

User's Manual

GARUDAN[®]

GF-1105 Series



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1) SPECIFICATIONS

Model	Usage	Max speed	Max stitch length	Needle system/size	Foot lift manual/knee
GF-1105-147 LM	light-medium	5.000 spm	5mm	134R(65-110)	6/13mm

Netto weight : GF-1105-147 LM **42kg (head)**

Measurement :GF-1105-147 LM **25x69x57cm (head)**

GENERAL DESCRIPTION AND USAGE:

Single needle high-speed industrial sewing machine with lower drop feed.

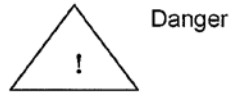
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2) SAFETY RULES

Safety rules for machines

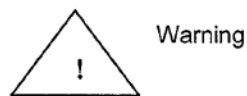
Safety labels in the manual are categorized into danger, warning and caution.
Failure to follow the safety rules may result in physical injuries or mechanical damages.
The safety labels and symbols are defined as follows.

[The meaning of the safety marks]



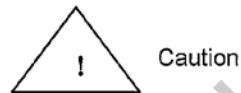
Danger

Instructions here shall be observed strictly.
Otherwise, the user will be killed or suffer severe physical injuries.



Warning

Instructions here must be observed, or the user could suffer fatal or severe physical injuries.



Caution

Instructions here should be observed, or the user could face physical injuries or mechanical damages.

[The meaning of the safety marks]



This mark means a 'must-not'.



This mark means a 'must' for safety.



This mark means that an electric shock may be caused if the instruction is not followed properly.

1-1) Machine mobilization: Only personnel with a full understanding of the safety rules should move the machines. The following directions must be observed when delivering the machines.



Danger

- a. At least two or more people should move the machine.
- b. Before delivering the machine, thoroughly wipe off the oil on the machine to prevent accidents.

1-2) Machine installation: Physical damages such as functional difficulties or breakdowns may occur depending on installation conditions of the machines. Be sure to heed the following conditions.



Caution

- a. Remove the packing from top to bottom.
- b. Install a climate controller and clean it regularly to prevent dust and moisture build-up from contaminating and corroding the machines.
- c. Keep the machines away from direct sunlight.

- d. Keep a minimum distance of 50cm between the machine at both sides and backside and the wall to secure sufficient space for repair.
- e. Do not operate the machine near areas with danger of explosion. Refrain from running the machine in the vicinity of risky places, e.g., where a large quantity of aerosol-spraying products or oxygen are handled, unless specific guarantees are given otherwise for the operation of the machine to prevent explosion at such places.
- f. The user should install an illuminator in the work area for the machine not come supplied with any lighting apparatus due to the specific features of the machine.

[Note] Details of the machine installation are laid out in section 2) Installation.

1-3) Troubleshooting: When the machine is in need of repair, only our authorized service technicians must handle it.



Danger

- a. Before cleaning and repairing the machine, shut off the power supply and wait four minutes for the machine to discharge completely.
- b. No part of the machine or specifications may be modified without prior consultation with our company. Any such modification could risk safe operation of the machine.
- c. In case of repair, replace only with original Garudan parts from Anita.
- d. After repair, put safety covers back on the machine.

1-4) Machine operation: GF-115 series are intended to be used for industrial purposes for sewing textiles and other similar materials. Carefully study the following instructions before operating the machine.



Caution

- a. Read the manual thoroughly and understand the instructions fully before use.
- b. Put on proper safety garments.
- c. While the machine is in motion, keep your hands or any part of your body away from moving parts, e.g., needle, hook, thread take-up spring and pulley, etc.
- d. Do not remove any form of safety covers while the machine is in use.
- e. Be sure to connect the ground (earth) wire.
- f. Before opening electric boxes such as the control box, shut down the power supply and make sure the power switch is in "off" mode.
- g. Stop the machine before threading the needle or checking after sewing work is finished.
- h. Never turn the power switch on with the pedal down.
- i. Do not use the machine if the cooling fan is clogged. Clean the air filter embedded in the control box at least once a week.
- j. Keep the machine away from strong electromagnetic fields such as high-frequency welding machines.



Caution

Always start the machine with safety covers in place since fingers or hands could be injured or cut off by the belt. Turn off the power switch when conducting a regular check on the machine.

1-5) Safety device:



Caution

- a. Safety label: Safety instructions for machine operations
- b. Thread take-up spring cover: A device designed to prevent the human body from coming in contact with the thread take-up spring
- c. Belt cover: A device intended to avoid potential risks of getting hands, feet or clothes jammed by the belt
- d. Finger guard: A device built to keep fingers away from the needle

3) INSTALLATION

3.1 Before operation

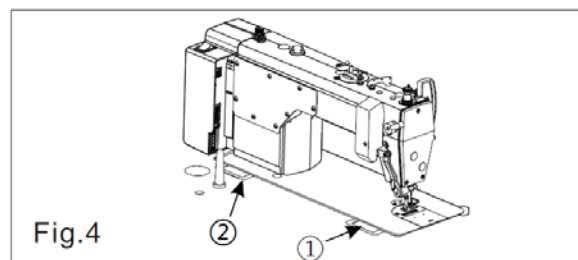
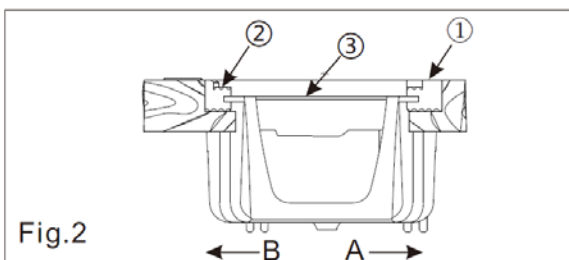
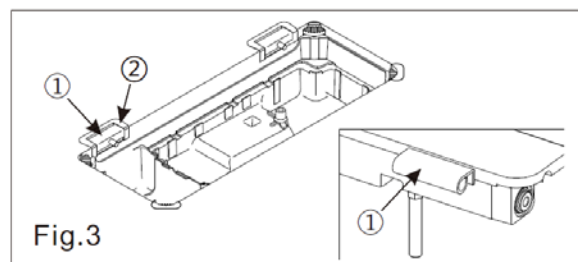
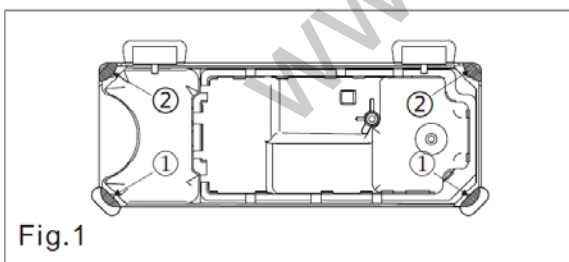


Warning

- ⇒ The machine must be installed by a trained technician only.
- ⇒ Any electrical wiring must be performed by a qualified technician or agent.
- ⇒ The machines weigh over 33 kg. As such, two or more people should carry out the installation.
- ⇒ Plug in only after the installation is complete. If the operator mistakenly steps down on the pedal with the plug in, the machine will start automatically and can cause physical injuries.
- ⇒ Connect the ground (earth) wire.
An unstable connection may result in an electric shock or a malfunction.
- ⇒ Use both hands when bending the machine backward or returning it to the normal position.
Using only one hand can lead to physical injuries due to the weight of the machine.

3.2. Machine head

Oil tray should be put at the four corners of the slot in the table plate. Fix two arm cushion 1 to the A side of oil tray 3. Fix the two stand bases 2 to the B side of oil tray 3, then fix the oil tray 3 (Fig. 1, 2). Plug the hinge 1 into hole of bed plate, put the machine head on the table plate, hinge at the sink place and then fix the machine head on cushions of the four oil tray corners (Fig. 3,4)



4) LUBRICATION

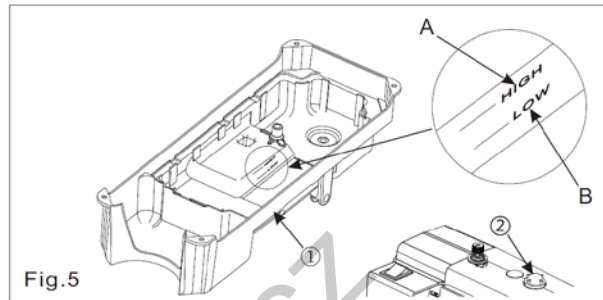
4.1 Installing Magnetic Chip Remover

Attach the magnetic chip remover, which is in the accessory box, to the drain plug of the oil pan

- * Do not use the magnet for other purposes. Use of the sewing machine without the magnet may cause malfunction or even damage of the machine.

4.2 Lubricating the oil pan

- a) Make sure you use lubricant recommended by manufacturer
- b) Fill the lubricant up to the „HIGH“ mark.
- c) If the oil in use sinks below „LOW“ mark, fill in to „HIGH“ immediately.



5) FUNCTION OF REVERSE FEED STITCHING MECHANISM

When the reverse button is pressed (1), the machine performs reverse feed stitching. The machine performs reverse feed stitching as long as the switch lever is held pressed.

By pressing the button 2, illumination is switched on at full light. By pressing the button again, the volume of light dies down. There are 3 levels of light intensity.

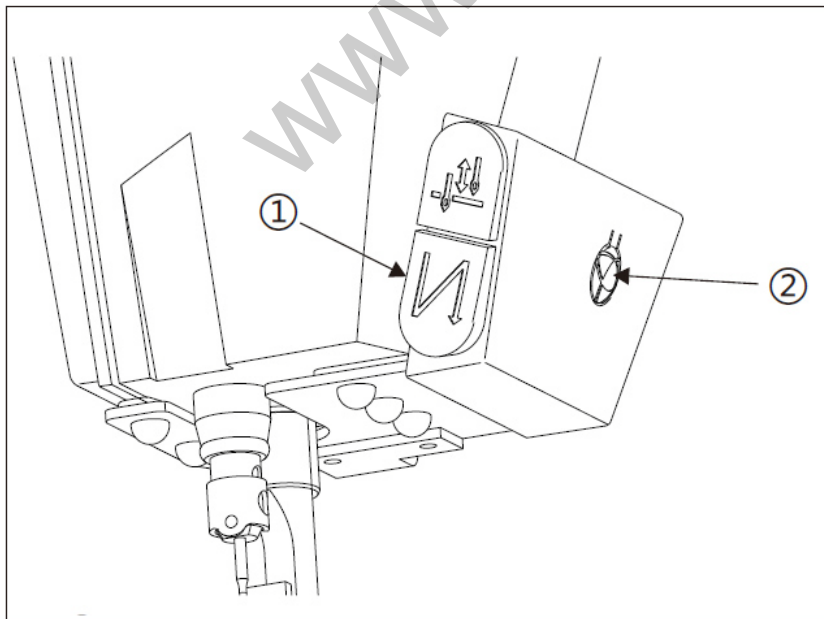


Fig. 6

6) CONTROL AND ADJUSTMENT OF THE SEWING MACHINE

6.1 Needle Insertion

With the needle groove (1) facing left, insert the needle tip into the upper end of the stopper hole (2) and tighten the needle with the clamp screw (3). (Fig.7)

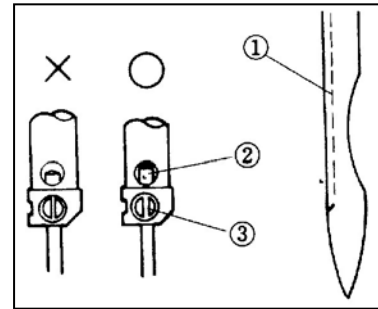
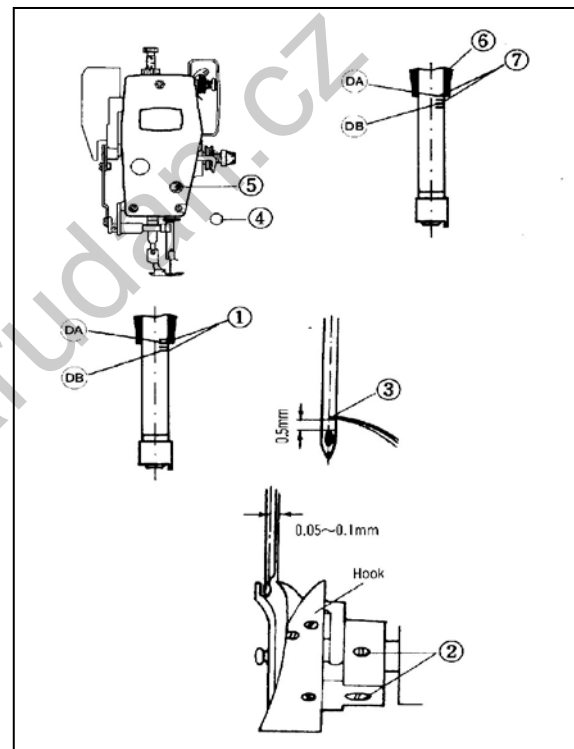


Fig.7

6.2 Needle Bar Adjustment

As is shown in Fig. 8, unscrew the rubber plugs (4) in the needle bar adjustment hole that is on the face plate and turn the pulley so that the needle bar is in down-stop position. Then turn loose the clamp screws (5) on the needle bar handle, move the needle bar such that the lowest carved sign on the needle bar (7) is in line with the bottom of the needle bar lower bushing (6) and tighten the clamp screws of the needle bar handle. Lastly plug in the rubber plugs (4). (Fig.8)



6.3 Timing adjustment of Needle and Hook

As can be seen in Fig.8, align the bottom of the needle bar bushing (6) with the hook fixed position sign (1) marked on the needle bar and loosen the three hook fixing screws (2). Turn the hook so that the edge of the hook (3) is in line with the needle center. Adjust it the way the distance between the inside of the groove on the needle side and the edge of the hook (3) is 0,05-0,1 mm, then tighten the three fixing screws (2) again. (Fig.8)

6.4 Lubrication of Thread Take-Up Lever

Oil flow is at its maximum when the mark (2) on the head of the oil flow control pin (1) and the center of the hole (3) on thread take-up lever crank shaft are directly aligned (Fig.9)

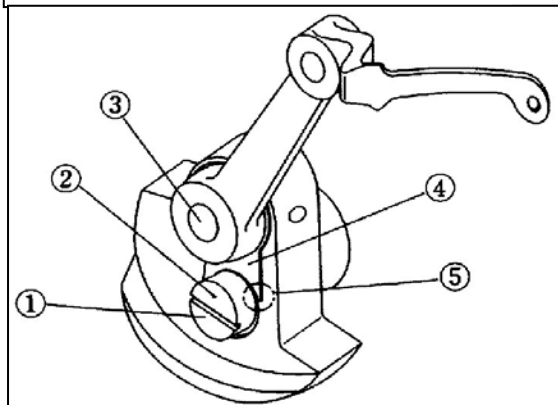


Fig.8 and 9

7) LUBRICATION ADJUSTMENT OF HOOK

7.1 Checking the oil supply level of Hook

- a) After running the sewing machine for three minutes, secure the oil flow checking paper as shown in Fig. 10 and run the machine for about five seconds. Then check the oil tape marked on the paper.

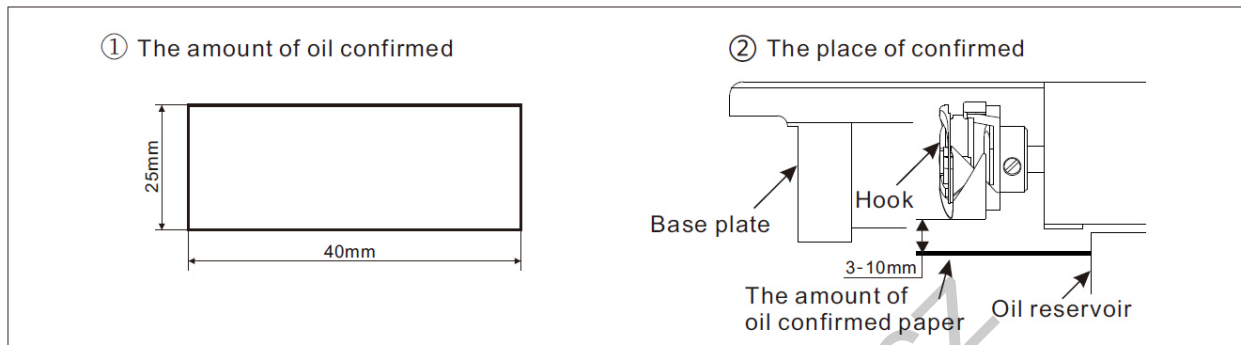


Fig.10

- b) Check the oil supply level three times. The appropriate level of oil is when the oil level neither exceeds the maximum amount nor falls below the minimum level. (Insufficient oil would jam the hook, whereas excessive oil would contaminate the sewing material with oil)

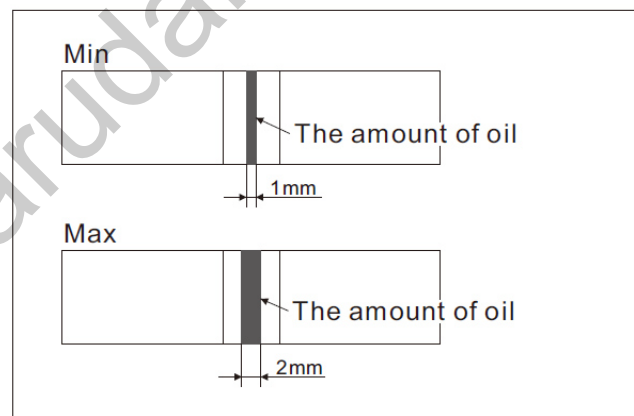


Fig.11

7.2 Adjustment of the Oil Supply Level

Turn the oil flow adjusting screw (1) in the lower shaft front bushing in a clockwise direction for more oil flow. Turn it counterclockwise for less oil.

