

*Barudan*

HIGH SPEED AUTOMATIC EMBROIDERY MACHINE

MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

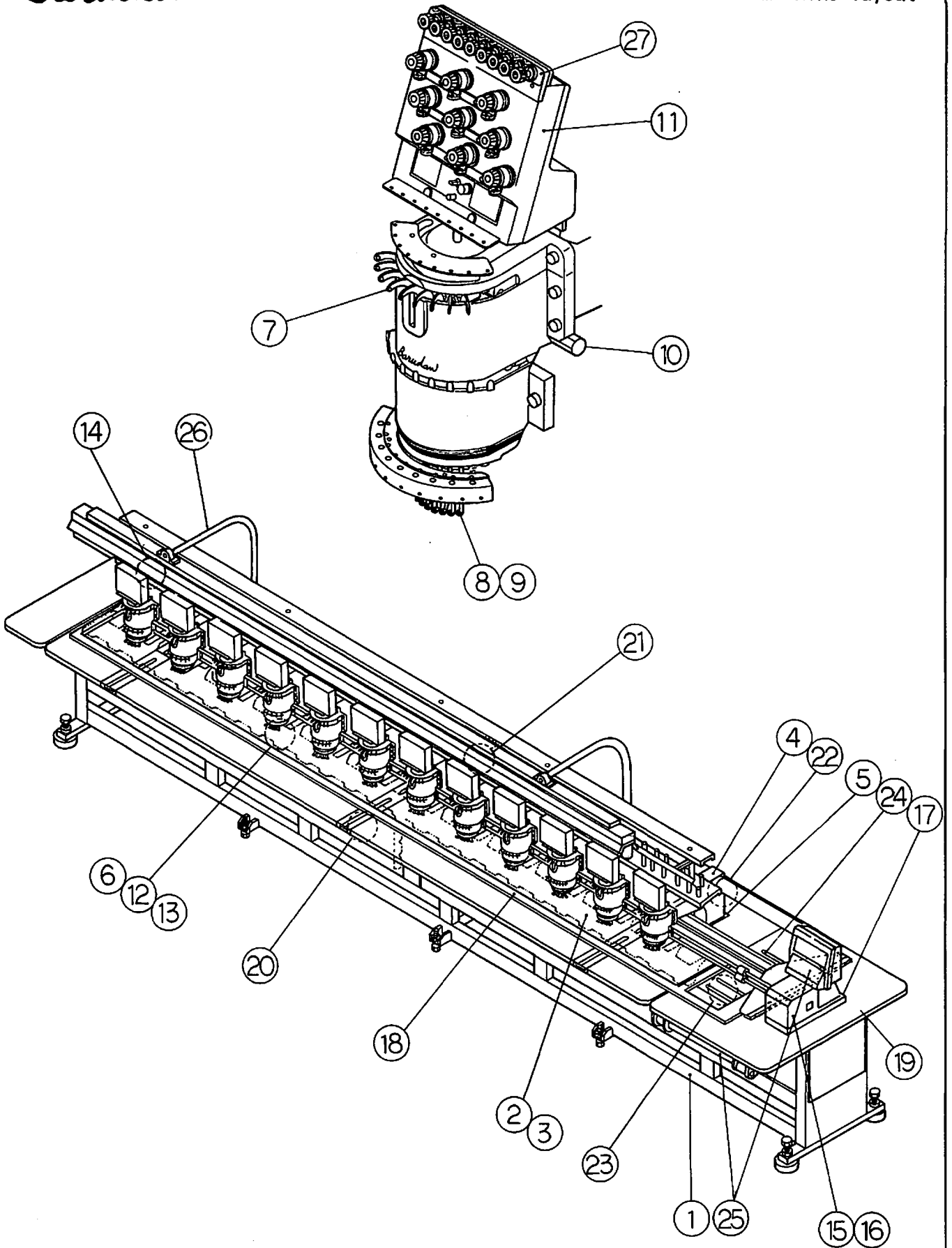
**PARTS LIST**

BENSME-YN/YS  
 BENRME-YN/YS

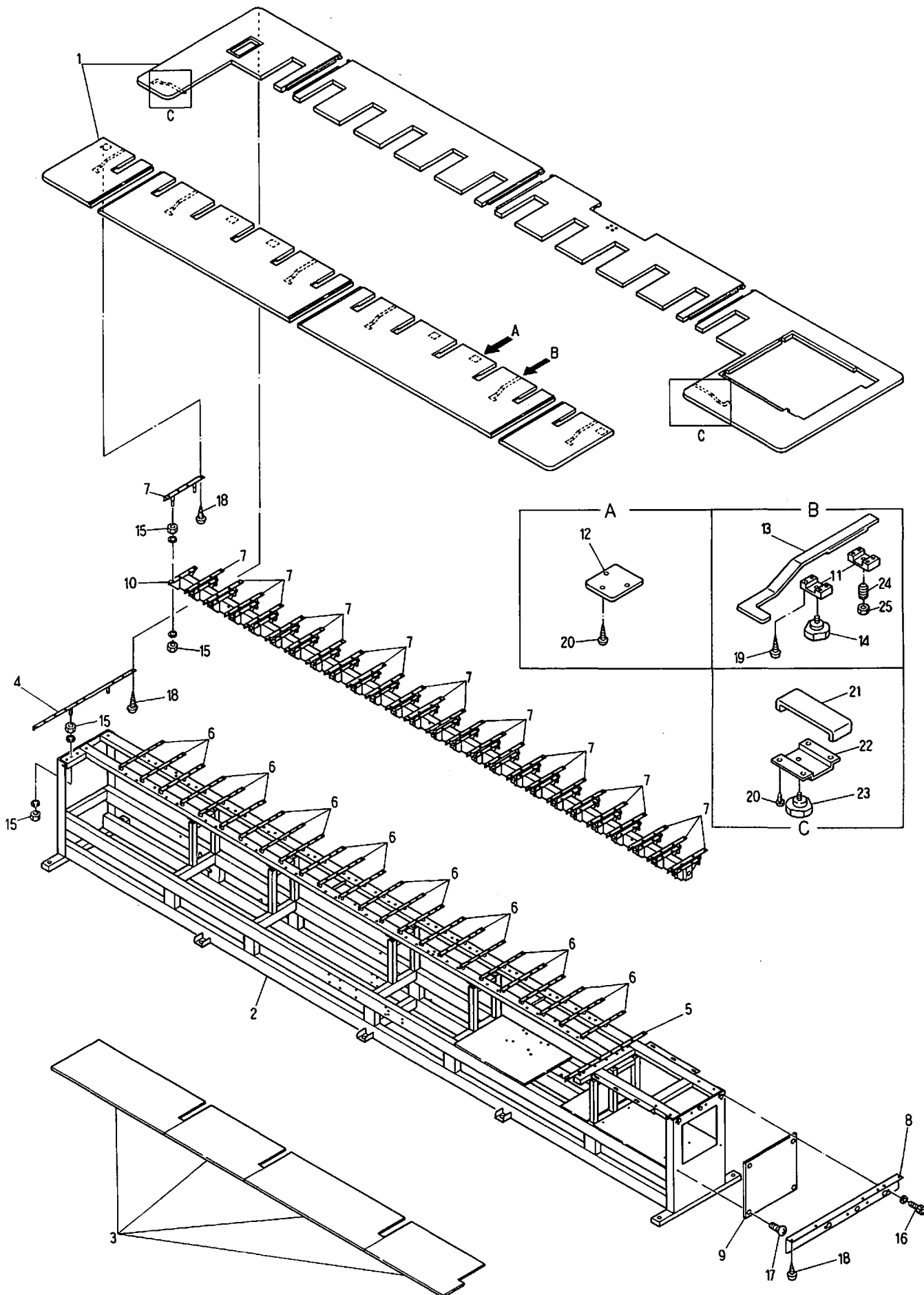
HIGH SPEED AUTOMATIC EMBROIDERY  
 MACHINE PARTS LIST

CONTENTS

ITEM No.	Page No.
Machine layout .....	1
① Table • Frame .....	2
② Table lifter mechanism I (Master machine).....	4
③ Table lifter mechanism II (Master machine).....	6
④ Sewing head a'ssy .....	8
⑤ Bed a'ssy .....	10
⑥ Automatic thread cutting mechanism I (Thread cutting section) .....	12
⑦ Take up lever mechanism .....	14
⑧ Needle bar mechanism I .....	16
⑨ Needle bar mechanism II .....	18
⑩ Jump a'ssy .....	20
⑪ Thread guide mechanism (YN/YS) .....	22
⑫ Automatic thread cutting mechanism II (Thread away section) .....	26
⑬ Automatic thread cutting mechanism III (Thread support section) .....	28
⑭ Automatic thread cutting mechanism IV (Drive mechanism) .....	30
⑮ Color change mechanism I .....	32
⑯ Color change mechanism II .....	34
⑰ Drive mechanism .....	36
⑱ Connecting shaft mechanism .....	38
⑲ Pantograph drive mechanism I (Pantograph • cover) .....	40
⑳ Pantograph drive mechanism II (T-Pantograph relation) .....	42
㉑ Pantograph drive mechanism III (H-Direction • Front) .....	44
㉒ Pantograph drive mechanism IV (H-Direction • Rear I).....	46
㉓ Pantograph drive mechanism V (V-Direction • Rear II).....	48
㉔ Pantograph drive mechanism VI (V-Direction • Front) .....	50
㉕ Pantograph drive mechanism VII (V-Direction • Rear) .....	52
㉖ Control system .....	54
㉗ Option .....	58
㉘ Thread guide mechanism (Lower thread sensorium) (YN/YS) .....	60
INDEX .....	64



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

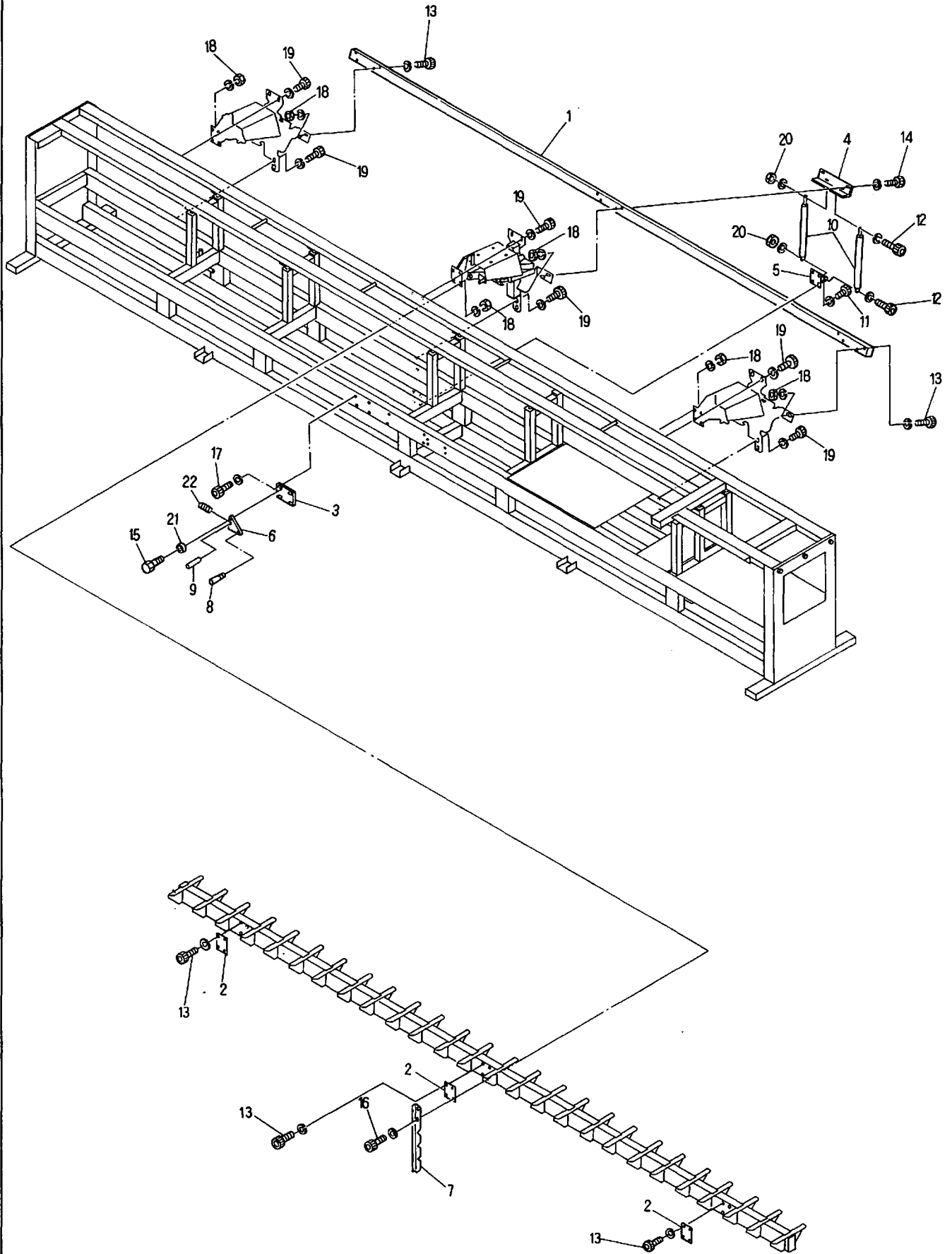
## ① Table · Frame

(\*=Choice and use)

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	1BKS123804800	Table (BENSME-12 320×380/480)	1	Choice and use
	1BKS153804800	Table (BENSME-15 320×380/480)	1	Choice and use
2	1AKS123804800	Frame (BENSME-12 320×380/480)	1	Choice and use
	1AKS153804800	Frame (BENSME-15 320×380/480)	1	Choice and use
3	1KKS123804800	Shelf board (BEMSME-YS-12 320 × 380/480)	1	Choice and use
	1KKS153804800	Shelf board (BEMSME-15 320 × 380/480)	1	Choice and use
4	KR140010	Table support (L=955)	1	
5	KR140020	Table support (L=930)	1	
6	KR140040	Table support (L=420)		
7	KK140170	Table support (L=350)		
8	KS140010	Almi table support	1	
9	KC110910	Leg frame side cover R	1	
10	KK140101	Table guide (Front)(BEMSME-YS-12 320 × 380/480)	1	Choice and use
	KK140390	Table guide (Front)(BEMSME-15 320 × 380/480)	1	Choice and use
11	KK140020	Table stopper bracket	1 2	
12	KK140061	Table stopper	6	
13	KK140160	Table stopper lever	6	
14	A9012259	Knob bolt KT-B3 L=10(M8)	6	
15		Hex. nut M10		
16		Hex. socket bolt M6×20		
17		Truss screw M6×8		
18		Truss pier screw 5 × 23		
19		Truss blind tapping screw 4.5×24		
20		Truss socket wood screw 3.8×20		
21	KR140050	Table supporting plate	2	15...3
22	MA140320	Center table supporting plate bracket	2	15...3
23	A9012032	Knob bolt KT-B L=20(M8)	2	15...3
24	A9012186	Pole plunger PBF-8	6	
25		Hex. nut (M8)		

Barudan

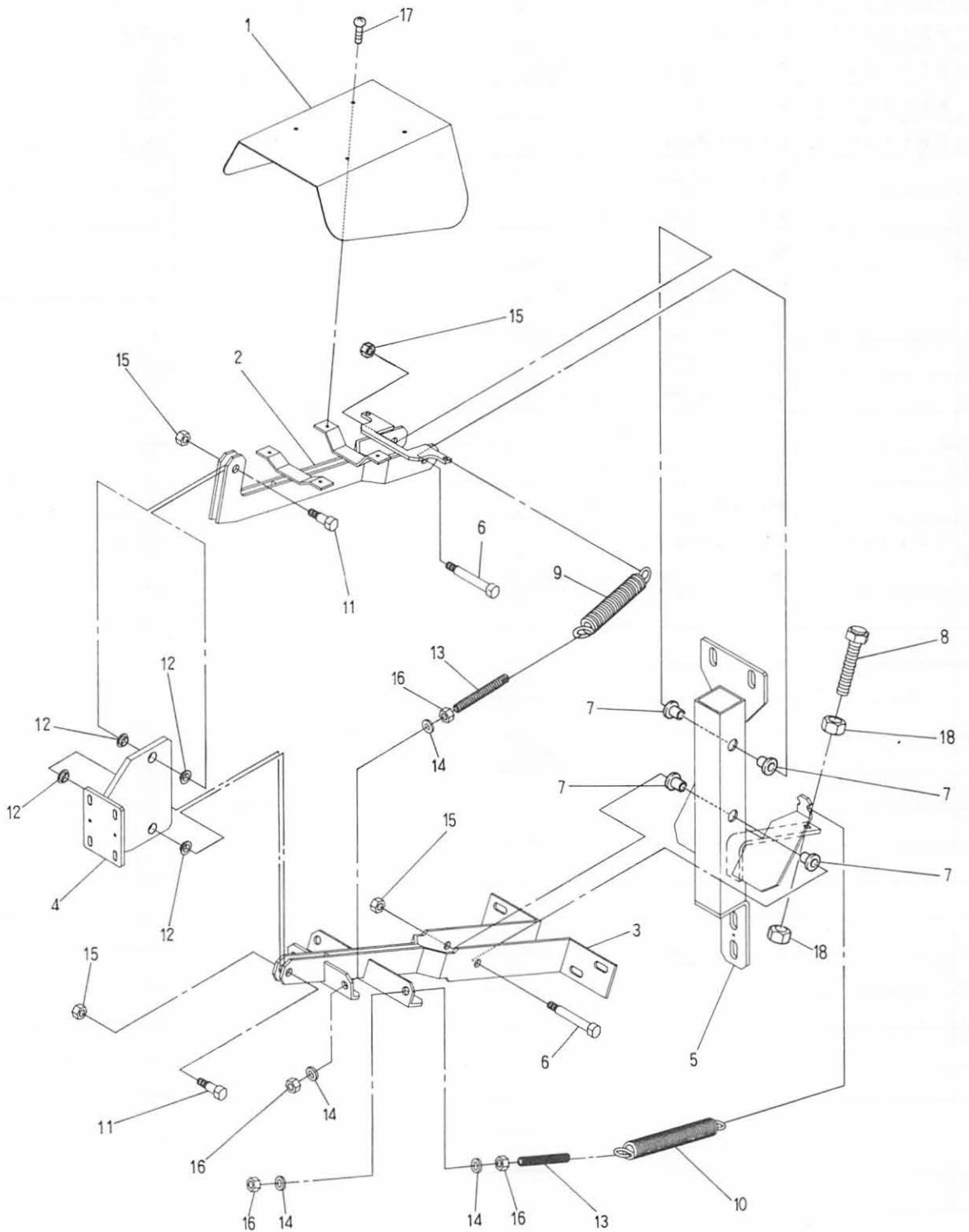
② Table lifter mechanism I  
(Master machine)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

② Table lifter mechanism I (Master machine)

ITEM	LIST No	DESCRIPTION	QTY	REMARK
1	KK140120	Table guide (Rear) (BEMSME-12 320×380/480)	1	Choice and use
	KK140400	Table guide (Rear) (BEMSME-12 320×380/480)	1	Choice and use
2	KK140050	Push plate	3	15...4
3	KK140111	Catch plate	1	15...2
4	KK140220	Cylinder bracket (Upper)	1	15...2
5	KK140210	Cylinder bracket (Lower)	1	15...2
6	KK140281	Rock plate	1	15...2
7	KK140201	Catch lever	1	15...2
8	A9012266	Taper turn grip (NP-10)	1	15...2
9	KK140291	Rock shaft	1	15...2
10	KK140350	Cylinder danpa	2	15...4
11		Hex. socket bolt M6×20		
12		Hex. socket bolt M5×65		
13		Hex. socket bolt M8×70		
14		Hex. socket bolt M8×80		
15		Hex. bolt M10		
16		Hex. socket bolt M8×75		
17		Hex. socket bolt M6×70		
18		Hex. nut M8		
19		Hex. socket bolt M10 ×25		
20		Hex. nut M5		
21	KK140370	Rock plate collar	1	15...2
22		Hex. socket set screw M6×6		



