

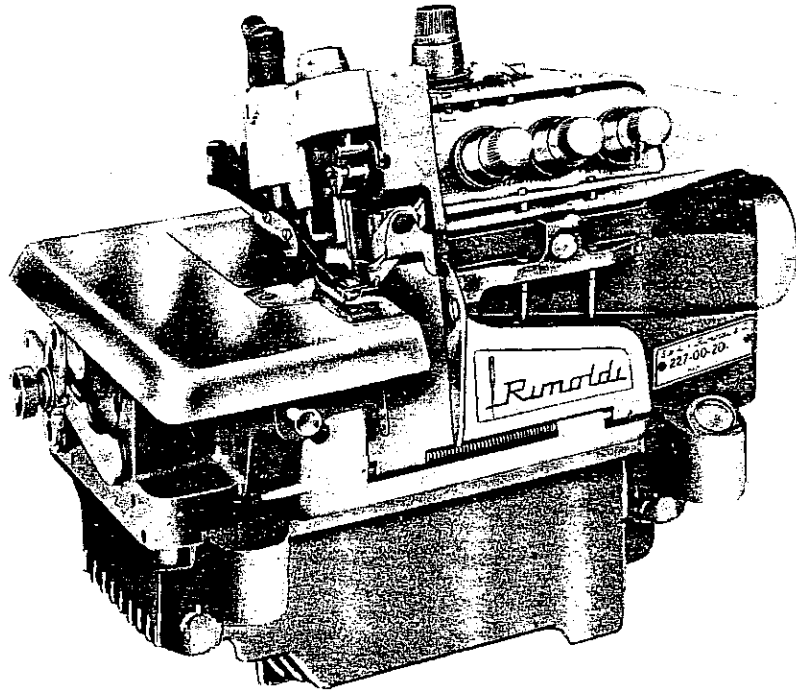
# **Rimoldi<sup>®</sup>**

**SPARE PARTS CATALOGUE  
CATALOGO PEZZI DI RICAMBIO  
CATALOGUE RECHANGES  
ERSATZTEILELISTE**

**class 227-00-20  
and subclasses  
227-00-32**



# Remolde

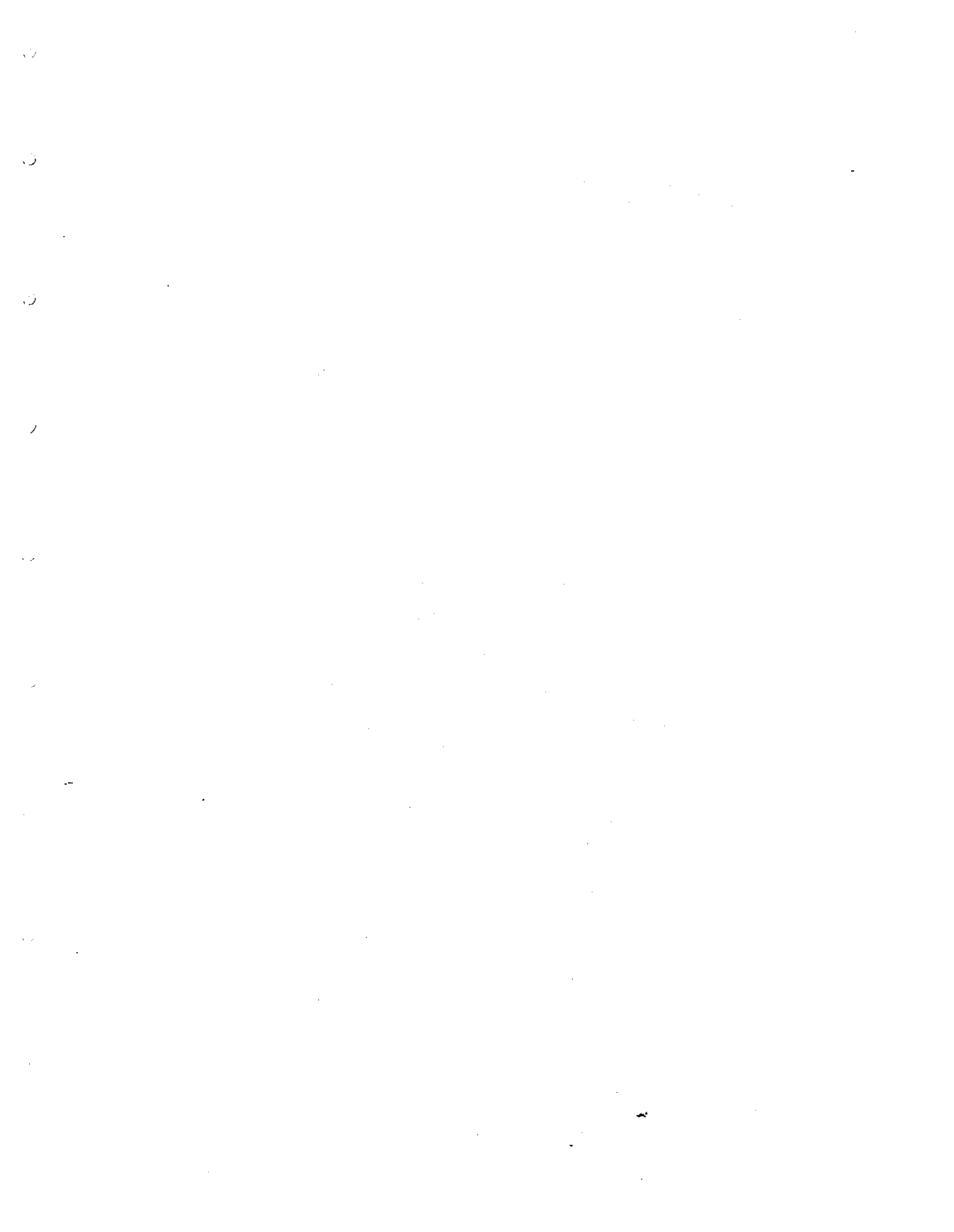


## SPARE PARTS CATALOGUE

class **227-00-20**

and subclasses

**227-00-32**



# **INTRODUCTION**



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## INTRODUCTION

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## SPARE PARTS CATALOGUE

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## INSTRUCTIONS FOR USE

### a) Introduction

1. The Spare Parts Catalogue consists of a set of illustrations of the different mechanisms or assemblies making up the basic machine head and its subclasses.
2. For easy look-up, the illustration index shows the position of each assembly on the machine.
3. The conversion groups of the basic head and its subclasses are illustrated in individual drawings.
4. The illustrations show the number identifying subclasses printed in bold type at top right.
5. On each illustration the single parts of the assembly shown are identified by a number. Assemblies of which parts cannot be supplied separately, are identified by capital letters. Parts and devices which are not standard equipment with the machine but which can be supplied on request are listed at the bottom of each illustration page and illustrated complete with all components at the end of the catalogue.
6. The catalogue carries a general list of parts in numerical order by drawing number, covering all the parts in our machines, with the number of the illustration where the part can be found.

## II. ORDER PLACING PROCEDURE

### a) All spare parts

The following instructions should be carefully followed to make sure that required spare parts are shipped without delay:

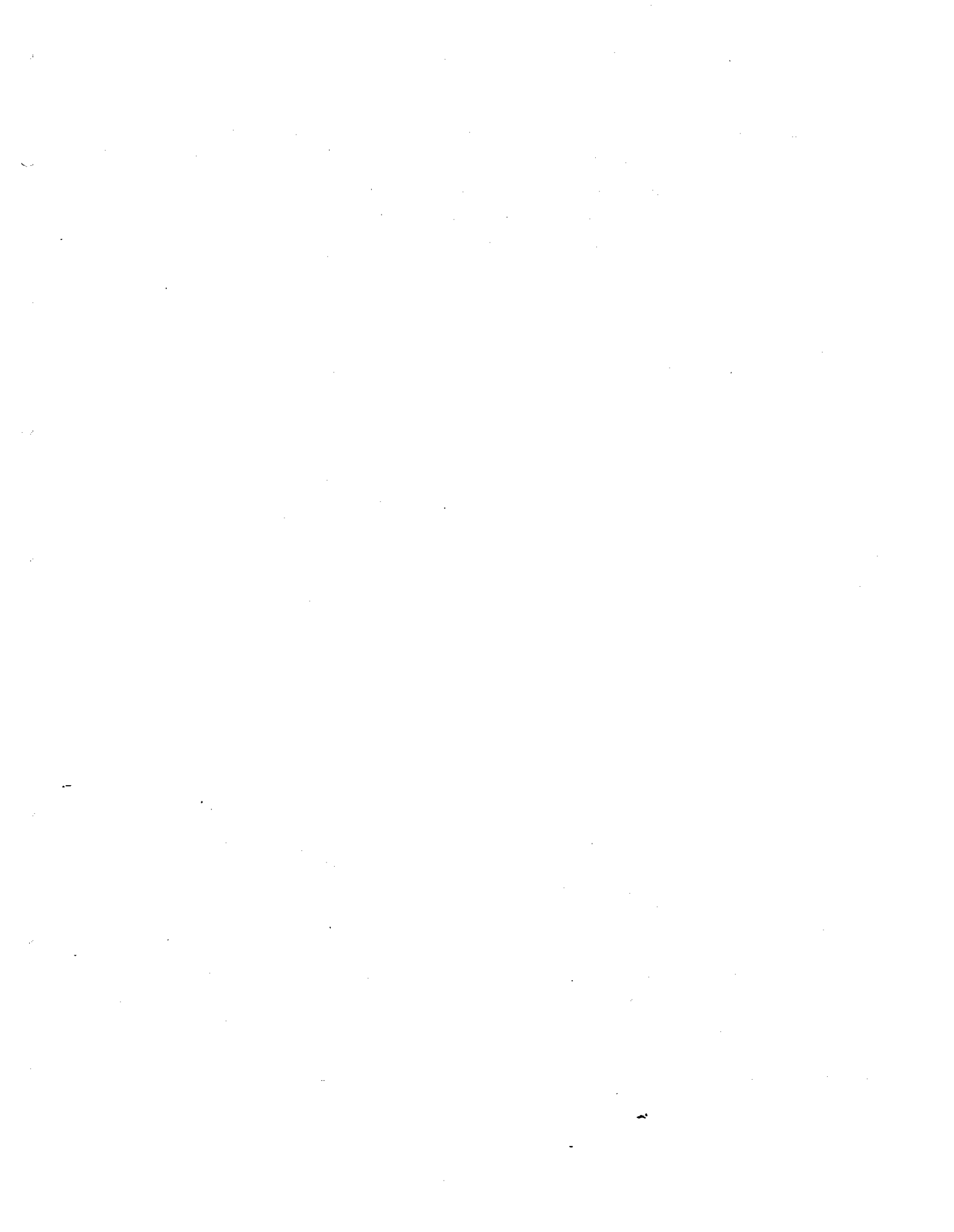
1. State machine head serial number
2. State drawing number of spare parts ordered.
3. Write name of spare part required in full.
4. State quantity required.

## I M P O R T A N T

RIMOLDI are desirous of thoroughly studying all cases of breakage, wear or unsatisfactory performance encountered with parts they have manufactured. For this reason, such parts should be dispatched together with the spare part order.

### b) Needles

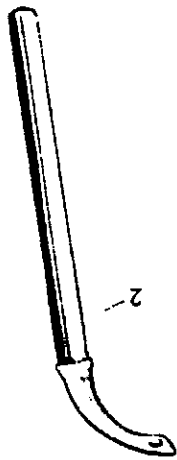
1. Only straight RIM 27 needles should be used on the machine heads illustrated in this catalogue.
2. The needle system and size are marked on the needle shank.
3. The gauge indicates the average diameter in hundredths of a millimetre taken on the blade of the needle.
4. The system and size are also stamped on the RIMOLDI needle envelope.
5. When ordering, always state clearly the required needle system and size. (Example: 100 needles, size 90, system RIM 27).
6. In case of doubt, attach a sample needle or an empty envelope of the needle required.
7. For sewing elastic or elasticised materials special ball-point needles classed as SKU are available.

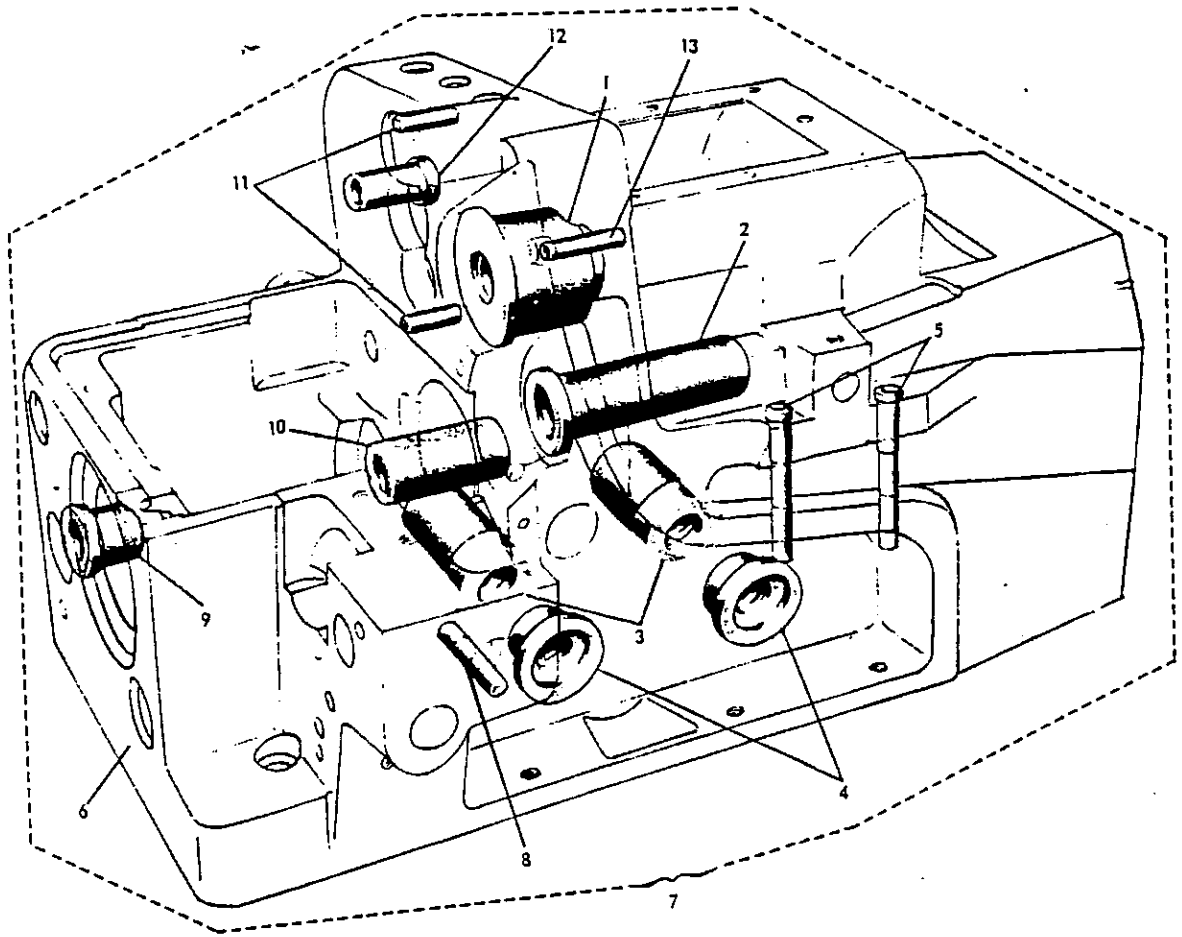


# **SPARE PARTS CATALOGUE**

| REF. N° | PART N°     | DESCRIPTION                   | QUANT. | REF. N° | PART N° | DESCRIPTION | QUANT. |
|---------|-------------|-------------------------------|--------|---------|---------|-------------|--------|
| 1       | 2402/5      | thead, guide accessory :scope | 1      |         |         |             |        |
| 2       | 21272-10    | second key (scope)            | 1      |         |         |             |        |
| 3       | 2892-1 (30) | medium type, same plate       | 1      |         |         |             |        |

