

DELUXE STITCHER

C O M P A N Y I N C .

Head Serial Number : _____

Date Purchased : _____

Where Installed: _____

(make/model of machine)

G20 Stitcher Head

OPERATION AND MAINTENANCE MANUAL

Wire Sizes: 23-28 Ga. Round and 21x25 and 20x24 Flat

Crown Sizes: 1/2" (13.5 mm) and 5/8" (15.9 mm)

Capacity: 2 sheets to 3/4" (20 mm) Standard

2 sheets to 5/32" (4 mm) Loop

Before using this Stitcher Head, all operators must study this manual and follow the safety warnings and instructions. Keep these instructions with the G20 Stitcher Head for future reference. If you have any questions, contact your local DeLuxe Stitcher Graphic Arts Representative or Distributor.

WARNING!

G20 Stitcher Head

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 this 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.

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Introduction

Each Head in the G20 Stitcher Head Series is basically identical with respect to operation. The style variations in the Heads mentioned below, occur in some of the component parts used for adaptation to single stitch or gang stitch machines. As model design changes are made, part numbers also change.

These Heads were designed with a side-feed element to eliminate the need for a Swivel and to increase their reliability. Well suited for all makes and models of stitcher machines and collators, the G20-style Stitcher Head is user-friendly.

Typical Style Uses:

G20BHDNo. 19 and M19 Wire Stitchers
G20MHDNo. 27 and M27 Wire Stitchers
G20DHD, G20FHD, G20SHDAutomatic Saddle-Stitchers,
.....Gang-Stitchers, Multibinders and Others

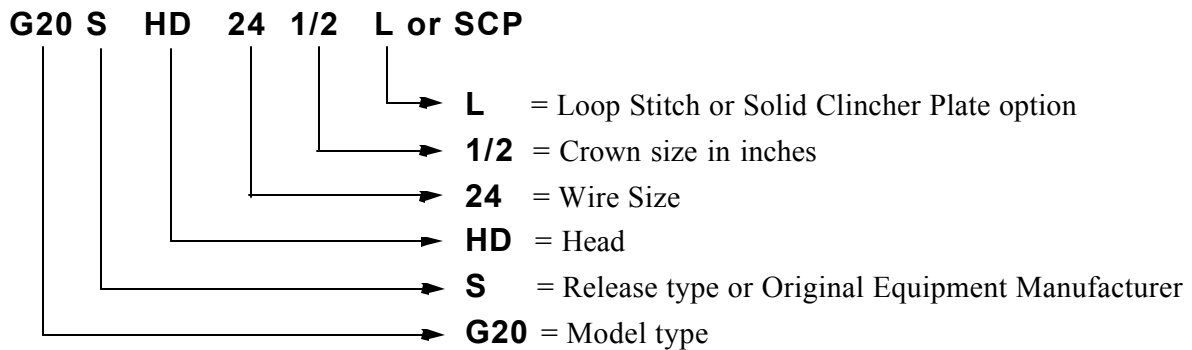
Examples of Replacement Heads for OEM Users*:

AM GraphicsG20DSHD, G20SHD
BielomaticG20DHD
ECH WillG20DHD
Harris 242, 750, 855, 950G20DSHD, G20SHD
KuglerG20DHD
McCain 1500, 2500XL, 3000XLG20SHD
Sheridan 705G20SHD

* These are just a few examples of the replacement heads available for these OEM's.

Part Number Definition

The part number for each Stitcher Head can be used to define the stitcher head itself, in most cases. The Head's model type, mounting style, nominal wire size and crown size can all be determined from the part number.



Model Differences

Generally speaking, the following part numbers indicate which Stitcher Heads can be used as replacement heads for your Stitcher Machine or collating system*. Refer to Figure 1 for more information.

- Style BHD (back release) - Models G20BHD19211/2, G20BHD20241/2 and G20BHD241/2L. These Heads are for use on Bolt-Mount / Crank-Driven Stitchers. They come with a Long Wire Guide Spring Assembly (G20286A), a Clincher Plate Assembly (7650A), two Rear Mounting Bolts (G20341), two Rear Clamp Pins (G20376) and two Bonnet Stud Nuts (HN1213).
- Style DHD - Models G20DHD20241/2. These Heads come with a Long Wire Guide Spring Assembly (G20286A), a Clincher Plate Assembly (7650A), a Bonnet Clamp Block (G20501) and a Bonnet Clamp Eccentric (G20524).
- Style SHD (side release) - Models G20SHD201/2, G20SHD205/8, G20SHD205/8-SCP, G20SHD241/2, G20SHD241/2-SCP, G20SHD241/2L, G20SHD245/8, G20SHD245/8-SCP, G20SHD20241/2 and G20SHD20245/8. These Heads come with a Short Wire Guide Spring Assembly (G20679A), a Clincher Plate Assembly (7650A) on the standard heads and a Sided Solid Clincher Plate (7650SCP) on those heads with a the Solid Clincher Plate option, a Bonnet Clamp Block (G20501) and a Bonnet Clamp Eccentric (G20524).

* These are just examples and should be used as reference only.

Specifications

Weight

Shipping Weight 22 lbs (10 kg)

Physical Dimensions

Height 17-1/2" (44.4 cm)

Width 2-3/4" (7 cm)

Stitching Capacity Two Sheets to 3/4" (20 mm)

..... Two Sheets to 5/32" (4 mm) Loop
(stitching capacities are highly dependent on wire type, tensile strength and machine capacity)

Wire Types 20 through 28 round or 19 x 21-1/2,
..... 20 x 25, 21 x 25 and 20 x 24 flat
(20 x 24 gauge round standard)

Crown Sizes 1/2" (14mm), 5/8" (16 mm)
..... 13/64" (5mm) Loop

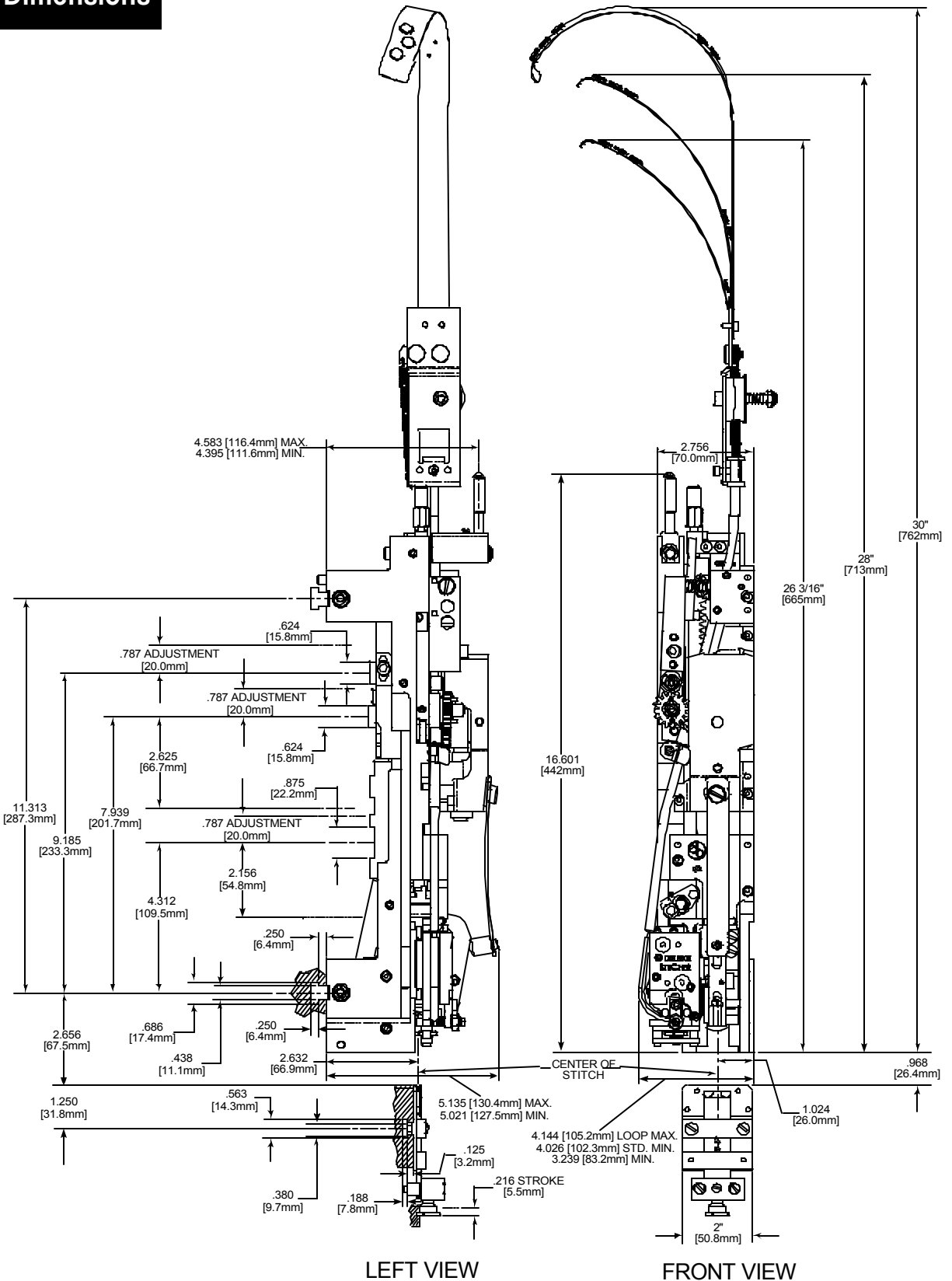
Minimum Head Centers

..... 2-3/4" (70mm) at two sheets to
..... 3/16" (4mm) material thickness
..... loop = 70mm at two sheets to 2mm

Stitches Per Hour 18,000 or 12,000 with Loop Head

Replacement for: 18D Model Heads, or
..... Hohner 70/20 Heads

Dimensions



Installation

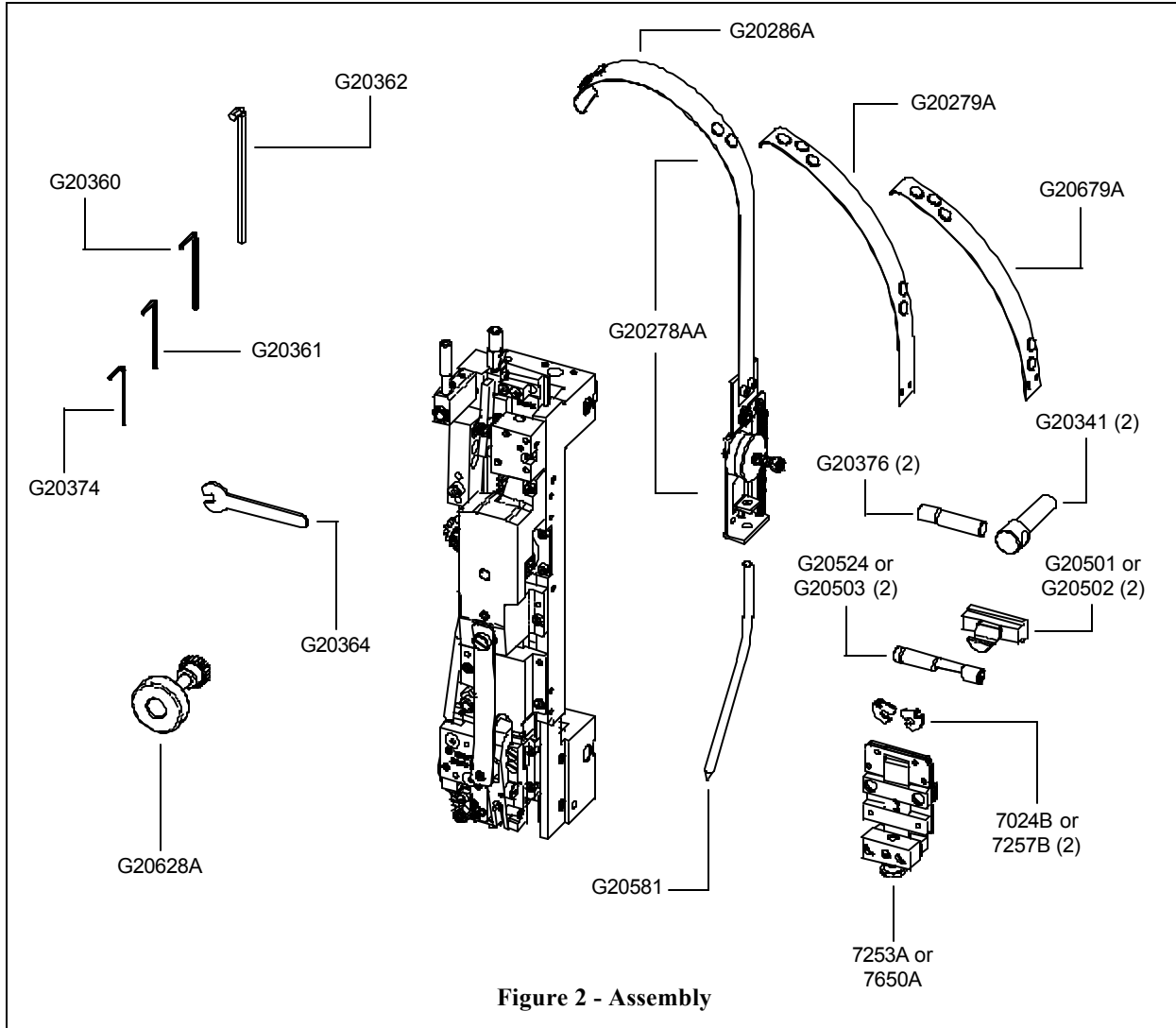
Pre-Inspection

Carefully inspect the condition of the shipping container before unpacking your G20 Stitcher Head. If the container is broken or damaged and there is evidence that the stitcher head may be damaged, immediately notify the carrier who delivered the head and the DeLuxe Stitcher Graphic Arts Representative from whom the G20 Stitcher Head was purchased.

Inspection

As you carefully unpack the head, check to make sure all components were delivered and are in good working order. Refer to **Figure 2** in this manual for reference to the following pieces:

- G20 Manual
- 2.0mm Hex Key Wrench (G20374)
- 2.5mm Hex Key Wrench (G20361)
- 3.0mm Hex Key Wrench (G20360)
- 5.0mm Hex Key Wrench (G20362)
- 7.0mm Open End Wrench (G20364)
- Complete Wire Guide Spring Plate Assembly (G20278AA)
- Adjustment Handle Assembly (G20628A)
- Short (G20679A), Medium (G20279A) or Long (G20286A) Wire Guide Spring Assembly
- Moving Clinch Clincher Plate Assembly (7253A) or (7650A) or 2-Sided Solid Clincher Plate (7650SCP)
- Clincher Slide (18182), Clincher Slide Adjustment Block (18183), Clincher Slide Block Clamp (18184), Clincher Slide Adjustment Screw (18186), Set Screw (UA1428.1), two (2) Slotted Fillister Machine Screws (UA3216.4) and two (2) Round Head Machine Screws (UA3310.3). A Clincher Binder Plate (18179) and a Clincher Slide Retaining Strap (7256B) are included on the multi-head model Clincher Plate Assemblies.
- Flat (7024B) or Round (7257B) Clincher Points
- Two (2) Bonnet Clamp Blocks (G20501 or G20502) and Eccentrics (G20524 or G20503) or two (2) each of the following: Rear Mounting Bolt (G20341), Rear Clamp Pin (G20376) and Bonnet Stud Nut (HN1213)
- Stitch Samples



Pre-Installation

Please take a few moments to fill out the registration card located on page 54 prior to beginning installation.

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

Assembly

Each new G20 Stitcher Head comes fully assembled with the exception of the Complete Wire Guide Spring Plate Assembly (G20278AA), the Wire Guide Spring (G20679A, G20279A or G20286A) and the Clincher Plate Assembly. Slip the Wire Guide Spring Bracket onto the Upper Wire Tube (G20581) and rotate until the Bracket accommodates the wire payoff of the stitcher machine. Tighten the Socket Head Cap Screw (G20288) to hold the Wire Guide Spring Bracket Assembly in place.

On multi-head machines, slide the Clincher Plate Assembly into the clincher mounting rail of the stitcher. Insert the Clincher Adjustment Screw (18186) in the clincher lever assembly of the machine. Center the Clincher Slide (18182) under the Driver Bar (G20551) and Driver* of the G20 but do not tighten the Machine Screws (UA3310.3) in the Clincher Slide Strap (7256B), which secure the Clincher Plate's location until the Head is firmly positioned. On single-head machines, mount the Clincher Plate Assembly over the two (2) pins on the clincher mounting block. Insert the Clincher Adjustment Screw (18186) in the clincher lever assembly of the machine. Secure the Plate with the two (2) Machine Screws (UA3310.3). (See Figure 11).

Mounting

The quality and quantity of work that can be produced by the G20 DeLuxe Stitcher Head is dependent upon the operator making the various operating adjustments as accurately as possible. The following illustrated instructions are provided so that the operator will clearly understand how to make the various required operating adjustments.

G20DHD, G20FHD, G20MHD and G20SHD (Slot Mount/Rail Drive)

These G20 Head Models come with two (2) Bonnet Clamp Blocks (G20501) and Bonnet Clamp Eccentrics (G20524) for use on stitchers with a T-Slot mounting rails. Refer to **Figure 3**. Slide the Clamp Blocks into the T-slots on the stitcher, as shown. Align the marks on the Eccentrics with those on the Bonnet. Next, slide the Head onto the Clamp Blocks, bottom one first, and against the stitcher machine. Make sure the Adjustment Block (G20592), Feed Slide

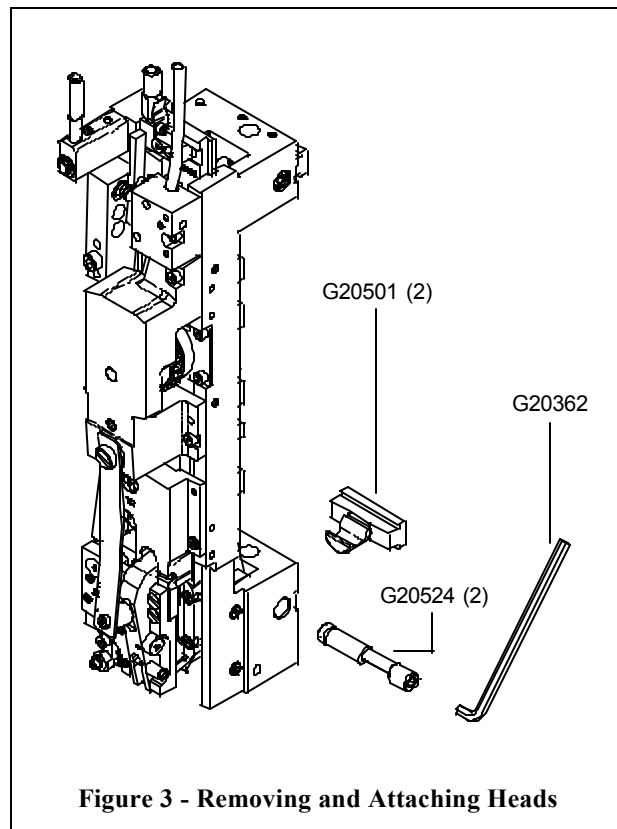


Figure 3 - Removing and Attaching Heads

Block (G20672) and Bender Slide (G20562) are in their respective slots on the stitcher machine. Rotate the 5mm Hex Key Wrench (G20362), in the Eccentric as shown, to secure the G20 Head to the stitcher machine.

