WARNING!

G5 Stitcher Heads

Machine operators and others in the work area should always wear safety glasses to prevent serious eye injury from fasteners and flying debris when loading, operating, or unloading the stitcher machine.

Do not operate this stitcher head without all stitcher machine guards in place. Do not modify the guards in any way. Always disconnect the power supply before removing any guards for servicing.

Never operate the machine with wire feeding through the head unless there is stock above the clinchers, otherwise serious damage may result.

Always turn power off when making adjustments. Always disconnect the power cord before any disassembly work.





Table of Contents

| Safety Warning1 | | | | |
|-----------------|--|--|--|--|
| Specificatio | Specifications | | | |
| Installation | 5 | | | |
| | Pre-Inspection5 | | | |
| | Inspection5 | | | |
| | Assembly6 | | | |
| | Mounting7 | | | |
| Operation | | | | |
| | Wire Threading8 | | | |
| | Wire Straightening8 | | | |
| | Adjustments and Settings9 | | | |
| Maintenance | | | | |
| | Lubrication11 | | | |
| | Ordering Spare Parts14 | | | |
| Troubleshooting | | | | |
| | Formed Staple Chart 16-17 | | | |
| Appendices | | | | |
| | Assembly Drawings with | | | |
| | Part Number/Description Cross Reference/Qty18-28 | | | |
| Parts Index | | | | |
| Registration | n Card | | | |
| Warranty In | formation | | | |

Weight

Shipping Weight 8.0 lbs... (3.6 kg)

Physical Dimensions

| Height | 10-3/4 (26.3 c m) |
|--------|-------------------|
| Width | |

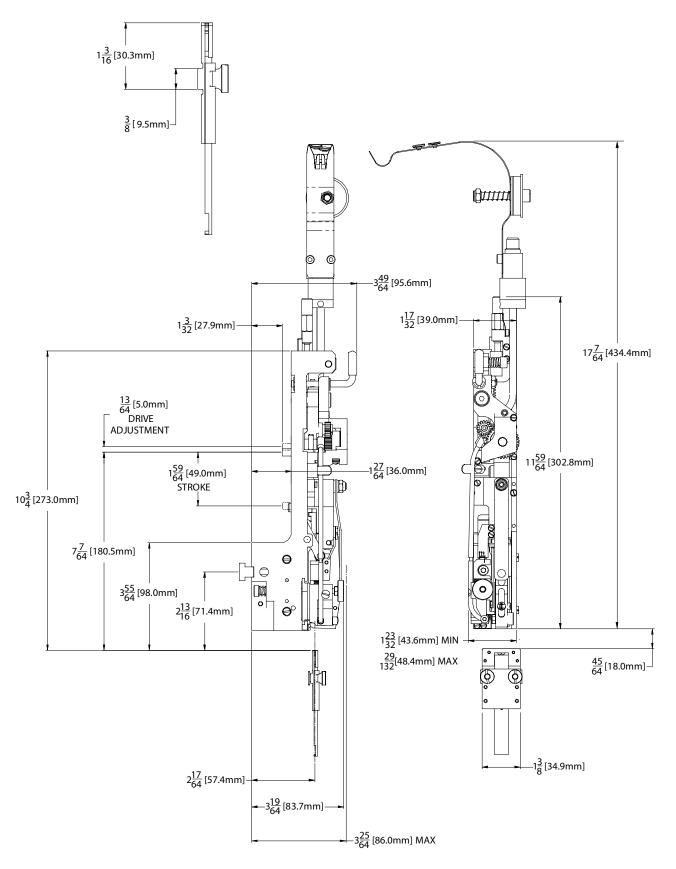
Stitching Capacity Two Sheets to 5 mm. (3/16")

| Wire Type | |
|-----------|--|
| | |

Minimum Head Center

Stitches Per Hour 10,000 max.

| Replacement for: | DeLuxe Stitcher 26/26D heads as well |
|------------------|---|
| | as Hohner 43/6, 48/5, 52/8 and 55/7 heads |
| | and Acme, Champion, Interlake, ISP and |
| | Magnatek heads |



Installation

Contents

- G5 Watkiss Edition Manual
- Bag of Tools with 2.0 mm, 3.0 mm & 7.0mm Open End Wrenches
- T-Handle Hex Head Wrench 4 mm
- Head Mounting Key
- Clincher Plate, Points, Slide, Nuts & Studs
- Clincher Alignment Gauge
- Wire Guide Spring and Wire Anti-Backup Unit
- Manual Feed Gear Tool
- Stitch Samples

