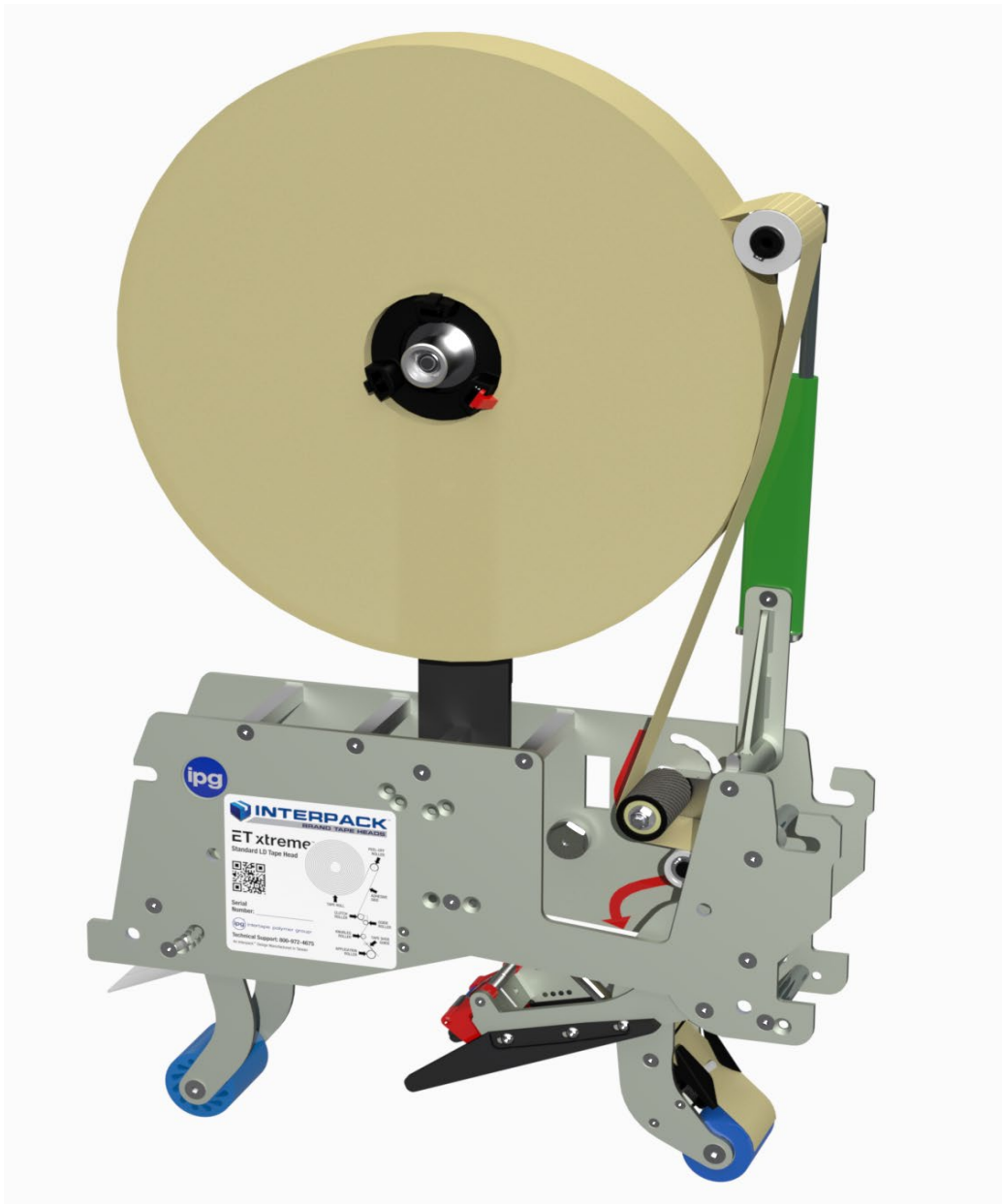




# ET xtreme<sup>®</sup>

Standard LD Tape Head

# OPERATIONS MANUAL & PARTS LIST



Serial Numbers UH232T, UH432T



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# TECHNICAL ASSISTANCE

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## Technical Support

This is the Interpack Model ET xtreme® Series Tape Head you ordered. It has been set up and tested in our factory with Intertape brand tapes. If any problems occur when setting up or operating this equipment, please contact the authorized distributor from where you purchased this item.

If contact with the authorized distributor is not possible, **Interpack Technical Support** is available. Should you need to contact **Interpack Technical Support**, please have the Tape Head's **model number and serial number** on hand. This information can be found on the label affixed to the Cover Frame of the Tape Head. Interpack Technical Support is available during normal business hours 8:30 a.m. to 5:00 p.m. (Eastern Time).

**Tel: 1-800-474-8273 Option 3**

If you have a technical question that does not require an immediate response, you may contact Interpack by fax.

**Fax: 1-800-462-1293**

Technical support may also be contacted via email at the address below:

**Email: machsupp@itape.com**

## Replacement Parts

Order parts by part number, item description 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

Tel: 1-800-474-8273 Option 3

Fax: 1-800-462-1293

MODEL: \_\_\_\_\_

SERIAL NUMBER: \_\_\_\_\_

DISTRIBUTOR PURCHASED FROM: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_



## WARRANTY

---

**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 Interpack Tape Heads, Case Tapers and Case Erectors with the following warranties:

1. The ET xtreme® Tape Heads' blades, springs and tacking rollers will be free from all defects for a period of ninety (90) days.
2. All other ET xtreme® Tape Head parts will be free from all defects for one (1) year after delivery.
3. Water Activated Tapers' blades and brushes will be free from defects for ninety (90) days after delivery.
4. Drive Belts will be free from defects for ninety (90) days after delivery.
5. The Gear Motors will be free from defects for one (1) year after delivery.
6. 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.

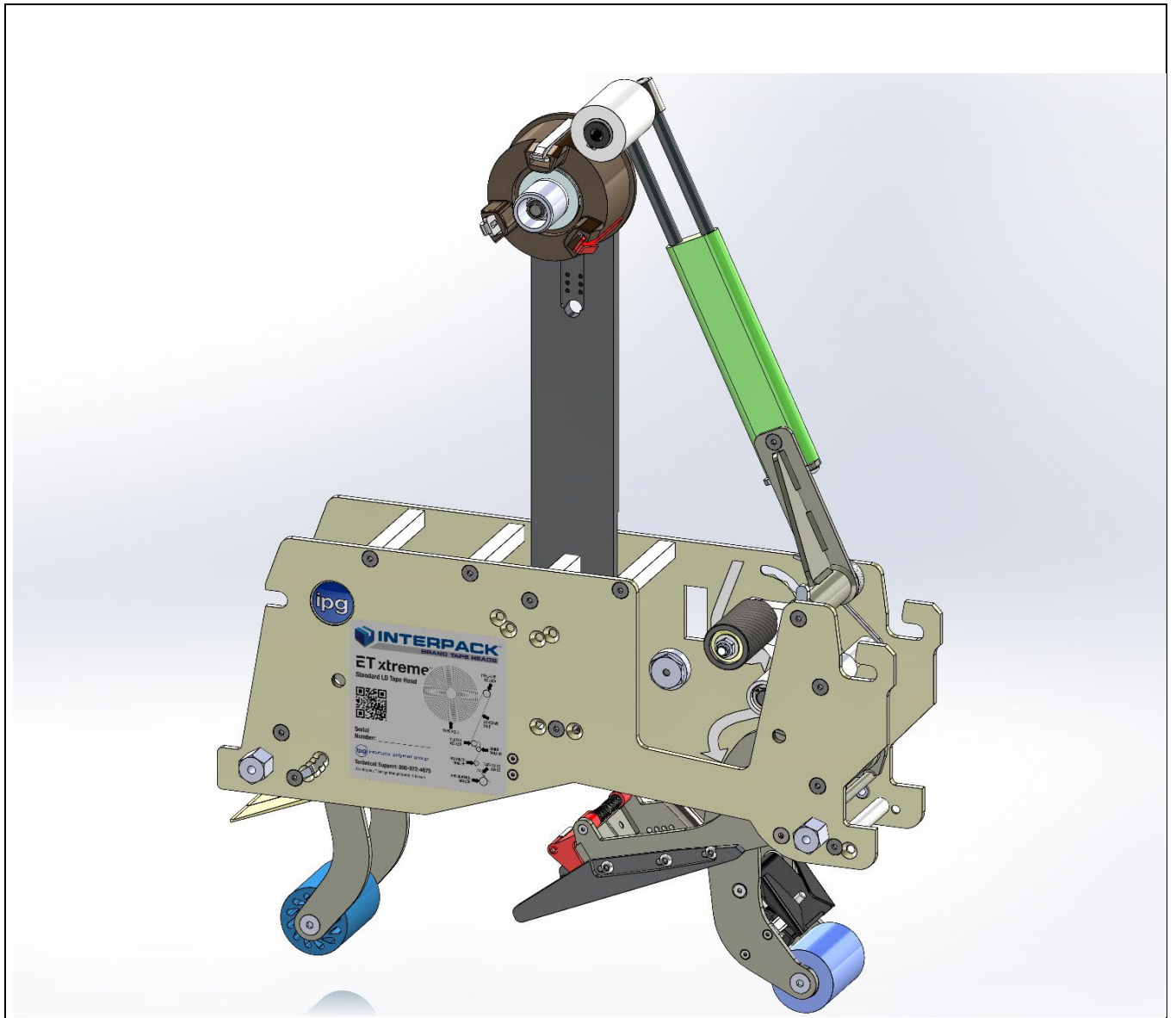
Intertape shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. Intertape shall have no obligation to repair or replace (1) those parts failing due to: operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts.

1. Failure or damage is due to misapplication, lack of proper maintenance, abuse, improper installation or abnormal conditions such as temperature, moisture, dirt or corrosive matter, etc.
2. Failure due to inadequate cleaning, improper operating environment, improper utilities or operator error.
3. Failure due to operations above the rated capacities, or in any other improper manner, either intentional or otherwise.
4. Failure is due to equipment, which has been altered by anyone other than an authorized representative of Intertape Polymer Group.
5. Failure is due to an attempt by the purchaser to correct alleged defective equipment. In this event the purchaser is responsible for all expenses incurred.

**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 TAPE HEAD



**Figure 4-1**

The Intertape ET xtreme® Family of Tape Heads are designed to apply Intertape brand pressure sensitive carton sealing tape to the top and bottom center seam of regular slotted corrugated cartons.

The ET xtreme® LD tape heads were conceived to adapt to Loveshaw Little David case sealers. There is no warranty however, expressed or implied that they will fit all LD machines out in circulation.

## **SAFETY ISSUES**

---

There is a safety label used on all Interpack Tape Heads. This label is placed on the Tape Head knife guard to warn operators and service personnel of the sharp cutting edge of the blade. Please read the label and the following safety precautions before using the Tape Head.

- ✓ **Read this manual for other important safety operating and service information.**
- ✓ **Only trained personnel are to operate and service Tape Head.**
- ✓ **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.**

**Note: Should any of the safety labels placed on the Tape Head be damaged or destroyed, replacements are available.**

# SAFETY ISSUES

The illustrated label shown in **Figure 5-1** is attached to the Knife Guard. The label warns operators and service personnel of the very sharp blade. The guard shall only be removed when the torsion spring or the guard itself are being replaced.

Should the tape head be operated without blade guard, user voids all warranty implied, the manufacturer bears no responsibility for the consequences.

Tape head shall never be serviced while mounted in a machine.



**Figure 5-1**

Label on **Figure 5-2** is visible on carton sealing machine.



**Figure 5-2**

While the tape head is processing cartons, or it is in motion, keep your hands away (**Figure 5-3**).



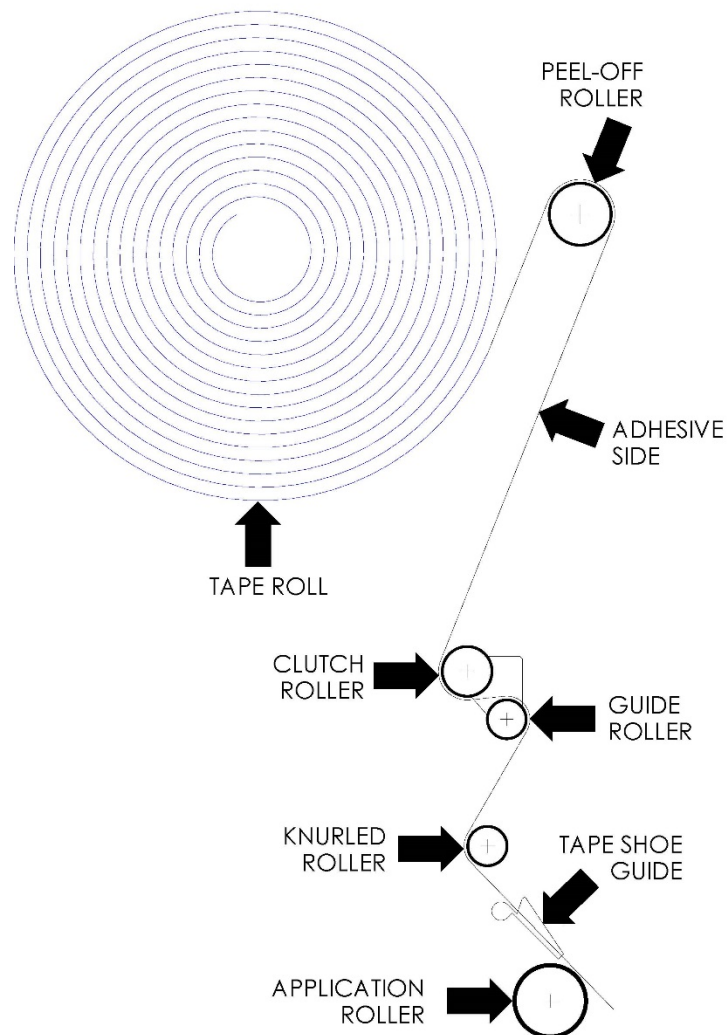
**Figure 5-3**

## SAFETY ISSUES

The illustrated label shown in **Figure 5-4** is attached to the operator side plate of each tape head. The label provides operators and service personnel the proper method of threading a new roll of tape through the tape head.

More detailed information is provided in the “Set Up Procedures” portion of this manual.

**Turn air and electrical supplies off before servicing the tape heads.**



**Figure 5-4**

# SPECIFICATIONS

## Tape Head Dimensions

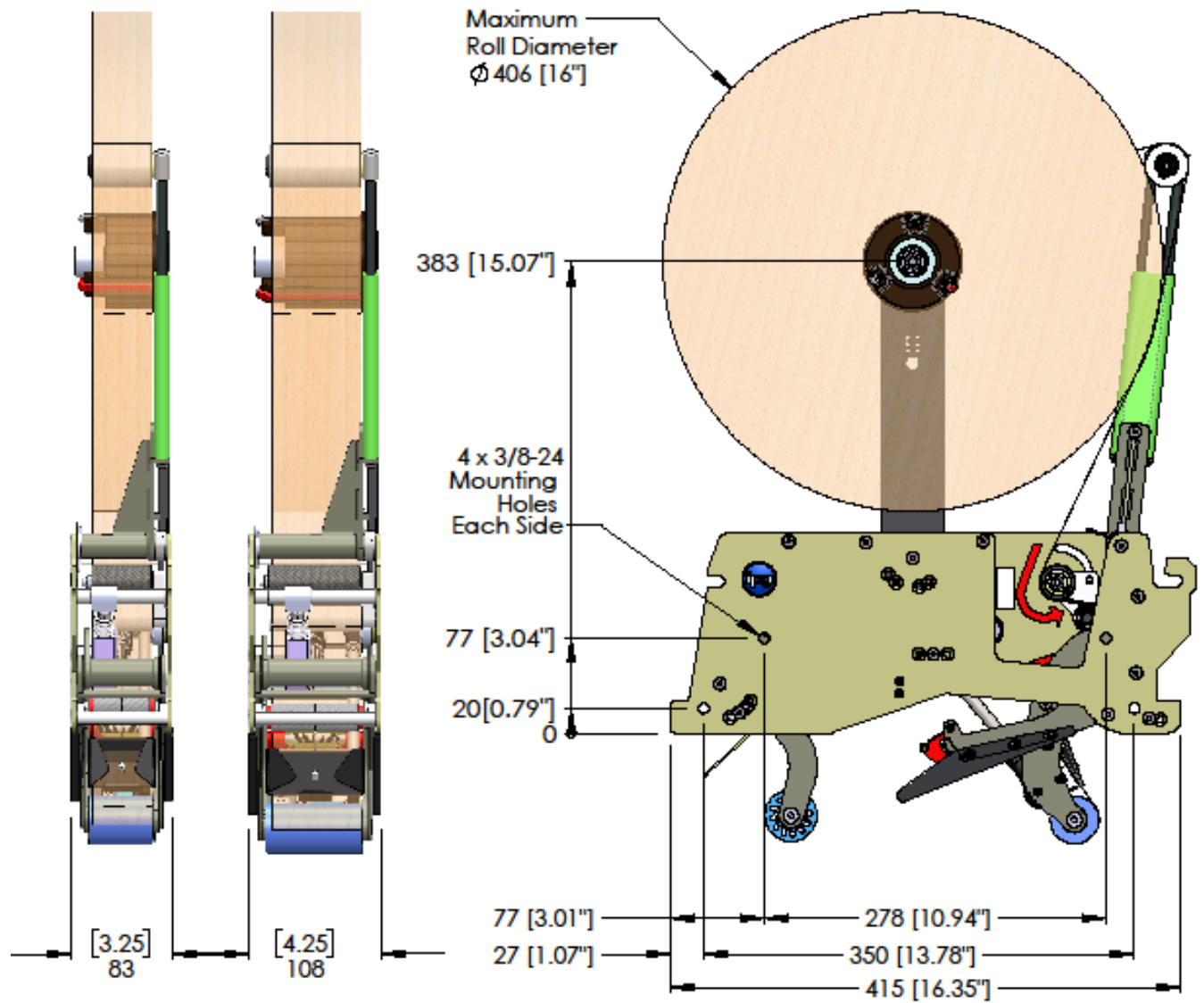


Figure 6-1

# SPECIFICATIONS

## Tape Head Components

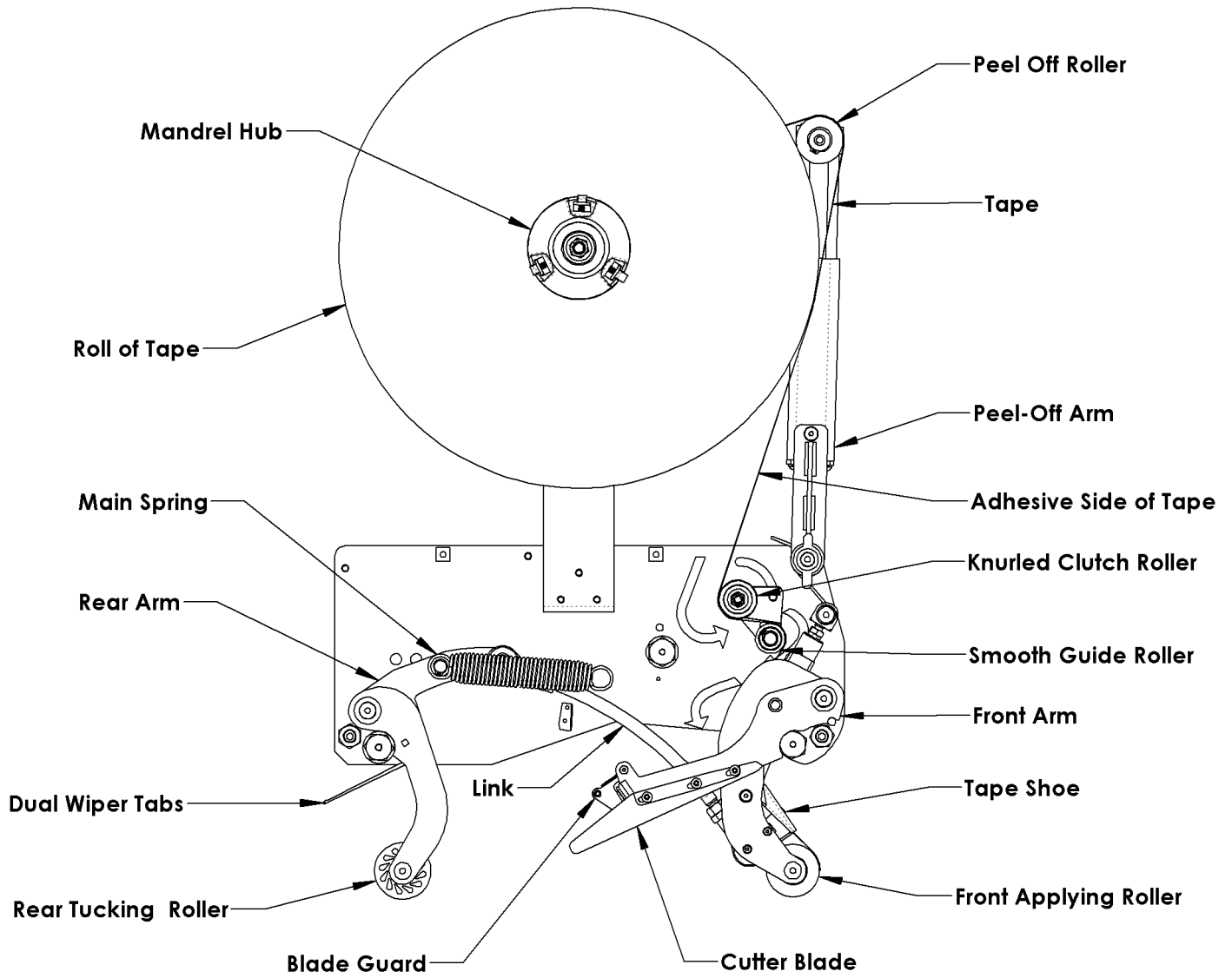


Figure 6-2

# 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.

**Note: The ET xtreme® Standard Tape Head CAN be washed down with mild Detergent (soap).**

## Tape Head Specifications

### 1) General

Use Intertape brand Pressure Sensitive Sealing Tape.

### 2) Tape Width

For ET xtreme® 2" (48mm) models:

1 ½ to 2 inch wide tape (36 to 48 mm).

For ET xtreme® 3" (72mm) models:

2 ½ to 3 inch wide tape (60 to 72mm).

### 3) Tape Roll Diameter

Maximum of 16 inches (405 mm) on a 3-inch (76.86 mm) diameter core.  
(Accommodates all Intertape brand film tape machine roll lengths).

