AMF® REECE

*Better Ideas, Better Made*

# MODEL S-4001 ISBH+I SM

## ELECTRONIC BUTTONHOLE MACHINE

## PARTS AND SERVICE MANUAL

**MACHINE SERIAL No:**

**PART NUMBER 97.2486.4.001**

This manual is valid from the machine Serial No.: R241702

09 / 2015

**LIMITED WARRANTY ON NEW AMF REECE EQUIPMENT**

**Warranty provisions:**

A ninety (90) day limited service labor warranty to correct defects in installation, workmanship, or material without charge for labor. This portion of the warranty applies to machines sold as ”installed” only.

A one (1) year limited material warranty on major component parts to replace materials with defects. Any new part believed defective must be returned freight prepaid to AMF Reece, Inc. for inspection. If, upon inspection, the part or material is determined to be defective, AMF Reece, Inc. will replace it without charge to the customer for parts or material.

Service labor warranty period shall begin on the completed installation date. Material warranty shall begin on the date the equipment is shipped from AMF Reece, Inc.

**Exclusions:**

Excluded from both service labor warranty and material warranty are: (1) Consumable parts which would be normally considered replaceable in day-to-day operations. These include parts such as needles, knives, loopers and spreaders. (2) Normal adjustment and routine maintenance. This is the sole responsibility of the customer. (3) Cleaning and lubrication of equipment. (4) Parts found to be altered, broken or damaged due to neglect or improper installation or application. (5) Damage caused by the use of non-Genuine AMF Reece parts. (6) Shipping or delivery charges.

There is no service labor warranty for machines sold as ”uninstalled”.

Equipment installed without the assistance of a certified technician (either an AMF Reece Employee, a Certified Contractor, or that of an Authorized Distributor) will have the limited material warranty only. Only the defective material will be covered. Any charges associated with the use of an AMF Reece Technician or that of a Distributor to replace the defective part will be the customer’s responsibility.

NO OTHER WARRANTY, EXPRESS OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, and FITNESS FOR A PARTICULAR PURPOSE, OR ANY OTHER MATTER IS GIVEN BY SELLER OR SELLER’S AGENT IN CONNECTION HEREWITH. UNDER NO CIRCUMSTANCES SHALL SELLER OR SELLER’S AGENT BE LIABLE FOR LOSS OF PROFITS OR ANY OTHER DIRECT OR INDIRECT COSTS, EXPENSES, LOSSES OR DAMAGES ARISING OUT OF DEFECTS IN OR FAILURE OF THE EQUIPMENT OR ANY PART THEREOF.

**WHAT TO DO IF THERE IS A QUESTION REGARDING WARRANTY**

If a machine is purchased through an authorized AMF Reece, Inc. distributor, warranty questions should be first directed to that distributor. However, the satisfaction and goodwill of our customers are of primary concern to AMF Reece, Inc. In the event that a warranty matter is not handled to your satisfaction, please contact AMF Reece office:

Prostejov, Czech Republic
Phone: (+420) 582-309-275
Fax: (+420) 582-360-608
e-mail: service@amfreece.cz

# Warranty Registration Card

*(Please Fax or Mail immediately after installation)*

**Note: All Warranty Claims Void, unless Registration Card on file at AMF Reece HQ**

Machine model number:
*(S101, S100, S104, S105, S311, Decostitch, S4000, EBS Mark II, etc)*

Manufacturer‘s serial or production number:

## Installation Site Information:

Customer‘s Name:

Customer‘s Mailing Address:

Customer‘s Telephone Number:

Supervising Mechanic‘s or Technician‘s Name:

Signature of Supervising Technician:

AMF Reece Technician‘s Name:

AMF Reece Technician‘s Signature:

Type of garment produced at this location?

Average Daily Production Expected from this machine?
*(number of buttonholes, jackets sewn, pants produced, buttons sewn, etc)*

Any special requirements required at this location?

What other AMF Reece Machines are at this location?

How can we serve you better?

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# A - INTRODUCTION

## 1. BASIC INFORMATION

The sewing machine S-4001 ISBH+I SM is designed and produced to be very reliable. Important design goals have been to provide a safe machine that is simple and inexpensive to maintain.
The patented rotary needle bar shaft drive, a major benefit, delivers longer needle bar life. The added benefits of lower vibration and less noise, translate into less operator fatigue.
Simple buttonhole length adjustment located outside the machine, eliminates the need for tilt back, while the quick stop repair function delivers safety and makes repairs easier.

