

# PARTS LIST

# DWR

**1902-2U**  
*(4mm-10mm-10mm)*

**1902-1U**

**1902-2U**

*(4mm-13mm-13mm)*

*(4mm-15mm-15mm)*

**1902-3U**

*(4mm-10mm-10mm-10mm)*

**1902U**

**1903U**

**1902H**

**1903H**

## Foreword

**Thank you for purchasing a Kansai Special DWR Series sewing machine.**

Use this Parts List for easy identification and ordering of DWR series repair and replacement parts. You will find listings for reference numbers, parts numbers, parts names and quantities required.

For parts common to all the DWR series machines, see pages 1—16, because this parts list is based on DWR-1902-2U (needle gauge: 4mm-10mm-10mm) as a standard machine.

For parts used only on subclass models (those marked with ), refer to pages 19—30.

Mechanisms of gauge parts for DWR-1902-2U (needle gauge: 4mm-13mm-13mm) and DWR-1902-3U (needle gauge: 4mm-10mm-10mm-10mm) are described in pages 23,24: they use the same mechanism as the standard machine.

See page 19,20 for the gauge parts table.

By referring to the index on pages 33—35, you can easily find the drawings and names for any parts number.

When ordering, please specify the following:

| (Example) | Model         | Needle Gauge    | Ref. No. | Parts No. | Q'ty    |
|-----------|---------------|-----------------|----------|-----------|---------|
|           | (DWR-1902-2U) | (4mm-10mm-10mm) | (P1,2)   | (21-593)  | (1 pc.) |

In the drawings, the parts identified in parenthesis indicates a set of parts.

When ordering, please specify the assembly number.

| (Example) | Model       | Needle Gauge | Ref. No.  | Assembly No. | Unit    |
|-----------|-------------|--------------|-----------|--------------|---------|
|           | (DWR-1902U) | (1/4")       | (P6.94-A) | (30-001)     | (1 set) |

This Parts List is valid for machines manufactured after July 1, 1977. Due to frequent design improvements, components and parts numbers may be changed in the future.

### パーツリストご利用に際して

DWRシリーズ製品お買い上げいただきありがとうございました。

本パーツリストは、参照番号、部品番号、名称、使用数量の順で記載されており、DWRシリーズミシンの修理用部品が容易に御利用いただけるよう編集されております。

DWR-1902-2U (ゲージ巾4mm-10mm-10mm)を基本機種として作成しておりますのでDWRシリーズに共通使用の部品に関しては1頁~16頁を参照して下さい。参照番号に★印の付いた部品はサブクラス機種になると異なる部品です。19頁~30頁を参照して下さい。

DWR-1902-2U (ゲージ巾4mm-13mm-13mm・4mm-15mm-15mm)及びDWR-1902-3U(ゲージ巾4mm-10mm-10mm-10mm)の機構に関しては基本機種と異なる為ゲージパーツは、23頁、24頁にまとめて記載されています。19頁、20頁には機種別に該当するゲージパーツの一覧表を記載しておりますので御利用下さい。又、33頁~35頁には部品索引表を記載しておりますので部品番号のみで、図解、名称などが容易に引き出せます。本パーツリストに基き部品ご注文の際は、部品番号を必ず明示して下さい。

| (例) | 機種名           | 針巾              | 参照番号    | 部品番号     | 数量   |
|-----|---------------|-----------------|---------|----------|------|
|     | (DWR-1902-2U) | (4mm-10mm-10mm) | (P1, 2) | (21-593) | (1個) |

部品図解中で枠内の部品は、複数の部品が組合されたセット部品です。セット部品ご入用の際は、アッセンブリー番号をご使用下さい。

| (例) | 機種名         | 針巾     | 参照番号      | アッセンブリー番号 | 数量   |
|-----|-------------|--------|-----------|-----------|------|
|     | (DWR-1902U) | (1/4") | (P6.94-A) | (30-001)  | (1組) |

本パーツリストは、1977年9月現在製造中のミシンを基に作成されております。

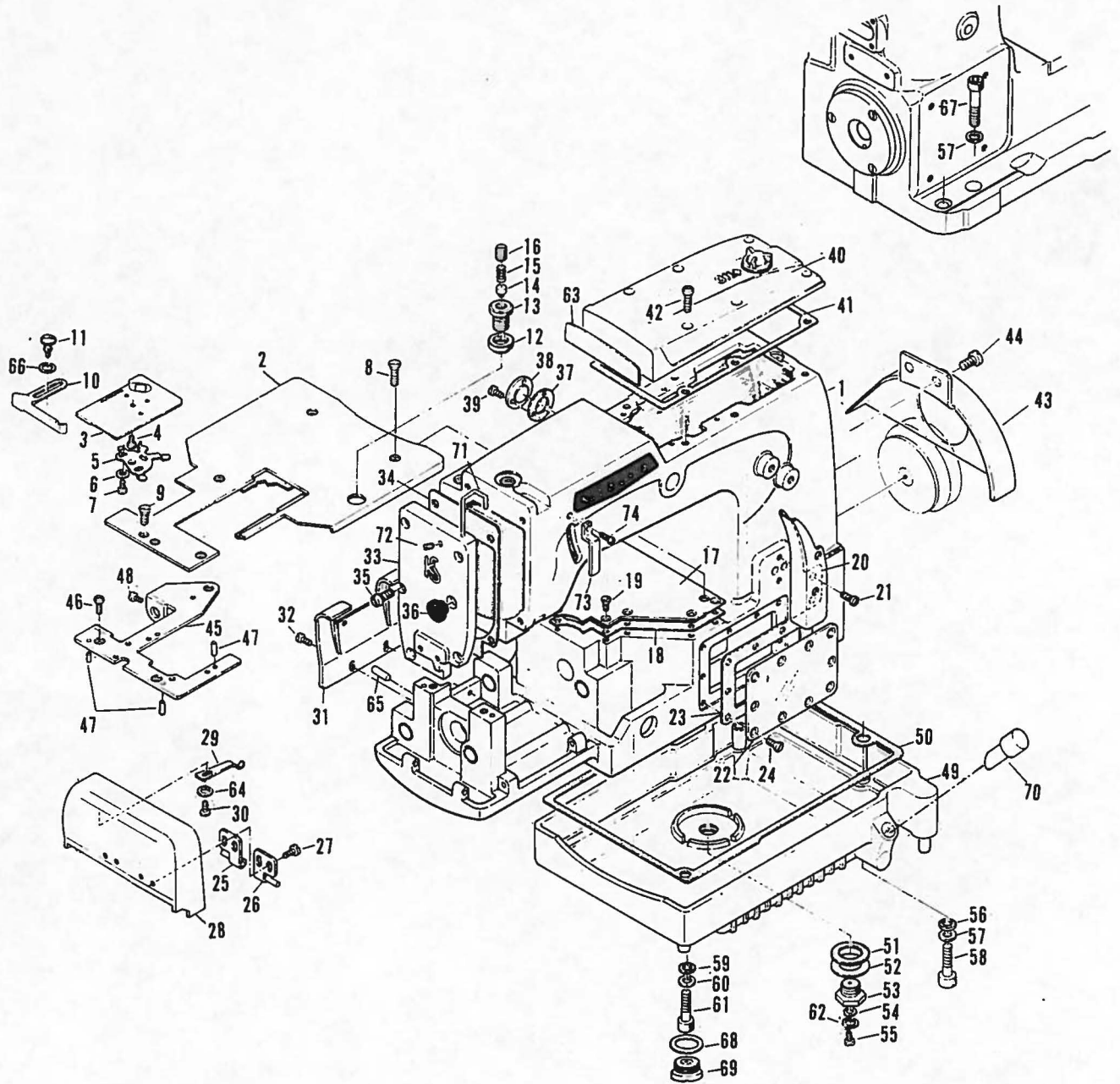
部品番号、部号形状等は設計変更により、変わる場合があります。



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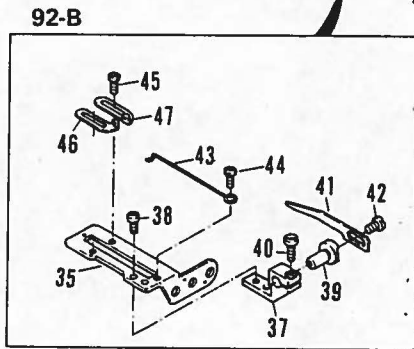
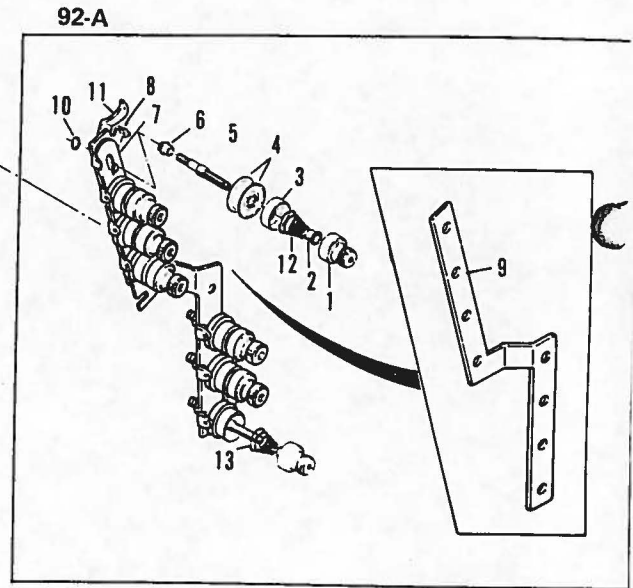
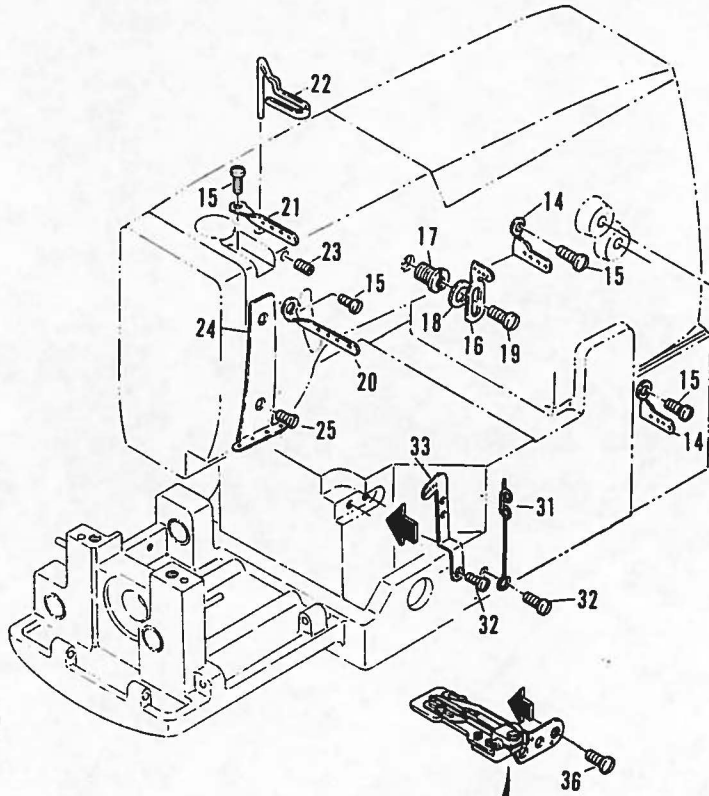
# 1. Housing components (カバー関係)





| Ref. No. | Part No. | Part Name                                  | Q'ty | Ref. No. | Part No. | Part Name                                  | Q'ty |
|----------|----------|--|------|----------|----------|--|------|
| * 1      | 22-951   | Arm bed . . . . .                          | 1    | 38       | 39-108   | Oil seal plate B . . . . .                 | 1    |
| * 2      | 21-593   | Upper cloth plate . . . . .                | 1    | 39       | 84-362   | Screw . . . . .                            | 3    |
| 3        | 21-598   | Slide plate . . . . .                      | 1    | 40       | 21-208   | Crank chamber oil cover F . . . . .        | 1    |
| 4        | 85-611   | Screw . . . . .                            | 1    | 41       | 23-206   | Crank chamber oil cover gasket F . . . . . | 1    |
| 5        | 21-533   | Spring . . . . .                           | 1    | 42       | 84-566   | Screw . . . . .                            | 6    |
| 6        | 75-454   | Washer . . . . .                           | 3    | 43       | 21-402   | Pulley cover . . . . .                     | 1    |
| 7        | 84-585   | Screw . . . . .                            | 3    | 44       | 84-571   | Screw . . . . .                            | 2    |
| 8        | 84-861   | Screw . . . . .                            | 3    | *45      | 14-092   | Throat plate support . . . . .             | 1    |
| 9        | 84-862   | Screw . . . . .                            | 2    | 46       | 84-761   | Screw . . . . .                            | 3    |
| 10       | 09-280   | Guide U-type . . . . .                     | 1    | 47       | 71-251   | Pin . . . . .                              | 4    |
| 11       | 09-286   | Screw U-type . . . . .                     | 1    | 48       | 84-164   | Screw . . . . .                            | 2    |
| 12       | 88-522   | Nut U-type . . . . .                       | 1    | 49       | 31-207   | Oil tank DWR . . . . .                     | 1    |
| 13       | 87-522   | Screw . . . . .                            | 1    | 50       | 23-403   | Gasket . . . . .                           | 1    |
| 14       | 09-253   | Pin . . . . .                              | 1    | 51       | 23-299   | Drain gasket . . . . .                     | 1    |
| 15       | 79-233   | Spring . . . . .                           | 1    | 52       | 75-469   | Drain washer . . . . .                     | 1    |
| 16       | 85-501   | Screw . . . . .                            | 1    | 53       | 87-810   | Drain cover screw . . . . .                | 1    |
| 17       | 21-513   | Oil reservoir top cover . . . . .          | 1    | 54       | 23-301   | Seal gasket C . . . . .                    | 1    |
| 18       | 23-223   | Oil reservoir top cover gasket . . . . .   | 1    | 55       | 84-761   | Screw . . . . .                            | 1    |
| 19       | 84-661   | Screw . . . . .                            | 8    | 56       | 23-260   | Seal gasket C . . . . .                    | 1    |
| *20      | 21-131   | Tension post cover . . . . .               | 1    | 57       | 75-446   | Oil reservoir washer . . . . .             | 1    |
| *21      | 84-361   | Screw . . . . .                            | 2    | 58       | 85-627   | Screw . . . . .                            | 2    |
| *22      | 21-122   | Oil reservoir front cover . . . . .        | 1    | 59       | 23-260   | Gasket . . . . .                           | 1    |
| *23      | 23-232   | Oil reservoir front cover gasket . . . . . | 1    | 60       | 75-446   | Washer . . . . .                           | 1    |
| *24      | 84-664   | Screw . . . . .                            | 10   | 61       | 84-813   | Screw . . . . .                            | 1    |
| 25       | 25-101   | Hinge . . . . .                            | 2    | 62       | 75-453   | Washer . . . . .                           | 1    |
| 26       | 25-102   | Hinge . . . . .                            | 2    | 63       | 23-207   | Packing . . . . .                          | 1    |
| 27       | 84-571   | Screw . . . . .                            | 4    | 64       | 75-458   | Washer . . . . .                           | 1    |
| 28       | 21-322   | Side cover H . . . . .                     | 1    | 65       | 71-301   | Pin . . . . .                              | 1    |
| 29       | 79-502   | Spring . . . . .                           | 1    | 66       | 75-453   | Washer . . . . .                           | 1    |
| 30       | 84-571   | Screw . . . . .                            | 1    | 67       | 85-628   | Screw . . . . .                            | 1    |
| 31       | 21-324   | Rear cover U . . . . .                     | 1    | 68       | 23-302   | Gasket . . . . .                           | 2    |
| 32       | 84-564   | Screw . . . . .                            | 2    | 69       | 87-756   | Screw . . . . .                            | 2    |
| 33       | 21-316   | Head cover . . . . .                       | 1    | 70       | 39-213   | Oil gauge . . . . .                        | 1    |
| 34       | 23-216   | Head cover gasket . . . . .                | 1    | 71       | 21-701   | Needle bar eyelet safety bar . . . . .     | 1    |
| 35       | 84-566   | Screw . . . . .                            | 4    | 72       | 84-521   | Screw . . . . .                            | 1    |
| 36       | 23-161   | Head cover oil seal cover . . . . .        | 1    | 73       | 21-711   | Needle lever eyelet safety plate . . . . . | 1    |
| 37       | 23-263   | Oil seal plate gasket . . . . .            | 1    | 74       | 84-363   | Screw . . . . .                            | 1    |

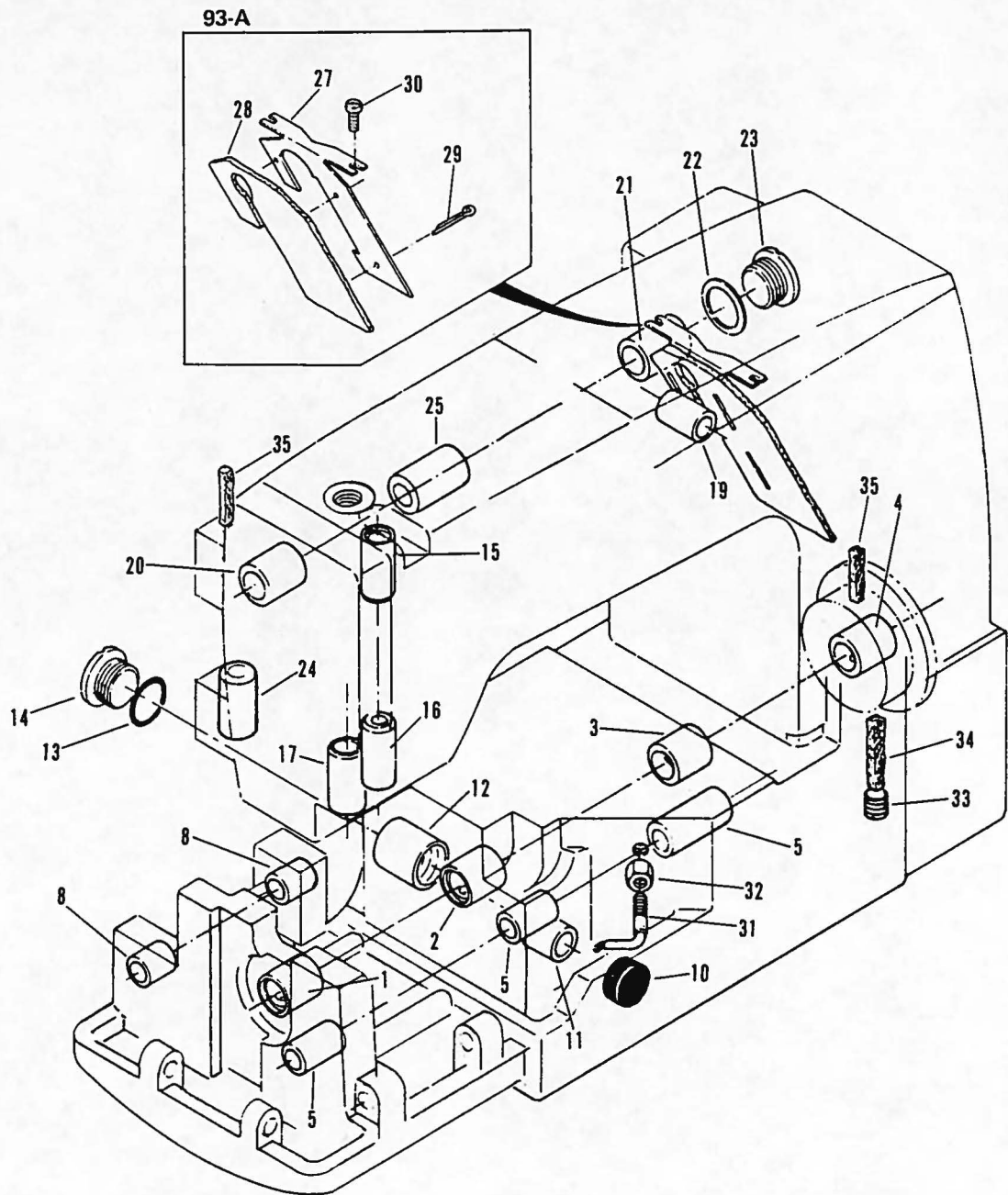
## 2. Thread eyelets (糸道関係)





| Ref. No. | Part No. | Part Name                          | Q'ty | Ref. No. | Part No. | Part Name                      | Q'ty |
|----------|----------|------------------------------------|------|----------|----------|--------------------------------|------|
| 1        | 41-101   | Tension disc cover (small)         | 7    | 25       | 84-464   | Screw                          | 2    |
| 2        | 41-105   | Tension disc ratchet               | 7    | 26       |          |                                |      |
| 3        | 41-107   | Tension disc cover (large)         | 7    | 27       |          |                                |      |
| 4        | 41-111   | Tension disc                       | 14   | 28       |          |                                |      |
| 5        | 41-172   | Tension post                       | 7    | 29       |          |                                |      |
| 6        | 41-131   | Tension post collar A              | 7    | 30       |          |                                |      |
| 7        | 41-113   | Tension post support               | 1    | 31       | 47-202   | Looper thread guide eyelet     | 1    |
| 8        | 41-115   | Tension post thread eyelet (upper) | 7    | 32       | 84-361   | Screw                          | 2    |
| * 9      | 41-123   | Tension post holder (large)        | 1    | *33      | 41-214   | Tension nipper holder          | 1    |
| 10       | 86-411   | Nut                                | 7    | 34       |          |                                |      |
| 11       | 41-117   | Lead in thread eyelet (lower)      | 7    | 35       | 43-301   | Cast-off support plate         | 1    |
| 12       | 41-701   | Needle thread tension spring       | 4    | 36       | 84-571   | Screw                          | 2    |
| 13       | 41-702   | Looper thread tension spring       | 3    | 37       | 43-111   | Retainer support bracket       | 1    |
| *14      | 47-103   | Thread eyelet 4                    | 2    | 38       | 84-162   | Screw                          | 2    |
| 15       | 84-361   | Screw                              | 4    | 39       | 43-112   | Pin for looper thread retainer | 1    |
| *16      | 45-103   | Needle thread eyelet 4             | 1    | 40       | 84-363   | Screw                          | 1    |
| 17       | 85-531   | Screw                              | 1    | 41       | 43-303   | Looper thread retainer         | 1    |
| 18       | 75-456   | Washer                             | 1    | 42       | 84-374   | Screw                          | 1    |
| 19       | 84-571   | Screw                              | 1    | 43       | 43-305   | Looper thread cast-off pin     | 1    |
| *20      | 45-123   | Needle lever thread eyelet         | 1    | 44       | 84-163   | Screw                          | 1    |
| *21      | 45-133   | Needle bar thread eyelet           | 1    | 45       | 84-163   | Screw                          | 2    |
| 22       | 45-225   | Needle thread take-up wire         | 1    | 46       | 47-131   | Looper thread guide eyelet     | 1    |
| 23       | 84-521   | Screw                              | 1    | 47       | 47-132   | Looper thread guide eyelet     | 1    |
| *24      | 45-152   | Needle thread guide                | 1    |          |          |                                |      |
| 92-A     | 40-143   | Thread tension ass'y               |      |          |          |                                |      |
| 92-B     | 40-352   | Cast-off support plate ass'y       |      |          |          |                                |      |

