

**HAPPY**

**Parts Manual**

# HCA-1501-40TTC

ELECTRONIC EMBROIDERY MACHINE

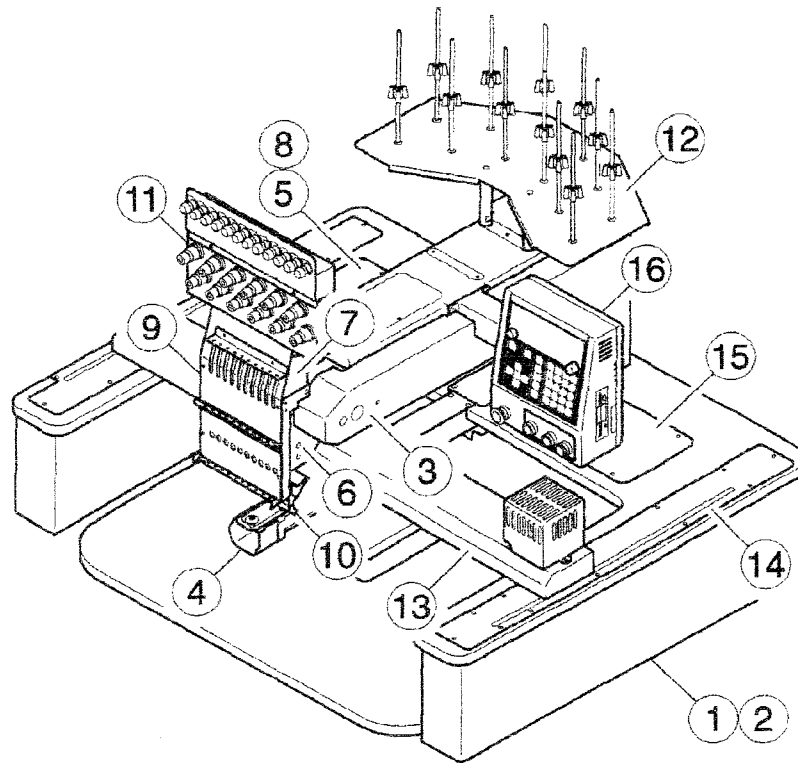
## PARTS LIST

パーツリスト



2002.05.01

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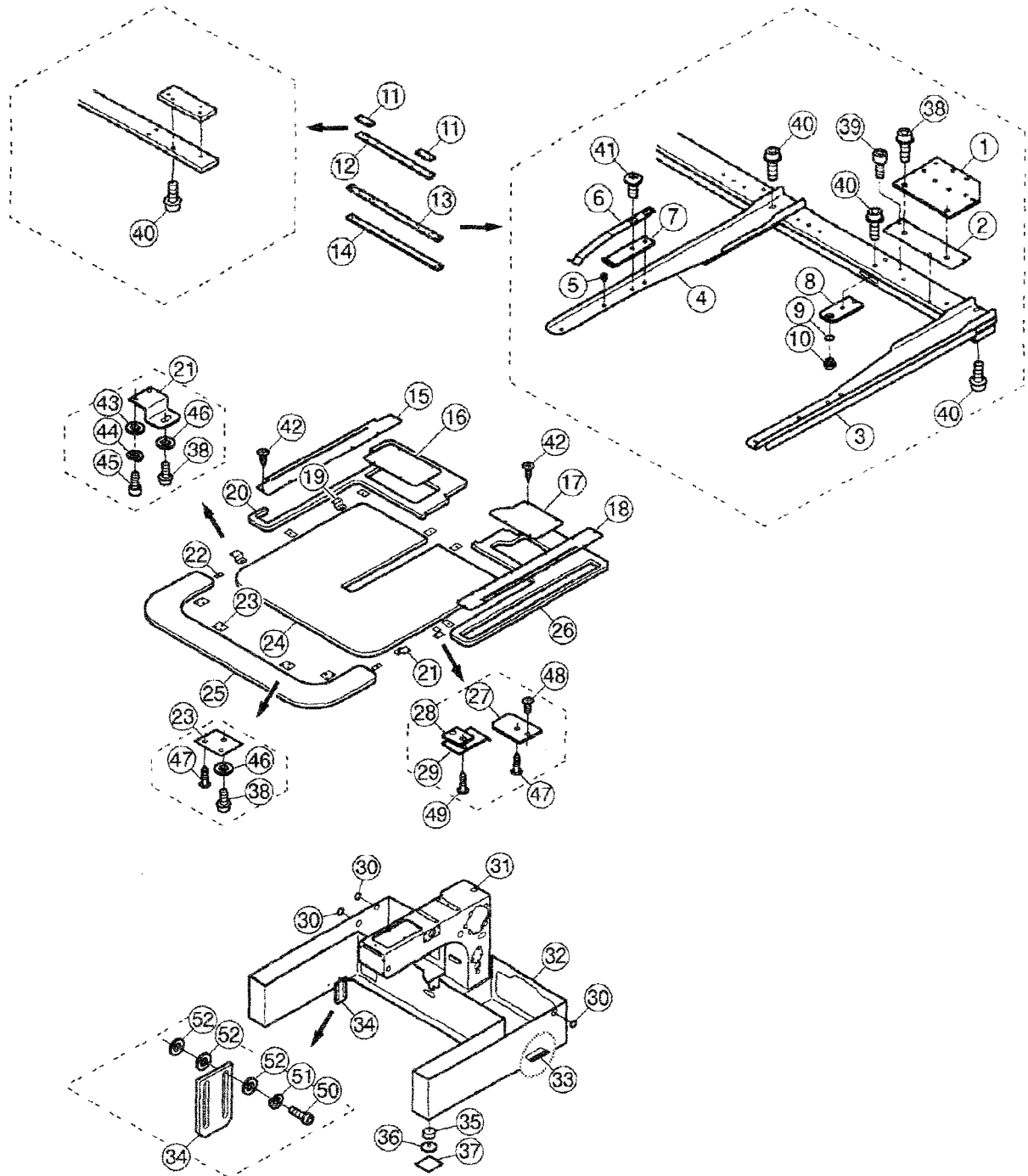
※ Specifications are subject to change without notice.

※ When you place parts orders, please state machine model (example : HCA-1501-40TTC), machine number and if machine is with option (example : cap frame) or not.

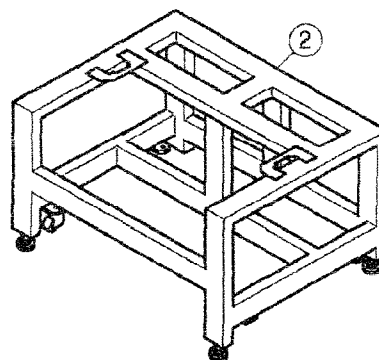
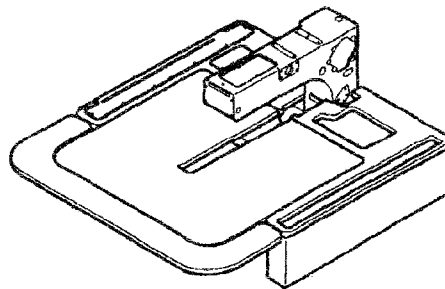
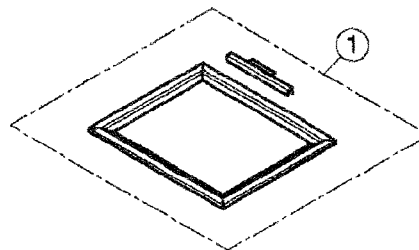
## EXPLANATION OF LIST

| Ass'y | El't | Parts No. | Parts Names                    |
|-------|------|-----------|--------------------------------|
|       | 9    | HMF17870  | Adjusting plate                |
| 11*   | 10   | M0416186  | Thread check spring            |
|       | 11   | HMF17840  | Thread tension ass'y           |
|       | 12   | HMF17860  | Thread tension lid             |
|       | 31   | HCG08170  | Roller pin guide               |
|       | 32   | →10b      | Jump solenoid ass'y (by model) |
| ①     | ②    | ③         | ④                              |

- ① This element number here is an assembly part number.  
It indicates that the part shown here is a component of an assembly part.
- ② It is element number.
- ③ It is parts number.
- ④ This parts is entered to other page of that mark "→" shows.



| Ass'y | El't | Parts No. | Parts Names                                           | Note |
|-------|------|-----------|-------------------------------------------------------|------|
|       | 1    | →13a      | Connecting plate                                      |      |
|       | 2    | HCG37050  | Tubular frame spacer A                                |      |
|       | 3    | HCA37051  | Tubular frame hold arm (right)                        |      |
|       | 4    | HCA37061  | Tubular frame hold arm (left)                         |      |
|       | 5    | C0440563  | positioning pin                                       |      |
|       | 6    | HCM41353  | Hold spring C                                         |      |
|       | 7    | HCM41361  | Hold spring base                                      |      |
|       | 8    | HCG37071  | Cap frame spacer                                      |      |
|       | 9    | M0424080  | Spacer                                                |      |
|       | 10   | M0438941  | Insert nut                                            |      |
|       | 11   | HCA37031  | Cap frame bracket B                                   |      |
|       | 12   | HCA37040  | Cap frame bracket A                                   |      |
|       | 13   | HCA37022  | Tubular frame bracket B                               |      |
|       | 14   | HCA37011  | Tubular frame bracket A                               |      |
|       | 15   | HCA30071  | Y carriage cover (left)                               |      |
|       | 16   | HCA30051  | Cover for thread cutting driver                       |      |
|       | 17   | HCA30081  | Cover for main unit                                   |      |
|       | 18   | HCA30061  | Y carriage cover (right)                              |      |
|       | 19   | HCA30171  | Table bracket 2                                       |      |
|       | 20   | HCA30021  | Table (left)                                          |      |
|       | 21   | HCA30162  | Table bracket                                         |      |
|       | 22   | HCA30131  | Auxiliary table bracket B                             |      |
|       | 23   | HCA30121  | Auxiliary table bracket A                             |      |
|       | 24   | HCA30030  | Table (front)                                         |      |
|       | 25   | HCA30040  | Auxiliary table                                       |      |
|       | 26   | HCA30011  | Table (right)                                         |      |
|       | 27   | HCA30101  | Holder bracket A                                      |      |
|       | 28   | HCA30150  | Holder spacer                                         |      |
|       | 29   | HCA30141  | Table holder                                          |      |
|       | 30   | M0408150  | Rubber cap (small)                                    |      |
|       | 31   | →3a       | Arm                                                   |      |
|       | 32   | HCA00092  | Chassis                                               |      |
|       | 33   | HCA00150  | Trim                                                  |      |
|       | 34   | HCA00140  | Stopper                                               |      |
|       | 35   | HCA00160  | Leg                                                   |      |
|       | 36   | HCA00170  | Adjuster                                              |      |
|       | 37   | HCA00190  | Rubber mount                                          |      |
|       | 38   | SCBD04008 | Hexagon socket head cap screw with flange (M4x8)      |      |
|       | 39   | SCAD03006 | Hexagon socket head cap screw (M3x6)                  |      |
|       | 40   | SCBD04006 | Hexagon socket head cap screw with flange (M4x6)      |      |
|       | 41   | SBAB04010 | Binding head screw (cross recessed, M4x10)            |      |
|       | 42   | SNAB3A010 | Flat head tapping screw (cross recessed head, 3.1x10) |      |
|       | 43   | WPAA05000 | Plain washer (M5)                                     |      |
|       | 44   | WSAA05000 | Spring lock washer (M5)                               |      |
|       | 45   | SCAA05012 | Hexagon socket head cap screw (M5x12)                 |      |
|       | 46   | WPAA04000 | Plain washer (M4)                                     |      |
|       | 47   | SKAB4E016 | Round head wood screw (cross recessed head, 4.5x16)   |      |
|       | 48   | SGAB05012 | Flat head screw (cross recessed head, M5x12)          |      |
|       | 49   | SLAB4E016 | Oval head wood screw (cross recessed head, 4.5x16)    |      |
|       | 50   | SCAA08025 | Hexagon socket head cap screw (M8x25)                 |      |
|       | 51   | WSAA08000 | Spring lock washer (M8)                               |      |
|       | 52   | WPAA08000 | Plain washer (M8)                                     |      |



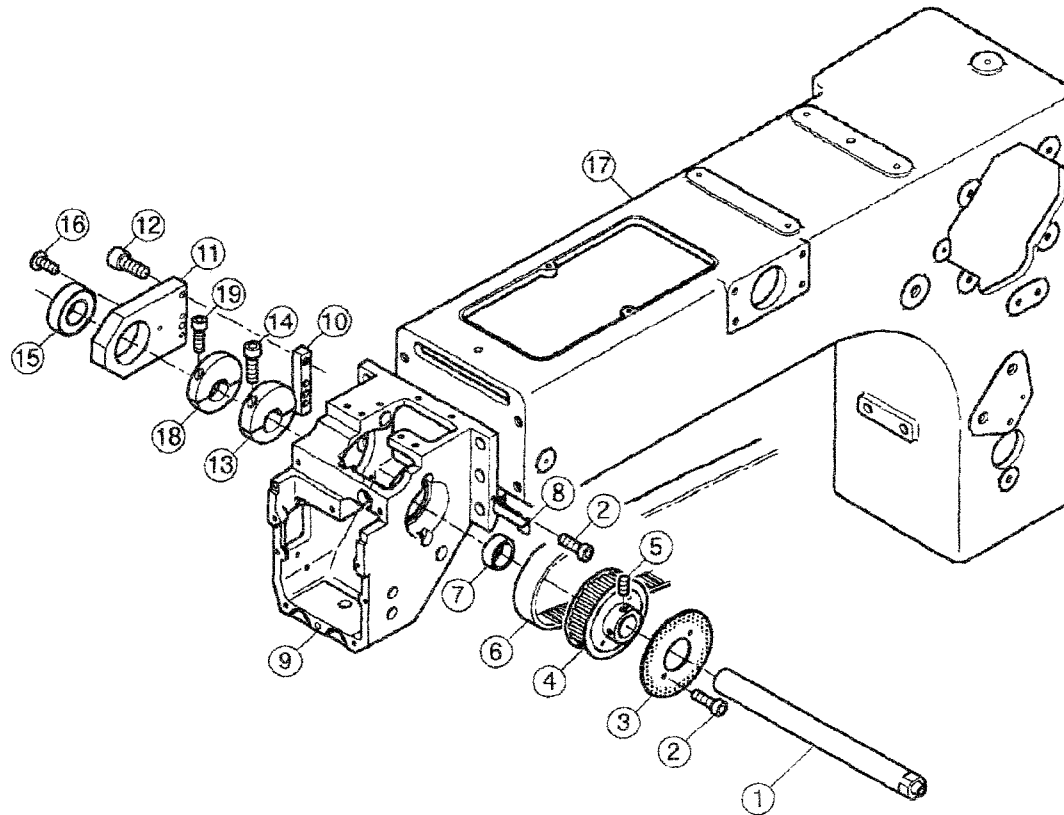
# CHASSIS & TABLE (OPTION PARTS)

Cha0717

2a-1

| Ass'y | El't | Parts No. | Parts Names          | Note |
|-------|------|-----------|----------------------|------|
|       | 1    | HCA937040 | Border frame set     |      |
|       | 2    | HCA00701  | Stand ass'y (type 5) |      |
|       | 2    | HCA00721  | Stand ass'y (type 7) |      |



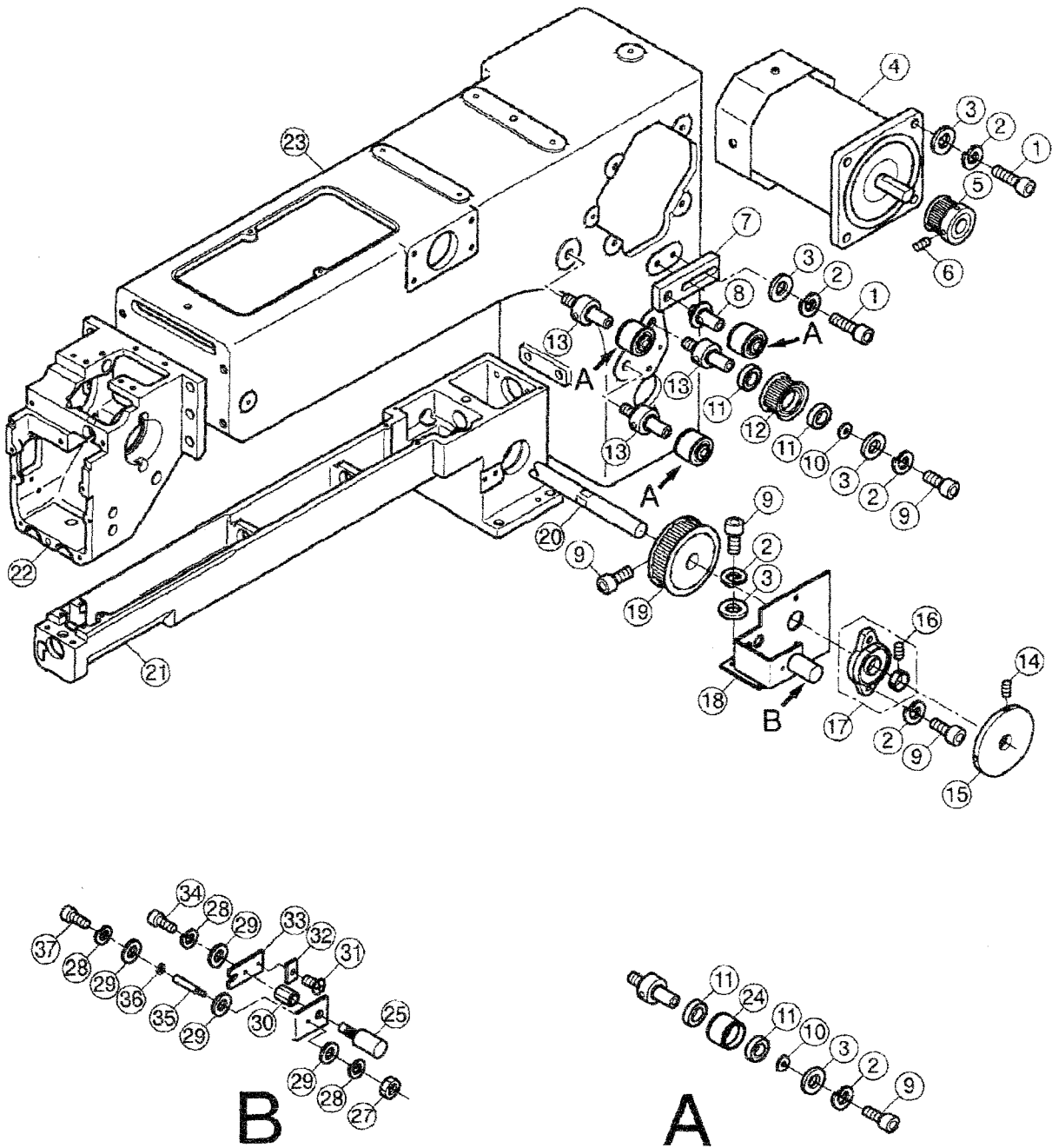


# TRANSMISSION UNIT 1

CAB1806

3a-1

| Ass'y | El't | Parts No. | Parts Names                               | Note |
|-------|------|-----------|-------------------------------------------|------|
|       | 1    | HCA02130  | Upper shaft (with screw)                  |      |
|       | 2    | SCAA04006 | Hexagon socket head cap screw (M4x6)      |      |
|       | 3    | HCA02041  | Dial                                      |      |
|       | 4    | HCA02220  | Upper shaft pulley                        |      |
|       | 5    | SSAA06010 | Hexagon socket set screw (M6x10)          |      |
|       | 6    | MPV00550  | Timing belt                               |      |
|       | 7    | HCA02231  | Upper shaft collar                        |      |
|       | 8    | HCA02051  | Pointer                                   |      |
|       | 9    | →6a       | Fixed head                                |      |
|       | 10   | HCA02121  | Spacer                                    |      |
|       | 11   | HCA02032  | Upper shaft support                       |      |
|       | 12   | SCAA05025 | Hexagon socket head cap screw (M5x25)     |      |
|       | 13   | HCA02150  | Balancer B                                |      |
|       | 14   | SCAA04022 | Hexagon socket head cap screw (M4x22)     |      |
|       | 15   | MPB00770  | Bearing (6004ZZ)                          |      |
|       | 16   | SBAD03006 | Binding head screw (cross recessed, M3x6) |      |
|       | 17   | HCA02010  | Arm                                       |      |
|       | 18   | HCA02500  | Balancer C                                |      |
|       | 19   | SCAA03022 | Hexagon socket head cap screw (M3x22)     |      |

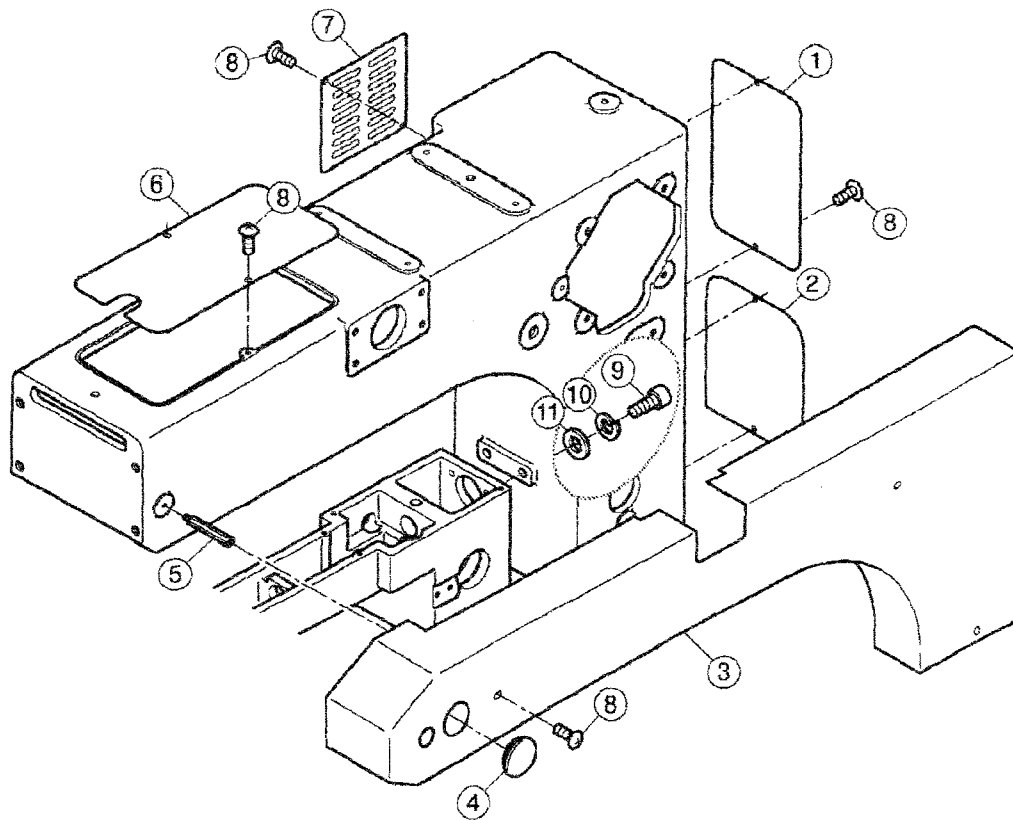


## TRANSMISSION UNIT 2

CAa1001

3b-1

| Ass'y | El't | Parts No. | Parts Names                                 | Note |
|-------|------|-----------|---------------------------------------------|------|
|       | 1    | SCAA06025 | Hexagon socket head cap screw (M6x25)       |      |
|       | 2    | WSAA06000 | Spring lock washer (M6)                     |      |
|       | 3    | WPAA06000 | Plain washer (M6)                           |      |
|       | 4    | HCA75012  | Drive motor                                 |      |
|       | 5    | HCA02060  | Motor pulley                                |      |
|       | 6    | SSAA06010 | Hexagon socket set screw (M6x10)            |      |
|       | 7    | HCA02110  | Tension plate                               |      |
|       | 8    | HCA02100  | Tension shaft                               |      |
|       | 9    | SCAA06012 | Hexagon socket head cap screw (M6x12)       |      |
|       | 10   | HCA02250  | Washer                                      |      |
|       | 11   | MPB00790  | Bearing (6901ZZ)                            |      |
|       | 12   | HCA02070  | Idler pulley                                |      |
|       | 13   | HCA02080  | Idler shaft                                 |      |
|       | 14   | SSAA04006 | Hexagon socket set screw (M4x6)             |      |
|       | 15   | HCA02170  | Disc                                        |      |
|       | 16   | SSAA03004 | Hexagon socket set screw (M3x4)             |      |
|       | 17   | MPB00780  | Flange type bearing unit                    |      |
|       | 18   | HCA02161  | Brake bracket                               |      |
|       | 19   | HCA02240  | Lower shaft pulley                          |      |
|       | 20   | HCA02140  | Lower shaft                                 |      |
|       | 21   | →4a       | Bed                                         |      |
|       | 22   | →6a       | Fixed head                                  |      |
|       | 23   | HCA02010  | Arm                                         |      |
|       | 24   | HCA02090  | Tension pulley                              |      |
|       | 25   | HCA75030  | Brake solenoid                              |      |
|       | 27   | NHAA04000 | Hexagon nut (M4)                            |      |
|       | 28   | WSAA04000 | Spring lock washer (M4)                     |      |
|       | 29   | WPAA04000 | Plain washer (M4)                           |      |
|       | 30   | M0409062  | Solenoid nut                                |      |
|       | 31   | SGAB03005 | Flat head screw (cross recessed head, M3x5) |      |
|       | 32   | HCA02190  | Pad                                         |      |
|       | 33   | HCA02180  | Pad bracket                                 |      |
|       | 34   | SCAA04010 | Hexagon socket head cap screw (M4x10)       |      |
|       | 35   | HCA02210  | Stopper shaft                               |      |
|       | 36   | HCA02201  | Stopper                                     |      |
|       | 37   | SCAA04006 | Hexagon socket head cap screw (M4x6)        |      |