Special electronic and mechanical safety devices protect the operator and the machine. There is a special power lock out switch that permits the machine to be locked in the off position, so that it cannot be cycled accidentally. There is an emergency off switch. There is a low air pressure detector that will not permit machine operation if air pressure is dangerously low.
There are safety-warning labels on the machine in all areas that require special care. These must not be removed. If they are lost replace them immediately.
You are the most important safety equipment of all. Be sure you understand the proper operation of the machine. Never remove safety mechanisms or labels. We have made every effort to provide the safest possible machine, but without complete knowledge of how this machine operates, and the use of proper care by the operator, this machine can cause serious injury or death. That is why there are safety warnings throughout these instructions that carry one of these messages.

There are four categories of safety instructions in this manual:

**DANGER!** Ignoring instructions may endanger operator’s life.

**CAUTION!** Ignoring instructions may cause a serious injury of the operator or damage the machine.

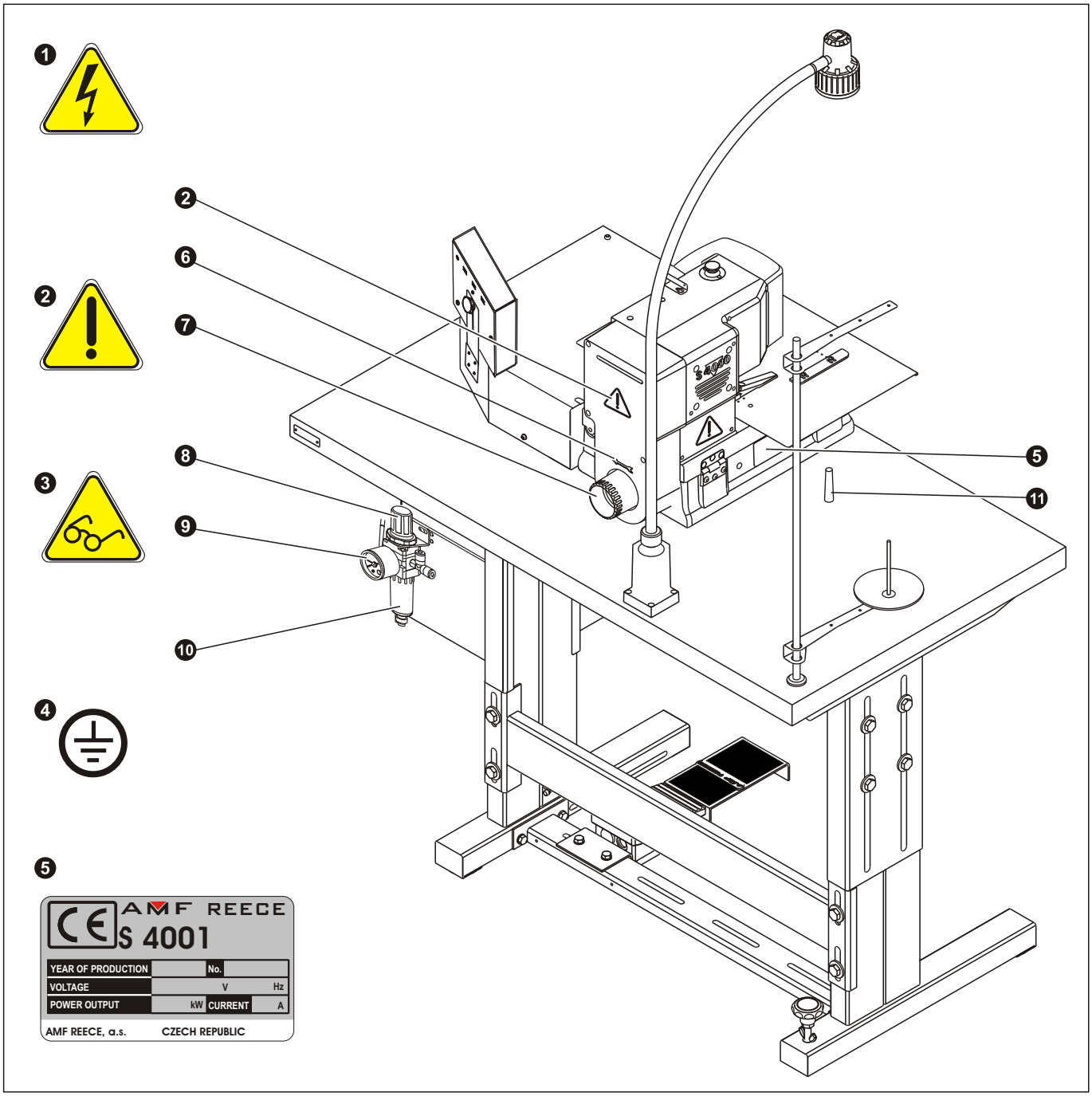
**WARNING!** Ignoring instructions may cause damage on the machine or injury of the operator.

