

TW1- / TW2-898/S/D2

PARTSLIST



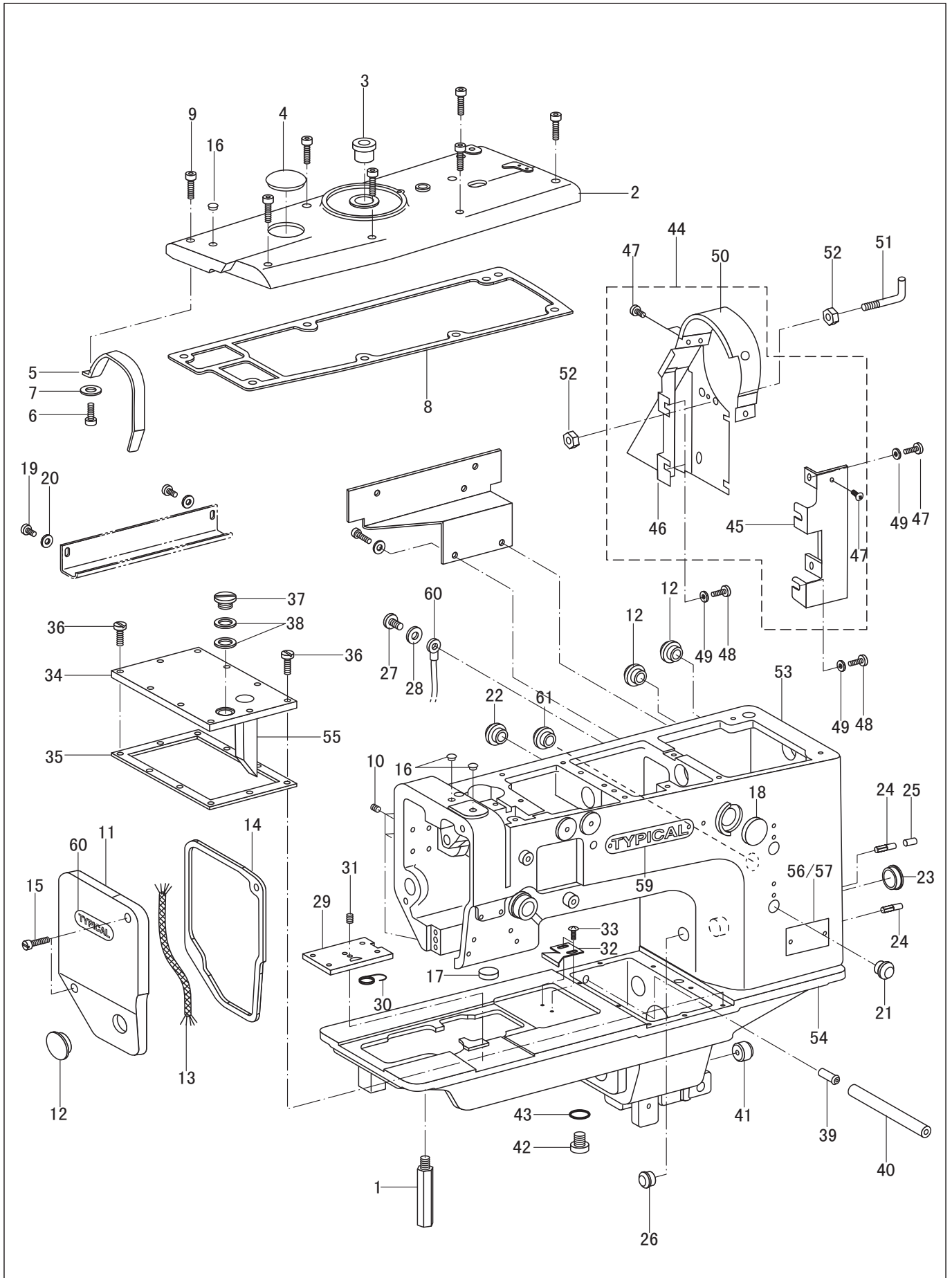
HIGH SPEED COMPOUND FEED AND
WALKING FOOT LOCKSTITCH SEWING MACHINE

TYPICAL

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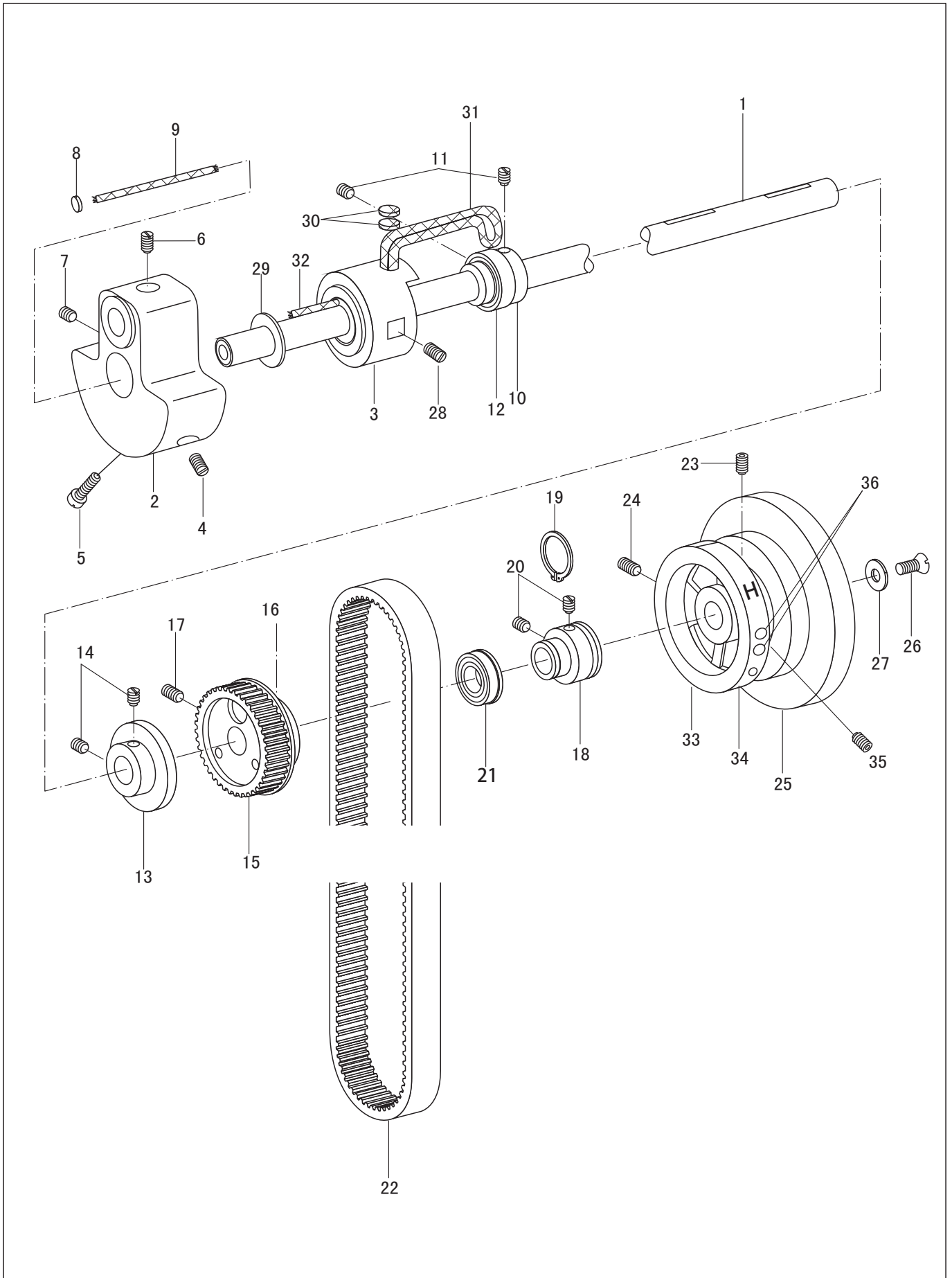
1. Machine body



1. Machine body

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|--------------|----------------------------|---------|------------|--------------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF1-021 | Support bar | 1 | 1 | |
| 2 | 200WF1-005 | Top cover | 1 | 1 | |
| 3 | 93WF1-001 | Bushing | 1 | 1 | |
| 4 | 93WF1-002 | Rubber cap, ϕ 32.8 | 1 | 1 | |
| 5 | 200WF1-006 | Thread take-up lever cover | 1 | 1 | |
| 6 | 93WF1-024 | Bolt | 1 | 1 | |
| 7 | | Washer | 1 | 1 | GB/T 97.1 4 |
| 8 | 93WF1-003 | Sheet packing | 1 | 1 | |
| 9 | 93WF1-026 | Bolt | 7 | 7 | |
| 10 | 93WF1-027 | Set screw | 4 | 4 | |
| 11 | 93WF1-028 | Face plate | 1 | 1 | |
| 12 | 93WF1-004 | Rubber cap, ϕ 20.5 | 2 | 2 | L=130 |
| 13 | | Oil wick | 1 | 1 | |
| 14 | 93WF1-005 | Packing | 1 | 1 | |
| 15 | 93WF1-029 | Bolt | 2 | 2 | |
| 16 | 93WF1-006 | Rubber cap, ϕ 9.5 | 3 | 3 | |
| 17 | 93WF1-007 | Rubber cap | 1 | 1 | |
| 18 | 93WF1-008 | Oil window | 1 | 1 | |
| 19 | 13WF1-008 | Screw | - | 2 | SM9/64"×40 |
| 20 | 93WF1-009 | Washer | - | 2 | |
| 21 | 93WF1-049 | Rubber cap | 1 | - | |
| 22 | 93WF1-048 | Rubber cap | 1 | - | |
| 23 | 93WF1-010 | Bushing | 2 | 2 | |
| 24 | 2KT3-006 | Pin | 2 | 2 | 140063-0 |
| 25 | 2KT3-007 | Nylon tube | 1 | 1 | 153132-0 |
| 26 | 93WF1-011 | Rubber cap, ϕ 10.5 | 1 | 1 | |
| 27 | | Screw | - | 1 | GB/T 818 M4×6 |
| 28 | | Washer | - | 1 | GB/T 97.1 4 |
| 29 | 93WF1-032 | Slide plate | 1 | 1 | |
| 30 | 93WF1-012 | Spring | 1 | 1 | |
| 31 | | Set screw | 1 | 1 | GB/T 77 M4×5 |
| 32 | 93WF1-013 | Stopper | 1 | 1 | |
| 33 | 1WF1-026 | Screw | 2 | 2 | SM9/64"×40 |
| 34 | 93WF1-034 | Upper cover assy. | 1 | 1 | |
| 35 | 93WF1-014 | Sheet packing | 1 | 1 | |
| 36 | 93WF1-024 | Bolt | 10 | 10 | |
| 37 | 93WF1-015 | Screw | 1 | 1 | |
| 38 | 93WF1-016 | Packing | 2 | 2 | |
| 39 | 93WF1-017 | Pipe | 1 | 1 | |
| 40 | | Tube | 1 | 1 | L=120 |
| 41 | 93WF1-018 | Oil cap | 1 | 1 | |
| 42 | 93WF1-019 | Screw | 1 | 1 | |
| 43 | | O-ring | 1 | 1 | 6.9×1.8A GB 3452.1 |
| 44 | 200WF24-001 | Belt cover set | 1 | 1 | |
| 45 | 200WF24-001a | Belt cover, L | 1 | 1 | |
| 46 | 200WF24-001b | Belt cover, R | 1 | 1 | |
| 47 | 93WF1-058 | Screw | 5 | 5 | |
| 48 | | Bolt | 4 | 4 | GB/T 70.1 M6×10 |
| 49 | | Washer | 4 | 4 | GB/T 97.1 6 |
| 50 | 200WF24-001C | Belt cover, U | 1 | 1 | |
| 51 | 93WF1-020 | Supporting rod | - | 1 | |
| 52 | | Nut | - | 2 | GB/T 6172 M6 |
| 53 | 200WF1-001 | Machine boy | 1 | 1 | |
| 54 | 200WF1-002 | Machine bed | 1 | 1 | |
| 55 | 93WF1-050 | Oil gauge | 1 | 1 | |
| 56 | 200WF1-003 | Model label | 1 | - | |
| 57 | 200WF1-004 | Model label | 1 | - | |
| 58 | 93WF1-052 | Brand label | 1 | 1 | |
| 59 | 16WF2-053 | Brand label | 1 | 1 | |
| 60 | 117WF1-006A | Ground wire | - | 1 | |
| 61 | 93WF1-048 | Rubber plug | 1 | - | |

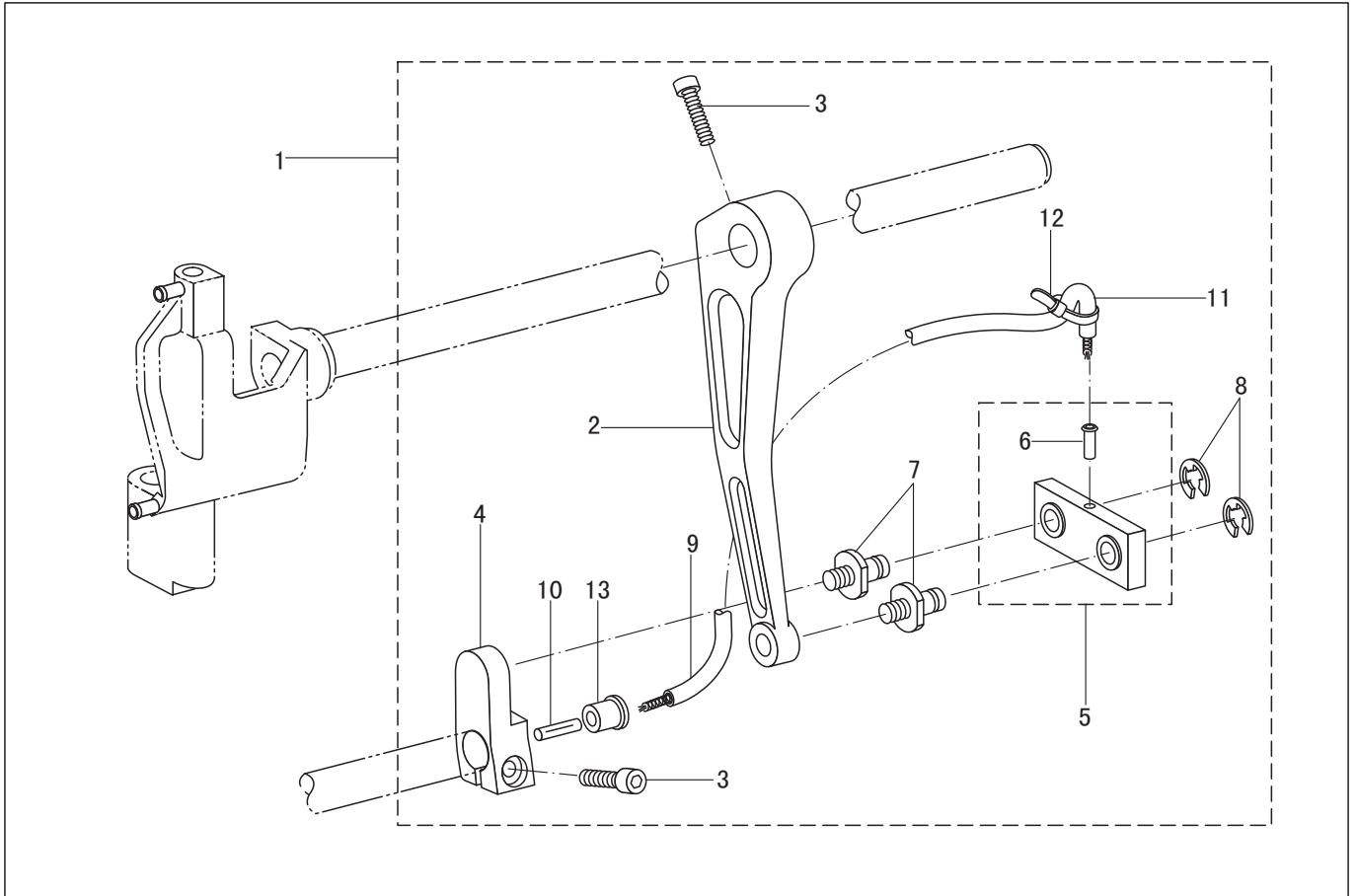
2. Upper shaft mechanism



2. Upper shaft mechanism

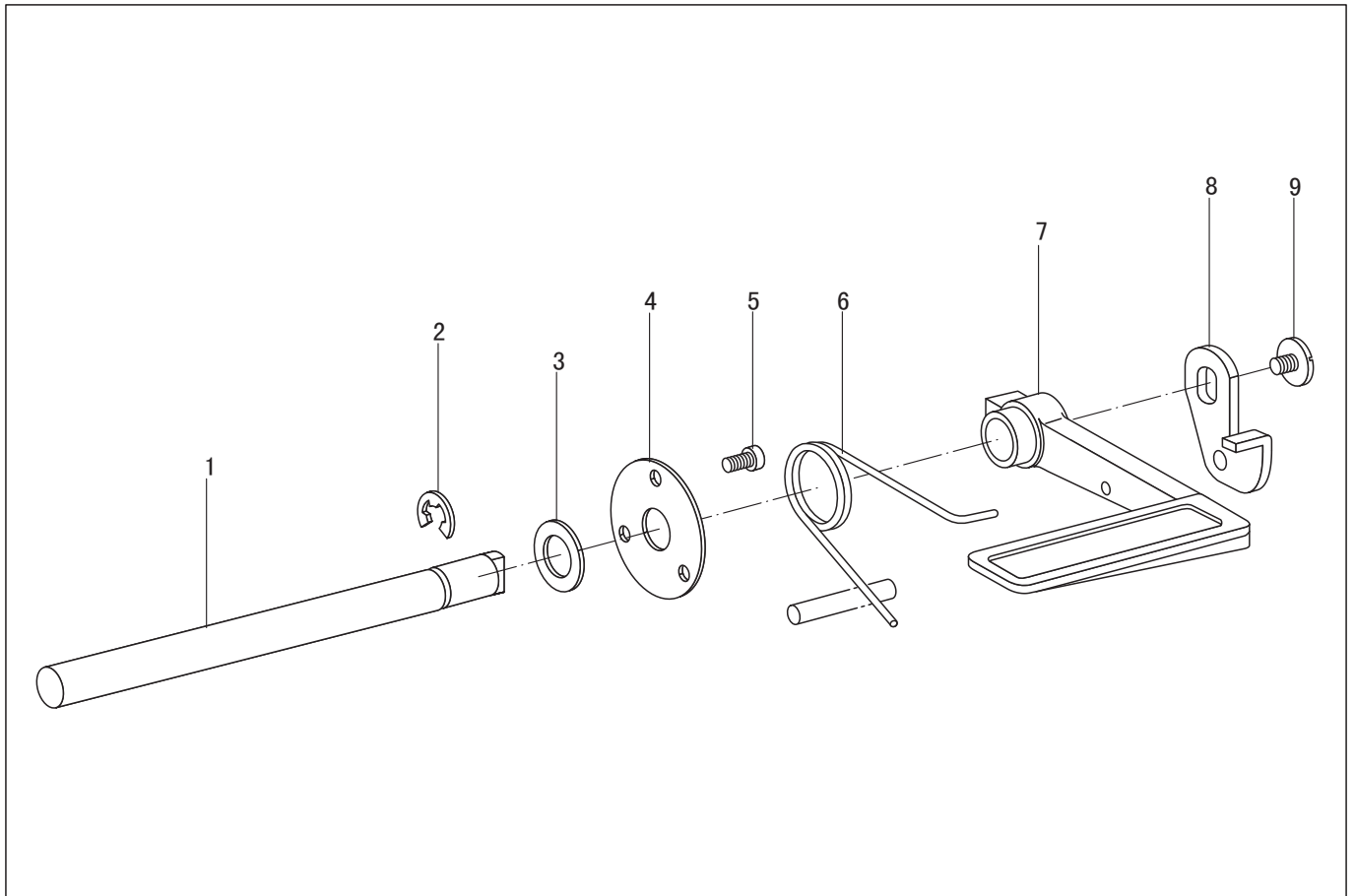
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|----------------------------|---------|------------|--------------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 200WF2-001 | Upper shaft | 1 | 1 | |
| 2 | 200WF2-002 | Needle bar cam | 1 | 1 | |
| 3 | 200WF2-003 | Bushing, L | 1 | 1 | |
| 4 | 200WF2-004 | Screw | 1 | 1 | |
| 5 | 200WF2-005 | Set screw | 1 | 1 | |
| 6 | 200WF2-006 | Bolt | 1 | 1 | |
| 7 | 14KT2-023 | Set screw | 1 | 1 | |
| 8 | 200WF2-007 | Rubber cap | 1 | 1 | |
| 9 | | Oil wick | 1 | 1 | |
| 10 | 93WF2-011 | Collar, middle upper shaft | 1 | 1 | |
| 11 | 93WF1-027 | Screw | 6 | 6 | |
| 12 | 93WF2-012 | Bearing | 1 | 1 | 62/22-2Z 22×50×14 |
| 13 | 93WF2-013 | Collar, bobbin winder | 1 | 1 | |
| 14 | 93WF2-008 | Screw | 2 | 2 | |
| 15 | 93WF2-002 | Upper belt pulley | 1 | 1 | |
| 16 | 93WF2-014 | Set screw | 1 | 1 | |
| 17 | 93WF2-015 | Set screw | 1 | 1 | |
| 18 | 93WF2-016 | Bushing, R | 1 | 1 | |
| 19 | | Retaining ring | 1 | 1 | GB 894.2 20 |
| 20 | 93WF1-027 | Screw | 2 | 2 | |
| 21 | 93WF2-018 | Bearing | 1 | 1 | 6034-2ZNR 20×52×15 |
| 22 | 93WF2-003 | Timing belt | 1 | 1 | |
| 23 | 93WF2-014 | Set screw | 1 | 1 | |
| 24 | 93WF2-015 | Screw | 1 | 1 | |
| 25 | 200WF2-008 | Machine pulley | 1 | 1 | |
| 26 | 13WF1-051 | Screw | 1 | 1 | |
| 27 | 13WF1-050 | Washer | 1 | 1 | |
| 28 | 93WF1-027 | Screw | 1 | 1 | |
| 29 | 200WF2-009 | Washer | 1 | 1 | |
| 30 | 200WF2-010 | Felt | 1 | 1 | |
| 31 | | Oil wick | 1 | 1 | |
| 32 | | Oil wick | 1 | 1 | |
| 33 | 200WF2-008A | Rotation gauge ring | 1 | 1 | |
| 34 | 200WF2-011 | Rotation gauge | 1 | 1 | |
| 35 | | Screw | 1 | 1 | GB/T 80 M5×10 |
| 36 | | Rivet | 3 | 3 | |

3. Upper feed mechanism



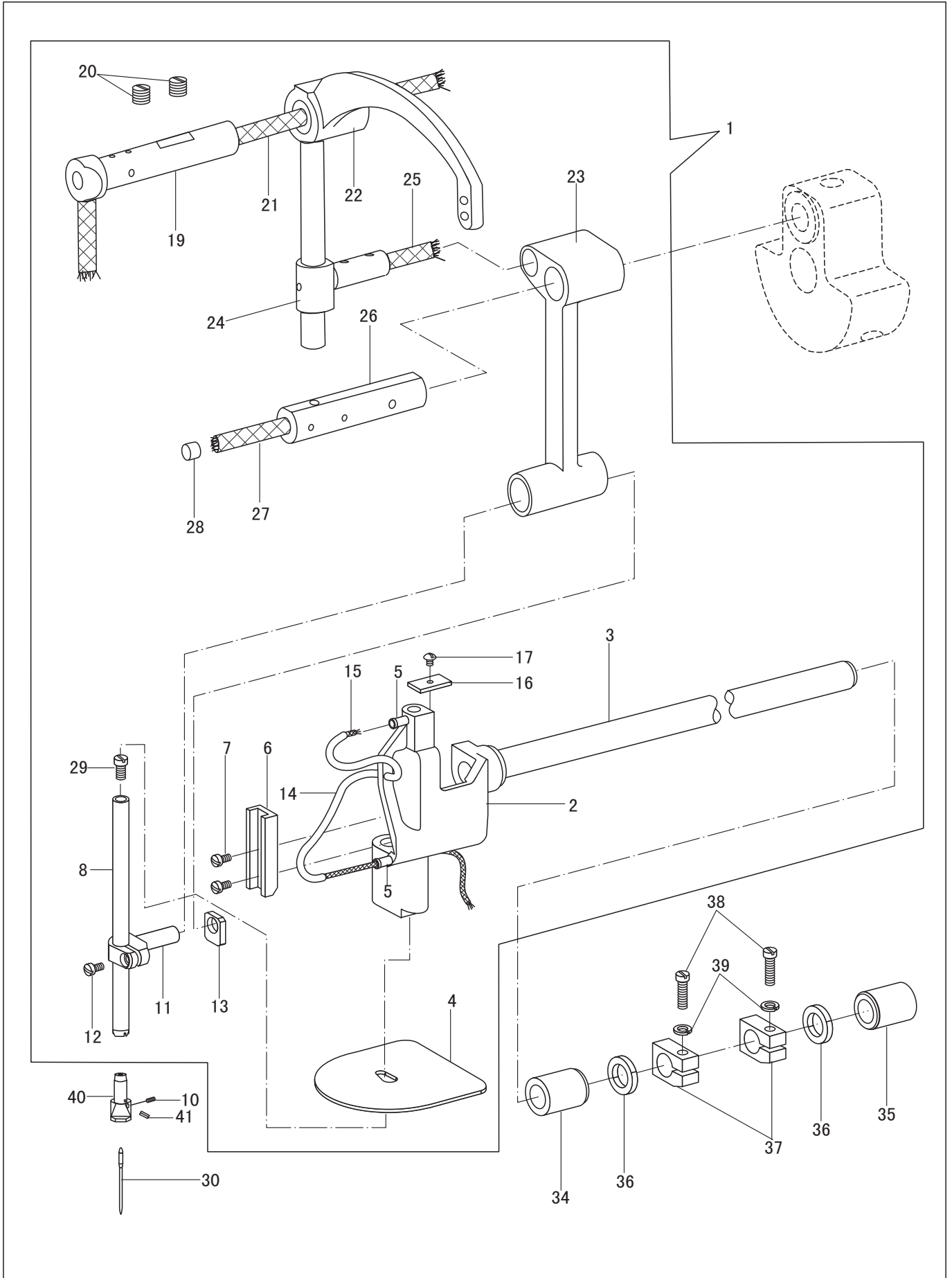
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-----------|---------------------------------|------------|----------|
| | | | TW1-899-D2 | |
| 1 | 93WF3-003 | Upper feed connecting rod assy. | 1 | |
| 2 | 93WF3-004 | Upper feed connecting rod | 1 | |
| 3 | 93WF3-005 | Bolt | 2 | |
| 4 | 93WF3-006 | Connecting lever | 1 | |
| 5 | 93WF3-007 | Upper feed connection assy. | 1 | |
| 6 | 93WF3-001 | Pipe | 1 | |
| 7 | 93WF3-002 | Shoulder screw | 2 | |
| 8 | | Retaining ring | 2 | GB 896 8 |
| 9 | | Tube | 1 | L=250 |
| 10 | | Felt | 1 | 3×8 |
| 11 | | Oil wick | 1 | L=170 |
| 12 | 258753 | Fastening band | 1 | |
| 13 | 93WF3-010 | Rubber cap | 1 | |

