**bertolaso**

(Verona) s.p.a. Zimella

**WILDEN**®
**The Power Behind Your Process**

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10/3/12

ENANCE

LIST

# AUTOMATIC CORKING MACHINES

DELTA 404 R WITH 4 HEADS MODEL 404

DELTA 408 R WITH 8 HEADS MODEL 408

MACHINE NUMBER 404/059
404

YEAR 1985
installed - 3-86

EDITION 1985

| | Data | Firma | Note |
|---|---|---|---|
| Compilato | | | |
| Controllato | | | |
| | | | |

S 207 UNI A 4 - 7-80 - 500

## PRODUCTION SPEED ADJUSTMENT

The adjustment of the production speed must be carried out **ONLY** when the machine is operating, by turning the handwheel (1,page 9).

## CONVEYOR CHAIN SPEED

For the adjustment of the conveyor chain speed, which must be carried out on the concerned conveyor head, the following very important rule must be born in mind: the screw-conveyor must **NEVER** drag the bottles, but only separate them; it would be better if the screw-conveyor would brake the bottle slightly.
In order to obtain a perfect feeding, the conveyor chain must have a speed of 250 mm per bottle.
The conveyor chain must be lubricated with one of the special lubricants on the market.

## PHASING OF THE MACHINE

Perfect phasing of the bottle-conveying unit is basic condition for an excellent bottle-feeding to the machine without breakage and/or blocking the machine, and in order to obtain an efficient production speed.
While the infeed and discharge star-wheels are mounted on fixed parts, the screw-conveyor must be phased every time the type of bottle is changed.
Each screw-conveyor is fitted with its phasing-disc, which, once adjusted, does not need any more phasing during following mounting operations.
The phasing of the screw-conveyor must be made as follows:

1) Take one of the new bottles to be closed and place it exactly on the middle of the conveyor chain (2,page 9);

2) Loosen the two handgrips (3,page 9) and approach the bottle-conveying side rails, leaving a clearance of **1,5 ÷ 2 mm**; then block;

3) Loosen the two handgrips (4,page 10) and approach also the screw-conveyor, leaving the same clearance;

4) Place the bottle in the space between the infeed star-wheel and the screw-conveyor and check if there **is 3 ÷ 4 mm** clearance as shown on page 10. If not, remove the screw-conveyor, loosen the two embedded hexagonal screws on the screw-conveyor face, reassemble them and turn the screw-conveyor until you obtain the desired clearance. Remove the screw-conveyor again, fix the screws and reassemble.

## REPLACING THE BOTTLE-CONVEYING UNIT

When the new bottles to be closed have a different size or diameter from the ones previously closed, the bottle-conveying unit must be replaced as follows:

1) Replace the screw-conveyor (5,page 9);

2) Replace the infeed and discharge star-wheels, the central star-wheel, the front and rear conveyors;

3) Set the screw-conveyor and the side-rails as previously described;

4) Adjust the cork release microswitch (6,page 10) by fixing the screws and by adjusting the lever which touches the bottle (7,page 10) so that the electromagnet controlling the cork release is always de-energized in presence of one bottle. For this adjustment use two bottles side by side.
**NOTE:** A wrong adjustment of this device, which should cause corks released blow after blow, would cause a rapid wear of the cork release electromagnet.

## HEIGHT ADJUSTMENT OF CORKING HEAD UNIT

The height adjustment of the corking head unit must be carried out in case bottles have different height. Act as follows:

1) Lower the air blowing tube (8,page 11) completely and cork release device (9,page 11). If the machine is equipped with optional systems, such as sterilization of the cork compressing unit, injection of inert gas or vacuum system, the units must be completely lowered. For the instructions, see enclosures.

2) Loosen the two screws (10,page 11) that block the upper part of the machine.

3) Take one of the lowerest bottles to be closed and place it on bottle lifting cylinder wich is placed on the rear, when at the highest elevation.

4) By means of the handle on the rear shaft (11,page 11) adjust the height of the machine until the bottle, centered by the bottle centering device, has a pre-load of **3 ÷ 4 mm.**

5) Adjust the height of the sliding block that controls the corks release (9,page 11).

6) Lift to right height the air blow tube (8,page 11).
Also adjust the height of the other optionals, if existing, by following the enclosed instructions.