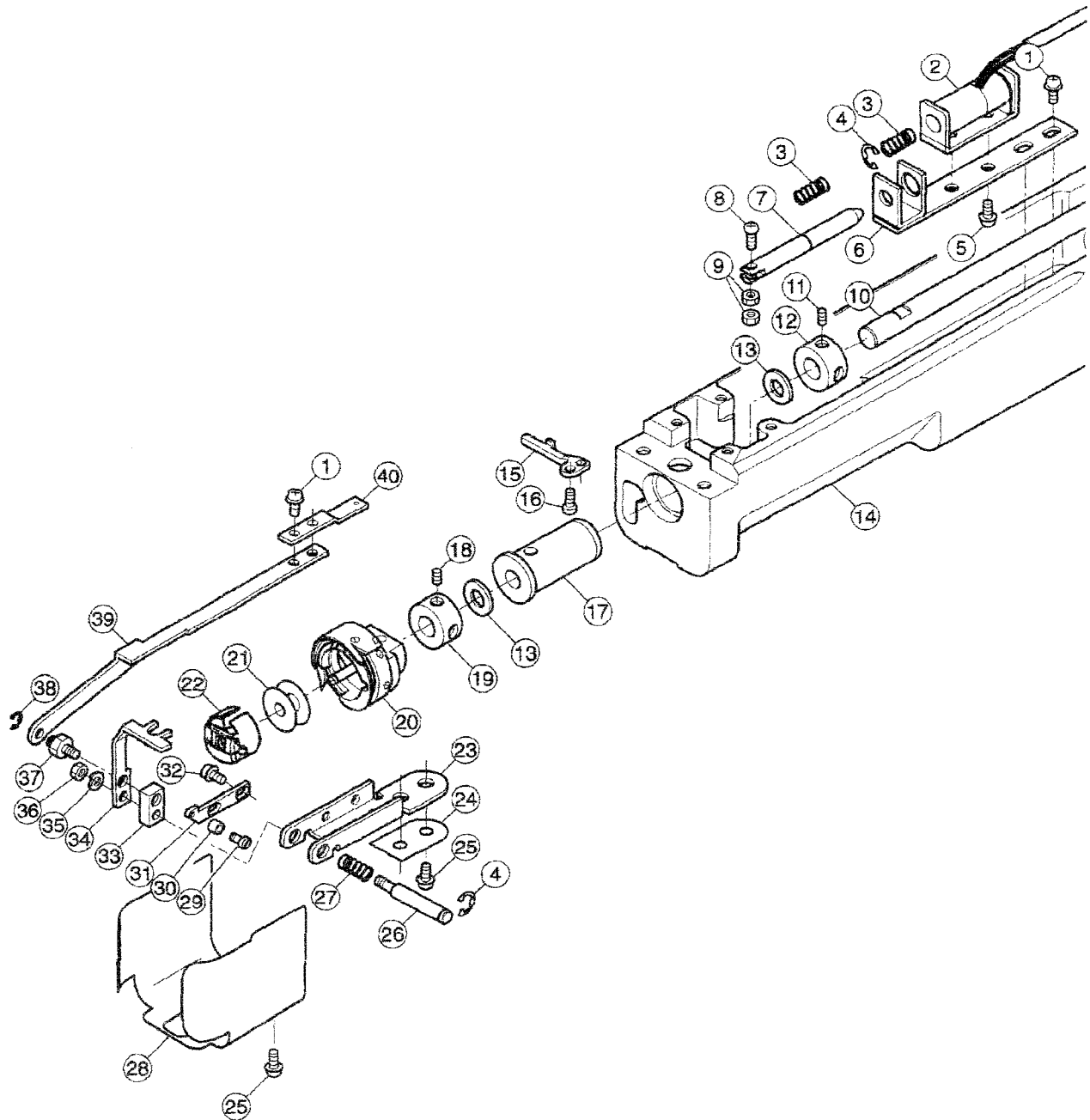


# TRANSMISSION UNIT 3

CAa0831

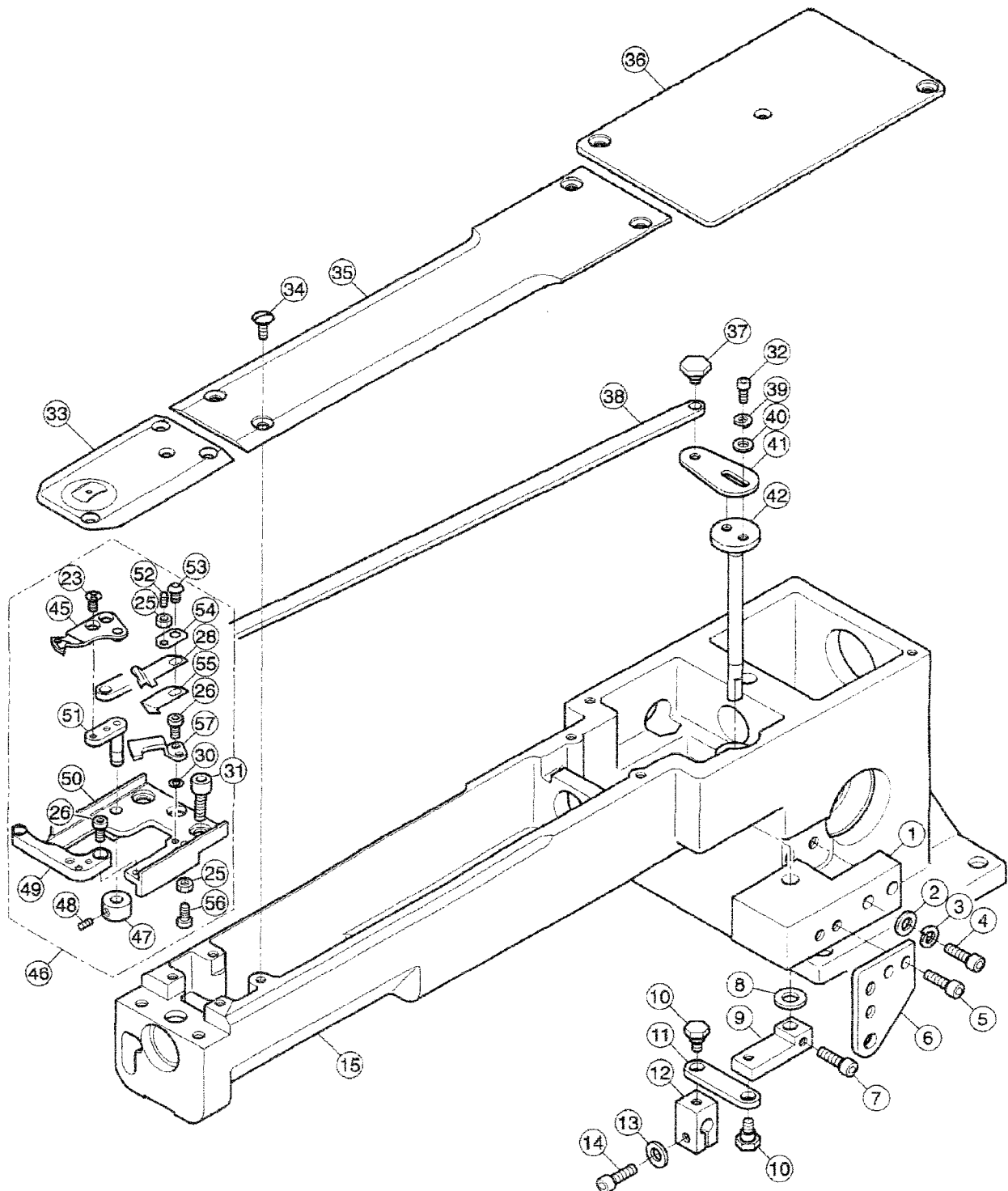
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| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 1    | HCA02270  | Arm cover B                             |      |
|       | 2    | HCA02280  | Arm cover C                             |      |
|       | 3    | HCA02320  | Transmission cover B                    |      |
|       | 4    | M0408150  | Rubber cap (small)                      |      |
|       | 5    | MPA00010  | Spacer (BSB-450)                        |      |
|       | 6    | HCA02260  | Arm cover A                             |      |
|       | 7    | HCA02290  | Arm cover D                             |      |
|       | 8    | STAB04006 | Truss head screw (cross recessed, M4x6) |      |
|       | 9    | SCAA06025 | Hexagon socket head cap screw (M6x25)   |      |
|       | 10   | WSAA06000 | Spring lock washer (M6)                 |      |
|       | 11   | WPAA06000 | Plain washer (M6)                       |      |

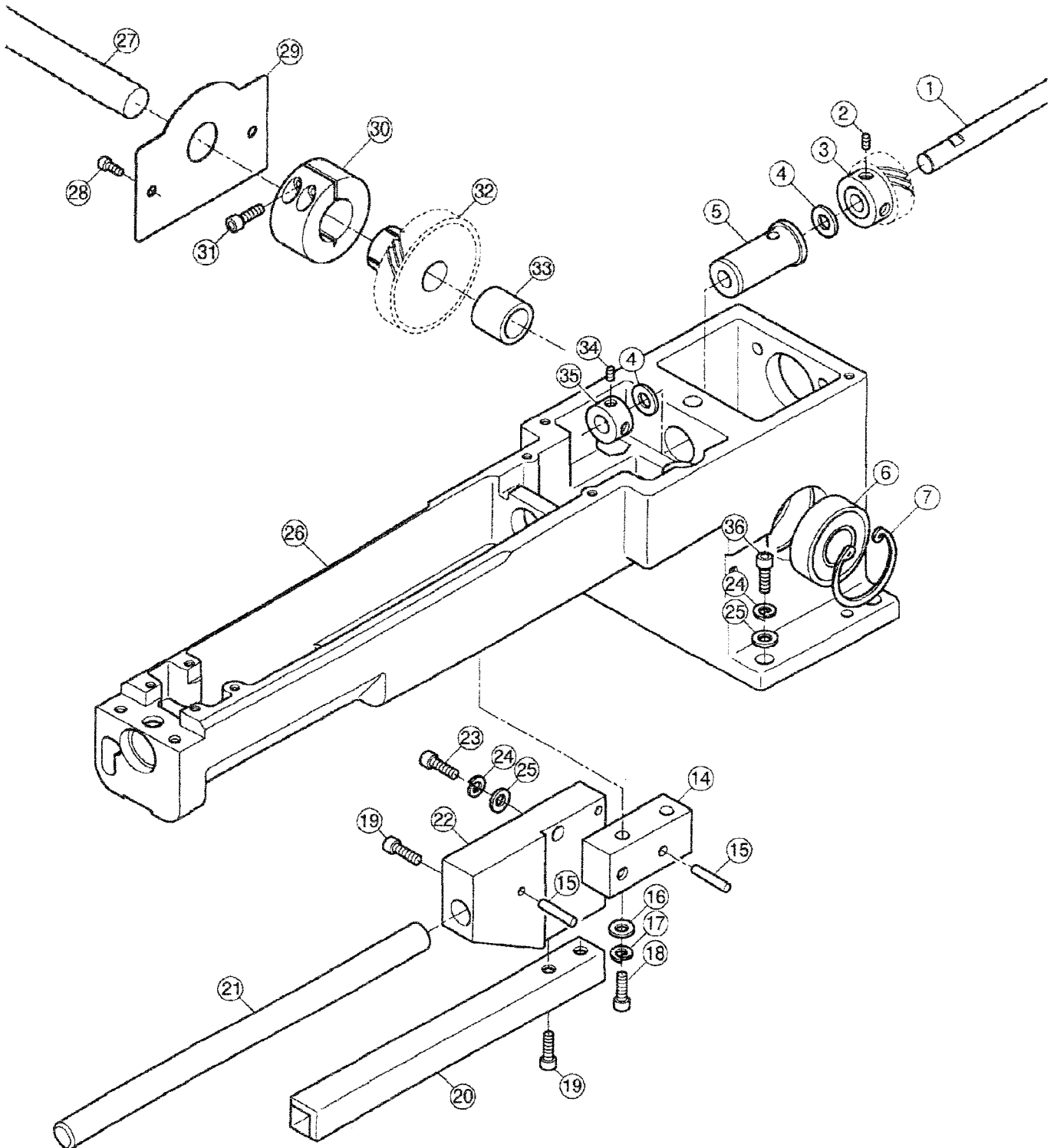


| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | SPDB04008 | Pan head screw (cross recessed, M4x8)            |      |
|       | 2    | HCX78002  | Keeper solenoid                                  |      |
|       | 3    | HCM04180  | Spring B                                         |      |
|       | 4    | MPR00420  | E-ring (E-4)                                     |      |
|       | 5    | SPDB03006 | Pan head screw (cross recessed, M3x6)            |      |
|       | 6    | HCM04171  | Solenoid base                                    |      |
|       | 7    | HCM04191  | Plunger                                          |      |
|       | 8    | SPAC2C010 | Pan head screw (cross recessed, M2.3x10)         |      |
|       | 9    | NHAC2C000 | Hexagon nut (M2.3)                               |      |
|       | 10   | HCM04531  | Rotary hook shaft (for Y480)                     |      |
|       | 11   | SSAA04004 | Hexagon socket set screw (M4x4)                  |      |
|       | 12   | HCM04680  | Stopping collar A                                |      |
|       | 13   | MPB00120  | Plastic thrust washer (TW0815)                   |      |
|       | 14   | HCA04010  | Bed                                              |      |
|       | 15   | HCM04232  | Rotary hook retainer                             |      |
|       | 16   | SAAA03006 | Hexagon socket button head screw (M3x6)          |      |
|       | 17   | HCG04035  | Bushing for rotary hook shaft                    |      |
|       | 18   | SSAA05006 | Hexagon socket set screw (M5x6)                  |      |
|       | 19   | HMF04190  | Stopping collar                                  |      |
|       | 20   | MPZ00050  | Rotary hook                                      |      |
|       | 20   | MPZ00540  | Rotary hook (for thick thread)                   |      |
|       | 21   | MPZ00550  | Bobbin                                           |      |
|       | 22   | MPZ00080  | Bobbin case                                      |      |
|       | 23   | HCM04144  | Shaft holder                                     |      |
|       | 24   | HCM04650  | Hinge spacer                                     |      |
|       | 25   | SPDB04010 | Pan head screw (cross recessed, M4x10)           |      |
|       | 26   | HCM04160  | Keeper shaft                                     |      |
|       | 27   | HCM04150  | Spring A                                         |      |
|       | 28   | HCG04230  | Keeper cover                                     |      |
|       | 29   | HCM04490  | Stopper pin                                      |      |
|       | 30   | HCM04510  | Stopper                                          |      |
|       | 31   | HCM04480  | Stopper bracket                                  |      |
|       | 32   | SCBA03006 | Hexagon socket head cap screw with flange (M3x6) |      |
|       | 33   | HCM04131  | Fulcrum block                                    |      |
|       | 34   | HCM04413  | Keeper                                           |      |
|       | 35   | WSAD03000 | Spring lock washer (M3)                          |      |
|       | 36   | NHAD03000 | Hexagon nut (M3)                                 |      |
|       | 37   | HCM04121  | Fulcrum pin                                      |      |
|       | 38   | MPR00290  | E-ring (E-3)                                     |      |
|       | 39   | HCM04203  | Keeper actuating plate A                         |      |
|       | 40   | HCM04211  | Keeper actuating plate B                         |      |

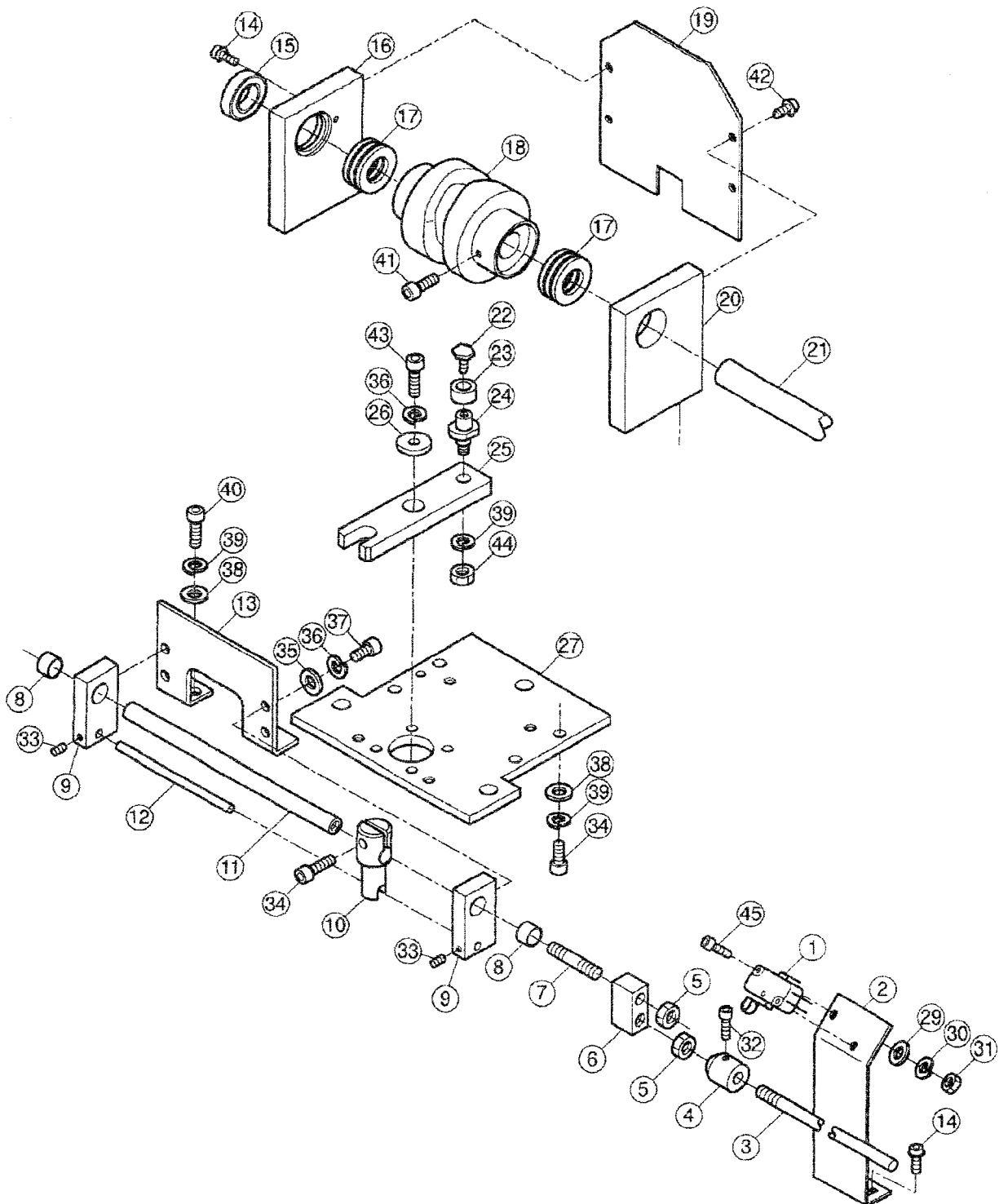




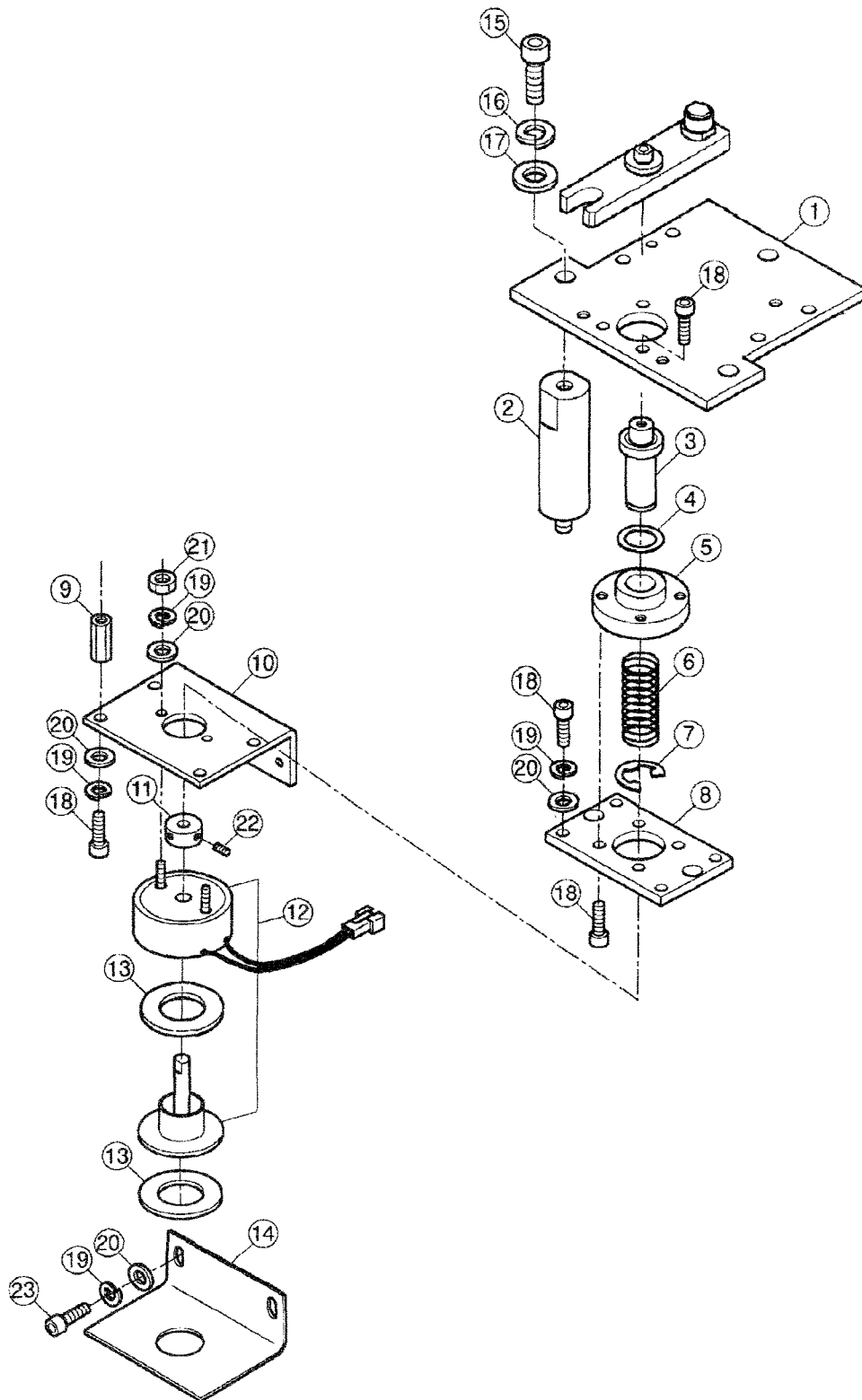
| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 1    | HCM04092  | Link base                               |      |
|       | 2    | WPAA05000 | Plain washer (M5)                       |      |
|       | 3    | WSAA05000 | Spring lock washer (M5)                 |      |
|       | 4    | SCAA05020 | Hexagon socket head cap screw (M5x20)   |      |
|       | 5    | SCAA04010 | Hexagon socket head cap screw (M4x10)   |      |
|       | 6    | HMF04050  | Support for moving shaft                |      |
|       | 7    | SCAA04008 | Hexagon socket head cap screw (M4x8)    |      |
|       | 8    | WPAA06000 | Plain washer (M6)                       |      |
|       | 9    | M0404240  | Drive arm for knife                     |      |
|       | 10   | M0404263  | Hinge screw for link                    |      |
|       | 11   | M0404250  | Link                                    |      |
|       | 12   | M0404271  | Fasten block for thread cut shaft       |      |
|       | 13   | WPAA04000 | Plain washer (M4)                       |      |
|       | 14   | SCCA04015 | Hexagon socket head cap screw (M4x15)   |      |
|       | 15   | HCA04010  | Bed                                     |      |
| 46 *  | 23   | HMF04260  | Flat head screw                         |      |
| 46 *  | 25   | NHCA03000 | Hexagon nut (M3)                        |      |
| 46 *  | 26   | SCAA03004 | Hexagon socket head cap screw (M3x4)    |      |
| 46 *  | 28   | HCM04580  | Bobbin thread holder                    |      |
| 46 *  | 30   | MPZ02230  | Washer                                  |      |
|       | 31   | SCAA05010 | Hexagon socket head cap screw (M5x10)   |      |
|       | 32   | SCAA03006 | Hexagon socket head cap screw (M3x6)    |      |
|       | 33   | HCM04750  | Needle plate                            |      |
|       | 34   | MPZ00040  | Screw for needle plate                  |      |
|       | 35   | HCM04050  | Cover B (for Y480)                      |      |
|       | 36   | HCM04041  | Cover A                                 |      |
|       | 37   | HCM04252  | Hinge screw for link                    |      |
|       | 38   | HCM04223  | Rod (for Y480)                          |      |
|       | 39   | WSAA03000 | Spring lock washer (M3)                 |      |
|       | 40   | WPAA03000 | Plain washer (M3)                       |      |
|       | 41   | HCM04550  | Link C                                  |      |
|       | 42   | C0404301  | Drive shaft for link                    |      |
| 46 *  | 45   | HCM04293  | Knife                                   |      |
|       | 46   | HCA04030  | Thread cutting device ass'y             |      |
| 46 *  | 47   | HCA04060  | Knife drive shaft retainer              |      |
| 46 *  | 48   | SSAA04004 | Hexagon socket set screw (M4x4)         |      |
| 46 *  | 49   | HCA04070  | Rotary hook retainer base               |      |
| 46 *  | 50   | HCA04040  | Thread cutting device base              |      |
| 46 *  | 51   | HCA04050  | Knife drive shaft                       |      |
| 46 *  | 52   | SSAA03003 | Hexagon socket set screw (M3x3)         |      |
| 46 *  | 53   | SAAA03005 | Hexagon socket button head screw (M3x5) |      |
| 46 *  | 54   | HCA04090  | Holder retainer                         |      |
| 46 *  | 55   | HCA04082  | Holder support                          |      |
| 46 *  | 56   | SCAA03012 | Hexagon socket head cap screw (M3x12)   |      |
| 46 *  | 57   | HCA04100  | Fixed knife                             |      |



| Ass'y | El't | Parts No. | Parts Names                           | Note |
|-------|------|-----------|---------------------------------------|------|
|       | 1    | HCM04531  | Rotary hook shaft (for Y480)          |      |
|       | 2    | SSAA05008 | Hexagon socket set screw (M5x8)       |      |
|       | 3    | HMF04060  | Gear for rotary hook shaft            |      |
|       | 4    | MPB00120  | Plastic thrust washer (TW0815)        |      |
|       | 5    | HCG04035  | Bushing for rotary hook shaft         |      |
|       | 6    | MPB00150  | Bearing (6202LLU)                     |      |
|       | 7    | MPR00410  | C-ring (C-35)                         |      |
|       | 14   | HCM04540  | Holder (for Y480, standard hook)      |      |
|       | 15   | MPP00090  | Spring pin (4x20)                     |      |
|       | 16   | WPAA05000 | Plain washer (M5)                     |      |
|       | 17   | WSAA05000 | Spring lock washer (M5)               |      |
|       | 18   | SCAA05035 | Hexagon socket head cap screw (M5x35) |      |
|       | 19   | SCAD06010 | Hexagon socket head cap screw (M6x10) |      |
|       | 20   | FRA43872  | Guide shaft for cap frame             |      |
|       | 21   | FRA43860  | Fulcrum shaft for cap frame           |      |
|       | 22   | HCM04672  | Fulcrum shaft holder                  |      |
|       | 23   | SCAA06035 | Hexagon socket head cap screw (M6x35) |      |
|       | 24   | WSAA06000 | Spring lock washer (M6)               |      |
|       | 25   | WPAA06000 | Plain washer (M6)                     |      |
|       | 26   | HCA04010  | Bed                                   |      |
|       | 27   | →3a       | Lower shaft                           |      |
|       | 28   | SCAA04006 | Hexagon socket head cap screw (M4x6)  |      |
|       | 29   | C0404031  | Side cover                            |      |
|       | 30   | M0404123  | Fasten collar                         |      |
|       | 31   | SCAA04015 | Hexagon socket head cap screw (M4x15) |      |
|       | 32   | SF404070  | Drive spiral gear                     |      |
|       | 33   | SF404030  | Spiral gear collar                    |      |
|       | 34   | SSAA04004 | Hexagon socket set screw (M4x4)       |      |
|       | 35   | HCM04680  | Stopping collar A                     |      |
|       | 36   | SCAA06020 | Hexagon socket head cap screw (M6x20) |      |



| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | EPS00010  | Micro switch                                     |      |
|       | 2    | HCA06062  | Micro switch bracket                             |      |
|       | 3    | HCA06070  | Moving shaft                                     |      |
|       | 4    | M0406101  | LS dog                                           |      |
|       | 5    | M0404280  | Nut                                              |      |
|       | 6    | HCG06320  | Connecting block                                 |      |
|       | 7    | HCG06300  | Bolt                                             |      |
|       | 8    | MPB00740  | Bushing                                          |      |
|       | 9    | HCA06120  | Shaft support                                    |      |
|       | 10   | M0406142  | Lever drive pin                                  |      |
|       | 11   | M0406161  | Slide shaft                                      |      |
|       | 12   | HCG06310  | Guide pin                                        |      |
|       | 13   | HCG06291  | Shaft support bracket                            |      |
|       | 14   | SCBA04008 | Hexagon socket head cap screw with flange (M4x8) |      |
|       | 15   | MPB00730  | Bearing (6902ZZ)                                 |      |
|       | 16   | HCA06111  | Cam support (left)                               |      |
|       | 17   | MPB00160  | Thrust bearing (51102)                           |      |
|       | 18   | HCA06090  | Cam for thread cutting driver                    |      |
|       | 19   | HCA06081  | Cam support bracket                              |      |
|       | 20   | HCA06101  | Cam support (right)                              |      |
|       | 21   | →3a       | Lower shaft                                      |      |
|       | 22   | M0406211  | Roller screw                                     |      |
|       | 23   | M0406220  | Thread cutting roller                            |      |
|       | 24   | M0406231  | Roller shaft                                     |      |
|       | 25   | HCG06270  | Cam lever                                        |      |
|       | 26   | M0406410  | Washer                                           |      |
|       | 27   | HCA06040  | Cam support base                                 |      |
|       | 29   | WPAA03000 | Plain washer (M3)                                |      |
|       | 30   | WSAA03000 | Spring lock washer (M3)                          |      |
|       | 31   | NHAA03000 | Hexagon nut (M3)                                 |      |
|       | 32   | SCAA04008 | Hexagon socket head cap screw (M4x8)             |      |
|       | 33   | SSAA04008 | Hexagon socket set screw (M4x8)                  |      |
|       | 34   | SCAA06020 | Hexagon socket head cap screw (M6x20)            |      |
|       | 35   | WPAA05000 | Plain washer (M5)                                |      |
|       | 36   | WSAA05000 | Spring lock washer (M5)                          |      |
|       | 37   | SCAA05012 | Hexagon socket head cap screw (M5x12)            |      |
|       | 38   | WPAA06000 | Plain washer (M6)                                |      |
|       | 39   | WSAA06000 | Spring lock washer (M6)                          |      |
|       | 40   | SCAA06015 | Hexagon socket head cap screw (M6x15)            |      |
|       | 41   | SCAA06012 | Hexagon socket head cap screw (M6x12)            |      |
|       | 42   | SPDB04008 | Pan head screw (cross recessed, M4x8)            |      |
|       | 43   | SCAA05015 | Hexagon socket head cap screw (M5x15)            |      |
|       | 44   | NHAA06000 | Hexagon nut (M6)                                 |      |
|       | 45   | SCAA03018 | Hexagon socket head cap screw (M3x18)            |      |



