

User Manual



GF-1115-147 LM

GF-1115-447 MH

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SAFETY INSTRUCTION

Please read this Instruction Manual carefully before use. We hope you will enjoy the use of your machine for a long time. Please remember to keep this manual in a safe place.

1. Observe the basic safety measures, including, but not limited to the following ones, whenever you use the machine.
2. Read all the instructions, including, but not limited to this instruction manual.
3. Use the machine after it has been ascertained that it conforms to safety rules/standards valid in your country.
4. All safety devices must be in position when the machine is ready for work or in operation the operation without the specified safety devices is not allowed.
5. This machine shall be operated by appropriately-trained operators.
6. For your personal protection, we recommend that you wear safety glasses.
7. For the following, turn off the power switch of disconnect the power plug of the machine from the receptacle:
 - For threading needle(s) and replacing bobbin.
 - For replacing part(s) of needle, presser foot, throat plate, feed dog, cloth guide etc.
 - For repair work.
 - For when leaving the working place of when the working place is unattended.
8. If you should allow oil, grease, etc. used with the machine and devices to come in contact with your eyes or skin or swallow any of such liquid by mistake, immediately wash the contacted areas and consult a medical doctor.
9. Tampering with the live parts and devices, regardless of whether the machine is powered, is prohibited.
10. Repairing, remodeling and adjustment works must only be done by appropriately trained technicians or especially skilled personnel.
11. General maintenance and inspection works have to be done by appropriately trained personnel.
12. Repair and maintenance works of electrical components shall be conducted by qualified electric technicians or under the audit and guidance of especially skilled personnel. Whenever you find a failure of any of electrical components, immediately stop the machine.
13. Periodically clean the machine throughout the period of use.
14. Grounding the machine is always necessary for the normal operation of the machine. The machine has to be operated in an environment that is free from strong noise sources such as high-frequency welder.

15. An appropriate power plug has to be attached to the machine by electric technicians power plug has to be connected to grounded receptacle.

16. Remodel or modify the machine in accordance with the safety rules/standards while taking all the effective safety measures. We assume no responsibility for damage caused by remodeling or modification of the machine.

17. The machine is only allowed to be used for the purpose intended. Other uses are not allowed.

18. Warning hints are marked with the two shown symbols.



Danger of injury to operator or service staff



Items requiring special attention

Disposal instructions

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

FOR SAFE OPERATION

	1. To avoid electrical shock hazards, neither open the cover of the electrical box for the motor nor touch the components mounted inside the electrical box.
	1. To avoid personal injury, never operate the machine with any of the belt cover, finger guard of safety devices removed. 2. To prevent possible personal injuries caused by being caught in the machine. Keep your fingers, head and clothes away from the hand wheel, cover and the motor while the machine is in operation. In addition, place nothing around them. 3. To avoid personal injury, never put your hand under the needle when you turn ON the power switch or operate the machine. 4. To avoid personal injury, never put your fingers into the thread take-up cover while the machine is in operation. 5. The hook rotates at a high speed while the machine is in operation. To prevent possible injury to hands, be sure to keep your hands away from the vicinity of the hook during operation. In addition, be sure to turn OFF the power to the machine when replacing the bobbin. 6. To avoid possible personal injuries, be careful not to allow your fingers in the machine when tiling/raising the machine head. 7. To avoid possible accidents because of abrupt start of the machine, turn OFF the power to the machine when tiling the machine head. 8. If your machine is equipped with a serve-motor, the motor does not produce noise while the machine is at rest. To avoid possible accidents due to abrupt start of the machine, be sure to turn OFF the power to the machine. 9. To prevent possible accidents because of electric shock or damaged electrical component(s), turn OFF the power switch in prior to the connection/disconnection of the power plug.

Precautions prior to startup:

1. The machine head is coated with a thick layer of rust-prevention grease before encasement, and the encased machine head may possibly be subjected to grease hardening and dust buildup on the machine surface in process of long storage and long-haul traffic; therefore, take care to remove the grease and dust from the surface using soft cloth and gasoline.
2. Though the machine was inspected and tested with care before factory leaving, it might be affected by violent vibration resulting in looseness or distortion of the machine parts; therefore the operator shall thoroughly check the machine, turn the upper wheel by hand and check it for difficulty in free rotation, slight impact, and other uneven resisting force or abnormal noises, and make appropriate adjustment if any to restore the machine state before formal trial run.
3. Never start up the machine if the oil liquid level in the oil box falls outside the normal range.
4. The upper wheel shall rotate counterclockwise (when it is viewed from the lateral surface of the upper wheel) when the machine is operating.
5. Check whether the voltage and phases indicated on the electric-control data plate are correct.
6. The date of manufacture is indicated on the certificate of conformity.

Precautions for use:

1. Never touch the needle by hand when the machine is powered on or while it is operating.
2. Never put your finger into the protection cover of take-up lever during operation of the machine.
3. The operator must not put his finger into the needle guard bracket when he feeds the sewing materials by hand.
4. Operator must trim off the electricity supply before he turns over the machine head or removes the hand cover.
5. The operator must trim off the electricity supply before he gets away from the machine.
6. Prohibit the head, hands and anything to approach the upper wheel and bobbin winder while the machine is operating.
7. Never remove or mount the protection cover or other protection devices before the machine is stopped.
8. Never wipe up the surface of machine head using paint thinner such as acetone.

1. DESCRIPTION

One needle flat bed sewing machines with lower drop feed. Machines are equipped with standard hook, automatic thread trimming, programmable backtacking and electromagnetic presser foot lift. Machines are suitable for sewing of light to medium weight textile materials.

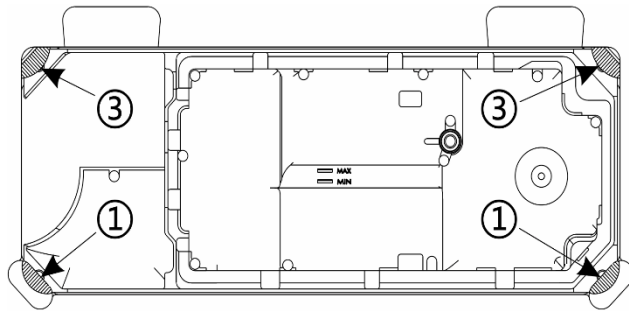
2. MAIN TECHNICAL SPECIFICATIONS

Model	GF-1115-147 LM	GF-1115-447 MH
Use	Light / medium materials	Medium / heavy materials
Stitch type	2-thread lock-stitch	
Max. stitch length	5 mm	7 mm
Hand lever foot lift	5,5 mm	
Knee lever foot lift	13 mm	
Needle system	134×5	
Needle size	Nm. 65-110	Nm. 90-120
Hook type	Horizontal, bobbin Ø21mm	Horizontal, bobbin Ø26mm
Lubrication	Automatic	
Lubrication oil	10# M22	
Motor	Integrated servomotor	
Machine head weight	43 kg	
Table weight	25 kg	
Working space	250 x 115 mm	
Machine table dimensions	480 x 180 mm	
Power	550 W	
Ground plan dimensions (including frame)	1070 x 550 mm	
Bedplate height	600 – 800 mm	
Machine height including thread stand	1530 mm	
Noise level by 50% machine utilization and under standard conditions	73 dB / A	
Max. sewing speed	5 000 st./min *	3000 st./min *

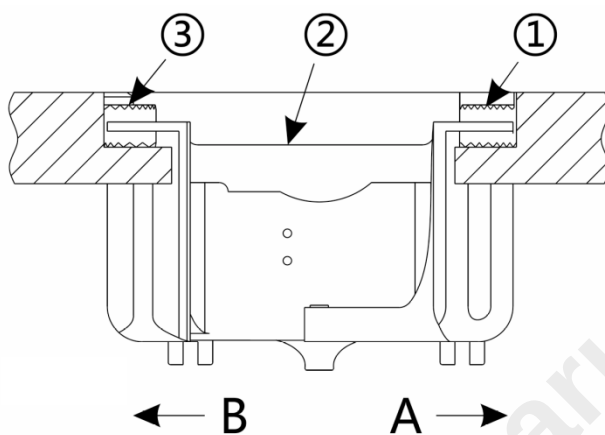
* Do not exceed specified sewing speed due to the service life of the machine mechanism. This cannot be guaranteed under any conditions. It is necessary to reduce speed depending on the thread, needle and material, stitch length and the foot track.

3. MOUNTING THE MACHINE

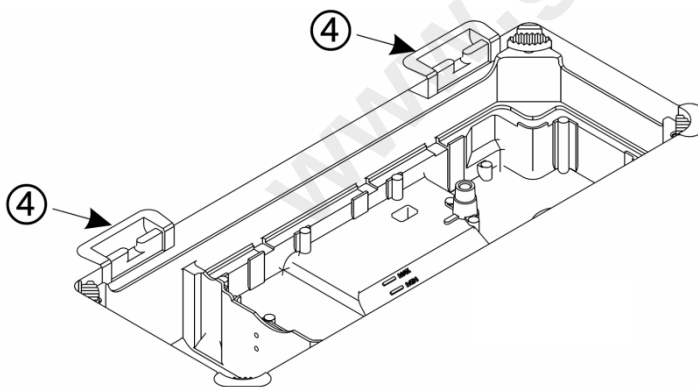
Fixing oil tray



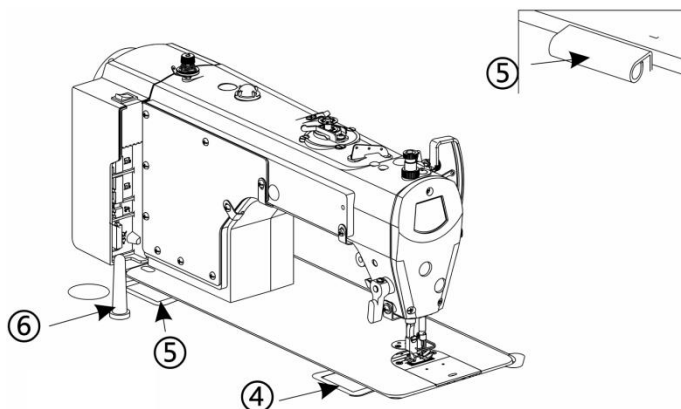
1. Put the oil tray (2) in table top cut out.



2. Fix two arm cushions (1) to the A side of oil tray (2) (facing the operator). Fix the two smaller arm cushions (3) to the B back side of oil tray (2) and fix the oil tray (2) on them.



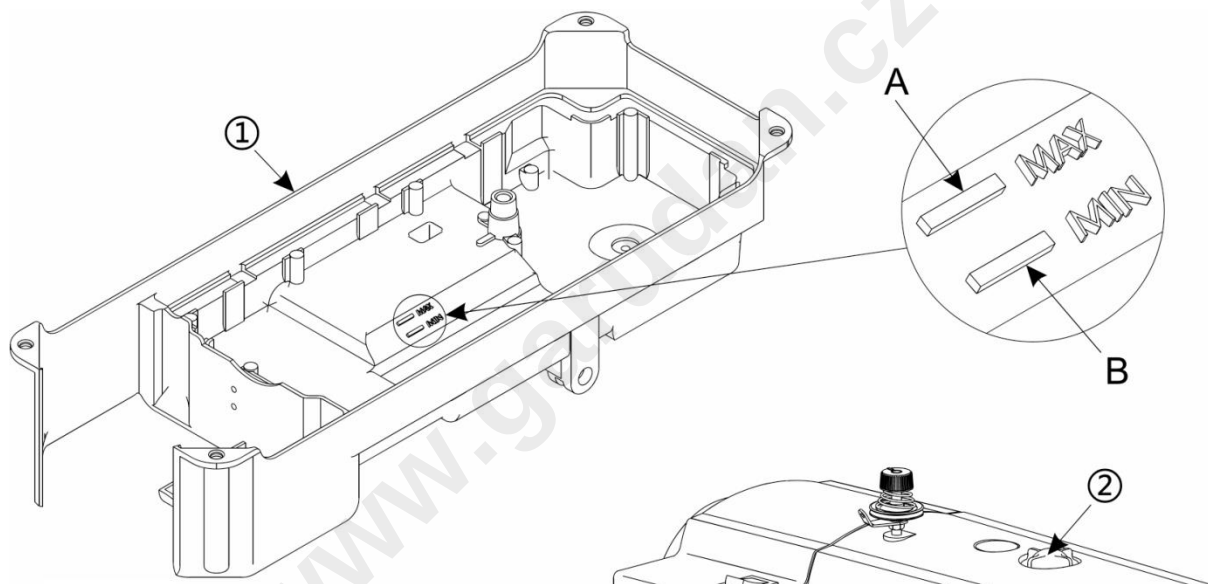
3. Insert rubber hinges (4) to openings in table top.



4. Insert metal hinge (5) to opening in the machine head and fix the whole machine on the table top according to fig. 3.

Lubrication of machine:

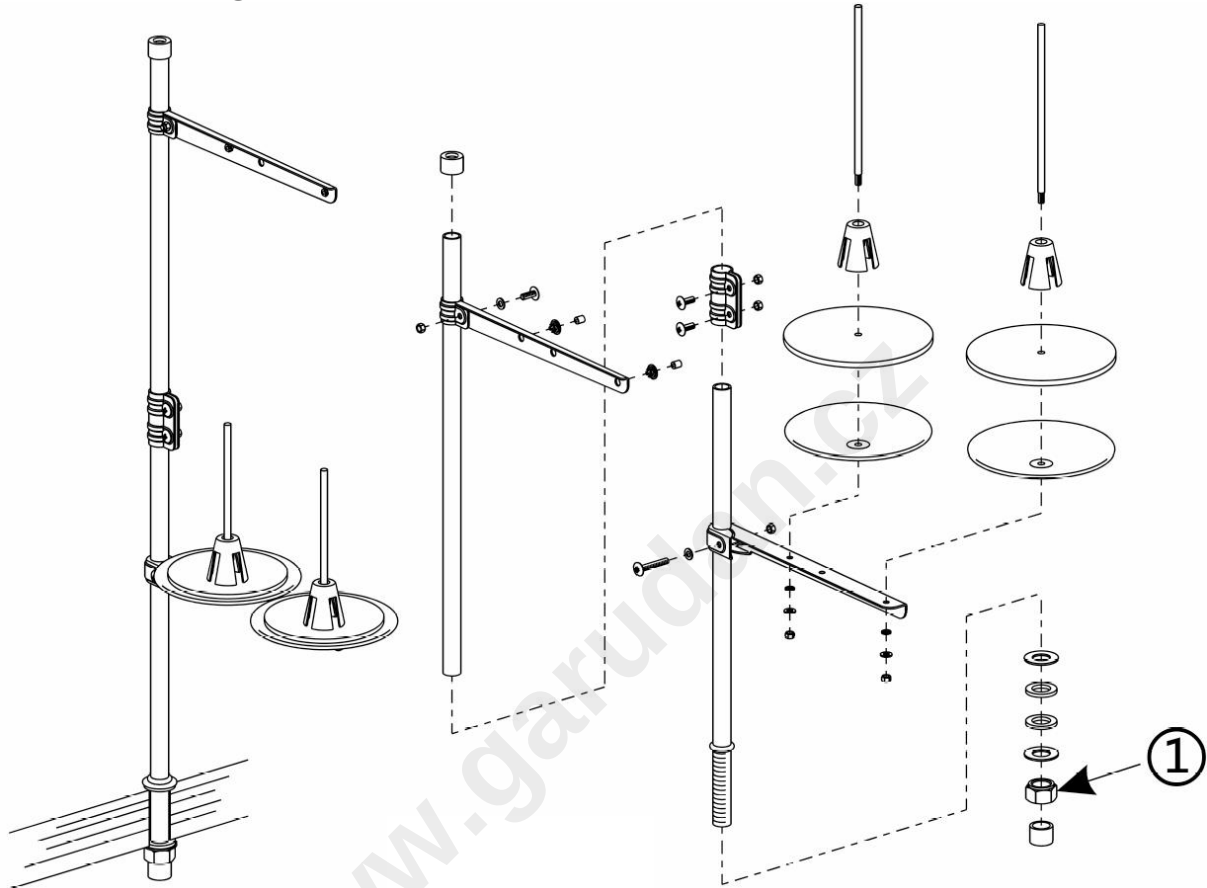
1. Fill oil pan ① with supplied oil up to the level between marking MAX and MIN ②.
2. If the level of oil goes below MIN, refill the oil pan up to the level between marking MAX and MIN.
3. When you operate the machine after lubrication, you will see splashing oil through oil sight window ② if the lubrication is adequate. If the machine runs in low speed, splashing oil is not seen (the pump cannot create sufficient pressure). For this reason, when operating the machine in lower speed, press the pedal to maximum occasionally to make the pump push the oil up to the upper shaft making the splashing oil visible in the oil window ②.
4. Amount of splashing oil is not proportional to the amount of oil in the pan

**Caution:**

Turn off the main switch before the operation.

Mounting the thread stand

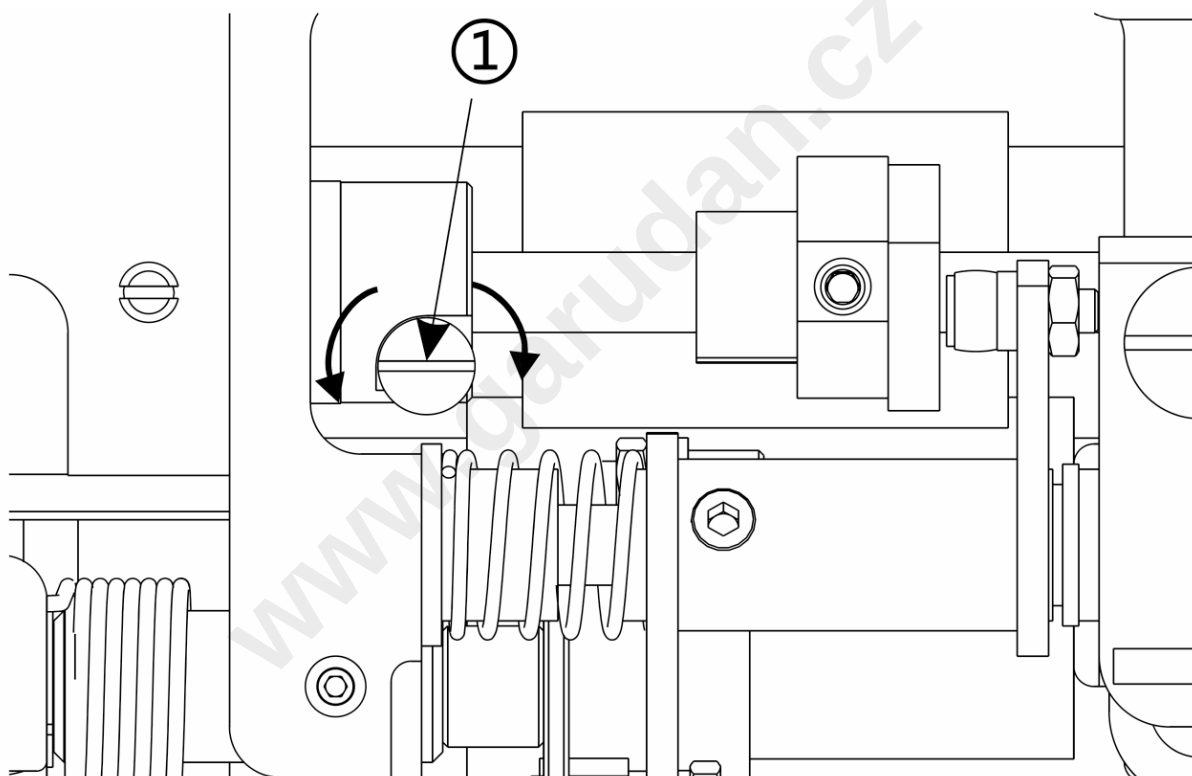
1. Fix the thread stand to the opening on the machine table top according to picture
2. Tighten the nut ① for stand fixing.



Lubrication of rotating hook

Adjustment method:

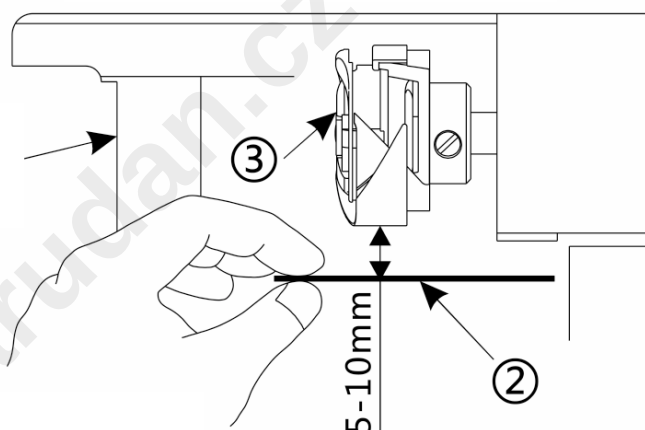
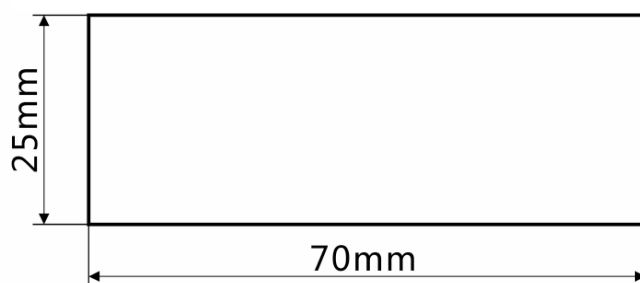
1. Set the lubrication of the rotating hook by adjusting screw ①. By turning the screw clockwise amount of oil will be increased, by turning the screw counterclockwise the amount of oil will be decreased. In order to achieve correct setting, adjustment can be done repeatedly.
2. Check the lubrication amount again after approximately 2 hours of machine operation.
3. Correct adjustment results in decrease of the machine noise and longer operational life of the hook. Excessive lubrication can stain the sewn material. The amount of coming oil depends on maximum speed of the machine. If the maximum speed level is changed, it is necessary to check correct setting of hook lubrication again.



