

SHARP

VERTICAL BED TYPE MILLING & BORING MACHINE

KMA-1, KMA-2, KMA-3, KMA-3H
PARTS LIST



Model KMA-3

AUG 08 2019

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SPINDLE HEAD (1)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	C-514	Oil filter	1	
2		Joint	3	PD802
3		Thimble nut	3	PA8
4		Thimble	3	PB8
5		Plug	2	PT3/4
6		Aluminium pipe	1	$\varphi 8$
7	H-3012	Shaft	1	
8	H-2985	Spur gear	1	
9		Parallel key	1	10x8x80L
10		Taper roller bearing	1	30308
11	H-2984	Spur gear	1	
12		Hex. socket bolt	3	M6x1Px50L
13		Oil pump	1	AM2A
14	H-3049	Pump seat	1	
15	H-3050	Coupling	1	
16		Hex. socket bolt	3	M6x1Px20L
17		Ball bearing	2	6009
18		Hex. socket set screw	1	M10x1.5Px16L
19	H-3028	Gear seat	1	
20	H-3029	Motor seat	1	
21		Spring washer	4	M14
22		Hex. bolt	4	M14x2Px35L
23		Parallel key	1	10x8x65L
24		Motor	1	10HP-4P
25	H-2995	Bearing cover	1	
26		Oil seal	1	TC456210
27	H-2976	Spur gear	1	
28		Ball bearing	1	6307

SPINDLE HEAD (1)

Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
29	H-2977	Spur gear	1	
30		Hex. socket bolt	4	M6x1Px16L
31		Lock washer	1	AW07
32	C-35	Lock nut	1	AN07
33		Parallel key	1	8x8x45L
34	H-464	Washer	1	
35	H-3348	Spacer	1	
36	H-2174	Spacer	1	
37		Hex. nut	2	M12x1.75P
38		Spring washer	2	M12
39		Hex. socket set screw	2	M12x1.75Px25L
40	H-377	Lock nut	1	AN08
41		Lock washer	1	AW08
42		Taper roller bearing	1	30307
43	H-3020	Cover	1	
44		Hex. socket bolt	4	M6x1Px16L
45		Hex. socket bolt	6	M12x1.75Px100L
46	H-3349	Spacer	1	
47		C snap ring	1	S70
48	H-2997	Bearing cover	1	
49		V-belt	1	A25
50	H-3081	Bearing cover	1	
51	H-445	Nut	1	
52		Spring pin	1	φ 5x30L
53	H-2992	Draw bar	1	INCH
54	H-3337	Draw bar	1	MM
55	H-444	Nut	1	
56	H-780	Nut	1	

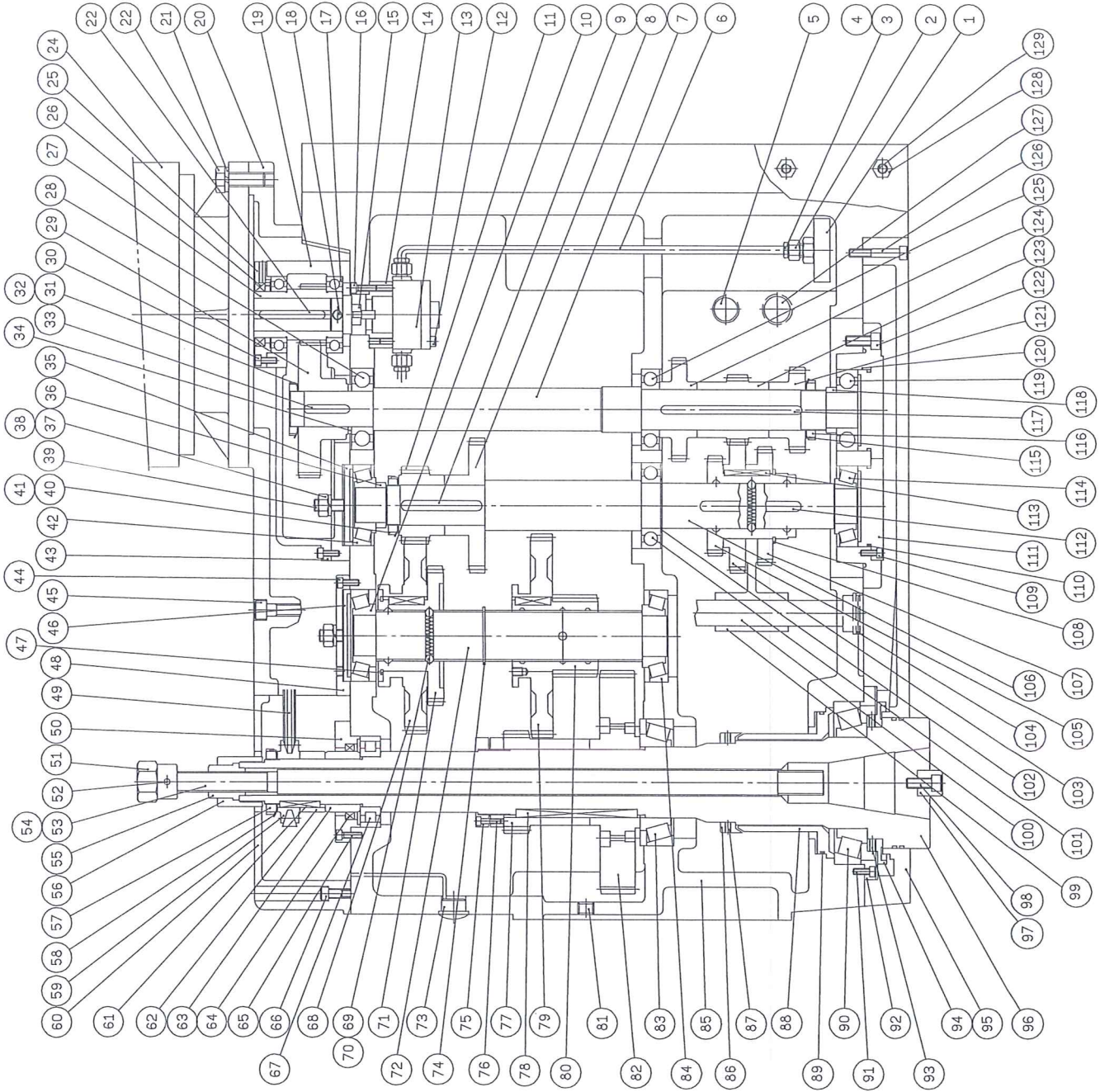
SPINDLE HEAD (1)

Model: KMA-2

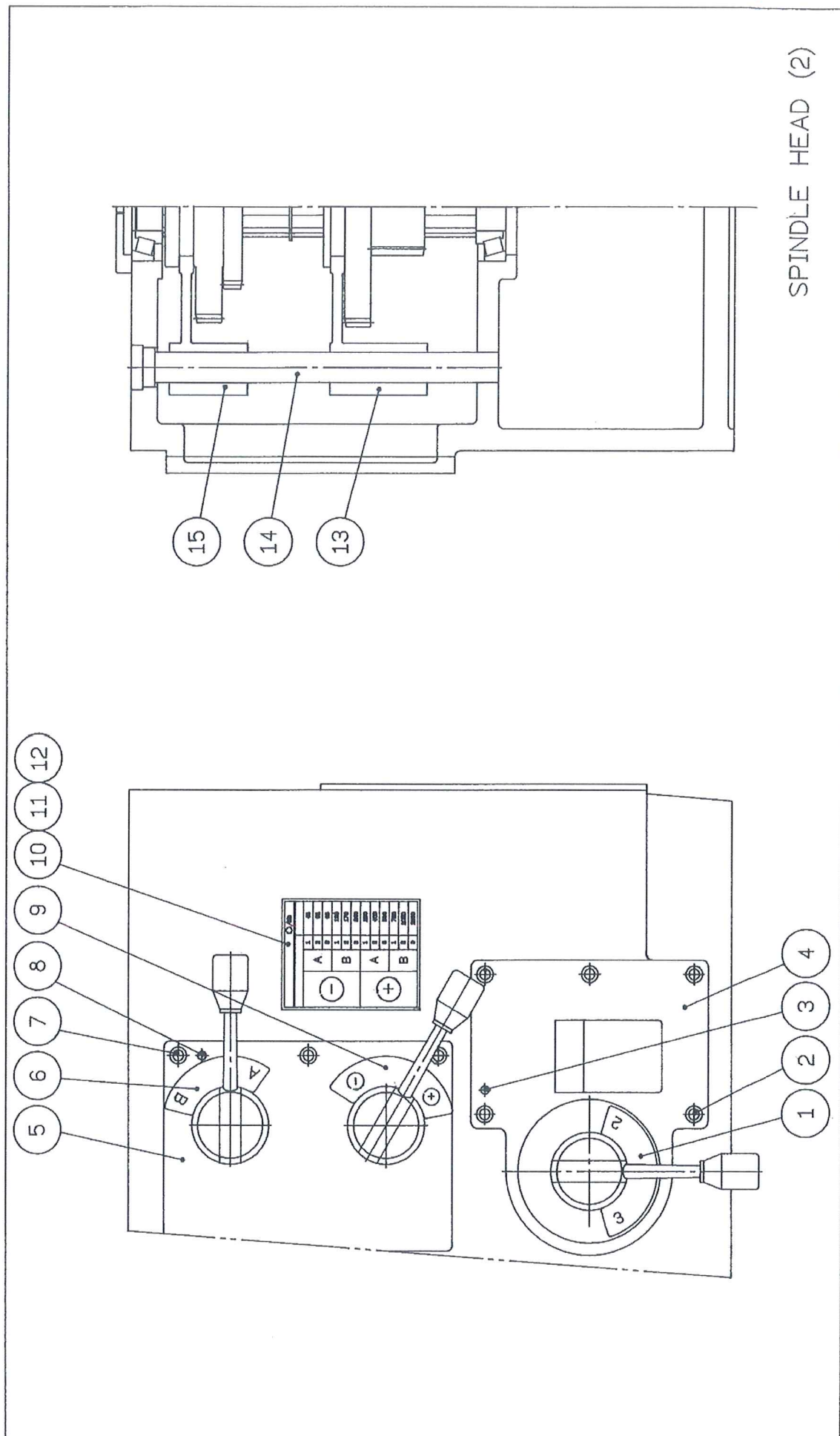
Item	Parts No.	Parts Name	Q' ty	Remark
57	C-56	Lock nut	1	AN09
58		Lock washer	1	AW09
59	H-3036	Pulley	1	
60	H-3030	Cover	1	
61		Parallel key	1	7x7x40L
62	H-3080	Spacer	1	
63	H-2994	Collar	1	
64		Oil seal	1	TC60759
65		Hex. socket bolt	4	M6x1Px16L
66		Hex. socket bolt	4	M8x1.25Px35L
67		Roller bearing	1	N210
68	H-3624	Spur gear	1	
69		Steel ball	6	ϕ 8
70	H-2103	Spring	3	
71	H-3625	Spur gear	1	
72	H-3014	Shaft	1	
73		Oil gage	1	ϕ 26x ϕ 30
74		C snap ring	1	S50
75	H-2993	Nut	1	
76		Hex. socket bolt	6	M5x0.8Px20L
77	H-2989	Spur gear	1	
78		Parallel key	2	12x7x120L
79	H-3626	Spur gear	1	
80	H-3627	Spur gear	1	
81		Hex. socket set screw	1	M16x2Px16L
82	H-2988	Spur gear	1	
83		Taper roller bearing	1	32214
84		Taper roller bearing	1	30308

SPINDLE HEAD (1)

Item	Parts No.	Parts Name	Q'ty	Remark
85	H-3033	Spindle head	1	
86	H-3047	Oil ring	1	
87		Hex. socket set screw	2	M6x1Px10L
88	H-3048	Oil sleeve	1	
89		O ring	1	G125
90		Taper roller bearing	1	30218
91		Hex. socket bolt	6	M6x1Px16L
92	H-2990	Bearing cover	1	
93		Hex. socket set screw	2	M6x1Px10L
94	H-2991	Bearing cover	1	
95	H-3031	Spindle cover	1	
96	H-3011	Spindle	1	
97	H-432	Key	2	
98		Hex. socket bolt	2	M10x1.5Px25L
99	H-3018	Swing arm	1	
100	H-2999	Support lever	1	
101		Ball bearing	1	6209
102		C snap ring	1	S45
103	H-2982	Spur gear	1	
104		O ring	1	P30
105	H-2983	Spur gear	1	
106	H-3013	Shaft	1	
107	H-2981	Spur gear	1	
108		C snap ring	1	S65
109		Hex. socket bolt	6	M6x1Px16L
110		O ring	2	G75
111	H-3511	Bearing cover	2	
112		Parallel key	2	10x8x150L



