PRESENTED BY:

CREATIVE PACKAGING MACHINERY, INC.

YOUR DISTRIBUTOR IS: _____

_____

_____

_____

MODEL NO.: _____

SERIAL NO.: _____

JANUARY 1995

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INTRODUCTION

CREATIVE PACKAGING MACHINERY, INC. is a full service company dedicated to developing, importing, manufacturing and world wide marketing of advanced specialized flexible packaging machinery, product handling, and weighing equipment. Over ten years of solid engineering experience has developed an ever-expanding and diversified line of equipment. Whether the operation is small, medium or large, flexible packaging equipment users the world over have increased profits, production efficiency, and quality control utilizing C-PAK equipment.

New users for C-Pak equipment are constantly being explored and developed to meet the ever-changing needs of all kinds of industry.

CREATIVE PACKAGING MACHINERY, INC., headquarters is located in Oakboro, North Carolina, and visitors are welcome and encouraged to observe the precision and quality which go into all C-Pak systems.

UNPACKING:

Check for visible damage. If any damage is noted it is your responsibility to contact the freight carrier.

ELECTRICAL CONNECTIONS:

Check plate on front of machine. Most machines are wired 220 volts, 1 phase, 20 amps and require an equipment ground for safety.

CAUTION: Excessive voltages will damage the machine.

SET-UP:

Connect the machine to source for air.

Plug machine into 220 single phase power source.

Set heat adjustment on seal bar so there is a very little gap between the switch and the screw Section AA of schematic. About 1/16".

Set dwell timer on .5 seconds for PVC film and less on Polyolefin film.

Set conveyor timer for as much time as is needed to get another package in the machine. Every package does not have to leave the conveyor belt completely. Check air gauges to be sure the main air is on 40 Lbs. and cushion regulator is on 40 Lbs. These are approximate settings.

START-UP:

Put film on film rack with centerfold towards the back of the machine. Open film and separate layers with the loading tray.

Pull film so the layers are covering the seal cushions and cycle the machine.

Continue adjusting the compensator switch in the upper left corner of the seal head in very small increments until the film is sealed and cut. BE SURE TO TIGHTEN THE WING NUT.

Set the conveyor height so the seal will be in the middle of the package.

Film must lay smooth on the seal pads with no tension.

Seal wires must not be bent or kinked. They must lay in beads smoothly.

SAFETY

The C-PAK L-Sealer is designed for safe operation in an industrial environment. It is C-PAK's goal to provide safe equipment for our customer's use, along with the best performance. We do everything possible to assure our machines are safe; you must do your part to see that they stay safe — and are used safely. It is the customer's responsibility to train operators and servicemen in the use and maintenance of this machine. All adjustments, maintenance and use must be in accordance with instructions provided in writing by Creative Packaging Machinery, Inc.

PLEASE NOTE THE FOLLOWING SAFETY PRECAUTIONS:

- This machine "AS SOLD" may not be equipped with all available options to comply with applicable codes and local laws in its stated functions. It is the responsibility of the owner to equip the machine to meet these requirements.

- This machine is designed and equipped to perform as described herein. Its function may be impaired and personnel endangered by unauthorized modifications, additions or deletions, or the use of supplies, parts and products that do not meet manufacturers specifications as described herein.

PERSONAL PROTECTION

- It is the owner's representative review machine operator's function and facility for proper application of OSHA and other applicable codes regarding such items as close fitting clothes, gloves, exhaust provisions, solvents, cleaners, fire-extinguishers, and facility signs and labeling.

CREATIVE PACKAGING MACHINERY, INC. cannot be liable for any injury resulting from unauthorized use or misuse of this equipment.

OPERATIONAL SAFETY:

- This unit, unlike most industrial machinery, is designed for operation by trained and alert operators. It is imperative that operators be alert when operating this machine and that they do not let an unsafe condition occur. The operator should shut off the machine and correct such conditions.

- If any hazards are observed, they should be immediately reported to CREATIVE PACKAGING MACHINERY, INC., the group responsible for the safety, testing and evaluation of C-PAK products.

- At all times, observe the warning signs on the machines and utilize guards as intended. Keep hands and arms away from moving parts, except where the prescribed sorting and orienting is to be accomplished. Make sure everyone is clear of machine before it is started, and make sure the operators are informed of the location and operation of the STOP control(s).

- All maintenance, cleaning and adjustments on this machine must be performed with power OFF. Guards must never be removed when machine is in operation.

- Failure to observe safety precautions could result in serious injury or property damage.

OPERATIONAL SEQUENCE

When both start buttons are pressed, the start relay is energized and power is applied to the head valve; at the same time the compensator transformer is energized. The magnets are energized and the head descends. As long as the safety switch at the rear of the machine is closed and holding the start relay holding circuit, the seal head will come down until the magnets lock the seal head in the down position. When this occurs, the seal cushion switch attached to the rear of the machine under pivot mount plate (See "Cushion" on schematic) will energize the cushion valve and the cushion assembly will start upward, applying pressure against the seal wire and head assembly. The heat switch will close at almost the same instant the cushion activates.

It is very important that the heat cycle switch does not start the heat cycle too early because you will need a high heat setting and have premature element burn outs.

The next sequence is for the cushions to come up; the heat turns on; a seal is made; and the compensator switch will close when the wire expands and makes contact with the switch at this moment. The dwell timer will start and run to the designated setting and the head will return to the up position. It should be understood that the compensator switch is 24 volt and it controls the compensator relay but also will stop the main pulse contractor from firing again if the machine has not made a complete cycle.

When the head is on the way up the conveyor switch will activate the conveyor timer that will activate the conveyor relay and the conveyor will run for what ever time has been set.

Machine is now ready for another cycle.

