

Spare Parts Book  
Katalog náhradních dílů

**GARUDAN<sup>®</sup>**

**MN4500 Series**



ANITA B, s.r.o.

Průmyslová 2453/7

680 01 Boskovice

Czech Republic

tel: +420 516 454 774

+420 516 453 496

fax: +420 516 452 751

e-mail: [info@anita.cz](mailto:info@anita.cz)

Všechna práva vyhrazena.

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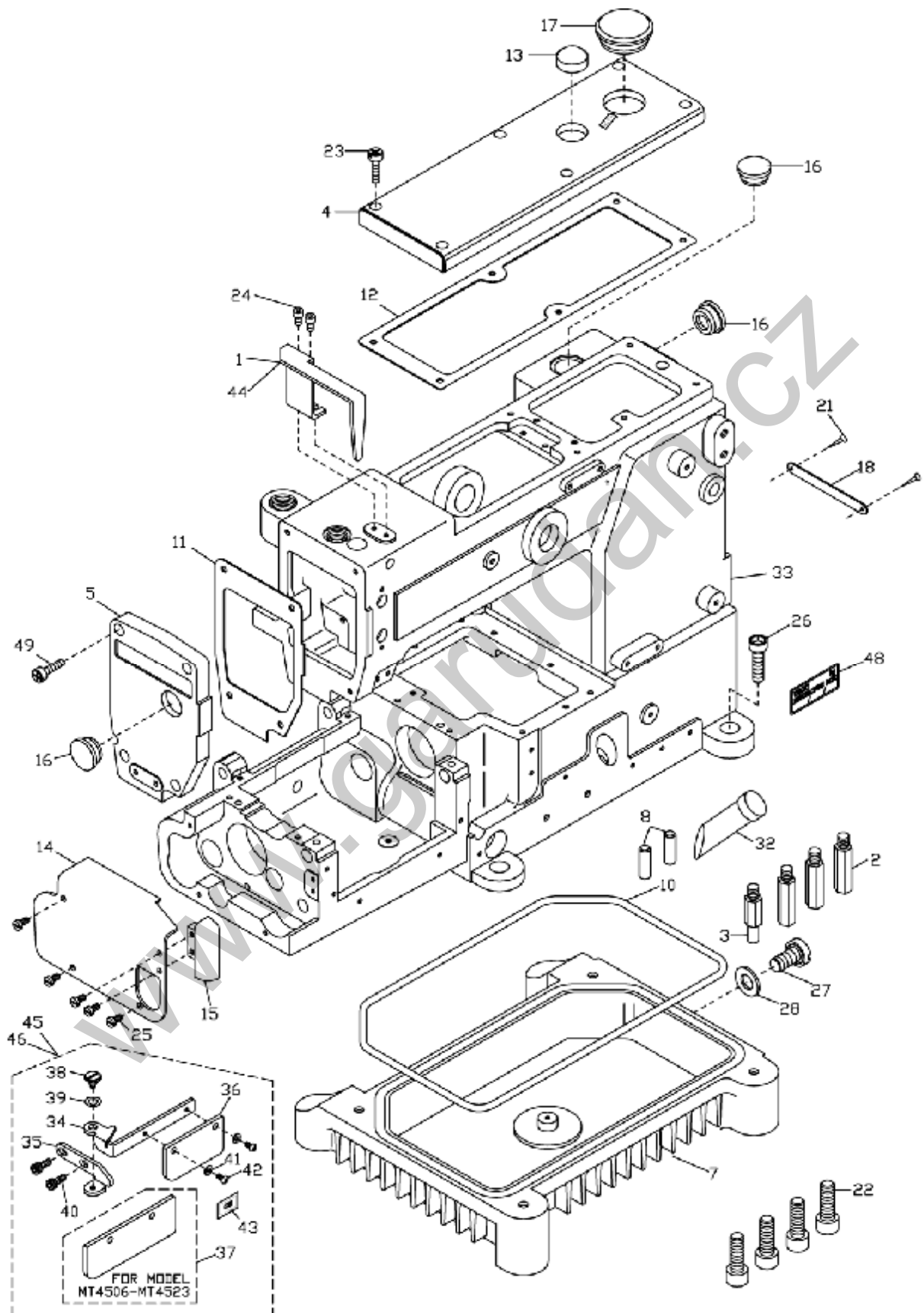
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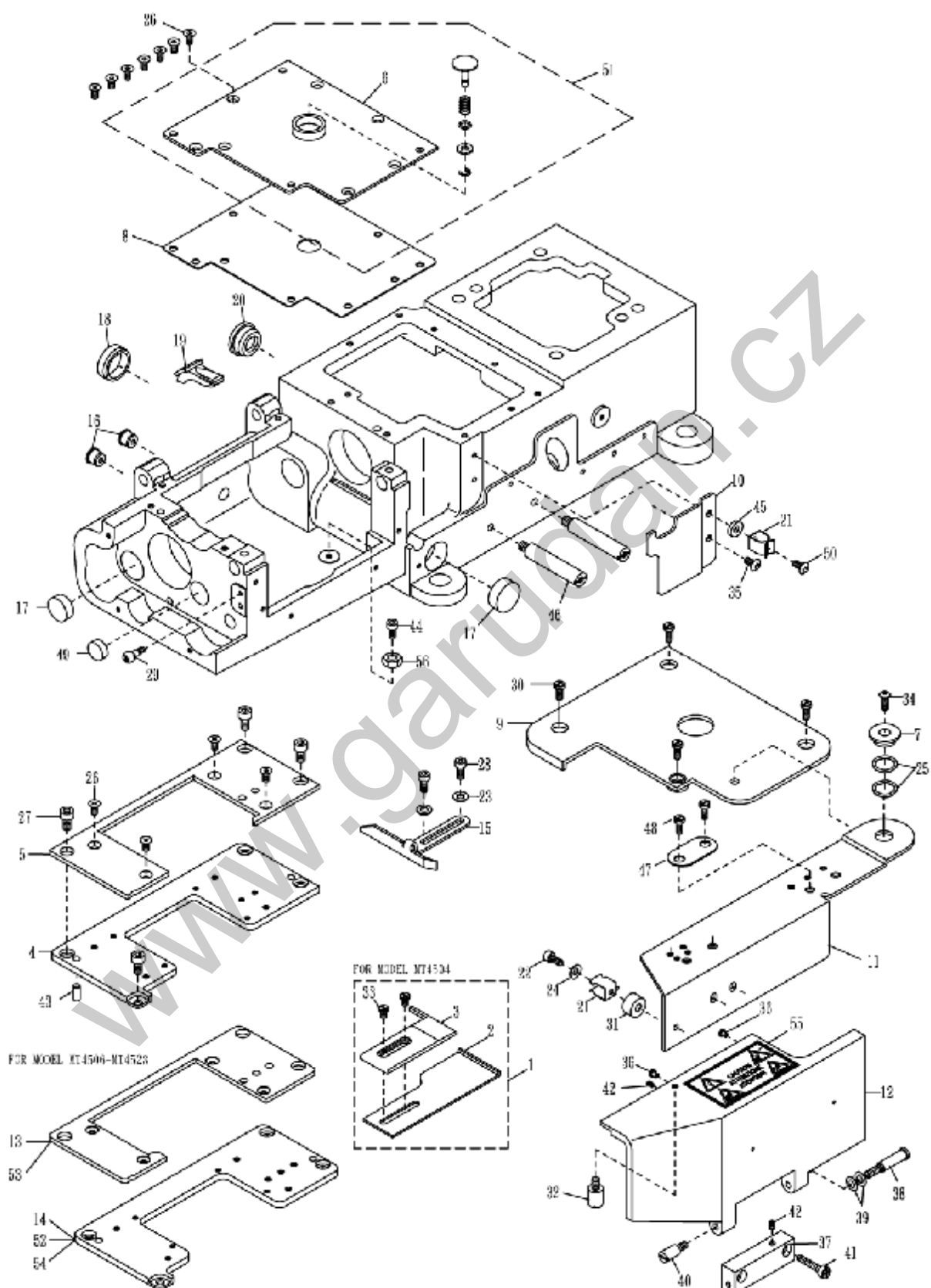
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## 1. FRAME COMPONENTS



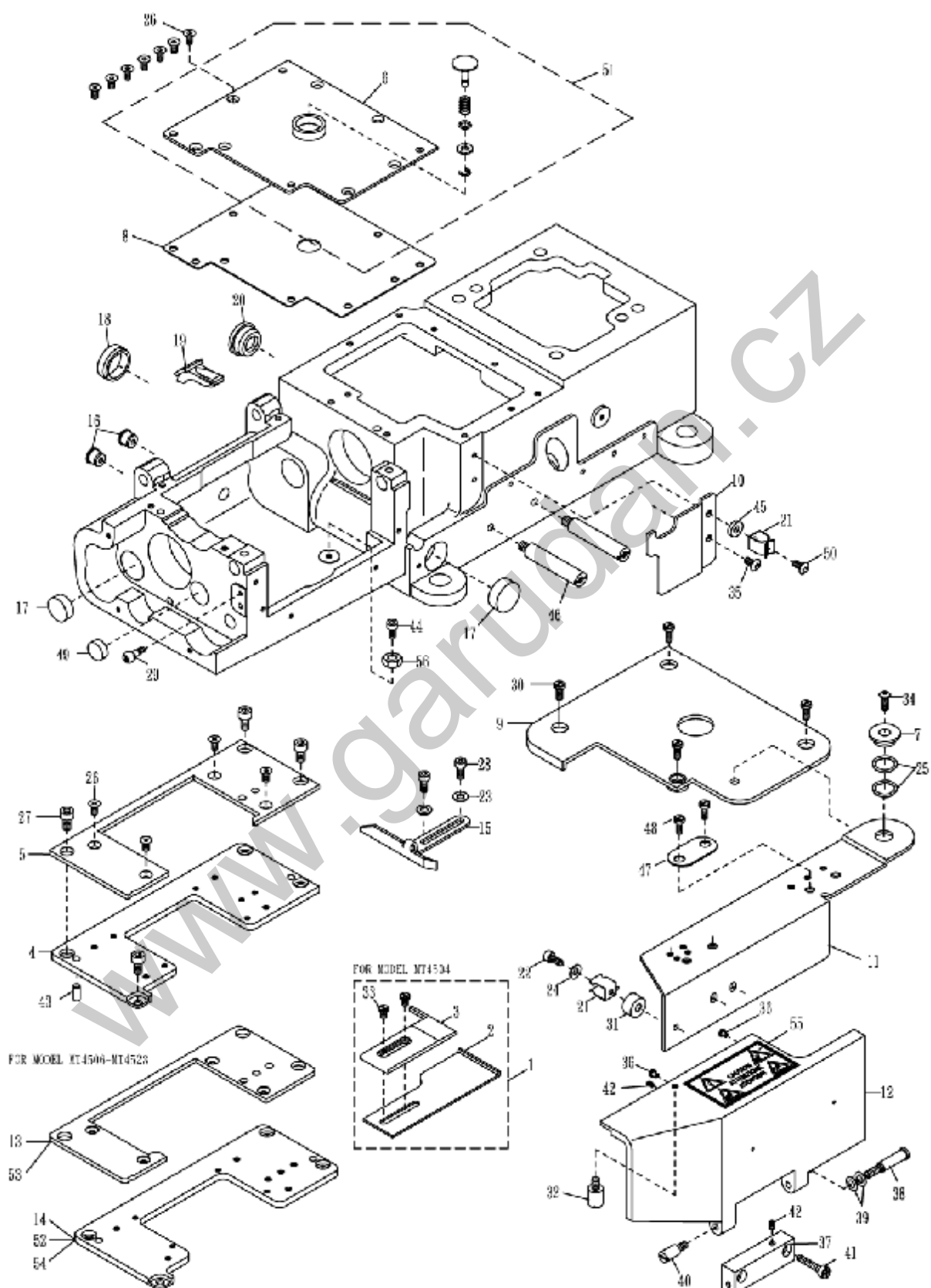
| 1. FRAME COMPONENTS |                          |                            |     |
|---------------------|--------------------------|----------------------------|-----|
| Ref. No.            | Parts No.                | Description                | QTY |
| *1                  | 2310000101               | Needle Cover               | 1   |
| 2                   | 2310000102               | Supporting Bar             | 3   |
| 3                   | 2310000103               | Supporting Bar             | 1   |
| 4                   | 2310000104               | Top Cover                  | 1   |
| 5                   | 23100001051              | Needle Cover               | 1   |
| 7                   | 2310000107               | Oil Reservoir              | 1   |
| 8                   | 2310000108               | Pin                        | 2   |
| 10                  | 2310000110               | Gasket                     | 1   |
| 11                  | 23100001111              | Gasket                     | 1   |
| 12                  | 2310000112               | Gasket                     | 1   |
| 13                  | 2310000113               | Oil Window                 | 1   |
| 14                  | 2310000114               | Cloth Plate                | 1   |
| 15                  | 2310000115               | Bracket                    | 1   |
| 16                  | 23100001161              | Plug                       | 3   |
| 17                  | 22000001051              | Plug                       | 1   |
| 18                  | 66477-1                  | Machine No. Plate          | 1   |
| 21                  | 66620                    | Rivet                      | 2   |
| 22                  | 8MM08502513A             | Screw (M8-1.25*25)         | 4   |
| 23                  | 8MC04281207D             | Screw (M4-0.7*12)          | 6   |
| 24                  | 8MM04280807A             | Screw (M4-0.7*8)           | 2   |
| 25                  | 8MB04280807K             | Screw (M4-0.7*8)           | 5   |
| 26                  | 8MM08502013A             | Screw (M8-1.25*20)         | 4   |
| 27                  | 8SM95281017A             | Screw (3/8"-28*10)         | 1   |
| 28                  | 2100000244               | Washer                     | 1   |
| 32                  | 2110001507               | Oil Sign Gauge (R6031507)  | 1   |
| 33                  | 2310000133               | Frame Unit                 | 1   |
| 34                  | 2310000134               | Bracket                    | 1   |
| 35                  | 2310000135               | Bracket                    | 1   |
| 36                  | 2310000136               | Safety Plate (MN4504)      | 1   |
| *37                 | 2310000137               | Safety Plate (MN4506-4523) | 1   |
| 38                  | 2310000138               | (Stud)                     | 1   |
| 39                  | 2310000139               | Washer                     | 1   |
| 40                  | 8MM04281007A             | Screw (M4-0.7*10)          | 2   |
| 41                  | 90PW030                  | Washer                     | 2   |
| 42                  | 8MP03200606A             | Screw (M3-0.5*6)           | 2   |
| 43                  | 66451                    | Paster                     | 1   |
| 44                  | 2310000144               | Needle Cover               | 1   |
| 45                  | 231A0000145              | Bracket Asm (MN4504)       | 1   |
| *46                 | 231A0000146              | Bracket Asm (MN4506-4523)  | 1   |
| 48                  | 66477-4                  | Weight Paster              | 1   |
| 49                  | 8MC05321209D             | Screw (C850212 M5-0.8*12)  | 4   |
|                     | * For MN4506-MN4525 Use. |                            |     |

## 2. FRAME COMPONENTS (1/2)



| 2. FRAME COMPONENTS (1/2) |              |                          |     |
|---------------------------|--------------|--------------------------|-----|
| Ref. No.                  | Parts No.    | Description              | QTY |
| 1                         | 231A0000201  | Edge Guide Asm. (MN4504) | 1   |
| 2                         | 2310000202   | Edge Guide               | 1   |
| 3                         | 2310000203   | Edge Guide               | 1   |
| 4                         | 2310000204   | Needle Plae Seat         | 1   |
| 5                         | 2310000205   | Cover                    | 1   |
| 6                         | 23100002061  | Lower Shaft Cover        | 1   |
| 7                         | 2310000207   | Spacer                   | 1   |
| 8                         | 2310000208   | Gasket                   | 1   |
| 9                         | 2310000209   | Cloth Plate              | 1   |
| 10                        | 23100002101  | Defender                 | 1   |
| 11                        | 2310000211   | Cloth Plate              | 1   |
| 12                        | 2310000212   | Front Cover              | 1   |
| *13                       | 2310000213   | Cover                    | 1   |
| *14                       | 2310000214   | Needle Plate Seat        | 1   |
| 15                        | 2310000215   | Edge Guide               | 1   |
| 16                        | 22000001091  | Plug                     | 2   |
| 17                        | 23100002171  | Plug                     | 2   |
| 18                        | 22000002451  | Plug                     | 1   |
| 19                        | 23100002191  | Plug                     | 1   |
| 20                        | 23100001161  | Plug                     | 1   |
| 21                        | 2200000121   | Latch Spring             | 2   |
| 22                        | 8MM04281207A | Screw (M4-0.7*12)        | 1   |
| 23                        | 2100000223   | Washer                   | 2   |
| 24                        | 90SW040      | Spring Washer            | 1   |
| 25                        | 2310000225   | Corrugated Washer        | 2   |
| 26                        | 8MQ04280808A | Screw (M4-0.7*8)         | 11  |
| 27                        | 8MM05321009A | Screw (M5-0.8*10)        | 4   |
| 28                        | 8MM04281007A | Screw (M4-0.7*10)        | 2   |
| 29                        | 8MD04281008C | Screw (M4-0.7*5)         | 1   |
| 30                        | 8MB04281007K | Screw (M4-0.7*10)        | 4   |
| 31                        | 2310000231   | Spacer                   | 1   |
| 32                        | 2310000232   | Pin                      | 1   |
| 33                        | 8MB04280607K | Screw (M4-0.7*6)         | 2   |
| 34                        | 8MP06401011A | Screw (M6-1*10)          | 1   |
| 35                        | 8MP04280808A | Screw (M4-0.7*8)         | 1   |
| 36                        | 22100001191  | Rubber Cushion           | 2   |
| 37                        | 2200000224   | Hinge                    | 1   |
| 38                        | 8MB04283809E | Stud (M4-0.7*38)         | 1   |
| 39                        | 2200000228   | Washer                   | 2   |
| 40                        | 8MB04280605M | Screw (M4-0.7*6)         | 1   |

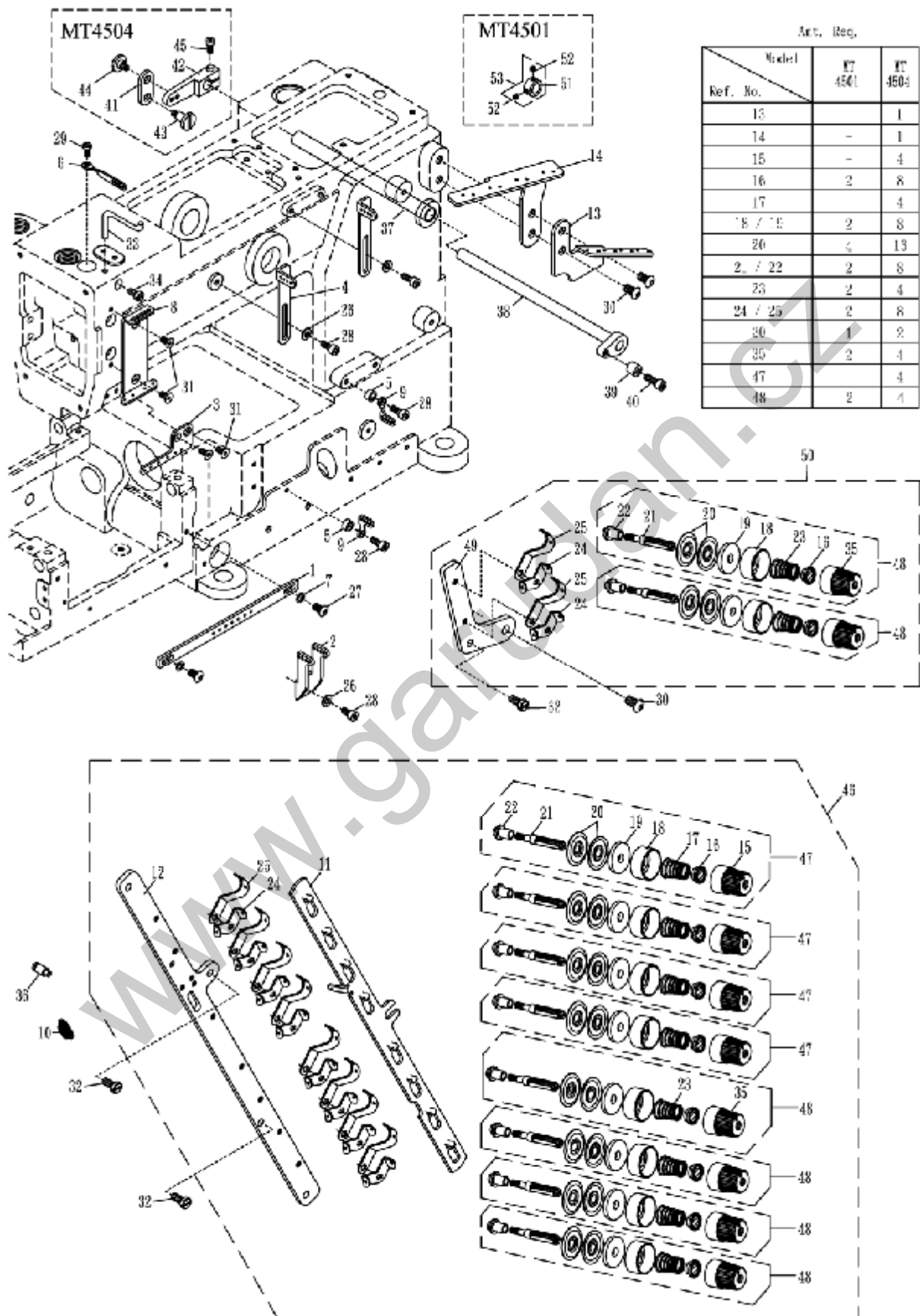
## 2. FRAME COMPONENTS (2/2)





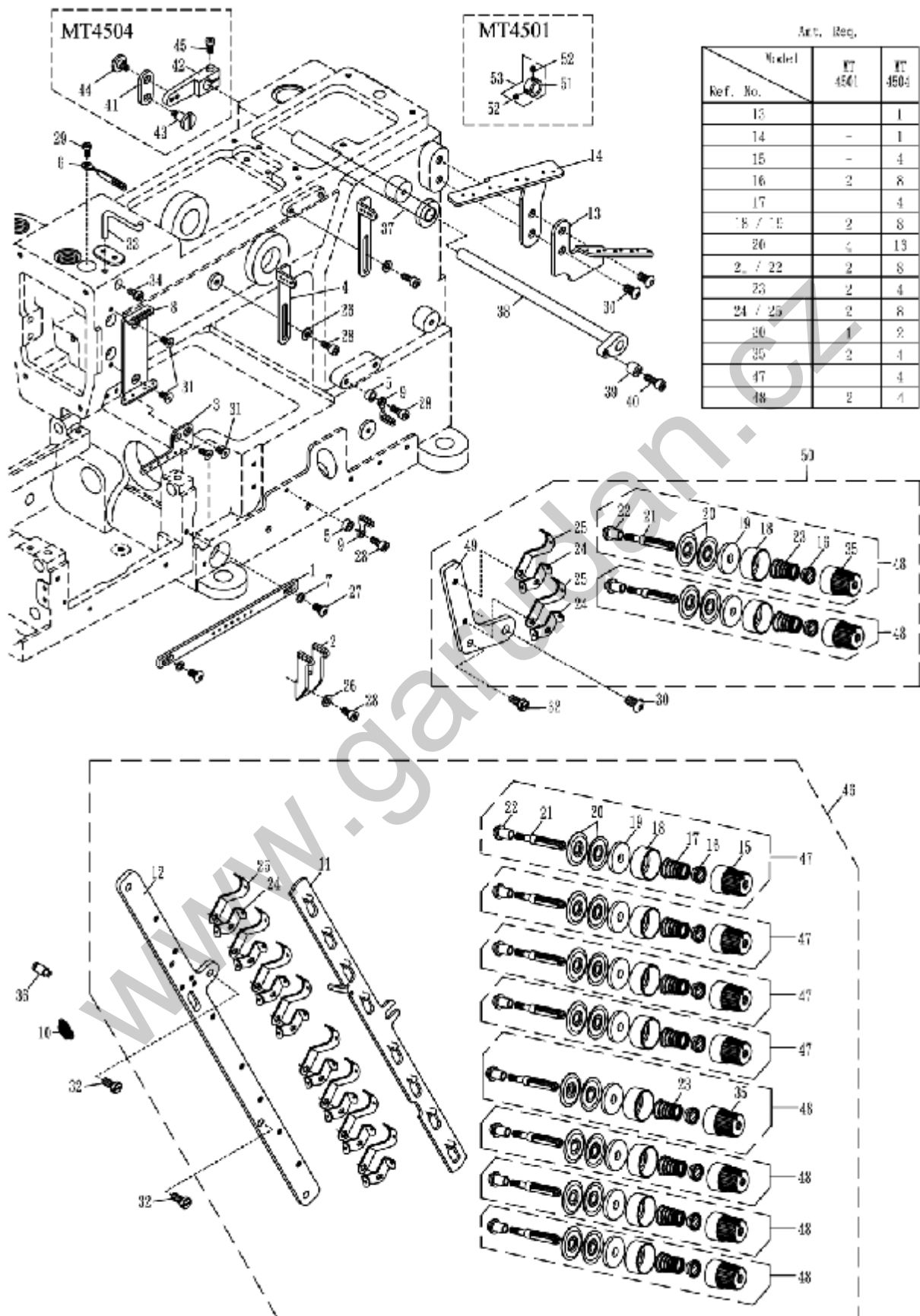
| 2. FRAME COMPONENTS (2/2) |                          |                       |     |
|---------------------------|--------------------------|-----------------------|-----|
| Ref. No.                  | Parts No.                | Description           | QTY |
| 41                        | 8MC04281407D             | Screw (M4-0.7*14)     | 2   |
| 42                        | 8MN04280400A             | Screw (M4-0.7*4)      | 3   |
| 43                        | 2210090209               | Pin                   | 2   |
| 44                        | 8MM04280807A             | Screw (M4-0.7*8)      | 1   |
| 45                        | 2310000245               | Spacer                | 1   |
| 46                        | 2310000246               | Support ing Rod       | 2   |
| 47                        | 2310000247               | Washer                | 1   |
| 48                        | 8MC06400810A             | Screw (M6-1*8)        | 2   |
| 49                        | 23100002491              | Plug                  | 1   |
| 50                        | 8MP04281008A             | Screw (M4-0.7*10)     | 1   |
| 51                        | 231A0000251              | Lower Shaft Cover Asm | 1   |
| **52                      | 2310000252               | Needle Plate Seat     | 1   |
| ***53                     | 2310000253               | Cover                 | 1   |
| ***54                     | 2310000254               | Needle Plate Seat     | 1   |
| 55                        | 66455                    | Paster                | 1   |
| 56                        | 8MA04280307A             | Nut (M4-0.7*3)        | 1   |
|                           | * :For MN4506-MN4523 Use |                       |     |
|                           | ** :For MN4513P□-064 Use |                       |     |
|                           | *** :For MN4525 Use      |                       |     |

