



INSTRUCTION MANUAL

N31-ALL-IN-ONE-E-C997-CA



www.bramac.it
Vers. 09 - 2022



This manual is valid for all models and subclasses indicated in the "Technical Specifications" chapter.

Reprinting, reproduction and translation, including individual steps, of Camarb manuals are permitted only with our permission and indicating the origin.



Via Alpi, 149-151-153
Zona industriale Villa Luciani
63812 Montegranaro (FM) Italy
Phone: +39.0734.890103 - 890912
Fax: +39.890154
www.bramac.it
bramac@bramac.it

INDICE - INDEX - TABLE - INDICE

01		02

1.01 UPPER THREADING PROCEDURE		03

1.02 PROCEDURE FOR REFILLING AND CHANGING THE BOBBIN		04

1.03 PROCEDURE FOR REPLACING THE NEEDLE.05		

1.04 PROCEDURE FOR CHANGING THE NEEDLE PLATE		06

1.05 PROCEDURE FOR RESETTING THE THREAD TRIMMER PHASE		07

1.06 PROCEDURE FOR RESETTING THE NEEDLE PHASE OF THE CROCHET HOOK		08

1.07 MODELS AND POSSIBLE SUBCLASSES		09

1.08 TROUBLESHOOTING		10

1.09 TECHNICAL SPECIFICATIONS		12

1 Upper threading procedure

1.01 Procedure

Turn off the machine before starting.

To insert the thread into the machine, bring the needle bar to the upper dead point, lift the bobbin "B", pull it slightly down and turn it to the left.

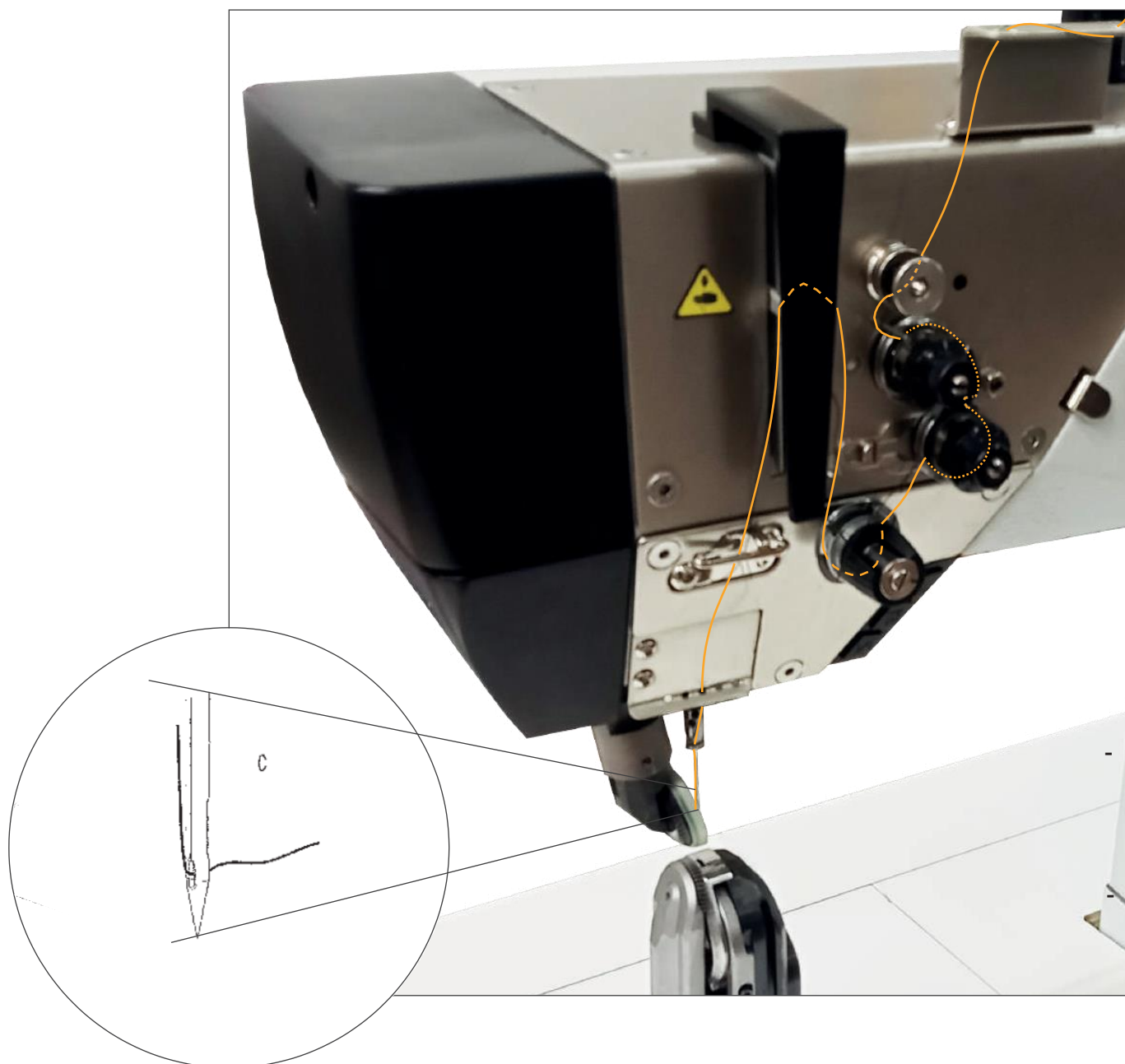
Proceed with threading according to thread passage sequences, as shown in the figure. The needle should be threaded from the left as shown in "C". Use the knobs "E" and "D" to tension the thread.