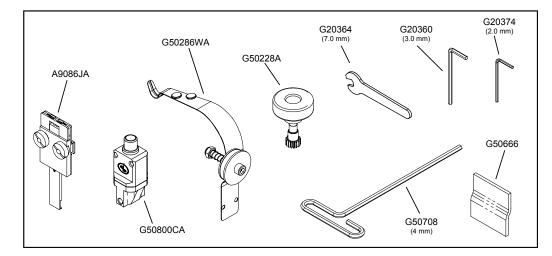
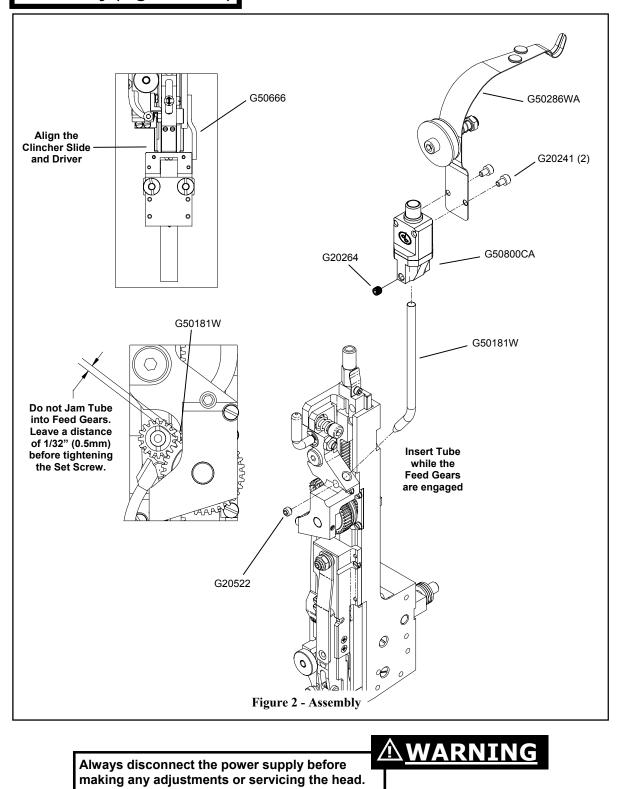
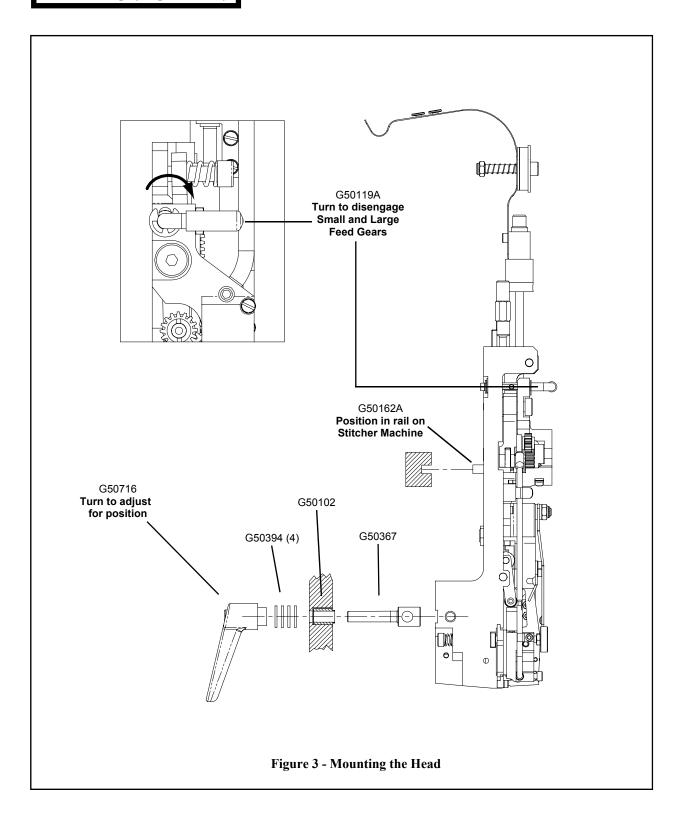


Figure 1 - Parts Package Contents

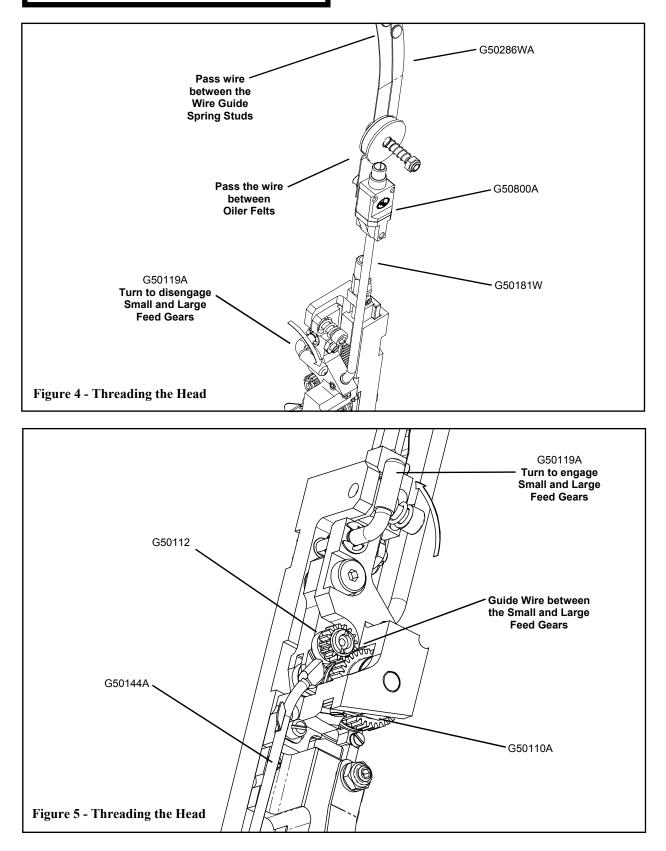
Assembly (Figures 2 - 4)



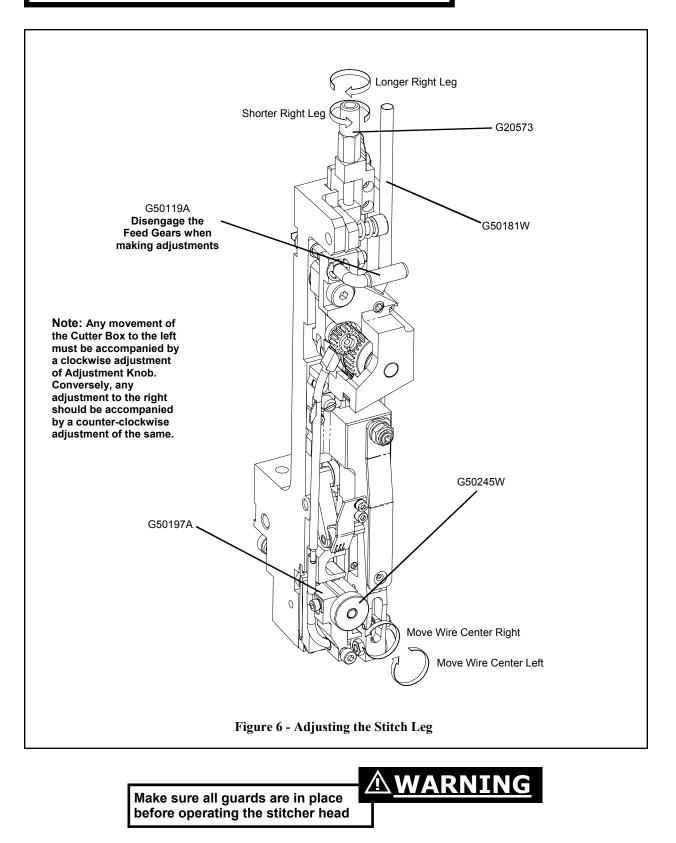
Mounting (Figures 3)