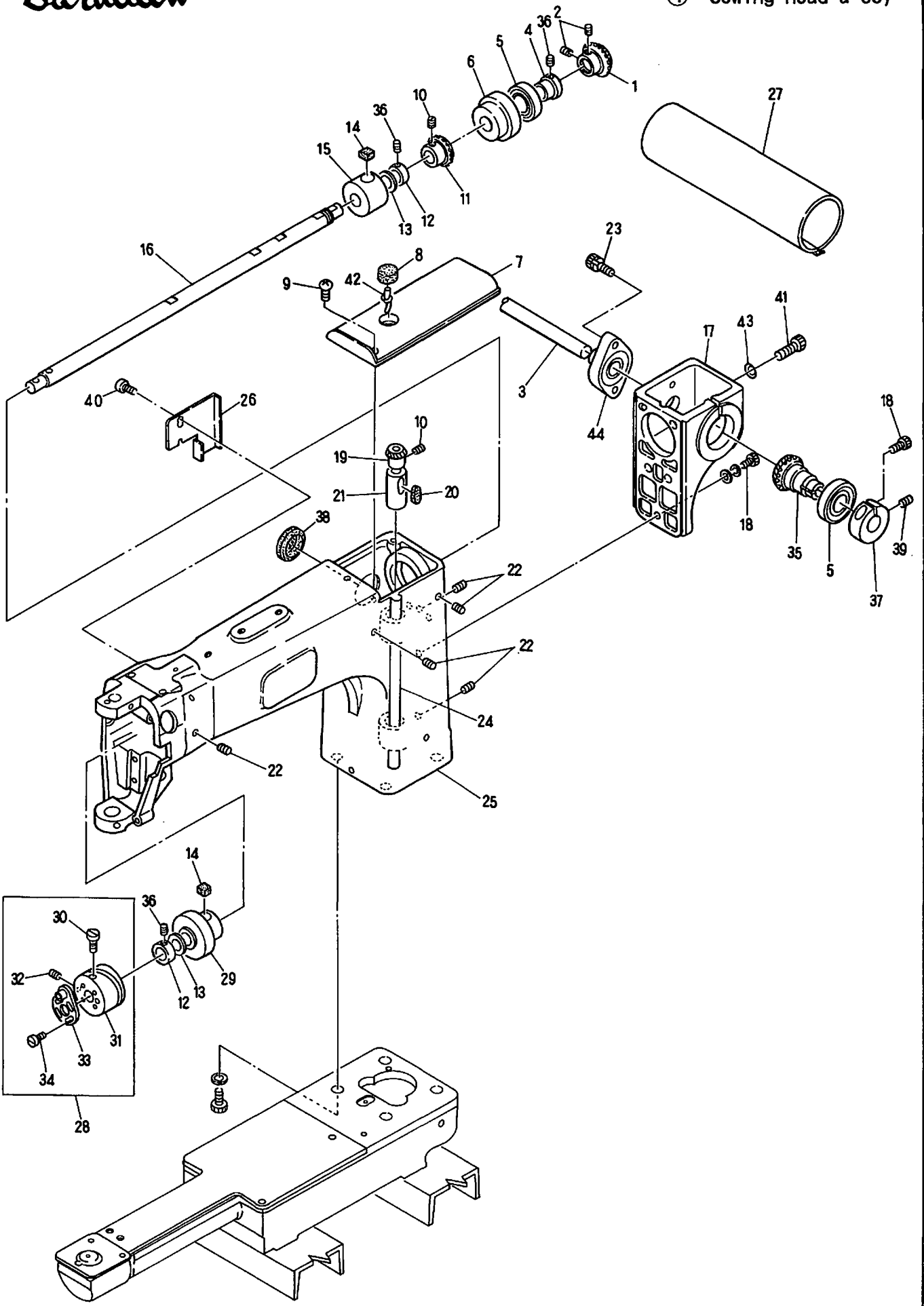


## ③ Table lifter mechanism II (Sub machine)

ITEM	LIST No.	DESCRIPTION	QTY	REMARK
1	KK140070	Spring cover	3	15...4
2	KK140010	Table lifter link (Upper)	3	15...4
3	KK140141	Table lifter link (Lower)	3	15...4
4	KK140030	Table lifter support	3	15...4
5	KK140151	Table lifter link base	3	15...4
6	A9012250	Sholder bolt CLBG12-65	6	15...8
7	A9011107	Bush SPF-1220	12	15...16
8	A9012231	Stopper bolt with uretan UST-10-50	3	15...4
9	KK140330	Lifter spring (Lower)	6	15...8
10	KK140380	Lifter spring (For MSME)	6	15...8
11	A9012255	Sholder bolt CLBG12-20	6	15...8
12	KK140340	Table lifter support bush	12	15...16
13	KK140080	Spring adjustable screw		
14		Washer M12		
15		U nut M10 ×1.5		
16		Hex. nut M12		
17		Truss screw M4×5		
18		Hex. nut M10		

Barudan

④ Sewing head a'ssy

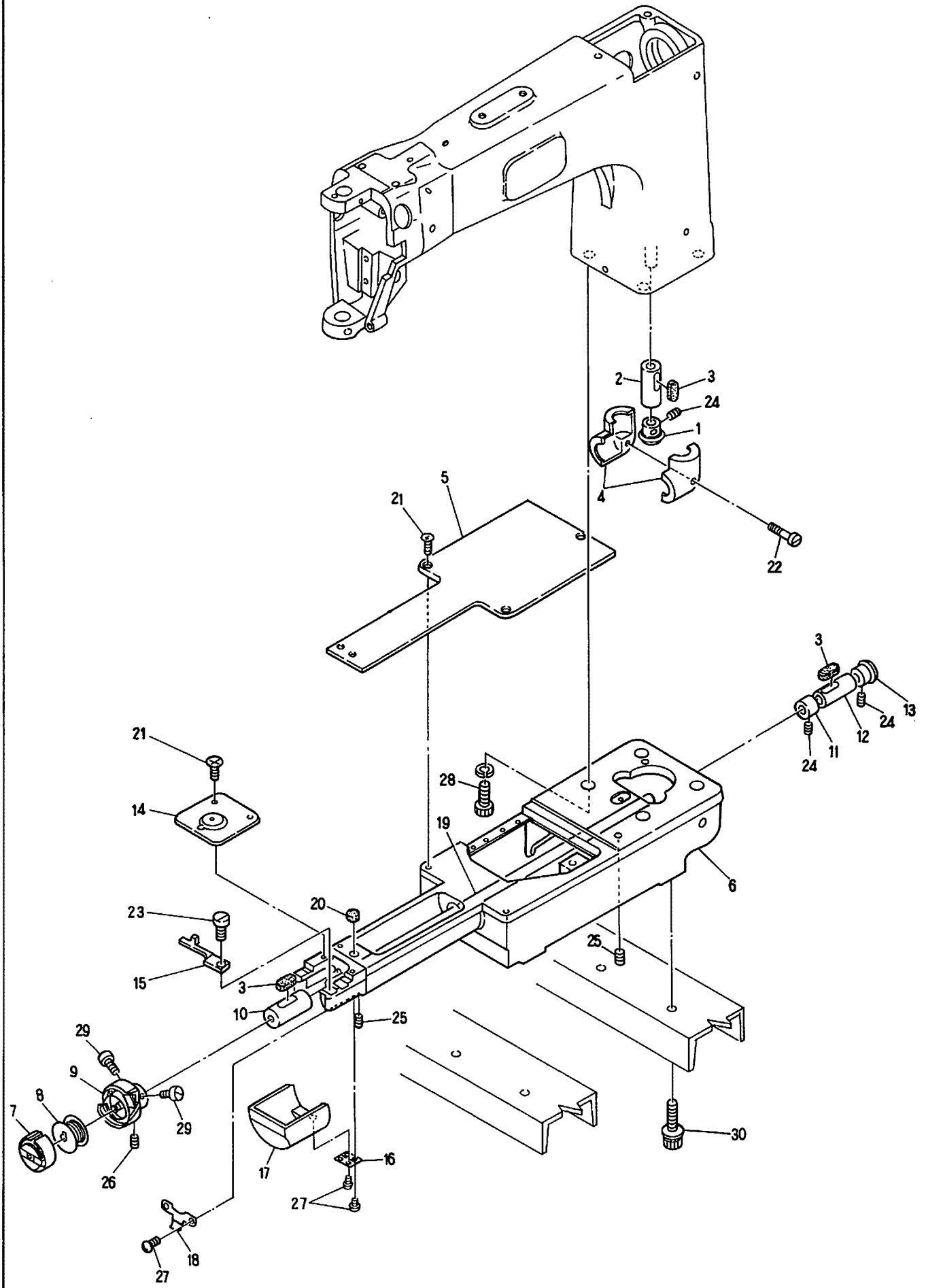


MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

## ④ Sewing head a'ssy

(H=Head Q'TY)

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	KL 2 2 0 1 0 0	Upper gear (M1.5-25R)	H×1	
2		Hex. socket set screw M6×6 (With adhesion)	H×2	
3		Upper connecting shaft φ15		
4	KL 2 2 0 0 9 0	Upper gear rear bearing callor	H×1	
5	A 9 0 1 0 0 1 7	Bearing (60042Z)	H×2	
6	KL 2 2 0 0 4 0	Upper gear rear bearing case	H×1	
7	KL 2 5 0 0 4 0	Arm top cover	H×1	
8	KL 2 2 0 1 5 0	Oil felt D	H×1	
9		Truss screw M4×10		
10		Screw (SM1/4 40×4)		
11	KF 2 2 0 1 3 0	Bevel gear (Upper)	H×1	
12	KL 2 2 0 0 8 0	Upper shaft callor	H×2	
13	HP 2 3 1 3 9 0	Thrust washer (Upper gear)	H×2	
14	KL 2 2 0 1 3 0	Oil felt B	H×2	
15	KL 2 2 0 0 3 0	Upper shaft middle metal	H×1	
16	KL 2 2 0 0 0 0	Upper shaft	H×1	
17	KL 2 1 0 1 4 0	Arm gear case	H×1	
18		Hex. socket bolt M6×25		
19	KF 2 2 0 4 6 0	Bevel gear (Vertical shaft upper)	H×1	
20	KL 2 2 0 1 4 0	Oil felt C	H×1	
21	KL 2 2 0 0 5 0	Vertical metal (Upper)	H×1	
22		Hex. socket set screw M6×8		
23		Hex. socket screw M6×8 (With spring washer)		
24	KL 2 2 0 0 1 0	Vertical shaft	H×1	
25	KB 2 1 0 1 6 0	Arm	H×1	
26	KL 2 5 0 0 5 1	Arm side cable cover	H×1	
27	1 P K V 1 2 3 8 0	Shaft cover set (NSMB-12)	1 Set	Choice and use
	1 P K V 1 5 3 8 0	Shaft cover set (NSMB-15)	1 Set	Choice and use
28	KB 2 3 0 0 1 0	Take up levercam K6 90° With crank	H×1	
29	KL 2 2 0 0 2 0	Upper shaft front metal	H×1	
30	KF 2 3 0 4 2 0	Take up lever cam set screw	H×1	
31	KB 2 3 0 0 3 0	Take up lever cam K6	H×1	
32		Screw (SM15/64 28×10)(With adhesion)	H×1	
33	KB 2 3 0 0 5 0	90° Crank	H×1	
34	A 9 0 1 2 0 0 7	Screw (SM11/64 40×10) For bobbin	H×1	
35	KL 3 2 0 0 0 0	Connecting gear (Spiral bevel M1.5-25L)	H×1	
36		Hex. socket set screw M6×6		
37	KL 3 2 0 0 2 0	Connecting gear clamp φ19	H×1	
38	A 9 0 1 4 0 6 3	Grommet C-30-SG-36A	H×1	
39		Hex. socket set screw M6×10		
40		Truss screw M4×8		
41		Hex. socket bolt M6×6 0		
42	KC 2 5 1 3 3 0	Oil core L=7 5	H×1	
43		Flush spring M6		
44	HP 3 2 1 1 4 0	Top connecting shaft bearing unit	H×1	



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

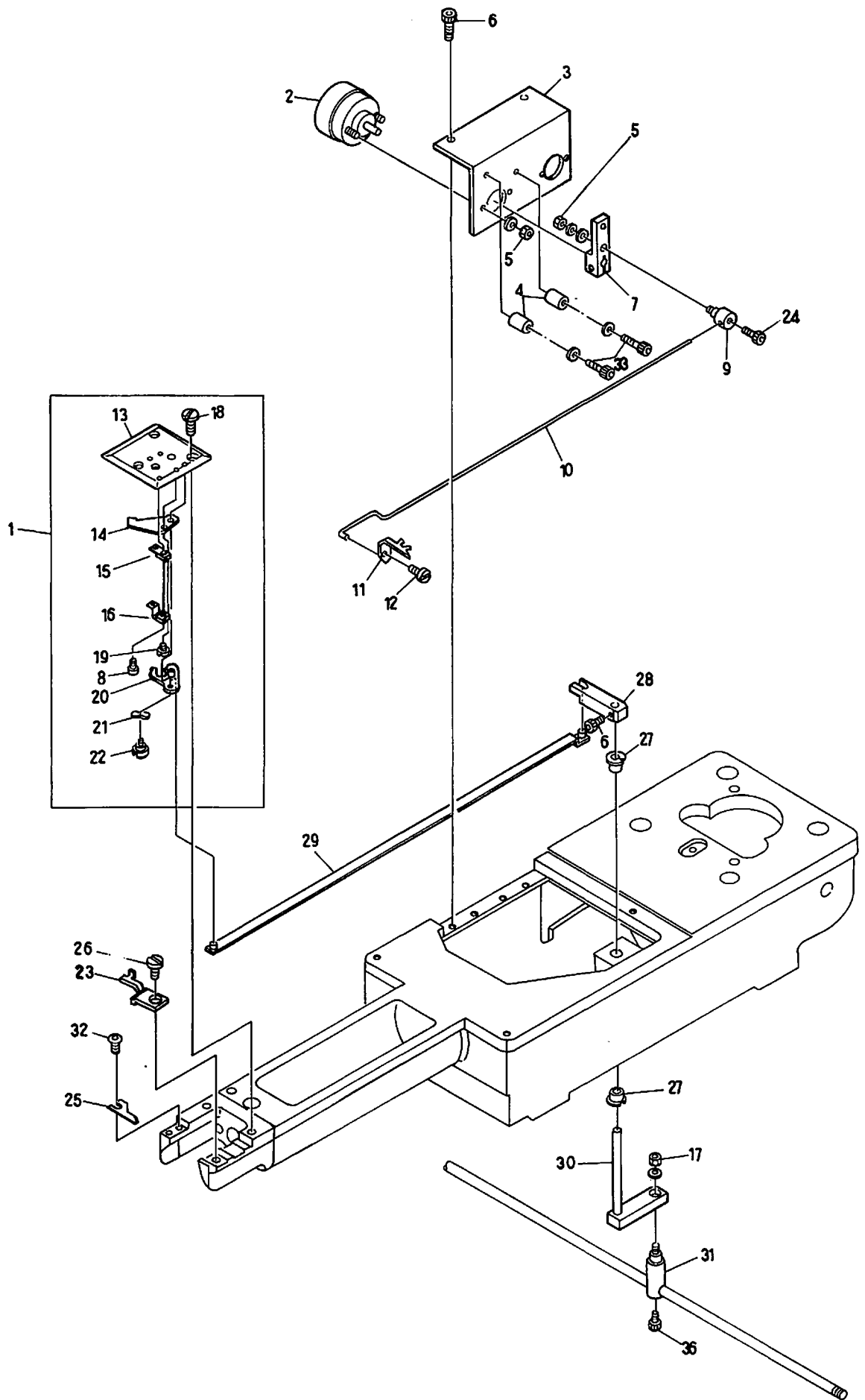
**⑤ Bed a s s y**

(H=Head Q'TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KF220470	Bebel gear (Vertical shaft upper)	H×1	
2	KL220060	Vertical shaft metal (Lower)	H×1	
3	KL220140	Oil felt C	H×3	
4	KF220271	Gear cover set	H×1	
5	KL250071	Cylinder bed cover	H×1	
6	KL210113	Bed (SRB-T)	H×1	
7	KF220440	Bobbin case (SC-35-NS)	H×1	
8	KF220410	Bobbin	H×1	
9	KF220750	Bobbin KHS 12-R YNW(Tefron)	H×1	
10	KF220230	Lower shaft metal (Front)	H×1	
11	KF220290	Lower shaft collar	H×1	
12	KL220070	Lower shaft metal (Rear)	H×1	
13	KF220480	Bevel gear (Lower shaft)	H×1	
14	MA250131	Needle plate	H×1	
15	KC220650	Bobbin case	H×1	
16	A9012027	Butterfly plate (TH-TM-72)	H×1	
17	KC250471	Bed cover	H×1	
18	KC250482	Barrel bed cover spring	H×1	
19	KC220210	Lower shaft	H×1	
20	KL220120	Oil felt A	H×1	
21	KF250900	Needle plate setscrew (SM11/64 40×7)	H×6	
22		Pan screw M5×25	H×1	
23	A9012007	Screw (SM11/64 40×10)	H×1	
24		Screw (SM1/4 40×4)		
25		Hex. socket set screw M6×8		
26		Screw (SM11/65 40×4)		
27		Truss pan screw M3×6		
28		Hex. socket bolt M12×35		
29		Screw (SM11/65 40×5)		
30		Hex. socket bolt M8×22(With plain washer, spring washer)		

Barudan

⑥ Automatic thread cutting mechanism I  
(Thread cutting section)

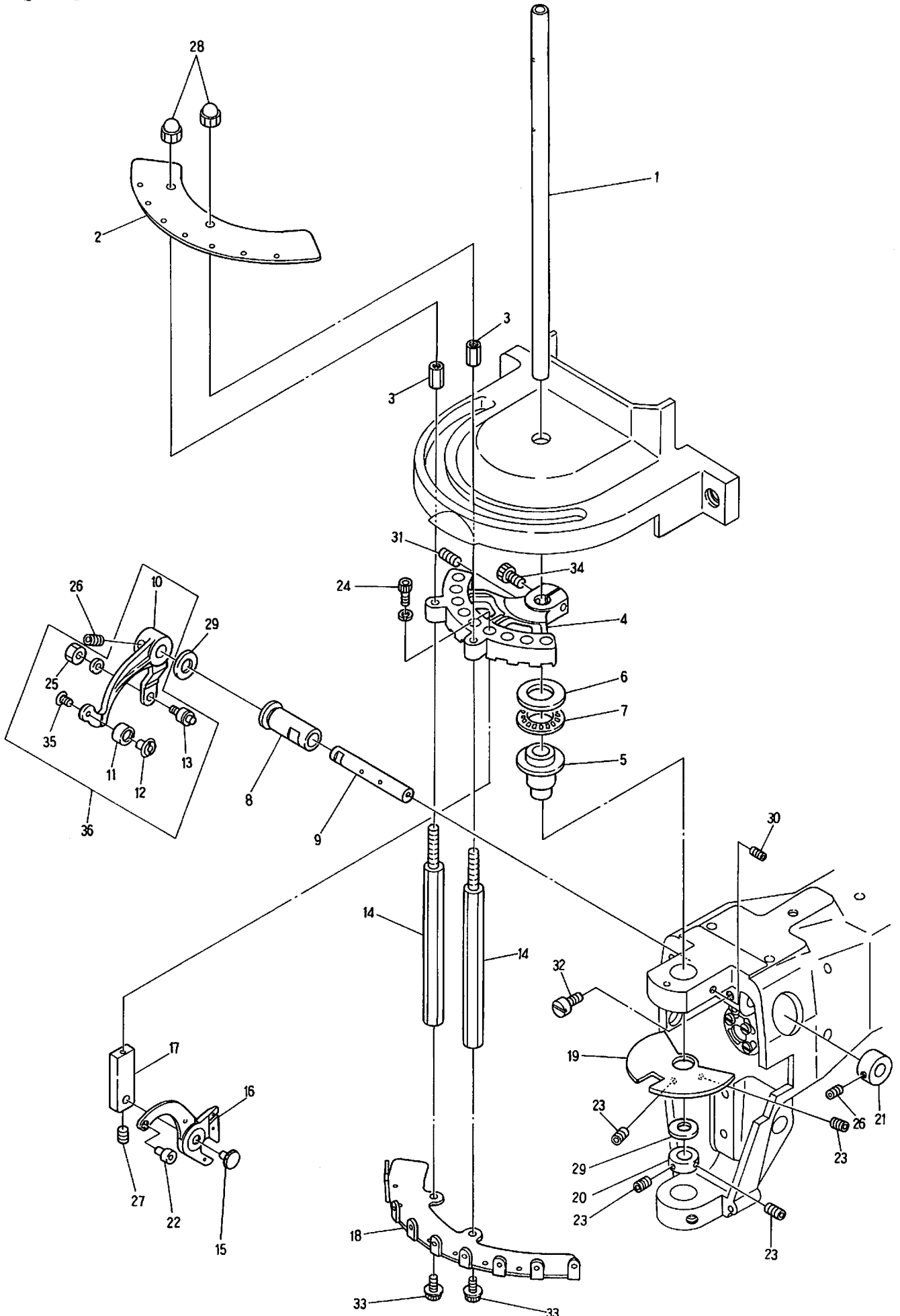


MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

⑥ Automatic thread cutting mechanism I (Thread cutting section)

