

# User Manual



**GC-4319-443 MH**

**GC-4319-448 MH**

**GC-4320-4411 MH**

ANITA B s.r.o.

Průmyslová 2453/7

680 01 Boskovice

Czech Republic

tel: +420 516 454 774

+420 516 453 496

fax: +420 516 452 751

e-mail: [info@anita.cz](mailto:info@anita.cz)

VERSION	DATE	APPROVED BY
MP06000EN,MP06100EN_200619	19. 6. 2020	Ing. Kamil Krátký
MP06000EN,MP06100EN_201106	6. 11. 2020	Ing. Kamil Krátký

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## A BASIC INFORMATION

### A1. PRODUCT DESCRIPTION AND INTENDED USE

Single-needle and double-needle cylinder-bed machines with vertical-axis large-diameter hook. The machine sews with a lockstitch and the material is fed by the feeder, needle and foot (triple feeding). The machines are used especially for precise sewing of medium to thick materials.

### A2. TECHNICAL SPECIFICATIONS

Model	GC-4319-443 MH	GC-4319-448 MH	GC-4320-4411 MH
Number of needles	1		2
Needle gauge	-		3,2 / 4,8 / 6,4 / 7,9 mm
Use	Medium and heavy materials		
Stitch type	2-thread lock-stitch		
Max. stitch length	6 mm		
Hand lever foot lift	9 mm		
Knee lever or solenoid foot lift	16 mm		
Needle system	135x17 (textile) or 135x16 (leather)		
Needle size	Nm. 110-160		
Hook type	Vertical axis, bobbin Ø26mm		
Lubrication	Central		
Lubrication oil	10# M22		
Servo-motor	1x230V External	1x230V Direct-drive	
Machine head weight	49 kg	51 kg	
Table weight	34 kg		
Working space	255 x 110 mm		
Arm dimensions (length/diameter)	265 mm/80 mm	345 mm/80 mm	
Power	600 W		
Ground plan dimensions	1070 x 550 mm (including frame)		
Bedplate height	600 – 800 mm		
Machine height	1530 mm (including thread stand)		
Noise level by 50% machine utilization and under standard conditions	82 dB / A		
Max. sewing speed	2 500 st./min*	2 000 st./min*	

\* Do not exceed specified sewing speed due to the service life of the machine mechanism. This cannot be guaranteed under any conditions. It is necessary to reduce speed depending on the thread, needle and material, stitch length and the foot track.

## B SAFETY INSTRUCTIONS

Read the instructions carefully before installation and use. Keep this manual for future reference.

### B1. GENERAL INSTRUCTIONS

1. Do not operate the sewing machine until proper preparation has been made by a technician or qualified person and safety precautions have been taken.
2. Always follow the safety instructions when handling the machine.
3. This sewing machine may only be operated by properly trained personnel.
4. Maintenance, repair, inspection and adjustment of the machine may only be carried out by a qualified person.
5. Work on electrical equipment may only be performed by a qualified worker or person with the appropriate authorization. Work on electric parts and equipment on your own is not permitted.
6. The machine may only be used for its intended purpose.
7. The warranty does not cover any problems in the operation of the machine that are caused by unauthorized modifications to the machine, as well as problems caused by non-observance of the instructions given in this manual and generally known habits for the operation and maintenance of industrial sewing machines.

### B2. INSTALLATION PRECAUTIONS

1. Immediately report visible damage to the carrier. Check the contents of the order shipment and report any defects immediately to the manufacturer. Later claims will not be accepted.
2. Use the machine after checking that it meets all the safety standards of your country.
3. The machine head is covered with a corrosion-proof coating. Wipe off the lubrication and dust layer with a cloth or petrol before placing it on the work surface.
4. The machine has been thoroughly inspected and tested before shipment. However, it may have been damaged by transport or impact. Check the operation of the machine with the handwheel, to detect extraordinary noises, heavy running, etc. before starting the test sewing.
5. Never start the machine if the oil level is under or over the marked lines.
6. Check that the power and phase are in accordance with the label instructions.
7. Proper grounding of the machine is necessary.
8. Use the correct grounding plug.
9. Do not use an extension cord.
10. Make sure that the power supply and voltage match the requirements on the label of the machine.
11. Do not use the machine in explosive or corrosive environment.
12. In the first two weeks, do not exceed 3/4 of the maximum machine speed.
13. Check that the air pressure is between 0.55 and 0.6 MPa.

### **B3. OPERATIONAL SAFETY INSTRUCTIONS**

1. Do not use the machine without a belt cover, finger guards or other protective equipment.
2. All protective equipment of the machine must be in place before operation. Do not use the machine without covers and protective equipment.
3. Repair damaged covers or replace them immediately.
4. If the safety label is damaged, order a new one from the machine supplier and place it in its original position.
5. Switch off the machine and unplug it in these situations (the motor still rotates after turning off; wait until it stops completely):
  - when threading the needle (needles), hooks, etc.
  - when changing the needle, presser foot, needle plate, hooks, hook bobbins, feeders, needle guards, finger guards, work guides, etc.
  - when the machine is not in use and left unattended
  - when opening or removing the protective covers
  - for any maintenance, repair, inspection and adjustment of the machine
  - when cleaning the machine
6. Wear safety goggles and gloves when lubricating the machine. Do not drink oil under any circumstances, as it may cause vomiting and diarrhoea. Keep oil out of the reach of children.
7. Take special care when lifting / tilting the machine head. When tilting the machine head, make sure the machine is turned off. Always hold the machine head with both hands.
8. When handling cords and plugs, check if the machine is switched off to avoid electrical shock and injury.
9. Check the electrical cords for damage to avoid injury by touching an exposed wire.
10. Do not place any objects on the power cord.
11. Do not open or touch the inside of the junction box.
12. It is strictly forbidden to connect any connector while the machine is powered. Risk of damage to electrical components and drives.
13. Do not modify the machine in any way that could endanger safety.
14. Clean the machine regularly during operation.
15. Do not wipe the machine with thinner or acetone.
16. Use only original or approved spare parts from manufacturer.
17. Ensure adequate illumination of the work area and the surroundings of the machine.
18. Disconnect the compressed air supply before servicing and repairing pneumatic equipment. Drain off the residual compressed air before servicing.

### **B4. WORKING SAFETY INSTRUCTIONS**

1. Make sure you know the position of Stop button before starting to work.
2. Do not touch any moving parts or put objects into the machine while sewing.
3. Be careful not to catch or place objects near the machine's moving mechanisms, particularly fingers, sleeves, clothing and hair.
4. Never touch the needle when the machine is turned on and sewing.
5. Never reach under the thread lever cover while the machine is on.
6. Do not place your fingers in the needle guard holder when feeding material manually.

7. Do not work on the machine under the influence of alcohol or drugs.
8. We recommend wearing safety goggles.
9. Do not remove covers or any other safety device while the machine is running.
10. Always turn off the main switch when leaving the machine.

## **B5. DISPOSAL INSTRUCTIONS**

For disposal of the machine contact your local dealer or manufacturer in accordance with legislation.

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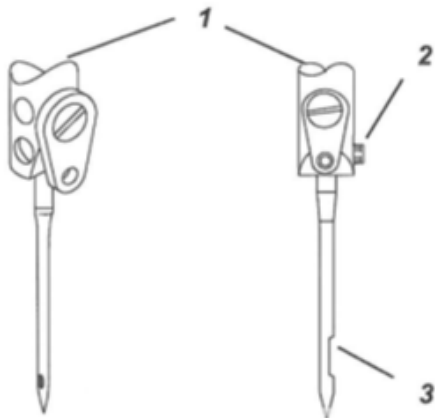


## C OPERATING INSTRUCTIONS

### C1. REPLACING THE NEEDLE

Turn off the main power switch. Replace the needle only when the sewing machine is off.

For 1-needle machine **GC-4319**:



Turn the hand wheel to rise the needle bar 1 to the highest position.

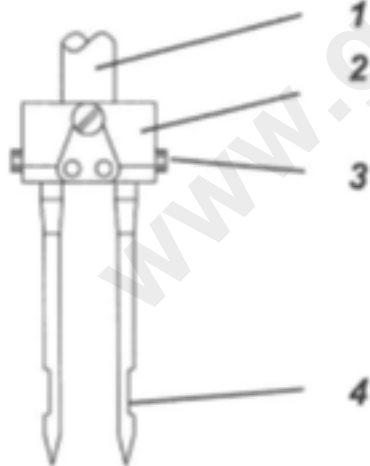
Loosen the screw 2.

Pull out the needle from the needle bar 1 downwards.

Insert new needle into the opening in the needle bar 1 all the way up with the groove 3 to the right.

Tighten the screw 2.

For 2-needle machine **GC-4320**:



Turn the hand wheel (CCW) to rise the needle bar 1 to the highest position.

Loosen the screw 3.

Pull out the needle from the needle holder 2 downwards.

Insert new needle into the opening in the needle holder 2 all the way up with the groove of the right needle 4 to the right and the groove of the left needle to the left (as shown).

Tighten the screw 3.

When changing the needle size, you must adjust the distance of the hook to the needles, otherwise it will lead to malfunctioning:

Using the smaller size of the needle:

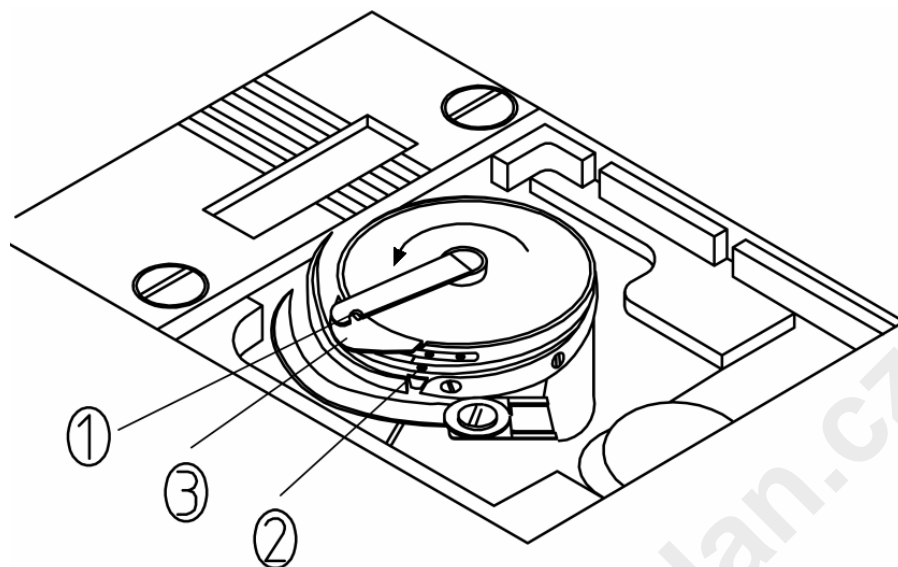
- Skipping the stitches
- Damaging the thread

Using the larger size of the needle:

- Damaging of the tip of the hook
- Damaging the needle

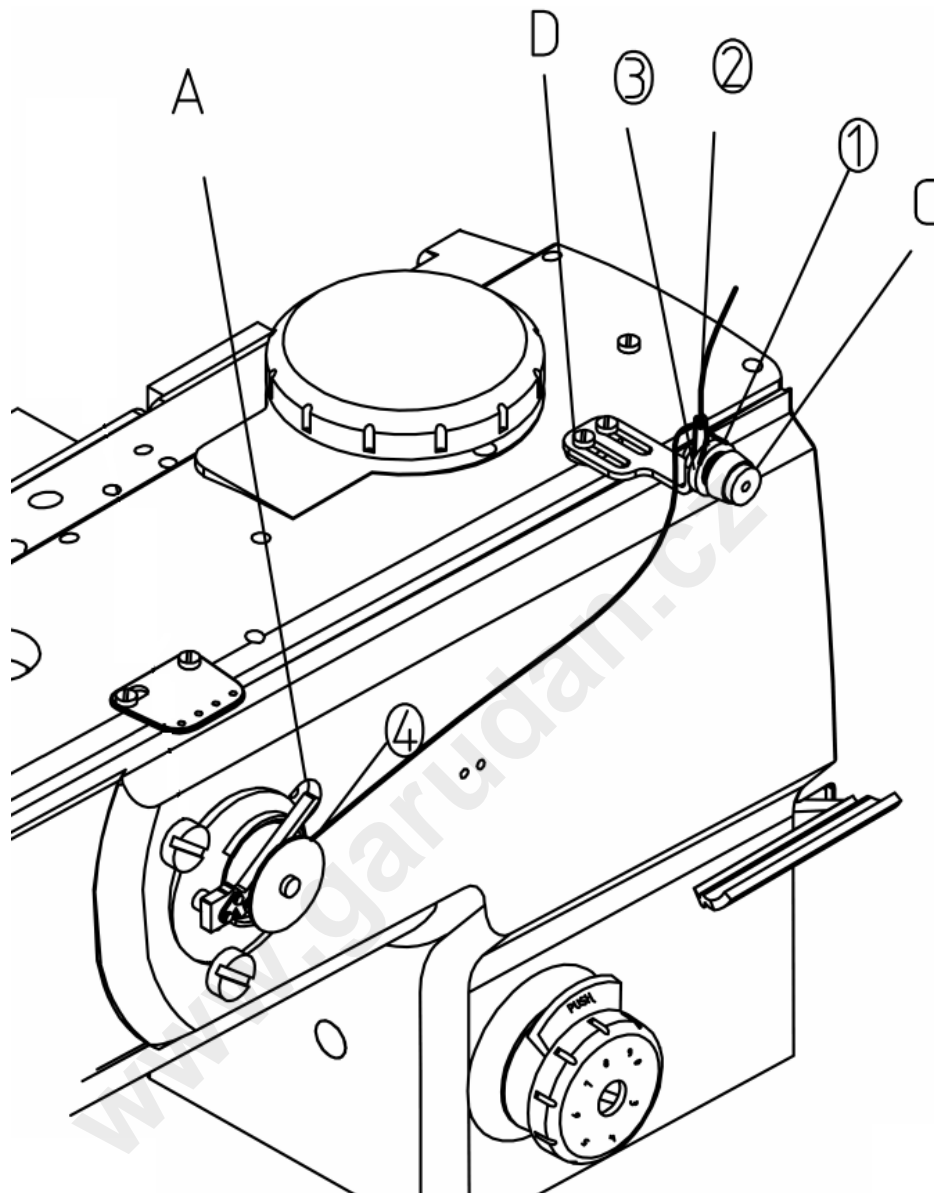
## C2. THREADING THE MACHINE

### C2.1. Threading the bottom thread



1. Pull the latch up ①.
2. Hold the bobbin with the loose end of the thread in a CCW direction and put it into the hook.
3. Pass the thread through the opening ② and ③ and under the bottom thread tension spring.
4. Pull the thread out, the bobbin must turn in a CCW direction (as in the picture).

## C2.2. Winding the bobbin



1. Put the bobbin on the winding pin. Pass the thread through points ① to ③ and wind the end of the thread a few times around the bobbin.

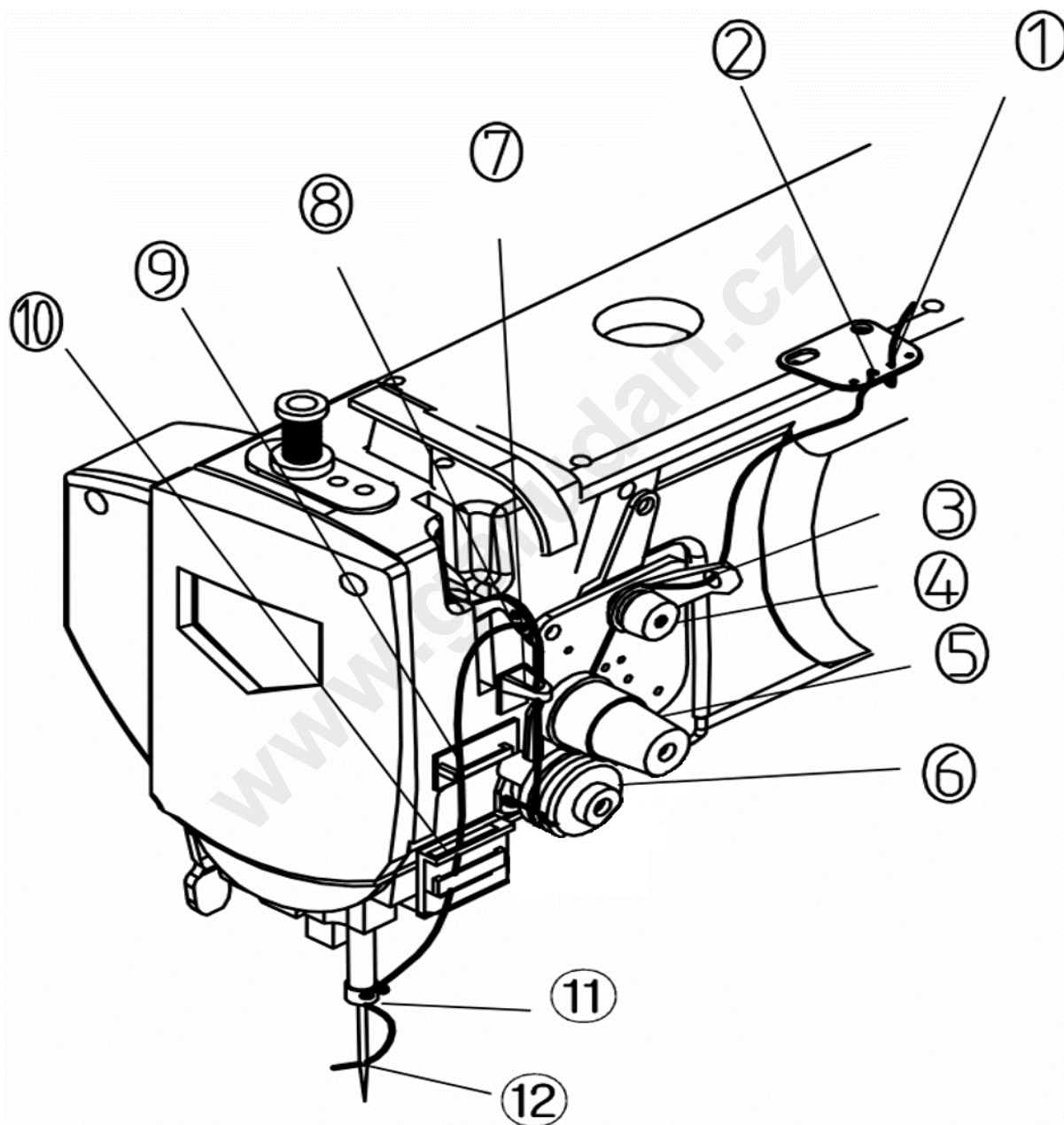
2. Press the winder lever ④. Press the foot controller and machine will start winding. When the bobbin is full, winding stops automatically.

