



# USA-20B

## METRIC

OPERATION MANUAL  
&  
PARTS LISTS

UM 062TW / 562TW



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## SERVICE INSTRUCTIONS

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### Service

This is the Interpack Model USA 20-SB Carton Sealing Machine you ordered. It has been set up and tested in our factory with Intertape brand tapes. If any problems occur when operating this equipment and you desire a service call or phone consultation, please contact **Intertape Customer Support** 1-800-972-4675.

Please provide the customer support coordinator with the machine model number and serial number. If you have a technical question that does not require an immediate response, you may fax it to 1-813-621-8410 # 101.

### Replacement Parts

Order parts by item number, part name and quantity required. Replacement parts are available from your Authorized Interpack Distributor exclusively. Should you require assistance selecting the correct part, you may call:

Intertape Polymer Group  
Interpack Machinery Division

Tel: 1-800-972-4675  
Fax: 1-813-621-8449

9940 Currie Davis Drive, Suite 23B  
Tampa, FL, 33619

## WARRANTY

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**EQUIPMENT WARRANTY AND LIMITED REMEDY:** The following warranty is made in lieu of all other warranties, express or implied, including, but not limited to, the implied warranty of merchantability, the implied warranty of fitness for a particular purpose, and any implied warranty arising out of a course of dealing, a custom or usage of trade:

Intertape sells its Model USA 20-SB Carton Sealing Machine with the following warranties:

1. The HSD® 2000-ET II Tape Heads' knife blades, springs and wipe down rollers will be free from all defects for a period of ninety (90) days. A lifetime warranty is available after delivery with an Annual Tape Agreement and completed Pioneering Protection Warranty form. Contact your Intertape representative for further details.
2. All other HSD® 2000-ET II Tape Head parts will be free from all defects for one (1) year after delivery.
3. The Gear Motors will be free from defects for one (1) year after delivery.
4. All other components will be free from defects for one (1) year after delivery.

If any part is proven defective within its warranty period, then the exclusive remedy and Intertape's and the seller's sole obligation shall be, at Intertape's option, to repair or replace the part, provided the defective part is returned immediately to Intertape's factory or an authorized service station designated by Intertape.

A part will be presumed to have become defective after its warranty period unless the part is received or Intertape is notified of the problem no later than five (5) calendar days after the warranty period.

If Intertape is unable to repair or replace the part within a reasonable time, then Intertape, at its option, will replace the equipment or refund the purchase price. Intertape shall have no obligation to install the repaired or replacement part.

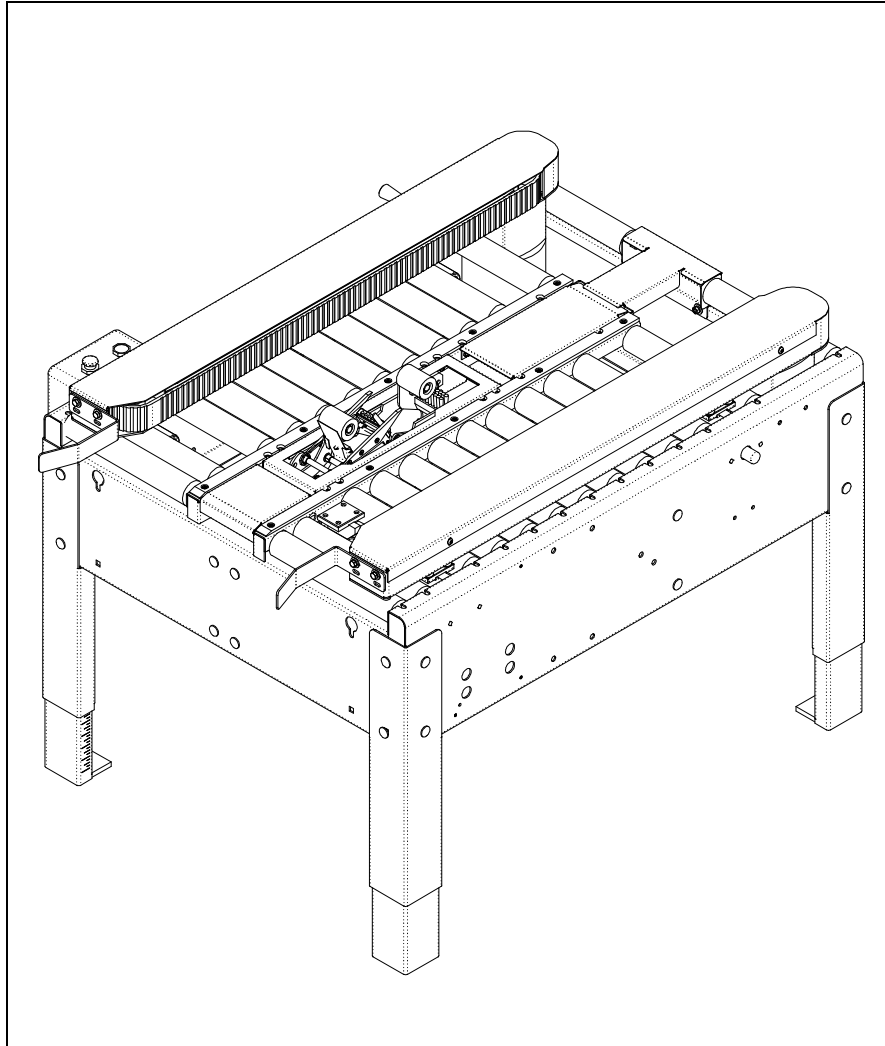
Intertape shall have no obligation to provide or pay for the labour required to install the repaired or replacement part. Intertape shall have no obligation to repair or replace (1) those parts failing due to operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts failing due to inadequate cleaning, improper operating environment, improper utilities or operator error.