(H=Head Q' TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KS 270010	Needle plate a'ssy (MK-5)	H×1	
2	A9056008	Rotary solenoid (3ER25 33×3×8×9)	H×1	
3	KC271960	Solenoid stay	H×1	
4	KN272400	Stopper eccentric	H×2	
5		Hex. nut M3		
6		Hex. socket bolt M4×8		
7	KC271940	Solenoid lever A	H×1	
8		Pan screw M3×3		
9	KC271041	Connecting clamp	H×1	
10	KC271031	Hook driving rod	H×1	
11	KC271021	Hook	H×1	
12	KC271001	Needle knife turret shaft	H×1	
13	KL270380	Needle plate	H×1	
14	KN270960	Fixing knife	H×1	
15	HT270160	Lower thread support stay (Upper) CMP	H×1	
16	HT270180	Lower thread support stay (Lower) CMP	H×1	
17		Hex. nut M4		
18		Screw M3×3		
19	KC270980	Fixed knife set screw	H×1	
20	KN270952	Driving knife	H×1	
21	A9013066	Wave washer (WW5) (SK)	H×1	
22	KC270970	Lower thread knife turret shaft	H×1	
23	KC220650	Rotating hook bobbin case holder position bracket	H×1	
24		Hex. socket bolt M3×5		
25	KB270020	Upper thread knife	H×1	
26	A9012007	Screw (SM11/64 40×10)	H×1	
27	A9012114	Bush with flange DU (MB0505-10FDU)	H×2	
28	KC271120	Lower thread knife driving lever (Upper)	H×1	
29	KC271070	Lower thread knife driving rod	H×1	
30	KC271130	Lower thread knife driving lever (Lower)	H×1	
31	KF230640	Lock connecting bar clamp	H×1	
32		Hex. socket button bolt M3×6		
33		Hex. socket bolt M4×18		

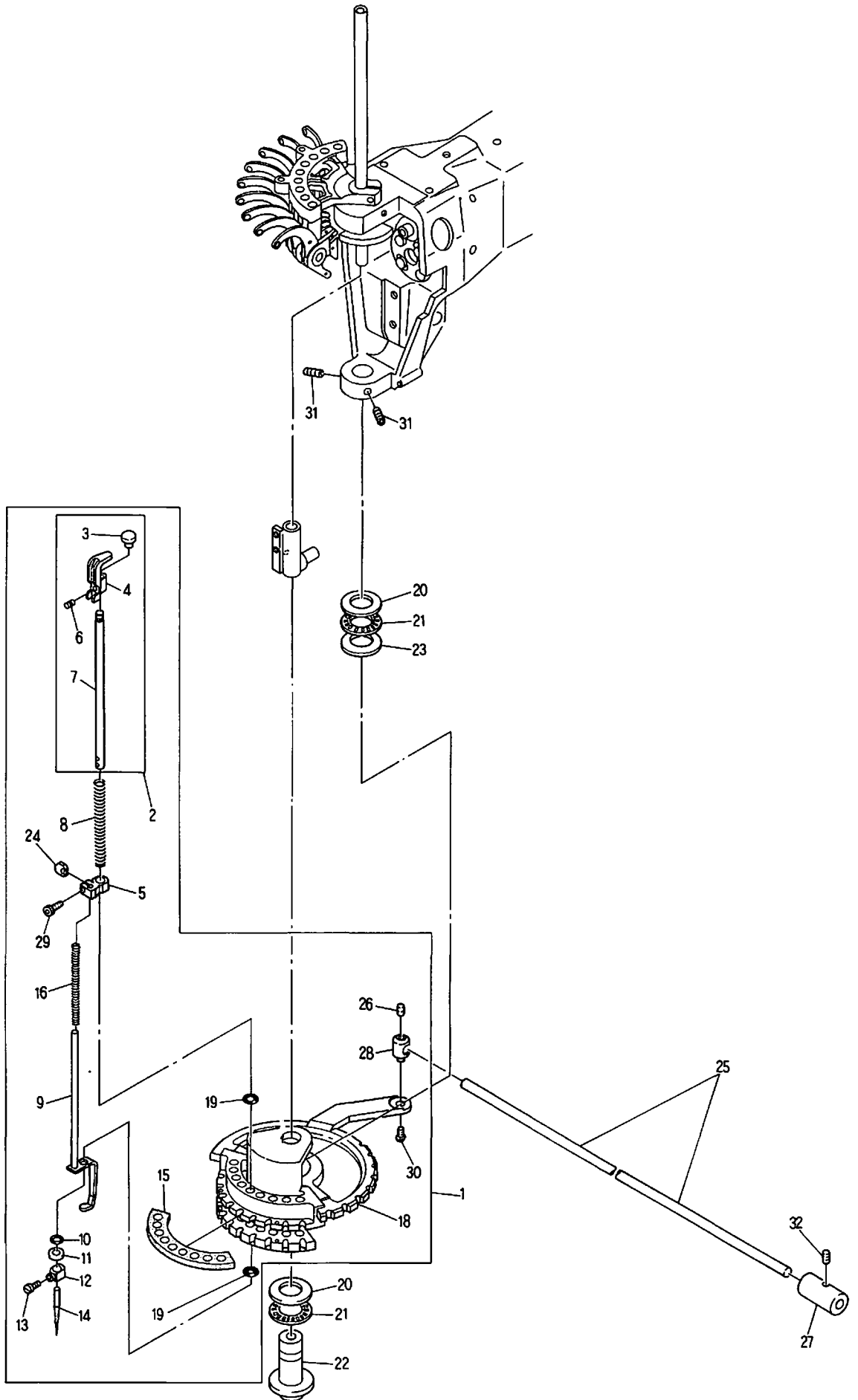




## ⑦ Take up lever mechanism

(H=Head Q'TY)

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	KS 2 3 0 0 1 0	Driving shaft	H×1	
2	HT 2 4 0 0 0 0	Thread guide plate	H×1	
3	KB 2 4 0 0 2 1	Thread guide fixing collar	H×2	
4	HB 2 3 0 2 9 1	Take up lever fixing bracket	H×1	
5	KB 2 3 0 0 9 0	Driving shaft upper metal	H×1	
6	A 9 0 1 1 1 5 2	Thrust needle bearing innerrig (WS1528)	H×1	
7	A 9 0 1 1 0 2 1	Thrust bearing NTB-1528	H×1	
8	KB 2 3 0 1 0 0	Take up lever driving shaft metal	H×1	
9	KB 2 3 0 1 1 0	Take up lever driving shaft	H×1	
10	KT 2 3 0 0 3 1	Take up lever driving lever	H×1	
11	HT 2 3 0 0 9 0	Take up lever driving roller	H×1	
12	HT 2 3 0 1 0 0	Take up lever driving roller shaft	H×1	
13	KF 2 3 0 5 0 0	Take up lever roller a'ssy	H×1	
14	KB 2 4 0 0 1 0	Thread guide fixing rod	H×2	
15	HT 2 3 0 0 8 0	Take up lever shaft	H×9	
16	KT 2 3 0 0 4 0	Take up lever	H×9	
17	KT 2 3 0 0 1 0	Take up lever base	H×9	
18	HT 2 4 0 0 1 0	Thread hanger	H×1	
19	KT 2 3 0 0 0 0	Take up lever sttocker	H×1	
20	HB 2 3 0 1 6 0	Driving shaft set collar	H×1	
21	HB 2 3 0 2 7 0	Needle bar driving lever fixing pin set collar	H×1	
22	HB 2 3 0 7 5 0	Take up lever thread eyelet ceramic	H×9	
23		Hex. socket screw M4×4 (With adhesion)	H×2	
24		Hex. bolt M3×14		
25		Hex. nut SM7/32		
26		Hex. socket set screw M5×6 (With adhesion)	H×2	
27		Hex. socket set screw M3×4 (With adhesion)	H×9	
28		Cap nut M4		
29	A 9 0 1 2 1 6 4	Thrust washer (R-TW0815)	H×2	
30		Hex. socket screw M6×6		
31		Hex. socket set screw M4×5		
32		Screw (SM11/64×11)		
33		Hex. socket bolt M4×6(With plain washer)		
34		Hex. socket bolt M4×15		
35	HB 2 3 0 6 5 0	Flush screw (With adhesion)	H×1	
36	KT 2 3 0 0 5 1	Take up lever drive lever a'ssy	H×1	



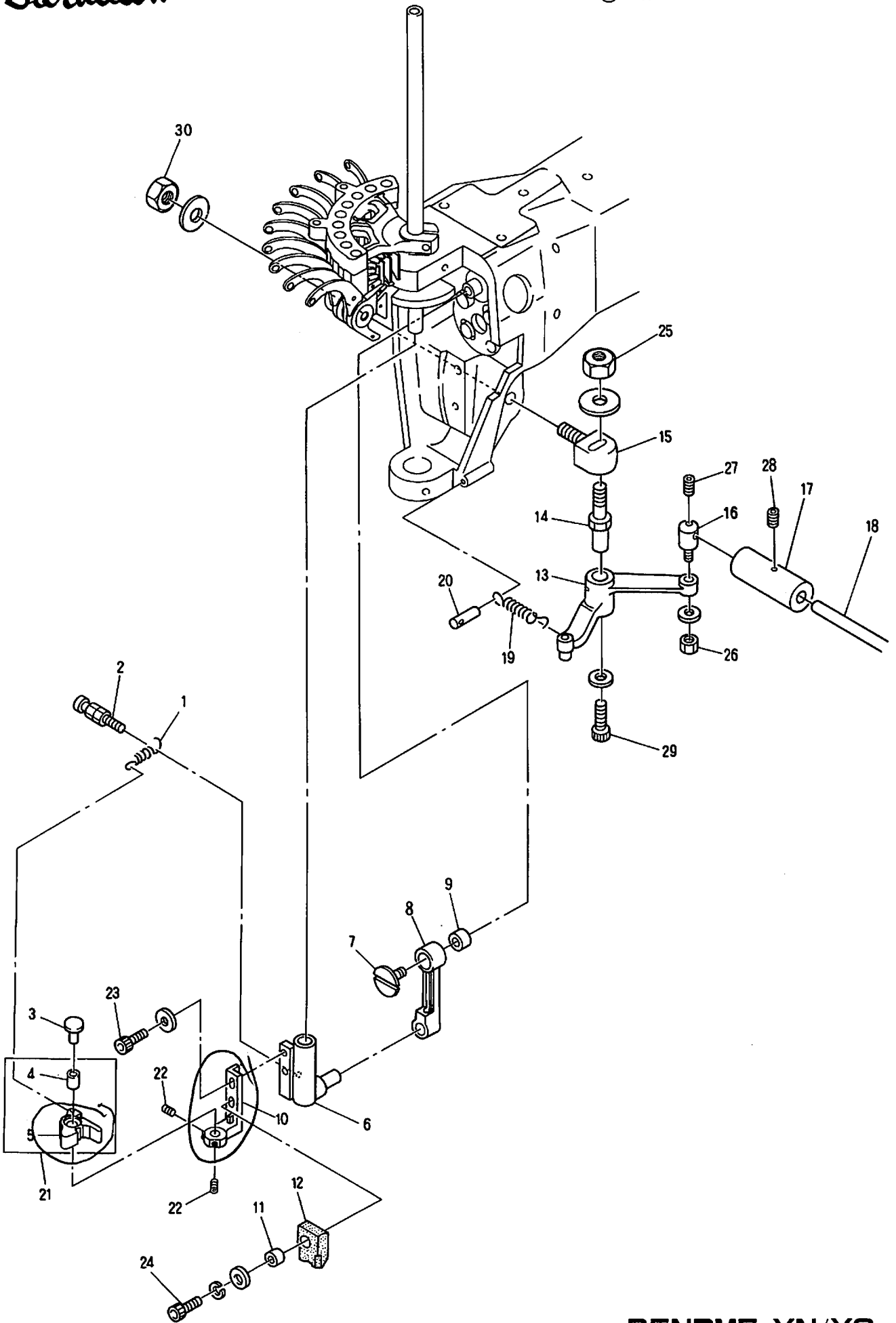
## ⑧ Needle bar mechanism I

(H=Head Q'TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	HT230800	Turret plate a'ssy	H×9	
2	HT230810	Needle bar a'ssy	H×9	
3	HT230130	Needle bar cap	H×9	
4	HT230151	Needle bar guide	H×9	
5	HT230051	Cloth winder stop latch set clamp	H×9	
6		Hex. socket set screw M4×4		
7	HT230041	Needle bar	H×9	
8	HT230251	Needle bar spring	H×9	
9	HT230142	Pressue foot	H×9	
10	KF230910	O-Ring (S)	H×9	
11	HT230120	Washer 2.4	H×9	
12	KF230670	Needle clamp	H×9	
13	KF230240	Needle clamp SCREW (SM9/64 40)	H×9	
14	KF230250	Needle (DBK5-11)	H×9	
15	HT230111	Turret plate felt	H×1	
16	HT230062	Needle bar spring (Lower)	H×9	
17		Hex. socket set screw M5×5		
18	HT230570	Turret plate	H×1	
19	A9014055	O-Ring (IAS-7)	H×18	
20	A9011023	Thrust bearing outer (GS1528)	H×2	
21	A9011021	Thrust bearing (NTB-1528)	H×2	
22	HB230140	Driver shaft under metal	H×1	
23	A9011022	Thrust washer	H×1	
24	HT230263	Washer for set clamp	H×9	
25	KC330410	Lock connecting rod (L=2000)	(4)	
26		Hex. socket set screw M4×4		
27	KF330381	Lock bar hand grip	(2)	
28	HT230180	Turret plate joint pin	H×1	
29		Hex. socket bolt M3×8		
30		Hex. socket button bolt M4×5		
31	A9012053	Hex. socket set screw M6×0.75×8	H×2	

Barudan

⑨ Needle bar mechanism II

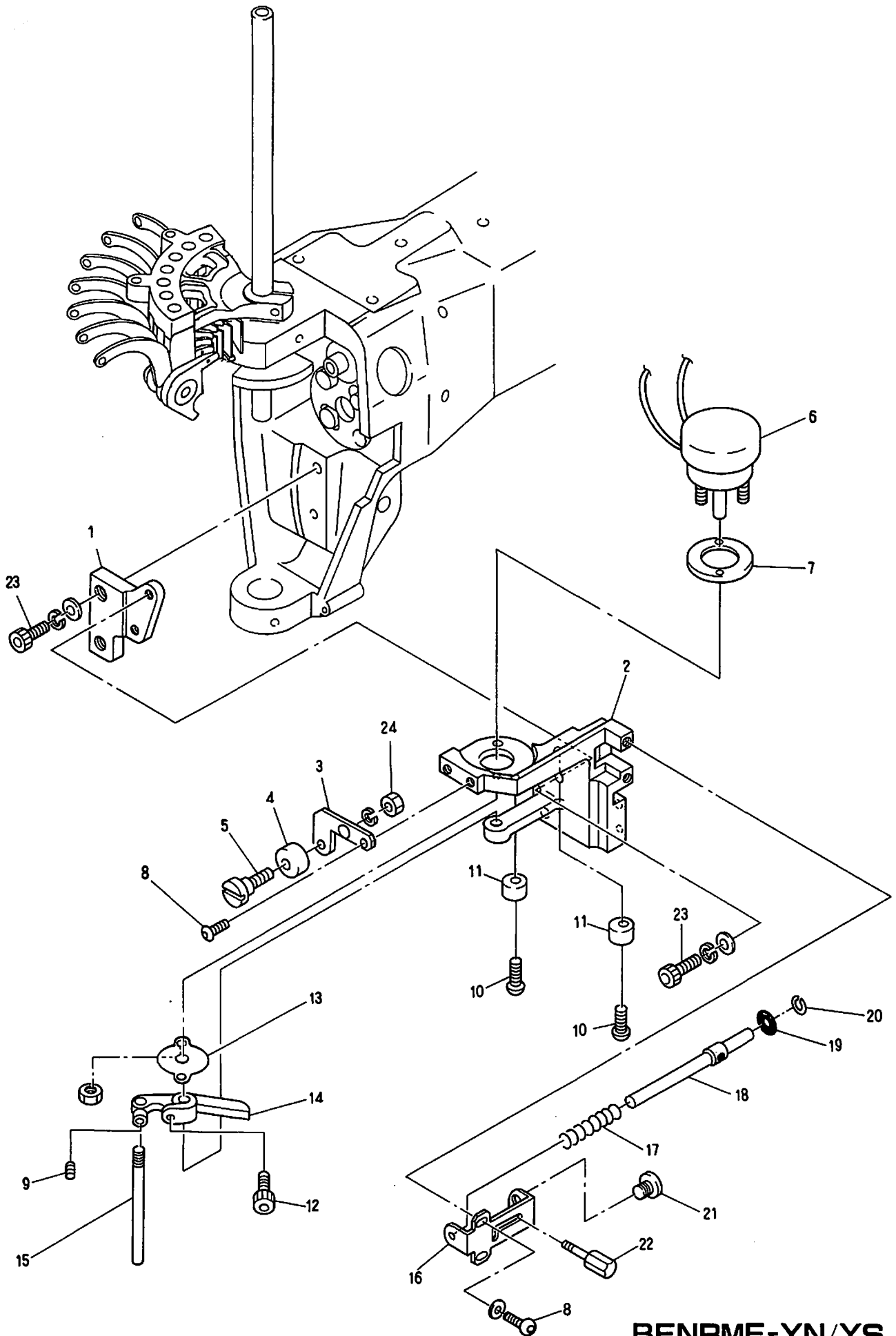


MODEL BENRME-YN/YS  
BENSME-YN/YS

⑨ Needle bar mechanism II

(H=Head Q'TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	HB230401	Needle bar driver return spring	H×1	
2	HB230590	Set screw for return spring	H×1	
3	HB230390	Needle bar driver fixing pin	H×1	
4	A9012190	DU Bush (MB0606DU)	H×1	
5	HB230383	Needle bar driver	H×1	
6	KB230080	Needle bar driver guide block	H×1	
7	KB230070	90° Crank left screw	H×1	
8	KB230060	Crank rod	H×1	
9	A9011115	Needle bearing (K9×12×10T2)	H×1	
10	HB230372	Needle bar driver fixing base	H×1	
11	HB230420	Needle bar driver stopper set collar	H×1	
12	HB230414	Needle bar driver stopper	H×1	
13	KL230280	Lock lever (With roller)	H×1	
14	KF230630	Lock lever shaft	H×1	
15	KF230650	Lock lever bracket	H×1	
16	KF230640	Lock connecting bar clamp	H×1	
17	KF330381	Lock bar hand grip	2	
18	KC330410	Lock connecting rod (L=2000)		
19	KF230661	Lock lever spring	H×1	
20	KF230670	Lock lever spring pin	H×1	
21	HT230201	Needle bar driver (a'ssy)	H×1	
22		Hex. socket set screw M4×4(With adhesion)	H×2	1
23		Hex. socket bolt M4 ×12		
24		Hex. socket bolt M4 ×15		
25		Hex. nut M8		
26		Hex. nut M4		
27		Hex. socket set screw M4×6		
28		Hex. socket set screw M5×5		
29		Hex. socket bolt M5×10		
30		Hex. nut M10		