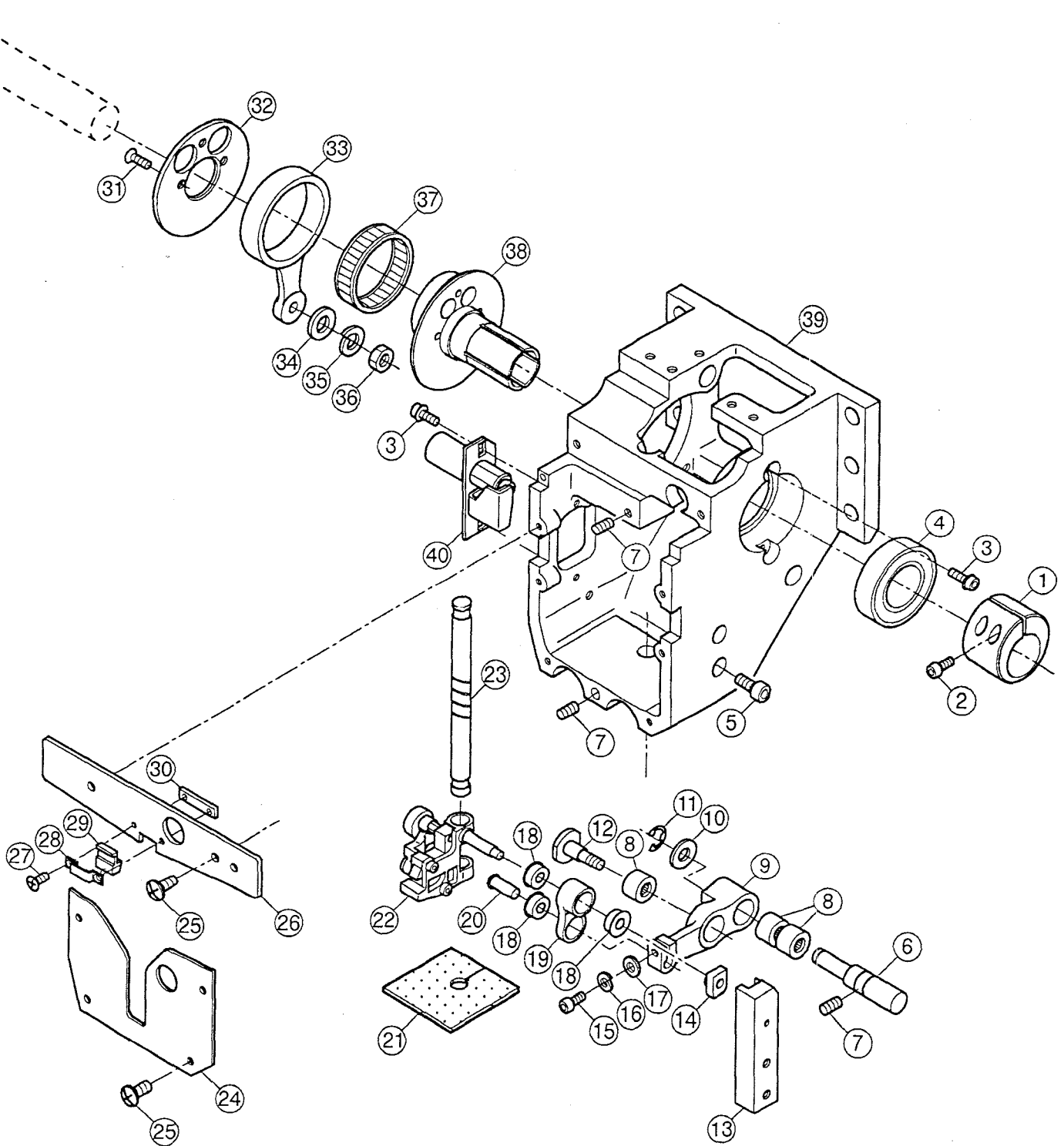
# THREAD CUTTING DRIVER 2

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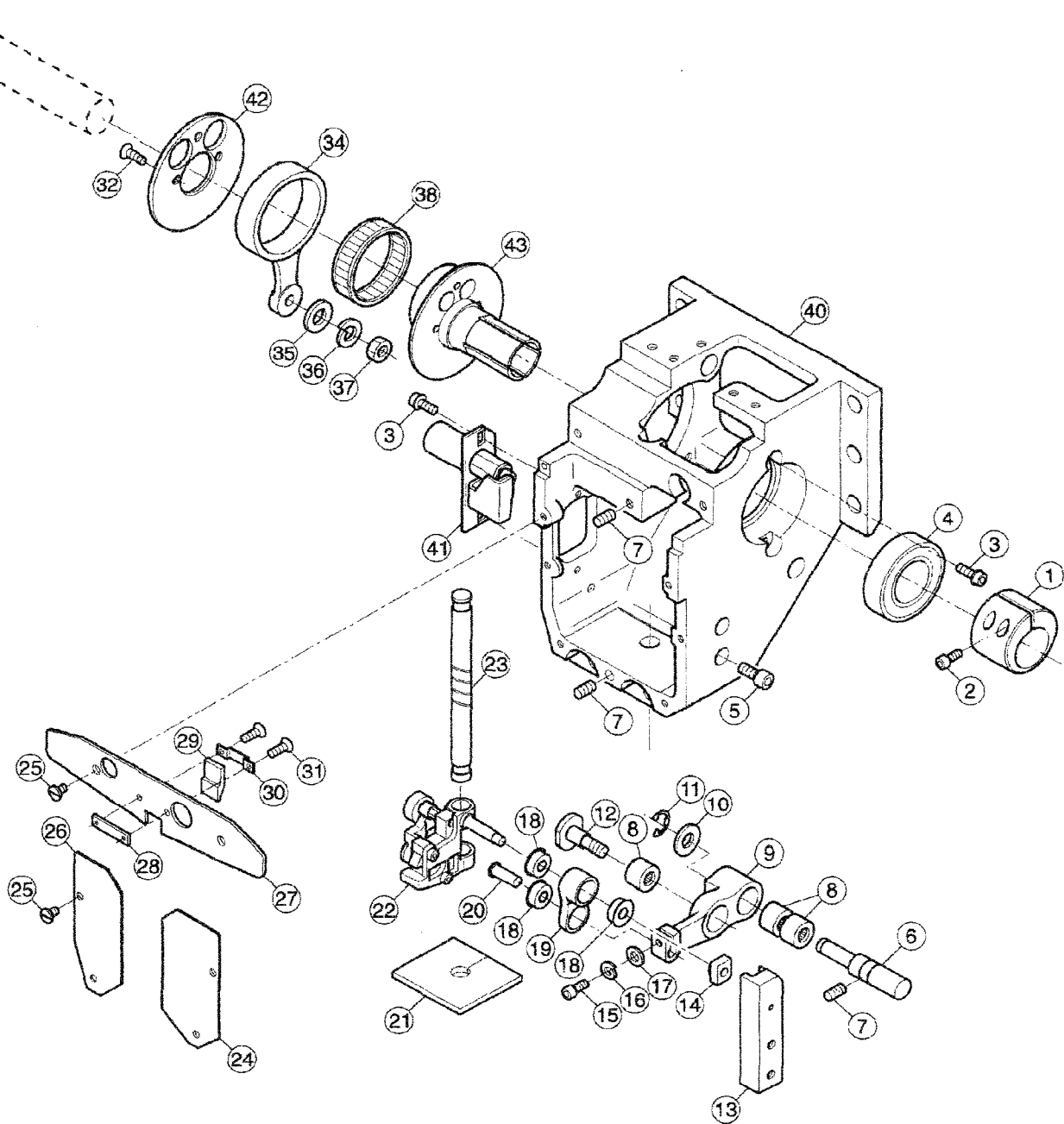
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| Ass'y | El't | Parts No. | Parts Names                           | Note |
|-------|------|-----------|---------------------------------------|------|
|       | 1    | HCA06040  | Cam support base                      |      |
|       | 2    | HCA00100  | Stud                                  |      |
|       | 3    | HCA06140  | Lever shaft                           |      |
|       | 4    | M0406260  | Washer                                |      |
|       | 5    | HCA06130  | Lever shaft support                   |      |
|       | 6    | M0406050  | Lever spring                          |      |
|       | 7    | MPR00430  | E-ring (E-12)                         |      |
|       | 8    | HCG06341  | Solenoid base                         |      |
|       | 9    | HMF06050  | Solenoid stud                         |      |
|       | 10   | HCA06030  | Fixing plate                          |      |
|       | 11   | HCA06050  | Collar                                |      |
|       | 12   | HCA75040  | Thread cutting solenoid               |      |
|       | 13   | HCA06020  | Solenoid felt                         |      |
|       | 14   | HCA06010  | Felt base                             |      |
|       | 15   | SCAA08020 | Hexagon socket head cap screw (M8x20) |      |
|       | 16   | WSAA08000 | Spring lock washer (M8)               |      |
|       | 17   | WPAA08000 | Plain washer (M8)                     |      |
|       | 18   | SCAA05015 | Hexagon socket head cap screw (M5x15) |      |
|       | 19   | WSAA05000 | Spring lock washer (M5)               |      |
|       | 20   | WPAA05000 | Plain washer (M5)                     |      |
|       | 21   | NHAA05000 | Hexagon nut (M5)                      |      |
|       | 22   | SSAA05006 | Hexagon socket set screw (M5x6)       |      |
|       | 23   | SCAA05010 | Hexagon socket head cap screw (M5x10) |      |

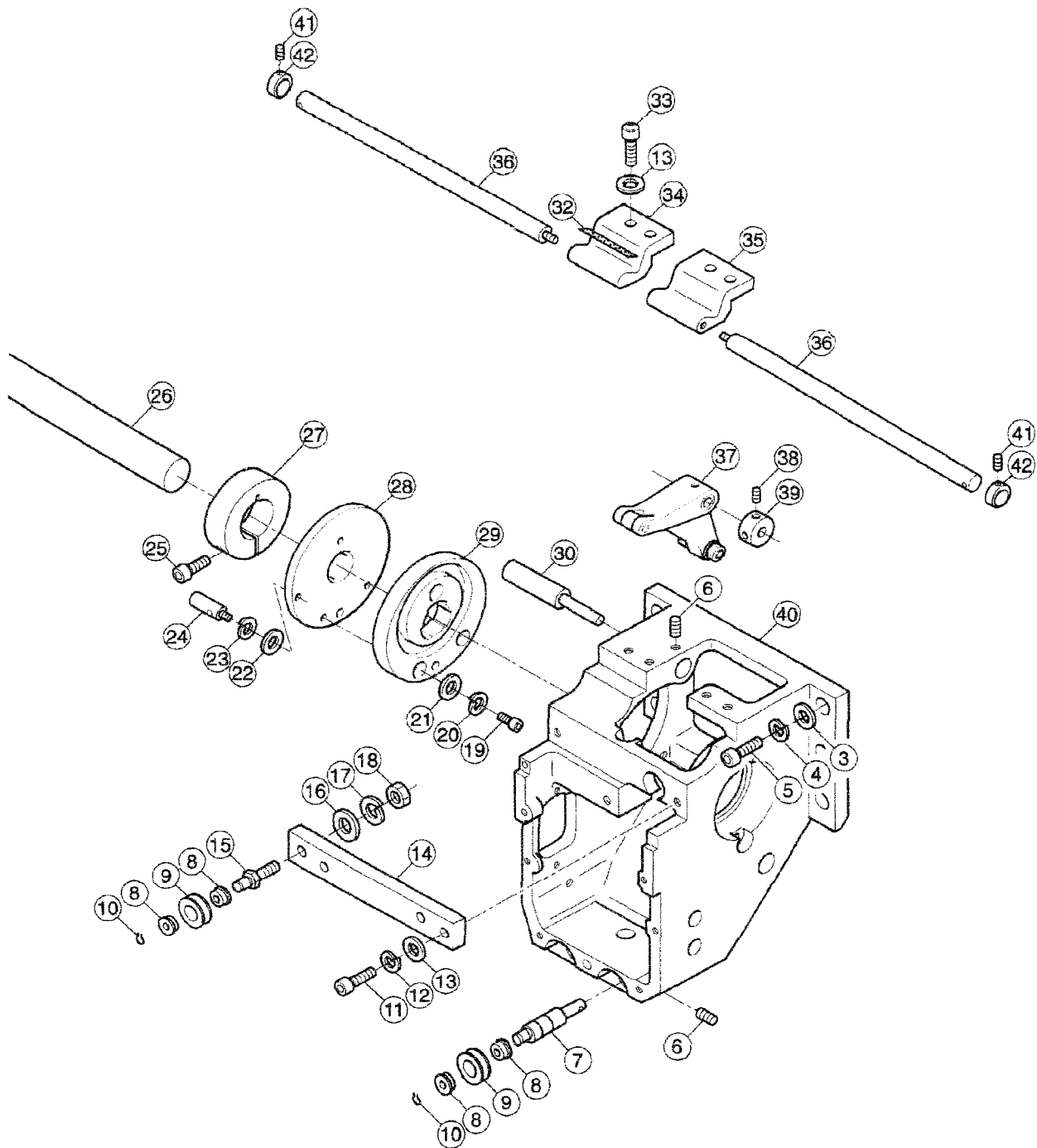




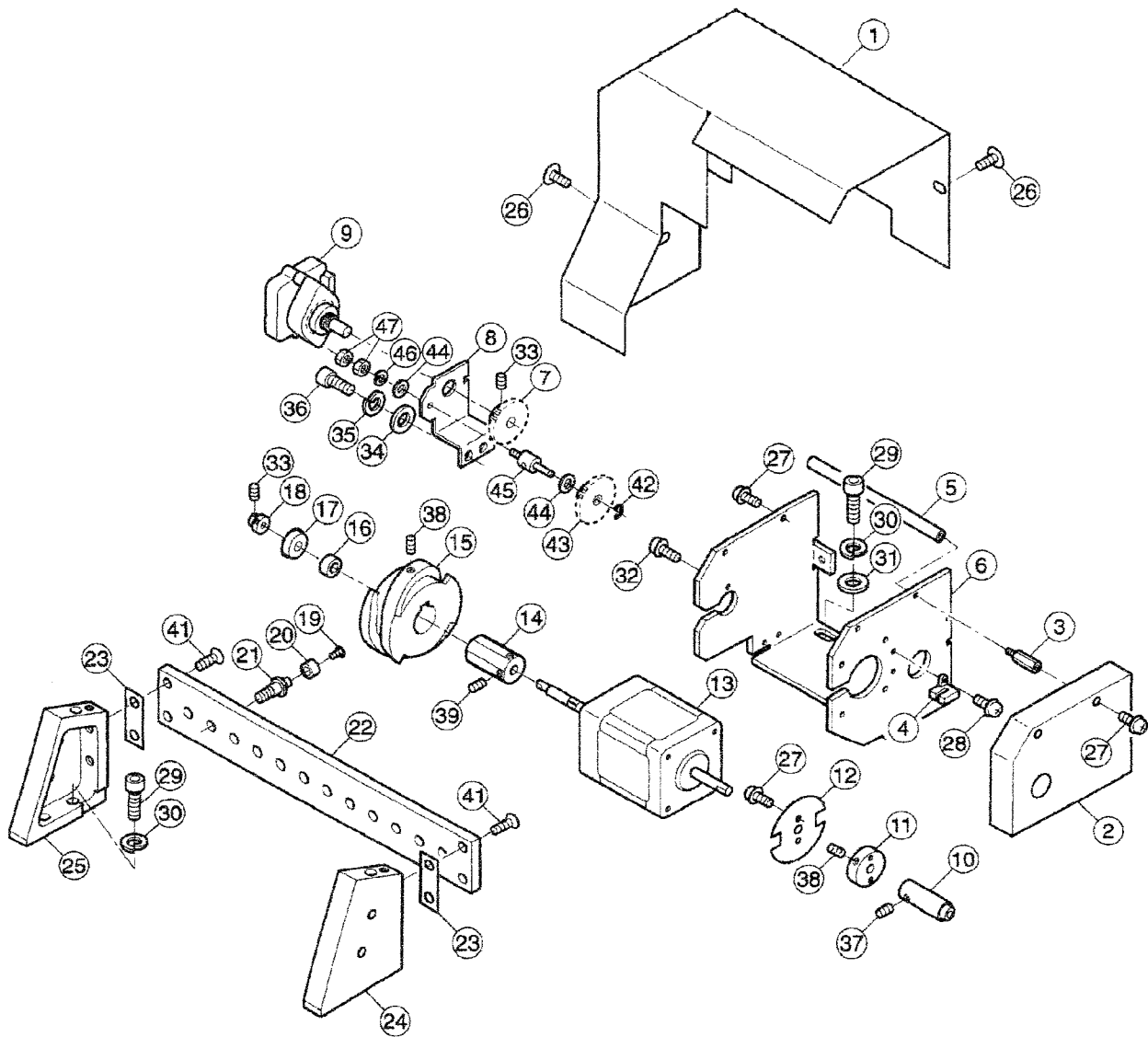
| 組<br>Ass'y | 指図<br>El't | 部品番号<br>PARTS No. | PARTS NAMES                                      | CA9208<br>NOTE / 備考 |
|------------|------------|-------------------|--------------------------------------------------|---------------------|
|            | 1          | HCG08040          | Fasten collar                                    |                     |
|            | 2          | SCAA04015         | Hexagon socket head cap screw (M4x15)            |                     |
|            | 3          | SCBA04008         | Hexagon socket head cap screw with flange (M4x8) |                     |
|            | 4          | MPB00670          | Bearing (6005LLB)                                |                     |
|            | 5          | SCAA05012         | Hexagon socket head cap screw (M5x12)            |                     |
|            | 6          | HCG08081          | Pin (for needle bar driving lever)               |                     |
|            | 7          | SSAA05008         | Hexagon socket set screw (M5x8)                  |                     |
|            | 8          | MPB00680          | Needle bearing (RNAO-8x15x10T2)                  |                     |
|            | 9          | HCG08062          | Needle bar driving lever                         |                     |
|            | 10         | WPAA08000         | Plain washer (M8)                                |                     |
|            | 11         | MPR00060          | E-ring (E-7)                                     |                     |
|            | 12         | HCG08072          | Pin (for coupling rod)                           |                     |
|            | 13         | HCG08140          | Guide rail                                       |                     |
|            | 14         | M0408230          | Slide block                                      |                     |
|            | 15         | SCAA04012         | Hexagon socket head cap screw (M4x12)            |                     |
|            | 16         | WSAA04000         | Spring lock washer (M4)                          |                     |
|            | 17         | WPBA04000         | Plain washer (M4)                                |                     |
|            | 18         | MPB00660          | Miniature bearing (LFW686ZZA)                    |                     |
|            | 19         | HCG08092          | Link                                             |                     |
|            | 20         | HCG08102          | Pin (for link)                                   |                     |
|            | 21         | M0408870          | Fixed head felt                                  |                     |
|            | 22         | HCA08022          | Needle bar driver                                |                     |
|            | 23         | HMF08040          | Slide shaft                                      |                     |
|            | 24         | HCG08131          | Lower face plate B                               |                     |
|            | 25         | SBBB04006         | Binding head screw (M4x6)                        |                     |
|            | 26         | HCG08200          | Upper face plate B                               |                     |
|            | 27         | SGAB2E005         | Flat head screw (cross recessed head, M2.5x5)    |                     |
|            | 28         | M0408423          | Holding plate                                    |                     |
|            | 29         | M0408412          | Cushion                                          |                     |
|            | 30         | M0408430          | Plate nut                                        |                     |
|            | 31         | SCDA04008         | Hexagon socket flat head screw (M4x8)            |                     |
|            | 32         | HCG08031          | Plate                                            |                     |
|            | 33         | HCG08050          | Connecting rod                                   |                     |
|            | 34         | WPAA06000         | Plain washer (M6)                                |                     |
|            | 35         | WSAA06000         | Spring lock washer (M6)                          |                     |
|            | 36         | NHAA06000         | Hexagon nut (M6)                                 |                     |
|            | 37         | MPB00690          | Needle bearing (K40x45x13)                       |                     |
|            | 38         | HCG08021          | Needle bar cam                                   |                     |
|            | 39         | HCA08014          | Fixed head                                       |                     |
|            | 40         | HMF08300          | Jump solenoid ass'y                              |                     |



| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | HCG08042  | Fasten collar                                    |      |
|       | 2    | SCAA04015 | Hexagon socket head cap screw (M4x15)            |      |
|       | 3    | SCBA04008 | Hexagon socket head cap screw with flange (M4x8) |      |
|       | 4    | MPB00850  | Bearing (6005LLU)                                |      |
|       | 5    | SCAA05012 | Hexagon socket head cap screw (M5x12)            |      |
|       | 6    | HCG08082  | Pin (for needle bar driving lever)               |      |
|       | 7    | SSAA05008 | Hexagon socket set screw (M5x8)                  |      |
|       | 8    | MPB00680  | Needle bearing (RNAO-8x15x10T2)                  |      |
|       | 9    | HCG08062  | Needle bar driving lever                         |      |
|       | 10   | WPAA08000 | Plain washer (M8)                                |      |
|       | 11   | MPR00060  | E-ring (E-7)                                     |      |
|       | 12   | HCG08073  | Pin (for coupling rod)                           |      |
|       | 13   | HCG08140  | Guide rail                                       |      |
|       | 14   | M0408230  | Slide block                                      |      |
|       | 15   | SCAA04012 | Hexagon socket head cap screw (M4x12)            |      |
|       | 16   | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 17   | WPBA04000 | Plain washer (M4)                                |      |
|       | 18   | MPB00660  | Miniature bearing (LFW686ZZA)                    |      |
|       | 19   | HCG08092  | Link                                             |      |
|       | 20   | HCG08102  | Pin (for link)                                   |      |
|       | 21   | HMG08150  | Felt (for fixed head)                            |      |
|       | 22   | HCA08022  | Needle bar driver                                |      |
|       | 23   | HMF08040  | Slide shaft                                      |      |
|       | 24   | HMG08110  | Lower face plate (right)                         |      |
|       | 25   | M0408440  | Face plate screw                                 |      |
|       | 26   | HMG08100  | Lower face plate (left)                          |      |
|       | 27   | HMG08120  | Upper face plate C                               |      |
|       | 28   | M0408430  | Plate nut                                        |      |
|       | 29   | HMG08130  | Cushion B                                        |      |
|       | 30   | M0408423  | Holding plate                                    |      |
|       | 31   | SGAB2E005 | Flat head screw (cross recessed head, M2.5x5)    |      |
|       | 32   | SCDA04008 | Hexagon socket flat head screw (M4x8)            |      |
|       | 34   | HCG08051  | Connecting rod                                   |      |
|       | 35   | WPAA06000 | Plain washer (M6)                                |      |
|       | 36   | WSAA06000 | Spring lock washer (M6)                          |      |
|       | 37   | NHAA06000 | Hexagon nut (M6)                                 |      |
|       | 38   | MPB00690  | Needle bearing (K40x45x13)                       |      |
|       | 40   | HCA08210  | Fixed head                                       |      |
|       | 41   | HMF08300  | Jump solenoid ass'y                              |      |
|       | 42   | HCG08320  | Plate B                                          |      |
|       | 43   | HCG08340  | Needle bar cam D                                 |      |



| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 3    | WPAA08000 | Plain washer (M8)                       |      |
|       | 4    | WSAA08000 | Spring lock washer (M8)                 |      |
|       | 5    | SCAA08025 | Hexagon socket head cap screw (M8x25)   |      |
|       | 6    | SSAA05008 | Hexagon socket set screw (M5x8)         |      |
|       | 7    | HMF08172  | Lower roller pin                        |      |
|       | 8    | MPB00240  | Bearing (LF1060ZZ)                      |      |
|       | 9    | M0408484  | Bearing case                            |      |
|       | 10   | MPR00280  | DIN-ring (G-6)                          |      |
|       | 11   | SCAA05020 | Hexagon socket head cap screw (M5x20)   |      |
|       | 12   | WSAA05000 | Spring lock washer (M5)                 |      |
|       | 13   | WPAA05000 | Plain washer (M5)                       |      |
|       | 14   | HCG08170  | Roller pin guide                        |      |
|       | 15   | HMF08062  | Upper roller pin                        |      |
|       | 16   | WPAA06000 | Plain washer (M6)                       |      |
|       | 17   | WSAA06000 | Spring lock washer (M6)                 |      |
|       | 18   | NHAA06000 | Hexagon nut (M6)                        |      |
|       | 19   | SCAA04010 | Hexagon socket head cap screw (M4x10)   |      |
|       | 20   | WSAA04000 | Spring lock washer (M4)                 |      |
|       | 21   | WPBA04000 | Plain washer (M4)                       |      |
|       | 22   | WPAB04000 | Plain washer (M4)                       |      |
|       | 23   | WSAB04000 | Spring lock washer (M4)                 |      |
|       | 24   | C0408051  | Positioning pin                         |      |
|       | 25   | SCAA06020 | Hexagon socket head cap screw (M6x20)   |      |
|       | 26   | →3a       | Upper shaft                             |      |
|       | 27   | C0408040  | Fasten collar                           |      |
|       | 28   | C0408030  | Take-up lever cam fixing plate          |      |
|       | 29   | HMF08270  | Take-up lever cam                       |      |
|       | 30   | HCG08150  | Cam lever shaft                         |      |
|       | 32   | HCA08140  | Guide tape                              |      |
|       | 33   | SCAA05015 | Hexagon socket head cap screw (M5x15)   |      |
|       | 34   | HMF08091  | Take-up lever guide base (left)         |      |
|       | 35   | HMF08101  | Take-up lever guide base (right)        |      |
|       | 36   | HCA08150  | Take-up lever guide bar (for 15 needle) |      |
|       | 37   | C0408065  | Cam lever ass'y                         |      |
|       | 38   | SSAA04006 | Hexagon socket set screw (M4x6)         |      |
|       | 39   | HCG08160  | Cam lever shaft collar                  |      |
|       | 40   | HCA08210  | Fixed head                              |      |
|       | 41   | SSAA03003 | Hexagon socket set screw (M3x3)         |      |
|       | 42   | HCA08160  | Stopper                                 |      |