**LIMITATION OF LIABILITY:** Intertape and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by written agreement signed by authorized officers of Intertape and seller.

## DESCRIPTION OF USA 20-SB

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**Figure 1**

The Interpack USA 20-SB Carton Sealing Machine with HSD® 2000-ET II Tape Head is designed to apply Intertape brand pressure sensitive carton sealing tape to the bottom centre seam of regular slotted corrugated cartons. The USA 20-SB is manually adjustable to a wide range of carton sizes (see Carton Size Capacity, page 10). The self centring Side Belt Drive system makes carton width adjustment effortless. The USA 20-SB Carton Sealer features mirror image controls to facilitate its adaption into an existing conveyor line.

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## **SAFETY ISSUES**

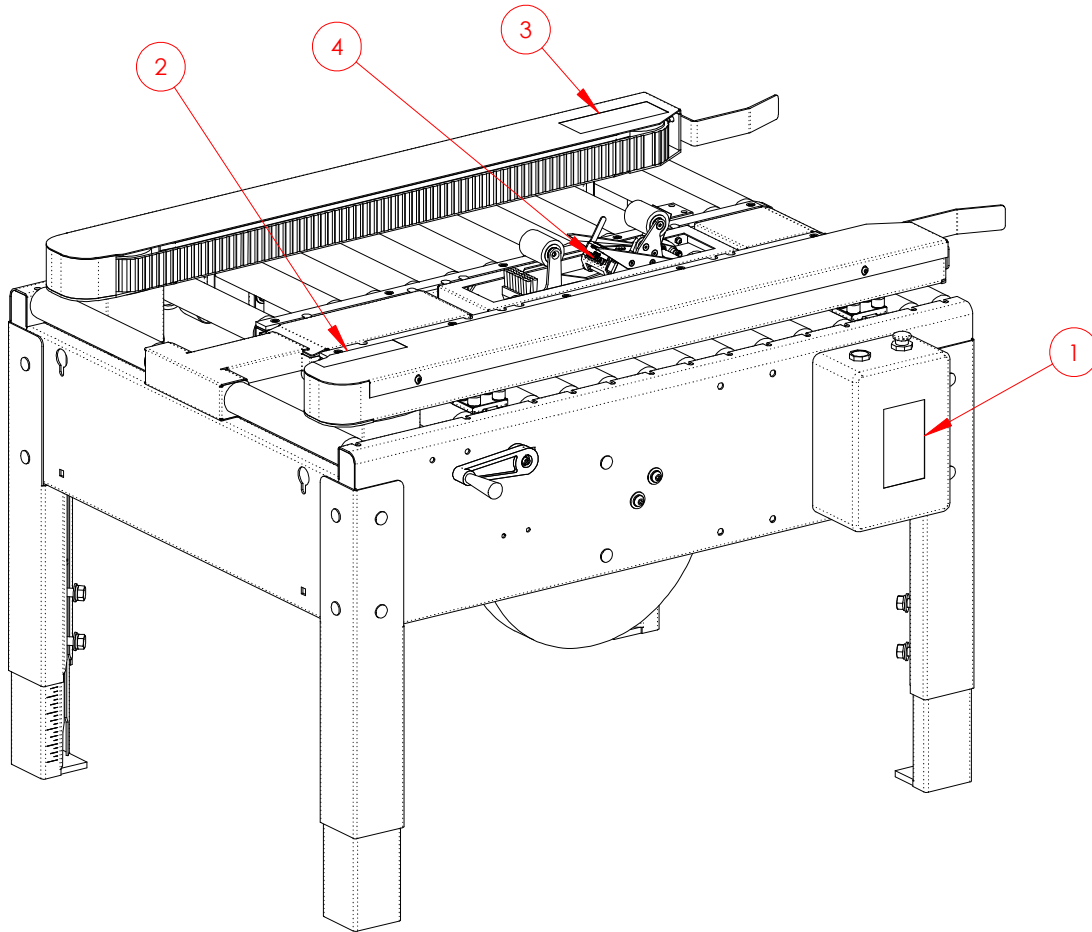
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There are a number of safety labels used on Interpack Carton Sealers. These labels are placed at different locations (refer to figure 2) on the machine to warn operators and service personnel of possible dangers. Please read the labels on the machine and the following safety precautions before using the machine.

- ✓ **Read this manual for other important safety operating and service information.**
- ✓ **Only trained personnel are to operate and service machine.**
- ✓ **Wear safety glasses.**
- ✓ **Shut off power to machine before adjusting.**
- ✓ **Unplug electrical power before servicing.**
- ✓ **All covers and guards must be in place before operating.**
- ✓ **Stay clear of moving parts which can shear and cut.**
- ✓ **Never operate the Tape Heads with the Knife Guard removed.**
- ✓ **Turn electrical supply off before servicing the Tape Heads, including tape loading and threading.**

# SAFETY ISSUES

## PLACEMENT OF WARNING LABELS



**Figure 2**



4)

## ⚠ WARNING

Sharp  
Cutting  
Blade

(The same label can be found on the top  
tape head as well)

1)



1)

## ⚠ WARNING

### OPERATION / SERVICE

- Only trained people are to operate and service machine.
- Shut off power to machine before adjusting.
- Unplug electrical power before servicing.