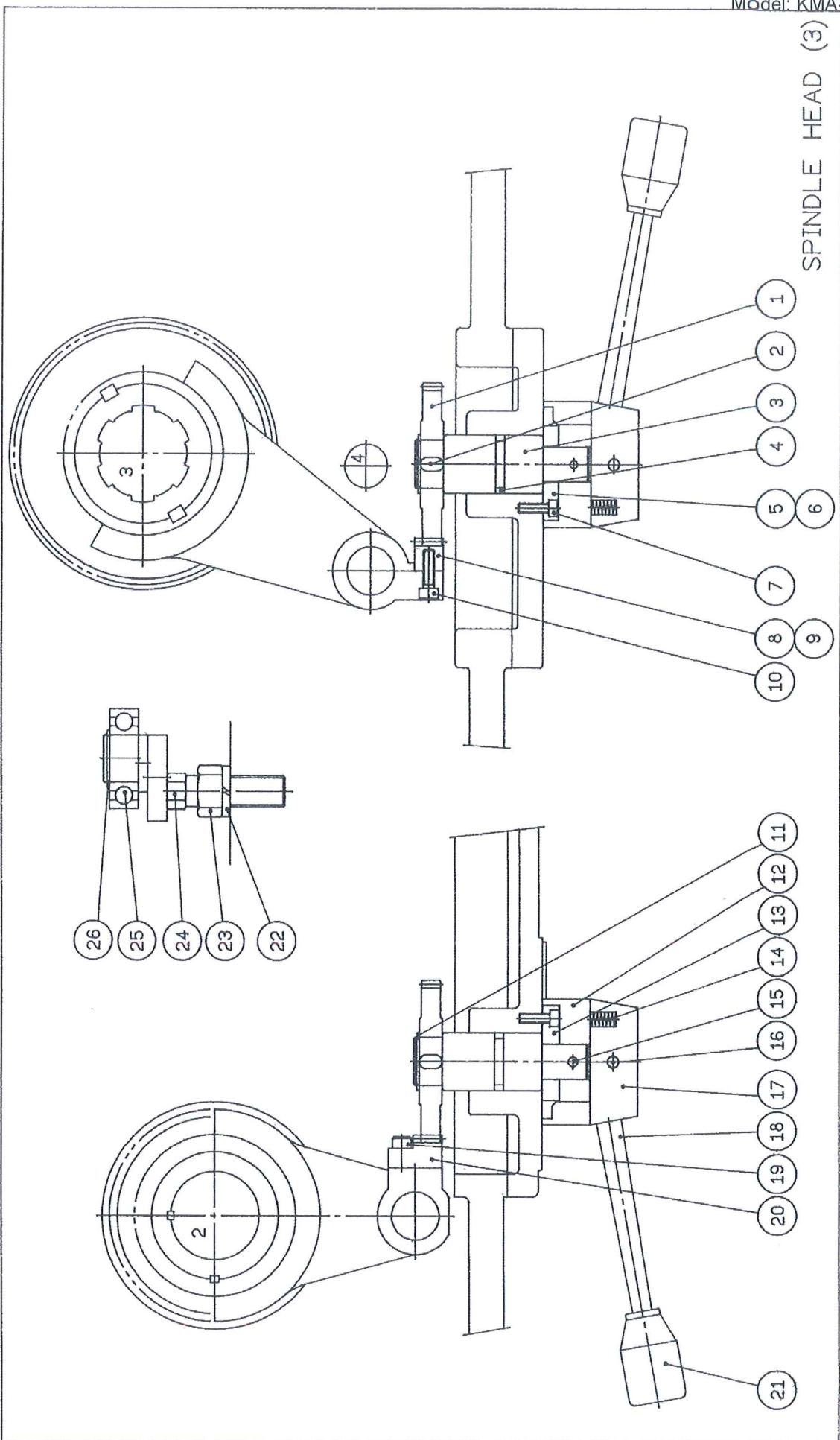
SPINDLE HEAD (1)



SPINDLE HEAD (3)

Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
1	H-505	Spur gear	3	
2		Parallel key	3	7x6x12L
3	H-3006	Gear shaft	3	
4		O ring	3	P24
5	H-3003	Fixed plate	1	
6	H-3004	Fixed plate	1	
7		Hex. socket bolt	9	M5x0.8Px10L
8	H-3001	Rack	1	
9	H-3002	Rack	1	
10		Hex. socket bolt	4	M6x1Px16L
11		C snap ring	3	S25
12	H-2160	Handle seat	3	
13	H-3005	Fixed plate	1	
14	H-459	Spring	3	
15		Spring pin	3	φ 5x60L
16		Pin	3	φ 6x55L
17	H-2159	Handle seat	3	
18	C-287	Handle lever	1	
19		Hex. socket bolt	2	M6x1Px20L
20	H-3000	Rack	1	
21	H-149	Handle	3	
22		Spring washer	1	M16
23		Hex. nut	1	M16
24	H-654	Eccentric shaft	1	
25		Ball bearing	1	6205ZZ
26		C snap ring	1	S25



SPINDLE HEAD (4)

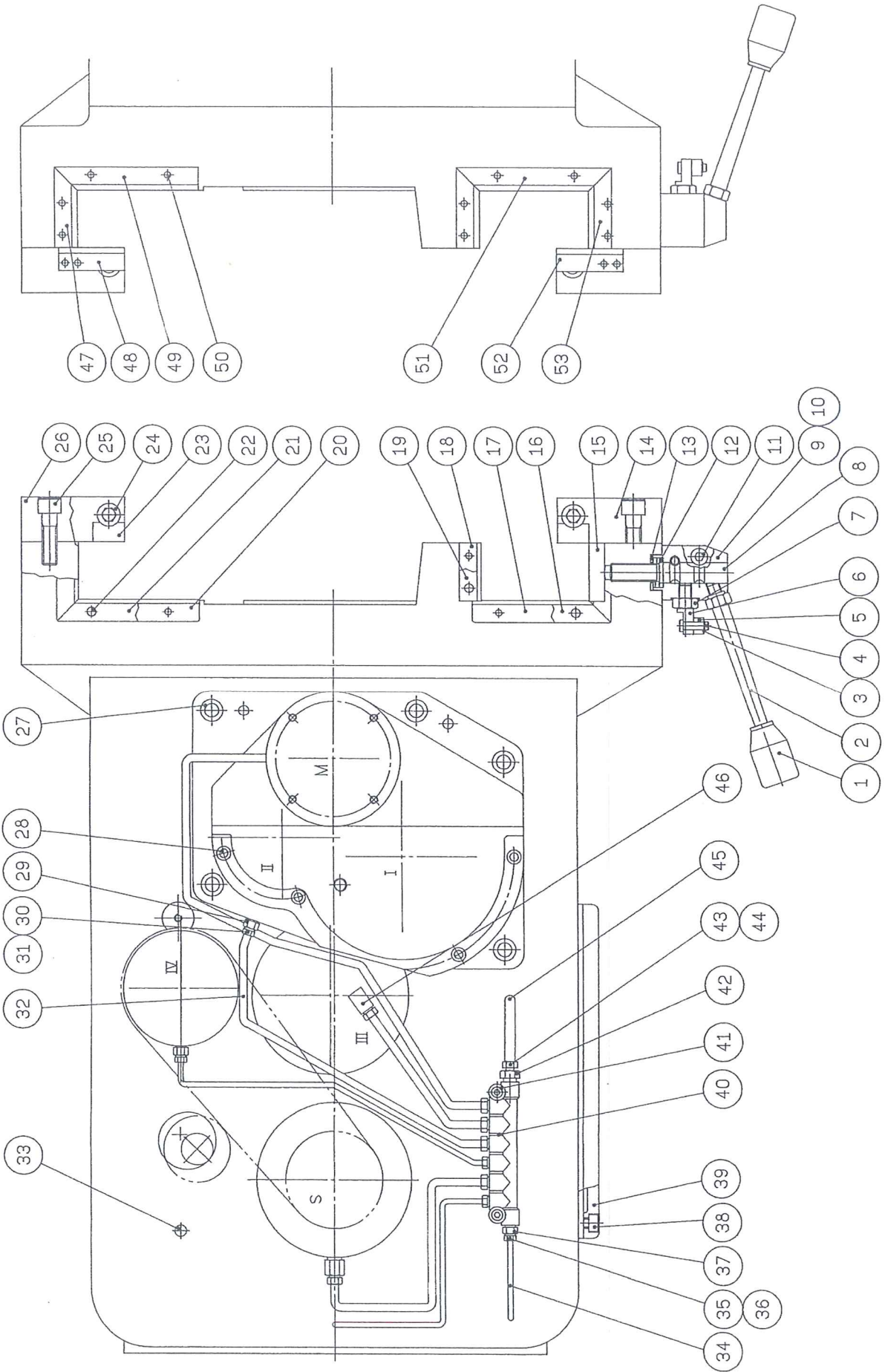
Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	H-149	Handle	1	
2	C-287	Handle lever	1	
3		E snap ring	2	E4
4	H-3060	Connecting pin	2	
5	H-3058	Connecting lever	1	
6	H-3061	Bolt	2	
7		Hex. nut	3	M10x1.5P
8	H-642	Locking bolt	2	
9	H-3057	Handle seat	1	
10	H-3056	Handle seat	1	
11		Hex. socket bolt	4	M8x1.25Px20L
12	H-644	Spring	2	
13	H-645	Washer	2	
14	H-1343	Fixed plate	1	
15	H-1347	Gib	1	
16	H-1354	plate	1	
17	H-1351	Wiper	1	
18	H-1349	Wiper	1	
19	H-1350	Plate	1	
20	H-1355	Wiper	1	
21	H-1356	Plate	1	
22		Round head screw	10	M4x0.7Px8L
23	H-1348	Gib	2	
24	S-198	Adjusting bolt	4	
25		Hex. socket bolt	12	M12x1.75Px40L
26	H-1344	Fixed plate	1	
27		Hex. socket bolt	5	M10x1.5Px30L
28		Hex. socket bolt	4	M6x1Px20L

SPINDLE HEAD (4)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29		Straight joint	2	PD601
30		Thimble	7	PB6
31		Thimble nut	7	PA6
32		Aluminium pipe	1	ϕ 6
33		Radiator	2	PT1/4
34		Aluminium pipe	1	ϕ 4
35		Thimble	4	PB4
36		Thimble nut	4	PA4
37		Straight joint	2	PD401
38		Hex. socket bolt	6	M8x1.25Px20L
39	H-3007	Cover	1	
40		A type distributor	1	DB8
41		Hex. socket bolt	2	M6x1Px25L
42		Straight joint	1	PD801
43		Thimble nut	1	PA8
44		Thimble	1	PB8
45		Oil pipe	1	ϕ 8
46		Elbow joint	1	PH601
47	H-4238	Wiper	2	
48	H-4240	Wiper	1	
49	H-4239	Wiper	1	
50		Round head screw	14	M4x0.7Px12L
51	H-4237	Wiper	1	
52	H-4248	Wiper	1	
53	H-4236	Wiper	1	



SPINDLE HEAD (4)

SPINDLE HEAD (5)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1		Rivet	11	ϕ 2x5L
2	H-620	Name plate	1	
3	H-3022	Cover	1	
4	H-2348	Name plate	1	MM(Chinese)
5	H-801	Name plate	1	INCH(English)
6	H-619	Name plate	1	MM(English)
7	H-483	Name plate	1	
8		Parallel key	1	5x5x12L
9		Hex. socket bolt	1	M6x1Px20L
10	H-616	Handle seat	1	
11	H-480	Handle lever	1	
12	H-149	Handle	4	
13		Hex. socket bolt	4	M6x1Px16L
14	H-789	Name plate	1	
15	H-614	Control lever sleeve	1	
16	H-613	Control lever	1	
17	H-571	Spring	1	
18		Steel ball	2	ϕ 8
19	H-570	Clutch	1	
20	H-615	Spur gear	1	
21		C snap ring	1	S15
22		Parallel key	1	5x5x20L
23	H-3336	Name plate	1	
24		Hex. socket bolt	8	M8x1.25Px35L
25	H-1472	Rack	1	MM
26	H-1473	Rack	1	INCH
27		Hex. socket bolt	7	M8x1.25Px25L
28	H-594	Fixing screw	1	

SPINDLE HEAD (5)

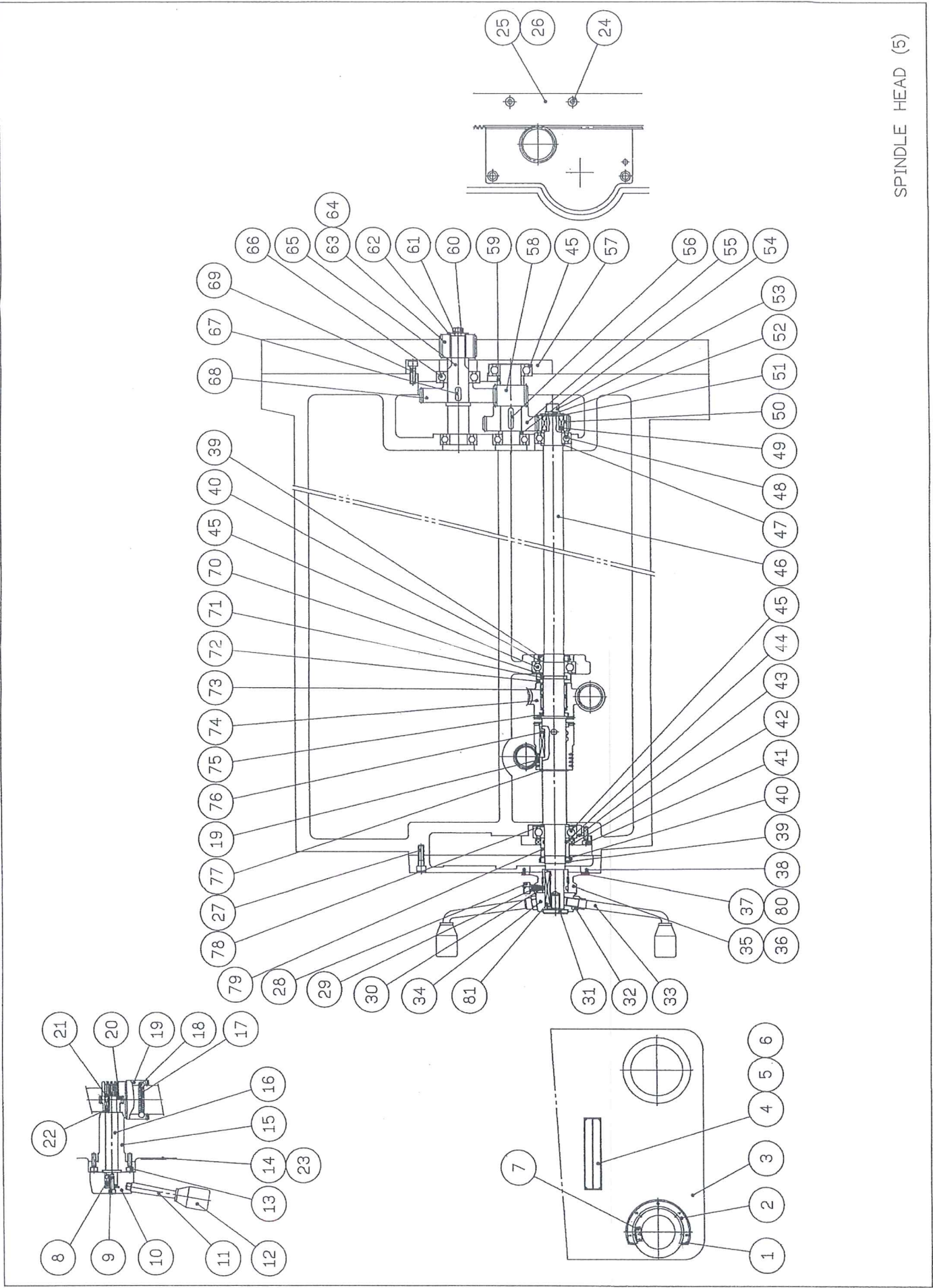
Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	H-593	Spring	1	
30		Steel ball	1	$\varphi 6$
31	H-596	Set screw	1	
32	H-598	Hex. nut	3	
33	H-597	Handle lever	3	
34	H-595	Handle seat	1	
35	H-592	Graduated ring	1	MM
36	H-798	Graduated ring	1	INCH
37	H-591	Indicating ring	1	MM
38		Flat head screw	4	M3x0.5Px8L
39	K-144	Lock nut	2	AN06
40		Lock washer	2	AW06
41		Hex. socket bolt	4	M6x1Px16L
42		Oil seal	1	TC40558
43	H-581	Bearing seat	1	
44		O ring	1	G30
45		Ball bearing	3	6206
46	H-3026	Transmission shaft	1	
47	H-572	Washer	1	
48		Ball bearing	3	6205
49		Parallel key	2	8x7x20L
50	H-1312	Spur gear	1	
51	H-1334	Washer	1	
52		Spring washer	1	M12
53		Hex. socket bolt	1	M12x1.75Px20L
54	H-1468	Spacer ring	1	
55	H-1314	Spur gear	1	
56		Parallel key	1	7x7x30L