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

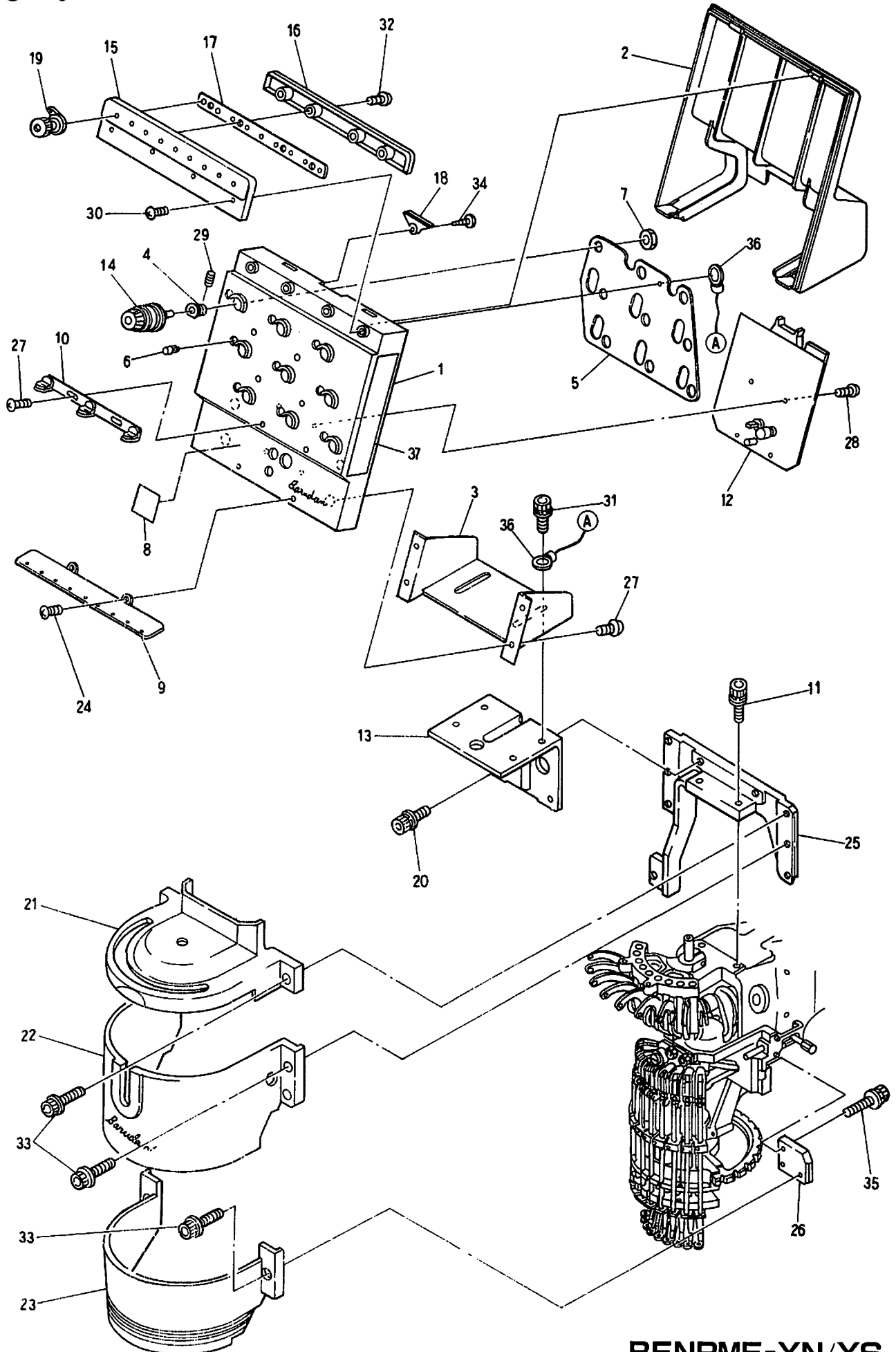
⑩ J u m p a ' s s y

(H=Head Q' TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KB 2 1 0 1 7 0	Solenoid bracket fixing base	H×1	
2	KB 2 4 0 0 3 0	Jump solenoid fixing bracket	H×1	
3	HB 2 3 0 1 7 0	Needle bar stopper bracket	H×1	
4	HT 2 3 0 2 2 0	Needle bar stopper	H×1	
5	HT 2 3 0 4 6 0	Needle bar stopper fixing pin	H×1	
6	A 9 0 5 6 0 2 0	Rotary solenoid (3ER35×3×8×9, L=45)	H×1	
7	HB 2 3 0 5 6 0	Sheet for rotary solenoid	H×1	
8		Hex. socket button bolt M4×10		
9		Hex. socket set screw M4×4 (with adhesion)		
10		Hex. socket button bolt M4×12 (with adhesion)		
11	HB 2 4 0 0 4 1	Jump eccentric	H×2	
12		Hex. socket bolt M4×8		
13	HB 2 3 0 5 8 0	Solenoid noise prevention cover	H×1	
14	HB 2 4 0 0 2 0	Jump solenoid lever	H×1	
15	HB 2 4 0 0 3 0	Jump solenoid lever pin	H×1	
16	KB 2 4 0 0 4 0	Cancel bracket	H×1	
17	HB 2 4 0 1 1 0	Cancel return spring	H×1	
18	HB 2 4 0 0 7 0	Cancel rod	H×1	
19	A 9 0 1 4 0 5 1	O-Ring P-5	H×1	
20	A 9 0 1 2 0 5 1	E-Ring (φ6)	H×1	
21	HB 2 4 0 0 9 0	Cancel rod guide	H×1	
22	HB 2 4 0 0 8 0	Manual cancel pin	H×1	
23		Hex. socket bolt M4×12		
24		Hex. nut M4		

Barudan

⑪ Thread guide mechanism(YN use)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**



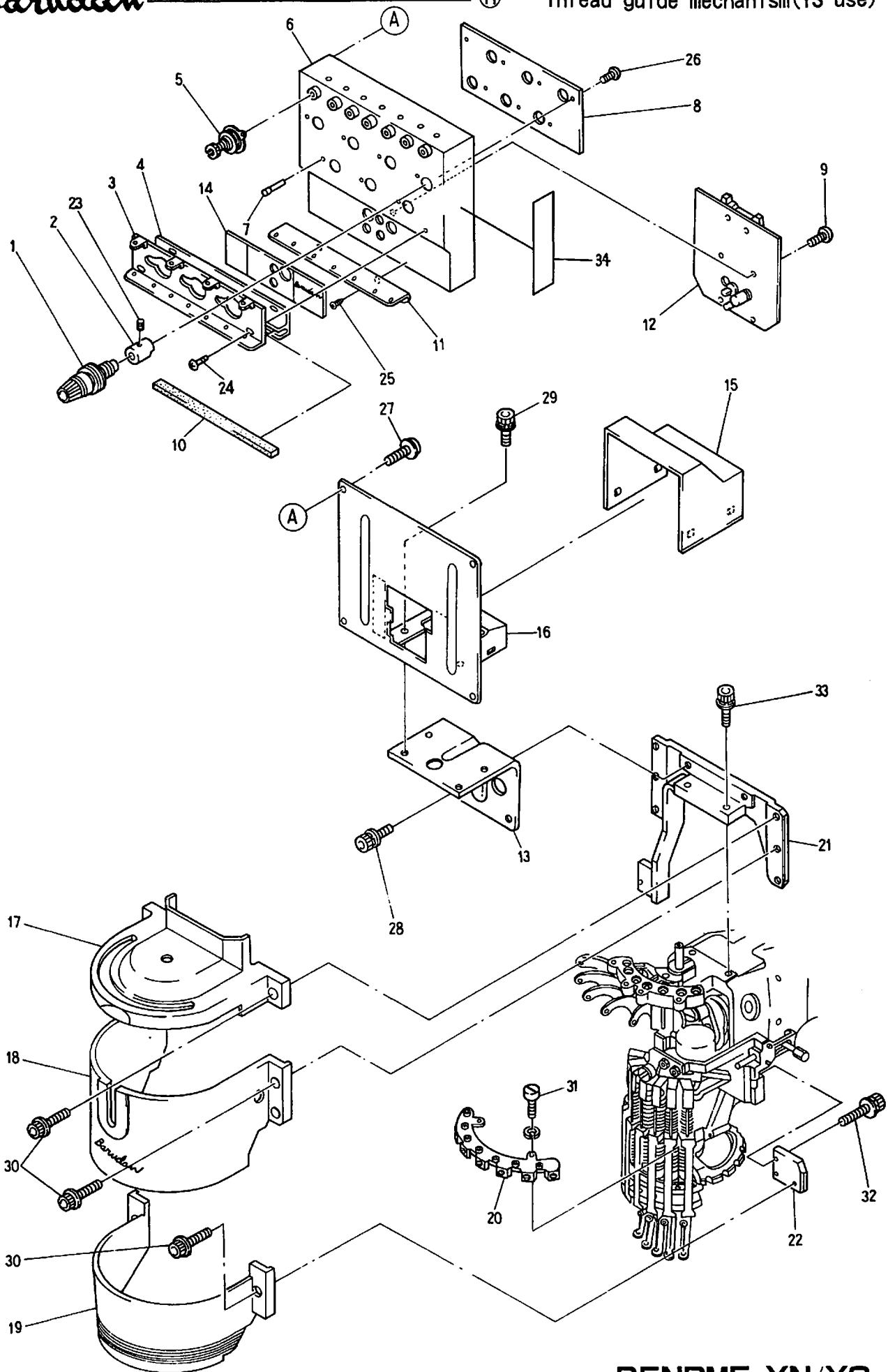
① Thread guide mechanism (YN use)

(H=Head Q'TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	HT240120	Tension base case	H×1	
2	HT240130	Tension base cover	H×1	
3	HT240140	Tension base base	H×1	
4	HT240150	Base	H×9	
5	HT240160	Tension earth plate	H×1	
6	HT240170	Upper thread detection pin	H×9	
7	HT240180	SM-Nut	H×9	
8		No Label	H×1	
9	HT240020	Second thread guide plate (YN)	H×1	
10	HT240060	First thread guide (YN)	H×3	
11		Hex. socket bolt M5×20 (With plain washer)		
12	EBY01100	4619 Head board	H×1	
13	KB240051	Tension base bracket (Multi (MS))	H×1	
14	HT240320	Dial tension unit complete (YN)	H×9	
15	HT240210	Upper thread guide fixing case	H×1	
16	HT240220	Upper thread guide fixing cover	H×1	
17	HT240230	Upper thread guide fixing base	H×1	
18	HT240240	Blind cap	H×1	
19	HT240330	Thread guide for upper tension	H×9	
20		Hex. socket bolt M5×15 (With plain washer)		
21	KB250020	Sewing head cover (A)	H×1	
22	KB250030	Sewing head cover (B)	H×1	1
23	KB250040	Sewing head cover (C)	H×1	
24		Tapping screw M4×10		
25	KB250050	Sewing head cover fixing bracket	H×1	
26	KB250060	Sewing head cover fixing stay	H×1	
27		Truss screw M4×10		
28		Tapping pan screw M3×8		
29		Hex. socket set screw M4×12		
30		Pan screw M3×6		
31		Hex. socket bolt with washer M5×10		
32		Tapping screw II M3×12		
33		Hex. socket bolt M4×6 (With plain washer, Spring washer)		
34		Tapping screw M3×12		
35		Hex. socket bolt M4×15 (With plain washer, Spring washer)		
36	HV240000	Tension earth cable (NS)	H×1	
37	HB790030	Tension base caution label	H×1	

Barudan

⑪ Thread guide mechanism(YS use)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

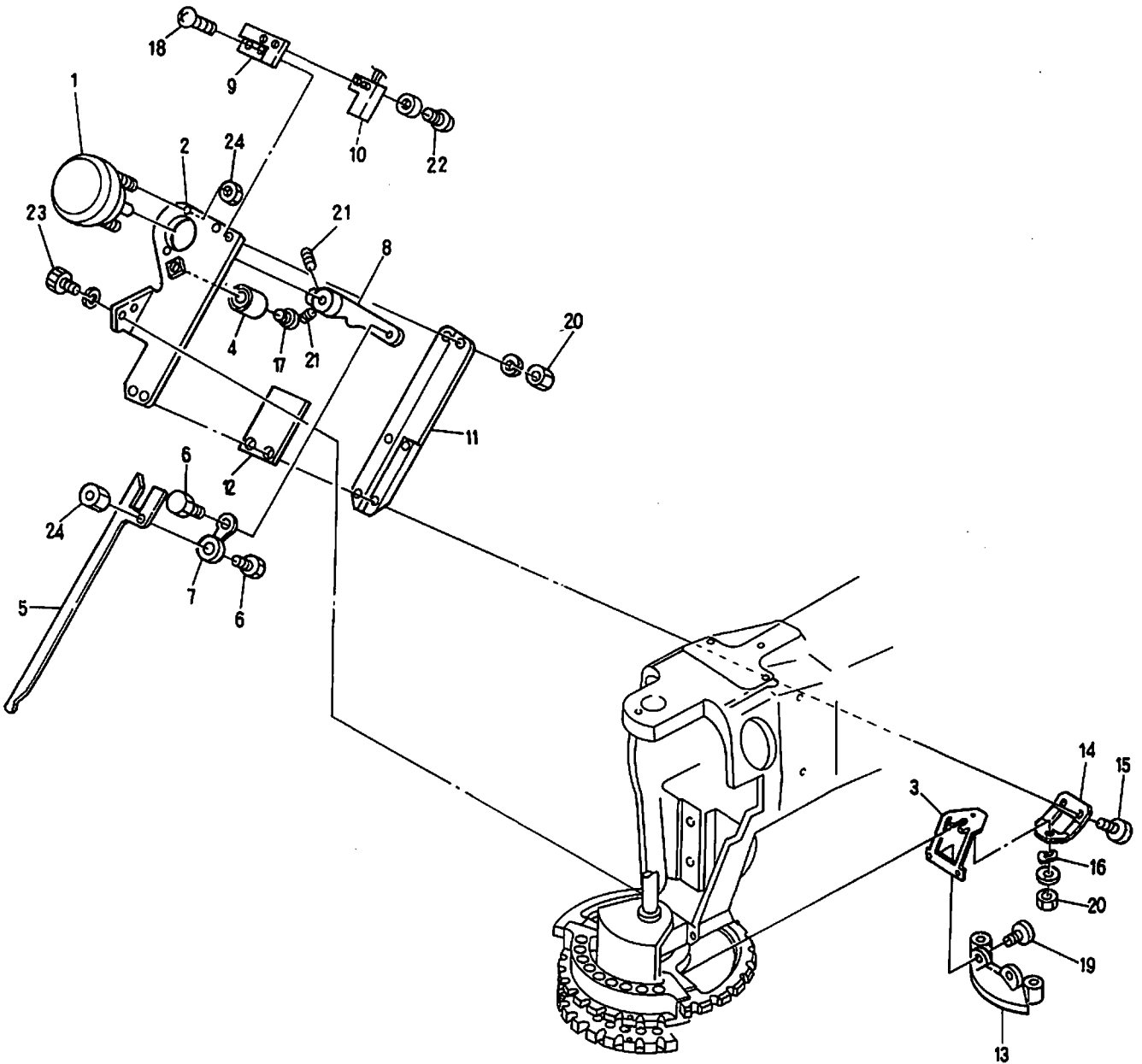
⑪ Thread guide mechanism (YS use)

(H=Head Q' TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	HT240530	Dial type tension unit complete (YS)		YF...H×5, YS...H×7
2	HP241150	Tension base (With screw)		YF...H×5, YS...H×7
3	HP241180	First thread guide (7)	H×1	YS
	HT241170	First thread guide (5)	H×1	YF
4	HP241460	Thread guide felt fixing plate (7)	H×1	YS
	HP241450	Thread guide felt fixing plate (5)	H×1	YF
5	HP241440	Upper tension unit complete (D=13.5)		
6	HP241122	Tension base (7)	H×1	HP241160YS HP241150YS
	HP241112	Tension base (5)	H×1	HP241160YF HP241150YF
7	HP241160	Upper thread detection pin		YF...H×5, YS...H×7
8	HP241381	Tension earth plate (7)	H×1	YS
	HP241371	Tension earth plate (5)	H×1	YF
9		Tapping screw 2×8		
10	HP241480	Thread guide felt (7)	H×1	YS
	HP241470	Thread guide felt (5)	H×1	YF
11	HB240260	Second thread guide plate (7)	H×1	YS
	HB240270	Second thread guide plate (5)	H×1	YF
12	EBY01070	4613 Head board	H×1	
13	KB240051	Tension base bracket	H×1	
14	KU241400	Tension base label	H×1	
15	KB240100	Tension cable cover	H×1	
16	KB240060	Tension base (7)	H×1	YS
	KB240070	Tension base (5)	H×1	YF
17	KB250020	Sewing head cover A	H×1	
18	KB250030	Sewing head cover B	H×1	
19	KB250040	Sewing head cover C	H×1	
20	KG250010	Thread end trap unit a'ssy (7)	H×1	YS
	HP250050	Thread end trap unit a'ssy (5)	H×1	YF
21	KB250050	Sewing head cover fixing bracket	H×1	
22	KB250060	Sewing head cover fixing stay	H×1	
23		Set screw (SM11/64 40×5.5)		
24		Truss screw M4×6		
25		Tapping screw M3.5×8		
26		Pan screw M3×4		
27		Pan screw M4×8 (With plain washer)		
28		Hex. socket bolt M5×15 (With plain washer, Spring washer)	H×2	
29		Hex. socket bolt M5×10 (With plain washer, Spring washer)	H×4	
30		Hex. socket bolt M4×6 (With plain washer)		
31		Screw (SM9/64 40×10)		
32		Hex. socket bolt M4×15 (With plain washer, Spring washer)		
33		Hex. socket bolt (With plain washer, Spring washer)		
34	HB790030	Tension base caution label	H×2	

Barudan

⑫ Automatic thread cutting mechanism II  
(Thread away section)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

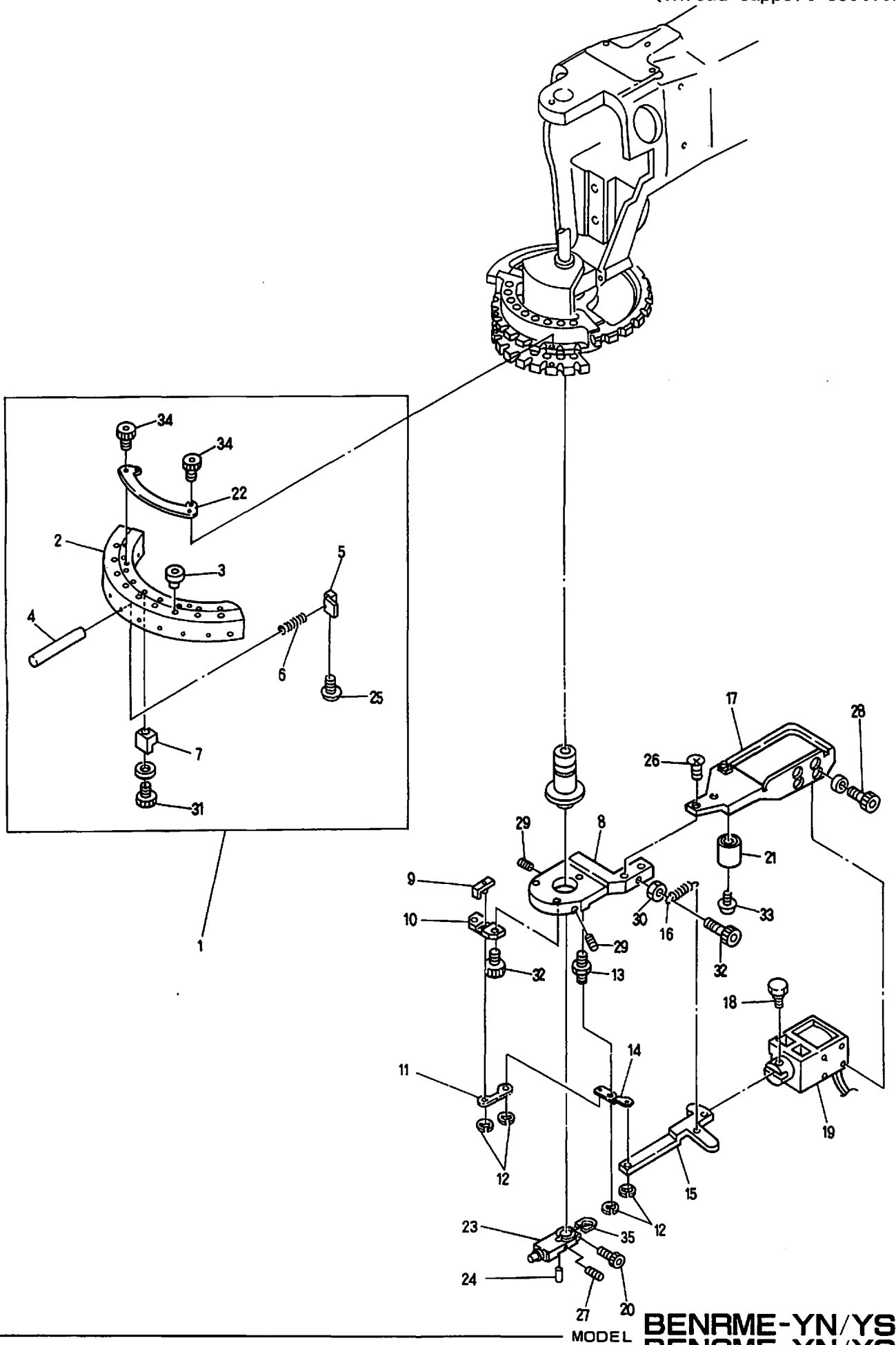
⑫ Automatic thread cutting mechanism II (Thread away section)