4. Reverse feed mechanism



| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|--------------------------------|---------|------------|----------------------------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF4-003 | Shaft, Reverse stitching lever | 1 | 1 | GB/T 70.1 M4×6 100511-003 |
| 2 | 93WF4-004 | Retaining ring | 1 | 1 | |
| 3 | 93WF4-001 | Washer | 1 | 1 | |
| 4 | 93WF4-002 | Spacer | 1 | 1 | |
| 5 | | Bolt | 3 | 3 | |
| 6 | 21WF3-043 | Spring | 1 | 1 | |
| 7 | 62WF-003 | Reverse stitching lever | 1 | 1 | |
| 8 | 62WF5-024E | Reverse stitching lever plate | 1 | 1 | |
| 9 | 2KT3-005 | Screw | 1 | - | |

5. Needle bar and thread take-up mechanism (TW1-899S)



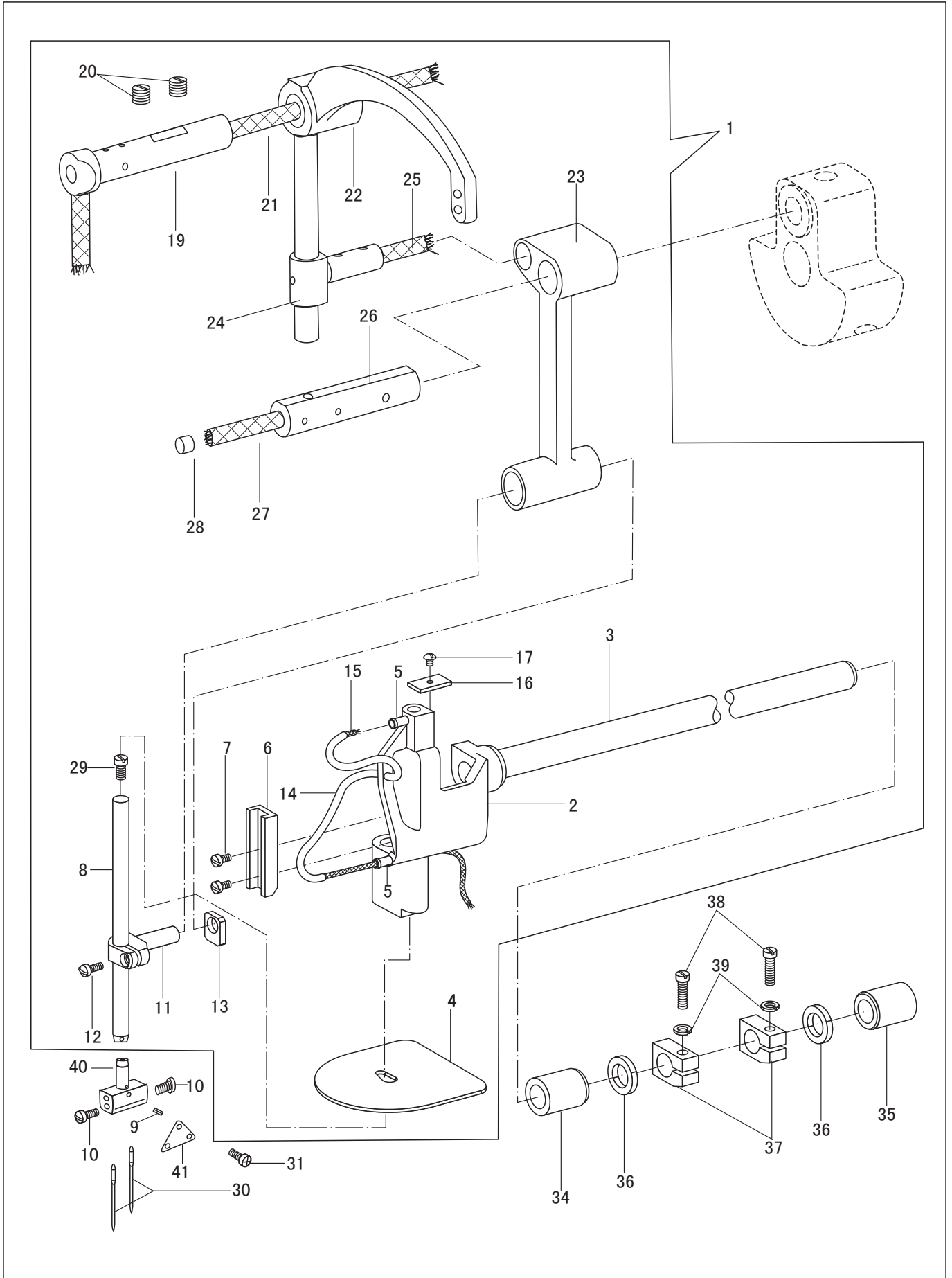
5. Needle bar and thread take-up mechanism (TW1-899S)

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|--------------------------------|----------|-------------|-------------|
| | | | TW1-899S | TW1-899S-D2 | |
| 1 | | Needle bar bracket assy. | 1 | 1 | |
| 2 | 200WF5-001 | Needle bar bracket | 1 | 1 | |
| 3 | 93WF5-011 | Needle bar bracket shaft | 1 | 1 | |
| 4 | 93WF5-001 | Rubber seal sheet | 1 | 1 | |
| 5 | 93WF3-001 | Pipe | 2 | 2 | |
| 6 | 93WF5-012 | Guide rail | 1 | 1 | |
| 7 | 491115 | Screw | 2 | 2 | |
| 8 | 200WF5-002 | Needle bar | 1 | 1 | |
| 10 | 179WF5-004 | Set screw | 1 | 1 | |
| 11 | 93WF5-015 | Needle bar clamp | 1 | 1 | |
| 12 | 13WF3-018 | Screw | 1 | 1 | |
| 13 | 200WF5-003 | Slide block, N-bar clamp | 1 | 1 | |
| 14 | | Oil tube | 1 | 1 | L=110 |
| 15 | | Oil wick | 1 | 1 | L=700 |
| 16 | 93WF5-003 | Sponge | 1 | 1 | |
| 17 | | Screw | 1 | 1 | GB/T65 M4X6 |
| 19 | 200WF5-004 | Thread take-up lever shaft | 1 | 1 | |
| 20 | 93WF1-027 | Screw | 2 | 2 | |
| 21 | | Oil wick | 1 | 1 | |
| 22 | 200WF5-005 | Thread take-up lever | 1 | 1 | |
| 23 | 200WF5-006 | Needle bar link | 1 | 1 | |
| 24 | 215029 | Slide bushing, T-take-up lever | 1 | 1 | |
| 25 | | Oil wick | 1 | 1 | |
| 26 | 16WF1-015 | Needle bar crank rod assy. | 1 | 1 | |
| 27 | | Oil wick | 1 | 1 | |
| 28 | 49WF1-006 | Rubber cap | 1 | 1 | |
| 29 | 200WF5-009 | Screw | 1 | 1 | |
| 30 | 200WF5-007 | Needle | 1 | 1 | DPX17 23# |
| 34 | 93WF5-006 | Bushing | 1 | 1 | |
| 35 | 93WF5-007 | Bushing | 1 | 1 | |
| 36 | 93WF5-008 | Ring | 2 | 2 | |
| 37 | 93WF5-031 | Collar | 1 | 1 | |
| 38 | 93WF1-029 | Bolt | 2 | 2 | |
| 39 | | Washer, spring | 2 | 2 | GB 859 5 |
| 40 | 200WF5-008 | Needle clamp | 1 | 1 | |
| 41 | 179WF5-003 | Pin | 5 | 5 | |

5. Needle bar and thread take-up mechanism (TW1-899)

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|--------------------------------|---------|------------|-------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | | Needle bar bracket assy. | 1 | 1 | |
| 2 | 200WF5-001 | Needle bar bracket | 1 | 1 | |
| 3 | 93WF5-011 | Needle bar bracket shaft | 1 | 1 | |
| 4 | 93WF5-001 | Rubber seal sheet | 1 | 1 | |
| 5 | 93WF3-001 | Pipe | 2 | 2 | |
| 6 | 93WF5-012 | Guide rail | 1 | 1 | |
| 7 | 491115 | Screw | 2 | 2 | |
| 8 | 200WF5-002A | Needle bar | 1 | 1 | |
| 9 | 93WF5-002 | Thread guide | 1 | 1 | |
| 10 | 17WF5-037 | Set screw | 1 | 1 | |
| 11 | 93WF5-015 | Needle bar clamp | 1 | 1 | |
| 12 | 13WF3-018 | Screw | 1 | 1 | |
| 13 | 200WF5-003 | Slide block, N-bar clamp | 1 | 1 | |
| 14 | | Oil tube | 1 | 1 | L=110 |
| 15 | | Oil wick | 1 | 1 | L=700 |
| 16 | 93WF5-003 | Sponge | 1 | 1 | |
| 17 | | Screw | 1 | 1 | GB/T65 M4X6 |
| 19 | 200WF5-004 | Thread take-up lever shaft | 1 | 1 | |
| 20 | 93WF1-027 | Screw | 2 | 2 | |
| 21 | | Oil wick | 1 | 1 | |
| 22 | 200WF5-005 | Thread take-up lever | 1 | 1 | |
| 23 | 200WF5-006 | Needle bar link | 1 | 1 | |
| 24 | 215029 | Slide bushing, T-take-up lever | 1 | 1 | |
| 25 | | Oil wick | 1 | 1 | |
| 26 | 16WF1-015 | Needle bar crank rod assy. | 1 | 1 | |
| 27 | | Oil wick | 1 | 1 | |
| 28 | 49WF1-006 | Rubber cap | 1 | 1 | |
| 29 | 200WF5-009 | Screw | 1 | 1 | |
| 30 | 200WF5-007 | Needle | 1 | 1 | DPX17 23# |
| 34 | 93WF5-006 | Bushing | 1 | 1 | |
| 35 | 93WF5-007 | Bushing | 1 | 1 | |
| 36 | 93WF5-008 | Ring | 2 | 2 | |
| 37 | 93WF5-031 | Collar | 1 | 1 | |
| 38 | 93WF1-029 | Bolt | 2 | 2 | |
| 39 | | Washer, spring | 2 | 2 | GB 859 5 |

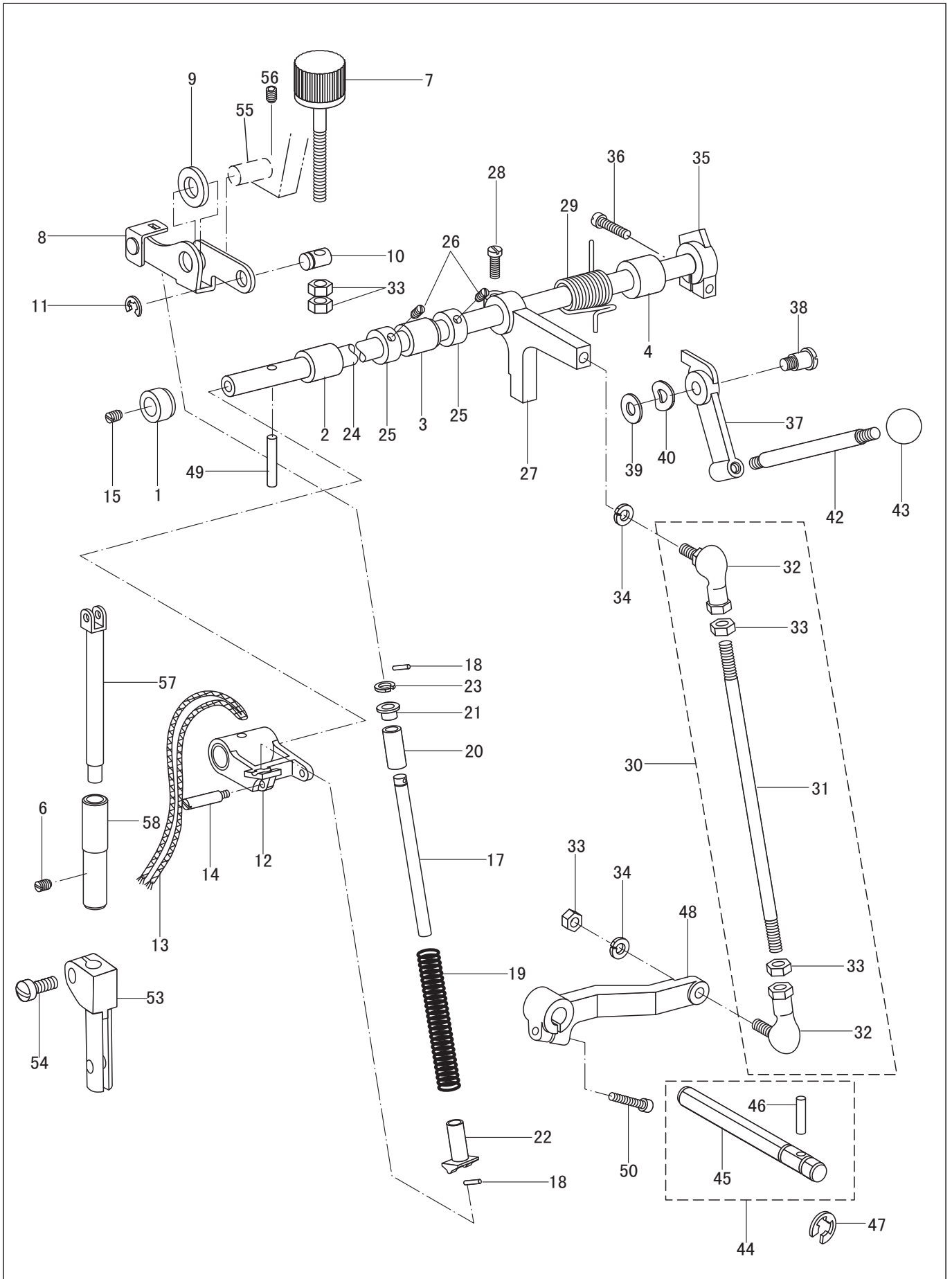
5. Needle bar and thread take-up mechanism (TW2-899/S)



5. Needle bar and thread take-up mechanism (TW2-899/S)

| NO. | PARTS NO. | PARTS NAME | QTY | | | | REMARK |
|----------|-------------|--------------------------------|---------|----------|------------|-------------|-------------|
| | | | TW2-899 | TW2-899S | TW2-899-D2 | TW2-899S-D2 | |
| 1 | | Needle bar bracket assy. | 1 | 1 | 1 | 1 | |
| 2 | 200WF5-001 | Needle bar bracket | 1 | 1 | 1 | 1 | |
| 3 | 93WF5-011 | Needle bar bracket shaft | 1 | 1 | 1 | 1 | |
| 4 | 93WF5-001 | Rubber seal sheet | 1 | 1 | 1 | 1 | |
| 5 | 93WF3-001 | Pipe | 2 | 2 | 2 | 2 | |
| 6 | 93WF5-012 | Guide rail | 1 | 1 | 1 | 1 | |
| 7 | 491115 | Screw | 2 | 2 | 2 | 2 | |
| 8 | 200WF5-002 | Needle bar | 1 | 1 | 1 | 1 | |
| 9 | 179WF5-003 | Pin | 5 | 5 | 5 | 5 | |
| 10 | 179WF5-004 | Set screw | 2 | 2 | 2 | 2 | |
| 11 | 93WF5-015 | Needle bar clamp | 1 | 1 | 1 | 1 | |
| 12 | 13WF3-018 | Screw | 1 | 1 | 1 | 1 | |
| 13 | 200WF5-003 | Slide block, N-bar clamp | 1 | 1 | 1 | 1 | |
| 14 | | Oil tube | 1 | 1 | 1 | 1 | L=110 |
| 15 | | Oil wick | 1 | 1 | 1 | 1 | L=700 |
| 16 | 93WF5-003 | Sponge | 1 | 1 | 1 | 1 | |
| 17 | | Screw | 1 | 1 | 1 | 1 | GB/T65 M4X6 |
| 19 | 200WF5-004 | Thread take-up lever shaft | 1 | 1 | 1 | 1 | |
| 20 | 93WF1-027 | Screw | 2 | 2 | 2 | 2 | |
| 21 | | Oil wick | 1 | 1 | 1 | 1 | |
| 22 | 200WF5-005 | Thread take-up lever | 1 | 1 | 1 | 1 | |
| 23 | 200WF5-006 | Needle bar link | 1 | 1 | 1 | 1 | |
| 24 | 215029 | Slide bushing, T-take-up lever | 1 | 1 | 1 | 1 | |
| 25 | | Oil wick | 1 | 1 | 1 | 1 | |
| 26 | 16WF1-015 | Needle bar crank rod assy. | 1 | 1 | 1 | 1 | |
| 27 | | Oil wick | 1 | 1 | 1 | 1 | |
| 28 | 49WF1-006 | Rubber cap | 1 | 1 | 1 | 1 | |
| 29 | 200WF5-009 | Screw | 1 | 1 | 1 | 1 | |
| 30 | 200WF5-007 | Needle | 2 | 2 | 2 | 2 | DPX17 23# |
| 31 | 16WF1-006 | Screw | 1 | 1 | 1 | 1 | |
| 34 | 93WF5-006 | Bushing | 1 | 1 | 1 | 1 | |
| 35 | 93WF5-007 | Bushing | 1 | 1 | 1 | 1 | |
| 36 | 93WF5-008 | Ring | 2 | 2 | 2 | 2 | |
| 37 | 93WF5-031 | Collar | 1 | 1 | 1 | 1 | |
| 38 | 93WF1-029 | Bolt | 2 | 2 | 2 | 2 | |
| 39 | | Washer, spring | 2 | 2 | 2 | 2 | GB 859 5 |
| TW2-899 | | | | | | | |
| 40 | 193WF5-001E | Needle clamp(10mm) | 1 | | 1 | | |
| 41 | 193WF5-026 | Thread guide | 1 | 1 | 1 | 1 | |
| TW2-899S | | | | | | | |
| 40 | 212WF1-001E | Needle clamp(3/8'') | | 1 | | 1 | |
| 41 | 193WF5-026 | Thread guide | 1 | 1 | 1 | 1 | |

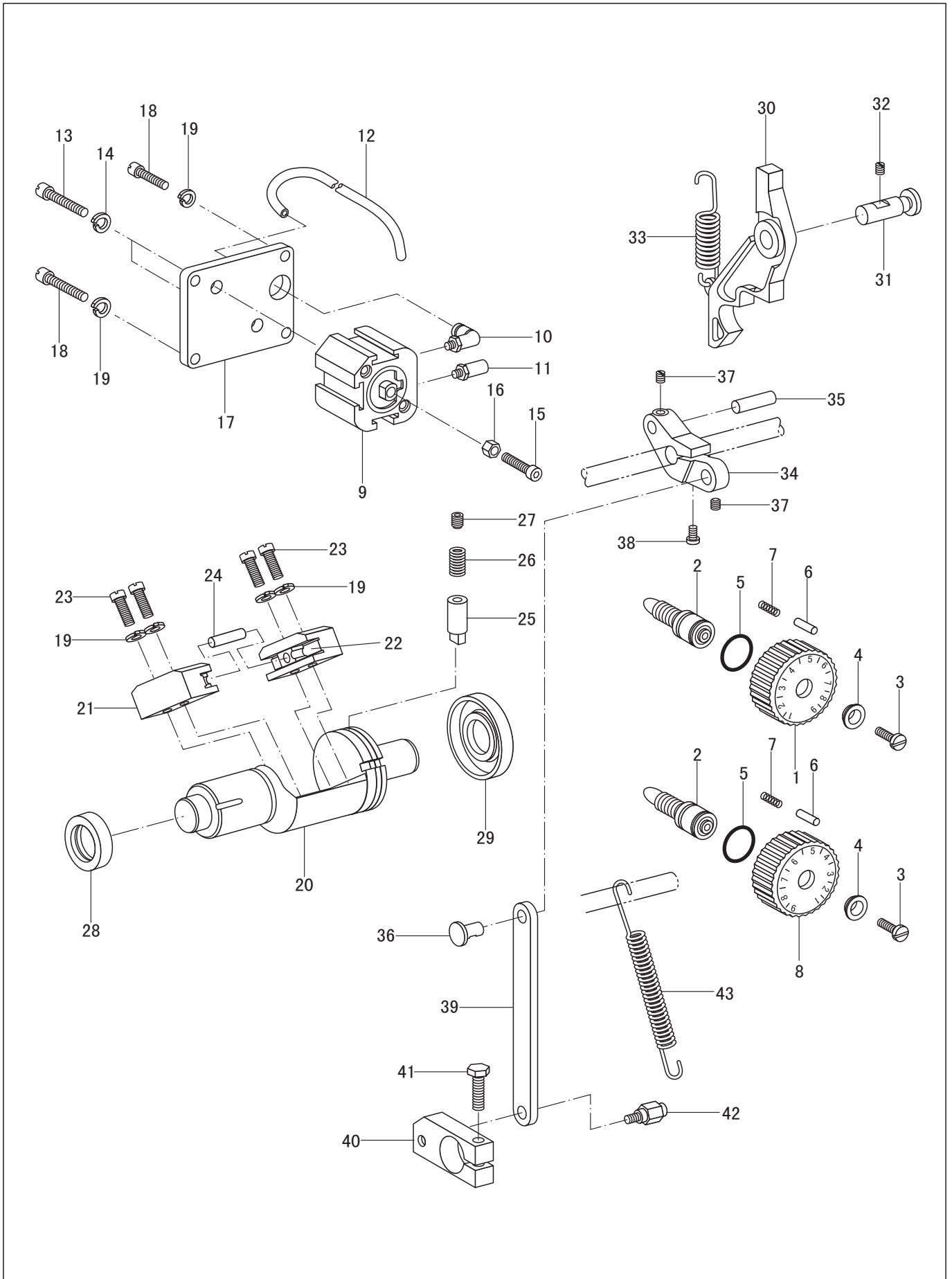
6. Presser bar mechanism



6. Presser bar mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | | | REMARK |
|-----|------------|--------------------------------|---------|----------|------------|-------------|----------------|
| | | | TW1-899 | TW1-899S | TW1-899-D2 | TW1-899S-D2 | |
| 1 | 93WF6-001 | Bushing A, P-foot lifter shaft | 1 | 1 | 1 | 1 | |
| 2 | 93WF6-002 | Bushing B | 1 | 1 | 1 | 1 | |
| 3 | 93WF6-003 | Bushing C, P-foot lifter shaft | 1 | 1 | 1 | 1 | |
| 4 | 93WF6-004 | Bushing D | 1 | 1 | 1 | 1 | |
| 6 | 93WF6-030 | Set screw | 1 | 1 | 1 | 1 | |
| 7 | 93WF6-005 | Pressure adjusting dial | 1 | 1 | 1 | 1 | |
| 8 | 93WF6-022 | Pressure adjusting plate assy. | 1 | 1 | 1 | 1 | |
| 9 | 93WF6-006 | Felt | 1 | 1 | 1 | 1 | |
| 10 | 93WF6-023 | Pin | 1 | 1 | 1 | 1 | |
| 11 | 93WF6-007 | Retaining ring | 1 | 1 | 1 | 1 | |
| 12 | 93WF6-024 | P-foot lifter connection assy. | 1 | 1 | 1 | 1 | |
| 13 | | Oil wick | 1 | 1 | 1 | 1 | L=400 |
| 14 | 93WF6-025 | Pin | 1 | 1 | 1 | 1 | |
| 15 | 93WF2-015 | Set screw | 1 | 1 | 1 | 1 | |
| 17 | 93WF6-027 | Shaft, presser bar spring | 1 | 1 | 1 | 1 | |
| 18 | | Pin | 2 | 2 | 2 | 2 | GB/T 879.1 3×8 |
| 19 | 93WF6-008 | Presser spring | 1 | 1 | 1 | 1 | |
| 20 | 93WF6-009 | Collar | 1 | 1 | 1 | 1 | |
| 21 | 93WF6-029 | Spring support, U | 1 | 1 | 1 | 1 | |
| 22 | 93WF6-028 | Spring support, D | 1 | 1 | 1 | 1 | |
| 23 | 35WF4-005 | Retaining ring | 1 | 1 | 1 | 1 | |
| 24 | 93WF6-032 | Presser bar lifter shaft | 1 | 1 | 1 | 1 | |
| 25 | 93WF6-010 | Collar | 2 | 2 | 2 | 2 | |
| 26 | 93WF2-008 | Set screw | 2 | 2 | 2 | 2 | |
| 27 | 93WF6-034 | Knee lifter arm, U | 1 | 1 | 1 | 1 | |
| 28 | 93WF6-035 | Bolt | 1 | 1 | 1 | 1 | |
| 29 | 93WF6-036 | Spring | 1 | 1 | 1 | 1 | |
| 30 | | K-lifter connecting bar assy. | | | | | |
| 31 | 93WF6-038 | Knee lifter connecting bar | 1 | 1 | 1 | 1 | |
| 32 | 93WF6-011A | Link ball | 2 | 2 | 2 | 2 | |
| 33 | | Nut | 5 | 5 | 5 | 5 | GB/T 6172 M6 |
| 34 | | Retaining ring | 2 | 2 | 2 | 2 | GB 859 6 |
| 35 | 93WF6-041 | Presser bar lifter cam, U | 1 | 1 | 1 | 1 | |
| 36 | 93WF6-042 | Bolt | 1 | 1 | 1 | 1 | |
| 37 | 93WF6-043 | Presser bar lifter cam, D | 1 | 1 | 1 | 1 | |
| 38 | 200WF6-001 | Shoulder screw | 1 | 1 | 1 | 1 | |
| 39 | 200WF6-002 | Washer | 1 | 1 | 1 | 1 | |
| 40 | 200WF6-003 | Washer | 1 | 1 | 1 | 1 | |
| 42 | 93WF6-016 | Presser lifter bar | 1 | 1 | 1 | 1 | |
| 43 | 93WF6-017 | Lever grip | 1 | 1 | 1 | 1 | |
| 44 | 93WF6-045 | Knee lifter shaft assy. | 1 | 1 | 1 | 1 | |
| 45 | 93WF6-046 | Knee lifter shaft | 1 | 1 | 1 | 1 | |
| 46 | 93WF6-018 | Needle roller | 1 | 1 | 1 | 1 | |
| 47 | 93WF6-019 | Retaining ring | 1 | 1 | 1 | 1 | |
| 48 | 93WF6-047 | Knee lifter arm | 1 | 1 | 1 | 1 | |
| 49 | 93WF6-020 | Pin | 1 | 1 | 1 | 1 | |
| 50 | 93WF3-005 | Bolt | 1 | 1 | 1 | 1 | |
| 53 | 179WF6-002 | Presser bar connector | - | 1 | - | 1 | |
| 54 | 93WF1-026 | Bolt | - | 1 | - | 1 | |
| 55 | 200WF6-004 | Shaft | 1 | 1 | 1 | 1 | |
| 56 | 93WF5-030 | Screw | 1 | 1 | 1 | 1 | |
| 57 | 93WF6-026 | Presser bar | 1 | - | 1 | - | |
| | 179WF6-001 | Presser bar | - | 1 | - | 1 | |
| 58 | 93WF6-021 | Bushing, presser bar | 1 | - | 1 | - | |
| | 179WF6-003 | Bushing, presser bar | - | 1 | - | 1 | |