SPINDLE HEAD (5)

Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
57	H-3024	Bearing seat	1	
58	H-1469	Gear shaft	1	
59	G-372	Washer	1	
60		Hex. bolt	1	M8x1.25Px20L
61		Spring washer	1	M8
62	H-574	Washer	1	
63	H-578	Spur gear	1	MM
64	H-797	Spur gear	1	INCH
65	H-1471	Gear shaft	1	
66		Ball bearing	1	6206LLB
67		Parallel key	1	8x7x20L
68	H-1470	Spur gear	1	
69		Hex. socket bolt	5	M8x1.25Px25L
70	H-569	Washer	1	
71	H-568	Washer	2	
72	H-567	Washer	1	
73		Needle bearing	1	TLAW3038Z
74	H-565	Clutch	1	
75	H-566	Washer	1	
76		Parallel key	1	7x7x40L
77		C snap ring	1	S34
78	H-580	Washer	1	
79	H-582	Spacing ring	1	
80	H-4277	Indicating ring	1	INCH
81		Parallel key	1	7x5x48L



SPINDLE HEAD (5)

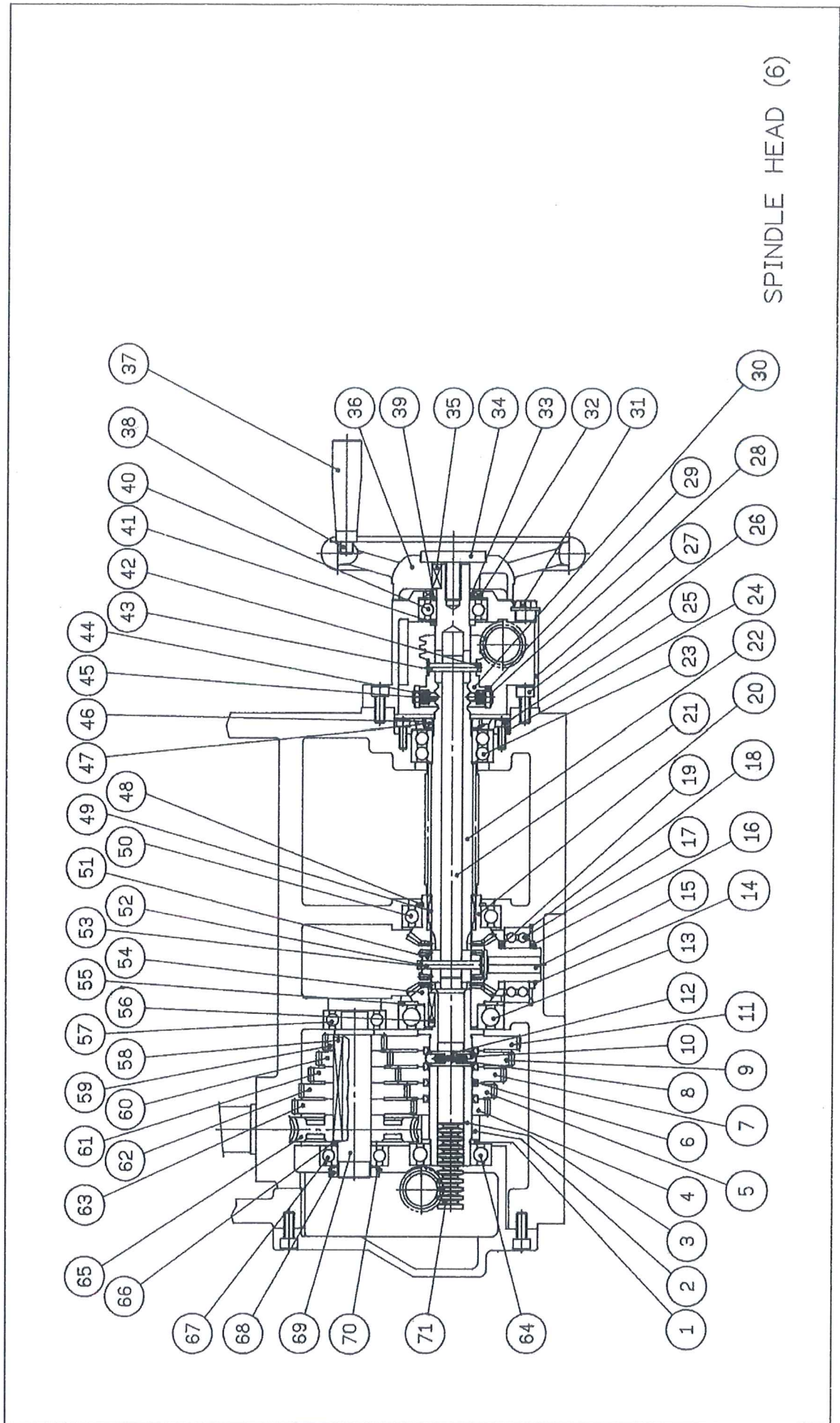
SPINDLE HEAD (6)

Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
1	H-519	Washer	1	
2	H-518	Washer	1	
3	H-509	6th Shaft	1	
4	H-517	Spur Gear	1	
5	H-516	Spur Gear	1	
6	H-513	Washer	4	
7	H-515	Spur Gear	1	
8	H-523	Spring	1	
9	H-514	Spur Gear	1	
10	H-522	Fork Pin	2	
11	H-512	Spur Gear	1	
12	H-521	Fork Sleeve	1	
13		Bearing	1	6208
14		C-Snap Ring	1	S25
15	H-532	Bevel Gear	1	
16	H-533	Washer	1	
17		Bearing	1	5205
18		C-Snap Ring	1	P50
19	H-533	Washer	1	
20	H-535	Bevel Gear	1	
21	H-3010	Variable Speed Lever	1	
22	H-3025	Shaft	1	
23		Bearing	1	5206
24	H-539	Bearing Cover	1	
25		Hex. Socket Bolt	4	M6x1Px45L
26		Hex. Socket Bolt	4	M8x1.25Px20L
27	H-546	Seat	1	
28	H-543	Bolt	2	

SPINDLE HEAD (6)

Item	Parts No.	Parts Name	Q'ty	Remark
29	H-544	Hex. Head Nut	2	M10x1.5P
30	H-540	Sleeve	1	
31	H-548	Hex. Head Bolt	2	
32		Oil Seal	1	VC32458
33	H-549	Washer	1	
34	H-551	Fixing Bolt	1	
35		Key	1	7x7x16L
36	H-550	Handle Wheel	1	
37	T-14	Handle	1	
38	T-15	Handle Bolt	1	
39		O-Ring	1	P20
40		Bearing	1	6205LLU
41	H-545	Washer	1	
42		Cotter Pin	1	1/6"x3/4"
43	H-541	Dowel Pin	1	
44	H-609	Spring	2	
45		Steel Ball	6	$\phi 6$
46		Bearing Washer	1	AW06
47	K-144	Bearing Nut	1	AN06
48		C-Snap Ring	1	S45
49		Needle Bearing	1	TLA3026Z
50		Ball Bearing	1	6009
51	H-537	Clutch	1	
52		Cotter Pin	1	1/16"x3/4"
53	H-538	Dowel Pin	1	
54	H-510	Bevel Gear	1	
55	H-511	Washer	1	
56		Key	1	7x5x25L



SPINDLE HEAD (6)

SPINDLE HEAD (7)

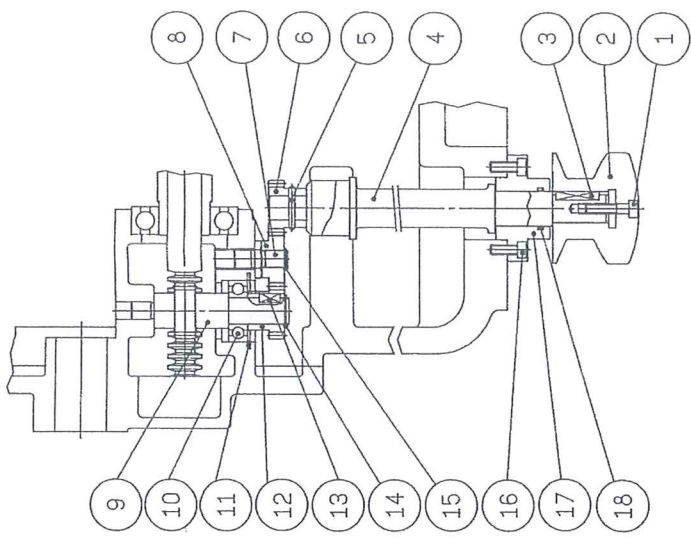
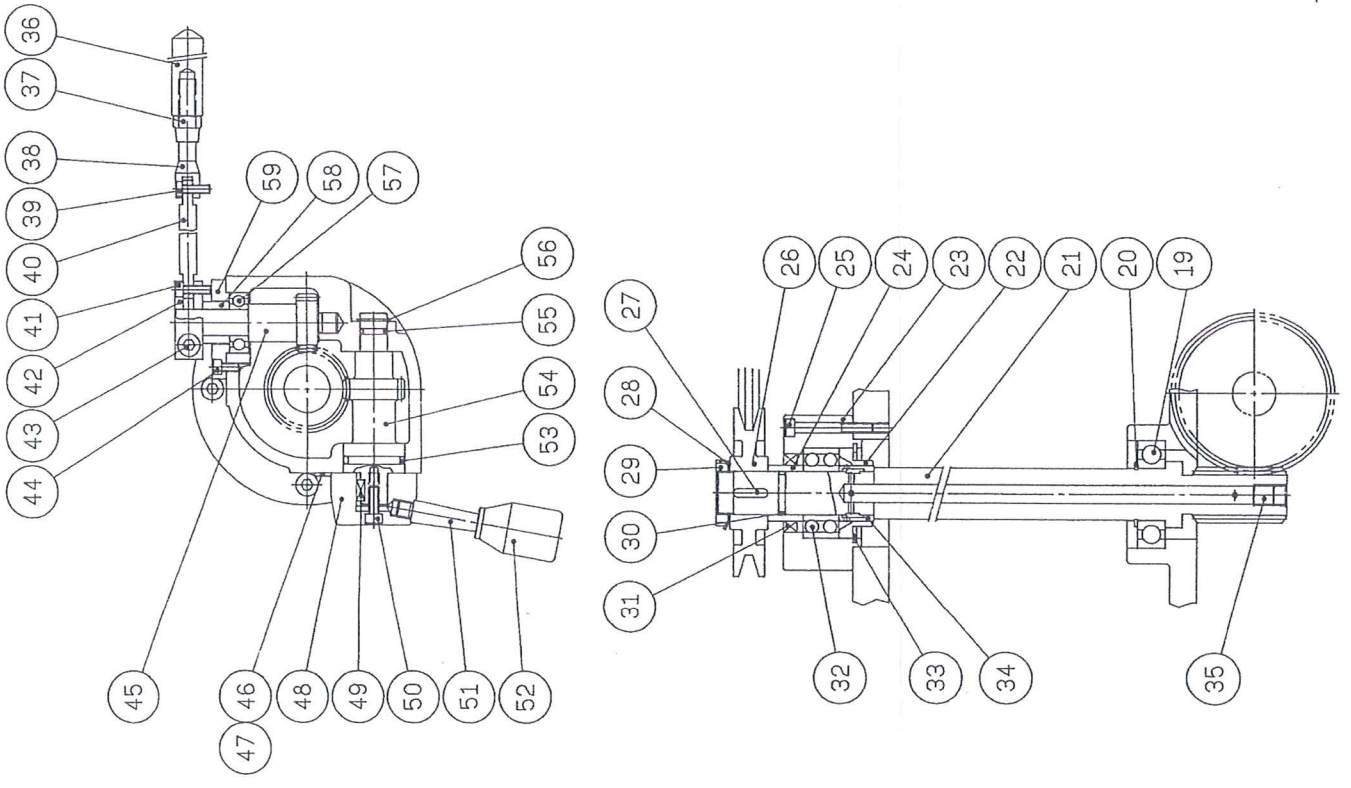
Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
1		Hex. socket bolt	1	M6x1Px20L
2	H-531	Handle	1	
3		Parallel key	1	5x5x25L
4	H-3023	Control lever	1	
5		Spring pin	1	φ 5x25L
6	H-529	Spur gear	1	
7	H-526	Gear shaft	1	
8	H-527	Spur gear	1	
9	H-524	Gear shaft	1	
10		Ball bearing	1	6202Z
11		C snap ring	1	R35
12	H-525	Spur gear	1	14T
13		Parallel key	1	5x5x12L
14		C snap ring	1	S15
15		E snap ring	1	E8
16		Hex. socket bolt	3	M6x1PX16L
17	H-530	Control lever cover	1	
18		O ring	1	P20
19		Ball bearing	1	6206
20		C snap ring	1	S30
21	H-3027	Worm	1	
22	H-3009	Shaft sleeve	1	
23	H-3008	Bearing seat	1	
24	H-3034	Shaft sleeve	1	
25		Hex. socket bolt	4	M6x1Px45L
26	H-3035	Pulley	1	
27		Parallel key	1	5x5x20L
28		Lock washer	1	AW05

SPINDLE HEAD (7)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	K-105	Lock nut	1	AN05
30		O ring	1	P20
31		Oil seal	1	VC32458
32		Ball bearing	1	5205
33		C snap ring	1	R52
34	H-496	Spacing ring	1	
35		Hex. socket set screw	1	M12x1.75Px12L
36	H-562	Control lever	1	
37	H-561	Hex. nut	1	
38	H-560	Link seat	1	
39		Hex. socket screw	1	M5x0.8Px16L
40	H-1338	Link	1	
41		Hex. socket bolt	1	M5x0.8Px16L
42	H-558	Link seat	1	
43		Hex. socket bolt	1	M8x1.25Px20L
44		Hex. socket bolt	4	M5x0.8Px10L
45	H-555	Gear shaft	1	
46	H-563	Name plate	1	English
47	H-3354	Name plate	1	Chinese
48	H-553	Handle seat	1	
49		Parallel key	1	5x5x12L
50		Hex. socket bolt	1	M6x1Px16L
51	H-554	Handle lever	1	
52	H-149	Handle	1	
53		O ring	1	P30
54	H-552	Gear lever	1	
55		O ring	1	P12
56		C snap ring	1	S16