3. You can adjust the amount of thread by the metal plate screwed on to the winder lever A. Loosen the screw and adjust position of the plate to stop winding at 80 % of the bobbin capacity.

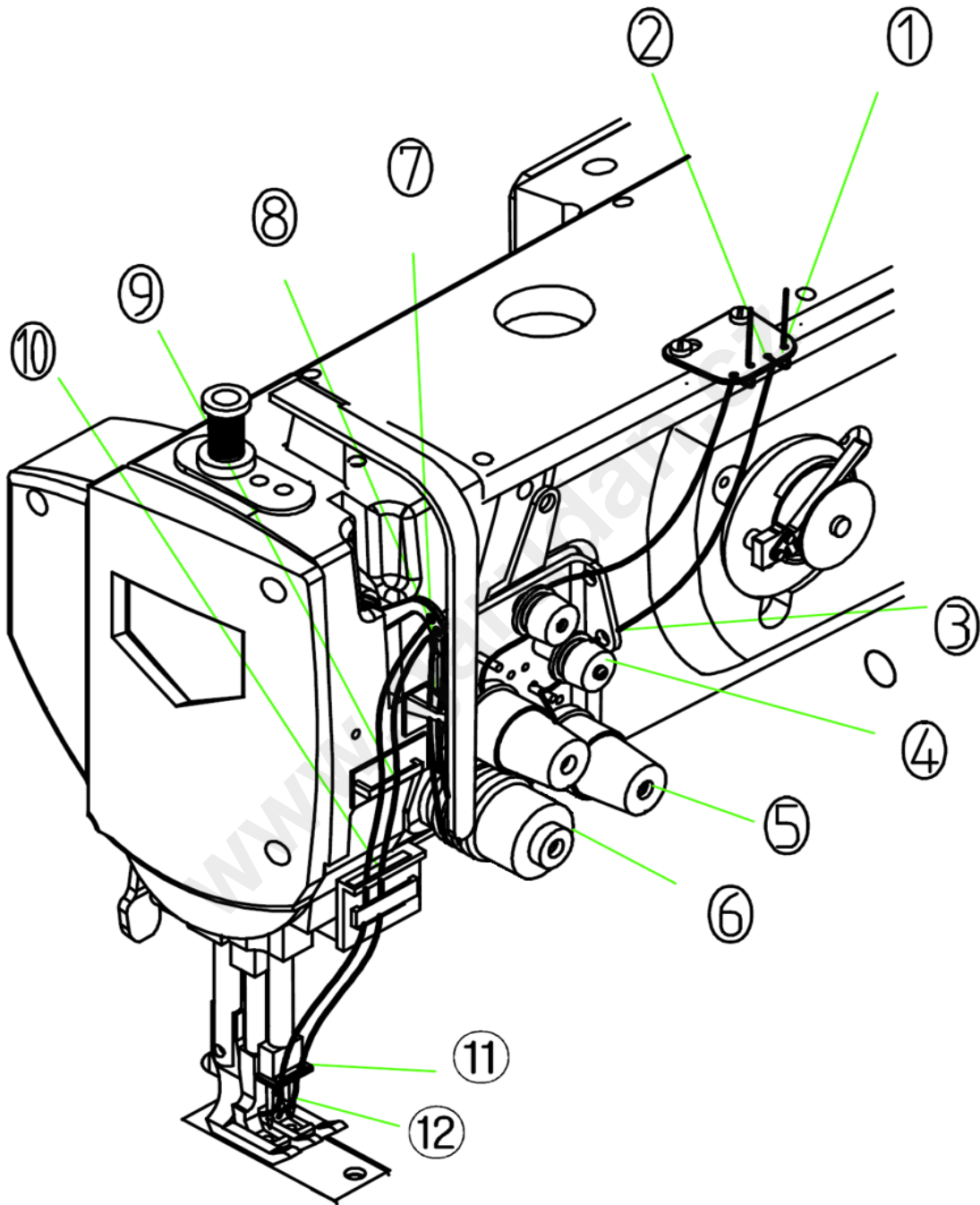
4. It's necessary to wind the thread evenly. Centre the thread tension ②, adjust the position forward / backward and tighten the screw ③.

### C2.3. Threading the upper thread

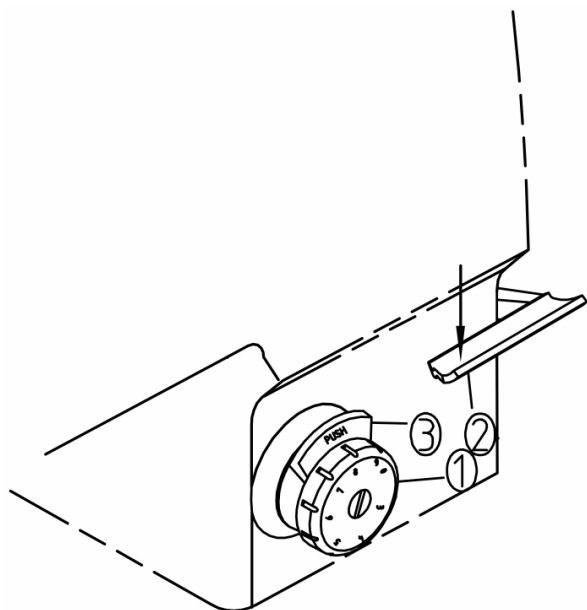
1. Thread the upper (needle) thread of **GC-4319** as shown in the picture.



2. Thread the upper (needle) threads of **GC-4320** as shown in the picture.



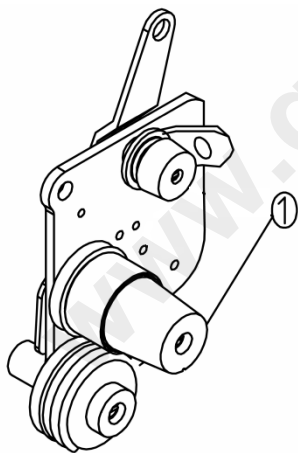
### C3. ADJUSTING THE STITCH LENGTH AND REVERSE STITCH



1. Press the locking plate (3) and set the desired stitch length by turning the dial (1).

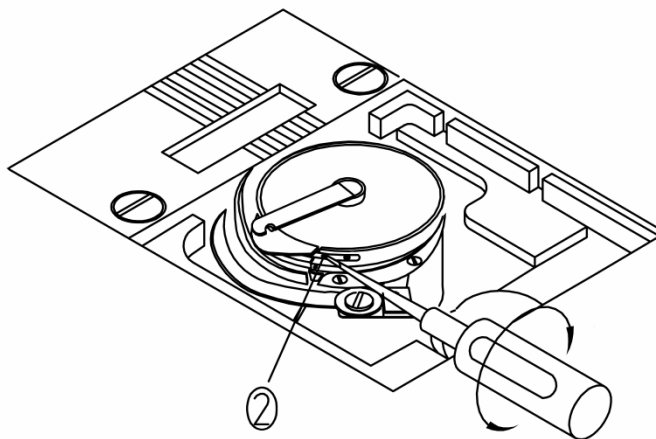
2. Press the reverse lever (2), the machine will sew back. When the lever is released, the machine sews forward again.

### C4. THREAD TENSION ADJUSTMENT



#### C4.1. Upper thread tension adjustment

Turn the thread tension nut (1) clockwise to increase the tension. Turn the nut counterclockwise to decrease the tension. In double-needle machines, each thread has its own tension wheel.

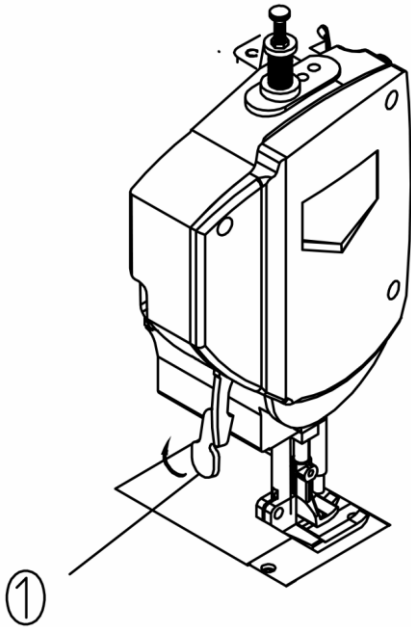


#### C4.2. Bottom thread tension adjustment

Turn the tension screw (2) clockwise to increase the tension. Turn the screw counterclockwise to decrease the tension.

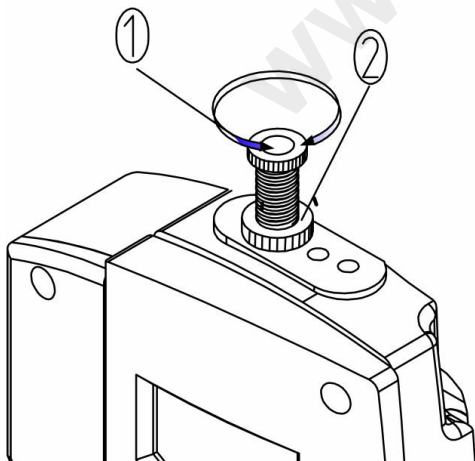
## C5. PRESSER FOOT

### C5.1. Presser foot lift



1. Raise the presser foot lever ① up to a height of 9 mm.
2. Lowering the lift lever will lower the foot.
3. You can also lift the presser foot up to 19 mm using the knee lever or by pressing the pedal backwards. Pressing the pedal backwards requires a pressurized air supply.

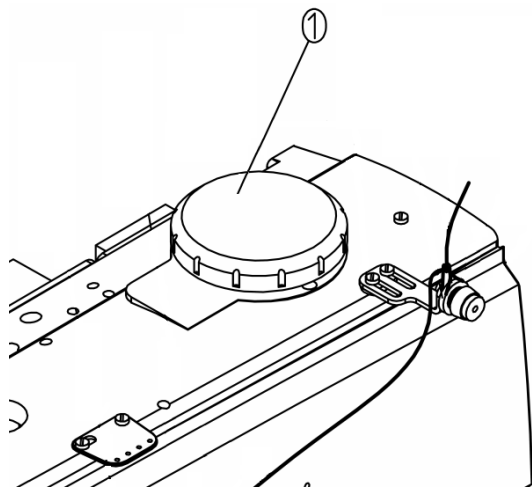
### C5.2. Foot pressure adjustment



The nut ② is used to lock the screw ①. Loosen it before adjusting the pressure and tighten again after adjustment.

Turn the foot pressure screw ① clockwise to increase the foot pressure. Turn it counterclockwise to decrease the pressure.

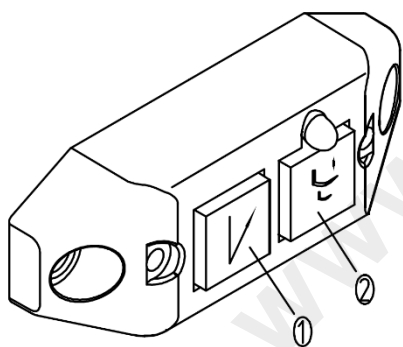
### C5.3. Presser foot stroke adjustment



Turning the dial ① adjust the presser-foot stroke according to the sewn material:

- 1 = minimum presser-foot stroke (for thin material)
- 6 = maximum presser-foot stroke (for thick material)

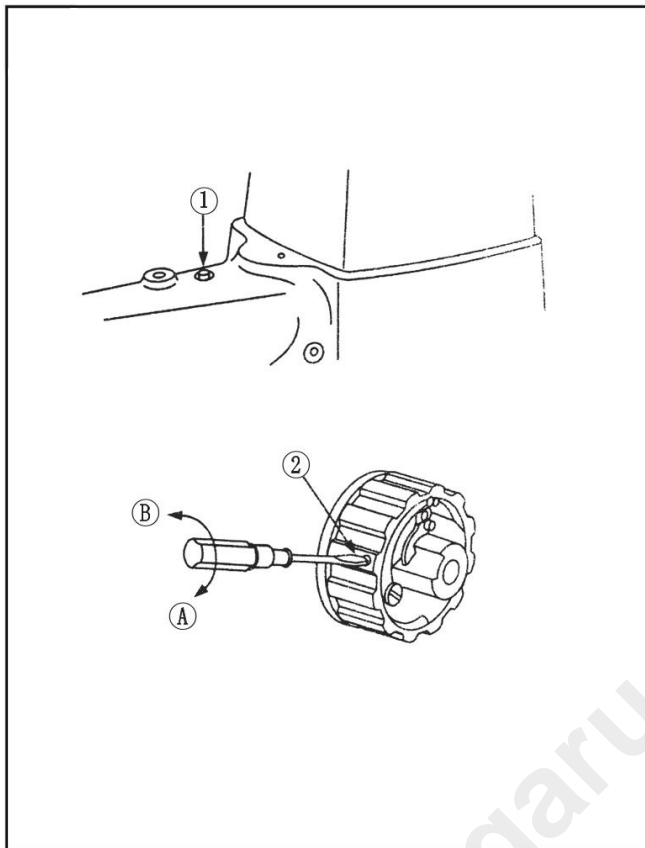
### C6. CONTROL BUTTONS



- ① Back-tacking – reverse-direction sewing
- ② Presser-foot maximum stroke [**GC-4319 only**]:
  - button backlit: maximum presser-foot stroke
  - button not backlit: adjusted presser-foot stroke (refer to the section C5.3)



## C7. HOOK SAFETY CLUTCH FUNCTION



In case the rotating hook is applied with excessive force during operation, the safety clutch is activated. The rotating hook stops turning even though the machine is still running.

### To reset the safety clutch:

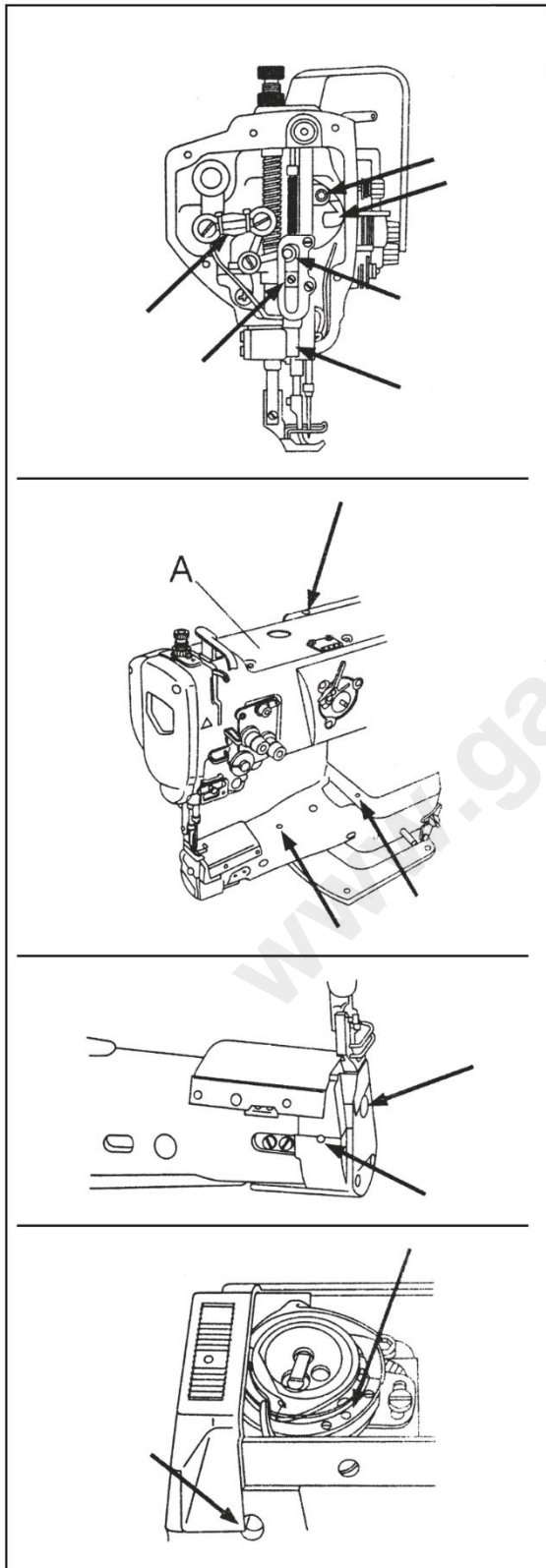
1. Clean the locked thread in the hook.
2. Press down the button ① on the bed. Firmly turn the hand-wheel reversely at the same time

### To adjust the safety clutch force:

Turn the screw ② in direction A to increase the force of clutch; turn it in direction B to decrease the force.

