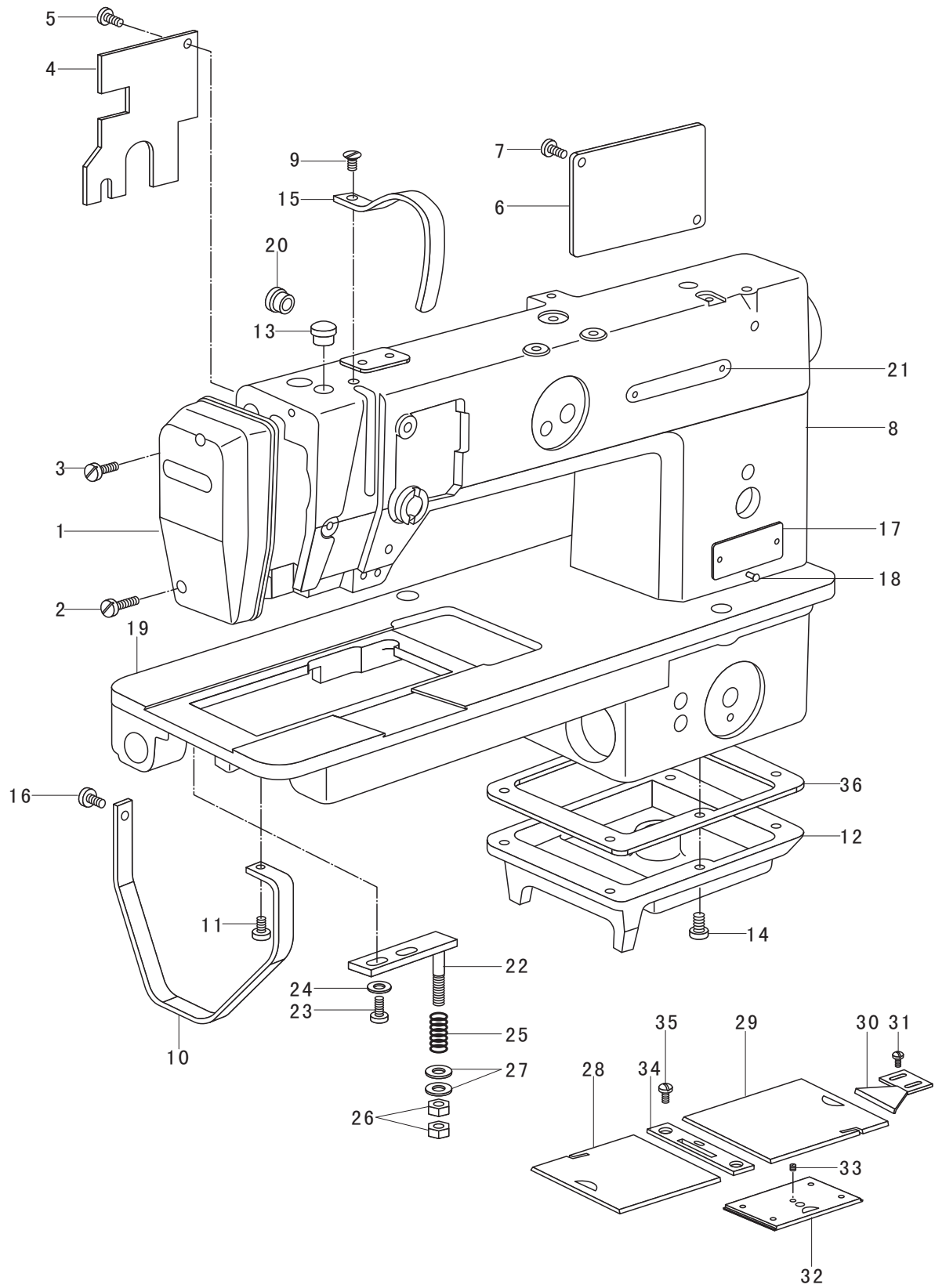


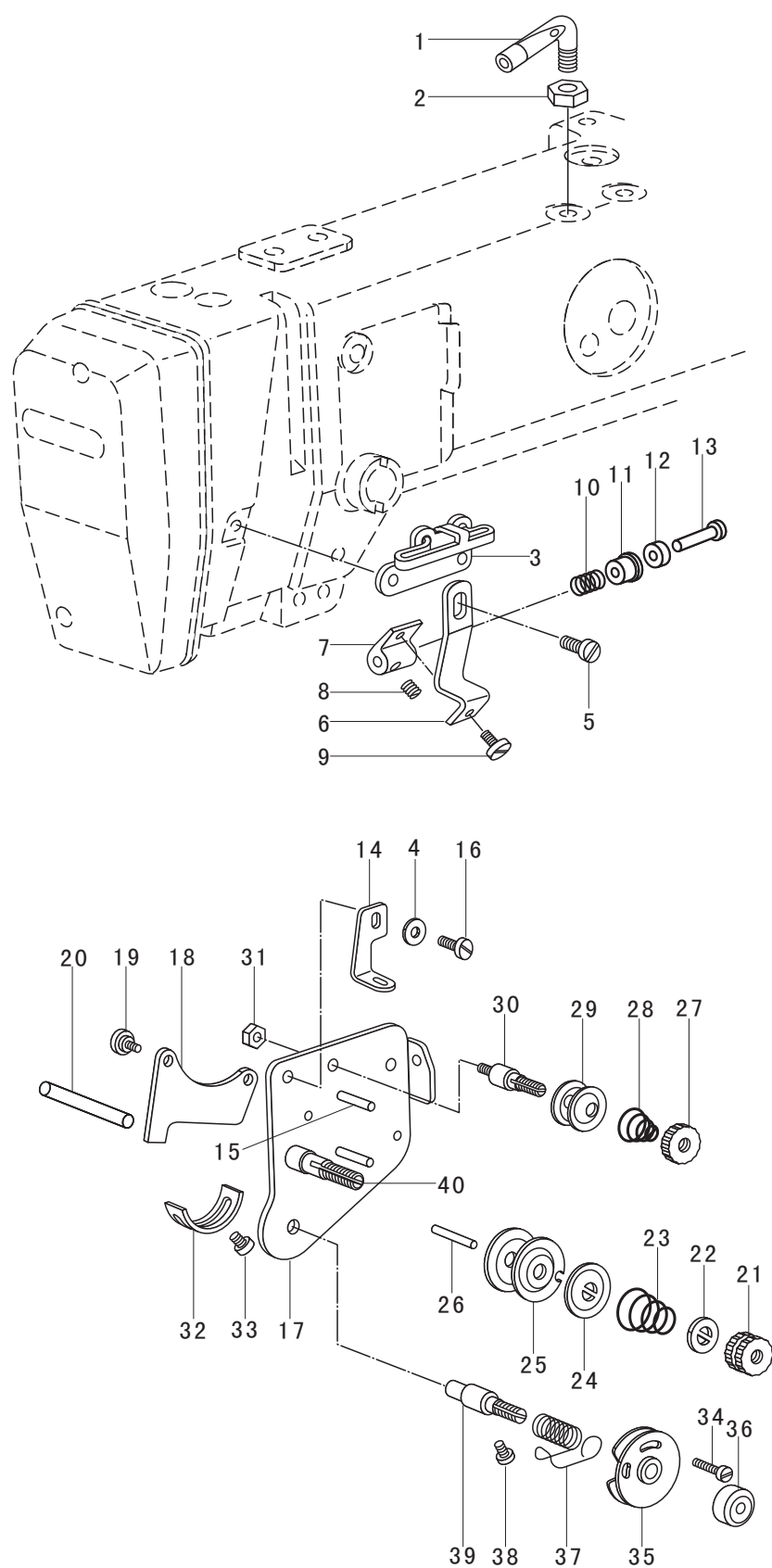
## 1.Arm and bed



## 1.Arm and bed

No.	Part Number	Name	Qt.	Remark
1	13WF2-004	Face plate	1	Φ 2.5 5 GB827-86
2	13WF2-005	Screw(big)	1	
3	13WF2-006	Screw(small)	1	
4	13WF2-013	Rear fitting cover	1	
5	13WF2-014	Screw	2	
6	13WF2-007	Rear cover	1	
7	13WF2-008	Screw	2	
8	72WF2-001	Arm	1	
9	13WF2-012	Screw	1	
10	72WF2-005	Support	1	
11	22WF2-004	Screw(big)	1	
12	13WF2-065	Base holder	1	
13	13WF2-068	Rubber plug	1	
14	13WF1-045	Screw	5	
15	13WF2-011	Safety guard	1	
16	72WF1-017	Screw (small)	1	
17	72WF2-006	Trade mark plate	1	
	72WF2-007	Trade mark plate(English)		
18		Rivet	4	
19	72WF2-002	Base	1	
20	13WF2-069	Rubber plug	1	
21	16WF2-053	Trade plate	1	
22	72WF2-016	Adjusting plate	1	
23	72WF5-019	Screw	2	
24	72WF2-010	Spacer	2	
25	72WF2-017	Spring	1	
26	72WF2-018	Nut	2	
27	72WF2-010	Spacer	2	
28	72WF2019	Left slide plate	1	
29	72WF2-020	Right slide plate	1	
30	72WF2-021	Right slide plate retaining plate	1	
31	7WF5-007	Screw	2	
32	72WF2-022	Front slide plate	1	
33	13WF2-024	Screw	1	
34	72WF2-003	Needle plate	1	
35	72WF2-004	Screw	2	
36	72WF2-024	Seal ring	1	

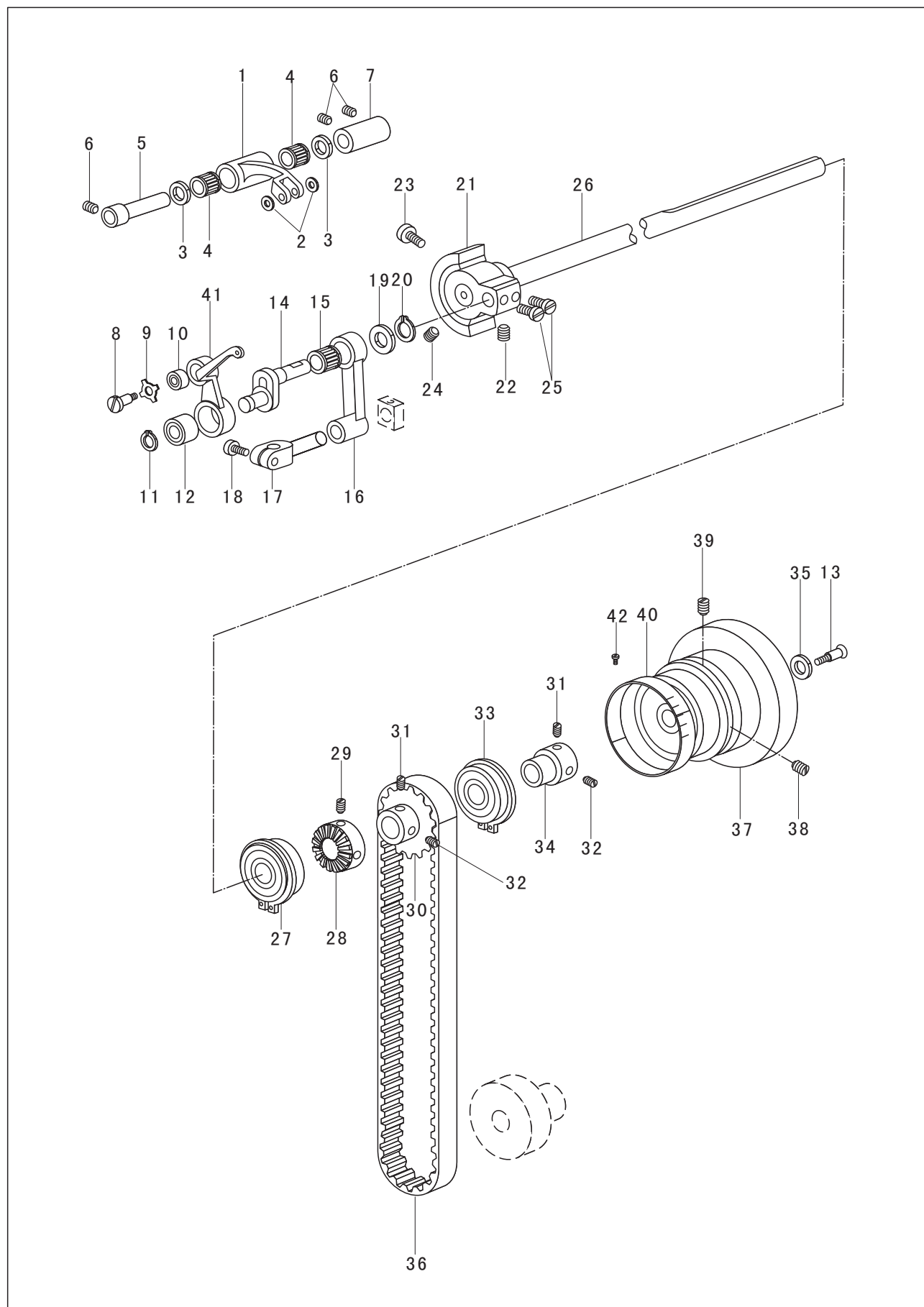
