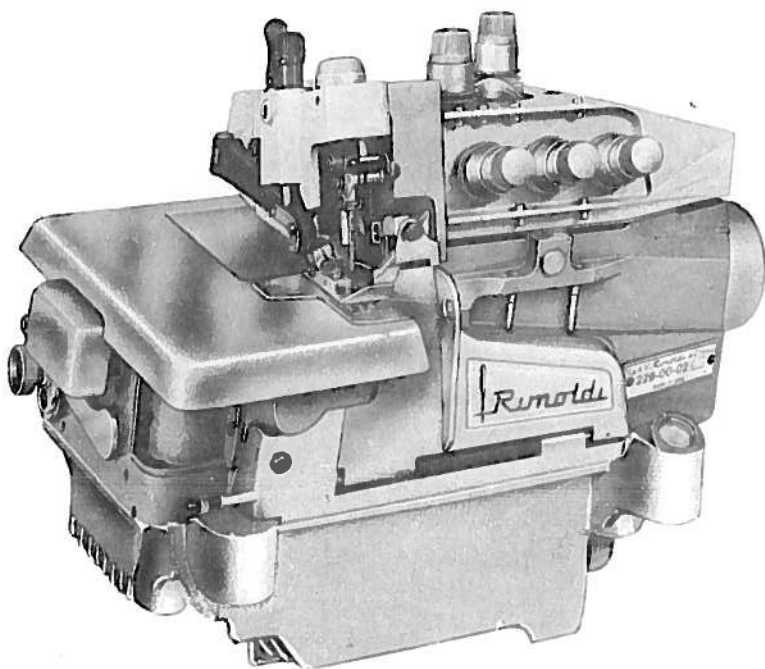


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SPARE PARTS CATALOGUE

HEAD **229.00.05**

and subclasses

n. 34

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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 No.	TECHNICAL CHARACTERISTICS								SPECIFIC USES
	No. threads	Needle gauge	Width of bight	Diff. pos.	S P E E D		Knives	Special attachments on req.	
					No. of revs. l' max	St per inch			
									ASSEMBLING OF FABRICS WITH OR WITHOUT CURLED EDGES.
229-00-01	4/5	3/32"	7/32"	negat.	6.500	7-20	si	106 107 115	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	106 107 115	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	106 107 115	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	106 107 115	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	100 106 107 115	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	106 107 115	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	106 107 115	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 INSERTIONS.
229-13-01	4/5	3/32"	1/4"	negat.	6.000	7-20	si	106 107	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 No.	TECHNICAL CHARACTERISTICS								SPECIFIC USES
	No. threads	Needle gauge	Width of bight	Diff. pos.	S P E E D		Knives	Special attachments on req	
					No. of revs. 1" max	St. per inch			
229-22-01	4/5	3/32"	1/4"	max.	6 000	8-20	si	107	<p style="text-align: center;">RUFFLING</p> <p>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</p> <p>Same as 229-22-01, but with needle distance 3/64", overlock bight 1/8".</p> <p>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.</p> <p>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.</p> <p style="text-align: center;">RUFFLING WITH ATTACHMENTS AND/OR INSERTIONS.</p> <p>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.</p> <p>Same as 229-23-01, but with needle distance 3/64", overlock bight 1/8".</p> <p>For medium and heavy fabrics. Same as 229-23-01, but with overlock bight 11/64".</p> <p>For very bulk fabrics, Same as 229-23-01, but with 13/64" needle distance - overlock bight 15/64".</p>
229-22-02	4/5	3/64"	5/32"	max.	6 000	8-20	si	107	
229-22-03	4/5	3/32"	1/4"	max.	6 000	8-20	si	107	
229-22-04	4/5	13/64"	13/32"	max.	6 000	8-20	si		
229-23-01	4/5	3/32"	1/4" 19/64"	max.	6 000	8-20	si		
229-23-02	4/5	3/64"	11/64"	max.	6 000	8-20	si		
229-23-03	4/5	3/32"	1/4"	max.	6 000	8-20	si		
229-23-04	4/5	13/64"	7/16"	max.	6 000	8-20	si		

INSTRUCTIONS : FOR

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

I. INSTALLATION AND SETTING-UP

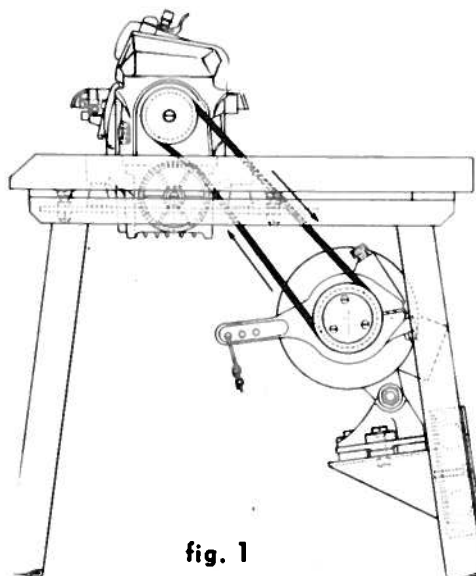
a) Positioning of head

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.

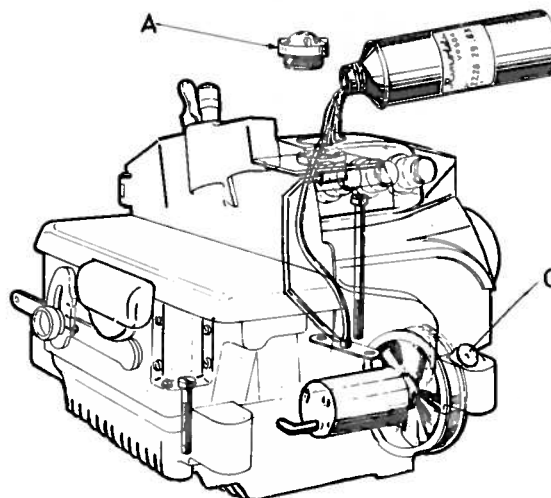
b) Transmission assembly

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.



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.



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

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- 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.

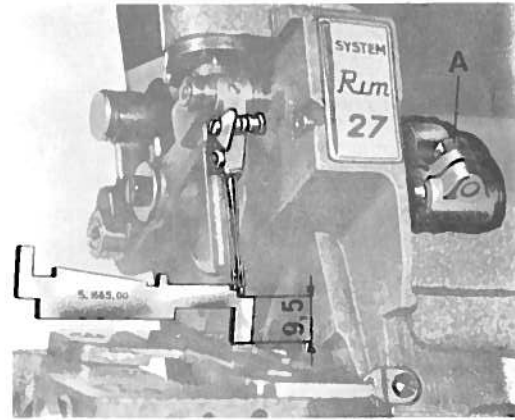


fig. 3

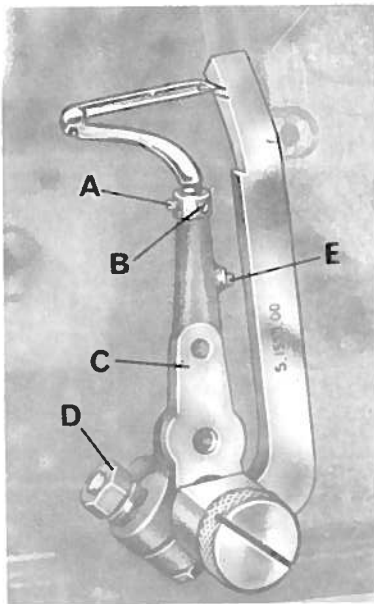


fig. 4

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'.

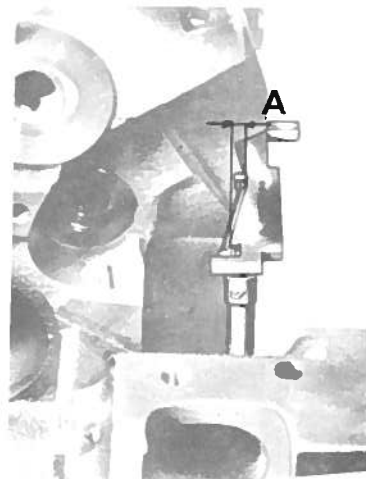


fig. 5

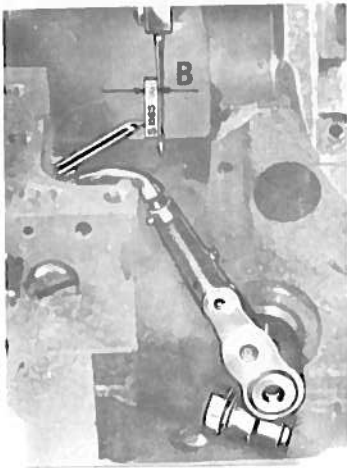


fig. 6

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.

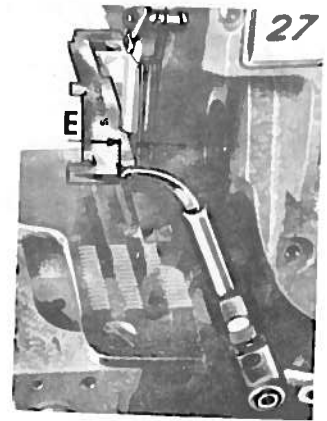


fig. 7

- 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.

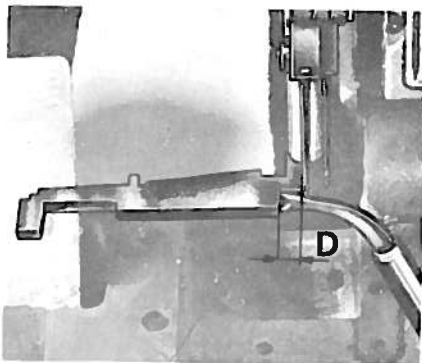


fig. 8

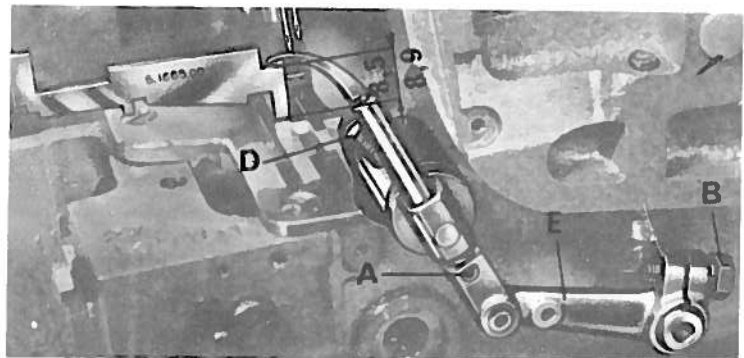


fig. 9

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.

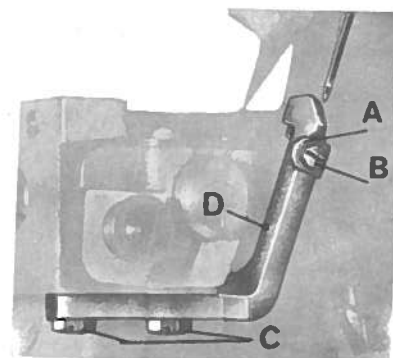


fig.10

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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.

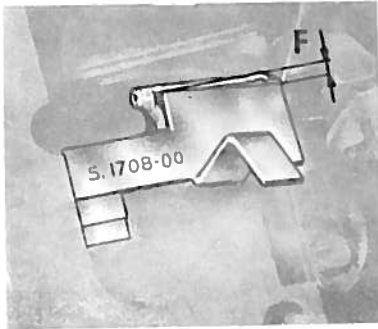


fig.12

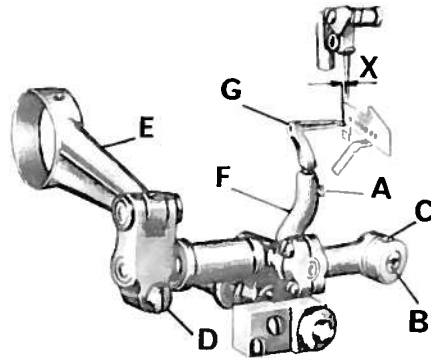


fig.11

- 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.

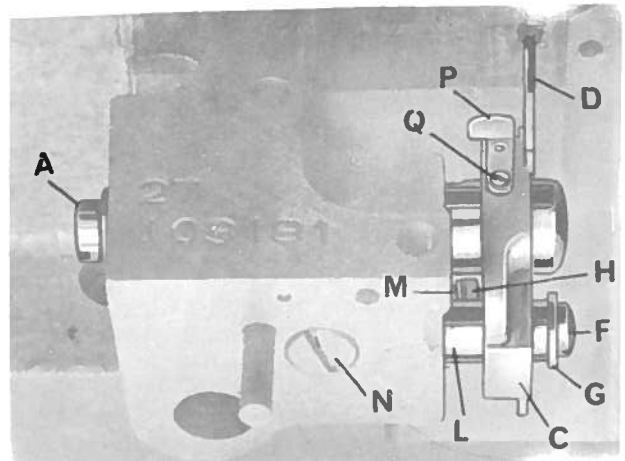


fig.13

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.

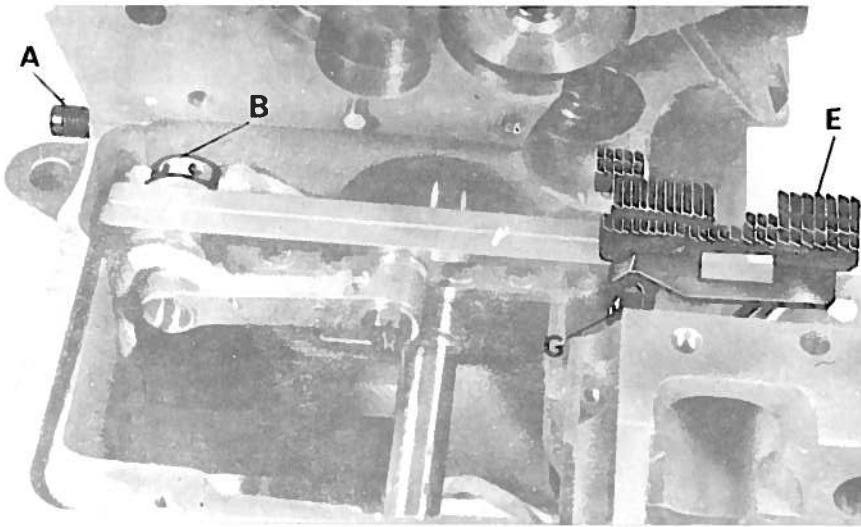


fig. 15

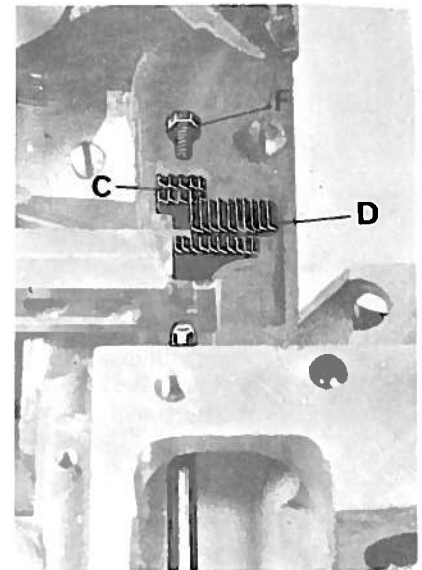


fig.14

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.

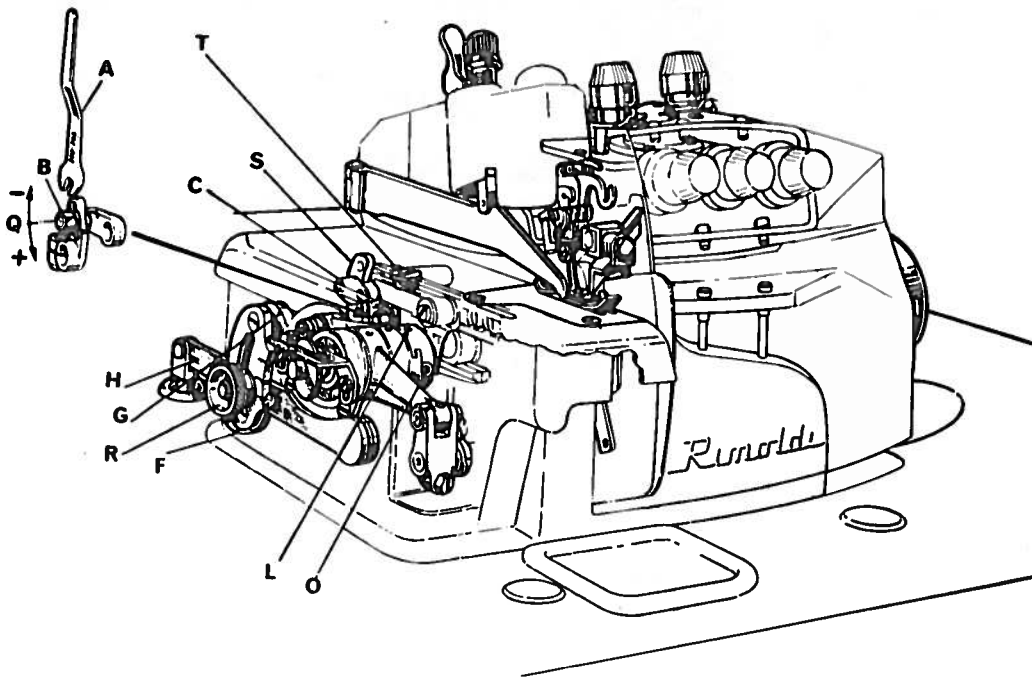


fig.16

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.

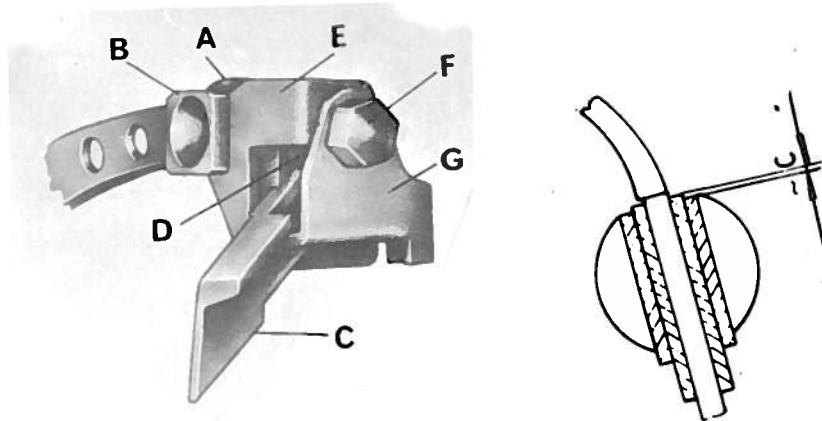


fig.17

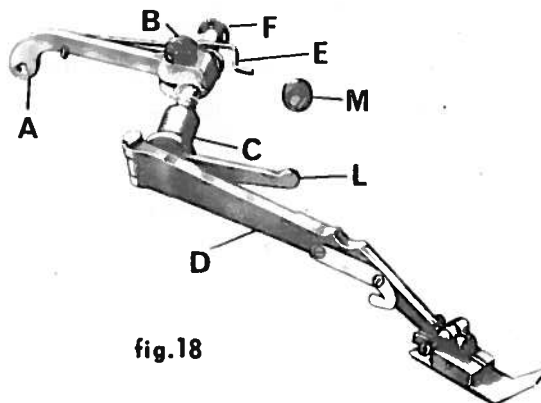
TIMING TABLE

SYMBOLS OF HEADS	A	B	C	D	E	F	X
229-00-01 = 229-00-02 = 229-00-04 = 229-00-05 = 229-00-06 229-00-07 = 229-00-08 = 229-00-09 = 229-13-01 = 229-22-01 229-22-02 = 229-22-03 = 229-22-04 = 229-23-01 = 229-23-02 229-23-03 = 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

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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.



