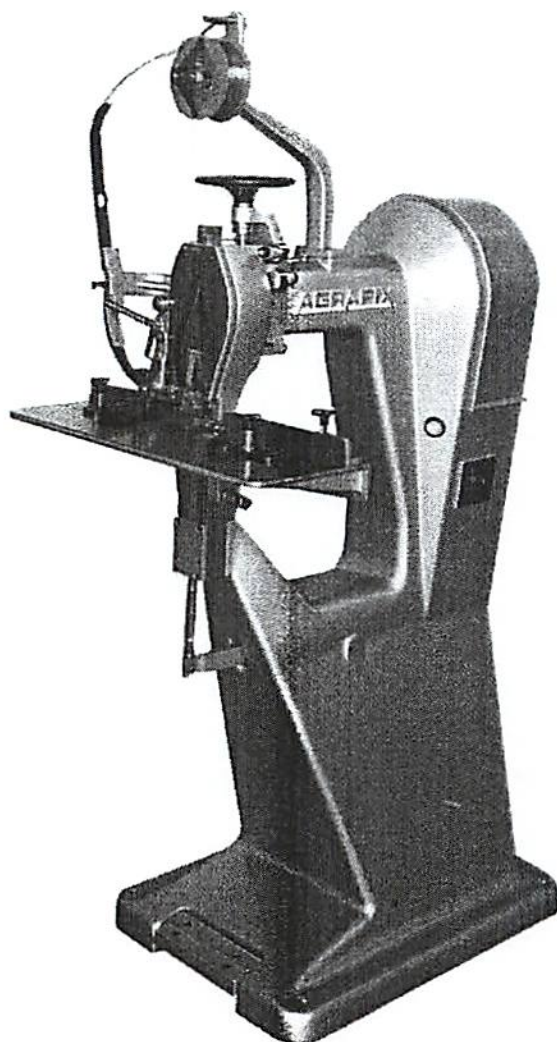


AGRAFIX

Drahtheftmaschinen

Linzer Strasse 25 Neustadt/Wied-Rott Tel.: 02683/309-128 + 129 Fax: 02683/30925

BX



Operator 's Manual

Type	: BX
Version	:
Machine number	:
Order number	:
Date of delivery	:

1. Information related to the Operator's Manual

It is imperative to read this page !

The present operator's manual addresses the user and the operating personnel of the BX wire stitching machine.

It is always to be kept in readiness and stored at the machine.

Faults on the BX can be avoided and a trouble-free operation guaranteed only when having a sound knowledge and understanding of this manual.

AGRAFIX company does not assume any liability for any damage and operating troubles having been caused due to non-compliance with the operator's manual.

Only persons who have read and understood this operator's manual are allowed to work at and with the machine !



Work Safety Symbol



You will find this symbol in the present manual in connection with all work safety instructions related to the danger of suffering death or personal injuries.

In addition to the instructions in this manual, the generally applicable and local safety and accident prevention regulations are likewise to be adhered to !



As a user of the machine, ask your operating personnel to confirm that they have read and understood the operator's manual. The documentation of evidence at the end of this manual should be used for this purpose.

Editor	AGRAFIX Drahtheftmaschinen 53577 Neustadt/Wied-Rott
Date of issue	04/1995

You will find every information necessary about the following items in this operator's manual:

Information related to the operator's manual

Table of contents
Pictograms used
Work safety symbols



Technical data, application as specified

What is allowed to be machined or processed with the **BX** ?
Dimensions and technical data
Operator's position



Machine review and description

Assembly review
Commissioning instructions
Waste disposal instructions



Safety

Safety instructions required for a smooth and safe operation



Explanation of the operating control elements

Daily putting into operation
Description of the operating control elements
Operation notes



Spare parts



Important symbols**NOTE**

Important information how to use the machine
more efficiently

**CAUTION**

Hazards or unsafe practices which **COULD** result in
minor personal injury or product or property damage

**ATTENTION**

Immediate hazards which **WILL** result in severe
personal injury or death



List of contents

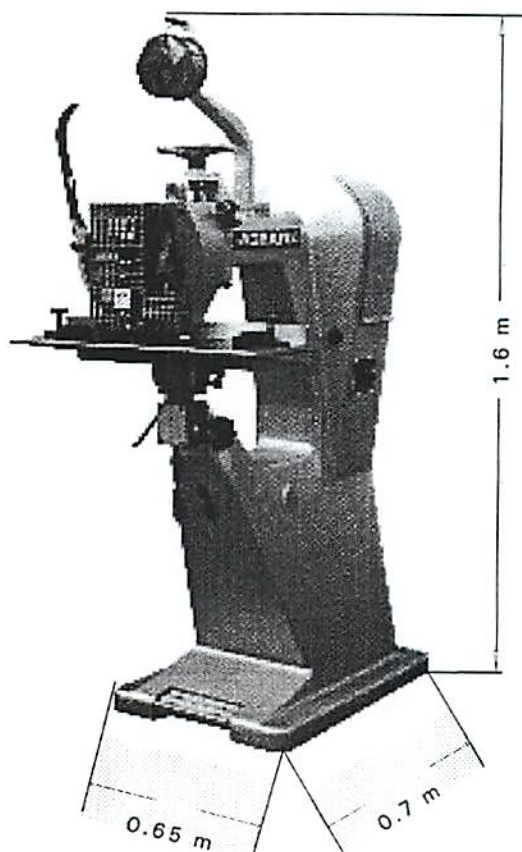
Chapter	Page
1. Information related to the operator's manual	1
Important symbols	3
List of contents	4
2. Dimensions and technical data of the BX wire stitching machine	6
2.1 Dimensions and weights	6
2.2 Processing-specific data	7
2.3 Application as specified	9
2.4 Operator's position and EMERGENCY-STOP-layout	10
2.5 Danger zone	10
3. Machine review	11
4. FUNDAMENTAL SAFETY INSTRUCTIONS	12
4.1 Warnings and symbols	12
4.2 Organizational measures	12
5. Operation	14
5.1 Commissioning	14
5.2 Daily putting into operation	15
5.3 Daily placing out of operation	15
5.4 Set-up and manufacturing operation	15
5.4.1 Adjusting the machine to various stitching thicknesses	15
5.4.2 Feeding the stitching wire into the machine	15
5.4.3 Proper wire cut	15
5.4.4 Wire feed	16
5.4.5 Controlling the length of the staple shanks	16
5.4.6 Adjusting the machine for stitching booklets or blocks	17
5.4.7 Stabbing up to 40 mm of thickness without staple shanks reversed	18
5.4.8 Installation of the loop staple device	19
5.4.9 Stitching blocks	20

Chapter	Page
6. Spare parts	21
6.1 Stitching head	22
6.2 Eccentric with bolt, engagement, wire bobbin support, cap	23
6.3 Wire-rod guide	25
6.4 Wire carriage	26
6.5 Reversing, fixing and miscellaneous parts	27
6.6 Bending block, cutting box	28
6.7 Bender and driving slide	29
6.8 Reverse box	30
6.9 Arbor joint, reduction gear	31
6.10 Motor and table	32



2. Dimensions and technical data of the BX wire stitching machine

2.1 Dimensions and weights of the BX



Technical data of the BX wire stitching machine by AGRAFIX

Voltage supply	:	3 / N / PE / 400V / 50Hz
Current consumption	:	0,85 [A]
Width	:	0,65 [m]
Depth	:	0,70 [m]
Height	:	1,60 [m]
Weight	:	240 [kg]



2.2 Processing-specific data

The **AGRAFIX** wire stitching machine model **BX** for booklets and blocks treats all common kinds of wire of the following gauges:

Round wires Nos. 30 to 21

Flat wires Nos. 0 to V

The following table gives a survey on the range of **AGRAFIX** stitching wires and the choice of wire gauges:

ROUND WIRES

Stitching Wire No.:	Diameter in [mm]	Length per kg in [m]	Weight per 1000 m in [kg]
20	0,90	203	4,90
21	0,80	257	3,90
22	0,75	292	3,40
23	0,70	335	3,00
24	0,60	456	2,20
25	0,55	543	1,80
26	0,50	657	1,50
28	0,42	931	1,10
30	0,35	1341	0,80

Stitching Material in [mm]	Gauge No.
0-1,0	30
1,0-1,5	30,28
1,5-3,5	28,26,25
3,5-5,0	26,25,24
5,0-8,0	24,23
8,0-12	22,21

FLAT WIRES

Stitching Wire No.:	Dimensions in [mm]	Length per kg in [m]	Weight per 1000 m in [kg]
O	0,30x0,70	650	1,50
I	0,35x0,75	540	1,90
II	0,45x0,75	420	2,40
III	0,55x0,75	345	2,90
IV	0,65x0,80	295	3,40
V	0,65x0,90	250	4,00
VI	0,78x0,96	200	5,00

Stitching Material in [mm]	Gauge No.
0-1,0	-
1,0-1,5	0
1,5-3,5	I, II
3,5-5,0	II, III
5,0-8,0	III, IV
8,0-12	IV, V
12-15	V
15-20	V steel
20-25	V steel SSP

The **BX** model can stitch material of 0 to 25 mm in thickness with staple shanks reversed and material of 40 mm in thickness without reversing.

***Composition***

The stitching wire is delivered wound on plastic coils of 2 kg.

Bigger coils may also be delivered if the required size is specified.

Finishes

It is possible to deliver all kinds of wire in the following finishes:

clean, coppered, galvanized, tinned.

In addition, it is possible to deliver the **steel-wire version** in all dimensions and finishes.

For extra-strong stitching, the reinforced version of flat wire dimension no. **V** (designation: V steel SSP) is appropriate.

When using flat wire type **VI** bender and driver must be exchanged for parts of type **VI** !