## D MACHINE MAINTENANCE

### D1. LUBRICATING THE MACHINE



1. Drop oil to the positions signed by arrows every day.

2. Oil the machine before its initial run or after a long time idle at signed points and after removing the top cover A drop oil to all felts and wicks inside the machine arm.

3. The holes in red color should be oiled.

## E TROUBLESHOOTING

Problem	Cause	Solution
1. Broken thread (2 - 3 mm left on the bottom side)	1. Damage in the path of thread, damaged tip of the needle or the hook. 2. Upper thread tension is too high. 3. The needle is touching the tip of the hook. 4. Insufficient oiling of the hook. 5. Upper thread tension is too low. 6. The thread lever spring is too strong, the range of movement is too small. 7. Incorrect timing of the needle and hook.	1. Sand the surface with sandpaper. Sand the hook with a file. 2. Reduce the upper thread tension. 3. Adjust the distance between the needle and the hook. 4. Lubricate the hook 5. Increase the upper thread tension. 6. Reduce spring force, increase the range of motion. 7. Adjust needle and hook timing.
2. Skipping stitches	1. Incorrect timing of the needle and hook. 2. Foot pressure too low. 3. Incorrect distance between needle eye and the hook tip. 4. Incorrect needle type.	1. Adjust needle and hook timing. 2. Increase the foot pressure. 3. Adjust the distance. 4. Change the needle.
3. Thread too tight	1. Bobbin tension spring too tight. 2. Threads are threaded incorrectly. 3. Bobbin doesn't move. 4. Bottom thread tension is too low. 5. Bottom thread too thick. 6. Damaged tip of the needle.	1. Lower the bottom thread tension. 2. Check the threading of upper and bottom thread. 3. Check the bobbin. 4. Increase the bottom thread tension. 5. Use the thinner thread. 6. Change the needle.

## F DRIVE UNIT MANUAL

### F1. SAFETY INSTRUCTIONS

- 1) Read the manual carefully before installation and use.
- 2) Installation of the drive unit may only be carried out by a qualified person.
- 3) Follow all instructions indicated by symbols to avoid injury.
- 4) Do not use a multiple socket extension cord.
- 5) Make sure that the power supply and voltage match the requirements on the label of the machine.
- 6) Do not use in direct sunlight, outdoors and in the temperature over 45 °C or below 0 °C.
- 7) Do not use close to the heater. Humidity level must be between 30-95 %.
- 8) Do not use in dusty, corrosive or explosive environment.
- 9) Do not put heavy objects on the power cord, do not pull it or bend it.
- 10) Proper permanent grounding is necessary.
- 11) Use safety covers for all moving parts.
- 12) Do a test run at the slow speed and check the direction of the rotation.
- 13) Switch off the machine and unplug it in these situations:
  - threading the needle (needles), hooks, etc.
  - changing the needle, presser foot, needle plate, hooks, hook bobbins, feeders, needle guards, finger guards, work guides, etc.
  - the machine is not in use and left unattended
  - opening or removing the protective covers
  - any maintenance, repair, inspection and adjustment of the machine
  - cleaning the machine
- 14) Maintenance, repair, inspection and adjustment of the machine may only be carried out by a qualified person.
- 15) Use only original or approved spare parts from manufacturer.
- 16) Do not use heavy objects.

### F2. DESCRIPTION AND INTENDED USE OF A DRIVE UNIT

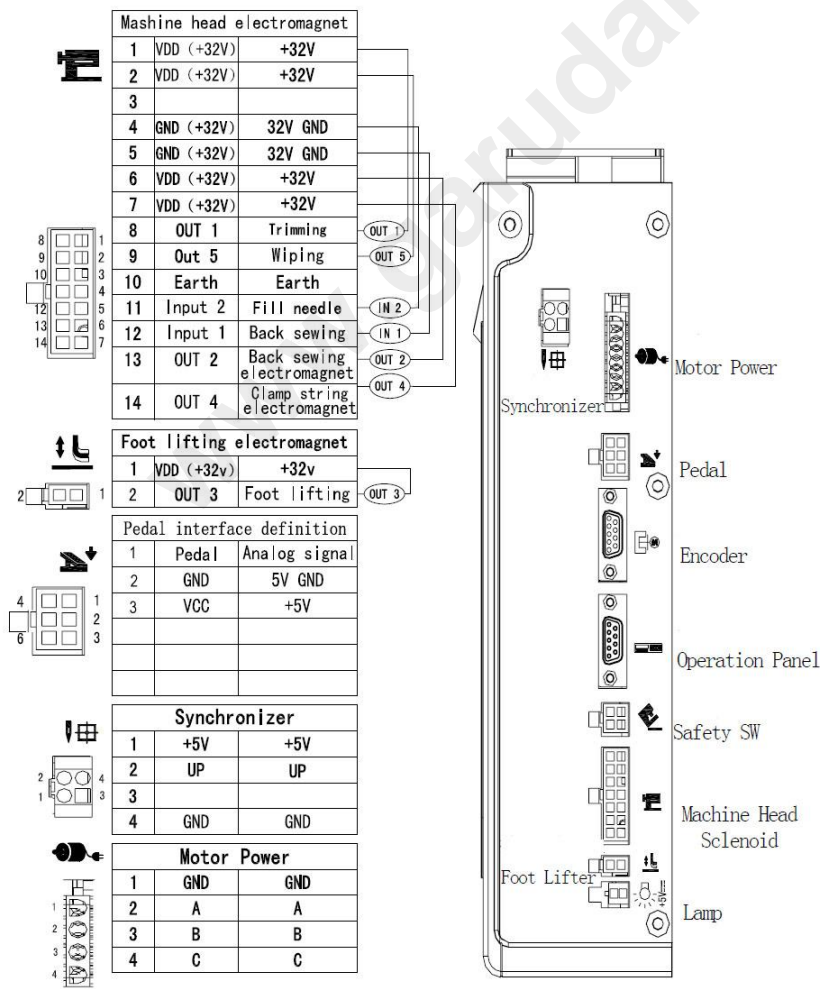
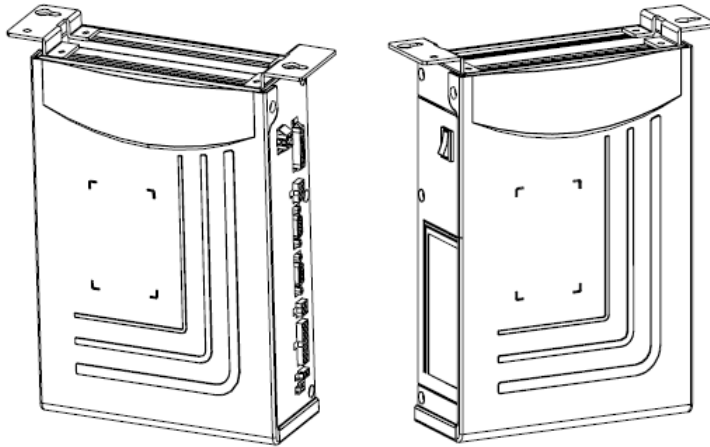
The ASD58 series are power units that are designated to drive sewing machines and to be built into a sewing machine. They consist of the engine itself, the control box and the control panel (keypad). Other use is not permitted.

### F3. DRIVE UNIT TECHNICAL PARAMETERS

<b>Product type</b>	ASD58-5 ASU58-55 ASD58-75 ASU58-75 AHE58-55
<b>Voltage</b>	AC 230 ±20 % V
<b>Frequency</b>	50/60 Hz
<b>Max. power</b>	850 W

## F4. INSTALLATION

### F4.1. Connector description



Control box of the AS series

Connect the pedal and all connectors to the appropriate sockets as shown.

**ATTENTION:**

If you are unable to connect the connectors to the appropriate outlet, check the direction of the pins. Make sure you are plugging into the correct outlet.

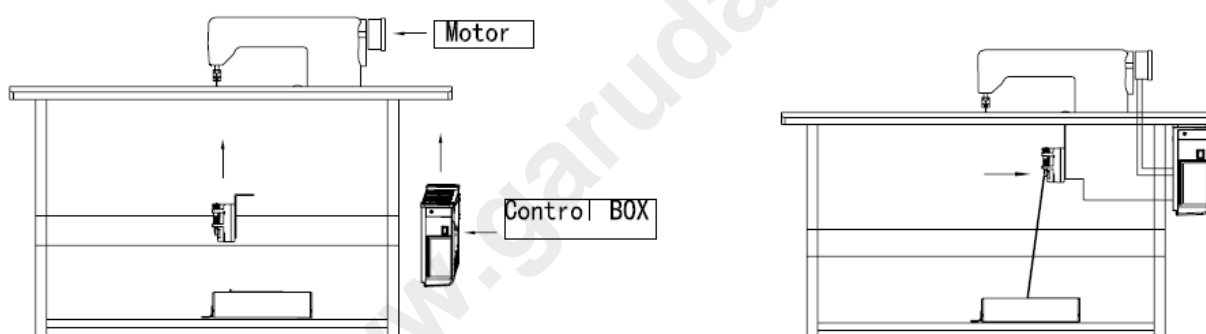
**F4.2. Power supply and grounding**

The grounding connection and checking of the correct connection parameters to the power supply may only be carried out by an electrician. The system ground - the yellow/green wire - must be securely connected to electrical outlet to ensure safe operation and to prevent machine malfunctions.

**ATTENTION:** All wires must be connected separately to avoid overloading and safe operation of the machine!

**F4.3. Connecting and settings**

For more information, consult the installation manual for your particular engine model.



Power unit control box installation

Make sure you have enough space on the right side of the plate to install the control box. The control box is mounted on the right side under the plate.

To install the foot controller (pedal), make sure it is placed right under the power unit and attached to the underside of the plate. If necessary, loosen the screws, adjust the position and angle, and retighten.

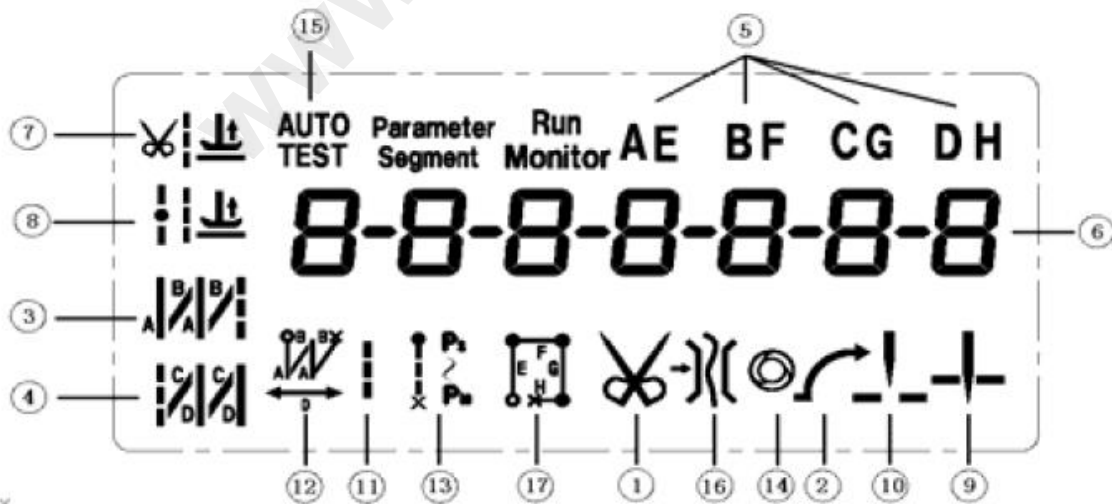
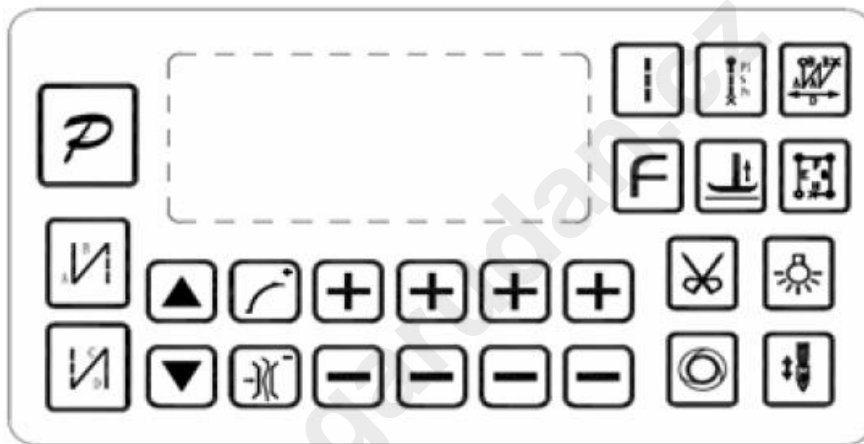
## F5. CONTROL PANEL

### F5.1. Control panel display

The drive unit can be used with different models of sewing machines, which can have different optional functions as thread cutting, programmable back-tacking, automatic foot lift, etc.











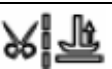




If your machine is not equipped with this option, some of the features described below will not be available for your model. They are shown on the display, but the machine will not perform them.

Control panel layout





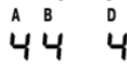

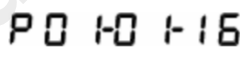

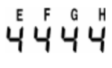


Symbols of the LCD display
















## Display icons description

No.	Icon	Description	No.	Icon	Description
1		Automatic trimming	10		Needle up stop position
2		Slow start	11		Free sewing mode
3		Start back tacking	12		W sewing mode
4		End back tacking	13		Segment sewing
5	AE BFCGDH	Sewing segment index	14		Multi-segment mode
6		Numeric display	15	AUTO TEST	Auto test
7		Foot lift after trimming	16		Clamp function
8		Foot lift after stopping	17		Four-segment sewing
9		Needle down stop position			



## F5.2. Operation panel keys description

	Button	Name	Description
1		Function (Parameters)	Use the button to select and confirm parameter settings and return to the sewing mode.
2		Start back tacking	Selects and turns on the initial back tacking.
3		End back tacking	Selects and turns on the end back tacking.
4		Free sewing mode	Selects free sewing mode. The icon  lights up on the display. Press the foot control to start sewing.
5		W sewing mode key	Press this key to enter the W sewing mode.  LCD icon is on. In W sewing interface  use the corresponding key „+“ or „-“, to set number of stitches of each segment (A, B, D) default range 1~F corresponds to the value 1~15.
6		Multi-segment sewing	Press this key to enter the multi-segment sewing mode.  LCD icon is on. In multi-segment sewing interface  use „+“ or „-“, key to set max. 24 segments. P01 is number of segments, -01 is current segment setting, -16 is number of stitches in the segment.
7		Four-segment sewing	Press this key to enter the four-segment sewing mode.  LCD icon is on. In four-segment sewing interface  use the „+“ or „-“, key to set number of stitches of each segment (E, F, G, H) default range 1~F corresponds to the value 1~15.
8		Slow start	When the icon  is lit, the slow start mode is on. Press the key again for turning the slow start mode off.
9		Thread clamp	When the icon  is lit, the thread clamp mode is on. Press the key again for turning the thread clamp mode off.

10		Needle up/down stop position	Set the stop position of the needle. When the icon  is lit, the needle stops up. When the icon  is lit, the needle stops down in the fabric. Note: you can select needle stop position directly as parameter H-43. Press  +  to enter the parameter.
11		Stitch compensation	Press for half stitch compensation. Press and hold for one stitch compensation. Hold for continuous compensational sewing.
12		Trimming	When the icon  is lit, auto trimming function is on. Press again for turning the function off.
13		Foot lift mode	Select the presser foot stop position up or down. Pressing the key repeatedly you change foot position sewing mode.
14		One-step multi segment sewing	When the icon  is lit, pressing the foot control the machine performs whole preprogrammed sewing in one step.
15		Lighting	Turning the light on/off.
16		Custom functions	You can preset any custom function for this key.
17		Speed	Increase or decrease the sewing speed or adjust the value.
18		Increase/decrease	Increase or decrease parameter values.