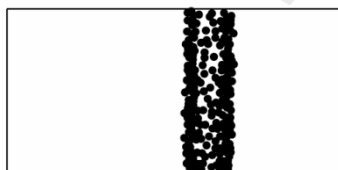
Checking of hook lubrication

1. Turn off the main switch.
2. Take out the needle thread from needle and all thread guides.
3. Take out the needle and bobbin case with bobbin.
4. Put up the presser foot by lever.
5. Turn on the main switch.
6. Press the machine pedal and keep the machine running at standard speed for approximately 1 minute without inserted material.
7. Place the lubrication amount check paper ② underneath the hook and keep it there for approximately 8 seconds at the normal sewing speed. (Any type of paper can be used for checking of lubrication ②.)
Caution: be careful about your fingers in order to prevent any potential injury.
8. Check the amount of oil on paper.

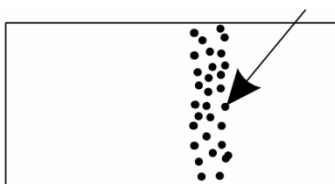
oil mass confirmation paper:



too much:



correct:



too little:



Caution:

Prior to above mentioned operation remove the paper and check if there is oil in the oil pan.

Do not use fingers to touch the hook or other running components of feeding mechanism while checking the amount of oil.

Use the following procedure to check the amount of oil being supplied to the rotary hook when replacing the rotary hook or when changing the sewing speed

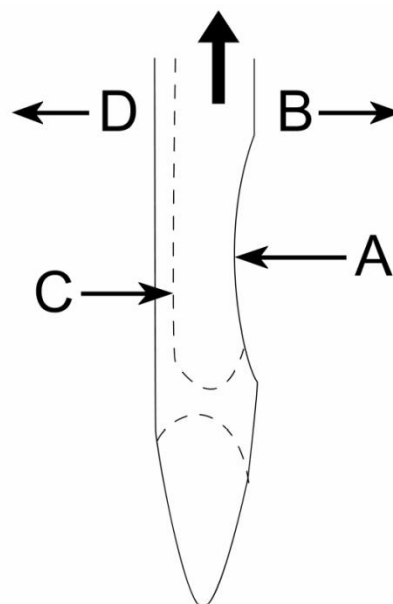
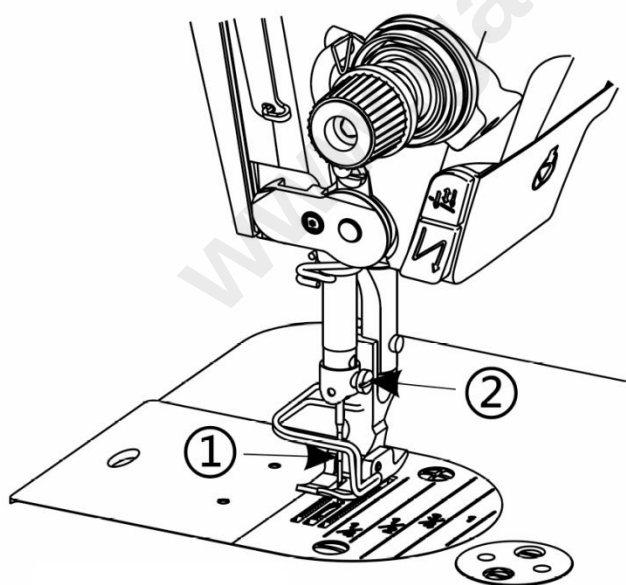
Needle insertion



Caution: Danger of injury: while setting the machine always turn off the main switch.

Choose the needle size according to thread thickness and used material.

1. Turn the upper wheel to allow the needle to reach its maximum height.
2. Loosen screw ②, hold the needle by hand and align the indentation A of needle to the right direction B.
3. Insert the needle into the bottom of needle hole in the direction of arrow until it reaches the end point.
4. Tighten the screw ② firmly.
5. Make sure that the elongated slot ③ on the needle is aligned to the left direction ④.
6. The groove for hook ⑤ is the shorter one located above the needle eye. Longer groove for thread ⑥ runs below from the needle stem to the needle eye. This groove „hides“ the thread during the stitching process. Thread is always inserted in the direction from the longer groove.

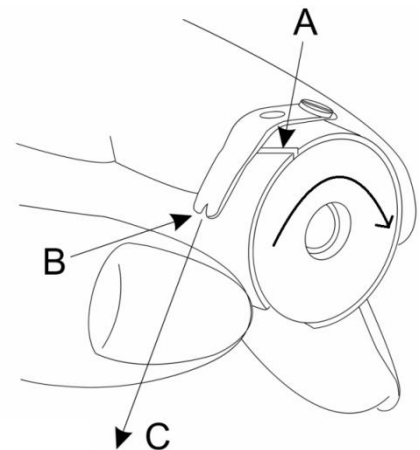


Mounting the bobbin

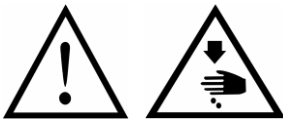
1. Insert the bobbin into the bobbin case in order to rotate in the direction of the arrow when you draw out the thread

2. Insert the thread to the groove A underneath the tension spring

B. When drawing out the thread the bobbin should rotate in the direction of the arrow (clockwise).



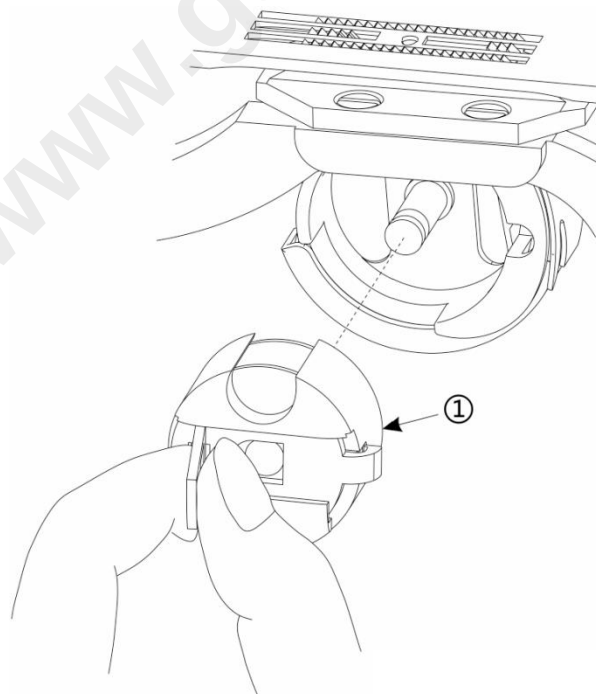
Insertion of bobbin case



Caution: Turn off the main switch before the operation.

1. Turn the hand wheel to raise the needle above the needle plate.

2. Hold the bobbin case in one hand, then install the bobbin case into the hook.

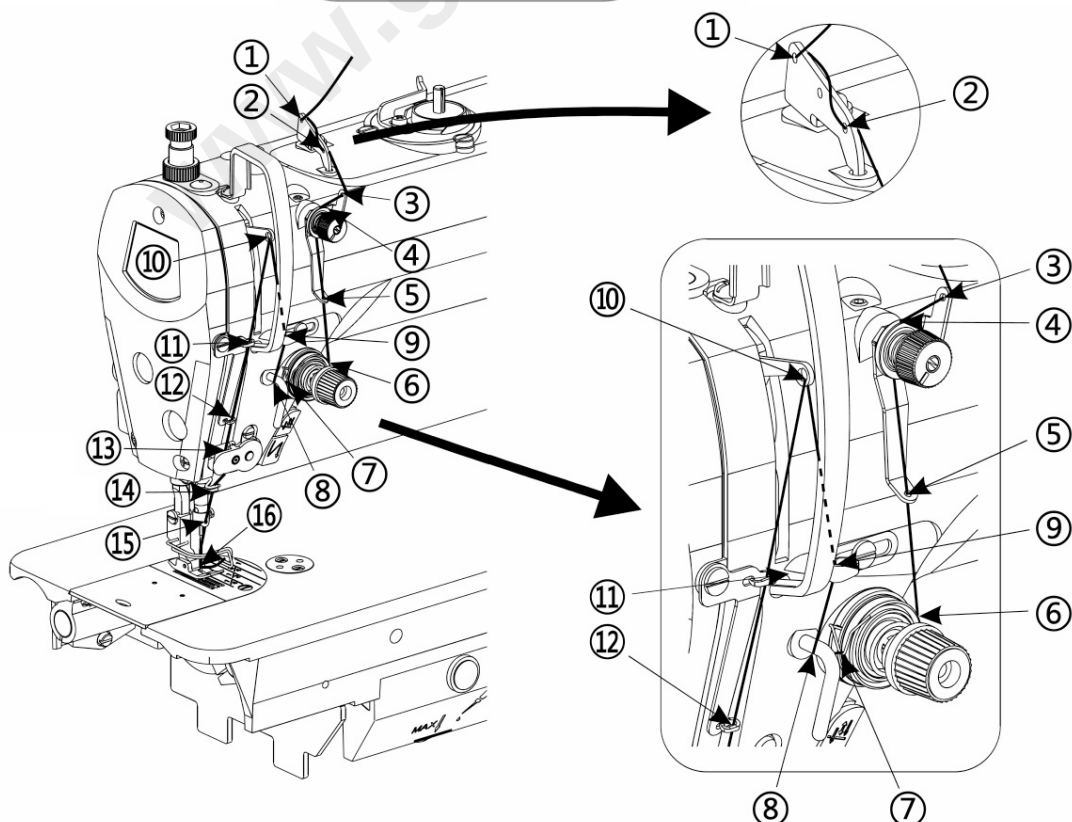
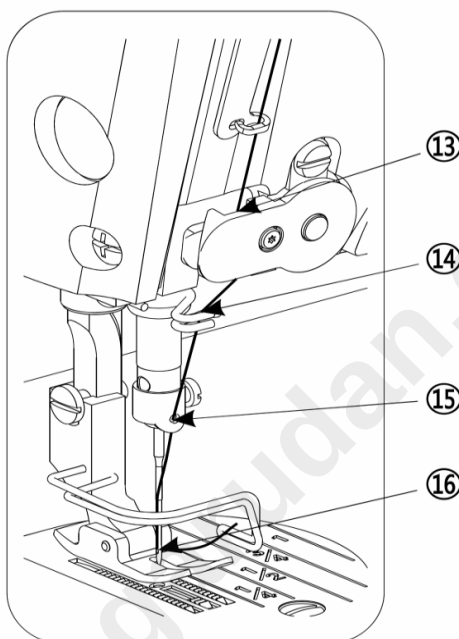


Threading the needle thread



Caution: Turn off the main switch before the operation.

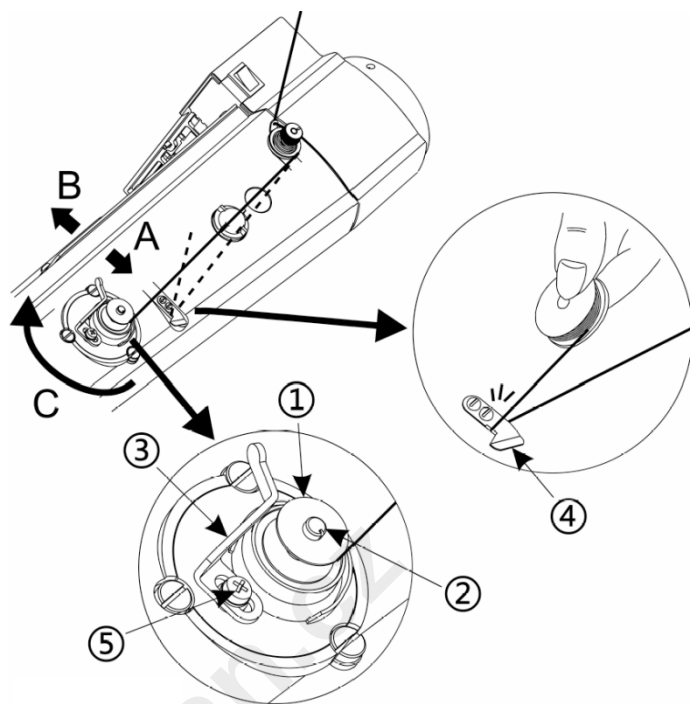
Put the needle in its highest position by turning the hand wheel. Lead out the thread from the thread stand through the points indicated on the picture.



1. Insert bobbin in bobbin winder ① and push it.

2. Lead the thread through the tensioner and then wind it around the bobbin according to picture.

3. Push the stopper ③ towards the shaft with bobbin ②. If the pedal is pressed during machine operation, thread winding is initiated and bobbin is rotating in direction of ③. When the winding is completed, the process is automatically stopped and the shaft clicks away from the stopper ③. Caution: during winding process the needle and thread take-up lever are always in motion, for this reason wind the bobbin thread only during the stitching process, otherwise it is recommended to take out the thread from needle and thread take-up lever.

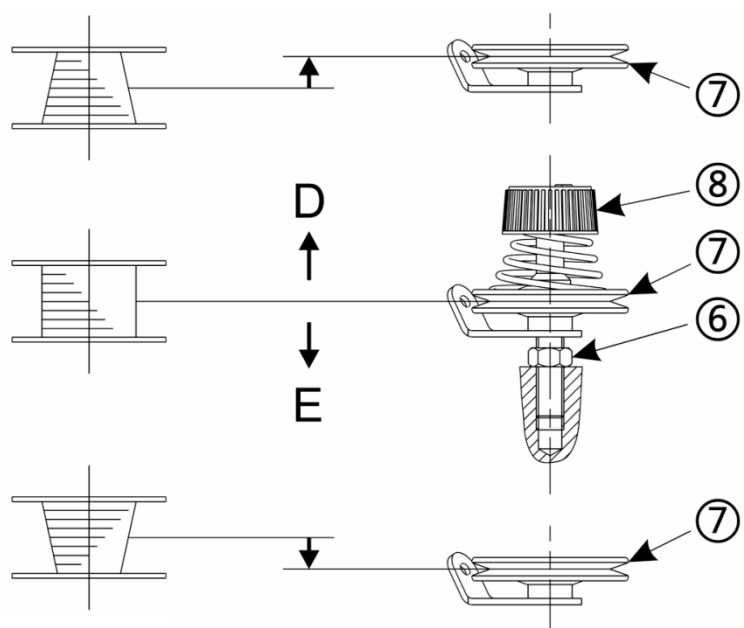


4. If you want to stop winding before the bobbin is full, stop the machine, move the stopper ③ away from the shaft ② and take out the bobbin.

5. Position of stopper ③ regulates amount of thread to be wound. For adjustment loosen the screw ⑤ and move the stopper ③ in the direction of A or B. Then tighten the screw ⑤. Direction of A: to reduce the amount of thread, direction of B: to increase the amount of thread.

Ideal adjustment is if the thread is approximately 1 mm from the edge of the bobbin. If the thread goes over the edge of bobbin, it is impossible to insert it into bobbin case.

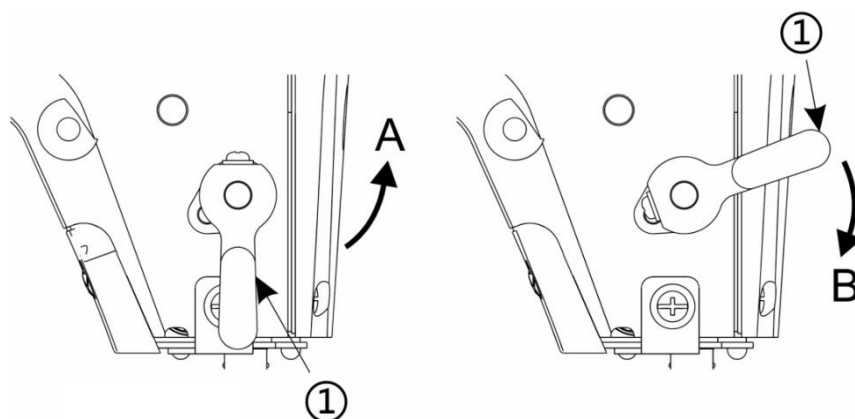
6. Thread should be evenly wound. If not, it can make it impossible to reach correct stitch composition stretching the thread up or down unevenly. Adjustment is made by correction of thread tensioner height and its discs. ⑦. Loosen the nut ⑥ and correct the height of the tensioner by rotating until the bobbin winding corresponds to the middle picture. Then tighten the nut ⑥. By loosening and tightening the nut ⑧ tension of the thread on bobbin can be adjusted. If the tension is too high, the bobbin can be deformed. If the tension is not sufficient, the thread can be tangled.



Lifter of presser foot

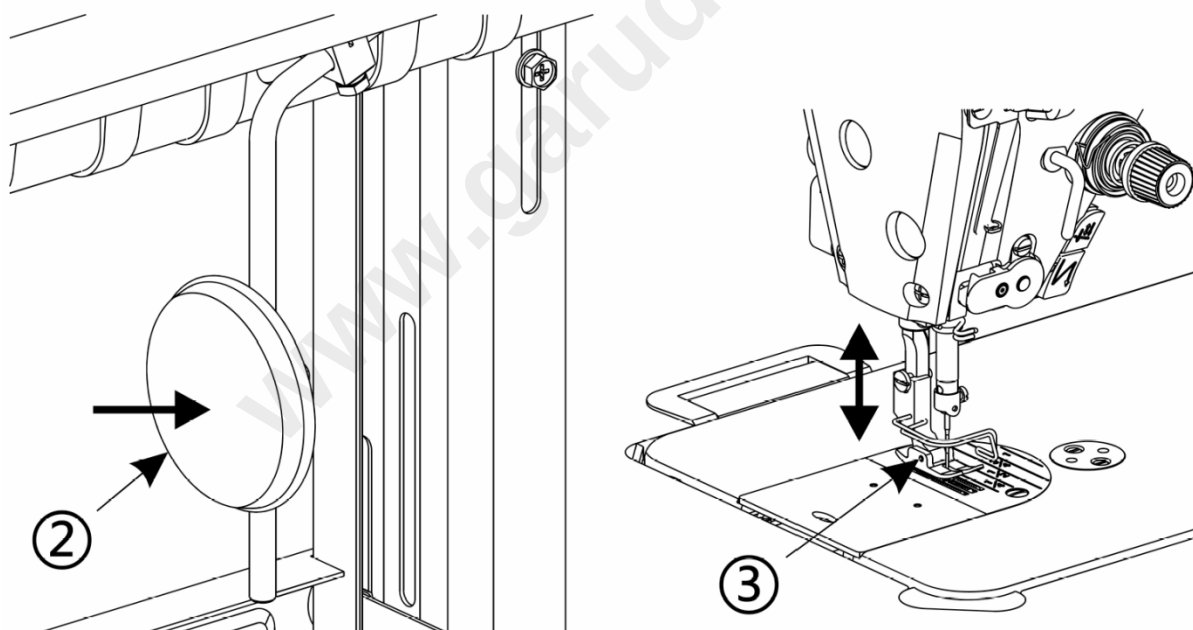
Lift presser foot controlled by hands:

1. In order to lift the presser foot, put the lever ① into position ①A.
2. In order to put down the presser foot, put the lever ① into position ①B.



Lift presser foot controlled by knees:

1. Presser foot ③ can be lifted by knee lever ②. Its height depends on the pressure made by knee.
Caution: maximum height of presser foot is 11 mm (at maximum knee pressure)
2. After knee lever is released, the presser foot ③ returns to its lower position.



Adjusting the stitch length

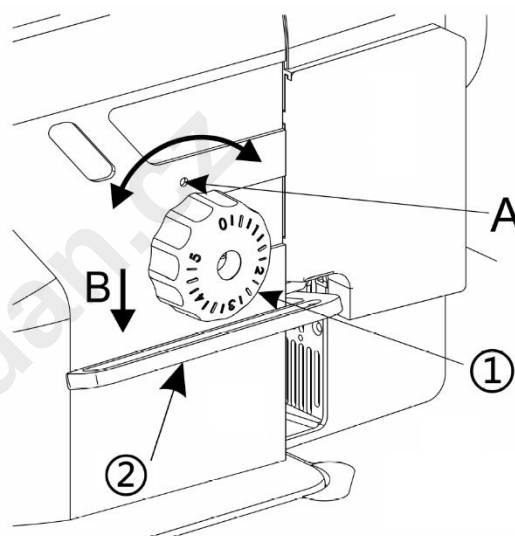
Push the stitch length knob ① and rotate it until you reach required value. Don't release the knob until the chosen number is in line with the mark ②. Release the knob.

Caution: values are in millimeters.

If the movement is resistant you can make it easier by pushing the back tacking lever in the direction of ③. Simultaneously rotate the stitch length knob until you reach required position.

Use of back tacking lever

Push down ④ the back tacking lever ② to activate back tacking. When released, the machine returns to standard stitching.

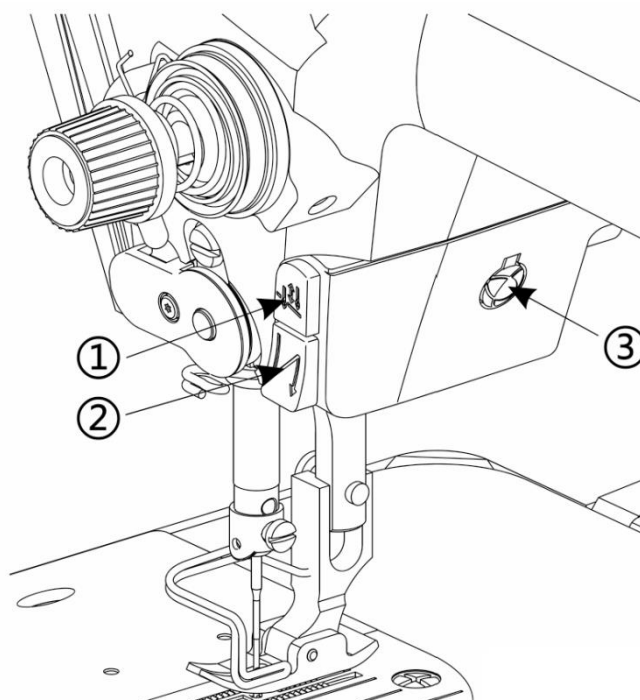


Reverse stitch button

1. For immediate reverse stitching push the button ②. Reverse stitching is performed only when the button is pushed, after its release machine returns to standard stitching.

2. Button ① is used for manual operation of the machine. If you push the button ① shortly, machine performs half stitch (needle is moved from upper to lower position or vice versa). If you keep the button ① pressed, machine will run at minimum speed, even if pedal is not pressed.