(H=Head Q'TY)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	A9056018	Rotary solenoid (4ER67.5-34×8×9) orange	H×1	
2	KL270081	Thread away base	H×1	
3	HT270070	Thread hook disk fixing stay	H×1	
4	KN272400	Stopper eccentric	H×1	
5	KL270101	Thread away hook	H×1	
6	KL270130	Lever connecting pin	H×1	
7	KL270120	Connecting plate	H×1	
8	KL270110	Thread away solenoid lever	H×1	
9	KL270260	Switch stay	H×1	
10	A9052028	Proximity switch (RS-603)	H×1	
11	KL270091	Thread away hook guide	H×1	
12	KL270450	Hook guide plate	H×1	
13	KL270440	Thread hook disk CMP	H×1	
14	HT270110	Rotary shaft fixing stay	H×1	
15		Truss screw M3×7		
16	A9013045	Wave washer (For M5)	H×1	
17		Truss screw M4×16		
18		Truss screw M3×10		
19		Truss screw M3×4		
20		Hex. nut M3		
21		Hex. socket set screw M4×8		
22		Truss screw M3×6		
23		Hex. socket bolt M4×12		
24		Hex. nut M4		

Barudan

⑬ Automatic thread cutting mechanism III  
(Thread support section)



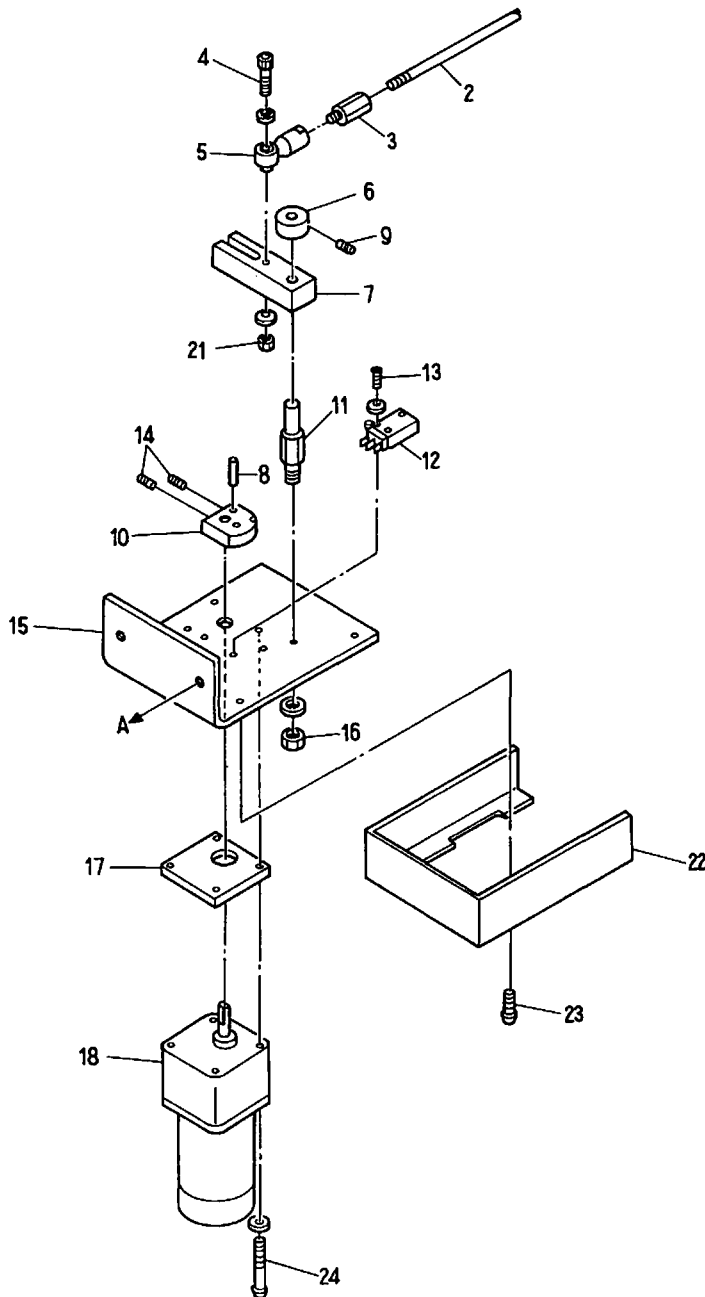
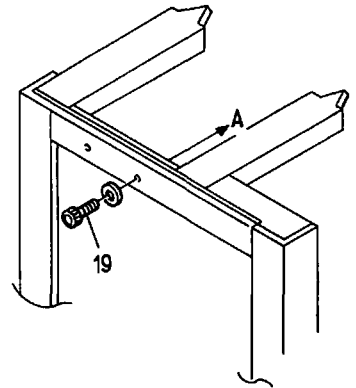
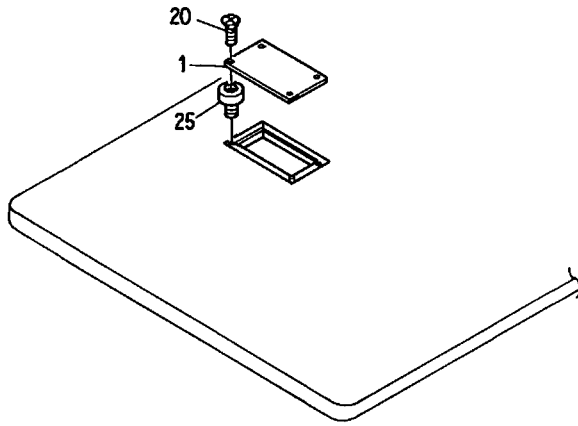
BENRME-YN/YS  
BENSME-YN/YS  
MODEL

⑬ Automatic thread cutting mechanismⅢ(Thread support section) (H=Head Q' TY)

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	HT270030	Thread support apron a'ssy	H×1	
2	HT270001	Thread support apron	H×1	
3	KF230580	Take up lever ceramic	H×9	
4	HT270040	Thread support shaft	H×9	
5	HT270021	Thread support clamp	H×9	
6	KC270271	Support spring	H×9	
7	KC270292	Thread support block	H×9	
8	KL270000	Fixing base φ3	H×1	
9	HT270120	Thread support slider	H×1	
10	HT270100	Slide base	H×1	
11	HT270080	Driving plate	H×1	
12	A9012056	E-Ring φ3	H×4	
13	KL270040	Lever rotary shaft	H×1	
14	HT270090	Solenoid lever	H×1	
15	KL270060	Lever connecting plate	H×1	
16	KL270520	Return spring	H×1	
17	KL270070	Solenoid stay	H×1	
18	KC270101	Solenoid pin	H×1	
19	A9056013	Keep solenoid (TDS-K10SL)	H×1	
20	HT270640	Driving shaft fixing clamp bolt	H×1	
21	KN272400	Stopper eccentric	H×1	
22	HT270010	Thread support apron fixing stay	H×1	
23	HT230361	Driving shaft fixing plate	H×1	
24	HT270350	Thread hook disk fixing pin	H×1	
25	HT270062	Set screw for thread support clamp	H×9	
26		Flush screw M4×8		
27		Set screw M3×5		
28		Hex. socket bolt M3×6		
29		Hex. socket set screw M4×8		
30		Hex. nut M4		
31		Hex. socket bolt M3×10		
32		Hex. socket bolt M4×8		
33		Truss screw M4×16		
34		Hex. socket bolt (Plating) M3×6		
35	HT230830	Washer for driving shaft fixing plate	H×1	

Barudan

⑭ Automatic thread cutting mechanism IV  
(Drive mechanism)



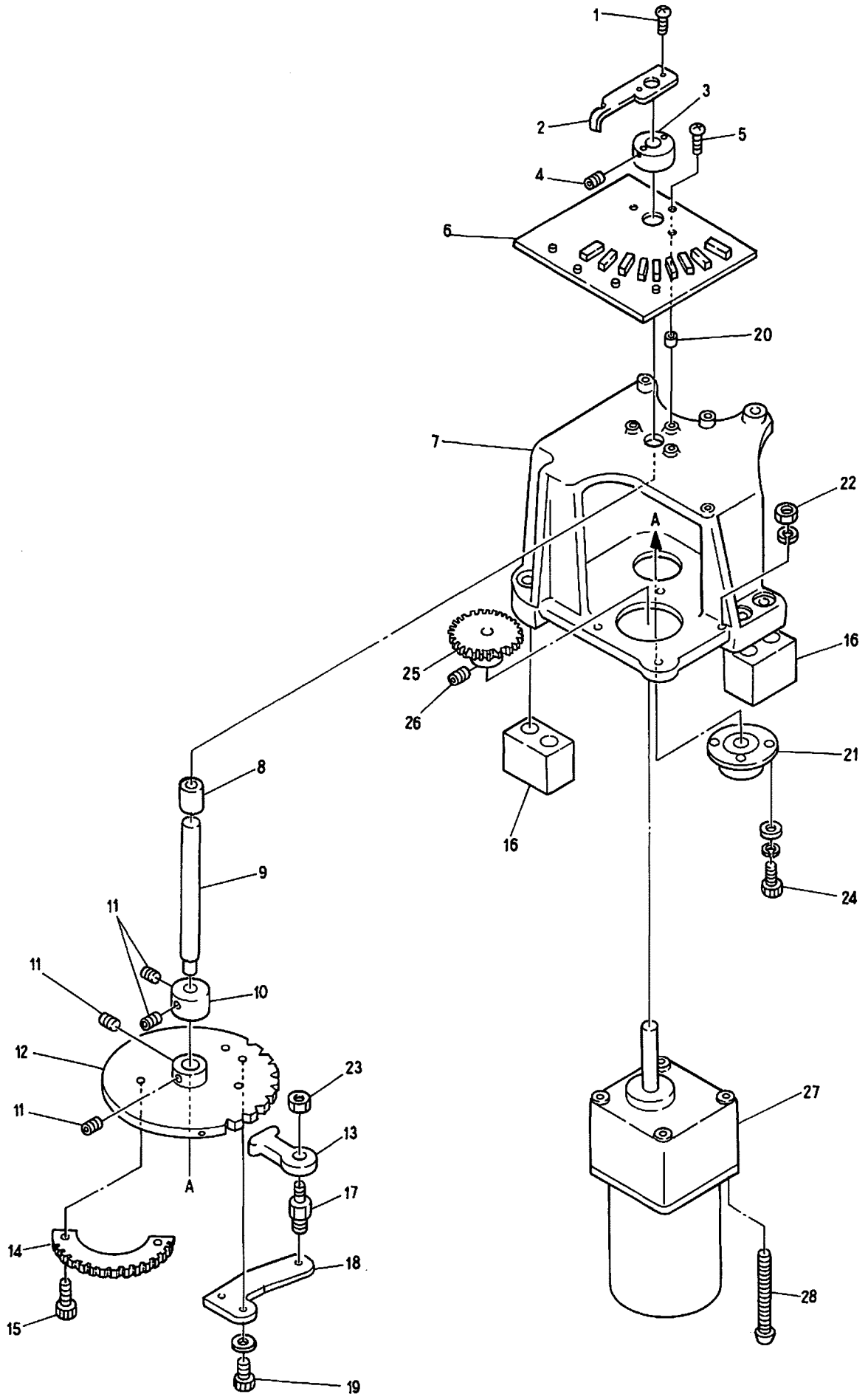
MODEL

**BENRME-YN/YS**  
**BENSME-YN/YS**



⑭ Automatic thread cutting mechanism IV (Drive mechanism)

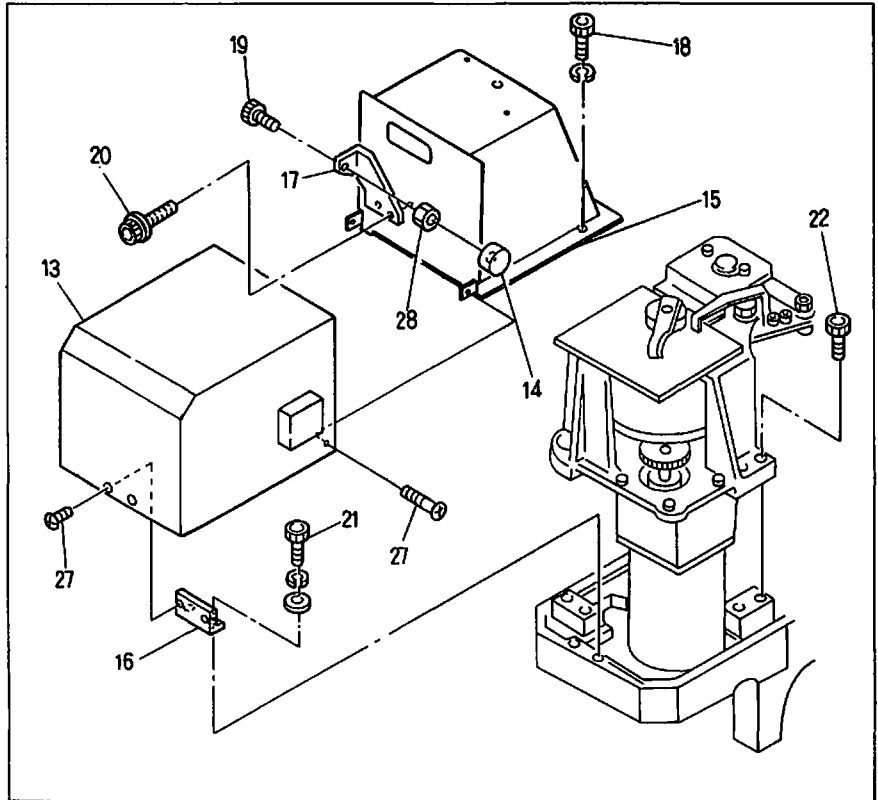
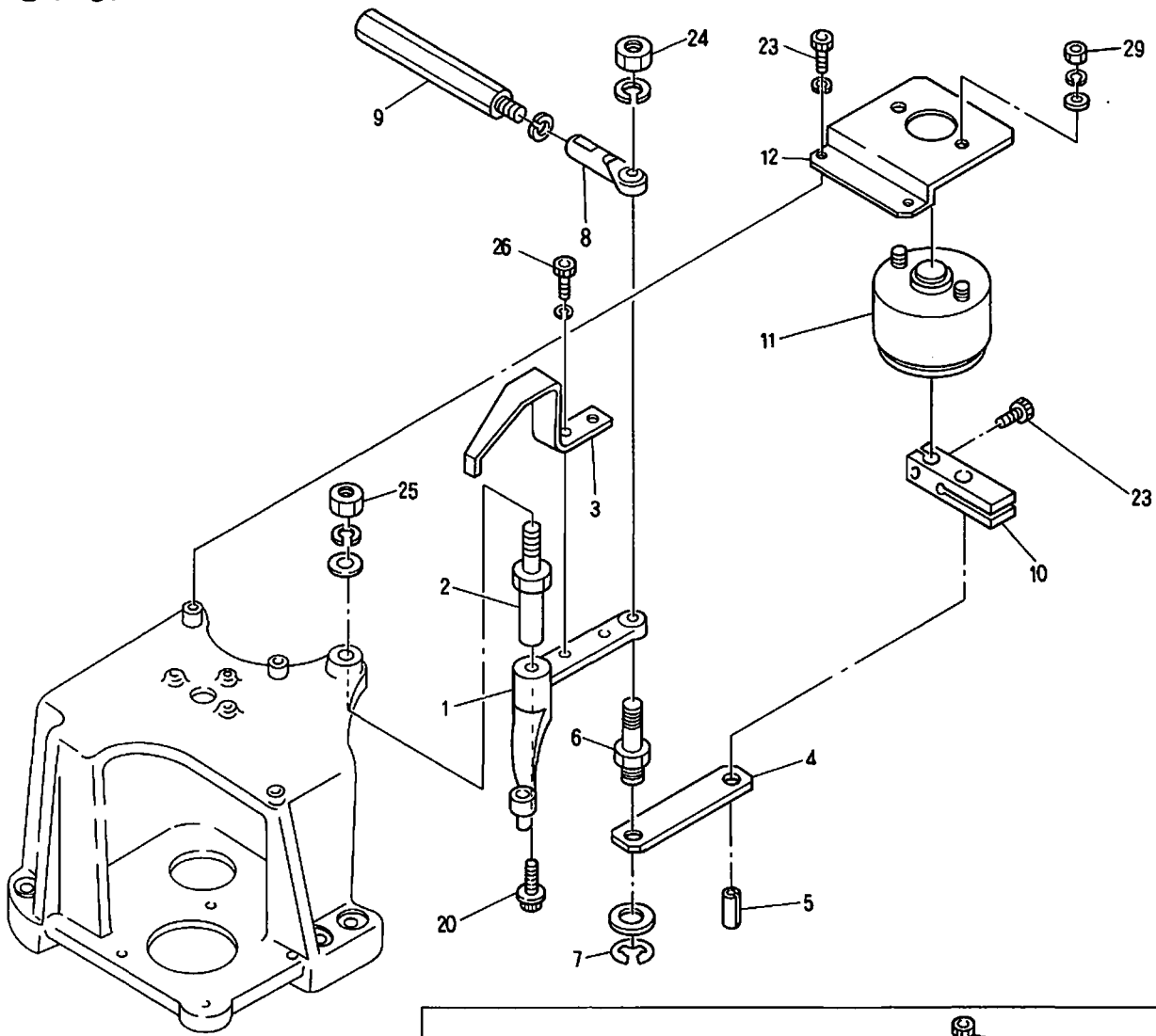
ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KC271440	Drive service cover	1	
2	KC330410	Rock connecting rod	2	
3	KC330510	Hex. connecting bar (L)	1	
4		Hex. socket bolt M6×20		
5	A9012002	Uniball joint PR-6	1	
6	KC330180	Collar φ10	1	
7	KC271140	Motor lever	1	
8	KN272350	Drive pin	1	
9		Hex. socket screw M5 ×6		
10	KS270030	Drive cam	1	
11	KC271151	Motor lever turret shaft	1	
12	A9052005	Micro switch V-01L 2255	1	
13		Truss screw M3×15, M3×20		
14		Hex. socket set screw M5×8		
15	KC271162	Motor bracket	1	
16		Hex. nut M8		
17	KC271430	Motor spacer	1	
18	A9065026	Reversible motor RM HGA 8PEAA(6RH D36)	1	
19		Hex. socket bolt M8×30		
20		Truss screw M4×8 (Under cut)		
21		Hex. nut M6		
22	KN271712	Motor bracket cover	1	
23		Truss screw M3×6		
24		Pan screw M5×65		
25		Rag nut (C) M4	4	