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Katalog náhradních dílů  
Spare Parts List



**GC-4320-4411 MH**

ANITA B s.r.o.  
Průmyslová 2453/7  
680 01 Boskovice  
Czech Republic  
tel: +420 516 454 774  
+420 516 453 496  
fax: +420 516 452 751  
e-mail: [info@anita.cz](mailto:info@anita.cz)

<b>VERSION</b>	<b>CREATED ON</b>	<b>APPROVED BY</b>
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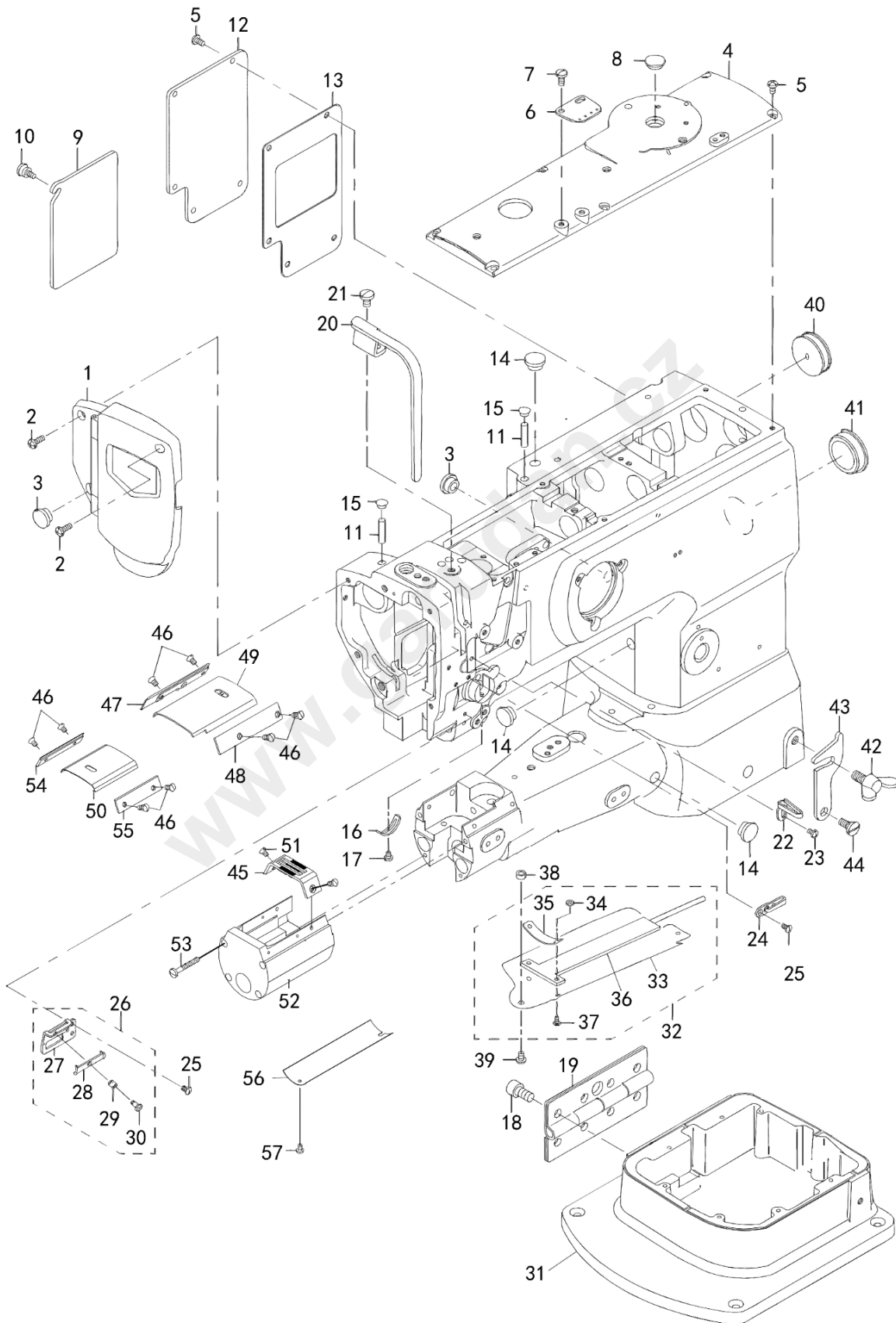
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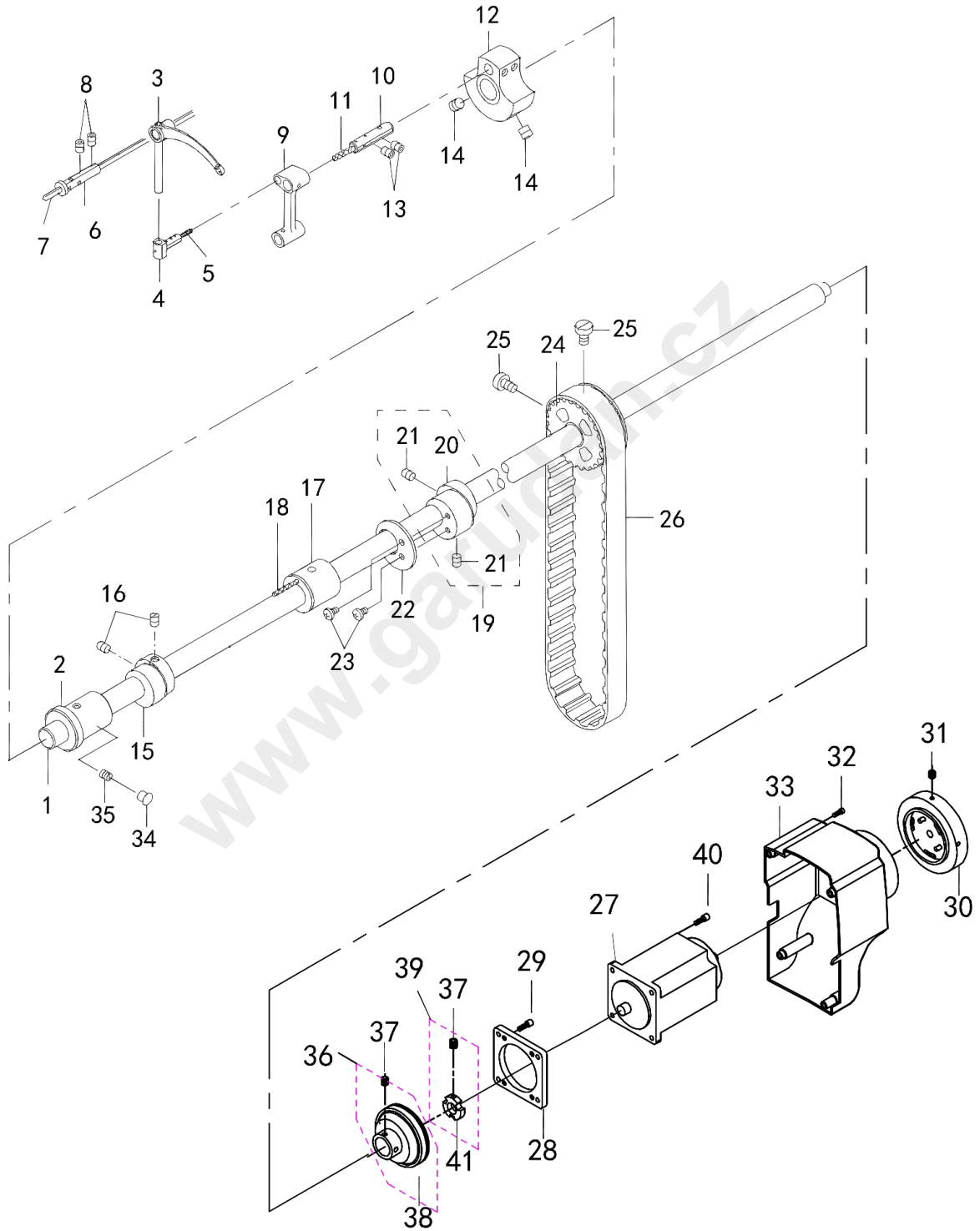
### A. FRAME & MISCELLANEOUS COVER COMPONENTS





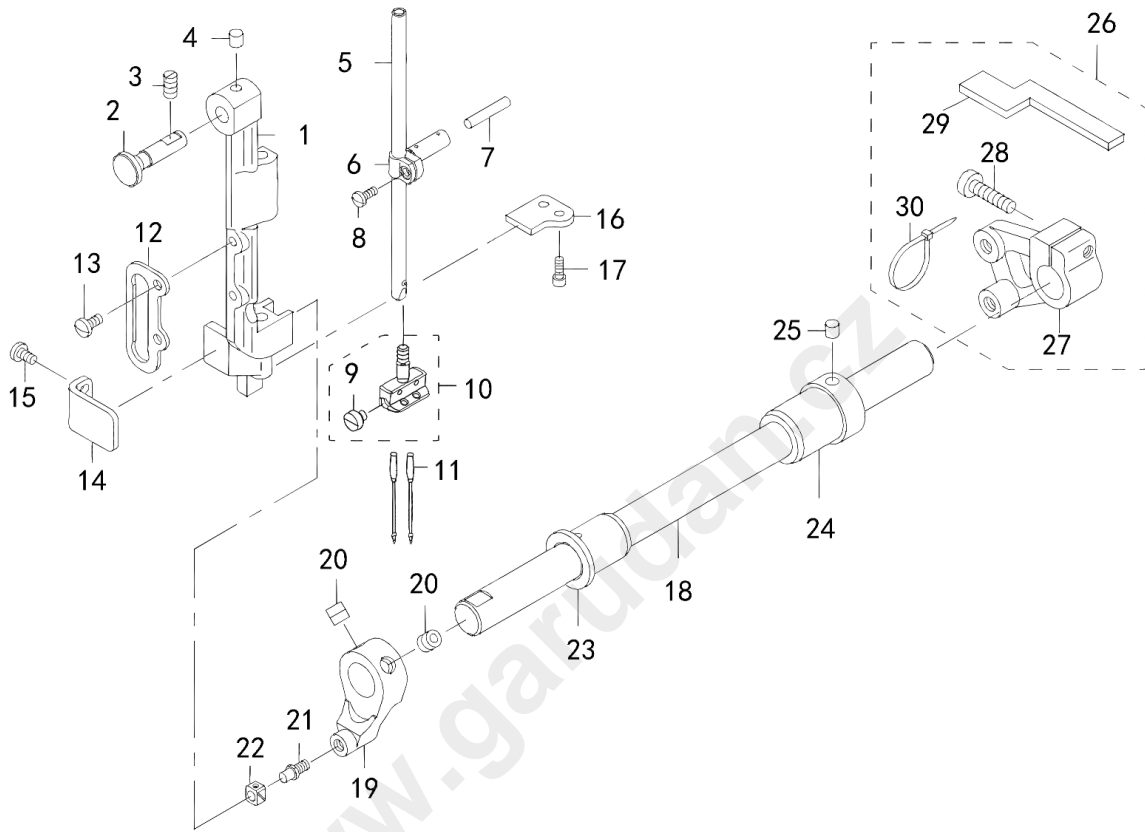
A. FRAME & MISCELLANEOUS COVER COMPONENTS			
Ref. No	Part No.	Part Name	Qty
1	40016798	FACE PLATE ASM.	1
2	SS4111215SP	SCREW 11/64-40 L=12	3
3	TA1250406RO	RUBBER PLUG D=12.5 L=4	3
4	21331301	TOP COVER B	1
5	SS4110815SP	SCREW 11/64-40 L=8	12
6	21355904	ARM THREAD GUIDE	1
7	SS7621040SP	SCREW 3/16-32 L= 9.5	2
8	TA1450404R0	RUBBER PLUG D=14.5 L=4	1
9	21331756	WINDOW PLATE A ASM.	1
10	21331202	SETSCREW	1
11	CQ202000000	OIL WICK L=12	2
12	21331806	WINDOW PLATE B	1
13	21332002	WINDOW PLATE PACKING B	1
14	TA1250504R0	RUBBER PLUG	5
15	TA0750404R0	PLUG D=7.5 L=3.5	2
16	B3138512000	TAKE-UP SPRING ADJUSTING PLATE	1
17	SS7090520TP	SCREW 9/64-40 L= 4.5	1
18	SM6081552TP	SCREW M8 L=15	8
19	21426507	HINGE	1
20	21331608	BALANCE COVER	1
21	SS7150910TP	SCREW 15/64-28 L=9	1
22	21355805	THREAD GUIDE	1
23	SS5090610SP	SCREW 9/64-40 L=6	1
24	22603112	THREAD GUIDE	1
25	SS2090710TP	SCREW 9/64-40 L=7.2	2
26	40039838	THREAD GUIDE ASM.	1
27	40039839	THREAD GUIDE PLATE	-1
28	17912106	NEEDLE THREAD PRESSER PLATE	1
29	B1132521000	THREAD PRESSER PLATE SPRING	-1
30	SD0380551SL	HINGE SCREW D= 3.80 H= 5.5	1
31	21426309	BED HOLDING BASE	1
32	21426754	SYLINDER COVER ASM.	1
33	21426705	SYLINDER COVER	-1
34	NM6030003SC	NUT M3	-2
35	21426903	FELT PRESSER PLATE	1
36	21426853	SYLINDER COVER FELT ASM.	-1
37	SM4030601SC	SCREW M3 X 6	2
38	B3013141H0B	WASHER	1
39	SS5110710SP	SCREW 11/64-40 L=7	1
40	10201200A	RUBBER PLUG	1
41	22619100A	CAP	1
42	B1116246000	WING BOLT	1
43	B1117246000	HOOK	1
44	SD0800352SP	HINGE SCREW D= 8 H= 3.5	1
45	1360E08D	THOAT PLATE	1
46	SS2090520SL	SCREW 9/64-40 L=4.3	8
47	1360E08G	BED SLIDE SIDE PLATE LEFT	1
48	1360E08F	BED SLIDE SIDE PLATE RIGHT	1
49	040176	BED PLATE	1
50	040181	BED PLATE	1
51	040177	SCREW 11/64-40 L=6	2
52	040183	EXTENSION BLOCK	1
53	SS7113110SP	SCREW 1/64-40 L=30	2
54	1360E08K	BED SLIDE SIDE PLATE LEFT	1
55	1360E08I	BED SLIDE SIDE PLATE RIGHT	1
56	040184	PLATE BASE COVER	1
57	LS4C6	SCREW M4 L=6	1

### B. UPPER SHAFT DRIVING & BALANCE COMPONENTS



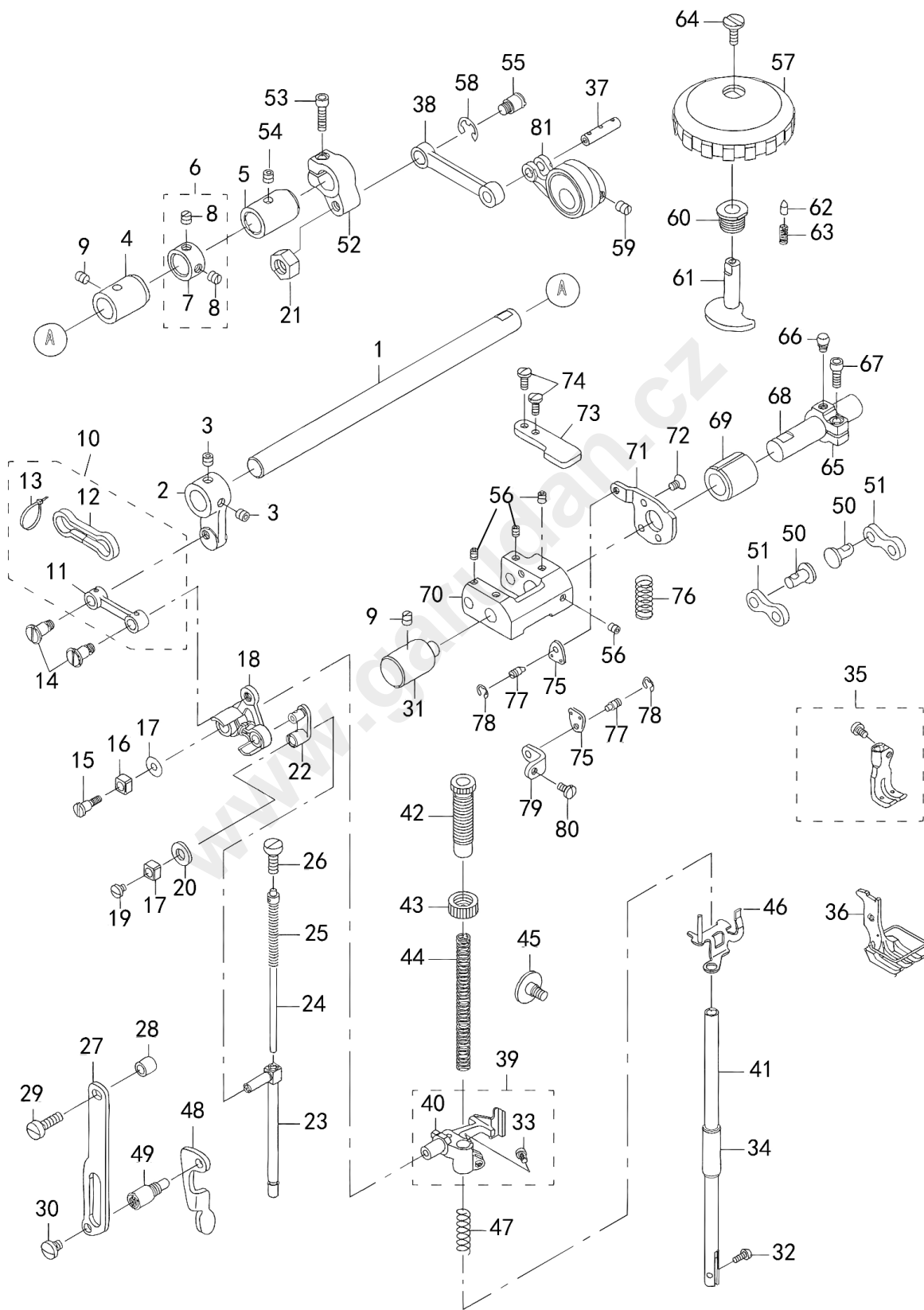
<b>B. UPPER SHAFT DRIVING &amp; BALANCE COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	010259	UPPER SHAFT	1
2	21333000	UPPER SHAFT FRONT METAL	1
3	21402102	THREAD TAKE-UP LEVER	1
4	22605406	TAKE-UP LEVER THRUST PIN	1
5	CQ202000000	OIL WICK	3
6	B1906051000	TAKE-UP LEVER PIN	1
7	CQ303000000	OIL WICK	2
8	SS8150822TP	SCREW 15/64-28 L=8	2
9	21339106	NEEDLE BAR CRANK ROD	1
10	B1210051000	NEEDLE BAR CRANK PIN	1
11	CQ505000000	OIL WICK	3
12	21332507	COUNTER WEIGHT (A) (36MM)	1
13	SS8150822TP	SCREW 15/64-28 L=8	2
14	SM8080812TP	SCREW M8X8	2
15	21339502	UPPER FEED CAM (3.5)	1
16	SS8660810TP	SCREW 1/4-40 L=8	2
17	21333109	UPPER SHAFT INNER METAL	1
18	CQ202000000	OIL WICK	5
19	21336557	ECCENTRIC CAM A ASM.	1
20	21336508	ECCENTRIC CAM A	-1
21	SS8660810TP	SCREW 1/4-40 L=8	2
22	21353008	HORIZONTAL FEED CAM COVER	1
23	SS7110710SP	SCREW 11/64-40 L=7	2
24	22604904	UPPER SPROCKET	1
25	SS6661110SP	SCREW 1/4-40 L=11	2
26	21427109	TIMING BELT	1
27	MDBMASD58A850A	MOTOR	1
28	010256	MOTOR PLATE	1
29	SS7151210SP	SCREW 15/64-28 L=14	4
30	010245	HAND WHEEL	1
31	SS8150822TP	SCREW	2
32	010426	SCREW	4
33	010153	BELT COVER	1
34	TA0750704R0	RUBBER PLUG	1
35	SS8150710TP	SCREW 15/64-28 L=7	1
36	010262	BEARING A	1
37	010258	SCREW	4
38	010254	BEARING A	1
39	010263	BEARING B	1
40	LS5A16	SCREW	4
41	010255	BEARING B	1