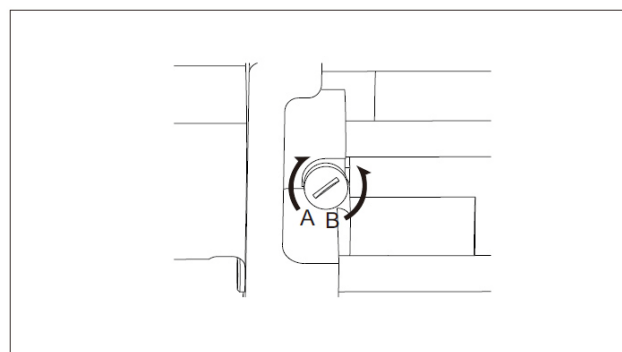


Fig.12

8) INSERTING THE LOWER THREAD

8.1 After placing a bobbin (2) in a bobbin case (6), push the thread through the thread groove (3) and hook it under the tension adjusting plate spring (4). To tighten the lower thread, turn the tension adjusting screw (5) clockwise. Turn it counterclockwise to loosen. Adjust the tension of the lower thread so that it will fall slowly by gravity when the bobbin case (1) is dropped while holding the end of the thread.

8.2 Hold the bobbin case handle (6) and insert it into hook. Pull the handle (6) to remove. (The bobbin will fall out if the handle is let go). (Fig.13)

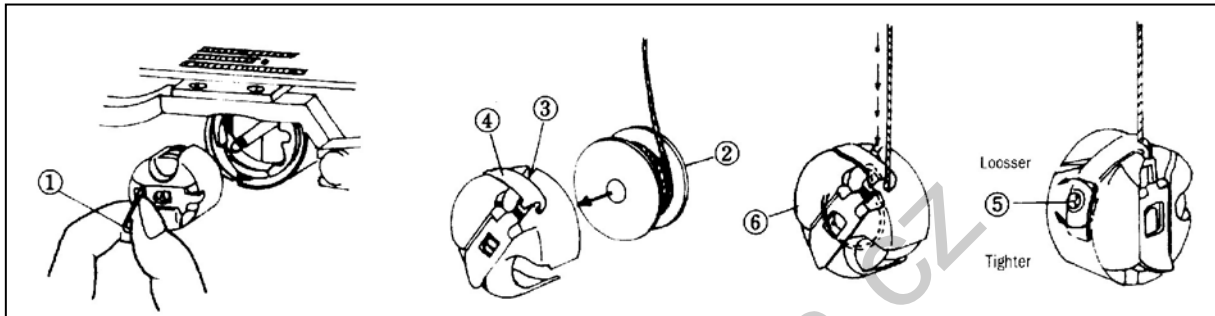


Fig.13

9) INSERTING THE UPPER THREAD

Place the thread take-up lever at the highest position and route the upper thread in the order indicated in Fig.14.

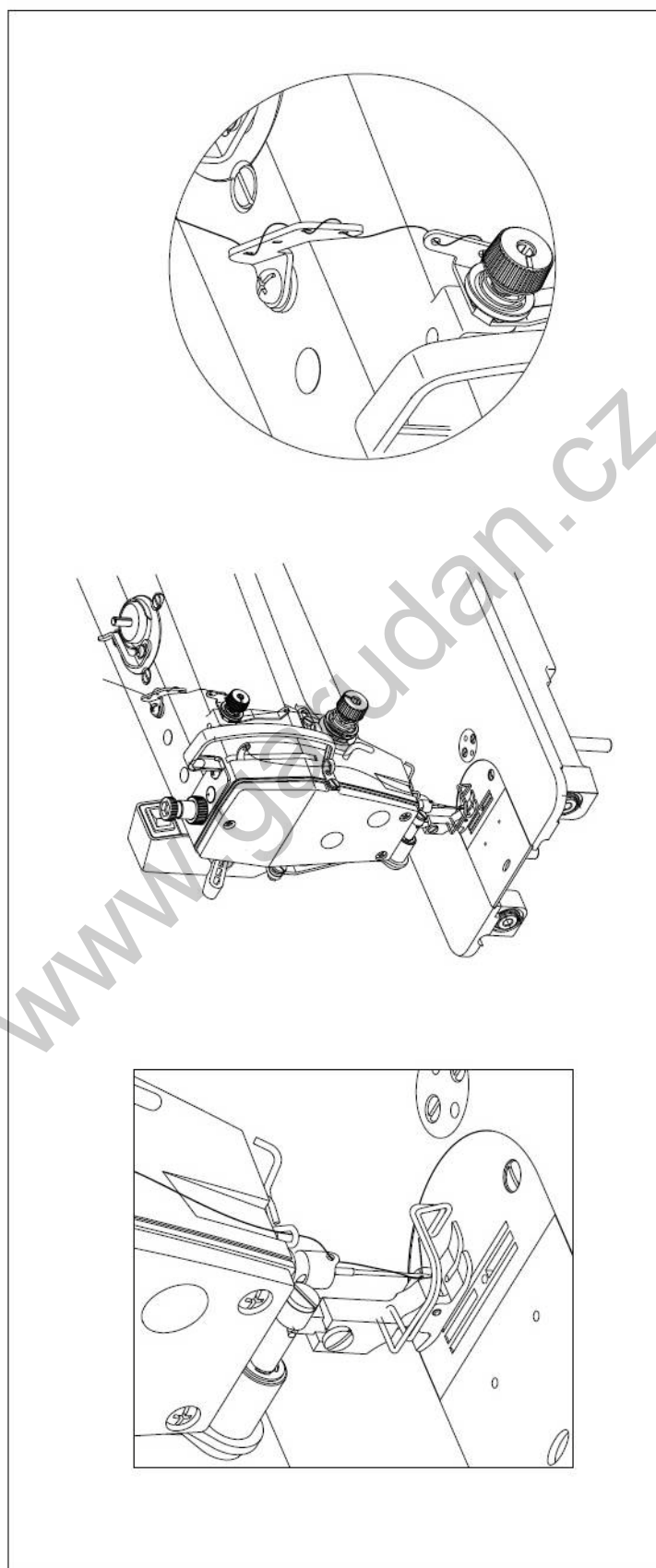


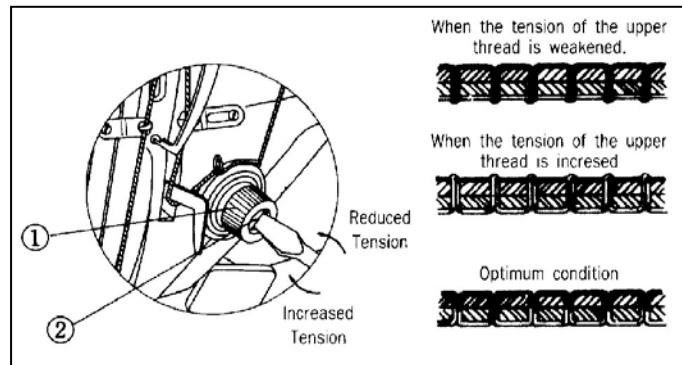
Fig. 14

10) UPPER THREAD TENSION ADJUSTMENT

10.1 Main thread adjustment device

The tension of the upper thread gets tighter if the tension adjusting nut (1) as in Fig. 15 is turned in a clockwise direction and it gets looser when turned in the opposite direction. The tension of the thread should differ according to the sewing conditions which depend on the material, thread, stitch length, etc.

Fig.15



10.2 Tension adjustment of thread take up lever spring

As in Fig 15, use a driver in the thread adjustment shaft groove (2) to adjust the spring tension. The thread take up lever spring grows tighter when the driver is turned clockwise and looser when turned counterclockwise.

10.3 Auxiliary thread adjuster

Turn the auxiliary thread tension adjusting nut (1) in clockwise direction to make the remaining thread length on the needle after trimming shorter and in counterclockwise direction to make it longer, as shown in Fig.16. The appropriate length of the upper thread remaining after trimming is 30mm - 40mm.

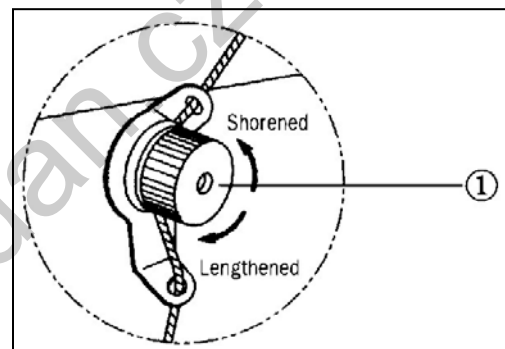


Fig.16

10.4 Thread release control

The thread release takes place simultaneously with the movement of the trimming solenoid. the amount of thread release is controlled by moving the fixed position of the thread release wire (2), which is connected with the clutch lever (1), left and right. Loosen the two fixing nuts (3) and pull the cable wire (2) to the left. Then fasten the nuts (3) to release the thread to a large extent. If the cable wire is pushed to the right and the nuts (3) tightened, the thread release happens on a lesser scale. After adjustment, tighten the nuts (3) once agin and check whether the opening of the thread guide plate (4) of the thread adjuster is about 0.5-1 mm when the thread releaser is in operation. There should be no opening when the thread releaser is not in operation. The thread guide plates (4) should be touching back to back.

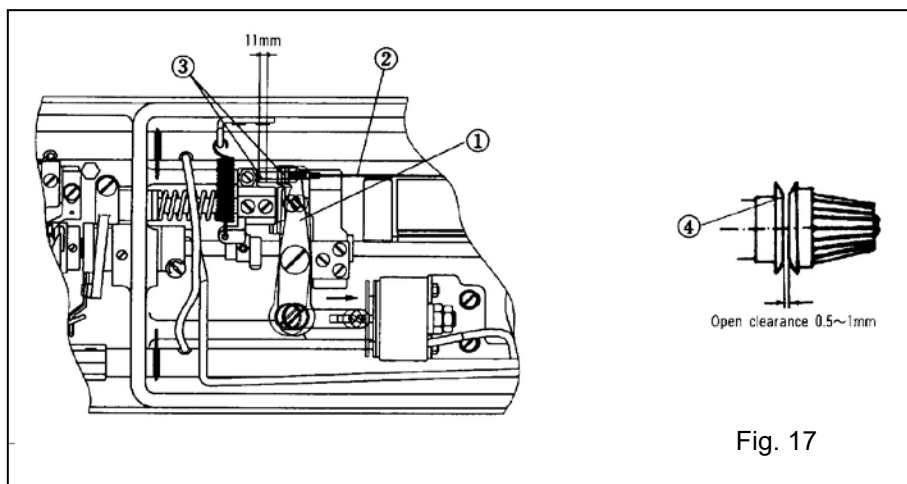


Fig. 17

11) ADJUSTMENT OF HEIGHT AND PRESSURE OF PRESSER FOOT

A. AS is Fig.18, remove the rubber plug (2) in the face plate and place the presser foot (3) on the needle plate. Then, loosen the presser bar fixing screw (4) and adjust the height of the presser bar. The presser foot lifter (3) will fall when the presser bar is lifted and rise when the presser bar is moved down. Move the presser foot lifter (5) manually to place the bottom face of the presser foot 5,5 mm above the top face of the needle plate and tighten the presser bar fixing screws firmly.

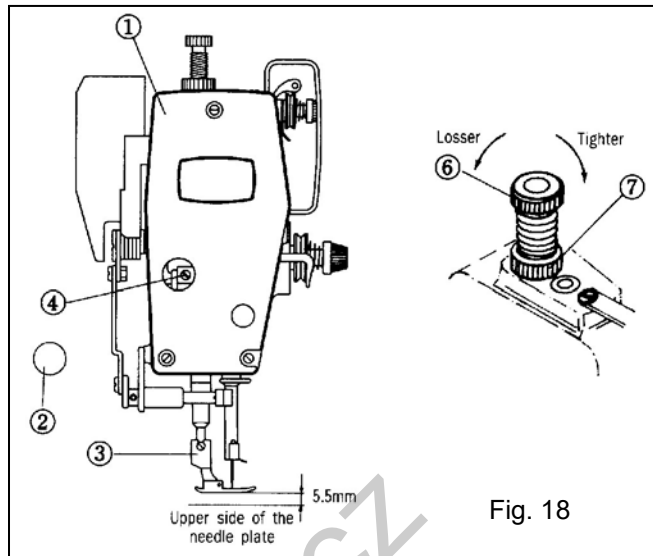


Fig. 18

B. The tension of the presser foot will grow stronger when the tension adjusting screw (6) is turned clockwise and turned clockwise and weaker when turned counterclockwise. Make sure to screw in the fixing nut (1) after adjustment. (Fig.18)

C. Loosen set screw (1) and adjust the presser bar height or the angle of the presser foot. After adjustment, securely tighten the setscrew.

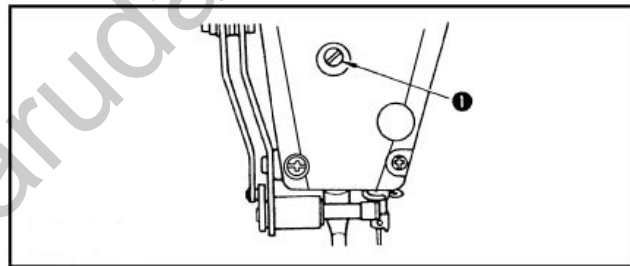


Fig. 18a

12) AUTOMATIC PRESSER FOOT LIFT HEIGHT ADJUSTMENT

Attention: Turn the power-off before installation in order to avoid any accident or damage.

1. When the pull rod 1 fixed on hole A of lever 2, the foot lifter height is 12mm
2. When the pull rod 1 fixed on hole B of lever 2, the foot lifter height is 10mm
3. When the pull rod 1 fixed on hole C of lever 2, the foot lifter height is 7mm

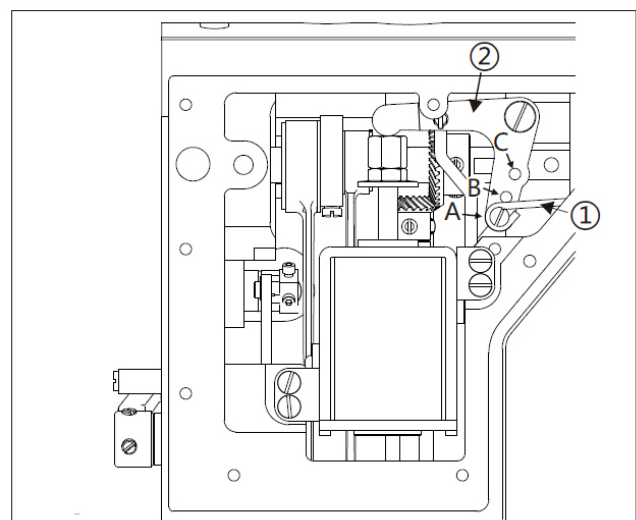


Fig.19

13) HAND LIFTER

1. To stop the machine with its presser foot up, turn hand lifter 1 in direction „A“
2. The presser foot will go up about 5.5mm and stop
3. The presser foot will go back to its original position when hand lifter is turned down in direction „B“
4. Using the knee lifter, you can get the standard presser foot lift of about 10mm and the maximum lift of about 13mm.

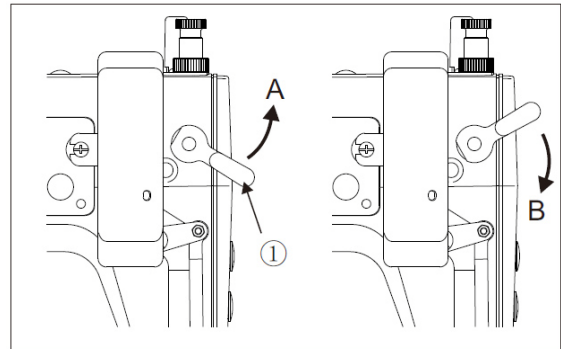


Fig.20

14) STITCH LENGTH ADJUSTMENT

As is shown in Fig.21, the number marked by the stitch adjusting dial (1) signifies the stitch length in mm units. Move the dial sideways to set it to the desired stitch length (Turn it in clockwise direction and the stitch length will decrease while turning it counterclockwise will increase the stitch length).

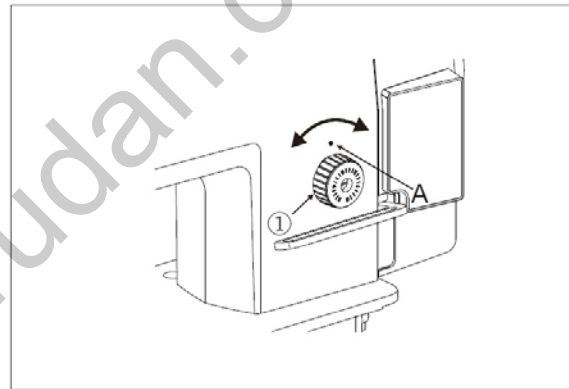


Fig.21

15) HEIGHT AND INCLINATION ADJUSTMENT OF FEED DOG

A. Height adjustment of the feed dog

The height of the feed dog is adjusted by moving the lifter crank (1) after the lifter crank fixing screw (2) is loosened. The standard height from the top face of the needle plate to the top of the feed dog when the stitch length dial is at its maximum and the feed dog is at its highest point is shown in Fig.22.

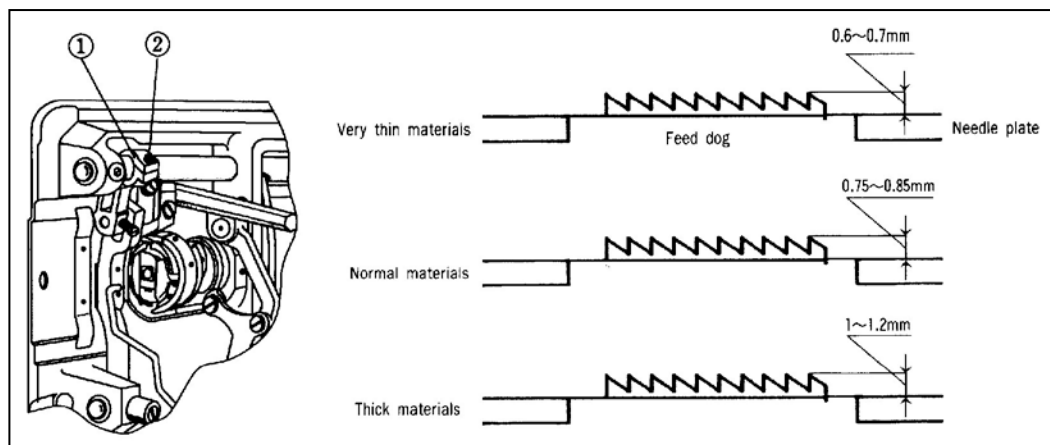


Fig.22

B. Inclination adjustment of the feed dog

- a) The standard tilt of the feed dog is obtained when marker dot (A) on the feed bar shaft is aligned with marker dot (B) on feed rocker (1). (Fig.23)

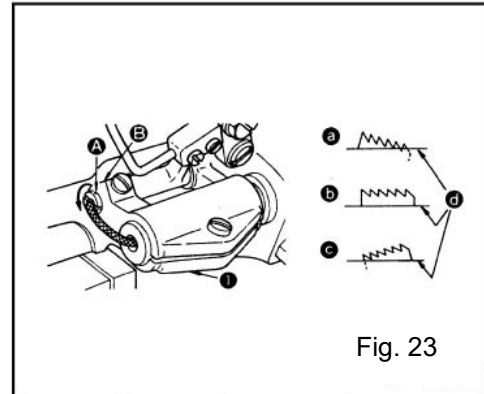


Fig. 23

16) FEED CAM ADJUSTMENT

1. To obtain the standard feed timing align set screw "A" on feed eccentric cam 1 with set screw "B" on main shaft thrust collar 2.
2. To make adjustment, loosen two set screws 3 to release the feed eccentric cam, properly position the eccentric cam. Then retighten the set screws.
3. To advance the feed timing in order to prevent uneven material feed, move the feed eccentric cam in the direction of the arrow.
4. To delay the feed timing in order to increase stitch tightness, move the feed eccentric cam in the opposite direction for the arrow.
5. Be careful not to move the feed eccentric cam too far otherwise needle breakage might occur .