## 3. THREAD TENSION MECHANISM (1/2)



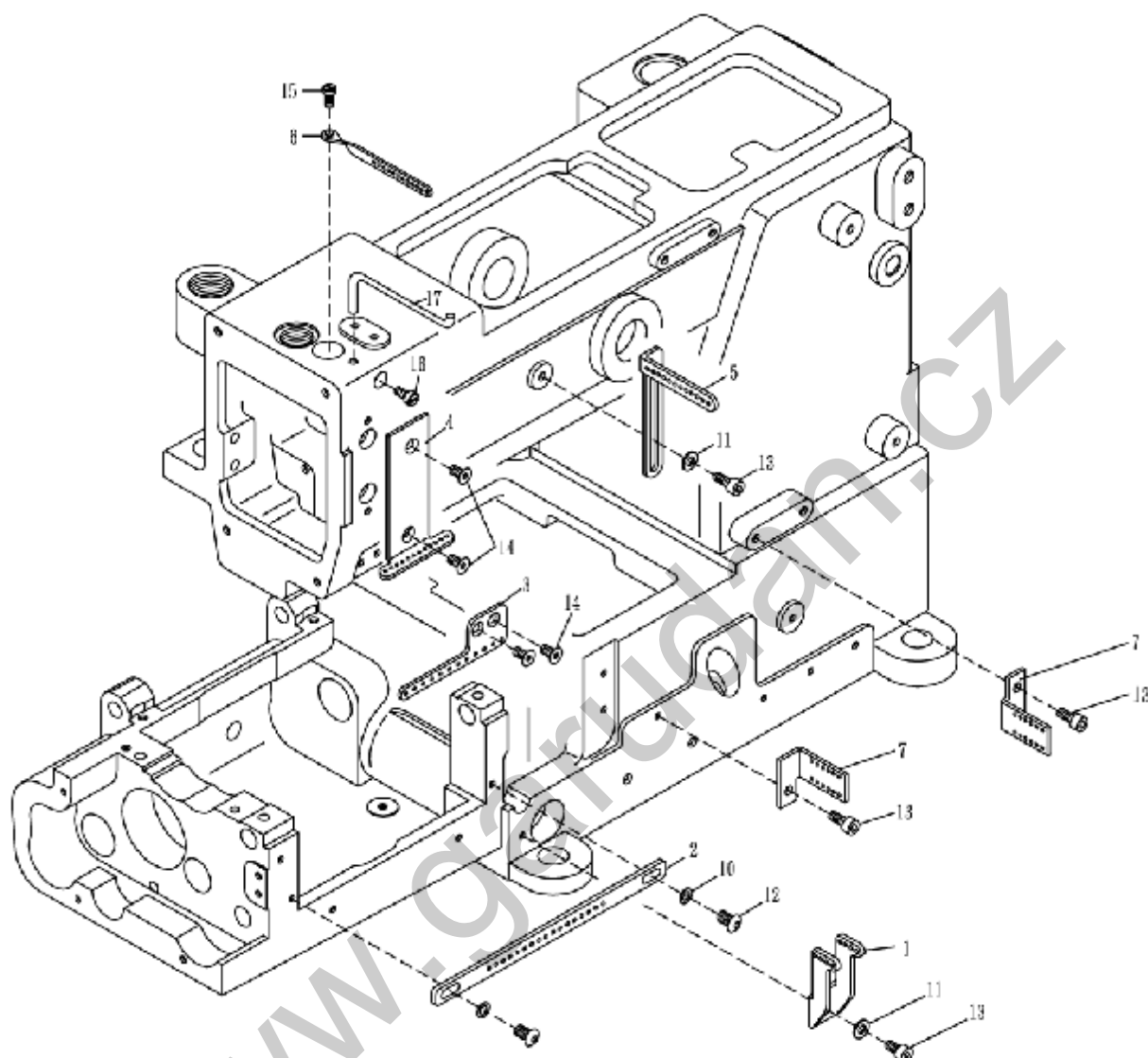
| 3. THREAD TENSION MECHANISM (1/2) |              |                                    |     |
|-----------------------------------|--------------|------------------------------------|-----|
| Ref. No.                          | Parts No.    | Description                        | QTY |
| 1                                 | 2310000301   | Thread Guide                       | 1   |
| 2                                 | 2310000302   | Thread Guide                       | 1   |
| 3                                 | 2310000303   | Thread Guide                       | 1   |
| 4                                 | 2310000304   | Thread Guide                       | 2   |
| 5                                 | 2310000305   | Collar                             | 2   |
| 6                                 | 23100003061  | Thread Guide                       | 1   |
| 7                                 | 2100000640   | Washer                             | 2   |
| 8                                 | 2310000308   | Thread Guide                       | 1   |
| 9                                 | 2310000309   | Thread Guide                       | 2   |
| 10                                | 2310000310   | Spring                             | 1   |
| 11                                | 2310000311   | Peelase Wedge                      | 1   |
| 12                                | 23100003121  | Tension Post Support               | 1   |
| 13                                | 2310000313   | Thread Guide                       | -   |
| 14                                | 2310000314   | Thread Guide                       | -   |
| 15                                | 2100001121   | Tension Nut (Red)                  | -   |
| 16                                | 2200000303   | Bushing                            | -   |
| 17                                | 2100001123   | Spring (Red)                       | -   |
| 18                                | 2200000305   | Spring Set                         | -   |
| 19                                | 2100001127   | Felt                               | -   |
| 20                                | 2100001126   | Tension Disc (SH1126)              | -   |
| 21                                | 22000003081  | Stud                               | -   |
| 22                                | 22000003091  | Spacer                             | -   |
| 23                                | 2100001132   | Spring (Bule)(See left Page)       | -   |
| 24                                | 2200000311   | Thread Guide (CT0311)              | -   |
| 25                                | 2200000312   | Thread Guide                       | -   |
| 26                                | 2100000223   | Washer                             | 3   |
| 27                                | 8MP04280808A | Screw (M4-0.7*8)                   | 2   |
| 28                                | 8MM04281007A | Screw (M4-0.7*10)                  | 5   |
| 29                                | 8MB04280807K | Screw (M4-0.7*8)                   | 1   |
| 30                                | 8MP06401211A | Screw (M6-1*12)                    | -   |
| 31                                | 8MQ04280808A | Screw (M4-0.7*8)                   | 4   |
| 32                                | 8MC05321208A | Screw (M5-0.8*12)                  | 2   |
| 33                                | 2310000333   | Thread Guide                       | 1   |
| 34                                | 8MB04280807K | Screw (M4-0.7*8)                   | 1   |
| 35                                | 2100001121B  | Tension Nut (Bule) (See left Page) | -   |
| 36                                | 2310001937   | Stud                               | 1   |
| 37                                | 2310000337   | Pipe                               | 1   |
| 38                                | 2310000338   | Shaft                              | 1   |
| 39                                | 2310000339   | Spacer                             | 1   |
| 40                                | 8MM04281207A | Screw (M4-0.7*12)                  | 1   |

## 3. THREAD TENSION MECHANISM (2/2)



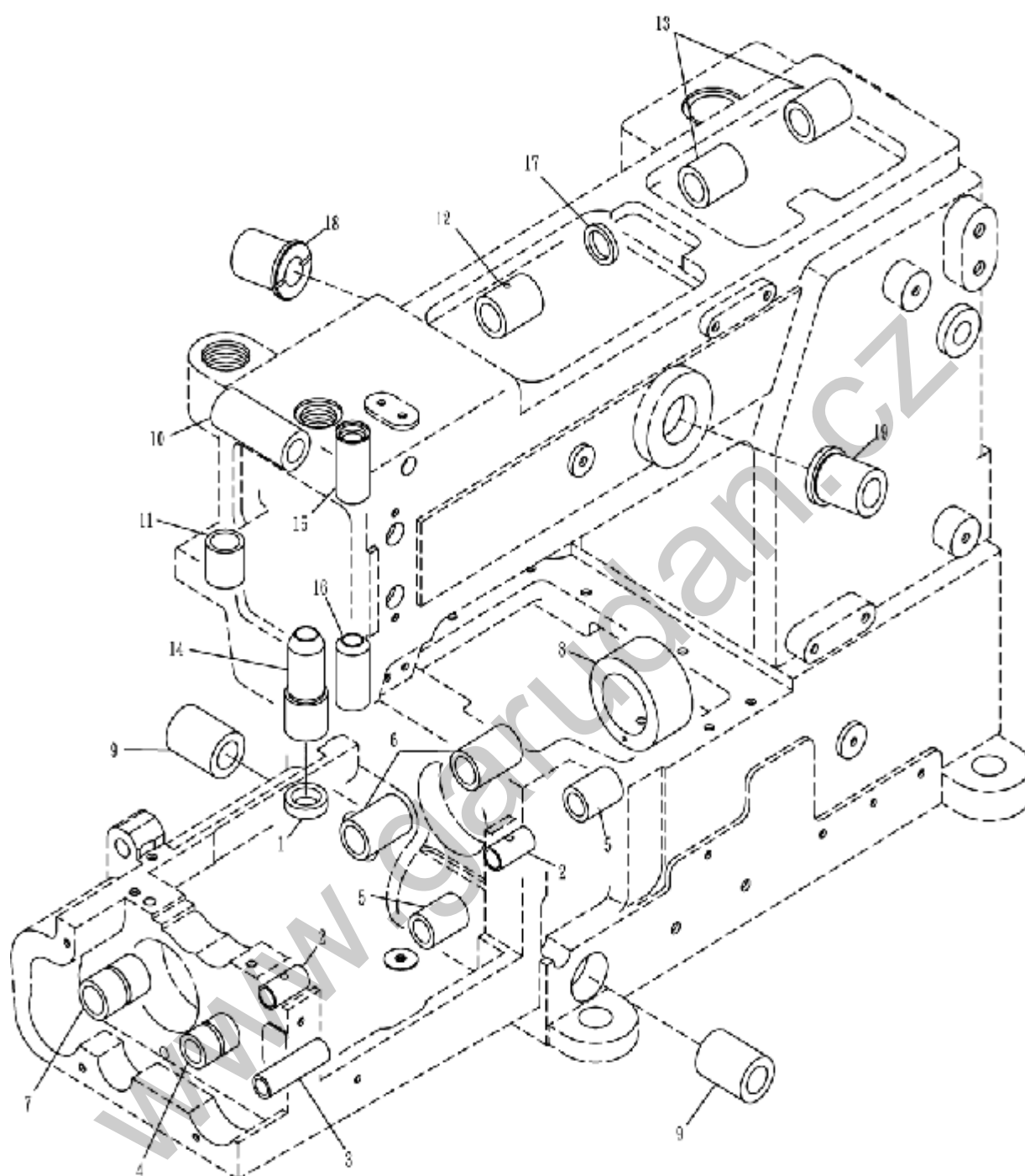
| 3. THREAD TENSION MECHANISM (2/2) |                  |                          |     |
|-----------------------------------|------------------|--------------------------|-----|
| Ref. No.                          | Parts No.        | Description              | QTY |
| 41                                | 2310000341       | Link                     | 1   |
| 42                                | 2310000342       | Lever                    | 1   |
| 43                                | 2310000343       | Stud                     | 1   |
| 44                                | 2310000344       | Stud                     | 1   |
| 45                                | 8MK95301407A     | Screw (M4.5-0.75*14)     | 1   |
| 46                                | 231A0000346      | Thread Tension Mechanism | 1   |
| 47                                | 231A0001922      | Tension Asm. (Red)       | -   |
| 48                                | 231A0001923      | Tension Set. (Bule)      | -   |
| * 49                              | 2320000301       | Tension Post Support     | 1   |
| * 50                              | 232A0000302      | Thread Tension Mechanism | 1   |
| * 51                              | 2210000534       | Collar                   | 1   |
| * 52                              | 8MN03200300A     | Screw (M3-0.5*3)         | 2   |
| * 53                              | 221A0000563      | Collar Asm.              | 1   |
|                                   | * For MN4501 Use |                          |     |

## 4. THREAD TENSION MECHANISM (MN4506-4525)



| 4. THREAD TENSION MECHANISM (MN4506-4525) |              |                  |     |
|-------------------------------------------|--------------|------------------|-----|
| Ref. No.                                  | Parts No.    | Description      | QTY |
| 1                                         | 2310000302   | Thread Guide     | 1   |
| 2                                         | 2310000402   | Thread Guide     | 1   |
| 3                                         | 2310000403   | Thread Guide     | 1   |
| 4                                         | 2310000404   | Thread Guide     | 1   |
| 5                                         | 2310000405   | Thread Guide     | 1   |
| 6                                         | 2310330406   | Thread Guide     | 1   |
| 7                                         | 2310000407   | Thread Guide     | 2   |
| 10                                        | 2100000640   | Washer           | 2   |
| 11                                        | 2100000223   | Washer           | 2   |
| 12                                        | 8MP04280808A | Screw (M4-0.7*8) | 2   |
| 13                                        | 8MM04281007A | Screw (M4-0.7*8) | 4   |
| 14                                        | 8MQ04280808A | Screw (M4-0.7*8) | 4   |
| 15                                        | 8MB04280807K | Screw (M4-0.7*8) | 1   |
| 16                                        | 8MB04280807K | Screw (M4-0.7*8) | 1   |
| 17                                        | 2310000417   | Thread Guide     | 1   |

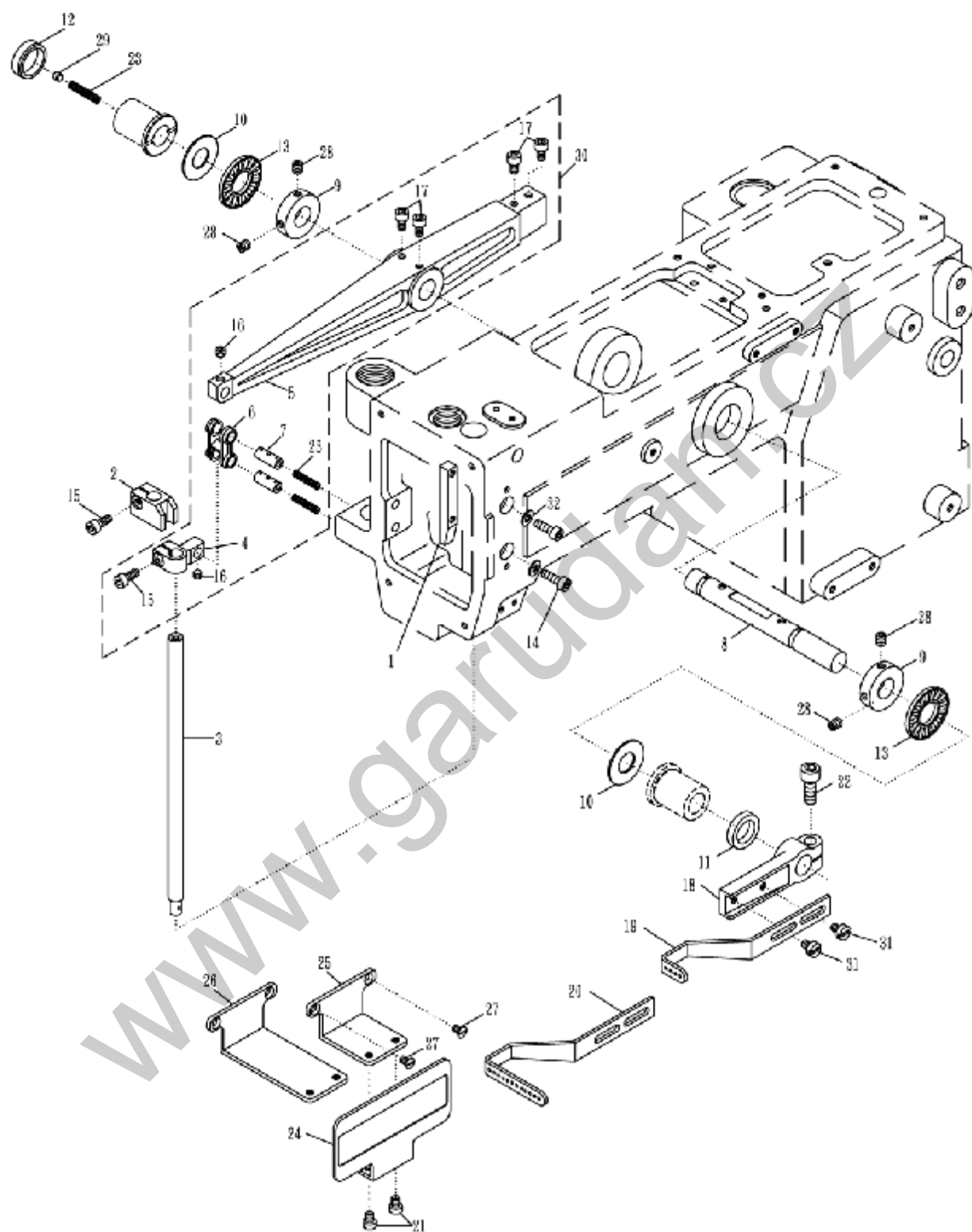
## 5. BUSHING AND SEAL





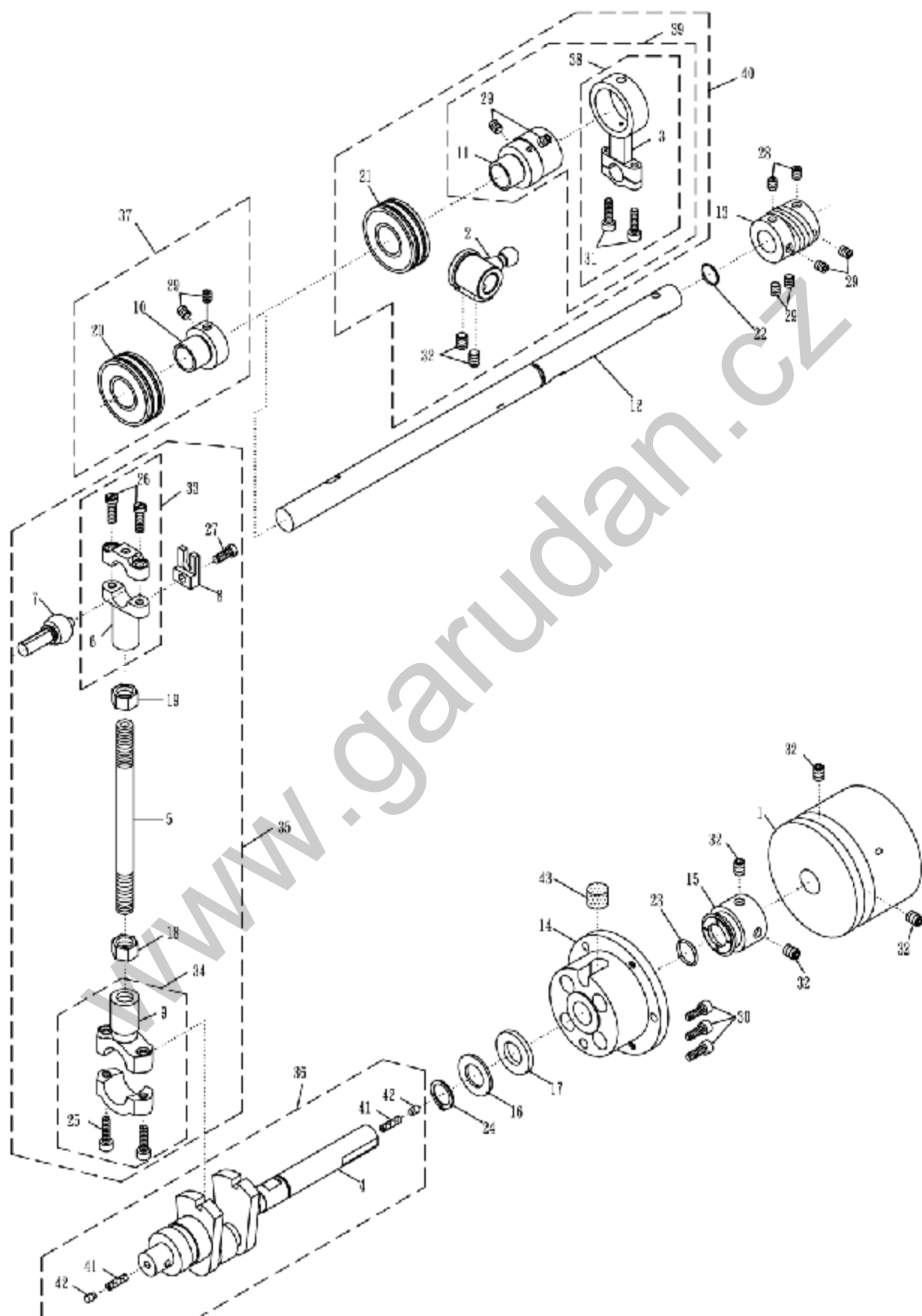
| 5. BUSHING AND SEAL |             |             |     |
|---------------------|-------------|-------------|-----|
| Ref. No.            | Parts No.   | Description | QTY |
| 1                   | 2200000404  | Oil Seal    | 1   |
| 2                   | 2310000502  | Bushing     | 2   |
| 3                   | 2310000503  | Bushing     | 1   |
| 4                   | 2310000504  | Bushing     | 1   |
| 5                   | 2310000505  | Bushing     | 2   |
| 6                   | 2310000506  | Bushing     | 2   |
| 7                   | 2310000507  | Bushing     | 1   |
| 8                   | 2310000508  | Bushing     | 1   |
| 9                   | 2310000509  | Bushing     | 2   |
| 10                  | 2310000510  | Bushing     | 1   |
| 11                  | 2310000511  | Bushing     | 1   |
| 12                  | 2310000512  | Bushing     | 1   |
| 13                  | 2310000513  | Bushing     | 2   |
| 14                  | 2310000514  | Bushing     | 1   |
| 15                  | 2310000515  | Bushing     | 1   |
| 16                  | 2310000516  | Bushing     | 1   |
| 17                  | 2310000517  | Oil Seal    | 1   |
| 18                  | 2310000518  | Bushing     | 1   |
| 19                  | 23100005191 | Bushing     | 1   |

