# INSTRUCTION MANUAL

## for the

# 865A

## AUTOMATIC

# BAG CLOSER

| TYPE | MODEL | SERIAL NO. |
| --- | --- | --- |
| | | |

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865A 04 11

# 865A CLOSER
# TABLE OF CONTENTS



# GENERAL SAFETY INFORMATION

**Be sure the following safety instructions are read, understood, and become part of daily practice when operating or maintaining the 865 closer.**

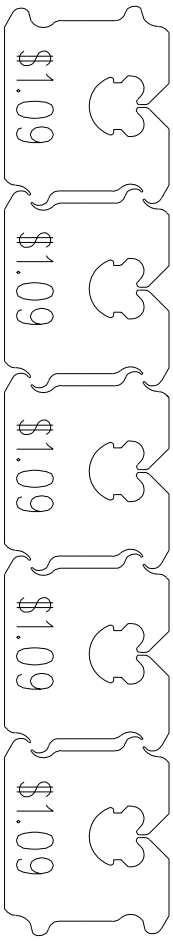
1. Do not attempt to operate the closer until you understand its function. Study this manual carefully.

2. Keep foreign material and fingers away from the drive system.

3. Keep fingers out of the feed belt's closing area.

4. Disconnect the power cord before making any closing head adjustments or scheduled maintenance. All moving parts must be completely stopped before continuing.

5. After any adjustment, cycle by hand to ensure proper adjustment. Immediately cycling under power may damage the closing head.




# THE TYPE 865A MACHINE AUTOMATICALLY CLOSES PLASTIC BAGS WITH THE STRIPLOK® CLOSURE

A. The 865A Automatic Bag Closing Machine closes packages with the “NRP” style Striplok bag closures and Striplok bag closure-labels. The machine is equipped with a variable speed control for closing up to 80 packages per minute.

B. The closer is available in right-hand or left-hand models. The parts identification section includes part numbers for both right-hand and left-hand models.

C. The 865A will close various package widths without adjustment. Package width limitations are determined by the closure opening, not the gearing of the machine. The 865A will adapt to most automatic bag closing operations.

D. Maximum package weight listed is based on factory approved closure opening size. Upon request, and receipt of sample bags, the factory will gladly recommend the proper closure opening sizes. Use the bag length formula found in the appendix section of this manual to help determine the proper bag length needed.

E. The system will close a wide range of product size variations. The striplok closures are available in many closure opening sizes to accommodate a large number of variations in bag widths and film thicknesses.

F. A suggested spare parts inventory is listed in the appendix. To save valuable time, it it recommended that an adequate supply of these parts be kept on hand for needed repairs.

G. The machine is bag actuated and equipped with a variable speed control.

# SECTION I
# Specifications

| TYPE | MODEL DESIGNATION | | | | MAXIMUM PACKAGE WEIGHT (5) | SPEED (6) | ADDITIONAL CLOSURES AND AVAILABLE CLOSURE LABELS (5) |
|---|---|---|---|---|---|---|---|
| | (1) | (7) | CLOSURE (2)(3) | FLOW (4) | | | |
| 865A | A, B, C, or D | G | J-NRP | R or L | Up To 5 LB | 80 | CFJ, PF, TF, P-200, T-220 (medium duty plastic) |
| 865A | A, B, C, or D | G | K-NRP | R or L | Up To 10 LB | 80 | CFJ, PF, TF, P-200, T-220 (heavy duty plastic) |
| 865A | A, B, C, or D | G | JM-NRP | R or L | Up To 5 LB | 80 | PFM, TFM, PM-200, TM-220 (medium duty plastic) |
| 865A | A, B, C, or D | G | KM57-NRP | R or L | Up To 20 LB | 80 | KM-NRP, PFM, TFM, PM-200 TM-220 (heavy duty plastic) |
| 865A | A, B, C, or D | G | JW-NRP | R or L | Up To 5 LB | 80 | NONE |
| 865A | A, B, C, or D | G | KW-NRP | R or L | Up To 10 LB | 80 | NONE |
| 865A | A, B, C, or D | G | Z-NRP | R or L | Up To 10 LB | 50 | TFZ (heavy duty plastic) |
| 865A | A, B, C, or D | G | Z90-NRP | R or L | To 50 LB | 50 | Z72-NRP |

**FOOTNOTES**

(1) Model A designates the standard 865 Closer. Model B utilizes the extended belt drive. Model C features a bridged frame design. Model D combines the features of the extended belt drive and the bridged frame.
(2) The closer will utilize only series NRP style closures.
(3) The closer requires the use of reversed style closure-labels only. (Front of label glued to back of the closure.)
(4) The hand selected will normally be determined by the required position of the closure reel. See diagram.
(5) The lok opening size determines maximum product weight allowable. Larger lok openings will reduce listed package weights.
(6) Speed is defined in packages pre minute. Width of bag and in-feed consistency can affect the packages per minute the closer will handle. (i.e. 8" bag handled automatically could be closed @ 120 pkgs/min. 30" bag hand fed could be closed @ 35 pkgs/min.)
(7) The “G” in model designation features an optional lower gearbelt drive system. This option is used for wet and / or heavy conditions.

# CLOSURE AND CLOSURE LABEL IDENTIFICATION

**(CLOSURES AND CLOSURE LABELS ARE SHOWN AT FULL SCALE)**

**The 865 closer is available in right-hand and left-hand models. Any Kwik Lok closure (without a label) will run through either a right-hand or a left-hand closing machine. All Kwik Lok closure labels are manufactured as right-hand or left-hand to fit the hand of the closing machine being used. Refer to the flow diagram on page 1.7 to identify which hand of closing system is being used.**

All the closure labels shown on this page are **RIGHT-HAND.**

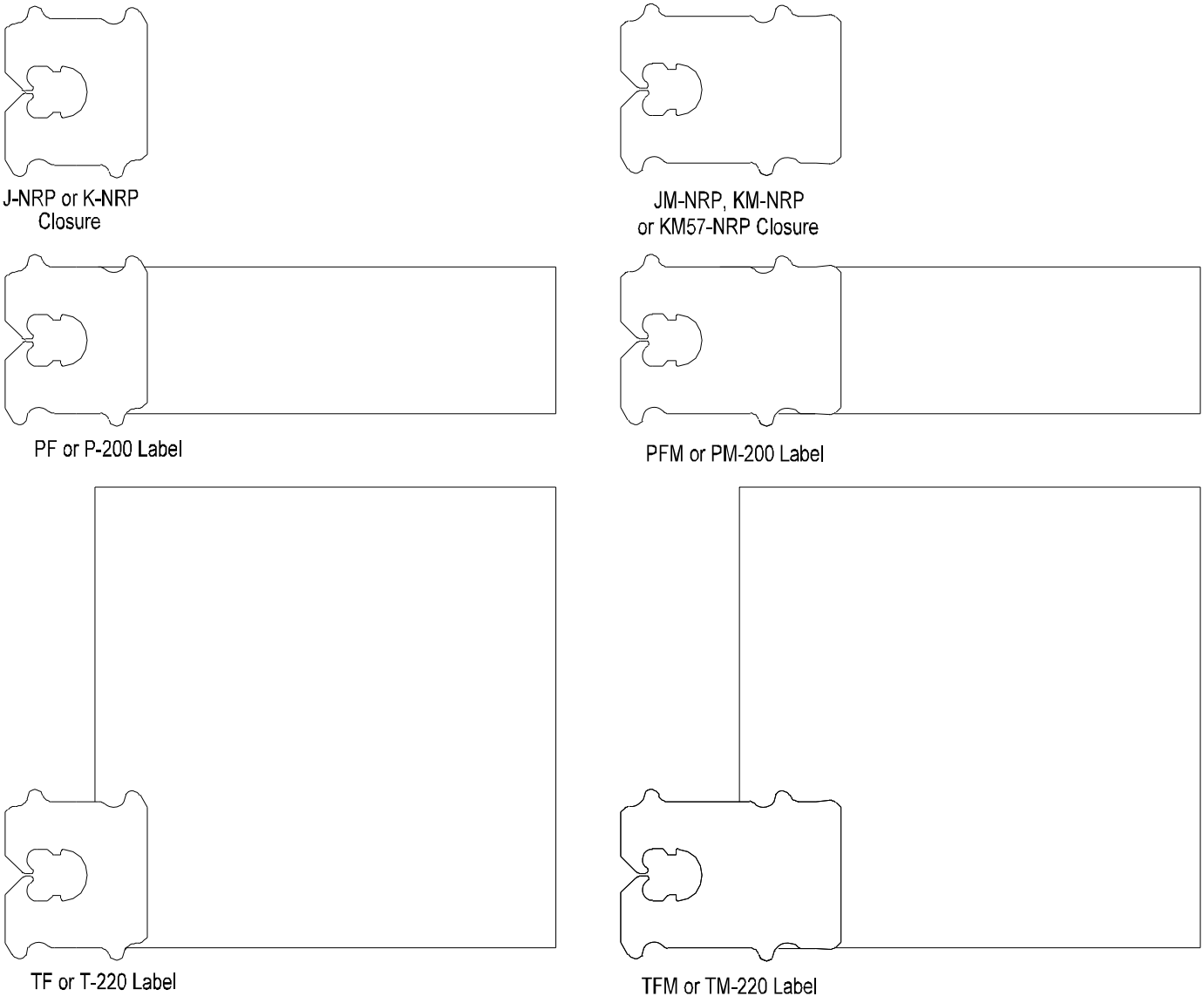



Figure 1.1

# CLOSURE AND CLOSURE LABEL IDENTIFICATION

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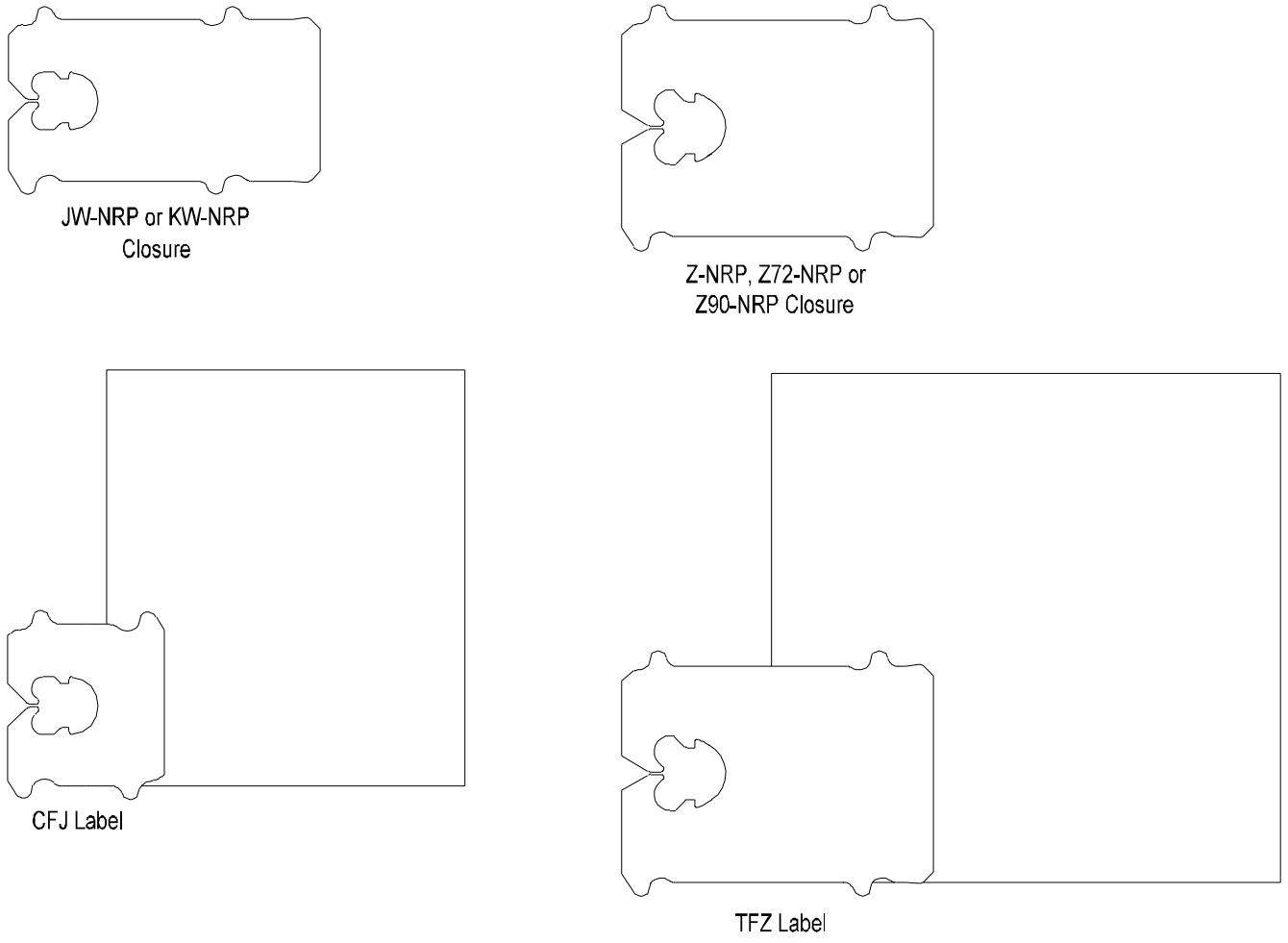


Figure 1.2

# CLOSURE AND CLOSURE LABEL IDENTIFICATION

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All the closure labels shown on this page are **LEFT-HAND.**

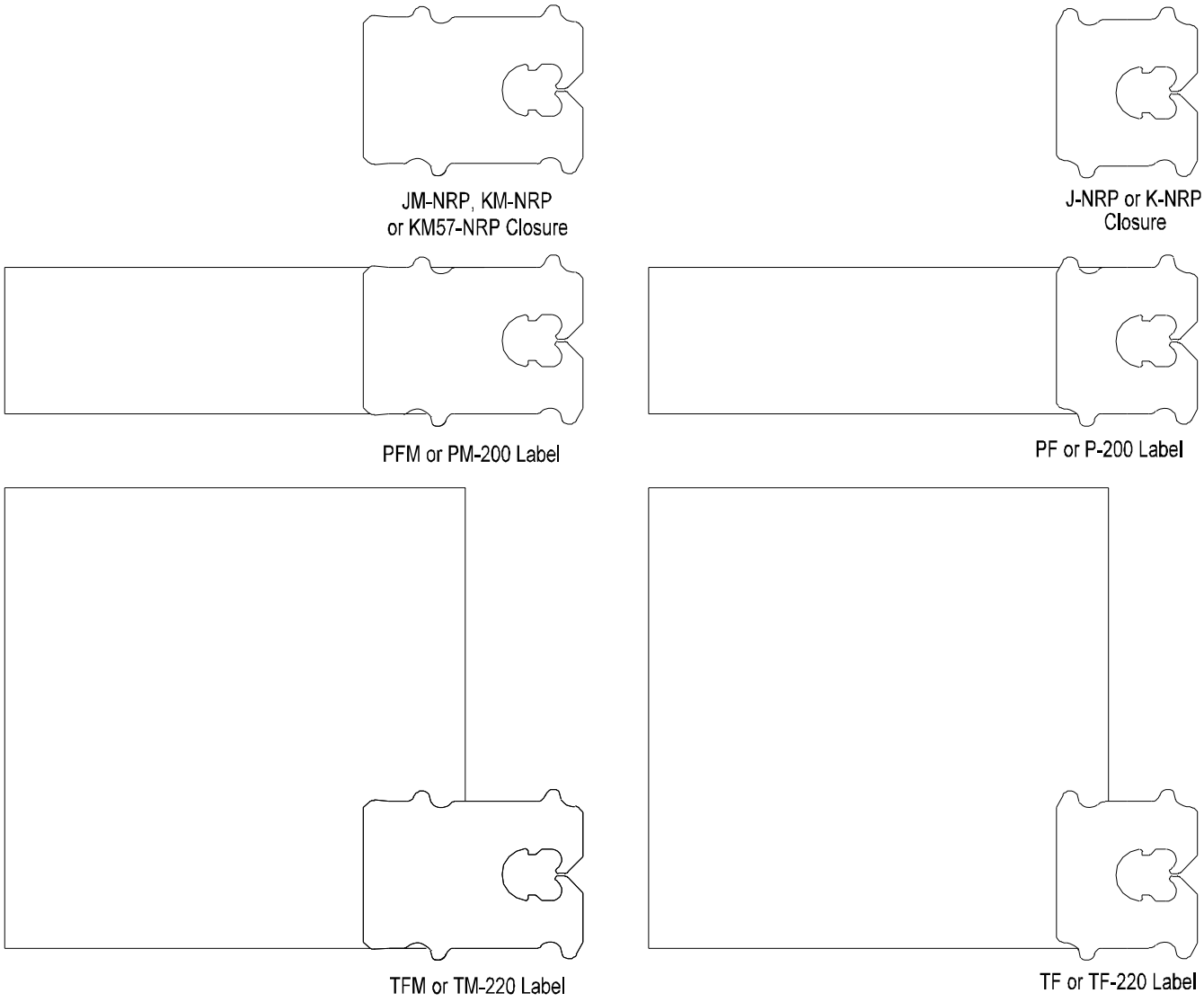


Figure 1.3

# CLOSURE AND CLOSURE LABEL IDENTIFICATION

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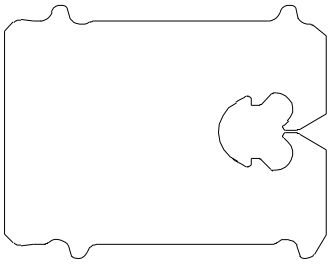
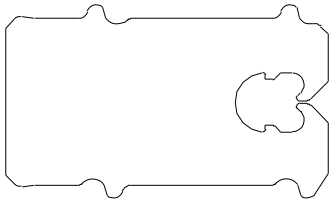
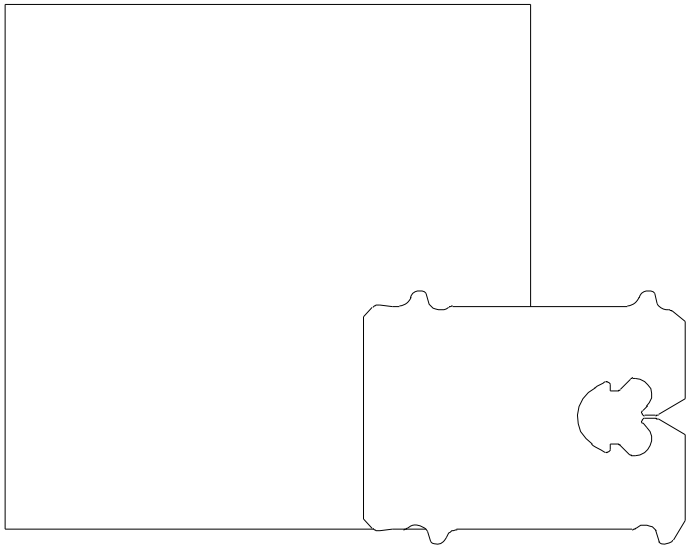
All the closure labels shown on this page are **LEFT-HAND.**



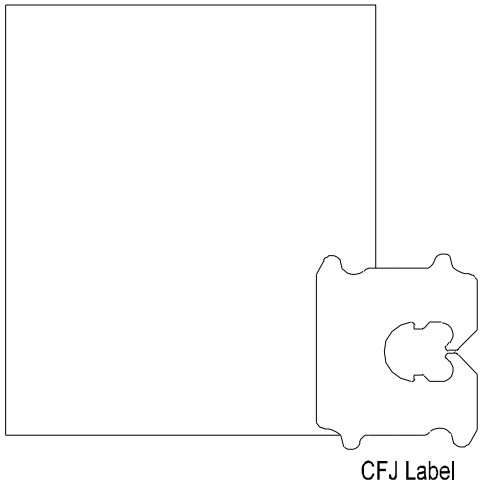
Z-NRP, Z72-NRP or
Z90-NRP Closure



JW-NRP or KW-NRP
Closure



TFZ Label



CFJ Label

Figure 1.4

**FLOW DIAGRAM**

To determine the correct flow direction, visualize standing behind the closer with the product moving toward you.

If the closure reel is on your right - the flow direction is **RIGHT-HAND.**

If the closure reel is on your left - the flow direction is **LEFT-HAND.**

**LEFT-HAND POSITION** **RIGHT-HAND POSITION**

Figure 1.5

**TYPICAL APPLICATIONS**

Vertical packages, produce (wicketed baggers and roll-stock baggers), ice, candy, and many hand-feed applications.

**SPECIFICATIONS**

| Without Printer and with Standard Reel | With 897C Printer and Standard Reel |
|---|---|
| Height: 23.3/4" Length: 25" | Height: 31" Width: 28" |
| Width: 24.1/4" Weight: 66 lbs | Length: 25" Net Weight: 91 lbs. |

Power: 115-250 VAC, 1 Ph, 50/60 Hz, 1.0 Amp

**IMPRINTING OPTIONS**

**COLD STAMP SYSTEM**

The 897C Cold Foil Printer is well suited for printing on any closure or closure label available for the 865 Bag Closing Machine.

The 897C Printer is capable of printing multiple lines of information. Type characters can be changed or rearranged very quickly. Type can consist of prices, dates, codes, logos, lot numbers, and a wide variety of other printed information that may be required on your package.

The printer is air operated with an air pressure of 80 PSI and prints at a maximum speed of 80 closures per minute. Printing speed depends on the speed of the 865 Bag Closer. This printing system utilizes dry tape and long wearing hardened steel type ideally suited to printing small type sizes.

# SECTION I
# Specifications

## ORDERING INFORMATION

Refer to the specification chart located on page 1.2 and determine the following:

A. TYPE & MODEL: List type and select model based on desired closure and flow direction. (i.e. Type 865A Model AK-NRP-R).

B. TYPE OF INSTALLATION: Orders must identify the type of equipment on which the 865 will be installed. (Bagger brand and model, conveyor, etc. i.e. Mounted on a “VOLMPACK WBRI” Bagger).

C. POWER REQUIREMENTS: Indicate your single phase voltage (i.e. 115 VAC)

D. REEL ASSEMBLIES: The standard closer comes equipped with a single closure reel assembly.

To determine which reel assembly to order, cross-reference according to this chart.

| CLOSURES ONLY | MODELS | | |
|---|---|---|---|
| | J-NRP & K-NRP | JM-NRP & KM57-NRP | JW-NRP, KW-NRP, Z-NRP, & Z90-NRP |
| No Printer | Z8065016 | Z8065066 | Z8065019 |
| Low Profile No Printer | Z8065018 | Z8065068 | Z8065021 |
| 874 Printer | Z8065017 | Z8065067 | Z8065020 |
| Low Profile 874 Printer | Z8065018 | Z8065068 | Z8065021 |

Figure 1.6

Label reel assemblies and additional options must be ordered separately, see “Additional Options”.

E. EXAMPLE ORDER: "Type 865A Model AK-NRP-R. To be mounted on a VOLMPACK® WBRI Bagger. 115 VAC. Ship with Z8065017 Kit."

## ADDITIONAL OPTIONS

| CLOSURE LABELS ONLY | MODELS (1) | | | |
|---|---|---|---|---|
| | J-NRP & (2) K-NRP | JM-NRP & KM57-NRP | Z-NRP | LABEL CFJ |
| No Printer | Z8065022 | Z8065049 | Z8065049 | Z8065129 |
| Low Profile No Printer | Z8065024 | Z8065051 | Z8065051 | Z8065131 |
| Low profile 874 Printer | Z8065024 | Z8065051 | Z8065051 | Z8065131 |
| 874 Printer | Z8065023 | Z8065050 | Z8065050 | Z8065130 |
| Spare reel cassette | 08-005386 | 08-005429 | 08-005429 | 08-005211 |

Figure 1.7

FOOTNOTES

(1) See the Type / Model chart for appropriate closure-labels.

(2) Excludes CFJ label.

Optional Stands:
Z8065025 Kit - Work Stand
Z8065128 Kit - Stand - Table Top

Optional spare parts kit for on-hand replacement parts:
Z8065086 Kit - Spare Parts - For all models except models “G”, Z-NRP or Z90-NRP closers.

Z8065109 Kit - Spare Parts - For all models Z-NRP and Z90-NRP. Not for use with model “G” closers.

# SECTION II
# Installation

## A. POWER REQUIREMENTS:

The 865 bag closer is wired to a specific voltage of 110 - 120VAC or 200 - 250VAC. Voltage needs should be determined when the machinery order is placed. Motor voltage requirements can be changed simply by changing the incoming power supply cord. Also solenoid jumpers must be changed to match incoming voltage. Refer to the Wiring Diagram - Section VIII for details on wiring.

## B. INSTALLING THE CLOSING HEAD:

As a new closer is unpacked, note that the electrical box has been removed from the mounting bracket. Mounting screws for the electrical box are located in the mounting holes of the mounting bracket (P.N 08-004262 R or L). Refer to page 7.20 and 7.21 of this manual to locate the mounting bracket.

The following considerations are best determined before installation begins.

1. Mount the closer so the centerline of the closer's feedbelts are on the centerline of the bag path.

NOTE: For some installations, existing equipment attached to the bagger frame may impair the desired centering of the closing head to the path of the bag. A slight misalignment of this centerline should not affect the closer's abilities.

2. When selecting a mounting position for the closer, check to see that moving parts in the area will clear the closing head and not contact the closer at any time.

3. Set the closer height so the product being closed will pass under the closer freely, allowing enough bag neck above the product for closing. Refer to bag length formulas located in the Appendix Section at the end of this manual to determine proper bag lengths.

## C. PACKAGE TIGHTNESS:

Bag tightness is controlled by the height of the closing head in relation to the bag being closed.

1. Move the closer up, from the product if the package is too tight.

2. Move the closer down toward the product when a tighter package is needed.

## D. CLOSER MOUNTED TO AUTOMATIC BAGGER:

Timing between the bagger and closer is important. The bagger must release the bag just as the closer grabs it and carries it through the closing cycle. If the bagger holds onto the bag as the closer feedbelts grab it, the bagneck can be damaged and /or the bagneck may not be completely inserted into the closure.

1. Set the bagger to release the bag as the closer feedbelts grab the leading edge of the bag and begin taking it into the feedbelts for closing.

   Slowly cycle the system to verify the adjustment.

2. Adjust the speed of the closer to match the speed of the bagger's bag transfer mechanism. Observe the belt speed of the conveyor. Do not let the top of the bag lag behind or overrun the bag itself. With the release and pickup correctly matched, a smooth transfer can be seen between the bagger and closer.

NOTE: If the closer is running faster than the bagger, the closer will pull the bag neck in before the bagger releases it. The release time of the bagger and the speed of the closer are closely related. Taking time to match these two settings will result in smooth operation and a cleanly closed and undamaged package.

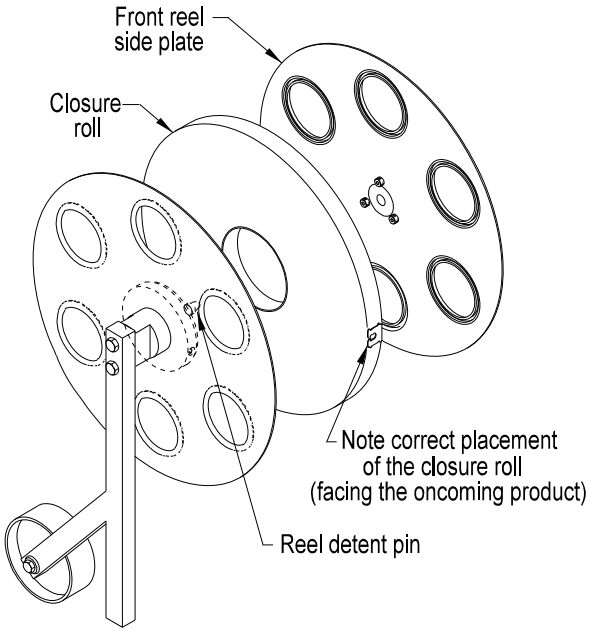



Figure 3.1

**A. MOUNTING CLOSURE ROLL: Figure 3.1**

1. Grasp the reel knob located on the front reel side plate and pull the outside reel plate off the reel detent pin.

2. Mount a roll of closures on the reel hub bearing. (Closures must always be mounted with the closure opening facing the oncoming product).

3. Replace the reel side plate.

**B. MOUNTING CLOSURE-LABEL ROLL: Figure 3.2**

1. Release the front latch located at the center of the front reel plate and remove the label reel cassette from closer.

2. Release the two latches located on the back side of the cassette assembly and separate the cassette.

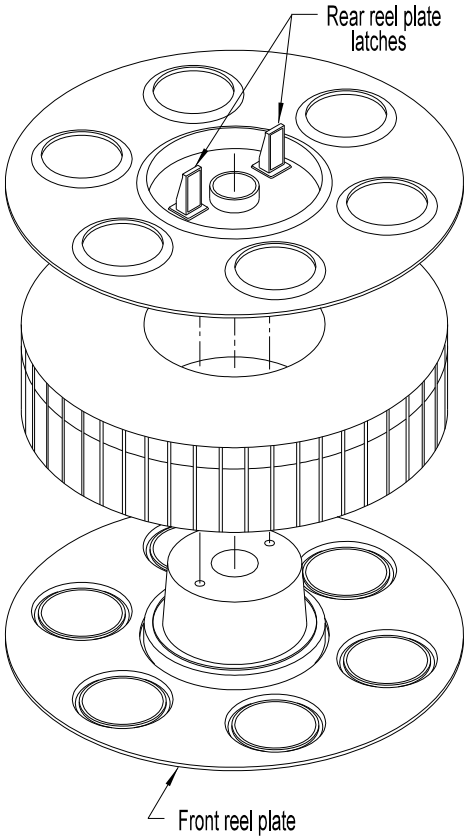



Figure 3.2

3. Remove and discard closure-label core, and reload with a new roll of closure-labels. (Closure-labels must always be mounted with the closure opening facing the oncoming product).

4. Replace the reel plate and press the two latches down to lock the cassette together.

5. Slide the full cassette onto the label reel axle and press the locking latch down to secure the cassette to the axle.

NOTE: It is recommended that a multiple number of reel cassettes be used for faster installation of closure-labels, or for storage of partially used rolls.

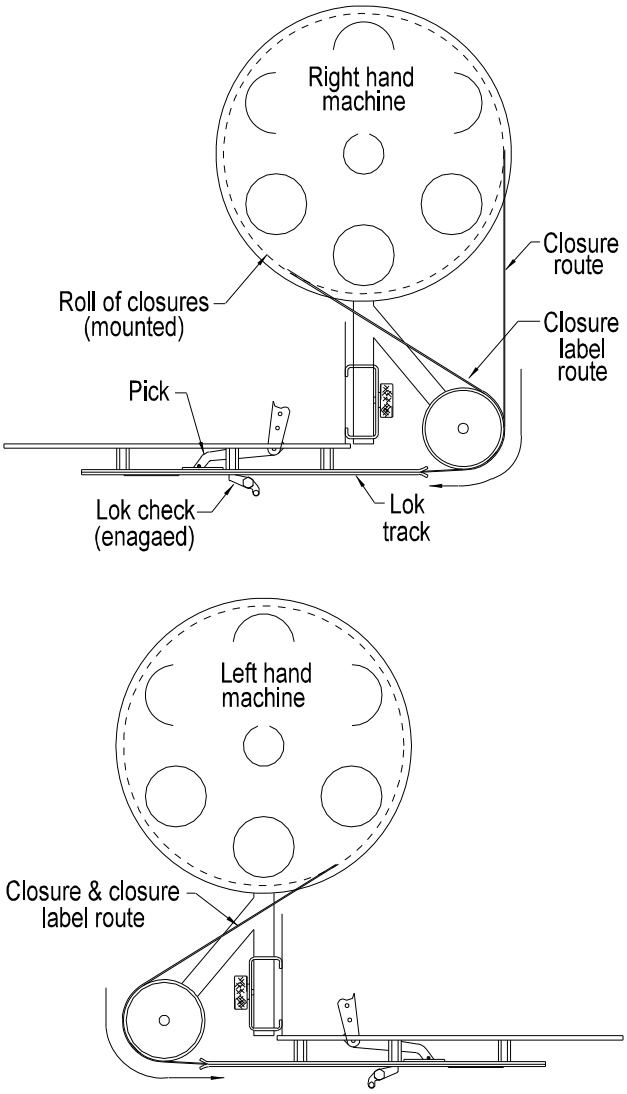



Figure 3.3

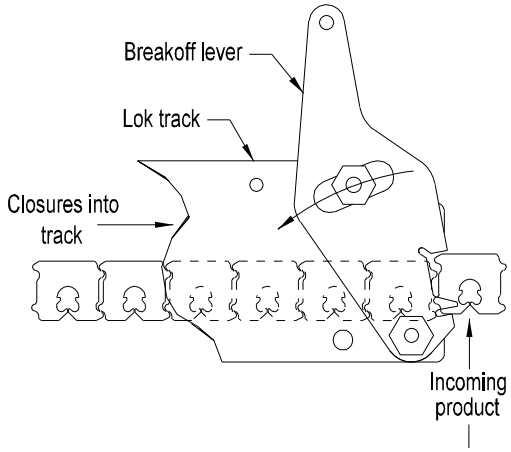



Figure 3.4
(track view from top of machine)

**C. FEEDING CLOSURES INTO LOK TRACK: Figure 3.3**

1. Remove tape from the roll of closures.

2. Insert the free end of closure strip into the slot of the lok track.

**NOTE: CLOSURE OPENING MUST FACE THE ONCOMING PRODUCT. THE NRP SERIES CLOSURE STRIP MUST BE INSERTED AS SHOWN IN FIGURE 3.4 AND 3.5. NOTE THE BACK OF THE WEB OF THE END CLOSURE IS FREE TO EXIT PAST THE REMAINING CLOSURE STRIP.**

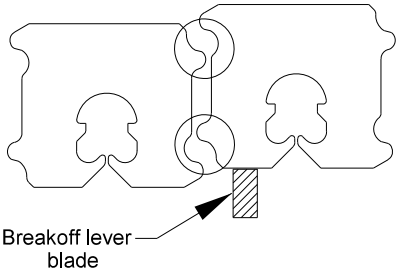



Figure 3.5

3. Push the closures into the track until the end of the strip stops. At this point the closures will be against the lok pick. Make sure the lok check is in the slot between the closures, in the closed (engaged) position.