## 2.Thread tension parts



## 2.Thread tension parts

No.	Part Number	Name	Qt.	Remark
1	13WF2-066	Thread guide pin	1	washer5 GB95-85
2	13WF2-067	Nut	1	
3	13WF2-016	Middle thread guide	1	
4		Washer	1	
5	13WF2-006	Screw	1	
6	13WF2-017	Connecting plate	1	
7	13WF2-023	Screw	1	
8	13WF2-024	Connecting screw	1	
9	13WF2-018	Spring	1	
10	13WF2-022	Guide bushing	1	
11	13WF2-021	Spacer	1	
12	13WF2-020	Lower thread guide shaft	1	
13	13WF2-019	Upper thread guide	1	
14	13WF2-015	Position pin	1	
15	13WF2-053	Screw	2	
16	13WF2-047	Set plate	1	
17	13WF2-046	Erecting plate	1	
18	13WF2-049	Screw	1	
19	13WF2-050	Erecting pin	2	
20	13WF2-048	Nut	1	
21	13WF2-070	Stop plate	1	
22	153209	Spring	1	
23	33T4-008C1	Erecting plate	1	
24	13WF2-055	Thread tension plate	1	
25	13WF2-054	Tension releasing pin	2	
26	13WF2-056	Nut	1	
27	36T2-006D4	Spring	1	
28	13WF2-009	Thread tension disc	1	
29	22T1-009E3	Screw	2	
30	13WF2-051	Nut	1	
31	13WF2-052	Position plate	1	
32	103693	Screw	1	
33	1WF1-026	Adjusting screw	1	
34	13WF2-062	Thread control complete	1	
35	1WF1-010J	Nut	1	
36	13WF2-061	Thread take-up spring	1	
37	13WF2-059	Screw	1	
38	13WF2-063	Thread take-up spring shaft	1	
39	13WF2-060	Screw	1	
40	13WF2-057		1	