G20BHD (Bolt Mount/Rail Drive)

This G20 Head comes with two (2) Rear Mounting Bolts (G20341), Rear Clamp Pins (G20376) and Bonnet Stud Nuts (HN1213) for mounting. **Refer to Figure 4.**

NOTE: Instructions may vary with other types of Bolt Mount/Rail Drive machines.

Insert the Rear Mounting Bolts into the holes of the Bonnet casting and secure them with the Rear Clamp Pins. Line the lower Mounting Bolt up with the lower mounting hole in the stitcher machine and loosely secure the Bolt with the Hex Jam Nut. Position the Adjustment Block (G20592), Feed Slide Block (G20672) and Bender Slide (G20562) approximately where it will meet up with the rails of the stitcher machine or a little lower. Push on the Head until the upper Mounting Bolt is inserted into the upper mounting hole in the stitcher machine. The Adjustment Block, Feed Slide Block and Bender Slide may have to manually manipulated in order to insert the upper Mounting Bolt. Tighten both Hex Jam Nuts to completely secure the G20 to the stitcher machine.

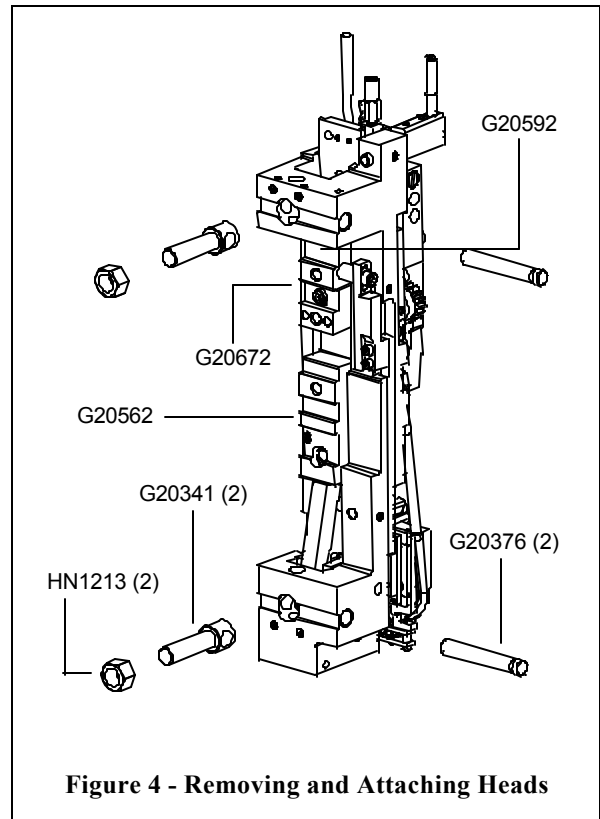


Figure 4 - Removing and Attaching Heads

Always cycle the stitcher machine manually after mounting a head and before running under power

⚠ WARNING

Operation

Wire Threading (Figures 5 & 6)

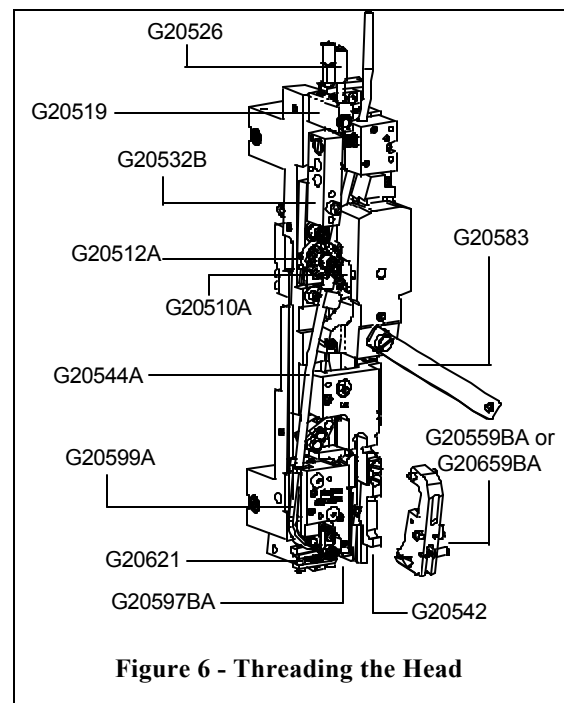
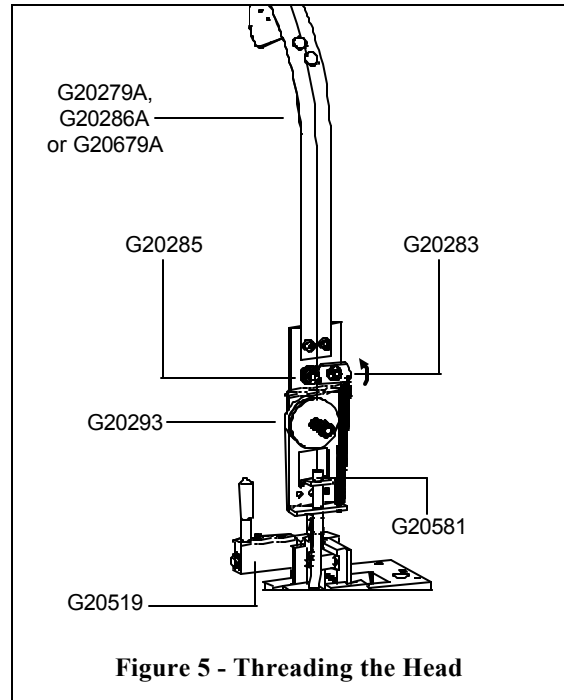
1. Slide the Wire Holder Retaining Spring (G20583) over to the side and remove the Wire Holder Assembly (G20559BA or G20659A) from the Stitcher Head.

2. Pass the wire from the Spool over the Wire Guide Spring Assembly (G20679A, G20279A or G20286A), between the Tension Pawl (G20283) and the Tension Pawl Roller (G20285), between the two (2) Wire Oiler Felts (G20293) and into the Upper Wire Tube (G20581).

3. Using the yellow-capped Dowel Pin (G20526) in it, turn the Feed Release Cam (G20519) clockwise so that the Small Feed Gear (G20512A) on the Feed Lever (G20532B) is disengaged from the Large Feed Gear Assembly (G20510A). Use a pair of pliers to gently pull the wire off the Wire Spool and guide it through the Upper Wire Tube, between the Small and Large Feed Gears, into the Middle Wire Tube Assembly (G20544A). Or place the Adjustment Handle Assembly (G20628A) over the pins in the Small Feed Gear and rotate clockwise. Engage the Gears again by turning the Feed Release Cam.

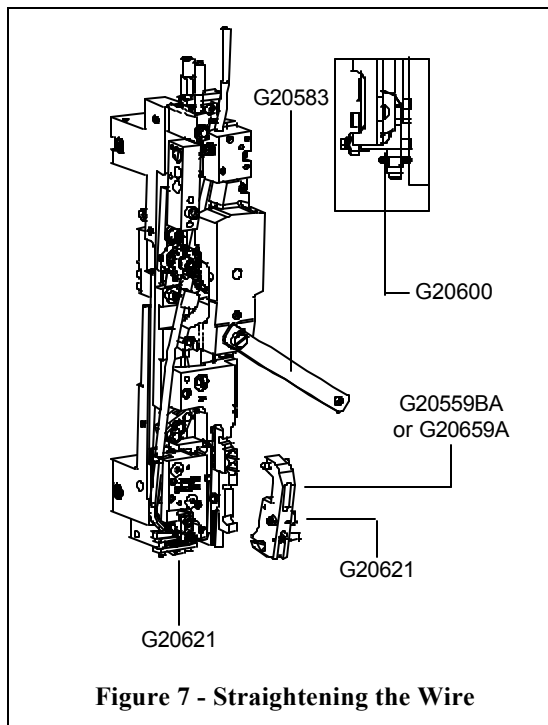
4. Turn the stitcher machine on and trip it until the wire emerges from the Lower Wire Tube (G20599A) in the Cutter Block Assembly (G20597BA). If the wire does not emerge, turn the Wire Straightener Nut (G20621) and trip the stitcher until the wire is visible to the right of the Left Wire Guide Bar (G20541). Make sure the wire is leaving the Head completely straight horizontally and that it is not touching either the Left or Right Wire Guide Bar (G20542) as it passes. Complete wire straightening instructions can be found on page 13.

Note: Never operate the Stitcher Head with the Wire Holder Assembly (G20559BA) in place unless there is stock above the Clincher Points.



Wire Straightening (Figure 7)

In order to ensure the stitches are loaded, driven and clinched properly in addition to ensuring continuous operation of the G20 style heads, it is important that the wire leaves the Cutter Block Assembly (G20597BA) in a straight horizontal line. Wire straightness is the single biggest factor for ensuring good stitches and stitcher head reliability. Although straightness is set at the factory, every roll of wire has varying degrees of twist which make it necessary for the user to properly straighten the wire prior to production **as well as during normal production**. Follow the steps for straightening wire listed below.

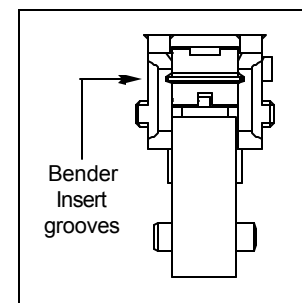


Horizontal Adjustment

Slide the Wire Holder Retaining Spring (G20583) over to the side and remove the Wire Holder Assembly (G20559BA or G20659A) from the Stitcher Head. Make sure the Small and Large Feed Gears are engaged. Activate the stitcher and observe the feeding of the wire from the Cutter Block Assembly and take note of the direction the wire is moving. Turn the Wire Straightener Nut (G20621) in the Cutter Block Assembly to adjust the wire. If the wire is feeding upwards, turn the Wire Straightener Nut clockwise. If the wire is feeding downward, turn the Nut counter-clockwise.

Front-to-Back Adjustment

If the Left or Right Wire Guide Bars (G20541 or G20542) are not properly positioned, the wire will rub against them as it exits the Cutter Block. Look at the G20 Head from the side, past both the Right and Left Wire Guide Bars. Make sure there is a clear view of the opening in the Fixed Wire Cutter (G20600). If there is not, loosen the Flat Head Machine Screws (G20579 and G20614) securing the Wire Guide Bars to the Wire Holder Pivot Block (G20543 or G20643) and move them out of the path of the wire. Tighten the Screws after making sure the Wire Guide Bars are even with each other. Replace the Wire Holder and re-engage the Wire Holder Retaining Spring. Load a piece of wire into the Wire Holder. Using a mirror, check to make sure the wire in the Wire Holder is lined up with the grooves in the two (2) Bender Inserts*. If it is not, loosen the Socket Head Set Screw (G20273) in the front of the Wire Holder and the Hex Nut (G20226) securing the Wire Holder Eccentric Screw (G20665). Turn the Eccentric Screw until the wire is aligned with the grooves in the Inserts. Tighten the Hex Nut and Set Screw to secure this setting. Remove the wire in the Wire Holder and load another piece in the Stitcher Head. Verify that the setting established is accurate with this piece of wire.



Adjusting the Lower Wire Tube (Figure 8)

In order to ensure the proper feeding of wire through the G20 Stitcher Head ensuring its continuous operation, it is important that the wire leaves the Lower Wire Tube Assembly (G20599A) in a straight horizontal line and enters the Cutter Block Assembly without assistance. Wire straightness is the single biggest factor for ensuring good stitches and stitcher head reliability. Although the position of the Lower Wire Tube is set at the factory, transportation can cause the factory settings to change. Also, every roll of wire has varying degrees of twist which make it necessary for the user to straighten the wire prior to production **as well as during normal production**. The following steps illustrate how to properly adjust the Lower Wire Tube.

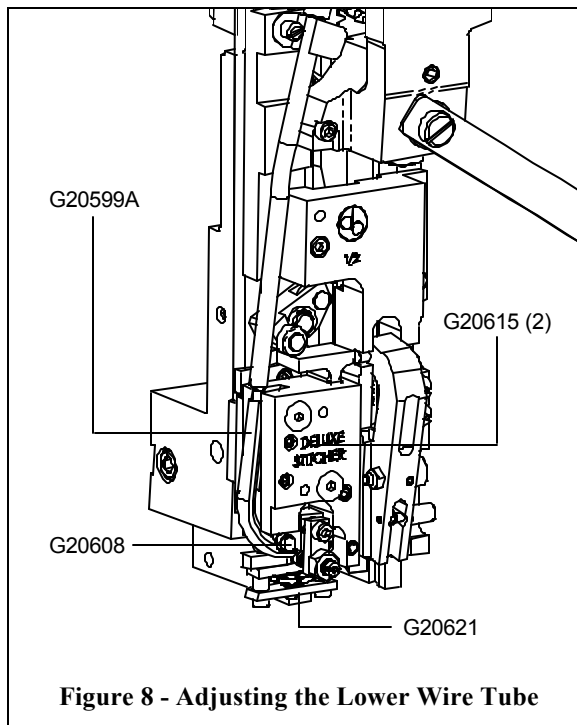


Figure 8 - Adjusting the Lower Wire Tube

If the wire coming out of the Lower Wire Tube hits the side of the Wire Straightener Roller (G20608) instead of passing over it, the groove in the Wire Tube has to be aligned with the groove in the Roller by adjusting the position of the Lower Wire Tube. Turn the Wire Straightener Nut (G20621) so that the maximum amount of space is allowed for the wire between the two (2) Wire Straightener Rollers. Loosen, but do not remove, the two (2) Socket Head Set Screws (G20615) in the Cutter Block Assembly.

One adjustment that can be made is to move the Tube up or down. Make sure the Wire Tube is close enough to the Wire Straightener Roller to ensure continuous feeding of the wire, but not pressed against the Roller, which will stop the wire completely. Leaving a 0.010" (.025mm) space between the Tube and the Wire Straightener Roller is a good gauge. Tighten the two (2) Set Screws at this

point and double check the space between the Tube and the Roller before proceeding.

The other adjustment that can be made is to tilt the Wire Tube toward or away from the Cutter Block. If the wire feeding out of the Cutter Block is curving up then tilt the Wire Tube toward the Cutter Block Assembly. If the wire is curving down then tilt the Wire Tube away from the Cutter Block Assembly. Before tightening the Set Screws, verify that there is still at least a 0.010" clearance between the Lower Wire Tube and the Wire Straightener Roller.

Once the wire is successfully feeding between the two (2) Wire Straightener Rollers, turn the wire feeding off with the yellow-capped Dowel Pin in the Feed release Cam (G20519), remove the Middle Wire Tube (G20544A) enough to cut the wire as it exits from between the Large Feed Gear Assembly (G20110A) and the Small Feed Gear (G20112) and remove the wire. Turn the wire feeding back on and activate the stitcher head until the wire feeds out of the Lower Wire Tube. Make sure that the wire feeds between the Wire Straightener Rollers without assistance, if not, make adjustments to the Lower Wire Tube until it does.

Adjusting the Length of the Stitch Leg (Figure 9)

The following instructions illustrate how to calibrate the G20 Stitcher Head the first time it is used after mounting it to the stitcher machine. It also illustrates how to manually adjust the Cutter Block each time a different stitching capacity is required.

Adjust the compression setting on the stitcher machine for the capacity of work to be stitched. Make a few sample stitches and turn the stock away from you to look at the results.

The length of each staple leg should equal the other, meaning, the amount of wire on either side of the stitch gap should be the same. The gap position is controlled by the position of the Cutter Block Assembly (G20597BA). As thicker work is stitched, the Cutter Block must be moved further from the Wire Holder Assembly in order to keep the legs of the stitch even and the gap centered.

For **G20 Heads mounted to a machine with an adjuster rail**, first loosen the Socket Head Cap Screw (G20697) securing the Upper Adjustment Slide (G20645) to the Adjustment Block (G20592). **For all G20 style Heads**, to shorten the length of the left staple leg, lengthen the length of the right staple leg or move the gap between the legs to the left push the Cutter Box toward the Head. Run a couple of stitches to test this setting. To lengthen the length of the left staple leg, shorten the length of the right staple leg or move the gap between the legs to the right pry the Cutter Box away from the Head. If both legs are equal in length or if the gap between the legs is centered, no more adjustment is necessary. Make sure to tighten the Socket Head Cap Screw securing the Upper Adjustment Slide to the Adjustment Block.

If more adjustment is necessary, continue to move the Cutter Block Assembly towards or away from the body of the G20 Head and test after each adjustment.

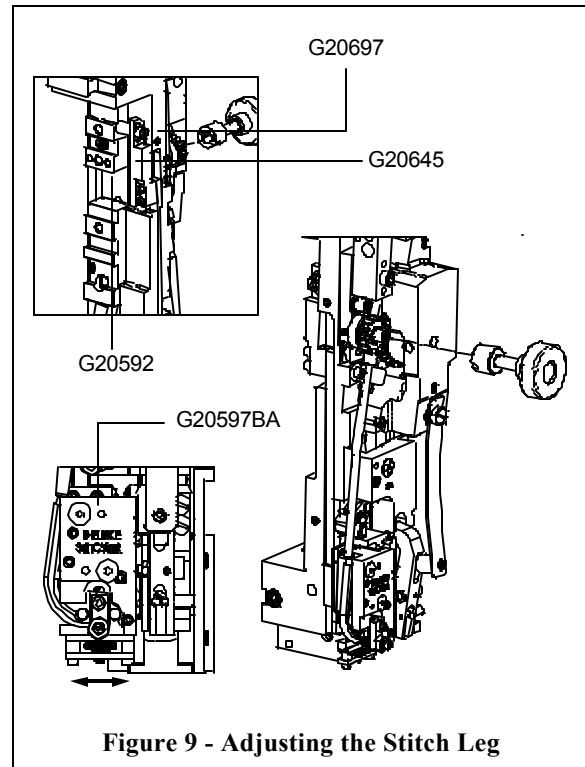


Figure 9 - Adjusting the Stitch Leg

Adjusting the Wire Draw

The overall length of the stitch is controlled by the amount of wire that is drawn from the spool after each stroke of the stitcher machine. To change the overall length of the stitch, the position of the Feed Rack (G20527) has to be changed within the Stitcher Head. (Figure 10).

First, make sure the wire feeding is off by turning the Feed Release Cam (G20519) horizontally so that the Small Feed Gear (G20512A) on the Feed Lever (G20532B) is disengaged from the Large Feed Gear Assembly (G20510A). The wire draw is set at the factory but if adjustments have to be made for specific stitcher equipment, turn the Feed Rack Adjustment Knob (G20173) clockwise to move the Rack up and counter-clockwise to move the Rack down.