### 4) Tape Application Leg Length – Standard

2 ¾ " ± 1/8" (70 ± 3mm).

### 5) Tape Application Leg Length – Optional

The tape leg length can be adjusted from:  
2 inches to 3 inches (50 mm to 76 mm).

### 6) Tape Head Weight

ET xtreme® LD 2" Tape Head weighs 9 lbs. (4 kg.).

ET xtreme® LD 3" Tape Head weighs 9.9 lbs. (4.5 kg.).

### 7) Operating Speed

For use with line speeds up to 140 ft/min maximum.

**PLEASE NOTE:** A stronger main spring may be necessary to process cases at 140 ft/ min. Void filled cases should not be processed with the stronger main spring.



# SPECIFICATIONS

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## **Installation of ET xtreme® LD in Loveshaw Machinery**

This tape head can be used to upgrade case sealers provided by Loveshaw. It can be mounted in upper, lower positions. For installation of tape heads on Loveshaw branded machines, contact your distributor or technical support (see pg. 4) for required mounting adaptors. For expedited service, please have machine model and serial number on hand.

- 1) The case must be positively propelled through the case sealer taking into account any void fills, overfills, stability factors or weight factors.
- 2) Verify the case sizes which will be processed through the case sealer. Installing Interpack ET xtreme® LD tape heads to process very short cases may cause the tape heads to collide with each other.
- 3) If a flight bar or lug drive system propels the case, ensure that these devices provide proper clearance and do not contact any portion of the tape head.
- 4) Ascertain that the proper adapter kits have been ordered and received with the tape head.

# SET-UP PROCEDURES

---

## Receiving and Handling

All contents must be verified upon reception. The following items are included with each tape head.

<b>DESCRIPTION</b>	<b>UH 232T 2" WIDE</b>	<b>UH 432T 3" WIDE</b>
Main Tape Head assembly	1	1
SS Main spring (part no. UPH1091)	1	1
SS Ext. Main spring (part no. UPH0910)	1	1
Knife arm spring (part no. UPH7427)	1	1
Operational manual & parts list	1	1

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

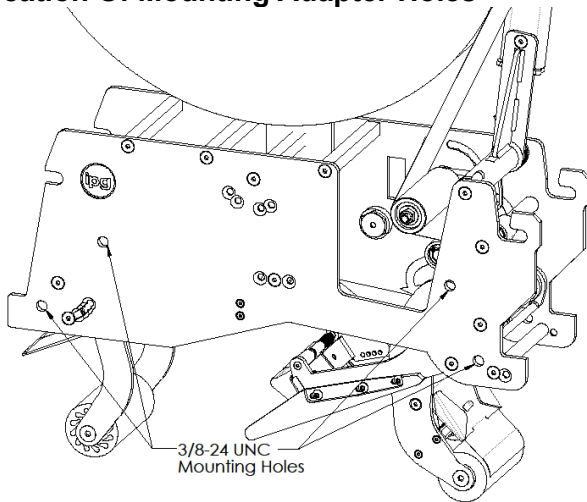
# SET-UP PROCEDURES

**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.

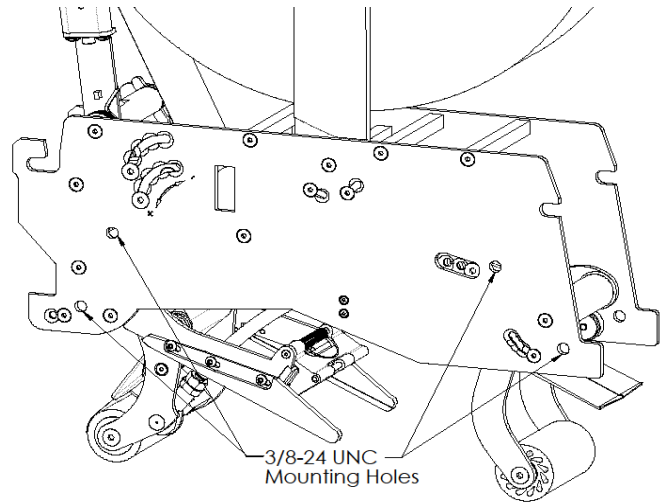
## Mounting Adapters

ET xtreme® LD Tape Heads may or may not require **Mounting Adaptor Hardware** to install in a Loveshaw case sealer or case erector. If your tape heads will be installed in Little David branded machinery, please review the general guidelines to that machine, plus any additional instructions included with your ET xtreme® LD tape head. Typically the tape head will hook into the machine by its slots, in which case one does not need adaptors. In other situations it may require additional adaptors. Customer service shall be able to provide help.

### Location Of Mounting Adapter Holes



**Front Side  
Figure 7-1**

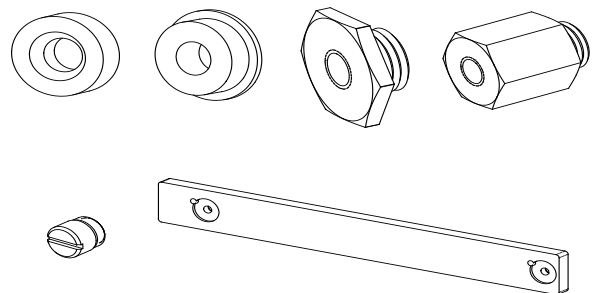


**Rear Side  
Figure 7-2**

### Examples Of Mounting Hardware

There are four (4) mounting holes on the main and cover plates of the tape head. These are used to install various mounting adaptors. Examples of these mounting adaptors are:

1. Internal and external threaded nuts.
2. Mounting Bars.
3. Threaded Spacers.



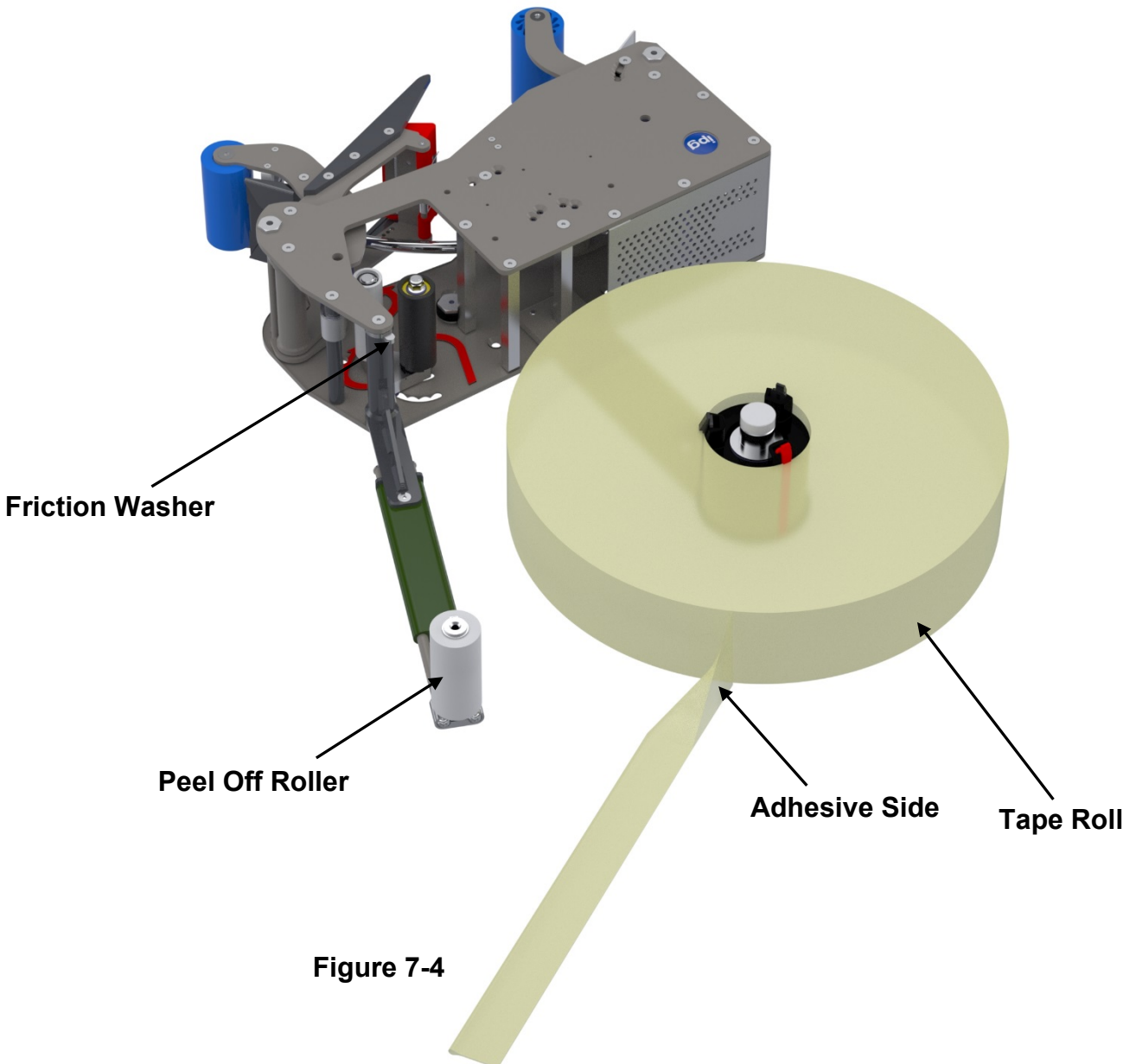
**Figure 7-3**

# SET-UP PROCEDURES

## Tape Loading

The ET xtreme® is designed to accommodate 2-inch (48mm) wide tape rolls, while the ET xtreme®/3" accommodates 3-inch (72mm) wide rolls.

1. Place the tape head onto a sturdy, flat surface.
2. Move the Peel Off Roller away from the mandrel. if you need help to keep Peel Off arm away, latch the friction washer temporarily.
3. Push the roll of tape onto the mandrel with the adhesive side facing away from the peel Off Roller (refer to **Threading Diagram on Figure 5-4** under Tape Threading section in this manual) until the core seats against the mandrel flange. This ensures the tape will be aligned when feeding into the tape head.
4. Loosen friction washer and turn the Peel Off Arm against the tape roll.

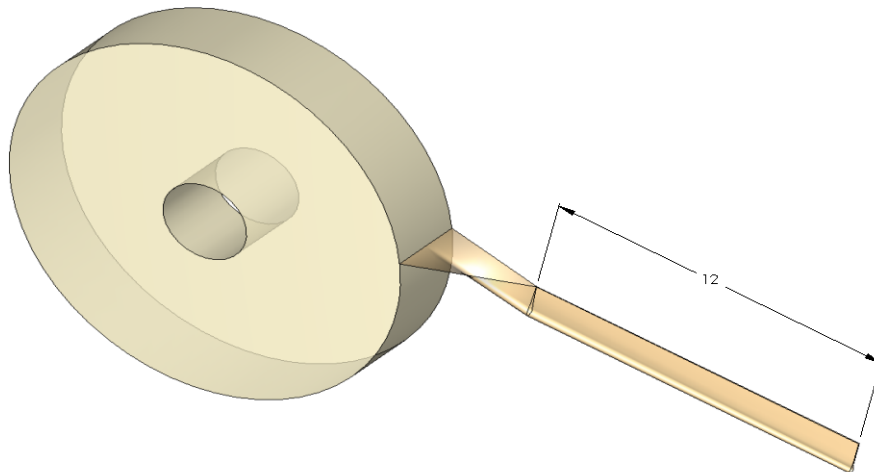


## SET-UP PROCEDURES

---

**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.**

### Tape Threading Preparation



**Figure 7-5**

Threading the tape in the Tape Head does not require any special tools. Pull approximately twelve (12) inches of tape from the roll and fold in half lengthwise, adhesive side to adhesive side. This allows you to thread the tape without it adhering to the guide and clutch rollers inside the Tape Head.

## SET-UP PROCEDURES

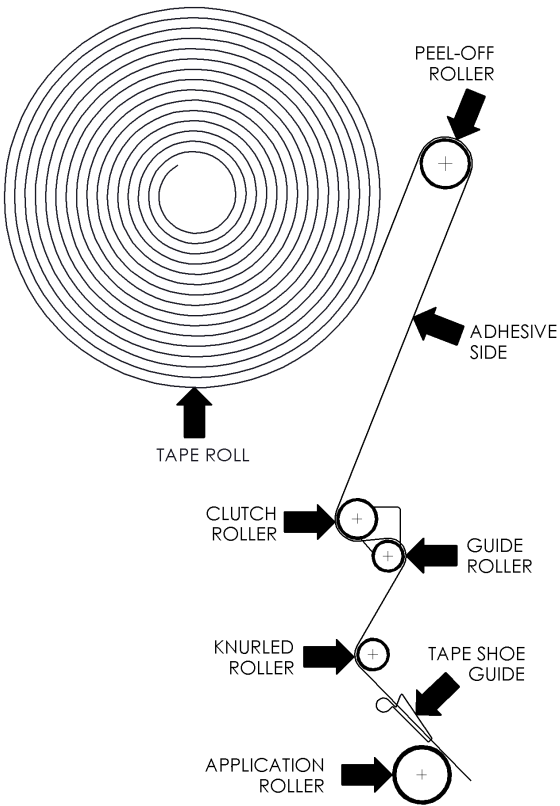


Figure 7-6

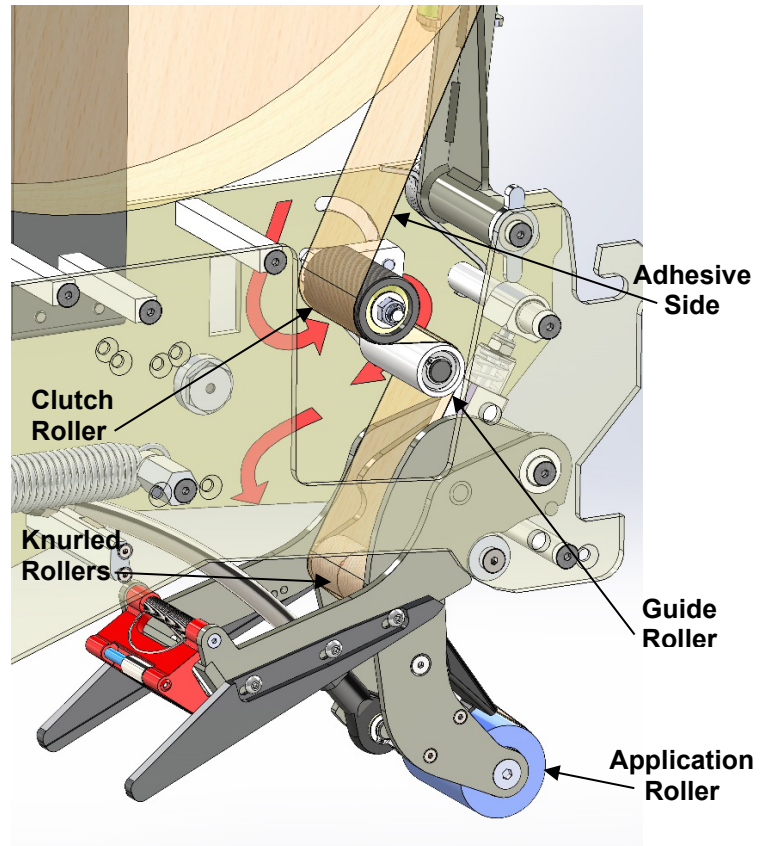


Figure 7-7

Refer to **Figures 7-6 & 7-7** for visual assistance of the following tape threading.

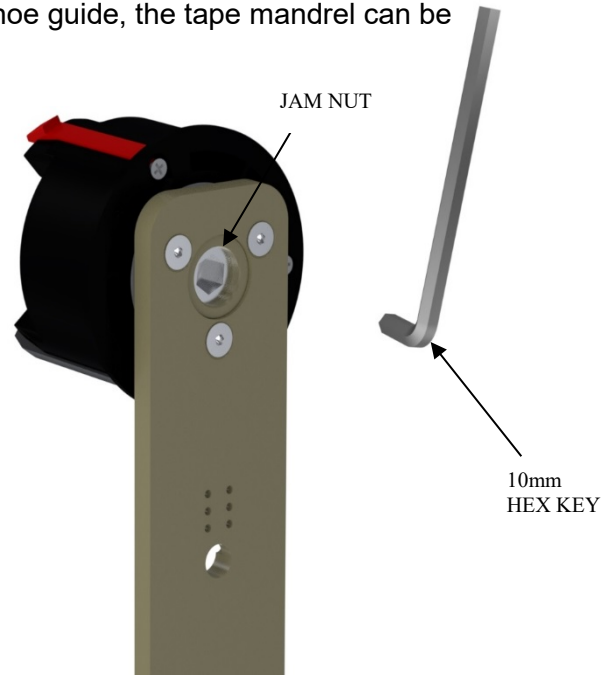
1. First thread the tape tail over the **Peel Off Roller**.
2. Continue to thread the tape over and around the “knurled” **Clutch Roller**.
3. Then pass the tape up and over the “smooth” **Guide Roller**.
4. Continue threading the tape over and behind the final “knurled” **Guide Rollers**.
5. Thread the tape through the cut-out provided in the **Tape Guide Shoe** and pull the tape through to the front of the **Application Roller**, ensuring that the tape is retained in the tape guide shoe.
6. Cut off the folded tape.
7. Replace the Tape Head to its initial position in the machine.

# SET-UP PROCEDURES

## Tape Centering

If the tape is not centered as it travels through the tape shoe guide, the tape mandrel can be adjusted in or out to correct this.

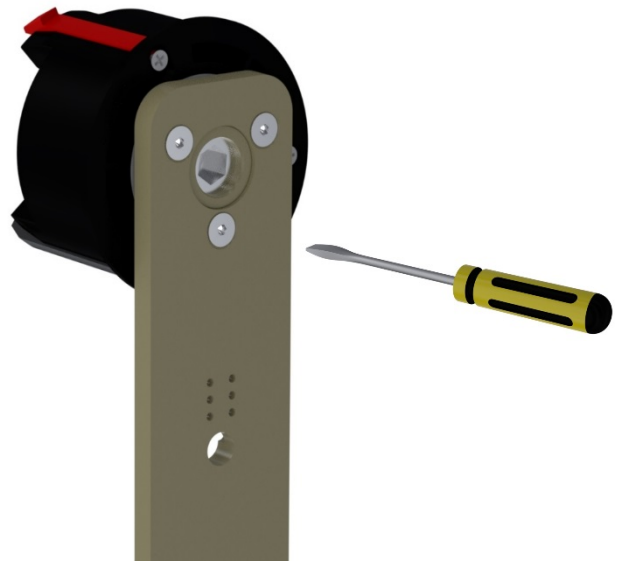
Loosen the M18 inverse jam nut on the rear of the mandrel as shown in **Figure 7-8**. with a 10 mm allen key. (Turn it counterclockwise to unlock it.)



**Figure 7-8**

Adjust the shaft in or out as required using a flathead screwdriver as illustrated in **Figure 7-9**. When the tape is centered, tighten the jam nut.

**Note:** One full turn will result in 1mm tape displacement.



**Figure 7-9**

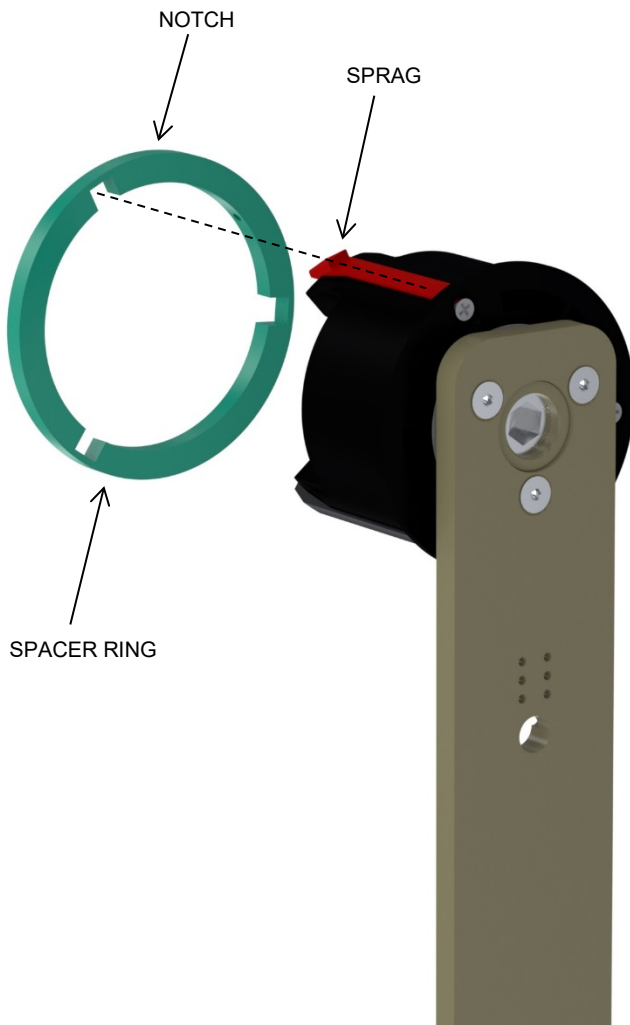
## SET-UP PROCEDURES

### Centring 36mm(1 ½”) & 60mm(2 ½”) Tapes

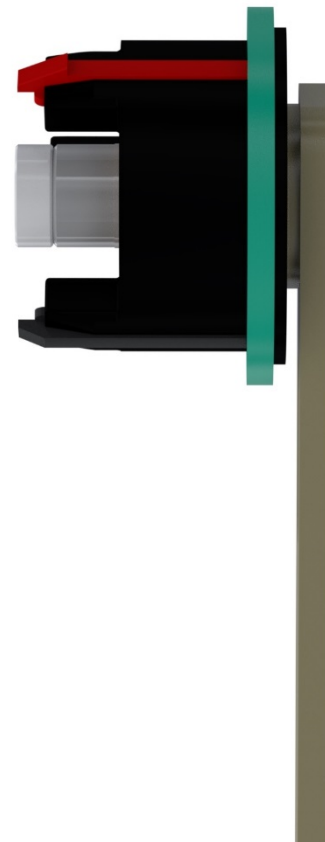
If the tape is not a standard size, the tape mandrel hub will need a Spacer Ring to center the tape.

Spacer Ring part # is UPH7435. Use the Spacer rings for the 36mm(1 ½”) tape on a 2” mandrel hub and the 60mm(2 ½”) tape on a 3” mandrel hub.