### 3.Upper shaft and thread take-up lever parts



### 3.Upper shaft and thread take-up lever parts

No.	Part Number	Name	Qt.	Remark
1	13WF1-030	Thread take-up link	1	
2		Washer	2	
3	13WF1-031	Needle bearing retainer	2	
4		Thread take-up link needle bearing	2	
5	13WF1-032	Thread take-up pin	1	
6	7WF5-048	Screw	3	
7	13WF1-033	Bushing for thread take-up pin	1	
8	13WF1-075	Screw	1	
9	13WF1-035	Position ring	1	
10		Thread take-up bearing(small)	1	
11		Thread take-up crank retainer	1	
12		Thread take-up bearing(big)	1	Washer GB97. 1-85
13	72WF1-034	Screw	1	
14	13WF1-037	Thread take-up crank	1	29241/7 7 1 0 8
15		Needle bar link needle bearing	1	
16	13WF1-039	Needle bar link	1	
17	13WF1-041	Needle bar connector	1	
18	13WF1-042	Screw	1	
19	13WF1-040	Seal ring	1	
20	13WF1-038	Needle bar link retainer	1	80024 4 1 3 5
21	13WF1-044	Needle bar crank	1	Retainer8 894. 1-84
22	13WF1-018	Screw	1	80018 8 2 2 7
23	33T1-006C2	Screw	1	
24	61-04-01/B2	Screw	1	
25	13WF1-045	Screw	2	57941/10 10 14 10
26	72WF1-033	Upper shaft	1	
27		Upper shaft front bearing complete	1	
28	13WF6-026	Driving wheel	1	
29	J0. 0. 40	Screw	2	
30	72WF1-035	Synchro pulley	1	
31	13WF1-004	Set screw	2	
32	13WF1-048	Screw	2	
33		Upper shaft rear bearing complete	1	
34	13WF1-047	Bushing for upper shaft rear bearing	1	
35	13WF1-050	Spacer	1	
36	72WF1-036	Timing belt	1	
37	13WF1-052	Balance wheel	1	150204 20 47 14
38	13WF1-077	Screw	1	
39	13WF1-078	Set screw	1	
40	13WF1-056	Stitch length regulating scale ring	1	
41	13WF1-036	Thread take-up complete	1	
42		Rivet	3	20 4 2 1 2

[illegible]

#### 4. Needle bar vibrating parts

No.	Part Number	Name	Qt.	Remark
1	13WF3-001	Upper feed shaft	1	Retainer GB89. 1-86-24 9241/24 24 28 10
2	13WF3-002	Spacer	1	
3	13WF1-073	Needle bearing retainer	8	
4		Upper feed shaft bearing	4	
5	13WF1-072	Needle bearing bushing	4	
6	13WF1-009	Screw	1	
7	13WF1-059	Collar	1	
8	13WF3-004	Connector	2	
9	13WF3-007	Needle vibrating link	1	
10		Retainer	1	
11		Bearing	1	
12	13WF3-005	Connecting pin	2	39241/8 8 11 10 Pin2. 5 12 GB117-86
13	13WF3-008	Needle vibrating cam	1	
14	13WF1-045	Set screw	2	
15	13WF2-035	Rubber plug	1	
16	72WF3-001	Connecting shaft	1	
17	13WF3-009	Spacer	1	
18		Bearing	3	
19		Pin	2	
20	13WF3-006	Connecting pin	2	
21	13WF1-062	Needle vibrating crank	1	
22	13WF1-063	Screw(big)	1	Pin3 15 GB117-86
23	13WF1-045	Screw	1	
24	13WF1-059	Collar	1	
25	13WF1-009	Screw	1	
26	72WF1-037	Needle bar vibrating shaft	1	
27	13WF1-060	Needle bar vibrating bracket	1	
28		Pin	1	
29	13WF1-069	Oil felt	1	
30	13WF1-076	Rubber plug	1	
31	13WF1-028	Needle bar	1	
32	13WF1-029	Screw	1	Single needleDP 5 14# $\phi$ 4 Length360mm $\phi$ 6 Length450mm GB848-85-4
33	13WF1-061	Felt	1	
34	13WF1-066	Set bracket	3	
35	13WF1-067	Screw	2	
36	13WF1-064	Slide block groove	1	
37	13WF1-068	Felt	1	
38	13WF1-043	Slide block	1	
39	13WF1-065	Screw	2	
40	13F1-001	Needle	1	
41	13WF1-048	Screw	1	
42		Oil wick	1	
43	72WF1-038	Oil nozzle	1	
44		Oil wick	1	
45	72WF1-039	Clamp	2	
46	13WF2-008	Screw	2	
47		Washer	2	