2.3 Application as specified

The **BX** wire stitching machine has been built to the latest state of engineering and to the accepted safety rules and regulations. Its application may nevertheless cause the danger of death or injury for the user or third parties or may lead to the impairment of the machine or other kinds of property.

The **BX** is only to be used when in a proper technical condition and within its field of application by operating personnel who is aware of the safety instructions and possible dangers taking the operator's manual as a basis ! In particular, any trouble or disturbance impairing the safety shall be remedied instantly !

The **BX** serves to stitch booklets and blocks made of paper or cardboard.

NOTE

The processing of booklets and blocks made of other materials than specified is not suitable for the intended use !



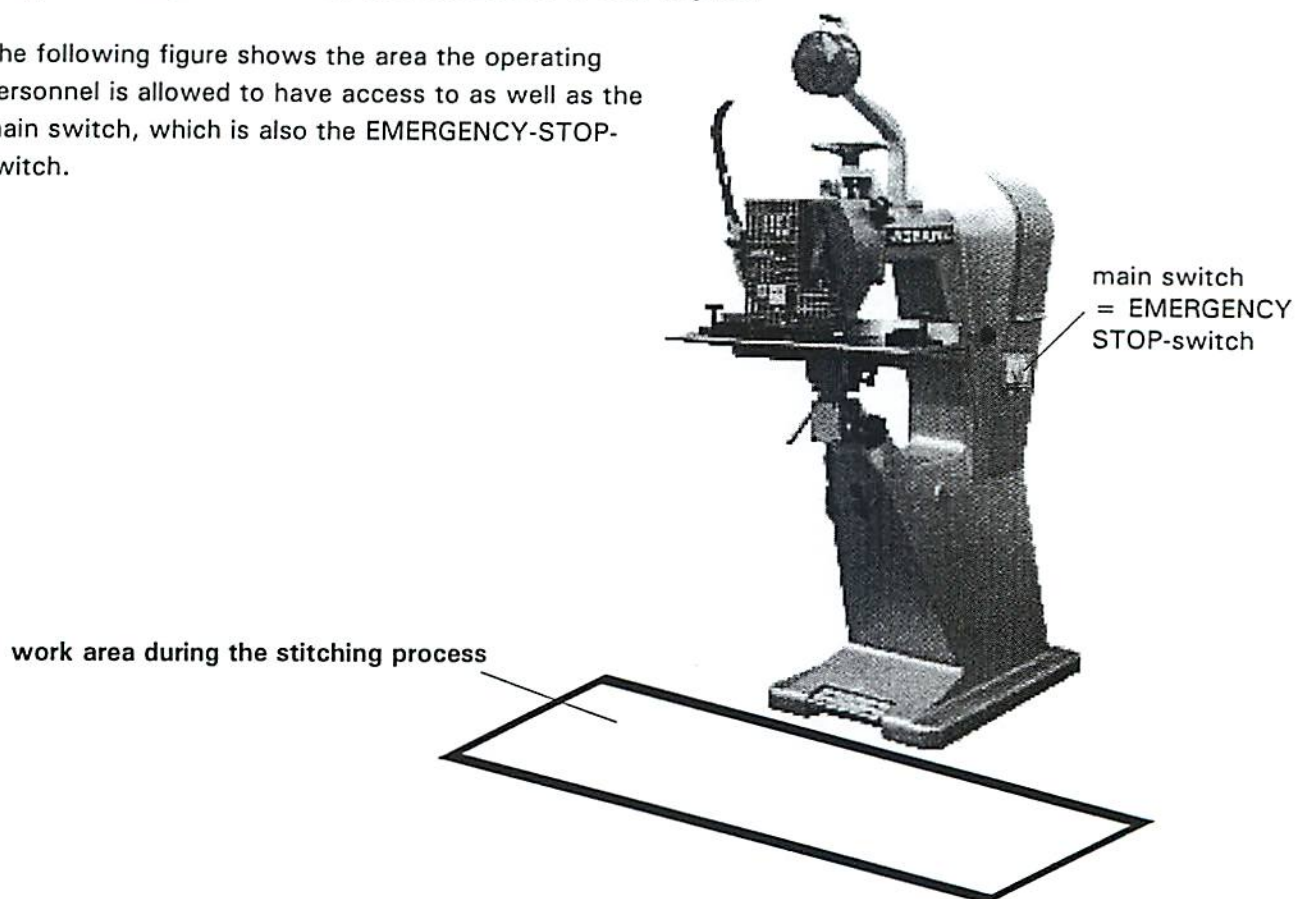
AGRAFIX company does not assume any liability for any resulting damage of any kind on the machine or for injuries of the operating and maintenance personnel !

Application as specified also includes adherence to the operating instructions and compliance with the maintenance conditions and requirements.



2.4 Operator's position and EMERGENCY-STOP-layout

The following figure shows the area the operating personnel is allowed to have access to as well as the main switch, which is also the EMERGENCY-STOP-switch.

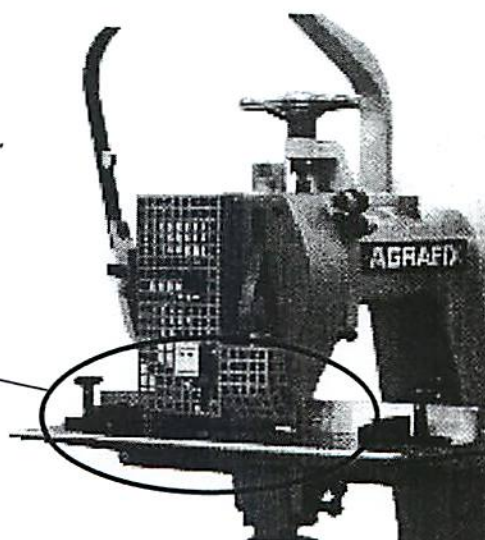


2.5 Danger zone

During stitching the operating personnel risks bruising hands or fingers within the stitching area.



Danger of bruising
due to stitching rail moving
down





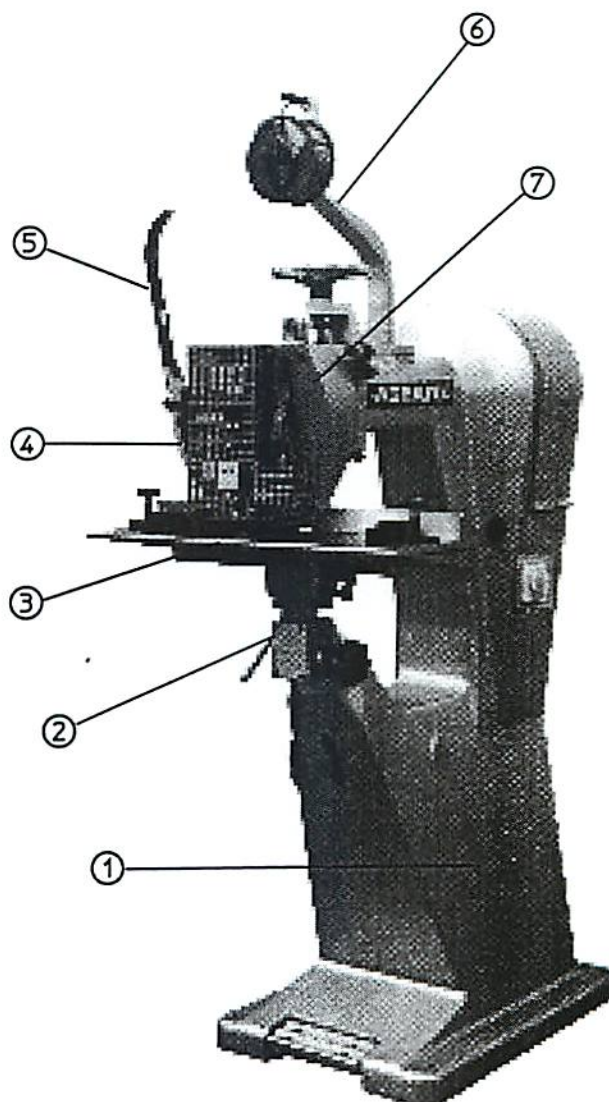
3. Machine review

The **AGRAFIX** wire stitching machine model **BX** has been designed for stitching blocks and booklets of 0 to 25 mm in thickness with staple shanks reversed and of up to 40 mm in thickness without reversing.

Optionally, the machine can be equipped with a loop staple device.

The following figure shows the main assemblies of the **AGRAFIX** wire stitching machine model **BX**.

- 1 rack
- 2 reversing
- 3 stitching table
- 4 protective cap
- 5 wire-feed device
- 6 coil holder
- 7 stitching head





4. FUNDAMENTAL SAFETY INSTRUCTIONS

4.1 Warnings and symbols

The manual uses the following designations to mark instructions of particular importance:

NOTE

Important information the operating or service personnel must pay special attention to

ATTENTION

Hazards or unsafe practices which could result in impairments or damage of the **AGRAFIX** wire stitching machine model **BX**

CAUTION

Hazards or unsafe practices which could result in personal injury

4.2 Organizational measures

- The operating instructions must always be at hand at the place of use of the machine.
- In addition to the operating instructions, observe and instruct the user in all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection.
These compulsory regulations may also deal with the handling of hazardous substances, issuing and/or wearing of personal protective equipment.
- The operating instructions must be supplemented by instructions covering the duties involved in supervising and notifying special organizational features, such as job organisation, working sequences or the personnel entrusted with the work.
- Personnel entrusted with work on the machine must have read and understood the operating instructions and in particular the chapter on safety before beginning work.
Reading the instructions after work has begun is too late !
This applies especially to persons working only occasionally on the machine, e.g. during setting-up or maintenance.