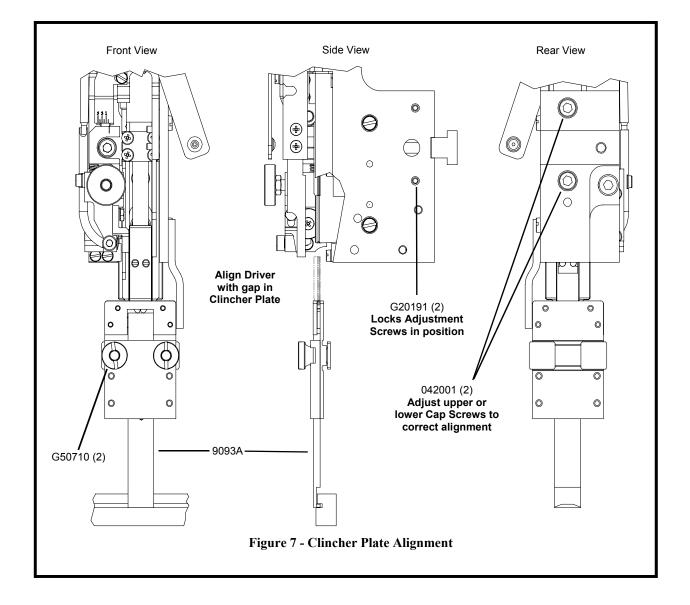
Wire Threading (Figures 4 & 5)



Adjust the Length of the Stitch Leg (Figure 6)



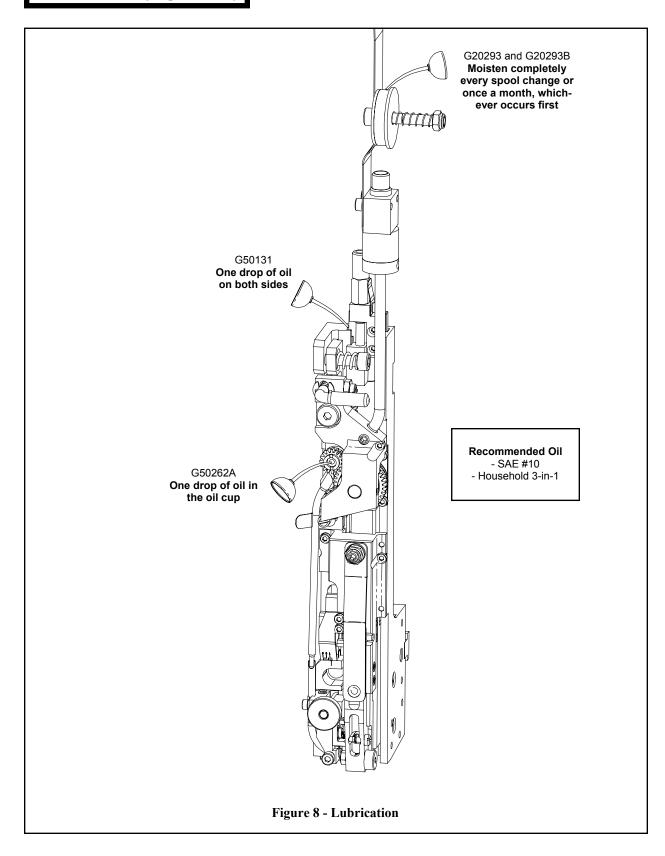
Aligning the Clincher Plate (Figure 7)



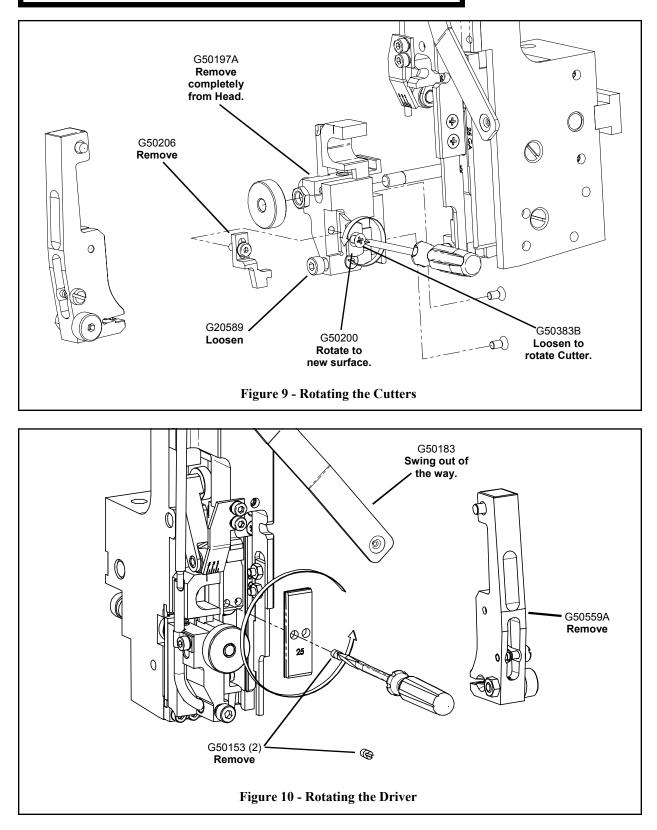
Always disconnect the power supply before making any adjustments or servicing the head.



Lubrication (Figures 8)



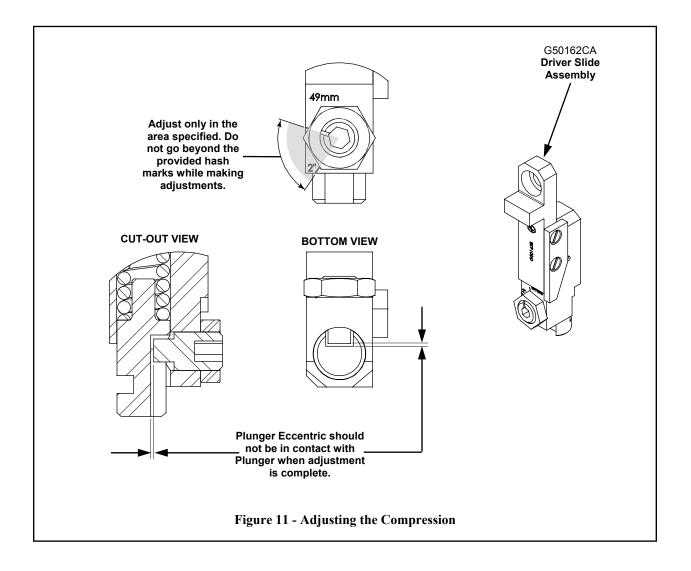
Rotating Replacement Parts (Figures 9 & 10)



Compression Adjustment (Figure 11)

<u> MARNING</u>

Compression is set at the factory and should not need any adjustments beyond what is stated below.