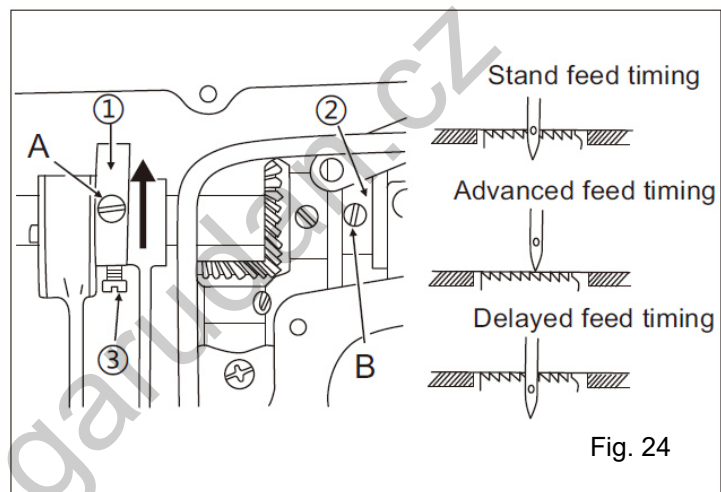


Fig. 24

17) ADJUSTMENT OF THREAD TAKE-UP STROKE

- A. When sewing heavy-weight materials, move thread guide (1) to the left (in direction A) to increase the length of thread pulled out by thread take-up.
- B. When sewing light-weight materials, move thread guide (1) to the right (in direction B) to decrease the length of thread pulled out by the thread take-up.
- C. Normally, thread guide (1) is positioned in a way that marker line © is aligned with the center of the screw.

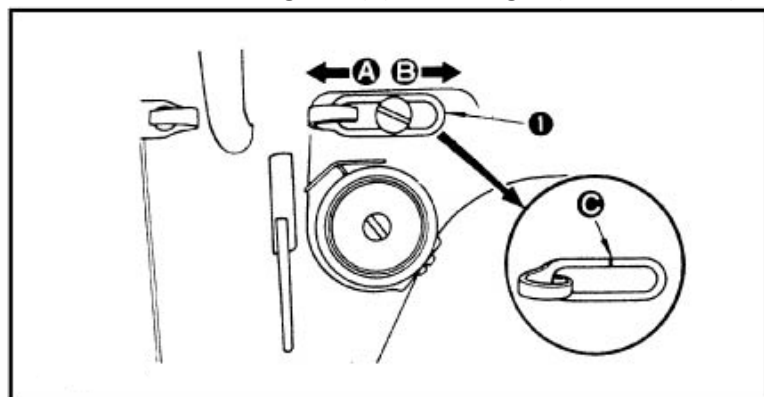


Fig. 25

18) TIMING ADJUSTMENT OF TRIMMER

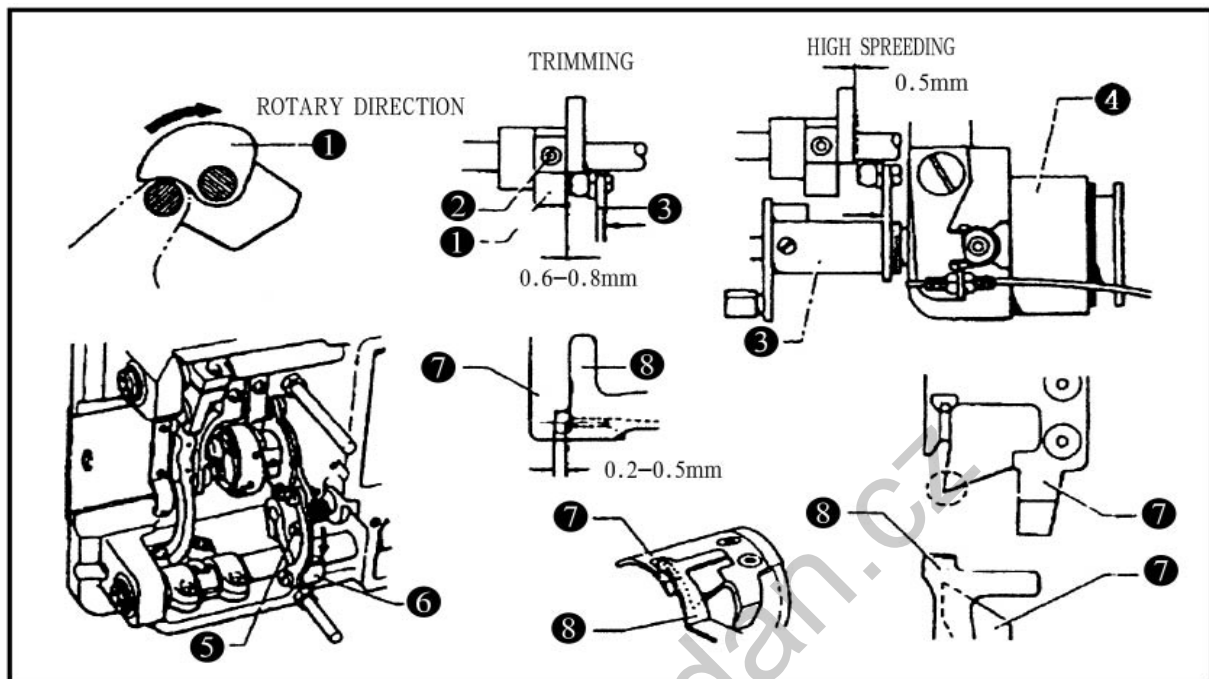


Fig.26

A. Adjusting the position of the thread trimming cam

If you run the handwheel of the machine, the needle bar goes from the bottom up to height of 5 mm, then the thread trimming solenoid (4) is pressed to impel the roller ball to enter the concave of the thread trimming cam (1). Then use the position screw (2) to tighten it in casual. And then replace the thread trimming solenoid (4), while loosing the screw (2) to adjust the cam (1), the clearance of the end plane between the cam and thread trimming driving shaft is 0,5 mm.

B. Adjusting the position of the counter knife and moving knife.

When the head of the thread trimming driving shaft (3) exceeds the cam, the mesh between the front plane of the counter knife (8) and the edge of the moving knife (7) is 0,2-0,5 mm. If they are not meshed, moves the knife shaft crack rod (6) before the thread trimming driving shaft exceeded the cam (1), the front plane of the counter knife (8) and the edge of the moving knife is meshed, then tighten the screw (5).

19) REPLACEMENT OF MOVABLE KNIFE

To change the movable knife (1), turn the pulley manually to place the needle at the highest point. Then, remove the needle plate by unfastening the two movable knife fixing screws (2) as seen in Fig.27. Follow these instructions in reverse order to assemble.

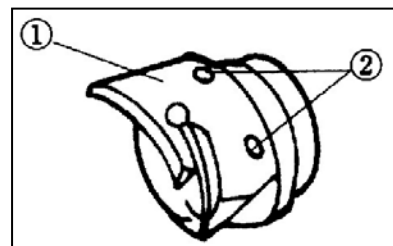


Fig.27

20) REPLACEMENT OF FIXED KNIFE

- A. To change the fixed knife (1), loosen the inner spindle stopper fixing screw (2) as in Fig.28, remove the washer (3) and inner spindle stopper (4), then unfasten the fixed knife fixing screw (5). Follow these instructions in reverse order to assemble.
- B. If the edge of the fixed blade is worn, make sure to grind the knife edge with an oil grindstone as shown in Fig.29.

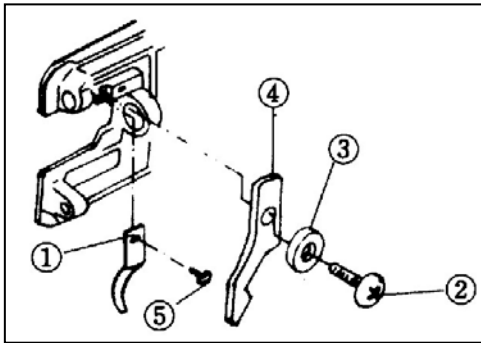


Fig. 28

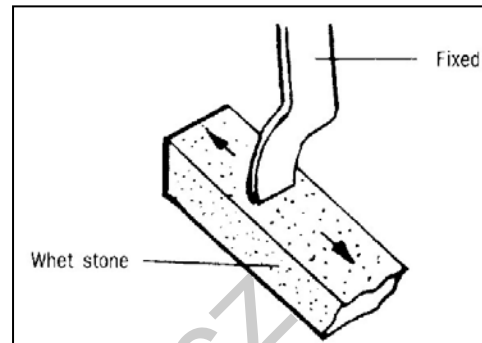


Fig.29

21) WINDING THE BOBBIN

Thread the bobbin winder and wind the bobbin thread onto the bobbin illustrated in the Fig. 30.

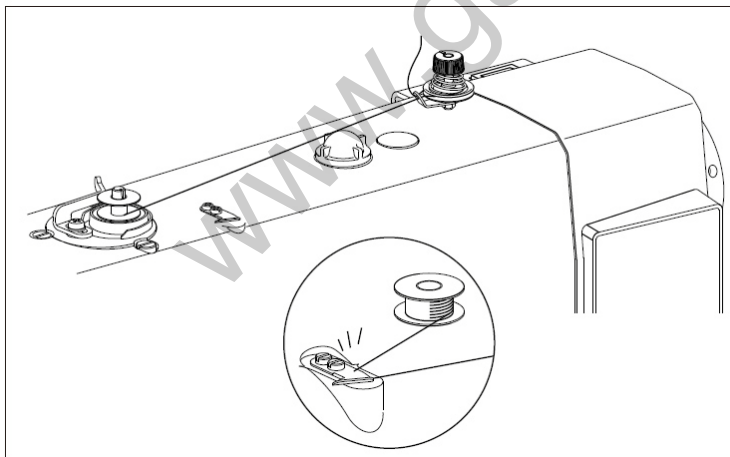


Fig. 30

22) ADJUSTMENT OF PEDAL

1. Installing the connecting rod

Move the pedal (3) to the right or left as indicated by arrows. Speed regulator lever (1) of the motor and the rod (2) should be perpendicular to the pedal. See fig. 31

2. Installing inclination of the pedal

Inclination of the pedal can be easily adjusted by change of the rod length. Loosen the set screw (4) and set the required length of the rod. See fig. 31

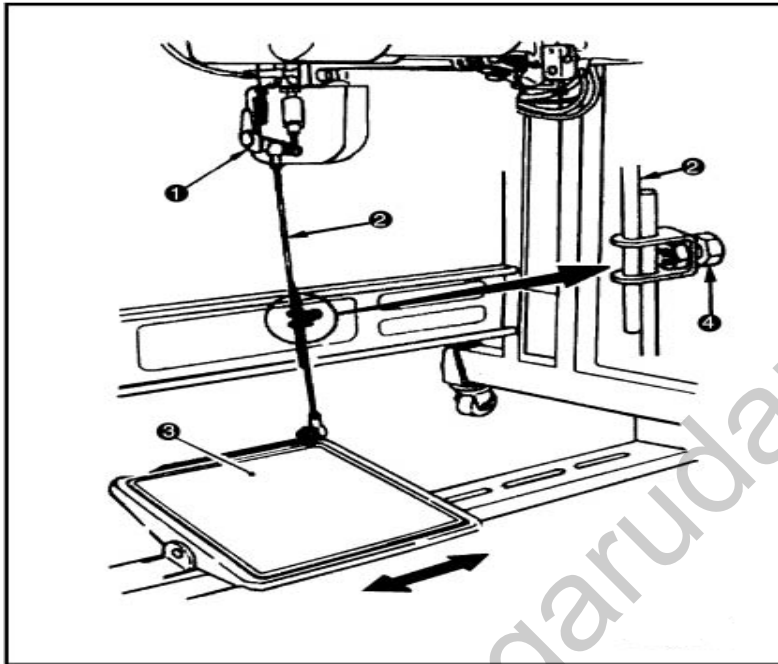


Fig. 31

23) PEDAL OPERATION

The pedal is operated in following four steps

1. The machine runs at low sewing speed when you lightly depress the front part of the pedal (B).
2. The machine runs at high sewing speed when you further depress the front part of the pedal (A).
3. The machine stops (with its needle up or down) when you reset the pedal to its original position ©.
4. The machine trims threads when you fully depress the back part of the pedal (D).

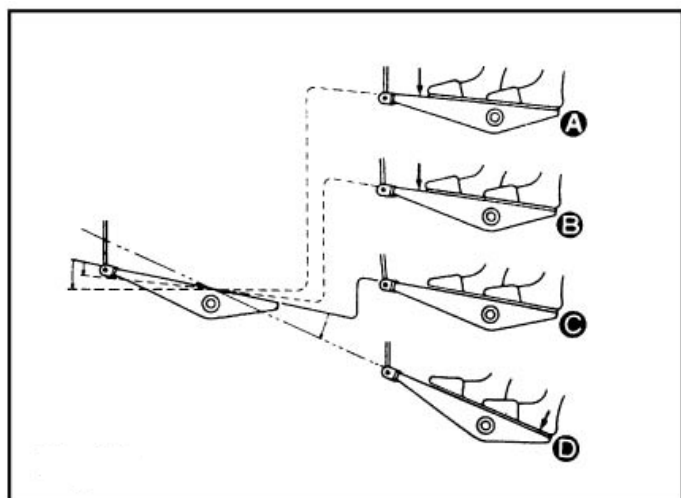


Fig. 32

24) PEDAL PRESSURE AND PEDAL STROKE

1. Adjusting the pressure required to depress the front part of the pedal.
 - a) This pressure can be changed by altering mounting position of pedaling pressure adjust spring (1).
 - b) The pressure decreases when you hook the spring on the left side.
 - c) The pressure increases when you hook the spring on the right side.
2. Adjusting the pressure required to depress the back part of the pedal.
 - a) This pressure can be adjusted by using the regulator screw (2).
 - b) The pressure increases as you turn the regulator screw in.
 - c) The pressure decreases as you turn the screw out.
3. Adjusting the pedal stroke.
 - a) The pedal stroke decreases when you insert connecting rod (3) into the hole left.

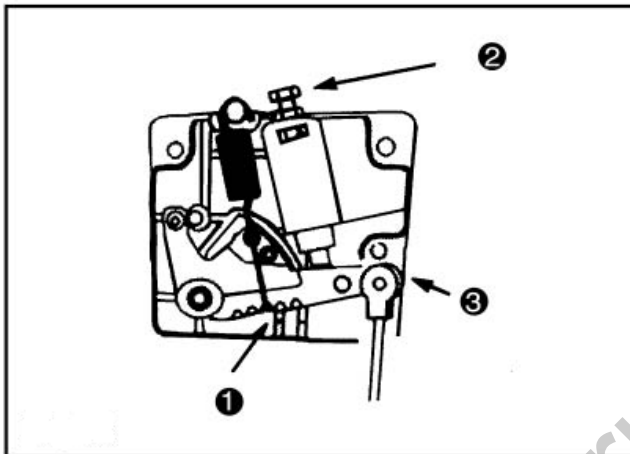


Fig. 33

25) INSTALLING THE THREAD STAND

1. Assemble the thread stand unit and insert it in the hole in the machine table.
2. Tighten locknut (1) to fix the thread stand.
3. For ceiling wiring pass the power cord through spool rest rod (2).

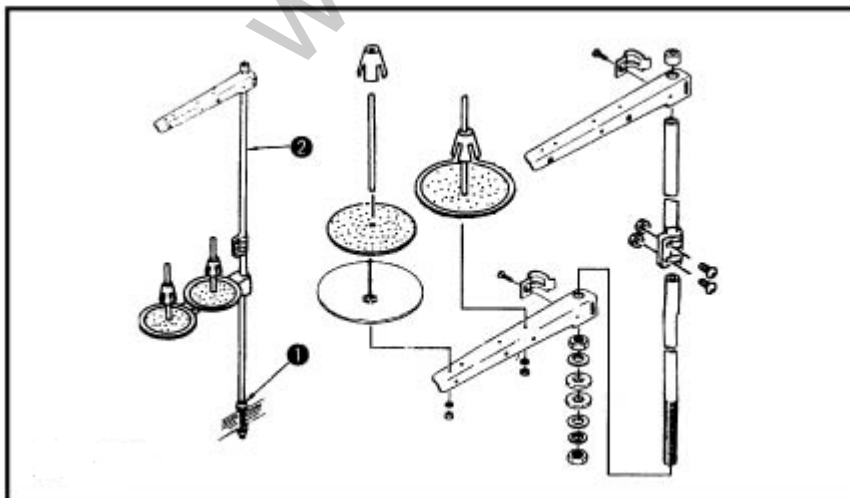


Fig. 34

26) ADJUSTING THE HEIGHT OF THE KNEE LIFTER

1. The standard height of the presser foot lifted using the knee lifter is 10mm.
2. You can adjust the presser foot lift up to 13mm using knee lifter adjust screw ①. (The max. lift should be 9 mm for the A type.)
3. When you have adjusted the presser foot lift to over 10 mm, be sure that the bottom end of needle bar ② in its lowest position does not hit presser foot ③.