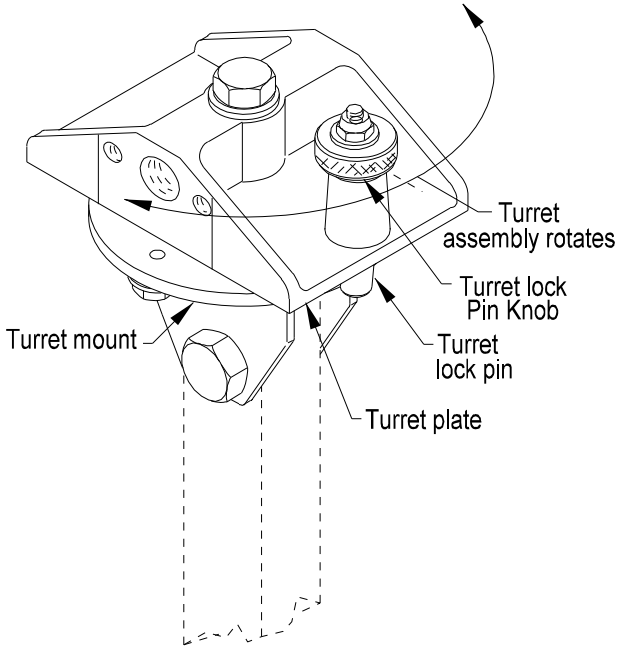



Figure 3.6

4. Press and release the manual cycle button to automatically advance the closures into a ready-to-close position. Continue to cycle until there is a closure in the closing position.

**WARNING:** IT IS ADVISABLE TO MANUALLY INSERT A BAG TO BREAK OFF AND REMOVE CLOSURES FROM THE TRACK. WITHOUT A BAG TO TAKE AWAY THE CLOSURE(S), JAMMING CAN OCCUR DUE TO CLOSURES STACKING UP AT THE END OF THE LOK TRACK.

**D. TURRET ASSEMBLY :**
**Figure 3.6**

The turret is held in position by the turret lock pin located in the turret mount and locking into a slot in the turret plate. To change from closures to closure labels, lift the turret lock pin knob until it clears the turret mount, allowing the turret to rotate. Turn the turret until the lock pin drops into the other slot in the turret mount.

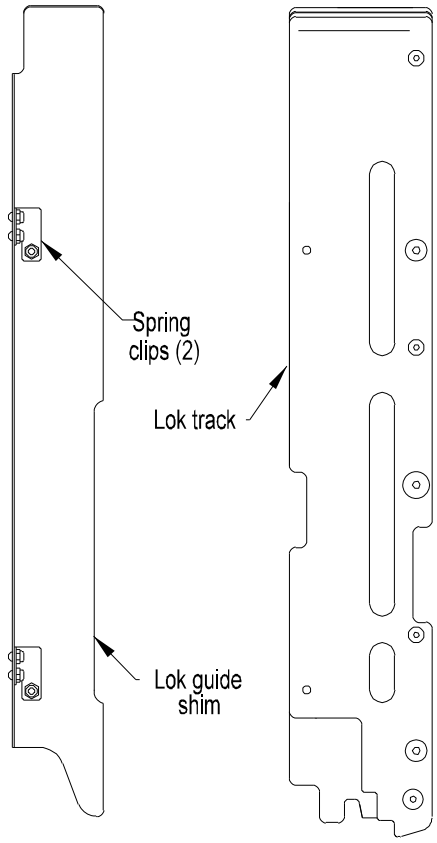



Figure 3.7

**E. LOK TRACK SHIM:**
**Figure 3.7**

The lok track shim is required only when closures are being used. The shim must be removed when using closure-labels. The shim is held in the track by two spring clips and can easily be removed by hand. Failure to replace the shim when closures are used can result in closures being dislodged from lok track. **There is no shim used on JW-NRP and KW-NRP machines.**

# SECTION III
# Operation

## F. CHANGING FROM CLOSURES TO CLOSURE-LABELS:

1. Rotate the breakoff lever by hand to break off the end closure. Flip the lok check so it is disengaged from the lok strip.

2. Pull back and down on the pick disengager lever and pull the closure strip out of the lok track.

3. Remove lok track shim. (DO NOT DISCARD).

4. Hand feed closure-labels into the lok track until they contact the lok pick. Make sure the lok check is engaged.

5. Cycle the closer feeding the closure-labels into the "ready to close" position.

## G. CHANGING FROM CLOSURE-LABELS TO CLOSURES:

1. Rotate the breakoff lever by hand to break off the end closure. Flip the lok check so it disengages from the lok strip.

2. Pull back and down on the pick disengager and pull the closure label strip out of the lok track.

3. Replace the lok track shim.

4. Feed closures into track until they contact the lok pick. Make sure the lok check is engaged

5. Cycle the closer to feed the closures into the "Ready to Close" position.

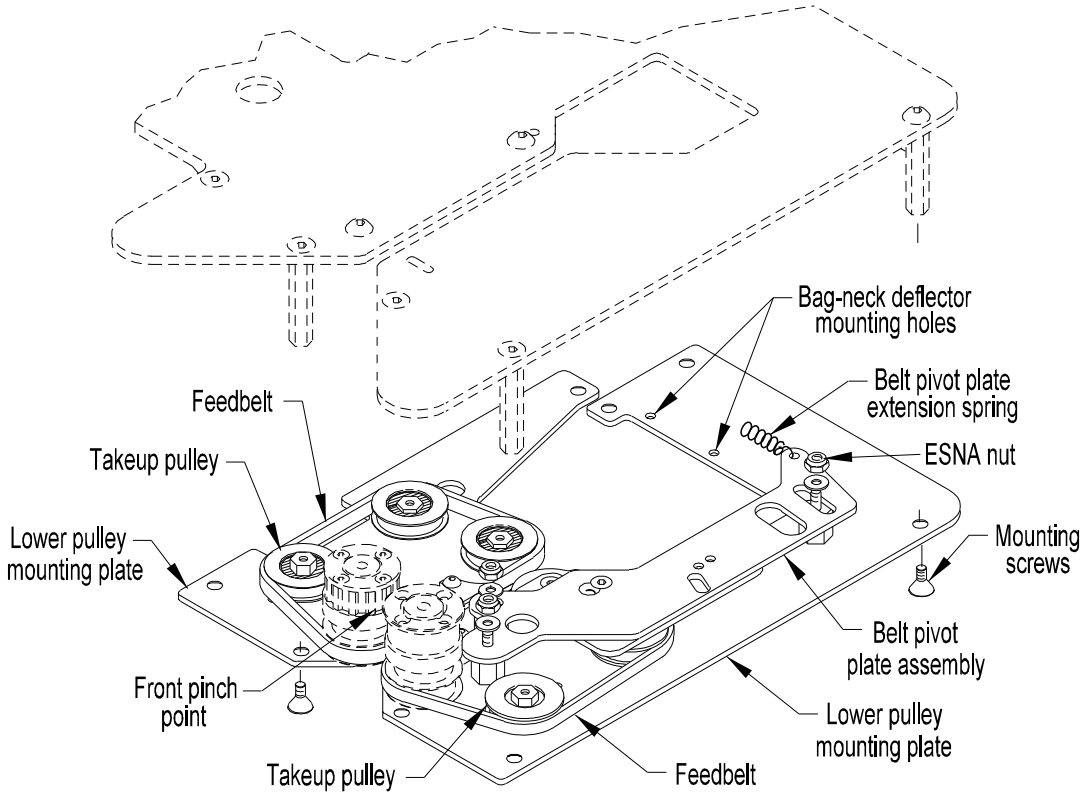



Figure 4.1

Feed belts should be checked for wear as part of the machine's preventive maintenance schedule. Belt wear can affect the quality of closing. Follow instructions below for belt replacement.

**A. REPLACE LOWER FEED BELT (DRIVE SIDE) : Figure 4.1**

1. Loosen the takeup pulley to release the belt tension.
2. Remove the lower pulley mounting plate from the main frame.
3. Use the front pinch point pulley (idle side) to loosen the pinch point between the two belts, and remove the used belt.
4. Wrap the new belt around the front drive pulley.
5. Wrap the new belt around the other pulleys and remount the lower pulley mounting plate to the main frame.
6. Adjust the idle side pinch point so the top belts mesh together and tighten the pinch point adjustment pulley.

Note: Do not force the belts together. Tight belts are indicated by added vibration and or noise.

7. Adjust the tension of the new belt and tighten with the takeup pulley.

**WHEN REPLACING DRIVE BELTS, CHECK THE PULLEYS FOR FREE ROTATION. REPLACE ANY BEARING THAT DOES NOT TURN FREELY.**

**B. REPLACE LOWER FEED BELT (IDLE SIDE) : Figure 4.1**

1. Remove the bag-neck deflector (Not found on models C and D) and the label deflector (models A and B only) from the lower pulley mounting plate (idle side).

2. Remove the flat head mounting screws securing the lower pulley mounting plate (idle side) to the main frame.

3. Remove the screw mounting the front pinch point pulley.

4. Disconnect the belt pivot plate extension spring, models A and B only, and remove the pulley mounting plate from the main frame.

5. Locate and remove the three ESNA® nuts and nylon washers securing the belt pivot plate to the lower mounting plate. Note that these ESNA nuts are low in profile. A standard ESNA nut will present clearance problems for movement of the belt pivot plate.

6. Remove the belt pivot plate assembly and replace the belt.

7. With the new belt installed, replace the belt pivot plate assembly and nylon washers. Secure with the three ESNA nuts. Be sure the belt pivot plate pivots on its mount after the ESNA nuts are tightened. Loosen the ESNA nuts slightly, if needed, to allow the belt pivot plate to pivot.

8. Place the assembly onto the main frame. Reconnect the belt pivot plate spring, models A and B only and remount with the flat head mounting screws.

9. Adjust the idle side pinch point so the top belts mesh together and tighten the pinch point adjustment pulley.

Note: Do not force the belts together. Tight belts are indicated by added vibration and or noise.

10. Adjust tension on the new belt and tighten the takeup pulley.

**C. REPLACE UPPER FEED BELT (DRIVE SIDE): Figure 4.2**

1. Remove the lower pulley mounting plate as described in part "A. Replace Lower Feed Belt Drive Side" in this section.

2. Remove the lok track from the closer main frame. Refer to part F. ”Remove Lok Track From Main Frame" in this section.

3. Release drive belt tension by loosening the drive takeup pulley.

4. Loosen the front Idler gearbelt pulley, allowing the gearbelt to slide off its front pulley.

5. Slide the gearbelt off the gearbelt support rollers and the front pulley assembly.

6. Replace the gearbelt.

7. Use the drive gearbelt takeup pulley to lightly tension the gearbelt. When properly adjusted, the gearbelt will be just tight enough to take out any slack in the belt. A properly adjusted belt will increase pulley bearing life.

**WHEN REPLACING DRIVE BELTS, CHECK THE PULLEYS FOR FREE ROTATION. REPLACE ANY BEARING THAT DOES NOT TURN FREELY.**

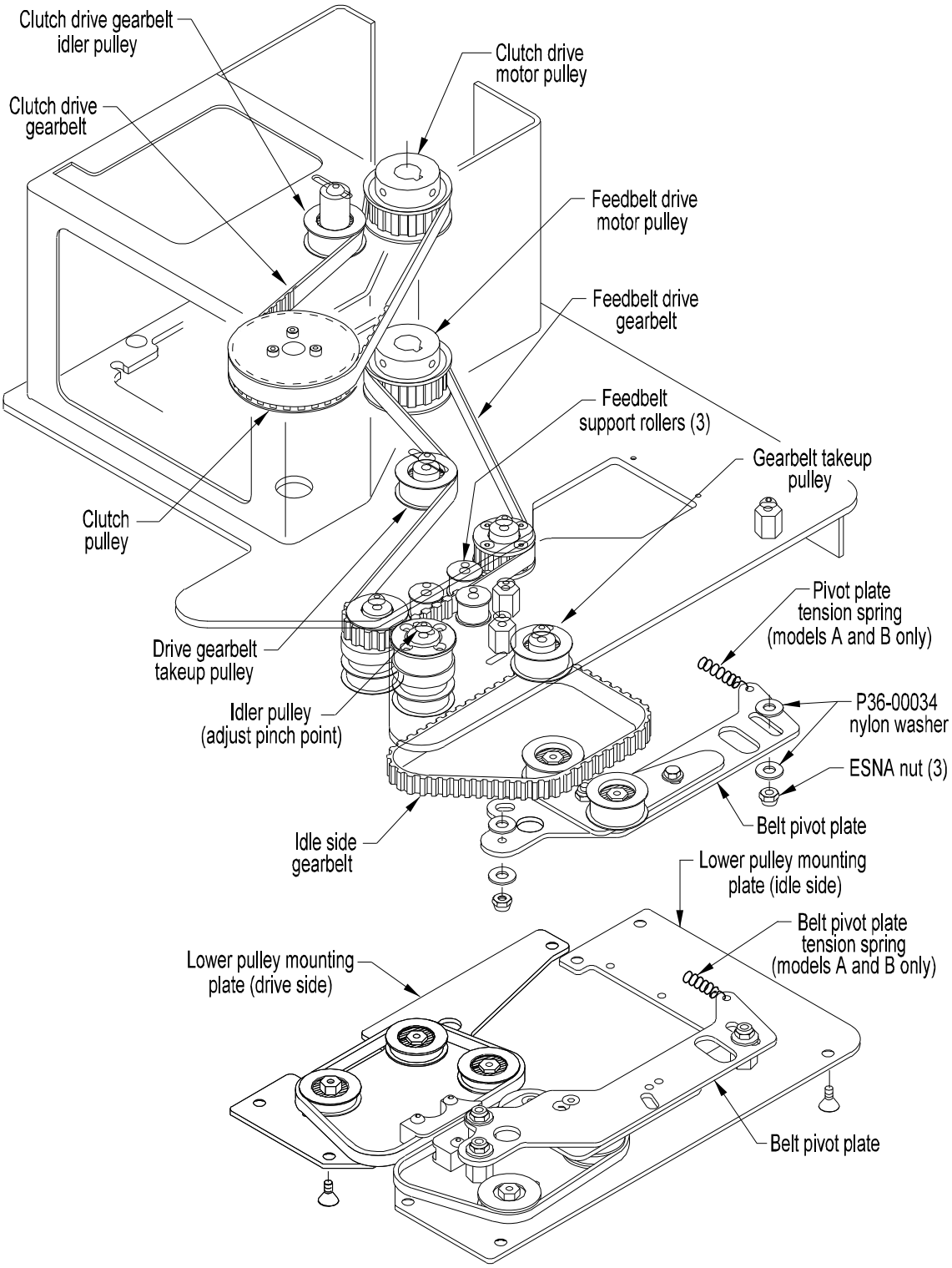

Clutch drive gearbelt idler pulley
Clutch drive gearbelt
Clutch drive motor pulley
Feedbelt drive motor pulley
Feedbelt drive gearbelt
Feedbelt support rollers (3)
Gearbelt takeup pulley
Clutch pulley
Drive gearbelt takeup pulley
Idler pulley (adjust pinch point)
Pivot plate tension spring (models A and B only)
P36-00034 nylon washer
ESNA nut (3)
Belt pivot plate
Idle side gearbelt
Lower pulley mounting plate (idle side)
Belt pivot plate tension spring (models A and B only)
Lower pulley mounting plate (drive side)
Belt pivot plate

Figure 4.2

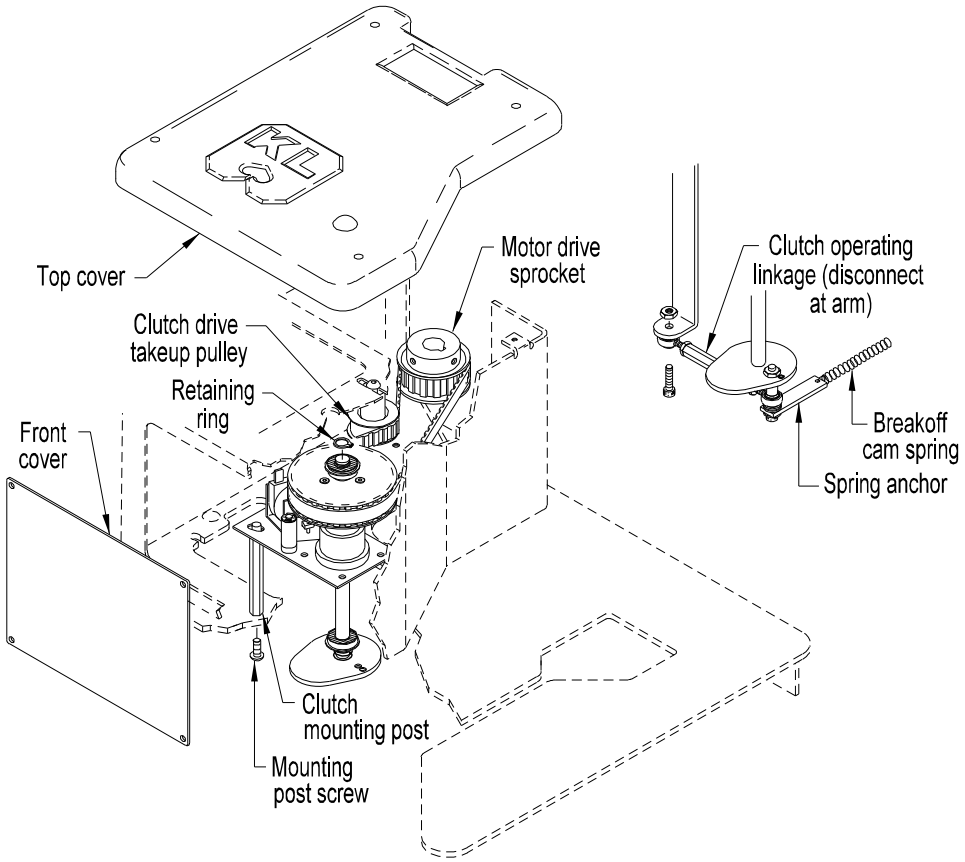



Figure 4.3

8. Reassemble the lok track and the bottom plate to the main frame.

9. Adjust the idle side pinch point so the top belts mesh together and tighten the pinch point adjustment pulley.

Note: Do not force the belts together. Tight belts are indicated by added vibration and or noise.

**D. REPLACE UPPER FEED BELT (IDLE SIDE): Figure 4.2**

1. Remove the lower pulley mounting plate (idle side).

2. Disconnect the belt pivot plate tension spring (models A and B only).

3. Rotate the breakoff lever by hand to break off the end closure.

4. Locate and remove the three ESNA® nuts and nylon washers securing the upper belt pivot plate to the main frame of the closer and remove the plate.

5. Loosen the front gearbelt Idler pulley, allowing the gearbelt to slip off.

6. Replace the gearbelt and remount the belt pivot plate.

7. Adjust the idle side pinch point so the top belts mesh together and tighten the pinch point adjustment pulley.

Note: Do not force the belts together. Tight belts are indicated by added vibration and or noise.

8. Retighten the takeup pulley to tighten the new gearbelt.

**E. REPLACE CLUTCH DRIVE GEARBELT: Figure 4.3**

1. Remove the top and front covers.
2. Loosen the clutch drive gearbelt takeup pulley.
3. Disconnect the pick operating linkage at the pick shaft assembly.
4. Disconnect the breakoff cam spring.
5. Remove the retaining ring from the top of the breakoff camshaft.
6. Allow the camshaft and clutch assembly to drop down from its normal operating position.
7. Work the gearbelt from around the clutch pulley, and off the machine.
8. Install the new gearbelt in the same way as the old one was removed.
9. Remount the camshaft into the top bearing and secure it with the retaining ring. Replace the clutch mounting post.
10. Reattach the pick operating linkage at the pick arm.
11. Reconnect the breakoff cam spring.
12. Adjust belt tension and tighten the clutch drive gearbelt takeup pulley.

**WARNING: DO NOT OVERTIGHTEN THE GEARBELT. IF THE DRIVE BELT IS TOO TIGHT THE CLUTCH WILL SUFFER UNDUE WEAR.**

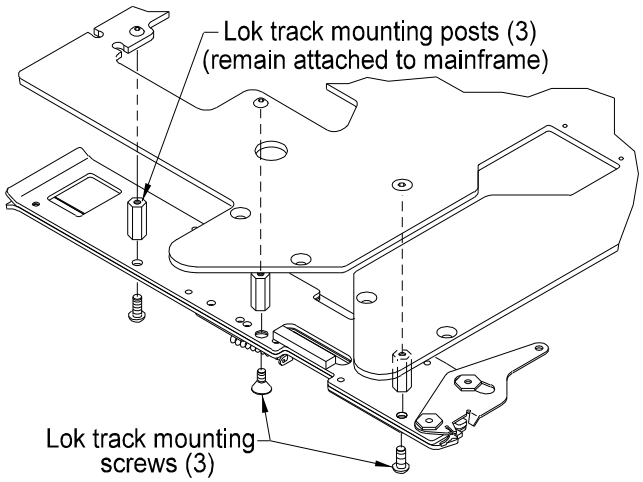



Figure 4.4

**F. REMOVE LOK TRACK FROM MAIN FRAME: Figure 4.4**

The 865 lok track is easily removed from the main frame. Follow instructions below to remove the lok track:

1. Remove the lower pulley mounting plate (drive side) from closer main frame. Refer to " A" this section.
2. Disconnect the breakoff cam spring.
3. Remove the label deflector.
4. Disconnect the breakoff link from the lok breakoff lever by removing the breakoff link mount.
5. Unscrew the lok track mounting screws (3), and remove lok track from main frame.

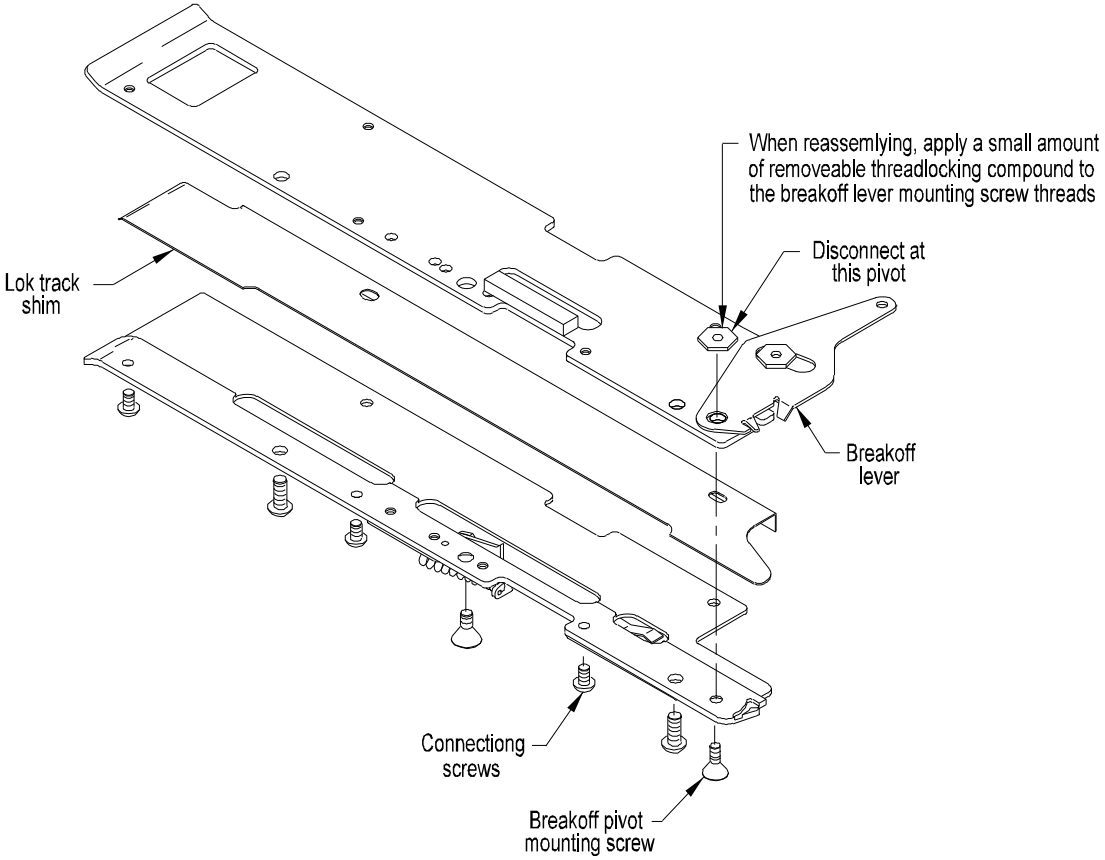



Figure 4.5

**G. DISASSEMBLE LOK TRACK: Figure 4.5**

1. Remove the lok track shim if it is in place. The shim is not used when closing with closure labels. (Shim not supplied with JW-NRP or KW-NRP closure tracks).

2. Disconnect the lok breakoff lever from the lok track at the pivot side of the breakoff lever.

3. Remove the screws connecting the two halves of the lok track.

4. Clean and inspect lok track parts. The groove in the track should be clean and smooth. Any deformity in the track will impede the closure strip as it travels through the track.

5. Reverse instructions to reassemble the lok track. There are no adjustments required when reassembling the lok track. However, it is advisable that closures be run through the track to insure that the closer functions properly.

**H. MOTOR BRUSHES:**

Motor brushes should be inspected every 250 hours. Certain conditions such as dusty or wet conditions can shorten brush life. Brushes should be replaced if they are shorter than 3/8" long.

1. Use a large straight blade screwdriver to remove the brush cover.

2. Remove the brush spring and inspect the spring and brush for wear as detailed above. Replace the brushes / springs if needed.

**I. * LUBRICATION:**

The following are recommended points of lubrication for the 865 closer. Use a lightweight food grade mineral oil unless otherwise specified.

1. **Pick Bearing** - Lubricate the pick bearing about once a week.

2. **Lok Check** - Lubricate lok check about once a week.

3. **Breakoff Lever** - Lubricate the breakoff Lever about once a week. (Refer to Section VII Parts Identification, Figure 7.11 to identify the lok check and breakoff lever).

4. **Belt Pivot Points** - Lubricate these points about once a month. (Refer to Figure 4.2 to identify the belt pivot plates).

*Lubricants used for the Kwik Lok equipment line are formulated for the food processing industry. They are NSF registered as H-1 for use in food processing and packaging equipment.

# SECTION V
# Adjustments

**INCOMING POWER SHOULD BE DISCONNECTED BEFORE PERFORMING THE FOLLOWING ADJUSTMENTS UNLESS OTHERWISE INSTRUCTED.**

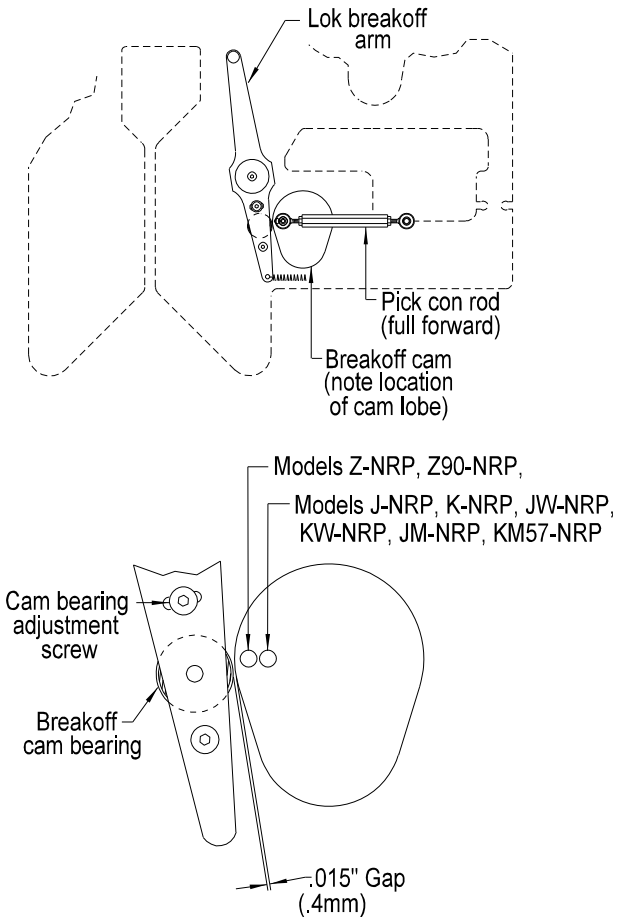



Figure 5.1
(viewed from underside)

**A. BREAKOFF CAM POSITION:**
**Figures 5.1 and 5.2**

PROPER ADJUSTMENT: The breakoff cam is properly positioned when the pick con rod assembly is full forward in its stroke with the closer in neutral.

Adjust as follows:

1. Disconnect the closer power cord.

2. Remove the top cover and side cover to expose the clutch.

3. Actuate the clutch by hand. Manually cycle the closer until the breakoff cam is in the position shown. (Figure 5.1)

**NOTE:** To manually cycle the printer, the clutch must be tripped. Do so by depressing the clutch actuator arm. Rotate the clutch pulley to cycle. The pulley will rotate in one direction only, due to the clutch anti-backup feature.

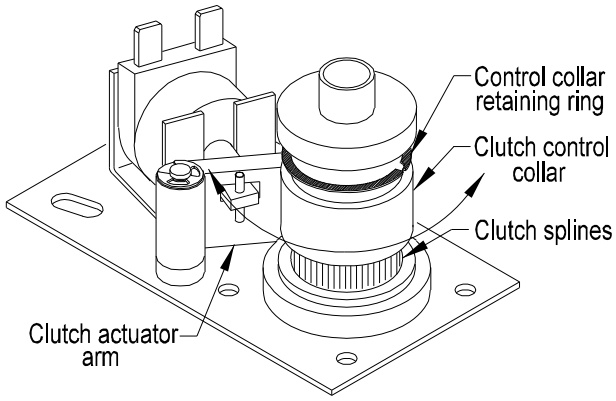



Figure 5.2

4. Slide the clutch control collar retaining ring upwards, followed by the control collar itself. (Figure 5.2)

5. Rotate the control collar until it contacts the clutch actuator arm and then slide the collar back into position over the clutch splines.

6. Cycle the closer manually, checking to see that the breakoff cam is in the proper position at the end of the closing cycle (neutral). If not, repeat step 4.

7. Return the retaining ring to its operating position and re-mount covers.

**B. BREAKOFF ARM UNIT:**
**Figure 5.1**

PROPER ADJUSTMENT: With the closer in neutral and the breakoff arm properly adjusted, there should be a slight gap of approximately .015" (.4mm) between the breakoff bearing and the breakoff cam.

Adjust as follows:

1. Check to see that the closer is in neutral.

2. Loosen the cam bearing adjustment screws and rotate the bearing toward or away from the breakoff cam until the desired gap is achieved.