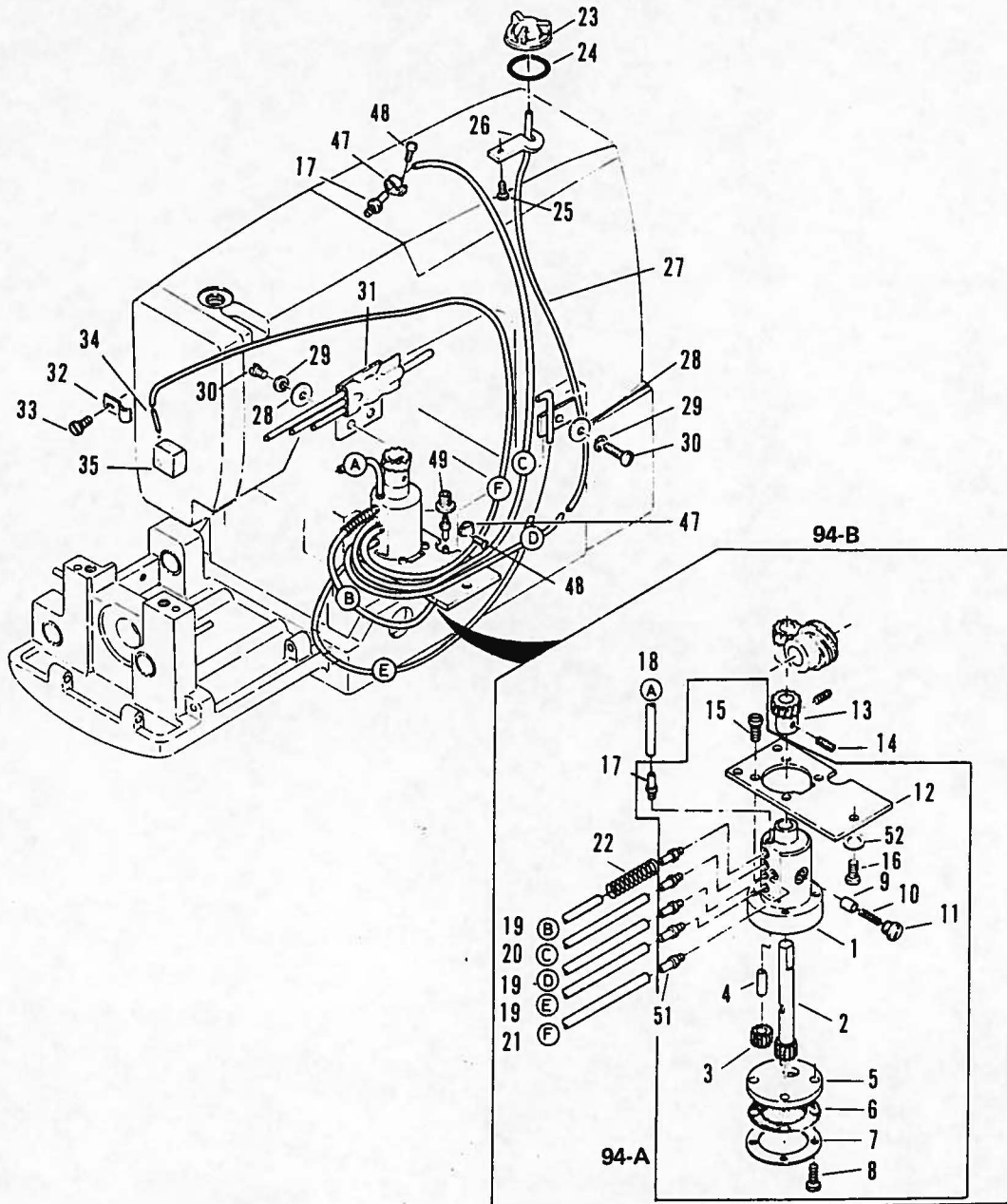
### 3. Bushings (ブッシュ関係)



| Ref. No. | Part No. | Part Name                                    | Q'ty | Ref. No. | Part No. | Part Name                                     | Q'ty |
|----------|----------|--|------|----------|----------|---|------|
| 1        | 81-711   | Main shaft bushing A . . . . .               | 1    | 20       | 81-108   | Looper driver lever shaft bushing A . . . . . | 2    |
| 2        | 81-107   | Main shaft bushing B . . . . .               | 1    | 21       | 81-114   | Upper shaft bushing . . . . .                 | 1    |
| 3        | 81-713   | Main shaft bushing C . . . . .               | 1    | 22       | 23-298   | Gasket . . . . .                              | 1    |
| 4        | 81-110   | Flange bushing . . . . .                     | 1    | 23       | 87-812   | Screw . . . . .                               | 1    |
| 5        | 81-736   | Looper rocker shaft bushing A . . . . .      | 3    | 24       | 81-133   | Bushing . . . . .                             | 1    |
| 6        |          |  |      | 25       | 81-109   | Bushing . . . . .                             | 1    |
| 7        |          |  |      | 26       |          |   |      |
| 8        | 81-751   | Feed rocker shaft bushing A . . . . .        | 3    | 27       | 39-122   | Fence B . . . . .                             | 1    |
| 9        |          |  |      | 28       | 23-372   | Fence felt B . . . . .                        | 1    |
| 10       | 23-166   | Rubber seal . . . . .                        | 1    | 29       | 93-621   | Pin . . . . .                                 | 3    |
| 11       | 81-136   | Looper drive lever shaft bushing B . . . . . | 1    | 30       | 84-161   | Screw . . . . .                               | 2    |
| 12       | 81-137   | Looper drive lever shaft bushing C . . . . . | 1    | 31       | 35-111   | Feed rocker eccentric link tubing . . . . .   | 1    |
| 13       | 23-195   | O-ring . . . . .                             | 1    | 32       | 86-501   | Nut . . . . .                                 | 1    |
| 14       | 87-811   | Screw . . . . .                              | 1    | 33       | 85-501   | Oil tube holder screw B . . . . .             | 1    |
| 15       | 81-182   | Needle bar bushing C (upper) . . . . .       | 1    | 34       | 23-381   | Felt . . . . .                                | 1    |
| 16       | 81-181   | Needle bar bushing C (lower) . . . . .       | 1    | 35       | 23-383   | Felt . . . . .                                | 1    |
| 17       | 81-153   | Presser bar bushing . . . . .                | 1    | 36       |          |   |      |
| 18       |          |  |      | 37       |          |   |      |
| 19       | 81-255   | Presser foot lifter lever bushing . . . . .  | 1    |          |          |   |      |
| 93-A     | 30-941   | Fence ass'y                                  |      |          |          |   |      |

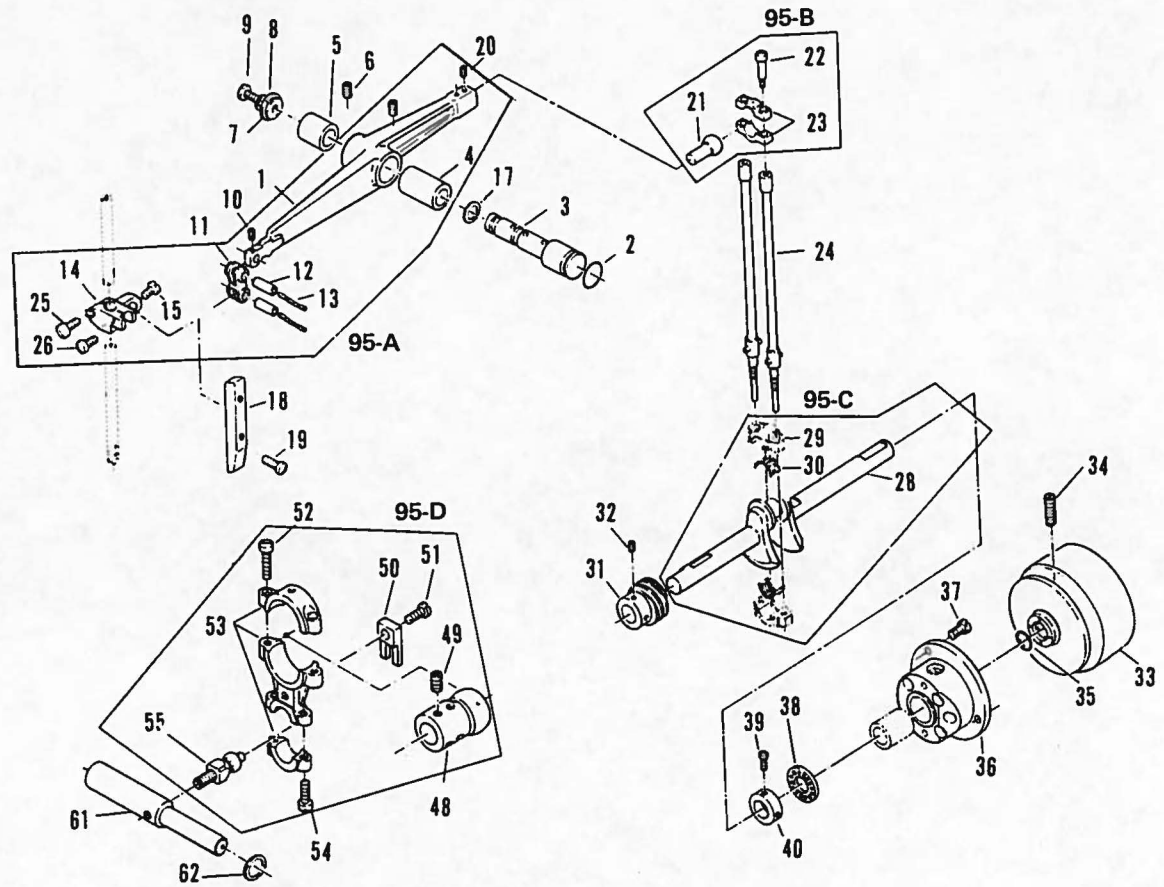


# 4. Oil lubrication apparatus (給油関係)



| Ref. No. | Part No. | Part Name           | Q'ty | Ref. No. | Part No. | Part Name           | Q'ty |
|----------|----------|---------------------|------|----------|----------|---------------------|------|
| 1        | 31-401   | Oil pump body C     | 1    | 27       | 35-246   | Pipe                | 1    |
| 2        | 31-406   | Gear E (main)       | 1    | 28       | 23-291   | Packing             | 3    |
| 3        | 31-407   | Gear E (support)    | 1    | 29       | 75-468   | Washer              | 3    |
| 4        | 71-482   | Pin                 | 1    | 30       | 84-363   | Screw               | 3    |
| 5        | 31-403   | Pump body cover     | 1    | 31       | 35-121   | Pipe                | 1    |
| 6        | 31-404   | Pump body mesh      | 1    | 32       | 39-133   | Support             | 1    |
| 7        | 31-405   | Mesh Frame          | 1    | 33       | 84-361   | Screw               | 1    |
| 8        | 84-571   | Screw               | 4    | 34       | 35-260   | Pipe                | 1    |
| 9        | 31-305   | Pin                 | 1    | 35       | 23-368   | Felt                | 1    |
| 10       | 31-306   | Spring              | 1    | 36       |          |                     |      |
| 11       | 31-307   | Screw               | 1    | 37       |          |                     |      |
| 12       | 31-402   | Body fixing plate   | 1    | 38       |          |                     |      |
| 13       | 31-409   | Gear                | 1    | 39       |          |                     |      |
| 14       | 84-521   | Screw               | 2    | 40       |          |                     |      |
| 15       | 84-566   | Screw               | 4    | 41       |          |                     |      |
| 16       | 84-572   | Screw               | 3    | 42       |          |                     |      |
| 17       | 31-314   | Vinyl tube coupling | 8    | 43       |          |                     |      |
| 18       | 35-302   | Vinyl pipe (75φ)    | 1    | 44       |          |                     |      |
| 19       | 35-303   | Vinyl pipe (230φ)   | 3    | 45       |          |                     |      |
| 20       | 35-304   | Vinyl pipe (410φ)   | 1    | 46       |          |                     |      |
| 21       | 35-305   | Vinyl pipe (600φ)   | 1    | 47       | 31-341   | Pipe support        | 2    |
| 22       | 79-236   | Spring              | 1    | 48       | 31-341   | Screw               | 2    |
| 23       | 39-233   | Oil pot lid         | 1    | 49       | 85-531   | Fixing screw        | 1    |
| 24       | 39-233   | O-ring              | 1    | 50       |          |                     |      |
| 25       | 84-161   | Screw               | 1    | 51       | 31-364   | Vinyl tube coupling | 1    |
| 26       | 39-137   | Pipe support        | 1    | 52       | 75-467   | Washer              | 3    |
| 94-A     | 30-001   | Oil pump ass'y      |      |          |          |                     |      |
| 94-B     | 30-002   | Oil pump ass'y      |      |          |          |                     |      |

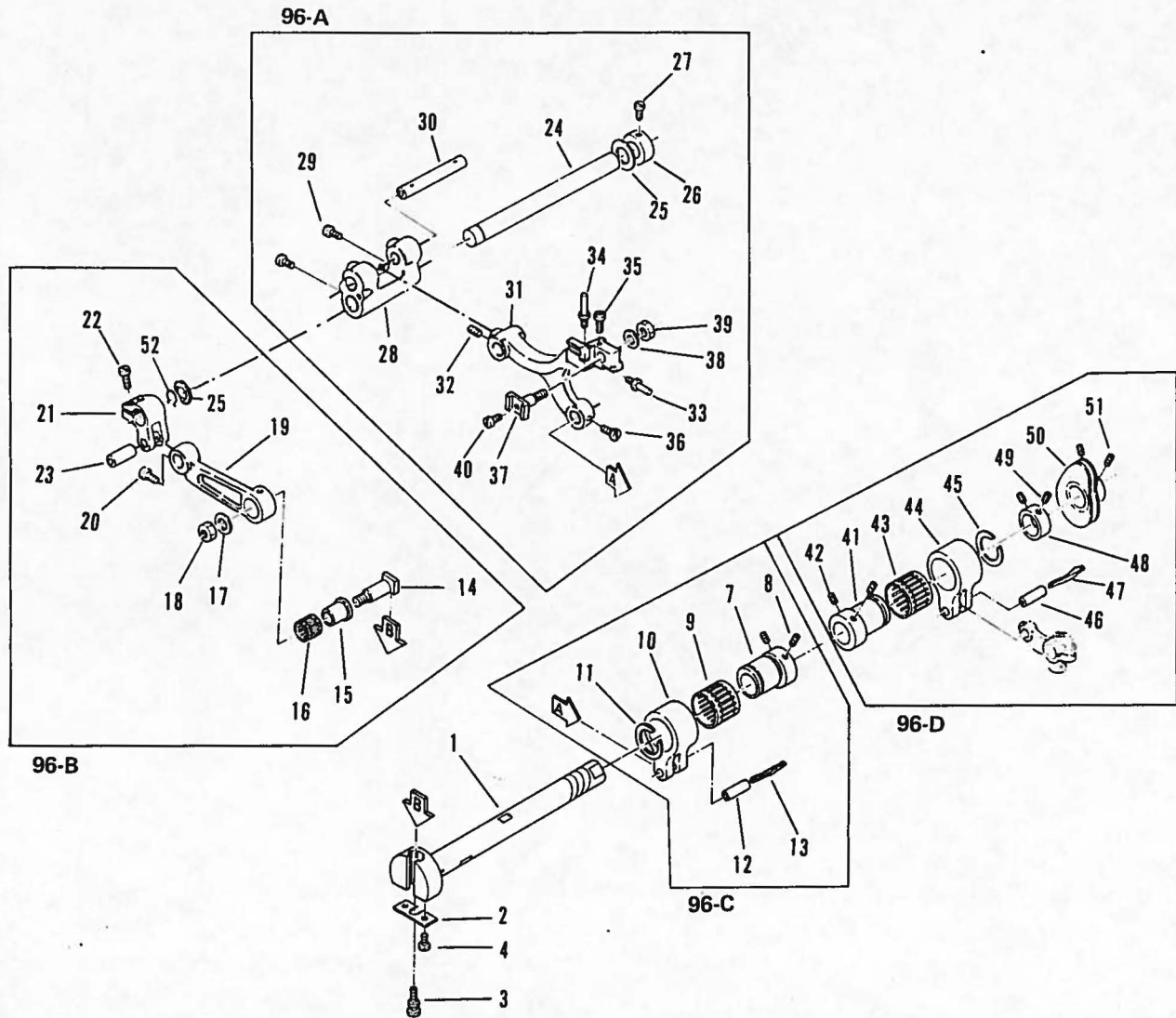
# 5. Needle lever crank (ミ・クランク機構)



| Ref. No. | Part No. | Part Name                                | Q'ty | Ref. No. | Part No. | Part Name                                 | Q'ty |
|----------|----------|--|------|----------|----------|---|------|
| 1        | 69-105   | Needle lever E. . . . .                  | 1    | 32       | 84-718   | Screw . . . . .                           | 2    |
| 2        | 23-195   | O-ring . . . . .                         | 1    | 33       | 69-208   | Pulley . . . . .                          | 1    |
| 3        | 71-933   | Needle lever stud . . . . .              | 1    | 34       | 85-114   | Screw . . . . .                           | 2    |
| 4        | 81-113   | Needle lever bushing . . . . .           | 1    | 35       | 23-197   | O-ring . . . . .                          | 1    |
| 5        | 81-412   | Needle lever stud bushing . . . . .      | 1    | 36       | 69-305   | Flange . . . . .                          | 1    |
| 6        | 85-114   | Screw . . . . .                          | 2    | 37       | 84-566   | Screw . . . . .                           | 3    |
| 7        | 39-107   | Oil seal screw . . . . .                 | 1    | 38       | 92-231   | Bearing . . . . .                         | 1    |
| 8        | 23-260   | Gasket . . . . .                         | 1    | 39       | 84-563   | Screw . . . . .                           | 2    |
| 9        | 85-182   | Screw . . . . .                          | 1    | 40       | 75-112   | Crank shaft collar. . . . .               | 1    |
| 10       | 84-366   | Screw . . . . .                          | 1    | 41       |          |   |      |
| 11       | 66-111   | Needle bar connecting link. . . . .      | 1    | 42       |          |   |      |
| 12       | 71-432   | Needle bar connection link pin . . . . . | 2    | 43       |          |   |      |
| 13       | 23-341   | Felt . . . . .                           | 2    | 44       |          |   |      |
| *14      | 73-113   | Needle bar connection . . . . .          | 1    | 45       |          |   |      |
| 15       | 84-366   | Screw . . . . .                          | 1    | 46       |          |   |      |
| 16       |          |  |      | 47       |          |   |      |
| 17       | 75-331   | Washer . . . . .                         | 1    | 48       | 61-512   | Looper driving eccentric. . . . .         | 1    |
| *18      | 69-117   | Needle bar guide plate . . . . .         | 1    | 49       | 85-113   | Screw . . . . .                           | 6    |
| *19      | 84-564   | Screw . . . . .                          | 2    | 50       | 69-121   | Eccentric guide fork . . . . .            | 1    |
| 20       | 85-212   | Screw . . . . .                          | 2    | 51       | 84-591   | Screw . . . . .                           | 1    |
| 21       | 61-722   | Needle lever connecting rod . . . . .    | 1    | 52       | 84-568   | Screw . . . . .                           | 2    |
| 22       | 84-586   | Screw . . . . .                          | 2    | 53       | 63-511   | Looper driving lever ball joint . . . . . | 1    |
| 23       | 63-721   | Ball joint for connecting rod . . . . .  | 1    | 54       | 84-567   | Screw . . . . .                           | 2    |
| 24       | 65-311   | Connecting bar . . . . .                 | 2    | 55       | 61-713   | Looper driving connecting rod . . . . .   | 1    |
| 25       | 84-572   | Screw . . . . .                          | 1    | 56       |          |   |      |
| 26       | 84-363   | Screw . . . . .                          | 2    | 57       |          |   |      |
| 27       |          |  |      | 58       |          |   |      |
| *28      | 71-851   | Crank shaft 5L . . . . .                 | 1    | 59       |          |   |      |
| 29       | 63-331   | Ball-joint for crank shaft. . . . .      | 1    | 60       |          |   |      |
| 30       | 91-011   | Needle roller for crank shaft. . . . .   | 28   | 61       | 71-612   | Looper driving shaft . . . . .            | 1    |
| 31       | 31-410   | Worm gear . . . . .                      | 1    | 62       | 75-332   | Washer . . . . .                          | 1    |
| 95-A     | 60-941   | Needle lever ass'y                       |      |          |          |   |      |
| 95-B     | 60-340   | Needle bar connection ass'y              |      |          |          |   |      |
| 95-C     | 70-045   | Crank shaft 5L ass'y                     |      |          |          |   |      |
| 95-D     | 60-355   | Looper driving ball joint ass'y          |      |          |          |   |      |

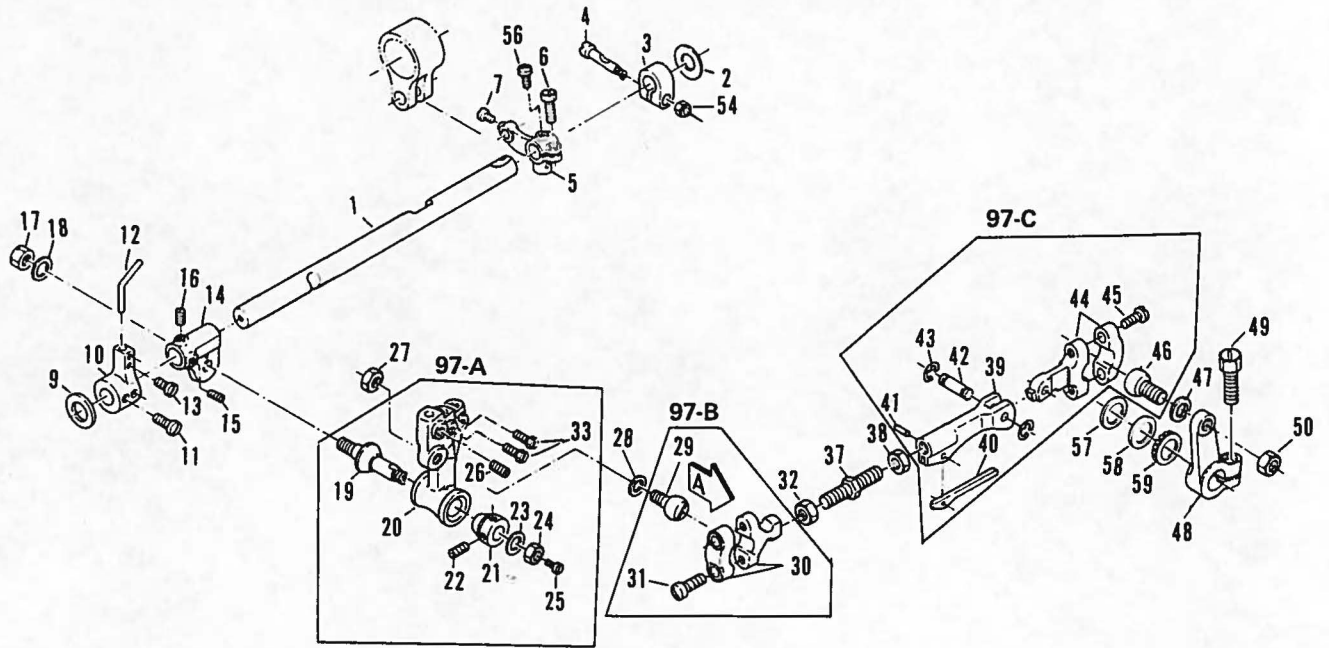


# 6. Feed rocker (送り台機構)



| Ref. No. | Part No. | Part Name                          | Q'ty | Ref. No. | Part No. | Part Name                         | Q'ty |
|----------|----------|------------------------------------|------|----------|----------|-----------------------------------|------|
| 1        | 71-796   | Main shaft 9F                      | 1    | 27       | 84-761   | Screw                             | 1    |
| 2        | 51-021   | Stitch regulating stud cup         | 1    | 28       | 55-049   | DWR feed rocker                   | 1    |
| 3        | 84-371   | Screw                              | 3    | 29       | 84-564   | Screw                             | 2    |
| 4        | 84-161   | Screw                              | 2    | 30       | 71-531   | Shaft                             | 1    |
| 5        |          |                                    |      | 31       | 55-191   | DWR feed rocker                   | 1    |
| 6        |          |                                    |      | 32       | 84-712   | Screw                             | 1    |
| * 7      | 61-322   | Feed eccentric B 0.9               | 1    | 33       | 84-176   | Screw                             | 1    |
| 8        | 84-715   | Screw                              | 2    | 34       | 84-177   | Screw                             | 1    |
| 9        | 91-406   | Bearing                            | 1    | 35       | 84-368   | Screw                             | 1    |
| 10       | 63-232   | Looper avoid eccentric link        | 1    | 36       | 84-366   | Screw                             | 1    |
| 11       | 93-406   | Snap ring                          | 1    | 37       | 55-051   | Rear feed dog holder              | 1    |
| 12       | 71-431   | Feed rocker eccentric link pin     | 1    | 38       | 75-381   | Washer                            | 1    |
| 13       | 23-341   | Felt                               | 1    | 39       | 86-501   | Nut                               | 1    |
| 14       | 51-011   | Feed crank adjusting stud          | 1    | 40       | 84-588   | Screw                             | 1    |
| 15       | 75-243   | Feed crank link roller             | 1    | *41      | 61-312   | Looper avoid eccentric (0.8)      | 1    |
| 16       | 91-271   | Bearing                            | 1    | 42       | 84-715   | Screw                             | 2    |
| 17       | 75-453   | Washer                             | 1    | 43       | 91-406   | Bearing                           | 1    |
| 18       | 86-412   | Nut                                | 1    | 44       | 63-232   | Feed eccentric link               | 1    |
| 19       | 67-316   | Feed connecting lever F            | 1    | 45       | 93-431   | Snap ring                         | 1    |
| 20       | 84-366   | Screw                              | 1    | 46       | 71-431   | Feed rocker eccentric link pin    | 1    |
| 21       | 63-352   | Feed rocker eccentric link         | 1    | 47       | 23-406   | Felt                              | 1    |
| 22       | 84-814   | Screw                              | 1    | 48       | 75-114   | Collar                            | 1    |
| 23       | 71-431   | Feed rocker eccentric link pin     | 1    | 49       | 84-711   | Screw                             | 2    |
| 24       | 71-647   | Feed rocker arm shaft              | 1    | 50       | 49-133   | Looper thread double disc take up | 1    |
| 25       | 75-372   | Washer                             | 2    | 51       | 84-511   | Screw                             | 2    |
| 26       | 75-132   | Collar                             | 1    | 52       | 93-261   | φ10 C-ring                        | 1    |
| 96-A     | 50-591   | Feed rocker ass'y                  |      |          |          |                                   |      |
| 96-B     | 60-719   | Feed rocker arm ass'y              |      |          |          |                                   |      |
| 96-C     | 60-090   | Feed eccentric ass'y (0.9)         |      |          |          |                                   |      |
| 96-D     | 60-781   | Looper avoid eccentric ass'y (0.8) |      |          |          |                                   |      |