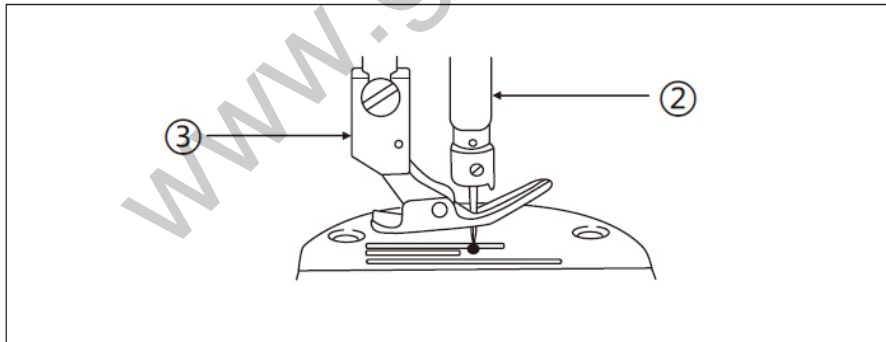
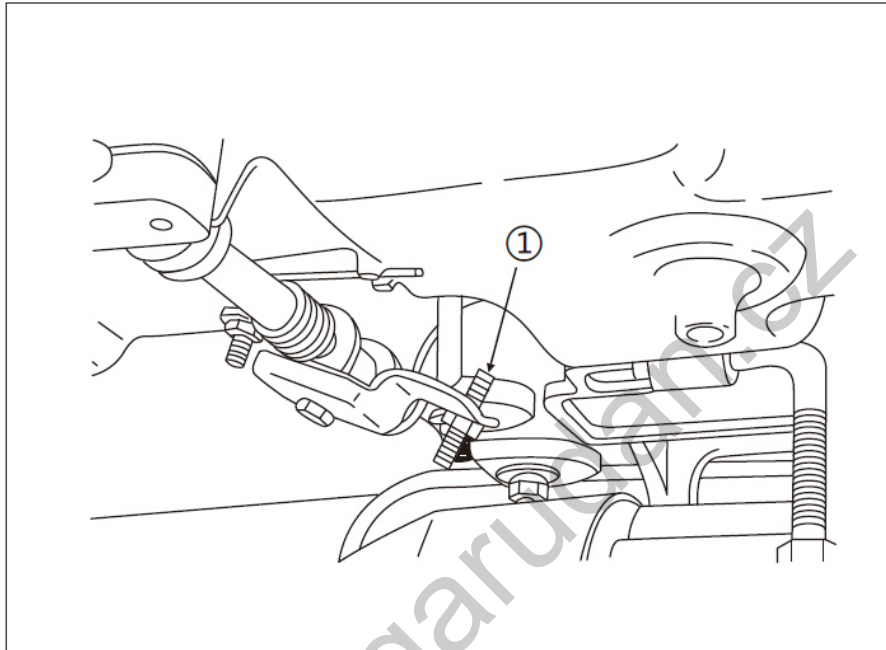


Fig. 35 and 36

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Operation Manual for driving unit

GARUDAN[®]

GF-1105-147



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1) SAFETY INSTRUCTIONS

1. Users are required to read the operation manual completely and carefully before installation or operation.
2. All the instruction marked with sign must be observed or executed; otherwise, bodily injuries might occur.
3. The product should be installed and pre-operated by well trained persons.
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 250 VAC 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.
6. Don't operate in direct sun light, outdoors area and where the room temperature is over 45°C or below 5°C.
7. Please avoid operating near the heater at dew area or at the humidity below 30% or above 95%.
8. 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 :
 - a) Connecting or disconnecting any connectors on the control box or motor.
 - b) Threading needle.
 - c) Raising the machine head.
 - d) Repairing or doing any mechanical adjustment.
 - e) Machines idling.
14. Repairs and high level maintenance work should only be carried out by electronic technicians with appropriate training.
14. All the spare parts for repair must be provided or approved by the manufacturer.
15. Don't use any objects or force to hit or ram the product.

Guarantee Time

Warranty period of this product is 1 year dated from purchasing.

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 .











Note: We make our best effort to test and manufacture the product for assuring the quality. However, it is possible that this product can be damaged due to external magnetic interference and electronic static or noise or unstable power source more than expected; therefore the grounding system of operate area must guarantee the good earth and it's also recommended to install a failsafe device. (Such as residual current breaker)

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2) BUTTON DISPLAYS AND OPERATING INSTRUCTIONS

2.1 Key Description

Name	Key	Indicate	Icons
Start/End Back-Tacking Selection		Execution starting back seam B segment or execution starting back seam (A,B segment) 1 Execution starting back seam (A,B segment) 2 times	
		Execution terminates back seam C segment or execution terminates back seam (C,D segment) 1 Execution terminates back seam (C,D segment) 2 times	
Freedom sewing shortcuts		As the treadle is toed down, machine will start sewing. Once the treadle returns to neutral, machine will stop immediately. As the treadle is heeled back, machine will automatically start trimming cycle	
Continuous back seam shortcuts		Once the treadle is toed down, all the seams of Bar-Tacking will be completed with D times, and then the thread will automatically be trimmed. Note: When the Bar-Tacking Sewing starts, will not stop until the trimming cycle finished, except for the treadle heeled back to cancel the action.	
Some fixed stitch shortcuts		As the treadle is toed down, Constant-Stitch Sewing E, F, G or H performs section by section. Once the treadle returns to neutral intermediately in any section, machine will stop immediately. When the treadle is toed down again, the balance stitches of E, F, G or H goes on. The key adjustable four, seven-segment, eight, and other multi-sew sewing patterns. When the display P1 ~ PF press [S] key to confirm the changes multistage sewing patterns P1 ~ PF is appropriate to modify the number of segment, the latter two is to modify the segment pin number.	
Multi-set stitch shortcuts			
Enter and determine/save button		Enter parameter values such items and their contents change after adjustment, need to press the [S] key to save their confirmation. Note: The parameters are saved directly by the [S] key.	
Mention needles/fill needle key		Continuous back seam except, any kind of sewing stop, click for lifting the needle or forward fill half needle. Any kind of sewn termination is not tangent, click for lifting the needle or forward fill half needle.	
Automatically trigger button		1. In Free sewing: One touch of this key makes beep sound without any function also LED does not light up. 2. In Constant-Stitch Sewing: One shot to the pedal, stitches number of E, F, G or H will be automatically performed. Toe down the pedal again and again to finish the rest sections until it finish pattern.	
Tangent line function keys		1. Set or cancel the use of the tangent function. 2. The corresponding icon is not lit, turn off the corresponding functions.	
Function key enter parameter area		Under normal mode, press the [P] key to enter the user parameter mode. Contact your sales agent to boot into parameter mode Technician.	
Set value increment/parameter increment key		1. A, B, C, D, E, F, G, H section, increase the number of setting stitch. 2. Increase the parameter in Parameter selection. 3. Increase the setting value in Parameter value.	
Set value decrement/decrement key parameters		1. A, B, C, D, E, F, G, H decrease the number of setting stitch. 2. Decrease the parameter in Parameter selection. 3. Decrease the setting value in Parameter value.	
Needle stop up and down keys		1. LED ON indicate stopping machine at the upper stop needle position. 2. LED ON indicate stopping machine at the lower stop needle position.	

Name	Key	Indicate	Icons
Presser foot shortcuts		1.  LED ON=Presser Foot automatically goes up after trimming. 2.  LED ON= Presser Foot automatically goes up after motor stops. 3. Two icons are both LED ON= Presser Foot automatically goes up after trimming and motor stops. 4. Two icons are both LED OFF=Presser Foot is inactive.	
Slow play seam shortcuts		1. The corresponding icon light, slow starting sewing open. 2. The corresponding icon is not lit, no slow-starting sewing function.	
Clamp function keys		1. The corresponding icon light, thread nipper function is turned on. 2. The corresponding icon is not lit, no thread nipper function.	
Maximum speed setting key		Speed up key: the speed should not lower than the value set by technician	
		Slow down key: the minimum speed is 200r/m	

2.2 Comparison Table of LCD Display Fonts and Actual Fonts

Arabic Numerals:

Actual	0	1	2	3	4	5	6	7	8	9
Display	0	1	2	3	4	5	6	7	8	9

English Alphabet:

Actual	A	B	C	D	E	F	G	H	I	J
Display	A	b	C	d	E	F	G	H	I	J
Actual	K	L	M	N	O	P	Q	R	S	T
Display	k	L	N	n	o	P	q	r	S	T
Actual	U	V	W	X	Y	Z				
Display	U	v	W	X	Y	Z				

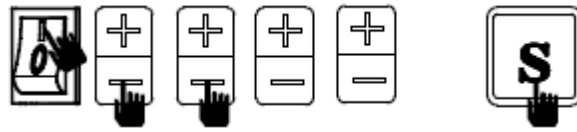
2.3 Manually adjust the positioning



Press and hold the [S] key to boot into the needle position P term correction parameters

Enter the parameter content, the hand wheel adjustment supreme needle position (parameter will change with the hand wheel position), the [S] key to save the parameters (after saving, under the needle position will be automatically adjusted accordingly), the key to exit without saving the parameters.

2.4 Restore factory settings



Hold down the left two [-] key to boot

Double- click the [S] key to confirm it, shutdown restart

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3) USER PARAMETER & TECHNICIAN PARAMETER

Parameter	Parameter Function	Range	Default	Key	Description
In the normal screen, press [P]					
P01	Maximum Sewing Speed (s/m)	100-3700	3700	-/+	Maximum speed of machine sewing
P02	Speed Curve Adjustment (%)	1-100	80	-/+	The Lager the value, the faster to increase sped
P03	Needle UP/DOWN	UP/DN	DN	-/+	UP: Needle Stops at Up Position DN: Needle Stops at Down Position
P04	Start Back-Tacking Speed (r/S)	200-3200	1800	-/+	Start back-Tacking Speed Adjustment
P05	End Back-Tacking Speed (s/m)	200-3200	1800	-/+	End Back-Tacking Speed Adjustment
P06	Bar-Tacking Speed (s/m)	200-3200	1800	-/+	Repeat Bar-Tacking Speed Adjustment
P07	Soft Start Speed (s/m)	200-1500	400	-/+	Soft Start Speed Adjustment
P08	Stitch Numbers for Soft Start	0-99	2	-/+	Soft Start Stitches Setting (one unit = half stitch)
P09	Automatic Constant-Stitch Sewing Speed (r/S)	200-4000	3700	-/+	Constant-Stitch sewing speed [034.SMP] is set at A (or when one shot signal is active)
P10	Automatic End Back-Tacking Sewing (Can invalidate the stitch correction function)	ON/OFF	ON	-/+	The Stitch-Correction is valid in sewing stop. Note: Valid only when the [0.11.RVM] must set on B ON: Invalid (Constant-Stitch sewing, it can automatic continue action as CD function) OFF: Valic (Can't continue execute CD function)
P11	Back-Tacking Mode Selection	J/B	J	-/+	J: JUKI Mode (it will activate when machine is stopped or running) B: BROTHER Mode (It will activate only the machine is running)
P12	Start Back-Tacking Mode Selection	A/M	A	-/+	A: One shot to pedal, it will automatic execute Start Back- Tacking M: Pedal-controlled and motor can stop arbitrarily
P13	Mode Selection at the end of Start Back-Tacking	CON/STP	CON	-/+	CON:At the end of Start Back-Tacking, machine continues sewing if pedal pressed or START signal on (standing operation) STP: At the ened of Start Back-Tacking, machine stops
P14	Soft Start	ON/OFF	ON	-/+	ON: Slow start feature is turned on. OFF: Slow start function off.
P15	Make up pin mode	0-2	0	-/+	0: Semi-pin 1: a pin
P16	Setting Stitches B of Start Back-Tacking			-/+	Reserve; set here invalid
P17	Setting Turns of Start Back-Tacking			-/+	Reserve; set here invalid
P18	Stitch Balance for Start Back-Tacking 1	0-200	131	-/+	0 → 200 Action gradually lag
P19	Stitch Balance for Start Back-Tacking 2	0-200	158	-/+	
P20	Mode Selection for End Back-Tacking	A/M	A	-/+	A:Pedal full heeling, it wil automatic execute end Back-Tacking M: Pedal-controlled and motor can stop arbitrarily
P21	End Back-Tacking Function Selection	ON/OFF	ON	-/+	ON: termination feature is turned back seam OFF: End back seam is off Quick Setup from the front, where the setting is ivalid
P22	Setting Stitches C of End Back-Tacking			-/+	[End Back-Tacking] C,D segment pin count set Quick Setup from the front, where thesettingis

Parameter	Parameter Function	Range	Default	Key	Description
P23	Setting Stitches D of End Back-Tacking			- /+	invalid
P24	Anti-pedaling pedals points; voltage	0-1000	110	- /+	
P25	Stitch Balance for End Back-Tacking 3	0-200	131	- /+	0 → 200 Action gradually lag
P26	Stitch Balance for End Back-Tacking 4	0-200	158	- /+	
P27	Adding 1 Stitch to C Segment of End Back-Tacking	0-1	0	- /+	1: Thin materials 0: Thick materials
P28	Mode Selection for Bar-Tacking	A/M	A	- /+	Bar-Tacking, reverse solenoid action: A: One shot to pedal, it will automatic execute Bar-Tacking. M: Pedal-controlled and motor can stop arbitrarily
P29	Tangent after braking force	1-50	20	- /+	
P30	Thick material afterburner	0-100	0	- /+	
P31	Shear line afterburner	0-100	20	- /+	
P32	Stitch Balance for Bar-Tacking 5	0-200	131	- /+	0 → 200 Action gradually lag
P33	Stitch Balance for Bar-Tacking 6		158	- /+	
P34	Mode Selection for Constant-Stitch Sewing	A/M	A	- /+	A:One shot to pedal, it will automatic execute Constant-Stitch M: Pedal-controlled and motor can stop arbitrarily
P35	Constant-Stitch Sewing Function Selection	ON/OFF	OFF	- /+	Reserve; set here invalid
P36	Setting Stitches for Section P1 of Constant-Stitch Sewing		0	- /+	Reserve; set here invalid
P37	Wiper Function Selection or Thread Clamp Pressure Setting	0-11	8	- /+	0: No Action 1: Wiper Action 2-11: Thread Clamp action and the pressure gradually increased
P38	Trimmer Function Selection	ON/OFF	ON	- /+	ON: Trimmer Valid OFF: Trimmer Invalid
P39	Presser Foot UP/Down at intermediate stop	UP/DN	DN	- /+	UP: Presser foot goes up automatically DN: Presse foot keeps down (Controlled by heeling pedal)
P40	Presser Foot UP/Down after Trimming	UP/DN	DN	- /+	UP: Presser foot goes up automatically DN: Presse foot keeps down (Controlled by heeling pedal)
P41	Display the sewing finished quantity		0	- /+	Counting the finished-sewing quantity
P42	Information Display		N-01	- /+	NO1 Electrically controlled version serial numbers NO2 Selected needle cassette version NO3 Speed NO4 Pedals AD NO5 Positioning angle (0--359) NO6 Under the positioning angle NO7 Bus voltage AD
P43	Setting Direction of Motor Rotation	CCW/WC	CCW	- /+	CW: Clockwise CCW: Counter Clockwise

Parameter	Parameter Function	Range	Default	Key	Description
For entering service parameter interface contact your sales agent					
P44	Brake force	0-31	16	- /+	Efforts to stop the machine when selecting
P45	Back-seam operation duty cycle (%)	10-90	30	- /+	Back-seam action to periodic power output
P46	Motor stops with a reverse angle after trimming	ON/OFF	OFF	- /+	ON: It will automatic as reverse function after trimming (angle adjustment according to the parameter [047.TR8] OFF: No Function
P47	Adjustment of reverse angles after trimming	50-200	160	- /+	Adjusting at reverse direction after trimming
P48	Low (Positioning) Speed (s/m)	100-500	210	- /+	Setting Positioning Speed
P49	Trimming Speed (s/m)	100-500	250	- /+	Adjusting trimming speed
P50	The time of Foot lifting	10-990	250	- /+	Adjustment of foot lifting action
P51	Duty-Cycle Setting for Foot Lifter (%)	10-90	30	- /+	Adjustment for Duty-Cycle of Foot Lifter/Byck- Tacking (Fine tuning can reduce the over-heating)
P52	The time of Foot down	10-990	120	- /+	Adjustment of foot down action
P53	Cancel Foot Lifting when Half-Heeling the Pedal	ON/OFF	OFF	- /+	ON: Pedal half heeling without foot lifting function. OFF: Pedal half heeling with foot lifting function
P54	Trimming Time (ms)	10-990	200	- /+	Trimming sequence time setting
P55	Setting Wiper Timing	10-990	380	- /+	Wiper sequence setting
P56	Needles Goes Up Automatically as Power turned on	ON/OFF	ON	- /+	ON: Power turned on, needle goes up position automatically OFF: No Function
P57	Protection time for foot lifter (s)	1-120	10	- /+	It will automatic come down when foot lifter keep lift over the setting time
P58	Up Position Adjustment	0-1440	40	- /+	Up Position Adjustment The needle will advance stop when the value decreased. The needle will delay stop when the value increased.
P59	Down Position Adjustment	0-1440	750	- /+	Down Position Adjustment The needle will advance stop when the value decreased The needle will delay stop when the value increased
P60	Testing Speed (s/m)	100-3700	2000	- /+	Setting testing speed
P61	Testing A		OFF	- /+	Option of Testing A, after setting press [060.TV] to set the speed keep running
P62	Testing B		OFF	- /+	Option of Testing B, after setting press [060.TV] to set the speed execute the cycle of Start-Sewing-Stop-Trimming
P63	Testing C		OFF	- /+	Option of Testing C, after setting press [060.TV] to set the speed execute the cycle of Start-Sewing-Stop without positioning function
P64	Running Time of Testing B and C	1-250	20	- /+	Setting running time of testing B and C
P65	Stop Time of Testing B and C	1-250	20	- /+	Setting stop time of testing B and C
P66	Machine Protection Switch Testing	0-2	1	- /+	0: Disable, 1: Testing zero signal, 2: Testing positive signal
P67	Trimming Protection Switch Testing	ON/OFF	OFF	- /+	OFF: Disable ON: Enable