SPINDLE HEAD (7)

TABLE UNITS

(BALL SCREW)

Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
1		Hex. socket bolt	2	M6x1Px20L
2	T5-1014	Cover	1	
3	T-109	Oil filter	1	
4		Washer	4	M10
5		Hex. socket bolt	4	M10x1.5Px30L
6	T-1043	Gear bracket	1	
7	T-78	Taper pin	2	
8		Hex. nut	2	M6
9		Spring washer	2	M6
10		Hex. socket bolt	2	M6x1Px10L
11		Hex. socket bolt	2	M10x1.5Px25L
12	T-1060	Cover	1	
13		Machine screw	5	M5x0.8Px8L
14	T-91	T block	2	
15	T-346	Gib	1	
16	T-347	Gib	1	
17	T-100	Adjusting screw	2	
18	T-101	Washer	2	
19		Hex. nut	2	M10
20	T-104	Hex. nut	2	
21	T-103	T-bolt	2	
22	T-105	Locking block	2	
23	T-106	Spring	2	
24	T-348	Set lever	2	
25		Hex. socket set screw	2	M6x1Px10L
26		Hex. socket set screw	2	M6x1Px12L
27	T-108	Handle seat	2	
28	H-480	Handle lever	2	

TABLE UNITS

(BALL SCREW)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	H-149	Handle	2	
30	T-341	Table side cover	2	
31		Hex. socket bolt	4	M10x1.5Px50L
32	T-89	Taper pin	2	
33	T-96	Adjusting block	1	
34	T-334	Table	1	
35	T-77	Cover	1	
36		Round head screw	4	M6x8L
37	T-90	Adjusting block	1	
38		Hex. socket bolt	2	M8x1.25Px25L
39		Spring washer	2	M8
40		Hex. socket bolt	2	M6x1Px10L
41		Hex. socket bolt	4	M12x1.75Px25L
42	T-82	Taper pin	2	
43		Spring washer	4	M8
44		Hex. nut	4	M8x1.25P
45		Hex. socket bolt	4	M10x1.5Px35L
46	T-83a	Bearing cover	2	
47	T-1069	Bearing housing	1	
48	T-1042	Ball screw	1	
49		Hex. socket bolt	4	M10x1.5Px25L
50	T-1044	Nut seat	1	
51		Needle bearing	1	TA6525
52		Thrust bearing	1	51113
53		Thrust bearing	1	51112
54		Needle bearing	1	TA6025
55	T-1045	Bearing cover	1	
56		Hex. socket bolt	4	M6x1Px16L

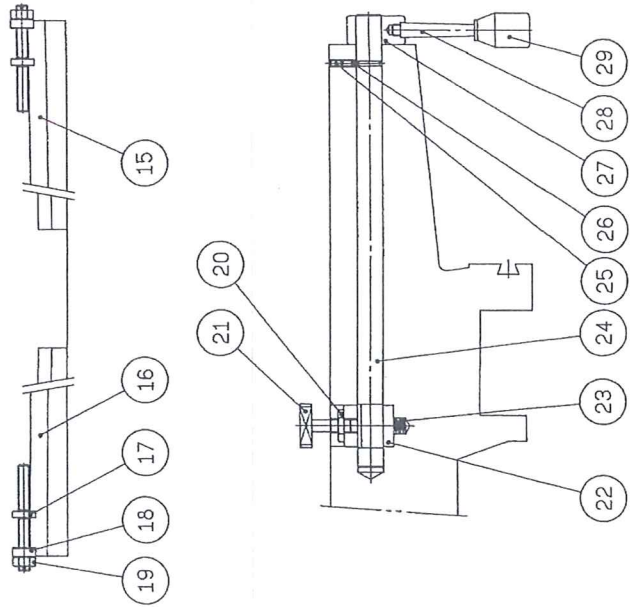
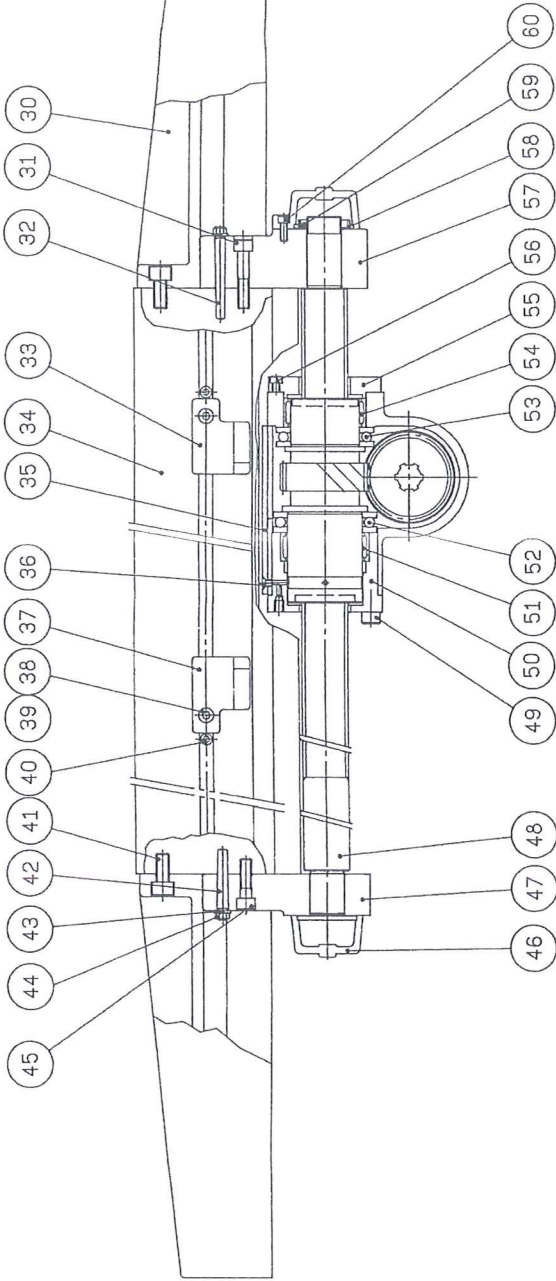


TABLE
BALL SCREW

TABLE UNITS

(LEAD SCREW)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	T-83	Bearing cover	2	
2		Grease nipple	2	PT1/8
3	K-105	Lock nut	2	AN05
4		Lock washer	2	AN05
5		Taper roller bearing	2	30205
6		Hex. socket bolt	3	M6x1Px16L
7	T-754	Spacing ring	1	
8	T-350	Bearing housing	1	
9	S-313	Spacing ring	1	
10	T-338	Feed screw	1	MM
11	T-411	Feed screw	1	INCH
12	T-339	Feed nut	1	MM
13	T-410	Feed nut	1	INCH
14		Hex. socket bolt	4	M10x1.5Px30L
15		Spring washer	4	M10
16		Needle bearing	2	TA4525Z
17		Thrust bearing	2	51109
18		Parallel key	1	7x7x60L
19	T-74	Helical gear	1	
20		Hex. socket bolt	3	M8x1.25Px25L
21		Washer	3	
22	T-85	Cover	1	
23		Hex. socket bolt	3	M6x1Px16L
24		Ball bearing	1	6205ZZ
25	T-341	Table side cover	2	
26		Hex. socket bolt	4	M10x1.5Px50L
27	T-340	Bearing housing	1	
28	T-89	Taper pin	2	

TABLE UNITS

(LEAD SCREW)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	T-349	Adjusting nut	1	MM
30	T-409	Adjusting nut	1	INCH
31	T-96	Adjusting block	1	
32	T-334	Table	1	
33	T-77	Cover	1	
34		Round head screw	4	M6x1Px8L
35	T-90	Adjusting block	1	
36		Hex. socket bolt	2	M8x1.25Px25L
37		Hex. socket bolt	2	M6x1Px10L
38		Hex. socket bolt	4	M12x1.75Px40L
39	T-82	Taper pin	2	
40		Spring washer	4	M8
41		Hex. nut	4	M8x1.25P
42		Hex. socket bolt	4	M10x1.5Px35L
43		Hex. nut	2	M10
44	T-101	Washer	2	
45	T-100	Adjusting screw	2	
46	T-347	Gib	1	
47	T-346	Gib	1	
48	T-103	T-bolt	2	
49	T-104	Hex. nut	2	
50	T-105	Locking block	2	
51	T-106	Spring	2	
52	T-348	Set lever	2	
53		Hex. socket set screw	2	M6x1Px10L
54		Hex. socket set screw	2	M6x1Px12L
55	T-108	Handle seat	2	
56	H-480	Handle lever	2	

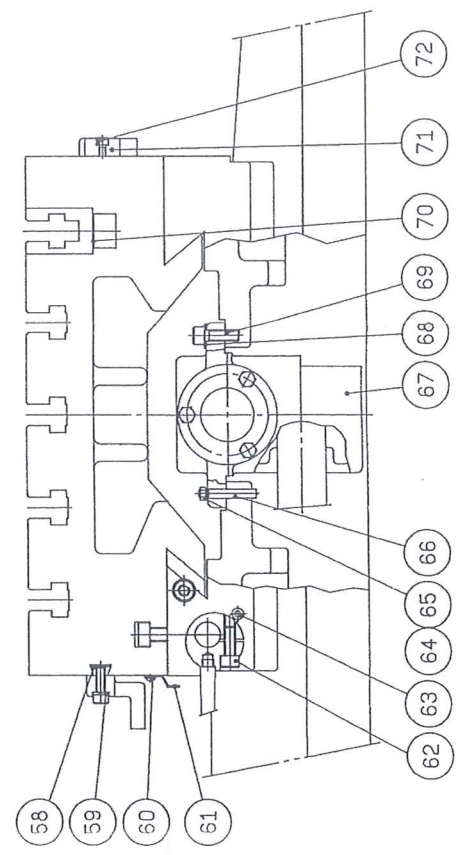
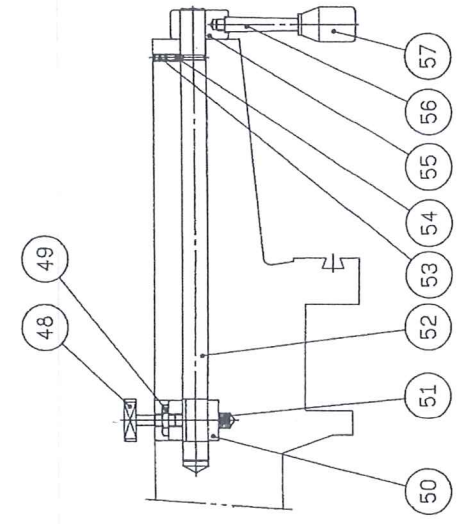
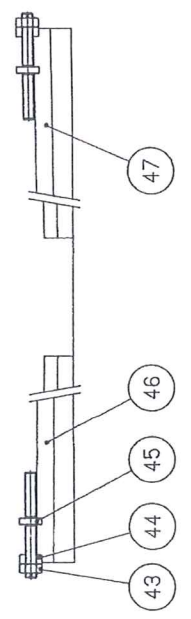
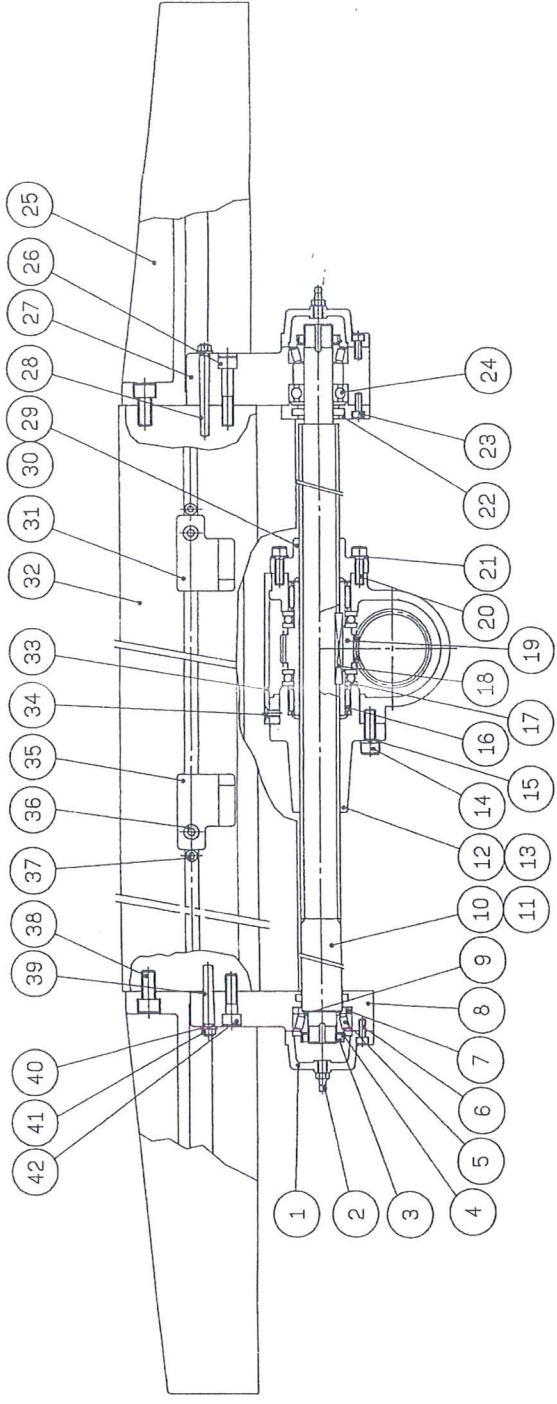
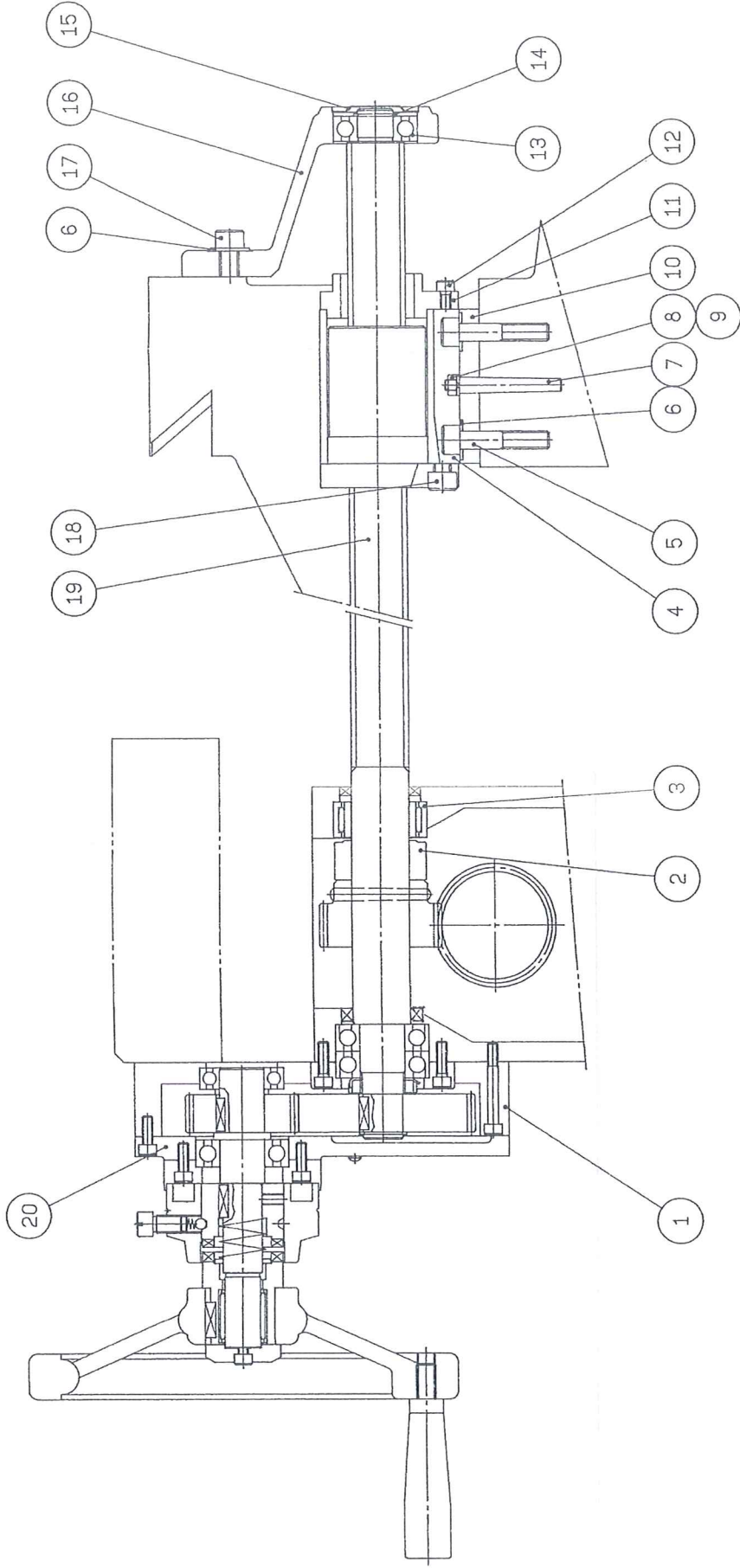