### C. NEEDLE BAR ROCKING COMPONENTS



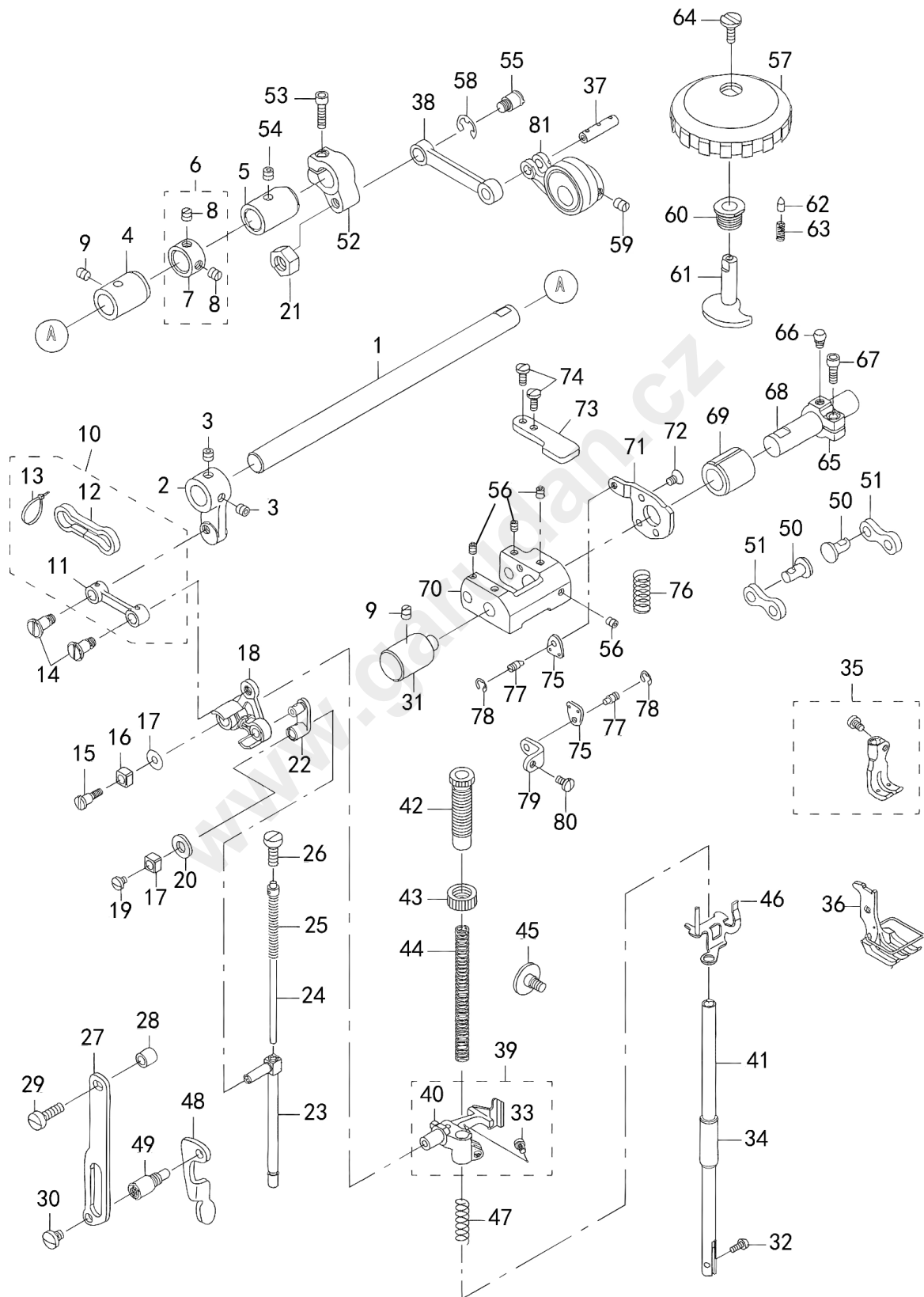
<b>C. NEEDLE BAR ROCKING COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	B1420563000	NEEDLE BAR FRAME	1
2	21405204	HINGE STUD	1
3	SS8151150TP	SCREW 15/64-28 L=10.5	1
4	22814909	FELT	1
5	1401518000	NEEDLE BAR	1
6	B1411053000	NEEDLE BAR CONNECTION	1
7	B1412051000	FELT	1
8	SS7090910SP	SCREW 9/64-40 L= 8.5	1
9	SS6090410TP	SCREW 9/64-40 L= 3.5	2
10	44E08C	NEEDLE CLAMP 5/16 ASM	1
11	M13517B1600	NEEDLE 135X17 #160	2
12	B1467563000	UPPER FEED BAR GUIDE	1
13	SS7110910TP	SCREW 11/64-40 L= 8.5	2
14	21338702	ROCKING BASE GUIDE	1
15	SS7110830SP	SCREW 11/64-40 L= 7.5	2
16	21338603	ROCKING BASE GUIDE (B)	1
17	SS6091022TP	SCREW	2
18	21338900	ROCKING SHAFT	1
19	21338801	ROCKING FRONT ARM	1
20	SM8080802TP	SCREW	2
21	B1410771000	STUD	1
22	B1414232000	SQUARE BLOCK	1
23	21339304	ROCKING SHAFT FRONT METAL	1
24	40027746	BUSHING REAR	1
25	22814909	FELT	1
26	21430053	ROCKING REAR ARM ASM.	1
27	21430004	ROCKING REAR ARM	1
28	SS6152440SP	SCREW 15/64-28 L=23.5	1
29	21430103	ROCKING REAR ARM FELT	1
30	EA9500B0100	CABLE BAND	2

**D. PRESSURE ADJUSTING & UPPER FEED MECHANISM (1/2)**



D. PRESSURE ADJUSTING & UPPER FEED MECHANISM (1/2)			
Ref. No	Part No.	Part Name	Qty
1	21340401	UPPER FEED SHAFT	1
2	21340500	UPPER FEED FRONT ARM	1
3	SS8660612TP	SCREW 1/4-40 L=6	2
4	21341904	FRONT METAL	1
5	21378302	FEED SHAFT METAL	1
6	22904155	MAIN SHAFT THRUST COLLAR ASM.	1
7	22904106	MAIN SHAFT THRUST COLLAR	-1
8	SS8660610TP	SCREW 1/4-40 L=6	2
9	SS8150822TP	SCREW 15/64-28 L=7	1
10	40033027	UPPER FEED LINK ASM.	1
11	40033026	UPPER FEED LINK	-1
12	21347109	FELT	-1
13	EA9500B0000	CLIP CV-70S	-2
14	40018340	SCREW	2
15	SD0640701SP	SCREW	1
16	B1414555000	SLIDE BLOCK	2
17	WP0501046SC	WASHER 5 X 13 X 1	1
18	40033029	TRIANGULAR LEVER ASM.	1
19	SS7110510SP	SCREW 11/64-40 L=5	1
20	10509701	FELT	1
21	NS6680320SP	NUT 9/32-28	1
22	40018341	WALKING BAR DRIVING LINK	1
23	40033030	WALKING BAR A	1
24	B14670530A0	WALKING BAR ASM.	1
25	B1468053000	WALKING BAR SPRING	1
26	SS6151780SP	SCREW 15/64-28 L=17.0	1
27	21406509	UPPER FEED GUIDE PLATE	1
28	26225201	ROLLER	1
29	SS6151920SP	SCREW 15/64-28 L=19.0	1
30	SS7150740SP	SCREW 15/64-28 L=7	1
31	21337803	FEED ADJUSTING BASE SUPPORT	1
32	SS6090910TP	SCREW 9/64-40L=9	1
33	SS7110910TP	SCREW 11/64-40 L= 8.5	1
34	B1510155000	PRESSER BAR LOWER BUSHING	1
35	44E08A	WALKING FOOT ASM	1
36	44E08B	PRESSER FOOT ASM	1
37	10713808	CONNECTION LINK PIN B	1
38	21340005	UPPER FEED LINK (B)	1
39	40033032	PRESSER BAR HOLDER A ASM.	1
40	40033031	PRESSER BAR HOLDER A	1
41	B1501241H00	PRESSER BAR	1
42	21340906	PRESSER ADJUSTING SCREW	1
43	22907604	PRESSER SPRING REGULATOR NUT	1
44	B1502246000	PRESSER SPRING	1
45	SD0800481SP	HINGE SCREW D= 8H= 4.9	1
46	21341151	HOLDING PLATE COMPL.	1
47	B1462053000	THREAD RELEASE SPRING	1
48	21406103	PRESSER LIFTER LEVER	1
49	21406608	GUIDE PLATE SPACER	1
50	10714608	SUPPORT PIN	2

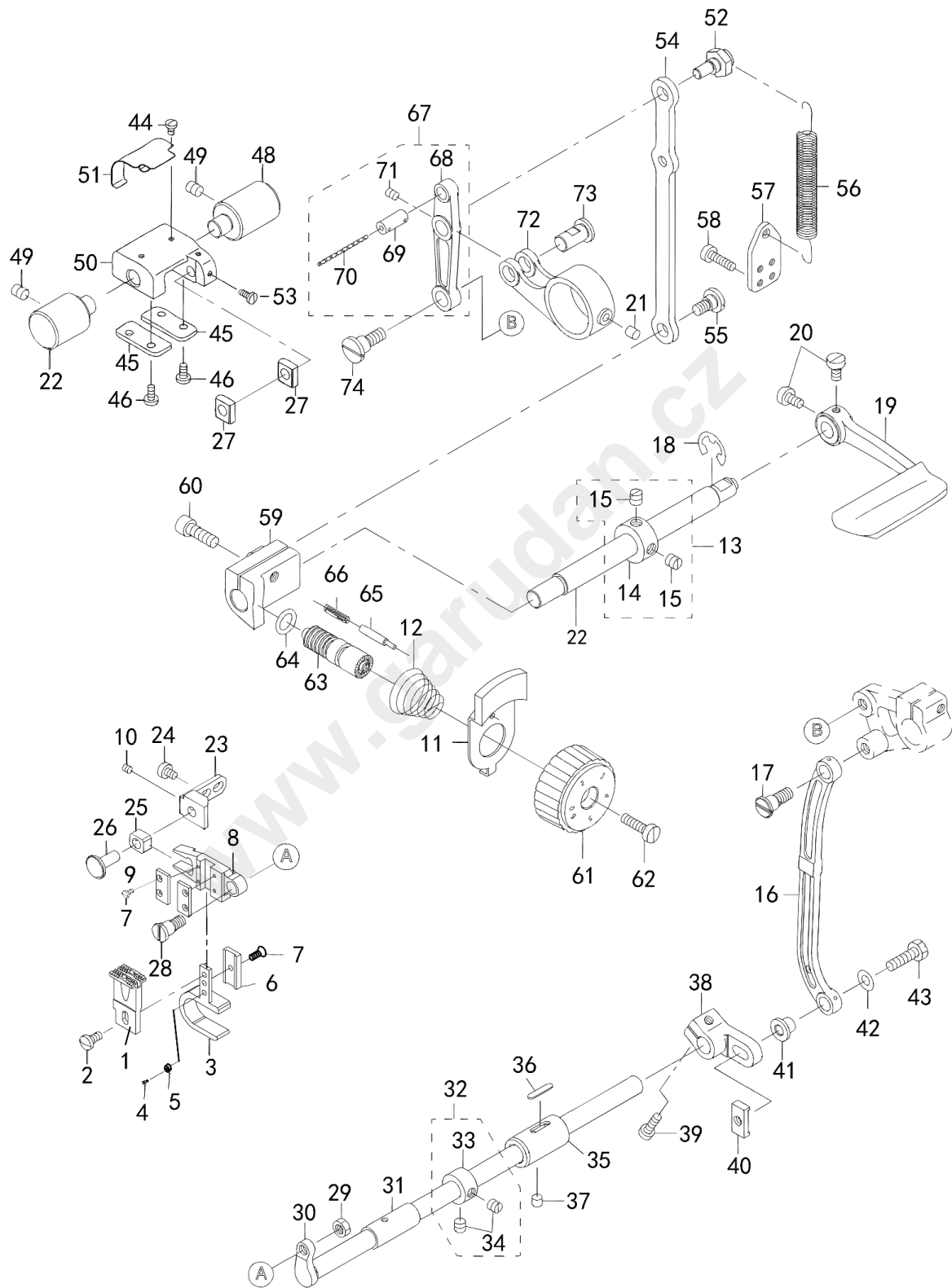
### D. PRESSURE ADJUSTING & UPPER FEED MECHANISM (2/2)





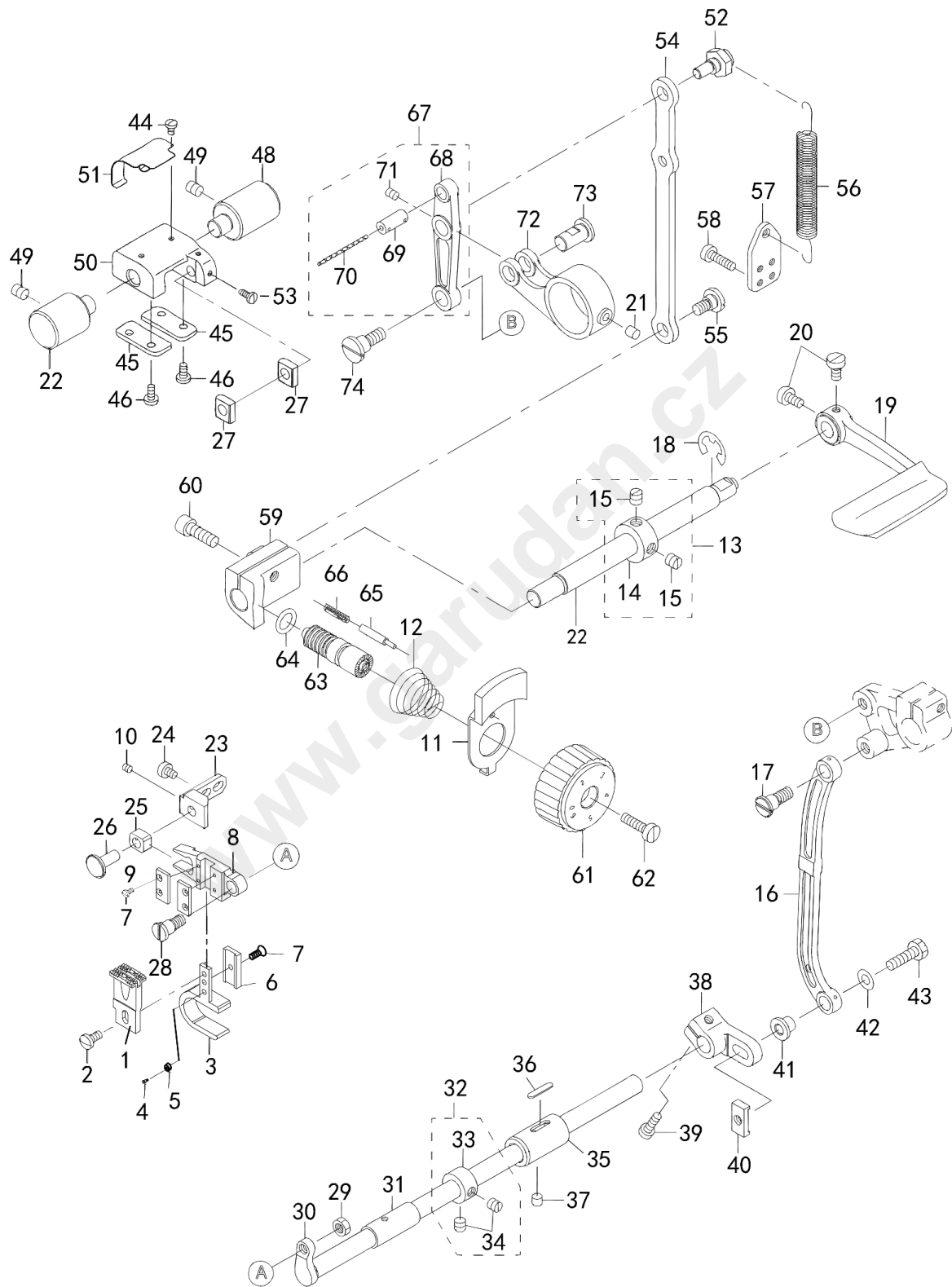
<b>D. PRESSURE ADJUSTING &amp; UPPER FEED MECHANISM (2/2)</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
51	10714509	CONNECTION LINK B	2
52	21340302	UPPER FEED REAR ARM (B)	1
53	SM6052002TP	SCREW M5 L=20	1
54	10464	SCREW 8 L=10	1
55	21048707	HINGE SCREW	1
56	SM8050602TP	SCREW M5 L=6	4
57	10774354	UPPER AND LOWER DIAL ASM.	(1)
58	RE0800000K0	E-SHAPED SNAP RING (8MM)	1
59	SS8660810TP	SCREW 1/4-40 L=8	2
60	10715100	VERTICAL DIAL SHAFT BUSHING	1
61	10715001	VERTICAL ADJUSTING CAM	1
62	10715704	VERTICAL DIAL PIN	1
63	B152652700G	SPRING	1
64	SS6110630TP	SCREW 11/64-40 L=6	1
65	21341607	VERTICAL ADJUSTING ARM	1
66	10715308	PIN	1
67	SM6051402TP	SCREW M5X0.8 L=14	1
68	21341508	VERTICAL CHANGE BASE SHAFT	1
69	10718203A	FEED SHAFT FRONT METAL	1
70	10714202	VERTICAL CHANGE BELT	1
71	21438106	STOPPER PLATE B	1
72	SM1050801SR	SCREW M5 L=8	1
73	21339700	UPPER FEED STOPPER PLATE (B)	1
74	SS4110815SP	SCREW	2
75	10713501	SPRING HOOK	2
76	10716504	VERTICAL SHAFT SPRING	1
77	B3416552000	CONNECTING ROD HINGE SCREW	2
78	RE0500000K0	E-RING	2
79	21339809	UPPER FEED DOG SPRING HOOK	1
80	SS7110830SP	SCREW 11/64-40 L= 7.5	1
81	10713766A	ECCENTRIC ROD (SET)	1