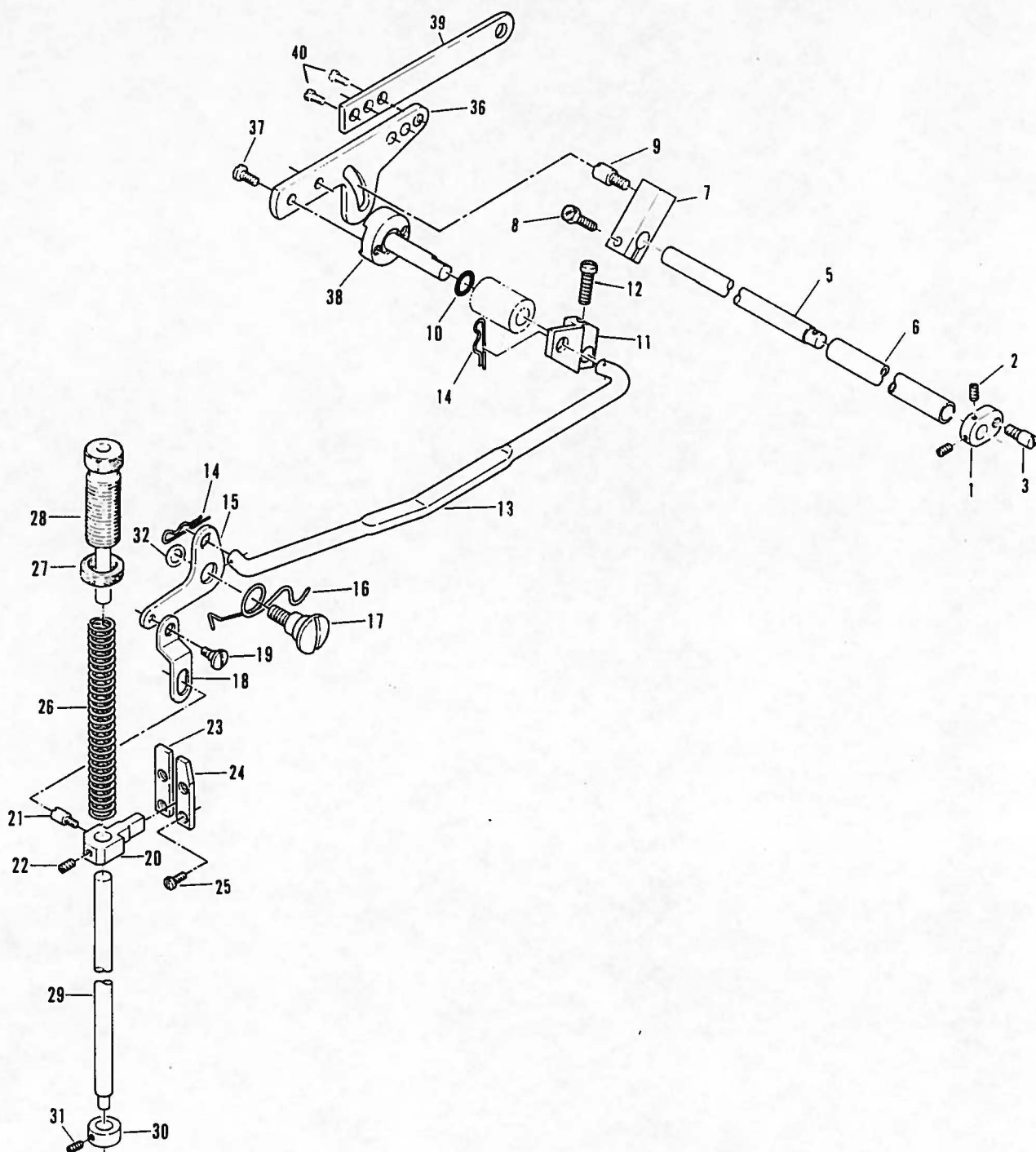
# 7. Loper (ルーパー台機構)



| Ref. No. | Part No. | Part Name                                       | Q'ty | Ref. No. | Part No. | Part Name                                | Q'ty |
|----------|----------|---|------|----------|----------|--|------|
| * 1      | 71-621   | Looper holder shaft. . . . .                    | 1    | 31       | 84-572   | Screw . . . . .                          | 1    |
| 2        | 75-372   | Washer . . . . .                                | 1    | 32       | 86-412   | Nut, left . . . . .                      | 1    |
| 3        | 75-136   | Looper holder shaft collar . . . . .            | 1    | 33       | 84-616   | Screw . . . . .                          | 2    |
| 4        | 71-454   | Pin . . . . .                                   | 1    | 34       |          |  |      |
| * 5      | 67-131   | Looper rocker shaft. . . . .                    | 1    | 35       |          |  |      |
| 6        | 84-812   | Screw . . . . .                                 | 1    | 36       |          |  |      |
| 7        | 84-366   | Screw . . . . .                                 | 1    | *37      | 65-401   | Connecting bar . . . . .                 | 1    |
| 8        |          |   |      | 38       | 86-411   | Nut . . . . .                            | 1    |
| 9        | 75-372   | Washer . . . . .                                | 1    | *39      | 65-902   | Looper driving connection. . . . .       | 1    |
| *10      | 18-722   | Needle bar guide bracket. . . . .               | 1    | *40      | 79-601   | Plate spring . . . . .                   | 1    |
| 11       | 84-616   | Screw . . . . .                                 | 2    | *41      | 71-201   | Pin . . . . .                            | 1    |
| *12      | 18-911   | Needle bar guide. . . . .                       | 1    | *42      | 71-322   | Shaft . . . . .                          | 1    |
| 13       | 84-575   | Screw . . . . .                                 | 2    | 43       | 93-201   | Snap ring . . . . .                      | 1    |
| 14       | 19-303   | Looper bracket C . . . . .                      | 1    | *44      | 63-821   | Looper driving connecting link . . . . . | 1    |
| 15       | 84-716   | Screw . . . . .                                 | 1    | 45       | 84-572   | Screw . . . . .                          | 2    |
| 16       | 84-766   | Screw . . . . .                                 | 1    | 46       | 61-823   | Looper driving connecting rod . . . . .  | 1    |
| 17       | 86-502   | Nut . . . . .                                   | 1    | 47       | 75-401   | Washer . . . . .                         | 1    |
| 18       | 75-381   | Washer . . . . .                                | 1    | 48       | 67-227   | Looper driving lever E. . . . .          | 1    |
| 19       | 71-901   | Looper rocker tapered pin. . . . .              | 1    | 49       | 85-211   | Screw . . . . .                          | 1    |
| *20      | 19-316   | Looper holder F . . . . .                       | 1    | 50       | 86-411   | Nut. . . . .                             | 1    |
| 21       | 81-401   | Tapered pin bushing . . . . .                   | 1    | 51       |          |  |      |
| 22       | 84-521   | Screw . . . . .                                 | 2    | 52       |          |  |      |
| 23       | 75-452   | Washer . . . . .                                | 1    | 53       |          |  |      |
| 24       | 86-501   | Nut . . . . .                                   | 1    | 54       | 86-314   | Nut. . . . .                             | 1    |
| 25       | 84-361   | Screw . . . . .                                 | 1    | 55       |          |  |      |
| 26       | 84-521   | Screw . . . . .                                 | 1    | 56       | 84-563   | Screw . . . . .                          | 1    |
| 27       | 86-413   | Nut . . . . .                                   | 1    | 57       | 75-326   | Washer . . . . .                         | 1    |
| 28       | 75-453   | Washer . . . . .                                | 1    | 58       | 75-327   | Washer . . . . .                         | 1    |
| 29       | 61-823   | Looper driving connecting rod . . . . .         | 1    | 59       | 92-231   | Bearing . . . . .                        | 1    |
| 30       | 63-812   | Looper driving connecting link (left) . . . . . | 1    |          |          |  |      |
| 97-A     | 10-916   | Looper holder F ass'y                           |      |          |          |  |      |
| 97-B     | 60-382   | Looper connecting link ass'y                    |      |          |          |  |      |
| 97-C     | 60-373   | Looper driving connecting ass'y                 |      |          |          |  |      |

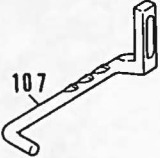
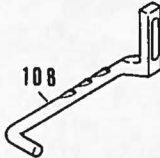
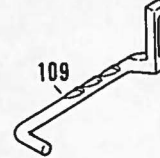


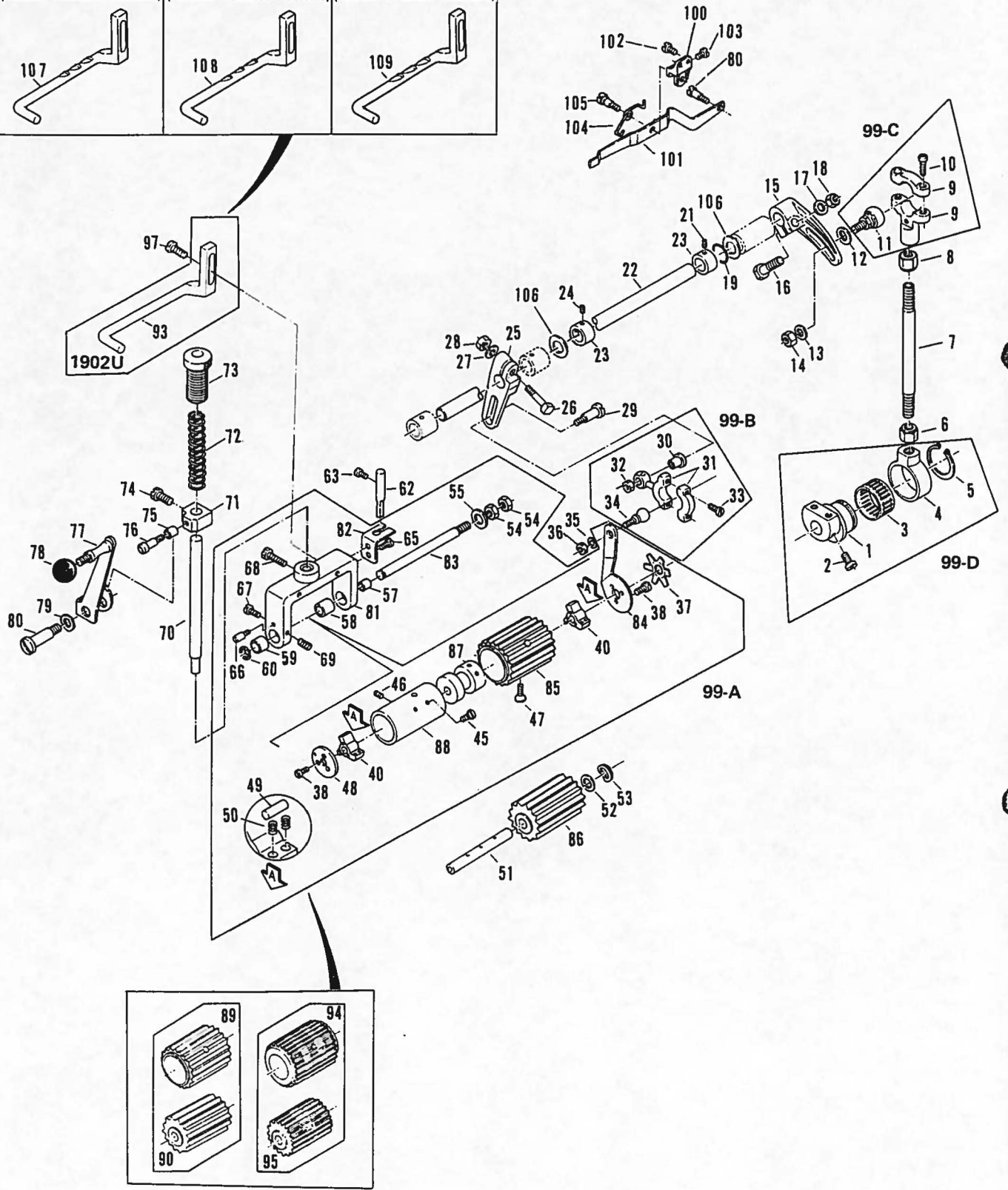
# 8. Foot lifter mechanism (押え上げ機構)



| Ref. No. | Part No. | Part Name                                      | Q'ty | Ref. No. | Part No. | Part Name                                     | Q'ty |
|----------|----------|--|------|----------|----------|---|------|
| 1        | 77-101   | Lifter lever connecting . . . . .              | 1    | 21       | 84-561   | Screw . . . . .                               | 1    |
| 2        | 84-512   | Screw . . . . .                                | 2    | 22       | 84-563   | Screw . . . . .                               | 1    |
| 3        | 84-562   | Screw . . . . .                                | 1    | 23       | 77-135   | Presser bar connecting guide, left . . . . .  | 1    |
| 4        |          |  |      | 24       | 77-136   | Presser bar connecting guide, right . . . . . | 1    |
| 5        | 77-111   | Foot lifter crank shaft B . . . . .            | 1    | 25       | 84-362   | Screw . . . . .                               | 4    |
| 6        | 77-121   | Crank shaft pipe . . . . .                     | 1    | 26       | 79-121   | Presser bar spring . . . . .                  | 1    |
| 7        | 77-103   | Adjusting post supporter . . . . .             | 1    | 27       | 86-851   | Nut . . . . .                                 | 1    |
| 8        | 84-812   | Screw . . . . .                                | 1    | 28       | 85-761   | Presser bar screw . . . . .                   | 1    |
| 9        | 84-561   | Screw . . . . .                                | 1    | 29       | 71-542   | Presser bar (small) . . . . .                 | 1    |
| 10       | 23-189   | O-ring . . . . .                               | 1    | 30       | 75-154   | Collar . . . . .                              | 1    |
| 11       | 77-107   | Presser foot lifter connecting plate . . . . . | 1    | 31       | 84-511   | Screw . . . . .                               | 1    |
| 12       | 84-764   | Screw . . . . .                                | 1    | 32       | 75-453   | Washer . . . . .                              | 1    |
| 13       | 77-116   | Lifter lever connecting bar . . . . .          | 1    | 33       |          |   |      |
| 14       | 93-611   | Snap pin A . . . . .                           | 2    | 34       |          |   |      |
| 15       | 77-109   | Lifter lever spring supporter . . . . .        | 1    | 35       |          |   |      |
| 16       | 79-222   | Lifter lever spring . . . . .                  | 1    | 36       | 77-145   | Presser foot lifter lever . . . . .           | 1    |
| 17       | 84-781   | Screw . . . . .                                | 1    | 37       | 84-566   | Screw . . . . .                               | 2    |
| 18       | 77-131   | Lifter lever link . . . . .                    | 1    | 38       | 77-114   | Presser foot lifter lever post . . . . .      | 1    |
| 19       | 84-581   | Screw . . . . .                                | 1    | 39       | 77-232   | Connecting plate (309 type) . . . . .         | 1    |
| 20       | 77-133   | Presser bar guide . . . . .                    | 1    | 40       | 84-761   | Screw . . . . .                               | 2    |

# 9. Puller (プーラー機構)

|  |  |  |
|--|--|--|
| <b>1902-2U</b><br>(4mm-10mm-10mm)  | <b>1902-2U</b><br>(4mm-13mm-13mm)  | <b>1902-2U</b><br>(4mm-15mm-15mm)  |
| <br>107 | <br>108 | <br>109 |

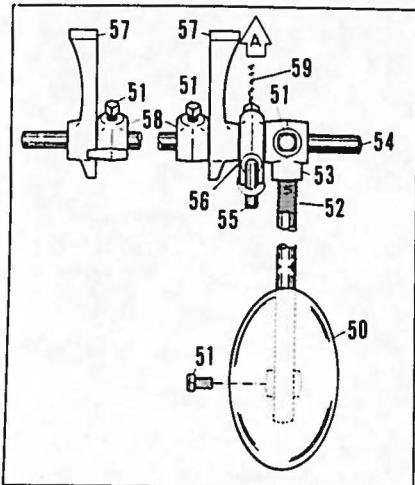




| Ref. No. | Part No. | Part Name                               | Q'ty | Ref. No. | Part No. | Part Name                                   | Q'ty |
|----------|----------|---|------|----------|----------|---|------|
| 1        | 61-201   | Puller driving eccentric . . . . .      | 1    | 56       |          |   |      |
| 2        | 84-762   | Screw . . . . .                         | 2    | 57       | 81-323   | Puller holder shaft bushing S . . . . .     | 1    |
| 3        | 91-156   | Bearing . . . . .                       | 1    | 58       | 81-322   | Puller holder shaft bushing M . . . . .     | 1    |
| 4        | 63-201   | Connecting link . . . . .               | 1    | 59       | 81-321   | Puller holder shaft bushing L . . . . .     | 1    |
| 5        | 93-251   | 25φ snap ring . . . . .                 | 1    | 60       | 93-221   | φ8 snap ring . . . . .                      | 1    |
| 6        | 86-741   | Nut . . . . .                           | 1    | 61       |          |   |      |
| 7        | 65-302   | Puller driving connection . . . . .     | 1    | 62       | 71-921   | Puller liner . . . . .                      | 1    |
| 8        | 86-742   | Nut, left . . . . .                     | 1    | 63       | 84-566   | Screw . . . . .                             | 1    |
| 9        | 63-711   | Puller driving connecting rod . . . . . | 1    | 64       |          |   |      |
| 10       | 84-567   | Screw . . . . .                         | 2    | 65       | 84-563   | Screw . . . . .                             | 2    |
| 11       | 61-714   | Connecting ball joint . . . . .         | 1    | 66       | 84-562   | Screw . . . . .                             | 1    |
| 12       | 75-491   | Washer . . . . .                        | 1    | 67       | 84-566   | Screw . . . . .                             | 1    |
| 13       | 75-452   | Washer . . . . .                        | 1    | 68       | 84-814   | Screw . . . . .                             | 1    |
| 14       | 86-501   | Nut . . . . .                           | 1    | 69       | 84-512   | Screw . . . . .                             | 1    |
| 15       | 67-172   | Puller driving lever, rear . . . . .    | 1    | 70       | 71-636   | Feed roller shaft . . . . .                 | 1    |
| 16       | 55-061   | Screw . . . . .                         | 1    | 71       | 02-115   | Feed roller shaft holder . . . . .          | 1    |
| 17       | 75-452   | Washer . . . . .                        | 1    | 72       | 79-126   | Puller spring . . . . .                     | 1    |
| 18       | 86-501   | Nut . . . . .                           | 1    | 73       | 87-751   | Puller screw . . . . .                      | 1    |
| 19       | 23-200   | O-ring . . . . .                        | 1    | 74       | 84-611   | Screw . . . . .                             | 1    |
| 20       |          |   |      | 75       | 75-211   | Lifter lever roller . . . . .               | 1    |
| 21       | 84-718   | Screw . . . . .                         | 2    | 76       | 84-582   | Screw . . . . .                             | 1    |
| 22       | 71-691   | Puller driving shaft A . . . . .        | 1    | 77       | 02-111   | Lifter lever . . . . .                      | 1    |
| 23       | 75-113   | Crank shaft collar . . . . .            | 2    | 78       | 02-114   | Lifter lever knob . . . . .                 | 1    |
| 24       | 84-718   | Screw . . . . .                         | 2    | 79       | 02-112   | Lifter spring . . . . .                     | 1    |
| 25       | 67-171   | Puller driving lever, front . . . . .   | 1    | 80       | 85-671   | Screw . . . . .                             | 1    |
| 26       | 85-191   | Screw . . . . .                         | 1    | 81       | 02-151   | Rear puller holder . . . . .                | 2    |
| 27       | 75-381   | Washer . . . . .                        | 1    | 82       | 02-166   | Rear puller stopper . . . . .               | 1    |
| 28       | 88-541   | Nut . . . . .                           | 1    | 83       | 71-471   | Rear puller shaft . . . . .                 | 1    |
| 29       | 84-584   | Screw . . . . .                         | 1    | 84       | 02-163   | Rear puller connecting plate . . . . .      | 1    |
| 30       | 75-246   | Connecting link roller . . . . .        | 1    | 85       | 02-176   | Rear puller gear pitch 18 (Nylon) . . . . . | 1    |
| 31       | 63-810   | Puller connecting rod . . . . .         | 1    | 86       | 02-206   | Rear puller gear pitch 15 (Nylon) . . . . . | 1    |
| 32       | 86-312   | Nut . . . . .                           | 1    | 87       | 02-161   | Rear puller thrust collar . . . . .         | 1    |
| 33       | 84-572   | Screw . . . . .                         | 2    | 88       | 02-156   | Rear puller pipe . . . . .                  | 1    |
| 34       | 61-810   | Connecting ball joint . . . . .         | 1    | 89       | 02-177   | Rear puller gear pitch 22 (Nylon) . . . . . | 1    |
| 35       | 75-381   | Washer . . . . .                        | 1    | 90       | 02-190   | Rear puller gear pitch 18 (Nylon) . . . . . | 1    |
| 36       | 86-411   | Nut . . . . .                           | 1    | 91       |          |   |      |
| 37       | 79-551   | Puller plate spring . . . . .           | 1    | 92       |          |   |      |
| 38       | 84-162   | Screw . . . . .                         | 6    | 93       | 09-290   | Puller rubber guide A . . . . .             | 1    |
| 39       |          |   |      | 94       | 02-178   | Rear puller gear pitch 28 (Nylon) . . . . . | 1    |
| 40       | 02-101   | Clutch A . . . . .                      | 2    | 95       | 02-208   | Rear puller gear pitch 23 (Nylon) . . . . . | 1    |
| 41       |          |   |      | 96       |          |   |      |
| 42       |          |   |      | 97       | 84-363   | Screw . . . . .                             | 2    |
| 43       |          |   |      | 98       |          |   |      |
| 44       |          |   |      | 99       |          |   |      |
| 45       | 84-463   | Screw . . . . .                         | 3    | 100      | 77-152   | Pressure bar lever bracket . . . . .        | 1    |
| 46       | 84-719   | Screw . . . . .                         | 1    | 101      | 77-151   | Pressure bar lever . . . . .                | 1    |
| 47       | 84-462   | Screw . . . . .                         | 2    | 102      | 84-566   | Screw . . . . .                             | 2    |
| 48       | 02-117   | Rear puller pipe cover . . . . .        | 1    | 103      | 84-363   | Screw . . . . .                             | 1    |
| 49       | 71-466   | Check clutch roller . . . . .           | 6    | 104      | 79-221   | Pressure bar lifter spring . . . . .        | 1    |
| 50       | 79-191   | Check clutch spring . . . . .           | 12   | 105      | 84-781   | Screw . . . . .                             | 2    |
| 51       | 71-651   | Rear puller shaft . . . . .             | 1    | 106      | 75-332   | Washer . . . . .                            | 2    |
| 52       | 75-372   | Washer . . . . .                        | 1    | 107      | 09-291   | Puller rubber guide B . . . . .             | 1    |
| 53       | 02-116   | Spring washer . . . . .                 | 1    | 108      | 09-292   | Puller rubber guide C . . . . .             | 1    |
| 54       | 86-761   | Nut . . . . .                           | 2    | 109      | 09-293   | Puller rubber guide D . . . . .             | 1    |
| 55       | 75-451   | Washer . . . . .                        | 1    | 110      |          |   |      |
| 99-A     | 00-218   | Rear puller gear pitch 18 ass'y         |      |          |          |   |      |
| 99-A     | 00-222   | Rear puller gear pitch 22 ass'y         |      |          |          |   |      |
| 99-A     | 00-228   | Rear puller gear pitch 28 ass'y         |      |          |          |   |      |
| 99-B     | 60-343   | Puller connecting rod ass'y             |      |          |          |   |      |
| 99-C     | 60-374   | Puller driving ball joint ass'y         |      |          |          |   |      |
| 99-D     | 60-150   | Puller driving eccentric ass'y          |      |          |          |   |      |

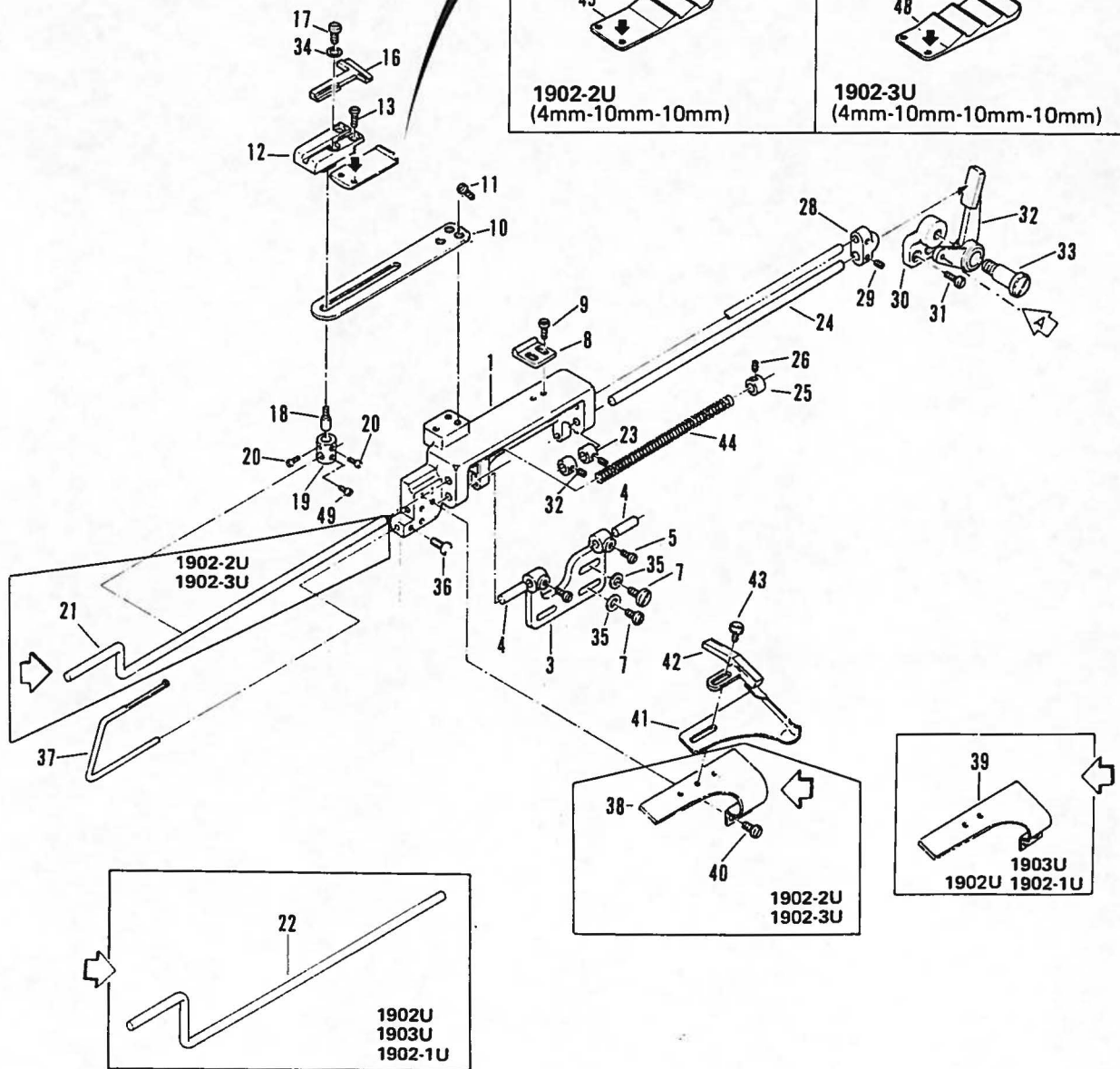
# 10. Elastic insertion guide (ゴム案内装置)

