# ISTRUCTION FOR THE MAINTENANCE OPERATOR OF THE UNIT V261

Thank you for purchasing this VI.BE.MAC. S.p.A. industrial sewing machine.
Before using this automatic unit, please read the following instructions in order to gain a better understanding of how the machine operates. The instructions illustrate the correct working method to follow in complete compliance with current legislation.



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The information content in this catalogue can be changed at any time without advising by VI.BE.MAC. S.p.A.
To request an other manual or to get technical advice regarding this unit feel free to contact:

**VI.BE.MAC. S.p.A.**
**Società soggetta a direzione e coordinamento di Jack Europe S.à.r.l.**
Via Monte Pastello 7/i, 37057 S.Giovanni LUPATOTO (VR)
Ph. (+39) 045 8778151 - Fax. (+39) 045 8779024
Email: customercare@vbm-grp.com- Website: www.vibemac.com

**Suggestions to improve this manual are appreciated.**

# INDEX

# ORIGINAL INSTRUCTIONS

Thank you for choosing a unit manufactured by VI.BE.MAC. S.p.A.
This unit has been designed and built using state-of-the-art technologies and procedures to ensure the best reliability over time and, at the same time, to ensure maximum operator safety.

Carefully read and comply with all information in this manual for proper and safe operation of the unit.
All documentation supplied with the unit - and in particular this manual - must be carefully preserved for future reference.



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Guarantee on the correctness of information contained herein is provided on condition that all the provisions contained in this documentation are strictly observed by the machine user. Furthermore, VI.BE.MAC. S.p.A. reserves the right to revise this publication and to make changes to its contents without any obligation to notify any person or organisation.
Said revised publications will be available upon request from VI.BE.MAC. S.p.A.

The original instructions manual was drafted in italian.

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## VI.BE.MAC. S. p. A.

## Declaration of CE Conformity:

Translated Version

The company:

### VI.BE.MAC. S.p.A.
Via Monte Pastello 7/i
37057 San Giovanni Lupatoto
VERONA - ITALIA
Tel. +39-045-8778151
Fax +39-045-8779024

In quality of manufacturer, declares under its responsability that the product:

COMPANY:        VIBEMAC    MODEL:        2261HP
SERIAL NUMBER: XXXXXXXX    MANUFACTURED IN YEAR:        2017        two thousand and seventeen

DESCRIPTION:  feed of the arm unit, 3 needle chain stitch equipped with thread trimmer, puller device and

low inertia standard setting of the machine needle gauge 6.4mm straight folder 1/4" for

heavy fabbric. Mitsubishi motor XCG 754 20Y and control board XCG MFY 2007

SEWING HEAD:    **2261 VIBEMAC 3 Needle Feef Off The Arm**

SERIAL NUMBER:    XXXXXXXX

POWERED BY:    SEIKO SEWING MACHINE CO LTD

11-3 IMADO I-CHOME

TAITO KU, TOKIO 111
JAPAN

The present declaration has been issued according to machinery directive 2006/42/CE dated 17 May 2006 and to the following directive:

- Electromagnetic Compatibility 2004/108/CE

**As required, CE mark is applied on the machine**

| PLACE AND DATE | C.E.O. |
|---|---|
| SAN GIOVANNI LUPATOTO, | Alberto Guerreschi |
| 25/10/2017 | |

# SAFETY SIGNALS

| | |
|---|---|
| ⚡ | ELECTRICAL SHOCK DANGER:<br>BEFORE OPENING THE COVER OR DOING THE OPERATION SWITCH OFF THE MAIN POWER |
| ⚙ | MECHANISM MOOVING:<br>BEFORE DOING THE OPERATION BE SURE THAT THE MACHINE IS STOPPED AND DISCONNECTED FROM MAIN SWITCH |
| ❗ | DANGER:<br>BE SURE TO FOLLOW THE ISTRUCTION |
| 🌡 | DANGER:<br>THE TEMPERATURE WILL BE OVER 70C°-160F° |
| 🚫 | DON'T REMOVE SAFETY PROTECTIONS |
| 🚫 | DON'T LUBRIFICATE OR ADJUST WHILE MOVING |
| ✋ | TURN OFF THE MAIN SWITCH BEFORE WORKING ON THE MACHINE |
| 🎧 | THE USE OF EAR PROTECTION IS MANDATORY |
| 🥽 | IT IS MANDATORY TO USE THE GOGGLES |

# 1. INTRODUCTION

Proper and safe operation of the unit is only ensured if used in accordance with the information stated in this manual and, in general, in the documentation accompanying the machine. It is therefore imperative to carefully read and store all relevant documentation.

It is always necessary to ensure that all operators have fully understood the rules of use. The company is not responsible for any damages to persons or property arising from improper use of the machine.

Do not remove or damage labels, writing, and warnings on parts of the machine. Should it be necessary to restore them, contact VI.BE.MAC. S.p.A.

VI.BE.MAC. S.p.A. disclaims any and all liability for a failure to observe the safety and prevention rules outlined in the various sections of this manual and for any damage caused by improper use.

The machine covered by this manual has been designed and manufactured in accordance with applicable laws and the state of the art valid at the time of delivery. It is the responsibility of the customer to make continuous adjustments to enable its constant compliance with the legal requirements and regulations in place at the installation site.

Any modification to the machine must be previously authorised by VI.BE.MAC. S.p.A.

All work on the machine (maintenance, adjustments, repairs, cleaning) must be carried out by appropriately trained personnel and as indicated in this manual.

## Storing the manual

This instructions manual is an integral part of the machine and must be stored for any future reference.

It is advisable to:

Store the manual in an accessible place known to all operators which is protected from moisture and heat and protected from direct sunlight.

Utilize the manual so as to avoid damaging all or part of its contents: do not remove, tear or modify parts of the manual for any reason.

In the event of sale or transfer of the machine to another person, this manual and its attachments must be delivered to the new user.

⚠ **! ATTENTION !** ⚠

Please read this instruction manual carefully before using the machine. Anyone using the machine must be adequately informed about the parts of this instruction manual
For the operations to be carried out.

# 2. CONDITIONS FOR USE

All operations that comply with the following conditions are considered "normal":
- the user applies all instructions in this manual and CE directives
- all safety standards are respected, not removing the casing or safety catches installed by the manufacturer
- the power supply is constant and does not fluctuate by more than 10%
- the unit has to be connected under an automatic cut-out switch of 30mA
- the unit is connected to an earthing system in order to prevent disturbances or electric shocks
- the unit is connected to an electric circuit with separate NEUTRAL and EARTH wires
- the unit is not used at high temperatures (over 40ºC) or low temperatures (below 10ºC)
- water or other fluids are not permitted to enter the motor
- water or other fluids are not permitted to come into contact with the control card, the solenoid valves and the cylinders
- the machine is not used in the presence of explosive gases, dust or oil fumes
- the machine is not connected to a compressed air system containing water or other fluids in the pressurized circuit
- the unit is connected to a compressed air system with minimum constant internal pressure of 5.5 bar
- the unit is installed in a factory not over 1000 mt from sea level
- the unit is installed on a flat service with no inclination
- only qualified personnel are permitted to commission the machine and carry out extraordinary maintenance work

The manufacturer declines all responsibility for damage caused to people or things by the machine if:
- the machine was not commissioned by qualified personnel
- any repairs to the machine were not made by qualified personnel
- the power supply is not constant or does not correspond to requirements
- the machine is not earthed, or there are electronic problems in the electrical system
- the motor has not been subjected to the scheduled maintenance operations
- original or model-specific spare parts have not been used
- the user demonstrates total or partial failure to observe the instructions
- rain or snow get in contact with the unit

It is absolutely prohibited to:
- remove the casing and safety devices from their positions, thereby posing a risk to the user
- remove the eye protection mirror without equipping the user with special eye protection glasses in compliance with the law
- deactivate the safety catches installed by the manufacturer, thereby posing a risk to the user
- make changes to the machine without authorization from the manufacturer, thereby posing a risk to the user
- exceptional circumstances

## 2.1- Guarantee conditions

All unit components have a 1 (ONE) year guarantee and should be send to the manufacturer for inspection if found to be defective.
All pieces damaged due to negligence of the end user and/or incorrect adjustments to the unit, carried out by unqualified personnel, will NOT be recognized as defective and will not be covered by the guarantee. These will be charged at the normal price, including consequent delivery and/or installation costs.

# 3. LIFTING AND TRANSPORT
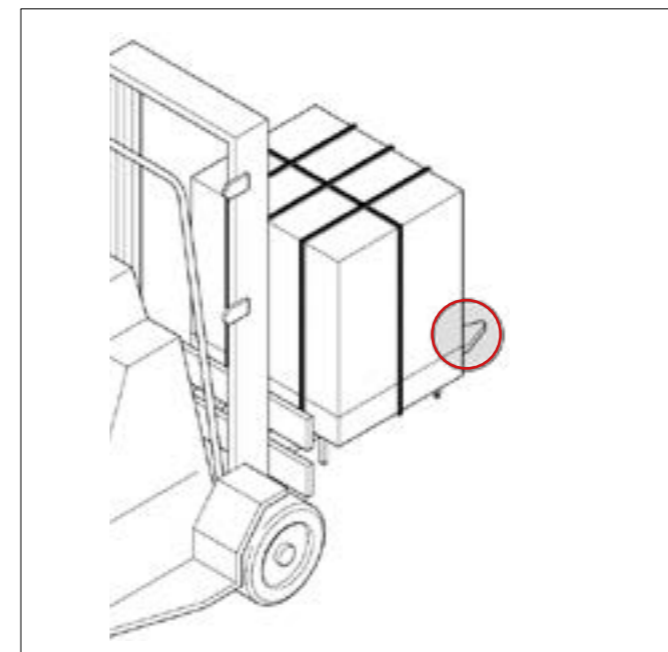


Make sure that during lifting the whole machine rests on the forklift forks.
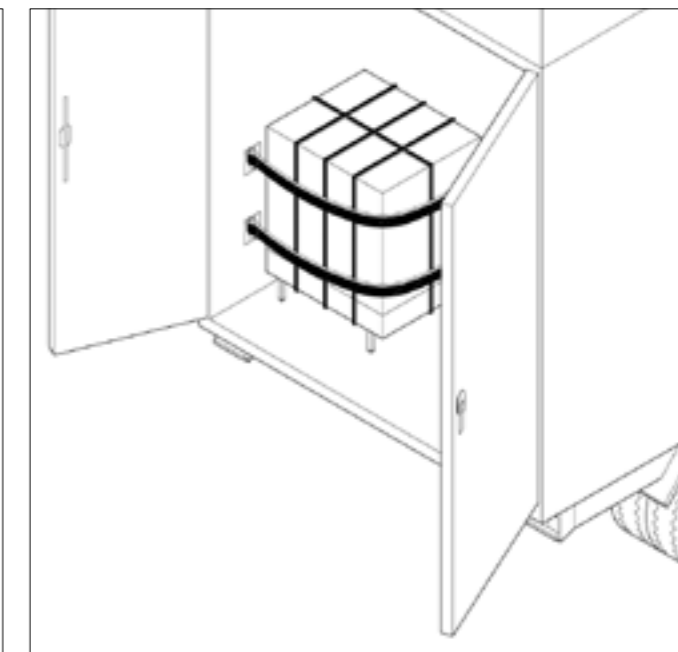


Position the machine on the truck surly fixed with straps or balts that will insure the stability during the transport.
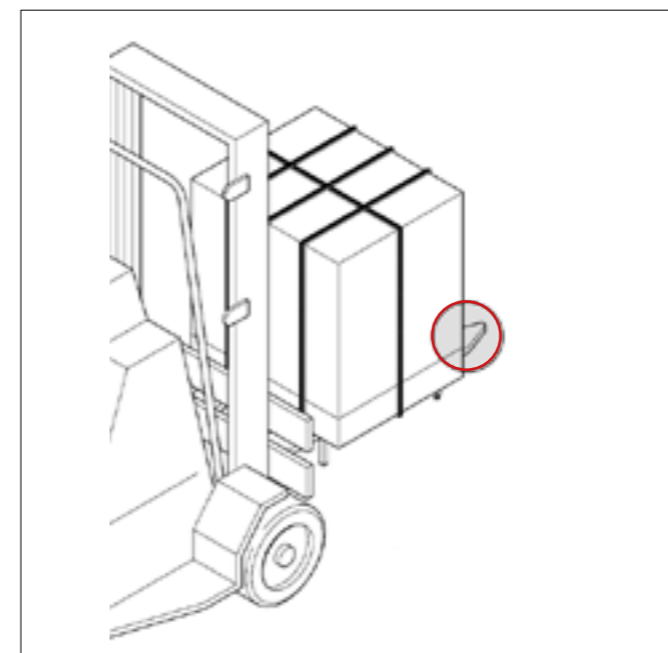


Make sure that during unloading the whole machine rests on the forklift forks. Place it on a hard flat surface repaired from weather.
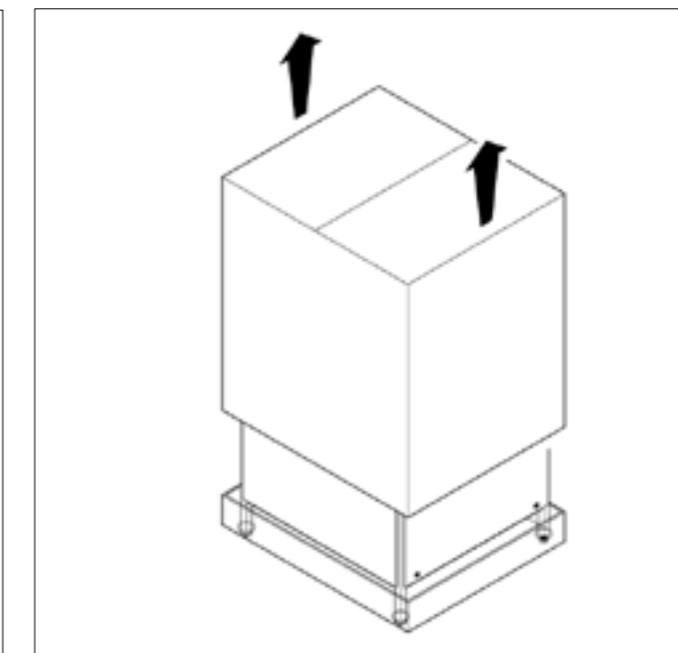


Remove straps, and loosen the fixing screws, remove the top part of the packing box by pulling it upwards.

# 4. GENERAL MACHINE SPECIFICATIONS ⚠️

The VIBEMAC V261 is a 3 needles chain-stitch feed of the arm machine, made for top stitching and lap seaming in the manufacturing process of the denim trousers, chinos, work wear, denim jackets and shirts.

The new made in ViBeMac sewing head is endowed with a Differential Feed Dog, a Puller CG81 device, a Chain Cutter device and Low Inertia device (patented Dynamic Control of Presser foot system).

The Puller function is to counterbalance the feeding of the fabric layers moved by the differential feed dog.

In this way the unit has the possibility:

- To increase the speed of seam without losses some traction in the material,
- To get a better quality of seam, since the feeding is constant during the stitching

The DCP system is working controlled by the ViBeMac software and allows the feeding of the fabric layers to be constant and to have a 100% regular stitch length, is it working with a high pressure on the start of the stitching for a adjustable number of stitches and for the stitching time the machine will run with a low pressure on the presser foot, in this way the stitching is made with a very low tension and can be very easy guided by the operator, on the crouch because of our sensor the machine automatically will detect the thickness and the pressure on the presser foot will increase and the speed will be reduced, this actions are made to make correct and regular stitching on the thicker parts of the fabric and to avoid the skip stitching, in this way the quality of the stitching is always maintained.

## 4.1- Power supply

The tension is 220 Volts mono phase 50/60 Hz for the MITSUBISHI Motor. Consumption is approx. 700 Watt (maximum fluctuations of ± 10% are allowed).

## 4.2- Air consumption

The air consumption is of around 0.4 liters every cycle connected at air pressure line with at least 6 bar. The needles air cooler device is working blowing air and its consumption is in base ad the adjustment.

## 4.3- Dimension and weight

Width : 90cm
Length : 60cm
Height: 120cm (in the highest position)
Weight: 110kg (packed has 146kg)

# 5. INSTALLATION

**_WARNING: THE INSTALLATION MUST BE PERFORMED ONLY BY SPECIALIZED PEOPLE_**
We disclaim all responsibility for damages resulting from installation not complying with these instructions or from connecting the machine to power and utility lines not satisfying the necessary requirements.

The machine should not be installed in environments in which explosive materials or substances are present.

The unit must be installed on a flat surface.

## 5.1- Flooring

The user must provide compact, smooth and horizontal concrete floor for machine housing, suitable to support the weight of the machine and to ensure its stability.

## 5.2- Lighting

The user must ensure that lighting in the work areas is sufficient to allow a good view of operations and all machine components. In particular shadowed areas, annoying glares and stroboscopic effects must be avoided.

## 5.3- Working position

The operator works sitting down in front of the machine with a foot pedal speed control (1) at his feet, connected to a MITSUBISHI motor (2) and fixed with a hinge on the support. The folder (3) can be attached on the machines arm in front of the presser foot. The main on/off switch (4) is underneath the table on the right side.
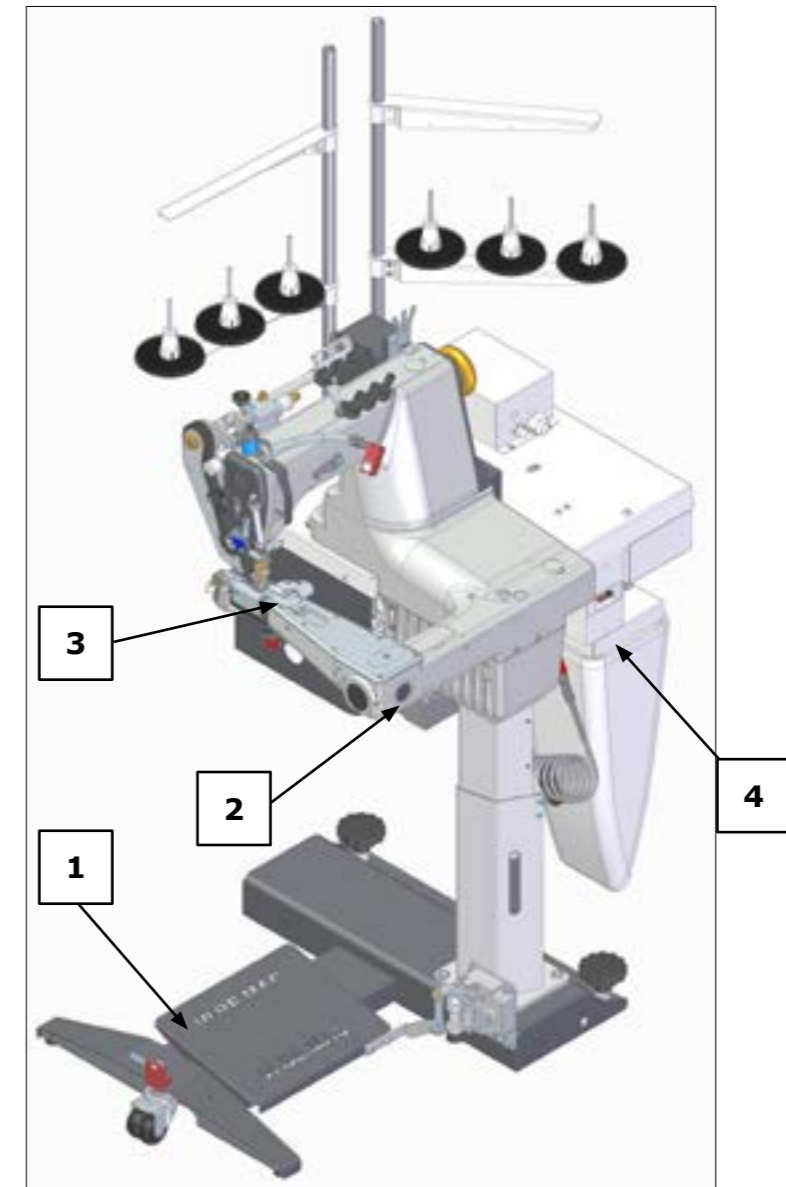
# 6. DESCRIPTION OF SWITCHES AND COMMANDS

On the unit V261 there are the following switches:

## 6.1-   Main switch

It is  positioned under the table fixed on the right side of the stand leg.
There are two buttons.
The left RED one is used to switch power OFF and as emergency
The right BLACK one is used to turn power ON.

## 6.2-   Command pedal

It is positioned at the base of the stand, connected by a connecting rod to the lever of the Motor panel.

The pedal has 4 positions:

1. Neutral
2. Forward, to increase the sewing speed.
3. Back pedal, to rise the presser foot
4. Complete back pedal , rise presser foot and needle position in upper dead point

**Neutral Position**

**Sewing Rotation More presser= more speed**

**Presser foot lift**

**Presser foot lift and needle up position**
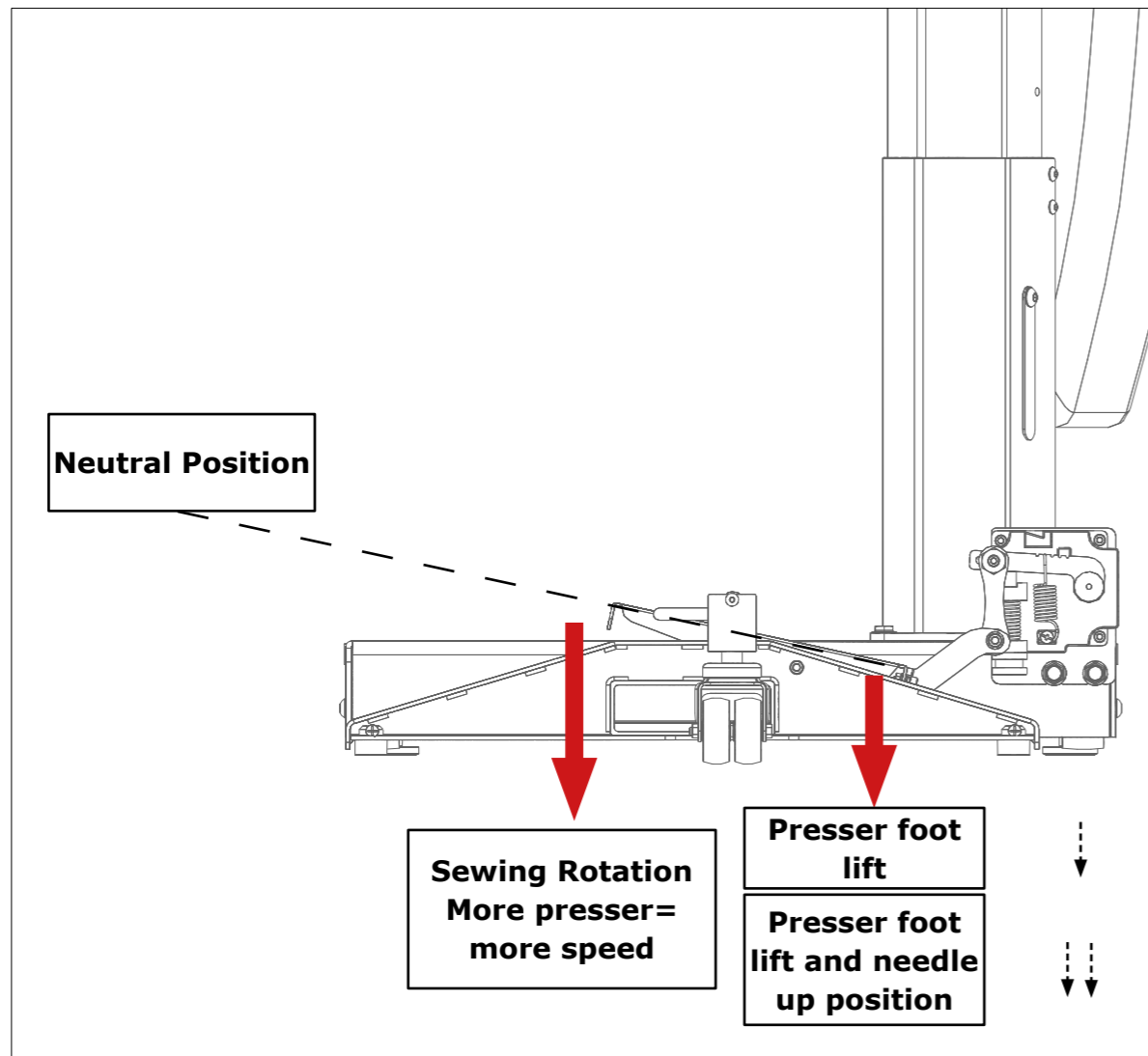
## 6.3-   Sense of rotation

On VI.BE.MAC. V261 unit the sense of rotation is automatically given by the XL-CE MITSUBISHI Servomotor