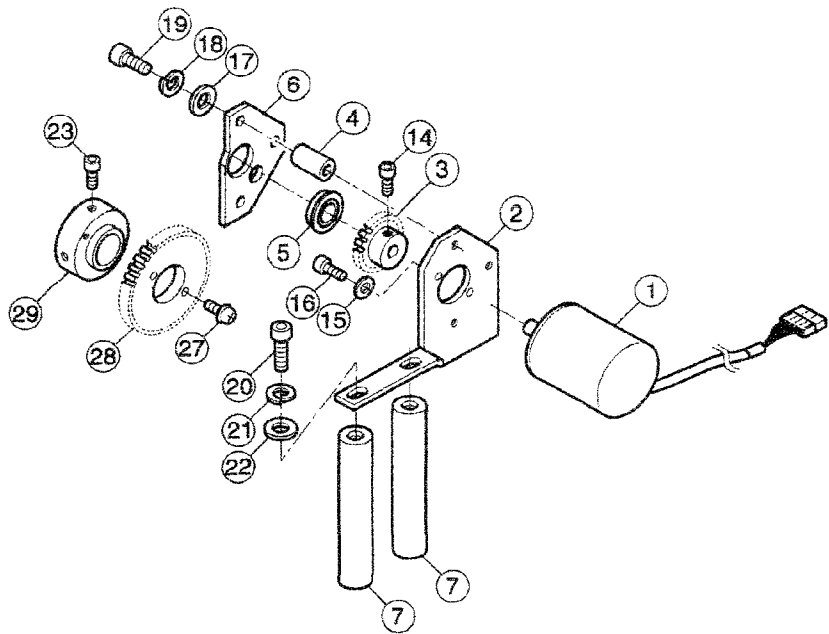
# NEEDLE BAR CHANGE UNIT

CAB1131

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| Ass'y | Elt | Parts No. | Parts Names                                      | Note |
|-------|-----|-----------|--------------------------------------------------|------|
|       | 1   | HCA10080  | Cover                                            |      |
|       | 2   | HCA10180  | Slit disk cover                                  |      |
|       | 3   | MPA00030  | Spacer (BSB-314)                                 |      |
|       | 4   | HCA75110  | Sensor                                           |      |
|       | 5   | HCA10070  | Spacer                                           |      |
|       | 6   | HCA10011  | Bracket                                          |      |
|       | 7   | HCA10220  | Channel gear                                     |      |
|       | 8   | HCA10210  | Channel bracket                                  |      |
|       | 9   | HCA75140  | Digital code switch                              |      |
|       | 10  | HCA10050  | Adjusting shaft (with screw)                     |      |
|       | 11  | HCA10170  | Boss                                             |      |
|       | 12  | HCA10160  | Slit disc                                        |      |
|       | 13  | HCA75100  | Motor                                            |      |
|       | 14  | HCA10110  | Bushing                                          |      |
|       | 15  | HCA10061  | Cam for needle bar change unit                   |      |
|       | 16  | HCA10190  | Collar                                           |      |
|       | 17  | MPB00800  | Bearing (RF1350ZZ)                               |      |
|       | 18  | HCA10042  | Motor gear                                       |      |
|       | 19  | HCA10130  | Screw                                            |      |
|       | 20  | HCA10141  | Roller                                           |      |
|       | 21  | HCA10151  | Roller shaft                                     |      |
|       | 22  | HCA10240  | Trailing plate                                   |      |
|       | 23  | HCA10200  | Spacer                                           |      |
|       | 24  | HCA10251  | connecting block (right)                         |      |
|       | 25  | HCA10262  | connecting block (left)                          |      |
|       | 26  | STAB04006 | Truss head screw (cross recessed, M4x6)          |      |
|       | 27  | SPDD03008 | Pan head screw (cross recessed, M3x8)            |      |
|       | 28  | SPCD03006 | Pan head screw (cross recessed, M3x6)            |      |
|       | 29  | SCAA05015 | Hexagon socket head cap screw (M5x15)            |      |
|       | 30  | WSAA05000 | Spring lock washer (M5)                          |      |
|       | 31  | WPAA05000 | Plain washer (M5)                                |      |
|       | 32  | SCBD04006 | Hexagon socket head cap screw with flange (M4x6) |      |
|       | 33  | SSAA03006 | Hexagon socket set screw (M3x6)                  |      |
|       | 34  | WPAA04000 | Plain washer (M4)                                |      |
|       | 35  | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 36  | SCAA04008 | Hexagon socket head cap screw (M4x8)             |      |
|       | 37  | SSAA04004 | Hexagon socket set screw (M4x4)                  |      |
|       | 38  | SSAA04008 | Hexagon socket set screw (M4x8)                  |      |
|       | 39  | SSAA04006 | Hexagon socket set screw (M4x6)                  |      |
|       | 41  | SGAB05012 | Flat head screw (cross recessed head, M5x12)     |      |
|       | 42  | MPR00300  | E-ring (E-2)                                     |      |
|       | 43  | HCA10230  | Gear                                             |      |
|       | 44  | WPAA03000 | Plain washer (M3)                                |      |
|       | 45  | HCA10270  | Gear shaft                                       |      |
|       | 46  | WSAA03000 | Spring lock washer (M3)                          |      |
|       | 47  | NHAA03000 | Hexagon nut (M3)                                 |      |





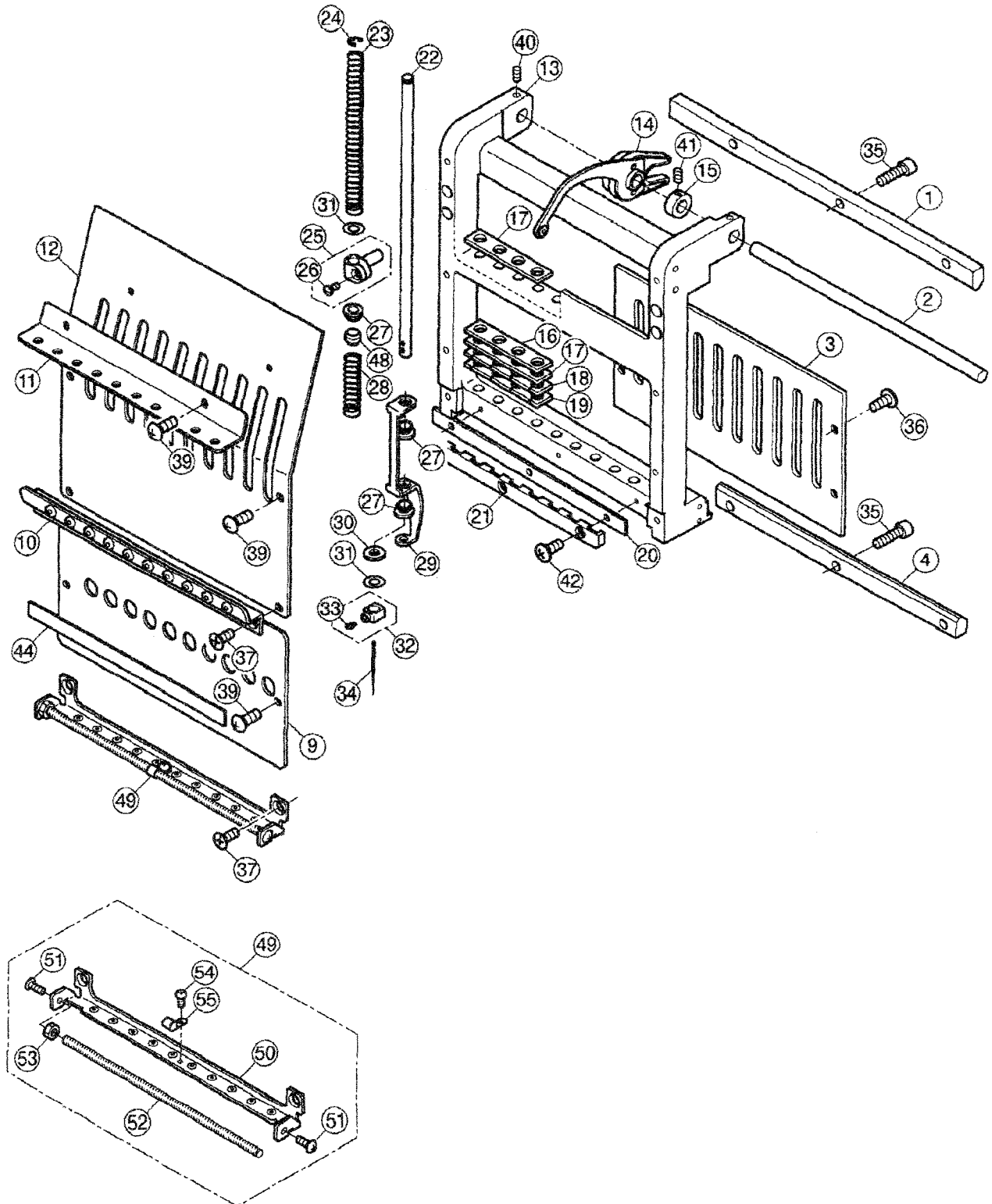
## TIMING DETECTING UNIT

CAa1808

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| Ass'y | El't | Parts No. | Parts Names                            | Note |
|-------|------|-----------|----------------------------------------|------|
|       | 1    | HCG75001  | Rotary encoder                         |      |
|       | 2    | HMF10194  | Encoder bracket A                      |      |
|       | 3    | HMF10221  | Encoder drive gear B                   |      |
|       | 4    | HMF10230  | Encoder collar                         |      |
|       | 5    | MPB00620  | Bearing (LF1680ZZ)                     |      |
|       | 6    | HMF10203  | Encoder bracket B                      |      |
|       | 7    | HCA00111  | Stud                                   |      |
|       | 9    | HCA11030  | Detecting slit disc                    |      |
|       | 10   | HCA11010  | Slit disc boss                         |      |
|       | 11   | HMF10610  | Detecting slit disc                    |      |
|       | 12   | HMF83050  | Timing detecting board ass'y           |      |
|       | 13   | HMF10251  | Board bracket                          |      |
|       | 14   | SCAA04008 | Hexagon socket head cap screw (M4x8)   |      |
|       | 15   | WPAA03000 | Plain washer (M3)                      |      |
|       | 16   | SCAA03008 | Hexagon socket head cap screw (M3x8)   |      |
|       | 17   | WPAA04000 | Plain washer (M4)                      |      |
|       | 18   | WSAA04000 | Spring lock washer (M4)                |      |
|       | 19   | SCAA04028 | Hexagon socket head cap screw (M4x28)  |      |
|       | 20   | SCAA06090 | Hexagon socket head cap screw (M6x90)  |      |
|       | 21   | WSAA06000 | Spring lock washer (M6)                |      |
|       | 22   | WPAA06000 | Plain washer (M6)                      |      |
|       | 23   | SCAA04012 | Hexagon socket head cap screw (M4x12)  |      |
|       | 24   | SPCD03006 | Pan head screw (cross recessed, M3x6)  |      |
|       | 25   | SSAA05008 | Hexagon socket set screw (M5x8)        |      |
|       | 26   | SPDD03006 | Pan head screw (cross recessed, M3x6)  |      |
|       | 27   | SPCD03012 | Pan head screw (cross recessed, M3x12) |      |
|       | 28   | HMG11020  | Encoder drive gear B                   |      |
|       | 29   | HCA11100  | Boss A                                 |      |

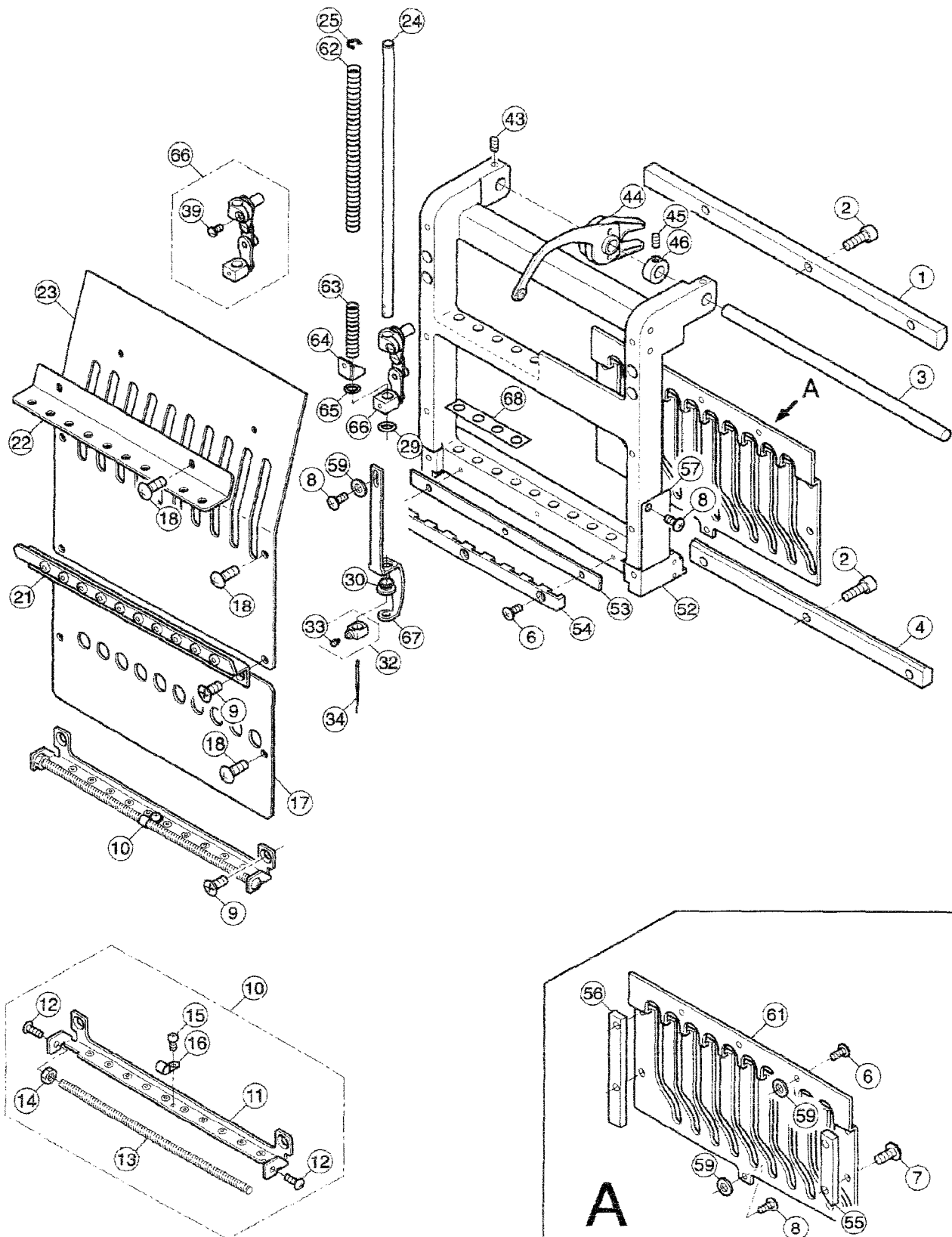
## NON-NOISE REDUCTION



| Ass'y | El't | Parts No. | Parts Names                                    | Note |
|-------|------|-----------|------------------------------------------------|------|
|       | 1    | HMG12760  | Upper rail (for 15 needle)                     |      |
|       | 2    | HMG12790  | Take-up lever shaft (for 15 needle)            |      |
|       | 3    | HMG12781  | Needle bar boss check plate (for 15 needle)    |      |
|       | 4    | HMG12770  | Lower rail (for 15 needle)                     |      |
|       | 9    | HMG12800  | Lower front panel (for 15 needle)              |      |
|       | 10   | HMG12810  | Thread guide plate B ass'y (for 15 needle)     |      |
|       | 11   | HCA12120  | Thread guide plate A ass'y (for 15 needle)     |      |
|       | 12   | HCA12110  | Upper front panel (for 15 needle)              |      |
|       | 13   | HCA12150  | Moving head (for 15 needle)                    |      |
|       | 14   | HMF12812  | Take-up lever ass'y                            |      |
|       | 15   | HMF12152  | Collar                                         |      |
|       | 16   | HMG12592  | Urethane sheet                                 |      |
|       | 17   | HMG12582  | Pressure foot felt (3.0mm)                     |      |
|       | 18   | M0412500  | Pressure foot felt (1.0mm)                     |      |
|       | 18   | M0412510  | Pressure foot felt (1.5mm)                     |      |
|       | 18   | M0412610  | Pressure foot felt (2.0mm)                     |      |
|       | 19   | HMF12290  | Adjusting sheet A                              |      |
|       | 20   | HMG12870  | Pressure foot sheet (for 15 needle)            |      |
|       | 21   | HMG12890  | Pressure foot guide (for 15 needle)            |      |
|       | 22   | M0412164  | Needle bar                                     |      |
|       | 23   | HMF12090  | Needle bar spring (upper)                      |      |
|       | 24   | MPR00080  | E-ring (E-5)                                   |      |
|       | 25   | M0412812  | Needle bar boss                                |      |
| 25 *  | 26   | M0412200  | Screw for needle bar boss                      |      |
|       | 27   | HMF12112  | Bushing                                        |      |
|       | 28   | HCM12011  | Needle bar spring (lower)                      |      |
|       | 29   | HMG12750  | Pressure foot                                  |      |
|       | 30   | HMG12261  | Needle holder cushion                          |      |
|       | 31   | WPBD06000 | Plain washer (M6)                              |      |
|       | 32   | HMG12200  | Needle holder B                                |      |
| 32 *  | 33   | HMG12230  | Screw for needle holder                        |      |
|       | 34   | MPZ00150  | Needle (#11)                                   |      |
|       | 35   | SCAA04015 | Hexagon socket head cap screw (M4x15)          |      |
|       | 36   | SBAB04006 | Binding head screw (M4x6)                      |      |
|       | 37   | SGAB04008 | Flat head screw (cross recessed head, M4x8)    |      |
|       | 39   | STAB04008 | Truss head screw (cross recessed, M4x8)        |      |
|       | 40   | SSAA04004 | Hexagon socket set screw (M4x4)                |      |
|       | 41   | SSAA03006 | Hexagon socket set screw (M3x6)                |      |
|       | 42   | SBAD03008 | Binding head screw (M3x8)                      |      |
|       | 48   | HMG12430  | Guide tube                                     |      |
|       | 49   | HMG12940  | Lower thread guide plate ass'y (for 15 needle) |      |
| 49 *  | 50   | HMG12840  | Lower thread guide plate (for 15 needle)       |      |
| 49 *  | 51   | STAB04012 | Truss head screw (cross recessed, M4x12)       |      |
| 49 *  | 52   | HMG12850  | Spring (for 15 needle)                         |      |
| 49 *  | 53   | NHAB04000 | Hexagon nut (M4)                               |      |
| 49 *  | 54   | SPAB03005 | Pan head screw (cross recessed, M3x5)          |      |
| 49 *  | 55   | HMG12600  | Spring bracket                                 |      |

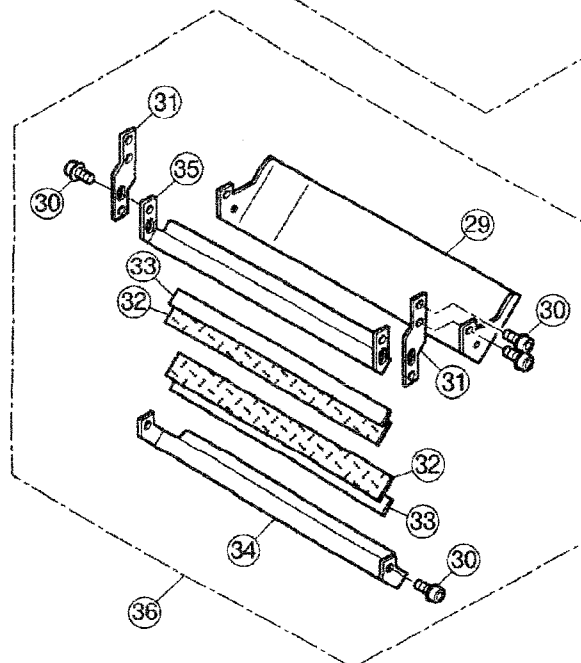
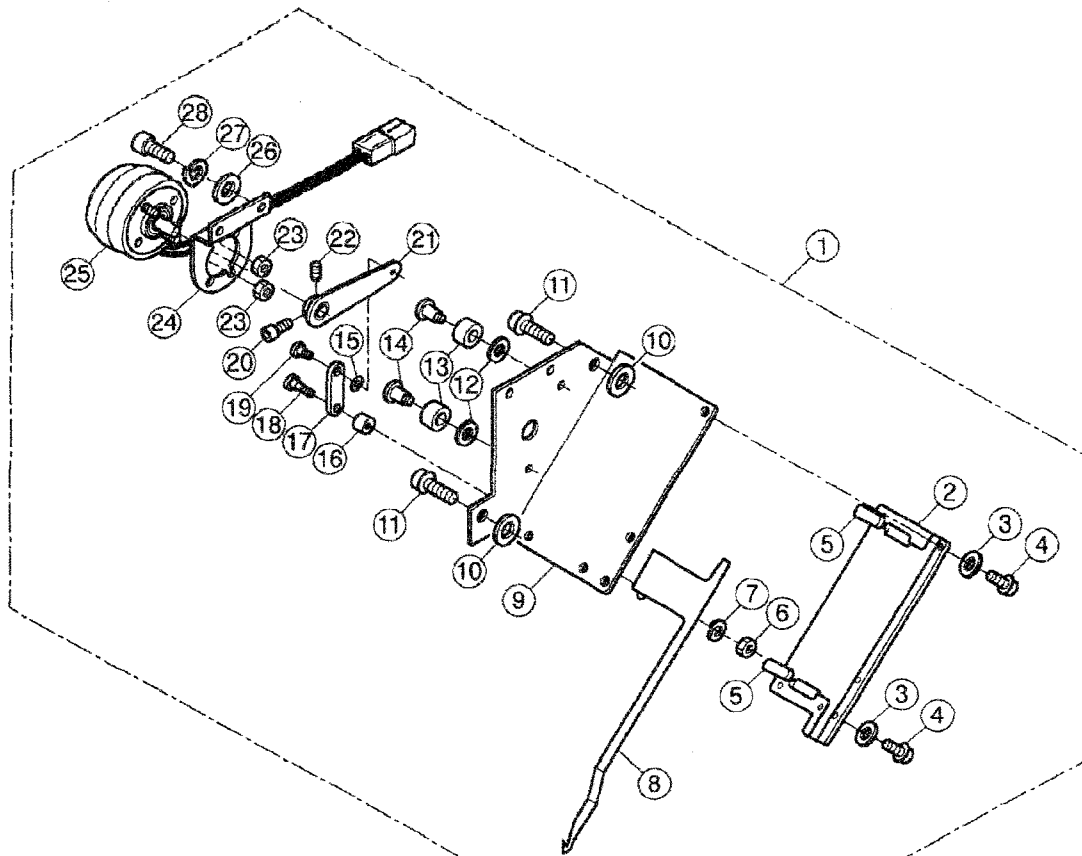
NON-NOISE REDUCTION

## NOISE REDUCTION



| Ass'y | El't | Parts No. | Parts Names                                    | Note |
|-------|------|-----------|------------------------------------------------|------|
|       | 1    | HMG12760  | Upper rail (for 15 needle)                     |      |
|       | 2    | SCAA04015 | Hexagon socket head cap screw (M4x15)          |      |
|       | 3    | HMG12790  | Take-up lever shaft (for 15 needle)            |      |
|       | 4    | HMG12770  | Lower rail (for 15 needle)                     |      |
|       | 6    | SBAD03008 | Binding head screw (M3x8)                      |      |
|       | 7    | SBAD04014 | Binding head screw (M4x14)                     |      |
|       | 8    | SBB03005  | Binding head screw (M3x5)                      |      |
|       | 9    | SGAB04008 | Flat head screw (cross recessed head, M4x8)    |      |
|       | 10   | HMG12940  | Lower thread guide plate ass'y (for 15 needle) |      |
| 10 *  | 11   | HMG12840  | Lower thread guide plate (for 15 needle)       |      |
| 10 *  | 12   | STAB04012 | Truss head screw (cross recessed, M4x12)       |      |
| 10 *  | 13   | HMG12850  | Spring (for 15 needle)                         |      |
| 10 *  | 14   | NHAB04000 | Hexagon nut (M4)                               |      |
| 10 *  | 15   | SPAB03005 | Pan head screw (cross recessed, M3x5)          |      |
| 10 *  | 16   | HMG12600  | Spring bracket                                 |      |
|       | 17   | HMG12800  | Lower front panel (for 15 needle)              |      |
|       | 18   | STAB04008 | Truss head screw (cross recessed, M4x8)        |      |
|       | 21   | HMG12810  | Thread guide plate B ass'y (for 15 needle)     |      |
|       | 22   | HCA12120  | Thread guide plate A ass'y (for 15 needle)     |      |
|       | 23   | HCA12110  | Upper front panel (for 15 needle)              |      |
|       | 24   | M0412164  | Needle bar                                     |      |
|       | 25   | MPR00080  | E-ring (E-5)                                   |      |
|       | 29   | MPR00500  | O-ring (P-7)                                   |      |
|       | 30   | HMF12112  | Bushing                                        |      |
|       | 32   | HMG12200  | Needle holder B                                |      |
| 32 *  | 33   | HMG12230  | Screw for needle holder                        |      |
|       | 34   | MPZ00150  | Needle (#11)                                   |      |
| 66 *  | 39   | M0412200  | Screw for needle bar boss                      |      |
|       | 43   | SSAA04004 | Hexagon socket set screw (M4x4)                |      |
|       | 44   | HMF12812  | Take-up lever ass'y                            |      |
|       | 45   | SSAA03006 | Hexagon socket set screw (M3x6)                |      |
|       | 46   | HMF12152  | Collar                                         |      |
|       | 52   | HCA12150  | Moving head (for 15 needle)                    |      |
|       | 53   | HMG12870  | Pressure foot sheet (for 15 needle)            |      |
|       | 54   | HMG12890  | Pressure foot guide (for 15 needle)            |      |
|       | 55   | HMG13590  | Spacer (right)                                 |      |
|       | 56   | HMG13600  | Spacer (left)                                  |      |
|       | 57   | HMG13580  | Side cover                                     |      |
|       | 59   | WPAD03000 | Plain washer (M3)                              |      |
|       | 61   | HMG13750  | Guide plate (for 15 needle)                    |      |
|       | 62   | M0412172  | Needle bar spring 1                            |      |
|       | 63   | HMG13680  | Spring                                         |      |
|       | 64   | HMG13540  | Pressure foot bracket                          |      |
|       | 65   | MPR00510  | O-ring                                         |      |
|       | 66   | HMG13701  | Link ass'y                                     |      |
|       | 67   | HMG13630  | Pressure foot                                  |      |
|       | 68   | HMG13670  | Pressure foot felt (0.6mm)                     |      |