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

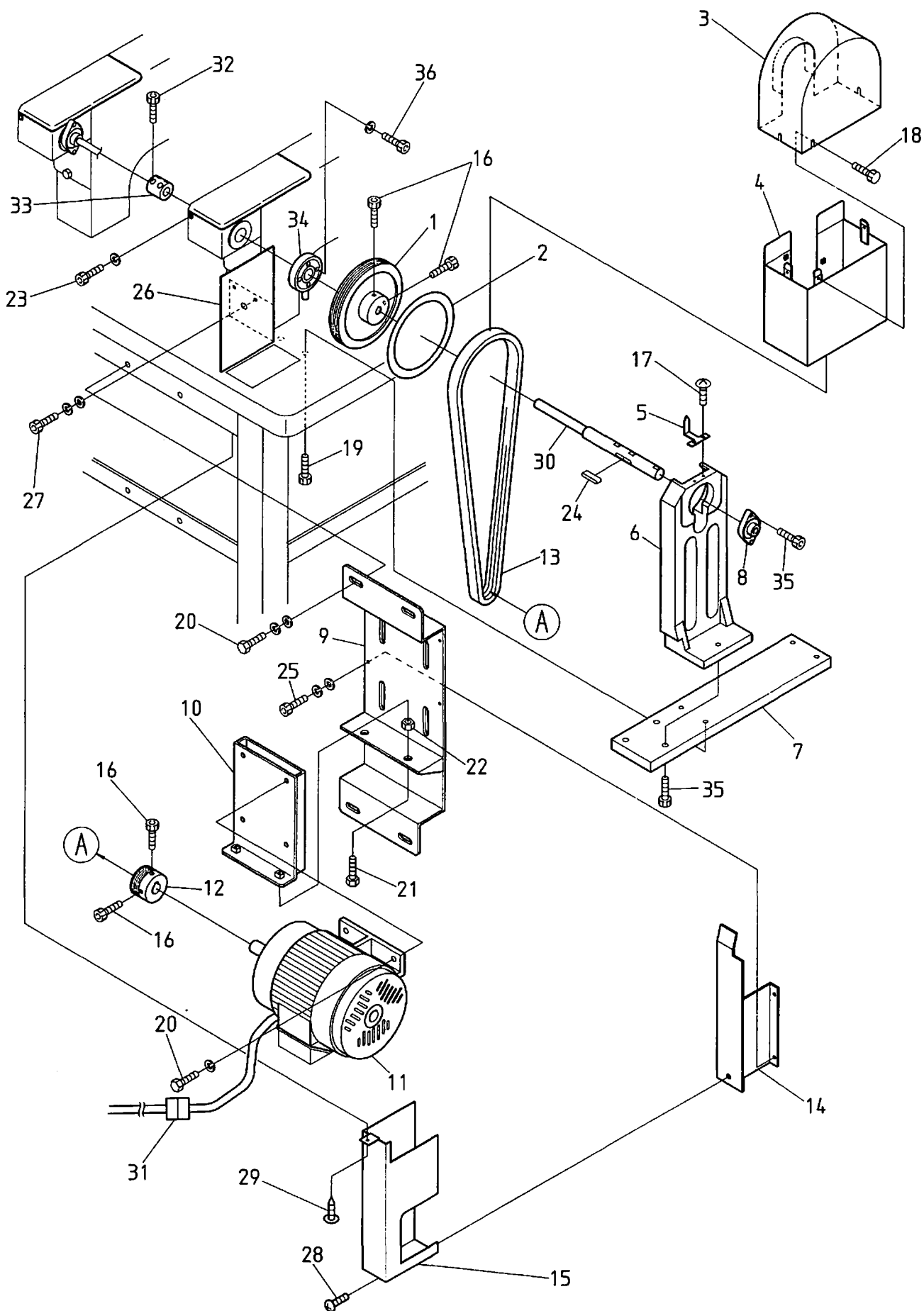
⑮ Color change mechanism I

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1		Truss screw M3×6		
2	KC330280	Needle bar detection plate	1	
3	KC330170	Detection plate collar	1	
4		Hex. socket set screw M5×10		
5		Truss screw M3×12		
6	EBY01120	3760 Needle positioner	1	
7	KC330180	Needle turning unit base	1	
8	KC330190	Oil-less metal	1	
9	KC330161	Needle turning shaft	1	
10	KC330180	Collar φ10	1	
11		Hex. socket set screw M5×6		
12	KT330001	Control turning plate	1	
13	A9012001	Uniball joint (RD4020R)	1	
14	KG330220	Needle turning gear No2	1	
15		Hex. socket bolt M5×12		
16	KL330050	Unit base spacer	2	
17	KF230360	Turret plate joint pin	1	
18	KL330040	Turret plate lever	1	
19		Hex. socket bolt M5×15		
20	A9012208	Spacer 5×4	3	
21	KC330610	Oil-less bearing (OCHIAI) S/S LS B-G8-080V	1	
22		Hex. nut M4		
23		Hex. nut M5		
24		Hex. socket bolt M4×12		
25	KC330210	Needle turning gear No1(0.8M50T)	1	
26		Hex. socket set screw M4×8		
27	A9065035	Geard motor RM-F6A5PC3R163-120	1	
28		Flush screw M4×65		



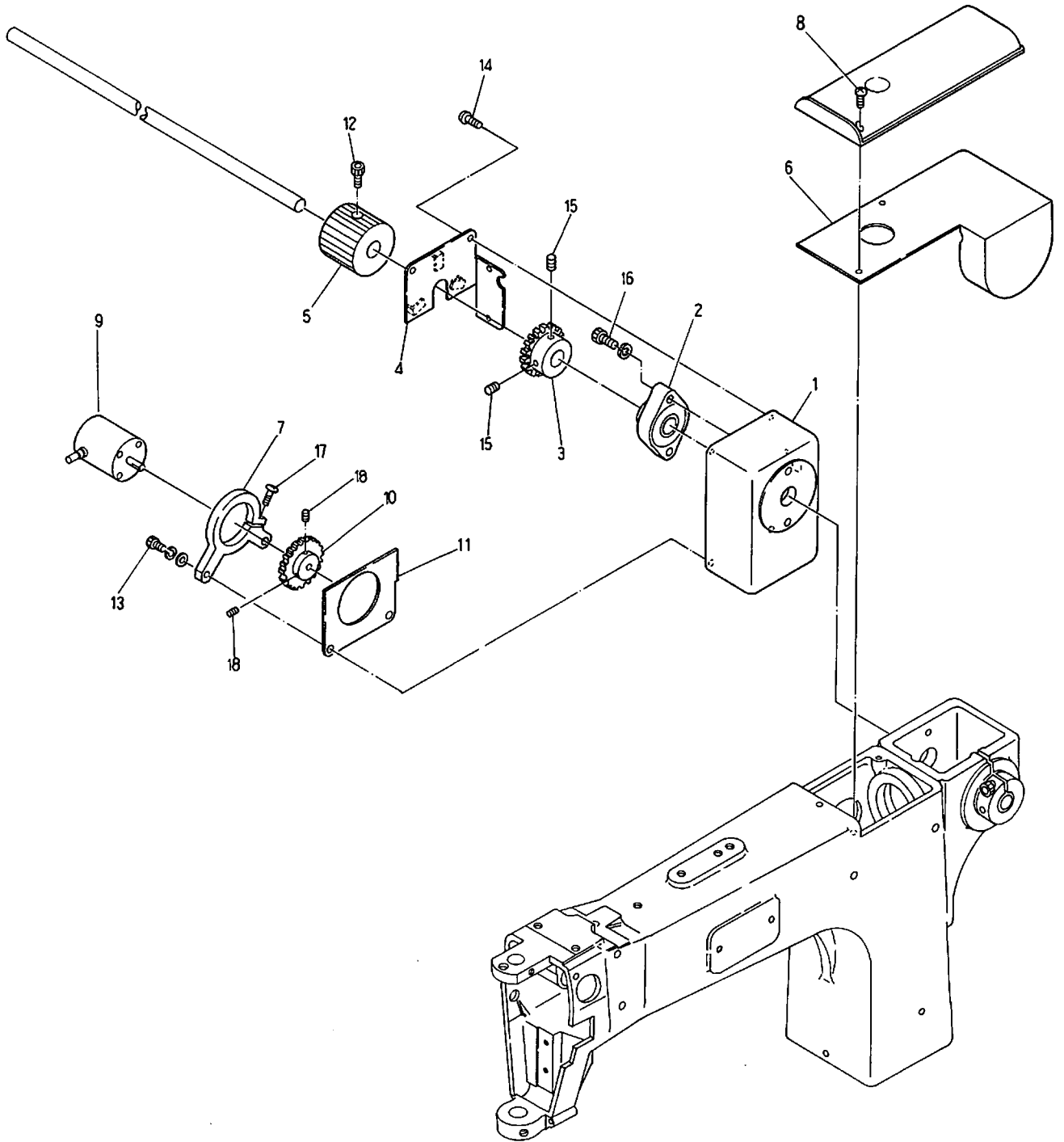
### 16 Color change mechanism II

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	KG 2 3 0 6 1 0	Lock lever	1	
2	KF 2 3 0 6 3 0	Lock lever shaft	1	
3	KC 3 3 0 2 9 0	Lock detection plate	1	
4	KN 3 3 0 2 5 0	Lock lever link	1	
5	A 9 0 1 2 1 4 3	Spring pin $\phi 6$ L=12	1	
6	KC 3 3 0 2 3 0	Lock lever pin	1	
7	A 9 0 1 2 1 3 7	Snap ring $\phi 8$	1	
8	A 9 0 1 2 0 0 2	Uni ball joint (PR-6)	1	
9	KC 3 3 0 5 1 0	Hex. connecting bar (L)	1	
1 0	KN 3 3 0 2 4 0	Lock solenoid lever	1	
1 1	KC 3 3 0 8 5 0	Rotary solenoid 6SR-25(27×4 ×9) L=15	1	
1 2	KC 3 3 0 2 6 0	Rotary solenoid bracket	1	
1 3	KV 3 3 0 0 2 0	Cover ASSY	1	
1 4	KN 1 2 1 3 5 0	Needle bar cap	1	
1 5	KV 3 3 0 0 1 0	Automat base	1	
1 6	KC 3 3 0 9 1 0	Cover braket	1	
1 7	KL 3 3 0 0 2 0	Lock lever stopper	1	
1 8		Hex. socket bolt M6 × 1 2		
1 9		Hex. socket bolt M5 × 3 0		
2 0		Hex. socket flange bolt M5 × 4		
2 1		Hex. socket bolt M5 × 1 0		
2 2		Hex. socket bolt M6 × 6 0		
2 3		Hex. socket bolt M5 × 1 2		
2 4		Hex. nut M6		
2 5		Hex. nut M8		
2 6		Hex. socket bolt M4 × 8		
2 7		Truss screw M4 × 6		
2 8		Hex. nut M5		
2 9		Hex. nut M4		



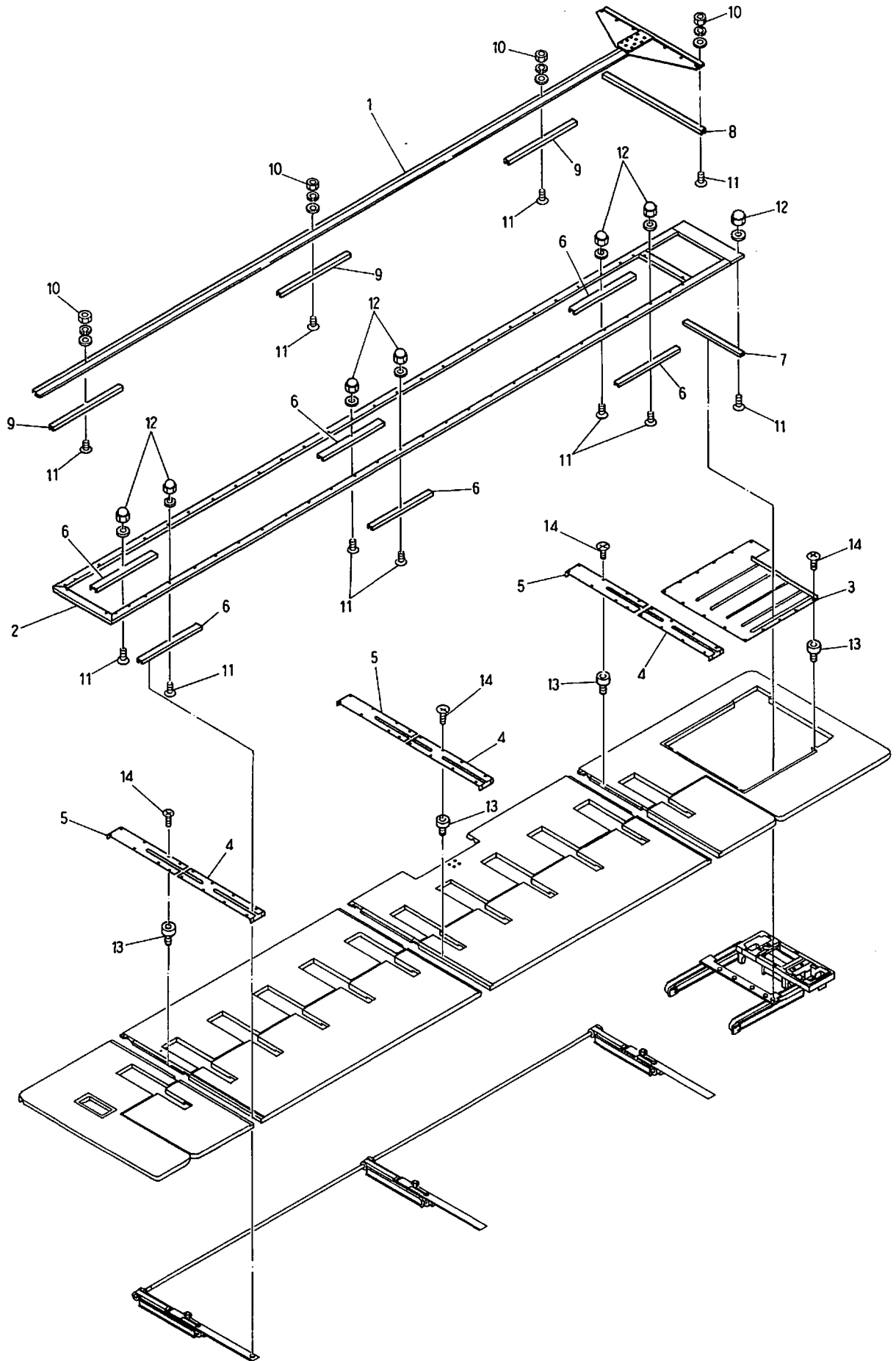
**⑰ Drive mechanism**

LIST	LIST No	DESCRIPTION	Q'TY	REMARK
1	KN310000	Driving pulley $\phi$ 152.2	1	
2	HP313690	Angle label     (B)	1	
3	KV310041	Belt cover     (Upper)	1	
4	KV310050	Belt cover     (Lower)	1	
5	KV310090	Angle gauge	1	
6	KV310021	Shaft holder bracket	1	
7	KS310011	Shaft holder bracket base (cylinder)	1	
8	A9011017	Bearing     (BLF 204)	1	
9	KV310070	Motor base     (BENSME)	1	
10	KV310080	Motor fixing base (BENSME)	1	
11	HB310280	Motor     PBK8-4P-0.75KW VF3 (With cable)	1	
12	KN310010	Motor pulley	1	
13	A9020200	Ribstar belt     (4PK-1240)	1	
14	KS310020	Belt cover bracket     (BENSME)	1	
15	KS310031	Belt cover     (BENSME)	1	
16		Hex. socket bolt     M6 x 12		
17		Pan screw     M4 x 8		
18	A9012320	Screw	1	
19		Hex. socket bolt     M8 x 20		
20		Hex. bolt     M8 x 20		
21		Hex. bolt     M8 x 55		
22		Hex. nut     M8		
23		Hex. socket bolt     M6 x 60		
24	WW310210	Both round parallel key     (6x6x35)	1	
25		Hex. socket bolt     M6 x 12		
26	KR310041	Belt cover bracket	1	
27		Hex. socket bolt     M4 x 6		
28		Pan screw     M4 x 6		
29		Pias biss		
30	KC320820	Top shaft connecting shaft (15x5700)		
31	A9053070	NS-Motor cable (7.5W)	1	
32		Hex. socket bolt		
33	HP320110	Top shaft connecting coupling	1	
34	A9011119	Ball bearing     JAR(SH204)	1	
35		Hex. socket bolt     M8 x 25		
36		Hex. socket bolt     M5 x 25		





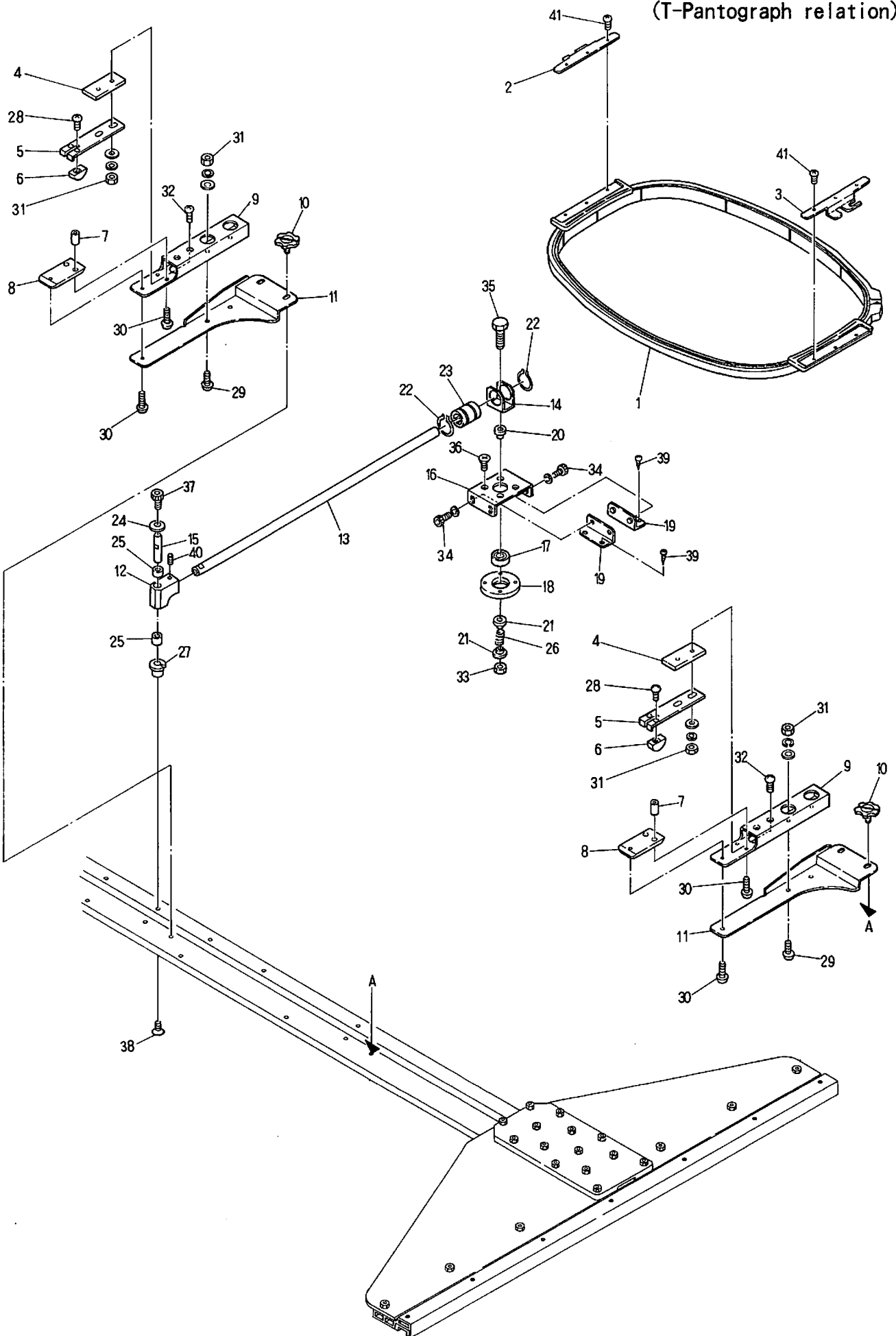






Barudan

20. Pantograph drive mechanism II  
(T-Pantograph relation)



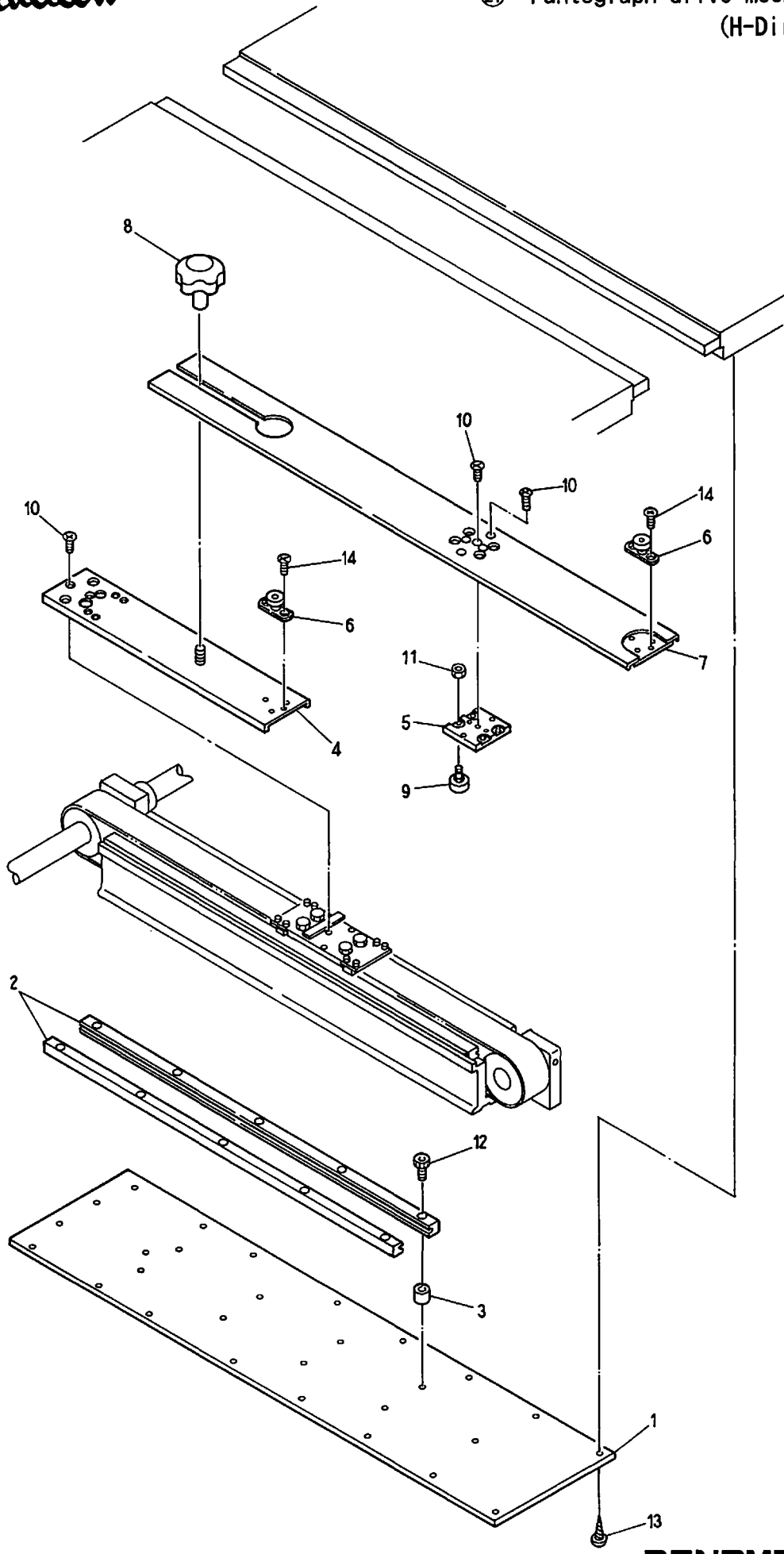
MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