# 7. EQUIPMENT

The V261 unit is equipped with:

1. Puller belt device,
2. LED working light,
3. Presser foot compensating cylinder,
4. Pneumatic thread trimming device,
5. Photocell (fabric detection),
6. Sensor (thickness detection)
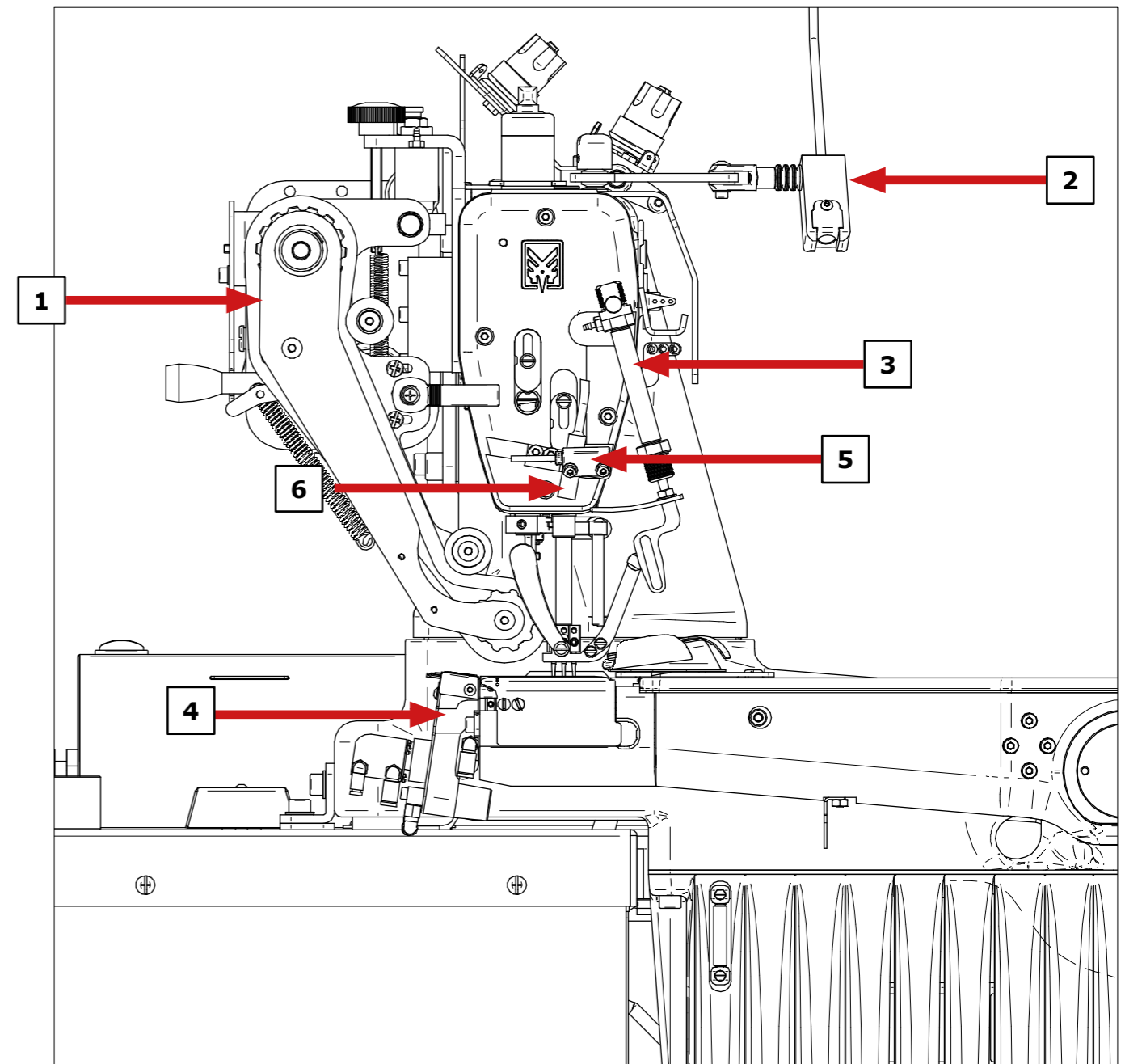
# 8. THREADING PATH

## 8.1- Needle thread  path

For the V261 unit to perform at 100 % and the stitch quality to be perfect it is very important that the thread is inserted correctly, please check below the correct thread path. To adjust the tension of the thread please rotate the thread disks knob. Rotating in clock wise direction will increase the tension on the thread, rotating in a anti-clock wise direction the thread tension will decrease.
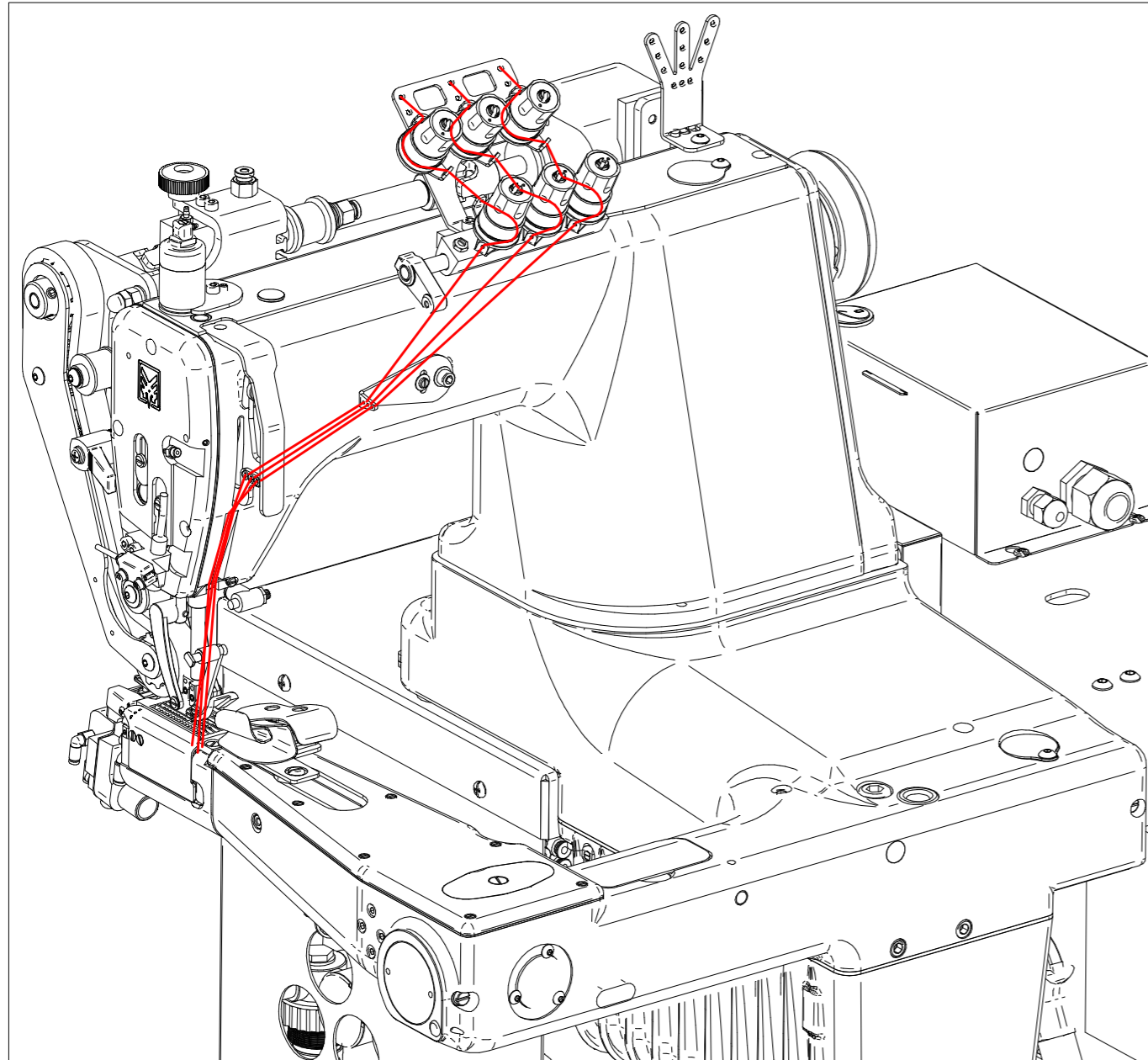


## 8.2- Looper thread path

To insert the thread thru the thread pipes please use the air gun, attached on the right side under the table.
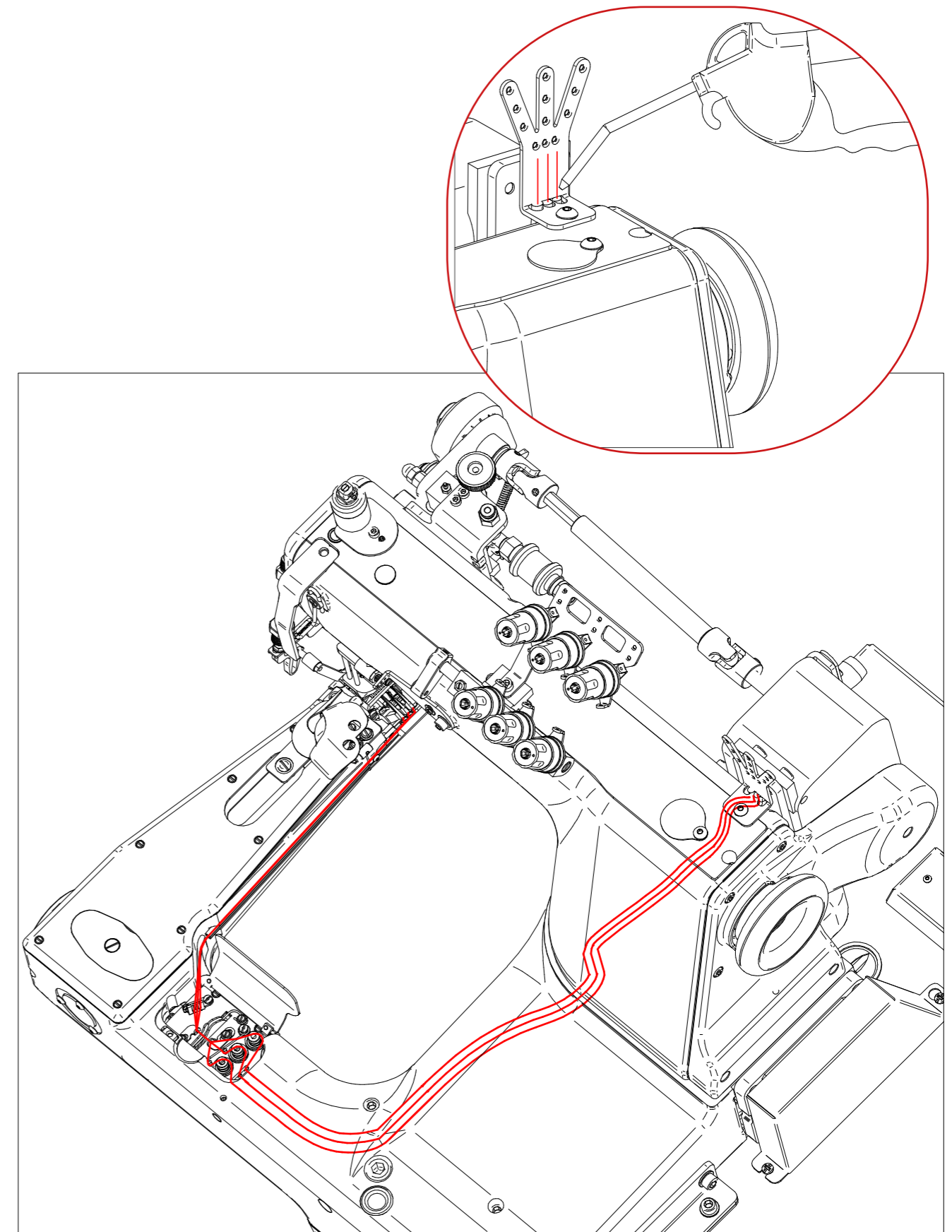
# 9. LUBRICATION AND MAINTENANCE

Every day before starting production need to check the oil level in the marked areas.
Clean the machine at least once a day with an air gun to remove dust from the sewing mechanisms and the thread trimming device

Oil filling point

Oil level
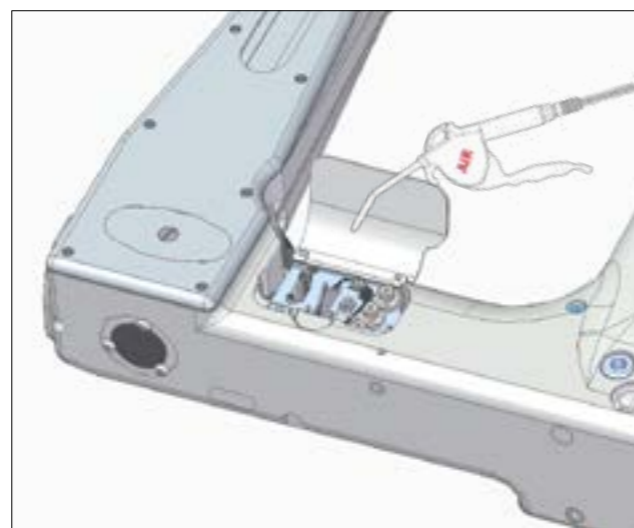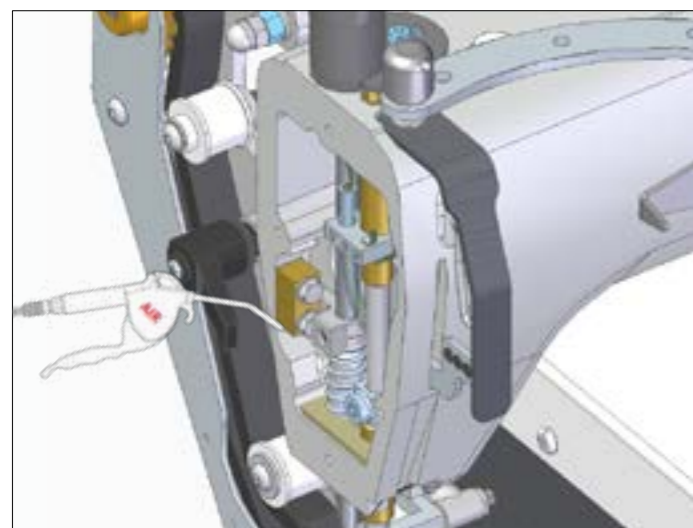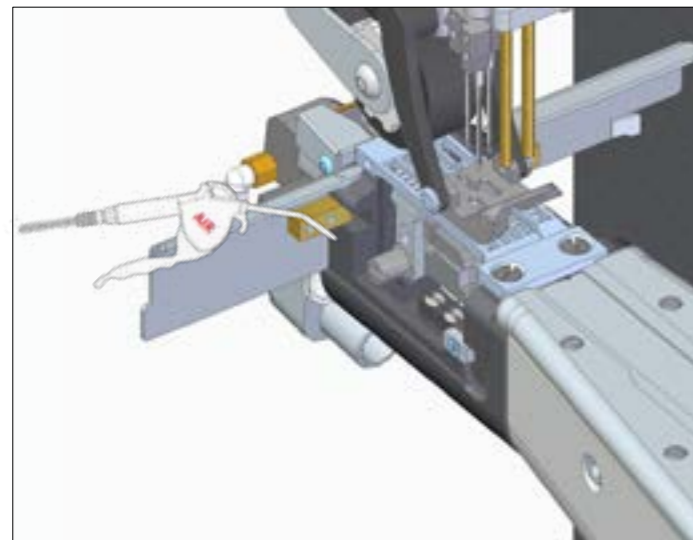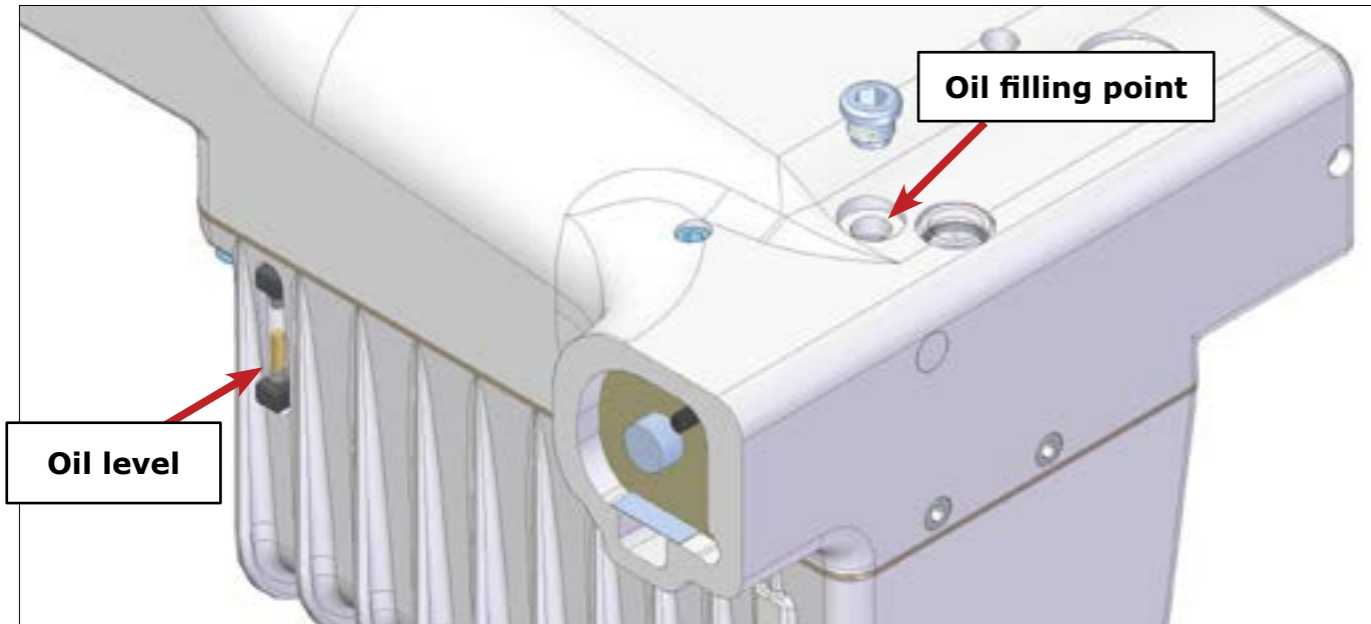
There are two types of Feller.
The NORMAL type to perform the operations of seam and.
The REVERSE Upside-down type to perform:

1. Inseam
2. Back rise
3. Back joke

The Fellers are available in the Four versions super heavy (HS) heavy (H), medium (M) and light (L).
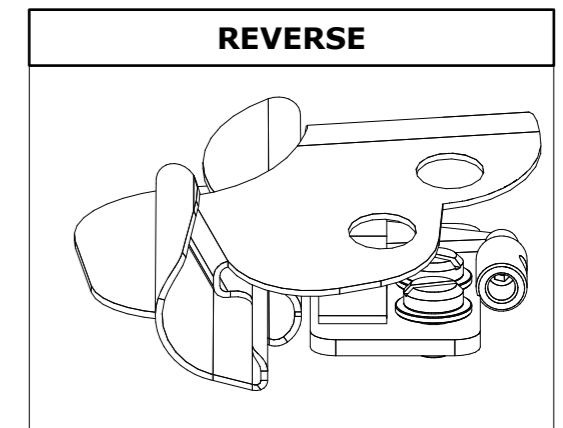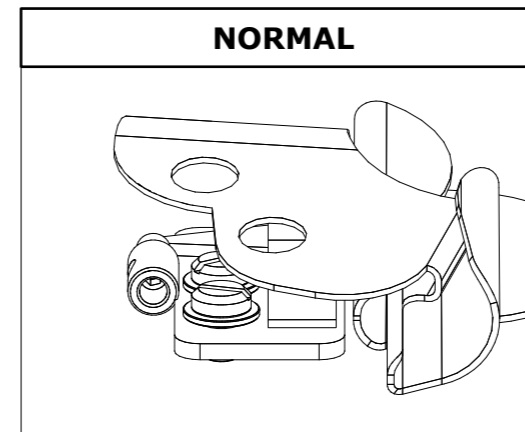
| NORMAL | REVERSE |
|--------|---------|

The code of the fellers are formed in this way:

**RD(NORMAL ) RR(REVERSE) 01(TYPE OF FABRIC HS,H,M,L,) (SIZE ¼,9/32,3/8) K**

| RD 01** **K2 |
|---|

| TYPE | FABRIC TYPE | NEEDLE GAUGE | |
|------|-------------|--------------|---|
| RD 01 | HS | 1/4 | K |
| | H | 9/32 | |
| | M | 3/8 | |
| | L | 3/16 | |

| RR 01** **K2 |
|---|

| TYPE | FABRIC TYPE | NEEDLE GAUGE | |
|------|-------------|--------------|---|
| RR 01 | HS | 1/4 | K |
| | H | 9/32 | |
| | M | 3/8 | |
| | L | | |

## 10.1- Feller position

To aligned correctly the feller loosen the fixing screw and:

- performed and control that both edges are centerd with the sewing
- the Feller doesn't touch the presser foot
- the left side of the Feller is aligned with the wisecrack inside on the left of the presser foot
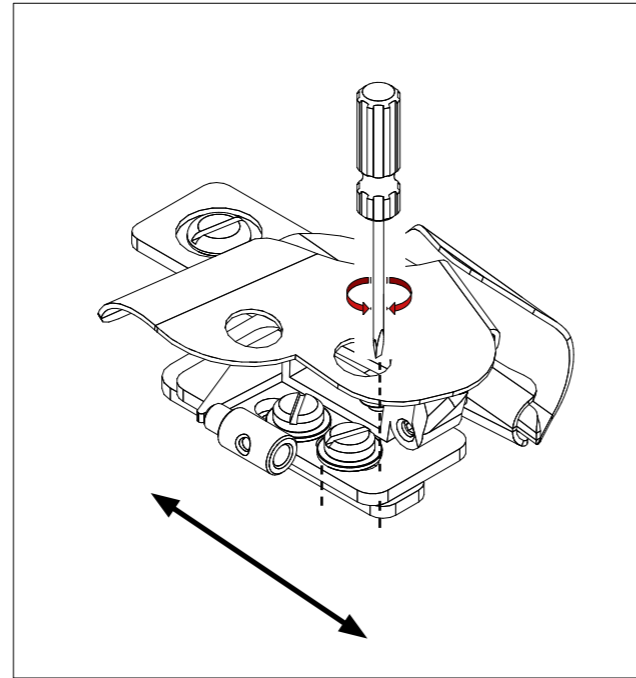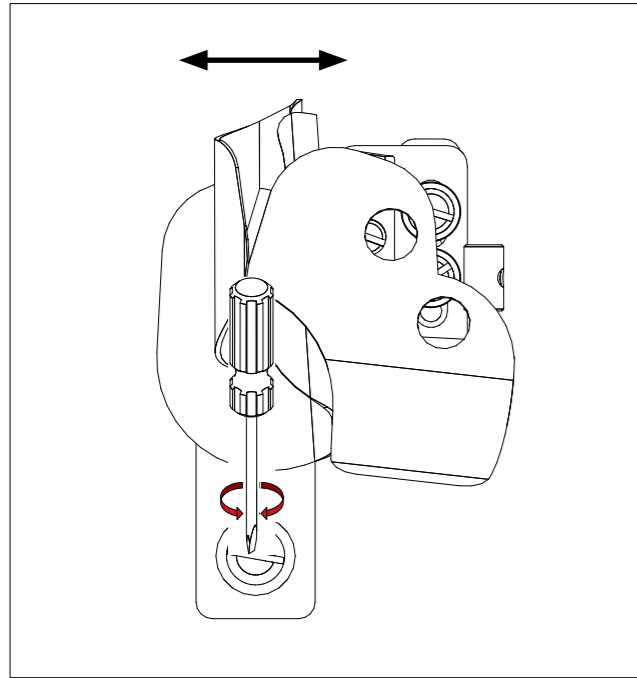


## 10.2- Adjustable lower side

For the feller to work correctly the fabric have to pass between the two parts of the feller without getting jammed. Usually the distance among the two guides is as tight as possible making sure that the material can pass easily even on the fabric joint. Adjust the strength of the mobile guide, as strong as possible always making sure that the fabric joint can pass without getting jammed.