3. Retighten screws.

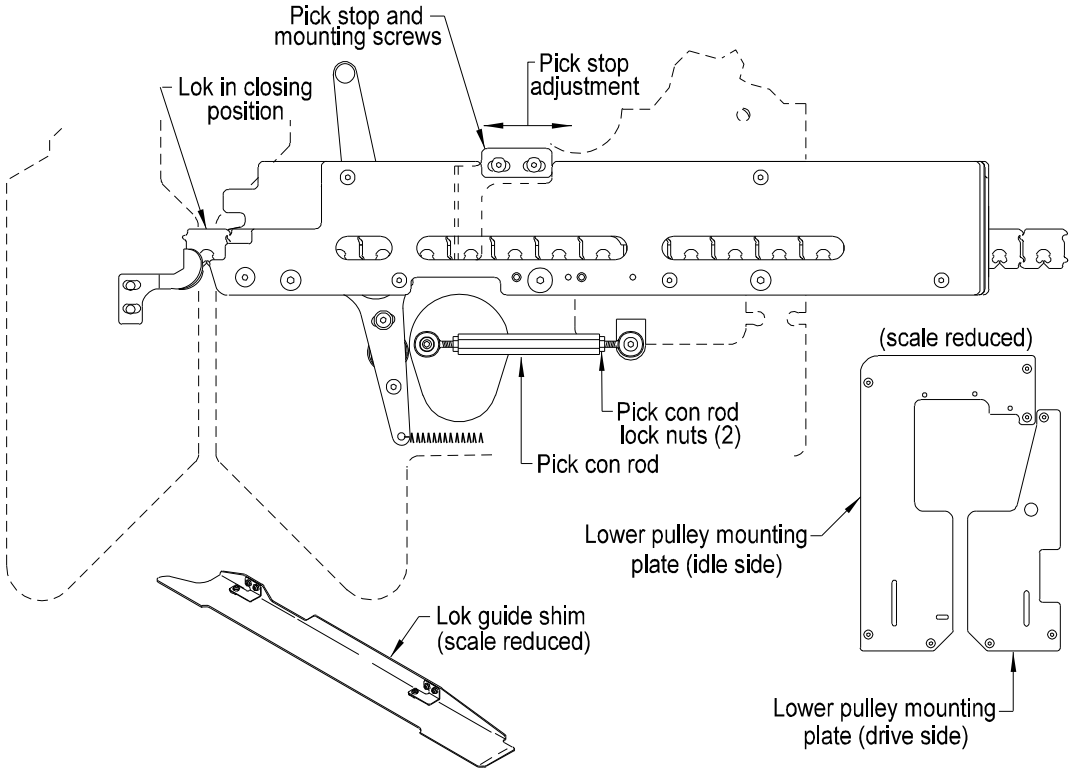



Figure 5.3
(viewed from underside)

**C. LOK PICK AND CLOSURE POSITION: Figures 5.3 - 5.5**

PROPER ADJUSTMENT: The lok pick is properly adjusted when it positions the closure as indicated in Figures 5.4 and 5.5 when the closer is in neutral.

Be sure the closer is in the neutral position when making the following adjustments.

Adjust as follows:

1. Remove the lower pulley mounting plate - idle side (to better view the end of the lok track).

2. Remove the lok guide shim to gain access to the pick stop mounting screws.

3. Loosen the pick stop mounting screws and slide the pick stop away from pick. (Figure 5.7)

4. Cycle the closure strip through the lok track until the closure at end of the strip is in closing position. (Figure 5.4)

5. Loosen the pick con rod locking nuts and rotate con rod in the desired direction. Rotating the con rod changes position of the lok pick, and so repositions the closure strip in the lok track. Continue to adjust until the last closure in the strip is in the closing position shown. (Figure 5.5) Note the lok track covers about one third the slope of the closure jaw. (circled)

6. Cycle closer several times, checking the closure position. When satisfied, retighten the con rod locking nuts. Be sure that after tightening, the rod ends work freely and have not been placed in a bind.

7. Slide the pick stop until it contacts the pick and retighten the mounting screws.

8. Replace lok guide shim and lower pulley mounting plate.

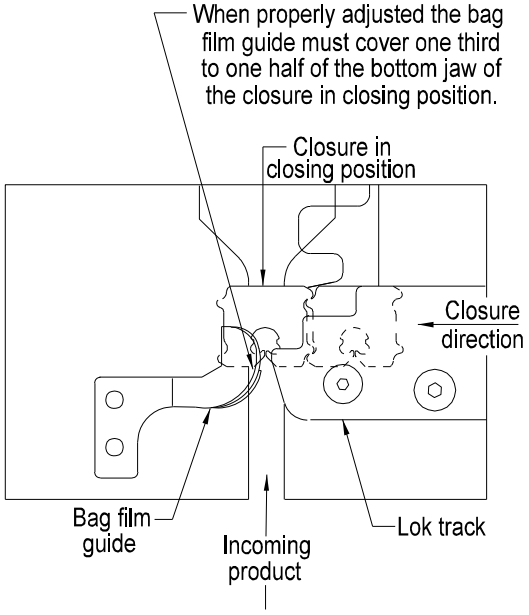



Figure 5.4
(viewed from underside)

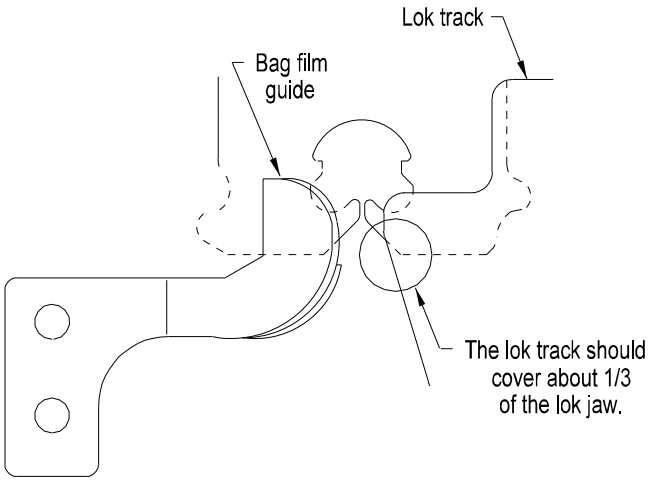



Figure 5.5

# SECTION V
# Adjustments

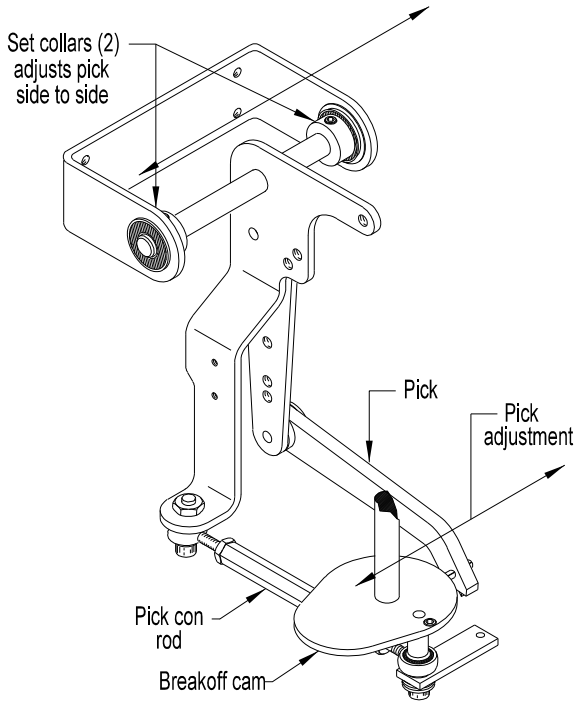



Figure 5.6

**D. LOK PICK:**
**Figures 5.6 and 5.7**

PROPER ADJUSTMENT: The lok pick should engage the closure strip near the back web of the closure. But not so close to that web as to let the pick slide over the web.

Adjust as follows:

1. Loosen the set collars. (Figure 5.6)

2. Slide the pick shaft assembly accordingly. (Figures 5.6 and 5.7)

3. Retighten the set collars, insuring that the wave washers between set collars and bearings are collapsed or partially so.

**E. LOK CHECK:**

PROPER ADJUSTMENT: The lok check is adjusted correctly when it keeps the closures from backing up in the lok track as the pick moves through its back stroke. Figure 5.7, 5.8 and 5.9 detail correct pick / lok check position with closer in neutral.

**NOTE:** The closures can back up slightly when the Pick moves.

Lok check adjustment for **Models Z-NRP and Z90-NRP:**
**Figure 5.7**

1. Insure that the closer is in neutral.

2. Loosen the lok check pivot and slide the lok check in the desired direction. The point of the check should be slightly above the middle of the notch between the two closures.

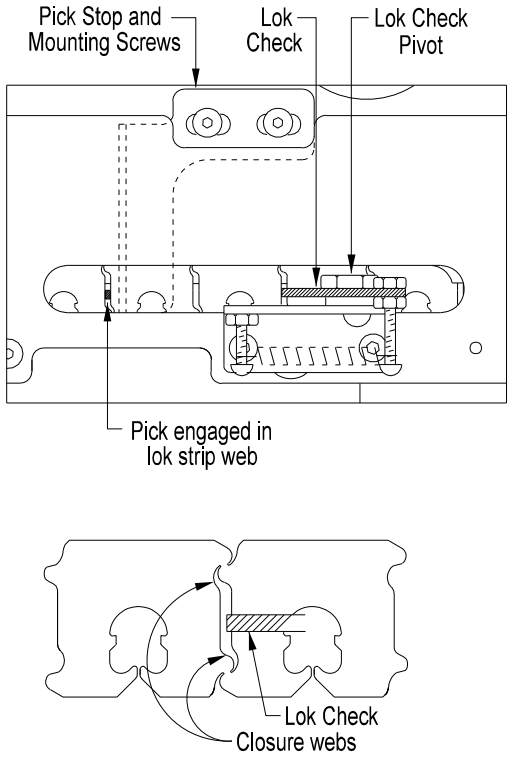



Figure 5.7

3. Retighten the lok check pivot and cycle the closer several times while observing the position of the lok check.

Lok check adjustment for **Model J-NRP, K-NRP, JM-NRP, KM57-NRP, JW-NRP, and KW-NRP closures: Figures 5.8 and 5.9**

1. Insure that the closer is in neutral.

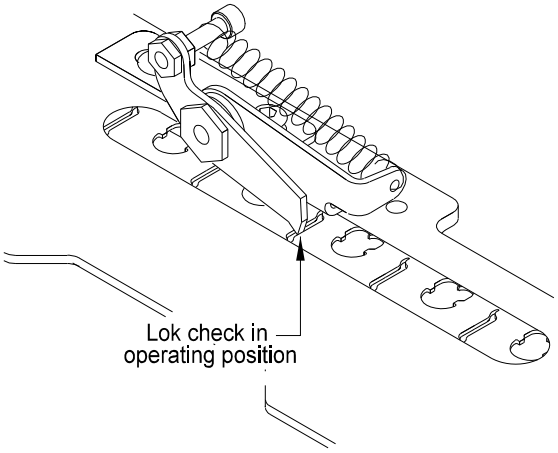



Figure 5.8

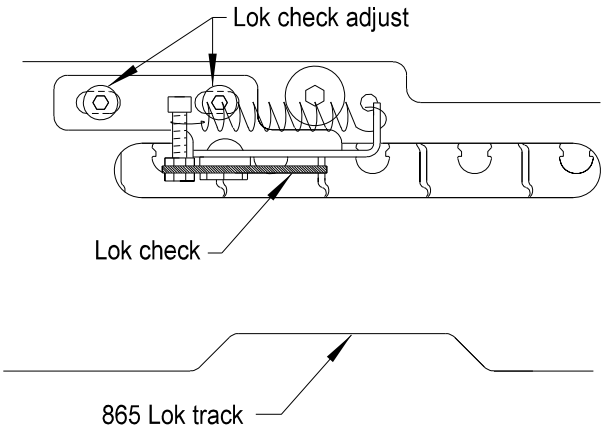



Figure 5.9

2. Loosen the lok check mount and slide it in the desired direction. The point of the check should be slightly above the middle of the notch between the two closures.

3. Retighten the lok check pivot mount and cycle the closer several times observing the position of the lok check.

**F. BAG FILM GUIDE:**
**Figures 5.10 - 5.13**

PROPER ADJUSTMENT: The bag film guide provides two functions. When properly set it protects the bag film from contacting the edge of the closure opening (Note encircled area Figure 5.11), and The film guide also cams the jaws of the closure open to assist in feeding bag film into the closure (Figure 5.11). The bag film guide is properly adjusted when in the position shown (Figures 5.10, 5.11).

Adjust as follows:

1. Insure that the closer is in neutral.

2. Loosen the bag film guide mounting block screws (located on top of main frame). Position the bag film guide as shown in (Figure 5.10 and 5.11) and retighten screws.

3. Check for clearance between the front edge of the closure and the inside edge of the bag film guide. Set clearance to .015"+ (0.4mm). The film guide can be tapped lightly forward or back to make this adjustment.

4. Check the ”lok cam" dimension. This is preset by design but can be incorrect if the film guide has been bent. Re-bend the part until the desired "lok cam" is achieved. It is recommended the closure cam be set at .030" (0.8mm) maximum (Figures 5.12 and 5.13).

# SECTION V
# Adjustments

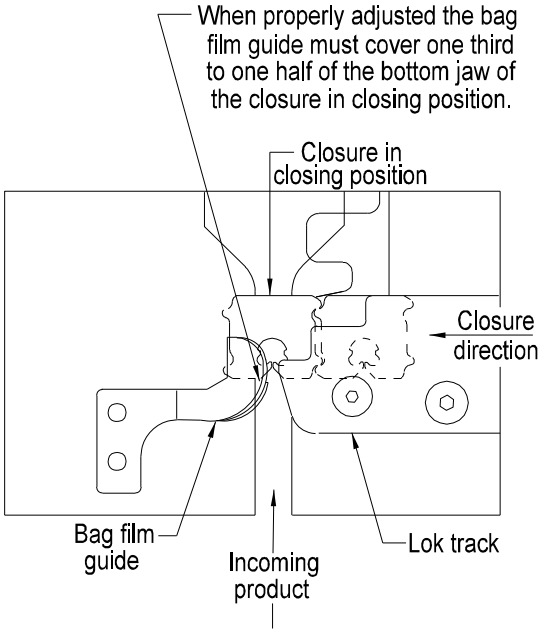



Figure 5.10

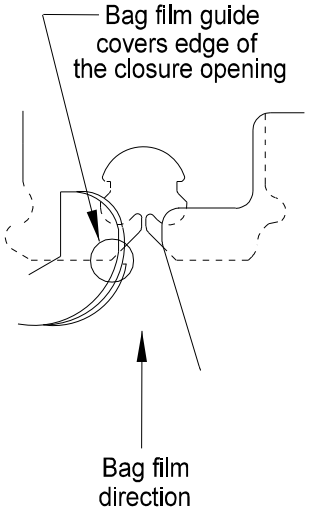



Figure 5.11

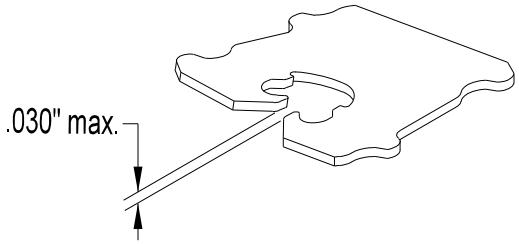



Figure 5.12

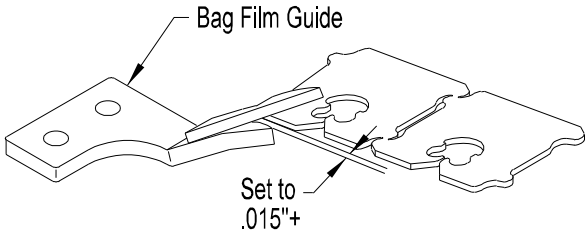



Figure 5.13

**G. CLUTCH ACTUATING SWITCH: Figure 5.14**

PROPER ADJUSTMENT: The closer cycles when the actuator lever is released by the trailing edge of the bag. The lever returns to it's neutral position against the lever stop screw. The switch should actuate the clutch solenoid as it returns to the neutral position and is .090" (2.3mm) from the lever stop screw.

**WARNING: Do not use magnetic tools or devices in this area when adjusting the actuating switch. False results can occur.**

Adjust as follows:

1. Remove the lower pulley mounting plate (drive side) exposing the actuator lever, switch and stop.

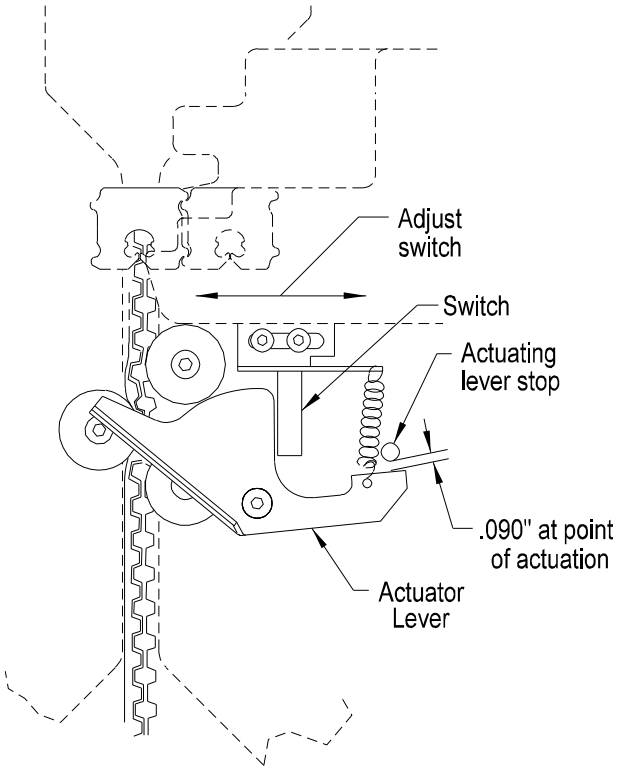



Figure 5.14
(viewed from underside)

2. Turn the closer on and set the speed control to zero. In this state with no parts or belts in motion, the actuator switch can be rotated by hand without fear of injury.

3. Rotate the actuator lever from its neutral position against the stop through its arc until it contacts the switch bracket. By doing this you can be sure the switch field has been broken “opened” by the lever.

4. Allow the return spring to slowly bring the lever back against the stop, closing the switch contacts. Listen for a click from the clutch solenoid indicating the switch actuated the solenoid. With the actuating switch properly adjusted to the actuating lever, the point of solenoid actuation will occur as the lever is returning to the stop but is still .090" (2.3mm) from touching the stop.

Note: A measurement of .090" (2.3mm) is equal to the thickness of three medium duty closures (series J-NRP, JW-NRP or JM-NRP) or to the thickness of two heavy duty closures (series K-NRP, KW-NRP, KM-NRP, or Z-NRP). The correct distance from the actuator lever to the lever stop can be measured using this method.

5. Check the adjustment by rotating the actuator lever from its neutral position until the lever tip aligns with the center of the feed belts. This is the point from which the bag neck releases the lever. At this point the lever must be far enough into the switch for its contacts to open.

**H. SPEED CONTROL:**

Adjust the speed of the closer to match the speed of the bagger's bag transfer mechanism. Observe the belt speed of the conveyor. Do not let the top of the bag lag behind or overrun the bottom of the bag. With the release and pickup correctly matched, a smooth product transfer can be seen between the bagger and closer.

If the closer is running at a faster speed than the bagger, the closer will pull the bag neck in before the bagger releases it. The release time of the bagger and the speed of the closer are closely related. Taking time to match these two settings will result in a smooth operation and a cleanly closed package.

# SECTION V
# Adjustments

## Lower Belt Adjustments

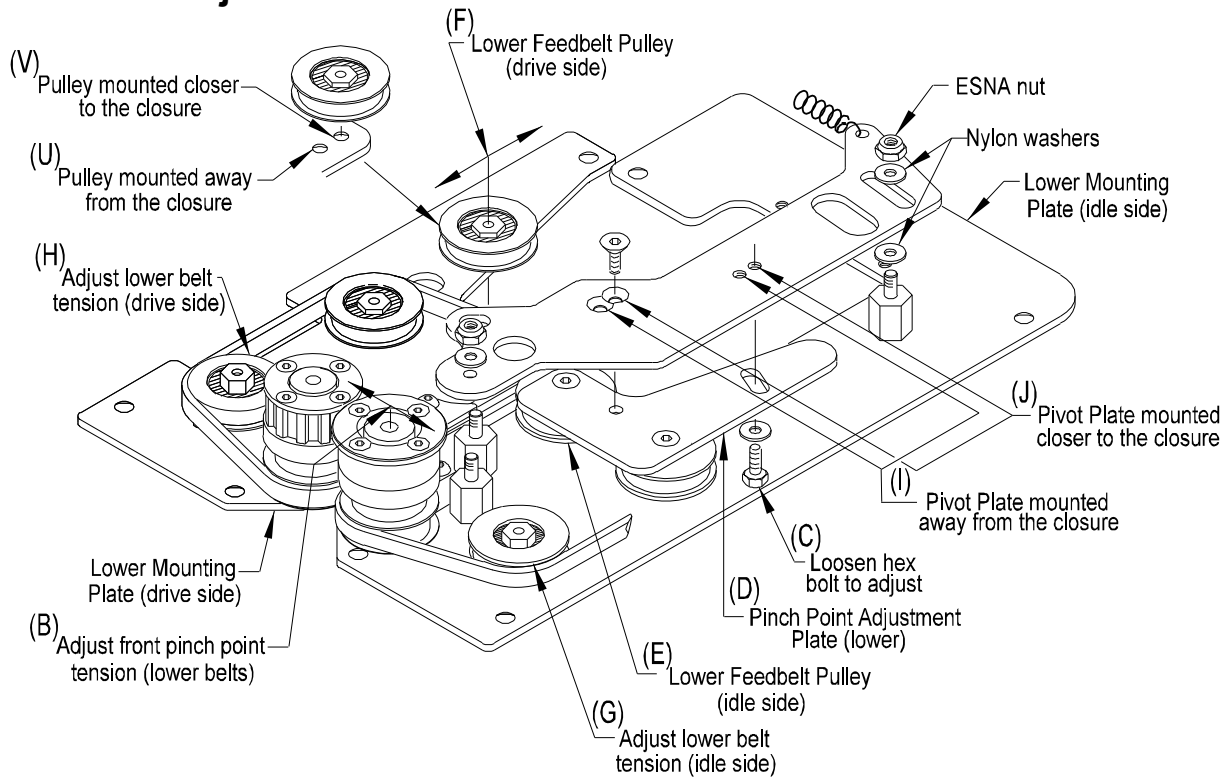



Figure 5.15

## Upper Belt Adjustments

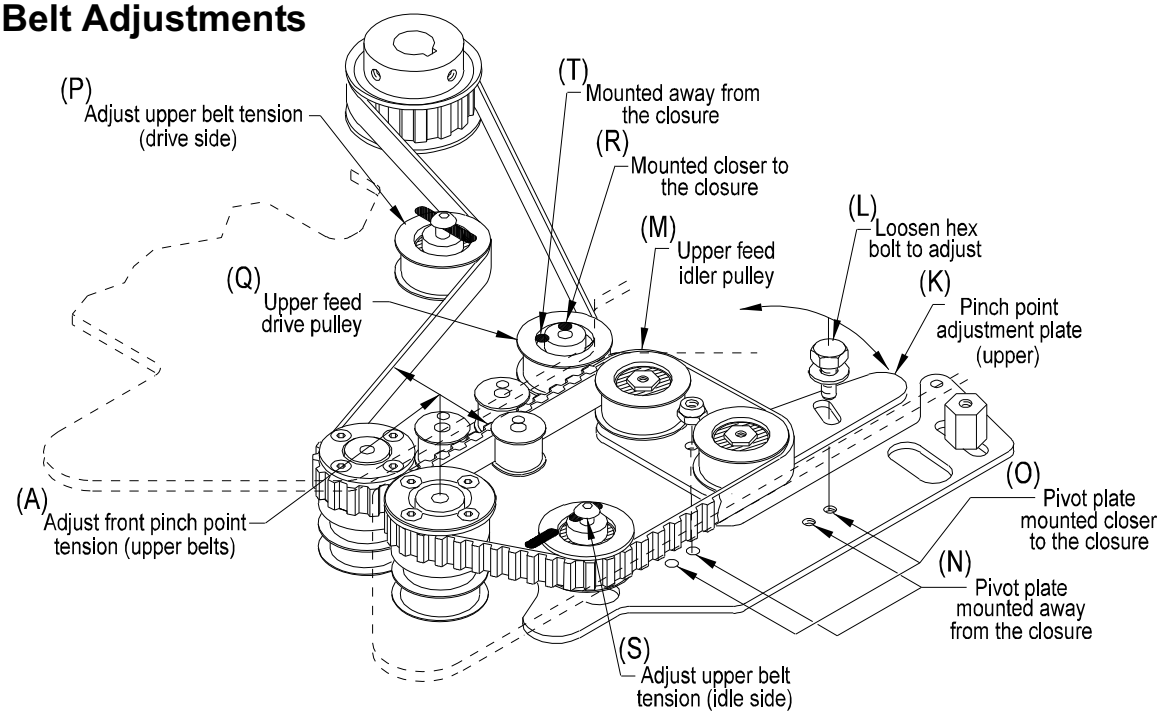



Figure 5.16

## I. FEED BELT POSITION: Figure 5.15

PROPER ADJUSTMENT: The position of the feed belts and pulleys to the closure opening affect the ability of the machine to completely close the bag without excessive marking or tearing of the bag film. Belt position in relation to the closure location can be changed to improve closing quality. The following adjustments deal with the position of the feedbelts to the closure. Test each adjustment as it is made.

**Bag not completely closed:**
**Figures 5.15 and 5.16**

1. Check the belt contact at the front of the closer. The upper drive belts should mesh and contact lightly together. Upper (A) and lower (B) belt contact are set by adjusting the front rollers. Belt tension is adjusted at points (G,H,P and S). Note the slots for adjustment.

2. Remove the side cover.

3. Loosen the hex bolt (C).

4. Rotate plate (D) outward toward the side of the closer frame and retighten the hex bolt. As the plate pivots, the pulley (E) and the lower belt move to cover more of the closure.

5. Replace the side cover and test results.

6. Adjust the upper plate if needed. Loosen hex bolt (L).

7. Rotate plate (K) outward toward the side of the closer frame and retighten the hex bolt. As the plate pivots the pulley (M) and the upper belt move to cover more of the closure.

8. Replace the side cover and test results.

9. If a slight amount of material is left out of the closure, check the mounting location of plate (D) and pulley (F). If they are mounted in position (I and U) remove and remount them in position (J and V) allowing the drive belts to cover more of the closure. Plate (D) and pulley (F) must be moved together into the new mounting position. Test results.

10. If material is still left out of the closure opening, plate (K) and pulley (Q) of the top belts can be relocated to position (O and R) setting the upper belts farther over the closure. The lok track may have to be removed to get access to the upper belts.

    Plate (K) can be readjusted after it has been relocated to further improve the belt location to the closure.

If 1 through 10 do not seem to correct the problem, refer to Section VI Trouble Shooting for more help.

**Bag film tear after closing:**
**Figures 5.15 and 5.16**

**Tear above closure.**

A tear above the closure is corrected with adjustments to the top belt assemblies

1. Remove the side cover around the feedbelts.

2. Loosen the hex bolt (L) and rotate plate (K) into the closer frame. The pulley (M) and the belt move away from the closure. Replace side cover and test.

3. If the tear remains, check the mounting locations of plate (K) and pulley (Q). If they are located at positions (O & R), remount them to positions (N & T). Plate (K) and pulley (Q) must be moved together into the new mounting position. The lok track may have to be removed allowing access to the upper belts.

Relocate pulley (S) to the front mounting slot, and adjust the belt tension. The new position moves the pulleys and belts away from the closure.

Plate (K) can be readjusted after it has been relocated to further improve the belt location to the closure.

4. Replace the lok track and the side cover and test. If a small tear remains refer to Section VI Trouble Shooting.

**Tear below closure.**

A tear below the closure is corrected with adjustments to the lower belt assemblies.

1. Remove the side cover.

2. Loosen the hex bolt (C) and rotate plate (D) into the closer frame. The pulley (E) and the belt moves away from the closure. Replace cover and test.

3. If the tear remains, check the mounting locations of plate (D) and pulley (F). If they are located at position (J and V), remount them to position (I and U). The new position moves the pulleys and lower belts away from the closure.

   Plate (D) can be readjusted after it has been relocated to further improve closing.

**J. CLUTCH SOLENOID ADJUSTMENT: Figure 5.17 and 5.18**

For proper clutch actuation, the clutch solenoid must be set correctly. Check and adjust as follows.

1. Check the clutch actuation.

   a. Rotate the clutch until the clutch stop (E) contacts the actuating lever (C).

   b. Manually trip the actuating lever to release the clutch stop.

   c. Rotate the clutch until the clutch stop is under the edge of the actuating lever (Figure 5.18)

   d. Press on the clutch control collar at point (H), pressing the collar toward the solenoid coil (D).

   e. Press down on the end of the solenoid plunger (F) pressing it into the solenoid as far as possible.

   f. Proper clearance between the actuating lever and the clutch stop must be between .010" - .030" as shown in Figure 5.18.

2. To adjust the clutch actuating lever.

   a. Loosen the two solenoid mounting screws (G) located on the back of the clutch mounting plate.

   b. Pivot the solenoid assembly so the end of the solenoid plunger is as far away from the actuating lever as possible. Figure 5.16.

   c. Press the control collar at point (H) to minimize the distance between the clutch stop and the clutch solenoid.

   d. Press on the end of the solenoid plunger and fully insert it into the solenoid.

   e. Move the solenoid until the proper gap exists between the clutch stop and the actuating lever. Tighten the solenoid mounting screws and again check the clearance.