3. Illumination button: when the machine is turned on, the light is activated at its highest intensity. By pushing the button ③ you can regulate intensity in 3 steps or you can turn off the light.

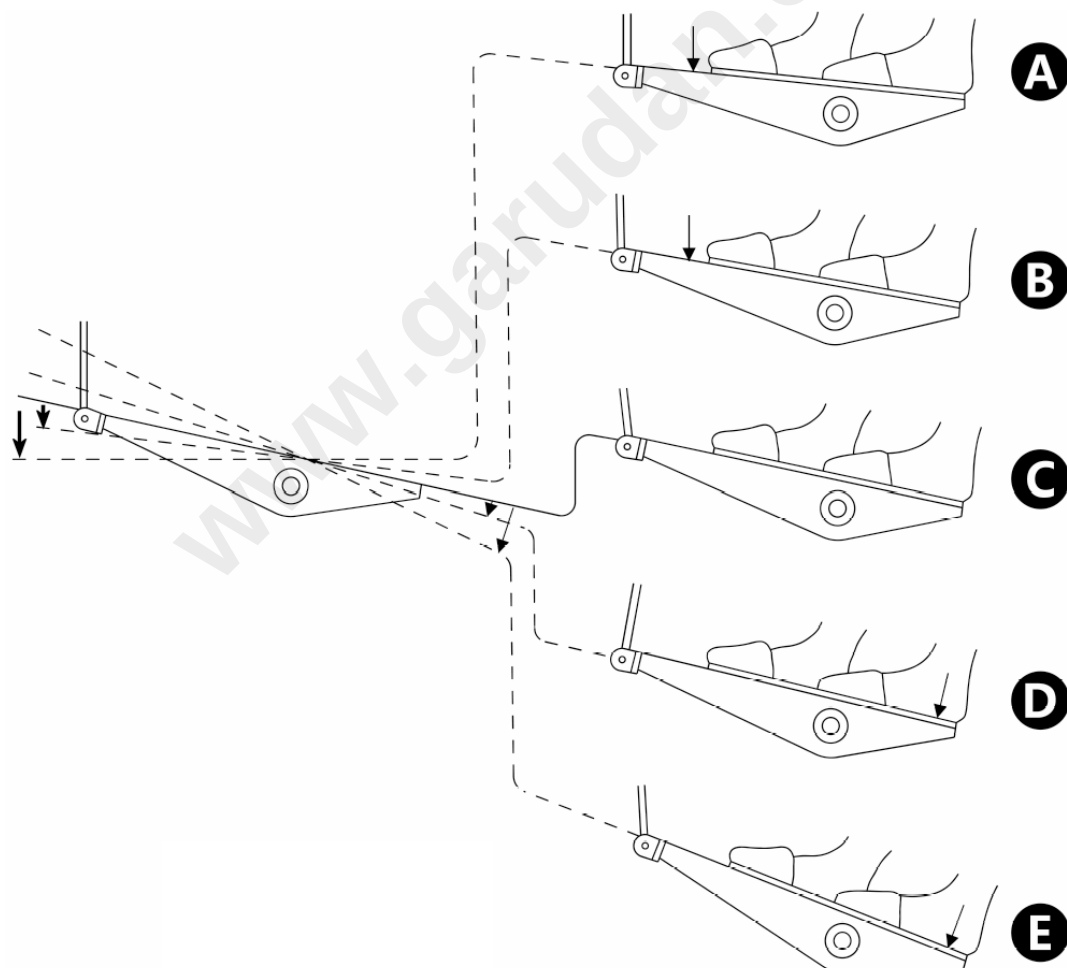


Operation by pedal

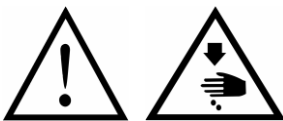
Pedal has 5 operating positions:

Default position is in point ③

1. If you press the front part of the pedal lightly, the machine runs at low speed ②.
2. If you press the front part of the pedal fully, the machine runs at high speed ①.
3. If you return pedal to its original position, machine stops ③.
4. If you press the rear part of the pedal lightly, the machine lifts the presser foot ④.
5. If you press the rear part of the pedal fully, the machine performs thread trimming and presser foot lift ⑤.



Adjusting the pedal

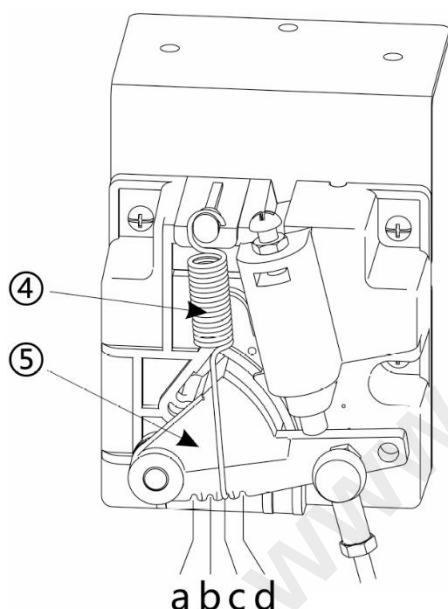
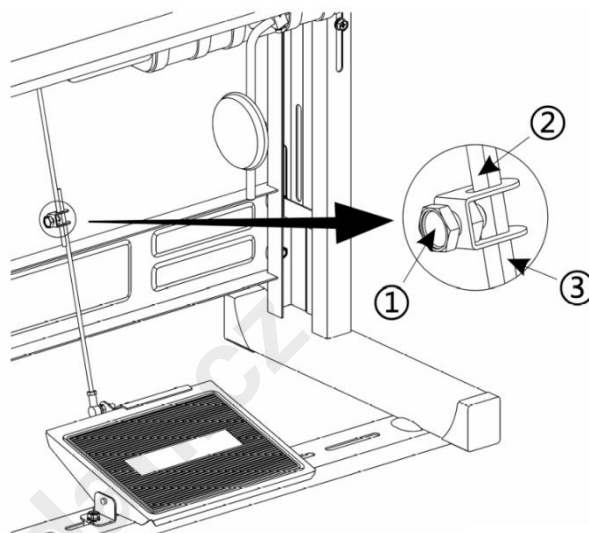


Caution: Turn off the main switch before the operation.

Adjusting tilt of the pedal:

Tilt of the pedal can be adjusted by correction of the pedal rod length – loosen the screw ① and adjust the length of the rod by moving its upper part ② and lower part ③ up or down

Tighten the screw ①. Adjust the tilt according to your individual preferences.



Adjustment of stepping forward pedal strength:

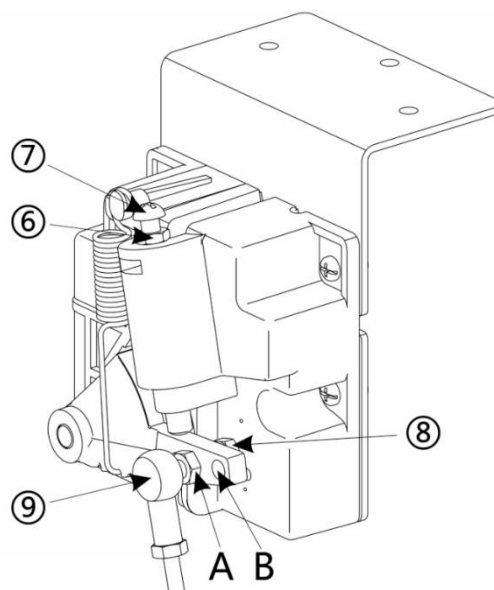
Pedal resistance can be adjusted by spring ④ in grooves ⑤. Quantity of grooves can be different. The faster you move from groove a, more force you need to press the pedal.

Adjustment of stepping backward pedal strength:

Loosen the nut ⑥ and turn the screw ⑦ to adjust the pressure. By tightening the screw, the pressure is increased, by loosening the screw the pressure is decreased. After adjustment tighten the nut ⑥.

Adjustment of pedal stroke:

Pedal stroke can be adjusted by insertion of the pedal rod in opening A or B. If higher stroke is required, use opening A, if shorter stroke is required, use opening B. After adjustment loosen the nut ⑧, insert the rod into required opening and tighten the nut ⑧.



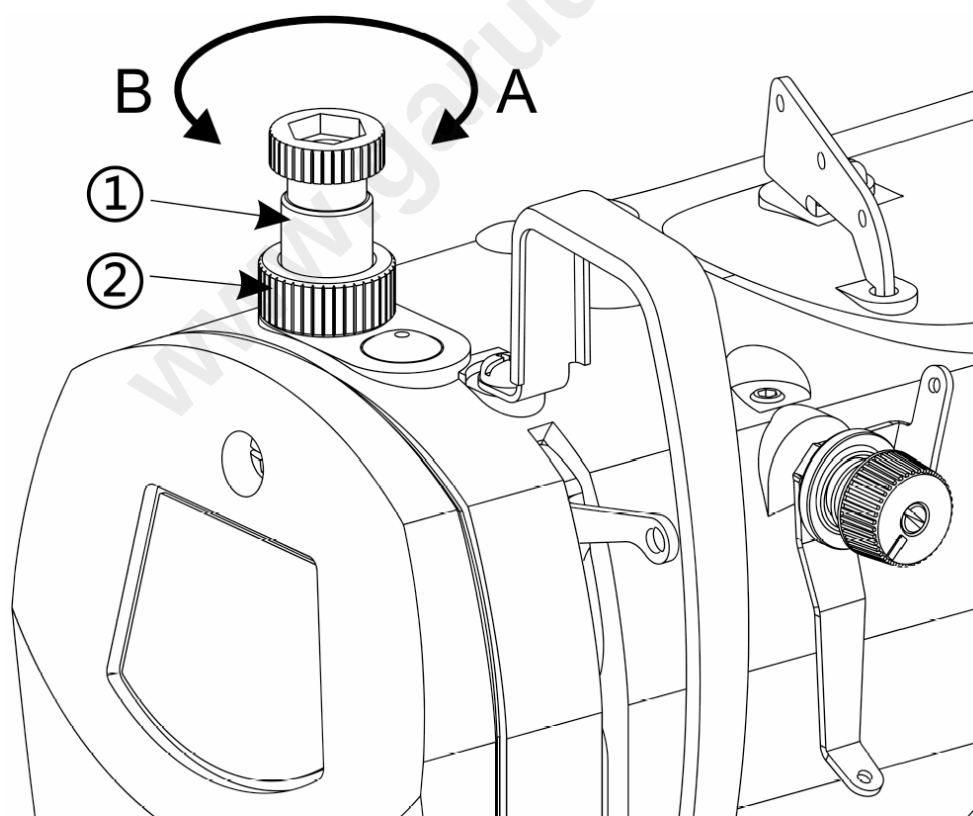
Adjusting the presser foot pressure



Caution: Turn off the main switch before the operation.

1. Correct pressure of presser foot is important for correct feeding of the material. Insufficient pressure can result in slipping of the material and loss of constant stitch length. When accelerated, the stitch length is too short because the material is not properly pressed and slips between the presser foot and feed dog. If the pressure is too high, the material can be creased. Loosen the nut ②. By turning the screw ① clockwise **A** the pressure is increased, by turning the screw counter-clockwise the pressure is decreased. After adjustment, tighten the nut ②.

2. Tip for correct adjustment: loosen the screw ① at maximum, and insert material under the presser foot. Start sewing and hold the material back by hand slightly. If the machine is not feeding material, tighten the screw ①. Repeat this step until the material is correctly fed. Then tighten the screw ① by nut ②. If you change material, it will be necessary to make new adjustment of the pressure. Every material has different adhesion and behaves differently when being stitched.



Adjusting presser foot height

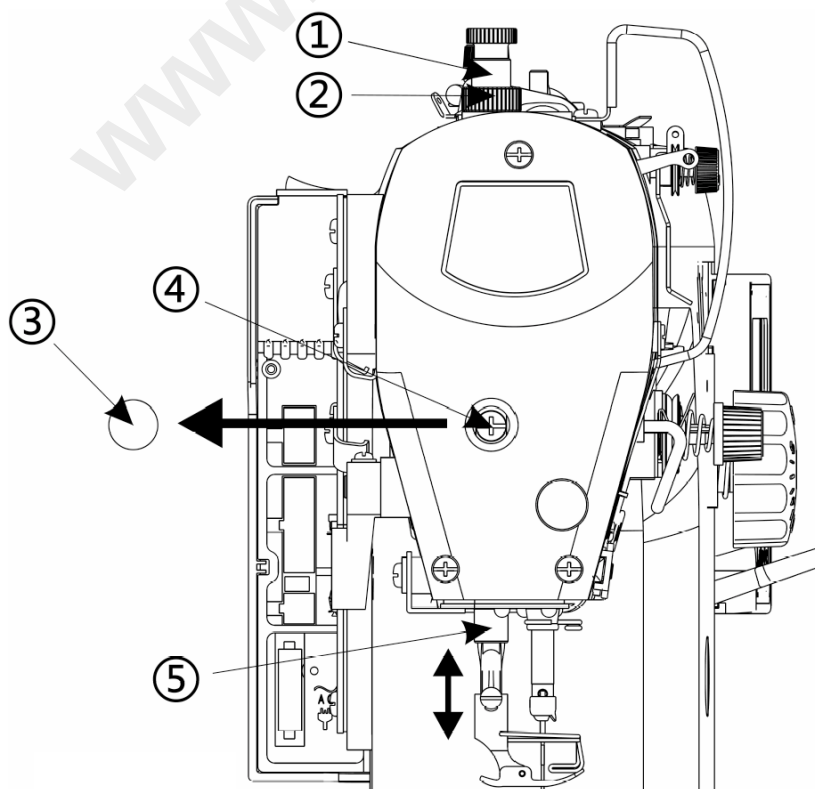
Caution:



Turn off the main switch before the operation.

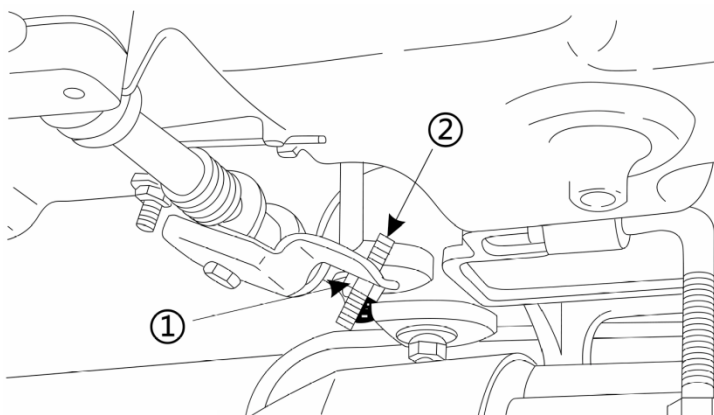
When other types of presser feet are used (e.g. compensating, zipper, teflon, etc.) or presser feet from different manufacturers, it might be necessary to adjust height of the presser foot and its position towards the needle. If the needle hole is not in the middle of the needle or if the presser foot is too low, it necessary to make the following adjustments:

1. Loosen the nut ② and screw ①.
2. Take out rubber cover ③ from the front cover.
3. Put the presser foot in its upper position by hand lever. Loosen the screw ④ and adjust height of the presser bar ⑤ up/down to achieve correct height and angle of the presser foot towards the needle. (Presser foot height is a distance between the lower edge of the presser foot and needle plate surface. Standard height is 5.5 mm.).
4. Tighten the screw ④ and put on the cover ③.
5. Adjust the pressure by screw ① and nut.
6. After adjustment make sure if the needle is in the middle of the presser foot needle hole.



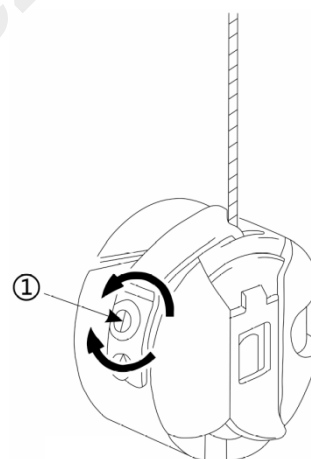
Adjusting presser foot stroke by knee lever

1. Standard height of presser foot for usage of knee lever is 10 mm.
2. Height can be adjusted to 11 mm by adjusting screw ①.
3. If the presser foot height is set for more than 10 mm, make sure if the lower parts of the needle bar ② is not in collision with presser foot ③ in its lower position.



Adjusting thread tension

Correct thread tension is important for correct stitch composition. Ideal adjustment is if the threads are linked in the middle of the two materials which are being stitched together. For better illustration imagine that you use two colours of thread – black one on the bobbin thread and white one on the needle thread. If you can see white knobs on the reverse side of the material, it can mean that either the tension of the upper (white) thread is too low or the tension of the lower (black) thread is too high. If the situation is opposite – you can see black knobs on the upper side of the material, it can mean that either the tension of the upper (white) thread is too high or the tension of the lower (black) thread is too low. Firstly, it is necessary to adjust correctly tension of the lower thread and then you can reach the correct thread tension by adjusting only upper thread tension.



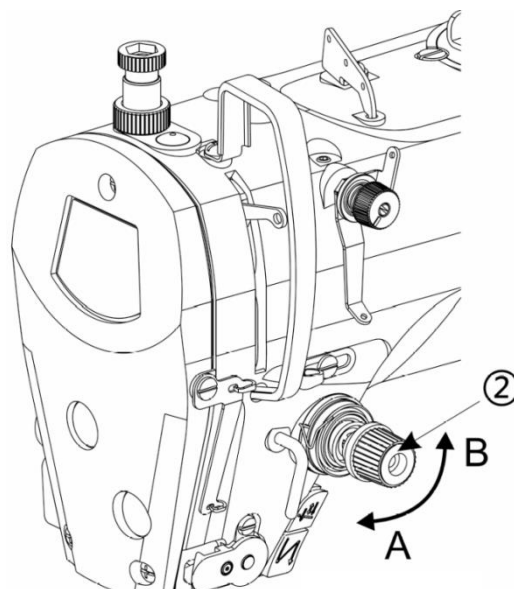
Adjusting lower thread tension

Insert full bobbin into the bobbin case. Hold the thread end and let the bobbin case fall freely. Tension is correct if the bobbin is falling slowly by its weight at slight resistance. If necessary, regulate the tension by screw ① - by tightening the screw the tension is increased, by loosening the screw the tension is decreased

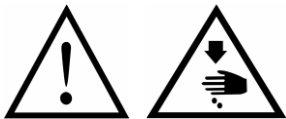
Adjusting upper thread tension

After adjustment of lower thread tension, check the upper thread tension and adjust it if necessary in order to reach even stitch composition.

1. Lower the presser foot by hand lever.
2. Adjust the tension by turning nut ② – by turning clockwise ① the tension is increased, by turning counter-clockwise ② the tension is decreased.

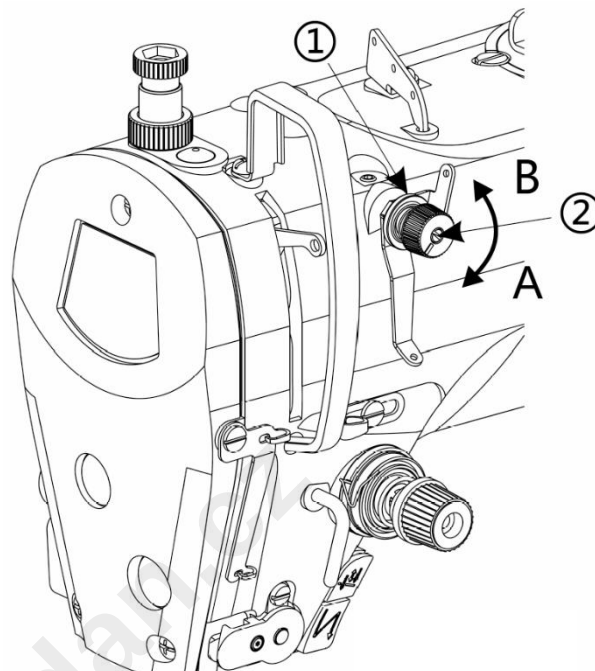


Adjusting length of upper thread after trimming



Caution: Turn off the main switch before the operation.

During thread trimming the thread tension is released and its regulation is performed only by thread tensioner ①. If tension is increased, upper thread ends after trimming will be shorter and vice-versa. Adjustment of thread length is made by nut ② - by turning clockwise Ⓐ, the length is shortened, by turning counter-clockwise Ⓑ the length is increased. Standard length of thread ends is 25-30 mm.

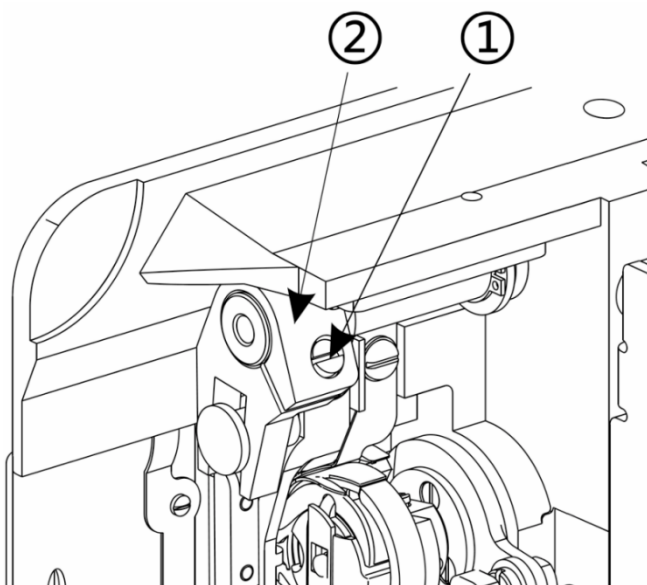


Adjusting height of feed dog

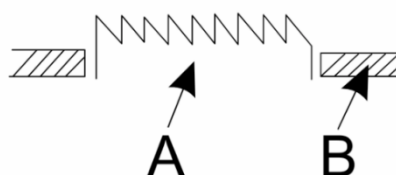
1. Put the feed dog in its highest position by turning the hand wheel.
2. Tilt the machine head.
3. Loosen the screw ① to release the feed lifting crank.
4. By pushing the feed lifting crank or feed dog, adjust the required height of the feed dog.