TROUBLE SHOOTING

NO MACHINE START:

- Circuit breaker off or on power to machine
- Start button not working
- Stop button not working
- Safety switch in back not set correctly or broken
- Start relay not working
- Head valve coil or valve defective

NO CUSHION PRESSURE:

- Switch under pivot plate is out of adjustment or broken (See cushion schematic)
- Air to cushion valve too low (Must be 35 to 40 PSI)
- Valve defective

MAGNETS NOT HOLDING:

- Bridge rectifier open
- Magnets burned out
- Air pressure too high
- Magnet feet out of adjustment

NO HEAT:

- Heat switch out of adjustment (See detail A of schematic)
- Fuses blown in control panel
- Contactor coil open
- Contractor points defective
- Compensator switch gap set too close or switch broken
- Broken wire in seal head on main lines coming from fuses
- Pulse transformer open

SEAL WIRES BURNING OUT:

- Seal heat too high
- Adjust compensator switch (See detail AA of schematic) by turning thumb screw clockwise until there is approximately 1/16" gap between the compensator switch and the screw head.
- Heat wire improperly installed
- Fuse blown on 24 VAC control transformer

CONVEYOR NOT OPERATING:

- Conveyor switch in rear out of adjustment and not resetting timer on down cycle
- Conveyor relay defective
- Conveyor timer defective
- Conveyor motor not working or broken/conveyor drive belts
- Capacitor on motor defective

DWELL TIMER ACTIVATES OUT OF SEQUENCE:
(HEAD MOVES TOO QUICKLY)

- Switch in front cushion out of adjustment (See detail A of schematic)
- To adjust, turn the screw clockwise until it is tight. At that point, cycle head will not come up. Press emergency stop button and the head will return to the open position. Turn screw counter-clockwise 1/4 turn to cause machine to cycle correctly. Continue to turn counter-clockwise 1/4 turn until you can see the cushion come up and compensator will move wire.

MAINTENANCE

GENERAL INFORMATION

A major breakdown of any machine can be expensive because of production delays and idle personnel. Common production policy includes a program of preventive maintenance both to increase the productive life of a machine and prevent unnecessary down time.

A recommended spare parts list is included in this manual so the customer can have on hand parts that are critical to the operation of the C-PAK L-SEALER. Additional information regarding recommended spares for a one year check-up and major overhauls may be obtained from CREATIVE PACKAGING MACHINERY, INC. We also recommend that service personnel who will be responsible for the operation and maintenance of this unit familiarize themselves with this service manual.

It is suggested that a regular schedule of maintenance procedures be set up for end of shift, daily, weekly, monthly and annual maintenance. Since operating conditions vary, depending on volume, product, season and facilities, all maintenance schedules, check lists and inspection procedures must be established to suit use and conditions.

Items which should be included in any inspection and maintenance check list include, but are not limited to, checks of the lubrication system, wear checks on all moving parts, regular lubrication schedules, periodic operation inspections. Motors should be maintained on a regular schedule with other plant motors.

It is also recommended that a daily schedule be established for general cleaning of the unit.

TECHNICAL ASSISTANCE:

For technical assistance, please contact CREATIVE PACKAGING MACHINERY, INC. of Oakboro, North Carolina, at (704) 485-4815. Be prepared to give the following information:

Equipment name, model and serial number

Date of purchase

Description of problem

LUBRICATION

Regular lubrication of the bearings on the C-PAC L-SEALER accomplishes a two-fold purpose:

1) Provides a constant supply of lubricant to the bearings

2) Flushes out any contamination, whether it be water, products, etc.

The amount of frequency of lubrication applied to each bearing is also important and will vary from one installation to another and may depend on operating conditions.

We recommend lubricating after each 8 hours of operation with a sufficient amount of grease to purge any contamination. Two or three shots of grease should be sufficient at each lubricating point.

With proper amounts of lubrication and regular preventive maintenance, the C-PAK L-SEALER will continue to perform reliably with minimal wear.

CLEANING

It is recommended a daily schedule be established for routine and general cleaning of the machine. Use an air hose and nozzle to blow off dust, excess product, etc. during each cleanup. Always grease before clean-up, wiping off any excess grease before operation.

SET UP INSTRUCTIONS FOR L-SEALER

1. Disconnect the electrical power and air supply by turning the main circuit breaker off and by removing the two fuses inside the electrical box and by shutting off supply at regulators on back of machine. With the electrical and air supply disconnected the upper seal jaw assembly will come to rest in the down position, at this point set an 11/16 .687 block between seal jaw assembly and main frame in the right corner facing the start switches.

2. Adjust magnet pads to sit flat on magnets. CAUTION: Be careful not to jack the seal jaw up off the 11/16 block while adjusting the magnet pads or cushion.

3. Check seal cushion and seal wire clearance by spacing film clamps upwards using pins or small screwdrivers in holes provided. If gap exists and adjustment is required, remove product conveyor.

4. Product conveyor is removed by removing hand crank and unplugging electrical connector (it will require (2) two people to safely remove unit). With conveyor removed, most machine adjustments are accessible.

5. Adjustments of seal surface "gap" is the main source of problems and is the area of the machine with the most adjustment opportunities. Adjust seal surface "gap" as follows:

   Loosen positive stops on lower seal jaw assembly (bolt with lock nut on frame). Turn bolts counter clockwise until a larger gap is seen between the bolts and stops than is seen between the lower seal jaw and the seal jaw.

   Loosen jam nuts on cylinder rods and turn cylinder pivots to eliminate gap between seal wire and lower seal jaw (cushion). See CAUTION in Item 2. After eliminating air gap, tighten jaw nuts on cylinder rods. With seal in this position do the following:

   With seal wire in this position, turn breaker back on (with fuses out) and connect air supply, regulate at 40 PSI.