- 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.

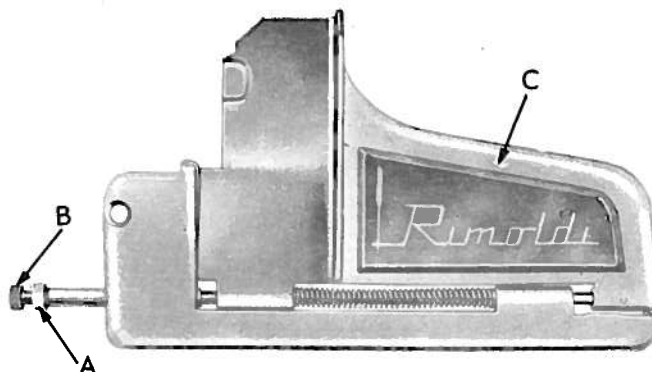


fig.19

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.

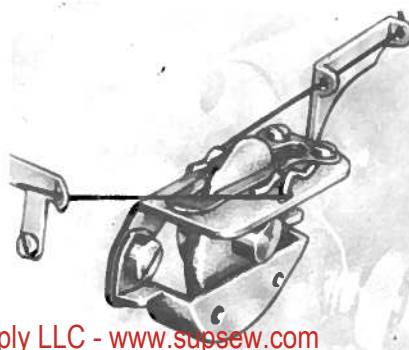


fig.20

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).

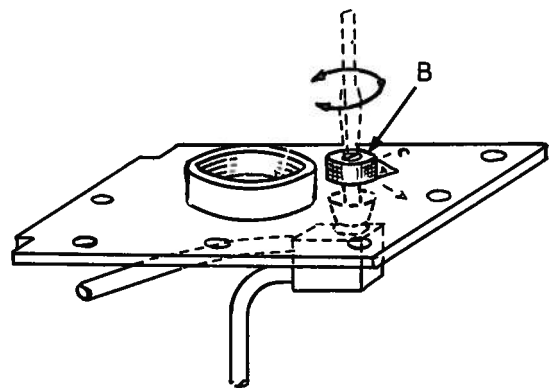
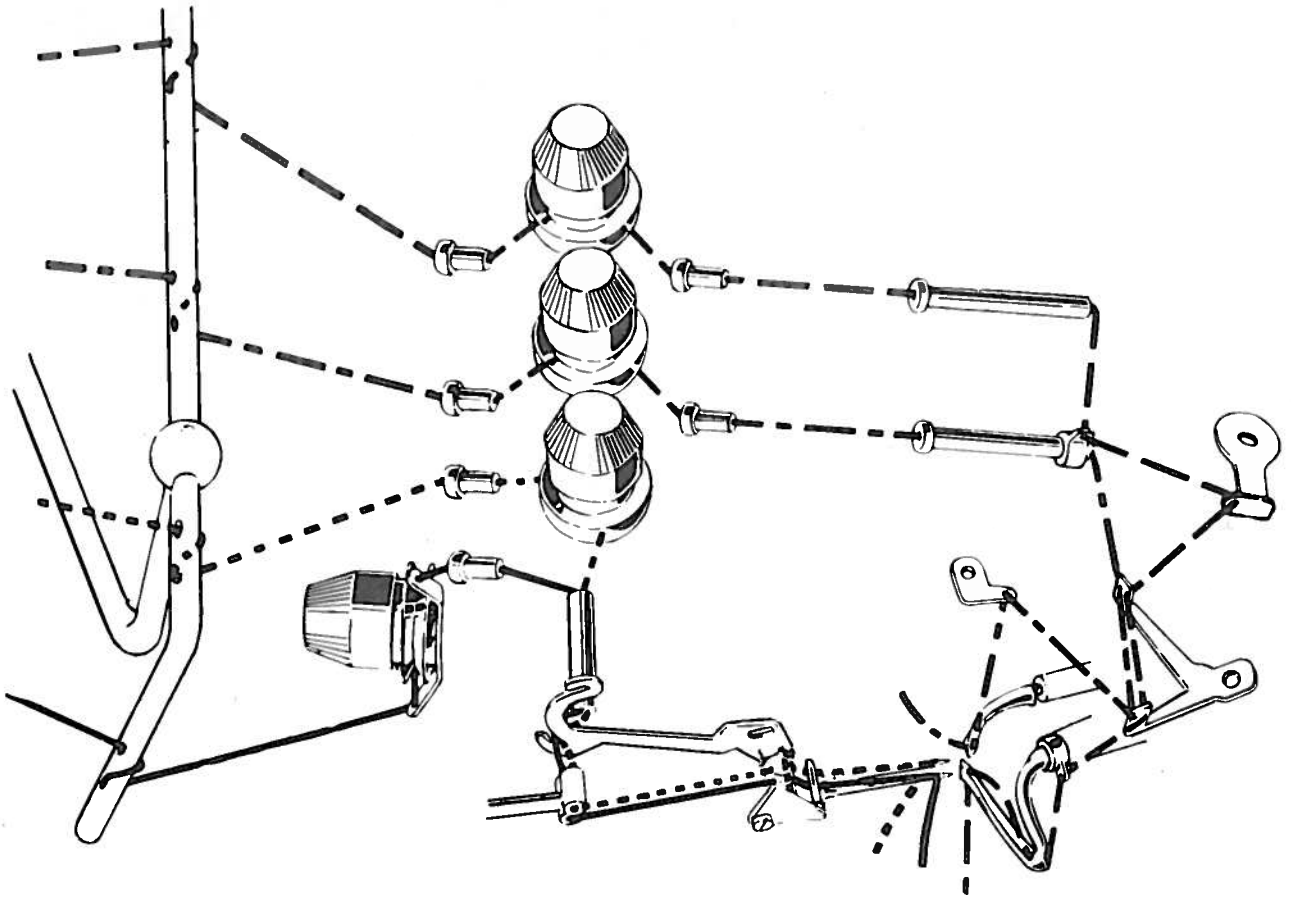
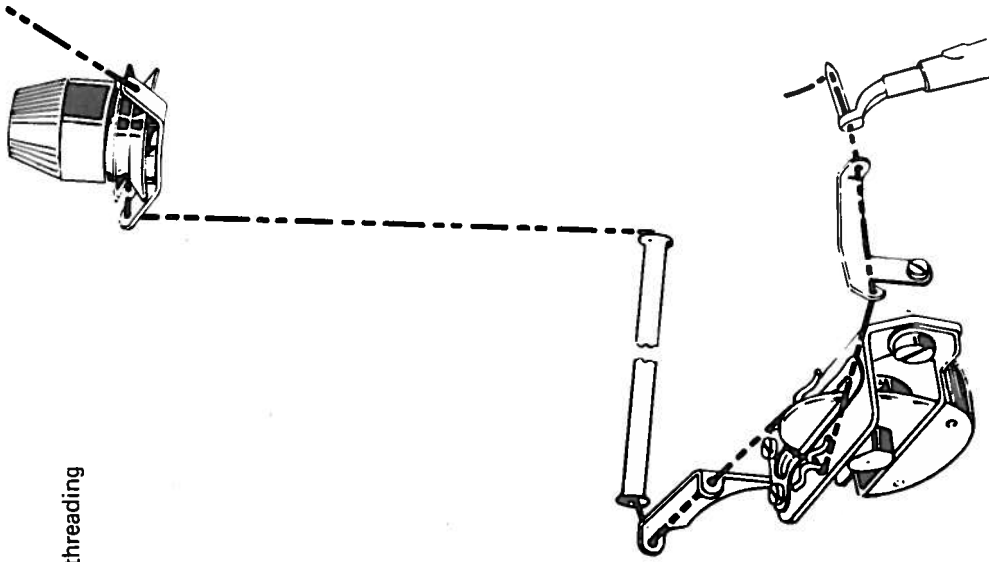


fig.21



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.

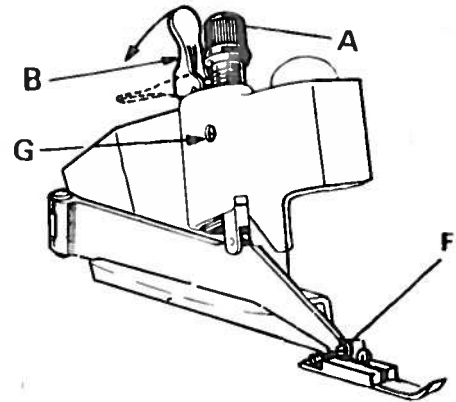


fig. 22

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

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.

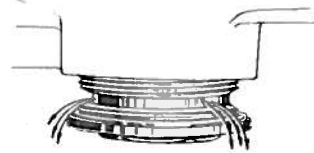


fig.23

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

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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.

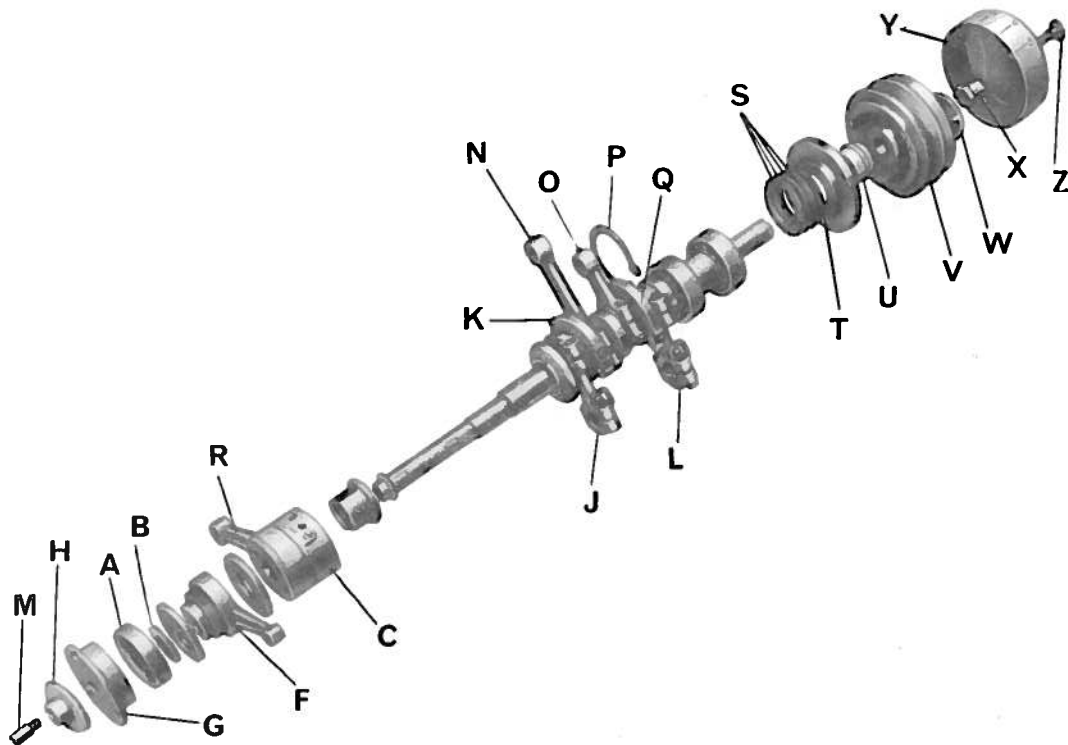


fig.24

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.

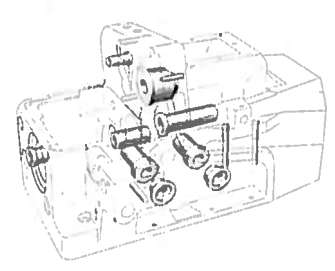
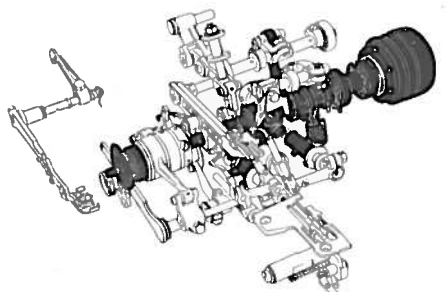
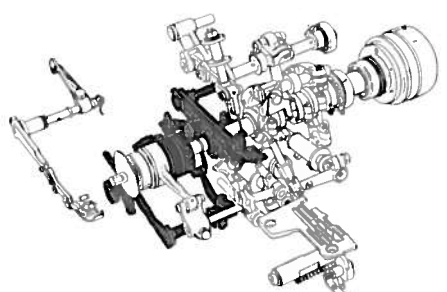
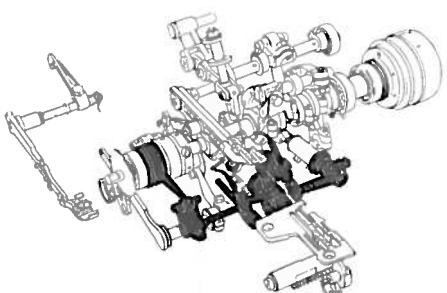
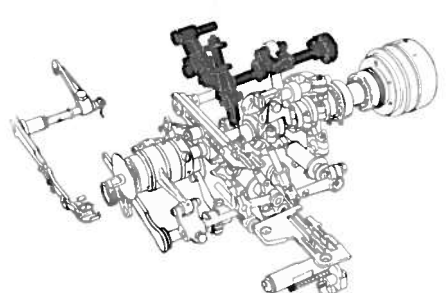
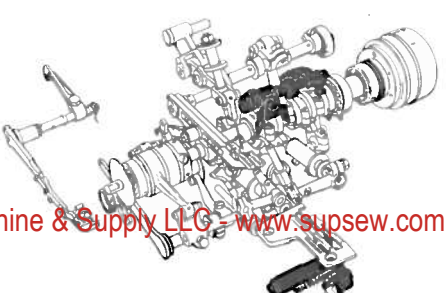
IMPORTANT

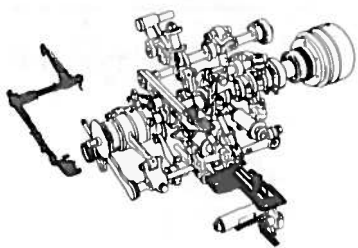
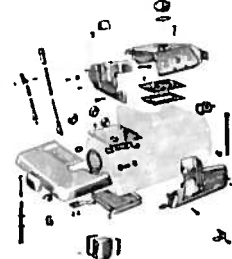
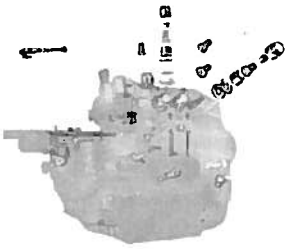
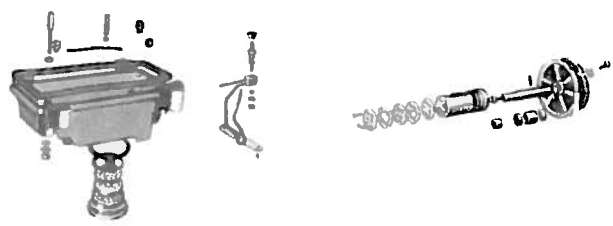
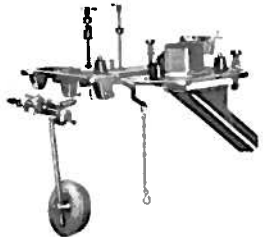


The RIMOLDI Company likes to analyse any cases of breakage, wear or irregularities arising in parts manufactured by them. For this reason they kindly ask you to return such pieces along with the order for spare parts.

b) Needles only

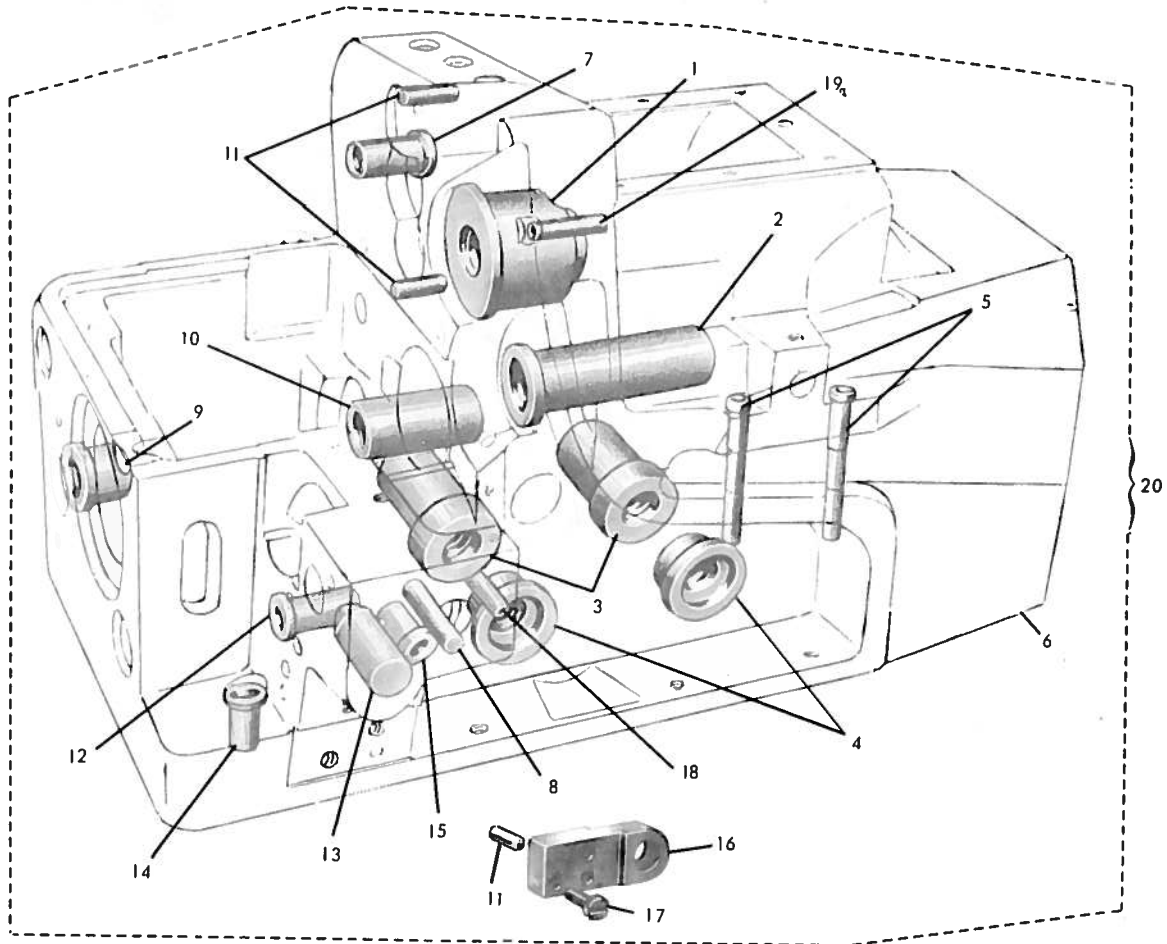
1. Only straight system **RIM 27** needles should be used on the machines illustrated in this manual.
2. The needle system and size are marked on the needle shank.
3. The size indicates the average diameter expressed in hundredths of a millimeter calculated on the blade of the needle.
4. The system and 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**.