When the feed dog is in its highest position, standard height for middle weight materials is 0.8-1 mm. Standard height for heavy materials is 1.1-1.3 mm.

5. After adjustment tighten the screw ①.



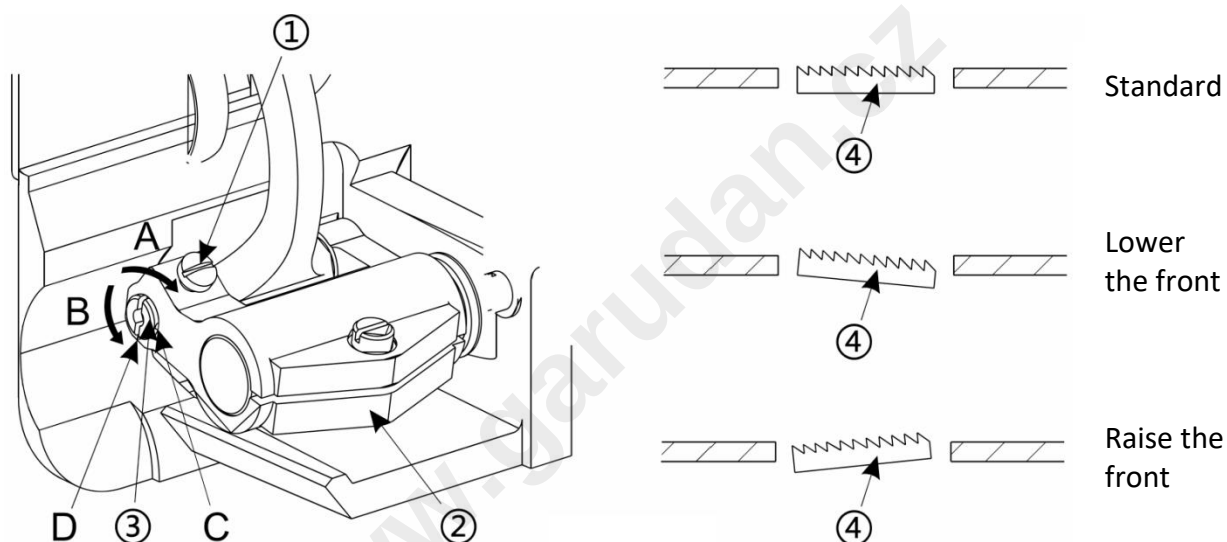
A: feed dog B: needle plate



Adjusting tilt of feed dog

When replacing of feed dog, it can happen that the new one will not be parallel with the needle plate. The machine allows you to make correct adjustment. Please follow instructions bellow:

1. Put the feed dog ④ in is highest position
2. Tilt the machine head
3. Loosen the screw ①
4. Turn the pin ③ by screwdriver and put the feed dog in its standard position
5. After adjustment tighten the screw ①.

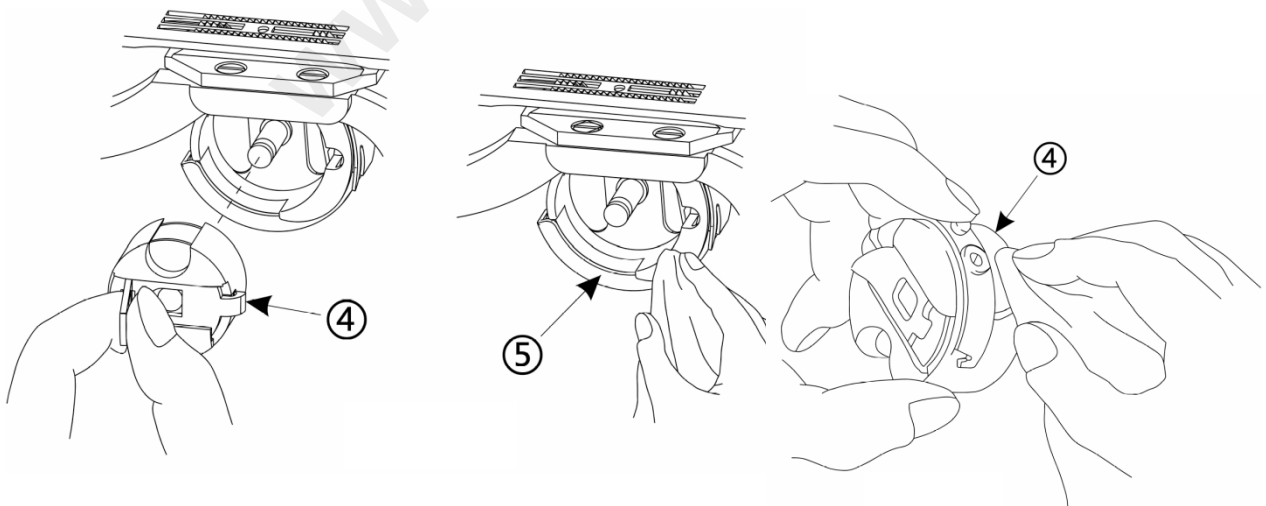
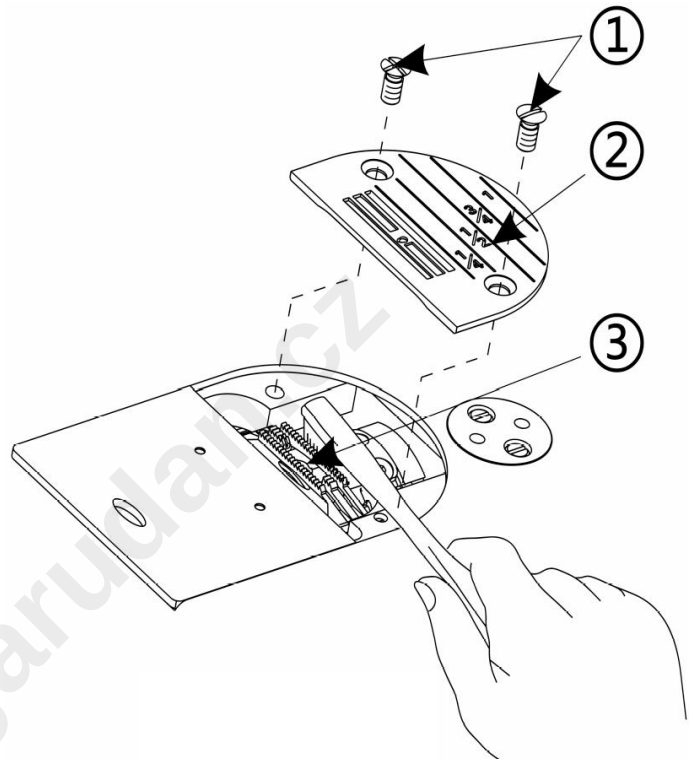


4. MAINTENANCE

In order to ensure correct operation and long operational life of the machine, it is necessary to keep daily maintenance.

Cleaning

1. Raise the presser foot.
2. Take out screws ① and needle plate ②.
3. Remove dust from feed dog ③ and from knives by fine cloth, brush and by compressed air.
4. Insert needle plate ② and tighten screws ①.
5. Tilt the machine head
6. Take out bobbin case with bobbin ④.
7. Remove dust and oil from the hook.
8. Take out bobbin from bobbin case ④ and clean the bobbin case.
9. Insert bobbin into bobbin case ④ and mount it on the machine.

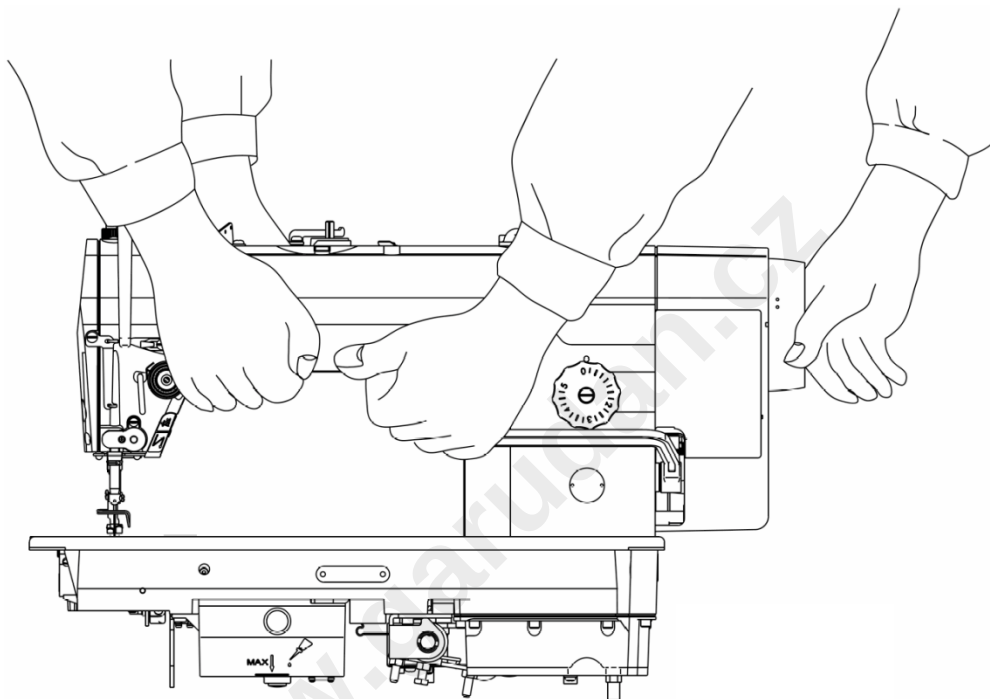


Lubrication and level of oil

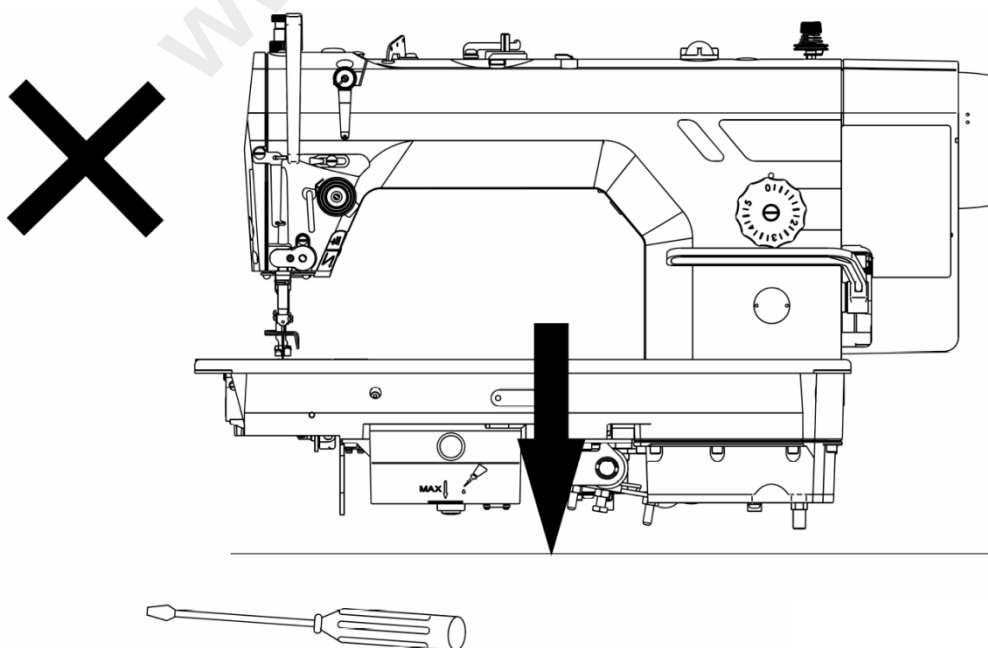
Make sure if the level of oil is within the indicated area. For more information see the chapter referring to lubrication.

Carrying machine head

Machine should be always carried by two persons and held as illustrated on the picture



Machine must be placed on plain surface. Do not place instruments or any other objects near the machine.



Display and Operation manual



GF-1115-147 LM

GF-1115-447 MH

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MP04700EN_200120

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SAFETY INSTRUCTION

- 1) Users are required to read the operation manual completely and carefully before installation or operation.
- 2) The product should be installed and pre-operated by well trained persons
- 3) All the instruction marked with sign , must be observed or executed; otherwise, bodily injuries might occur.
- 4) For perfect operation and safety, it is prohibited that using extension cable with multi-outlet for power connection
- 5) When connecting power supply cords to power sources, it is necessary to make sure that the power voltage is lower than 250V AC and matches the rated voltage indicated on the motor's name plate.

Attention:

If the Control Box is AC 220V system, please don't connect the Control Box to AC 380V power outlet. Otherwise, the error will occur and motor will not work. If that happens, please turn off the power immediately and check the power voltage. Continue supply 380V power over 5 minutes might damage the fuse F2, burst the electrolytic capacitors and the power module U14 of the main board and even might endanger the person safety.

- 6) Please don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 0°C.
- 7) Please avoid operating near the heater at dew area or at the humidity below 10% or above 95%.
- 8) Please don't operate in area with heavy dust, corrosive substance or volatile gas.
- 9) Avoid power cord being applied by heavy objects or excessive force, or over bend.
- 10) The earth wire of power cord must be connected to the system ground of the production plant by proper size of conductions and terminals. This connection should be fixed permanently.
- 11) All the moving portions must be prevented to be exposed by the parts provided.
- 12) Turing on the machine in the first time, operate the sewing machine at low speed and check the correct rotation direction.
- 13) Turn off the power before the following operation:
 1. Connecting or disconnecting any connectors on the control box or motor.
 2. Threading needle.
 3. Raising the machine arm.
 4. Repairing or doing any mechanical adjustment.
 5. Machine is out of work.
- 14) Repairing and high level maintenance work should only be done by electronic technicians with appropriate training.

15) All the spare parts for repairing work must be provided or approved by the manufacturer.

16) Don't use any objects to hit or ram the product.

Guarantee Time:

Warranty period of this product is 1 year dated from purchasing, or within 2 years from ex-factory date.

Warranty Detail:

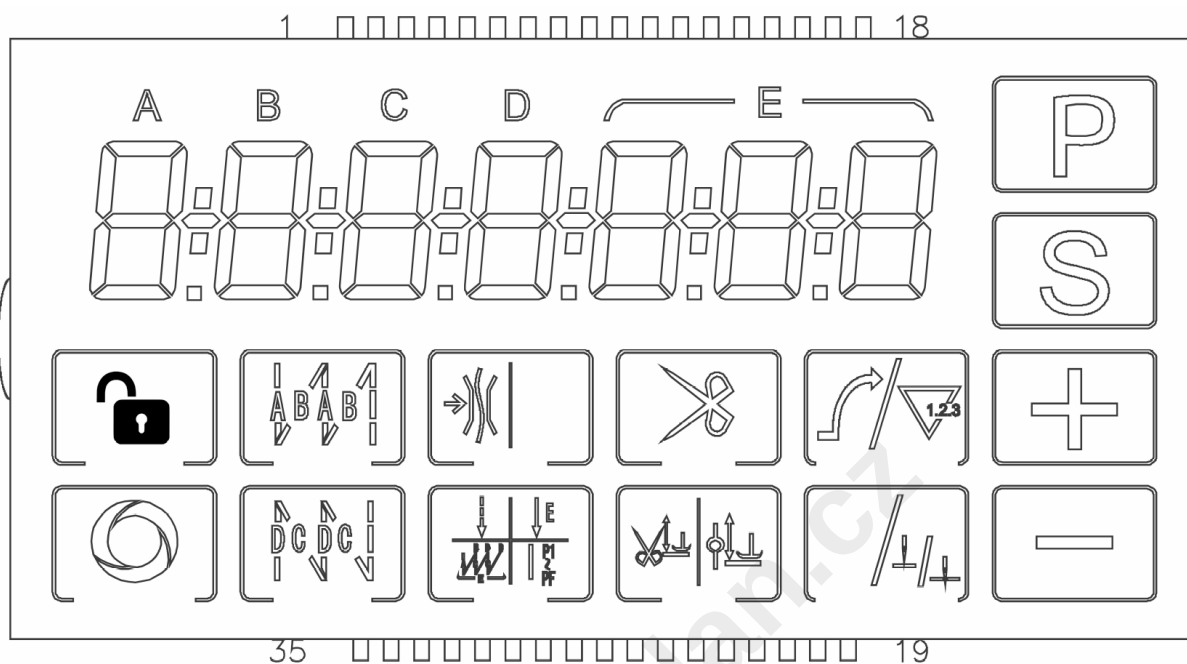
Any trouble found within warranty period under normal operation, it will be repaired free of charge. However, maintenance cost will be charged in the following cases even if within warranty period:

1. Inappropriate use, including: wrong connecting high voltage, wrong application, disassemble, repair, modification by incompetent personnel, or operation without the precaution, or operation out of its specification range, or inserting other objects or liquids into the product.

2. Damage by fire, Earth quake, lighting, wind, flood, salt corrosive, moisture, abnormal power voltage and any other damage cause by the natural disaster or by the inappropriate environments.

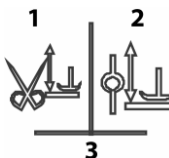
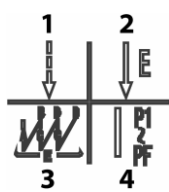
3. Dropping after purchasing or damage in transportation by customer himself or by customer's shipping agency.

1. BUTTON DISPLAY AND OPERATING INSTRUCTION



1.1 Key description:

Name	Button	Description
Touch panel lock		The touch panel locks after a period of inactivity.
Unlock the panel	LoCt	To unlock the panel - press the lock
Function parameter edit	P	Press this key to enter or exit function parameter edit mode.
Setting parameter check and save	S	For the content of the selected parameters check and save: after select parameter press this key to check and modify operation, after modified parameter value press this key to exit and save the parameter.
Increase value or parameter	+	Increase the parameter value. Increasing sewing speed.
Decrease value or parameter	-	Decrease parameter value. Sewing speed reduction.
Slow start of sewing		1. Set or cancel the slow start function. 2. If the button is lit, it is active.

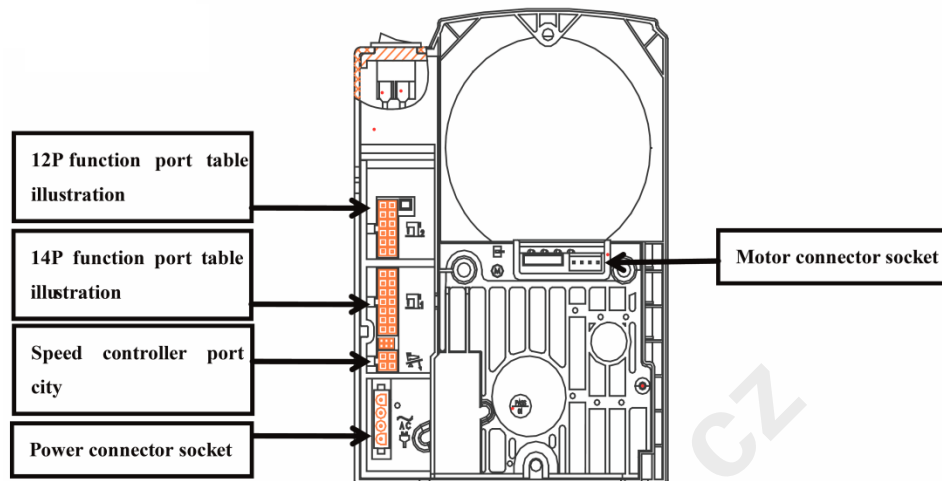
Needle stop position selection		Adjusting the sewing needle position when stopped (up / down position)
Thread trimming		Set or cancel the cut function. If the button is lit, the cutter is active.
Automatic presser foot		1. Automatic presser foot lifting after trimming function when  icon is lighting. 2. Automatic presser foot lifting after pause function when  icon is lighting. 3. Automatic presser foot lifting after pause function or trimming function when icons are lighting 4. Presser foot is inactive when icons are not lighting.
Clamp function setting		Set used or cancelled clamp function.
Mode shift key		If click, shift to free sewing, constant stitch sewing, continuous back seam shortcuts and multi-section set needle shortcuts.
Button Start/Stop		Execution starting back seam B segment or execution starting back seam (A, B segment) 1 Execution starting back seam (A, B segment) 2 times. If long press, can increase screen backlighting brightness.
Back-tacking sewing		Execution terminates back seam C segment or execution terminates back seam (C, D segment) 1 Execution terminates back seam (C, D segment) 2 time. If long press, can decrease screen backlighting brightness.
Auto function		1. Under the free sewing mode: press this key no function. 2. Under the Constant-Stitch Sewing mode press this key: As the treadle is toed down, it will automatic performs E,F or G,H section by section, after finished section stitches, it will stop automatically. When the treadle is toed down again, it will automatically execute next section stitches of setting till finished trimming, wiper and so on action. The LED OFF indicate the corresponding function is turn off. 3. If long press, can restore factory setting.

2. ERROR CODE LIST

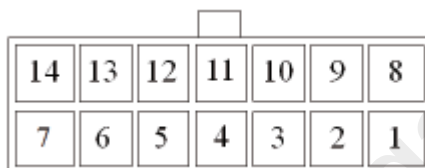
E01	Over-voltage	Turn off the machine, check the power supply voltage.(Or whether exceed the rated voltage of use). If there are still errors, please replace the control box and call for customer service.
E02	Low-voltage	Turn off the machine, check the power supply voltage.(Or whether under the rated voltage of use). If there are still errors, please replace the control box and call for customer service.
E03	CPU communication error	Turn off the machine, please check if the operation panel in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E05	Pedal connection error	Turn off the machine, please check if the pedal in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E07	Motor locked-rotor error	Turn the machine hand wheel, check if it is stuck. If it is stuck, you have to rule out the mechanical failure. If turn normal, check if the encoder and motor in bad connection or is too loose. If yes, please correct. If connection well, check if the power supply voltage is abnormal or sewing speed is too high. If yes, please adjust. If there are still errors, please replace the control box and call for customer service.
E08	Manual reverse feeding operation more than 15 seconds	Back-Tacking electromagnet response time is too long, you have only to restart the machine. If there are still errors E-08 after restart the machine, check if the manual reverse feeding switch is damaged.
E09 E011	Positioning signal error	Turn off the machine, please check if the encoder in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E10	Solenoid over-current	Turn off the machine, please check the related circuit is shorted or damaged.
E14	Encoder error	Turn off the machine, please check if the encoder in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
E15	Power supply module abnormal over-current	Turn off the machine, then turn on again. If there are still errors, please replace the control box and call for customer service.
E17	Machine protection switch is not in the correct position	Turn off the machine, check if the machine is turn over, or the Mercury Switch is shifted or damaged.
E20	Motor failed to start(Electrical angle error)	Turn off the machine, please check if the encoder and motor in bad connection or is too loose. To get it right and turn on. If there are still errors, please replace the control box and call for customer service.
Oil	Low oil	Turn off the machine, check if the oil is too little. To fill it up and turn on. If there are still errors, please replace the control box and call for customer service.