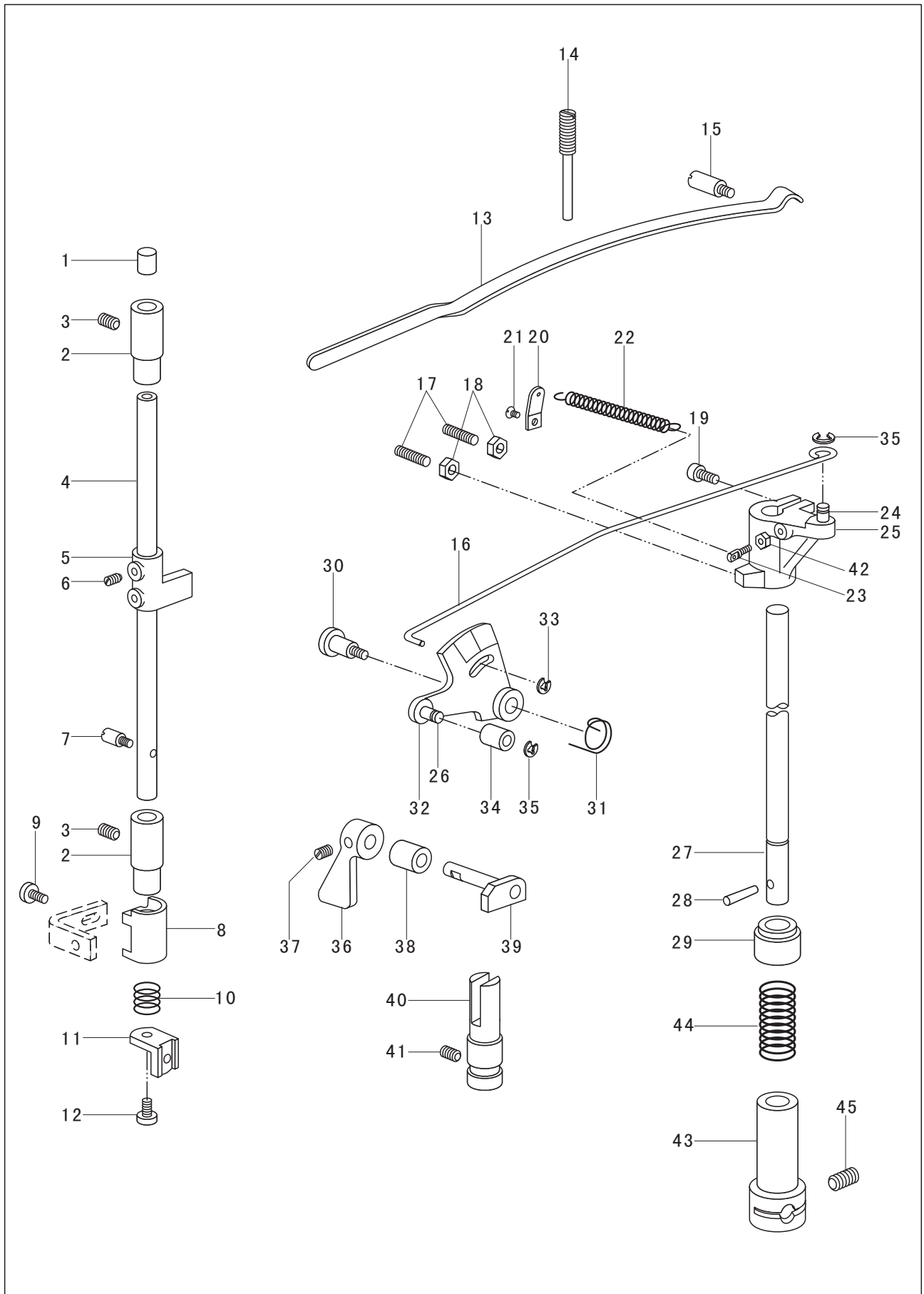


This technical drawing is an exploded view of a mechanical assembly, likely a pump or valve mechanism. It features 72 numbered components. The assembly is shown in a disassembled state to illustrate the relationship between parts. Key components include a long shaft (10), a large gear (66), a pump body (45), and various seals, bearings, and fasteners. Dashed lines indicate the assembly path and alignment of the parts. The drawing is a black and white line drawing on a white background.

## 5.Feed mechanism parts

No.	Part Number	Name	Qt.	Remark
1		Retainer	1	
2	13WF3-002	Spacer	1	
3	13WF1-073	Retainer	6	
4		Lower feed shaft bearing	3	
5	13WF1-072	Bushing for lower shaft bearing	2	
6	13WF3-035	Driving crank	1	
7	13WF1-045	Screw	1	
8	13WF3-036	Driving dog	1	
9	13WF3-018	Screw	1	
10	13WF3-011	Lower feed shaft	1	
11	13WF3-010	Lower feed shaft crank	1	
12	13WF1-048	Screw	1	
13	13WF2-006	Screw	2	Retainer15 GB894. 1-86
14	13WF3-012	Bushing for feed shaft rear needle bearing	1	
15	13WF1-059	Collar	1	
16	13WF1-009	Screw	1	59241/15 15 19 17
17	13WF2-071	Rubber plug	1	
18	13WF3-043	Eccentric link	1	
19		Bearing for eccentric link(small)	1	
20	13WF3-005	Connecting pin	1	
21		Bearing for eccentric link(big)	1	
22	13WF3-044	Feed cam	1	
23	13WF3-045	Adjusting block	1	
24	13WF3-047	Spacer	2	
25	13WF3-046	Screw	2	
26	13WF3-050	Eccentric adjusting plate	1	
27		Elastic washer	1	
28	13WF3-051	Lock nut	1	
29	13WF3-052	Prop block	1	
30	13WF1-027	Screw	1	
31	13WF3-017	Stitch length adjusting bracket	1	39241/8 8 11 10
32	13WF3-016	Hinge shaft	1	
33		Retainer	2	1000806 30 42 7
34	13WF3-020	Spring	1	
35	13WF3-019	Position pin	1	
36		Retainer	1	
37	13WF3-015	Stitch length adjusting lever	1	
38	13WF3-074	Nut	1	
39	13WF3-073	Lock screw	1	Washer24 GB955-87
40		Washer	2	
41	13WF3-018	Screw	2	
42	13WF3-013	Stitch length button	1	
43	13WF3-014	Spring	1	
44		Retainer	1	
45	72WF2-012	Lower shaft driving gear shaft bracket	1	Retainer3.5 GB896-86
46	72WF2-013	Bushing for set bracket shaft	1	
47	72WF2-014	Screw	1	
48	72WF2-015	Pin	1	Retainer6 GB896-86
49	13WF3-060	Screw	1	
50	13WF3-037	Felt	4	
51	13WF3-034	Driving link assembly	2	
52	13WF3-038	Screw	4	Washer4 GB97. 1-85
53	13WF3-048	Connecting block	1	
54	13WF3-049	Screw	2	
55	22T1-011	Lock screw	2	
56	72WF3-002	Lower feed driving shaft	1	Retainer8 GB896-86
57		Bearing for lower feed driving shaft(small)	1	
58		Bearing for lower feed driving shaft(big)	1	
59		Unilateral needle clutch	2	
60	13WF3-041	Bushing for lower feed clutch	2	
61		Retainer(small)	1	
62		Retainer(big)	1	
63		Retainer(small)	1	BearingGE6E
64		Retainer(big)	1	
65	13WF3-023	Spacer	2	
66	72WF3-004	Lower feed roller	1	
67	72WF3-005	Gear for lower feed roller	1	
68	72WF3-006	Eccentric pin	1	
69	72WF3-007	Spacer	1	180018 8 22 7
70	13WF1-018	Screw	1	180018 10 26 8
71		Lower feed roller needle bearing	1	
72	72WF3-003	Spacer	1	