**Adjusting screw to open the inside guide based on the fabric thickness**

**Adjusting spring screw to increase the force on the front movable guide**
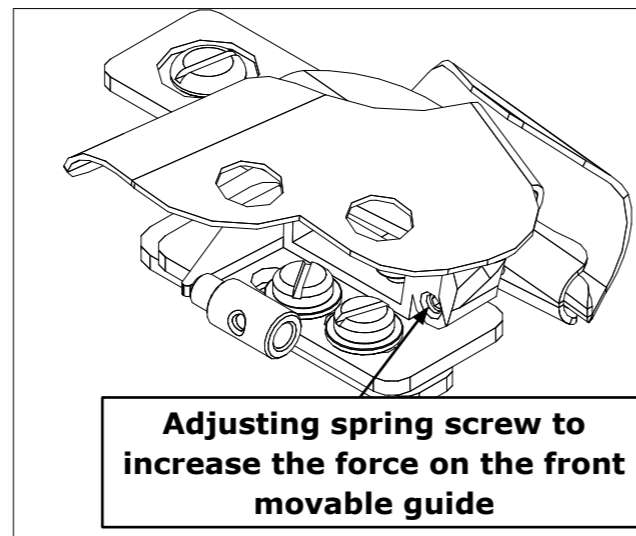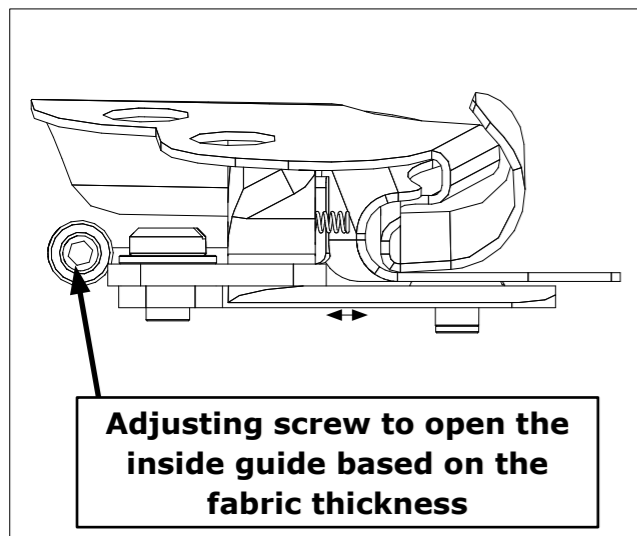
## 11.    V261 MECHANICAL ADJUSTMENTS

The V261 unit uses a new sewing head expressly realized for this type of seam by VI.BE.MAC. S.p.A. The operator MUST always switch off the machine, following procedure. STOPPING THE MACHINE before accessing any sewing unit.
Below is a list of the most common adjustments to be made to the machine in the event of malfunction. Remember that only the personnel trained by VI.BE.MAC. S.p.A. is qualified for repairing the machine.
For any problem that can't be immediately solved or to require further information please contact immediately your nearest VI.BE.MAC. S.p.A. dealer or our Technical Office.

## 11.1- Needle bar position

Check that the needles enter perfectly in the center of the needle plate holes. In case of adjustment remove the front cover from the sewing head and loosen the needle bar clamp screw. Centre the needles in comparison to the present holes in the plate needle. Tighten the screw in the Needle bar clamp.



**3,2mm**

**6,4mm**
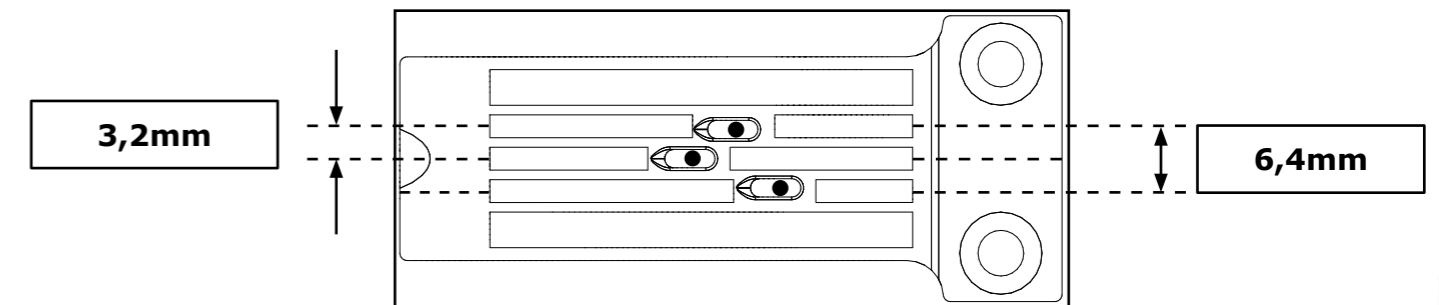
After having centered the needles check that all 3 needles are toutching in the way on the needle guard

## 11.2- Needle bar stroke

To adjust the needle bar stroke loosen the screws highlited in red and moove the eccentric up to make the needle bare stroke longer or down to make the needle bar stroke shorter.



Depending on the fabric thickness you can select to have more or less stroke of the needle bar, then chan set the needle bar hight depending if you have set the eccentric all open or all closed.

**NEEDLE BAR LONG STROKE POSITION**          **NEEDLE BAR LONG SHORT POSITION**



## 11.3- Needle bar height

The unit V261 uses needles type UY 128. For the correct mechanical regulation of the needle bar height, verify that the distance between the needle plate and the tip of the needle when the needle bar is in the Upper dead point must be 12.7mm with the needle bar eccentric set completly open to obtain the longest stroke on 11.3mm with needle bar eccentric totally closed to obtain the shortest stroke..



Needle bar in upper dead point

Needle128GAS type 149x3

12,7mm

11,3mm

Needle plate

# 12.     Loopers adjustments

## 12.1- Distance between the looper and needle

With the needle bar in the lower dead point, when the loopers are at maximum on the right the distance between the needle surface and the looper point has to be between 2.6 and 2.8 mm, below image.

2.6 - 2.8 mm

## 12.2- Looper left right movement

The loopers movement left to right movement is made by the connecting rod shown in the picture 22.1, when the connecting rod is straight the distance between the connecting rod and the connecting joint has to be 2.5 mm, picture 22.2. To adjust this measurement lose the two grub screws highlighted in the below picture.

**22.1**

**22.2**

2.5 mm
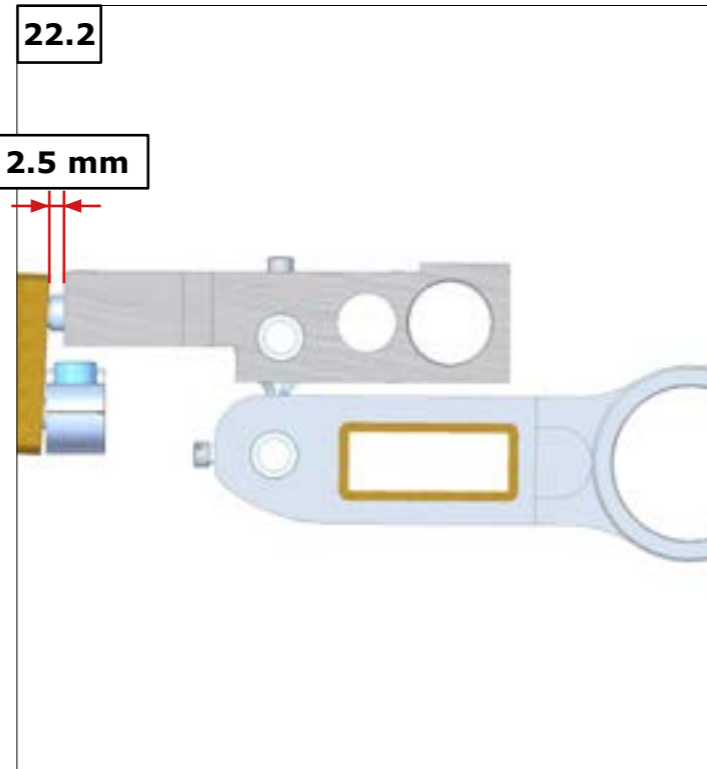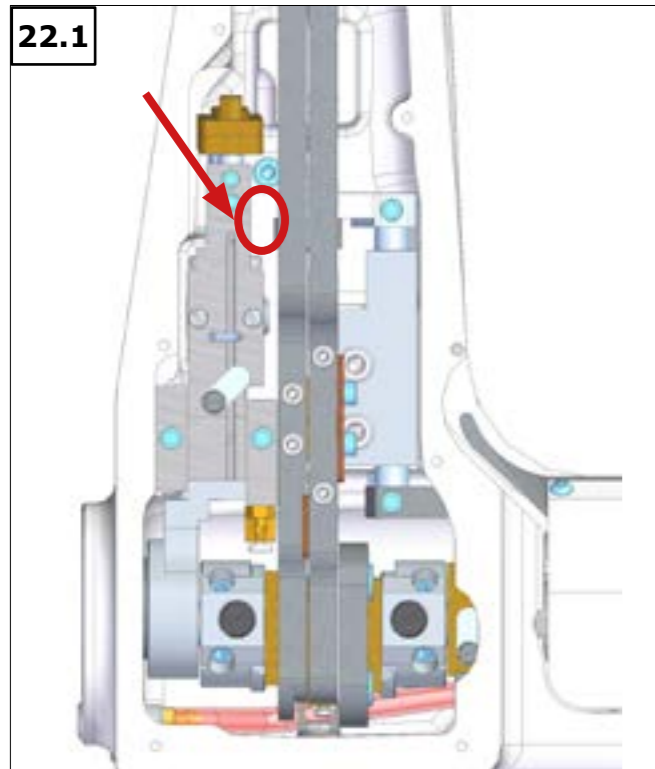
## 12.3- Looper position

When the looper is fixed on his holder, in the moment that the fixing screw (A in below picture) is tide keep the looper pushed on the operator direction. The looper have to pass near to the needle, between the looper point and the needle have to be 0.05 mm distance (picture 23.1). When the looper is fixed check that the distance washer 0.6 mm is fixed under the looper, the reason that this washer is there is because when on the machine is installed a light fabric kit the looper have to be positioned in a lower position without the washer.

**23.1**

A

0.6 mm

0.05 mm

0.6 mm

Ø 36    Ø 45

0,6
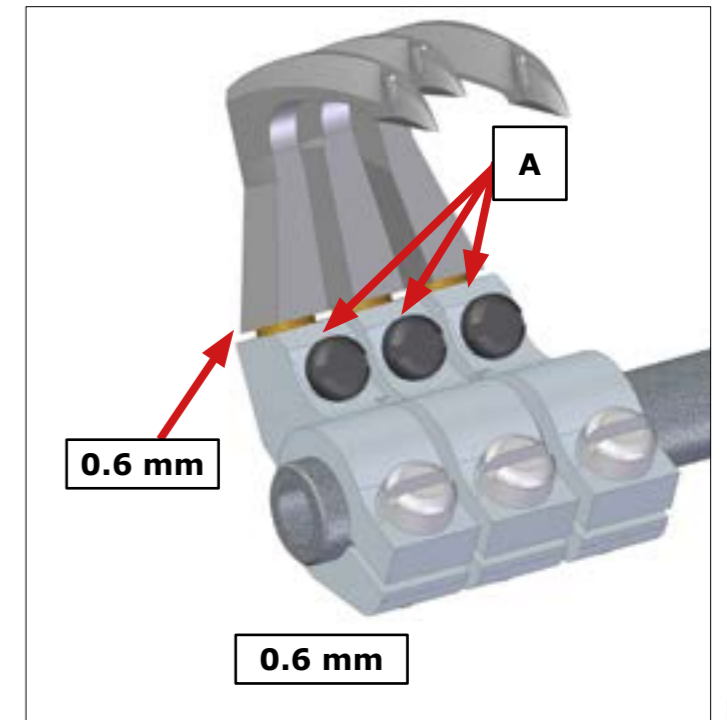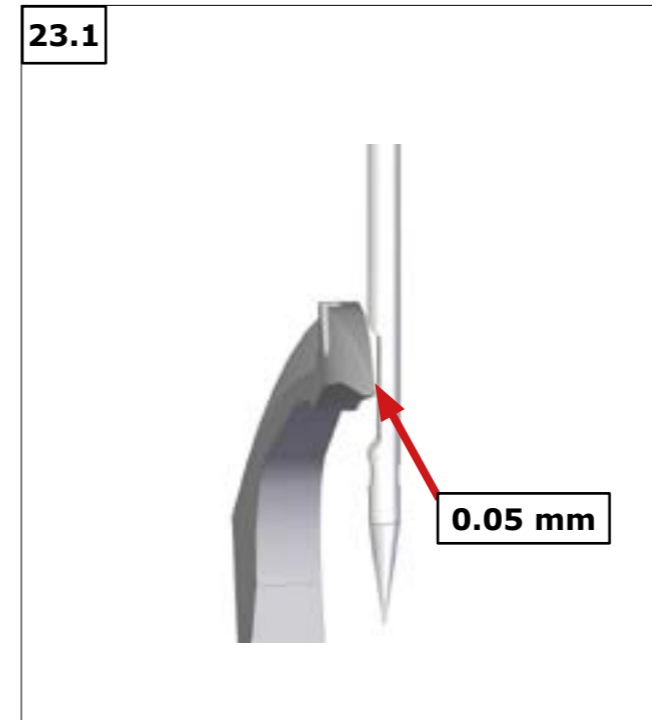
| Materiale | | Spessore materiale | Materiale Grezzo | Trattamento termico e/o superficiale |
|---|---|---|---|---|
| Ottone, ottone giallo | | / | | – |
| Smussi non quotati: 0.3 x 45° | Rugosità: Ra in μm | Quote senza indicazione di tolleranza: | | Scala: |
| Raggi non quotati: R = 0.3 mm | | ISO 2768/1 – m | | 10:1 |
| Disegnatore: | Data : | Data Modifica | Descrizione: | Peso Kg |
| cecchidi | 01-03-2019 | 17-10-2019 | DISTANZIALE CROCHET | |
| **VI.BE.MAC.** | | Codice Componente V261-168 | | Formato A4 |
| men and Technology | | Codice Pezzo: V261-168 | REVISIONE: 1 | Foglio: 1 di 1 |

## 12.4- Upper and lower meeting point

The correct timing of the looper movement versus the needle has to be as in the images below, when the needle goes up in the image 24.1 and when the needle goes down in the image 24.2.



24.1



24.2
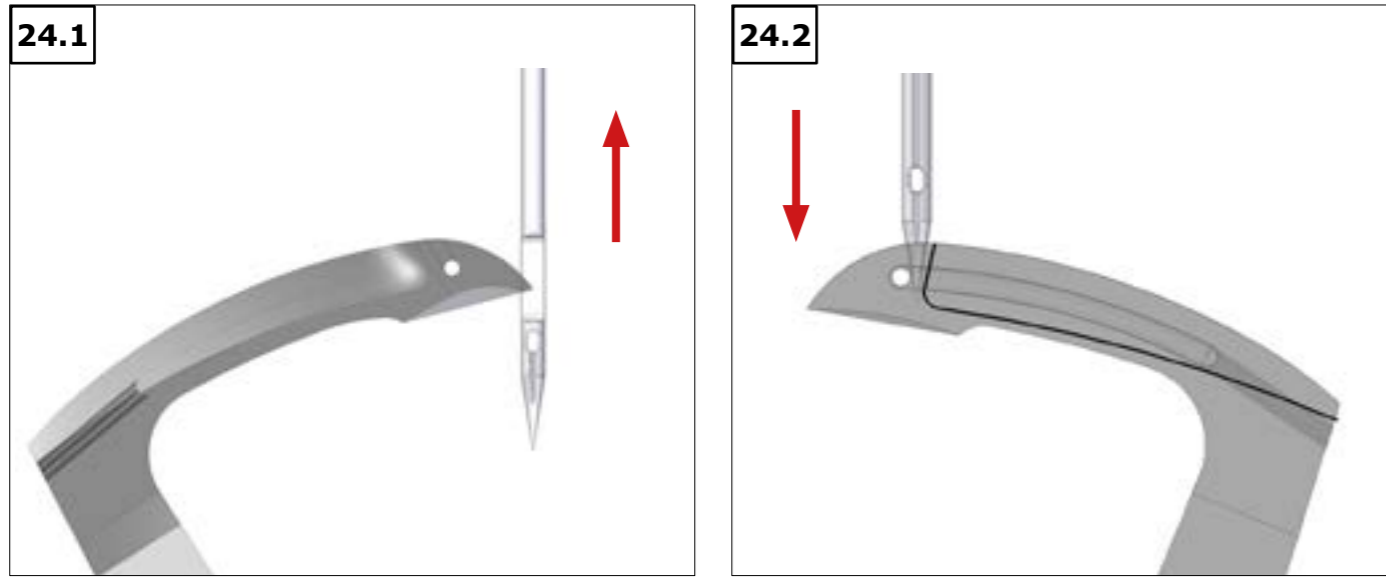
The adjustment of this timing is done losing the grub screw from the belt gear from the upper shaft through the service hole (image 24.4). The correct method to do this adjustment is to move the needle bar 5.5 mm up from the dead lower point, then have to loose the two grub screws from the upper shaft gear belt, keep the needle bar fix and rotate the pulley until the looper reach the position shown in the image 24.3.



24.3
+5.5
10.5



24.4
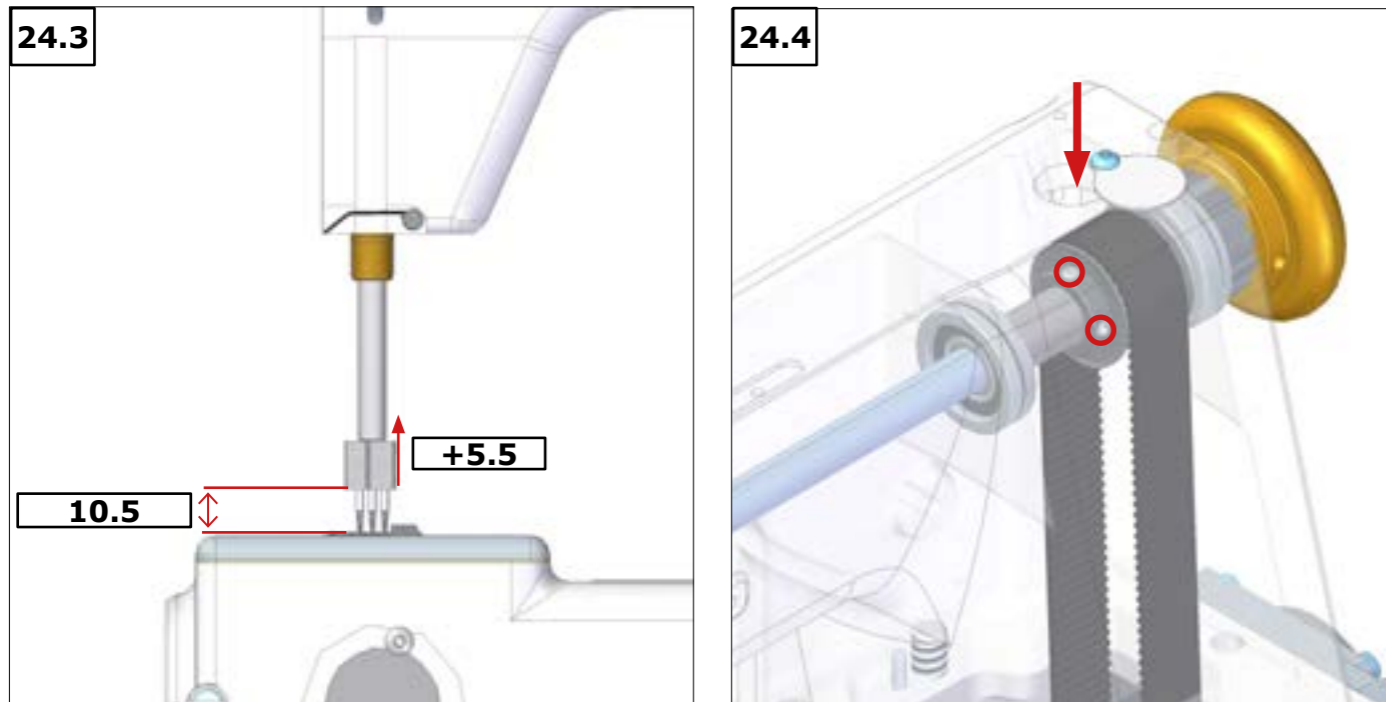
## 12.5- Looper translation movement

The looper translation movement has to be adjusted that when the needle is going down has to pass almost touching the looper and in the same way when the needle is going upwards. The translation movement is given by the eccentric highlighted as A in the imagine 25.1.
The correct position of the translation movement eccentric is: with the machine rotating in the running direction the second screw of the eccentric to be aligned with the first screw of the shaft joint bush, imagine 25.2.