- Check - at least from time to time - whether the personnel is carrying out the work in compliance with the operating instructions and paying attention to risk and safety factors.
- For reasons of security, long hair must be tied back or otherwise secured, garments must be closed fitted and no jewellery - such as rings - may be worn. Injury may result from being caught up in the machinery or from rings catching on moving parts.
- Use protective equipment wherever required by the circumstances or by law.
- Observe all safety instructions and warnings attached onto the **BX** wire stitching machine.
- See to it that safety instructions and warnings attached onto the machine are always complete and perfectly legible.
- In the event of safety-relevant modifications or changes in the behaviour of the machine/plant during operation, stop the machine immediately and report the malfunction to the competent authority/person.
- Never make any modifications, additions or conversions which might affect safety without the approval of the **AGRAFIX** company.
- Spare parts must comply with the technical requirement specified by the **AGRAFIX** company. Spare parts from original equipment manufacturers can be relied to do so.
- Adhere to prescribed intervals or those specified in the operating instructions for routine checks and inspections.
- The adjusting, maintenance and inspection activities shall be executed by **AGRAFIX** service-personnel or by skilled personnel only.
- The personnel must be familiar with the location and operation of fire extinguishers.
- Observe all fire-warning and fire-fighting procedures.
- Avoid any operational mode that might be prejudicial to safety.
- Work on the electrical system or equipment shall only be carried out by specially instructed personnel under the control and supervision of such electrician and in accordance with the applicable electrical engineering rules.



5. Operation

5.1 Commissioning

After unpacking the **AGRAFIX** wire stitching machine model **BX** all preservatives and rust-preventatives must be removed.

After that the machine is to be greased with non-resinic machine oil where it is marked red.

NOTE

Do not mix different lubricants for they will resinate !



ATTENTION

Do not use trichloroethylene to clean the wire stitching machine !

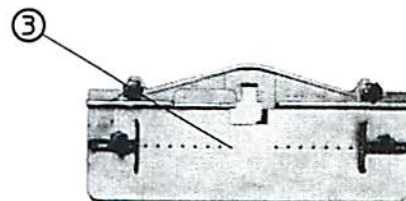
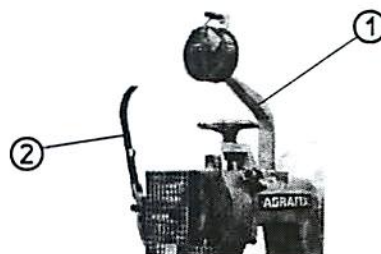
Health hazards !



For transport reasons some parts of the **AGRAFIX** wire stitching machine model **BX** are dismantled before dispatch. They now have to be reinstalled in due order.

The following installations are to be made:

- fix the wire arm (1) onto the rack with the screws enclosed
- unscrew the fixing screws of the wire feed spring (2), raise the latter and retighten the screws
- fix the stitching table (3) onto the support of the **BX** wire stitching machine with the table bolt (4) ; to adjust the table, the bolt (5) must catch the support

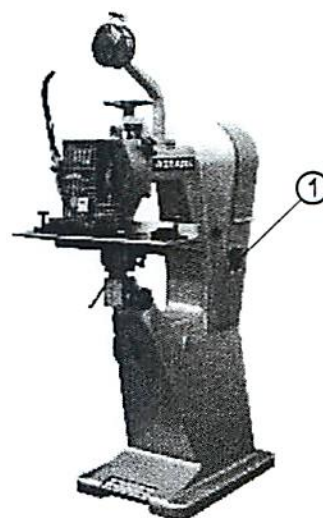




5.2 Daily putting into operation

To put the **AGRAFIX** wire stitching machine model **BX** into operation, the main switch (1) must be set to position "1".

= > The machine is ready for production.



5.3 Daily placing out of operation

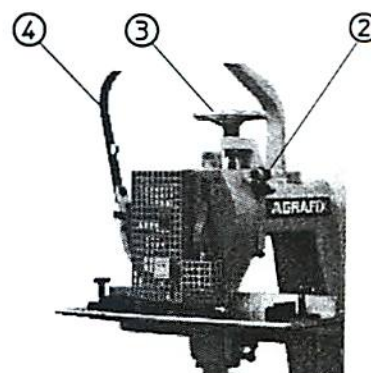
To place the **AGRAFIX** wire stitching machine model **BX** out of operation, the main switch (1) must be set to position "0".

= > The machine is not in operation.

5.4 Set-up and manufacturing operation

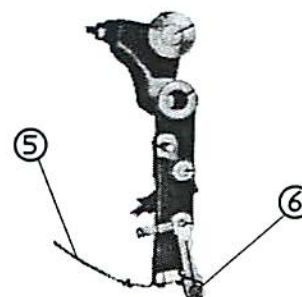
5.4.1 Adjusting the machine to various stitching thicknesses

Place the stitching material between the two rollers (2) on the right hand side of the stitching head. Then turn the handwheel until the material is slightly clamped between the rollers. It is not necessary to make any further adjustments.



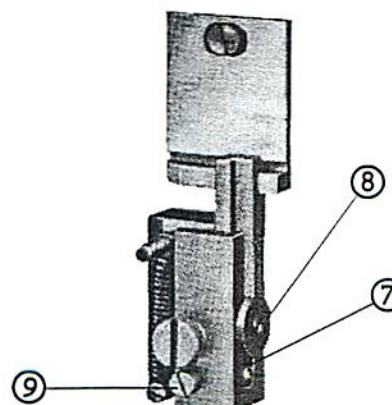
5.4.2 Feeding the stitching wire into the machine

A wire-feed device (4) feeds the stitching wire. The wire must be inserted between the short wire-feed spring (5) and the grooved wire-driving coil (6) and pushed through the cutter (7). The wire-straightening device underneath the long wire-feed spring straightens the stitching wire if drawn twisted into the wire feed. To check the threading of the wire before stitching, the bending block must be removed from the machine. Now press on the pedal. If the wire-pin cutoffs are of the same length, the wire feed works correctly.



5.4.3 Proper wire cut

The wire cut is proper if the cutter (7) is placed exactly next to the cutting disc (8) and fixed by a screw (9). Only if the stitching wire is burr-free, it is guaranteed that the staple shanks will be driven through the stitching material in a regular and correct way.





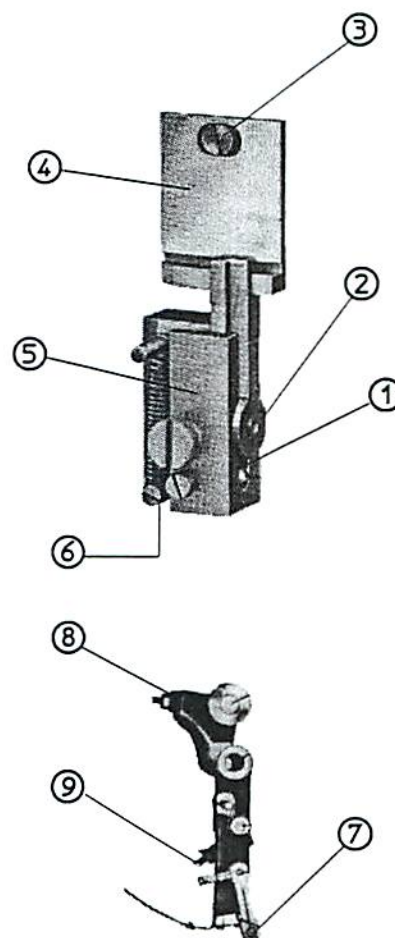
The cutting disc (2) must be placed in its lowest position, approximately 1 mm underneath the orifice of the cutter (1). Otherwise, it is necessary to loosen the lock nut of the eccentric screw (3) and to turn the screw (3) in the oval hole of the cutting slide (4). Then check the screw (3) again.

If the stitching wire in use proves too weak and the staple shanks are in reverse order or the crowns on the surface of the stitching material are deformed, the wrong stitching-wire type has been chosen.

5.4.4 Wire feed

A wire feed wrongly adjusted will cause operational troubles when stitching. To prevent this, the wire transport lever (8) and the plain rolls for wire support (6) in the cutting box must be reconciled.

The grooved roll (7) on the transportation lever (8) must hold the wire when feeding. Only when the wire transportation lever (8) releases the wire, the plain rolls for wire support should hold the wire. This process can be adjusted through an adjuster screw (9).



5.4.5 Controlling the length of the staple shanks

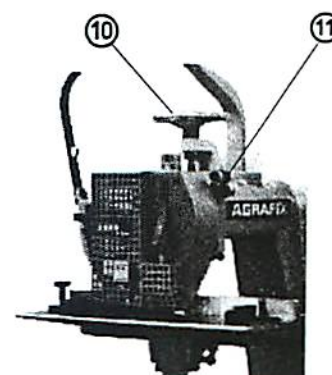
ATTENTION

Turn off the wire stitching machine when controlling the length of the staple shanks !



To control the adjusting, the stitching head is moved to its lowest position by turning a handwheel (10). In this position the two adjusting rollers (11) must be in contact. Now press down the pedal of the wire stitching machine, which must be **turned off**, and turn the V-belt pulley manually in direction of the arrow until the driver has reached its lowest position, which is approximately 1.5 mm above the reversing plates.

The staple shanks of the staple ejected must be 6.5 mm.