1. Position the Spacer Ring in front of the mandrel hub in a way that the notches of the Spacer Ring will align with the Sprags on the mandrel hub as shown in **Figure 7-10**.
2. Push the Spacer Ring all the way on the mandrel hub as shown in **Figure 7-11**.
3. It will take a second Spacer Ring to sandwich the tape roll into position.



**Figure 7-10**



**Figure 7-11**



# SET-UP PROCEDURES

## Tape Leg Length Adjustment

For maximum sealing, the tape leg length has been factory set at 3 inches (76 mm). However, the tape leg length can be shortened.

### Front Tape Leg

To adjust the tape leg length on the front panel of the box, refer to **Figure 7-12** of the clutch assembly. Facing the rear main frame, loosen the two (2) M6 Flat Head Cap Screws using a 4 mm hexagonal key. Move the clutch assembly to bring it towards the minus (-) sign stamped on the plate for a shorter tape leg. Conversely, bring the M6 screw towards the plus (+) sign for a longer tape leg. Re-tighten both M6 Flat Head Cap Screws.

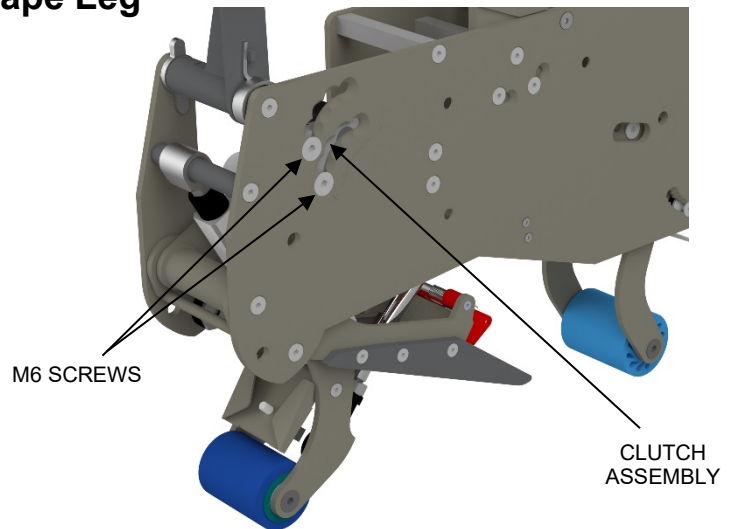


Figure 7-12

### Rear Tape Leg

To adjust the tape leg length on the trailing end of the box, both knife arm extension brackets must be re-positioned in unison. Unscrew the three M4 screws on each knife arm extension using a 2.5 mm hexagonal key. For a Shorter Tape Leg, bring the knife arm towards the front of the tape head. Conversely, for a Longer Tape Leg, bring the knife arm Extension towards the rear of the tape head. Replace the three (3) M4 screws on each knife arm extension and tighten them. Once you obtained the required rear tape leg, secure the screws with (purple) Loctatie 222 threading agent. Please note that the rear tape leg is dependent on line speed.

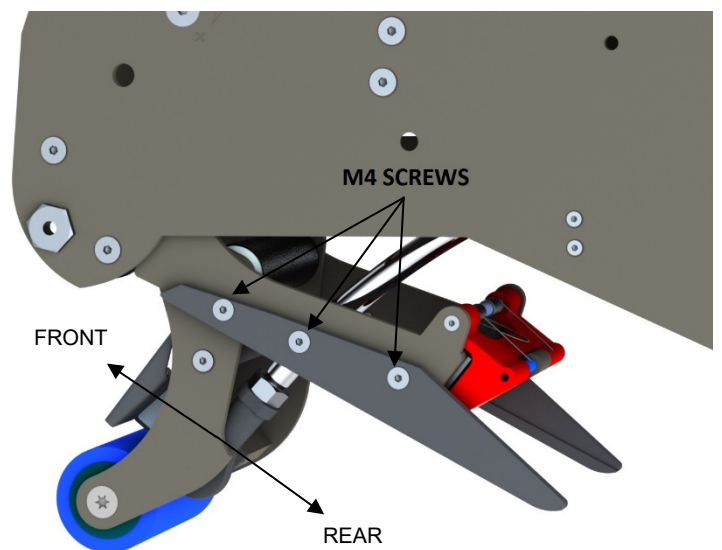


Figure 7-13

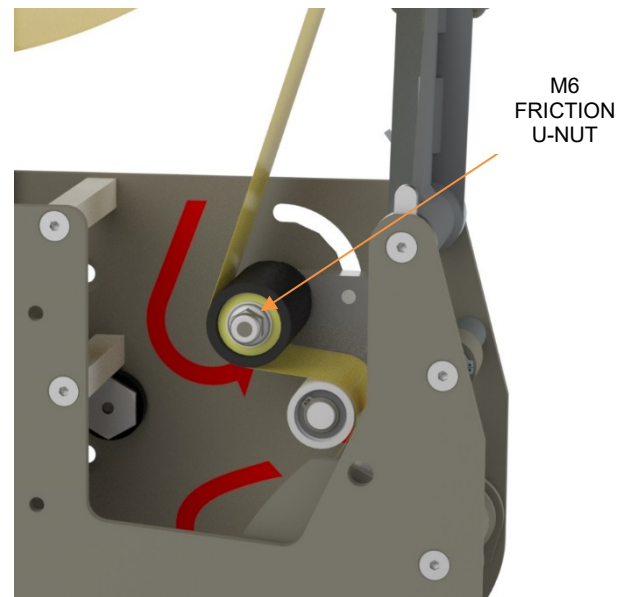
# SET-UP PROCEDURES

## Clutch Roller Adjustment

The one-way clutch roller assures that the tape does not go backwards any time during dispensing, further more it is a tool in achieving correct front tape leg length.

Different quality tapes have different adhesives and release coats. This has an effect on the dispensing, e.g. very “sticky” tapes are peeling-off with higher resistance, so they will need minimal tension on the clutch roller. Tapes that unwind easily may need more tension on the clutch roller to achieve uniform front tape leg length during sealing.

- 1.) To decrease the clutch roller’s tension, turn the M6 friction nut at the end of roller counterclockwise, it requires a 10 mm wrench. Do not loosen to the point that the roller could be moved laterally on the shaft.
- 2.) To increase the clutch roller’s tension one needs to turn the M6 friction nut clockwise. Make tiny increments (less than eighths of a turn) at a time and check the sealing results before going any further. Once the disc spring has been over squeezed it may lose its properties. To avoid this eventuality, pay attention.



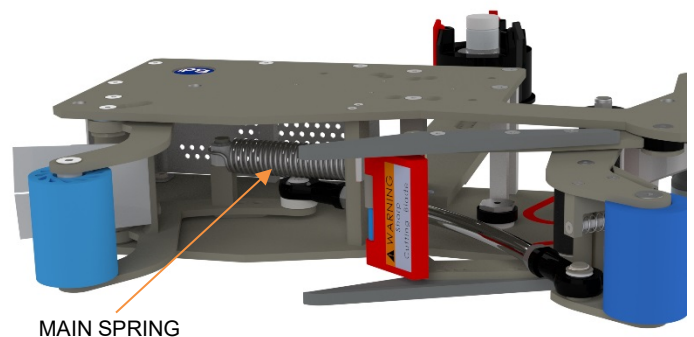
## Main Spring Adjustment

The main spring retainers are set at the factory for the most common applications. The top tape head will need lighter springs, UPH0910 or UPH0911, while the bottom positioned tape head will need heavier springs, UPH1091.

The ET-X 3-inch tape heads can run up to 140 ft/min line speed, the 2-inch version up to 150 ft/min line speed. In applications one might have normal cases, over filled cases, void filled cases, flimsy corrugated boxes, stiff double fluted cases. The speed and the nature of the box will determine the best main spring setting. Typically, the higher the line speed the more tension one requires from the main spring. To increase the rollers’ pressure we have the following techniques to choose from in order of ease:

### Option 1:

If one needs a little bit more (~15%) pressure on the application rollers and have a stainless steel spring mounted on the tape head, may change the spring for the music wire version. (UPH0911 for top tape head and UPH1091 for bottom tape head)

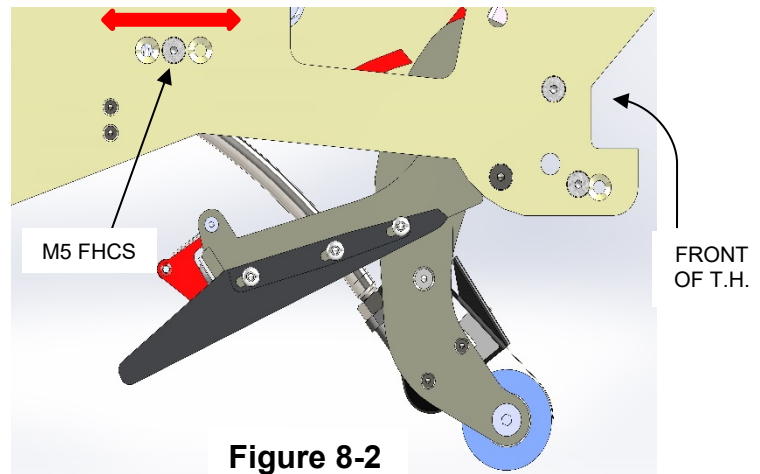


**Figure 8-1**

## SET-UP PROCEDURES

### Option 2:

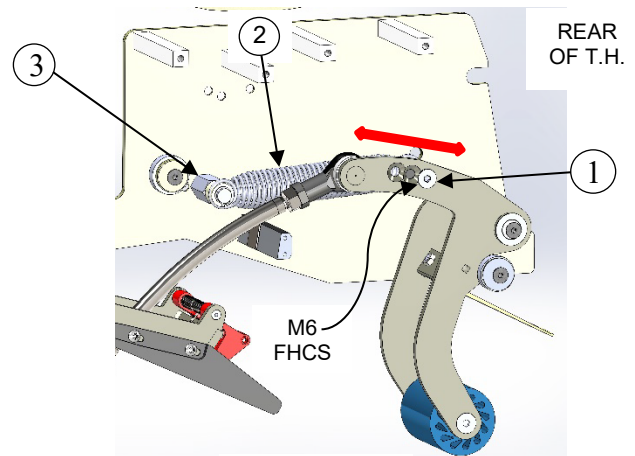
To change the rollers' pressure one can move the spring retainers position on the cover frame. Move the M5 FHCS towards the front of the tape head to increase the pressure or towards the rear to decrease the pressure. See **Figure 8-2**.



**Figure 8-2**

### Option 3:

When the loop is still persevering in the rear tape leg, one can raise the spring retainer's position on the rear arm. This will increase the torque on the rear arm. Loosen the M6 FHCS on the rear arm and move a position up, farther away from the pivot axis.



**Figure 8-3**

The previously listed 3 options may need to be employed in combination to get the best result. For instance, to get the 3-inch tape head in top tape head mode at 130 ft/min line speed make the following set up, refer to **Figure 8-3**. Put the M6 FHCS (**item 1**) on rear arm on the second position from pivot shaft. Put the M6 FHCS (**Item 3**) on the Cover Frame closest to the rear end position. Take the heavy stainless steel main spring UPH1091 (**item 2**) and attach it to these spring retainer points.

A reminder to tone down unrealistic expectations; boxes without stamina cannot be processed at high speeds.

## SET-UP PROCEDURES

### Low Profile Setting

When processing 4"- 6" high cases, one might want to set the tape head into low profile position. In this case the application rollers will extend to 2". To achieve these 2" tape legs, the rear bumpers have to be moved on the main frame and cover frame in synch. With the help of a  $\frac{3}{4}$ " wrench and a 3 mm allen key loosen the M5 FHCS holding the bumpers. Reposition them into the third notch in the middle, - see figure 8-4. Making the arms extending shorter than 2" is not recommended. Also refer to page 21 for tape leg settings.

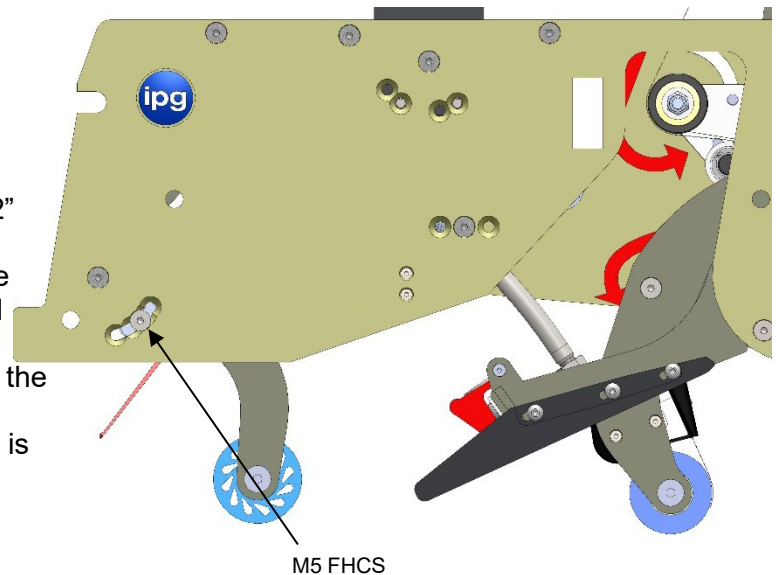
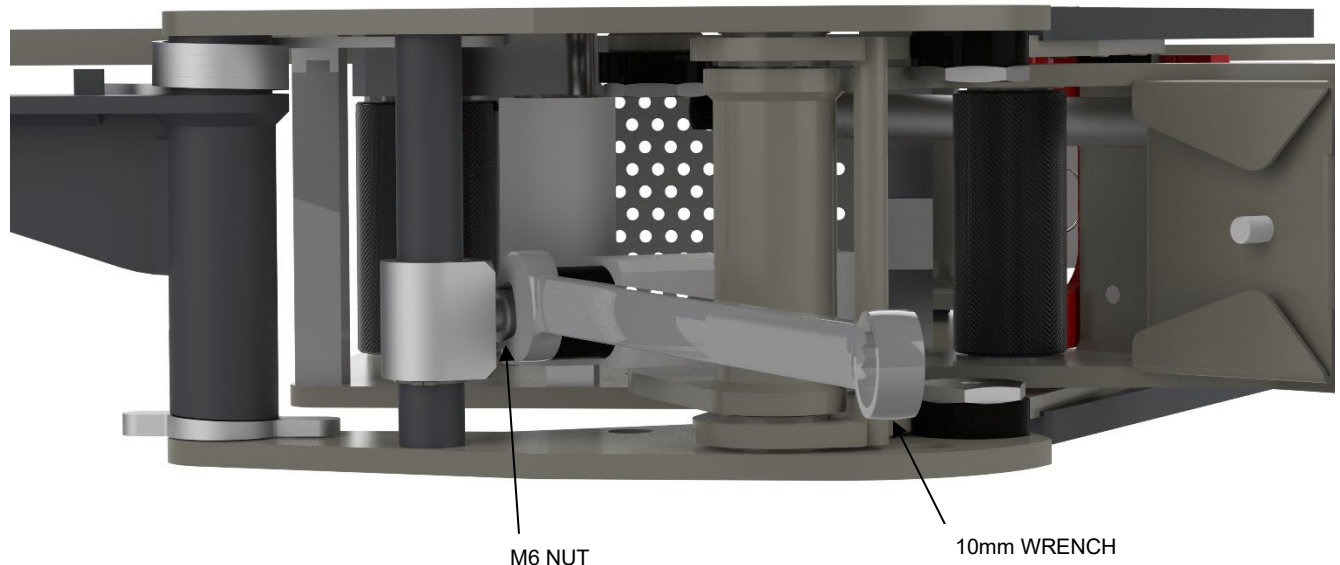


Figure 8-4

### Knife Arm Spring Adjustment

1. To increase the force, using a 10mm open end wrench, turn the 6mm nylon lock nut clockwise until desired pressure achieved.
2. To decrease the force, using a 10mm open end wrench turn the nylon lock nut counter clockwise, so that the pressure on top flaps is reduced, but it still cuts the tape.



## TROUBLESHOOTING

ET xtreme® Tape Heads are fabricated with high quality components that provide trouble-free operation for a long period of time. 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 Interpack Technical Support. (see page 2 of this document).

TROUBLE	POSSIBLE CAUSES	SOLUTIONS
Tape does not cut cleanly.	Blade needs to be replaced.	Replace blade. Refer to preventive maintenance section for details.
	Knife compression spring too weak or broken. Increase pressure on compression spring in repulsive pivot assembly.	Replace Knife Arm Spring. Refer to preventive maintenance section for details.
	One way clutch roller needs adjusting.	Slightly increase the tension on the one way clutched roller.
Front tape leg too short.	Generally, too much tension on the application of the tape.	Follow corrective action in “ <b>Tape Flagging</b> ” section below.
	Tape threaded incorrectly.	Check for proper tape threading against threading diagram on side plate of tape head.
	Tape leg length misadjusted.	Re-set front tape leg length.
Tape Leg <i>in the tape head</i> folds up on itself.	Strong air circulation (fan) is in the vicinity.	Redirect airflow away from the tape head.
	Spring loaded finger is out of position.	Check compression spring mobility.
Rear tape leg does not fit tight on the box. (ripple effect).	Main spring is not strong enough.	Change for the stronger main spring. (Part no. UPH1090)

## TROUBLESHOOTING, CONTINUED

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TROUBLE	POSSIBLE CAUSES	SOLUTIONS
<p><b>“Tape Flagging”</b> or folding on itself on the trailing tape leg.</p>	<p>Generally, too much tension on the application of the tape. Follow steps below.</p>	
	<p>Applying urethane rollers, delrin guide rollers, knurled metal rollers should spin freely. Check for any adhesive migration or build up.</p>	<p>Remove any adhesive build up with silicon spray. Disassemble any non free spinning rollers and remove any adhesive build up on shafts.</p>
	<p>Mandrel does not spin freely even after tension is reduced.</p>	<p>Disassemble mandrel assembly and check debris.</p>
	<p>Too much one way clutch roller tension.</p>	<p>Decrease clutch roller tension.</p>
	<p>Tape unwind is difficult.</p>	<p>Check freedom of Peel Off Roller.</p>
	<p>Cutter blade is dull.</p>	<p>Replace blade and oil blade pad.</p>

## TROUBLESHOOTING, CONTINUED

TROUBLE	POSSIBLE CAUSES	SOLUTIONS
Front tape leg too long.	Tape threaded incorrectly.	Check for proper tape threading against threading diagram on side plate of tape head.  Tighten clutch roller a tad.
	Tape leg length misadjusted.	Re-set front tape leg length.
Rear tape leg too short.	Generally, too much tension on the application of the tape.	Follow corrective action in “ <b>Tape Flagging</b> ” section above.
	Tape leg length misadjusted.	Adjust knife arm extensions.
Rear tape leg too long.	Tape threaded incorrectly.	Check for proper tape threading against threading diagram on side plate of tape head.
	Tape leg length misadjusted.	Adjust knife arm extensions.
Tape not centered on the center seam of the case.	<p>Check the box, are the flaps overlapping on each other?</p> <p>Check if the whole tape head is mounted in between the centering guides or drive belts.</p> <p>Check if tape is against the mandrel hub’s flange.</p> <p>Tape Head mandrel not centered.</p>	<p>Readjust mandrel so tape is centered on the case.</p> <p>As a last resort use unequal adaptors on the left and right sides.</p>

## RECOMMENDED SPARE PARTS LIST

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We recommend that you stock the following spare parts. These parts are contained in the “spare parts kit” indicated below. The components of the spare parts kits are also referenced should individual components need to be ordered.

### ET xtreme® Standard 2” Wide Spare Parts Kit UH1010

Parts Contained in UH 1010 Spare Parts Kit			
MODEL NUMBER	DESCRIPTION	ITEM NUMBER	QUANTITY
	Front Roller 2”	UPH1448	1
	Dual Wiper Tabs 2”	UPH4894	1
	Ext. spring, light	UPH0999	1
	Ext. spring, light SS	UPH0910	1
	Knife guard spring	UPH7009	1
	Cut-off blade 2” SS, NC	UPH0193	1
	SS Main Spring ETM.080	UPH1091	1



# RECOMMENDED SPARE PARTS LIST

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## ET xtreme® Standard 3” Wide Spare Parts Kit UH 1011

Parts Contained in UH 1011 Spare Parts Kit			
MODEL NUMBER	DESCRIPTION	ITEM NUMBER	QUANTITY
	Front Roller 3”	UPH1449	1
	Dual Wiper Tabs 3”	UPH4895	1
	Ext. spring, light	UPH0999	1
	Ext. spring, light SS	UPH0910	1
	Knife guard spring	UPH7009	1
	Cut-off blade 3” SS, NC	UPH0271	1
	SS Main Spring ETM.080	UPH1091	1

# PREVENTIVE MAINTENANCE

**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 ET xtreme® has been designed and manufactured with the finest components to provide long, trouble free performance. General preventive maintenance will improve performance and prolong the life of the tape head.

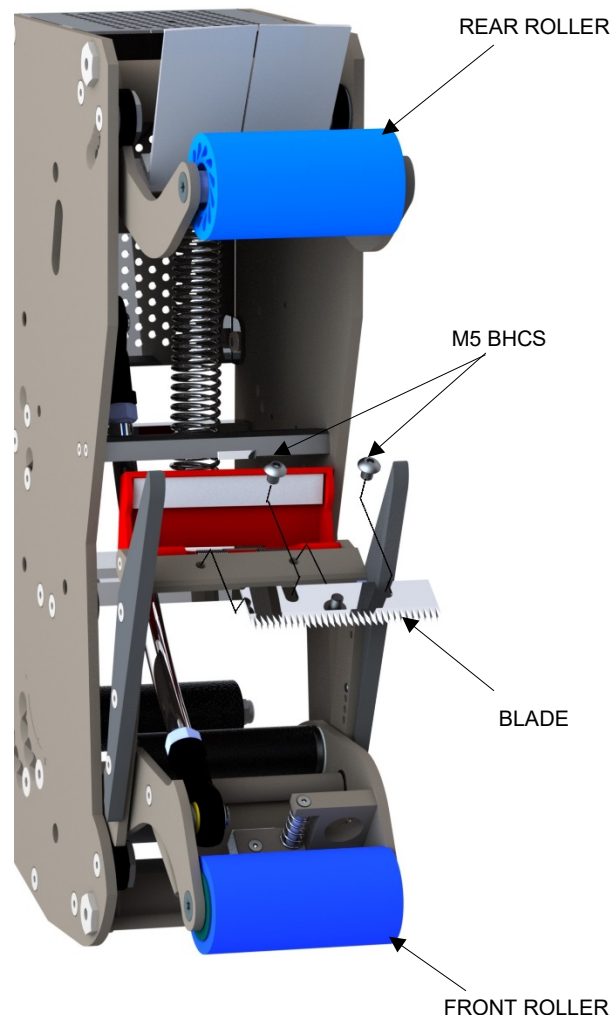
Please review the illustration and chart below for information regarding tape head maintenance.