910-B



910-A

|   |   |
|---|---|
| <p>14</p> <p>1902U<br/>1902-1U<br/>1903U</p>        | <p>46</p> <p>1902-2U<br/>(4mm-13mm-13mm)</p>      |
| <p>15</p> <p>1902U 1903U<br/>(for wide elastic)</p> | <p>47</p> <p>1902-2U<br/>(4mm-15mm-15mm)</p>      |
| <p>45</p> <p>1902-2U<br/>(4mm-10mm-10mm)</p>        | <p>48</p> <p>1902-3U<br/>(4mm-10mm-10mm-10mm)</p> |

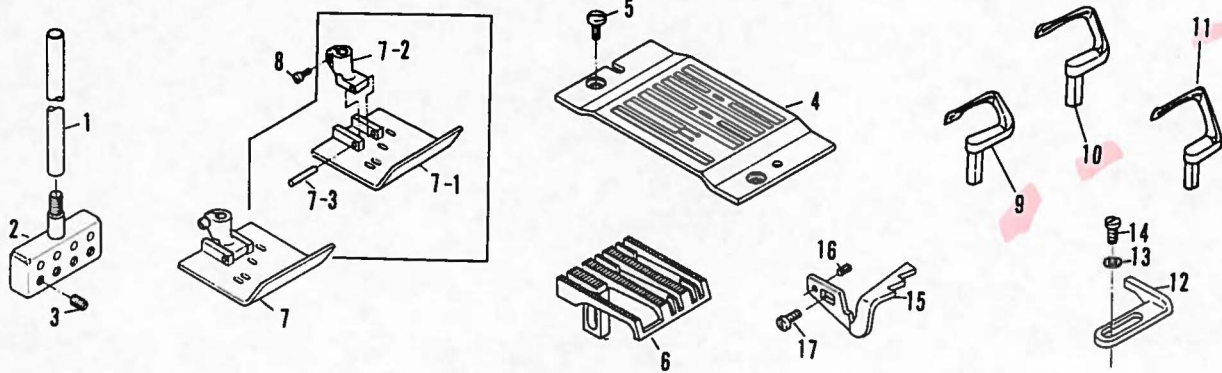




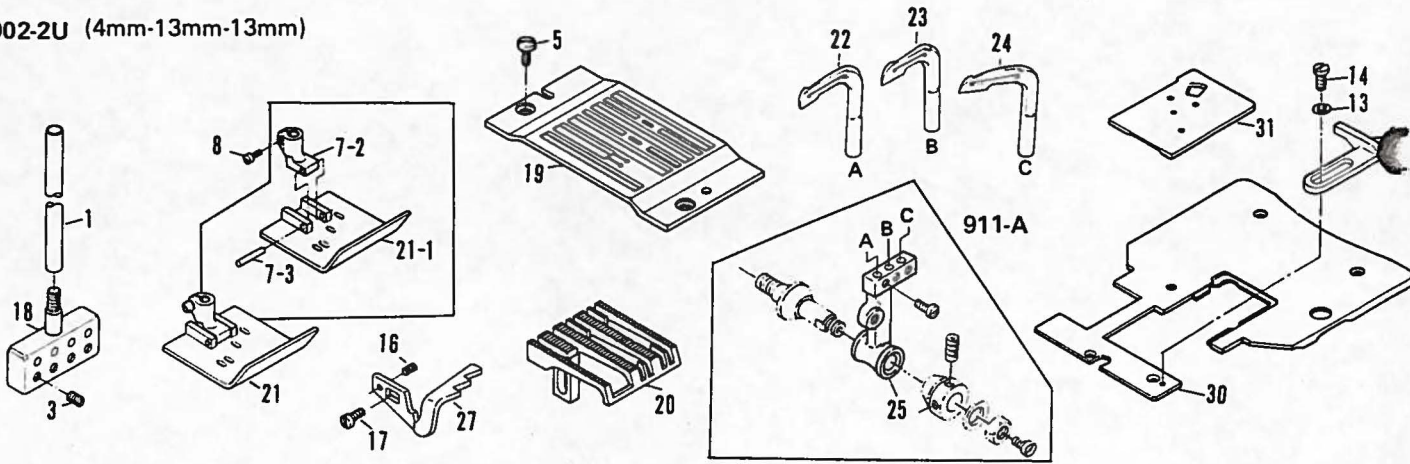
| Ref. No. | Part No. | Part Name  | Q'ty | Ref. No. | Part No. | Part Name                 | Q'ty |
|----------|----------|--|------|----------|----------|---------------------------|------|
| 1        | 09-270   | Base   | 1    | 31       | 84-761   | Screw                     | 2    |
| 2        |          |  |      | 32       | 09-247   | Lever                     | 1    |
| 3        | 09-271   | Bracket  | 1    | 33       | 85-671   | Screw                     | 1    |
| 4        | 71-303   | Hinge pin  | 2    | 34       | 75-468   | Washer                    | 1    |
| 5        | 84-312   | Screw  | 2    | 35       | 75-467   | Washer                    | 3    |
| 6        |          |  |      | 36       | 84-574   | Screw                     | 2    |
| 7        | 84-566   | Screw  | 3    | 37       | 09-242   | Rubber guide              | 1    |
| 8        | 09-252   | Clamp  | 1    | 38       | 09-237   | Guide plate A             | 1    |
| 9        | 84-574   | Screw  | 2    | 39       | 09-277   | Guide plate B             | 1    |
| 10       | 09-248   | Slide guide plate D                                  | 1    | 40       | 84-564   | Screw                     | 2    |
| 11       | 84-862   | Screw  | 3    | 41       | 09-278   | Side plate                | 1    |
| 12       | 09-235   | Slide base   | 1    | 42       | 09-279   | Support guide             | 1    |
| 13       | 84-463   | Screw  | 2    | 43       | 84-368   | Screw                     | 2    |
| 14       | 09-261   | Rubber guide A                                       | 1    | 44       | 79-232   | Back spring               | 1    |
| 15       | 09-262   | Rubber guide B                                       | 1    | 45       | 09-294   | Rubber guide (4-10-10)    | 1    |
| 16       | 09-236   | Rubber support guide A                               | 1    | 46       | 09-295   | Rubber guide (4-13-13)    | 1    |
| 17       | 84-575   | Screw  | 1    | 47       | 09-296   | Rubber guide (4-15-15)    | 1    |
| 18       | 09-275   | Pin  | 1    | 48       | 09-297   | Rubber guide (4-10-10-10) | 1    |
| 19       | 09-276   | Clamp  | 1    | 49       | 84-361   | Screw                     | 1    |
| 20       | 84-312   | Screw  | 2    | 50       | 28-911   | Knee controller           | 1    |
| 21       | 09-243   | Slide shaft A  | 1    | 51       | 87-671   | Screw                     | 4    |
| 22       | 09-269   | Slide shaft B  | 1    | 52       | 28-912   | Knee controller bar       | 1    |
| 23       | 75-098   | Collar   | 2    | 53       | 28-913   | Knee controller bracket   | 1    |
| 24       | 09-244   | Guide shaft  | 1    | 54       | 28-919   | Bar                       | 1    |
| 25       | 75-097   | Collar   | 2    | 55       | 28-914   | Stopper arm               | 1    |
| 26       | 84-361   | Screw  | 4    | 56       | 28-915   | Stopper                   | 1    |
| 27       |          |  |      | 57       | 28-916   | Base                      | 2    |
| 28       | 09-245   | Slide stopper  | 1    | 58       | 28-917   | Stopper                   | 2    |
| 29       | 84-521   | Screw  | 2    | 59       | 28-920   | Chain                     | 1    |
| 30       | 09-246   | Lever bracket  | 1    |          |          |                           |      |
| 910-A    | 00-991   | Rubber guide base ass'y (1902U, 1903U, 1902-1U)      |      |          |          |                           |      |
|          | 00-992   | Rubber guide base ass'y (1902-2U 4mm-10mm-10mm)      |      |          |          |                           |      |
|          | 00-993   | Rubber guide base ass'y (1902-2U 4mm-13mm-13mm)      |      |          |          |                           |      |
|          | 00-994   | Rubber guide base ass'y (1902-2U 4mm-15mm-15mm)      |      |          |          |                           |      |
|          | 00-995   | Rubber guide base ass'y (1902-3U 4mm-10mm-10mm-10mm) |      |          |          |                           |      |
|          | 00-996   | Rubber guide base ass'y (1902U for wide elastic)     |      |          |          |                           |      |
| 910-B    | 28-900   | Knee controller ass'y                                |      |          |          |                           |      |

# 11. Gauge parts (1902U) (1902Uゲージ関係)

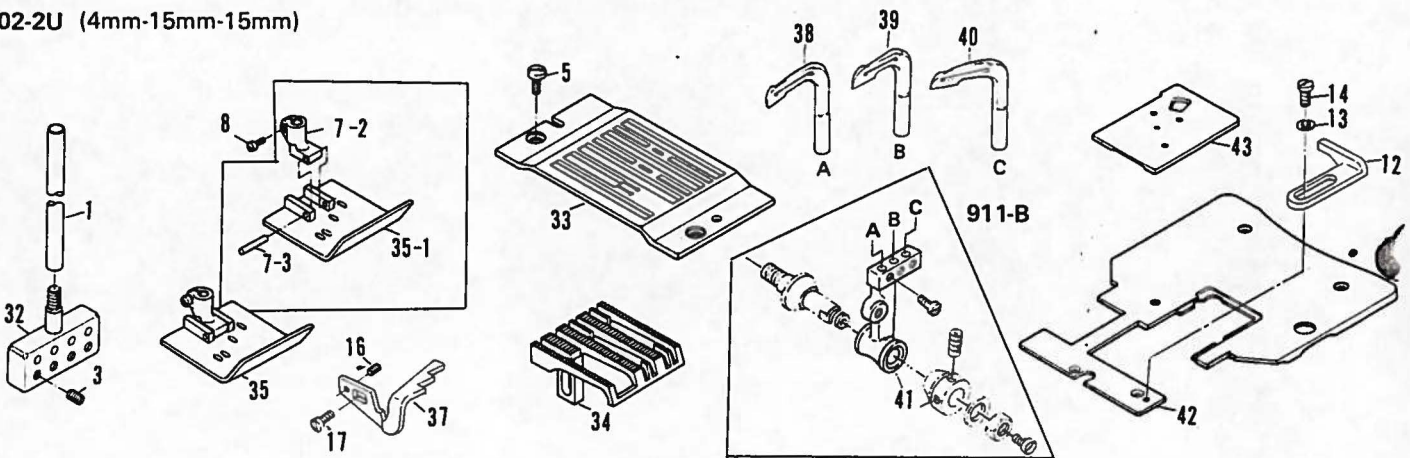
1902-2U (4mm-10mm-10mm)



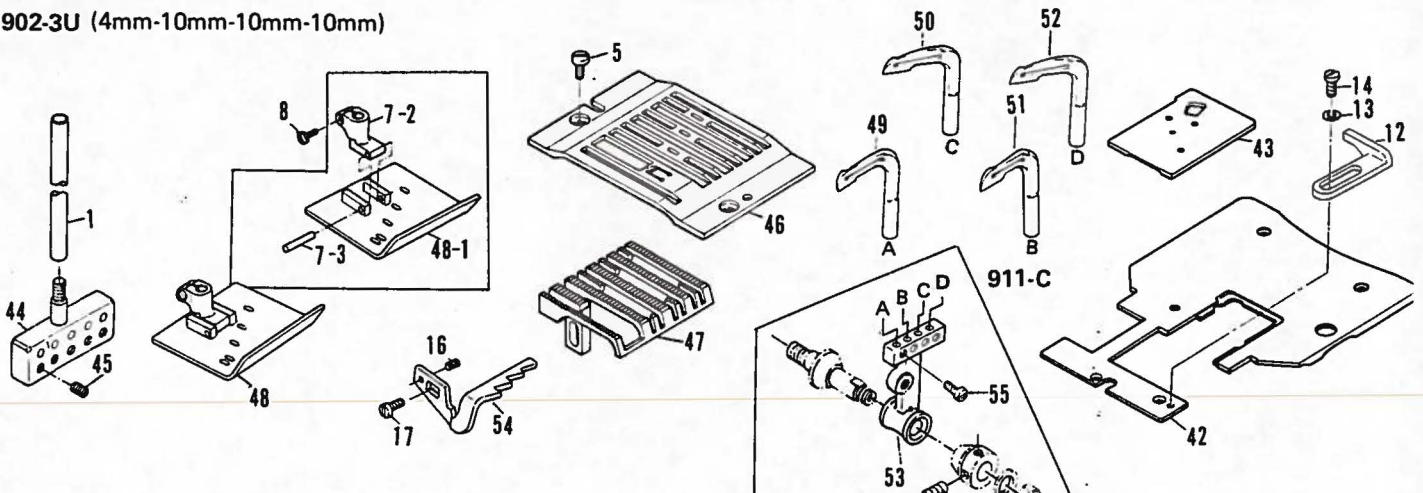
1902-2U (4mm-13mm-13mm)



1902-2U (4mm-15mm-15mm)



1902-3U (4mm-10mm-10mm-10mm)





| Ref. No. | Part No. | Part Name                                | Q'ty  | Ref. No. | Part No. | Part Name                      | Q'ty  |
|----------|----------|--|-------|----------|----------|--------------------------------|-------|
| 1        | 11-402   | Needle bar . . . . .                     | 1     | 28       |          |                                |       |
| 2        | 12-941   | Needle holder . . . . .                  | 1     | 29       |          |                                |       |
| 3        | 84-511   | Screw . . . . .                          | 4     | 30       | 21-594   | Upper cloth plate . . . . .    | 1     |
| 4        | 14-941   | Needle plate . . . . .                   | 1     | 31       | 21-608   | Slide plate . . . . .          | 1     |
| 5        | 84-575   | Screw . . . . .                          | 2     | 32       | 12-943   | Needle holder . . . . .        | 1     |
| 6        | 15-941   | Feed dog . . . . .                       | 1     | 33       | 14-943   | Needle plate . . . . .         | 1     |
| 7        | 17-941   | Presser foot . . . . .                   | 1set  | 34       | 15-943   | Feed dog . . . . .             | 1     |
| 7-1      |          | Presser foot, bottom . . . . .           | 1     | 35       | 17-943   | Presser foot . . . . .         | 1 set |
| 7-2      |          | Presser foot, shank . . . . .            | 1     | 35-1     |          | Presser foot, bottom . . . . . | 1     |
| 7-3      |          | Presser foot, pin . . . . .              | 1     | 36       |          |                                |       |
| 8        | 84-382   | Screw . . . . .                          | 1     | 37       | 18-943   | Needle guard. . . . .          | 1     |
| 9        | 19-941   | Looper, front . . . . .                  | 1     | 38       | 19-943   | Looper, front . . . . .        | 1     |
| 10       | 19-951   | Looper, center . . . . .                 | 1     | 39       | 19-952   | Looper, center . . . . .       | 1     |
| 11       | 19-961   | Looper, rear . . . . .                   | 1     | 40       | 19-963   | Looper, rear . . . . .         | 1     |
| 12       | 09-285   | Guide . . . . .                          | 1     | 41       | 19-295   | Looper holder . . . . .        | 1     |
| 13       | 75-455   | Washer . . . . .                         | 1     | 42       | 21-595   | Upper cloth plate . . . . .    | 1     |
| 14       | 84-361   | Screw . . . . .                          | 1     | 43       | 21-600   | Slide plate . . . . .          | 1     |
| 15       | 18-941   | Needle guard. . . . .                    | 1     | 44       | 12-951   | Needle holder . . . . .        | 1     |
| 16       | 84-113   | Screw . . . . .                          | 1     | 45       | 84-511   | Screw . . . . .                | 5     |
| 17       | 84-368   | Screw . . . . .                          | 1     | 46       | 14-951   | Needle plate . . . . .         | 1     |
| 18       | 12-942   | Needle holder . . . . .                  | 1     | 47       | 15-951   | Feed dog . . . . .             | 1     |
| 19       | 14-942   | Needle plate . . . . .                   | 1     | 48       | 17-951   | Presser foot . . . . .         | 1 set |
| 20       | 15-942   | Feed dog . . . . .                       | 1     | 48-1     |          | Presser foot, bottom . . . . . | 1     |
| 21       | 17-942   | Presser foot . . . . .                   | 1 set | 49       | 19-944   | Looper, front . . . . .        | 1     |
| 21-1     |          | Presser foot, bottom . . . . .           | 1     | 50       | 19-954   | Looper, center A . . . . .     | 1     |
| 22       | 19-942   | Looper, front . . . . .                  | 1     | 51       | 19-964   | Looper, center B . . . . .     | 1     |
| 23       | 19-952   | Looper, center . . . . .                 | 1     | 52       | 19-974   | Looper, rear . . . . .         | 1     |
| 24       | 19-962   | Looper, rear . . . . .                   | 1     | 53       | 19-296   | Looper, holder . . . . .       | 1     |
| 25       | 19-293   | Looper holder . . . . .                  | 1     | 54       | 18-951   | Needle guard . . . . .         | 1     |
| 26       |          |  |       | 55       | 84-616   | Screw . . . . .                | 4     |
| 27       | 18-942   | Needle guard. . . . .                    | 1     | 56       |          |                                |       |
| 911-A    | 10-993   | Looper holder ass'y (4mm-13mm-13mm)      |       |          |          |                                |       |
| 911-B    | 10-995   | Looper holder ass'y (4mm-15mm-15mm)      |       |          |          |                                |       |
| 911-C    | 10-996   | Looper holder ass'y (4mm-10mm-10mm-10mm) |       |          |          |                                |       |

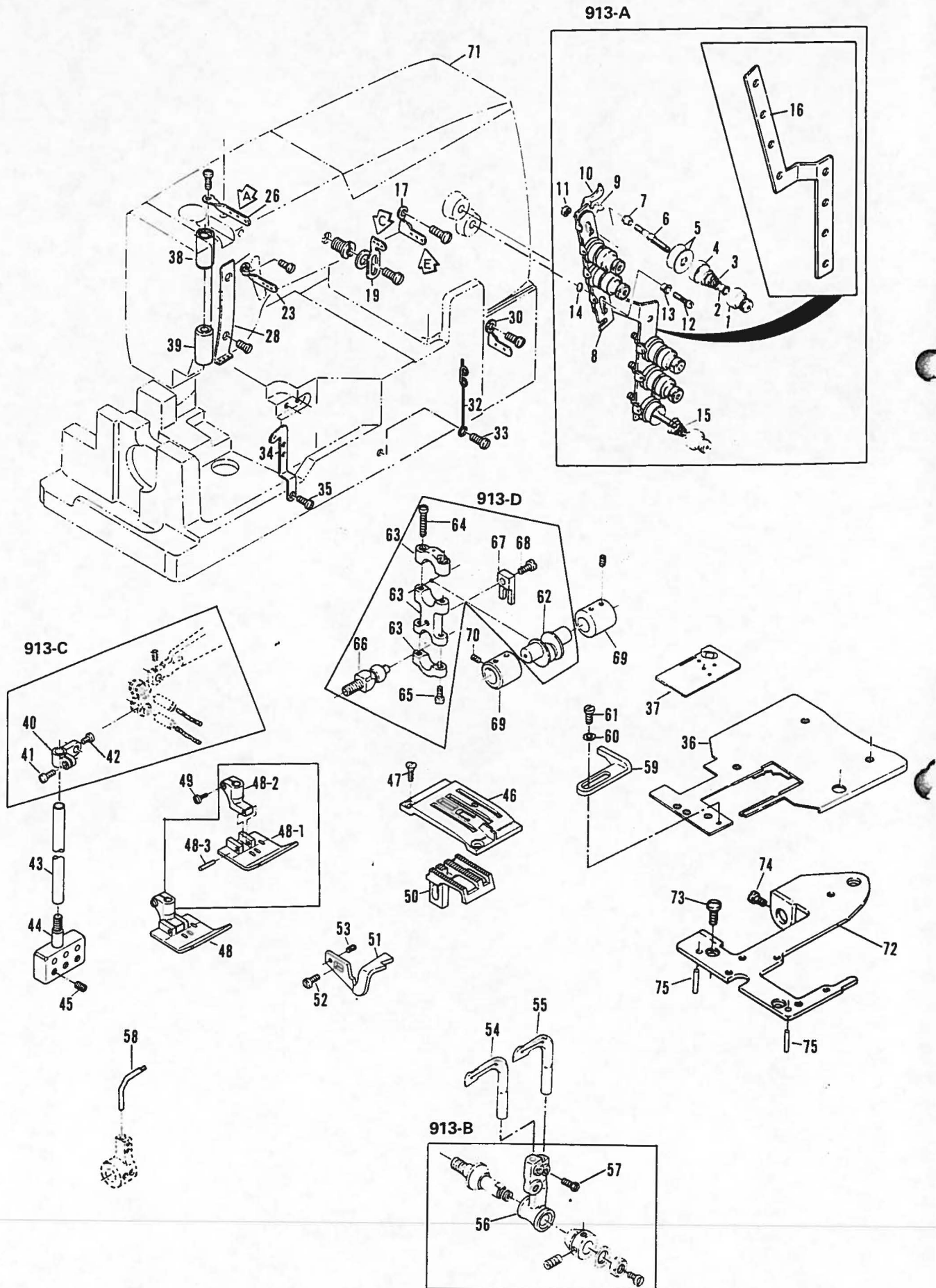
## 12. Gauge lists (ゲージ表)

| No. | Model<br>(機種)                   | Needle bar<br>(針棒) | Needle holder<br>(針株) | Needle plate<br>(針板) | Feed dog<br>(送り歯) | Presser foot<br>(押え) |
|-----|---------------------------------|--------------------|-----------------------|----------------------|-------------------|----------------------|
| 1   | 1902-2U<br>4-10-10mm            | 11-402             | 12-941                | 14-941               | 15-941            | 17-941               |
| 2   | 1902-2U<br>4-13-13mm            | 11-402             | 12-942                | 14-942               | 15-942            | 17-942               |
| 3   | 1902-2U<br>4-15-15mm            | 11-402             | 12-943                | 14-943               | 15-943            | 17-943               |
| 4   | 1902-3U<br>4-10-10-10mm         | 11-402             | 12-951                | 14-951               | 15-951            | 17-951               |
| 5   | 1902-1U                         | 11-704             | 12-931                | 14-931               | 15-931            | 17-931               |
| 6   | 1902U 3/16"<br>Feed dog: wide   | 11-724             | 12-702                | 14-923               | 15-974            | 17-913               |
| 7   | 1902U 7/32"<br>Feed dog: wide   | 11-725             | 12-702                | 14-924               | 15-974            | 17-914               |
| 8   | 1902U 1/4"<br>Feed dog: wide    | 11-726             | 12-702                | 14-925               | 15-974            | 17-915               |
| 9   | 1902U 3/16"<br>Feed dog: middle | 11-724             | 12-702                | 14-913               | 15-913            | 17-913               |
| 10  | 1902U 7/32"<br>Feed dog: middle | 11-725             | 12-702                | 14-914               | 15-913            | 17-914               |
| 11  | 1902U 1/4"<br>Feed dog: middle  | 11-726             | 12-702                | 14-915               | 15-913            | 17-915               |
| 12  | 1903U 7/32"<br>Feed dog: wide   | 11-735             | 12-702                | 14-974               | 15-974            | 17-924               |
| 13  | 1903U 1/4"<br>Feed dog: wide    | 11-736             | 12-702                | 14-975               | 15-974            | 17-925               |
| 14  | 1903U 7/32"<br>Feed dog: middle | 11-735             | 12-702                | 14-964               | 15-913            | 17-924               |
| 15  | 1903U 1/4"<br>Feed dog: middle  | 11-736             | 12-702                | 14-965               | 15-913            | 17-925               |
| 16  | 1902H 7/32"                     | 11-725             | 12-702                | 14-901               | 15-901            | 17-901               |
| 17  | 1902H 1/4"                      | 11-726             | 12-702                | 14-902               | 15-901            | 17-902               |
| 18  | 1903H 7/32"                     | 11-735             | 12-702                | 14-906               | 15-901            | 17-906               |
| 19  | 1903H 1/4"                      | 11-736             | 12-702                | 14-907               | 15-901            | 17-907               |



| No. | Looper (ルーバー) |               |             | Looper holder<br>(ルーバー台) | Needle guard<br>(針受け) | Upper cloth plate<br>(上ベースカバー) | Slide plate<br>(差板) | Throat plate support<br>(針板土台) |
|-----|---------------|---------------|-------------|--------------------------|-----------------------|--------------------------------|---------------------|--------------------------------|
|     | front<br>(前)  | center<br>(中) | rear<br>(後) |                          |                       |                                |                     |                                |
| 1   | 19-941        | 19-951        | 19-961      | 19-312                   | 18-941                | 21-593                         | 21-598              | 14-092                         |
| 2   | 19-942        | 19-952        | 19-962      | 19-293                   | 18-942                | 21-594                         | 21-608              | 14-092                         |
| 3   | 19-943        | 19-952        | 19-963      | 19-295                   | 18-943                | 21-595                         | 21-600              | 14-092                         |
| 4   | 19-954        | 19-954(A)     | 19-974      | 19-296                   | 18-951                | 21-595                         | 21-600              | 14-092                         |
|     |               | 19-964(B)     |             |                          |                       |                                |                     |                                |
| 5   | 19-911        |               | 19-916      | 19-314                   | 18-931                | 21-606                         | 21-607              | 14-091                         |
| 6   | 19-712        |               |             | 19-315                   | 18-702                | 21-592                         | 21-599              | 14-091                         |
| 7   | 19-712        |               |             | 19-315                   | 18-702                | 21-592                         | 21-599              | 14-091                         |
| 8   | 19-712        |               |             | 19-315                   | 18-702                | 21-592                         | 21-599              | 14-091                         |
| 9   | 19-712        |               |             | 19-315                   | 18-702                | 21-601                         | 21-597              | 14-091                         |
| 10  | 19-712        |               |             | 19-315*                  | 18-702                | 21-601                         | 21-597              | 14-091                         |
| 11  | 19-712        |               |             | 19-315                   | 18-702                | 21-601                         | 21-597              | 14-091                         |
| 12  | 19-712        |               |             | 19-315                   | 18-702                | 21-592                         | 21-599              | 14-091                         |
| 13  | 19-712        |               |             | 19-315                   | 18-702                | 21-592                         | 21-599              | 14-091                         |
| 14  | 19-712        |               |             | 19-315                   | 18-702                | 21-601                         | 21-597              | 14-091                         |
| 15  | 19-712        |               |             | 19-315                   | 18-702                | 21-601                         | 21-597              | 14-091                         |
| 16  | 19-712        |               |             | 19-315                   | 18-702                | 21-591                         | 21-597              | 14-093                         |
| 17  | 19-712        |               |             | 19-315                   | 18-702                | 21-591                         | 21-597              | 14-093                         |
| 18  | 19-712        |               |             | 19-315                   | 18-702                | 21-591                         | 21-597              | 14-093                         |
| 19  | 19-712        |               |             | 19-315                   | 18-702                | 21-591                         | 21-597              | 14-093                         |