TABLE
LEAD SCREW



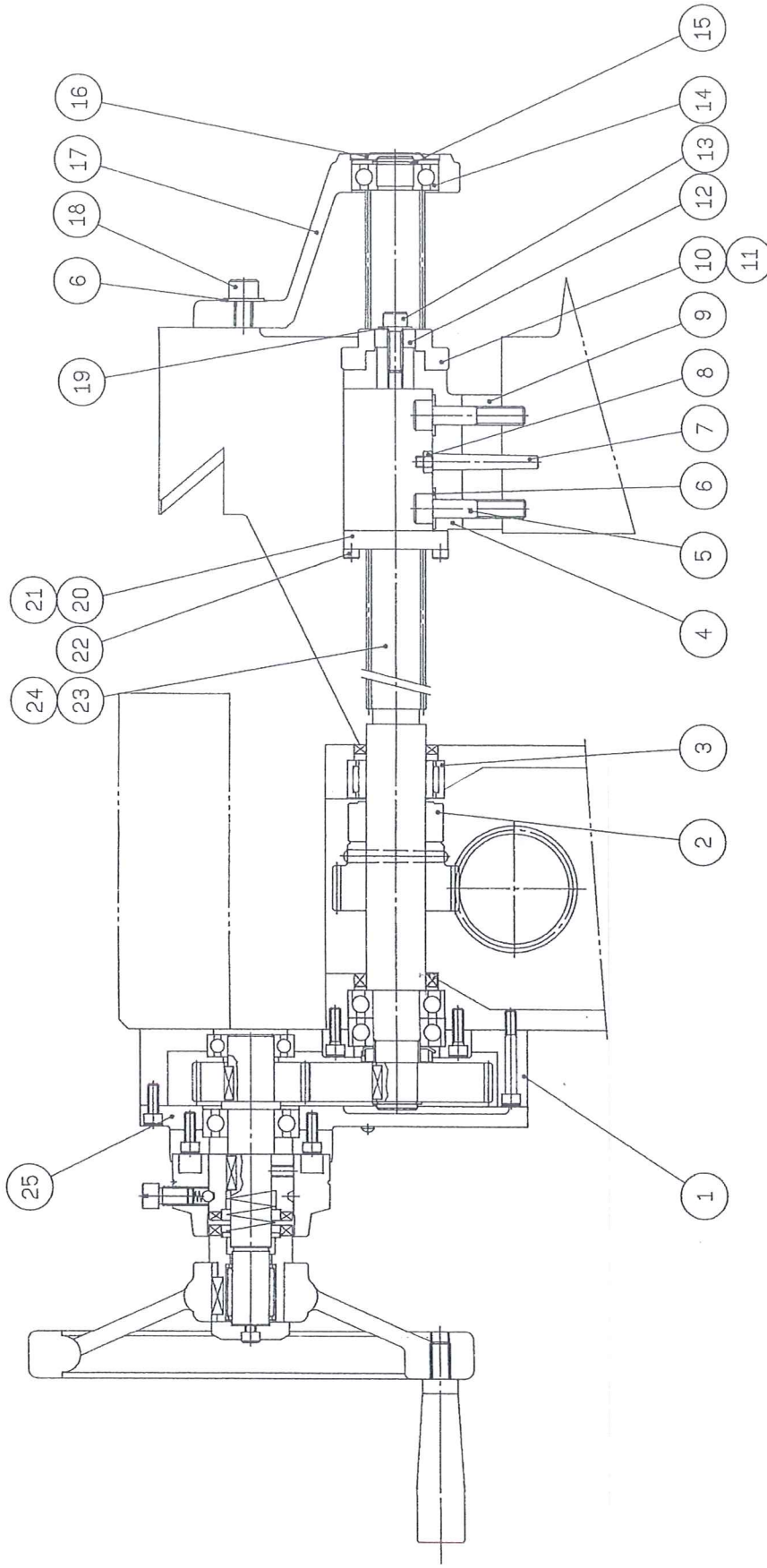
SADDLE (1)
BALL SCREW

SADDLE UNITS (1)

(LEAD SCREW)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	S-321	Bearing housing	1	
2	S-107	Washer	1	
3		Needle bearing	1	NA49/32
4	S-608	Lead screw nut seat	1	
5		Hex. socket bolt	4	M10x1.5Px50L
6		Washer	6	
7	S-114	Taper pin	2	
8		Hex. nut	2	M6
9	S-319	Adjusting plate	1	
10	S-109	Adjusting nut	1	MM
11	S-492	Adjusting nut	1	INCH
12	S-110	Fixed block	2	
13		Hex. socket bolt	2	M8x1.25Px25L
14		Ball bearing	1	6204Z
15		C snap ring	1	S20
16	S-116	Bearing cover	1	
17	S-115	Bearing housing	1	
18		Hex. socket bolt	2	M10x1.5Px25L
19		Spring washer	2	M8
20	S-607	Adjusting nut	1	MM
21	S-644	Adjusting nut	1	INCH
22		Hex. socket bolt	4	M5x0.8Px25L
23	S-322	Cross feed lead screw	1	MM
24	S-495	Cross feed lead screw	1	INCH
25	S-317	Bearing cover	1	

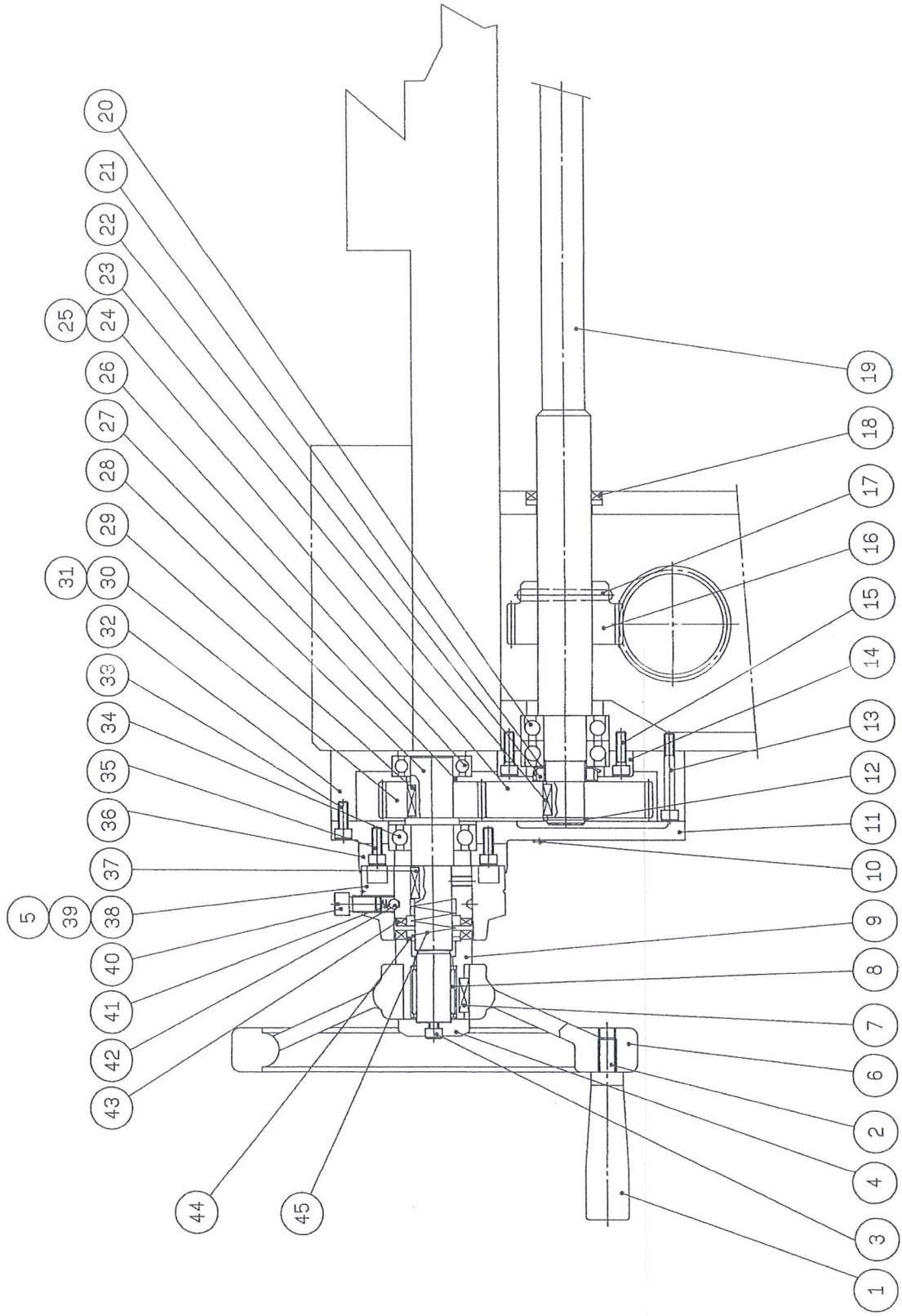


SADDLE (1)
LEAD SCREW

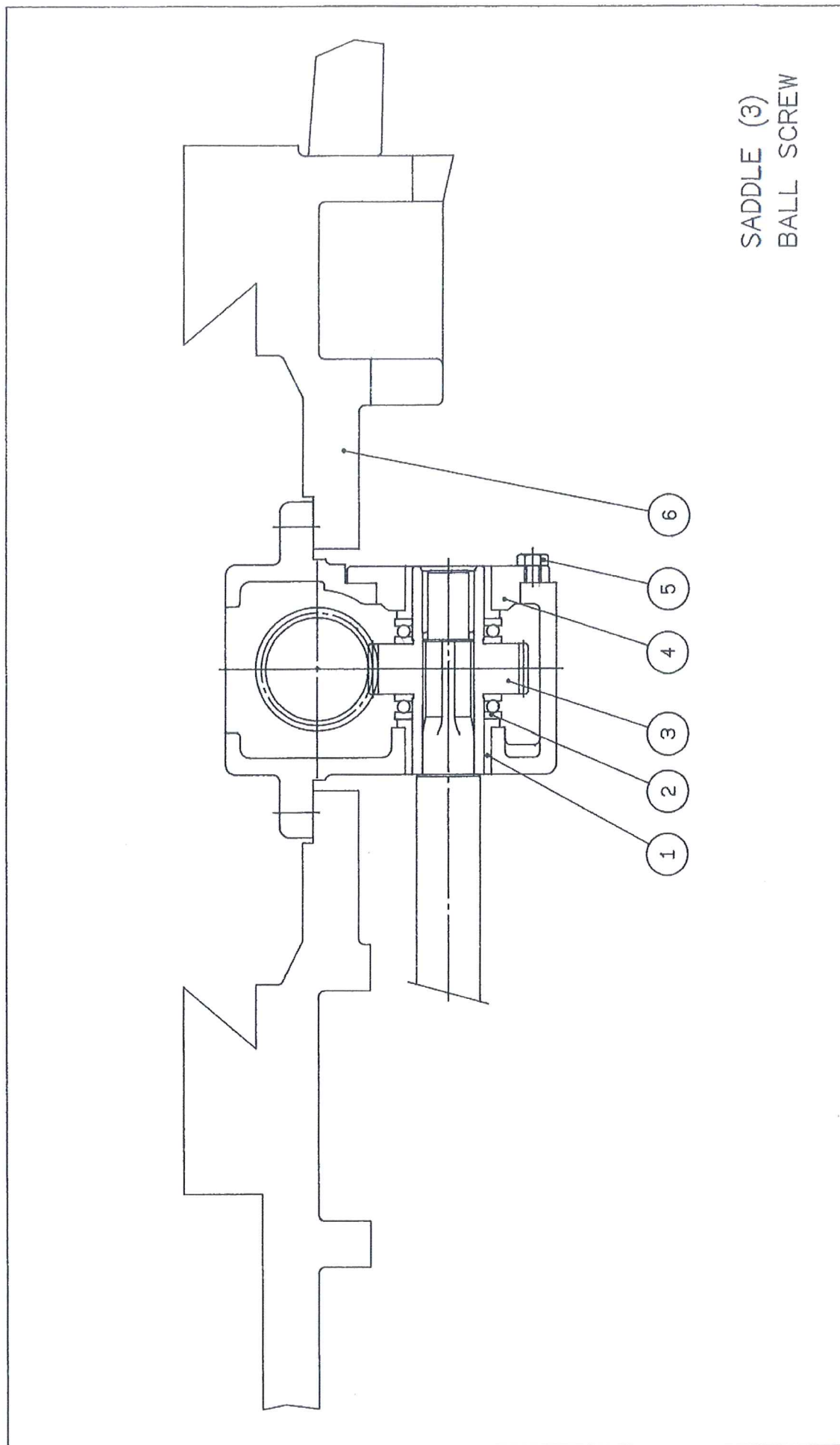
SADDLE UNITS (2)