   Cycle machine — upper jaw assembly goes down, lower jaw assembly comes up. With the two (2) fuses out of the machine, locked in position, turn positive stop screws clockwise until no gap exists. Turn approximately 1/2 turn further and tighten lock nut.

SET UP INSTRUCTIONS FOR L-SEALER (CONTINUED)

To achieve proper pressure between upper and lower seal jaw assemblies, use a piece of 8-1/2 by 11 writing paper as a feeler gauge. Repeat this several times while cycling machine. If lack of pressure is experienced, turn positive stop bolt nearest of weak pressure counter counter-clockwise 1/2 turn, testing each time until proper and even pressure is acquired.

Tighten jam nuts on positive stops.

Replace fuses in electrical cabinet and cycle machine several times to assure proper operation of components. Now, try sealing and cutting.

Machine should operate smoothly without banging or a hard clomping noise.

Air cylinder cushion and speed are factory adjusted and should not require field adjustment. Call for service.

Heat (seal and cut) is adjusted by the compensator screw on the wire take-up assembly. The gap will usually be approximately 1/16", depending on film used. For more heat — you need a larger gap, for less heat — a smaller gap. On any film you should not have to run hot enough to burn through a piece of tissue. The dwell timer is usually set on .5 seconds.

All other switches and limits are factory set and should only require adjustments if replaced or broken. Physical measurement of existing parts location should be a good starting reference.

RECOMMENDED SPARE PARTS LIST

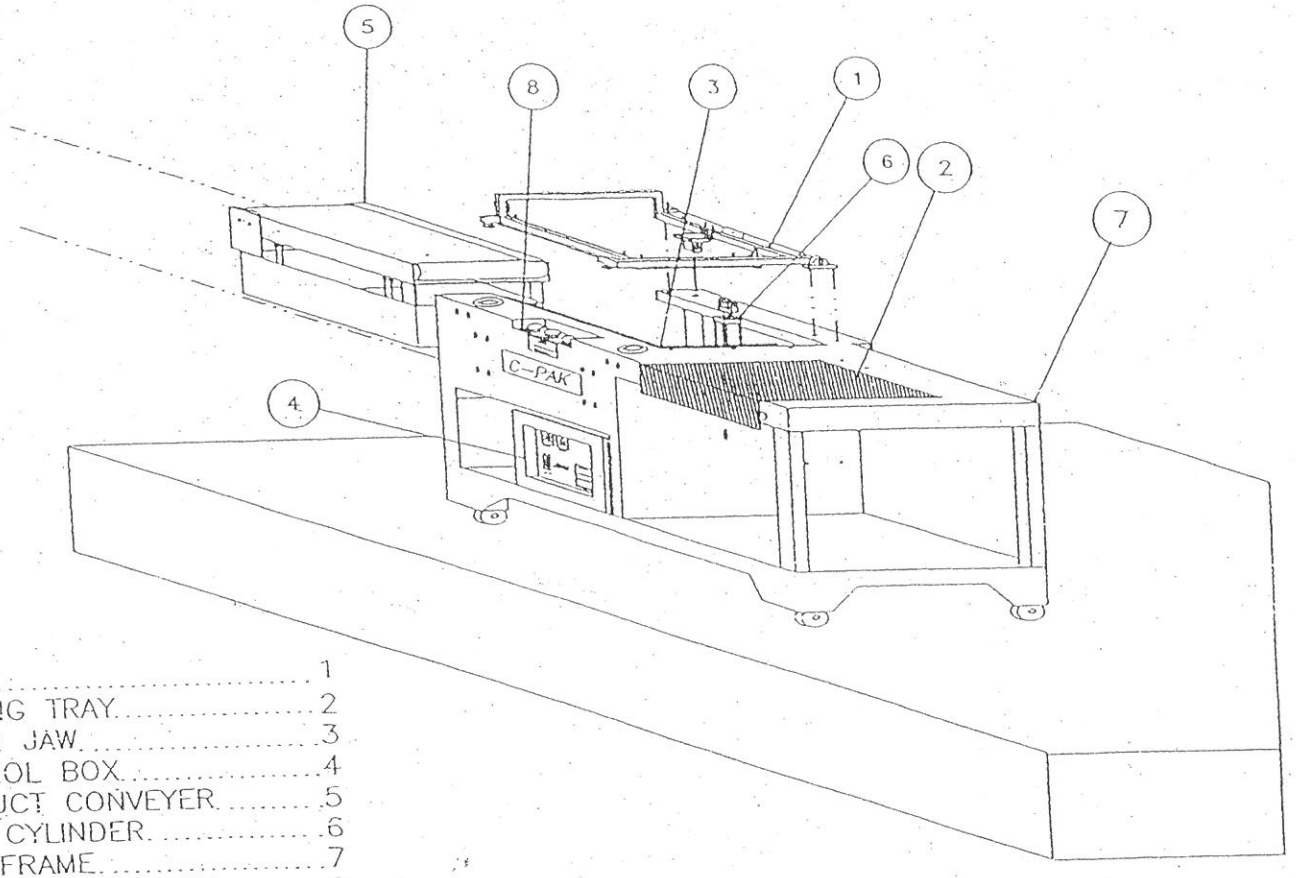
GENERAL INFORMATION

Like all machinery, C-PAK packaging equipment will require adjustments and/or replacement of worn parts. Parts for the C-PAK machinery are listed on the various different assembly drawings, assembly lists and general parts list, included in this manual.