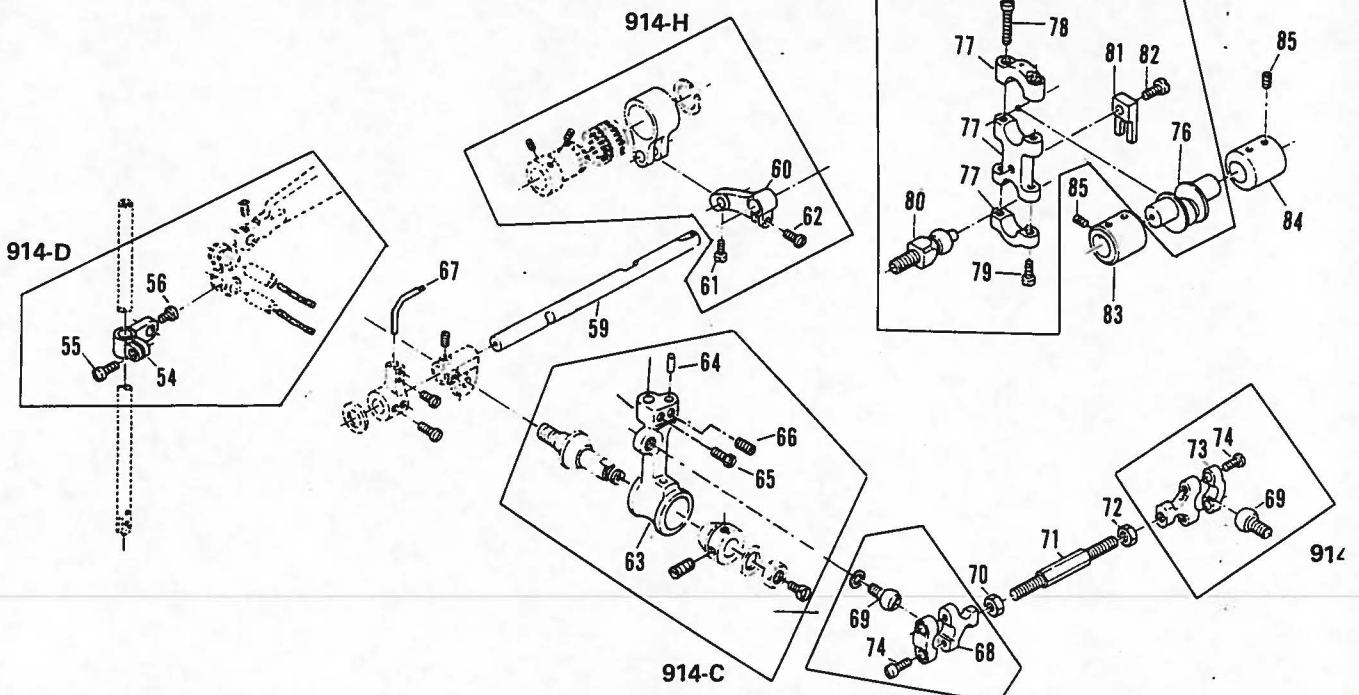
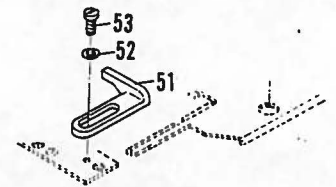
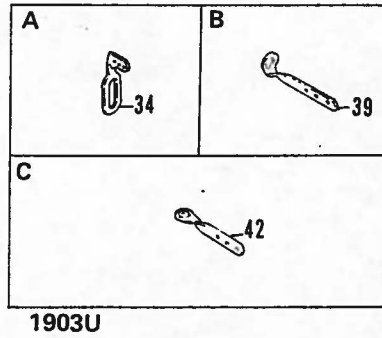
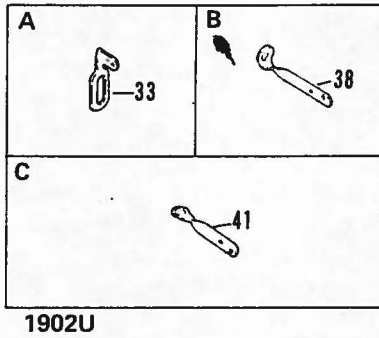
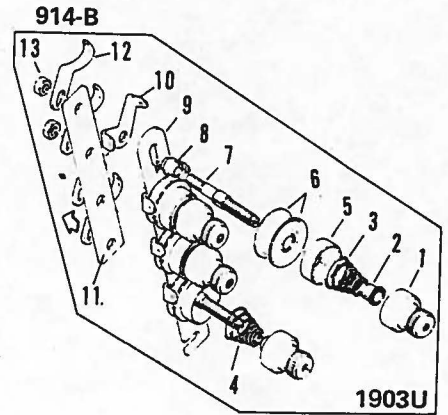
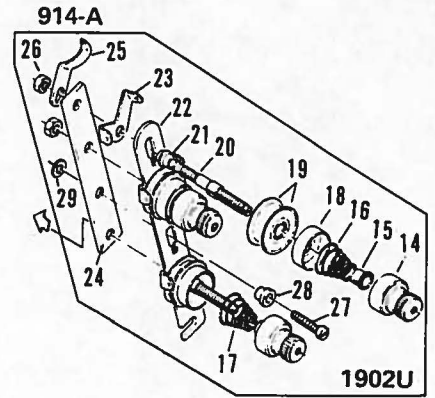
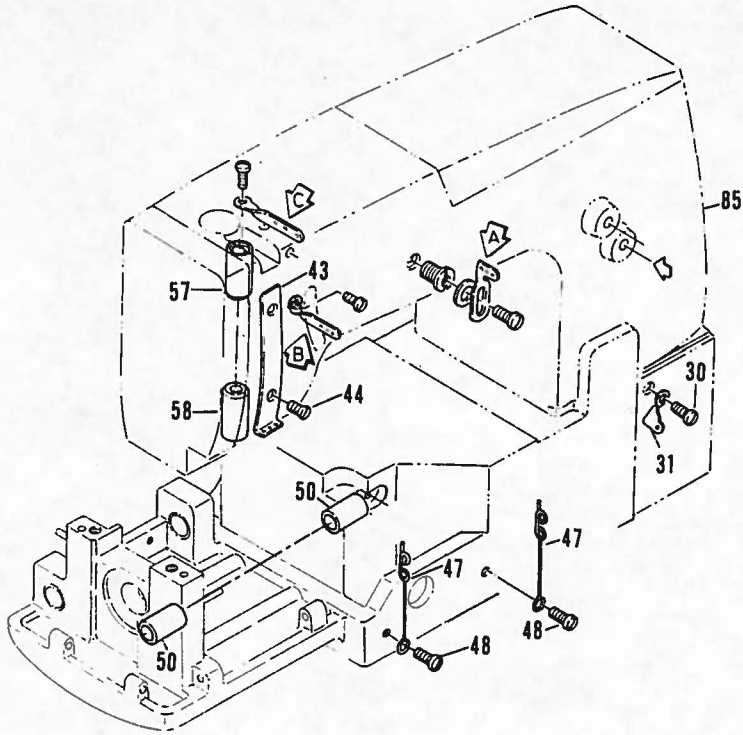
Subclass model (サブクラス機種)  
**13. 1902-1U**





| Ref. No. | Part No. | Part Name                       | Q'ty | Ref. No. | Part No. | Part Name                           | Q'ty  |
|----------|----------|---------------------------------|------|----------|----------|-------------------------------------|-------|
| 1        | 41-101   | Tension disc cover (small)      | 5    | 40       | 73-113   | Needle bar connection               | 1     |
| 2        | 41-105   | Tension disc ratchet            | 5    | 41       | 84-572   | Screw                               | 1     |
| 3        | 41-701   | Needle thread tension spring    | 3    | 42       | 84-365   | Screw                               | 1     |
| 4        | 41-107   | Tension disc (large)            | 5    | 43       | 11-704   | Needle bar                          | 1     |
| 5        | 41-111   | Tension disc                    | 10   | 44       | 12-931   | Needle holder                       | 1     |
| 6        | 41-172   | Tension post                    | 5    | 45       | 84-511   | Screw                               | 3     |
| 7        | 41-131   | Tension post collar A           | 5    | 46       | 14-931   | Needle plate                        | 1     |
| 8        | 41-113   | Tension support                 | 1    | 47       | 84-575   | Screw                               | 2     |
| 9        | 41-115   | Tension thread eyelet           | 5    | 48       | 17-931   | Presser foot                        | 1 set |
| 10       | 41-117   | Lead in thread eyelet           | 5    | 48-1     |          | Presser foot bottom                 | 1     |
| 11       | 86-411   | Nut                             | 4    | 48-2     |          | Presser foot shank                  | 1     |
| 12       | 84-764   | Screw                           | 1    | 48-3     |          | Pin                                 | 1     |
| 13       | 41-132   | Tension post collar B           | 1    | 49       | 84-382   | Screw                               | 1     |
| 14       | 75-381   | Washer                          | 1    | 50       | 15-931   | Feed dog                            | 1     |
| 15       | 41-702   | Looper thread spring            | 2    | 51       | 18-931   | Needle guard                        | 1     |
| 16       | 41-123   | Tension post holder, large      | 1    | 52       | 84-363   | Screw                               | 1     |
| 17       | 47-103   | Thread eyelet                   | 1    | 53       | 84-113   | Screw                               | 1     |
| 18       |          |                                 |      | 54       | 19-911   | Looper, front                       | 1     |
| 19       | 45-103   | Needle thread eyelet            | 1    | 55       | 19-916   | Looper, rear                        | 1     |
| 20       |          |                                 |      | 56       | 19-314   | Looper holder                       | 1     |
| 21       |          |                                 |      | 57       | 84-616   | Screw                               | 2     |
| 22       |          |                                 |      | 58       | 18-721   | Needle bar guide                    | 1     |
| 23       | 45-118   | Needle lever thread eyelet 3    | 1    | 59       | 09-285   | Guide                               | 1     |
| 24       |          |                                 |      | 60       | 75-455   | Washer                              | 1     |
| 25       |          |                                 |      | 61       | 84-361   | Screw                               | 1     |
| 26       | 45-132   | Needle bar thread eyelet 3      | 1    | 62       | 71-870   | Crank shaft C small                 | 1     |
| 27       |          |                                 |      | 63       | 63-512   | Looper driving lever ball joint     | 1     |
| 28       | 45-151   | Needle thread guide 3           | 1    | 64       | 84-568   | Screw                               | 2     |
| 29       |          |                                 |      | 65       | 84-567   | Screw                               | 2     |
| 30       | 47-103   | Thread eyelet                   | 1    | 66       | 61-713   | Looper driving lever connecting rod | 1     |
| 31       |          |                                 |      | 67       | 69-121   | Eccentric guide fork                | 1     |
| 32       | 47-202   | Looper thread guide eyelet      | 1    | 68       | 84-591   | Screw                               | 1     |
| 33       | 84-361   | Screw                           | 1    | 69       | 75-101   | Joint collar                        | 2     |
| 34       | 41-214   | Tension nipper holder           | 1    | 70       | 85-113   | Screw                               | 12    |
| 35       | 84-361   | Screw                           | 1    | 71       | 22-953   | Arm bed                             | 1     |
| 36       | 21-606   | Upper cloth plate               | 1    | 72       | 14-091   | Needle plate support                | 1     |
| 37       | 21-607   | Slide plate                     | 1    | 73       | 84-761   | Screw                               | 3     |
| 38       | 81-183   | Needle bar bushing (upper)      | 1    | 74       | 84-162   | Screw                               | 1     |
| 39       | 81-189   | Needle bar bushing (lower)      | 1    | 75       | 71-251   | Knock pin                           | 2     |
| 913-A    | 40-132   | Thread tension ass'y            |      |          |          |                                     |       |
| 913-B    | 10-914   | Looper holder ass'y             |      |          |          |                                     |       |
| 913-C    | 60-971   | Needle lever ass'y              |      |          |          |                                     |       |
| 913-D    | 60-375   | Looper driving ball joint ass'y |      |          |          |                                     |       |

Subclass models (サブクラス機種)  
**14. 1902U, 1903U** (1902U, 1903U)



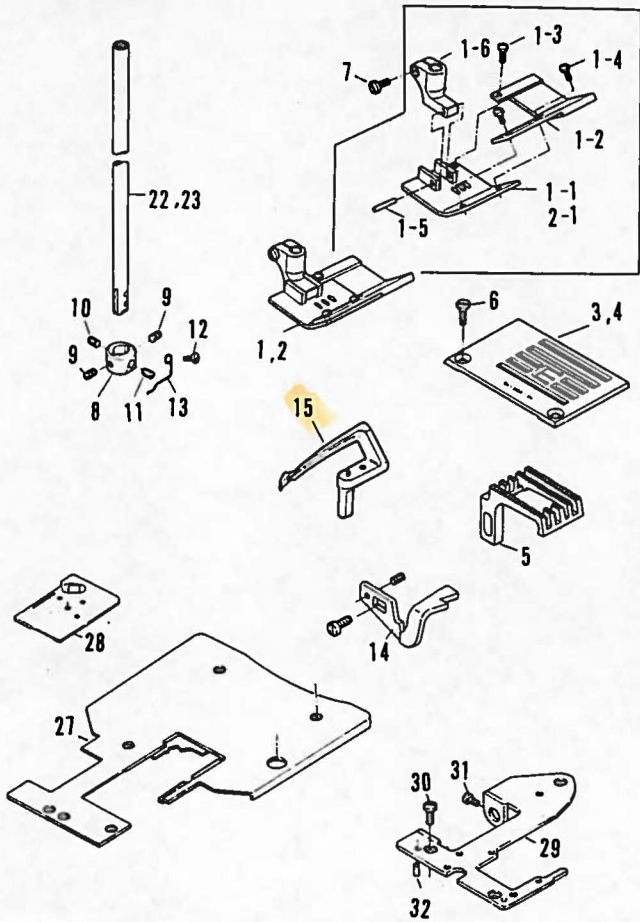


| Ref. No. | Part No. | Part Name                              | Q'ty | Ref. No. | Part No. | Part Name                                     | Q'ty |
|----------|----------|--|------|----------|----------|---|------|
| 1        | 41-101   | Tension regulating nut . . . . .       | 4    | 44       | 84-464   | Screw . . . . .                               | 2    |
| 2        | 41-105   | Tension disc ratchet . . . . .         | 4    | 45       |          |   |      |
| 3        | 41-701   | Needle thread tension spring . . . . . | 4    | 46       |          |   |      |
| 4        | 41-702   | Looper thread tension spring . . . . . | 1    | 47       | 47-202   | Looper thread guide eyelet B . . . . .        | 2    |
| 5        | 41-107   | Tension disc cover . . . . .           | 4    | 48       | 84-361   | Screw . . . . .                               | 2    |
| 6        | 41-111   | Tension disc cover . . . . .           | 8    | 49       |          |   |      |
| 7        | 41-172   | Tension post . . . . .                 | 4    | 50       | 81-736   | Looper rocker shaft bushing . . . . .         | 2    |
| 8        | 41-131   | Tension post collar A . . . . .        | 8    | 51       | 09-284   | Guide . . . . .                               | 1    |
| 9        | 41-113   | Tension post support . . . . .         | 1    | 52       | 75-455   | Washer . . . . .                              | 1    |
| 10       | 41-115   | Tension post . . . . .                 | 4    | 53       | 84-361   | Screw . . . . .                               | 1    |
| 11       | 41-121   | Tension post holder . . . . .          | 1    | 54       | 73-113   | Needle bar connection . . . . .               | 1    |
| 12       | 41-117   | Lead thread eyelet . . . . .           | 4    | 55       | 84-572   | Screw . . . . .                               | 1    |
| 13       | 86-411   | Nut . . . . .                          | 2    | 56       | 84-365   | Screw . . . . .                               | 1    |
| 14       | 41-101   | Tension regulating nut . . . . .       | 3    | 57       | 81-183   | Needle bar bushing (upper) . . . . .          | 1    |
| 15       | 41-105   | Tension disc ratchet . . . . .         | 3    | 58       | 81-184   | Needle bar bushing (lower) . . . . .          | 1    |
| 16       | 41-701   | Needle thread tension spring . . . . . | 2    | 59       | 71-561   | Looper holder shaft . . . . .                 | 1    |
| 17       | 41-702   | Looper thread tension . . . . .        | 1    | 60       | 67-132   | Looper avoid lever . . . . .                  | 1    |
| 18       | 41-107   | Tension disc cover . . . . .           | 3    | 61       | 84-366   | Screw . . . . .                               | 1    |
| 19       | 41-111   | Tension disc cover . . . . .           | 6    | 62       | 84-612   | Screw . . . . .                               | 1    |
| 20       | 41-172   | Tension post . . . . .                 | 1    | 63       | 19-315   | Looper holder C . . . . .                     | 1    |
| 21       | 41-131   | Tension post collar A . . . . .        | 3    | 64       | 71-216   | Adjust pin . . . . .                          | 1    |
| 22       | 41-113   | Tension post support . . . . .         | 1    | 65       | 84-616   | Screw . . . . .                               | 1    |
| 23       | 41-115   | Tension post . . . . .                 | 3    | 66       | 84-161   | Screw . . . . .                               | 1    |
| 24       | 41-121   | Tension post holder . . . . .          | 1    | 67       | 18-721   | Needle bar guide . . . . .                    | 1    |
| 25       | 41-117   | Lead thread eyelet . . . . .           | 3    | 68       | 63-812   | Connecting rod . . . . .                      | 1    |
| 26       | 86-411   | Nut . . . . .                          | 2    | 69       | 61-823   | Connecting ball . . . . .                     | 2    |
| 27       | 84-764   | Screw . . . . .                        | 1    | 70       | 86-412   | Nut (left) . . . . .                          | 1    |
| 28       | 41-132   | Tension post collar B . . . . .        | 1    | 71       | 65-435   | Connecting bar . . . . .                      | 1    |
| 29       | 75-381   | Washer . . . . .                       | 1    | 72       | 86-411   | Nut . . . . .                                 | 1    |
| 30       | 84-374   | Screw . . . . .                        | 1    | 73       | 63-811   | Connecting rod . . . . .                      | 1    |
| 31       | 41-416   | Needle thread eyelet . . . . .         | 1    | 74       | 84-572   | Screw . . . . .                               | 4    |
| 32       |          |  |      | 75       |          |   |      |
| 33       | 45-101   | Needle thread eyelet 2 . . . . .       | 1    | 76       | 71-870   | Crank shaft C small . . . . .                 | 1    |
| 34       | 45-102   | Needle thread eyelet 3 . . . . .       | 1    | 77       | 63-512   | Looper driving lever ball joint . . . . .     | 1    |
| 35       |          |  |      | 78       | 84-568   | Screw . . . . .                               | 2    |
| 36       |          |  |      | 79       | 84-567   | Screw . . . . .                               | 2    |
| 37       |          |  |      | 80       | 61-713   | Looper driving lever connecting rod . . . . . | 1    |
| 38       | 45-121   | Needle lever thread eyelet 2 . . . . . | 1    | 81       | 69-121   | Eccentric guide fork . . . . .                | 1    |
| 39       | 45-122   | Needle lever thread eyelet 3 . . . . . | 1    | 82       | 84-591   | Screw . . . . .                               | 1    |
| 40       |          |  |      | 83       | 75-101   | Joint collar . . . . .                        | 2    |
| 41       | 45-131   | Needle bar thread eyelet 2 . . . . .   | 1    | 84       | 85-113   | Screw . . . . .                               | 12   |
| 42       | 45-132   | Needle bar thread eyelet 3 . . . . .   | 1    | 85       | 22-953   | Arm bed . . . . .                             | 1    |
| 43       | 45-151   | Needle thread guide 3 . . . . .        | 1    |          |          |   |      |
| 914-A    | 40-121   | Thread tension ass'y                   |      |          |          |   |      |
| 914-B    | 40-131   | Thread tension ass'y                   |      |          |          |   |      |
| 914-C    | 10-915   | Looper holder E ass'y                  |      |          |          |   |      |
| 914-D    | 60-971   | Needle lever ass'y                     |      |          |          |   |      |
| 914-E    | 60-382   | Looper connecting link ass'y           |      |          |          |   |      |
| 914-F    | 60-381   | Looper connecting link right ass'y     |      |          |          |   |      |
| 914-G    | 60-375   | Looper driving ball joint ass'y        |      |          |          |   |      |
| 914-H    | 60-780   | Looper avoid eccentric link ass'y      |      |          |          |   |      |

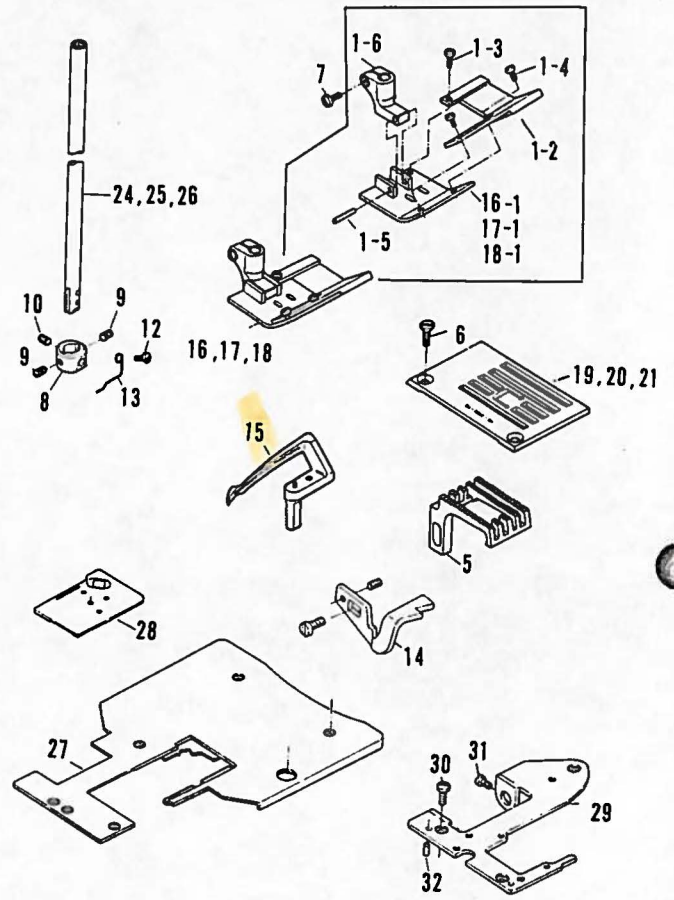
Subclass model (サブクラス機種)

# 15. 1902U, 1903U gauge (1902U, 1903Uゲージ)

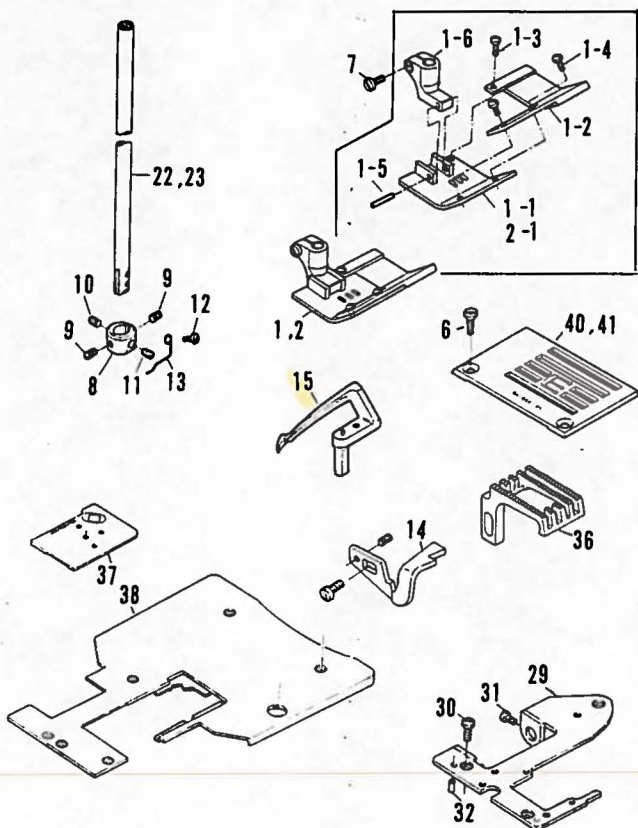
1903U (For wide gauge)