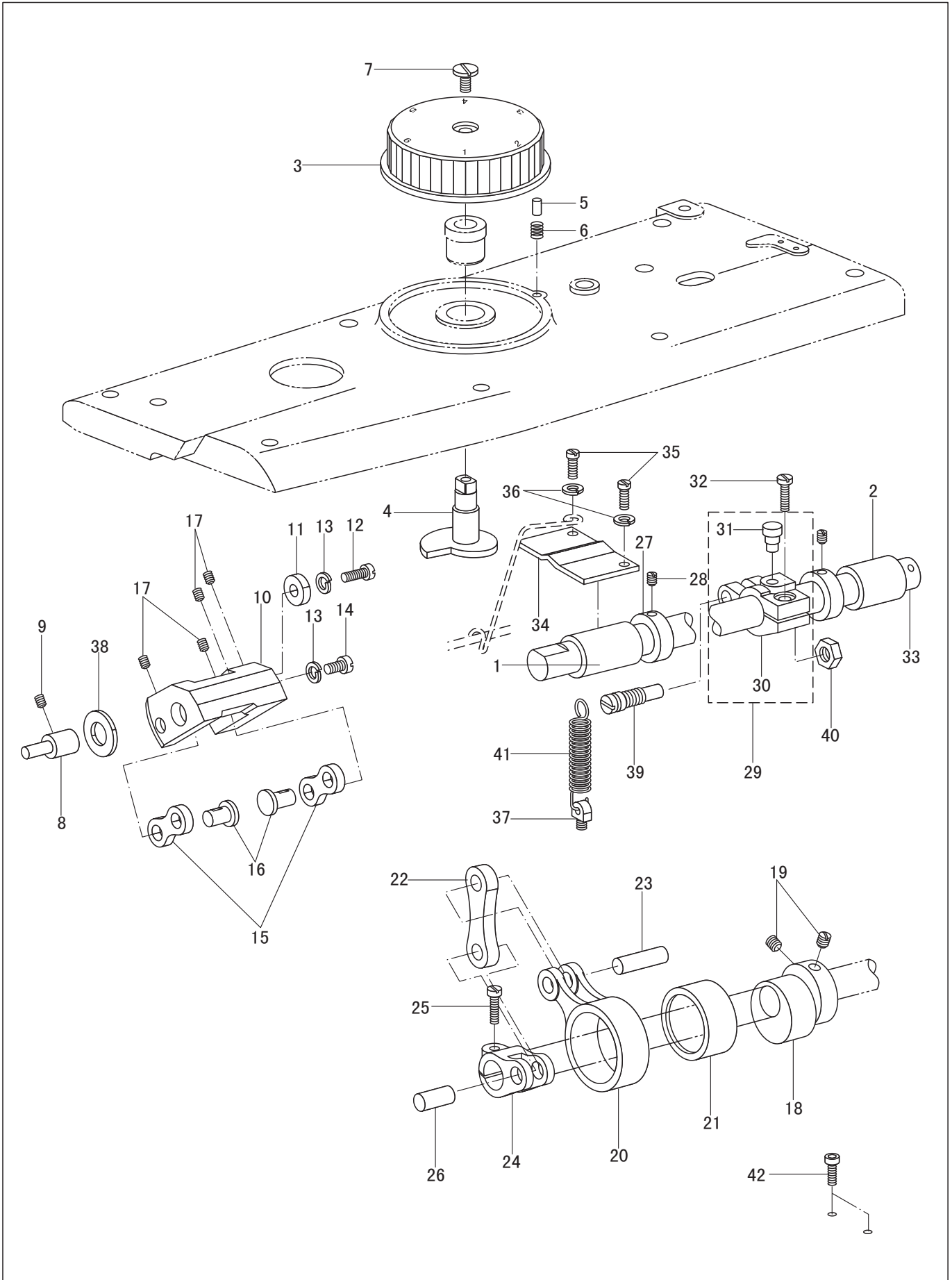
7. Feed mechanism



7. Feed mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|-------------------------------|---------|------------|----------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF7-001 | Feed adjusting dial, U | 1 | 1 | |
| 2 | 93WF7-005 | Adjusting screw | 1 | 2 | |
| 3 | 93WF7-002 | Screw | 1 | 2 | |
| 4 | 36T5-007D4 | Bushing | 1 | 2 | |
| 5 | 124T5-00A3 | O ring | 1 | 2 | |
| 6 | 93WF7-006 | Positioning pin | 1 | 2 | |
| 7 | 21WF3-046 | Spring, compression | 1 | 2 | |
| 8 | 93WF7-003 | Feed adjusting dial, D | - | 1 | |
| 9 | 93WF7-007 | Cylinder | - | 1 | SDA25×10 SU045 |
| 10 | 93WF7-008 | Joint | - | 1 | PL4-M5 |
| 11 | 93WF7-009 | Silencer | - | 1 | BSLM-M5 |
| 12 | | Tube | - | 1 | L=1000 |
| 13 | 93WF7-010 | Bolt | - | 2 | |
| 14 | | Washer | - | 2 | GB 955 6 |
| 15 | 93WF3-005 | Bolt | - | 1 | |
| 16 | | Nut | - | 1 | GB/T6172 M6 |
| 17 | 93WF7-013 | Setting plate | - | 1 | |
| 18 | 93WF7-014 | Bolt | - | 4 | |
| 19 | | Washer | - | 8 | GB 859 5 |
| 20 | 93WF7-015 | Roller | 1 | 1 | |
| 21 | 93WF7-016 | Guide rail | 2 | 2 | |
| 22 | 93WF7-017 | Guide rail | 2 | 2 | |
| 23 | 93WF1-029 | Bolt | 4 | 4 | |
| 24 | 93WF7-018 | Pin | 1 | 1 | |
| 25 | 93WF7-019 | Cylinder guide pin | 1 | 1 | |
| 26 | 93WF7-020 | Spring | 1 | 1 | |
| 27 | | Set screw | 1 | 1 | GB/T 77 M10×10 |
| 28 | 93WF7-022 | Oil seal, front | 1 | 1 | 20×30×7 |
| 29 | 93WF7-023 | Oil seal, back | 1 | 1 | 20×47×7 |
| 30 | 93WF7-024 | Feed adjustment arm | 1 | 1 | |
| 31 | 93WF7-025 | Pin | 1 | 1 | |
| 32 | 93WF1-027 | Set screw | 1 | 1 | |
| 33 | 93WF7-026 | Spring | 1 | 1 | |
| 34 | 93WF7-027 | Feed adjusting lever | 1 | 1 | |
| 35 | 93WF7-004 | Needle roller | 1 | 1 | |
| 36 | 93WF7-028 | Link pin | 1 | 1 | |
| 37 | 93WF7-029 | Set screw | 2 | 2 | |
| 38 | | Screw | 1 | 1 | GB/T 65 M5×25 |
| 39 | 93WF7-031 | Feed adjusting connection rod | 1 | 1 | |
| 40 | 93WF7-032 | Connecting block | 1 | 1 | |
| 41 | 93WF7-033 | Bolt | 1 | 1 | |
| 42 | 93WF7-034 | Pin screw | 1 | 1 | |
| 43 | 93WF7-035 | Spring | 1 | 1 | |

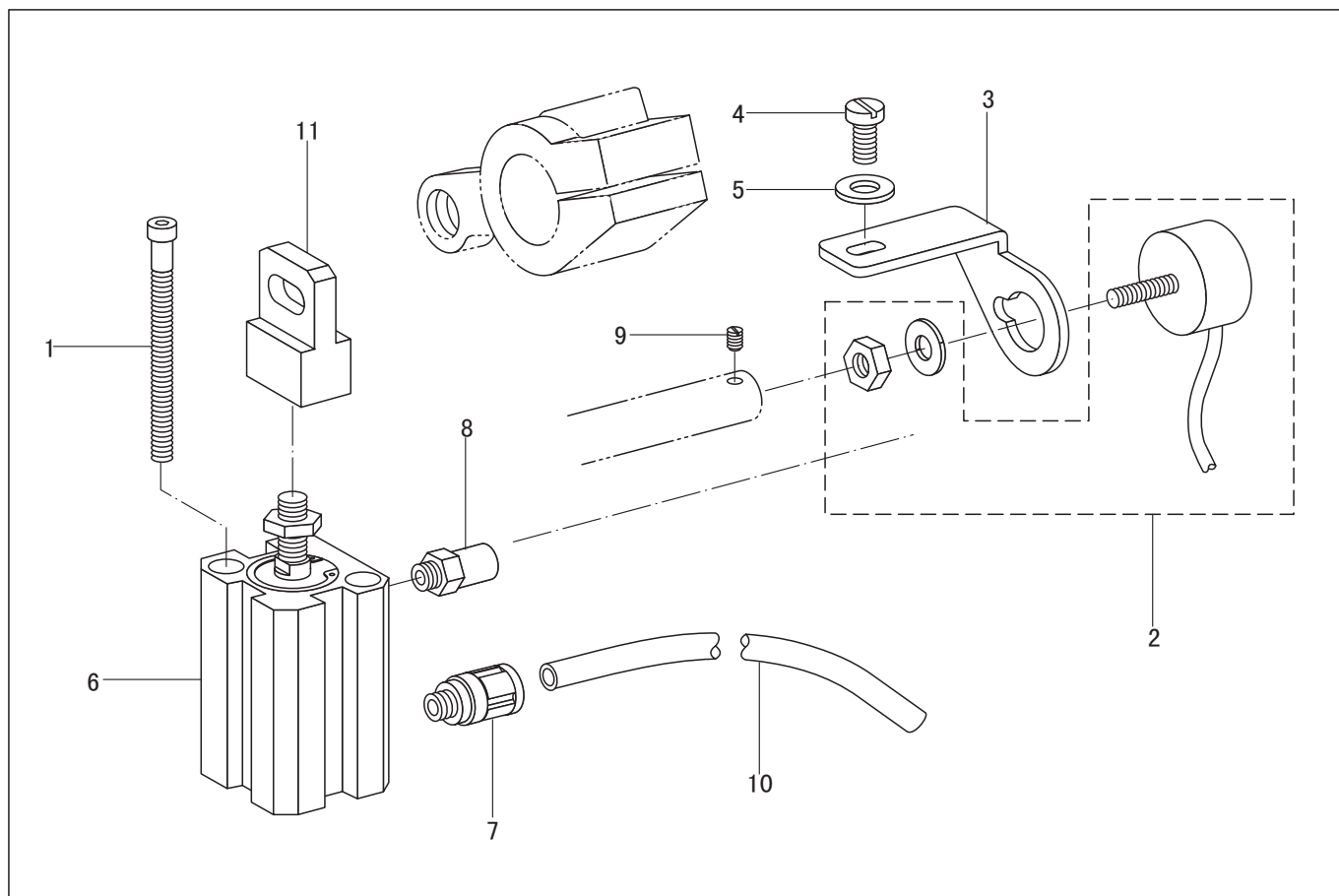
8. Presser foot adjusting mechanism



8. Presser foot adjusting mechanism

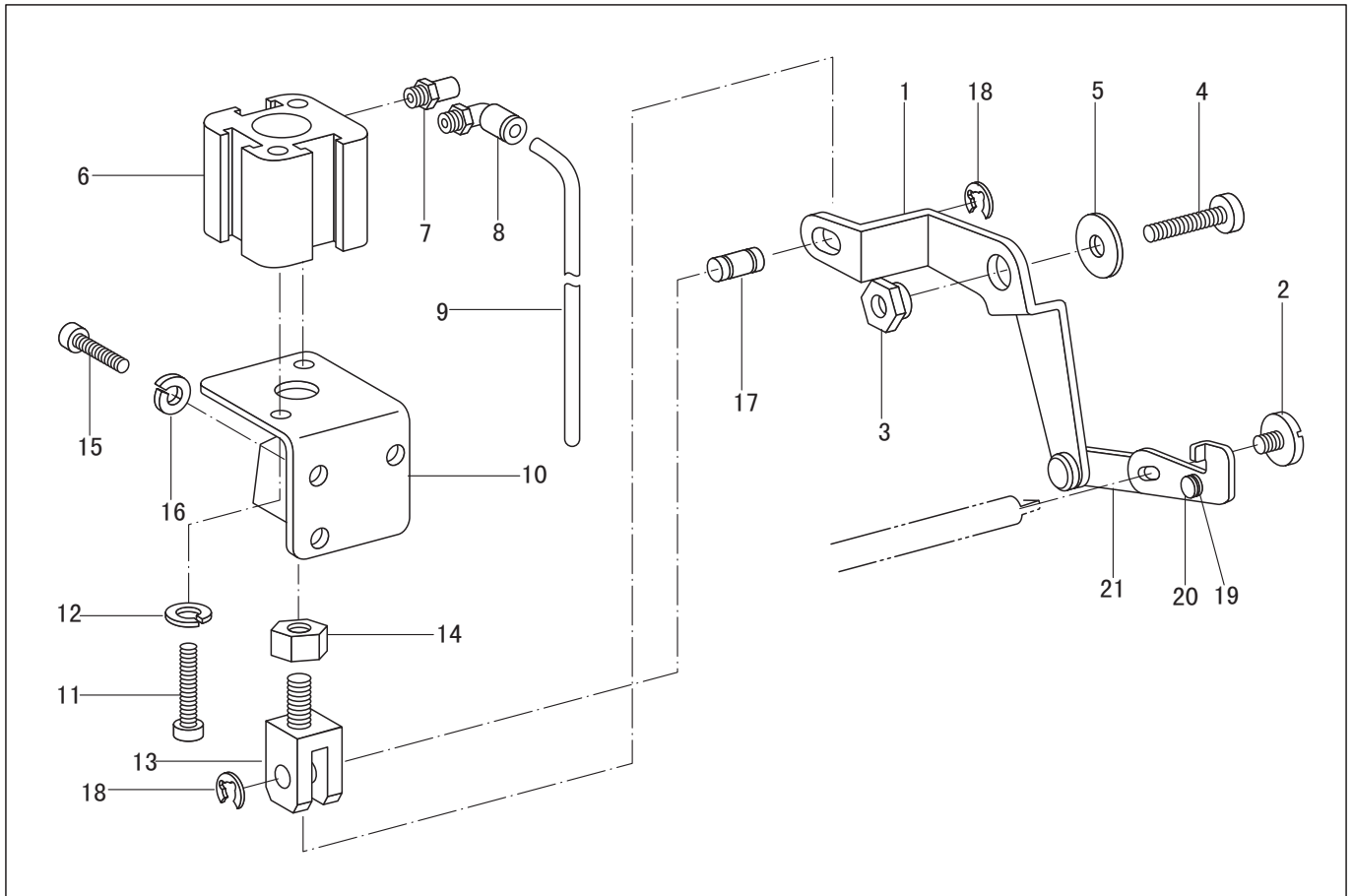
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|--------------------------|---------|------------|-----------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF8-005 | Bushing, adjusting shaft | 1 | 1 | |
| 2 | 93WF5-007 | Bushing | 1 | 1 | |
| 3 | 93WF8-001 | Dial | 1 | 1 | |
| 4 | 93WF8-006 | Dial cam | 1 | 1 | |
| 5 | 93WF8-007 | Dial pin | 1 | 1 | |
| 6 | 93WF8-002 | Spring | 1 | 1 | |
| 7 | 302395 | Set screw | 1 | 1 | |
| 8 | 93WF8-009 | Support pin | 1 | 1 | |
| 9 | 93WF5-030 | Set screw | 1 | 1 | |
| 10 | 93WF8-010 | Adjusting bracket | 1 | 1 | |
| 11 | 93WF8-011 | Adjusting bracket collar | 1 | 1 | |
| 12 | 93WF1-026 | Bolt | 1 | 1 | |
| 13 | | Washer, spring | 2 | 2 | GB 859 5 |
| 14 | 93WF8-037 | Bolt | 1 | 1 | |
| 15 | 93WF8-013 | Link assy. | 2 | 2 | |
| 16 | 93WF7-028 | Link pin | 2 | 2 | |
| 17 | 93WF8-015 | Set screw | 4 | 4 | |
| 18 | 93WF8-016 | Inner presser cam | 1 | 1 | |
| 19 | 93WF1-027 | Set screw | 2 | 2 | |
| 20 | 93WF8-017 | Link | 1 | 1 | |
| 21 | 93WF8-018 | Needle bearing | 1 | 1 | HK3016 30×37×16 |
| 22 | 93WF8-019 | Link | 1 | 1 | |
| 23 | 93WF8-020 | Pin | 1 | 1 | |
| 24 | 93WF8-021 | Connecting crank | 1 | 1 | |
| 25 | 93WF6-042 | Bolt | 1 | 1 | |
| 26 | 93WF8-022 | Pin | 1 | 1 | |
| 27 | 93WF8-023 | Collar | 2 | 2 | |
| 28 | 93WF7-029 | Set screw | 2 | 2 | GB/T 80 M5×5 |
| 29 | 93WF8-025 | Connecting lever assy. | 1 | 1 | |
| 30 | 93WF8-025A | Connecting lever | 1 | 1 | |
| 31 | 93WF8-028 | Pin | 1 | 1 | |
| 32 | 93WF3-005 | Bolt | 1 | 1 | |
| 33 | 93WF8-029 | Adjusting shaft | 1 | 1 | |
| 34 | 93WF8-030 | Support plate | 1 | 1 | |
| 35 | 93WF8-031 | Bolt | 2 | 2 | |
| 36 | | Washer | 2 | 2 | GB 859 4 |
| 37 | 93WF8-003 | Support screw | 1 | 1 | |
| 38 | 93WF8-004 | Felt | 1 | 1 | |
| 39 | 93WF8-033 | Spring hook | 1 | 1 | |
| 40 | | Nut | 1 | 1 | GB/T 6172 M8 |
| 41 | 117WF8-001 | Spring | 1 | 1 | |
| 42 | 93WF8-036 | Bolt | 2 | - | |

9. Alternating presser foot lifter mechanism



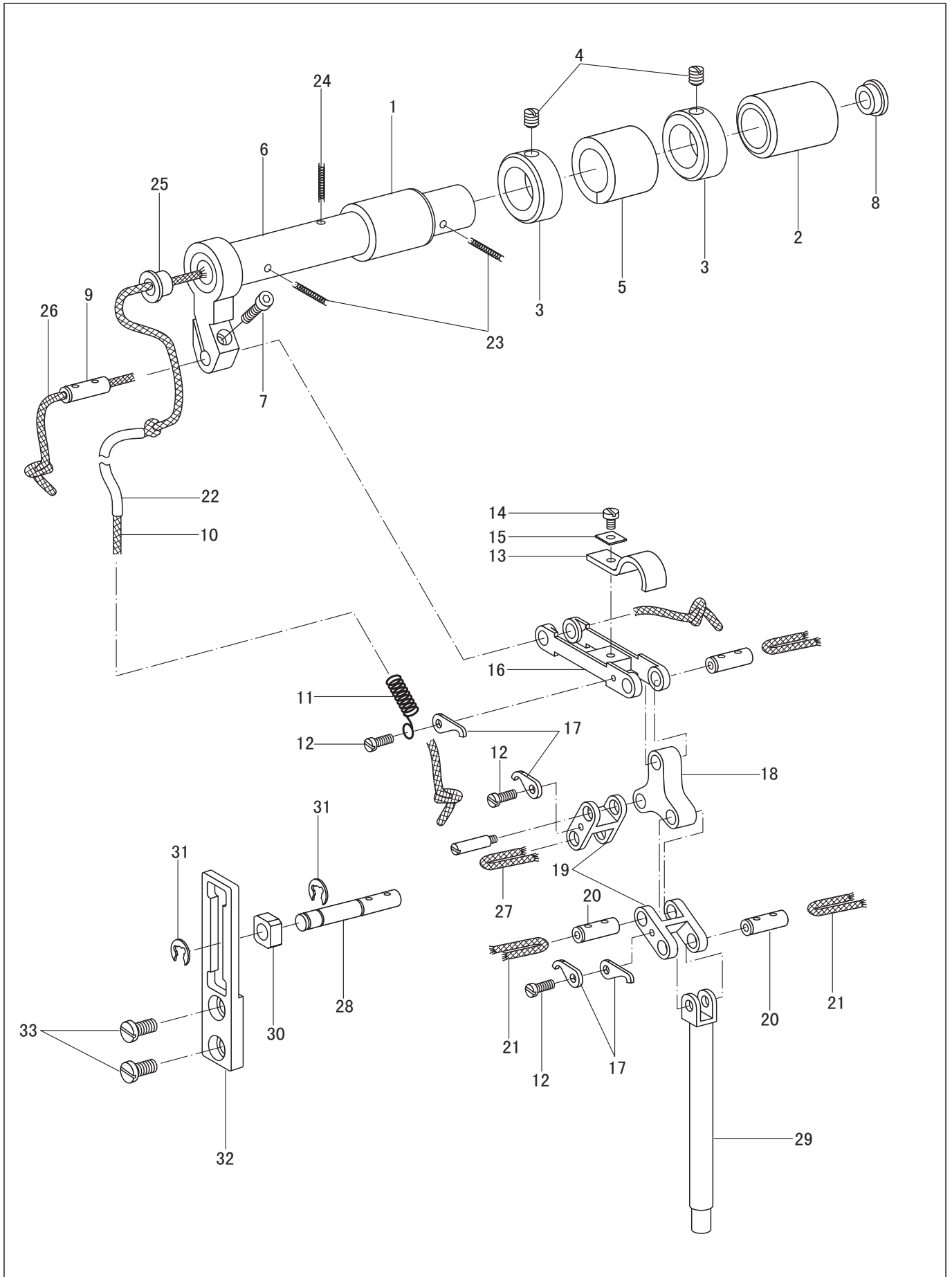
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-----------|---------------------|------------|-----------------|
| | | | TW1-899-D2 | |
| 1 | 93WF9-002 | Bolt | 1 | |
| 2 | 93WF9-003 | Potentiometer assy. | 1 | |
| 3 | 93WF9-001 | Setting plate | 1 | |
| 4 | | Bolt | 1 | GB/T 70.1 M4×6 |
| 5 | | Washer | 1 | GB/T 97.1 4 |
| 6 | 93WF9-004 | Cylinder | 1 | SDA16×25 |
| 7 | 93WF9-005 | Joint | 1 | ALP4-M5 |
| 8 | 93WF7-009 | Silencer | 2 | BSL-M5 |
| 9 | | Set screw | 1 | GB/T 70.1 M3×45 |
| 10 | | Air tube | 1 | L=1000 |
| 11 | 93WF9-007 | Knuckle | 1 | |

10. Quick reverse mechanism



| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|------------|-----------------------------------|------------|----------------|
| | | | TW1-899-D2 | |
| 1 | 93WF10-003 | Cylinder connection assy. | 1 | |
| 2 | 2KT3-005 | Screw | 1 | |
| 3 | 62WF5-025 | Stud | 1 | |
| 4 | 21WF2-048 | Screw | 1 | |
| 5 | 62WF5-026 | Washer | 1 | |
| 6 | 93WF10-004 | Cylinder | 1 | |
| 7 | 93WF7-009 | Silencer | 1 | |
| 8 | 93WF7-008 | Joint | 1 | |
| 9 | | Air tube, $\phi 4\text{mm}$ | 1 | SDA25×15 SU046 |
| 10 | 93WF10-001 | Setting plate | 1 | |
| 11 | 93WF10-006 | Bolt | 2 | |
| 12 | | Washer, spring | 2 | L=840 |
| 13 | 93WF10-008 | Knuckle | 1 | |
| 14 | | Nut | 1 | |
| 15 | 93WF7-014 | Bolt | 3 | GB 93. 6 |
| 16 | | Washer, spring | 3 | |
| 17 | 93WF10-002 | Pin | 1 | GB/T6172 M6 |
| 18 | | Retaining ring | 2 | |
| 19 | 62WF5-024D | Nylon washer | 2 | GB/T 859 5 |
| 20 | 62WF5-024C | Pin | 2 | |
| 21 | 62WF5-024B | Link rod, reverse stitching lever | 1 | GB/T 896 4 |