INDEX OF TABLES

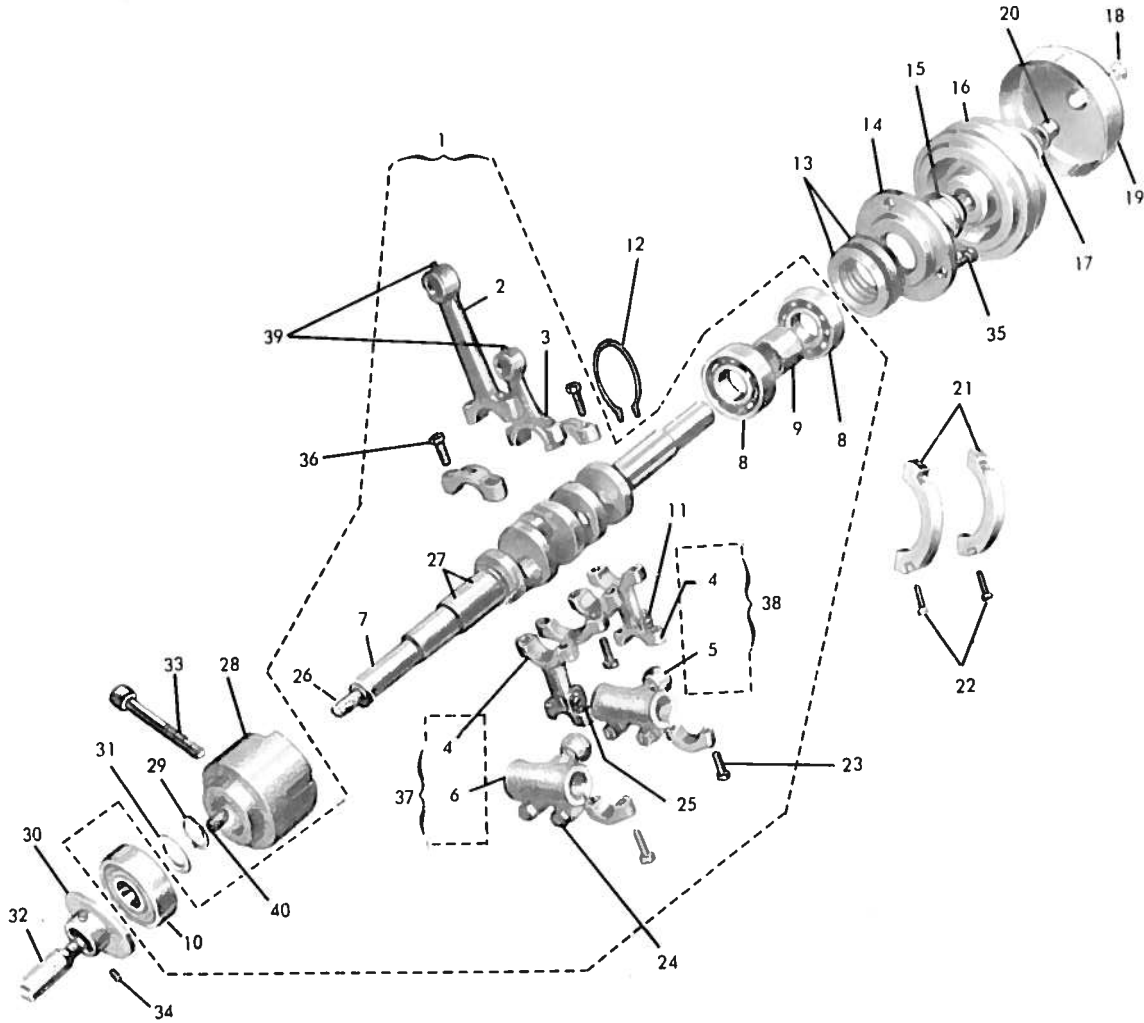
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DIFFERENTIAL ASSEMBLY	Tav. 3	
SHAFTS AND CON – RODS OPERATING LOOPER	Tav. 4	
NEEDLE DRIVE MECHANISM	Tav. 5	
UPPER AND LOWER KNIFE MECHANISM	Tav. 6	

<p>PRESSERFOOT LIFTING MECHANISM – NEEDLE PLATE</p>	<p>Tav. 7</p> 
<p>CASING – WORK PLATE</p>	<p>Tav. 8</p> 
<p>THREAD GUIDES AND TENSIONERS</p>	<p>Tav. 9</p> 
<p>SUMP AND OIL PUMP</p>	<p>Tav. 10</p> 
<p>MACHINE MOUNTING BRACKET AND KNEE CONTROL</p>	<p>Tav. 11</p> 
<p>REEL HOLDERS AND PEDAL</p>	<p>Tav. 12</p> 
<p>ACCESSORIES</p>	<p>Tav. 13</p> 

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HEAD 229-00-02	Tab. 15	HEAD 229-23-02	Tab. 28
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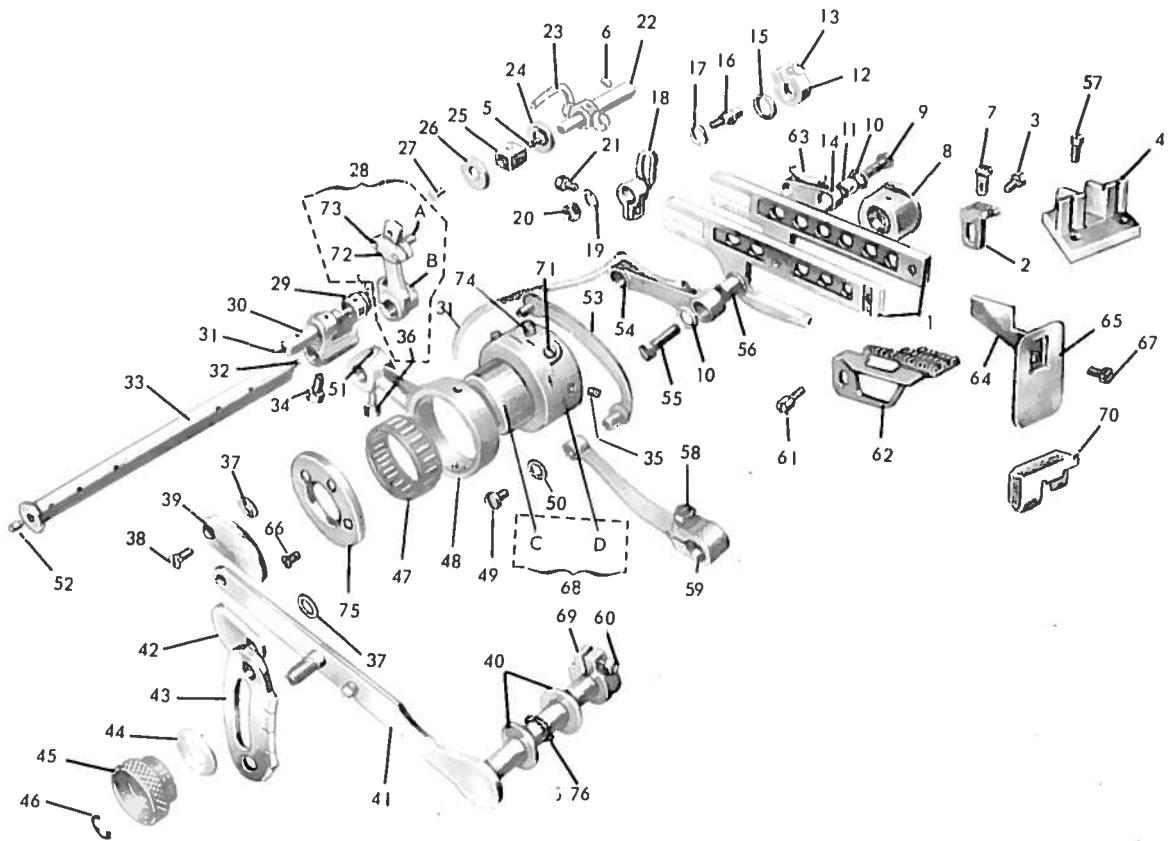


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	270-016	bushing, needle bar shaft	1	11	270-642	pins	3
2	270-097/1	bush, upper knife holder	1	12	290-351	bush, for shaft with fork	1
3	270-058/1	rear bushes, for looper shafts	2	13	290-916	plug, for push button needle control hole	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	bush, differential shaft	1	18	290-396	tube, oil wick	1
9	270-044/2	pin, work plate locating	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

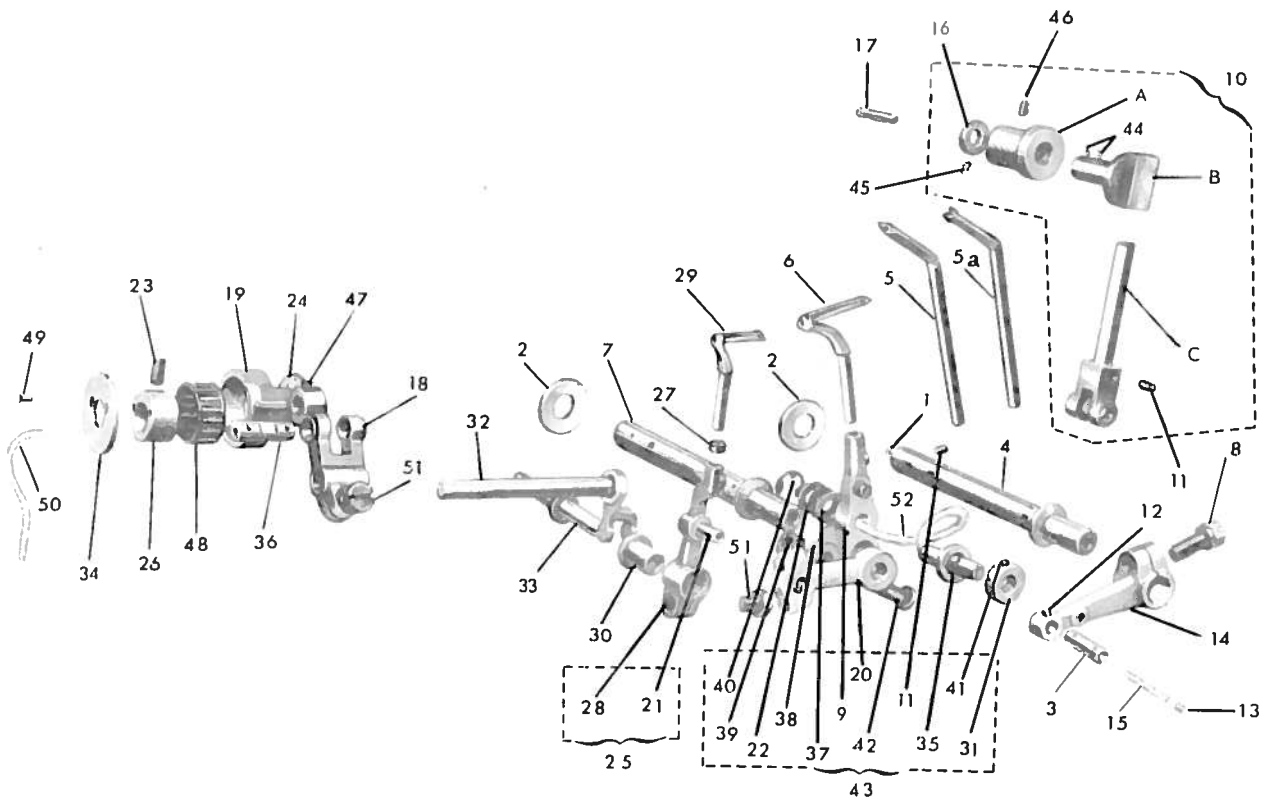


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	PM.287-009	shaft, main, complete with con rods	1	21	270-617/2	balancers	2
2	280-012/3	con rod, needle bar	1	22	270-999	screws, balancer attaching	4
3	270-116/2	con rod, knife bar	1	23	010-H-13,7	bolts, con rod	4
4	270-061/2	con 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

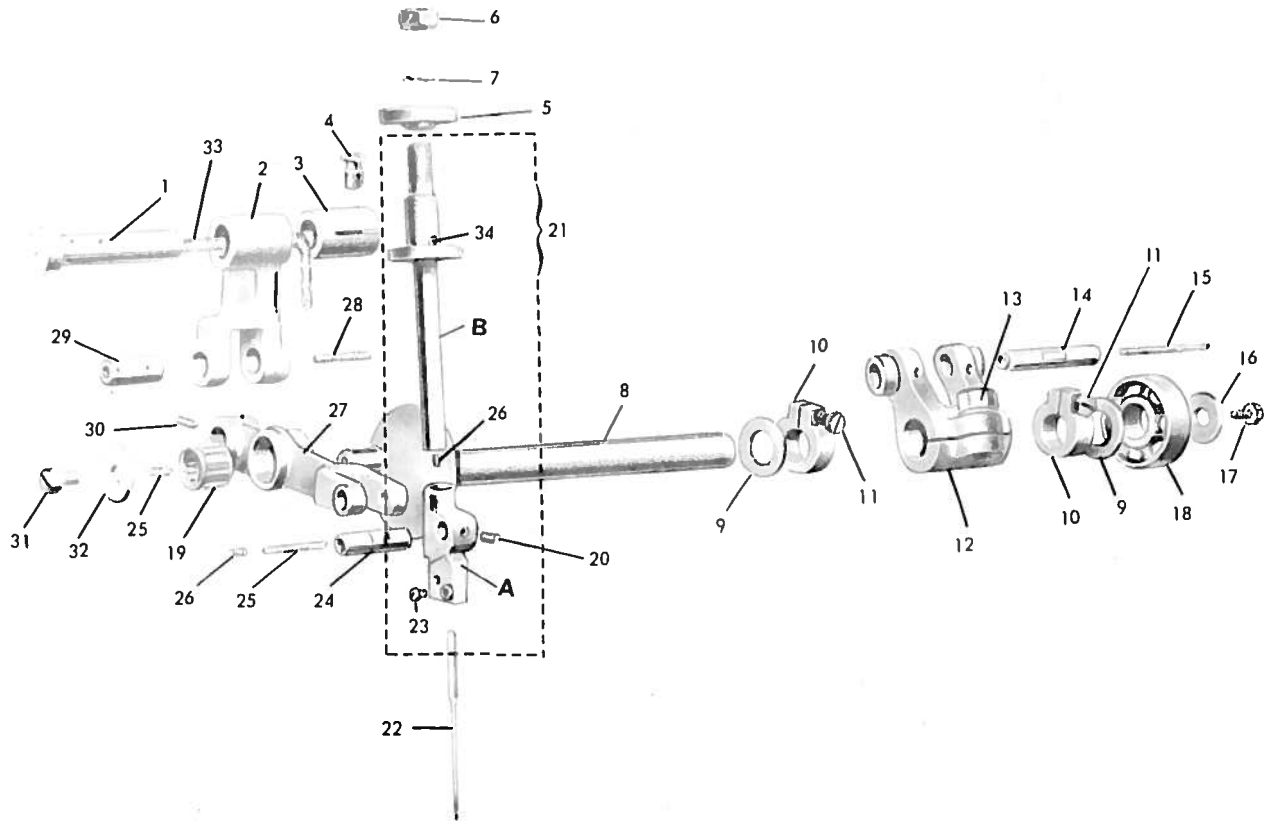
N.B. Ball races ref. 8 can be supplied as separate spares but when ordering it is essential to give the selection number stamped in roman numerals on the outer ring of the ball race.



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	48	290-037	con rod	1
10	070-M-4,5	washer, diff. joint	2	49	270-984	con rod, differential control	1
11	270-035	bush, diff. slide	1	50	070-B-3	screw, diff. lever	1
12	270-717	collar	1	51	023-N-5,5	washer, diff. lever	1
13	270-927	screw, collar locking	1	52	270-915	screw, gudgeon pin fixing	1
14	270-048	joint subsidiary feed dog slide	1	53	PM.270-045/2	plug differential shaft	1
15	073-C-8	rear differential pin washer	1	54	270-033/1	attachment, differential segment	1
16	270-0541	pin, differential ratio increaser	1	55	270-980	joint, differential slide	1
17	071-M-5,5	washer, differential ratio increase	1	56	270-034	screw, diff. joint fixing	1
18	270-047/2	segment, differential ratio increaser	1	57	005-L-11	bush, diff. slide	1
19	070-F-4	washer, diff. ratio pin	1	58	270-997	screw for bracket	2
20	057-G-4	nut for pin 270-0541	1	59	270-566/1	screw diff. control lever	1
21	270-975	screw segment	1	60	007-C-11	lever, diff. segment control	1
22	270-039	shaft, eccentric diff.	1	61	270-978	screw, collar	1
23	092-D-11	wick, eccentric shaft	1	62	297-050/1	screw, main feed dog fixing	1
24	071-H-5	washer, diff. shaft	1	63	092-D-4	feed dog main	1
25	270-0361	block, diff. sliding	1	64	270-249/1	wick for diff. joint	1
26	270-935	washer shouldering	1	65	270-250/2	cover protecting upper knife holder	1
27	026-C-7	screw shouldering washer	1	66	028-A-5	protectors rubber for feed dogs	1
28	PM.270-038/3	segment cursor	1	67	004-L-7	screw fixing washer	3
29	270-040	connector for adjustable eccentric con rod	1	68	PM.290-732	screw protector fixing	3
30	270-031/1	gudgeon pin for attaching fork	1	69	4030-06	body and slide adjustable eccentric	1
31	092-D-6	wick gudgeon pin	3	70	270-253	collar cursor shaft	1
32	092-D-12	wick diff. rear shaft	1	71	290-734	gasket slide guide	1
33	270-041/1	shaft differential rear	1	72	270-032/3	screw adjusting	1
34	250-471	screw connector	1	73	004-P-6	plate diff. cursor	1
35	017-E-8	screw adjustable eccentric fixing	2	74	003-B-6	screw cursor plate fixing	2
36	039-H-9	screw for diff. control segment	1	75	290-715	screw for eccentric slide	1
37	064-F-5	washers differential stroke limiting segment	2	76	270-569	washer adjustable eccentric slide	1
38	270-992	screws differential segment	1			gasket	1
39	270-287/1	segment upper diff. stroke limiting	1			cursor differential	1
				A	270-046/3	segment differential	3
				B	270-038/3	segment differential	1
				C	290-733	slide adjustable eccentric	1
				D	290-732	body adjustable eccentric	1