As the thickness of work being stitched increases, the length of wire required must also increase. The longer the length of wire required, the further up the Feed Rack has to be in comparison to the Feed Slide. Start by calibrating the G20 Head at a two-sheet capacity. The overall length of wire is correct when the gap between the staple legs allows only the edge of a fingernail to pass between them. If your stitcher machine has a built-in stroke adjustment, no further adjustments will be required, even when changing stitching capacities. If the stitcher has no automatic stroke adjustment then the length of wire has to be adjustment manually every time the capacity changes.

In order to increase the wire draw or lengthen the legs of the stitch and decrease the gap size, turn the Feed Release Cam (G20519) to the off position and the Feed Rack Adjustment Knob clockwise. Inversely, to decrease the wire draw or shorten the legs of the stitch and increase the gap size, turn the Feed Rack Adjustment Knob counter-clockwise.

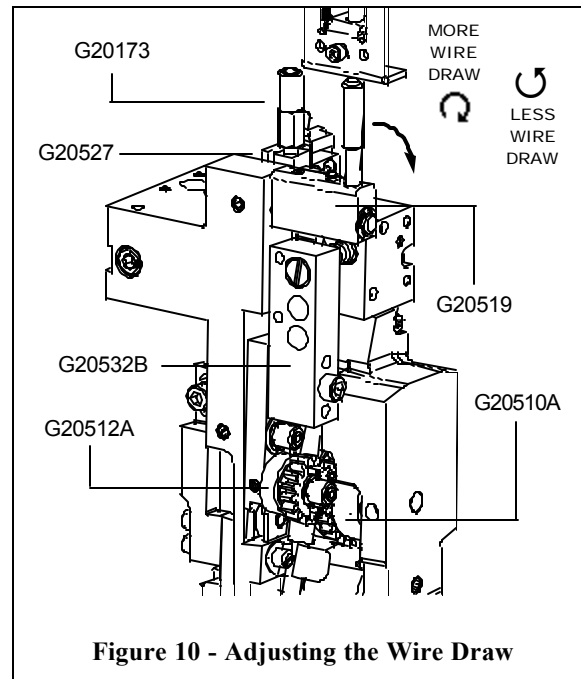


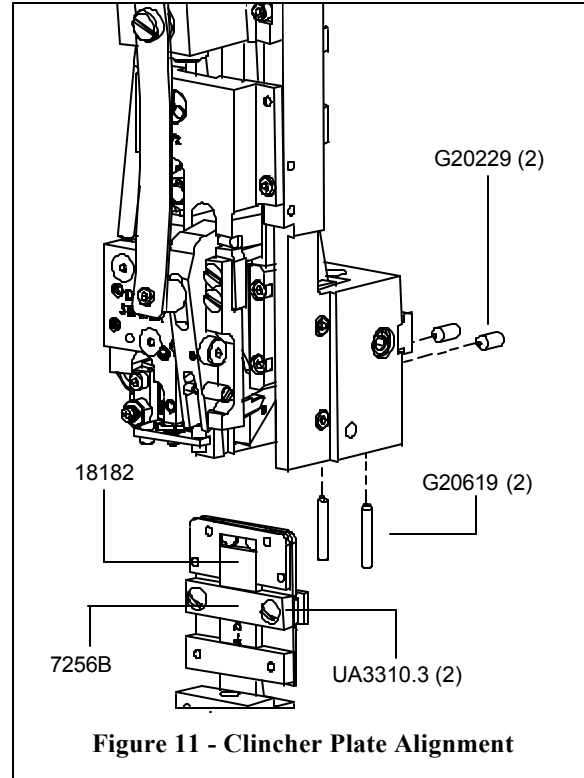
Figure 10 - Adjusting the Wire Draw

Aligning the Clincher Plate (Figure 11)

In order to produce properly clinched staples, the center of the Clincher Plate (standard or Solid) must be exactly in line with the Driver* both left-to-right and front-to-back. The following are instructions for both types of adjustment.

Front-to-Back

Manually activate the G20 until the Stitcher Head is at the bottom of its stroke and the Driver is touching the top of the Clincher Plate. Looking from the side of the Stitcher Head, make sure the rib of the Driver is aligned with the center of the gap between the front and back plates of the Clincher Plate Assembly. All adjustments must be made to the screws in the back of the G20 while the Stitcher Head is removed from the Stitcher Machine. If the Driver is positioned in front of the Clincher Plate then the upper Socket Head Set Screws (G20229) must be turned counter-clockwise until the Screw sticks out slightly from the back of the Head, while the lower Screw remains under flush. If the Driver is positioned in back of the Clincher Plate then the lower Socket Head Set Screw must be turned counter-clockwise until it sticks out slightly from the back of the Head, while the upper Screw remains under flush. Slight adjustments to the Set Screws make significant differences in position. Once the position is set, tighten the two (2) Socket Head Set Screws (G20229) in the top and the two (2) Socket Head Set Screws (G20619) in the bottom of the Stitcher Head.



Left-to-Right

Looking from the front of the Stitcher Head, make sure the Driver is centered directly above the Clincher Slide (18182). If it is not, loosen the two (2) Round Head Machine Screws (UA3310.3) in the Clincher Slide Retaining Strap (7256B) and move the entire Clincher Plate Assembly to the right or to the left. Secure this position while tightening the Screws again. To check the left-to-right as well as the front-to-back position, activate the Stitcher Head manually but stop as the staple begins to exit the Bender Inserts.* Check that the legs of the staple are centered directly above the Clincher Points. If not re-adjust either of the positions until the position is correct.

**Make sure all guards are in place before
operating the stitcher head**

⚠ WARNING

Adjusting the Clincher Points

The final position of the Clincher Points (7024B or 7257B) should be flush, or slightly above flush, with the Clincher Plate (7253A or 7650A) in order to achieve a quality stitch. The best way to see the position of the Clincher Points is to manually turn the stitcher machine over. When the Driver* is at the lowest position of its stroke, the Clincher Points are at their highest position. Turn the stitcher machine just past this point to reveal the Clincher Points' position. Clincher Points that do not pivot high enough will produce a weak clinch, where Clincher Points that pivot too high will cause poor stitch quality or cut the stock being stitched.

If the clinch on the staple is not tight enough, the Clincher Points have to be raised, assuming the Stitcher machine's compression setting is correct. If the legs of the staple are being pushed back through the stock, the Clincher Points are set too high and have to be lowered. To adjust the Clincher Points within the Adjustable Clincher Plate Assembly (see **Figure 12**), proceed as follows. Loosen the Set Screw (UA1428.1) in the Adjustment Block (18183). Turn the Clincher Slide Adjustment Screw (18186) clockwise to lower the Clincher Points and turn the Adjustment Screw counter-clockwise to raise the Clincher Points. Once the Clincher Point height is set, tighten the Set Screw in the Adjustment Block.

Some style stitcher heads do not utilize moving Clincher Points, but rather a solid Clincher Plate (7650SCP) as shown in **Figure 13**. The legs of each stitch are bent when the wire is pushed through the stock and hits the Clincher Plate, as opposed to the

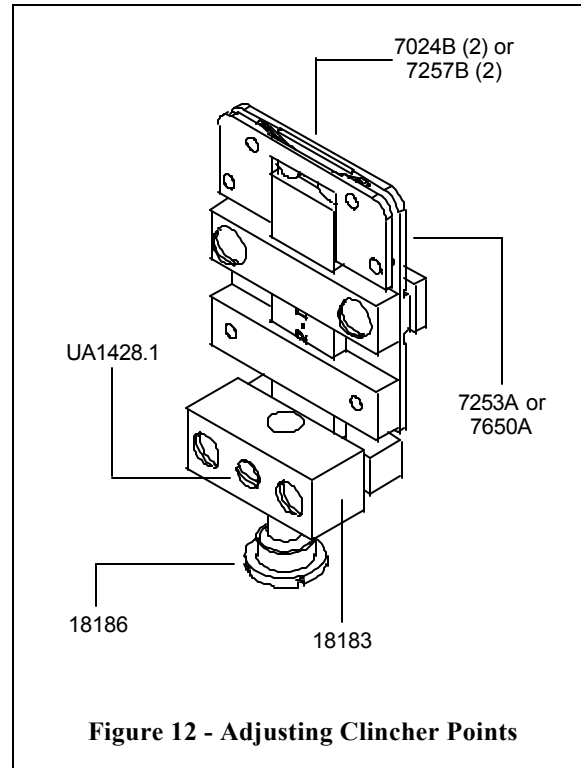


Figure 12 - Adjusting Clincher Points

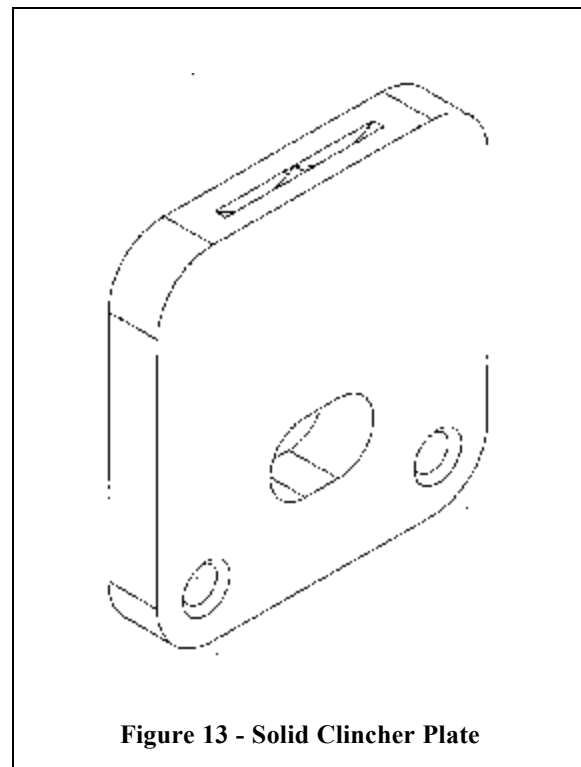
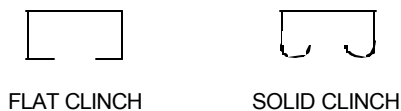


Figure 13 - Solid Clincher Plate



Clincher Points in moveable Clincher Plates, coming up to meet the wire. The resulting stitch will not lay as flat as one clinched with moving Clincher Points.

The only adjustment that can be made to a Solid Clincher Plate is to make sure it is centered below the Head's Driver and even that adjustment can only be made on multi-head stitcher machines.

Maintenance

Your G20 Stitcher Head has been fully lubricated at the factory, but to insure continuous superior operation and a longer life of the head, the operator should be sure that the G20 is lubricated regularly and carefully maintained. The operator should periodically inspect all moving parts for signs of wear and when required, replace the worn parts. Parts such as the Wire Cutters, the Clincher Points and the Driver are subject to wear and have been so designed to be reversible to provide duplicate cutting and driving surfaces. If after continuous usage, the original cutting or gripping surfaces of any of these parts show signs of wear, their position in the head can be reversed, thereby providing a new surface and lengthening the life of the part. For a complete list of wear and replacement parts for your G20 style Stitcher Head, refer to page 47 in the back of this manual.

The following instructions are provided so that the operator will clearly understand how to lubricate the Stitcher Heads and how to identify and remove any of the parts which may need to be replaced.

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

⚠ WARNING

Lubrication (Figure 15)

Use any standard S.A.E. #10 oil for lubricating the heads. Heads that are in constant operation should be lubricated daily. Heads that are operated periodically should be lubricated every five pound wire spool change or every month, whichever comes first. Usually, only a drop of oil is required at each lubrication point. Care must be taken that those parts of the head that contact the work to be stitched are free of oil. Lubricate regularly instead of excessively. Excessive oiling will result in work becoming spotted with oil. Use one drop of oil in the following lubrication points:

- the top of the Bonnet (G20500A) on either side of the Feed Slide (G20531).
- in the oil hole in the Feed Release Cam (G20519).
- the fittings on the two (2) Feed Lever Pin Assemblies (G20262BA and G20262A).
- the Cutter Operating Lever Pivot Pin (G20631) and Cutter Lever Bearing Pin (G20571).
- the Wire Rollers (G20608) in the Cutter Block Assembly (G20597BA).
- on the Wire Holder Assembly under the Wire Holder Retaining Spring Foot (G20184).
- where the Wire Holder Assembly (G20559BA) pivots in the Wire Holder Pivot Block (G20543 or G20643).
- on both sides of the Driver.*
- in the Cutter Block Assembly, along side the Cutter Operating Slide (G20598).

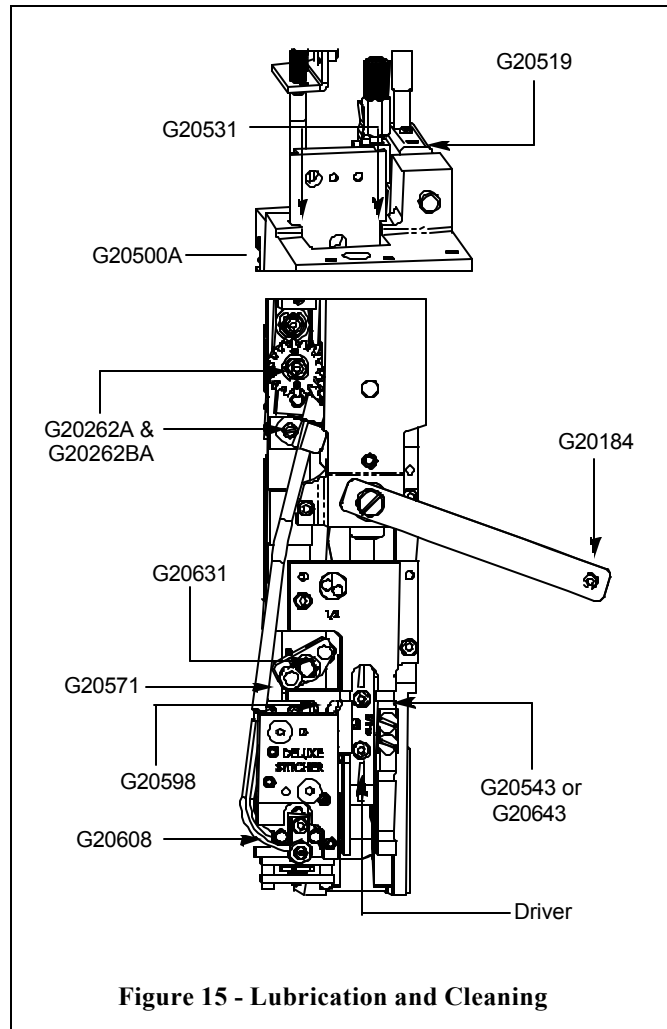
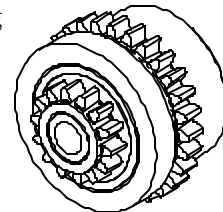


Figure 15 - Lubrication and Cleaning

Cleaning (Figure 15)

In addition to proper lubrication, routine cleaning is important for the maintenance of your G20 Head. The entire Head should be torn down and rebuilt every three months and the following areas should be cleaned once a month:

- **Large Feed Gear (G20510A):** remove and wash in an oil-dissolving solvent, dry and relubricate. An optional Feed Gear Grease Kit (G20KG) is available
- **Anywhere that dust, oil or pieces of wire and paper have built up** - for example: around the Clincher Points and around the Wire Straightener Rollers.



Ordering Spare Parts

In time, you will need to replace some parts in your G20 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.

Always power down the stitcher machine before any maintenance or adjustments are made to the stitcher head.



Replacing Spare Parts (Figure 16)

The following are some of the more common wear parts which will need to be removed and replaced in your G20 style Stitcher Head. Some common replacement parts do not require the Stitcher Head to be removed from the stitcher machine. These parts will be addressed first, then a more specific explanation for disassembling and replacing wear parts for the G20 Stitcher Head will follow.

Removing and Replacing the Wire Cutters Figure 17

The Moving Wire Cutter (G20145) has several cutting surfaces, each of which may be used by rotating the Cutter's position on the Cutter Operating Slide (G20598). Worn Cutters can cause poor stitch quality. To change or reverse the Moving Wire Cutter, first remove the

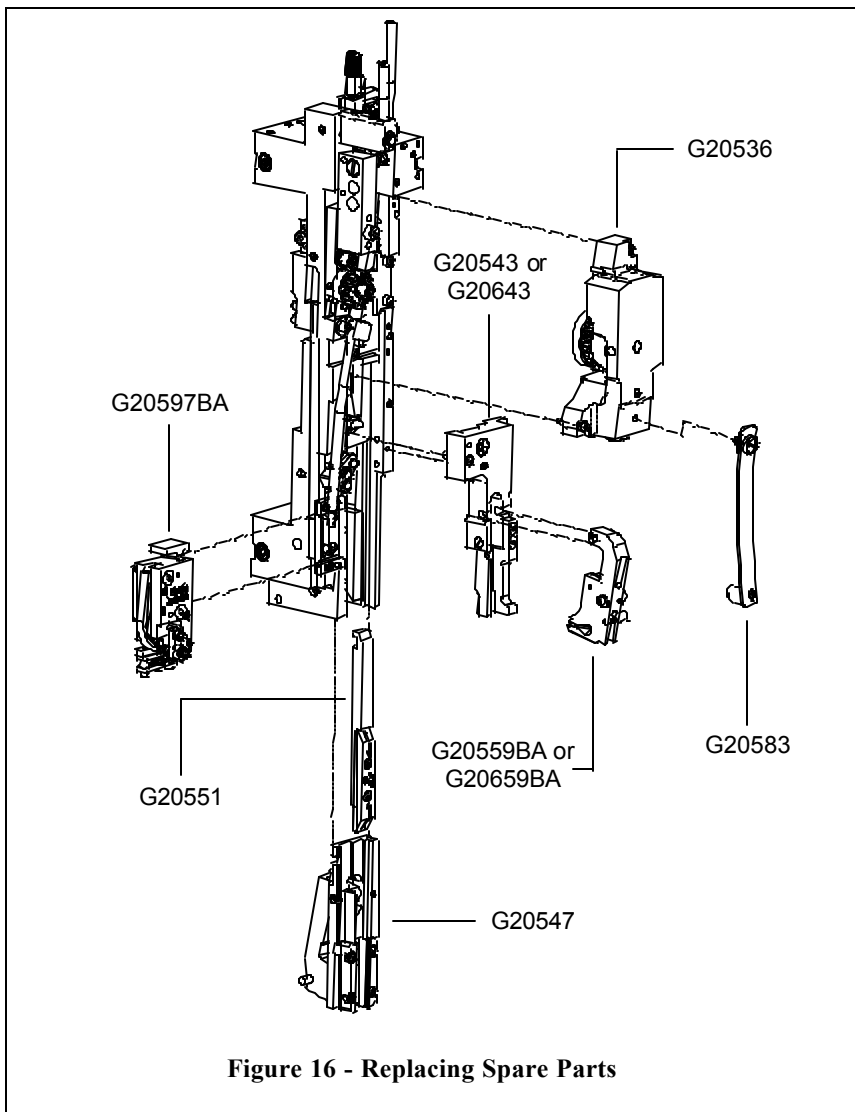


Figure 16 - Replacing Spare Parts

complete Cutter Block Assembly (G20597BA) from the stitcher head. Loosen and remove the two (2) Socket Flat Head Screws (G20616) on the front of the assembly and pull the Cutter Block away from the G20 Head. Be careful, the Cutter Operating Slide may spring out from the Cutter Block Assembly. Loosen the Flat Head Machine Screw (G20214) securing the Cutter to the Slide and rotate the Cutter until a new cutting surface is exposed. If there are no more sharp edges available, remove the Screw completely and install a new Moving Cutter. Replace the Machine Screw and be sure to tighten it completely so that the Cutter does not rotate on the Slide.