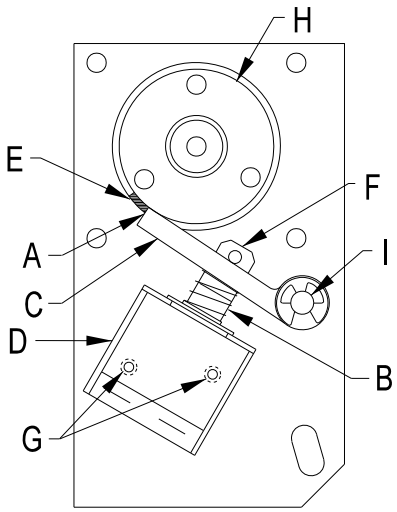



Figure 5.17

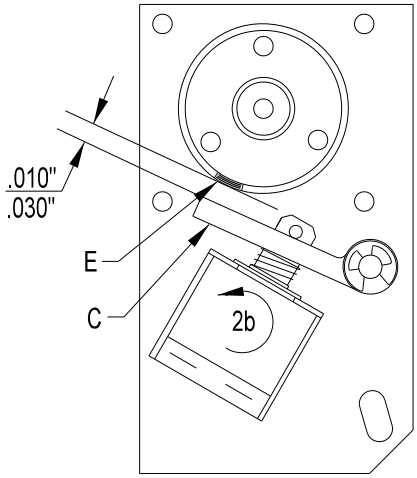



Figure 5.18

A - Stop Point
B - Solenoid Plunger
C - Actuating Lever
D - Solenoid Coil
E - Clutch Stop
F - Plunger Press Point
G - Solenoid Mounting Screws
H - Control Collar Press Point
I - Actuating Lever Pivot

# SECTION VI
# Trouble Shooting

| PROBLEM | SYMPTOM | CORRECTION |
|---|---|---|
| A. Feed belts do not turn. | 1) Fuse blown. | 1) Replace fuse. If the fuse continues to blow, either the motor controller requires replacement or the motor requires service. |
| B. Clutch does not cycle. | 1) Actuator lever not returning to the neutral position. | 1) Check to see that the actuator lever return spring is connected. |
| | 2) Clutch actuating switch out of position. | 2) Adjust as described in Section V, part G. |
| | 3) Electrical malfunction. | 3) Follow procedure under Trouble Shooting Solenoid Module / Clutch Actuating Solenoid. Page 6.4 |
| C. Closures do not advance. | 1) Lok check not engaged or adjusted properly. | 1) Engage. Adjust as described in Section V, part E. |
| | 2) Closures jammed at lok track exit. | 2) Clear jammed closures. Jamming occurs when the machine is cycled without having a bag present or when the bag film guide is bent or misadjusted. |
| | 3) Closures jamming against breakoff lever. | 3) Either parts are missing, or breakoff lever requires adjusting. See Section V, part B. Check for debris around the breakoff mount. |
| | 4) Pick out of position and riding on lok web. | 4) Adjust lok pick as described in Section V part D. |

# SECTION VI
# Trouble Shooting

| PROBLEM | SYMPTOM | CORRECTION |
|---|---|---|
| D. Closure will not break off. | 1) Clutch actuating switch is not being tripped. | 1) Re-adjust clutch actuating switch as described in Section V, part G. |
| | 2) Breakoff lever misadjusted or broken. | 2) Adjust or replace as required. See Section V, part B. |
| | 3) Loks slipping out of track. | 3) Insure that lok guide shim is in place when running closures. |
| | 4) Using medium duty closures in a heavy duty lok track. | 4) Use correct closures. |
| | 5) Pick stop out of position. (Allowing closure to be drawn partially out of the lok track by the bag. | 5) Adjust the pick stop so it contacts the pick. Refer to Section V adjustments parts D and E. |
| | 6) Closures misfeed into lok track. | 6) Refer to Section III Operation part C. |
| E. Multiple closures on bag. | 1) Loks slipping out of track. | 1) Insure that lok guide shim is in place when running closures. |
| | 2) Using medium duty closures in a heavy duty lok track. | 2) Use correct closures. |
| F. Multiple closure-labels on bag. | 1) Discharge end of lok track is distorted (gap between lok track halves is too wide). | 1) Close up gap where label extends out of track. |
| G. Bag is not completely fed into the closure opening. | 1) Feed belt speed is incorrect. | 1) a) Increase speed. (Break-off actuates before all the bag film enters closures.)<br>b) Decrease speed. (Top of bag is being pulled way ahead of bottom of bag.) |
| | 2) Loks slipping out of track. | 2) Insure that lok guide shim is in place when running closures. |
| | 3) Broken feed belts. | 3) Check lower and upper feed belts. Replace if needed. |

| PROBLEM | SYMPTOM | CORRECTION |
|---|---|---|
| G. (continued) | 4) Belt pivot plates are out of position. | 4) Adjust according to Section V part I |
| | 5) Feed belt pinch point position(s) not correct. | 5) Adjust according to Section V, part I. |
| | 6) Bag presentation is poor. | 6) Bagger needs to hand bag to closer properly. See Section II Installation. |
| | 7) Bag is too wide or film is too thick. | 7) Larger lok opening is required. (Contact the factory for proper opening size.) |
| | 8) The lower feed belt on either the drive side or the idle side is too loose. | 8) Tighten the feed belt. |
| H. Knife-like cut in closure area of bag. | 1) Film guide bent: not camming lok. | 1) Adjust the film guide according to Section V, part F. |
| | 2) Closure not positioned correctly. | 2) Adjust the pick as described in Section V, part C. |
| | 3) Pick stop out of position. Allows the closure to be drawn partially out of the lok track by the bag. | 3) Adjust the pick stop so it contacts the pick. Refer to Section V Adjustments parts D and E. |
| I. Excessive damage to bag. | 1) Bag presentation is poor. | 1) Bagger needs to pass the bag to closer properly. See Section V, Part H Speed Control. |
| | 2) Bag closed too tight. | 2) Increase distance between bottom of closer and product. |
| | 3) Belt pivot plates pinching bag. | 3) Adjust belt pivot plates. see Section IV Maintenance parts A and B. Plates must move freely. Check tension at pivot points. |

# SECTION VI
# Trouble Shooting

## SOLENOID MODULE / CLUTCH ACTUATING SOLENOID

The following is an explanation for the basic operation of the solenoid module and the clutch actuating solenoid, followed by test procedures that can be used to trouble shoot the electrical system should electrical problems arise.

## BASIC OPERATION

The solenoid module accepts input voltages from 115VAC, and 200VAC to 250VAC. Input voltage is transformed into 12VDC (nominal) to operate the switches and 24VDC (nominal) to operate the clutch solenoid. When the clutch actuating switch is closed, the solenoid module produces an output pulse of approximately 37 milliseconds in duration that actuates the clutch solenoid. When the actuating switch is reopened, the module is reset and is then ready to generate the next pulse.

## IMPORTANT

Proceed with the electrical tests only after verifying the following:
1) Check the wire connector between the electrical control box and the closer main frame. It should be connected and undamaged.
2) Check to see that terminals #5 and #6 of the solenoid module are jumpered together.
3) Check that the clutch actuating switch is undamaged and in the proper position. Refer to Section V, part G. CLUTCH ACTUATING SWITCH.

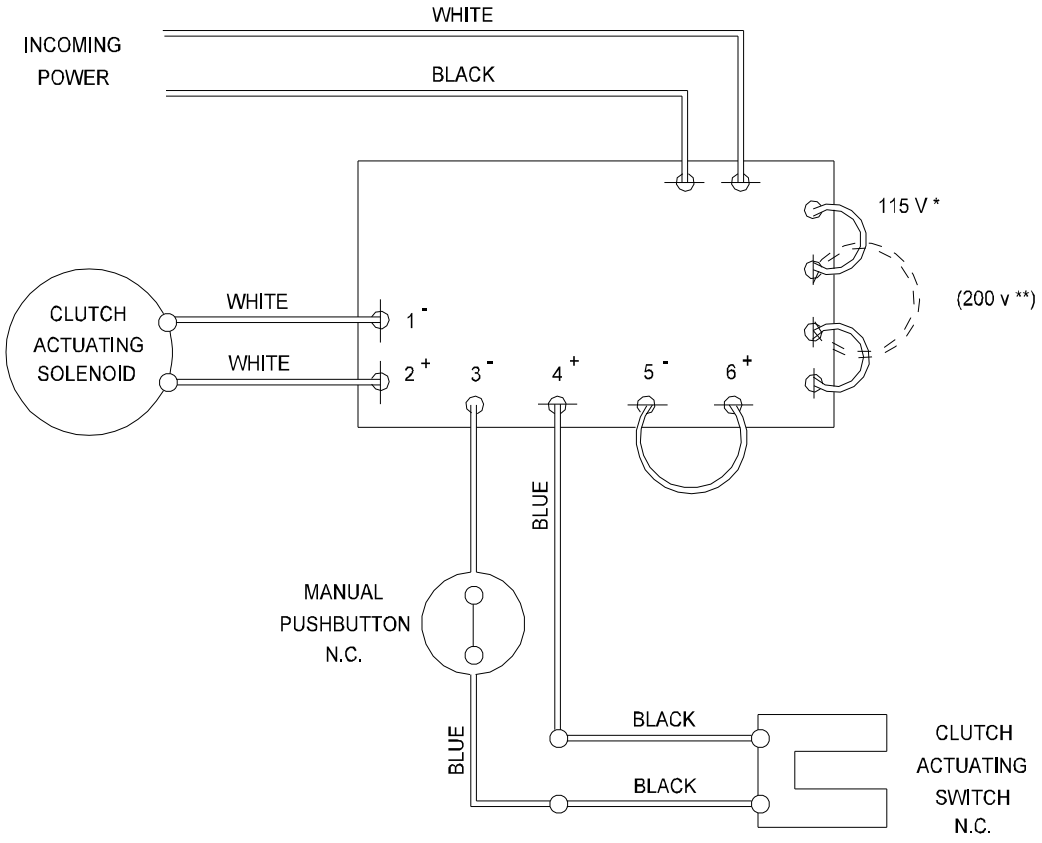
## SWITCH TEST

With the clutch actuating leads disconnected from terminals #3 and #4 and the power ”on”, measure the voltage between terminals #3 and #4. If it reads approximately 12VDC then the module is funtional. Reconnect the switch leads. The meter should read 0VDC when the clutch actuating switch or the manual pushbutton switch is operated. If any voltage is detected then one of the switches (or the wiring to them) is defective. Isolate (disconnect) the clutch actuating switch from the circuit and join its incoming leads together. Press and release the manual cycle pushbutton. If the solenoid actuates, then the clutch actuating switch is defective. Jumping the pushbutton blue colored leads together and operating the clutch actuating switch will also indicate which switch is defective.

## SOLENOID TEST

If the manual pushbutton light blinks when the button is released, then the solenoid module is sending a pulse to the clutch solenoid. Disconnect the leads from terminals #2 and #3. With the power on measure the voltage between terminals #2 and #3. The voltage here should read about 26VDC. Connect the meter to terminals #1 and #2 of the solenoid module and operate the manual pushbutton. The meter should detect the output pulse when the button is released.

**NOTE:** Due to the speed of the output pulse (37milliseconds) and the slow response time of the meter, the true pulse voltage will not be indicated. If no voltage is detected then either one of the switches or the module itself is malfunctioning. If the solenoid module is producing the output pulse to the clutch solenoid and the clutch solenoid does not actuate, then the clutch solenoid is defective.




* FOR 115 VOLT OPERATION CONNECT AS SHOWN
** FOR 200-250 VOLT OPERATION CONNECT A JUMPER ACROSS THE TWO CENTER TERMINALS ONLY AS SHOWN (INDICATED BY THE DOTTED LINES)

Figure 6.1

**Refer to Section VIII of this manual for a complete wiring diagram.**

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# SECTION VII
# Parts Identification

## PARTS ORDERING PROCEDURES

IMPORTANT: When ordering parts ALWAYS:

(1) Specify on the order the TYPE, MODEL and SERIAL NUMBER of the machine for which the parts are being ordered. This information is found on the machine's nameplate.

(2) Do NOT order by item number. Order by part number.

There is an option of ordering individual replacement PARTS or of ordering replacement "KITS". A KIT is a group of related PARTS combined under one number. There are three advantages to ordering kits:

(1) To combine various PARTS that make up a machine model.

(2) To provide options to the basic machine.

(3) To facilitate ordering and stocking of spare parts.

To order individual PARTS, be sure to observe the following procedure:

A. Identify the desired PART(S) by referring to the assembly illustrations following in this section. Each PART is assigned an "Item Number" on this illustration.
DO NOT ORDER BY THE ITEM NUMBER.

B. Refer to the drawings parts list. Locate the pertinent item number in the left-hand column. Opposite the item number is the part number and description to be listed on the order.

NOTE THAT SOME PARTS MUST BE ORDERED SPECIFICALLY FOR A RIGHT HAND OF LEFT HAND STYLE MACHINE. THIS IS NOTED WITH AN "R" OR "L" AT THE END OF THE PART NUMBER.

As an example - 08-004596 R Frame - Closer (see pages 7.3 & 7.4) identifies the MAIN FRAME as item 14 on the drawing. Referring to the PARTS COMMON Parts List, the description for Item Number 14 is "Part No. 08-004596 R, Frame - Closer" If the Machine Nameplate is marked "Type 865A, Model AKNRPR Serial No. 10001," the order should specify as follows:

"One Part No. 08-004596 R, Frame - Closer "
(For Closing Head Type 865A, Model AKNRPR, Serial No. 10001)

# SECTION VII
# Parts Identification

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

## RIGHT OR LEFT HAND MACHINE IDENTIFICATION

IMPORTANT: The 865A Closer is available in right and left-hand models. ALL ILLUSTRATIONS DEPICTED IN THIS MANUAL ARE CONFIGURED TO A RIGHT HAND MODEL CLOSER. Parts lists include part numbers for both right and left-hand models when applicable. Determine the hand of the machine so as to insure that the correct parts are ordered. Use the information given below to establish if your machine is either right or left-hand.

1. MODEL- HAND box on the machine's Nameplate.
   For a right-hand model the last letter will be "R".

   **AJNRPR**
   **MODEL - HAND**

   For a left-hand model the last letter will be "L".

   **AJNRPL**
   **MODEL - HAND**

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**Kwik Lok®** CORPORATION
**YAKIMA, WASHINGTON U.S.A.**

| 865A | AJNRPR | 10001-2010 |
|---|---|---|
| TYPE | MODEL - HAND | SERIAL NUMBER |

_____ VAC, _____ Hz, _____ Amps, __ Ph

2. To determine the correct flow direction, visualize standing behind the closer with the product moving towards you.

   If the closure reel is on your RIGHT then the flow direction is RIGHT. This machine is a RIGHT-HAND MACHINE.

   If the closure reel is on your LEFT then the flow direction is LEFT. This machine is a LEFT-HAND MACHINE.

**FLOW DIAGRAM**

To determine the correct flow direction, visualize standing behind the closer with the product moving toward you.

If the closure reel is on your right - the flow direction is **RIGHT-HAND.**

If the closure reel is on your left - the flow direction is **LEFT-HAND.**

**LEFT-HAND POSITION**

**RIGHT-HAND POSITION**

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# SECTION VII
# Parts Identification

## PARTS COMMON

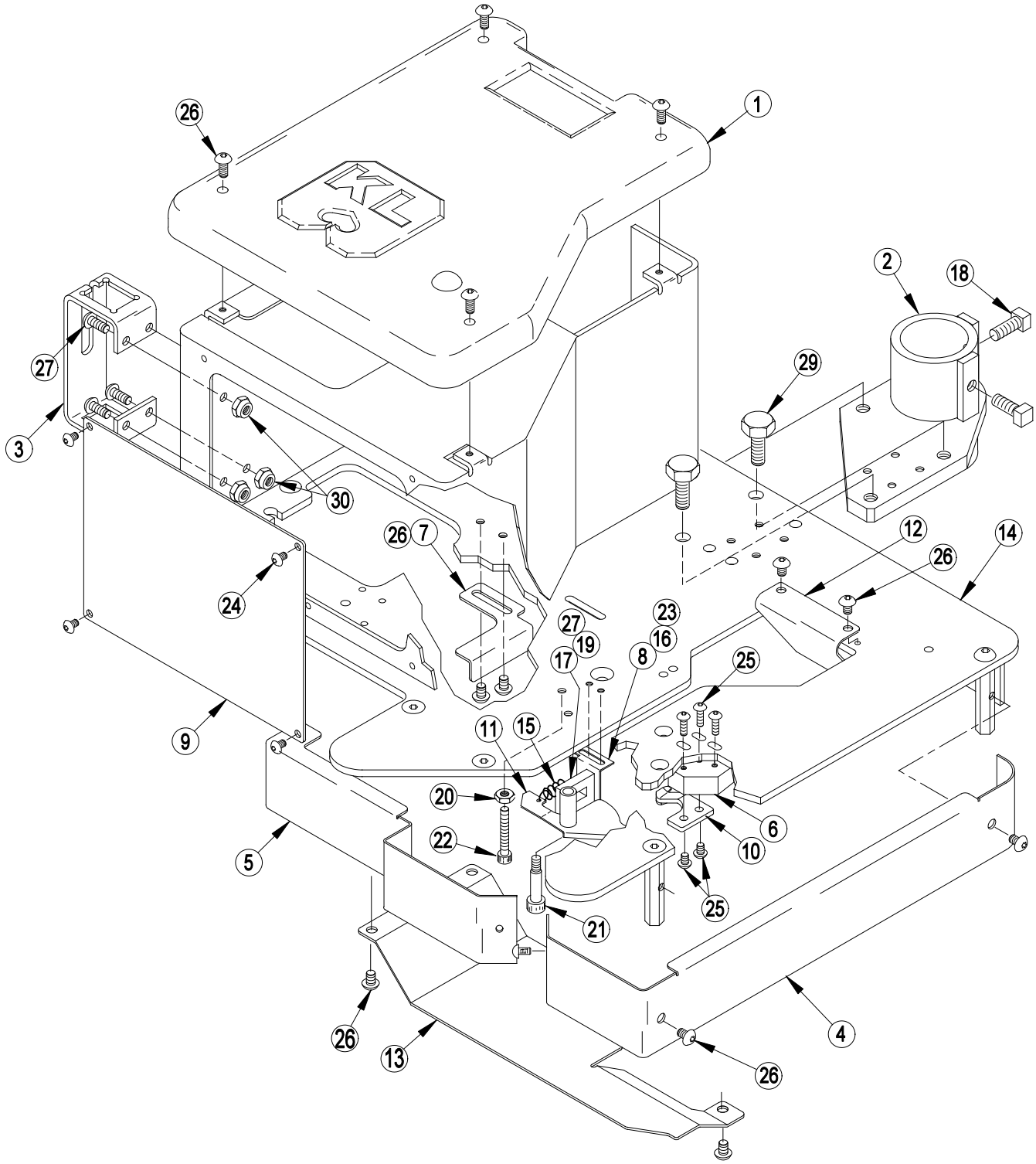


Figure 7.1

# SECTION VII
# Parts Identification

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

## PARTS COMMON (Figure 7.1)

### PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-006418 R | Cover - Top (right-hand machine) | 1 |
| | 08-006418 L | Cover - Top (left-hand machine) | 1 |
| 2 | 08-004117 R | Mount - Closer (right-hand machine) | 1 |
| | 08-004117 L | Mount - Closer (left-hand machine) | 1 |
| 3 | 08-005582 | Bracket - Mast Mounting | 1 |
| 4 | 08-004122 S | Cover - Idle Side - Standard | 1 |
| | 08-005464 S | Cover - Idle Side - Model G | 1 |
| 5 | 08-004123 SR | Cover - Drive Side - Standard (right-hand machine) | 1 |
| | 08-004123 SL | Cover - Drive Side - Standard (left-hand machine) | 1 |
| | 08-005465 R | Cover - Drive Side Models AG and CG (right-hand machine) | 1 |
| | 08-005465 L | Cover - Drive Side Models AG and CG (left-hand machine) | 1 |
| 6 | 08-005232 | Block - Film Guide Mount | 1 |
| 7 | 08-004150 R | Stop - Pick (right-hand machine) | 1 |
| | 08-004150 L | Stop - Pick (left-hand machine) | 1 |
| 8 | 08-004153 R | Mount - Sensor (right-hand machine) | 1 |
| | 08-004153 L | Mount - Sensor (left-hand machine) | 1 |
| 9 | 08-006449 | Cover - Front | 1 |
| 10 | 08-004442 R | Guide - Film - Models J-NRP, K-NRP, JM-NRP, JW-NRP, KW-NRP, Z-NRP, KM57-NRP (right-hand machine) | 1 |
| | 08-004442 L | Guide Film - Models J-NRP, K-NRP, JM-NRP, JW-NRP, KW-NRP, Z-NRP, KM57-NRP (left-hand machine) | 1 |
| | 08-005100 R | Guide - Film - Model Z90-NRP (right-hand machine) | 1 |
| | 08-005100 L | Guide - Film - Model Z90-NRP (left-hand machine) | 1 |
| 11 | 08-004433 R | Lever - Actuator (right-hand machine) | 1 |
| | 08-004433 L | Lever - Actuator (left-hand machine) | 1 |
| 12 | 08-004592 | Deflector - Bag Neck - Standard | 1 |
| | 08-005459 | Deflector - Bag Neck - Model G | 1 |
| 13 | 08-004594 R | Deflector - Label - Standard | 1 |
| | 08-004594 L | Deflector - Label - Standard | 1 |
| | 08-005460 R | Deflector - Label Models AG & BG only | 1 |
| | 08-005460 L | Deflector - Label Models AG & BG only | 1 |
| 14 | 08-004596 R | Frame - Closer (right-hand machine) | 1 |
| | 08-004596 L | Frame - Closer (left-hand machine) | 1 |
| 15 | 0S-012 | Spring - Lever Actuating (yellow in color) | 1 |
| 16 | P11-00272 | Clamp - 1/8 Wire | 2 |
| 17 | P12-00126 | Sensor | 1 |
| 18 | P23-00221 | Screw - 3/8-16UNC x 3/4 Lg Square Head | 2 |
| 19 | P23-00166 S | Nut - 4-40UNC - ESNA | 1 |
| 20 | F03-190C S | Nut - 10-24UNC - Hex | 1 |
| 21 | 08-005566 | Bolt - Actuator Lever | 1 |
| 22 | F10-190C22 S | Screw - 10-24UNC x 1 3/8 Lg Skt Hd Cap | 1 |
| 23 | F11-138C04 S | Screw - 6-32UNC x 1/4 Lg Skt Btn Hd | 2 |
| 24 | F11-164C04 S | Screw - 8-32UNC x 1/4 Lg Skt Btn Hd | 6 |
| 25 | F11-190C06 S | Screw - 10-24UNC x 3/8 Lg Skt Btn Hd | 5 |
| 26 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 16 |
| 27 | F11-190F07 S | Screw - 10-32UNF x 7/16 Lg Skt Btn Hd | 8 |
| 28 | F12-112C06 S | Screw - 4-40UNC x 3/8 Lg Skt Flt Hd | 1 |
| 29 | F13-312F10 | Screw - 5/16-24UNF x 5/8 Lg Hex Hd | 3 |
| 30 | P23-00061 | Nut - 10-32UNF - ESNA | 4 |

# PICK ASSEMBLY

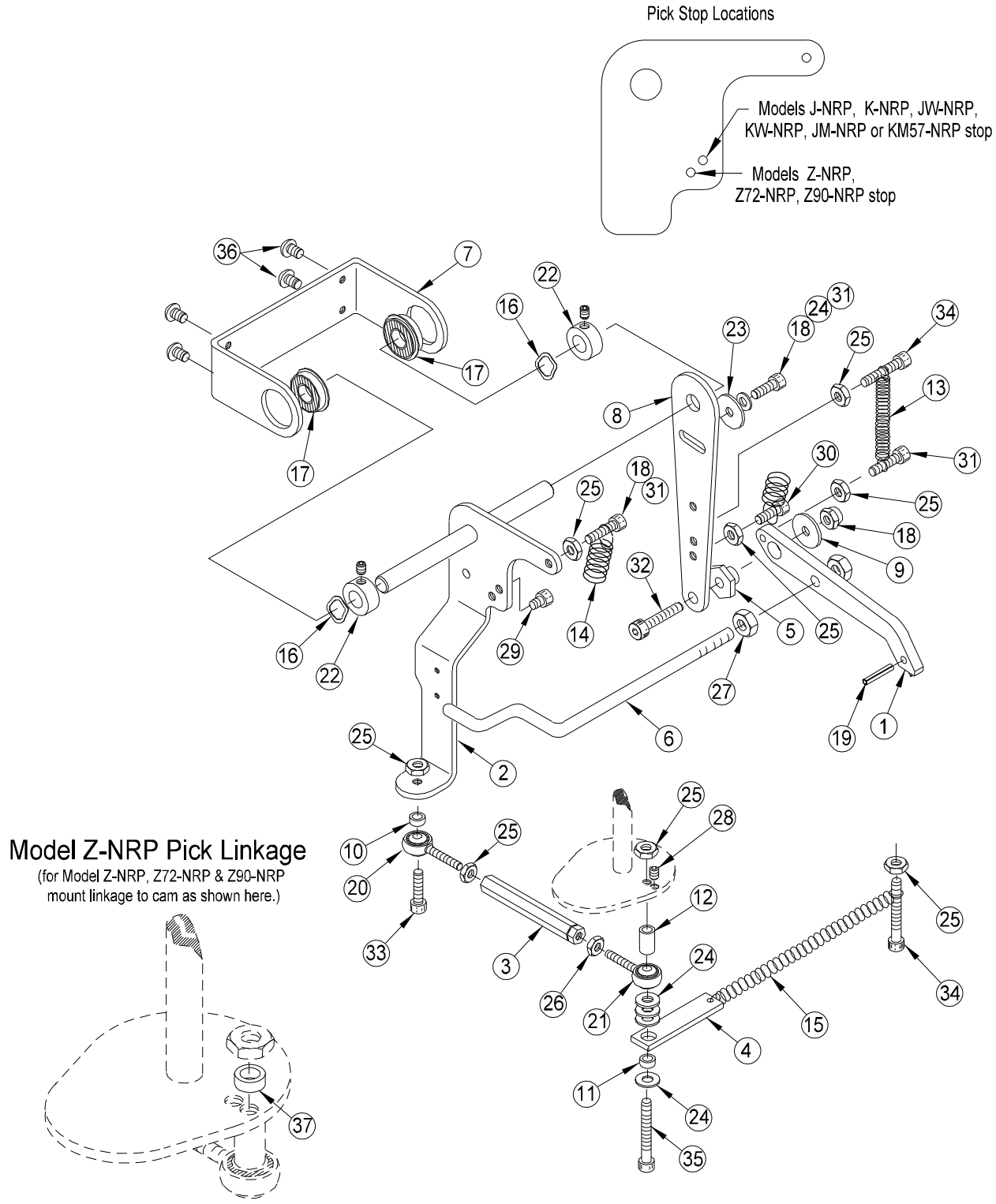


Figure 7.2

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# PICK ASSEMBLY

**(Figure 7.2)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002080 | Pick - Lok | 1 |
| 2 | 08-005585 R | Shaft - Pick (right-hand machine) | 1 |
| | 08-005585 L | Shaft - Pick (left-hand machine) | 1 |
| 3 | 08-004146 | Rod - Connecting | 1 |
| 4 | 08-004147 | Anchor Connecting Rod Spring | 1 |
| 5 | 08-004713 | Bearing - Pick - Model J-NRP, or K-NRP | 1 |
| | 08-004714 | Bearing - Pick Model JM-NRP, KM-NRP, KM57-NRP | 1 |
| | 08-004715 | Bearing - Pick - Model JW-NRP, KW-NRP | 1 |
| | 08-004868 | Bearing - Pick Model Z-NRP, Z90-NRP | 1 |
| 6 | 08-004711 R | Disengager - Pick (right-hand machine) | 1 |
| | 08-004711 L | Disengager - Pick (left-hand machine) | 1 |
| 7 | 08-004144 | Mount - Pick Shaft | 1 |
| 8 | 08-005450 | Arm - Pick | 1 |
| 9 | 0W-001SP | Washer | 1 |
| 10 | B312203125 | Bushing | 2 |
| 11 | B312203140 | Bushing | 1 |
| 12 | B312203468 | Bushing | 1 |
| 13 | 0S-043 | Spring | 1 |
| 14 | 0S-054 | Spring | 1 |
| 15 | 0S-079 | Spring - Extension | 1 |
| 16 | 0S-099 | Spring - Wave | 2 |
| 17 | P02-00139 | Bearing | 2 |
| 18 | P23-00061 | Nut - 10-32UNF - ESNA | 2 |
| 19 | P23-00224 S | Pin - Spring - Standard 1/8 Dia. x 1 Lg | 1 |
| | P23-00126 | Pin - Spring - Model Z-NRP and Z90-NRP 1/8 Dia. x 1 1/4 Lg | 1 |
| 20 | P28-00031 | Rod End | 1 |
| 21 | P28-00041 | Rod End (left hand thread) | 1 |
| 22 | P29-00002 | Collar - Set | 2 |
| 23 | P36-00034 | Washer - Nylon | 1 |
| 24 | F01-190 S | Washer - No. 10 Flat | 5 |
| 25 | F03-190F S | Nut - 10-32UNF- Hex | 7 |
| 26 | 08-000706 S | Nut - 10-32UNF- Hex (left hand) | 1 |
| 27 | F03-250F S | Nut - 1/4 - 28UNF - Hex | 2 |
| 28 | F06-190F02 S | Screw - 10-32UNF x 1/8 Lg Skt Set | 1 |
| 29 | F10-190F03 S | Screw - 10-32UNF x 3/16 Lg Skt Hd Cap | 1 |
| 30 | F10-190F10 S | Screw - 10-32UNF x 5/8 Lg Skt Hd Cap | 3 |
| 31 | F10-190F12 S | Screw - 10-32UNF x 3/4 Lg Skt Hd Cap | 2 |
| 32 | F10-190F14 S | Screw - 10-32UNF x 7/8 Lg Skt Hd Cap - Model J-NRP, K-NRP | 1 |
| | F10-190F18 S | Screw - 10-32UNF x 1 1/8" Lg Skt Hd Cap - Model JM-NRP, KM-NRP | 1 |
| | F10-190F24 S | Screw - 10-32UNF x 1 1/2 Lg Skt Hd Cap - Model JW-NRP, KW-NRP, Z-NRP | 1 |
| 33 | F10-190F14 S | Screw - 10-32UNF x 7/8 Lg Skt Hd Cap | 1 |
| 34 | F10-190F24 S | Screw - 10-32UNF x 1 1/2 Lg Skt Hd Cap | 2 |
| 35 | F10-190F24 S | Screw - 10-32UNF x 1 1/2 Lg Skt Hd Cap - Model J-NRP, K-NRP, JM-NRP, KM-NRP, JW-NRP, KW-NRP, | 1 |
| | F10-190F26 S | Screw - 10-32UNF x 1 5/8 Lg Skt Hd Cap Model Z-NRP | 1 |
| 36 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 4 |
| 37 | BS250203187 | Bushing (for Model Z-NRP and Z90-NRP only) | 1 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
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## BREAKOFF ASSEMBLY LINKAGE

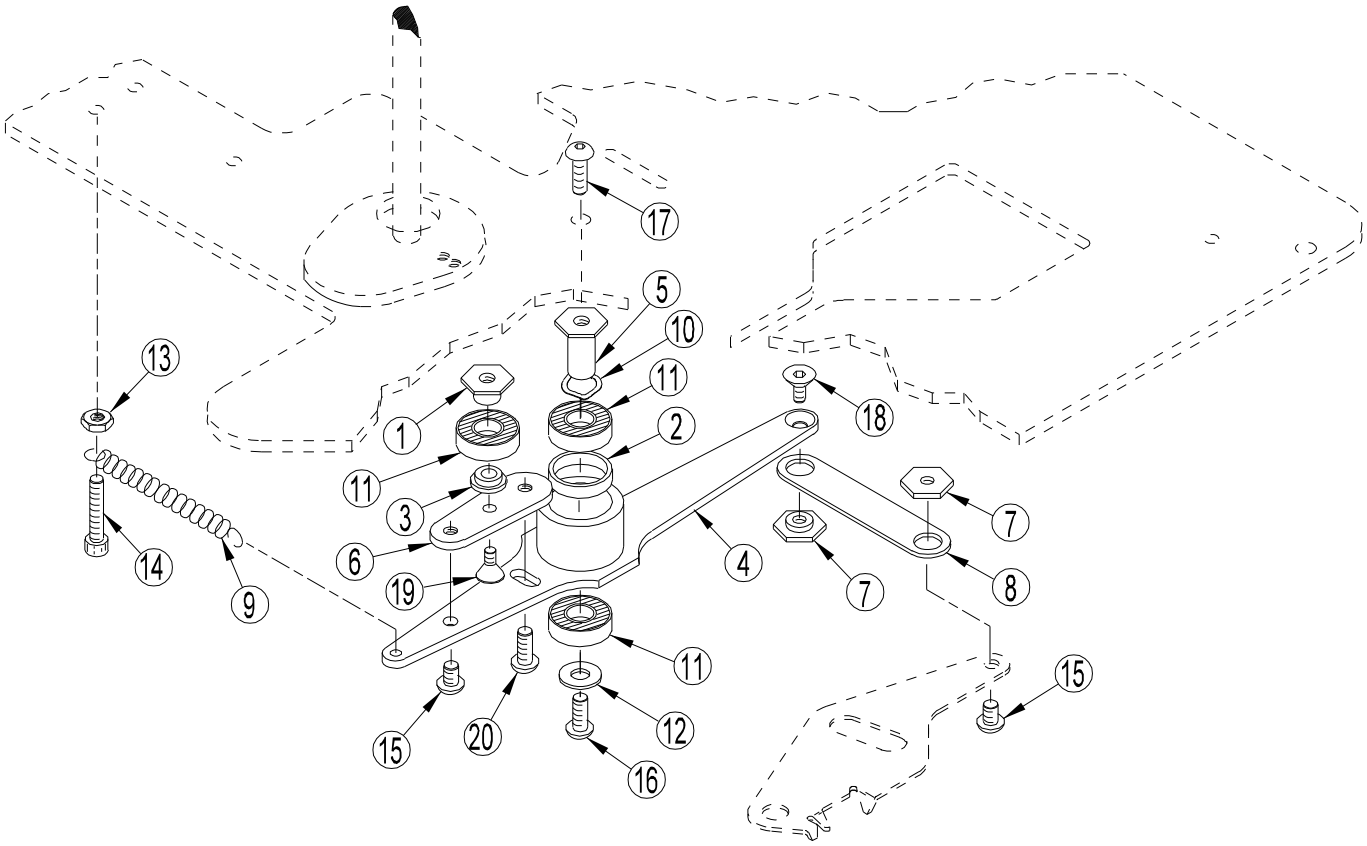


Figure 7.3

### PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002158 | Nut - Pulley | 1 |
| 2 | 08-002422 | Bushing - Bearing | 1 |
| 3 | 08-003491 | Spacer - Bogie Pulley | 1 |
| 4 | 08-004113 | Arm - Lok Breakoff | 1 |
| 5 | 08-004139 | Shaft - Breakoff Arm | 1 |
| 6 | 08-004142 | Plate - Cam Pulley Adjust | 1 |
| 7 | 08-004154 | Mount - Breakoff Link | 2 |
| 8 | 08-004540 | Link Breakoff | 1 |
| 9 | 0S-018 | Spring | 1 |
| 10 | 0S-099 | Spring - Wave | 1 |
| 11 | P02-00095 | Bearing | 3 |
| 12 | F01-250 | Washer - 1/4 - Flat | 1 |
| 13 | F03-190F S | Nut - 10-32UNF - Hex | 1 |
| 14 | F10-190F20 S | Screw - 10-32UNF x 1 1/4 Lg Skt Hd Cap | 1 |
| 15 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 2 |
| 16 | F11-250F06 | Screw - 1/4-28UNF x 3/8 Lg Skt Btn Hd | 1 |
| 17 | F11-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 2 |
| 18 | F12-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Flt Hd | 1 |
| 19 | F12-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Flt Hd | 1 |
| 20 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 1 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# FEED BELTS (Drive Side)