Do not start the machine without first repositioning the bobbin

Warning

You must use the safety devices supplied with the machine. Always turn off the main switch before carrying out threading or adjustments on the machine.

Upper threading



1 Procedure for refilling and changing the bobbin

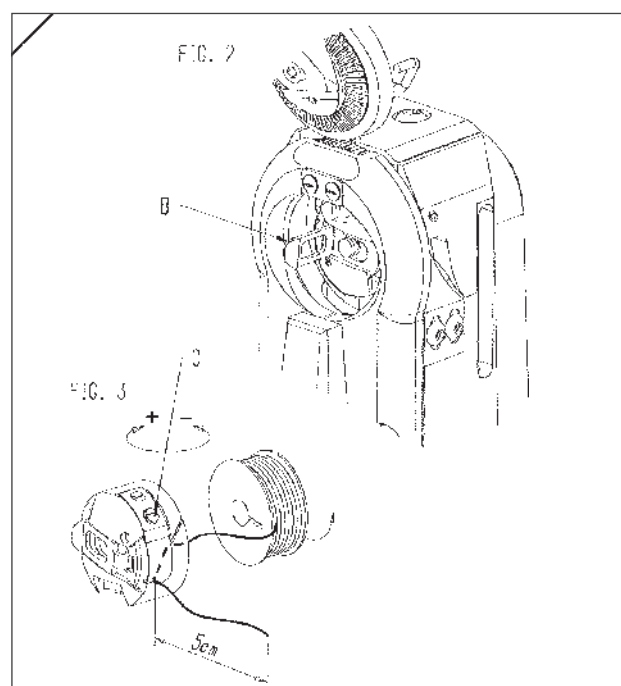
1.02 Procedure

The feed thread of the bobbin is tensioned by using the ring nut "A". To refill the shuttle bobbin, the thread must be wound around the same bobbin "B" which is inserted into the special mechanism must be pushed inwards, to engage the rotation when starting the machine Fig.1.

To remove the bobbin from the shuttle, use the lever button "B" to release and tilt the lower rotating unit "D", then raise the bracket "F" to remove the bobbin Fig.2. To replace the bobbin, proceed as shown in Fig.3.

The tension of the outgoing thread is adjusted by using screw "G".

Before restarting the machine, make sure that the rotating unit "D" is correctly repositioned.