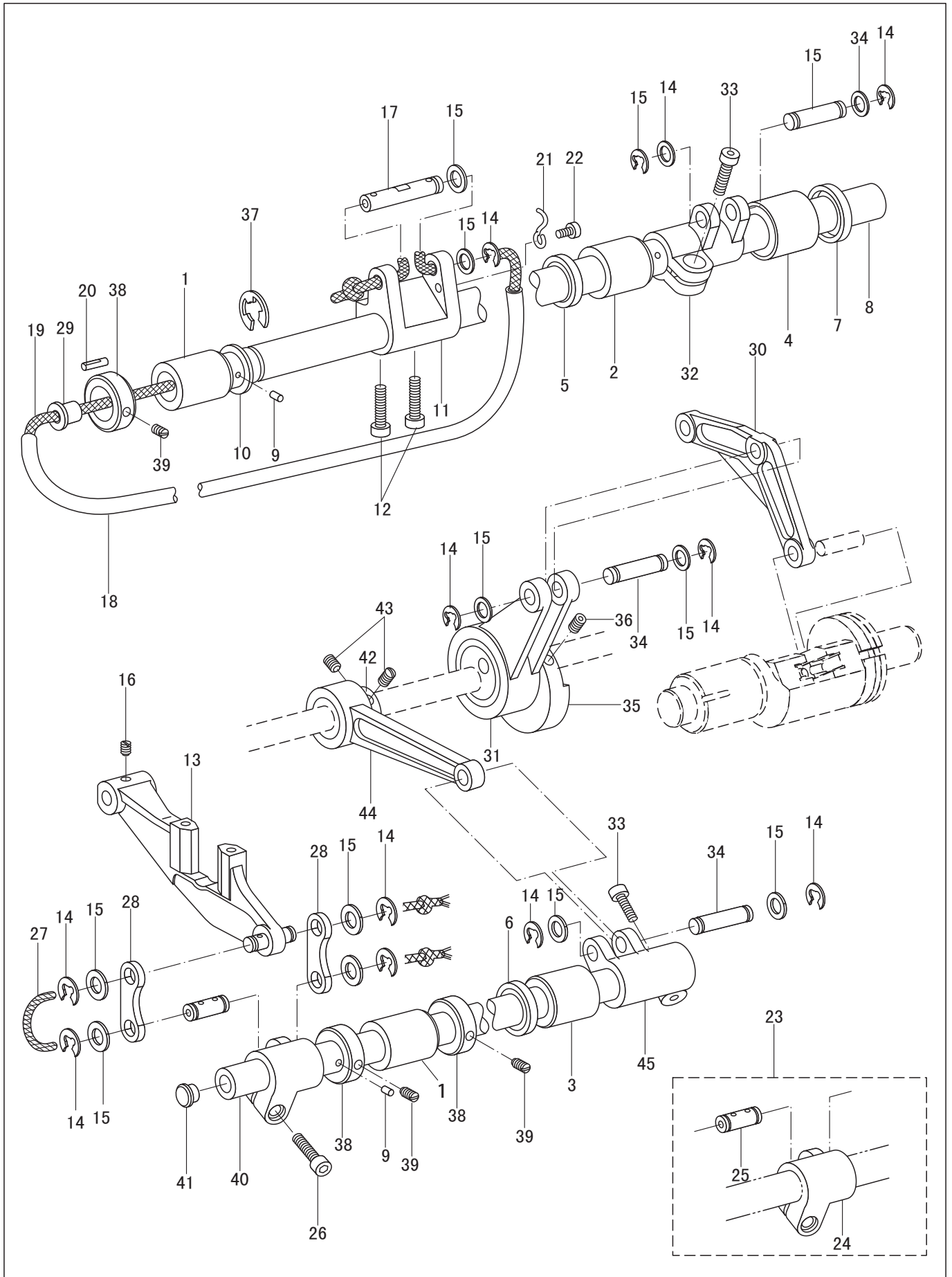
11. Upper feed mechanism



11. Upper feed mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|----------------------|-------------|--------------------------|---------|------------|--------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF5-007 | Bushing, F | 1 | 1 | |
| 2 | 93WF11-001 | Bushing, B | 1 | 1 | |
| 3 | 93WF8-023 | Collar | 2 | 2 | |
| 4 | 93WF7-029 | Set screw | 2 | 2 | |
| 5 | 93WF11-002 | Sponge | 1 | 1 | |
| 6 | 93WF11-008 | Shaft assy. | 1 | 1 | |
| 7 | 93WF8-031 | Bolt | 1 | 1 | |
| 8 | 93WF11-003 | Rubber cap | 1 | 1 | |
| 9 | 93WF11-009 | Connecting pin | 1 | 1 | |
| 10 | | Oil wick | 1 | 1 | L=235 |
| 11 | 93WF11-010 | Tube guide | 1 | 1 | |
| 12 | 93WF11-011 | Bolt | 3 | 3 | |
| 13 | 93WF11-004 | Leather | 1 | 1 | |
| 14 | 93WF8-036 | Bolt | 1 | 1 | |
| 15 | 93WF11-013 | Washer | 1 | 1 | |
| 16 | 93WF11-014 | Connection | 1 | 1 | |
| 17 | 93WF11-005 | Stopper claw | 4 | 4 | |
| 18 | 93WF11-015 | Presser connection plate | 1 | 1 | |
| 19 | 93WF11-016 | Presser bar connection | 2 | 2 | |
| 20 | 93WF11-009 | Connection pin | 3 | 3 | |
| 21 | | Oil wick | 1 | 1 | L=50 |
| 22 | | Oil tube | 1 | 1 | L=75 |
| 23 | | Oil wick | 1 | 1 | L=75 |
| 24 | | Felt | 1 | 1 | L=20 |
| 25 | 93WF3-010 | Rubber cap | 1 | 1 | |
| 26 | | Oil wick | 1 | 1 | L=80 |
| 27 | | Oil wick | 1 | 1 | |
| 28 | 93WF11-019 | Inner presser bar | 1 | 1 | |
| 29 | 93WF11-020 | Presser bar | 1 | 1 | |
| 30 | 93WF11-021 | Slide block | 1 | 1 | |
| 31 | 93WF11-006 | Retaining ring | 2 | 2 | |
| 32 | 93WF11-022 | Setting plate | 1 | 1 | |
| 33 | 13WF7-015 | Screw | 2 | 2 | |
| TW1-899S-D2/TW1-899S | | | | | |
| 29 | 179WF11-001 | Presser bar | 1 | | |
| | | | | | |

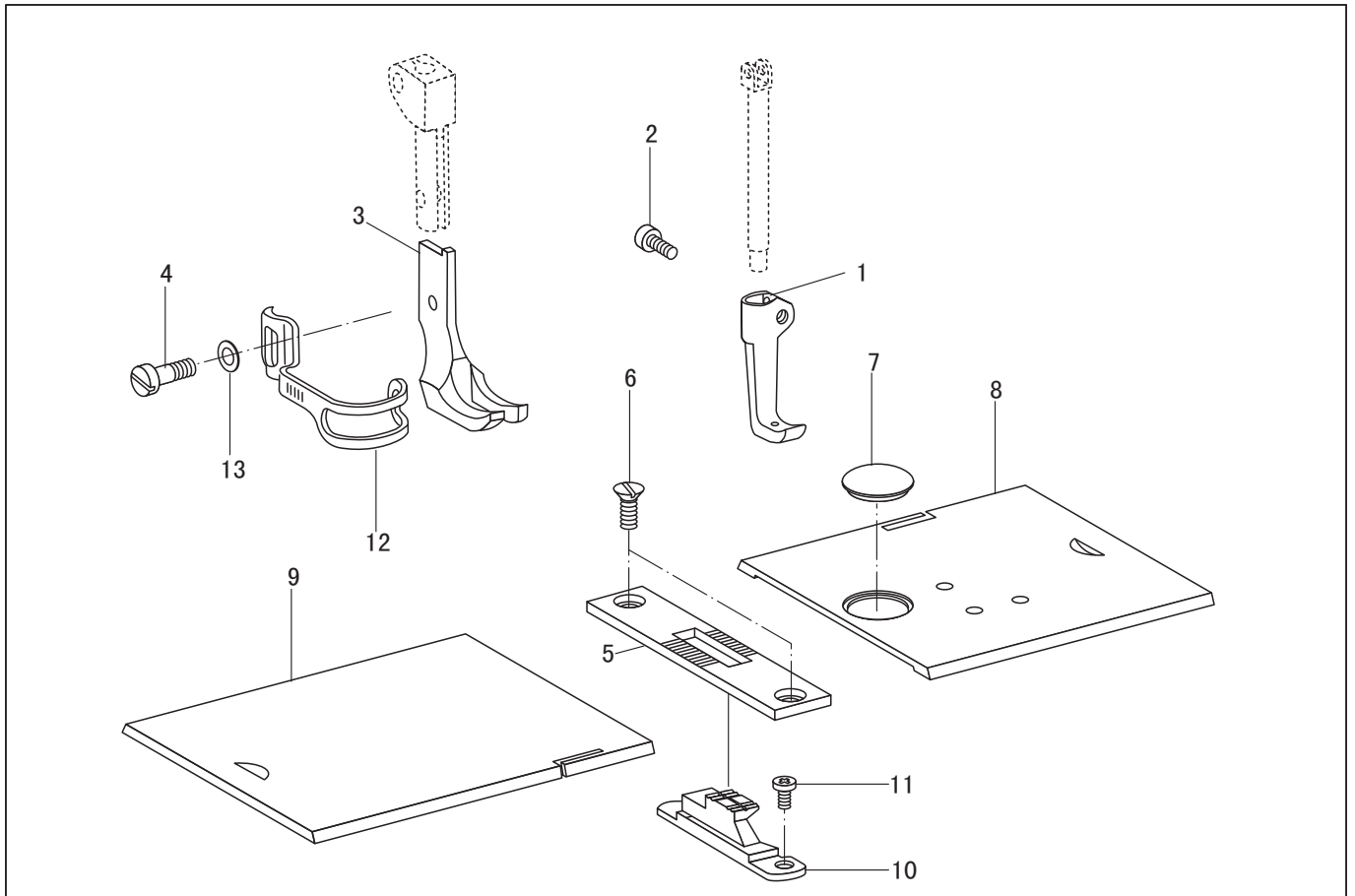
12. Feed shaft mechanism



12. Feed shaft mechanism

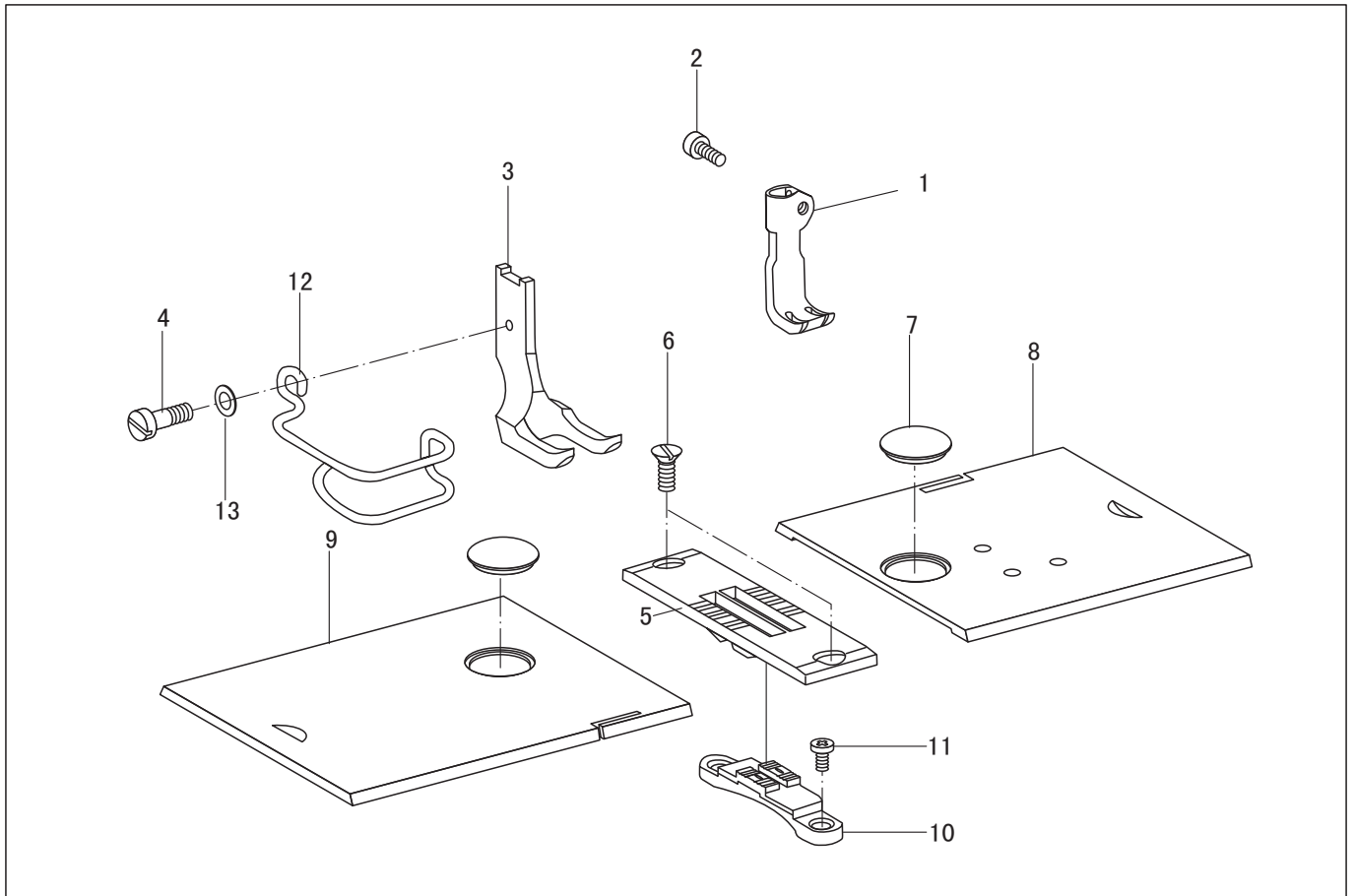
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|------------------------------|---------|------------|----------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF5-007 | Feed shaft bushing, F | 2 | 2 | |
| 2 | 93WF12-001 | Feed shaft bushing, M | 1 | 1 | |
| 3 | 93WF12-002 | Bushing, F | 1 | 1 | |
| 4 | 93WF12-003 | Feed shaft bushing | 1 | 1 | |
| 5 | 93WF12-008 | Oil seal | 1 | 1 | 15×24×7 |
| 6 | 93WF12-008 | Oil seal | 1 | 1 | 15×24×7 |
| 7 | 93WF12-010 | Oil seal | 1 | 1 | 15×24×7 |
| 8 | 93WF12-011 | Feed shaft | 1 | 1 | |
| 9 | | Felt | 2 | 2 | |
| 10 | 93WF12-004 | Ring | 1 | 1 | |
| 11 | 93WF12-012 | Feed arm | 1 | 1 | |
| 12 | 93WF10-006 | Bolt | 2 | 2 | |
| 13 | 93WF12-013 | Feed bracket assy. | 1 | 1 | |
| 14 | 266097 | Retaining ring | 11 | 11 | |
| 15 | 93WF12-005 | Washer | 12 | 12 | |
| 16 | 93WF12-035 | Set screw | 1 | 1 | |
| 17 | 93WF12-015 | Pin | 1 | 1 | |
| 18 | | Oil tube | 1 | 1 | L=200 |
| 19 | | Oil wick | 1 | 1 | L=300 |
| 20 | | Felt | 1 | 1 | 3×18 |
| 21 | 93WF12-006 | Tube holder | 1 | 1 | |
| 22 | | Bolt | 1 | 1 | GB/T 70.1 M4×6 |
| 23 | 93WF12-016 | Feed connection arm assy. | 1 | 1 | |
| 24 | 93WF12-016A | Feed connection arm | 1 | 1 | |
| 25 | 93WF12-016B | Pin | 1 | 1 | |
| 26 | 93WF12-019 | Bolt | 1 | 1 | |
| 27 | | Oil wick | 1 | 1 | L=110 |
| 28 | 93WF12-020 | Feed link assy. | 1 | 1 | |
| 29 | 93WF3-010 | Rubber cap | 1 | 1 | |
| 30 | 93WF12-022 | Back cylinder connection | 1 | 1 | |
| 31 | 93WF12-023 | Connection rod assy., L-feed | 1 | 1 | |
| 32 | 93WF12-034 | Feed shaft arm | 1 | 1 | |
| 33 | 93WF7-012 | Bolt | 2 | 2 | |
| 34 | 93WF12-026 | Pin | 3 | 3 | |
| 35 | 93WF12-027 | Lower feed cam | 1 | 1 | |
| 36 | 93WF1-027 | Set screw | 2 | 2 | |
| 37 | 93WF12-007 | Retaining ring | 1 | 1 | |
| 38 | 93WF8-023 | Collar, adjust shaft | 3 | 3 | |
| 39 | 93WF7-029 | Set screw | 3 | 3 | |
| 40 | 93WF12-029 | Adjust-shaft | 1 | 1 | |
| 41 | 93WF11-003 | Rubber cap | 1 | 1 | |
| 42 | 200WF12-001 | Feed cam | 1 | 1 | |
| 43 | 93WF2-008 | Set screw | 2 | 2 | |
| 44 | 93WF12-033 | Feed rod | 1 | 1 | |
| 45 | 93WF12-034 | Feed shaft arm | 1 | 1 | |

13. Needle plate, presser foot



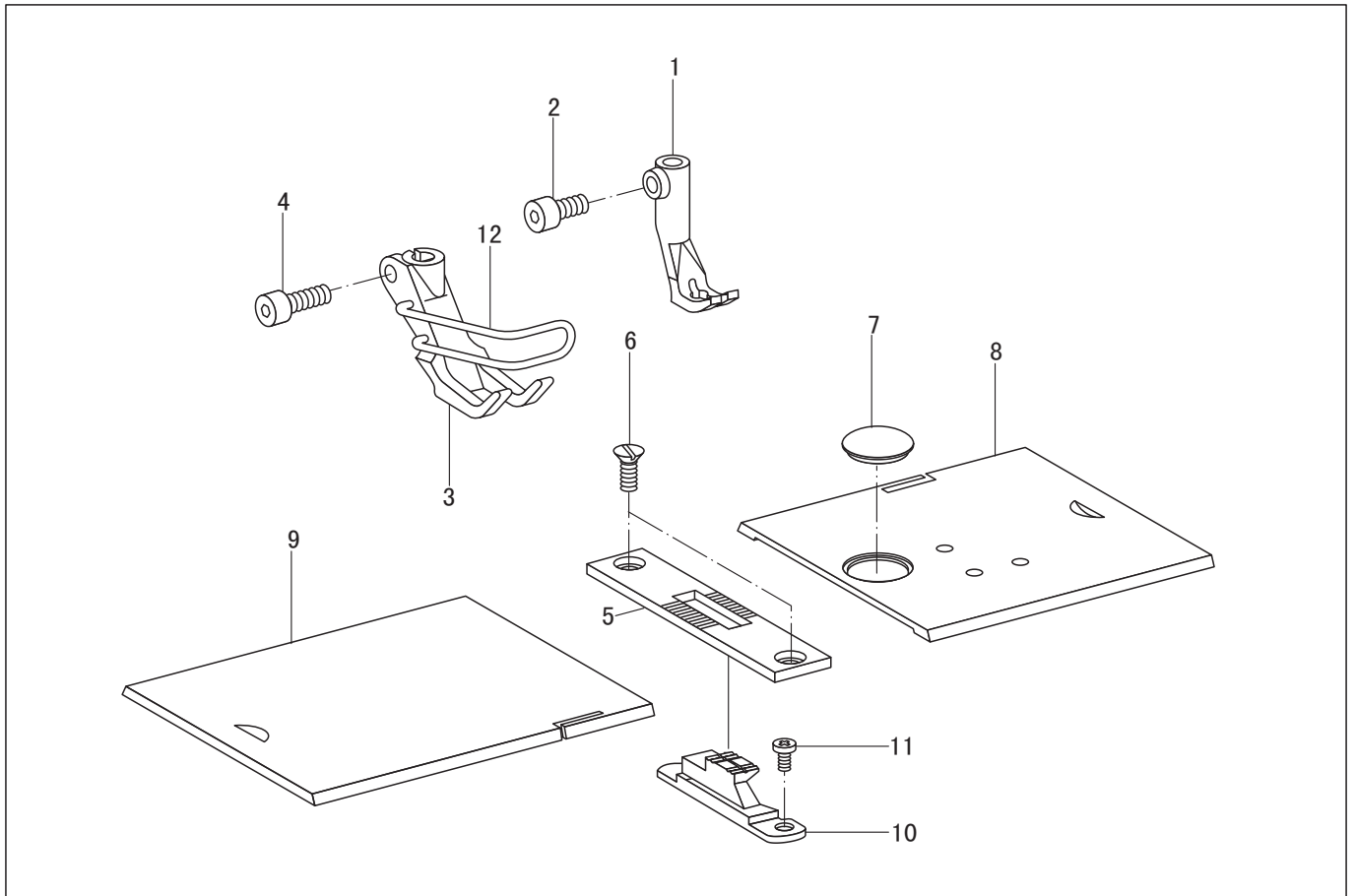
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|--------------------|----------|-------------|-------------|
| | | | TW1-899S | TW1-899S-D2 | |
| 1 | 93WF13-001 | Inner presser foot | 1 | 1 | GB 848-85 4 |
| 2 | 1WF3-025 | Bolt | 1 | 1 | |
| 3 | 103799 | Presser foot assy. | 1 | 1 | |
| 4 | 1WF3-002 | Bolt | 1 | 1 | |
| 5 | 200WF13-003 | Needle plate | 1 | 1 | |
| 6 | 93WF13-001 | Screw | 2 | 2 | |
| 7 | 21WF4-059 | Bobbin window | 1 | 1 | |
| 8 | 200WF13-005 | Slide plate, R | 1 | 1 | |
| 9 | 200WF13-004 | Slide plate, L | 1 | 1 | |
| 10 | 200WF13-006 | Feed dog | 1 | 1 | |
| 11 | 93WF13-002 | Screw | 2 | 2 | |
| 12 | 104WF13-002 | Finger guard | 1 | 1 | |
| 13 | | Washer | 1 | 1 | |

13. Needle plate, presser foot



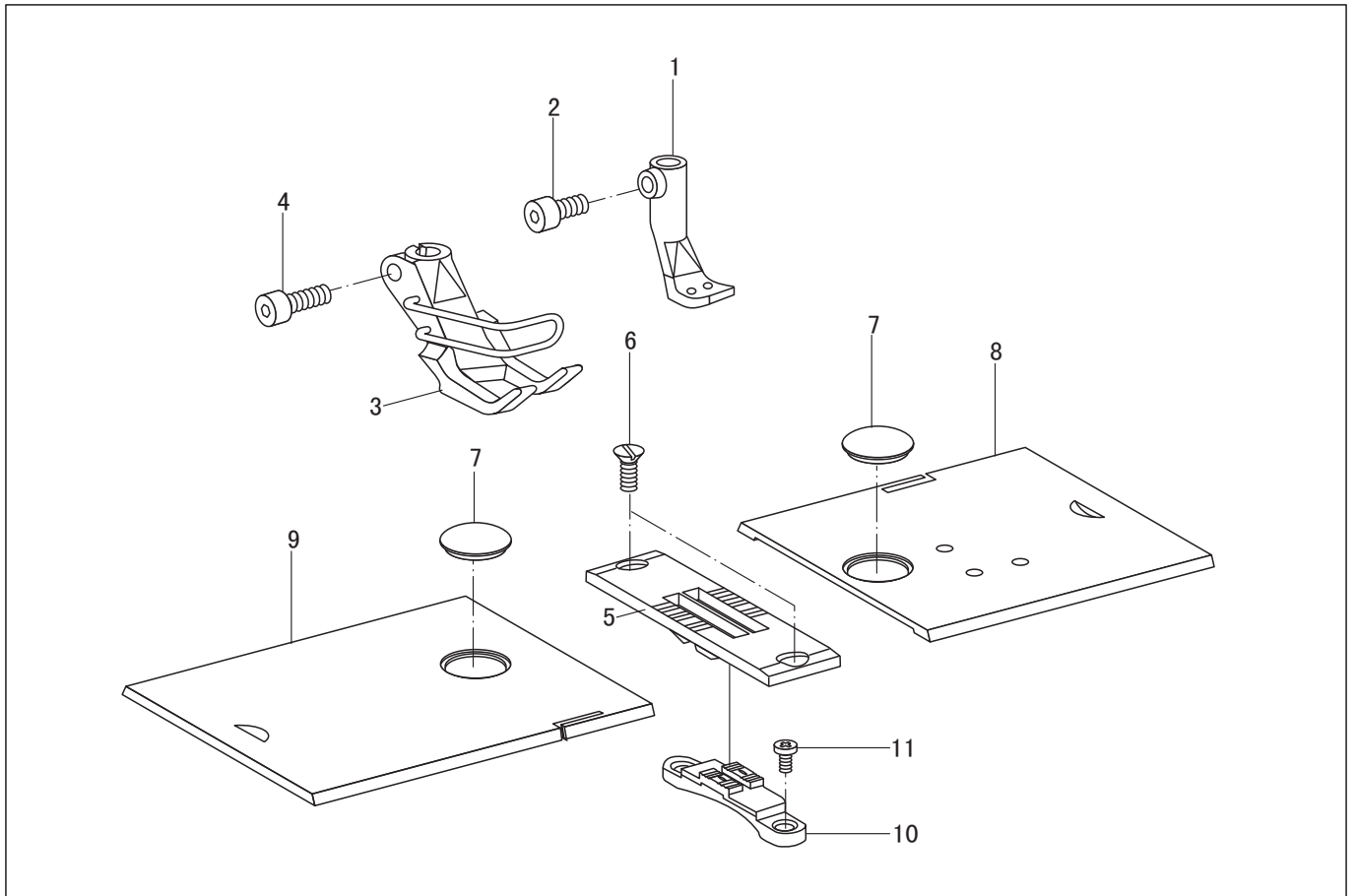
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|--------------|--------------------|----------|-------------|-------------|
| | | | TW2-899S | TW2-899S-D2 | |
| 1 | 88WF4-001ac | Inner presser foot | 1 | 1 | GB 848-85 4 |
| 2 | 1WF3-025 | Bolt | 1 | 1 | |
| 3 | 88WF3-002ac | Presser foot assy. | 1 | 1 | |
| 4 | 1WF3-002 | Bolt | 1 | 1 | |
| 5 | 219WF13-001e | Needle plate | 1 | 1 | |
| 6 | 93WF13-001 | Screw | 2 | 2 | |
| 7 | 21WF4-059 | Bobbin window | 1 | 1 | |
| 8 | 218WF13-002A | Slide plate, R | 1 | 1 | |
| 9 | 218WF13-003A | Slide plate, L | 1 | 1 | |
| 10 | 219WF13-002e | Feed dog | 1 | 1 | |
| 11 | 93WF13-002 | Screw | 2 | 2 | |
| 12 | 88WF3-004aF | Finger guard | 1 | 1 | |
| 13 | | Washer | 1 | 1 | |

13. Needle plate, presser foot



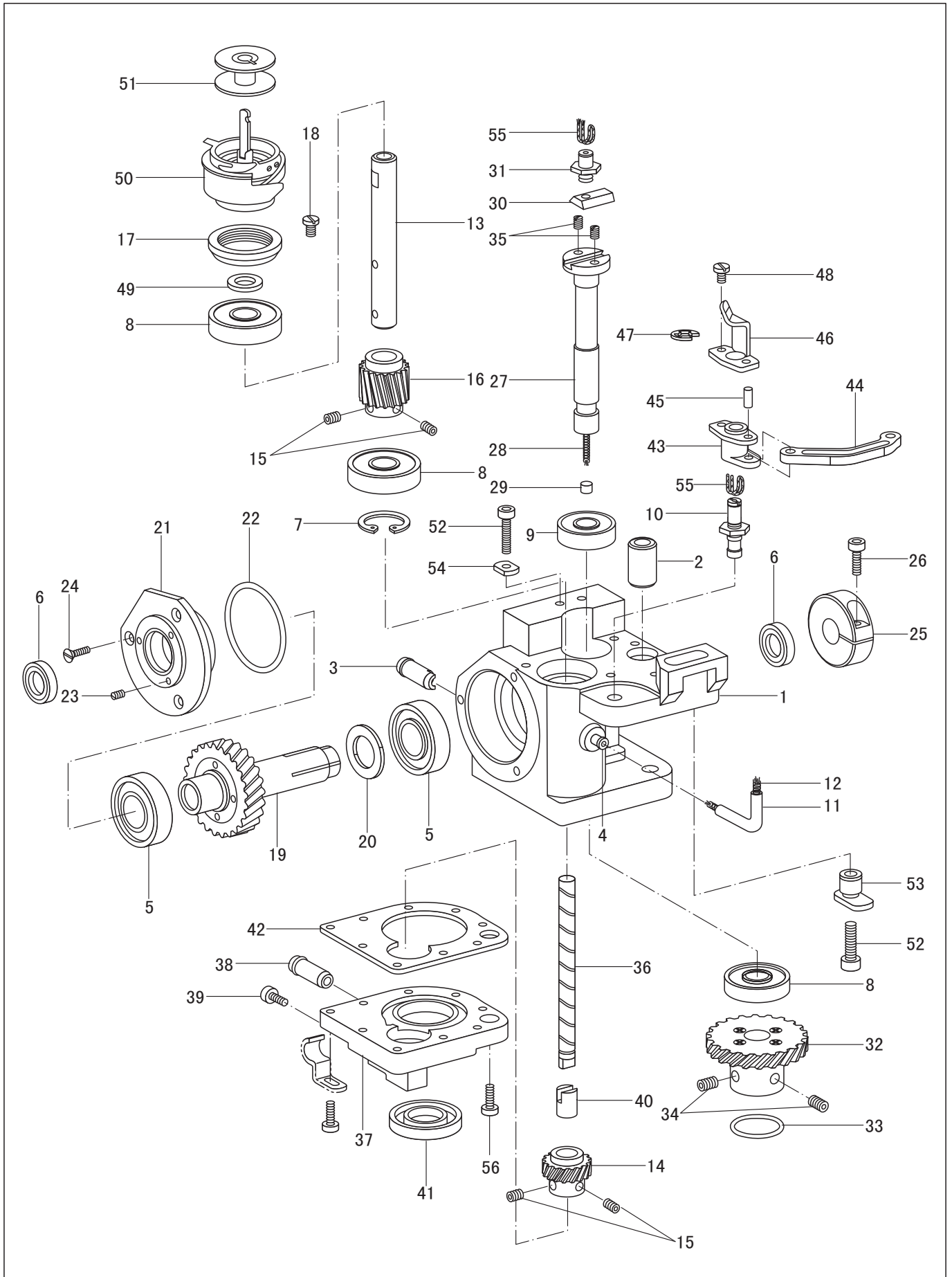
| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|--------------|--------------------|---------|------------|--------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 200WF13-001a | Inner presser foot | 1 | 1 | |
| 2 | 93WF13-004 | Bolt | 1 | 1 | |
| 3 | 200WF13-002a | Presser foot assy. | 1 | 1 | |
| 4 | 93WF13-006 | Bolt | 1 | 1 | |
| 5 | 200WF13-003 | Needle plate | 1 | 1 | |
| 6 | 93WF13-001 | Screw | 2 | 2 | |
| 7 | 21WF4-059 | Bobbin window | 1 | 1 | |
| 8 | 200WF13-005 | Slide plate, R | 1 | 1 | |
| 9 | 200WF13-004 | Slide plate, L | 1 | 1 | |
| 10 | 200WF13-006 | Feed dog | 1 | 1 | |
| 11 | 93WF13-002 | Screw | 2 | 2 | |
| 12 | 93WF13-011 | Finger guard | 1 | 1 | |