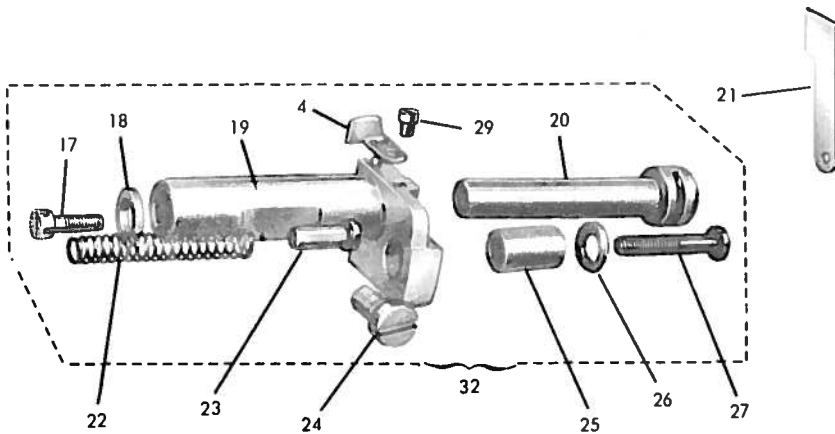
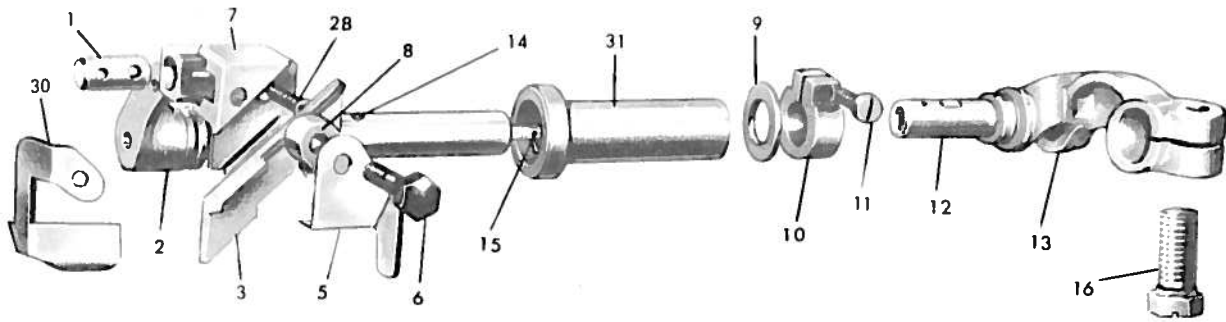


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	092-D-16	wicks looper shaft	2	29	290-075/1	looper safety stitch	1
2	073-N-10	washers for looper control shaft	2	30	290-352	bush slit	1
3	270-070	gudgeon pin for upper looper control lever	1	31	290-356	ring register	1
4	270-064	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				

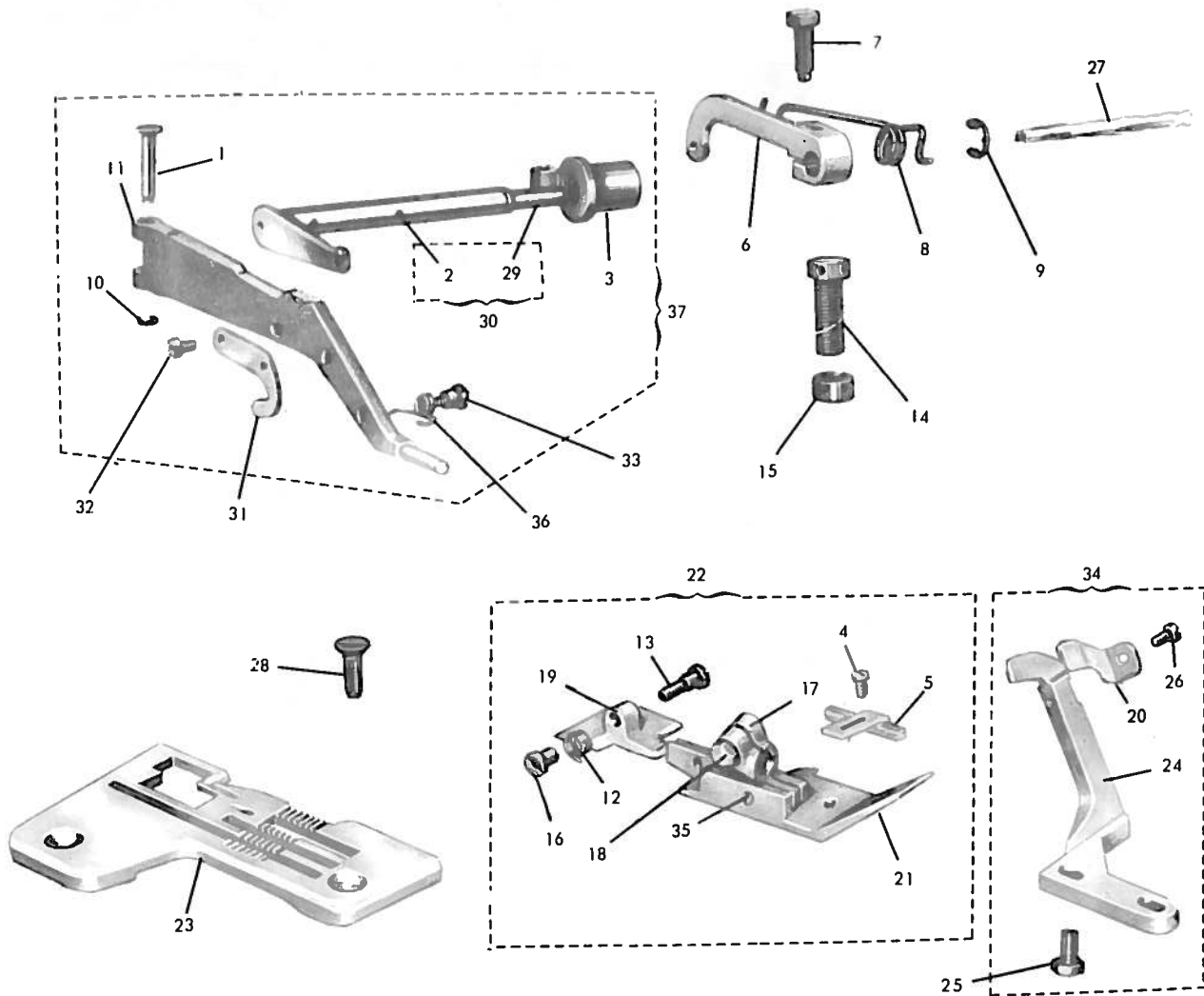


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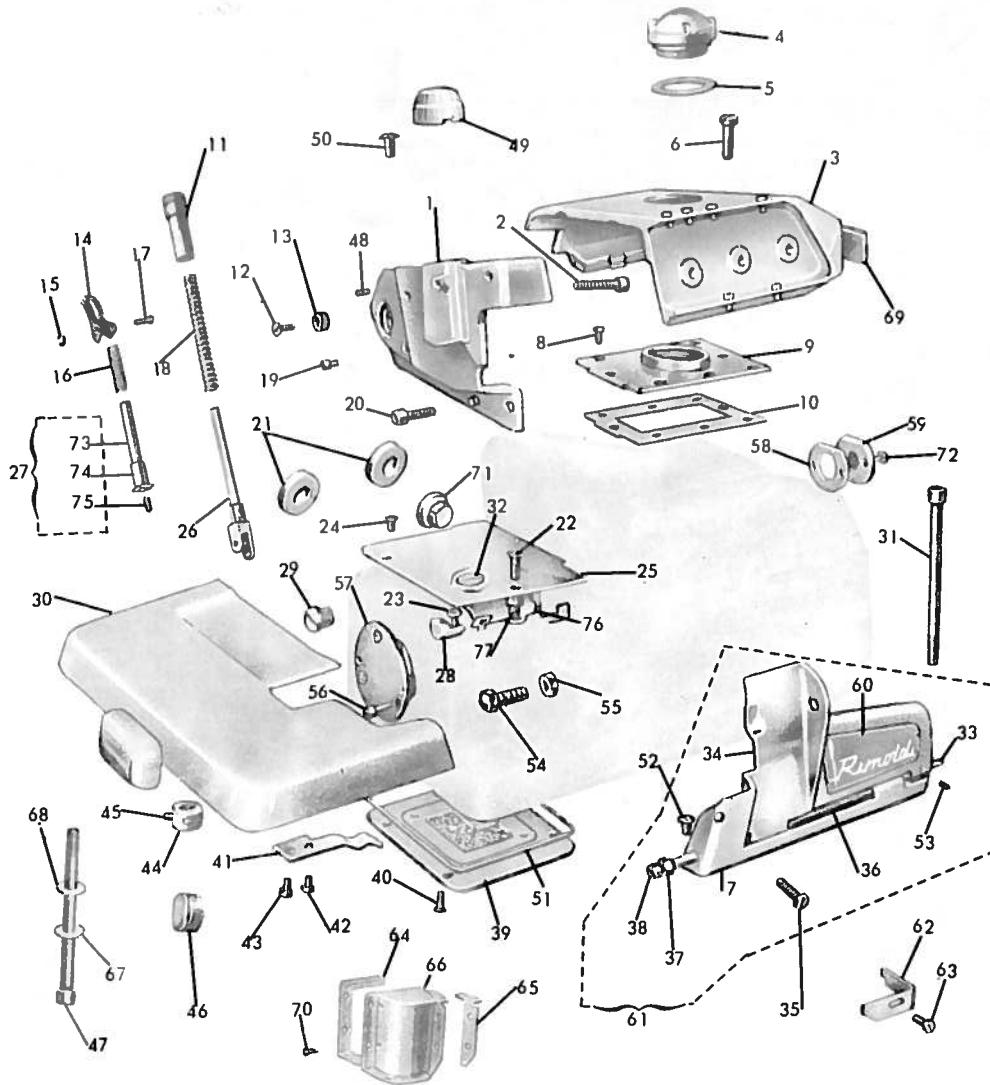
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	PM.270-138/1	shaft for fork lever	1	19	250-708	cage roller bearing for needle drive lever	1
2	PM.270-137/1	lever fork	1	20	250-708/1	cage roller bearing, only on request	1
3	270-132/1	bush for fork lever	1	21	016-B-2,5	screw gudgeon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



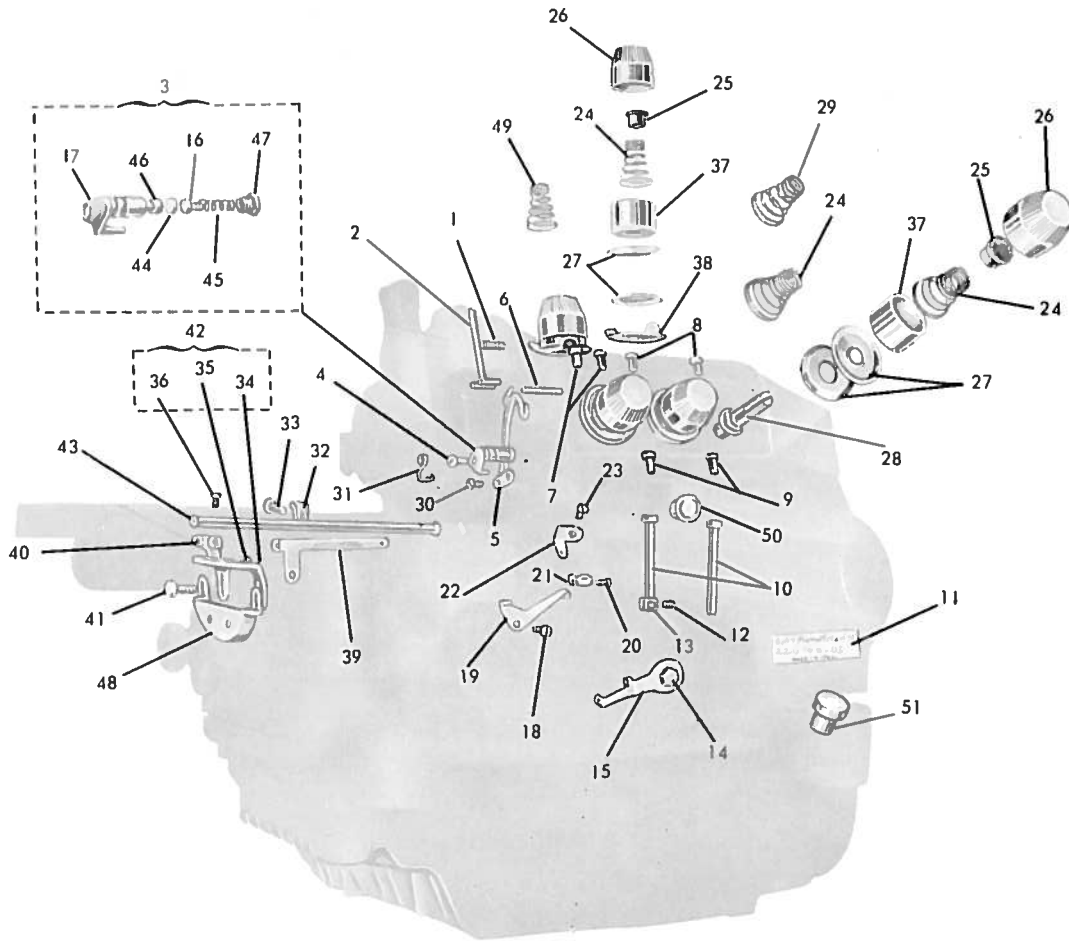
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	270-102	pin for upper knife holder	1	18	071-D-5	washer lower knife shaft	1
2	270-096/1	holder upper knife	1	19	PM.290-104/1	holder lower knife	1
3	27.77-1121	knife upper non-serrated	1	20	290-105	shaft lower knife holder	1
4	290-110	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					
On request:							
AS. 297-403 Tab. 32							



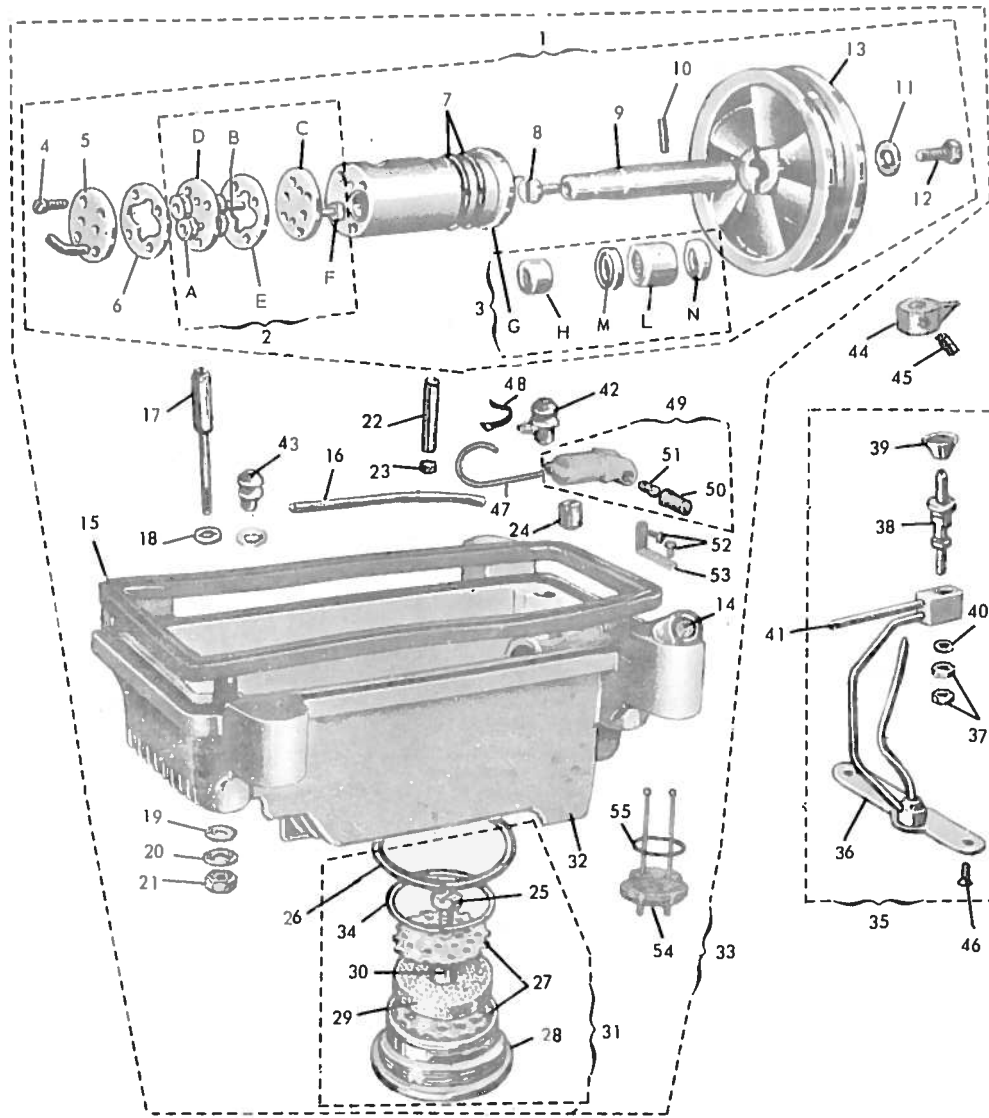
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	270-077	pin for presserfoot holder lever	1	20	297-109/1	needle guard, rear	1
2	270-081/1	spindle for presserfoot lifter lever	1	21	297-1841/1	shoe presserfoot	1
3	270-083	bush for presserfoot lifter lever	1	22	G.297-1811/1	presserfoot 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				



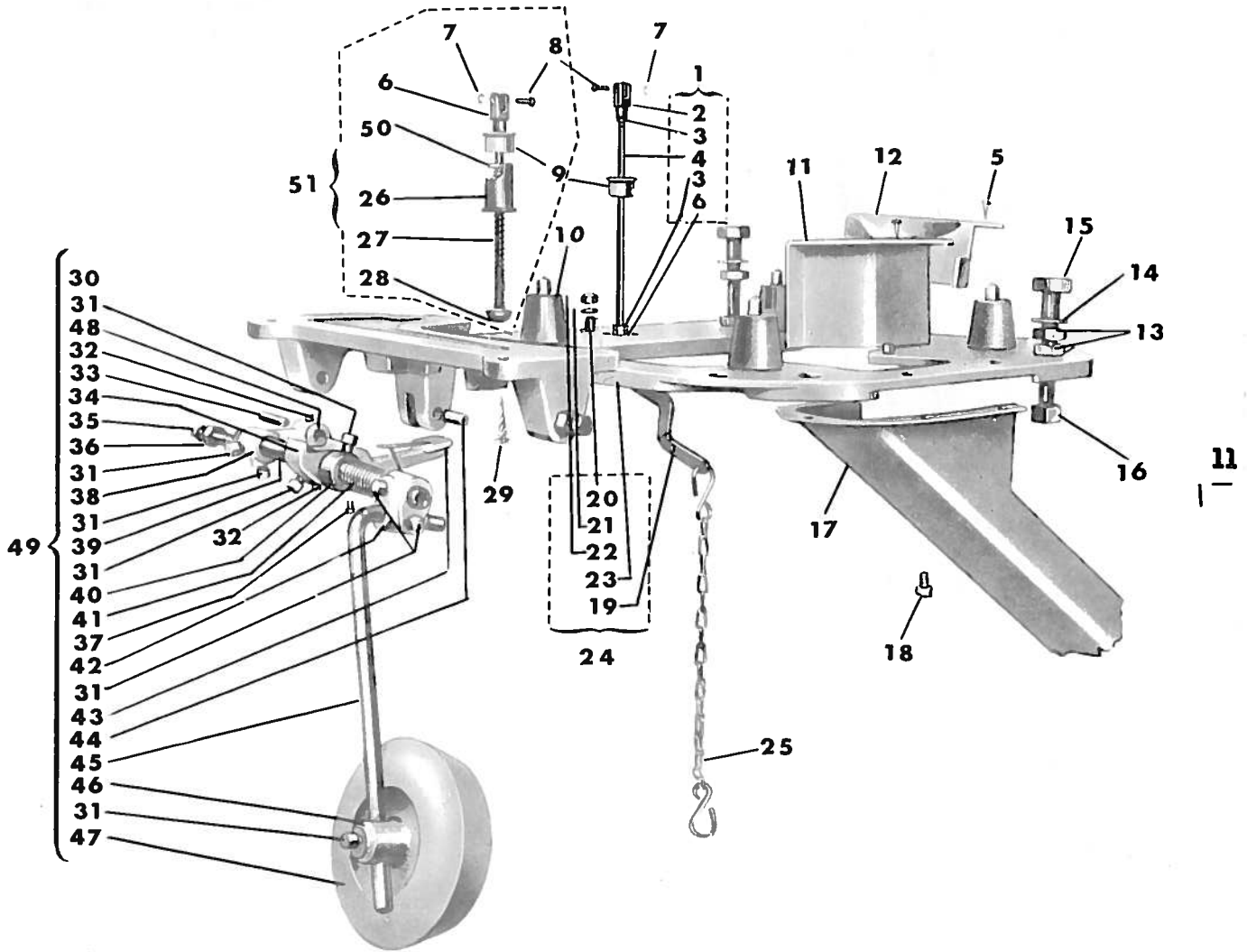
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	PM.270-208/3	cover side with bush	1	40	028-E-10	screw for lower plate	4
2	007-H-25	bolt for upper cover	1	41	270-212	clip spring for closing work plate	1
3	PM.290-205/3	cover with thread guide bushes	1	42	001-D-6	screw fixing spring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