**NOTICE!** Breaking procedures may cause functional problems of the machine.

We recommend that servicemen from AMF Reece supervise the installation of the machines and initial training of your mechanics and operators.
The most effective method ensuring safety of operators working on the machine is a strict safety program including instructions for safety operation. Operators and servicemen should wear safety glasses.

# A - INTRODUCTION

## 2. SAFETY DEVICE AND LABELS




❶ Warning
❷ Covers removed, possible injury
❸ Warning when opening cover eyes injury danger
❹ Grounding
❺ Standard label
❻ Rotation direction
❼ Hand wheel
❽ Air pressure adjustment knob
❾ Manometer with pressure sensor
❿ Air pressure regulator
⓫ Rest pin
⓬ Thread stand
⓭ Head cover
⓮ Needle bar cover



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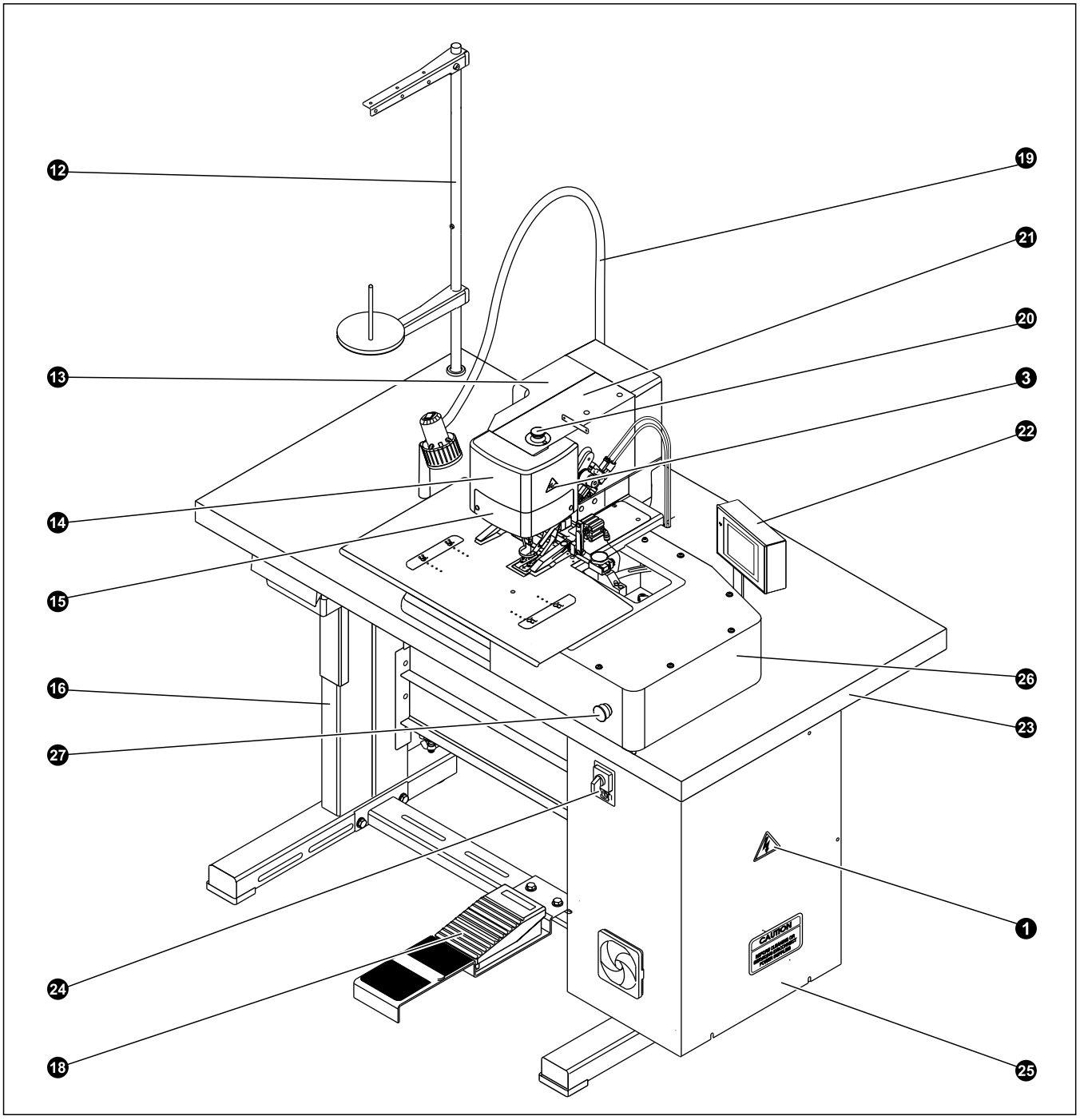
# A - INTRODUCTION