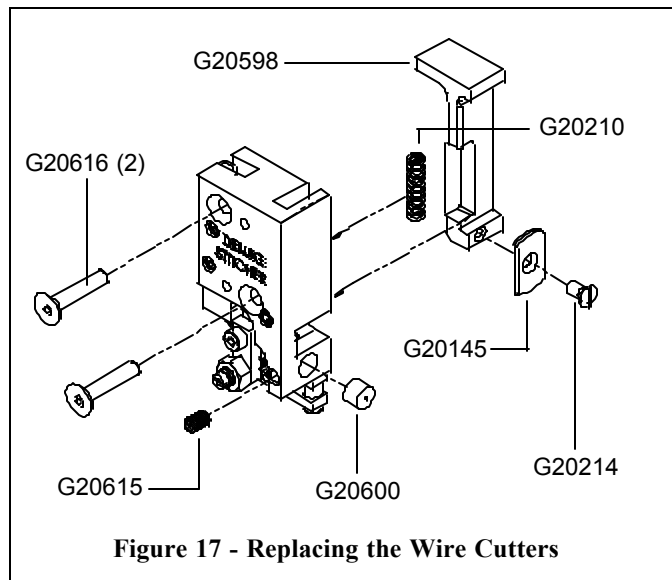


Figure 17 - Replacing the Wire Cutters

Make sure the Cutter Operating Spring (G20210) is resting against the Spirol Pin (G20217) in the Cutter Block Assembly. Compress the Spring with the edge of the Cutter Operating Slide and return the Slide to its position in the Cutter Block Assembly. Support the Operating Slide by holding the back of the Cutter Block and line up the two (2) Dowel Pins (G20588) in the back of the Assembly with the Cutter Block Slide Plate (G20602). Replace the two (2) Socket Flat Head Screws and make sure there is little or no play in the Assembly.

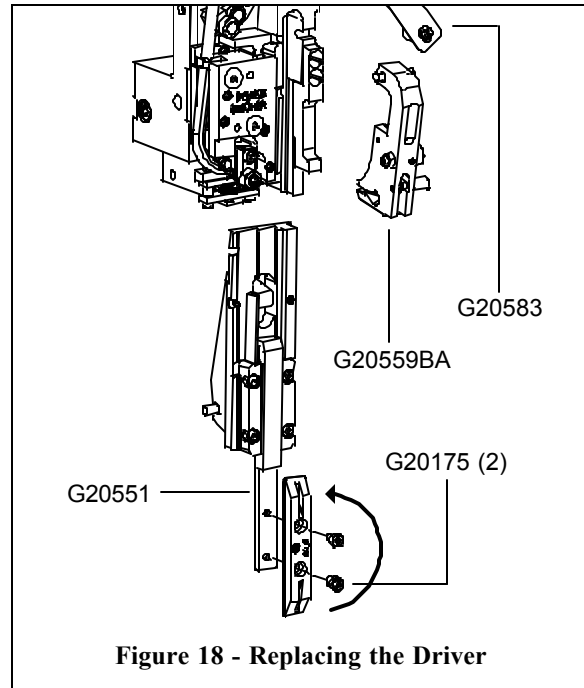
Like the Moving Cutter, the Fixed Wire Cutter (G20600) can be rotated when the cutting surface is worn or replaced when no sharp surfaces are left. The complete Cutter Block Assembly has to be removed from the Stitcher Head again by removing the two (2) Socket Flat Head Screws. Remove the Cutter Operating Slide from the Cutter Block to reveal the Fixed Cutter. Loosen, but do not remove, the Socket Head Set Screw (G20615) on the front of the Cutter Block which secures the Cutter. Rotate the Cutter until a new surface is exposed or replace it completely worn. The Cutter can be rotated three or four times before needing to be replaced. Once the Cutter has been rotated and before tightening the Cap Screw to secure the new position, make sure the Fixed Wire Cutter is aligned correctly within the Cutter Block.

In order to obtain a clean edge on the cut wire, there can be no gap between the Moving and Fixed Cutters. Replace the Cutter Operating Slide and compress it against the Cutter operating Spring until the Moving Cutter just passes the hole in the Fixed Cutter. While holding this position, push the Fixed Cutter against the Moving Cutter, using a small screwdriver as a lever. Tighten the Cap Screw to secure the position of the Fixed Cutter, but be sure to test it once before re-assembling the Cutter Block to the G8 by compressing the Cutter Operating Slide. The Moving Cutter must pass the Fixed Cutter freely and with no visible gap.

Attach the Cutter Block Assembly on the G20 by aligning the Cutter Block with the Slide Plate and replacing the two (2) Socket Head Flat Screws, being careful to support the Cutter Operating Slide.

Removing and Replacing the Driver (Figure 18)

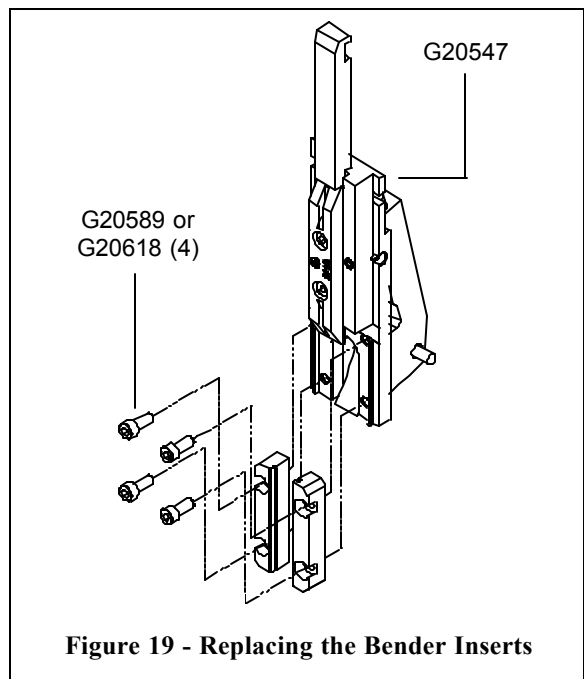
If the staples produced have crowns that are buckled or corners that stick up, or if wire is jamming between the Driver and Driver Bar, the Driver may have to be reversed or replaced. Swing the Wire Holder Retaining Spring (G20583) off of the Wire Holder Assembly (G20559BA) and out of the way. Remove the two (2) Socket Head Cap Screws (G20175) securing the Driver* to the Driver Bar (G20551) and slide the Driver out from between the two (2) Bender Inserts.* The ends of the Driver are identical so when one end is worn or chipped, it can be reversed. If both ends are worn, replace the existing Driver with a new one. Add a little threadlocker to the Screws before returning them to the Driver Bar. Replace the Wire Holder Assembly and Wire Holder Retaining Spring.



Removing and Replacing the Bender Inserts (Figure 19)

If the legs of the formed stitch are spread, the crown buckled or the wire exiting the head sheared the Bender Inserts* may have to be replaced. Remove the two (2) Socket Head Cap Screws (G20589 or G20618) securing each of the Bender Inserts and slide them down and out from the Bender Bar (G20547). The Cutter Block Assembly (G20597BA) may have to be repositioned or removed to gain access to the Bender Insert Screws. If only one end of the inserts is worn, reverse their positions on the Bender Bar and replace the Screws securing them. If there is excessive build-up or damage to the Inserts, replace them with new. Make sure the Inserts are placed firmly against the steps on the Bender Bar and the Driver* can pass freely between the Bender Inserts once the Screws are tightened.

Be sure the gauge and crown size of the Bender Inserts match the gauge and crown size of the Driver installed. For a complete list of parts and their descriptions, refer to page 47 at the back of this manual.



Removing and Replacing the Clincher Points (Figure 20)

The Clincher Point (7024B or 7257B), when worn, may cause poorly formed staple legs. Loosen, but do not remove, the two (2) Round Head Machine Screws (UA3310.3) until the Clincher Slide (18182) can be disengaged from the stitcher machine and slid out of the Clincher Plate Assembly (7253A or 7650A) or down within it. Rotate the Clincher Points upwards until they could be pulled out. Replace the Points when they are worn or chipped. Rotate the Clincher Points downward before replacing the Clincher Slide. Make sure the Points are engaged by the Slide before tightening the Machine Screws in the Clincher Slide Retaining Strap (7256B).

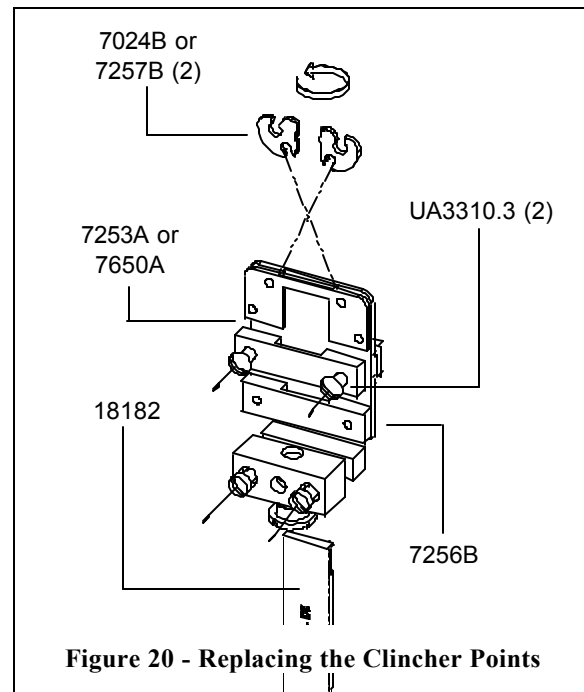


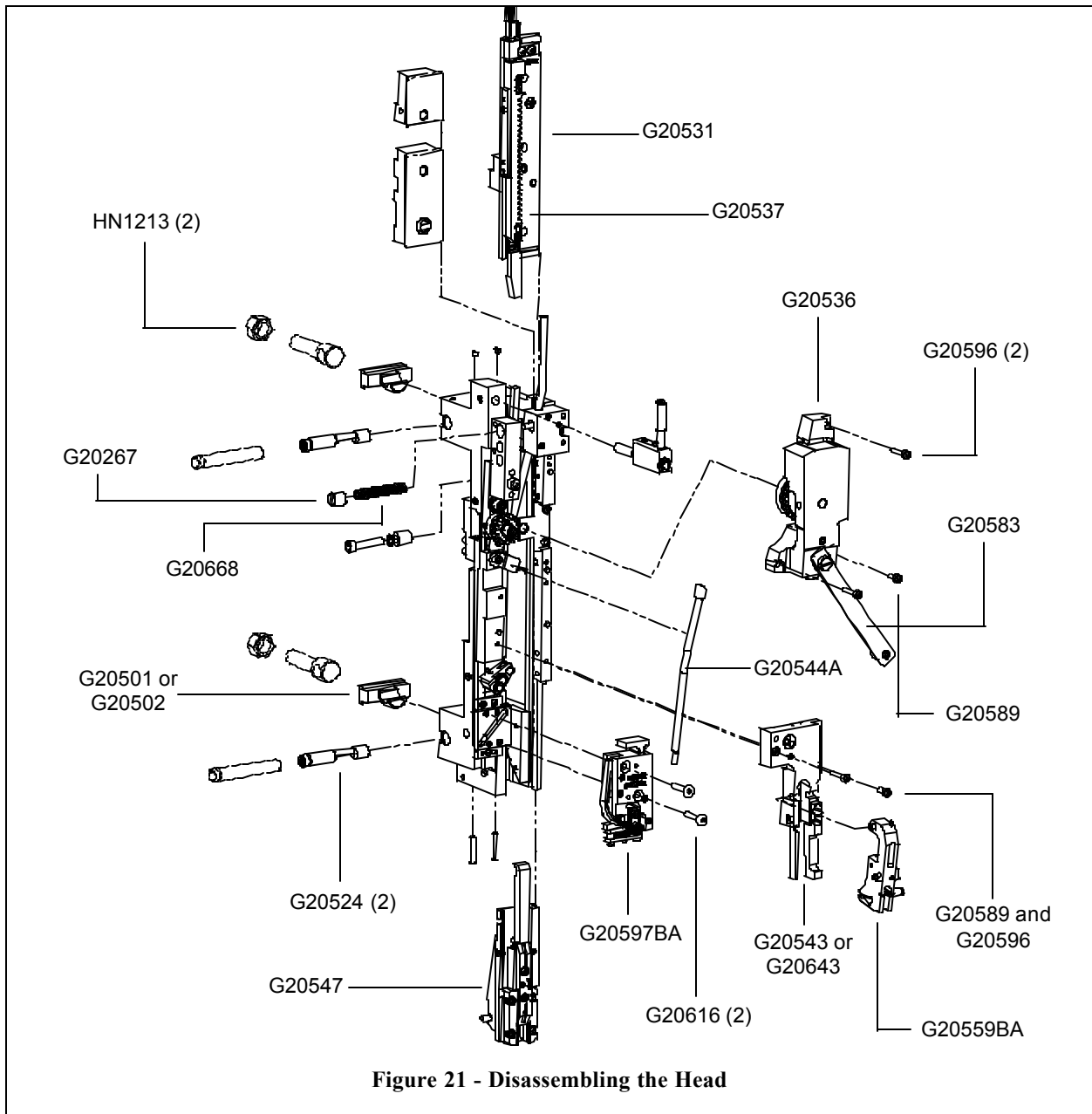
Figure 20 - Replacing the Clincher Points

Disassembling the Stitcher Head (Figure 21)

Remove the G20 style Stitcher Head from the stitcher machine. On Clamp-mount style heads, loosen the two (2) Clamp Block Eccentrics (G20524 or G20503 and G20524) and remove the Stitcher Head from the Bonnet Clamp Blocks (G20501 or G20502). On Bolt-mount style heads, loosen and remove the Bonnet Stud Nut (HN1213) while supporting the Head. Remove the Head from the stitcher machine and place it on a clean work area.

Swing the Wire Holder Retaining Spring (G20583) away from the G20 and remove the Wire Holder Assembly (G20559BA). Snap the Middle Wire Tube (G20544A) out of the Middle Wire Tube Clip (G20244) and remove it from the Lower Wire Tube (G205199A) in the Cutter Block Assembly (G20597BA). Remove the two (2) Cap Screws (G20596) and the one (1) Cap Screw (G20589) securing the Feed Gear Bracket (G20536) to the Bonnet Assembly (G20500A) and remove the Feed Gear Bracket. Remove the two (2) Socket Flat Head Screws (G20616) securing the Cutter Block Assembly to the Bonnet and remove the Cutter Block. Remove each of the Cap Screws (G20589 and G20596) to release the Wire Holder Pivot Block (G20543 or G20643) from the Bonnet. Remove the Cap Screw (G20697) from the Adjustment Block (G20592) and Upper Adjustment Slide (G20645). The Adjustment Block, Feed Slide (G20531), Bender Slide (G20562) and Bender Bar (G20547) can be removed from the top of the Stitcher Head now. Be careful when removing the Bender Slide and Bender Bar and there is substantial pressure between the Plungers and Springs.

Remove the Feed Lever Spring Bushing (G20267) and Feed Lever Spring (G20668) from the Feed Lever Extension (G20534B). Loosen, but do not remove, the Screw (G20681) securing the Feed Lever Pin (G20262A) in the Bonnet Assembly and remove the Feed Lever. Check the Feed Gear Shaft Plate (G20582) for wear or warping and replace if necessary.



Any of the other G20 Head assemblies can now be taken apart for cleaning or repair. The Bonnet itself can also be cleaned or checked for damage. Most common wear parts can be exchanged while the Head is still assembled though. Re-assembling the Head is as simple as reversing the method used to disassemble the Head. Always turn the machine over manually anytime repairs or adjustments are made for the safety of both the operator and the Stitcher Head.

Re-assembling the Stitcher Head (Figure 21)

1. Compress the Supporter Plunger (G20742) with the Bender Slide Plunger (G20564) until the Bender Slide Pin (G20569) can be hooked in the back of the Bender Bar. Slide these two assemblies into the G20 Bonnet, from the top.
2. Hook the Driver Bar (G20551) on the Feed Slide (G20531) and slide both assemblies in from the top of the Bonnet. Make sure the Driver slides freely between the two (2) Bender Inserts on the Bender Bar. Slide the Adjustment Block in next and re-attach the Upper Adjustment Slide to it with the Cap Screw. Final position and tightening of this Screw will come after the head is mounted on a machine.
3. Replace the Feed Gear Shaft Plate, the Feed Lever and the Cutter Operating Lever Assembly, if removed previously. Slip the Feed Lever Spring back through the Feed Lever Extension and secure it with the Feed lever Spring Bushing.
4. Re-assemble the Wire Holder Pivot Block and Feed Gear Bracket to the G20 Bonnet and secure them in place with the previously removed Cap Screws. The large Feed Gear may have to be manually maneuvered to align it with the teeth on the Wire Feed Rack (G20537).
5. Assemble the Cutter Block Assembly to the Cutter Block Slide Plate (G20202) with two (2) Socket Flat Head Screws. There should be little or no play once the Block is secure, but if there is any movement, remove both the Cutter Block and the Slide Plate. Re-assemble the Slide Plate to the Bonnet so that it slides side to side but not up and down.
6. Return the Wire Holder Assembly to its position under the Wire Holder Retaining Spring and the Middle Wire Tube to its position by inserting it into the Lower Wire Tube and snapping it into place in the Middle Wire Tube Clip.

Troubleshooting (Figure 22)

The quality and quantity of work that can be produced with the G20 Stitcher 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 solutions which should cover the majority of situations encountered when stitching with the G20 Stitching Head. In the event of problems of this nature occurring, the operator can, by referring to the following troubleshooting chart, quickly locate the solutions.

