INSTRUCTIONS AND PARTS LIST

FOR THE Nos. 3D AND 4 V-BELT BOSTITCH WIRE STITCHERS

When in need of Parts or Service Contact Your BOSTITCH Distributor. You will find "BOSTITCH" listed in phone books of most large cities.

Fasten It Better and Faster with **BOSTITCH** STAPLERS AND STAPLES





DIRECTIONS FOR OPERATING NOS. 3D & 4 BOSTITCH WIRE STITCHERS

Serial Number is Stamped on Right Hand Side of Frame Under Name Plate SIZES OF WIRE: Nos. 25, 26, 27, 28, 30, round; No. 21x25, flat SPEED: From 100 to 175 stitches per minute

TO SET UP. Machines are shipped with Table, Motor and parts Nos. 261B, 284, 348, 423 and 7155 removed. These are attached as per diagram of machine.

No. 3D Stitcher table is attached in the following manner: Loosen set-screws which hold pivot pins on either side of the bracket under table. This allows pivot pins to be moved out slightly so that table can be attached to column of machine. These pivot pins are entered in the inner hole on either side of the column. Machine is otherwise completely assembled and ready to operate.

The No. 4 Stitcher tables are attached by placing the tables over the column and locating the work table swivel in hole in column.

TO START MACHINE. Run wire from underside of spool, draw off about two feet of wire and run same over guide spring (No. 284) and under buttons on same, through the wire straightener (No. 7277). Cut off end of wire with hand-cutter (No. 107). Pass wire around the feed sector (No.126) and enter end of wire in channel of part No.112. Push through cutter, turning front cam by hand or with wrench on stud (No. 343) to the right. This raises bender bar and allows wire to be pushed through machine. It is only necessary, however, to let the end of wire rest against bender bar (No. 86A). Push up wire retainer (No. 167) which operates in f front of grip. Open grip (No. 132) by pulling to left the small link (No. 137A) back of sector (No. 125A) to which the grip and grip-bar are attached. Enter wire in groove on edge of part No. 126, adjust straightener slightly so as to remove curl from wire. Do not have tension tight. Push down wire retainer. Always cut off end of wire by putting thin end of wrench in the groove in plunger (No. 103A) over cutter and under strap. Push wrench upward, pushing the supporter back, and surplus wire will fall out. Machine is now ready to operate. Take sample of work to be stitched and by turning hand-wheel (No. 143) to the left, open jaws of gauge (No. 21) enough

to take in work. Then turn back wheel until work is clamped tight. Wheel should then be turned back enough to allow work to be released. By turning the hand-wheel (No. 143) all adjustments for thickness of work and length of wire are automatically made. When thickness of work is changed, machine must again be adjusted in similar manner.

TO STRAIGHTEN WIRE. Wire is placed in groove between the three rollers marked "No. 7277" and tension is brought on same by turning pin No. 7280. Care should be taken to obtain the proper straightening of wire and leave as little tension as possible on same.

WHERE TO OIL. Machine should be properly oiled before starting. The main shaft has two bearings which are oiled through oil-hole directly in back of head of machine, on top of frame, and directly under front side of No. 143. There is also an oil-hole in washer (No. 2217DA). Each of the small 1/2-inch rolls which operate on the cams has an oil-Hole in the center of the stud upon which it revolves. The bearing of the feed sector is oiled where it oscillates upon the connecting shaft at the left of the stitcher. The driving and bending bars are oiled by removing the front cam. Oil these parts sparingly. Both sides of the grip, and the top of the grip-bar should be oiled sparingly. A drop of oil should be placed on the clinchers and clincher slide. The studs on the belt tightener bracket should be oiled through holes located in pulleys.

TO ADJUST LENGTH OF WIRE. Set machine for twosheet work by turning hand-wheel. Wire guide base (No. 113A) should then butt against pin in bonnet (No. 82A). If base does not butt against this pin it can be made to do so by removing spring No. 129A and loosen screws No. 124 which will allow sector on which base is mounted to be turned to right so as to bring base against pin. Tighten screws (No. 124) and replace No. 129A. Stitch should now be perfect and should either leg of same be slightly long or short it can be centered by turning eccentric bushing and stud under part No. 107 in either direction. The movement of the sector and wire guide base lengthens or shortens the entire feed of wire. The movement of the eccentric centers the legs.