25.1
A



25.2
2nd
1st
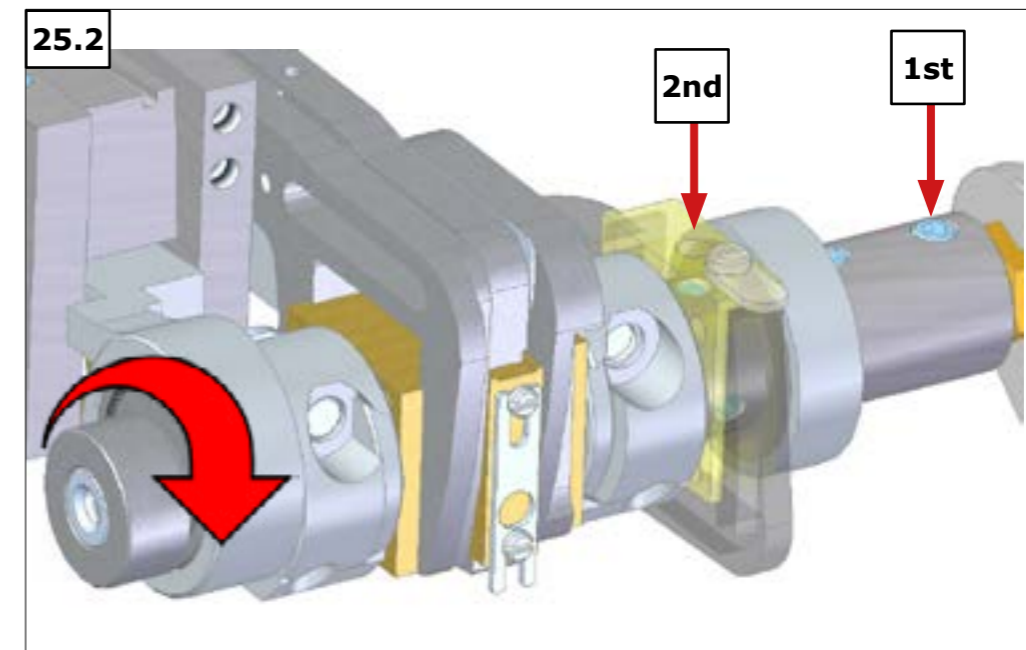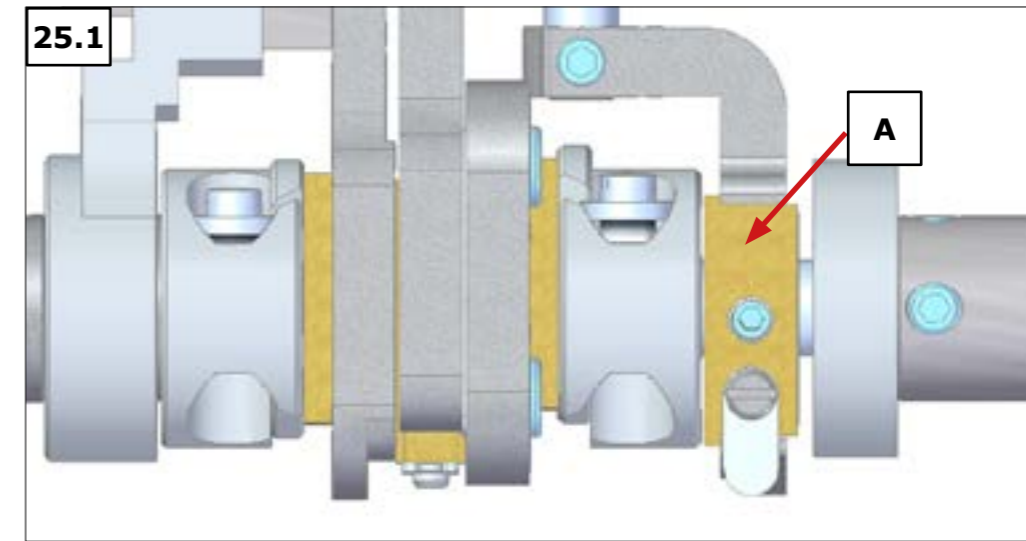
The position of the eccentric for the height movement is when rotating the machine in the running direction and have the second shaft fixing grub screw just passed the service hole the first screw for the eccentric to be aligned with his service hole.
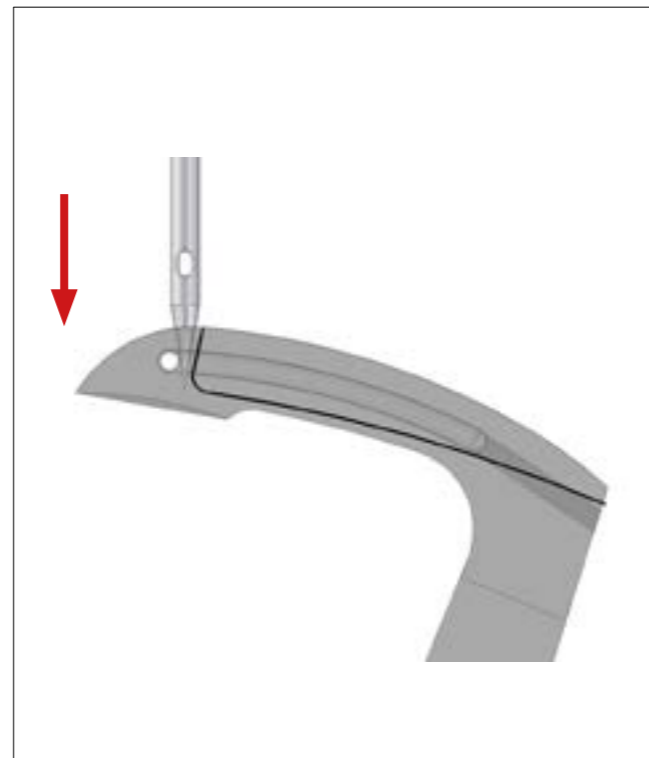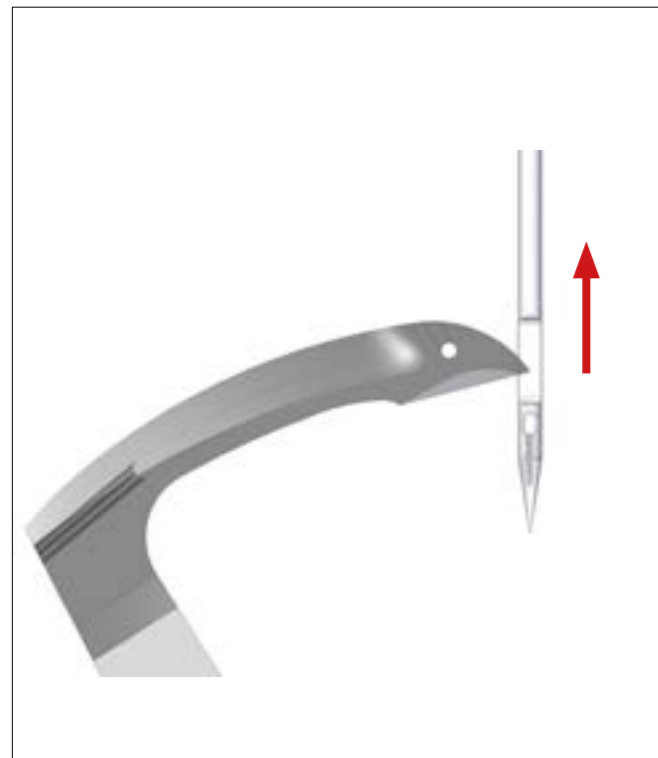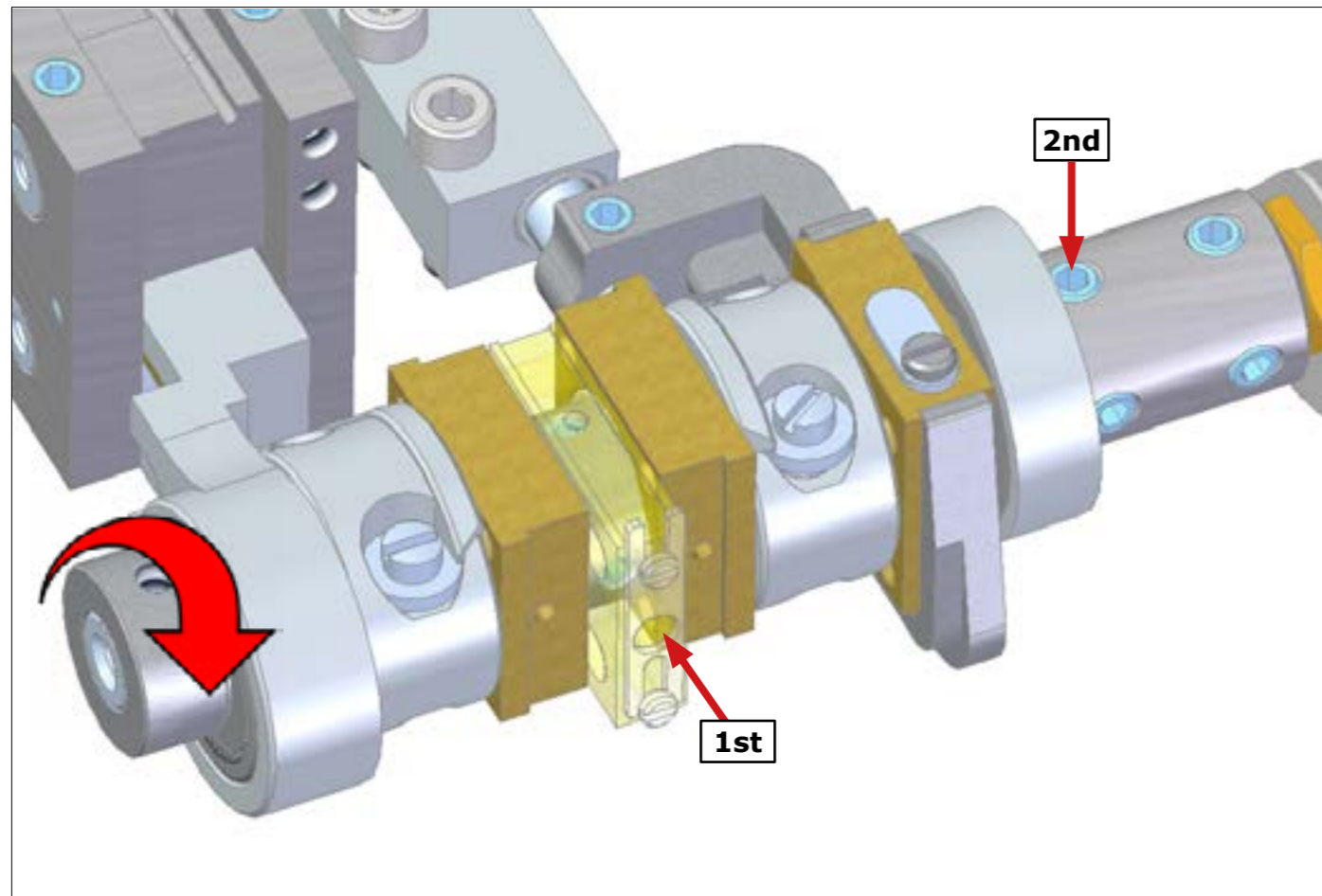


# 13.    Feed dog and fabric feeding

## 13.1- Feed dog position

The feed dog have to be parallel with the needle plate and in his higher position only the feed dog teeth to be higher then needle plate. The left side feed dog position can be adjusted from the two screws market as A in the picture 27.1, the right side feed dog position can be adjusted from the screw marked as B in the picture 27.2.
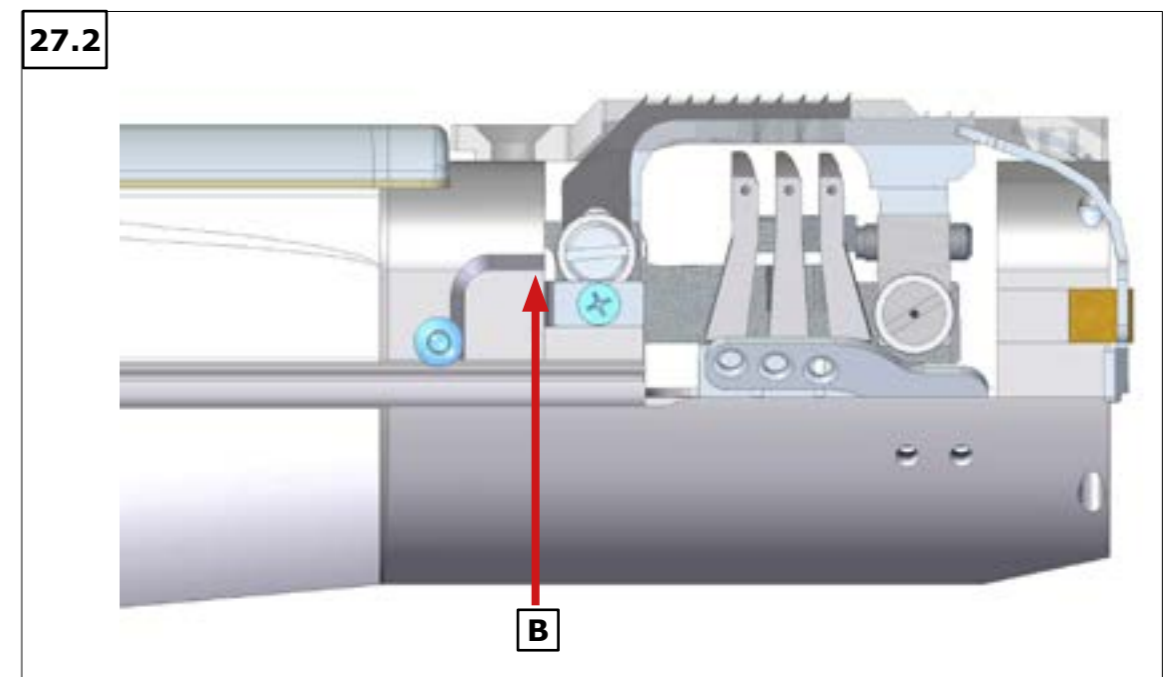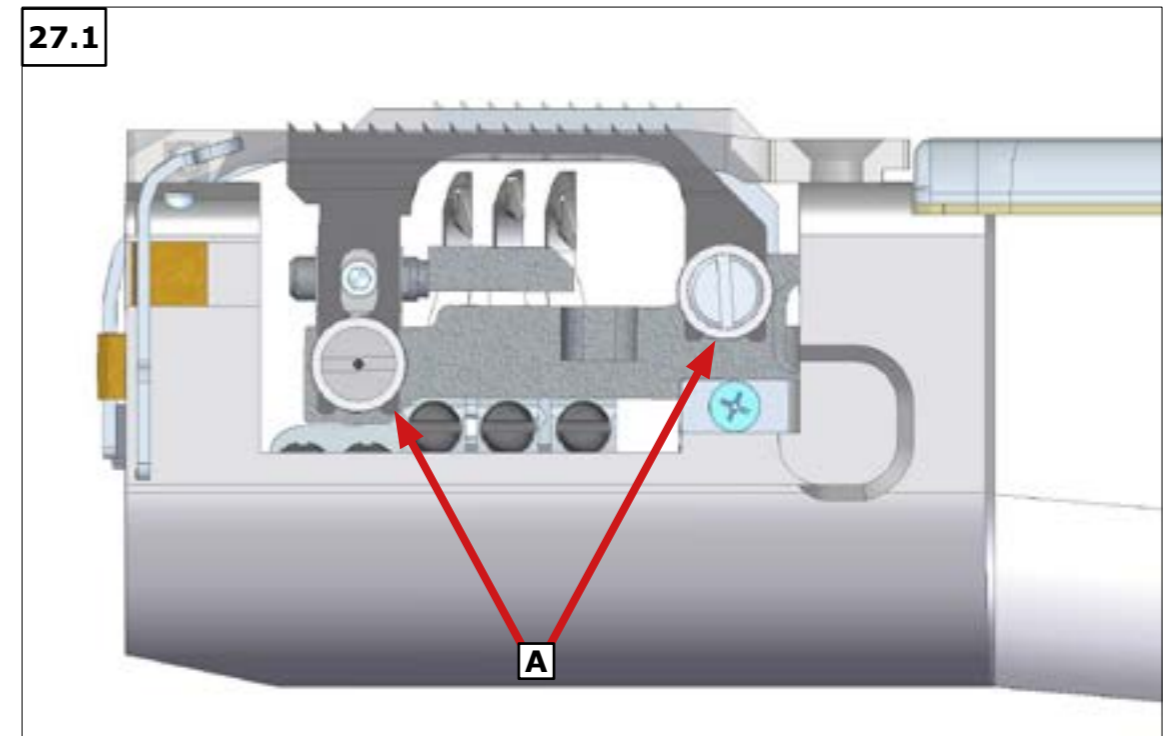
## 13.2- Feed dog movement

The feed dog movement is given by the two eccentrics highlighted as A for the forward-back movement and the height movement given by the eccentric highlighted as B, in the below image .1.



**28.1**

service hole

**A**  **B**  **A**
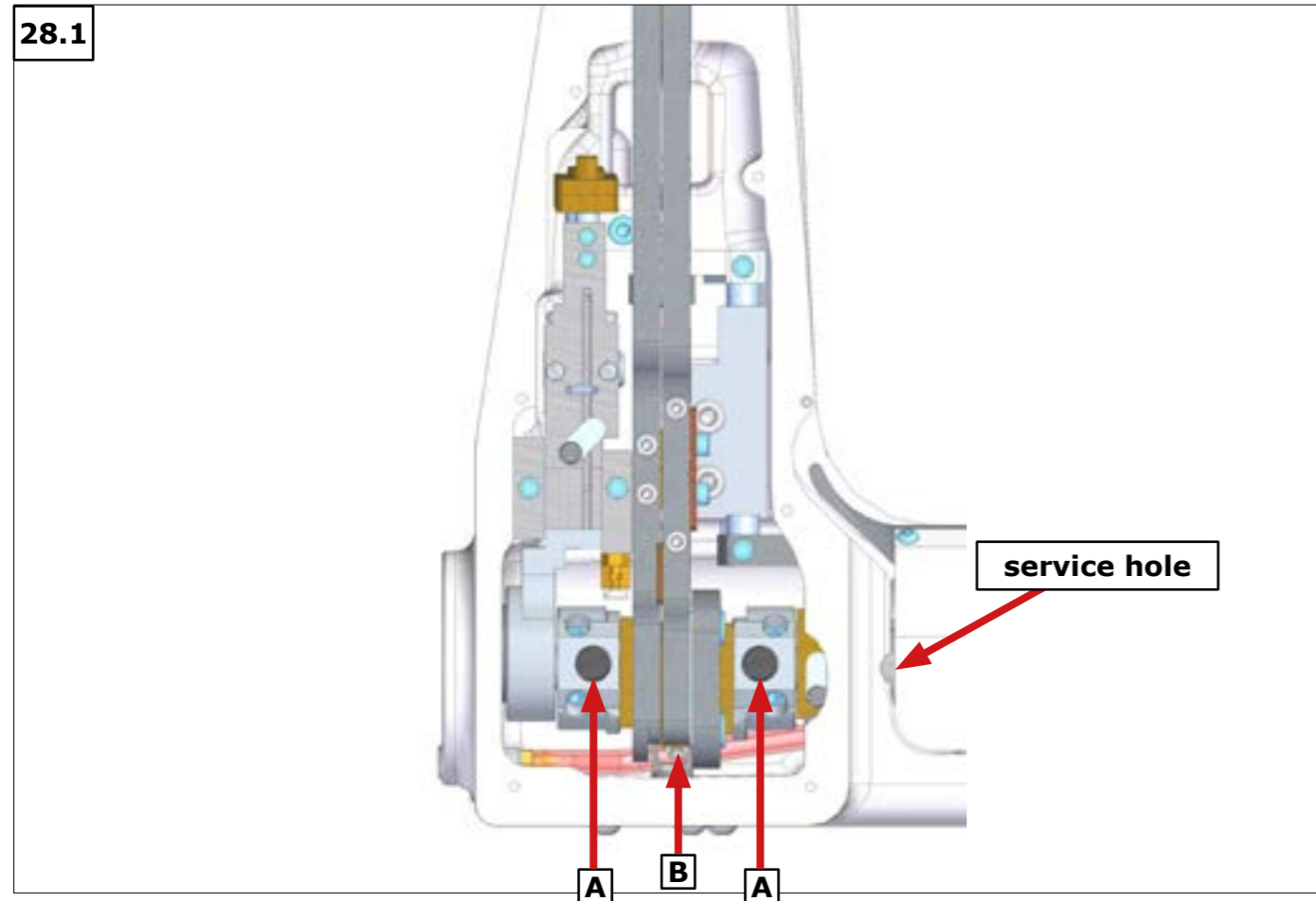
The correct position of the two eccentrics A is when the pulley is rotating in the running direction, when the second shaft fixing grub screw is on the service hole, the screws for stitch length adjustment from the eccentrics are face up (as per image .2).



**28.2**

**2nd shaft fixing grub screw in axis with the service hole**
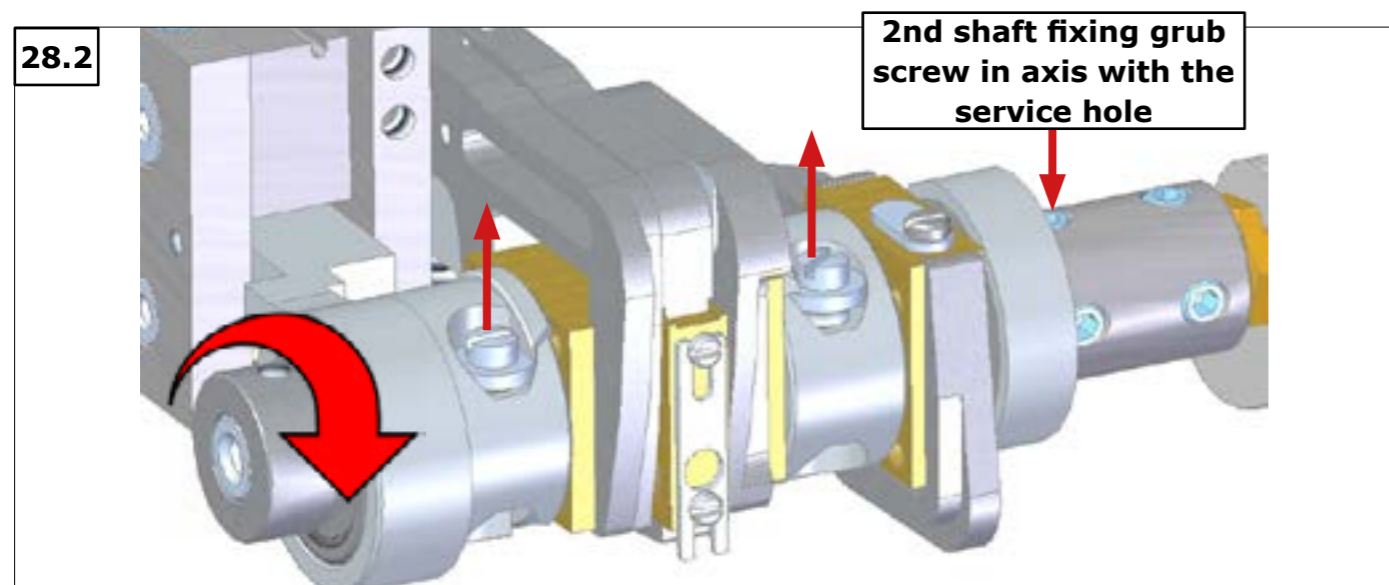
## 14.  Needle guard adjustments

The needle guard is positioned on the feed dog support and is moving in the same time with the feed dog, for that reason the needle guard position have to be checked every time the stitch length is changed. The needle guard have to touch the needle just a little bit, only for support, don't have to push the needle and the have to touch the needle right under the needle hole. The screw A (image 29.1) is used to adjust the height position and the screw B (image 29.3) to adjust the back-forward position.



**29.1**

**A**



**29.2**



**29.3**

**B**



**29.4**
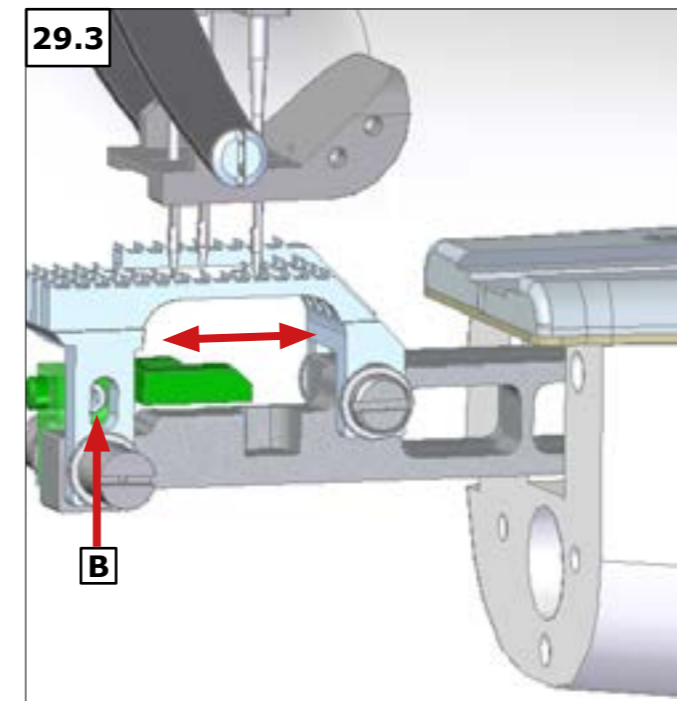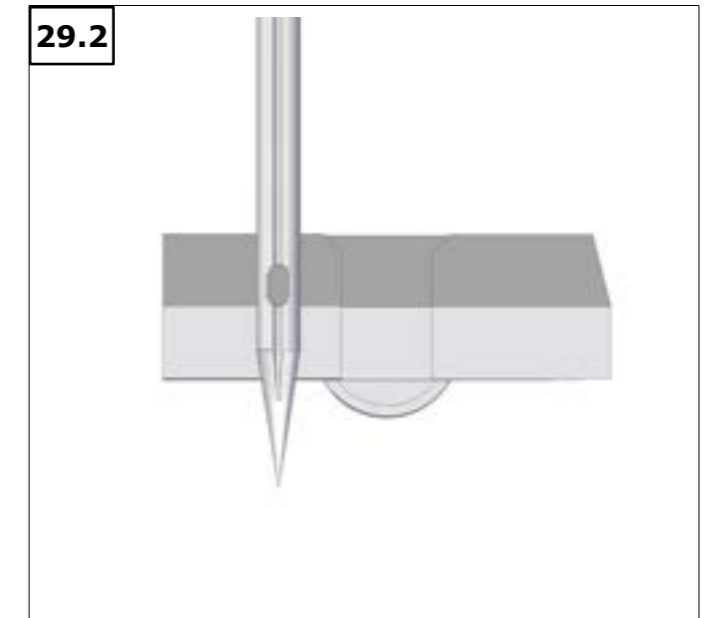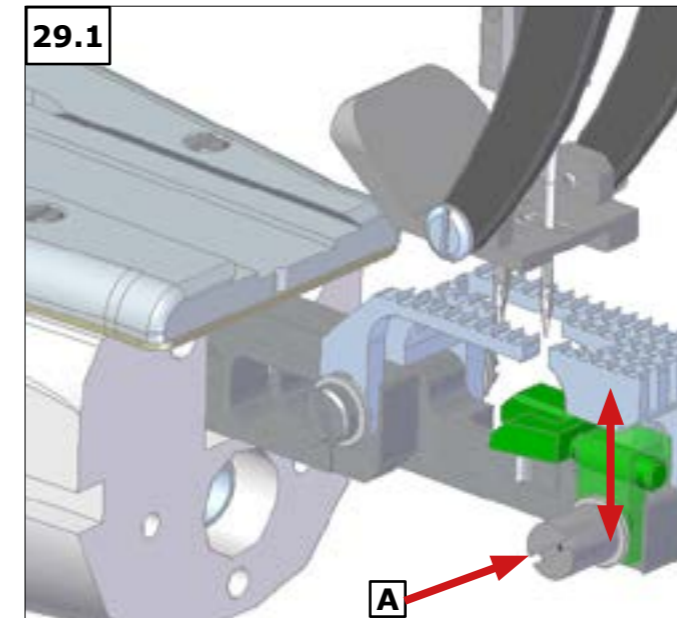
# 15.    FEED DOG