## **Knife Blade Replacement**

The knife blade is made from stainless steel and should provide a minimum of 250,000 cycles before replacement.

The cut-off blade is secured in position using two (2) M5 Button Head Cap Screws. To replace the cut-off blade:

1. Loosen both screws with a 3 mm hexagonal key. Do not remove the screws.
2. Remove the blade by sliding out.
3. Insert the new blade with the inclined face facing toward the rear roller.
4. Ensure the blade goes all the way against the screws and tighten properly.



**Figure 10-1**

# PREVENTIVE MAINTENANCE

## Lubrication

The ET xtreme® components ship from the factory permanently lubricated. No additional lubrication is necessary, however, a small amount of lightweight oil applied to rotating and pivot points will extend the life of the tape head and assure maximum performance.

There is, however, a felt pad on the blade guard which can serve as an oiler pad to help clean the blade should adhesive accumulate. Add a small amount of lightweight oil (mineral oil, food grade 70) or silicon spray so that when a case is processed, the oil from the pad is transferred to the blade as the knife guard is opened and closed (refer to Preventative Maintenance on pg. 40 for further information).

## Oiler Pad Lubrication

**WARNING! USE CAUTION WHEN OILING THIS PAD AS THE CUTTER BLADE IS VERY SHARP. DO NOT OPERATE THE TAPE HEAD WITHOUT THE FELT PAD OR BLADEGUARD FOR THAT MATTER.**

1. Retract the blade guard.
2. Remove any debris or accumulated adhesive build up.
3. Apply 5 to 10 drops of either mineral oil or silicon lubricant to the pad.
4. Release the blade guard against the blade.

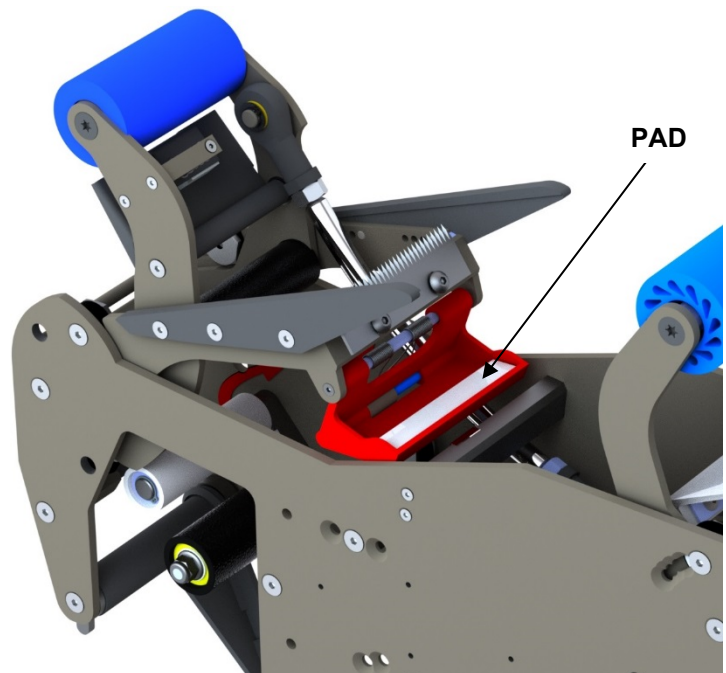


Figure 10-2

# PREVENTIVE MAINTENANCE

## Application Roller Replacement

These blue rollers are wear items and should be inspected regularly and replaced if necessary.

### Front & Rear Urethane Roller Replacement

#### Removing The Urethane Roller

1. Using two Allen keys, remove the M6 screws.
2. Application of heat may be required to break loose from the threading agent. When one of the M6 screws comes out, insert a 5 mm allen key into its place, thereby locking down the shaft.
3. Now one can proceed to remove the other screw.
4. Remove the PTFE washer and spring washer.
5. Remove the front roller hub.
6. With a sharp utility knife, cut away the blue urethane roller from its roller core.

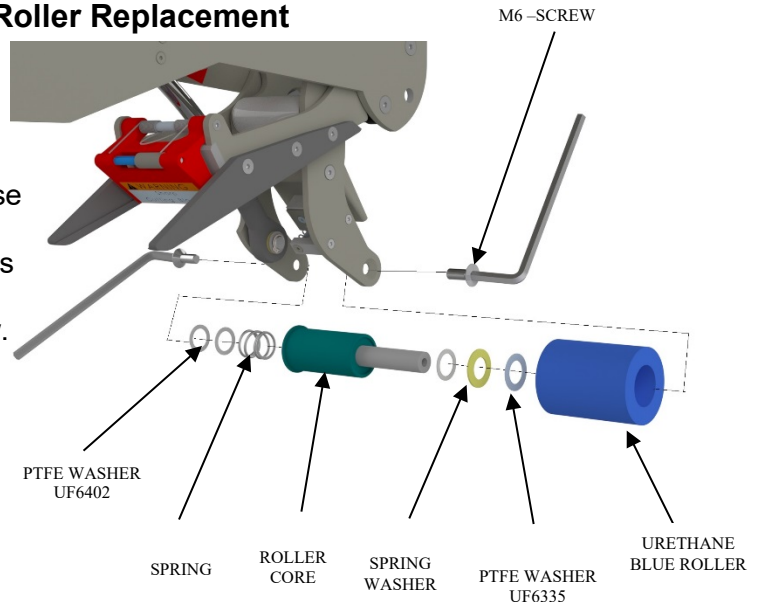


Figure 10-3

#### Installing The New Urethane Roller

1. Moisten the roller core's outside and the urethane roller's inside by applying soapy water or foam.
2. Feed the urethane roller onto the end of the roller core. The closed air pocket will help the urethane tube to hop over the core.
3. Press the urethane roller until it reaches the roller core's rim/shoulder. (do not exert excessive force so that the rim would crack)
4. Place roller back onto the shaft, rimmed side closer to main frame.
5. To reinstall back into the roller arm, refer to **Figure 10-3**. for an exploded view. The smaller PTFE washer (UF6402) will go to the clutch bearing side, the bigger PTFE washers (UF6335) and the disc spring (UF4401) go into the recessed side of the roller core.

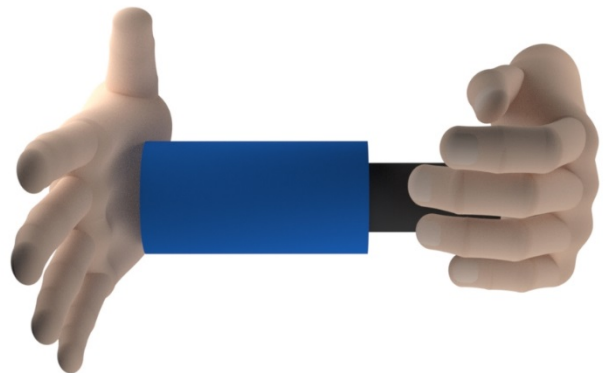


Figure 10-4

**NOTE:** The front roller assembly should have just enough tension, so that it is not free spinning. Apply a drop of purple Loctite on the M6 screws when reassembling. Ascertain that the Loctite does not bleed out (as it could prevent spinning).

# PREVENTIVE MAINTENANCE

## Spring Replacements

There are three springs on the ET xtreme®. These springs are wear items and should be inspected regularly and replaced if necessary. Below are instructions for replacing the two most common springs.

### Main Spring Replacement

1. Take off the damaged spring.
2. Hook one end of the new spring over the nylon spring retainer sleeve's groove.
3. Stretch the spring over rear arms spring retainer ring using either a spring puller (10" approx.) or your fingers. Hook the loop securely into the retainers groove.

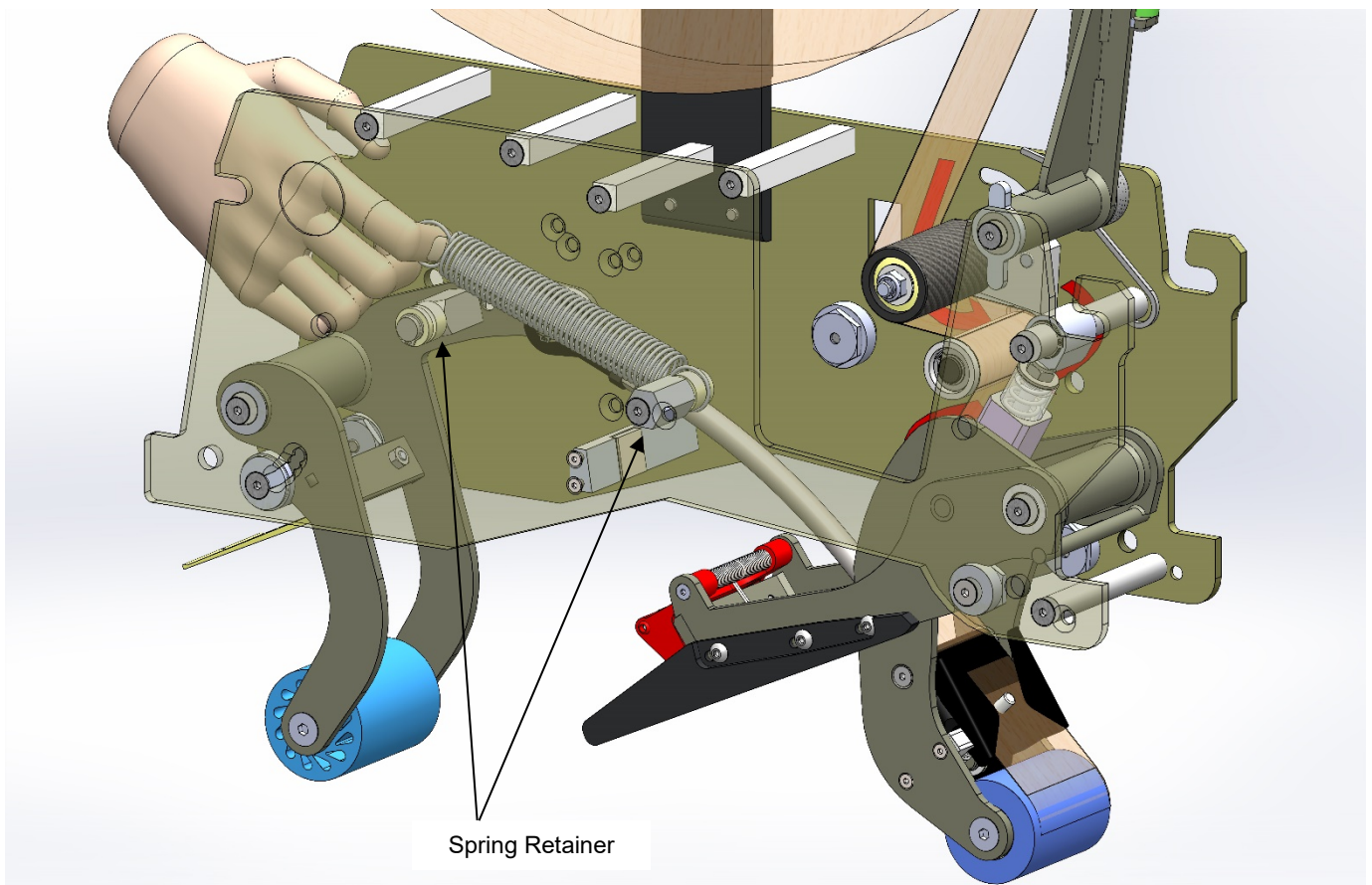


Figure 10-5

# PREVENTIVE MAINTENANCE

## Knife Arm Spring Replacement

If the compression spring breaks, the sequence to change it is as follows.

1. Remove the snap ring attached to the knife arm assembly. (Wear safety glasses while working with retaining rings).

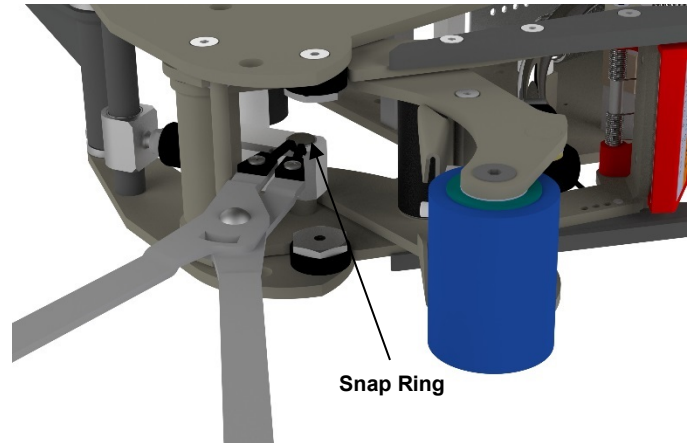


Figure 10-6

2. Slide off the repulsive pivot assembly from current position as shown in **Figure 10-7**.

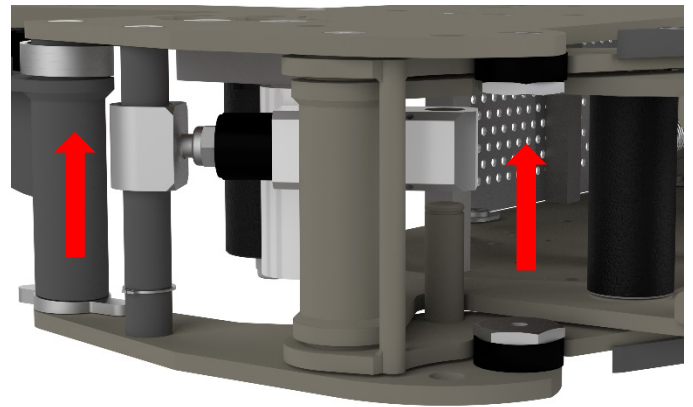


Figure 10-7

3. Remove the spring barrel from overlapping position as shown in **Figure 10-8**. Remove any broken particle from the spring guide. Install new compression spring into the captive position.

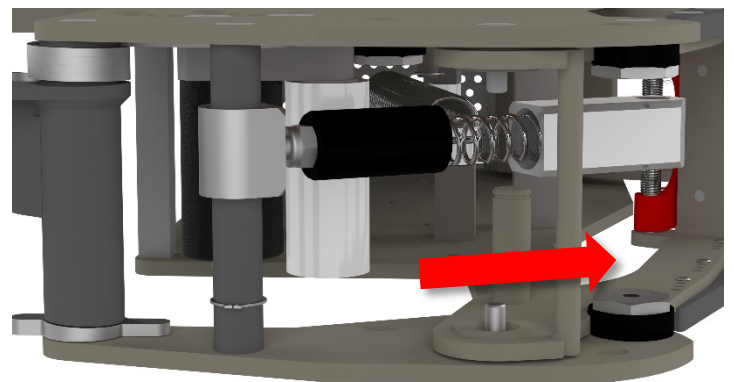


Figure 10-8



## PREVENTIVE MAINTENANCE

4. Press the spring barrel against the spring mandrel until it is ready to slide back on the short shaft. **See Figure 10-9.** Move the whole sub assembly back to its original position.

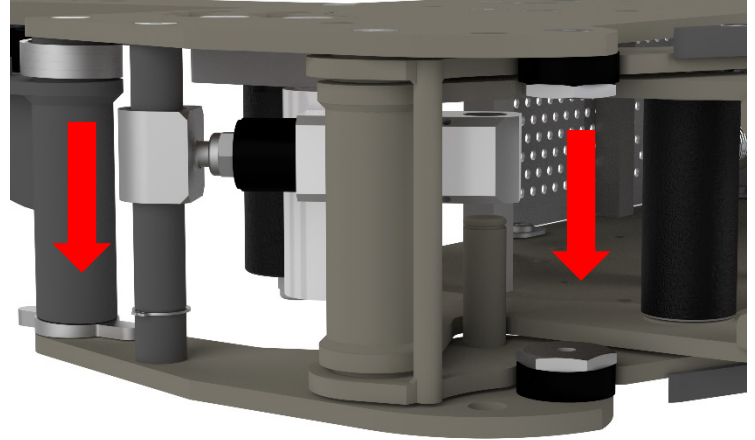


Figure 10-9

5. Reinsert retaining ring to the grooves. Should the 10 mm retaining ring get damaged replace it with a new one. **(Figure 10-10.)** Calibrate the spring pressure with the M6 nylon lock nut as described earlier.

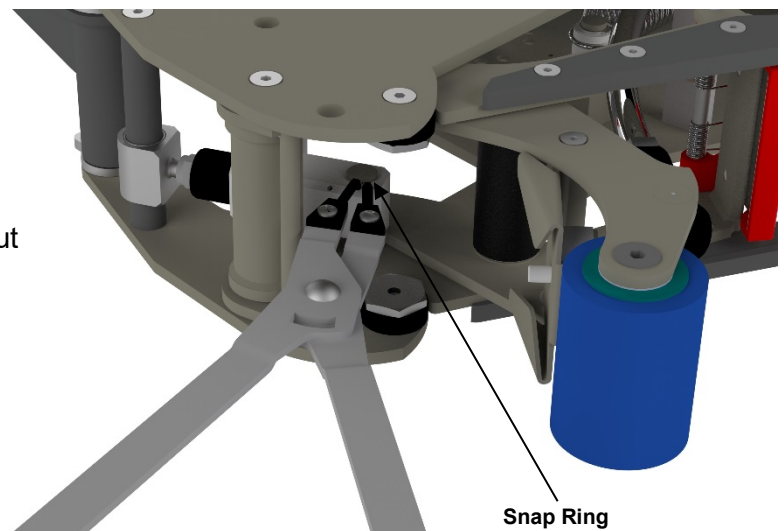


Figure 10-10

# PREVENTIVE MAINTENANCE

## Knife Guard Spring Replacement

As a precaution, remove the cutter blade to avoid injury.

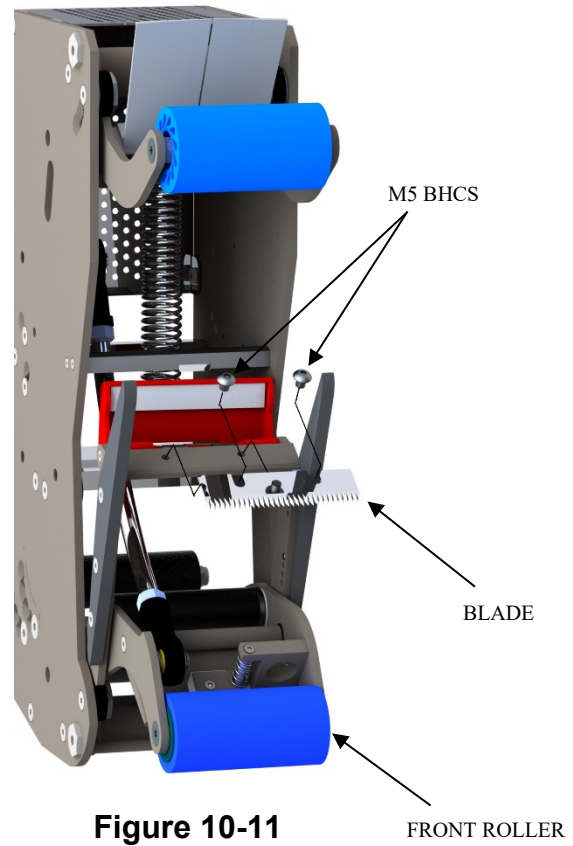


Figure 10-11

## Remove the cross shaft

**NOTE:** These screws are secured with Loctite and may require applied heat prior to removal.

1. Using two 2mm hexagonal keys as shown, remove one of the flathead screws by applying force on both hexagonal key in an attempt to break free one from locking agent.
2. Once one of the screws is free, only continue to remove that screw.
3. Leave the remaining flathead screw that did not yield, attached to the cross shaft.

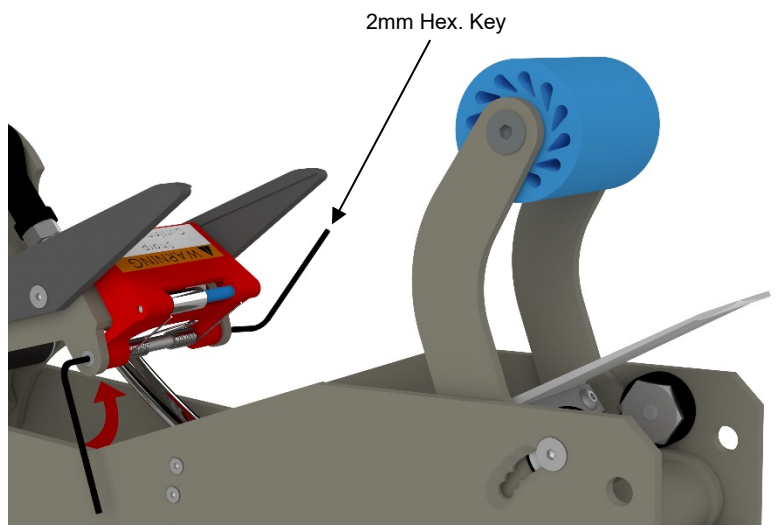


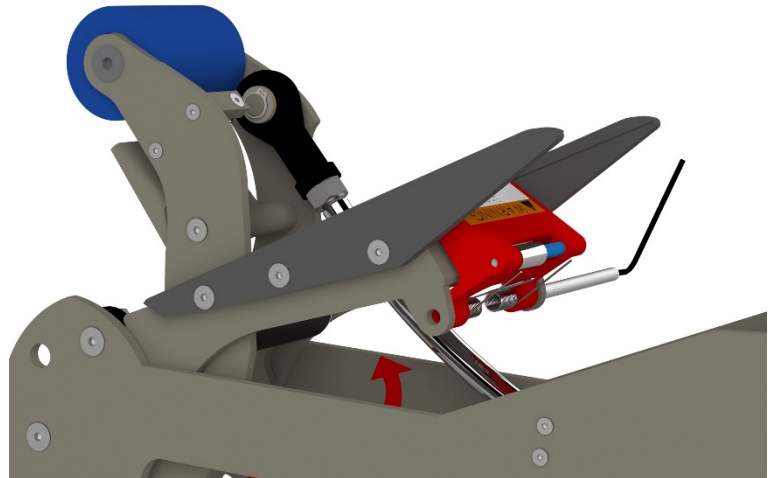
Figure 10-12



# PREVENTIVE MAINTENANCE

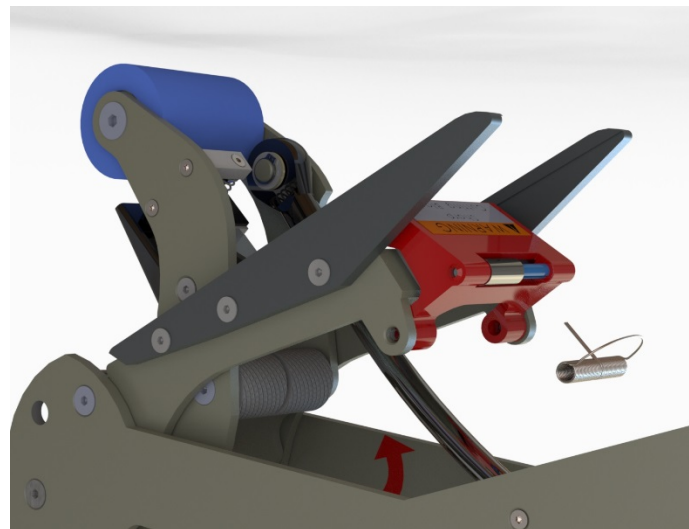
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Carefully slide out the shaft from the end of the shaft that contains the remaining flathead screw.