## PUSHER ADJUSTMENT

The adjustment of the insertion depth of the cork into the bottle neck is effected by loosening the screw nut that blocks the pusher and by screwing and/or unscrewing the pusher. This must be done from the rear of the machine, because only there the screw-nut that blocks the pusher becomes visible. Check that the pusher is exactly in the middle of the hole formed by the compressing jaws and avoid absolutely starting machine before having fixed the pusher.

## BOTTLE CENTERING DEVICE

Periodically check the condition of the bottle centering device, and replace in case of deformations or wear which would render impossible the centering of the bottles and the perfect closing.

## DISCONNECTING THE MACHINE FROM THE WORK CYCLE

In case it would be necessary to use the conveyor chain without using the machine, with the bottles passing freely through the machine, the following must be done:

1) Remove the screw-conveyor (5,page 9) by loosening the two hand-grips (4,page 10), remove the bottle infeed and discharge star-wheels and the front bottle conveyor.

2) Mount the bottle bypass rails, which are supplied on request.

## COMPRESSED AIR SYSTEM

For the cleaning of the already compressed cork, the machine is equipped with a compressed air system. The connection to the compressor is located on the supporting columns (12,page 11).
A pressure regulator (13,page 11) regulates the intensity of the air blow, a pressure gauge (14,page 11) measures the operation pressure.
The air hose must have the dimensions Ø 6 x 15 and to be suitable for 15 Bar working pressure.

## ACCESSORIES

In order to facilitate the maintenance operations we supply an adequate number of accessories.
We supply also a stock of spare parts to allow a sufficiently long time of autonomy, without contacting manufacturing firm.

| | Data | Firma | Note | pag. 4 |
|---|---|---|---|---|
| Compilato | | | | |
| Controllato | | | | |
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# L U B R I C A T I O N

For the lubrication of the machine we are enclosing two tables: the first one shows the type of oils and greases to be used, numbers 1 to 7 and compared with the type of the best known manufacturers; the second one shows a plan of the lubricating points, the frequency for the lubrication and the type of lubricant to be used. In order to facilitate a programmed lubrication, the machine is supplied with an hour-meter fitted to the push-button panel: this device enables to know the periodicity to perform the prescribed operations properly and schematized on the following tables.
We underline that, thanks to our long experience of manufacturing, our choice of the materials and dimensioning of the components, your careful maintenance will keep your machine efficient.

IMPORTANT: **LUBRICATION OF CORK COMPRESSING JAWS AND SLIDERS**

Lubricate through the proper holes on the closing plates every 8 working hours by injecting some drops of