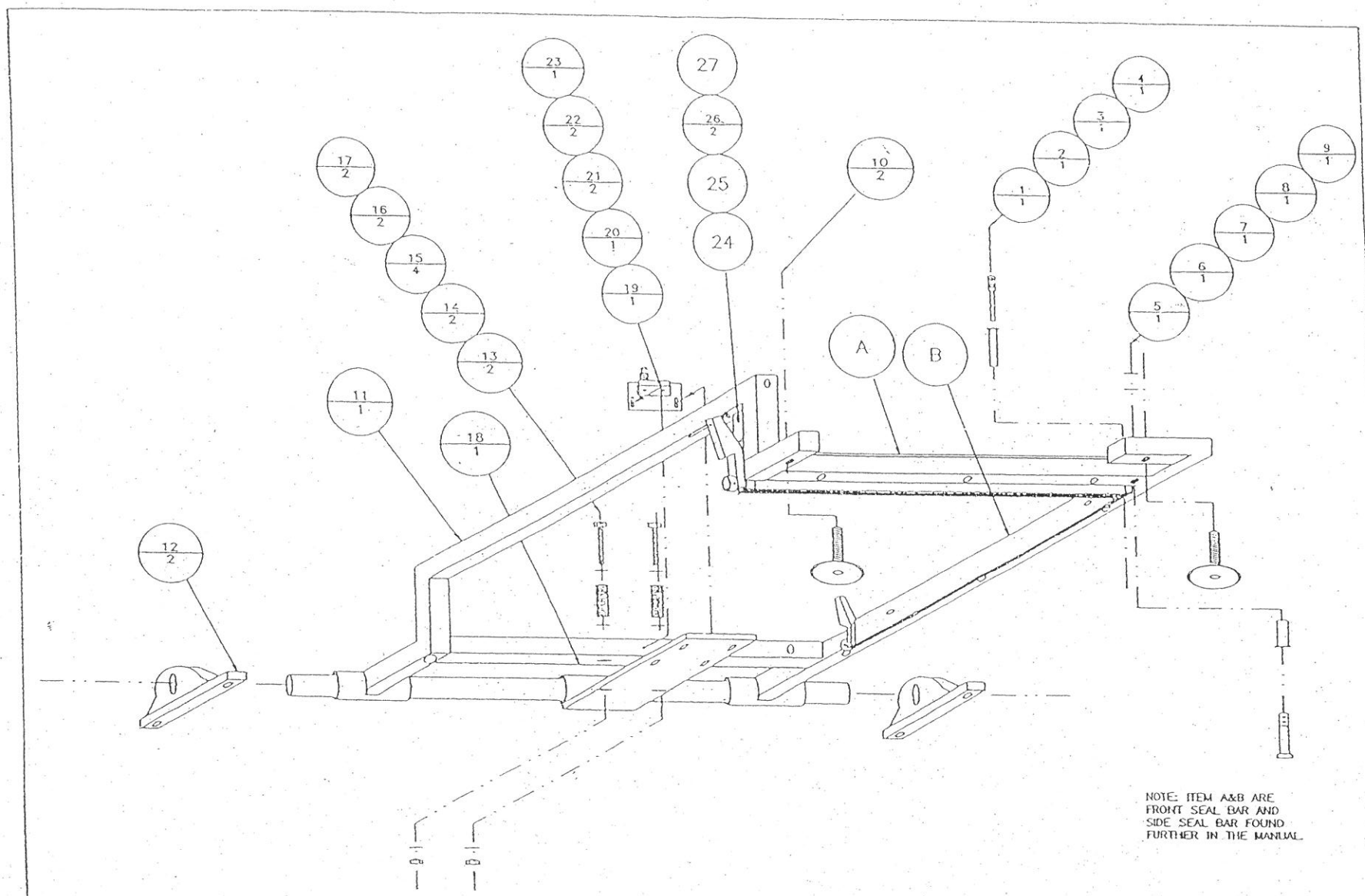
We recommend the following parts be kept on hand as spares to help in preventing unnecessary down time.

PART NUMBER	QUANTITY	UNIT MEASURE	DESCRIPTION
110060	1	EACH	8 – PIN RELAY
110052	1	EACH	11 – PIN RELAY
140070	1	EACH	2" GLASS TAPE 18 YARDS
140060	1	EACH	3/4" GLASS TAPE 35 YARDS
130051	1	EACH	CUSHION RUBBER
150311	1	EACH	CORNER POST ASSEMBLY SHORT NEW
150321	1	EACH	CORNER POST ASSEMBLY LONG NEW
150300	1	EACH	WIRE MOUNT ASSEMBLY
110200	1	EACH	SEAL WIRE .040" SOFT
910040	1	EACH	MICRO SWITCH