**Figure 10-13**

Remove the broken spring.

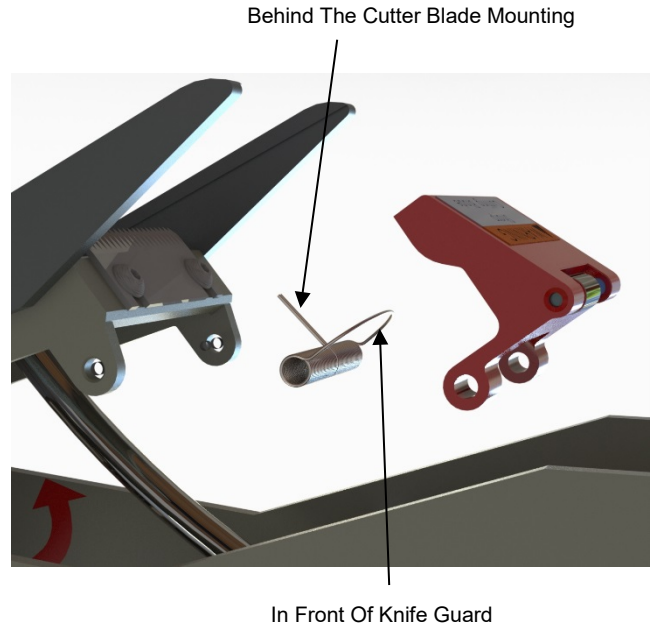


**Figure 10-14**

# PREVENTIVE MAINTENANCE

To properly position the new knife spring

1. Position the new knife spring as shown in **Figure 10-15**.
2. Note which leg of the spring should lie behind the cutter blade mounting plate.
3. Note that the looped leg shall wrap around the blade guard.



**Figure 10-15**

Insert the cross shaft through the knife arm, knife guard and knife guard spring as shown in **Figure 10-16**.



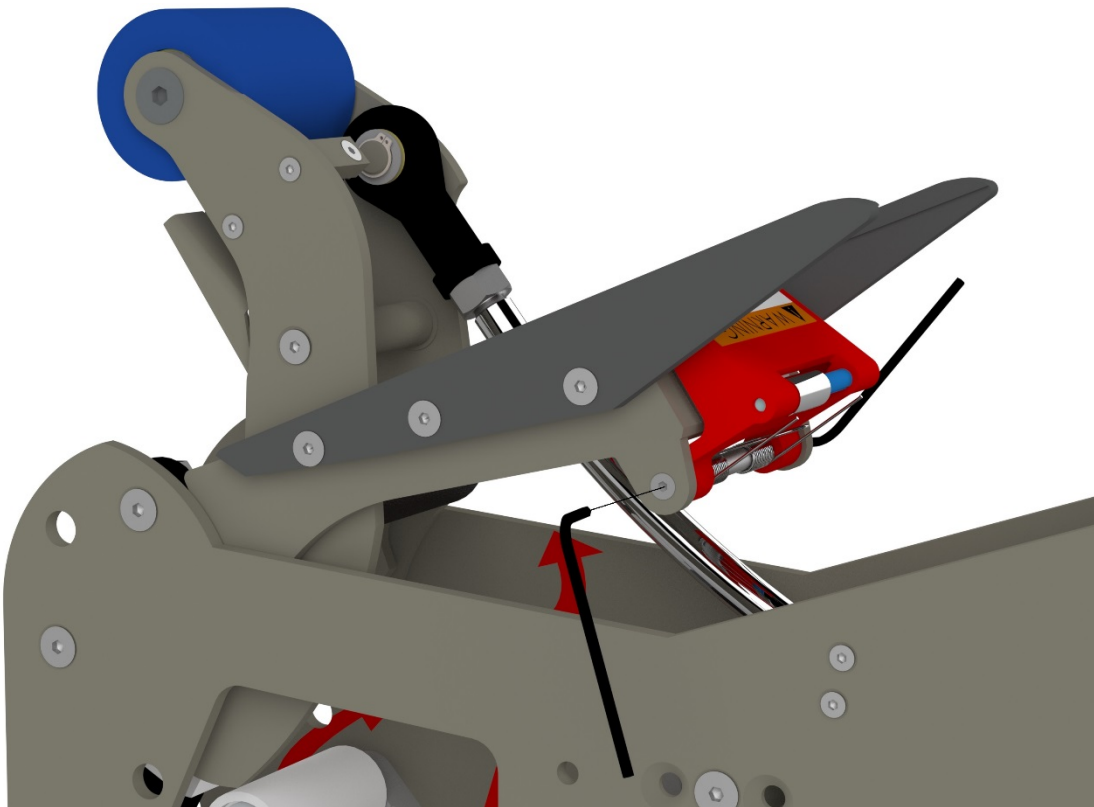
**Figure 10-16**

## PREVENTIVE MAINTENANCE

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To Complete The Installation:

1. Apply some purple Loctite (222) to the threads of the M3 screw and fasten to the end of the cross shaft. Tighten using two 2mm hexagonal keys as shown in **Figure 10-17**.
2. The shaft should not vacillate in the mounting holes.
3. Rotate the knife guard to make sure there is no binding.
4. Re-install the cutter blade as shown in **Figure 10-11**.
5. Inspect the oiler pad to make sure it is securely fastened. Clean the pad and apply some lightweight oil.
6. Check that the magnet catch is spinning free, if not spray the pin with silicon based lubricant.



**Figure 10-17**

# PREVENTIVE MAINTENANCE

## Dual Wipe Down Tabs' Replacement

This wiper tabs assist in wiping down the top center seam of the case. While the blue tucking rollers perform much of the wipe down, the wipe down tabs enhance the wipe down as they press the adhesive into the corrugated fiber.

Over time, this tabs can become distorted or worn and they should be replaced.

### Dual Wiper Tabs' Replacement

1. Remove the two M4 hex nuts (**Item 1**) from the rear arm with a 7mm wrench.
2. Unscrew the two M4 bottom head countersink screws (**item 2**).
3. Remove the rectangular washer (**Item 3**) and the Wiper tabs (**Item 4**).
4. Install new dual wiper tab with two M4 button head screws as shown in **Figure 10-18**. Check for the correct orientation.

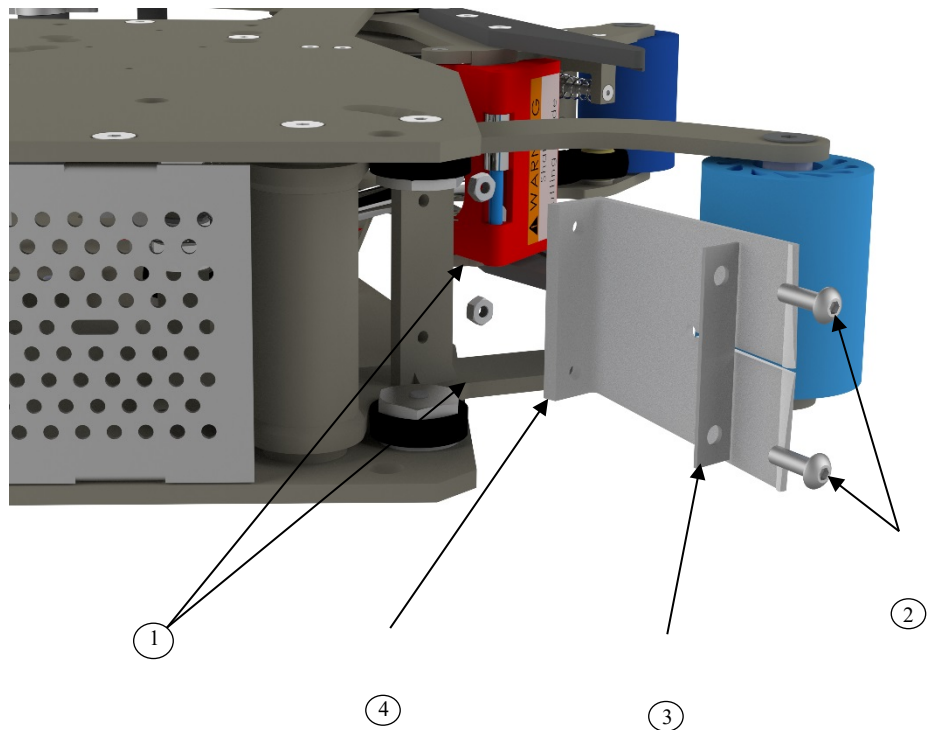


Figure 10-18

# SCHEDULE OF PREVENTIVE MAINTENANCE

Item	Action Required	Material	Frequency		
			Weekly	Monthly	Quarterly
Blade Guard Oiler Pad	Lubricate	Lightweight oil	X		
Hardware	Re-tighten any loose hardware				X
	Replace any missing hardware				X
Cutter Blade	Inspect for wear		X		
	Clean	Solvent Cleaner	X		
Mandrel Assembly	Disassemble & Observe				X
Mandrel Friction Washer	Clean	Solvent Cleaner			X
Mandrel Metal Washer	None	None			X
Mandrel Shaft	Remove any dust and adhesive build up	Solvent Cleaner			X
Mandrel Bearing	Check for wear	None			X
Peel Roller					X
Delrin Roller	Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner			X
Pivot Shaft	Check for any restriction	Solvent Cleaner			X
Peel Roller Spring	Check for total extension when force.				X
Plastic Guide Rollers	Check for free spinning. Disassemble and remove any adhesive build up.	Solvent Cleaner		X	
Knurled PTFE Coated Direction Clutch Roller	Back off tension. Check for free spinning. Disassemble and remove any adhesive build up. Oil needle rollers.	Solvent Cleaner		X	
Knurled PTFE Guide Rollers	Rotation should be slightly restricted by spring. Disassemble and remove any adhesive build up if excessive restriction is detected. Check one way bearing grease bearing.	Oiled string and Damp Cloth		X	
Front Blue Wipe Down Roller	Rotation should be slightly restricted by spring washer. Disassemble and remove any adhesive build up if excessive restriction is detected.	Solvent Cleaner		X	
Rear Blue Wipe Down Roller	Check for free spinning. Disassemble and remove any adhesive build up. Check swivel bushing.	Solvent Cleaner			X
Main Spring	Remove and inspect for any wear or weakness. Replace as necessary.			X	
Knife Spring	Remove and inspect for any wear or weakness. Replace as necessary.				X
Tape Shoe Guide Compression Spring	Inspect for finger popping up. Replace as necessary.			X	
Wipe Down Tab	Inspect for any wear or weakness. Replace as necessary.			X	
Main Applying And Wipe Down Assembly	Remove <i>Main Spring</i> and check for any restrictions when assembly is in motion	Worn bearings, bent shafts, bent roller arms			X
Knife Arm Assembly	Remove <i>Knife Spring</i> and check for any restrictions when assembly is in motion	Worn bearings, bent shafts.			X

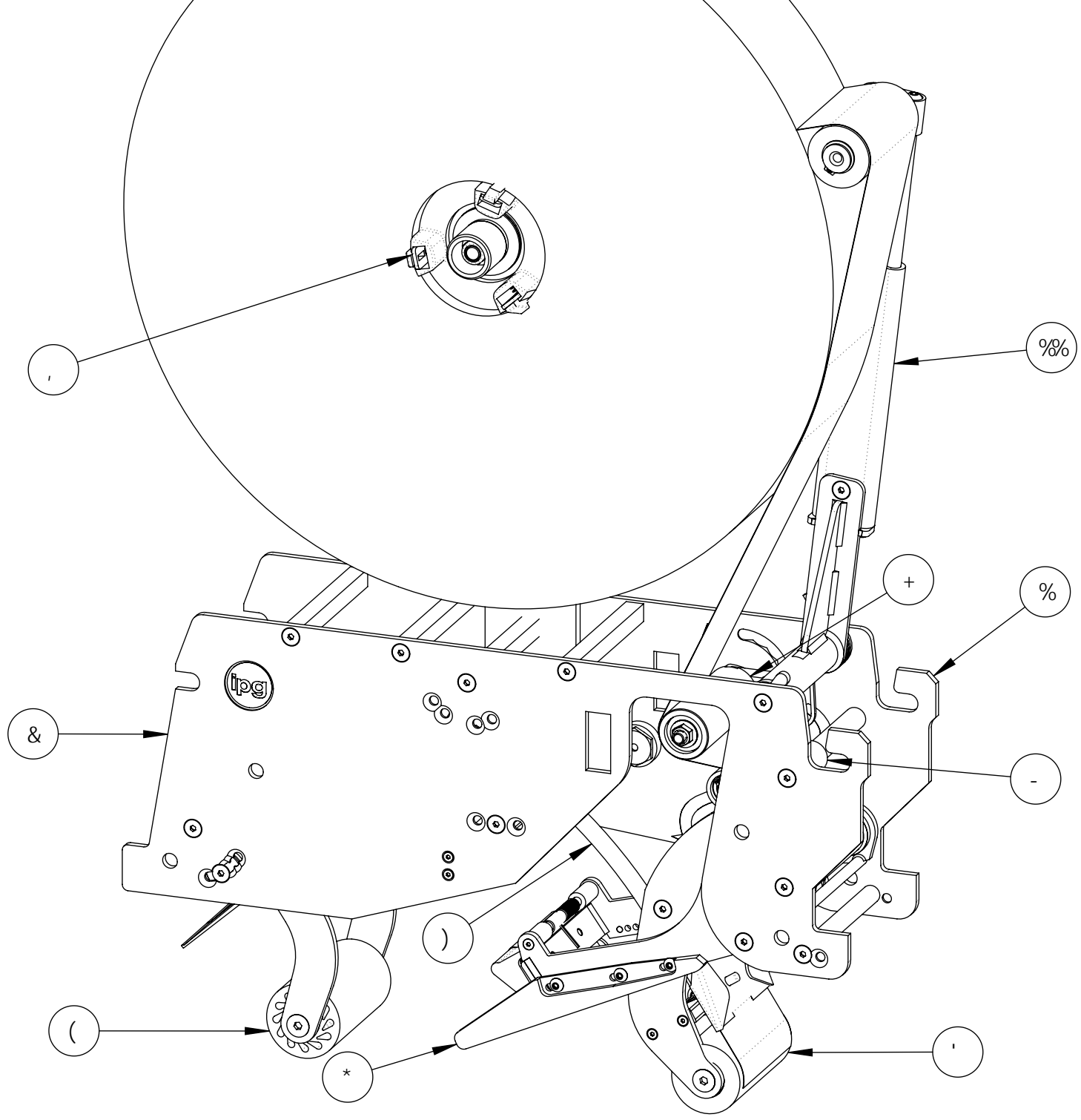
Refer To Assembly Drawings For Part Numbers Of Replacement Parts If Required

## APPENDIX A – ILLUSTRATIONS & PARTS LISTS

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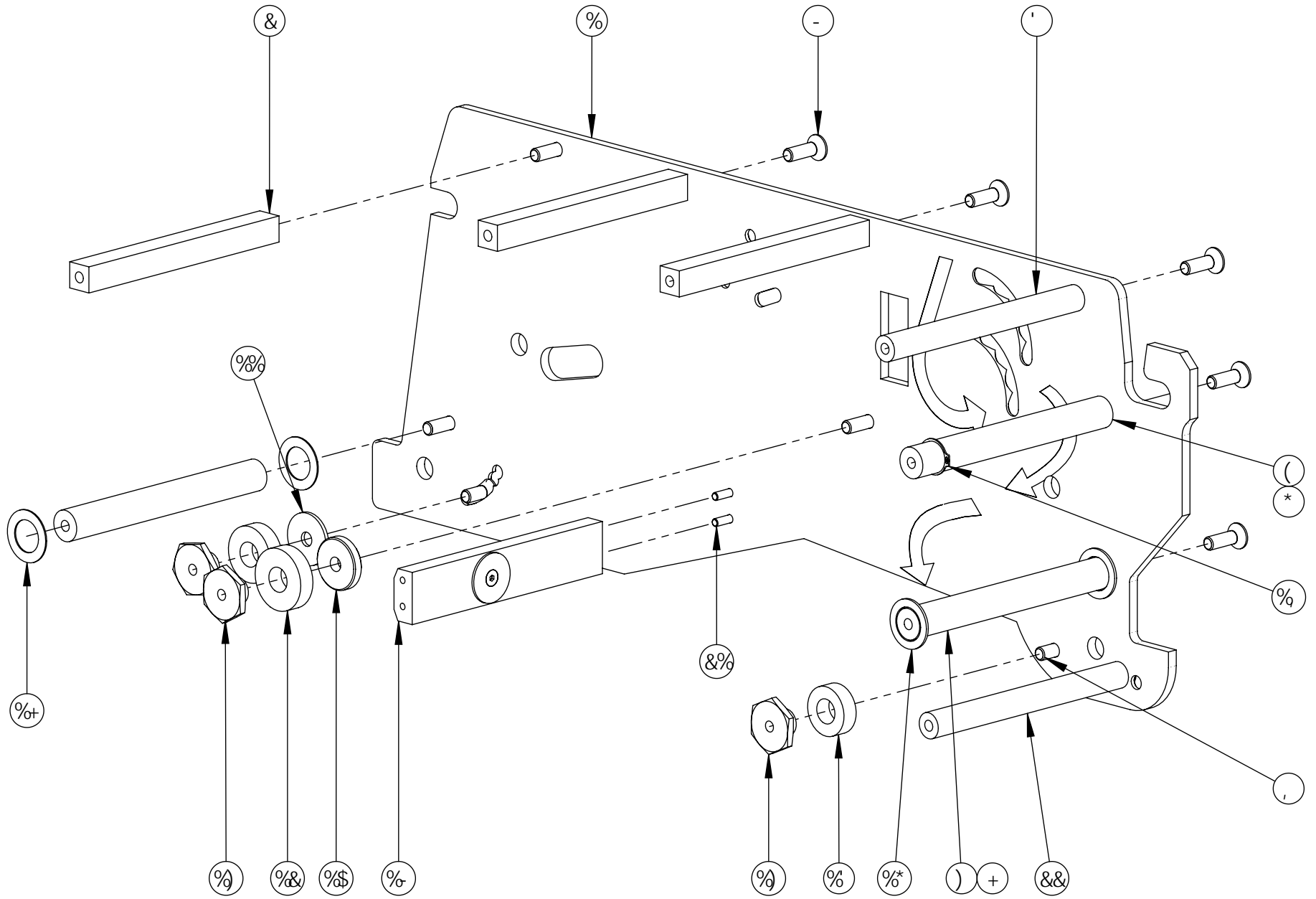
<b>Tape Head Sub Assemblies .....</b>	<b>44</b>
<b>Main Frame Assembly .....</b>	<b>46</b>
<b>Cover Frame Assembly .....</b>	<b>48</b>
<b>Front Arm Assembly.....</b>	<b>50</b>
Guide Roller.....	52
Tape Shoe Assembly.....	54
Front Roller.....	56
<b>Rear Arm Assembly.....</b>	<b>58</b>
<b>Link Assembly .....</b>	<b>60</b>
<b>Knife Arm Assembly.....</b>	<b>62</b>
<b>Clutch Assembly.....</b>	<b>64</b>
Clutch Roller .....	66
<b>Mandrel Assembly .....</b>	<b>68</b>
Mandrel Arm Sub Assembly.....	70
Mandrel Hub .....	72
<b>Repulsive Pivot Assembly .....</b>	<b>74</b>
<b>Peel-Off Assembly .....</b>	<b>76</b>
No Tape Sensor (Option).....	78
Low Tape Sensor (Option).....	80

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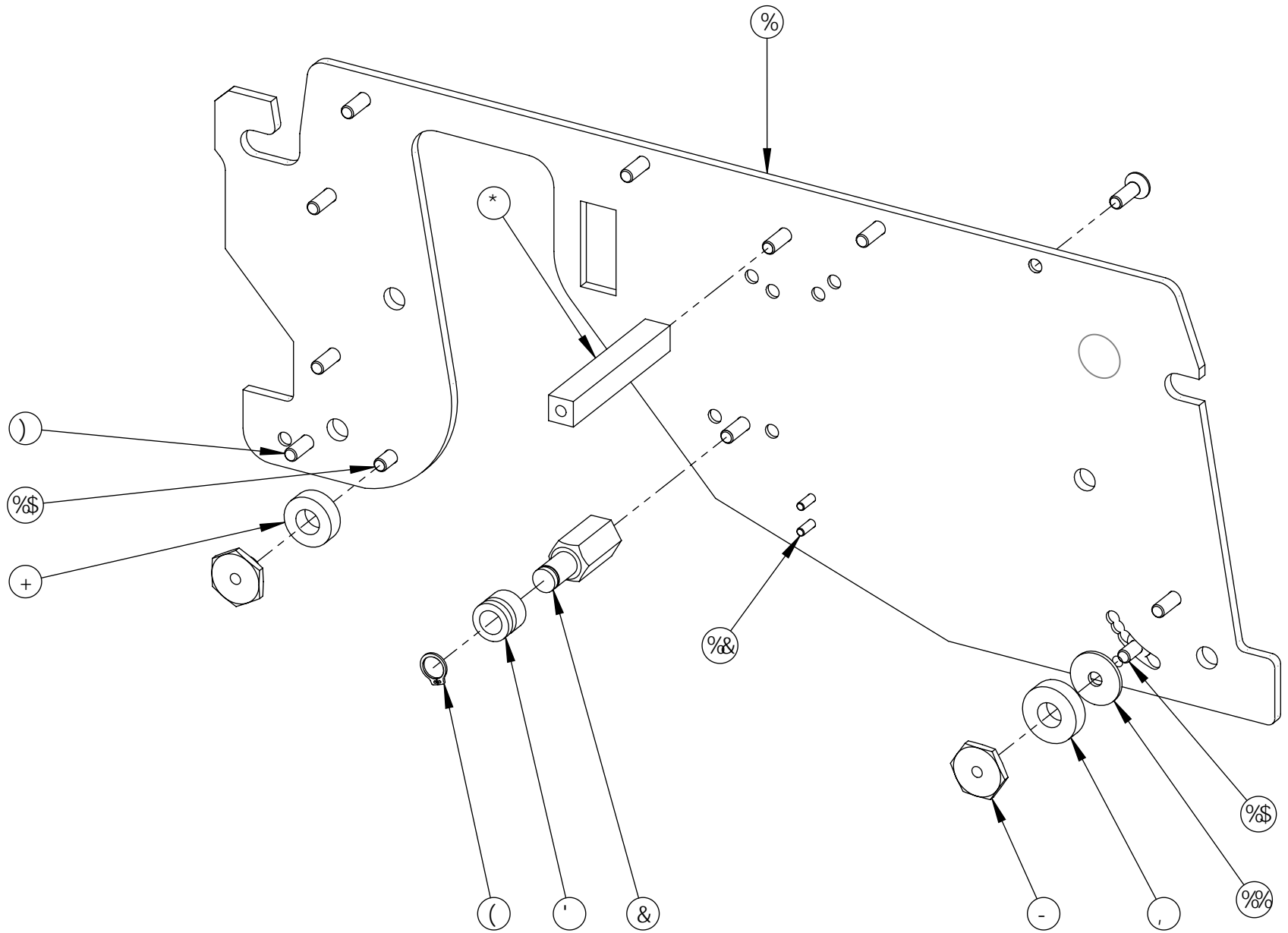