13. Needle plate, presser foot



| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|--------------|--------------------|---------|------------|--------|
| | | | TW2-899 | TW2-899-D2 | |
| 1 | 193WF13-001e | Inner presser foot | 1 | 1 | |
| 2 | 93WF13-004 | Bolt | 1 | 1 | |
| 3 | 193WF13-002d | Presser foot assy. | 1 | 1 | |
| 4 | 93WF13-006 | Bolt | 1 | 1 | |
| 5 | 218WF13-001E | Needle plate | 1 | 1 | |
| 6 | 93WF13-001 | Screw | 2 | 2 | |
| 7 | 21WF4-059 | Bobbin window | 1 | 1 | |
| 8 | 218WF13-002A | Slide plate, R | 1 | 1 | |
| 9 | 218WF13-003A | Slide plate, L | 1 | 1 | |
| 10 | 218WF13-003e | Feed dog | 1 | 1 | |
| 11 | 93WF13-002 | Screw | 2 | 2 | |
| 12 | 193WF13-06b | Finger guard | 1 | 1 | |

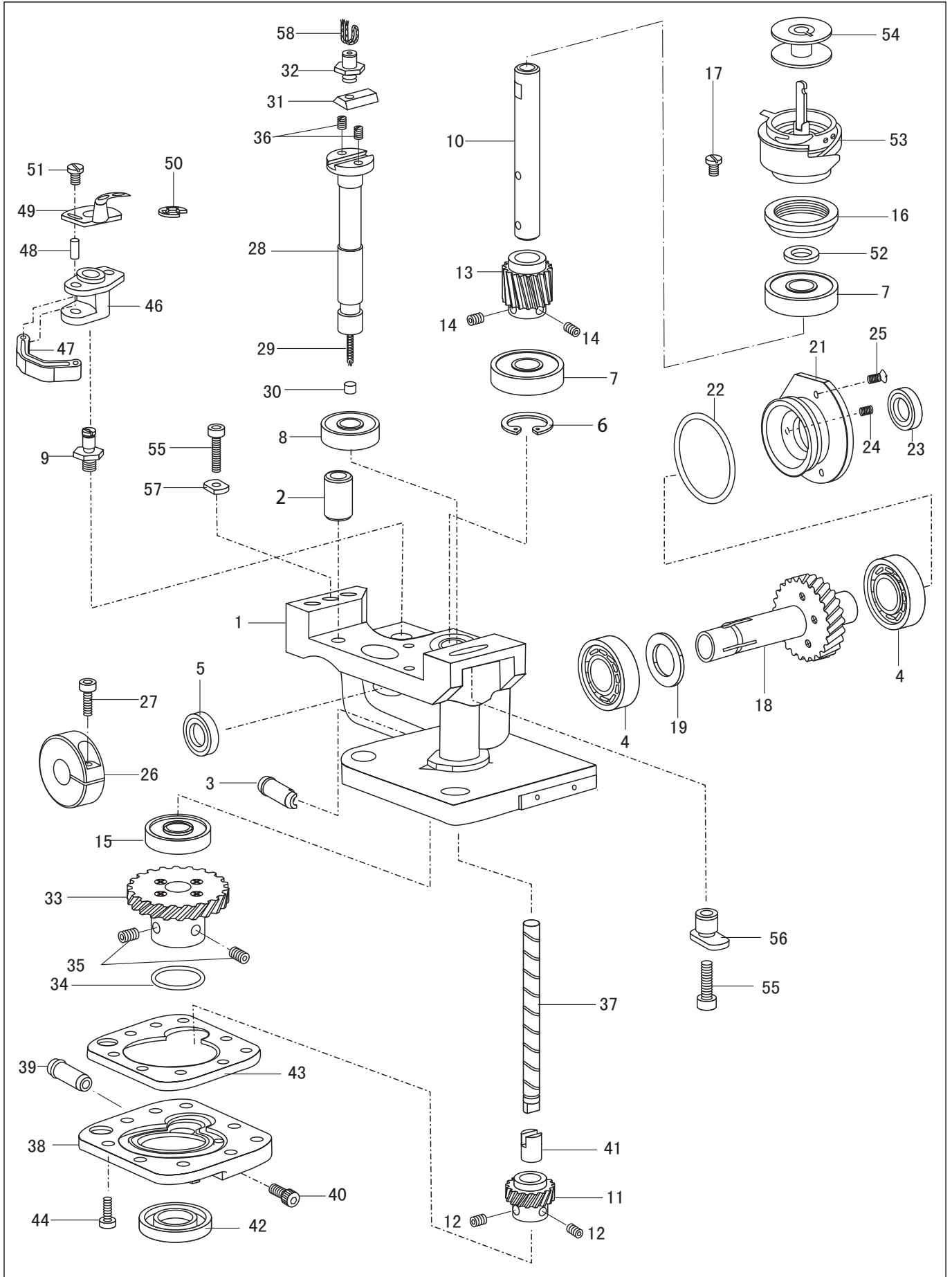
14. Rotary hook mechanism



14. Rotary hook mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|----------------------------|---------|------------|-----------------------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF14-012 | Horizontal hook base, R | 1 | 1 | |
| 2 | 93WF14-013 | Bushing | 1 | 1 | |
| 3 | 93WF14-001 | Drain pipe | 1 | 1 | |
| 4 | 93WF3-001 | Pipe | 1 | 1 | |
| 5 | 93WF14-014 | Ball bearing | 2 | 2 | 16002 15×32×8 |
| 6 | 93WF14-015 | Oil seal | 2 | 2 | 15×21×3 |
| 7 | | Retaining ring | 1 | 1 | GB893.1 26 |
| 8 | 93WF14-017 | Ball bearing | 3 | 3 | 6000 10×26×8 |
| 9 | 93WF14-018 | Bearing | 1 | 1 | 6002Z 10×26×8 |
| 10 | 93WF14-019 | Pin | 1 | 1 | |
| 11 | | Oil tube | 1 | 1 | L=35 |
| 12 | | Oil wick | 1 | 1 | L=40 |
| 13 | 93WF14-020 | Shaft, rotary hook | 1 | 1 | |
| 14 | 93WF14-002 | Gear, OP-shaft | 1 | 1 | |
| 15 | 93WF7-029 | Set screw | 4 | 4 | |
| 16 | 93WF14-003 | Gear | 1 | 1 | |
| 17 | 93WF14-021 | Supporter | 1 | 1 | |
| 18 | 496512 | Screw | 2 | 2 | |
| 19 | 93WF14-047 | Gear assy. | 1 | 1 | |
| 20 | 93WF14-023 | Washer | 1 | 1 | |
| 21 | 93WF14-046 | Lower shaft holder | 1 | 1 | |
| 22 | 93WF14-005 | O ring | 1 | 1 | |
| 23 | | Set screw | 3 | 3 | GB/T 77 M4×5 |
| 24 | | Screw | 3 | 3 | GBT/68 M4×6 |
| 25 | 93WF14-025 | Collar | 1 | 1 | |
| 26 | 93WF3-005 | Bolt | 1 | 1 | |
| 27 | 93WF14-026 | Opener shaft | 1 | 1 | |
| 28 | | Oil wick | 1 | 1 | L=80 |
| 29 | 93WF14-006 | Rubber cap, ϕ 4.2mm | 1 | 1 | |
| 30 | 93WF14-027 | Adjusting guide rail | 1 | 1 | |
| 31 | 93WF14-028 | Adjusting pin | 1 | 1 | |
| 32 | 93WF14-048 | Gear assy. | 1 | 1 | |
| 33 | 33T2-30-A | O ring | 1 | 1 | |
| 34 | 93WF8-015 | Set screw | 2 | 2 | |
| 35 | 93WF14-030 | Set screw | 2 | 2 | |
| 36 | 93WF14-031 | Lubrication shaft | 1 | 1 | |
| 37 | 93WF14-032 | Oil tank, hook base | 1 | 1 | |
| 38 | 93WF1-017 | Pipe | 1 | 1 | |
| 39 | 93WF8-036 | Bolt | 1 | 1 | |
| 40 | 93WF14-033 | Bushing | 1 | 1 | |
| 41 | 93WF14-034 | Oil seal | 1 | 1 | 22×32×7 |
| 42 | 93WF14-008 | Sheet packing | 1 | 1 | |
| 43 | 93WF14-035 | Setting bracket, opener | 1 | 1 | |
| 44 | 93WF14-036 | Opener arm | 1 | 1 | |
| 45 | 93WF14-037 | Pin | 1 | 1 | |
| 46 | 200WF14-001 | Opener | 1 | 1 | |
| 47 | 93WF14-009 | Retaining ring, ϕ 4mm | 1 | 1 | |
| 48 | 13WF1-015 | Screw | 2 | 2 | |
| 49 | 93WF14-040 | Washer | 1 | 1 | t1=0.3/t2=0.4/t3=0.5/t4=0.2 |
| 50 | 200WF14-002 | Rotary hook assy. | 1 | 1 | |
| 51 | 200WF14-003 | Bobbin | 1 | 1 | |
| 52 | 93WF14-043 | Bolt | 2 | 2 | |
| 53 | 93WF14-044 | Eccentric collar | 1 | 1 | |
| 54 | 93WF14-045 | Washer | 1 | 1 | L=50 |
| 55 | | Oil wick | 2 | 2 | |
| 56 | 93WF13-006 | Bolt | 9 | 9 | |

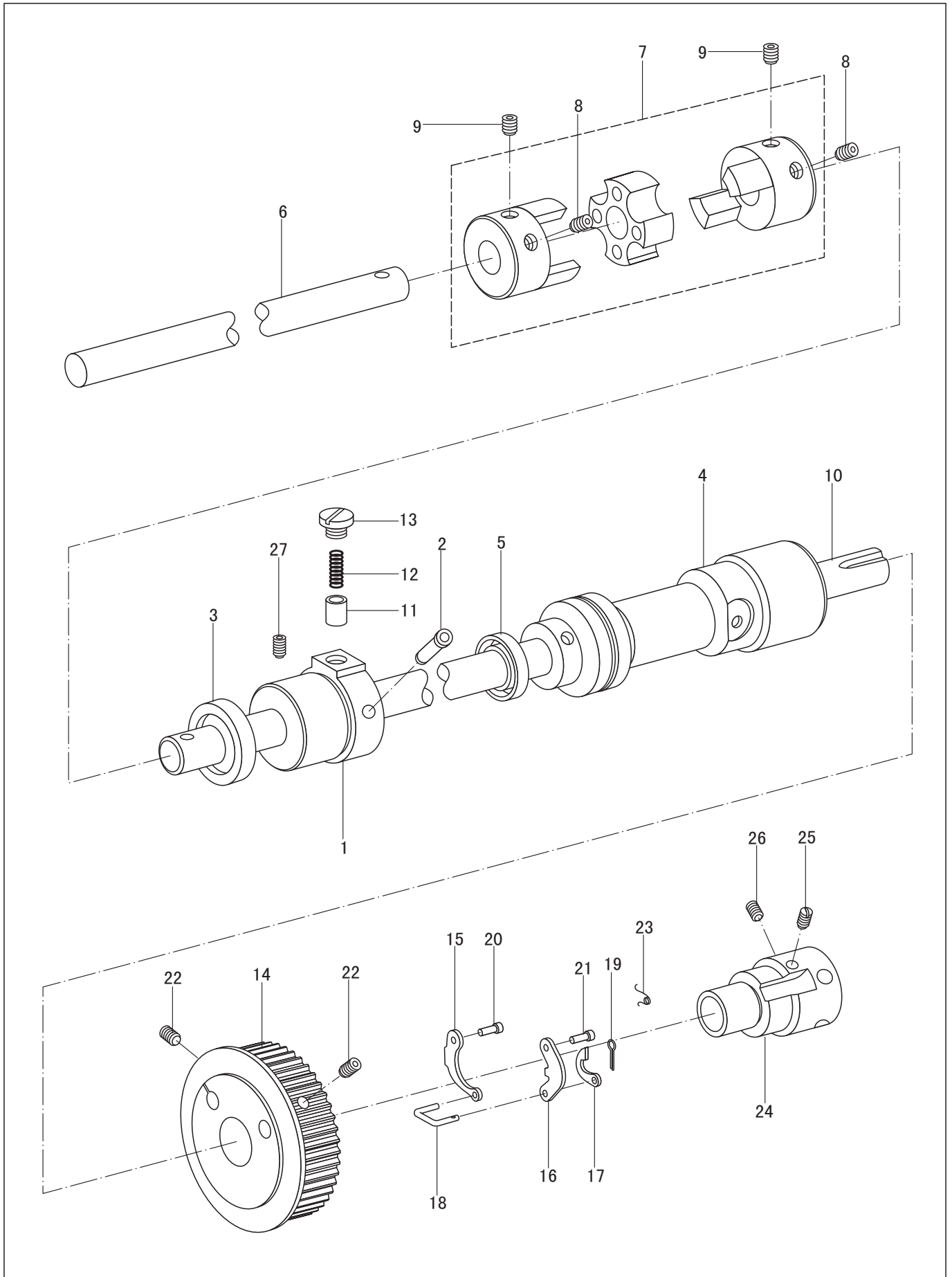
14. Rotary hook shaft timing mechanism (TW2-899-D2)



14. Rotary hook shaft timing mechanism (TW2-899-D2)

| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-------------|--------------------------|------------|-----------------------------|
| | | | TW2-899-D2 | |
| 1 | 193WF14-001 | Horizontal hook base (L) | 1 | |
| 2 | 93WF14-013 | Bushing | 1 | |
| 3 | 93WF14-001 | Drain pipe | 1 | |
| 4 | 93WF14-014 | Ball bearing | 2 | 16002 15×32×8 |
| 5 | 93WF14-015 | Oil seal | 1 | 15×21×3 |
| 6 | | Retaining ring | 2 | GB893.1 26 |
| 7 | 93WF14-017 | Ball bearing | 2 | 6000 10×26×8 |
| 8 | 193WF14-047 | Bearing | 1 | 2080900 10×22×6 |
| 9 | 193WF14-003 | Pin | 1 | |
| 10 | 93WF14-020 | Shaft, rotary hook | 1 | |
| 11 | 93WF14-002 | Gear, OP-shaft | 1 | |
| 12 | 93WF8-015 | Set screw | 2 | |
| 13 | 93WF14-003 | Gear | 1 | |
| 14 | 93WF7-029 | Set screw | 2 | |
| 15 | 193WF14-048 | Bearing | 1 | 6000 10×22×6 |
| 16 | 93WF14-021 | Supporter | 1 | |
| 17 | 496512 | Screw | 2 | |
| 18 | 93WF14-047 | Gear assy. | 1 | |
| 19 | 93WF14-023 | Washer | 1 | |
| 20 | | | | |
| 21 | 93WF14-046 | Lower shaft holder | 1 | |
| 22 | 93WF14-005 | O ring | 1 | |
| 23 | 93WF14-015 | Oil seal | 1 | 15×21×3 |
| 24 | | Set screw | 3 | GB/T77 M4×5 |
| 25 | | Screw | 3 | GB/T68 M4×4 |
| 26 | 93WF14-025 | Collar | 1 | |
| 27 | 93WF3-005 | Bolt | 1 | |
| 28 | 93WF14-026 | Hook shaft | 1 | |
| 29 | | Oil wick | 1 | L=80 |
| 30 | 93WF14-006 | Rubber cap | 1 | |
| 31 | 93WF14-027 | Adjusting guide rail | 1 | |
| 32 | 93WF14-028 | Adjusting pin | 1 | |
| 33 | 93WF14-048 | Gear assy. | 1 | |
| 34 | 33T2-030-A | O ring | 1 | |
| 35 | 93WF8-015 | Set screw | 2 | |
| 36 | 93WF14-030 | Set screw | 2 | |
| 37 | 93WF14-031 | Lubrication shaft | 1 | |
| 38 | 193WF14-002 | Oil tank, hook base | 1 | |
| 39 | 93WF14-001 | Pipe | 1 | |
| 40 | 93WF8-036 | Bolt | 1 | |
| 41 | 93WF14-033 | Bushing | 1 | |
| 42 | 93WF14-034 | Oil seal | 1 | 22×32×7 |
| 43 | 93WF14-008 | Sheet packing | 1 | |
| 44 | 93WF13-006 | Bolt | 9 | |
| 45 | | | | |
| 46 | 93WF14-035 | Setting bracket, opener | 1 | |
| 47 | 93WF14-036 | Opener arm | 1 | |
| 48 | 93WF14-037 | Pin | 1 | |
| 49 | 200WF14-001 | Thread opener | 1 | |
| 50 | 93WF14-009 | Retaining ring | 1 | |
| 51 | 13WF1-015 | Screw | 2 | |
| 52 | 93WF14-040 | Washer | 1 | t1=0.3/t2=0.4/t3=0.5/t4=0.2 |
| 53 | 200WF14-002 | Rotary hook assy. | 1 | |
| 54 | 200WF14-003 | Bobbin | 1 | |
| 55 | 93WF14-043 | Bolt | 2 | |
| 56 | 93WF14-044 | Eccentric collar | 1 | |
| 57 | 93WF14-045 | Washer | 1 | |
| 58 | | Oil wick | 1 | L=50 |

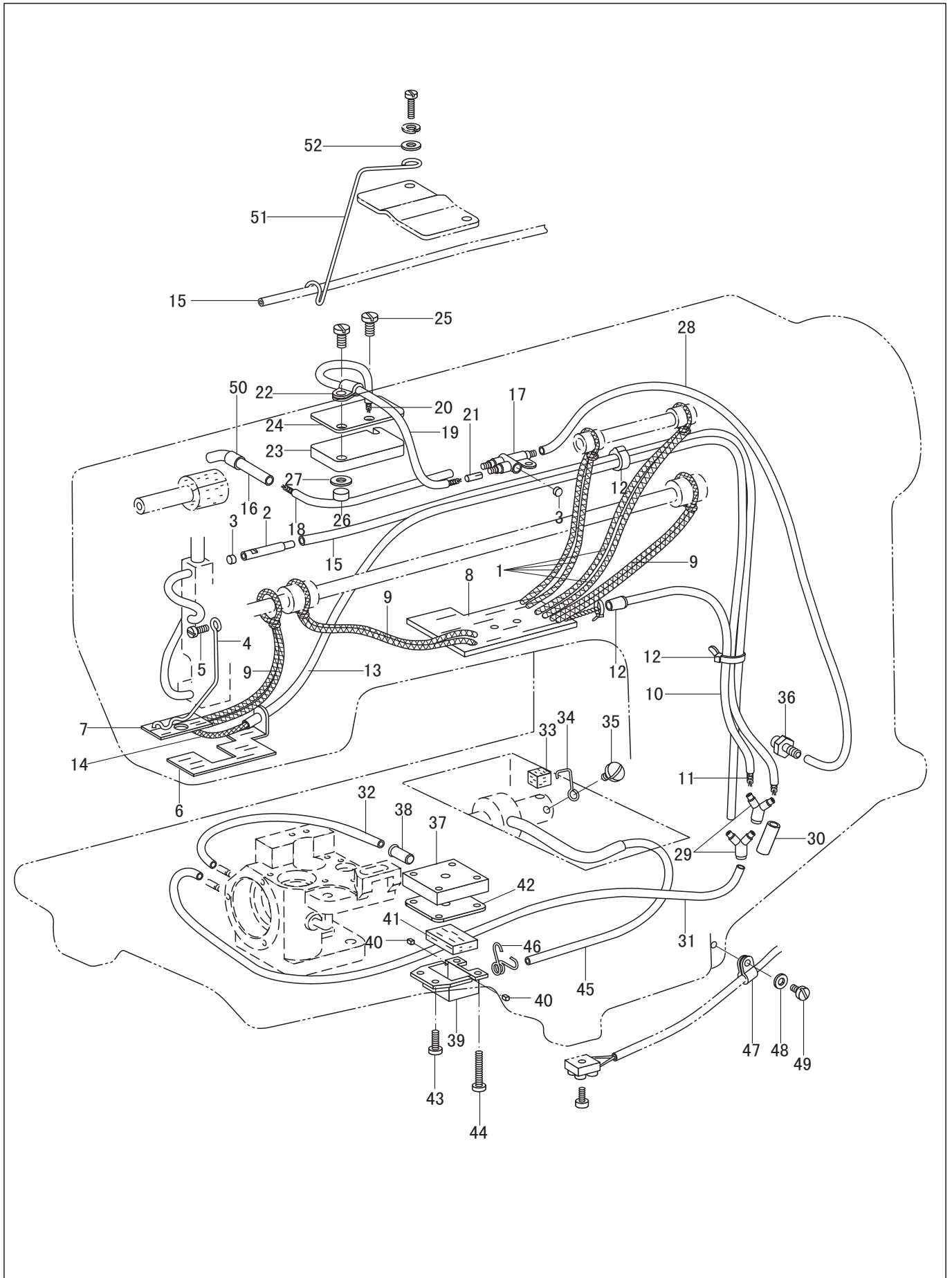
15. Lower shaft mechanism



15. Lower shaft mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|----------------------------|---------|------------|---------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF15-006 | Bushing, F; L-shaft | 1 | 1 | |
| 2 | 93WF3-001 | Pipe | 2 | 2 | |
| 3 | 93WF15-007 | Oil seal | 1 | 1 | 12×30×7 |
| 4 | 93WF15-008 | Bushing, B; L-shaft | 1 | 1 | |
| 5 | 93WF15-009 | Oil seal | 1 | 1 | 12×22×7 |
| 6 | 93WF15-010 | Lower shaft | 1 | 1 | |
| 7 | 93WF15-001A | Lower shaft coupling assy. | 1 | 1 | |
| | 93WF15-001B | Lower shaft coupling, R | | | |
| | 93WF15-001C | Lower shaft coupling, L | | | |
| 8 | 93WF15-011 | Screw | 2 | 2 | |
| 9 | 93WF15-012 | Screw | 2 | 2 | |
| 10 | 93WF15-013 | Lower shaft, B | 1 | 1 | |
| 11 | 93WF15-002 | Plunge | 1 | 1 | |
| 12 | 93WF15-003 | Spring, compression | 1 | 1 | |
| 13 | 93WF15-004 | Screw | 1 | 1 | |
| 14 | 93WF15-005 | Belt pulley assy., Lower | 1 | 1 | |
| 15 | 22WF1-013 | Spring lock lever | 1 | 1 | |
| 16 | 22WF1-018 | Lock lever | 1 | 1 | |
| 17 | 22WF1-016 | Rachet | 1 | 1 | |
| 18 | 22WF1-017 | Connecting link | 1 | 1 | |
| 19 | | Pin | 1 | 1 | GB/T 91 1.2×8 |
| 20 | 22WF1-015 | Shaft, spring lock lever | 1 | 1 | |
| 21 | 22WF1-019 | Shaft, lock lever | 1 | 1 | |
| 22 | 93WF8-015 | Set screw | 2 | 2 | |
| 23 | 22WF1-014 | Spring | 1 | 1 | |
| 24 | 93WF15-015 | Bushing | 1 | 1 | |
| 25 | 93WF15-016 | Set screw | 1 | 1 | |
| 26 | 93WF15-017 | Set screw | 1 | 1 | |
| 27 | 93WF2-015 | Set screw | 1 | 1 | |