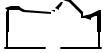
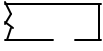
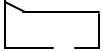

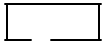
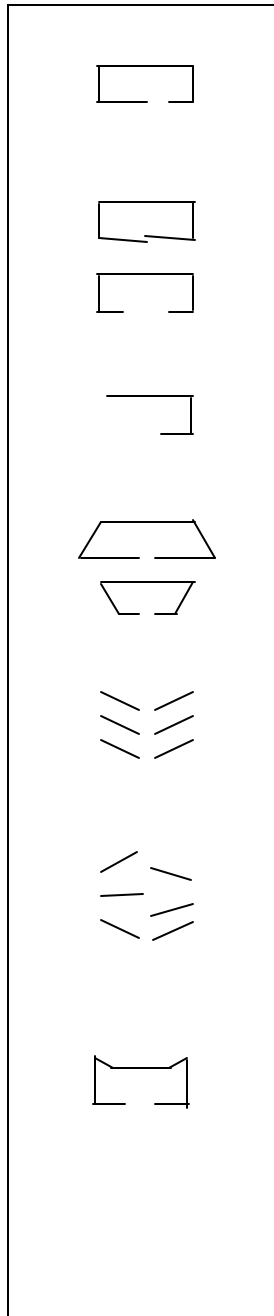
	<p>PROBLEM: Crown Not Straight</p> <p>SOLUTION: Straighten the wire. (See page 13) Align the Clincher Points. (See page 18) Reverse or replace the worn or broken Driver. (See page 23) Make sure the Cutters are aligned and not dull. (See page 21) Check for correct wire size and strength being used. Check for correct work thickness setting.</p>
	<p>PROBLEM: Leg(s) Buckled</p> <p>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. (See page 21) Make sure the Cutters are aligned properly. (See page 22) Make sure the correct wire size is being used and that the wire is straight. (See page 13).</p>
	<p>PROBLEM: Corner Buckled</p> <p>SOLUTION: Check the Driver for a chipped corner and rotate or replace it if needed. (See page 23) Align the Wire Holder. (See page 13) Straighten wire. (See page 13) Check the tensile strength of the wire or use thicker wire.</p>
	<p>PROBLEM: Clinch Too Loose</p> <p>SOLUTION: The Clincher Points are too low and need adjusting. (See page 18) The compression of the stitcher machine is insufficient and needs to be increased.</p>
	<p>PROBLEM: Left Leg Too Short / Right Leg Too Long</p> <p>SOLUTION: Adjust the position of the Cutter Block Assembly by moving it away from the Head. (See page 15)</p>

Figure 22 - Troubleshooting



PROBLEM: Left Leg Too Long / Right Leg Too Short

SOLUTION: Adjust the position of the Cutter Block Assembly by moving it away toward the Head. (See page 15)

PROBLEM: Staple Legs Too Long or Too Short

SOLUTION: Correct the overall wire draw by repositioning the Feed Slide within the G20 Head. (See Page 16)

PROBLEM: Left Leg Missing

SOLUTION: Straighten the wire. (See page 13) The Wire Holder Assembly is not aligned properly with the groove in the Bender Bar.

PROBLEM: Legs are Spread or Contracted

SOLUTION: Straighten the wire. (See page 13) Replace worn Bender Inserts. (See page 23)

PROBLEM: Legs Stray Forward or Backward Consistently

SOLUTION: The Clincher Points are not aligned properly front to back. (See page 17) Straighten the wire. (See page 13)

PROBLEM: Stitch Stray Randomly In and Out and Front to Back

SOLUTION: Straighten the wire. (See page 13) Make sure the Cutters are aligned properly. (See page 21) Check the tensile strength of the wire or use thicker wire.

PROBLEM: Weak crown, crown breaks off after stitch

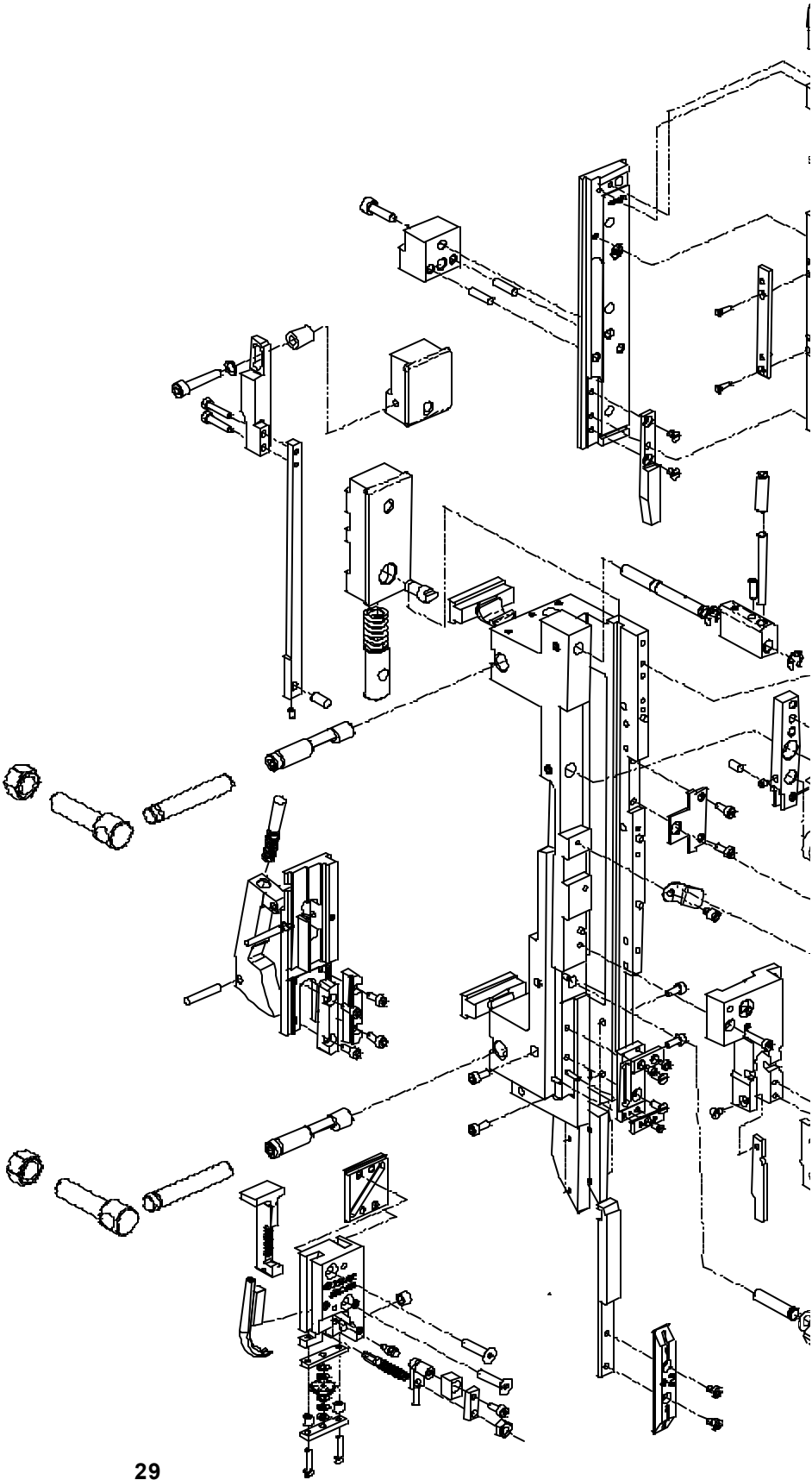
SOLUTION: Align the Wire Holder with the grooves in the Bender Bar (See page 13). Check the tensile strength and size of the wire being used.

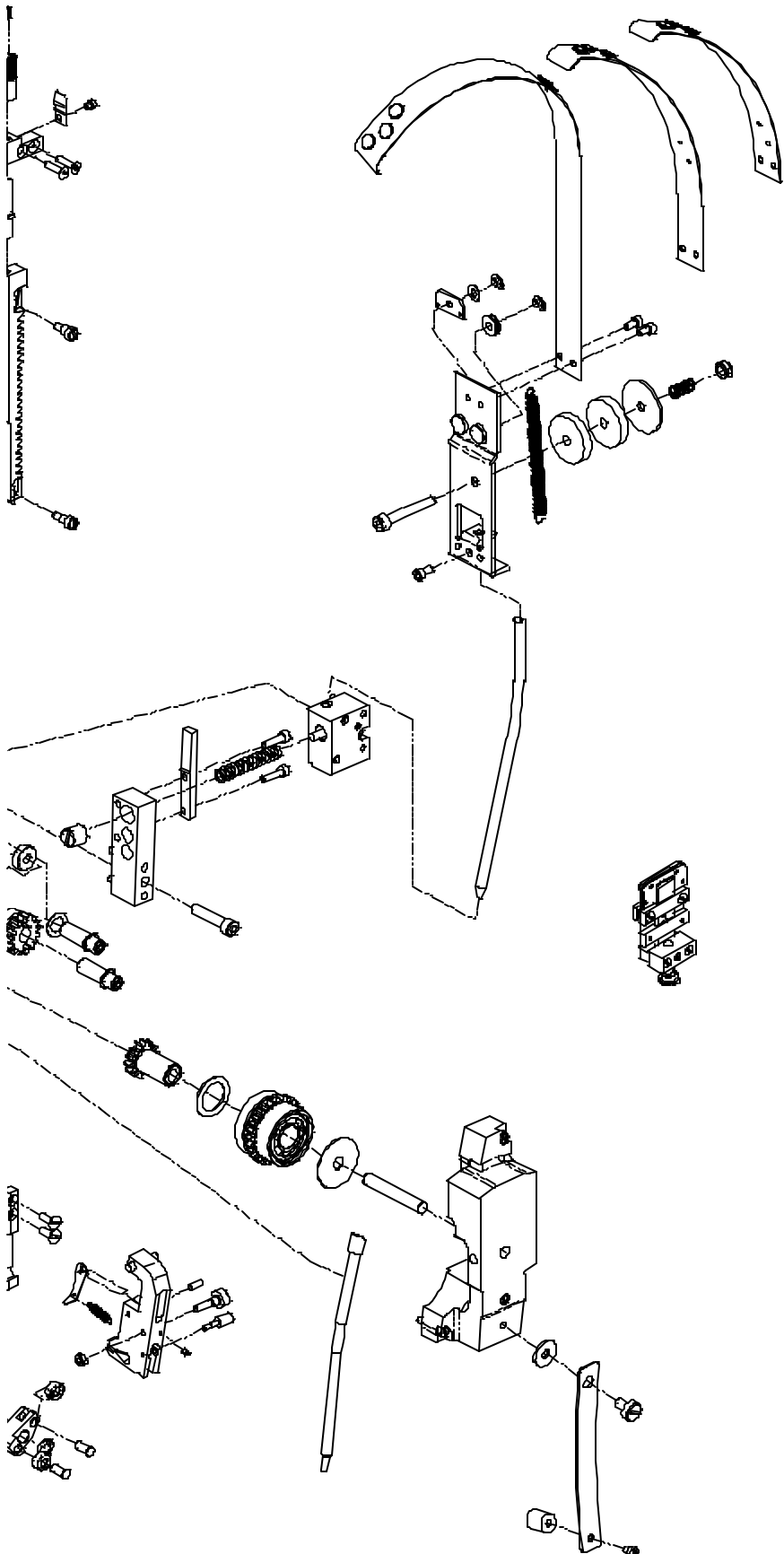
PROBLEM: No wire being drawn

SOLUTION: Make sure the Feed Release Cam is turned to the “on” position and the Feed Gears engaged. (See page 12)

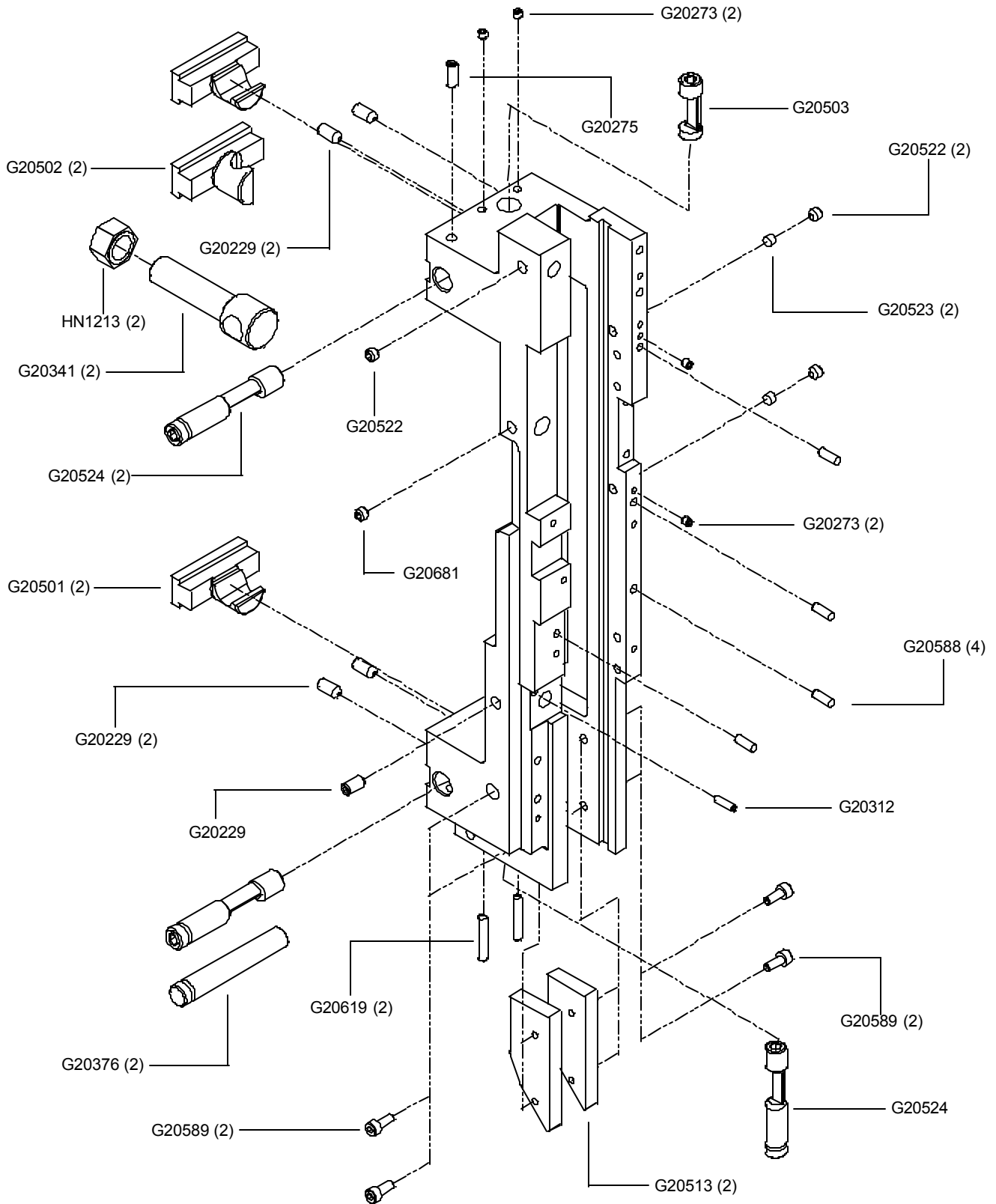
Figure 22 - Troubleshooting

The G20 Stitcher Head





Bonnet Sub-Assembly



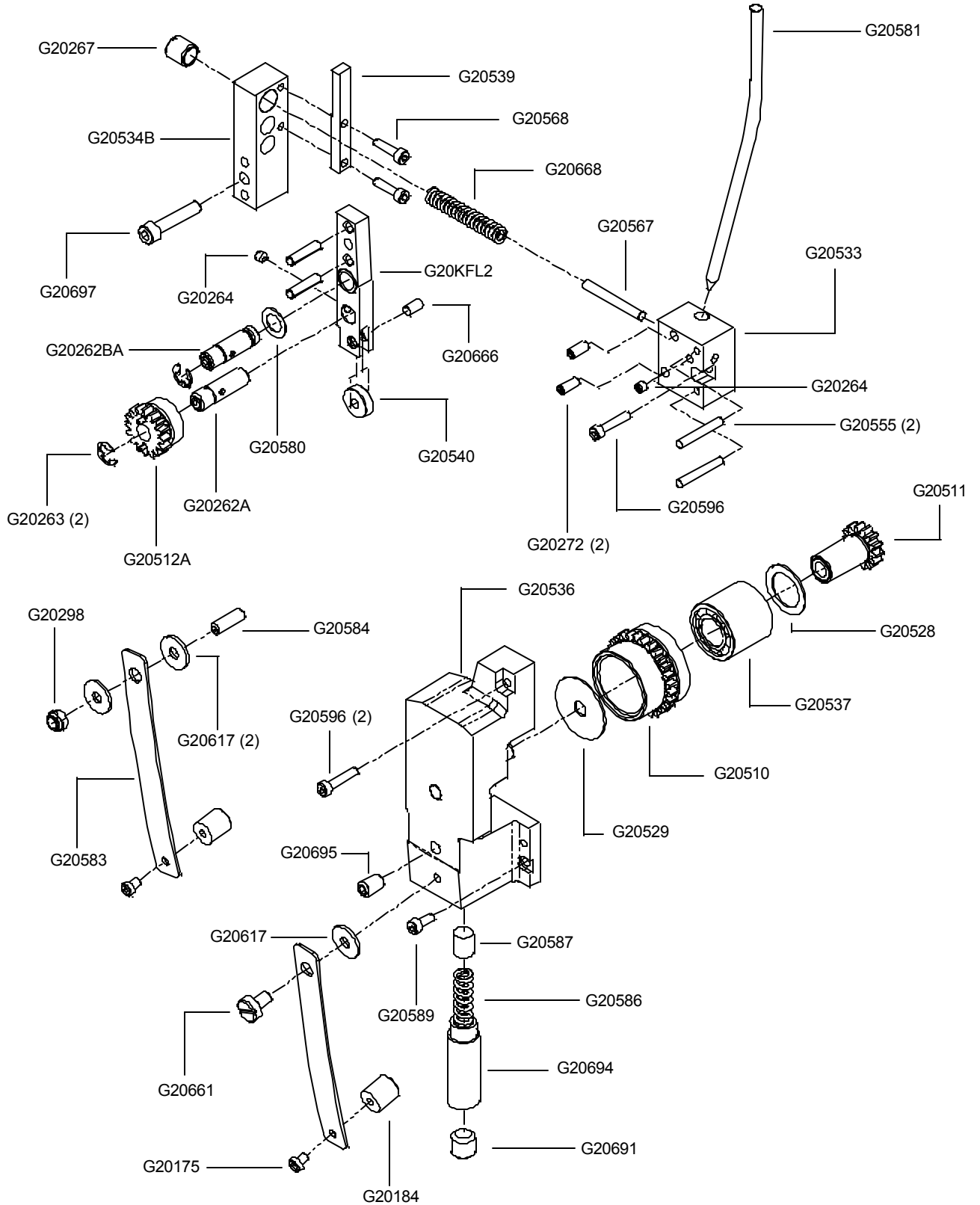
Bonnet Sub-Assembly

PART No.	DESCRIPTION	QUANTITY
G20113	Supporter Guide Plate	2
G20115	Latch Release Cam	1
G20118	Feed Release Handle Cam	1
G20119	Feed Release Handle	1
G20121	Feed Release Plunger	1
G20122A	Feed Slide Retaining Screw Assembly	2
G20124	Bonnet Clamp Eccentric	1
G20126	Tube Pivot Plate	1
G20133A	Feed Release Spring Block Assembly	1
G20140	Follower Ball Bearing	1
G20167	Screw, M4x.7x10 FHCS	2
G20170	Hex Jam Nut M8x1.25	1
G20175	Screw M4x.7x6 SHCS	2
G20182	Feed Gear Shaft Plate	1
G20190	Screw M3x.5x10- FHMS - Slotted	2
G20191	Screw, M4x.7x8 SHSS	3
G20196	Screw M3x.5x6 SHCS	2
G20202	Cutter Block Slide Plate	1
G20204	Upper Cutter Block Guide	1
G20214	Screw M4x0.7x8 FHMS	2
G20220	Hex Nut M5x.8	1
G20229	Set Screw M6x1x12	2
G20230A	Cutter Operating Lever Assembly	1
G20231	Cutter Operating Lever Pivot Pin	1
G20232	Cutter Operating Lever Roll Pin	1
G20233	Cutter Operating Lever Roller	1
G20234	E-Ring- 3/16"	2
G20235	Follower Bearing Shaft	1
G20236	Tube Pivot Screw	1
G20237	Cutter Block Adjustment Stud	1
G20239	Disc Washer Spring	2
G20240	Cutter Block Adjustment Washer	2
G20241	Screw M4x0.7x6 SHCS	4
G20242	Cutter Adjustment Bar - Lower	1
G20243	Dowel Pin 1/4x9/16	1
G20244	Tube Pivot Clip	1
G20275	Ball Spring Plunger	1
G20341	Rear Mounting Bolt	2
G20376	Rear Clamp Pin	2
G20502	Bonnet Clamp Block - Vertical	2
G20503	Bonnet Clamp Eccentric	1
HN1213	Bonnet Stud Nut	2
9002	Bonnet Clamp Block	1