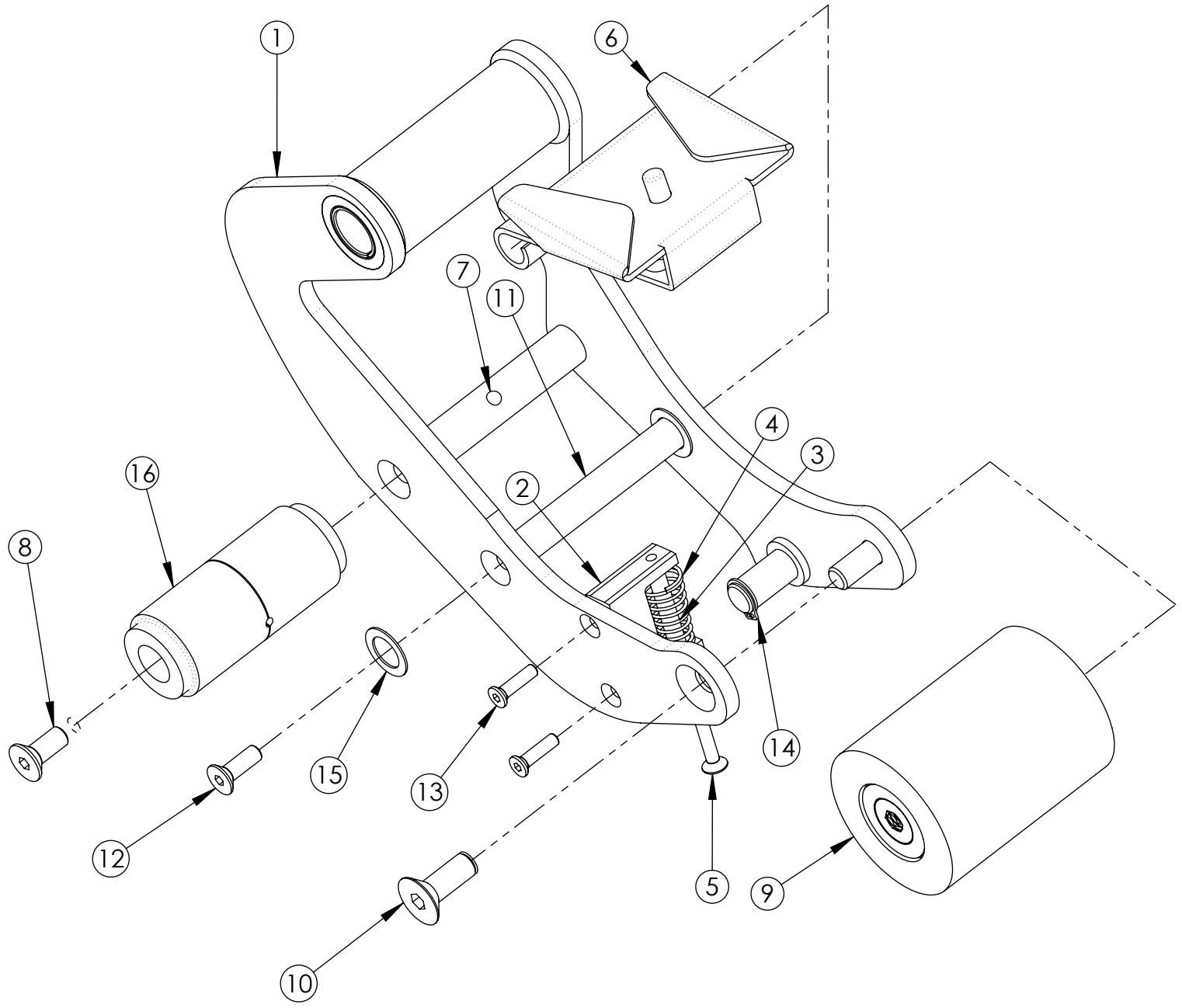
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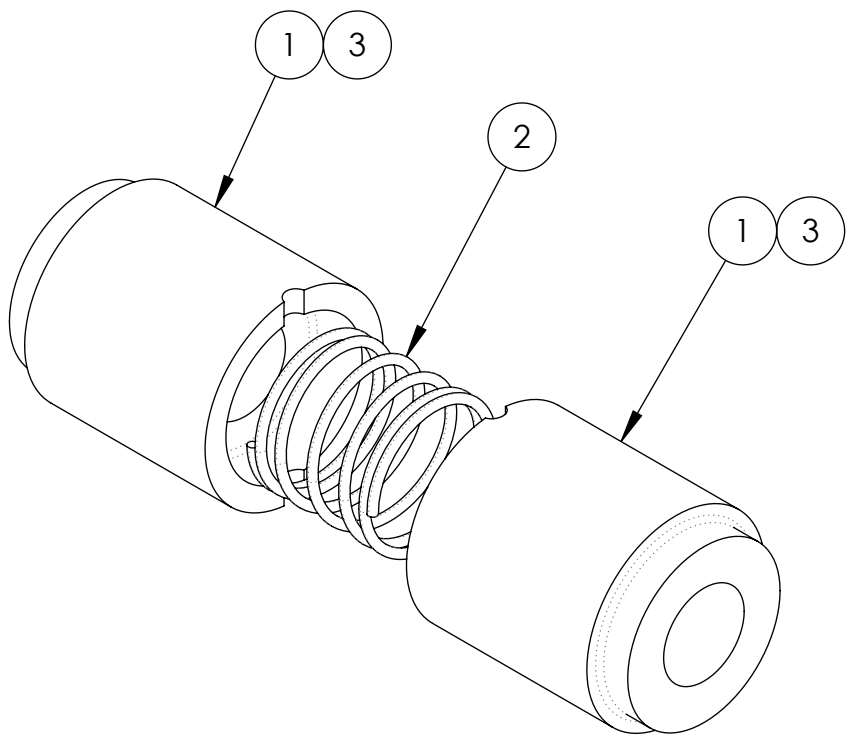
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*	I D<(\$(%	GD57 9F '65F	%	!
*	I D<% * ,	GD57 9F '65F	!	%
+	I D<%) %)	I F9H5B9'GHC D	%	%
,	I D<%( %+	I F9H5B9'GHC D	%	%
-	I D<%\$%+	GG'GHC D'F9H5-B9F	&	&
%%\$	I : ' &, &	GG: < 7 G'A )!\$, 'I '%&'a a	&	&
%%	I D<(, , *	GD57 9F 'K 5G<9F	%	%
%%&	I : - %+\$	GG: < 7 G'A ' !\$") 'I '%&	&	&

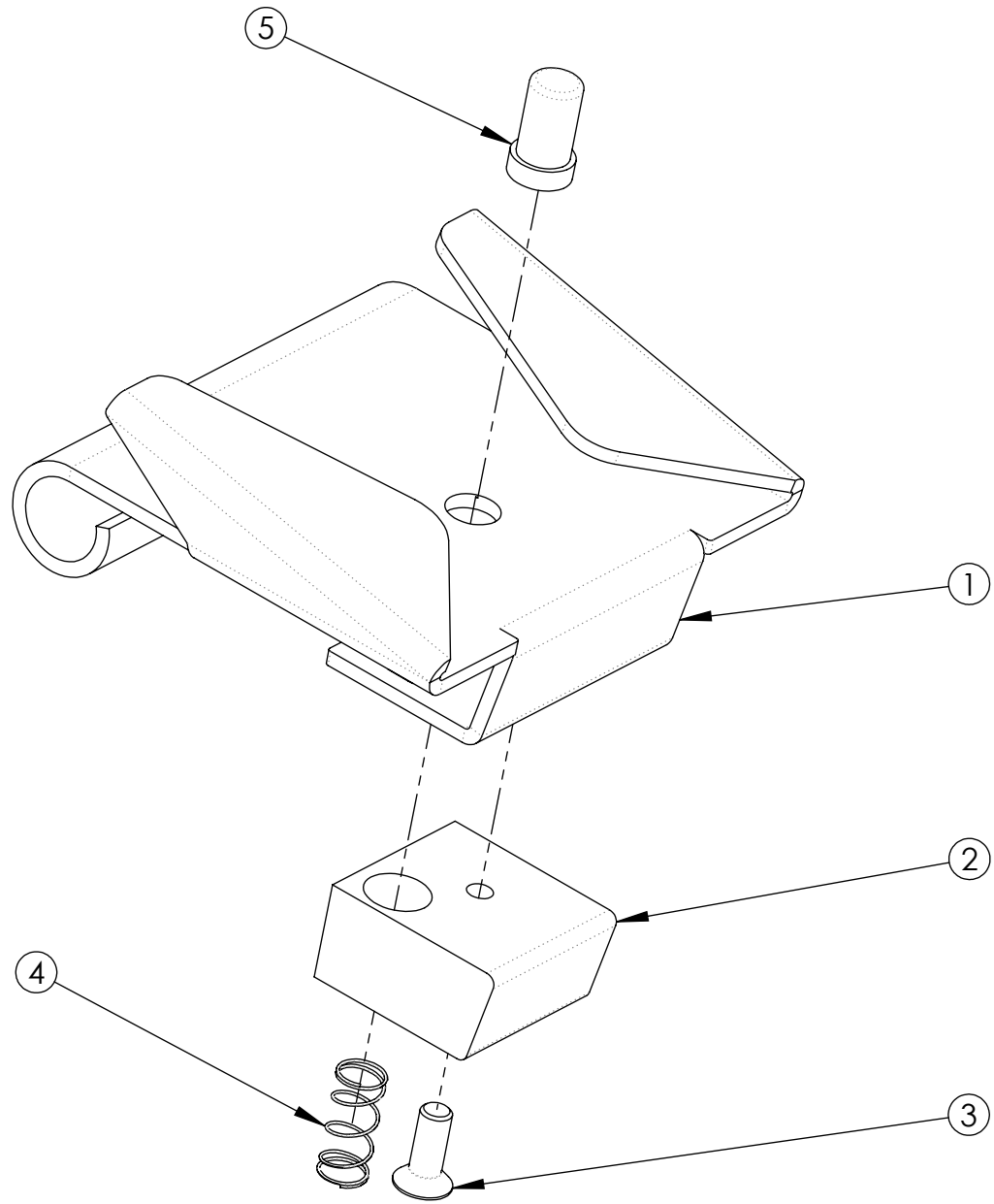


ITEM	PART #	DESCRIPTION	USH1120 2"/QTY.	USH1119 3"/QTY.
1	UAH0181	FRONT ARM 3"	1	-
1	UAH0180	FRONT ARM 2"	-	1
2	UPH1437	LIMIT BLOCK	1	-
2	UPH1436	LIMIT BLOCK	-	1
3	UPH1473	SLEEVE TUBING	1	1
4	UPH4890	COMPRESSION SPRING	1	-
4	UPH4890	COMPRESSION SPRING	-	1
5	UF6425	SS FHCS M3-0.5 x 30mm	1	1
6	UAH0209	TAPE SHOE ASS'Y 3"	1	-
6	UAH0208	TAPE SHOE ASS'Y 2"	-	1
7	UPH1441	SHAFT, 10mm Dia.	1	-
7	UPH1442	SHAFT, 10mm Dia.	-	1
8	UF3282	SS FHCS M5-0.8 x 12 mm	2	2
9	UAH0223	FRONT ROLLER ASS'Y 72	1	-
9	UAH0222	FRONT ROLLER ASS'Y 48	-	1
10	UF3261	SS FHCS M6 -1 x 16 mm	2	2
11	UPH1446	SHAFT 8 mm Dia.	1	-
11	UPH1447	SHAFT 8 mm Dia.	-	1
12	UF3761	SS FHCS M4-0.7 x 12mm	2	2
13	UF9170	SS FHCS M3-0.5 x 12	2	2
14	UF4511	SS RET. RING EXT. 8mm	1	1
15	UF5608	SPECIAL WASHER	2	2
16	UAH0183	GUIDE ROLLER ASS'Y 3"	1	-
16	UAH0182	GUIDE ROLLER ASS'Y 2"	-	1

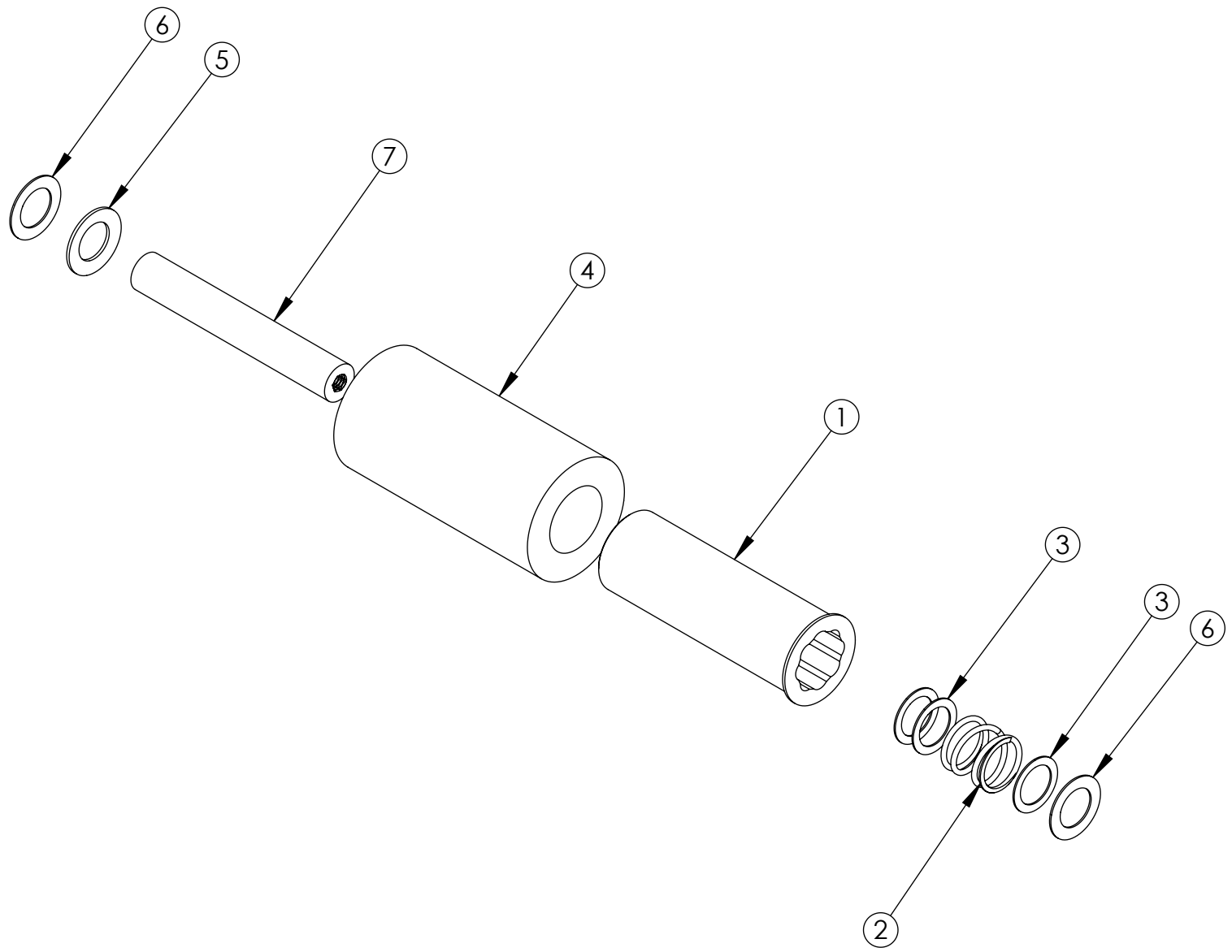




ITEM	PART #	DESCRIPTION	UAH0182 2"/QTY.	UAH0183 3"/QTY.
1	UPH4925	GUIDE ROLLER	-	2
2	UPH4926	COMPRESSION SPRING	1	1
3	UPH4924	GUIDE ROLLER	2	-



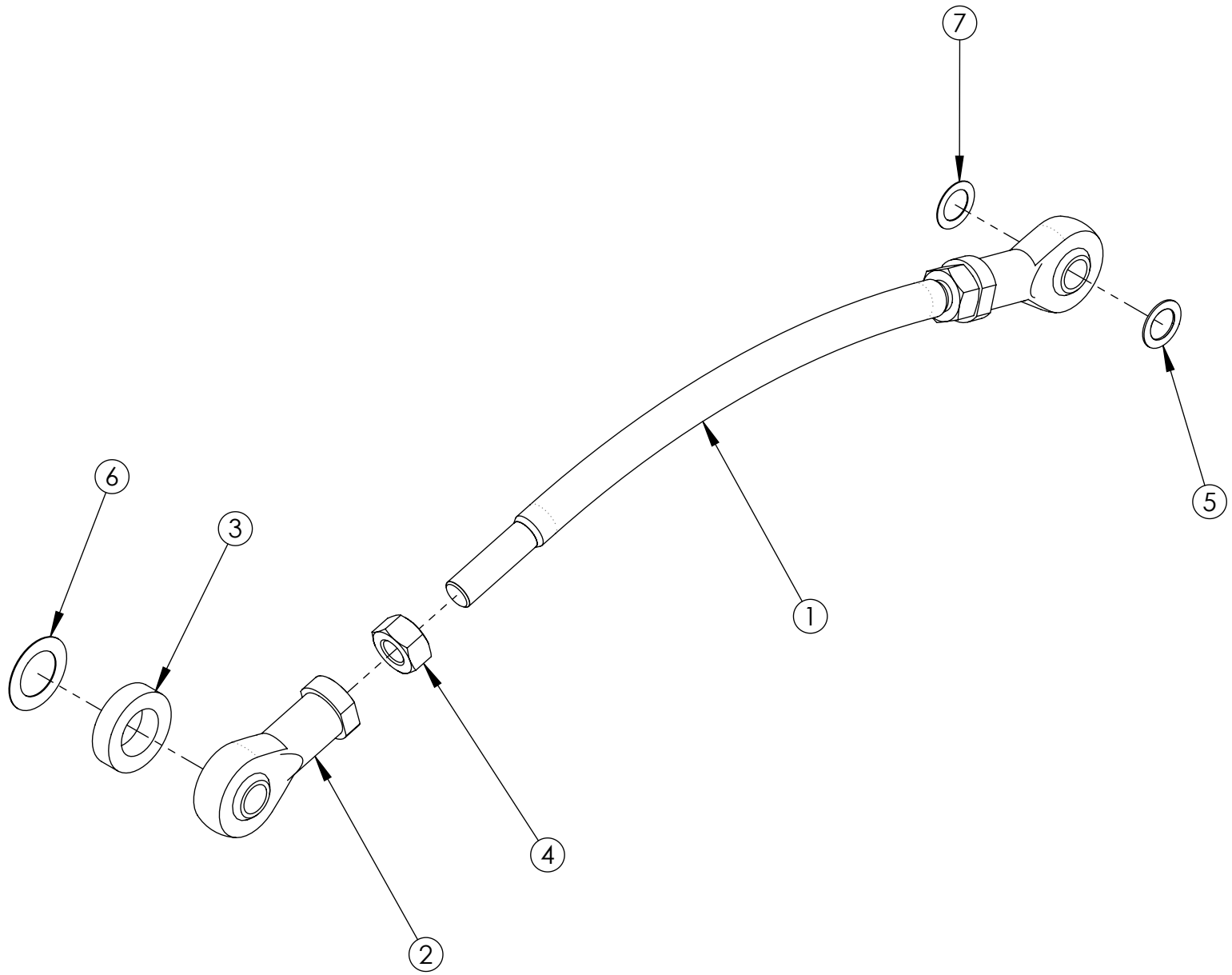
ITEM	PART #	DESCRIPTION	UAH0208 2" / QTY.	UAH0209 3" / QTY.
1	UPH1434	TAPE SHOE 2"	1	-
2	UPH1435	TAPE SHOE 3"	-	1
2	UPH1438	STIFFENER BLOCK	1	1
3	UF6350	SS FHCS M3-0.5 x 8 mm	1	1
4	UPH7010	SS COMPRESSION SPRING	1	1
5	UPH1510	FINGER	1	1



ITEM	PART #	DESCRIPTION	UAH0222 2"/QTY.	UAH0223 3"/QTY.
1	UPH1439	ROLLER CORE	1	-
1	UPH1440	ROLLER CORE	-	1
2	UPH8143	SS COMPRESSION SPRING	1	1
3	UF6402	F.W. PTFE, 12.5 x 17.5 x 0.5 mm	3	3
4	UPH1448	FRONT ROLLER	1	-
4	UPH1449	FRONT ROLLER	-	1
5	UF4401	DISC SPRING 12.2 id - 21 od	1	1
6	UF6335	F.W. PTFE, 12.5 x 20 x 0.55 mm	2	2
7	UPH1444	SHAFT, 12mm DIA.	1	-
7	UPH1443	SHAFT, 12mm DIA.	-	1