16. Lubrication mechanism

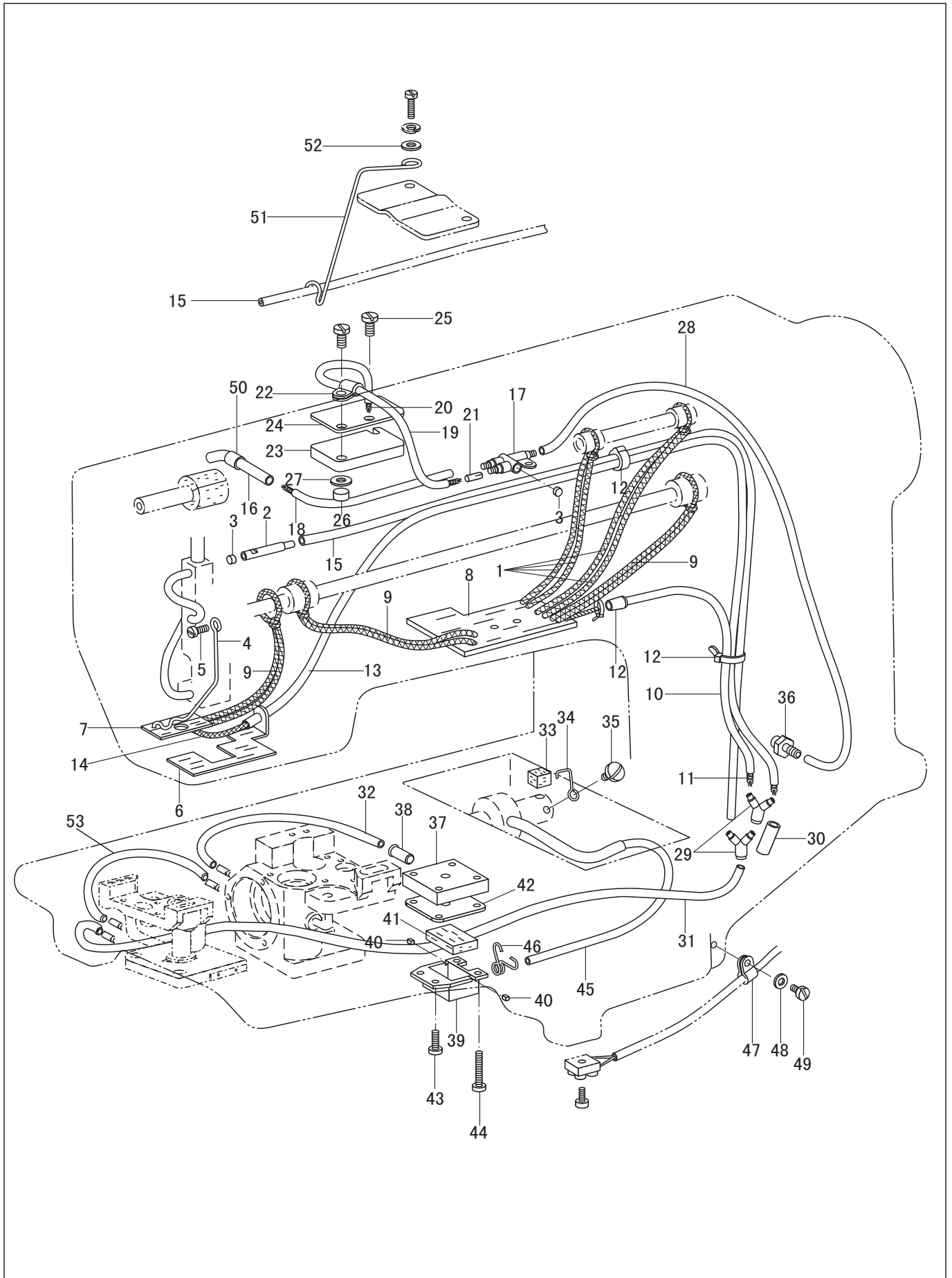


16. Lubrication mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|--------------------------|---------|------------|----------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | | Oil wick | 2 | 2 | |
| 2 | 93WF16-018 | Oil tube | 1 | 1 | |
| 3 | 93WF14-006 | Rubber cap, ϕ 4.2mm | 2 | 2 | |
| 4 | 93WF16-019 | Oil wick support | 1 | 1 | L=400 |
| 5 | 93WF8-037 | Bolt | 1 | 1 | |
| 6 | 93WF16-001 | Felt | 1 | 1 | |
| 7 | 93WF16-002 | Felt | 1 | 1 | |
| 8 | 93WF16-003 | Felt | 1 | 1 | |
| 9 | | Oil wick | 3 | 3 | |
| 10 | | Oil tube | 1 | 1 | |
| 11 | | Oil wick | 1 | 1 | |
| 12 | | Tube tie | 3 | 3 | L=400 |
| 13 | | Oil tube | 1 | 1 | L=200 |
| 14 | | Oil wick | 1 | 1 | L=250 |
| 15 | | Oil tube | 1 | 1 | 3 \times 110 |
| 16 | 93WF16-004 | Pipe | 1 | 1 | L=490 |
| 17 | 21WF7-016 | Joint | 1 | 1 | L=620 |
| 18 | | Oil tube | 1 | 1 | L=480 |
| 19 | | Oil tube | 1 | 1 | |
| 20 | | Oil wick | 1 | 1 | |
| 21 | | Felt | 1 | 1 | L=185 |
| 22 | 93WF16-021 | Tube clamp | 1 | 1 | L=150 |
| 23 | 93WF16-005 | Felt | 1 | 1 | L=220 |
| 24 | 93WF16-026 | Felt support | 1 | 1 | 3 \times 25 |
| 25 | 13WF7-015 | Screw | 1 | 1 | |
| 26 | 93WF16-006 | Collar | 1 | 1 | |
| 27 | 375290 | Washer | 1 | 1 | |
| 28 | | Oil tube | 1 | 1 | |
| 29 | 93WF16-007 | Y-joint | 2 | 2 | |
| 30 | | Oil tube | 1 | 1 | |
| 31 | | Oil tube | 1 | 1 | L=380 |
| 32 | | Oil tube | 1 | 1 | |
| 33 | 93WF16-008 | Sponge | 1 | 1 | L=40 |
| 34 | 93WF16-009 | Sponge support | 1 | 1 | L=400 |
| 35 | 999055 | Screw | 1 | 1 | L=190 |
| 36 | 93WF16-010 | Oil feed pipe | 1 | 1 | |
| 37 | 93WF16-024 | Plate, filter bracket | 1 | 1 | |
| 38 | 93WF1-017 | Pipe | 2 | 2 | |
| 39 | 93WF16-011 | Sub-tank | 1 | 1 | |
| 40 | 93WF16-012 | Rubber cap | 2 | 2 | |
| 41 | 93WF16-013 | Felt | 1 | 1 | |
| 42 | 93WF16-014 | Packing | 1 | 1 | |
| 43 | 33T3-007 | Screw | 3 | 3 | |
| 44 | 93WF16-015 | Screw | 2 | 2 | |
| 45 | | Oil tube | 1 | 1 | |
| 46 | 21WF7-006 | Tube clip | 1 | 1 | |
| 47 | 93WF16-016 | Cushion clamp | 1 | 1 | |
| 48 | 93WF1-009 | Washer | 1 | 1 | L=450 |
| 49 | 33T3-007 | Screw | 1 | 1 | |
| 50 | | Oil tube | 1 | 1 | |
| 51 | 93WF16-017 | Tube support | 1 | 1 | |
| 52 | | Washer | 1 | 1 | L=5 |

GB/T 97.1 4

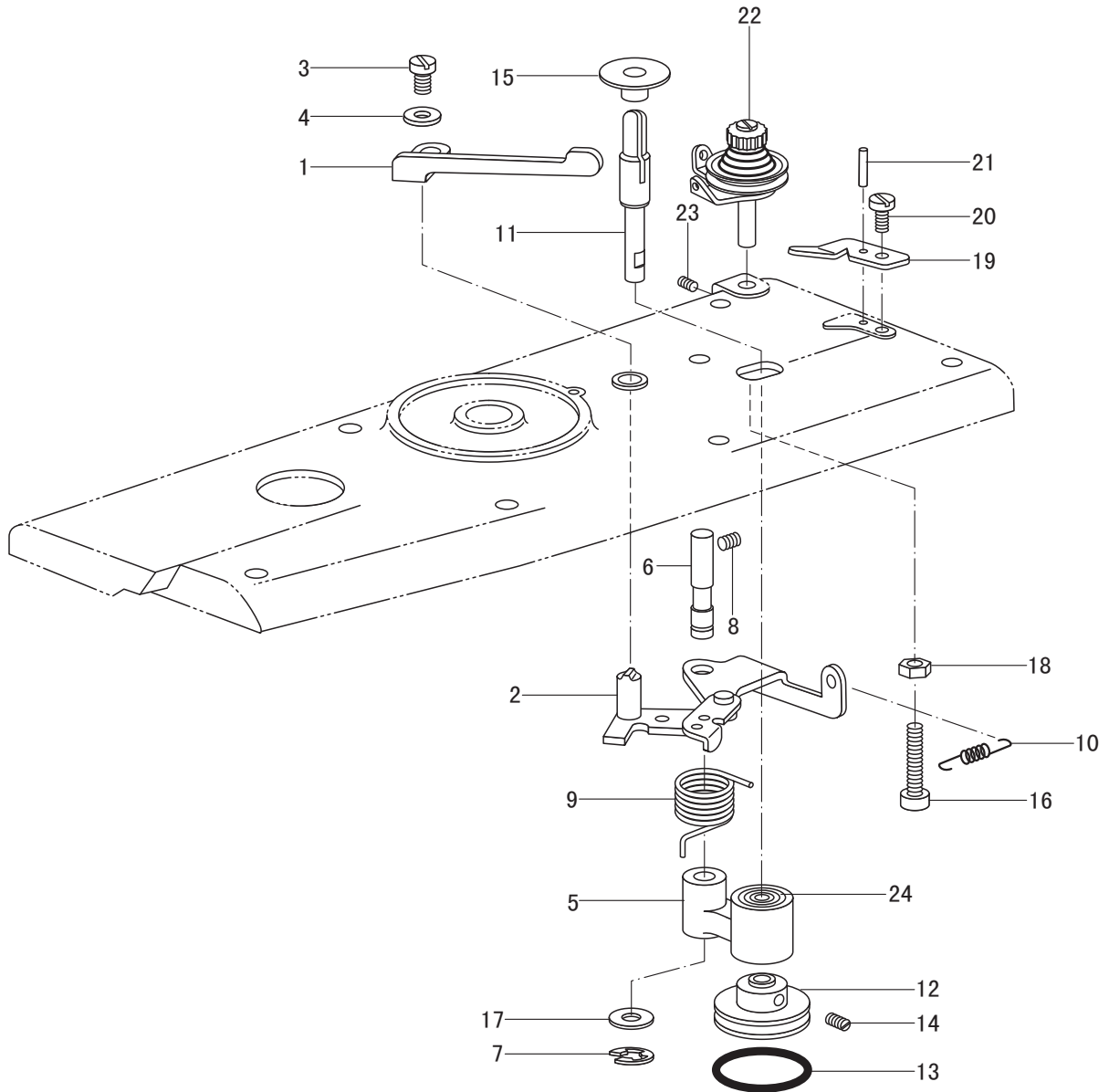
16. Lubrication mechanism (TW2-899-D2)



16. Lubrication mechanism (TW2-899-D2)

| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|------------|---------------------------------|----------------|----------------|
| | | | TW2- 899-D2 | |
| 1 | | Oil wick | 2 | |
| 2 | 93WF16-018 | Oil tube | 1 | |
| 3 | 93WF14-006 | Rubber cap, $\phi 4.2\text{mm}$ | 2 | |
| 4 | 93WF16-019 | Oil tube support | 1 | |
| 5 | 93WF8-037 | Bolt | 1 | L=400 |
| 6 | 93WF16-001 | Felt | 1 | |
| 7 | 93WF16-002 | Felt | 1 | |
| 8 | 93WF16-003 | Felt | 1 | |
| 9 | | Oil wick | 3 | |
| 10 | | Oil tube | 1 | |
| 11 | | Oil wick | 1 | |
| 12 | | Tube tie | 3 | |
| 13 | | Oil tube | 1 | L=400 |
| 14 | | Oil wick | 1 | L=200 |
| 15 | | Oil tube | 1 | L=250 |
| 16 | 93WF16-004 | Pipe | 1 | 3 \times 110 |
| 17 | 21WF7-016 | Joint | 1 | L=490 |
| 18 | | Oil tube | 1 | L=620 |
| 19 | | Oil tube | 1 | L=480 |
| 20 | | Oil wick | 1 | |
| 21 | | Felt | 1 | |
| 22 | 93WF16-021 | Tube clamp | 1 | L=185 |
| 23 | 93WF16-005 | Felt | 1 | L=150 |
| 24 | 93WF16-026 | Felt support | 1 | L=220 |
| 25 | 13WF7-015 | Screw | 1 | 3 \times 25 |
| 26 | 93WF16-006 | Collar | 1 | |
| 27 | 375290 | Washer | 1 | |
| 28 | | Oil tube | 1 | |
| 29 | 93WF16-007 | Y-joint | 2 | |
| 30 | | Oil tube | 1 | |
| 31 | | Oil tube | 1 | |
| 32 | | Oil tube | 1 | L=380 |
| 33 | 93WF16-008 | Sponge | 1 | |
| 34 | 93WF16-009 | Sponge support | 1 | L=40 |
| 35 | 999055 | Screw | 1 | L=500 |
| 36 | 93WF16-010 | Oil feed pipe | 1 | L=190 |
| 37 | 93WF16-024 | Plate, filter bracket | 1 | |
| 38 | 93WF1-017 | Pipe | 2 | |
| 39 | 93WF16-011 | Sub-tank | 1 | |
| 40 | 93WF16-012 | Rubber cap | 2 | |
| 41 | 93WF16-013 | Felt | 1 | |
| 42 | 93WF16-014 | Packing | 1 | |
| 43 | 33T3-007 | Screw | 3 | |
| 44 | 93WF16-015 | Screw | 2 | |
| 45 | | Oil tube | 1 | |
| 46 | 21WF7-006 | Tube clip | 1 | |
| 47 | 93WF16-016 | Cushion clamp | 1 | |
| 48 | 93WF1-009 | Washer | 1 | |
| 49 | 33T3-007 | Screw | 1 | L=450 |
| 50 | | Oil tube | 1 | |
| 51 | 93WF16-017 | Tube support | 1 | |
| 52 | | Washer | 1 | |
| 53 | | Oil tube | 1 | L=5 |

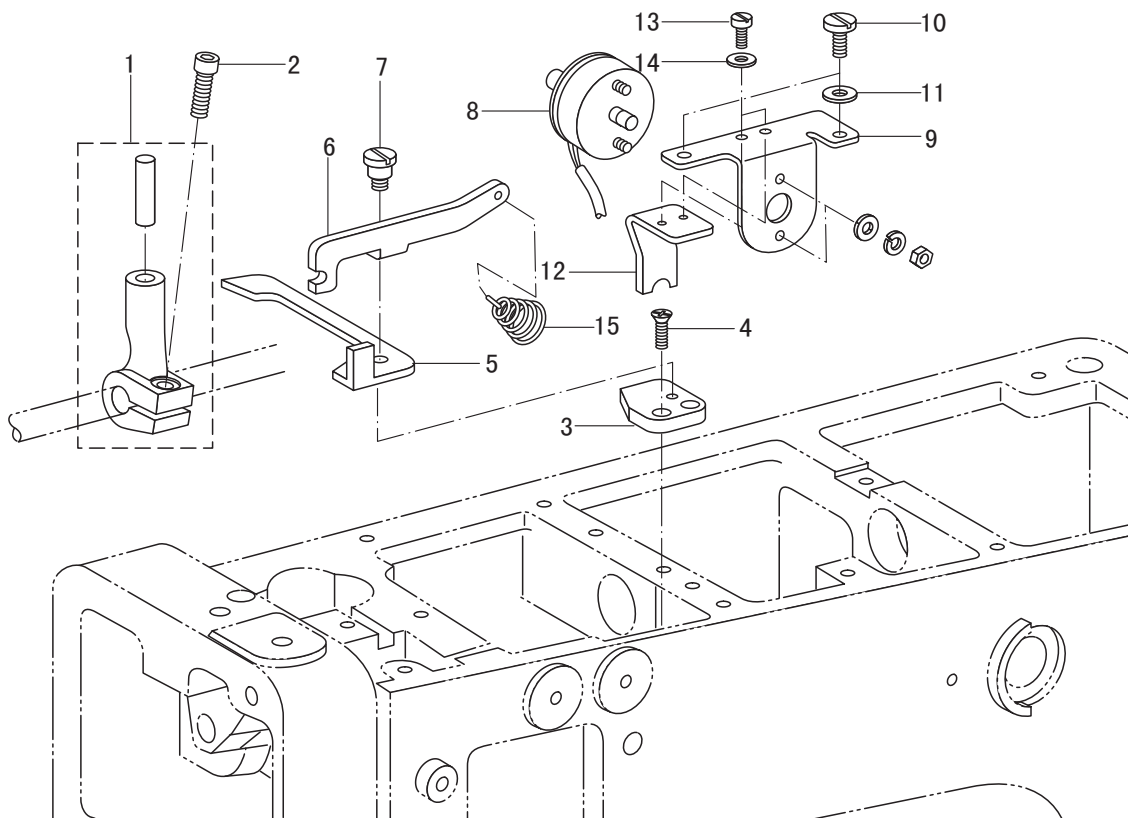
17. Bobbin winder mechanism



17. Bobbin winder mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|------------|------------------------------|---------|------------|--|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF17-001 | Bobbin presser | 1 | 1 | |
| 2 | 89WF5-008 | Bobbin presser shaft assy. | 1 | 1 | |
| | 89WF5-008A | Shaft | 1 | 1 | |
| | 89WF5-008B | Joint plate | 1 | 1 | |
| | 89WF5-008C | Pin | 2 | 2 | |
| | 89WF5-008D | stopper | 1 | 1 | |
| | 89WF5-015 | Rubber cover | 1 | 1 | |
| 3 | | Screw | 1 | 1 | |
| 4 | | Washer | 1 | 1 | |
| 5 | 93WF17-002 | B-winder shaft bracket assy. | 1 | 1 | |
| 6 | 93WF17-011 | Bobbin winder shaft | 1 | 1 | GB/T 818 M4×8 |
| 7 | 93WF17-003 | Retaining ring | 1 | 1 | GB/T 97.1 4 |
| 8 | 93WF15-012 | Set screw | 1 | 1 | |
| 9 | 93WF17-004 | Spring | 1 | 1 | |
| 10 | 93WF17-005 | Spring | 1 | 1 | |
| 11 | 93WF17-020 | Bobbin winder shaft | 1 | 1 | |
| 12 | 93WF17-006 | Bobbin winder wheel | 1 | 1 | |
| 13 | 93WF17-007 | Rubber ring | 1 | 1 | |
| 14 | 93WF17-012 | Set screw | 2 | 2 | |
| 15 | 93WF17-008 | Dust guard plate | 1 | 1 | |
| 16 | 93WF17-013 | Bolt | 1 | 1 | |
| 17 | 93WF17-014 | Washer | 1 | 1 | |
| 18 | | Nut | 1 | 1 | |
| 19 | 93WF17-009 | Knife | 1 | 1 | |
| 20 | 21WF4-047 | Screw | 1 | 1 | |
| 21 | | Pin | 1 | 1 | GB/T 41 M5 |
| 22 | 93WF17-017 | Bobbin winder tension assy. | 1 | 1 | |
| 23 | | Set screw | 1 | 1 | |
| 24 | | Bearing | 2 | 2 | GB/T 879.1 2×4 GB/T 77 M4×5 625-2Z5×16×5 |

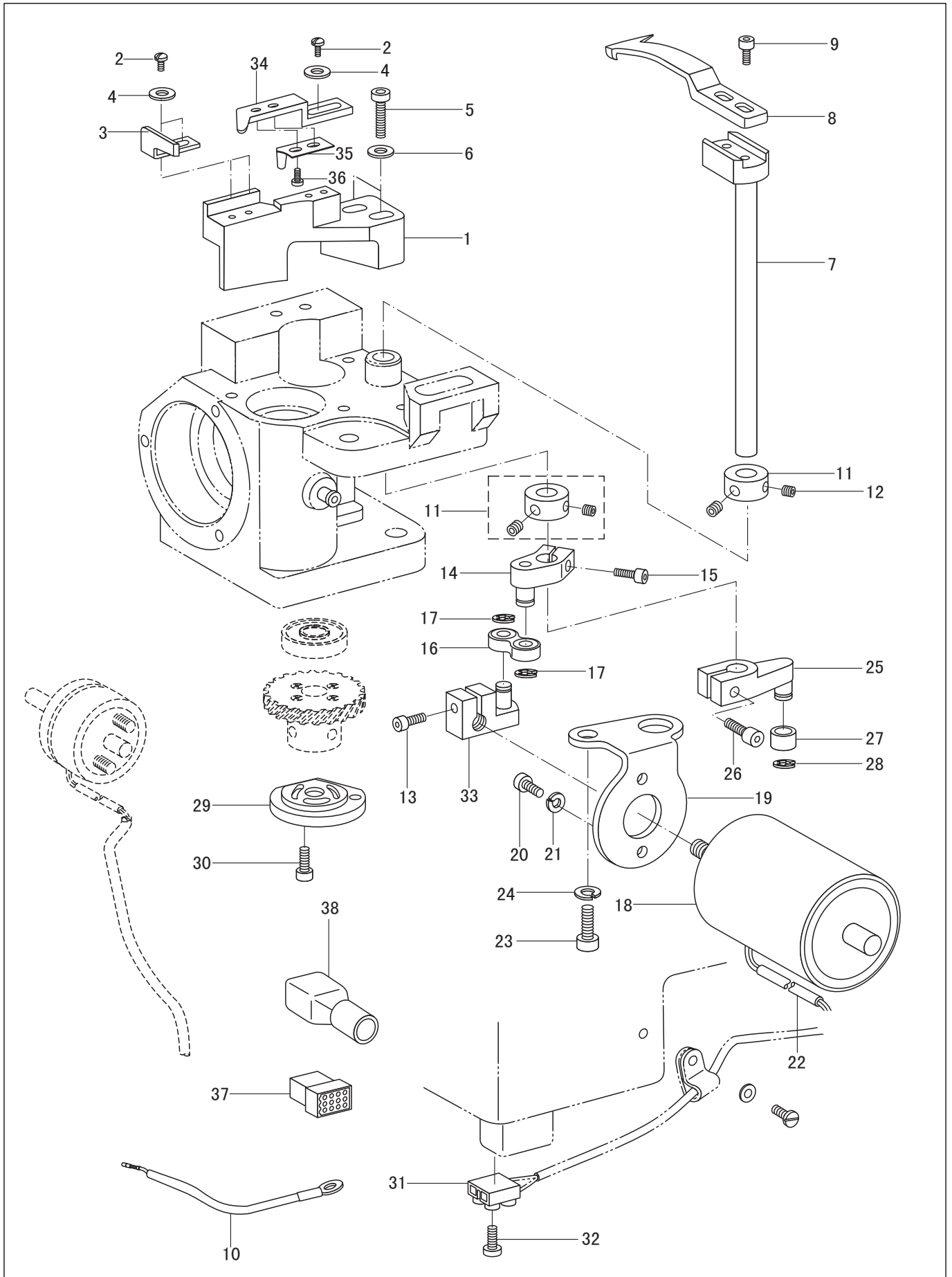
18. Tension release mechanism



18. Tension release mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|--------------------------|---------|------------|---------------|
| | | | TW1-899 | TW1-899-D2 | |
| 1 | 93WF18-003 | Thread float lever assy. | 1 | 1 | |
| 2 | 93WF7-010 | Bolt | 2 | 2 | |
| 3 | 93WF18-005 | Lever setting plate | 1 | 1 | |
| 4 | | Screw | 1 | 1 | GB/T 68 M4×12 |
| 5 | 93WF18-007 | Thread float lever | 1 | 1 | |
| 6 | 200WF18-009 | Thread float plate | 1 | 1 | |
| 7 | 93WF18-001 | Shoulder screw | 1 | 1 | |
| 8 | 93WF18-012 | Tension release solenoid | - | 1 | |
| 9 | 93WF18-009 | Setting plate, solenoid | - | 1 | |
| 10 | 13WF2-040 | Screw | 2 | 2 | |
| 11 | | Washer | 2 | 2 | GB/T 97.1 4 |
| 12 | 93WF18-002 | Bracket, solenoid | - | 1 | |
| 13 | 93WF1-024 | Bolt | - | 2 | |
| 14 | | Washer, spring | - | 2 | GB859 4 |
| 15 | 200WF18-002 | Spring | 1 | 1 | |

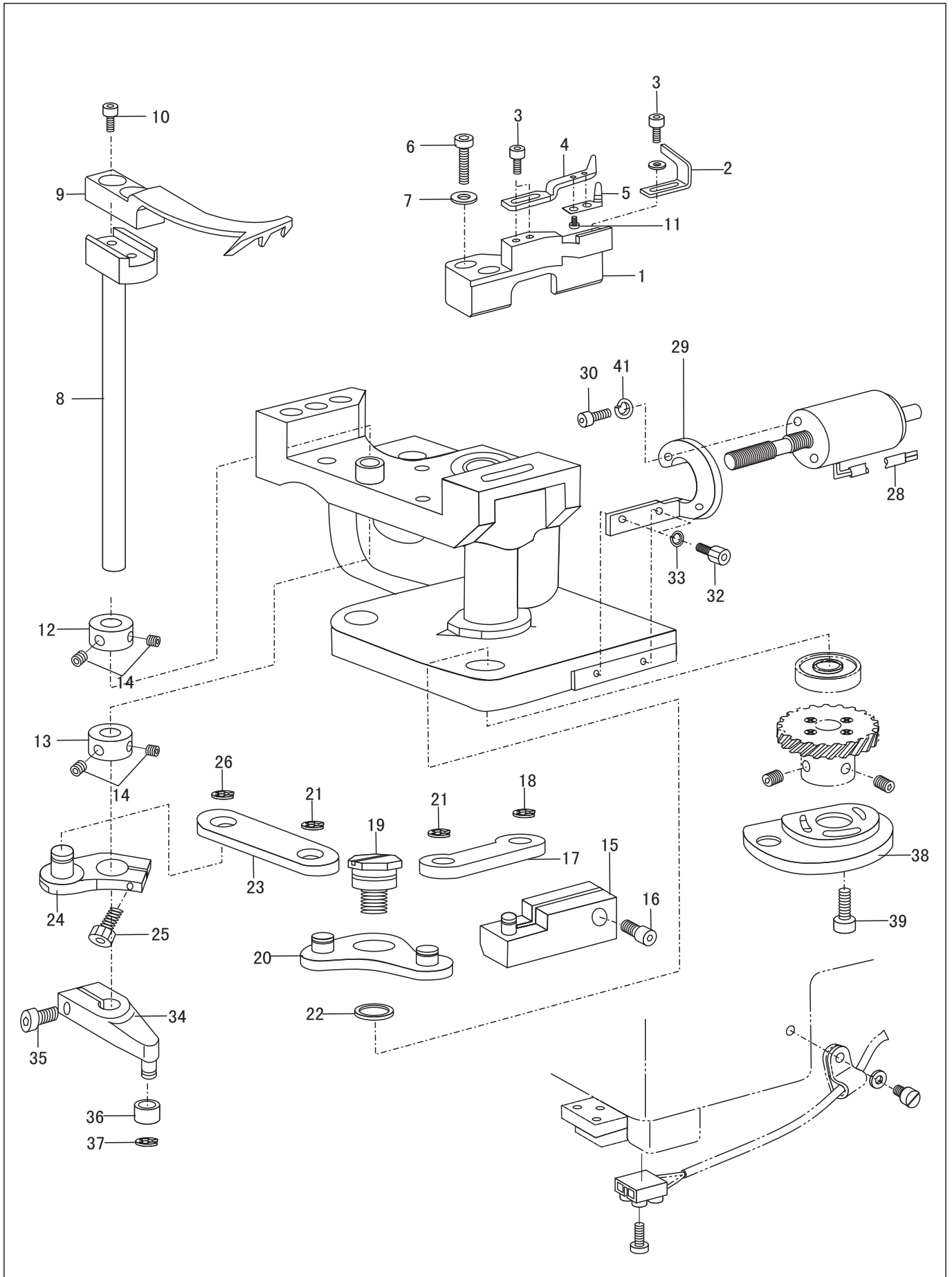
19. Thread trimmer mechanism



19. Thread trimmer mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-------------|--------------------------|------------|-----------------|
| | | | TW1-899-D2 | |
| 1 | 200WF19-001 | Support bracket, F-knife | 1 | |
| 2 | 200WF19-009 | Screw | 4 | |
| 3 | 200WF19-002 | Fixed knife | 1 | |
| 4 | | Washer | 4 | GB/T 848 3 |
| 5 | 93WF19-008 | Bolt | 2 | |
| 6 | | Washer | 2 | GB/T 848 5 |
| 7 | 200WF19-003 | Movable knife shaft | 1 | |
| 8 | 200WF19-004 | Movable knife | 1 | |
| 9 | 93WF1-024 | Bolt | 2 | |
| 10 | 117WF1-006A | Earth wire | 1 | |
| 11 | 93WF19-005 | Collar | 2 | |
| 12 | 93WF9-002 | Set screw | 4 | |
| 13 | 93WF13-006 | Bolt | 3 | |
| 14 | 93WF19-015 | Movable knife arm assy. | 1 | |
| 15 | 93WF8-031 | Bolt | 4 | |
| 16 | 93WF19-016 | Movable knife connection | 1 | |
| 17 | | Retaining ring | 2 | GB896 3 |
| 18 | 93WF19-018 | Thread trimmer solenoid | 1 | SMT-4357SL |
| 19 | 93WF19-019 | Solenoid setting plate | 1 | |
| 20 | 93WF13-006 | Bolt | 2 | |
| 21 | | Washer | 2 | GB 859 4 |
| 22 | 117WF19-001 | Wire | 1 | |
| 23 | 93WF6-035 | Bolt | 1 | |
| 24 | | Washer | 1 | GB 859 6 |
| 25 | 93WF19-020 | Movable knife arm | 1 | |
| 26 | 93WF19-021 | Bolt | 1 | |
| 27 | 93WF19-006 | Roller | 1 | |
| 28 | 93WF11-006 | Retaining ring | 1 | |
| 29 | 200WF19-005 | Thread trimmer cam | 1 | |
| 30 | 93WF8-031 | Bolt | 3 | |
| 31 | 80WF2-021 | Terminal block | 1 | |
| 32 | | Screw | 1 | GB/T 65 M2.5×16 |
| 33 | 93WF19-023 | Movable knife arm assy. | 1 | |
| 34 | 200WF19-006 | Thread holding plate | 1 | |
| 35 | 200WF19-007 | Thread holding spring | 1 | |
| 36 | 200WF19-008 | Screw | 1 | |
| 37 | 2KT8-002 | 12-hole terminal | 1 | |
| 38 | 2KT8-002 | Terminal cover | 1 | |

