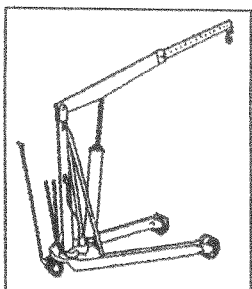
Zero-Low Lift Table



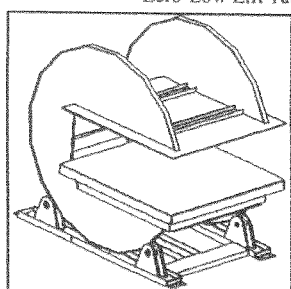
Zero-Low Up-Enders/Positioner



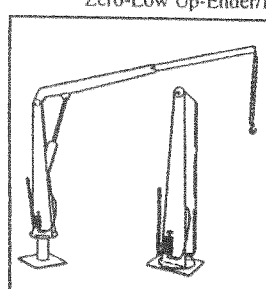
Zero-Low Lift & Tilt



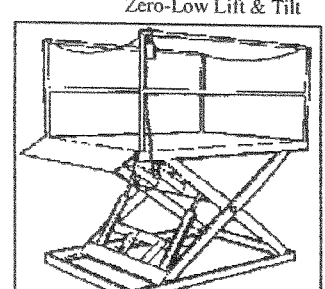
Husky Master



Uppender-Inverter



Truck Mounted Foldable Crane



Magic Dock Scissor Lift