## 15.1- Feed dog height adjustment

Feed dog must be adjusted so that when it is in the highest position the teeth are completely out from the needle plate as image 30.1
The flat part between the teeth must be at the same level of the needle plate.
To regulate the height of the feed dog follow the following instructions:
- turn the wheel of the Unit and position the feed dog in the upper point of its run
- loosen the two screws highlited in red in image 30.1
- position the feed dog so that the teath are completly out of the needle plate init's highest position

30.1



30.2
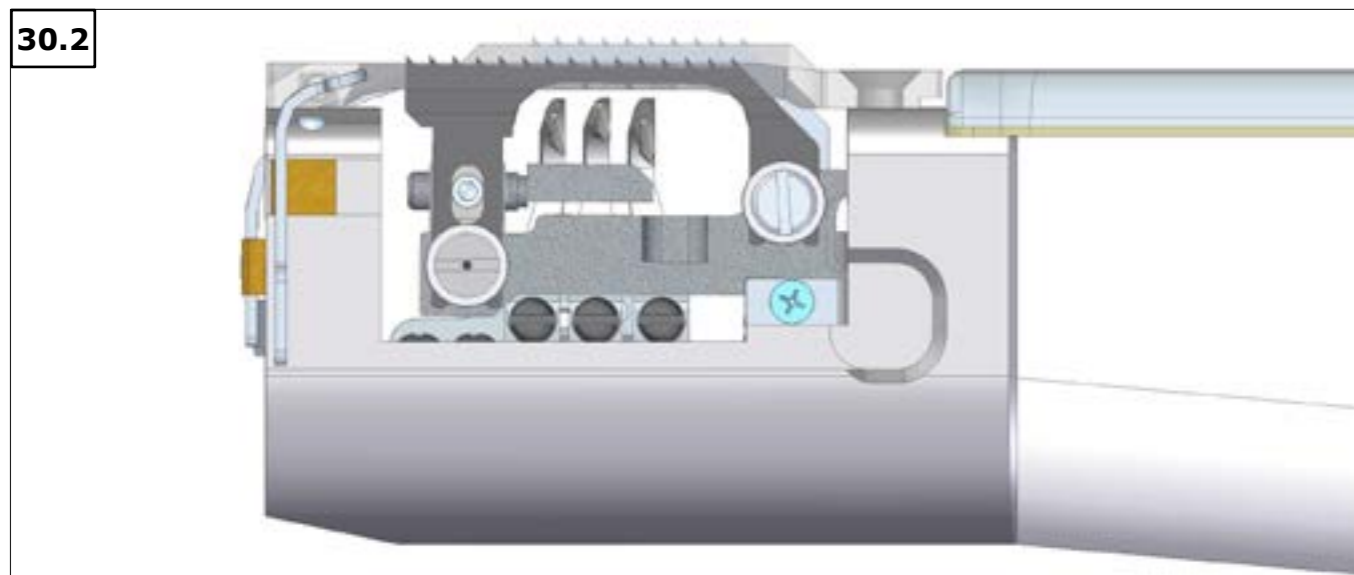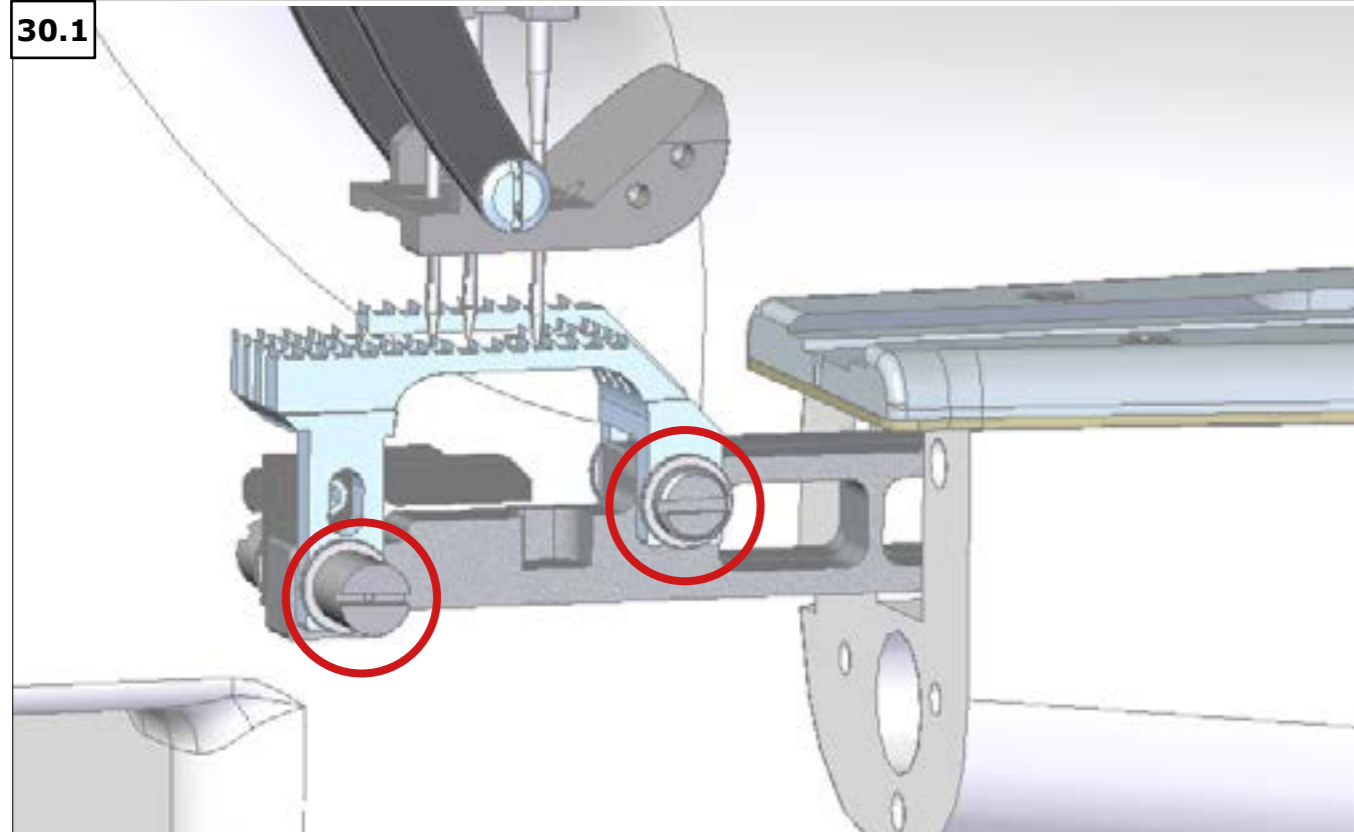


## 15.2- Feed dog movement

The correct movement of the feed dog is when it moves performing a rectangular movement. (up, forward, down, back)

31.1
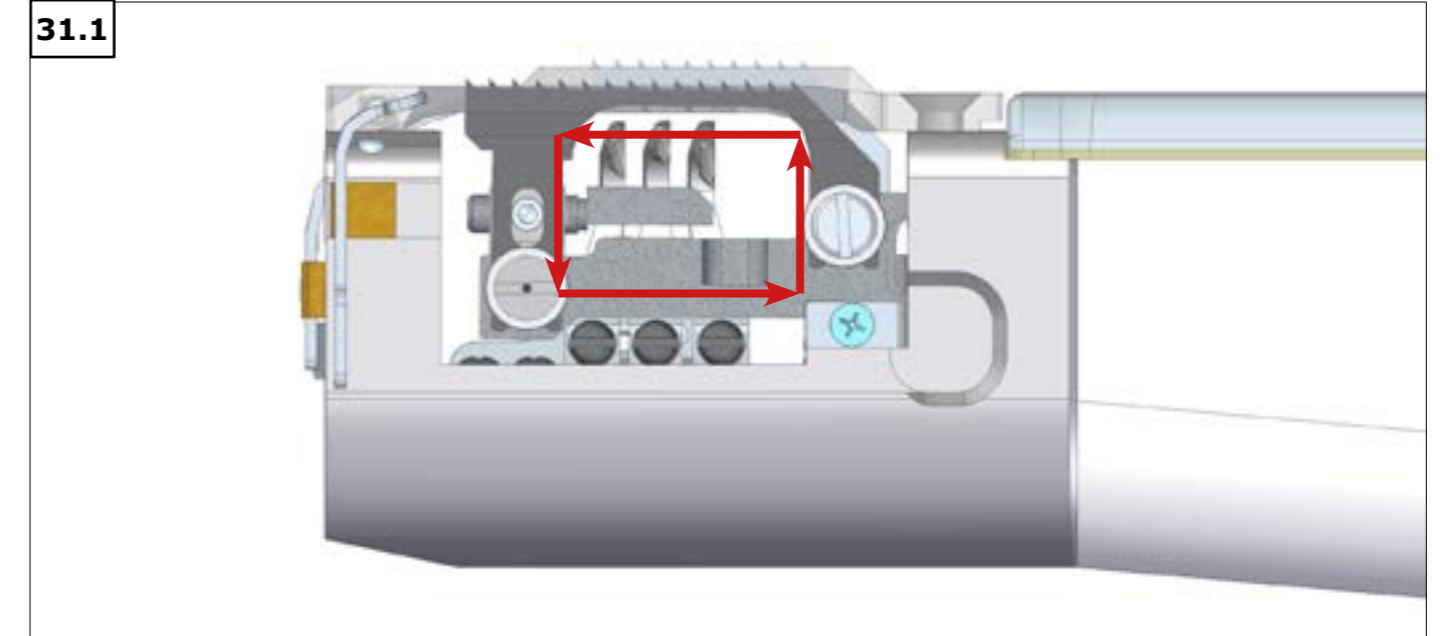


To adjust the movement of the feed dog loosen the 2 screws A and rotate the eccentric until get the correct movement a reference point can be as lower image.The feed dog must start mooving up when it starts mooving forward.

31.2



A

**Reference point**
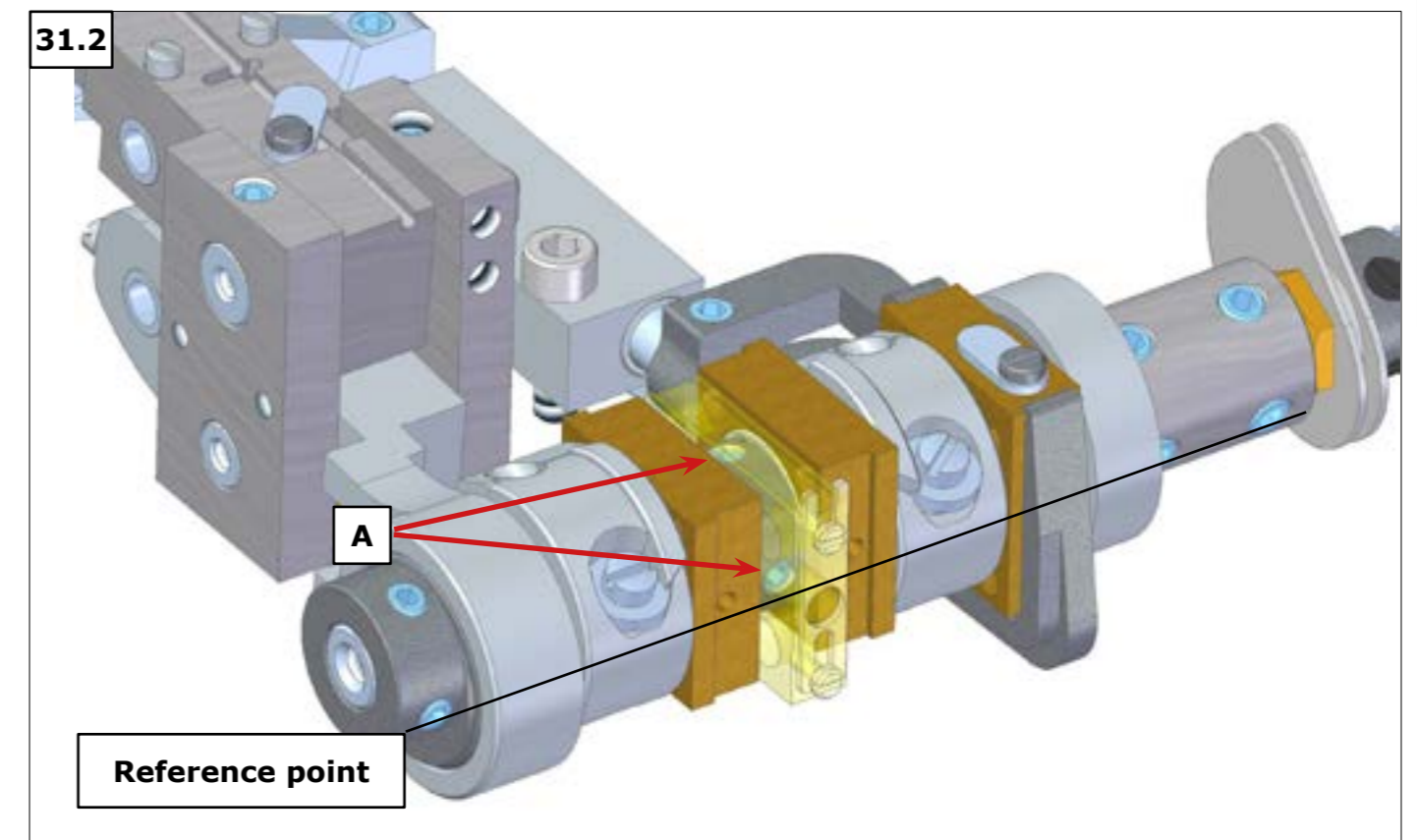
## 15.3- Stitch length

As per image 32.1 below, loosen the screw (A) that fixes the eccentric. With the screw (B) it is possible to adjust the stitch lenght:
Unscrewing the screw (B) the point will become longer, screwing it the stitch wil be shortened.
After the adjustment fix the screw (A)
Verify the stitch length by testing the unit without the puller, once reached the desired measure insert the puller and if required we can slightly increase the stitch length increasing the puller speed.

| 7 sticheshes per inch without puller | 7 sticheshes per inch after applying the puller |
|---|---|
| 1 inch | 1 inch |

ATTENTION: AFTER CHANGING LENGTH ALWAYS ADJUST THE NEEDLE GUARD



32.1
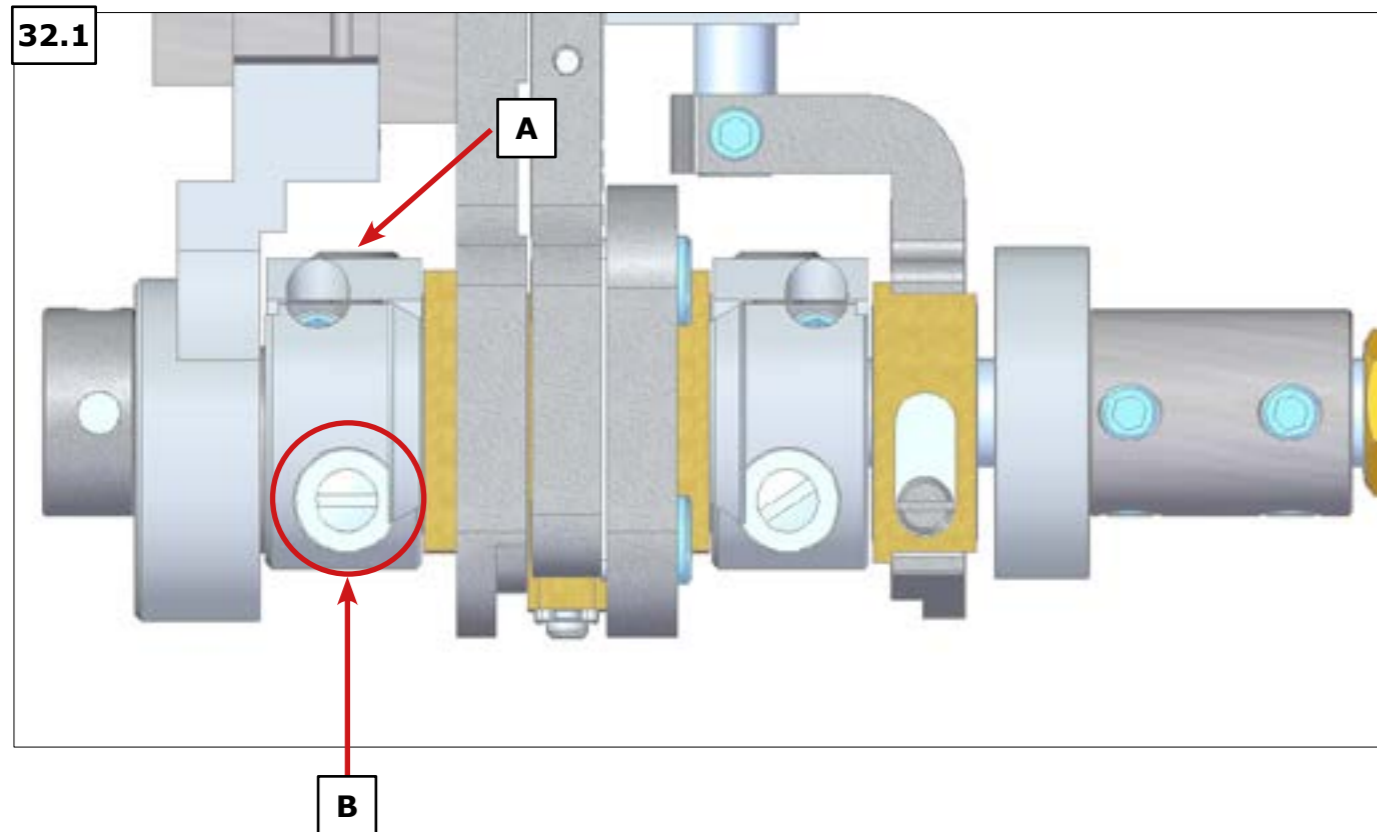
## 15.4- Differential feed dog adjustment

For the correct mechanical regulation of the differential feed dog is that it will move at the same speed of the main feed dog.To adjust the transport, loosen the screw A that fixes the eccentric and unscrew the B screw to increase the transport and tighten it to reduce the transport (as per image 33.1 below).



33.1
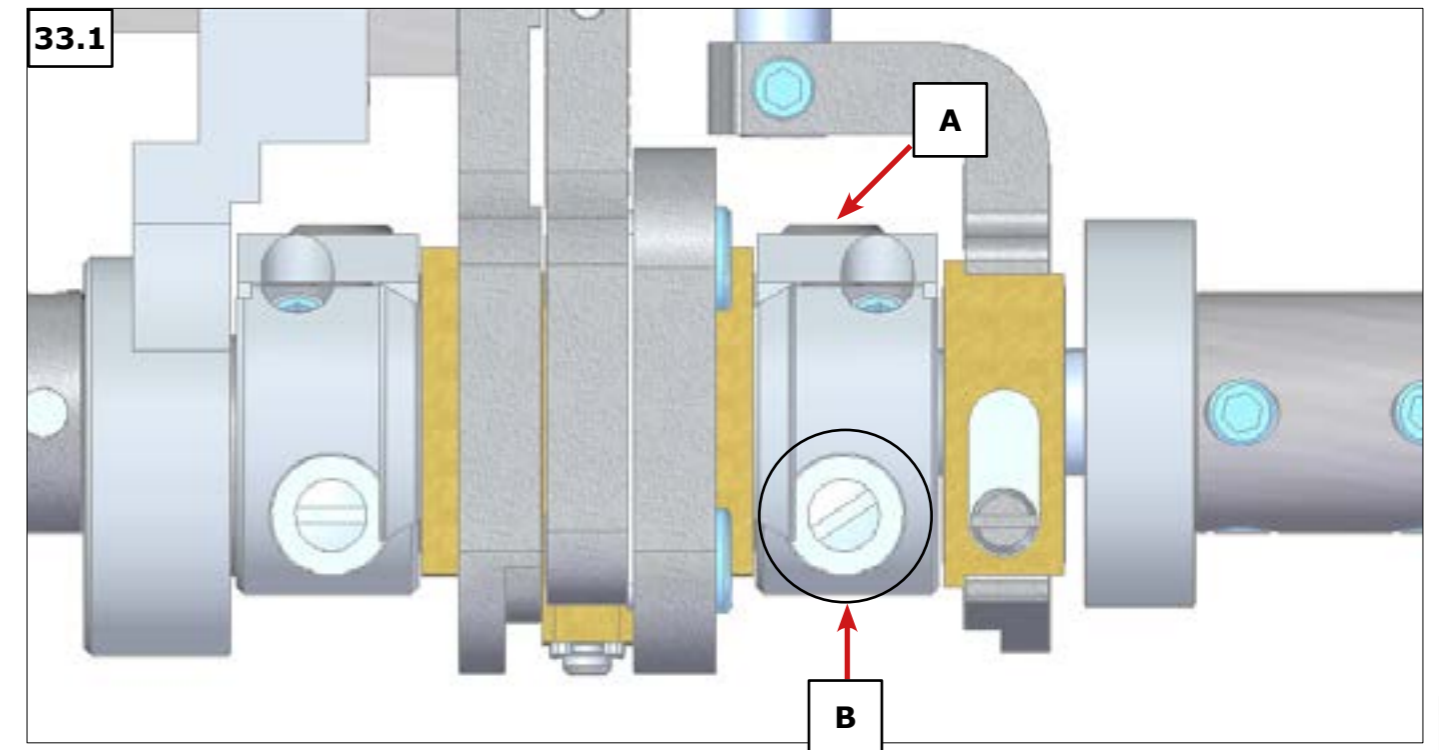
# 16.    Thread pullers adjustment

The thread pullers must be adjusted correctly, in order to have a good stitch quality and to avoid the stitch skipping.
The basic adjustment have to be done as indicated below.

## 16.1- Lower thread pulling cam adjustment

The lower thread pulling cam must tension up the threads when the needle bar is located in the upper dead centre. If this operation is done before or after, this causes the triangle closure in the wrong moment. If it's too soon it may cause the skip stitch, otherwise the lower thread may be not tensioned enough.

34.1

34.2
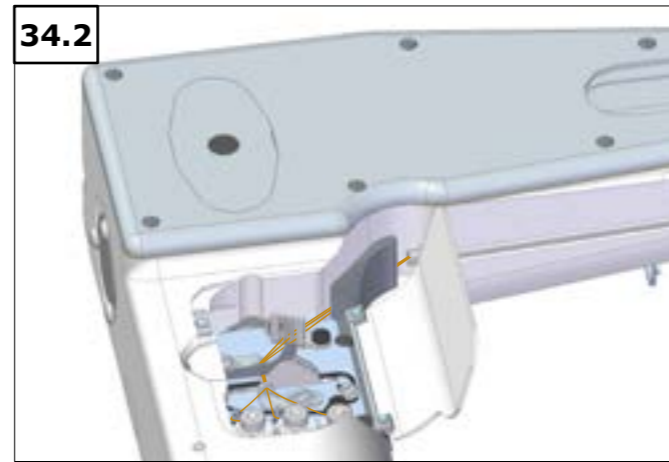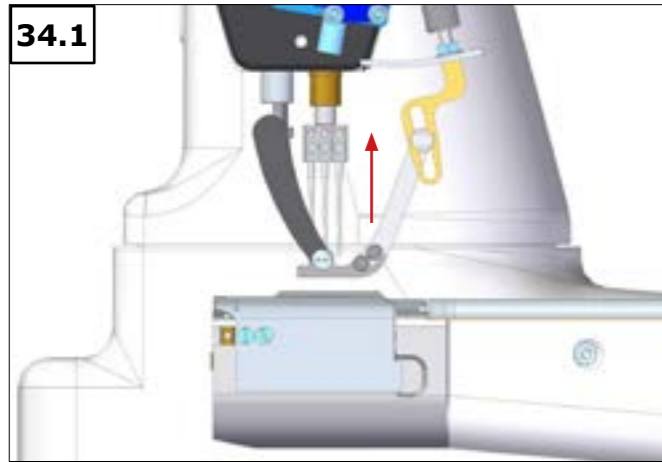
## 16.2- Upper thread puller adjustment

The upper head thread holder must be positioned parallel to the sewing head (see image 34.3), the underwire for thread recovery must be positioned 5 mm above the needle bar thread holder, when it is located in the lower dead centre (see image 34.4).