Ordering Spare Parts

In time, you will need to replace some parts in your G5 style Stitcher Head. When this happens, first locate the needed part in one of the following diagrams. Then locate the DeLuxe Stitcher part number and contact your Graphic Arts Representative to order the part by the part number, description and quantity.



Routine cleaning is important for the maintenance of your G5 Head. Blow off dust, dirt and build-up with compressed air at every Spool changes, including:

• Large Feed Gear Assembly (G50110A):

Remove and wash in a petroleum-based, oil-dissolving solvent, dry and repack the Feed Gear with any general Lithium-based light weight Grease.

• Anywhere that dust, oil, pieces of wire and/or paper have built up: For example, around the Clincher Points and by the Forming Pin Cam (G50117). Remove the Wire Holder and blow clean with pressurized air.

The Head should be refurbished every one million stitches.



The quality and quantity of work that can be produced with the G5 Stitching Head is dependent upon the operator making all adjustments as accurately as possible and carefully maintaining the head. The cause of staple imperfections usually can be traced to inaccurate settings or normal wear of moving parts. In the event of trouble of this nature occurring, the operator can, by referring to the following troubleshooting chart, quickly locate and remedy the cause or causes of the trouble.

The following is a brief list of problems and possible solutions which should cover the majority of situations encountered when stitching with the G5 style Stitching Heads.

Troubleshooting (Figure 22)

| _ | |
|---|--|
| | |
| 1 | |
| | |
| | |

PROBLEM: Leg[s] Buckled

SOLUTION: If the ends of an unformed piece of wire are not smooth, the Wire Cutters are worn. Check for wear and rotate or replace if needed. Make sure the Cutters are aligned properly. Make sure the correct wire size is being used and that the wire is straight.



PROBLEM: Corner Buckled

SOLUTION: Check the Driver for a chipped corner and rotate or replace it if needed. Align the Wire Holder. Straighten wire. Check the tensile strength of the wire or use thicker wire.



PROBLEM: Clinch Too Loose

SOLUTION: The Clincher Points are too low and need adjusting. The compression of the stitcher machine is insufficient and needs to be increased. The eccentric on the Driving Slide Assembly needs to be adjusted.



PROBLEM: Left Leg Too Short / Right Leg Too Long **SOLUTION:** Adjust the position of the Cutter Block Assembly by moving it away from the Head.



PROBLEM: Left Leg Too Long / Right Leg Too Short **SOLUTION:** Adjust the position of the Cutter Block Assembly by moving it towards the Head.

| <u> </u> | |
|----------|--|
| | |

PROBLEM: Staple Legs Too Long or Too Short **SOLUTION:** Correct the overall wire draw by adjusting the Feed Rack Adjustment Knob.

PROBLEM: Legs are Spread or Contracted **SOLUTION:** Straighten the wire. Replace worn Bender Bars.

PROBLEM: Legs Stray Forward or Backward Consistently **SOLUTION:** The Clincher Points are not aligned properly front to back. Straighten the wire.

PROBLEM: Stitch Stray Randomly In and Out and Front to Back **SOLUTION:** Straighten the wire. Make sure the Cutters are aligned properly. Check the tensile strength of the wire or use thicker wire.

PROBLEM: Weak crown, crown breaks off after stitch **SOLUTION:** Align the Wire Holder with the grooves in the Bender Bar. Check the tensile strength and size of the wire being used.



PROBLEM: Wire jam

SOLUTION: Be sure the Cutter Operating Lever moves freely. Add oil to Pivot Pin if necessary. Readjust Fixed Wire Cutter. Make sure cutters are sharp. Inspect and rotate as required.

NO STITCH MADE

PROBLEM: No wire being drawn

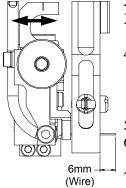
SOLUTION: Make sure the Feed Release Cam is turned to the "on" position and the Feed Gears engaged.

NO STITCH MADE

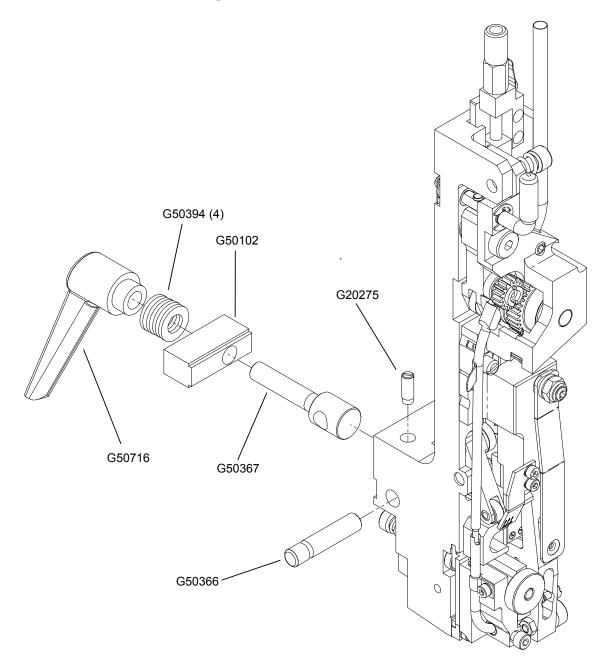
PROBLEM: Dropped stitches

SOLUTION: (Refer to illustration at the left and Fig. 6)

- 1. Pull the Wire Holder away from the Head to remove any wire that may already be loaded.
- 2. Move the Cutter Box all the way to the right.
- 3. With the Feed Gears engaged, cycle the machine, then pull the Wire Holder out away from the Head to remove the wire.
- 4. Cycle the machine again and measure the length of wire protruding past the right side of the Wire Holder. This length should be 6mm. If the length is not 6mm, then increase or decrease the wire draw with the Adjustment Knob [G20245W].
- 5. Pull the Wire Holder out away from the Head to remove the wire.
- 6. Repeat the previous 2 steps until the wire protrudes 6mm past the Wire Holder.
- 7. Refer to Fig. 6 to adjust the location and size of the gap.