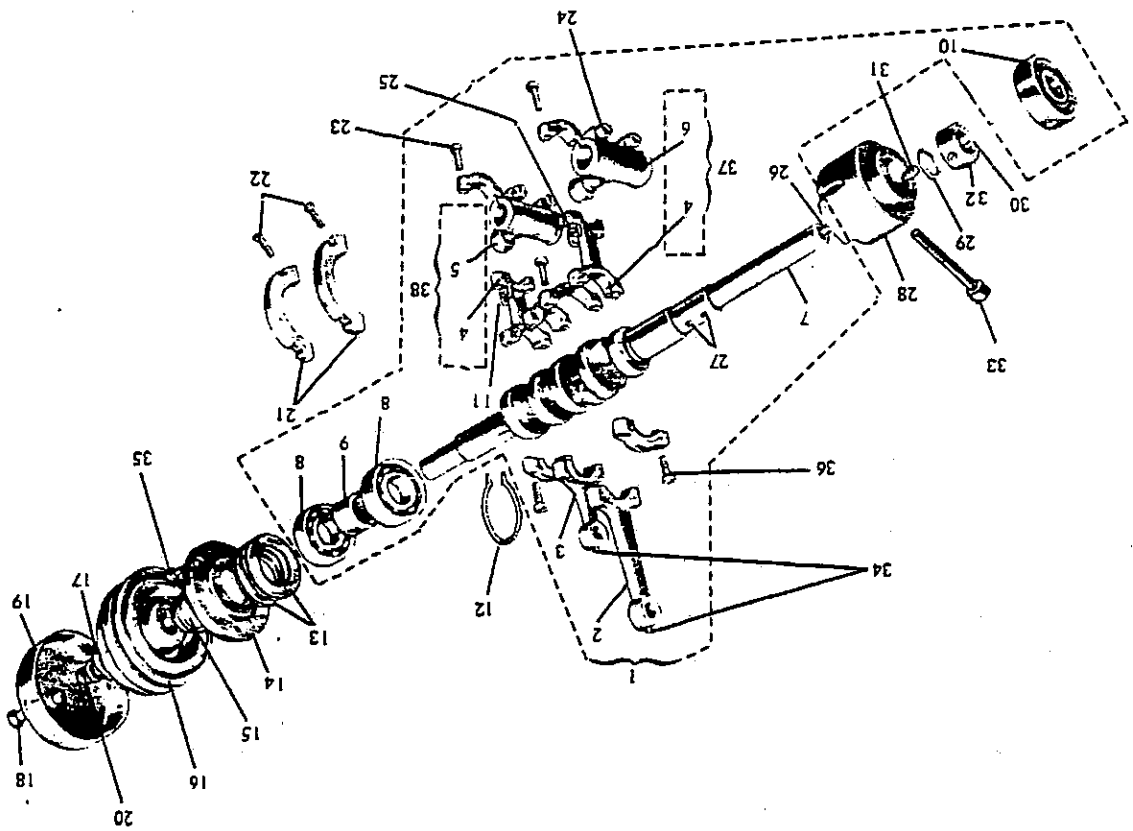
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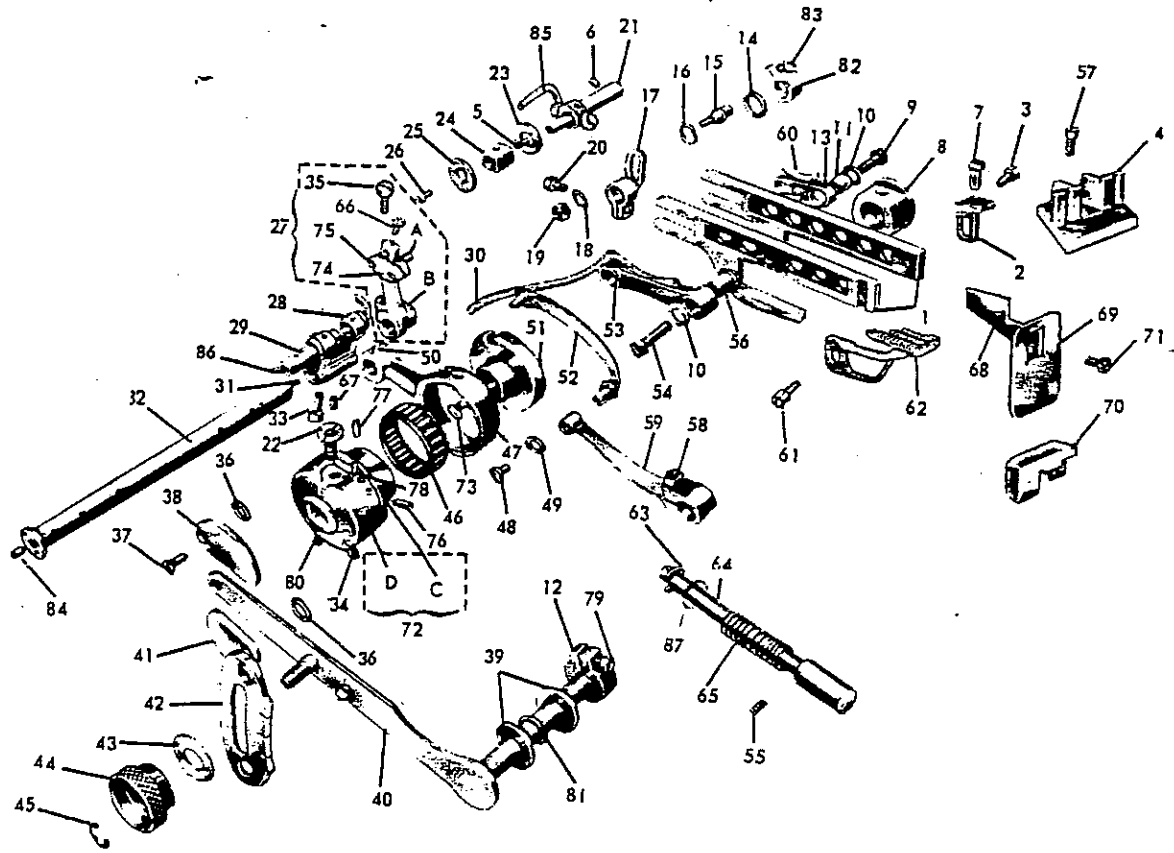




| REF. N° | PART. N°    | DESCRIPTION                          | QUANT. | REF. N° | PART. N°    | DESCRIPTION                        | QUANT. |
|---------|-------------|--------------------------------------|--------|---------|-------------|------------------------------------|--------|
| 1       | 270-016     | bushing, needle bar shaft            | 1      | 8       | 270-912     | latch pin, workplate               | 1      |
| 2       | 270-097/1   | bushing, upper knife holder          | 1      | 9       | 202045-0-11 | bushing, differential shaft        | 1      |
| 3       | 270-058/2   | rear bushing, looper shaft           | 2      | 10      | 270-042/3   | bushing (left), differential shaft | 2      |
| 4       | 270-057/1   | front bushing, looper shaft          | 2      | 11      | 270-642     | pin, coverplate centering          | 1      |
| 5       | 270-268     | guide tube, looper thread            | 2      | 12      | 270-082/1   | bushing, presserfoot lifter lever  | 1      |
| 6       | 202004-0-11 | base, machine                        | 1      | 13      | 270-264     | thread guide, needle               | 1      |
| 7       | 202005-3-11 | base with bushings and thread guides | 1      |         |             |                                    |        |

| REF. No.  | PART No.       | DESCRIPTION                          | QUANT. | REF. No. | PART No.     | DESCRIPTION                                     | QUANT. |
|---|----------------|--------------------------------------|--------|----------|--------------|---|--------|
| 1   | PM.27-009/3    | main shaft, with connecting rods     | 1      | 20       | 27-0510      | pivot, handwheel                                | 1      |
| 2   | 280-012/3      | control rod, needle bar              | 1      | 21       | 27-0617/2    | rockers   | 1      |
| 3   | 270-116/2      | control rod, knife                   | 1      | 22       | 270-999      | screws, rocker                                  | 2      |
| 4   | 270-061/2      | control rod, secondary looper        | 2      | 23       | 010-H-13,7   | screws for control rods 280-012/3 and 270-116/2 | 4      |
| 5   | 270-060/1      | sleeve, secondary looper control rod | 1      | 24       | 270-975      | screw, sleeve                                   | 4      |
| 6   | 270-059/1      | sleeve, primary looper control rod   | 1      | 25       | 290-944      | lock-screw, connecting rod guide                | 2      |
| 7   | 270-009/4      | main shaft                           | 1      | 26       | 092-D-14     | wick  | 2      |
| 8   | 270-707        | ball bearing, right                  | 2      | 27       | 092-C-2      | bush, intermediate                              | 2      |
| 9   | 270-613        | spacer, bearing                      | 1      | 28       | 270-010/2    | washer, differential                            | 1      |
| 10  | 270-709        | ball bearing, left                   | 2      | 29       | 074-A-12     | ring, adjustment                                | 1      |
| 11  | 270-062        | guide, connecting rod                | 1      | 30       | 270-722      | cap, main shaft                                 | 1      |
| 12  | 270-704        | snap-ring, right ball bearing        | 1      | 31       | 270-750      | lock-screw, intermediate bush                   | 1      |
| 13  | 270-705        | spring, cup                          | 1      | 32       | 016-D-5      | screw, adjustment ring                          | 1      |
| 14  | 260-620        | flange, right                        | 1      | 33       | 270-938      | gnub-screw, pin                                 | 1      |
| 15  | 270-614        | spacer, main shaft right             | 1      | 34       | 023-N-5,5    | screw, right flange                             | 1      |
| 16  | 270-008/1      | handwheel                            | 1      | 35       | 001-E-10     | screw, looper control rod                       | 1      |
| 17  | 270-612/1      | washer with guide                    | 1      | 36       | 010-D-11,5   | screw, right flange                             | 1      |
| 18  | 270-981        | set-screw, handwheel                 | 1      | 37       | PM.270-059/1 | sleeve assembly                                 | 1      |
| 19  | 270-608/5      | cover with handwheel                 | 1      | 38       | PM.270-060/1 | sleeve assembly                                 | 1      |
| 1   | PM 276 B-009/6 | main shaft, with connecting rods     | 1      | 1        |              |   |        |
| 6   | 270-060/1      | sleeve, primary looper control rod   | 1      | 1        |              |   |        |
| 7   | 270-009/3      | main shaft                           | 1      | 1        |              |   |        |
| 37  | PM 270-060/1   | sleeve assembly                      | 1      | 1        |              |   |        |
| <p>for 227-00-32</p>  |                |                                      |        |          |              |   |        |
| <p>N. B. Bearings reference number 8 can be supplied as separate spares, however it is indispensable to specify on the order sheet the Roman numeral appearing on the outer race of the re-moved bearing.</p> |                |                                      |        |          |              |   |        |