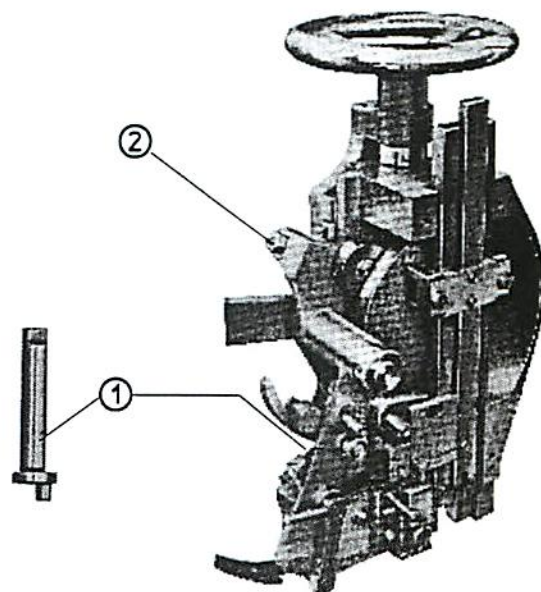
To modify the length of the staple shanks, please proceed as follows:

a) left-hand staple shank

Loosen the two stop screws blocking the shaft of the eccentric bolt (1). By turning the bolt it is possible to move the cutting box (3) horizontally, which lengthens or shortens the staple shanks. After positioning, retighten the stop screws.

b) right-hand staple shank

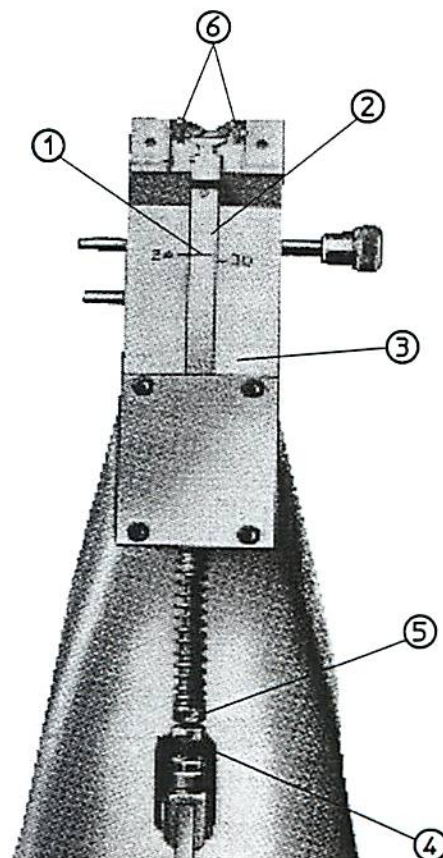
Loosen the lock nut of the adjuster screw (2). By turning the adjuster screw it is possible to lengthen or shorten the staple shanks. After positioning, retighten the lock nut.



5.4.6 Adjusting the machine for stitching booklets or blocks

When stitching booklets the adjustment mark (1) on the lower part of the reverse slide (2) must be set to position 30 on the column (3), when stitching blocks to position 24 respectively.

This is done by loosening the lock nut (4) and turning the adjusting bolt (5). Then retighten the lock nut. After that place the reversing plates (6) marked **3000** for booklet stitching and **2600** for block stitching into the reverse box. Finally retighten the upper part of the reverse box.

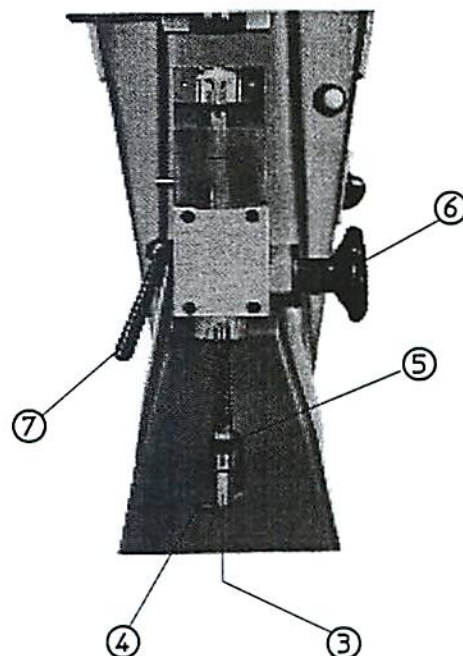




5.4.7 Stabbing up to 40 mm of thickness without staple shanks reversed

To adjust the BX wire stitching machine for stabbing from both sides, proceed as follows:

1. Disengage the reverse pressure rod (3) out of the fork link (5) by removing the bolt (4).
2. Bring the stitching table into its lowest position by turning the big star grip (6).
3. Adjust the length of the staple shanks appropriate for the thickness of the material to be stitched by turning the handwheel.
4. Now set the bender and driving slide to its lowest position by turning the V-belt pulley manually. Put the stitching material onto the stitching table and raise the table upward by turning the star grip (6) until the stitching material is slightly clamped between stitching table and stitching head. Block the stitching table (7) by fastening the lever (7).



NOTE !

When readjusting the machine from stitching booklets to stitching blocks by shifting from mark 30 to 24, do under no circumstances use the star grip (serves to move the table) for this purpose !

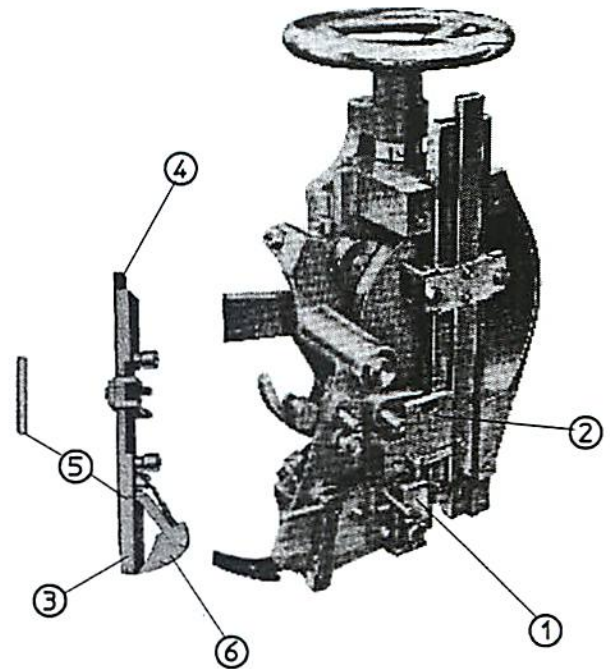
i



5.4.8 Installation of the loop staple device

To use the **BX** wire stitching machine for stitching loop staples directly from a wire roll, proceed as follows:

1. Unscrew the stitching head cover, remove the cutting box (1), the cutting slide (2) as well as the bender and driving slide (3) from the stitching head.
2. Unscrew the screw situated at the lower end of the driving slide (4) and replace the normal driver by a driver for loop stitching. Fix the driver for loop stitching with the screw in such a way that it slides easily into the grooves of the bender.
3. Knock the bolt (5) out of the bender slide and replace the normal tie support (6) by a tie support for loop stitching. Then reinstall the bolt.



If the tie support for loop stitching clamps between the benders, the bolt must be removed again and the tie support be positioned between the two benders. Then ream the borehole in the holder of the tie support together with the borehole for the bolt in the bender slide with a 5-mm-reamer. Now reinstall the bolt. If the tie support clamps only a little, it is enough to strike its side face carefully with a rubber or plastic hammer.

The layered leaf spring must remain behind the slide at the holder of the tie support where it is led in.

Place the bender and driving slide as well as the cutting slide back into the stitching head, screw on the stitching head cover and reinstall the cutting box.

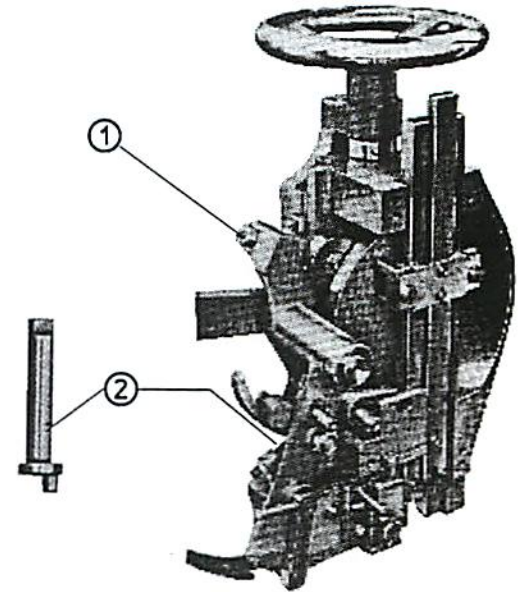


Modifying the length of the staple shanks

- a) Loosen the nut of the adjuster screw (1) with a fixed spanner size 14 and turn the screw about 2 to 3 turns left, then retighten the screw. This increases the right-hand staple shank.

Loosen the two stop screws that block the shaft of the eccentric bolt (2). Turn the eccentric bolt for loop stitching (2) in such a way that the distance between the cutting box and the wire-rod guide is about 5 mm. Fix the eccentric bolt for loop stitching by tightening the two screws. Only after a few trial stitchings it is possible to adjust the staple shanks more exactly.

- b) Should the notch for tie support (bronze tongue) strike against the stitching-head case with its lower point, this might tear the loop staple. In this case it is necessary to place a washer (distance washer) between the notch and the stitching-head case. The washer is fixed onto a spring bolt. Then install the notch, the washer, the spring, the round and the lock nuts (*this sequence must be strictly observed*). A stronger spring pressure than for normal stitching might be required. The distance between the notch and the stitching-head should be about 1 mm.



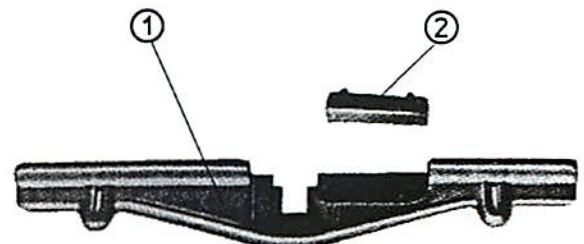
NOTE

For loop stitching use **AGRAFIX** round wire no. 25 only.

i

5.4.9 Stitching blocks

When using a striker bar (1), see to it that the notch (2) is unscrewed to stitch blocks of less than 10 mm in thickness.