NOISE REDUCTION



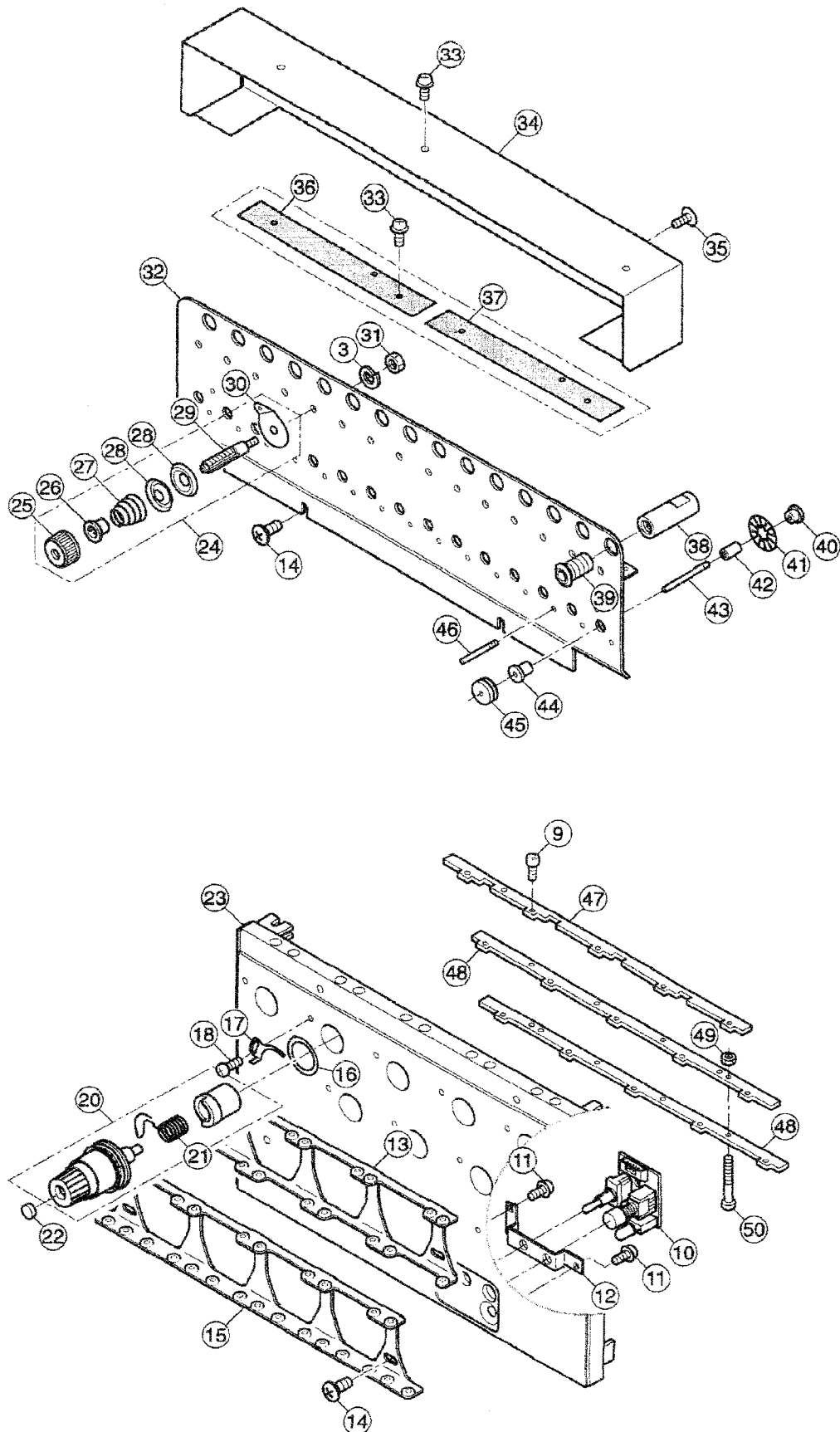
| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | HCM914120 | Thread catcher ass'y                             |      |
|       | 2    | HMF14170  | Guide plate B                                    |      |
|       | 3    | WPAB03000 | Plain washer (M3)                                |      |
|       | 4    | SPDB03008 | Pan head screw (cross recessed, M3x8)            |      |
|       | 5    | MO414180  | Cushion                                          |      |
|       | 6    | NHAA03000 | Hexagon nut (M3)                                 |      |
|       | 7    | WSAA03000 | Spring lock washer (M3)                          |      |
|       | 8    | CO414055  | Hook                                             |      |
|       | 9    | HCM14012  | Bracket                                          |      |
|       | 10   | WPBA06000 | Plain washer (M6)                                |      |
|       | 11   | SCBA05008 | Hexagon socket head cap screw with flange (M5x8) |      |
|       | 12   | WPAD04000 | Plain washer (M4)                                |      |
|       | 13   | MO412241  | Plastic ring                                     |      |
|       | 14   | MO414080  | Hinge screw B                                    |      |
|       | 15   | MO414150  | Washer for hinge screw                           |      |
|       | 16   | CO414080  | Spacer for hinge screw                           |      |
|       | 17   | MO414162  | Connecting plate                                 |      |
|       | 18   | CO414070  | Hinge screw                                      |      |
|       | 19   | MO414142  | Hinge screw A                                    |      |
|       | 20   | SCAA03006 | Hexagon socket head cap screw (M3x6)             |      |
|       | 21   | MO414100  | Actuating plate                                  |      |
|       | 22   | SSAA03006 | Hexagon socket set screw (M3x6)                  |      |
|       | 23   | NHCC04000 | Hexagon nut (M4)                                 |      |
|       | 24   | MO414111  | Solenoid fixing plate                            |      |
|       | 25   | MO414121  | Solenoid                                         |      |
|       | 26   | WPAA04000 | Plain washer (M4)                                |      |
|       | 27   | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 28   | SCAA04006 | Hexagon socket head cap screw (M4x6)             |      |
|       | 29   | HCG14150  | Hook guard (for 15 needle)                       |      |
|       | 30   | SCBA03006 | Hexagon socket head cap screw with flange (M3x6) |      |
|       | 31   | HCM14030  | Holder guide                                     |      |
|       | 32   | HCG14130  | Magic tape (for 15 needle)                       |      |
|       | 33   | HCG14140  | Adhesive tape (for 15 needle)                    |      |
|       | 34   | HCG14120  | Holder (lower) (for 15 needle)                   |      |
|       | 35   | HCG14110  | Holder (upper) (for 15 needle)                   |      |
|       | 36   | --        | Thread holder ass'y (for 15 needle)              |      |



## THREAD TENSION UNIT 1

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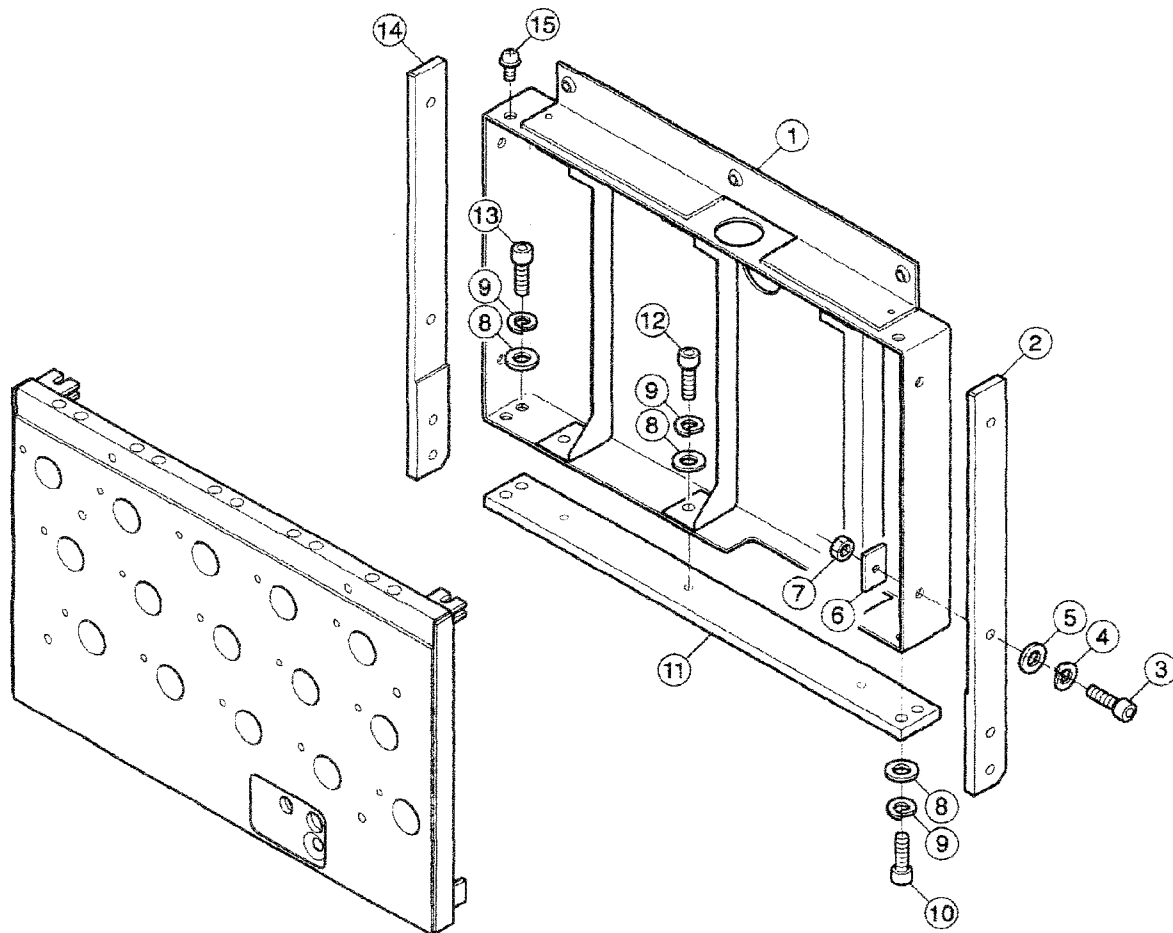
11a-1



# THREAD TENSION UNIT 1

CAB1824 11a-1

| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 3    | WSAA04000 | Spring lock washer (M4)                 |      |
|       | 9    | SCAD03008 | Hexagon socket head cap screw (M3x8)    |      |
|       | 10   | HCM83050  | Jump switch board ass'y                 |      |
|       | 11   | SPDD03008 | Pan head screw (cross recessed, M3x8)   |      |
|       | 12   | HMG17400  | Switch board bracket                    |      |
|       | 13   | HMG17270  | Thread guide upper ass'y                |      |
|       | 14   | SBAB04014 | Binding head screw (M4x14)              |      |
|       | 15   | HMG17290  | Thread guide lower ass'y                |      |
|       | 16   | HMF17820  | Isolation plate                         |      |
|       | 17   | HMF17870  | Adjusting plate                         |      |
|       | 18   | SPAC2E006 | Pan head screw (cross recessed, M2.5x6) |      |
|       | 20   | HMF17840  | Thread tension ass'y                    |      |
| 20 *  | 21   | M0416186  | Thread adjusting spring                 |      |
|       | 22   | HMF17860  | Thread tension lid                      |      |
|       | 23   | HMG17260  | Thread tension bracket (for 15 needle)  |      |
|       | 24   | M0416124  | Thread guide unit                       |      |
| 24 *  | 25   | MPZ00960  | Tension nut                             |      |
| 24 *  | 26   | MPZ00280  | Spring guide                            |      |
| 24 *  | 27   | M0416111  | Spring                                  |      |
| 24 *  | 28   | MPZ00221  | Disc                                    |      |
| 24 *  | 29   | M0418211  | Tension shaft                           |      |
| 24 *  | 30   | MPZ00200  | Tension guide plate                     |      |
|       | 31   | NHAA04000 | Hexagon nut (M4)                        |      |
|       | 32   | HCA16020  | Thread guide bracket                    |      |
|       | 33   | SPDD03006 | Pan head screw (cross recessed, M3x6)   |      |
|       | 34   | HCA16040  | Cover                                   |      |
|       | 35   | STAB04006 | Truss head screw (cross recessed, M4x6) |      |
|       | 36   | HCG83140  | Detecting board B ass'y                 |      |
|       | 37   | HCG83130  | Detecting board A ass'y                 |      |
|       | 38   | HCA20061  | Bushing nut                             |      |
|       | 39   | HCA20050  | Pipe bushing                            |      |
|       | 40   | MPZ00350  | Eyelet                                  |      |
|       | 41   | HMG17212  | Slit disc 2                             |      |
|       | 42   | MPZ00360  | Spacer                                  |      |
|       | 43   | M0445070  | Roller shaft                            |      |
|       | 44   | M0445080  | Roller shaft support                    |      |
|       | 45   | M0445092  | Detecting roller                        |      |
|       | 46   | M0445103  | Thread guide bar                        |      |
|       | 47   | HMG17430  | Thread tension fixer E (for 15 needle)  |      |
|       | 48   | HMG17420  | Thread tension fixer D (for 15 needle)  |      |
|       | 49   | NHAC03000 | Hexagon nut (M3)                        |      |
|       | 50   | SPAC03070 | Pan head screw (cross recessed, M3x70)  |      |

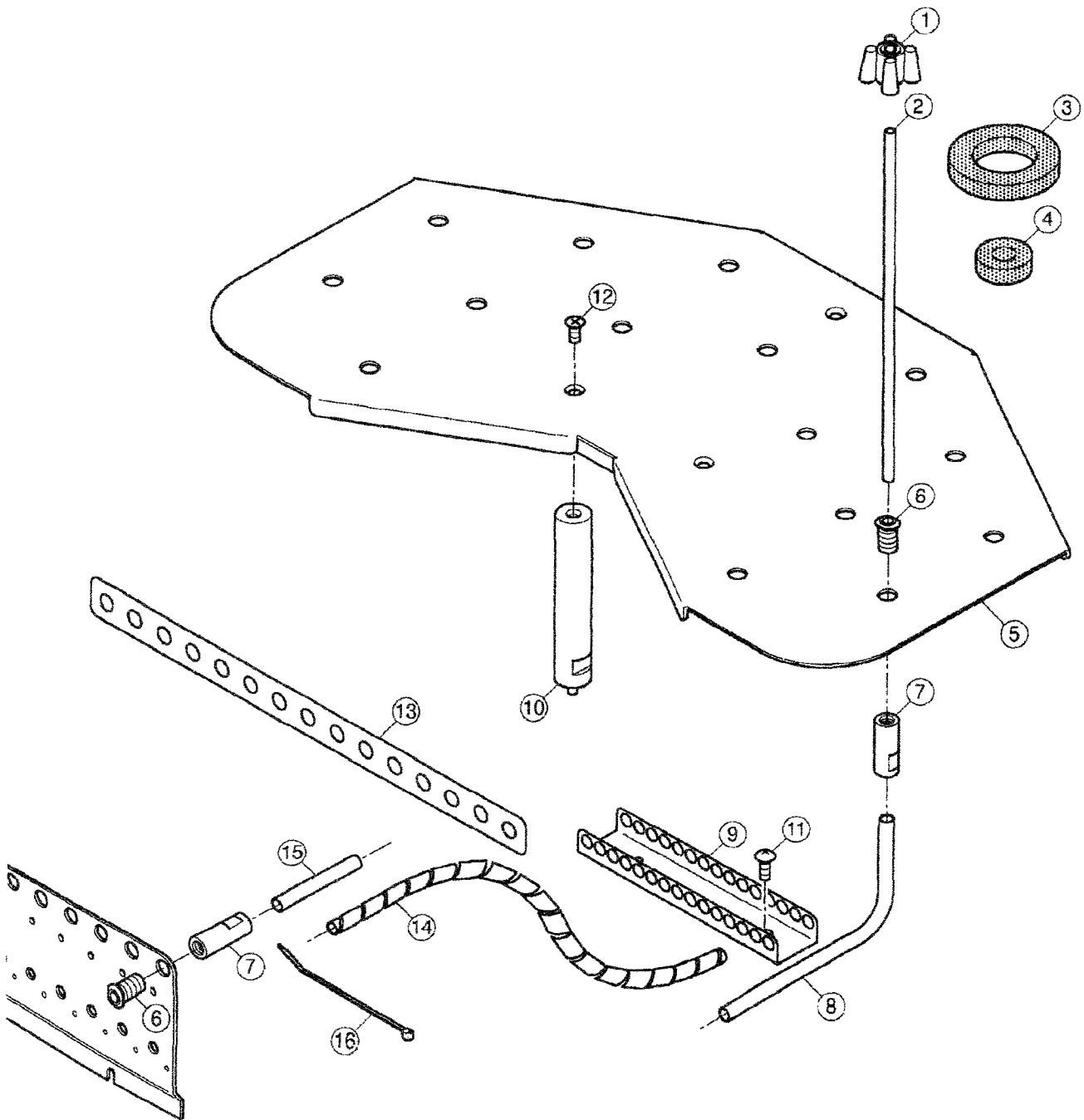


# THREAD TENSION UNIT 2

CAB1824

11b-1

| Ass'y | El't | Parts No. | Parts Names                            | Note |
|-------|------|-----------|----------------------------------------|------|
|       | 1    | HCA17031  | Thread tension box                     |      |
|       | 2    | HCA17050  | Reinforcement plate (right)            |      |
|       | 3    | SCAD04015 | Hexagon socket head cap screw (M4x15)  |      |
|       | 4    | WSAD04000 | Spring lock washer (M4)                |      |
|       | 5    | WPAD04000 | Plain washer (M4)                      |      |
|       | 6    | M0420901  | Plate nut                              |      |
|       | 7    | NHAD04000 | Hexagon nut (M4)                       |      |
|       | 8    | WPAA04000 | Plain washer (M4)                      |      |
|       | 9    | WSAA04000 | Spring lock washer (M4)                |      |
|       | 10   | SCAA04022 | Hexagon socket head cap screw (M4x22)  |      |
|       | 11   | HCA17040  | Base plate                             |      |
|       | 12   | SCAA04010 | Hexagon socket head cap screw (M4x10)  |      |
|       | 13   | SCAA04018 | Hexagon socket head cap screw (M4x18)  |      |
|       | 14   | HCA17060  | Reinforcement plate (left)             |      |
|       | 15   | SPDB04010 | Pan head screw (cross recessed, M4x10) |      |

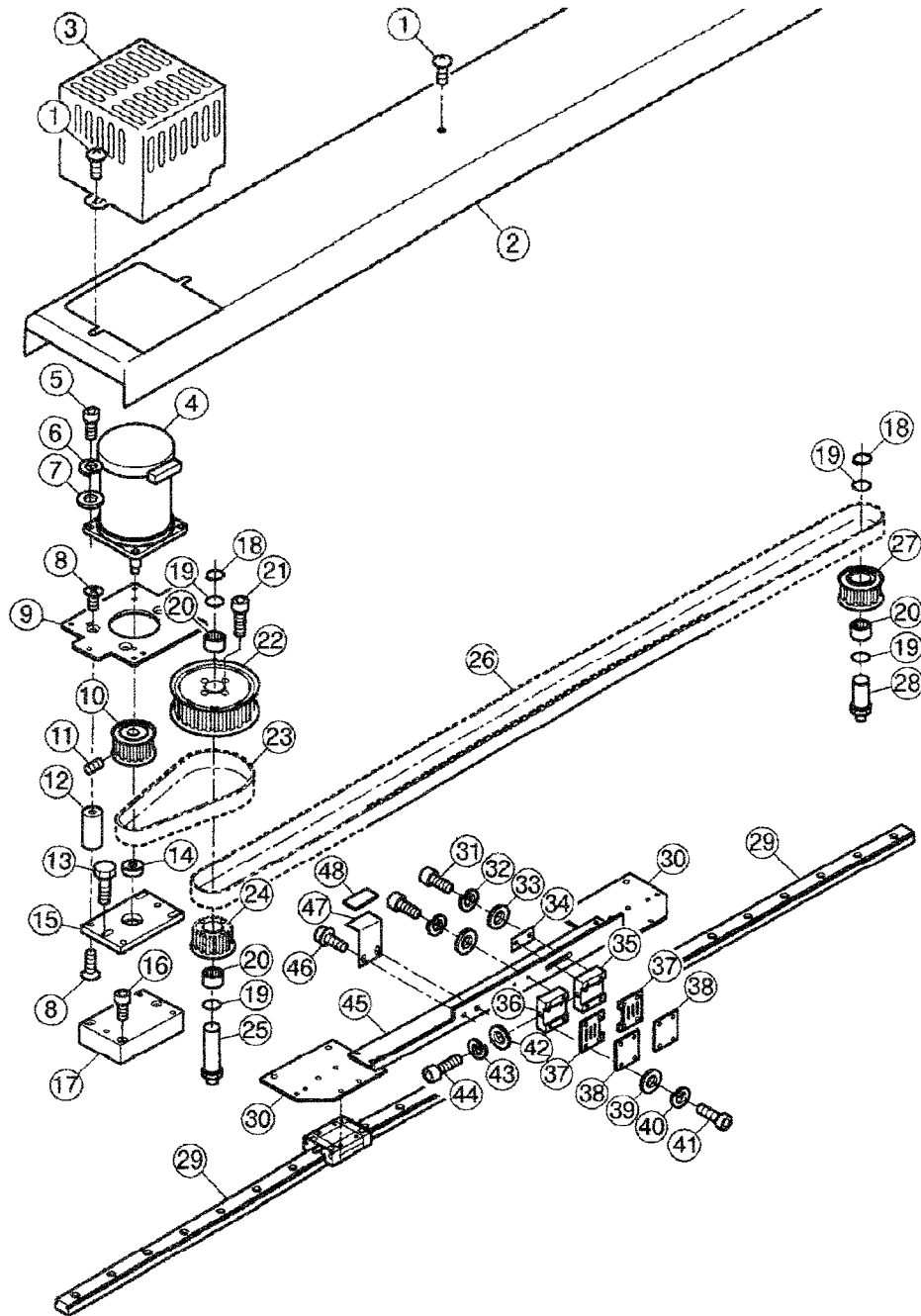


# THREAD STAND

CAB1131

12a-1

| Ass'y | Elt | Parts No. | Parts Names                                  | Note |
|-------|-----|-----------|----------------------------------------------|------|
|       | 1   | MPZ00340  | Plastic spring                               |      |
|       | 2   | HCA20101  | Thread stand pipe B (185mm)                  |      |
|       | 2   | HCA20021  | Thread stand pipe A (235mm)                  |      |
|       | 3   | HMF20571  | Thread stand felt (80mm)                     |      |
|       | 4   | M0420051  | Thread stand felt (45mm)                     |      |
|       | 5   | HCA20120  | Thread stand base                            |      |
|       | 6   | HCA20050  | Pipe bushing                                 |      |
|       | 7   | HCA20061  | Bushing nut                                  |      |
|       | 8   | --        | Tube                                         |      |
|       | 9   | HCA20130  | Tube guide                                   |      |
|       | 10  | HCA20031  | Pillar                                       |      |
|       | 11  | STAB04006 | Truss head screw (cross recessed, M4x6)      |      |
|       | 12  | SGAB05012 | Flat head screw (cross recessed head, M5x12) |      |
|       | 13  | HCA20180  | Guide plate                                  |      |
|       | 14  | --        | Spiral tube                                  |      |
|       | 15  | HCA20160  | Connecting tube                              |      |
|       | 16  | --        | Binder                                       |      |