Bonnet Sub-Assembly

PART No.	DESCRIPTION	QUANTITY
G20113	Supporter Guide Plate	2
G20115	Latch Release Cam	1
G20118	Feed Release Handle Cam	1
G20119	Feed Release Handle	1
G20121	Feed Release Plunger	1
G20122A	Feed Slide Retaining Screw Assembly	2
G20124	Bonnet Clamp Eccentric	1
G20126	Tube Pivot Plate	1
G20133A	Feed Release Spring Block Assembly	1
G20140	Follower Ball Bearing	1
G20167	Screw, M4x.7x10 FHCS	2
G20170	Hex Jam Nut M8x1.25	1
G20175	Screw M4x.7x6 SHCS	2
G20182	Feed Gear Shaft Plate	1
G20190	Screw M3x.5x10- FHMS - Slotted	2
G20191	Screw, M4x.7x8 SHSS	3
G20196	Screw M3x.5x6 SHCS	2
G20202	Cutter Block Slide Plate	1
G20204	Upper Cutter Block Guide	1
G20214	Screw M4x0.7x8 FHMS	2
G20220	Hex Nut M5x.8	1
G20229	Set Screw M6x1x12	2
G20230A	Cutter Operating Lever Assembly	1
G20231	Cutter Operating Lever Pivot Pin	1
G20232	Cutter Operating Lever Roll Pin	1
G20233	Cutter Operating Lever Roller	1
G20234	E-Ring- 3/16"	2
G20235	Follower Bearing Shaft	1
G20236	Tube Pivot Screw	1
G20237	Cutter Block Adjustment Stud	1
G20239	Disc Washer Spring	2
G20240	Cutter Block Adjustment Washer	2
G20241	Screw M4x0.7x6 SHCS	4
G20242	Cutter Adjustment Bar - Lower	1
G20500	Bonnet - G20	1
G20544A	Middle Wire Tube Assembly	1
9002	Bonnet Clamp Block	1

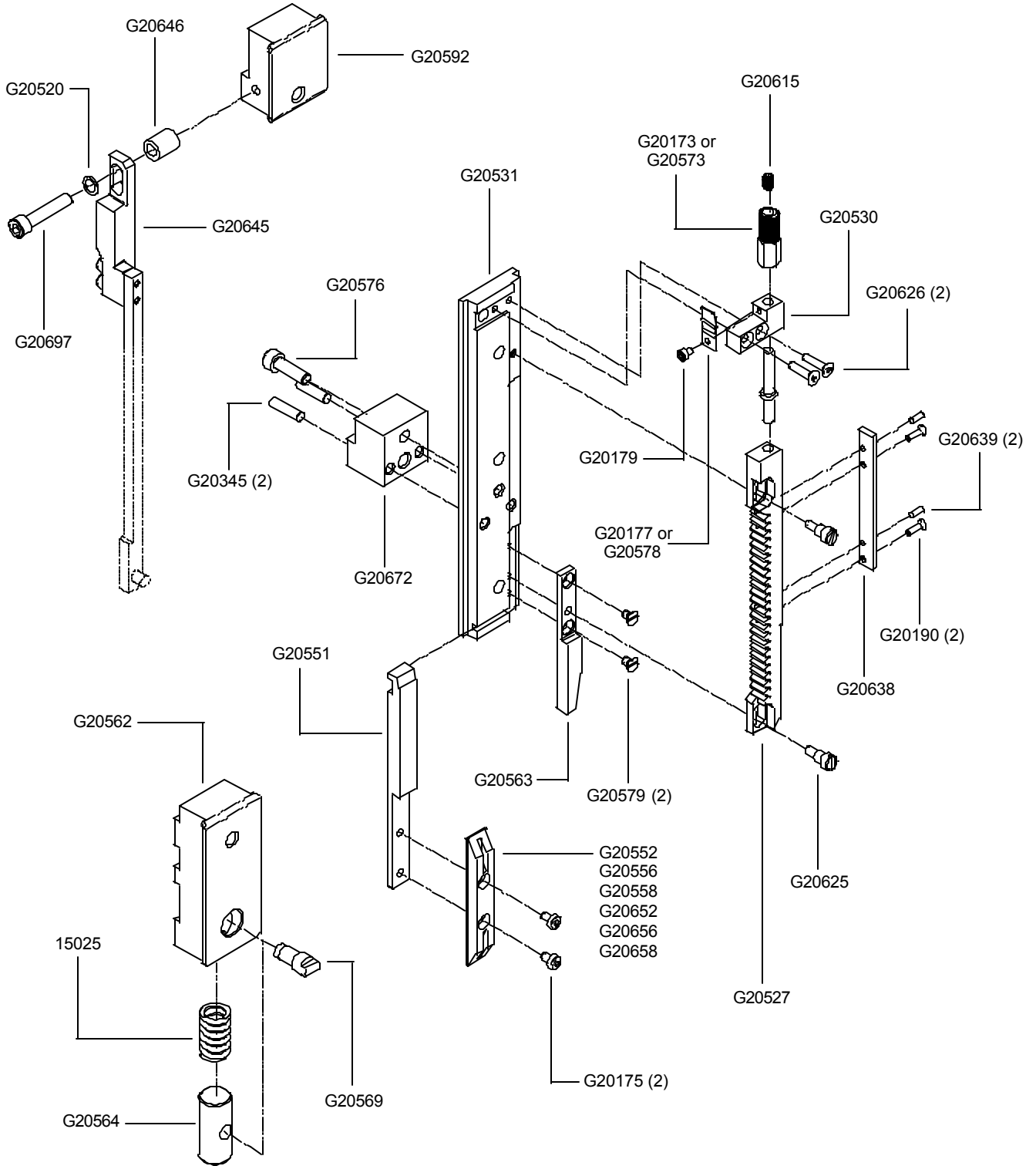
Feed Lever and Feed Gear Assemblies



Feed Lever and Feed Gear Assemblies

PART No.	DESCRIPTION	QUANTITY
G20KFL2	Kit - Feed Lever	1
G20175	Screw M4x0.7x6, Nylon	1
G20184	Wire Holder Retaining Spring Foot	1
G20262A	Feed Lever Pin Assembly	1
G20262BA	Feed Lever Pin Asy (With V-Groove)	1
G20263	Feed Lever E-Ring	2
G20264	Screw M5x0.8x5, Nylon	2
G20267	Feed Lever Bushing	1
G20272	Screw M5x0.8x12	2
G20298	Nylock Lock Nut, M6x1	1
G20510	Large Feed Gear	1
G20511	Feed Pinion	1
G20512A	Small Feed Gear Assembly	1
G20528	Feed Pinion Washer	1
G20529	Feed Gear Washer	1
G20533	Feed Lever Spring Block	1
G20534B	Feed Lever Extension	1
G20536	Feed Gear Bracket	1
G20537	Feed Gear Clutch	1
G20539	Feed Lever Cam Bar	1
G20540	Feed Lever Bearing	1
G20555	Dowel Pin M4x30	2
G20567	Dowel Pin M5x40	1
G20568	Screw M4x0.7x16	1
G20580	Washer Shim	1
G20581	Upper Wire Tube	1
G20583	Wire Holder Retaining Spring	1
G20584	Screw M6x1.0x20	1
G20586	Feed Gear Friction Spring	1
G20587	Feed Gear Friction Plug	1
G20589	Screw M4x0.7x10	1
G20596	Screw M4x0.7x20	3
G20617	Washer M6x18x1.6	3
G20661	Wire Holder Retaining Spring Screw	1
G20666	Feed Lever Bearing Pin	1
G20668	Feed Lever Spring	1
G20691	Screw M12x1.75x12	1
G20694	Feed Gear Friction Bushing	1
G20695	Screw M8x1.25x12, Flat Point	1
G20697	Screw M6x1.0x30	1

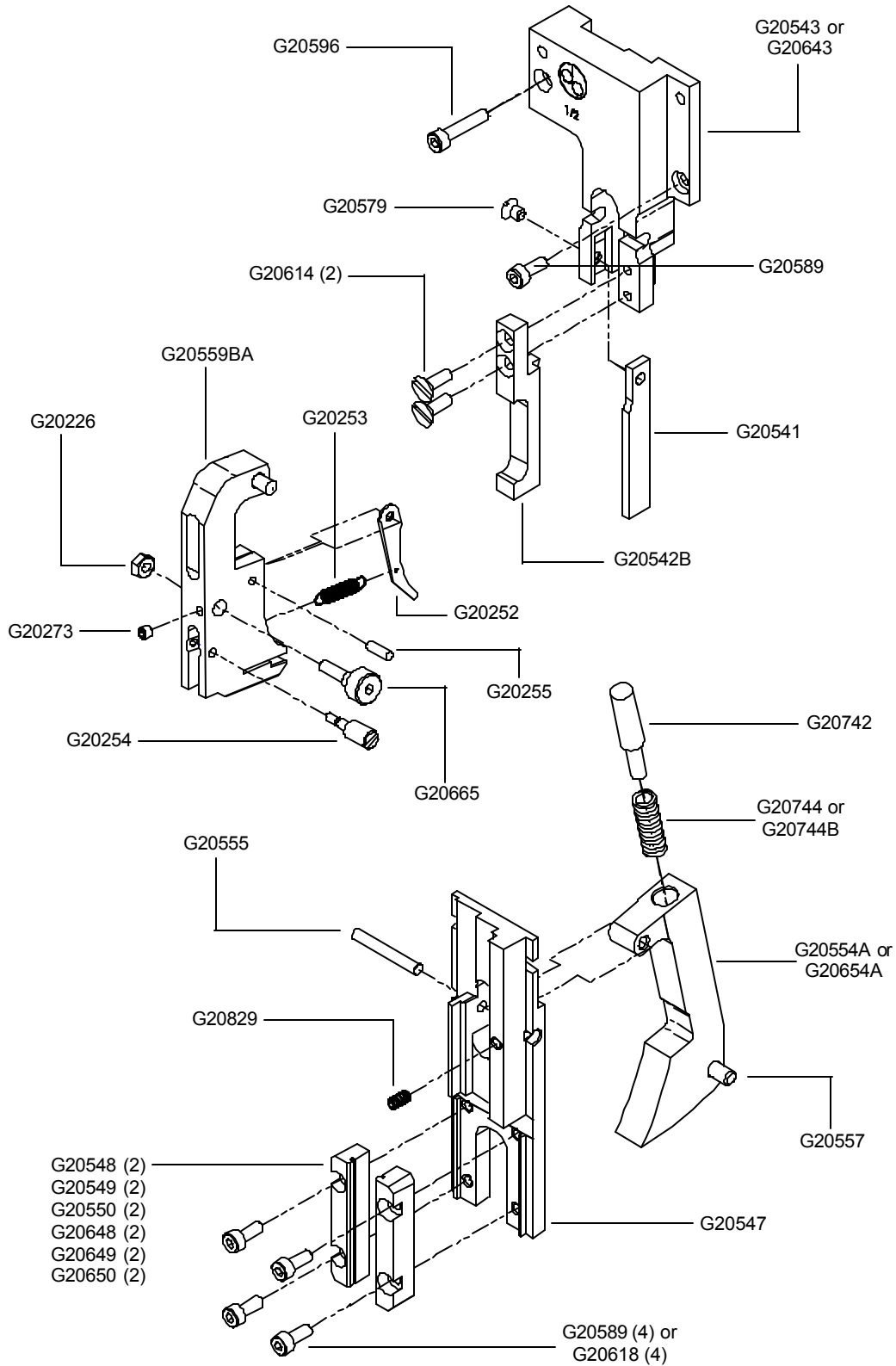
Driving and Feed Slide Assemblies



Driving and Feed Slide Assemblies

PART No.	DESCRIPTION	QUANTITY
G20173	Feed Rack Knob - Knurled	1
G20175	Screw M4x0.7x6, Nylon	2
G20177	Feed Rack Adj Knob Pointer	1
G20179	Screw M3x0.5x4	1
G20190	Screw M3x0.5x10	2
G20345	Dowel Pin M5x20	2
G20520	Ribbed Lock Washer M6	1
G20527	Feed Rack	1
G20530	Feed Rack Block	1
G20531	Feed Slide	1
G20551	Driver Bar	1
G20552	Driver 1/2 - 24 Wire	1
G20556	Driver 1/2 - 20x24 Wire	1
G20558	Driver 1/2 - 20 Wire	1
G20562	Bender Slide	1
G20563	Cutter Operating Lever Cam	1
G20564	Bender Slide Plunger	1
G20569	Bender Slide Pin	1
G20573	Feed Rack Adjustment Knob	1
G20576	Screw M6x1.0x20	1
G20578	Rack Adjustment Knob Detent	1
G20579	Screw M4x0.7x6	2
G20592	Adjustment Block	1
G20615	Screw M5x0.8x8	1
G20625	Feed Rack Guide Screw, Nylon	1
G20626	Screw M4x0.7x16	2
G20638	Feed Rack Cam Plate	1
G20639	Dowel Pin M3x8	2
G20645	Adjust Slide - Upper	1
G20646	Adjustment Slide Connector	1
G20652	Driver 5/8 - 24 Wire	1
G20656	Driver 5/8 - 20x24 Wire	1
G20658	Driver 5/8 - 20 Wire	1
G20672	Feed Slide Block	1
G20697	Screw M6x1.0x30	1
15025	Bender Slide Spring	1

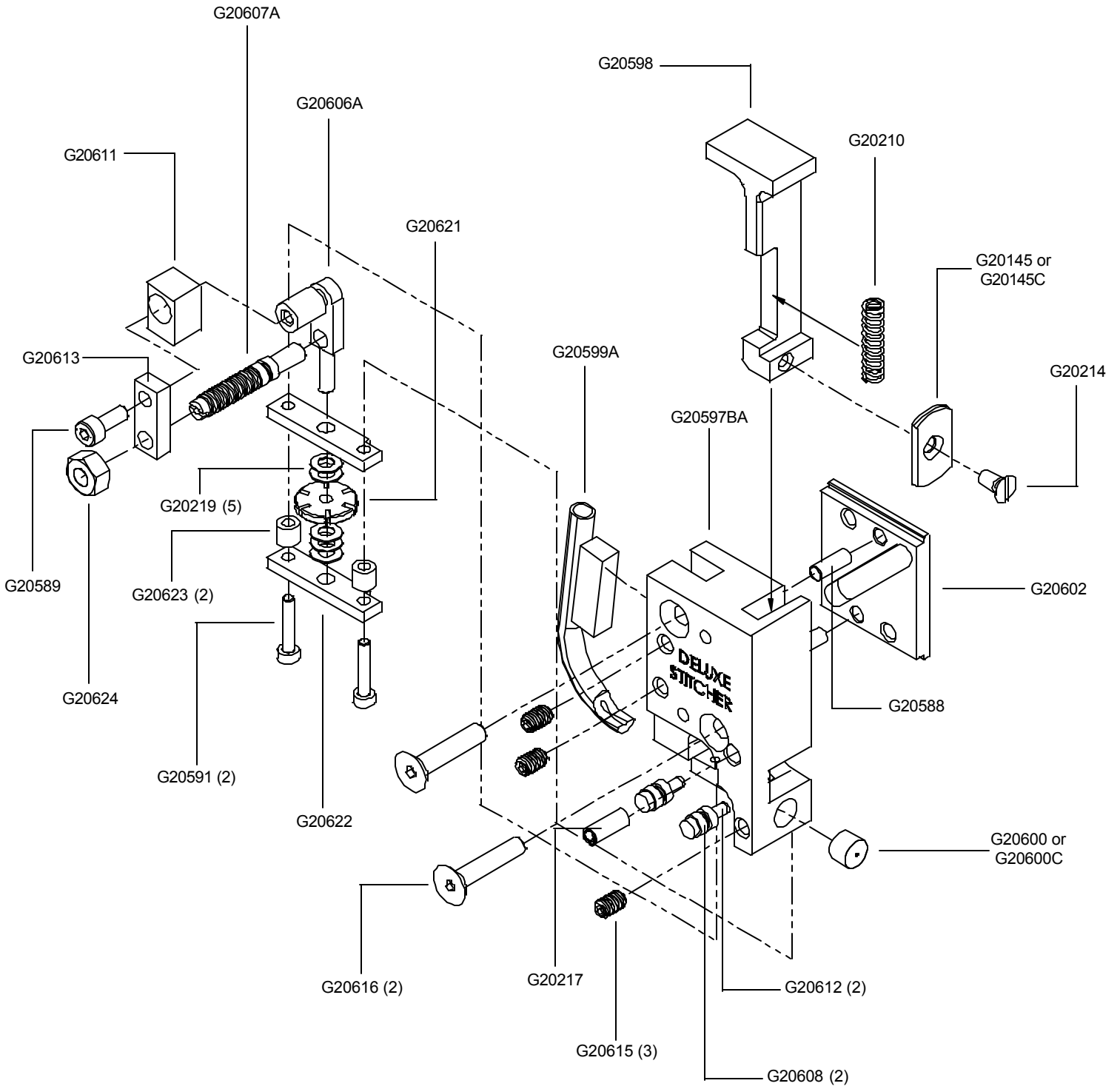
Bender Bar and Wire Holder Assemblies



Bender Bar and Wire Holder Assemblies

PART No.	DESCRIPTION	QUANTITY
G20226	Hex Nut M4x.7	1
G20252	Wire Hook	1
G20253	Wire Hook Spring	1
G20254	Wire Hook Spring Screw, Nylon	1
G20255	Hook Pivot Pin	1
G20273	Screw M4x.7x4, Nylon	1
G20541	Wire Guide Bar - Left	1
G20542B	Wire Guide Bar - Right	1
G20543	Wire Holder Pivot Block 1/2	1
G20547	Bender Bar	1
G20548	Bender Insert 1/2 - 24 Wire	2
G20549	Bender Insert 1/2 - 20 Wire	2
G20554A	Supporter Assembly 1/2	1
G20555	Dowel Pin M4x30	1
G20557	Dowel Pin M5x28	1
G20559BA	Wire Holder Assembly 1/2	1
G20579	Screw M4x0.7x6	1
G20589	Screw M4x0.7x10	5
G20596	Screw M4x0.7x20	1
G20614	Screw M4x0.7x12	2
G20618	Bender Screw 5/8	4
G20643	Wire Holder Pivot Block 5/8	1
G20648	Bender Insert 5/8 - 24 Wire	2
G20649	Bender Insert 5/8 - 20 Wire	2
G20650	Bender Insert 5/8 - 20x24 Wire	2
G20654A	Supporter Assembly 5/8	1
G20665	Wire Holder Eccentric Screw	1
G20742	Supporter Plunger	1
G20744	Supporter Spring	1
G20744B	Supporter Spring - Light	1
G20829	Screw M4x.7x8	1