Parameter	Parameter Function	Range	Default	Key	Description
For entering service parameter interface contact your sales agent					
P69	Backstitch release buffer (ms)	0-500	5	- /+	Slow release delay factor
P70	The factory Type Selection			- /+	
P71	Presser foot release buffer (ms)	0-500	5	- /+	Efforts to ease foot pressure release time
P72	The needle position correction			- /+	
P73	Under needle position correction			- /+	
P76	Backstitch output of full time (ms)	250-990	250	- /+	
P77	Freedom sew back seam even terminate pause time (ms)	20-200	75	- /+	
P78	The Thread Clamp release angle	1-990	100	- /+	The positioning angle of starting clamp
P79	Clamp start action angle	1-990	270	- /+	The positioning angle of release
P80	Shear line infeed is angle	0-359	18	- /+	Shear line infeed is angle setting (under defined as 0°)
P81	Afterburner Shear line angle	1-990	140	- /+	Afterburner Shear line angle setting (under defines as 0°)
P82	Retract angle Shear line	1-990	172	- /+	Retract Shear line angle setting (under defined as 0°)

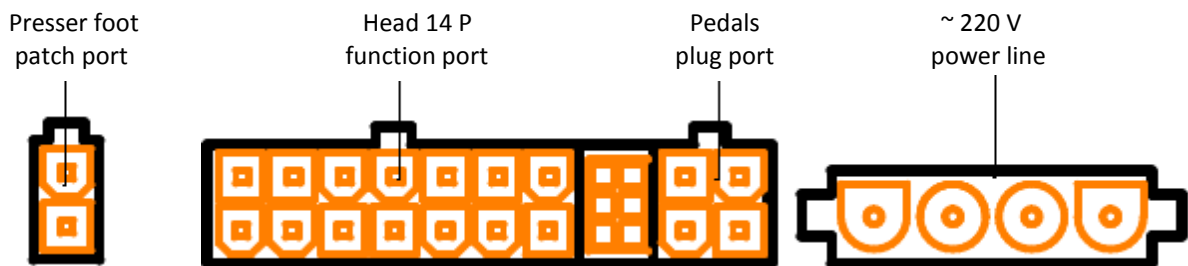
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4) ERROR CODE LIST

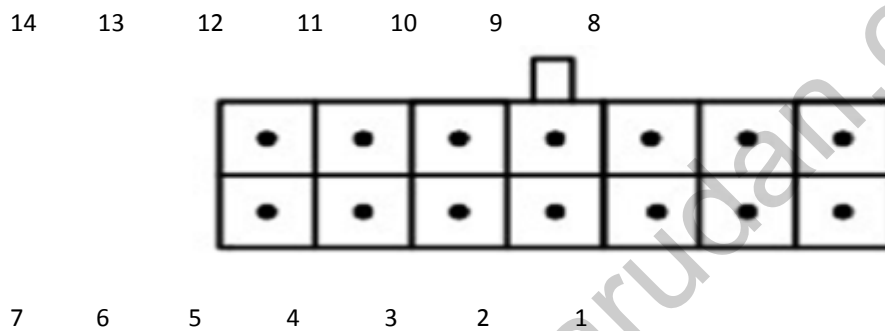
Error Code	Problem	Strategies
E1	Power Module is faulty. Abnormal over current or voltage. Resistor is damaged or F1 fuse is blown.	System will be shut down until the power resets on. Please acheck the power board in detail.
E2	1) When power on, detected main voltage too low 2) Connect the wrong voltage, too low	Moto and machine will be shutting down. Please check the AC power. (Too low) Please check the main pc board.
E3	Operation Box linked to CPU interface had communication error.	Motor and machine will be shutting down. Please check the operation box.
E5	The connection of the Foot Pedal error	Motor and machine will be shutting down. Please check the connection of the Foot Pedal or the problem of it.
E7	a) Bad connection at the motor connector. b) Machine locked or object stuck in the motor pulley. c) Sewwing material is too thick. d) Module output is abnormal.	Motor and machine will be shutting down. Please check the motor connectors, synchronizer situation and machine situation.
E8	Manual Back-Tacking lasts for 15 sec.	Motor and machine will be shutting down until the power resets on.
E9	Synchronizer signal error.	Check the upper and lower positioning signal is normal; no locator mode automatically, and the tangent; thread wiper; the positioning and all fixed stitch sewing style features also ivalid. Motor can not operate normally. (Please check the positioning signal abnormalities.)
E12	Power is turned on without the synchronizer signal.	Motor still can run, but it automatically starts the clutch mode. All constant-stitch sewing pattern and trimmer/wiper function is invalid. Please check the synchronizer.
E13	Overheat Protection or Power Module	Please check the connection between power module and heat sink.
E14	Encoder signal error.	Please check the encoder signal or change the encoder.
E15	Abnormal over current protection for Power Module.	System will be shut down until the power resets on. Please acheck the power board in detail.
E17	Trimmer switch error.	Please check the trimmer switch whether turn in the correct position.

5) PORT OUTLINE DIAGRAM

5.1 The Name of each port



5.2.14P Function Port Table



- 1) Trimming Solenoid 1, 8
- 2) Clamp, dial line solenoid: 2, 9
- 3) Clothing lights: 4 (Signal ground), 11 (+5v)
- 4) Backstitch manually switch: 5 (Sensor signal), 12 (Signal ground)
- 5) Backstitch solenoid: 6,13
- 6) Complement Needle switch: 7 (Sensor signal), 14 (Signal ground)

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Katalog náhradních dílů
Spare Parts List

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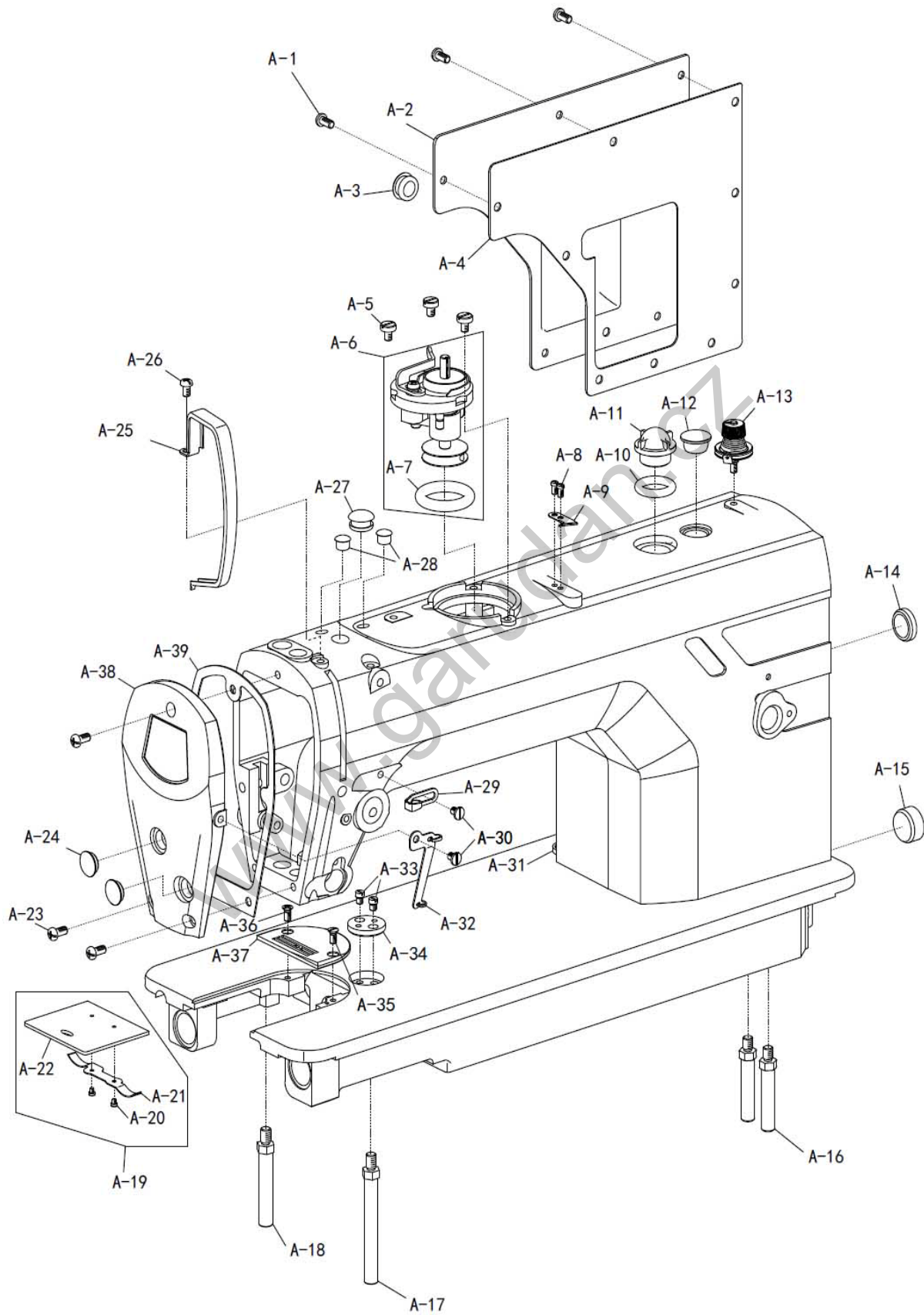
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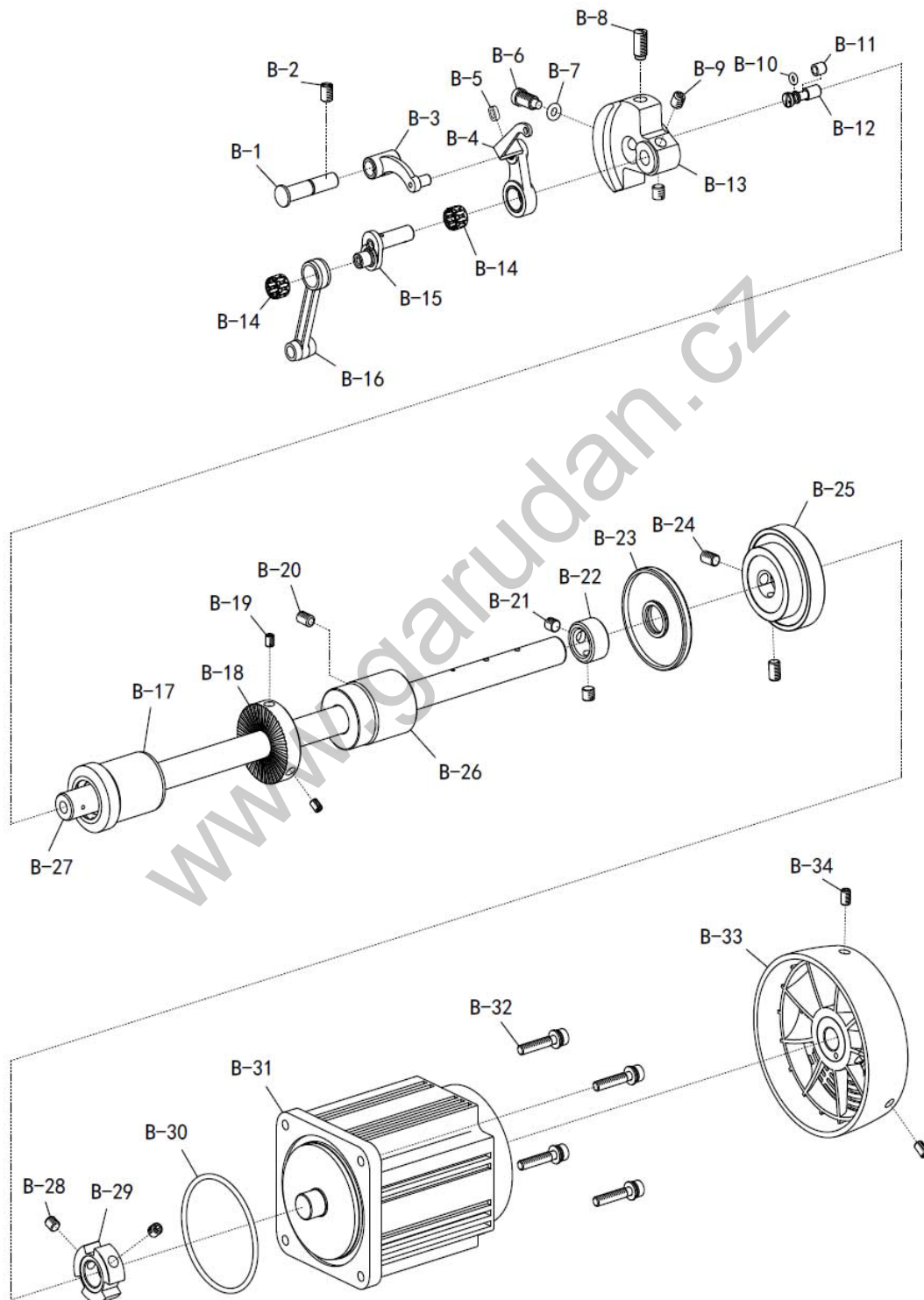
Content/Obsah

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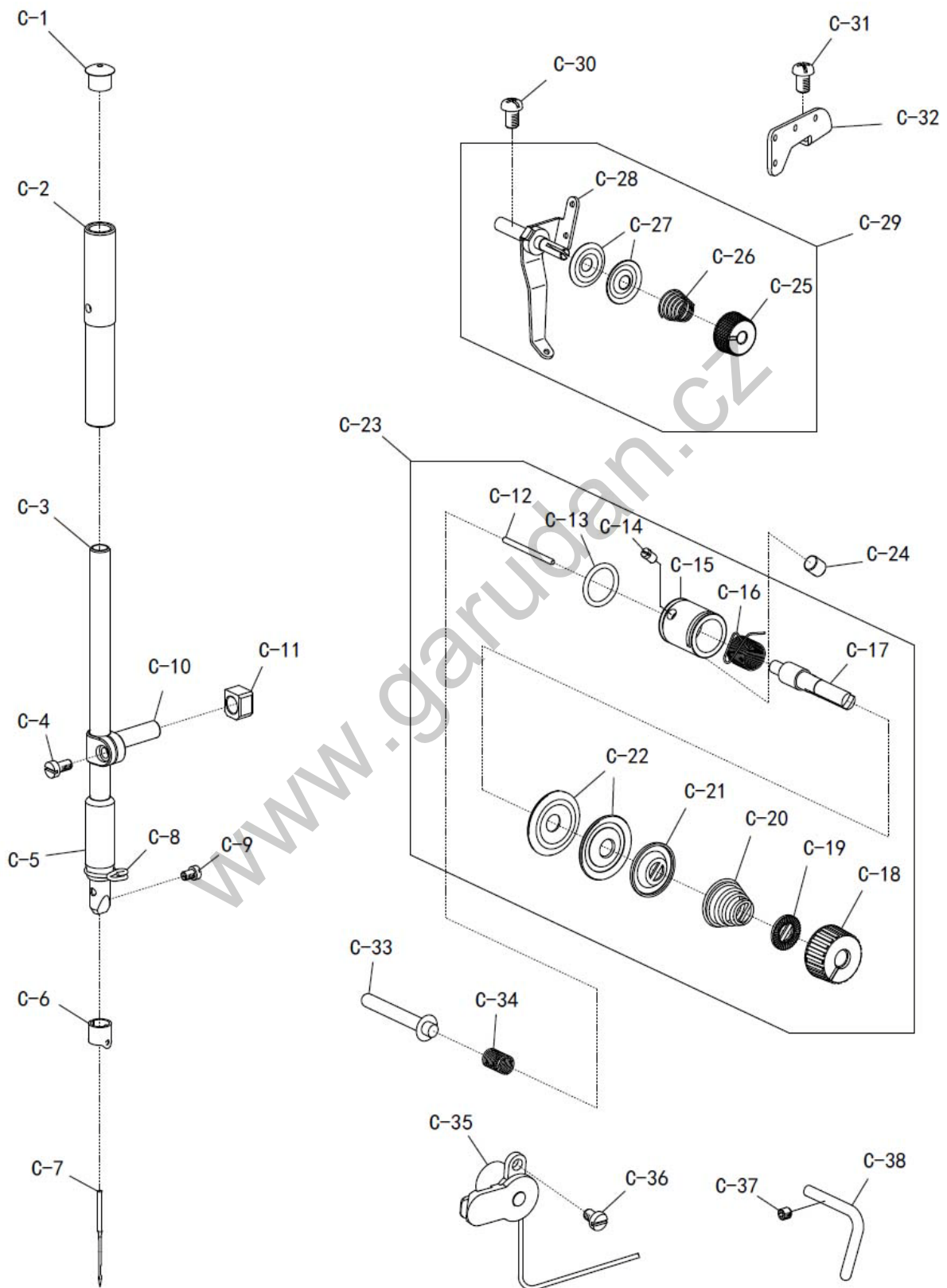
1. MACHINE FRAME & MISCELLANEOUS COVER COMPONENTS



1. MACHINE FRAME&MISCELLANEOUS COVER COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
A-1	10008972	Screw	9	
A-2	20018955	Side plate	1	
A-3	10008977	Rubber plug	1	
A-4	10052029	Side plate gasket	1	
A-5	10004380	Screw	3	
A-6	10047410	Bobbin thread tension 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	10013064	Bobbin thread tension ASM.	1	
A-14	10008975	Rubber plug	1	
A-15	10008941	Rubber plug	1	
A-16	10002577	Bed screw stud	2	
A-17	10008871	Bed screw stud	1	
A-18	10008830	Bed screw stud	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	10014082	Thread take-up lever cover	1	
A-26	10008934	Screw	1	
A-27	10008942	Rubber plug	1	
A-28	10008943	Rubber plug	2	
A-29	10008943	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 p. 34 - 37	Needle plate	1	
A-38	20014507	Face plate	1	
A-39	10041548	Face plate gasket	1	