3. PORT DIAGRAM

3.1 Port description



3.2 Function port description (14P)



1. Thread trimming electromagnet: 1, 8 (+32V)
2. Thread wiping/ thread clamping electromagnet: 2, 9 (+32V)
3. Thread slacking electromagnet: 3, 10 (+32V)
4. LED Light: 4 (DGND), 11 (+5V)
5. Reverse stitch key: 5 (signal)
6. Back-tacking electromagnet: 6, 13 (+32V)
7. Mending stitch key: 7 (signal)
8. Fan: 12 (DGND), 14 (+32V)

3.3 Function port description (12P)



1. Suction (not used for GF-1115): 1, 7 (+32V)
2. Hook thread (not used for GF-1115): 2, 8(+32V)
3. Oil level sensor: 9 (+5V), 10 (DGND), 4 (signal)
4. Presser foot position sensor: 3 (+5V), 11 (DGND), 5 (signal)
5. Presser foot electromagnet: 6, 12 (+32V)

Katalog náhradních dílů Spare Parts Book



GF-1115-147 LM
GF-1115-447 MH

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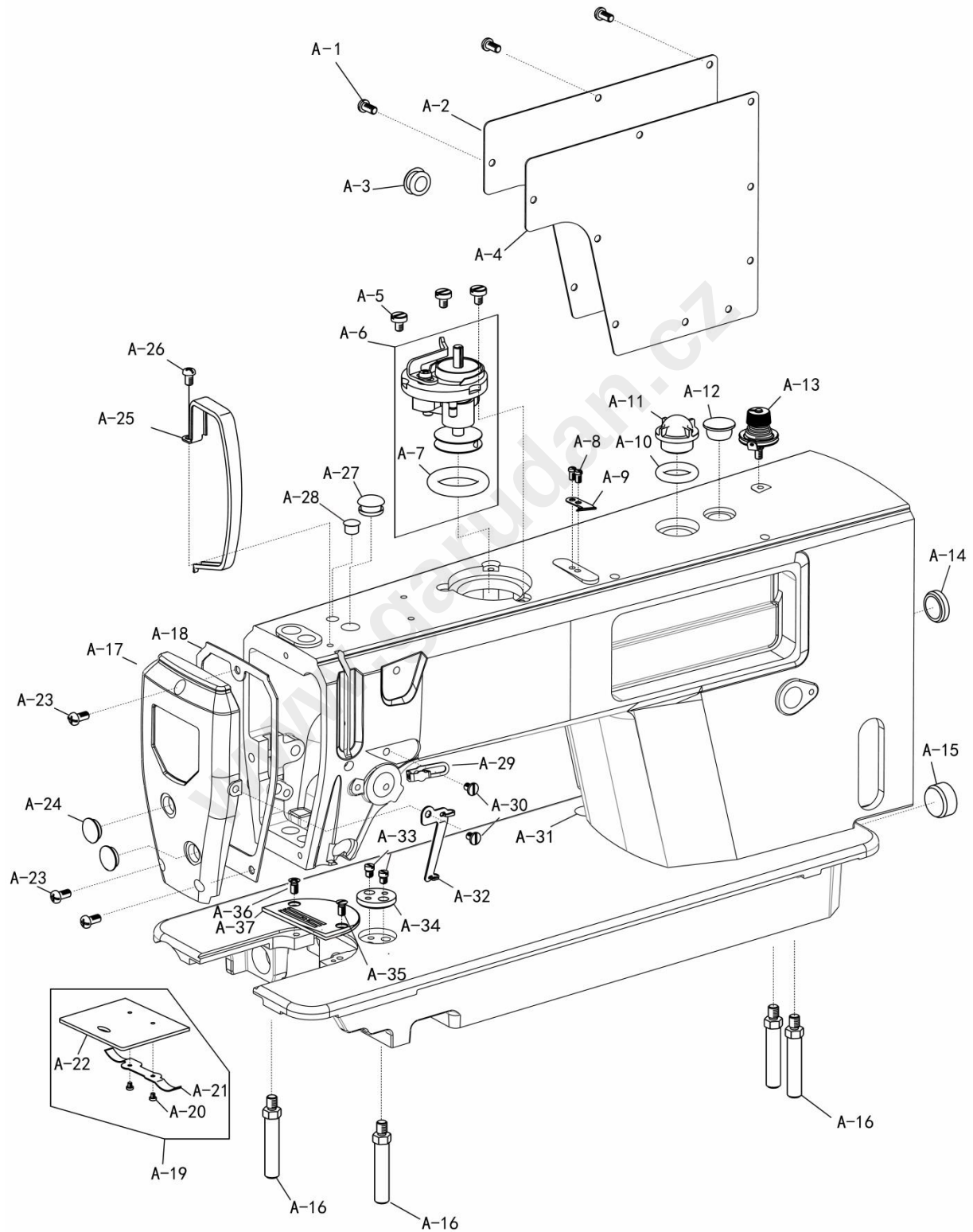
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Content

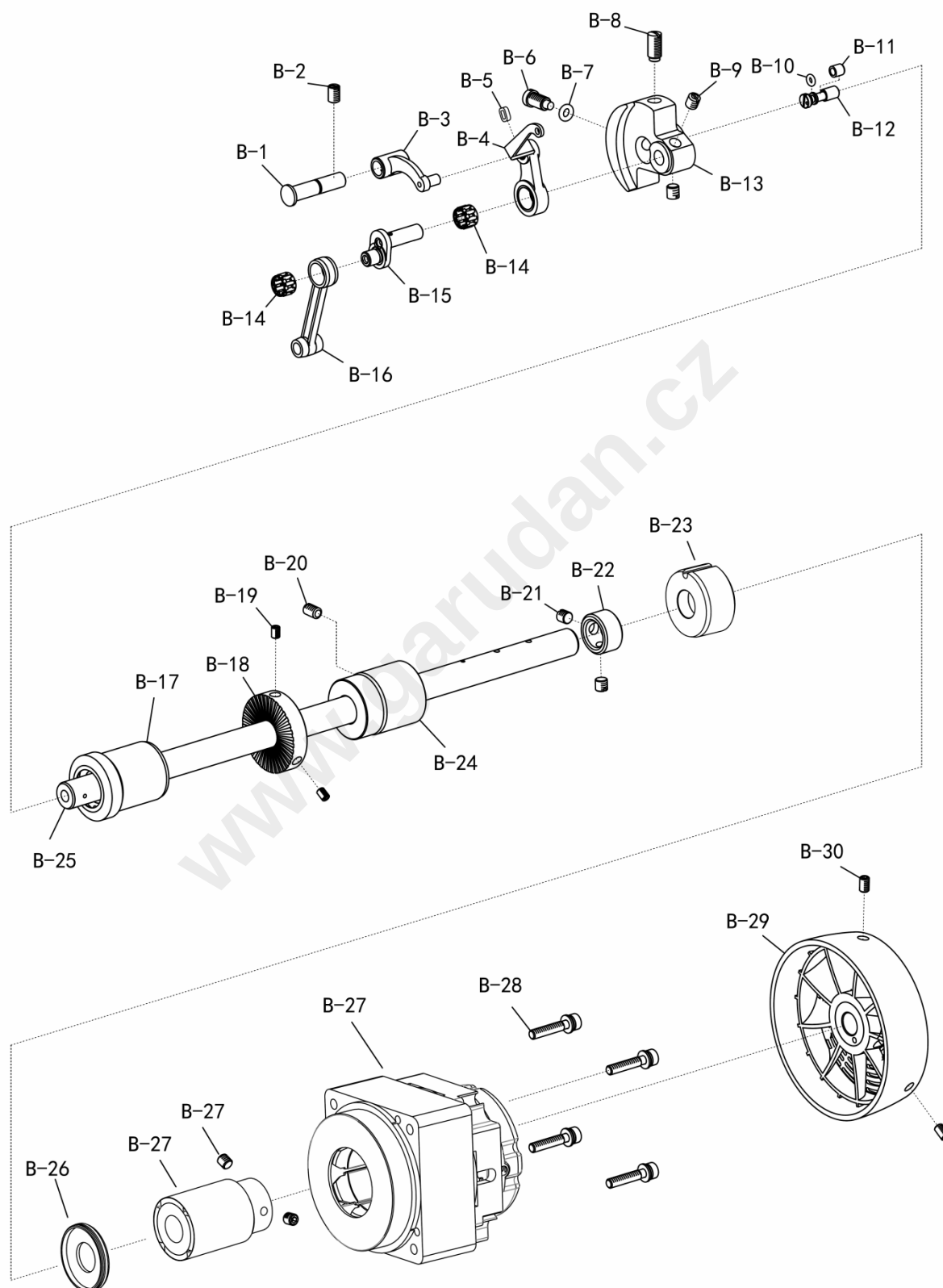
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A. MACHINE FRAME & MISCELLANEOUS COVER COMPONENTS



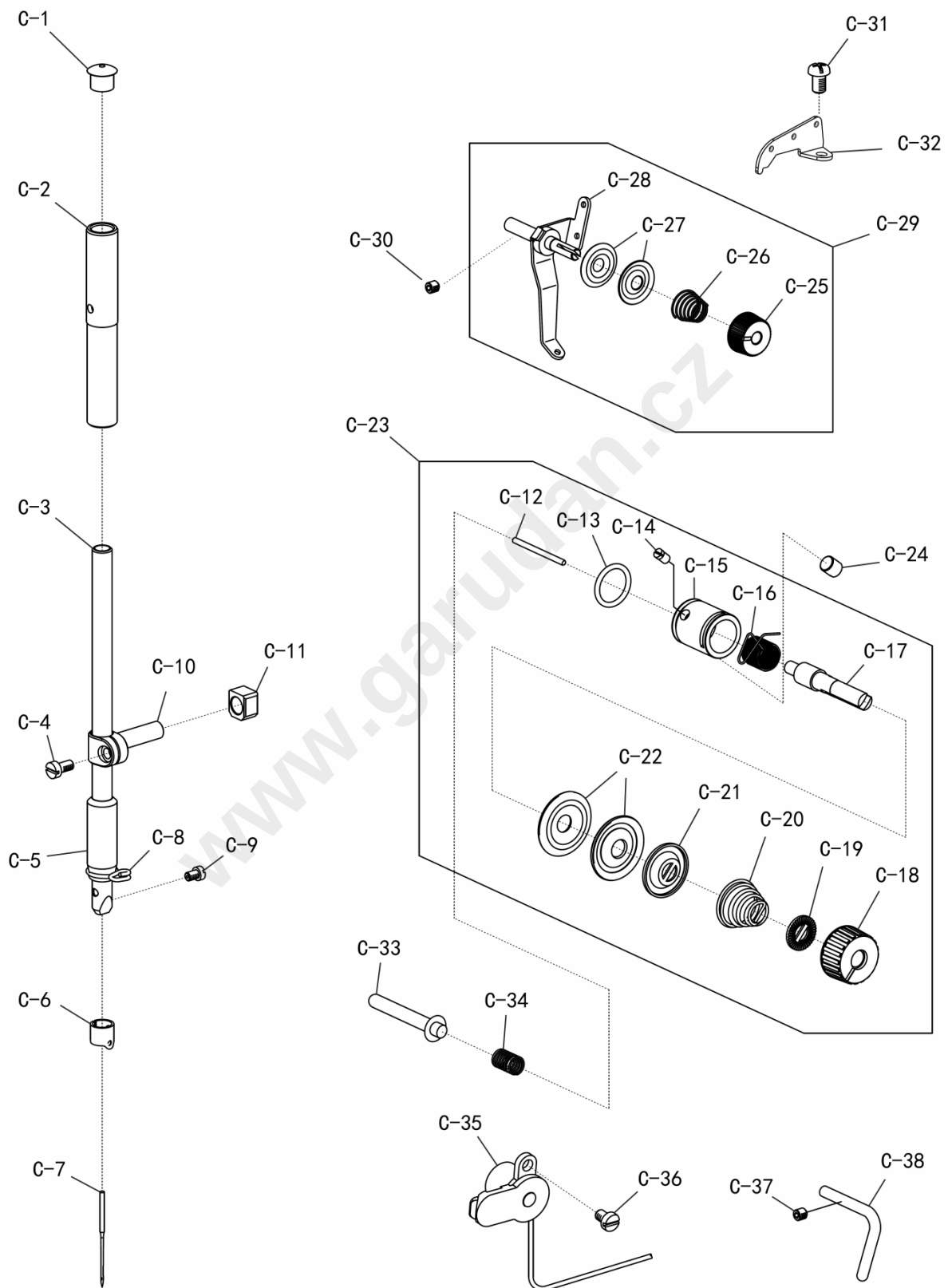
A. MACHINE FRAME & MISCELLANEOUS COVER COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
A-1	10008972	Screw		9	
A-2	20021544	Side plate		1	
A-3	10008977	Rubber plug		1	
A-4	10058208	Side plate gasket		1	
A-5	10004380	Screw		3	
A-6	10031086	Bobbin winder asm.		1	
A-7	10008773	Rubber ring		1	
A-8	10050423	Screw		2	
A-9	10011149	Thread cutter		1	
A-10	10008939	O-ring		1	
A-11	10008938	Oil window		1	
A-12	10009576	Rubber plug		1	
A-13	10059716	Bobbin thread tension asm.		1	
A-14	10008975	Rubber plug		1	
A-15	10008941	Rubber plug		1	
A-16	10002577	Bed screw stud		4	
A-17	20022331	Face plate		1	
A-18	10058098	Face plate gasket		1	
A-19	10013706	Side plate asm.		1	
A-20	10010080	Screw		2	
A-21	10003963	Spring of side		1	
A-22	10003960	Side plate		1	
A-23	10008972	Screw		3	
A-24	10008977	Rubber plug		2	
A-25	10059711	Thread take-up lever cover		1	
A-26	10008934	Screw		1	
A-27	10008942	Rubber plug		1	
A-28	10008943	Rubber plug		1	
A-29	10008940	Arm thread guide right		1	
A-30	10008973	Screw		2	
A-31	10039611	Rubber plug		1	
A-32	10040996	Arm thread guide left		1	
A-33	10004374	Screw		2	
A-34	10004373	Ruler plate		1	
A-35	10009005	Screw		1	
A-36	10012463	Screw		1	
A-37	See page 36-39	Needle plate		1	

B. MAIN SHAFT & THREAD TAKE-UP COMPONENTS



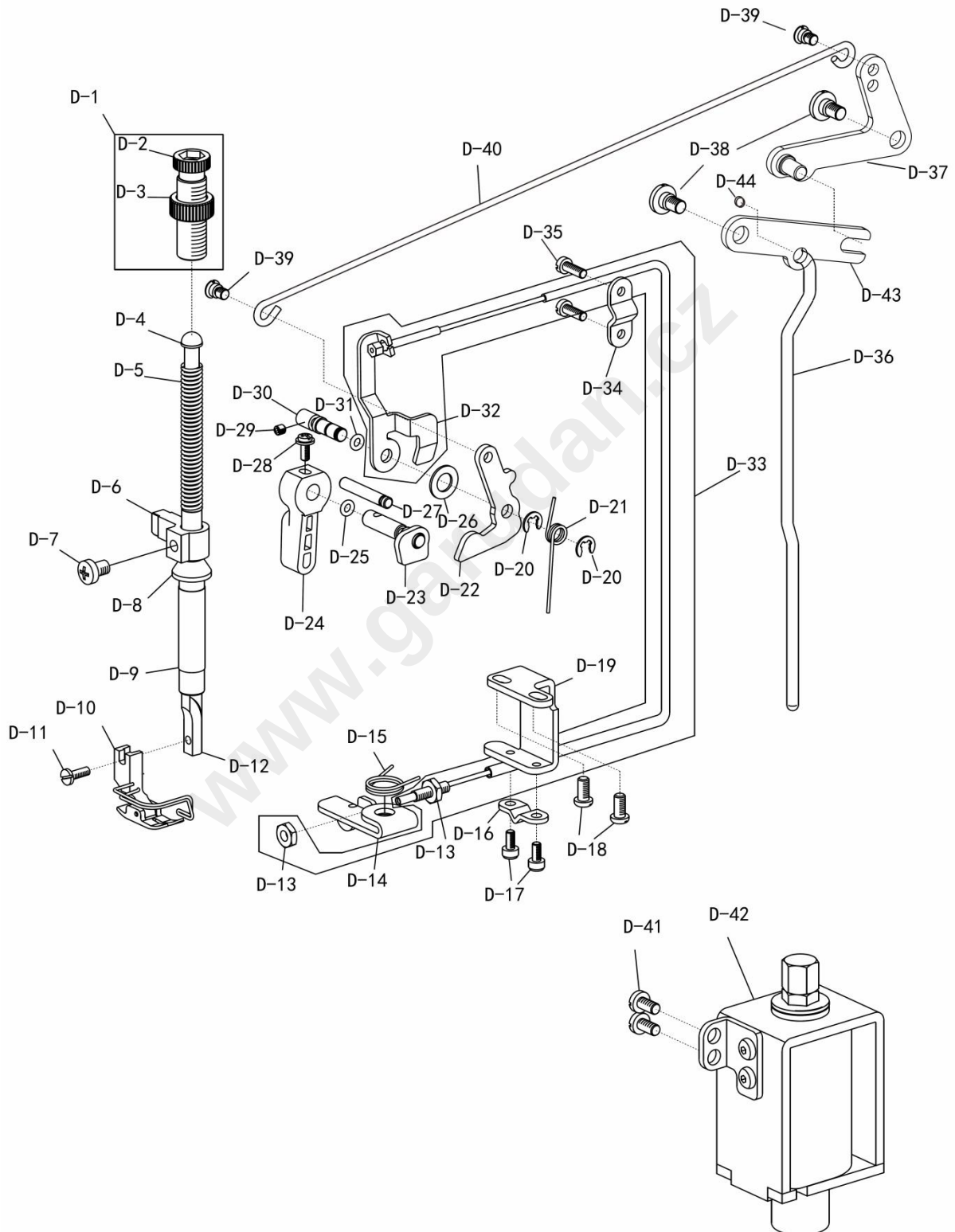
B. MAIN SHAFT & THREAD TAKE-UP COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
B-1	10050672	Thread take-up crank shaft		1	
B-2	10010083	Screw		1	
B-3	10010535	Thread take-up bar	for GF-1115-147 LM	1	
	10005936	Thread take-up bar	for GF-1115-447 MH	1	
B-4	10038474	Thread take-up lever asm.	for GF-1115-147 LM	1	
	10005939	Thread take-up lever asm.	for GF-1115-447 MH	1	
B-5	10010539	Oil resistant cover		1	
B-6	10010545	Screw		1	
B-7	10010534	O-ring		1	
B-8	10010082	Screw		1	
B-9	10010065	Screw		2	
B-10	10010538	O-ring		1	
B-11	10010540	Sleeve of adjusting pin		1	
B-12	10010504	Adjusting pin		1	
B-13	10012203	Counter weight	for GF-1115-147 LM	1	
	10005938	Counter weight	for GF-1115-447 MH	1	
B-14	10010504	Bearing		2	
B-15	10004144	Needle bar crank	for GF-1115-147 LM	1	
	10005937	Needle bar crank	for GF-1115-447 MH	1	
B-16	10010592	Needle bar crank rod		1	
B-17	10055615	Bearing support		1	
B-18	10004472	Wheel		1	
B-19	10012062	Screw		2	
B-20	10010506	Screw		1	
B-21	10005020	Screw		2	
B-22	10010542	Thrust collar		1	
B-23	10056893	Bearing support		1	
B-24	10007239	Bearing support		1	
B-25	10053222	Main shaft		1	
B-26	10058049	Oil seal		1	
B-27	10058054	Motor		1	
B-28	10059025	Screw		4	
B-29	20022332	Hand wheel		1	
B-30	10011232	Screw		2	

C. NEEDLE BAR & THREAD TENSION COMPONENTS



C. NEEDLE BAR & THREAD TENSION COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
C-1	10010587	Rubber plug		1	
C-2	10011063	Bearing support		1	
C-3	10041608	Needle bar	for GF-1115-147 LM	1	
	10041609	Needle bar	for GF-1115-447 MH	1	
C-4	10011063	Screw		1	
C-5	10014117	Bearing support	for GF-1115-147 LM	1	
	10005916	Bearing support	for GF-1115-447 MH	1	
C-6	10005943	Needle bar thread guide		1	
C-7		Needle 134		1	
C-8	10010591	Needle bar thread guide	for GF-1115-147 LM	1	
	10005945	Needle bar thread guide	for GF-1115-447 MH	1	
C-9	10010588	Screw		1	
C-10	10010590	Needle bar holder		1	
C-11	10010586	Slide block		1	
C-12	10004184	Thread release pin		1	
C-13	10004183	O-ring		1	
C-14	10004200	Screw		1	
C-15	10039524	Tension post socket		1	
C-16	10004201	Spring		1	
C-17	10004177	Screw		1	
C-18	10012981	Nut		1	
C-19	10004199	Tension disc stopper		1	
C-20	10004176	Spring		1	
C-20	10005941	Spring		1	
C-21	10004179	Thread release disc		1	
C-22	10004180	Tension disc holder		2	
C-23	10059714	Thread take-up device	for GF-1115-147 LM	1	
	10041543	Thread take-up device	for GF-1115-447 MH	1	
C-24	10006264	Screw		1	
C-25	10004181	Nut		1	
C-26	10005838	Spring		1	
C-27	10005839	Tension disc holder		2	
C-28	10005841	Screw		1	
C-29	10059712	Thread take-up device		1	
C-30	10009074	Screw		1	
C-31	10008934	Screw		1	
C-32	10033232	Thread tension guide		1	
C-33	10058041	Tension release supporting pin		1	
C-34	10050348	Spring		1	
C-35	10039460	Electromagnet		1	
C-36	10005204	Screw		1	
C-37	10009074	Screw		1	
C-38	10039823	Presser bar thread guide		1	