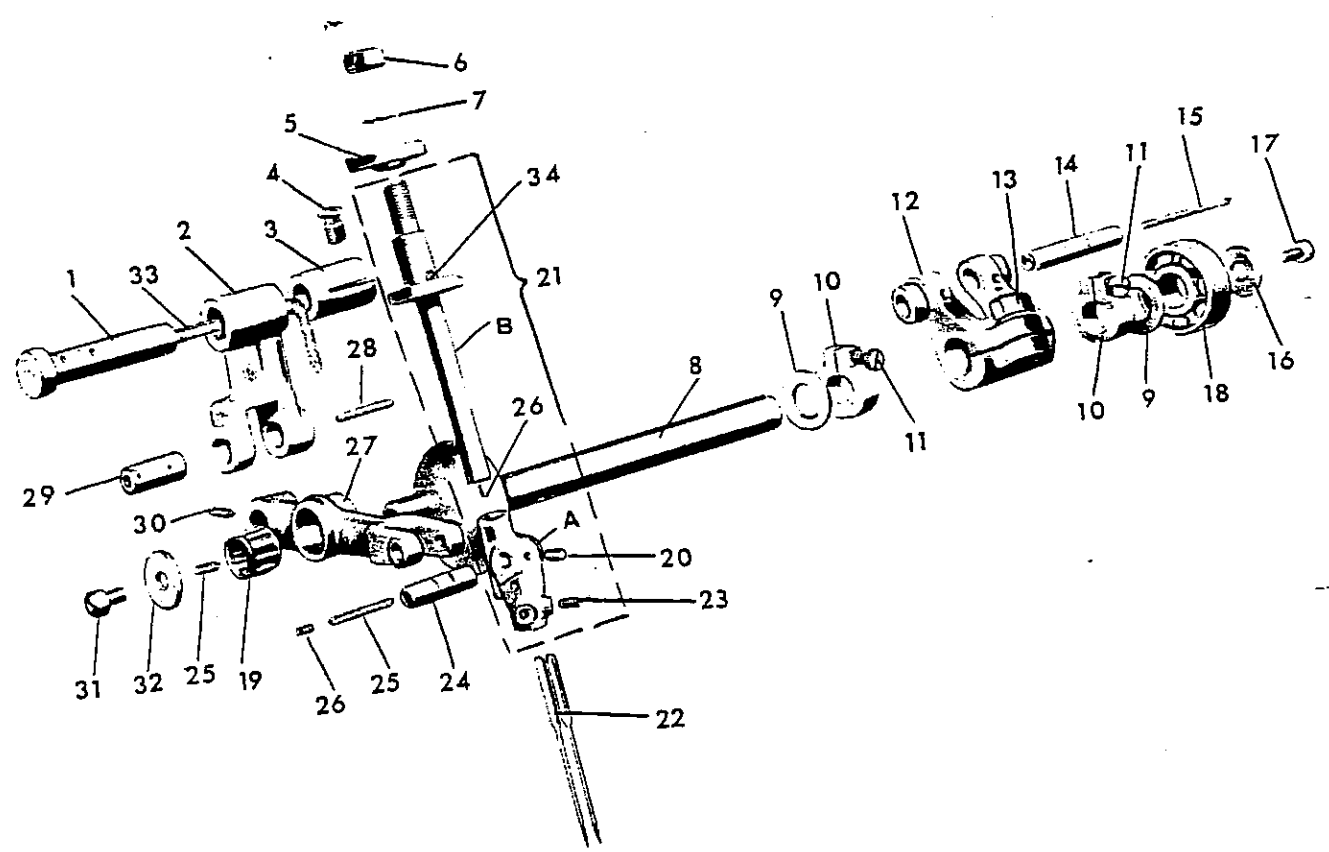


| REF. N° | PART. N°     | DESCRIPTION                                  | QUANT. | REF. N° | PART. N°     | DESCRIPTION                             | QUANT. |
|---------|--------------|--|--------|---------|--------------|---|--------|
| 1       | PM.270-049/1 | assembly, differential slide                 | 1      | 47      | 270-037/3    | rod, differential control               | 1      |
| 2       | 27-27-051    | feed dog, rear                               | 1      | 48      | 270-984      | screw, feed lever                       | 1      |
| 3       | 270-977      | screw, attach rear feed dog                  | 1      | 49      | 070-B-3      | washer, feed lever                      | 1      |
| 4       | 270-640/3    | guide block, right differential              | 1      | 50      | 023-N-5,5    | securing screw, pin                     | 1      |
| 5       | 092-B-1      | oil wick                                     | 4      | 51      | 270-735      | eccentric regulation                    | 1      |
| 6       | 270-937/1    | securing screw, differential eccentric shaft | 1      | 52      | PM.270-045/2 | attachment, differential segment        | 1      |
| 7       | 27-27-052    | feed dog, chaining                           | 1      | 53      | 270-033/1    | link, differential slide                | 1      |
| 8       | 270-611/1    | eccentric, feed dog lifter                   | 1      | 54      | 270-980      | securing screw, differential link       | 1      |
| 9       | 270-979      | securing screw, link                         | 1      | 55      | 270-943      | grub-screw, securing pushbutton         | 1      |
| 10      | 070-M-4,5    | washer, differential links                   | 2      | 56      | 270-034      | bush for differential slide             | 1      |
| 11      | 270-035      | bush, differential feed slide                | 1      | 57      | 005-L-11     | securing screw for guide                | 2      |
| 12      | 4030-06      | collar                                       | 1      | 58      | 270-997      | screw, differential control lever       | 2      |
| 13      | 270-048      | link, differential feed slide                | 1      | 59      | 270-566/1    | control lever, differential segment     | 1      |
| 14      | 073-C-8      | washer, pin                                  | 1      | 60      | 092-D-4      | oil wick, differential link             | 1      |
| 15      | 270-054      | pin, differential segment                    | 1      | 61      | 270-978      | securing screw, front feed dog          | 1      |
| 16      | 071-M-5,5    | washer, diff. ratio increase segment         | 1      | 62      | 27-27-050    | front feed dog                          | 1      |
| 17      | 279-047/2    | guide segment, diff. ratio increase          | 1      | 63      | 290-700      | snap-ring for pushbutton                | 1      |
| 18      | 070-F-4      | washer, diff. ratio pin                      | 1      | 64      | 270-736/3    | shank, pushbutton                       | 1      |
| 19      | 057-F-4      | nut for pin 270-054                          | 1      | 65      | 270-738      | spring, pushbutton                      | 1      |
| 20      | 270-975      | screw, segment                               | 1      | 66      | 001-A-2,5    | screw                                   | 1      |
| 21      | 270-039      | shaft, differential eccentric                | 1      | 67      | 270-729      | set-screw                               | 1      |
| 22      | 270-7391     | securing pin                                 | 1      | 68      | 279-249/1    | shield                                  | 1      |
| 23      | 071-H-5      | washer, differential eccentric shaft         | 1      | 69      | 270-250/2    | rubber guard for feed dogs              | 1      |
| 24      | 270-036/1    | sliding block, for differential              | 1      | 70      | 270-253      | gasket, slide guide                     | 1      |
| 25      | 270-935      | counter-washer                               | 1      | 71      | 004-L-7      | securing screw, guard                   | 2      |
| 26      | 026-C-7      | screw, counter-washer                        | 1      | 72      | PM.270-732/3 | housing and cam stitch length eccentric | 1      |
| 27      | PM.270-038/3 | complete adjustable differential assembly    | 1      | 73      | 270-734      | flat spring                             | 1      |
| 28      | 270-040      | yoke, connecting rod                         | 1      | 74      | 270-032/3    | plate, differential mechanism cursor    | 1      |
| 29      | 270-031/1    | pin, fork yoke                               | 1      | 75      | 004-P-6      | securing screw, cursor plate            | 2      |
| 30      | 092-D-6      | oil wick, dowel                              | 1      | 76      | 270-928      | grub-screw, for eccentric slide         | 2      |
| 31      | 092-D-12     | oil wick, rear pivot                         | 1      | 77      | 270-929      | lock-screw, for grub-screw              | 2      |
| 32      | 270-041/1    | rear pivot, differential                     | 1      | 78      | 270-747      | gib, eccentric slide                    | 1      |
| 33      | 250-471      | screw, yoke                                  | 1      | 79      | 007-C-11     | screw, collar                           | 2      |
| 34      | 017-E-11,5   | securing screw, adjustable eccentric         | 1      | 80      | 023-E-12     | set-screw, eccentric                    | 1      |
| 35      | 039-H-9      | screw, differential segment                  | 1      | 81      | 270-595      | gasket, differential control lever      | 1      |
| 36      | 064-F-5      | washer, segment                              | 2      | 82      | 270-717      | collar, differential collar             | 1      |
| 37      | 270-992      | screw, differential segment                  | 2      | 83      | 270-927      | screw, collar                           | 1      |
| 38      | 270-287/1    | upper sector                                 | 1      | 84      | 270-915      | plug, differential pinion bore          | 1      |
| 39      | 073-A-8      | washer, differential drive shaft             | 2      | 85      | 082-D-11     | oil wick                                | 1      |
| 40      | PM.270-562/2 | lever, complete differential control         | 1      | 86      | 092-D-23     | oil wick                                | 1      |
| 41      | 270-288/1    | stop   | 1      | 87      | 270-594      | gasket                                  | 1      |
| 42      | 270-567      | sector with setting marks                    | 1      | A       | 270-046/3    | slide for differential adjustment       | 1      |
| 43      | 065-D-6      | washer, knurled knob                         | 1      | B       | 270-038/3    | segment for differential adjustment     | 1      |
| 44      | 270-568      | knurled knob, lever lock                     | 1      | C       | 279-733/1    | slide, stitch length eccentric cam      | 1      |
| 45      | 270-702      | snap ring                                    | 1      | D       | 270-732/3    | stitch length eccentric cam             | 1      |
| 46      | 270-703      | needle roller bearing cage                   | 1      |         |              |   |        |

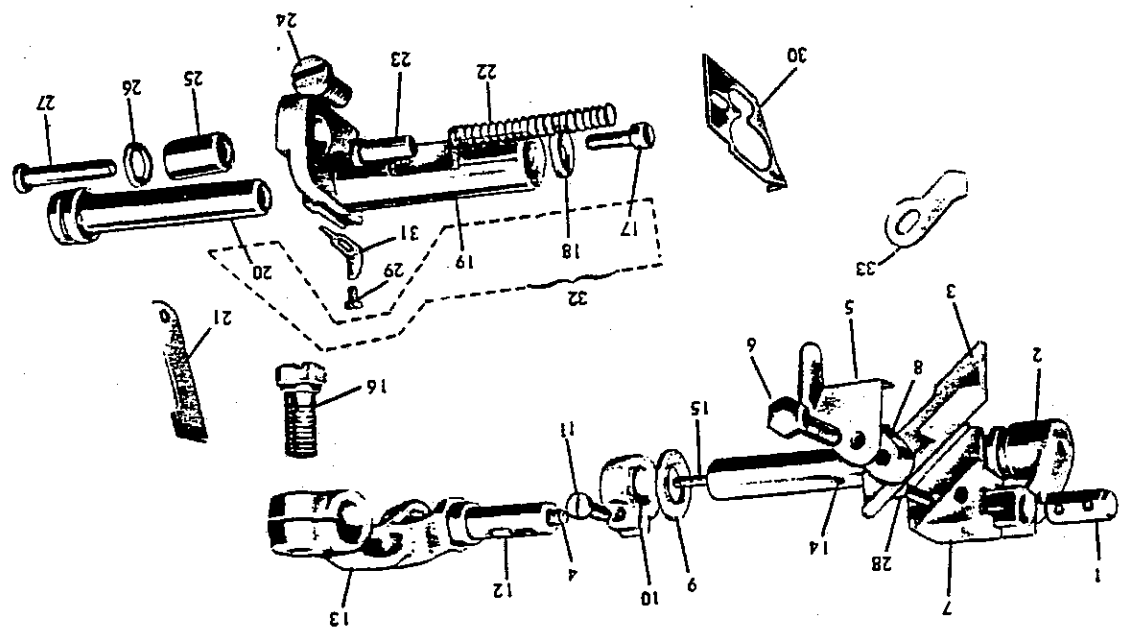
for 227-00-32



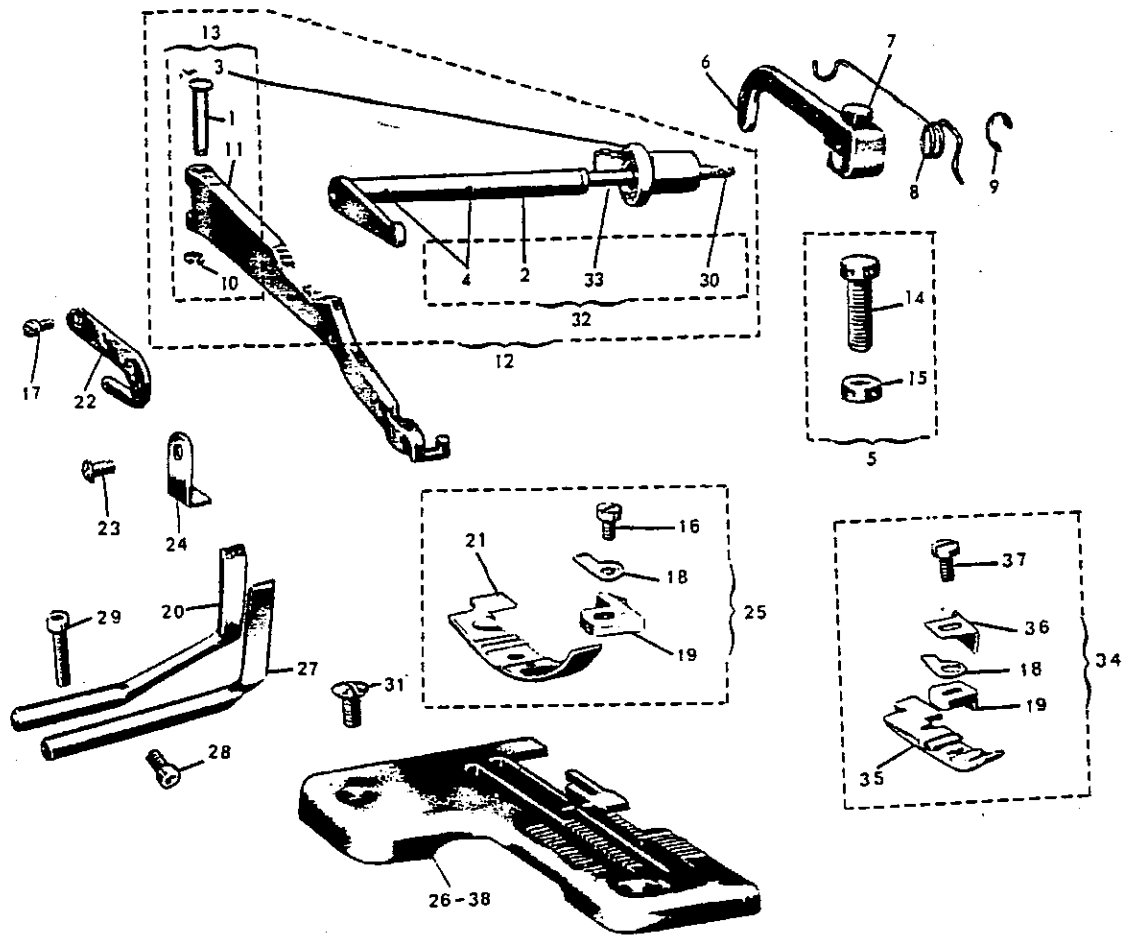




| REF. N° | PART. N°     | DESCRIPTION                   | QUANT. | REF. N° | PART. N°      | DESCRIPTION                               | QUANT. |
|---------|--------------|-------------------------------|--------|---------|---------------|---|--------|
| 1       | PM.270-138/1 | pin, needle lever rocker      | 1      | 19      | 250-708/1     | needle bearing cage, needle control lever | 1      |
| 2       | PM.270-137/1 | lever, fork                   | 1      | 20      | 016-B-2.5     | screw, pin securing                       | 1      |
| 3       | 270-132/1    | bush, fork lever              | 1      | 21      | G.27-27-025/4 | needle bar assembly with clamp, complete  | 1      |
| 4       | 270-728/1    | securing screw, bush          | 1      | 22      | RIM.27        | needle                                    | 2      |
| 5       | 290-027/1    | washer, needle rocker pin     | 1      | 23      | 290-944       | screw, needle clamp                       | 1      |
| 6       | 270-933      | lock-nut, guide pin           | 1      | 24      | 270-130       | pin, needle clamp                         | 1      |
| 7       | 270-713      | flexible washer               | 1      | 25      | 092-B-1       | oil-wick for needle clamp pin             | 2      |
| 8       | 270-006/1    | drive shaft, needle bar       | 1      | 26      | 016-A-2.5     | grub-screw, needle bar clamp pin          | 1      |
| 9       | 073-F-9      | washer, upper shaft           | 2      | 27      | 270-135       | lever, needle holder slide control        | 1      |
| 10      | 270-719      | collar, upper shaft           | 2      | 28      | 092-D-5       | oil-wick for pin                          | 1      |
| 11      | 007-C-11     | screw, for collar             | 2      | 29      | 270-133/1     | pin, fork lever                           | 1      |
| 12      | 270-007/1    | attachment, drive shaft       | 1      | 30      | 023-N-5.5     | set-screw, needle bar control lever       | 1      |
| 13      | 270-975/1    | screw, attachment drive shaft | 1      | 31      | 001-E-7       | screw, upper shaft                        | 1      |
| 14      | 270-031/1    | pin, attachment drive shaft   | 1      | 32      | 270-131       | shim, adjustment                          | 1      |
| 15      | 092-D-6      | oil-wick, for pin             | 1      | 33      | 092-D-11      | oil-wick, for pin                         | 1      |
| 16      | 071-E-5      | washer, upper shaft           | 1      | 34      | 092-A-10      | oil-wick, for needle bar                  | 1      |
| 17      | 001-G-10     | screw, washer                 | 1      | A       | 27-27-020/3   | needle clamp                              | 1      |
| 18      | 270-708      | bearing, upper shaft          | 1      | B       | 290-025/1     | needle bar                                | 1      |