oil KLUBER PARALIQ P 150

| | Data | Firma | Note | pag. 5 |
|---|---|---|---|---|
| Compilato | | | | |
| Controllato | | | | |
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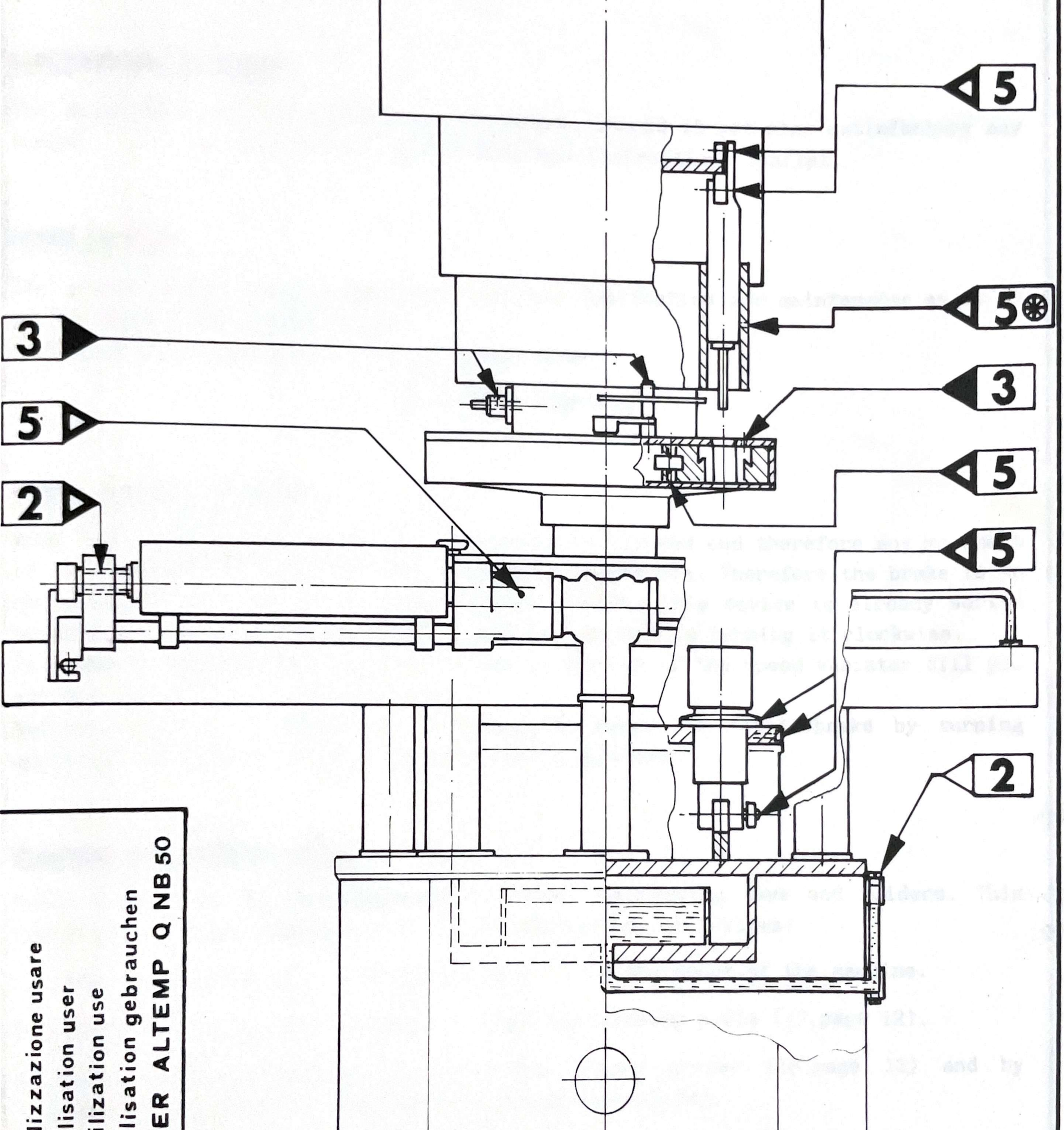
Piano di lubrificazione - Schéma de lubrification

Lubrication plan - Schmierungsplan

# DELTA 404 - 408




Con sterilizzazione usare
Avec stérilisation user
With sterilization use
Mit sterilisation gebrauchen
⊛ KLÜBER ALTEMP Q NB 50

▷ Lubrificare cammes ed ingranaggi scoperti con grasso n° 7
Lubrifier les cames et engrenages sans protection avec graisse n° 7
Lubricate cams and open gears with grease no. 7
Nocken und freie verzauhnungen mit schmierfett Nr. 7 schmieren

# MAINTENANCE

## SPEED CHANGE GEAR

It needs no maintenance whatsoever.

## ELECTROMAGNETIC BRAKE

The adjustment of the electromagnetic brake, should it not stop satisfactory any longer, is to be carried out as per attached instructions leaflet.

## SPEED REDUCER

The geared speed reducer does not need any lubrication nor maintenance as it is of the type "life-lubricated".
Should it be disassembled, refill grease with

IP TELESIA COMPOUND A

## MANUAL RELEASE OF BRAKE

When the corking machine is off, the brake is blocked and therefore any movement of the machine for maintenance purposes is impossible. Therefore the brake is to be excluded by means of a proper manual device. This device is already series mounted on the machine (15,page 12) and is operated by turning it clockwise.
In order to operate the machine, press on the hub of the speed variator till you get the required intervention point.
Before starting the machine, remember to reset the electrobrake by turning opposite the device (15,page 12) previously operated.

## CLEANING THE CORKING HEADS

Every 8 days it is **indispensable** to clean compressing jaws and sliders. This operation of **vital importance** is to be carried out as follows:

1) Stop the machine when one closing head is on the front of the machine.

2) Remove the two screws (16,page 12) and the closing plate (17,page 12).