## 6.Presser bar lift parts

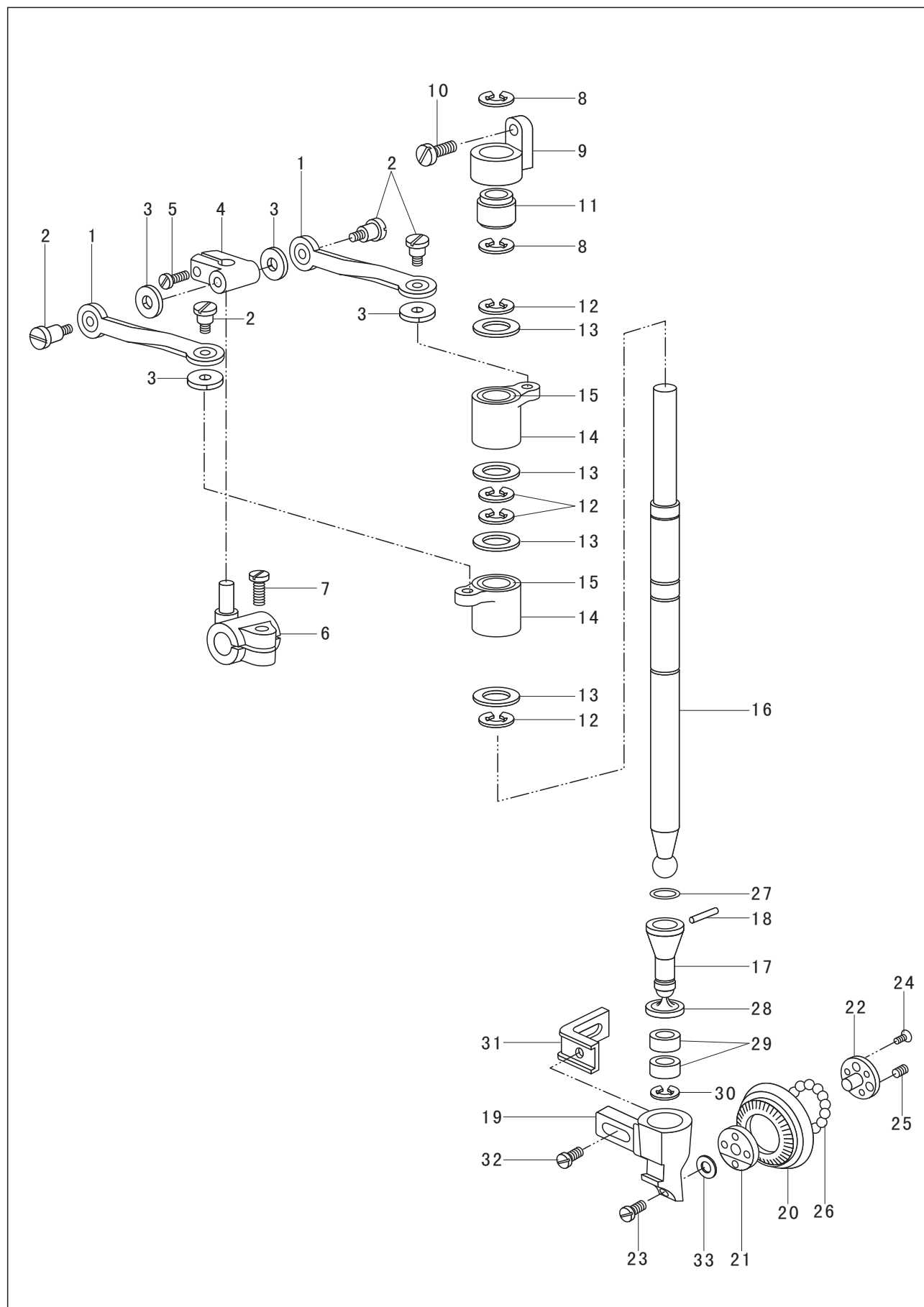


## 6.Presser bar lift parts

No.	Part Number	Name	Qt.	Remark
1	13WF1-076	Rubber plug	1	
2	13WF4-032	Bushing for presser bar	2	
3	13WF3-060	Screw	2	
4	13WF4-017	Presser bar	1	
5	13WF4-018	Guide bracket	1	
6	13WF1-018	Screw	2	
7	13WF4-019	Position pin	1	
8	13WF4-020	Position bushing	1	
9	13WF4-022	Screw	1	
10	13WF4-023	Spring	1	
11	13WF4-024	Presser foot guide rail	1	
12	13WF4-025	Set screw	1	
13	13WF4-015	Presser bar lift lever	1	
14	13WF4-030	Adjusting screw	1	
15	13WF4-029	Pin	1	
16	13WF4-012	Drawing bar	1	
17	13WF4-031	Screw	2	
18	22T9-001A10	Nut	2	
19	13WF2-006	Set screw	2	
20	72WF4-003	Spring bracket	1	
21	72WF1-017	Screw	1	
22	72WF4-004	Spring	1	
23	72WF4-005	Spring pin	1	
24	13WF4-010	Crank pin	1	
25	72WF4-002	Crank	1	
26	13WF4-005	Pin	1	
27	72WF4-001	Presser bar turning shaft	1	
28	13WF4-002	Pin	1	
29	13WF4-003	Cover	1	
30	13WF4-008	Screw	1	
31	13WF4-006	Spring	1	
32	13WF4-004	Movable plate	1	
33		Retainer	1	
34	13WF4-007	Roller	1	
35		Retainer	2	
36	13WF4-026	Presser bar lever	1	
37	13WF4-027	Screw	1	
38	13WF4-033	Bushing for presser bar lifting cam	1	
39	13WF4-028	Presser bar lifting cam	1	
40	13WF4-016	Guide shaft for presser bar guide rail	1	
41	13WF1-048	Screw	1	
42	72WF4-006	Nut	1	
43	13WF5-001	Knee lifter connector	1	
44	13WF5-002	Spring	1	
45	13WF5-003	Screw	1	Retainer2 GB896-86