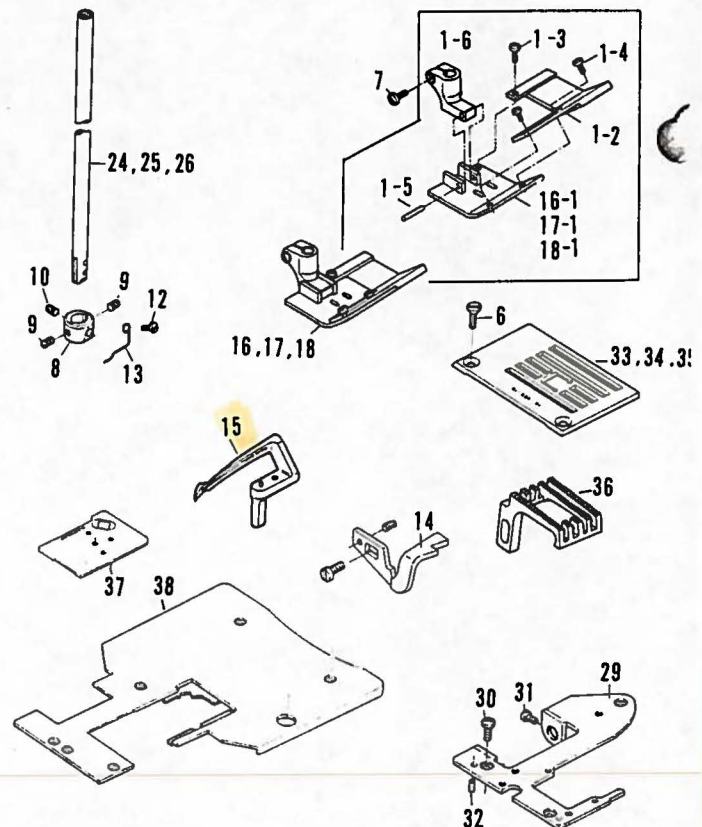
1902U (For wide gauge)



1903U (For narrow gauge)



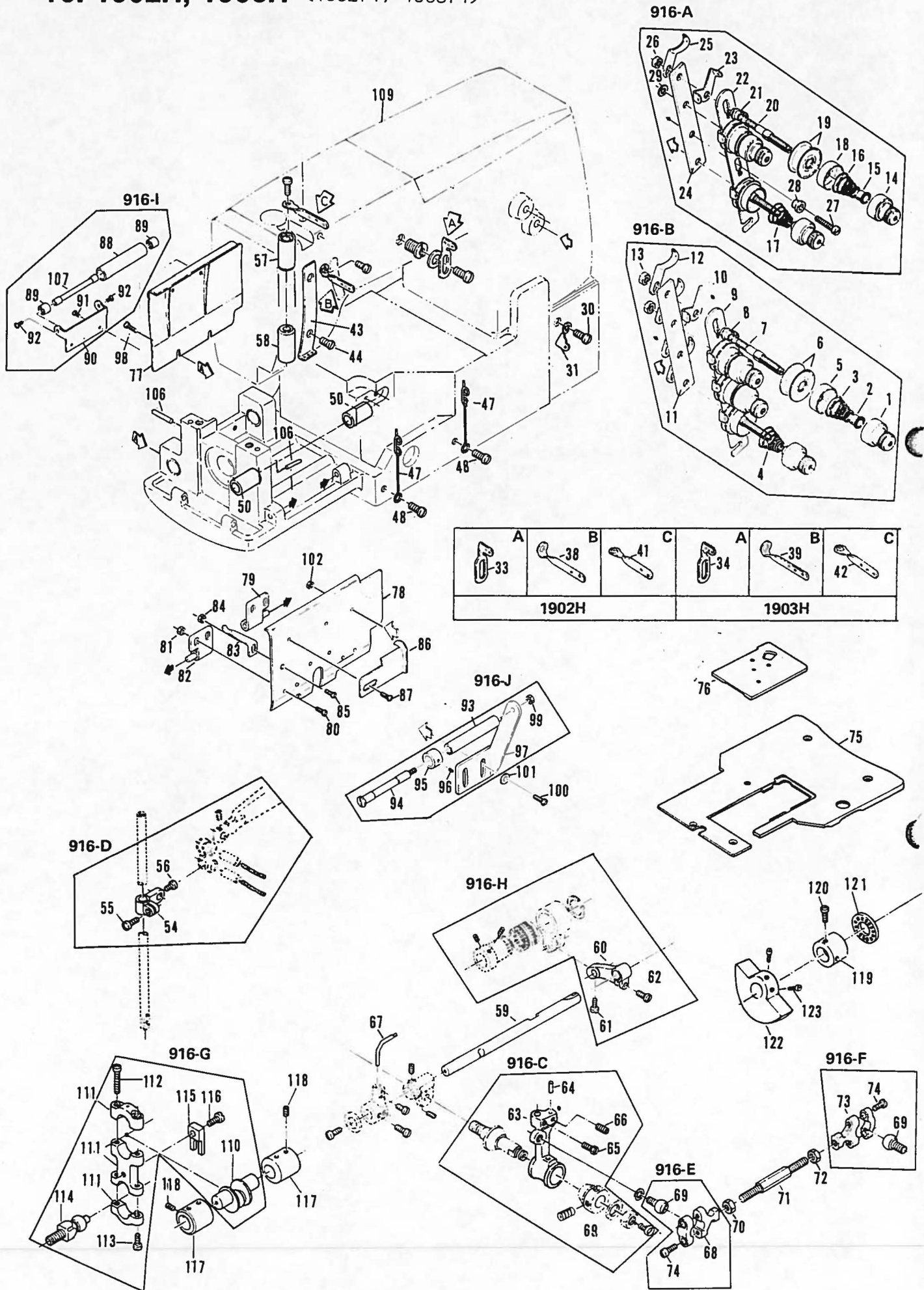
1902U (For narrow gauge)





| Ref. No. | Part No. | Part Name                 | Q'ty  | Ref. No. | Part No. | Part Name            | Q'ty  |
|----------|----------|---------------------------|-------|----------|----------|----------------------|-------|
| 1        | 17-924   | Presser foot 7/32"        | 1 set | 18       | 17-915   | Presser foot 1/4"    | 1 set |
| 1-1      |          | Presser foot bottom 7/32" | 1     | 18-1     |          | Presser foot bottom  | 1     |
| 1-2      |          | Yielding section          | 1     | 19       | 14-923   | Needle plate 3/16"   | 1     |
| 1-3      |          | Screw                     | 1     | 20       | 14-924   | Needle plate 7/32"   | 1     |
| 1-4      |          | Screw                     | 2     | 21       | 14-925   | Needle plate 1/4"    | 1     |
| 1-5      |          | Pin                       | 1     | 22       | 11-735   | Needle bar 7/32"     | 1     |
| 1-6      |          | Presser foot shank        | 1     | 23       | 11-736   | Needle bar 1/4"      | 1     |
| 2        | 17-925   | Presser foot 1/4"         | 1     | 24       | 11-724   | Needle bar 3/16"     | 1     |
| 2-1      |          | Presser foot bottom 1/4"  | 1     | 25       | 11-725   | Needle bar 7/32"     | 1     |
| 3        | 14-974   | Needle plate 7/32"        | 1     | 26       | 11-726   | Needle bar 1/4"      | 1     |
| 4        | 14-975   | Needle plate 1/4"         | 1     | 27       | 21-592   | Upper cloth plate    | 1     |
| 5        | 15-974   | Feed dog                  | 1     | 28       | 21-599   | Slide plate          | 1     |
| 6        | 84-464   | Screw                     | 2     | 29       | 14-091   | Needle plate support | 1     |
| 7        | 84-382   | Screw                     | 1     | 30       | 84-761   | Screw                | 3     |
| 8        | 12-702   | Needle clamp              | 1     | 31       | 84-162   | Screw                | 1     |
| 9        | 84-511   | Screw                     | 2     | 32       | 71-251   | Knock pin            | 2     |
| 10       | 84-513   | Screw                     | 1     | 33       | 14-913   | Needle plate 3/16"   | 1     |
| 11       | 84-168   | Screw                     | 1     | 34       | 14-914   | Needle plate 7/32"   | 1     |
| 12       | 84-464   | Screw                     | 1     | 35       | 14-915   | Needle plate 1/4"    | 1     |
| 13       | 45-232   | Needle thread guide       | 1     | 36       | 15-913   | Feed dog             | 1     |
| 14       | 18-702   | Needle guard              | 1     | 37       | 21-597   | Slide plate          | 1     |
| 15       | 19-712   | Looper                    | 1     | 38       | 21-601   | Upper cloth plate    | 1     |
| 16       | 17-913   | Presser foot 3/16"        | 1 set | 39       |          |                      |       |
| 16-1     |          | Presser foot bottom 3/16" | 1     | 40       | 14-964   | Needle plate 7/32"   | 1     |
| 17       | 17-914   | Presser foot 7/32"        | 1 set | 41       | 14-965   | Needle plate 1/4"    | 1     |
| 17-1     |          | Presser foot bottom 7/32" | 1     |          |          |                      |       |

Subclass models (サブクラス機種)  
**16. 1902H, 1903H** (1902H, 1903H)

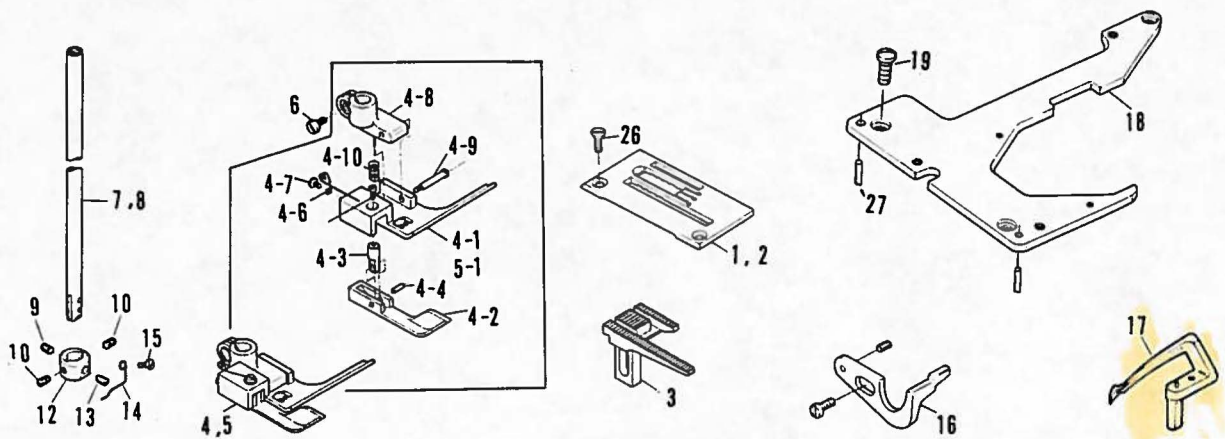




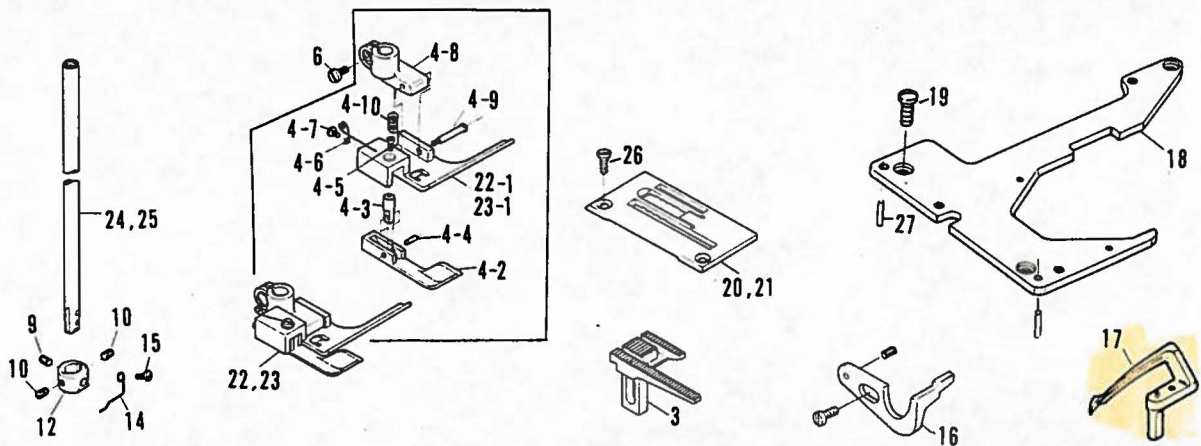
| Ref. No. | Part No. | Part Name                          | Q'ty | Ref. No. | Part No. | Part Name                           | Q'ty |
|----------|----------|------------------------------------|------|----------|----------|-------------------------------------|------|
| 1        | 41-101   | Tension regulating nut             | 4    | 60       | 67-132   | Looper avoid lever                  | 1    |
| 2        | 41-105   | Tension disc ratchet               | 4    | 61       | 84-366   | Screw                               | 1    |
| 3        | 41-701   | Needle thread tension spring       | 4    | 62       | 84-612   | Screw                               | 1    |
| 4        | 41-702   | Looper thread tension spring       | 1    | 63       | 19-315   | Looper holder C                     | 1    |
| 5        | 41-107   | Tension disc cover                 | 4    | 64       | 71-216   | Adjust pin                          | 1    |
| 6        | 41-111   | Tension disc cover                 | 8    | 65       | 84-616   | Screw                               | 1    |
| 7        | 41-172   | Tension post                       | 4    | 66       | 84-161   | Screw                               | 1    |
| 8        | 41-131   | Tension post collar A              | 8    | 67       | 18-721   | Needle bar guide                    | 1    |
| 9        | 41-113   | Tension post support               | 1    | 68       | 63-821   | Connecting rod                      | 1    |
| 10       | 41-115   | Tension post                       | 4    | 69       | 61-823   | Connecting ball                     | 2    |
| 11       | 41-121   | Tension holder                     | 1    | 70       | 86-412   | Nut (left)                          | 1    |
| 12       | 41-117   | Lead thread eyelet                 | 4    | 71       | 65-435   | Connecting bar                      | 1    |
| 13       | 86-411   | Nut                                | 2    | 72       | 86-411   | Nut                                 | 1    |
| 14       | 41-101   | Tension regulating nut             | 3    | 73       | 63-811   | Connecting rod                      | 1    |
| 15       | 41-105   | Tension disc ratchet               | 3    | 74       | 84-572   | Screw                               | 4    |
| 16       | 41-701   | Needle thread tension spring       | 2    | 75       | 21-591   | Upper cloth plate                   | 1    |
| 17       | 41-702   | Looper thread tension spring       | 1    | 76       | 21-597   | Slide plate                         | 1    |
| 18       | 41-107   | Tension disc cover                 | 3    | 77       | 21-323   | Rear cover H                        | 1    |
| 19       | 41-111   | Tension disc                       | 6    | 78       | 21-321   | Front cover H                       | 1    |
| 20       | 41-172   | Tension post                       | 1    | 79       | 25-101   | Hinge                               | 1    |
| 21       | 41-131   | Tension post collar A              | 3    | 80       | 84-664   | Screw                               | 4    |
| 22       | 41-113   | Tension post support               | 1    | 81       | 86-312   | Nut                                 | 4    |
| 23       | 41-115   | Tension post                       | 3    | 82       | 25-102   | Hinge                               | 1    |
| 24       | 41-121   | Tension holder                     | 1    | 83       | 79-503   | Spring                              | 1    |
| 25       | 41-117   | Lead thread eyelet                 | 3    | 84       | 86-312   | Nut                                 | 1    |
| 26       | 86-411   | Nut                                | 2    | 85       | 84-664   | Screw                               | 1    |
| 27       | 84-764   | Screw                              | 1    | 86       | 09-281   | Guide                               | 1    |
| 28       | 41-132   | Tension post collar B              | 1    | 87       | 84-370   | Screw                               | 1    |
| 29       | 75-381   | Washer                             | 1    | 88       | 09-123   | Roller                              | 1    |
| 30       | 84-374   | Screw                              | 1    | 89       | 91-111   | Bearing                             | 2    |
| 31       | 41-416   | Needle thread eyelet               | 1    | 90       | 09-118   | Roller bracket                      | 1    |
| 32       |          |                                    |      | 91       | 84-361   | Screw                               | 2    |
| 33       | 45-101   | Needle thread eyelet 2             | 1    | 92       | 84-362   | Screw                               | 2    |
| 34       | 45-102   | Needle thread eyelet 3             | 1    | 93       | 09-134   | Roller                              | 2    |
| 35       |          |                                    |      | 94       | 71-994   | Shaft                               | 2    |
| 36       |          |                                    |      | 95       | 75-091   | Collar                              | 2    |
| 37       |          |                                    |      | 96       | 84-511   | Screw                               | 2    |
| 38       | 45-121   | Needle lever thread eyelet 2       | 1    | 97       | 09-201   | Roller bracket                      | 1    |
| 39       | 45-122   | Needle lever thread eyelet 3       | 1    | 98       | 84-564   | Screw                               | 2    |
| 40       |          |                                    |      | 99       | 86-541   | Nut                                 | 1    |
| 41       | 45-131   | Needle bar thread eyelet 2         | 1    | 100      | 84-763   | Screw                               | 2    |
| 42       | 45-132   | Needle bar thread eyelet 3         | 1    | 101      | 75-453   | Washer                              | 2    |
| 43       | 45-151   | Needle thread guide 3              | 1    | 102      | 86-411   | Nut                                 | 2    |
| 44       | 84-464   | Screw                              | 2    | 103      |          |                                     |      |
| 45       |          |                                    |      | 104      |          |                                     |      |
| 46       |          |                                    |      | 105      |          |                                     |      |
| 47       | 47-202   | Looper thread guide eyelet B       | 2    | 106      | 71-301   | Pin                                 | 2    |
| 48       | 84-361   | Screw                              | 2    | 107      | 71-997   | Shaft                               | 1    |
| 49       |          |                                    |      | 108      |          |                                     |      |
| 50       | 81-736   | Looper rocker shaft bushing        | 2    | 109      | 22-952   | Arm bed                             | 1    |
| 51       |          |                                    |      | 110      | 71-870   | Crank shaft C small                 | 1    |
| 52       |          |                                    |      | 111      | 63-512   | Looper driving lever ball joint     | 1    |
| 53       |          |                                    |      | 112      | 84-568   | Screw                               | 2    |
| 54       | 73-113   | Needle bar connection              | 1    | 113      | 84-567   | Screw                               | 2    |
| 55       | 84-572   | Screw                              | 1    | 114      | 61-713   | Looper driving lever connecting rod | 1    |
| 56       | 84-365   | Screw                              | 1    | 115      | 69-121   | Eccentric guide fork                | 1    |
| 57       | 81-863   | Needle bar bushing (upper)         | 1    | 116      | 84-591   | Screw                               | 1    |
| 58       | 81-184   | Needle bar bushing (lower)         | 1    | 117      | 75-101   | Joint collar                        | 2    |
| 59       | 71-561   | Looper holder shaft                | 1    | 118      | 85-113   | Screw                               | 12   |
|          |          |                                    |      | 119      | 75-113   | Crank shaft collar                  | 1    |
| 916-A    | 40-121   | Thread tension ass'y               |      | 120      | 84-563   | Screw                               | 2    |
| 916-B    | 40-131   | Thread tension ass'y               |      | 121      | 92-231   | Bearing                             | 1    |
| 916-C    | 10-915   | Looper holder E ass'y              |      | 122      | 69-141   | Balance wheel                       | 1    |
| 916-D    | 60-971   | Needle lever ass'y                 |      | 123      | 84-761   | Screw                               | 2    |
| 916-E    | 60-382   | Looper connecting link ass'y       |      |          |          |                                     |      |
| 916-F    | 60-381   | Looper connecting link right ass'y |      |          |          |                                     |      |
| 916-G    | 60-375   | Looper driving ball joint ass'y    |      |          |          |                                     |      |
| 916-H    | 60-780   | Looper avoid eccentric link ass'y  |      |          |          |                                     |      |
| 916-I    | 00-917   | Guide roller rear ass'y            |      |          |          |                                     |      |
| 916-J    | 00-916   | Guide roller front ass'y           |      |          |          |                                     |      |

Subclass model (サブクラス機種)  
**17. H-type gauge (Hタイプ・ゲージ)**

1903H



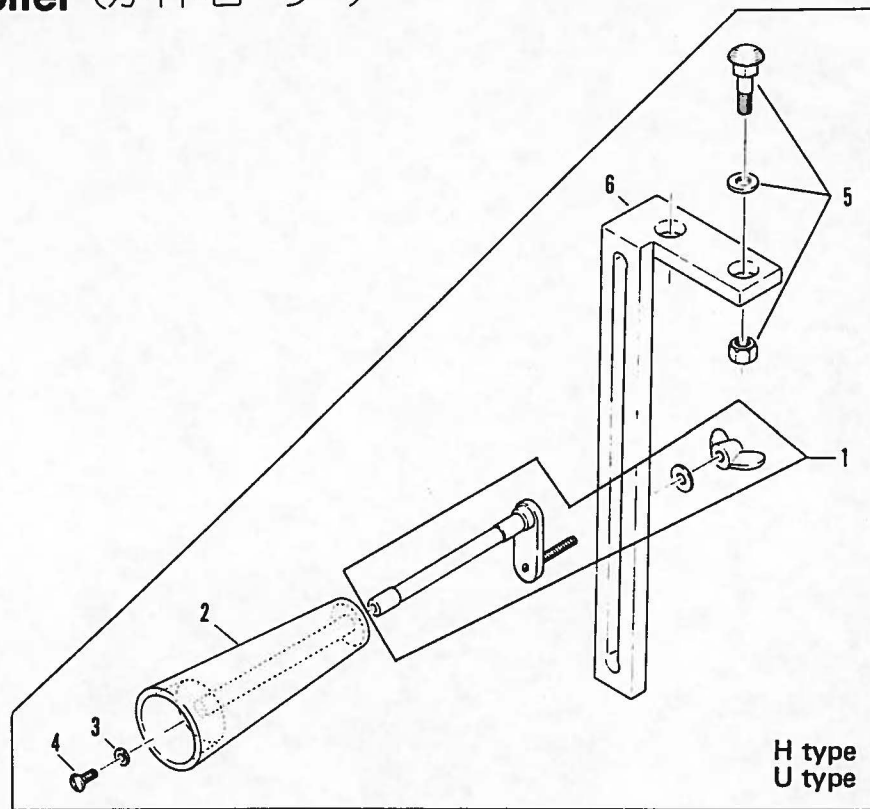
1902H



| Ref. No. | Part No. | Part Name            | Q'ty   | Ref. No. | Part No. | Part Name            | Q'ty   |
|----------|----------|----------------------|--------|----------|----------|----------------------|--------|
| 1        | 14-906   | Needle plate 7/32"   | 1      | 10       | 84-511   | Screw                | 2      |
| 2        | 14-907   | Needle plate 1/4"    | 1      | 11       |          |                      |        |
| 3        | 15-901   | Feed dog             | 1      | 12       | 12-702   | Needle clamp         | 1      |
| 4        | 17-906   | Presser foot 7/32"   | .1 set | 13       | 84-168   | Screw                | 1      |
| 4-1      |          | Presser foot, bottom | 1      | 14       | 45-232   | Needle thread guide  | 1      |
| 4-2      |          | Yielding section     | 1      | 15       | 84-513   | Screw                | 1      |
| 4-3      |          | Yielding section pin | 1      | 16       | 18-702   | Needle guard         | 1      |
| 4-4      |          | Hinge pin            | 1      | 17       | 19-712   | Looper               | 1      |
| 4-5      | 85-621   | Screw                | 1      | 18       | 14-052   | Throat plate support | 1      |
| 4-6      |          | Spring               | 1      | 19       | 84-761   | Screw                | 3      |
| 4-7      | 84-161   | Screw                | 1      | 20       | 14-901   | Needle plate 7/32"   | 1      |
| 4-8      |          | Presser foot, shank  | 1      | 21       | 14-902   | Needle plate 1/4"    | .1 set |
| 4-9      |          | Hinge screw          | 1      | 22       | 17-901   | Presser foot 7/32"   | 1      |
| 4-10     |          | Spring               | 1      | 22-1     |          | Presser foot, bottom | 1      |
| 5        | 17-907   | Presser foot 1/4"    | .1 set | 23       | 17-902   | Presser foot, bottom | .1 set |
| 5-1      |          | Presser foot, bottom | 1      | 23-1     |          | Presser foot, bottom | 1      |
| 6        | 84-382   | Screw                | 1      | 24       | 11-725   | Needle bar 7/32"     | 1      |
| 7        | 11-735   | Needle bar 7/32"     | 1      | 25       | 11-726   | Needle bar 1/4"      | 1      |
| 8        | 11-736   | Needle bar 1/4"      | 1      | 26       | 84-464   | Screw                | 2      |
| 9        | 84-513   | Screw                | 1      | 27       | 71-251   | Knock pin            | 2      |