BASIC IDENTIFICATION OF MACHINE



HEAD 1
LOADING TRAY 2
LOWER JAW 3
CONTROL BOX 4
PRODUCT CONVEYER 5
HEAD CYLINDER 6
MAIN FRAME 7
OPERATORS STATION 8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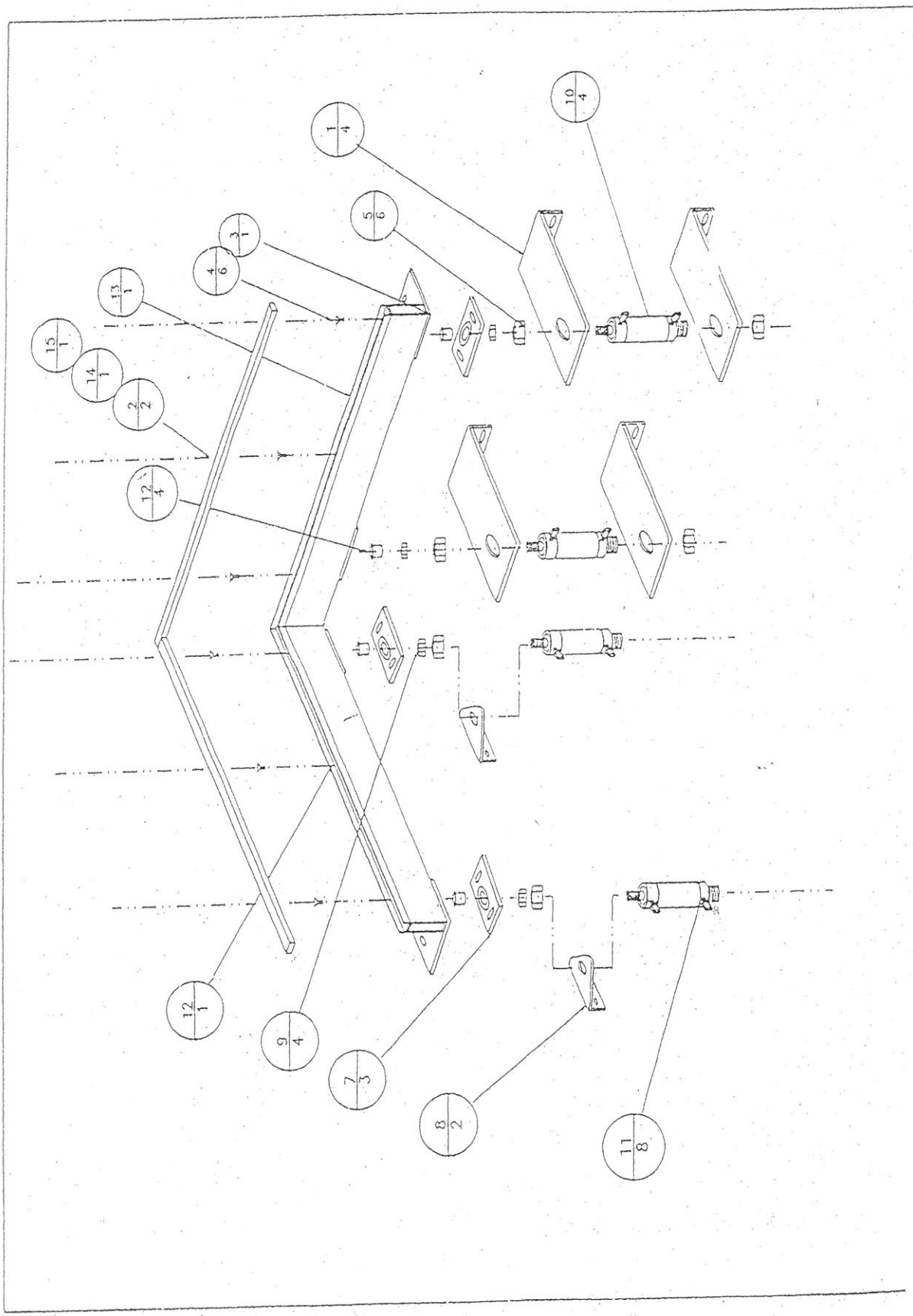
A
B
4/1
3/1
2/1
1/1
9/1
8/1
7/1
6/1
5/1
NOTE: ITEM A&B ARE FRONT SEAL BAR AND SIDE SEAL BAR FOUND FURTHER IN THE MANUAL.

C-PAK MATERIAL LIST	MATERIAL LIST FOR: HEAD	REV ---
TITLE: HEAD ASSEMBLY	SHEET 1 OF 2 SHEETS	
	DATE JANUARY 26, 1995	

ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	100091	1	EA	CORNER POST-SHT-NEW			
2	150202	1	EA	SEAL BAR BUSHING-NEW			
3		1	EA	6-32 x 1/4 S.B.H.S. (SS)			
4		1	EA	8-32 x 1/2 P.H.M.S.			
5	100072	1	EA	CORNER POST-LONG-NEW			
6	150204	1	EA	CORNER POST BUSHING-L			
7	150203	1	EA	INSULATOR WASHER			
8	100071	1	EA	E-RING			
9	110090	1	EA	SHUNT WIRE			
10	150050	2	EA	MAGNET PAD			
11	MODEL #	1	EA	HEAD			
12	100180	2	EA	HEAD BEARING			
13		2	EA	1/4-20 x 3-1/4 GRD. 5			
14	100105	2	EA	SAFETY SWITCH SPRING			
15		4	EA	6mm FLAT WASHER			
16		2	EA	1/4-20 HEX NUT			
17		2	EA	1/4 LOCK WASHER			
18	100100	1	EA	SAFETY SWITCH HINGE			