Retainer3. 5 GB896-86

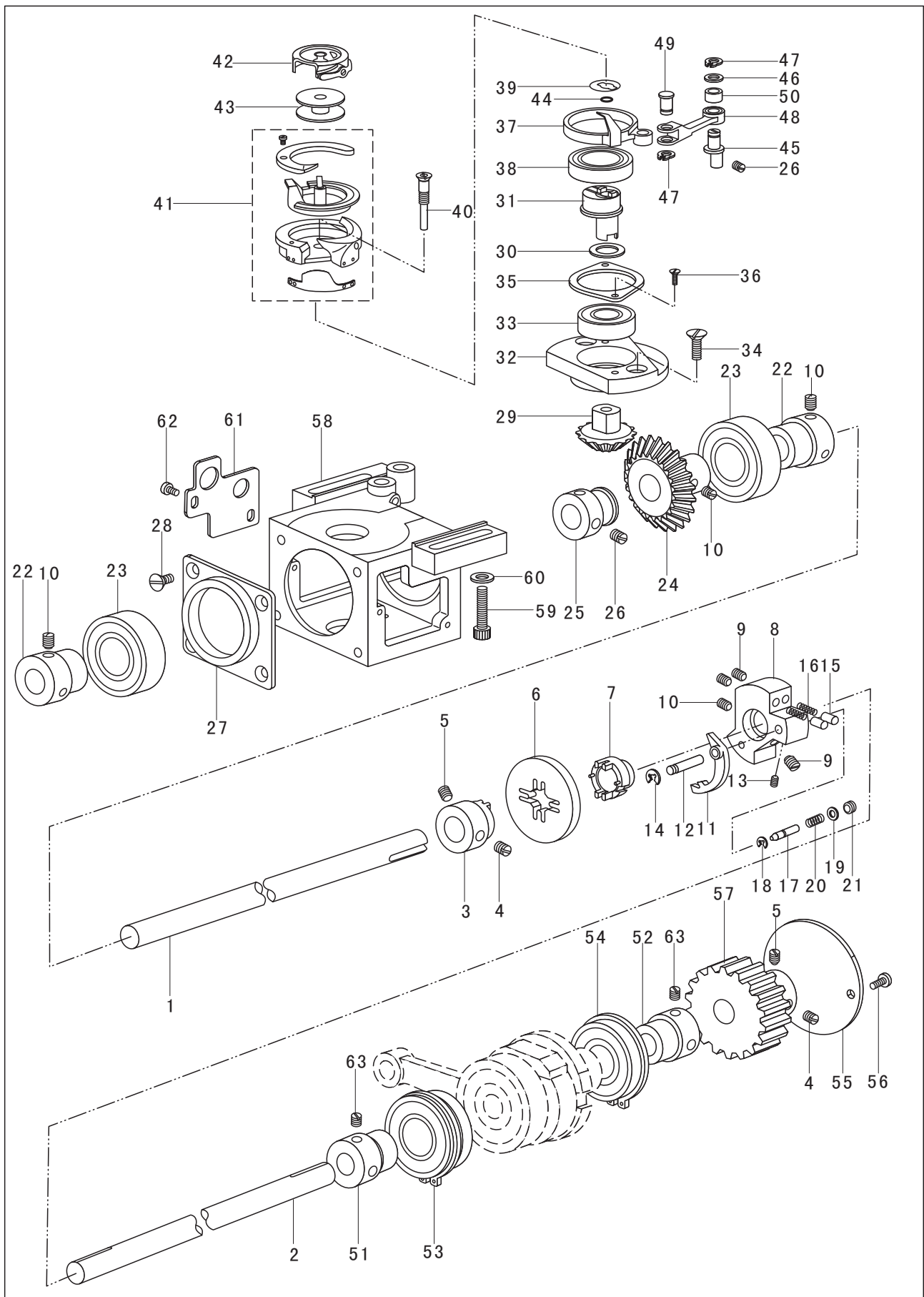
## 7.Upper roller feed parts



## 7.Upper roller feed parts

No.	Part Number	Name	Qt.	Remark
1	13WF3-034	Driving link assembly	2	<p>Bearing GE6E</p> <p>RA200160</p> <p>GE8E</p> <p>Retainer8 GB896-86</p>
2	13WF3-038	Screw	4	
3	13WF3-037	Felt	4	
4	13WF3-036	Driving dog	1	
5	13WF3-018	Screw	1	
6	13WF3-035	Driving crank	1	
7	13WF1-045	Screw	1	
8		Retainer	2	
9	13WF3-039	Position block	1	
10	13WF1-063	Screw	1	
11		Position block joint bearing	1	
12		Retainer	4	
13	13WF3-023	Spacer	4	
14	13WF3-022	Clutch bushing	2	
15		Unilateral needle-type clutch	2	
16	13WF3-021	Upper feed roller driving shaft	1	
17	13WF3-024	Upper feed driving gear	1	
18	13WF3-025	Pin for driving gear	1	
19	13WF3-026	Set bracket	1	
20	13WF3-027	Upper feed roller	1	
21	13WF3-028	Ball bearing support	1	
22	13WF3-029	Roller adjusting block	1	
23	13WF3-030	Screw	1	
24	13WF3-031	Screw	3	
25	13WF3-032	Screw	3	
26		Ball bearing	24	
27		Retainer	1	
28		Retainer	1	
29		Driving gear bearing	2	
30	13WF3-033	Retainer	1	
31	13WF4-021	Presser bar roller bracket	1	
32	13WF4-022	Screw	1	
33	13WF3-076	Adjusting spacer	1	