## 3. GENERAL MACHINE PARTS DESCRIPTIONS




⓯ Eye guard
⓰ Table
⓲ Foot pedal
⓳ Halogen lamp Button
⓴ Emergency Stop Button
㉑ Machine head
㉒ Control panel
㉓ Table top
㉔ Main Switch
㉕ Control box
㉖ Indexer
㉗ Cycle interruption switch

# A - INTRODUCTION

## 4. TECHNICAL CONDITIONS

| Machine type | S 4001 ISBH+I |
|---|---|
| Description | Electronic controller chains stitch straight buttonhole machine for sewing imitation buttonholes on cuff Wiggins. With the automatic indexer, preset programs automatically control the sewing of multiple buttonholes either straight or on an angle |
| Sewing speed | 1500-3800 stitches/min (500 - 1900 rev/min of the drive shaft) |
| Buttonhole length | 15.8 - 25 mm (5/8” - 1”) |
| Stitch density | 3 - 12 stitches/cm (8 - 35 spi) |
| Type of the buttonhole | Single thread chain stitch without center cutting |
| Machine clamp foot height | 12.7 mm (1/2”) |
| Maximum work thickness | to 3 mm (1/8”) |
| Bite range | 1.7 - 2.3 (1/15” - 3/32”) |
| Distance between the first and the second row of stitches | 0 - 0.9 mm |
| Recommended thread | Thread size 80, 100, 120 |
| Needle system | Needle 750 SC 90/14 (it is possible to order 80/12; 70/10) |
| Lubrication | Semi-automatic |
| Operating Conditions | According to IEC 364-3, IEC 364-5-51 temperature from +5°C to 40°C, relative air humidity from 30 to 80 % |
| Air pressure | 0.55 MPa (80 PSI) Indexer 0,4 Mpa (58 PSI) |
| Machine db level | Laeg = 74dB; LWA = 87dB; LpC, peak = 103dB |
| Machine head dimension | 340 mm (height) x 470 (width) x 250 mm (length) |
| Machine head weight | 62 kg |
| Table Dimension | 700 mm (height) x 600 mm (width) x 1100 mm (length) |
| Electrical Requirements | 1NPE~60Hz 230V/TN-S (according to EN 60204-1) |
| | 1NPE~50Hz 230V/TN-S (according to EN 60204-1) |
| Line Circuit Breaker | 10A characteristic C (according to EN 60947-2) |
| | 16A characteristic B (according to EN 60947-2) |
| Indexer number of buttonholes | 1 — 8 |
| Distance between buttonholes | 4 — 63 mm |
| Max. indexer feeding | 63 mm |
| Indexer dimension | 114 mm (height) x 400 mm (width) x 383 mm (length) |