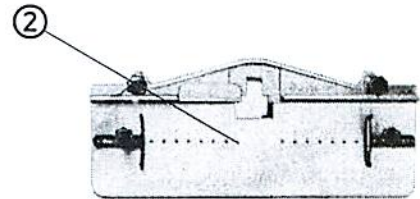




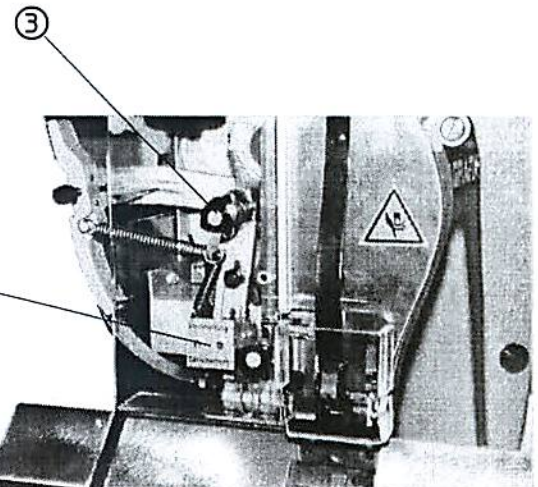
5.4.10 Conversion from block to saddle stitching

When converting the wire stitching machine from block to saddle stitching it is necessary to remove the stop bolt (1) and to bring the stitching table (2) into the sloping position appropriate for saddle stitching.

Please see to it that after shifting the stitching table the stop bolt is notched in.



Then adjust the protective cap to saddle stitching by loosening the fixing screw (3) and moving the cap vertically until the marking (4) has reached its adequate position. Finally, retighten the screw.



ATTENTION

The cap must be adjusted to the respective stitching mode.
Risk of bruising !





6. Spare parts

On the following pages you will find a list of spare parts and parts subject to tear and wear with the corresponding order numbers.

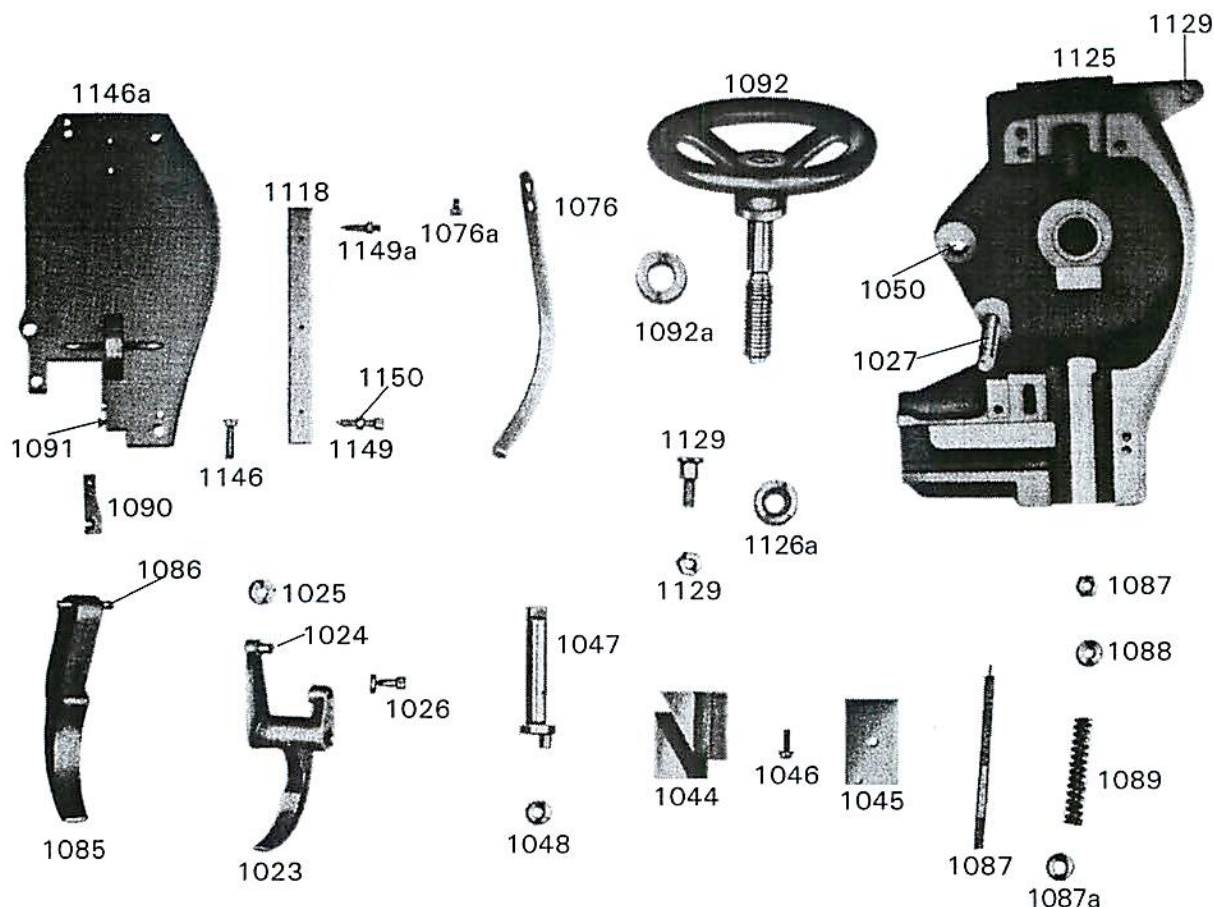
ATTENTION

AGRAFIX Company does not assume any liability for damage to the machine or persons arising from improper mounting of the spare parts !





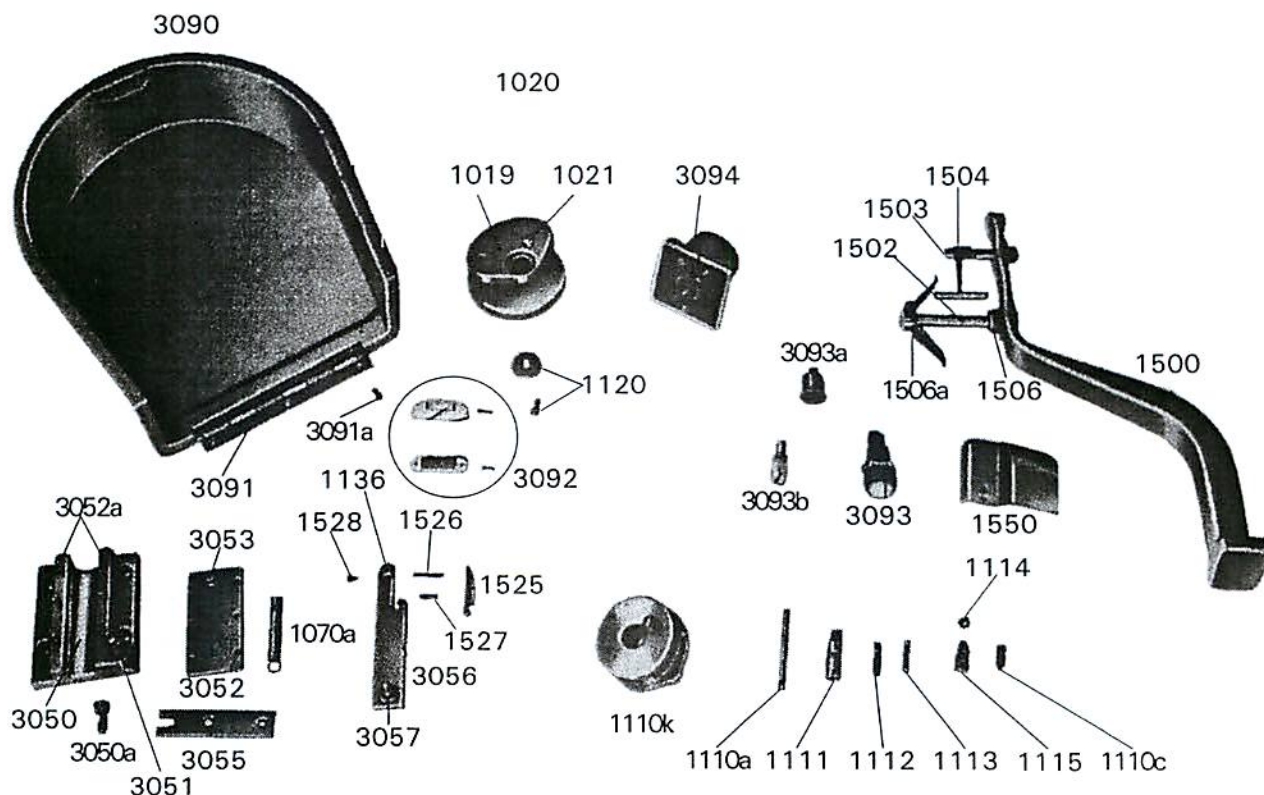
6.1 Stitching head



No.	Designation	No.	Designation
1023	cutting lever	1088	round nut (for 1087)
1024	bolt (for 1023)	1089	spring (for 1085, 1087)
1025	roller (for 1023)	1090	wire feed
1026	eccentric screw with nut (for 1023)	1091	screw (for 1090)
1027	screw bolt (for 1023)	1092	hand wheel
1044	cutting slide	1092 a	adj. screw with conic pivot (for 1092)
1045	cover (for 1044)	1118	prism ledge
1046	screw (for 1044, 1045)	1125	stitching-head case
1047	eccentric bolt (for 1044)	1126 a	adjusting roller
1048	roller (for 1047)	1129	eccentric screw with nut (for 1126 a)
1076	bending block spring	1146	screw for stitching-head cover
1076 a	screw (for 1076)	1146 a	stitching-head cover
1085	disc with screw	1149	long screw (for 1118)
1086	bolt (for 1085)	1149 a	short screw (for 1118)
1087	spring bolt with nut (for 1085)	1150	nut (for 1118)
1087 a	disc (for 1087)		