**E. FEED MECHANISM COMPONENTS (1/2)**



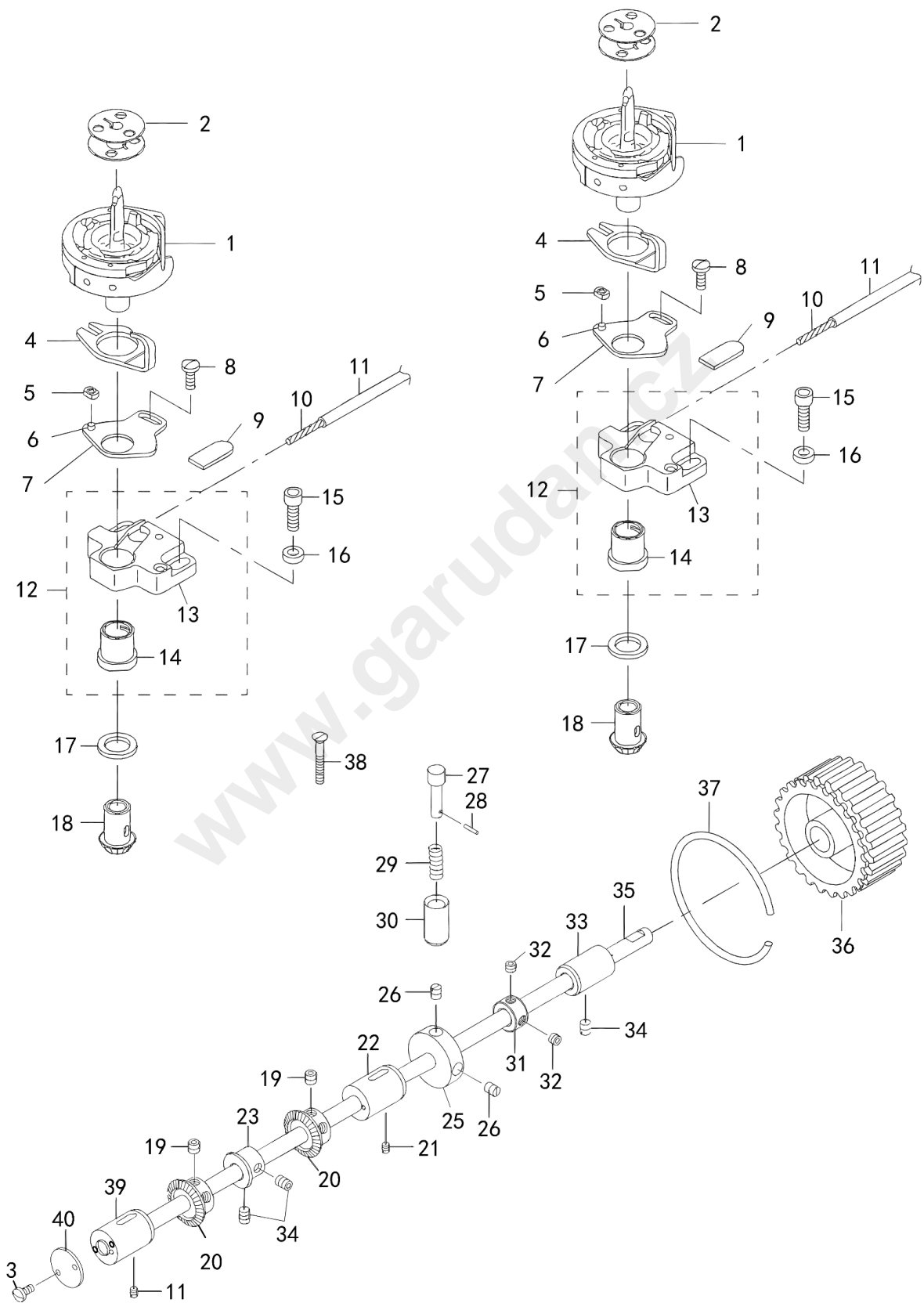
<b>E. FEED MECHANISM COMPONENTS (1/2)</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	040595	FEED DOG	1
2	SS7110840SP	SCREW 11/64-40 L=7.8	1
3	040592A	FEED BASE	1
4	031805	SCREW	1
5	031804	ECCENTRIC WHEEL	1
6	040594	SQUARE BLOCK	1
7	LS4.36B6	SCREW	5
8	040589	HORIZONTAL FEED SHAFT	1
9	040590	PLATE	1
10	SS8110422TP	SCREW 11/64-40 L=4	2
11	010561	BOTTON	1
12	010562	SPRING	1
13	CS1201010SH	THRUST COLLAR ASM. D=12 W=10	1
14	CS1201011SH	THRUST COLLAR D=12 W=10	-1
15	SS8660610TP	SCREW 1/4-40 L=6	2
16	10205201	NEEDLE BAR FRAME ROD	1
17	SD0900701TP	HINGE SCREW D= 9 H= 7	1
18	RE0900000K0	E-RING 9	1
19	21388004	REVERSE FEED ROCK SHAFT	1
20	SS6120930TP	SCREW 3/16-28 L=9	2
21	21387402	HORIZONTAL FEED ROD OIL FELT	1
22	21336300	BACKWARD FEED LEVER SHAFT	1
23	40091248	HORIZONTAL FEED BASE SUPPORT	1
24	SS6110610TP	SCREW 11/64-40 L=6	2
25	B1414555000	SQUARE BLOCK	1
26	40091245	HORIZONTAL FEED BASE SUPPORT PIN	1
27	21407309	SQUARE BLOCK	2
28	SD0790701SP	HINGE SCREW D=7.94 H=7	1
29	NS6660430SP	NUT 1/4-40	1
30	21427604	HORIZONTAL FEED SHAFT	1
31	B1607246000	BUSHING FRONT	1
32	CS111101CSH	THRUST COLLAR ASM.D=11.11 W=10	1
33	CS1111019SH	THRUST COLLAR D=11.11 W=10	-1
34	SS8660610TP	SCREW 1/4-40 L=6	2
35	21427703	HORIZONTAL FEED SHAFT D	1
36	B1806038000	OIL FELT	1
37	SS8150510TP	SCREW 15/64-28 L= 4.7	1
38	21428305	HORIZONTAL FEED ARM	1
39	SS6121610TP	SCREW 3/16-28 L=15.5	1
40	21428503	HORIZONTAL FEED ARM STOPPER	1
41	21428404	HORIZONTAL FEED ARM ROD	1
42	WP0621016SH	WASHER	1
43	SS9152130CP	SCREW 15/64-28 L=20.5	1
44	SS8110422TP	SCREW 11/64-40 L=4	2
45	21337704	FEED ADJUSTING BAST COVER	2
46	SS7110910TP	SCREW 11/64-40 L=8.5	2
47	21430400	FEED ADJUSTER SUPPORT	1
48	21337803	FEED ADJUSTING BASE SUPPORT	2
49	SS8150822TP	SCREW 15/64-28 L=8	2
50	21337506	FEES ADJUSTING BAST	1

E. FEED MECHANISM COMPONENTS (2/2)



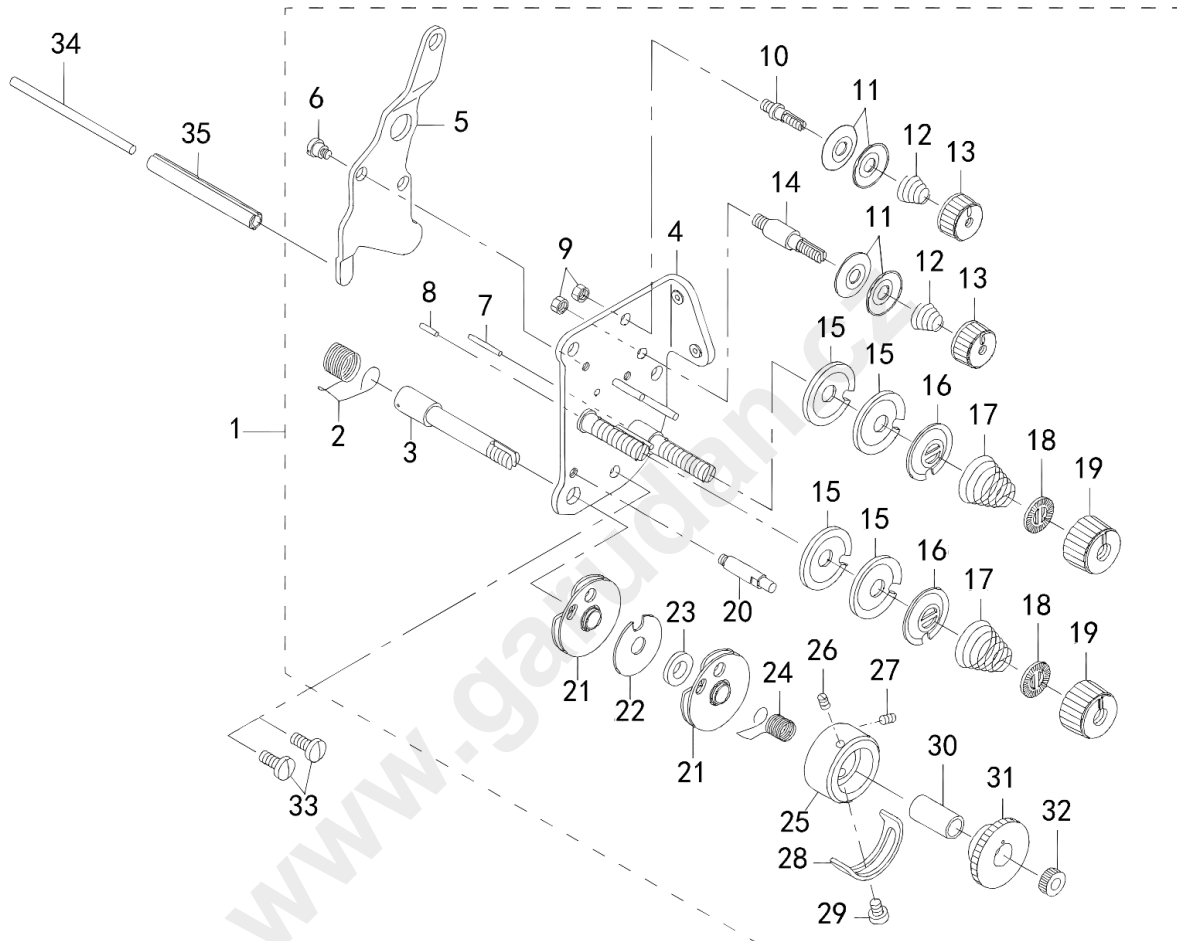
<b>E. FEED MECHANISM COMPONENTS (2/2)</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
51	21338306	FELT SUPPORT	1
52	SS709010TP	SCREW 15/64-40 L=8.5	2
53	21337902	ECCENTRIC PIN	1
54	21337308	FEED ADJUSTING ROD	1
55	SD0800402TP	HINGE SCREW D= 8 H=4	1
56	21337605	SPRING	1
57	40019926	SPRING HOOK	1
58	SS6111610SP	SCREW 11/64-40 L=16	2
59	21336805	FEED DIAL A	1
60	SM6061802TP	SCREW M6 L=18	1
61	21337209A	FEED ADJUSTING A	1
62	SS6121860SP	SCREW 3/16-28 L=18	1
63	22911804	FEED REGULATOR SCREW	1
64	RO092270200	RUBBER RING	1
65	010563	FEED REGULATOR PIN	1
66	22912109	FEED REGULATOR PIN SPRING	1
67	21336656	FEED LINK ASM.	1
68	21336607	FEED LINK	-1
69	B1418761000	CONNECTING FORKED LINK PIN	-1
70	CQ202000000	OIL WICK	4
71	SM8050612TP	SCREW M5X6	1
72	21336706	FEED ROD A	1
73	21338207	FEED LINK PIN	1
74	SD1000801SH	HINGE SCREW D=10 H=8	1

### F. HOOK SHAFT & LOWER SHAFT COMPONENTS



<b>F. HOOK SHAFT &amp; LOWER SHAFT COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	21431457	LATCH HOOK ASM.	2
2	B9117201000	BOBBIN	2
3	LS4B6	SCREW M4 L=6	2
4	23102601	INNER HOOK GUIDE	2
5	B1827246000	SLIDE BLOCK	2
6	B1826246000	SLIDE BLOCK PIN	2
7	B1827246000	SLIDE BLOCK	2
8	SS7091110TP	SCREW 9/64-40 L=10.5	2
9	21431200	HOOK SHAFT LUBRICATION FELT	2
10	CQ202000000	OIL WICK	0.32
11	BT0500300EA	OIL TUBE	0.1
12	40029253	HOOK SHAFT BASE ASM.	2
13	40029250	HOOK SHAFT BASE	-2
14	40029246	HOOK SHAFT METAL	-2
15	LS5A10	SCREW M5X0.8 L=12	4
16	PD5	WASHER	4
17	B1820246000	WASHER	2
18	21227301	HOOK SHAFT GEAR	2
19	SS8660612TP	SCREW 1/4-40 L=6	6
20	B1836246000A	LOWER SHAFT BEVEL GEAR	2
21	SS8110410TP	SCREW 11/64-40 L= 3.5	4
22	B1803246000	BUSHING INTERMEDIATE	2
23	21429402	VERTICAL FEED CAM (0.6)	1
24	SS8660612TP	SCREW 11/64-40 L=3.5	2
25	B1301340000	SAFETY CLUTCH DISK	1
26	SS8150710SP	SCREW 15/64-28 L=7	2
27	21223409	SAFETY CLUTCH PUSH BUTTON	1
28	PS0200102KH	SPRING PIN 2.0 X 10	1
29	B1639051000	SPRING	1
30	21223508	PUSH BUTTON CYLINDER	1
31	23102700	LOWER SHAFT THRUST HOLDER	1
32	SS8150432TH	SCREW 15/64-28 L=4	2
33	21427307	LOWER SHAFT METAL REAR	1
34	SS8150710TP	SCREW 15/64-28 L=7	1
35	040680	LOWER SHAFT	1
36	21333505	LOWER SPROCKET	1
37	21223409	SAFETY CLUTCH PUSH BUTTON	1
38	SS1092810SP	SCREW 9/64-40 L=25.4	2
39	040678	BUSHING INTERMEDIATE	1
40	40680	COVER PLATE	1