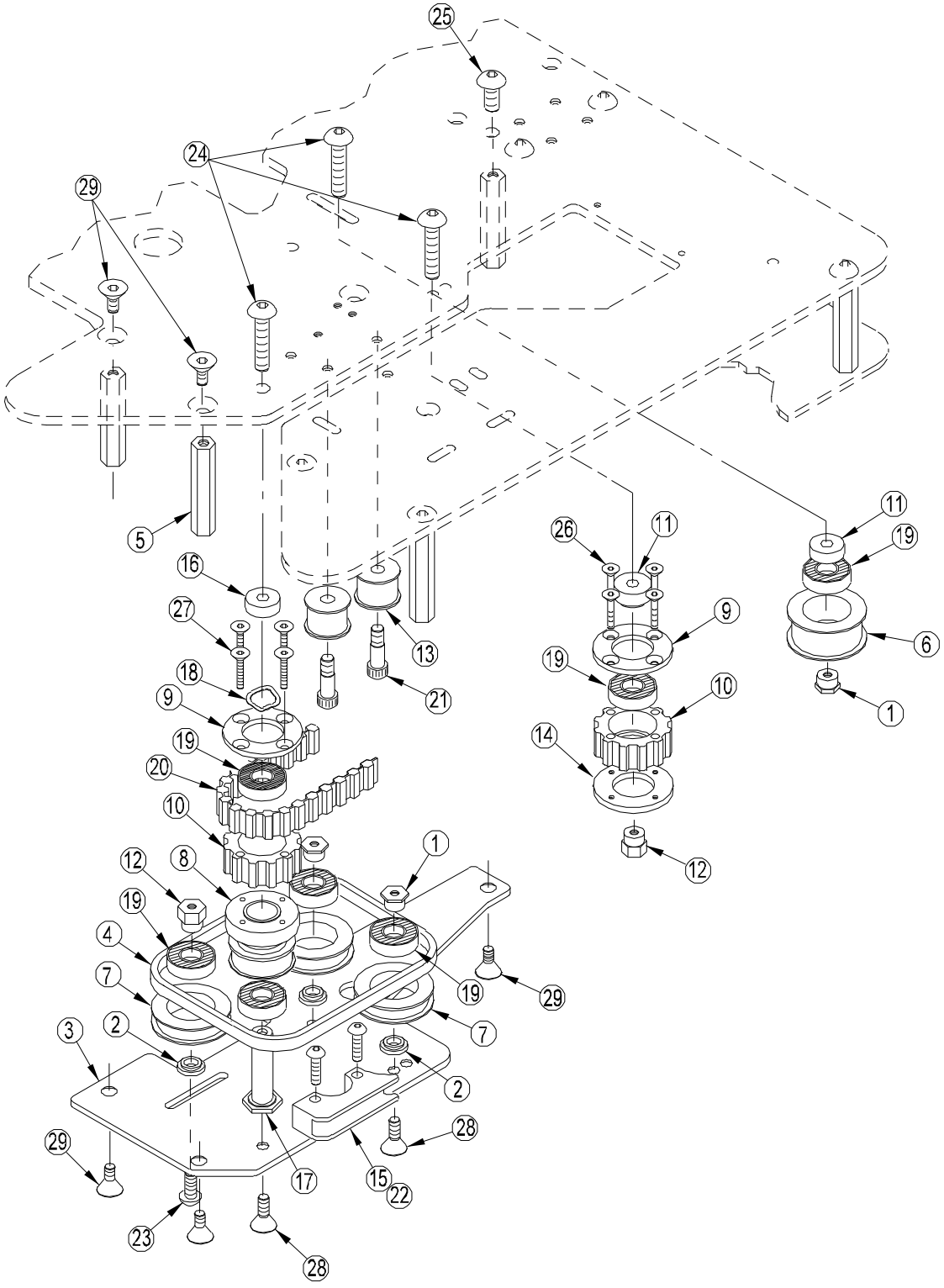


Figure 7.4

# FEED BELTS (Drive Side)

**(Figure 7.4)**

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002158 | Nut - Pulley | 4 |
| 2 | 08-003491 | Spacer - Bogie Pulley | 3 |
| 3 | 08-004112 R | Plate - Lower Pulley Mount (right-hand machine) | 1 |
| | 08-004112 L | Plate - Lower Pulley Mount (left-hand machine) | 1 |
| 4 | 08-004124 | Belt - Lower Feed (square belts) | 1 |
| 5 | 08-004125 | Post - Lower Plate Mount | 2 |
| 6 | 08-004129 | Pulley - Drive Gearbelt | 1 |
| 7 | 08-004130 | Pulley - Lower Feed Belt | 3 |
| 8 | 08-005553 | Pulley - Lower Feed Drive | 1 |
| 9 | 08-004132 | Flange - Feed Drive Pulley | 2 |
| 10 | 08-004133 | Pulley - Upper Feed Drive | 2 |
| 11 | 08-004134 | Spacer - Feed Pulley | 2 |
| 12 | 08-004136 | Nut - Pulley - Long | 2 |
| 13 | 08-004435 | Roller - Gearbelt Support | 2 |
| 14 | 08-004558 | Flange - Upper Pulley | 1 |
| 15 | 08-004837 | Track - Lower Feed Belt | 1 |
| 16 | 08-005550 | Spacer - Feed Pulley | 1 |
| 17 | 08-005552 | Axle - Feed Pulley | 1 |
| 18 | 0S-099 | Spring | 1 |
| 19 | P02-00095 | Bearing | 7 |
| 20 | P03-00113 | Belt - Gear - Drive - Model K-NRP, JW-NRP, KW-NRP, JM-NRP, KM57-NRP | 1 |
| | P03-00130 | Belt - Gear - Drive - Model Z-NRP, Z90-NRP | 1 |
| 21 | 08-005567 | Bolt - Support Roller | 2 |
| 22 | F11-164C10 S | Screw - 8-32UNC x 5/8 Lg Skt Btn Hd | 4 |
| 23 | F11-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Btn Hd | 2 |
| 24 | F11-190F14 S | Screw - 10-32UNF x 7/8 Lg Skt Btn Hd | 3 |
| 25 | F11-250F08 S | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 1 |
| 26 | F12-138C12 S | Screw - 6-32UNC x 3/4 Lg Skt Flt Hd | 4 |
| 27 | F12-138C16 S | Screw - 6-32UNC x 1" Lg Skt Flt Hd | 4 |
| 28 | F12-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Flt Hd | 2 |
| 29 | F12-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Flt Hd | 7 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
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# FEED BELTS (Idle Side)

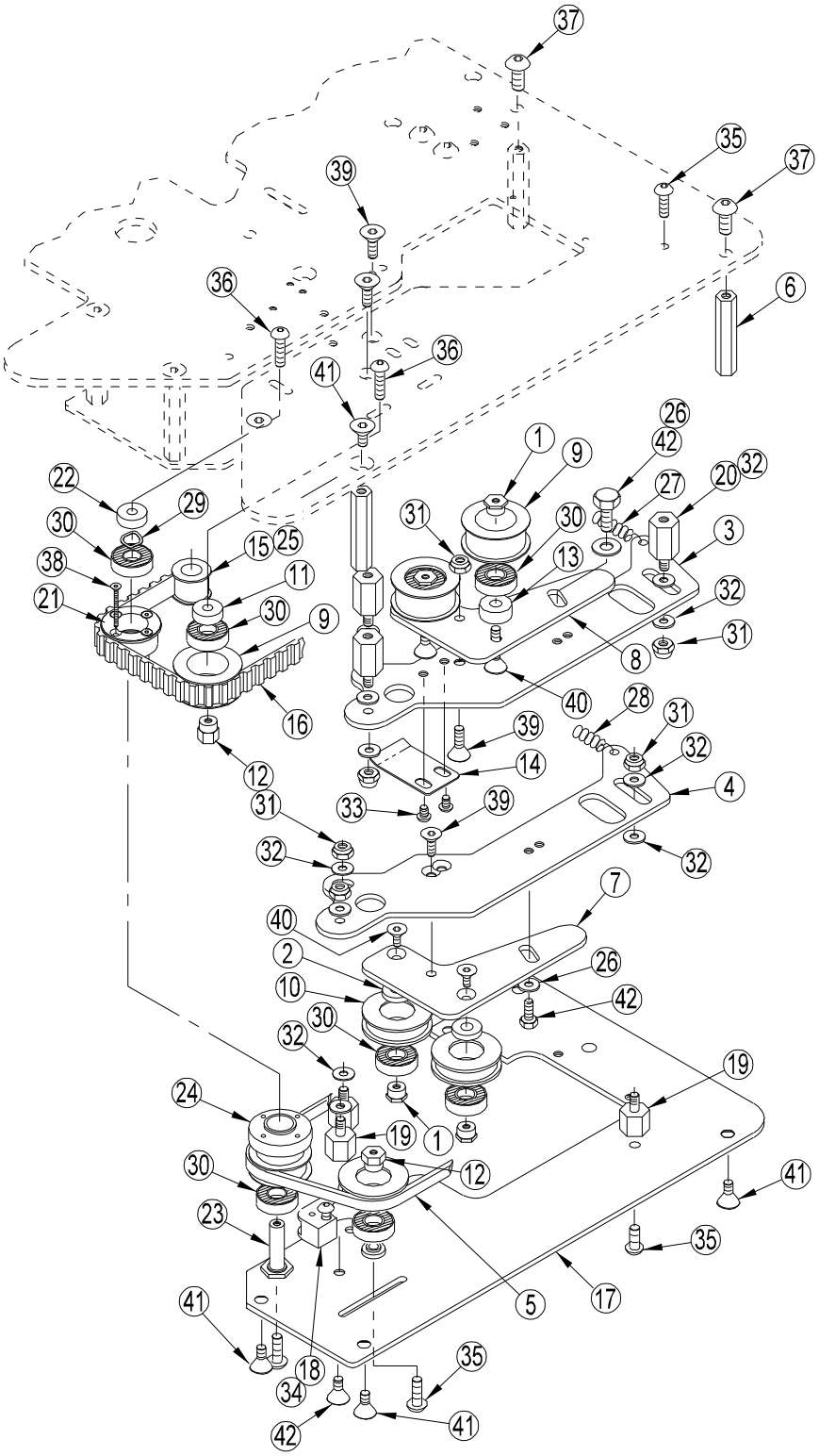


Figure 7.5

# FEED BELTS (Idle Side)

**(Figure 7.5)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002158 | Nut - Pulley | 4 |
| 2 | 08-003491 | Spacer - Bogie Pulley | 3 |
| 3 | 08-006181 R | Plate - Belt Pivot (one required for right-hand machine) | 1 |
| | 08-006181 L | Plate Belt Pivot (one required for left-hand machine) | 1 |
| 4 | 08-006181 L | Plate - Belt Pivot (one required for right-hand machine) | 1 |
| | 08-006181 R | Plate - Belt Pivot (one required for left-hand machine) | 1 |
| 5 | 08-004124 | Belt - Lower Feed | 1 |
| 6 | 08-004125 | Post - Lower Plate Mount | 4 |
| 7 | 08-004126 R | Plate - Pinch Point Adjust (one required for right-hand machine) | 1 |
| | 08-004126 L | Plate - Pinch Point Adjust (one required for left-hand machine) | 1 |
| 8 | 08-004126 L | Plate - Pinch Point Adjust (one required for right-hand machine) | 1 |
| | 08-004126 R | Plate - Pinch Point Adjust (one required for left-hand machine) | 1 |
| 9 | 08-004129 | Pulley - Idler Gearbelt | 3 |
| 10 | 08-004130 | Pulley - Lower Feed Belt | 3 |
| 11 | 08-004134 | Spacer - Feed Pulley | 2 |
| 12 | 08-004136 | Nut - Pulley - Long | 2 |
| 13 | 08-004140 | Spacer | 2 |
| 14 | 08-004155 | Deflector - Closure | 1 |
| 15 | 08-004435 | Roller - Gearbelt Support | 3 |
| 16 | 08-004438 | Belt - Gear - Idle | 1 |
| 17 | 08-004593 R | Plate - Lower Plate Mount (right-hand machine) | 1 |
| | 08-004593 L | Plate - Lower Plate Mount (left-hand machine) | 1 |
| 18 | 08-004837 | Track - Lower Feed Belt | 1 |
| 19 | 08-006184 | Post - Lower Belt Plate | 3 |
| 20 | 08-006183 | Post - Upper Belt Plate | 3 |
| 21 | 08-005549 | Pulley - Idle Gearbelt | 1 |
| 22 | 08-005550 | Spacer | 1 |
| 23 | 08-005552 | Axle - Feed Pulley | 1 |
| 24 | 08-005553 | Pulley - Lower Feed Drive | 1 |
| 25 | 08-005567 | Bolt - Support Roller | 1 |
| 26 | 0W-001SP | Washer | 2 |
| 27 | 0S-018 | Spring | 1 |
| 28 | 0S-079 | Spring - Extension | 1 |
| 29 | 0S-099 | Spring | 1 |
| 30 | P02-00095 | Bearing | 8 |
| 31 | P23-00220 S | Nut - 10-32UNF - ESNA Low Profile | 8 |
| 32 | P36-00037 | Washer | 12 |
| 33 | F11-164C02 S | Screw - 8-32UNC x 1/8 Lg Skt Btn Hd | 2 |
| 34 | F11-164C10 S | Screw - 8-32UNC x 5/8 Lg Skt Btn Hd | 2 |
| 35 | F11-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Btn Hd | 3 |
| 36 | F11-190F14 S | Screw - 10-32UNF x 7/8 Lg Skt Btn Hd | 2 |
| 37 | F11-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 2 |
| 38 | F12-138C16 S | Screw - 6-32UNC x 1” Lg Skt Flt Hd | 4 |
| 39 | F12-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Flt Hd | 6 |
| 40 | F12-190F10 S | Screw - 10-32UNF x 5/8 Lg Skt Flt Hd | 2 |
| 41 | F12-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Flt Hd | 6 |
| 42 | F13-190F06 S | Screw - 10-32UNF x 3/8 Lg Hx Hd | 2 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# EXTENDED BELT DRIVE
# (865A Model B)

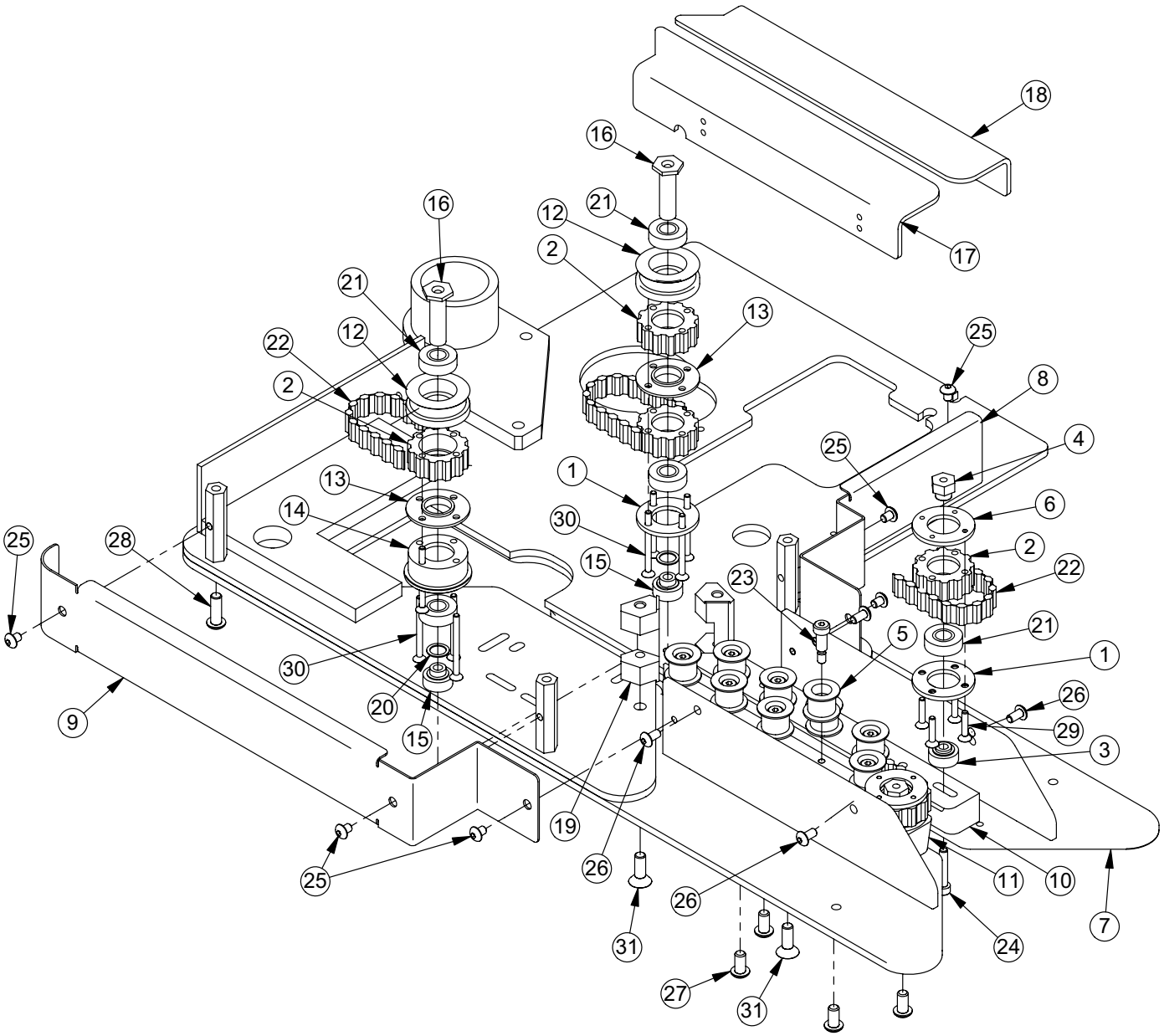



Figure 7.6

# EXTENDED BELT DRIVE (Model B)

**(Figure 7.6)**

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004132 | Flange - Feed Drive Pulley | 3 |
| 2 | 08-004133 | Pulley - Upper Feed Drive | 5 |
| 3 | 08-004134 | Spacer - Feed Pulley | 2 |
| 4 | 08-004136 | Nut - Pulley Long | 2 |
| 5 | 08-004435 | Roller - Gearbelt Support | 9 |
| 6 | 08-004558 | Flange - Upper Pulley | 2 |
| 7 | 08-004615 R | Plate - Belt Drive Extension (right-hand machine) | 1 |
| | 08-004615 L | Plate - Belt Drive Extension (left-hand machine) | 1 |
| 8 | 08-004617 SR | Cover - Drive Side - Standard (right-hand machine) | 1 |
| | 08-004617 SL | Cover - Drive Side - Standard (left-hand machine) | 1 |
| | 08-005426 SR | Cover - Drive Side - Model BG (right-hand machine) | 1 |
| | 08-005426 SL | Cover - Drive Side - Model BG (left-hand machine) | 1 |
| 9 | 08-004618 S | Cover - Idle Side - Standard | 1 |
| | 08-005466 S | Cover - Idle Side - Model BG | 1 |
| 10 | 08-004619 R | Bar - Pulley Spacer - Drive (right-hand machine) | 1 |
| | 08-004619 L | Bar - Pulley Spacer - Drive (left-hand machine) | 1 |
| 11 | 08-006202 R | Bar - Pulley Spacer - Idle (right-hand machine) | 1 |
| | 08-006202 L | Bar - Pulley Spacer - Idle (left-hand machine) | 1 |
| 12 | 08-004621* | Pulley - Lower Feed Drive (not used with Model G lower gearbelt) | 2 |
| 13 | 08-004622 | Spacer - Feed Drive pulley | 2 |
| 14 | 08-005549 | Pulley - Idle Gearbelt | 1 |
| 15 | 08-005550 | Spacer - Feed Pulley Assembly | 2 |
| 16 | 08-005552 | Axle - Feed Pulley - Model B | 2 |
| | 08-005559 | Axle - Feed Pulley - Model BG | 2 |
| 17 | 08-006220 R | Shield - Extension - Right-Hand (one required for right-hand machine) | 1 |
| | 08-006220 L | Shield - Extension - Left-Hand (one required for left-hand machine) | |
| 18 | 08-006220 L | Shield - Extension - Left-Hand (one required for right-hand machine) | 1 |
| | 08-006220 R | Shield - Extension - Right-Hand (one required for left-hand machine) | 1 |
| 19 | 08-006203 | Post - Lower Plate Mounting Model B | 2 |
| | 08-006223 | Post - Lower Mounting Plate Model BG | 2 |
| 20 | OS-099 | Spring - Wave | 2 |
| 21 | P02-00095 | Bearing | 6 |
| 22 | P03-00119 | Belt - Gear Timing | 2 |
| 23 | F05-250-08 | Bolt - 1/4 - Skt Shoulder | 9 |
| 24 | F10-190F16 S | Screw - 10-32UNF x 1” Lg Skt Hd Cap | 2 |
| 25 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 6 |
| 26 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 4 |
| 27 | F11-250C08 | Screw - 1/4-20UNC x 1/2 Lg Skt Btn Hd | 4 |
| 28 | F11-250F12 | Screw - 1/4-28UNF x 3/4 Lg Skt Btn Hd | 3 |
| 29 | F12-138C12 S | Screw - 6-32UNC x 3/4 Lg Skt Flt Hd | 8 |
| 30 | F12-138C24 S | Screw - 6-32UNC x 1 1/2 Lg Skt Flt Hd | 8 |
| 31 | F12-250F12 | Screw - 14-28UNF x 3/4 Lg Skt Flt Hd | 4 |

* Not used with model “G” lower gearbelt.

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# FEED BELTS - IDLE SIDE
# (865A Model C)

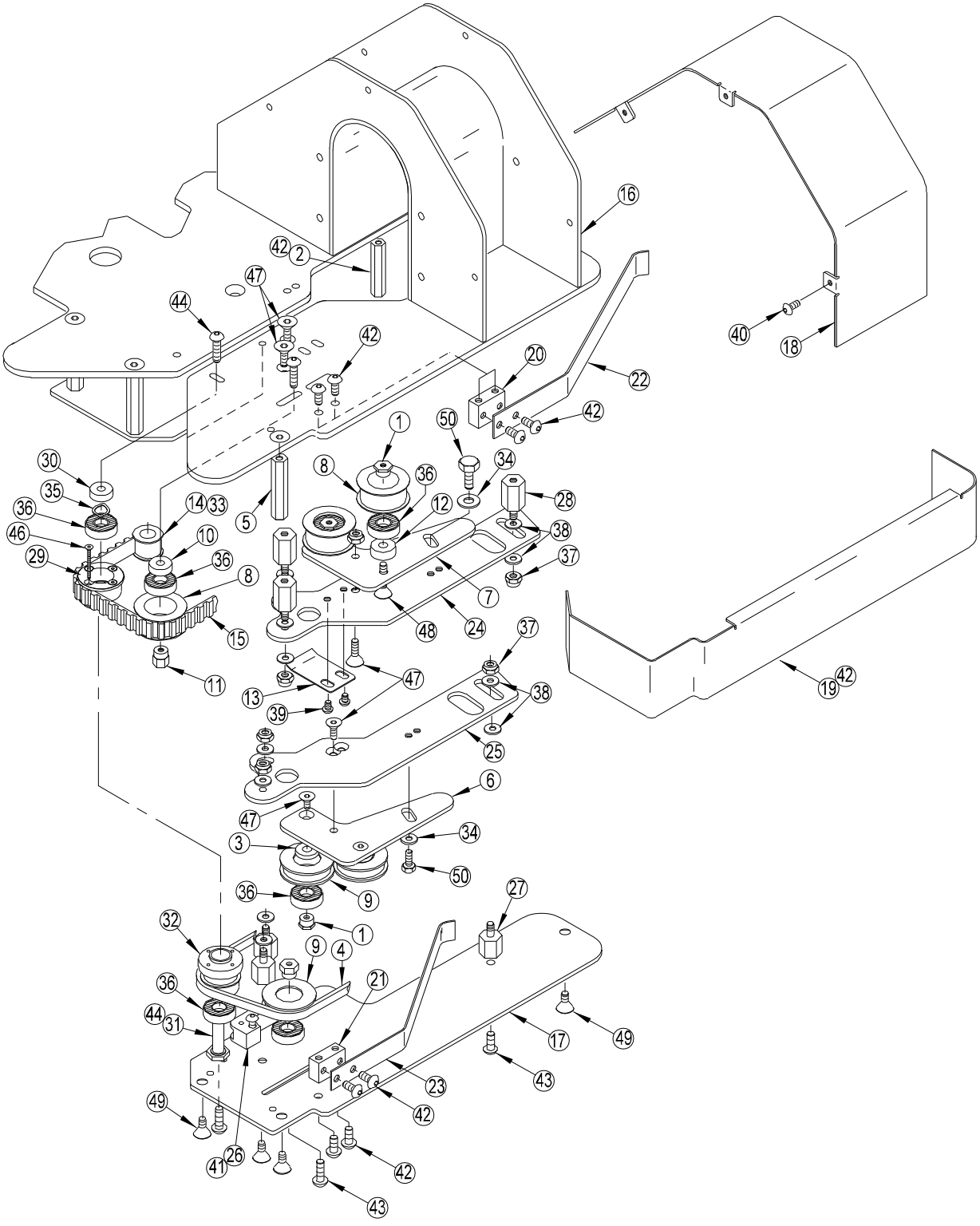





Figure 7.7

# FEED BELTS - IDLE SIDE (Model C)

**(Figure 7.7)**

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002158 | Nut - Pulley | 4 |
| 2 | 08-002447 | Post - Cover Mount | 1 |
| 3 | 08-003491 | Spacer - Bogie Pulley | 3 |
| 4 | 08-004124 | Belt - Lower Feed | 1 |
| 5 | 08-004125 | Post - Lower Plate Mount | 3 |
| 6 | 08-004126 R | Plate - Pinch Point Adjust (one required per machine) | 1 |
| 7 | 08-004126 L | Plate - Pinch Point Adjust (one required per machine) | 1 |
| 8 | 08-004129 | Pulley - Idler Gearbelt | 3 |
| 9 | 08-004130 | Pulley - Lower Feed Belt | 3 |
| 10 | 08-004134 | Spacer - Feed Pulley | 1 |
| 11 | 08-004136 | Nut - Pulley - Long | 2 |
| 12 | 08-004140 | Spacer | 2 |
| 13 | 08-004155 | Deflector - Closure | 1 |
| 14 | 08-004435 | Roller - Gearbelt Support | 1 |
| 15 | 08-004438 | Belt - Gear - Idle | 1 |
| 16 | 08-004731 R | Frame - Closer (right-hand machine) | 1 |
| | 08-004731 L | Frame - Closer (left-hand machine) | 1 |
| 17 | 08-004732 R | Plate - Lower Pulley Mount (right-hand machine) | 1 |
| | 08-004732 L | Plate - Lower Pulley Mount (left-hand machine) | 1 |
| 18 | 08-004733 | Wrap - Bridge | 1 |
| 19 | 08-004734 | Cover - Idle Side - Standard | 1 |
| | 08-005467 | Cover - Idle Side - Model CG | 1 |
| 20 | 08-004735 | Block - Upper Spring Mount | 1 |
| 21 | 08-004736 | Block - Lower Spring Mount Standard | 1 |
| | 08-004735 | Block - Lower Spring Mount Model G | 1 |
| 22 | 08-004737 | Spring - Upper Gearbelt | 1 |
| 23 | 08-004738 | Spring - Lower Belt - Standard | 1 |
| | 08-004737 | Spring - Lower Belt - Model G | 1 |
| 24 | 08-006192 R | Plate - Belt Pivot (one required per machine) | 1 |
| 25 | 08-006192 L | Plate - Belt Pivot (one required per machine) | 1 |
| 26 | 08-004837 | Track - Lower Feed Belt | 1 |
| 27 | 08-006184 | Post - Lower Belt Plate | 3 |
| 28 | 08-006183 | Post - Upper Feed Plate | 3 |
| 29 | 08-005549 | Pulley - Idle Gearbelt | 1 |
| 30 | 08-005550 | Spacer | 1 |
| 31 | 08-005552 | Axle - Feed Pulley | 1 |
| 32 | 08-005553 | Pulley - Lower Feed Drive | 1 |
| 33 | 08-005567 | Bolt - Support Roller | 1 |
| 34 | 0W-001P | Washer | 2 |
| 35 | 0S-099 | Spring | 1 |
| 36 | P02-00095 | Bearing | 8 |
| 37 | P23-00220 | Nut - 10-32UNF ESNA Low Profile | 8 |
| 38 | P36-00037 | Washer - Nylon | 12 |
| 39 | F11-164C02 S | Screw - 8-32UNC x 1/8 Lg Skt Btn Hd | 2 |
| 40 | F11-164C06 S | Screw - 8-32UNC x 3/8 Lg Skt Btn Hd | 6 |
| 41 | F11-164C10 S | Screw - 8-32UNC x 5/8 Lg Skt Btn Hd | 2 |
| 42 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 9 |
| 43 | F11-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Btn Hd | 3 |
| 44 | F11-190F14 S | Screw - 10-32UNF x 7/8 Lg Skt Btn Hd | 2 |
| 45 | F11-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 2 |
| 46 | F12-138C16 S | Screw - 6-32UNC x 1 Lg Skt Flt Hd | 4 |
| 47 | F12-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Flt Hd | 6 |
| 48 | F12-190F10 S | Screw - 10-32UNF x 5/8 Lg Skt Flt Hd | 4 |
| 49 | F12-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Flt Hd | 6 |
| 50 | F13-190F06 S | Screw - 10-32UNF x 3/8 Lg Hx Hd | 2 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# EXTENDED DRIVE BELTS
# (865A Model D)

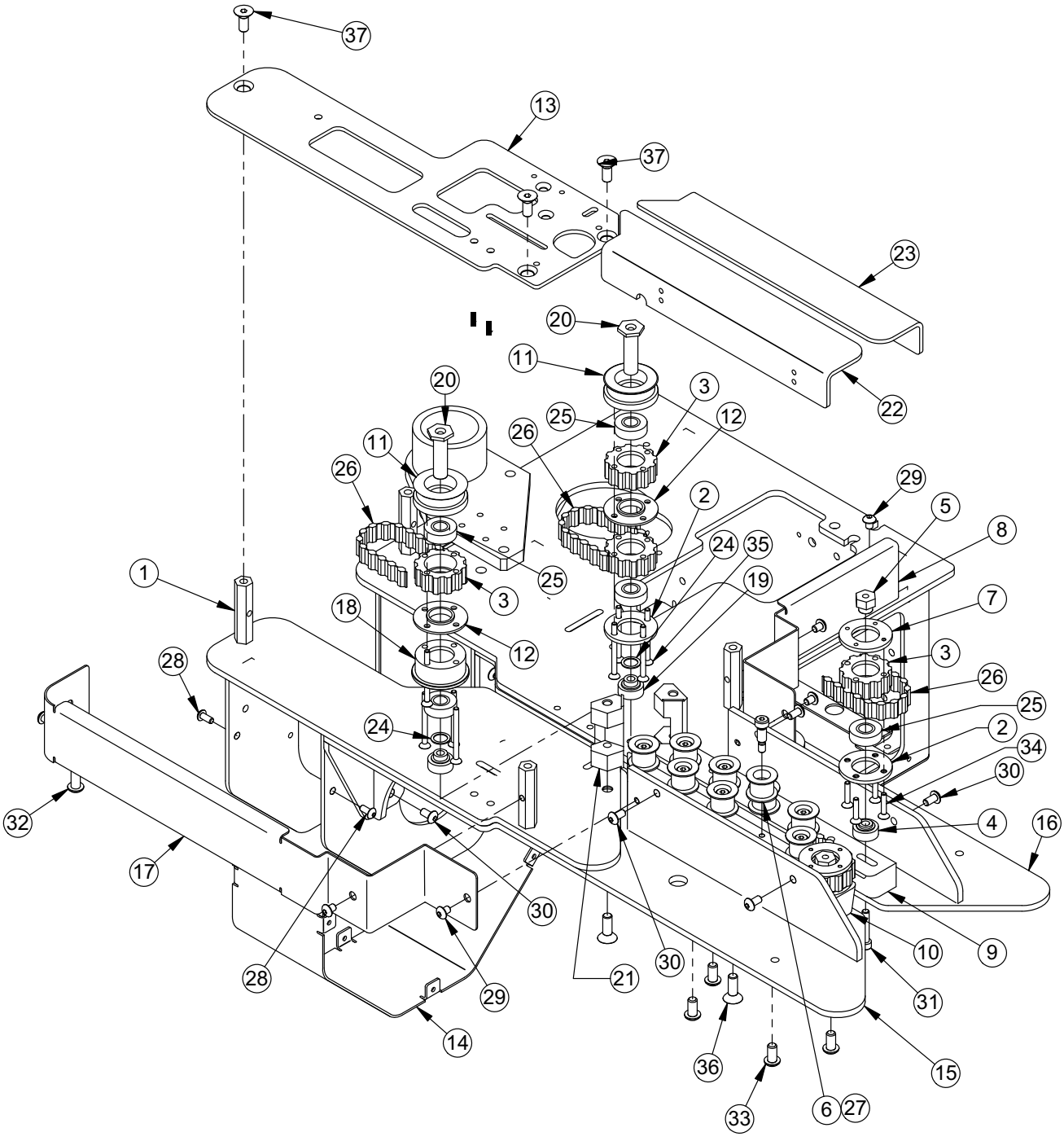



Figure 7.8

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.