34.3

34.4
5mm
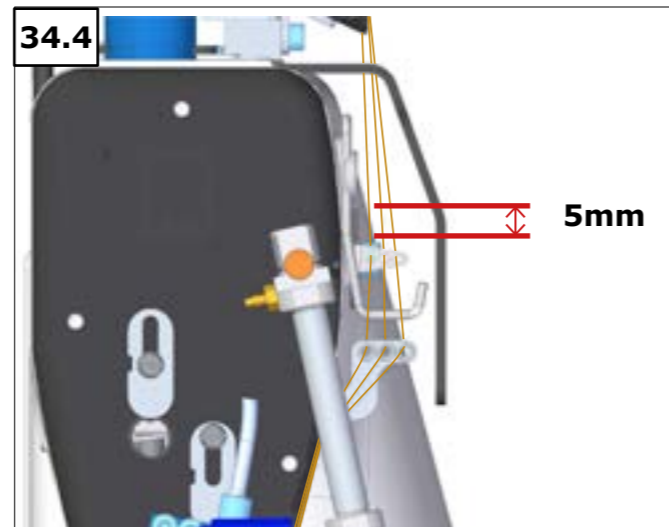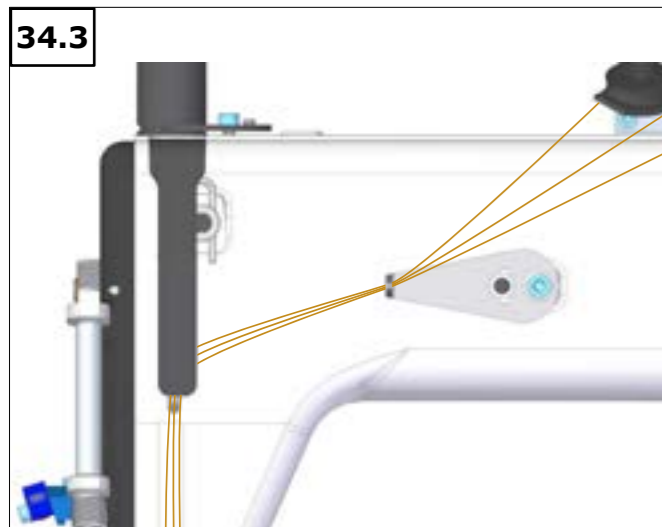
# 17.    PULLER ADJUSTMENT

The leaver 1 (image 35.1) is to increase or reduce the transport of the puller device. It is very important to synchronise the movement of the belt with the movement of the feed dog.
The feeding begins when the needle starts moving  from Lower Dead Position upward stroke (image 35.3) and it should be ensured that the Puller has stopped pulling before the needle enters the fabric (image 35.4) on the downward stroke. Adjusting the puller belt timing, is possible loosening the grab screws (1 & 2 image 35.2) and turning the shaft 3 of the puller using a screw driver and synchronizing the movement of the belt with needle bar.

35.1
1

35.2
1
3
2

35.3

35.4
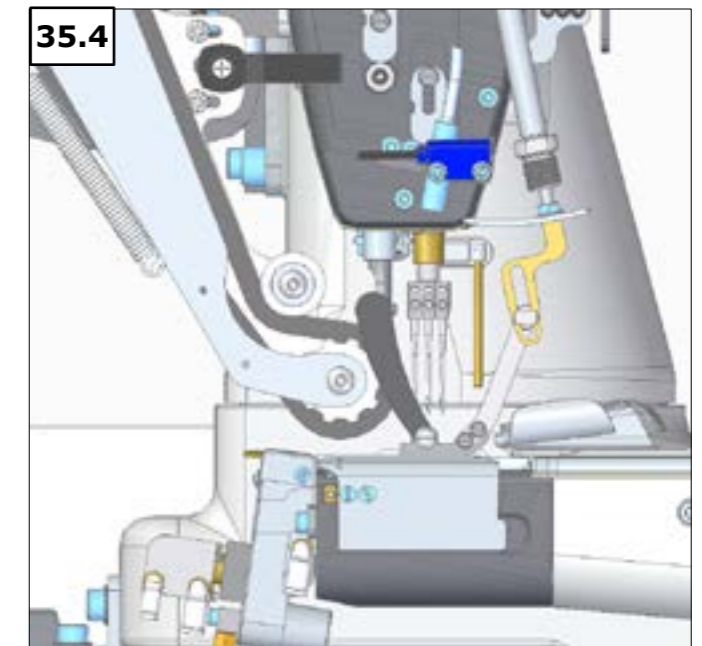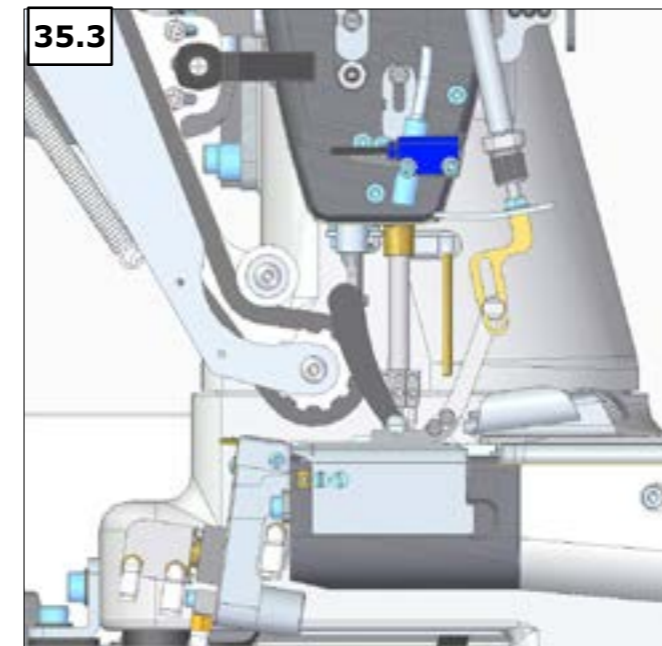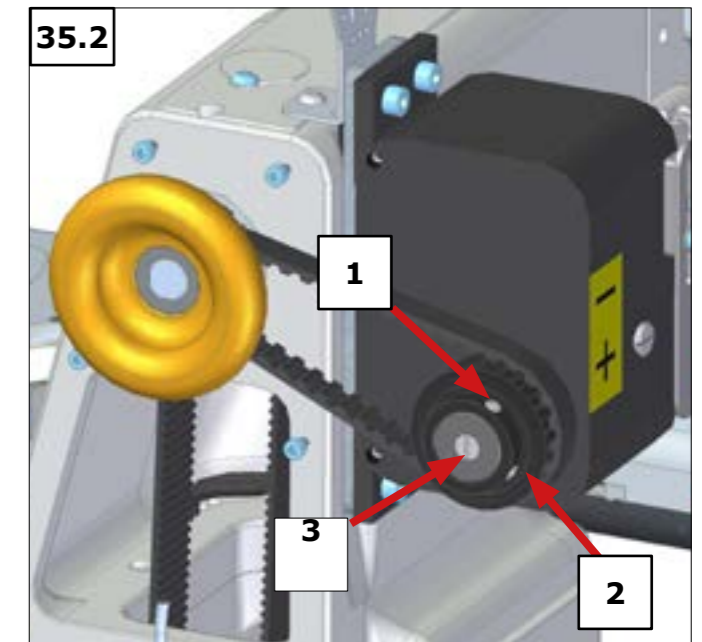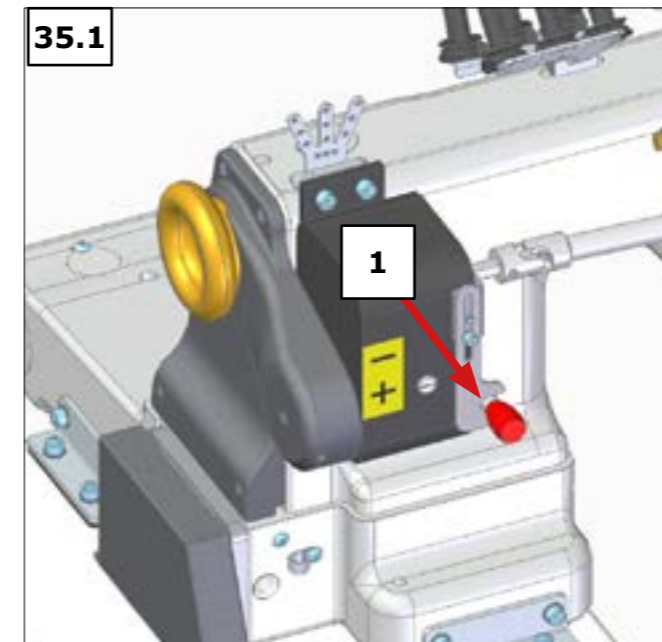
The material-pulling device (Puller) is set as close as possible to the needle clamp using the adjustment screw on it (image 36.1).
To adjust the distance between the puller belt and the needle clamp screw or unscrew the end stroke bar.



36.1
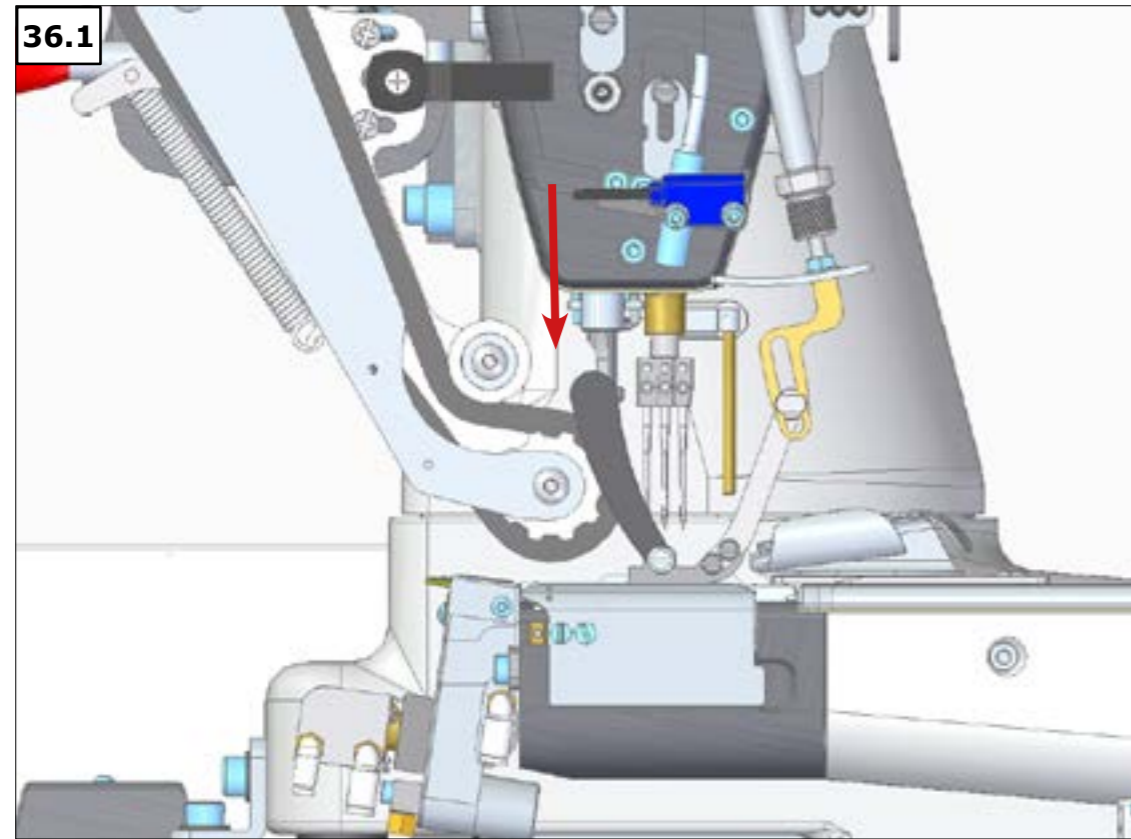
The correct belt position is 2,5 mm between the needle clamp and the belt with the needle bar in lower dead point (as per picture 36.2 below).



36.2

2,5mm

# 18.    TRIMMER DEVICE REGOLATION
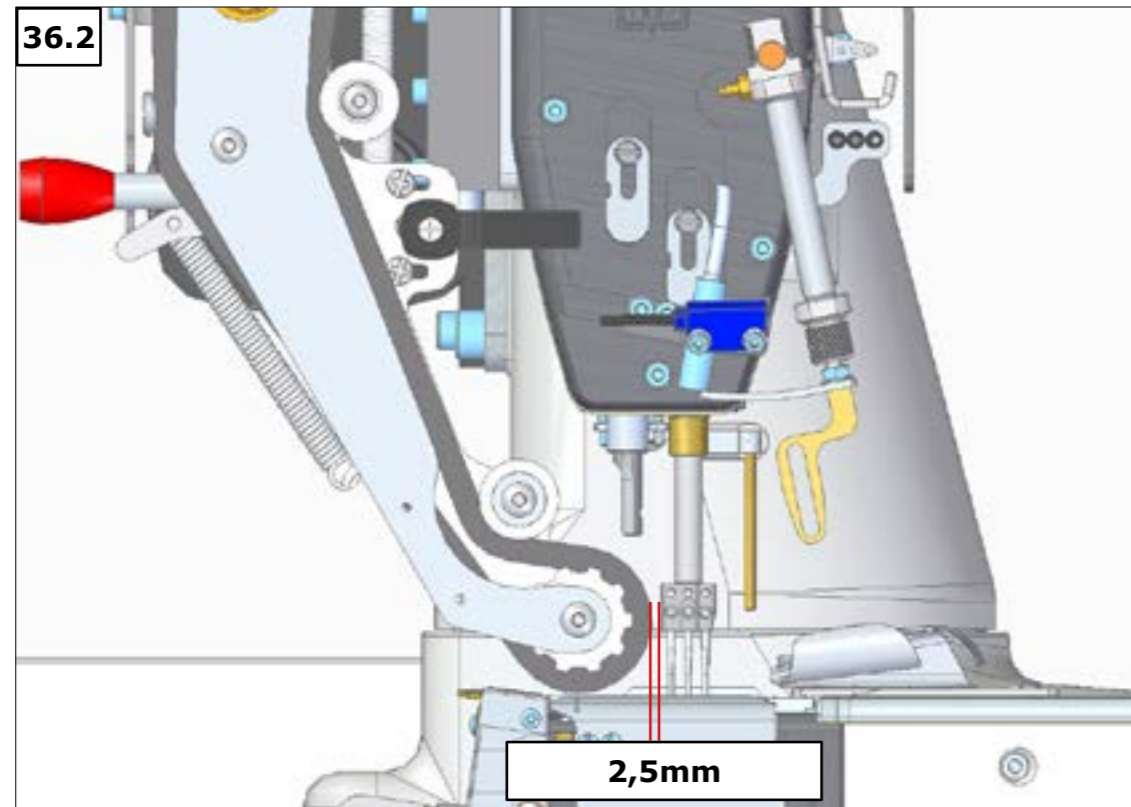


| VI.BE.MAC. men and Technology | COD. COMPONENTE: | 261KRAS-C |
|---|---|---|
| | DESCRIZIONE | GRUPPO RASAFILO CPL – MOD.C |
| | REVISIONE  0 | DATA  20-02-2017 |



| 261KRAS-C | | | | |
|---|---|---|---|---|
| Posizione | COD. COMPONENTE | REVISIONE | DESCRIZIONE | Quantità |
| 1 | 1650-737 | 1 | INGRANAGGIO | 1 |
| 2 | 261-727 | 0 | COPERTINA RASAFILO 261 | 1 |
| 3 | TCBEI M3x5 | 1 | VITE BOMBATA M3x5 | 5 |
| 4 | 261-731 | 0 | COPERTURA RASAFILO 261 | 1 |
| 5 | 261-732 | 1 | FERMO CREMAGLIERA | 1 |
| 6 | STEI M3x4G | 1 | GRANO M3X4 | 1 |
| 7 | KQ2L04-M5 | 1 | RACCORDO CURVO Φ4 – M5 | 2 |
| 8 | MO-8X8X16X6 | 1 | MOLLA | 1 |
| 9 | 261-740 | 0 | SUPPORTO RASAFILO | 1 |
| 10 | TSPEI M3x6 | 1 | VITE | 2 |
| 11 | 261-739 | 0 | CRAVATTA RASAFILO | 1 |
| 12 | 261-730 | 0 | CORPO RASAFILO 261 | 1 |
| 13 | 261-716A | 0 | UGELLO RASAFILO | 1 |
| 14 | 261K733 | 0 | GRUPPO CILINDRO RASAFILO | 1 |
| 15 | 007K207C | 0 | GRUPPO COLTELLO MOBILE RAS 2261 | 1 |
| 16 | VTS-041 | 1 | VITE TS M3x6 TESTA STRETTA | 2 |
| 17 | 261-729 | 0 | CONTRO COLTELLO RASAFILO 261 | 1 |
| 18 | VTS-052 | 0 | VITE SPECIALE PER RASAFILO | 1 |
| 19 | TCEI M3x12 | 1 | VITE | 3 |
| 20 | RM3 | 1 | RONDELLA | 2 |
| 21 | TCEI M4x10 | 1 | VITE | 2 |
| 22 | 261-747 | P01 | 261-747 | 1 |

the moving knife of the thread trimmer device is is moved by a rack cylinder , the movement have to be adjusted like in the below pictures (38.1 and 38.2) and don't have to touch the sides when is fully open or closed.
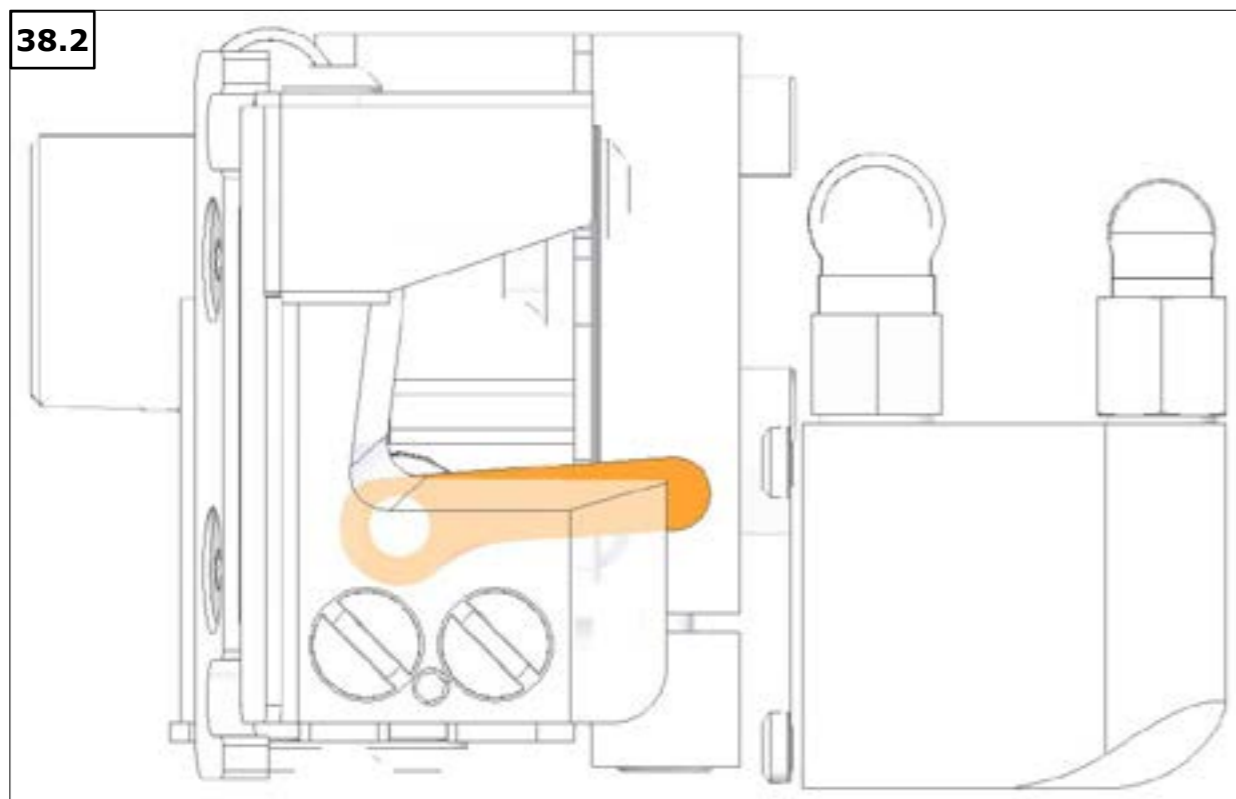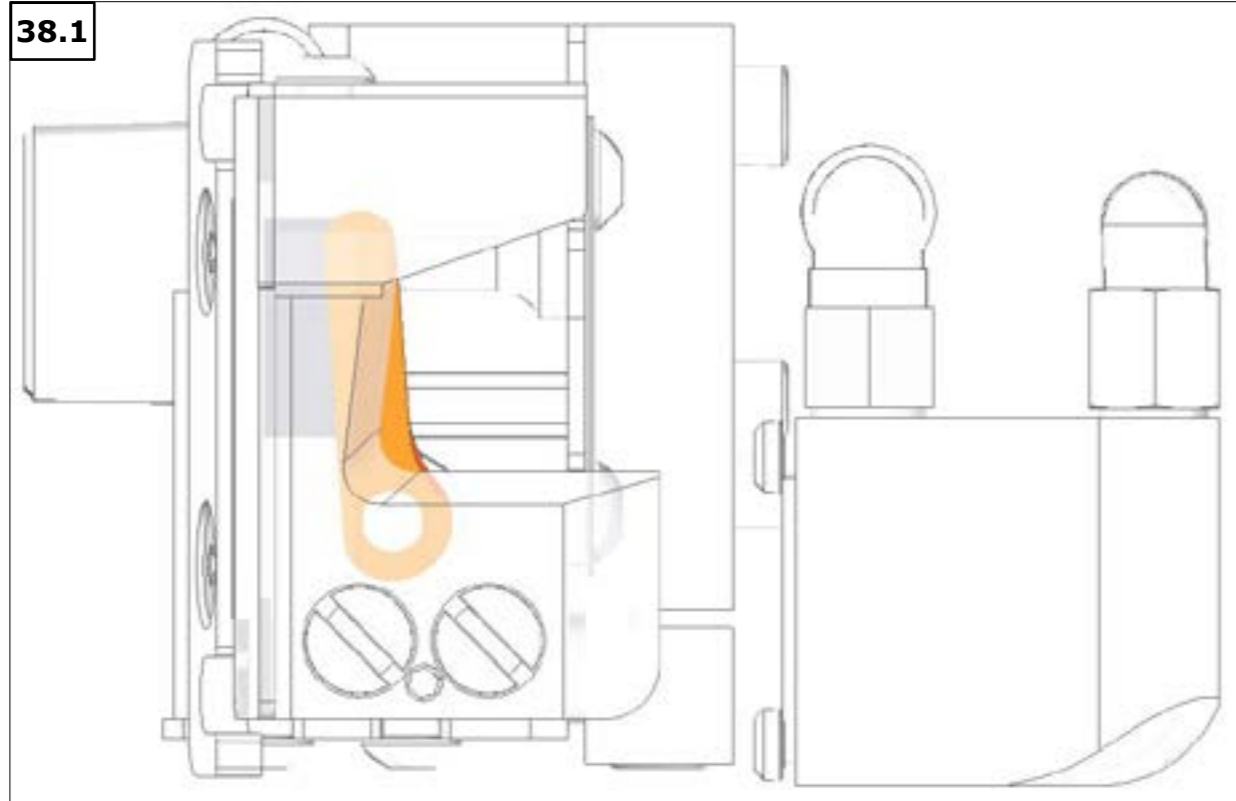
The adjustment of the moving knife position is made by losing the screw (picture 39.1) and moving the rack cylinder back or forward.