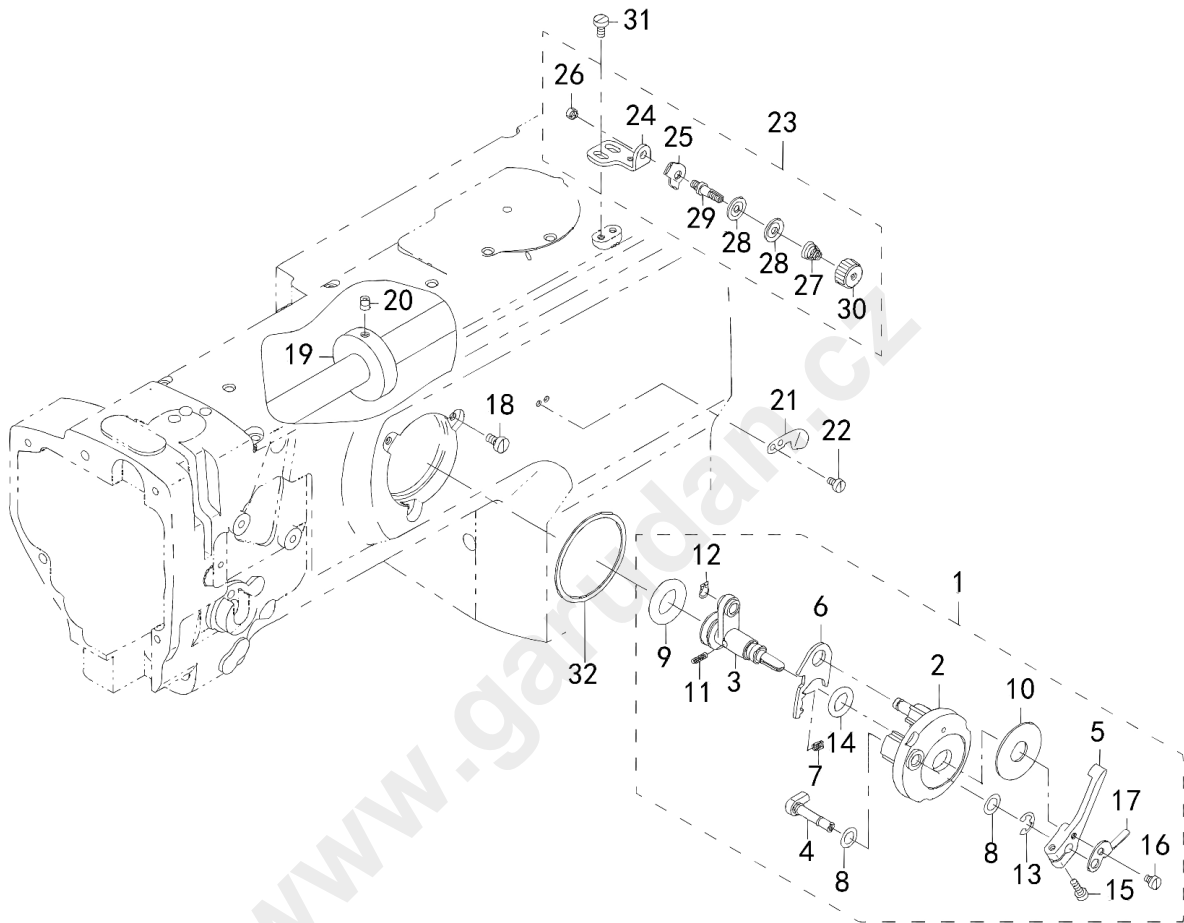
### G. THREAD TENSION COMPONENTS





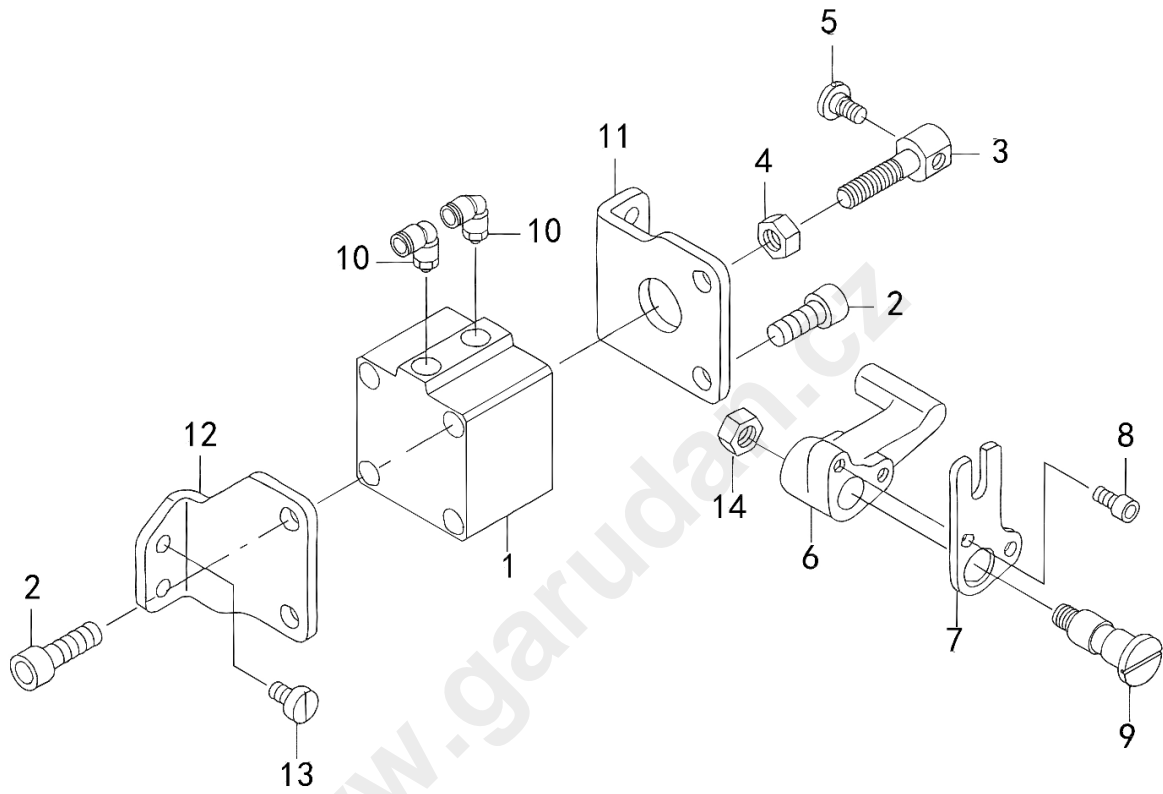
<b>G. THREAD TENSION COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	21390562	THREAD TENSION ASM.	1
2	B3128051000	THREAD TAKE-UP SPRING A	1
3	10124501	THREAD TAKE-UP SPRING STUD	1
4	21390554	THREAD TENSION BASE COMPL.	1
5	21441100	THREAD RELEASE PLATE	1
6	SD0470281SP	HINGE SCREW D=4.7 H=2.8	2
7	B3127527000	PIN B	1
8	B3127051000	TENSION RELEASE PIN SHORT	1
9	NS6110310SP	NUT 11/64-40	2
10	10124204	THREAD TENSION POST A	1
11	B3214047000	BOBBIN WINDER TENSION DISC	4
12	D3168555HOB	TENSION SPRING NO.1	2
13	11072402	THREAD TENSION NUT	2
14	10124303	THREAD TENSION POST B	1
15	B3126051000	TENSION DISC	4
16	B3132051000	TENSION DISC HOLDER	2
17	B3129053000	TENSION SPRING	2
18	B3120125000	ROTATING STOPPER	2
19	11072204	TENSION NUT	2
20	B3143527000	TAKE-UP SPRING GUIDE STUD	1
21	B31375270A0	TAKE-UP SPRING GUIDE ASM.	2
22	B3142527000	TAKE-UP SPRING GUIDE PLATE	1
23	B3139527000	COLLAR	1
24	B3128527000	THREAD TAKE-UP SPRING B	1
25	22617609	THREAD TENSION POST	1
26	22618904	SET SCREW	1
27	22618904	SET SCREW	1
28	B3138527000	ADJUSTING PLATE B	1
29	SS7090520SP	SCREW 9/64-40 L= 4.5	1
30	B3141527000	PRESSER COLLAR	1
31	B3125527000	TAKE-UP SPRING GUIDE	1
32	B3125012000	THREAD TENSION NUT	1
33	SS7110910TP	SCREW 11/64-40 L= 8.5	2
34	21348206	TENSION RELEASE BAR	1
35	PS0600502KP	SPRING PIN	1

### H. LOWER THREAD WINDER MECHANISM COMPONENT



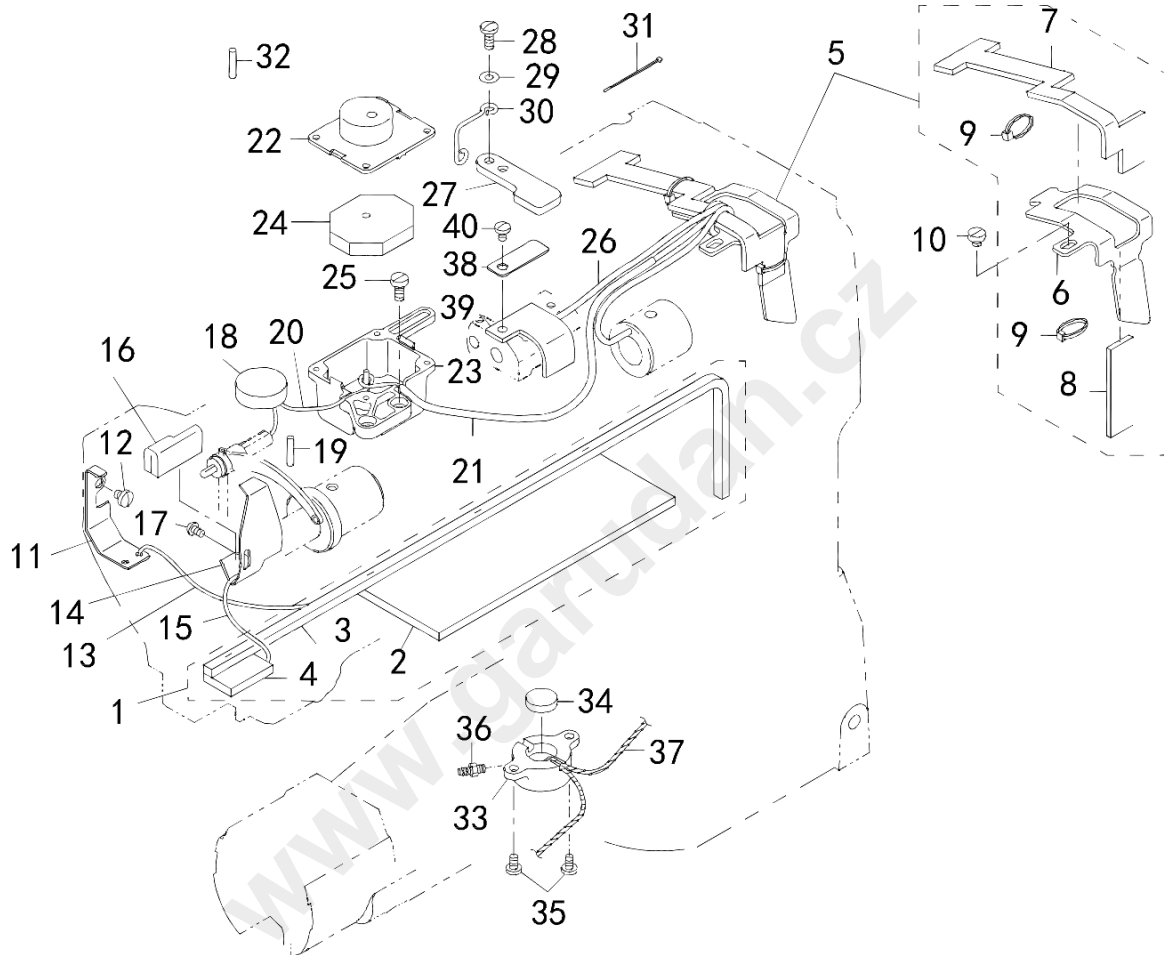
<b>H. LOWER THREAD WINDER MECHANISM COMPONENT</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	21357967	BOBBIN DEVICE ASM.	1
2	22537658	BOBBIN FITTING BASIS COMPL.	1
3	21357959	BOBIN SHAFT COMPL.	1
4	22538151	BOBBIN CAM SHAFT COMPL.	1
5	23636202	BOBBIN LEVER	1
6	21356001	ADJUSTING PLATE	1
7	B152989000CA	PRESSUR FOOT SPRING	1
8	10618304	VERTICAL ROLLER WASHER	2
9	21358205	BOBBIN FRICTION GEAR	1
10	B3205210000	CUSHION	1
11	B1148555000	SPRING	1
12	RC0560711KP	RETAINING RING	1
13	RE0500000K0	E-RING	1
14	RO092270200	RUBBER RING	1
15	SS7091410SP	SCREW 9/64-40 L=13.5	1
16	SS6090520SP	SCREW 9/64-40 L= 5.0	1
17	14512503	BOBBIN ADJUSTING PLATE	1
18	SS6110810TP	SCREW 11/64-40 L=8	3
19	10704807	BOBBIN FRICTION WHEEL	1
20	SM8050602TP	SCREW M5 L=6	2
21	10502300	THREAD CUTTER	1
22	SS6090620SP	SCREW 9/64-40 L=6	2
23	21355755	LOWER THREAD GUIDE ASM.	1
24	21355706	FITTING BASE	1
25	D3162555B00	THREAD GUIDE	1
26	NS6110310SP	NUT 11/64-40	1
27	D3168555H0B	TENSION SPRING NO.1	1
28	B3214047000	BOBBIN WINDER TENSION DISC	2
29	21378708	THREAD TENSION POST	1
30	11072402	THREAD TENSION NUT	1
31	SM6040800SP	SCREW	2
32	22538706	PACKING	1

### I. AUTOMATIC PRESSER LIFTING MECHANISM



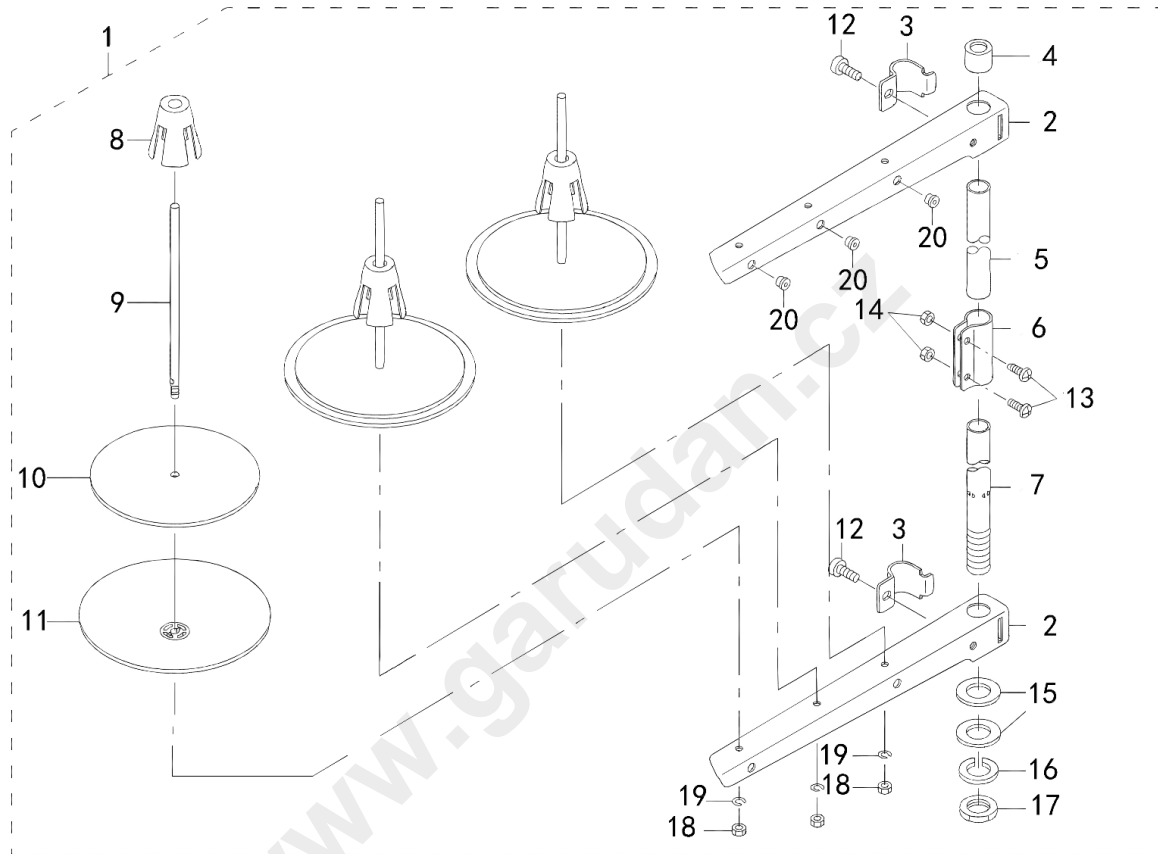
<b>I. AUTOMATIC PRESSER LIFTING MECHANISM</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	ACQ40*15	AIR CYLINDER	1
2	SM6082002TP	SCREW M8 L=20	4
3	21356506	CYLINDER CONNECTING SCREW	1
4	NM6080001SE	NUT M8	1
5	SD0720331SP	HINGE SCREW D= 7.24 H= 3.3	1
6	21356605	LEVER A	1
7	21356803	LEVER B	1
8	SM6051002TP	SCREW M5X0.8 L=10	2
9	21356704A	SHAFT	1
10	SPL4-01	ELBOW	2
11	21356308	CYLINDER STAY(FRONT)	1
12	21356407	CYLINDER STAY(REAR)	1
13	SS6151040SP	SCREW 15/64-28 L=10	4
14	21356704B	NUT	1