# EXTENDED DRIVE BELTS (Model D)

**(Figure 7.8)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004125 | Post - Lower Plate Mounting | 4 |
| 2 | 08-004132 | Flange - Feed Drive Pulley | 3 |
| 3 | 08-004133 | Pulley - Upper Feed Drive | 5 |
| 4 | 08-004134 | Spacer - Feed Pulley | 2 |
| 5 | 08-004136 | Nut - Pulley Long | 2 |
| 6 | 08-004435 | Roller - Gearbelt Support | 9 |
| 7 | 08-004558 | Flange - Upper Pulley | 2 |
| 8 | 08-004617 SR | Cover - Drive Side (right-hand machine) | 1 |
| | 08-004617 SL | Cover - Drive Side (left-hand machine) | 1 |
| 9 | 08-004619 R | Bar - Pulley Spacer - Drive (right-hand machine) | 1 |
| | 08-004619 L | Bar - Pulley Spacer - Drive (left-hand machine) | 1 |
| 10 | 08-006202 R | Bar - Pulley Spacer - Idle (right-hand machine) | 1 |
| | 08-006202 L | bar - Pulley Spacer - Idle (left-hand machine) | 1 |
| 11 | 08-004621 | Pulley - Lower Feed Drive | 2 |
| 12 | 08-004622 | Spacer - Feed Drive Pulley | 2 |
| 13 | 08-004732 R | Plate - Lower Pulley Mounting (right-hand machine) | 1 |
| | 08-004732 L | Plate - Lower Pulley Mounting (left-hand machine) | 1 |
| 14 | 08-004733 | Wrap - Bridge | 1 |
| 15 | 08-004838 R | Plate - Belt Drive - Extended Drive (right-hand machine) | 1 |
| | 08-004838 L | Plate - Belt Drive - Extenede Drive (left-hand machine) | 1 |
| 16 | 08-004839 R | Plate - Belt Drive - Extended Idle (right-hand machine) | 1 |
| | 08-004839 L | Plate - Belt Drive - Extended Idle (left-hand machine) | 1 |
| 17 | 08-004840 S | Cover - Idle Side | 1 |
| 18 | 08-005549 | Pulley - Idle Gearbelt | 1 |
| 19 | 08-005550 | Spacer - Feed Pulley Assembly | 2 |
| 20 | 08-005552 | Axle - Feed Pulley - Model D | 2 |
| 21 | 08-006203 | Post - Lower Plate Mounting | 2 |
| 22 | 08-006220 R | Shield - Drive Extension (one required for right-hand machine) | 1 |
| | 08-006220 L | Shield - Drive Extension (one required for left-hand machine) | 1 |
| 23 | 08-006220 L | Shield - Drive Extension (one required for right-hand machine) | 1 |
| | 08-006220 R | Shield - Drive Extension (one required for left-hand machine) | 1 |
| 24 | OS-099 | Spring - Wave - Stainless | 2 |
| 25 | P02-00095 | Bearing | 6 |
| 26 | P03-00119 | Belt - Gear Timing | 2 |
| 27 | F05-250-08 | Bolt - 1/4 Socket Shoulder | 9 |
| 28 | F11-164C06 S | Screw - 8-32UNC x 3/8 Lg Skt Btn Hd | 6 |
| 29 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 6 |
| 30 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 10 |
| 31 | F10-190F16 S | Screw - 10-32UNF x 1” Lg Skt Hd Cap | 2 |
| 32 | F11-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 1 |
| 33 | F11-250C08 | Screw - 1/4-20UNC x 1/2 Lg Skt Btn Hd | 4 |
| 34 | F12-138C12 S | Screw - 6-32UNC x 3/4 Lg Skt Btn Hd | 8 |
| 35 | F12-138C24 S | Screw - 6-32UNC x 1 1/2 Lg Skt Flt Hd | 8 |
| 36 | F12-250C10 | Screw - 1/4-20UNC x 5/8 Lg Skt Flt Hd | 4 |
| 37 | F12-250F12 | Screw - 1/4-28UNF x 3/4 Lg Skt Flt Hd | |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# MOTOR and DRIVE ASSEMBLY

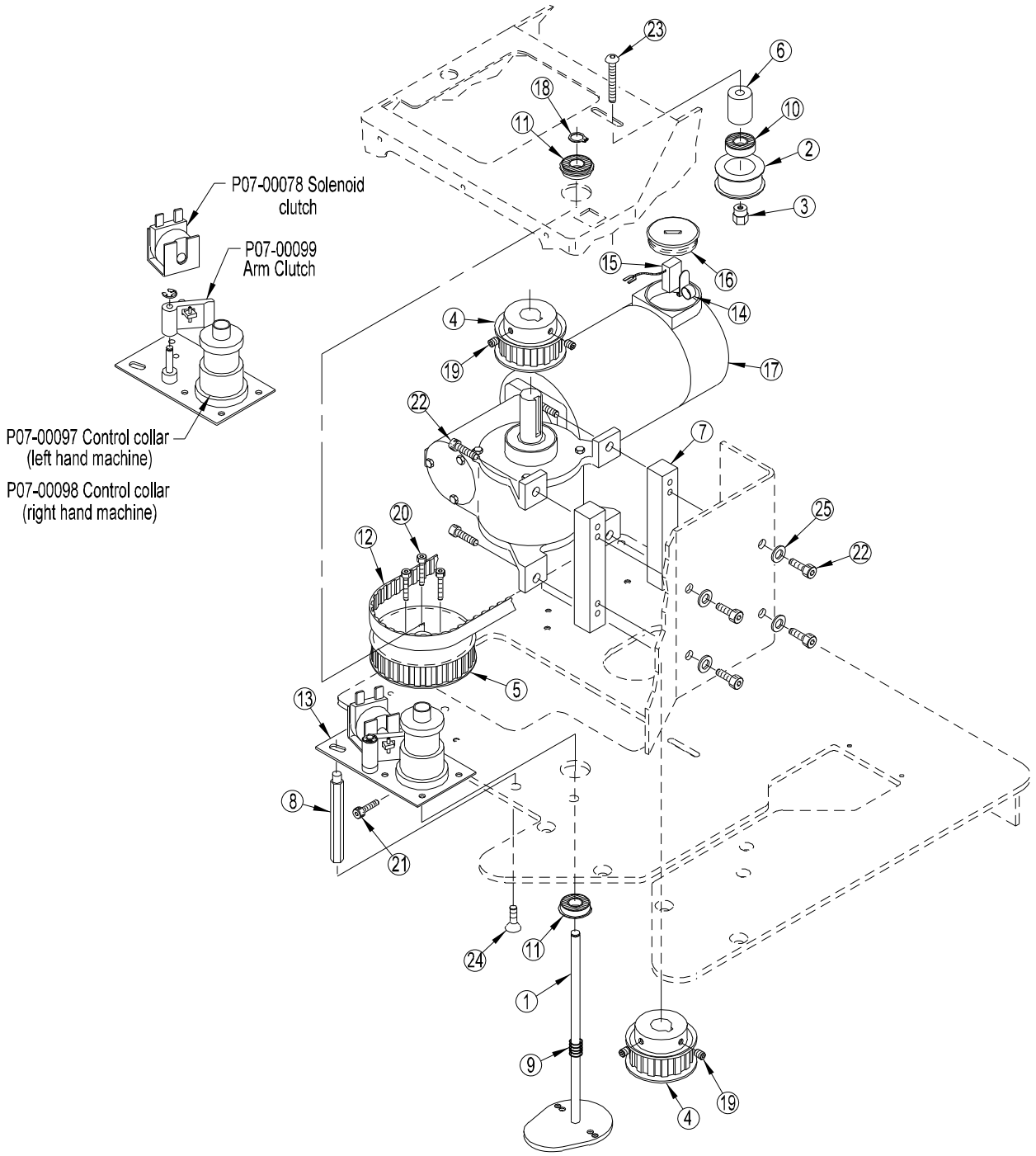



Figure 7.9

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.



# MOTOR and DRIVE ASSEMBLY

**(Figure 7.9)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004118 | Shaft - Breakoff Cam | 1 |
| 2 | 08-004129 | Pulley - Idler Gearbelt | 1 |
| 3 | 08-004136 | Nut - Pulley - Long | 1 |
| 4 | 08-004137 | Pulley - Motor - Model K-NRP, JW-NRP, KW-NRP, JM-NRP, KM57-NRP | 2 |
| | 08-005391 | Pulley - Motor - Model Z-NRP, Z90-NRP | 2 |
| 5 | 08-004138 | Pulley - Clutch | 1 |
| 6 | 08-004141 | Spacer - Takeup Pulley | 1 |
| 7 | 08-004149 | Spacer - Motor Mount Model J-NRP, K-NRP, JW-NRP, KW-NRP | 2 |
| | 08-005418 | Spacer - Motor Mount Model Z-NRP, Z90-NRP | 2 |
| 8 | 08-004152 | Post - Clutch Mount | 1 |
| 9 | 0S-062 | Spring - Compression | 1 |
| 10 | P02-00095 | Bearing | 1 |
| 11 | P02-00139 | Bearing | 2 |
| 12 | P03-00111 | Belt - Gear - Drive - Clutch Model - K-NRP, JW-NRP, KW-NRP, JM-NRP, KM57-NRP | 1 |
| | P03-00129 | Belt - Gear - Clutch - Model Z-NRP, Z72-NRP, Z90-NRP | 1 |
| 13 | P07-00121 R | Clutch - 12VDC - Includes P07-00078 12VDC Solenoid (right-hand machine) | 1 |
| | P07-00121 L | Clutch - 12VDC - Includes P07-00078 12VDC Solenoid (left-hand machine) | 1 |
| 14 | P11-00417 | Spring - Brush | 2 |
| 15 | P11-00467 | Brush - Motor | 2 |
| 16 | P11-00694 | Cap - Motor Brush | 2 |
| 17 | P21-00149 | Gearmotor - Right Angle | 1 |
| 18 | P27-00018 | Ring - Retaining | 1 |
| 19 | F06-250C06 S | Screw - 1/4-20UNC x 3/8 Lg Skt Set - Standard | 4 |
| | F06-250C04 S | Screw - 1/4-20UNC x 1/4 Lg Skt Set - Model Z-NRP and Z90-NRP | 4 |
| 20 | F10-138C06 S | Screw - 6-32UNC x 3/8 Lg Skt Hd Cap | 3 |
| 21 | F10-164C08 S | Screw - 8-32UNC x 1/2 Lg Skt Hd Cap | 1 |
| 22 | F10-250C10 | Screw - 1/4-20UNC x 5/8 Lg Skt Hd Cap | 8 |
| 23 | F11-190F24 S | Screw - 10-32UNF x 1 1/2 Lg Skt Btn Hd | 1 |
| 24 | F12-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Flt Hd | 1 |
| 25 | F14-252 S | Washer | 4 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# LOWER GEARBELT ASSEMBLY

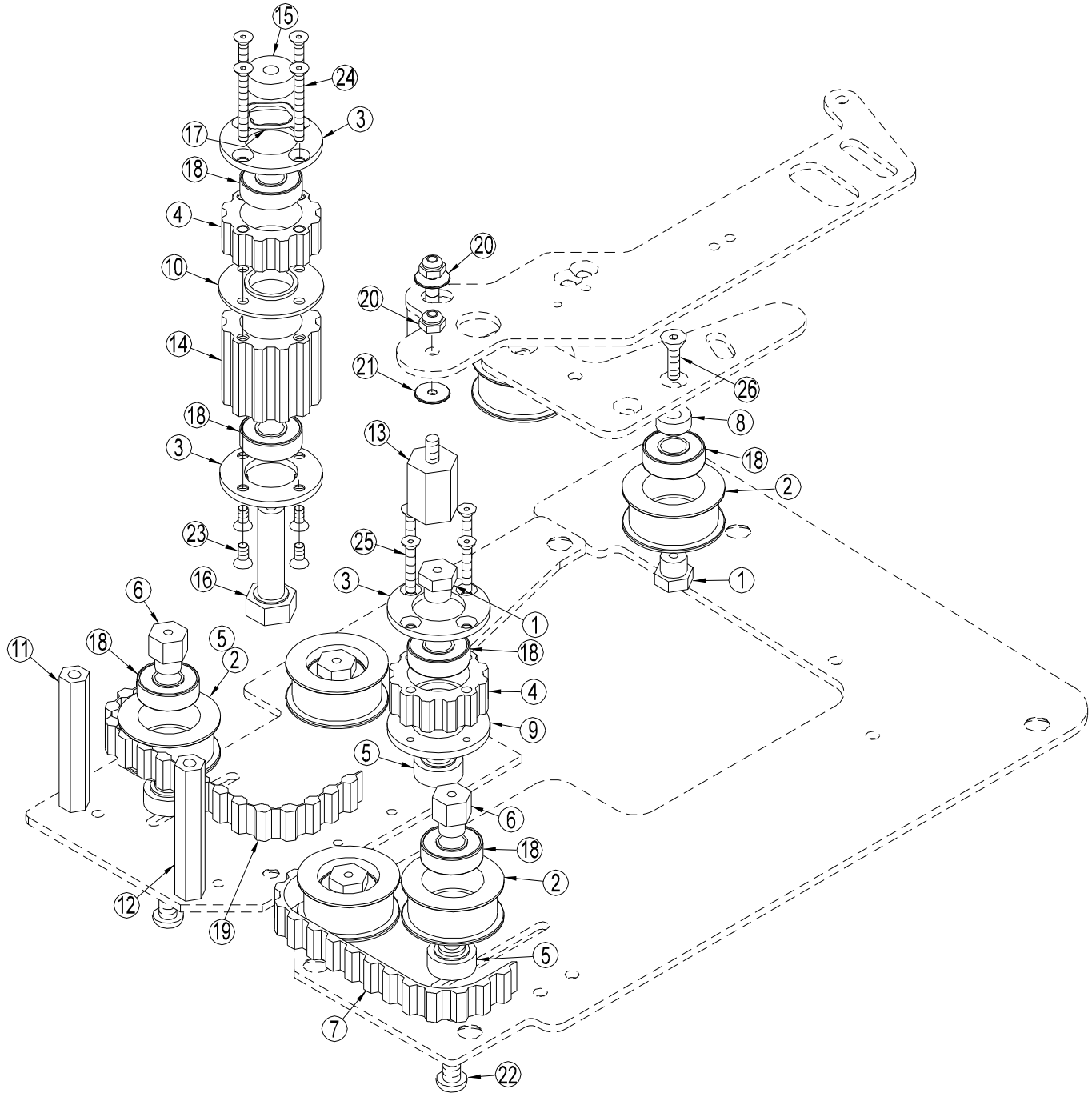



Figure 7.10

# LOWER GEARBELT ASSEMBLY

**(Figure 7.10)**

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002158 | Nut - Pulley - Short | 4 |
| 2 | 08-004129 | Pulley - Drive Gearbelt | 6 |
| 3 | 08-004132 | Flange - Feed Drive Pulley | 2 |
| 4 | 08-004133 S | Pulley -Feed Drive | 2 |
| 5 | 08-004134 | Spacer - Gearbelt Pulley | 6 |
| 6 | 08-004136 | Nut - Pulley Long | 2 |
| 7 | 08-004438 | Belt - Gear - Idle | 1 |
| 8 | 08-004140 | Spacer - Feed Pulley | 2 |
| 9 | 08-004558 | Flange - Upper Pulley | 1 |
| 10 | 08-004622 | Spacer - Feed Drive Pulley | 1 |
| 11 | 08-005417 | Post - Lower Plate Mounting | 8 |
| 12 | 08-005427 | Post - Lower Plate Mounting (model BG and DG only) | 2 |
| 13 | 08-005511 | Post - Upper Belt Plate | 3 |
| 14 | 08-005512 | Pulley - Feed Drive | 1 |
| 15 | 08-005550 | Spacer - Feed Pulley | 1 |
| 16 | 08-005559 | Axle - Feed Pulley | 1 |
| 17 | 0S-099 | Spring | 1 |
| 18 | P02-00095 | Bearing | 9 |
| 19 | P03-00133 | Belt - Gear | 1 |
| 20 | P23-00220 S | Nut - 10-32UNF - ESNA (low profile) | 2 |
| 21 | P36-00034 | Washer - Nylon | 2 |
| 22 | F11-190F12 S | Screw - 10-32UNF x 3/4 Lg Skt Btn Hd | 4 |
| 23 | F12-138C06 S | Screw - 6-32UNC x 3/8” Lg Skt Flt Hd | 4 |
| 24 | F12-138C16 S | Screw - 6-32UNC x 1” Lg Skt Flt Hd | 4 |
| 25 | F12-138C12 S | Screw - 6/32UNC x 3/4” Lg Skt Flt Hd | 4 |
| 26 | F12-190F10 S | Screw - 10-32UNF x 5/8” Lg Skt Flt Hd | 2 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# ELECTRICAL CONTROL BOX

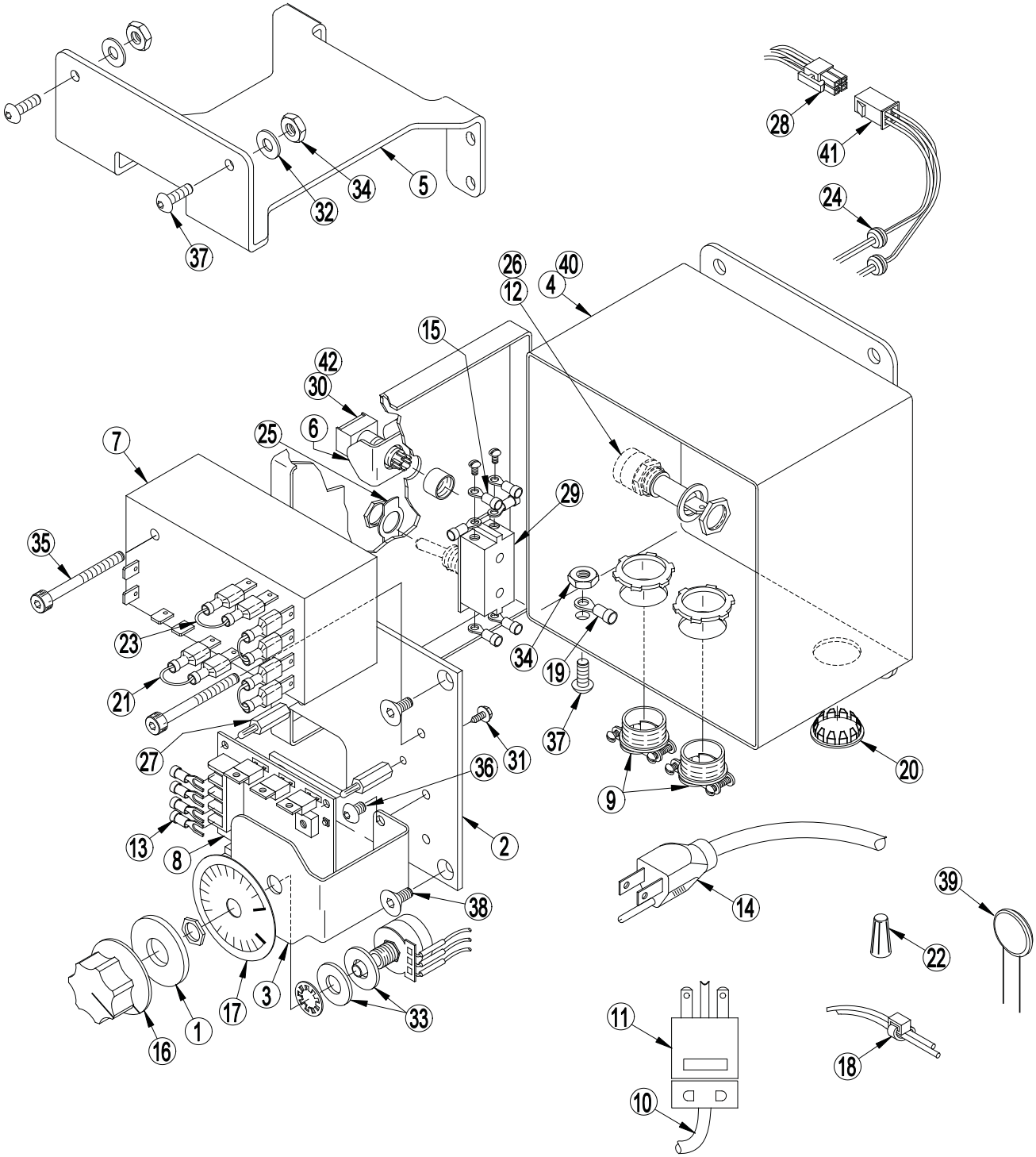



Figure 7.11

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.



# ELECTRICAL CONTROL BOX

**(Figure 7.11)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-002862 | Washer - Control Knob | 1 |
| 2 | 08-004107 R | Plate - Control Mounting (right-hand machine) | 1 |
| | 08-004107 L | Plate Control Mounting (left-hand machine) | 1 |
| 3 | 08-004108 | Mount - Speed Pot | 1 |
| 4 | 08-004109 R | Box - Electrical (right-hand machine) | 1 |
| | 08-004109 L | Box - Electrical (left-hand machine) | 1 |
| 5 | 08-004262 R | Bracket - Electrical Box Mount (right-hand machine) | 1 |
| | 08-004262 L | Bracket - Electrical Box Mount (left-hand machine) | 1 |
| 6 | 08-004680 | Shield - Pushbutton | 1 |
| 7 | P10-00023 | Module - Solenoid | 1 |
| 8 | P10-00058 | Control - DC Motor | 1 |
| 9 | P11-00005 | Connector - Two Screw | 1 |
| 10 | P11-00014 | Cord - 18-3 Wire - 230VAC | 72” |
| | P11-00736 | Cord - 16-3 Wire 230VAC - International | 72” |
| 11 | P11-00033 | Plug - Two Pole Tandem 230VAC | 1 |
| 12 | P11-00042 | Holder - Fuse | 1 |
| 13 | P11-00044 | Terminal - Open End | 6 |
| 14 | P11-00064 | Cord - 18-3SJ (115VAC operation) | 1 |
| 15 | P11-00066 | Terminal - Closed Loop 18Ga | 2 or 4 |
| | P11-00221 | Terminal - Closed Loop 16Ga | 2 |
| 16 | P11-00079 | Knob - Control | 1 |
| 17 | P11-00081 | Plate - Dial - Speed Pot | 1 |
| 18 | P11-00098 | Tie - Cable | 4 |
| 19 | P11-00144 | Terminal - Closed Loop 18Ga | 2 |
| | P11-00109 | Terminal - Closed Loop 14-16Ga | 2or3 |
| 20 | P11-00133 S | Plug - 7/8 Hole | 1 |
| 21 | 08-004582 | Cable | 2or3 |
| 22 | P11-00609 | Nut - Two Wire | 2 |
| 23 | P11-00274 | Terminal - Quick Connect | 10 |
| 24 | P11-00277 | Grommet | 2 |
| 25 | P11-00282 | Plate - On- Off Switch | 1 |
| 26 | P11-00415 | Fuse | 1 |
| 27 | P11-00418 | Standoff - 3/4 | 4 |
| 28 | 08-005162 | Cable - Closing Head | 1 |
| 29 | P12-00043 | Switch - Toggle | 1 |
| 30 | P12-00179 | Switch - Manual Cycle | 1 |
| 31 | P23-00219 | Screw - No 6 x 1/2 Lg Sheet Metal | 4 |
| 32 | F01-190 S | Washer - No 10 Flat | 2 |
| 33 | F01-375 | Washer - 3/8 Flat | 2 |
| 34 | F03-190F S | Nut - 10-32UNF - Hex | 6 |
| 35 | F10 -190F32 S | Screw - 10-32UNF x 2 Lg Skt Hd Cap | 2 |
| 36 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 2 |
| 37 | F11-190F08 S | Screw - 10-32UNF x 1/2 Lg Skt Btn Hd | 3 |
| 38 | F12-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Flt Hd | 4 |
| 39 | 08-005490 | Surge Suppressor (high voltage only) | 1 |
| 40 | P11-00617 | Latch - Door | 1 |
| 41 | 08-005163 | Cable - Electrical Box | 1 |
| 42 | P11-00484 | Terminal | 4 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# LOK GUIDE ASSEMBLY

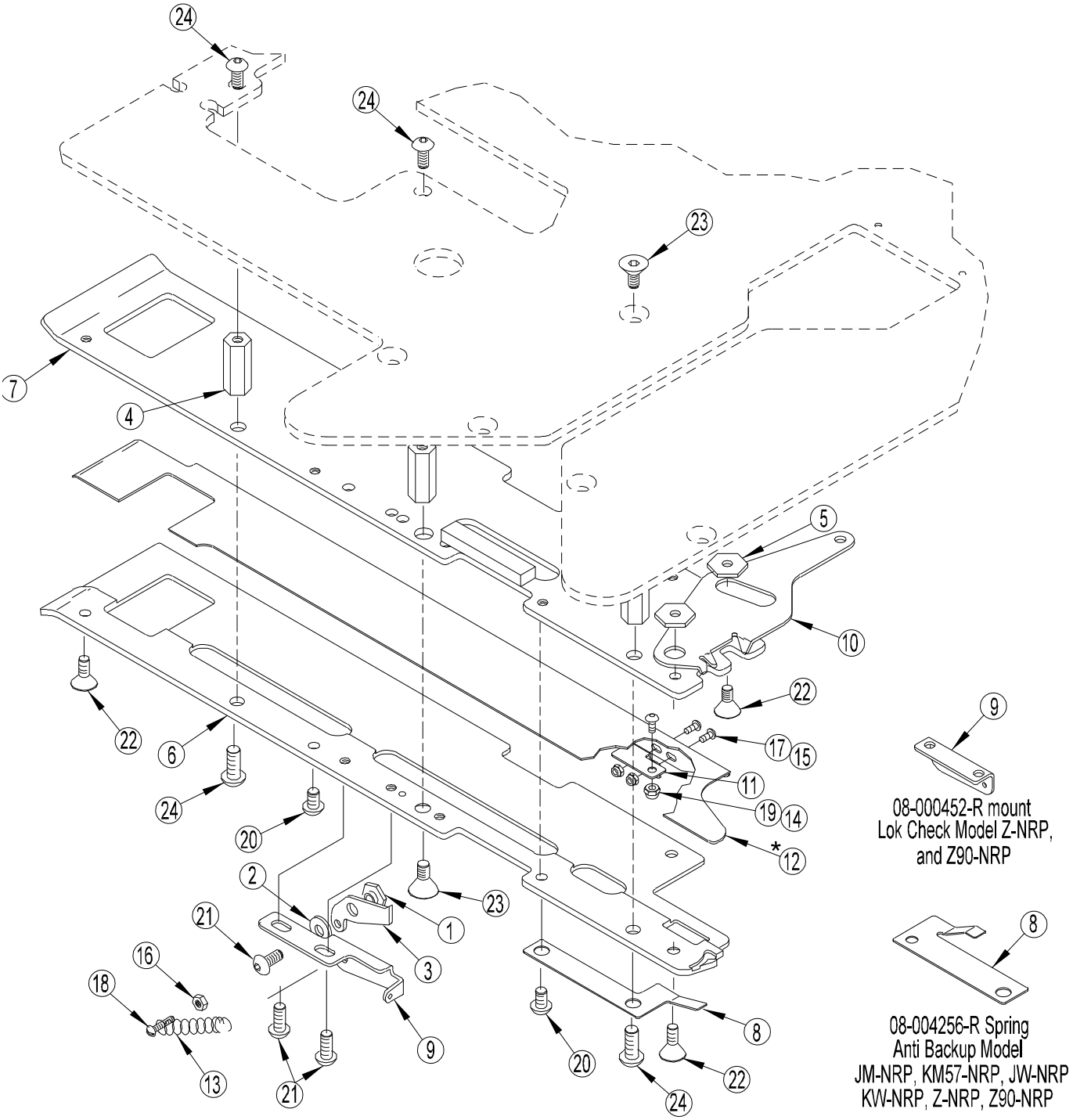



Figure 7.12

# LOK GUIDE ASSEMBLY

**(Figure 7.12)**

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-000075 | Pivot - Lok Check | 1 |
| 2 | 08-000076 | Washer - Lok Check | 1 |
| 3 | 08-000451 | Check - Lok | 1 |
| 4 | 08-004102 | Post - Track Mounting | 3 |
| 5 | 08-004154 | Mount - Breakoff Link | 2 |
| 6 | 08-004656 R | Spacer - J-NRP/K-NRP Lok Guide (right-hand machine) | 1 |
| | 08-004656 L | Spacer - J-NRP/K-NRP Lok Guide (left-hand machine) | 1 |
| | 08-004657 R | Spacer JM-NRP, KM57-NRP Lok Guide (right-hand machine) | 1 |
| | 08-004657 L | Spacer - JM-NRP, KM57-NRP Lok Guide (left-hand machine) | 1 |
| | 08-004658 R | Spacer - JW-NRP, KW-NRP Lok Guide (right-hand machine) | 1 |
| | 08-004658 L | Spacer - JW-NRP, KW-NRP Lok Guide (left-hand machine) | 1 |
| | 08-004659 R | Spacer - Lok Guide - Z-NRP, Z90-NRP (right-hand machine) | 1 |
| | 08-004659 L | Spacer - Lok Guide - Z-NRP, Z90-NRP (left-hand machine) | 1 |
| 7 | 08-004252 SR | Guide - K-NRP Lok Track (right-hand machine) | 1 |
| | 08-004252 SL | Guide - K-NRP Lok Track (left-hand machine) | 1 |
| | 08-004303 SR | Guide - J-NRP Lok Track (right-hand machine) | 1 |
| | 08-004303 SL | Guide - J-NRP Lok Track (left-hand machine) | 1 |
| | 08-004561 R | Guide JM-NRP Lok Track (right-hand machine) | 1 |
| | 08-004561 L | Guide - JM-NRP Lok Track (left-hand machine) | |
| | 08-004315 SR | Guide - JW-NRP Lok Track (right-hand machine) | 1 |
| | 08-004315 SL | Guide - JW-NRP Lok Track (left-hand machine) | 1 |
| | 08-004253 SR | Guide - KW-NRP Lok Track (right-hand machine) | 1 |
| | 08-004253 SL | Guide - KW-NRP Lok Track (left-hand machine) | 1 |
| | 08-005434 R | Guide - Z-NRP Lok Track (right-hand machine) | |
| | 08-005434 L | Guide - Z-NRP Lok Track (left-hand machine) | 1 |
| | 08-004867 R | Guide - Z72-NRP, Z90-NRP Lok Track (right-hand machine) | 1 |
| | 08-004867 L | Guide - Z72-NRP, Z90-NRP Lok Track (left-hand machine) | 1 |
| | 08-004916 R | Guide - KM57-NRP Lok Track (right-hand machine) | 1 |
| | 08-004916 L | Guide - KM57-NRP Lok Track (left-hand machine) | 1 |
| | 08-005507 R | Guide - K-NRP Lok Track Three Line (right-hand machine) | 1 |
| | 08-005507 L | Guide - K-NRP Lok Track Three Line (left-hand machine) | 1 |
| 8 | 08-004701 R | Spring - Anti Backup J-NRP, K-NRP (right-hand machine) | 1 |
| | 08-004701 L | Spring - Anti Backup J-NRP, K-NRP (left-hand machine) | 1 |
| | 08-004256 R | Spring - Anti Backup - JM-NRP, KM57-NRP, JW-NRP,KW-NRP Z-NRP, Z90-NRP (right-hand machine) | 1 |
| | 08-004256 L | Spring - Anti Backup - JM-NRP, KM57-NRP, JW-NRP, KW-NRP, Z-NRP, Z72-NRP, Z90-NRP (left-hand machine) | 1 |
| 9 | 08-004518 R | Mount - Lok Check - J-NRP, K-NRP, JM-NRP, JW-NRP, KW-NRP, KM57-NRP (right-hand machine) | 1 |
| | 08-004518 L | Mount - Lok Check - J-NRP, K-NRP, JM-NRP, JW-NRP, KW-NRP, KM57-NRP (left-hand machine) | 1 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# LOK GUIDE ASSEMBLY