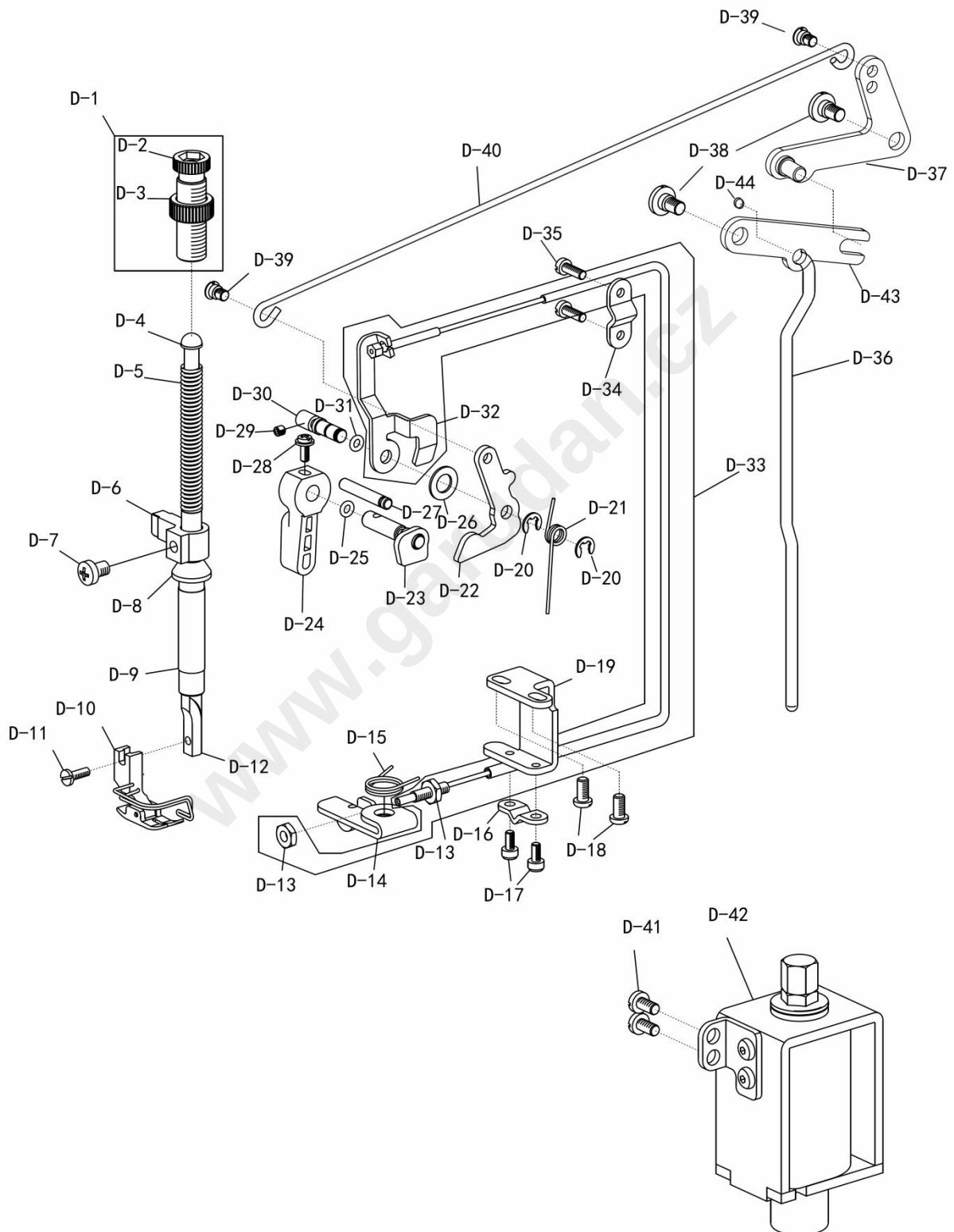
D. PRESSER BAR & TENSION RELEASE COMPONENTS (1/2)



D. PRESSER BAR & TENSION RELEASE COMPONENTS (1/2)

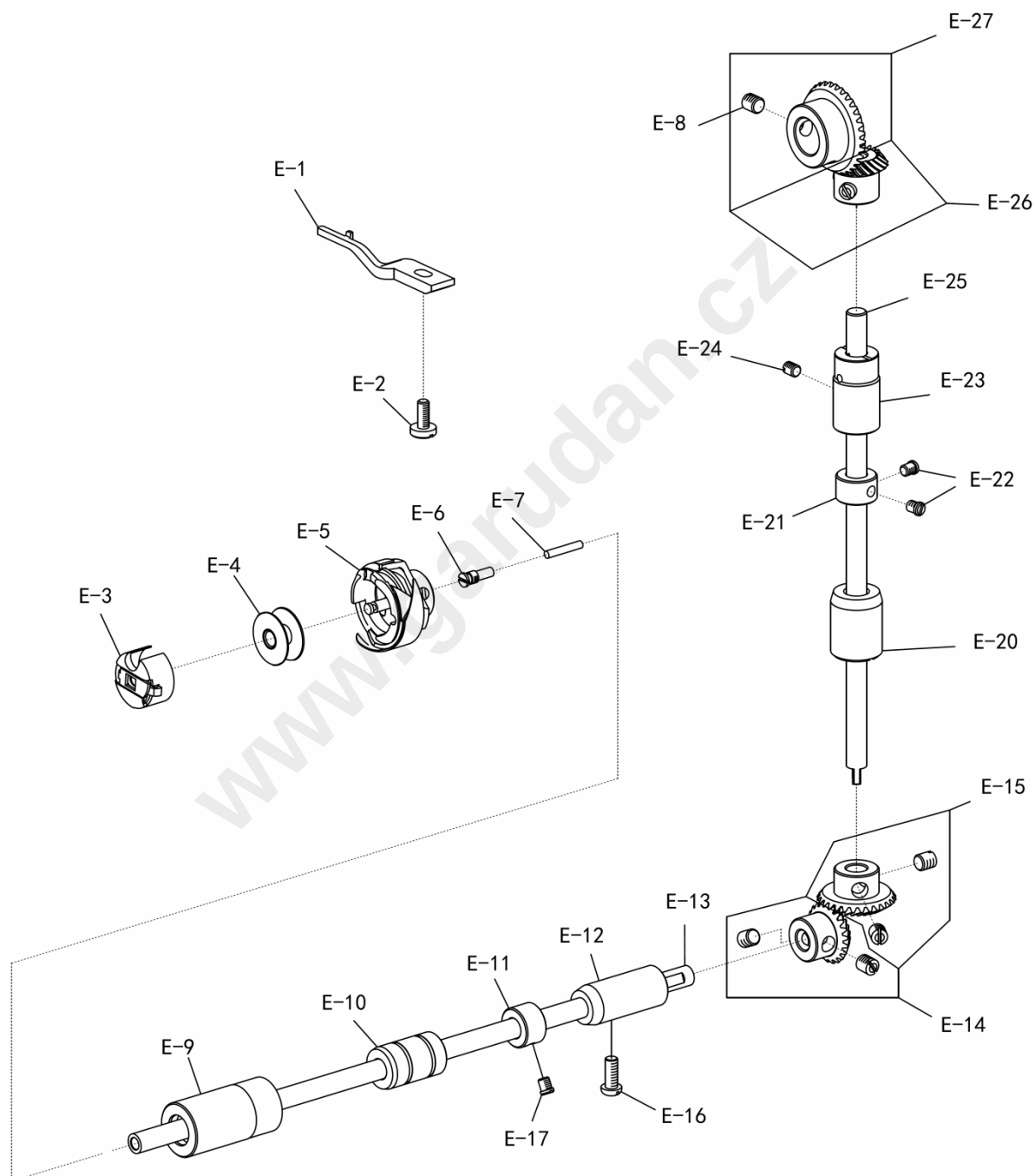
Ref. No	Parts No.	Name of parts		Qty	Note.
D-1	10059719	Screw asm.		1	
D-2	10011022	Screw		1	
D-3	10011023	Nut		1	
D-4	10004439	Presser guide bar		1	
D-5	10004473	Spring		1	
D-6	10039365	Presser guide bar bracket		1	
D-7	10000325	Screw		1	
D-8	10011457	Oil protector cover		1	
D-9	10014118	Bearing support	for GF-1115-147 LM	1	
	10005915	Bearing support	for GF-1115-447 MH	1	
D-10	See page 36-39	Presser foot asm.		1	
D-11	10010650	Screw		1	
D-12	10010646	Presser bar		1	
D-13	10005697	Nut		2	
D-14	10008860	Loosing plate		1	
D-15	10008834	Spring		1	
D-16	10013615	Fixing shutter		1	
D-17	10006624	Screw		2	
D-18	10008972	Screw		2	
D-19	10008811	Loosing line plate		1	
D-20	10013038	Snap ring		2	
D-21	10039381	Spring		1	
D-22	10039371	Lifting lever		1	
D-23	10050190	Hand lifter cam asm.		1	
D-24	10059718	Hand lifter		1	
D-25	10010027	O-ring		1	
D-26	10050590	Snap ring		1	
D-27	10039374	Shaft		1	
D-28	10010016	Screw		1	
D-29	10009074	Screw		1	
D-30	10039373	Screw		1	
D-31	10010027	O-ring		1	
D-32	10039372	Tension release plate		1	
D-33	10039380	Foot lifter pull thread components		1	
D-34	10039378	Plate		1	
D-35	10009037	Screw		2	
D-36	10057559	Connecting rod vertical		1	
D-37	10057556	Lifting lever link		1	
D-38	10010652	Screw		2	

D. PRESSER BAR & TENSION RELEASE COMPONENTS (2/2)



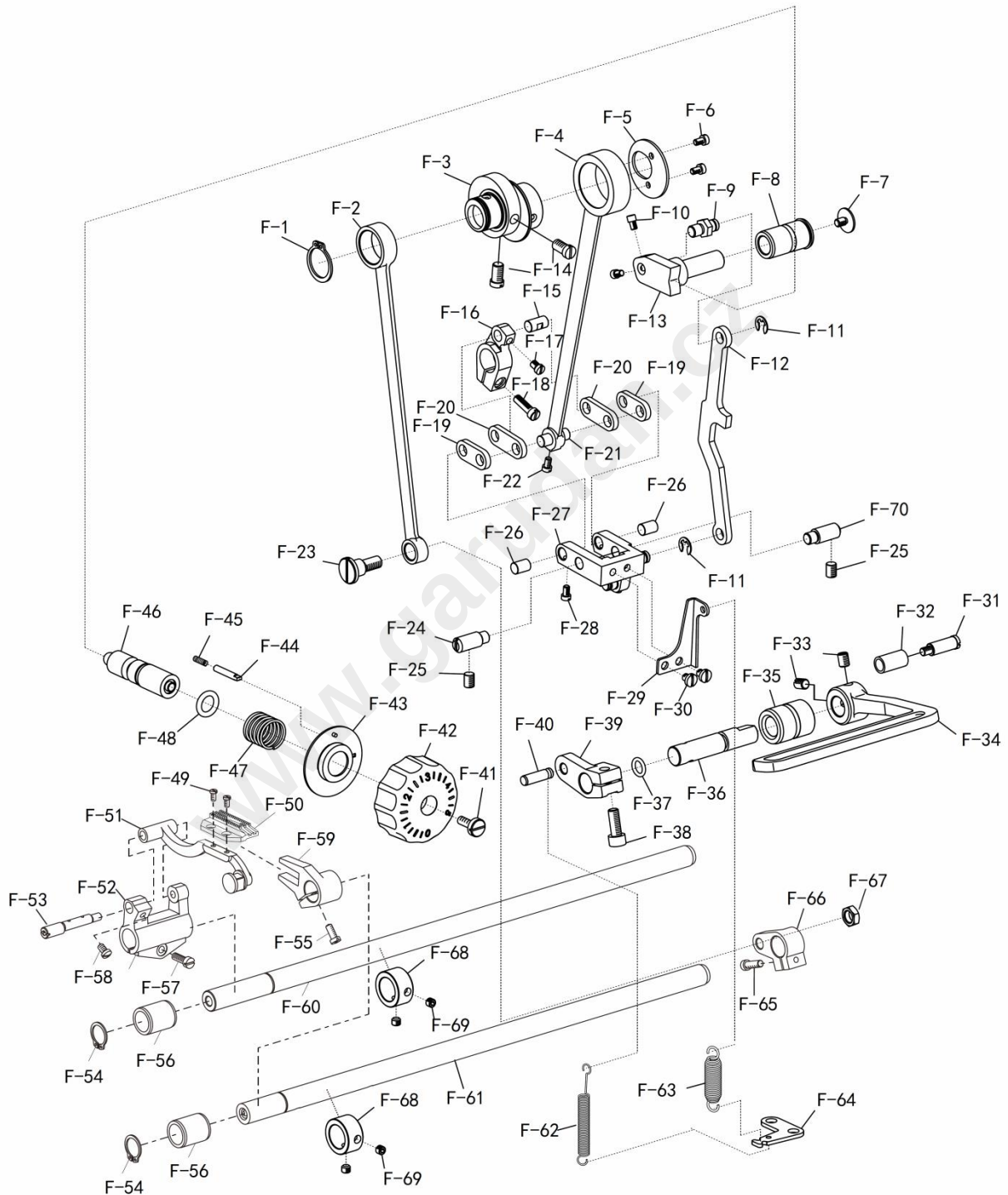
D. PRESSER BAR & TENSION RELEASE COMPONENTS (2/2)					
Ref. No	Parts No.	Name of parts		Qty	Note.
D-39	10010651	Screw		2	
D-40	10041762	Lifting connecting rod		1	
D-41	10000134	Screw		3	
D-42	10050041	Electromagnet		1	
D-43	10057557	Presser foot lifter connector plate		1	
D-44	10009205	Spring		1	

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E. HOOK OF DRIVING SHAFT COMPONENTS

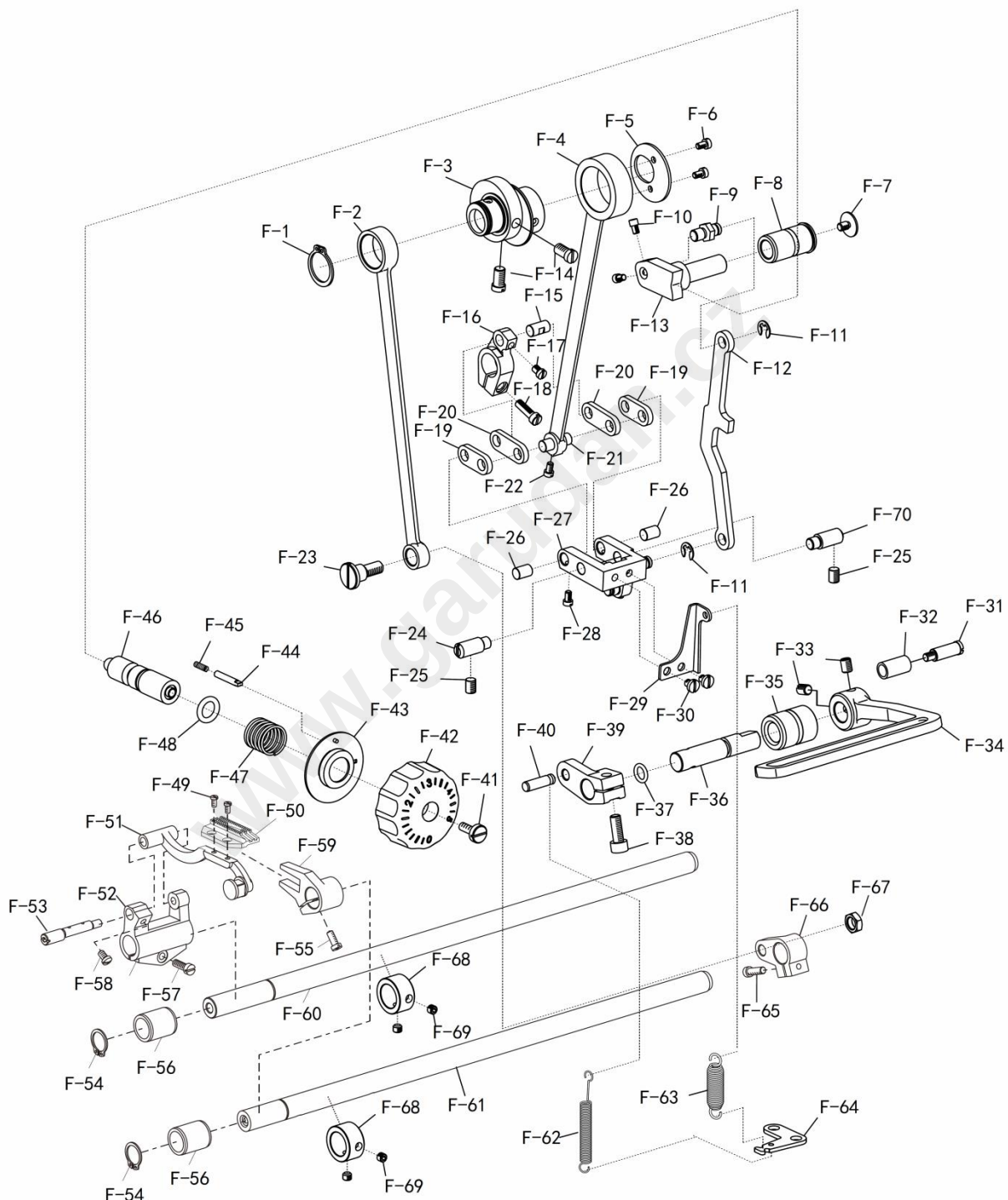
E. HOOK OF DRIVING SHAFT COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
E-1	10031259*	Positioning finger		1	
E-2	10011101	Screw		1	
E-3	10006924	Bobbin case	for GF-1115-147 LM	1	
	10031867	Bobbin case	for GF-1115-447 MH	1	
E-4	10025484	Bobbin	for GF-1115-147 LM	1	
	10007138	Bobbin	for GF-1115-447 MH	1	
E-5	10038530	Hook	for GF-1115-147 LM	1	
	10039876	Hook	for GF-1115-447 MH	1	
E-6	10010064	Screw		1	
E-7	10010063	Oil wick		1	
E-8	10010065	Screw		8	
E-9	10058044	Bearing support		1	
E-10	10008857	Bearing support		1	
E-11	10010058	Snap ring		1	
E-12	10007266	Bearing support		1	
E-13	10008821	Hook driving shaft		1	
E-14	10002560	Gear		1	
E-15	10002509	Gear		1	
E-16	10010030	Screw		1	
E-17	10010059	Screw		2	
E-20	10007235	Bearing support		1	
E-21	10010058	Snap ring		1	
E-22	10010059	Screw		2	
E-23	10007267	Bearing support		1	
E-24	10039610	Screw		1	
E-25	10010057	Upright shaft		1	
E-26	10002561	Gear		1	
E-27	10002445	Gear		1	

F. FEED MECHANISM COMPONENTS (1/2)



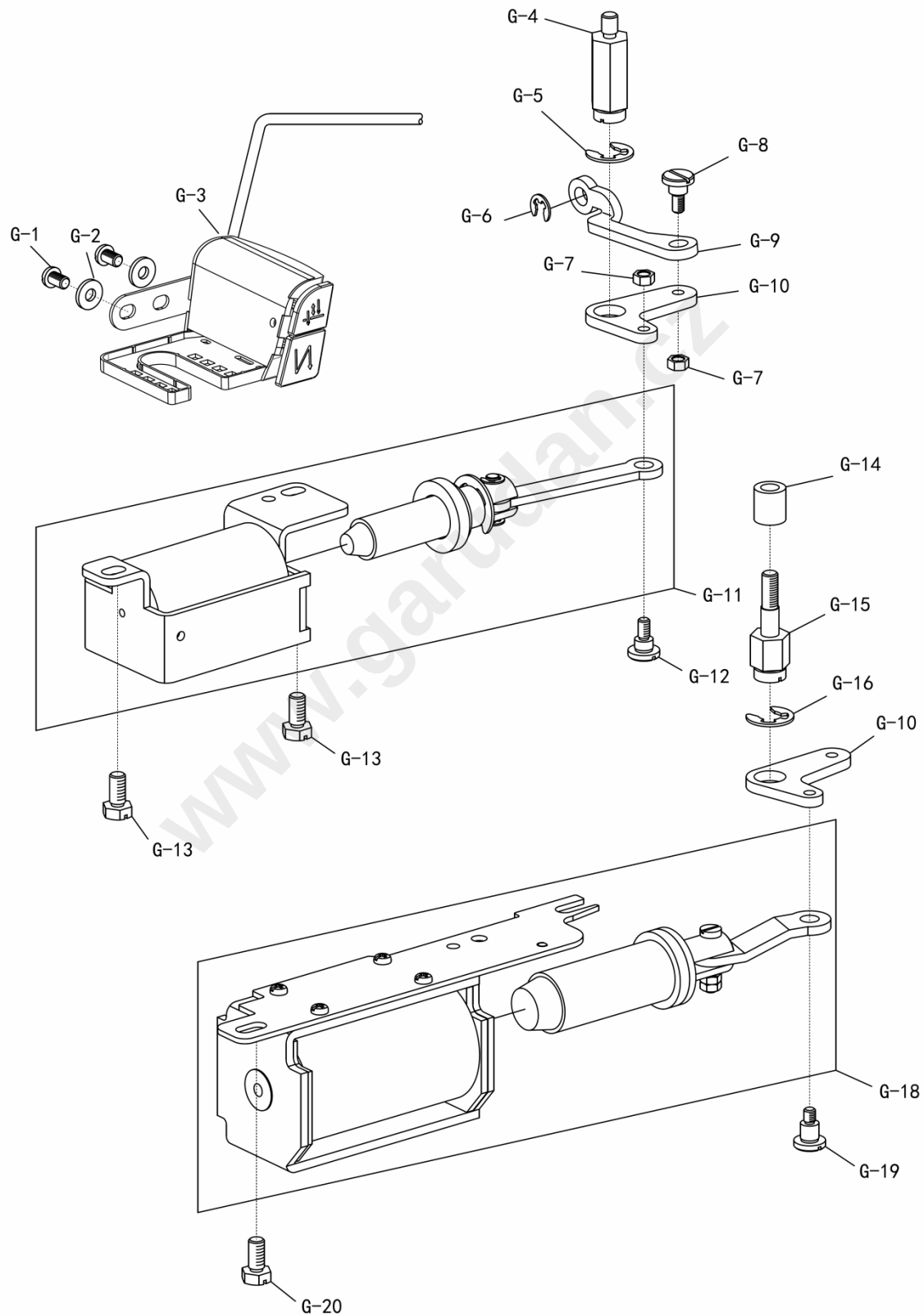
F. FEED MECHANISM COMPONENTS (1/2)					
Ref. No	Parts No.	Name of parts		Qty	Note.
F-1	10010089	Snap ring		1	
F-2	10010084	Connecting rod		1	
F-3	10010115	Feed drive eccentric cam	for GF-1115-147 LM	1	
	10005991	Feed drive eccentric cam	for GF-1115-447 MH	1	
F-4	10010072	Connecting rod	for GF-1115-147 LM	1	
	10006004	Connecting rod	for GF-1115-447 MH	1	
F-5	10010098	Thrust cover	for GF-1115-147 LM	1	
	10005992	Thrust cover	for GF-1115-447 MH	1	
F-6	10010643	Screw		2	
F-7	10010238	Screw		1	
F-8	10008956	Bearing support		1	
F-9	10026886	Pin		1	
F-10	10051742	Screw		2	
F-11	10010649	Snap ring		2	
F-12	10008852	Feed adjust rod	for GF-1115-147 LM	1	
	10037069	Feed adjust rod	for GF-1115-447 MH	1	
F-13	10008848	Feed regulator	for GF-1115-147 LM	1	
	10027597	Feed regulator	for GF-1115-447 MH	1	
F-14	10010092	Screw		2	
F-15	10010096	Pin		1	
F-16	10010076	Feed rocker		1	
F-17	10010071	Screw		1	
F-18	10010095	Screw		1	
F-19	10010075	Short link		2	
F-20	10010068	Long link		2	
F-21	10010069	Pin		1	
F-22	10010071	Screw		1	
F-23	10010091	Screw		1	
F-24	10010102	Pin		1	
F-25	10010678	Screw		2	
F-26	10010087	Pin		2	
F-27	10012775	Feed adjusting asm.	for GF-1115-147 LM	1	
	10035665	Feed adjusting asm.	for GF-1115-447 MH	1	
F-28	10010071	Screw		2	
F-29	10010282	Plate		1	
F-30	10010285	Screw		2	
F-31	10050707	Screw		1	
F-32	10050706	Snap ring		1	
F-33	10040404	Screw		2	
F-34	20003459	Reverse feed control lever		1	
F-35	10014119	Bearing support		1	
F-36	10008827	Reverse feed shaft		1	
F-37	10010243	O-ring		1	
F-38	10009008	Screw		1	