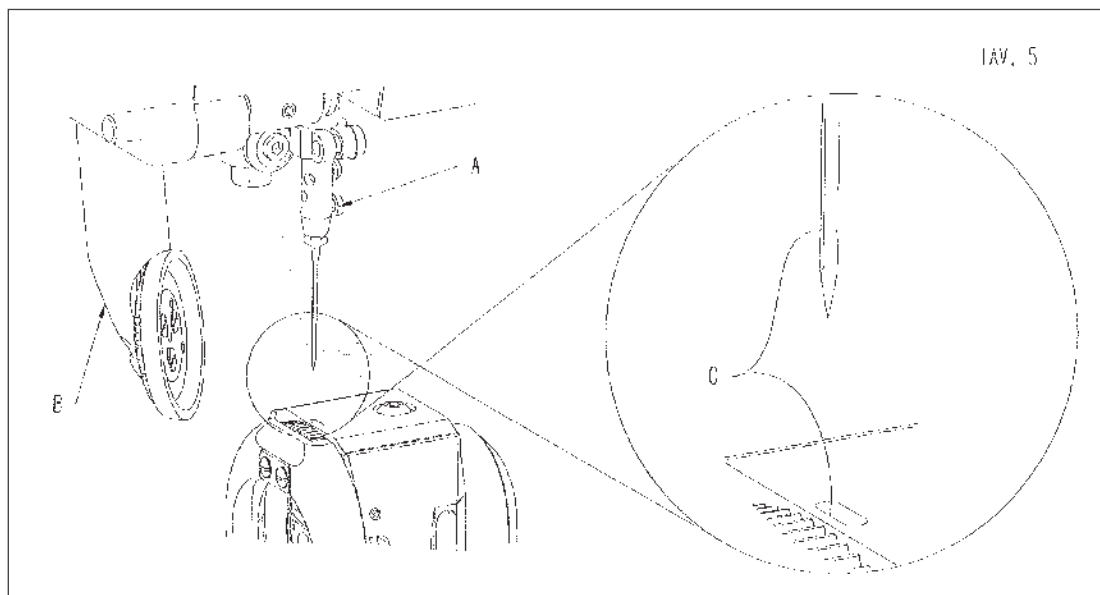
1.03 Procedure for needle replacement.

Use system 134 needles. To replace the needle, first lift bobbin "B", using the free hand system and turning it to the left. Then unscrew the fixing screw of needle "A", remove the needle and replace it. The needle must be pushed all the way in and must have the groove facing left, parallel to the front of the crochet hook or to the long side of the slot of the plate, as in "C", tighten, then the screw and return the rotating component "B" to its position. The size of the needle is in relation to the material to be sewn and the yarn, as shown in the indicative, non-binding table below.

Warning

You must use the safety devices supplied with the machine. Always turn off the main switch before carrying out threading or adjustments on the machine.

A	Supply	Fine mat.	60	70	134
			40	90	
B	Supply	Medium mat.	40	100	
			30	110	
			20	120	
C	Optional	Thick mat	15	130	
			10	140	