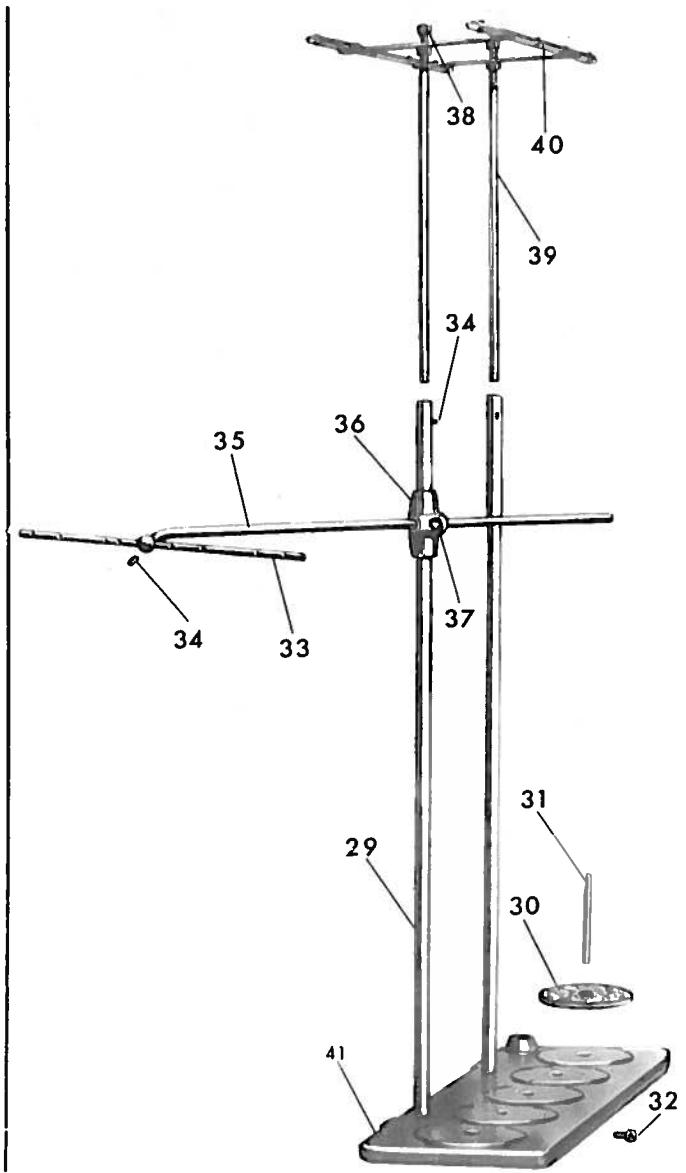
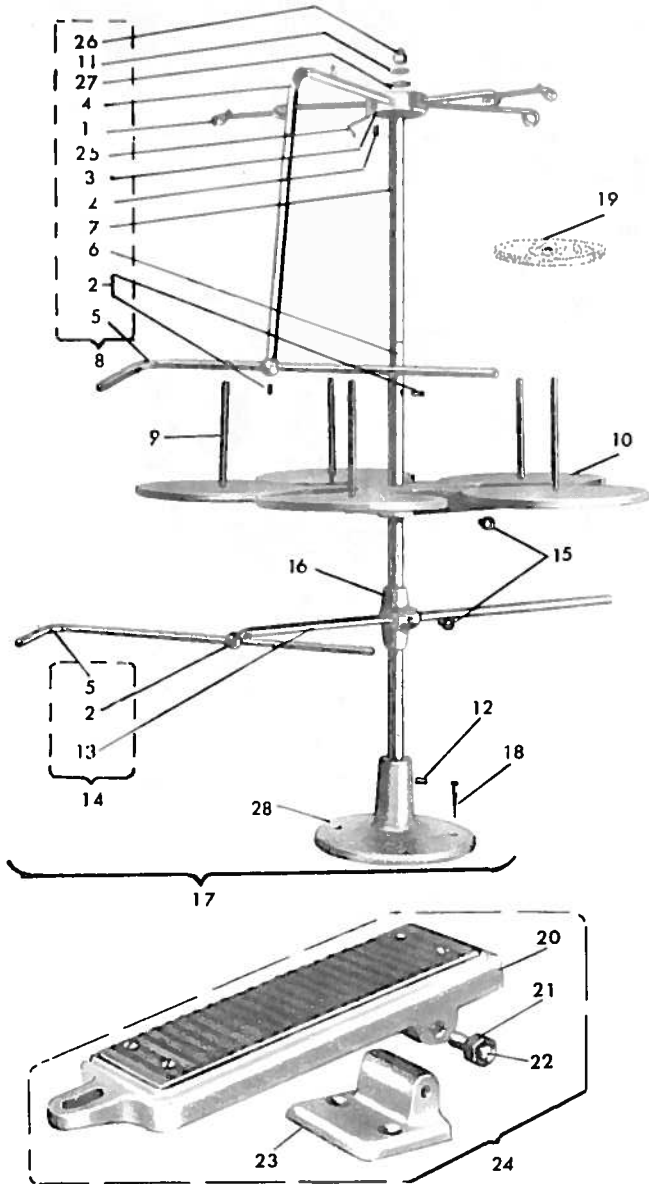
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-816/1	assembly oil pump	1	34	270-966/1	gasket	1
2	G.633-833/1	assembly gear	1	35	G.270-646	assembly oil distributor	1
3	PM.270-816/1	body pump	1	36	PM.270-646/1	distributor	1
4	633-812	screw	4	37	057-A-3	nut	2
5	PM.633-817/1	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	270-825/1	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				



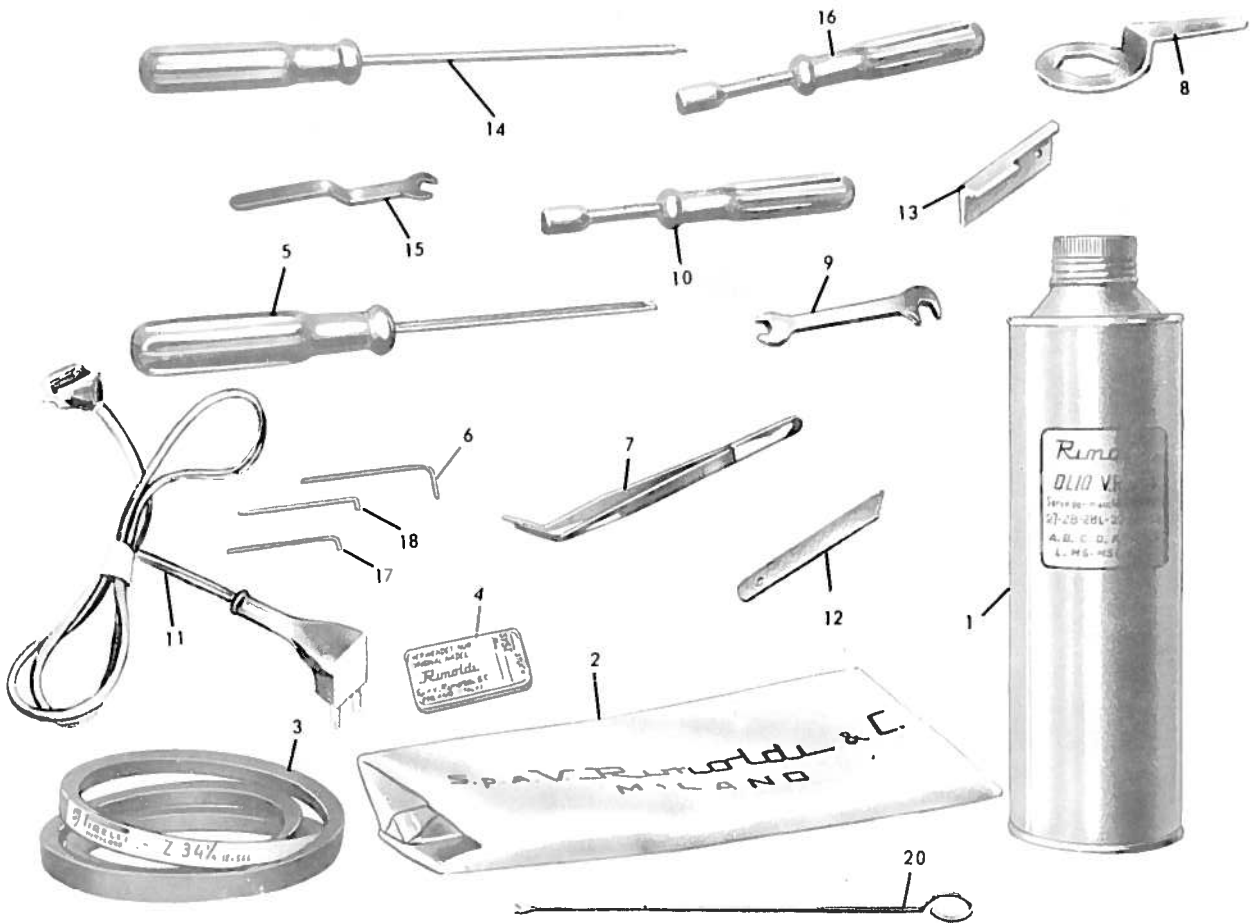
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-583	tie bar assembly for presserfoot lifter lever	1	26	270-553	bush lower for differential rod	1
2	270-585	joint upper for presserfoot lifter lever	1	27	270-554	spring for differential rod	1
3	059-A-5	nut for tie bar	2	28	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
	270-590/2	waste chute to the left	1	43	270-576	rocker arm knee control	1
18	001-G-10	screws channel fixing	3	44	270-581	gudgeon pin rocker arm	1
19	270-586/1	lever controlling presserfoot lifter	1	45	270-573	rod carrying knee control disc	1
20	270-584	support for lever	1	46	270-574	disc knee control	1
21	065-L-6	washers for pins	3	47	270-582	covering knee control	1
22	059-H-6	nut for support	1	48	270-577	joint knee control	1
23	PM.270-005/1	plate with pins	1	49	G.270-570	assembly knee control for operating differ.	1
24	G.270-005/3	plate machine support with lever	1	50	064-E 5	washer for differential control rod	1
25	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

229-00-05

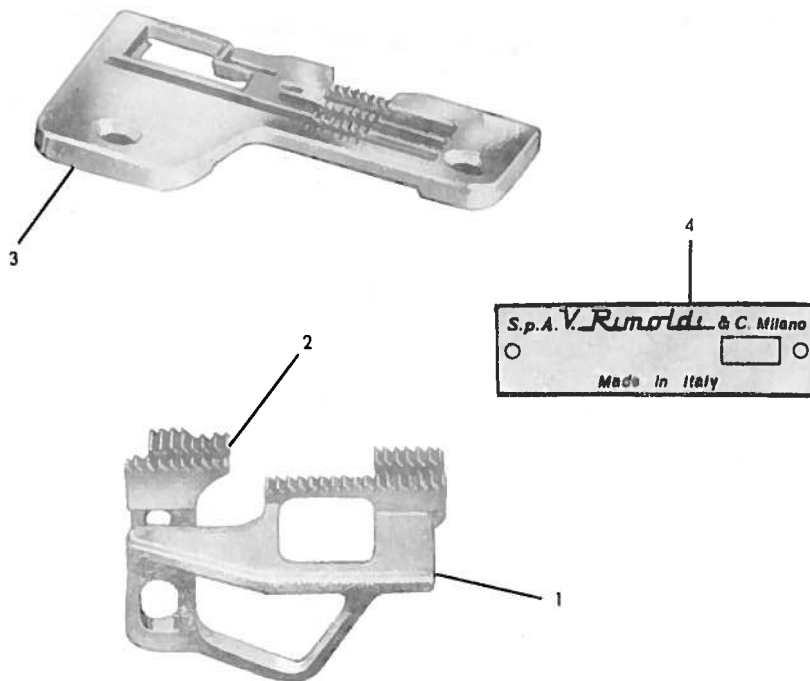


N° RIF.	N° DISEGNO	DENOMINAZIONE	QUANT.	N° RIF.	N° DISEGNO	DENOMINAZIONE	QUANT.
		SUPPLIED WITH HEAD ONLY				SUPPLIED WITH BENCH	
1	290-134	rod thread guide	2	29	910-143	rod main support	2
2	016-F-5	grub screws	8	30	569	disc reel support	5
3	290-140	union for rod	1	31	1146	pin reel	5
4	PM.290-148/1	support 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				



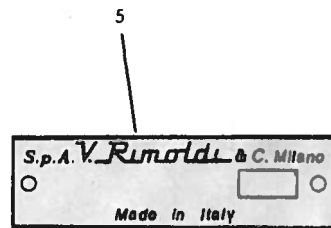
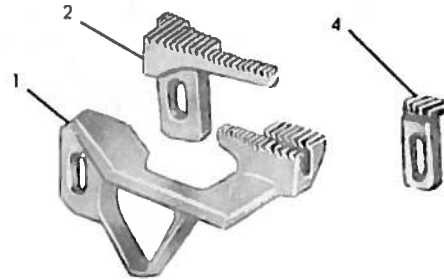
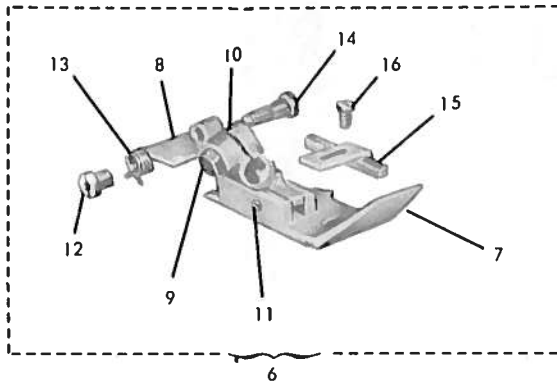
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N° RIF.	N° DISEGNO	DENOMINAZIONE	QUANT.	N° RIF.	N° DISEGNO	DENOMINAZIONE	QUANT.
1	VR 604	oil 1 Kg.	1	11	270-431	cable pressure switch feed	1
2	1175	dust cover for machine	1	12	290-113	knife lower	1
3	270-155/1	vee belt	1	13	27.77-1121	knife upper	1
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

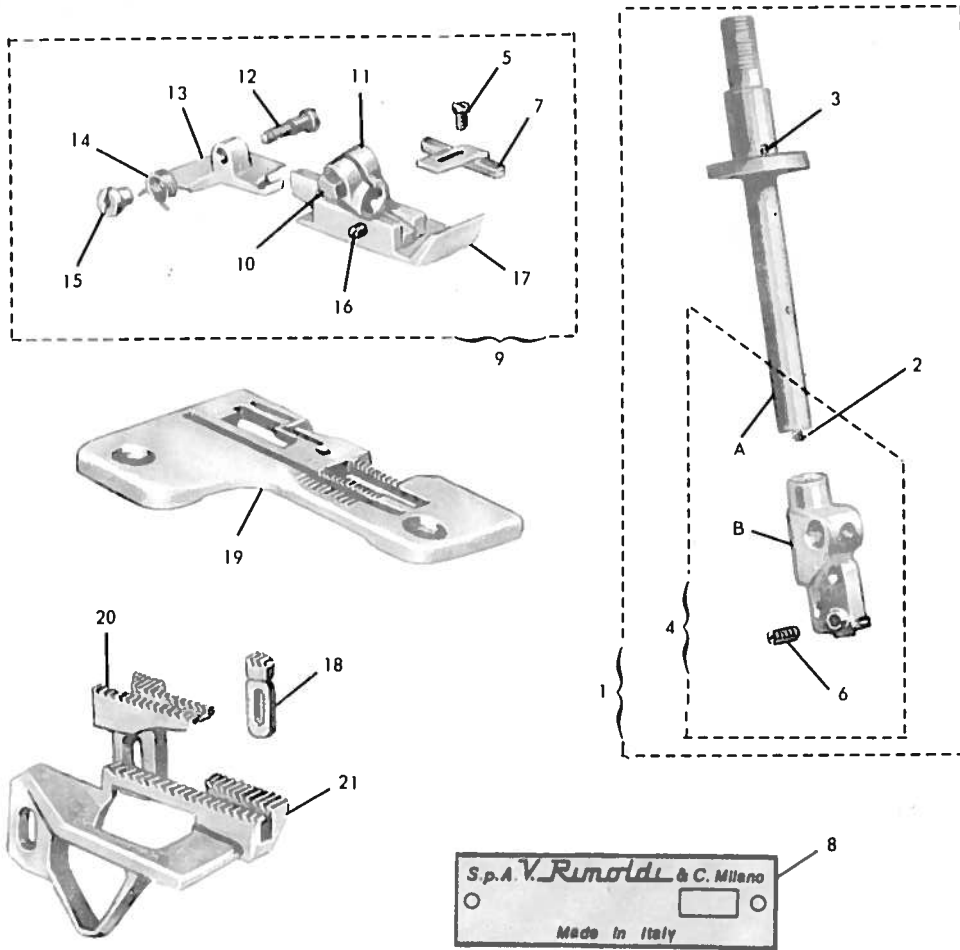


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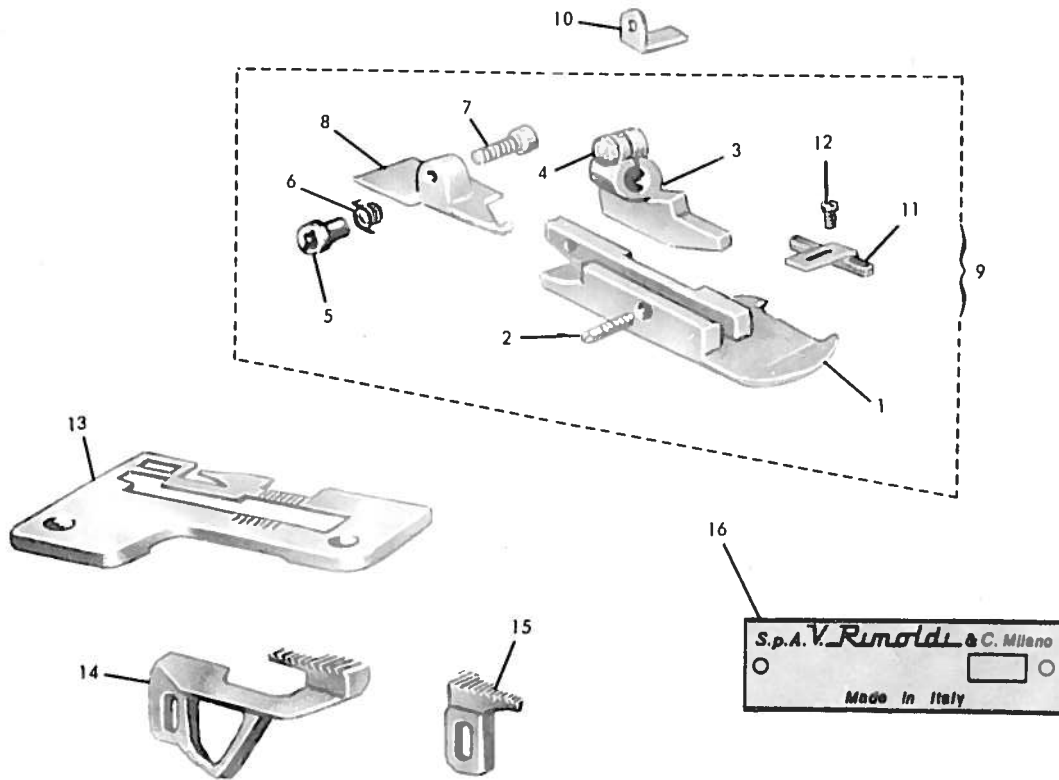
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	290-050	feed dog, front	1				
2	290-051	feed dog, rear	1				
3	290-114/1	needle plate (bight width 7/32")	1				
4	781301-0-00	plate machine class	1				