F. FEED MECHANISM COMPONENTS (2/2)



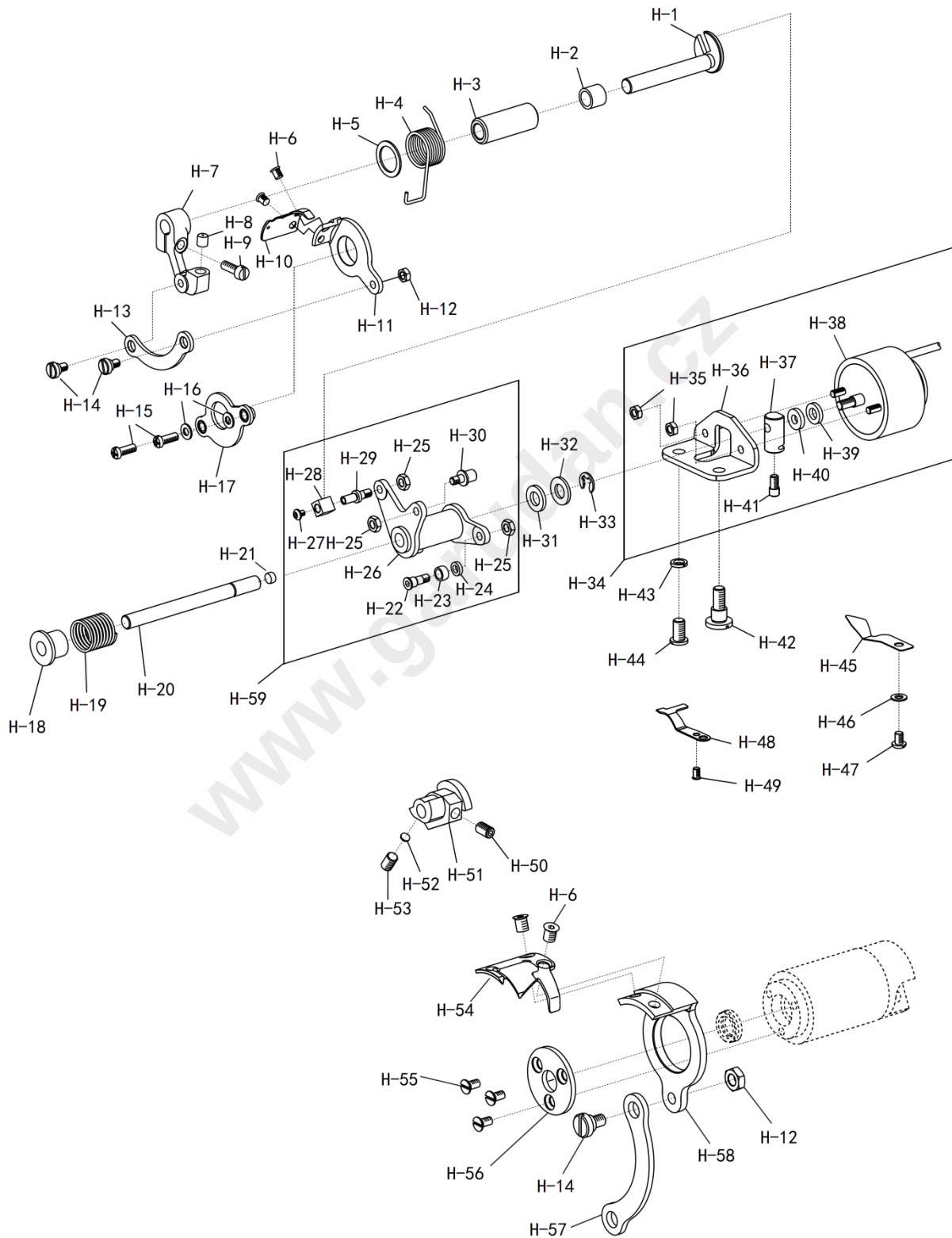
F. FEED MECHANISM COMPONENTS (2/2)					
Ref. No	Parts No.	Name of parts		Qty	Note.
F-39	10039853	Reverse feed shaft	for GF-1115-147 LM	1	
	10031548	Reverse feed shaft	for GF-1115-447 MH	1	
F-40	10010287	Pin		1	
F-41	10051845	Screw		1	
F-42	10051770	Feed dial		1	
F-43	10051578	Feed dial back		1	
F-44	10051619	Pin		1	
F-45	10013869	Spring		1	
F-46	10008829	Screw		1	
F-47	10051621	Spring		1	
F-48	10010240	O-ring		1	
F-49	10010099	Screw		2	
F-50	See page 36-39	Feed dog		1	
F-51	20019012	Feed bar asm.		1	
F-52	10004474	Feed bar driving crank		1	
F-53	10004440	Pin		1	
F-54	10010090	Snap ring		2	
F-55	10004628	Screw		1	
F-56	10014116	Bearing support		2	
F-57	10004993	Screw		1	
F-58	10010074	Screw		1	
F-59	10042079	Lifting fork	for GF-1115-147 LM	1	
	10043177	Lifting fork	for GF-1115-447 MH	1	
F-60	10010073	Feed rocker shaft		1	
F-61	10010097	Feed driving shaft		1	
F-62	10004430	Spring	for GF-1115-147 LM	1	
	10012991	Spring	for GF-1115-447 MH	1	
F-63	10012796	Spring	for GF-1115-147 LM	1	
	10012990	Spring	for GF-1115-447 MH	1	
F-64	10010235	Plate	for GF-1115-147 LM	1	
	10012987	Plate	for GF-1115-447 MH	1	
F-65	10010095	Screw		1	
F-66	10010086	Lifting rocker		1	
F-67	10004475	Nut		1	
F-68	10010542	Thrust collar		2	
F-69	10005020	Screw		2	
F-70	10058783	Pin		1	

G. FEED REGULATING COMPONENTS



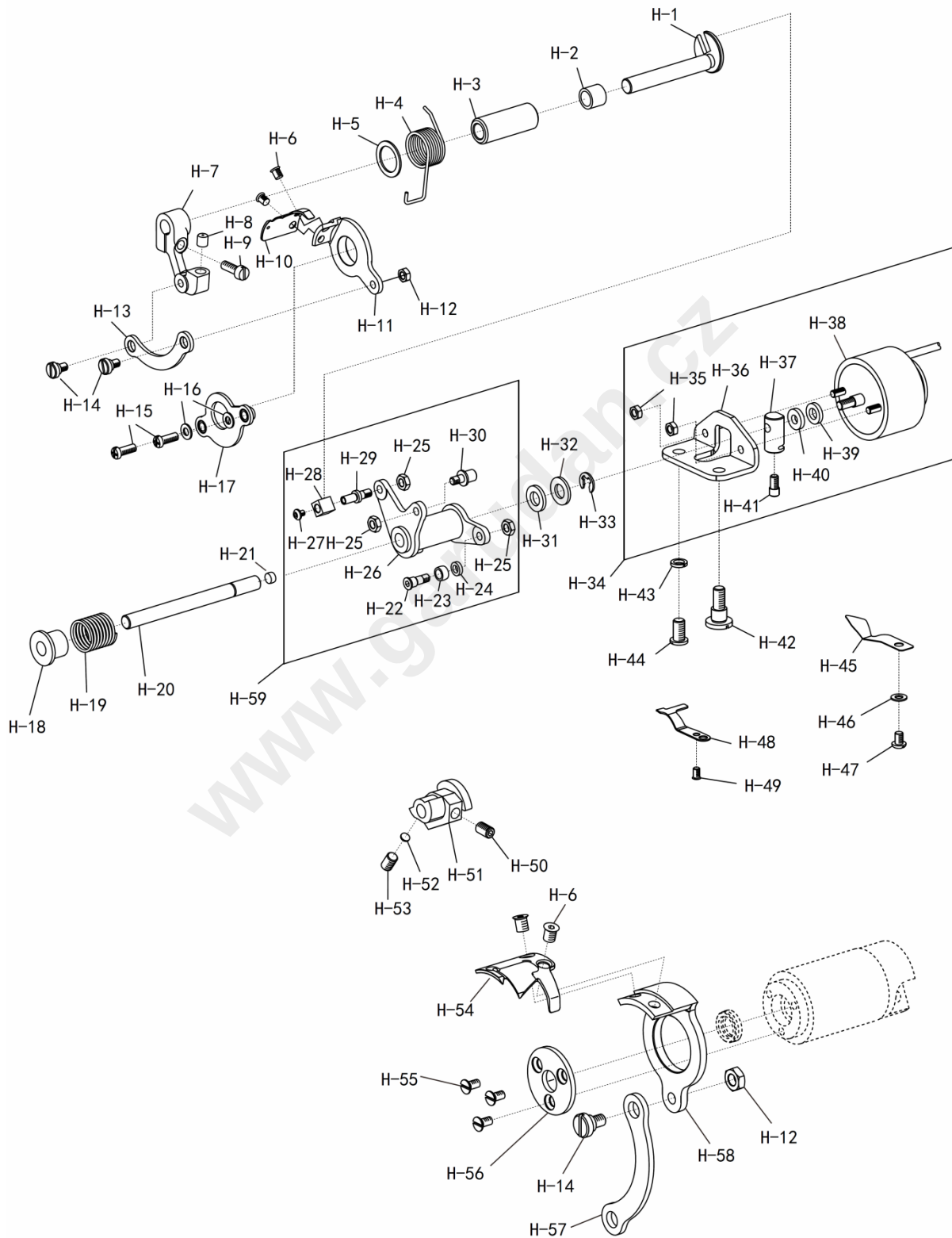
G. FEED REGULATING COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
G-1	10008934	Screw		2	
G-2	10011168	Washer		2	
G-3	10058099	Led lamp asm.		1	
G-4	10012505	Screw		1	
G-5	10003281	Spring ring		1	
G-6	10024748	Spring ring		1	
G-7	10012985	Nut		2	
G-8	10012983	Screw		1	
G-9	10012797	Reverse feed connecting plate		1	
G-10	10012989	Connecting arm asm.		1	
G-11	10031416	Reverser feed magnet asm.		1	
G-12	10012983	Screw		1	
G-13	10012473	Screw		2	
G-14	10013002	Snap ring	for GF-1115-447 MH	1	
G-15	10013001	Screw	for GF-1115-447 MH	1	
G-16	10003281	Snap ring		1	
G-18	10037310	Reverse feed magnet asm.	for GF-1115-447 MH	1	
G-19	10012986	Screw	for GF-1115-447 MH	1	

H. THREAD TRIMMER COMPONENTS (1/2)



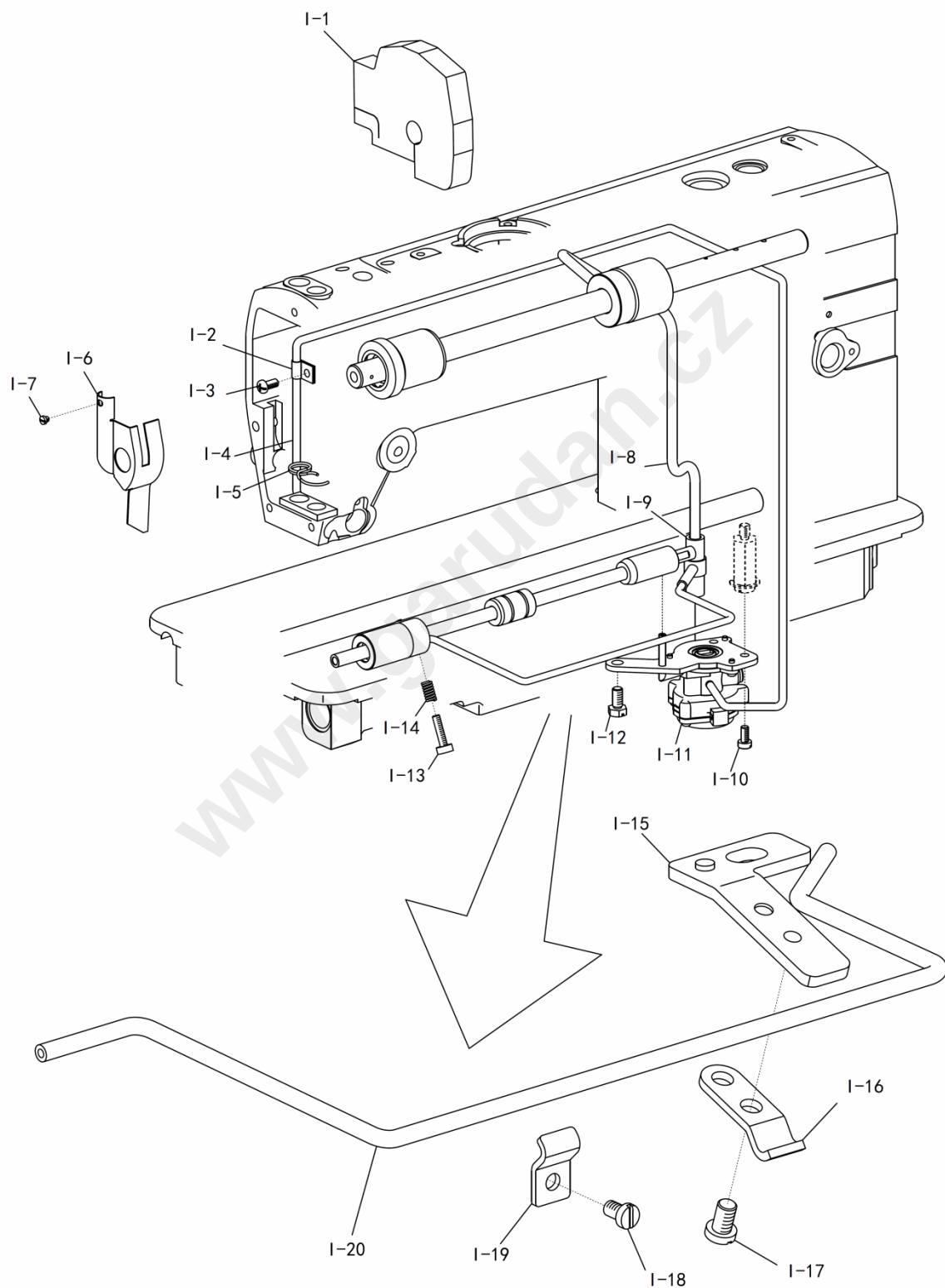
H. THREAD TRIMMER COMPONENTS (1/2)					
Ref. No	Parts No.	Name of parts		Qty	Note.
H-1	10008866	Trimming crank shaft		1	
H-2	10011630	Short bushing		1	
H-3	10011630	Short bushing		1	
H-4	10011649	Spring		1	
H-5	10008865	Washer		1	
H-6	10011588	Screw		2	
H-7	10058043	Trimming crank		1	
H-8	10011580	Block		1	
H-9	10008863	Screw		1	
H-10	10011494	Round knife		1	
H-11	10004640	Round knife bracket		1	
H-12	10011578	Nut		1	
H-13	10031612	Knife shaft crank rod		1	
H-14	10011514	Screw		2	
H-15	10013541	Screw		2	
H-16	10013154	Washer		2	
H-17	10008856	Knife holder asm.		1	
H-18	10014196	Spring cover		1	
H-19	10008812	Spring		1	
H-20	10011697	Trimming shaft		1	
H-21	10050266	Silencer plug		1	
H-22	10004707	Screw		1	
H-23	10004651	Roller bearing		1	
H-24	10025576	Washer		1	
H-25	10011578	Nut		3	
H-26	10004648	Trimming cam crank		1	
H-27	10025577	Screw		1	
H-28	10004703	Slide block		1	
H-29	10004704	Pin		1	
H-30	10004705	Pin		1	
H-31	10011650	Washer		1	
H-32	10003031	Washer		1	
H-33	10009654	Snap ring		1	
H-34	10031414	Thread trimmer solenoid asm.		1	
H-35	10009471	Nut		2	
H-36	10008854	Solenoid base		1	
H-37	10011607	Solenoid connecting shaft		1	
H-38	10031415	Thread trimmer solenoid		1	

H. THREAD TRIMMER COMPONENTS (2/2)



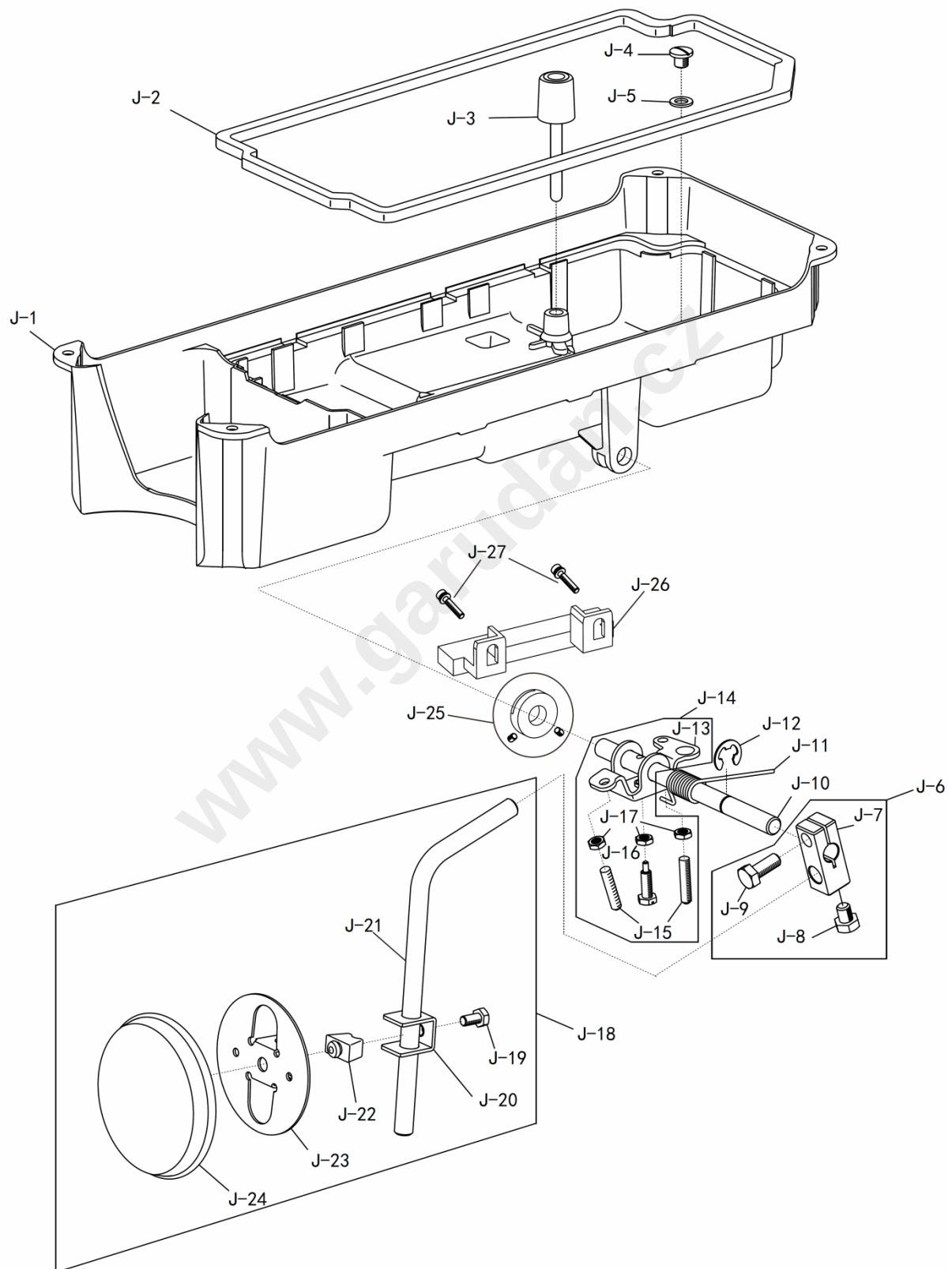
H. THREAD TRIMMER COMPONENTS (2/2)					
Ref. No	Parts No.	Name of parts		Qty	Note.
H-39	10011606	Washer		1	
H-40	10011845	Washer		1	
H-41	10028999	Screw		1	
H-42	10012467	Screw		1	
H-43	10003077	Washer		1	
H-44	10011605	Screw		1	
H-45	10058067	Dispart	for GF-1115-147 LM	1	
	10062533	Dispart	for GF-1115-447 MH	1	
H-46	10013154	Washer		1	
H-47	10014474	Screw		1	
H-48	10011421	Fixed knife		1	
H-49	10011422	Screw		1	
H-50	10013465	Screw		1	
H-51	10010736	Thread trimmer cam		1	
H-52	10023739	Cam collar		1	
H-53	10013465	Screw		1	
H-54	10026782	Round knife	for GF-1115-447 MH	1	
H-55	10009626	Screw	for GF-1115-447 MH	3	
H-56	10013026	Knife holder	for GF-1115-447 MH	1	
H-57	10031612	Knife shaft crack rod	for GF-1115-447 MH	1	
H-58	10026783	Round knife bracket	for GF-1115-447 MH	1	
H-59	10011686	Trimming cam crank asm.		1	