**(Figure 7.12)**

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| | 08-000452 SR | Mount - Lok Check - Z-NRP Z90-NRP (right-hand machine) | 1 |
| | 08-000452 SL | Mount - Lok Check - Z-NRP Z90-NRP (left-hand machine) | 1 |
| 10 | 08-004597 R | Breaker-Lok-J-NRP or K-NRP (right-hand machine) | 1 |
| | 08-004597 L | Breaker-Lok-J-NRP or K-NRP (left-hand machine) | 1 |
| | 08-004541 R | Breaker - Lok JW-NRP, KW-NRP (right-hand machine) | 1 |
| | 08-004541 L | Breaker - Lok JW-NRP, KW-NRP (left-hand machine) | 1 |
| | 08-004565 R | Breaker - Lok JM-NRP (right-hand machine) | 1 |
| | 08-004565 L | Breaker - Lok JM-NRP (left-hand machine) | 1 |
| | 08-005435 R | Breaker - Z-NRP (right-hand machine) | 1 |
| | 08-005435 L | Breaker - Z-NRP (left-hand machine) | 1 |
| | 08-004869 R | Breaker - Lok - Z90-NRP (right-hand machine) | 1 |
| | 08-004869 L | Breaker - Lok - Z90-NRP (left-hand machine) | 1 |
| | 08-004917 R | Breaker - Lok - KM57-NRP (right-hand machine) | 1 |
| | 08-004917 L | Breaker - Lok - KM57-NRP (left-hand machine) | 1 |
| 11 | 08-004785 R | Spring - Shim Locking (right-hand machine) | 2 |
| | 08-004785 L | Spring-Shim Locking (left-hand machine) | 2 |
| 12 | 08-004789 R | Shim - Lok Guide - J-NRP, K-NRP (right-hand machine) | 1 |
| | 08-004789 L | Shim - Lok Guide - J-NRP, K-NRP (left-hand machine) | 1 |
| | 08-004790 R | Shim - JM-NRP, KM57-NRP Lok Guide (right-hand machine) | 1 |
| | 08-004790 L | Shim - JM-NRP, KM57-NRP Lok Guide (left-hand machine) | 1 |
| | 08-004791 R | Shim - Lok Guide - Z-NRP, Z90-NRP (right-hand machine) | 1 |
| | 08-004791 L | Shim - Lok Guide - Z-NRP, Z90-NRP (left-hand machine) | 1 |
| | 08-005504 R | Shim - Lok Guide - Three Line J-NRP, K-NRP (right-hand machine) | 1 |
| | 08-005504 L | Shim - Lok Guide - Three Line J-NRP, K-NRP (left-hand machine) | 1 |
| 13 | 0S-006 S | Spring - Lok Check | 1 |
| 14 | P23-00111 S | Nut - 6-32 ESNA | 2 |
| 15 | P23-00166 S | Nut - 4-40 ESNA | 4 |
| 16 | F03-138C S | Nut - 6-32UNC - Hex | 2 |
| 17 | F07-112C04 S | Screw - 4-40UNC x 1/4 Lg Rd Hd Mach | 4 |
| 18 | F07-138C12 S | Screw - 6-32UNC x 3/4 Lg Rd Hd Mach | 1 |
| 19 | F11-138C04 S | Screw - 6-32UNC x 1/4 Lg Skt Btn Hd | 2 |
| 20 | F11-190F04 S | Screw - 10-32UNF x 1/4 Lg Skt Btn Hd | 2 |
| 21 | F11-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Btn Hd | 3 |
| 22 | F12-190F06 S | Screw - 10-32UNF x 3/8 Lg Skt Flt Hd | 3 |
| 23 | F12-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Flt Hd | 2 |
| 24 | F11-250F08 | Screw - 1/4-28UNF x 1/2 Lg Skt Btn Hd | 2 |

* Lok Guide Shim is not used for series JW-NRP, KW-NRP Lok Guides.

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.



## KIT - MAST - Z8065123

**Uses a standard single reel.**
**For use with the 874A printer.**
**See page 7.35 and 7.36.**

## KIT - MAST - TURRET Z8065124

**Uses the optional turret kit.**
**For use with the 874A printer.**
**See page 7.34 - 7.36.**

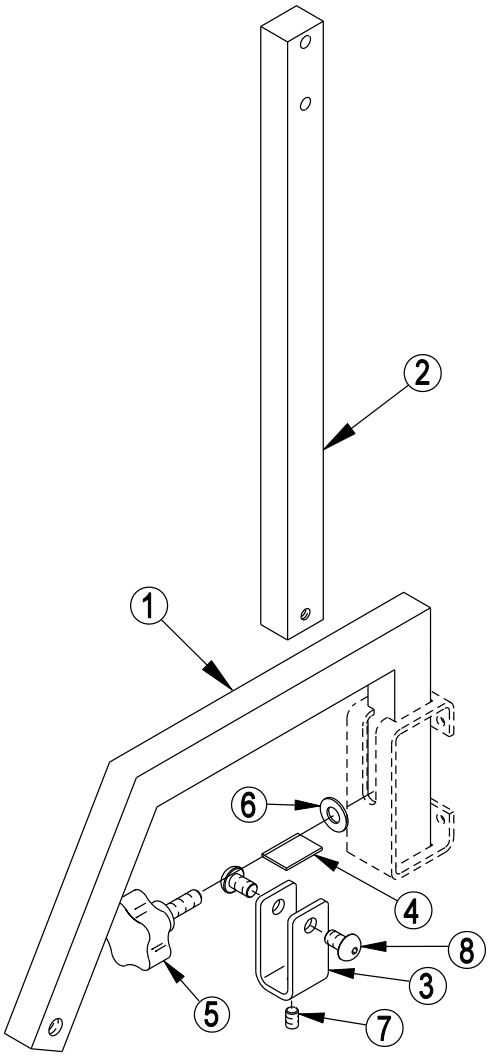



Figure 7.13

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-005497 | Bar - Mast - Roller | 1 |
| 2 | 08-005498 | Mast- Reel - Included with Z8065123 | 1 |
| | 08-005499 | Mast - Turret - Included with Z8065124 | 1 |
| 3 | 08-005500 | Clamp - Mast | 1 |
| 4 | 08-005501 | Plate - Mast Clamp | 1 |
| 5 | P17-00127 | Knob - Clamp | 1 |
| 6 | F01-312 | Washer - 5/16 Flat | 1 |
| 7 | F06-250C06 | Screw - 1/4-20UNC x 3/8 Lg Skt Set | 1 |
| 8 | F11-312C08 | Screw - 5/16-18UNC x 1/2 Lg Skt Btn Hd | 2 |

Items listed above make up Z8065123 Kit - Mast or Z8065124 Kit - Turret Mast W/ Printer and may be ordered as such.

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

## KIT - MAST - Z8065184

**Uses a standard single reel.
For use with no printer
or with the 897C printer.
See page 7.35 and 7.36.**

## KIT - MAST - TURRET Z8065172

**Uses the optional turret kit.
For use with no printer
or with the 897C printer.
See page 7.34 - 7.36.**

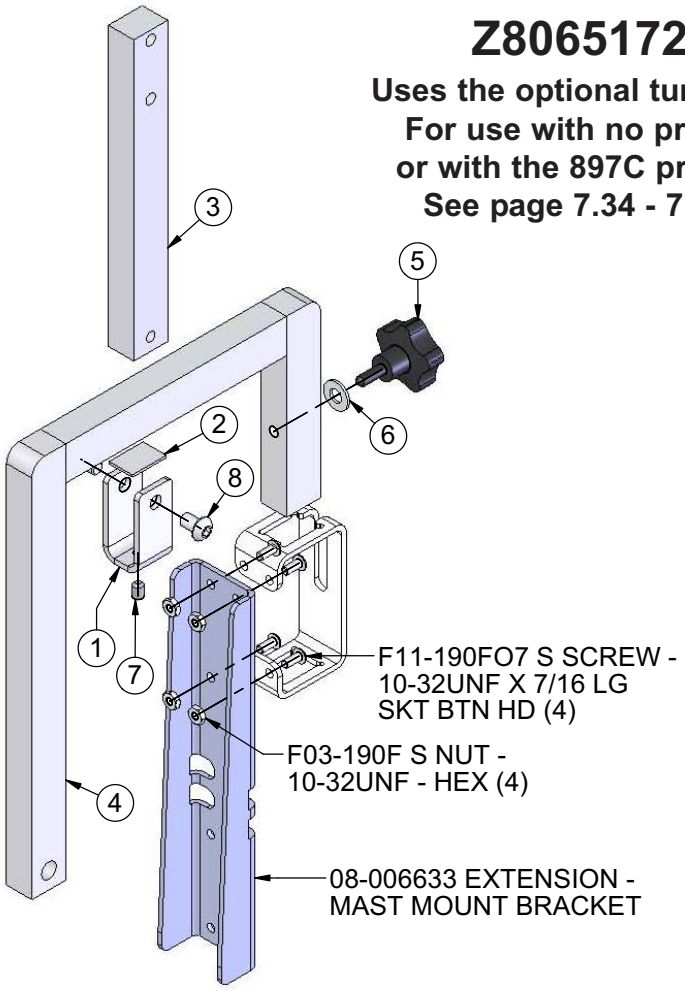



Figure 7.14

### PARTS LIST

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 08-005500 | CLAMP - MAST | 1 |
| 2 | 08-005501 | PLATE - MAST CLAMP | 1 |
| 3 | 08-006033 | MAST - REEL | 1 |
| | 08-006424 | MAST - TURRET | 1 |
| 4 | 08-006422 | BAR - MAST ROLLER | 1 |
| 5 | P17-00127 | KNOB | 1 |
| 6 | F01-312 | WASHER - 5/16 FLAT | 1 |
| 7 | F06-250C06 | SCREW - 1/4-20UNC X 3/8 LG SKT SET | 1 |
| 8 | F11-312C08 | SCREW - 5/16-18UNC X 1/2 LG SKT BTN HD | 2 |

# KIT - MAST - LOW PROFILE Z8065188

**Uses a standard single reel.**
**For use with no printer or with the 897C printer.**
**See page 7.35 - 7.36.**

# KIT - MAST - LOW PROFILE TURRET Z8065189

**Uses the optional turret kit.**
**For use with no printer or with the 897C printer.**
**See page 7.34 - 7.36.**

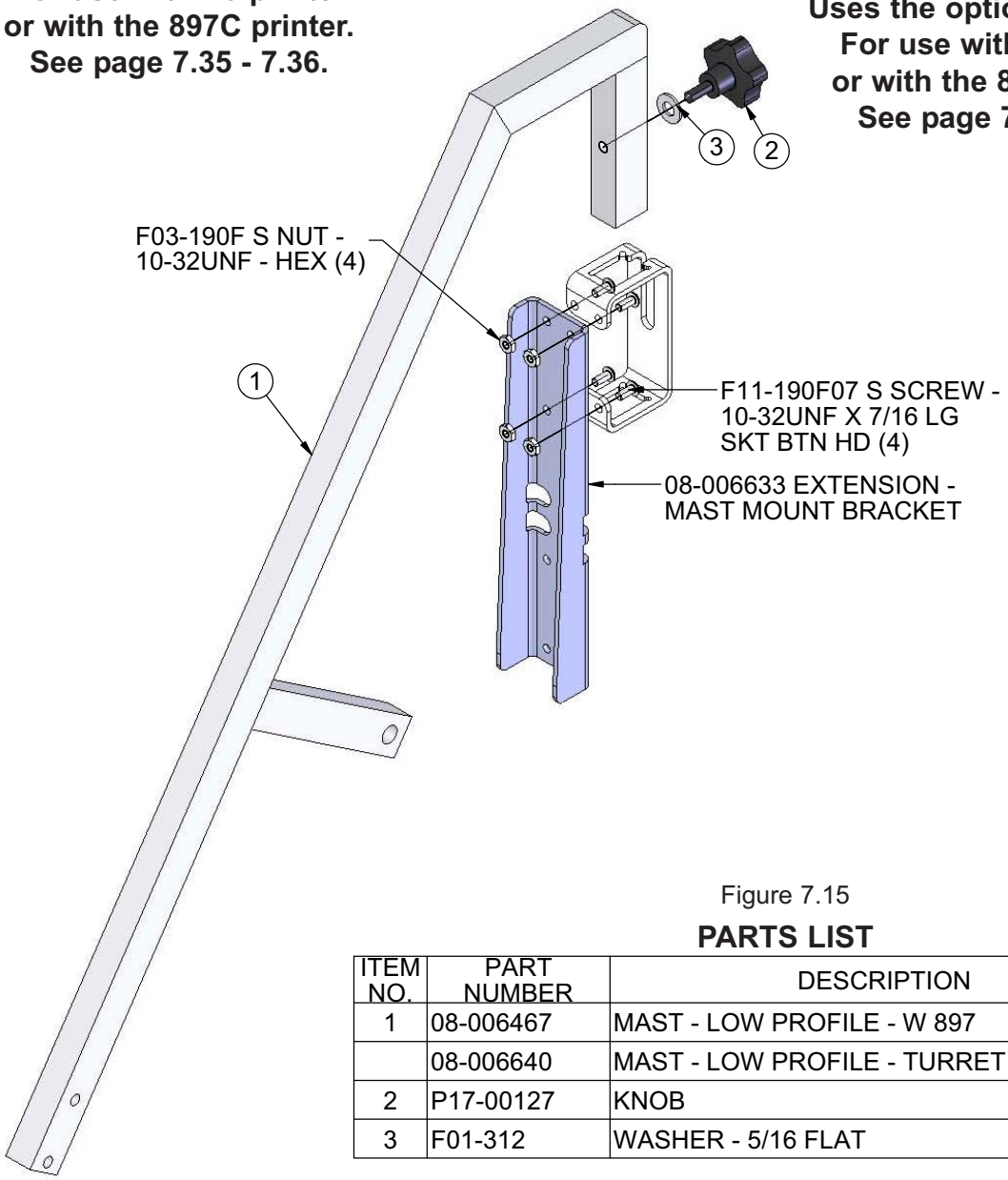



Figure 7.15

**PARTS LIST**

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 08-006467 | MAST - LOW PROFILE - W 897 | 1 |
| | 08-006640 | MAST - LOW PROFILE - TURRET - W 897 | 1 |
| 2 | P17-00127 | KNOB | 1 |
| 3 | F01-312 | WASHER - 5/16 FLAT | 1 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

## KIT - MAST - Z8094005

**Uses a standard single reel.
For use with no printer
or with the 894C printer.
See page 7.35 and 7.36.**

## KIT - MAST - TURRET Z8094006

**Uses the optional turret kit.
For use with no printer
or with the 894C printer.
See page 7.34 - 7.36.**

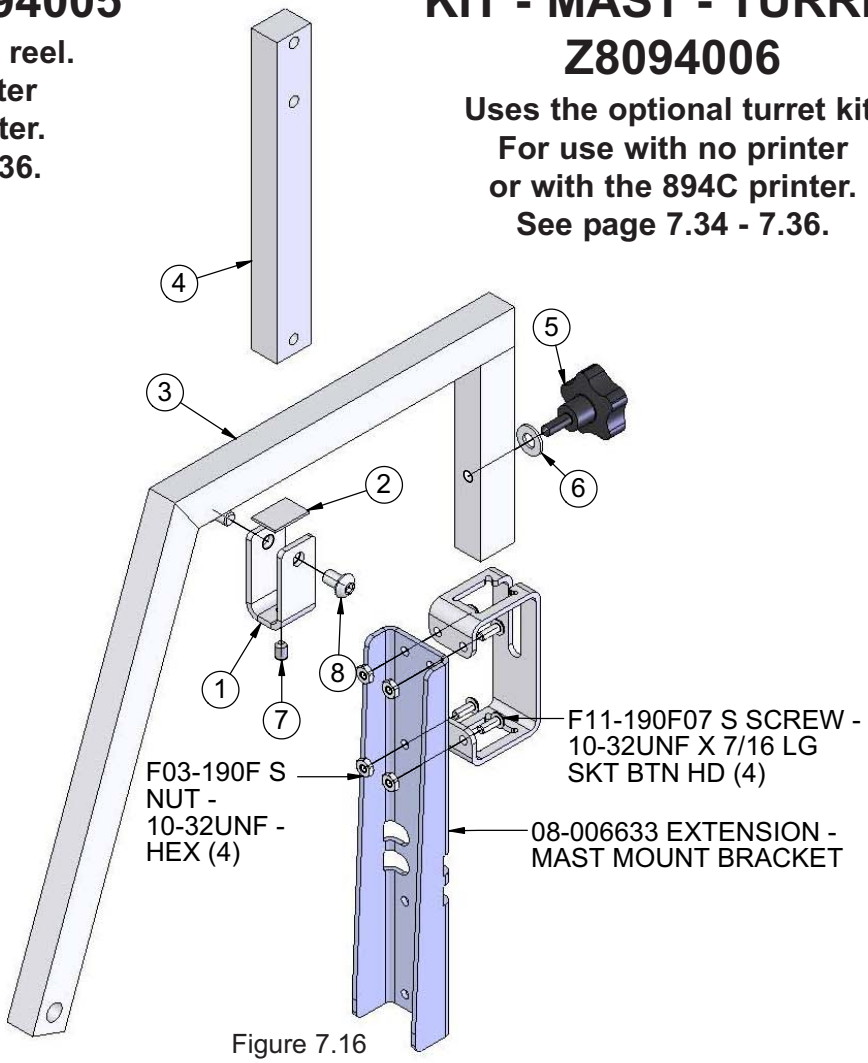



Figure 7.16

### PARTS LIST

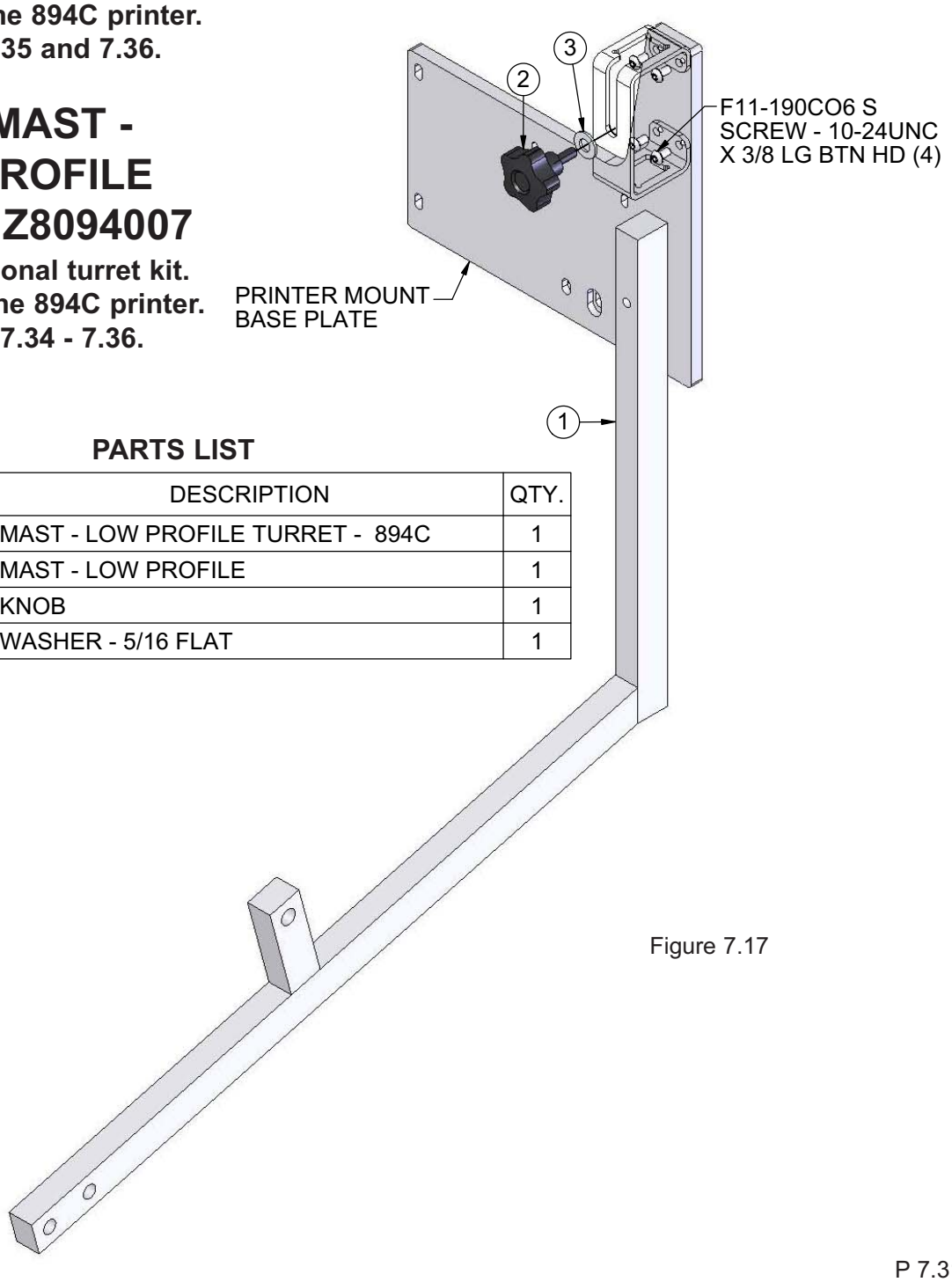
| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 08-005500 | CLAMP - MAST | 1 |
| 2 | 08-005501 | PLATE - MAST CLAMP | 1 |
| 3 | 08-006032 | BAR - MAST ROLLER | 1 |
| 4 | 08-006033 | MAST - REEL | 1 |
| | 08-006034 | MAST - TURRET | 1 |
| 5 | P17-00127 | KNOB | 1 |
| 6 | F01-312 | WASHER - 5/16 FLAT | 1 |
| 7 | F06-250C06 | SCREW - 1/4-20UNC X 3/8 LG SKT SET | 1 |
| 8 | F11-312C08 | SCREW - 5/16-18UNC X 1/2 LG SKT BTN HD | 2 |

# KIT - MAST - LOW PROFILE Z8065190

**Uses a standard single reel.**
**For use with the 894C printer.**
**See page 7.35 and 7.36.**

# KIT - MAST - LOW PROFILE TURRET Z8094007

**Uses the optional turret kit.**
**For use with the 894C printer.**
**See page 7.34 - 7.36.**




**PARTS LIST**

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|---|---|---|---|
| 1 | 08-006031 | MAST - LOW PROFILE TURRET - 894C | 1 |
| | 08-006039 | MAST - LOW PROFILE | 1 |
| 2 | P17-00127 | KNOB | 1 |
| 3 | F01-312 | WASHER - 5/16 FLAT | 1 |

Figure 7.17

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# ROLLER UNCOILER

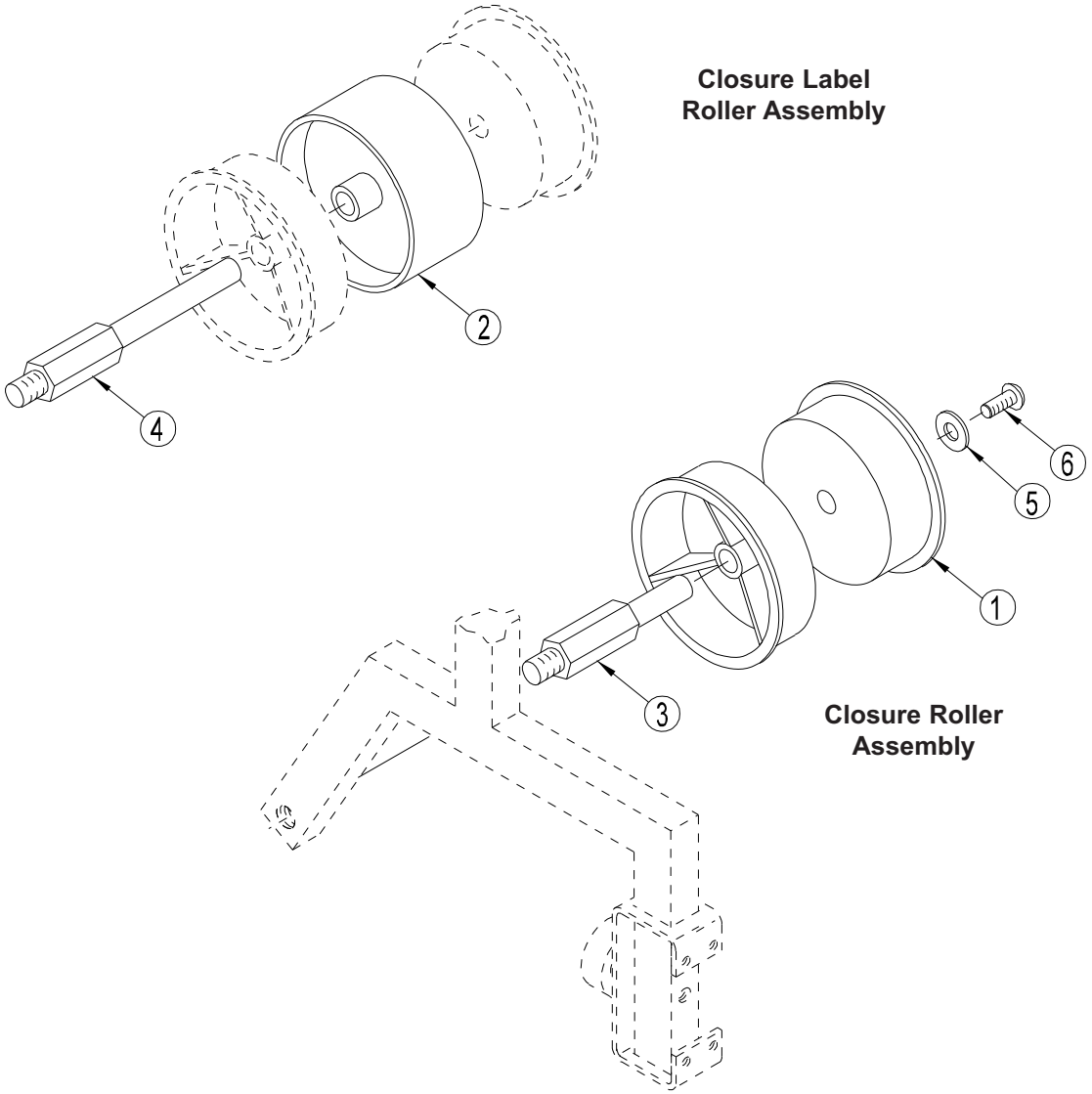



Figure 7.19

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004705 | Roller - Lok Guide | 2 |
| 2 | 08-004706 | Roller - Center - Lok Guide Closure Labels | 1 |
| 3 | 08-004707 | Shaft - Lok Roller Closures Only | 1 |
| 4 | 08-004708 | Shaft - Lok Roller Closures / Closure Labels | 1 |
| 5 | 0W-002 | Washer | 1 |
| 6 | F11-250F06 | Screw - 1/4-28UNF x 3/8 Lg Skt Btn Hd | 1 |

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.



## TURRET KIT

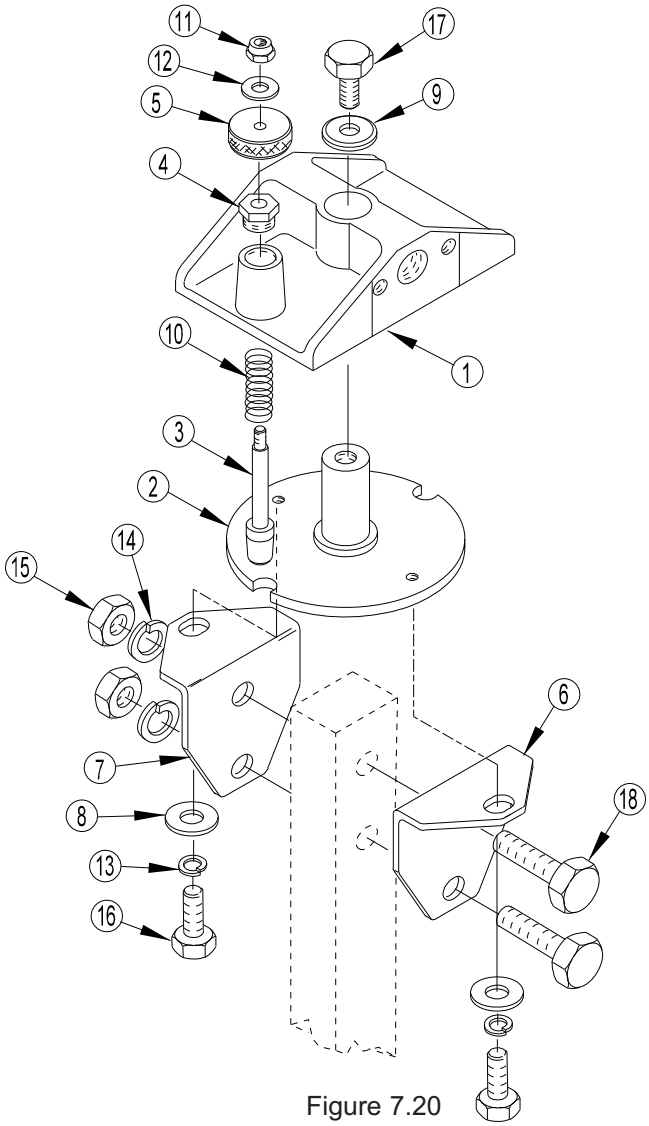



Figure 7.20

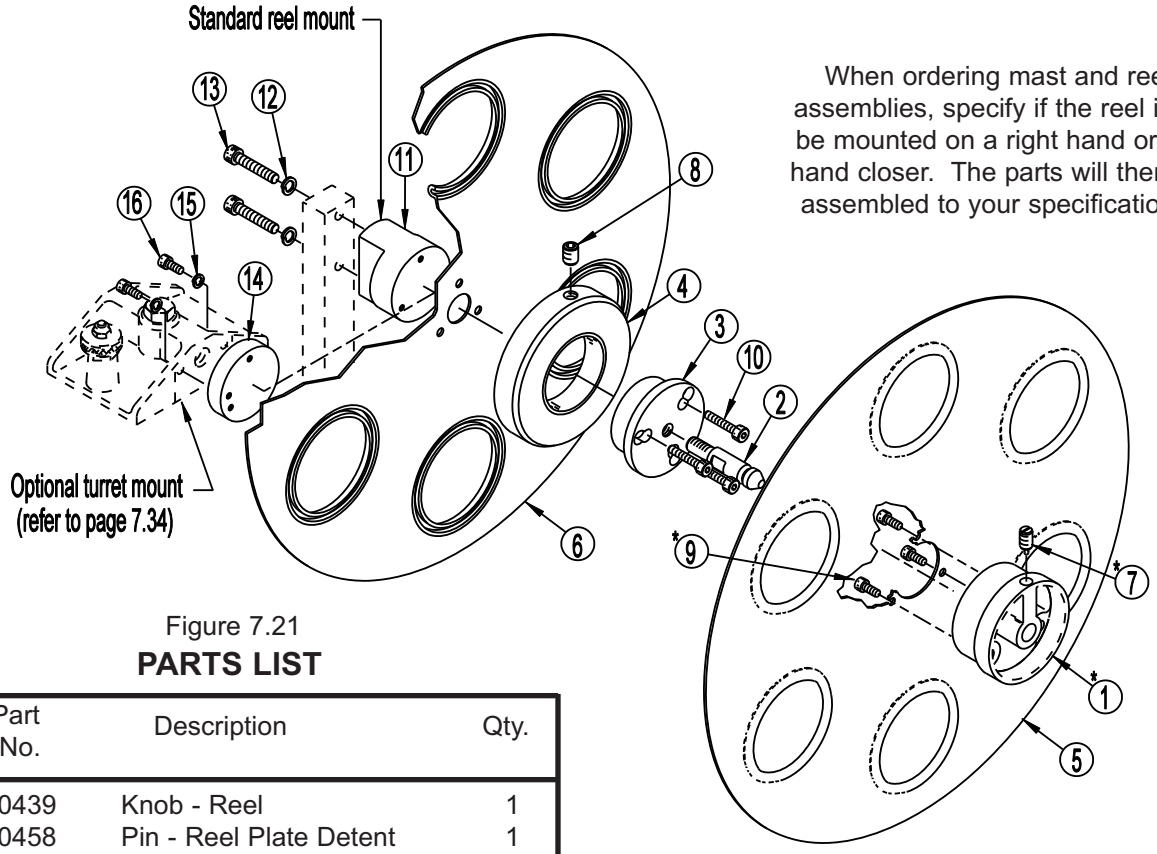
### PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-000746 | Plate - Reel Mounting - Turret | 1 |
| 2 | 08-001067 | Mount - Turret | 1 |
| *3 | 08-001445 | Pin - Turret Lock | 1 |
| *4 | 08-001446 | Bushing - Turret Lock Pin | 1 |
| *5 | 08-001447 | Knob - Turret Lock Pin | 1 |
| 6 | 08-004567 | Bracket - Turret Mount Short | 1 |
| 7 | 08-004568 | Bracket - Turret Mount Long | 1 |
| 8 | 0W-002 | Washer - 1/4 Flat | 2 |
| 9 | 0W-004 | Washer | 1 |
| *10 | 0S-045 | Spring | 1 |
| *11 | P23-00061 | Nut - 10-32UNF - Esna - Hex | 1 |
| *12 | F01-190 S | Washer - No 10 Flat | 1 |
| 13 | F02-250 | Washer - 1/4 Lock | 2 |
| 14 | F02-375 | Washer - 3/8 Lock | 2 |
| 15 | F03-375F | Nut - 3/8-24UNF - Hx | 2 |
| 16 | F13-250F08 | Screw - 1/4-28UNF x 1/2 Lg Hx Hd | 2 |
| 17 | F13-375F08 | Screw - 3/8-24UNF x 1/2 Lg Hx Hd | 1 |
| 18 | F13-375F24 | Screw - 3/8-24UNF x 1 1/2 Lg Hx Hd | 2 |

*These items make up Kit - Turret Knob Z80040111 and may be ordered as such.