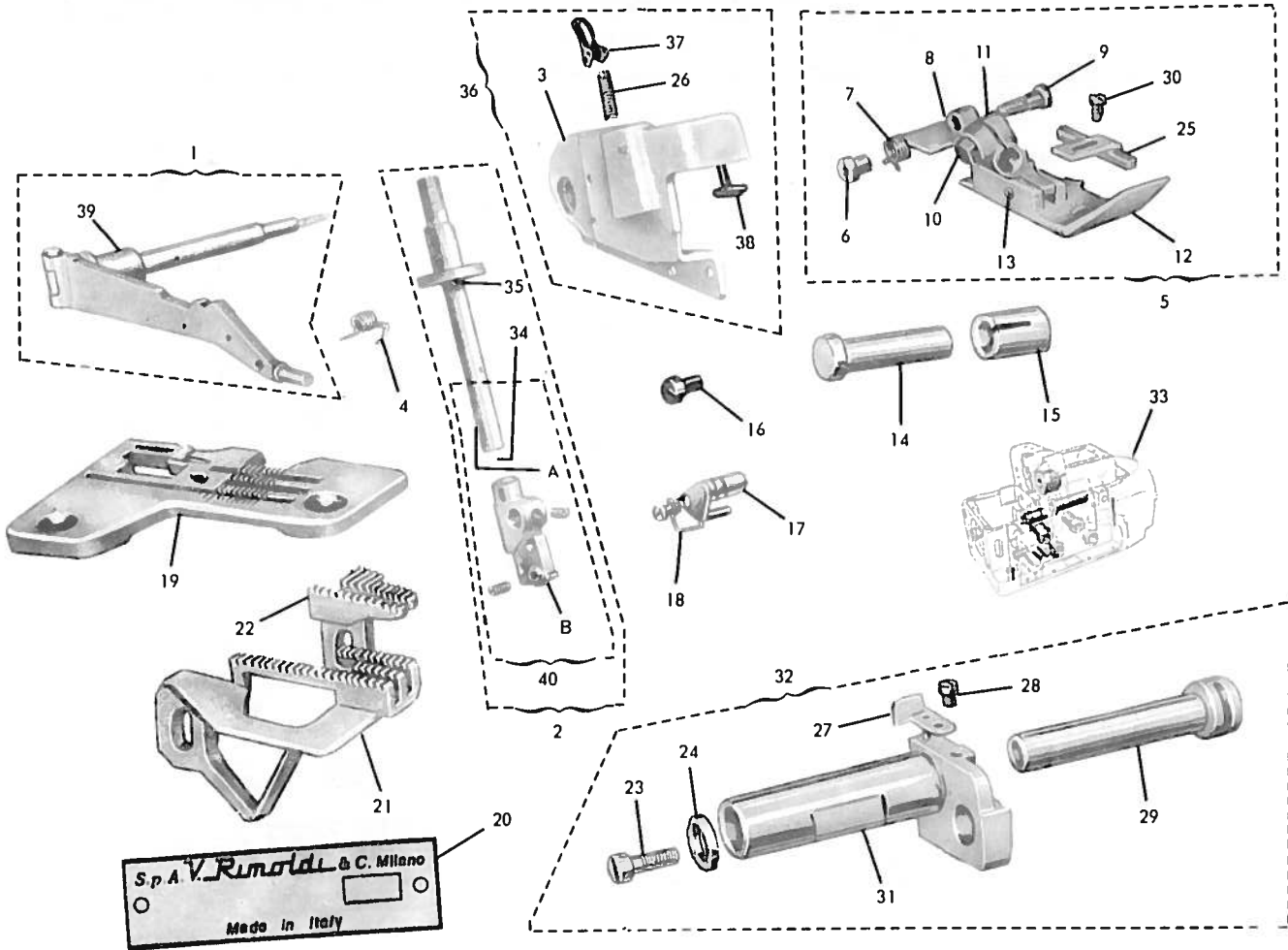
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	290-B-050	feed dog front	1	9	297-906	bolt	1
2	290-B-051	feed dog rear	1	10	297-182	clamp	1
3	290-B-114	needle plate	1	11	297-179	pin	1
4	291-052	feed dog chaining	1	12	297-195	bush threaded	1
5	781302-0-00	plate machine class	1	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				

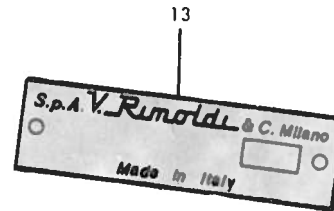
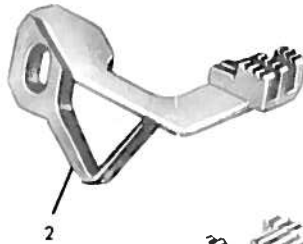
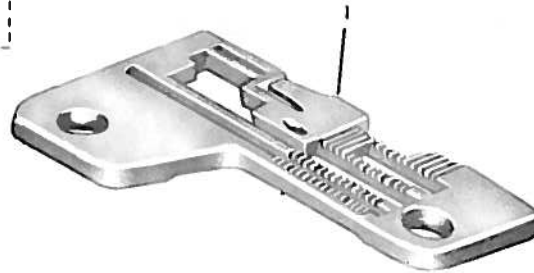
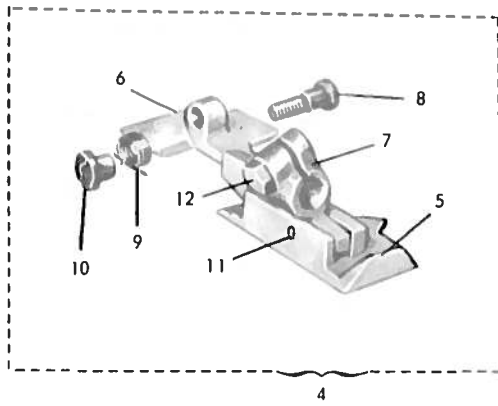


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	291-B-184/1	shoe presserfoot	1	9	G.291-B-181/1	presserfoot complete	1
2	297-179	pin	1	10	291-B-1861	bracket presserfoot stop	1
3	291 E. 182	clamp	1	11	297-183	bracket	1
4	297-906	bolt	1	12	001-A-3,2	screw	1
5	297-195	bush threaded	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

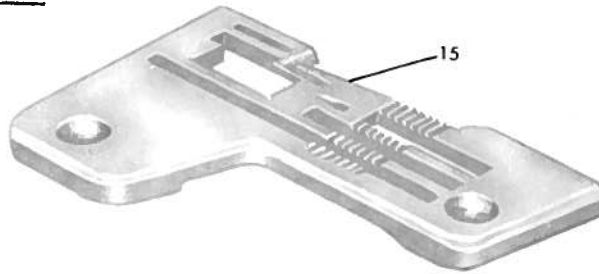
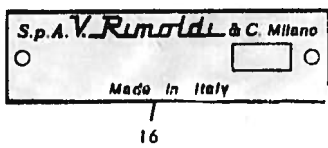
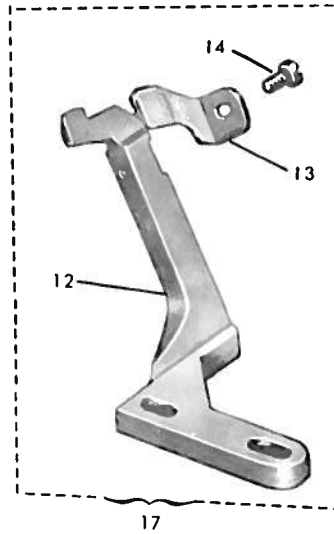
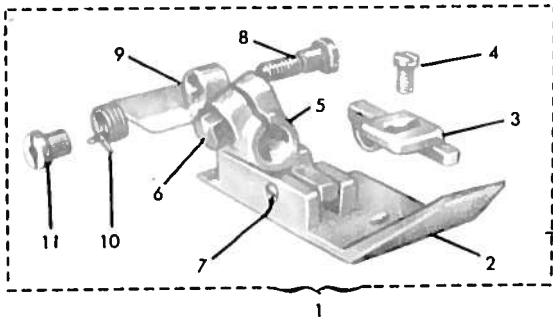


NOTE
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OUR FACTORY

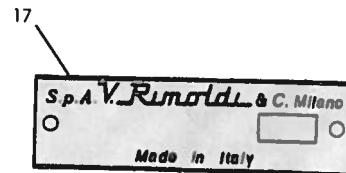
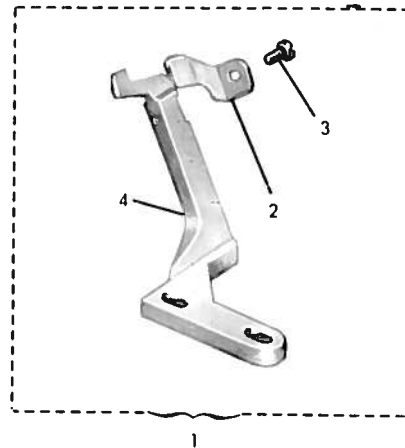
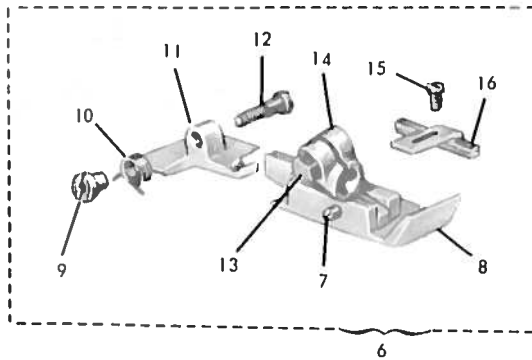
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.29.17-0761/2	lever hinged presserfoot	1	22	29.17-051	feed dog, rear	1
2	G.29.17-025/2	needle bar with clamp complete	1	23	007-P-10	screw	1
3	PM.29.17-208/3	plate side	1	24	071-D-5	washer	1
4	29.17-190/2	spring presserfoot pressure	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 Tab. 32							
29.17-0511							



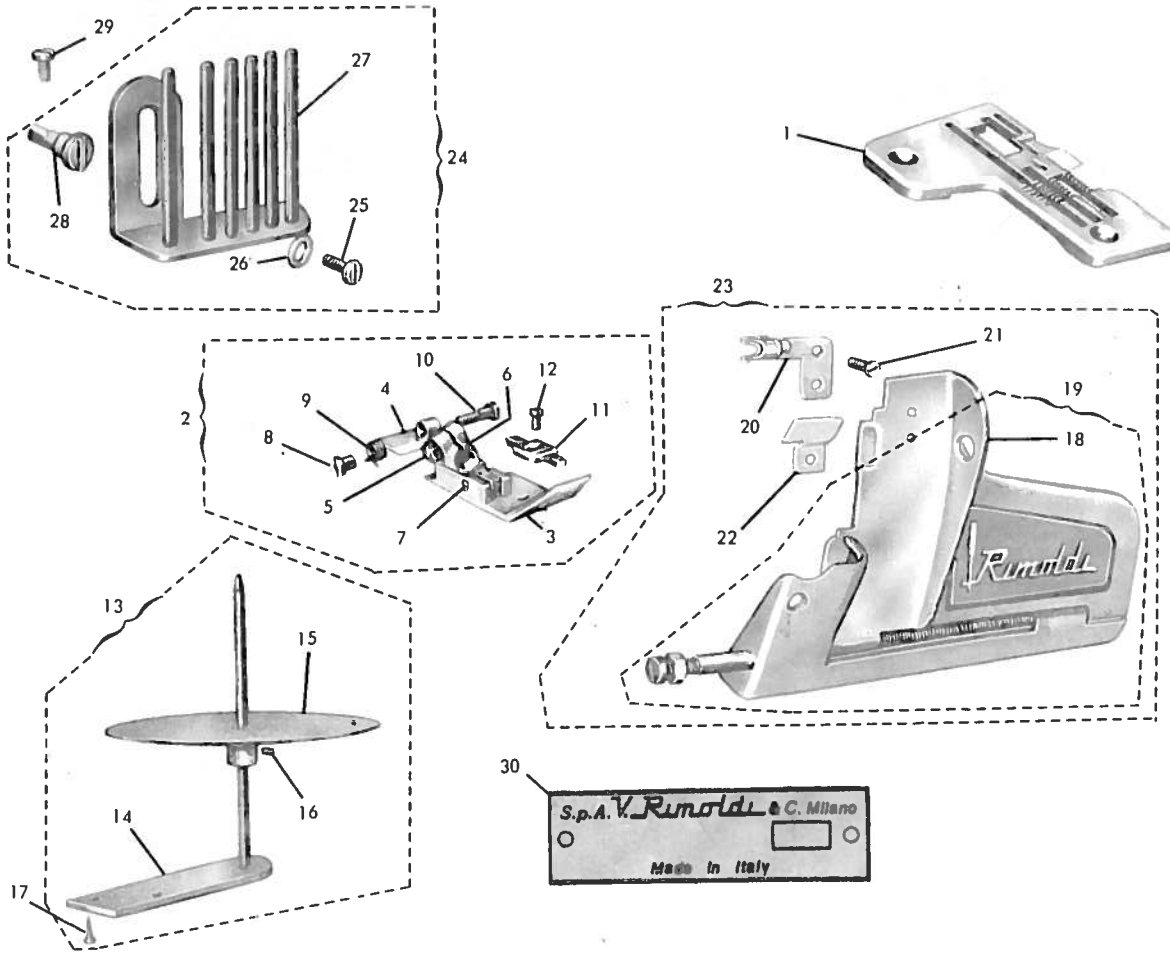
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	29.17-PDB-114	needle plate	1	8	297-187	bolt	1
2	29.17-PDB-0501	feed dog front	1	9	297-194	spring	1
3	29.17-PDB-0511	feed dog rear	1	10	297-195	bush threaded	1
4	G.29.174-181	presserfoot	1	11	297-179	pin	1
5	29.174-184	shoe	1	12	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				



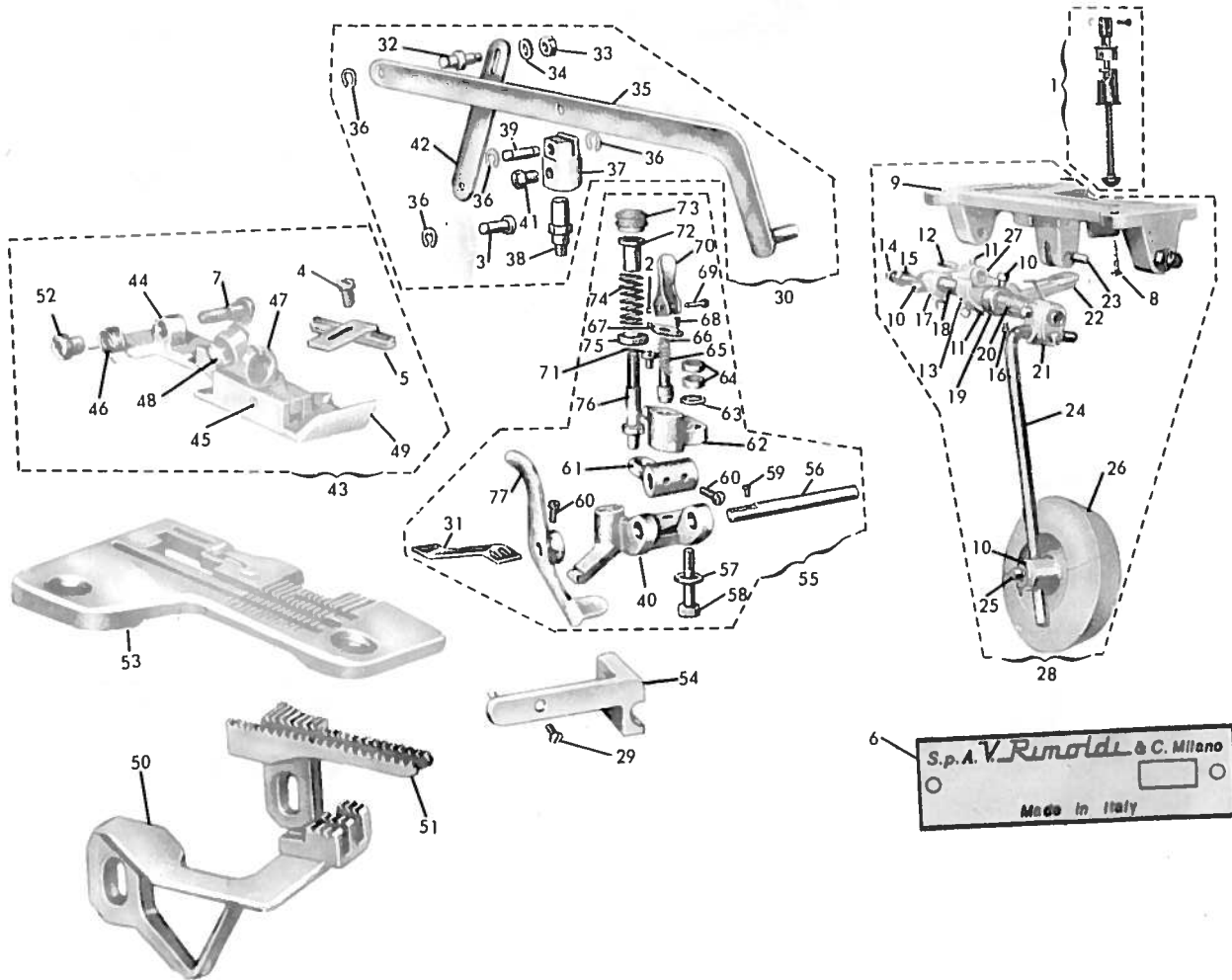
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.29.78-181	presserfoot complete	1	10	297-194	spring	1
2	29.78-184	shoe	1	11	297-195	bush threaded	1
3	29.78-191	tongue	1	12	29.78-107	needle guard front	1
4	004-A-5	screw	1	13	297-109/1	needle guard rear	1
5	297-182	clamp	1	14	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				