THE CLINCHERS. The clinchers can be adjusted for tight or loose clinch by removing the Retaining Screw (No. 39) and loosening the Set Screw (No. 38). This allows the Plunger (No. 37) to be turned to right to raise clinchers and to the left to lower same. Only a slight turn is necessary to make considerable difference in the location of the clinchers. Replace. Retainer Screw and tighten Set Screw.

No. 3D Stitcher clinchers are removed by first removing Screw (No. 39). Slide (No. 7255) can then be removed and Clinchers (No. 7257) can be removed by raising to vertical position and withdrawing through opening in top of clincher plate. Replacing of clinchers is accomplished by reversing above procedure engaging clinchers on pivot pins in clincher plate and pushing downward so that lip on slide will enter notch in clinchers.

No. 4 Stitcher clinchers are removed by first removing Screws (Nos. 0038 and 39). Slide (No. 32) can then be removed and clinchers (Nos. 23 and 24) and clincher points (No. 26) can be lowered and removed. In replacing the clincher points, the toe of the points must be outward from the right and left clinchers.

Note: On both the 3D and 4 Stitcher& it will be necessary, in removing the Slide (No. 7255) 3D Stitcher, (No. 32) 4 Stitcher, to press in slightly on the Actuating Link (No. 405).

Clincher parts as referred to above should be kept clean and oiled sparingly as considerable dirt and particles of paper accumulate. Inspect the grooves in the clinchers and points occasionally for wear, as these parts determine the difference between good and bad stitching.

WIRE CUTTER. The wire cutter (No. 102) has only one cutting surface and this can not be reground. By continued use of small, round wire a groove is worn in the lower edge of the cutter under the hole and troubles will be occasioned thereby unless cutter is replaced.

THE GRIP. The grip is round and has many points of contact. The grooves in the grip are saw-toothed, gripping in one direction only. Be sure when attaching new grip that these teeth are in proper position, pointing to the right. Pull the lower end of the spiral spring No. 134 off the pin at the rear of sector opposite the grip; the grip and grip-bar will then drop down. Drive out small pin which is riveted into grip holder (No. 136A) which retains the grip. New grip can be attached by inserting similar pin and riveting end.

TAKING APART. In taking apart, machine must be in its natural position, i. e., the position it takes under power when the f foot is lifted f rom the treadle. If a stitcher is not belted to power, a sharp turn of the pulley, will bring it to its proper position. No bolts or screws need be removed-only loosened.

The rights and lefts in the following paragraphs are when the operator is facing the stitcher. To take the machine apart, removing all working parts, the screw No. 343 in the center of driving cam (No. 90A) must be turned to the left until cam is loose, using small wrench supplied with machine; the cam will then slip forward off the shaft. Next loosen bolt (No. 73) at left of No. 94A and remove the latter by pulling to the right. The removal of No. 94A releases the driving bar,which, in addition to the -main bar, is composed of a bender, driver and extension, four separate parts. The supporter (which is also an anvil over which the wire is bent) can next be pulled forward and out, the inner cam (No. 85) follows. To replace parts, reverse the above.

The removal of the above parts leaves the cutter still in place. To re-move the cutter: Take out wire by pulling to the left the small link back of and attached to the feed sector; pull the cutter plunger (No. 103A) forward f rom the top. The cutter is now loose and can be removed with fingers.

In replacing, care should be taken to enter the end of cutter with hole in small cavity in the wire guide base on the side nearest to driving bar. Push plunger up under the rim of front cam if cam is in place, then by a downward pressure of the hand plunger will slip into place and hold cutter securely at its cutting end. Groove in the top of cutter should be engaged by lower part of plunger and end of cutter opposite the hole end should be loose. Replace strap (No. 94A) and tighten stud (No. 73).