Model: KMA-2

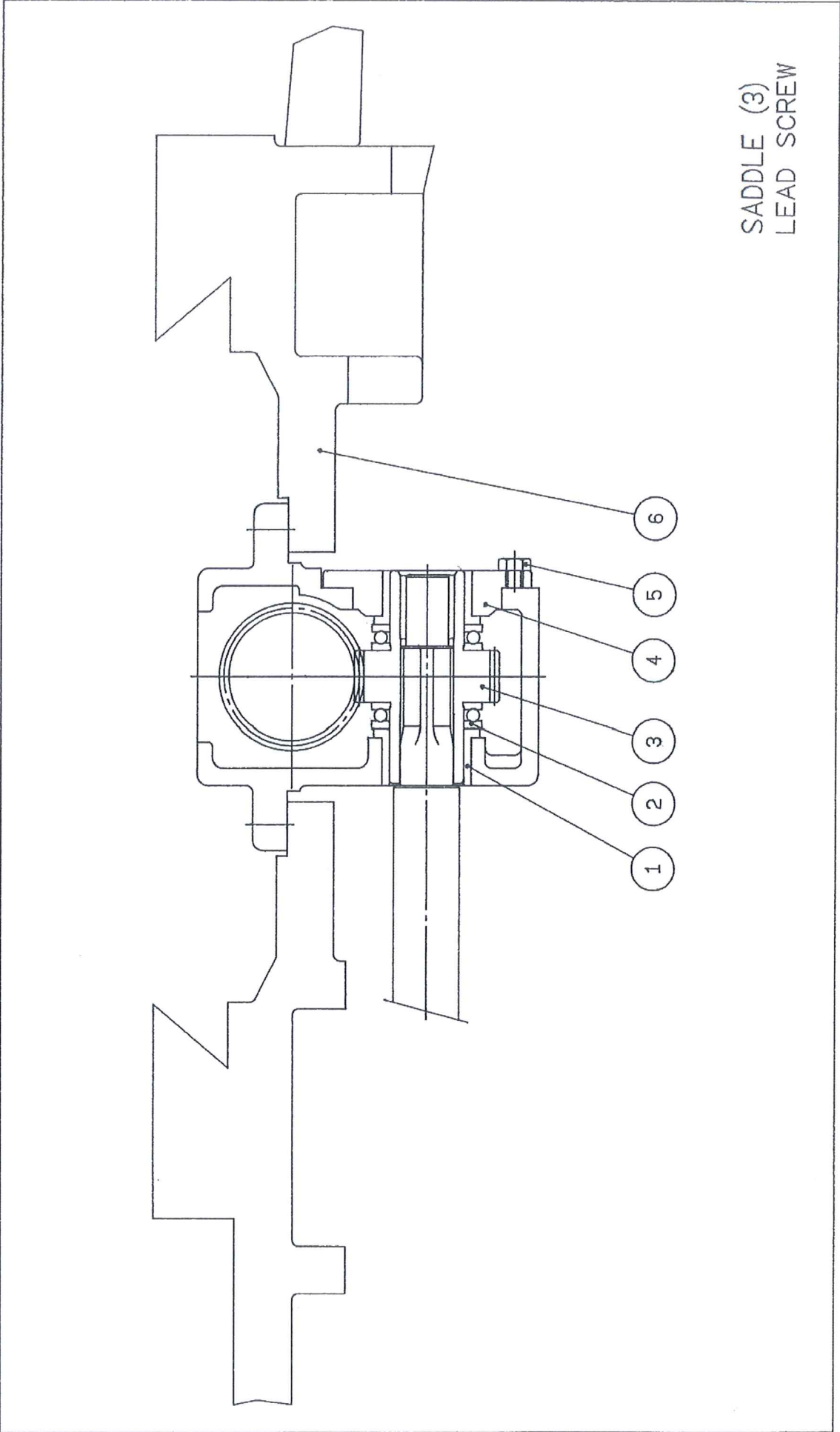
Item	Parts No.	Parts Name	Q'ty	Remark
1	S-105	Handle	2	
2	S-104	Handle bolt	2	
3		Hex. socket bolt	2	M6x1Px16L
4	S-103	Washer	2	
5	S-97	Graduation ring	2	Ball screw
6	S-288	Handle wheel	2	
7		Parallel key	2	7x5x20L
8		Needle bearing	2	TA2030
9	S-101	Handle wheel clutch	2	
10		Spring pin	4	φ 5x30L
11	S-315	Bearing cover	1	
12		C snap ring	2	S22
13		Hex. socket bolt	8	M6x1Px45L
14	S-318	Bearing cover	2	
15		Hex. socket bolt	8	M6x1Px20L
16	S-92	Helical gear	2	
17	S-499	Taper pin	2	
18		Oil seal	4	VC32458
19	S-320	Shaft	1	
20		Bearing	4	7205B
21		Lock washer	2	AW05
22	K-105	Lock nut	2	AN05
23		Parallel key	2	5x5x18L
24	S-314	Spur gear	2	MM
25	S-494	Spur gear	2	INCH
26		Ball bearing	2	6005ZZ
27	S-313	Spacing ring	2	
28	S-316	Transmission shaft	2	



SADDLE (2)



SADDLE (3)
BALL SCREW



SADDLE (3)
LEAD SCREW

GEAR BOX

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	G-398	Gear box	1	
2		Ball bearing	1	6204
3	G-122	Washer	1	
4		Hex. socket bolt	6	M10x1.5Px40L
5	G-388	Shaft	1	
6	K-105	Lock nut	2	AN05
7		Lock washer	1	AW05
8		Parallel key	1	7x7x16L
9		Parallel key	1	7x7x105L
10	G-121	Worm gear	1	
11	G-120	Spur gear	1	
12	G-119	Spur gear	1	
13	G-118	Spur gear	1	
14	G-117	Spur gear	1	
15	H-521	Sleeve	1	
16	G-116	Spur gear	1	
17	G-115	Spur gear	1	
18	G-132	Spur gear	1	
19	G-133	Spur gear	1	
20	G-129	Spacing ring	5	
21	G-134	Spur gear	1	
22		Ball bearing	3	6205
23	H-522	Speed change pin	4	
24	G-136	Bearing cover	1	
25	G-135	Washer	1	
26	G-390	Speed change lever	1	
27	G-155	Plug block	1	
28		O ring	2	P40

GEAR BOX

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	G-369	Spacing ring	2	
30	G-168	Bearing adjusting shim	2	
31		Hex. socket set screw	2	M10x1.5Px25L
32		Hex. nut	2	M10x1.5P
33		Bearing	2	7205B
34	G-382	Bearing housing	2	
35		Hex. nut	2	M5x0.8P
36		Clutch	2	MWC5
37		Parallel key	2	8x7x50L
38	G-370	Spacing ring	2	
39	G-371	Helical gear	2	
40		Needle bearing	4	NAFW304526
41	G-373	Spacing ring	2	
42	H-568	Spacing ring	4	
43	G-404	Spacing ring	1	
44	G-381	Shaft	1	
45	G-380a	Clutch gear	1	
46	G-379	Spacing ring	1	
47	G-131	Spur gear	1	
48	H-523	Spring	1	
49	G-130	Spur gear	1	
50		Steel ball	2	$\varphi 6$
51	G-128	Spur gear	1	
52	G-378a	Clutch gear	1	
53	G-376	Clutch gear	1	
54	G-377	Spacing ring	1	
55	G-374	Spacing ring	1	
56	G-386	Speed change lever	1	

GEAR BOX

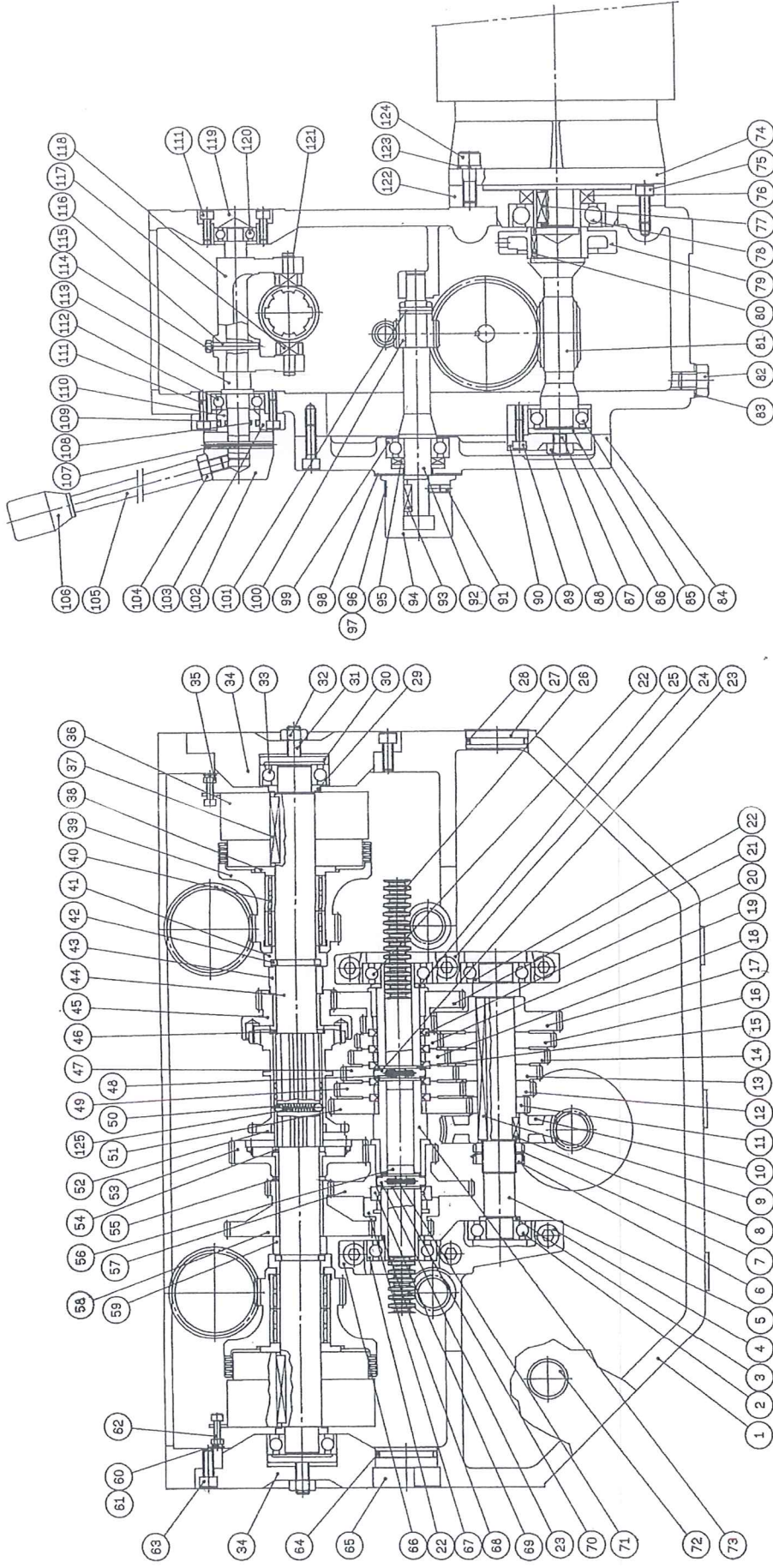
Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
57	G-383	Spur gear	1	
58	G-375	Spur gear	1	
59	G-372	Spacing ring	1	
60		Spring Washer	2	M5
61		Washer	2	M5
62		Hex. socket bolt	2	M5x0.8Px35L
63		Hex. socket bolt	8	M8x1.25Px20L
64		O ring	2	P40
65	G-391	Plug block	1	
66	G-137	Bearing cover	1	
67	G-384	Spur gear	1	
68	G-420	Washer	1	
69	G-419	Spacing ring	1	
70	G-385	Pin sleeve	1	
71	H-523	Spring	1	
72		Oil gauge	1	ϕ 26x ϕ 30
73	G-387	Shaft	1	
74		Motor	1	2HP-4P
75		Hex. socket bolt	4	M8x1.25Px20L
76		Oil seal	1	TC35558
77		Parallel key	1	7x7x22L
78		Bearing	1	7207B
79	G-394	Oil splasher	1	
80		Parallel key	1	4x4x16L
81	G-393	Motor shaft	1	
82	G-152	Oil plug	1	
83	G-153	Washer	1	
84	G-392	Front cover	1	

GEAR BOX

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
85		Bearing	1	7204
86	G-111	Washer	1	
87		Hex. socket set screw	1	M10x1.5Px16L
88		Hex. nut	1	M10x1.5P
89		Hex. socket bolt	4	M6x1Px16L
90	G-112	Front bearing cover	1	
91		Hex. socket set screw	1	M6x1Px10L
92	G-138	Speed change lever	2	
93		Parallel key	1	6x6x20L
94	G-141	Handle	2	
95		Oil seal	1	VC20405
96	G-234	Name plate	1	
97	G-406	Name plate	1	
98	H-483	Name plate	2	
99		Ball bearing	2	6204
100	G-139	Speed change gear	2	
101		Spring pin	1	ϕ 5x25L
102	G-188	Handle seat	1	
103	G-186	Front bearing cover	1	
104		Hex. nut	1	M10x1.5P
105	G-407	Handle lever	1	
106	H-149	Handle	1	
107		Spring pin	1	ϕ 5x50L
108		O ring	1	P16
109		O ring	1	P26
110	G-187	Sleeve	1	
111		Hex. socket bolt	8	M6x1Px16L
112		Ball bearing	1	6203