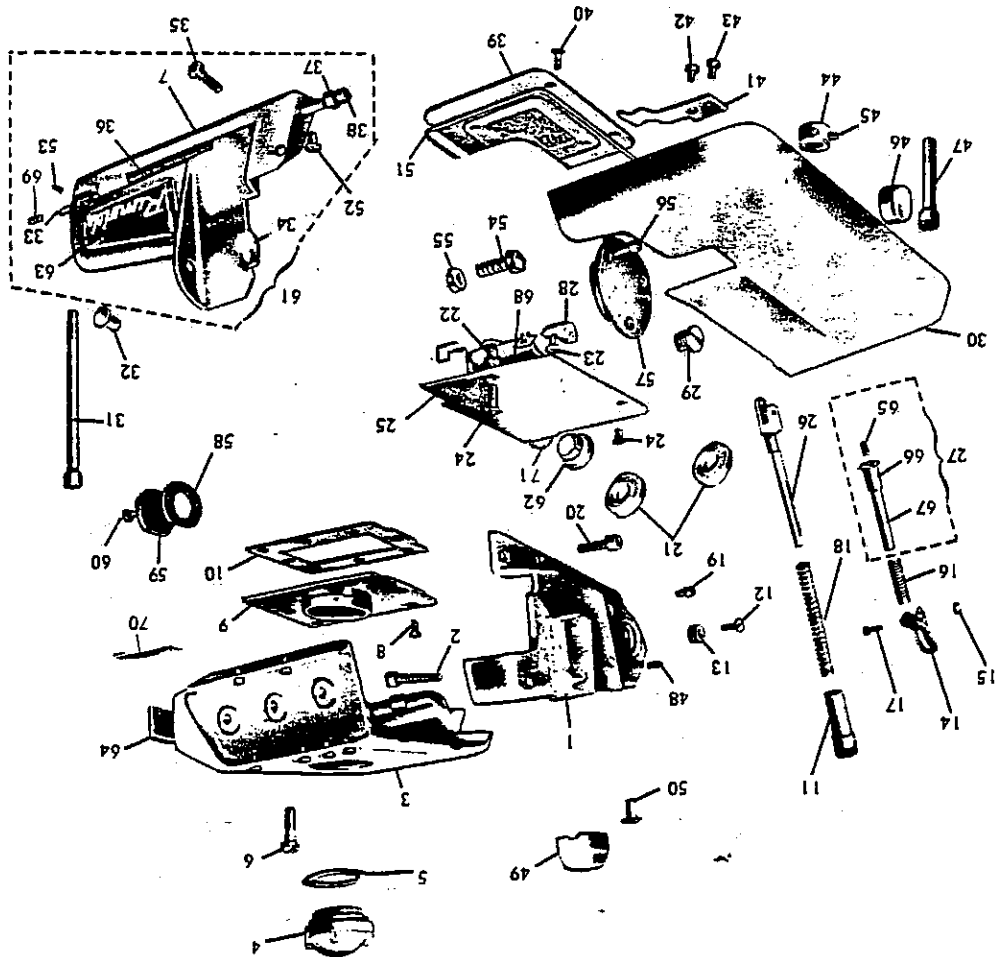


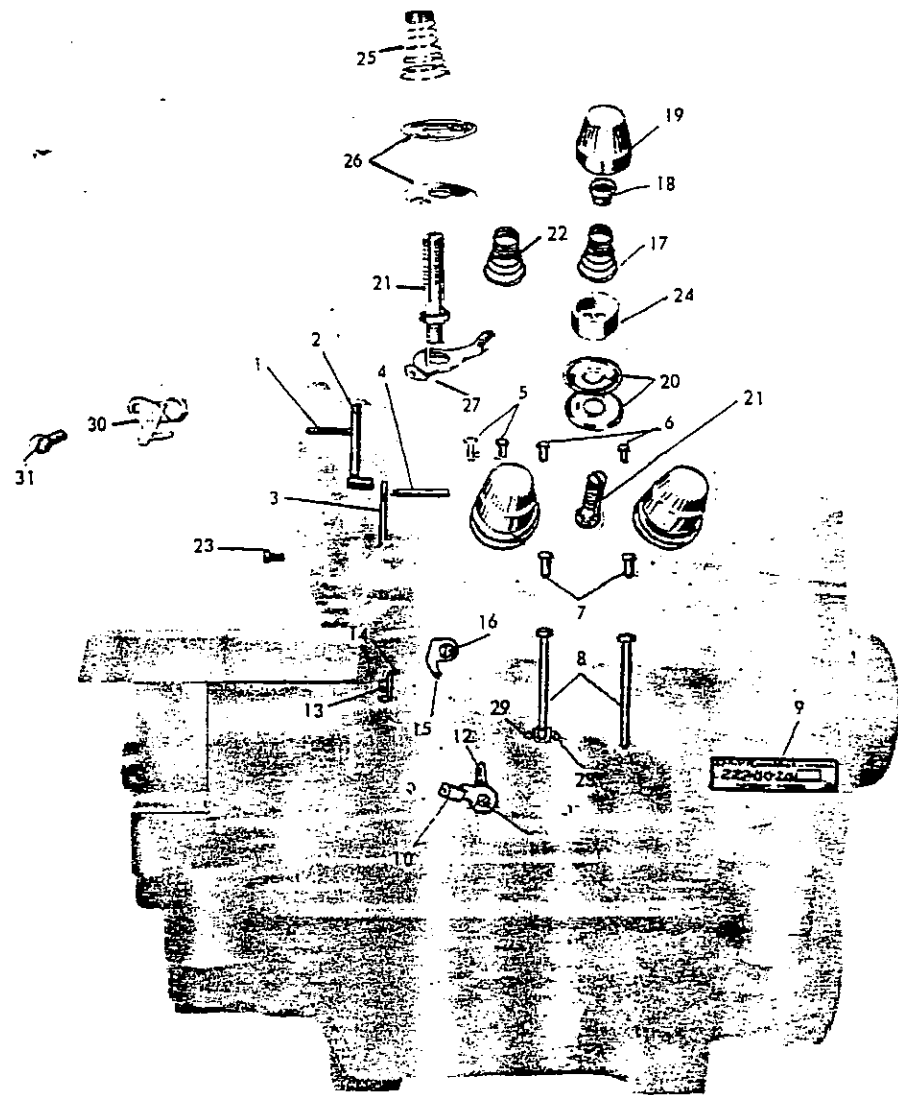
| REF. No.      | PART. No.    | DESCRIPTION                        | QUANT. |
|---------------|--------------|------------------------------------|--------|
| 1             | 270-102      | pin, upper knife holder            | 1      |
| 2             | 270-096/1    | upper knife holder                 | 1      |
| 3             | 27-77-112    | upper knife, serrated              | 1      |
| 4             | 092-D-5      | oil-wick                           | 1      |
| 5             | 128-111      | trimming guard, upper knife        | 1      |
| 6             | 270-987      | securing screw, upper knife        | 1      |
| 7             | 270-099      | block, upper knife holder          | 1      |
| 8             | 270-103      | lock-pawl, upper knife             | 1      |
| 9             | 073-F-9      | washer, upper knife holder         | 1      |
| 10            | 270-719      | collar, upper knife holder         | 1      |
| 11            | 007-C-11     | screw, upper knife holder collar   | 1      |
| 12            | 270-108/1    | pin, yoke attachment               | 1      |
| 13            | 270-098      | yoke attachment                    | 1      |
| 14            | 092-C-2      | oil-wick for yoke attachment pin   | 2      |
| 15            | 092-D-9      | oil-wick for knife holder          | 1      |
| 16            | 250-471      | screw, upper knife lever           | 1      |
| 17            | 007-P-10     | set-screw, lower knife             | 1      |
| 18            | 064-L-5      | washer, for pin                    | 1      |
| 19            | 270-104      | lower knife holder                 | 1      |
| 20            | 270-105      | pin, lower knife holder            | 1      |
| 21            | 277-113      | lower knife                        | 1      |
| 22            | 270-100      | spring, lower knife                | 1      |
| 23            | 270-106      | pressure pin, lower knife          | 1      |
| 24            | 003-L-12     | securing screw, lower knife holder | 1      |
| 25            | 270-101      | bushing, lower knife guide         | 1      |
| 26            | 070-F-4      | washer, for bushing                | 1      |
| 27            | 270-877      | screw, bushing                     | 1      |
| 28            | 028-B-5      | screw, upper knife holder          | 1      |
| 29            | 004-A-5      | securing screw, angle stop         | 1      |
| 30            | 27-77-227    | brace-plate, rear needle guard     | 2      |
| 31            | 27-77-228    | angle stop, front needle guard     | 1      |
| 32            | PM.270-104/1 | knife holder, lower                | 1      |
| 33            | 128-110      | trimming guard upper knife         | 1      |
| for 227-00-32 |              | upper knife                        | 3      |
| 3 276 B-112   |              |                                    |        |
| 1             |              |                                    |        |



| REF. N° | PART. N°       | DESCRIPTION                               | QUANT. | REF. N° | PART. N°      | DESCRIPTION                      | QUANT. |
|---------|----------------|---|--------|---------|---------------|----------------------------------|--------|
| 1       | 270-077        | pin, presserfoot arm                      | 1      | 18      | 27.77-196     | bracket, presserfoot             | 1      |
| 2       | 270-081/1      | shaft, presserfoot lifter lever           | 1      | 19      | 272 68-191    | chaining finger, presserfoot     | 1      |
| 3       | 270-083        | bushing, presserfoot lifter lever shaft   | 1      | 20      | 27-277-109/1  | needle guard, rear               | 1      |
| 4       | 092-C-2        | oil-wick                                  | 4      | 21      | 27.26-184     | shoe, presserfoot                | 1      |
| 5       | PM270-085/1    | stop-pin, lever stroke adjustment         | 1      | 22      | 270-188       | chain cutter                     | 1      |
| 6       | 270-087/1      | lever, presserfoot lifter                 | 1      | 23      | 27.01 P-403/1 | screw, angle mounting            | 1      |
| 7       | 270-985        | screw, presserfoot lifter lever           | 1      | 24      | 27.26-186     | angle stop presserfoot           | 1      |
| 8       | 270-089/1      | spring, presserfoot lifter lever          | 1      | 25      | G 27.277-181  | presserfoot assembly             | 1      |
| 9       | 270-714        | snap-ring, presserfoot lifter lever shaft | 1      | 26      | 27.277-114    | needle plate for narrow bight    | 1      |
| 10      | 270-701        | snap-ring                                 | 1      | 27      | 27.277-107/1  | needle guard, front              | 1      |
| 11      | 27-778-076/1   | presserfoot arm                           | 1      | 28      | 270-936/2     | screw, front needle guard        | 1      |
| 12      | G 27-778-076/1 | presserfoot arm assembly                  | 1      | 29      | 270-934/2     | screw, rear needle guard         | 1      |
| 13      | PM27.778-076/1 | coupling, presserfoot lifter lever        | 1      | 30      | 092-D-11      | oil-wick                         | 1      |
| 14      | 270-085/1      | stop-pin, presserfoot lifter lever travel | 1      | 31      | 032-L-10,5    | screw, needle plate securing     | 2      |
| 15      | 270-091        | lock-ring, for item 14                    | 1      | 32      | PM 270-081/1  | shaft, presserfoot arm, complete | 1      |
| 16      | 004-L-8        | screw, presserfoot chaining finger        | 1      | 33      | 270-073       | tube, protection                 | 1      |
| 17      | 001-A-4,3      | screw                                     | 1      |         |               |                                  |        |
|         |                | for 227-00-32                             |        |         |               |                                  |        |
| 34      | G27.26-181/1   | presserfoot assembly                      | 1      |         |               |                                  |        |
| 35      | 27.26-184/1    | shoe presserfoot                          | 1      |         |               |                                  |        |
| 36      | 27.77-183      | chaining plate                            | 1      |         |               |                                  |        |
| 37      | 004-L-9        | screw, presserfoot chaining finger        | 1      |         |               |                                  |        |
| 38      | 27.26-114/1    | needle plate                              | 1      |         |               |                                  |        |

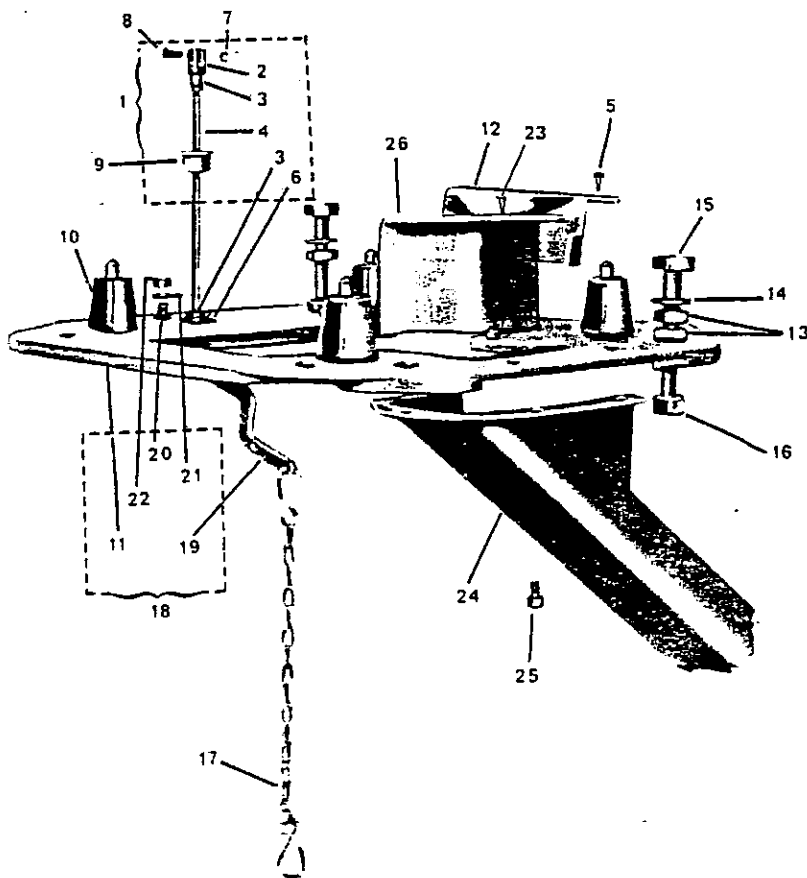
| REF. No. | PART. No.      | DESCRIPTION                              | QUANT. |
|----------|----------------|--|--------|
| 1        | PM.270-208/3   | side cover, with bushing                 | 1      |
| 2        | 007-H-25       | screw, top cover                         | 1      |
| 3        | PM.27-27-205/3 | oil-cap, with thread take-up bushing     | 1      |
| 4        | 270-241/2      | oil-cap, with window                     | 1      |
| 5        | 270-965/2      | packing ring, oil-cap                    | 1      |
| 6        | 270-983        | screw, cover securing                    | 1      |
| 7        | PM.270-218/2   | hinge assembly with guide tubes          | 1      |
| 8        | 007-R-7.5      | screw, securing oil-cap plate            | 1      |
| 9        | G.270-245/4    | oil-cap plate                            | 1      |
| 10       | 270-246        | oil-cap plate gasket                     | 1      |
| 11       | 270-093/1      | cap, spring adjustment                   | 1      |
| 12       | 032-F-9.5      | set-screw, stop cam                      | 1      |
| 13       | 605-412        | stop cam                                 | 1      |
| 14       | 270-094        | lever, presserfoot locking               | 1      |
| 15       | 270-701        | snap-ring                                | 1      |
| 16       | 270-086        | spring, presserfoot release rod          | 1      |
| 17       | 270-078        | pin, presserfoot release lever           | 1      |
| 18       | 2701-P-092     | spring, presserfoot pressure             | 1      |
| 19       | 270-993        | set-screw                                | 1      |
| 20       | 270-995        | screw, top cover securing                | 2      |
| 21       | 270-066/2      | plug, looper bushing                     | 2      |
| 22       | 270-303        | nipple, cover                            | 1      |
| 23       | 026-E-10       | screw, seal plug securing                | 1      |
| 24       | 026-C-7        | screw, splash guard securing             | 1      |
| 25       | 270-247/1      | splash guard                             | 1      |
| 26       | PM.270-095/3   | shaft, presserfoot pressure              | 1      |
| 27       | G.270090/1     | release rod, presserfoot                 | 1      |
| 28       | 270-248/1      | plug, seal                               | 1      |
| 29       | 270-940        | plug, screw                              | 1      |
| 30       | PM.270-210/3   | work-plate assembly                      | 1      |
| 31       | 270-972        | screw-bolt, machine assembly             | 1      |
| 32       | 270-730/2      | screw, plug                              | 1      |
| 33       | 270-220/1      | pin, front cover plate                   | 1      |
| 34       | PM.270-217/2   | cover, looper and take-up                | 1      |
| 35       | 007-F-14       | screw, cover                             | 1      |
| 36       | 270-221        | spring, front cover                      | 1      |
| 37       | 054-D-4        | nut, retaining                           | 1      |
| 38       | 270-226        | screw, front cover securing              | 1      |
| 39       | G.270-242/3    | plate, complete with filters, tubes      | 1      |
| 40       | 270-212        | screw, bottom plate securing             | 1      |
| 41       | 270-212        | spring, workplate latch                  | 1      |
| 42       | 001-D-6        | screw, spring securing                   | 7      |
| 43       | 001-D-4.5      | screw, spring securing                   | 1      |
| 44       | 270-718        | collar, workplate pin                    | 1      |
| 45       | 017-E-4.5      | screw, collar                            | 1      |
| 46       | 270-030        | plug, differential shaft seal            | 1      |
| 47       | 270-973        | screw-bolt, machine assembly, short      | 1      |
| 48       | 270-715        | set-screw for adjustment cap 270-093/1   | 1      |
| 49       | 270-129/1      | cap, guide pin                           | 1      |
| 50       | 270-731/1      | plug, attachment Wisal                   | 1      |
| 51       | 270-231        | gasket                                   | 1      |
| 52       | 01205/A        | screw, front cover plate securing        | 1      |
| 53       | 270-913        | pin, front cover plate                   | 1      |
| 54       | 270-214        | set-screw, side cover plate              | 2      |
| 55       | 057-E-4        | nut, set-screw                           | 2      |
| 56       | 005-M-10       | screw, side flange, left                 | 1      |
| 57       | 270-619        | flange, left side                        | 1      |
| 58       | 270-624        | gasket, sealing disc                     | 2      |
| 59       | 270-623/1      | sealing disc                             | 1      |
| 60       | 001-D-10       | screw, sealing disc                      | 1      |
| 61       | G.270-216/2    | cover plate assembly, front              | 1      |
| 62       | 270-030/2      | screw, plug                              | 1      |
| 63       | 270-175        | nameplate, front cover plate             | 1      |
| 64       | 270-174        | nameplate, tensioning disc housing cover | 1      |
| 65       | 290-923        | set-screw, tie-rod                       | 1      |
| 66       | 270-090/1      | block, tie-rod                           | 1      |
| 67       | 270-110        | tie-rod                                  | 1      |
| 68       | PM.270-301     | splashguard assembly                     | 1      |
| 69       | 016-E-5.5      | screw bracket                            | 1      |
| 70       | 270-926        | screw bracket                            | 1      |