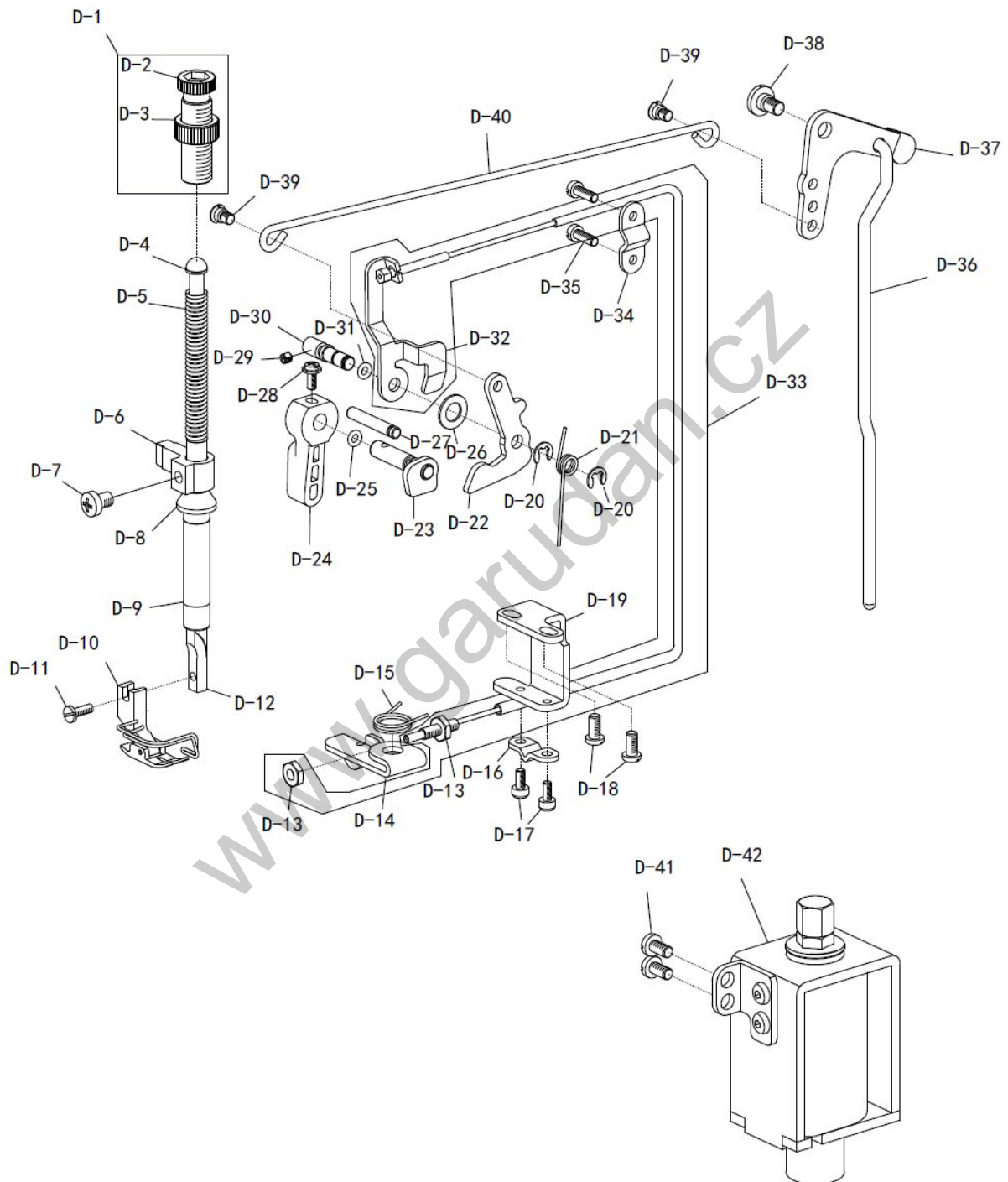
2. MAIN SHAFT&THREAD TAKE-UP COMPONENTS

2. MAIN SHAFT&THREAD TAKE-UP COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
B-1	10010543	Thread take-up crank shaft	1	
B-2	10010083	Screw	1	
B-3	10010535	Thread take-up bar	1	
B-4	10038474	Thread take-up lever Asm.	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	1	
B-14	10010504	Bearing	2	
B-15	10004144	Needle bar crank	1	
B-16	10010592	Needle bar crank rod	1	
B-17	10007233	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	10008803	Oil seal	1	
B-24	10012161	Screw	2	
B-25	10032938	Coupling	1	
B-26	10007239	Bearing support	1	
B-27	10008910	Main shaft	1	
B-28	10050053	Screw	2	
B-29	10040329	Coupling	1	
B-30	10003796	O-ring	1	
B-31	10035432*	Motor	1	
B-32	10006157	Screw	4	
B-33	10035505	Head wheel	1	
B-34	10002436	Screw	2	

3. NEEDLE BAR & THREAD TENSION COMPONENTS

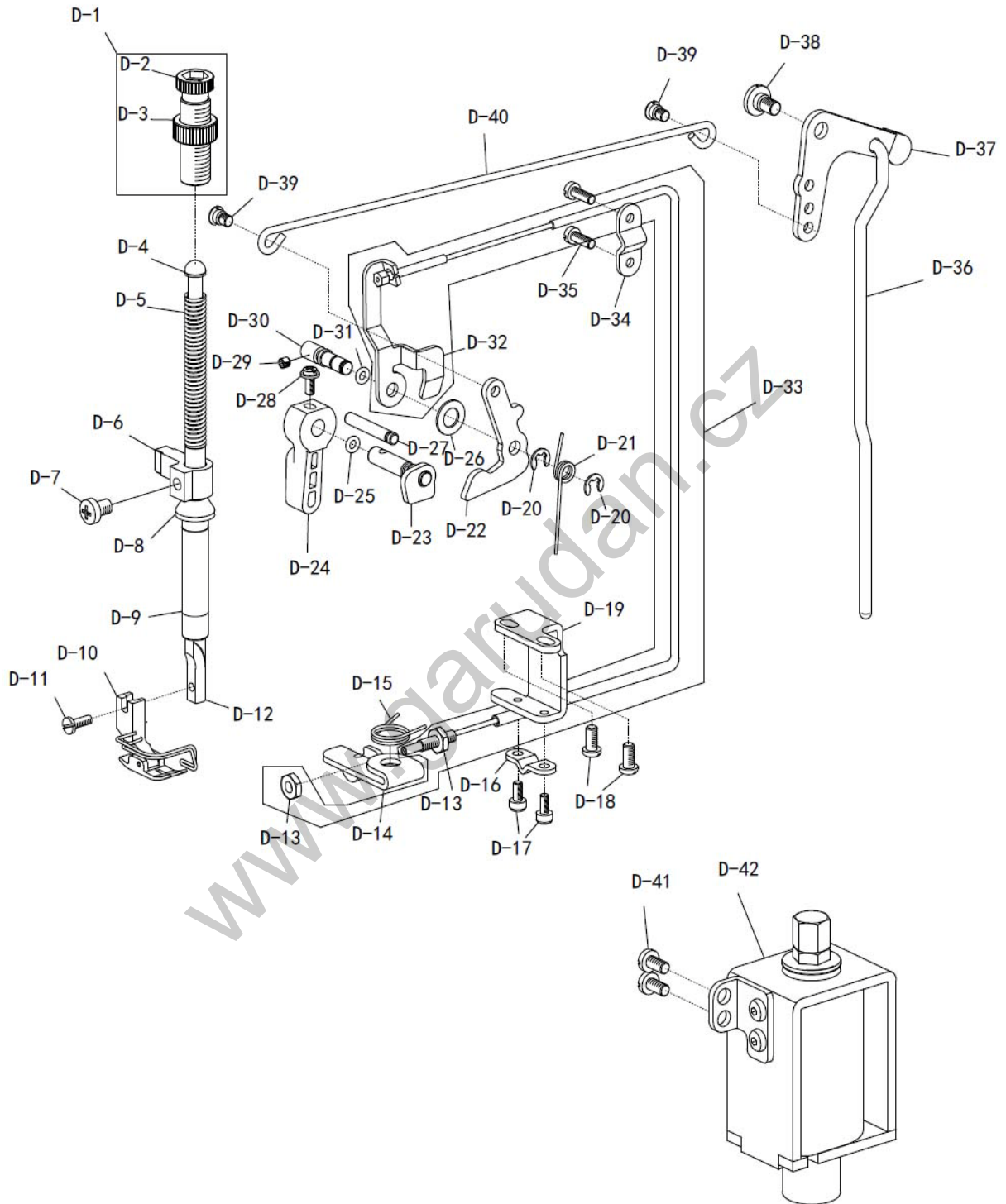
3. NEEDLE BAR & THREAD TENSION COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
C-1	10010587	Rubber plug	1	
C-2	10011063	Bearing support	1	
C-3	10041608	Needle bar	1	
C-4	10011063	Screw	1	
C-5	10014117	Bearing support	1	
C-6	10005943	Needle bar thread guide	1	
C-7	10034917	Needle DB×1 14#	1	
C-7	10034916	Needle DP×5 18#	1	
C-8	10010591	Needle bar thread guide	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	10041354	Tension disc holder	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	10012867	Thread take-up device	1	
C-30	10008934	Screw	1	
C-31	10008934	Screw	1	
C-32	10033232	Thread tension guide	1	
C-33	10008839	Tension release supporting pin	1	
C-34	10050348	Spring	1	
C-35	10039460	Electromagnet	1	
C-37	10005204	Screw	1	
C-36	10009074	Screw	1	
C-38	10039823	Presser bar thread guide	1	

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



4. PRESSER BAR & TENSION RELEASE COMPONENTS (1/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
D-1	10008409	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	1	
D-10	See p. 34 - 37	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	10008989	Snap ring	2	
D-21	10039381	Spring	1	
D-22	10039371	Lifting lever	1	
D-23	10050190	Hand lifter CAM ASM.	1	
D-24	10011064	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	10000000	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	platen	1	
D-35	10009037	Screw	2	
D-36	10039377	Connecting rod vertical	1	
D-37	10039379	Lifting lever link	1	
D-38	10010652	Screw	1	
D-39	10010651	Screw	1	

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

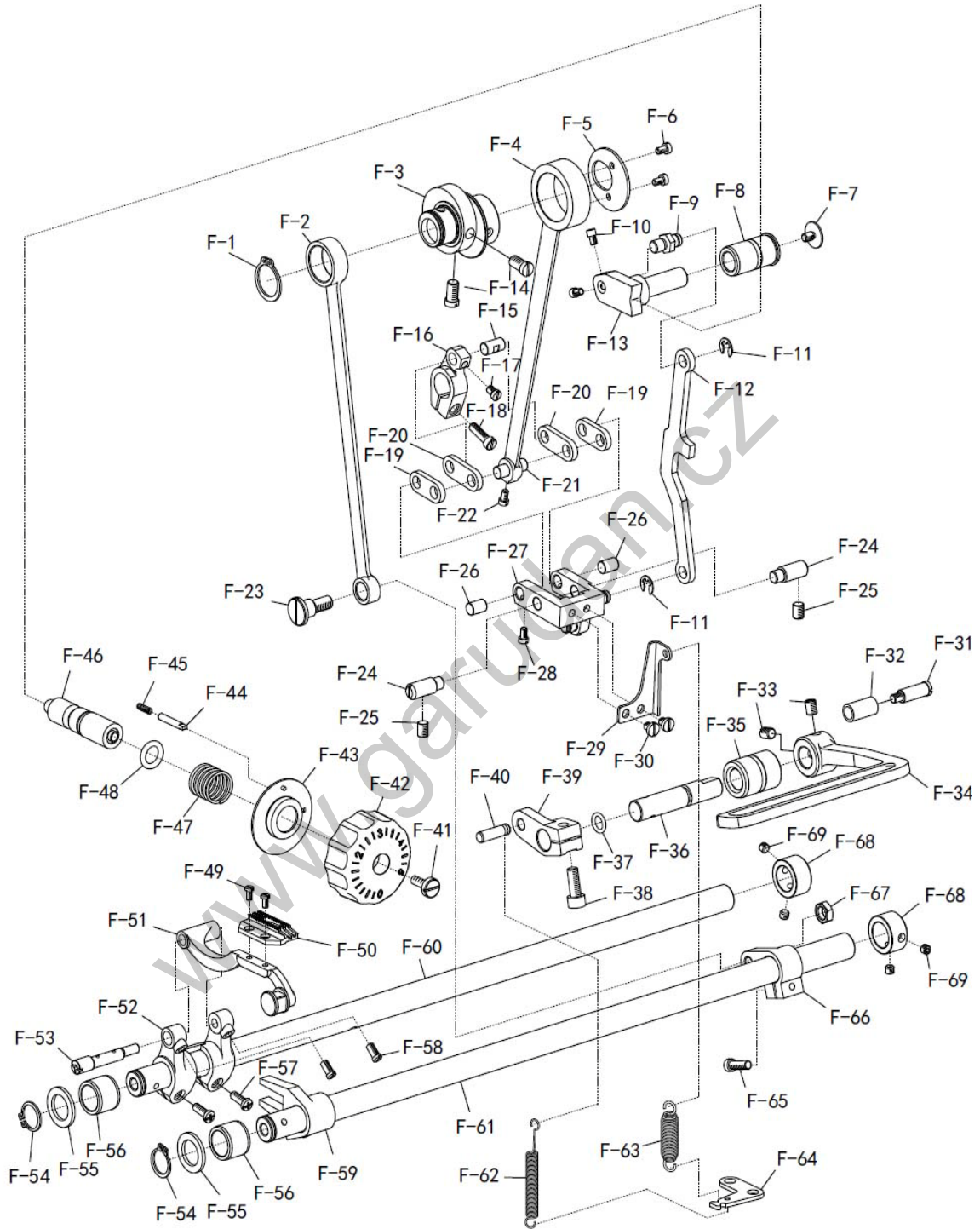


4. PRESSER BAR & TENSION RELEASE COMPONENTS (2/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
D-40	10041762	Lifting lever connecting rod	1	
D-41	10000134	Screw	3	
D-42	10050685	Nut	1	

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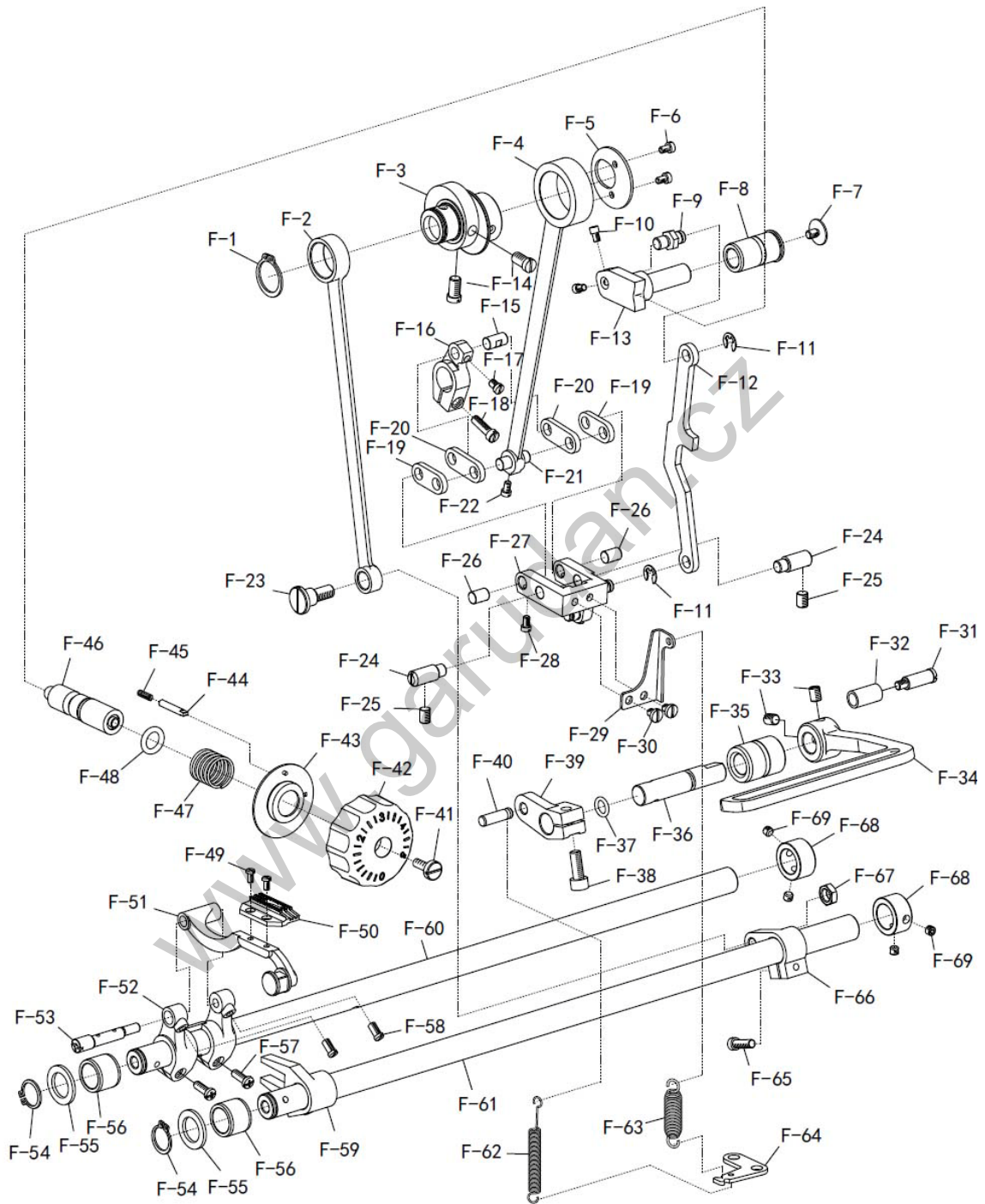
5. HOOK OF DRIVING SHAFT COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
E-1	10031259*	Positioning finger	1	
E-2	10011101	Screw	1	
E-3	10006924	Bobbin case	1	
E-4	10025484	Bobbin	1	
E-5	10038530	Hook	1	
E-6	10010064	Screw	1	
E-7	10010063	Oil wick	1	
E-9	10040274	Bearing support	1	
E-9	10026781	Bearing 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-18	10010593	Screw	1	
E-19	10008864	Rubber plug	1	
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	10000000	Upright shaft	1	
E-26	10002561	Gear	1	
E-27	10002445	Gear	1	
E-28	10010065	Screw	8	