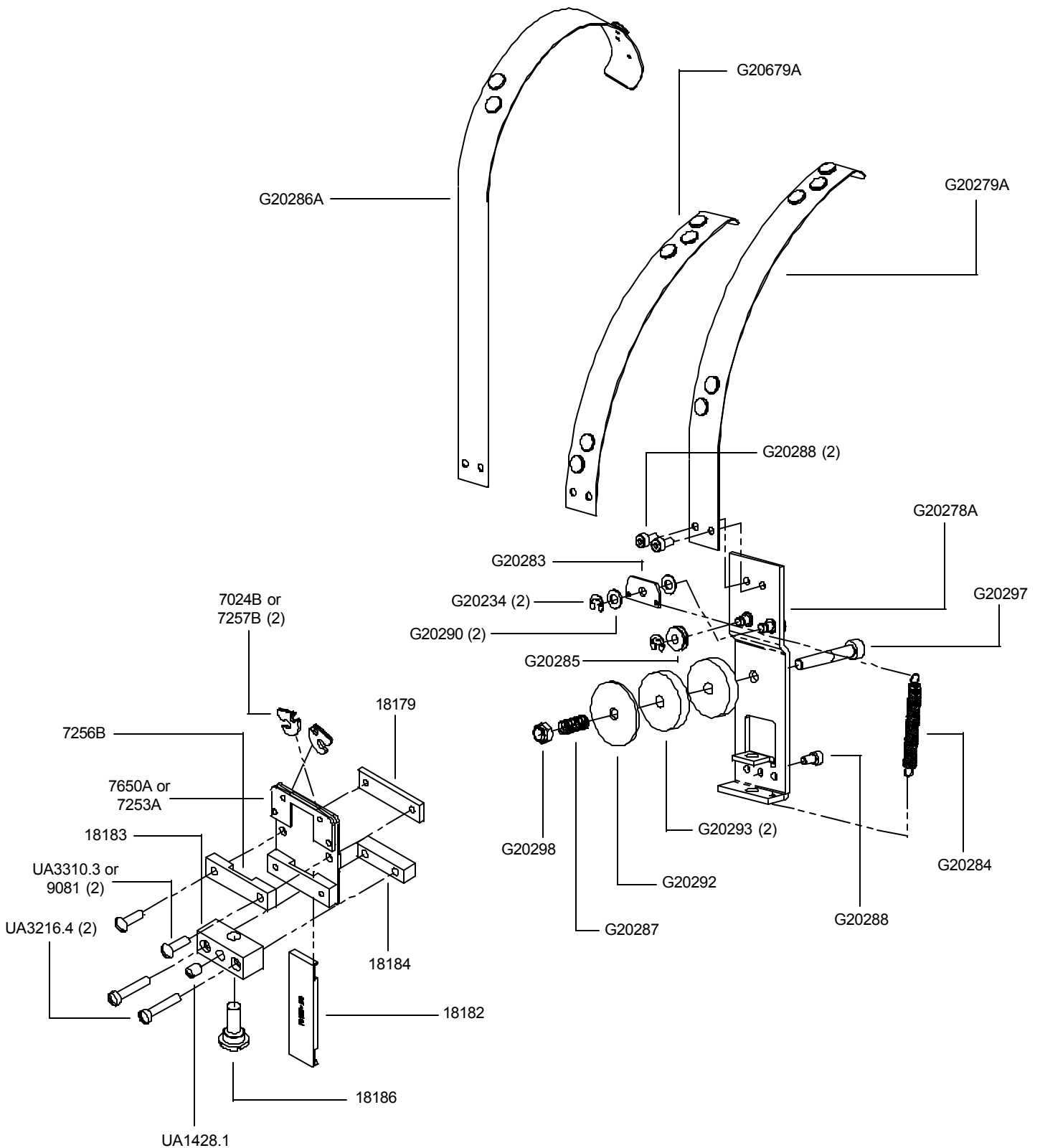
Cutter Block Assembly



Cutter Block Assembly

PART No.	DESCRIPTION	QUANTITY
G20145	Moving Wire Cutter	1
G20145C	Moving Cutter - Carbide	1
G20210	Cutter Operating Spring	1
G20214	Screw M4x0.7x8	1
G20217	Spirol Pin M5x12	1
G20219	Wire Straightener Disc Spring	5
G20588	Dowel Pin M4x12	1
G20589	Screw M4x0.7x10	1
G20591	Screw M3x0.5x16	2
G20597BA	Cutter Block Assembly	1
G20598	Cutter Slide	1
G20599A	Lower Wire Tube Assembly	1
G20600	Fixed Wire Cutter	1
G20600C	Fixed Wire Cutter - Carbide	1
G20602	Cutter Block Slide Plate	1
G20606A	Straightener Slide Assembly	1
G20607A	Wire Roller Assembly	1
G20608	Wire Roller	2
G20611	Wire Guide Block	1
G20612	Wire Roller Stud	2
G20613	Straightener Arm	1
G20615	Screw M5x0.8x8	3
G20616	Screw M5x0.8x25	2
G20621	Straightener Nut	1
G20622	Straightener Nut Plate	1
G20623	Straightener Nut Spacer	2
G20624	Hex Nut M6x0.75	1

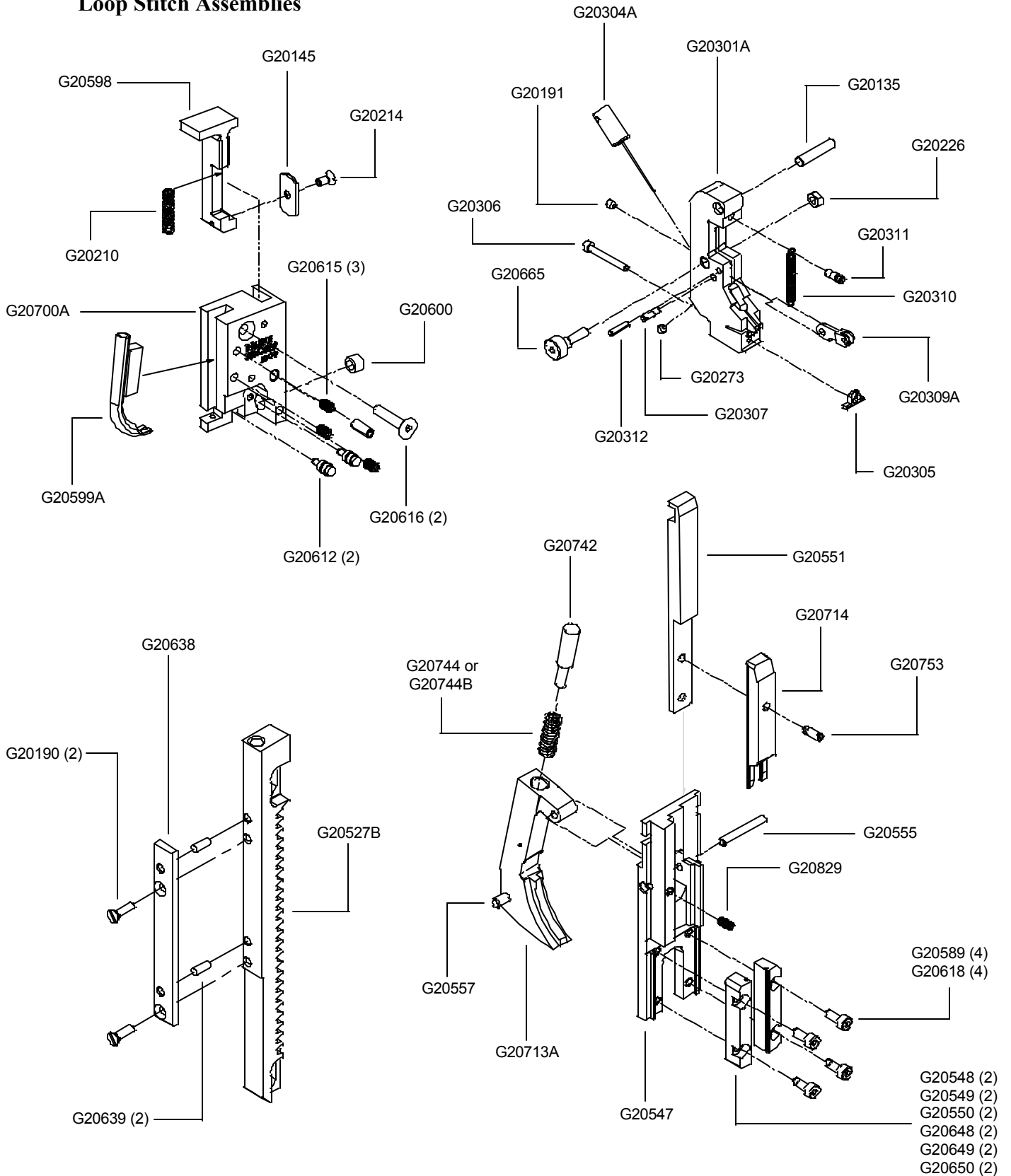
Wire Guide Bracket, Spring and Clincher Plate Assemblies



Wire Guide Bracket, Spring and Clincher Plate Assemblies

PART No.	DESCRIPTION	QUANTITY
G20234	E-Ring 3/16	2
G20278A	Wire Guide Spring Plate Assembly	1
G20278AA	W/G Spring Plate Asy - Complete	1
G20279A	Wire Guide Spring Assembly - Short	1
G20283	Tension Pawl	1
G20284	Tension Pawl Spring	1
G20285	Tension Pawl Roller	1
G20286A	Wire Guide Spring Assembly - Long	1
G20287	Wire Oiler Felt Spring	1
G20288	Screw M4x0.7x8	3
G20290	Flat Washer, M5	2
G20292	Wire Oil Felt, Washer	1
G20293	Wire Oiler Felt	2
G20297	Screw M6x1.0x40	1
G20298	Nylock Lock Nut, M6x1	1
G20679A	Wire Guide Spring Assembly	1
UA1428.1	Set Screw 1/4-28X1/4	1
UA3216.4	Screw 10-32x7/8	2
UA3310.3	Screw 10-32x5/8	2
18179	Clincher Binder Plate	1
18182	Clincher Slide	1
18183	Clincher Slide Adjustment Block	1
18184	Clincher Slide Block Clamp	1
18186	Clincher Slide Adjustment Screw	1
7024B	Clincher Point 1/2 - Flat	2
7253A	Clincher Plate Assembly 1/2	1
7256B	Clincher Slide Retaining Strap	1
7257B	Clincher Point 1/2 - Round	2
7650A	Clincher Plate Assembly	1
9081	Screw	2

Loop Stitch Assemblies



Loop Stitch Assemblies

PART No.	DESCRIPTION	QUANTITY
G20135	Dowel Pin M5x24	1
G20145	Moving Wire Cutter	1
G20190	Screw M3x.5x10	2
G20191	Screw M4x.7x8	1
G20210	Cutter Operating Spring	1
G20214	Screw, M4x0.7x8 FHMS	1
G20226	Hex Nut M4x.7	1
G20273	Screw M4x.7x4, Nylon	1
G20301A	Wire Holder Assembly - Loop	1
G20304A	Wire Hook Assembly - Loop	1
G20305	Anvil - Loop	1
G20306	Screw, M3x.5x25 SHCS	1
G20307	Lever Pivot Screw - Loop	1
G20309A	Wire Holder Lever Assembly - Loop	1
G20310	Wire Holder Roller Lever Spring	1
G20311	Spring Anchor Screw	1
G20312	Spirol Pin, M3x12	1
G20527B	Feed Rack - Loop	1
G20527BA	Feed Rack Assembly - Loop	1
G20547	Bender Bar	1
G20548	Bender Insert 1/2 - 24 Wire	2
G20549	Bender Insert 1/2 - 20 Wire	2
G20550	Bender Insert 1/2 - 20x24 Wire	2
G20551	Driver Bar	1
G20555	Dowel Pin M4x30	1
G20557	Dowel Pin M5x28	1
G20589	Screw M4x0.7x10	4
G20598	Cutter Slide	1
G20599A	Lower Wire Tube Assembly	1
G20600	Fixed Wire Cutter	1
G20612	Wire Roller Stud	2
G20615	Screw M5x0.8x8	3
G20616	Screw M5x0.8x25	2
G20618	Bender Screw 5/8	4
G20638	Feed Rack Cam Plate	1
G20639	Dowel Pin M3x8	2
G20648	Bender Insert 5/8 - 24 Wire	2
G20649	Bender Insert 5/8 - 20 Wire	2
G20650	Bender Insert 5/8 - 20x24 Wire	2
G20665	Wire Holder Eccentric Screw	1
G20700A	Cutter Block Assembly - Loop	1
G20713A	Supporter Assembly - Loop	1
G20714	Driver - Loop	1
G20742	Supporter Plunger	1
G20744	Supporter Spring	1
G20744B	Supporter Spring - Light	1
G20753	Driver Retaining Screw	1
G20829	Screw M4x.7x8	1

Part Number / Description Cross-Reference

G20110A	Large Feed Gear Assembly	1	G20169	Driving Slide Plunger Screw	1
G20111A	Feed Pinion Assembly	1	G20170	Hex Jam Nut M8x1.25	1
G20112	Small Feed Gear	1	G20171	Screw M8x1.25x12	1
G20113	Supporter Guide Plate	2	G20173	Feed Rack Knob - Knurled	1
G20114	Feed Pinion Shaft	1	G20174	Feed Rack Adjustment Stud	1
G20115	Latch Release Cam	1	G20175	Screw M4x.7x6 SHCS	3
G20118	Feed Release Handle Cam	1	G20176	Screw M4x.7x12 SHCS Low Head	2
G20119	Feed Release Handle	1	G20177	Feed Rack Adj Knob Pointer	1
G20121	Feed Release Plunger	1	G20179	Screw M3x.5x4, SHCS	1
G20122A	Feed Slide Retaining Screw Asy	2	G20180	Flat Washer M6	1
G20124	Bonnet Clamp Eccentric	1	G20181	Upper Wire Tube	1
G20126	Tube Pivot Plate	1	G20182	Feed Gear Shaft Plate	1
G20127	Feed Rack	1	G20183	Wire Holder Retaining Spring - Long	1
G20128	Large Feed Gear Washer	1	G20184	Wire Holder Retaining Spring Foot	1
G20129	Small Feed Gear Washer	1	G20186	Feed Gear Friction Spring	1
G20131	Feed Slide	1	G20187	Feed Gear Friction Strip	1
G20132	Feed Lever	1	G20189	Screw M3x.5x20	2
G20133A	Feed Release Spring Block Asy	1	G20190	Screw M3x.5x10- FHMS- Slotted	4
G20135	Dowel Pin M5x24	1	G20191	Screw, M4x.7x8 SHSS	5
G20138	Feed Pinion Bearing	2	G20195	Set Screw M6x1x8	2
G20140	Follower Ball Bearing	1	G20196	Screw M3x.5x6 SHCS	6
G20141	Wire Guide Bar-Left	1	G20202	Cutter Block Slide Plate	1
G20142	Wire Guide Bar-Right	1	G20204	Upper Cutter Block Guide	1
G20143	Cutter Block Adjustment Rack	1	G20210	Cutter Operating Spring	1
G20145	Moving Wire Cutter	1	G20214	Screw M4x0.7x8 FHMS	5
G20145C	Moving Cutter - Carbide	1	G20215	Screw M5x.8x10, FHMS	4
G20162	Driving Slide	1	G20217	Spirol Pin M5x12	1
G20163A	Cutter Operating Ramp Assembly	1	G20219	Wire Straightener Disc Spring	4
G20164	Driving Slide Plunger	1	G20220	Hex Nut M5x.8	1
G20165	Driving Slide Spring	1	G20226	Hex Nut M4x.7	2
G20167	Screw, M4x.7x10 FHCS	2	G20229	Set Screw M6x1x12	2