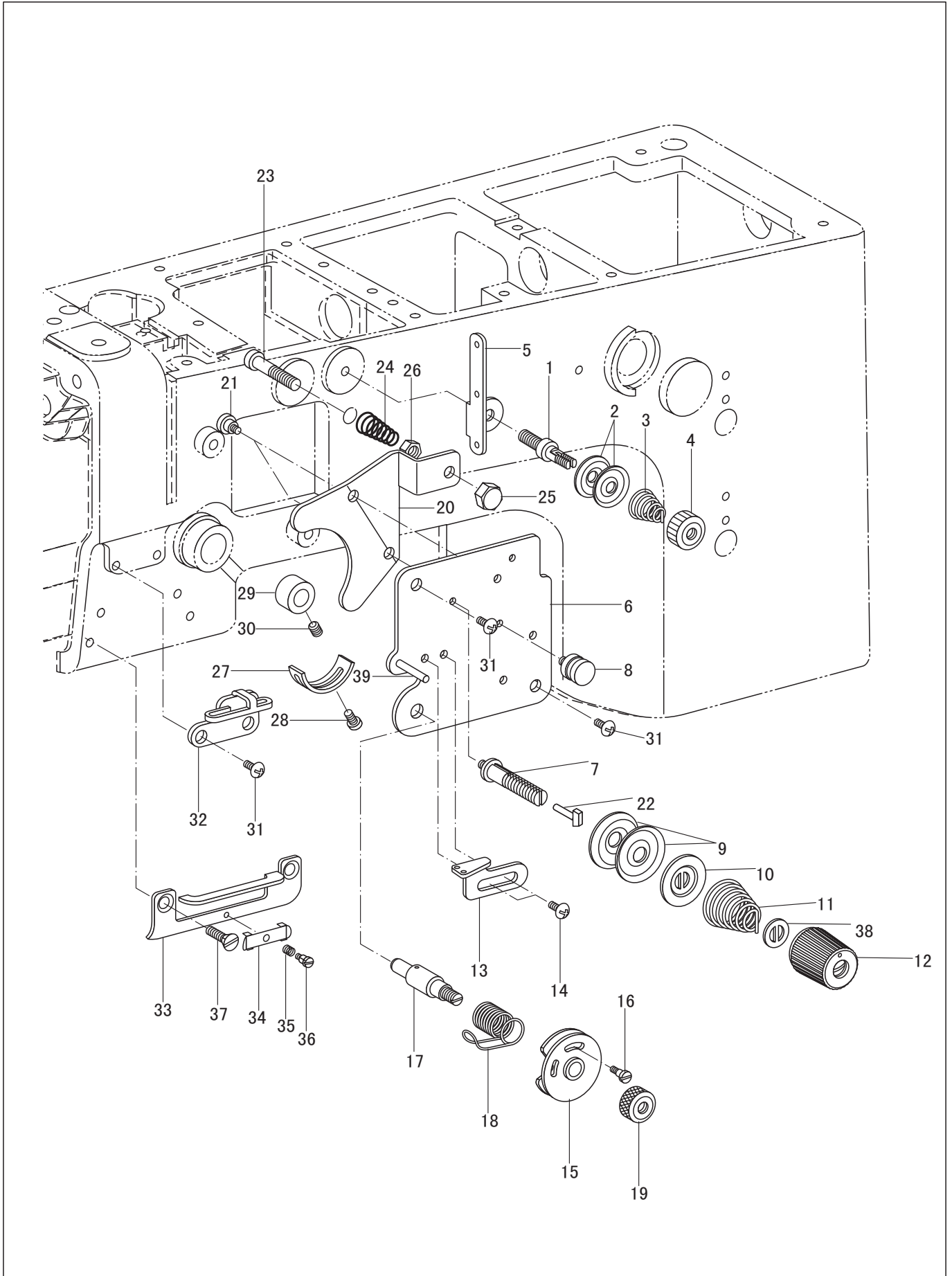
19. Thread trimmer mechanism (TW2-899-D2)



19. Thread trimmer mechanism (TW2-899-D2)

| NO. | PARTS NO. | PARTS NAME | QTY | | REMARK |
|-----|-------------|--------------------------|------------|-------------|------------|
| | | | TW2-899-D2 | TW2-899S-D2 | |
| 1 | 200WF19-001 | Support bracket, F-knife | 1 | 1 | |
| 2 | 200WF19-002 | Fixed knife | 1 | 1 | |
| 3 | 200WF19-009 | Screw | 4 | 4 | |
| 4 | 200WF19-006 | Thread holding plate | 1 | 1 | |
| 5 | 200WF19-007 | Thread holding spring | 2 | 2 | |
| 6 | 93WF19-008 | Screw | 2 | 2 | |
| 7 | | Washer | 2 | 2 | GB/T 848 5 |
| 8 | 200WF19-003 | Movable knife shaft | 1 | 1 | |
| 9 | 200WF19-004 | Movable knife | 1 | 1 | |
| 10 | 93WF1-024 | Bolt | 2 | 2 | |
| 11 | 200WF19-008 | Screw | 2 | 2 | |
| 12 | 93WF19-005 | Collar | 1 | 1 | |
| 13 | 193WF19-001 | Collar | 1 | 1 | |
| 14 | 93WF19-002 | Set screw | 4 | 4 | |
| 15 | 193WF19-002 | Connector assy. | 1 | 1 | |
| 16 | 93WF13-006 | Bolt | 1 | 1 | |
| 17 | 193WF19-003 | Link | 1 | 1 | |
| 18 | | Retaining ring | 1 | 1 | GB896. 3 |
| 19 | 193WF19-004 | Screw | 1 | 1 | |
| 20 | 193WF19-005 | Swing board assy. | 1 | 1 | |
| 21 | | Retaining ring | 1 | 1 | GB896. 3 |
| 22 | 193WF19-006 | Washer | 1 | 1 | |
| 23 | 193WF19-007 | Link | 1 | 1 | |
| 24 | 193WF19-008 | Crank assy. | 1 | 1 | |
| 25 | 93WF8-031 | Screw | 1 | 1 | |
| 26 | | Retaining ring | 1 | 1 | GB896. 3 |
| 27 | | | | | |
| 28 | 193WF19-009 | Thread trimmer solenoid | 1 | 1 | |
| 29 | 193WF19-010 | Solenoid setting plate | 1 | 1 | |
| 30 | 93WF13-006 | Screw | 2 | 2 | |
| 31 | | Washer | 2 | 2 | GB859. 4 |
| 32 | 93WF13-006 | Screw | 2 | 2 | |
| 33 | | Washer | 2 | 2 | GB859. 4 |
| 34 | 93WF19-020 | Movable knife arm assy. | 1 | 1 | |
| 35 | 93WF19-021 | Bolt | 1 | 1 | |
| 36 | 93WF19-006 | Roller | 1 | 1 | |
| 37 | 93WF11-006 | Retaining ring | 1 | 1 | |
| 38 | 200WF19-005 | Thread trimmer cam | 1 | 1 | |
| 39 | 93WF8-031 | Screw | 3 | 3 | |

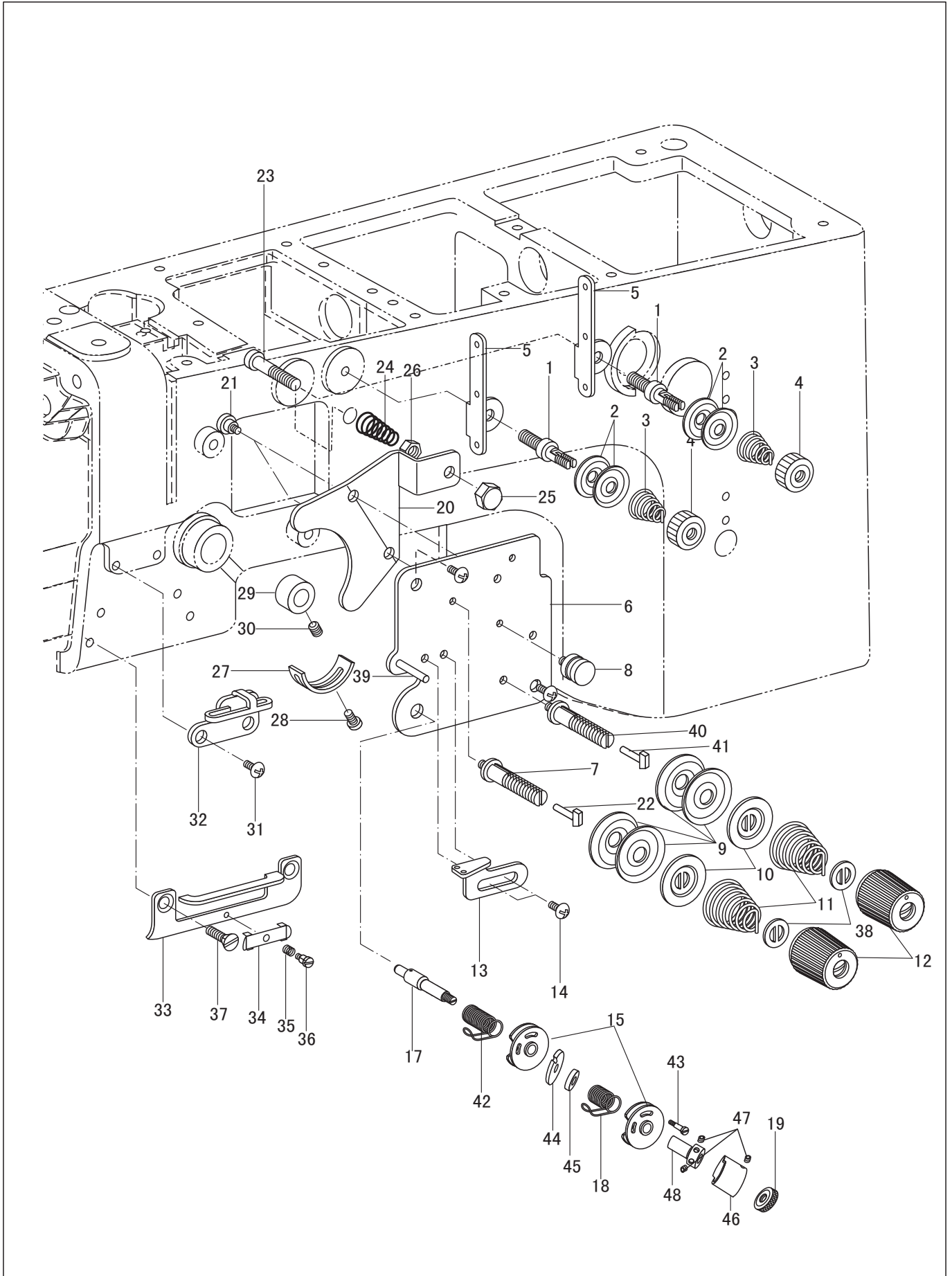
20. Thread tension mechanism



20. Thread tension mechanism

| NO. | PARTS NO. | PARTS NAME | QTY | | | | REMARK |
|-----|-------------|-------------------------------|---------|----------|------------|-------------|--------------|
| | | | TW1-899 | TW1-899S | TW1-899-D2 | TW1-899S-D2 | |
| 1 | 93WF20-006 | Tension adjusting stud | 1 | 1 | 1 | 1 | |
| 2 | 22T1-009E3 | Tension disc | 2 | 2 | 2 | 2 | |
| 3 | 13WF2-009 | Tension spring | 1 | 1 | 1 | 1 | |
| 4 | 36T2-006D4 | Nut | 1 | 1 | 1 | 1 | |
| 5 | 93WF20-007 | Thread guide | 1 | 1 | 1 | 1 | |
| 6 | 93WF20-008 | Tension plate assy. | 1 | 1 | 1 | 1 | |
| 7 | 93WF20-009 | Tension adjusting stud | 1 | 1 | 1 | 1 | |
| 8 | 93WF20-010 | Thread guide | 1 | 1 | 1 | 1 | |
| 9 | 22T1-012F5 | Tension disc | 2 | 2 | 2 | 2 | |
| 10 | 22T1-012F4 | Disc presser, tension | 1 | 1 | 1 | 1 | |
| 11 | 21WF4-031 | Tension spring | 1 | 1 | 1 | 1 | |
| 12 | 21WF4-030 | Tension nut | 1 | 1 | 1 | 1 | |
| 13 | 200WF20-001 | Thread retainer | 1 | 1 | 1 | 1 | |
| 14 | 211WF2-007 | Screw | 2 | 2 | 2 | 2 | |
| 15 | 103697 | Tension spring guide assy. | 1 | 1 | 1 | 1 | |
| 16 | 9WF1-003C | Screw | 1 | 1 | 1 | 1 | |
| 17 | 037515 | Tension adjusting stud | 1 | 1 | 1 | 1 | |
| 18 | 103692 | Thread take-up spring | 1 | 1 | 1 | 1 | |
| 19 | 037537 | Tension nut | 1 | 1 | 1 | 1 | |
| 20 | 93WF20-017 | Tension release plate | 1 | 1 | 1 | 1 | |
| 21 | 21WF4-029 | Shoulder screw | 2 | 2 | 2 | 2 | |
| 22 | 93WF20-018 | Shoulder pin, tension release | 1 | 1 | 1 | 1 | |
| 23 | 93WF20-019 | Pusher pin, tension release | 1 | 1 | 1 | 1 | |
| 24 | 93WF20-001 | Spring | 1 | 1 | 1 | 1 | |
| 25 | 93WF20-002 | Nut, cap | 1 | 1 | 1 | 1 | |
| 26 | | Nut | 1 | 1 | 1 | 1 | GB/T 6170 M4 |
| 27 | 103693 | Stopper | 1 | 1 | 1 | 1 | |
| 28 | 21WF4-015 | Screw | 1 | 1 | 1 | 1 | |
| 29 | 93WF20-022 | Collar, tension stud | 1 | 1 | 1 | 1 | |
| 30 | | Set screw | 1 | 1 | 1 | 1 | GB/T 80 M4×5 |
| 31 | 200WF20-002 | Screw | 3 | 3 | 3 | 3 | |
| 32 | 93WF20-003 | Thread guide | 1 | 1 | 1 | 1 | |
| 33 | 93WF20-025 | Thread hook | 1 | 1 | 1 | 1 | |
| 34 | 93WF20-004 | Thread clamp | 1 | 1 | 1 | 1 | |
| 35 | 1WF1-028 | Spring, compression | 1 | 1 | 1 | 1 | |
| 36 | 93WF20-005 | Shoulder screw | 1 | 1 | 1 | 1 | |
| 37 | 211WF2-009 | Screw | 2 | 2 | 2 | 2 | |
| 38 | 153209 | Stopper | 2 | 2 | 2 | 2 | |
| 39 | 93WF20-028 | Pin, opener | 1 | 1 | 1 | 1 | |

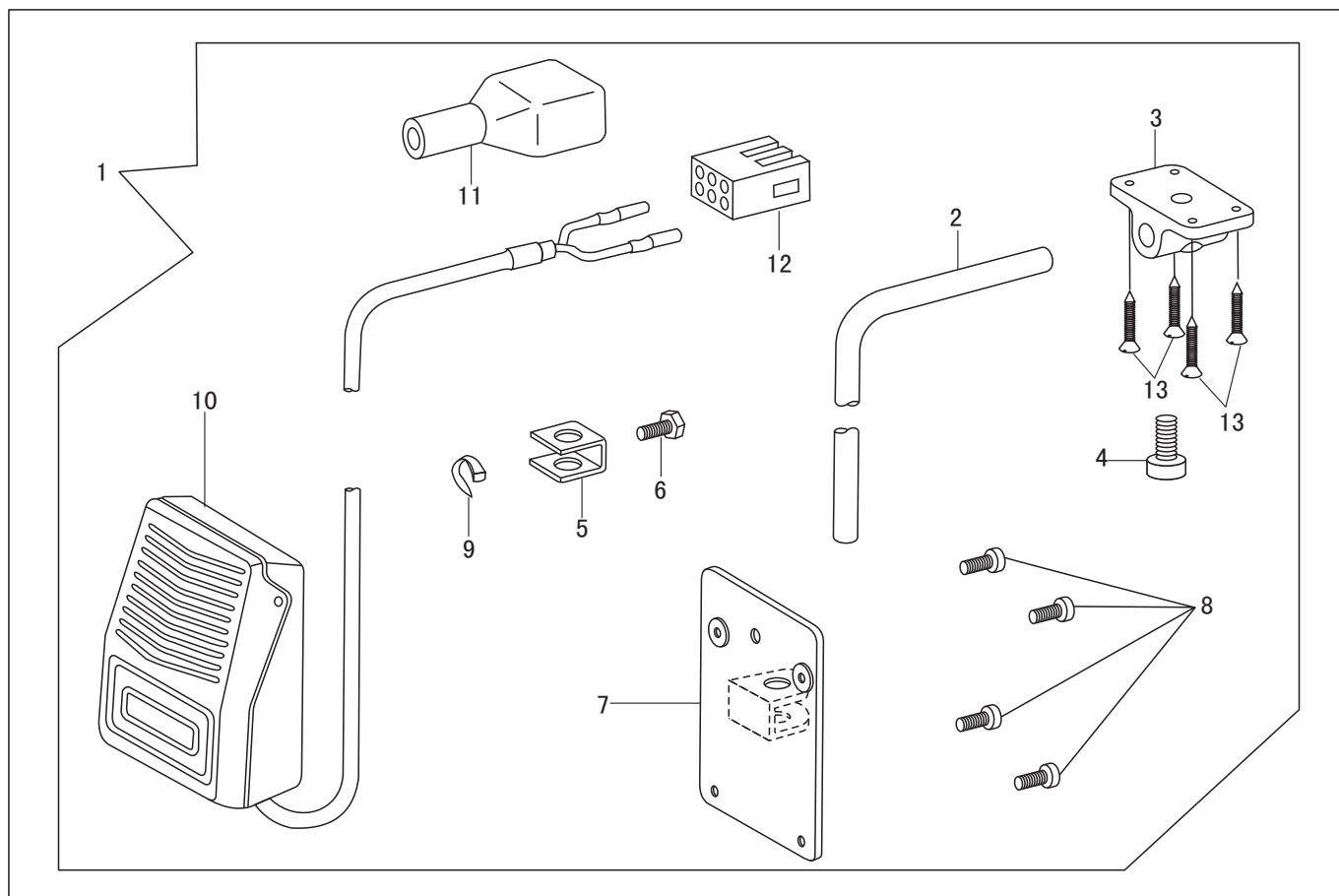
20. Thread tension mechanism (TW2-899-D2)



20. Thread tension mechanism (TW2-899-D2)

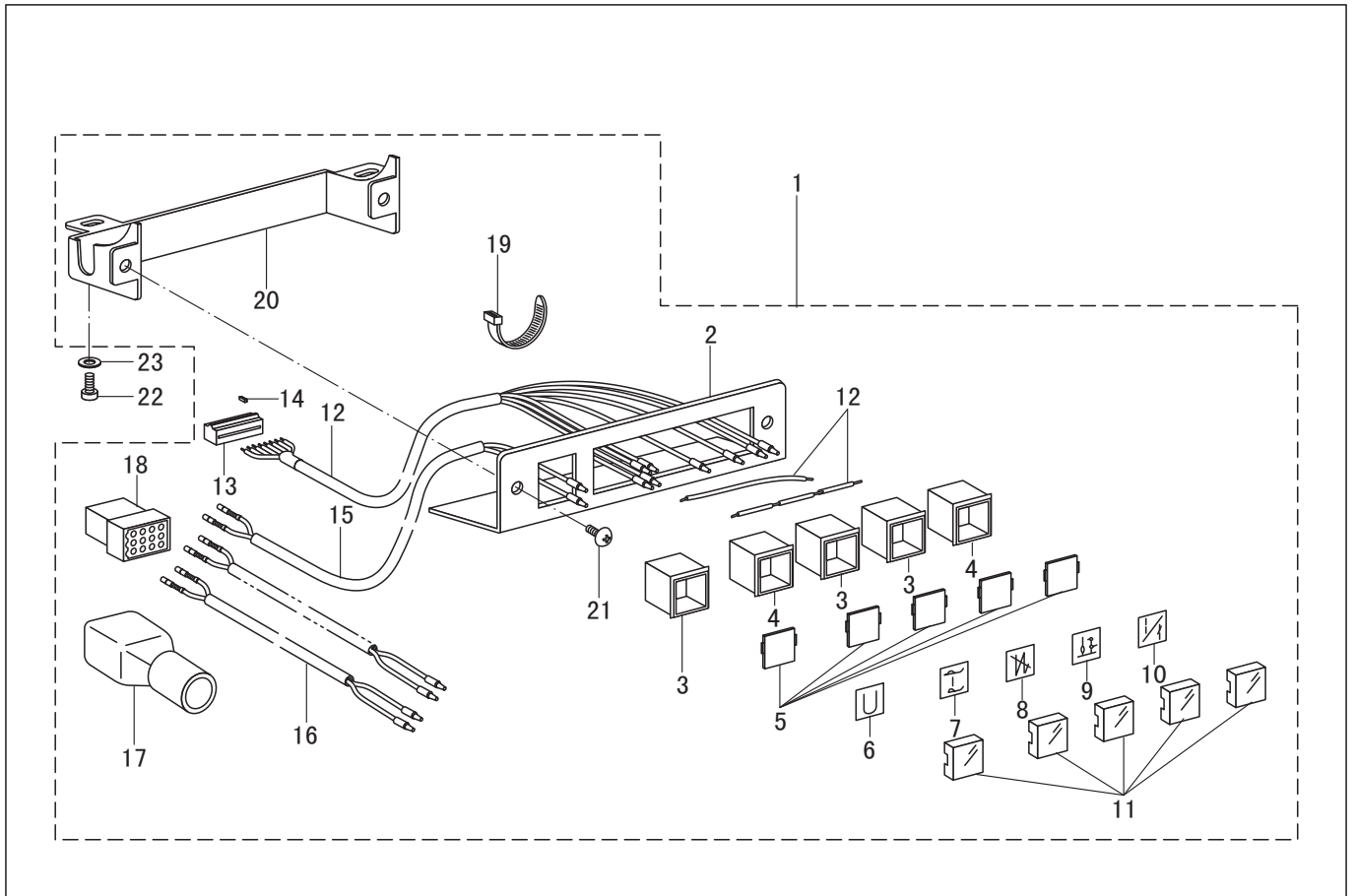
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-------------|-------------------------------|------------|--------------|
| | | | TW2-899-D2 | |
| 1 | 93WF20-006 | Tension adjusting stud | 2 | |
| 2 | 22T1-009E3 | Tension disc | 4 | |
| 3 | 13WF2-009 | Tension spring | 2 | |
| 4 | 36T2-006D4 | Nut | 2 | |
| 5 | 93WF20-007 | Thread guide | 2 | |
| 6 | 93WF20-008 | Tension plate assy. | 1 | |
| 7 | 93WF20-009 | Tension adjusting stud | 1 | |
| 8 | 93WF20-010 | Thread guide | 1 | |
| 9 | 22T1-012F5 | Tension disc | 4 | |
| 10 | 22T1-012F4 | Disc presser, tension | 2 | |
| 11 | 21WF4-031 | Tension spring | 2 | |
| 12 | 21WF4-030 | Tension nut | 2 | |
| 13 | 200WF20-001 | Thread retainer | 1 | |
| 14 | 211WF2-007 | Screw | 2 | |
| 15 | 103697 | Tension spring guide assy. | 2 | |
| 16 | | | | |
| 17 | 576466 | Tension adjusting stud | 1 | |
| 18 | 103692 | Thread take-up spring | 1 | |
| 19 | 37537 | Tension nut | 1 | |
| 20 | 93WF20-017 | Tension release plate | 1 | |
| 21 | 21WF4-029 | Shoulder screw | 2 | |
| 22 | 93WF20-018 | Shoulder pin, tension release | 2 | |
| 23 | 93WF20-019 | Pusher pin, tension release | 1 | |
| 24 | 93WF20-001 | Spring | 1 | |
| 25 | 93WF20-002 | Nut, cap | 1 | |
| 26 | | Nut | 1 | GB/T 6170 M4 |
| 27 | 103693 | Stopper | 1 | |
| 28 | 21WF4-015 | Screw | 1 | |
| 29 | 93WF20-022 | Collar, tension stud | 1 | |
| 30 | | Set screw | 1 | GB/T 80 M4×5 |
| 31 | 200WF20-002 | Screw | 3 | |
| 32 | 93WF20-003 | Thread guide | 1 | |
| 33 | 93WF20-025 | Thread hook | 1 | |
| 34 | 93WF20-004 | Thread clamp | 1 | |
| 35 | 1WF1-028 | Spring, compression | 1 | |
| 36 | 93WF20-005 | Shoulder screw | 1 | |
| 37 | 211WF2-009 | Screw | 2 | |
| 38 | 153209 | Stopper | 2 | |
| 39 | 93WF20-028 | Pin, opener | 1 | |
| 40 | 193WF20-001 | Adjusting screw | 1 | |
| 41 | 193WF20-002 | Shoulder pin, tension release | 1 | |
| 42 | 242414 | Thread take-up spring | 1 | |
| 43 | 576465 | Screw | 1 | |
| 44 | 242416 | Washer | 1 | |
| 45 | 242417 | Washer | 1 | |
| 46 | 242422 | Spring cover | 1 | |
| 47 | 661106 | Screw | 3 | |
| 48 | 242421 | Collar | 1 | |