The cutter can be taken out without removing cam or other working parts. This is done by removing strap (No. 94A) and following instructions as above.Use pin on end of part No. 94A to release plunger(No. 103A) in removing. TO REMOVE PULLEY. Take off washer (No. 2217DA) by removing screw (No. 2349). Turn pulley to left and at same time pull off. Clutch, clutch-rings, brake and clincher cam can now be removed. In replacing see that clincher driving bar (No. 47A) is first placed in channel. Clutch and brake rings are alike. Put rings together so that projecting pin in each ring enters hole in other ring. Put on pulley by turning to right and pushing in at same time. Put on washer and tighten screw. Oil clutch thoroughly and frequently, with light machine oil. Never let clutch run dry.

IN CASE OF APPARENT TROUBLES, WHAT TO DO. Note carefully the size of wire and see that nothing larger

than No. 21x25 flat is put upon machine. No. 25 measures .0204 inch and No. 21 .03175 inch. See that spools turn freely on spindle and place a drop of oil on washer under same, if necessary. Inspect the wire on spool and see that same is not crossed. If, in stitching, the wire kinks -i. e., forms a V between the feed grip and the wire guide, it is because the stitcher is not properly threaded, the wire straightener not set properly, or the cutter worn out. In this case rethread and if the trouble continues tighten the straightener slightly so that the wire will go under the driving bar without curving. Remember that a slight contact will straighten the wire, whereas a strong contact will reverse the curve.

If the stitch fails to clinch, examine the clinching apparatus; see if it is working hard owing to lack of oil. Note whether the clincher slide, the top of which hooks over the clinchers, is turned around. The side of the slide with a small bevel in the center of the top must be to the front. If the points of the wire are burred, or the left side of the stitch (the side nearest the cutter) is long and strained looking, it indicates a worn-out cutter.

If the side of the stitch opposite the cutter is long, it indicates that the wire is jumping forward after it is cut. The remedy is to remove and clean the driving bar and strap thoroughly. Note that the small flat spring (No. 170) under the strap draws the bar down to hold the wire before it is cut. Dirt will interfere with the free action of the bar. If the flat spring is missing or weak, the result will also be a long stitch on the right-hand side.

If the stitch is short on the right-hand side, it indicates that the grip is not acting properly. See that the top of grip-bar is properly around the back of the link (No. 137A) and that the channels in which grip works are clear. Also note if a groove is worn in the grip. If so, it should be replaced. Also note that the teeth in grip are in proper position so as to grip toward the machine.

Occasionally, through lack of oil, the roll and stud in the top of the cutter plunger (No. 103A) may be worn at the contact point. The effect is the same as a worn cutter. The remedy is to replace the part assembled or mail the old to the factory for repairing.

If in stitching heavy work, the stitch fails to drive, it may be caused by a worn cutter, a worn driver or a weak supporter. Replacing these parts will usually take care of the trouble.

If, after following instructions as above, trouble still continues, send sample of several stitches showing the trouble to the nearest selling agency with complete detail of trouble. Agency will be able to advise method of overcoming the same,

APPEARANCE OF STITCHES:

The following chart shows illustrations of perfect and imperfect stitches, together with the causes of the imperfections. If stitching is defective, compare stitch produced with the pictures in the chart and then read carefully the paragraph applying to that defect.

If it is necessary to correspond about any defective stitches or other difficulties with the machine, be sure to refer to the chart number showing the type of stitch defect and if possible, send a sample of the work actually being done on the machine.

FORMED STAPLES



Perfect Staple.

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Right leg short. With machines that use-supporter type of anvil (non-rotating), shortness of this leg could be caused by short wire feed due to either adjustment of-same or worn or clogged feed grip.

broken.

chip.

Left leg short. With machines that use supporter type of anvil (non-rotating), shortness of this leg could be caused by improper adjustment of cutter in relation to anvil.

DRIVEN AND CLINCHED STAPLES (with movable clinchers)

Stitches on thin work should not be compressed into stock but should be slightly loose to avoid cutting stock. Stitches on thick work can be pressed somewhat into stock.