### J. OILING COMPONENTS



<b>J. OILING COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	21345756	ARM ONCE THROUGH OIL FELT ASM.	1
2	21345707	ARM ONCE THROUGH FELT A	1
3	21345806	FELT B	1
4	21345905	FACE ONCE THROUGH FELT	-1
5	21346358	FELT SUPPORT ASM.	1
6	21346309	FELT	1
7	21346507	FEED CHANGE FELT	1
8	21346408	FELT	-1
9	EA9500B0000	CLIP CV-70S	-2
10	SS6110480SP	SCREW 11/64-40 L=4.3	1
11	21340708	UPPER FEED OIL BAR PLATE	1
12	SS7110510SP	SCREW 11/64-40 L=5	1
13	CQ202000000	OIL WICK	2
14	21347000	TAKE-UP OIL PLATE	1
15	CQ202000000	OIL WICK	5
16	21347208	TAKE-UP LUBRICATION FELT	1
17	SS3090610SP	SCREW 9/64-40 L=6	1
18	21346002	FELT	1
19	B1412051000	FELT	1
20	CQ252000000	OIL WICK	3
21	BT0500300EA	OIL TUBE	0.25
22	21407507	OIL TANK A	1
23	21407606	OIL TANK B	1
24	21407705	FELT	2
25	SS6111010SP	SCREW 11/64-40 L= 9.5	2
26	CQ202000000	OIL WICK	2
27	21339700	UPPER FEED STOPPER PLATE (B)	1
28	SS7111120TP	SCREW	2
29	WP0450801SD	WASHER 4.5X10X0.8	1
30	22620504	OIL WICK HOLDER	1
31	EA9500B0000	CLIP CV-70S	1
32	PS0500202KP	SPRING PIN 5X20	1
33	21433800	OIL TANK	1
34	B1203051000	OIL FELT	1
35	SS7110710SP	SCREW 11/64-40 L=7	2
36	SQ1110401MZ	CONNECTING SCREW	1
37	CQ202000000	OIL WICK	4
38	21338306	LUBRICATION FELT PRESSER	1
39	21346200	MUTUAL VERTICAL CHANGE FELT	1
40	SS5090610SP	SCREW	1

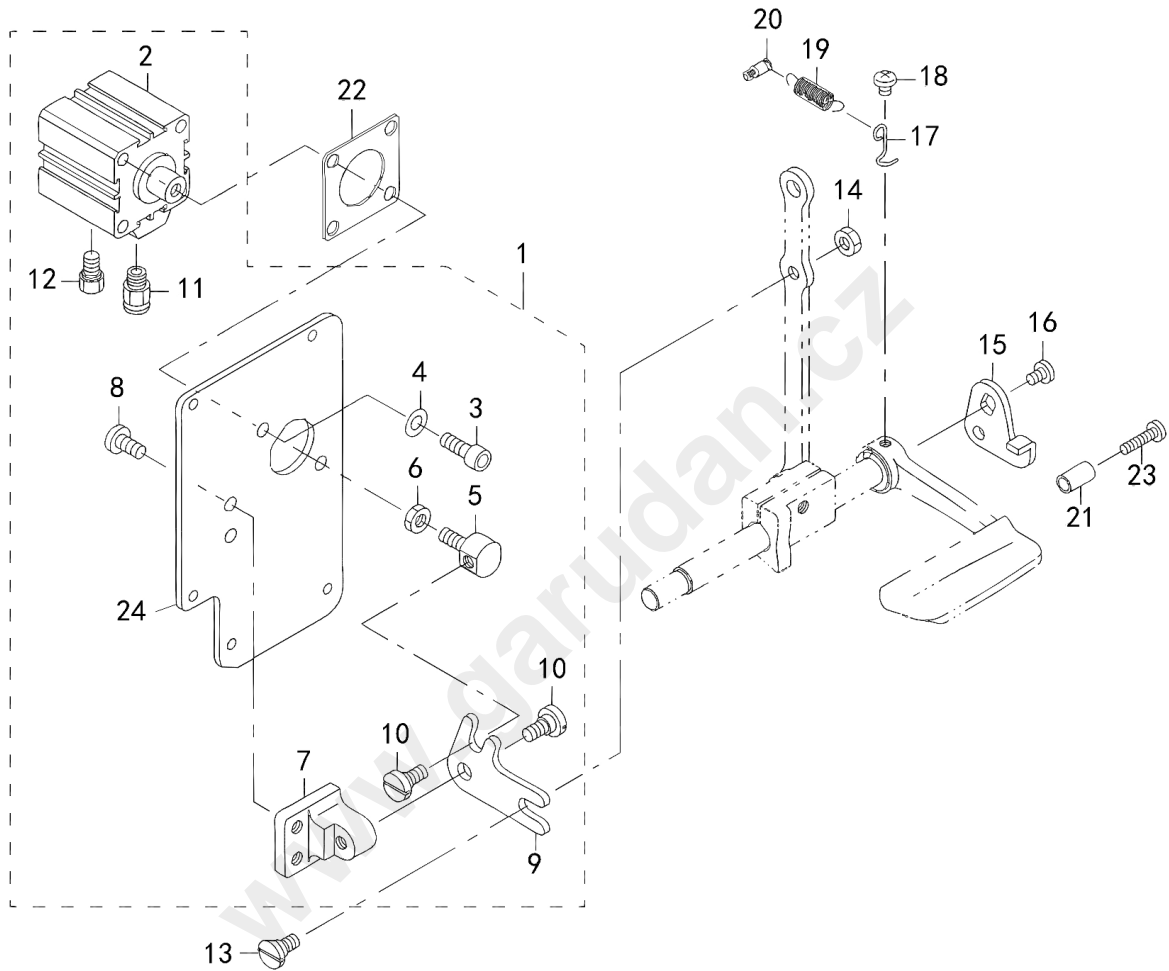
### K. THREAD STAND COMPONENTS





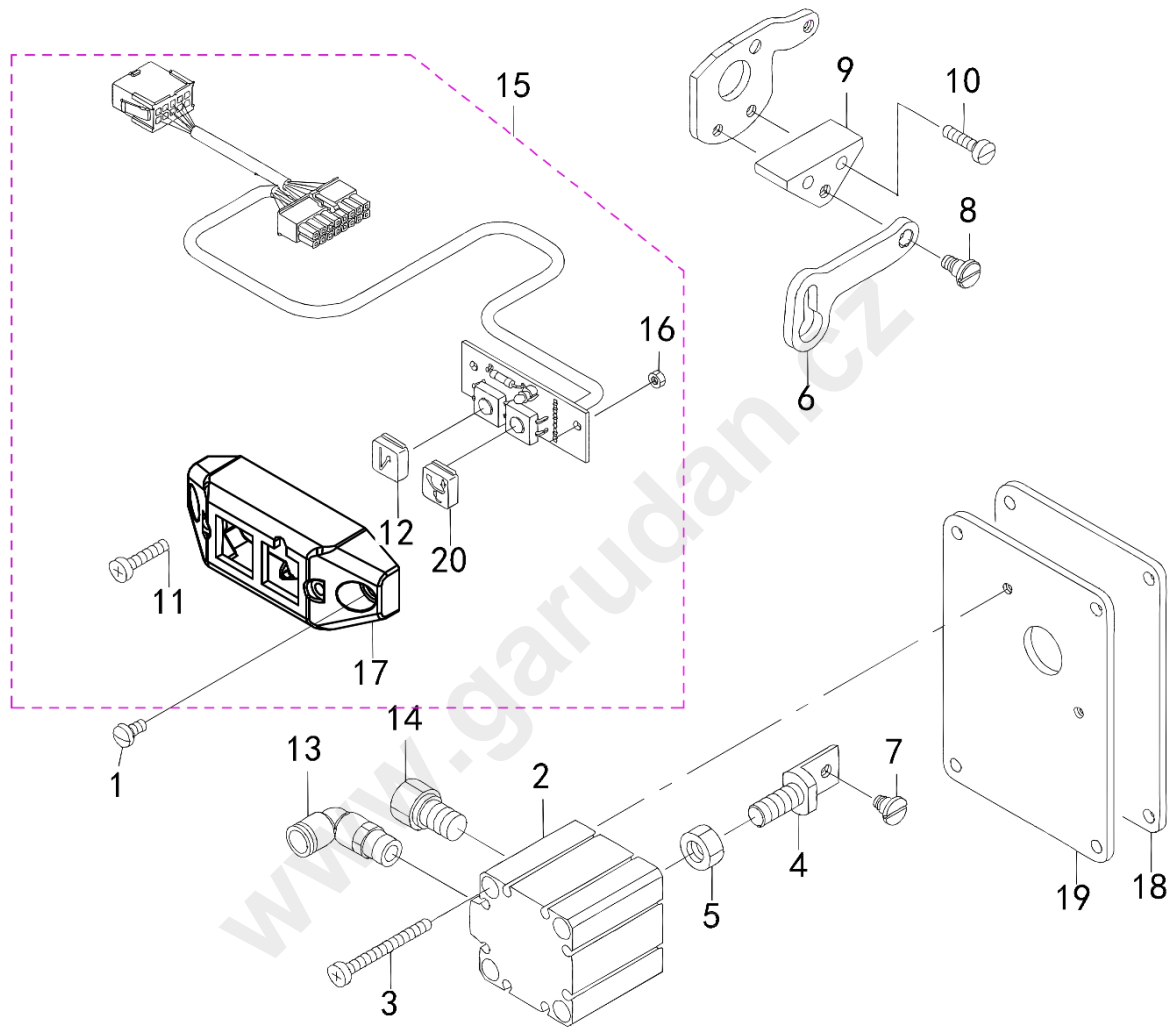
<b>K. THREAD STAND COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	26910158	THREAD STANDING DEVICE ASM.	1
2	22930507	SPOOL REST ARM	<2>
3	22930705	THREAD GUIDE ARM JOINT	<2>
4	22931406	SPOOL REST ROD RUBBER CAP	<1>
5	22930408	SPOOL REST ROD UPPER	<1>
6	22931307	SPOOL REST ROD JOINT	<1>
7	22930309	SPOOL REST ROD LOWER	<1>
8	22931109	SPOOL RETAINER	<3>
9	22931000	SPOOL PIN	<3>
10	22930903	SPOOL REST CUSHION	<3>
11	22930804	SPOOL REST	<3>
12	SM6061610SC	SCREW M6 L=16	<4>
13	SM4051405SE	SCREW M5 L=14	<2>
14	NM6050001SE	NUT M5	<2>
15	WP1612616SE	WASHER 16X30X2.6	<2>
16	WS1643202KR	SPRING WASHER	<1>
17	NM6160511SE	NUT M16X1.5	<1>
18	NM6050001SE	NUT M5	<3>
19	WS0510002KN	SPRING WASHER	<3>
20	WS1643202KP	THREAD GUIDE	3

### L. AUTOMATIC BACK-TACK COMPONENTS



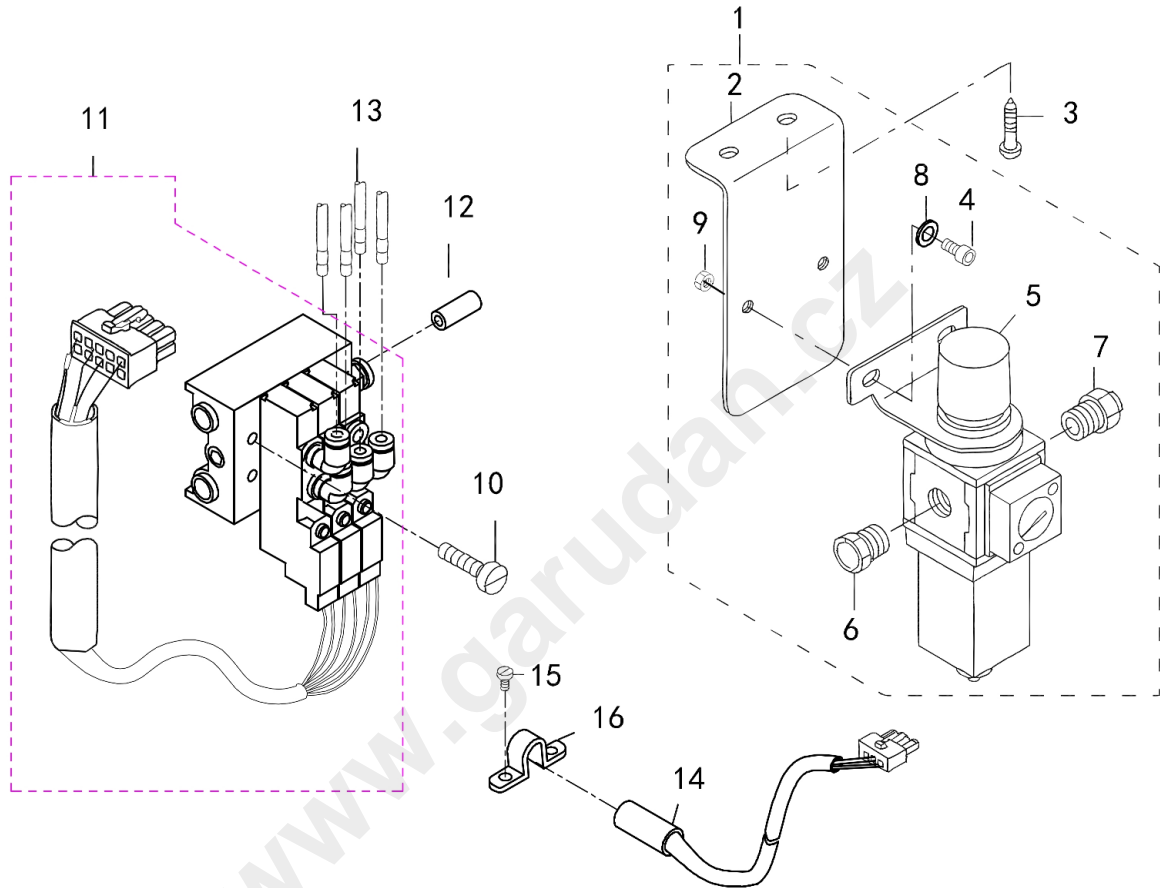
<b>L. AUTOMATIC BACK-TACK COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	21348958	WINDOW PLATE ASM.	1
2	SDA32*15	JIG CYLINDER	1
3	SM6061602TP	SCREW M6 L=16	2
4	WP0641601SD	WASHER M6	2
5	21348602	CYLINDER CONNECTING SCREW	1
6	NM6060003SC	NUT M6	1
7	21348503	FITTING BASE	1
8	SS7151210SP	SCREW 15/64-28 L=12	2
9	21348701	BACKWARD FEED LINK	1
10	SD0800352SP	HINGE SCREW D= 8 H=3.5	2
11	SPC4-1	HALF UNION	1
12	PX015101000	MUFFLER	1
13	SD0800402TP	HINGE SCREW D= 8 H= 4	1
14	NS6150430SP	NUT 15/64-28	1
15	22656102	REVERSE FEED LINK (1)	1
16	SS7120760SP	SCREW 3/16-28 L= 7.0	1
17	22656003	SPRING SUSPENSION	1
18	SS4120615SP	SCREW 3/16-28 L=6	1
19	13515606	SPRING	1
20	10120004	SPRING SUSPENSION	1
21	11100500	REVERSE FEED LEVER STOPPER	1
22	21349105	CYLINDER PACKING	1
23	SS7111810SP	SCREW 11/64-40 L=18	1
24	21348909	WINDOW PLATE D	1

### M. DL-MECHANISM COMPONENTS



<b>M. DL-MECHANISM COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	SS7110840SP	SCREW 11/64-40 L=7.8	2
2	SDA32*15	JIG CYLINDER	1
3	SM6044002TP	SCREW	2
4	21438403	CYLYNDER CONNECTING SCREW	1
5	NM6080721SE	NUT M8	1
6	21438502	MUTUAL VERTICAL LINK	1
7	SD0600403TP	HINGE SCREW	1
8	SD0600454TP	SHOULDER SCREW	1
9	21438601	MUTUAL VERTICAL LINK SPASER	1
10	SS6111610SP	SCREW 11/64-40 L=16	2
11	LS3E12	SCREW	2
12	21442900	KEY TOP A	1
13	SPL4-01	ELBOW	1
14	PX015101000	MUFFLER	1
15	021657	KEY ASM.	1
16	LM3	NUT M3	2
17	021657A	SWITCH COVER	1
18	21437306	WINDOW PLATE E PACKING	1
19	21437207	WINDOW PLATE F	1
20	21443007	KEY TOP B	1

### N. AIR MECHANISM COMPONENTS



<b>N. AIR MECHANISM COMPONENTS</b>			
<b>Ref. No</b>	<b>Part No.</b>	<b>Part Name</b>	<b>Qty</b>
1	021724	AIR APPARATUS (B) ASM.	1
2	021723	MOUNTING PANEL	1
3	021703	SCREW D=4.1 L=20	2
4	021704	SCREW M6 L=10	2
5	021705	FILTER REGULATOR	1
6	SPC8-01	NIPPLE	1
7	SPL6-01	NIPPLE	1
8	WP0621016SH	FLAT PAD	2
9	LM6	NUT	2
10	040151	SCREW	3
11	022236	ELECTROMAGNETIC VALVE ASM.	1
12	APU0604 L=500	TUBE Ø6	1
13	APU0425 L=500	TUBE Ø4	3
14	021658A	SAFETY SWITCH	1
15	SS4110815SP	SCREW	2
16	021726	PIPE CLAMP	1