C-PAK MATERIAL LIST					MATERIAL LIST FOR: HEAD		REV ---
TITLE: HEAD ASSEMBLY					SHEET 2 OF 2 SHEETS		
					DATE JANUARY 26, 1995		
ITEM #	PART #	QTY.	UM	DESCRIPTION	REV	SIZE	REMARKS
19	910040	1	EA	MICRO SWITCH			
20	100020	1	EA	SAFETY SWITCH BRKT.			
21		2	EA	6-32 X 1-1/4 PPHS			
22		2	EA	10-32 X 1/2 RPHS			
23	910150	1	EA	MICRO SWITCH COVER			
24	110030	1	EA	COMPENSATOR SWITCH			
25	100030	1	EA	COMP. SWITCH BRKT.			
26		2	EA	6-32 X 7/8 P.H.M.S.			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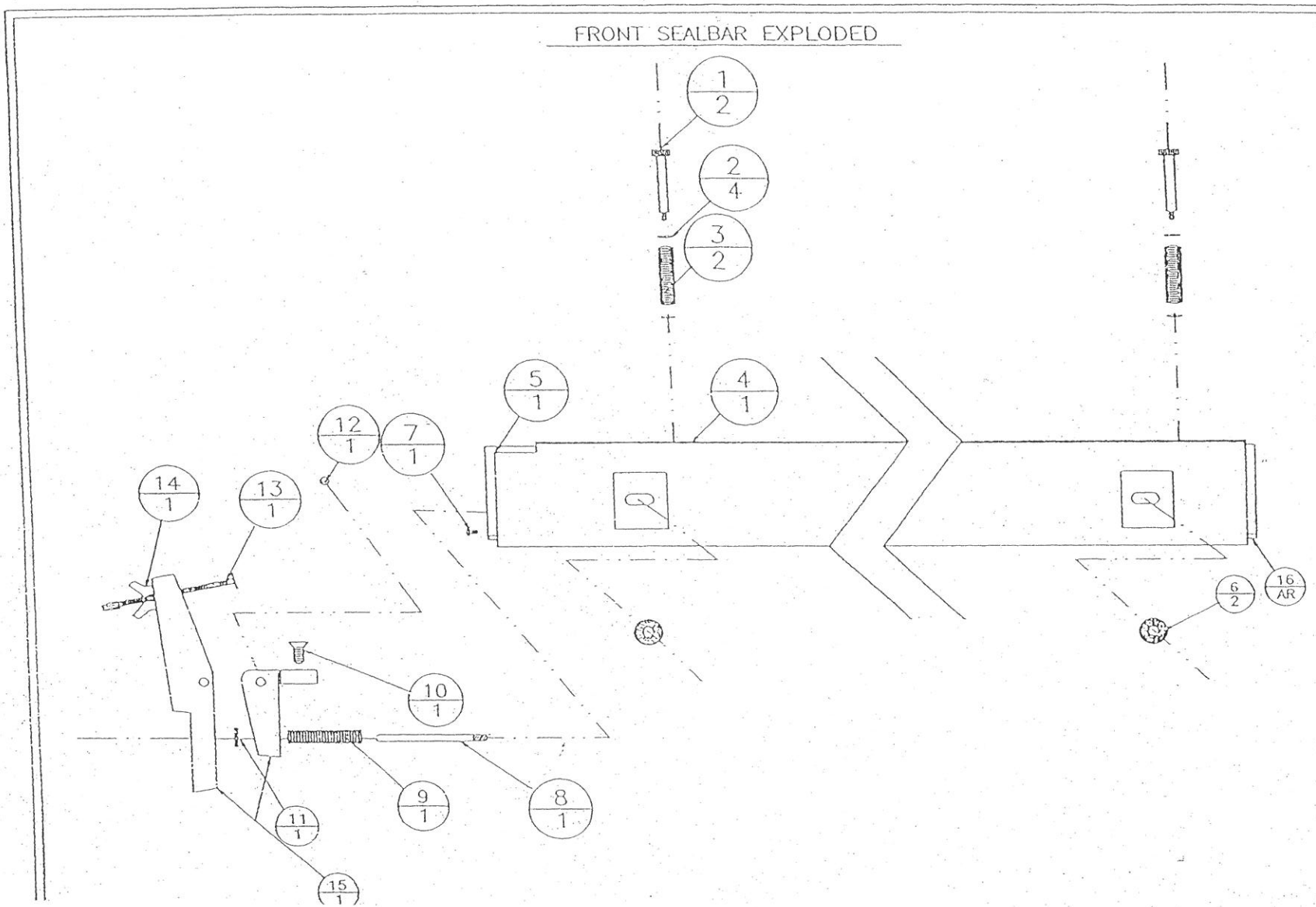
8/2
11/8

C-PAK MATERIAL LIST						MATERIAL LIST FOR: LOWER JAW ASSEMBLY		REV ---
TITLE: CUSHION ASSEMBLY						SHEET 1 OF 1 SHEETS		
						DATE JANUARY 23, 1995		
ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS	
1	150030	4		CUSHION CYL. BRACKET				
2	130051	2		CUSHION RUBBER				
3	REF MODEL #	1		BASE CUSHION				
4		4		6-32 X 3/8 F.H.M.S.				
5		6		3/4-16 HEX JAM NUT				
7	150020	3		PIVOT RETAINER PLATE				
8	100140	2		CUSHION CYL. BRACKET				
9		4		7/16-20 HEX JAM NUT				
10	120030	4		CUSHION CYLINDER				
11	120190	8		Q-DISK				
12	REF. MODEL #	1		CUSHION CHANNEL SIDE				
13	REF. MODEL #	1		CUSHION CHANNEL FRONT				
14	140070	1		2" CUSHION TAPE				
15	140060	1		3/4" CUSHION TAPE				

FRONT SEALBAR EXPLODED



C-PAK MATERIAL LIST					MATERIAL LIST FOR: SEAL BAR		REV ---
TITLE: FRONT SEAL BAR					SHEET 1 OF 1 SHEETS		
					DATE JANUARY 26, 1995		
ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	100290	2	EA	FILM CLAMP STUD			
2		4	EA	6mm FLAT WASHER			
3	100280	2	EA	FILM CLAMP SPRING			
4	MODEL #	1	EA	FRONT FILM CLAMP			
5	MODEL #	1	EA	FRONT SEAL BAR			
6	100510	2	EA	SEAL BAR SPACERS			
7		1	EA	6-32 X 1/4 SBHS			
8	100110	1	EA	SPRING GUIDE STUD			
9	100200	1	EA	WIRE TENSION SPRING			
10		1	EA	1/4-20 X 1/2 SFHS			
11		1	EA	5mm FLAT WASHER			
12		1	EA	ROLL PIN			
13	150040	1	EA	COMPENSATOR ADJ SCREW			
14		1	EA	WING NUT			
15	100120	1	EA	WIRE TAKE-UP ASS'Y			
16	140030	MODEL	EA	SEAL HEAD BEADS-FLAT	7000-069		
17		2	EA	1/4-28 X 1 SHCS			