### MACHINE MANUAL

For other important safety, operating and service information read this machine's manual.

### EYE HAZARD

Wear Safety Glasses which conform to ANSI Std. Z87.1 or EN 166



### COVERS AND GUARDS

All covers and guards must be in place before operating machine.

### ELECTRICAL SHOCK

Hazardous voltages may cause personal injury.

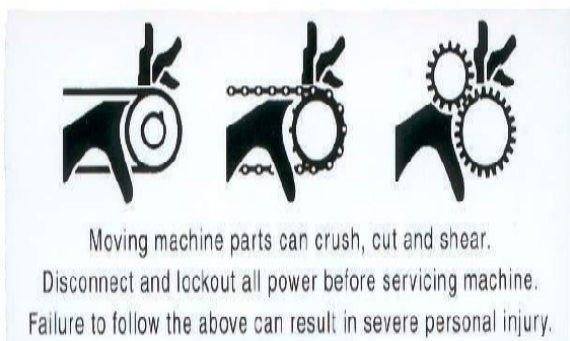
Only authorized and qualified personnel are to service electrical enclosures.



FAILURE TO FOLLOW THE ABOVE COULD RESULT IN SEVERE INJURY.

3)

## ⚠ WARNING



5)



***Note: Should any of the safety labels shown in Figure 2 be damaged or destroyed, replacements are available.***

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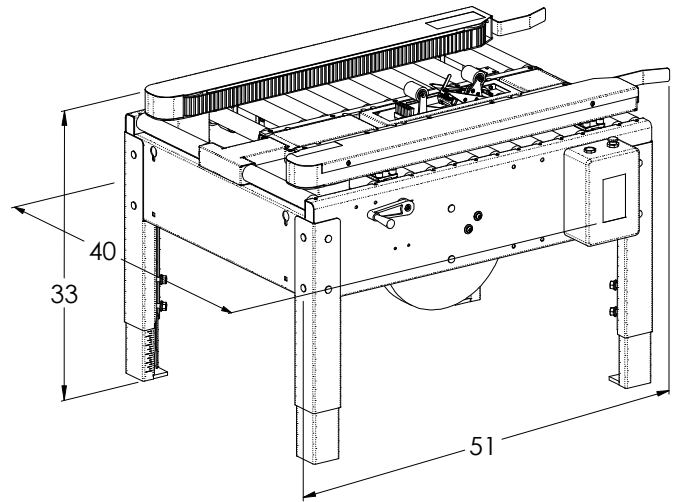
## SPECIFICATIONS

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### **Machine Dimensions**

Overall outside dimensions:

- Height: 33 inches
- Length: 51 inches
- Width: 40.63 inches



**Figure 3**

### **Machine Weight**

The machine weighs 220 lbs.

### **Power Requirements**

Electrical - 115 VAC, 60 HZ, 9.6 A.

Standard electrical equipment:

- Two (2) 1/3 H.P. gear motors,
- A neoprene power cord, and
- A grounded plug.

Contact your Intertape representative for power requirements not listed above.

### **Operating Speed**

Belt speed is 82 feet per minute. Actual production rate is dependent on operator's dexterity and the case size mix.

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## **SPECIFICATIONS**

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### **Operating Conditions**

Use in a dry, relatively clean environment at 40° to 105° F (5° to 40° C) with clean dry cartons.

### **Tape**

**1) General**

Use Intertape brand Pressure Sensitive Carton Sealing Tape.

**2) Tape Width**

1.5 to 2 inch wide tape (36 to 48 mm) maximum.

**3) Tape Roll Diameter**

Maximum of 16 inches (405 mm) on a 3-inch (76.2 mm) diameter core.  
(Accommodates all Intertape brand film tape machine roll lengths).

**4) Tape Application Leg Length – Standard**

2.5 inches (+0.25", -0") (63.5 mm, +6.3 mm, - 0 mm).

**5) Tape Application Leg Length – Optional**

2 inches (+0.25", -0.5") (50.8 mm, +6.3 mm, -12 mm). Refer to HSD®  
2000 Tape Head manual for adjustment of tape application leg length.

### **Box Board**

Style: regular slotted containers (RSC)  
125 to 275 psi bursting test, single or double wall B or C flute.

**Carton Weight Capacity:** Up to 50 lbs.

## SPECIFICATIONS

### Carton Size Capacity

	Height (inches)	Width (inches)	Length (inches)
<b>Standard</b> <i>minimum</i>	2	3.5	6
<i>maximum</i>	36	20	Infinite

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# SET-UP PROCEDURES

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## **Receiving and Handling**

The machine is shipped to the customer in a box and fixed to a pallet.

- Remove the strapping and the staples at the bottom of the box.
- Lift off the box cover and sleeve.
- Remove the mounting bolts and nuts, which secure the USA 20-SB to the shipping pallet.
- Lift the machine off the pallet and install it on your packaging line.
- Remove all tie wraps and other shipping materials.

**Note:** *After unpacking the machine, look for any damage that may have occurred during shipping. Should the machine be damaged, file a claim with the transport company and notify your Intertape representative.*

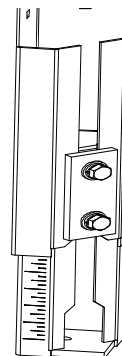
## **Setting-up**

### **1) General**

The Carton Sealer must be installed on a near level ground.