Head Mounting

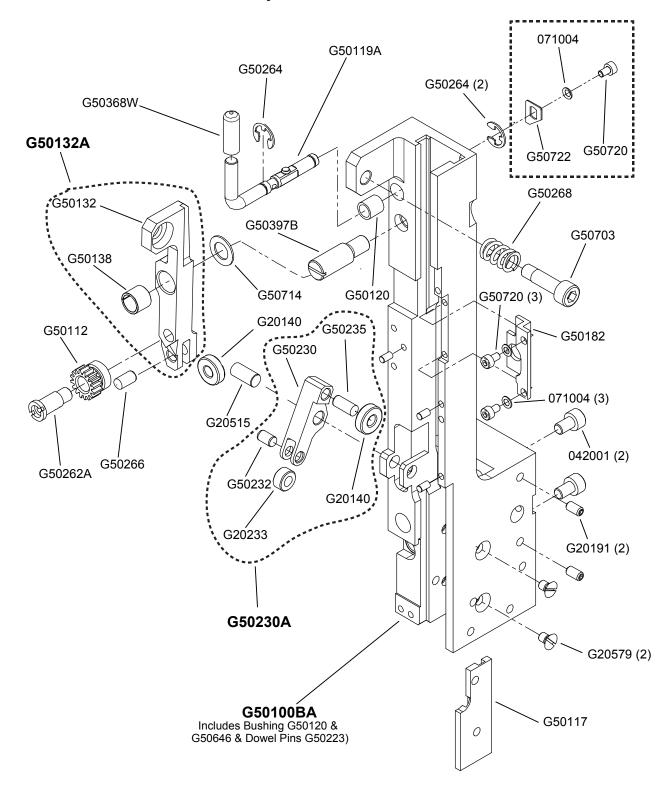


Part Number / Description Cross-Reference / QTY

Assembly Parts

| G20275 | Ball Spring Plunger | 1 |
|--------|------------------------|---|
| G50102 | Mounting Block - Keyed | 1 |
| G50366 | Bonnet Clamp Pin | 1 |
| G50367 | Head Mounting Bolt, M8 | 1 |
| G50394 | Flat Washer M8 | 4 |
| G50716 | Mounting Block Handle | 1 |

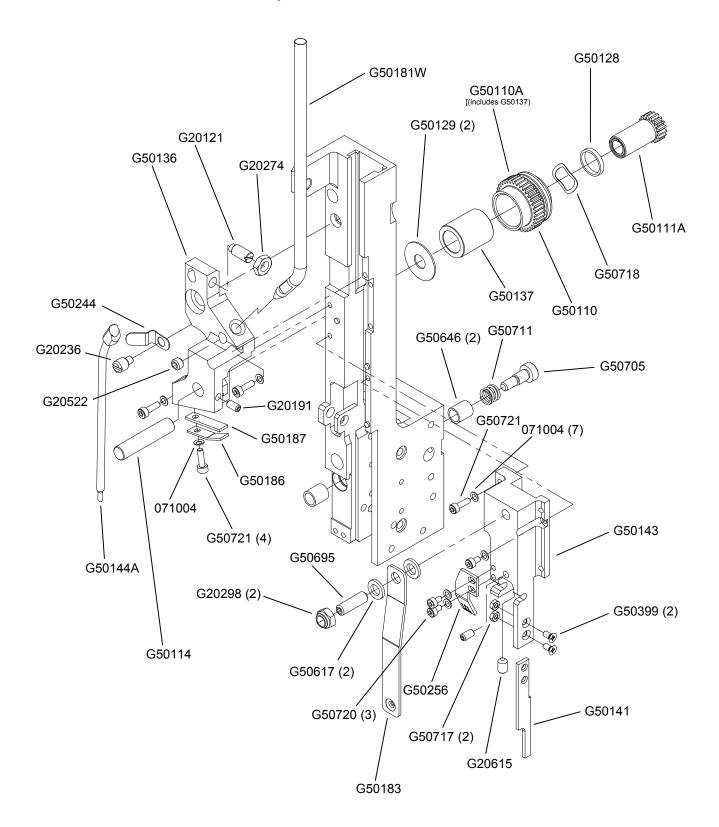
Bonnet—Sub-Assembly #1



Bonnet-Sub Assembly #1 Parts

| 042001 | Screw M5x0.8x8 | 2 |
|----------|----------------------------------|---|
| 071004 | Lock Washer Ribbed | 3 |
| G20140 | Follower ball bearing | 1 |
| G20191 | Screw M4x0.7x8 | 2 |
| G20515 | Dowel Pin M6x14 | 1 |
| G20579 | Screw M4x0.7x6 | 2 |
| G50100BA | Bonnet Assembly - G5 - Wide Slot | 1 |
| G50112 | Small Feed Gear | 1 |
| G50117 | Forming Pin Cam | 1 |
| G50119A | Feed Release Handle Assem. | 1 |
| G50132A | Feed Lever Assembly | 1 |
| G50182 | Feed Gear Plate | 1 |
| G50230A | Cutter Operating Lever Assem. | 1 |
| G50262A | Sm Feed Gear Shaft Assembly | 1 |
| G50264 | E-Ring 6mm | 2 |
| G50266 | Dowel M5x10 | 1 |
| G50268 | Feed Lever Spring | 1 |
| G50368W | Handle Cap - Orange | 1 |
| G50397B | Stud, G5 Feed Lever | 1 |
| G50703 | Feed Lever Spring Screw | 1 |
| G50714 | Feed Lever Spacer | 3 |
| G50720 | Screw M3 x 0.5 x 6 | 3 |
| G50722 | Feed Release Handle Stop | 1 |
| | | |