6.2 Eccentric with bolt, engagement, wire bobbin support, cap



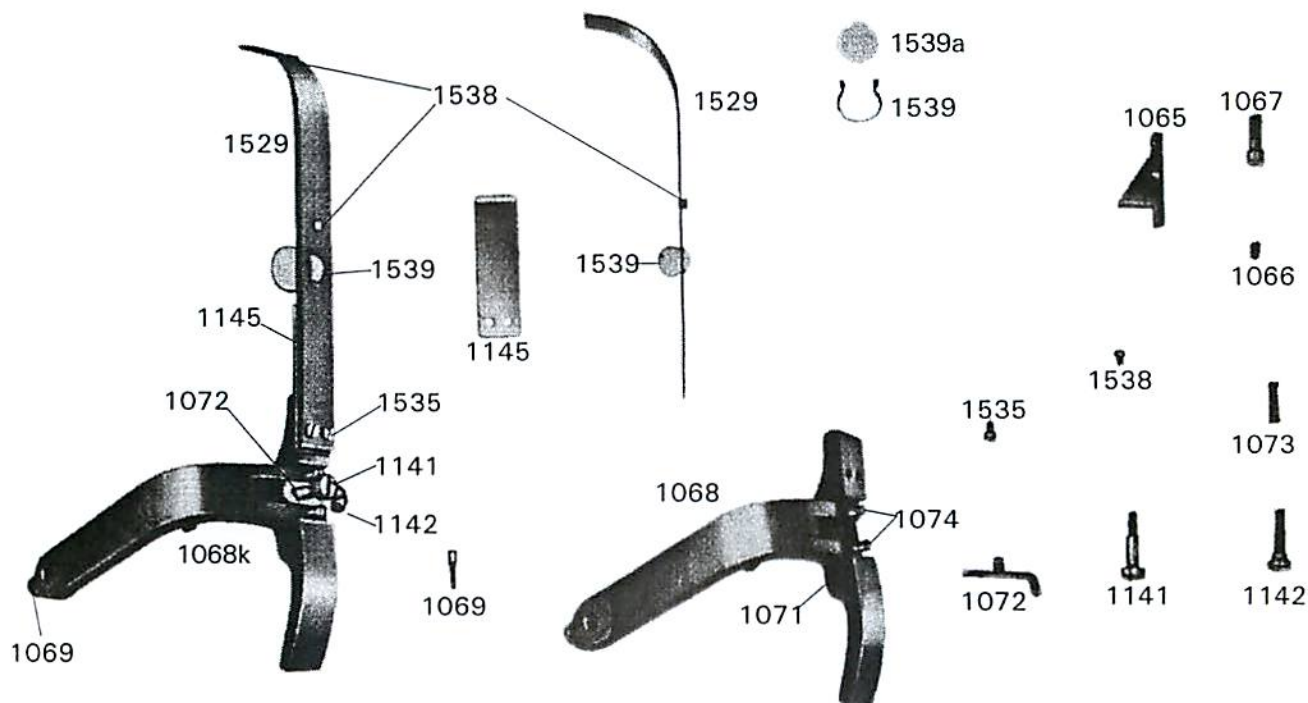
No.	Designation	No.	Designation
1019	eccentric with roller bolt	1503	bolt with nut (for 1500)
1020	roller (for 1019)	1504	spring
1021	roller bolt (for 1019)	1506	bobbin ring with screw
1070 a	bolt spring (for 3053, 3057)	1506 a	bobbin stop spring with ring and screw
1110 k	reverse eccentric complete	1525	notch tappet
1110 a	conic pivot (for 1110)	1526	spring (for 1525)
1110 c	adjuster screw (for 1110)	1527	screw (for 3056 k)
1111	engaging bolt	1528	adjuster screw (for 3056 k)
1112	engaging pivot	1550	finger guard
1113	spring (for 1112)	3050	guide with 3050 a and 3051
1114	brake ball	3050 a	screw (for 3050)
1115	spring (for 1114)	3051	screw bolt with disc and nut
1120	disc with screw	3052	cover with 3053 and screws
1136	bolt notch (small)	3052 a	screw (for 3052)
1500	wire bobbin support	3053	spring bolt (for 3052)
1502	bolt (for 1500)	3055	engaging rod



No.	Designation
3056	disengaging rod with 1136 and 3057
3056 k	disengaging rod complete
3057	bolt (big)
3090	cap with 3091 and screws
3091	hinge
3091 a	screw (for 3091)
3092	magnet
3093	control lamp
3093 a	rubber coating (for 3093)
3093 b	bulb (for 3093)
3094	switch



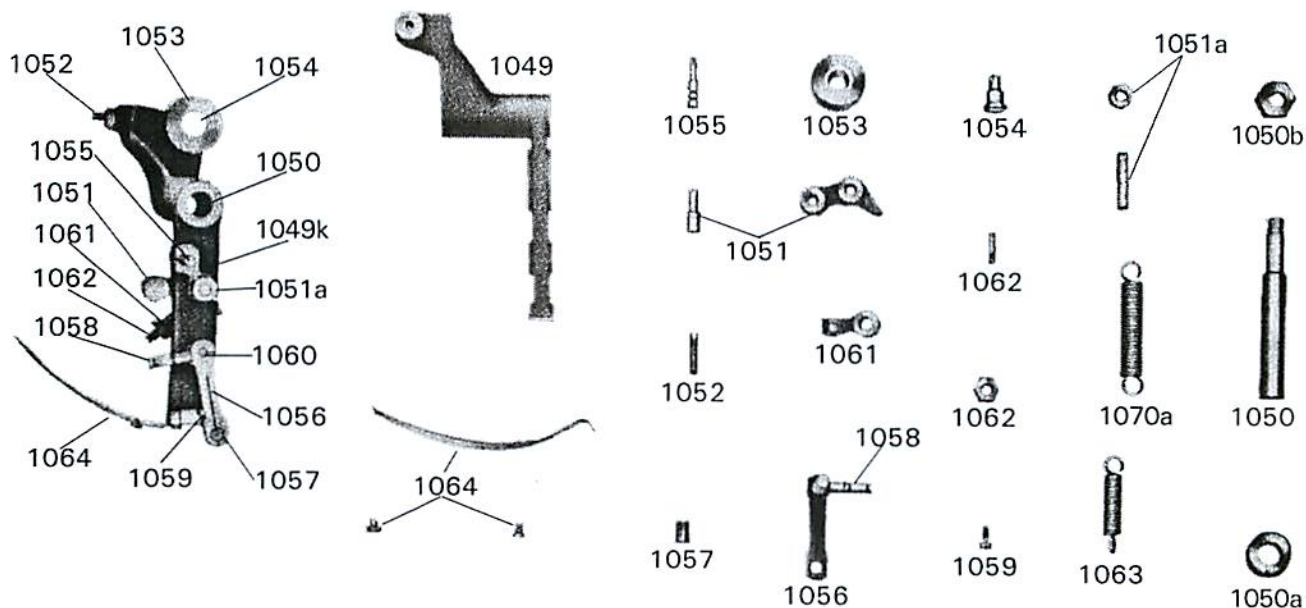
6.3 Wire-rod guide



No.	Designation	
1065	wedge for wire carriage	
1066	adjuster screw (for 1065)	
1067	screw (1065)	
1068	wire-feed spring support	
1068 k	wire-feed spring support complete	
1069	bolt (for 1068)	
1071	spring bolt (for 1068)	
1072	adj. angle for wire feed with eye	
1073	spring (for 1072)	
1074	wire-straightening pin (for 1068)	
1141	side adjuster screw (for 1072)	
1142	front adjuster screw (for 1072)	
1145	spring support	
1529	long wire-feed spring	
1535	screw for wire-feed spring	
1538	wire-feed eye (for 1529)	
1539	spring	
1539a	felt	