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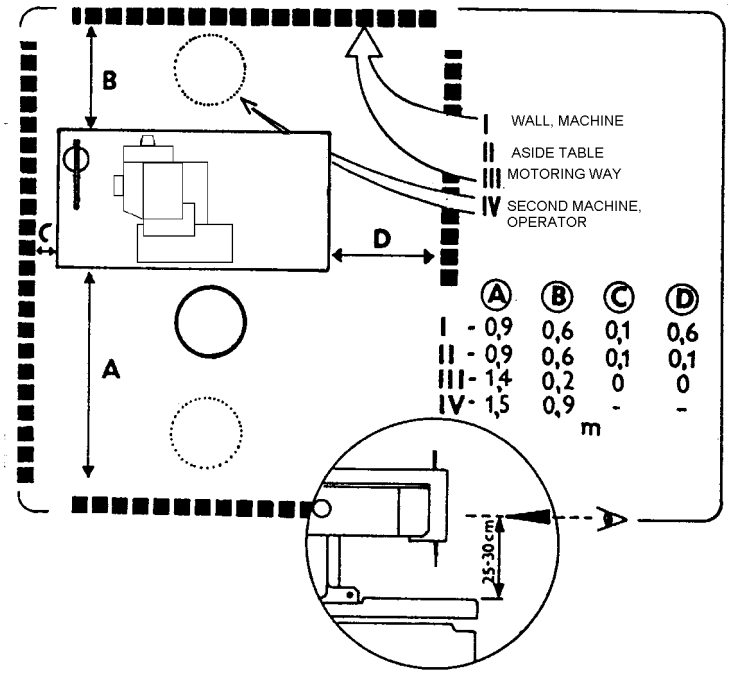
# A - INTRODUCTION

## 5. INSTRUCTIONS FOR OPERATOR SAFETY AND MAINTENANCE

When installing the machine we recommend the minimum clearances noted above around the machine. Read all of the instructions that follow. DO NOT PUT THE MACHINE INTO OPERATION UNTIL YOU ARE COMPLETELY FAMILIAR WITH ALL INSTALLATION AND OPERATING INSTRUCTIONS.




**DANGER!**

- Before connecting the machine to the power supply, be positive that all safety covers are correctly installed.
- Always engage the power lockout switch, or disconnect the main power supply, before removing any safety covers.

**WARNING!**

- Locate the Emergency Stop button. Be sure you know how to use it.
- Be sure that you have a reliable and uniform power supply.
- Be sure that all electrical supply lines are in good condition and have no signs of damage to avoid electrical shock.
- If any covers become damaged, they must be repaired or replaced immediately.
- Do not touch moving parts of the machine while it is operating.
- Keep clear of the needle.
- Always switch off the main power before changing the needle.
- Before cleaning the machine or performing service to the machine, engage the power lock out switch or disconnect the main power supply.
- When the machine is not in use engage the power lock out switch or disconnect the main power supply.
- When this machine is used incorrectly, or is incorrectly maintained, it can be dangerous. Everyone who uses this machine, or maintains this machine, must be completely familiar with this manual.

**CAUTION!**

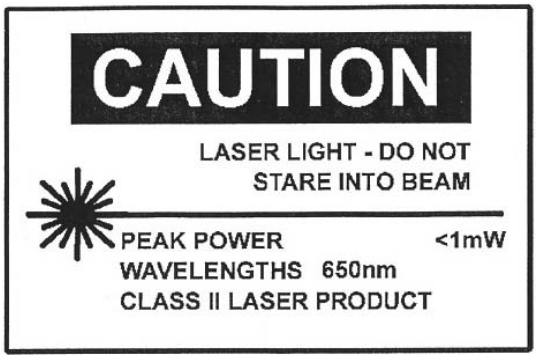
- Perform all regular service as described by this manual.
- If there is any problem with the power supply, turn off the main power switch.
- Do not remove, paint over, damage or in any way change safety labels. If a safety label cannot be easily read, replace it.
- Long hair and loose clothing may be dangerous near any machinery. Always contain long hair and avoid loose clothing, so that it cannot be caught by machinery and cause injury.
- Never use this machine while under the influence of drugs or alcohol.
- If anything seems to be operating incorrectly in the machine call for maintenance assistance immediately.
- Be sure that there is adequate light for safe operation. A normal minimum light level is 750 lux.