②⑩ Pantograph drive mechanism II (T-Pantograph relation)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	FR92300290A	Square pantograph 320×290	1 2	15...15
2	FR600528	Metal for allot wood frame (No.1) R	1 2	15...15
3	FR600529	Metal for allot wood frame (No.1) L	1 2	15...15
4	HS460200	Fixing spacer	1 3	15...16
5	HS460030	Frame fixing spring No.2	1 3	15...16
6	HS460050	Frame fixing block	2 6	15...32
7	HS460210	Frame fixing the position pin	2 6	15...32
8	KK460130	Frame slide plate	1 3	15...16
9	KK460050	Fixing base	1 3	15...16
10	HS730000	Knurling screw for pantograph	2 6	15...30
11	KK460061	Fixing stay	1 3	15...16
12	KK460070	Rotation block	6	
13	KK460090	Pantograph set driving shaft	6	
14	KK460040	Bush fixing bracket	6	
15	KK460080	Rotation shaft B	6	
16	KK460010	Pantograph set base (Upper)	6	
17	A9010036	Bearing (6900ZZ)	6	
18	KK460031	Bearing set plate	6	
19	KK460000	Pantograph set base (Lower)	1 2	
20	KK460020	Rotation shaft A	6	
21	KK460120	Spring set plate	1 2	
22	A9012064	C-Ring (For shaft) 21	1 2	
23	A9011131	Slide bush SM12GUU	6	
24	A9012164	Thrust washer R-TW 0815	6	
25	A9011132	DU Bush MB0805	1 2	
26	KK460140	Pantograph set spring	6	
27	A9012264	DU Bush (MB0808-15FDU)	6	
28		Truss screw M3×3		
29		Truss screw M3×7		
30		Truss screw M3×5		
31		Hex. nut M3		
32		Truss screw M3×10		
33		U-Nut M5		
34		Hex. socket bolt M5×10		
35		Hex. bolt M5×25		
36		Pan screw M4×10		
37		Hex. socket bolt M4×8		
38		Pan screw M4×12		
39		Bind tapping screw 4.5×24		
40		Hex. socket set screw M6×8		
41		Pan screw M3×6		

Barudan

㉑ Pantograph drive mechanism III  
(H-Direction•Front)



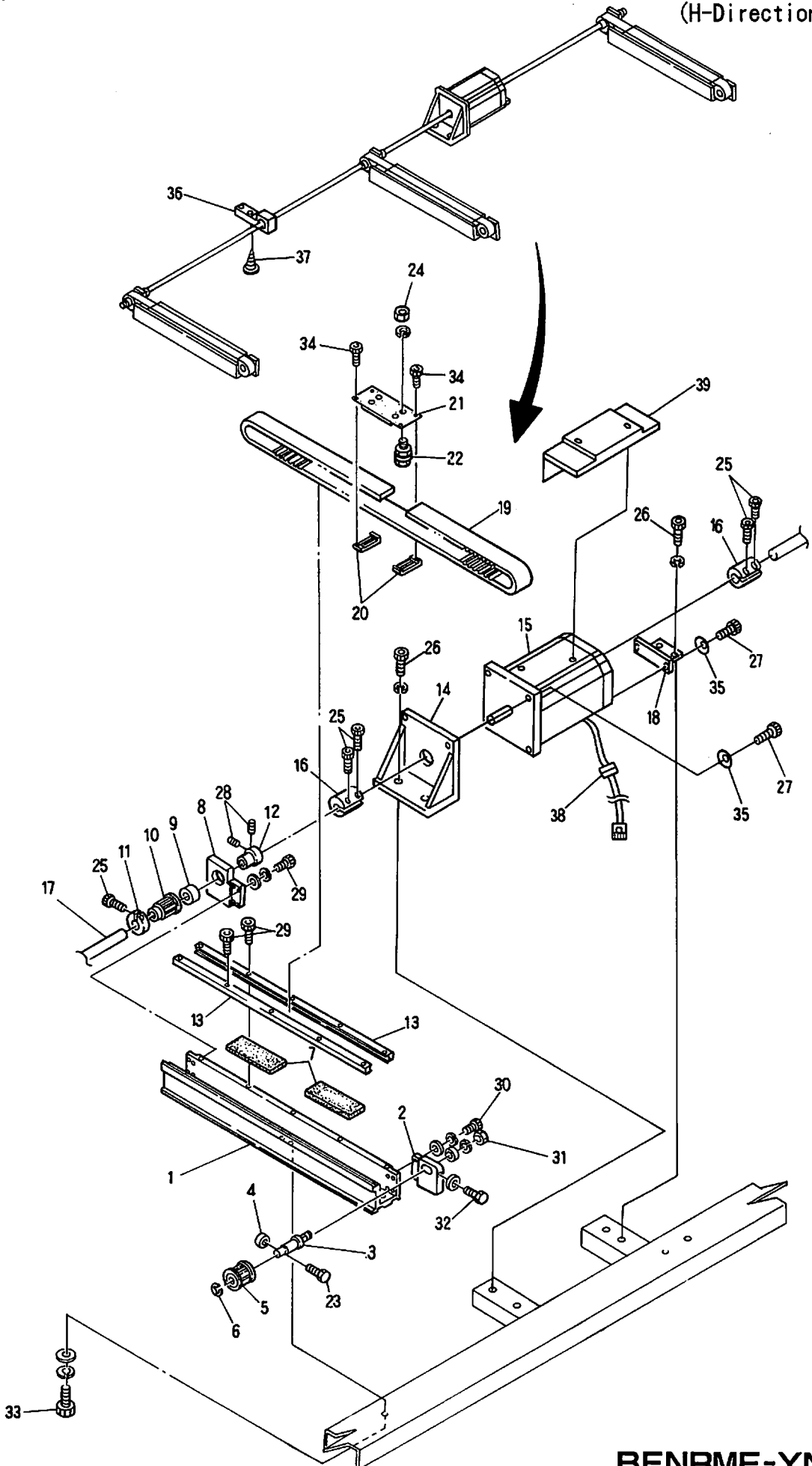
MODEL

**BENRME-YN/YS**  
**BENSME-YN/YS**



Barudan

22 Pantograph drive mechanism IV  
(H-Direction-Rear I)



MODEL

**BENRME-YN/YS**  
**BENSME-YN/YS**

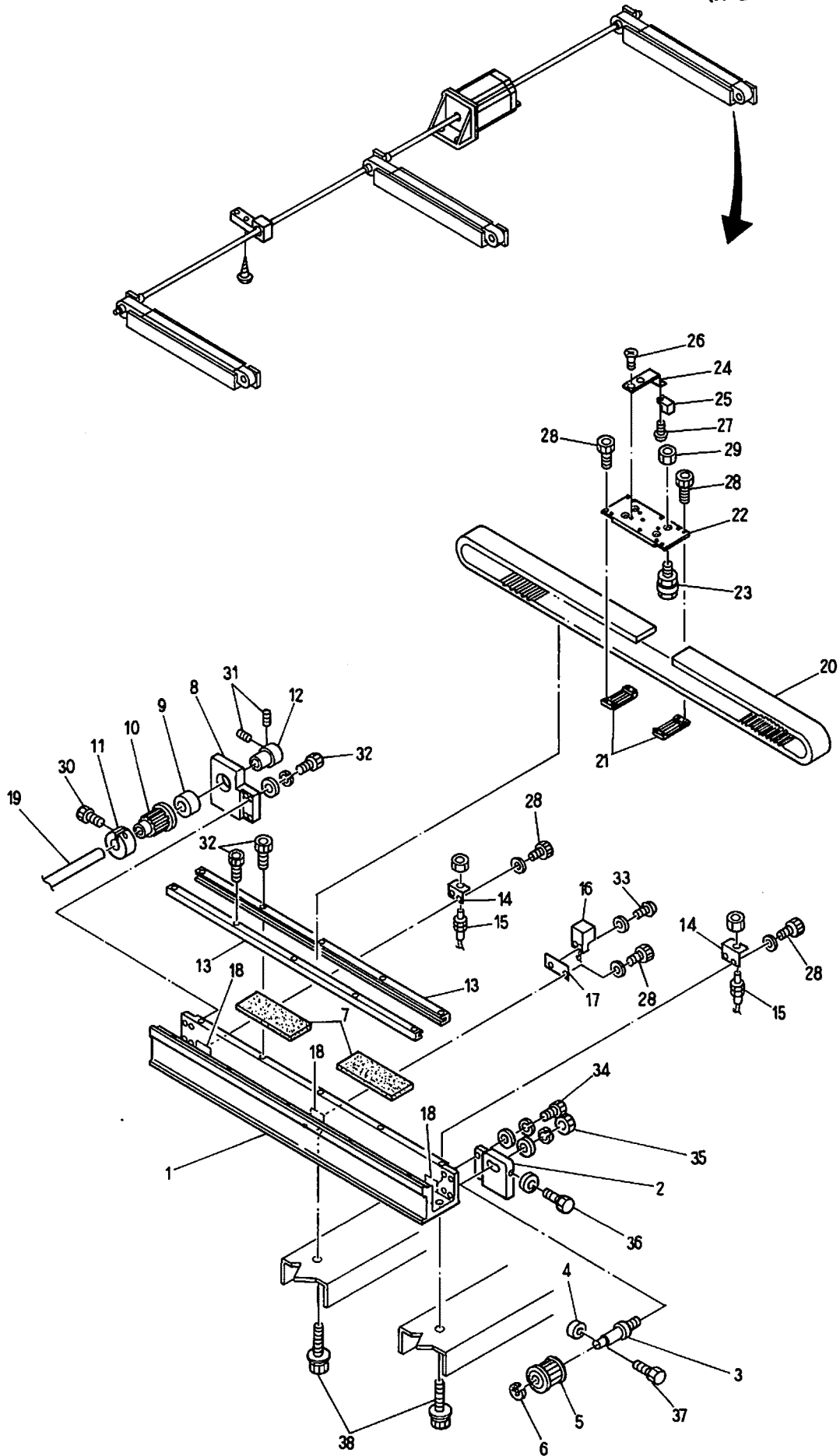


② Pantograph drive mechanismIV (H-Direction · Rear I)

ITEM	LIST №	DESCRIPTION	Q'TY	REMARK
1	KK480010	H-Guide rail base	3	15...4
2	KR480060	H · V-Guide front pulley bracket	3	15...4
3	HH481991	Timing pulley shaft	3	15...4
4	HH482110	Pulley shaft bolt cap	3	15...4
5	HV480050	Pantograph driving pulley (Front)	3	15...4
6	A9012052	E-Ring $\phi$ 10	3	15...4
7	KN480061	Rail base felt (100×38×6)	6	15...8
8	KR480050	H · V-Guide rear pulley bracket	3	15...4
9	A9011110	Needle bearing HK2016	3	15...4
10	HV480040	Pantograph driving pulley (Rear)	3	15...4
11	HH481980	Clamping $\phi$ 19	3	15...4
12	HH481970	Pulse motor connecting shaft collar	3	15...4
13	KK480140	V-Guide rail H-side (L=430)	6	15...8
14	HV480010	H-Pulse motor bracket		
15	HV480060	Pulse motor bracket (5M)		
16	HH481931	Pulse motor coupling		
17		H-Pulse motor connecting shaft	1	15...2
18	HV480020	H-Pulse motor bracket		
19	HV4801101035	Timing belt	3	15...4
20	HP482940	Timing belt set rack (5M)	6	15...8
21	KK140130	H-Roller base (B.A type)	3	15...4
22	HP482950	Roller pin a'ssy A	12	15...16
23		Hex. bolt M4 ×35		
24		Hex. nut M5		
25		Hex. socket bolt M5 ×18		
26		Hex. socket bolt M8 ×40		
27		Hex. socket bolt M6 ×22		
28		Hex. socket set screw M5 ×8		
29		Hex. socket bolt M4 ×15		
30		Hex. socket bolt M4 ×18		
31		Hex. nut M8		
32		Hex. socket bolt M4 ×25		
33		Hex. socket bolt M8 ×22		
34		Hex. socket bolt M3 ×8		
35		Disc spring 4 for hex. socket bolt		
36		Pulse motor connecting shaft support	1	15...2
37		Pias biss		
38	HV510020	H-pulse motor cable of extension (L=1500)	1	
39	KV310061	H-Pulse motor cover (BENSME)	1	

Barudan

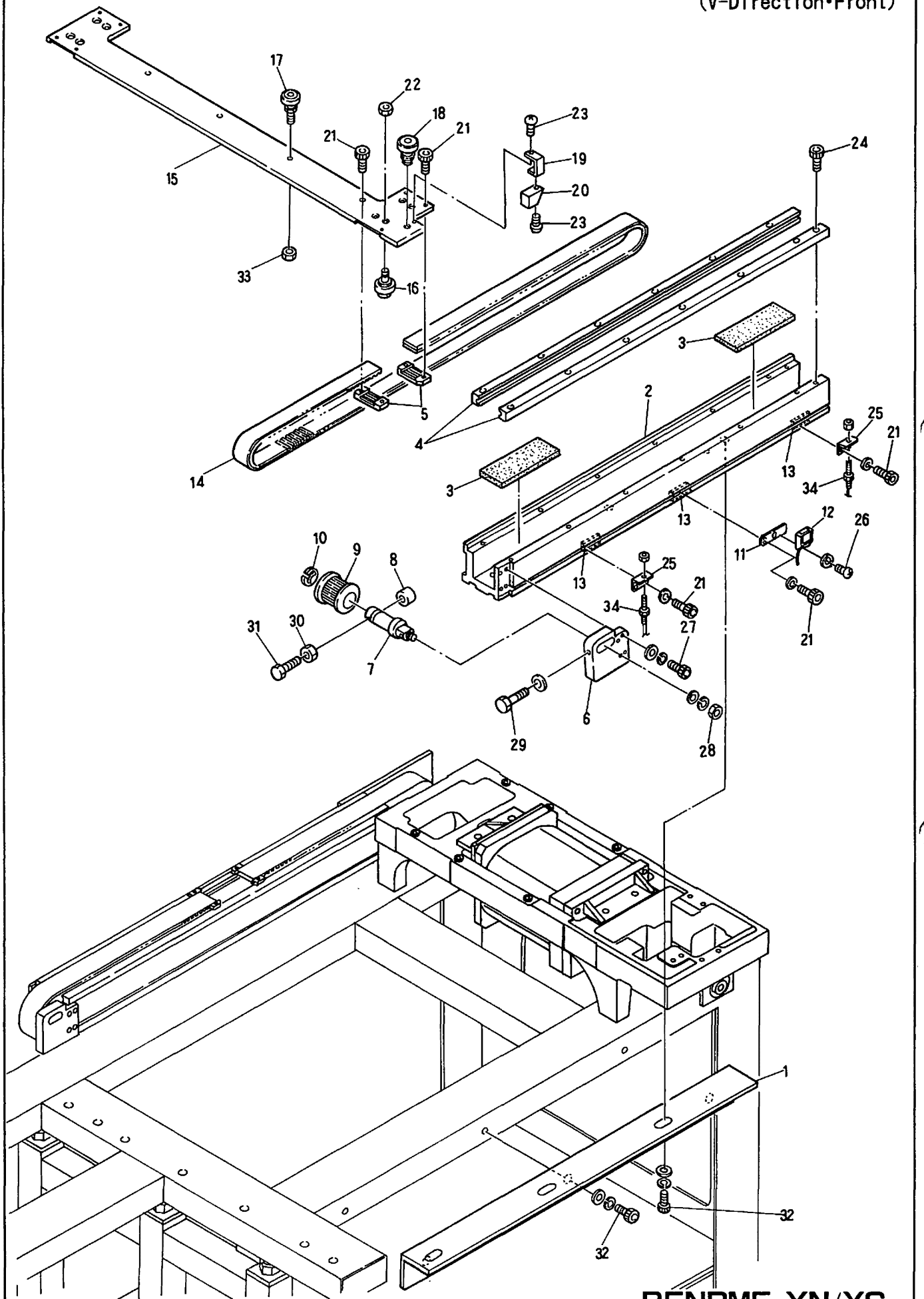
②③ Pantograph drive mechanism V  
(H-Direction•Rear II)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

②③ Pantograph driving mechanismV(H-Direction·Rear II)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KK480010	H-Guide rail base	1	
2	KR480060	H·V-Guide front pulley bracket	1	
3	HH481991	Timing pulley shaft	1	
4	HH482110	Pulley shaft bolt cap	1	
5	HV480050	Pantograph driving pulley (Front)	1	
6	A9012052	E-Ring	1	
7	KN480061	Rail base felt (100×38×6)	1	
8	KR480050	H·V-Guide rear pulley bracket	1	
9	A9011110	Needle bearing HK2016	1	
10	HV480040	Pantograph driving pulley (Rear)	1	
11	HH481980	Clamping φ19	1	
12	HH481970	Pulse motor connecting shaft collar	1	
13	KK480140	V-Guide rail H-Side (L=430)	2	
14	MT460240	RS-001 Bracket	2	
15	A9052024	Switch RS-001	2	
16	A9052031	Magnet proximity switch MH-601A	1	
17	KN450300	MH-601A Proximity switch fixing bracket	1	
18	KU460270	Plate nut (M3)	3	
19		H-Pulse motor connecting shaft B (L=985)	1	
20	A9020170	Timing belt	1	
21	HP482940	Timing belt set rack (5M)	2	
22	KK140130	H-Roller base (B.A type)	1	
23	HP482950	Roller pin a'ssy A	4	
24	KU460342	H-Pantograph origin point magnet bracket	1	
25	A9052030	Magnet M-102A-02	1	
26		Flush screw M4×6		
27		Truss screw M3×6		
28		Hex, socket bolt M3×6		
29		Hex, nut M5		
30		Hex, socket bolt M5×18		
31		Hex, socket set screw M5×8		
32		Hex, socket bolt M4×15		
33		Truss screw M3×10		
34		Hex, socket bolt M4×18		
35		Hex, nut M8		
36		Hex, bolt M4×25		
37		Hex, bolt M4×35		
38		Hex, socket bolt M8×22		