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# REEL ASSEMBLIES




When ordering mast and reel assemblies, specify if the reel is to be mounted on a right hand or left hand closer. The parts will then be assembled to your specifications.

Figure 7.21

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| *1 | 08-000439 | Knob - Reel | 1 |
| 2 | 08-000458 | Pin - Reel Plate Detent | 1 |
| 3 | 08-001698 | Hub - Reel Bearing Model J-NRP or K-NRP | 1 |
| | 08-003058 | Hub - Reel Bearing Model JM-NRP or KM57-NRP | 1 |
| | 08-001713 | Hub - Reel Bearing Model JW-NRP, KW-NRP, Z-NRP or Z90-NRP | 1 |
| 4 | 08-001699 | Bearing - Reel Hub Model J-NRP or K-NRP | 1 |
| | 08-003059 | Bearing - Reel Hub Model JM-NRP or KM57-NRP | 1 |
| | 08-001710 | Bearing - Reel Hub Model JW-NRP, KW-NRP, Z-NRP or Z90-NRP | 1 |
| 5 | 08-003980 | Plate - Front Reel | 1 |
| 6 | 08-003981 | Plate - Rear Reel | 1 |
| *7 | P17-00017 | Plunger | 1 |
| 8 | P17-00038 | Plunger | 1 |
| *9 | F10-190C06 S | Screw - 10-24UNC x 3/8 Lg Skt Hd Cap | 3 |
| 10 | F10-190C14 S | Screw - 10-24UNC x 7/8 Lg Skt Hd Cap - Model J-NRP and K-NRP | 3 |
| | F10-190C28 S | Screw - 10-24UNC x 1 3/4 Lg Skt Hd Cap - Model JM-NRP and KM57-NRP | 3 |
| | F10-190C32 S | Screw - 10-24UNC x 2 Lg Skt Hd Cap - Model JW-NRP, KW-NRP, Z-NRP, Z-90-NRP | 3 |
| 11 | 08-004162 | Spacer - Reel Mount (standard) | 1 |
| 12 | F02-250 | Washer - 1/4 Lock | 2 |
| 13 | F10-250C20 | Screw - 1/4-20UNC x 1 1/4 Lg Skt Hd Cap | 2 |
| 14 | 08-004569 | Spacer - Reel Mount (optional with turret) | 1 |
| 15 | F02-190 S | Washer - No 10 Lock | 2 |
| 16 | F10-190C08 S | Screw - 10-24UNC x 1/2 Lg Skt Hd Cap | 2 |

* These items make up Kit - Knob Assembly - Z8004020 and may be ordered as such.

# LABEL CASSETTE REEL ASSEMBLIES

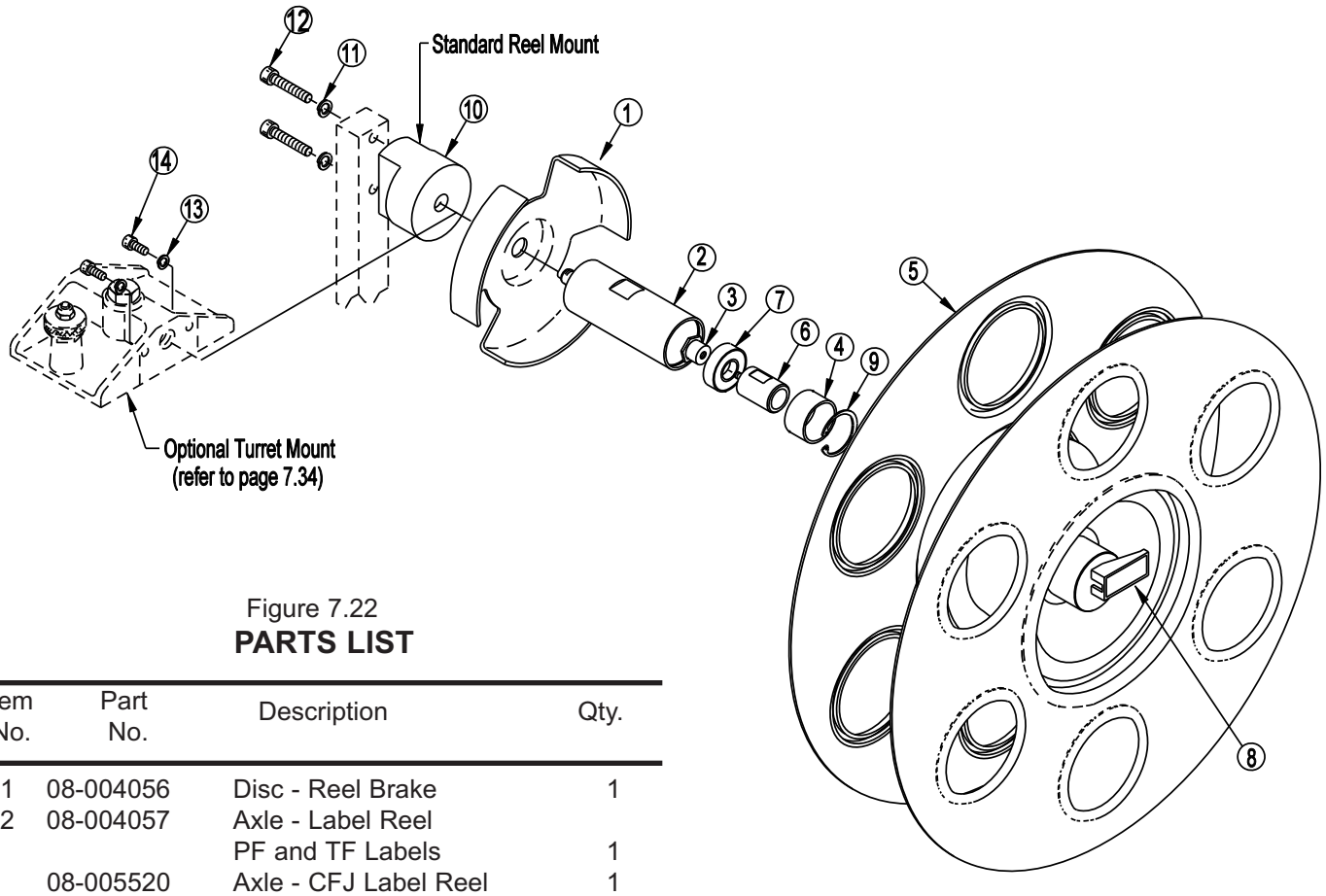



Figure 7.22

**PARTS LIST**

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004056 | Disc - Reel Brake | 1 |
| 2 | 08-004057 | Axle - Label Reel PF and TF Labels | 1 |
| | 08-005520 | Axle - CFJ Label Reel | 1 |
| | 08-005631 | Axle - M Label Reel | 1 |
| 3 | 08-004058 | Shaft - Reel Latch Bearing | 1 |
| 4 | 08-004059 | Bushing - Reel Bearing | 1 |
| 5 | 08-005386 | Reel - PF or TF Labels | 1 |
| | 08-005429 | Reel - PFM, TFM, TFZ Labels | 1 |
| | 08-005521 | Reel - CFJ Label | 1 |
| | 08-005630 | Reel - M Label | 1 |
| 6 | 08-004872 | Hub - Latch Mounting | 1 |
| 7 | P02-00031 | Bearing | 1 |
| *8 | P17-00082 | Latch | 3 |
| 9 | P27-00068 | Ring - Retaining | 1 |
| 10 | 08-004266 | Spacer - Label Reel (standard) | 1 |
| | 08-005632 | Spacer - M Reel Mount | 1 |
| 11 | F02-250 | Washer - 1/4 Lock | 2 |
| 12 | F10-250C20 | Screw - 1/4-20UNC x 1 1/4 Lg Skt Hd Cap | 2 |
| 13 | F02-190S | Washer - No 10 Lock | 2 |
| 14 | F10-190C08 S | Screw - 10-24UNC x 1/2 Lg Skt Hd Cap | 2 |

* Three latches are included with item 5. Latches can be ordered separately. Refer to item 8, this page.

**WARNING: DO NOT ORDER BY ITEM NUMBER.**
Be sure to order by Part Number and Description. Please list the Serial Number of the machine for which parts are ordered.

# 865 CLOSER NOSE GUARDS

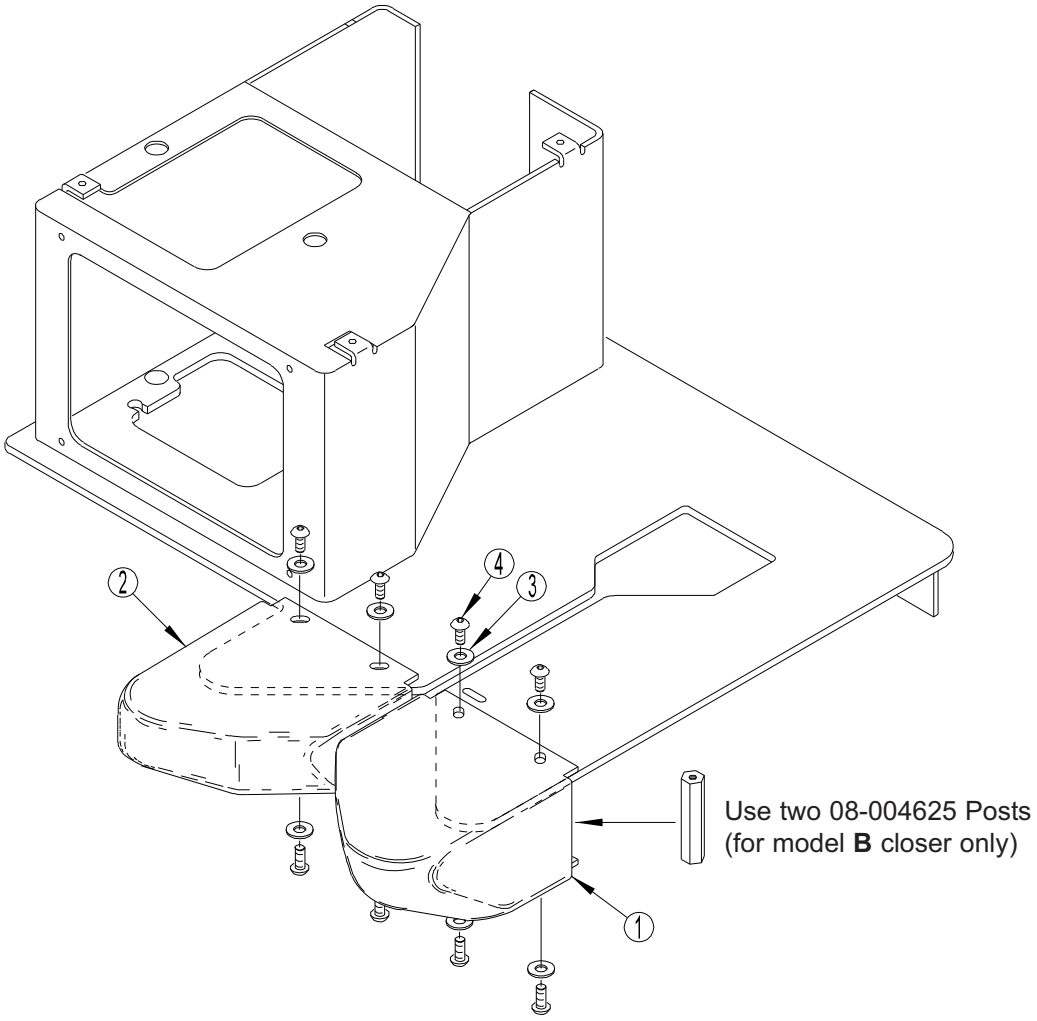



Figure 7.23

## PARTS LIST

| Item No. | Part No. | Description | Qty. |
|---|---|---|---|
| 1 | 08-004557 R | Guard - Nose - Standard (right-hand side) | 1 |
| | 08-005468 R | Guard - Nose - Model G (right-hand machine) | 1 |
| 2 | 08-004557 L | Guard - Nose - Standard (left-hand side) | 1 |
| | 08-005468 L | Guard - Nose - Model G (left-hand machine) | 1 |
| 3 | F01-190 S | Washer - No 10 Flat | 8 |
| 4 | F11-190F05 S | Screw - 10 - 32UNF x 5/16 Lg Skt Btn Hd | 8 |

# 865A WIRING DIAGRAM
# 115VAC 230VAC DOMESTIC

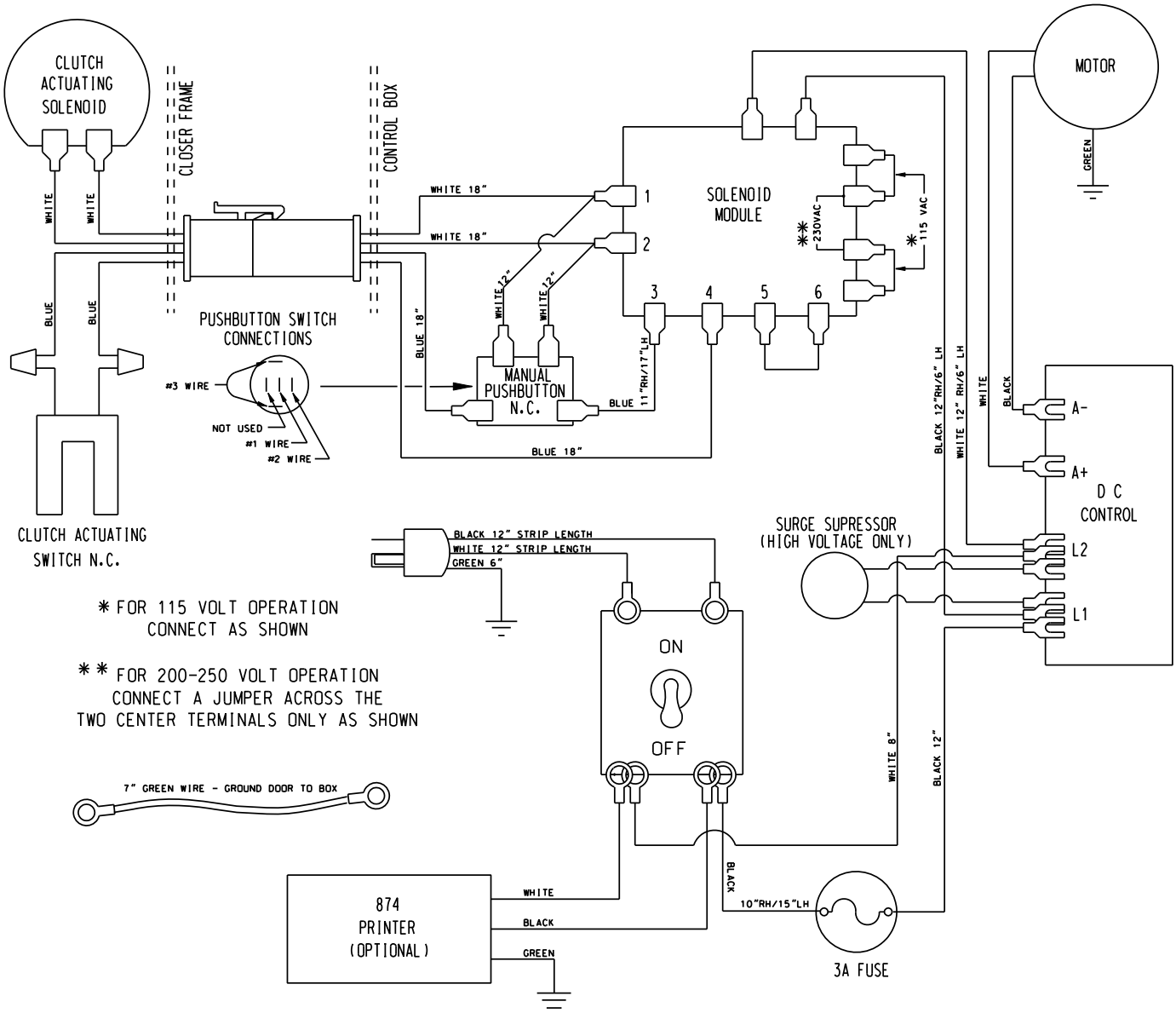



Figure 8.1

# 865A WIRING DIAGRAM
# 230VAC INTERNATIONAL

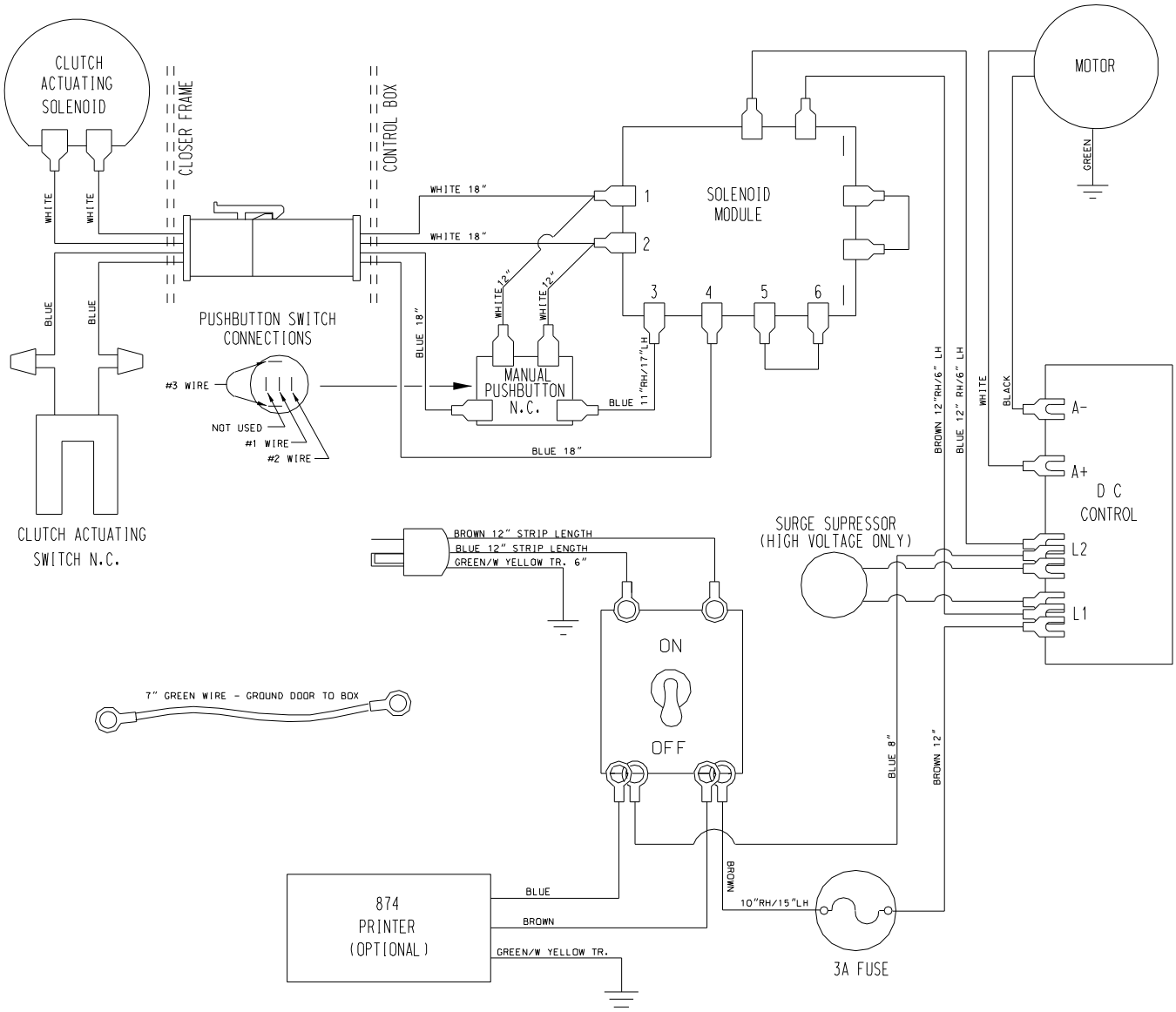
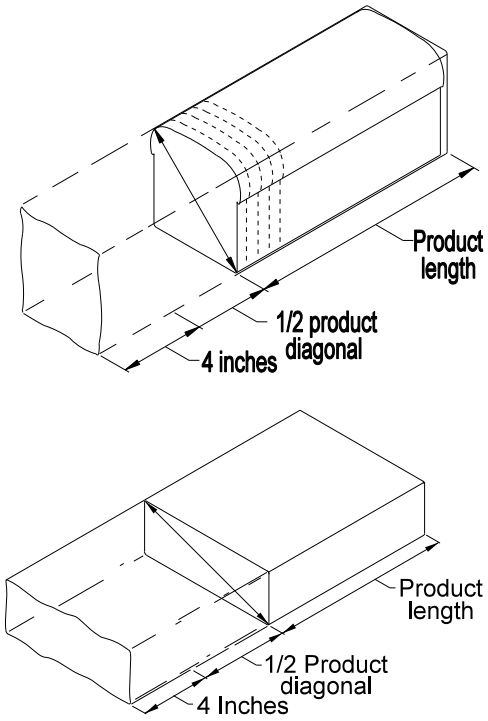



Figure 8.2

BAG LENGTH FORMULAS




TO DETERMINE THE PROPER BAG LENGTH * FOR A CONSISTENTLY SHAPED PRODUCT (E.G. Bread, Bun Clusters, Trays, English Muffins, etc.) FOLLOW THIS FORMULA:

TOTAL BAG LENGTH EQUALS LENGTH OF PRODUCT PLUS 1/2 OF THE DIAGONAL OF THE PRODUCT END PLUS 4 INCHES.

TO DETERMINE THE PROPER BAG LENGTH FOR A LOOSE BULK PRODUCT (E.G. Oranges, Potatoes, Sugar, Ice, Macaroni, etc.) FOLLOW THIS PROCEDURE:

1. Fill bag to desired weight using samples of the product to be closed.
2. Close bag with the proper Striplok closure.
3. Check length of the bag above the closure. The proper bag length allows 4" of bag above closure (not including Lip of bag).

* Normal variations in size and density of products will occur. Oranges, grapefruit and potatoes dehydrate as the season progresses; bakery products vary due to over proofing; and density of ice will change because of certain manufacturing techniques. Therefore, the above bag length formulas take into account these variations to give maximum automatic bag closing dependability.

# APPENDIX

Kwik Lok® CORPORATION
EXECUTIVE OFFICE P.O. BOX 9548 YAKIMA, WA. 98909
TELEPHONE: 1-800-688-5945 or (509) 248-4770
FAX: (509) 457-6531
Internet: www.kwiklok.com

## SUGGESTED SPARE PARTS INVENTORY FOR THE TYPE 865A CLOSER

| Part no. | Description | Qty. |
|---|---|---|
| 08-004124 * | Belt - Lower Feed | 2 |
| 08-004435 * | Roller - Gearbelt Support | 3 |
| 08-004438 * | Belt - Gear | 1 |
| 08-004597 R | Breaker Lok - (J-NRP, K-NRP) (right-hand machine) | 1 |
| 08-004597 L | Breaker - Lok (J-NRP, K-NRP) (left-hand machine) | 1 |
| 08-004565 R | Breaker - Lok (JM-NRP) (right-hand machine) | 1 |
| 08-004565 L | Breaker - Lok (JM-NRP) (left-hand machine) | 1 |
| 08-004541 R | Breaker - Lok (JW-NRP, KW-NRP) (right-hand machine) | 1 |
| 08-004541 L | Breaker - Lok (JW-NRP, KW-NRP) (left-hand machine) | 1 |
| 08-004869 R | Breaker - Lok (Z90-NRP) (right-hand machine) | 1 |
| 08-004869 L | Breaker - Lok (Z90-NRP) (left-hand machine) | 1 |
| 08-004917 R | Breaker - Lok (KM57-NRP) (right-hand machine) | 1 |
| 08-004917 L | Breaker - Lok (KM57-NRP) (left-hand machine) | 1 |
| 08-005435 R | Breaker - Lok (Z-NRP) (right-hand machine) | 1 |
| 08-005435 L | Breaker - Lok (Z-NRP) (left-hand machine) | 1 |
| P07-00121 R | Clutch - 12VDC (right-hand machine) | 1 |
| P07-00121 L | Clutch - 12VDC (left-hand machine) | 1 |
| P11-00417 * | Spring - Motor Brush | 2 |
| P11-00467 * | Brush - Motor | 2 |
| P21-00149 | Gearmotor - Bodine Right Angle | 1 |
| P12-00126 | Sensor - Magnetic Vane | 1 |
| P10-00058 | Control - DC Motor | 1 |
| P11-00415 * | Fuse | 5 |
| P23-00220 S | Nut - 10-32UNF - ESNA (low profile) | 2 |
| P27-00018 | Ring - Retaining (for Clutch Shaft) | 1 |
| 0S-043 | Spring | 1 |
| 0S-006 * | Spring | 1 |
| 0S-012 * | Spring (yellow in color) | 1 |
| 0S-018 | Spring | 1 |
| 0S-054 | Spring | 1 |
| 0S-079 | Spring | 1 |
| 08-004154 | Mount - Breakoff Link | 2 |
| P02-00095 * | Bearing | 2 |
| P03-00111 | Belt - Gear - Model J-NRP, K-NRP, JM-NRP, KM57-NRP, JW-NRP, KW-NRP | 1 |
| P03-00113 * | Belt - Gear - Model J-NRP, K-NRP, JW-NRP, KW-NRP, JM-NRP, KM57-NRP | 1 |
| P03-00129 | Belt - Gear - Model Z-NRP, Z90-NRP | 1 |
| P03-00130 | Belt - Gear - Model Z-NRP, Z90-NRP | 1 |
| P03-00133 | Belt - Lower Gear - Model “G” only | 1 |
| P10-00023 | Solenoid Module | 1 |
| Z8072039 ** | Tester - Solenoid Module | 1 |

# APPENDIX

Underlined Part Numbers Indicate Suggested Minimum Inventory.

* These items are contained in the Z8065086 Spare Parts Kit an may be ordered as such.

** The Z8072039 Solenoid Module Tester is used to test the P10-00023 Solenoid Module. One tester can be used for all equipment utilizing the P10-00023 Solenoid Module. Only one tester is suggested per plant.

**NOTE:** Specify on the order the TYPE, MODEL, and SERIAL NUMBER of the machine for which the parts are ordered. This information will be found on the machine's nameplate.

**CONTACT THE FACTORY FOR CURRENT PRICES.**

**Kwik Lok**
**WARRANTY POLICY**

Seller warrants that the equipment shall be free of defective workmanship or materials. Its obligation under this warranty to consist exclusively of repairing or replacing, free of charge f. o. b. its factory, any parts received at its factory within two years from the date of shipment of the respective equipment or parts alleged to be defective and determined by Seller upon inspection to be defective.

No other warranty, expressed or implied, as to description, quality, merchantability, fitness for a particular purpose or any other matter is given by Seller in connection with this sale. Under no circumstances shall Seller be liable for loss or profits or other consequential damages, or for any other direct or indirect costs, expenses, equipment or any part thereof. Neither shall the Seller be liable for any defects attributable to the use of any parts, supplies or service not manufactured, supplied or provided by the Seller.

Electric motors, controls and electronic components carry a one year warranty in which these items will be repaired or replaced and returned to the Buyer at no charge if the manufacturer determines the equipment to be defective in workmanship and / or materials. The disassembly of motors, gear-motors and clutches will void the aforementioned warranty.

# APPENDIX

## KWIK LOK CORPORATION
## RETURNED MATERIALS AUTHORIZATION POLICY AND PROCEDURES

Prior to any products being returned, a **Return Materials Authorization** (RMA) must be obtained from *Kwik Lok Corporation*. The RMA number must be issued from the facility that the parts were originally invoiced from. Contact *Kwik Lok Corporation* requesting authorization, and an RMA number will be granted for parts initially deemed returnable.

1. Parts returned without an RMA number will be refused and returned at the shipper's expense.

2. The RMA number must be clearly marked on the return carton.

3. All returned parts must be clearly marked with the appropriate *Kwik Lok Corporation* part number.

4. Proof of purchase (*Kwik Lok Corporation* invoice number) must be provided with all returns.

5. Return for credit will not be allowed if it has been more than 120 days after the original invoice date.

6. Credit will not be issued for parts returned in excess of, or not listed on the prior approved RMA.

7. An RMA will not be issued for parts deemed obsolete, special order, non-returnable and non-cancelable items.

8. All packages must be returned freight prepaid, unless collect freight was approved at the time the RMA was issued.

9. All risks of loss and/or damage of goods in transit are the responsibility of the customer.

10. Incorrect parts shipped due to *Kwik Lok Corporation's* error are returnable, transportation collect.

11. Parts rejected by the customer due to a valid quality problem are returnable, transportation collect, for full credit or replacement under the product warranty. Refer to *Kwik Lok Corporation's* warranty policy.

12. All returns are subject to inspection so as to determine the usability of the parts. Upon completion of the inspection, K*wik Lok Corporation* will notify the customer (within 15 days) of the results.

    a. If the parts are determined ineligible for credit or replacement, the customer may elect to have the item(s) returned, freight collect, or discarded by *Kwik Lok Corporation* and credit will not be issued.

    b. If the parts are determined eligible for credit, it will be issued in the amount of the *Kwik Lok Corporaton* invoice less a 20% restocking charge.