6. FEED MECHANISM COMPONENTS (1/2)

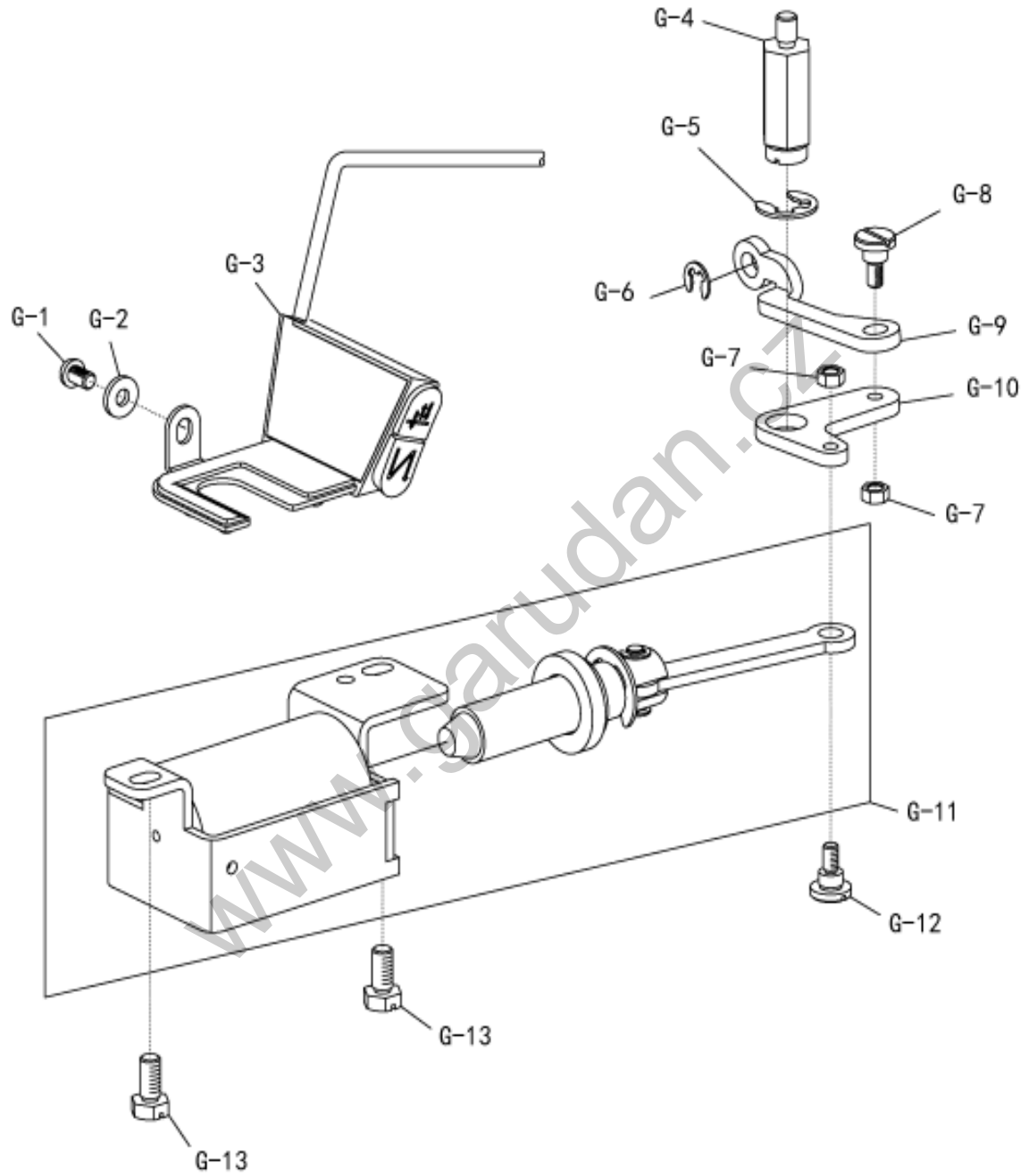


6. FEED MECHANISM COMPONENTS (1/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
F-1	10010089	Snap ring	1	
F-2	10010084	Connecting rod	1	
F-3	10010115	Feed drive eccentric cam	1	
F-4	10010072	Connecting rod	1	
F-5	10010098	Thrust cover	1	
F-6	10010643	Screw	2	
F-7	10010238	Screw	1	
F-8	10013772	Bearing support	1	
F-9	10026886	Pin	1	
F-10	10051742	Screw	2	
F-11	10010649	Snap ring	2	
F-12	10008852	Feed adjust rod	1	
F-13	10008848	Feed regulator	1	
F-14	10010092	Screw	2	
F-15	10010096	Pin	1	
F-16	10010076	Feed rocker	1	
F-17	10013015	Screw	1	
F-18	10013015	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.	1	
F-28	10000000	Screw	1	
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	

6. FEED MECHANISM COMPONENTS (2/2)

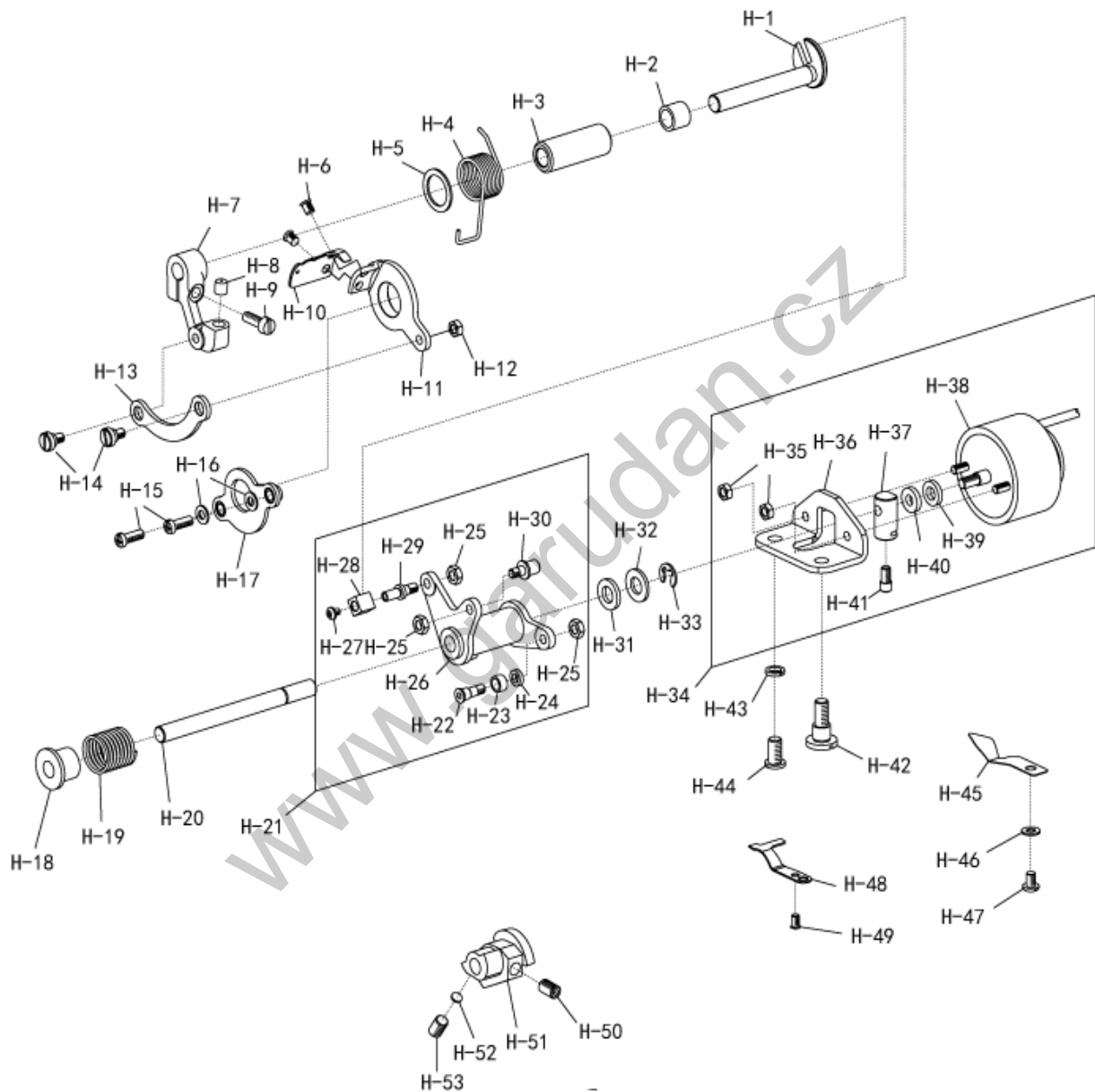


6. FEED MECHANISM COMPONENTS (2/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
F-38	10009008	Screw	1	
F-39	10039853	Reverse feed shaft	1	
F-40	10010287	Pin	1	
F-41	10051845	Screw	1	
F-42	10051770	Feed dial	1	
F-43	10051578		1	
F-44	10051619	Pin	1	
F-45	10013869	Spring	1	
F-46	10008829	Screw	1	
F-47	10051621	Spring	1	
F-48	10010240	O-ring	1	
F-49	10010099	Screw	2	
F-50	See p. 34 - 37	Feed dog	1	
F-51	20000349	Feed bar ASM.	1	
F-52	10008842	Feed bar driving crank	1	
F-53	10008824	Pin	1	
F-54	10010090	Snap ring	2	
F-55	10010902	Washer	2	
F-56	10014116	Bearing support	2	
F-57	10010900	Screw	2	
F-58	10010901	Screw	2	
F-59	10042079	Lifting fork	1	
F-60	10008840	Feed rocker shaft	1	
F-61	10008804	Feed driving shaft	1	
F-62	10004430	Spring	1	
F-63	10012796	Spring	1	
F-64	10010235	Plate	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	

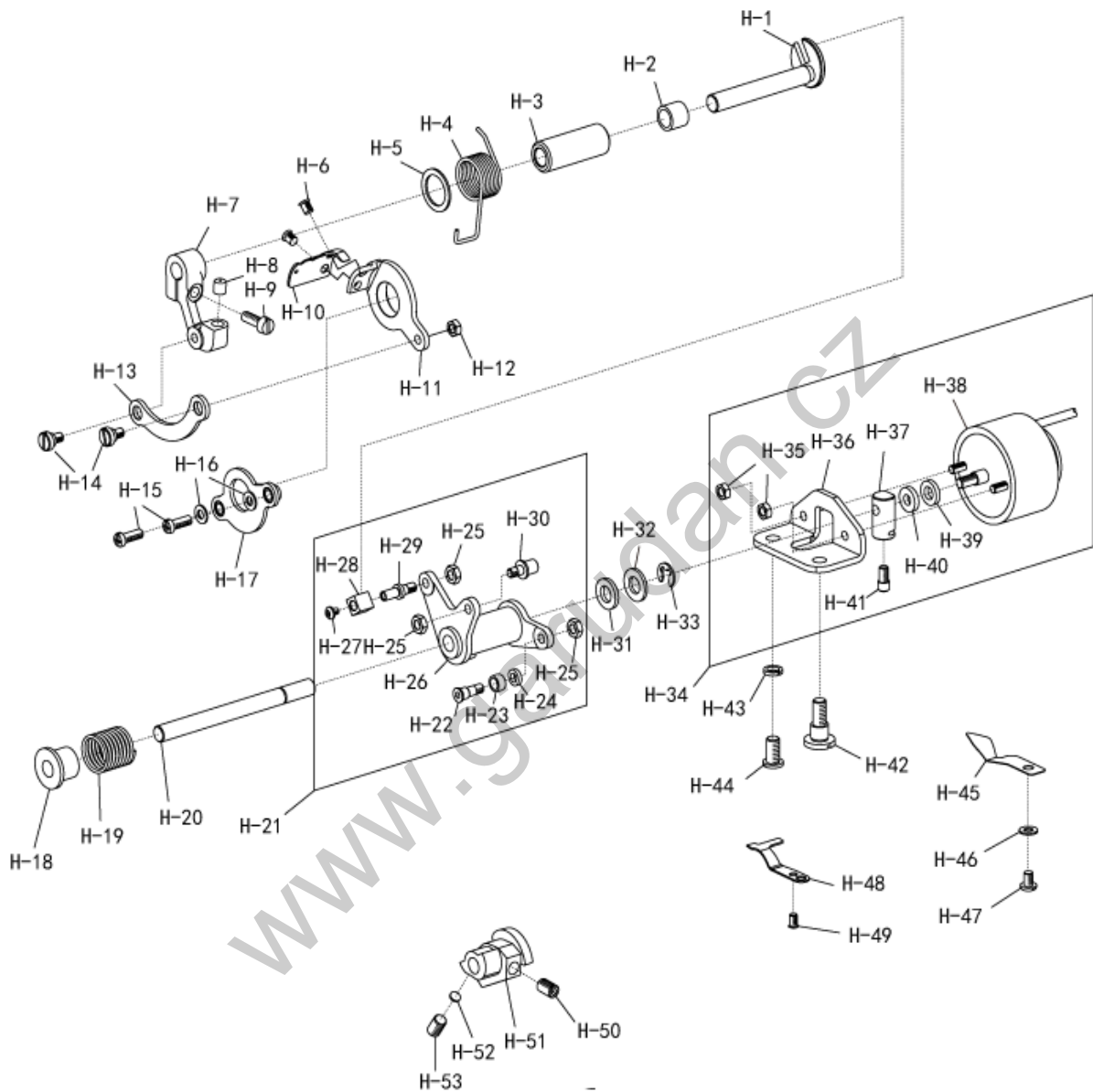
7. FEED REGULATING COMPONENTS

7. FEED REGULATING COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
G-1	10008934	Screw	1	
G-2	10011168	Washer	1	
G-3	10043253	Led lamp ASM.	1	
G-4	10012505	Screw	1	
G-5	10003281	Snap ring	1	
G-6	10024748	Snap 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	Reverse feed magnet ASM.	1	
G-12	10012983	Screw	1	
G-13	10012473	Screw	2	

8. THREAD TRIMMER COMPONENTS (1/2)

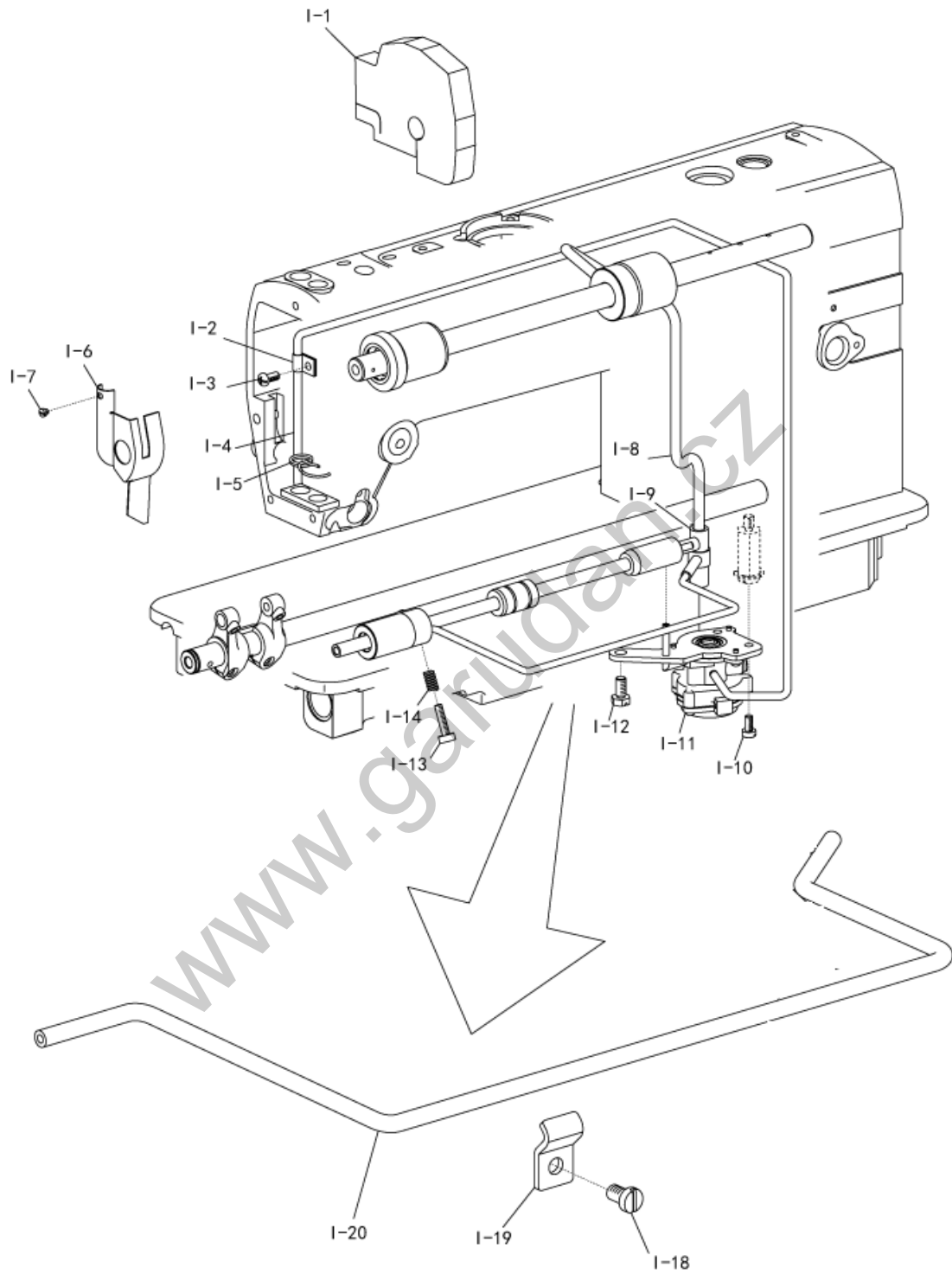


8. THREAD TRIMMER COMPONENTS (1/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
H-1	10008866	Trimming crank shaft	1	
H-2	10011630	Short bushing	1	
H-3	10011630	Short bushing	1	
H-4	10011649	Spring	1	
H-5	10008865	Washer	1	
H-6	10011588	Screw	2	
H-7	10011579	Trimming crank	1	
H-8	10011579	Block	1	
H-9	10008863	Screw	1	
H-10	10011494	Round knife	1	
H-11	10004640	Round knife bracket	1	
H-12	10011578	Nut	1	
H-13	10011577	Knife shaft crack 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	Washer	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	Screw	1	
H-27	10025577	Screw	1	
H-28	10004703	Slide block	1	
H-29	10004704	Pin	1	
H-30	10004705	Pin	1	
H-31	10009654	Snap ring	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	