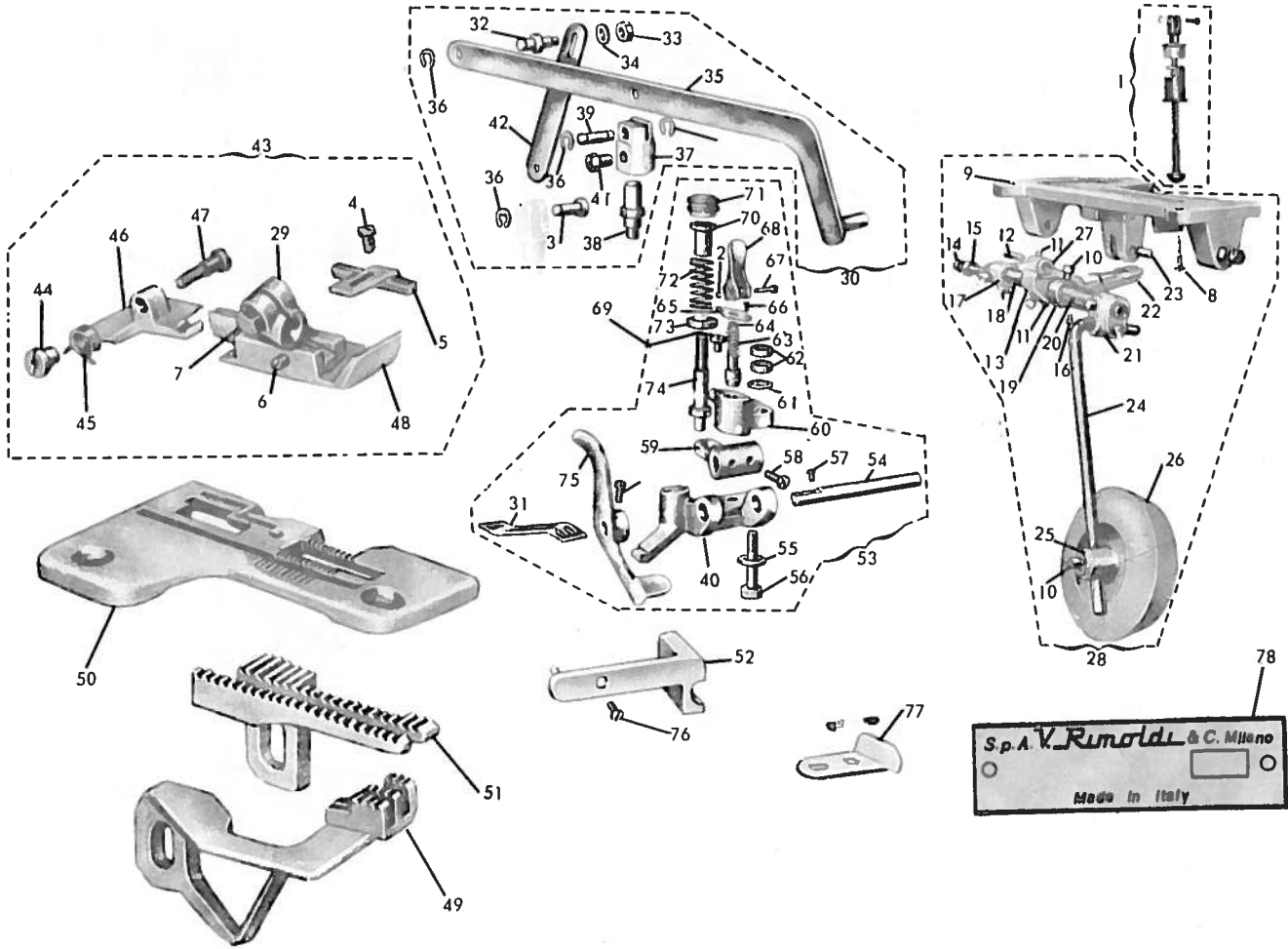


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	297-H-114	needle plate	1	16	017-E-7	grub screw	1
2	G.297-H-181	presserfoot complete	1	17	TS.20x30	wood screw	2
3	297-H-184	shoe	1	18	PM.297-H-217/2	cover plate	1
4	297-1921	plate chaining guide	1	19	G.297-H-216/2	cover plate front 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 front lever	1	77	PM.297-PDB-400	lever ruffler control with hub	1
39	27.01-PDB-520	pin fulcrum	1				

On request:
297-PDB-1141
297-PDB-4021

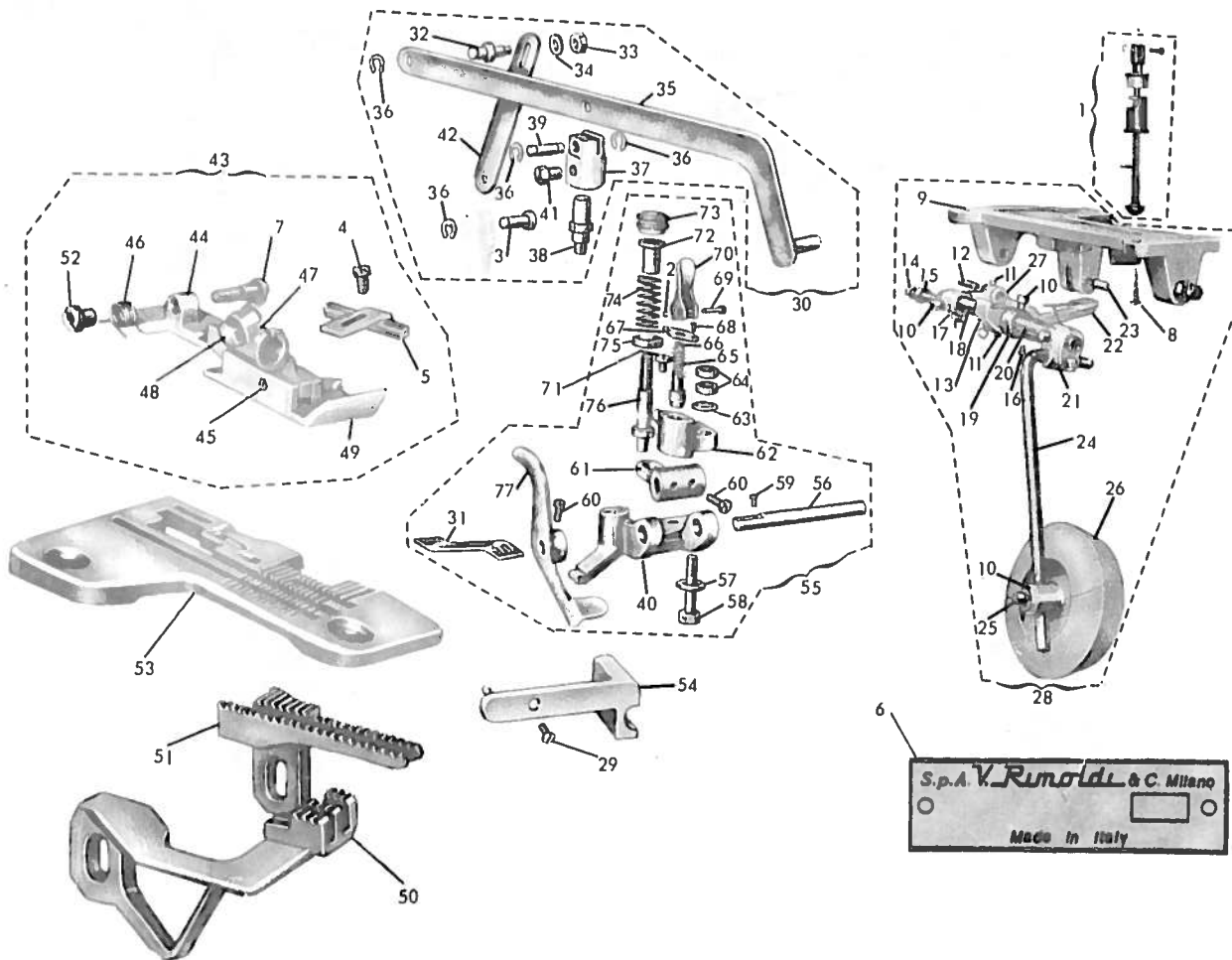


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REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-556	lever differential control	1	40	297-PDB-401	body ruffler	1
2	270-701	washer spring	2	41	038-C-7	bolt assembly fixing	1
3	27.01-PDB-558	pin attachment	1	42	27.01-PDB-516	lever rear	1
4	270-989	screw	1	43	G.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	4	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	9	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	2	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.	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 sprino	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	78137-10-00	plate machine class	1

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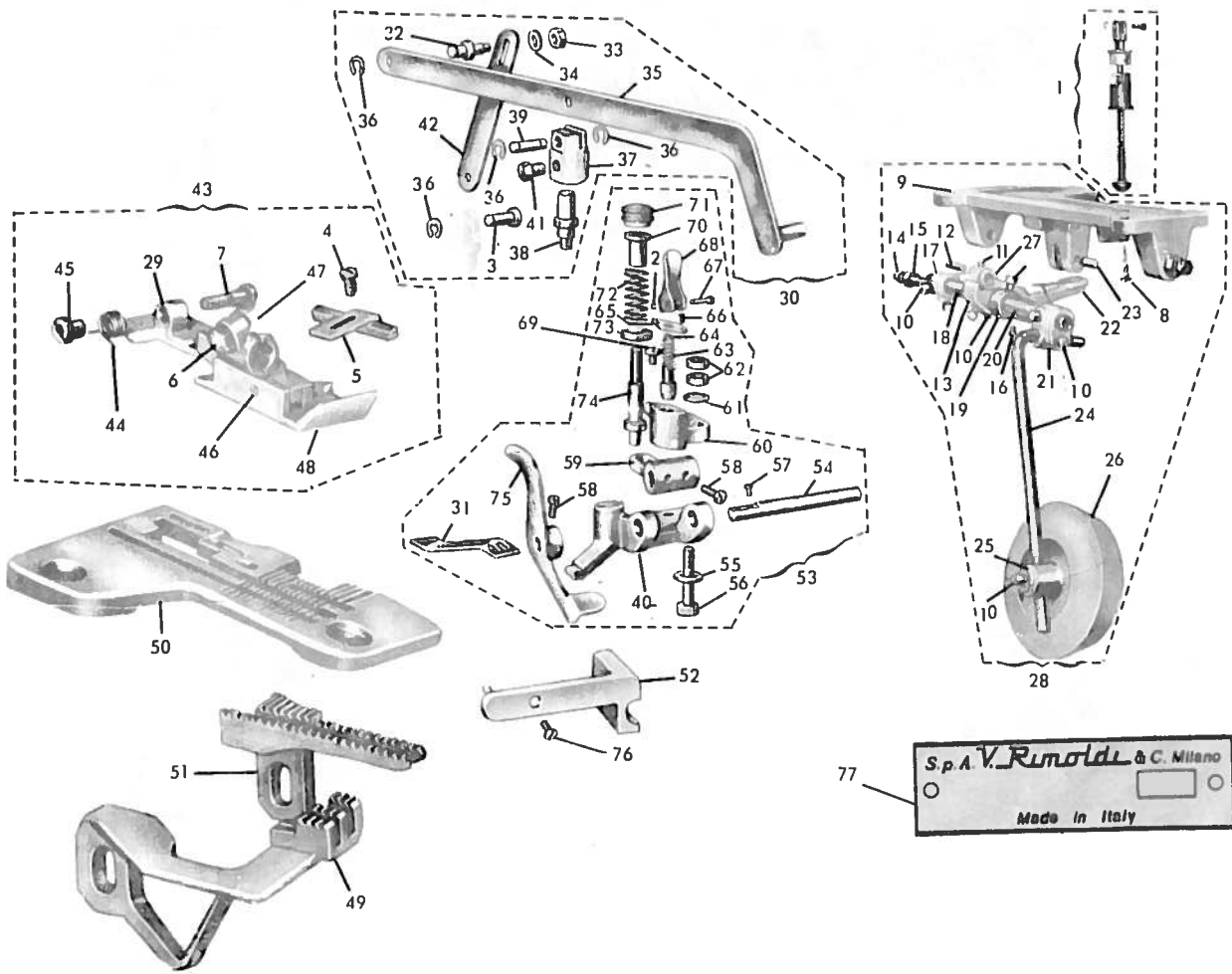
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297-PDB-4021 Tab. 32
297-PDB-4031 Tab. 32



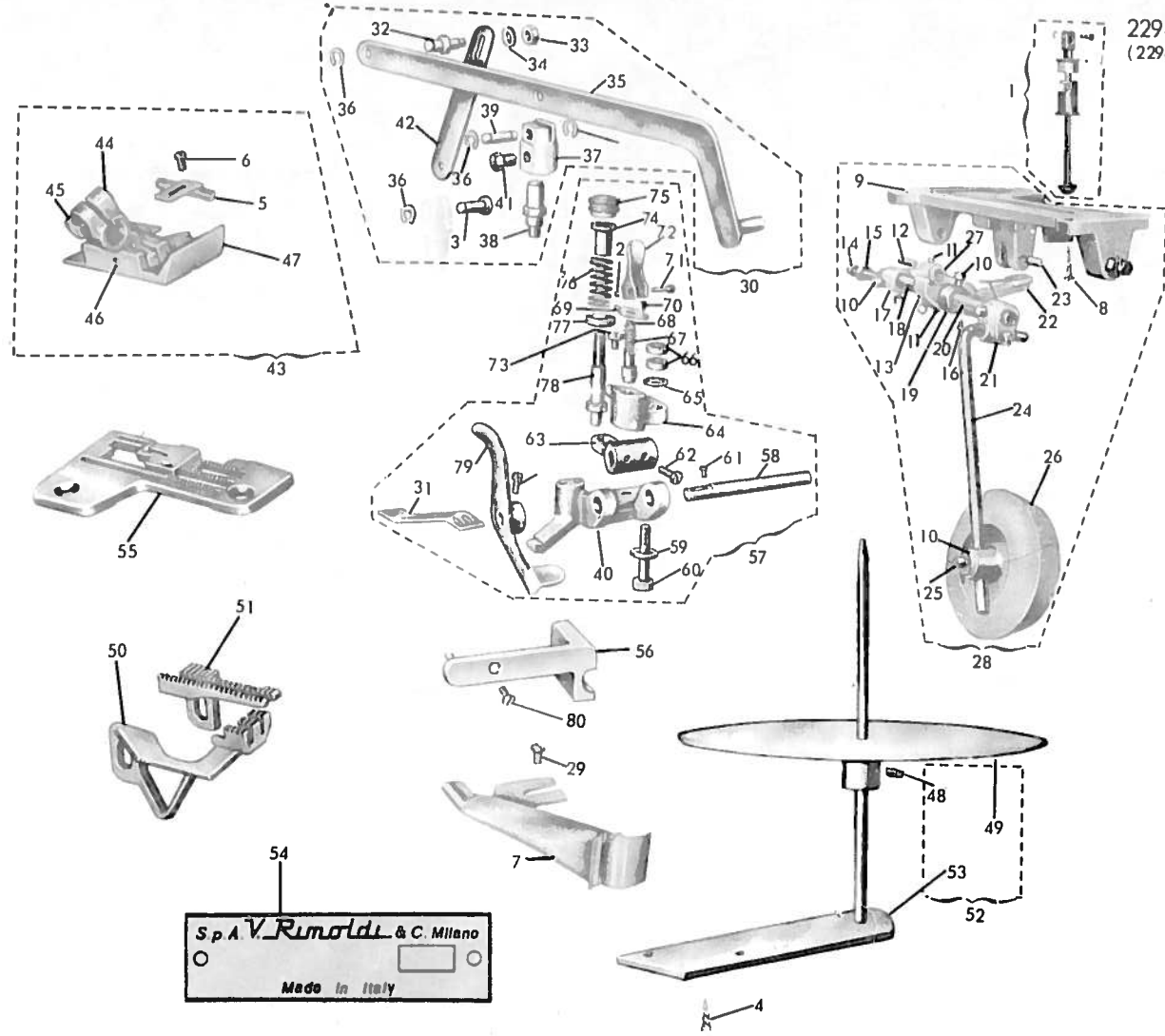
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-556	shaft diff. lever control complete	1	40	297-PDB-401	body, ruffler	1
2	270-701	washer spring	2	41	038-C-7	bolt assembly fixing	1
3	27.01-PDB-558	pin attachment	1	42	27.01-PDB-516	lever rear	1
4	270-989	screw	1	43	G.297-PDB-181/1	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 knob	1
39	27.01-PDB-520	pin fulcrum	1				

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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	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.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 for ruffler control	1	77	001-D-7	screw fixing bracket	1
39	27.01-PDB-520	pin fulcrum	1			plate machine class	1

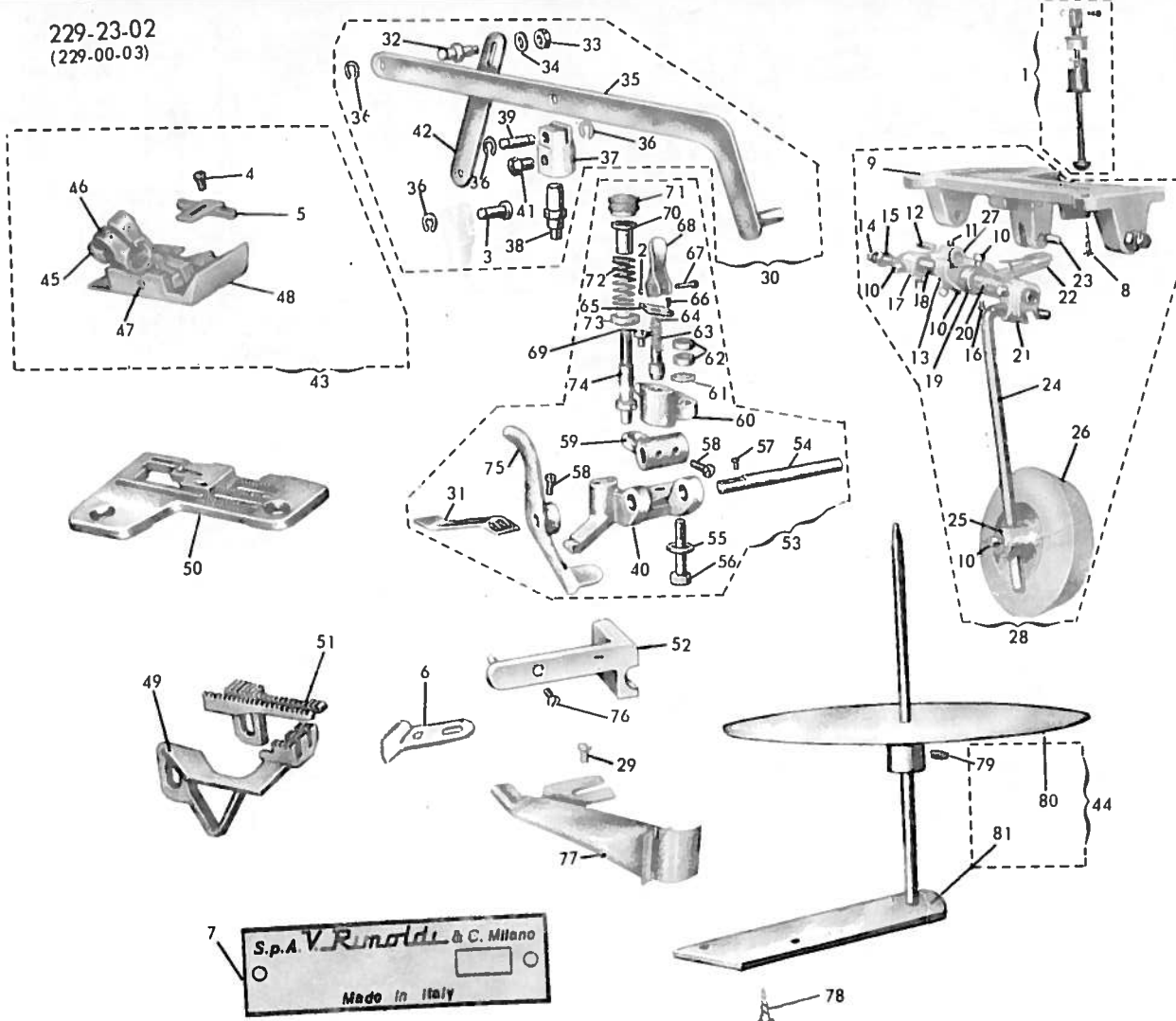


REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-556	lever differential control	1	41	038-C-7	bolt assembly fixing	1
2	270-701	washer spring	1	42	27.01-PDB-516	lever rear	1
3	27.01-PDB-558	pin attachment	1	43	G.297PDBO-181/1	presserfoot complete	1
4	TS. 20 x 30	screw wood, 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 blade	1