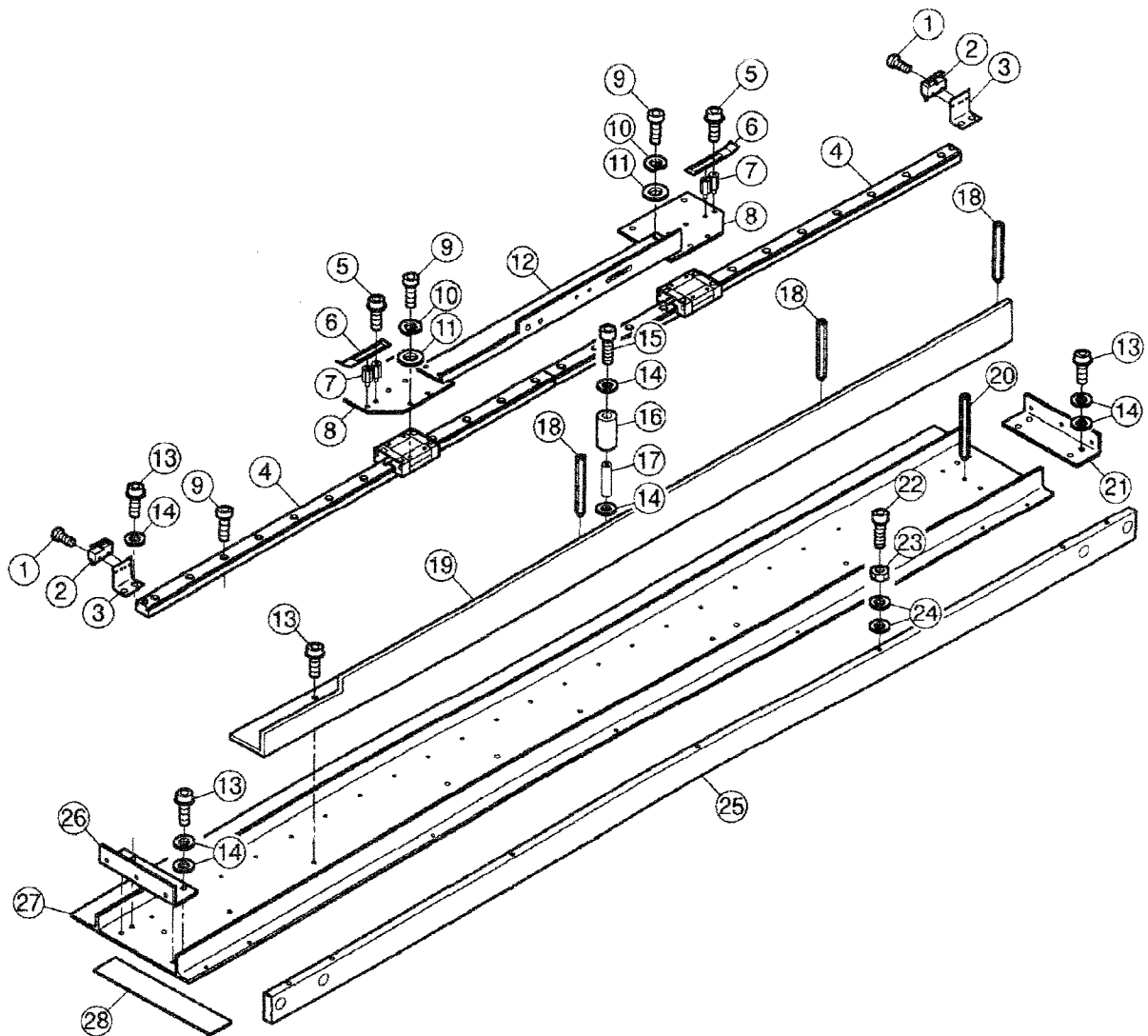
# X CARRIAGE 1

CAa0819

13a-1

| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | STAB04008 | Truss head screw (cross recessed, M4x8)          |      |
|       | 2    | HCA25020  | X carriage base cover                            |      |
|       | 3    | HCA25031  | Pulse motor cover                                |      |
|       | 4    | HCA75080  | Pulse motor                                      |      |
|       | 5    | SCAA04010 | Hexagon socket head cap screw (M4x10)            |      |
|       | 6    | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 7    | WPAA04000 | Plain washer (M4)                                |      |
|       | 8    | SGAB05012 | Flat head screw (cross recessed head, M5x12)     |      |
|       | 9    | HCA25092  | Pulse motor bracket                              |      |
|       | 10   | HCA25060  | Motor pulley                                     |      |
|       | 11   | SSAA05008 | Hexagon socket set screw (M5x8)                  |      |
|       | 12   | HCG25221  | Pulse motor stud                                 |      |
|       | 13   | SHCB04015 | Hexagon head bolt (cross recessed head, M4x15)   |      |
|       | 14   | MPB00720  | Bearing (BC6-16ZZ)                               |      |
|       | 15   | HCA25050  | Pulse motor base                                 |      |
|       | 16   | SCAA04015 | Hexagon socket head cap screw (M4x15)            |      |
|       | 17   | HCA25140  | Pulse motor block                                |      |
|       | 18   | MPR00460  | C-ring (C-12)                                    |      |
|       | 19   | M0424160  | Spacer                                           |      |
|       | 20   | MPB00280  | Needle bearing (HK1210)                          |      |
|       | 21   | SCAA03020 | Hexagon socket head cap screw (M3x20)            |      |
|       | 22   | HCA25070  | Change pulley                                    |      |
|       | 23   | MPV00570  | Timing belt                                      |      |
|       | 24   | HCA25080  | Drive pulley                                     |      |
|       | 25   | HCA25150  | Change pulley shaft                              |      |
|       | 26   | MPV00520  | Timing belt                                      |      |
|       | 27   | HCG25290  | Idler pulley                                     |      |
|       | 28   | HCA25190  | Idler shaft                                      |      |
|       | 29   | HCG25031  | LM guide                                         |      |
|       | 30   | HCG25090  | Connecting plate A                               |      |
|       | 31   | SCAD04012 | Hexagon socket head cap screw (M4x12)            |      |
|       | 32   | WSAD04000 | Spring lock washer (M4)                          |      |
|       | 33   | WPAD04000 | Plain washer (M4)                                |      |
|       | 34   | HCG25260  | Washer                                           |      |
|       | 35   | HCG25130  | Belt fixing plate C                              |      |
|       | 36   | HCG25110  | Belt fixing plate A                              |      |
|       | 37   | HCG25270  | Belt holding plate A                             |      |
|       | 38   | HCG25280  | Belt holding plate B                             |      |
|       | 39   | WPAD03000 | Plain washer (M3)                                |      |
|       | 40   | WSAD03000 | Spring lock washer (M3)                          |      |
|       | 41   | SCAD03012 | Hexagon socket head cap screw (M3x12)            |      |
|       | 42   | WPBA04000 | Plain washer (M4)                                |      |
|       | 43   | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 44   | SCAA04045 | Hexagon socket head cap screw (M4x45)            |      |
|       | 45   | HCA25101  | Connecting plate                                 |      |
|       | 46   | SCBA03006 | Hexagon socket head cap screw with flange (M3x6) |      |
|       | 47   | HCA25040  | Cover felt bracket                               |      |
|       | 48   | HCG25202  | Cover felt                                       |      |



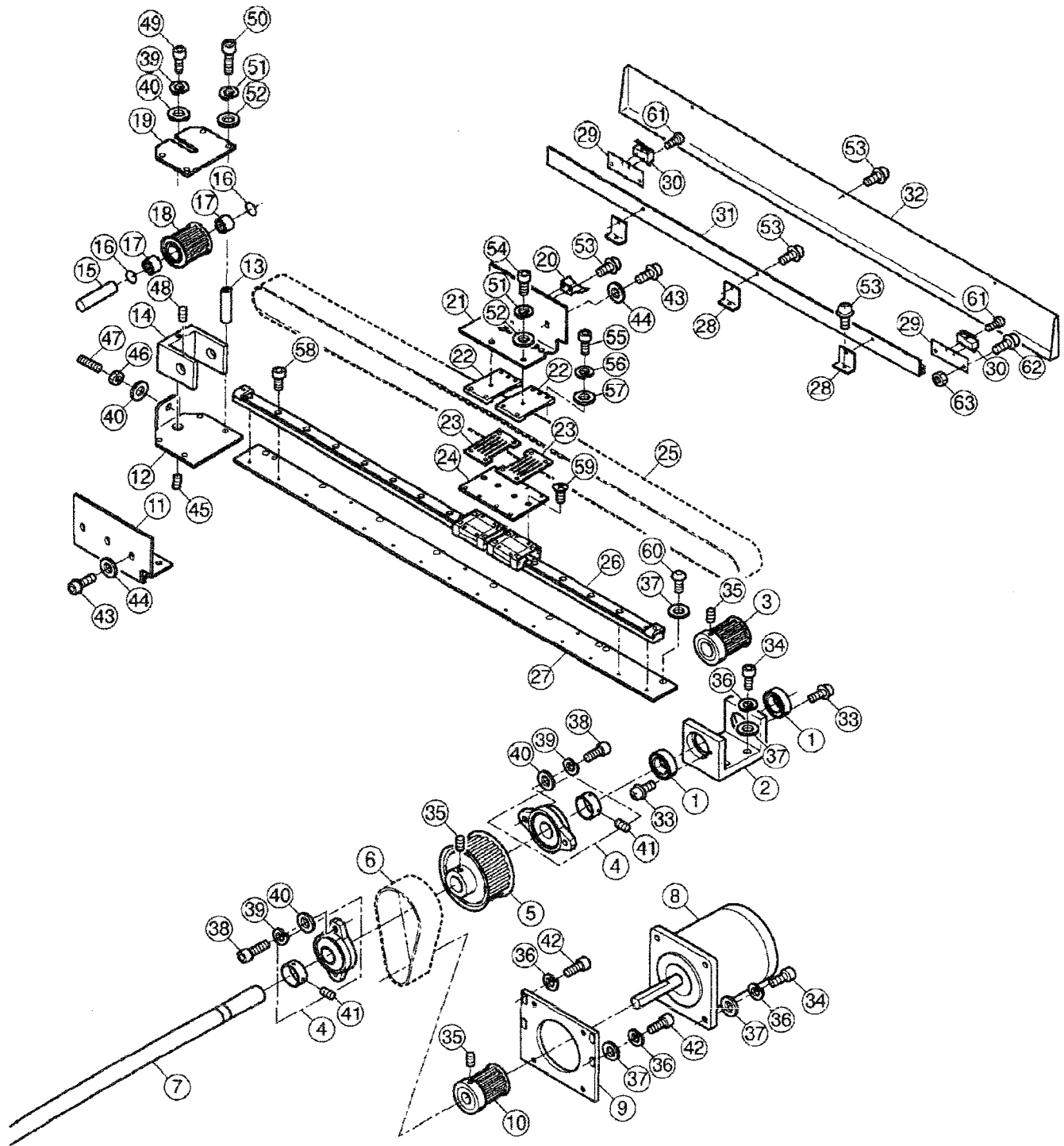


# X CARRIAGE 2

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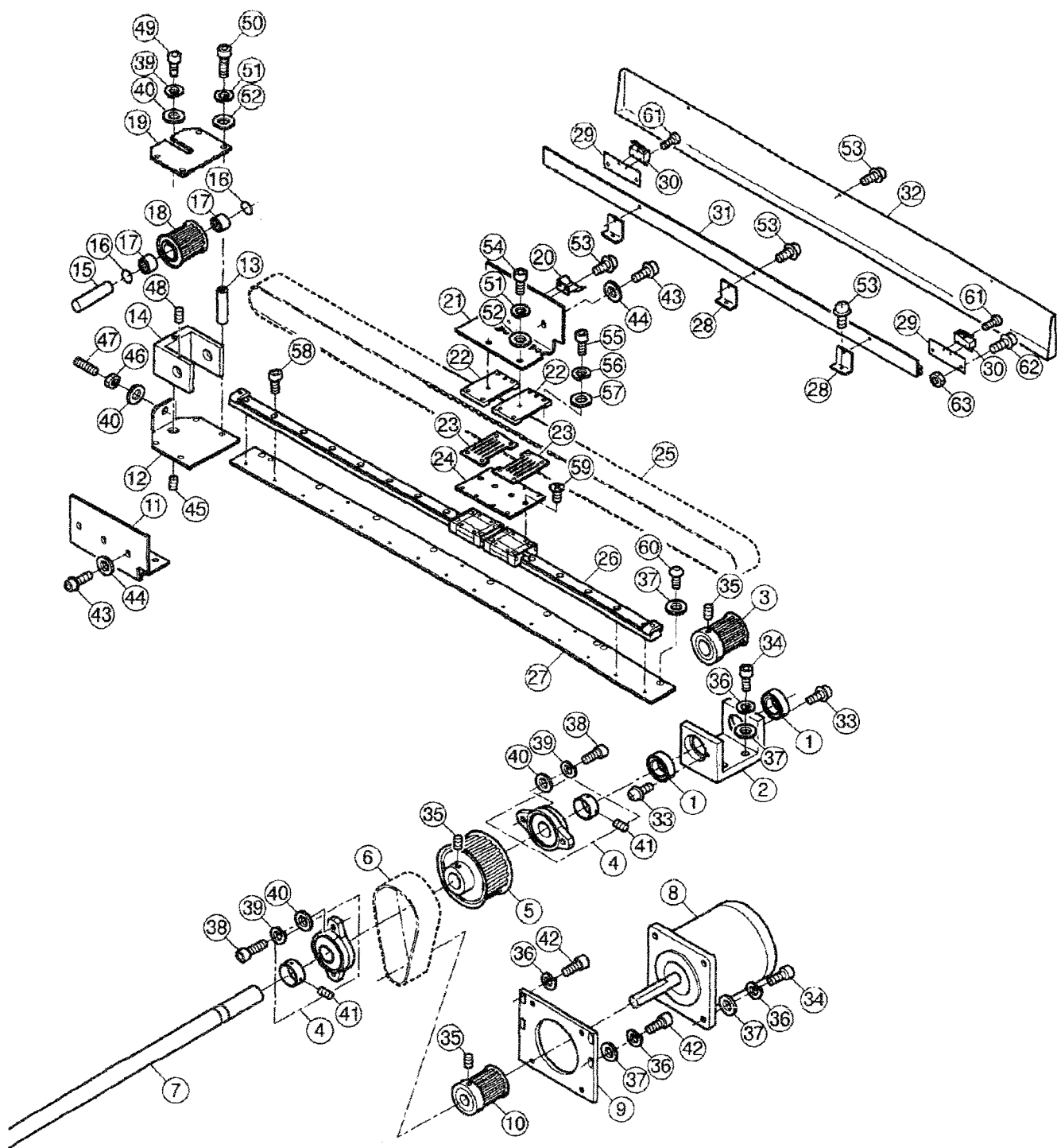
13b-1

| Ass'y | Elt | Parts No. | Parts Names                                      | Note |
|-------|-----|-----------|--------------------------------------------------|------|
|       | 1   | SPAC2C008 | Pan head screw (cross recessed, M2.3x8)          |      |
|       | 2   | HCG75040  | Limit switch                                     |      |
|       | 3   | HCA25120  | Limit switch bracket                             |      |
|       | 4   | HCG25031  | LM guide                                         |      |
|       | 5   | SCBA03006 | Hexagon socket head cap screw with flange (M3x6) |      |
|       | 6   | HCA25110  | Limit switch dog                                 |      |
|       | 7   | MPZ01960  | Spacer (BSB-4312)                                |      |
|       | 8   | HCG25090  | Connecting plate A                               |      |
|       | 9   | SCAA03008 | Hexagon socket head cap screw (M3x8)             |      |
|       | 10  | WSAA03000 | Spring lock washer (M3)                          |      |
|       | 11  | WPAA03000 | Plain washer (M3)                                |      |
|       | 12  | HCA25101  | Connecting plate                                 |      |
|       | 13  | SCBD04008 | Hexagon socket head cap screw with flange (M4x8) |      |
|       | 14  | WPAD04000 | Plain washer (M4)                                |      |
|       | 15  | SCAD04035 | Hexagon socket head cap screw (M4x35)            |      |
|       | 16  | HCG25250  | Tension roller                                   |      |
|       | 17  | MPZ01970  | Spacer (CB-430)                                  |      |
|       | 18  | MPA00020  | Spacer (BSB-455)                                 |      |
|       | 19  | HCA25180  | Reinforcement plate                              |      |
|       | 20  | HCA25200  | Stud                                             |      |
|       | 21  | HCA25130  | Stay (left)                                      |      |
|       | 22  | SCAD03035 | Hexagon socket head cap screw (M3x35)            |      |
|       | 23  | NHAD03000 | Hexagon nut (M3)                                 |      |
|       | 24  | WPAD03000 | Plain washer (M3)                                |      |
|       | 25  | HCA25170  | Reinforcement pipe                               |      |
|       | 26  | HCG25360  | Stay (right)                                     |      |
|       | 27  | HCA25010  | X carriage base                                  |      |
|       | 28  | HCG25212  | Base felt                                        |      |

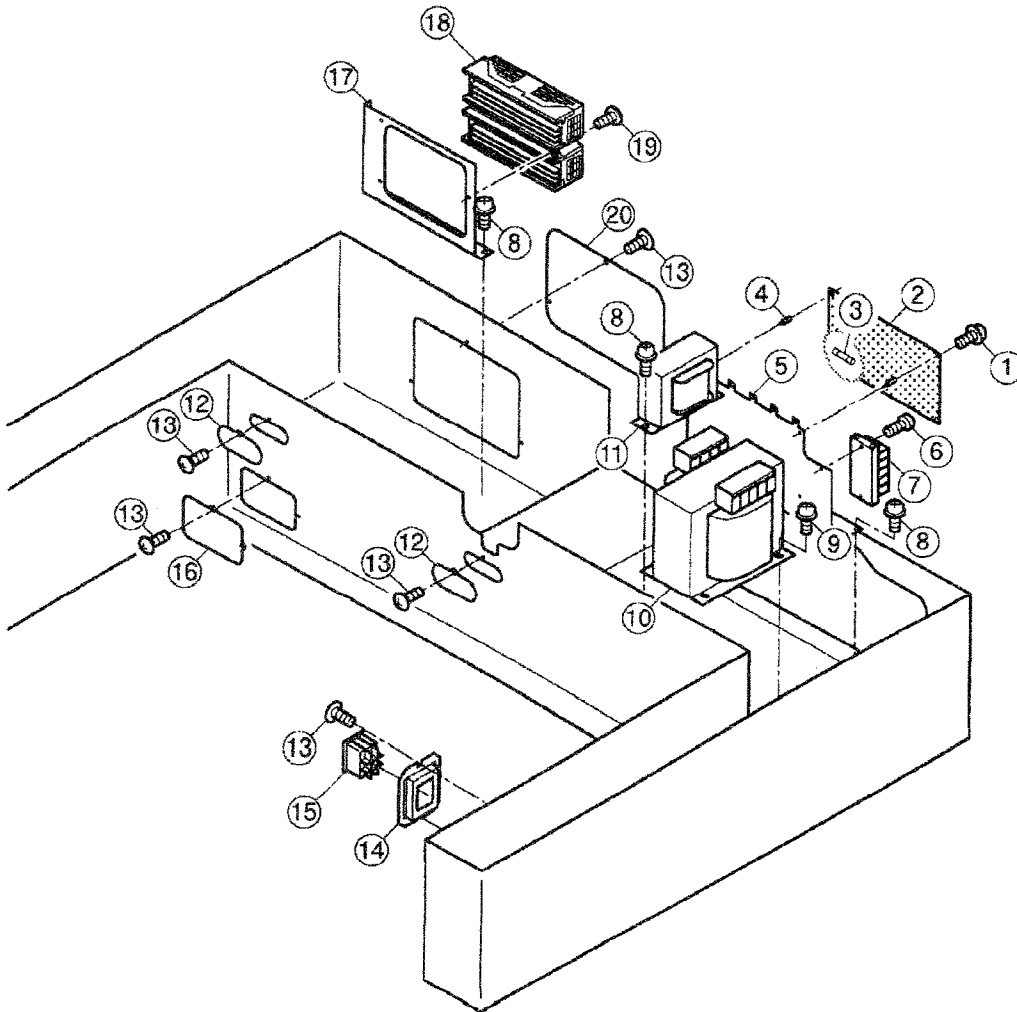
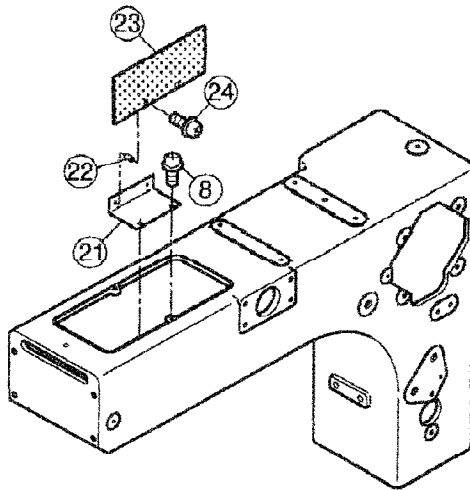


| Ass'y | El't | Parts No. | Parts Names                           | Note |
|-------|------|-----------|---------------------------------------|------|
|       | 1    | MPB00270  | Bearing (6903ZZ)                      |      |
|       | 2    | HCA24022  | Drive shaft support                   |      |
|       | 3    | HCG24040  | Drive pulley                          |      |
|       | 4    | MPB00290  | Flange type bearing unit              |      |
|       | 5    | HCA24140  | Change pulley                         |      |
|       | 6    | MPV00580  | Timing belt                           |      |
|       | 7    | HCA24131  | Y carriage drive shaft                |      |
|       | 8    | HCA75090  | Pulse motor                           |      |
|       | 9    | HCA24160  | Pulse motor bracket                   |      |
|       | 10   | HCA24150  | Motor pulley                          |      |
|       | 11   | HCA24121  | Stay (right)                          |      |
|       | 12   | HCA24031  | Idler pulley bracket                  |      |
|       | 13   | HCA24050  | Pillar                                |      |
|       | 14   | HCA24040  | Idler pulley support                  |      |
|       | 15   | M0424180  | Idler shaft                           |      |
|       | 16   | M0424160  | Spacer                                |      |
|       | 17   | MPB00280  | Needle bearing (HK1210)               |      |
|       | 18   | HCG24050  | Idler pulley                          |      |
|       | 19   | HCA24061  | Holding plate                         |      |
|       | 20   | HCA24101  | Limit switch dog                      |      |
|       | 21   | HCA24111  | Stay (left)                           |      |
|       | 22   | HCG24131  | Belt fixing plate                     |      |
|       | 23   | HCG24230  | Belt holding plate A                  |      |
|       | 24   | HCG24430  | Belt holding plate C                  |      |
|       | 25   | MPV00310  | Timing belt                           |      |
|       | 26   | HCG24031  | LM guide                              |      |
|       | 27   | HCA24012  | LM guide bracket                      |      |
|       | 28   | HCA24070  | Rail bracket                          |      |
|       | 29   | HCA24090  | Limit switch bracket                  |      |
|       | 30   | HCG75040  | Limit switch                          |      |
|       | 31   | HCA24080  | Limit switch rail                     |      |
|       | 32   | HCA24171  | Limit switch cover                    |      |
|       | 33   | SPDB04008 | Pan head screw (cross recessed, M4x8) |      |
|       | 34   | SCAA05015 | Hexagon socket head cap screw (M5x15) |      |
|       | 35   | SSAA06010 | Hexagon socket set screw (M6x10)      |      |
|       | 36   | WSAA05000 | Spring lock washer (M5)               |      |
|       | 37   | WPAA05000 | Plain washer (M5)                     |      |
|       | 38   | SCAA06015 | Hexagon socket head cap screw (M6x15) |      |
|       | 39   | WSAA06000 | Spring lock washer (M6)               |      |
|       | 40   | WPAA06000 | Plain washer (M6)                     |      |
|       | 41   | SSAA04004 | Hexagon socket set screw (M4x4)       |      |
|       | 42   | SCAA05020 | Hexagon socket head cap screw (M5x20) |      |

CAa0020 14a-2

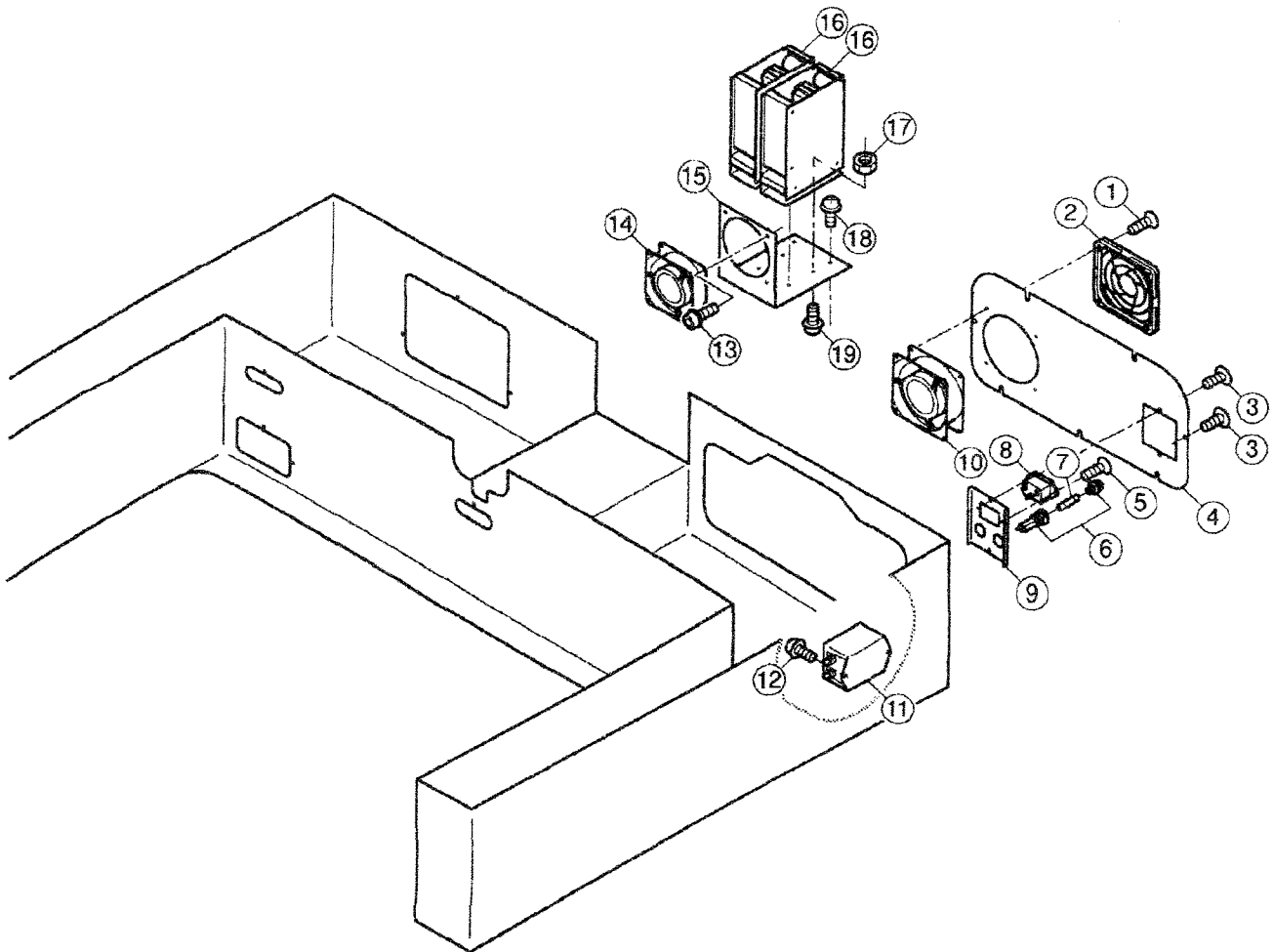


| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 43   | SCBD04008 | Hexagon socket head cap screw with flange (M4x8) |      |
|       | 44   | WPAD04000 | Plain washer (M4)                                |      |
|       | 45   | SSAA04008 | Hexagon socket set screw (M4x8)                  |      |
|       | 46   | NHAA06000 | Hexagon nut (M6)                                 |      |
|       | 47   | SSAA06035 | Hexagon socket set screw (M6x35)                 |      |
|       | 48   | SSAA03006 | Hexagon socket set screw (M3x6)                  |      |
|       | 49   | SCAA06012 | Hexagon socket head cap screw (M6x12)            |      |
|       | 50   | SCAA04055 | Hexagon socket head cap screw (M4x55)            |      |
|       | 51   | WSAA04000 | Spring lock washer (M4)                          |      |
|       | 52   | WPAA04000 | Plain washer (M4)                                |      |
|       | 53   | SPDD03006 | Pan head screw (cross recessed, M3x6)            |      |
|       | 54   | SCAA04008 | Hexagon socket head cap screw (M4x8)             |      |
|       | 55   | SCAA03015 | Hexagon socket head cap screw (M3x15)            |      |
|       | 56   | WSAA03000 | Spring lock washer (M3)                          |      |
|       | 57   | WPAA03000 | Plain washer (M3)                                |      |
|       | 58   | SCAA03008 | Hexagon socket head cap screw (M3x8)             |      |
|       | 59   | HCA24180  | Flat head screw                                  |      |
|       | 60   | SAAA05010 | Hexagon socket button head screw (M5x10)         |      |
|       | 61   | SPAC2C008 | Pan head screw (cross recessed, M2.3x8)          |      |
|       | 62   | SCBA03006 | Hexagon socket head cap screw with flange (M3x6) |      |
|       | 63   | NHAA03000 | Hexagon nut (M3)                                 |      |