## 8. Rock shaft and thread looping parts

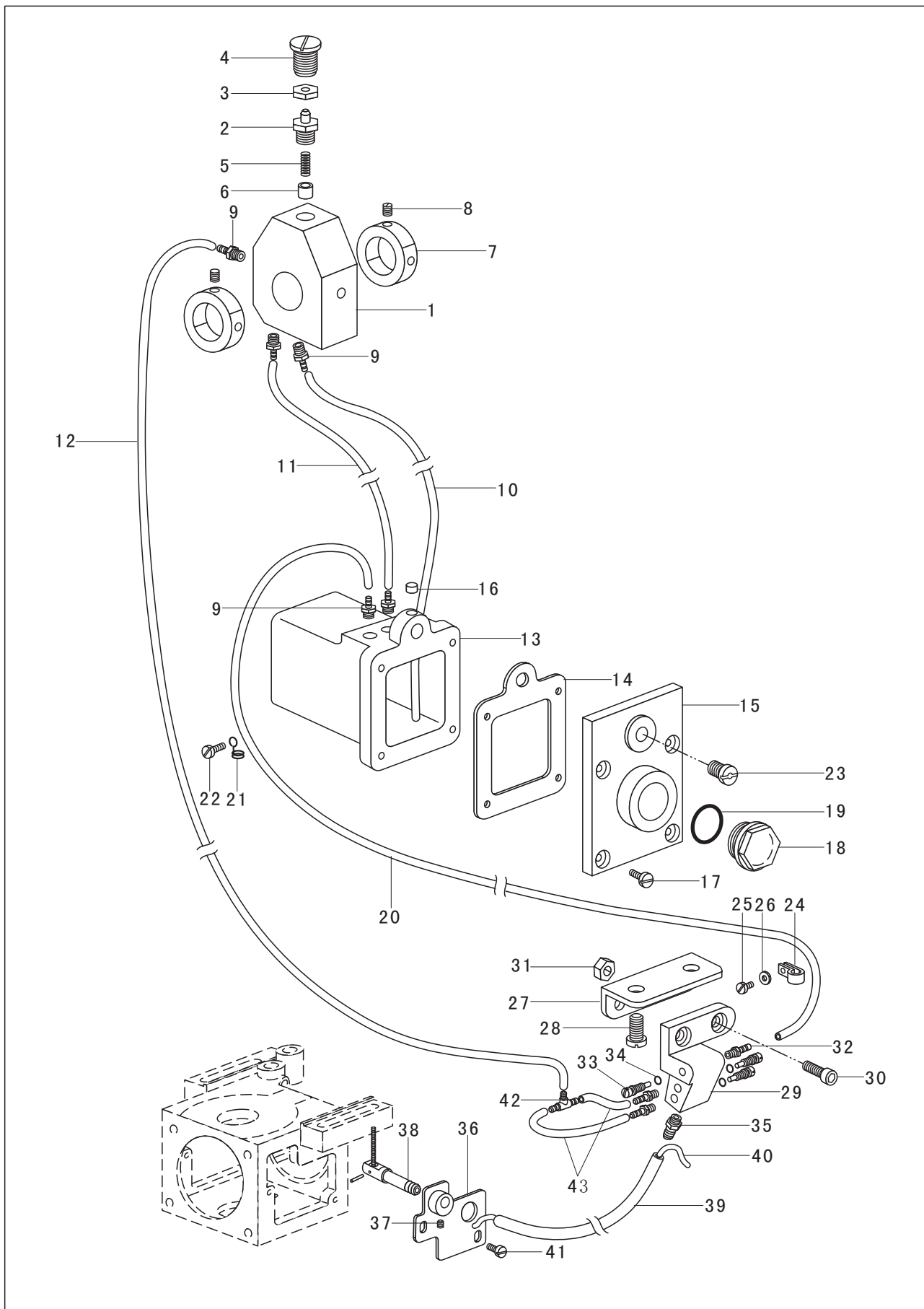


## 8. Rock shaft and thread looping parts

No.	Part Number	Name	Qt.	Remark
1	72WF1-001	Rock shaft (front)	1	
2	72WF1-002	Rock shaft (rear)	1	
3	13WF1-003	Rock shaft connector	1	
4	13WF1-004	Screw	1	
5	13WF1-048	Screw	2	
6	13WF1-005	Connecting plate	2	
7	72WF1-003	Rock shaft connector (right)	1	
8	72WF1-004	Safety clutch	1	
9	13WF1-048	Screw	3	
10	13WF1-009	Screw	7	
11	72WF1-005	Clutch lever	1	
12	72WF1-006	Pin	1	
13	42WF2-010	Screw	2	
14		Retainer	1	
15	72WF1-007	Pin	2	
16	71WF1-058	Spring	2	
17	72WF1-009	Pin	1	
18		Retainer	1	
19	72WF1-010	Spacer	1	
20	72WF1-011	Spring	1	
21	71WF1-057	Screw	1	
22	72WF1-013	Bushing for rock shaft (front) bearing	2	
23		Bearing for rock shaft (front)	2	GB896-86-4
24	72WF1-014	Rock shaft gear	1	
25	72WF1-015	Collar for rock shaft (front)	1	
26	13WF1-018	Screw	3	
27	72WF1-016	Bearing holder for rock shaft (front)	1	GB896-86-3
28	72WF1-017	Screw	4	
29	72WF1-018	Gear for hook shaft	1	
30	72WF1-019	Spacer	1	
31	72WF1-020	Cam	1	
32	72WF1-021	Bearing holder	1	150202 15 35 11
33		Bearing	2	
34	72WF1-022	Screw	2	
35	72WF1-023	Bearing pressure plate	1	
36	72WF1-024	Screw	2	
37	72WF1-025	Thread guide	1	
38		Bearing for thread guide	1	
39	72WF1-026	Spacer	1	
40	72WF1-027	Set screw	1	
41		Rotating hook assembly	1	
42		Bobbin case body	1	60019 9 24 7
43	13WF1-034	Bobbin	1	
44	72WF1-028	O-type ring	1	
45	72WF1-029	Thread guide adjusting eccentric shaft	1	
46	72WF1-030	Spacer	1	
47		Retainer	2	180102 15 32 9
48	72WF1-031	Fork-type link	1	
49	72WF1-032	Connecting pin	1	
50		Bearing	2	KRT455-S
51	13WF1-071	Bushing for rock shaft (rear) front bearing	1	SCPF 15
52	13WF1-070	Bushing for rock shaft (rear) rear bearing	1	
53		Front bearing for rock shaft (rear)	1	
54		Rear bearing for rock shaft (rear)	1	
55	13WF2-037	Cover for rock shaft	1	
56	13WF2-010	Screw	2	GB894. 1-86-7
57	72WF1-040	Synchro pulley	1	
58	72WF2-008	Hook base	1	
59	72WF2-009	Set screw	2	9240/00 7 10 8
60	72WF2-010	Spacer	2	
61	72WF2-011	Retaining plate	1	
62	13WF1-067	Screw	2	150202 15 35 11
63	13WF1-027	Screw	4	150203Z 17 40 12



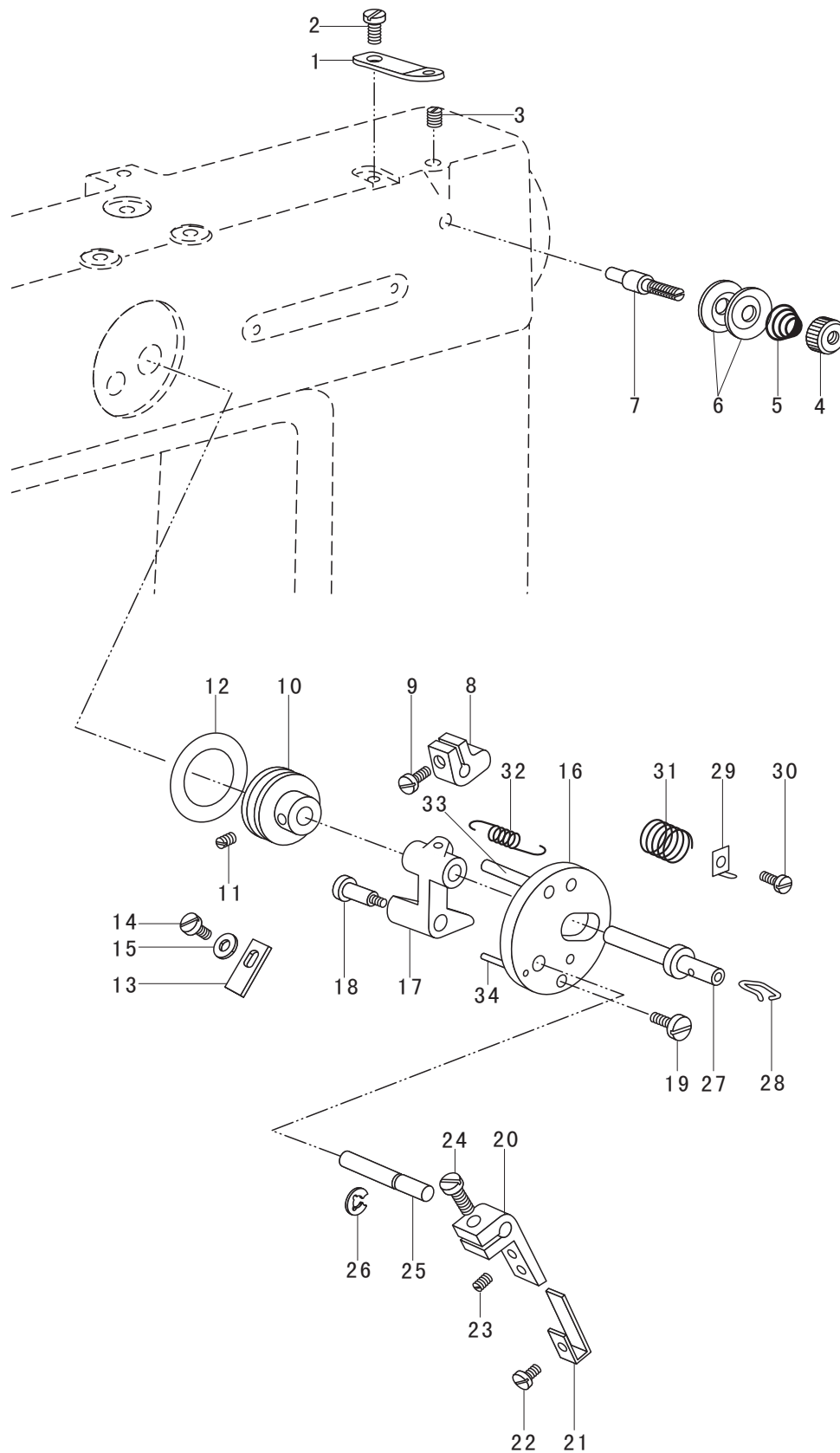
## 9. Lubrication parts



## 9.Lubrication parts

No.	Part Number	Name	Qt.	Remark
1	72WF5-001	Oil pump	1	
2	72WF5-002	Screw	1	
3	72WF5-003	Felt	1	
4	72WF5-004	Position screw	1	
5	72WF5-005	Spring	1	
6	72WF5-006	Plunger	1	
7	72WF5-007	Oil pump retainer	2	
8	20T1-004	Screw	4	
9	72WF5-008	Oil nozzle	5	
10		Oil sucking tube	1	
11		Oil return tube	1	
12		Oil supply tube	1	
13	72WF5-009	Oil box	1	
14	72WF5-010	Seal ring	1	
15	72WF5-011	Oil box cover	1	
16	72WF5-012	Oil plug	1	
17	13WF2-008	Screw	4	
18	72WF5-013	Oil flow window	1	
19	72WF5-014	O-type ring	1	Φ 5 120
20		Oil return pipe for oil tube bracket	1	Φ 5 75
21	72WF5-015	Oil pipe clamp	1	Φ 5 600
22	13WF2-008	Screw	1	
23	72WF5-016	Screw	1	
24	72WF5-017	Plastic oil pipe clamp	2	
25	13WF2-008	Screw	2	
26		Washer	2	
27	72WF5-018	Set plate	1	
28	72WF5-019	Screw	2	
29	72WF5-020	Oil tube bracket	1	Φ 5 310
30	72WF5-021	Connecting screw	2	
31	72WF5-022	Connecting nut	2	
32	72WF5-023	Small oil nozzle	3	
33	72WF5-024	Adjusting screw	3	
34	72WF1-028	O-type ring	3	
35	72WF5-025	Oil nozzle(II)for big oil tube	2	GB848-85-4
36	72WF5-026	Set plate	1	
37	13WF4-027	Screw	1	
38	72WF5-027	Oil nozzle(I) assembly for big oil nozzle	1	
39		Big oil tube	1	
40		Oil wick	1	
41	13WF1-067	Set screw	2	
42	1WF6-029	Three-hole oil nozzle	1	
43		Short oil tube	2	