Ensure that the machine is level and firmly on the ground (no rocking). Adjust the rollers' height with the four (4) telescopic adjustment legs to accommodate conveyor heights from 24 to 30 inches.

To adjust the Carton Sealer height, jack up the machine to give ample room to extend the legs. Using a 9/16" box end wrench, loosen the eight (8) 1/2" hex head bolts. Adjust the legs to the desired conveyor height and tighten the bolts. Etched scales on the legs facilitate proportionate leveling.



**Figure 5**

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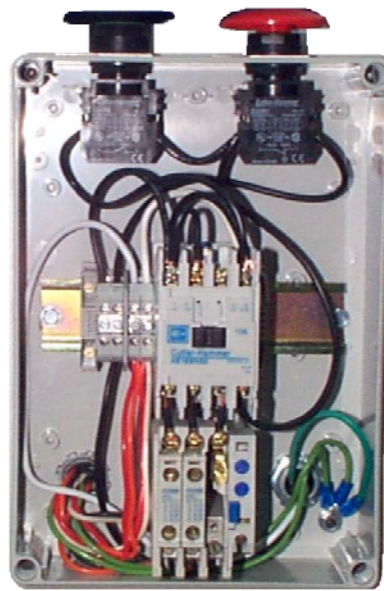
## SET-UP PROCEDURES

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Customer supplied feed and exit conveyors (or rollers) must be level with the machine, otherwise, the performance of the machine may be affected. The customer-supplied feed conveyor (if used) should provide straight and level entry. The customer-supplied exit conveyor (if used) should be straight and declined no more than 1/4 inch per foot away from the machine.

### 2) Electrical Connection

The electrical control can be located on either side of the Carton Sealer for customer convenience. It contains the green "on" push button and the red "E-Stop" mushroom push button, which is to be used both for emergency stops as well as regular halting of the machine.



**Figure 6**

An eight (8) foot strand three phase power cord with plug is provided for 115 V, 60 Hz, 15 Ampere electrical current. The servicing receptacle must be properly grounded. Before the machine is plugged into the receptacle, ensure that all materials are removed from the machine. The electrical control is protected with an automatic circuit breaker with resettable overload.

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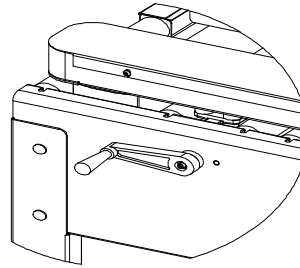
## SET-UP PROCEDURES

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### Set-Up Procedures

#### 3) Width Adjustment Handle

The foldable handle that is used to adjust the width of the self-centering side rails is located on the left hand side of the machine. Unscrew and change sides.



**Figure 9**

#### 4) **Tape Loading and Threading**

##### A) Tape Loading

**WARNING!** *TURN OFF ELECTRICAL POWER SUPPLY AND DISCONNECT THE POWER CORD FROM THE ELECTRICAL SUPPLY BEFORE BEGINNING TO WORK ON THE TAPE HEADS OR TO LOAD TAPE. IF POWER CORDS ARE NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.*

The HSD®2000-ETM - 48 tape heads accommodate 2-inch wide tape rolls, while the optional HSD®2000-ETM - 75 tape heads accommodate 3-inch wide rolls. See the label on the side of the HSD®2000-ETM tape head for the loadable tape sizes. Push the roll of tape onto the mandrel with the adhesive side up (refer to threading diagram on the HSD®2000-ETM tape head) until the core is set against the mandrel flange. This ensures the tape will be aligned when feeding into the tape head.



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## SET-UP PROCEDURES

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### B) Tape Threading

**WARNING!**     ***THE KNIFE CONTAINED IN THE TAPE HEAD IS EXTREMELY SHARP. USE CAUTION WHEN REMOVING THE BLADE GUARD AND THREADING THE TAPE TO AVOID PERSONNEL INJURY.***

To thread the Tape Head, no special tools are required.

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- Remove the Tape Head by grasping the tape application rollers and lifting straight up.
- Pull approximately twelve (12) inches from the roll and fold in half lengthwise. This allows you to thread the tape without it adhering to the guide and clutch rollers inside the Tape Head.
- Follow the tape-threading diagram on the side plate of the HSD® 2000-ETM Tape Head. Refer to your Tape Head manual for further information if required.
- Turn the blade guard away from the knife in the Tape Head.
- Cut off the folded tape.
- Replace the lower Tape Head to its initial position.

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## OPERATING INSTRUCTIONS

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Once the HSD® 2000-ET II Tape Heads (both bottom and top) have been loaded with tape and threaded, the machine is ready to process regular slotted cartons. The following instructions are presented in the order recommended for processing cartons successfully through the USA 20-SB Carton Sealing machine.

1. Turn the Width Adjustment Handle to open the drive base in order to allow an empty test carton to slide on the machine
2. Place an empty test carton with the flaps held in closed position onto the conveyor rollers.
3. Adjust the self-centering drive belts by turning the Width Adjustment Handle.
4. Remove the test carton from the machine.
5. Ensure that the electrical power is on.
6. Switch the machine "on" with the start push button.
7. Process the first carton with the flaps in the closed position.
8. When the carton exits the Carton Sealer, process the next carton.