CONTROL BOX

C-PAK MATERIAL LIST	MATERIAL LIST FOR: CONTROL BOX	REV ---
TITLE: CONTROL BOX	SHEET 1 OF 1 SHEETS	
	DATE JANUARY 29, 1995	

ITEM #	PART #	QTY.	UM	DESCRIPTION	REV	SIZE	REMARKS
1		1	EA	ELECTRICAL BOX			
2		1	EA	ELECTRICAL BOX DOOR			
3	910030	1	EA	FUSE BLOCK HOLDER			
4	110019	1	EA	COMPENSATOR TRANSFORMER			
5	910011	1	EA	BRIDGE RECTIFIER			
6	110161	1	EA	COMP. RELAY BS-11 PIN			
7	110171	2	EA	ST CONV RELAY BS-8 PIN			
8	910060	2	EA	TERMINAL BLOCK			
9	110131	1	EA	CIR. BREAKER-20 AMP			
10	110120	2	EA	DWELL TIMER			
11	950168	2	EA	1/2 AMP BREAKER			
12	910072	1	EA	3 AMP BREAKER			
13	910050	1	EA	PILOT LIGHT			
14	110060	2	EA	ST CONV RELAY-8 PIN			
15	110052	1	EA	COMP RELAY-11 PIN			
16	910205	1	EA	LOCK & KEYS			
17	910020	1	EA	PULSE CONTACTOR			

OPERATOR'S STATION

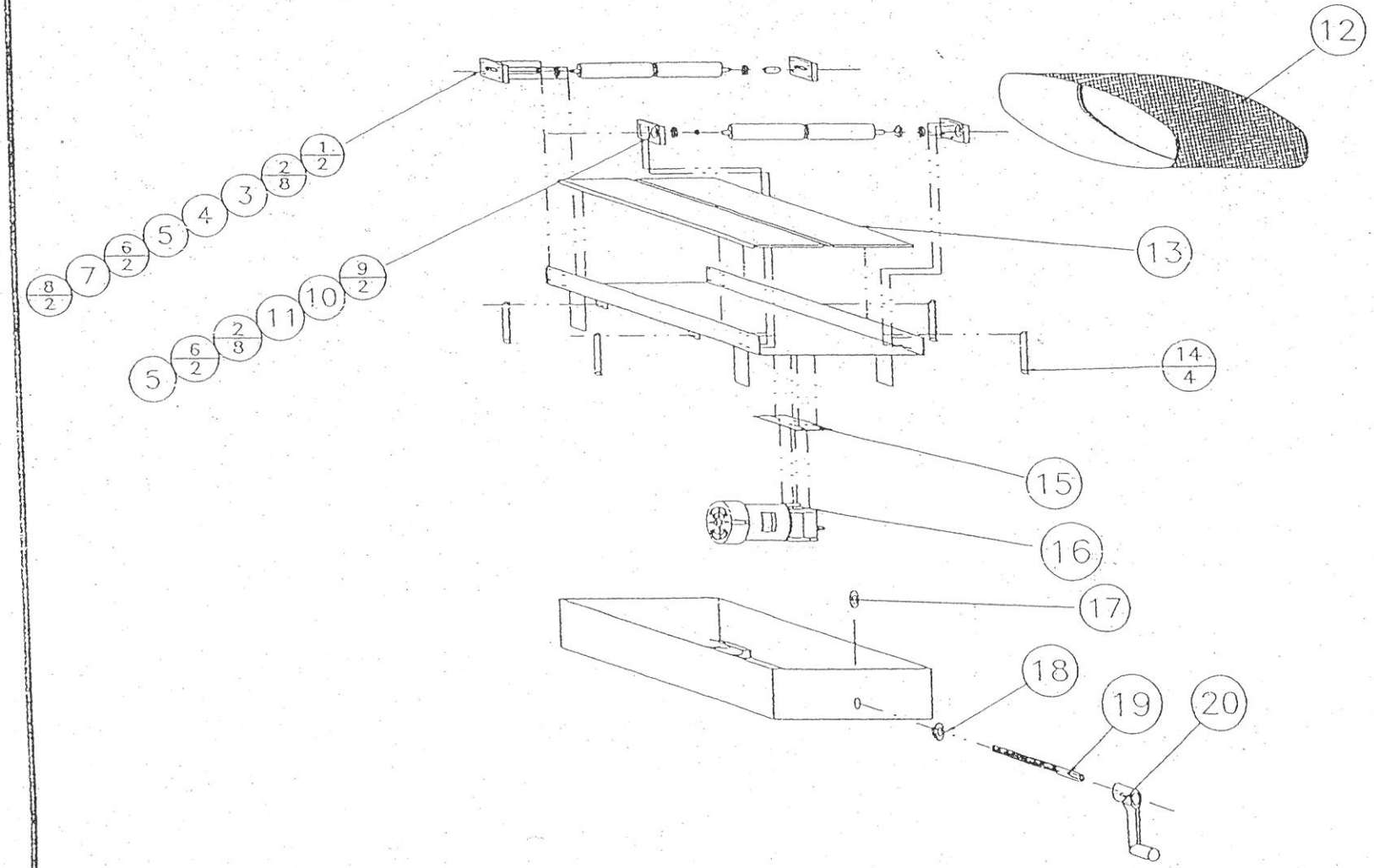
C-PAK MATERIAL LIST	MATERIAL LIST FOR:	REV
TITLE: OPERATOR'S STATION	OPERATOR'S STATION	---
	SHEET 1 OF 1 SHEETS	
	DATE JANUARY 31, 1995	

ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	110071	2	EA	START BUTTON ASS'Y			
2	110081	1	EA	STOP BUTTON ASS'Y			
3	150160	2	EA	HOLD DOWN MAGNET			
4	150010	2	EA	MAGNET BRACKET			
5		2	EA	7/16-20 X 1 HEX BOLT			
6		4	EA	5/16-18 X 1 CARRIAGE BOLT			

HEAD CYLINDER ASSEMBLY

C-PAK MATERIAL LIST					MATERIAL LIST FOR: HEAD CYLINDER ASSEMBLY		REV ---
TITLE: HEAD CYLINDER ASSEMBLY					SHEET 1 OF 1 SHEETS		
					DATE JANUARY 31, 1995		
ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	120050	1	EA	HEAD CYLINDER			
2	100010	1	EA	HEAD CYL. MOUNT			
3	100160	1	EA	HEAD CYL. MOUNT YOKE			
4	100150	1	EA	HEAD CYL. PIVOT			
5	100170	1	EA	HEAD CYL CLEVIS			
6		2	EA	CLEVIS PIN			
7		4	EA	E-RING			
8		1	EA	3/4-10 JAM NUT			
9		11	EA	5/11-18 HEX BOLT			

CONVEYER ASSEMBLY

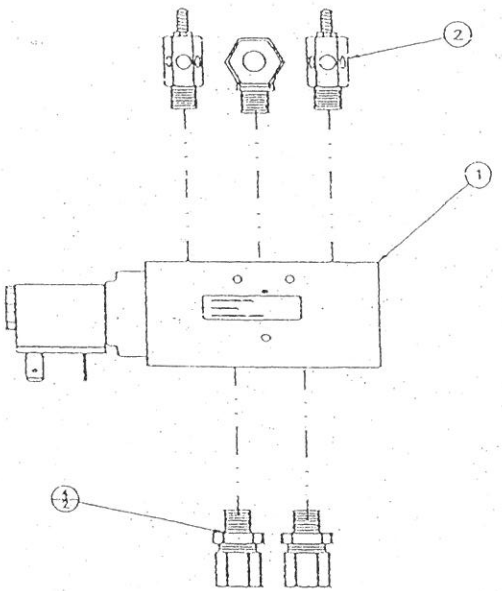


C-PAK MATERIAL LIST	MATERIAL LIST FOR: CONVEYOR	REV ---
TITLE: PRODUCT OUTFEED CONVEYOR	SHEET 1 OF 2 SHEETS	
	DATE JANUARY 31, 1995	

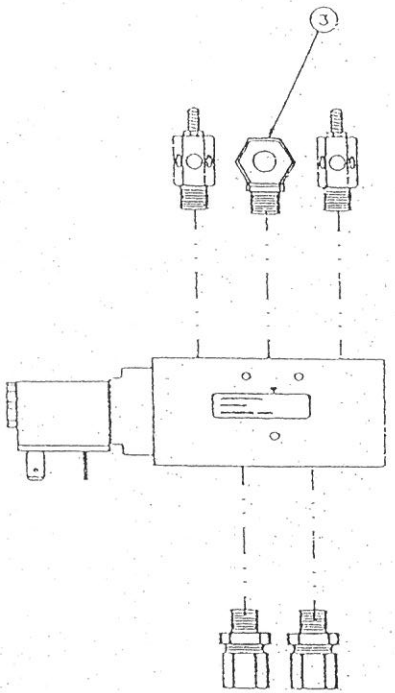
ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	100420	2	EA	IDLER ADJ. BLOCK			
2		16	EA	10-32 X 1/2 B.H.M.S.			
3	MODEL #	1	EA	IDLER SHAFT			
4	MODEL #	1	EA	IDLER ROLLER			
5	100400	2	EA	1/8 SPACER			
6	100190	4	EA	CONVEYOR BEARING			
7	100410	1	EA	ROLLER SPACER-1 5/16			
8		2	EA	1/4-20 X 1/34 SHLS			
9	150140	2	EA	BEARING BLOCK			
10	MODEL #	1	EA	DRIVE ROLLER			
11	950179	1	EA	DRIVEN SPROCKET			
12	MODEL #	1	EA	CONVEYOR BELT			
13	MODEL #	1	EA	V-SUPPORT BELT PAN			
14	100440	4	EA	PIVOT LINKS			
15	100460	1	EA	MOTOR BASE			
16	950164	1	EA	CONVEYOR MOTOR			
17	140120	1	EA	FLAT SPACER-CONVEYOR			
18	140130	1	EA	SHOULDER SPACER-CONV.			

C-PAK MATERIAL LIST					MATERIAL LIST FOR: CONVEYOR		REV ---
TITLE: PRODUCT OUTFEED CONVEYOR					SHEET 2 OF 2 SHEETS		
					DATE JANUARY 31, 1995		
ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
19	100430	1	EA	CONV. LIFTING SCREW			
20	150150	1	EA	CRANK HANDLE			

AIR VALVE AND COIL ASSEMBLY LOCATED ON REAR OF CONTROL BOX



LOWER JAW VALVE



HEAD VALVE

C-PAK MATERIAL LIST	MATERIAL LIST FOR: AIR VALVE ASSEMBLY	REV ---
TITLE: AIR VALVE AND COIL ASSEMBLY	SHEET 1 OF 1 SHEETS	
	DATE FEBRUARY 3, 1995	

ITEM #	PART #	QTY	UM	DESCRIPTION	REV	SIZE	REMARKS
1	120010	1	EA	AIR VALVE W/COIL			
2	120110	2	EA	SPEED MUFFLER			
3	120100	1	EA	AIR FITTING-90 DEG.			
4	120070	2	EA	AIR FITTING 1/4 X 3/8			

NOTES: