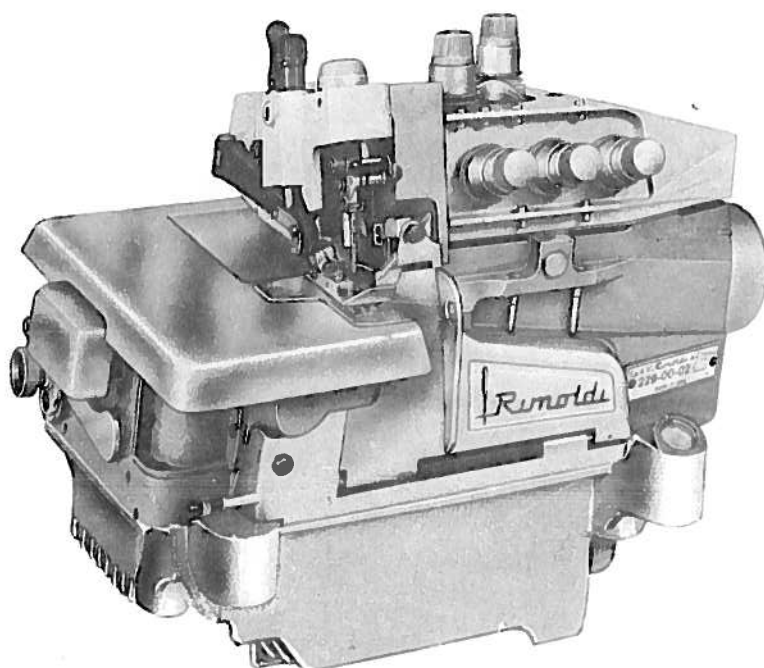


# Remoldi



## SPARE PARTS CATALOGUE

HEAD **229.00.05**

and subclasses

**n. 34**

N. CAT. 652230450 of 10/68

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# INTRODUCTION

## I. HEAD IDENTIFICATION

### a) Identification numbers

1. Every head is identified by:
  - class and sub-class numbers
  - serial number
2. The class and sub-class numbers are engraved on the name-plate on the base of the machine.
3. The head serial number is engraved on a boss on the rear part of the base.

## II. TECHNICAL DATA OF CLASS

The heads illustrated in this catalogue are of the 2 needle overlock type, the left needle for chain stitch and the right one for overedging, the association of the two giving a "safety stitch". They have the following general specifications:

1. Straight needle system RIM 27 - size 80 - 90 - 100 - 110
2. Differential can be adjusted while machine is running.
3. Stitch length adjustment by eccentric-cam.
4. Stitch length variation from 7 to 18 stitches per inch
5. Differential ratio up to 3,5 : 1 and possibly 4 : 1
6. Width of bight from 5/32" to 7/16"
7. Speed : up to 6,500 rpm
8. Lubrication by double stage pump
9. Motor : 1/3 HP or 1/2 HP according to sub-classes
10. Overall head dimensions 12" x 9 1/2"
11. Weight : approx 46 lbs.

### III. TECHNICAL DATA BY SUB-CLASS

| HEAD<br>No. | TECHNICAL CHARACTERISTICS |                 |                      |               |                            |                 |        |                                       | SPECIFIC USES                                                                                                                                                                                          |
|-------------|---------------------------|-----------------|----------------------|---------------|----------------------------|-----------------|--------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | No.<br>threads            | Needle<br>gauge | Width<br>of<br>bight | Diff.<br>pos. | S P E E D                  |                 | Knives | Special<br>attach-<br>ments<br>on req |                                                                                                                                                                                                        |
|             |                           |                 |                      |               | No. of<br>revs.<br>l' max. | St. per<br>inch |        |                                       |                                                                                                                                                                                                        |
|             |                           |                 |                      |               |                            |                 |        |                                       | ASSEMBLING OF FABRICS WITH OR WITHOUT<br>CURLED EDGES.                                                                                                                                                 |
| 229-00-01   | 4/5                       | 3/32"           | 7/32"                | negat.        | 6.500                      | 7-20            | si     | 106<br>107<br>115                     | For light fabrics, needle distance 3/32", overlock bight 9/64". With spare looper to work also with 5 threads.                                                                                         |
| 229-00-02   | 4/5                       | 3/32"           | 7/32"                | negat.        | 6.500                      | 7-20            | si     | 106<br>107<br>115                     | Same as 229-00-01, but particularly suitable for the making-up of very light fabrics avoiding the sliding of same on curved seams.                                                                     |
| 229-00-03   | 4/5                       | 3/64"           | 5/32"                | negat.        | 6.500                      | 10-30           | si     | 106<br>107<br>115                     | Same as 229-00-01, but with needle distance 3/64", overlock bight 1/8".                                                                                                                                |
| 229-00-04   | 4/5                       | 3/64"           | 5/32"                | negat.        | 6.500                      |                 | si     | 106<br>107<br>115                     | Same as 229-00-01, but with needle distance 3/64", overlock bight 1/8", particularly suitable for the making-up of very light fabrics avoiding the sliding of same on curved seams.                    |
| 229-00-05   | 4/5                       | 3/32"           | 1/4"                 | negat.        | 6.500                      | 7-20            | si     | 100<br>106<br>107<br>115              | For medium and heavy fabrics, needle distance 3/32", overlock bight 11/64". With spare looper to work also with 5 threads.                                                                             |
| 229-00-06   | 4/5                       | 13/64"          | 13/32"               | negat.        | 6.000                      | 7-20            | si     | 115                                   | For very heavy fabrics (blue-jeans, woollen clothes, etc.) needle distance 13/64", overlock bight 15/64". With spare looper to work also with 5 threads.                                               |
| 229-00-07   | 4/5                       | 13/64"          | 13/32"               | negat.        | 6.000                      | 7-20            | si     | 115                                   | Same as 229-00-06, but with special feed-dogs suitable for heavy fabrics. Particularly indicated for closing side seams on sports trousers, with pockets already inserted.                             |
| 229-00-08   | 4/5                       | 3/32"           | 1/4"                 | negat.        | 6.500                      | 7-20            | si     | 106<br>107<br>115                     | For light and medium fabrics which fray easily. Same as 229-00-05, but with attachment to turn the fabric downwards into the overlock seam. With spare looper to work also with 5 threads.             |
| 229-00-09   | 4/5                       | 3/64"           | 5/32"                | negat.        | 6.500                      | 10-30           | si     | 106<br>107<br>115                     | For light fabrics which fray easily. Needle distance 3/64", overlock bight 1/8", with attachment to turn the fabric downwards into the overlock seam. With spare looper to work also with 5 threads.   |
|             |                           |                 |                      |               |                            |                 |        |                                       | STIFF BINDINGS WITH ATTACHMENTS AND/OR<br>INSERTIONS.                                                                                                                                                  |
| 229-13-01   | 4/5                       | 3/32"           | 1/4"                 | negat.        | 6.000                      | 7-20            | si     | 106<br>107                            | With folder for inserting a 25/64" wide tape inside the overlock seam for binding trouser pocket linings. Needle distance 3/32". Overlock bight 11/64". With spare looper to work also with 5 threads. |

### III. TECHNICAL DATA BY SUB CLASS

| HEAD<br>No. | TECHNICAL CHARACTERISTICS |                 |                      |               |                           |                 |        |                                       | SPECIFIC USES                                                                                                                                                                                                                                                    |
|-------------|---------------------------|-----------------|----------------------|---------------|---------------------------|-----------------|--------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | No.<br>threads            | Needle<br>gauge | Width<br>of<br>bight | Diff.<br>pos. | S P E E D                 |                 | Knives | Special<br>attach-<br>ments<br>on req |                                                                                                                                                                                                                                                                  |
|             |                           |                 |                      |               | No. of<br>revs.<br>1" max | St. per<br>inch |        |                                       |                                                                                                                                                                                                                                                                  |
|             |                           |                 |                      |               |                           |                 |        |                                       | RUFFLING                                                                                                                                                                                                                                                         |
| 229-22-01   | 4/5                       | 3/32"           | 1/4"                 | max.          | 6 000                     | 8-20            | si     | 107                                   | For light fabrics, with attachment to ruffle the lower fabric, with kneepress control. Needle distance 3/32" Overlock bight 9/64". With spare looper to work also with 5 threads                                                                                 |
| 229-22-02   | 4/5                       | 3/64"           | 5/32"                | max.          | 6 000                     | 8-20            | si     | 107                                   | Same as 229-22-01, but with needle distance 3/64", overlock bight 1/8".                                                                                                                                                                                          |
| 229-22-03   | 4/5                       | 3/32"           | 1/4"                 | max.          | 6 000                     | 8-20            | si     | 107                                   | For medium and heavy fabrics. With attachment to ruffle the lower fabric. With kneepress control. Needle distance 3/32" overlock bight 11/64". With spare looper to work also with 5 threads.                                                                    |
| 229-22-04   | 4/5                       | 13/64"          | 13/32"               | max.          | 6 000                     | 8-20            | si     |                                       | For very heavy fabrics, with attachment to ruffle the lower fabric. With kneepress control. Needle distance 13/64", overlock bight 15/64". With spare looper to work also with 5 threads.                                                                        |
|             |                           |                 |                      |               |                           |                 |        |                                       | RUFFLING WITH ATTACHMENTS AND/OR INSERTIONS.                                                                                                                                                                                                                     |
| 229-23-01   | 4/5                       | 3/32"           | 1/4"<br>19/64"       | max.          | 6 000                     | 8-20            | si     |                                       | For light fabrics, with attachment to ruffle the lower fabric and attachment to insert a decorative piping, formed by a doubled strip of fabric with cord inside - needle distance 3/32" - overlock bight 9/64" - with blind looper to work also with 3 threads. |
| 229-23-02   | 4/5                       | 3/64"           | 11/64"               | max.          | 6 000                     | 8-20            | si     |                                       | Same as 229-23-01, but with needle distance 3/64", overlock bight 1/8".                                                                                                                                                                                          |
| 229-23-03   | 4/5                       | 3/32"           | 1/4"                 | max.          | 6 000                     | 8-20            | si     |                                       | For medium and heavy fabrics. Same as 229-23-01, but with overlock bight 11/64".                                                                                                                                                                                 |
| 229-23-04   | 4/5                       | 13/64"          | 7/16"                | max.          | 6 000                     | 8-20            | si     |                                       | For very bulk fabrics, Same as 229-23-01, but with 13/64" needle distance - overlock bight 15/64".                                                                                                                                                               |

# **INSTRUCTIONS : FOR**

- INSTALLATION AND TIMING**
- USE**
- MAINTENANCE**

## I. INSTALLATION AND SETTING-UP

### a) Positioning of head

After motor is mounted on stand, proceed as follows:

1. Push the four shock absorbing rubbers onto the appropriate head mounting plate pins.
2. Place the machine head on the table and center the lower head holes onto the shock absorbing pins.

### b) Transmission assembly

1. Fit the transmission belt as in fig. 1.
2. Make sure that back of driving belt rides firmly and squarely on pump pulley.
3. Take-up belt play by adjusting motor clamp.
4. Level the machine head by adjusting the nuts of the bolts which fix the plate to the table.
5. Tighten up the lock nuts on these bolts.

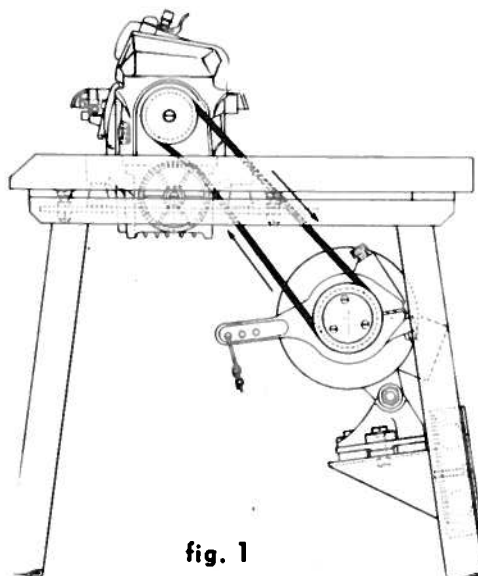


fig. 1

### c) Filling sump with lubricating oil (Fig. 2)

1. Unscrew cap A.
2. Pour in 1 3/4 pts. of VR 604 oil (Esso Standard Teresso 43) (Bear in mind that the sump holds 2 pts.)
3. Check oil level. The oil visible through indicator glass G, should be between the two red lines.
4. Replace and tighten cap 'A'.
5. Put a few drops of oil on the needle clamp guide rod and upper looper bar before starting machine.
6. Run the machine free of work for about 5 minutes, progressively increasing the speed from 1500 r.p.m. to working speed.

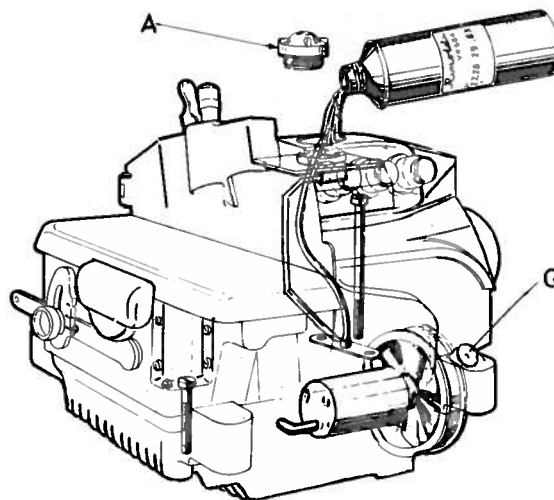


fig. 2

### d) Assembly and adjustment of sewing parts

**Note:** The following operations serve to adjust the timing of the machine.

1. Timing gauges required:
  - S. 1665.00 for all operations except No. 4 (fig. 4)
  - S. 1555.00 for operation No. 4 (fig. 4)
  - S. 1708.00 for all operations of chain stitch (fig. 11/12)
2. Preliminary stripping of:
  - Front cover plate
  - The two thread take-ups of the lower looper holder
  - Plate holding thread tensioners
  - Upper plate with oil spy-glass
  - Side plate protecting needle movement
  - Front feed dog.

- small front cover of chain stitch con rod

### 3. Positioning the overedging needle (fig. 3)

- with the needle plate properly mounted, the needles should be centered for passage through the appropriate needle holder in the needle plate.
- with the needles at top dead center, the distance between the tip of the needle and the work plate should be  $3/8"$ .
- if height adjustment of the needle clamp is necessary, loosen bolt 'A' (fig. 3) and set distance with gauge S. 1665.00.



fig. 3

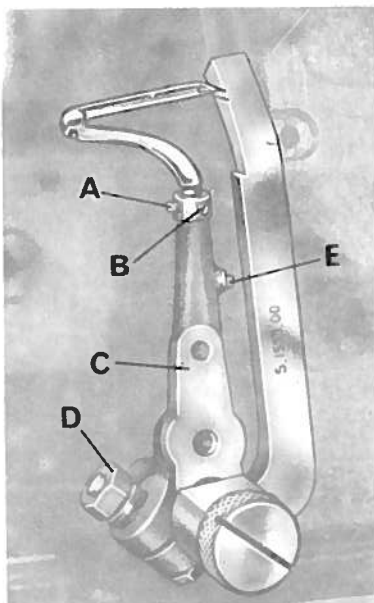


fig. 4

### 4. Setting lower looper (fig. 4).

#### SETTING HEIGHT

- Loosen screw 'E'.
- Firmly screw gauge S. 1555.00 into the lower looper shaft.
- Adjust looper height so that its point coincides with the upper notch on the gauge.
- Lightly lock looper with screw 'E'.
- While pressing bush 'A' against the looper holder, lock it by means of screw 'B'.
- Remove gauge S. 1555.00

#### Adjusting angle

Slightly loosen screw 'D'.

Rest the gauge S. 1665.00 on the milled base as in fig. 5; obtain correct inclination by moving lever 'C' and by rotating the looper (previously having only been held in its seating and not locked).

- The exact position corresponds to that given in the setting tables.
- Firmly tighten screw 'E' (fig. 4).

### Positioning the looper with respect to the needle (fig. 6).

With the looper hard to the left, check the figure given in the timing table.

- Move lever 'C' up and down the shaft it rotates on. When moving from left to right, the looper point should pass 0,002 from the bottom of the needle notch.
- Firmly tighten screw 'D'.

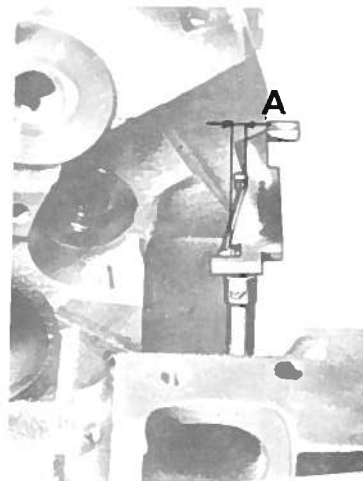


fig. 5

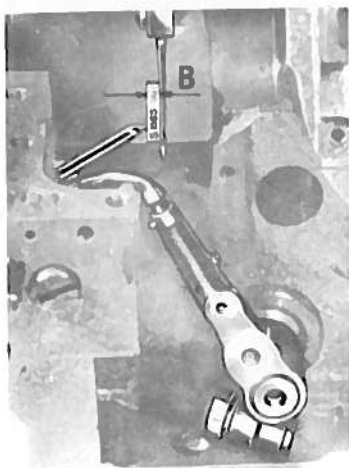


fig. 6

#### 5. Setting upper overedging looper

**NOTE** - To obtain the figure of  $11/32'' - 23/64''$  in fig. 9, it is necessary to move lever 'E' up or down, at the same time remembering that by doing this the distances in figs 7 and 8 will increase or decrease.

- Slightly loosen screw 'B'
- Slightly loosen screw 'A'
- Adjust the crossing of the upper and lower loopers by rotating the upper one until its point grazes the back of the lower one.

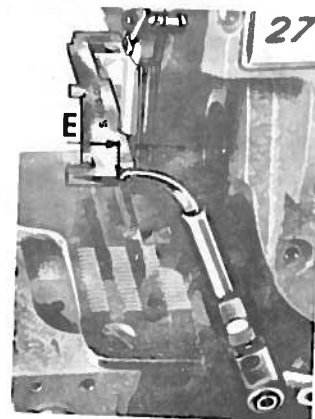


fig. 7

- Check the settings shown in figs. 7-8-9
- The upper looper should graze the needle when passing from left to right.
- Should this condition not exist, slightly loosen screw D and push the whole assembly towards the interior or exterior of the machine, without altering the setting previously obtained. Ensure perfect kinematic motion.
- Tighten screw D.
- Recheck the crossing of the two loopers and all the other settings.
- Tighten screws 'A' and 'B'.
- To finish off, make sure that all assemblies move freely.

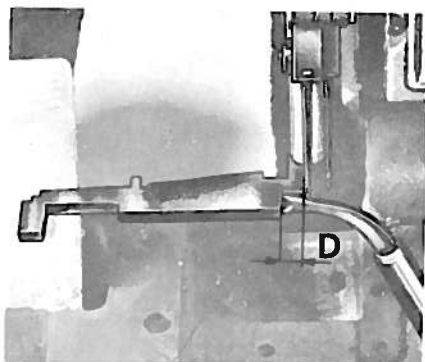


fig. 8

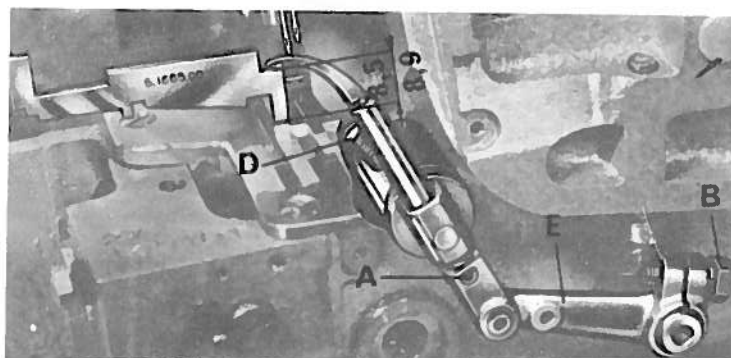


fig. 9

#### 6. Attaching needle guards (fig. 10).

- Attach rear needle guard A to front needle guard D and lightly fix it with screw B.
- Attach front needle guard D to the machine base with screws C.
- With the needle down, adjust the front needle guard so that the tip of the lower looper grazes the needle when travelling to the right.
- Lock screws C.
- Move the rear needle guard A near to the needle keeping this in its lowest position.
- Lock the rear needle guard with screw B.
- Thread the needle bringing it back to its lowest position and push it lightly against the rear needle guard A.
- The thread should run freely. If it does not run it means that the needle is too low and the thread is being held between the needle and the rear needle guard.

**NOTE** - The looper tip when moving to the right should pass through the upper part of the notch and through the lower part when moving to the left.

- For very hard synthetic materials, the needle must flex considerably against the front needle guard.

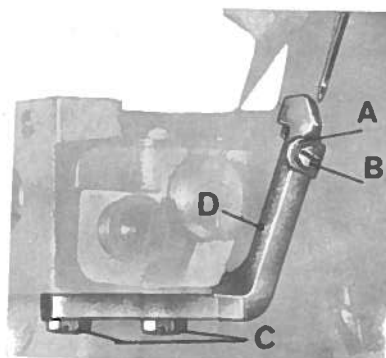


fig.10

## 7. Chain stitch looper timing (fig. 11).

- Slide the stop bush onto the chain stitch looper shaft.
- Fit this into the looper holder and lightly lock it with allen screw A.
- With the appropriate gauge n. S 1608, check the looper angle (fig. 12).
- Lock screw A.
- With the looper fully to the left adjust the distance between the needle and the tip of the looper with eccentric B.
- When carrying out this operation, be sure to keep the eccentric B with the maximum eccentricity turned towards the bottom.
- Lock the eccentric with allen screw C.
- Lightly slacken off bolt D and slide the looper holder F on its shaft until the tip of the looper G enters the needle notch with a distance from this as for setting X (see timing table).
- Lock screw D.

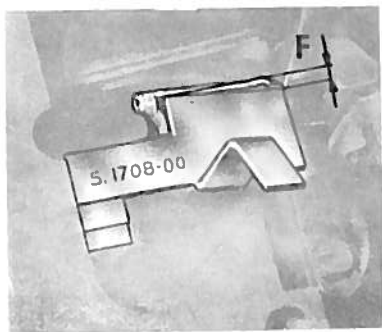


fig.12

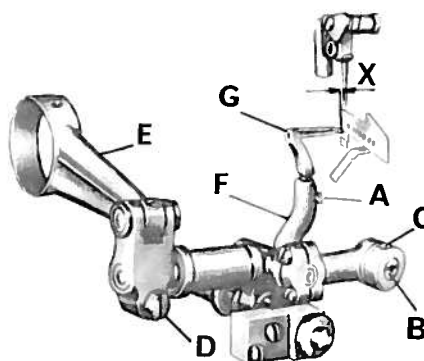


fig.11

- Attach the needle plate and bring the needle down so that the point passes through the needle plate table.
- Lightly bend the needle towards the operator and continue the descent.
- This is to check that the needle point does not pass in front of the looper but bends on the back of this.

## 8. Mounting the lower knife (fig. 13).

- Insert knife D into its seat .
- The cutting edge of the knife should not protrude from the needle plate table.
- Lock screw A.
- Lock bush L and washer G with screw F.
- Ensure that knife holder C runs freely then adjust it in relation to the width of stitch desired.
- Lightly tighten screw N.
- Having positioned the upper knife in contact with the lower, slacken screw N. Spring M with shaft H creates the correct contact pressure between the two knives.
- Resting a finger on screw A, lightly turn this to lock screw N.
- This pressure should be light so as not to cause strong friction between the two knives which would blunt them.
- Attach front needle guard P for the chain stitch needle on the knife holder and lightly lock it with screw Q.
- Move it towards the needle so that the tip of the looper grazes the needle when travelling from left to right.
- Firmly lock the front needle guard with screw Q.

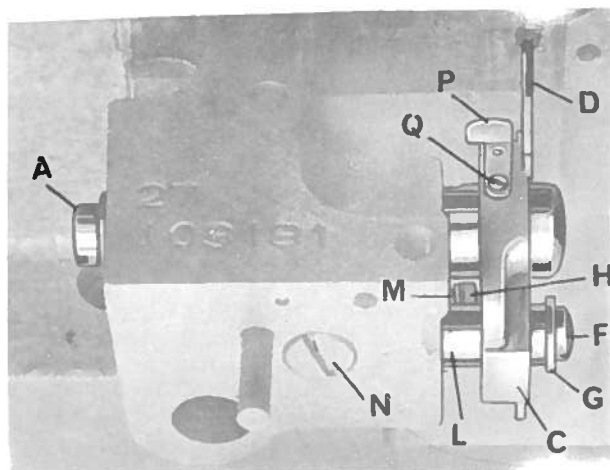


fig.13

### 9. Fitting and adjusting feed dogs (figs. 14 and 15)

- Remove plexiglass plate under the work plate .
- Fit the rear feed dogs C and D (fig. 14) and match the feed dog slides.
- Inserting a small screw driver through the threaded holes in the slides, tighten, but not completely, screw F by means of the groove in its point.
- Fit the front differential feed dog E with screw G but do not lock (fig. 15).
- Loosen screw A.
- Adjust the feed dog inclination by rotating the eccentric B.
- The feed dog teeth, protruding from the needle plate, should be perfectly parallel with this plate.
- With the feed dogs at the highest point, the distance between their teeth and the plate surface, measured on the front of the feed dog differential, should be  $3/64''$ .
- Feed dog C should be on the same plane as the other two.
- Lock screws F, G and A.

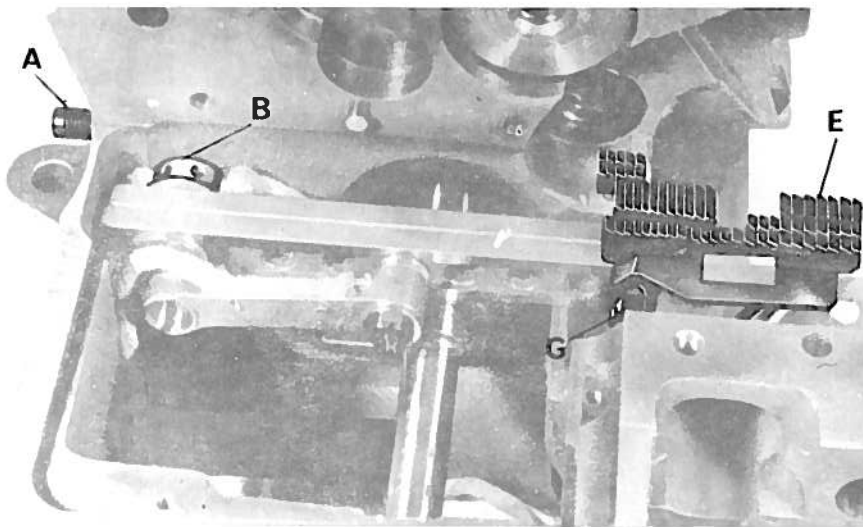


fig. 15

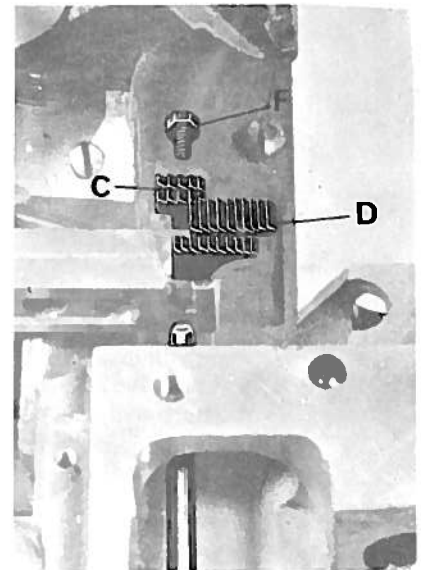


fig.14

### 10. Feed (fig. 16).

**NOTE** — The machine heads illustrated in this manual are supplied with the feed adjusted to suit the work for which the machines are destined. Should it ever be desired to alter the feed, then proceed as follows:

- 1) Annulling the differential feed:
  - Slacken off nut B with spanner A and move spindle Q which controls the rear feed-dog to its upper position.
  - Lock nut B; lower lever H against the stop F and tighten knob R by hand.
- 2) Operating differential feed up to a ratio of 2 : 1
  - Slacken off nut B.
  - Move spindle Q upwards as far as it will go
  - Lock nut B
  - Move lever H against the stop G.
- 3) Operating the differential feed up to a ratio of 3,5 : 1
  - Slacken off nut B
  - Move spindle Q down as far as it will go
  - Lock nut B
  - Move lever H against stop G.
- 4) Operating differential feed up to a ratio of 4 : 1
  - Lift the cursor C of sector S as high as possible
  - Carry out operation n. 3
  - By using lever E it is possible to obtain variations of the differential ratio with the machine in motion.
- 5) Negative operation of differential feed
  - Slacken off nut B.
  - Move spindle Q as high as possible.
  - Lower cursor C as much as possible.

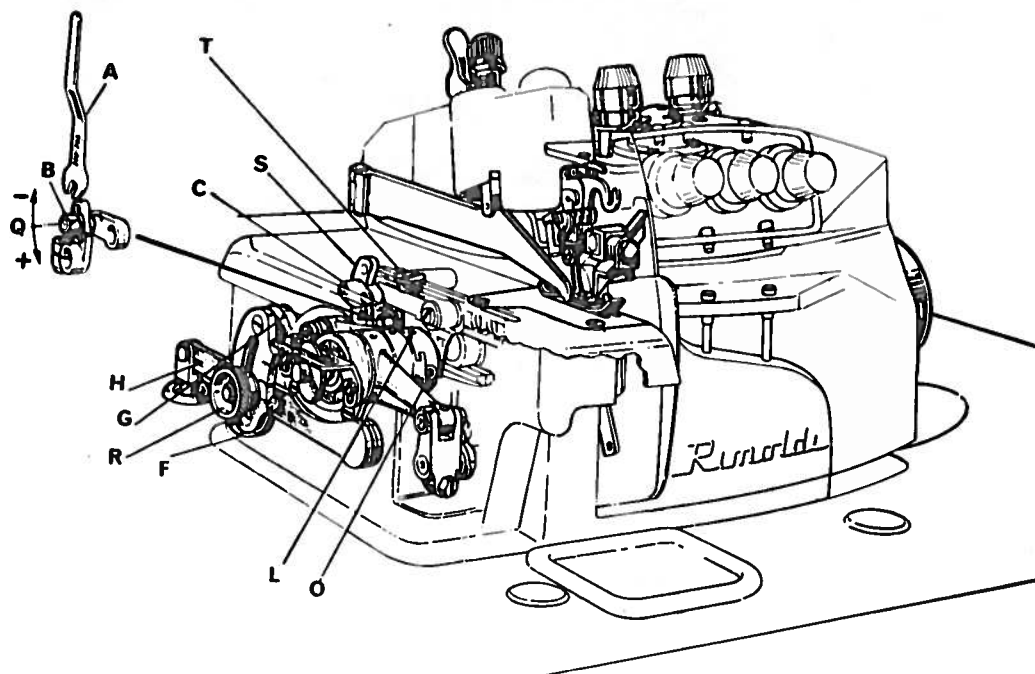


fig.16

# 11. Fitting upper knife (fig. 17).

- Fit upper knife C into its seat in block A.
- Attach block D and brackets E and G with bolt F.
- When knife C is at the bottom of its stroke, its cutting edge should be 1/32" below the cutting edge of the lower knife.
- To obtain this, adjust knife C in its inclined seat and block A on the body of the upper knife holder B.
- Lock bolt F and then make sure that when the upper knife reaches the bottom of its stroke it does not touch the front needle guard.

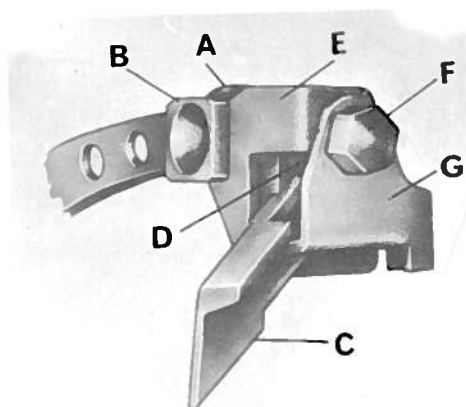
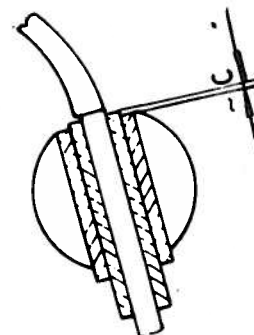


fig.17

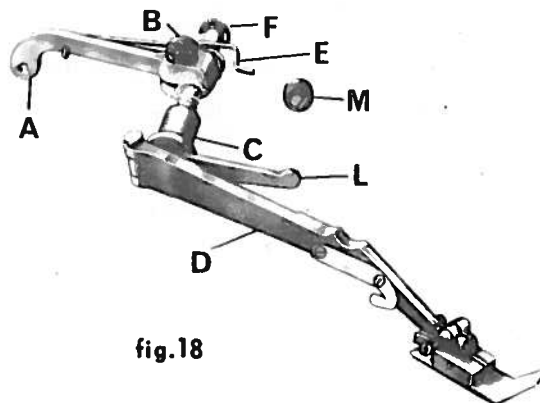


## TIMING TABLE

| SYMBOLS OF HEADS                                                                                                                                                                                             | A   | B   | C   | D   | E   | F       | X         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|---------|-----------|
| 229-00-01 = 229-00-02 = 229-00-04 = 229-00-05 = 229-00-06<br>229-00-07 = 229-00-08 = 229-00-09 = 229-13-01 = 229-22-01<br>229-22-02 = 229-22-03 = 229-22-04 = 229-23-01 = 229-23-02<br>229-23-03 = 229-23-04 | 2,5 | 1,5 | 0,5 | 3,7 | 3,5 | 0,9 - 1 | 0,1 - 0,2 |
| 229-00-03                                                                                                                                                                                                    | 2,5 | 1,5 | 0,5 | 3,7 | 3,5 | 0,9 - 1 | 0,1 - 0,2 |

**e) Locking and adjusting presserfoot holder lever (fig. 18)**

- Slide the shaft on lever L into bush C to which lever D is hinged.
- Insert shaft L and bush C into the appropriate hole in the base.
- Slide lever A and spring E onto shaft L.
- Attach spring clip F to end of shaft L.
- Adjust lever A to eliminate axial play of shaft L.
- Lightly tighten screw B.
- Insert lever D into the guiding fork with the needle at top dead center.
- Connect lever A to the rod joined to the presserfoot raising pedal.
- When the pedal is depressed there should be some free play before lever D is acted upon.

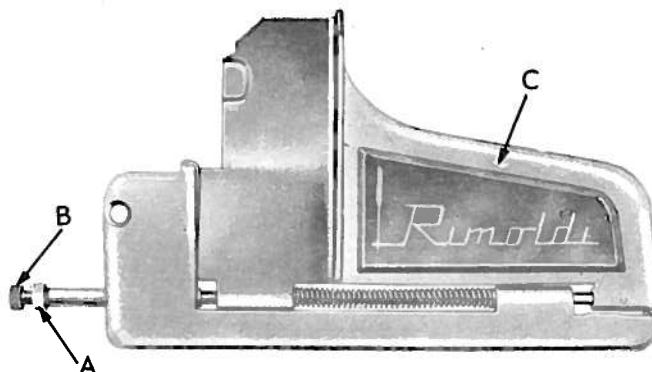


**fig.18**

- Adjust the screw in the base under lever A until this raises the presserfoot to the required position.
- Ensure that when the upper looper is in movement it does not touch the presserfoot chaining finger when presserfoot is in its highest position. A better guard against the upper looper and the presserfoot chaining finger hitting, is supplied by adjusting the eccentric washer M which is under lever D and attached to the side cover.
- Lock screw B.

**f) Adjusting the front cover plate (fig. 19).**

- Adjustment is carried out with the plate closed.
- The movable part C should not interfere with the front needle guard or the lower knife holder.
- Slacken off nut A.
- Adjust screw B to move the plate to left or right.
- Lock nut A.



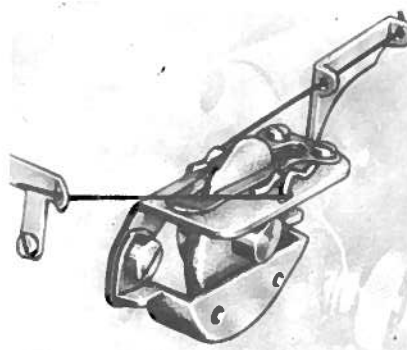
**fig.19**

**g) Adjusting needle thread take-up**

- When working with very hard materials, adjust the needle thread take-up 270-274/2 by moving it forward, that is towards the operator.

**h) Adjusting thread take-up cam (fig. 20)**

- Slightly slacken two screws on the cam.
- Turn the machine handwheel fully in the working direction.
- Before the needle reaches top dead centre the highest cam guide should start to take up the looper thread.
- Lock the two screws of the thread take-up cam.



**fig.20**

## ELECTRICAL EQUIPMENT FOR LUBRICATION CONTROL (PRESSURE SWITCH)

### i) Dismantling and replacing the pressure switch

- Remove the sump from the base and empty the oil.
- Remove the screw fixing the pressure switch bracket to the sump.
- Remove the two screws holding the cable end.
- Remove the plastic tube from the pressure switch which connects this to the rubber union.
- Remove the support bracket and fix it to the new pressure switch.
- Attach the cable end with the screws, slide the plastic tube into the pressure switch and fix this in sump with appropriate screw.
- Replace the sump and fill with oil as described on page 11 para. c.

### Changing the pressure switch bulb

- Carry out operations 1 and 2 as explained for the substitution of the pressure switch.
- Remove tube, extract the bulb, which has a bayonet fitting, and replace with a new one.
- Re-attach the tube, position the pressure switch in the sump and attach with the screws.
- Replace sump and fill with oil as explained on page 11 para. c.

### Electrical connection of pressure switch on Zefir motors

- Plug the connection cable into the pick-up socket and plug the other end into the 12 V. socket on the motor.

**Note:** if connection has to be made to a motor not equipped with a light socket, but equipped with a 12 V. take-off in the connection box, proceed as follows:

- Connect the two wires of the joining cable 270-433 to the 12 V. clamps in the motor junction box, then insert the cable end into the main cable take-off 270-431 in order to complete the electrical connection of the pressure switch.

### Regulating flow of lubricating oil through the main shaft (fig. 21)

- Remove cap.
- Adjust index B with a screw driver. (Movement towards the C engraved on the plate decreases the oil flow, towards the letter A increases flow).

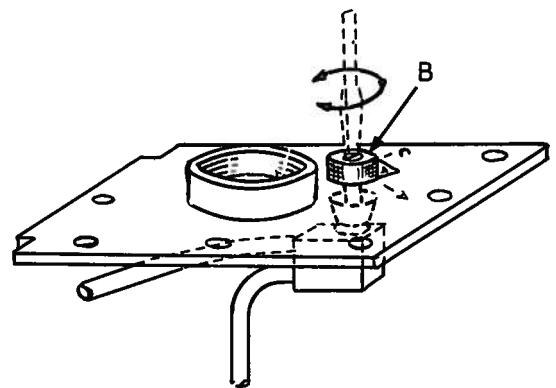
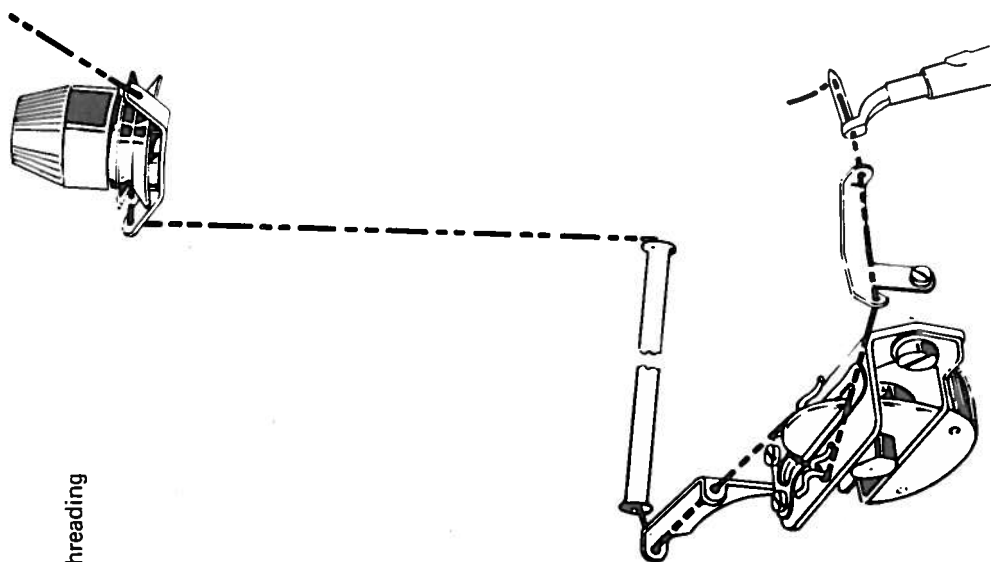
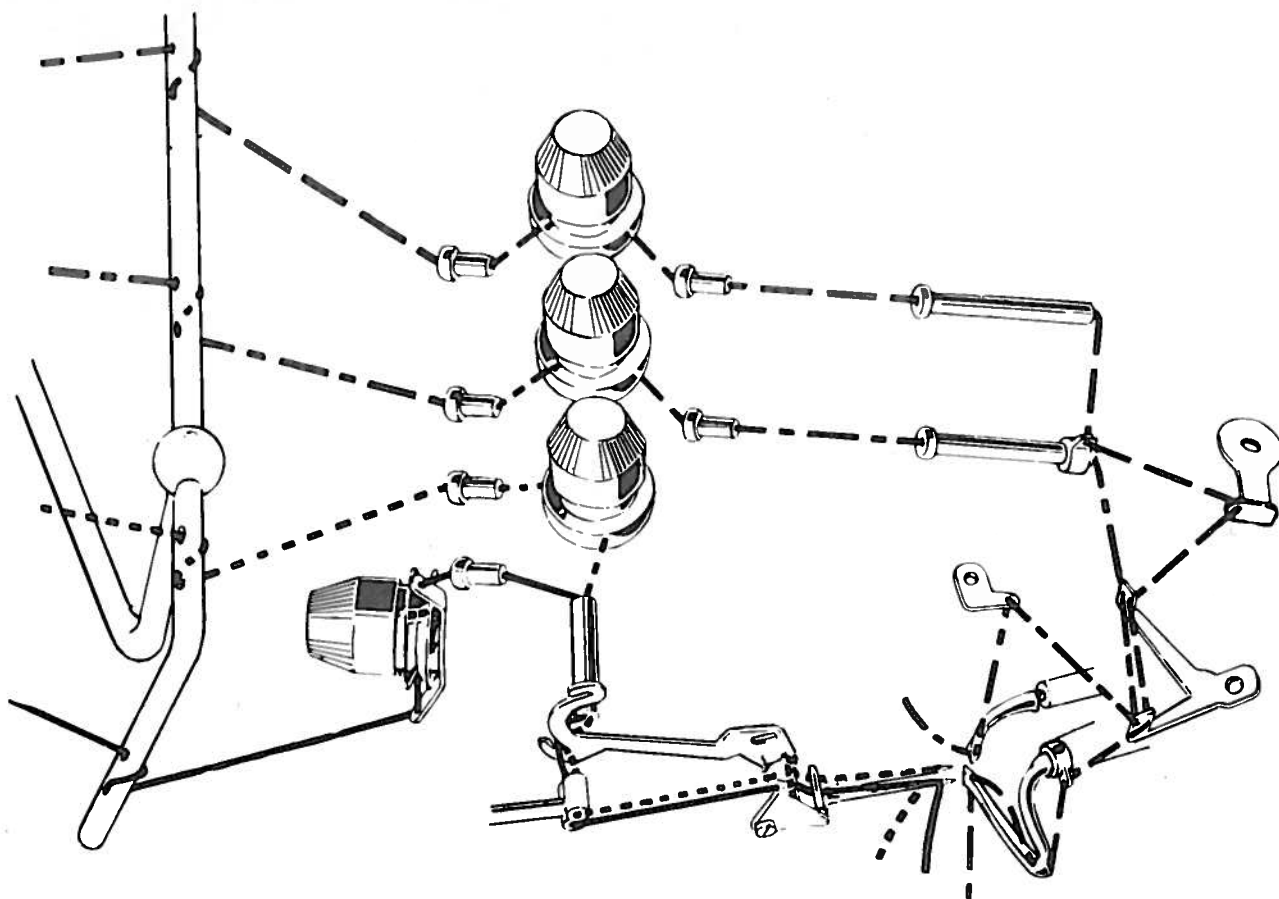


fig.21



II. USE

a) threading



#### b) Changing the needle

1. Switch off the motor.
2. Depress the pedal which starts the motor to ensure the machine is completely off.
3. Move the needle to top dead centre.
4. Press lever B right down (fig.22)
5. Remove the presserfoot from its working position.
6. Slacken the needle locking screw half a turn with screw driver 1161/2.
7. Remove the needle.
8. Fit new needle.
9. The notch through which the looper passes should face towards the rear needle guard, that is, towards the interior of the machine.
10. Using the tweezers supplied ensure that the needle touches the end of the needle holder.
11. Tighten the locking screw being careful not to alter the position of the needle.
12. Do not overtighten.

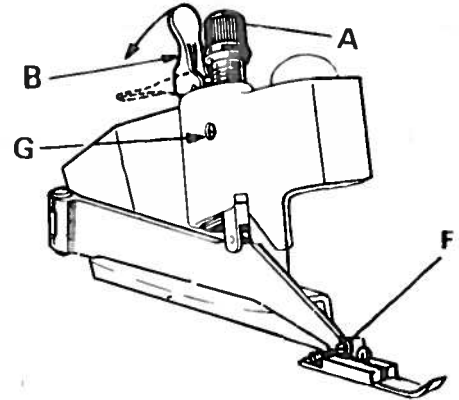


fig. 22

#### c) Positioning and adjusting presserfoot pressure (fig. 22)

1. Check correct positioning of presserfoot.
2. The needle should pass between the presserfoot shoe and chaining finger.
3. To adjust presserfoot slacken off screw F.
4. Center the presserfoot in the correct position and lock screw F.
5. To increase or decrease the presserfoot pressure, slacken off screw G with spanner 633-742 and adjust knob A.
6. Lock knob A with screw G through spanner 633-742.

#### d) Tension adjustment

1. Tighten the tensioners sufficiently to permit a regular stitch formation.
2. Never overtighten.

#### e) Stitch length adjustment (fig. 16)

1. Remove screw cap T on the plexiglass plate.
2. Slacken off screw L which tightens the eccentric.
3. Adjust screw O of stitch length adjustment. (movement towards the right shortens the stitch length, while movement towards the left lengthens it).
4. Lock screw L.
5. Replace screw cap T.

#### f) Adjustment of seam width

The seam width can only be varied to a very limited extent, after which the needle plate has to be changed. To vary the width within these limits proceed as follows:

1. Slacken off screw N in the lower knife holder (fig. 13).
2. Slacken off screw F (fig. 17).
3. Move upper knife support A (fig. 17) to right or left till desired seam width is obtained.
4. Lock screw F (fig. 17).
5. Lower knife holder re-setting should be carried out in accordance with the instructions in para. a) 7.

g) Faults due to improper handling of the machine

| n° | FAULT                      | PROBABLE CAUSE                                                                                                                                                                                                                                                                                                                                       |
|----|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Irregular stitch           | <ul style="list-style-type: none"> <li>- Tensioners badly adjusted</li> <li>- Thread take ups badly adjusted</li> <li>- Incorrect threading</li> <li>- Yarns not gauged</li> </ul>                                                                                                                                                                   |
| 2  | Feed and material slipping | <ul style="list-style-type: none"> <li>- Insufficient presserfoot pressure</li> <li>- Bad adjustment of feed dog height and inclination</li> <li>- Knives need sharpening</li> <li>- Differential badly adjusted</li> </ul>                                                                                                                          |
| 3  | Skip stitching             | <ul style="list-style-type: none"> <li>- Upper or lower looper badly adjusted with respect to needle consequently blunting looper</li> <li>- Loopers too far apart when crossing</li> <li>- Loopers too close when crossing with consequent blunting</li> <li>- Front needle guard too far from needle</li> <li>- Needle badly positioned</li> </ul> |
| 4  | Thread breaking            | <ul style="list-style-type: none"> <li>- Tensions too tight</li> <li>- Thread wound irregularly on the reel</li> </ul>                                                                                                                                                                                                                               |
| 5  | Needle breaking            | <ul style="list-style-type: none"> <li>- Bent needle</li> <li>- Needle badly fitted</li> </ul>                                                                                                                                                                                                                                                       |
| 6  | Puncturing of material     | <ul style="list-style-type: none"> <li>- Blunt needle</li> <li>- Needle size not suitable to throat plate</li> <li>- Needle with unsuitable point</li> </ul>                                                                                                                                                                                         |
| 7  | Loss of oil                | <ul style="list-style-type: none"> <li>- Screw holding sump to base not tightened enough</li> <li>- Sump plug not screwed up properly</li> <li>- Sump gasket badly fitted.</li> </ul>                                                                                                                                                                |
| 8  | Lack of lubrication        | <ul style="list-style-type: none"> <li>- Oil level too low</li> <li>- Drive belt badly fitted</li> <li>- Upper tube clogged</li> <li>- Lubrication pump filter blocked.</li> </ul>                                                                                                                                                                   |

### III. MAINTENANCE

#### a) Every day

Briefly clean all machine parts relating to feed and stitch formation.

#### b) Every week

1. Remove needle plate and clean the feed dogs, needle guards and loopers.
2. Open front cover plate and carefully clean inside
3. Carefully clean inside the plate covering the needle movement assembly.

#### c) Every three months

1. Using the spanner supplied, remove the sump drain plug and drain off oil completely.
2. Remove screw 007-M-15 which attaches filter to plug.
3. Extract filter and clean by immersing in petrol.
4. Air blast filter and sump plug.
5. Soak felt with clean oil.
6. Replace sump plug.
7. Refill machine with 1 3/4 pts. of new VR. 604 oil.

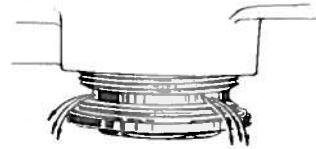


fig.23

#### IMPORTANT

In operation 1 para. c) do not completely remove the plug to begin with, so that most of the oil runs out through the side holes in the plug (fig. 23).

#### d) Knife sharpening

1. When sharpening the knives use the RIMOLDI sharpener and special block which guarantees exact sharpening angle. This block is supplied on request.

#### e) Instructions for removal of cam shaft

- Necessary tools supplied on request only.
- Pliers model S. 0560/00.
- Pliers model S. 0459/00.
- Extractor S. 0416/00

#### IMPORTANT

It is absolutely essential that the principal components of the crank-shaft/con-rod assembly are replaced in their original position. To this aim proceed as follows:

- Replace the G and T flanges with the lubrication hole towards the bottom.
- Leave the screws holding the con-rod caps in their holes.
- Con-rods J and L are distinguishable one from the other by means of a 2 stamped on the top surface of L and three lines on J.
- The con-rod caps are engraved with similar markings and should be matched to the respective con-rod. Both marks should be on the same side.
- The position of con-rod N is given by the drawing number which should be on the pulley side.
- Carefully follow the cup spring assembly order.

# SEQUENCE OF OPERATIONS (fig. 24)

1. Remove the sump from the base.
2. Remove screw Z.
3. Dismantle the thread take-up cam plate (H).
4. Remove screw M and the thread take-up cam H.
5. Remove flange G.
6. Slacken off the two screws of the eccentric.
7. Remove ball race A and washer B.
8. Move the eccentric C and con-rod R to the right.
9. Move con-rod F to the right.
10. Loosen the two screws and remove eccentric E of con-rod F.
11. Remove eccentric flange C.
12. Remove con-rod caps N, O, J, L.
13. Remove pulley wheel cover Y.
14. Slacken off the exagonal screw X.
15. Remove washer W.
16. Extract pulley V.
17. Remove flange T.
18. Remove spacer U.
19. Remove cup springs S.
20. Extract spring ring P using pliers S.0459/00 slightly moving the shaft to the right.
21. Dismantle sectors K and Q.
22. Extract the shaft.

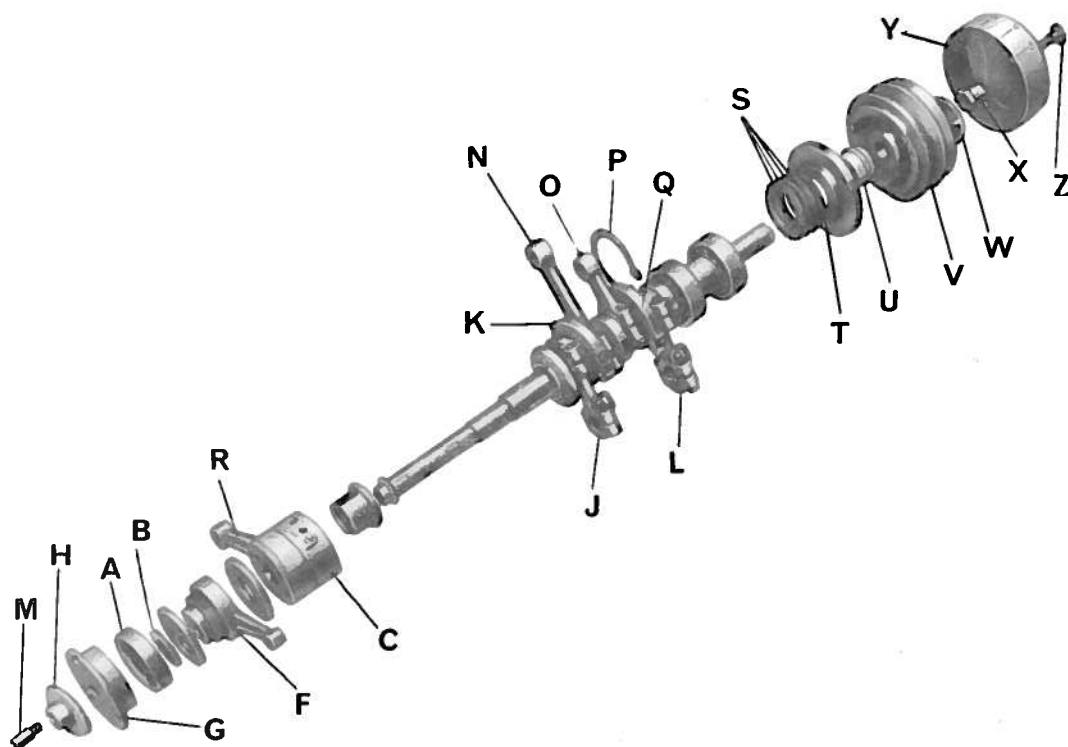


fig.24

# **SPARE PARTS CATALOGUE**

**class 229-00-05**

**and subclasses**



## I. HOW TO USE THIS CATALOGUE

### a) Introduction

1. This spare parts catalog is made up of a series of tables illustrating the various parts or assemblies which make up the basic head and its sub-classes.
2. In order to make the use of this catalogue easier, the table index shows the position of each assembly inside the head.
3. The conversion assemblies of the basic head and its sub-classes are illustrated in single tables.
4. In the tables, the numbers which identify the sub-classes are printed at top right of page in black.
5. On each table the various components of the assembly illustrated, are cross-referenced by a number. The assemblies, whose components cannot be supplied separately, are cross-referenced by a capital letter. Parts and equipment not normally with the machines but which can be supplied on request, are given at the bottom of each table and are illustrated complete with all their particulars at the end of the book.
6. The catalogue has a general numerical index giving the cross-reference numbers of all component parts of the machine and listing the table on which the parts are illustrated.

## II. HOW TO ORDER SPARE PARTS

### a) All parts

To ensure immediate dispatch of required spare parts, the following instructions should be carefully followed:

1. Quote the serial number of the head.
2. Quote the drawing number of the part required.
3. Give the full name of the part required.
4. The quantity.

### IMPORTANT

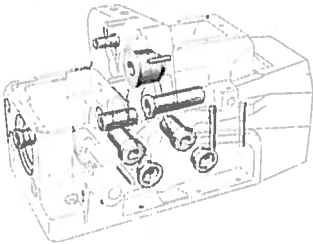
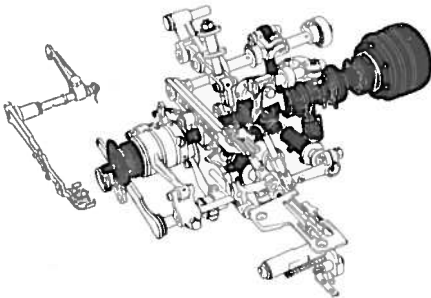
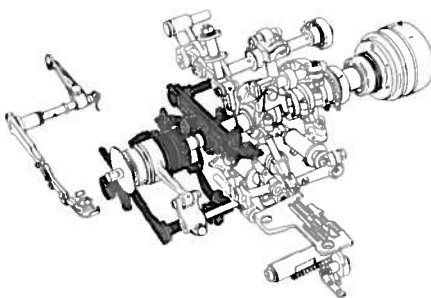
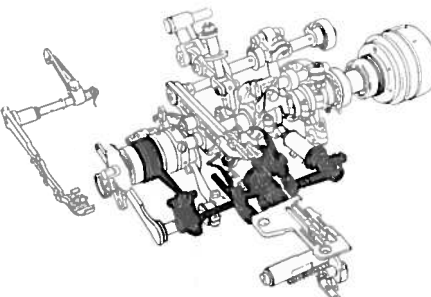
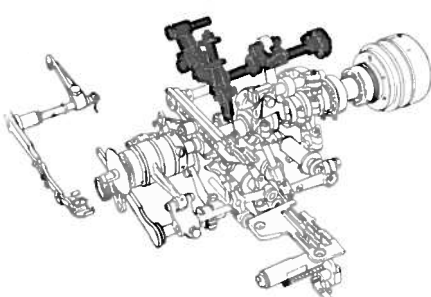
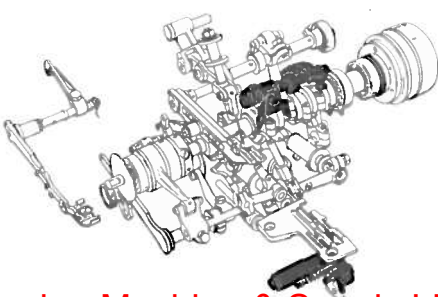
The RIMOLDI Company likes to analyse any cases of breakage, wear or irregularities arising in parts manufactured by them. For this reason they kindly ask you to return such pieces along with the order for spare parts.

### b) Needles only

1. Only straight system **RIM 27** needles should be used on the machines illustrated in this manual.
2. The needle system and size are marked on the needle shank.
3. The size indicates the average diameter expressed in hundredths of a millimeter calculated on the blade of the needle.
4. The system and size are also shown on the packets containing RIMOLDI needles.
5. When ordering always give the system and size of the needle required (e.g. n. 100 needles size 90 system RIM 27).
6. In case of doubt send a sample needle or an empty packet of the type required.
7. For stitching elastic or elasticised materials there are ball point needles classified **SKU**.

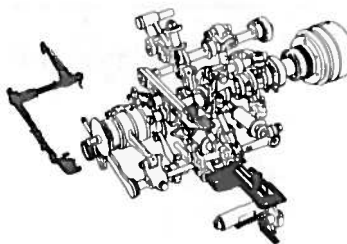


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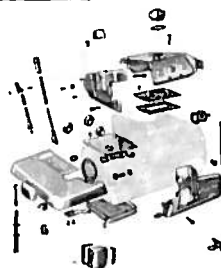
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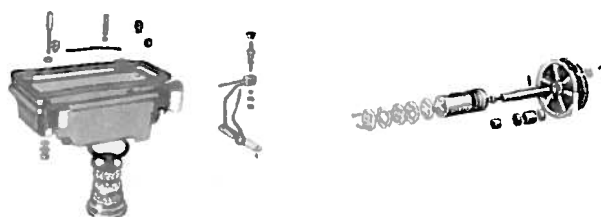
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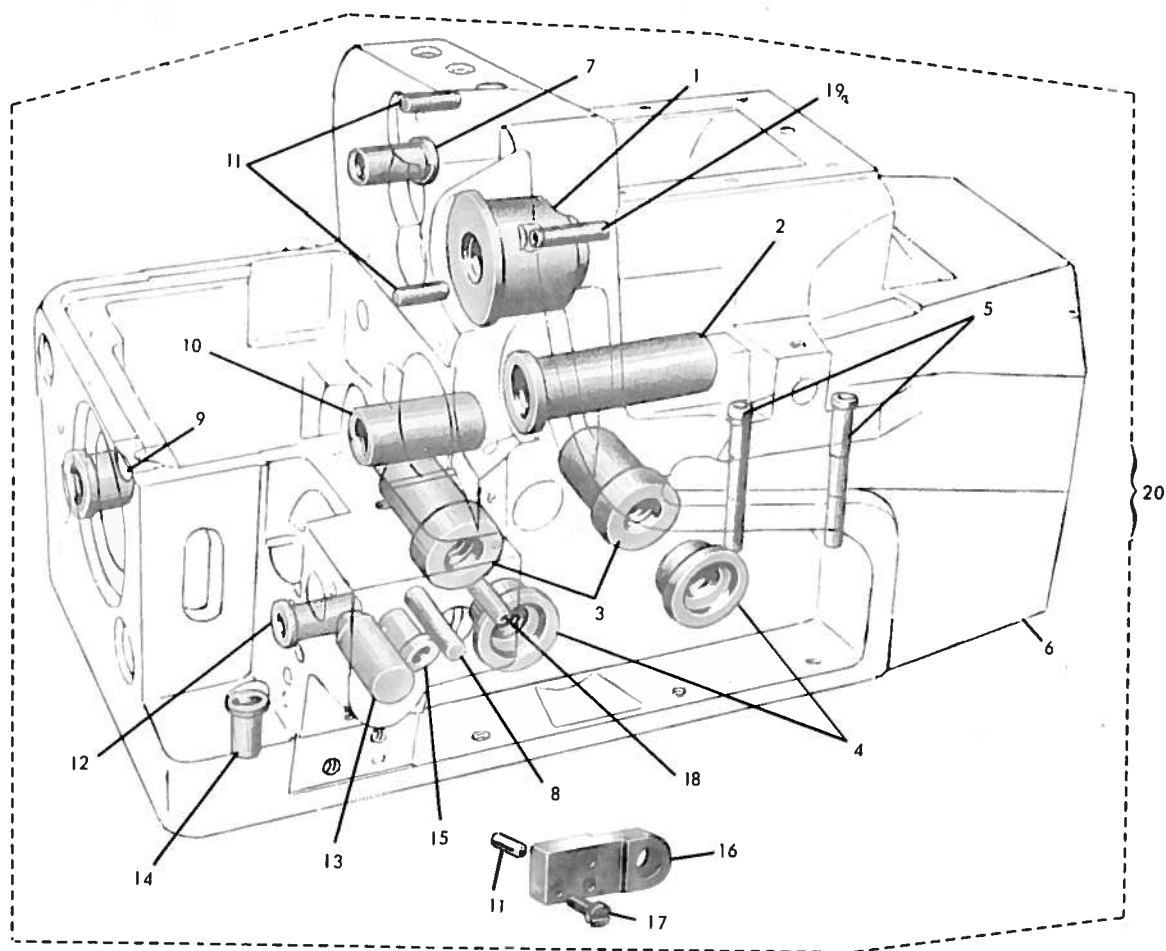
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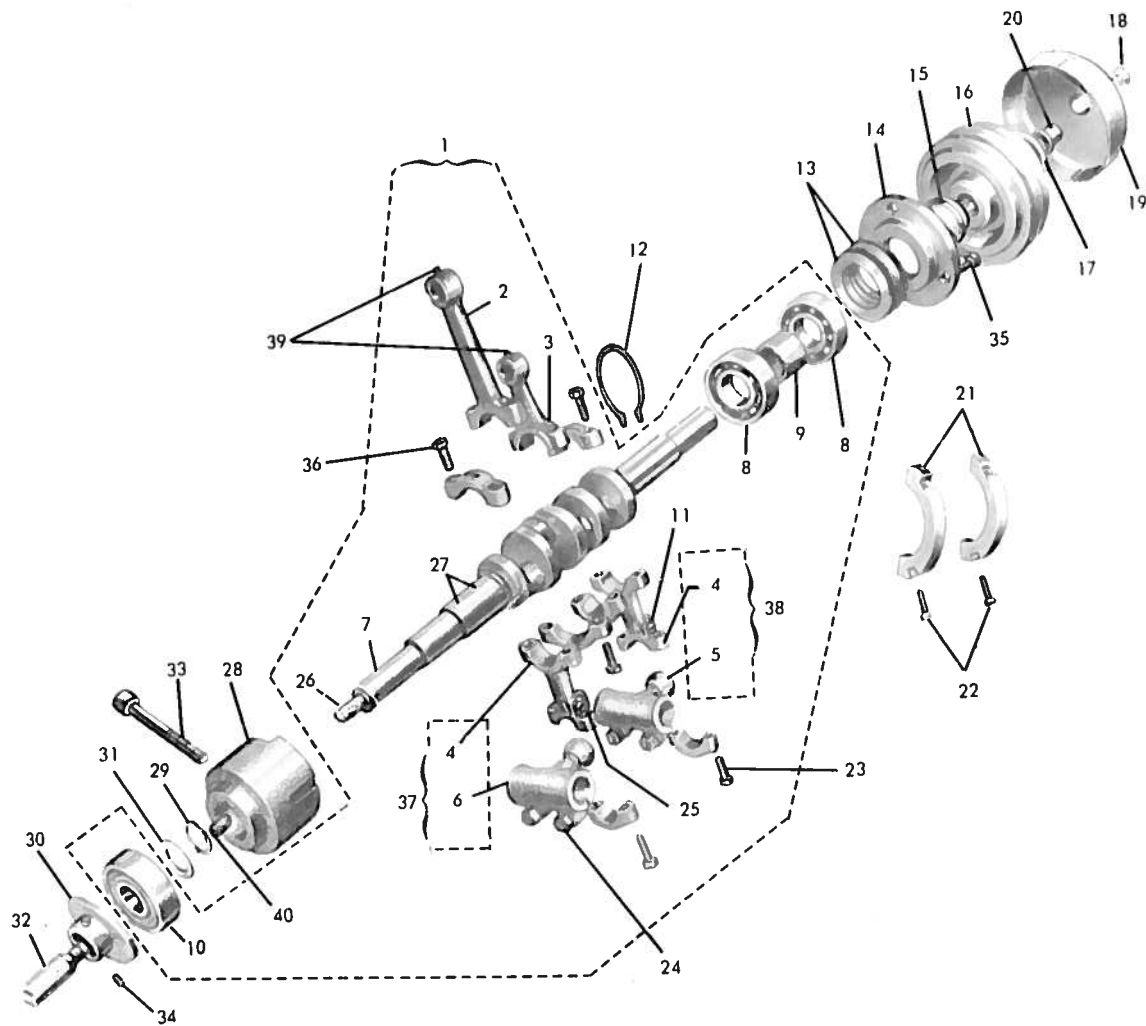


|                |         |                                                         |         |
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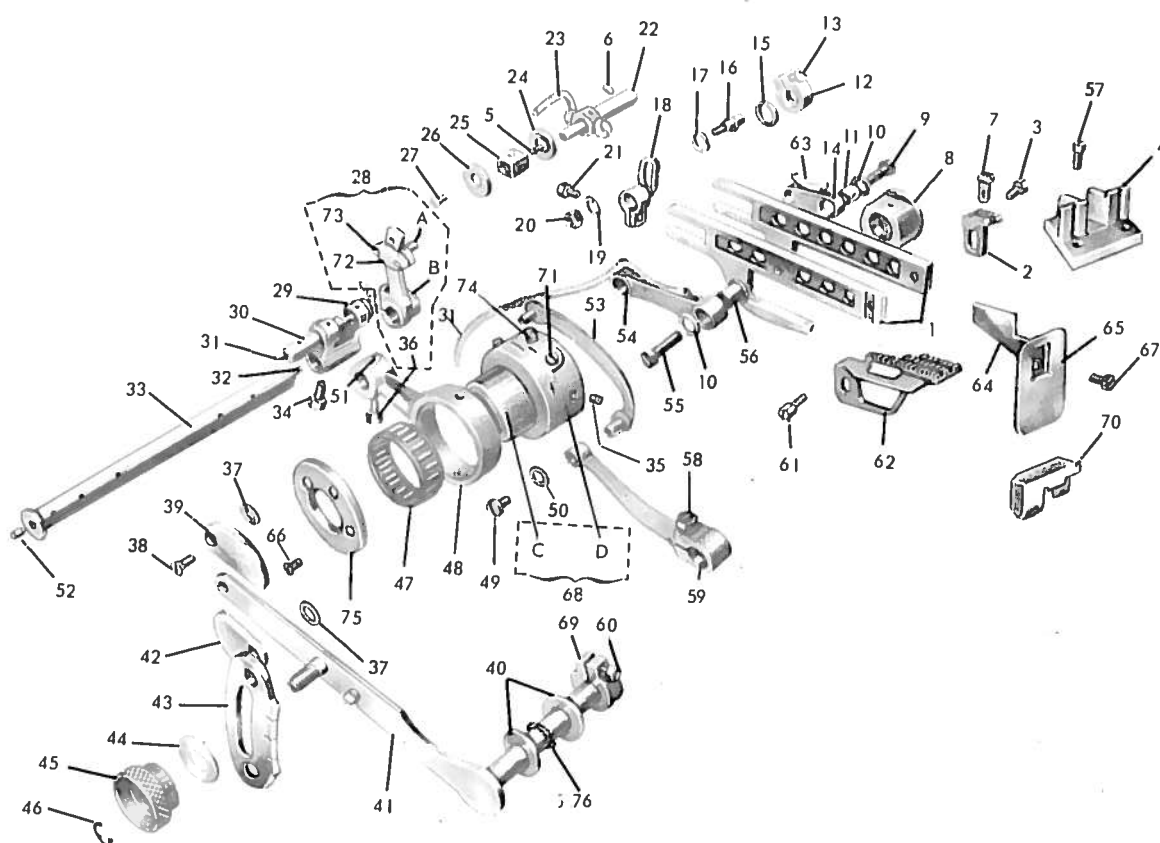


| REF.<br>Nº | PART.<br>Nº | DESCRIPTION                      | QUANT. | REF.<br>Nº | PART.<br>Nº | DESCRIPTION                                          | QUANT. |
|------------|-------------|----------------------------------|--------|------------|-------------|------------------------------------------------------|--------|
| 1          | 270-016     | bushing, needle bar shaft        | 1      | 11         | 270-642     | pins                                                 | 3      |
| 2          | 270-097/1   | bush, upper knife holder         | 1      | 12         | 290-351     | bush, for shaft with fork                            | 1      |
| 3          | 270-058/1   | rear bushes, for looper shafts   | 2      | 13         | 290-916     | plug, for push button needle control hole            | 1      |
| 4          | 270-057/1   | front bushes, for looper shafts  | 2      | 14         | 290-357     | bush, threaded                                       | 1      |
| 5          | 270-268     | guide tubes, for looper threads  | 2      | 15         | 290-354     | bush, rear                                           | 1      |
| 6          | 290-002/1   | base, machine                    | 1      | 16         | PM. 290-315 | bracket, with front bush                             | 1      |
| 7          | 270-082/1   | bush, for presserfoot lifter arm | 1      | 17         | 001-E-18    | screw, bracket fixing                                | 2      |
| 8          | 270-912     | pin, work plate locating         | 1      | 18         | 290-396     | tube, oil wick                                       | 1      |
| 9          | 270-044/2   | bush, differential shaft         | 1      | 19         | 270-264     | guide, needle thread                                 | 1      |
| 10         | 270-042/3   | right bush, for differential     | 1      | 20         | G.290-002/1 | base, complete with bushes, thread guides and tubes. | 1      |

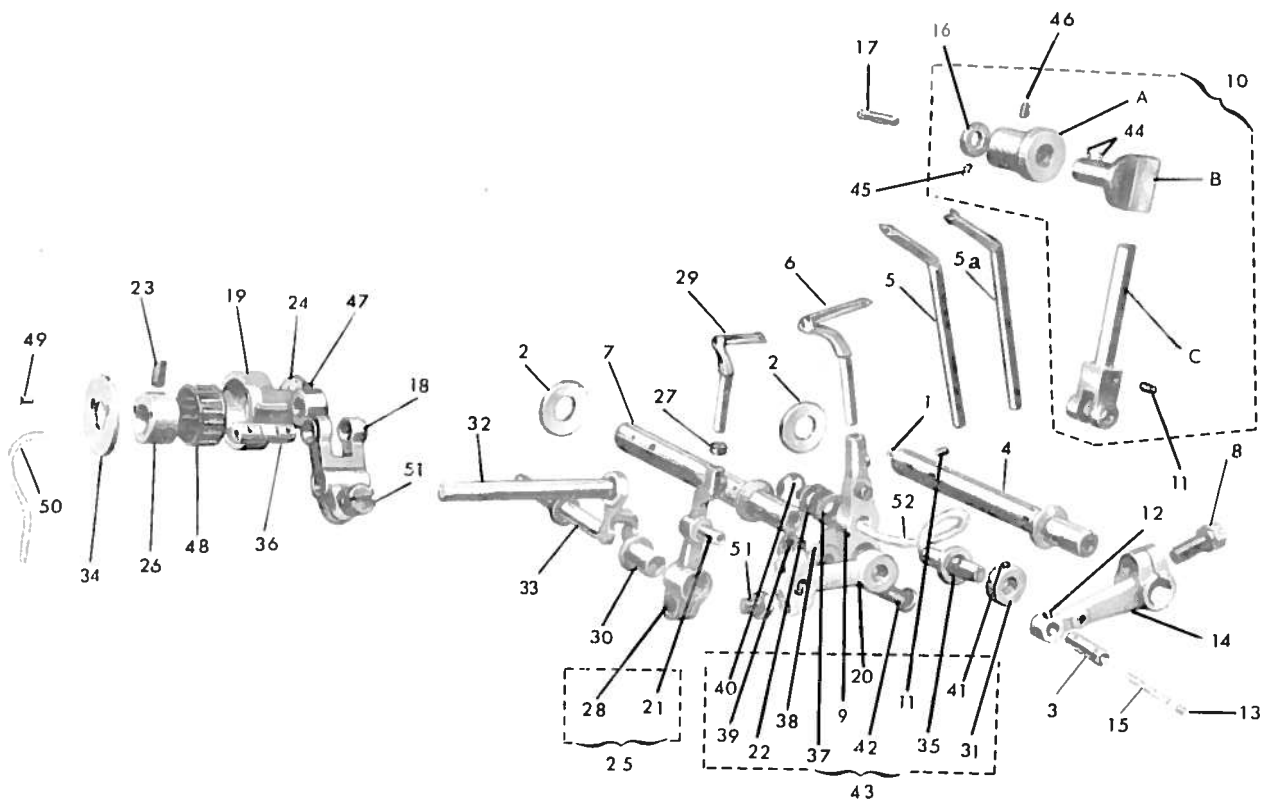


| REF. N° | PART. N°   | DESCRIPTION                           | QUANT. | REF. N° | PART. N°     | DESCRIPTION                    | QUANT. |
|---------|------------|---------------------------------------|--------|---------|--------------|--------------------------------|--------|
| 1       | PM.287-009 | shaft, main, complete with con rods   | 1      | 21      | 270-617/2    | balancers                      | 2      |
| 2       | 280-012/3  | con rod, needle bar                   | 1      | 22      | 270-999      | screws, balancer attaching     | 4      |
| 3       | 270-116/2  | con rod, knife bar                    | 1      | 23      | 010-H-13,7   | bolts, con rod                 | 4      |
| 4       | 270-061/2  | con rod, upper looper                 | 2      | 24      | 270-975      | bolts, sleeve coupling         | 4      |
| 5       | 270-060/1  | sleeve coupling, upper looper con rod | 2      | 25      | 004-E-7      | screw, con rod guide fixing    | 2      |
| 6       | 270-059/1  | sleeve coupling, lower looper con rod | 1      | 26      | 092-D-14     | wick, shaft                    | 1      |
| 7       | 270-009/4  | shaft, main                           | 1      | 27      | 092-C-2      | wick                           | 2      |
| 8       | 270-707    | ball race, right                      | 2      | 28      | 270-010/2    | bush, intermediate             | 1      |
| 9       | 270-613    | spacer, bearing                       | 1      | 29      | 074-A-12     | washer, for differential       | 1      |
| 10      | 270-709    | ball race, left                       | 1      | 30      | 290-3081     | cam, thread take-up            | 1      |
| 11      | 270-062    | guide, con rod                        | 2      | 31      | 073-M-10     | washer, main shaft             | 1      |
| 12      | 270-704    | Seeger ring for right bearing         | 1      | 32      | 290-307      | shaft, cam                     | 1      |
| 13      | 270-705    | spring, cup                           | 4      | 33      | 290-938      | bolt, intermediate bush fixing | 1      |
| 14      | 270-620    | flange, right side                    | 1      | 34      | 017-C-3      | screw, cam fixing              | 2      |
| 15      | 270-614    | right spacer, for main shaft          | 1      | 35      | 001-E-10     | screw, right side flange       | 3      |
| 16      | 270-008/1  | pulley                                | 1      | 36      | 010-D-11,5   | bolt, looper con rod           | 8      |
| 17      | 270-612/1  | washer, with guide                    | 1      | 37      | PM.270-059/1 | sleeve coupling, complete      | 1      |
| 18      | 270-981    | screw, pulley fixing                  | 1      | 38      | PM.270-060/1 | sleeve coupling, complete      | 1      |
| 19      | 128-608/5  | cover, pulley                         | 1      | 39      | 017-C-4,5    | screws, gudgeon pin locking    | 2      |
| 20      | 270-610    | shaft, pulley                         | 1      | 40      | 290-726      | plug, rubber                   | 1      |

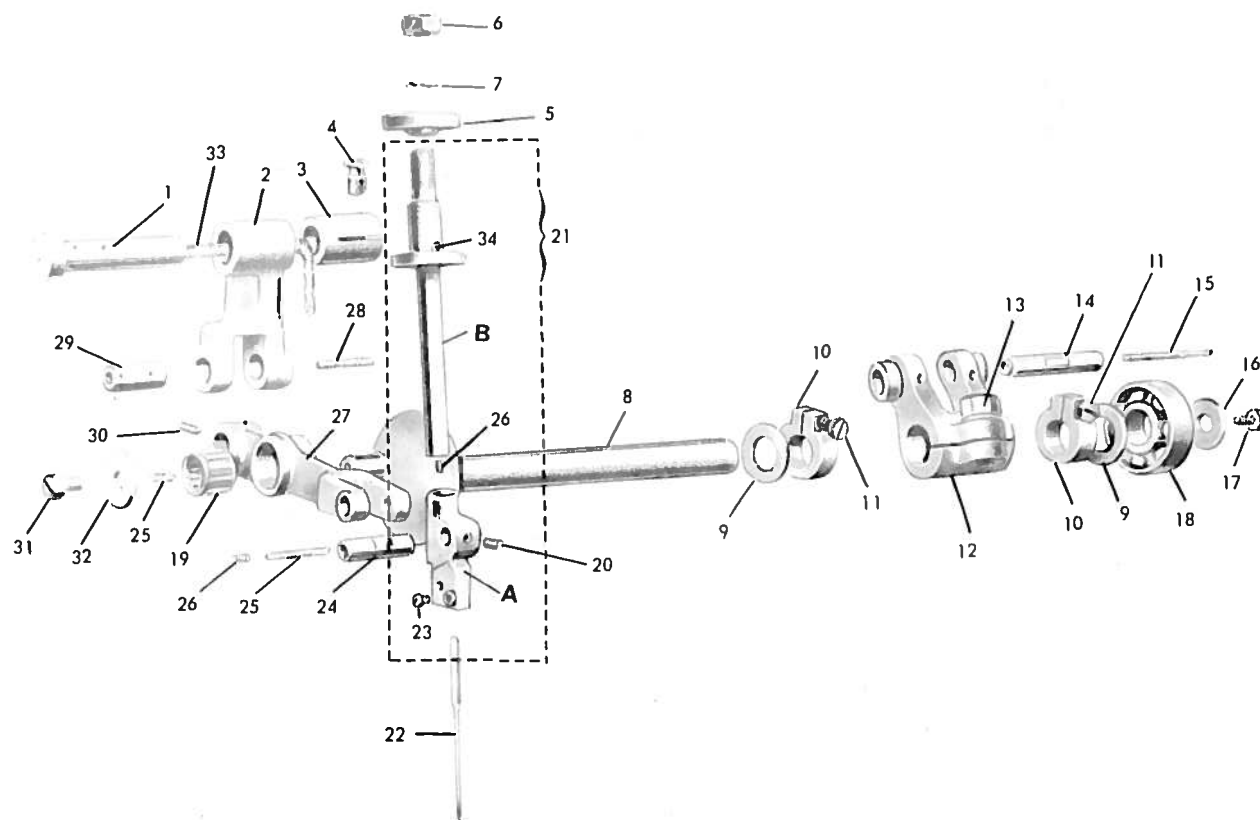
N.B. Ball races ref. 8 can be supplied as separate spares but when ordering it is essential to give the selection number stamped in roman numerals on the outer ring of the ball race.



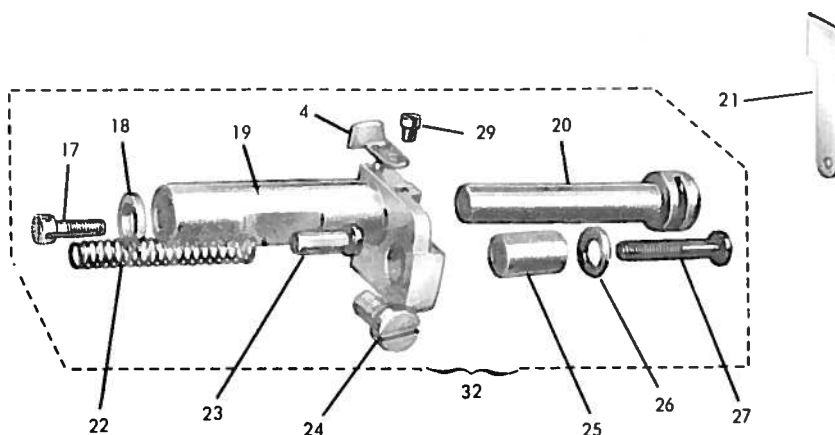
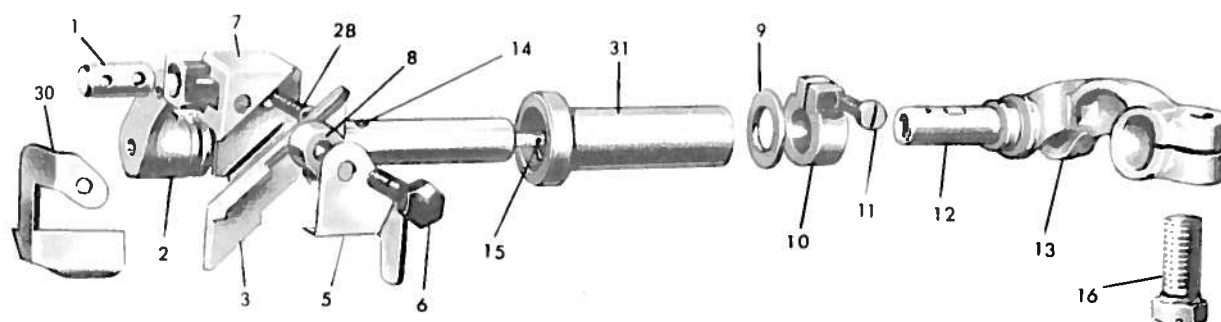
| REF. N° | PART. N°     | DESCRIPTION                                  | QUANT. | REF. N° | PART. N°     | DESCRIPTION                                   | QUANT. |
|---------|--------------|----------------------------------------------|--------|---------|--------------|-----------------------------------------------|--------|
| 1       | PM.270-049/1 | slides, differential                         | 1      | 40      | 073-A-8      | washer, differential shaft                    | 2      |
| 2       | 297-051      | feed dog, subsidiary                         | 1      | 41      | PM.270-562/2 | shaft, diff. control complete                 | 1      |
| 3       | 270-977      | screw, subsidiary feed dog fixing            | 1      | 42      | 270-288/1    | segment lower diff. stroke limiting           | 1      |
| 4       | 270-640/3    | guide bracket, right diff.                   | 1      | 43      | 270-567      | segment, with adjustment index                | 1      |
| 5       | 092-B-1      | wick                                         | 1      | 44      | 065-D-6      | washer, for knob                              | 1      |
| 6       | 270-937/1    | screw, diff. shaft fixing                    | 4      | 45      | 270-568      | knob, knurled for locking diff. control lever | 1      |
| 7       | 272-B-052    | feed dog, chaining                           | 1      | 46      | 270-702      | spring ring                                   | 1      |
| 8       | 270-611/1    | sliding block, for diff. slides              | 1      | 47      | 290-703      | cage, roller bearing for stitch regulating    | 1      |
| 9       | 270-979      | screw diff. joint fixing                     | 1      |         |              | con rod                                       | 1      |
| 10      | 070-M-4,5    | washer, diff. joint                          | 2      | 48      | 290-037      | con rod, differential control                 | 1      |
| 11      | 270-035      | bush, diff. slide                            | 1      | 49      | 270-984      | screw, diff. lever                            | 1      |
| 12      | 270-717      | collar                                       | 1      | 50      | 070-B-3      | washer, diff. lever                           | 1      |
| 13      | 270-927      | screw, collar locking                        | 1      | 51      | 023-N-5,5    | screw, gudgeon pin fixing                     | 1      |
| 14      | 270-048      | joint subsidiary feed dog slide              | 1      | 52      | 270-915      | plug differential shaft                       | 1      |
| 15      | 073-C-8      | rear differential pin washer                 | 1      | 53      | PM.270-045/2 | attachment, differential segment              | 1      |
| 16      | 270-0541     | pin, differential ratio increaser            | 1      | 54      | 270-033/1    | joint, differential slide                     | 1      |
| 17      | 071-M-5,5    | washer, differential ratio increase          | 1      | 55      | 270-980      | screw, diff. joint fixing                     | 1      |
| 18      | 270-047/2    | segment, differential ratio increaser        | 1      | 56      | 270-034      | bush, diff. slide                             | 1      |
| 19      | 070-F-4      | washer, diff. ratio pin                      | 1      | 57      | 005-L-11     | screw for bracket                             | 2      |
| 20      | 057-G-4      | nut for pin 270-0541                         | 1      | 58      | 270-997      | screw diff. control lever                     | 1      |
| 21      | 270-975      | screw segment                                | 1      | 59      | 270-566/1    | lever, diff. segment control                  | 1      |
| 22      | 270-039      | shaft, eccentric diff.                       | 1      | 60      | 007-C-11     | screw, collar                                 | 1      |
| 23      | 092-D-11     | wick, eccentric shaft                        | 1      | 61      | 270-978      | screw, main feed dog fixing                   | 1      |
| 24      | 071-H-5      | washer, diff. shaft                          | 1      | 62      | 297-050/1    | feed dog main                                 | 1      |
| 25      | 270-036/1    | block, diff. sliding                         | 1      | 63      | 092-D-4      | wick for diff. joint                          | 1      |
| 26      | 270-935      | washer shouldering                           | 1      | 64      | 270-249/1    | cover protecting upper knife holder           | 1      |
| 27      | 026-C-7      | screw shouldering washer                     | 1      | 65      | 270-250/2    | protectors rubber for feed dogs               | 1      |
| 28      | PM.270-038/3 | segment cursor                               | 1      | 66      | 028-A-5      | screw fixing washer                           | 3      |
| 29      | 270-040      | connector for adjustable eccentric con rod   | 1      | 67      | 004-L-7      | screw protector fixing                        | 3      |
| 30      | 270-031/1    | gudgeon pin for attaching fork               | 1      | 68      | PM.290-732   | body and slide adjustable eccentric           | 1      |
| 31      | 092-D-6      | wick gudgeon pin                             | 3      | 69      | 4030-06      | collar cursor shaft                           | 1      |
| 32      | 092-D-12     | wick diff. rear shaft                        | 1      | 70      | 270-253      | gasket slide guide                            | 1      |
| 33      | 270-041/1    | shaft differential rear                      | 1      | 71      | 290-734      | screw adjusting                               | 1      |
| 34      | 250-471      | screw connector                              | 1      | 72      | 270-032/3    | plate diff. cursor                            | 1      |
| 35      | 017-E-8      | screw adjustable eccentric fixing            | 2      | 73      | 004-P-6      | screw cursor plate fixing                     | 2      |
| 36      | 039-H-9      | screw for diff. control segment              | 1      | 74      | 003-B-6      | screw for eccentric slide                     | 1      |
| 37      | 064-F-5      | washers differential stroke limiting segment | 2      | 75      | 290-715      | washer adjustable eccentric slide             | 1      |
| 38      | 270-992      | screws differential segment                  | 2      | 76      | 270-595      | gasket                                        | 1      |
| 39      | 270-287/1    | segment upper diff. stroke limiting          | 1      | A       | 270-046/3    | cursor differential                           | 3      |
|         |              |                                              |        | B       | 270-038/3    | segment differential                          | 1      |
|         |              |                                              |        | C       | 290-733      | slide adjustable eccentric                    | 1      |
|         |              |                                              |        | D       | 290-732      | body adjustable eccentric                     | 1      |



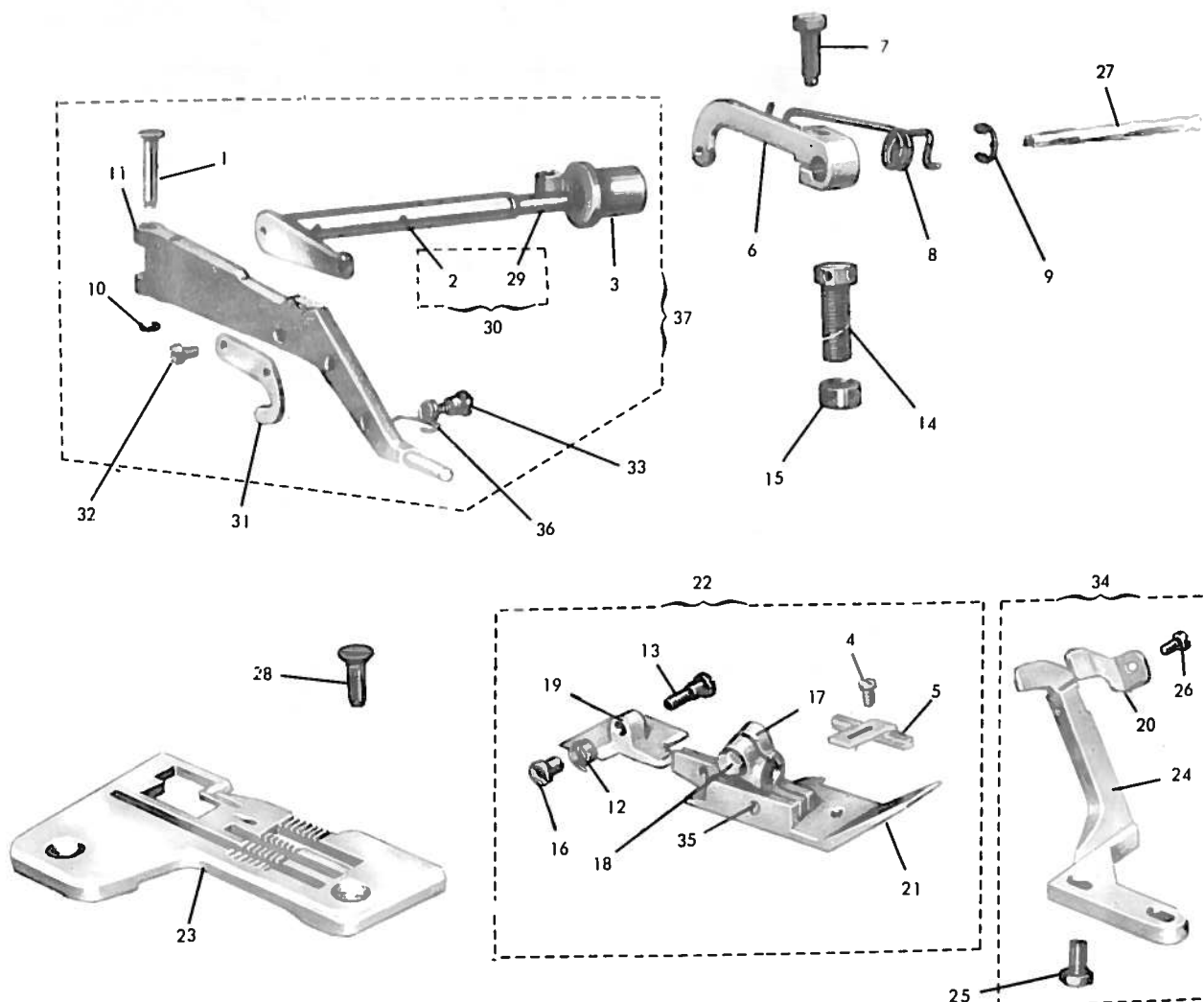
| REF. N° | PART. N°    | DESCRIPTION                                | QUANT. | REF. N° | PART. N°  | DESCRIPTION                            | QUANT. |
|---------|-------------|--------------------------------------------|--------|---------|-----------|----------------------------------------|--------|
| 1       | 092-D-16    | wicks looper shaft                         | 1      | 29      | 290-075/1 | looper safety stitch                   | 1      |
| 2       | 073-N-10    | washers for looper control shaft           | 2      | 30      | 290-352   | bush slit                              | 1      |
| 3       | 270-070     | gudgeon pin for upper looper control lever | 1      | 31      | 290-356   | ring register                          | 1      |
| 4       | 270-064     | shaft upper looper control                 | 1      | 32      | 290-360   | spindle with fork                      | 1      |
| 5       | 27.277-0745 | upper looper with small eye                | 1      | 33      | G.290-361 | shaft with crown                       | 1      |
| 5a      | 270-D-074/1 | upper looper, blind                        | 1      | 34      | 290-716   | washer                                 | 1      |
| 6       | 270-0751    | lower looper                               | 1      | 35      | 297-362   | gudgeon pin eccentric                  | 1      |
| 7       | 270-069     | lower looper control shaft                 | 2      | 36      | 290-022   | gudgeon pin for fork coupling          | 1      |
| 8       | 250-471     | bolt looper lever                          | 1      | 37      | 072-H-6   | washer for eccentric gudgeon pin       | 2      |
| 9       | 290-068     | holder lower looper                        | 1      | 38      | 072-C-6   | washer for screw locking looper holder | 1      |
| 10      | G.270-065/3 | guide oscillating with adjustable bush     | 1      | 39      | 059-G-6   | nut for lower looper holder            | 1      |
| 11      | 270-974/1   | screw looper fixing                        | 2      | 40      | 290-700   | ring spring                            | 1      |
| 12      | 016-B-4     | screw gudgeon pin locking                  | 1      | 41      | 290-944   | grub screw                             | 1      |
| 13      | 016-B-2,5   | screw gudgeon pin grub                     | 1      | 42      | 290-124   | screw looper holder locking            | 1      |
| 14      | 270-067     | lever upper looper control                 | 1      | 43      | G.297-068 | assembly lower looper holder           | 1      |
| 15      | 092-B-1     | wick gudgeon pin                           | 2      | 44      | 092-C-2   | wick                                   | 2      |
| 16      | 270-053     | washer shimming                            | 1      | 45      | 016-B-3   | grub screw                             | 2      |
| 17      | 092-D-7     | wick                                       | 1      | 46      | 017-F-11  | screw bush fixing                      | 1      |
| 18      | 290-298     | attachment for con rod                     | 1      | 47      | 017-C-4,5 | screw gudgeon pin locking              | 1      |
| 19      | 290-312/1   | con rod safety looper control              | 1      | 48      | 290-703   | cage roller bearing                    | 1      |
| 20      | PM.290-313  | con rod                                    | 1      | 49      | 028-A-5   | screw washer fixing                    | 2      |
| 21      | 290-363     | gudgeon pin bored                          | 1      | 50      | 092-D-16  | wick                                   | 1      |
| 22      | 290-412     | spring cup                                 | 1      | 51      | 270-975/1 | bolt sleeve                            | 1      |
| 23      | 290-923     | screw eccentric fixing                     | 1      | 52      | 092-D-11  | wick                                   | 1      |
| 24      | 290-954     | washer floating                            | 1      | A       | 270-056/2 | bush adjustable                        | 1      |
| 25      | PM.290-071  | holder safety looper                       | 1      | B       | 270-065/3 | guide oscillating                      | 1      |
| 26      | 297-055     | eccentric looper feed                      | 1      | C       | 270-063/1 | lever upper looper holder              | 1      |
| 27      | 297-281     | bush safety looper spacer                  | 1      |         |           |                                        |        |
| 28      | 290-071     | holder safety looper                       | 1      |         |           |                                        |        |



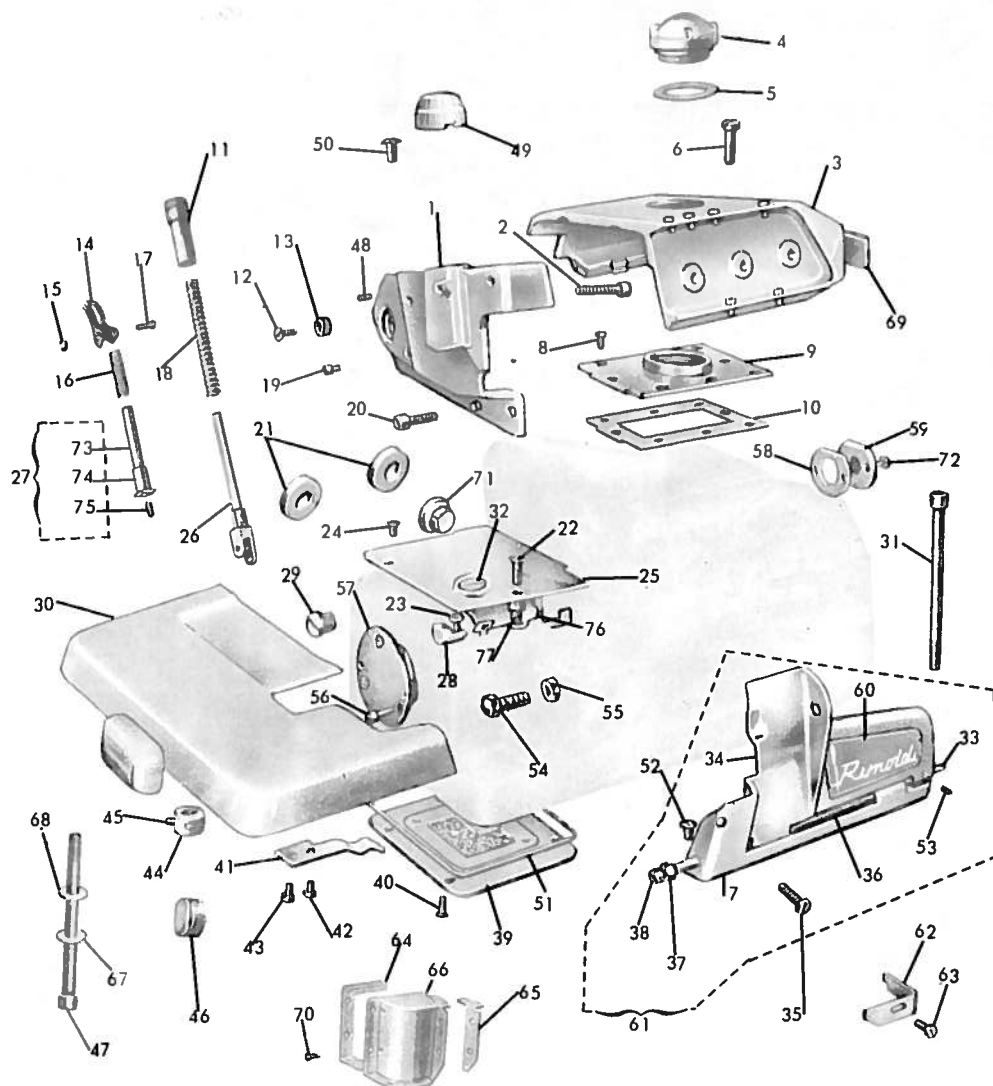
| REF. N° | PART. N°     | DESCRIPTION                           | QUANT. | REF. N° | PART. N°    | DESCRIPTION                                | QUANT. |
|---------|--------------|---------------------------------------|--------|---------|-------------|--------------------------------------------|--------|
| 1       | PM.270-138/1 | shaft for fork lever                  | 1      | 19      | 250-708     | cage roller bearing for needle drive lever | 1      |
| 2       | PM.270-137/1 | lever fork                            | 1      | 20      | 016-B-2,5   | cage roller bearing, only on request       | 1      |
| 3       | 270-132/1    | bush for fork lever                   | 1      | 21      | G.297-025/1 | screw gudgeon pin fixing                   | 1      |
| 4       | 270-728/1    | screw bush fixing                     | 1      | 22      | RIM. 27     | assembly needle bar                        | 1      |
| 5       | 290-027/1    | ring for needle guide bar             | 1      | 23      | 290-944     | needle                                     | 2      |
| 6       | 270-933      | nut for needle holder guide bar       | 1      | 24      | 270-130     | screw needle retaining                     | 2      |
| 7       | 270-713      | washer spring for needle holder shaft | 1      | 25      | 092-B-1     | gudgeon pin clamp                          | 1      |
| 8       | 270-006/1    | shaft operating slide lever           | 1      | 26      | 016-A-2,5   | wick gudgeon pin                           | 2      |
| 9       | 073-F-9      | washer upper shaft                    | 2      | 27      | 270-135     | screw for clamp gudgeon pin                | 2      |
| 10      | 270-719      | collar upper shaft                    | 2      | 28      | 092-D-5     | lever controlling needle holder slide      | 1      |
| 11      | 007-C-11     | screw collar                          | 2      | 29      | 270-133/1   | wick gudgeon pin                           | 1      |
| 12      | 270-007/1    | attachment shaft                      | 1      | 30      | 023-N-5,5   | gudgeon pin fork lever                     | 1      |
| 13      | 270-975/1    | screw for attachment                  | 1      | 31      | 001-E-7     | grub screw fixing needle bar drive lever   | 1      |
| 14      | 270-031/1    | gudgeon pin for attachment            | 1      | 32      | 270-131     | bolt upper shaft end                       | 1      |
| 15      | 092-D-6      | wick gudgeon pin                      | 1      | 33      | 092-D-11    | shim washer for roller bearing cage        | 1      |
| 16      | 071-E-5      | washer upper shaft                    | 1      | 34      | 092-A-10    | wick shaft                                 | 1      |
| 17      | 001-G-10     | screw for washer                      | 1      | A       | 290-020     | clamp needle holder                        | 1      |
| 18      | 270-708      | bearing upper shaft                   | 1      | B       | 290-025/1   | needle bar                                 | 1      |



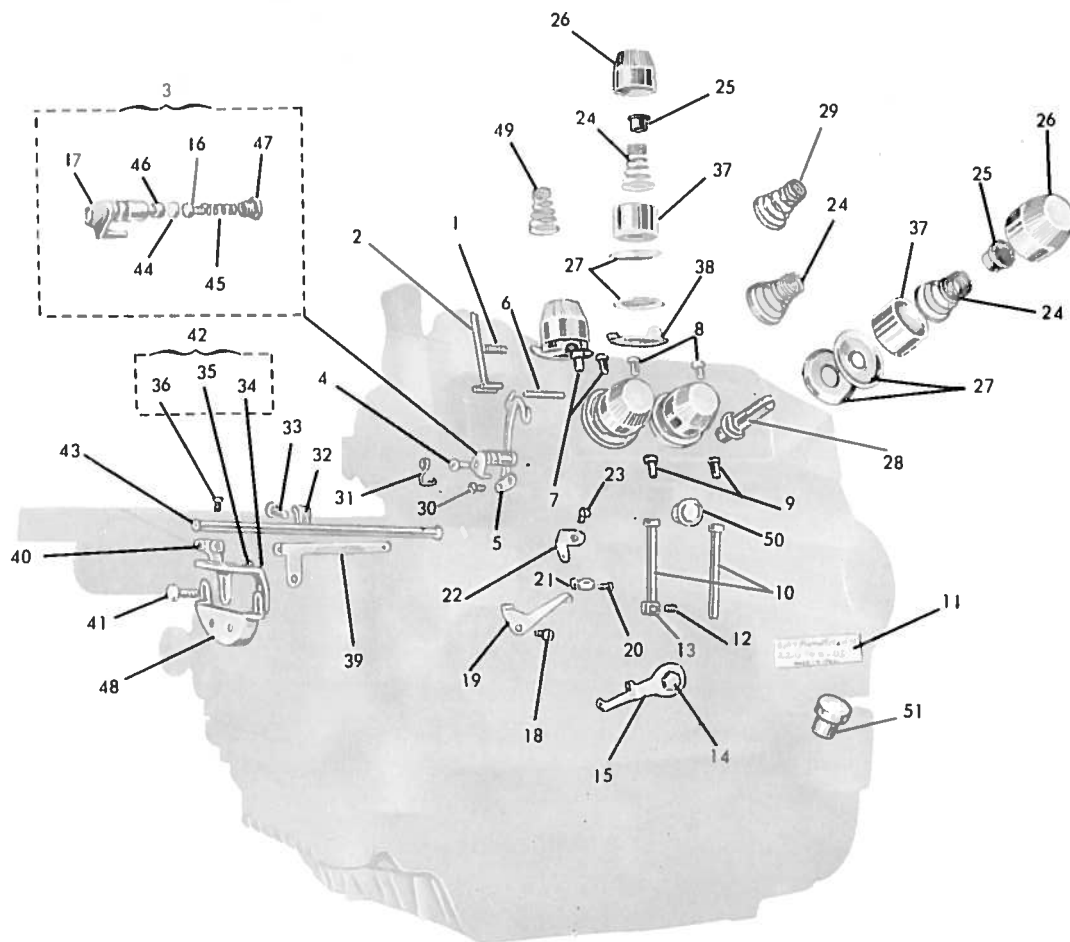
| REF. N° | PART. N°   | DESCRIPTION                        | QUANT. | REF. N° | PART. N°     | DESCRIPTION                    | QUANT. |
|---------|------------|------------------------------------|--------|---------|--------------|--------------------------------|--------|
| 1       | 270-102    | pin for upper knife holder         | 1      | 18      | 071-D-5      | washer lower knife shaft       | 1      |
| 2       | 270-096/1  | holder upper knife                 | 1      | 19      | PM.290-104/1 | holder lower knife             | 1      |
| 3       | 27.77-1121 | knife upper non-serrated           | 1      | 20      | 290-105      | shaft lower knife holder       | 1      |
| 4       | 290-110    | needle guard, front                | 1      | 21      | 290-113      | knife lower                    | 1      |
| 5       | 290-111    | guard upper knife                  | 1      | 22      | 270-100      | spring lower knife             | 1      |
| 6       | 290-987    | bolt upper knife fixing            | 1      | 23      | 270-106      | pin for lower knife holder     | 1      |
| 7       | 290-099    | block upper knife holding          | 1      | 24      | 003-L-12     | bolt knife holder fixing       | 1      |
| 8       | 270-103    | snug upper knife locking           | 1      | 25      | 270-101      | bush lower knife support guide | 1      |
| 9       | 073-F-9    | washer for upper knife holder      | 1      | 26      | 070-F-4      | washer lower knife bush        | 1      |
| 10      | 270-719    | lock ring for upper knife holder   | 1      | 27      | 270-877      | bolt for lower knife           | 1      |
| 11      | 007-C-11   | screw lock ring                    | 1      | 28      | 028-B-13     | bolt for upper knife holder    | 1      |
| 12      | 270-108/1  | gudgeon pin for coupling fork      | 1      | 29      | 004-F-4      | screw guard fixing             | 1      |
| 13      | 270-098    | coupling fork                      | 1      | 30      | 290-115      | cover upper knife              | 1      |
| 14      | 092-C-2    | wick gudgeon pin                   | 2      |         |              |                                |        |
| 15      | 092-D-9    | wick knife holder                  | 1      | 31      | 270-097/1    | bush                           | 1      |
| 16      | 250-471    | bolt for upper knife driving lever | 1      | 32      | G.297-104/1  | assembly lower knife holder    | 1      |
| 17      | 007-P-10   | screw lower knife fixing           | 1      |         |              |                                |        |
|         |            |                                    |        |         |              | On request:                    |        |
|         |            |                                    |        |         |              | AS. 297-403      Tab. 32       |        |



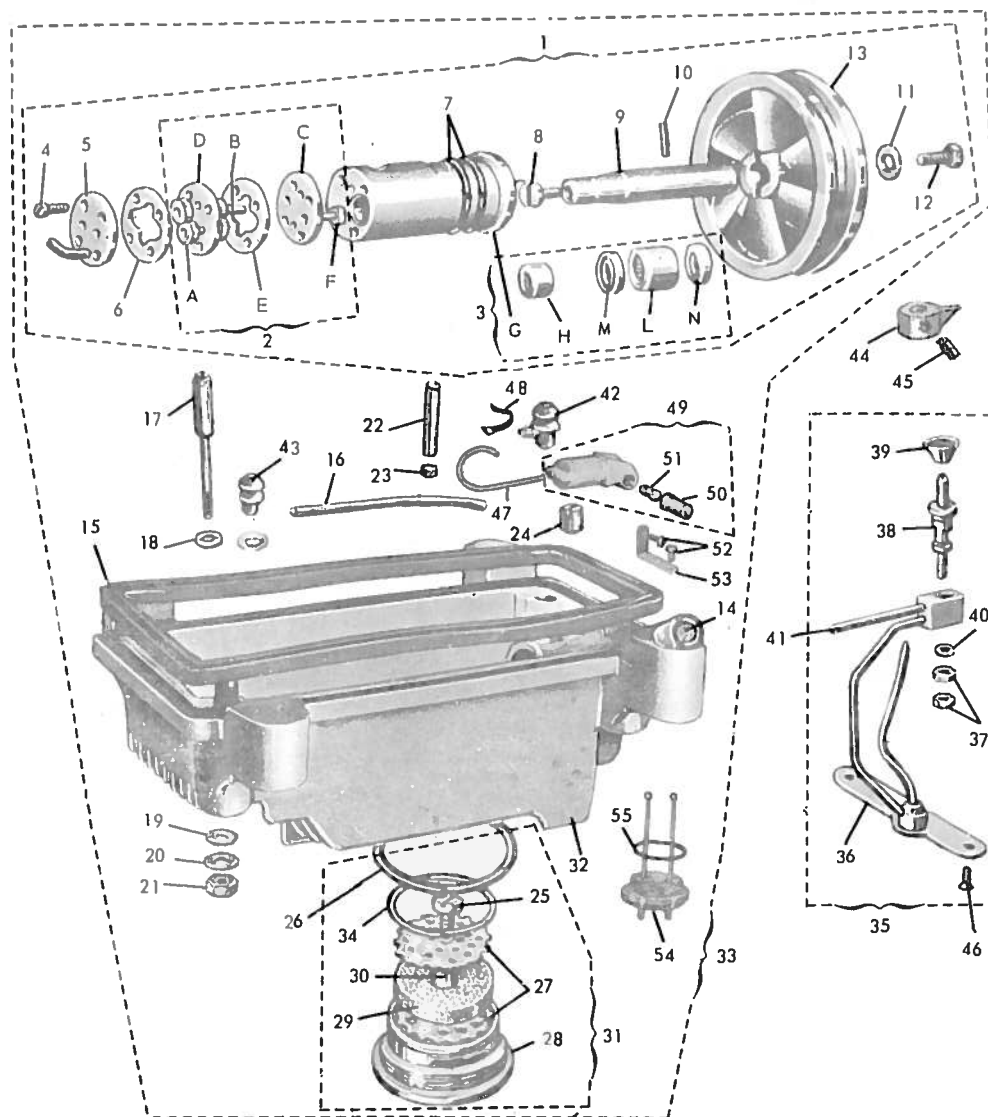
| REF. N° | PART. N°  | DESCRIPTION                                    | QUANT. | REF. N° | PART. N°      | DESCRIPTION                            | QUANT. |
|---------|-----------|------------------------------------------------|--------|---------|---------------|----------------------------------------|--------|
| 1       | 270-077   | pin for presserfoot holder lever               | 1      | 20      | 297-109/1     | needle guard, rear                     | 1      |
| 2       | 270-081/1 | spindle for presserfoot lifter lever           | 1      | 21      | 297-1841/1    | shoe presserfoot                       | 1      |
| 3       | 270-083   | bush for presserfoot lifter lever              | 1      | 22      | G.297-1811/1  | presserfoot complete                   | 1      |
| 4       | 001-A-3,2 | screw                                          | 1      | 23      | 297-114/1     | needle plate (bight width 9/32")       | 1      |
| 5       | 297-183   | bracket                                        | 1      | 24      | 297-107/1     | needle guard front                     | 1      |
| 6       | 270-087/1 | lever presserfoot lifter                       | 1      | 25      | 039-A-6       | screw front needle guard fixing        | 2      |
| 7       | 270-985   | screw presserfoot lifter lever                 | 1      | 26      | 270-989       | screw rear needle guard fixing         | 1      |
| 8       | 270-089/1 | spring presserfoot lifter lever                | 1      | 27      | 092-D-11      | wick spindle                           | 1      |
| 9       | 270-714   | IDEAL snap ring for presserfoot lifter spindle | 1      | 28      | 032-L-10,5    | screw needle plate fixing              | 2      |
| 10      | 270-701   | washer spring                                  | 1      | 29      | 270-073       | tube protection                        | 1      |
| 11      | 297-076/1 | lever hinged presserfoot lifter                | 1      | 30      | PM.270-081/1  | spindle complete                       | 1      |
| 12      | 297-194   | spring                                         | 1      | 31      | 270-188       | plate chain cutting                    | 1      |
| 13      | 297-187   | screw                                          | 1      | 32      | 001-A-4,3     | screw plate fixing                     | 1      |
| 14      | 270-085/1 | bolt for adjusting presserfoot lifter lever    | 1      | 33      | 27.01-P-403/1 | screw with shoulder for spring fulcrum | 1      |
| 15      | 270-091   | nut for adjusting bolt                         | 1      | 34      | G.297-107/1   | assembly front and rear needle guard   | 1      |
| 16      | 297-195   | bush threaded                                  | 1      | 35      | 297-179       | pin                                    | 1      |
| 17      | 297-182   | clamp                                          | 1      | 36      | 297-190/1     | spring                                 | 1      |
| 18      | 297-906   | screw                                          | 1      | 37      | G.297-076/1   | assembly hinged lever                  | 1      |
| 19      | 297-1921  | plate chaining guide                           | 1      |         |               |                                        |        |



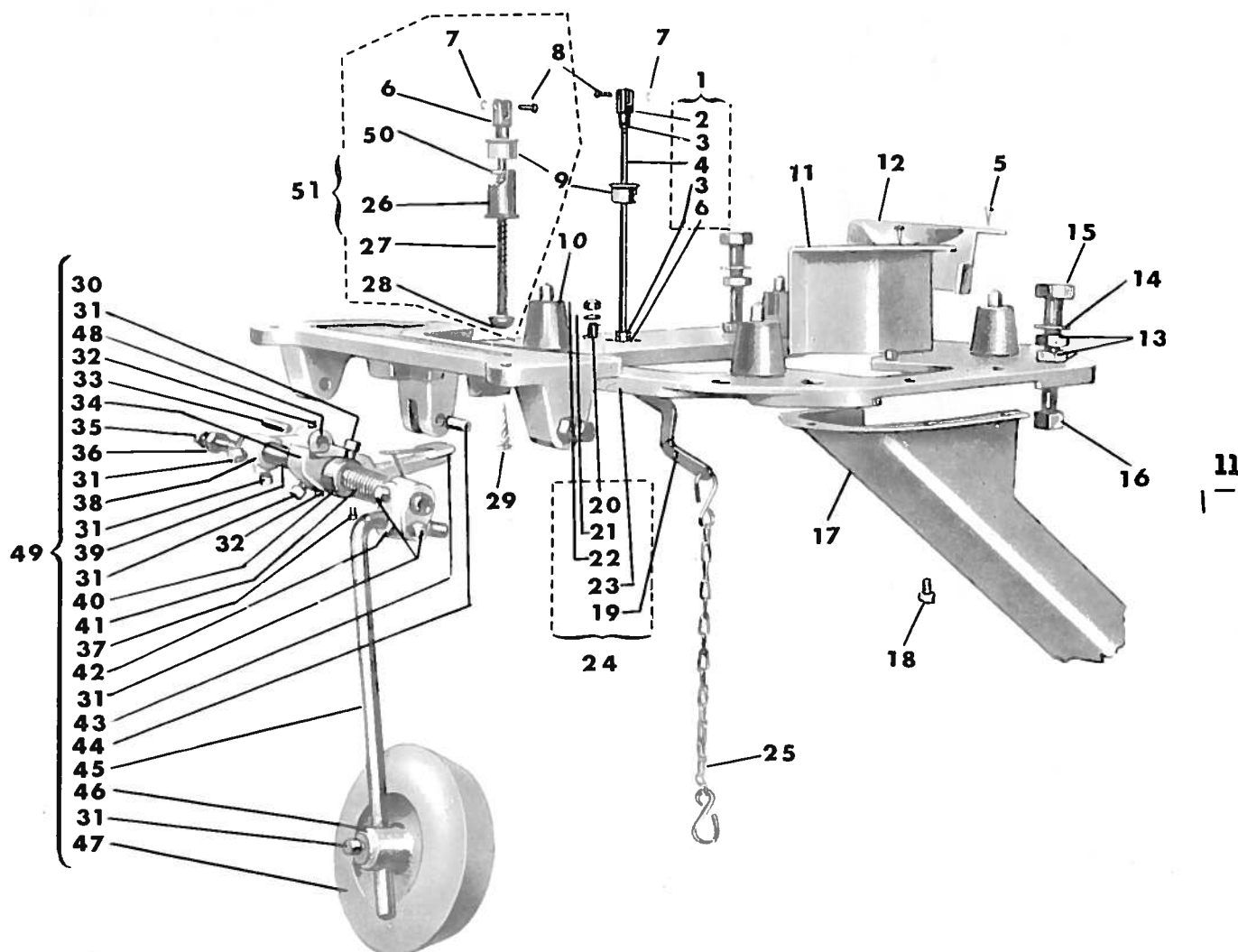
| REF. N° | PART. N°     | DESCRIPTION                            | QUANT. | REF. N° | PART. N°    | DESCRIPTION                            | QUANT. |
|---------|--------------|----------------------------------------|--------|---------|-------------|----------------------------------------|--------|
| 1       | PM.270-208/3 | cover side with bush                   | 1      | 40      | 028-E-10    | screw for lower plate                  | 4      |
| 2       | 007-H-25     | bolt for upper cover                   | 1      | 41      | 270-212     | clip spring for closing work plate     | 1      |
| 3       | PM.290-205/3 | cover with thread guide bushes         | 1      | 42      | 001-D-6     | screw fixing spring clip               | 1      |
| 4       | 270-241/2    | cap oil filler                         | 1      | 43      | 001-D-4,5   | screw fixing spring clip               | 1      |
| 5       | 270-965/2    | gasket for oil filler cap              | 1      | 44      | 270-718     | collar for work plate pin              | 1      |
| 6       | 270-983      | screw cover fixing                     | 1      | 45      | 017-E-4,5   | grub screw collar                      | 2      |
| 7       | PM.290-218/2 | hinge                                  | 1      | 46      | 270-030/2   | plug closing differential spindle seat | 1      |
| 8       | 007-R-7,5    | screw for fixing plate                 | 7      | 47      | 290-973/1   | bolt for fixing machine                | 1      |
| 9       | PM.270-245/3 | plate with bush for filler cap         | 1      | 48      | 270-715     | grub screw fixing knob 270-093         | 1      |
| 10      | 270-246      | gasket plate                           | 1      | 49      | 270-129/1   | cover for needle holder guide bar      | 1      |
| 11      | 270-093/1    | knob spring regulating                 | 1      | 50      | 270-731/1   | plug for closing hole in attachment W  | 2      |
| 12      | 032-F-9,5    | screw for eccentric washer             | 1      | 51      | 270-231     | gasket filter plate                    | 1      |
| 13      | 605-412      | washer eccentric                       | 1      | 52      | 01205 a     | screw front cover plate fixing         | 3      |
| 14      | 270-094      | lever presserfoot release              | 1      | 53      | 270-913     | pin front cover plate                  | 1      |
| 15      | 270-701      | washer spring                          | 1      | 54      | 270-214     | screw side cover locking               | 1      |
| 16      | 270-086      | spring for presserfoot release tie bar | 1      | 55      | 057-E-4     | nut lock screw                         | 1      |
| 17      | 270-078      | pin presserfoot release lever          | 1      | 56      | 005-M-70    | screw left side flange                 | 3      |
| 18      | 27-01-P-092  | spring presserfoot pressure            | 1      | 57      | 290-619     | flange left side                       | 1      |
| 19      | 270-993      | screw stop for presserfoot raiser      | 1      | 58      | 270-624     | gasket for cover disc                  | 1      |
| 20      | 270-995      | screw fixing upper cover               | 2      | 59      | 270-623/1   | disc upper shaft cover                 | 1      |
| 21      | 270-066/2    | caps rear for looper bushes            | 2      | 60      | 270-175     | name plate                             | 1      |
| 22      | 026-C-7      | screw fixing oil protection cover      | 1      | 61      | G.290-216/2 | cover plate front complete             | 1      |
| 23      | 026-E-10     | screw fixing base block                | 1      | 62      | 297-220     | bracket feed dog guard                 | 1      |
| 24      | 026-C-7      | screw fixing oil protection cover      | 1      | 63      | 001-D-7     | screw for fixing bracket               | 1      |
| 25      | 297-247      | cover oil protection                   | 1      | 64      | 290-203     | gasket cover                           | 1      |
| 26      | PM.270-095/3 | shaft presserfoot alignment            | 1      | 65      | 290-204     | gasket front for cover                 | 1      |
| 27      | G.270-090/1  | shaft presserfoot release complete     | 1      | 66      | 290-209     | cover front                            | 1      |
| 28      | 270-248/1    | block                                  | 1      | 67      | 290-947     | gasket for machine fixing bolt         | 1      |
| 29      | 270-940      | plug for eccentric differential shaft  | 1      | 68      | 290-950     | washer for machine fixing bolt         | 1      |
| 30      | PM.297-210   | work plate complete                    | 1      | 69      | 270-174     | name plate for tension holder cover    | 1      |
| 31      | 270-972      | bolt long fixing machine               | 1      | 70      | 004-L-8     | screw cover fixing                     | 5      |
| 32      | 290-279      | screw for oil protection cover         | 1      | 71      | 270-030     | screw for differential segment hole    | 1      |
| 33      | 290-220      | pin for front cover plate              | 1      | 72      | 001-D-10    | screw for cover disc                   | 2      |
| 34      | PM.290-217/2 | cover plate with fin                   | 1      | 73      | 270-110     | tie bar                                | 1      |
| 35      | 270-970      | screw cover plate                      | 1      | 74      | 270-090/1   | block                                  | 1      |
| 36      | 270-221      | spring front cover plate               | 1      | 75      | 290-923     | grub screw                             | 1      |
| 37      | 054-D-4      | nut for lock screw                     | 1      | 76      | PM.270-301  | cover oil protection                   | 1      |
| 38      | 270-226      | lock screw front cover plate           | 1      | 77      | 270-303     | nipple                                 | 1      |
| 39      | G.297-242    | plate filter complete                  | 1      |         |             |                                        |        |



| REF. N° | PART. N°       | DESCRIPTION                                | QUANT. | REF. N° | PART. N°       | DESCRIPTION                          | QUANT. |
|---------|----------------|--------------------------------------------|--------|---------|----------------|--------------------------------------|--------|
| 1       | 270-941        | screw fixing needle thread, thread guide   | 1      | 27      | 603-031        | discs tension                        | 10     |
| 2       | PM.27-27-263/1 | thread guide for needle thread             | 1      | 28      | 270-230        | pin threaded for tensioning          | 5      |
| 3       | G.290-262/1    | thread take-up complete for needle thread  | 1      | 29      | 270-232/2      | spring needle                        | 1      |
| 4       | 004-C-5,5      | screw fixing needle thread, thread take-up | 1      | 30      | 004-N-5,5      | screw fixing needle thread tensioner | 1      |
| 5       | 270-274/3      | thread take-up for needle thread           | 1      | 31      | 290-980        | thread guide                         | 1      |
| 6       | 270-264        | thread guide needle                        | 1      | 32      | 290-306        | bracket on thread guide tube         | 1      |
| 7       | 270-265        | bush upper thread guide                    | 1      | 33      | 004-G-7        | screw for bracket                    | 1      |
| 8       | 270-265/1      | bush upper thread guide                    | 2      | 34      | PM.290-309/1   | bracket cam                          | 1      |
| 9       | 270-266        | bush lower thread guide                    | 2      | 35      | 290-310        | spring thread take-up                | 1      |
| 10      | 270-268        | tube lower thread guide                    | 2      | 36      | 004-A-2,5      | screw for fixing spring              | 1      |
| 11      | 781305-0-00    | plate machine class                        | 1      | 37      | 270-234/1      | retainer spring                      | 5      |
| 12      | 016-B-2,5      | screw thread guide fixing                  | 1      | 38      | 27-27-253      | thread guide                         | 2      |
| 13      | 270-271        | thread guide for lower looper thread       | 1      | 39      | 290-255        | thread guide safety looper           | 1      |
| 14      | 036-C-7        | screw for looper thread take-up            | 2      | 40      | 290-256        | thread guide safety looper           | 1      |
| 15      | 272-B-272      | take-up for lower looper thread            | 1      | 41      | 001-E-6        | screw for fixing plate               | 1      |
| 16      | 270-259        | pin                                        | 1      | 42      | G.290-309/1    | plate thread guide complete          | 1      |
| 17      | 27-27-262/2    | body thread take-up                        | 1      | 43      | 290-177        | tube thread guide                    | 1      |
| 18      | 001-C-5,5      | screw fixing upper looper thread tensioner | 1      | 44      | 27-27-256/1    | pad thread take-up                   | 1      |
| 19      | 297-270        | tensioner upper looper thread              | 1      | 45      | 270-258        | spring thread take-up                | 1      |
| 20      | 270-942        | screw fixing thread guide                  | 1      | 46      | 270-255        | pin thread take-up                   | 1      |
| 21      | 290-273        | guard looper stop                          | 1      | 47      | 270-261/1      | cap thread take-up                   | 1      |
| 22      | 270-275/1      | thread guide upper looper                  | 1      | 48      | 297-214        | cover for thread tensioning cam      | 1      |
| 23      | 032-A-6        | screw fixing thread guide                  | 1      | 49      | 27-221-C-232/1 | spring                               | 1      |
| 24      | 270-232/1      | spring lower looper                        | 3      | 50      | 270-730/2      | plug guide hole                      | 1      |
| 25      | 270-233        | bush upper for tensioner                   | 5      | 51      | 633-959        | spy glass oil                        | 1      |
| 26      | 270-235/1      | knob threaded for tensioning               | 5      |         |                |                                      |        |

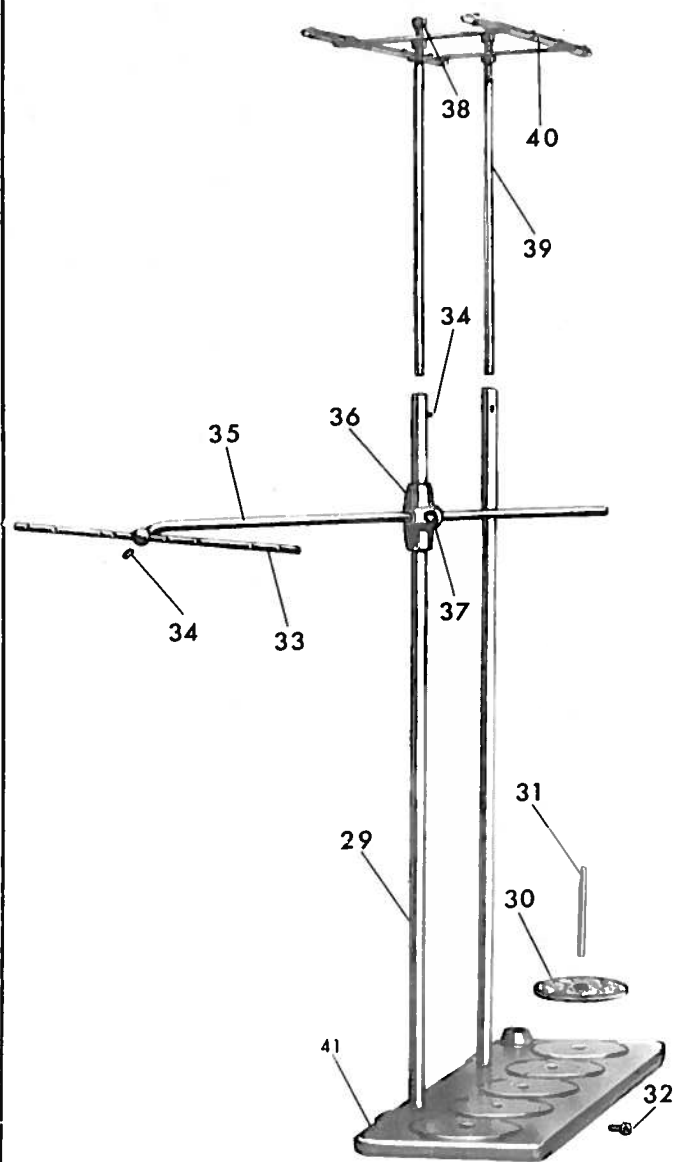
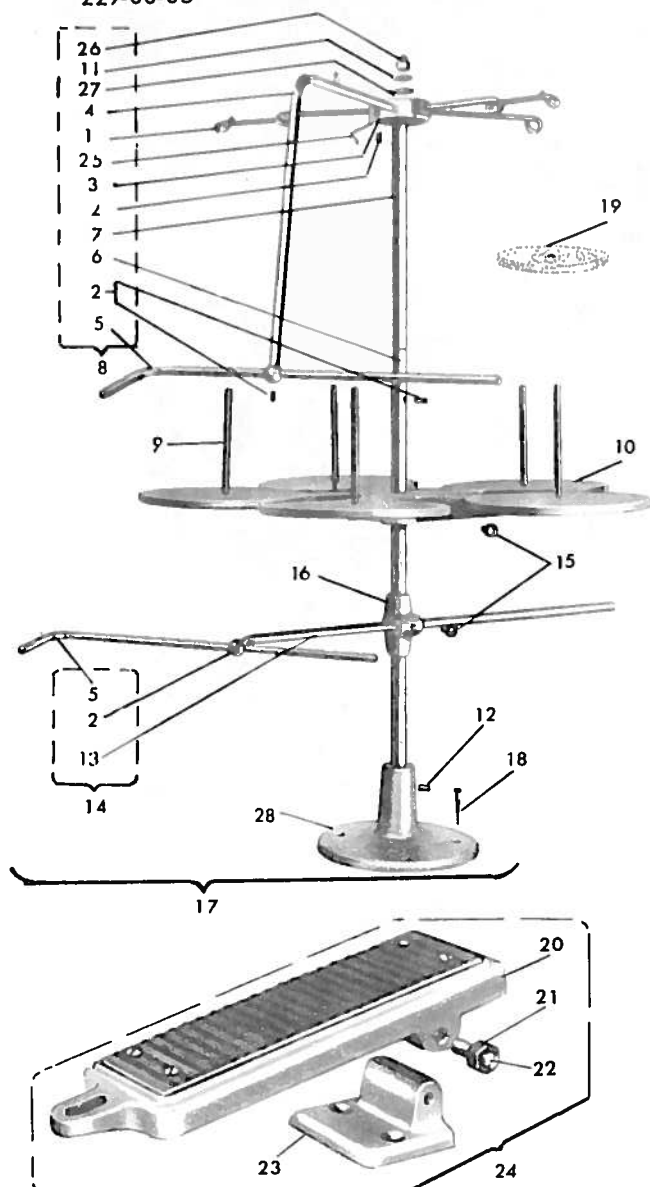


| REF. N° | PART. N°     | DESCRIPTION        | QUANT. | REF. N° | PART. N°     | DESCRIPTION                  | QUANT. |
|---------|--------------|--------------------|--------|---------|--------------|------------------------------|--------|
| 1       | G.270-816/1  | assembly oil pump  | 1      | 34      | 270-966/1    | gasket                       | 1      |
| 2       | G.633-833/1  | assembly gear      | 1      | 35      | G.270-646    | assembly oil distributor     | 1      |
| 3       | PM.270-816/1 | body pump          | 1      | 36      | PM.270-646/1 | distributor                  | 1      |
| 4       | 633-812      | screw              | 4      | 37      | 057-A-3      | nut                          | 2      |
| 5       | PM.633-817/1 | cover              | 1      | 38      | 270-650      | valve deviator               | 1      |
| 6       | 633-818/1    | washer             | 1      | 39      | 270-651      | gasket                       | 1      |
| 7       | 633-711/1    | gasket             | 2      | 40      | 270-734/1    | washer spring                | 1      |
| 8       | 270-824/1    | screw, drag        | 1      | 41      | 270-652      | pipe connecting              | 1      |
| 9       | 270-823/1    | shaft              | 1      | 42      | 270-8251     | pipe oil pump union          | 1      |
| 10      | 633-708      | pin spring         | 1      | 43      | 633-826/1    | pipe oil pump union          | 1      |
| 11      | 633-707      | washer spring      | 1      | 44      | 270-645      | pointer for oil distributor  | 1      |
| 12      | 039-G-10     | bolt fixing pulley | 1      | 45      | 016-B-2,5    | grub screw pointer           | 1      |
| 13      | 270-810/2    | pulley oil pump    | 1      | 46      | 028-E-10     | screw                        | 2      |
| 14      | 633-959      | spy glass oil      | 1      | 47      | 270-434      | pipe from pressure switch    | 1      |
| 15      | 270-808      | gasket             | 1      | 48      | 270-W1-328   | clamp pipe                   | 1      |
| 16      | 633-842      | pipe               | 1      | 49      | AS.270-410   | assembly pressure switch     | 1      |
| 17      | 270-811/1    | pin                | 2      | 50      | PM.270.428   | pipe with glass end          | 1      |
| 18      | 270-946      | gasket             | 2      | 51      | 270-422      | bulb 12 V 3 W                | 1      |
| 19      | 270-947      | gasket             | 2      | 52      | 001-E-7      | screw fixing pressure switch | 2      |
| 20      | 065-L-6      | washer             | 2      | 53      | 270-435      | bracket support              | 1      |
| 21      | 059-G-6      | nut                | 2      | 54      | 270-432      | plug with current pick-ups   | 1      |
| 22      | 270-831/1    | pipe               | 1      | 55      | 270-430      | gasket rubber                | 1      |
| 23      | 270-836      | pad felt           | 1      | A       | 633-821/2    | gear                         | 4      |
| 24      | 017-H-12     | grub screw         | 1      | B       | 633-822/2    | pin gear                     | 1      |
| 25      | 007-M-15     | screw              | 1      | C       | 633-819      | plate side                   | 1      |
| 26      | 633-966      | gasket             | 1      | D       | 633-833      | plate internal               | 1      |
| 27      | 270-828/1    | grating            | 1      | E       | 633-818/1    | washer internal              | 1      |
| 28      | 270-996/2    | plug               | 1      | F       | 633-834/1    | pin drag                     | 1      |
| 29      | 270-827/1    | pad felt           | 1      | G       | 270-816/1    | body pump                    | 1      |
| 30      | 633-925      | spacer             | 1      | H       | 633-814      | body roller bearing          | 1      |
| 31      | G.270-996/2  | plug sump          | 1      | L       | 633-813      | body roller bearing          | 1      |
| 32      | PM.290-001/1 | sump               | 1      | M       | 670-702      | ring sealing                 | 2      |
| 33      | G.290-001/1  | assembly sump      | 1      |         |              |                              |        |

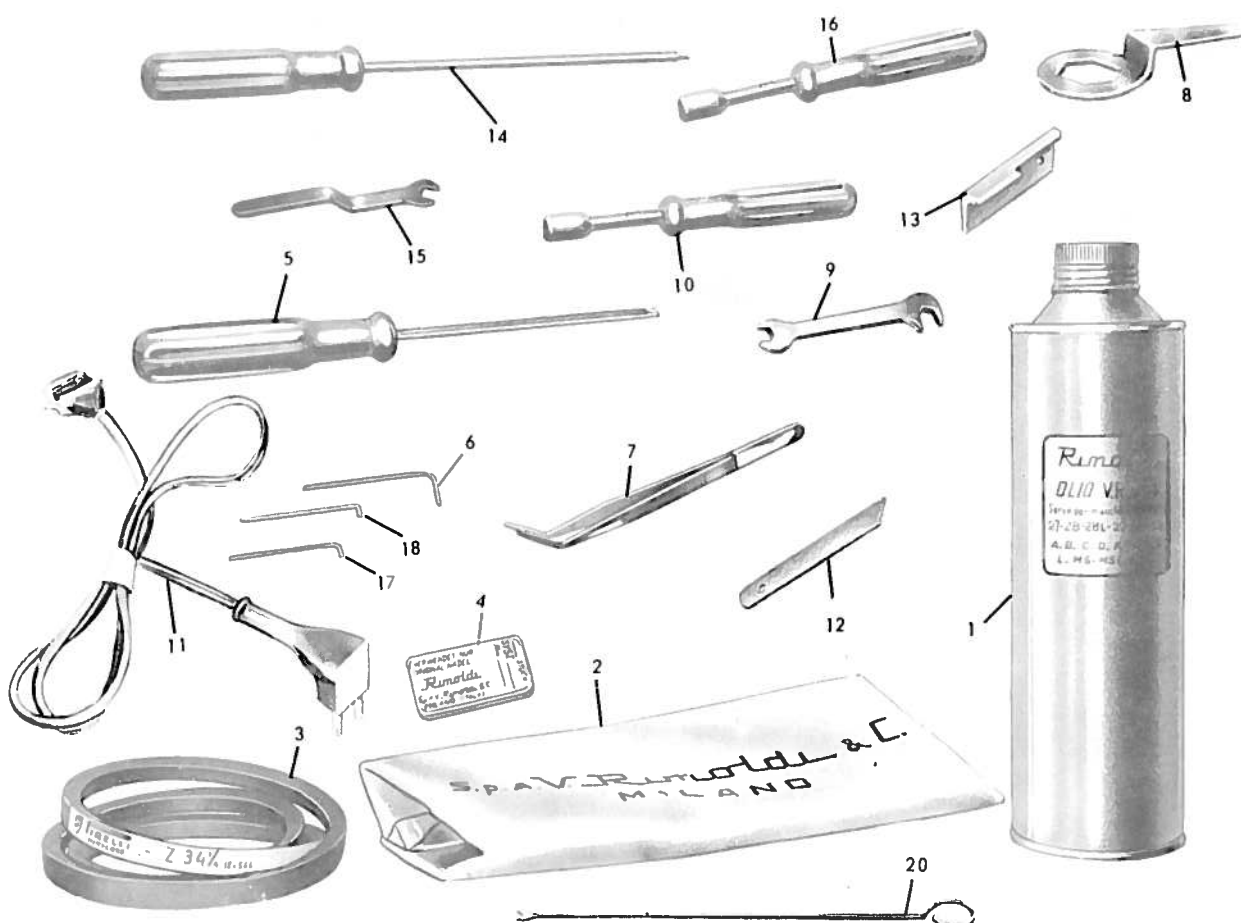


| REF. N°                        | PART. N°     | DESCRIPTION                                   | QUANT. | REF. N° | PART. N°   | DESCRIPTION                                 | QUANT. |
|--------------------------------|--------------|-----------------------------------------------|--------|---------|------------|---------------------------------------------|--------|
| 1                              | G.270-583    | tie bar assembly for presserfoot lifter lever | 1      | 26      | 270-553    | bush lower for differential rod             | 1      |
| 2                              | 270-585      | joint upper for presserfoot lifter lever      | 1      | 27      | 270-554    | spring for differential rod                 | 1      |
| 3                              | 059-A-5      | nut for tie bar                               | 2      | 28      | 270-556/1  | rod differential lever                      | 1      |
| 4                              | 270-583      | rod for presserfoot lifter lever              | 1      | 29      | TS. 22x 35 | screw for fixing knee control to table      | 4      |
| 5                              | 270-459      | rivets fixing                                 | 7      | 30      | 270-570    | screw for knee control                      | 1      |
| 6                              | 270-557      | joint for presserfoot lifter lever            | 2      | 31      | 038-M-9    | screw for knee control                      | 9      |
| 7                              | 270-701      | ring snap                                     | 2      | 32      | 005-G-6    | screw pin locking                           | 2      |
| 8                              | 270-558      | pin for joint                                 | 2      | 33      | 270-580    | pin junction                                | 2      |
| 9                              | 270-552      | bush upper for table                          | 2      | 34      | 270-579    | anchor knee control                         | 1      |
| 10                             | 270-004      | shock absorber                                | 4      | 35      | 270-998    | screw pointed for knee control              | 2      |
| 11                             | 270-589/1    | mouth waste chute                             | 1      | 36      | 059-F-8    | nut for pointed screw                       | 2      |
| 12                             | 270-588      | guard pulley wheel                            | 1      | 37      | 005-L-11   | screw for pin                               | 1      |
| 13                             | 058-M-10     | nut for bolt holding machine                  | 8      | 38      | 270-578    | lever holding knee control junction         | 1      |
| 14                             | 067-H-10     | washer for plate supporting machine           | 4      | 39      | 270-571    | shaft knee control                          | 1      |
| 15                             | 270-971      | bolt for plate supporting machine             | 4      | 40      | 270-720    | collar knee control spring tensioning       | 1      |
| 16                             | 051-L-10     | nut for fixing plate to table                 | 4      | 41      | 270-575    | spring knee control return                  | 1      |
| 17                             | 270-590/1    | waste chute to the right                      | 1      | 42      | 270-572    | attachment knee control                     | 1      |
| 18                             | 270-590/2    | waste chute to the left                       | 1      | 43      | 270-576    | rocker arm knee control                     | 1      |
| 19                             | 001-G-10     | screws channel fixing                         | 3      | 44      | 270-581    | gudgeon pin rocker arm                      | 1      |
| 20                             | 270-586/1    | lever controlling presserfoot lifter          | 1      | 45      | 270-573    | rod carrying knee control disc              | 1      |
| 21                             | 270-584      | support for lever                             | 1      | 46      | 270-574    | disc knee control                           | 1      |
| 22                             | 065-L-6      | washers for pins                              | 3      | 47      | 270-582    | covering knee control                       | 1      |
| 23                             | 059-H-6      | nut for support                               | 1      | 48      | 270-577    | joint knee control                          | 1      |
| 24                             | PM.270-005/1 | plate with pins                               | 1      | 49      | G.270-570  | assembly knee control for operating differ. | 1      |
| 25                             | G.270-005/3  | plate machine support with lever              | 1      | 50      | 064-E 5    | washer for differential control rod         | 1      |
|                                | PM.1159      | chain with hook                               | 1      | 51      | G.270-556  | rod for complete differential lever         | 1      |
| N.B. 6 - 7 - 8 9               |              |                                               |        |         |            |                                             |        |
| quantity of parts on request 1 |              |                                               |        |         |            |                                             |        |

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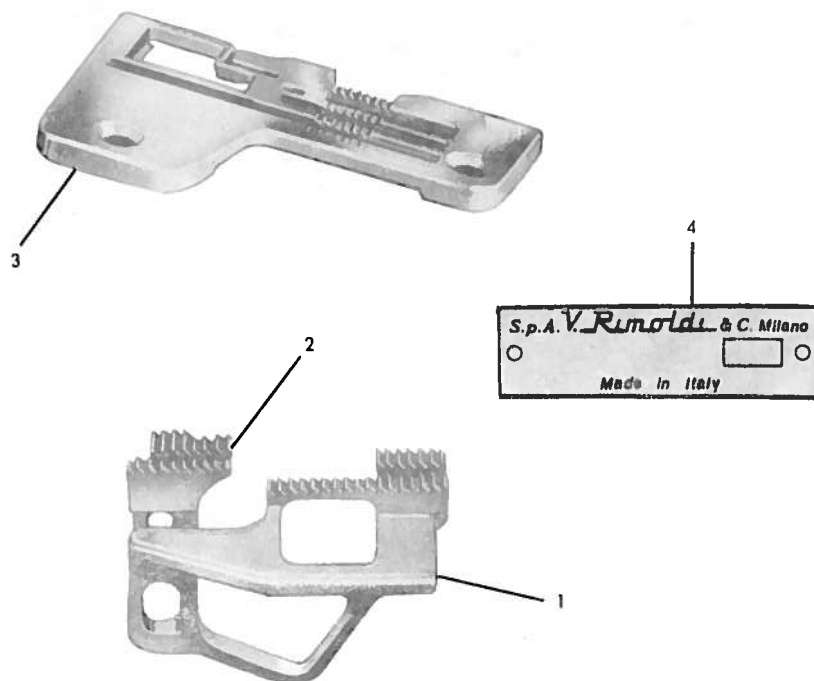


| Nº RIF. | Nº DISEGNO   | DENOMINAZIONE                | QUANT. | Nº RIF. | Nº DISEGNO | DENOMINAZIONE        | QUANT. |
|---------|--------------|------------------------------|--------|---------|------------|----------------------|--------|
|         |              | SUPPLIED WITH HEAD ONLY      |        |         |            | SUPPLIED WITH BENCH  |        |
| 1       | 290-134      | rod thread guide             | 2      | 29      | 910-143    | rod main support     | 2      |
| 2       | 016-F-5      | grub screws                  | 8      | 30      | 569        | disc reel support    | 5      |
| 3       | 290-140      | union for rod                | 1      | 31      | 1146       | pin reel             | 5      |
| 4       | PM.290-148/1 | support rod                  | 1      | 32      | 001-G-10   | cheesehead screw     | 5      |
| 5       | 290-137      | rod thread guide             | 2      | 33      | 270-157    | rod thread guide     | 1      |
| 6       | 250-143      | rod lower main               | 1      | 34      | 016-F-5    | grub screw           | 1      |
| 7       | 290-130      | rod upper main               | 1      | 35      | 270-158/1  | support thread guide | 1      |
| 8       | G.290-137    | frame thread guide           | 1      | 36      | 605-937    | support for reel pin | 1      |
| 9       | 1146         | pin reel                     | 5      | 37      | 605-980    | knob knurled         | 2      |
| 10      | 290-142      | base plate reel              | 1      | 38      | 1145       | nut fixing frame     | 4      |
| 11      | 065-N-6      | washer                       | 1      | 39      | 910-144    | rod upper of frame   | 2      |
| 12      | 016-F-10     | screw fixing rod             | 1      | 40      | G.497      | frame thread guide   | 1      |
| 13      | 270-158/1    | support rod                  | 1      | 41      | 490/2      | holder reel          | 1      |
| 14      | G.290-157    | support for thread guide rod | 1      |         |            |                      |        |
| 15      | 605-980      | screws                       | 3      |         |            |                      |        |
| 16      | 605-937      | support                      | 1      |         |            |                      |        |
| 17      | AS.290-140   | assembly thread guide frame  | 1      |         |            |                      |        |
| 18      | TS.20x30     | screw fixing frame           | 2      |         |            |                      |        |
| 19      | 569          | disc reel support            | 5      |         |            |                      |        |
| 20      | PM.910-914   | pedal                        | 1      |         |            |                      |        |
| 21      | 053-H-8      | nut pedal                    | 2      |         |            |                      |        |
| 22      | 910-964      | bolt pointed                 | 2      |         |            |                      |        |
| 23      | 910-934/1    | support pedal                | 1      |         |            |                      |        |
| 24      | G.910-914/1  | assembly pedal               | 1      |         |            |                      |        |
| 25      | 290-135      | support thread               | 2      |         |            |                      |        |
| 26      | 290-706      | nut                          | 1      |         |            |                      |        |
| 27      | 290-705      | washer spring                | 1      |         |            |                      |        |
| 28      | 01141        | base thread holder           | 1      |         |            |                      |        |

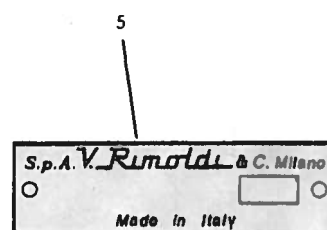
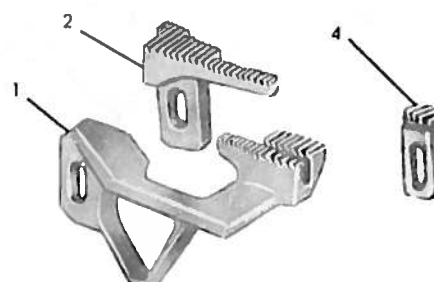
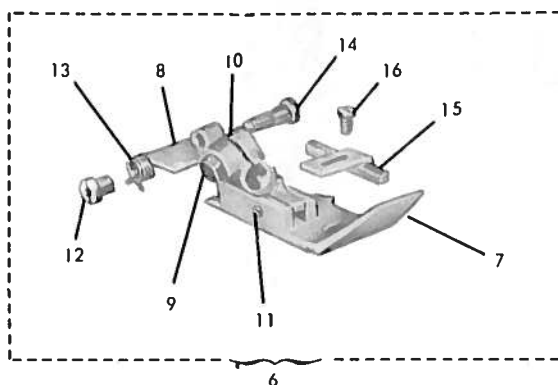


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| N° RIF. | N° DISEGNO | DENOMINAZIONE          | QUANT. | N° RIF. | N° DISEGNO | DENOMINAZIONE                                | QUANT. |
|---------|------------|------------------------|--------|---------|------------|----------------------------------------------|--------|
| 1       | VR 604     | oil 1 Kg.              | 1      | 11      | 270-431    | cable pressure switch feed                   | 1      |
| 2       | 1175       | dust cover for machine | 1      | 12      | 290-113    | knife lower                                  | 1      |
| 3       | 270-155/1  | vee belt               | 1      | 13      | 27.77-1121 | knife upper                                  | 1      |
| 4       | RIM 27     | needle                 | 5      | 14      | 01160/2    | screw driver                                 | 1      |
| 5       | 01161/2    | screw driver           | 1      | 15      | 270-745    | spanner hexagonal 9/32" for increasing diff. | 1      |
| 6       | 633-742    | allen key 1/8"         | 1      | 16      | 270-740    | spanner socket 13/64"                        | 1      |
| 7       | 1158       | tweezers for threading | 1      | 17      | 270-743    | allen key 5/64" for grub screws              | 1      |
| 8       | 639-M-745  | spanner sump plug      | 1      | 18      | 297-746    | allen key for tightening needle              | 1      |
| 9       | 1156/1     | spanner open ended     | 1      | 19      | 608-739    | spanner for attaching presserfoot            | 1      |
| 10      | 270-741    | spanner socket 9/32"   | 1      | 20      | 603-154    | bar threading                                | 1      |
|         |            |                        |        |         |            | On request:                                  |        |
|         |            |                        |        |         |            | 290-675 block knife sharpening               | 1      |

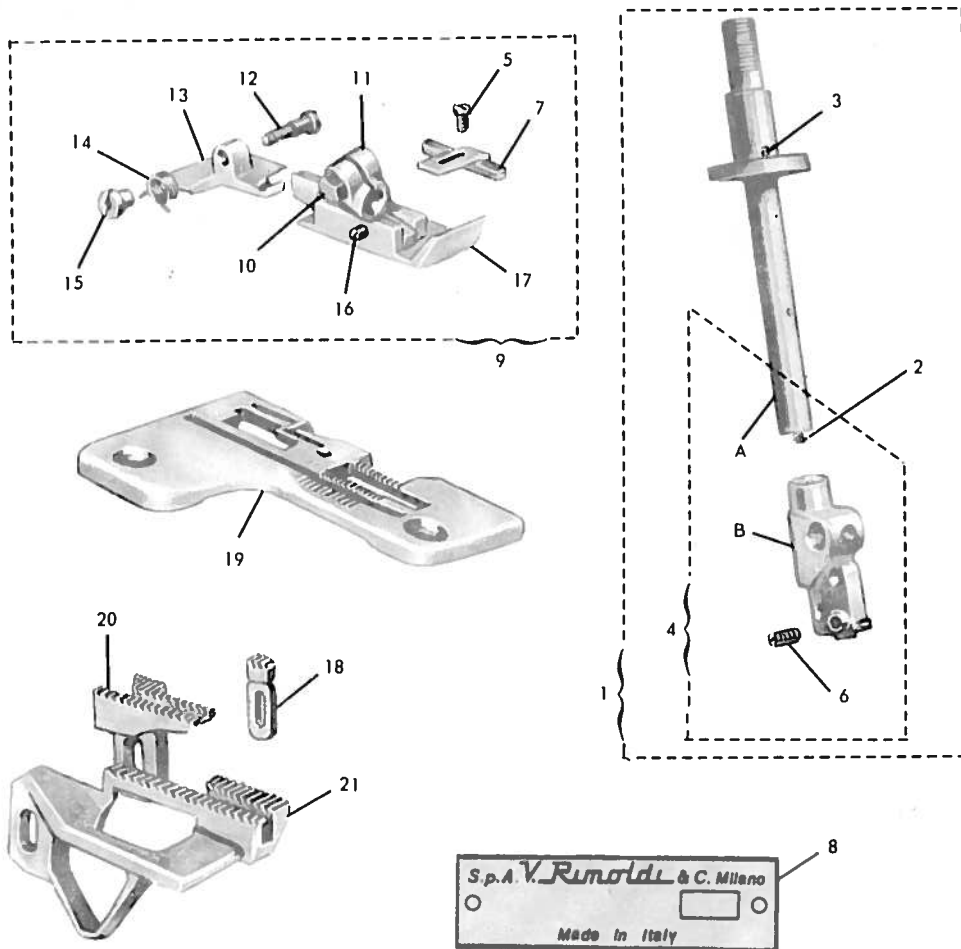


| REF. N° | PART. N°    | DESCRIPTION                      | QUANT. | REF. N° | PART. N° | DESCRIPTION | QUANT. |
|---------|-------------|----------------------------------|--------|---------|----------|-------------|--------|
| 1       | 290-050     | feed dog, front                  | 1      |         |          |             |        |
| 2       | 290-051     | feed dog, rear                   | 1      |         |          |             |        |
| 3       | 290-114/1   | needle plate (bight width 7/32") | 1      |         |          |             |        |
| 4       | 781301-0-00 | plate machine class              | 1      |         |          |             |        |

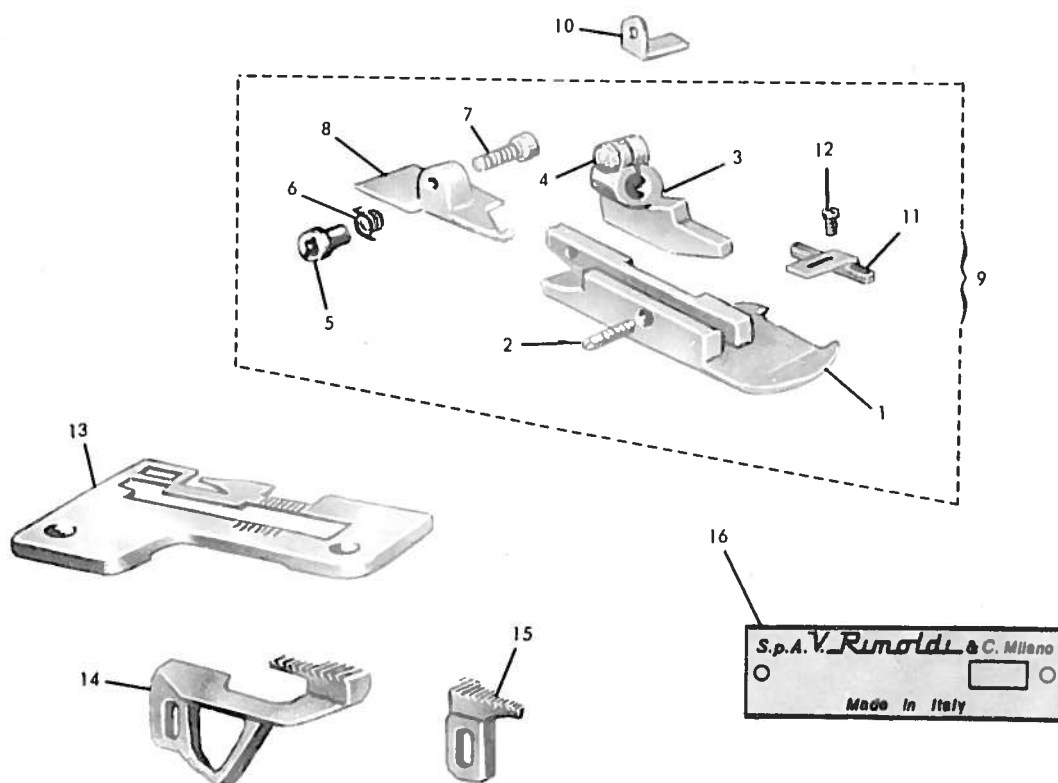


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| REF.<br>N° | PART<br>N°    | DESCRIPTION          | QUANT. | REF.<br>N° | PART<br>N° | DESCRIPTION   | QUANT. |
|------------|---------------|----------------------|--------|------------|------------|---------------|--------|
| 1          | 290-B-050     | feed dog front       | 1      | 9          | 297-906    | bolt          | 1      |
| 2          | 290-B-051     | feed dog rear        | 1      | 10         | 297-182    | clamp         | 1      |
| 3          | 290-B-114     | needle plate         | 1      | 11         | 297-179    | pin           | 1      |
| 4          | 291-052       | feed dog chaining    | 1      | 12         | 297-195    | bush threaded | 1      |
| 5          | 781302-0-00   | plate machine class  | 1      | 13         | 297-194    | spring        | 1      |
| 6          | G.290-B-181/1 | presserfoot complete | 1      | 14         | 297-187    | bolt          | 1      |
| 7          | 290-B-184/1   | shoe presserfoot     | 1      | 15         | 297-183    | bracket       | 1      |
| 8          | 290-B-192     | plate chaining guide | 1      | 16         | 001-A-3,2  | screw         | 1      |

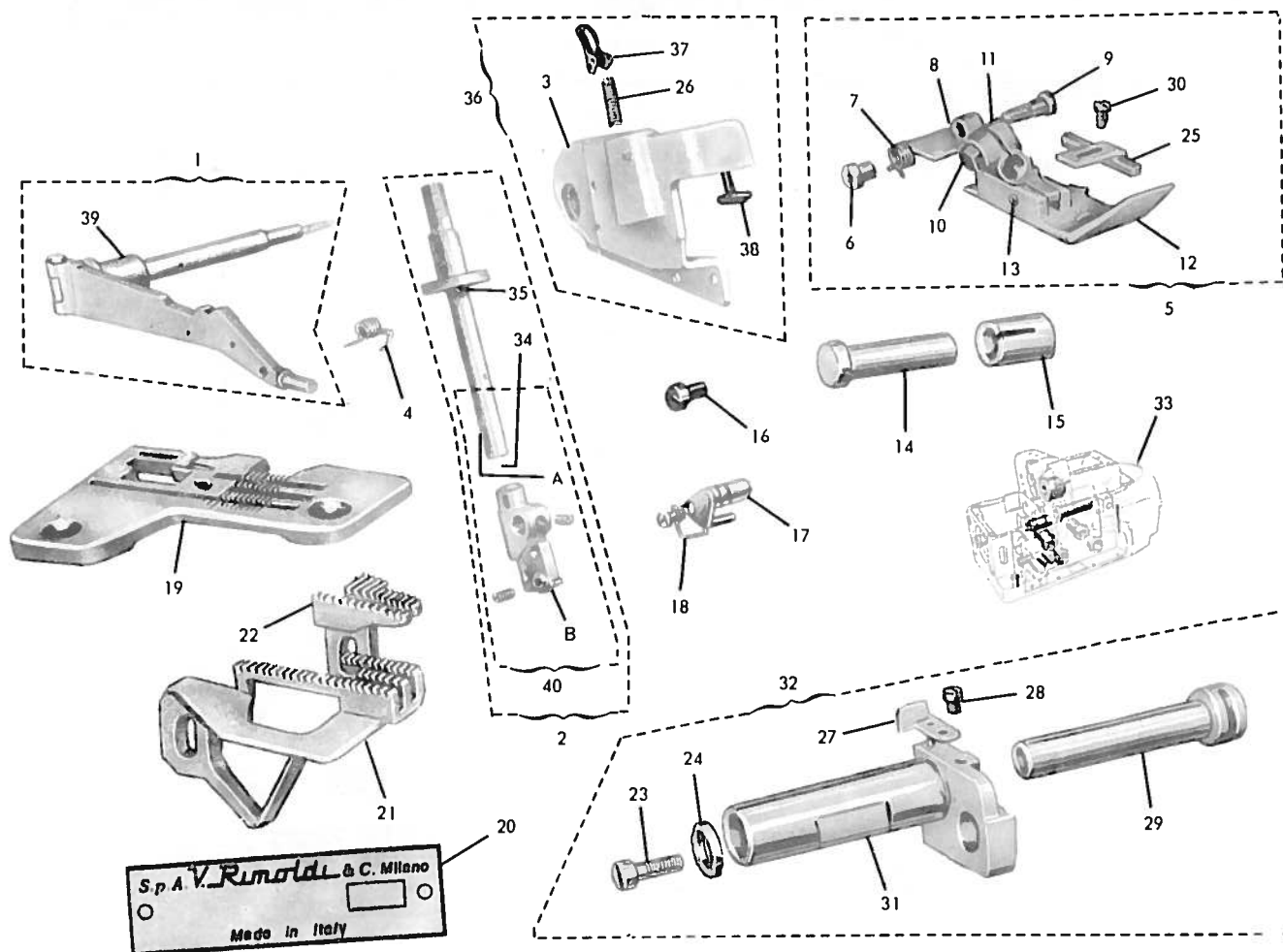


| REF. N° | PART. N°     | DESCRIPTION                    | QUANT. | REF. N° | PART. N°  | DESCRIPTION                      | QUANT. |
|---------|--------------|--------------------------------|--------|---------|-----------|----------------------------------|--------|
| 1       | G.291-025/1  | needle bar with clamp          | 1      | 13      | 297-192/1 | plate chaining guide             | 1      |
| 2       | 016-A-2,5    | grub screw                     | 1      | 14      | 297-194   | spring                           | 1      |
| 3       | 092-A-10     | wick                           | 1      | 15      | 297-195   | bush threaded                    | 1      |
| 4       | PM.291-020/1 | clamp complete with needle bar | 1      | 16      | 297-179   | pin                              | 1      |
| 5       | 001-A-3,2    | screw                          | 1      | 17      | 297-184/1 | shoe                             | 1      |
| 6       | 290-944      | grub screw for holding needle  | 2      | 18      | 291-052   | feed dog chaining                | 1      |
| 7       | 297-183      | bracket                        | 1      | 19      | 291-114   | needle plate (bight width 5/32") | 1      |
| 8       | 781303-0-00  | plate machine class            | 1      | 20      | 291-051   | feed dog rear                    | 1      |
| 9       | G.291-181/1  | presserfoot complete           | 1      | 21      | 291-050   | feed dog front                   | 1      |
| 10      | 297-906      | bolt                           | 1      | A       | 297-025/1 | shaft                            | 1      |
| 11      | 297-182      | clamp                          | 1      | B       | 291-020   | clamp                            | 1      |
| 12      | 297-187      | bolt                           | 1      |         |           |                                  |        |



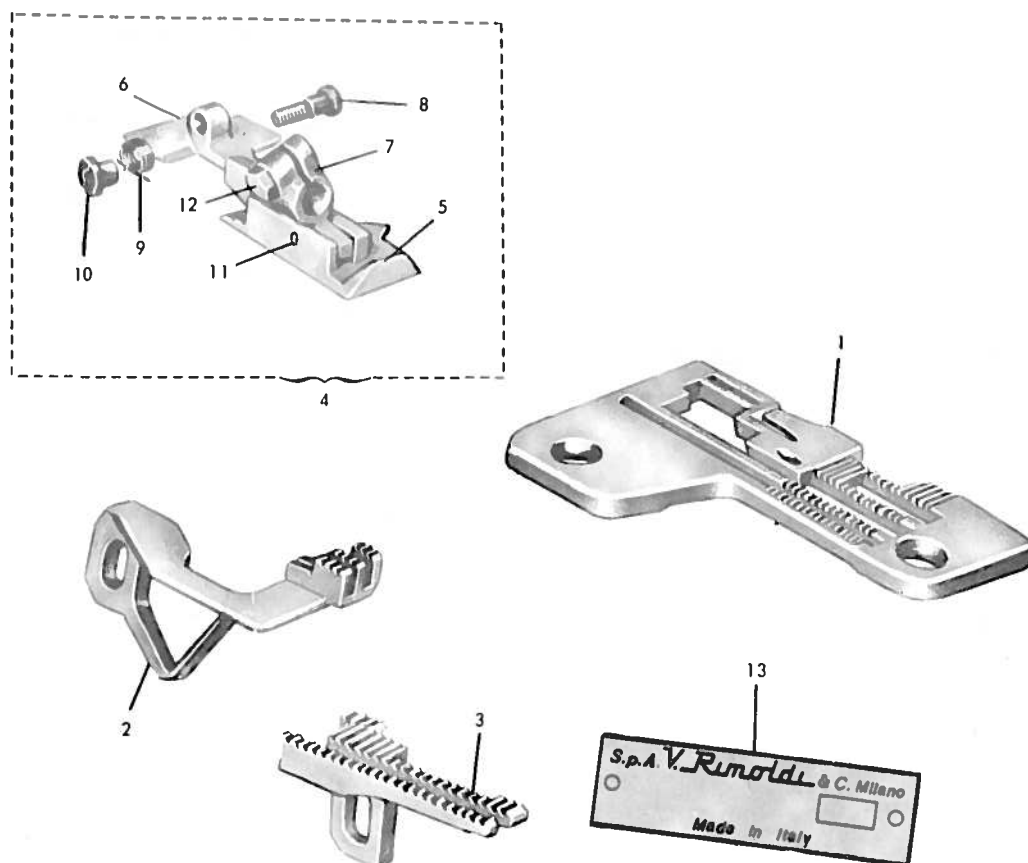
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| REF. N° | PART. N°    | DESCRIPTION          | QUANT. | REF. N° | PART. N°      | DESCRIPTION              | QUANT. |
|---------|-------------|----------------------|--------|---------|---------------|--------------------------|--------|
| 1       | 291-B-184/1 | shoe presserfoot     | 1      | 9       | G.291-B-181/1 | presserfoot complete     | 1      |
| 2       | 297-179     | pin                  | 1      | 10      | 291-B-1861    | bracket presserfoot stop | 1      |
| 3       | 291-E-182   | clamp                | 1      | 11      | 297-183       | bracket                  | 1      |
| 4       | 297-906     | bolt                 | 1      | 12      | 001-A-3,2     | screw                    | 1      |
| 5       | 297-195     | bush threaded        | 1      | 13      | 291-B-114     | needle plate             | 1      |
| 6       | 297-194     | spring               | 1      | 14      | 291-B-050     | feed dog front           | 1      |
| 7       | 297-187     | bolt                 | 1      | 15      | 291-B-051     | feed dog rear            | 1      |
| 8       | 291-B-192   | plate chaining guide | 1      | 16      | 781304-0-00   | plate machine class      | 1      |

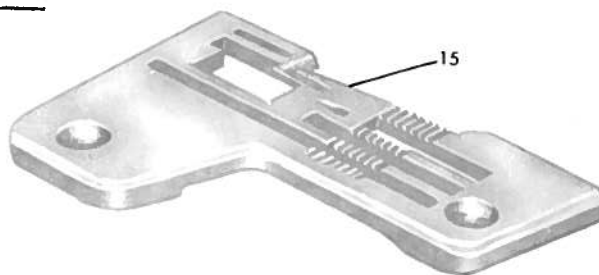
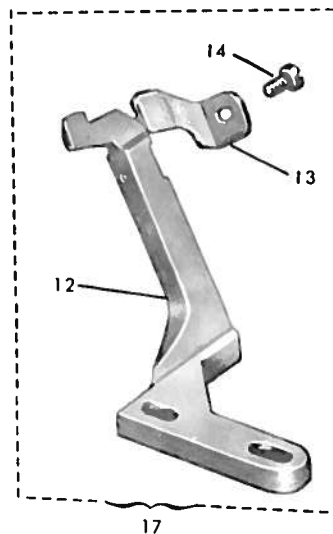
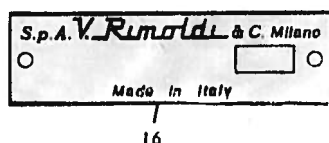
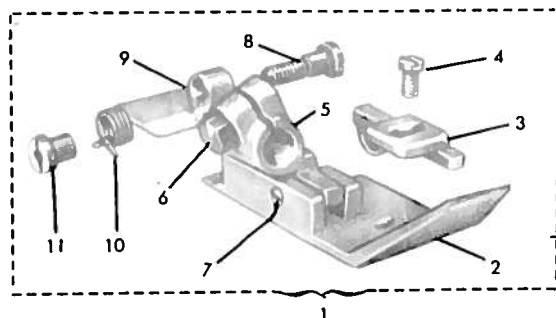


NOTE  
THIS CONVERSION CAN ONLY BE CARRIED OUT IN  
OUR FACTORY

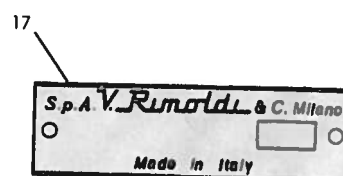
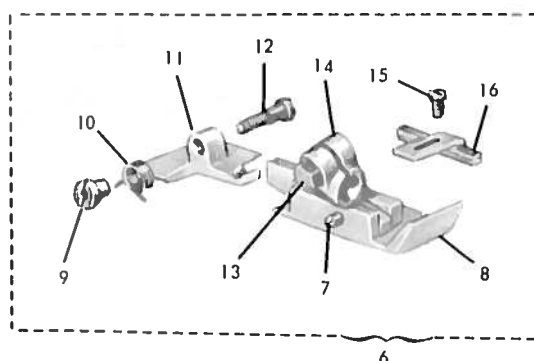
| REF. N°     | PART. N°       | DESCRIPTION                        | QUANT. | REF. N° | PART. N°       | DESCRIPTION                 | QUANT. |
|-------------|----------------|------------------------------------|--------|---------|----------------|-----------------------------|--------|
| 1           | G.29.17-0761/2 | lever hinged presserfoot           | 1      | 22      | 29.17-051      | feed dog, rear              | 1      |
| 2           | G.29.17-025/2  | needle bar with clamp complete     | 1      | 23      | 007-P-10       | screw                       | 1      |
| 3           | PM.29.17-208/3 | plate side                         | 1      | 24      | 071-D-5        | washer                      | 1      |
| 4           | 29.17-190/2    | spring presserfoot pressure        | 1      | 25      | 287-183        | bracket                     | 1      |
| 5           | G.29.17-1811/1 | presserfoot complete               | 1      | 26      | 29.17-092      | spring                      | 1      |
| 6           | 297-195        | bush threaded                      | 1      | 27      | 29.17-110      | needle guard front          | 1      |
| 7           | 297-194        | spring                             | 1      | 28      | 004-F-4        | screw                       | 1      |
| 8           | 29.17-1921     | plate chaining guide               | 1      | 29      | 290-105        | spindle lower knife holder  | 1      |
| 9           | 297-187        | bolt                               | 1      | 30      | 001-A-3,2      | screw                       | 2      |
| 10          | 297-906        | bolt                               | 1      | 31      | PM.290-104/1   | holder lower knife          | 1      |
| 11          | 29.17-182      | clamp                              | 1      | 32      | G.29.17-104/1  | holder lower knife complete | 1      |
| 12          | 29.17-1841/1   | shoe                               | 1      | 33      | G.29.17-002/1  | base complete               | 1      |
| 13          | 297-179        | pin                                | 1      | 34      | 016-A-2,5      | grub screw                  | 1      |
| 14          | PM.29.17-138   | pin fork lever                     | 1      | 35      | 092-A-10       | wick                        | 1      |
| 15          | 29.17-132/1    | bush fork lever                    | 1      | 36      | G.27.17-208/3  | side plate complete         | 1      |
| 16          | 005-M-7        | screw upper shaft                  | 1      | 37      | 28.779-094     | lever                       | 1      |
| 17          | G.29.17-262/1  | thread take-up complete            | 1      | 38      | PM.29.17-263   | thread guide                | 1      |
| 18          | 29.17-280      | guide thread                       | 1      | 39      | PM.29.17-081   | spindle with arm            | 1      |
| 19          | 29.17-114/1    | needle plate (bight width 27/64'') | 1      | 40      | PM.29.17-020/2 | needle bar with clamp       | 1      |
| 20          | 781306-0-00    | plate machine class                | 1      | A       | 29.17-020/1    | shaft                       | 1      |
| 21          | 29.17-050      | feed dog, front                    | 1      | B       | 297-025/1      | clamp                       | 1      |
| On request: |                |                                    |        |         |                |                             |        |
| 29.17-0501  |                |                                    |        |         |                |                             |        |
| 29.17-0511  |                |                                    |        |         |                |                             |        |
| Tab. 32     |                |                                    |        |         |                |                             |        |



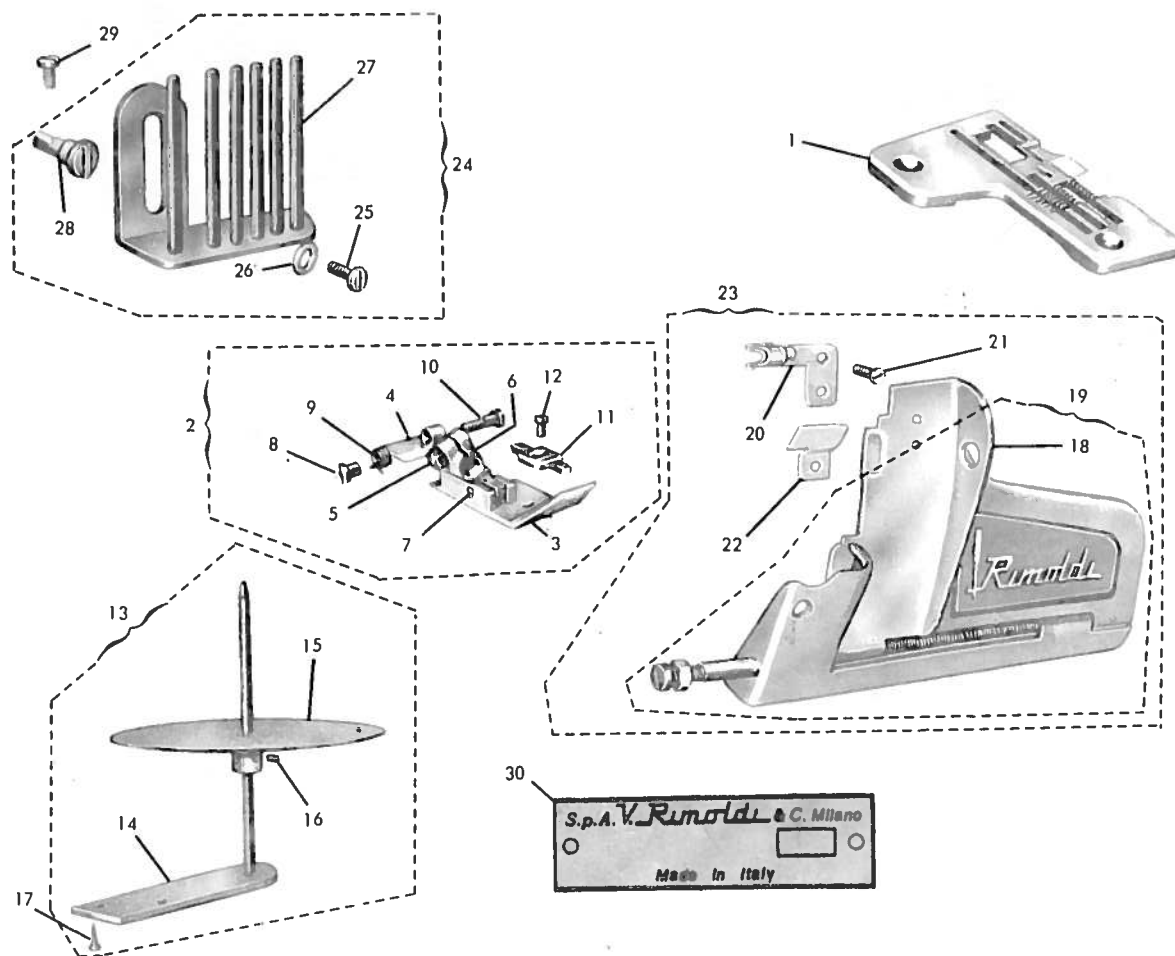
| REF.<br>N° | PART.<br>N°    | DESCRIPTION          | QUANT. | REF.<br>N° | PART.<br>N° | DESCRIPTION         | QUANT. |
|------------|----------------|----------------------|--------|------------|-------------|---------------------|--------|
| 1          | 29.17-PDB-114  | needle plate         | 1      | 8          | 297-187     | bolt                | 1      |
| 2          | 29.17-PDB-0501 | feed dog front       | 1      | 9          | 297-194     | spring              | 1      |
| 3          | 29.17-PDB-0511 | feed dog rear        | 1      | 10         | 297-195     | bush threaded       | 1      |
| 4          | G.29.174-181   | presserfoot          | 1      | 11         | 297-179     | pin                 | 1      |
| 5          | 29.174-184     | shoe                 | 1      | 12         | 297-906     | bolt                | 1      |
| 6          | 29.174-192     | plate chaining guide | 1      | 13         | 781307-0-00 | plate machine class | 1      |
| 7          | 29.174-182     | clamp                | 1      |            |             |                     |        |



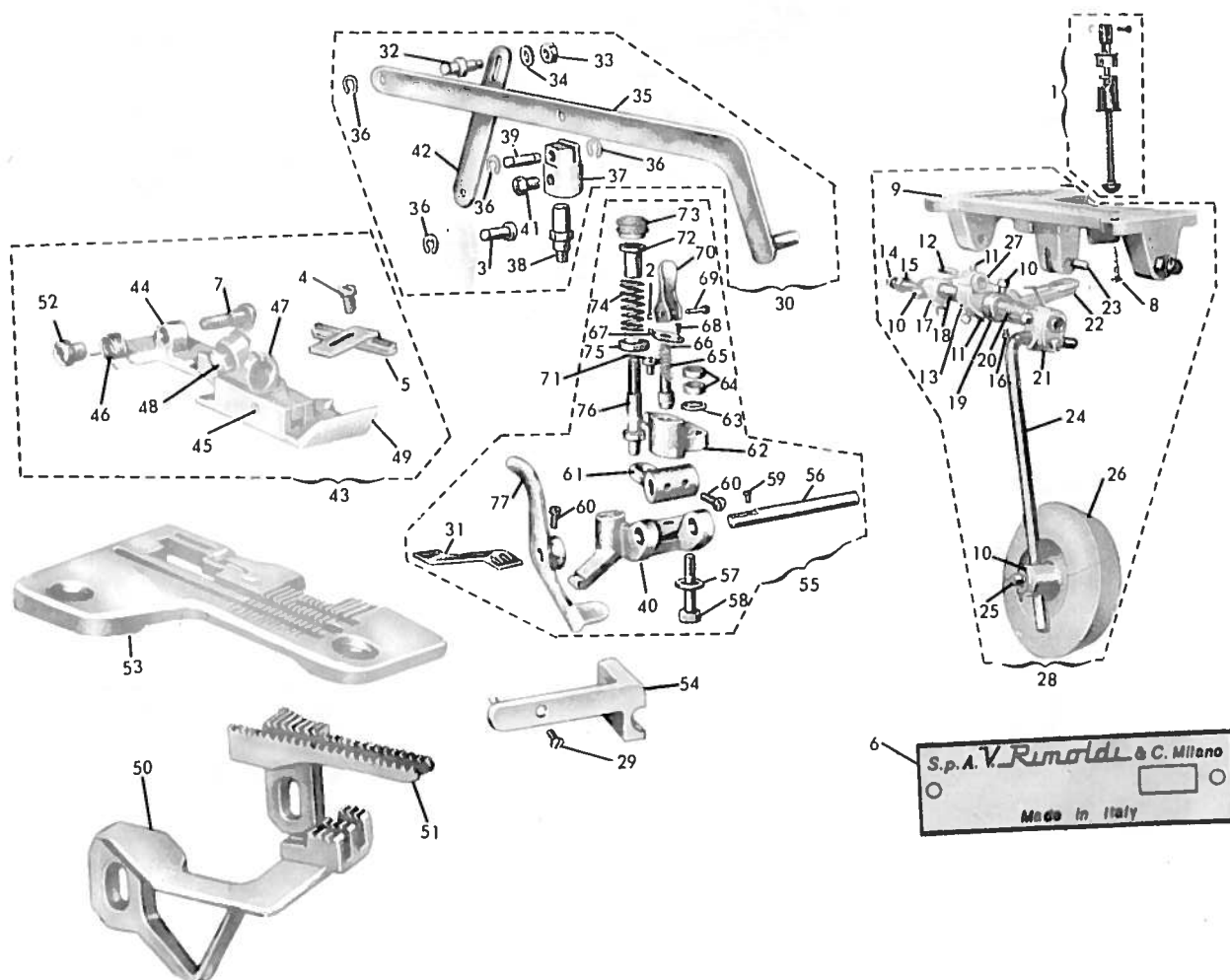
| REF. N° | PART. N°    | DESCRIPTION          | QUANT. | REF. N° | PART. N°    | DESCRIPTION                          | QUANT. |
|---------|-------------|----------------------|--------|---------|-------------|--------------------------------------|--------|
| 1       | G.29.78-181 | presserfoot complete | 1      | 10      | 297-194     | spring                               | 1      |
| 2       | 29.78-184   | shoe                 | 1      | 11      | 297-195     | bush threaded                        | 1      |
| 3       | 29.78-191   | tongue               | 1      | 12      | 29.78-107   | needle guard front                   | 1      |
| 4       | 004-A-5     | screw                | 1      | 13      | 297-109/1   | needle guard rear                    | 1      |
| 5       | 297-182     | clamp                | 1      | 14      | 270-989     | screw                                | 1      |
| 6       | 297-906     | bolt                 | 1      | 15      | 29.78-114   | needle plate (bight width 1/4")      | 1      |
| 7       | 297-179     | pin                  | 1      | 16      | 781308-0-00 | plate machine class                  | 1      |
| 8       | 297-187     | bolt                 | 1      | 17      | G.29.78-107 | assembly front and rear needle guard | 1      |
| 9       | 297-1921    | plate chaining guide | 1      |         |             |                                      |        |



| REF. N° | PART. N°    | DESCRIPTION                          | QUANT. | REF. N° | PART. N°    | DESCRIPTION          | QUANT. |
|---------|-------------|--------------------------------------|--------|---------|-------------|----------------------|--------|
| 1       | G.29.18-107 | assembly front and rear needle guard | 1      | 10      | 297-194     | spring               | 1      |
| 2       | 297-109/1   | needle guard rear                    | 1      | 11      | 297-1921    | plate chaining guide | 1      |
| 3       | 270-989     | screw                                | 1      | 12      | 297-187     | bolt                 | 1      |
| 4       | 29.18-107   | needle guard front                   | 1      | 13      | 297-906     | bolt                 | 1      |
| 5       | 29.18-114   | needle plate                         | 1      | 14      | 297-182     | clamp                | 1      |
| 6       | G.29.18-181 | presserfoot complete                 | 1      | 15      | 001-A-4,3   | screw                | 1      |
| 7       | 297-179     | pin                                  | 1      | 16      | 29.18-191   | tongue               | 1      |
| 8       | 29.18-184   | shoe                                 | 1      | 17      | 781309-0-00 | plate machine class  | 1      |
| 9       | 297-195     | bush threaded                        | 1      |         |             |                      |        |



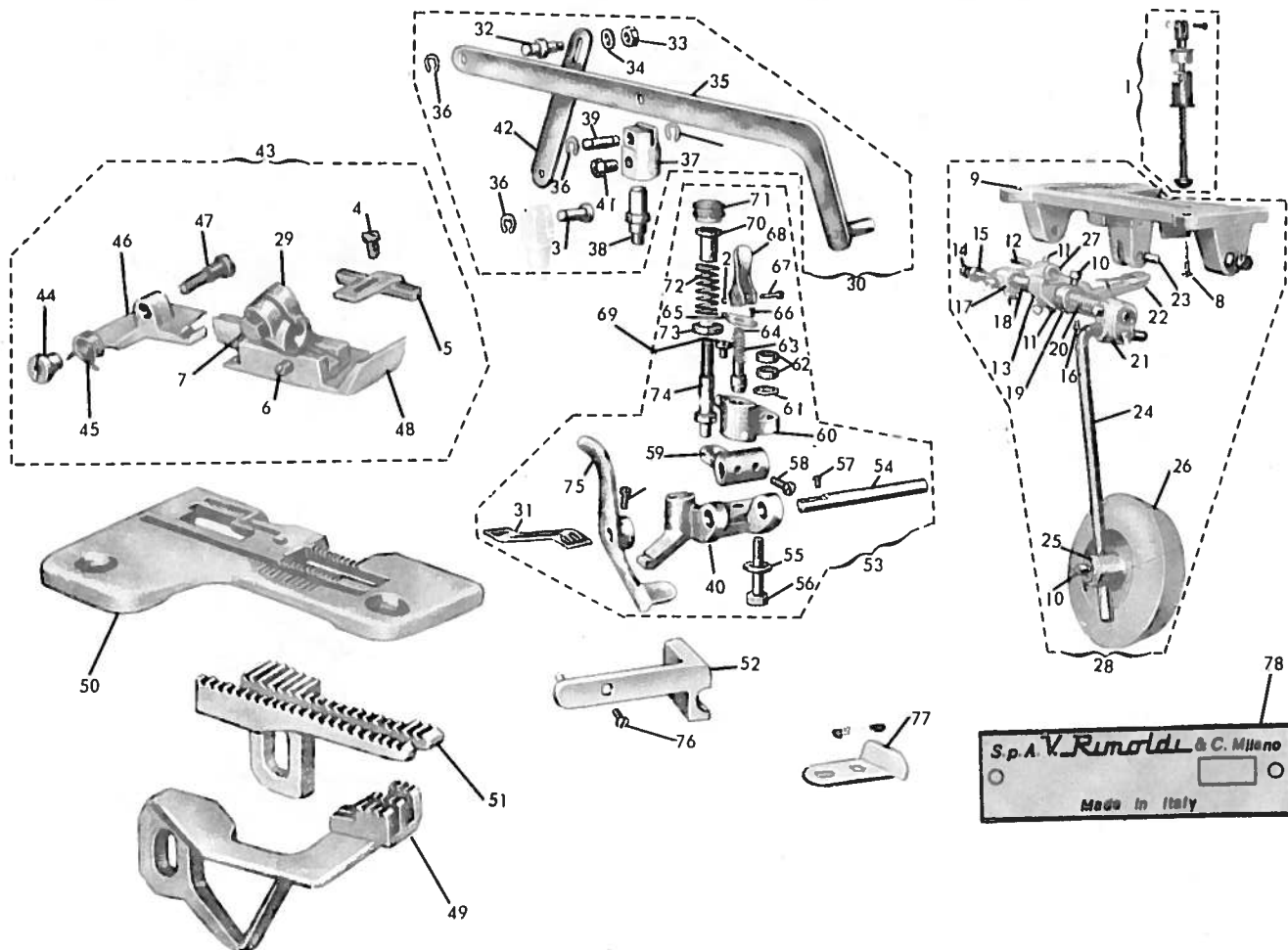
| REF. N° | PART. N°       | DESCRIPTION          | QUANT. | REF. N° | PART. N°       | DESCRIPTION                     | QUANT. |
|---------|----------------|----------------------|--------|---------|----------------|---------------------------------|--------|
| 1       | 297-H-114      | needle plate         | 1      | 16      | 017-E-7        | grub screw                      | 1      |
| 2       | G.297-H-181    | presserfoot complete | 1      | 17      | TS.20x30       | wood screw                      | 2      |
| 3       | 297-H-184      | shoe                 | 1      | 18      | PM.297-H-217/2 | cover plate                     | 1      |
| 4       | 297-1921       | plate chaining guide | 1      | 19      | G.297-H-216/2  | cover plate front complete      | 1      |
| 5       | 297-906        | bolt                 | 1      | 20      | PM.297-H-413   | folder, complete for tape       | 1      |
| 6       | 297-182        | clamp                | 1      | 21      | 275-404        | screw                           | 2      |
| 7       | 297-179        | pin                  | 1      | 22      | 297-H-418      | bracket                         | 1      |
| 8       | 297-195        | bush threaded        | 1      | 23      | AS.297-H-216/2 | cover plate complete with guide | 1      |
| 9       | 297-194        | spring               | 1      | 24      | G.306-423      | metering device for tape        | 1      |
| 10      | 297-187        | bolt                 | 1      | 25      | 01205 A        | screw                           | 1      |
| 11      | 297-H-183      | tongue               | 1      | 26      | 070-F-4        | washer                          | 1      |
| 12      | 001-A-3,2      | screw                | 1      | 27      | PM.306-423     | pins metering                   | 1      |
| 13      | G.2726PDBO9375 | reel holder complete | 1      | 28      | 306-425/1      | pin                             | 1      |
| 14      | PM.602-141/1   | base with rod        | 1      | 29      | 039-R-8,5      | screw fixing metering device    | 1      |
| 15      | PM2726PDBO1425 | plate complete       | 1      | 30      | 781340-0-00    | plate machine class             | 1      |



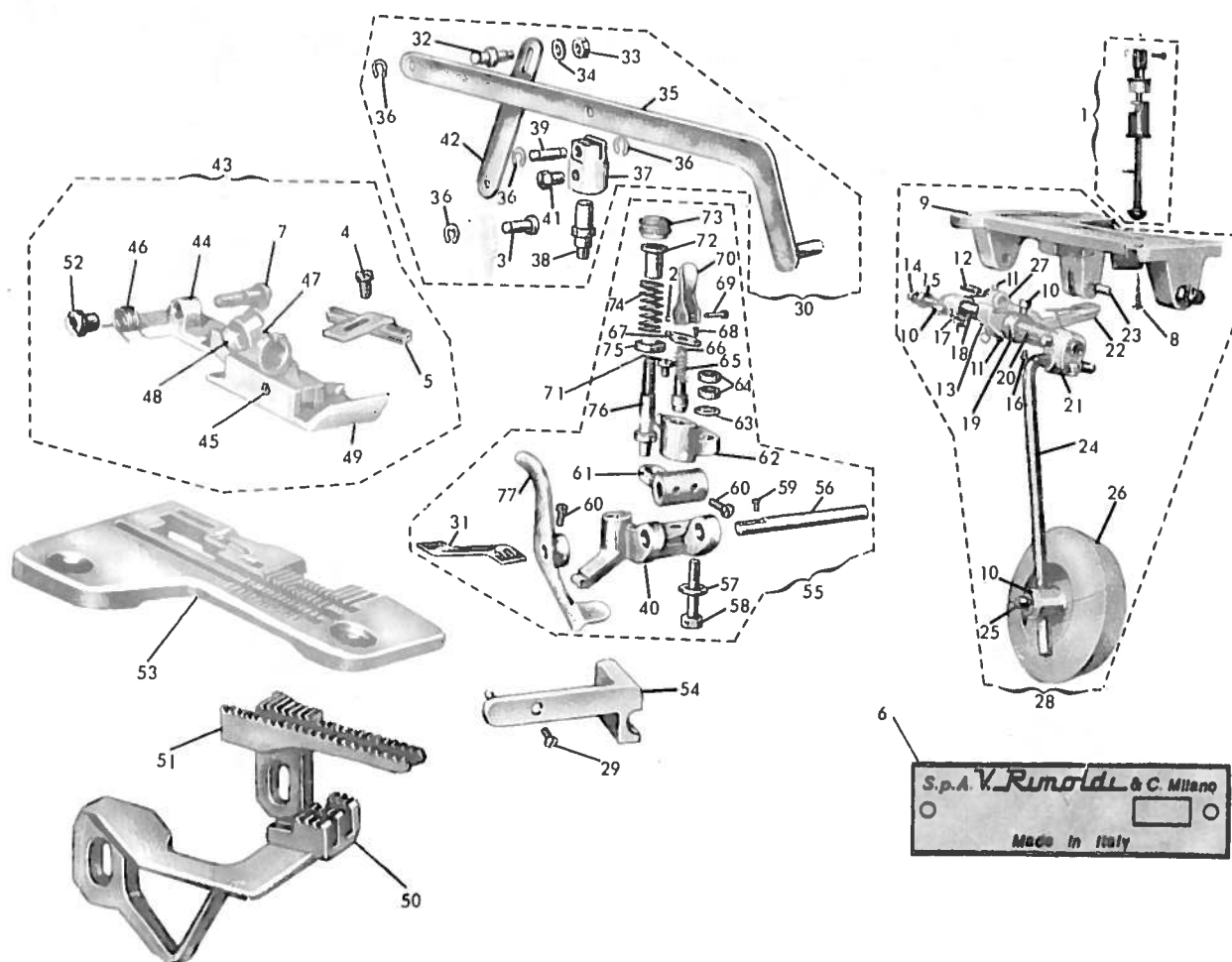
| REF. N° | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°        | DESCRIPTION                         | QUANT. |
|---------|----------------|-------------------------------------------|--------|---------|-----------------|-------------------------------------|--------|
| 1       | G.270-556      | shaft diff. lever control complete        | 1      | 40      | 297-PDB-401     | body, ruffler                       | 1      |
| 2       | 270-701        | washer spring                             | 2      | 41      | 038-C-7         | bolt assembly fixing                | 1      |
| 3       | 27.01-PDB-558  | pin attachment                            | 1      | 42      | 27.01-PDB-516   | lever rear                          | 1      |
| 4       | 270-989        | screw                                     | 1      | 43      | G.297-PDB-181/1 | presserfoot complete                | 1      |
| 5       | 297-PDB-183    | tongue                                    | 1      | 44      | 297-1921        | plate chaining guide                | 1      |
| 6       | 781372-0-00    | plate machine class                       | 1      | 45      | 297-179         | pin                                 | 1      |
| 7       | 297-187        | bolt                                      | 1      | 46      | 297-194         | spring                              | 1      |
| 8       | TS.22x35       | screw for attaching knee control          | 4      | 47      | 297-182         | clamp                               | 1      |
| 9       | 270-570        | support knee control                      | 1      | 48      | 297-906         | bolt                                | 1      |
| 10      | 038-M-9        | screw knee control                        | 9      | 49      | 297-PDB-184/1   | shoe presserfoot                    | 1      |
| 11      | 005-G-6        | screw pin locking                         | 2      | 50      | 297-PDB-050     | feed dog, front                     | 1      |
| 12      | 270-580        | pin junction                              | 2      | 51      | 297-PDB-051     | feed dog, rear                      | 1      |
| 13      | 270-579        | anchor knee control                       | 1      | 52      | 297-195         | bush threaded                       | 1      |
| 14      | 270-998        | screw pointed for knee control            | 2      | 53      | 297-PDB-114     | needle plate (bight width 9/32")    | 1      |
| 15      | 059-P-8        | nut for pointed screw                     | 2      | 54      | PM.2701PD417/1  | bracket stop                        | 1      |
| 16      | 005-L-11       | screw for pin                             | 1      | 55      | G.297PDB-401    | ruffler complete                    | 1      |
| 17      | 270-578        | lever holding knee control junction       | 1      | 56      | 297-PDB-403     | blade spindle carrying              | 1      |
| 18      | 270-571        | shaft knee control                        | 1      | 57      | 065-L-6         | washer                              | 1      |
| 19      | 270-720        | collar spring tensioning                  | 1      | 58      | 297-PDB-418     | bolt long shank for ruffler support | 1      |
| 20      | 270-575        | spring knee control return                | 1      | 59      | 004-L-6         | screw blade attachment              | 2      |
| 21      | 270-572        | attachment knee control                   | 1      | 60      | 001-E-6         | screw                               | 4      |
| 22      | 270-576        | arm knee control rocker                   | 1      | 61      | 297-PDB-407     | lever blade pressure                | 1      |
| 23      | 270-581        | pin rocker arm                            | 1      | 62      | 297-PDB-408     | support, ruffler                    | 1      |
| 24      | 270-573        | rod carrying knee control disc            | 1      | 63      | 064-D-5         | washer                              | 1      |
| 25      | 270-574        | disc knee control                         | 1      | 64      | 057-P-5         | nut                                 | 1      |
| 26      | 270-582        | covering knee control                     | 1      | 65      | 297-PDB-444     | spring ferrule pressure             | 2      |
| 27      | 270-577        | joint knee control                        | 1      | 66      | 297-PDB-442     | stop pin ruffler                    | 1      |
| 28      | G.270-570      | assembly knee control for operating diff. | 1      | 67      | 297-PDB-441     | guide plate stop pin                | 1      |
| 29      | 001-D-7        | screw bracket fixing                      | 1      | 68      | 028-B-5         | screw fixing stop pin guide plate   | 2      |
| 30      | G.297-PDB-515  | assembly for automatic control of ruffler | 1      | 69      | 270-078         | pin stop pin lever fulcrum          | 1      |
| 31      | 297-PDB-402    | blade ruffler                             | 1      | 70      | 270-094         | lever stop pin                      | 1      |
| 32      | 27.01-PDB-518  | pin rear lever                            | 1      | 71      | 039-R-8,5       | screw fixing ruffler                | 1      |
| 33      | 053-D-4        | nut                                       | 1      | 72      | 1032 a          | bush load-spring                    | 1      |
| 34      | 070-F-4        | washer                                    | 1      | 73      | 160-032         | knob load-spring                    | 1      |
| 35      | PM.297-PDB-515 | lever ruffler control                     | 1      | 74      | 297-PDB-443     | load-spring ruffler blade           | 1      |
| 36      | 270-702        | IDEAL spring clips                        | 3      | 75      | 240-035         | spring retainer                     | 1      |
| 37      | 27.01-PDB-517  | fulcrum ruffler control lever             | 1      | 76      | 160-030         | pin for spring                      | 1      |
| 38      | 27.01-PDB-519  | pin threaded for fulcrum                  | 1      | 77      | PM.297-PDB-406  | lever ruffler control with hub      | 1      |
| 39      | 27.01-PDB-520  | pin fulcrum                               | 1      |         |                 |                                     |        |

On request:

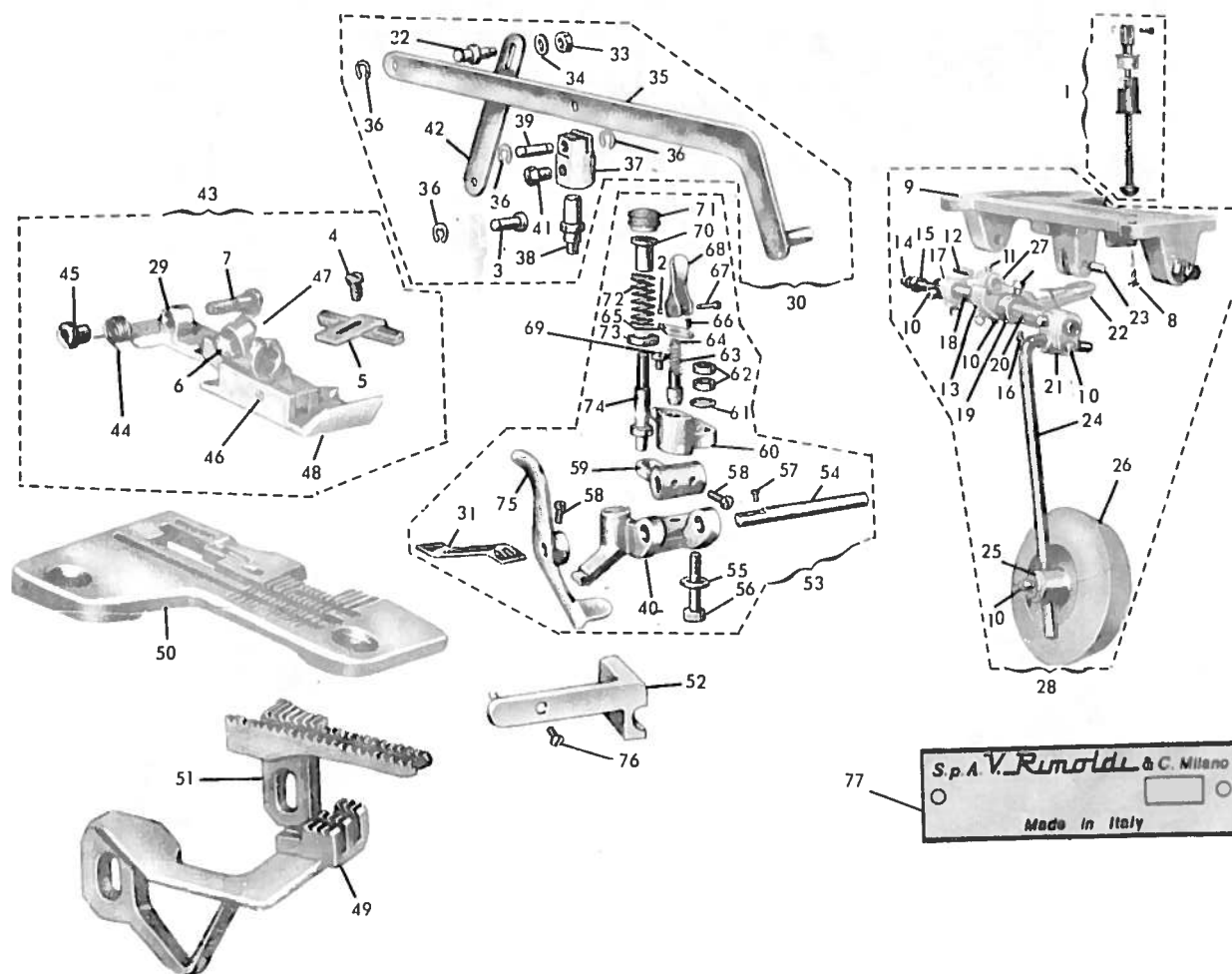
297-PDB-114  
297-PDB-402



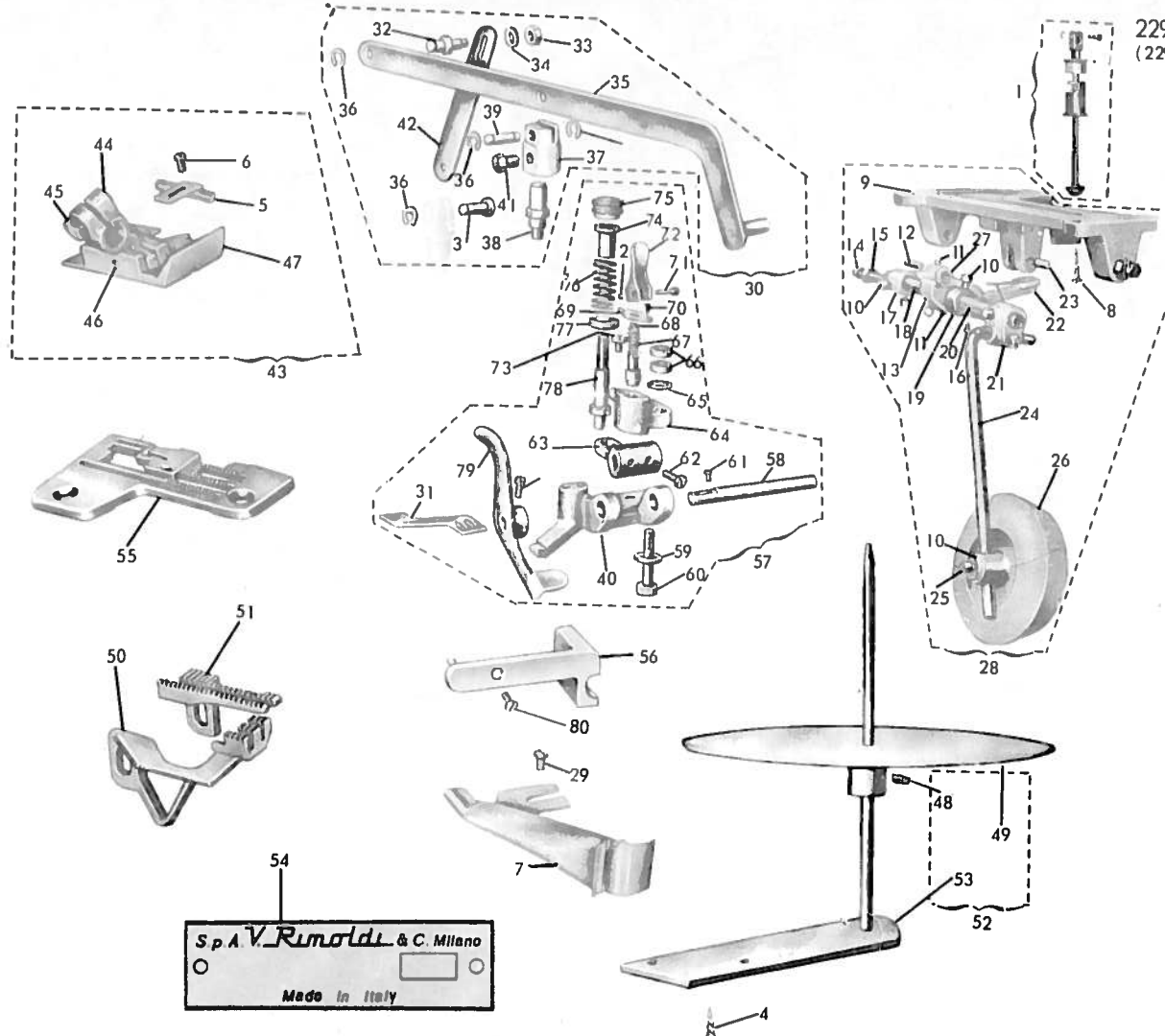
| REF. N° | PART. N°      | DESCRIPTION                                     | QUANT. | REF. N° | PART. N°        | DESCRIPTION                         | QUANT. |
|---------|---------------|-------------------------------------------------|--------|---------|-----------------|-------------------------------------|--------|
| 1       | G.270-556     | lever differential control                      | 1      | 40      | 297-PDB-401     | body ruffler                        | 1      |
| 2       | 270-701       | washer spring                                   | 1      | 41      | 038-C-7         | bolt assembly fixing                | 1      |
| 3       | 27.01-PDB-558 | pin attachment                                  | 1      | 42      | 27.01-PDB-516   | lever rear                          | 1      |
| 4       | 270-989       | screw                                           | 1      | 43      | G.291-PDB-181/1 | presserfoot complete                | 1      |
| 5       | 297-PDB-183   | tongue                                          | 1      | 44      | 297-195         | bush threaded                       | 1      |
| 6       | 297-179       | pin                                             | 1      | 45      | 297-194         | spring                              | 1      |
| 7       | 297-906       | bolt                                            | 1      | 46      | 297-1921        | plate chaining guide                | 1      |
| 8       | TS.22x35      | screw for attaching knee control                | 1      | 47      | 297-187         | bolt                                | 1      |
| 9       | 270-570       | support knee control                            | 1      | 48      | 291-PDB-184/1   | shoe presserfoot                    | 1      |
| 10      | 038-M-9       | screw knee control                              | 1      | 49      | 291-PDB-050     | feed dog, front                     | 1      |
| 11      | 005-G-6       | screw pin locking                               | 2      | 50      | 291-PDB-114     | needle plate (bight width 5/32")    | 1      |
| 12      | 270-580       | pin junction                                    | 1      | 51      | 291-PDB-051     | feed dog, rear                      | 1      |
| 13      | 270-579       | anchor knee control                             | 1      | 52      | PM.2701-PD417/1 | bracket stop                        | 1      |
| 14      | 270-998       | screw pointed for knee control                  | 2      | 53      | G.297-PDB-401   | ruffler complete                    | 1      |
| 15      | 059-P-8       | nut for pointed screw                           | 2      | 54      | 297-PDB-403     | spindle carrying blade              | 1      |
| 16      | 005-L-11      | screw for pin                                   | 1      | 55      | 065-L-6         | washer                              | 1      |
| 17      | 270-578       | lever holding knee control junction             | 1      | 56      | 297-PDB-418     | bolt long shank for ruffler support | 1      |
| 18      | 270-571       | shaft knee control                              | 1      | 57      | 004-L-6         | screw blade attachment              | 2      |
| 19      | 270-720       | collar spring tensioning                        | 1      | 58      | 001-E-6         | screw                               | 4      |
| 20      | 270-575       | spring knee control return                      | 1      | 59      | 297-PDB-407     | lever blade pressure                | 1      |
| 21      | 270-572       | attachment knee control                         | 1      | 60      | 297-PDB-408     | support ruffler                     | 1      |
| 22      | 270-576       | arm knee control rocker                         | 1      | 61      | 064-D-5         | washer                              | 1      |
| 23      | 270-581       | pin rocker arm                                  | 1      | 62      | 057-P-5         | nut                                 | 2      |
| 24      | 270-573       | rod carrying knee control disc                  | 1      | 63      | 297-PDB-444     | spring stop pin pressure            | 1      |
| 25      | 270-574       | disc knee control                               | 1      | 64      | 297-PDB-442     | stop pin ruffler                    | 1      |
| 26      | 270-582       | covering knee control                           | 1      | 65      | 297-PDB-441     | plate stop pin guide                | 1      |
| 27      | 270-577       | joint knee control                              | 1      | 66      | 028-B-5         | screw fixing stop pin guide plate   | 2      |
| 28      | G.270-570     | assembly knee control for operating diff. clamp | 1      | 67      | 270-078         | pin stop pin lever fulcrum          | 1      |
| 29      | 297-182       | clamp                                           | 1      | 68      | 270-094         | lever stop pin                      | 1      |
| 30      | G.297-PDB-515 | assembly for automatic control of ruffler       | 1      | 69      | 039-R-8,5       | screw fixing ruffler                | 1      |
| 31      | 297-PDB-402   | blade ruffler                                   | 1      | 70      | 1032 a          | bush load-spring                    | 1      |
| 32      | 27.01-PDB-518 | pin rear lever                                  | 1      | 71      | 160-032         | knob load-spring                    | 1      |
| 33      | 053-D-4       | nut                                             | 1      | 72      | 297-PDB-443     | spring ruffler blade loading        | 1      |
| 34      | 070-F-4       | washer                                          | 1      | 73      | 240-035         | retainer spring                     | 1      |
| 35      | PM.297PDB515  | lever ruffler control                           | 1      | 74      | 160-030         | pin for spring                      | 1      |
| 36      | 270-702       | clip IDEAL spring                               | 3      | 75      | PM.297PDB406    | lever ruffler control with hub      | 1      |
| 37      | 27.01-PDB-517 | fulcrum ruffler control lever                   | 1      | 76      | 001-D-7         | screw fixing bracket                | 1      |
| 38      | 27.01-PDB-519 | pin threaded mounting fulcrum                   | 1      | 77      | 291-PDB-110     | needle guard front                  | 1      |
| 39      | 27.01-PDB-520 | pin fulcrum                                     | 1      | 78      | 781371-0-00     | plate machine class                 | 1      |



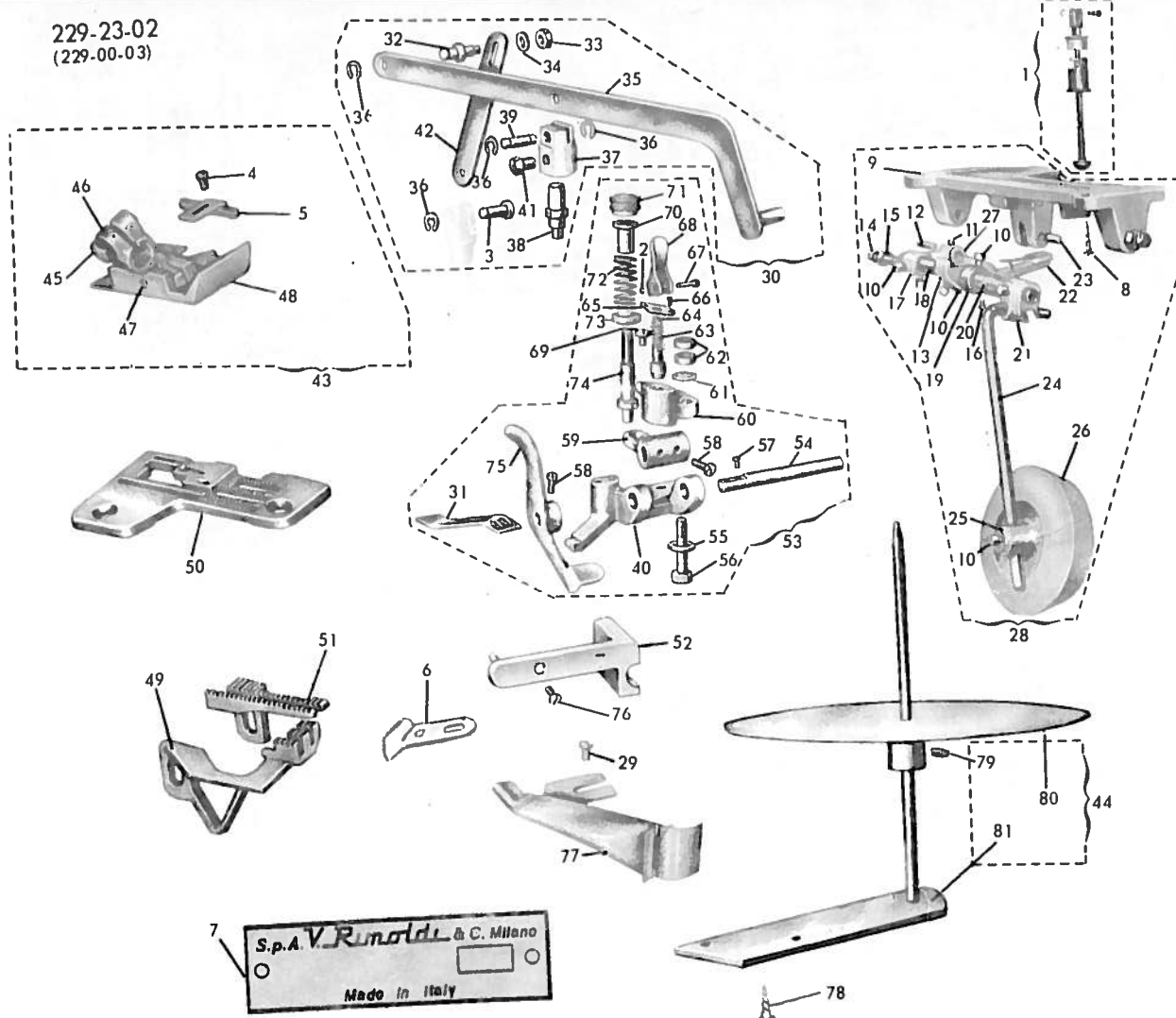
| REF. N° | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°          | DESCRIPTION                         | QUANT.  |
|---------|----------------|-------------------------------------------|--------|---------|-------------------|-------------------------------------|---------|
| 1       | G.270-556      | shaft diff. lever control complete        | 1      | 40      | 297-PDB-401       | body, ruffler                       | 1       |
| 2       | 270-701        | washer spring                             | 2      | 41      | 038-C-7           | bolt assembly fixing                | 1       |
| 3       | 27.01-PDB-558  | pin attachment                            | 1      | 42      | 27.01-PDB-516     | lever rear                          | 1       |
| 4       | 270-989        | screw                                     | 1      | 43      | G.297-PDB-181/1   | presserfoot complete                | 1       |
| 5       | 297-PDB-183    | tongue                                    | 1      | 44      | 297-1921          | plate chaining guide                | 1       |
| 6       | 781372-0-00    | plate machine class                       | 1      | 45      | 297-179           | pin                                 | 1       |
| 7       | 297-187        | bolt                                      | 1      | 46      | 297-194           | spring                              | 1       |
| 8       | TS. 22x35      | screw for attaching knee control          | 4      | 47      | 297-182           | clamp                               | 1       |
| 9       | 270-570        | support knee control                      | 1      | 48      | 297-906           | bolt                                | 1       |
| 10      | 038-M-9        | screw knee control                        | 9      | 49      | 297-PDB-184/1     | shoe presserfoot                    | 1       |
| 11      | 005-G-6        | screw pin locking                         | 2      | 50      | 297-PDB-050       | feed dog, front                     | 1       |
| 12      | 270-580        | pin junction                              | 2      | 51      | 297-PDB-051       | feed dog, rear                      | 1       |
| 13      | 270-579        | anchor knee control                       | 1      | 52      | 297-195           | bush threaded                       | 1       |
| 14      | 270-998        | screw pointed for knee control            | 2      | 53      | 297-PDB-114       | needle plate (bight width 9/32")    | 1       |
| 15      | 059-P-8        | nut for pointed screw                     | 2      | 54      | PM.27.01-PD-417/1 | bracket stop                        | 1       |
| 16      | 005-L-11       | screw for pin                             | 1      | 55      | G.297-PD-401      | ruffler complete                    | 1       |
| 17      | 270-578        | lever holding knee control junction       | 1      | 56      | 297-PDB-403       | blade spindle carrying              | 1       |
| 18      | 270-571        | shaft knee control                        | 1      | 57      | 065-L-6           | washer                              | 1       |
| 19      | 270-720        | collar spring tensioning                  | 1      | 58      | 297-PDB-418       | bolt long shank for ruffler support | 1       |
| 20      | 270-575        | spring knee control return                | 1      | 59      | 004-L-6           | screw blade attachment              | 2       |
| 21      | 270-572        | attachment knee control                   | 1      | 60      | 001-E-6           | screw                               | 4       |
| 22      | 270-576        | arm knee control rocker                   | 1      | 61      | 297-PDB-407       | lever blade pressure                | 1       |
| 23      | 270-581        | pin rocker arm                            | 1      | 62      | 297-PDB-408       | support, ruffler                    | 1       |
| 24      | 270-573        | rod carrying knee control disc            | 1      | 63      | 064-D-5           | washer                              | 1       |
| 25      | 270-574        | disc knee control                         | 1      | 64      | 057-P-5           | nut                                 | 2       |
| 26      | 270-582        | covering knee control                     | 1      | 65      | 297-PDB-444       | spring ferrule pressure             | 1       |
| 27      | 270-577        | joint knee control                        | 1      | 66      | 297-PDB-442       | stop pin ruffler                    | 1       |
| 28      | G.270-570      | assembly knee control for operating diff. | 1      | 67      | 297-PDB-441       | guide plate stop pin                | 1       |
| 29      | 001-D-7        | screw bracket fixing                      | 1      | 68      | 028-B-5           | screw fixing stop pin guide plate   | 2       |
| 30      | G.297-PDB-515  | assembly for automatic control or ruffler | 1      | 69      | 270-078           | pin stop pin lever fulcrum          | 1       |
| 31      | 297-PDB-402    | blade ruffler                             | 1      | 70      | 270-094           | lever stop pin                      | 1       |
| 32      | 27.01-PDB-518  | pin rear lever                            | 1      | 71      | 039-R-8,5         | screw fixing ruffler                | 1       |
| 33      | 053-D-4        | nut                                       | 1      | 72      | 1032 a            | bush load-spring                    | 1       |
| 34      | 070-F-4        | washer                                    | 1      | 73      | 160-032           | knob load-spring                    | 1       |
| 35      | PM.297-PDB-515 | lever ruffler control                     | 1      | 74      | 297-PDB-443       | load-spring ruffler blade           | 1       |
| 36      | 270-702        | IDEAL spring clips                        | 3      | 75      | 240-035           | spring retainer                     | 1       |
| 37      | 27.01-PDB-517  | fulcrum ruffler control lever             | 1      | 76      | 160-030           | pin for spring                      | 1       |
| 38      | 27.01-PDB-519  | pin threaded for fulcrum                  | 1      | 77      | PM.297-PDB-406    | lever ruffler control with hub      | 1       |
| 39      | 27.01-PDB-520  | pin fulcrum                               | 1      |         |                   |                                     |         |
|         |                |                                           |        |         |                   | On request:                         |         |
|         |                |                                           |        |         |                   | 297-PDB-1141                        | Tab. 32 |
|         |                |                                           |        |         |                   | 297-PDB-4021                        | " 32    |



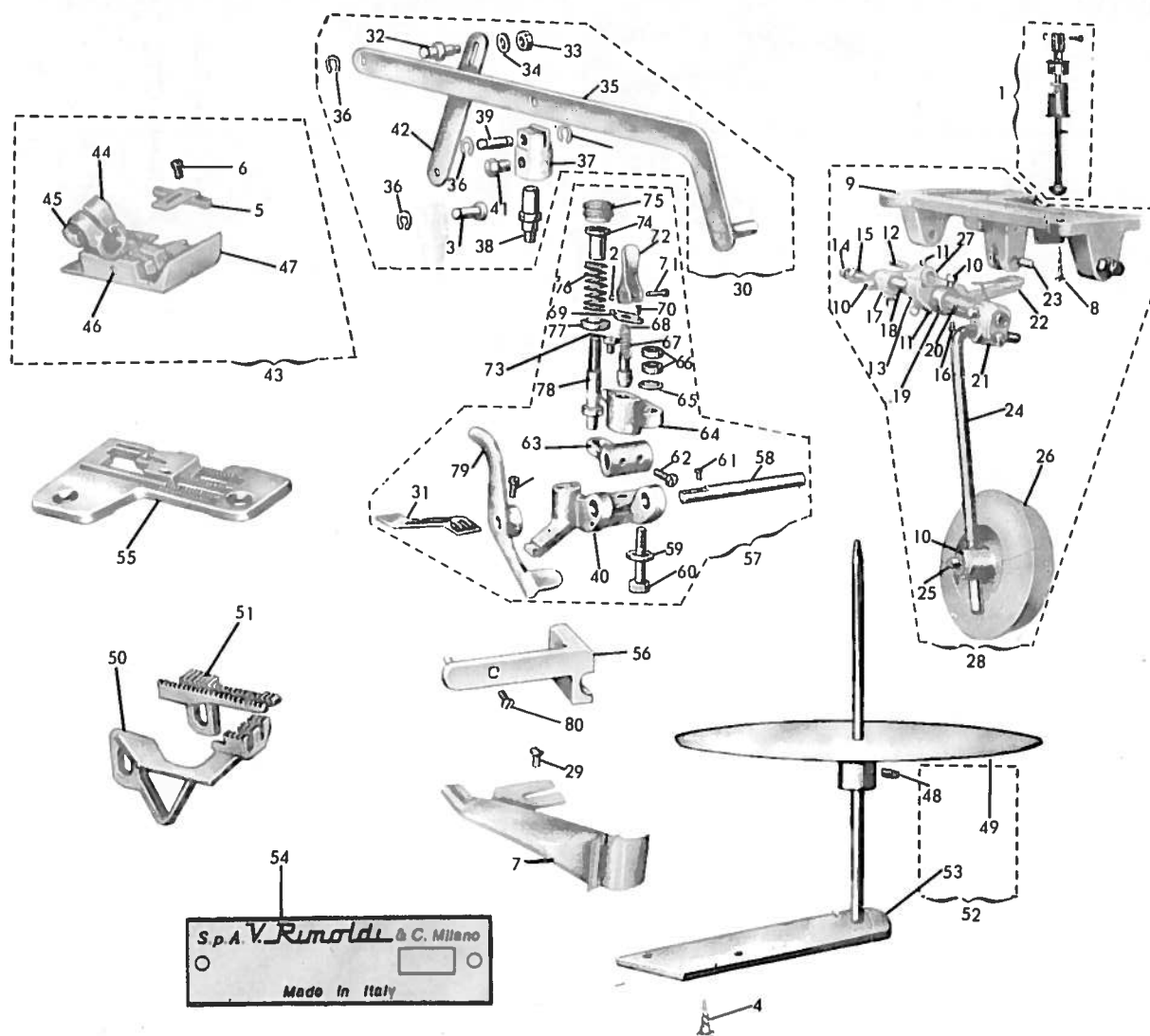
| REF. N° | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°          | DESCRIPTION                         | QUANT. |
|---------|----------------|-------------------------------------------|--------|---------|-------------------|-------------------------------------|--------|
| 1       | G.270-556      | lever differential control                | 1      | 40      | 297-PDB-401       | body ruffler                        | 1      |
| 2       | 270-701        | washer spring                             | 1      | 41      | 038-C-7           | bolt assembly fixing                | 1      |
| 3       | 27.01-PDB-558  | pin attachment                            | 1      | 42      | 27.01-PDB-516     | lever rear                          | 1      |
| 4       | 270-989        | screw                                     | 1      | 43      | G.291-PDB-181/1   | presserfoot complete                | 1      |
| 5       | 297-PDB-183    | tongue                                    | 1      | 44      | 297-194           | spring                              | 1      |
| 6       | 297-906        | bolt                                      | 1      | 45      | 297-195           | threaded bush                       | 1      |
| 7       | 297-187        | bolt                                      | 1      | 46      | 297-179           | pin                                 | 1      |
| 8       | TS. 22x35      | screw for attaching knee control          | 4      | 47      | 29.17-182         | clamp                               | 1      |
| 9       | 270-570        | support knee control                      | 1      | 48      | 29.17-PDB-184/1   | shoe presserfoot                    | 1      |
| 10      | 038-M-9        | screw knee control                        | 9      | 49      | 29.17-PDB-050     | feed dog, front                     | 1      |
| 11      | 005-G-6        | screw pin locking                         | 2      | 50      | 29.17-PDB-114     | plate needle                        | 1      |
| 12      | 270-580        | pin junction                              | 2      | 51      | 29.17-PDB-051     | feed dog rear                       | 1      |
| 13      | 270-579        | anchor knee control                       | 1      | 52      | PM.27.01-PD-417/1 | bracket stop                        | 1      |
| 14      | 270-998        | screw pointed for knee control            | 2      | 53      | G.297-PDB-401     | ruffler complete                    | 1      |
| 15      | 059-P-8        | nut for pointed screw                     | 2      | 54      | 297-PDB-403       | spindle carrying blade              | 1      |
| 16      | 005-L-11       | screw for pin                             | 1      | 55      | 065-L-6           | washer                              | 1      |
| 17      | 270-578        | lever holding knee control junction       | 1      | 56      | 297-PDB-418       | bolt long shank for ruffler support | 1      |
| 18      | 270-571        | shaft knee control                        | 1      | 57      | 004-L-6           | screw blade attachment              | 1      |
| 19      | 270-720        | collar spring tensioning                  | 1      | 58      | 001-E-6           | screw                               | 4      |
| 20      | 270-575        | spring knee control return                | 1      | 59      | 297-PDB-407       | lever blade pressure                | 1      |
| 21      | 270-572        | attachment knee control                   | 1      | 60      | 297-PDB-408       | ruffler support                     | 1      |
| 22      | 270-576        | arm knee control rocker                   | 1      | 61      | 064-D-5           | washer                              | 1      |
| 23      | 270-581        | pin rocker arm                            | 1      | 62      | 057-P-5           | nut                                 | 2      |
| 24      | 270-573        | rod carrying knee control disc            | 1      | 63      | 297-PDB-444       | spring stop pin pressure            | 1      |
| 25      | 270-574        | disc knee control                         | 1      | 64      | 297-PDB-442       | stop pin ruffler                    | 1      |
| 26      | 270-582        | covering knee control                     | 1      | 65      | 297-PDB-441       | plate stop pin guide                | 1      |
| 27      | 270-577        | joint knee control                        | 1      | 66      | 028-B-5           | screw fixing stop pin guide plate   | 2      |
| 28      | G.270-570      | knee control assembly for operating diff. | 1      | 67      | 270-078           | pin stop pin lever fulcrum          | 1      |
| 29      | 29.17-1921     | chaining guide plate                      | 1      | 68      | 270-094           | lever stop pin                      | 1      |
| 30      | G.297-PDB-515  | assembly for automatic control or ruffler | 1      | 69      | 039-R-8,5         | screw fixing ruffler                | 1      |
| 31      | 297-PDB-402    | blade ruffler                             | 1      | 70      | 1032 a            | bush load-spring                    | 1      |
| 32      | 27.01-PDB-518  | pin rear lever                            | 1      | 71      | 160-032           | knob load-spring                    | 1      |
| 33      | 053-D-4        | nut                                       | 1      | 72      | 297-PDB-443       | spring tucker blade loading         | 1      |
| 34      | 070-F-4        | washer                                    | 1      | 73      | 240-035           | retainer spring                     | 1      |
| 35      | PM.297-PDB-515 | lever ruffler control                     | 1      | 74      | 160-030           | pin for spring                      | 1      |
| 36      | 270-702        | clip IDEAL spring                         | 3      | 75      | PM.297-PDB-406    | lever ruffler control with hub      | 1      |
| 37      | 27.01-PDB-517  | fulcrum ruffler control lever             | 1      | 76      | 001-D-7           | screw fixing bracket                | 1      |
| 38      | 27.01-PDB-519  | pin threaded mounting fulcrum             | 1      | 77      | 781373-0-00       | plate machine class                 | 1      |
| 39      | 27.01-PDB-520  | pin fulcrum                               | 1      |         |                   |                                     |        |
|         |                |                                           |        |         |                   | On request:                         |        |
|         |                |                                           |        |         |                   | 297-PDB-4021 Tab. 32                |        |
|         |                |                                           |        |         |                   | 297-PDB-4031 " 32                   |        |



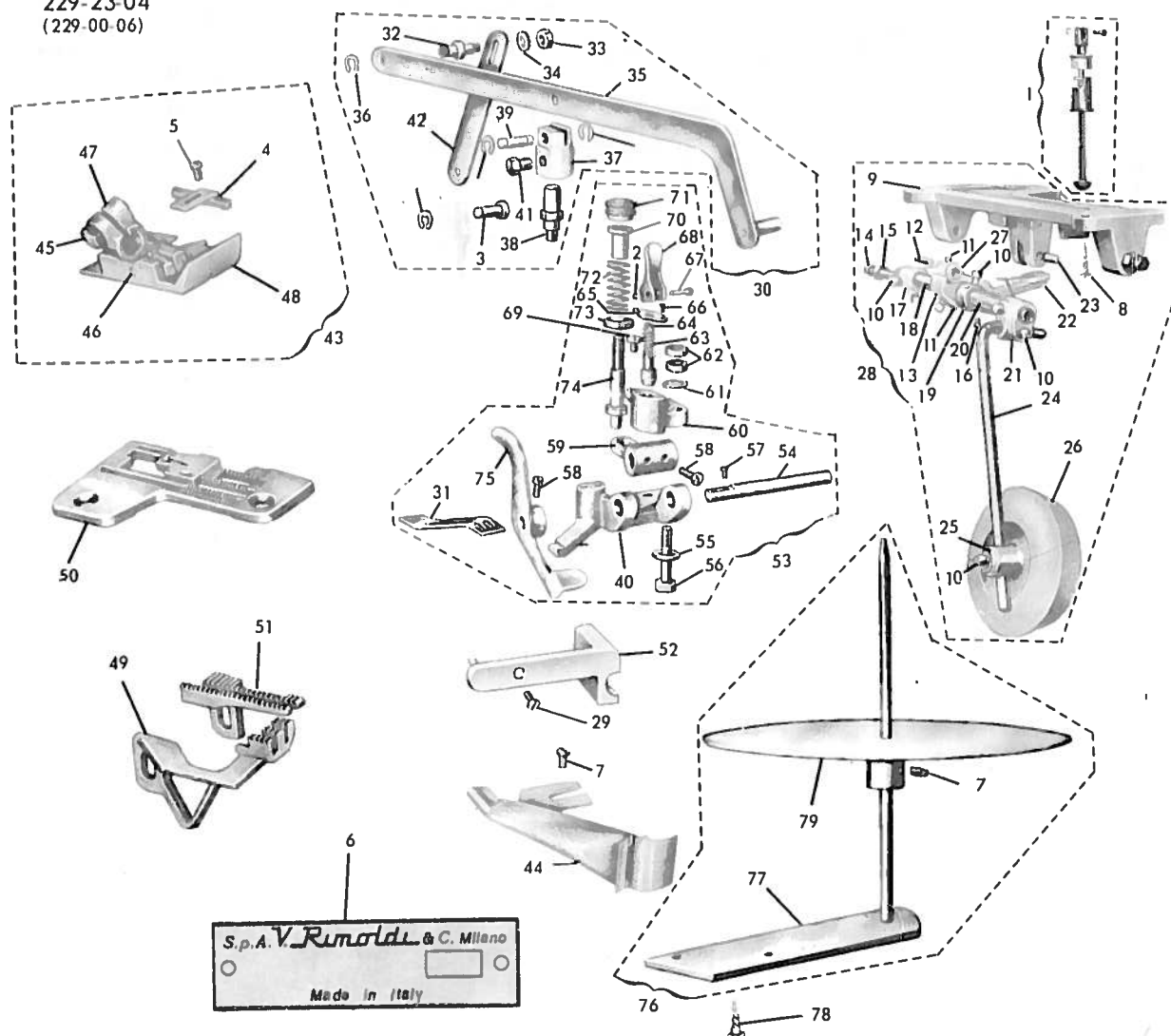
| REF. N°          | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°        | DESCRIPTION                         | QUANT.  |
|------------------|----------------|-------------------------------------------|--------|---------|-----------------|-------------------------------------|---------|
| 1                | G.270-556      | lever differential control                | 1      | 41      | 038-C-7         | bolt assembly fixing                | 1       |
| 2                | 270-701        | washer spring                             | 1      | 42      | 27.01-PDB-516   | lever rear                          | 1       |
| 3                | 27.01-PDB-558  | pin attachment                            | 1      | 43      | G.297PDBO-181/1 | presserfoot complete                | 1       |
| 4                | TS. 20 x 30    | screw wood, for fixing reel holder        | 1      | 44      | 297-182         | clamp                               | 1       |
| 5                | 297-PDB-183    | tongue                                    | 1      | 45      | 297-906         | bolt                                | 1       |
| 6                | 270-989        | screw                                     | 1      | 46      | 297-179         | pin                                 | 1       |
| 7                | PM297PDBO413   | guide for 5/64" cord                      | 1      | 47      | 297PDBO-184/1   | shoe                                | 1       |
| 8                | TS. 22 x 35    | screw attaching knee control to table     | 4      | 48      | 017-E-7         | grub screw for locking plate        | 2       |
| 9                | 270-570        | support knee control                      | 1      | 49      | PM2726PDBO9375  | plate complete                      | 1       |
| 10               | 038-M-9        | screw knee control                        | 9      | 50      | 297-PDB-050     | feed dog, front                     | 1       |
| 11               | 005-G-6        | screw pin locking                         | 2      | 51      | 297-PDB-051     | feed dog, rear                      | 1       |
| 12               | 270-580        | pin junction                              | 2      | 52      | G2726PDBC9375   | holder reel                         | 1       |
| 13               | 270-579        | anchor knee control                       | 1      | 53      | PM.602-141/1    | base with rod                       | 1       |
| 14               | 270-998        | screw pointed for knee control            | 2      | 54      | 781390-0-00     | plate machine class                 | 1       |
| 15               | 059-P-8        | nut for pointed screw                     | 2      | 55      | 297-PDB-114     | needle plate                        | 1       |
| 16               | 005-L-11       | screw for pin                             | 1      | 56      | PM2701PD417/1   | bracket stop                        | 1       |
| 17               | 270-578        | lever holding knee control junction       | 1      | 57      | G.297-PDB-401   | ruffler complete                    | 1       |
| 18               | 270-571        | shaft knee control                        | 1      | 58      | 297-PDB-403     | spindle carrying blade              | 1       |
| 19               | 270-720        | collar spring tensioning                  | 1      | 59      | 065-L-6         | washer                              | 1       |
| 20               | 270-575        | spring knee control return                | 1      | 60      | 297-PDB-418     | bolt long shank for ruffler support | 2       |
| 21               | 270-572        | attachment knee control                   | 1      | 61      | 004-L-6         | screw blade attachment              | 2       |
| 22               | 270-576        | arm knee control rocker                   | 1      | 62      | 001-E-6         | screw                               | 4       |
| 23               | 270-581        | pin rocker arm                            | 1      | 63      | 297-PDB-407     | lever blade pressure                | 1       |
| 24               | 270-573        | rod carrying knee control disc            | 1      | 64      | 297-PDB-408     | ruffler support                     | 1       |
| 25               | 270-574        | disc knee control                         | 1      | 65      | 064-D-5         | washer                              | 1       |
| 26               | 270-582        | covering knee control                     | 1      | 66      | 057-P-5         | nut                                 | 2       |
| 27               | 270-577        | joint knee control                        | 1      | 67      | 297-PDB-444     | spring stop pin pressure            | 1       |
| 28               | G.270-570      | assembly knee control for operating diff. | 1      | 68      | 297-PDB-442     | stop pin ruffler                    | 1       |
| 29               | 001-E-7        | screw fixing guide                        | 1      | 69      | 297-PDB-441     | plate stop pin guide                | 1       |
| 30               | G.297-PDB-515  | assembly for automatic control of ruffler | 1      | 70      | 028-B-5         | screw fixing stop pin guide plate   | 2       |
| 31               | 297-PDB-402    | blade ruffler                             | 1      | 71      | 270-078         | pin stop pin lever fulcrum          | 1       |
| 32               | 27.01-PDB-518  | pin rear lever                            | 1      | 72      | 270-094         | lever stop pin                      | 1       |
| 33               | 053-D-4        | nut                                       | 1      | 73      | 039-R-8.5       | screw fixing ruffler                | 1       |
| 34               | 070-F-4        | washer                                    | 1      | 74      | 1032 a          | bush load-spring                    | 1       |
| 35               | PM.297-PDB-515 | lever ruffler control                     | 1      | 75      | 160-032         | knob load-spring                    | 1       |
| 36               | 270-702        | clip IDEAL spring                         | 3      | 76      | 297-PDB-443     | spring ruffler blade loading        | 1       |
| 37               | 27.01-PDB-517  | fulcrum ruffler control lever             | 1      | 77      | 240-035         | retainer spring                     | 1       |
| 38               | 27.01-PDB-519  | pin threaded for mounting fulcrum         | 1      | 78      | 160-030         | pin for spring                      | 1       |
| 39               | 27.01-PDB-520  | pin fulcrum                               | 1      | 79      | PM.297PDB406    | lever ruffler control with hub      | 1       |
| 40               | 297-PDB-401    | body ruffler                              | 1      | 80      | 001-D-7         | screw fixing bracket                | 1       |
| On request:      |                |                                           |        |         |                 |                                     |         |
| 297-PDB-1141     |                |                                           |        |         |                 |                                     | Tab. 32 |
| 297-PDB-4021     |                |                                           |        |         |                 |                                     | 32      |
| PM.297-PDBO-4131 |                |                                           |        |         |                 |                                     | 32      |



| REF. N° | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°       | DESCRIPTION                         | QUANT.  |
|---------|----------------|-------------------------------------------|--------|---------|----------------|-------------------------------------|---------|
| 1       | G.270-556      | lever differential control                | 1      | 42      | 27.01-PDB-516  | lever rear                          | 2       |
| 2       | 270-701        | washer spring                             | 1      | 43      | G291PDBO181    | holder reel                         | 1       |
| 3       | 27.01-PDB-558  | pin attachment                            | 1      | 44      | G2726PDBO9375  | holder reel                         | 1       |
| 4       | 270-989        | screw                                     | 1      | 45      | 297-906        | bolt                                | 1       |
| 5       | 297-PDBO-183   | tongue                                    | 1      | 46      | 297-182        | clamp                               | 1       |
| 6       | 291-PDB-110    | needle guard front                        | 1      | 47      | 297-179        | pin                                 | 1       |
| 7       | 781391-0-00    | plate machine class                       | 1      | 48      | 291-PDBO-184   | shoe presserfoot                    | 1       |
| 8       | TS. 22 x 35    | screw for attaching knee control          | 1      | 49      | 291-PDB-050    | feed dog, front                     | 1       |
| 9       | 270-570        | support knee control                      | 1      | 50      | 297-PDB-114    | needle plate (bight width 9' 32")   | 1       |
| 10      | 038-M-9        | screw knee control                        | 1      | 51      | 291-PDB-051    | feed dog, rear                      | 1       |
| 11      | 005-G-6        | screw pin locking                         | 1      | 52      | PM.2701PD417/1 | bracket stop                        | 1       |
| 12      | 270-580        | pin junction                              | 1      | 53      | G.297-PDB-401  | ruffler complete                    | 1       |
| 13      | 270-579        | anchor knee control                       | 1      | 54      | 297-PDB-403    | spindle carrying plate              | 1       |
| 14      | 270-998        | screw pointed for knee control            | 1      | 55      | 065-L-6        | washer                              | 1       |
| 15      | 059-P-8        | nut for pointed screw                     | 1      | 56      | 297-PDB-418    | bolt long shank for ruffler support | 1       |
| 16      | 005-L-11       | screw for pin                             | 1      | 57      | 004-L-6        | screw blade attachment              | 1       |
| 17      | 270-578        | lever holding knee control junction       | 1      | 58      | 001-E-6        | screw                               | 4       |
| 18      | 270-571        | shaft knee control                        | 1      | 59      | 297-PDB-407    | lever blade pressure                | 1       |
| 19      | 270-720        | collar spring tensioning                  | 1      | 60      | 297-PDB-408    | support, ruffler                    | 1       |
| 20      | 270-575        | spring knee control return                | 1      | 61      | 061-D-5        | washer                              | 1       |
| 21      | 270-572        | attachment knee control                   | 1      | 62      | 057-P-5        | nut                                 | 2       |
| 22      | 270-576        | arm knee control rocker                   | 1      | 63      | 297-PDB-444    | spring stop pin pressure            | 1       |
| 23      | 270-581        | pin rocker arm                            | 1      | 64      | 297-PDB-442    | stop pin ruffler                    | 1       |
| 24      | 270-573        | rod carrying knee control disc            | 1      | 65      | 297-PDB-441    | plate stop pin guide                | 1       |
| 25      | 270-574        | disc knee control                         | 1      | 66      | 028-B-5        | screw fixing stop pin guide plate   | 2       |
| 26      | 270-582        | covering knee control                     | 1      | 67      | 270-078        | pin stop pin lever fulcrum          | 1       |
| 27      | 270-577        | joint knee control                        | 1      | 68      | 270-094        | lever stop pin                      | 1       |
| 28      | G.270-570      | assembly knee control for operating diff. | 1      | 69      | 039-R-8,5      | screw fixing ruffler                | 1       |
| 29      | 001-E-7        | screw fixing guide                        | 1      | 70      | 1032 a         | bush load-spring                    | 1       |
| 30      | G.297-PDB-515  | assembly for automatic control of ruffler | 1      | 71      | 160-032        | knob load-spring                    | 1       |
| 31      | 297-PDB-402    | blade, ruffler                            | 1      | 72      | 297-PDB-443    | spring ruffler blade loading        | 1       |
| 32      | 27.01-PDB-518  | pin rear lever                            | 1      | 73      | 240-035        | retainer spring                     | 1       |
| 33      | 053-D-4        | nut                                       | 1      | 74      | 160-030        | pin for spring                      | 1       |
| 34      | 070-F-4        | washer                                    | 1      | 75      | PM.297-PDB-406 | lever ruffler control with hub      | 1       |
| 35      | PM.297-PDB-515 | lever ruffler control                     | 1      | 76      | 001-D-7        | screw fixing bracket                | 1       |
| 36      | 270-702        | clip IDEAL spring                         | 3      | 77      | PM297PDBO413   | guide for 5' 64" cord               | 1       |
| 37      | 27.01-PDB-517  | fulcrum ruffler control lever             | 1      | 78      | TS. 20 x 30    | screw                               | 2       |
| 38      | 27.01-PDB-519  | pin threaded mounting fulcrum             | 1      | 79      | 017-E-7        | grub screw                          | 1       |
| 39      | 27.01-PDB-520  | pin fulcrum                               | 1      | 80      | PM2726PDBO1425 | plate complete                      | 1       |
| 40      | 297-PDB-401    | ruffler body                              | 1      | 81      | PM.602-141/1   | base with rod                       | 1       |
| 41      | 038-C-7        | bolt assembly fixing                      | 1      |         |                | On request:                         |         |
|         |                |                                           |        |         |                | 297-PDB-4021                        | Tab. 32 |
|         |                |                                           |        |         |                | 297-PDB-4031                        | " 32    |
|         |                |                                           |        |         |                | PM.297-PDBO-4131                    | " 32    |

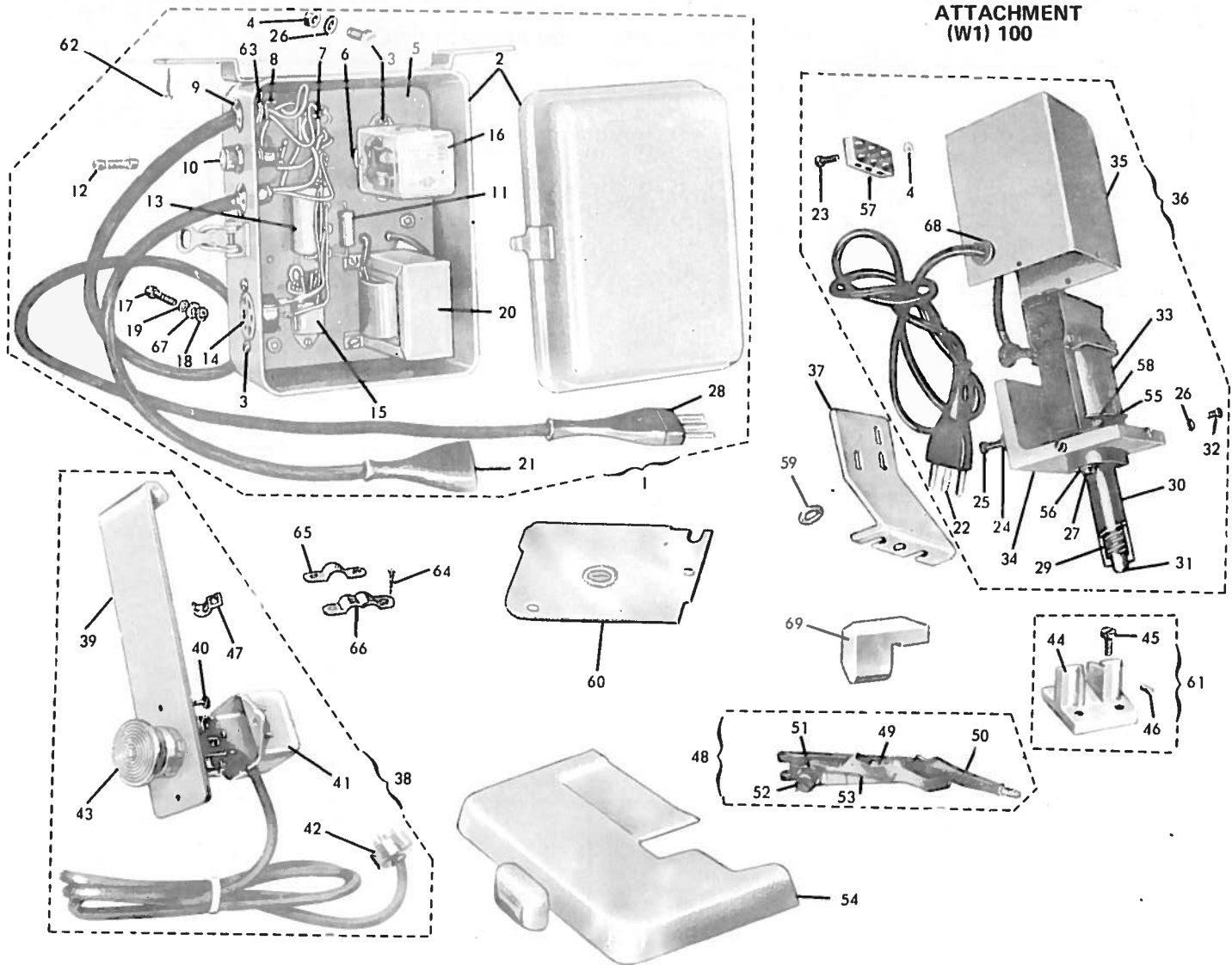


| REF. N°        | PART. N°      | DESCRIPTION                               | QUANT. | REF. N° | PART. N°       | DESCRIPTION                         | QUANT. |
|----------------|---------------|-------------------------------------------|--------|---------|----------------|-------------------------------------|--------|
| 1              | G.270-556     | lever differential control                | 1      | 41      | 038 C-7        | bolt assembly fixing                | 1      |
| 2              | 270-701       | washer spring                             | 1      | 42      | 27.01-PDB-516  | lever rear                          | 1      |
| 3              | 27.01-PDB-558 | pin attachment                            | 1      | 43      | G.297PDBO181/1 | presserfoot complete                | 1      |
| 4              | TS. 20x 30    | screw, wood, for fixing reel holder       | 1      | 44      | 297.182        | clamp                               | 1      |
| 5              | 297-PDB-183   | tongue                                    | 1      | 45      | 297.906        | bolt                                | 1      |
| 6              | 270-989       | screw                                     | 1      | 46      | 297.179        | pin                                 | 1      |
| 7              | PM297PDBO413  | guide for 5/64" cord                      | 1      | 47      | 297PDBO184/1   | shoe                                | 1      |
| 8              | TS 22 x 35    | screw attaching knee control to table     | 4      | 48      | 017-E-7        | grub screw for locking plate        | 2      |
| 9              | 270-570       | support knee control                      | 1      | 49      | PM2726PDBO9375 | plate complete.                     | 1      |
| 10             | 038-M-9       | screw knee control                        | 9      | 50      | 297-PDB-050    | feed dog, front                     | 1      |
| 11             | 005-G-6       | screw pin locking                         | 2      | 51      | 297-PDB-051    | feed dog, rear                      | 1      |
| 12             | 270-580       | pin junction                              | 2      | 52      | G2726PDBO9375  | holder reel                         | 1      |
| 13             | 270-579       | anchor knee control                       | 1      | 53      | PM.602-141/1   | base with rod                       | 1      |
| 14             | 270-998       | screw pointed for knee control            | 2      | 54      | 781390-0-00    | plate machine class                 | 1      |
| 15             | 059-P-8       | nut for pointed screw                     | 2      | 55      | 297-PDB-114    | needle plate                        | 1      |
| 16             | 005-L-11      | screw for pin                             | 1      | 56      | PM2701PD-417/1 | bracket stop                        | 1      |
| 17             | 270-578       | lever holding knee control junction       | 1      | 57      | G.297-PDB-401  | ruffler complete                    | 1      |
| 18             | 270-571       | shaft knee control                        | 1      | 58      | 297-PDB-403    | spindle carrying blade              | 1      |
| 19             | 270-720       | collar spring tensioning                  | 1      | 59      | 065-L-6        | washer                              | 1      |
| 20             | 270-575       | spring knee control return                | 1      | 60      | 297-PDB-418    | bolt long shank for ruffler support | 2      |
| 21             | 270-572       | attachment knee control                   | 1      | 61      | 004-L-6        | screw blade attachment              | 2      |
| 22             | 270-576       | arm knee control rocker                   | 1      | 62      | 001-E-6        | screw                               | 4      |
| 23             | 270-581       | pin rocker arm                            | 1      | 63      | 297-PDB-407    | lever blade pressure                | 1      |
| 24             | 270-573       | rod carrying knee control disc            | 1      | 64      | 297-PDB-408    | ruffler support                     | 1      |
| 25             | 270-574       | disc knee control                         | 1      | 65      | 064-D-5        | washer                              | 1      |
| 26             | 270-582       | covering knee control                     | 1      | 66      | 057-P-5        | nut                                 | 2      |
| 27             | 270-577       | joint knee control                        | 1      | 67      | 297-PDB-444    | spring stop pin pressure            | 1      |
| 28             | G.270-570     | assembly knee control for operating diff. | 1      | 68      | 297-PDB-442    | stop pin ruffler                    | 1      |
| 29             | 001-E-7       | screw fixing guide                        | 1      | 69      | 297-PDB-441    | plate stop pin guide                | 1      |
| 30             | G.297-PDB-515 | assembly for automatic control of ruffler | 1      | 70      | 028-B-5        | screw fixing stop pin guide plate   | 2      |
| 31             | 297-PDB-402   | blade ruffler                             | 1      | 71      | 270-078        | pin stop pin lever fulcrum          | 1      |
| 32             | 27.01-PDB-518 | pin rear lever                            | 1      | 72      | 270-094        | lever stop pin                      | 1      |
| 33             | 053-D-4       | nut                                       | 1      | 73      | 039-R-8,5      | screw fixing ruffler                | 1      |
| 34             | 070-F-4       | washer                                    | 1      | 74      | 1032-a         | bush load-spring                    | 1      |
| 35             | PM297-PDB-515 | lever ruffler control                     | 1      | 75      | 160-032        | knob load-spring                    | 1      |
| 36             | 270-702       | clip IDEAL spring                         | 3      | 76      | 297-PDB-443    | spring ruffler blade loading        | 1      |
| 37             | 27.01-PDB-517 | fulcrum ruffler control lever             | 1      | 77      | 240-035        | retainer spring                     | 1      |
| 38             | 27.01-PDB-519 | pin threaded for mounting fulcrum         | 1      | 78      | 160-030        | pin for spring                      | 1      |
| 39             | 27.01-PDB-520 | pin fulcrum                               | 1      | 79      | PM.297-PDB-406 | lever ruffler control with hub      | 1      |
| 40             | 297-PDB-401   | body ruffler                              | 1      | 80      | 001-D-7        | screw fixing bracket                | 1      |
| On request:    |               |                                           |        |         |                |                                     |        |
| 297-PDB-1141   |               |                                           |        |         |                | Tab. 32                             |        |
| 297-PDB-4021   |               |                                           |        |         |                | " 32                                |        |
| 297-PDB-4031   |               |                                           |        |         |                | " 32                                |        |
| PM.297-PDB-413 |               |                                           |        |         |                | " 32                                |        |



| REF. N° | PART. N°      | DESCRIPTION                               | QUANT. | REF. N° | PART. N°       | DESCRIPTION                         | QUANT.  |
|---------|---------------|-------------------------------------------|--------|---------|----------------|-------------------------------------|---------|
| 1       | G.270-556     | lever differential control                | 1      | 41      | 038 C-7        | bolt assembly fixing                | 1       |
| 2       | 270-701       | washer spring                             | 3      | 42      | 27.01 PDB 516  | lever rear                          | 1       |
| 3       | 27.01-PDB-558 | pin attachment                            | 1      | 43      | G2917PDBO141   | presserfoot complete                | 1       |
| 4       | 297-PDBO-183  | tongue                                    | 1      | 44      | PM297PDBO413   | guide for 5 64" cord                | 1       |
| 5       | 270-989       | screw                                     | 1      | 45      | 297-906        | bolt                                | 1       |
| 6       | 781393-0-00   | plate machine class                       | 1      | 46      | 297-179        | pin                                 | 1       |
| 7       | 001-E-7       | screw                                     | 2      | 47      | 29.17-182      | clamp                               | 1       |
| 8       | TS. 22 x 35   | screw attaching knee control to table     | 4      | 48      | 2917PDBO184 1  | shoe presserfoot                    | 1       |
| 9       | 270-570       | support knee control                      | 1      | 49      | 2917-PDB 050   | feed dog, front                     | 1       |
| 10      | 038-M-9       | screw knee control                        | 9      | 50      | 2917-PDB 114   | needle plate (bight width 27 64")   | 1       |
| 11      | 005-G-6       | screw pin locking                         | 2      | 51      | 2917-PDB 051   | feed dog, rear                      | 1       |
| 12      | 270-580       | pin junction                              | 2      | 52      | PM2701PD417 1  | bracket stop                        | 1       |
| 13      | 270-579       | anchor knee control                       | 1      | 53      | G297PDB-401    | ruffler complete                    | 1       |
| 14      | 270-998       | screw pointed for knee control            | 2      | 54      | 297-PDB 403    | spindle carrying plate              | 1       |
| 15      | 059-P-8       | nut for pointed screw                     | 2      | 55      | 065-L 6        | washer                              | 1       |
| 16      | 005-L-11      | screw for pin                             | 1      | 56      | 297-PDB 418    | bolt long shank for ruffler support | 1       |
| 17      | 270-578       | lever holding knee control junction       | 1      | 57      | 004-L 6        | screw blade attachment              | 2       |
| 18      | 270-571       | shaft knee control                        | 1      | 58      | 001-E 6        | screw                               | 4       |
| 19      | 270-720       | collar spring tensioning                  | 1      | 59      | 297 PDB 407    | lever blade pressure                | 1       |
| 20      | 270-575       | spring knee control return                | 1      | 60      | 297 PDB 408    | support ruffler                     | 1       |
| 21      | 270-572       | attachment knee control                   | 1      | 61      | 064-D 5        | washer                              | 1       |
| 22      | 270-576       | arm knee control rocker                   | 1      | 62      | 057-P 5        | nut                                 | 2       |
| 23      | 270-581       | pin rocker arm                            | 1      | 63      | 297-PDB 444    | spring stop pin pressure            | 1       |
| 24      | 270-573       | rod carrying knee control disc            | 1      | 64      | 297 PDB 442    | stop pin ruffler                    | 1       |
| 25      | 270-574       | disc knee control                         | 1      | 65      | 297 PDB 441    | plate stop pin guide                | 1       |
| 26      | 270-582       | covering knee control                     | 1      | 66      | 028-B-5        | screw fixing stop pin guide plate   | 2       |
| 27      | 270-577       | joint knee control                        | 1      | 67      | 270-078        | pin stop pin lever fulcrum          | 1       |
| 28      | G.270-570     | knee control assembly for operating diff. | 1      | 68      | 270-094        | lever stop pin                      | 1       |
| 29      | 001-D-7       | screw                                     | 1      | 69      | 039-R-8,5      | screw fixing ruffler                | 1       |
| 30      | G.297-PDB-515 | assembly for automatic control of ruffler | 1      | 70      | 1032 a         | bush load-spring                    | 1       |
| 31      | 297-PDB-402   | blade ruffler                             | 1      | 71      | 160-032        | knob load-spring                    | 1       |
| 32      | 27.01-PDB-518 | pin rear lever                            | 1      | 72      | 297-PDB 443    | spring ruffler blade loading        | 1       |
| 33      | 053-D-4       | nut                                       | 1      | 73      | 240-035        | retainer spring                     | 1       |
| 34      | 070-F-4       | washer                                    | 1      | 74      | 160-030        | pin for spring                      | 1       |
| 35      | PM297-PDB-515 | lever ruffler control                     | 1      | 75      | PM297 PDB 406  | lever ruffler control with hub      | 1       |
| 36      | 270-702       | clip IDEAL spring                         | 1      | 76      | G2726PDBO9375  | holder reel                         | 1       |
| 37      | 27.01-PDB-517 | fulcrum ruffler control lever             | 1      | 77      | PM.602-141 1   | base with rod                       | 1       |
| 38      | 27.01-PDB-519 | pin threaded mounting fulcrum             | 1      | 78      | TS. 20 x 30    | screw fixing                        | 2       |
| 39      | 27.01-PDB-520 | pin fulcrum                               | 1      | 79      | PM2726PDBO142b | plate complete                      | 1       |
| 40      | 297-PDB-401   | body, ruffler                             | 1      |         |                | On request:                         |         |
|         |               |                                           |        |         |                | 297-PDB-4021                        | Tab. 32 |
|         |               |                                           |        |         |                | 297-PDB-4031                        | " 32    |
|         |               |                                           |        |         |                | PM.297-PDBO-4131                    | " 32    |

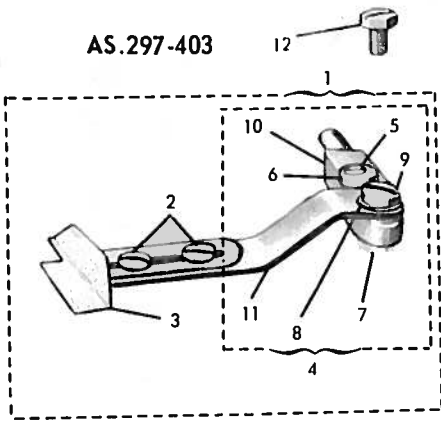
# SOLENOID CHAIN CUTTING ATTACHMENT (W1) 100

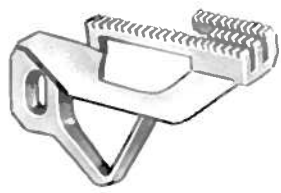


WARNING: the apparatus is designed for 220 V. For different voltages run through an auto-transformer, design no. SUT. 1745.00, with relative connectors, design no. PM T 11-127

| REF. N° | PART. N°      | DESCRIPTION          | QUANT. | REF. N° | PART. N°        | DESCRIPTION                | QUANT. |
|---------|---------------|----------------------|--------|---------|-----------------|----------------------------|--------|
| 1       | AS.270 W1 333 | control box complete | 1      | 36      | AS.270 W1 351   | solenoid assembly complete | 1      |
| 2       | G.270 W1 333  | control box electric | 1      | 37      | 270 W1 323      | bracket                    | 1      |
| 3       | C.001 C-10    | screw                | 11     | 38      | G.270 W 3340    | push button complete       | 1      |
| 4       | 057 B 3       | nut                  | 13     | 39      | 270 W 3300      | bracket push-button        | 1      |
| 5       | 270 W1 373    | panel                | 1      | 40      | 001 E 5         | screw                      | 4      |
| 6       | 270 W1 378    | base                 | 1      | 41      | 270 W 3310      | cover                      | 1      |
| 7       | T 11 22       | anchoring            | 1      | 42      | 270 W 3700      | plug 4 - pin               | 1      |
| 8       | T 11 30       | terminal cable       | 1      | 43      | 270 W 3340      | push button                | 1      |
| 9       | 270 W1 3721   | grommet              | 2      | 44      | 270 W 6400 3    | bracket slide guide        | 1      |
| 10      | 270 W1 363    | fuse holder          | 1      | 45      | 008 A 12        | screw                      | 1      |
| 11      | T 11 16 3     | resistor             | 1      | 46      | 270 716         | screw                      | 1      |
| 12      | T 11 33 3     | fuse                 | 1      | 47      | 122 T 37        | cable-guide                | 2      |
| 13      | T 11 21       | condenser electronic | 1      | 48      | G.297 W 3220 1  | lever complete             | 1      |
| 14      | 270 W 3680    | socket push button   | 1      | 49      | 270 W 3220      | lever chain-cutting        | 1      |
| 15      | T 11 14       | rectifier            | 1      | 50      | PM.297 W 0760 1 | lever, presserfoot holder  | 1      |
| 16      | 270 W1 379    | relay                | 1      | 51      | 270 W 3280      | washer                     | 1      |
| 17      | C.001 E 30    | screw                | 3      | 52      | 270 W 3250      | screw for spring           | 1      |
| 18      | 053 D 4       | nut                  | 3      | 53      | 270 W 3240      | spring knife return        | 1      |
| 19      | 063 L 4       | washer               | 6      | 54      | G.297 W1 210 3  | work plate                 | 1      |
| 20      | T 11 13       | transformer          | 1      | 55      | 270 W 3540      | washer                     | 4      |
| 21      | 270 W1 369    | socket               | 1      | 56      | 633 710 1       | washer                     | 1      |
| 22      | 270 W1 372    | plug with earth      | 2      | 57      | 122 T 215       | board terminal             | 2      |
| 23      | C.001 C-14    | screw                | 2      | 58      | 001 E 8         | screw                      | 1      |
| 24      | 064 L 5       | washer               | 3      | 59      | 065 C 6         | washer                     | 4      |
| 25      | 270 W 3550    | screw                | 3      | 60      | 297 W 2470 1    | shield, oil                | 2      |
| 26      | 270 W1 355    | washer star          | 12     | 61      | G.270 W 6400 3  | bracket slide guide        | 1      |
| 27      | 001 E 12      | screw                | 2      | 62      | TT 20 x 25      | screw wood                 | 4      |
| 28      | T 11 126      | plug with earth      | 1      | 63      | 270 W1 328      | holder cable               | 2      |
| 29      | 270 W1 346    | spring               | 1      | 64      | 270 459         | nails for cable guide      | 30     |
| 30      | 270 W1 345    | sleeve               | 1      | 65      | 546             | cable guide single         | 10     |
| 31      | 270 W1 349    | contact point        | 1      | 66      | 547             | cable guide double         | 5      |
| 32      | C.001 C 7     | screw                | 3      | 67      | T 11 355        | washer star                | 3      |
| 33      | 270 W1 351    | solenoid             | 1      | 68      | 270 W1 327      | grommet                    | 1      |
| 34      | PM 270 W1 332 | bracket              | 1      | 69      | 270 253 TC 30   | gasket slide guide         | 1      |
| 35      | PM.270 W1 343 | cover solenoid       | 1      |         |                 |                            |        |

**PARTS SUPPLIED ON REQUEST ONLY**

|            |  |                                                                                   |          |                |                           |       |           |
|------------|--|-----------------------------------------------------------------------------------|----------|----------------|---------------------------|-------|-----------|
| AS.297-403 |  |  | Ref<br>N | N<br>DRAW      | DENOMINATION              | Quant | USE ON    |
|            |  |                                                                                   | 1        | AS 297-403     | guide, swing out complete | 1     | 229.00 05 |
|            |  |                                                                                   | 2        | 255-404        | screws                    | 2     |           |
|            |  |                                                                                   | 3        | PM 297-404     | guide                     | 1     |           |
|            |  |                                                                                   | 4        | G 276-D 403/ 2 | support swivel complete   | 1     |           |
|            |  |                                                                                   | 5        | 032-F 6,5      | screw for eccentric       | 1     |           |
|            |  |                                                                                   | 6        | 605-412        | eccentric                 | 1     |           |
|            |  |                                                                                   | 7        | 057-E 4        | nut                       | 1     |           |
|            |  |                                                                                   | 8        | 276-B 412      | washer spring             | 1     |           |
|            |  |                                                                                   | 9        | 011-E 13       | screw with collar         | 1     |           |
|            |  |                                                                                   | 10       | 276-B 417/ 1   | support guide             | 1     |           |
|            |  |                                                                                   | 11       | 276-D 407/ 2   | support swivel            | 1     |           |
|            |  |                                                                                   | 12       | 039 R 8, 5     | screw                     | 1     |           |

|                                                                                     |                                                                                   |                                                                                      |  |              |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|--------------|
|    |  | NEEDLE PLATE                                                                         |  | 297-PDB.1141 |
| 297-PDB.4021                                                                        |                                                                                   | 297-PDB.4031                                                                         |  | USE ON       |
| USE ON                                                                              |                                                                                   |                                                                                      |  | 229.22.01    |
| 229.22.01 = 229.22.02 = 229 22.03 = 229 22.04                                       |                                                                                   |                                                                                      |  | 229 22.03    |
| 229.23.01 = 229.23.02 = 229.23.03 = 229 23.04                                       |                                                                                   |                                                                                      |  | 229 23.01    |
|                                                                                     |                                                                                   |                                                                                      |  | 229 23.03    |
|  |                                                                                   | PM.297-PDB.4131                                                                      |  | USE ON       |
|                                                                                     |                                                                                   | USE ON                                                                               |  | 229 23.01    |
|                                                                                     |                                                                                   |                                                                                      |  | 229.23.02    |
|                                                                                     |                                                                                   |                                                                                      |  | 229.23.03    |
|                                                                                     |                                                                                   |                                                                                      |  | 229.23.04    |
|                                                                                     |                                                                                   |                                                                                      |  |              |
|  |                                                                                   | NEEDLE PLATE                                                                         |  | 297-1141/ 1  |
|                                                                                     |                                                                                   | NEEDLE PLATE                                                                         |  | USE ON       |
|                                                                                     |                                                                                   |    |  | 229.00.05    |
|  |                                                                                   | FRONT FEED DOG                                                                       |  | 29.17-0501   |
|                                                                                     |                                                                                   | FRONT FEED DOG                                                                       |  | USE ON       |
|                                                                                     |                                                                                   |   |  | 229.00 06    |
|  |                                                                                   | REAR FEED DOG                                                                        |  | 29.17-0511   |
|                                                                                     |                                                                                   | REAR FEED DOG                                                                        |  | USE ON       |
|                                                                                     |                                                                                   |  |  | 229.00.06    |
|  |                                                                                   | FRONT FEED DOG                                                                       |  | 297-0501/ 1  |
|                                                                                     |                                                                                   | FRONT FEED DOG                                                                       |  | USE ON       |
|                                                                                     |                                                                                   |   |  | 229 00.05    |
|  |                                                                                   | REAR FEED DOG                                                                        |  | 297-0511     |
|                                                                                     |                                                                                   | REAR FEED DOG                                                                        |  | USE ON       |
|                                                                                     |                                                                                   |  |  | 229.00.05    |

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| 001-A 3,2  | 7-12-16-17 | 070-M 4,5    | 3       | 270-061/2    | 2    | 270-274/3    | 9      |
|            | 18         | 071-D 5      | 6-18    | 270-062      | 2    | 270-275/1    | 9      |
| 001-A 4,3  | 7          | 071-E 5      | 5       | 270-063/2    | 4    | 270-287/1    | 3      |
| 001-C 5,5  | 9          | 071-H 5      | 3       | 270-064      | 4    | 270-288/1    | 3      |
| 001-D 4,5  | 8          | 071-M 5,5    | 3       | 270-065/3    | 4    | PM.270-301   | 8      |
| 001-D 6    | 8          | 072-C 6      | 4       | G 270-065/3  | 4    | 270-303      | 8      |
| 001-D 7    | 8          | 072-H 6      | 4       | 270-066/2    | 8    | 270-W1.328   | 10     |
| 001-D 10   | 8          | 073-A 8      | 3       | 270-067      | 4    | AS.270-410   | 10     |
| 001-E 6    | 9          | 073-C 8      | 3       | 270-069      | 4    | 270-422      | 10     |
| 001-E 7    | 5-10       | 073-F 9      | 5-6     | 270-070      | 4    | PM.270-428   | 10     |
| 001-E 10   | 2          | 073-M 10     | 2       | 270-073      | 7    | 270-430      | 10     |
| 001-E 18   | 1          | 073-N 10     | 4       | 270-D 074/1  | 4    | 270-431      | 13     |
| 001-G 10   | 5-11-12    | 074-A 12     | 2       | 270-077      | 7    | 270-432      | 10     |
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| 004-A 2,5  | 9          | 092-C 2      | 2-4-6   | PM.270-081/1 | 7    | 270-459      | 11     |
| 004-C 5,5  | 9          | 092-D 5      | 5       | 270-082/1    | 1    | 270-552      | 11     |
| 004-E 7    | 2          | 092-D 6      | 3-5     | 270-083      | 7    | 270-553      | 11     |
| 004-F 4    | 6-18       | 092-D 7      | 4       | 270-085/1    | 7    | 270-554      | 11     |
| 004-G 7    | 9          | 092-D 9      | 6       | 270-086      | 8    | 270-556/1    | 11     |
| 004-L 7    | 3          | 092-D 11     | 3-4-5-7 | 270-087/1    | 7    | 270-557      | 11     |
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| 004-P 6    | 3          | 092-D 16     | 4       | G.270-090/1  | 8    | 270-566/1    | 3      |
| 005-G 6    | 11         | VR 604       | 13      | 270-091      | 7    | 270-567      | 3      |
| 005-L 11   | 3-11       | TS 20x30     | 12      | 270-093/1    | 8    | 270-568      | 3      |
| 005-M 7    | 18         | TS 22x35     | 11      | 270-094      | 8    | 270-570      | 11     |
| 005-M 10   | 8          | 01141        | 12      | PM.270-095/3 | 8    | G.270-570    | 11     |
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| 016-A 2,5  | 5-16       | 1156/1       | 13      | 270-108/1    | 6    | 270-579      | 11     |
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| 016-B 3    | 4          | PM 1159      | 11      | 270-116/2    | 2    | 270-581      | 11     |
| 016-B 4    | 4          | 1175         | 13      | 270-129/1    | 8    | 270-582      | 11     |
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| 028-E 10   | 8-10       | 270-009/4    | 2       | PM.270-208/3 | 8    | 270-617/2    | 2      |
| 032-A 6    | 9          | 270-010/2    | 2       | 270-212      | 8    | 270-620      | 2      |
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| 032-F 9,5  | 8          | 270-030      | 8       | 270-221      | 8    | 270-624      | 8      |
| 032-L 10,5 | 7          | 270-030/2    | 8       | 270-226      | 8    | 270-640/3    | 3      |
| 036-C 7    | 9          | 270-031/1    | 3-5     | 270-230      | 9    | 270-642      | 1      |
| 038-M 9    | 11         | 270-032/3    | 3       | 270-231      | 8    | 270-645      | 10     |
| 039-A 6    | 7          | 270-033/1    | 3       | 270-232/1    | 9    | G.270-646    | 10     |
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| 054-D 4    | 8          | 270-039      | 3       | PM.270-245/3 | 8    | 270-702      | 3      |
| 057-A 3    | 10         | 270-040      | 3       | 270-246      | 8    | 270-704      | 2      |
| 057-E 4    | 8-32       | 270-041/1    | 3       | 270-248/1    | 8    | 270-705      | 2      |
| 057-G 4    | 3          | 270-042/3    | 1       | 270-249/1    | 3    | 270-707      | 2      |
| 058-M 10   | 11         | 270-044/2    | 1       | 270-250/2    | 3    | 270-708      | 5      |
| 059-A 5    | 11         | PM 270-045/2 | 3       | 270-251/1    | 3    | 270-709      | 2      |
| 059-F 8    | 11         | 270-046/3    | 3       | 270-253      | 3    | 270-713      | 5      |
| 059-G 6    | 4-10       | 270-047/2    | 3       | 270-255      | 9    | 270-714      | 7      |
| 059-H 6    | 11         | 270-048      | 3       | 270-258      | 9    | 270-715      | 8      |
| 064-E 5    | 11         | 270-053      | 4       | 270-259      | 9    | 270-717      | 3      |
| 064-F 5    | 3          | 270-056/2    | 4       | 270-261/1    | 9    | 270-718      | 8      |
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| 065-L 6    | 10-11      | 270-058/1    | 1       | 270-265      | 9    | 270-720      | 11     |
| 065-N 6    | 12         | 270-059/1    | 2       | 270-265/1    | 9    | 270-728/1    | 5      |
| 067-H 10   | 11         | PM 270-059/1 | 2       | 270-266      | 9    | 270-730/2    | 9      |
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| 270-816/1      | 10   | PM.290-071    | 4    | PM.291-020/1   | 16         | 603-154        | 13   |
| G.270-816/1    | 10   | 290-075/1     | 4    | G.291-025/1    | 16         | 603-739        | 13   |
| PM.270-816/1   | 10   | 290-099       | 6    | 291-050        | 16         | 605-412        | 8-32 |
| 270-823/1      | 10   | PM.290-104/1  | 6-18 | 291-B.050      | 17         | 605-937        | 12   |
| 270-824/1      | 10   | 290-105       | 6-18 | 291-051        | 16         | 605-980        | 12   |
| 270-827/1      | 10   | 290-110       | 6    | 291-B.051      | 17         | 633-707        | 10   |
| 270-828/1      | 10   | 290-111       | 6    | 291-052        | 15-16      | 633-708        | 10   |
| 270-831/1      | 10   | 290-113       | 6-13 | 291-114        | 16         | 633-711/1      | 10   |
| 270-836        | 10   | 290-B.114     | 15   | 291-B.114      | 17         | 633-742        | 13   |
| 270-877        | 6    | 290-114/1     | 14   | G.291-181/1    | 16         | 633-812        | 10   |
| 270-912        | 1    | 290-115       | 6    | G.291-B.181/1  | 17         | 633-813        | 10   |
| 270-913        | 8    | 290-124       | 4    | 291-B.182      | 17         | 633-814        | 10   |
| 270-915        | 3    | 290-130       | 12   | 291-184/1      | 16         | PM.633-817/1   | 10   |
| 270-927        | 3    | 290-134       | 12   | 291-B.184/1    | 17         | 633-818/1      | 10   |
| 270-933        | 5    | 290-135       | 12   | 291-B.192      | 17         | 633-819        | 10   |
| 270-935        | 3    | 290-137       | 12   | 291-B.1861     | 17         | 633-821/2      | 10   |
| 270-937/1      | 3    | G.290-137     | 12   | PM.297-009     | 2          | 633-822/2      | 10   |
| 270-940        | 8    | AS.290-140    | 12   | 297-025/1      | 16-18      | 633-826/1      | 10   |
| 270-941        | 9    | 290-140       | 12   | G.297-025/1    | 5          | 633-833        | 10   |
| 270-942        | 9    | 290-142       | 12   | 297-050/1      | 3          | G.633-833/1    | 10   |
| 270-946        | 10   | PM.290-148/1  | 12   | 297-051        | 3          | 633-834/1      | 10   |
| 270-947        | 10   | G.290-157     | 12   | 297-055        | 4          | 633-842        | 10   |
| 270-965/2      | 8    | 290-177       | 9    | G.297-068      | 4          | 633-925        | 10   |
| 270-966/1      | 10   | G.290-B.181/1 | 15   | 297-076/1      | 7          | 633-959        | 10   |
| 270-970        | 8    | 290-B.184/1   | 15   | G.297-076/1    | 7          | 633-966        | 10   |
| 270-971        | 11   | 290-B.192     | 15   | G.297-104/1    | 6          | 633-M.745      | 13   |
| 270-972        | 8    | 290-203       | 8    | 297-107/1      | 7          | 670-702        | 10   |
| 270-974/1      | 4    | 290-204       | 8    | G.297-107/1    | 7          | 781301-0-00    | 14   |
| 270-975        | 2-3  | PM.290-205/3  | 8    | 297-109/1      | 7          | 781302-0-00    | 15   |
| 270-975/1      | 4-5  | 290-209       | 8    | 297-114/1      | 7          | 781303-0-00    | 16   |
| 270-977        | 3    | G.290-216/2   | 8    | 297-179        | 7-15-16-17 | 781304-0-00    | 17   |
| 270-978        | 3    | PM.290-217/2  | 8    |                | 18         | 781305-0-00    | 9    |
| 270-979        | 3    | PM.290-218/2  | 8    | 297-182        | 7-15-16    | 781306-0-00    | 18   |
| 270-980        | 3    | 290-220       | 8    | 297-183        | 7-15-16-17 | 910-143        | 12   |
| 270-981        | 2    | 290-255       | 9    | 297-187        | 7-15-16-17 | 910-144        | 12   |
| 270-983        | 8    | 290-256       | 9    |                | 18         | PM.910-914     | 12   |
| 270-984        | 3    | G.290-262/1   | 9    | 297-190/1      | 7          | G.910-914/1    | 12   |
| 270-985        | 7    | 290-273       | 9    | 297-194        | 7-15-16-17 | 910-934/1      | 12   |
| 270-989        | 7    | 290-279       | 8    |                | 18         | 910-964        | 12   |
| 270-992        | 3    | 290-280       | 9    | 297-195        | 7-15-16-17 |                |      |
| 270-993        | 8    | 290-298       | 4    |                | 18         |                |      |
| 270-995        | 8    | 290-306       | 9    | PM.297-210     | 8          |                |      |
| 270-996/2      | 10   | 290-307       | 2    | 297-214        | 9          |                |      |
| G.270-996/2    | 10   | G.290-309/1   | 9    | 297-220        | 8          |                |      |
| 270-997        | 11   | PM.290-309/1  | 9    | G.297-242      | 8          |                |      |
| 270-999        | 2    | 290-310       | 9    | 297-247        | 8          |                |      |
| 270-0541       | 3    | 290-312/1     | 4    | 297-270        | 9          |                |      |
| 270-0751       | 4    | PM.290-313    | 4    | 297-281        | 4          |                |      |
| 270-8251       | 10   | PM.290-315    | 1    | 297-362        | 4          |                |      |
| 272-B.052      | 3    | 290-351       | 1    | AS.297-403     | 6-32       |                |      |
| 272-B.272      | 9    | 290-352       | 4    | PM.297-404     | 32         |                |      |
| G.276-D.403/2  | 32   | 290-354       | 1    | 297-746        | 13         |                |      |
| 276-D.407/2    | 32   | 290-356       | 4    | 297-906        | 7-15-16-17 |                |      |
| 276-B.412      | 32   | 290-357       | 1    |                | 18         |                |      |
| 276-B.417/1    | 32   | 290-360       | 4    | G.297-1811/1   | 7          |                |      |
| 27.01-P.092    | 8    | G.290-361     | 4    | 297-1841/1     | 7          |                |      |
| 27.01-P.403/1  | 7    | 290-363       | 4    | 297-1921       | 7-16       |                |      |
| 27.27-253      | 9    | 290-396       | 1    | PM.29.12-263   | 18         |                |      |
| 27.27-256/1    | 9    | 290-412       | 4    | G.29.17-002/1  | 18         |                |      |
| 27.27-262/2    | 9    | 290-619       | 8    | 29.17-020/1    | 18         |                |      |
| PM.27.27-263/1 | 9    | 290-700       | 4    | PM.29.17-020/2 | 18         |                |      |
| 27.77-1121     | 6-13 | 290-703       | 3-4  | G.29.17-025/2  | 18         |                |      |
| 27.221-C.232/1 | 9    | 290-705       | 12   | 29.17-050      | 18         |                |      |
| 27.277-0745    | 4    | 290-706       | 12   | 29.17-051      | 18         |                |      |
| 280-012/3      | 3    | 290-715       | 3    | PM.29.17-081   | 18         |                |      |
| 287-183        | 18   | 290-716       | 4    | 29.17-092      | 18         |                |      |
| 28-779-094     | 18   | 290-726       | 2    | G.29.17-104/1  | 18         |                |      |
| G.290-001/1    | 10   | 290-732       | 3    | 29.17-110      | 18         |                |      |
| PM.290-001/1   | 10   | PM.290-732    | 3    | 29.17-114/1    | 18         |                |      |
| 290-002/1      | 1    | 290-733       | 3    | 29.17-132/1    | 18         |                |      |
| 290-020        | 5    | 290-734       | 3    | PM.29.17-138   | 18         |                |      |
| 290-022        | 4    | 290-916       | 1    | 29.17-182      | 18         |                |      |
| 290-025/1      | 5    | 290-923       | 4-8  | 29.17-190/2    | 18         |                |      |
| 290-027/1      | 5    | 290-938       | 2    | G.29.17-208/3  | 18         |                |      |