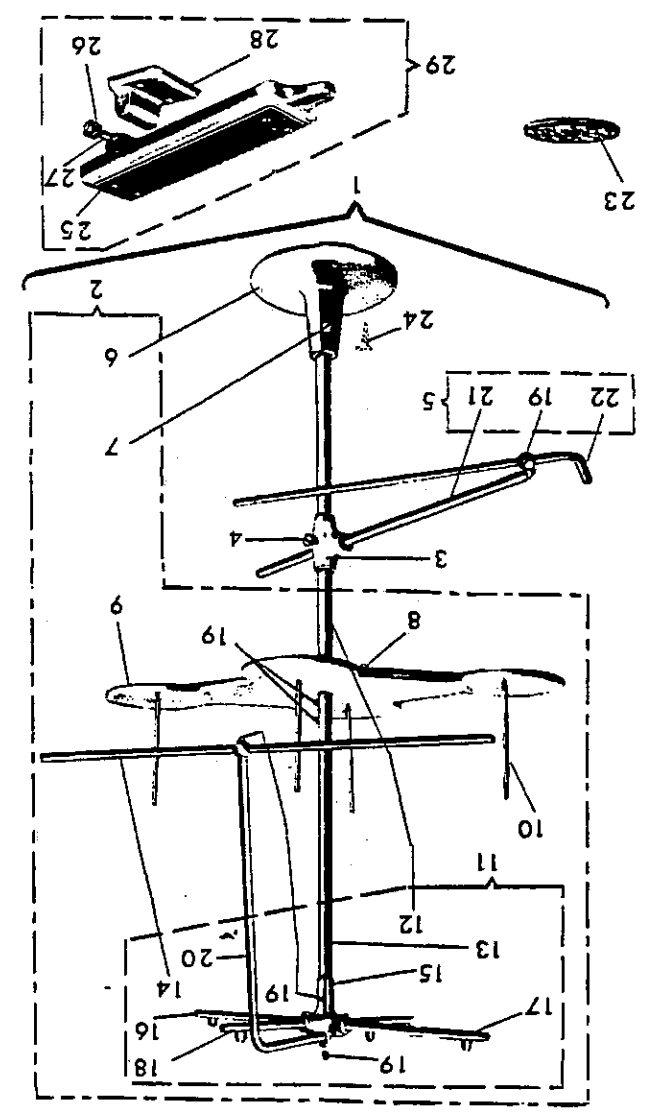
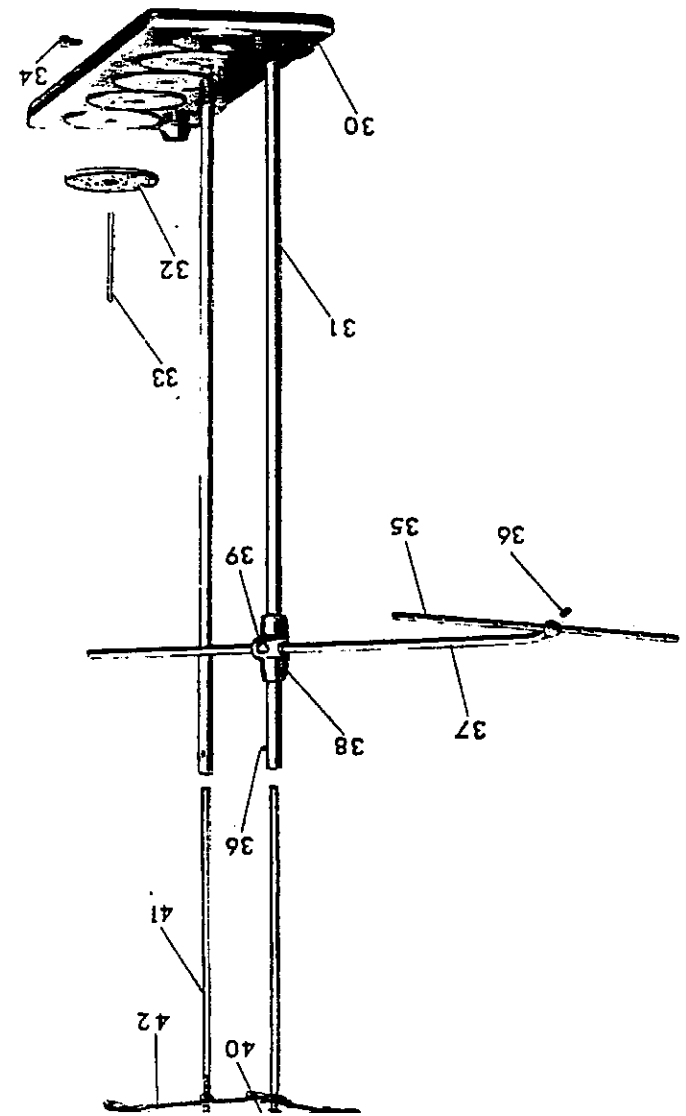
| REF. N° | PART. N°    | DESCRIPTION                       | QUANT. | REF. N° | PART. N°    | DESCRIPTION                    | QUANT. |
|---------|-------------|-----------------------------------|--------|---------|-------------|--------------------------------|--------|
| 1       | 270-941     | screw, thread guide tube securing | 1      | 17      | 272-232.1   | spring, primary looper         | 2      |
| 2       | PM270-263/1 | tube, needle thread guide         | 1      | 18      | 270-233     | bushing, upper tension         | 4      |
| 3       | 270-274/3   | take-up, needle thread            | 1      | 19      | 202558-2-00 | nut, tension adjusting         | 4      |
| 4       | 270-264     | needle thread guide               | 1      | 20      | 603-031     | disc, tension                  | 6      |
| 5       | 270-265     | bush, upper thread guide          | 2      | 21      | 270-230     | pin, tension screw             | 4      |
| 6       | 270-265/1   | bush, upper thread guide          | 2      | 22      | 270-232/2   | spring, needle                 | 1      |
| 7       | 270-266     | bush, lower thread guide          | 2      | 23      | 004 N-5.5   | screw, needle take-up securing | 2      |
| 8       | 270-268     | tube, lower thread guide          | 2      | 24      | 202556-0-00 | cup, tension disc              | 4      |
| 9       | 780220-0-00 | machine type nameplate            | 1      | 25      | 270-232.1   | spring needle                  | 1      |
| 10      | 270-269/2   | take-up, primary looper           | 1      | 26      | 250-031     | disc tension                   | 2      |
| 11      | 004 L-8     | screw, take-up securing           | 1      | 27      | 27 27-253   | thread guide                   | 1      |
| 12      | 270-270/2   | take-up, secondary looper         | 1      | 28      | 016 B-2.5   | screw                          | 1      |
| 13      | 004 A-3.2   | screw, bracket securing           | 1      | 29      | 27 00-2714  | thread guide                   | 1      |
| 14      | 270-276/1   | bracket, looper                   | 1      | 30      | 27 27-262.2 | needle thread take-up assembly | 1      |
| 15      | 27.277-2751 | thread guide, secondary looper    | 1      | 31      | 004 P-4.5   | screw                          | 1      |
| 16      | 032-A-6     | screw, thread guide securing      | 1      |         |             |                                |        |
|         |             | for 227-00-32                     |        |         |             |                                |        |
| 9       | 780232-0-00 | machine type nameplate            | 1      |         |             |                                |        |
| 29      | 270-271     | thread guide                      | 1      |         |             |                                |        |



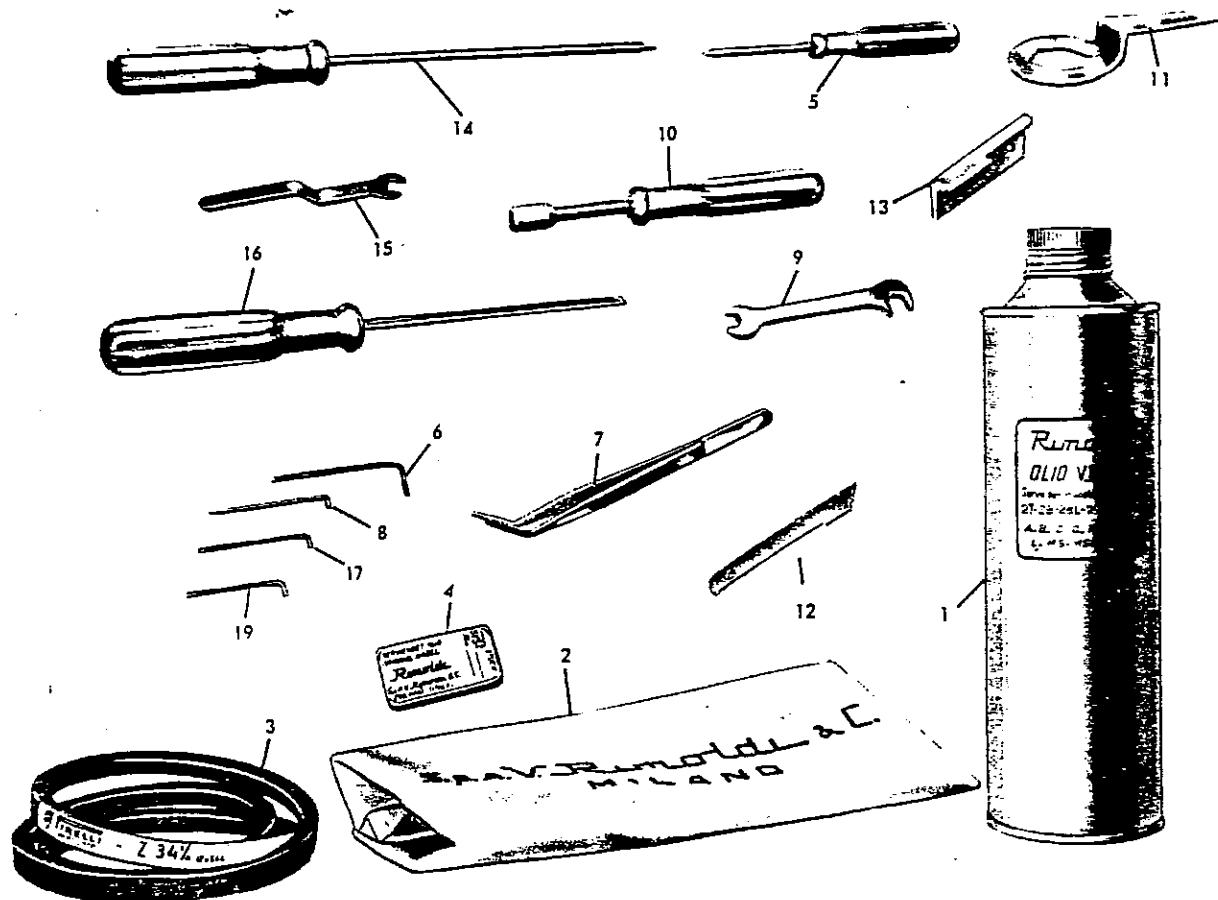


| REF. N° | PART. N°     | DESCRIPTION                                | QUANT. | REF. N° | PART. N°  | DESCRIPTION                 | QUANT. |
|---------|--------------|--|--------|---------|-----------|-----------------------------|--------|
| 1       | G.270-583    | tie-rod assembly, presserfoot lifter lever | 1      |         |           | ON REQUEST                  |        |
| 2       | 270-585      | coupling, presserfoot lifter lever upper   | 1      |         |           |                             |        |
| 3       | 059-A-5      | lock-nut, lifter lever tie-rod             | 2      | 23      | 270-558   | pin                         | 1      |
| 4       | 270-583      | rod, presserfoot lifter lever              | 1      | 24      | 270-590/1 | waste chute (long - right)  | 1      |
| 5       | 270-459      | lock-screw, flywheel guard                 | 7      |         | 270-590/2 | waste chute (left)          | 3      |
| 6       | 270-557      | coupling, presserfoot lifter lever         | 1      | 25      | 001-G-10  | screw, waste chute securing | 1      |
| 7       | 270-701      | snap-rings                                 | 3      | 26      | 270-589/1 | waste chute -short          |        |
| 8       | 270-558      | pin, for coupling                          | 2      |         |           |                             |        |
| 9       | 270-552      | bushing, upper plate                       | 1      |         |           |                             |        |
| 10      | 270-004      | rubber mounts, machine                     | 4      |         |           |                             |        |
| 11      | PM.270-005/3 | bearing plate, with pins                   | 1      |         |           |                             |        |
| 12      | 270-588      | guard, flywheel                            | 1      |         |           |                             |        |
| 13      | 058-M-10     | nut, machine bearing screw                 | 8      |         |           |                             |        |
| 14      | 067-H-10     | washer, machine bearing plate              | 4      |         |           |                             |        |
| 15      | 270-971      | screw, machine bearing plate               | 4      |         |           |                             |        |
| 16      | 051-L-10     | nut, machine plate mounting bolt           | 4      |         |           |                             |        |
| 17      | PM.1159      | chain with hook                            | 1      |         |           |                             |        |
| 18      | G.270-005/3  | machine bearing plate                      | 1      |         |           |                             |        |
| 19      | 270-586/1    | lever, presserfoot lifter                  | 1      |         |           |                             |        |
| 20      | 270-584      | pivot, presserfoot lifter lever            | 1      |         |           |                             |        |
| 21      | 065-L-6      | washer                                     | 3      |         |           |                             |        |
| 22      | 059-H-6      | nut, presserfoot lifter lever pivot        | 1      |         |           |                             |        |

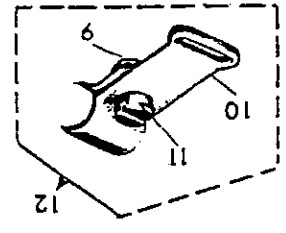
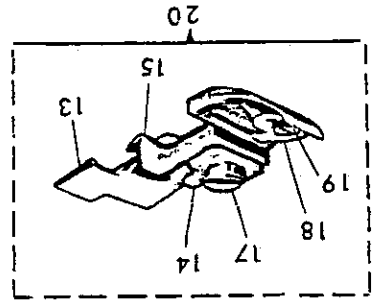
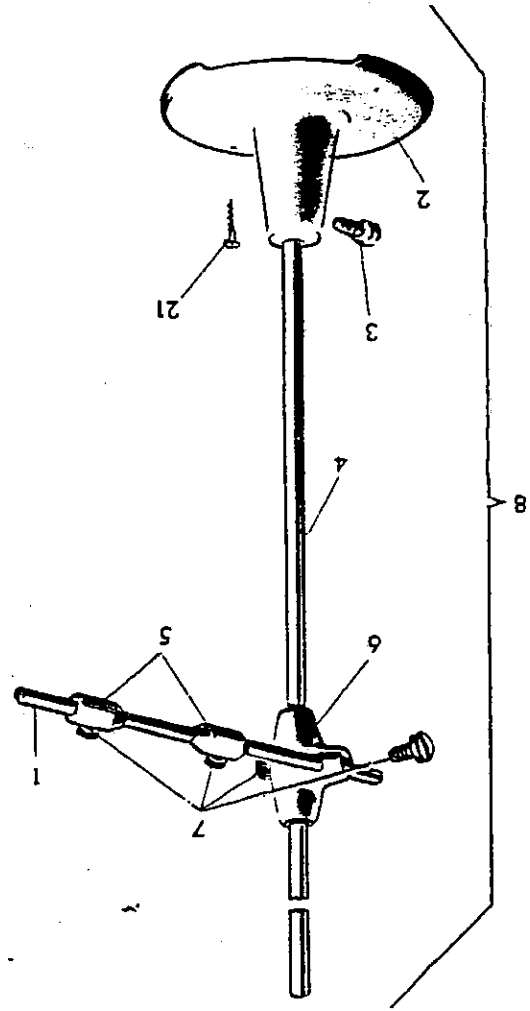
| REF. N° | DISSEGNO N°  | DENOMINAZIONE                          | QUANT. | REF. N° | DISSEGNO N° | DENOMINAZIONE                        | QUANT. |
|---------|--------------|--|--------|---------|-------------|--------------------------------------|--------|
| 1       | AS.2727-140  | thread stand assembly complete         | 1      | 30      | 490/2       | thread spool                         | 1      |
| 2       | AS.260-140   | thread stand assembly complete         | 1      | 31      | 910-143     | upright, main                        | 1      |
| 3       | 605-937      | bracket                                | 1      | 32      | 569         | pad, thread spool                    | 2      |
| 4       | 605-980      | lock-screw                             | 2      | 33      | 1146        | pin, thread spool                    | 2      |
| 5       | 32727-157    | bar sustaining with thread guide rod   | 1      | 34      | 001-G-10    | cap-screw                            | 1      |
| 6       | 01141        | base, thread stand                     | 1      | 35      | 270-157     | rod, thread guide                    | 1      |
| 7       | 001-G-12     | screw, rod securing                    | 1      | 36      | 016-F-5     | grub-screw                           | 1      |
| 8       | 001-G-10     | screw, plate securing                  | 1      | 37      | 270-158/1   | rod, thread guide                    | 1      |
| 9       | 260-142      | plate, thread spool                    | 1      | 38      | 605-937     | bracket, thread guide rod sustaining | 1      |
| 10      | 1146         | pin, thread spool                      | 4      | 39      | 605-980     | lock-screw                           | 4      |
| 11      | 5260-137     | frame, thread guide assembly           | 1      | 40      | 1145        | lock-nut, thread guide sustaining    | 1      |
| 12      | 250-143      | upright, main lower                    | 1      | 41      | 910-144     | upright, top section                 | 1      |
| 13      | 250-130      | upright, main upper                    | 1      | 42      | G 497       | thread guide assembly                | 1      |
| 14      | 250-137      | rod, thread guide                      | 1      |         |             |                                      |        |
| 15      | 260-140      | connector-piece, rod                   | 1      |         |             |                                      |        |
| 16      | PM 260-134/1 | rod, thread guide                      | 1      |         |             |                                      |        |
| 17      | PM 260-133/1 | rod, thread guide                      | 1      |         |             |                                      |        |
| 18      | PM 260-135/1 | rod, thread guide                      | 1      |         |             |                                      |        |
| 19      | 016-F-5      | grub-screw                             | 10     |         |             |                                      |        |
| 20      | PM 250-148/1 | sustaining rod, thread guide rod upper | 1      |         |             |                                      |        |
| 21      | 270-158/1    | bar, thread guide sustaining; lower    | 1      |         |             |                                      |        |
| 22      | 2727-137     | rod, thread guide                      | 1      |         |             |                                      |        |
| 23      | 569          | pad, thread spool                      | 4      |         |             |                                      |        |
| 24      | TS 20 x 30   | screw, thread stand securing           | 2      |         |             |                                      |        |
| 25      | PM 910-914   | pedal                                  | 2      |         |             |                                      |        |
| 26      | 053-H-8      | mtt, pedal                             | 2      |         |             |                                      |        |
| 27      | 910-964      | screw, sharp                           | 2      |         |             |                                      |        |
| 28      | 910-934/1    | base, pedal                            | 2      |         |             |                                      |        |
| 29      | 3 910-914/1  | pedal assembly complete                | 1      |         |             |                                      |        |







| REF. N° | PART. N°   | DESCRIPTION                   | QUANT. | REF. N° | PART. N°  | DESCRIPTION                   | QUANT. |
|---------|------------|-------------------------------|--------|---------|-----------|-------------------------------|--------|
| 1       | VR.604     | oil, 1 quart can              | 1      | 10      | 270-741   | pipe-wrench, 9/32"            | 1      |
| 2       | 1175       | machine cover                 | 1      | 11      | 639-M-745 | wrench for oil sump plug      | 1      |
| 3       | 280-155    | vee-belt                      | 1      | 12      | 277-113   | knife, lower                  | 1      |
| 4       | RIM.27     | needle, RIM.27                | 5      | 13      | 277-112   | knife, upper                  | 1      |
| 5       | 1151/2     | screwdriver                   | 1      | 14      | 01160/2   | screwdriver                   | 1      |
| 6       | 633-742    | hex. wrench, 1/8" for 270-715 | 1      | 15      | 270-745   | hex. wrench, 9/32"            | 1      |
| 7       | 1158       | pincers, threading            | 1      | 16      | 01161/2   | screwdriver                   | 1      |
| 8       | 641-LY-743 | hex. wrench 3/32"             | 1      | 17      | 270-743   | hex. wrench, 5/64"            | 1      |
| 9       | 1156/1     | wrench, double-ended          | 1      | 18      | 270-431   | power cable and plug          | 1      |
|         |            |                               |        | 19      | 290-746   | hex. wrench 1/16" for needles | 1      |
|         |            |                               |        |         |           | On request:<br>270-675/1      |        |
|         |            |                               |        |         |           | Tab. 75                       |        |