Part Number / Description Cross-Reference

G20230A	Cutter Operating Lever Assembly	1	G20283	Tension Pawl	1
G20231	Cutter Operating Lever Pivot Pin	1	G20284	Tension Pawl Spring	1
G20232	Cutter Operating Lever Roll Pin	1	G20285	Tension Pawl Roller	1
G20233	Cutter Operating Lever Roller	1	G20286A	Wire Guide Spring Assembly - Long	1
G20234	E-Ring- 3/16"	1	G20287	Wire Oiler Felt Spring	1
G20235	Follower Bearing Shaft	1	G20288	Screw, M4x.7x8 SHCS	3
G20236	Tube Pivot Screw	1	G20290	Flat Washer, M5	2
G20237	Cutter Block Adjustment Stud	1	G20292	Wire Oil Felt Washer	1
G20239	Disc Washer Spring	2	G20293	Wire Oiler Felt	2
G20240	Cutter Block Adjustment Washer	2	G20297	Screw, M6x1x40 SHCS	1
G20241	Screw M4x0.7x6 SHCS	5	G20298	Nylock Lock Nut, M6x1	1
G20242	Cutter Adjustment Bar - Lower	1	G20301A	Wire Holder Assembly - Loop	1
G20243	Dowel Pin 1/4x9/16	1	G20304A	Wire Hook Assembly - Loop	1
G20244	Tube Pivot Clip	1	G20305	Anvil - Loop	1
G20252	Wire Hook	1	G20306	Screw M3x.5x25- SHCS	1
G20253	Wire Hook Spring	1	G20307	Lever Pivot Screw - Loop	1
G20254	Wire Hook Spring Screw	1	G20309A	Wire Holder Lever Assembly - Loop	1
G20255	Hook Pivot Pin	1	G20310	Wire Holder Roller Lever Spring	1
G20256	Cutter Block Scale	1	G20311	Spring Anchor Screw	1
G20261	Wire Holder Retaining Spring Screw	1	G20312	Spirol Pin M3x12	1
G20262A	Feed Lever Pin Assembly	2	G20316	Wire Holder Retaining Spring - Short	1
G20262BA	Feed Lever Pin Asy (w/ V-Groove)	1	G20320	Driving Slide - Crank Drive	1
G20263	Feed Lever E-Ring	2	G20321	Crank Link Screw	1
G20264	Screw M5x.8x5 SHCS	5	G20323A	Cutter Operating Ramp Assembly	1
G20266	Follower Bearing Pin	1	G20340	Crank Drive Link	1
G20267	Feed Lever Bushing	1	G20341	Rear Mounting Bolt	1
G20273	Screw M4x.7x4 SHSS	2	G20360	Hex Key Wrench 3.0mm	1
G20275	Ball Spring Plunger	1	G20361	Hex Key Wrench 2.5mm	1
G20278A	Wire Guide Spring Plate Assembly	1	G20362	Clamp Wrench 5.0mm	1
G20278AA	Complete W/G Spring Plate Asy	1	G20364	Open End Wrench	1
G20279A	Wire Guide Spring Assembly - Short	1	G20366	Rear Clamp Pin	1

Part Number / Description Cross-Reference

G20374	Hex Key Wrench 2.0mm	1	G20599A	Lower Wire Tube Assembly	1
G20376	Rear Clamp Pin	2	G20600	Fixed Wire Cutter	1
G20431	Screw, M2.5x.45x12	4	G20600C	Fixed Cutter - Carbide	1
G20500	Bonnet - G20	1	G20602	Cutter Block Slide Plate	1
G20502	Bonnet Clamp Block - Vertical	2	G20606A	Straightener Slide Assembly	1
G20503	Bonnet Clamp Eccentric	1	G20607A	Wire Roller Assembly	1
G20527B	Feed Rack - Loop	1	G20607BA	Wire Roller Assembly 19x21-1/2	1
G20527BA	Feed Rack Assembly - Loop	1	G20608	Wire Roller	2
G20540	Feed Lever Bearing	1	G20608B	Wire Roller 19x21-1/2	2
G20541	Wire Guide Bar - Left	1	G20611	Wire Guide Block	1
G20542B	Wire Guide Bar - Right	1	G20612	Wire Roller Stud	2
G20543	Wire Holder Pivot Block 1/2	1	G20613	Straightener Arm	1
G20544A	Middle Wire Tube Assembly	1	G20614	Screw M4x0.7x12	2
G20547	Bender Bar	1	G20615	Screw M5x0.8x8	4
G20548	Bender Insert 1/2 - 24 Wire	2	G20616	Screw M5x0.8x25	2
G20549	Bender Insert 1/2 - 20 Wire	2	G20618	Bender Screw 5/8	4
G20550	Bender Insert 1/2 - 20x24 Wire	2	G20621	Straightener Nut	1
G20551	Driver Bar	1	G20622	Straightener Nut Plate	2
G20554A	Supporter Assembly 1/2	1	G20623	Straightener Nut Spacer	2
G20555	Dowel Pin M4x30	3	G20624	Hex Nut M6x0.75	1
G20557	Dowel Pin M5x28	1	G20638	Feed Rack Cam Plate	1
G20559BA	Wire Holder Assembly 1/2	1	G20639	Dowel Pin M3x8	3
G20570	Spirol Pin M5x20	2	G20643	Wire Holder Pivot Block 5/8	1
G20579	Screw M4x0.7x6	3	G20648	Bender Insert 5/8 - 24 Wire	2
G20580	Washer Shim	1	G20649	Bender Insert 5/8 - 20 Wire	2
G20588	Dowel Pin M4x12	6	G20650	Bender Insert 5/8 - 20x24 Wire	2
G20589	Screw M4x0.7x10	13	G20654A	Supporter Assembly 5/8	1
G20591	Screw M3x0.5x16	2	G20665	Wire Holder Eccentric Screw	1
G20596	Screw M4x0.7x20	6	G20667	Screw M4x0.7x10	1
G20597BA	Cutter Block Assembly	1	G20679A	Wire Guide Spring Assembly	1
G20598	Cutter Slide	1	G20700A	Cutter Block Assembly - Loop	1

Part Number / Description Cross-Reference

G20700AA	Cutter Block Asy Complete - Loop	1
G20713A	Supporter Assembly - Loop	1
G20714	Driver - Loop	1
G20742	Supporter Plunger	1
G20744	Supporter Spring	1
G20744B	Supporter Spring - Light	1
G20742	Supporter Plunger	1
G20744	Supporter Spring	1
G20744B	Supporter Spring - Light	1
G20753	Driver Retaining Screw	1
G20780	Bender Insert 1/2 - 19x21-1/2 Wire	2
G20781	Driver 1/2 - 19x21-1/2 Wire	1
G20806A	Saddle Paper Guide, Right	1
G20808	Screw M6x1.0x12	1
G20829	Screw M4x.7x8	1
HN1213	Bonnet Stud Nut	1
UA1428.1	Set Screw 1/4-28X1/4	1
UA3216.4	Screw 10-32x7/8	2
UA3310.3	Screw 10-32x5/8	2
18179	Clincher Binder Plate	1
18182	Clincher Slide	1
18183	Clincher Slide Adjustment Block	1
18184	Clincher Slide Block Clamp	1
18186	Clincher Slide Adjustment Screw	1
7024B	Clincher Point Flat - 1/2	2
7253A	Clincher Plate Assembly - 1/2	1
7256B	Clincher Slide Retaining Strap	1
7257B	Clincher Point 1/2 - Round	2
7650A	Clincher Plate Assembly	1
9002	Bonnet Clamp Block	1
9081	Screw	2

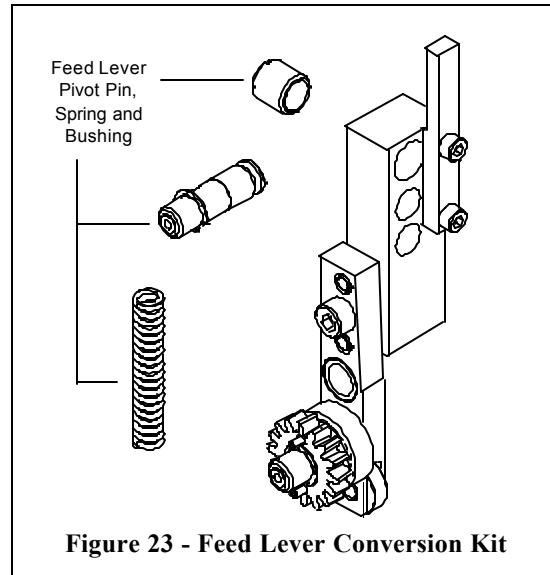
Optional Equipment

In addition to the standard features offered with the G20 Stitcher Head, optional equipment items can be purchased to better accommodate your stitching needs. The following kits can be purchased from your Graphic Arts Representative.

G20FLC (Figure 23)

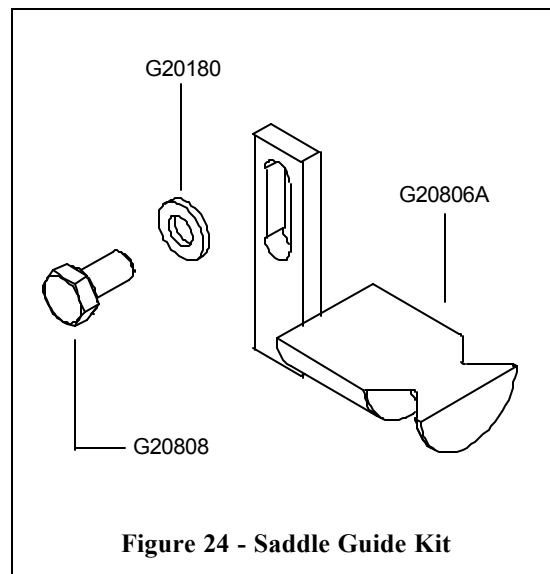
The G20 Feed Lever Conversion Kit converts the Transport/Feed Lever Assembly on your existing Hohner 70/20 Heads to the DeLuxe Stitcher Feed Lever Assembly. The G20FLC offers high quality parts for less money and provides extra durability for a longer life. Included in this Kit are the Feed Lever Assembly and Feed Lever Extension, already assembled, the new Feed Lever Pivot Pin, Feed Lever Spring and Bushing.

Save money on a new head by converting your old Hohner Heads with this Conversion Kit.



G20K1 (Figure 24)

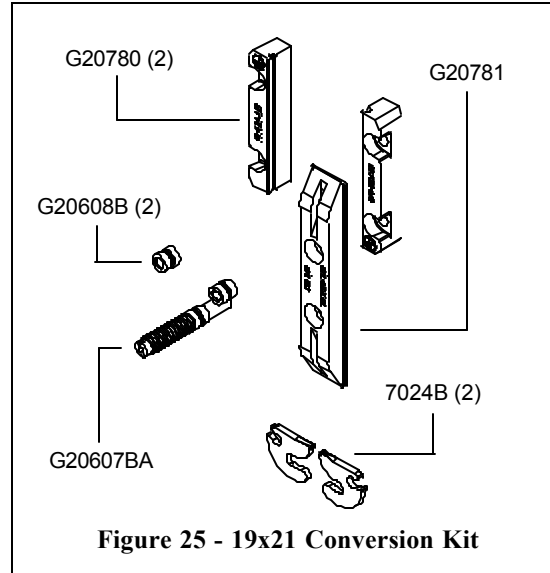
The G20 Saddle Guide Kit attaches to the outside of the G20 Head with a Hex Head Cap Screw, which is included. This Guide centers the stock under the stitcher head for better and more accurate binding performance.



G20K1921 (Figure 25)

The G20 19x21 Conversion Kit allows existing G20 Stitcher Heads to accommodate 19x21 gauge flat wire. 19x21 gauge flat wire allows your M19G20, M27G20 and other collating systems to consistently stitch at a higher capacity through thicker stock.

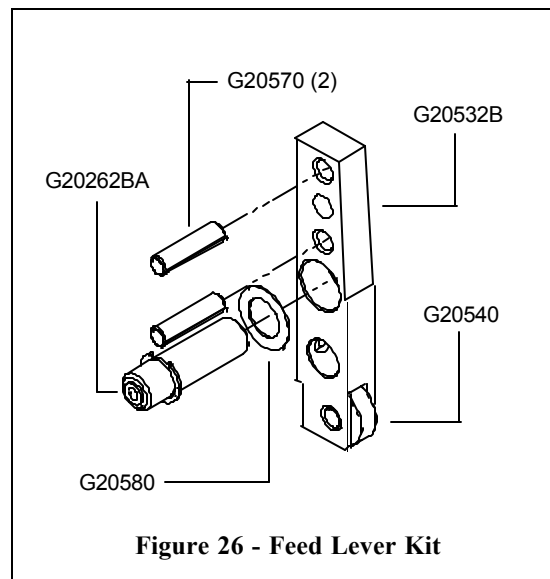
The parts included in this Kit have to only replace their counterparts on the existing head. Complete instructions are included with each Conversion Kit.



G20KFL2 (Figure 26)

The G20 Feed Lever Kit is intended for use on Stitchers using DeLuxe Stitcher G20 Stitching Heads. The G20KFL2 includes one Feed Lever Pin Assembly, one Feed Lever E-Ring, one Feed Lever, one Feed Lever Bearing, two Spirol Pins, two Shim Washers and one Feed Lever Bearing Pin.

Since variations of the G20 Feed Gear were manufactured in the past, the G20KFL2 was created to ensure replacement parts are always compatible.

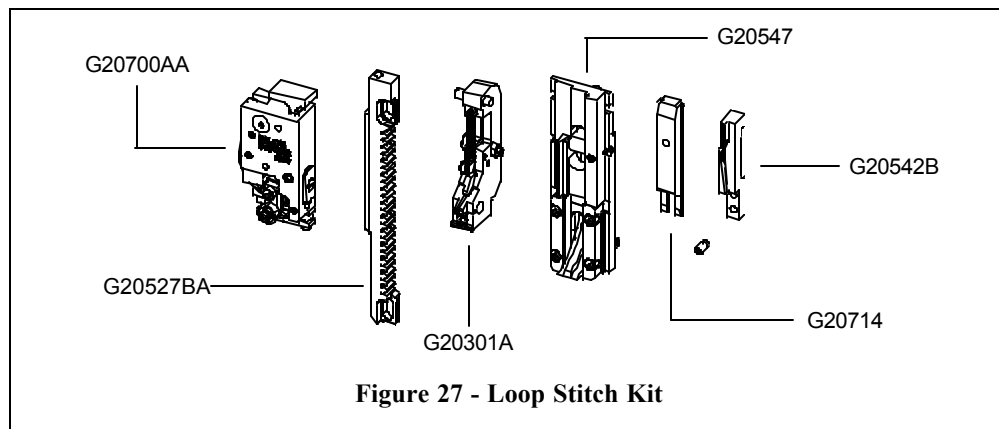


G20KG

The G20 Feed Gear Grease Kit assists in the regular cleaning and maintenance performed on the G20 Stitcher Head and its component parts. See the Maintenance section, on page 21 of this manual, for more information. Be sure to follow the instructions carefully and always use the correct grease to repack the Gear.

G20KL (Figure 27)

The standard G20 Head can be converted into a 24 or 25 gauge wire loop stitching head by exchanging four complete sub-assemblies and adding a new Driver and Right Wire Guide Bar included in the G20 Loop Stitch Kit. For further instructions and parts diagrams on Loop Stitching, refer to page 46 in this manual.



G20KSH & G20KSH230

The G20KSH Stop Stitch Kit is designed for use with the G20 Series Stitching Heads. It mounts on the existing Stop Stitch Brackets of Harris Saddle Stitchers. The Stop Stitch Kit stops the feeding of wire through the stitching heads by pushing open the Feed Release Handles (thereby stopping the wire feed) when it receives a signal from the calipers of the Stitcher. It is available for standard 115V Harris Saddle Stitchers as well as for 230V models by requesting part number G20KSH230.

G20KSM

This kit is intended for use on McCain Stitchers using DeLuxe G20 Stitching Heads. The G20KSM includes two Stop Stitch Shims and two Screws which assemble to the McCain Saddle Stitcher. This Kit makes use of the components of the Saddle Stitcher itself and is easy to install.

G20RPK

The G20 Repair Kit is a collection of the most common replacement parts for the G20 Head organized in a handy, see-through box. This Kit saves both time and money for the user of the G20 Head.

REGISTRATION

To better service your wire stitching needs, please take a moment to fill out and return this registration card.

CUSTOMER

Name : _____
(First) _____ (Middle Initial) _____ (Last) _____
Company : _____
Street Address : _____
City : _____ State/Province : _____ Zip : _____
Country : _____
Phone : _____ Fax : _____ E-mail : _____

PRODUCT

Machine(s) Purchased : _____
Serial Number(s) : _____
With Head(s) : _____ (Type/Quantity Purchased) _____
Serial Number(s) : _____
Head(s) Purchased : _____
Serial Number(s) : _____

DEALER

Date Received : _____
Dealer Name : _____
Dealer Street Address : _____
City : _____ State/Province : _____ Zip : _____
Country : _____
Dealer Phone : _____

Other Bindery Products Used : _____

Would you like information sent to you about new products that would benefit your company? Yes No

Please take a moment to fill out the attached card and mail it to DeLuxe Stitcher Company, Inc. In addition, duplicate the information for your records to assist when making further inquiries.

PRODUCT

Machine(s) Purchased : _____
Serial Number(s) : _____
With Head(s) : _____ (Type/Quantity Purchased) _____
Serial Number(s) : _____
Head(s) Purchased : _____
Serial Number(s) : _____

DE LUXE STITCHER GRAPHIC ARTS REPRESENTATIVE

Date Received : _____
Dealer Name : _____
Dealer Street Address : _____
City : _____ State/Province : _____ Zip : _____
Country : _____
Dealer Phone : _____

Common Replacement Parts for 1/2" Crown

Below is a list of the most common wear/replacement parts for the G20 Stitcher Head. This guide should help you when ordering replacement parts. If the part you need is not listed below, please refer to the more detailed parts list on pages 48-50 in this manual.

Description	Item Number
Clincher Point Flat - 1/2	7024B
Feed Lever Spring	G20668
Feed Rack Cam Plate	G20638
Feed Rack Guide Screw	G20625
Moving Wire Cutter	G20145
Screw M4x0.7x20, SHCS	G20596
Screw M4x0.7x10, SHCS	G20589
Rack Adjustm ent Knob Detent	G20578
Driver 1/2 - 20x24 Gauge	G20556
Driver Retaining Screw	G20153
Feed Lever Bearing	G20540
Feed Lever Pin Assembly	G20262B.A
Screw M4x.7x6, with nylon patch	G20175
Wire Holder Retaining Spring Foot	G20184
Feed Gear Friction Plug	G20587
Fixed Wire Cutter	G20600
Wire Hook	G20252
Hook Pivot Pin	G20255
Tension Pawl	G20283
Supporter Plunger	G20742

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**DELUXE STITCHER
COMPANY INC.**
6635 West Irving Park Road
Chicago, Illinois 60634-2410 U.S.A.
Attn: Customer Service

* You can purchase the G20RPK which includes these and other common replacement parts

LIMITED WARRANTY

DeLuxe Stitcher Company warrants to the original retail purchaser that this product is free from defects in material and workmanship and agrees to repair or replace, at DeLuxe Stitcher's option, any defective product within 90 days from the date of purchase. This warranty is not transferable. It covers damage resulting only from defects in material or workmanship and does not cover conditions or malfunctions resulting from normal wear, neglect, abuse or accident.

This warranty is in lieu of all other express warranties. Any warranty of merchantability or fitness for a particular purpose is limited to the duration of this warranty. DeLuxe Stitcher shall not be liable for any incidental or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

To obtain warranty service you must return the product, at your expense, together with proof of purchase to an authorized DeLuxe Stitcher Company Graphic Arts Dealer.

Always use genuine DeLuxe Stitcher parts. When ordering parts, please identify the part number, the part name, the wire size and crown size of your Stitcher.

DeLuxe Stitcher Company, Inc.
6635 West Irving Park Road
Chicago, Illinois 60634-2410
Phone: 773-777-6500 800-634-0810
Fax: 773-777-0156 800-417-9251
E-mail: info@deluxestitcher.com
Web Site: <http://www.deluxestitcher.com>