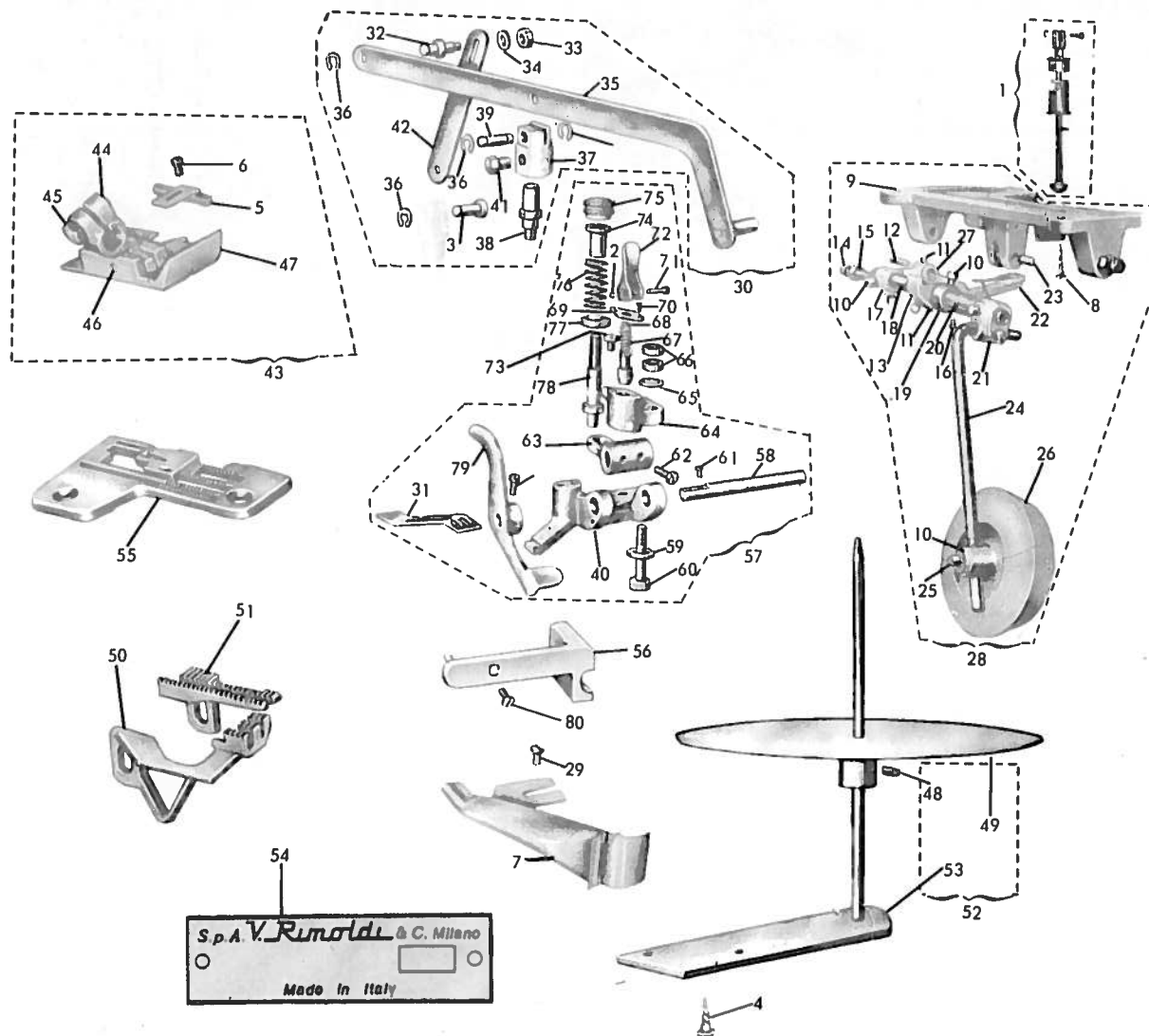
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 297-PDB-1141 Tab. 32
 297-PDB-4021 " 32
 297-PDB-4031 " 32
 PM.297-PDBO-4131 " 32

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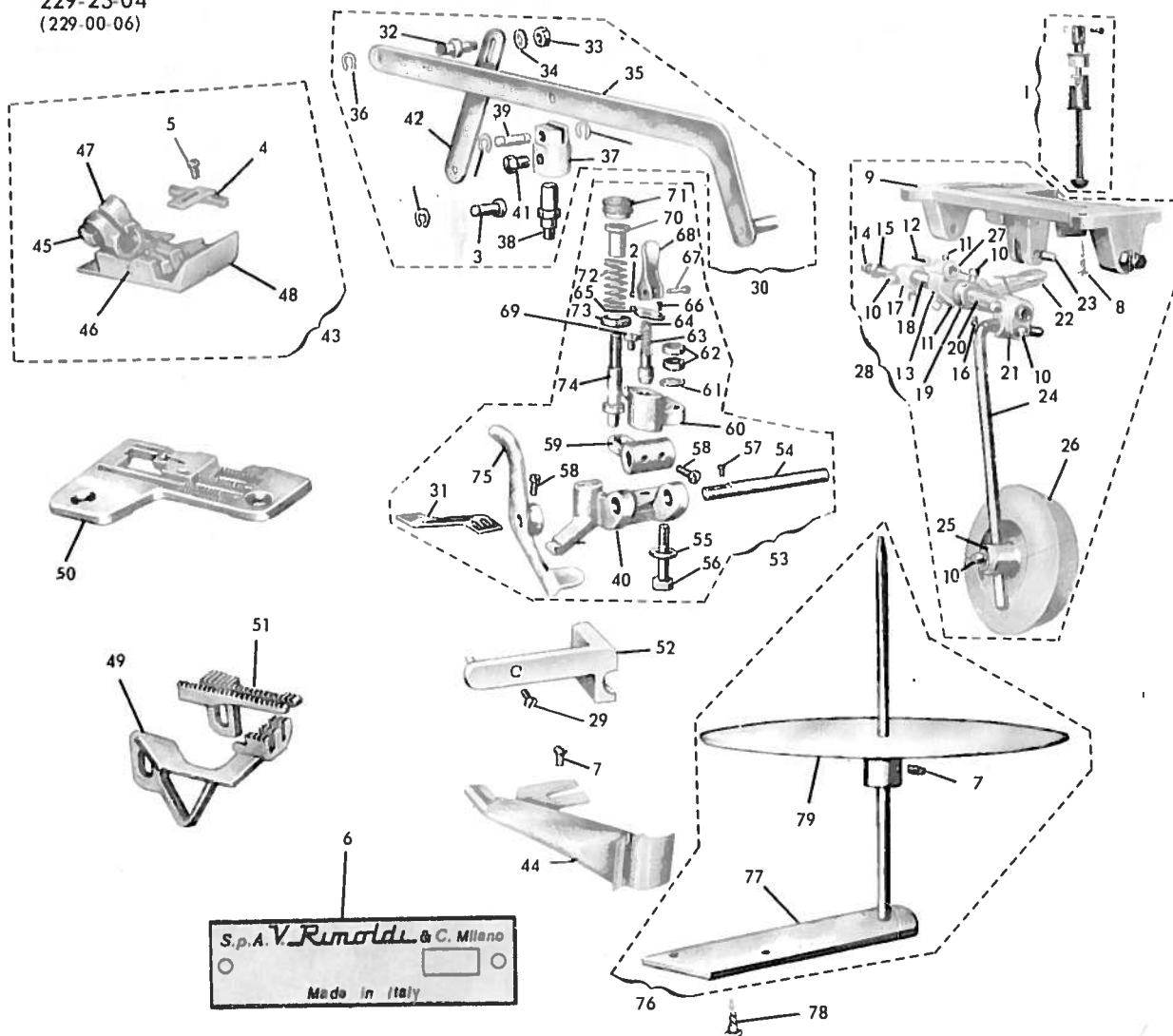
REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-556	lever differential control	1	42	27.01-PDB-516	lever rear	2
2	270-701	washer spring	3	43	G291PDBO181	presserfoot complete	1
3	27.01-PDB-558	pin attachment	1	44	G2726PDBO9375	holder reel	1
4	270-989	screw	1	45	297-906	bolt	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	4	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	9	51	291-PDB-051	feed dog, rear	1
11	005-G-6	screw pin locking	2	52	PM.2701PD417/1	bracket stop	1
12	270-580	pin junction	2	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	2	55	065-L-6	washer	1
15	059-P-8	nut for pointed screw	2	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	2	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:	
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						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

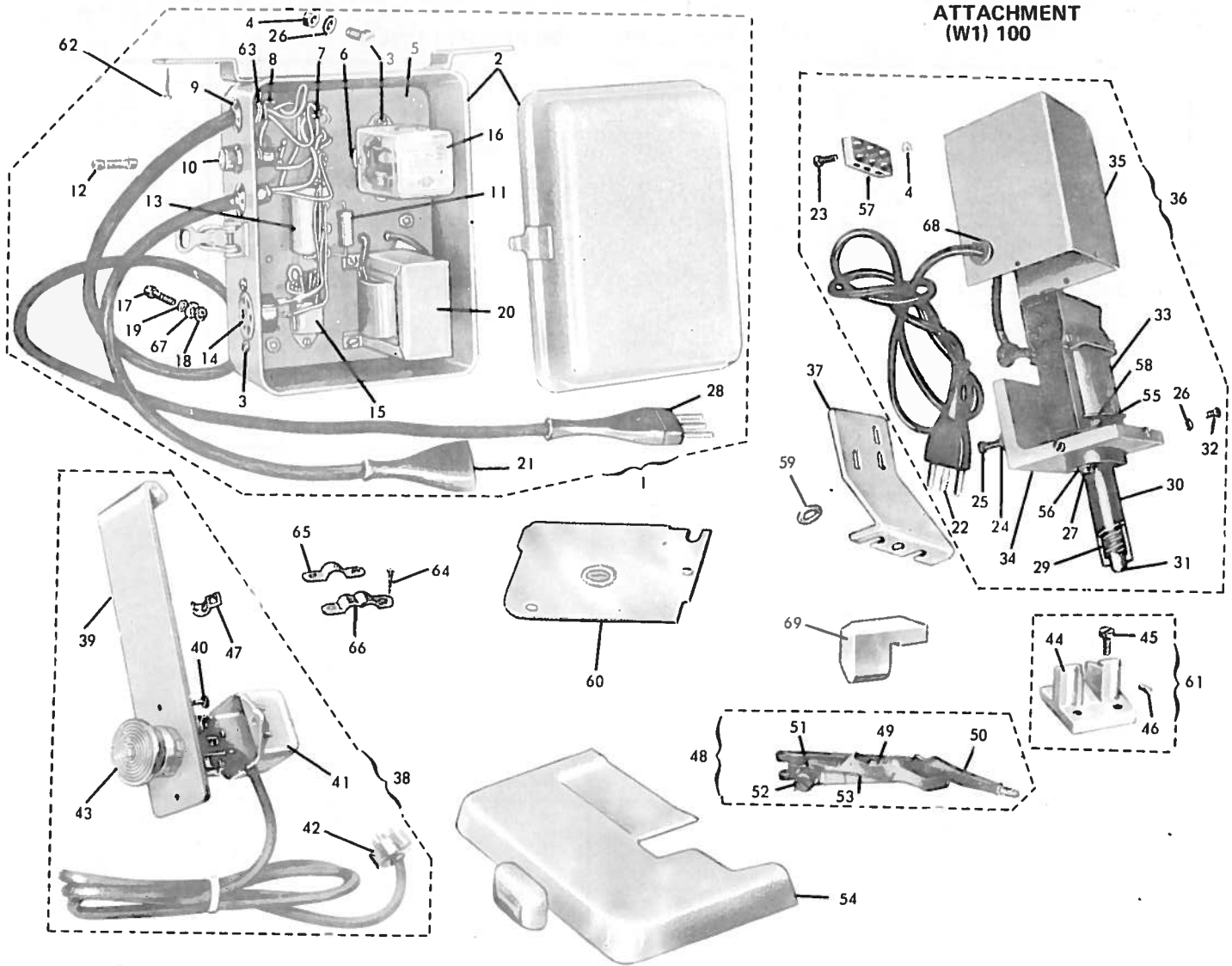
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REF. N°	PART. N°	DESCRIPTION	QUANT.	REF. N°	PART. N°	DESCRIPTION	QUANT.
1	G.270-556	lever differential control	1	41	038 C-7	bolt assembly fixing	1
2	270-701	washer spring	3	42	27.01 PDB 516	fever rear	1
3	27.01-PDB-558	pin attachment	1	43	G2917PDB0131	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:	
						29-PDB-402	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	2
22	270 W1 372	plug with earth	2	57	122-T-215	board terminal	1
23	C 001 C-14	screw	2	58	001-E-8	screw	4
24	064 L 5	washer	3	59	065 C 6	washer	2
25	270 W-3550	screw	3	60	297 W 2470 1	shield, oil	1
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				1

PARTS SUPPLIED ON REQUEST ONLY

	AS.297-403	Ref N	N 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	039R 8, 5	screw	1	

<p>297-PDB.4021</p>	<p>297-PDB.4031</p>
USE ON	
229.22.01 = 229.22.02 = 229.22.03 = 229.22.04 229.23.01 = 229.23.02 = 229.23.03 = 229.23.04	

<p>NEEDLE PLATE</p> <p>297-PDB.1141</p>	<p>USE ON</p> <p>229.22.01 229.22.03 229.23.01 229.23.03</p>
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<p>CORD GUIDE</p> <p>PM.297-PDB.4131</p>	<p>USE ON</p> <p>229.23.01 229.23.02 229.23.03 229.23.04</p>
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<p>NEEDLE PLATE</p> <p>297-1141/1</p>	<p>USE ON</p> <p>229.00.05</p>
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<p>FRONT FEED DOG</p> <p>29.17-0501</p>	<p>USE ON</p> <p>229.00.06</p>
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<p>REAR FEED DOG</p> <p>29.17-0511</p>	<p>USE ON</p> <p>229.00.06</p>
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<p>FRONT FEED DOG</p> <p>297-0501/1</p>	<p>USE ON</p> <p>229.00.05</p>
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<p>REAR FEED DOG</p> <p>297-0511</p>	<p>USE ON</p> <p>229.00.05</p>
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NUMERICAL INDEX OF PARTS

N°		N°		N°		N°	
DIS.	TAV.	DIS.	TAV.	DIS.	TAV.	DIS.	TAV.
RIM 27	5-13	070-F 4	3-6	PM 270-060/1	2	270-271	9
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
003-B 6	3	092-A 10	5-16	270-078	8	270-434	10
003-L 12	6	092-B 1	3-4-5	270-081/1	7	270-435	10
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
004-L 8	8	092-D 12	3	270-089/1	7	270-558	11
004-N 5,5	9	092-D 14	2	270-090/1	8	PM.270-562/2	3
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
007-C 11	3-5-6	01160/2	13	270-096/1	6	270-571	11
007-H 25	8	01161/2	13	270-097/1	1-6	270-572	11
007-M 15	10	01205 a	8	270-098	6	270-574	11
007-P 10	6-18	490/2	12	270-100	6	270-573	11
007-R 7,5	8	G 497	12	270-101	6	270-575	11
010-D 11,5	2	569	12	270-102	6	270-576	11
010-H 13,7	2	1145	12	270-103	6	270-577	11
011-E 13	32	1146	12	270-106	6	270-578	11
016-A 2,5	5-16	1156/1	13	270-108/1	6	270-579	11
016-B 2,5	4-5-9-10	1158	13	270-110	8	270-580	11
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
016-F 5	12	4030-06	3	270-130	5	270-583	11
016-F 10	12	128-608/5	2	270-131	5	G.270-583	11
017-C 3	2	250-143	12	270-132/1	5	270-584	11
017-C 4,5	2-4	250-471	3-4-6	270-133/1	5	270-585	11
017-E 4,5	8	250-708	5	270-135	5	270-586/1	11
017-E 8	3	250-708/1	5	PM.270-137/1	5	270-588	11
017-F 11	4	255-404	32	PM.270-138/1	5	270-589/1	11
017-H 12	10	270-004	11	270-155/1	13	270-590/2	11
023-N 5,5	3-5	PM 270-005/1	11	270-157	12	270-610	2
026-C 7	3-8	G 270-005/3	11	270-158/1	12	270-611/1	3
026-E 10	8	270-006/1	5	270-174	8	270-612/1	2
028-A 5	3-4	270-007/1	5	270-175	8	270-613	2
028-B 13	6	270-008/1	2	270-188	7	270-614	2
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
032-F 6,5	32	270-016	1	270-214	8	270-623/1	8
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
039-G 10	10	270-034	3	270-232/2	9	PM.270-646/1	10
039-H 9	3	270-035	3	270-233	9	270-650	10
039-R 8,5	32	270-036/1	3	270-234/1	9	270-651	10
051-L 10	11	270-038/3	3	270-235/1	9	270-652	10
053-H 8	12	PM 270-038/3	3	270-241/2	8	270-701	7-8-11
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
065-D 6	3	270-057/1	1	270-264	1-9	270-719	5-6
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
070-B 3	3	270-060/1	2	270-268	1-9	270-731/1	8

NUMERICAL INDEX OF PARTS

N° DIS.	TAV.	N° DIS.	TAV.	N° DIS.	TAV.	N° DIS.	TAV.
270-734/1	10	290-037	3	290-944	4-5-16	PM 29.17-208/3	18
270-740	13	PM.290-049/1	3	290-947	8	G.29.17-262/1	18
270-741	13	290-050	14	290-950	8	29.17-280	18
270-743	13	290-B.050	15	290-954	4	G.29.17-0761/2	18
270-745	13	290-051	14	290-973/1	8	G.29.17-1811/1	18
270-808	10	290-B.051	15	290-987	6	29.17-1841/1	18
270-810/2	10	290-068	4	290-3081	2	29.17-1921	18
270-811/1	10	290-071	4	291-020	16	603-031	9
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		