3) Insert a large screwdriver into the proper groove (18,page 13) and by pressing, remove the front plate (19 page 13 and 14).

4) Remove the cork compressing jaws (22 and 23,page 14) paying attention not to invert between them, remove the back slider (20, page 13 and 14) and clean well, reassemble every part by lubrifying with lubricant 3 shown on the table.

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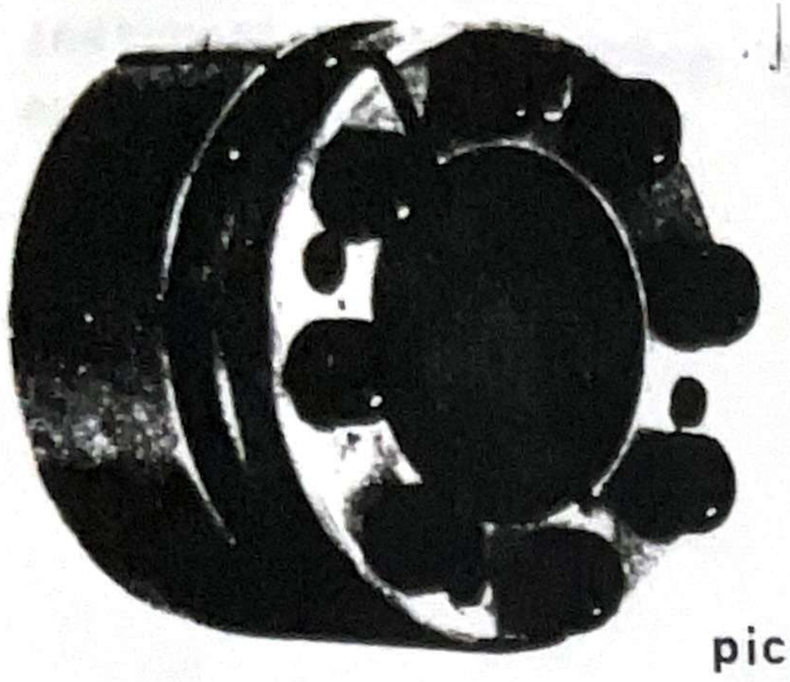
TANGENTIAL CLAMPER BIKON
- U S E -

# CLAMPER ON STAR-WHEEL SHAFT (BIKON 7000.A)

## ASSEMBLING

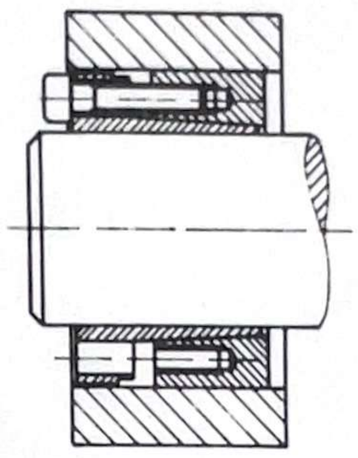


pict. 1

1) The clamper is to be inserted into proper seat.
   ATTENTION: Do not use **Molybdenum Bisulphide** or other lubricants containing additives.

2) After tightening, not strongly, the set of screws, the precise axial positioning of the hub is to be effected, then locking screws are to be tightened in cross sequence.

3) Locking couple is to be checked: Mt = 1,7 daNm (Mt = meters x deca Newton). To do that a dynamometric key is to be used, all screws are to be tightened again in circle sequence (pict. 2)

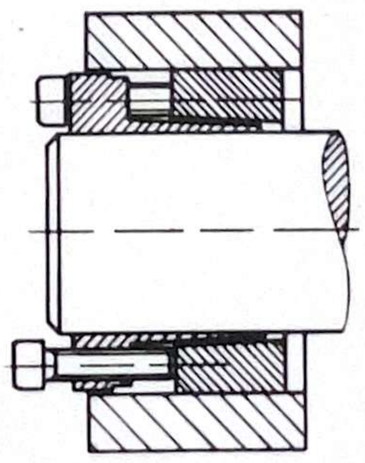


pict.2

## DISASSEMBLING

1) Locking screws are to be loosened, some of them are to be removed (as many as the extraction holes are); these screws are to be screwed into proper threaded extraction holes on the flange of the inside ring.