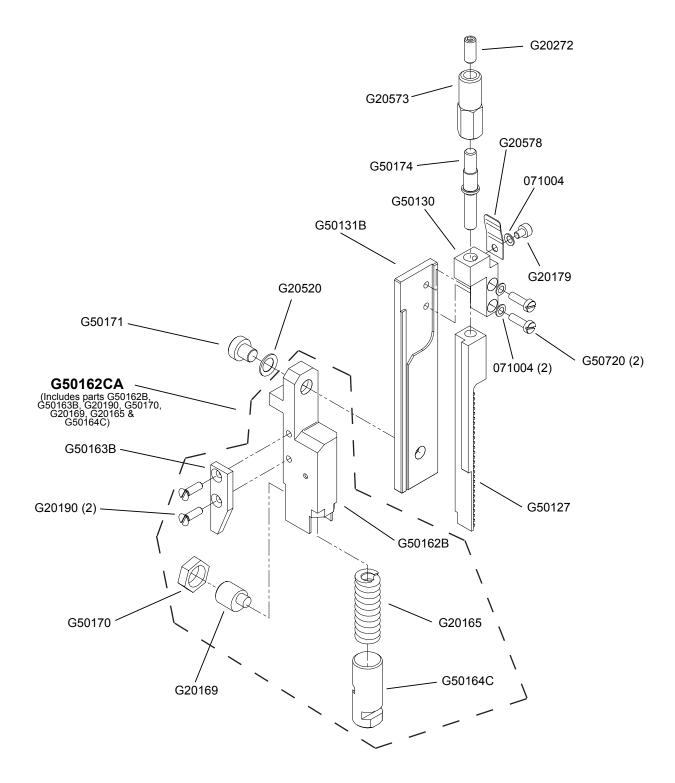
Bonnet—Sub-Assembly #2



Bonnet-Sub Assembly #2

| 071004 | Lock Washer Ribbed | 7 |
|---------|---------------------------|---|
| G20121 | Feed Release Plunger | 1 |
| G20191 | Screw M4x0.7x8 | 2 |
| G20236 | Tube Pivot Screw | 1 |
| G20274 | Hex Jam Nut, M6x1 | 1 |
| G20298 | Nylock Lock Nut, M6x1 | 2 |
| G20522 | Screw M6x1.0x5, Nylon | 1 |
| G50110A | Large Feed Gear Assembly | 1 |
| G50111A | Feed Pinion Assembly | 1 |
| G50114 | Feed Gear Pin | 1 |
| G50128 | Pinion Washer | 1 |
| G50129 | Large Feed Gear Washer | 1 |
| G50136 | Feed Gear Bracket | 1 |
| G50137 | Feed Gear Clutch | 1 |
| G50141 | Wire Guide Bar | 1 |
| G50143 | Pivot Block | 1 |
| G50144A | Middle Wire Tube Assembly | 1 |
| G50181W | Upper Wire Tube, Watkiss | 1 |
| G50183 | Retaining Spring | 1 |
| G50186 | Feed Gear Friction Spring | 1 |
| G50187 | Feed Gear Friction Pad | 1 |
| G50244 | Tube Clip | 1 |
| G50256 | Scale | 1 |
| G50399 | Screw M3x0.5x8 | 2 |
| G50617 | Wire Holder Spring Washer | 2 |
| G50646 | Eccentric Bearing | 2 |
| G50695 | Screw M6x1.0x20 | 1 |
| G50705 | Shoulder Screw M6x8 | 1 |
| G50711 | Screw Spring | 1 |
| G50717 | Hex nut m3X0.5 | 2 |
| G50718 | Feed Gear Spring | 1 |
| G50720 | Screw M3x0.5x6 | 3 |
| G50721 | Screw M3x0.5x10 | 4 |
| | | |