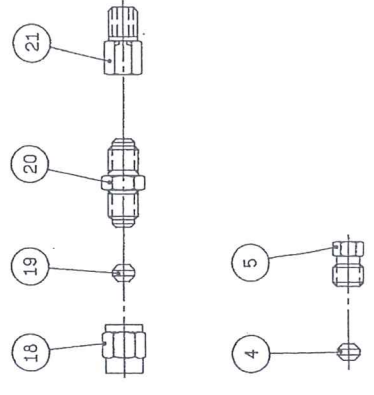
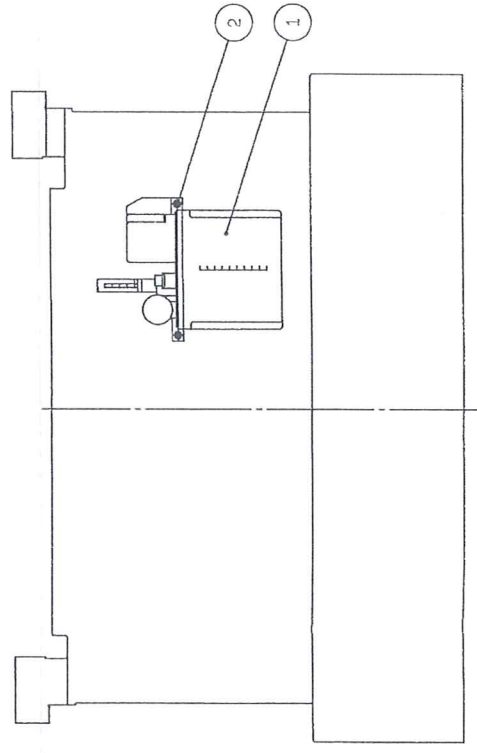
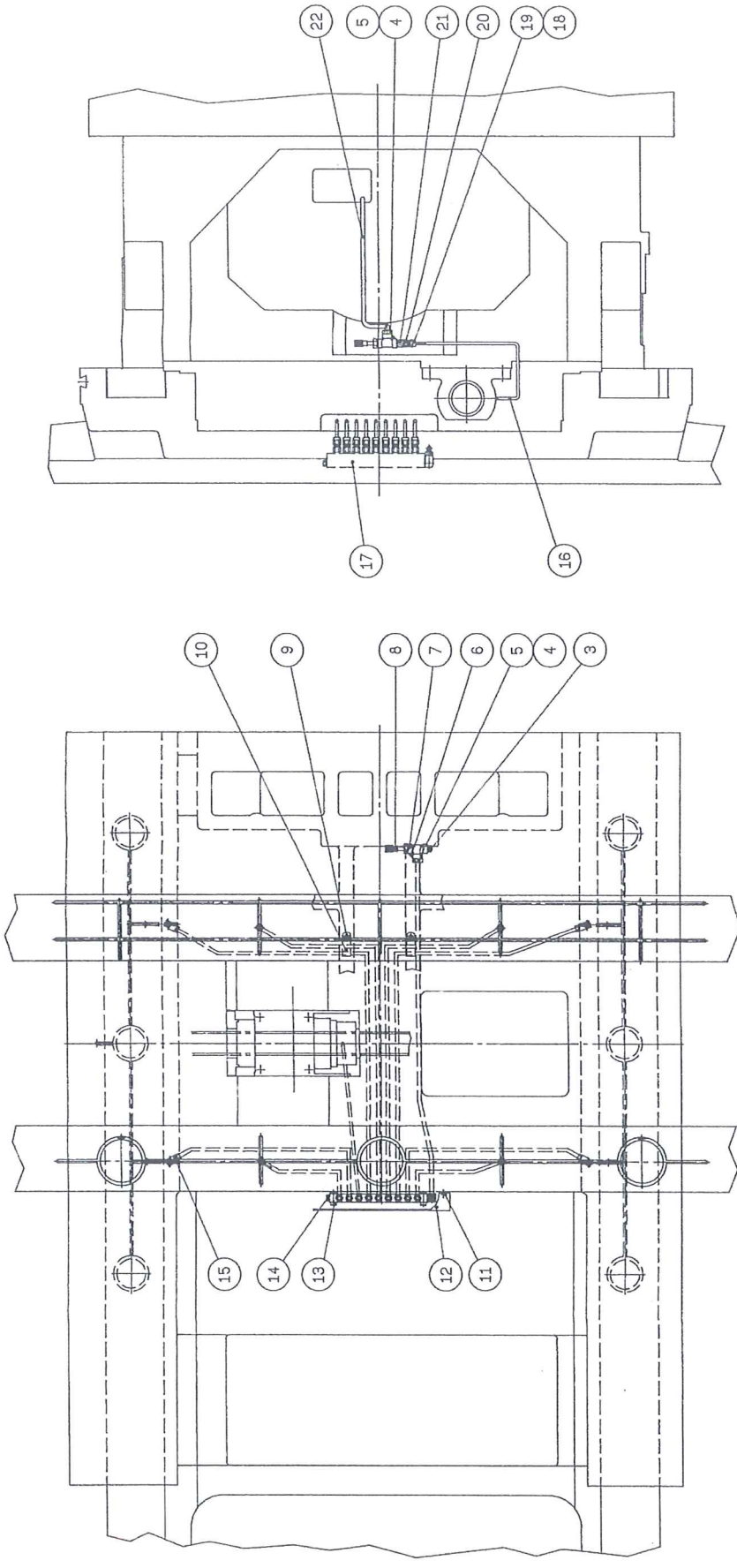


GEAR BOX

SADDLE LUBBRICATION

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1		Lubrication pump	1	CESA10
2		Hex. socket bolt	2	M6x1Px16L
3		Union	1	PG006
4		Thimble	3	PB6
5		Thimble nut	3	PA6
6		Hex. socket bolt	2	M6x1Px16L
7		T-joint	2	PKD6
8		Wire soft tube	1	φ 6x700L
9		Round head screw	10	M5x0.8Px8L
10		Pipe clamping	10	φ 4
11		Round head screw	3	M6x1Px8L
12	S-1226	Cover	1	
13		Hex. socket bolt	2	M5x0.8Px20L
14		Hex. nut	2	M5
15		Elbow joint	4	PH401
16		Aluminium pipe	1	φ 4
17		A type distributor	1	A10
18		Thimble nut	9	PA4
19		Thimble	9	PB4
20		Joint	1	CPB3
21		Straight joint	5	PD401
22		Aluminium pipe	1	φ 6



SADDLE LUBBRICATION

COLUMN & ACCESSORIES (1)

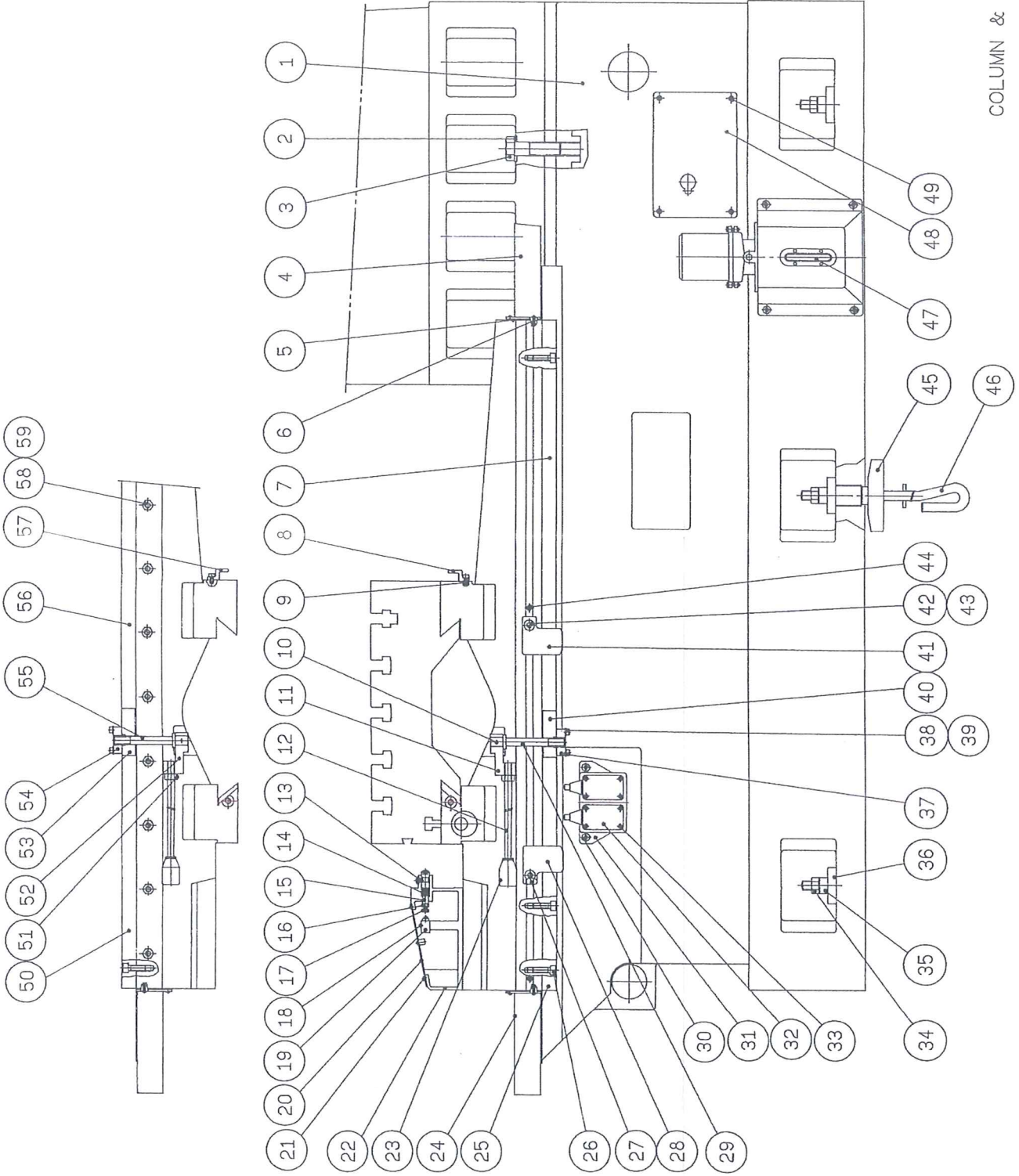
Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	B-280	Base	1	
2		Washer	11	M24
3		Hex. bolt	11	M24x3Px90L
4	S-1222	Cover	2	
5	S-337	Wiper	4	
6		Round head screw	16	M4x0.7Px12L
7	S-332	Saddle fixing block	1	
8	S-333	Cooling guide plate	1	
9		Hex. socket bolt	4	M6x1Px12L
10		Taper pin	2	#3x32L
11	S-155	Handle lever	1	
12	S-339	Handle seat	2	
13		Hex. socket set screw	2	M6x1Px10L
14	S-150	Spring	2	
15	S-149	Handle	2	
16		Hex. nut	4	M6x1P
17		Hex. bolt	2	M6x1Px25L
18		Round head screw	4	M4x0.7Px25L
19		Micro switch	2	TM1306
20	S-1266	Cover	1	
21		Round head screw	4	M4x0.7Px8L
22	S-335	Electric switch seat	1	
23	H-149	Handle	2	
24	S-405	Cover	2	
25	S-338	Saddle fixing block	1	
26		Hex. socket bolt	20	M10x1.5Px30L
27	T-91	T block	2	
28	S-1230	Adjusting block	1	

COLUMN & ACCESSORIES (1)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29	S-121	Setting bolt	1	
30		Hex. socket bolt	2	M8x1.25Px16L
31	B-14	Switch seat	1	
32		Micro switch	2	WLD2-0
33		Round head screw	8	M5x0.8Px40L
34		Hex. nut	6	M16x2P
35	B-11	Adjusting nut	6	
36	B-230	Hex. nut	6	
37	S-120	Adjusting nut	1	
38		Hex. socket bolt	4	M6x1Px25L
39		Flat washer	4	M6
40	S-119	Saddle fixing block	1	
41	S-1231	Adjusting block	1	
42		Hex. socket bolt	2	M8x1.25Px25L
43		Spring washer	2	M8
44		Hex. socket bolt	2	M5x0.8Px8L
45	B-16	Foundation washer	6	
46	B-10	Foundation bolt	6	
47		Oil gage	1	
48	B5-1006	Plate	1	
49		Round head screw	4	M6x1Px8L
50	S-340	Saddle fixing block	1	
51		Hex. nut	2	M12x1.75P
52	S-122	Handle seat	1	
53	S-126	Saddle fixing block	1	
54	S-127	Adjusting nut	1	
55	S-154	Setting bolt	1	
56	S-341	Saddle fixing block	1	



COLUMN & ACCESSORIES (1)

COLUMN & ACCESSORIES (2)