# A - INTRODUCTION

**CAUTION:** LASER RADIATION

DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

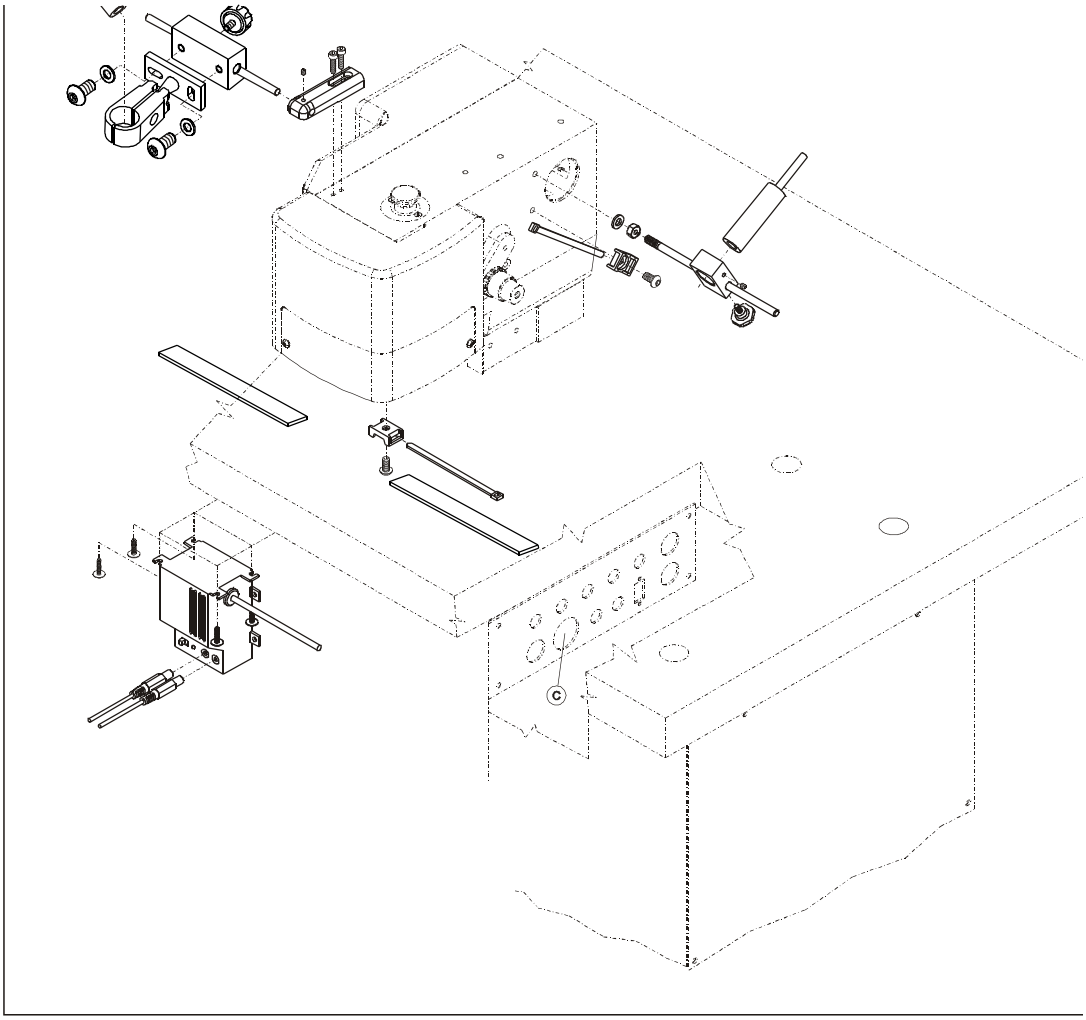
Read carefully the supplemental rules described below before setting up laser system.




C.C. E.A. laser product has been designed and manufactured specifically for the work place and for use in working, conditions.
It complies to the existing work safety regulation included in directive 73/23 and subsequent 93/68.
It has been made following to the International Standart CE/EN 60825.

Use C.C.E.A. laser system belong Class II. To this class emit low-power beam =/< lmW to be seen into the visible spectrum. They are not considered dangerous if just the laser beam will be accidentally (fraction of second) pointed at the eyes. The palpebral
reflection would not allow a length of exposure higher than 0,25 seconds. It is absolutely necessary wearing specific safety glases (with declared wavelength and filter), when eyes are directly and lasting exposed at the laser radiation. Our Lasers are followings: 650 nm.