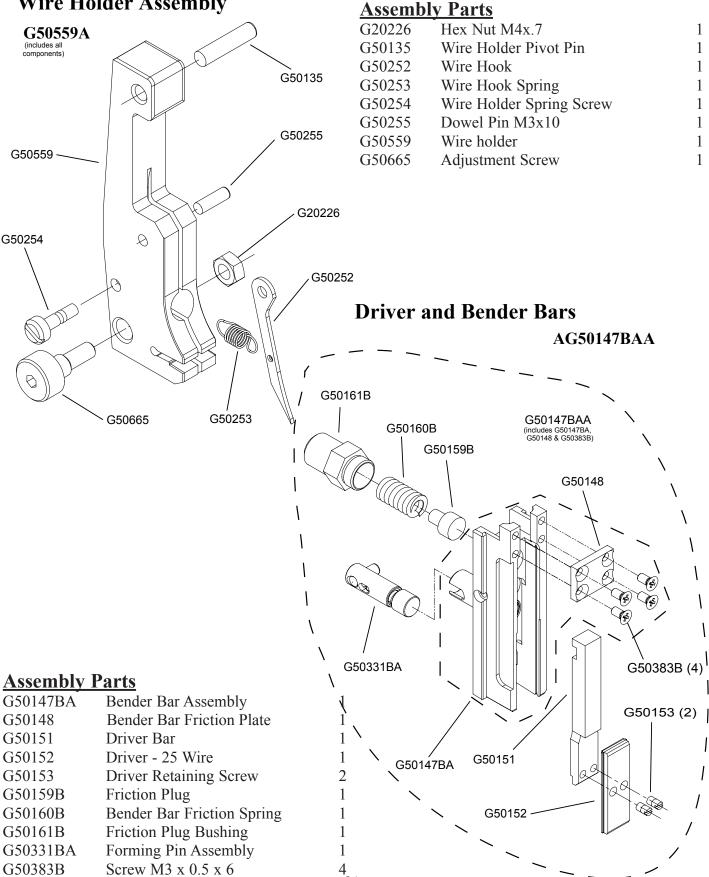
Driver and Feed Slide Assemblies



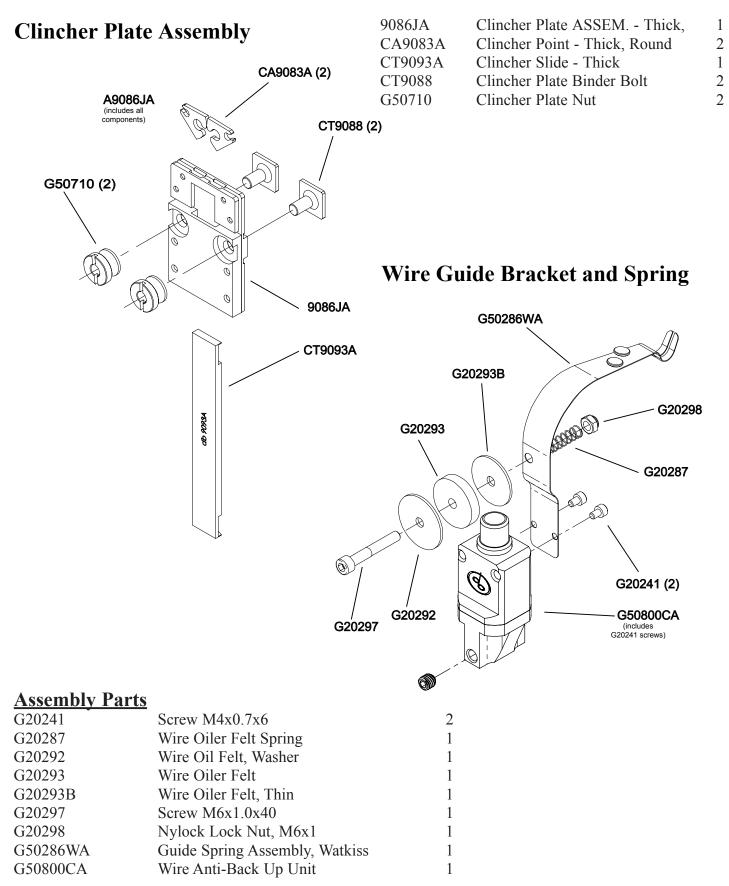
Driver And Feed Slide Assembly Parts

| 071004 | Lock Washer Ribbed | 3 |
|----------|----------------------------------|---|
| G20272 | Screw M5x0.8x12 | 1 |
| G20573 | Feed Rack Adjustment Knob | 1 |
| G20578 | Rack Adjustment Detent | 1 |
| G50174 | Feed Rack Adjustment Stud | 1 |
| G50130 | Feed Adjustment Block | 1 |
| G20179 | Screw M3x0.5x4 | 1 |
| G50131 | Feed Slide | 1 |
| G50720 | Screw M3x0.5x6 | 2 |
| G20520 | Ribbed Lock Washer M6 | 1 |
| G50171 | Screw M6x1.0x6 | 1 |
| G50162CA | Driving Slide Assembly, STANDARD | 1 |
| G20190 | Screw M3x0.5x10 | 2 |
| G50170 | Custom Hex Nut M10x1.25 | 1 |
| G50163B | Cutter Operating Cam | 1 |
| G50170 | Custom Hex Nut M10x1.25 | 1 |
| G50169 | Driving Slide Plunger Ecc. | 1 |
| G50164C | Plunger | 1 |

Wire Holder Assembly



Assembly Parts



6 0 95 CA D G50604 **7**0 0) Ø 66 071004 (2) O) G50383B (2) G 6 G50705 G50721 0 G50391 $\hat{Q} \hat{Q}$ Ø G50223 (2) G50189 G50237 071004 G50711 G50383B G50206 P G50145B G50713 ∇ 0 $\overline{\mathcal{O}}$ G50200 **0**0000 90 G50197A (includes G50223) G50210 Ø G50198 G20589 G50431 6 G50719 G50245W 6 G50720 071004 G50199

Cutter Box Assembly

Assembly Parts

| 071004 | Lock Washer Ribbed | 4 |
|---------|----------------------------|---|
| G20589 | Screw M4x0.7x10 | 1 |
| G50145B | Moving Cutter | 1 |
| G50189 | Screw M3x0.5x10 | 1 |
| G50197A | Cutter Box Assembly | 1 |
| G50198 | Cutter Operating Slide | 1 |
| G50199 | Lower Wire Tube | 1 |
| G50200 | Fixed Wire Cutter | 1 |
| G50206 | Wire Straightener | 1 |
| G50210 | Cutter Operating Spring | 1 |
| G50223 | Dowel Pin M3x6 | 2 |
| G50237 | ` Adjusting Eccentric | 1 |
| G50245W | Cutter Box Adjustment Knob | 1 |
| G50383B | Screw M3x0.5x6 | 3 |
| G50391 | Cutter Box Mounting Plate | 1 |
| G50431 | Screw M3x0.5x6 | 1 |
| G50604 | Shoulder Screw M6x8 | 2 |
| G50711 | Screw Spring | 1 |
| G50713 | Hex Jam Nut M5 | 1 |
| G50719 | Lower Tube Clip | 1 |
| G50720 | Screw M3x0.5x6 | 1 |
| G50721 | Screw M3x0.5x10 | 2 |
| | | |

NOTES:

Part Number / Description Cross-Reference

| 042001 | Screw M5x0.8x8 | 2 | G50110A | Large Feed Gear Assembly | 1 |
|----------|----------------------------------|----|-----------|------------------------------|---|
| 071004 | Lock Washer Ribbed | 17 | G50111A | Feed Pinion Assembly | 1 |
| 2215 | Driving Shaft Connector | 1 | G50112 | Small Feed Gear | 1 |
| 9083A | Clincher Point -Thick, Round | 2 | G50114 | Feed Gear Pin | 1 |
| 9084B | Adjustable Clincher Slide | 1 | G50117 | Forming Pin Cam | 1 |
| 9086JA | Clincher Plate -Thick, Round | 1 | G50119A | Feed Release Handle Assembly | 1 |
| 9087 | Clincher Slide Adjustment Screw | 1 | G50120 | Feed Release Handle Bushing | 1 |
| 9088 | Clincher Plate Binder Bolt | 2 | G50126 | Screw M5x0.8x25 | 1 |
| 9093A | Clincher Slide - Thick | 1 | G50127 | Feed Rack | 1 |
| A9086JA | Clincher Plate Assy.—Thick | 1 | G50128 | Pinion Washer | 1 |
| G20121 | Feed Release Plunger | 1 | G50129 | Large Feed Gear Washer | 1 |
| G20140 | Follower Ball Bearing | 2 | G50130 | Feed Adjustment Block | 1 |
| G20165 | Driving Slide Spring | 1 | G50131B | Feed Slide | 1 |
| G20169B | Driving Slide Plunger Screw Ecc. | 1 | G50132 | Feed Lever | 1 |
| G20179 | Screw M3x0.5x4 | 1 | G50132A | Feed Lever Assembly | 1 |
| G20190 | Screw M3x0.5x10 | 2 | G50135 | Wire Holder Pivot Pin | 1 |
| G20191 | Screw M4x0.7x8 | 4 | G50136 | Feed Gear Bracket | 1 |
| G20226 | Hex Nut M4x.7 | 1 | G50137 | Feed Gear Clutch | 1 |
| G20233 | Cutter Operating Lever Roller | 1 | G50138 | Feed Pinion Bearing | 2 |
| G20236 | Tube Pivot Screw | 1 | G50141 | Wire Guide Bar | 1 |
| G20241 | Screw M4x0.7x6 | 2 | G50142 | Screw M3x0.5x6 | 1 |
| G20272 | Screw M5x0.8x12 | 1 | G50143 | Pivot Block | 1 |
| G20274 | Hex Jam Nut, M6x1 | 1 | G50144A | Middle Wire Tube Assembly | 1 |
| G20275 | Ball Spring Plunger | 1 | G50145B | Moving Cutter | 1 |
| G20287 | Wire Oiler Felt Spring | 1 | G50147BA | Bender Bar | 1 |
| G20290 | Flat Washer, M5 | 2 | G50147BAA | Bender Bar Assembly | 1 |
| G20292 | Wire Oil Felt, Washer | 1 | G50148 | Bender Bar Friction Plate | 1 |
| G20293 | Wire Oiler Felt | 1 | G50151 | Driver Bar | 1 |
| G20293B | Wire Oiler Felt, Thin | 1 | G50152 | Driver - 25 Wire | 1 |
| G20297 | Screw M6x1.0x40 | 1 | G50153 | Driver Retaining Screw | 2 |
| G20298 | Nylock Lock Nut, M6x1 | 2 | G50159B | Friction Plug | 1 |
| G20360 | Hex Key Wrench 3.0mm | 1 | G50160B | Bender Bar Friction Spring | 1 |
| G20364 | Open End Wrench 7.0mm | 1 | G50161B | Friction Plug Bushing | 1 |
| G20374 | Hex Key Wrench 2.0mm | 1 | G50162B | Driving Slide | 1 |
| G20515 | Dowel Pin M6x14 | 1 | G50162CA | Driving Slide Assembly | 1 |
| G20520 | Ribbed Lock Washer M6 | 1 | G50163B | Cutter Operating Cam | 1 |
| G20522 | Screw M6x1.0x5, Nylon | 1 | G50164C | Plunger | 1 |
| G20573 | Feed Rack Adjustment Knob | 1 | G50169 | Driving Slide Eccentric | 1 |
| G20578 | Rack Adjustment Knob Detent | 1 | G50170 | Hex Nut, M10 | 1 |
| G20579 | Screw M4x0.7x6 | 2 | G50171 | Screw M6x1.0x6 | 1 |
| G20589 | Screw M4x0.7x10 | 1 | G50174 | Feed Rack Adjustment Stud | 1 |
| G20615 | Screw M5x0.8x8 | 1 | G50181W | Upper Wire Tube | 1 |
| G50100BA | Bonnet Assembly - G5 | 1 | G50182 | Feed Gear Plate | 1 |
| G50101 | Clamp Block | 1 | G50183 | Wire Holder Retaining Spring | 1 |
| G50102 | Mounting Block - Keyed | 1 | G50186 | Feed Gear Friction Spring | 1 |
| G50110 | Large Feed Gear | 1 | G50187 | Feed Gear Friction Pad | 1 |
| | | | | | |