2) Clamper is to be un-locked by screwing uniformely according to cross sequence the screws inserted into extraction holes (pict. 3)



pict. 3

| | Data | Firma | Note |
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| Compilato | | | |
| Controllato | | | |

# SPECIAL APPLIANCES

Instructions concerning any special optional appliances are enclosed to this manual when required.

| | Data | Firma | Note |
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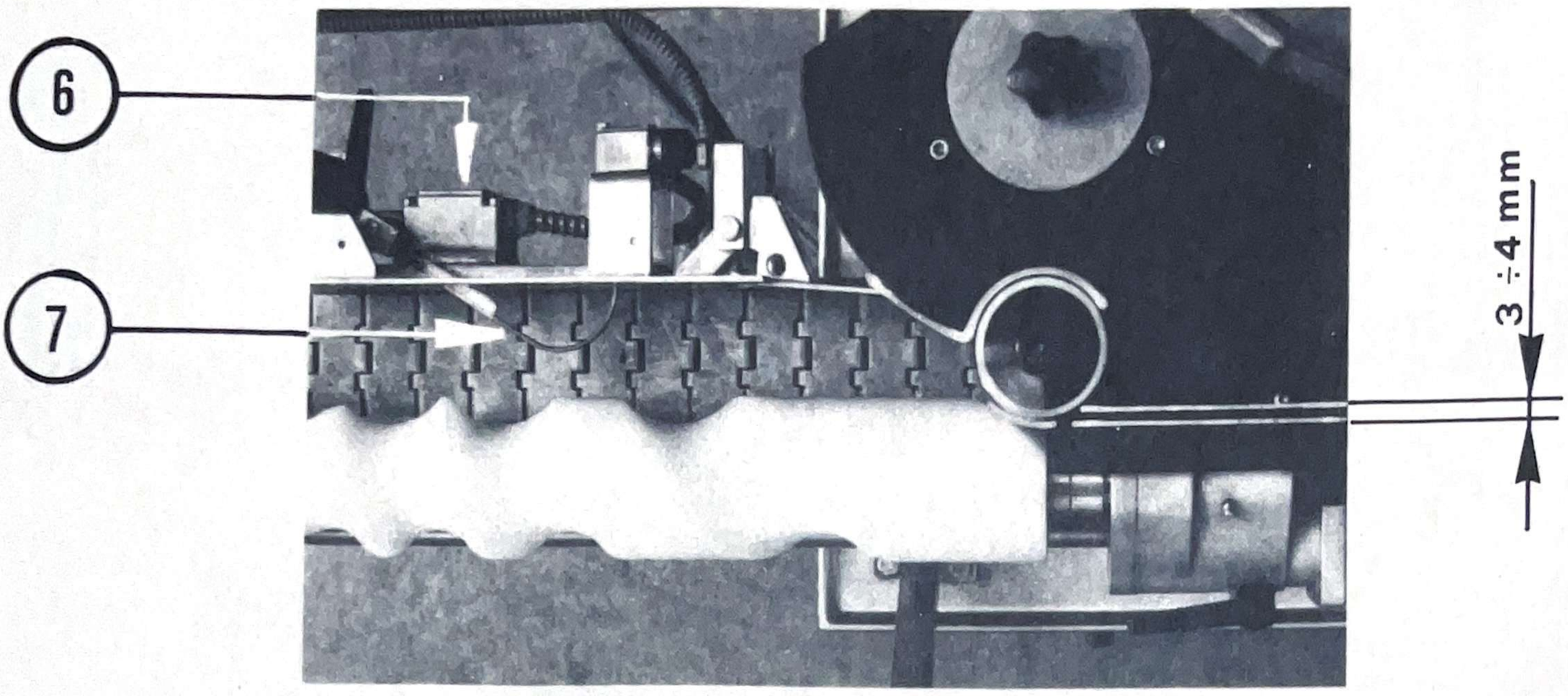