## 10. Thread winding parts



## 10. Thread winding parts

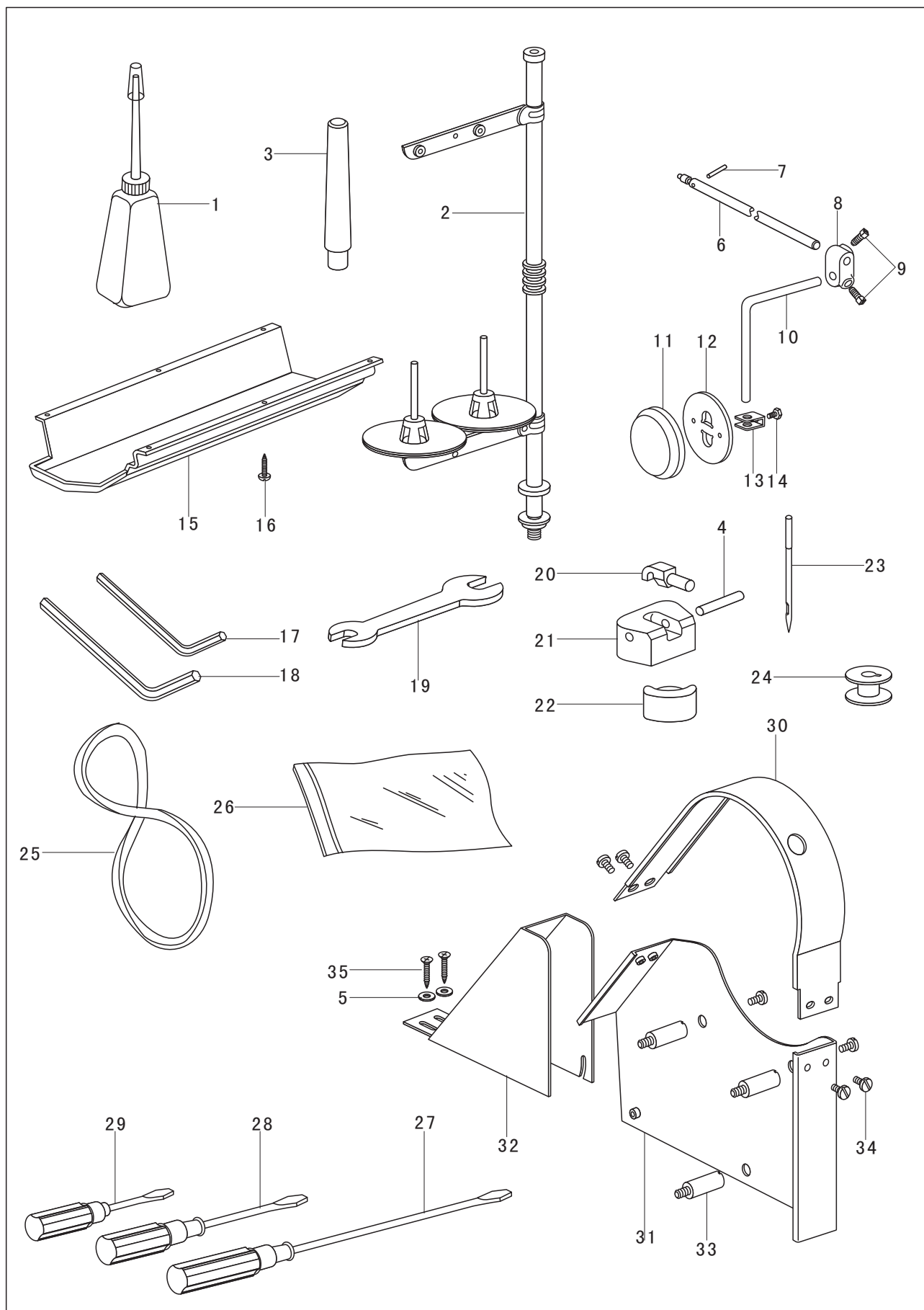
No.	Part Number	Name	Qt.	Remark
1	13WF6-027	Tension thread guide plate	1	Washer 4 GB861.1-87  washer 3.5 GB896-86
2	13WF2-008	Screw	1	
3	13WF4-027	Screw	1	
4	13WF6-029	Nut	1	
5	33T4-008C1	Spring	2	
6	33T1-012F5	Thread tension disc	1	
7	13WF6-028	Thread tension shaft	1	
8	13WF6-012	Thread winding lever crank	1	
9	13WF6-014	Screw	2	
10	13WF6-017	Screw	1	
11	13WF6-018	Thread winding wheel	1	
12	13WF6-019	Set screw	1	
13	13WF6-023	Friction ring	1	
14	13WF6-024	Spring	1	
15	13WF6-001	Set screw	1	
16	13WF6-021	Washer	1	
17	13WF6-022	Thread winding holder	1	
18	13WF6-022	Thread winding crank	1	
19	13WF6-002	Pin	1	
20	13WF6-006	Screw(down)	1	
21	13WF6-007	Thread winding lever	1	
22	13WF6-008	Spring	1	
23	13WF6-009	Set screw	1	
24	13WF6-010	Screw	1	
25	13WF6-011	Set screw	1	
26	13WF6-015	Shaft for thread winding lever	1	
27	13WF6-016	Retainer	1	
28	13WF6-005	Thread winding shaft	1	
29	13WF6-003			
30	13WF6-004			
31	13WF6-025			
32	13WF6-020			
33	13WF6-013			
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Spring

Trimming blade

Screw(up)

## 11. Accessories



## 11. Accessories

No.	Part Number	Name	Qt.	Remark
1	33TF-011	Oil pot	1	GB848-85-4
2	4F-007	Spool stand complete	1	
3	16WF5-007	Bed leg	1	
4	13WF7-003	Pin shaft for hinge cover	2	
5		Spacer	2	
6	13WF5-004	Knee lifter shaft	1	
7	13WF5-005	Pin for knee lifter shaft	1	
8	13WF5-006	Connector	1	
9	22T9-003B4	Screw	1	
10	22T9-003B2	Bent rod	1	
11	1KT5-006	Pat	1	
12	1KT5-005	Bell	1	
13	22T9-003B6	Bell bracket	1	
14	22T9-003B7	Screw	1	
15	13WF7-006	Oil reserboir	1	
16		Set screw	6	
17	13F-011	Hexagonal spanner	1	
18	13F-010	Hexagonal spanner	1	
19	13F-005	Two-head spanner	1	
20	13WF7-004	Connector	2	
21	13WF7-002	Hinge cover	2	
22	13WF7-005	Cushion	2	
23	13F-001	Needle	4	
24	13WF1-034	Rabbit	5	
25	13F-017	Safety guard movable plate complete	1	
26	13TF-010	Belt	1	
27	13TF-012	Accessory bag	1	
28	13TF-013	Screw driver(big)	1	
29	13TF-014		1	
30	72WF6-003A		1	
31	72WF6-003B		1	
32	72WF6-003C		1	
33	72WF6-003D		3	
34	33T3-006		8	
35			2	

Screw drier(medium)

“0” Type M43

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Screw driver(small)

Safety guard arm(up)