Part Number / Description Cross-Reference

| G50189 | Screw M3x0.5x10 | 1 |
|----------|------------------------------------|---|
| G50197A | Cutter Box Assembly | 1 |
| G50198 | Cutter Operating Slide | 1 |
| G50199 | Lower Wire Tube | 1 |
| G50200 | Fixed Wire Cutter | 1 |
| G50206 | Wire Straightener | 1 |
| G50210 | Cutter Operating Spring | 1 |
| G50223 | Dowel Pin M3x6 | 4 |
| G50228A | Manual Feed Gear Tool | 1 |
| G50230 | Cutter Operating Lever | 1 |
| G50230A | Cutter Operating Lever Assembly | 1 |
| G50232 | Dowel Pin | 1 |
| G50235 | Dowel Pin M5x12 | 1 |
| G50237 | Cutter Box Adjusting Eccentric | 1 |
| G50244 | Tube Clip | 1 |
| G50245W | Cutter Box Adjustment Knob | 1 |
| G50252 | Wire Hook | 1 |
| G50253 | Wire Hook Spring | 1 |
| G50254 | Wire Holder Spring Screw | 1 |
| G50255 | Dowel Pin M3x10 | 1 |
| G50256 | Scale | 1 |
| G50262A | Small Feed Gear Shaft Assembly | 1 |
| G50264 | E-Ring 6mm | 2 |
| G50266 | Dowel M5x10 | 1 |
| G50268 | Feed Lever Spring | 1 |
| G50279A | Wire Guide Spring Asy-90 Deg | 1 |
| G50286WA | Wire Guide Spring Asy-Watkiss | 1 |
| G50320BA | Driving Slide Assembly-Crank Drive | 1 |
| G50321 | Crank Link Screw | 1 |
| G50331BA | Forming Pin Assembly | 1 |
| G50366 | Bonnet Clamp Pin | 1 |
| G50367 | Head Mounting Bolt, M8 | 1 |
| G50368W | Feed Release Handle Cap-Orange | 1 |
| G50383B | Screw M3x0.5x6 | 7 |
| G50391 | Cutter Box Mounting Plate | 1 |
| G50394 | Flat Washer M8 | 4 |
| G50397B | Shoulder Bolt M8x20 | 1 |
| G50399 | Screw M3x0.5x8 | 2 |
| G50431 | Screw M3x0.5x6 | 1 |
| G50559 | Wire Holder | 1 |
| G50559A | Wire Holder Assembly | 1 |
| G50604 | Cutter Box Guide Plate | 1 |
| G50617 | Wire Holder Retain. Spring Washer | 2 |
| G50646 | Cutter Box Eccentric Bearing | 2 |
| G50665 | Wire Holder Adjustment Screw | 1 |
| G50666 | Clincher Alignment Gage, G5 | 1 |
| | | |

| G50695 | Screw M6x1.0x20 | 1 |
|----------|-----------------------------------|---|
| G50703 | Feed Lever Spring Screw | 1 |
| G50705 | Shoulder Screw M6x8 | 2 |
| G50708 | T-Handle Hex Key Wrench | 1 |
| G50703 | Feed Lever Spring Screw | 1 |
| G50705 | Shoulder Screw M6x8 | 2 |
| G50707 | Dbl. Open End Wrench - 5.5 & 7 mm | 1 |
| G50708 | T-Handle Hex Key Wrench | 1 |
| G50710 | Clincher Plate Nut | 2 |
| G50711 | Cutter Box Ecc. Screw Spring | 2 |
| G50713 | Hex Jam Nut M5 | 1 |
| G50714 | Feed Lever Spacer | 1 |
| G50716 | Mounting Block Handle | 1 |
| G50717 | Hex Nut M3x0.5 | 2 |
| G50718 | Feed Gear Spring | 1 |
| G50719 | Lower Tube Clip | 1 |
| G50720 | Screw M3x0.5x6 | 9 |
| G50721 | Screw M3x0.5x10 | 6 |
| G50722 | Feed Release Handle Stop | 1 |
| G50800CA | Wire Anti-Back Up Unit - M6 Tube | 1 |
| UA4808.7 | Screw 1/4-28 x 14 | 1 |
| | | |