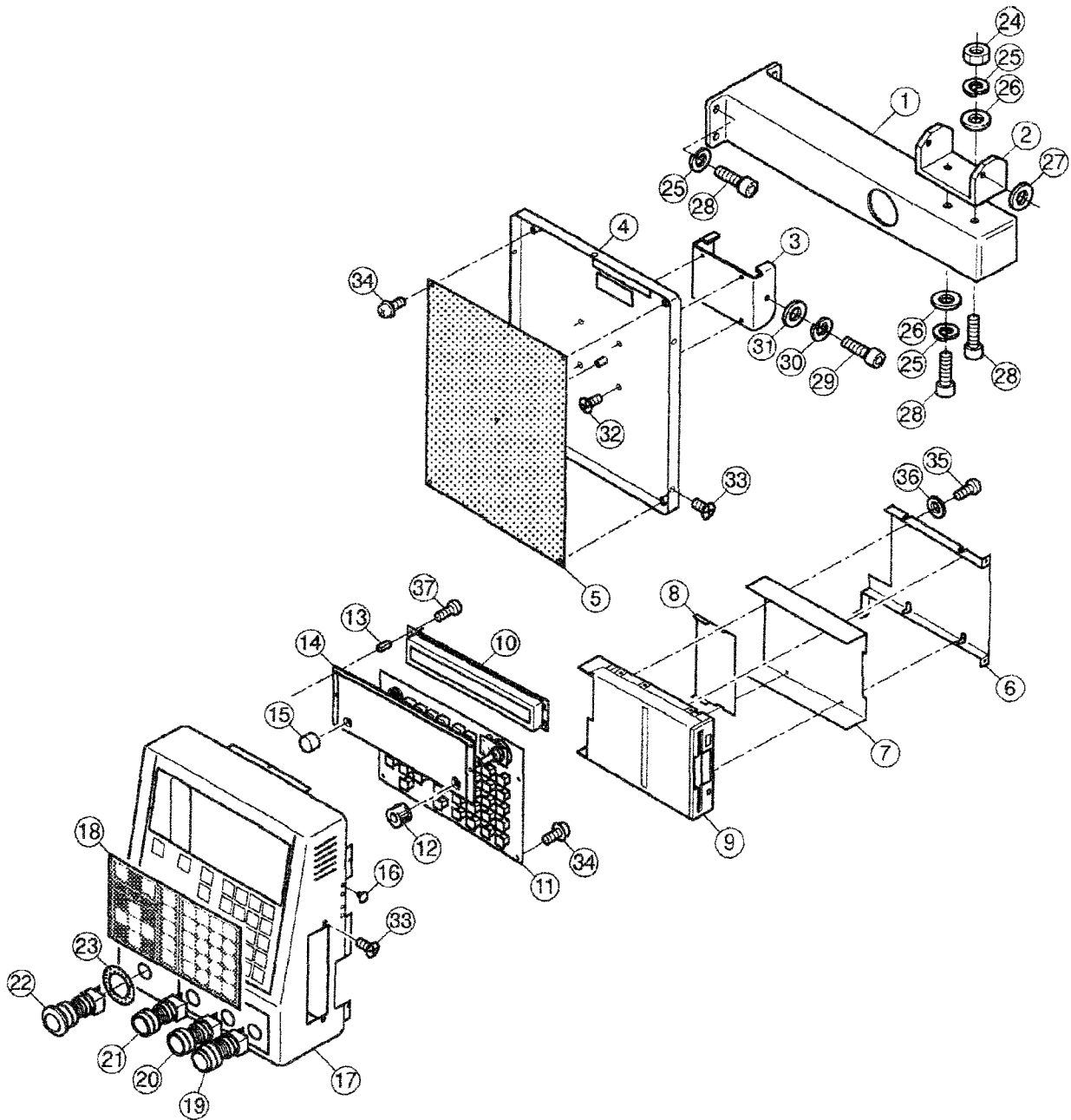
| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 1    | SPDD03006 | Pan head screw (cross recessed, M3x6)   |      |
|       | 2    | HCA83015  | Drive circuit board ass'y               |      |
|       | 3    | EPF00330  | Fuse (2A)                               |      |
|       | 4    | MPZ00470  | Spacer (BSB-312)                        |      |
|       | 5    | HCA27042  | Bracket for drive circuit board         |      |
|       | 6    | SPAD04014 | Pan head screw (cross recessed, M4x14)  |      |
|       | 7    | EPF00290  | Terminal base                           |      |
|       | 8    | SPDB04008 | Pan head screw (cross recessed, M4x8)   |      |
|       | 9    | SPDB05008 | Pan head screw (cross recessed, M5x8)   |      |
|       | 10   | EPK00810  | Transformer                             |      |
|       | 11   | EPK00830  | Transformer                             |      |
|       | 12   | HCA00010  | Cover A                                 |      |
|       | 13   | STAB04006 | Truss head screw (cross recessed, M4x6) |      |
|       | 14   | HCA00041  | Power switch bracket                    |      |
|       | 15   | EPS00810  | Power switch                            |      |
|       | 16   | HCA00020  | Cover B                                 |      |
|       | 17   | HCA27051  | Inverter bracket                        |      |
|       | 18   | EPM00450  | Inverter                                |      |
|       | 19   | SBAB04008 | Binding head screw (M4x8)               |      |
|       | 20   | HCA00061  | Inverter cover                          |      |
|       | 21   | HCA27020  | Bracket for thread detecting board      |      |
|       | 22   | MPZ00360  | Spacer (C-310)                          |      |
|       | 23   | HMX83228  | Thread detecting board ass'y            |      |
|       | 24   | SPDB03016 | Pan head screw (cross recessed, M3x16)  |      |





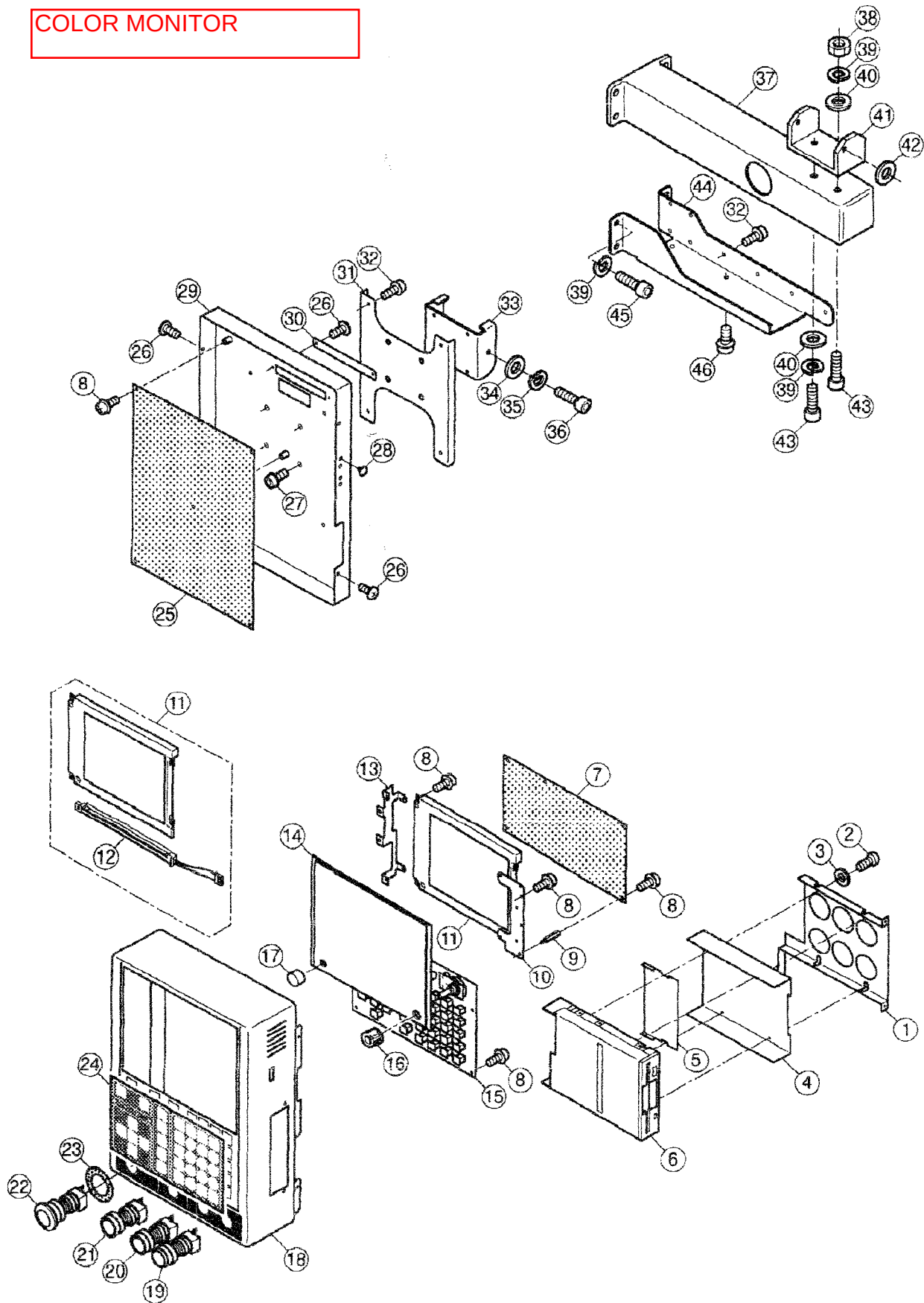
| Ass'y | El't | Parts No. | Parts Names                                      | Note |
|-------|------|-----------|--------------------------------------------------|------|
|       | 1    | SGAB04020 | Flat head screw (cross recessed head, M4x20)     |      |
|       | 2    | EPK00680  | Filter                                           |      |
|       | 3    | STAB04006 | Truss head screw (cross recessed, M4x6)          |      |
|       | 4    | HCA00071  | Cover                                            |      |
|       | 5    | SGAB03006 | Flat head screw (cross recessed head, M3x6)      |      |
|       | 6    | EPF00070  | Fuse holder                                      |      |
|       | 7    | EPF00360  | Fuse (6A)                                        |      |
|       | 8    | EPK00720  | Socket                                           |      |
|       | 9    | HCA27090  | Fuse holder bracket                              |      |
|       | 10   | EPK00670  | Fan                                              |      |
|       | 11   | EPK00470  | Noise filter                                     |      |
|       | 12   | SPDB04006 | Pan head screw (cross recessed, M4x6)            |      |
|       | 13   | SCBD04006 | Hexagon socket head cap screw with flange (M4x6) |      |
|       | 14   | HCA75130  | Fan                                              |      |
|       | 15   | HCA27010  | Driver bracket                                   |      |
|       | 16   | EPM00460  | Pulse motor driver                               |      |
|       | 17   | NHAB03000 | Hexagon nut (M3)                                 |      |
|       | 18   | SPDB04008 | Pan head screw (cross recessed, M4x8)            |      |
|       | 19   | SPDD03008 | Pan head screw (cross recessed, M3x8)            |      |

## STANDARD MONITOR



| Ass'y | El't | Parts No. | Parts Names                                 | Note             |
|-------|------|-----------|---------------------------------------------|------------------|
|       | 1    | HCA29052  | Arm                                         | STANDARD MONITOR |
|       | 2    | HCA29062  | Control box base                            |                  |
|       | 3    | HCA29071  | Control box bracket                         |                  |
|       | 4    | HCA29080  | Rear panel                                  |                  |
|       | 5    | HCG83054  | CPU board ass'y                             |                  |
|       | 6    | HCG29150  | FDD bracket                                 |                  |
|       | 7    | M0429360  | Insulation plate                            |                  |
|       | 8    | HMF29111  | Insulation plate B                          |                  |
|       | 9    | EPZ00282  | Disk drive unit (3 mode type)               |                  |
|       | 10   | SF429092  | Liquid crystal display                      |                  |
|       | 11   | HCG83060  | Switch board ass'y                          |                  |
|       | 12   | EPS00350  | Volume knob                                 |                  |
|       | 13   | MPZ01980  | Spacer (AS-312)                             |                  |
|       | 14   | HCG29112  | Display panel                               |                  |
|       | 15   | EPS00640  | Switch top                                  |                  |
|       | 16   | FRA44630  | Cushion                                     |                  |
|       | 17   | HCA29032  | Chassis                                     |                  |
|       | 18   | HCG51031  | Switch sheet C                              |                  |
|       | 19   | EPS00680  | Stop switch (black)                         |                  |
|       | 20   | EPS00670  | Start switch (white)                        |                  |
|       | 21   | EPS00730  | Thread cut switch (blue)                    |                  |
|       | 22   | EPS00840  | Emergency stop switch                       |                  |
|       | 23   | HMF51080  | Emergency stop sticker                      |                  |
|       | 24   | NHAD06000 | Hexagon nut (M6)                            |                  |
|       | 25   | WSAD06000 | Spring lock washer (M6)                     |                  |
|       | 26   | WPAD06000 | Plain washer (M6)                           |                  |
|       | 27   | WPAD08000 | Plain washer (M8)                           |                  |
|       | 28   | SCAD06015 | Hexagon socket head cap screw (M6x15)       |                  |
|       | 29   | SCAD05015 | Hexagon socket head cap screw (M5x15)       |                  |
|       | 30   | WSAD05000 | Spring lock washer (M5)                     |                  |
|       | 31   | WPAD05000 | Plain washer (M5)                           |                  |
|       | 32   | SGAB04006 | Flat head screw (cross recessed head, M4x6) |                  |
|       | 33   | SGAB03006 | Flat head screw (cross recessed head, M3x6) |                  |
|       | 34   | SPDD03006 | Pan head screw (cross recessed, M3x6)       |                  |
|       | 35   | SPAH03004 | Pan head screw (cross recessed, M3x4)       |                  |
|       | 36   | WPBD03000 | Plain washer (M3)                           |                  |
|       | 37   | SPAD03006 | Pan head screw (cross recessed, M3x6)       |                  |

## COLOR MONITOR

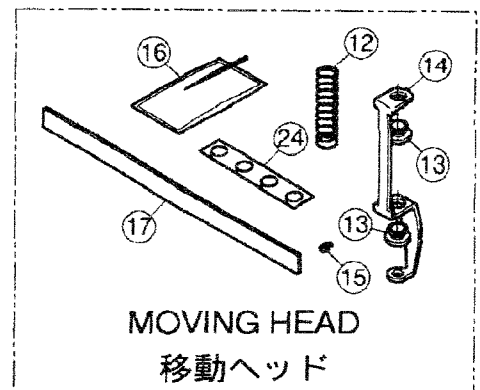
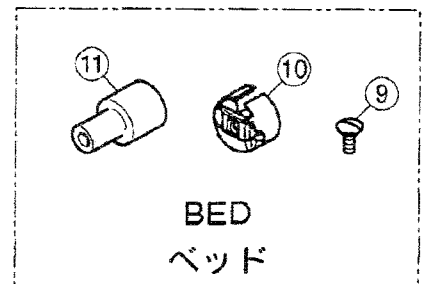
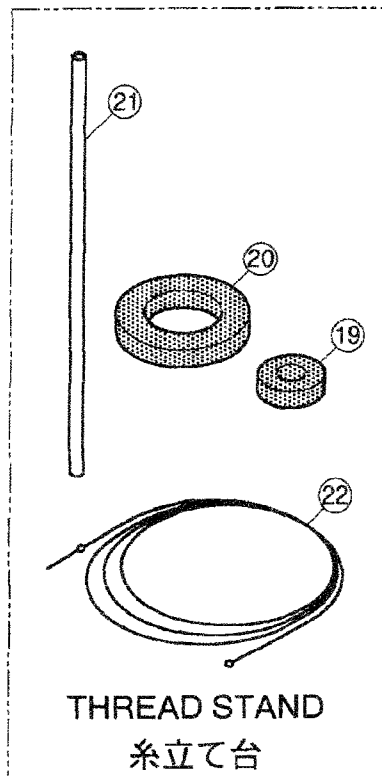
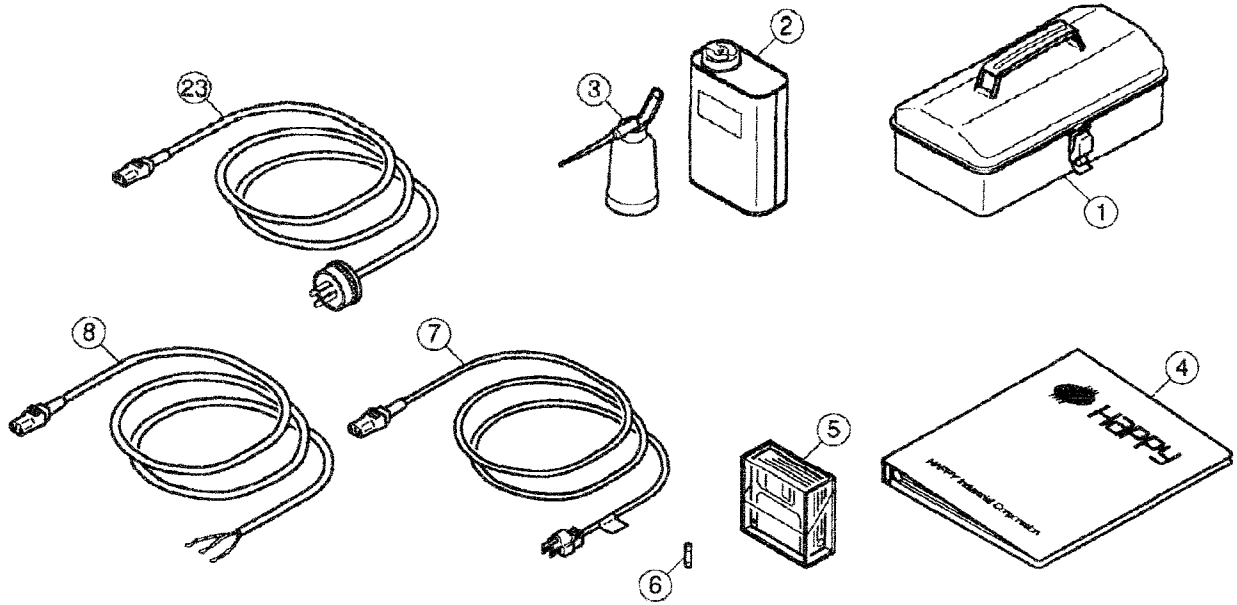


# CONTROL BOX

CAC2501

16a-1

| Ass'y | El't | Parts No. | Parts Names                                      | Note          |
|-------|------|-----------|--------------------------------------------------|---------------|
|       | 1    | HCA29641  | FDD bracket                                      | COLOR MONITOR |
|       | 2    | SPAH03004 | Pan head screw (cross recessed, M3x4)            |               |
|       | 3    | WPBD03000 | Plain washer (M3)                                |               |
|       | 4    | M0429360  | Insulation plate                                 |               |
|       | 5    | HMF29111  | Insulation plate B                               |               |
|       | 6    | EPZ00282  | Disk drive unit (3 mode type)                    |               |
|       | 7    | HCG83110  | LCD board ass'y                                  |               |
|       | 8    | SPDD03006 | Pan head screw (cross recessed, M3x6)            |               |
|       | 9    | MPZ01390  | Spacer (BSB-320)                                 |               |
|       | 10   | HCA29630  | LCD bracket (right)                              |               |
|       | 11   | EPZ00460  | LCD unit                                         |               |
|       | 12   | EPZ00470  | Lamp unit                                        |               |
|       | 13   | HCA29621  | LCD bracket (left)                               |               |
|       | 14   | --        | Display panel (with seal)                        |               |
|       | 15   | HCG83060  | Switch board ass'y                               |               |
|       | 16   | EPS00350  | Volume knob                                      |               |
|       | 17   | EPS00640  | Switch top                                       |               |
|       | 18   | HCA29612  | Front chassis                                    |               |
|       | 19   | EPS00680  | Stop switch (black)                              |               |
|       | 20   | EPS00670  | Start switch (white)                             |               |
|       | 21   | EPS00730  | Thread cut switch (blue)                         |               |
|       | 22   | EPS00840  | Emergency stop switch                            |               |
|       | 23   | HMF51080  | Emergency stop sticker                           |               |
|       | 24   | HCG51031  | Switch sheet C                                   |               |
|       | 25   | HCG83054  | CPU board ass'y                                  |               |
|       | 26   | SBAB03005 | Binding head screw (M3x5)                        |               |
|       | 27   | SCBD04008 | Hexagon socket head cap screw with flange (M4x8) |               |
|       | 28   | FRA44630  | Cushion                                          |               |
|       | 29   | HCA29651  | Rear chassis                                     |               |
|       | 30   | HCA29711  | DIP switch cover                                 |               |
|       | 31   | HCA29661  | Reinforcement plate                              |               |
|       | 32   | SCBD04006 | Hexagon socket head cap screw with flange (M4x6) |               |
|       | 33   | HCA29071  | Control box bracket                              |               |
|       | 34   | WPAD05000 | Plain washer (M5)                                |               |
|       | 35   | WSAD05000 | Spring lock washer (M5)                          |               |
|       | 36   | SCAD05015 | Hexagon socket head cap screw (M5x15)            |               |
|       | 37   | HCA29690  | Arm                                              |               |
|       | 38   | NHAD06000 | Hexagon nut (M6)                                 |               |
|       | 39   | WSAD06000 | Spring lock washer (M6)                          |               |
|       | 40   | WPAD06000 | Plain washer (M6)                                |               |
|       | 41   | HCA29062  | Control box base                                 |               |
|       | 42   | WPAD08000 | Plain washer (M8)                                |               |
|       | 43   | SCAD06015 | Hexagon socket head cap screw (M6x15)            |               |
|       | 44   | HCA29701  | Arm bracket                                      |               |
|       | 45   | SCAD06018 | Hexagon socket head cap screw (M6x18)            |               |
|       | 46   | SCBD05008 | Hexagon socket head cap screw with flange (M5x8) |               |



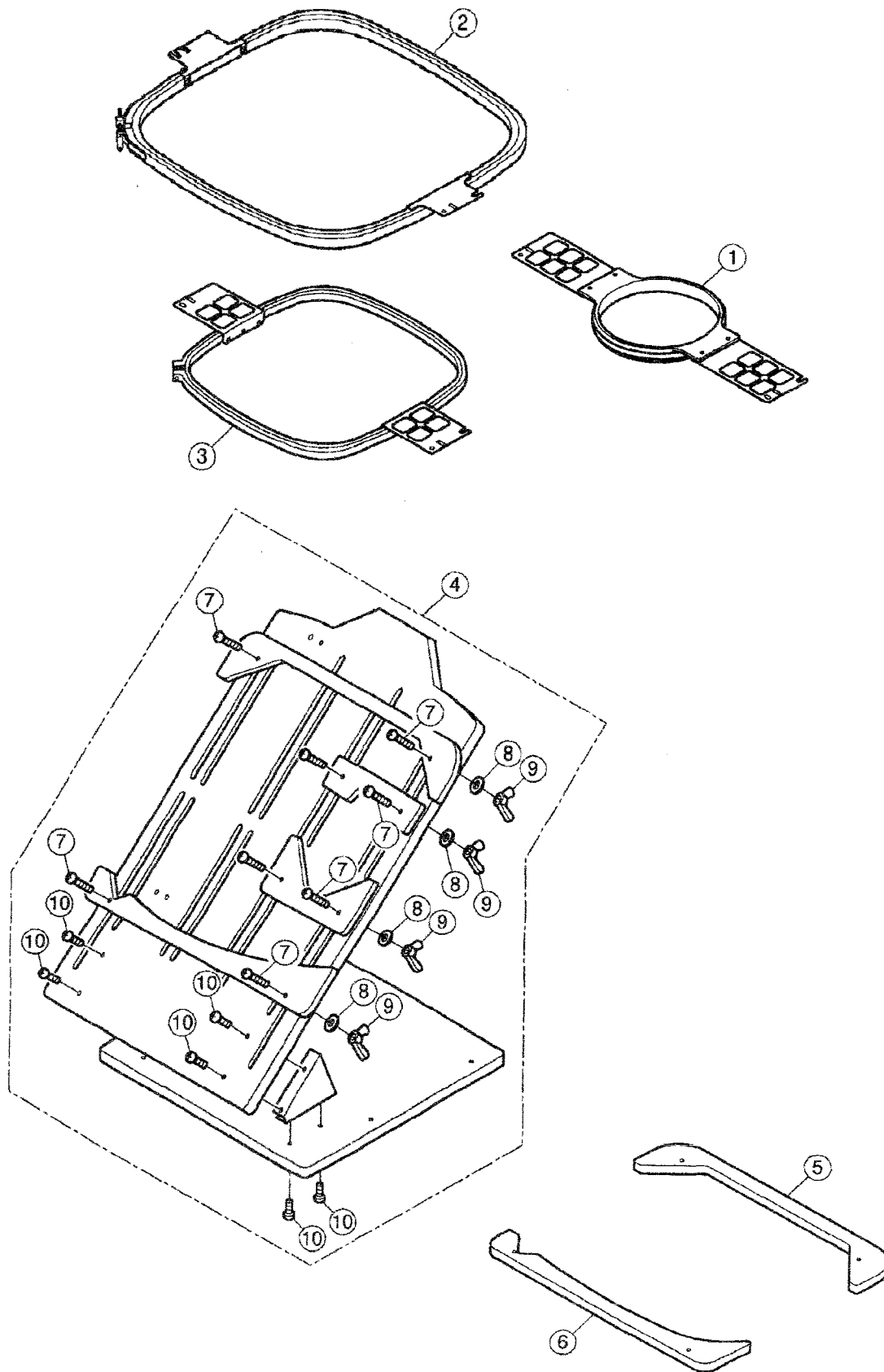
## ACCESSORIES 1

CAAS1001

17a-1

| Ass'y | El't | Parts No. | Parts Names                 | Note |
|-------|------|-----------|-----------------------------|------|
| 1*    | 1    | MPZ00530  | Tool set                    |      |
|       | 2    | MPZ00480  | Machine oil                 |      |
|       | 3    | --        | Oiler                       |      |
|       | 4    | --        | Instruction book            |      |
|       | 5    | EPZ00450  | Floppy disk (1 case)        |      |
|       | 6    | EPF00360  | Fuse (6A)                   |      |
|       | 6    | EPF00330  | Fuse (2A)                   |      |
|       | 7    | EPE00050  | Power cord (for 120V)       |      |
|       | 8    | HCA70052  | Power cord (for 200V)       |      |
|       | 9    | MPZ00040  | Screw for needle plate      |      |
|       | 10   | MPZ00080  | Bobbin case                 |      |
|       | 11   | M0404342  | Needle height gauge         |      |
|       | 13   | HMF12112  | Bushing                     |      |
|       | 15   | HMG12230  | Screw for needle holder     |      |
|       | 16   | MPZ00150  | Needle (#11)                |      |
|       | 17   | HMG12470  | Thread holding rubber B     |      |
|       | 18   | M0416186  | Thread adjusting spring     |      |
|       | 19   | M0420051  | Thread stand felt (45mm)    |      |
|       | 20   | HMF20571  | Thread stand felt (80mm)    |      |
|       | 21   | HCA20101  | Thread stand pipe B (185mm) |      |
|       | 21   | HCA20021  | Thread stand pipe A (235mm) |      |
|       | 22   | HCA20090  | Guide rope                  |      |
|       | 23   | HCA70261  | Power cord (for 200V)       |      |
|       | 24   | HMG13680  | Spring                      |      |
|       | 25   | HMG13630  | Pressure foot               |      |