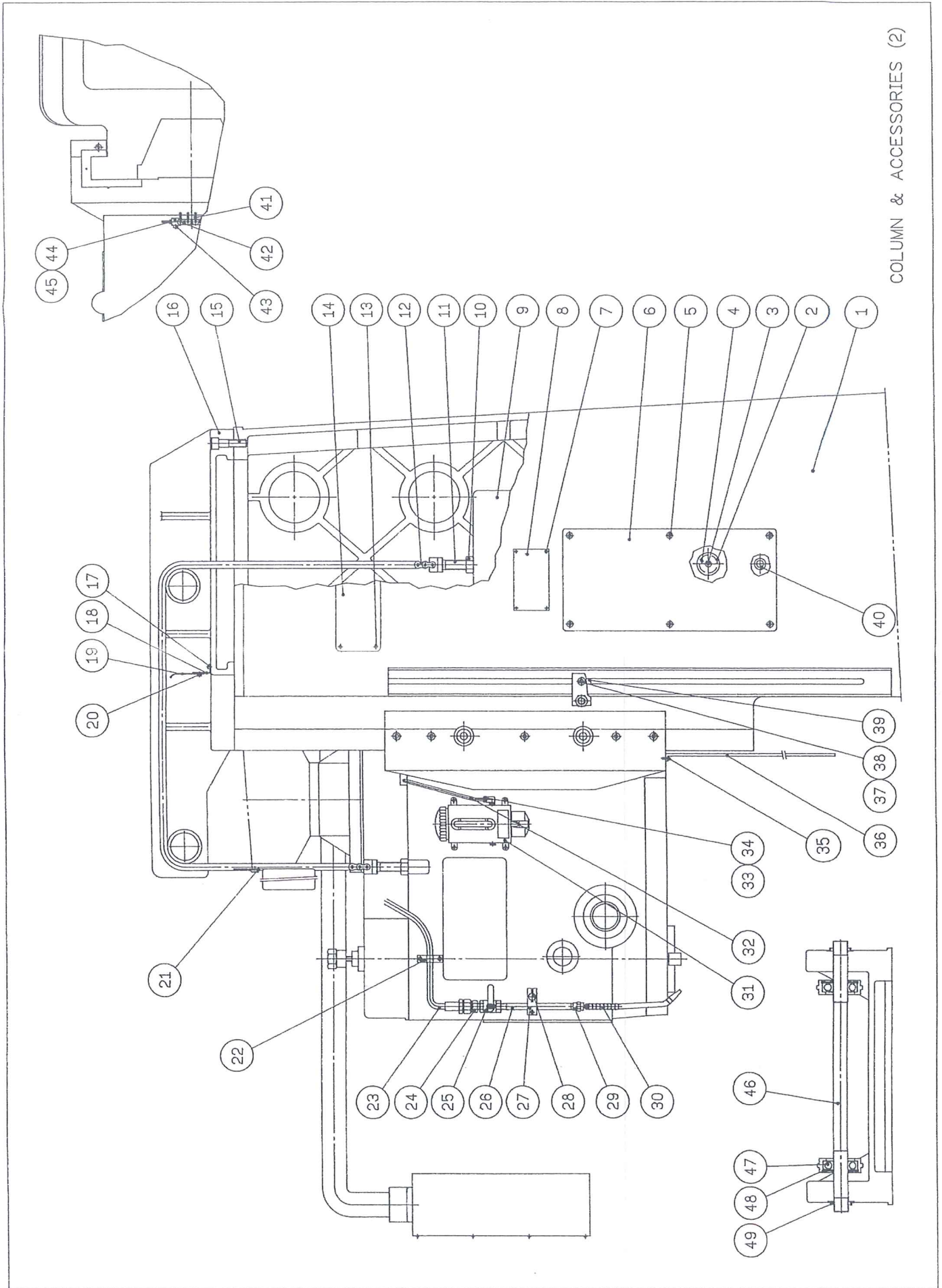
Model: KMA-2

Item	Parts No.	Parts Name	Q' ty	Remark
1	C-399	Column	1	
2	C-385	Washer	2	
3		Hex. socket bolt	2	M12x1.75Px20L
4	C-400	Fixed shaft	2	
5		Hex. socket bolt	6	M8x1.25Px25L
6	C-85	Cover	1	
7		Spring pin	4	ϕ 2x5L
8		Name plate	1	
9	C-402	Balance weight	1	
10		Hex. nut	4	M20x2.5P
11	C-403	Hex. nut	4	
12		Chain	2	RS50x119P
13		Round head screw	8	M4x0.7Px10L
14	C-1197	Name plate	2	
15		Hex. socket bolt	5	M16x2Px65L
16	C-404	Top cover	1	
17		Hex. socket bolt	2	M5x0.8Px10L
18	C-431	Fixed seat	1	
19	C-430	Steel plate	1	
20		Hex. socket bolt	4	M5x0.8Px6L
21	C-429	Fixed plate	1	
22		Pipe clamping	1	1/2"
23		Oil pipe	1	1/2"x5300mm
24		Straight joint	1	1/2PSx1/4PT
25		Cock	1	1/4"
26	C-11	Hose connector	1	1/4x8
27	H-2805	Fixing block	1	
28	H-315	Shaft	1	

COLUMN & ACCESSORIES (2)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
29		Joint	1	1/4"
30		Nozzle pipe	1	1/4"x10"L
31		Hand oiler	1	YML-8
32		Aluminium pipe	1	φ 6
33		Thimble nut	2	PA6
34		Thimble	2	PB6
35		Round head screw	2	M6x1Px12L
36	C-1092	Rubber guard	1	
37		Hex. socket bolt	1	M10x1.5Px30L
38		Spring washer	1	M10
39	C-87	Lock block	1	
40		Hex. socket bolt	1	M16x2Px110L
41		Aluminium pipe		φ 4
42		A type distributor	1	DB6
43		Hex. socket bolt	2	M5x0.8Px16L
44		Thimble	5	PB4
45		Thimble nut	5	PA4
46	C-406	Sprocket shaft	1	
47		Ball bearing	2	6306ZZ
48		C snap ring	2	R72
49	K-144	Lock nut	2	

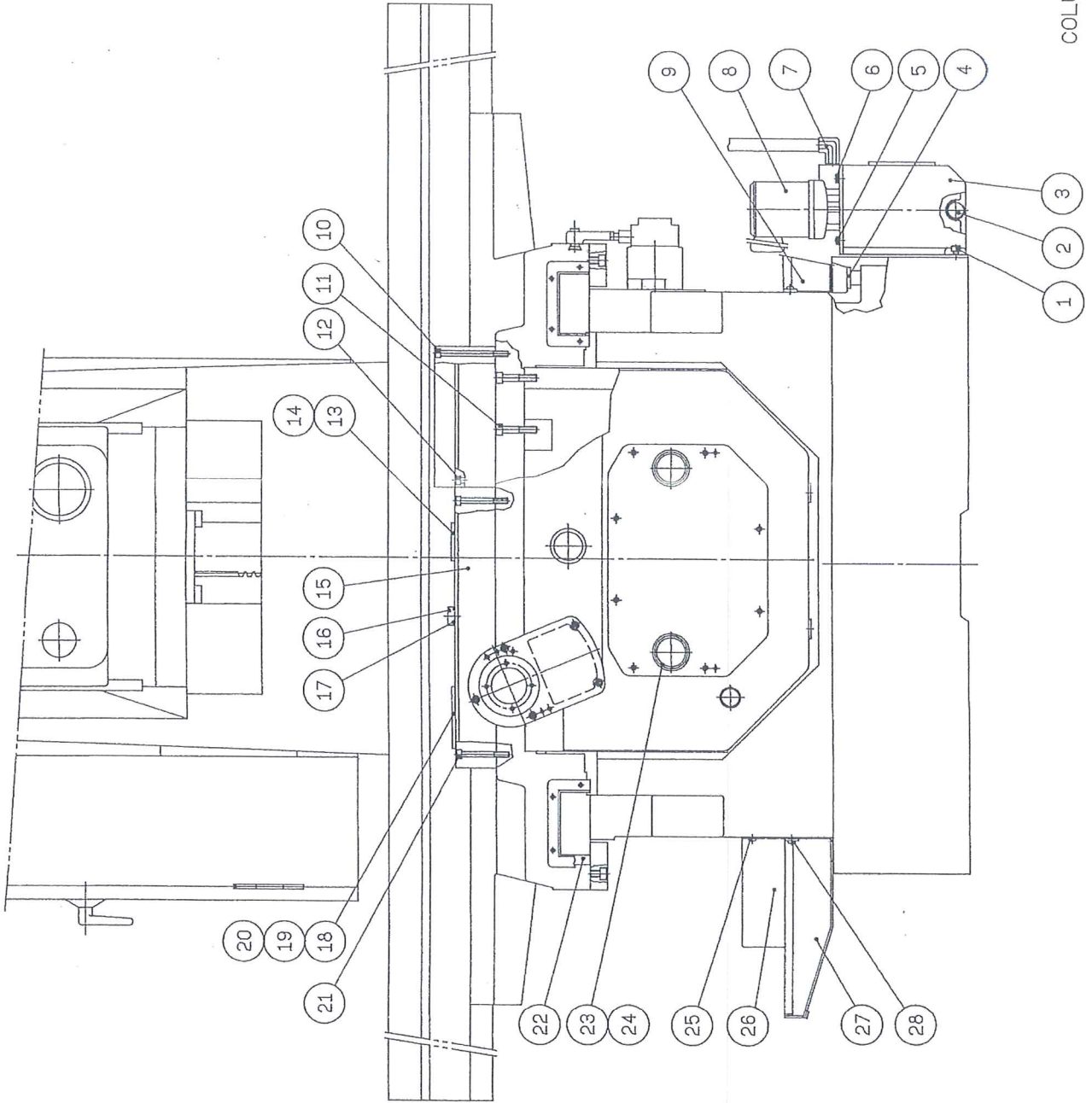


COLUMN & ACCESSORIES (2)

COLUMN & ACCESSORIES (3)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1		Hex. socket bolt	4	M8x1.25Px25L
2		Plug	1	PT3/4
3	B-289	Motor frame	1	
4	B-284	Fluid filter	2	
5		Spring washer	4	M6
6		Hex. socket bolt	4	M6x1Px16L
7		Elbow joint	1	PT1/2
8		Pump	1	1/8HP
9	B-283	Chip pan	1	
10		Hex. socket bolt	2	M8x1.25Px90L
11		Hex. socket bolt	12	M10x1.5Px50L
12		Hex. socket bolt	2	M8x1.25Px60L
13	S-146	Name plate	1	INCH
14	S-781	Name plate	1	
15	S-343	Control seat	1	
16	S-143	Bolt	1	
17		O ring	1	P18
18	S-145	Name plate	1	MM,English
19	S-160	Name plate	1	INCH
20	S-782	Name plate	1	MM,Chinese
21		Hex. socket bolt	8	M8x1.25Px60L
22	S-344	Gib	1	
23	G-406	Name plate	1	English
24	G-410	Name plate	1	Chinese
25		Round head screw	4	M6x1Px10L
26	B-288	Terminal box	1	
27	B-282	Chip pan	1	
28		Round head screw	10	M6x1Px12L

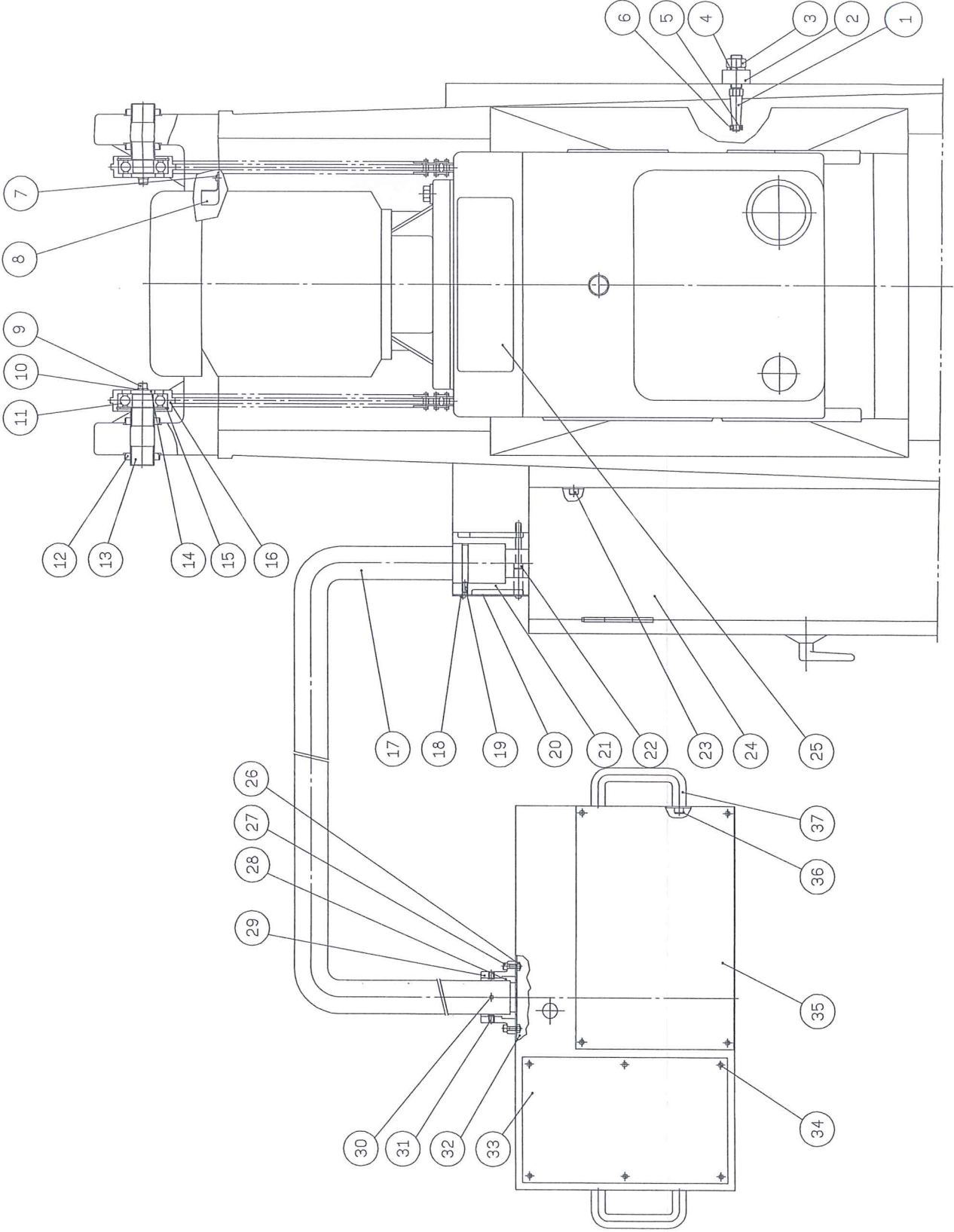


COLUMN & ACCESSORIES (3)

COLUMN & ACCESSORIES (4)

Model: KMA-2

Item	Parts No.	Parts Name	Q'ty	Remark
1	C-413	Bearing shaft	1	
2	C-412	Adjusting plate	1	
3		Hex. nut	1	M16x2P
4		Spring washer	1	M16
5		Ball bearing	1	608ZZ
6		E snap ring	1	E6
7		Round head screw	2	M5x0.8Px10L
8	E-1040	Switch seat	1	
9		Hex. socket bolt	2	M8x1.25Px12L
10		Spring washer	2	M8
11		Ball bearing	2	6306ZZ
12	C-410	Lock nut	4	
13	C-411	shaft	2	
14	C-408	Washer	2	
15		C snap ring	2	R72
16	C-409	Sprocket	4	
17	E-9a	Link	1	
18		Round head screw	2	M6x1Px8L
19		Hex. socket set screw	1	M8x1.25Px12L
20	E-515	Cover	1	
21	E-514	Bracket	1	
22		Hex. socket bolt	2	M8x1.25Px60L
23		Hex. socket bolt	2	M8x1.25Px12L
24	E-375	Electric box	1	
25	C-1196	Name plate	1	
26		Hex. nut	2	M6x1P
27		Hex. socket bolt	2	M6x1Px20L
28	E-10	Sleeve	1	





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