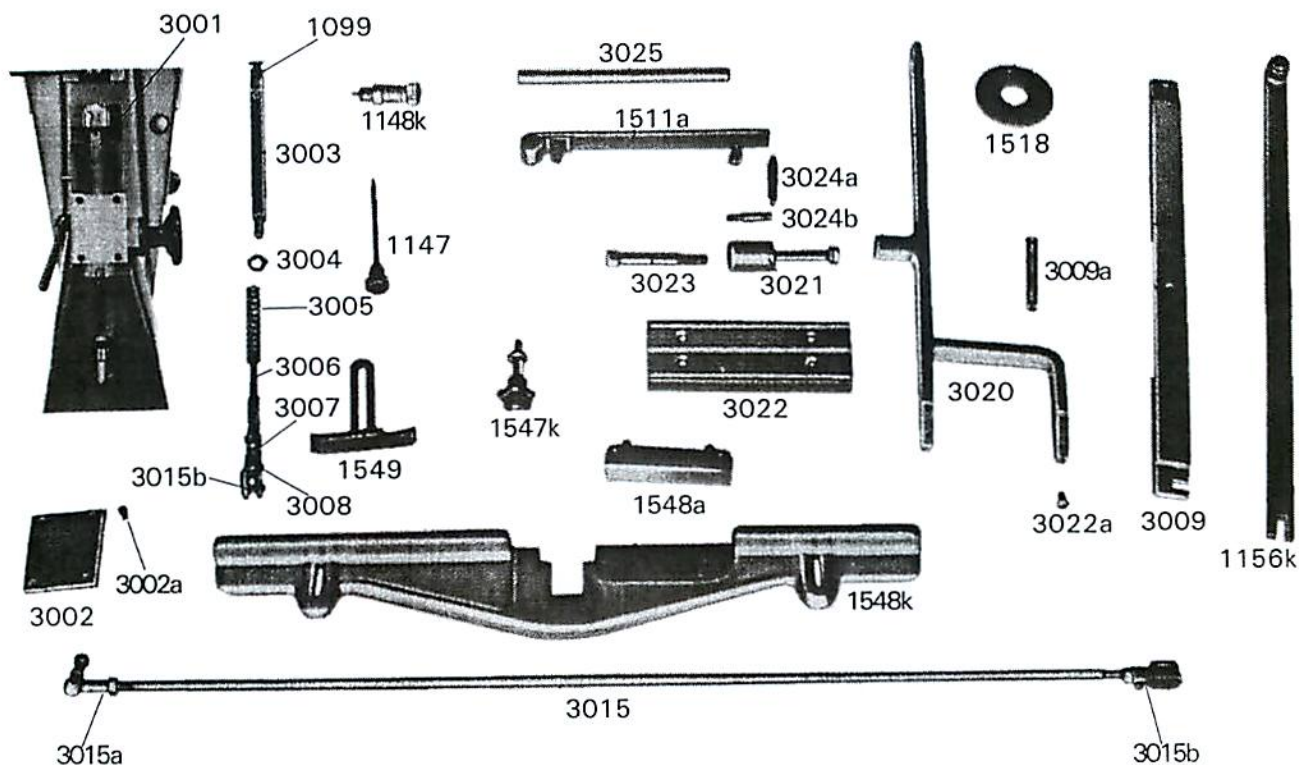
6.4 Wire carriage



No.	Designation	No.	Designation
1049	wire transportation lever	1061	lower wire-ungearing lever with conic pivot
1049 k	wire transportation lever complete	1062	adjuster screw with nut (for 1061)
1050	bolt (for 1049)	1063	spring (for 1056)
1050 a	adj. ring with conic pivot (for 1050)	1064	short wire-feed spring (for 1049)
1050 b	nut (for 1050)	1070 a	spring (for 1049, 1068)
1051	upper wire-ungearing lever with bolt		
1051 a	adjuster screw with conic pivot		
1052	adjuster screw with nut (for 1049)		
1053	roller (for 1049)		
1054	roller bolt (for 1049)		
1055	spring bolt (for 1049)		
1056	wire-driving lever		
1057	grooved driving coil		
1058	spring bolt (for 1056)		
1059	screw (for 1056)		
1060	bolt (for 1056)		



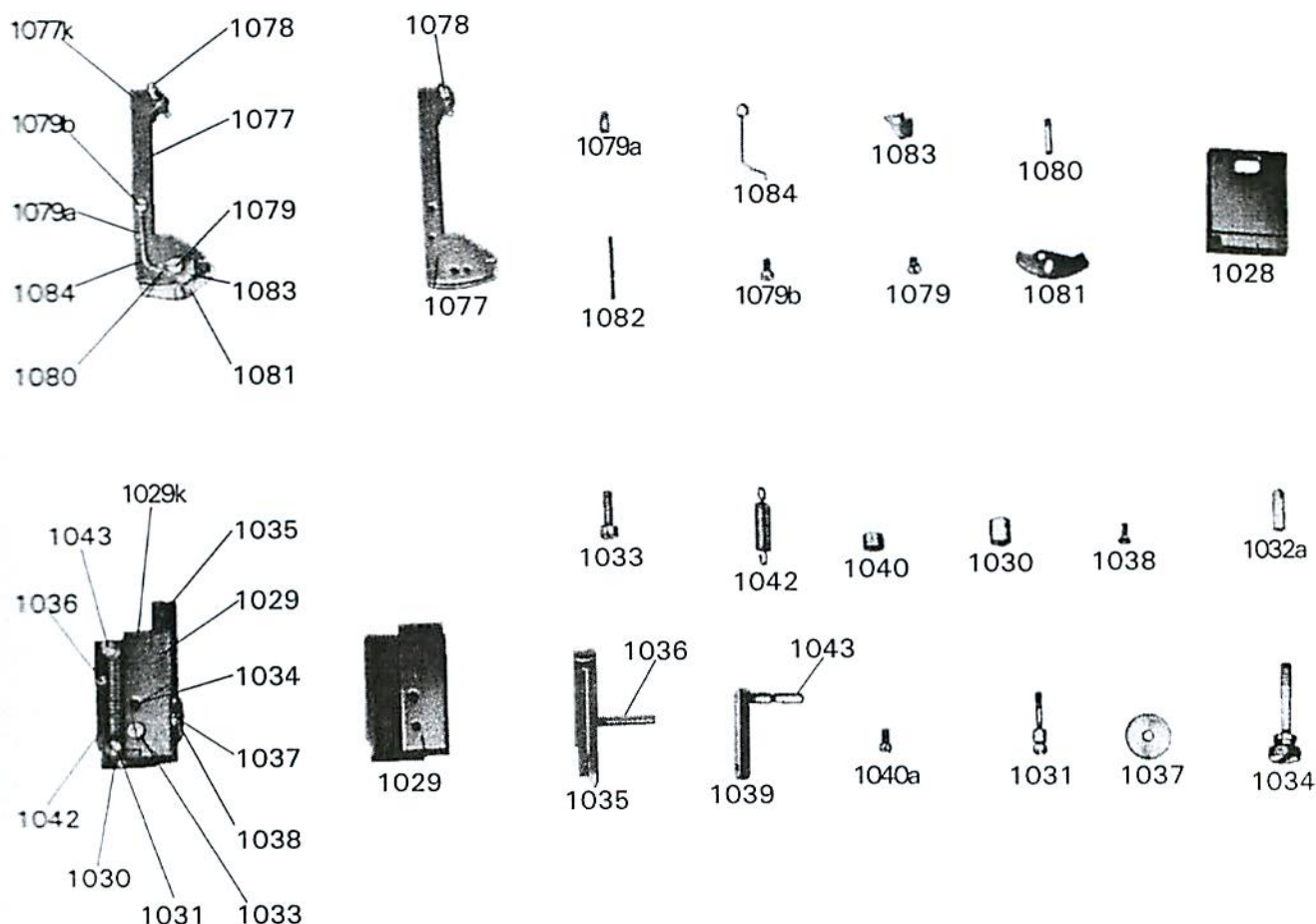
6.5 Reversing, fixing and miscellaneous part



No.	Designation	No.	Designation
1099	reverse slide	3006	adjusting bolt
1147	bolt	3007	nut
1148 k	stop bolt complete	3008	reverse bolt
1156 k	rear reverse rod complete	3009	lower reverse rod
1511 a	iron bar	3009 a	hull (for 3009)
1518	driving ring with screw	3015	push rod with nuts
1547 k	worm bolt complete	3015 a	angle hinge with nuts
1548	angle complete	3015 b	fork hinge with bolts
1548 a	notch with screws and bolts	3020	pedal holder
1549	side angle	3021	pedal shaft with ring and screw
3001	column	3022	pedal with screws
3002	cover for 3001	3022 a	screw (for 3022)
3002 a	screw for 3002	3023	hollow set-screw
3003	lower part of reverse slide	3024 a	spring (for 1511 a)
3004	disc (for 3003 and 3005)	3024 b	spring bolt
3005	pressure spring	3025	shaft