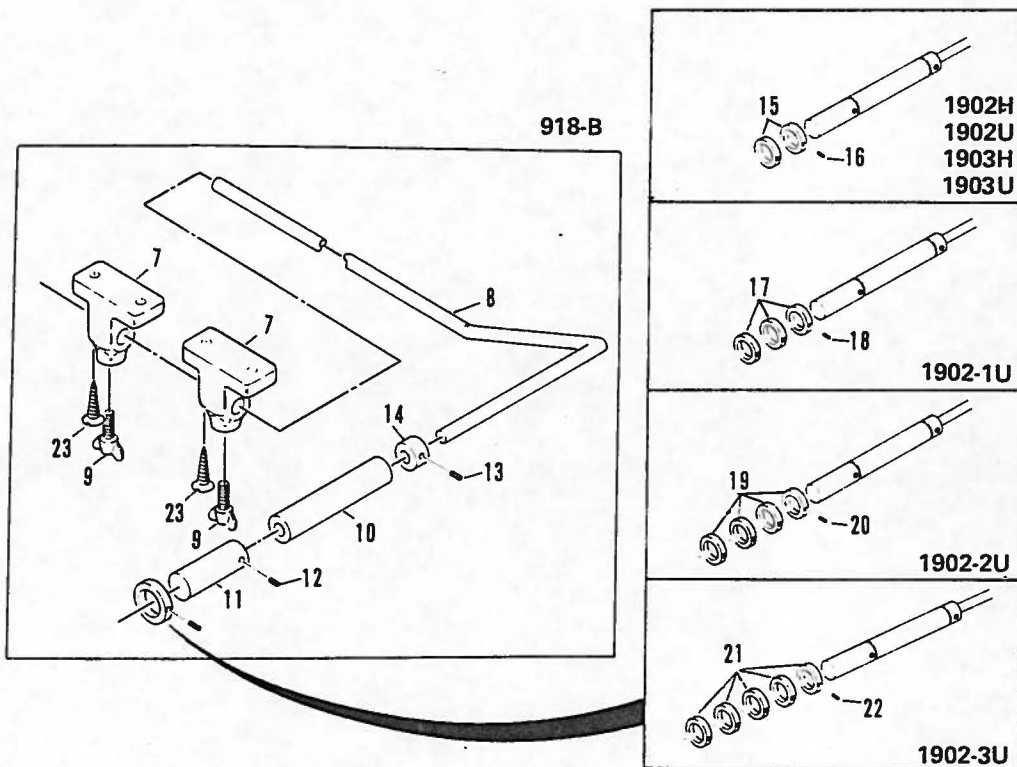


# 18. Guide roller (ガイドローラー)



918-A

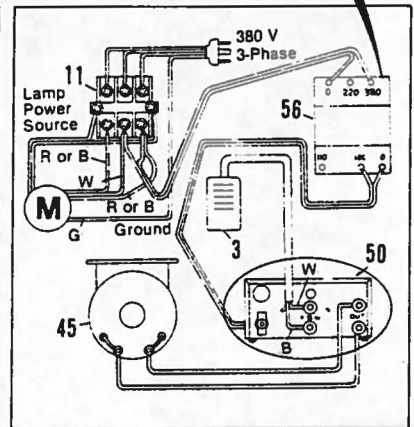
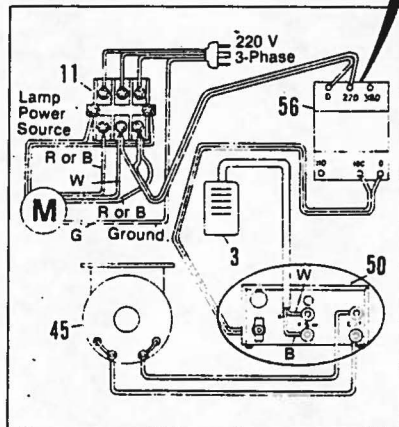
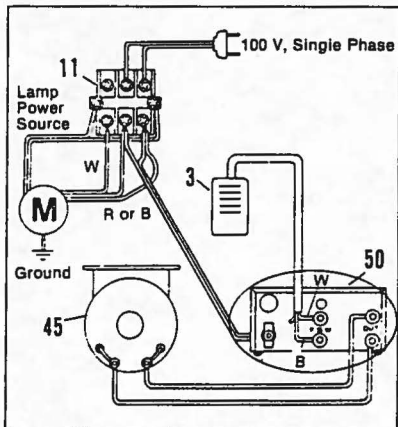
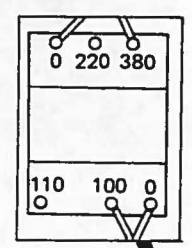
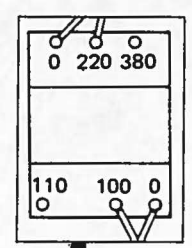
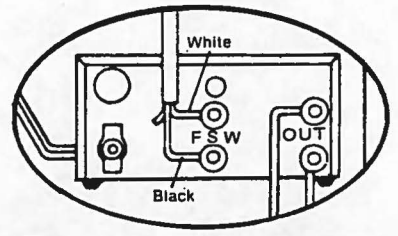
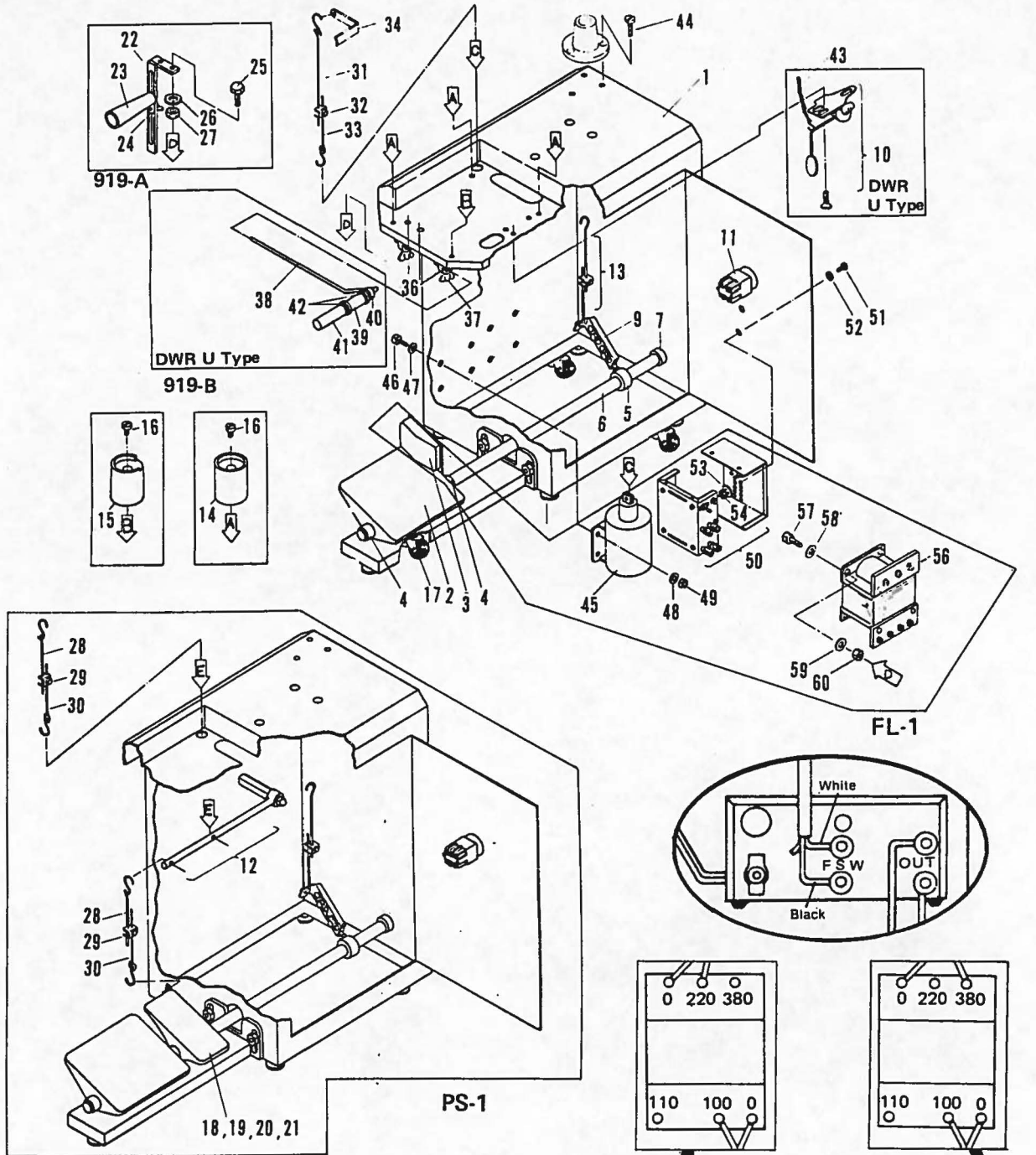
H type  
U type



918-B

| Ref. No. | Part No. | Part Name                      | Q'ty  | Ref. No. | Part No. | Part Name                     | Q'ty |
|----------|----------|--------------------------------|-------|----------|----------|-------------------------------|------|
| 1        | 09-182   | Roller bearing . . . . .       | 1 set | 12       | 84-521   | Screw . . . . .               | 1    |
| 2        | 09-181   | Roller . . . . .               | 1     | 13       | 84-521   | Screw . . . . .               | 1    |
| 3        | 75-366   | Space washer (large) . . . . . | 1     | 14       | 09-145   | End collar (small) . . . . .  | 1    |
| 4        | 84-812   | Screw . . . . .                | 1     | 15       | 09-147   | Rubber guide collar . . . . . | 2    |
| 5        | 80-751   | Mounting bolt . . . . .        | 2 set | 16       | 84-511   | Screw . . . . .               | 2    |
| 6        | 09-136   | Roller bracket . . . . .       | 1     | 17       | 09-147   | Rubber guide collar . . . . . | 3    |
| 7        | 09-142   | Roller bracket . . . . .       | 2     | 18       | 84-511   | Screw . . . . .               | 3    |
| 8        | 09-141   | Roller bracket bar . . . . .   | 1     | 19       | 09-147   | Rubber guide collar . . . . . | 4    |
| 9        | 09-146   | Roller bracket screw . . . . . | 2     | 20       | 84-511   | Screw . . . . .               | 4    |
| 10       | 09-144   | Roller (medium) . . . . .      | 1     | 21       | 09-147   | Rubber guide collar . . . . . | 5    |
| 11       | 09-143   | End collar (large) . . . . .   | 1     | 22       | 84-511   | Screw . . . . .               | 5    |
|          |          |                                |       | 23       |          | Screw . . . . .               | 2    |
| 918-A    | 00-911   | Front guide roller ass'y       |       |          |          |                               |      |
| 918-B    | 00-912   | Rear guide roller ass'y        |       |          |          |                               |      |

# 19. PS-1, FL-1 (ペDESTル形テブル・電動式押え上げ装置)



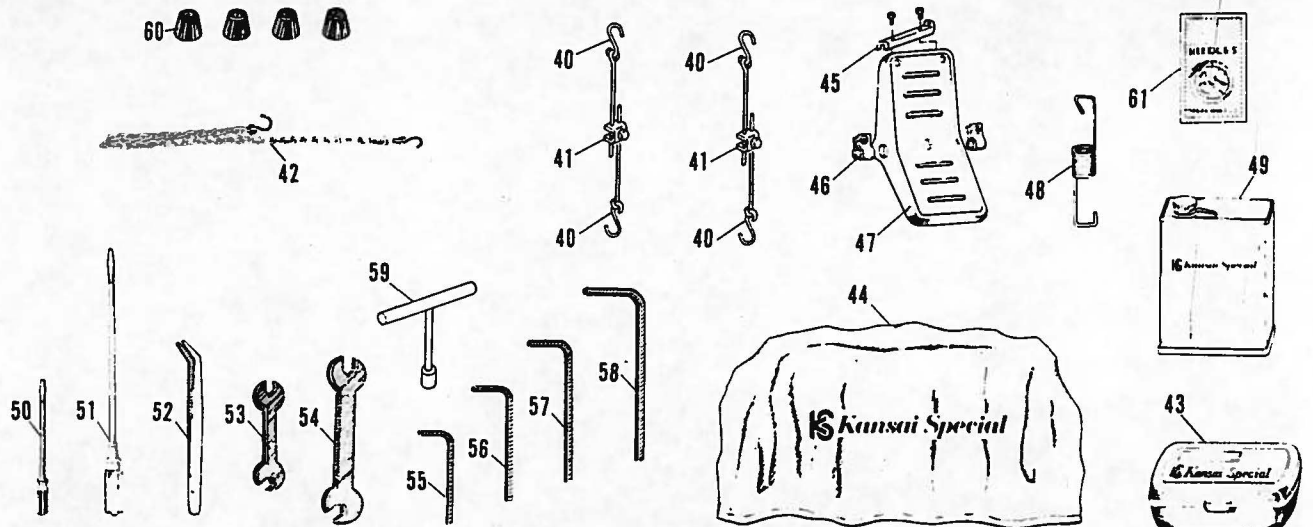
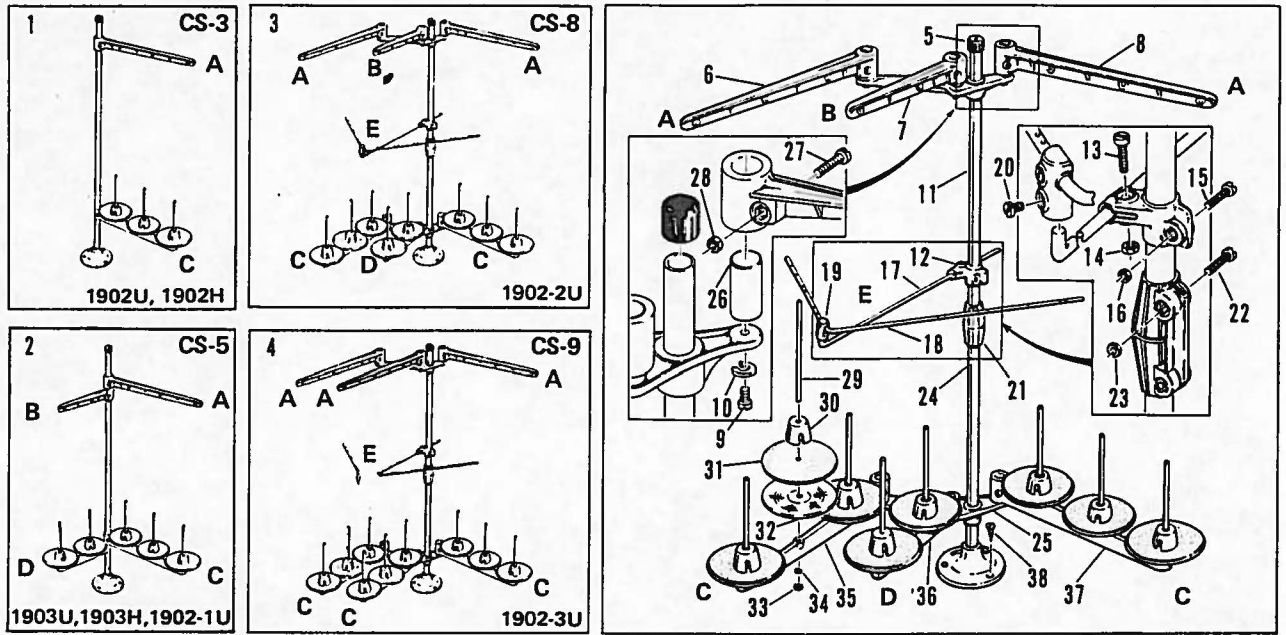
W: White  
R: Red  
B: Black  
G: Green

FL-1, Wiring diagram



| Ref. No. | Part No. | Part Name                   | Q'ty   | Ref. No. | Part No. | Part Name                     | Q'ty |
|----------|----------|-----------------------------|--------|----------|----------|-------------------------------|------|
| 1        | 21-097   | Table . . . . .             | 1      | 31       | 77-006   | Rod . . . . .                 | 1    |
| 2        | P-01     | Motor pedal (set) . . . . . | 1      | 32       | 77-005   | Connecting . . . . .          | 1    |
| 3        | P-02     | Foot switch (set) . . . . . | 1      | 33       | 77-007   | Rod . . . . .                 | 1    |
| 4        | P-03     | Collar (set) . . . . .      | 3      | 34       | 77-282   | Lever (for DWR) . . . . .     | 1    |
| 5        | P-04     | Collar (set) . . . . .      | 1      | 35       |          |                               |      |
| 6        | P-05     | Shaft (set) . . . . .       | 1      | 36       | 09-142   | Roller bracket . . . . .      | 2    |
| 7        | P-06     | Collar (set) . . . . .      | 2      | 37       | 09-146   | Screw . . . . .               | 2    |
| 8        | P-07     | Foot (set) . . . . .        | 5      | 38       | 09-141   | Roller bracket bar . . . . .  | 1    |
| 9        | P-08     | Motor lever (set) . . . . . | 1      | 39       | 09-144   | Roller (medium) . . . . .     | 1    |
| 10       | P-09     | Foot lifter (set) . . . . . | .1 set | 40       | 09-145   | End collar (small) . . . . .  | 1    |
| 11       | P-10     | Main switch (set) . . . . . | 1      | 41       | 09-143   | End collar (large) . . . . .  | 1    |
| 12       | P-11     | Foot pedal lever . . . . .  | 1      | 42       | 09-142   | Rubber guide collar . . . . . | 2    |
| 13       | P-12     | Pitman arm (set) . . . . .  | .1 set | 43       | 28-920   | Chain . . . . .               | 1    |
| 14       | 25-092   | . . . . .                   | 3      | 44       | 87-158   | Screw . . . . .               | 3    |
| 15       | 25-091   | Cushion base . . . . .      | 1      | 45       | 77-257   | Solenoid . . . . .            | 1    |
| 16       | 87-150   | Screw . . . . .             | 4      | 46       | 87-164   | Screw . . . . .               | 4    |
| 17       | P-13     | Caster . . . . .            | 3      | 47       | 77-452   | Washer . . . . .              | 4    |
| 18       | 77-001   | Foot pedal . . . . .        | 1      | 48       | 75-452   | Washer . . . . .              | 4    |
| 19       | 77-002   | Collar (set) . . . . .      | 1      | 49       | 88-166   | Nut . . . . .                 | 4    |
| 20       | 77-003   | Spring (set) . . . . .      | 1      | 50       | 77-256   | Control box . . . . .         | 1    |
| 21       | 77-004   | Pedal lever (set) . . . . . | 1      | 51       | 87-150   | Screw . . . . .               | 2    |
| 22       | 09-136   | Roller bracket . . . . .    | 1      | 52       | 75-455   | Washer . . . . .              | 2    |
| 23       | 09-181   | Roller . . . . .            | 1      | 53       | 75-455   | Washer . . . . .              | 2    |
| 24       | 09-182   | Screw . . . . .             | 1      | 54       | 88-146   | Nut . . . . .                 | 2    |
| 25       | 87-661   | Screw . . . . .             | 2      | 55       |          | Cord                          |      |
| 26       | 75-451   | Washer . . . . .            | 2      | 56       | 77-258   | Transformer . . . . .         | 1    |
| 27       | 88-176   | Nut . . . . .               | 2      | 57       | 87-164   | Screw . . . . .               | 4    |
| 28       | 77-006   | Rod . . . . .               | 2      | 58       | 75-452   | Washer . . . . .              | 4    |
| 29       | 77-005   | Connecting . . . . .        | 2      | 59       | 75-452   | Washer . . . . .              | 4    |
| 30       | 77-006   | Rod . . . . .               | 2      | 60       | 88-166   | Nut . . . . .                 | 4    |
| 919-A    | 00-911   | Front guide roller ass'y    |        |          |          |                               |      |
| 919-B    | 00-912   | Rear guide roller ass'y     |        |          |          |                               |      |

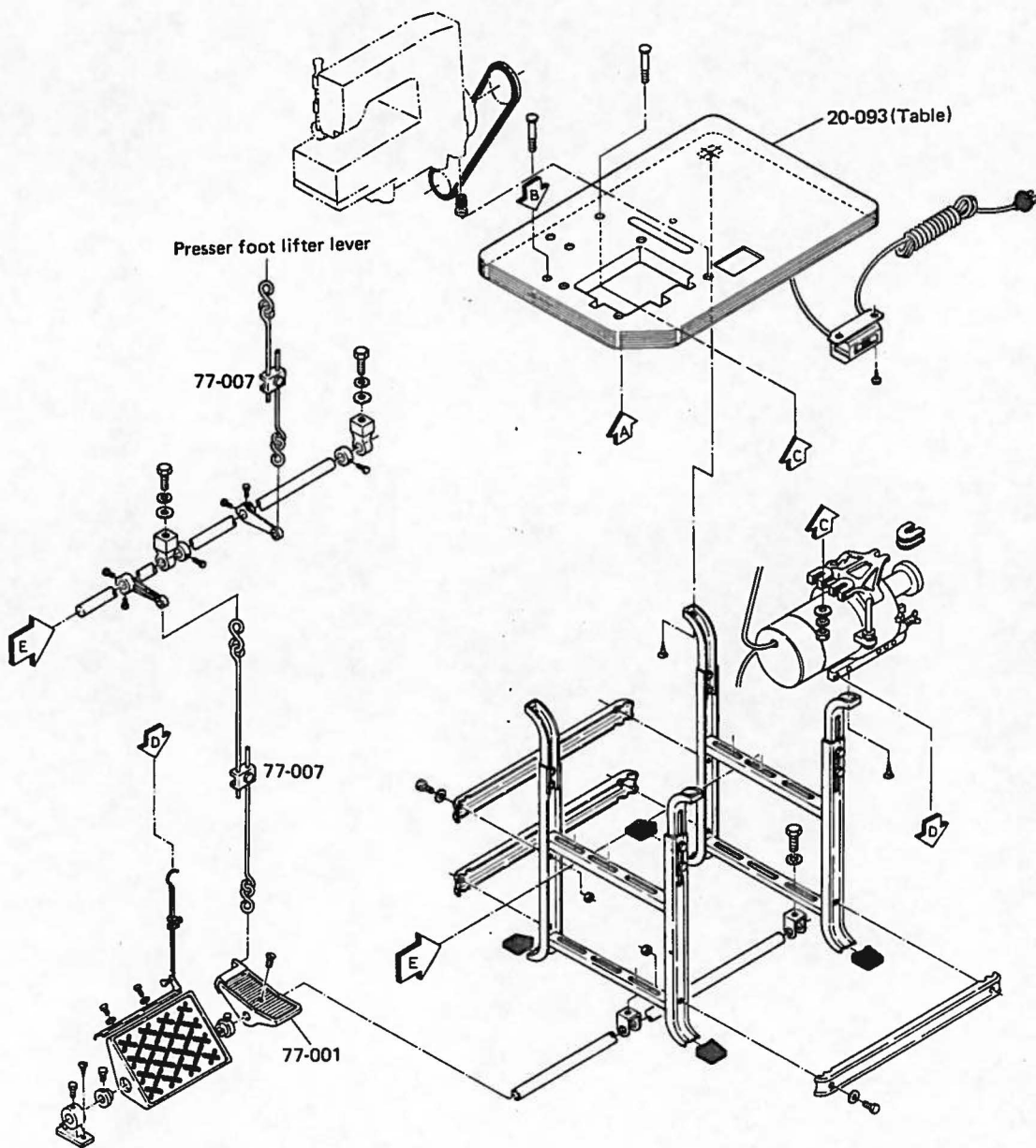
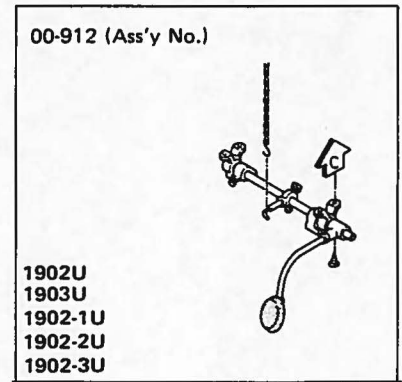
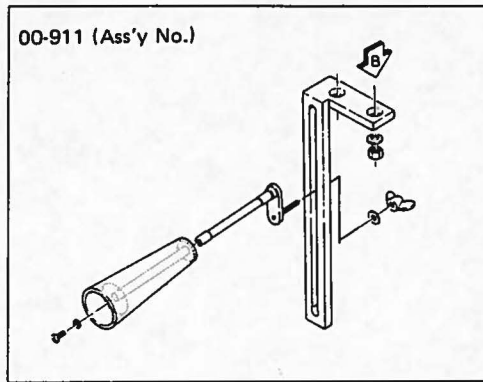
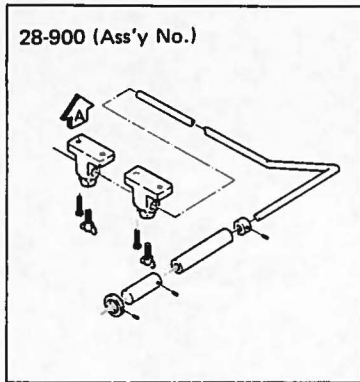
## 20. Thread stands, Accessories (糸立て・アクセサリー)



| Ref. No. | Part No. | Part Name                   | Q'ty   | Ref. No. | Part No. | Part Name                   | Q'ty |
|----------|----------|-----------------------------|--------|----------|----------|-----------------------------|------|
| 1        | 42-003   | Thread stand (3) CS-3       | .1 set | 31       | 42-119   | Spool mat                   |      |
| 2        | 42-005   | Thread stand (5) CS-5       | .1 set | 32       | 42-123   | Spool tray                  |      |
| 3        | 42-008   | Thread stand (8) CS-8       | .1 set | 33       |          | Nut                         |      |
| 4        | 42-009   | Thread stand (9) CS-9       | .1 set | 34       |          | Washer                      |      |
| 5        | 42-120   | Cup                         | 1      | 35       | 42-115   | Spool pin bracket (3)       |      |
| 6        | 42-116   | Thread guide bracket (3)    |        | 36       |          | Spool pin bracket (2)       |      |
| 7        |          | Thread guide bracket (2)    |        | 37       | 42-115   | Spool pin bracket (3)       |      |
| 8        |          | Thread guide bracket (3)    |        | 38       | 42-122   | Screw                       | 3    |
| 9        |          | Screw                       | 6      | 39       |          |                             |      |
| 10       |          | Washer                      | 6      | 40       | 77-007   | Pitman for machine          | 4    |
| 11       | 42-113   | Bar (upper)                 | 1      | 41       | 77-006   | Pitman for machine          | 2    |
| 12       |          | Shank                       | 1      | 42       | 28-920   | Chain                       | 1    |
| 13       |          | Screw                       | 1      | 43       | 28-001   | Pedal for foot lifter       | 1    |
| 14       |          | Nut                         | 1      | 44       | 28-021   | Machine cover               | 1    |
| 15       |          | Screw                       | 1      | 45       | 77-004   | Lever                       | 1    |
| 16       |          | Nut                         | 1      | 46       | 77-002   | Collar                      | 2    |
| 17       |          | Guide thread eyelet arm bar | 1      | 47       | 77-001   | Pedal for foot lifter       | 1    |
| 18       |          | Guide thread eyelet         | 1      | 48       | 77-003   | Spring for pedal            | 1    |
| 19       |          | Joint                       | 1      | 49       | 28-611   | Oil (Esso Telesso 33)       | 1    |
| 20       |          | Screw                       | 2      | 50       | 28-451   | Small driver                | 1    |
| 21       |          | Joint                       | 1      | 51       | 28-452   | Driver                      | 1    |
| 22       |          | Screw                       | 2      | 52       | 28-011   | Tweezer                     | 1    |
| 23       |          | Nut                         | 2      | 53       | 28-421   | Spanner                     | 1    |
| 24       | 42-112   | Bar (low)                   | 1      | 54       | 28-422   | Spanner                     | 1    |
| 25       |          | Base                        | 2      | 55       | 28-311   | Wrench A                    | 1    |
| 26       |          | Mounting bracket            | 6      | 56       | 28-312   | Wrench B                    | 1    |
| 27       |          | Screw                       | 6      | 57       | 28-313   | Wrench C                    | 1    |
| 28       |          | Nut                         |        | 58       | 28-314   | Wrench D                    | 1    |
| 29       |          |                             |        | 59       | 28-464   | Wrench T type               | 1    |
| 30       |          | Spool pin                   |        | 60       | 31-161   | Gam cushion                 | 4    |
|          |          |                             |        | 61       | 13-      | Needle DVx43, 62x43, SY3516 |      |