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| REF. No. | PART No.    | DESCRIPTION             | QUANT. | REF. No. | PART No.      | DESCRIPTION                       | QUANT. |
|----------|-------------|-------------------------|--------|----------|---------------|-----------------------------------|--------|
| 1        | 605-144     | bar, top                | 1      | 12       | PM27.77 R-267 | guide, reinforcing tape, complete | 1      |
| 2        | 01141       | base                    | 1      | 13       | 27.277 R-184  | shoe                              | 1      |
| 3        | 001 G-12    | screw                   | 1      | 14       | 27.277-136    | lug, chaming plate                | 1      |
| 4        | 605-143     | uppright                | 1      | 15       | 27.268-131    | finger, chaming                   | 1      |
| 5        | 605-723     | tapered sleeve          | 2      | 16       | 780256-0-03   | machine, type nameplate           | 2      |
| 6        | 605-937     | bracket                 | 1      | 17       | 004 L-8       | screw                             | 1      |
| 7        | 605-980     | knurled head screw      | 4      | 18       | 27.277 R-071  | plate                             | 4      |
| 8        | G250 R-9373 | elastic reel stand      | 1      | 19       | 004 G-3       | screw                             | 1      |
| 9        | 057 A-3     | nut                     | 1      | 20       | G27.277 R-181 | presserfoot, complete             | 1      |
| 10       | 27.77 R-267 | guide, reinforcing tape | 1      | 21       | TS 20x30      | screw, frame securing             | 1      |
| 11       | 001 C-5,5   | screw                   | 1      |          |               |                                   | 1      |

## I. HEAD IDENTIFICATION

### a) Identification numbers

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

## II. TECHNICAL DATA BY MACHINE CLASS

The machines depicted in this catalogue are overedging machines with 2 needles, needle gauge 3/32", with the following general characteristics:

1. Straight needle, system RIM 27/Fmb - Thickness 80 - 100.
2. Differential can be regulated while machine is running.
3. Push-button stitch length adjustment.
4. Stitch length variable from 6 to 30 stitches per inch.
5. Differential feed ratio: up to 3,5:1 and also up to 4:1.
6. Width of bight: from 3/16" to 5/16".
7. Speed: from 6000 to 6500 RPM, depending on the type of application and manufacture.
8. Lubrication: by pump.
9. Motor: 1/3 HP or 1/2 HP, according to subclasses.
10. Outer dimensions of machine head: 12" x 9.3/4".
11. Weight: approx. 45 lbs.



## I. INSTALLATION AND TIMING

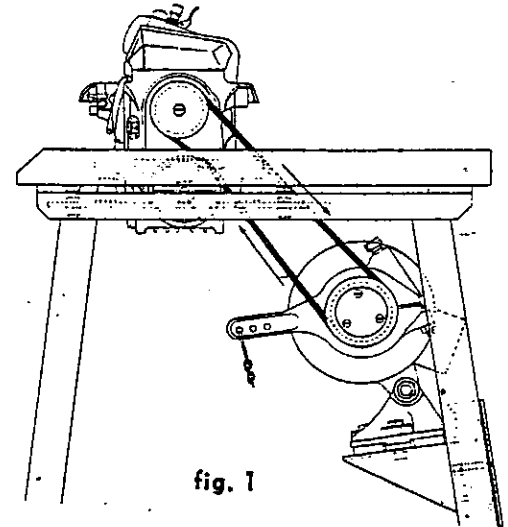
### a) Positioning of head

After motor is mounted on stand, proceed as follows:

1. Force-fit the four rubber shock absorber pads on to the pins provided on the machine head bearing plate
2. Place machine head on table centering the lower holes in the head on the shock absorber pad pins.

### b) Assembly of transmission

1. Install driving belt as shown in diagram 1.
2. Check that reverse of driving belt rides firmly and squarely on pump pulley, without slipping.
3. Adjust belt tension by loosening motor clamp
4. Level machine head by adjusting machine cradle bolts.
5. Tighten up machine cradle bolt lock-nuts.



### c) Filling lube oil sump (fig. 2)

1. Unscrew threaded cap 'A'.
2. Pour in 1 and 3/4 pts Esso Standard Teresso 43 oil.
3. Check through oil-window that oil level is between the two red lines.
4. Replace and tighten cap 'A'.
5. Before starting up the machine, the following points should be lubricated:
  - needle clamp guide rod
  - upper looper bar
6. Start machine slowly, letting it idle for about 5 minutes and gradually rev up from 1500 r.p.m. to rated operating speed.

### d) Assembly and adjustment of sewing parts

**Note:** The operations described below are for machine timing

1. Timing gauges required:
  - S.1686.00 for all operations except operation 4 (fig. 4).
  - S.1555.00 for operation N. 4
2. Preliminary disassembly of:
  - Front cover plate
  - Both thread take-ups of lower looper holder
  - Side Cover Plate (casing) of needle movement
  - Upper plate with oil indicator cap
  - Side plate protecting needle movement
  - Main feed dog

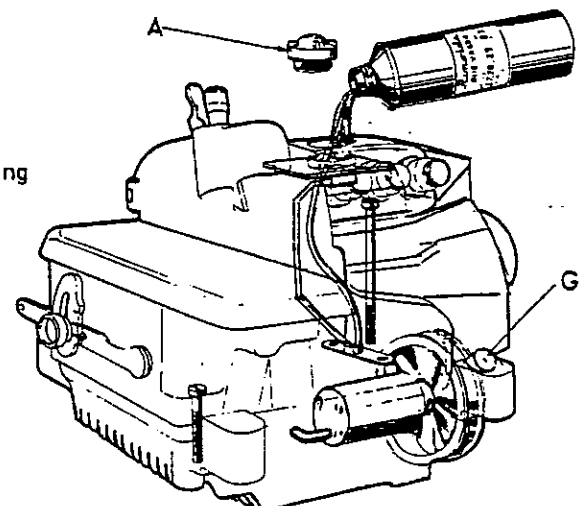


fig. 2

3. Setting of needle (fig. 3).

- if the needle plate is in proper position, the needles must be centred for passage through the respective needle holes of the needle plate.
- the distance between the needle points and the top surface of the needle plate is 11/32 inch when the needle is at its highest point.

- if adjustment is necessary, loosen screw A (fig. 3) and move needle bar clamp up or down, using needle gauge S.1686.00 as indicated in fig. 3 to obtain the correct setting. Retighten screw A.

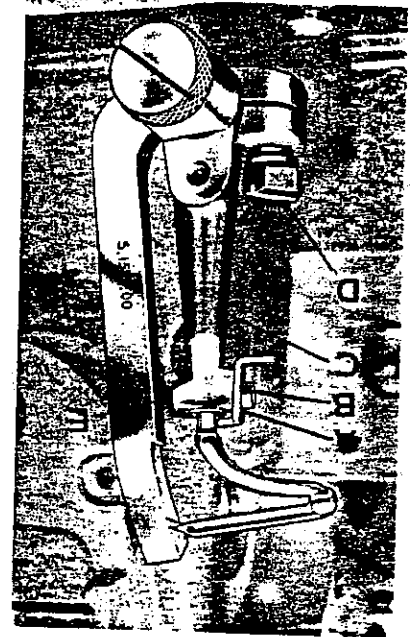
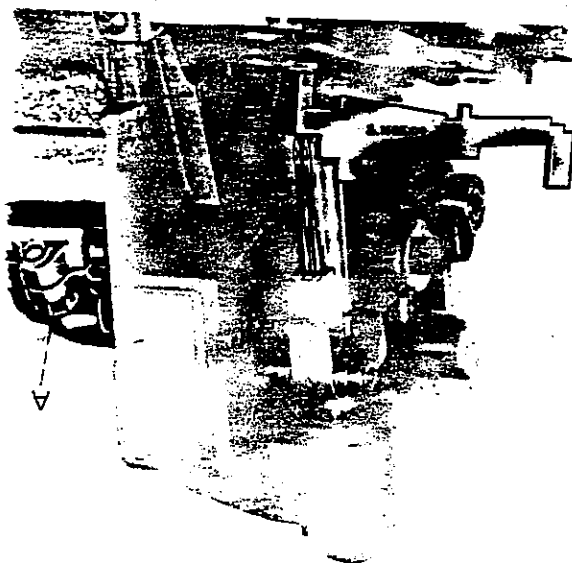


fig. 3



4. Setting primary looper (fig. 4)

SETTING OF HEIGHT

- loosen screw E.
- mount looper height gauge S.1555.00 on the primary looper shaft with special screw supplied with gauge as shown in fig. 4.
- raise or lower looper so that its point contacts the upper line on timing gauge S.1555.00.
- slightly tighten screw E (fig. 4).
- set thread guide bracket A by raising thread guide bracket to the top of the primary looper shank.
- retighten screws B and E.
- remove looper height gauge S.1555.00.

fig. 4

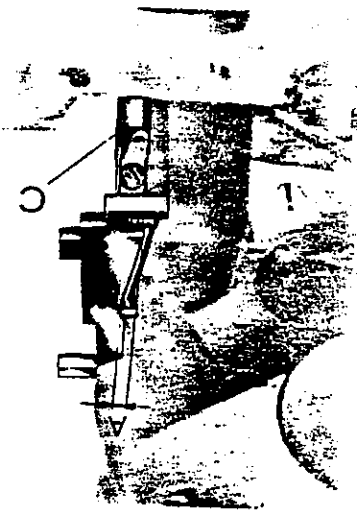
Setting angle

- Slightly loosen screw 'D'.
- Place timing gauge S.1686.00 on milled surface of base as shown in fig. 5; shift lever C and turn looper (which has been set in place but not locked) until correct angle is obtained.
- Correct position can be checked by reference to the timing table.
- Firmly tighten up screw E (fig. 4).

Setting the primary looper in relation to the needle:

- When the primary looper has completed its stroke to the left and with the needle in its lowest position, the distance between the looper point and the needle should be as indicated in fig. 6.
- If adjustment is necessary move lever C along its rotation axis. In its stroke from left to right the looper point should pass 1/64" from the bottom of the needle scarf.
- Retighten screw D

fig. 5



## 5. Timing Secondary Looper

Note: To set the dimension  $11/32''$  in Fig. 8, rotate lever E upwards or downwards: remember that by doing this the dimensions in Fig. 7 will be increased or decreased.

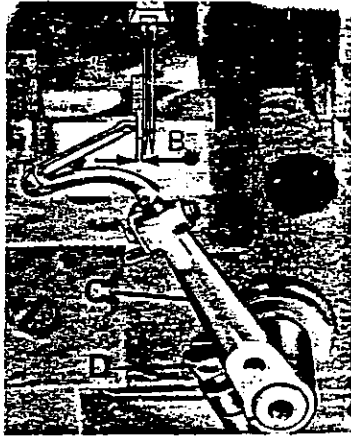


fig. 6

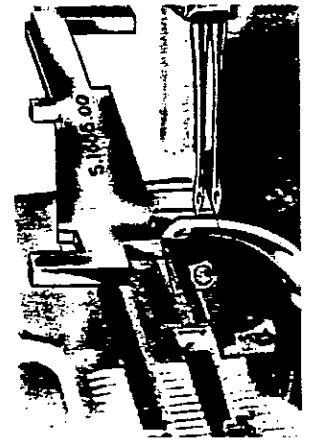


fig. 7

- Slightly loosen screw B.
- Slightly loosen screw A.
- Adjust crossing of secondary and primary looper rotating the secondary so that its tip passes behind the primary looper barely skimming it.
- Check distances given in figures 7-8 (see timing table).
- During its left to right motion the secondary looper should barely skim the needle.

- If adjustment is required, slightly loosen Screw D and push the complete looper assembly inwards or outwards, avoiding any change in the distance already fixed. Make sure all parts move smoothly.
- Lock screw D.
- Recheck to make sure the two loopers are crossing smoothly and verify all the other settings.
- Tighten up screws A and B.
- Finally, make sure all the assembly are moving smoothly.

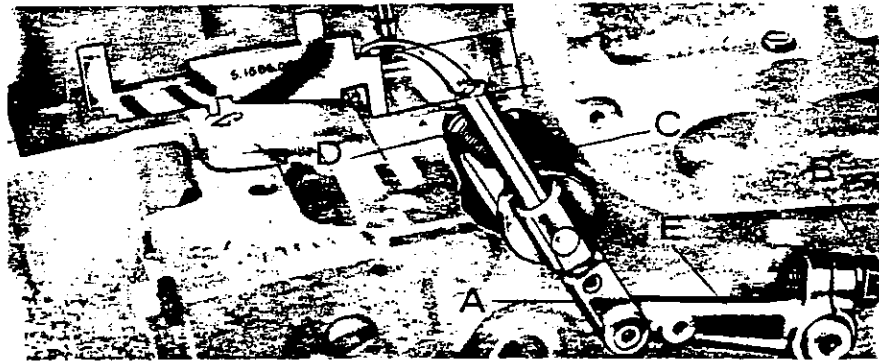


fig. 8

## 6. Setting the needle guards (fig. 9)

- To set front needle guard A, loosen screw C.
- With needles at their lowest position, set front needle guard so that it touches the needles.
- Retighten screw C.
- To set rear needle guard B, loosen screw D.
- With needles in their lowest position, set rear needle guard so that it touches needles without deflection.
- Retighten screw D.
- It must be checked that when working, any eventual slight bending of the needles does not cause them to break through impact with the primary looper. To do this, bend the needles slightly towards the inner part of the machine and check that the primary looper, during its stroke from left to right, passes without breaking them. If this is not the case, the needle guards need to be positioned correctly by bending them slightly just above the shanks, where the part is not so hard. Check that each needle operates in the corresponding plane of the front and rear needle guards.
- Thread the needles, bringing them to their lowest position and pushing them slightly against rear needle guard B.
- The thread must run freely. If this is not the case it means that the needle is too low and the thread is trapped between needle and needle guard.

### NOTE:

- The point of the looper, in its stroke from left to right, must enter the needle scarf in its upper portion and in its stroke to the left, in the lower portion.
- For very hard synthetic fabrics the needle must flex considerably on the front needle guard.