LABELLING:
The label showing the laser class must bepermanently attached so as to be clearly visible and readable when the system is working, for maintenance and other needs. Labels must be see without a direct exposure at the laser radiation.





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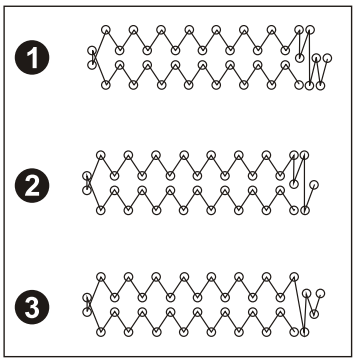
# A - INTRODUCTION

## 6. SPECIAL ACCESSORIES

- machine device, which is not included in the standard equipment of the machine and a customer can order it

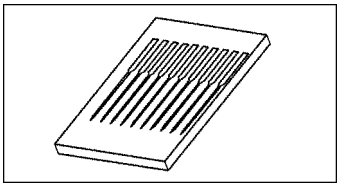
**Sewing cam**

- it is possible to sew a different buttonhole shape ❶, ❸ than standard buttonhole ❷ is
- a cutomer can order it - ❶ part number 24.3079.0.000
  - ❸ part number 24.3080.0.000
- to change a cam - see section E20




**Needles 750 SC 80/12, 70/10**

- the manufacturer recommends to use these needles when sewing the thin materials
- part number 02.0750.2.100 (80/12), 02.0750.2.109 (70/10)

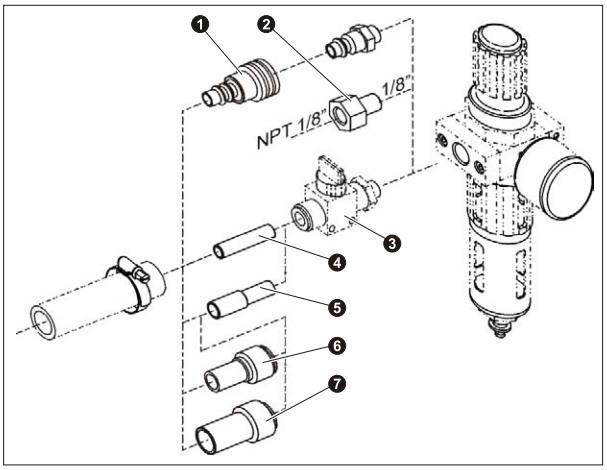


**Connector Ø 8 ❶**

- order it if the connecting tube has the inner diameter 8 mm. The connector Ø 10 is supplied with the machine.
- part number is 12.0008.3.607

**Pneumatic Adapater ❷**

- order it if using 1/8“ NPT
- part number 12.0008.3.081

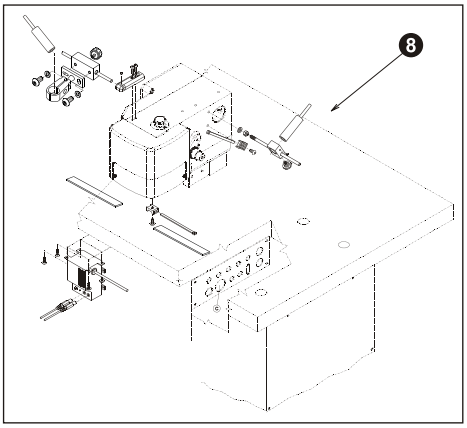



**Hand valve ❸**

- to dissipate any air from the machine, order it (air circuit is bled). It is necessary to order the connectors (see below) to the hand valve for connection to the air tubes.
- part number 12.0008.3.463

**Connectors**

❹ 12.0008.3.464 Ø 8
for connection to the tube with inner Ø 8 mm
❺ 12.0008.3.466 Ø 10
for connection to the tube with inner Ø 10 mm
❻ 12.0008.3.467 Ø 12
for connection to the tube with inner Ø 12 mm*
❼ 12.0008.3.465 Ø 16
for connection to the tube with inner Ø 16 mm*

* To connect the tube with inner Ø 12 and Ø 16, it is also necessary to order Ø 10

**Laser light kit**
❽ 03.5519.0.022