Staple does not come thru stock, particularly on heavy stock (i.e., 5/8 to 7/8), wire not straight when entering machine or wire cut-off is beveled. Remedy:-Straighten wire or check cutters.

Loose clinch. Remedy: -Adjust machine to apply more compression on work, or raise clincher.

Clinchers come too high. Remedy: -Readjust to make Clinchers come lower.

Staple legs spread on account of improper cutting, wire straightening or bender bar worn. Remedy:-Check cutters and wire straightener. Renew bender bar if badly worn.

Staple is rolled (in thin work). Clincher out of line with wire grooves. Remedy: -Realign same. This is normally a factory adjustment and should never be disturbed unless you are convinced that it must be done to rectify trouble as itemized. This adjustment can be made on the #3 - 4 s t stitchers by the following long method. At the bottom of column (see page 9) there will be noted a member Part #192 called "clincher mechanism adjusting column block." Remove this block and you will notice that there are several washers or spacers; adding to or eliminating some of these washers will move column and clinchers forward or back as the case might be.

Staple legs contract on account of improper cutting or improper wire straightening.

Compression too light, tearing paper. Remedy: -Adjust table for greater





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D

Left leg buckles. Either leg or both may buckle. Dull knife or wire too small.

Wrong size wire or insufficient compression on heavy work. Supporter retracts too easily. Remedy: -Use correct size wire. Adjust table for more compression. Replace supporter spring or increase tension.

One leg missing. Wire slipping in grip. Remedy:-Clean grip or change to new surface.

Corner broken or nearly cut thru. Wire too hard, corner of anvil too sharp, or bender bar worn. If wire is too hard, try another spool. If corner over which wire is formed in the anvil is too sharp, stone slightly to relieve sharpness. If bender bar is badly worn, renew same.



Corners rounded.

Anvil worn too much at edges. Remedy:-Replace.

Knife cuts wire too late.

Remedy:-Check wire cutter operating parts for wear. Renew badly worn part or parts.

















Component Parts of the BOSTITCH Wire Stitchers Nos. 3D and 4

No.	Name of Part
1	Base
3	Foot Rest
0038	Clincher Slide Stud (No. 4)
4	Treadle
7	Treadle Shaft Arm
13	Stop Plunger Lever
14	Stop Plunger Lever Spring
19B	No. 3D Column
20	Clincher Mechanism Adj. Column Bushing
21	Clincher Mechanism Adj. Column Gauge
22	Clincher Mechanism Adj. Column Gauge Pin
23	Clincher (Right) (No. 4)
24	Clincher (Left) (No. 4)
26	Clincher Point (No. 4)
27A	Clincher Plate (Assembled) (No. 4)
28	Clincher Plate Screw
32	Clincher Slide (No. 4)
35	Clincher Slide Actuating Link Spring
37	Clincher Slide Actuating Link Plunger
38	Clincher Slide Actuating Link Plunger Set Screw
39	Clincher Slide Actuating Link Retainer Screw
40	Clincher Slide Actuating Link Connection
41	Clincher Slide Actuating Link Connection Pin
43	Clincher Plate Bracket Stud Nut (No. 4)
44B	Clincher Slide Actuating Link Connection Shoe
47A	Clincher Slide Actuating Link Conn. Driving Bar
48	Clincher Slide Act. Link Conn. Driving Bar Roll
49	Clincher Slide Act. Link Conn. Drvg. Bar Roll Stud
53	Work Table Extension (No. 3D)
55B	Work Table (No. 3D-with Link Type Table Lock)
59	Work Table Extension Screw (No. 3D)
63	Work Guide Screw (No. 3D)
65	Work Table Support Stud
	(No. 3D-with Link Type Table Lock)