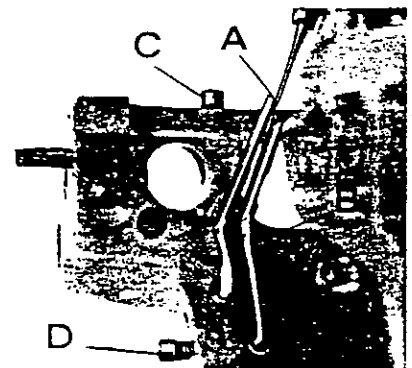


fig. 9

7. Mounting lower trimmer knife (fig. 10)

- Mount guide block P on knife-holder with screw Q.
- Slide knife D into place.
- The cutting edge of the trimmer knife must be flush with the rear needle guard.
- Tighten up screw A.
- With the needles in its lowest position, bring angle stop O close to the needle guard, lock bushing L and washer G by tightening up screw F.
- Check that knife holder C moves smoothly and adjust setting for required bight.
- Slightly tighten screw N.
- With needles in its lowest position, bring guide block P close up to front needle guard and lock it by tightening up screw Q.
- After setting upper trimmer knife touching lower trimmer knife, slacken screw N. The proper pressure is applied between the knives by spring M and pin H.
- Press one finger lightly against screw A and tighten up screw N firmly.
- Pressure should be lightly exerted to avoid generating strong friction between the two knives resulting in their hardening.

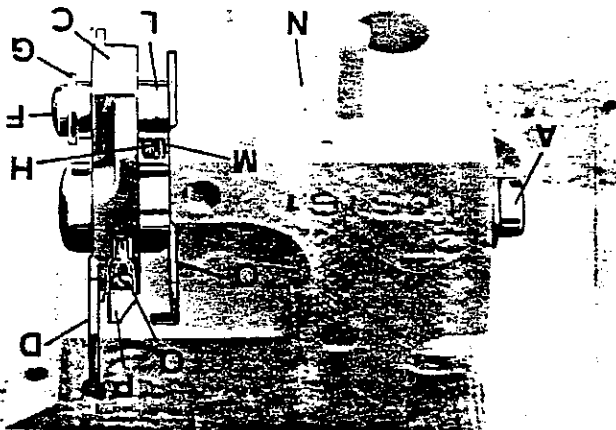


fig. 10

8. Mounting and setting Feed Dogs (figures 11 and 12)

- Remove Plexiglass plate beneath work plate.
- Mount rear feed dogs C and D (fig. 11) and match the feed dog slides.
- With a small screwdriver pushed through the threaded holes on the levers, tighten screw F slightly, inserting the screwdriver into the groove on the tip of the screw.
- Mount the front differential feed dog E with screw G but do not tighten it up fully (fig. 12).
- Slacken screw A.
- Adjust feed dog angle by rotating eccentric B.

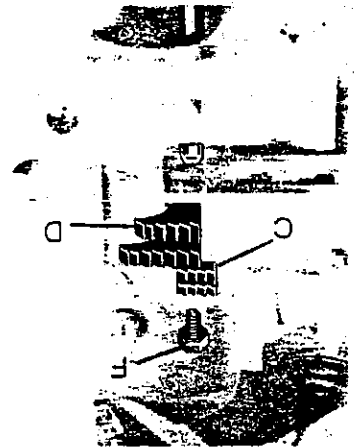


fig. 11

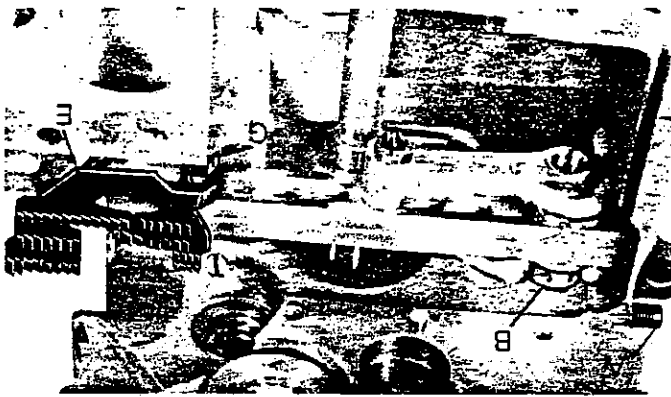


fig. 12

- The feed dog teeth visible through the needle plate should be absolutely flush with the latter.
- When the feed dogs are at their highest position, there should be a clearance of 1,3 mm. between the teeth and the needle plate at the front of the differential feed dog.
- Feed dog C should be lower than the other two.
- Lock screws F, G, and A.

9. Feed mechanism (fig. 13).

Note: The machine heads illustrated in this catalogue are supplied with the feed mechanism already set for the type of use to which they will be put. If feed mechanism adjustment is required, proceed as follows:



1. Inactivation of differential feed:
  - Slacken nut B using wrench A supplied with the machine head, and raise pin Q on rear feed dog lever as high as it will go.
  - Tighten up nut B; lower lever H against stop F and lock knurled knob R manually.
2. Setting differential feed for ratio 2 : 1
  - Slacken nut B.
  - Set pin Q at highest position.
  - Lock nut B.
  - Lower lever H against stop G.
3. Setting differential feed for ratio 3,5 : 1
  - Slacken nut B.
  - Set pin Q in lowest position.
  - Lock nut B.
  - Lower lever H against stop G.
4. Setting differential feed for ratio 4 : 1
  - Raise cursor C to its highest position on slide-bar S
  - Proceed as for item 3
  - The differential ratio can be changed while the machine is in operation by adjusting lever E.
5. Setting negative differential feed
  - Slacken nut B.
  - Set pin Q at highest position.
  - Shift cursor C in lowest position.

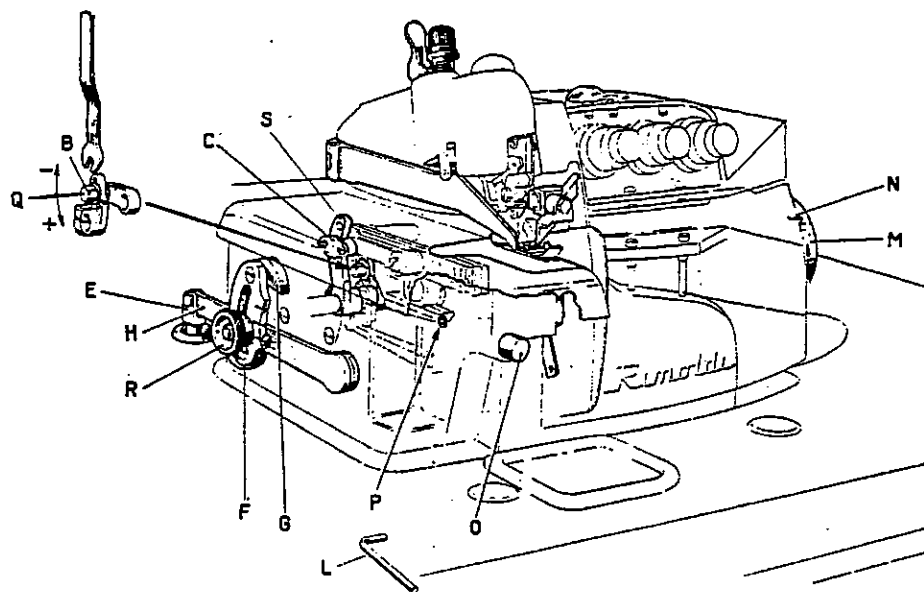


fig. 13

10. Mounting upper trimmer knife (fig. 14).

- Mount upper trimmer knife C on knife holder block
- Mount knife holder block D and trimming guards E and G with screw F.
- Trimming guard E should be very close to cutting edge of knife C.
- When trimmer knife C is at its lowest position, its cutting edge should overlap the cutting edge of lower trimmer knife by 1/32".
- For this adjustment, shift trimmer knife in its slanting seat and knife holder block A on the upper knife holder B.
- Tighten up screw F and check that the upper knife, when in lowest position, does not touch front needle guard.

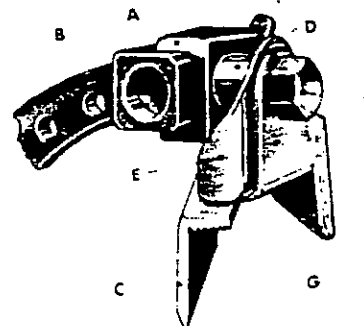
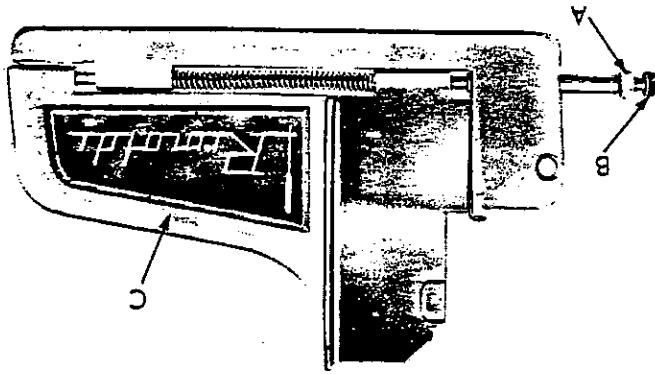


fig. 14

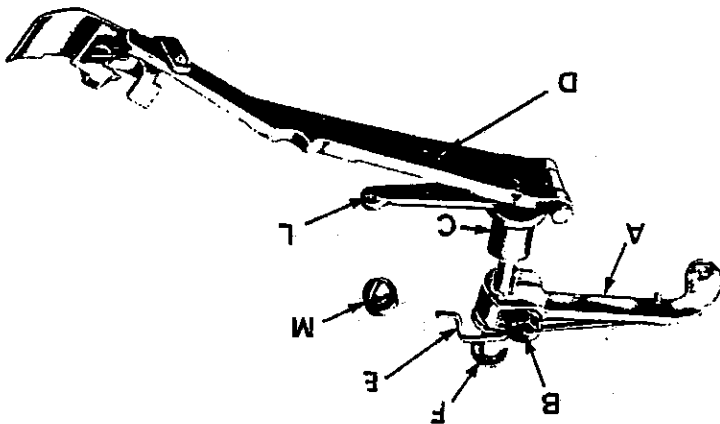
- For making up very tough fabrics, needle thread take-up 270-274/2 should be shifted forwards, towards operator.
- 9) Adjustment of needle thread take-up



- The front cover plate should be closed before adjustment.
- The moving part C should not interfere with the front needle guard or the lower knife holder.
- The cover plate can be shifted towards left or right by adjusting screw B.
- Lock nut A.

f) Adjustment of front cover plate (fig. 16).

- Adjust lifter lever A, by regulating screw in base beneath the lever, so that it lifts presserfoot to required position.
- Check movement of secondary looper; the latter should not impinge on presserfoot chaining finger when presserfoot is at its highest position. This undesirable condition can be prevented by adjusting eccentric washer M.
- below presserfoot bearing arm D, on side cover.
- Tighten up screw B.



- e) Positioning and adjustment of presserfoot arm (fig. 15).
- Insert presserfoot arm shaft L in bushing C on which presserfoot bearing arm is hinged.
- Insert presserfoot arm shaft L with bushing C into hole provided in baseplate.
- Slide lever A and spring E on to shaft L.
- Slide snapping F on to shaft L.
- Set lifter lever A so that there is no end-play on presserfoot arm shaft L.
- Slightly tighten screw B.
- With needle at highest position, insert presserfoot bearing arm D in guide fork.
- Engage lifter lever A with presserfoot lifting foot pedal.
- When pedal is depressed it should have a slight idle stroke before actuating presserfoot bearing arm D.

## ELECTRIC LUBRICATION CONTROL DEVICE (PRESSURE SWITCH)

### h) Disassembly and replacement of pressure switch

- Take down oil cup from baseplate and drain out oil.
- Remove screw by which pressure switch bracket is mounted on oil cup.
- Slacken the two screws on the electric wire terminal lugs.
- Slip plastic tube connecting pressure switch to rubber connection off the pressure switch.
- Remove bracket and fix it to new pressure switch.
- Screw down electric wire lugs, slip plastic tube into pressure switch and mount switch on oil cup using the screws previously removed.
- Re-install oil cup and fill with oil as instructed on page 11, par c.

### Replacement of pressure switch lamp

- Proceed as described under items 1 and 2 for replacement of pressure switch.
- Remove rubber tube, remove lamp (bayonet cap) and replace with new lamp.
- Re-install rubber tube, replace pressure switch in position and fasten firmly to oil with screw
- Re-install oil cup and fill with oil as instructed on page 11, par c

### Electrical connection of pressure switch on Zefir motors

- Plug cable to current socket and insert plug at other end of cable in 12 V. light socket on motor.
- Note:** If no light socket is provided on the motor to be connected, but the voltage connection box is provided with 12 V. connections, proceed as follows:
- Mount a Mignon socket pitch 13 at one end of a cable 4 - 5 inches long and at the other connect it to the 12 V. light terminal lugs.
  - Plug cable to current socket at one end and to the above Mignon socket at the other.

### Adjustment of forced feed lubrication rate to main shaft (fig. 18)

- Remove cover.
- Using a screwdriver, turn indicator B in required direction (Turning towards the letter C punched on the plate, the rate of flow is decreased, turning the indicator towards the letter A, the rate of flow is increased).

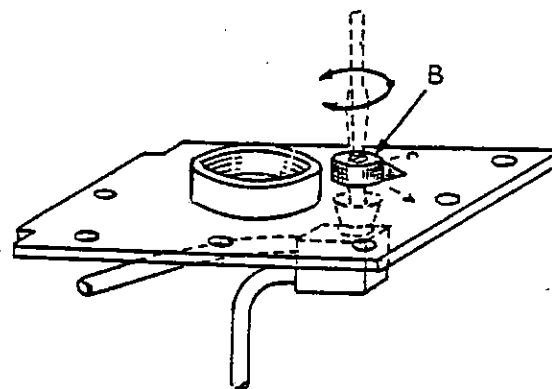
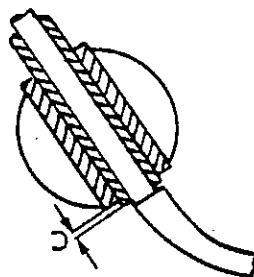


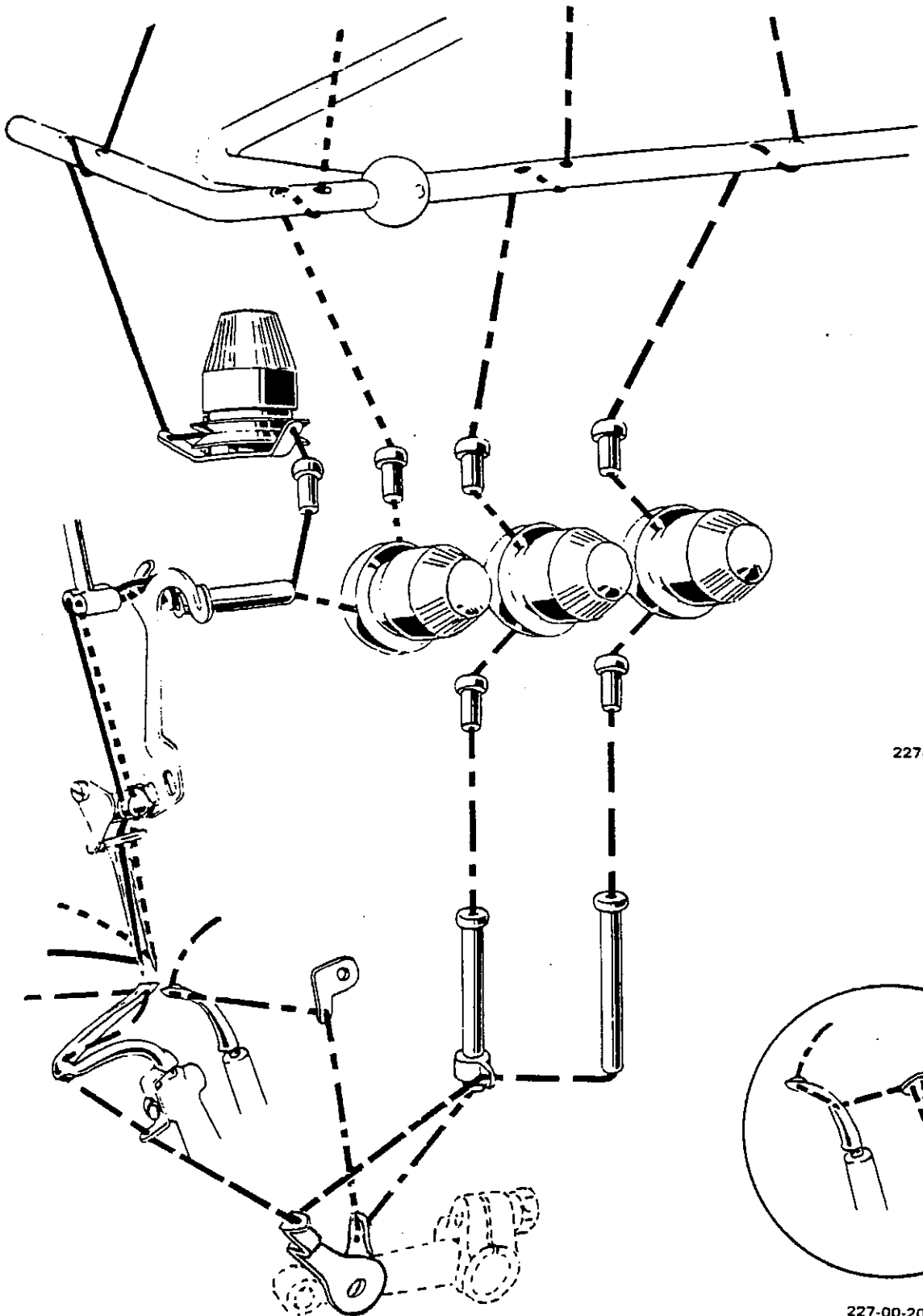
fig.18

| MACHINE HEAD NUMBERS   | A       | B   | C       | D   | F   |
|------------------------|---------|-----|---------|-----|-----|
| 227-00-32              | 2,5;2,8 | 1,5 | 3,3;3,5 | 0,5 | —   |
| 227-00-20<br>227-01-07 | 2,5;3   | 1,5 | 3,5     | 0,3 | 8,8 |
| 227-00-21              | 2,5;3   | 1,5 | 3,5     | 0,3 | 8,8 |