**WARNING!**     **ENSURE THAT THE OPERATOR'S HANDS ARE AWAY FROM THE MOVING BELTS OF THE SIDE DRIVE BASE ASSEMBLY.**

**Note:** *Should any problem occur during processing that requires halting the machine, press the red "E-Stop" mushroom button.*

**Note:** *The machine should never be washed down or subjected to conditions causing condensation on components.*

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## MAINTENANCE

Depending on usage grease acme shaft about in three months intervals.

Open up drive base by winding handle, apply grease to the acme shaft between the cast iron drive base supports, then close the drive base and repeat application to the outside of cast iron drive base supports. Recommended lubricants are: 1<sup>st</sup> Bacon 325 (ESSO brand), 2<sup>nd</sup> graphite base greases, 3<sup>rd</sup> standard ball-bearing grease.

Spray column shaft once a month with silicon based dry film lubricant. This won't attract dust and lint from the surroundings.

No other lubrication is necessary to operate the machine.

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## TROUBLESHOOTING

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Interpack Carton Sealers are fabricated with high quality components that provide trouble-free operation for a long period. However, should a problem occur, we recommend that you consult the following table. If the problem you encounter is not discussed in this table, call Intertape Customer Service Department (see page 2 of this document).

TROUBLE	POSSIBLE CAUSES	SOLUTIONS
Main power is turned "on" and nothing happens.	Overload protection by circuit breaker.	Check that all circuits are "on".
Cartons are not taped properly.	Tape Head is not adjusted correctly.	Refer to Tape Head manual.

## RECOMMENDED SPARE PARTS LIST

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We recommend that you stock the following spare parts.

DESCRIPTION	ITEM NUMBER	RECOMMENDED QUANTITY
2-inch drive belts	UPM0663	2
Drive pulley	UPM0129EV	2
Bearing for pulley	UPM0324EV	2
Linear bearing	UPM0739EV	2
Bumpers	UPM0576	16
Rollers	UPM0607	3
Pivot extension spring	UPM1042	2