## 6. NEEDLE BAR MECHANISM



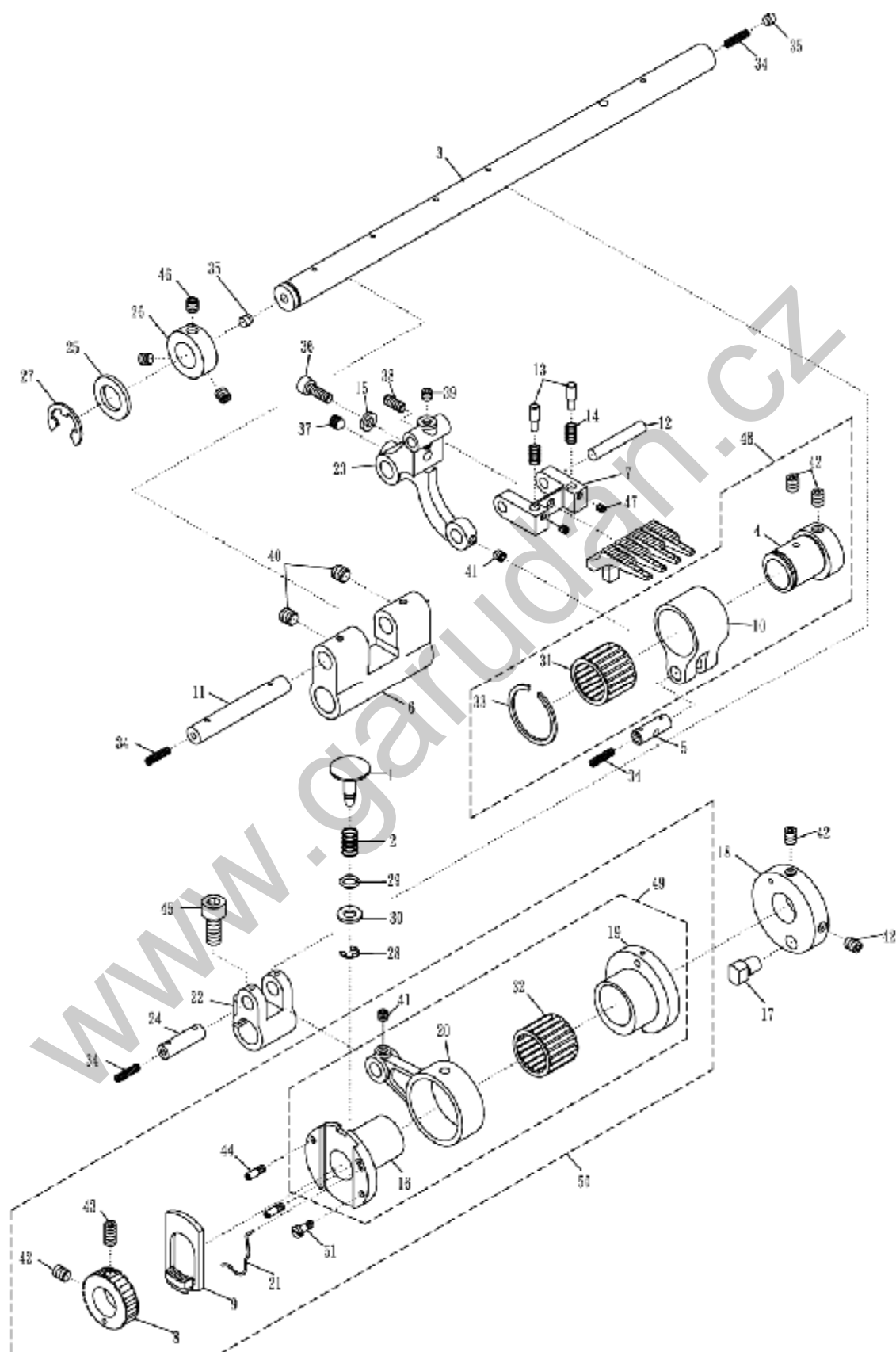
| 6. NEEDLE BAR MECHANISM |                         |                     |     |
|-------------------------|-------------------------|---------------------|-----|
| Ref. No.                | Parts No.               | Description         | QTY |
| 1                       | 2310000601              | Guide Block         | 1   |
| 2                       | 23100006021             | Slide Block         | 1   |
| 3                       | 2310330603              | Needle Bar          | 1   |
| 4                       | 2310000604              | Connecting Rod      | 1   |
| 5                       | 2310000605              | Connecting Rod      | 1   |
| 6                       | 2310000606              | Connecting Rod      | 1   |
| 7                       | 2310000607              | Pin                 | 2   |
| 8                       | 2310000608              | Shaft               | 1   |
| 9                       | 2310000609              | Collar              | 2   |
| 10                      | 2310000610              | Thrust Bearing      | 2   |
| 11                      | 2310000611              | Oil Seal            | 1   |
| 12                      | 22000002451             | Plug                | 1   |
| 13                      | 2200001044              | Thrust Bearing      | 2   |
| 14                      | 8MM04281207A            | Screw               | 2   |
| 15                      | 8MM04281007A            | Screw (M4-0.7*10)   | 2   |
| 16                      | 8MN04280500C            | Screw (M4-0.7*5)    | 2   |
| 17                      | 8MM06401010A            | Screw (M6-1*10)     | 4   |
| 18                      | 2310000618              | Holder              | 1   |
| 19                      | 2310000619              | Thread Guide        | 1   |
| *20                     | 2310000620              | Thread Guide        | 1   |
| 21                      | 8MB04280608A            | Screw ( M4-0.7*6)   | 2   |
| 22                      | 8MM06401610A            | Screw (M6-1*16)     | 1   |
| 23                      | 66800                   | Oil Wick            | 3   |
| 24                      | 2310000630              | Cover               | 1   |
| 25                      | 2310000625              | Holder              | 1   |
| *26                     | 2310000626              | Holder              | 1   |
| 27                      | 8ME04280708A            | Screw (M4-0.7*7)    | 2   |
| 28                      | 8MN04280600A            | Screw (M4-0.7*6)    | 4   |
| 29                      | 2200001029              | Plug                | 1   |
| 30                      | 231A0000630             | Connecting Rod Asm. | 1   |
| 31                      | 8MB04280807K            | Screw (M4-0.7*8)    | 2   |
| 32                      | 90PW040                 | Washer              | 2   |
|                         | * For MN4506-MN4525 Use |                     |     |

## 7. CRANKSHAFT MECHANISM



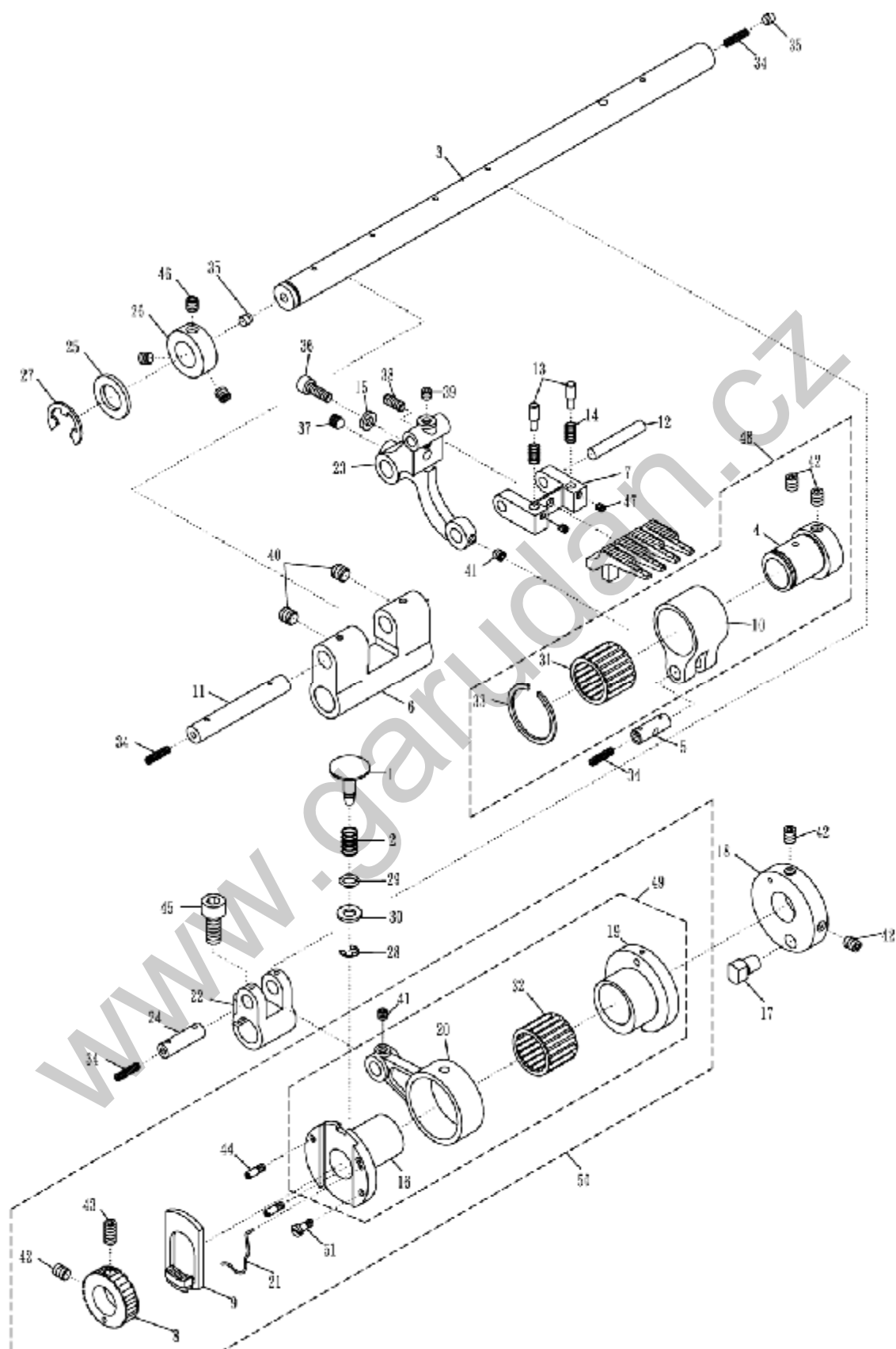
| 7. CRANKSHAFT MECHANISM |              |                      |     |
|-------------------------|--------------|----------------------|-----|
| Ref. No.                | Parts No.    | Description          | QTY |
| 1                       | 23100007011  | Belt Cover           | 1   |
| 2                       | 2310000702   | Lever                | 1   |
| 3                       | 2310000703   | Connecting Rod       | 1   |
| 4                       | 23100007041  | Crank Shaft          | 1   |
| 5                       | 2310000705   | Stud                 | 1   |
| 6                       | 2310000706   | Connecting Rod       | 1   |
| 7                       | 2310000707   | Ball Stud            | 1   |
| 8                       | 2310000708   | Guide                | 1   |
| 9                       | 2310000709   | Connecting Rod       | 1   |
| 10                      | 2310000710   | Clutch Sleeve        | 1   |
| 11                      | 2310000711   | Eccentric            | 1   |
| 12                      | 2310000712   | Shaft                | 1   |
| 13                      | 2310000713   | Worm                 | 1   |
| 14                      | 2310000714   | Cover                | 1   |
| 15                      | 2310000715   | Collar               | 1   |
| 16                      | 2310000716   | Washer               | 1   |
| 17                      | 2310000717   | Washer               | 1   |
| 18                      | 2310000718   | Nut                  | 1   |
| 19                      | 2310000719   | Nut                  | 1   |
| 20                      | 90BB1740126  | Ball Bearing         | 1   |
| 21                      | 90BB1740122  | Ball Bearing         | 1   |
| 22                      | 2310000722   | O Ring (φ1.2)        | 1   |
| 23                      | 90OR140      | O Ring (φ2.4)        | 1   |
| 24                      | 90SCR140     | C Ring               | 1   |
| 25                      | 8MB95301807K | Screw (M4.5-0.75*18) | 2   |
| 26                      | 8MB95301507K | Screw (M4.5-0.75*15) | 2   |
| 27                      | 8MB95301106K | Screw (M4.5-0.75*11) | 1   |
| 28                      | 8MN05320600C | Screw (M5-0.8*6)     | 2   |
| 29                      | 8MN05320600A | Screw (M5-0.8*6)     | 8   |
| 30                      | 8MM04281007A | Screw (M4-0.7*10)    | 3   |
| 31                      | 8MM04281407A | Screw (M4-0.7*14)    | 2   |
| 32                      | 8MN06400800A | Screw (M4-0.7*8)     | 6   |
| 33                      | 231A0000733  | Connecting Rod Asm.  | 1   |
| 34                      | 231A0000734  | Connecting Rod Asm.  | 1   |
| 35                      | 231A0000735  | Connecting Rod Asm.  | 1   |
| 36                      | 231A0000736  | Crank Shaft Asm.     | 1   |
| 37                      | 231A0000737  | Connecting Rod Asm.  | 1   |
| 38                      | 231A0000738  | Connecting Rod Asm.  | 1   |
| 39                      | 231A0000739  | Connecting Rod Asm.  | 1   |
| 40                      | 231A0000740  | Eccentric Asm.       | 1   |
| 41                      | 66800        | Oil Wick             | 2   |
| 42                      | 2200001029   | Plug                 | 2   |
| 43                      | 2100001501   | Seal                 | 1   |

## 8. FEED MECHANISM (1/2)



| 8. FEED MECHANISM (1/2) |              |                   |     |
|-------------------------|--------------|-------------------|-----|
| Ref. No.                | Parts No.    | Description       | QTY |
| 1                       | 23100008011  | Stopper Pin       | 1   |
| 2                       | 2310000802   | Spring            | 1   |
| 3                       | 23100008031  | Shaft             | 1   |
| 4                       | 2310000804   | Eccentric         | 1   |
| 5                       | 2310000805   | Link Pin          | 1   |
| 6                       | 2310000806   | Lever             | 1   |
| 7                       | 2310000807   | Feed Dog Holder   | 1   |
| 8                       | 2310000808   | Regulating Gear   | 1   |
| 9                       | 2310000809   | Regulating Plate  | 1   |
| 10                      | 2310000810   | Link              | 1   |
| 11                      | 2310000811   | Link Pin          | 1   |
| 12                      | 2310000812   | Shaft             | 1   |
| 13                      | 2310000813   | Pin               | 2   |
| 14                      | 2310000814   | Spring            | 2   |
| 15                      | 2310000815   | Washer            | 1   |
| 16                      | 2310000816   | Eccentric         | 1   |
| 17                      | 2310000817   | Pin               | 1   |
| 18                      | 2310000818   | Eccentric Collar  | 1   |
| 19                      | 2310000819   | Eccentric         | 1   |
| 20                      | 2310000820   | Link              | 1   |
| 21                      | 23100008211  | Spring            | 1   |
| 22                      | 2310000822   | Lever             | 1   |
| 23                      | 2310000823   | Link              | 1   |
| 24                      | 2310000824   | Link Pin          | 1   |
| 25                      | 2310000825   | Washer            | 1   |
| 26                      | 2310000826   | Collar            | 1   |
| 27                      | 90ER100      | E Ring            | 1   |
| 28                      | 90ER040      | E Ring            | 1   |
| 29                      | 90OR050      | O Ring            | 1   |
| 30                      | 2200001025   | Washer            | 1   |
| 31                      | 90NB182217   | Needle Bearing    | 1   |
| 32                      | 90NB252913   | Needle Bearing    | 1   |
| 33                      | 2310000833   | C Ring            | 1   |
| 34                      | 66800        | Oil Wick          | 4   |
| 35                      | 2310000835   | Plug              | 2   |
| 36                      | 8MM04281207A | Screw (M4-0.7*12) | 1   |
| 37                      | 8MN05320600C | Screw (M5-0.8*6)  | 1   |
| 38                      | 8MN04281000A | Screw (M4-0.7*10) | 1   |
| 39                      | 8MN04280400A | Screw (M4-0.7*4)  | 1   |
| 40                      | 8MN06400600A | Screw (M6-1*6)    | 2   |

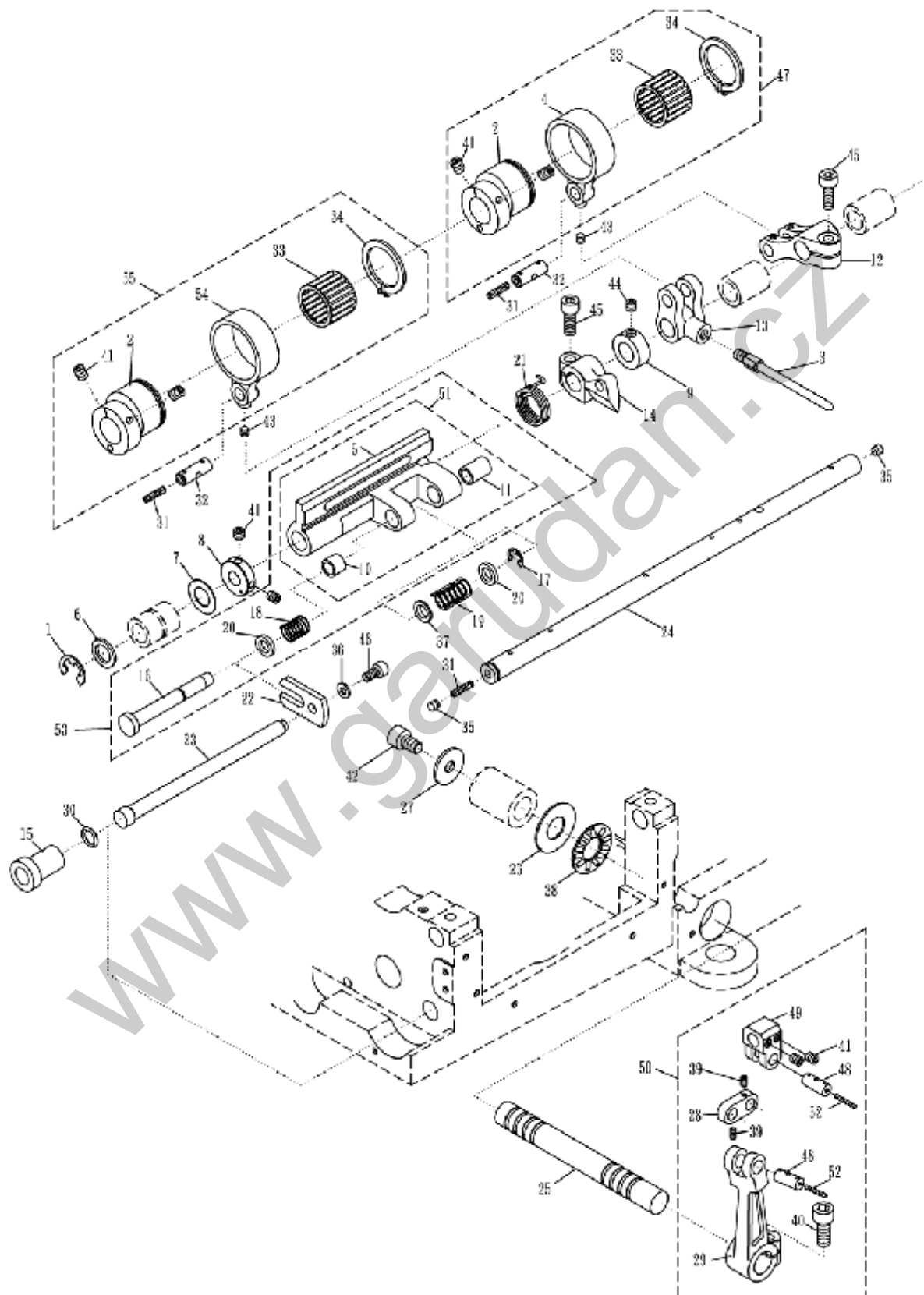
## 8. FEED MECHANISM (1/2)





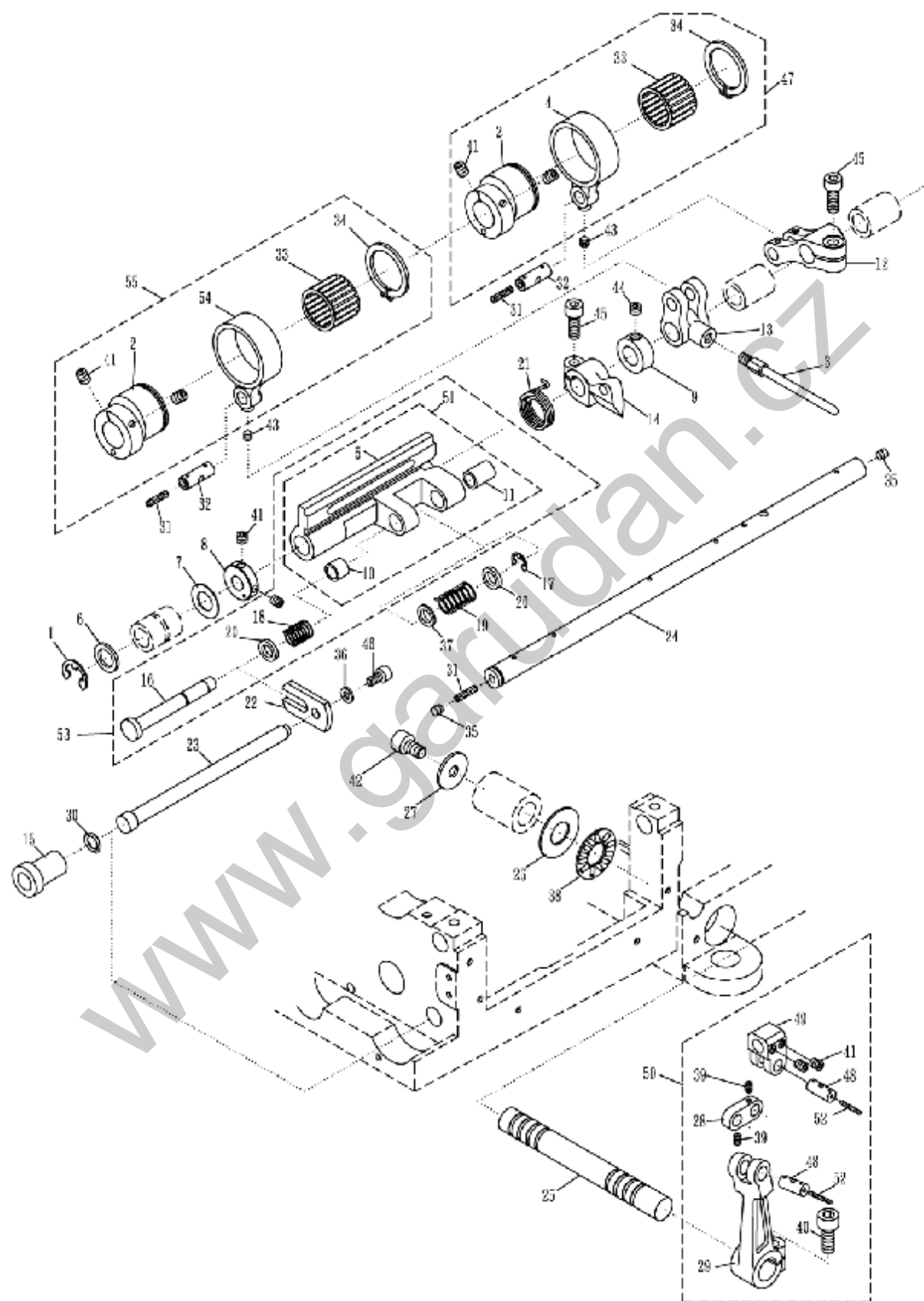
| 8. FEED MECHANISM (2/2) |              |                      |     |
|-------------------------|--------------|----------------------|-----|
| Ref. No.                | Parts No.    | Description          | QTY |
| 41                      | 8MN04280500C | Screw (M4-0.7*5)     | 1   |
| 42                      | 8MN05320600A | Screw (M5-0.8*6)     | 5   |
| 43                      | 8MN05321000E | Screw (M5-0.8*10)    | 1   |
| 44                      | 8MB03200403C | Screw (M3-0.5*4)     | 2   |
| 45                      | 8MM06401510A | Screw (M6-1*15)      | 1   |
| 46                      | 8MN05320500E | Screw (M5-0.8*5)     | 3   |
| 47                      | 8MN03200300A | Screw (M3-0.5*3)     | 2   |
| 48                      | 231A0000848  | Link Asm.            | 1   |
| 49                      | 231A0000849  | Eccentric Asm.       | 1   |
| 50                      | 231A0000850  | Regulating Gear Asm. | 1   |
| 51                      | 8MB03200605B | Screw (M3-0.5*3)     | 1   |

## 9. LOOPER MECHANISM (1/2)



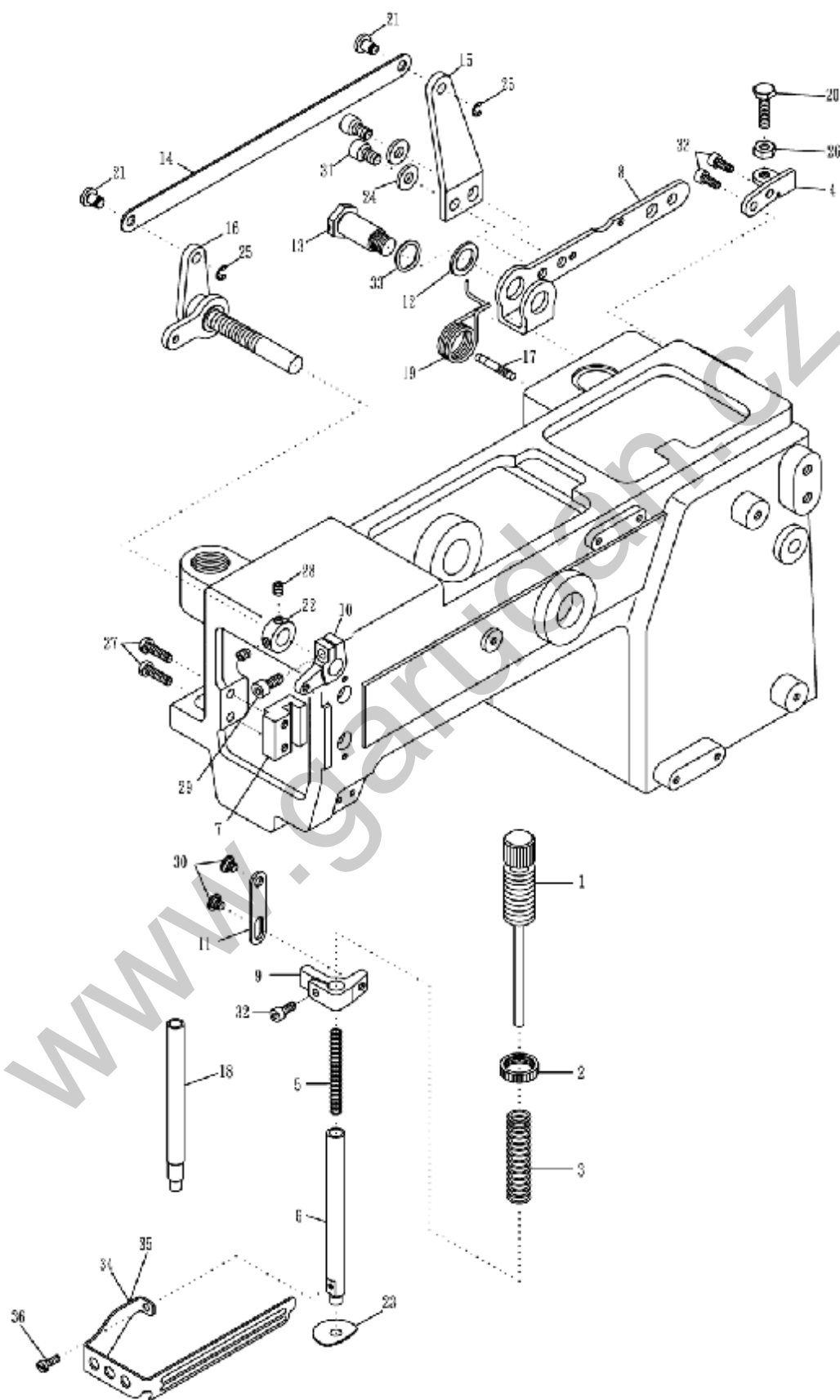
| 9. LOOPER MECHANISM (1/2) |              |                       |     |
|---------------------------|--------------|-----------------------|-----|
| Ref. No.                  | Parts No.    | Description           | QTY |
| 1                         | 90ER080      | E Ring                | 1   |
| 2                         | 2310000902   | Eccentric             | 2   |
| 3                         | 2310000903   | Take-up Rod           | 1   |
| 4                         | 2310000904   | Link                  | 1   |
| ◎5                        | 2310000905   | Bracket               | 1   |
| 6                         | 23100009061  | Washer                | 1   |
| 7                         | 2310000907   | Washer                | 1   |
| 8                         | 2310000908   | Collar                | 1   |
| 9                         | 2310000909   | Collar                | 1   |
| ◎10                       | 2310000910   | Clutch Tension Sleeve | 1   |
| ◎11                       | 2310000911   | Clutch Tension Sleeve | 1   |
| 12                        | 2310000912   | Lever                 | 1   |
| 13                        | 2310000913   | Lever                 | 1   |
| 14                        | 23100009141  | Looper Rocker Stopper | 1   |
| 15                        | 2310000915   | Stud                  | 1   |
| 16                        | 23100009161  | Shaft                 | 1   |
| 17                        | 90ER050      | E Ring                | 1   |
| 18                        | 2310000918   | Spring                | 1   |
| 19                        | 2310000919   | Spring                | 1   |
| 20                        | 2310000920   | Washer                | 2   |
| 21                        | 2310000921   | Spring                | 1   |
| 22                        | 2310000922   | Plate                 | 1   |
| 23                        | 2310000923   | Shaft                 | 1   |
| 24                        | 23100009241  | Shaft                 | 1   |
| 25                        | 2310000925   | Shaft                 | 1   |
| 26                        | 2310000926   | Thrust Washer         | 1   |
| 27                        | 2310000927   | Washer                | 1   |
| 28                        | 2310000928   | Link                  | 1   |
| 29                        | 2310000929   | Spreader Arm          | 1   |
| 30                        | 2310000930   | O Ring                | 1   |
| 31                        | 66800        | Oil Wick φ3           | 3   |
| 32                        | 2310000805   | Link Pin              | 2   |
| 33                        | 90NB252913   | Needle Bearing        | 2   |
| 34                        | 90SCR250     | C Ring                | 2   |
| 35                        | 2310000835   | Plug                  | 2   |
| 36                        | 90SW040      | Spring Washer         | 1   |
| 37                        | 240012039    | Washer                | 1   |
| 38                        | 2200001044   | Needle Bearing        | 1   |
| 39                        | 8MN03200400C | Screw (M3-0.5*4)      | 2   |
| 40                        | 8MM06401510A | Screw (M6-1*15)       | 1   |

## 9. LOOPER MECHANISM (2/2)



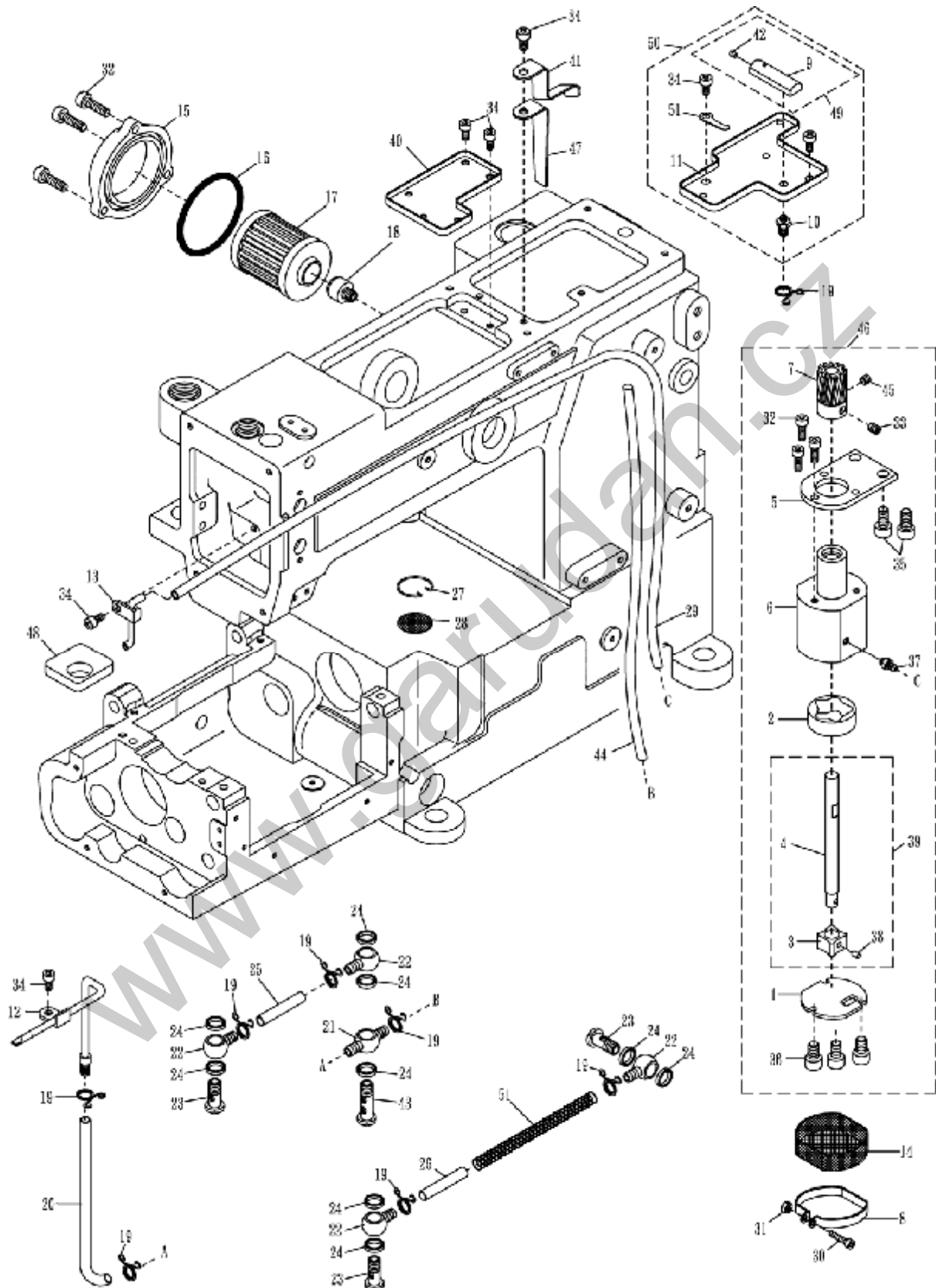
| 9. LOOPER MECHANISM (2/2) |                               |                          |     |
|---------------------------|-------------------------------|--------------------------|-----|
| Ref. No.                  | Parts No.                     | Description              | QTY |
| 41                        | 8MN05320600A                  | Screw (M5-0.8*6)         | 8   |
| 42                        | 8MM06401010A                  | Screw (M6-1*10)          | 1   |
| 43                        | 8MN04280500C                  | Screw (M4-0.7*5)         | 2   |
| 44                        | 8MN05320400A                  | Screw (M5-0.8*4)         | 2   |
| 45                        | 8MM05321409A                  | Screw (M5-0.8*14)        | 2   |
| 46                        | 8MM04280607A                  | Screw (M4-0.7*6)         | 1   |
| 47                        | 231A0000947                   | Eccentric Asm.           | 1   |
| 48                        | 2310000948                    | Link Pin                 | 2   |
| 49                        | 2310000949                    | Retainer Bar Holder      | 1   |
| 50                        | 231A0000950                   | Retainer Bar Holder Asm. | 1   |
| 51                        | 231A0000951                   | Bracket Asm.             | 1   |
| 52                        | 66802                         | Oil Wick $\phi 2$        | 2   |
| 53                        | 231A0000953                   | Bracket Asm.             | 1   |
| 54                        | 2310000954                    | Link                     | 1   |
| 55                        | 231A0000955                   | Eccentric Asm.           | 1   |
|                           | ©Must be sold in complete set |                          |     |

## 10. PRESSER FOOT MECHANISM



| 10. PRESSER FOOT MECHANISM |                            |                                     |     |
|----------------------------|----------------------------|-------------------------------------|-----|
| Ref. No.                   | Parts No.                  | Description                         | QTY |
| 1                          | 2310001001                 | Stud                                | 1   |
| 2                          | 2310001002                 | Nut                                 | 1   |
| 3                          | 2310001003                 | Spring                              | 1   |
| 4                          | 2310001004                 | Connecting Block                    | 1   |
| 5                          | 2310001005                 | Spring                              | 1   |
| 6                          | 2310001006                 | Shaft                               | 1   |
| 7                          | 2310001007                 | Lower Movable Knife Guide           | 1   |
| 8                          | 2310001008                 | Lifter Arm                          | 1   |
| 9                          | 2310001009                 | Lever                               | 1   |
| 10                         | 23100010101                | Lever                               | 1   |
| 11                         | 2310001011                 | Lifter Connecting Plate             | 1   |
| 12                         | 2310001012                 | Washer                              | 1   |
| 13                         | 2310001013                 | Stud                                | 1   |
| 14                         | 2310001014                 | Lifter Connecting Plate             | 1   |
| 15                         | 2310001015                 | Left Upper Feed Roller Arm          | 1   |
| 16                         | 23100010161                | Left Upper Feed Roller Arm          | 1   |
| 17                         | 2310001017                 | Pin                                 | 1   |
| *18                        | 2310001018                 | Shaft                               | 1   |
| 19                         | 2310001019                 | Spring                              | 1   |
| 20                         | 8SK56322110A               | Screw (7/32"-32*21)                 | 1   |
| 21                         | 2310001021                 | Connecting Pin                      | 2   |
| 22                         | 2310000908                 | Collar                              | 1   |
| 23                         | 2200000811                 | Oil Separator                       | 1   |
| 24                         | 2100000323                 | Washer                              | 2   |
| 25                         | 90ER040                    | E Ring                              | 2   |
| 26                         | 8SA56320410A               | Nut (7/32"-32*21)                   | 1   |
| 27                         | 8MC95301608E               | Screw (M4.5-0.75*16)                | 2   |
| 28                         | 8MN05320600A               | Screw (M5-0.8*6)                    | 2   |
| 29                         | 8MM05321209A               | Screw (M5-0.8*12)                   | 1   |
| 30                         | 8SC44400810G               | Screw (11/64"-40*5)                 | 2   |
| 31                         | 8MM06401010A               | Screw (M6-1*10)                     | 2   |
| 32                         | 8MM04281007A               | Screw (M4-0.7*10)                   | 3   |
| 33                         | 2310001207                 | Corrugated Ring                     | 1   |
| 34                         | 2310001034                 | Safety Plate Holder (MN4501-MN4504) | 1   |
| 35                         | 2310001035                 | Safety Plate Holder (MN4506-MN4523) | 1   |
| 36                         | 8MB85240605A               | Screw (M3.5-0.6*6)                  | 1   |
|                            | *For bisector presser foot |                                     |     |

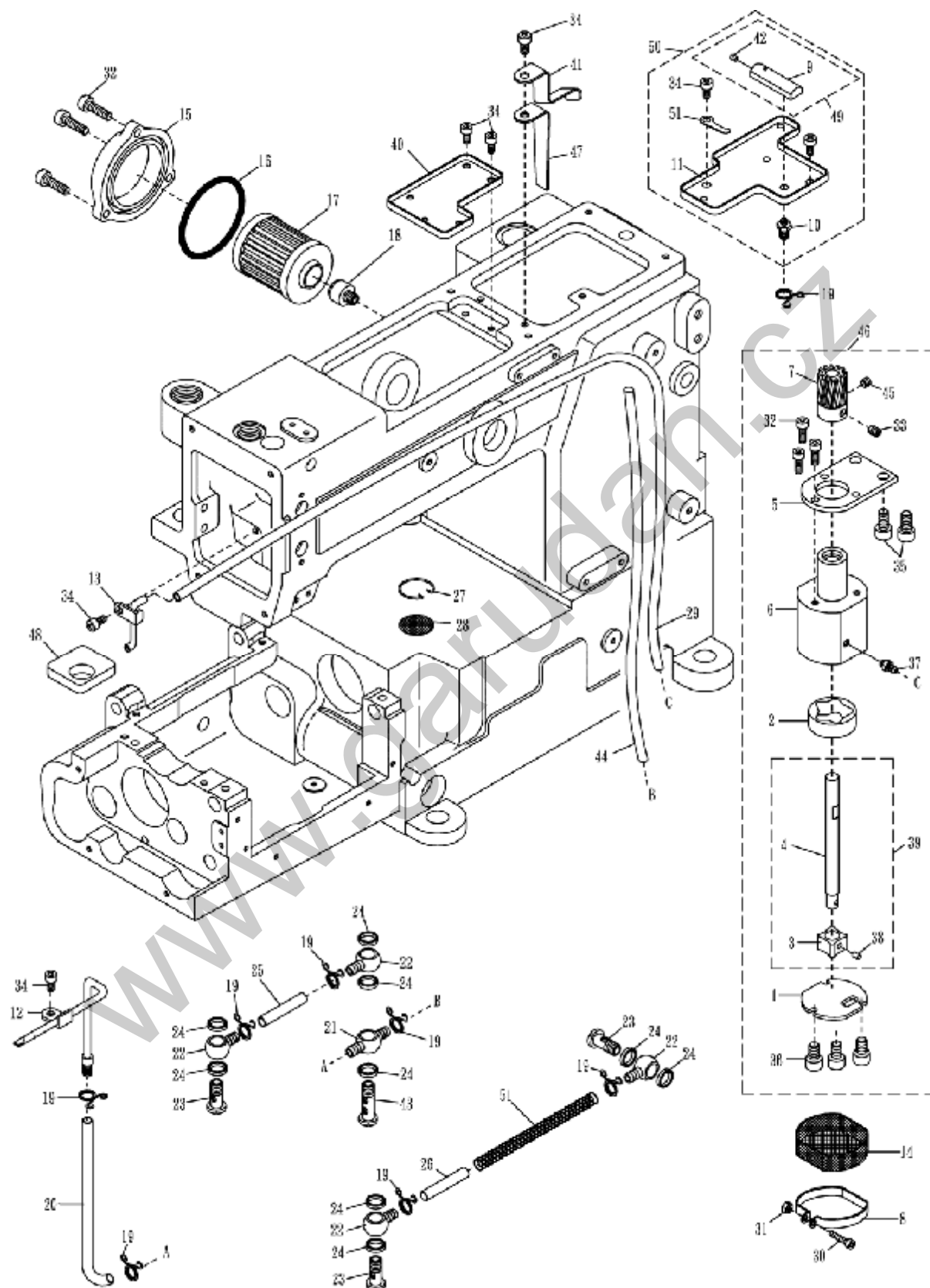
## 11. LUBRICATION MECHANISM (1/2)





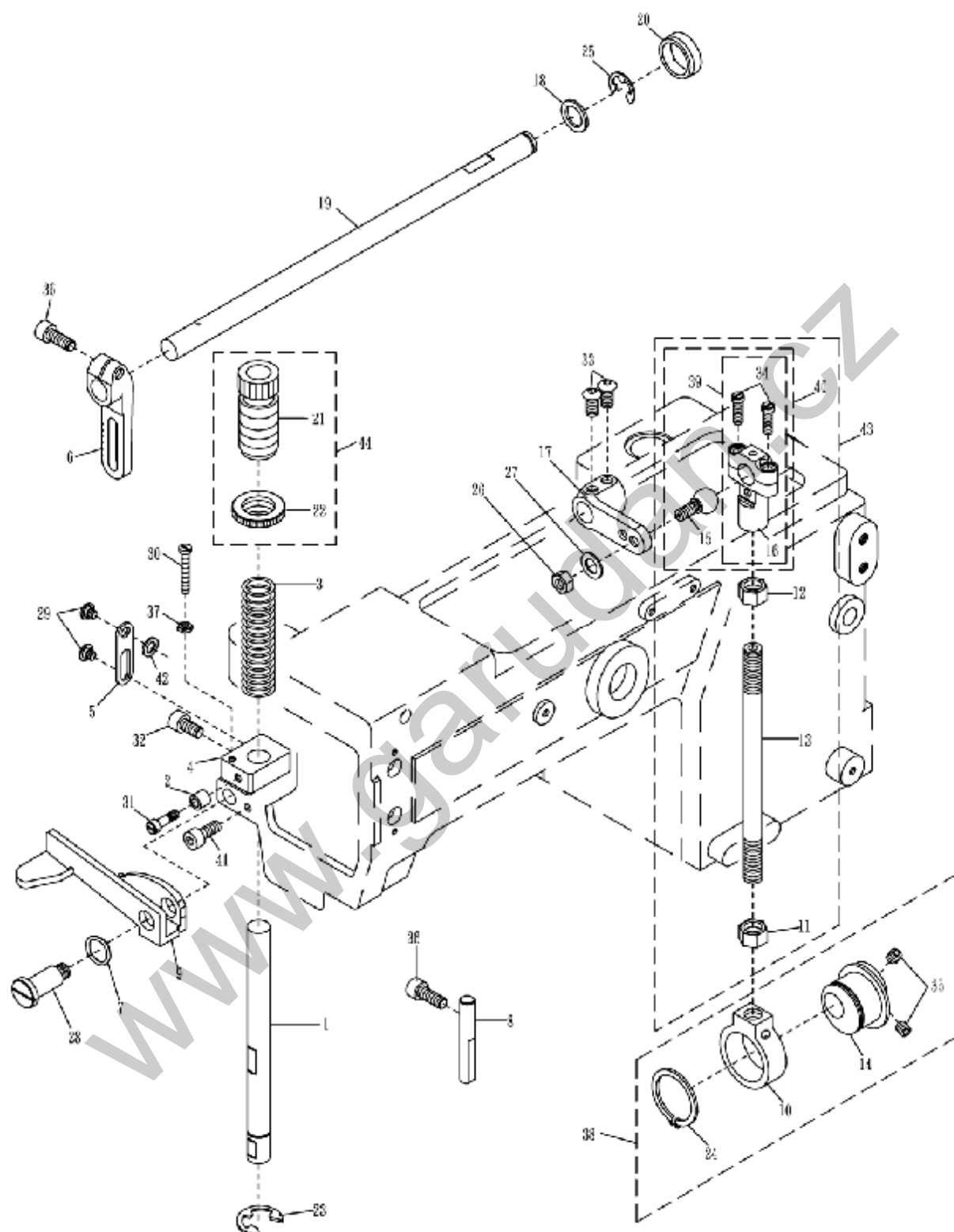
| 11. LUBRICATION MECHANISM (1/2) |              |                         |     |
|---------------------------------|--------------|-------------------------|-----|
| Ref. No.                        | Parts No.    | Description             | QTY |
| ◎1                              | 2310001101   | Lower Feed Roller Cover | 1   |
| ◎2                              | 23100011021  | Gear                    | 1   |
| ◎3                              | 23100011031  | Gear                    | 1   |
| ◎4                              | 23100011041  | Shaft                   | 1   |
| ◎5                              | 2310001105   | Pump Seat               | 1   |
| ◎6                              | 2310001106   | Pump                    | 1   |
| ◎7                              | 2310001107   | Worm Gear               | 1   |
| 8                               | 2310001108   | Latch Spring            | 1   |
| ◎9                              | 2310001109   | Lubricant Guiding Block | 1   |
| 10                              | 2310001110   | Nozzle                  | 1   |
| 11                              | 2310001111   | Oil Receiver            | 1   |
| 12                              | 2310001112   | Oil Tube                | 1   |
| 13                              | 2310001113   | Oil Tube                | 1   |
| 14                              | 2310001114   | Oil Mesh                | 1   |
| 15                              | 2200001311   | Oil Filter Cover        | 1   |
| 16                              | 2200001313   | O Ring                  | 1   |
| 17                              | 2100001521   | Oil Filter              | 1   |
| 18                              | 2200001315   | Oil Filter Joint        | 1   |
| 19                              | 2100001536   | Latch Spring            | 8   |
| 20                              | 2200001334   | Oil Tube                | 1   |
| 21                              | 2200001327   | Oil Tube Joint          | 1   |
| 22                              | 2100001535   | Oil Tube Joint          | 4   |
| 23                              | 2100001533   | Stud                    | 3   |
| 24                              | 2100001534   | Washer                  | 9   |
| 25                              | 2200001328   | Oil Tube                | 1   |
| 26                              | 2200001332   | Oil Tube                | 1   |
| 27                              | 2200001316   | Filter Screen Clamp     | 1   |
| 28                              | 2200001317   | Filter Screen           | 1   |
| 29                              | 66790        | Oil Tube (φ3*φ5)        | 1   |
| 30                              | 8MM03201606A | Screw (M3-0.5*16)       | 1   |
| 31                              | 8MA03200306A | Nut ( M3-0.5*3)         | 1   |
| ◎32                             | 8MM04281207A | Screw (M4-0.7*12)       | 6   |
| ◎33                             | 8MN05320600A | Screw (M5-0.8*6)        | 1   |
| 34                              | 8MM04280607A | Screw (M4-0.7*6)        | 7   |
| ◎35                             | 8MM06401210A | Screw (M6-1*12)         | 2   |
| ◎36                             | 8MM03200606A | Screw (M3-0.5*6)        | 3   |
| ◎37                             | 2100001505   | Oil Tube Joint          | 1   |
| ◎38                             | 90SP0310     | Spring Pin              | 1   |
| ◎39                             | 231A0001139  | Gear Asm.               | 1   |

## 11. LUBRICATION MECHANISM (2/2)



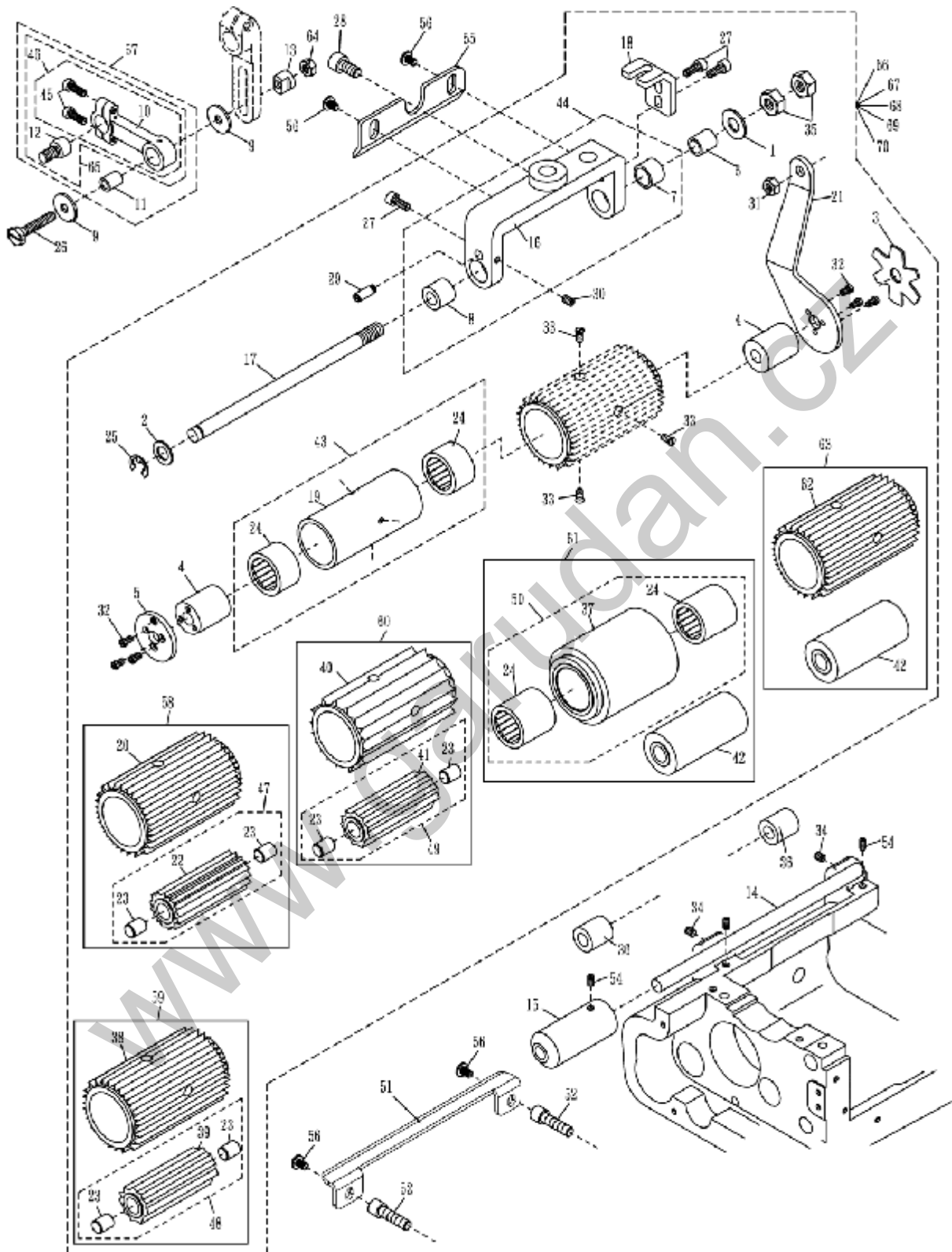
| 11. LUBRICATION MECHANISM (2/2) |              |                               |     |
|---------------------------------|--------------|-------------------------------|-----|
| Ref. No.                        | Parts No.    | Description                   | QTY |
| 40                              | 2310001140   | Oil Receiver                  | 1   |
| 41                              | 2310001141   | Oil Tube Holder               | 1   |
| ◎42                             | 2200000550   | Plug                          | 1   |
| 43                              | 2200001338   | Stud                          | 1   |
| 44                              | 66792        | Oil Tube (φ4.1*φ5.7)          | 1   |
| ◎45                             | 8MN05320400A | Screw (M5-0.8*4)              | 1   |
| 46                              | 231A0001146  | Pump Asm.                     | 1   |
| 47                              | 2310001147   | Oil Tube Holder               | 1   |
| 48                              | 2310001148   | Felt                          | 1   |
| 49                              | 231A0001149  | Lubricant Guiding Block Asm.  | 1   |
| 50                              | 231A0001150  | Oil Receiver Asm              | 1   |
| 51                              | 2270001377   | Spring                        | 1   |
|                                 |              | ◎Must be sold in complete set |     |

## 12. REAR PULLER MECHANISM



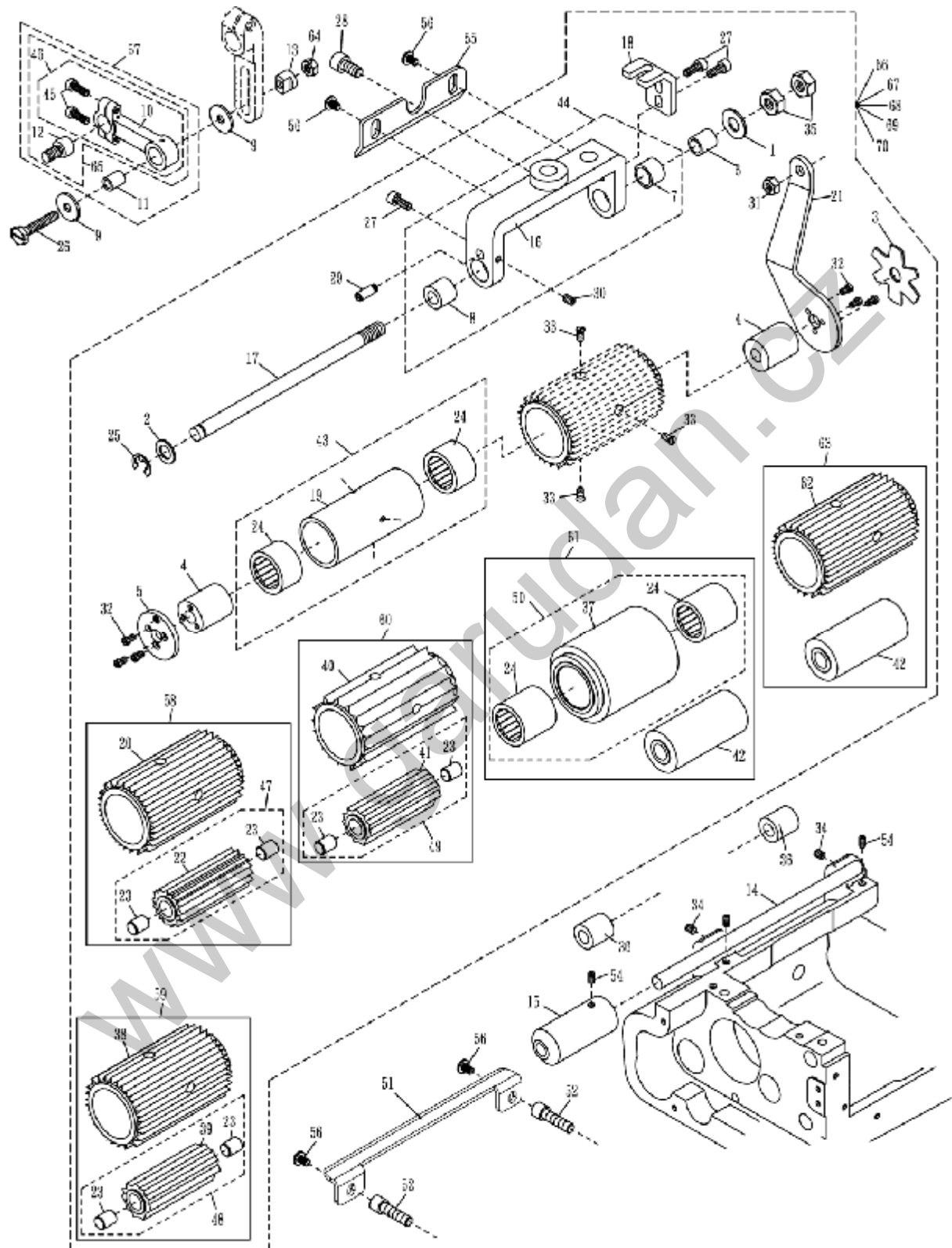
| 12. REAR PULLER MECHANISM     |              |                         |     |
|-------------------------------|--------------|-------------------------|-----|
| Ref. No.                      | Parts No.    | Description             | QTY |
| 1                             | 2310001201   | Shaft                   | 1   |
| 2                             | 2310001202   | Collar                  | 1   |
| 3                             | 2310001203   | Spring                  | 1   |
| 4                             | 2310001204   | Spring Set              | 1   |
| 5                             | 2310001205   | Lifter Connecting Plate | 1   |
| 6                             | 23100012061  | Upper Feed Roller Arm   | 1   |
| 7                             | 2310001207   | Corrugated Washer       | 1   |
| 8                             | 2310001208   | Shaft                   | 1   |
| 9                             | 2310001209   | Lifter Arm              | 1   |
| ◎10                           | 2310001210   | Joint                   | 1   |
| 11                            | 2310000718   | Nut                     | 1   |
| 12                            | 2310000719   | Nut                     | 1   |
| 13                            | 2310001213   | Stud                    | 1   |
| ◎14                           | 2310001214   | Eccentric               | 1   |
| ◎15                           | 2310001215   | Ball Stud               | 1   |
| ◎16                           | 2310001216   | Link                    | 1   |
| 17                            | 23100012171  | Link                    | 1   |
| 18                            | 2310001218   | Washer                  | 1   |
| 19                            | 2310001219   | Shaft                   | 1   |
| 20                            | 22000002451  | Plug                    | 1   |
| 21                            | 2310001221   | Spring Regulator        | 1   |
| 22                            | 2310001222   | Nut                     | 1   |
| 23                            | 90ER100      | Ring                    | 1   |
| ◎24                           | 90SCR280     | C Ring                  | 1   |
| 25                            | 90ER090      | E Ring                  | 1   |
| 26                            | 8MA06400510A | Nut (M6-1*5)            | 1   |
| 27                            | 2200000910   | Washer                  | 1   |
| 28                            | 8MB08502816G | Stud (M8-1.25*7)        | 1   |
| 29                            | 8SC44400810G | Screw (11/64"-40*5)     | 2   |
| 30                            | 8SB44403006K | Screw (11/64"-40*30)    | 1   |
| 31                            | 8SB44401507G | Screw (11/64"-40*7)     | 1   |
| 32                            | 8MM06401510A | Screw (M6-1*15)         | 1   |
| 33                            | 8MP06400811A | Screw (M6-1*8 )         | 2   |
| ◎34                           | 8MB95301507K | Screw (M4.5-0.75*15)    | 2   |
| ◎35                           | 8MN06400600A | Screw (M6-1*6)          | 2   |
| 36                            | 8MM06401610A | Screw (M6-1*16)         | 2   |
| 37                            | 8SA44400407A | Nut (11/64"-40*4)       | 1   |
| 38                            | 231A0001238  | Eccentric Asm.          | 1   |
| ◎39                           | 231A0001239  | Link Asm.               | 1   |
| 40                            | 231A0001240  | Link Asm.               | 1   |
| 41                            | 8MM04281007A | Screw (M4-0.7*10)       | 1   |
| 42                            | 2310001242   | Rubber Cushion          | 1   |
| 43                            | 231A0001243  | Link Asm.               | 1   |
| 44                            | 231A0001244  | Spring Regulator Asm.   | 1   |
| ◎Must be sold in complete set |              |                         |     |

## 13. REAR PULLER MECHANISM (MN4001-4004)/(MN4504) (1/2)



| 13. REAR PULLER MECHANISM (MN4001-4004)/(MN4504) (1/2) |              |                        |     |
|--------------------------------------------------------|--------------|------------------------|-----|
| Ref. No.                                               | Parts No.    | Description            | QTY |
| 1                                                      | 2310001301   | Washer                 | 1   |
| 2                                                      | 2310001302   | Washer                 | 1   |
| 3                                                      | 2310001303   | Clutch Tension Spring  | 1   |
| 4                                                      | 23100013042  | Clutch                 | 2   |
| 5                                                      | 2310001305   | Cover                  | 1   |
| 6                                                      | 2310001306   | Clutch Tension Sleeve  | 1   |
| ⊙7                                                     | 2310001307   | Bushing                | 1   |
| ⊙8                                                     | 2310001308   | Bushing                | 1   |
| 9                                                      | 2310001309   | Washer                 | 2   |
| ⊙10                                                    | 2310001310   | Link                   | 1   |
| 11                                                     | 2310001311   | Clutch Tension Sleeve  | 1   |
| ⊙12                                                    | 2310001312   | Ball Joint             | 1   |
| 13                                                     | 2310001313   | Spacer                 | 1   |
| 14                                                     | 2310001314   | Shaft                  | 1   |
| 15                                                     | 23100013151  | Clutch Sleeve          | 1   |
| ⊙16                                                    | 2310001316   | Bracket                | 1   |
| 17                                                     | 2310001317   | Shaft                  | 1   |
| 18                                                     | 23100013181  | Yoke Guide             | 1   |
| ⊙19                                                    | 23100013191  | Clutch Sleeve          | 1   |
| ⊙20                                                    | 2310001320   | Upper Feed Rollar (28) | 1   |
| 21                                                     | 2310001321   | Clutch Driving Lever   | 1   |
| ⊙22                                                    | 2310001322   | Lower Feed Roller (15) | 1   |
| ⊙23                                                    | 2310001323   | Bushing                | 2   |
| ⊙24                                                    | 90NB2026161  | Needle Bearing         | 2   |
| 25                                                     | 90ER070      | E Ring                 | 1   |
| 26                                                     | 8MK05322710A | Screw (M5-0.8*27)      | 1   |
| 27                                                     | 8MM04281007A | Screw (M4-0.7*10)      | 3   |
| 28                                                     | 8MM06401210A | Screw (M6-1*12)        | 1   |
| 29                                                     | 8SB44400305N | Screw (11/64"-40*3)    | 1   |
| 30                                                     | 8MN04280600A | Screw (M4-0.7*6)       | 1   |
| 31                                                     | 8SA64400409B | Nut (1/4"-40*4)        | 1   |
| 32                                                     | 8SB32440604A | Screw (1/8"-44*6)      | 6   |
| 33                                                     | 8SF36400606A | Screw (9/64"-40*8)     | 3   |
| 34                                                     | 8MN04280500A | Screw (M4-0.7*5)       | 2   |
| 35                                                     | 8MA08500613A | Nut (M8-1.25*6)        | 2   |
| 36                                                     | 2310001336   | Spacer                 | 2   |
| ⊙37                                                    | 2310001337   | Upper Feed Roller (0)  | 1   |
| 38                                                     | 2310001338   | Upper Feed Rollar (22) | 1   |
| ⊙39                                                    | 2310001339   | Lower Feed Roller (12) | 1   |

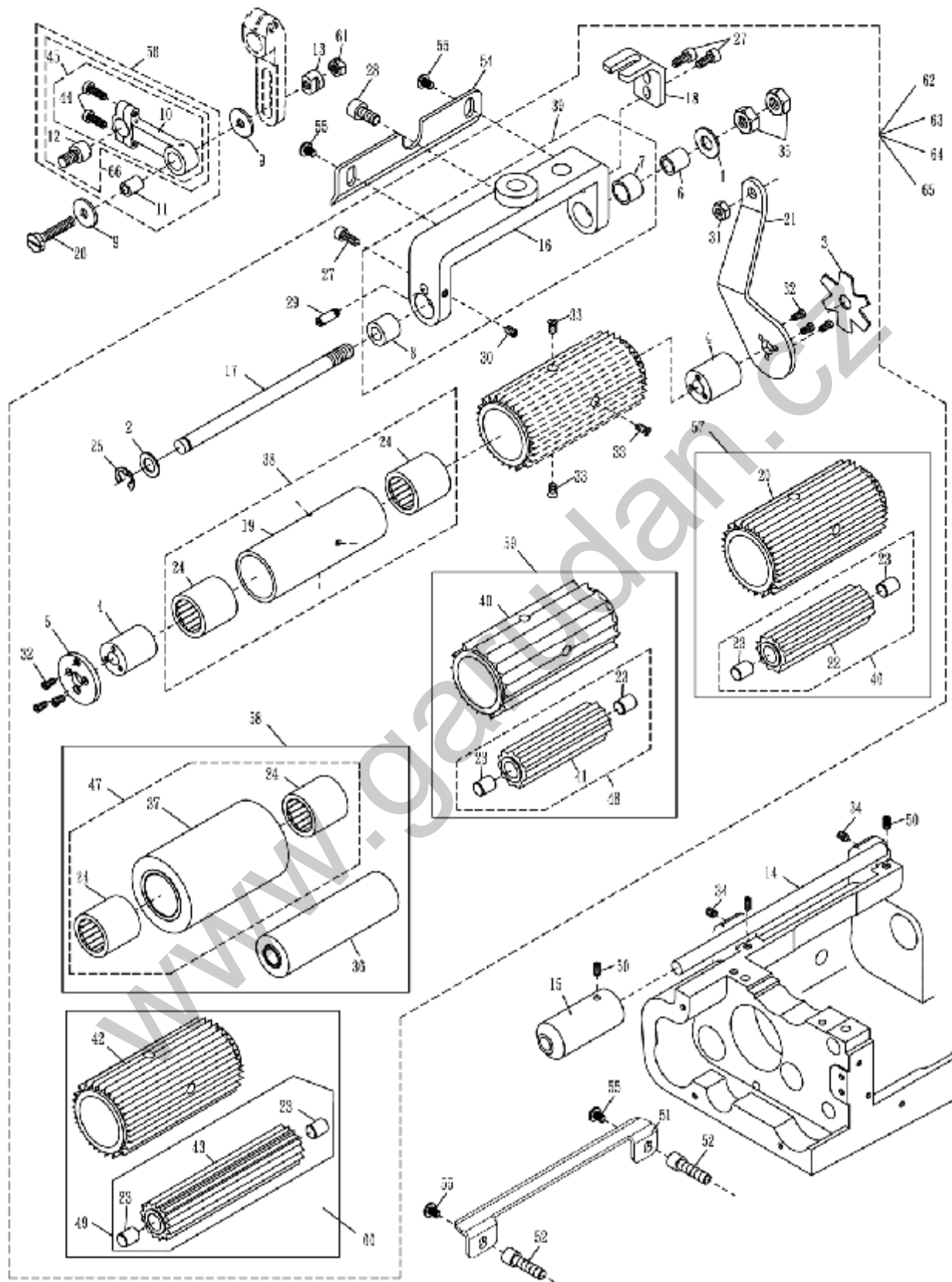
## 13. REAR PULLER MECHANISM (MN4001-4004)/(MN4504) (2/2)





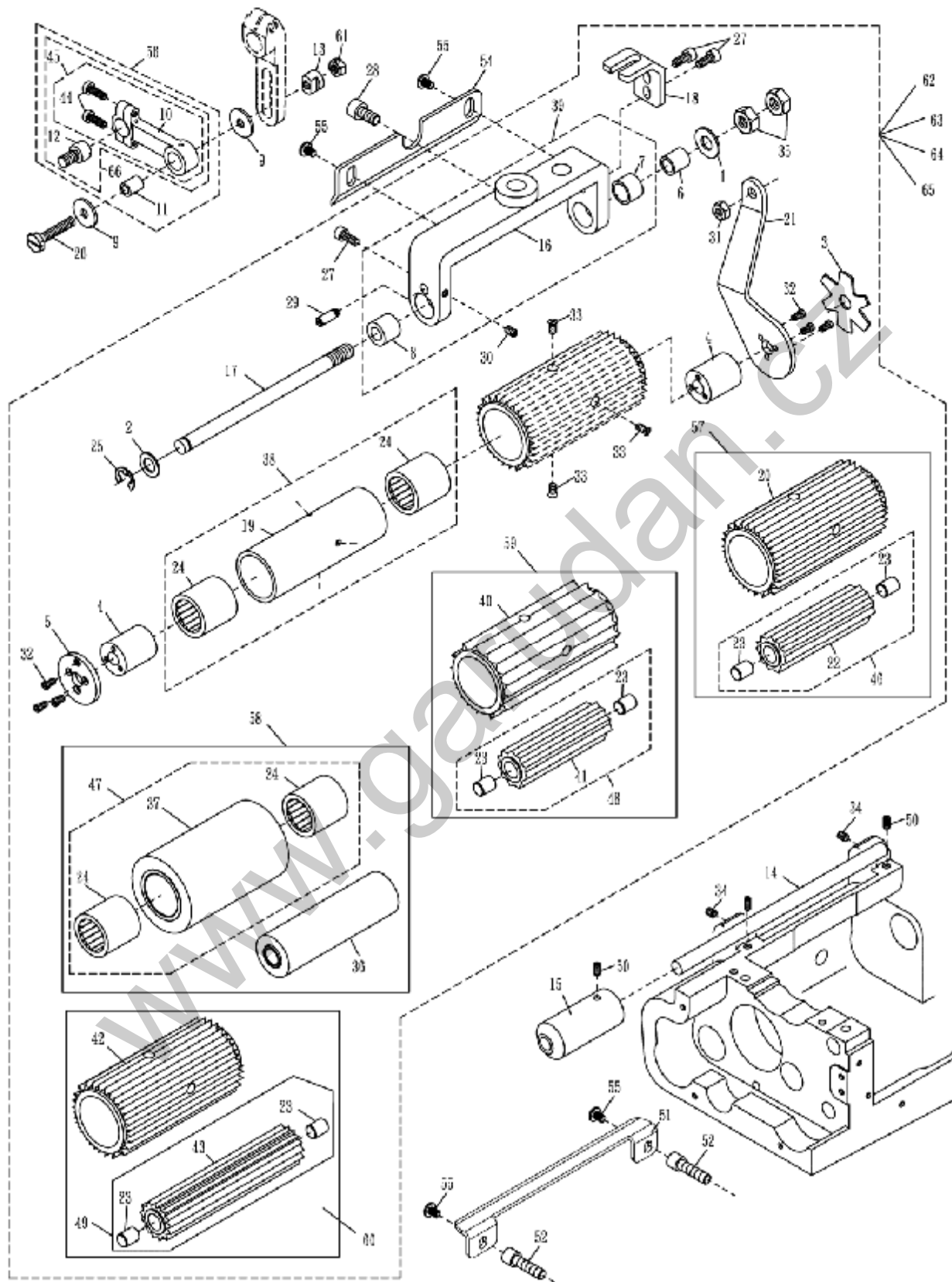
| 13. REAR PULLER MECHANISM (MN4001-4004)/(MN4504) (2/2) |                                |                              |     |
|--------------------------------------------------------|--------------------------------|------------------------------|-----|
| Ref. No.                                               | Parts No.                      | Description                  | QTY |
| 40                                                     | 2310001340                     | Upper Feed Rollar (18)       | 1   |
| ◎41                                                    | 2310001341                     | Lower Feed Roller (10)       | 1   |
| 42                                                     | 2310001342                     | Lower Feed Roller (0)        | 1   |
| 43                                                     | 231A0001343                    | Clutch Sleeve Asm.           | 1   |
| 44                                                     | 231A0001344                    | Upper Feed Roller Shaft Asm. | 1   |
| ◎45                                                    | 8MB85241006K                   | Screw (M3.5-0.6*10)          | 2   |
| ◎46                                                    | 231A0001346                    | Link Asm.                    | 1   |
| 47                                                     | 231A0001347                    | Lower Feed Roller Asm. (15 ) | 1   |
| 48                                                     | 231A0001348                    | Lower Feed Roller Asm. (12 ) | 1   |
| 49                                                     | 231A0001349                    | Lower Feed Roller Asm. (10)  | 1   |
| 50                                                     | 231A0001350                    | Lower Feed Roller Asm. (0)   | 1   |
| 51                                                     | 23100013511                    | Cover                        | 1   |
| 52                                                     | 2310001352                     | Stud                         | 2   |
| 54                                                     | 8MN05320600A                   | Screw (M5-0.8*6)             | 3   |
| 55                                                     | 2310001355                     | Cover                        | 1   |
| 56                                                     | 8MB04280608A                   | Screw (M4-0.7*6)             | 4   |
| 57                                                     | 231A0001357                    | Link Asm.                    | 1   |
| 58                                                     | 231A0001358                    | Puller Asm. ( P )            | 1   |
| ●59                                                    | 231A0001359                    | Puller Asm. ( P2 )           | 1   |
| ●60                                                    | 231A0001360                    | Puller Asm. ( P1 )           | 1   |
| ●61                                                    | 231A0001361                    | Puller Asm. ( P0 )           | 1   |
| 62                                                     | 2310001362                     | Upper Feed Rollar (59)       | 1   |
| ●63                                                    | 231A0001363                    | Puller Asm. (P3)             | 1   |
| 64                                                     | 8MA05320408A                   | Nut (M5-0.8*4)               | 1   |
| 65                                                     | 231A0001365                    | Link Asm.                    | 1   |
| 66                                                     | 231A0001366                    | Puller Asm.(28)              | 1   |
| 67                                                     | 231A0001367                    | Puller Asm.(22)              | 1   |
| 68                                                     | 231A0001368                    | Puller Asm.(18)              | 1   |
| 69                                                     | 231A0001369                    | Puller Asm.(0)               | 1   |
| 70                                                     | 231A0001370                    | Puller Asm.(59)              | 1   |
|                                                        | ◎ Must be sold in complete set |                              |     |
|                                                        | ● Custom-made Item             |                              |     |

## 14. REAR PULLER MECHANISM (MN4006-MN4012/MN4506-MN4525) (1/2)



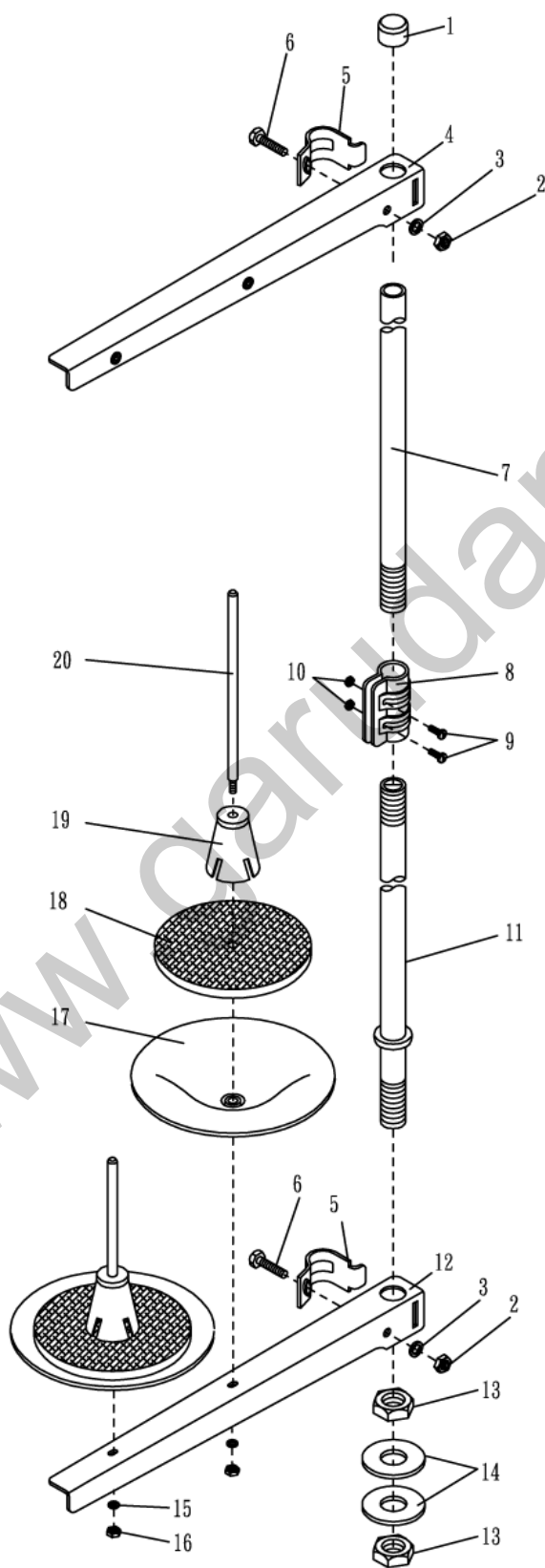
| 14. REAR PULLER MECHANISM (MN4006-MN4012/MN4506-MN4525) (1/2) |              |                              |     |
|---------------------------------------------------------------|--------------|------------------------------|-----|
| Ref. No.                                                      | Parts No.    | Description                  | QTY |
| 1                                                             | 2310001301   | Washer                       | 1   |
| 2                                                             | 2310001302   | Washer                       | 1   |
| 3                                                             | 2310001303   | Clutch Tension Spring        | 1   |
| 4                                                             | 23100013042  | Clutch                       | 2   |
| 5                                                             | 2310001305   | Cover                        | 1   |
| 6                                                             | 2310001306   | Clutch Tension Sleeve        | 1   |
| ◎7                                                            | 2310001307   | Bushing                      | 1   |
| ◎8                                                            | 2310001308   | Bushing                      | 1   |
| 9                                                             | 2310001309   | Washer                       | 2   |
| ◎10                                                           | 2310001310   | Link                         | 1   |
| 11                                                            | 2310001311   | Clutch Tension Sleeve        | 1   |
| ◎12                                                           | 2310001312   | Ball Joint                   | 1   |
| 13                                                            | 2310001313   | Spacer                       | 1   |
| 14                                                            | 2310001314   | Shaft                        | 1   |
| 15                                                            | 23100013151  | Clutch Sleeve                | 1   |
| ◎16                                                           | 2310001416   | Bracket                      | 1   |
| 17                                                            | 2310001417   | Shaft                        | 1   |
| 18                                                            | 23100014181  | Yoke Guide                   | 1   |
| ◎19                                                           | 23100014191  | Clutch Sleeve                | 1   |
| ◎20                                                           | 2310001420   | Upper Feed Rollar (22)       | 1   |
| 21                                                            | 2310001421   | Clutch Driving Lever         | 1   |
| ◎22                                                           | 2310001422   | Lower Feed Roller (12)       | 1   |
| ◎23                                                           | 2310001323   | Bushing                      | 2   |
| ◎24                                                           | 90NB202626   | Needle Bearing               | 2   |
| 25                                                            | 90ER070      | E Ring                       | 1   |
| 26                                                            | 8MK05322710A | Screw (M5-0.7*27)            | 1   |
| 27                                                            | 8MM04281007A | Screw (M4-0.7*10)            | 3   |
| 28                                                            | 8MM06401210A | Screw (M6-1*12)              | 1   |
| 29                                                            | 8SB44400305N | Screw (11/64"-40*3)          | 1   |
| 30                                                            | 8MN04280600A | Screw (M4-0.7*6)             | 1   |
| 31                                                            | 8SA64400409B | Nut (1/4"-40*4)              | 1   |
| 32                                                            | 8SB32440604A | Screw (1/8"-44*6)            | 6   |
| 33                                                            | 8SF36400606A | Screw (9/64"-40*8)           | 3   |
| 34                                                            | 8MN04280500A | Screw (M4-0.7*5)             | 2   |
| 35                                                            | 8MA08500613A | Nut (M8-1.25*6)              | 2   |
| 36                                                            | 2310001436   | Lower Feed Roller (0)        | 1   |
| ◎37                                                           | 2310001437   | Lower Feed Roller (0)        | 1   |
| 38                                                            | 231A0001438  | Clutch Sleeve Asm.           | 1   |
| 39                                                            | 231A0001439  | Upper Feed Roller Shaft Asm. | 1   |

#### 14. REAR PULLER MECHANISM (MN4006-MN4012/MN4506-MN4525) (2/2)



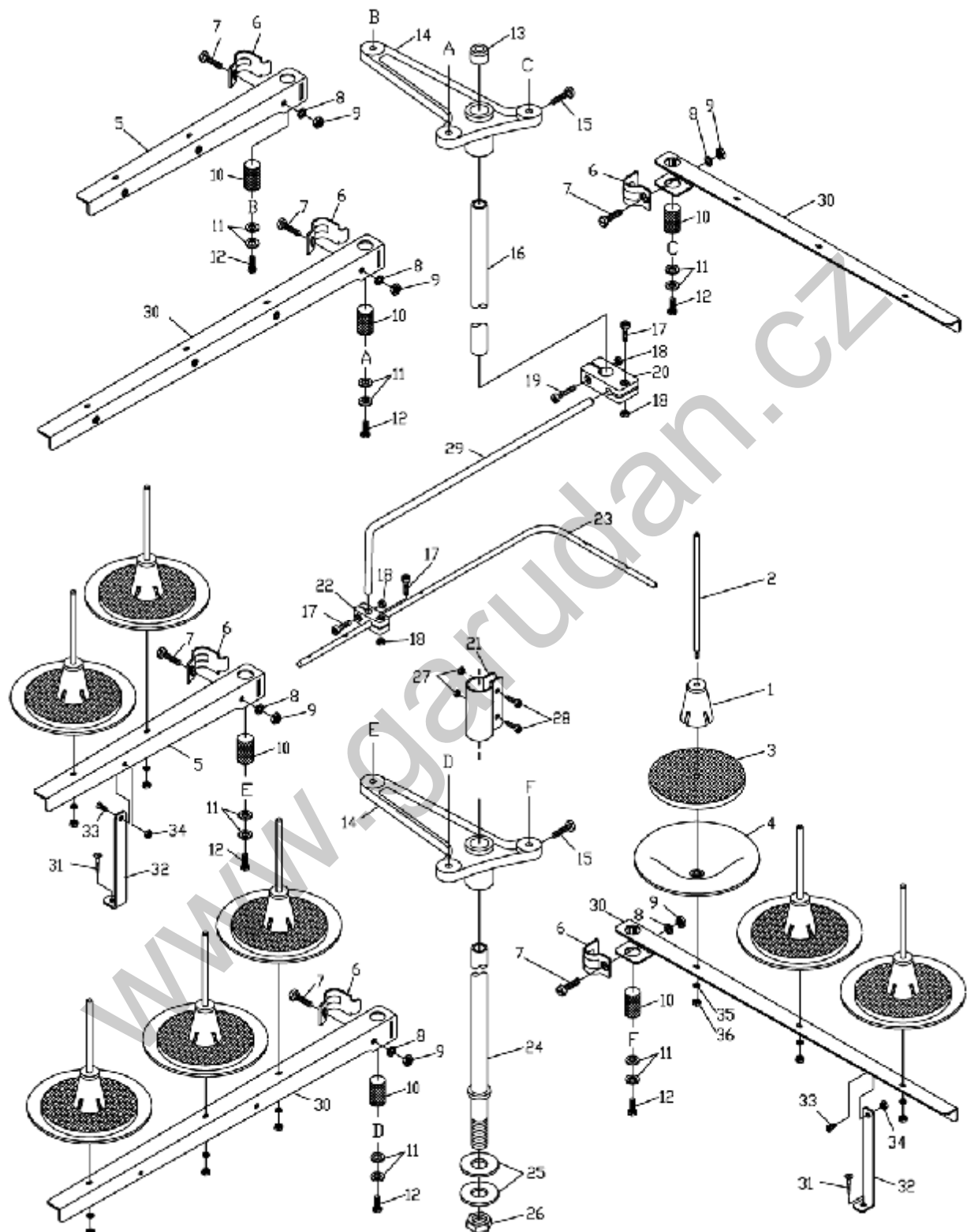
| 14. REAR PULLER MECHANISM (MN4006-MN4012/MN4506-MN4525) (2/2) |                               |                             |     |
|---------------------------------------------------------------|-------------------------------|-----------------------------|-----|
| Ref. No.                                                      | Parts No.                     | Description                 | QTY |
| 40                                                            | 2310001440                    | Upper Feed Roller (18)      | 1   |
| ◎41                                                           | 2310001441                    | Lower Feed Roller (10)      | 1   |
| 42                                                            | 2310001442                    | Upper Feed Roller (28)      | 1   |
| ◎43                                                           | 2310001443                    | Lower Feed Roller (15)      | 1   |
| ◎44                                                           | 8MB85241006K                  | Screw (M3.5-0.6*10)         | 2   |
| ◎45                                                           | 231A0001346                   | Link Asm.                   | 1   |
| 46                                                            | 231A0001446                   | Lower Feed Roller Asm. (12) | 1   |
| 47                                                            | 231A0001447                   | Lower Feed Roller Asm. (0)  | 1   |
| 48                                                            | 231A0001448                   | Lower Feed Roller Asm. (10) | 1   |
| 49                                                            | 231A0001449                   | Lower Feed Roller Asm. (15) | 1   |
| 50                                                            | 8MN05320600A                  | Screw (M5-0.8*6)            | 3   |
| 51                                                            | 23100013511                   | Cover                       | 1   |
| 52                                                            | 2310001352                    | Stud                        | 2   |
| 54                                                            | 2310001454                    | Cover                       | 1   |
| 55                                                            | 8MB04280608A                  | Screw (M4-0.7*6)            | 4   |
| 56                                                            | 231A0001357                   | Link Asm.                   | 1   |
| ●57                                                           | 231A0001457                   | Puller Asm. ( P2 )          | 1   |
| ●58                                                           | 231A0001458                   | Puller Asm. ( P0 )          | 1   |
| ●59                                                           | 231A0001459                   | Puller Asm. ( P1 )          | 1   |
| 60                                                            | 231A0001460                   | Puller Asm. ( P )           | 1   |
| 61                                                            | 8MA05320408A                  | Nut (M5-0.8*4)              | 1   |
| 62                                                            | 231A0001462                   | Puller Asm. (28)            | 1   |
| 63                                                            | 231A0001463                   | Puller Asm. (18)            | 1   |
| 64                                                            | 231A0001464                   | Puller Asm. (22)            | 1   |
| 65                                                            | 231A0001465                   | Puller Asm. (0)             | 1   |
| 66                                                            | 231A0001365                   | Link Asm.                   | 1   |
|                                                               | ◎Must be sold in complete set |                             |     |
|                                                               | ●Custom-made Item             |                             |     |

## 15. THREAD STAND MECHANISM (MN4501)



| 15. THREAD STAND MECHANISM (MN4501) |                               |                        |     |
|-------------------------------------|-------------------------------|------------------------|-----|
| Ref. No.                            | Parts No.                     | Description            | QTY |
| ◎1                                  | 6670919                       | Cap                    | 1   |
| ◎2                                  | 6670526                       | Nut                    | 2   |
| ◎3                                  | 6670525                       | Spring Washer          | 2   |
| ◎4                                  | 6670918                       | Thread Arm             | 1   |
| ◎5                                  | 667097                        | Clamp                  | 2   |
| ◎6                                  | 667098                        | Screw                  | 2   |
| ◎7                                  | 6670917                       | Upper Thread Stand Rod | 1   |
| ◎8                                  | 6670914                       | Clamp                  | 1   |
| ◎9                                  | 6670915                       | Screw                  | 2   |
| ◎10                                 | 6670916                       | Nut                    | 2   |
| ◎11                                 | 6670913                       | Lower Thread Stand Rod | 1   |
| ◎12                                 | 667092                        | Spool Set Bracket      | 1   |
| ◎13                                 | 6670912                       | Nut                    | 2   |
| ◎14                                 | 6670911                       | Washer                 | 2   |
| ◎15                                 | 667099                        | Spring Washer          | 2   |
| ◎16                                 | 6670910                       | Nut                    | 2   |
| ◎17                                 | 667093                        | Spool Set              | 2   |
| ◎18                                 | 667094                        | Seat                   | 2   |
| ◎19                                 | 667095                        | Spool Pin              | 2   |
| ◎20                                 | 667096                        | Spool Retaining Fig    | 2   |
|                                     | ◎Must be sold in complete set |                        |     |

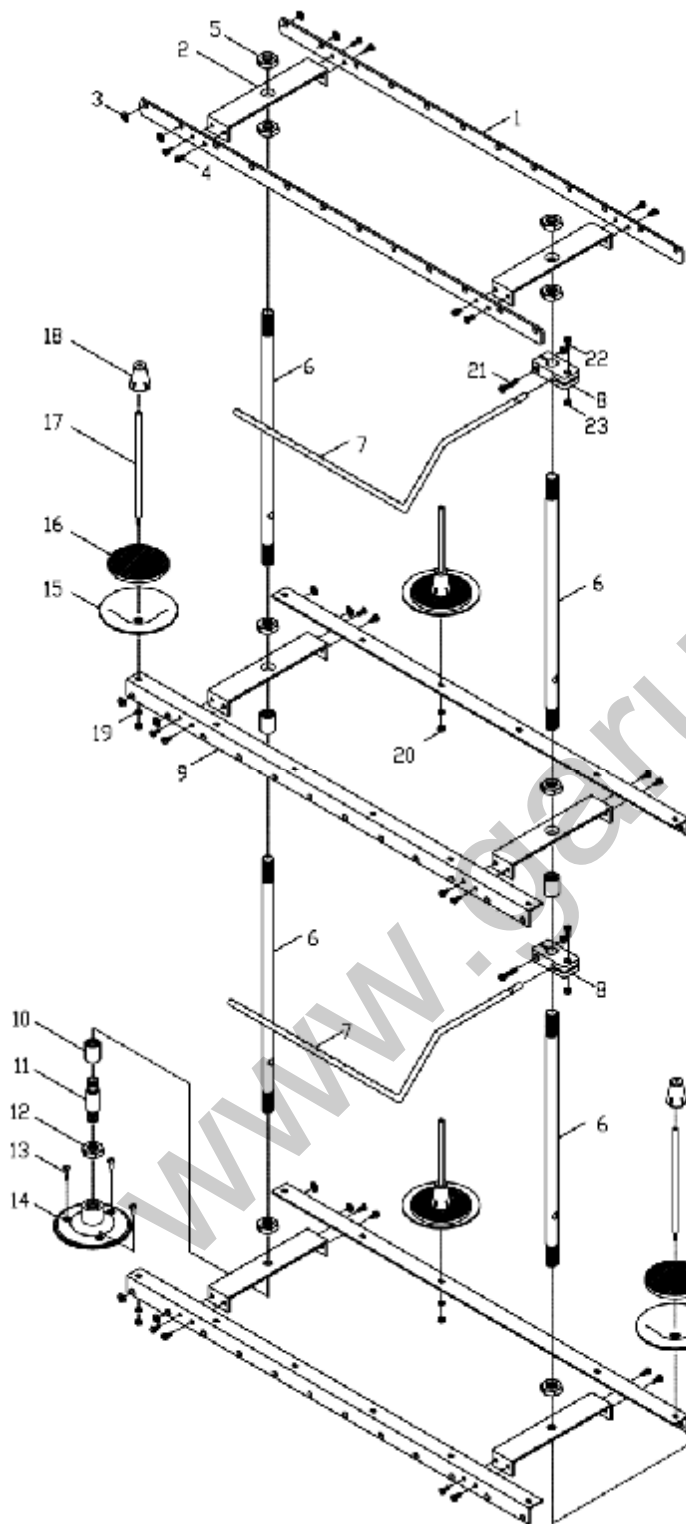
## 15. - 1. THREAD STAND MECHANISM (MN4504)





| 15. - 1. THREAD STAND MECHANISM (MN4504) |                               |                        |     |
|------------------------------------------|-------------------------------|------------------------|-----|
| Ref. No.                                 | Parts No.                     | Description            | QTY |
| ◎1                                       | 667101                        | Spool Retaining Fig    | 8   |
| ◎2                                       | 667102                        | Spool Pin              | 8   |
| ◎3                                       | 667103                        | Seat                   | 8   |
| ◎4                                       | 667104                        | Spool Set              | 8   |
| ◎5                                       | 667105                        | Spool Set Bracket      | 2   |
| ◎6                                       | 667106                        | Clamp                  | 6   |
| ◎7                                       | 667107                        | Screw                  | 6   |
| ◎8                                       | 667108                        | Spring Washer          | 6   |
| ◎9                                       | 667109                        | Nut                    | 6   |
| ◎10                                      | 6671010                       | Knife Holder Bracket   | 6   |
| ◎11                                      | 6671011                       | Washer                 | 12  |
| ◎12                                      | 6671012                       | Screw                  | 6   |
| ◎13                                      | 6671013                       | Rod Cup                | 1   |
| ◎14                                      | 6671014                       | Shaft                  | 2   |
| ◎15                                      | 6671015                       | Screw                  | 2   |
| ◎16                                      | 6671016                       | Upper Thread Stand Rod | 1   |
| ◎17                                      | 6671017                       | Screw                  | 3   |
| ◎18                                      | 6671018                       | Nut                    | 4   |
| ◎19                                      | 6671019                       | Screw                  | 1   |
| ◎20                                      | 6671020                       | Bracket                | 1   |
| ◎21                                      | 6671021                       | Bracket                | 1   |
| ◎22                                      | 6671022                       | Joint                  | 1   |
| ◎23                                      | 6671023                       | Thread Guide           | 1   |
| ◎24                                      | 6671024                       | Lower Thread Stand Rod | 1   |
| ◎25                                      | 6671025                       | Washer                 | 2   |
| ◎26                                      | 6671026                       | Nut                    | 1   |
| ◎27                                      | 6671027                       | Nut                    | 2   |
| ◎28                                      | 6671028                       | Screw                  | 2   |
| ◎29                                      | 6671029                       | Arm                    | 1   |
| ◎30                                      | 6671030                       | Spool Set Bracket      | 4   |
| ◎31                                      | 6671031                       | Wood Screw             | 2   |
| ◎32                                      | 6671032                       | Support Rod            | 2   |
| ◎33                                      | 6671033                       | Screw                  | 2   |
| ◎34                                      | 6671034                       | Nut                    | 2   |
| ◎35                                      | 6671035                       | Spring Washer          | 8   |
| ◎36                                      | 6671036                       | Nut                    | 8   |
|                                          | ◎Must be sold in complete set |                        |     |

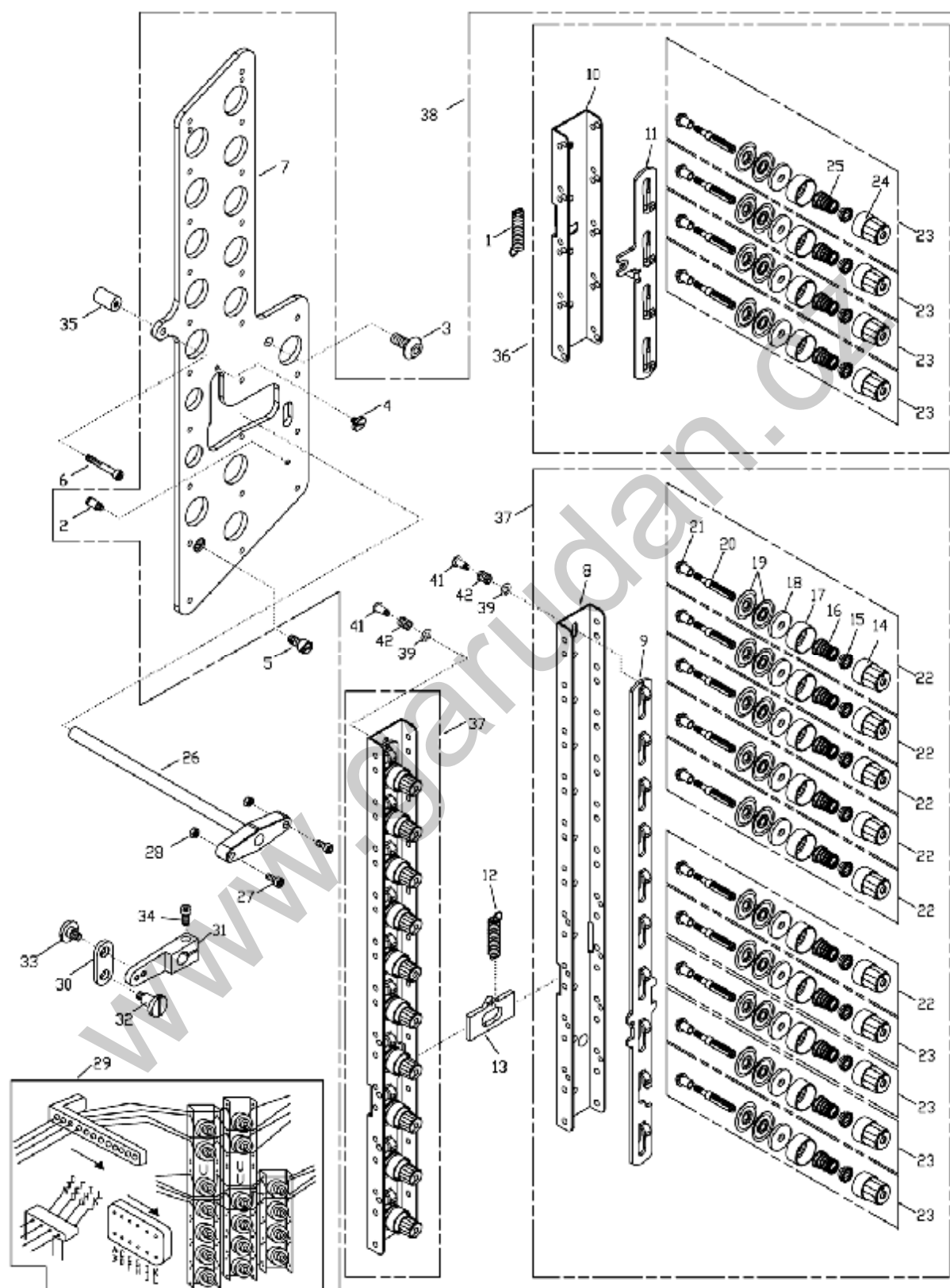
## 16. THREAD STAND MECHANISM (MN4506-MN4525)



| Ref. No. | Amt. Req |         |                            |
|----------|----------|---------|----------------------------|
|          | Model    | MT4506  | MT4509<br>MT4512<br>MT4525 |
|          | No       | 66711-5 | 66711-6 66711-7            |
| 2        | 4        | 6       | 6                          |
| 3        | 48       | 72      | 72                         |
| 4        | 16       | 24      | 24                         |
| 5        | 6        | 8       | 8                          |
| 6        | 2        | 4       | 4                          |
| 7        | 1        | 2       | 2                          |
| 8        | 1        | 2       | 2                          |
| 9        | 2        | 4       | 4                          |
| 10       | 2        | 4       | 4                          |
| 15       | 12       | 18      | 24                         |
| 16       | 12       | 18      | 24                         |
| 17       | 12       | 18      | 24                         |
| 18       | 12       | 18      | 24                         |
| 19       | 12       | 18      | 24                         |
| 20       | 12       | 18      | 24                         |
| 21       | 1        | 2       | 2                          |
| 22       | 1        | 2       | 2                          |
| 23       | 2        | 4       | 4                          |

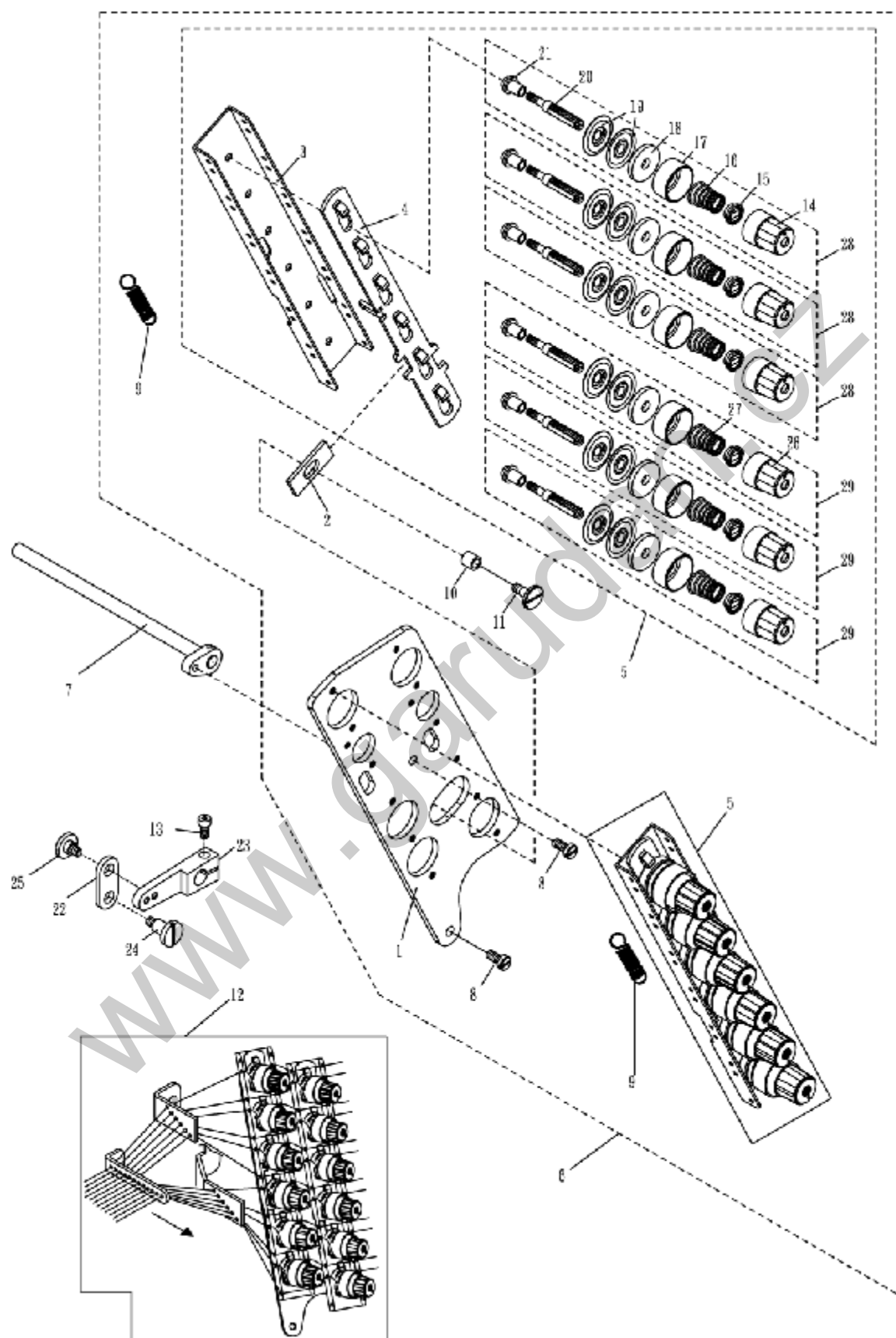
| 16. THREAD STAND MECHANISM (MN4506-MN4525) |                               |                           |     |
|--------------------------------------------|-------------------------------|---------------------------|-----|
| Ref. No.                                   | Parts No.                     | Description               | QTY |
| ◎1                                         | 66711501                      | Thread Guide              | 2   |
| ◎2                                         | 66711502                      | Holder                    | -   |
| ◎3                                         | 66711503                      | Thread Guide              | -   |
| ◎4                                         | 66711504                      | Screw                     | -   |
| ◎5                                         | 66711505                      | Nut                       | -   |
| ◎6                                         | 66711506                      | Thread Stand Rod          | -   |
| ◎7                                         | 66711507                      | Arm                       | -   |
| ◎8                                         | 66711508                      | Joint                     | -   |
| ◎9                                         | 66711509                      | Spool Set Bracket         | -   |
| ◎10                                        | 66711510                      | Bushing                   | -   |
| ◎11                                        | 66711511                      | Stud                      | 2   |
| ◎12                                        | 66711512                      | Nut                       | 2   |
| ◎13                                        | 66711513                      | Screw                     | 6   |
| ◎14                                        | 66711514                      | Base                      | 2   |
| ◎15                                        | 66711515                      | Spool Set (See Left Page) | -   |
| ◎16                                        | 66711516                      | Seat (See Left Page)      | -   |
| ◎17                                        | 66711517                      | Spool Pin (See Left Page) | -   |
| ◎18                                        | 66711518                      | Spool Pi (See Left Page)  | -   |
| ◎19                                        | 66711519                      | Spring Washer             | -   |
| ◎20                                        | 66711520                      | Nut                       | -   |
| ◎21                                        | 66711521                      | Screw                     | -   |
| ◎22                                        | 66711522                      | Screw                     | -   |
| ◎23                                        | 66711523                      | Nut                       | -   |
|                                            | ◎Must be sold in complete set |                           |     |

## 17. TENSION STAND MECHANISM (MN4509-4525)



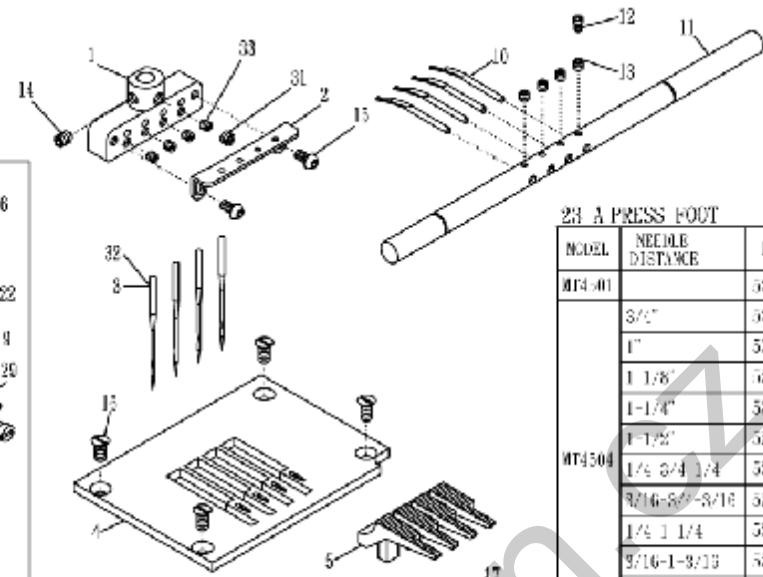
| 17. TENSION STAND MECHANISM (MN4509-4525) |              |                                    |     |
|-------------------------------------------|--------------|------------------------------------|-----|
| Ref. No.                                  | Parts No.    | Description                        | QTY |
| 1                                         | 2310000310   | Spring                             | 1   |
| 2                                         | 2310001937   | Stud                               | 1   |
| 3                                         | 8MP06401211A | Screw (M6-1*12)                    | 1   |
| 4                                         | 8MB04280612G | Screw (M4-0.7*3.5)                 | 1   |
| 5                                         | 8MM05321209A | Screw (M5-0.8*12)                  | 1   |
| 6                                         | 8MM04283007B | Screw (M4-0.7*30)                  | 1   |
| 7                                         | 2310001707   | Tension Post Support               | 1   |
| 8                                         | 2310001708   | Thread Guide Holder                | 2   |
| 9                                         | 2310001709   | Release Wedge                      | 2   |
| 10                                        | 2310001710   | Thread Guide Holder                | 1   |
| 11                                        | 2310001711   | Release Wedge                      | 1   |
| 12                                        | 2310001712   | Spring                             | 1   |
| 13                                        | 2310001713   | Plate                              | 1   |
| 14                                        | 2100001121   | Tension Nut (Red) (See left Page)  | 12  |
| 15                                        | 2200000303   | Bushing (See left Page)            | 24  |
| 16                                        | 2100001123   | Spring (Red) (See left Page)       | 12  |
| 17                                        | 2200000305   | Spring Seat (See left Page)        | 24  |
| 18                                        | 2100001127   | Felt (See left Page)               | 24  |
| 19                                        | 2100001126   | Tension Disc (See left Page)       | 48  |
| 20                                        | 22000003081  | Stud (See left Page)               | 24  |
| 21                                        | 22000003091  | Spacer (See left Page)             | 24  |
| 22                                        | 231A0001922  | Tension Set. (Red)                 | 12  |
| 23                                        | 231A0001923  | Tension Set.                       | 12  |
| 24                                        | 2100001121B  | Tension Nut (Bule) (See left Page) | 12  |
| 25                                        | 2100001132   | Spring (Bule)(See left Page)       | 12  |
| 26                                        | 2310001726   | Shaft                              | 1   |
| 27                                        | 8MB05321008A | Screw (M5-0.8*10)                  | 2   |
| 28                                        | 8MA05320408A | Nut ( M5-0.8*4)                    | 2   |
| 29                                        | 66441-3      | Paster                             | 1   |
| 30                                        | 2310000341   | Link                               | 1   |
| 31                                        | 2310000342   | Lever                              | 1   |
| 32                                        | 2310000343   | Stud                               | 1   |
| 33                                        | 2310000344   | Stud                               | 1   |
| 34                                        | 8MK95301407A | Srew                               | 1   |
| 35                                        | 2310001735   |                                    | 1   |
| 36                                        | 231A0001736  | Thread Tension Mechanism           | 1   |
| 37                                        | 231A0001737  | Thread Tension Mechanism           | 2   |
| 38                                        | 231A0001738  | Thread Tension Mechanism           | 1   |
| 39                                        | 90DW040      | Washer                             | 2   |
| 41                                        | 8MB03200907G | Screw (M3-0.5*9)                   | 2   |
| 42                                        | 2310001742   | Spring                             | 2   |

## 17. – 1 . TENSION STAND MECHANISM (MN4506)



| 17. – 1 . TENSION STAND MECHANISM (MN4506) |              |                                    |     |
|--------------------------------------------|--------------|------------------------------------|-----|
| Ref. No.                                   | Parts No.    | Description                        | QTY |
| 1                                          | 2320001701   | Tension Post Support               | 1   |
| 2                                          | 2320001702   | Plate                              | 1   |
| 3                                          | 2320001703   | Tension Post Support               | 2   |
| 4                                          | 2320001704   | Release Wedge                      | 2   |
| 5                                          | 231A0001705  | Thread Tension Mechanism           | 2   |
| 6                                          | 231A0001706  | Thread Tension Mechanism           | 1   |
| 7                                          | 2310001905   | Shaft                              | 1   |
| 8                                          | 8MC05321208A | Screw (M5-0.8*12)                  | 2   |
| 9                                          | 2310000310   | Spring                             | 2   |
| 10                                         | 2310001910   | Space                              | 1   |
| 11                                         | 2310001911   | Stud                               | 1   |
| 12                                         | 66441-2      | Paster                             | 1   |
| 13                                         | 8MK95301407A | Srew                               | 1   |
| 14                                         | 2100001121   | Tension Nut (Red)(See left Page)   | 6   |
| 15                                         | 2200000303   | Bushing (See left Page)            | 12  |
| 16                                         | 2100001123   | Spring (Red) (See left Page)       | 6   |
| 17                                         | 2200000305   | Spring Seat (See left Page)        | 12  |
| 18                                         | 2100001127   | Felt (See left Page)               | 12  |
| 19                                         | 2100001126   | Tension Disc (See left Page)       | 24  |
| 20                                         | 22000003081  | Stud (See left Page)               | 12  |
| 21                                         | 22000003091  | Spacer (See left Page)             | 12  |
| 22                                         | 2310000341   | Link                               | 1   |
| 23                                         | 2310000342   | Lever                              | 1   |
| 24                                         | 2310000343   | Stud                               | 1   |
| 25                                         | 2310000344   | Stud                               | 1   |
| 26                                         | 2100001121B  | Tension Nut (Bule) (See left Page) | 6   |
| 27                                         | 2100001132   | Spring (Bule)(See left Page)       | 6   |
| 28                                         | 231A0001922  | Tension Set. (Red)                 | 6   |
| 29                                         | 231A0001923  | Tension Set. (Bule)                | 6   |

## 18. GAUGE PARTS



**NARROW GAUGE TYPE (LESS THAN 5mm)**

**23 A PRESS FOOT**

| MODEL  | NEEDLE DISTANCE       | PARTS NO.   |
|--------|-----------------------|-------------|
| MT4501 |                       | 523 PF0401A |
|        | 3/4"                  | 523 PF0401A |
|        | 1"                    | 523 PF0403A |
|        | 1-1/8"                | 523 PF0405A |
|        | 1-1/4"                | 523 PF0405A |
|        | 1-1/2"                | 523 PF0408A |
| MT4504 | 1/4 3/4 1/4           | 523 PF0411A |
|        | 3/16-5/8-3/16         | 523 PF0412A |
|        | 1/4 1 1/4             | 523 PF0413A |
|        | 3/16-1-3/16           | 523 PF0414A |
|        | 1/4 1/2 1/4           | 523 PF0415A |
| MT4506 | 1/4"                  | 523 PF0501A |
|        | 1/8"                  | 523 PF0502A |
|        | 1/8"                  | 523 PF0503A |
|        | 3/64-1/8              | 523 PF0504A |
| MT4509 | 1/4"                  | 523 PF0601A |
| MT4512 | 3/16"                 | 523 PF1301A |
|        | 1/4"                  | 523 PF1302A |
| MT4513 | MULTI NEEDLE DISTANCE | 523 PF1302A |
| MT4517 | 1/8"                  | 523 PF1701A |
| MT4523 | 1/8"                  | 523 PF2301A |
| MT4525 | 1/8"                  | 523 PF2501A |

**24 A PRESS FOOT**

| MODEL  | NEEDLE DISTANCE | PARTS NO.    |
|--------|-----------------|--------------|
|        | 3/4"            | 523 PF70402A |
|        | 1"              | 523 PF70404A |
| MT4504 | 1-1/8"          | 523 PF70410A |
|        | 1 1/4"          | 523 PF70407A |
|        | 1-1/2"          | 523 PF70409A |

**24-B PRESS FOOT**

| MODEL  | NEEDLE DISTANCE | PARTS NO.   |
|--------|-----------------|-------------|
|        | 3/4"            | 523 PF0402B |
|        | 1"              | 523 PF0404B |
| MT4504 | 1 1/8"          | 523 PF0410B |
|        | 1-1/4"          | 523 PF0407B |
|        | 1-1/2"          | 523 PF0408B |

**3 NEEDLE REQ.**

| MODEL NO. | QTY | MODEL NO. | QTY |
|-----------|-----|-----------|-----|
| MT4501    | 1   | MT4504    | 4   |
| MT4506    | 6   | MT4509    | 9   |
| MT4513    | 12  | MT4513    | 13  |
| MT4517    | 17  | MT4523    | 23  |
| MT4523    | 23  |           |     |

**CUSTOM MADE ITEM**

**FOR THICK THREAD USAGE**

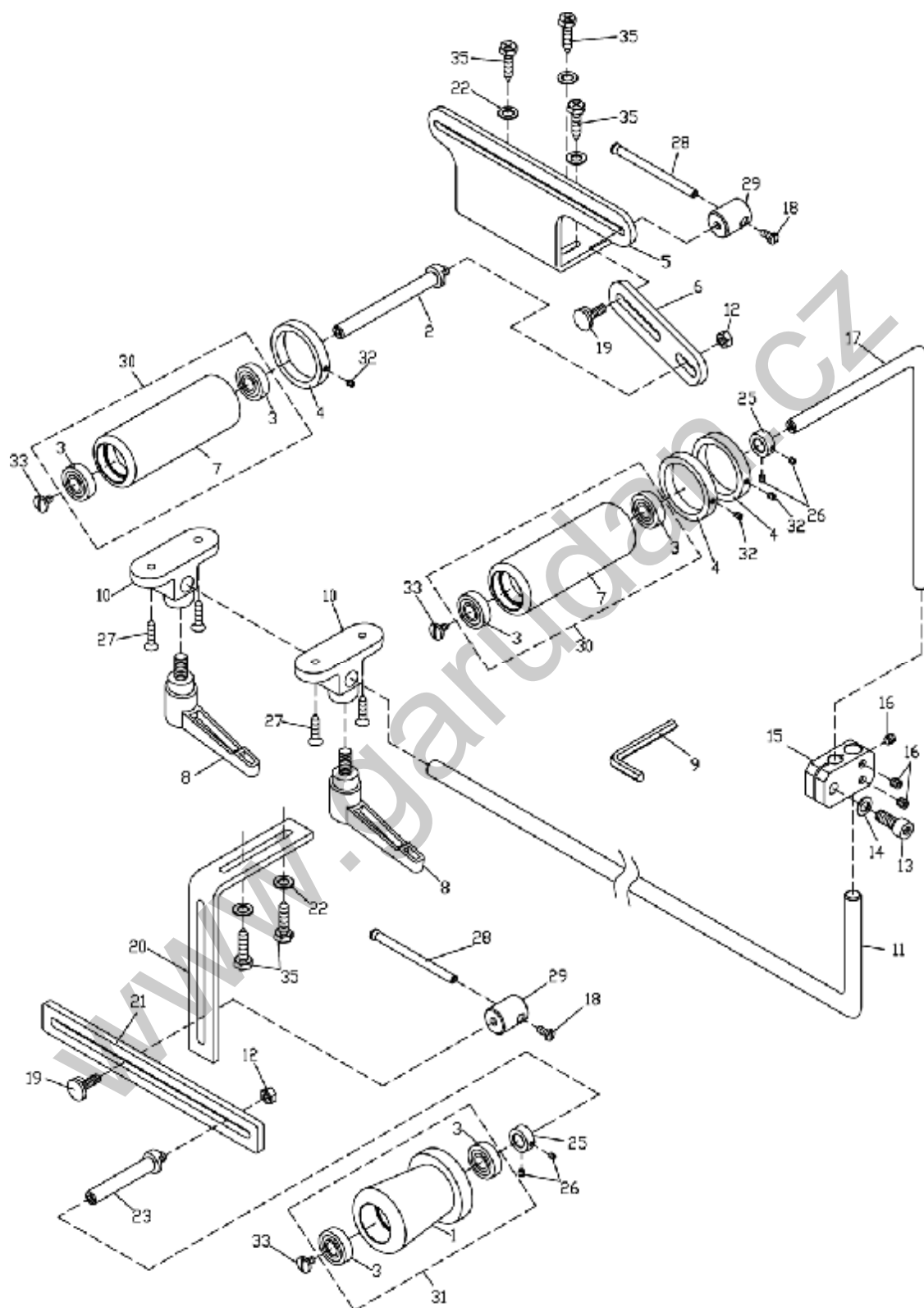
**FOR MODEL MT4513-MT4523**

**FOR MODEL MT4504**



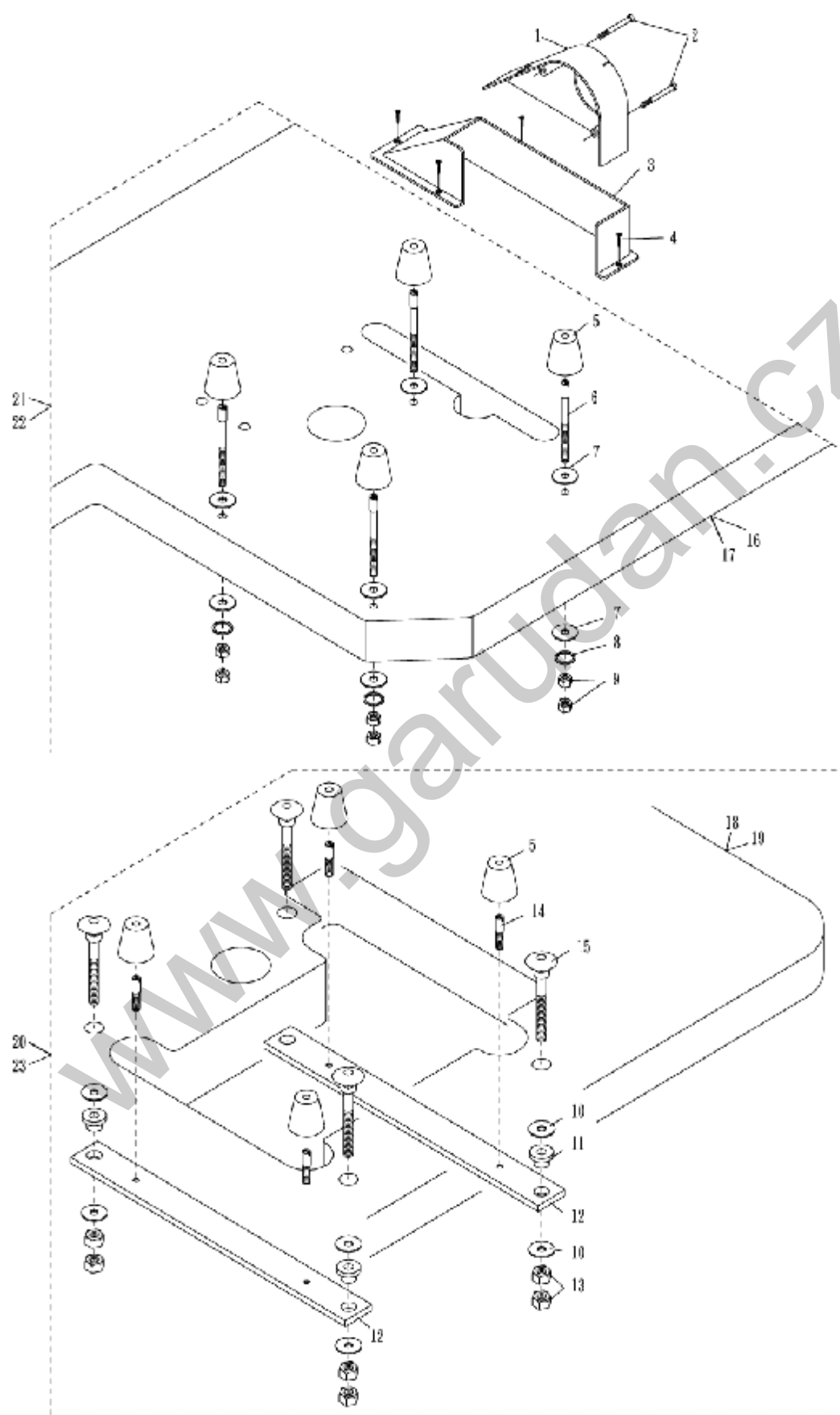
| 18. GAUGE PARTS |                                  |                                             |     |
|-----------------|----------------------------------|---------------------------------------------|-----|
| Ref. No.        | Parts No.                        | Description                                 | QTY |
| 1               | -----                            | Needle Clamp                                | 1   |
| 2               | -----                            | Thread Guide                                | 1   |
| 3               | 66729-14                         | UO113 #14 Needle                            | 1   |
| 4               | -----                            | Needle Plate                                | 1   |
| 5               | -----                            | Feed Dog                                    | 1   |
| 6               | -----                            | Retainer Lopper                             | -   |
| 7               | 2310001807                       | Bracker                                     | -   |
| 8               | -----                            | Looper Holder                               | 1   |
| 9               | -----                            | Looper Holder                               | 1   |
| 10              | 5231UL0001                       | Looper                                      | -   |
| 11              | -----                            | Retainer Holder                             | 1   |
| *12             | 8MC75180403E                     | Screw (M2.5-0.45*3.5)                       | -   |
| 13              | 8MN03200300A                     | Screw (M3-0.5*3)                            | -   |
| 14              | 8MN04280400A                     | Screw (M4-0.7*4)                            | 1   |
| 15              | 8MP03200606A                     | Screw (M3-0.5*6)                            | 2   |
| 16              | 8SE36400806A                     | Screw (9/64"-40*8)                          | 4   |
| 17              | 8SC44400909S                     | Screw (11/64"-40*6)                         | 1   |
| 18              | 8SB32440605A                     | Screw (1/8"-44*6)                           | -   |
| 19              | 8SC36400705K                     | Screw (9/64"-40*7)                          | -   |
| 20              | 8SB36401205K                     | Screw (9/64"-40*12)                         | -   |
| 21              | 5231NG0001                       | Needle Guide                                | -   |
| 22              | 5231NG0002                       | Needle Guide                                | -   |
| 23              | -----                            | Presser Foot                                | 1   |
| 23-A            | -----                            | Presser Foot Guide (See Left Page )         | -   |
| 23-B            | 5231PF0401B                      | Presser Foot Link                           | 1   |
| 23-C            | 5231PF0401C                      | Presser Foot Arm                            | 1   |
| 23-D            | 5231PF0401D                      | Spring                                      | 1   |
| 23-E            | 5231PF0401E                      | Pin                                         | -   |
| 23-F            | 8MB04281007K                     | Screw (CT1237 M4-0.7*10)                    | -   |
| 23-G            | 8MN04281000A                     | Screw (M4-0.7*10)                           | 2   |
| 23-H            | 8MA04280307A                     | Nut (M4-0.7*3)                              | 2   |
| 24              | -----                            | Presser Foot                                | 1   |
| 24-A            | -----                            | Presser Foot Guide (Right) (See Left Page ) | -   |
| 24-B            | -----                            | Presser Foot Guide (Left) (See Left Page )  | -   |
| 24-C            | 5231PF0404C                      | Presser Foot Bracket                        | 1   |
| 24-D            | 5231PF0404D                      | Plate                                       | 1   |
| 24-E            | 5231PF0404E                      | Link                                        | 1   |
| 24-F            | 5231PF0404F                      | Bracket                                     | 2   |
| 24-G            | 5231PF0404G                      | Pin                                         | 2   |
| 24-H            | 5231PF0404H                      | Safety Plate Holder                         | 2   |
| 24-I            | 5231PF0404I                      | Screw (M4.5-0.75*4)                         | 1   |
| 24-J            | 8MB85240607K                     | Screw (M3.5-0.6*6)                          | 4   |
| 25              | 8MB95301107A                     | Screw (M4.5-0.75*12)                        | 1   |
| 26              | 8MB85240406K                     | Screw (M3.5-0.6*4)                          | 1   |
| 27              | 8MB03200304M                     | Screw (M3-0.5*3)                            | 2   |
| 28              | 2310001828                       | Looper Holder                               | 1   |
| 29              | 8SN36400400E                     | Screw (9/64"-40*4)                          | -   |
| 30              | 5231LL0004                       | Retainer Lopper ( For Thick Thread Usage )  | 1   |
| 31              | 8MN04280500C                     | Screw (M4-0.7*5)                            | 1   |
| **32            | 66729-18                         | UO113 #18 Needle                            | 1   |
| 33              | 8SH32440300A                     | Screw (1/8"-44*2.5)                         | -   |
| *34             | 8MB03200405A                     | Screw(M3-0.5*4)                             | 3   |
| *35             | -----                            | Needle Guide                                | 1   |
|                 | *For MN4513-MN4525 Use           |                                             |     |
|                 | ** For MN4512 Bigger Eyelet Hole |                                             |     |

## 19. PARTS LIST FOR TR002 ROLLER SET



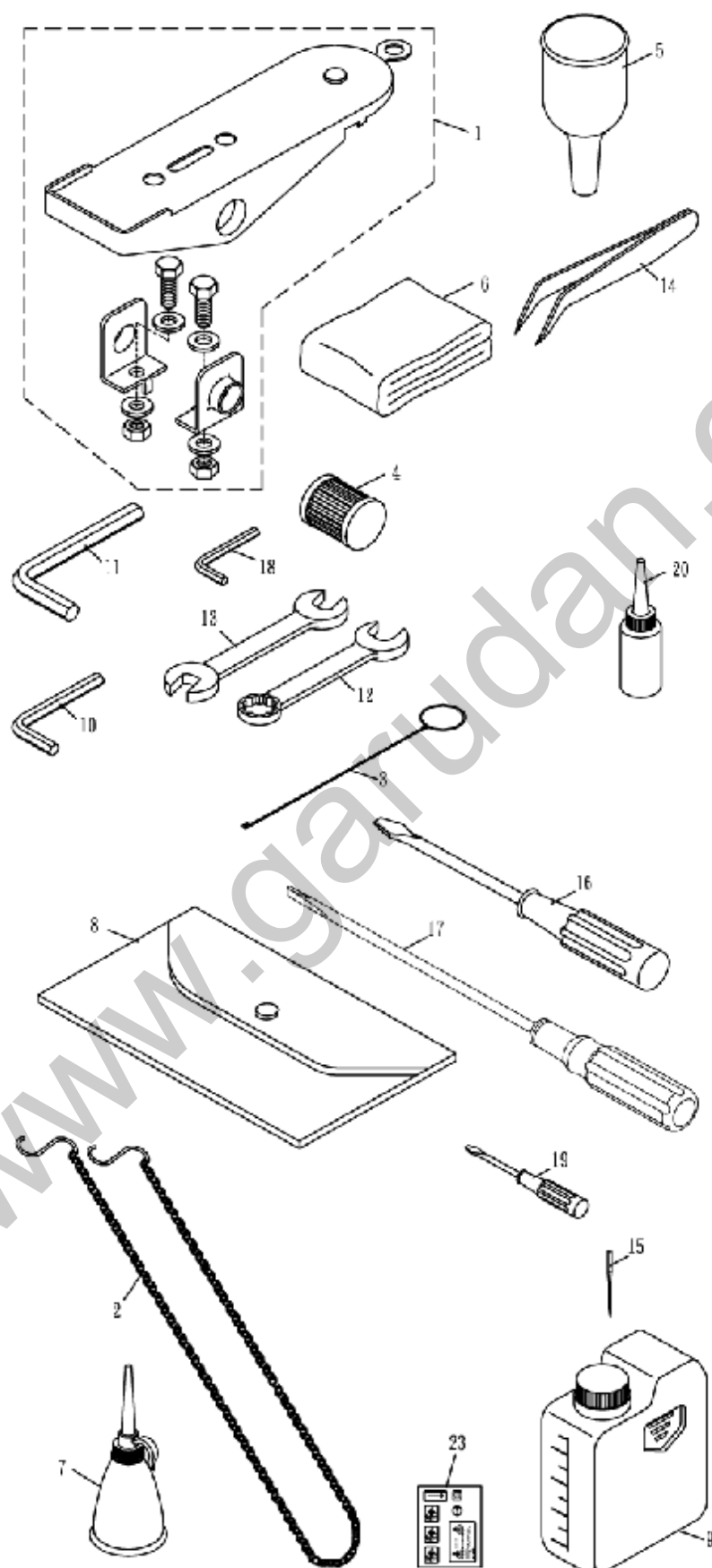
| 19. PARTS LIST FOR TR002 ROLLER SET |              |                            |     |
|-------------------------------------|--------------|----------------------------|-----|
| Ref. No.                            | Parts No.    | Description                | QTY |
| 1                                   | 4TR00201011  | Roller                     | 1   |
| 2                                   | 4TR00201021  | Shaft                      | 1   |
| 3                                   | 90BB1026082  | Ball Bearing               | 6   |
| 4                                   | 4TR0020104   | Elastic Tape Guide         | 3   |
| 5                                   | 4TR0020105   | Roller Seat                | 1   |
| 6                                   | 4TR0020106   | Roller Holder Arm          | 1   |
| 7                                   | 4TR00201071  | Roller                     | 2   |
| 8                                   | 4TR0020108   | Lock Lever                 | 2   |
| 9                                   | 66641        | Spanner 6MM                | 1   |
| 10                                  | 4TR0020110   | Holder Bracket Seat        | 2   |
| 11                                  | 4TR0020111   | Holder Bracket             | 1   |
| 12                                  | 8MA06400510A | Nut                        | 2   |
| 13                                  | 8MM08502013A | Screw (M8-1.25*20)         | 1   |
| 14                                  | 90PW080      | Washer                     | 1   |
| 15                                  | 4TR0020115   | Connecting Block           | 1   |
| 16                                  | 8MN06400600A | Screw (M6-1*6)             | 3   |
| 17                                  | 4TR00201171  | Holder Bracket             | 1   |
| 18                                  | 8SC44401008A | Screw (11/64"-40*10)       | 2   |
| 19                                  | 4TR0020119   | Stud                       | 2   |
| 20                                  | 4TR0020120   | Roller Holder Arm          | 1   |
| 21                                  | 4TR0020121   | Roller Holder Arm          | 1   |
| 22                                  | 2200000910   | Washing                    | 5   |
| 23                                  | 4TR0020123   | Shaft                      | 1   |
| 25                                  | 4TR0020125   | Collar                     | 2   |
| 26                                  | 8MH85240500A | Screw (M3.5-0.6*5)         | 4   |
| 27                                  | 8WE37002400A | Wood Screw                 | 4   |
| 28                                  | 4TR0020128   | Handle                     | 2   |
| 29                                  | 4TR0020129   | Tension Roller Slider Stop | 2   |
| 30                                  | 4TR002A0130  | Roller Asm.                | 2   |
| 31                                  | 4TR002A0131  | Roller Asm.                | 1   |
| 32                                  | 8MH04280400A | Screw (M4-0.7*4)           | 3   |
| 33                                  | 8SC44400812A | Screw (11/64"-40*8)        | 3   |
| 35                                  | 8WK45002900C | Wood Screw (CL450408)      | 5   |

## 20. SUPPORTING BOARD



| 20. SUPPORTING BOARD |                   |                                                    |     |
|----------------------|-------------------|----------------------------------------------------|-----|
| Ref. No.             | Parts No.         | Description                                        | QTY |
| 1                    | 2310002001        | Belt Cover                                         | 1   |
| 2                    | 8MB06405609S      | Screw (M6-1*56)                                    | 2   |
| 3                    | 2310002003        | Belt Cover                                         | 1   |
| 4                    | 8WF03131706A      | Screw                                              | 4   |
| 5                    | 66944             | Rubber Cushion                                     | 4   |
| 6                    | 8MB06406507B      | Bolt (M6-1*65)                                     | 4   |
| 7                    | 2200001504        | Washer                                             | 8   |
| 8                    | 90SW070           | Spring Washer                                      | 4   |
| 9                    | 8MA06400612A      | Nut (M6-1*6)                                       | 8   |
| 10                   | 2200001510        | Washer                                             | 8   |
| 11                   | 2200001511        | Rubber Washer                                      | 4   |
| 12                   | 2310002012        | Supporting Board                                   | 2   |
| 13                   | 8SA79180613A      | Nut (5/16"-18*6) ---                               | 8   |
| 14                   | 8MB06401607M      | Stud (M6-1*16)                                     | 4   |
| 15                   | 8SC79187827B      | Bolt                                               | 4   |
| ●16                  | 66816-2           | Long Table Top Type (12-25)                        | -   |
| 17                   | 66816-3           | Short Table Top Type (1-25)                        | -   |
| ●18                  | 66816-4           | Semi-Submerged Type (1-25)                         | -   |
| ●19                  | 66816-5           | Semi-Submerged Type With "PS001"Devic (PS001)      | -   |
| ●20                  | FS004             | Semi-Submerged Type Asm.(1-25)                     | -   |
| 21                   | FS005             | Short Table Top Type Asm. (1-25)                   | -   |
| ●22                  | FS006             | Long Table Top Type Asm. (12-25)                   | -   |
| ●23                  | FS007             | Semi-Submerged Type With "PS001"Devic Asm. (PS001) | -   |
|                      | ●Custom-made Item |                                                    |     |

## 21. ACCESSORIES



| 21. ACCESSORIES |            |                                 |     |
|-----------------|------------|---------------------------------|-----|
| Ref. No.        | Parts No.  | Description                     | QTY |
| 1               | 66700      | Pedel Complete                  | 1   |
| 2               | 66695      | Chain Set                       | 1   |
| 3               | 66840      | Threading Bar                   | 1   |
| 4               | 2100001521 | Oil Filter                      | 1   |
| 5               | 66720      | Oil Funnel                      | 1   |
| 6               | 66846      | Mechine Cover                   | 1   |
| 7               | 66721      | Oiler                           | 1   |
| 8               | 66831      | Bag                             | 1   |
| 9               | 66715      | Oil Container                   | 1   |
| 10              | 66636      | Spanner 3MM                     | 1   |
| 11              | 66637      | Spanner 4MM                     | 1   |
| 12              | 66612      | Wrench 10MM                     | 1   |
| 13              | 66613      | Wrench 7/8MM                    | 1   |
| 14              | 66690      | Tweezer                         | 1   |
| 15              | 66729-14-5 | UO113 #12 Retainer Needle       | 1   |
| 16              | 66665      | Screw Driver (Large)            | 1   |
| 17              | 66671      | Wooden Handle Flat Screw Driver | 1   |
| 18              | 66639      | Spanner 1.5MM                   | 1   |
| 19              | 66667      | Screw Driver (Small)            | 1   |
| 20              | 66722      | Silicon Oil                     | 1   |
| 23              | 66452      | Paster                          | 1   |

## 22. GAUGE PARTS LIST

| MODEL  | GAUGE SIZE<br>(INCH)                | NEEDLE<br>HOLDER | THREAD<br>GUIDE | PRESSER<br>FOOT ASM. | NEEDLE<br>PLATE | FEED DOG   | LOOPER<br>HOLDER | RETAINER BAR | NEEDLE<br>GUARD | RETAINER<br>LOOPER | LOOPER     |
|--------|-------------------------------------|------------------|-----------------|----------------------|-----------------|------------|------------------|--------------|-----------------|--------------------|------------|
| MT4501 |                                     | 5231NC00241      |                 | 5231PF0101           | 5231TP0023      | 5231FD0023 | 2310001828       | 2310002241   | 5231NG0001      | 5231UL0001         | 5231LL0001 |
|        | 3/4<br>(064)                        | 5231NC00011      | 23100022011     | 5231PF0401           | 5231TP0001      | 5231FD0001 | 2310002221       | 2310002241   |                 |                    |            |
|        | 1<br>(085)                          | 5231NC00021      |                 | 5231PF0402           | 5231TP0002      | 5231FD0002 | 2310002222       | 2310002242   |                 |                    |            |
|        | 1-1/8<br>(095)                      | 5231NC00031      |                 | 5231PF0403           | 5231TP0003      | 5231FD0003 | 2310002223       | 2310002243   |                 |                    |            |
|        | 1-1/4<br>(106)                      | 5231NC00041      |                 | 5231PF0404           | 5231TP0004      | 5231FD0004 | 2310002224       | 2310002244   |                 |                    |            |
| MT4504 | 1-1/2<br>(127)                      | 5231NC00051      | 23100022021     | 5231PF0405           | 5231TP0005      | 5231FD0005 | 2310002225       | 2310002245   | 5231NG0002      | 5231UL0001         | 5231LL0001 |
|        | 1/4-3/4-1/4<br>(064-191)            | 5231NC00071      | 23100022041     | 5231PF0406           | 5231TP0013      | 5231FD0013 | 2310002227       | 2310002247   |                 |                    |            |
|        | 3/16-3/4-3/16<br>(048-191)          | 5231NC00221      | 23100022021     | 5231PF0407           | 5231TP0014      | 5231FD0014 | 2310002226       | 2310002246   |                 |                    |            |
|        | 1/4-1-1/4<br>(064-254)              | 5231NC00101      | 23100022051     | 5231PF0408           | 5231TP0015      | 5231FD0015 | 2310002230       | 2310002250   |                 |                    |            |
|        | 3/16-1-3/16<br>(048-254)            | 5231NC00231      | 23100022031     | 5231PF0409           | 5231TP0016      | 5231FD0016 | 2310002234       | 2310002253   |                 |                    |            |
| MT4504 | 1/4-1/2-1/4<br>(064-127)            | 5231NC00101      | 23100022051     | 5231PF0410           | 5231TP0017      | 5231FD0017 | 2310002230       | 2310002250   | 5231NG0001      | 5231UL0001         | 5231LL0001 |
|        | 1/4-1/8<br>MULTI-NEEDLE<br>DISTANCE | 5231NC00121      | 23100022071     | 5231PF0415           | 5231TP0012      | 5231FD0012 | 2310002231       | 2310002252   |                 |                    |            |
|        |                                     |                  |                 | 5231PF1302           |                 |            |                  |              |                 |                    |            |



22. MT4500 GAUGE PARTS LIST

| MODEL            | GAUGE SIZE<br>(INCH) | NEEDLE<br>HOLDER | THREAD<br>GUIDE | PRESSER<br>FOOT ASM.     | NEEDLE<br>PLATE          | FEED DOG   | LOOPER<br>HOLDER | RETAINER BAR | NEEDLE<br>GUARD | RETAINER<br>LOOPER | LOOPER     |
|------------------|----------------------|------------------|-----------------|--------------------------|--------------------------|------------|------------------|--------------|-----------------|--------------------|------------|
| MT4504<br>/UT04A | 3/4<br>(064)         | 5231NC00011      |                 | 5231PF0401<br>5231PF0402 | 5231TP001T               | 5231FD0001 | 2310002221       | 2310002241   | 5231NG0001      | 5231UL0001         | 5231LL0001 |
| MT4504<br>/UT04B | 1<br>(085)           | 5231NC00021      | 23100022011     | 5231PF0403<br>5231PF0404 | 5231TP002T               | 5231FD0002 | 2310002222       | 2310002242   |                 |                    |            |
| MT4504<br>/UT04C | 1-1/8<br>(095)       | 5231NC00031      |                 | 5231PF0405<br>5231PF0410 | 5231TP003T               | 5231FD0003 | 2310002223       | 2310002243   |                 |                    |            |
| MT4504<br>/UT04S | 1-1/2<br>(127)       | 5231NC00051      | 23100022021     | 5231PF0408<br>5231PF0409 | 5231TP005T               | 5231FD0005 | 2310002225       | 2310002245   |                 |                    |            |
| MT4506           | 1/4<br>(064)         | 5231NC00091      | 23100022021     | 5231PF0601               | 5231TP0009               | 5231FD0009 | 2310002229       | 2310002249   |                 |                    |            |
|                  | 3/8<br>(095)         | 5231NC00201      | 23100022051     | 5231PF0602               | 5231TP0021               | 5231FD0021 | 2310002240       | 2310002260   |                 |                    |            |
|                  | 1/3<br>(085)         | 5231NC00211      | 23100022031     | 5231PF0603               | 5231TP0022               | 5231FD0022 | 2310002233       | 2310002261   |                 |                    |            |
|                  | (064-119)            | 5231NC0026       | 23100022031     | 5231PF0604               | 5231TP0026               | 5231FD0026 | 2310001828       | 2310002263   |                 |                    |            |
| MT4506<br>/UT06A | 1/4<br>(064)         | 5231NC00091      | 23100022021     | 5231PF0601               | 5231TP009T               | 5231FD0009 | 2310002229       | 2310002249   |                 |                    |            |
| MT4509<br>/UT09A | 1/4<br>(064)         | 5231NC00101      | 23100022051     | 5231PF0901               | 5231TP0010<br>5231TP010T | 5231FD0010 | 2310002230       | 2310002250   |                 |                    |            |
| MT4512           | 3/16<br>(048)        | 5231NC00061      | 23100022031     | 5231PF1201               | 5231TP0027               | 5231FD0027 | 2310002226       | 2310002246   | 5231NG0002      |                    |            |

22. MT4500 GAUGE PARTS LIST

| MODEL            | GAUGE SIZE<br>(INCH)                    | NEEDLE<br>HOLDER | THREAD<br>GUIDE | PRESSER<br>FOOT ASM. | NEEDLE PLATE                     | FEED DOG   | LOOPER<br>HOLDER | RETAINER BAR | NEEDLE<br>GUARD | RETAINER<br>LOOPER | LOOPER     |
|------------------|-----------------------------------------|------------------|-----------------|----------------------|----------------------------------|------------|------------------|--------------|-----------------|--------------------|------------|
| MT4512           | 1/4<br>(.064)                           | 5231NC00071      | 23100022041     | 5231PF1202           | 5231TP0007                       | 5231FD0007 | 2310002227       | 2310002247   | 5231NG0001      |                    | 5231LL0001 |
|                  |                                         |                  |                 |                      | 5231TP0024<br>BIGGER EYELET HOLE |            |                  |              |                 |                    |            |
| MT4512<br>/UT12A | 5mm<br>(.050)                           | 5231NC00081      | 23100022031     | 5231PF1203           | 5231TP0008                       | 5231FD0008 | 2310002228       | 2310002248   | 5231NG0002      |                    | 5231LL0001 |
|                  |                                         |                  |                 |                      | 5231TP0077                       | 5231FD0007 |                  |              |                 |                    |            |
| MT4513           | 1/4<br>(.064)                           | 5231NC00071      | 23100022041     | 5231PF1202           | 5231TP0011                       | 5231FD0011 | 2310002231       | 2310002251   | 5231NG0001      | 5231UL0001         | 5231LL0002 |
|                  |                                         |                  |                 |                      | 5231TP0012                       | 5231FD0012 |                  |              |                 |                    |            |
| MT4517           | MULTI-NEEDLE<br>DISTANCE<br>(.064-.032) | 5231NC00121      | 23100022071     | 5231PF1302           | 5231TP0020                       | 5231FD0020 | 23100022391      | 2310002252   | 5231NG0003      |                    | 5231LL0003 |
|                  |                                         |                  |                 |                      | 5231TP020T                       |            |                  |              |                 |                    |            |
| MT4517<br>/UT17S | 1/8<br>(.032)                           | 5231NC00191      | 23100022091     | 5231PF1701           | 5231TP0019                       | 5231FD0019 | 23100022381      | 2310002259   | 5231NG0004      |                    | 5231LL0003 |
|                  |                                         |                  |                 |                      | 5231TP0018                       | 5231FD0018 |                  |              |                 |                    |            |
| MT4523           | 1/8<br>(.032)                           | 5231NC00181      | 23100022081     | 5231PF2301           | 5231TP019T                       | 5231FD0019 | 2310002280       | 2310002262   | 5231NG0005      |                    | 5231LL0003 |
|                  |                                         |                  |                 |                      | 5231TP0025                       | 5231FD0025 |                  |              |                 |                    |            |
| MT4525           | 1/8<br>(.032)                           | 5231NC0025       | 2310002210      | 5231PF2501           | 5231TP0025                       | 5231FD0025 | 2310002280       | 2310002262   |                 |                    |            |

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