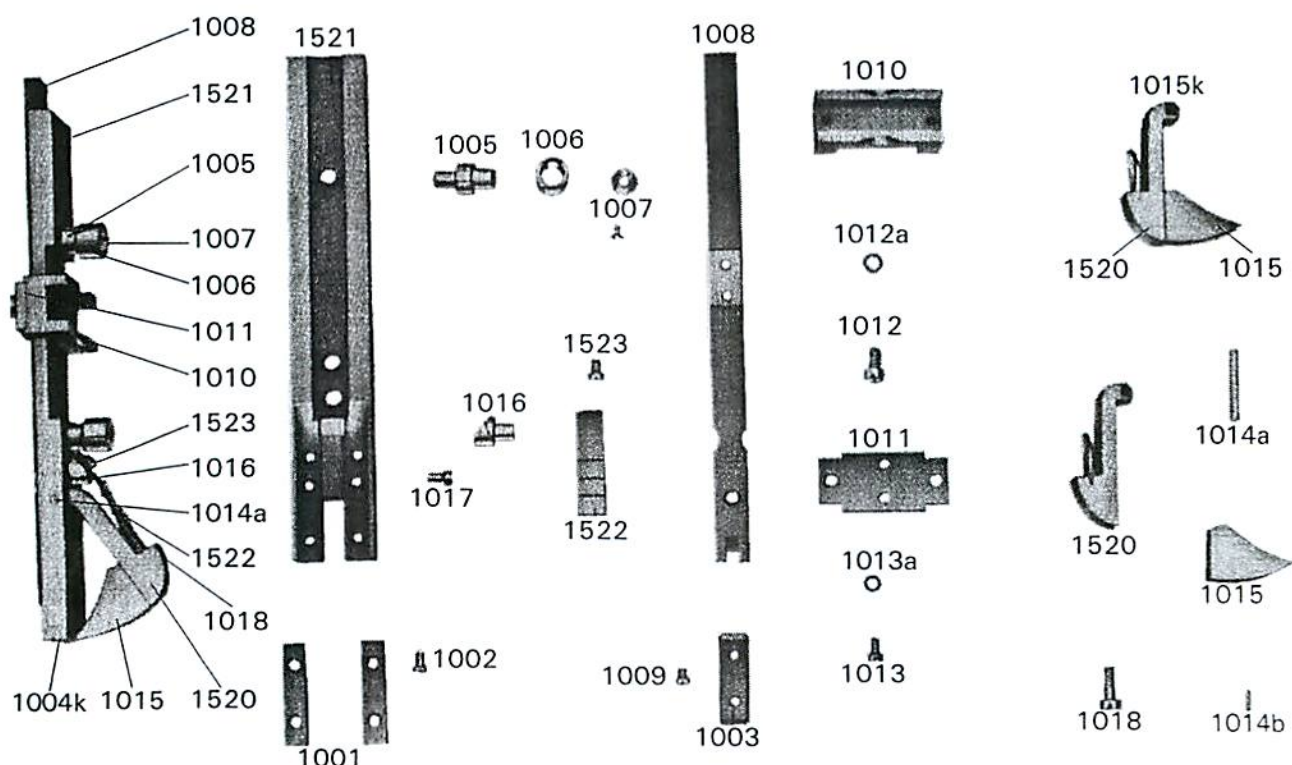
6.6 Bending block, cutting box



No.	Designation	No.	Designation
1028	cutting slide	1043	spring bolt (for 1039)
1029	cutting box	1077	bending block
1029 k	cutting box complete	1077 k	bending block complete
1030	plain roll for wire support (for 1031)	1078	bolt (for 1077)
1031	spring screw (for 1029)	1079	screw (for 1083)
1032 a	cutter (for 1029)	1079 a	screw (for 1077)
1033	screw (for 1032 a)	1079 b	screw (for 1084)
1034	screw (for 1029)	1080	screw (for 1081)
1035	cutting slide	1081	wire stop lever
1036	bolt for cutting slide	1082	spring (for 1081)
1037	cutting disc	1083	un gearing lever (for 1077)
1038	screw (for 1037)	1084	spring (for 1083)
1039	wire support slide		
1040	grooved wire support roller (for 1039)		
1040 a	screw (for 1040)		
1042	spring (for 1039)		



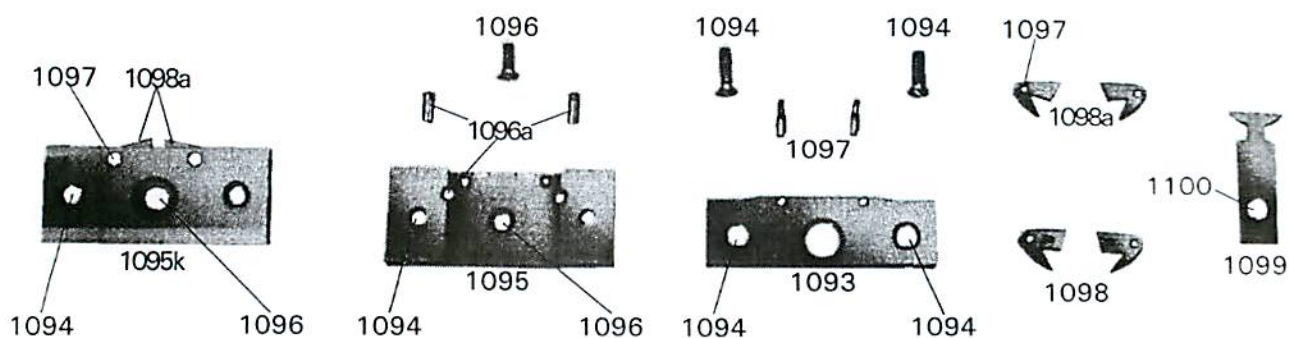
6.7 Bender and driving slide



No.	Designation	No.	Designation
1001	bender	1015 k	tie support complete
1002	screw (for 1001)	1016	bolt (for 1522)
1003	driver	1017	bolt (for 1521)
1004 k	bender and driving slide complete	1018	screw (for 1015)
1005	bent sliding bolt (for 1521)	1520	support for tie support
1006	bent sliding roll (for 1005)	1521	bender slide
1007	disc with screw (for 1006)	1522	piled-up springs
1008	driving slide	1523	screw (for 1522)
1009	screw (for 1008)		
1010	bent part for driving slide		
1011	cover (for 1010)		
1012	screw (for 1010)		
1013	screw (for 1008)		
1014 a	bolt (for 1520)		
1014 b	bolt (for 1015)		
1015	tie support		



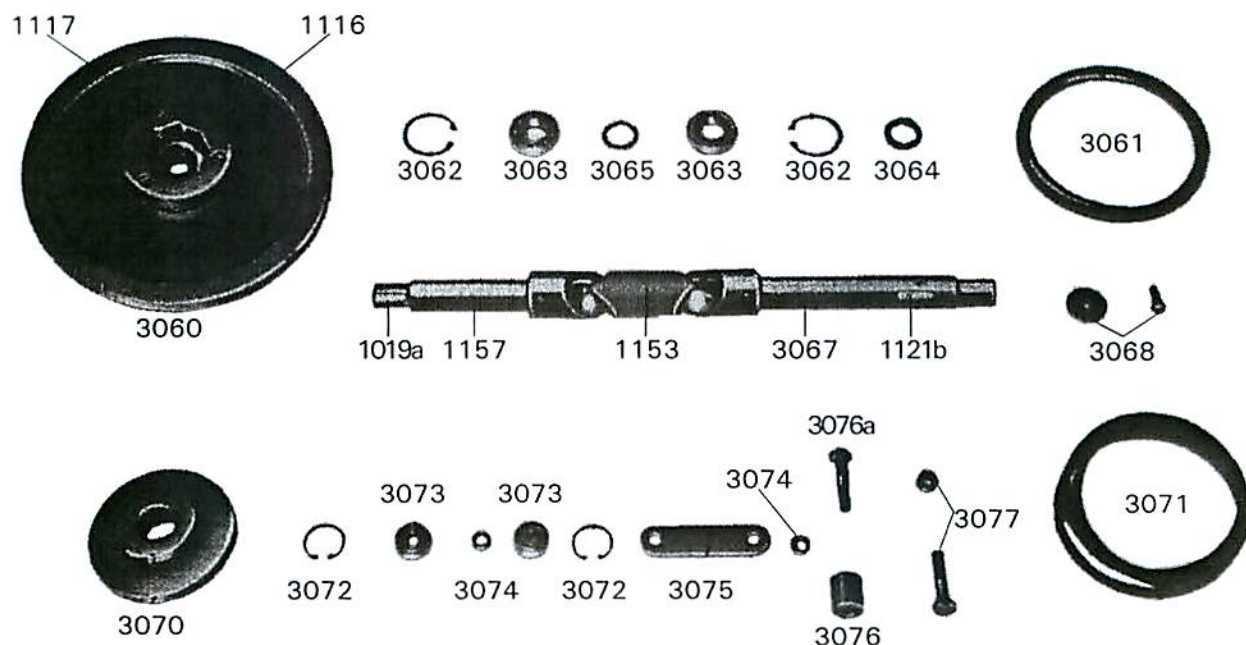
6.8 Reverse box



No.	Designation	
1093	upper part of reverse box	
1094	screw (for 1093)	
1095	lower part of reverse box	
1095 k	reverse box complete	
1096	screw (for 1095)	
1096 a	bolt	
1097	bolt (for 1098, 1098 a)	
1098	reversing plates for wire 28 or 30 marked "3000"	
1098a	reversing plates for wire 26 marked "2600"	
1099	reverse slide	
1100	screw (for 1099, 3003)	



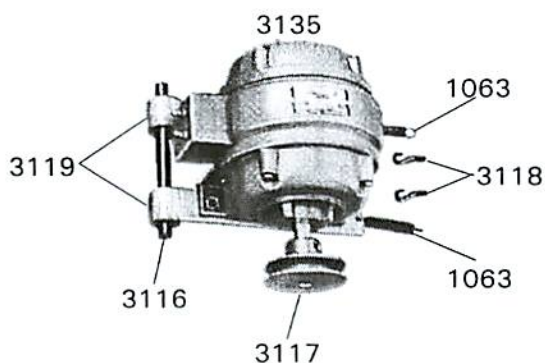
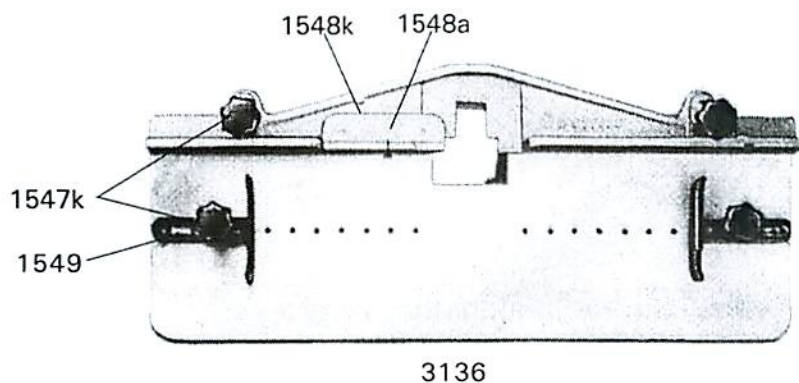
6.9 Arbor joint, reduction gear



No.	Designation	No.	Designation
1019 a	spring wedge (for 1157)	3072	retaining ring (reduction gear)
1116	catch ring	3073	ball bearing (reduction gear)
1117	screw	3074	distance ring
1121 b	spring wedge (for 3067)	3075	lever (for reduction gear)
1153	ball-and-socket joint	3076	distance ring
1157	short arbor joint	3076 a	hexagon bolt
3060	V-belt pulley	3077	hexagon bolt with nut
3061	V-belt 10 X 6 X 1100		
3062	retaining ring		
3063	ball bearing		
3064	distance ring (wide)		
3065	distance ring (narrow)		
3067	long arbor joint		
3068	disc with screw		
3070	V-belt pulley (reduction gear)		
3071	V-belt 10 X 6 X 1500		



6.10 Motor and table



No.	Designation	
1063	spring	
1547 k	worm bolt complete	
1548 k	angle complete	
1548 a	notch	
1549	side angle	
3116	shaft	
3117	V-belt pulley (motor)	
3118	spring catch	
3119	motor switch armature	
3135	motor	
3136	stitching table	