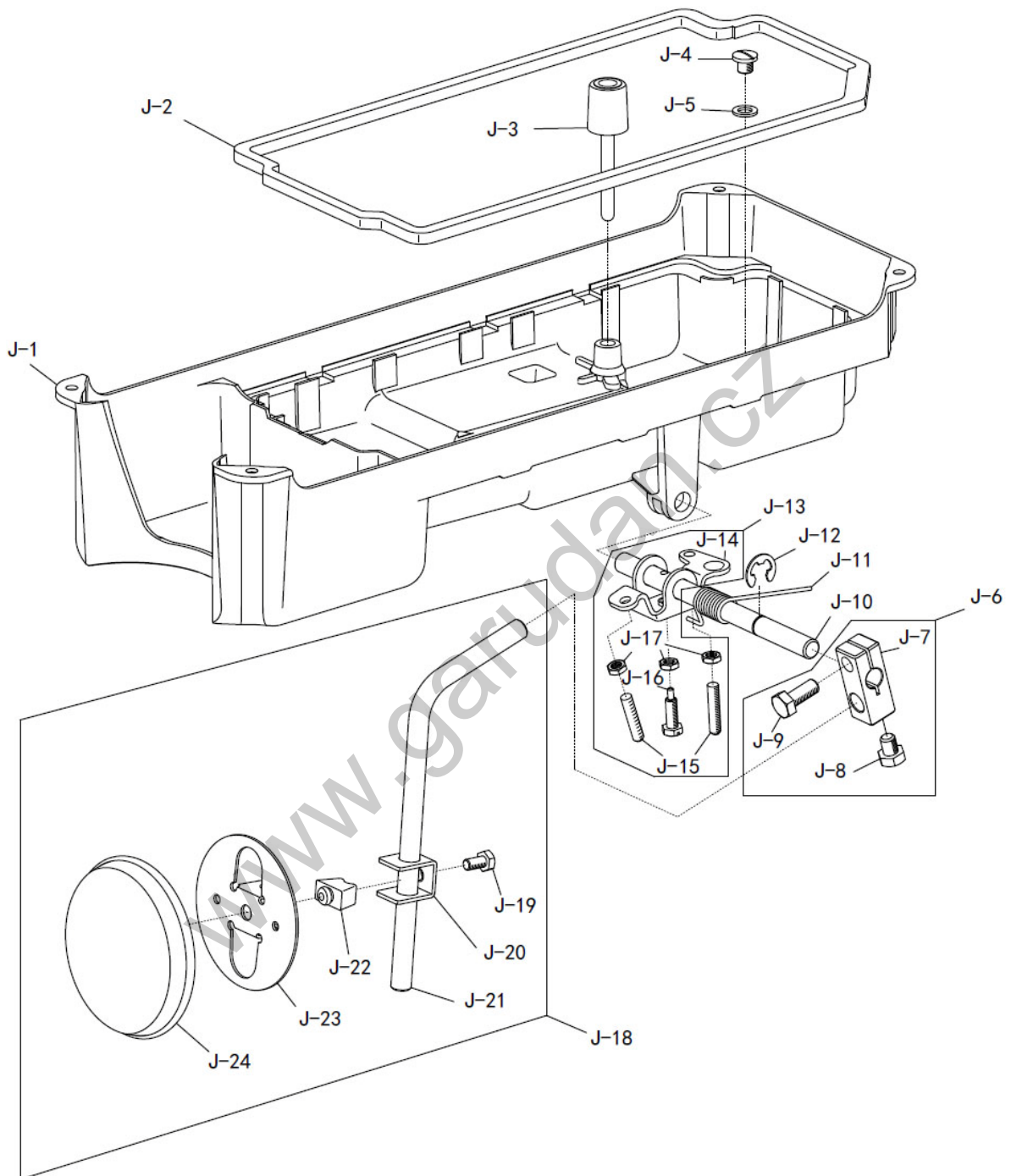
8. THREAD TRIMMER COMPONENTS (2/2)

8. THREAD TRIMMER COMPONENTS (2/2)				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
H-38	10031415	Thread trimmer solenoid	1	
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	10011584	Dispart	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	

9. LUBRICATION COMPONENTS

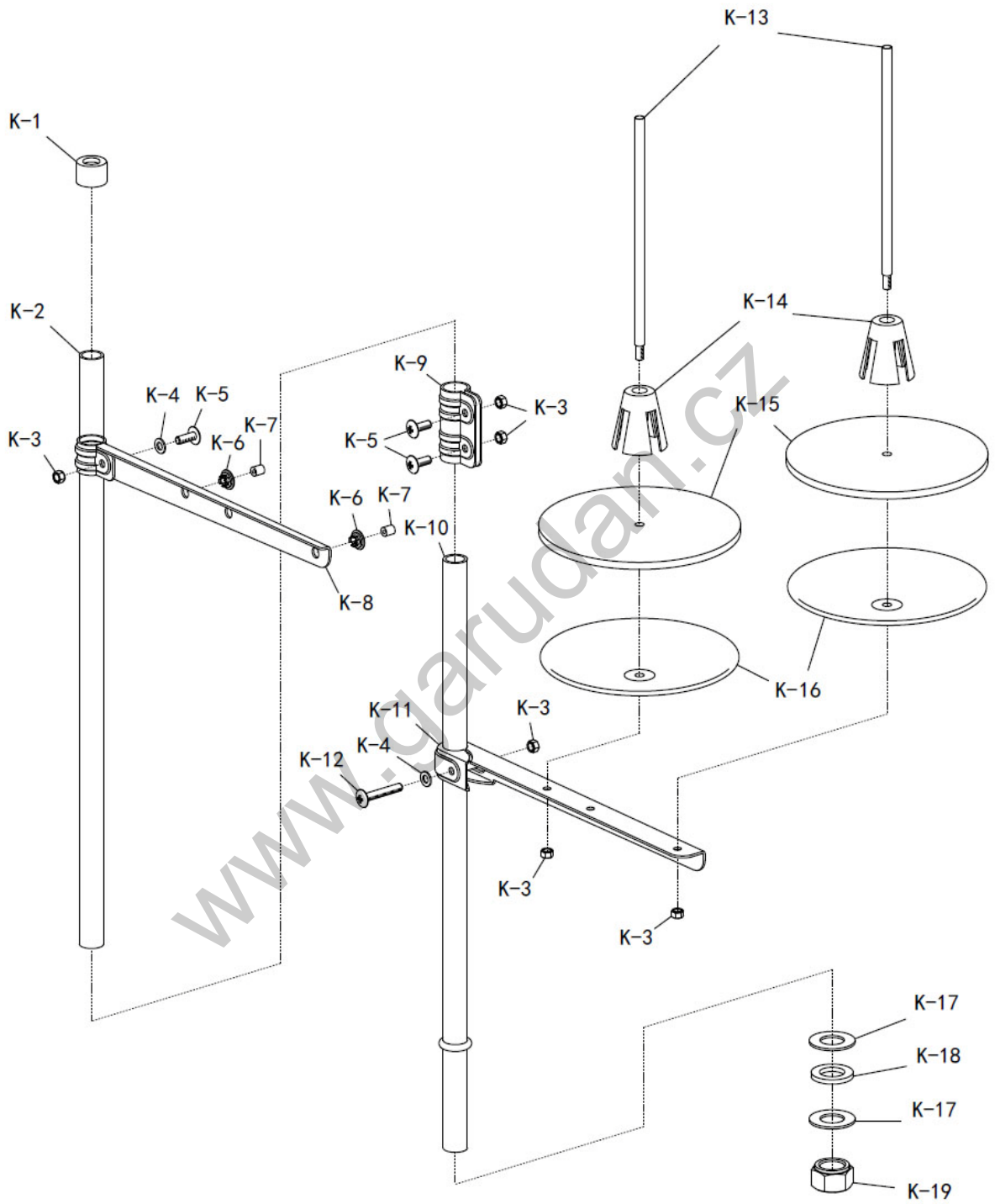


9. LUBRICATION COMPONENTS				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
I-1	10014197	Foam rubber	1	
I-2	10010294	Oil felt preser	1	
I-3	10008934	Screw	1	
I-4	10007795	Tube	1	
I-5	10042077	Oil felt preser	1	
I-6	10004065	Oil stoper	1	
I-7	10005558	Screw	1	
I-8	10050666	Main shaft oil tube	1	
I-9	10010340	Oil 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-18	10013269	Screw	1	
I-19	10050424	Tube holder	1	
I-20	10008807	Oil tube	1	

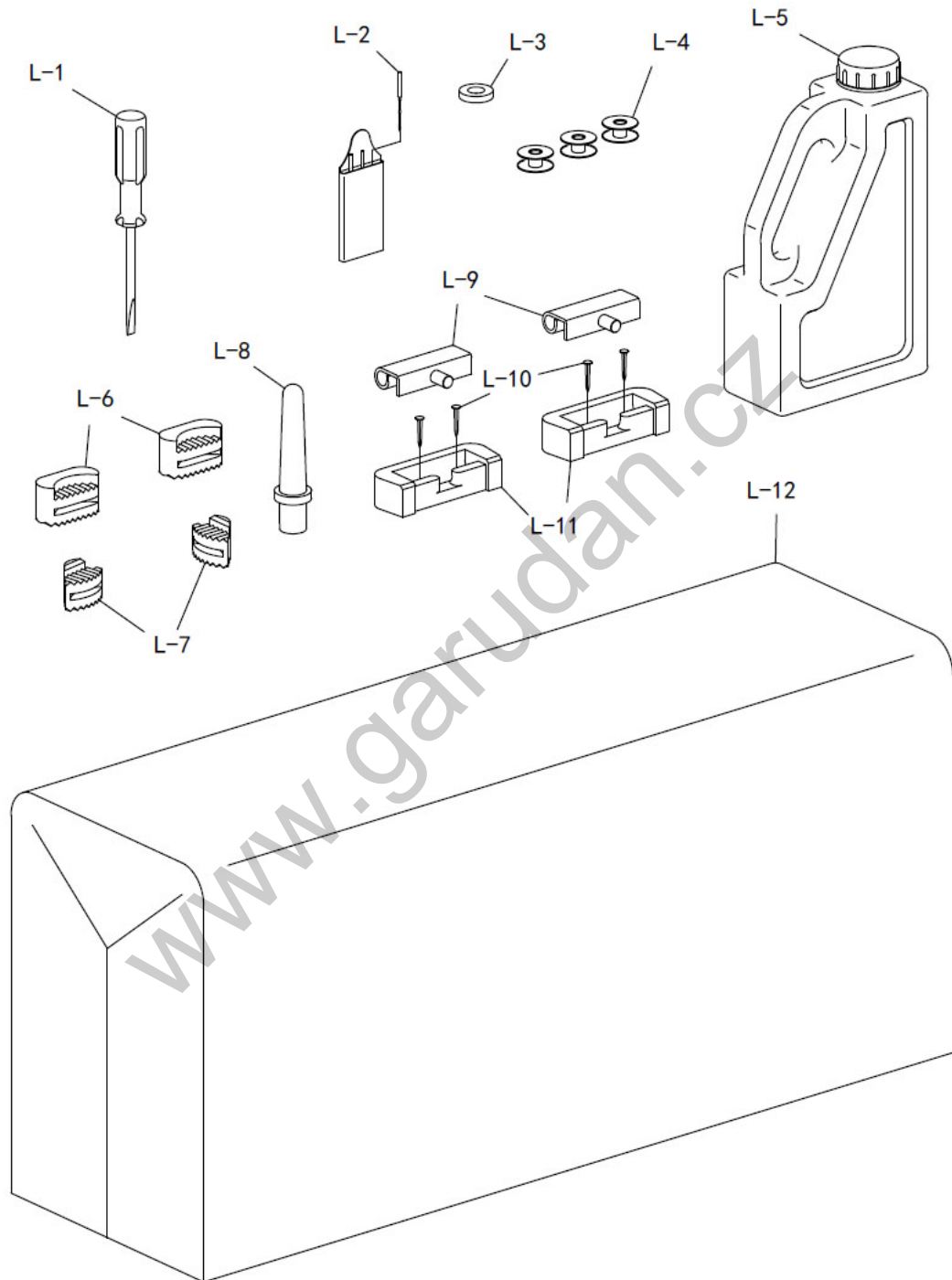
10. PRESSER FOOT COMPONENTS OF OIL PLATE KNEE LIFT

10. PRESSER FOOT COMPONENTS OF OIL PLATE KNEE LIFT				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
J-1	10008313	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	10003899	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	

11. COMPONENTS OF THREAD -RUNNING STAND



11. COMPONENTS OF THREAD -RUNNING STAND				
NO.	PART NO.	DESCRIPTION	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	1	
K-18	10004295	Washer	1	
K-19	10002985	Nut	1	

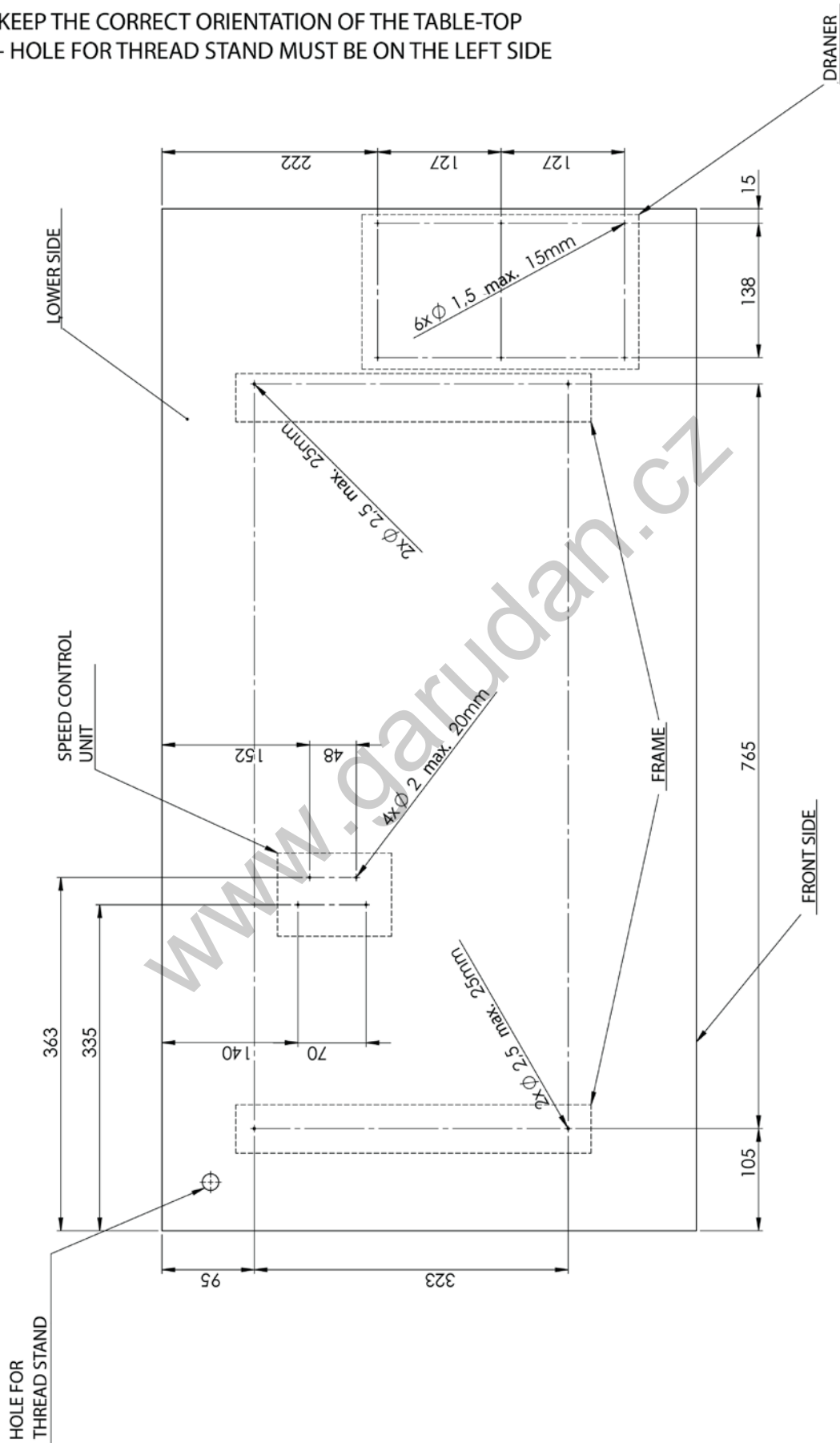
12. ACCESSORIES

12. ACCESSORIES				
NO.	PART NO.	DESCRIPTION	QTY	NOTE
L-1	10010995	Screw driver	1	
L-2	10034917	Needle	3	
L-3	10003892	Oil reservoir magnet	1	
L-4	10025484	Screw	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	10004466	Head connecting hook	2	
L-9	10003889	Nail	4	
L-11	10011041	Head connecting hook socket	2	
L-12	10005613	Head cover	1	

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13. DRIVING SCHEME FOR TABLE-TOP CN A92

KEEP THE CORRECT ORIENTATION OF THE TABLE-TOP
 - HOLE FOR THREAD STAND MUST BE ON THE LEFT SIDE



Šicí sada	SGF0002	Spodní ponorné podávání	Strana	1
Sewing set			Lower drop feed	
Šicí sada s 4-řádkovým podavačem. Standardní výbava od 01.02.2015. Sewing set wit 4-rows feed dog. Standard set from 01.02.2015.				
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			
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		

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Šicí sada	SGF0003	Spodní ponorné podávání	Strana	1
Sewing set		Lower drop feed	Page	
Šicí sada s 3-řádkovým podavačem. Sewing set wit 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			
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	Strana	1
Sewing set		Lower drop feed	Page	
Šicí sada s 4-řádkovým pogumovaným podavačem. Sewing set wit 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			
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	SGF0007	Spodní ponorné podávání	Strana	1
Sewing set		Lower drop feed	Page	
<p>Šicí sada s kolečkovou patkou. Sewing set with roller presser foot.</p>				
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			
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:	12264	Průměr patky je 22 mm		
Presser foot:		Diameter of presser foot is 22 mm		



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