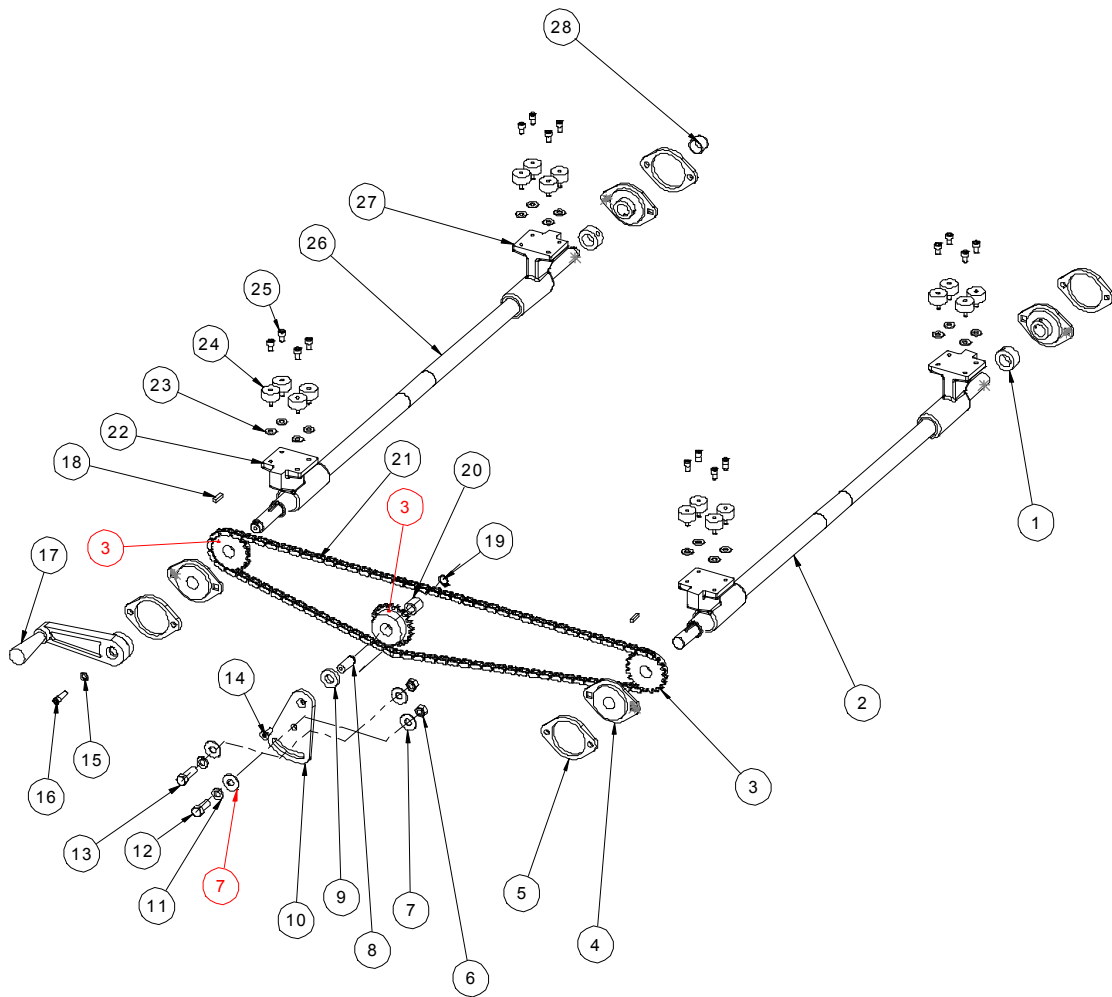


## APPENDIX A – ILLUSTRATIONS AND PARTS LISTS

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### APPENDIX CONTENTS

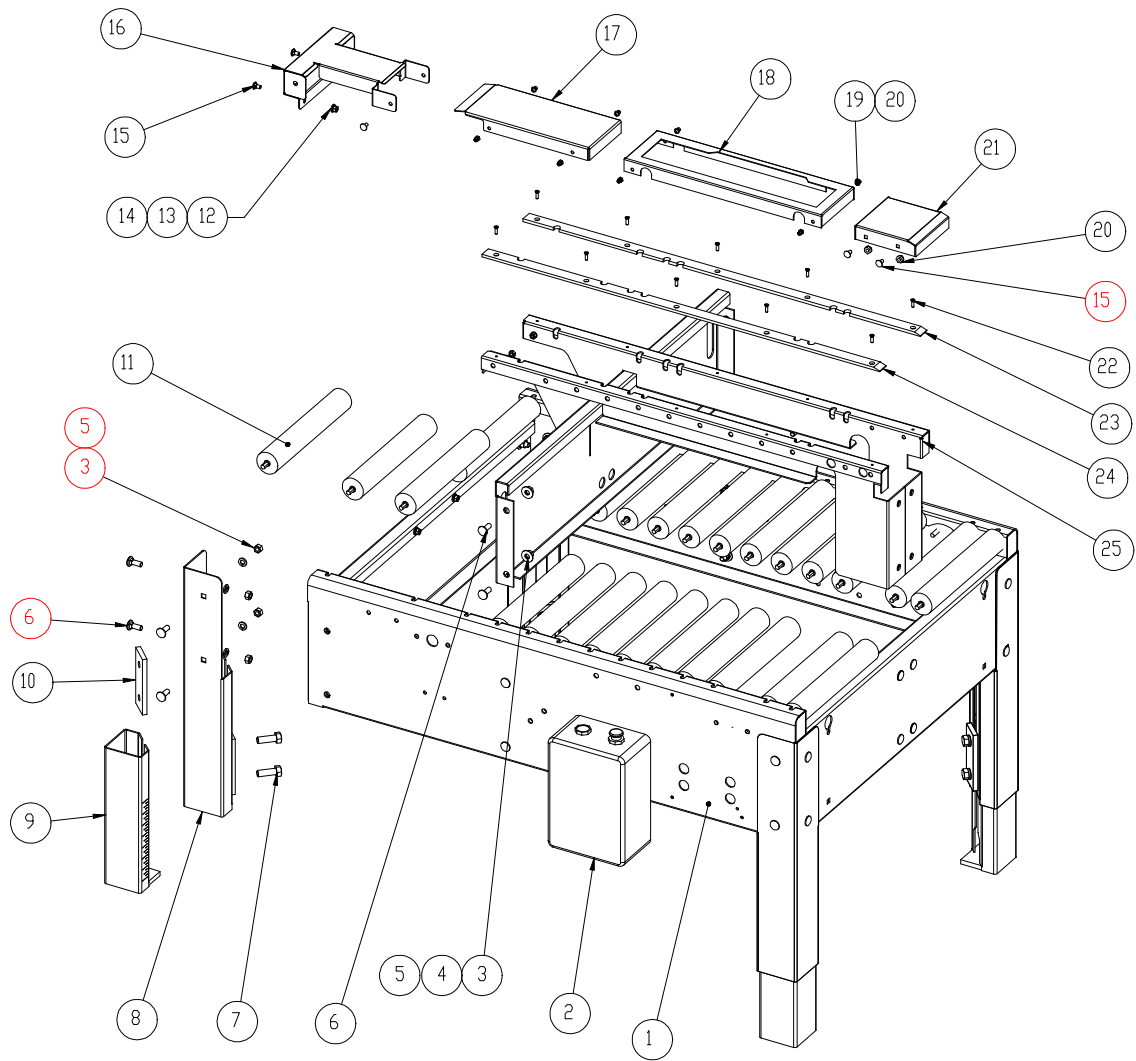
CENTERING MECHANISM (illustration).....	A-22
CENTERING MECHANISM (parts list).....	A-23
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BASE, STRUCTURE (parts list).....	A-25
DRIVE BASE (illustration).....	A-26
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TABLE (illustration).....	A-28
TABLE (parts list).....	A-29