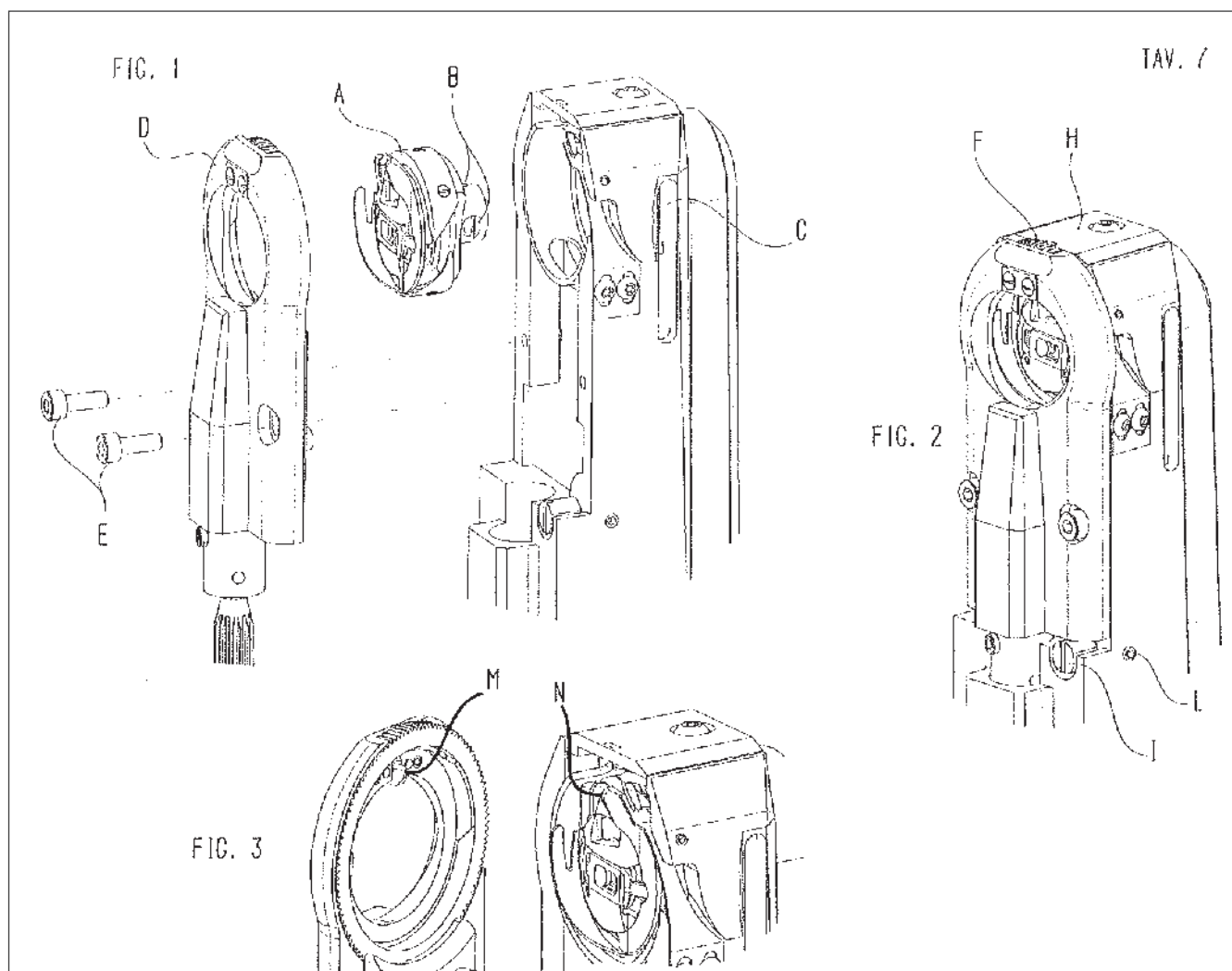


1.04 Procedure for changing the needle plate

To replace the crochet hook, "A" FIG.1, remove the mechanism of the front panel "D", using the screws "E". Then loosen the screws "B" of the crochet hook "A" accessible with a screwdriver from slot "C" of the post. Remove the crochet hook and replace it with the new one proceeding in reverse. Pay close attention that the tooth of the clasp "M" FIG.3 goes to be placed in the seat "N" of the basket. The correct height position of the rotating feed dog "F", with respect to the plane of the plate "H", is about 1mm, FIG.2. The position of the eccentric pin "I", which is calibrated using the grub screw "L", determines the height stop of the rotating feed dog panel.

Warning

You must use the safety devices supplied with the machine. Always turn off the main switch before carrying out threading or adjustments on the machine. The replacement must be carried out by experienced personnel.