TIMING TABLE

a - Threading



227-00-32

227-00-20



#### b) Needle change

1. Switch off motor.
2. Depress motor driving pedal to check that machine is absolutely motionless.
3. Set needle at top dead centre.
4. Lower lever B as far as it will go (fig. 19).
5. Swing out presserfoot from usual working position.
6. Slacken needle set-screw by one half-turn using screwdriver 290-746.
7. Remove needle.
8. Insert new needle.
9. The needle scarf should face the rear needle guard, i.e. towards the rear of the machine.
10. Using pincers supplied with machine kit, check that needle touches the bottom of the hole.
11. Retighten needle set-screw without displacing the needle, but do not apply excessive force.

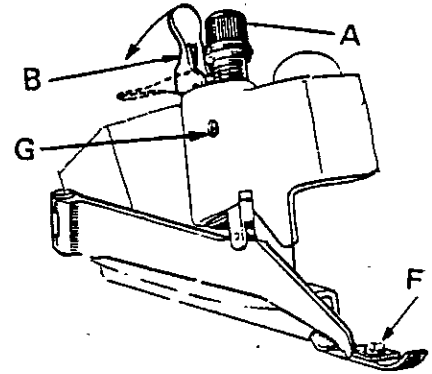


fig. 19

#### c) Positioning and adjustment of presserfoot (fig. 19)

1. Check that presserfoot is in proper position.
2. Needle should pass between pressurefoot shoe and chaining finger.
3. To adjust presserfoot slacken screw F.
4. Center presserfoot in proper position and tighten up screw F.
5. Presserfoot pressure is increased or slackened by loosening screw G with wrench 633-742 and adjusting knurled knob A.
6. Lock knob A by tightening up screw G with wrench 633-742.

#### d) Tensioning discs adjustment

1. Tighten tension discs just enough for even stitch formation.
2. Avoid over-tightening.

#### e) Stitch length adjustment (fig. 13)

1. Slacken screw P using appropriate wrench.
2. Depress pushbutton O and turn handwheel M until tip of pushbutton slips into the notch on the regulator.
3. Holding pushbutton O firm, turn handwheel M vigorously until indicator N shows the desired length on the handwheel.
4. Tighten up screw P firmly.

#### f) Seam width adjustment

Seam width can be adjusted within a very narrow range beyond which the needle plate must be changed. To vary seam width within the above narrow range, proceed as follows:

1. Slacken screw N of lower knife holder (fig. 10).
2. Slacken screw F (fig. 14).
3. Shift upper knife holder block A (fig. 14) to right or left until desired seam width is obtained.
4. Tighten up screw F (fig. 14)
5. Lower knife holder should be checked and set as described in paragraph d) 7.

| No. | TROUBLE                           | PROBABLE CAUSE  |
|-----|-----------------------------------|---|
| 1   | Uneven stitches                   | <ul style="list-style-type: none"> <li>- Tension badly adjusted</li> <li>- Thread take-ups incorrectly adjusted</li> <li>- Wrong threading</li> <li>- Yarns not gauged</li> </ul>   |
| 2   | Feed and Fabric slipping sideways | <ul style="list-style-type: none"> <li>- Presserfoot pressure too light</li> <li>- Height and slant of feed dogs not properly adjusted</li> <li>- Knives require sharpening</li> <li>- Differential badly adjusted</li> </ul>   |
| 3   | Machine skipping stitches         | <ul style="list-style-type: none"> <li>- Primary or Secondary Looper badly adjusted in respect of needle so that looper becomes blunted</li> <li>- Loopers too far apart at crossing</li> <li>- Loopers too near at crossing, thus becoming blunted</li> <li>- Front needle guard too far from needle</li> <li>- Needle not set in proper position</li> </ul> |
| 4   | Thread breaking                   | <ul style="list-style-type: none"> <li>- Tensions too taut</li> <li>- Yarn irregularly wound on reel</li> </ul>   |
| 5   | Needle breaking                   | <ul style="list-style-type: none"> <li>- Needle bent</li> <li>- Needle badly mounted</li> </ul>   |
| 6   | Fabric being punctured            | <ul style="list-style-type: none"> <li>- Blunt needle</li> <li>- Needle size unsuitable for plate</li> <li>- Needle point unsuitable</li> </ul>   |
| 7   | Oil leaking                       | <ul style="list-style-type: none"> <li>- Screws mounting oil cup on base not sufficiently tightened up</li> <li>- Oil cup plug not screwed down tightly</li> <li>- Oil cup gasket badly mounted</li> </ul>  |
| 8   | Faulty lubrication                | <ul style="list-style-type: none"> <li>- Oil level too low</li> <li>- V - belt incorrectly mounted</li> <li>- Upper tube clogged</li> <li>- Lubrication pump filter clogged</li> </ul>  |



### III. MAINTENANCE

#### a) Daily

Lightly clean feed and stitch formation mechanisms.

#### b) Weekly

1. Thoroughly clean, removing needle plate, feed dogs, front and rear needle guard and loopers.
2. Open front cover plate and carefully clean front cavity.
3. Clean inside the needle movement mechanism casing.

#### c) Quarterly

1. Using wrench provided with service kit, remove plug beneath oil sump and drain off oil completely.
2. Unscrew screw 007-M-15 by which filter is mounted on drain plug.
3. Remove filter and clean thoroughly by immersing in gasoline.
4. Blow filter and plug with jet of compressed air.
5. Soak felt gasket with clean oil.
6. Replace plug.
7. Fill oil cup with 1 and 3/4 pts fresh VR 604 oil.

### I M P O R T A N T

When following instructions given in paragraph c, 1, do not unscrew drain plug completely immediately, but allow most of the oil to drain out from the side slots in the plug as shown in (fig. 20).

#### d) Sharpening knives

1. Sharpen knives using RIMOLDI knife sharpener and the special block provided, which assures the exact angle of sharpening. The sharpening block is supplied on request.

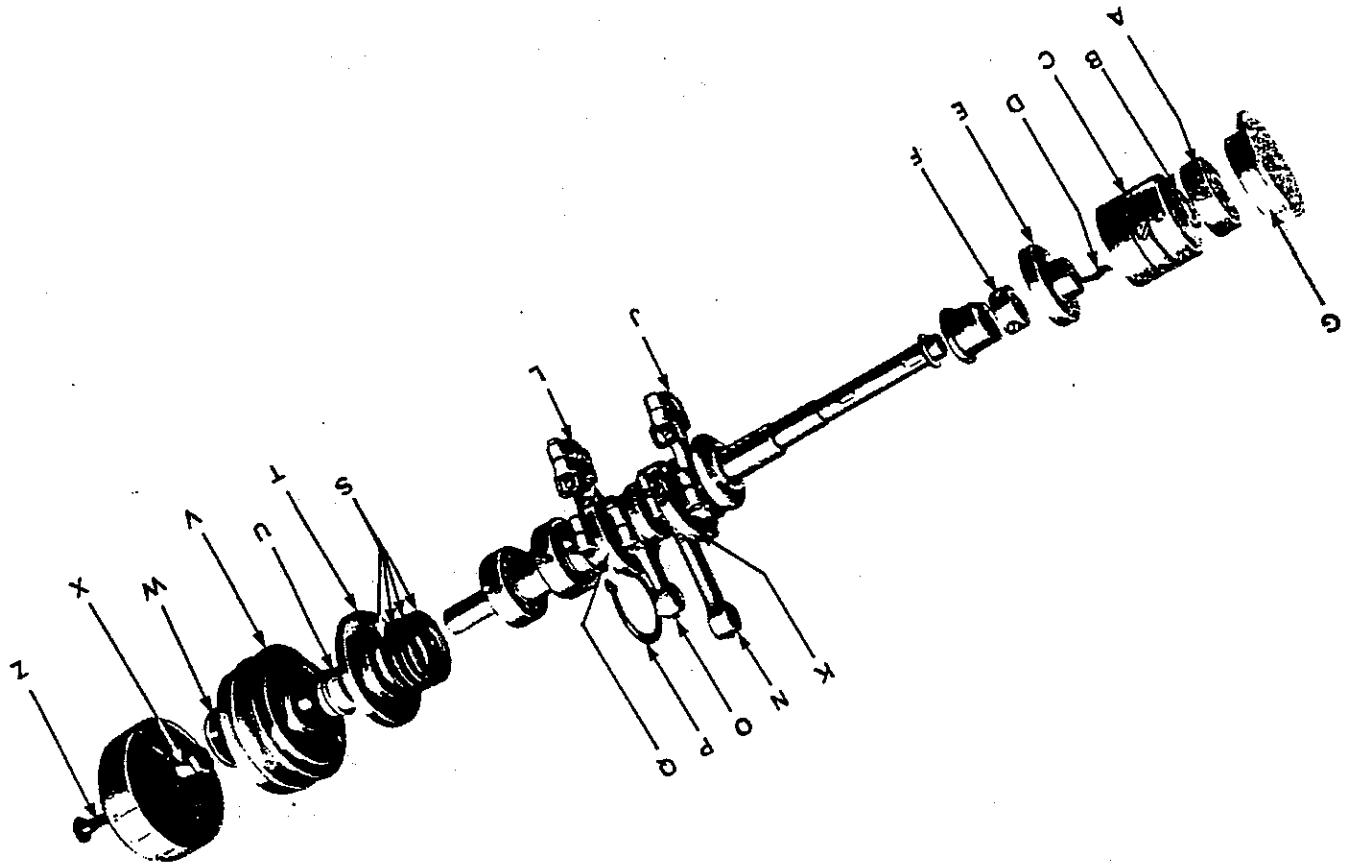
#### e) Instructions for taking down and removing cam shaft (if necessary).

- Tools required supplied on request only.
- Pincers type S. 0560/00
- Pincers type S. 0459/00
- Puller type S. 0416/00

### I M P O R T A N T

It is absolutely necessary for the main parts of the shaft-connecting rod assembly to be re-installed in their original position. Therefore proceed as follows:


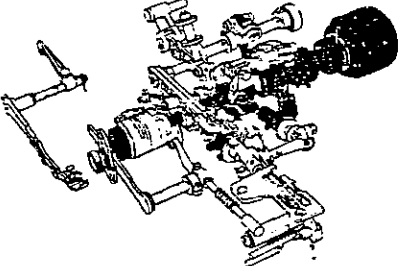
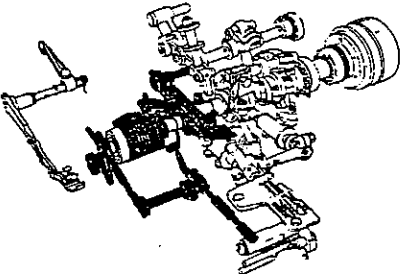
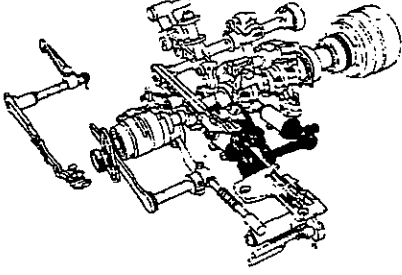
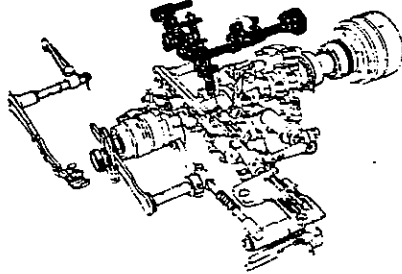
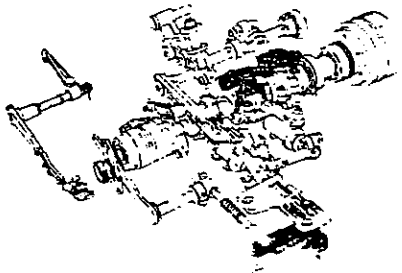
- Re-install flanges G and I with lubrication hole facing downwards.
- Leave all connecting rod lock-screws in their own holes.
- Connecting rods J and L are identified by a 2 punched on the L big-end and three lines on the J rod surface.
- For positioning the connecting rod cap a reference mark is provided on both the cap and connecting rod. Both marks should be on the same side.
- For positioning connecting rod N reference is made to the drawing number on the handwheel side.
- Cup springs should be installed in the original order.

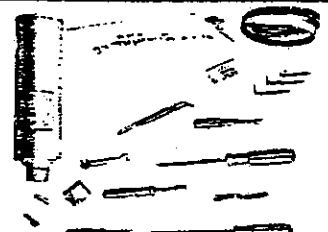
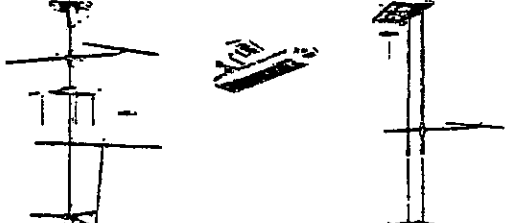
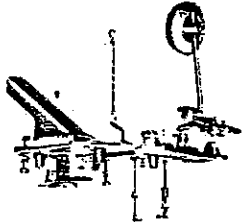
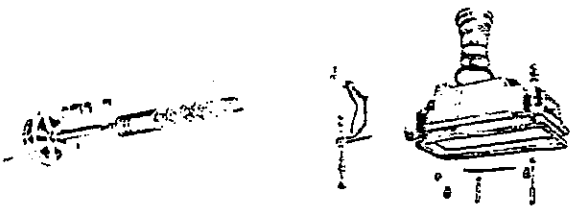
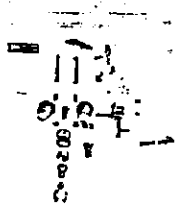

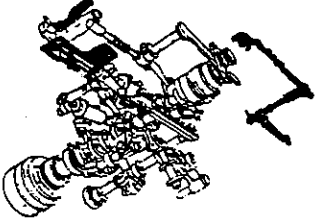


**OPERATION SEQUENCE**

1. Turn stitch length to reference 5 on handwheel.
2. Remove screw Z.
3. Turn stitch length to reference O on handwheel.
4. Remove flange G.
5. Slacken the two screws on eccentric C.
6. Remove ball bearing A and eccentric C, using puller S. 0416/99.
7. Remove spring D from regulator E, using pincers E. 0560/00.
8. Slacken screws on ring F.
9. Remove caps from connecting rods N, O, J, L.
10. Remove cover Y from handwheel.
11. Slacken hex screw X.
12. Remove washer W.
13. Remove handwheel V.
14. Remove flange T.
15. Slide off spacer U.
16. Remove cup spring S.
17. Pull off snap-ring P using pincers P.0459/00, slightly shifting cam to the right.
18. Remove sectors K and Q.
19. Remove shaft.

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CLASS 227-01-07

TAV. 14

CLASS 227-00-21

TAV. 15