**38.1**

**38.2**

**39.1**
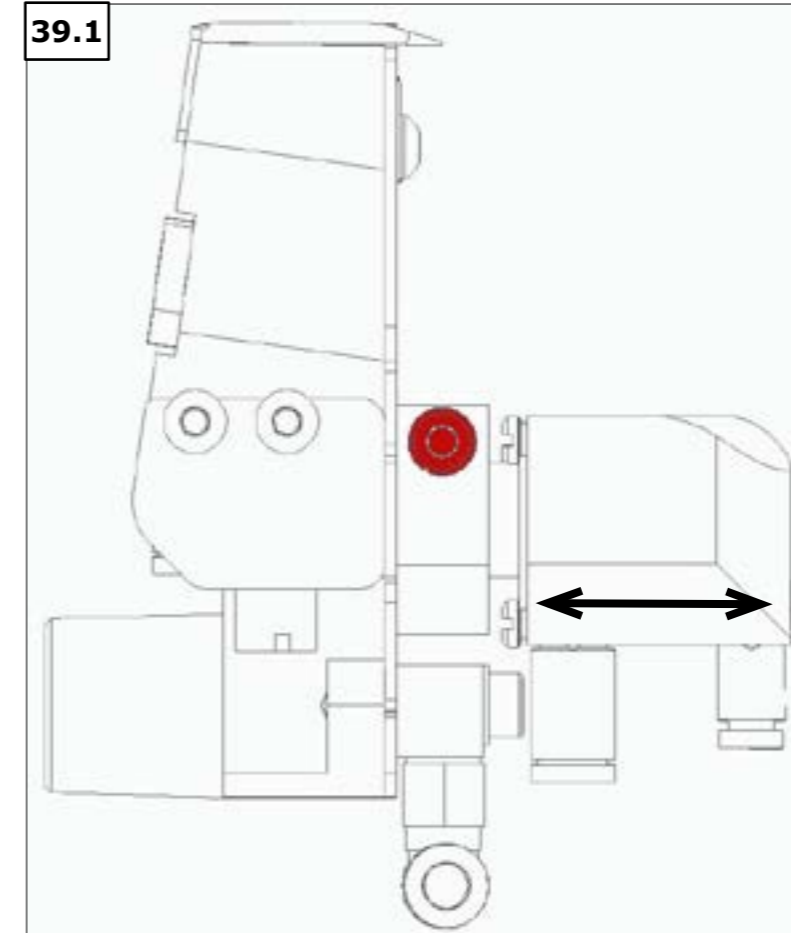
# 19.    SEWING CYCLE PARAMETERS
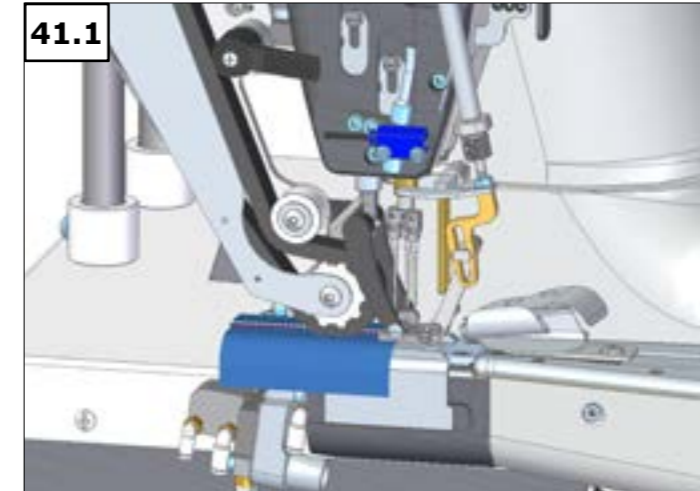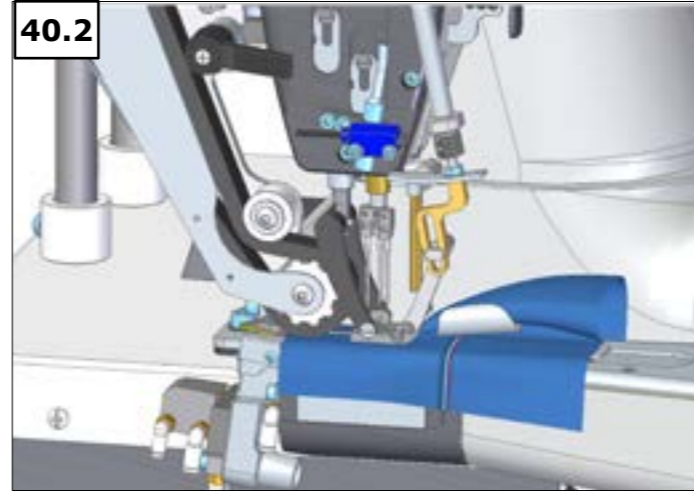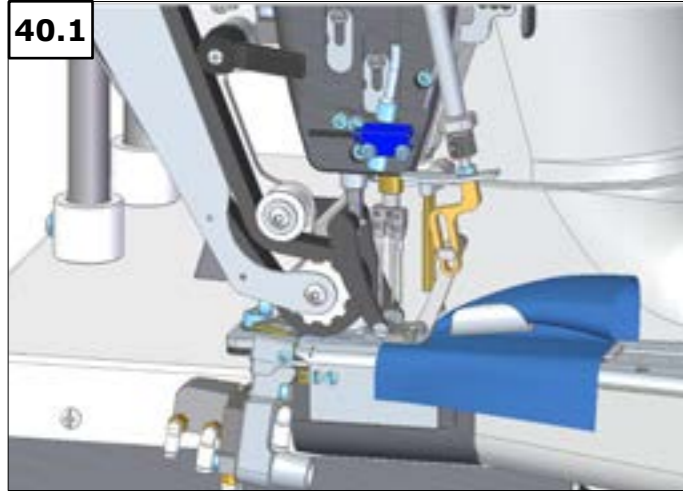
**Sewing Start**
High pressure on presser foot (3 bar) programmable S mode (↓+B+D)
Parameter K32 (standard value 12)
Suction programmable (↓+↑+B) F mode parameter COB suction time from photocell OFF
Parameter COA initial cut

**During normal sewing (without thickness)**
Presser foot low pressure (1.2 bar)
High speed (4999 rpm)

**On crossing area**
Presser foot high pressure (3 bar) & Low speed (2500 rpm) programmable (↓+B+D)K42 Duration (standard value 10)
Presser foot cylinder activation programmable
(↓+B+D) K11Delay (standard value 1)
K12 Duration (standard value 10)

**After Crossing**
Presser foot low pressure (1.2 bar)
High speed (4999 rpm)

**Final funcion**
After the photocell detects the end of the fabric the machine sil start the suction medium speed (2500 rpm)and final cut controlled by parameter COC
F mode (↓ + ↑ + B)

# 20.    MITSUBISHI MOTOR

The servomotor MITSUBISHI serves to check the speed of rotation and the position of the needles of the unit. The motor works with one phase 220 50/60Hz and has a power of 750 Watt.

## 20.1- Rotation setting

On the display appears:

☐ 2 - 9 9
↑

The first symbol identifies in which direction the motor rotation operate.

In case the first symbol is fixed it means that it is in action a situation of arrest of emergency.

## 20.2- Speed percentage setting

On the display appears:

    □ 2 - 9 9
       ↑↑

The last two numbers identify the maximum speed percentage value that the Unit runs setting by H. Parameter in P mode.
Press the C and D keys to change the speed percentage value.

## 20.3- Speed value setting

On the display appears:

    □ 2 - 9 9

Press the DOWN arrow key and the UP arrow key in the same time.

    ↑ + ↓

On the display is displayed:

    □ □ P - P

Hold on the two keys until on the console is displayed:

    H. - - - -   = Setting the MAXIMUN speed value

With the D key are changed unites - With the C key are changed about ten - With the B key are changed hundreds - With the A key are changed thousand

Normally the value is set to 4999 rpm

Press the DOWN arrow key on the console is displayed:

    L. - - - -   = Setting the MINIMUM speed value

With the D key are changed unites - With the C key are changed about ten - With the B key are changed hundreds - With the A key are changed thousand

Normally the value is set to 220 rpm
Press the DOWN arrow key and the UP arrow key in the same time

    ↑ + ↓

On the display appears:

    □ 2 - 9 9

## 20.4- Test Input and Output

On the display appears:
    □ 2 - 9 9

Press the DOWN arrow key and the UP arrow key and button A in the same time.
The following will then appear on the display:
    P - E     (E mode)

Keep the two buttons pressed down untill this chahges to:
    1 - E

## 20.4.1-    Input test

With the possibility to test them manually (BY RUNNING YOUR FINGER UNDER THE PHOTOCELLS OR COVERING THE SENSOR WITH SOME STEEL)
The following will then appear on the display:
    I A.  O F   A input parameters = OFF
The INPUT value (ON/OFF) of parameter 1 is displayed.
By changing the relative input logic state (pedal – switch – sensor – photocell) the value changes from
OFF to ON.
The normal factory-set parameters are as follows:

| FUNCTION | DISPLAY |
|---|---|
| Pedal sewing position | IG |
| Pedal back position | II |
| Pedal second back position | IH |
| Thickness sensor | I1 |
| Fabric detection photocell | I2 |

Press the DOWN arrow in order to proced to a review of the desidered parameters.
The following will then appear on the display:
    E C A. x x       Encoder motor phase A input parameter

The INPUT value (ON/OFF) of parameter E C A is displayed.
When the machine is sewing, the value constantly changes between ON and OFF.
Press the DOWN arrow. The following will then appear on the display:
    E C B. x x    Encoder motor phase B input parameter

The INPUT value (ON/OFF) of parameter E C B is displayed.
When the machine is sewing, the value constantly changes between ON and OFF.
Press the DOWN arrow. The following will then appear on the display:
    U P.   O N   STOP position sensor reading input signal

The INPUT value (ON/OFF) of parameter UP is displayed.
Turning the pulley check if the value changes form ON to OF and viceversa.
The following will then appear on the display:
    D N.  O F   LOW thread-puller position sensor reading input parameter

The INPUT value (ON/OFF) of parameter DN is displayed.
Turning the machine synchronizer makes it possible to change it from on to off and viceversa.

## 20.4.2- Output test

While the machine is operating, it is possible to see the function and the signal changing from OF to ON and viceversa.
The following will then appear on the display:

O A D.   O F   output signal 0 A = THREAD PULLER OFF

The OUTPUT signal value of the 0 A d parameter is displayed.
The normal factory-set parameters are as follows:

| FUNCTION | DISPLAY |
|---|---|
| Air vacuum | oAd |
| Trimmer | oBd |
| Press foot point cylinder | oCd |
| Presser foot up | oFd |
| Presser foot high pressure | o1d |
| Needle cooling | o2d |
| Puller down | o3d |

Press the DOWN arrow
Display of all the OUTPUTS (TEST OUTS) with the possibility to test them manually by pressing button D on the console.

| FUNCTION | DISPLAY |
|---|---|
| Air vacuum | oAo |
| Trimmer | oBo |
| Press foot point cylinder | oCo |
| Presser foot up | oFo |
| Presser foot high pressure | o1o |
| Needle cooling | o2o |
| Puller down | o3o |

Press the UP and DOWN arrows at the same time in order to exit from this mode

## 20.5- Resetting the panel values

On the display appears:

□ 2 - 9 9

Press the DOWN arrow key and B and C button in the same time.
The following will then appear on the display:

P - r            (r mode)

R E S E T

Keep pressed  D key in order to start the resetting cycle and keep it pressed DOWN until the writing flashes three times.
The following appears on the control panel display:

□ 2 - 9 9

## 20.6- Paramater list

| Function Number | Mode | Digital | Function name | Unit | MIN | MAX | Value |
|---|---|---|---|---|---|---|---|
| | NORMAL | CW . | Rotation direction | - | | | R |
| 0000 | P | H. | Maximum speed | rpm | 0 | 8999 | 5199 |
| 0001 | P | L. | Low speed | rpm | 0 | 499 | 400 |
| 0002 | P | T. | Thread trimming speed | rpm | 0 | 499 | 499 |
| 0003 | P | N. | Start tacking speed | rpm | 0 | 2999 | 600 |
| 0004 | P | V. | End tacking speed | rpm | 0 | 2999 | 400 |
| 0005 | P | M. | Medium speed | rpm | 0 | 8999 | 3000 |
| 0006 | P | S. | Slow start speed | rpm | 0 | 2999 | 850 |
| 0024 | P | FD. | Time to motor drive after presser foot lifter bring down | msec | 0 | 998 | 10 |
| 0041 | P | IL . | Cancel of interlock after full pedal heeling | - | | | ON |
| 0047 | P | K8. | Reverse run angle from DOWN position to UP position | Degree | 0 | 360 | 224 |
| 0050 | P | SNM. | Setting sensor "SEN" input function | - | | | OF |
| 0051 | P | KD . | Virtual down Setting | - | | | ON |
| 0054 | P | D8. | Needle DOWN position stop angle | Degree | 10 | 180 | 40 |
| 0055 | P | U8. | Needle UP position stop angle | Degree | 10 | 180 | 10 |
| 0102 | A | AC . | Acceleration time simple setting | - | | | L |
| 0103 | A | ACT. | Acceleration time | x10msec | 6 | 99 | 16 |
| 0110 | A | MR. | Setting motor pulley diameter | mm | 20 | 349 | 112 |
| 0111 | A | SR. | Setting sewing machine pulley diameter | mm | 20 | 349 | 61 |
| 0114 | A | STM. | First priority stop => speed control | - | | | ON |
| 0300 | C | IA. | Function selection of input signal IA | - | | | NO |
| 0303 | C | IB. | Function selection of input signal IB | - | | | NO |
| 0306 | C | IC. | Function selection of input signal IC | - | | | NO |
| 0309 | C | ID. | Function selection of input signal ID | - | | | NO |
| 0312 | C | IE. | Function selection of input signal IE | - | | | NO |
| 0315 | C | IF. | Function selection of input signal IF | - | | | NO |
| 0324 | C | IH. | Function selection of input signal IH | - | | | U |
| 0327 | C | II. | Function selection of input signal II | - | | | F |
| 0339 | C | IM. | Function selection of input signal IM | - | | | IOB |
| 0342 | C | IN. | Function selection of input signal IN | - | | | IOB |
| 0345 | C | IO. | Function selection of input signal IO | - | | | IOD |
| 0347 | C | IOA. | Alternating operation of input signal IO | - | | | ON |
| 0357 | C | I1. | Function selection of input signal I1 | - | | | IOA |
| 0358 | C | I1L. | Logical conversion function of input signal I1 | - | | | ON |
| 0370 | C | I2. | Function selection of input signal I2 | - | | | IO2 |
| 0390 | C | OA. | Function selection of output signal OA | - | | | OTC |
| 0395 | C | OB. | Function selection of output signal OB | - | | | OTD |
| 0400 | C | OC. | Function selection of output signal OC | - | | | KS1 |
| 0405 | C | OD. | Function selection of output signal OD | - | | | FU |
| 0406 | C | ODL. | Logical conversion function of output signal OD | - | | | ON |
| 0410 | C | OF. | Function selection of output signal OF | - | | | NO |
| 0416 | C | O1. | Function selection of output signal O1 | - | | | OTE |
| 0426 | C | O3. | Function selection of output signal O3 | - | | | NO |
| 0427 | C | O3L. | Logical conversion function of output signal O3 | - | | | ON |
| 0431 | C | O4. | Function selection of output signal O4 | - | | | NO |
| 0435 | C | O5. | Function selection of output signal O5 | - | | | NO |
| 0449 | C | OM. | Function selection of output signal OM | - | | | KS4 |
| 0453 | C | ON. | Function selection of output signal ON | - | | | KS3 |
| 0457 | C | OO. | Function selection of output signal OO | - | | | OT3 |
| 0477 | C | A1. | Logic [AND] module A1 input function selection | - | | | IO6 |
| 0480 | C | N1. | Logic [AND] module N1 output function selection | - | | | OTA |
| 0482 | C | N2. | Logic [AND] module N1 output function selection | - | | | KS3 |
| 0483 | C | N2L. | Logic [AND] module N2 setting of Hi /Low logic | - | | | ON |
| 0484 | C | A2. | Logic [AND] module A2 input function selection | - | | | IOC |
| 0487 | C | N3. | Logic [AND] module N3 output function selection | - | | | OT2 |
| 0488 | C | N3L. | Logic [AND] module N3 setting of Hi /Low logic | - | | | ON |
| 0489 | C | N4. | Logic [AND] module N4 output function selection | - | | | OP |
| 0491 | C | A3. | Logic [AND] module A3 input function selection | - | | | IOE |
| 0494 | C | N5. | Logic [AND] module N5 output function selection | - | | | OTB |
| 0496 | C | N6. | Logic [AND] module N6 output function selection | - | | | FU |
| 0497 | C | N6L. | Logic [AND] module N6 setting of Hi /Low logic | - | | | ON |
| 0498 | C | OR. | Logic [OR] module input function selection | - | | | SVM |
| 0501 | C | R1. | Logic [OR] module R1 output function selection | - | | | OT2 |
| 0502 | C | R1L. | Logic [OR] module R1 setting of Hi /Low logic | - | | | ON |
| 0503 | C | R2. | Logic [OR] module R2 output function selection | - | | | KS4 |
| 0800 | F | COA. | Set No. of stitches A for cutter output (Setting the delay time during chain-off output ON) | Stitches | 0 | 99 | 10 |
| 0801 | F | COB. | Set No. of stitches B for cutter output (Setting the delay time during chain-off output OFF) | Stitches | 0 | 99 | 17 |
| 0802 | F | COC. | Set No. of stitches C for cutter output | Stitches | 0 | 99 | 24 |
| 0806 | F | SD. | Delay time to when SL output turns from OFF to ON | msec | 0 | 508 | 40 |
| 0813 | F | O1B. | OT1 output blower output setting | - | | | ON |
| 0814 | F | O2M. | OT2 output chain-off output setting | - | | | ON |
| 0815 | F | O3M. | OT3 output cutter output setting | - | | | ON |
| 0818 | F | CTM. | Status of cutter output photo switch (I*2) signal according to OT3 output | - | | | ON |
| 0823 | F | CAT. | Automatic thread trim setting after cutter sensor is turned off | - | | | ON |
| 0919 | G | FD. | Time to motor drive after presser foot lifter bring down | msec | 0 | 998 | 10 |
| 1000 | H | LHH. | Upper limit of maximum speed [H] | x100rpm | 0 | 99 | 52 |
| 1001 | H | LHL. | Lower limit of maximum speed [H] | x100rpm | 0 | 99 | 10 |
| 1006 | H | LNH. | Upper limit of start/end tacking (condensed stitching) speed | x100rpm | 0 | 99 | 40 |

| 1008 | H | LMH. | Upper limit of medium speed [M] | x100rpm | 0 | 99 | 50 |
|---|---|---|---|---|---|---|---|
| 1009 | H | LML. | Lower limit of medium speed [M] | x100rpm | 0 | 99 | 15 |
| 1102 | J | CWC. | Rotation direction changeover prohibit | - | | | ON |
| 1103 | J | 12C. | 1-2 position changeover prohibit | - | | | ON |
| 1104 | J | SLC. | Slow start changeover prohibit | - | | | ON |
| 1106 | J | JKC. | Not used | - | | | ON |
| 1107 | J | SBC. | Start tacking validity changeover prohibit | - | | | ON |
| 1108 | J | SNC. | No. of start tacking stitches changeover prohibit | - | | | ON |
| 1109 | J | EBC. | End tacking validity changeover prohibit | - | | | ON |
| 1110 | J | ENC. | No. of end tacking stitches changeover prohibit | - | | | ON |
| 1111 | J | SKC. | Start tacking type changeover prohibit | - | | | ON |
| 1112 | J | EKC. | End tacking type changeover prohibit | - | | | ON |
| 1113 | J | TSC. | Pattern stitching validity changeover prohibit | - | | | ON |
| 1114 | J | TNC. | Pattern stitching No. of stitches and times changeover prohibit | - | | | ON |
| 1115 | J | MDC. | Pattern mode pattern changeover prohibit | - | | | ON |
| 1117 | J | BPC. | Prohibit the teaching mode key switches on control switch panel | - | | | ON |
| 1118 | J | BSC. | Prohibit the following key switches on control switch panel | - | | | ON |
| 1120 | J | BKC. | Prohibit the key switches on the control switch panel before thread trimming | - | | | ON |
| 1121 | J | NSV. | The use number is preserved by the number call. | - | | | ON |
| 1339 | O | I1. | Function selection of making I1 two input signal functions | - | | | IO9 |
| 1340 | O | I1L. | Logical conversion function to make I1 two input signal functions | - | | | ON |
| 1352 | O | I2. | Function selection of making I2 two input signal functions | - | | | IO8 |
| 1430 | Q | MOB. | Not used. | Stitches | 0 | 99 | 3 |
| 1500 | S | KSM. | KS1, KS2 output run mode | - | | | ON |
| 1501 | S | SQS. | Simple sequence start conditions | - | | | GO |
| 1503 | S | NS1. | Simple sequence output KS1 output beginning is time or the number of stitch is selected | - | | | ON |
| 1504 | S | NE1. | Simple sequence output KS1 output is time or the number of stitch is selected | - | | | ON |
| 1505 | S | S1S. | Output beginning standard of simple sequence output KS1 | - | | | IN |
| 1508 | S | NE2. | Simple sequence output KS2 output is time or the number of stitch is selected | - | | | ON |
| 1509 | S | S2S. | Output beginning standard of simple sequence output KS2 | - | | | IN |
| 1512 | S | NE3. | Simple sequence output KS3 output is time or the number of stitch is selected | - | | | ON |
| 1513 | S | S3S. | Output beginning standard of simple sequence output KS3 | - | | | IN |
| 1515 | S | NS4. | Simple sequence output KS4 output beginning is time or the number of stitch is selected | - | | | ON |
| 1516 | S | NE4. | Simple sequence output KS4 output is time or the number of stitch is selected | - | | | ON |
| 1517 | S | S4S. | Output beginning standard of simple sequence output KS4 | - | | | IN |
| 1519 | S | K11. | KS1 output start [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 3 |
| 1521 | S | K21. | KS2 output start [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 0 |
| 1522 | S | K22. | KS2 output [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 25 |
| 1523 | S | K31. | KS3 output start [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 0 |
| 1524 | S | K32. | KS3 output [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 12 |
| 1525 | S | K41. | KS4 output start [Time]/[No. of Stitches] setting | 10msec/Stitche | 0 | 99 | 1 |

# 20.7- Error list

| Error code | Probable cause | Inspection |
|---|---|---|
| PᏌr.oF | Is the power voltage too low? Is the power supply capacity too small? NOTE: It does this display when power supply is turned OFF, but this is not an error | Check the power voltage. Check the power supply capacity. |
| E1 | Is the wire to the motor short-circuited? Is the sewing machine load torque too high? | Check the motor wiring. Check the sewing machine |
| E2 | Is the power voltage too high? Is the sewing machine inertia too high? | Check the power voltage. Lengthen the deceleration time. (Refer to DC in [A] mode) |
| E3 | Is the connector to the motor encoder securely inserted? Are the signal from the motor encoder correct? Is the sewing machine locked? Is the motor locked? | Check the connector insertion. Check the encoder signal. (Refer to [E] mode) Check the sewig machine. Check the motor. |
| E4 | Is the motor connector securely inserted? Are the signal from the motor connector correct? | Check the motor connector insertion. Check the motor connector. |
| E6 | Is an extraordinary signal inputted? (the signal as it repeats ON/OFF at the high frequency) Does the noise from outside enter an input signal | Check the input signal. Remove a noise source. |
| E8 | Is the position detector connector securely inserted? Are the signal from the detector correct? (UP/DOWN signal interruption) | Check the detector insertion. Check the decettor UP/DOWN signal. (refer to [E] mode) |
| E9 | Is the solenoid wiring short-circuited? Solenoid defect (coil defect) | Checkn the solenoid wiring. Replace the solenoid. |
| M5 | A error of the copy mode using the control panel. Is the control panel connector securely inserted? The voltage or the type of control panel is difference. | Check the connector insertion. Check the voltage and the type are right. |
| MA | The position data of the internal lever unit is defective. When power supply is turned ON. The pedal is not neutral position. | The pedal is neutralized. (it returns automatically 1 second later) |