## 21. Table stand assembly diagram (テーブルスタンド据付図)



## 22 Index (索引)

| Part No. | Q'ty | Page No. | Part No. | Q'ty | Page No. | Part No. | Q'ty | Page No. | Part No. | Q'ty | Page No. |
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| 02-101   | 2    | 12       | 09-284   | 1    | 22       | 17-941   | 1    | 16       | 22-951   | 1    | 2        |
| -111     | 1    | 12       | -285     | 1    | 20       | -942     | 1    | 16       | -952     | 1    | 26       |
| -112     | 1    | 12       | -286     | 1    | 2        | -943     | 1    | 16       | -953     | 1    | 26       |
| -114     | 1    | 12       | -290     | 1    | 12       | -951     | 1    | 16       | 23-161   | 1    | 2        |
| -115     | 1    | 12       | -291     | 1    | 12       | 18-702   | 1    | 24       | -166     | 1    | 5        |
| -116     | 1    | 12       | -292     | 1    | 12       | -702     | 1    | 27       | -189     | 1    | 10       |
| -117     | 1    | 12       | -293     | 1    | 12       | -721     | 1    | 20       | -195     | 1    | 5        |
| -151     | 2    | 12       | -294     | 1    | 14       | -721     | 1    | 22       | -195     | 1    | 7        |
| -156     | 1    | 12       | -295     | 1    | 14       | -721     | 1    | 26       | -197     | 1    | 7        |
| -161     | 1    | 12       | -296     | 1    | 14       | -722     | 1    | 9        | -200     | 1    | 12       |
| -163     | 1    | 12       | -297     | 1    | 14       | -911     | 1    | 9        | -206     | 1    | 2        |
| -166     | 1    | 12       |          |      |          | -941     | 1    | 16       | -207     | 1    | 2        |
| -176     | 1    | 12       | 11-402   | 1    | 16       | -942     | 1    | 16       | -216     | 1    | 2        |
| -177     | 1    | 12       | -704     | 1    | 20       | -951     | 1    | 16       | -223     | 1    | 2        |
| -178     | 1    | 12       | -724     | 1    | 24       | 19-293   | 1    | 16       | -232     | 1    | 2        |
| -190     | 1    | 12       | -725     | 1    | 24       | -295     | 1    | 16       | -260     | 1    | 2        |
| -206     | 1    | 12       | -725     | 1    | 27       | -296     | 1    | 16       | -260     | 1    | 2        |
| -208     | 1    | 12       | -726     | 1    | 24       | -303     | 1    | 9        | -263     | 1    | 2        |
| 09-118   | 1    | 26       | -726     | 1    | 27       | -314     | 1    | 20       | -291     | 3    | 6        |
| -123     | 1    | 26       | -735     | 1    | 24       | -315     | 1    | 22       | -298     | 1    | 5        |
| -134     | 2    | 26       | -735     | 1    | 27       | -315     | 1    | 26       | -299     | 1    | 2        |
| -136     | 1    | 28       | -736     | 1    | 24       | -712     | 1    | 24       | -301     | 1    | 2        |
| -136     | 1    | 30       | -736     | 1    | 27       | -712     | 1    | 27       | -302     | 2    | 2        |
| -141     | 1    | 28       | 12-702   | 1    | 24       | -911     | 1    | 20       | -341     | 1    | 7        |
| -141     | 1    | 30       | -702     | 1    | 27       | -913     | 1    | 24       | -341     | 1    | 8        |
| -142     | 2    | 28       | -931     | 1    | 20       | -916     | 1    | 20       | -368     | 1    | 6        |
| -142     | 2    | 30       | -941     | 1    | 16       | -931     | 1    | 20       | -372     | 1    | 5        |
| -142     | 2    | 30       | -942     | 1    | 16       | -941     | 1    | 16       | -383     | 1    | 5        |
| -143     | 1    | 28       | -943     | 1    | 16       | -942     | 1    | 16       | -393     | 1    | 6        |
| -143     | 1    | 30       | -951     | 1    | 16       | -943     | 1    | 16       | -403     | 1    | 2        |
| -144     | 1    | 28       | 13-      |      | 31       | -944     | 1    | 16       | -406     | 1    | 8        |
| -144     | 1    | 30       | 14-052   | 1    | 27       | -951     | 1    | 16       | 25-091   | 1    | 30       |
| -145     | 1    | 28       | -091     | 1    | 20       | -952     | 1    | 16       | -092     | 3    | 30       |
| -145     | 1    | 30       | -091     | 1    | 24       | -953     | 1    | 16       | -101     | 2    | 2        |
| -146     | 2    | 28       | -092     | 1    | 2        | -954     | 1    | 16       | -102     | 2    | 2        |
| -146     | 2    | 30       | -901     | 1    | 27       | -961     | 1    | 16       | -102     | 1    | 26       |
| -147     | 2    | 28       | -902     | 1    | 27       | -962     | 1    | 16       | 28-001   | 1    | 31       |
| -147     | 3    | 28       | -906     | 1    | 27       | -963     | 1    | 16       | -011     | 1    | 31       |
| -147     | 4    | 28       | -907     | 1    | 27       | -964     | 1    | 16       | -021     | 1    | 31       |
| -147     | 5    | 28       | -913     | 1    | 24       | -974     | 1    | 16       | -311     | 1    | 31       |
| -181     | 1    | 28       | -914     | 1    | 24       |          |      |          | -312     | 1    | 31       |
| -181     | 1    | 30       | -915     | 1    | 24       | 21-101   | 1    | 26       | -313     | 1    | 31       |
| -182     | 1    | 28       | -923     | 1    | 24       | -122     | 1    | 2        | -314     | 1    | 31       |
| -182     | 1    | 30       | -924     | 1    | 24       | -131     | 1    | 2        | -421     | 1    | 31       |
| -201     | 1    | 26       | -925     | 1    | 24       | -208     | 1    | 2        | -422     | 1    | 31       |
| -235     | 1    | 14       | -931     | 1    | 20       | -316     | 1    | 2        | -452     | 1    | 31       |
| -236     | 1    | 14       | -941     | 1    | 16       | -321     | 1    | 26       | -464     | 1    | 31       |
| -237     | 1    | 14       | -942     | 1    | 16       | -322     | 1    | 2        | -611     | 1    | 31       |
| -242     | 1    | 14       | -943     | 1    | 16       | -323     | 1    | 26       | -911     | 1    | 14       |
| -243     | 1    | 14       | -951     | 1    | 16       | -324     | 1    | 2        | -912     | 1    | 14       |
| -244     | 1    | 14       | -964     | 1    | 24       | -402     | 1    | 2        | -913     | 1    | 14       |
| -245     | 1    | 14       | -965     | 1    | 24       | -513     | 1    | 2        | -914     | 1    | 14       |
| -246     | 1    | 14       | -974     | 1    | 24       | -533     | 1    | 2        | -915     | 1    | 14       |
| -247     | 1    | 14       | -974     | 1    | 24       | -592     | 1    | 24       | -916     | 2    | 14       |
| -248     | 1    | 14       | -975     | 1    | 24       | -593     | 1    | 2        | -917     | 2    | 14       |
| -252     | 1    | 14       | 15-901   | 1    | 27       | -594     | 1    | 16       | -919     | 1    | 14       |
| -253     | 1    | 2        | -913     | 1    | 24       | -595     | 1    | 16       | -920     | 1    | 14       |
| -261     | 1    | 14       | -931     | 1    | 20       | -597     | 1    | 24       | -920     | 1    | 30       |
| -262     | 1    | 14       | -941     | 1    | 16       | -597     | 1    | 26       | -920     | 1    | 31       |
| -269     | 1    | 14       | -942     | 1    | 16       | -598     | 1    | 2        |          |      |          |
| -270     | 1    | 14       | -943     | 1    | 16       | -599     | 1    | 24       | 31-161   | 4    | 31       |
| -271     | 1    | 14       | -951     | 1    | 16       | -600     | 1    | 16       | -207     | 1    | 7        |
| -275     | 1    | 14       | 17-906   | 1    | 27       | -601     | 1    | 24       | -305     | 1    | 6        |
| -276     | 1    | 14       | -907     | 1    | 27       | -606     | 1    | 20       | -306     | 1    | 6        |
| -277     | 1    | 14       | -914     | 1    | 24       | -607     | 1    | 20       | -307     | 1    | 6        |
| -278     | 1    | 14       | -915     | 1    | 24       | -608     | 1    | 16       | -314     | 8    | 6        |
| -279     | 1    | 14       | -924     | 1    | 24       | -697     | 1    | 30       | -341     | 2    | 6        |
| -280     | 1    | 2        | -925     | 1    | 24       | -701     | 1    | 2        | -341     | 2    | 6        |
| -281     | 1    | 26       | -931     | 1    | 20       | -711     | 1    | 2        | -364     | 1    | 6        |



## 22. Index (索引)

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| 31-401   | 1    | 6        | 41-121   | 1    | 22       | 61-713   | 1    | 20       | 71-471   | 1    | 12       |
| -402     | 1    | 6        | -121     | 1    | 26       | -713     | 1    | 22       | -531     | 1    | 8        |
| -403     | 1    | 6        | -121     | 1    | 26       | -713     | 1    | 26       | -542     | 1    | 10       |
| -404     | 1    | 6        | -123     | 1    | 4        | -714     | 1    | 12       | -561     | 1    | 22       |
| -405     | 1    | 6        | -123     | 1    | 20       | -722     | 1    | 7        | -561     | 1    | 26       |
| -406     | 1    | 6        | -131     | 7    | 4        | -810     | 1    | 12       | -612     | 1    | 7        |
| -407     | 1    | 6        | -131     | 5    | 20       | -823     | 1    | 9        | -621     | 1    | 9        |
| -409     | 1    | 6        | -131     | 3    | 22       | -823     | 1    | 9        | -636     | 1    | 12       |
| -410     | 1    | 7        | -131     | 8    | 22       | -823     | 2    | 22       | -647     | 1    | 8        |
| 35-111   | 1    | 5        | -131     | 3    | 26       | -823     | 2    | 26       | -651     | 1    | 12       |
| -121     | 1    | 6        | -131     | 8    | 26       | 63-201   | 1    | 12       | -691     | 1    | 12       |
| -246     | 1    | 6        | -132     | 1    | 20       | -232     | 1    | 8        | -796     | 1    | 8        |
| -260     | 1    | 6        | -132     | 1    | 22       | -232     | 1    | 8        | -851     | 1    | 7        |
| -302     | 1    | 6        | -132     | 1    | 26       | -311     | 1    | 7        | -870     | 1    | 20       |
| -303     | 3    | 6        | 42-003   | 1    | 31       | -331     | 1    | 7        | -870     | 1    | 22       |
| -304     | 1    | 6        | -005     | 1    | 31       | -352     | 1    | 8        | -870     | 1    | 26       |
| -305     | 1    | 6        | -008     | 1    | 31       | -511     | 1    | 7        | -901     | 1    | 9        |
| 39-107   | 1    | 7        | -009     | 1    | 31       | -512     | 1    | 20       | -921     | 1    | 22       |
| -108     | 1    | 2        | -112     | 1    | 31       | -512     | 1    | 22       | -933     | 1    | 7        |
| -122     | 1    | 5        | -113     | 1    | 31       | -512     | 1    | 26       | -994     | 2    | 26       |
| -133     | 1    | 6        | -115     | 31   | 31       | -586     | 2    | 7        | -997     | 1    | 26       |
| -137     | 1    | 6        | -115     | 31   | 31       | -711     | 1    | 12       | 73-113   | 1    | 7        |
| -213     | 1    | 2        | -116     | 1    | 31       | -810     | 1    | 12       | -113     | 1    | 20       |
| -233     | 1    | 6        | -119     | 31   | 31       | -811     | 1    | 22       | -113     | 1    | 22       |
| -233     | 1    | 6        | -120     | 1    | 31       | -811     | 1    | 26       | -113     | 1    | 26       |
|          |      |          | -122     | 3    | 31       | -812     | 1    | 9        | 75-091   | 2    | 26       |
| 41-101   | 7    | 4        | 43-111   | 1    | 4        | -812     | 1    | 22       | -097     | 2    | 14       |
| -101     | 5    | 20       | -112     | 1    | 4        | -821     | 1    | 9        | -098     | 2    | 14       |
| -101     | 3    | 22       | -301     | 1    | 4        | -821     | 1    | 26       | -101     | 2    | 20       |
| -101     | 4    | 22       | -303     | 1    | 4        | 65-302   | 1    | 12       | -101     | 2    | 22       |
| -101     | 3    | 26       | -305     | 1    | 4        | -401     | 1    | 9        | -101     | 2    | 26       |
| -101     | 4    | 26       | 45-101   | 1    | 22       | -435     | 1    | 22       | -112     | 1    | 7        |
| -105     | 7    | 4        | -101     | 1    | 26       | -435     | 1    | 26       | -113     | 2    | 12       |
| -105     | 5    | 20       | -102     | 1    | 22       | -902     | 1    | 9        | -113     | 1    | 12       |
| -105     | 3    | 22       | -102     | 1    | 26       | 66-111   | 1    | 7        | -114     | 1    | 8        |
| -105     | 4    | 22       | -103     | 1    | 4        | 67-131   | 1    | 9        | -132     | 1    | 8        |
| -105     | 3    | 26       | -103     | 1    | 20       | -132     | 1    | 22       | -136     | 1    | 9        |
| -105     | 4    | 26       | -118     | 1    | 20       | -132     | 1    | 26       | -154     | 1    | 10       |
| -107     | 7    | 4        | -121     | 1    | 22       | -171     | 1    | 12       | -211     | 1    | 12       |
| -107     | 5    | 20       | -121     | 1    | 26       | -172     | 1    | 12       | -243     | 1    | 8        |
| -107     | 3    | 22       | -123     | 1    | 4        | -227     | 1    | 9        | -246     | 1    | 12       |
| -107     | 4    | 22       | -123     | 1    | 22       | -316     | 1    | 8        | -326     | 1    | 9        |
| -107     | 3    | 26       | -123     | 1    | 26       | 69-105   | 1    | 7        | -327     | 1    | 9        |
| -107     | 4    | 26       | -131     | 1    | 22       | -117     | 1    | 7        | -331     | 1    | 7        |
| -111     | 14   | 4        | -131     | 1    | 26       | -121     | 1    | 7        | -332     | 1    | 7        |
| -111     | 10   | 20       | -132     | 1    | 20       | -121     | 1    | 20       | -332     | 2    | 12       |
| -111     | 6    | 22       | -132     | 1    | 22       | -121     | 1    | 22       | -366     | 1    | 28       |
| -111     | 8    | 22       | -132     | 1    | 26       | -121     | 1    | 21       | -372     | 2    | 8        |
| -111     | 6    | 26       | -133     | 1    | 4        | -208     | 1    | 7        | -372     | 1    | 9        |
| -111     | 8    | 26       | -151     | 1    | 20       | -305     | 1    | 7        | -372     | 1    | 9        |
| -113     | 1    | 4        | -151     | 1    | 22       | -141     | 1    | 12       | -372     | 1    | 12       |
| -113     | 1    | 20       | -151     | 1    | 26       | 71-201   | 1    | 9        | -381     | 1    | 8        |
| -113     | 1    | 22       | -152     | 1    | 4        | -216     | 1    | 26       | -381     | 1    | 9        |
| -113     | 1    | 22       | -225     | 1    | 4        | -251     | 4    | 2        | -381     | 1    | 12       |
| -113     | 1    | 26       | -232     | 1    | 10       | -251     | 2    | 20       | -381     | 1    | 12       |
| -113     | 1    | 26       | -232     | 1    | 24       | -251     | 2    | 24       | -381     | 1    | 20       |
| -115     | 1    | 4        | -232     | 1    | 26       | -251     | 2    | 27       | -381     | 1    | 22       |
| -115     | 5    | 20       | 51-001   | 1    | 8        | -261     | 1    | 22       | -381     | 1    | 26       |
| -115     | 3    | 22       | 55-049   | 1    | 8        | -301     | 1    | 2        | -401     | 1    | 9        |
| -115     | 4    | 22       | -051     | 1    | 8        | -301     | 2    | 26       | -446     | 1    | 2        |
| -115     | 3    | 26       | -061     | 1    | 12       | -303     | 2    | 14       | -446     | 1    | 2        |
| -115     | 4    | 26       | -191     | 1    | 8        | -322     | 1    | 9        | -451     | 1    | 12       |
| -117     | 7    | 4        | 61-201   | 1    | 12       | -431     | 1    | 8        | -451     | 2    | 30       |
| -117     | 5    | 20       | -312     | 1    | 8        | -431     | 1    | 8        | -452     | 1    | 9        |
| -117     | 3    | 22       | -322     | 1    | 8        | -431     | 1    | 8        | -452     | 1    | 12       |
| -117     | 4    | 22       | -512     | 1    | 7        | -432     | 2    | 7        | -452     | 4    | 30       |
| -117     | 3    | 26       | -713     | 1    | 7        | -454     | 1    | 9        | -452     | 4    | 30       |
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| -453     | 1    | 10       | -110     | 1     | 5        | -363     | 3    | 6        | -563     | 2    | 12       |
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| -455     | 1    | 20       | -136     | 1     | 5        | -363     | 1    | 20       | -564     | 2    | 8        |
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| -455     | 2    | 30       | -181     | 1     | 5        | -365     | 1    | 26       | -566     | 4    | 2        |
| -456     | 1    | 4        | -182     | 1     | 5        | -366     | 1    | 7        | -566     | 6    | 2        |
| -458     | 1    | 2        | -183     | 1     | 20       | -366     | 1    | 7        | -566     | 4    | 6        |
| -467     | 3    | 6        | -183     | 1     | 22       | -366     | 1    | 8        | -566     | 3    | 7        |
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| 77-001   | 1    | 30       | -322     | 1     | 12       | -368     | 2    | 14       | -567     | 2    | 7        |
| -001     | 1    | 31       | -323     | 1     | 12       | -368     | 1    | 16       | -567     | 2    | 12       |
| -002     | 1    | 30       | -412     | 2     | 7        | -370     | 1    | 26       | -567     | 2    | 20       |
| -002     | 2    | 31       | -711     | 1     | 5        | -371     | 3    | 8        | -567     | 2    | 22       |
| -003     | 1    | 30       | -713     | 1     | 5        | -374     | 1    | 4        | -567     | 2    | 26       |
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| -005     | 2    | 30       | -751     | 3     | 5        | -382     | 1    | 20       | -568     | 2    | 26       |
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| -006     | 2    | 30       | 85-113   | 1     | 16       | -382     | 1    | 27       | -571     | 1    | 2        |
| -006     | 2    | 30       | -113     | 1     | 20       | -462     | 2    | 12       | -571     | 2    | 2        |
| -006     | 1    | 30       | -161     | 2     | 5        | -463     | 3    | 12       | -571     | 1    | 4        |
| -006     | 2    | 31       | -161     | 1     | 6        | -463     | 2    | 14       | -571     | 2    | 4        |
| -007     | 1    | 30       | -161     | 2     | 8        | -464     | 2    | 4        | -571     | 4    | 6        |
| -007     | 4    | 31       | -161     | 1     | 22       | -464     | 2    | 22       | -572     | 3    | 6        |
| -101     | 1    | 10       | -161     | 1     | 26       | -464     | 2    | 24       | -572     | 1    | 7        |
| -103     | 1    | 10       | -161     | 1     | 27       | -464     | 1    | 24       | -572     | 1    | 9        |
| -107     | 1    | 10       | 84-162   | 2     | 4        | -464     | 2    | 26       | -572     | 2    | 9        |
| -109     | 1    | 10       | -162     | 6     | 12       | -464     | 2    | 27       | -572     | 2    | 12       |
| -111     | 1    | 10       | -162     | 1     | 20       | -511     | 2    | 8        | -572     | 1    | 20       |
| -114     | 1    | 10       | -162     | 1     | 24       | -511     | 1    | 10       | -572     | 1    | 22       |
| -116     | 1    | 10       | -163     | 2     | 4        | -511     | 4    | 16       | -572     | 4    | 22       |
| -121     | 1    | 10       | -163     | 1     | 4        | -511     | 5    | 16       | -572     | 1    | 26       |
| -131     | 1    | 10       | -164     | 2     | 2        | -511     | 3    | 20       | -572     | 4    | 26       |
| -133     | 1    | 10       | -168     | 1     | 24       | -511     | 2    | 24       | -574     | 2    | 14       |
| -135     | 1    | 10       | -168     | 1     | 27       | -511     | 2    | 26       | -574     | 2    | 14       |
| -136     | 1    | 10       | -176     | 1     | 8        | -511     | 2    | 27       | -575     | 2    | 9        |
| -145     | 1    | 10       | -177     | 1     | 8        | -511     | 2    | 28       | -575     | 1    | 14       |
| -151     | 1    | 12       | -312     | 2     | 14       | -511     | 3    | 28       | -575     | 2    | 16       |
| -152     | 1    | 12       | -312     | 2     | 14       | -511     | 4    | 28       | -575     | 2    | 20       |
| -232     | 1    | 10       | -316     | 4     | 14       | -511     | 5    | 28       | -581     | 1    | 10       |
| -256     | 1    | 30       | -361     | 2     | 2        | -512     | 2    | 10       | -582     | 1    | 12       |
| -257     | 1    | 30       | -361     | 4     | 4        | -512     | 1    | 12       | -584     | 3    | 2        |
| -258     | 1    | 30       | -361     | 2     | 4        | -513     | 1    | 24       | -584     | 1    | 12       |
| -282     | 1    | 30       | -361     | 1     | 6        | -513     | 1    | 27       | -586     | 2    | 7        |
| -452     | 4    | 30       | -361     | 1     | 9        | -513     | 1    | 27       | -588     | 1    | 8        |
| 79-121   | 1    | 10       | -361     | 1     | 9        | -521     | 1    | 2        | -591     | 1    | 7        |
| -126     | 1    | 12       | -361     | 1     | 14       | -521     | 1    | 4        | -591     | 1    | 20       |
| -191     | 12   | 12       | -361     | 1     | 16       | -521     | 2    | 6        | -591     | 1    | 22       |
| -221     | 1    | 12       | -361     | 1     | 20       | -521     | 2    | 9        | -591     | 1    | 26       |
| -222     | 1    | 10       | -361     | 1     | 20       | -521     | 1    | 9        | -611     | 1    | 12       |
| -232     | 1    | 14       | -361     | 1     | 20       | -521     | 2    | 14       | -612     | 1    | 22       |
| -233     | 1    | 2        | -361     | 2     | 22       | -521     | 1    | 28       | -612     | 1    | 26       |
| -502     | 1    | 2        | -361     | 1     | 22       | -521     | 1    | 28       | -616     | 2    | 9        |
| -503     | 1    | 26       | -361     | 2     | 26       | -561     | 1    | 10       | -616     | 4    | 16       |
| -551     | 1    | 12       | -361     | 2     | 26       | -561     | 1    | 10       | -616     | 2    | 20       |
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| -718     | 2    | 7        | -501     | 1    | 8        |
| -718     | 2    | 12       | -501     | 1    | 9        |
| -718     | 2    | 12       | -501     | 1    | 12       |
| -719     | 1    | 12       | -501     | 1    | 12       |
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| -761     | 1    | 2        | -541     | 2    | 26       |
| -761     | 1    | 8        | -741     | 1    | 12       |
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| -814     | 1    | 8        | -522     | 1    | 2        |
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| -314     | 1    | 9        | -09      | 1    | 30       |
| -411     | 7    | 4        | -10      | 1    | 30       |
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