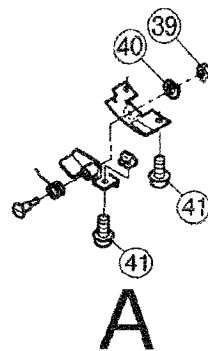
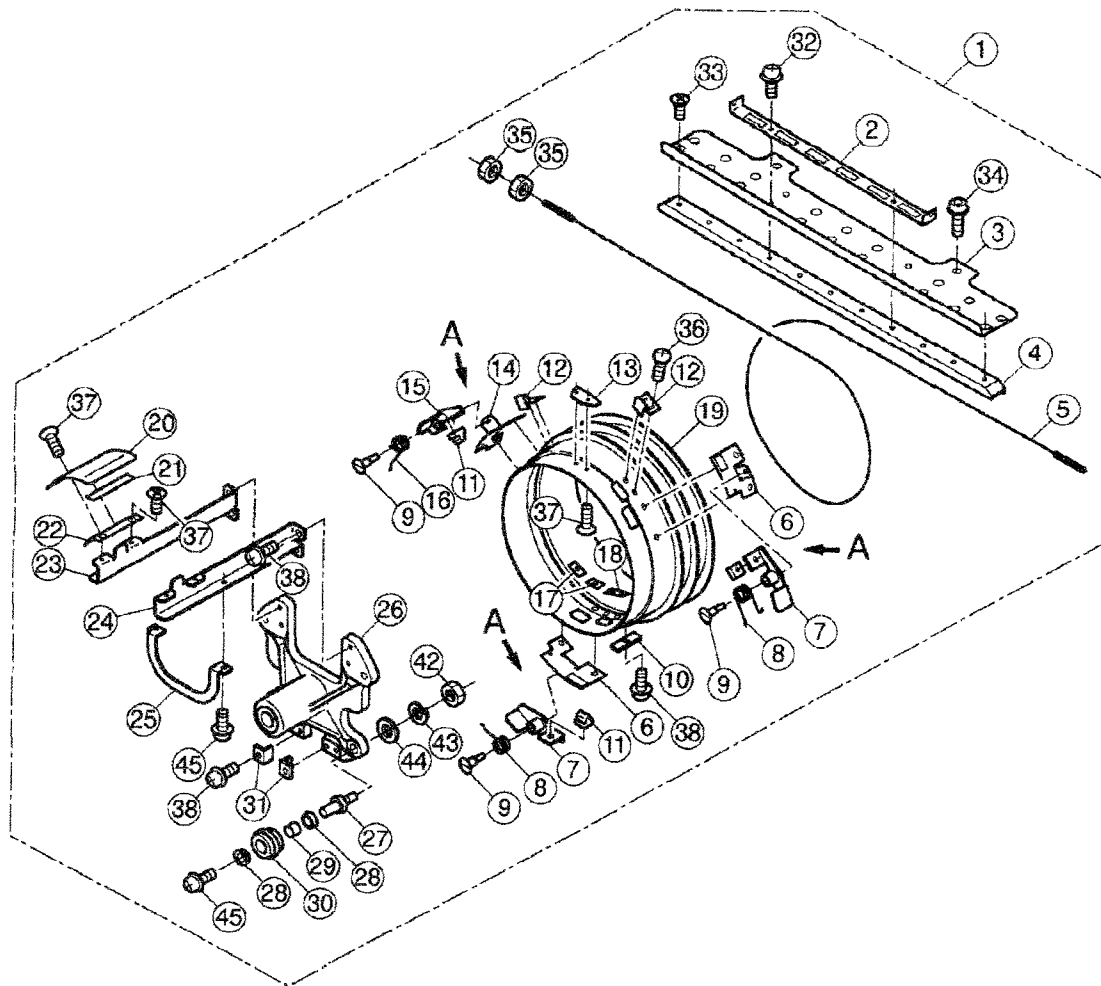


# ACCESSORIES 2

CAa1808

17b-1

| Ass'y | El't | Parts No. | Parts Names                             | Note |
|-------|------|-----------|-----------------------------------------|------|
|       | 1    | HCM41214  | PTA-15-520                              |      |
|       | 1    | HCM41254  | PTA-18-520                              |      |
|       | 2    | FRA40282  | WS-42440-520                            |      |
|       | 3    | FRA40122  | PTA-32320-520                           |      |
|       | 4    | FRA40500  | Preparatory table ass'y (for PTA-32320) |      |
|       | 5    | FRA40430  | Holding plate F                         |      |
|       | 6    | FRA40510  | Holding plate I                         |      |
|       | 7    | SPCB05040 | Pan head screw (cross recessed, M5x40)  |      |
|       | 8    | WPAB05000 | Plain washer (M5)                       |      |
|       | 9    | NWAB05000 | Wing nut (M5)                           |      |
|       | 10   | SPCB05020 | Pan head screw (cross recessed, M5x20)  |      |

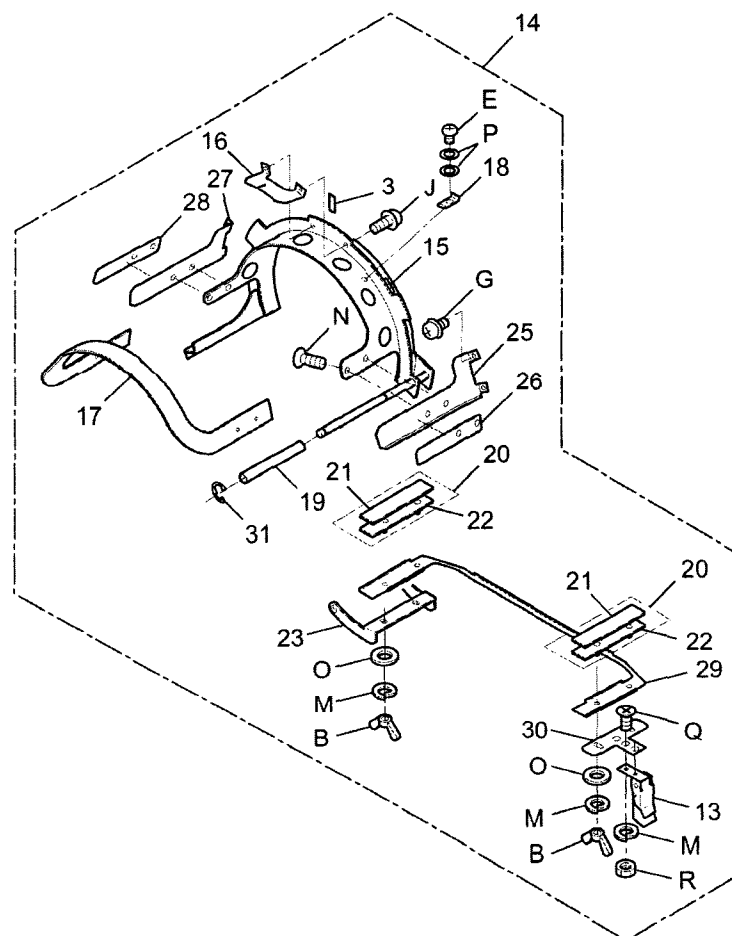
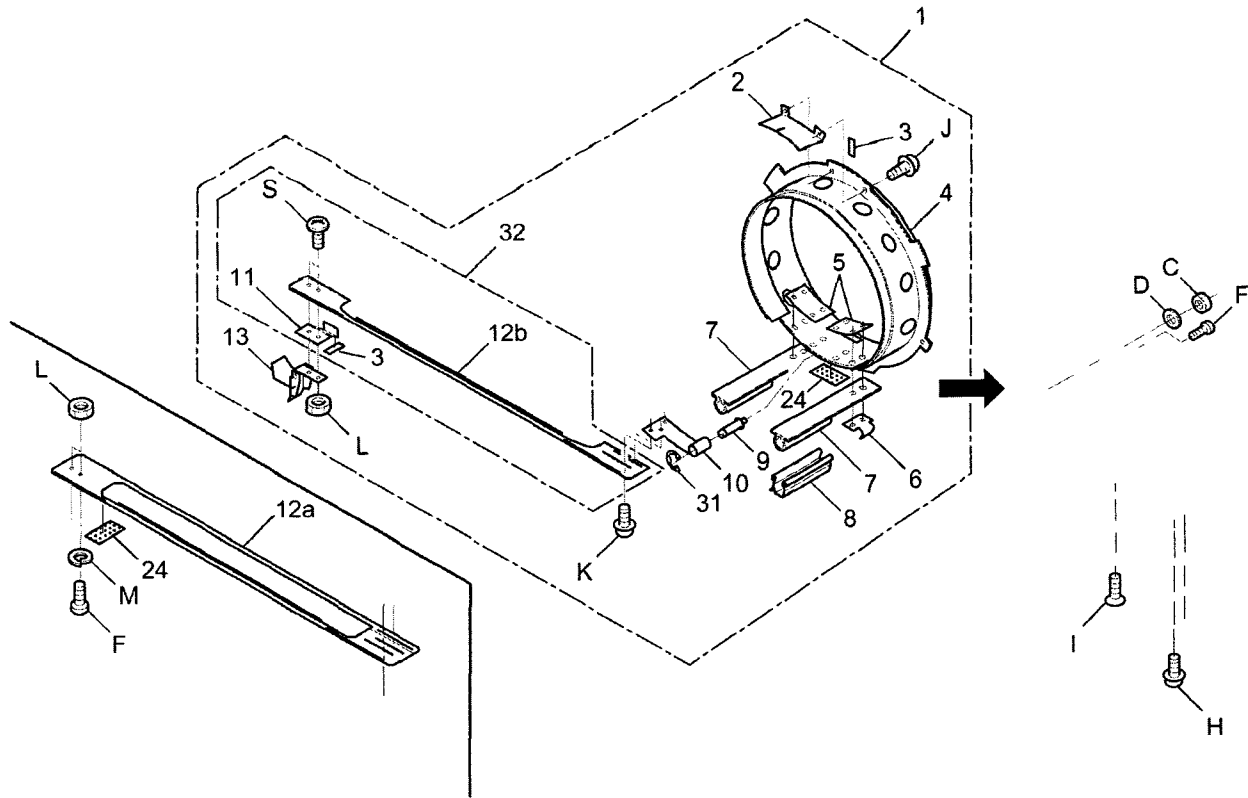


| Ass'y | El't | Parts No. | Parts Names                                 | Note |
|-------|------|-----------|---------------------------------------------|------|
|       | 1    | FRA43501  | Drive frame ass'y A (red)                   |      |
|       | 1    | FRA43881  | Drive frame ass'y B (blue)                  |      |
|       | 2    | FRA43790  | Wire fixing plate                           |      |
|       | 3    | FRA43830  | Rail bracket                                |      |
|       | 4    | FRA43820  | Rail                                        |      |
|       | 5    | FRA43780  | Wire                                        |      |
|       | 6    | FRA43590  | Lever bracket (right)                       |      |
|       | 7    | FRA43560  | Hold lever ass'y (right)                    |      |
|       | 8    | FRA43620  | Torsion coil spring (right)                 |      |
|       | 9    | FRA43610  | Support pin                                 |      |
|       | 10   | FRA43800  | Wire keeper                                 |      |
|       | 11   | FRA43601  | Lock pin                                    |      |
|       | 12   | FRA43550  | Spring                                      |      |
|       | 13   | FRA43540  | Center guide                                |      |
|       | 14   | FRA43650  | Lever bracket (left)                        |      |
|       | 15   | FRA43630  | Hold lever ass'y (left)                     |      |
|       | 16   | FRA43660  | Torsion coil spring (left)                  |      |
|       | 17   | FRA43670  | Plate nut (M4)                              |      |
|       | 18   | FRA43680  | Plate nut (M3)                              |      |
|       | 19   | FRA43841  | rotary cylinder                             |      |
|       | 20   | FRA43700  | Guide                                       |      |
|       | 21   | FRA43740  | Protect sheet                               |      |
|       | 22   | FRA43730  | Guide bracket                               |      |
|       | 23   | FRA43721  | Guide support (left)                        |      |
|       | 24   | FRA43711  | Guide support (right)                       |      |
|       | 25   | FRA43690  | Reinforcement plate                         |      |
|       | 26   | FRA43971  | Base ass'y                                  |      |
|       | 27   | FRA43530  | Guide roller pin                            |      |
|       | 28   | FRA43520  | Bearing                                     |      |
|       | 29   | FRA43750  | Guide roller spacer                         |      |
|       | 30   | FRA43510  | Guide roller                                |      |
|       | 31   | FRA43810  | Stopper                                     |      |
|       | 32   | SPDD04012 | Pan head screw (cross recessed, M4x12)      |      |
|       | 33   | SGAD04008 | Flat head screw (cross recessed head, M4x8) |      |
|       | 34   | SCAD04008 | Hexagon socket head cap screw (M4x8)        |      |
|       | 35   | NHAD03000 | Hexagon nut (M3)                            |      |
|       | 36   | SPAD03005 | Pan head screw (cross recessed, M3x5)       |      |
|       | 37   | SGAD03004 | Flat head screw (cross recessed head, M3x4) |      |
|       | 38   | SPDD04010 | Pan head screw (cross recessed, M4x10)      |      |
|       | 39   | NHCD04000 | Hexagon nut (M4)                            |      |
|       | 40   | WSAD04000 | Spring lock washer (M4)                     |      |
|       | 41   | SPDD04008 | Pan head screw (cross recessed, M4x8)       |      |
|       | 42   | NHAD05000 | Hexagon nut (M5)                            |      |
|       | 43   | WSAD05000 | Spring lock washer (M5)                     |      |
|       | 44   | WPAD05000 | Plain washer (M5)                           |      |
|       | 45   | SPDD04006 | Pan head screw (cross recessed, M4x6)       |      |

### CAP FRAME (HOLD FRAME) 帽子枠 (取付枠)

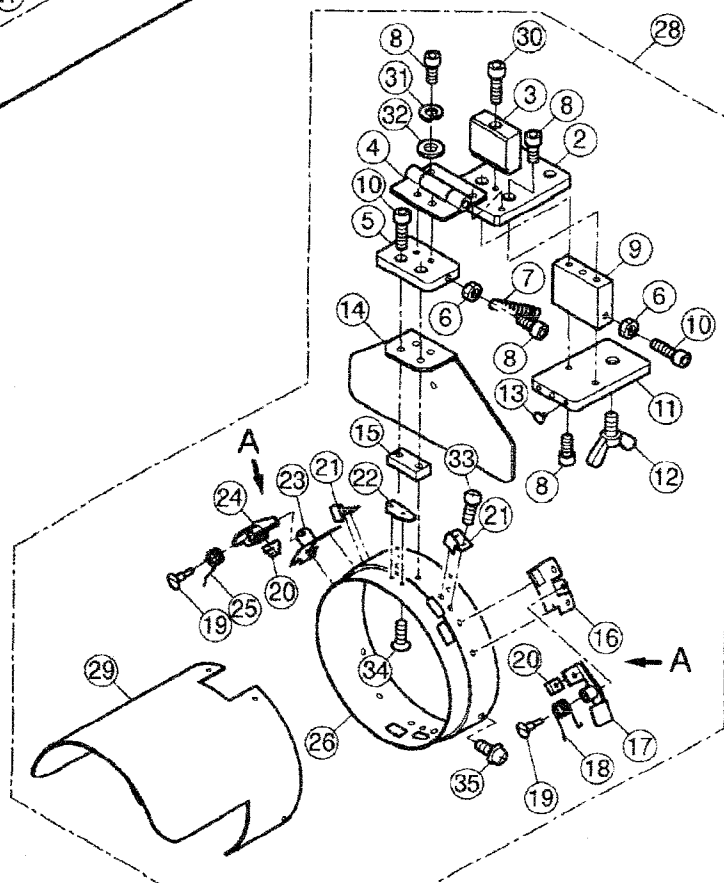
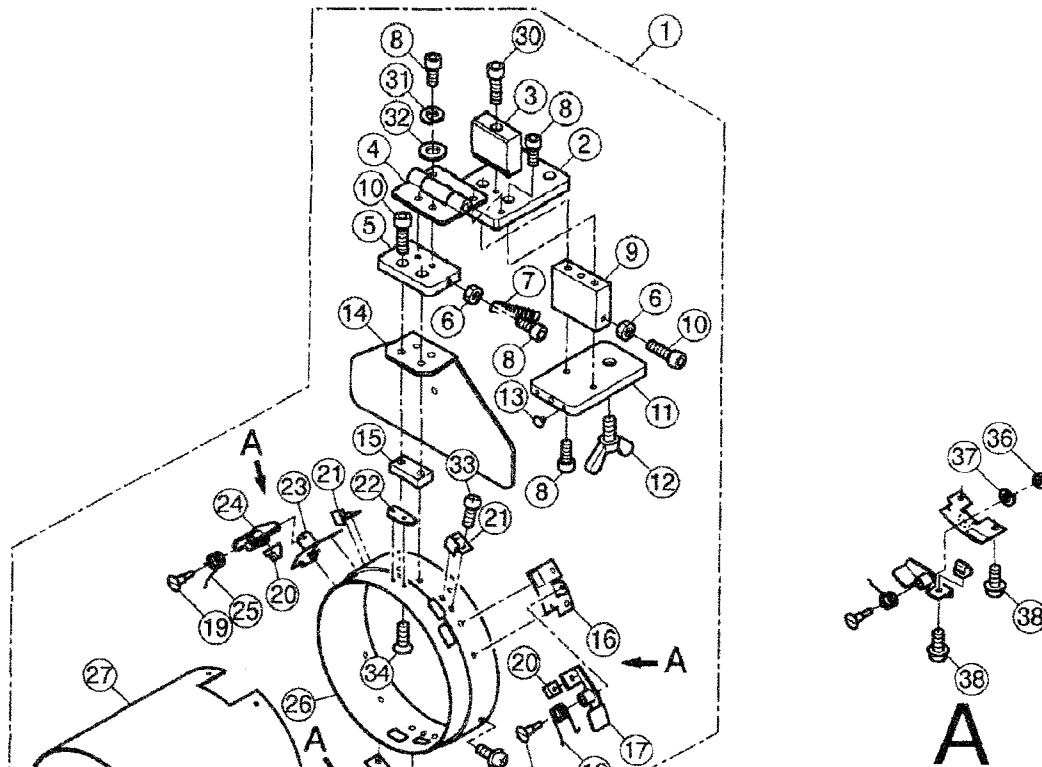
CGBKC10

19b-1



# CAP FRAME (HOLD FRAME) 帽子枠 (取付枠) 19b-1

| 組 指図  | 部品番号      | 部品名                                                | CSKC10                 | 備考   |
|-------|-----------|----------------------------------------------------|------------------------|------|
| Ass'y | El't      | Parts No.                                          | Parts Names            | Note |
| 1     | FRA44003  | Cap hold frame ass'y (wide type)                   | 帽子取付枠組 (ワイドタイプ)        |      |
| 2     | FRA44210  | Position bracket                                   | 位置ブラケット                |      |
| 3     | FRA44180  | Cap marker                                         | センターステッカー              |      |
| 4     | FRA44103  | Cap hold frame (wide type)                         | 帽子取付枠 (ワイドタイプ)         |      |
| 5     | FRA44050  | Cap holder bracket                                 | 帽子保持ブラケット              |      |
| 6     | FRA44031  | Hook                                               | パチン錠フック                |      |
| 7     | FRA44201  | Cap holder A                                       | 帽子固定ブラケット A            |      |
| 8     | FRA44090  | Clip                                               | クリップ                   |      |
| 9     | FRA44013  | Guide pin                                          | ガイドピン                  |      |
| 10    | FRA44022  | Grip bracket                                       | グリップブラケット              |      |
| 11    | FRA44260  | Grip guide                                         | グリップガイド                |      |
| 12a   | FRA44042  | Cap grip                                           | 帽子グリップ                 |      |
| 12b   | FRA44270  | Cap grip                                           | 帽子グリップ                 |      |
| 13    | FRA44160  | Latch                                              | 小型パチン錠                 |      |
| 14    | FRA46502  | Cap hold frame ass'y (low profile type)            | 帽子取付枠組 (ロープロタイプ)       |      |
| 15    | FRA46025  | Cap hold frame (low profile type)                  | 帽子取付枠 (ロープロタイプ)        |      |
| 16    | FRA44240  | Position bracket                                   | 位置ブラケットロープロ            |      |
| 17    | FRA46550  | Clamp C                                            | クランプ C                 |      |
| 18    | FRA46620  | Spring clip                                        | バネグリップ                 |      |
| 19    | FRA46141  | Spacer                                             | スペーサー                  |      |
| 20    | FRA46610  | Side holder ass'y                                  | サイド押えセット               |      |
| 21    | FRA46630  | Side holder cushion                                | サイド押えゴム                |      |
| 22    | FRA46182  | Side holder                                        | サイド押え                  |      |
| 23    | FRA46082  | Bracket                                            | ブラケット                  |      |
| 24    | FRA44251  | Caution sticker                                    | 注意ステッカー                |      |
| 25    | FRA46520  | Side support (right)                               | サイド受け (右)              |      |
| 26    | FRA46561  | Side support ruber (right)                         | サイド受けゴム (右)            |      |
| 27    | FRA46530  | Side support (left)                                | サイド受け (左)              |      |
| 28    | FRA46571  | Side support ruber (left)                          | サイド受けゴム (左)            |      |
| 29    | FRA46212  | Clamp B                                            | クランプ B                 |      |
| 30    | FRA46151  | Latch bracket                                      | パチン錠ブラケット              |      |
| 31    | FRA44170  | E-ring                                             | Eリング                   |      |
| 32    | FRAU44270 | Cap grip set<br>This can be substituted for "12a". | 帽子グリップ部組<br>"12a" の代用可 |      |
| B     | NWBB03000 | Wing nut (M3)                                      | ちょうナット (M3)            |      |
| C     | NHAD04000 | Hexagon nut (M4)                                   | 六角ナット (M4)             |      |
| D     | WPAD04000 | Plain washer (M4)                                  | 平座金 (M4)               |      |
| E     | SPAD03003 | Pan head screw (cross recessed, M3x3)              | 十字穴付きなべ小ねじ (M3x3)      |      |
| F     | SPAD03005 | Pan head screw (cross recessed, M3x5)              | 十字穴付きなべ小ねじ (M3x5)      |      |
| G     | SPDD04005 | Pan head screw (cross recessed, M4x5)              | 十字穴付きなべ小ねじ (M4x5)      |      |
| H     | SPDD04012 | Pan head screw (cross recessed, M4x12)             | 十字穴付きなべ小ねじ (M4x12)     |      |
| I     | SGAD04008 | Flat head screw (cross recessed head, M4x8)        | 十字穴付き皿小ねじ (M4x8)       |      |
| J     | SPDD03005 | Pan head screw (cross recessed, M3x5)              | 十字穴付きなべ小ねじ (M3x5)      |      |
| K     | SPDD03004 | Pan head screw (cross recessed, M3x4)              | 十字穴付きなべ小ねじ (M3x4)      |      |
| L     | NHAD03000 | Hexagon nut (M3)                                   | 六角ナット (M3)             |      |
| M     | WSAD03000 | Spring lock washer (M3)                            | ばね座金 (M3)              |      |
| N     | SGAD03004 | Flat head screw (cross recessed head, M3x4)        | 十字穴付き皿小ねじ (M3x4)       |      |
| O     | WPAD03000 | Plain washer (M3)                                  | 平座金 (M3)               |      |
| P     | WPBD03000 | Plain washer (M3)                                  | 平座金 (M3)               |      |
| Q     | SGAD03006 | Flat head screw (cross recessed head, M3x6)        | 十字穴付き皿小ねじ (M3x6)       |      |
| R     | NHCD03000 | Hexagon nut (M3)                                   | 六角ナット (M3)             |      |
| S     | SBAD03005 | Binding head screw (M3x5)                          | バインド小ねじ (M3x5)         |      |



## CAP FRAME (CAP STRETCHER)

CAa8A18

18c-1

| Ass'y | Elt | Parts No. | Parts Names                                 | Note |
|-------|-----|-----------|---------------------------------------------|------|
|       | 1   | FRA44501  | Cap stretcher (for wide type)               |      |
|       | 2   | FRA44600  | Base E                                      |      |
|       | 3   | FRA44610  | Stopper A                                   |      |
|       | 4   | FRA44580  | Hinge                                       |      |
|       | 5   | FRA44590  | Base D                                      |      |
|       | 6   | NHAD05000 | Hexagon nut (M5)                            |      |
|       | 7   | FRA44620  | Tension coil spring                         |      |
|       | 8   | SCAD05012 | Hexagon socket head cap screw (M5x12)       |      |
|       | 9   | FRA44561  | Base B                                      |      |
|       | 10  | SCAD05020 | Hexagon socket head cap screw (M5x20)       |      |
|       | 11  | FRA44571  | Base C                                      |      |
|       | 12  | SWAB10020 | Wing bolt (M10x20)                          |      |
|       | 13  | FRA44630  | Cushion                                     |      |
|       | 14  | FRA44531  | Back plate                                  |      |
|       | 15  | FRA44540  | R block                                     |      |
|       | 16  | FRA43590  | Lever bracket (right)                       |      |
|       | 17  | FRA43560  | Hold lever ass'y (right)                    |      |
|       | 18  | FRA43620  | Torsion coil spring (right)                 |      |
|       | 19  | FRA43610  | Support pin                                 |      |
|       | 20  | FRA43601  | Lock pin                                    |      |
|       | 21  | FRA43550  | Spring                                      |      |
|       | 22  | FRA43540  | Center guide                                |      |
|       | 23  | FRA43650  | Lever bracket (left)                        |      |
|       | 24  | FRA43630  | Hold lever ass'y (left)                     |      |
|       | 25  | FRA43660  | Torsion coil spring (left)                  |      |
|       | 26  | FRA44510  | Cylinder                                    |      |
|       | 27  | FRA44521  | Stretch plate (for wide type)               |      |
|       | 28  | FRA46310  | Cap stretcher (for semi wide type)          |      |
|       | 29  | FRA46300  | Stretch plate (for semi wide type)          |      |
|       | 30  | SCAD05035 | Hexagon socket head cap screw (M5x35)       |      |
|       | 31  | WSAD05000 | Spring lock washer (M5)                     |      |
|       | 32  | WPAD05000 | Plain washer (M5)                           |      |
|       | 33  | SPAD03005 | Pan head screw (cross recessed, M3x5)       |      |
|       | 34  | SGAD03005 | Flat head screw (cross recessed head, M3x5) |      |
|       | 35  | SPDD04010 | Pan head screw (cross recessed, M4x10)      |      |
|       | 36  | NHCD04000 | Hexagon nut (M4)                            |      |
|       | 37  | WSAD04000 | Spring lock washer (M4)                     |      |
|       | 38  | SPDD04008 | Pan head screw (cross recessed, M4x8)       |      |





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|             |                |
|-------------|----------------|
| Model       | HCA-1501-40TTC |
| Machine No. |                |
|             |                |