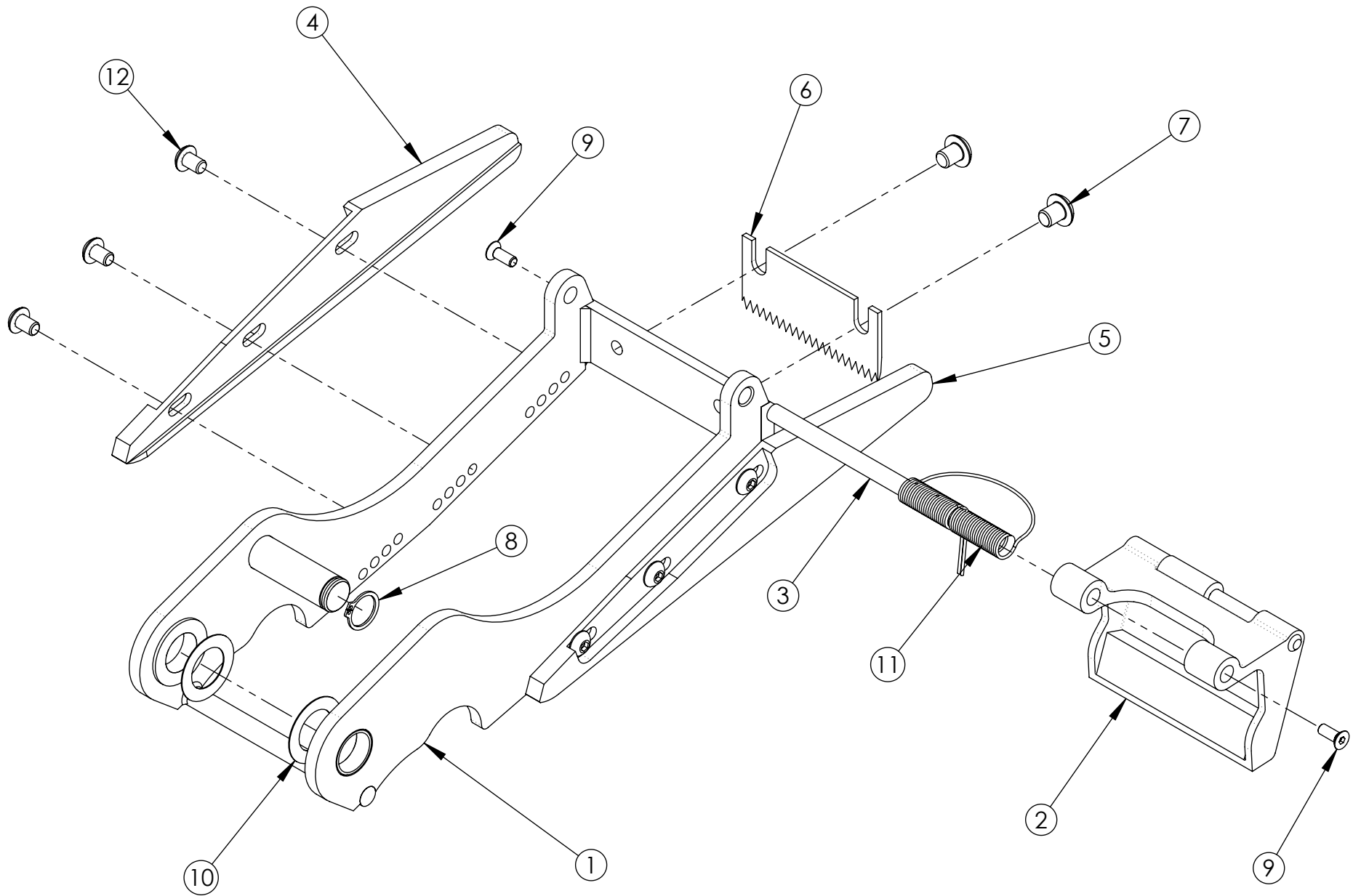


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%	I 5<\$%+)	F95F'5FA 'K #k'6l G<B; G	%	!
&	I D<% * &	G<5: H%&a a '8JU"	%	%
'	I D<\$, *'	A 5-B 'GDF B; 'F9H5-B 9F 'G@99J 9	%	%
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(	I D<- &(,	F9H5-B 9F	%	!
)	I : ' &+'	GG: <7 GA *!%I '&\$	%	%
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+	I D<(*+(	D# C HB; '695F B; '%&a a	%	%
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,	I D<(, \$'	F95F 'K Ð9FC @9F	%	!
-	I D<%&-(	G<5: HZF95F'5FA	&	!
-	I D<%&-)	G<5: HZF95F'5FA	!	&
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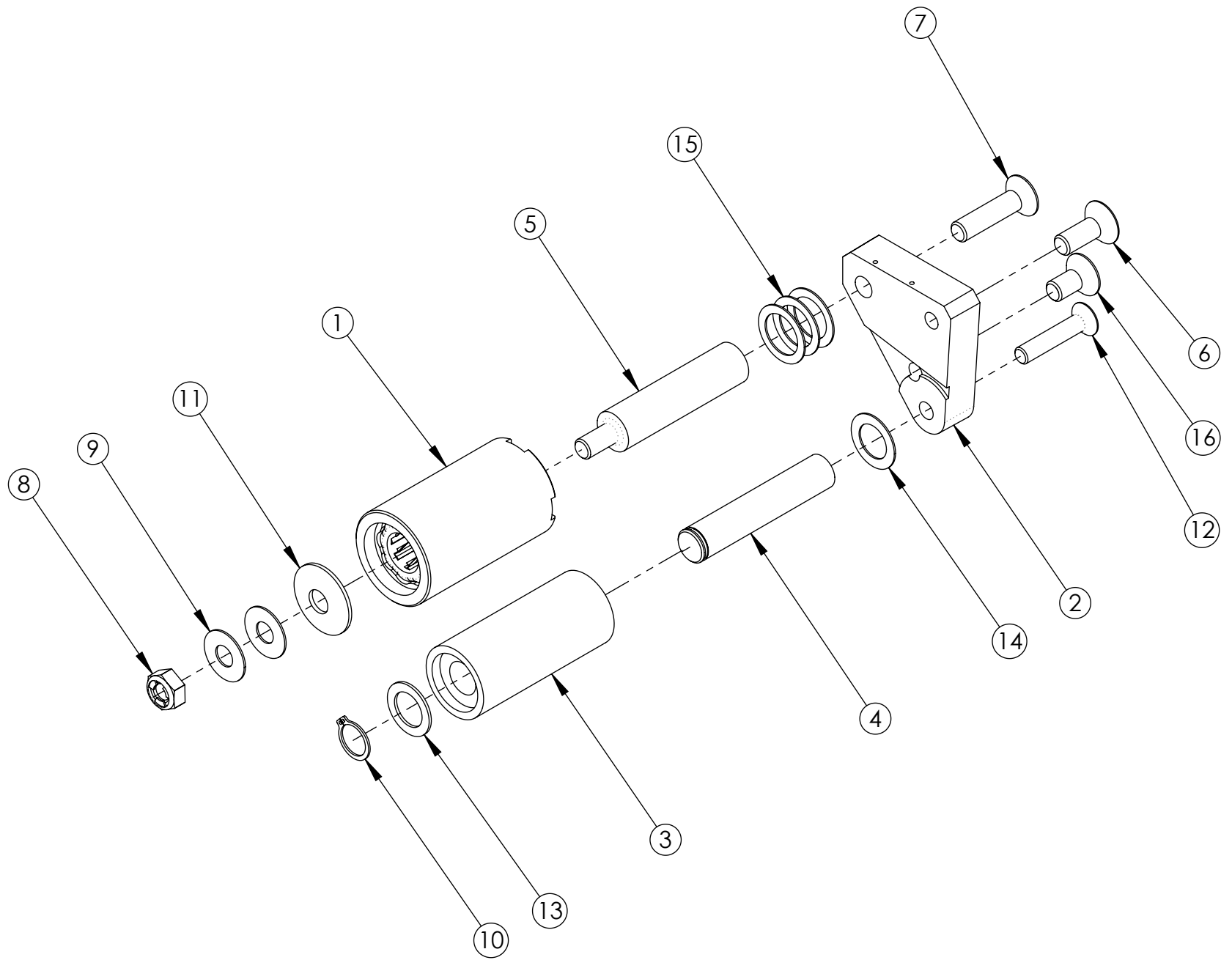




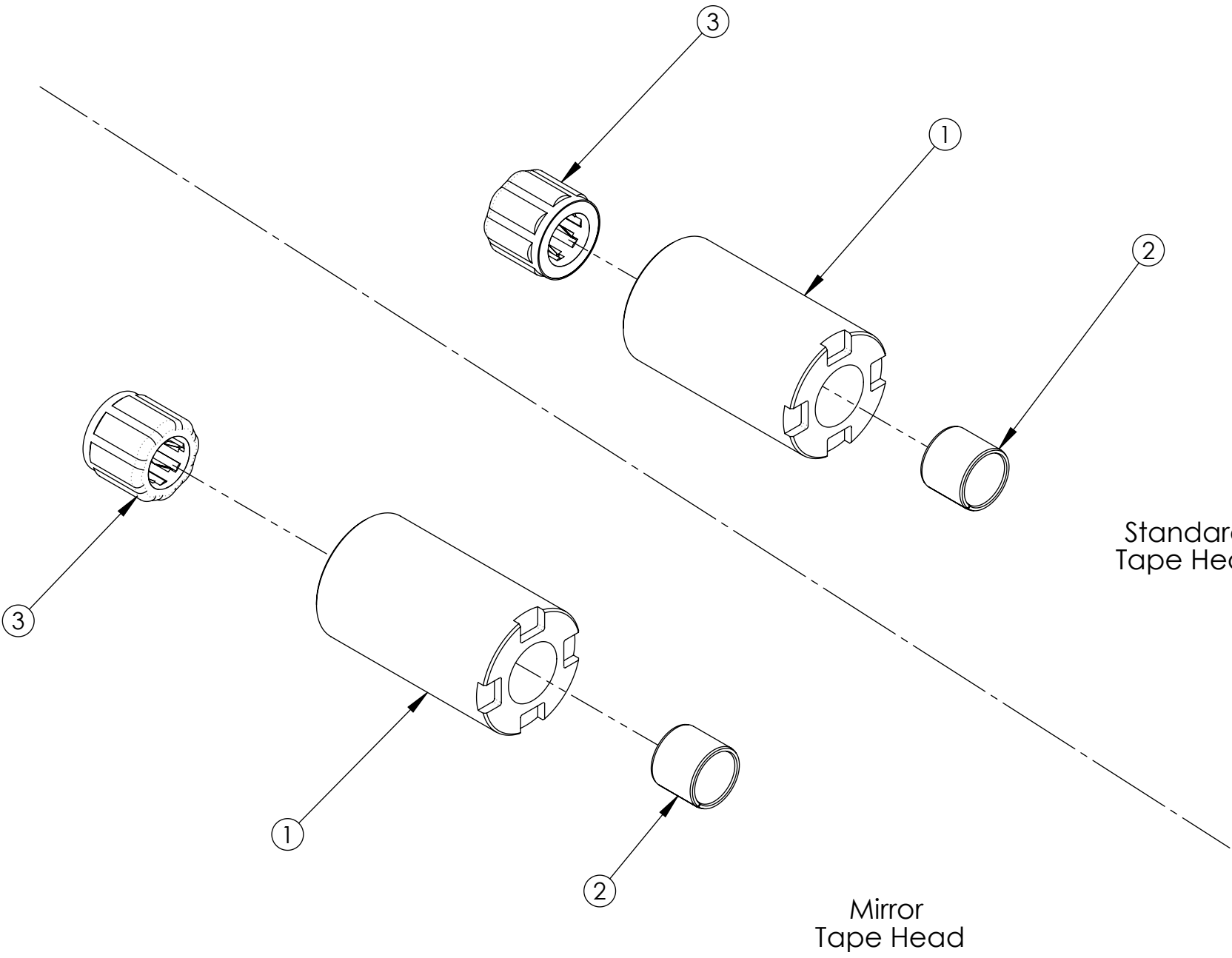
ITEM	PART #	DESCRIPTION	USH4133 QTY.
1	UPH4802	LINK ROD	1
2	UPH4889	ROD END BEARING, 8mm	2
3	UPH4801	ROD EYE SUPPORT	1
4	UF3735	SS HNR M8-1.25	2
5	UF5608	SPECIAL WASHER	1
6	UF6337	F.W. PTFE, 12.5 x 20 x 0.29 mm	1
7	UF5614	WASHER PTFE 13 x 8.5 x 0.25	1



ITEM	PART #	DESCRIPTION	USH1122 2" / QTY.	USH1123 3" / QTY.
1	UAH0176	KNIFE ARM WITH BUSHINGS	1	-
1	UAH0177	KNIFE ARM WITH BUSHINGS	-	1
2	UAH0206	KNIFE GUARD 2"	1	-
2	UAH0207	KNIFE GUARD 3"	-	1
3	UPH9175	SHAFT, BLADE GUARD	1	-
3	UPH9178	SHAFT, BLADE GUARD	-	1
4	UPH4930	KNIFE AEM EXTENSION LEFT	1	1
5	UPH4931	KNIFE ARM EXTENSION RIGHT	1	1
6	UPH0193	SS CUT-OFF BLADE 48	1	-
6	UPH0271	SS CUT-OFF BLADE 75	-	1
7	UF3276	SS BHCS M5-0.8 x 6	2	2
8	UF3557	SS RETAINING RING FOR 10 mm SHAFT	1	1
9	UF6350	SS FHCS M3-0.5 x 8 mm	2	2
10	UF6337	F.W. PTFE, 12.5 x 20 x 0.29 mm	2	2
11	UPH7009	TORSION SPRING	1	1
12	UF7008	SS BHCS M4-0.7 x 6mm	6	6



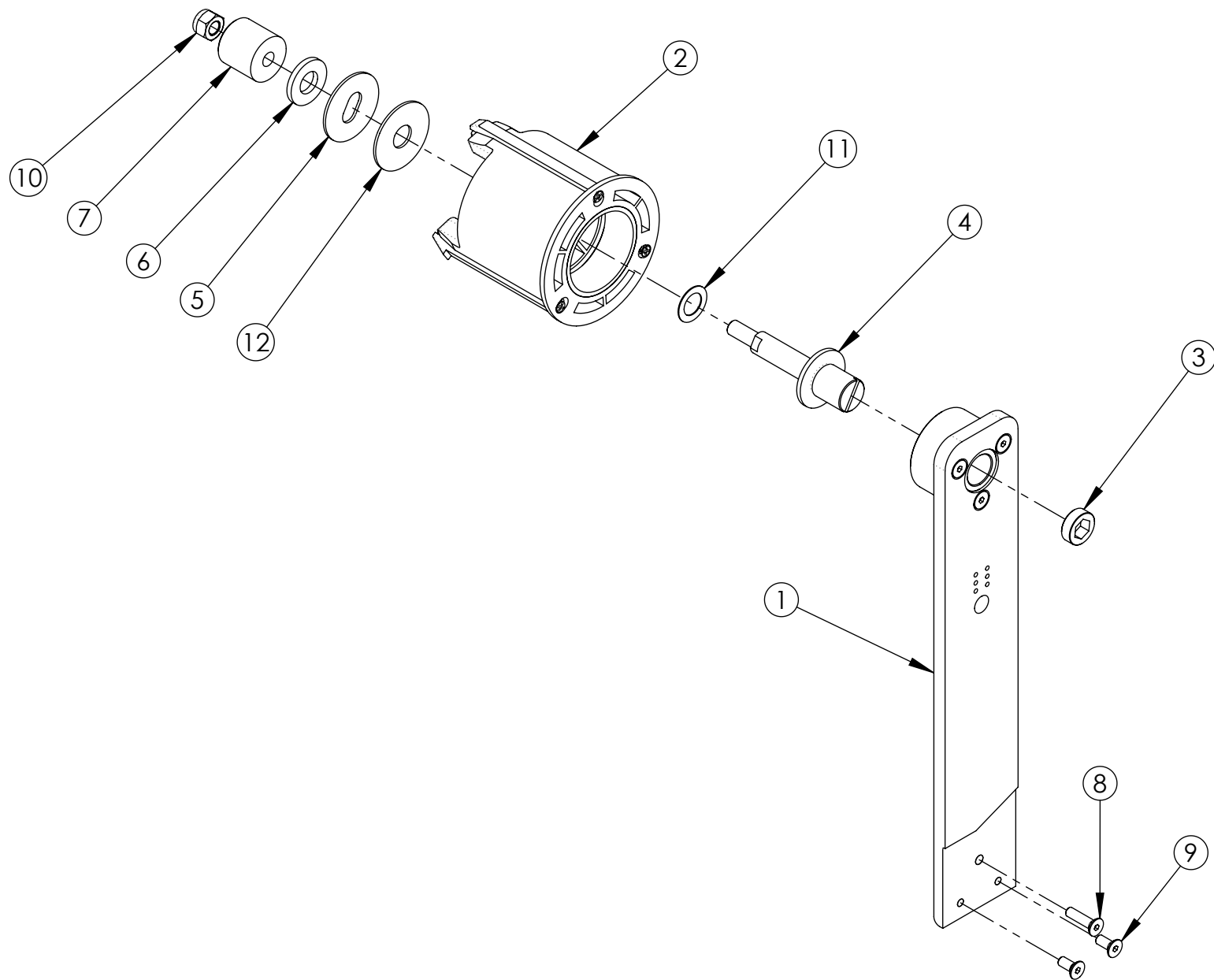
ITEM	PART #	DESCRIPTION	USH1124 2" / QTY.	USH1125 3" / QTY.
1	UAH0212	CLUTCH ROLLER	1	-
1	UAH0213	CLUTCH ROLLER	-	1
2	UPH1391	CLUTCH BRACKET	1	1
3	UPH1452	GUIDE ROLLER	-	1
3	UPH1453	GUIDE ROLLER	1	-
4	UPH1454	SHAFT, 10mm	-	1
4	UPH1455	SHAFT, 10mm	1	-
5	UPH7077	CLUTCH SHAFT	1	-
5	UPH7078	CLUTCH SHAFT	-	1
6	UF3261	SS FHCS M6 -1 x 16 mm	1	1
7	UF3275	SS FHCS M6 - 1 x 25mm	1	1
8	UF3404	M6-1.0 LOCK U NUT	1	1
9	UF3401	NYLON WASHER 15.3 x 6.5 x 0.55	2	2
10	UF3557	SS RETAINING RING FOR 10 mm SHAFT	1	1
11	UPH8230	DISC SPRING	1	1
12	UF5399	FHCS M5-0.8 x 25	1	1
13	UF6388	NYLON F.W. 10.5 x 16 x 0.85	1	1
14	UF6389	NYLON WASHER METRIC	1	1
15	UF6402	F.W. PTFE, 12.5 x 17.5 x 0.5 mm	3	3
16	UF6353	SS FHCS M6-1 x 12 mm	1	1



Standard  
Tape Head

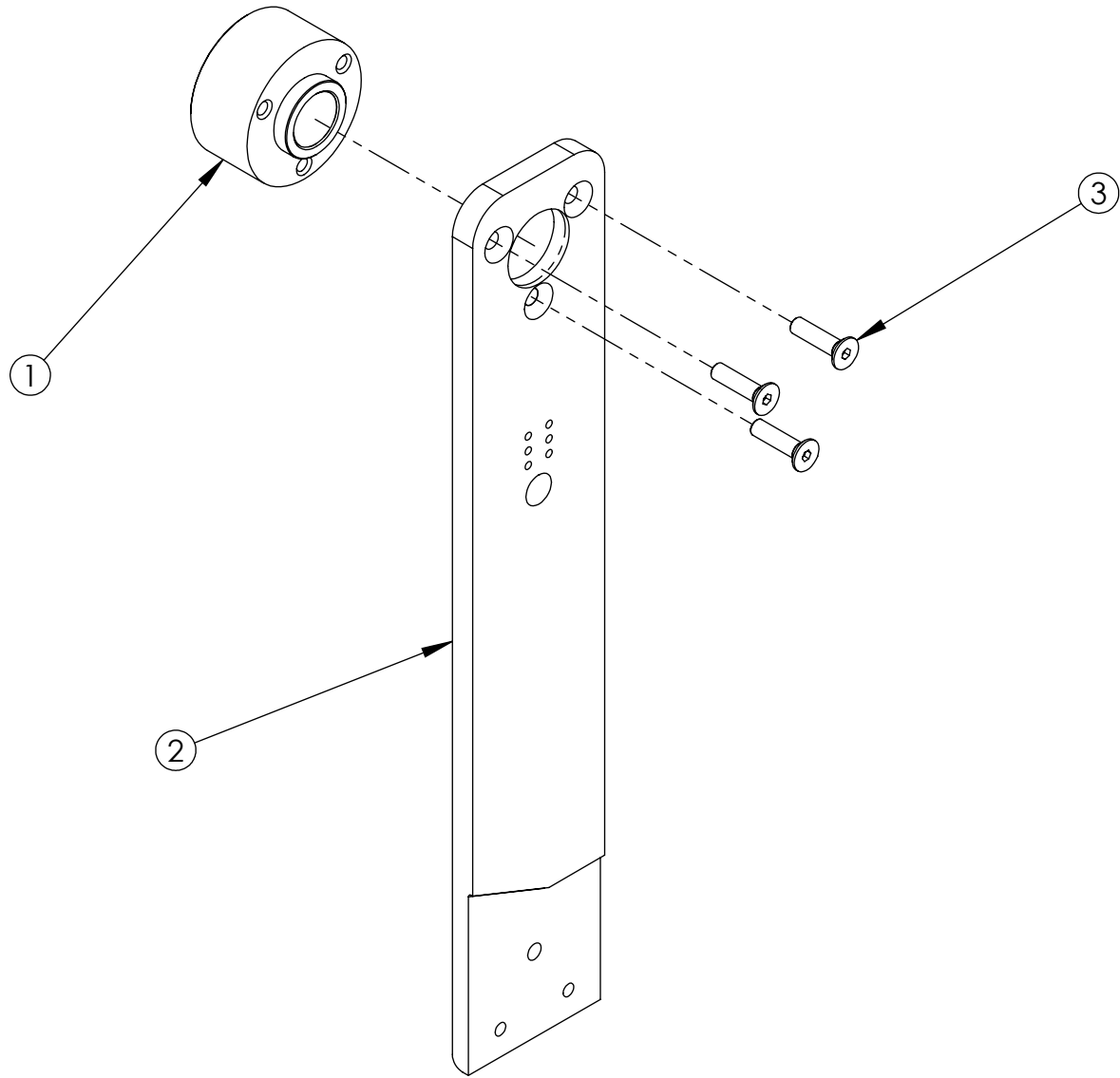
Mirror  
Tape Head

ITEM	PART #	DESCRIPTION	UAH0212 2" /QTY.	UAH0213 3"/QTY.	UAH0226 2"mir./QTY.	UAH0227 3"mir./QTY.
1	UPH8139	CLUTCH ROLLER	1	-	1	-
1	UPH8140	CLUTCH ROLLER	-	1	-	1
2	UPH1034	BEARING 12 x 14 x 12 LG SS	1	1	1	1
3	UPH4857	ONE WAY BEARING, STAINLESS	1	1	1	1