21. Knee switch mechanism (optional)



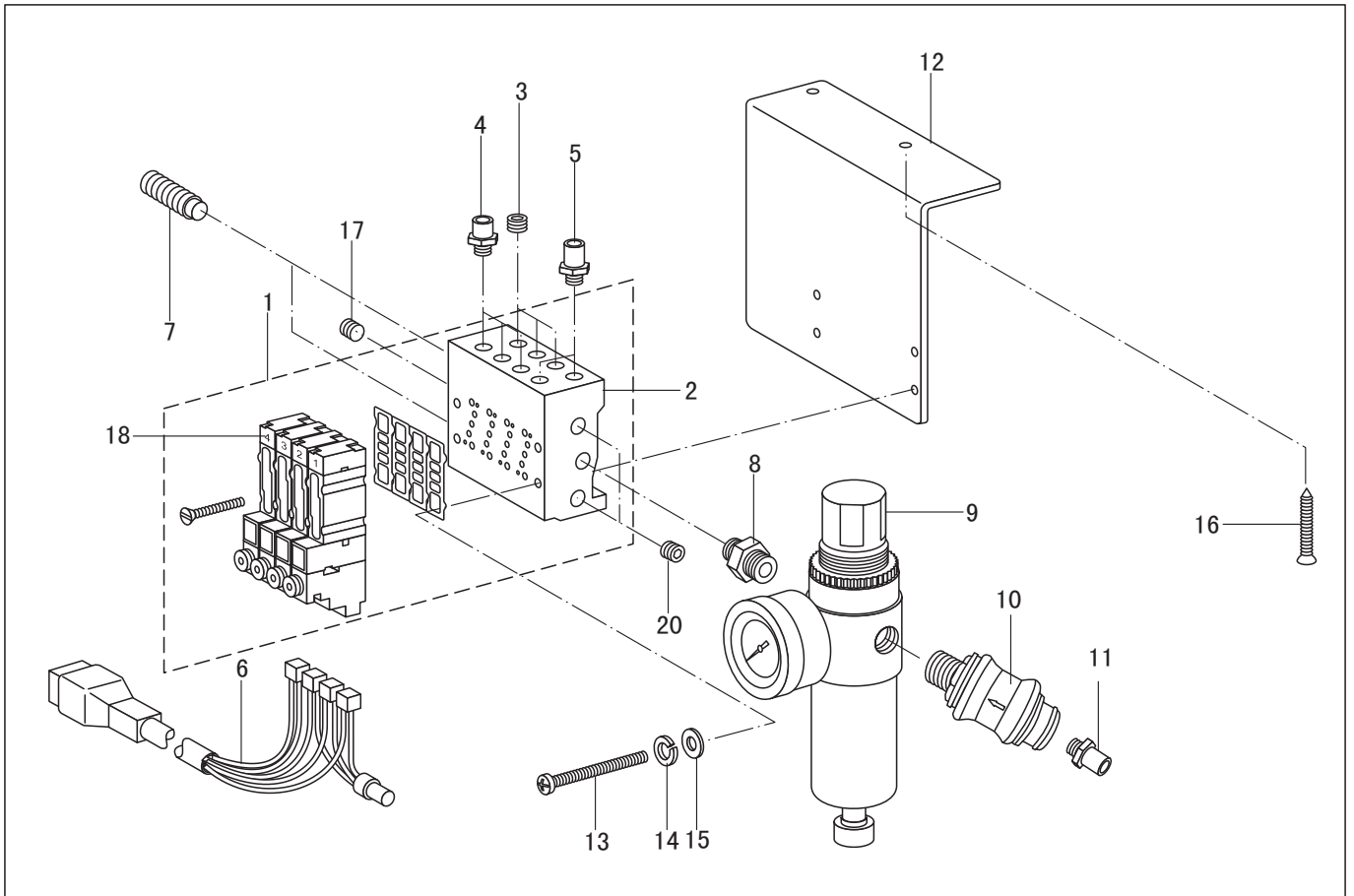
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|--------------|----------------------|------------|----------|
| | | | TW1-899-D2 | |
| 1 | 200WF21-001 | Knee switch assy. | 1 | |
| 2 | 200WF21-001A | Knee switch rod | 1 | |
| 3 | 200WF21-001B | Bracket, knee switch | 1 | |
| 4 | 200WF21-001C | Screw | 1 | |
| 5 | 200WF21-001D | Connector | 1 | |
| 6 | 200WF21-001E | Screw | 1 | |
| 7 | 200WF21-001F | Supporter plate | 1 | |
| 8 | 200WF20-002 | Screw | 4 | |
| 9 | | Band | 1 | 3×80 |
| 10 | 200WF21-001H | Knee switch | 1 | |
| 11 | 117WF9-002 | Terminal cover | 1 | |
| 12 | 200WF21-001H | Terminal | 1 | |
| 13 | | Screw | 4 | GB99 4×5 |

22. Manual switch mechanism



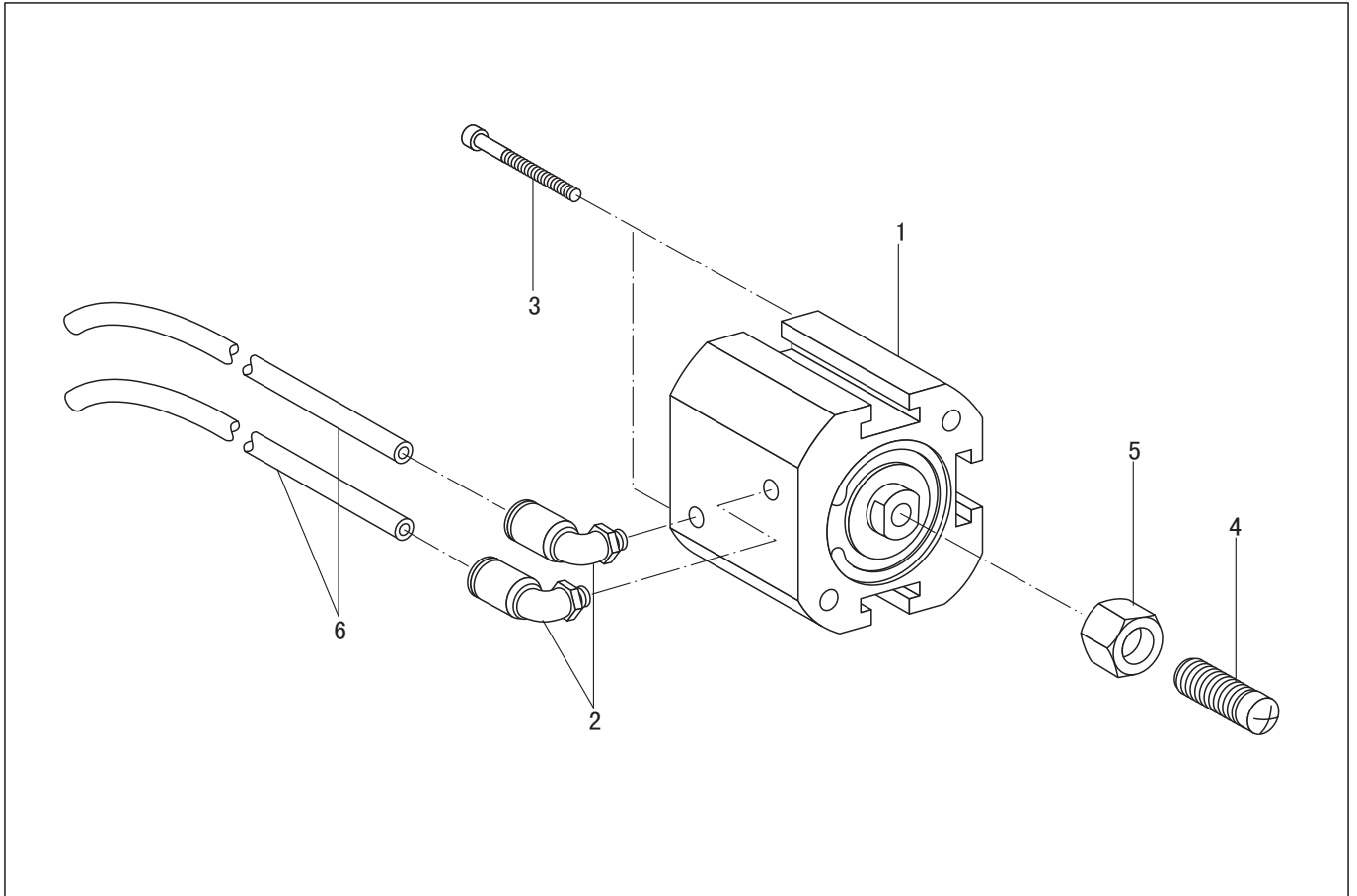
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|------------|----------------------|------------|--------|
| | | | TW1-899-D2 | |
| 1 | 93WF21-001 | Switch assy. | 1 | |
| 2 | 93WF21-002 | Switch setting plate | 1 | |
| 3 | 93WF21-003 | Switch | 3 | |
| 4 | 93WF21-004 | Switch | 2 | |
| 5 | 93WF21-005 | Lens | 5 | |
| 6 | 93WF21-006 | Push button mark | 1 | |
| 7 | 93WF21-007 | Push button mark | 1 | |
| 8 | 93WF21-008 | Push button mark | 1 | |
| 9 | 93WF21-009 | Push button mark | 1 | |
| 10 | 93WF21-010 | Push button mark | 1 | |
| 11 | 93WF21-011 | Push button | 5 | |
| 12 | 93WF21-012 | Harness | 1 | |
| 13 | 93WF21-013 | Connector | 1 | |
| 14 | 93WF21-014 | Pin | 1 | |
| 15 | 93WF21-015 | Harness assy. | 1 | |
| 16 | 93WF21-016 | Harness assy. | 1 | |
| 17 | 93WF21-017 | Connector cap | 1 | |
| 18 | 93WF21-018 | Nylon connector | 1 | |
| 19 | | Fastening band | 1 | |
| 20 | 93WF21-020 | Switch cover plate | 1 | |
| 21 | | Screw | 2 | |
| 22 | | Bolt | 2 | |
| 23 | | Washer | 2 | |

23. Pneumatic mechanism



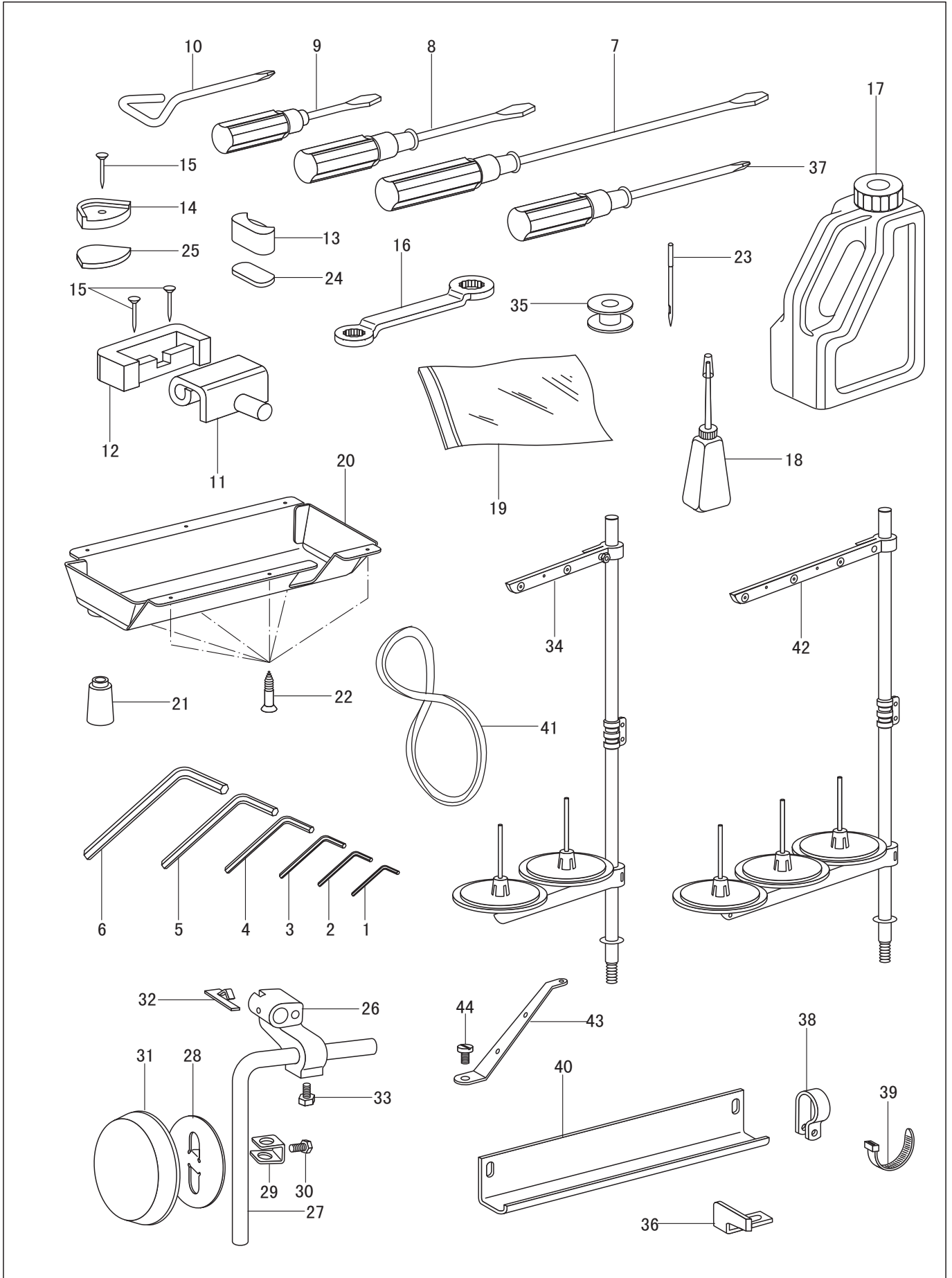
| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|-------------|----------------------|------------|--|
| | | | TW1-899-D2 | |
| 1 | 93WF22-002 | Solenoid valve assy. | 4 | |
| 2 | 93WF22-003 | Air manifold | 1 | |
| 3 | 93WF22-004 | Plug | 3 | |
| 4 | 93WF22-005 | Joint | 3 | |
| 5 | 93WF22-006 | Joint | 2 | |
| 6 | 93WF22-007 | Connector assy. | 1 | 4V110-06DC24V |
| 7 | 93WF22-008 | Silencer | 2 | 100M-4F |
| 8 | 93WF22-009 | Joint | 1 | G1/4 |
| 9 | 93WF22-010 | Integrator | 1 | APC4-01 |
| 10 | 93WF22-011 | Ball valve | 1 | APC6-01 |
| 11 | 93WF22-012 | Joint | 1 | |
| 12 | 93WF22-001 | Setting plate | 1 | PSL-02 |
| 13 | | Screw | 4 | 1/4-1/4 |
| 14 | | Washer, spring | 4 | AFR2000 |
| 15 | | Washer | 4 | HSV-08 |
| 16 | | Wood screw | 2 | APC8-02 |
| 17 | 93WF22-015 | Plug | 3 | |
| 18 | 117WF22-015 | Mark | 1 | GB/T 818 M4×38 GB/T 859 4 GB/T97.1 4 |

24. Presser foot actuator mechanism



| NO. | PARTS NO. | PARTS NAME | QTY | REMARK |
|-----|------------|------------|------------|-----------------|
| | | | TW1-899-D2 | |
| 1 | 93WF23-001 | Cylinder | 1 | SU239 32×20 |
| 2 | 93WF23-002 | Joint | 2 | APL6-01 |
| 3 | | Bolt | 2 | GB/T 70.1 M5×45 |
| 4 | 93WF23-004 | Screw | 1 | |
| 5 | 93WF23-005 | Nut | 1 | GB/T 6172.1 M8 |
| 6 | | Air tube | 2 | L=870mm |

25. Accessories

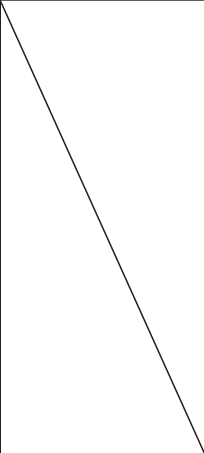



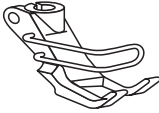
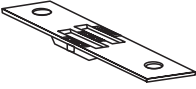
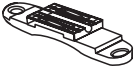




25. Accessories

| NO. | PARTS NO. | PARTS NAME | QTY | | | REMARK |
|-----|-------------|-------------------------|---------|------------|------------|--------------------|
| | | | TW1-899 | TW1-899-D2 | TW2-899-D2 | |
| 1 | | Hexagonal wrench | 1 | 1 | 1 | |
| 2 | | Hexagonal wrench | 1 | 1 | 1 | |
| 3 | | Hexagonal wrench | 1 | 1 | 1 | |
| 4 | | Hexagonal wrench | 1 | 1 | 1 | S=1.5 |
| 5 | | Hexagonal wrench | 1 | 1 | 1 | S=2 |
| 6 | | Hexagonal wrench | 1 | 1 | 1 | S=2.5 |
| 7 | 33TF-012 | Screwdriver, L | 1 | 1 | 1 | S=3 |
| 8 | 33TF-013 | Screwdriver, M | 1 | 1 | 1 | S=4 |
| 9 | 33TF-014 | Screwdriver, S | 1 | 1 | 1 | S=5 |
| 10 | 93WF24-015 | Screwdriver, plus | 1 | 1 | 1 | |
| 11 | 22T9-007F1 | Hinge | 2 | 2 | 2 | |
| 12 | 17WF8-011 | Rubber cushion | 2 | 2 | 2 | |
| 13 | 93WF24-002 | Corner support | 2 | 2 | 2 | |
| 14 | 93WF24-003 | Head cushion | 2 | 2 | 2 | |
| 15 | | Nail | 6 | 6 | 6 | |
| 16 | | Double head wrench | 1 | 1 | 1 | |
| 17 | 22T9-017 | Oil tank | 1 | 1 | 1 | |
| 18 | 33TF-011 | Oiler | 1 | 1 | 1 | SG162 L=19 |
| 19 | 33TF-010 | Accessories bag | 1 | 1 | 1 | 8×10 GB/T4388-1995 |
| 20 | 93WF24-019 | Oil pan | 1 | 1 | 1 | |
| 21 | | Poly oiler | 1 | 1 | 1 | |
| 22 | | Wooden screw | 6 | 6 | 6 | |
| 23 | | Needle | 3 | 4 | 4 | |
| 24 | 93WF24-004 | Spacer | 2 | 2 | 2 | |
| 25 | 93WF24-005 | Spacer | 2 | 2 | 2 | GB 100 3.5×12 |
| 26 | 93WF24-022 | Knee lifter bracket | 1 | 1 | 1 | DP×17 22# |
| 27 | 22T9-003B2 | Knee lifter bar | 1 | 1 | 1 | |
| 28 | 22T9-003B5 | Knee lifter plate | 1 | 1 | 1 | |
| 29 | 22T9-003B6 | Stopper, k-lifter plate | 1 | 1 | 1 | |
| 30 | 22T9-003B6 | Bolt | 1 | 1 | 1 | |
| 31 | 22T9-003B8 | Cover, k-lifter plate | 1 | 1 | 1 | |
| 32 | 93WF24-006 | Leaf spring | 1 | 1 | 1 | |
| 33 | | Bolt | 1 | 1 | 1 | SM11/64"×28/8 |
| 34 | 33TF-019 | Thread stand assy. | 1 | 1 | 1 | |
| 35 | 200WF14-003 | Bobbin | 3 | 4 | 4 | |
| 36 | 200WF19-002 | Fixed knife | - | 1 | 2 | GB/T 5781 M8×10 |
| 37 | 93WF24-025 | Screwdriver, hexagonal | 1 | 1 | 1 | |
| 38 | 93WF16-016 | Cushion clamp | 1 | 1 | 1 | |
| 39 | | Cable tie | 1 | 1 | 1 | |
| 40 | 93WF24-026 | Wire cover | - | 1 | 1 | |
| 41 | | V-belt | 1 | 1 | 1 | |
| 42 | 1F-014 | Thread stand (2-thread) | - | - | 1 | 4×200 |
| 43 | 200WF24-002 | Thread guide | 1 | 1 | 2 | |
| 44 | 200WF24-003 | Thread guide | 1 | 1 | 1 | M43 |

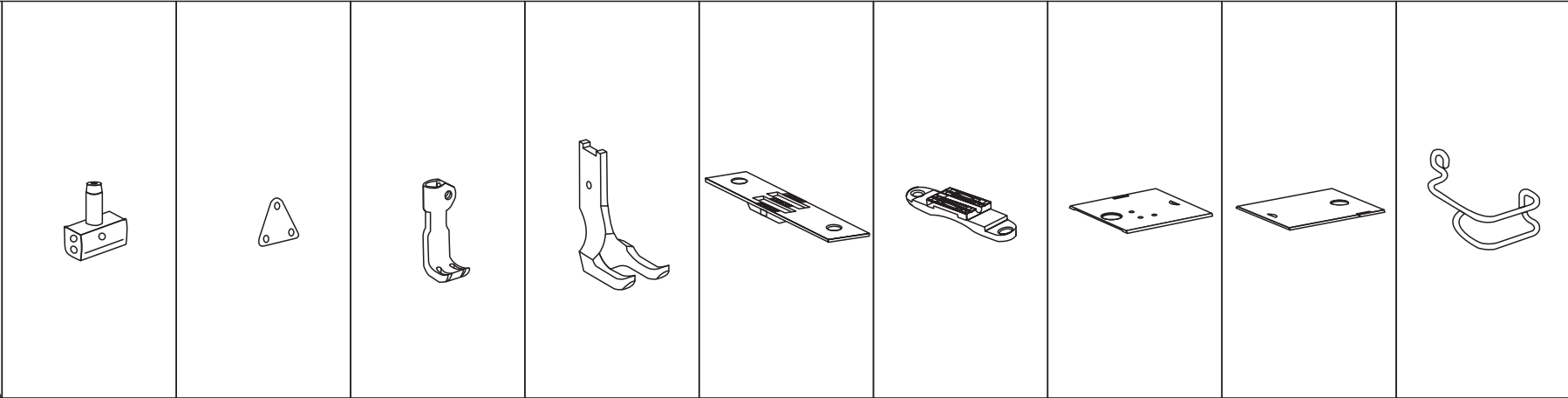
Appendix I

TW2-899/TW2-899-D2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |
| Gauge size | Needle clamp | Thread guide | Walking foot | Presser foot | Needle plate | Feed dog | Slide plate, R | Slide plate, L |
| 3mm | 193WF5-001a | 193WF5-002a | 193WF13-001a | 193WF13-002a | 218WF13-001A | 218WF13-003a | 200WF13-005 | 218WF13-003 |
| 4mm | 193WF5-001b | 193WF5-002a | 193WF13-001b | 193WF13-002a | 218WF13-001B | 218WF13-003b | 200WF13-005 | 218WF13-003 |
| 6mm | 193WF5-001c | 193WF5-002a | 193WF13-001c | 193WF13-002b | 218WF13-001C | 218WF13-003c | 200WF13-005 | 218WF13-003 |
| 8mm | 193WF5-001d | 193WF5-002a | 193WF13-001d | 193WF13-002c | 218WF13-001D | 218WF13-3d | 200WF13-005 | 218WF13-003 |
| 10mm | 193WF5-001e | 193WF5-002b | 193WF13-001e | 193WF13-002d | 218WF13-001E | 218WF13-3e | 218WF13-002A | 218WF13-003A |
| 12mm | 193WF5-001f | 193WF5-002b | 193WF13-001f | 193WF13-002e | 218WF13-001F | 218WF13-3f | 218WF13-002A | 218WF13-003A |
| | | | | | | | | |
| | | | | | | | | |

Appendix II

TW2-899S/TW2-899S-D2

| Gauge size | |  | | | | | | | | |
|------------|--------|--|--------------|--------------|--------------|--------------|--------------|----------------|----------------|--------------|
| | | Needle clamp | Thread guide | Walking foot | Presser foot | Needle plate | Feed dog | Slide plate, R | Slide plate, L | Finger guard |
| 1/8" | 3.2mm | 212WF1-001A | 219WF5-001 | 88WF4-001aE | 88WF3-002aE | 219WF13-001a | 219WF13-002a | 200WF13-005 | 218WF13-003 | 88WF3-004aE |
| 3/16" | 4.8mm | 212WF1-001B | 219WF5-001 | 88WF4-001aF | 88WF3-002aF | 219WF13-001b | 219WF13-002b | 200WF13-005 | 218WF13-003 | 88WF3-004aE |
| 1/4" | 6.4mm | 212WF1-001C | 219WF5-001 | 88WF4-001aA | 88WF3-002aA | 219WF13-001C | 219WF13-002c | 200WF13-005 | 218WF13-003 | 88WF3-004aE |
| 5/16" | 7.9mm | 212WF1-001D | 219WF5-001 | 88WF4-001aB | 88WF3-002aB | 219WF13-001d | 219WF13-002d | 200WF13-005 | 218WF13-003 | 88WF3-004aF |
| 3/8" | 9.5mm | 212WF1-001E | 219WF5-002 | 88WF4-001aC | 88WF3-002aC | 219WF13-001e | 219WF13-002e | 218WF13-002A | 218WF13-003A | 88WF3-004aF |
| 1/2" | 12.7mm | 212WF1-001F | 219WF5-002 | 88WF4-001aD | 88WF3-002aD | 219WF13-001f | 219WF13-002f | 218WF13-002A | 218WF13-003A | 88WF3-004aH |
| | | | | | | | | | | |
| | | | | | | | | | | |

TW1-898/S/D2

HIGH SPEED COMPOUND FEED AND
WALKING FOOT LOCKSTITCH SEWING MACHINE



This machine may only be operated by adequately trained operators only after having completely read and understood the instruction manual.

Parts are subject to changes in design without prior notice.



VETRON TYPICAL EUROPE GmbH
Clara-Immerwahr-Str. 6
67661 Kaiserslautern, Germany
Tel.: +49 6301 320 75-0
Fax: +49 6301 320 75-11

info@vetrontypical.com
www.vetrontypical.com