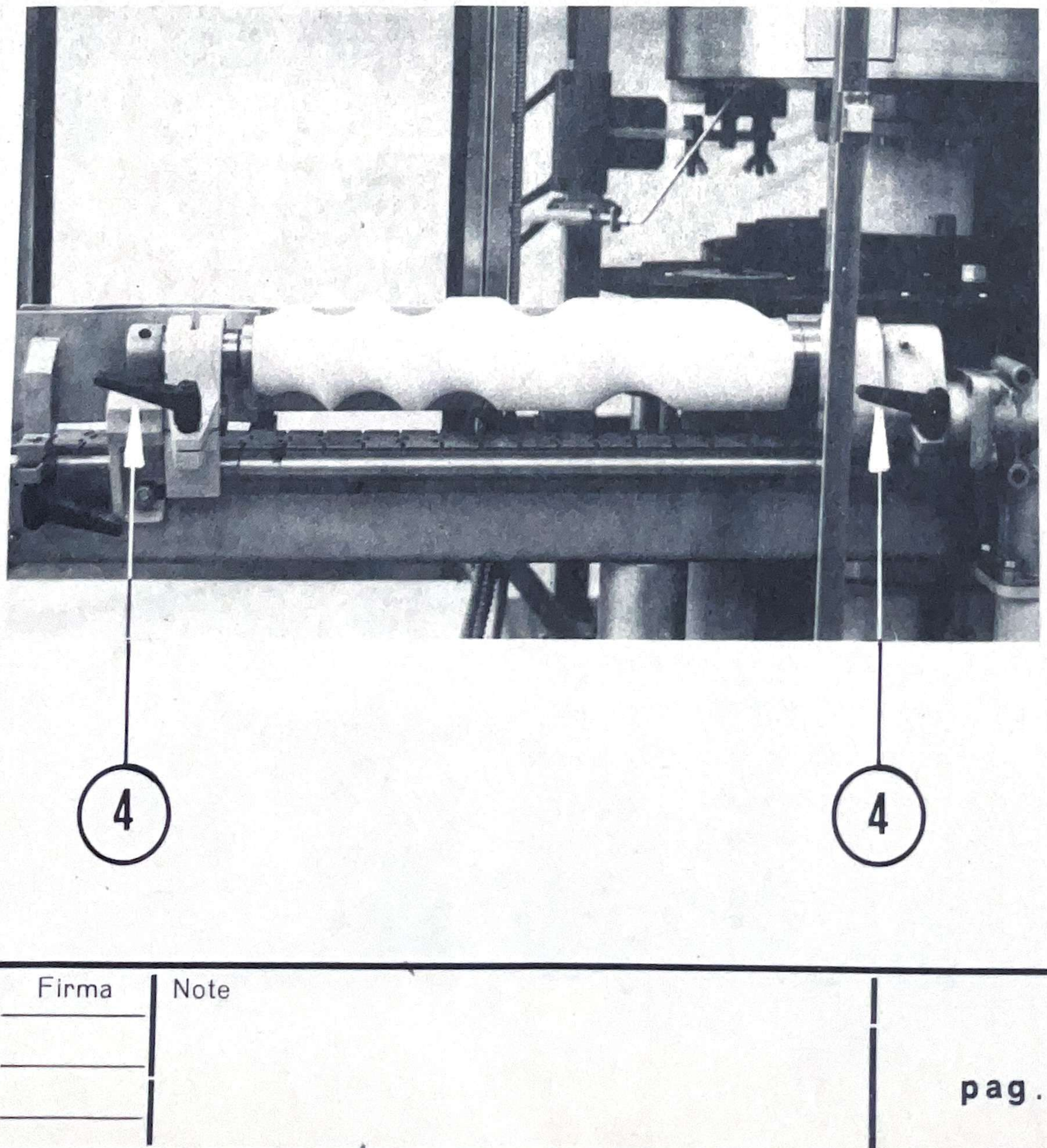


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|---|---|---|---|
| mpilato | | | |
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# SPARE PARTS LIST

The nomenclature shows progressively the number of the detail surrounded by the circle, the number of the spare part and the exact description of the part.
The spare parts number between brackets refers to machines with bottle-entrance from the right.

## ATTENTION

For ordering spare parts, it is absolutely indispensable to state the type of the machine, the series number, the spare part number, its exact description and the number of pieces requested.

Spare parts, such as screws, pins, keys, rings, ball bearings, etc. the number of spare part has been omitted, as their clear description is sufficient for purchasing them in any hardware shop.

Regarding the other parts, we recommend the use of only original

BERTOLASO

spare parts.-