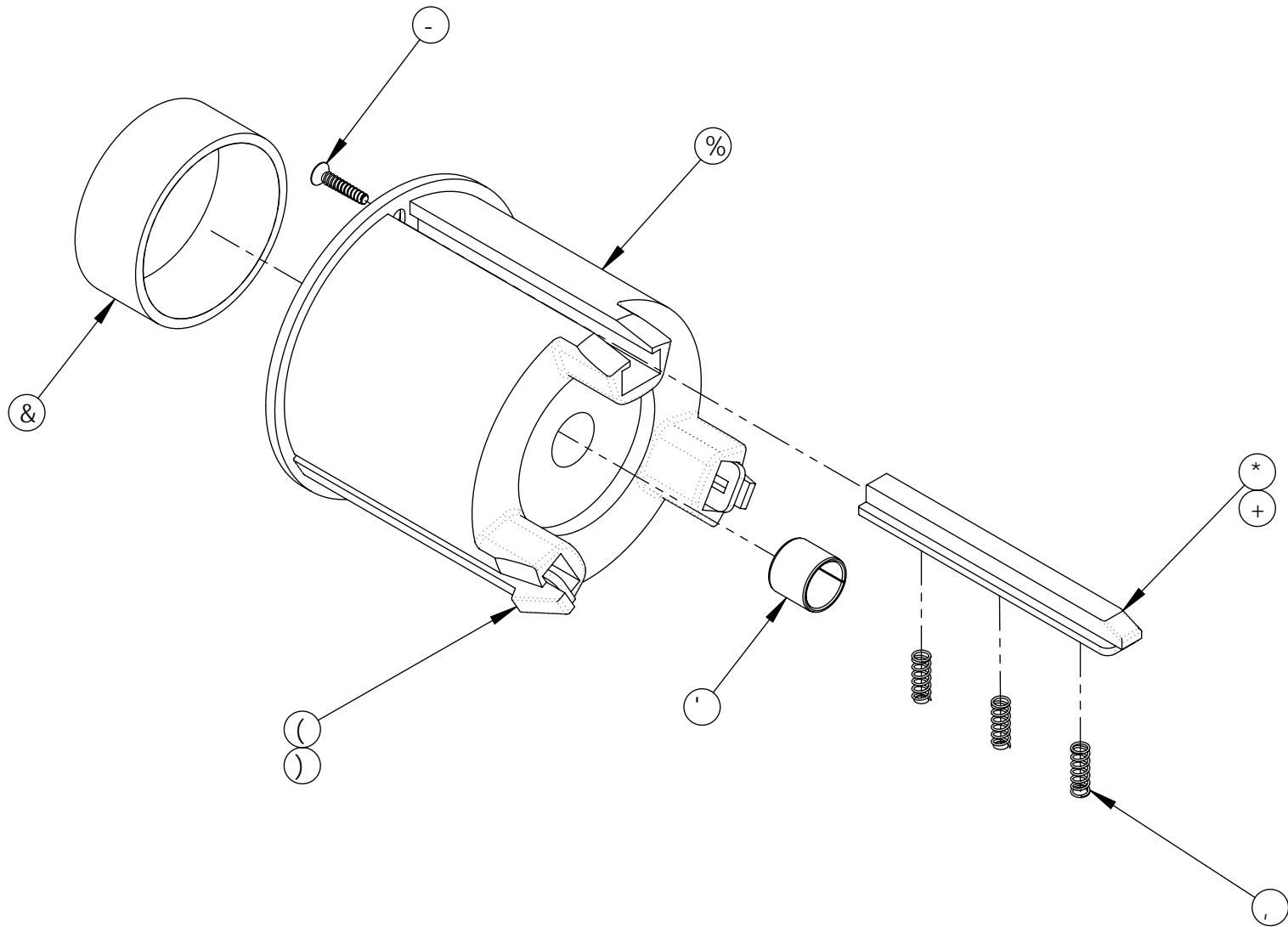


ITEM	PART #	DESCRIPTION	USH1126 2"/QTY.	USH1127 3"/QTY.	USH1192 2" Mir./QTY.	USH1193 3" Mir./QTY.
1	UAH0224	MANDREL ARM SUB ASS'Y	1	1	-	-
1	UAH0225	MANDREL ARM SUB ASS'Y MIRROR	-	-	1	1
2	UAH0178	MANDREL ASSEMBLY	1	-	1	-
2	UAH0179	MANDREL ASSEMBLY	-	1	-	1
3	UPH7004	SS HEX SOCKET PLUG	1	1	1	1
4	UPH7687	SHAFT, MANDREL	1	-	1	-
4	UPH7688	SHAFT, MANDREL	-	1	-	1
5	UPH1006	SS MANDREL FRICTION WASHER	1	1	1	1
6	UPH7689	NYLON SPACER	1	1	1	1
7	UPH4798	MANDREL ADJUSTMENT NUT	1	1	1	1
8	UF5904	SS FHCS M5-0.8 x 20mm	1	1	1	1
9	UF3282	SS FHCS M5-0.8 x 12 mm	2	2	2	2
10	UF4512	SS M8-1.0 NYLON LOCK NUT	1	1	1	1
11	UF6335	F.W. PTFE, 12.5 x 20 x 0.55 mm	1	1	1	1
12	UF7028	NYLON WASHER 1-1/2" x 1/2" x 1/16"	1	1	1	1

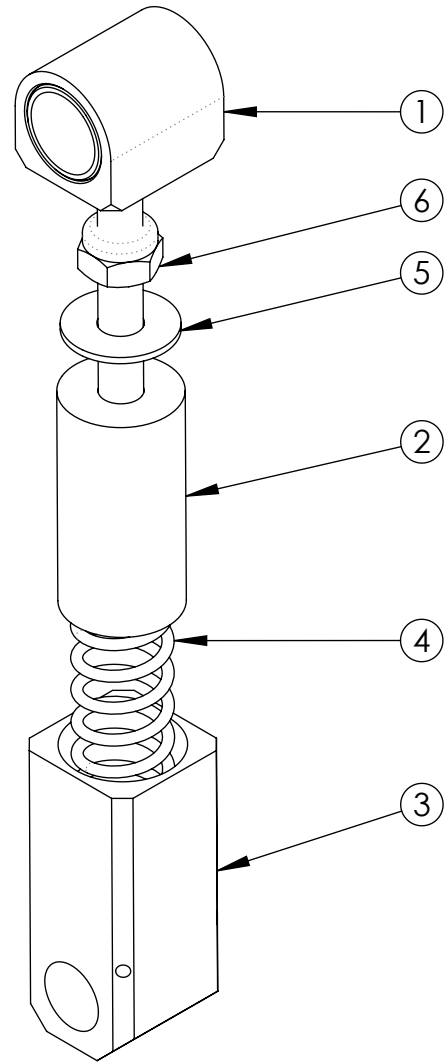


ITEM	PART #	DESCRIPTION	UAH0224 QTY.	UAH0225 Mir./QTY.
1	UPH1459	MANDREL HUB	1	1
2	UPH4808	MANDREL ARM	1	-
2	UPH8150	MANDREL ARM MIRROR	-	1
3	UF5904	SS FHCS M5-0.8 x 20mm	3	3

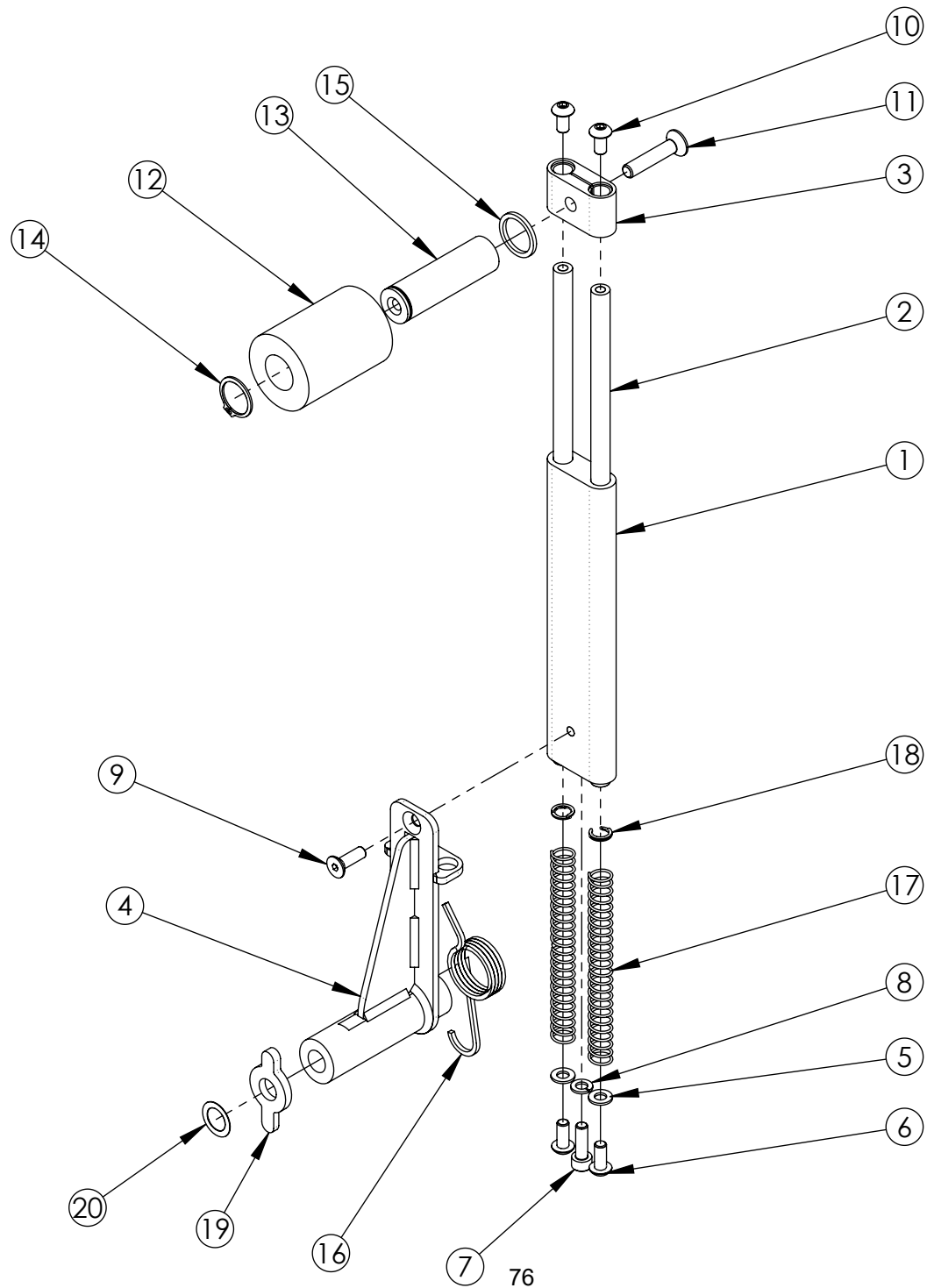
1 5 < \$%+, #1 5 < \$%+-



#9A	D5FH,	8 9G7 F ĐHC B	l 5 < \$%+, ' & '#E HM	l 5 < \$%+- ' '#E HM
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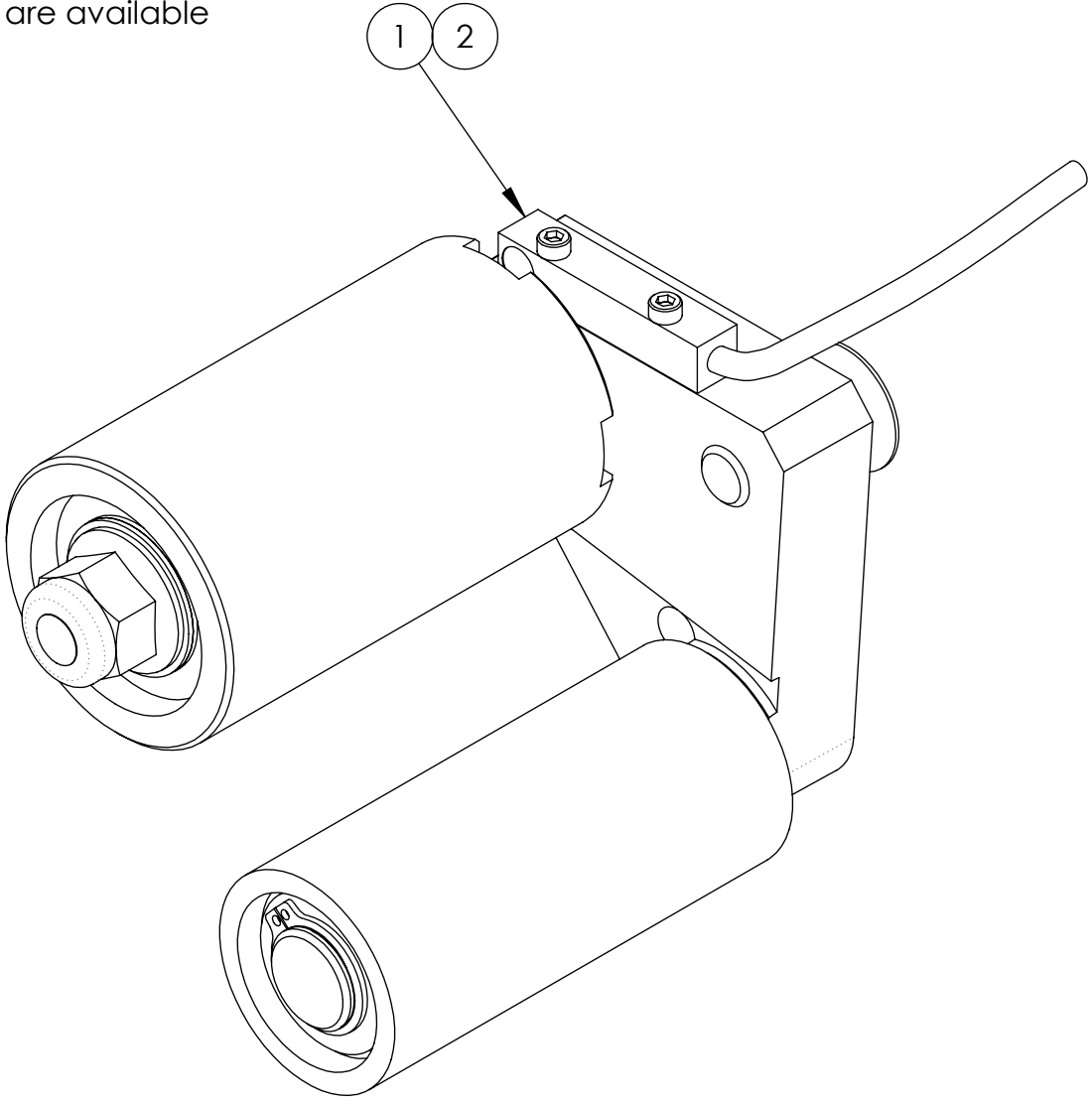
ITEM	PART #	DESCRIPTION	USH1057 QTY.	USH1058 QTY.	USH1129 QTY.
1	UAH0150	SPRING MANDREL V2	1	-	-
1	UAH0151	SPRING MANDREL V2 SS	-	1	1
2	UPH7678	SPRING GUIDE V2	1	1	1
3	UPH8111	SPRING BARREL V2	1	1	-
3	UPH8123	SPRING BARREL V2	-	-	1
4	UPH4665	COMP. SPRING 13.7 O.D. 1.7 W.D. 50.8 LONG	1	-	-
4	UPH7427	COMP. SPRING 13.7 O.D. 1.7 W.D. 50.8 L. SS	-	1	1
5	UF6391	F.W. 6 x 16 x 1 mm	1	-	-
5	UF6390	SS F.W. 6 x 16 x 1	-	1	1
6	UF3391	SS NYLON LOCK NUT M6-1.0	1	1	1





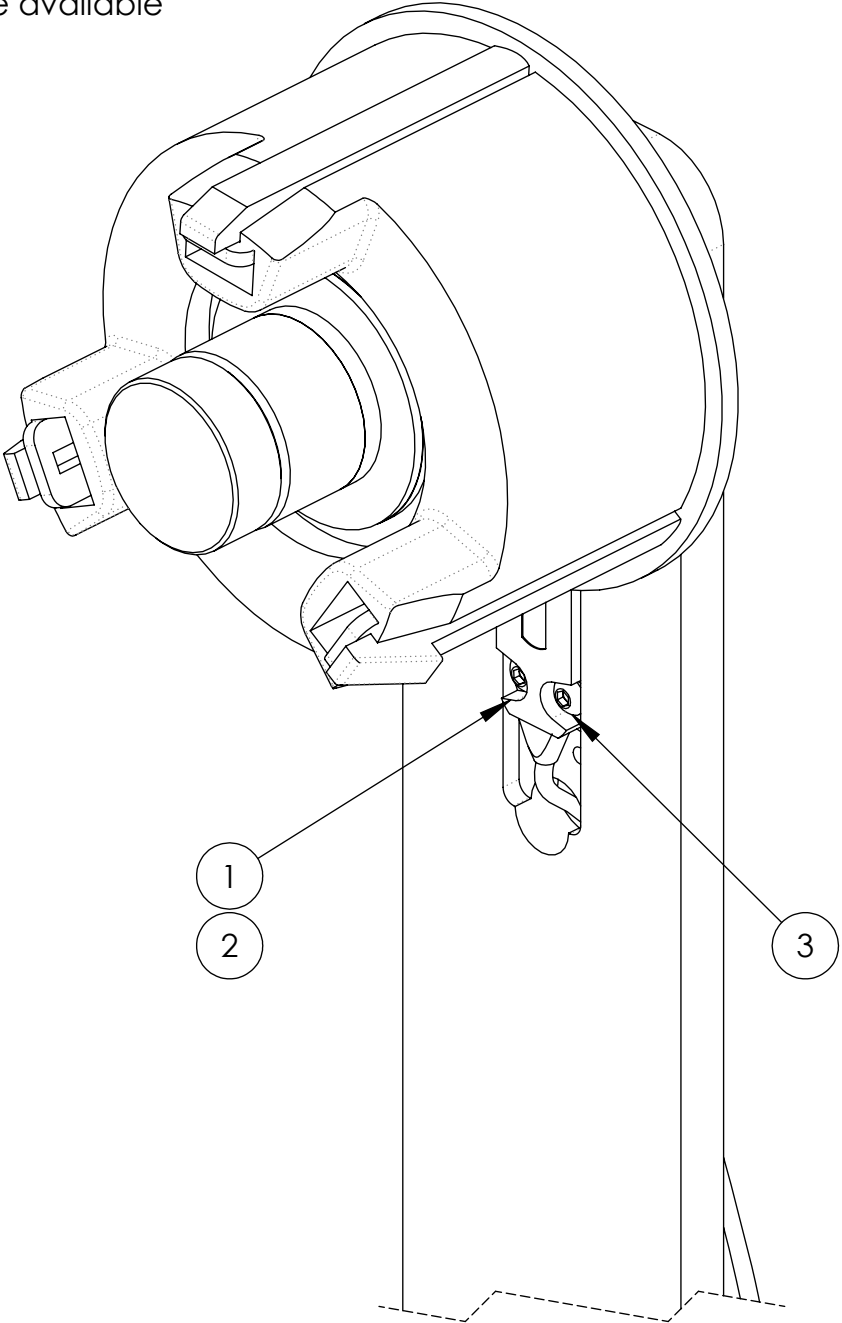
ITEM	PART #	DESCRIPTION	USH1111 2"/QTY.	USH1112 3"/QTY.	USH1194 2" Mir./QTY.	USH1195 3" Mir./QTY.
1	UPH1348	PEEL OFF ARM	1	1	1	1
2	UPH1349	PEEL-OFF SLIDING ROD	2	2	2	2
3	UPH1350	PEEL-OFF BLOCK	1	1	1	1
4	UPH1346	PEEL-OFF BASE	1	-	1	-
4	UPH1347	PEEL-OFF BASE	-	1	-	1
5	UF6340	SS FW M5	2	2	2	2
6	UF7011	SS BHCS M5-0.8 X 12mm	2	2	2	2
7	UF3169	SS SHCS M5-0.8 x 16mm	1	1	1	1
8	UF7021	SS LW M5	1	1	1	1
9	UF3277	SS FHCS M5-0.8 x 16 mm	1	1	1	1
10	UF3283	SS BHCS M5-0.8 X 10mm	2	2	2	2
11	UF3781	SS FHCS M6 - 1 x 30mm	1	1	1	1
12	UPH1354	PEEL ROLLER	1	-	1	-
12	UPH1355	PEEL ROLLER	-	1	-	1
13	UPH1351	PEEL-OFF ROLLER SHAFT	1	-	1	-
13	UPH1353	PEEL-OFF ROLLER SHAFT	-	1	-	1
14	UF7018	SS RETAINING RING 16 mm SHAFT	1	1	1	1
15	UPH1379	SPACER RING	1	1	1	1
16	UPH1361	SS TORSION SPRING LEFT SQ	1	1	-	-
16	UPH1511	SS TORSION SPRING RIGHT SQ	-	-	1	1
17	UPH1358	COMPRESSION SPRING	2	2	2	2
18	UF9173	C-RING 0.3125	4	4	4	4
19	UPH1352	FRICTION WASHER	-	1	-	1
20	UF6403	NYLON F.W. 10.5 x 16 x 0.25	1	1	1	1

No Tape Options are available



ITEM	PART #	DESCRIPTION	QTY.
1	UPM7328	PHOTOELECTRIC SENSOR PNP	1
2	UPM7329	PHOTOELECTRIC SENSOR NPN	1

Low Tape Options are available



ITEM	PART #	DESCRIPTION	QTY.
1	UPH8169	PHOTOELECTRIC SENSOR PNP	1
2	UPH8144	PHOTOELECTRIC SENSOR NPN	1
3	UF4518	SS BHCS M3 - 0.5 X 6	2