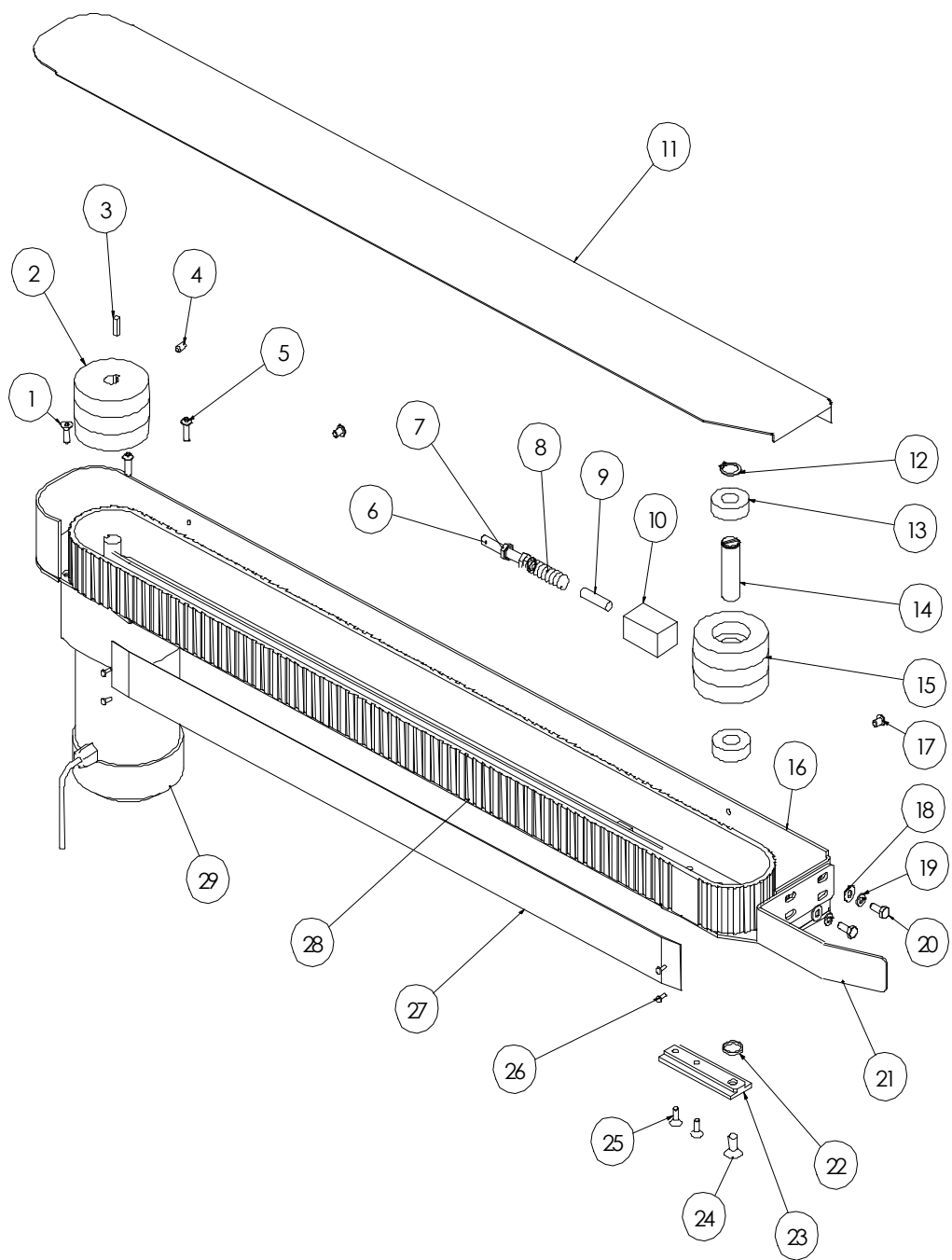
## CENTERING MECHANISM

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	UPM2217EV	Shaft collar
2	1	UPM0573EV	Acme shaft, no handle
3	3	UPM0620EV	Sprocket
4	4	UPM0523EV	Flange bearing SAPFL204-12
5	4	UPM2198	Bearing spacer
6	2	UF1540EV	Hex nut g5z M10
7	4	UF1720	Reg f.w.zinc 3/8 bs
8	1	UPM0640EV	Chain tensioner, pin
9	1	UPM0641	Chain tensionner spacer
10	1	UPM0631	Chain tensioner, base plate
11	2	UF1770	L.w.zinc 3/8
12	1	UF1310EV	Bhcs g5z M10×L25
13	1	UF1315EV	Bhcs g5z M10×L30
14	1	UF0960EV	Fhcs hk M6×L16
15	1	UF1750	L.w.zinc 1/4
16	1	UF0630EV	Shcs hk M6×L25
17	1	UPE0001	Handle foldable
18	2	UF2210EV	Square key zinc 5×5×L20
19	1	UF2170	Retaining ring 1/2
20	1	UPM0639	Brass bushing,.5id×.75od×.75lg
21	1	UPM0618	Chain 35 for usa 2024 sb2
22	2	UPM0575	Casting-mach'd-1.0-square-ih
23	16	UF1970	F.w.1/4×5/8×.046 b1526
24	16	UPM0576	Bumper
25	16	UF1280	Shcs 1/4-28×3/8
26	1	UPM0566EV	Acme shaft, for handle
27	2	UPM0574	Casting-mach'd-1.0-square-rh
28	1	UPM2207	Cap vinyl black