1.05 Procedure for resetting the thread trimmer phase

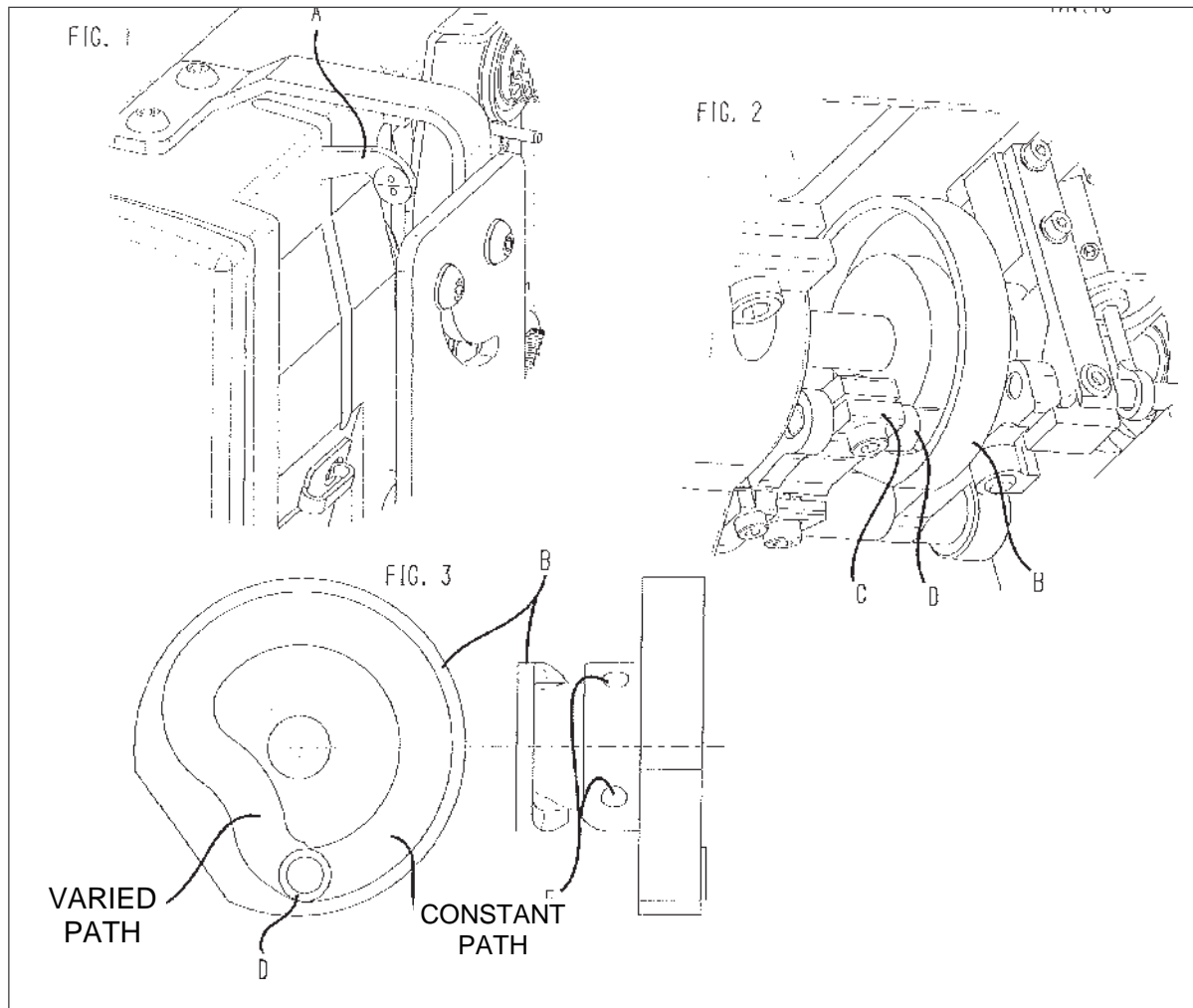
The thread trimmer is activated at the end of the stitching. When making the last stitch, while the needle bar is finishing the ascent towards the Upper Dead Point, the thread trimmer hook goes from the rest position to the hooking position. While the needle bar starts the descent, the hook returns to the rest position, pulling the crochet hook and needle thread over the sharp edge of the knife, which obviously cuts them. The cutting edge of the knife must exert a slight pressure on the tip of the thread trimmer hook.

If the right phase needs to be reset, proceed as follows:

- Manually turning the handwheel, in the direction of rotation, bring the machine to the maximum lifting point of the thread puller "A", or when it is immediately exceeded, as in Fig.1.
- Manually operate the thread trimmer so that the pawl "D" of the lever "C" is inserted in the path of cam "B". Position it, using the grub screws "E", Fig.2, at the point where the varied path towards the inside of the cam ends (hooking and repositioning of the thread trimmer hook) and the constant trajectory begins, as in Fig.3.
- Carrying out the above completes the thread trimmer phase; tighten the previously loosened screws.

Warning

You must use the safety devices supplied with the machine. Always turn off the main switch before carrying out threading or adjustments on the machine. The replacement must be carried out by experienced personnel.