No.	Name of Port
84	Bonnet Screw
85	Bender Cam
86A	Bender Bar (Assembled)
87	Bender Bar Cam Roll
87	Driving Bar Cam Roll
87	Grip Bar Operating Lever Cam Roll
87	Supporter Case Cam Roll
87	Wire Cutter Plunger Roll
87	Wire Feed Sector Cam Roll
88	Bender Bar Cam Roll Stud
89	Driver
90A	Driving Cam
91A	Driving Bar (Assembled)
92	Driving Bar Cam Roll Stud
92	Wire Cutter Plunger Roll Stud
93	Driving Bar Cam Roll Stud Bushing
94	Driving Bar Strap (Assembled)
95	Driving Bar Strap Dowel
96	Driving Bar Extension
101	Supporter Case Cam Roll Stud
102	Wire Cutter (Circular)
103A	Wire Cutter Plunger (Assembled)
106	Wire Cutter (Fixed Parts)
107	Wire Cutter (Movable Parts)
108	Wire Cutter Stud
108	Wire Feed Sector Stud
110	Wire Guide Spring Screw
111	Wire Guide
112	Wire Guide Spring
113A Wire Guide Base	
114	Wire Guide Base Screw
115	Wire Guide Base Dowel
116B	Wire Guide Base Locating Stud
117	Wire Guide Base Lctg. Stud Eccentric Bushing

No.	Name of Part
66B	Main Shaft Key
70	Main Shaft Bushing
73	Driving Cam Washer Screw
82A	Bonnet
83	Bonnet Dowel
123	Wire Guide Base Adj. Sector Shaft Arm
124	Wire Gd. Base Adj. Sec. Shaft Arm Bind. Screw
125A	Wire Feeder Sector (Assembled)
126	Wire Feed Sector Plate (Large)
127	Wire Feed Sector Plate (Small)
129A	Wire Feed Sector Spring and Head
130	Wire Feed Sector Spring Pin
131	Wire Feed Sector Roll Stud
132	Grip
134	Grip Spring
135	Grip Pin
136A	Grip Bar (Assembled)
137A	Grip Bar Link
140A	Grip Bar Operating Lever (Assembled)
141	Grip Bar Operating Lever Washer
142	Grip Bar Operating Lever Spring
143	Hand Wheel
167	Wire Retainer
168	Grip Bar Operating Lever Stop Screw
169	Wire Retainer Stud
170	Driver Bar Strap Spring
174	Wire Spool Stud Washer
179	Column Block Washer
191	Adjusting Column Block Screw
192	Clincher Mechanism Adj. Column Block
193	Grip Bar Operating Lever Compensating Spring
201	Work Guide (No. 3D)
203B	Work Table Swivel Pin (No. 3D)
211	Stop Plunger Lever Screw
211	Clincher Slide Act. Link Conn. Shoe Stud
212	Grip Bar Operating Lever Cam Roll Stud
221	Hosiery Wire Cutter (Special Attachment)
228	Hosiery Clincher Point (Special Attachment)
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No.	Name of Part
119A	Wire Guide Base Adj. Sector
120	Wire Guide Base Adj. Sector Stud
121A	Wire Guide Base Adj. Sector Shaft Assembled
327	Clincher Cam
342	Driving Cam Binder Key
343	Driving Cam Binder Key
347	Clutch Pawl Plunger
348	Wire Straightener Bracket
349	Wire Straightener Eccentric Friction
366	Wire Straightener Bracket complete
400	Frame
401A	Column (No. 4)
402A	Clincher Plate Bracket (No. 4)
403	Clincher Plate Bracket Stud (No. 4)
405	Clincher Slide Actuating Link
411	Work Table Swivel (No. 4)
412	Work Table Swivel Pin (No.4)
413	Work Table Locating Dowel (No. 4)
416	Work Guide Tongue (No. 4)
417A	Work Guide Tongue Binder Scrrew (No. 4)
419A	Main Shaft
422B	Saddle Lock Pin (No. 4)
423	Work Stop (Right)
424	Work Stop (Left)
425	Work Stop Binder Screw
460B	Saddle Lock Pin Bushing (No. 4)
463	Saddle Lock Pin Stop Screw (No. 4)
2217D	A Driving Pulley Washer Assembled
2290B	V Belt
2331B	Driving Pulley
2332BA	A Clutch Ring
2333	Clutch Lever
2334	Clutch Lever Pivot Pin
2335	Clutch Spring
2336	Clutch Spring Plunger
2337	Clutch Pawl
2339A	Brake Band