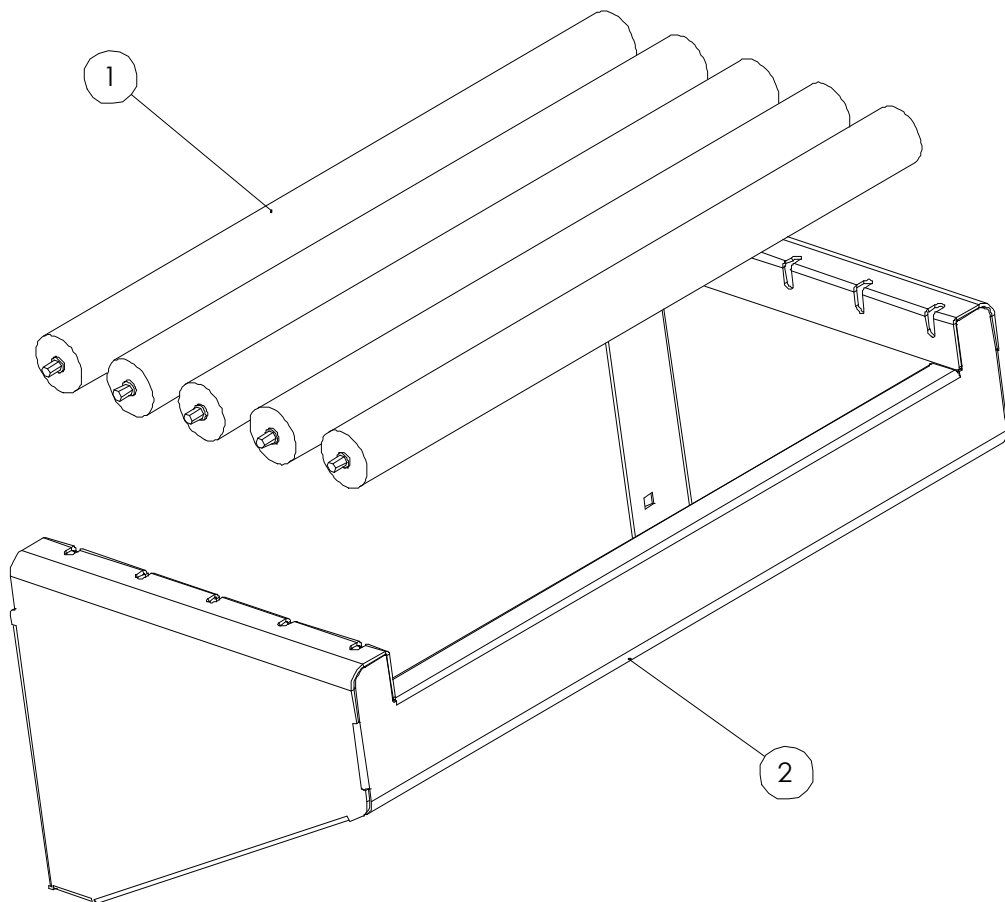
**BASE, STRUCTURE**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	UPM0599EV	Outside frame weldment,base
2	1	UPM2214EV	Box elec.abs 10"×7"
3	10	UF1540	Hex nut g5z 3/8-16
4	24	UF1770	L.w.zinc 3/8
5	4	UF1720	Reg f.w.zinc 3/8 bs
6	23	UF4020	Carriage bolt 3/8-16×1
7	8	UF0380	Hhcs g5z 1/2-13×1-1/2
8	4	UPM0620	Leg base assy
9	4	UPM0847	Leg adjustment
10	4	UPM0931	Leg friction plate
11	26	UPM0607	Roller
12	2	UF1770	Reg f.w.zinc 1/4 bs
13	4	UF1750	L.w.zinc 1/4
14	4	UF1500	Hex nut g5z 1/4-20
15	8	UF4009	Carriage bolt hk 1/4-20×1/2
16	1	UPM2165	Outlet cover
17	1	UPM2249	Rear gap filler
18	1	UPM3815	ET II insert 2"
19	4	UF0599	Shcs 1/4-20 x 3/8
20	8	UF1670	Nylon lock nut 1/4-20
21	1	UPM0605	Inlet cover
22	10	UF4221EV	Self tapping screw M5×L16
23	1	UPM0606	Sliding pad r.h.
24	1	UPM0609	Sliding pad r.h.
25	1	UPM0604EV	Inside frame weldment,base



## DRIVE BASE

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	UF1020EV	Ss fhcs M6×L30
2	1	UPM0129EV	Drive pulley
3	1	UF2210EV	Square key zinc 5×5×L20
4	1	UF1340EV	SSS M6×L20
5	3	UF1295EV	BHCS M6×L30
6	1	UF1400	SSS 3/8-16×3
7	3	UF1610	Hex jam nut zinc 3/8-16
8	1	UPM0038	Die spring(device base)
9	1	UPM0112	Spring locator pin
10	1	UPM0101	Tensionner spring holder
11	1	UPM0675. UPM0697	Drive base cover right side/left side
12	1	UF2220	Snap ring (medal)
13	2	UPM0324EV	Bearing, pulley R-12
14	1	UPM1233	SS idler pulley shaft
15	1	UPM0259EV	Idler pulley
16	1	UPM0674EV, UPM0696EV	Drive base right side/left side
17	2	UF1230EV	BHCS M6×L10
18	2	UF1700	Reg f.w.zinc 1/4bs
19	2	UF1750	L.w.zinc 1/4
20	2	UF0002EV	HHCS M6×L16
21	1	UPM0647	Carton retainer
22	1	UPM0109	Idler pulley spacer
23	1	UPM1879	Tensionner slide
24	1	UF1070	FHCS 3/8-16×3/4
25	2	UF0950	FHCS 1/4-20×5/8
26	4	UF2080EV	Pop rivet S-44
27	1	UPM0029	Strip uhmw 2"×.3" thick
28	1	UPM0663	Belt, drive, 2" wide
29	1	UPM2540EV	Motor 1/3hp



**TABLE (OPTIONAL)**

<b>ITEM NO.</b>	<b>QTY.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1	5	UPM2231	Roller 24.375''×1.375''od
2	1	UPM2174	Feed Table