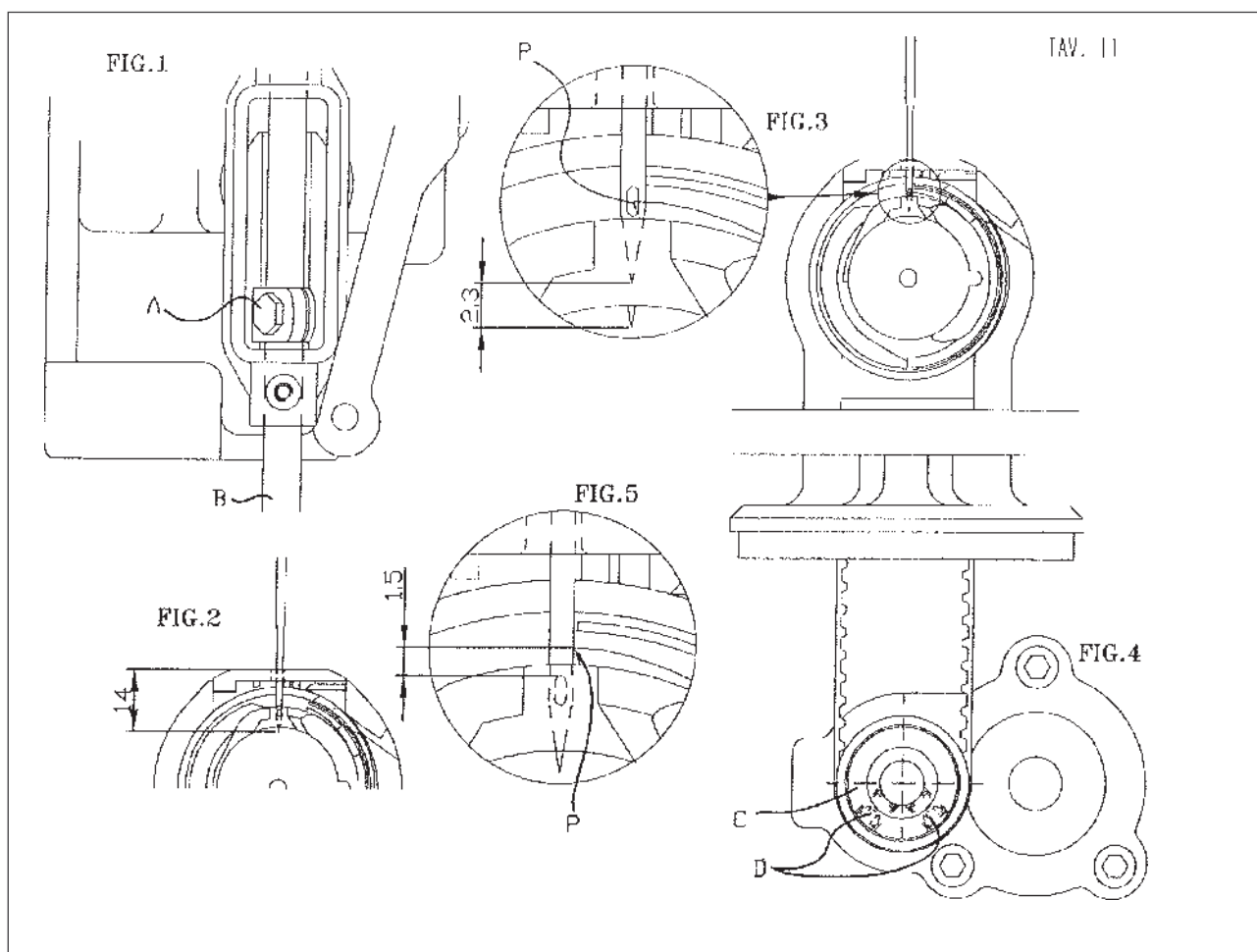
1.06 Procedure for resetting the needle phase of the crochet hook

Correct needle and crochet hook crossover results in the hooking of the needle thread. If the right phase needs to be reset, proceed as follows:

- Temporarily adjust the needle bar "A", using the screw "B" of the clamp, FIG.1, so that at the lower dead point, the needle tip is at a distance of about 12mm from the edge of the post.
- From the lower dead point, manually turning the handwheel in its direction of rotation, the needle is raised by 2.3mm, at this point the tip of the crochet hook "D" must be in the centre of the needle eye, as in FIG.2. This adjustment is carried out by using the grub screws "F" of pinion "E" FIG.3.
- Then accurately restore the height of the needle bar, again using screw "B", FIG.1, make sure that the tip "D" of the crochet hook, when it touches the needle, when rising, reaches a distance of 1.5mm, from the top of the eye of the needle, as in FIG.4.
- Tighten the screws once the adjustments have been made.

Warning

You must use the safety devices supplied with the machine. Always turn off the main switch before carrying out threading or adjustments on the machine. The replacement must be carried out by experienced personnel.