# 21.    PHOTOCELL

The photocell should be adjusted so that it points the underlying reflecting plate to adjust the inclination, loosen the two screws that fix it to the bracket and move it slightly so that the green light is on, when the fabric is positioned, both lights must be on.
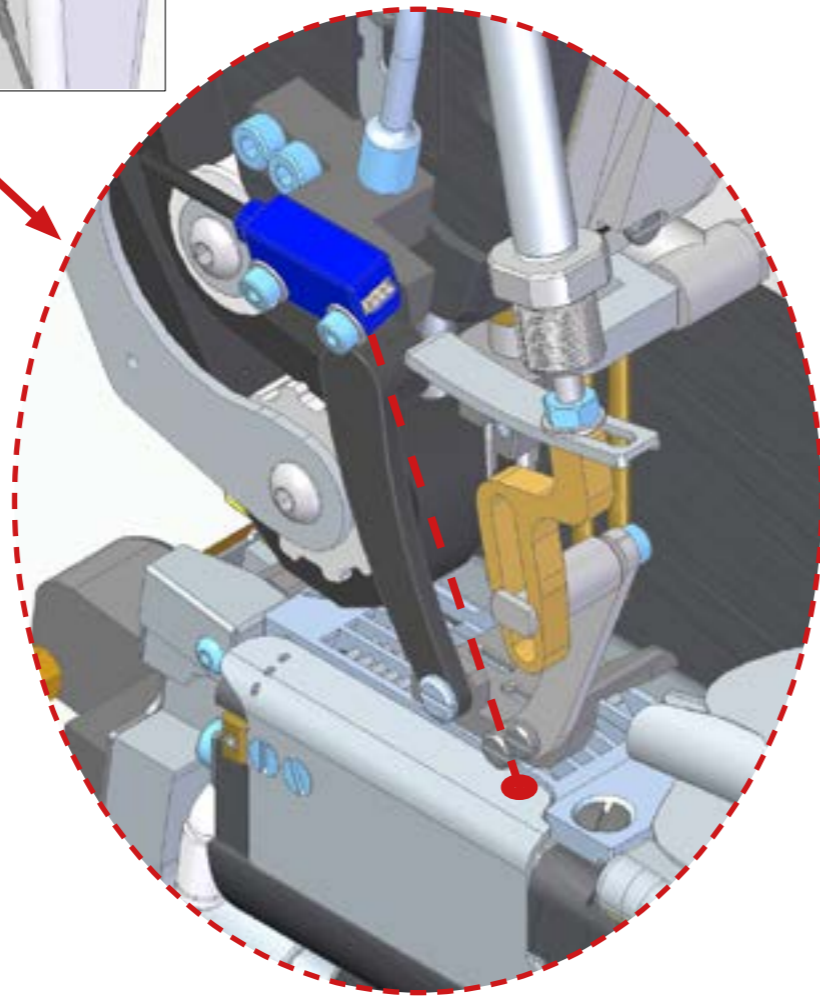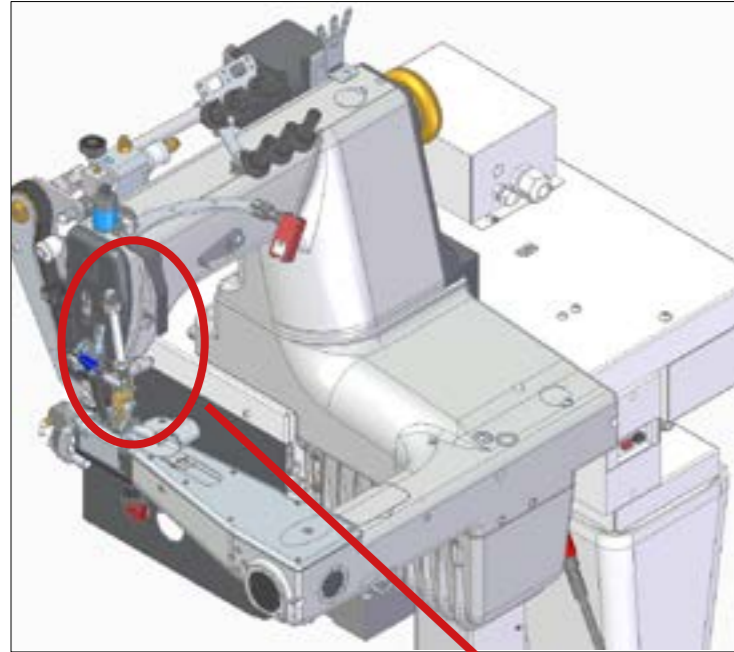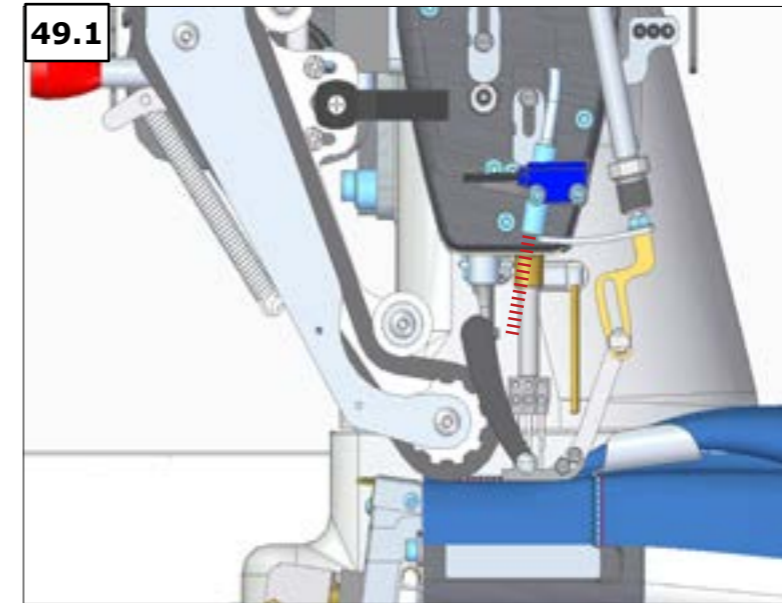


# 22.    SENSOR ADJUSTMENT

The presser foot compensating system is activated by a N/C sensor that has to be regulated in this way:

## 22.1- Flat sewing

On a flat sewing the detector must be at the edge of the sensor (image 49.1) in this condition the pressure of presser foot is low.



## 22.2- Crossing area

In this position the presser foot rises and the detector covers the sensor (image 49.2) activating it, giving high pressure on the presser foot and after a few stitches also the presser foot point cylinder will activate.
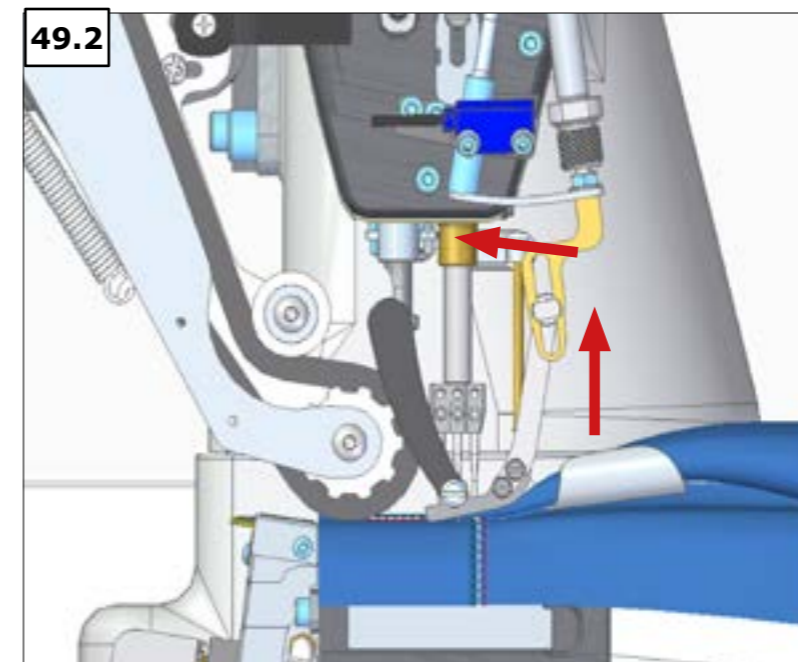


After crossing the thick area the sensor returns OFF and the pressure of the presser foot LOW.
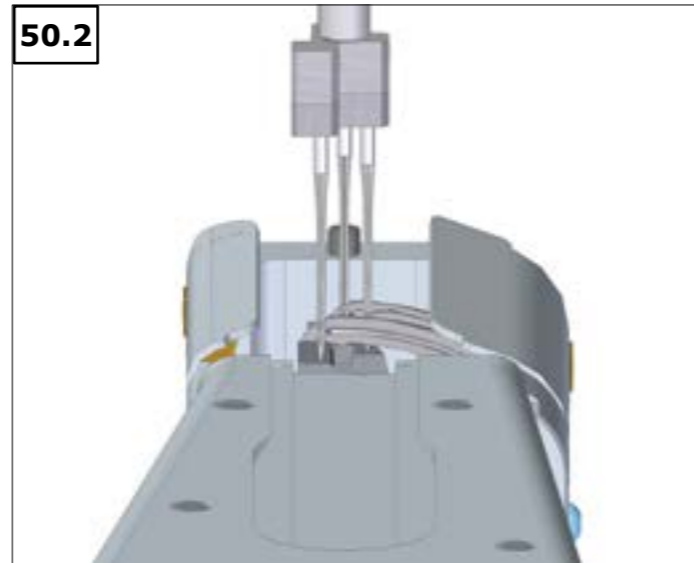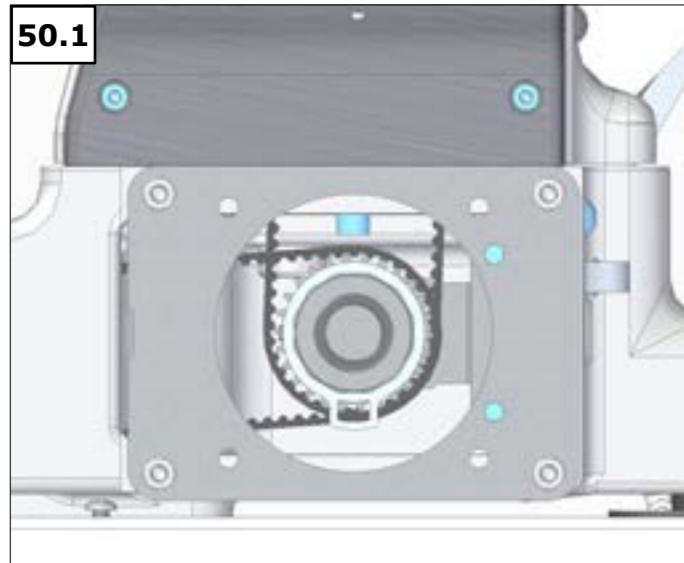
## 23.    STOP POSITION

### NEEDLE LOW

This unit has 2 STOP positions:

1.  STOP position is when the machine stops after releasing the pedal and the loopers have already entered the thread (as image 50.2) and in this position the detector is facing down (as image 50.1)


50.1


50.2

### NEEDLE HIGH

2.  Back pedalling the machine stops in STOP position with detector as image 45 and needle bar in upper dead position.

To adjust correctly the stop position sensor, position the detector in the center of the sensor keeping a distance of 0,4 ► 0,6 mm (as image 50.3).


50.3
0,4----0,6 mm

---
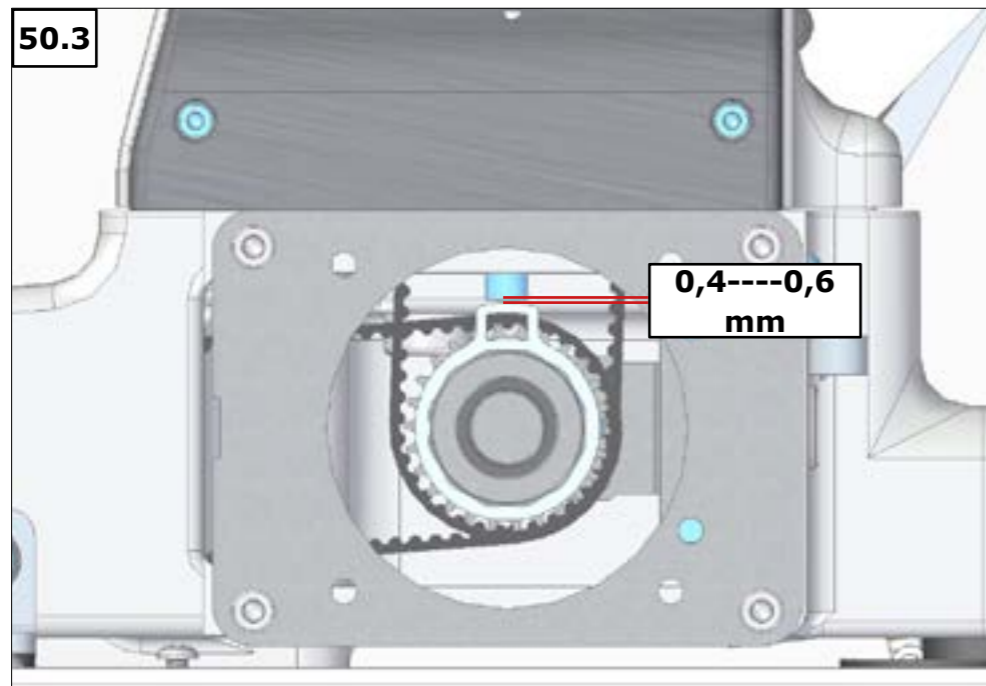
*Electrical equipment*
*V261 V2.0*
*✖ Vi.Be.Mac.*

Title: V261
Author: Faizi Giordano / Vi.Be.Mac.
File: Y\Mac...V261_Electrical_Equipment_V2.0.DSN
Revision: 2.0
Document
Date: 29/05/2019
Sheets: 1

**Left sheet (Page 2 / Sheet 52):**

Mitsubishi Control box Serie "G"
XC-GMFYCE-2007
200-240 Vac 750 W
50-60 Hz

XC-GMFYCE-2007

ENCODER

Encoder Cable

LEVER

Power Cable

FC*

FC*

Mitsubishi Lever
XC-GL-2

3 Phase
AC Motor
M1

Mitsubishi XCG75420Y
200-240 Vac 750W
Sewing Machine Motor

PE R S T

*FC= Ferrite core

Control box Supply Cable
220Vac 3X1.5mm

Mitsubishi Panel
XC-G10

Brown    Blue    Yellow/Green

L    N1    PE

ISKRA MS 20-10
6.3-10A
TAR: 7.2A
VIB CODE: MS25-10

T1

LED
VIB CODE: KITFARETTO2

L0    N0
L1    N1

OUT

SPD VIB CODE: ST-K-108C
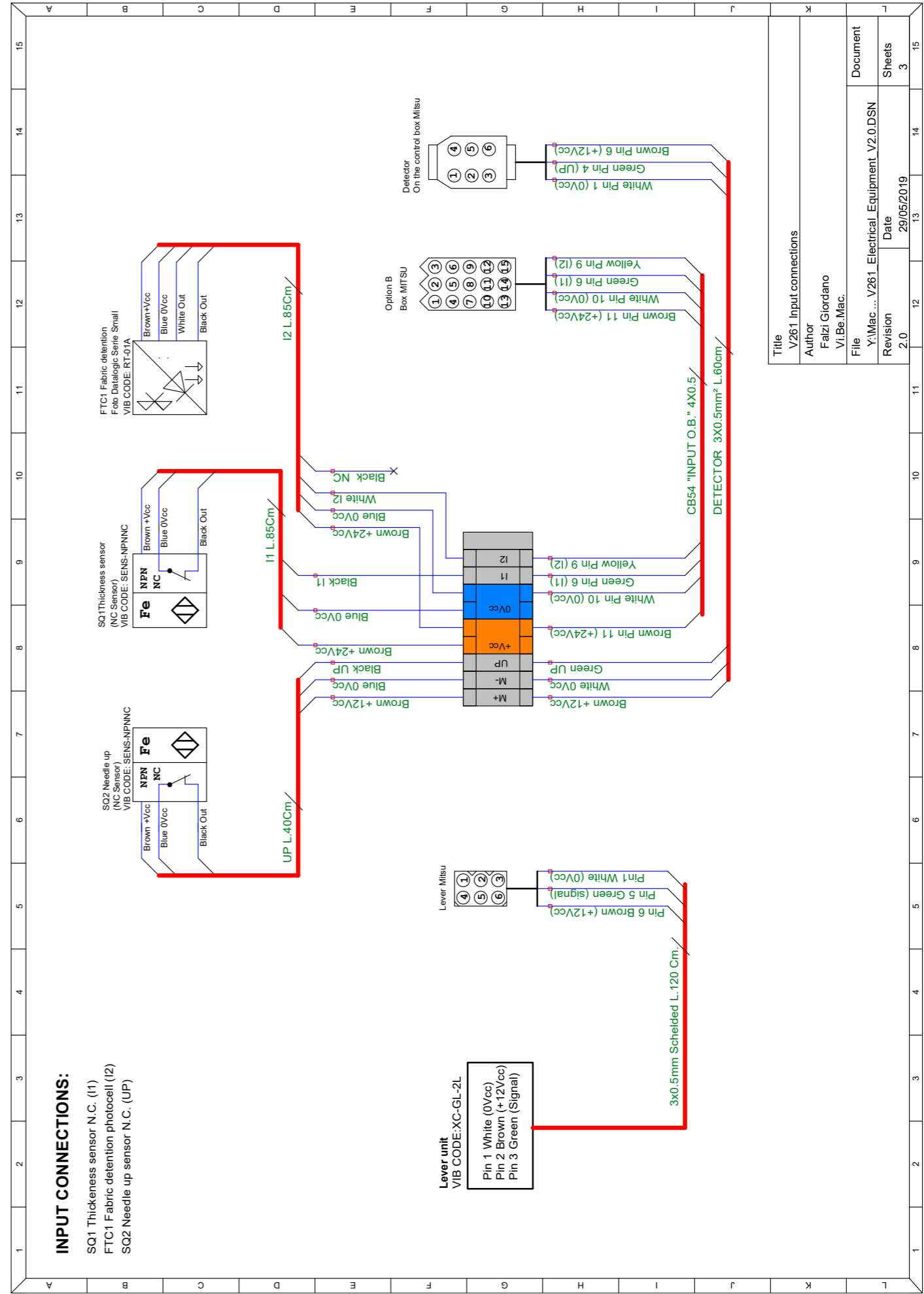
ELE-0147D

IN

U    N

U    N    PE

220 Vac

N0    NO
01    L50    L51

F
0.5 AT

SW

PRI V1n

TCI 122633
350mA C.C.

SEC    VOut

VIB CODE: DRIVER-LED1

Brown +
White –

| Title | V261 Power Circuit | | |
|---|---|---|---|
| Author | Faizi Giordano | | |
| | Vi.Be.Mac. | | |
| File | Y:\Mac…V261_Electrical_Equipment_V2.0.DSN | | |
| | | Document | |
| Revision 2.0 | Date 29/05/2018 | Sheets 2 | |

REV. 2.1    22-06-2020    VI.BE.MAC.

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**Right sheet (Page 3 / Sheet 53):**

INPUT CONNECTIONS:

SQ1 Thickeness sensor N.C. (I1)
FTC1 Fabric detention photocell (I2)
SQ2 Needle up sensor N.C. (UP)

Detector
On the control box Mitsu

White Pin 1 (0Vcc)
Green Pin 4 (UP)
Brown Pin 6 (+12Vcc)

Option B
Box MITSU

White Pin 10 (0Vcc)
Green Pin 8 (I1)
Yellow Pin 9 (I2)
Brown Pin 11 (+24Vcc)

CB54 "INPUT O.B." 4X0.5
DETECTOR 3X0.5mm² L.60cm

FTC1 Fabric detention
Foto Datalogic Serie Small
VIB CODE: RT-01A

Brown+Vcc
Blue 0Vcc
White Out
Black Out

I2 L.85Cm

SQ1 Thickness sensor
(NC Sensor)
VIB CODE: SENS-NPNNC

Fe  NPN  NC

Brown +Vcc
Blue 0Vcc
Black Out

Black NC
White I2
Blue 0Vcc
Brown +24Vcc
Black I1
White Pin 10 (0Vcc)
Green Pin 8 (I1)
Brown Pin 11 (+24Vcc)

I1 L.85Cm

SQ2 Needle up
(NC Sensor)
VIB CODE: SENS-NPNNC

NPN  Fe  NC

Brown +Vcc
Blue 0Vcc
Black Out

I2
I1
0Vcc
+Vcc
UP
M–
M+

Green UP
Black UP
Blue 0Vcc
White 0Vcc
Brown +12Vcc
Brown +12Vcc

UP L.40Cm

Lever Mitsu

Pin 1 White (0Vcc)
Pin 5 Green (signal)
Pin 6 Brown (+12Vcc)

Lever unit
VIB CODE:XC-GL-2L

Pin 1 White (0Vcc)
Pin 2 Brown (+12Vcc)
Pin 3 Green (Signal)

3x0.5mm Schelded L.120 Cm

| Title | V261 Input connections | | |
|---|---|---|---|
| Author | Faizi Giordano | | |
| | Vi.Be.Mac. | | |
| File | Y:\Mac…V261_Electrical_Equipment_V2.0.DSN | | |
| | | Document | |
| Revision 2.0 | Date 29/05/2019 | Sheets 3 | |

VI.BE.MAC.    REV. 2.1    22-06-2020

**OUTPUT CONNECTIONS:**

EV1 Thread Trimmer (OB)
EV2 Air vacum (OA)
EV3 Low Pressure presser foot (OD)
EV4 Pressure foot small cylinder (OC)
EV5 Needle blowing (O2)
EV6 High Pressure presser foot (O1)
EV7 Puller down (O3)
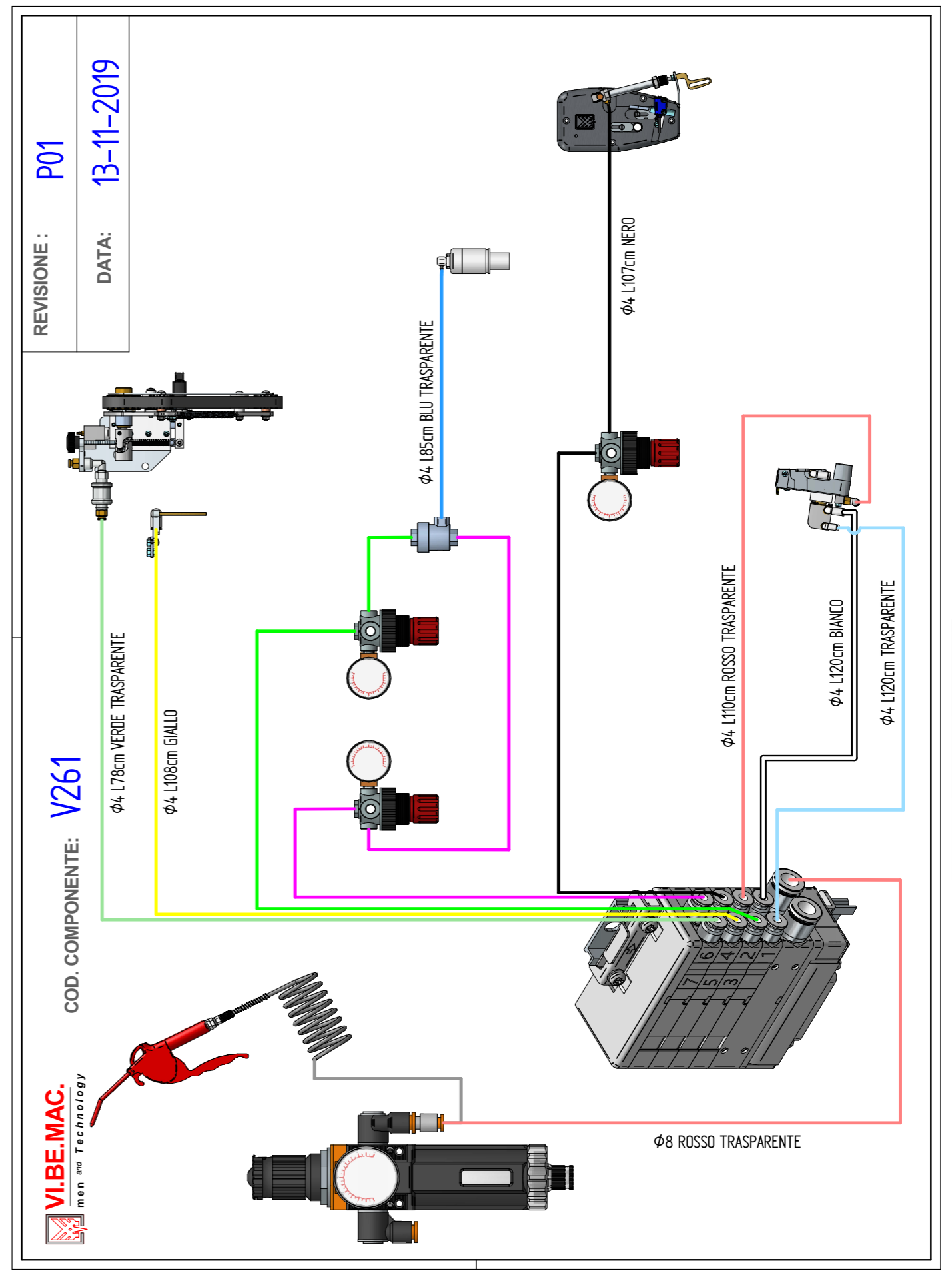
## 25.    Problem solving

If a skip stitch occours:
- Check the timing
- Check if the thread pulling cam is tensioning the threads when the needle bar is located in the upper dead centre (see image 14)
- Check the threading of the lower threads one by one, make sure that they're not knotted together
- Check if the upper head thread holder is positioned parallel to the sewing head (see image 15)

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