2340B Brake Band Adj. Screw2341 Brake Band Adj. Screw Lock

248 Stop Plunger for Friction Clutch

No.	Name of Part
2619	Motor Bracket
276	Supporter Only
276A	Supporter Assembled
281	Supporter Spring
282	Supporter Spring Plunger
284	Wire Str. Guide Spring (Assembled)
287	Motor Spacer
300	Wire Str. Bracket Screw
320	Finger Guard
321	Finger Guard Collar
2356	Belt Shield
2358	Belt Guard Bracket
2359	Belt Guard
5096	Driving Bar Strap Spring Screw
7018	Frame Screw
7056	Work Table Front Extension (No. 3D)
7155	Wire Spool Stud
7253A	Clincher Plate (No. 3D)
7255B	Clincher Slide (No. 3D)
7257	Clincher Point (No. 3D)
7277	Wire Straightening Roll (No. 3D
7278	Wire Straightening Roll Stud
7279	Wire Straightener Eccentric (Assembled)
7280	Wire Straightener Eccentric Pin
7645A	Work Table Support Bracket
	(No. 3D - with Link Type Table Lock)
7648	Work Table Support
	(No. 3D - with Link Type Table Lock)
9051	Brake Band Adj. Scr. Lock Spring
19354	Saddle (Right) (No. 4)
19355	Saddle (Left) (No. 4)
19359	Work Table (Right) (No. 4)
19360	Work Table (Left) (No. 4)
19364	Work Guide (Right) (No. 4)
19365	Work Guide (Left) (No. 4)

No.	Name of Part	
2342	Brake Band Link	
2343	Brake Band Link Stud	
2344	Brake Band Pin	
2345	Clutch Cam Slide Strap	
2347	Clutch Ring Expanding Pin	
2349	Driving Pulley Washer Screw	
2350	Driving Pulley Washer Screw Lock	
85202	Main Shaft Oil Tube	
85981	Work Table Support Stud Retaining Ring-	
	(No. 3D - with Link Type Table Lock2356	
87002	Motor Starter (Order 1 Heater for	
	use with same - indicate Amp	
	as shown on Motor	
B554	Work Table Support Spring	
	(No. 3D - with Link Type Table Lock)	
E238	Work Table Support Spring Pin	
	(No. 3D- with Link Type table Lock)	
HN142	20.2 Table (Saddle pos.) Adj. Screw Jam Nut	
	(No. 3D - with Link Type Table Lock)	
HN51	618.2 Work Table Support Bracket Nut	
	 with Link Type Table Lock) 	
UA230	08.1 Grip Bar Oper. Lev. Comp. Lvr Spr. Screw	
UA3812.3 Finger Guard Screw		
UA482	20.3 Table (Flat position) Adjusting Screw -	
	(No. 3D - with Link Type Table Lock)	
UA482	28.3 Table (Saddle position) Adjusting Screw -	
	- (No. 3D - with Link Type Table Lock)	
UA511	16.1 Work Table Support Bracket Screw -	
	(No. 3D - with Link Type Table Lock)	
UA5820.2 Column Stop Screw		
UA6816.1 Treadle Shaft Arm Set Screw		
HN51618 Column Stop Screw Nut		



The Bostitch Method is the use of the right stapling, nailing or wire stitching machine with the appropriate size and type of staple or nail to achieve the most efficient fastening result.

To provide the right machine, the BOSTITCH line comprises over eight hundred models, from compact hand staplers to powerful wire stitchers that stitch through steel. Several hundred varieties of staples and nails furnish the appropriate size and type for almost every fastening requirement.

Over seventy years experience with fastening problems-Over 350 BOSTITCH Economy Men, operating out of some 125 BOSTITCH offices. Write your nearest BOSTITCH distributor for information if you have a fastening problem. You will find "BOSTITCH" listed in phone books of most large cities. Posten it better and faster with BOSTITCH STATUS AS ALL STATES IN A TEXTION COMPANY

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