1.07 Possible models and subclasses

CAMARB N31-ALL-IN-ONE -E -C997-CA

Electronic post-bed machine (400mm) with servo motor integrated in the sewing head, single needle, rotating feed dog, roller foot synchronised with the movement of the needle by means of stepper motors. Thread trimmer device, electric backtack and lifting of the electric foot, horizontal crochet hook that allows the bobbin to be replaced leaving the material to be sewn inserted and to create an aesthetically remarkable stitch. The structure of the "well" support table allows versatile use even as a normal post-bed machine.

1.08 Troubleshooting

Troubleshooting procedure

- In the event of sewing machine fault or malfunction, immediately turn off the power supply button.
- Then disconnect the pneumatic power supply if used.
- Check the needle, needle plate, shuttle and feeding devices are not damaged and intact.
- Replace any damaged components.
- Before starting the machine, carry out visual checks and check for any noise by manually turning the handwheel.
- If the machine has not been damaged, first manually sew test material and check the quality and accuracy of the stitch.
- Take note if the same issues are repeated over time.
- Check if the supply voltage is constant.
- Check if the fault occurs in a certain operating condition.
- Take into account the machine working life.
- Check how many repairs have been made for a similar problem.

The machine breaks the needles

<i>Item to be checked</i>	<i>Solution</i>
Size of needle system	Needle suitable for yarn and material
Needle plate integrated and proportionated to the needle	Plate suitable for the needle and yarn
Check the shuttle needle phase	Reset the phase
Check the feeding phase of the rotators	Reset the phase
Check the thread trimmer phase	Reset the phase

The machine releases the stitches

<i>Item to be checked</i>	<i>Solution</i>
Shuttle bobbin with no thread	Replace/refill the bobbin
Size yarn and needle system	Needle suitable for yarn and material
Shuttle intact	Shuttle replacement
Upper threading	Follow the sequential steps
Shuttle threading	Tension the thread of the bobbin
Check the position of the lower rotator	Reposition the lower rotator
Check the shuttle needle phase	Reset the phase
Check the feeding phase	Reset the phase
Check the needle tip feeding phase	Reset the phase

The machine does not cut the threads

<i>Item to be checked</i>	<i>Solution</i>
Thread trimmer blade integrity	Replace the thread trimmer knife
Thread trimmer hook integrity	Replace the thread trimmer hook
Check the thread trimmer phase	Reset the phase
Check the disc opening mechanism	Replace the damaged components
Check the motor cutting parameter	Reset the parameter
Check the magnet and thread trimmer mechanism	Check the damaged components

The machine severs the threads

<i>Item to be checked</i>	<i>Solution</i>
Integrity and slot of the needle plate without burr	Replace the needle
Integrity of the shuttle	Replace the shuttle
position of the thread stop blade	Reposition/replace the blade
Needle integrity	Replace the needle
The thread of the bobbin that feeds the stitching is blocked	Check the uniform flow of the thread
Upper threading and tensioning of the thread	Check passages and tensioning of the thread

1.09 Technical specifications

CAMARB N31-ALL-IN-ONE-E-C997-CAS

Type of stitch _____ 301 (Double knotted stitch)

Passage under the roller foot: _____ 10mm
Passage Width: _____ 265 mm
Passage height: _____ 70 mm
Post height: _____ 180 mm

Dimensions of the head section:

Length: _____ approx. 620 mm
Width : _____ approx. 155mm
Height (above table): _____ approx. 425 mm
Base plate size: _____ 520 x 177 mm
Stitch length: _____ 0.8mm-5.0mm
Needle System: _____ 134 - 135
Needle size: _____ 60 - 160
Maximum speed: _____ 2000 stitches/min

Power supply:

Operating voltage: _____ 230 V \pm 10%, 50/60 Hz
Maximum power consumption: _____ 0.85 kVA
Fuses: _____ N31 3.15 A

Noise emissions:

Sound pressure level of emissions at the workplace at the indicated speed
(measurement according to DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)
CAMARB N1-ALL-IN-ONE-E-C997-CAS = 2400^{min-1} _____ LpA = 79
dB(A)

Net weight of the head: N31 _____ about 120kg



ISTRUZIONI-INSTRUCTIONS udhëzime-instrucciones

Version 09- 2022