I. LUBRICATION COMPONENTS



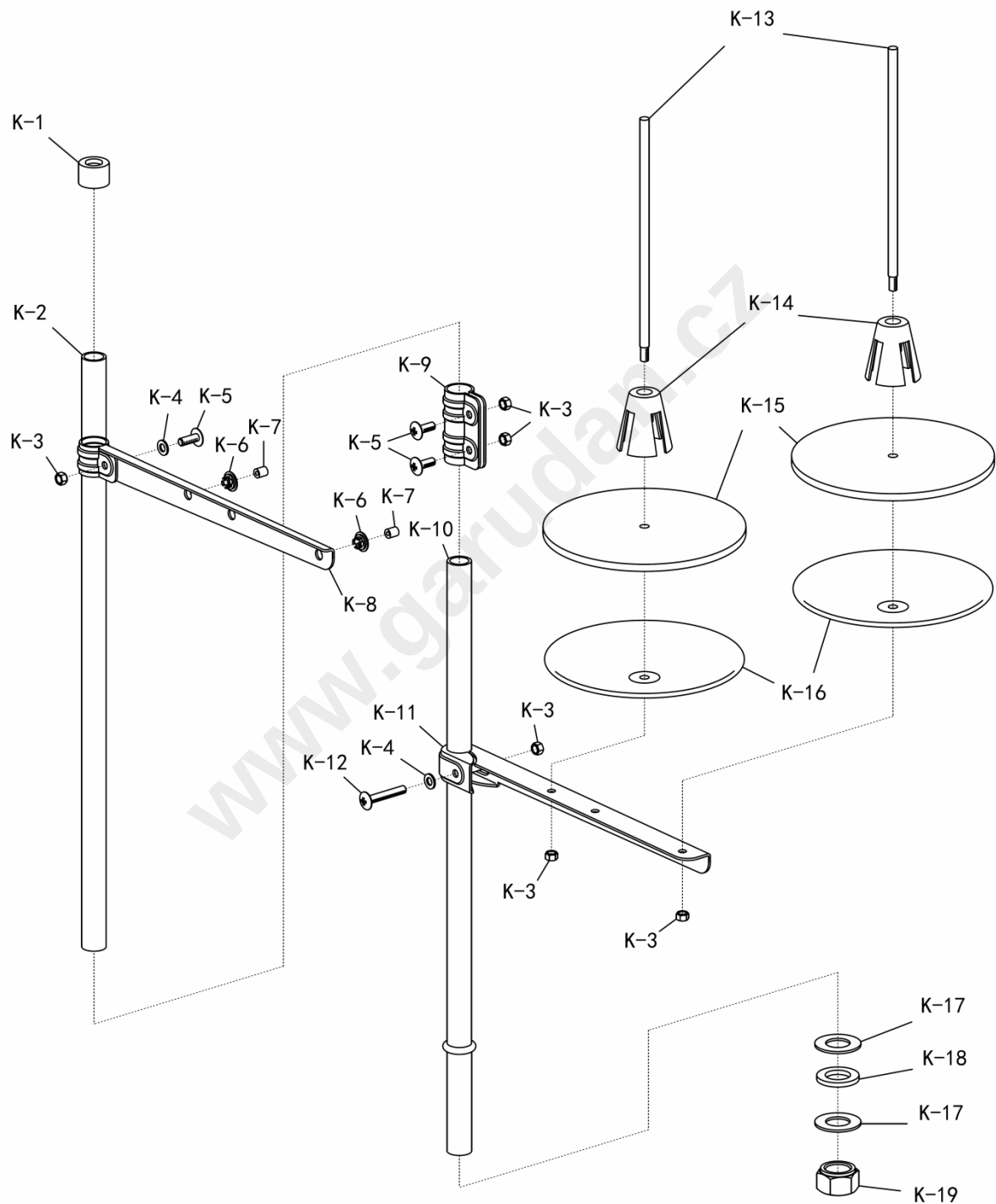
I. LUBRICATION COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
I-1	10014197	Foam rubber		1	
I-2	10010294	Oil felt presser		1	
I-3	10008934	Screw		1	
I-4	10007795	Tube		1	
I-5	10042077	Oil felt presser		1	
I-6	10004065	Oil stopper		1	
I-7	10005558	Screw		1	
I-8	10050666	Main shaft oil tube		1	
I-9	10010340	Oil tube holder		1	
I-10	10010066	Screw		1	
I-11	10008817	Oil pump		1	
I-12	10050422	Screw		1	
I-13	10008831	Screw		1	
I-14	10008806	Spring		1	
I-15	10012443	Plate	for GF-1115-447 MH	1	
I-16	10012445	Tube holder	for GF-1115-447 MH	1	
I-17	10010074	Screw	for GF-1115-447 MH	1	
I-18	10013269	Screw		1	
I-19	10050424	Tube holder		1	
I-20	10008807	Oil tube		1	

J. PRESSER FOOT COMPONENTS OF OIL PLATE KNEE LIFT



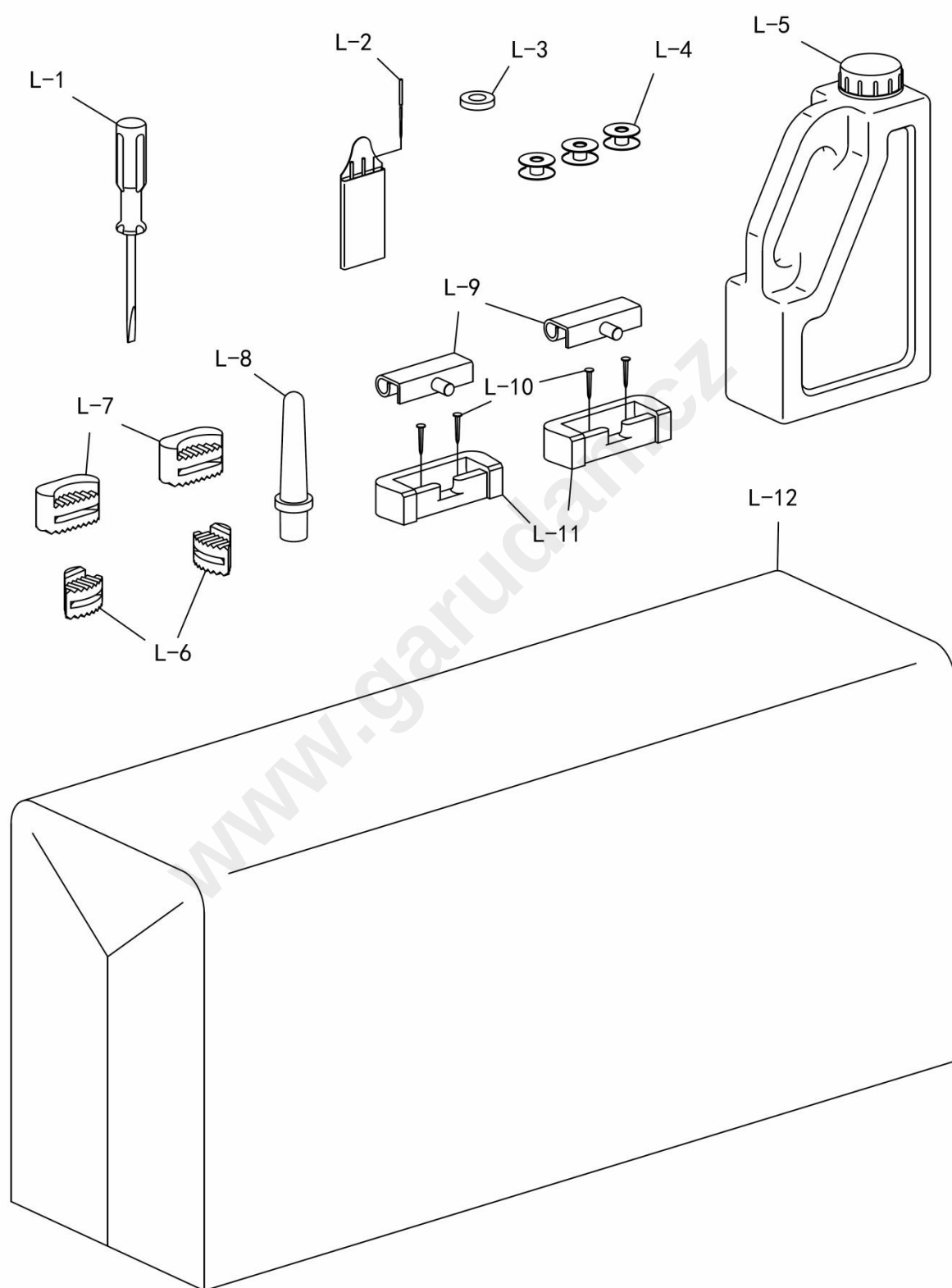
J. PRESSER FOOT COMPONENTS OF OIL PLATE KNEE LIFT					
Ref. No	Parts No.	Name of parts		Qty	Note.
J-1	10057328	Oil reservoir		1	
J-2	10014194	Oil reservoir gasket		1	
J-3	10009984	Pin		1	
J-4	10009991	Screw		1	
J-5	10009988	Rubber ring		1	
J-6	10002562	Bracket asm.		1	
J-7	10003896	Bracket		1	
J-8	10002610	Screw		1	
J-9	10002613	Screw		1	
J-10	10058503	Knee pressing shaft		1	
J-11	10003893	Spring		1	
J-12	10002559	Snap ring		1	
J-13	10002563	Crank asm.		1	
J-14	10009987	Crank		1	
J-15	10003895	Screw		2	
J-16	10003898	Screw		1	
J-17	10003890	Nut		3	
J-18	10009985	Knee pressing plate asm.		1	
J-19	10003894	Screw		1	
J-20	10003897	Knee pressing plate holder		1	
J-21	10003901	Knee pressing plate rod		1	
J-22	10003900	Knee pressing plate rubber		1	
J-23	10003891	Knee pressing plate		1	
J-24	10004223	Knee pressing cover		1	
J-25	10057329	Induction magnet assembly		1	
J-26	10057330	Knee lifting power sensor assembly		1	
J-27	10002975	Screw		2	

K. COMPONENTS OF THREAD-RUNNING STAND

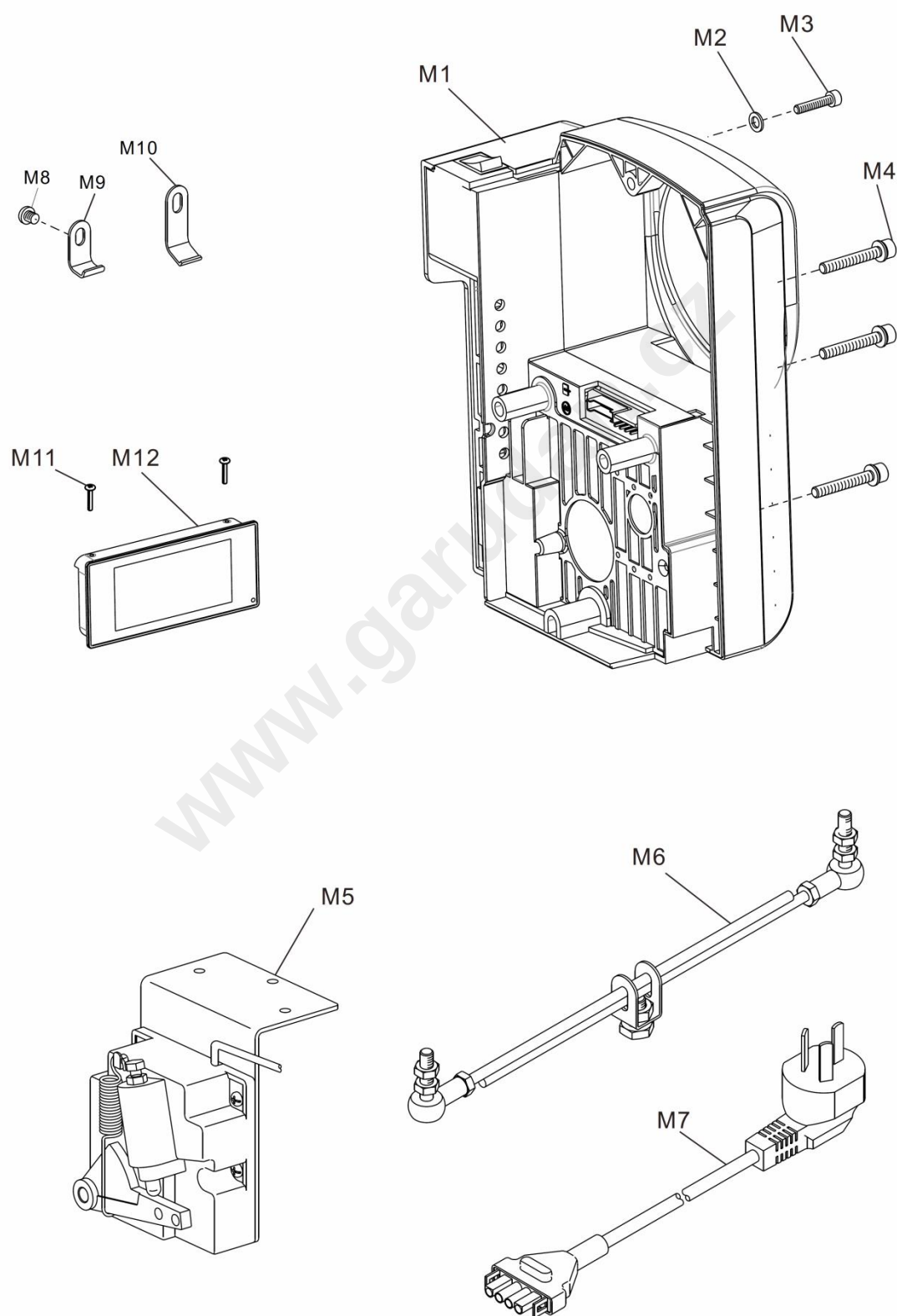


K. COMPONENTS OF THREAD-RUNNING STAND					
Ref. No	Parts No.	Name of parts		Qty	Note.
K-1	10004282	Column cap		1	
K-2	10004293	Column pipe (upper)		1	
K-3	10002953	Nut		6	
K-4	10003022	Washer		2	
K-5	10003301	Screw		3	
K-6	10004285	Thread guide bushing		2	
K-7	10004289	Thread guide pipe		2	
K-8	10004298	Thread hanger (upper)		1	
K-9	10004286	Column pipe connector		1	
K-10	10004291	Column pipe (lower)		1	
K-11	10004284	Thread hanger (lower)		1	
K-12	10003312	Screw		1	
K-13	10004288	Spool pin		2	
K-14	10004287	Spool cushion		2	
K-15	10004281	Spool mat		2	
K-16	10004299	Spool seat disc		2	
K-17	10004290	Washer		2	
K-18	10004295	Washer		1	
K-19	10002985	Nut		1	

L. ACCESSORIES



L. ACCESSORIES					
Ref. No	Parts No.	Name of parts		Qty	Note.
L-1	10010995	Screw driver		1	
L-2	10034917	Needle	for GF-1115-147 LM	3	
	10034916	Needle	for GF-1115-447 MH	3	
L-3	10003892	Oil reservoir magnet		1	
L-4	10025484	Bobbin	for GF-1115-147 LM	3	
	10007138	Bobbin	for GF-1115-447 MH	3	
L-5	10004455	Oil bottle with oil		1	
L-6	10009986	Oil reservoir seat		2	
L-7	10009993	Oil reservoir cushion		2	
L-8	10050425	Frame support bar		1	
L-9	10004466	Head connecting hook		2	
L-10	10003889	Nail		4	
L-11	10011041	Head connecting hook socket		2	
L-12	10008849	Head cover		1	

M. DRIVE-BY-WIRE COMPONENTS

M. DRIVE-BY-WIRE COMPONENTS					
Ref. No	Parts No.	Name of parts		Qty	Note.
M-1	10058052	Control box		1	
M-1	10058053	Control box		1	
M-2	10006115	Washer		1	
M-3	10012080	Screw		1	
M-4	10049837	Screw		3	
M-5	10031424	Pedal unit asm.		1	
M-6	10002417	Pedal control rod asm.		1	
M-7	10031423	Cable		1	
M-8	10010899	Screw		1	
M-9	10035172	Cord holder		2	
M-10	10031556	Cord holder		1	
M-11	10001796	Screw		2	
M-12	10060680	Screw		1	

Šicí sada	SGF0002	Spodní ponorné podávání
Sewing set		Lower drop feed
Šicí sada s 4-řádkovým podavačem. Sewing set wit 4-rows feed dog.		
Síla jehly:	134 Nm. 80-110	
Needle size:		
Délka stehu:	Max. 5 mm	
Stitch length:		
Použití:	Lehké a středně silné materiály	
Use:	Light and medium material	
Použitelné s:	GF-105-143 LM, GF-105-147 LM, GF-1105-147 LM, GF-1115-147 LM	
For subclass:		
Stehová deska:	10026544	Otvor pro jehlu 2,0 mm
Needle plate:		Needle size hole 2.0 mm
Podavač:	10026545	18 zubů
Feed dog:		18 teeth
Patka:	GM164/5-8	Šířka patky je 11,2 mm
Presser foot:		Width of presser foot is 11.2 mm



Šicí sada	SGF0003	Spodní ponorné podávání
Sewing set		Lower drop feed
Šicí sada s 3-řádkovým podavačem. Sewing set with 3-rows feed dog.		
Síla jehly:	134 Nm. 90-110	
Needle size:		
Délka stehu:	Max. 5 mm	
Stitch length:		
Použití:	Středně silné materiály	
Use:	Medium material	
Použitelné s:	GF-105-143 LM, GF-105-147 LM, GF-1105-147 LM, GF-1115-147 LM	
For subclass:		
Stehová deska:	GM166-8	Otvor pro jehlu 1,8 mm
Needle plate:		Needle size hole 1.8 mm
Podavač:	GM165-8	16 zubů
Feed dog:		16 teeth
Patka:	GM164/5-8	Šířka patky je 11,2 mm
Presser foot:		Width of presser foot is 11.2 mm



Šicí sada	SGF0004	Spodní ponorné podávání
Sewing set		Lower drop feed
Šicí sada s 4-řádkovým pogumovaným podavačem. Sewing set with 4-rows rubber feed dog.		
Síla jehly:	134 Nm. 65-80	
Needle size:		
Délka stehu:	Max. 4 mm	
Stitch length:		
Použití:	Lehké materiály	
Use:	Light material	
Použitelné s:	GF-105-143 LM, GF-105-147 LM, GF-1105-147 LM, GF-1115-147 LM	
For subclass:		
Stehová deska:	E14	Otvor pro jehlu 1,4 mm
Needle plate:		Needle size hole 1.4 mm
Podavač:	149057R (GF-xxx-143 LM)	Nemá zoubky
Feed dog:	149057R-úprava (GF-xxx-147 LM)	Without teeth
Patka:	P351T	Šířka patky je 11,2 mm
Presser foot:		Width of presser foot is 11.2 mm



Šicí sada	SGF0013	Spodní ponorné podávání
Sewing set		Lower drop feed
Šicí sada s kolečkovou patkou. Sewing set with roller presser foot.		
Síla jehly:	134 Nm. 80-110	
Needle size:		
Délka stehu:	Max. 5 mm	
Stitch length:		
Použití:	Středně silné materiály	
Use:	Medium materials	
Použitelné s:	GF-113 series, GF-115 series, GF-105 series, GF-1105-147 LM, GF-1115-147 LM	
For subclass:		
Stehová deska:	12438	Otvor pro jehlu 1,8 x 3,3 mm
Needle plate:		Needle size hole 1.8 x 3.3 mm
Podavač:	12436	11 zubů
Feed dog:		11 teeth
Patka:	12264A	Průměr patky je 22 mm
Presser foot:		Diameter of presser foot is 22 mm



Šicí sada	SGF0014	Spodní ponorné podávání
Sewing set		Lower drop feed
Šicí sada s 3-řádkovým podavačem. Sewing set with 3-rows feed dog.		
Síla jehly:	134 Nm. 90-110	
Needle size:		
Délka stehu:	Max. 5 mm	
Stitch length:		
Použití:	Těžké materiály	
Use:	Heavy material	
Použitelné s:	GF-105-143 LM, GF-105-147 LM, GF-1105-147 LM, GF-1115-147 LM	
For subclass:		
Stehová deska:	10052350	Otvor pro jehlu 2,6 mm
Needle plate:		Needle size hole 2.6 mm
Podavač:	10038413	13 zubů
Feed dog:		13 teeth
Patka:	150789-001	Šířka patky je 14,5 mm
Presser foot:		Width of presser foot is 14.5 mm