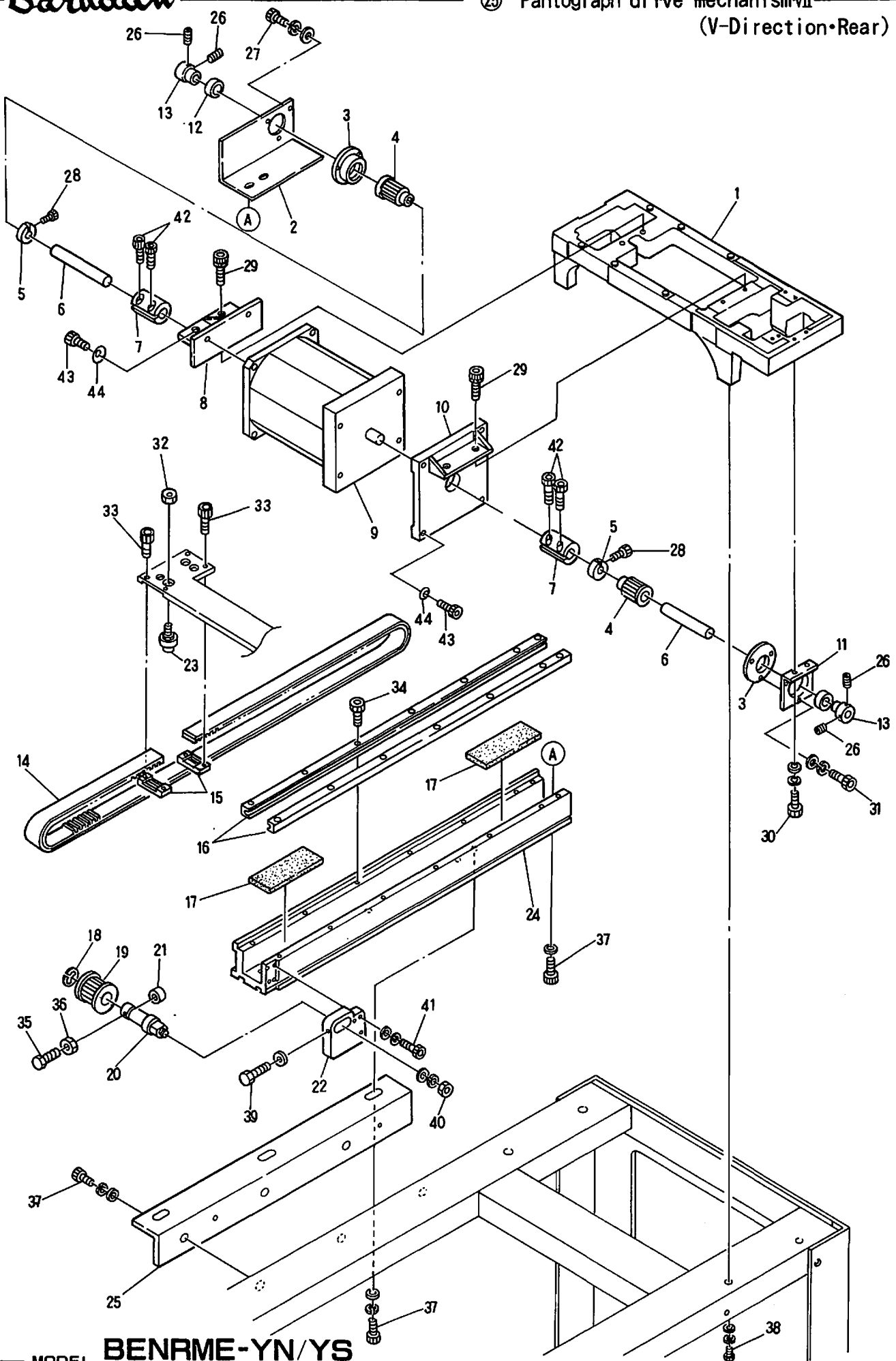
MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

②④ Pantograph drive mechanismVI(V-Direction · Front)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KK480030	V-Guide rail base bracket (Front)	1	
2	KV480170	V-Guide rail base (Stroke480)	1	
3	KN480061	Rail base felt (100×38×6)	2	
4	KN483450	V-Guide rail (L=660)	2	
5	HP482940	Timing belt set rack (5M)	2	
6	KR480060	H·V-Guide front pulley bracket	1	
7	HH481991	Timing pulley shaft	1	
8	HH482110	Pulley shaft bolt cap	1	
9	HV480050	Pantograph driving pulley (Front)	1	
10	A9012052	E-Ring (φ10)	1	
11	KN450300	MH-601A Proximity switch fixing bracket	1	
12	A9052031	Magnet proximity switch (MH-601A)	1	
13	KU460270	Plate nut (M3)	3	
14	HV4801101380	Timing belt	1	
15	KK480110	V-Roller base	1	
16	HP482950	Roller pin a'ssy A	4	
17	HP483111	Guide rail bearing pin a'ssy B	4	
18	HP483370	Guide rail bearing pin a'ssy B	1	
19	KN450311	V-Pantograph origin point magnet bracket	1	
20	A9052030	Magnet (M-102A-02)	1	
21		Hex, socket bolt M30×6		
22		Hex, nut M5		
23		Truss screw M30×6		
24		Hex, socket bolt M4×15		
25	MT460240	RS-001 Bracket (V-Side)	2	
26		Truss screw M3×10		
27		Hex, socket bolt M4×18		
28		Hex, nut M8		
29		Hex, bolt M4×25		
30		Hex, nut M4		
31		Hex, bolt M4×35		
32		Hex, socket bolt M8×20		
33		Hex, nut M6		
34	A9052024	Switch RS-001	2	

Barudan

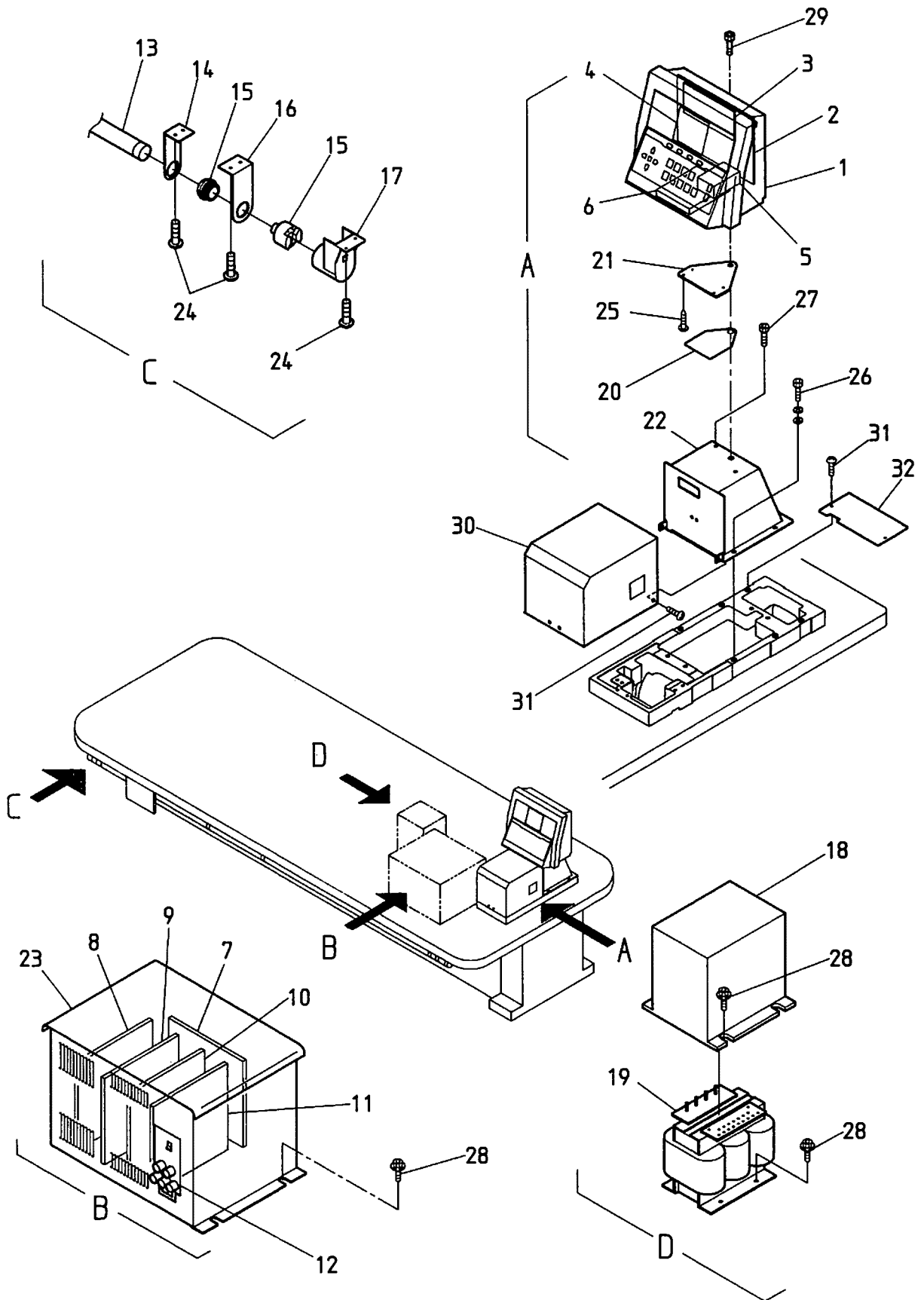
25 Pantograph drive mechanism VII  
(V-Direction-Rear)



MODEL BENRME-YN/YS  
BENSME-YN/YS

②⑤ Pantograph drive mechanismVII(V-Derection · Rear)

ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1	KV330030	Control unit base	1	
2	KS140040	Bearing bracket (Rear)	1	
3	KN490130	V-Timing belt shaft bearing housing	2	
4	HV480040	Pantograph driving pulley (Rear)	2	
5	HH481980	Clamping $\phi$ 19	2	
6	KV470030	V-Pulse motor connecting shaft	1	
7	HH481931	Pulse motor coupling	2	
8	KV470020	V-Pulse motor bracket B	1	
9	HV480060	Pulse motor (5M)	1	
10	KV470010	V-Pulse motor bracket A	1	
11	KN490121	Bearing bracket	1	
12	A9011110	Needle bearing HK2016	2	
13	HH481970	Pulse motor connecting shaft collar	2	
14	A9020170	Taiming belt	1	
15	HP482940	Taiming belt set rack (5M)	2	
16	KN483450	V-Guide rail (L=660)	2	
17	KN480061	Rail base felt (100 × 38 × 6)	2	
18	A9012052	E-Ring ( $\phi$ 10)	1	
19	HV480050	Pantograph driving pulley (Front)	1	
20	HH481991	Timing pulley shaft	1	
21	HH482110	pulley shaft bolt cap	1	
22	KR480060	H · V-Guide front pulley bracket	1	
23	HP482950	Roler pin a'ssy A	4	
24	KV480170	V-Guide rail base (Stroke 480)	1	
25	KK480020	V-Guide rail base (Rear)	1	
26		Hex, socket set screw M5 × 8		
27		Hex, socket bolt M4 × 10		
28		Hex, socket bolt M5 × 18		
29		Hex, socket bolt M6 × 25		
30		Hex, socket bolt M5 × 12		
31		Hex, socket bolt M4 × 10		
32		Hex, nut M5		
33		Hex, socket bolt M3 × 6		
34		Hex, socket bolt M4 × 15		
35		Hex, bolt M4 × 35		
36		Hex, nut M4		
37		Hex, socket bolt M8 × 20		
38		Hex, socket bolt M8 × 25		
39		Hex, bolt M4 × 25		
40		Hex, nut M8		
41		Hex, socket bolt M4 × 18		
42		Hex, socket bolt M5 × 18		
43		Hex, socket bolt M6 × 22		
44		Disc spring 6 for hex, socket bolt		

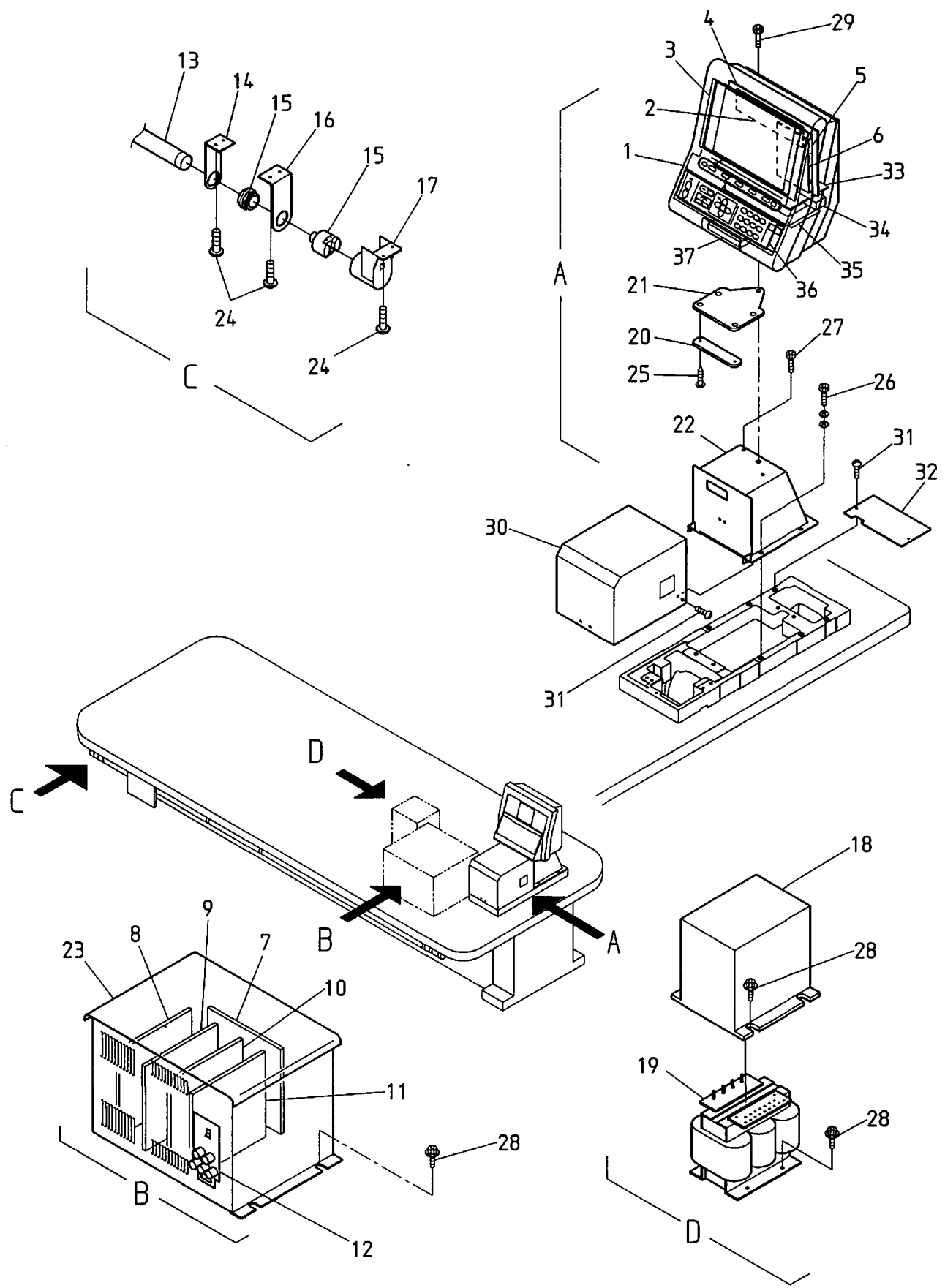


MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**



② Control system ( NS Type )

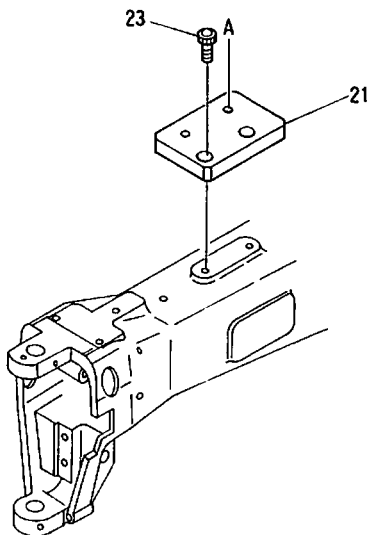
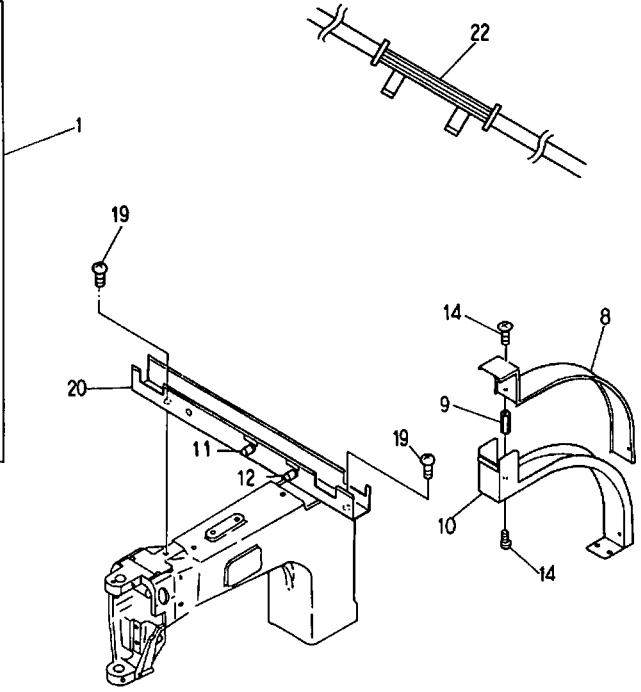
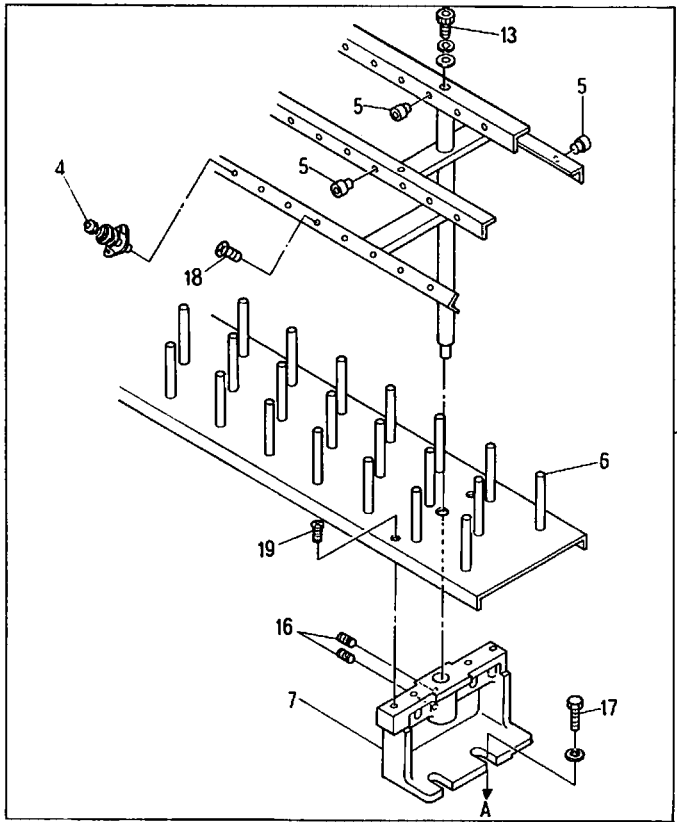
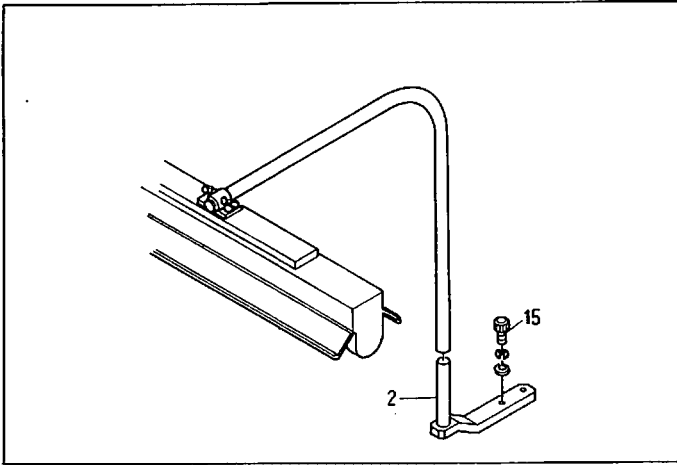
ITEM	LIST No	DESCRIPTION	Q'TY	REMARK
1		Automat controller BENS	1	
2	EBY01250	CPU-Board	1	
3	EBY01240	Memory board	1	
4	EBY01260	LCD-Indication vessel	1	
5	EBY01270	Automat sources of electricity	1	
6	EBY01350	Floppy disk drive	1	
7	EBY01330	Back board	1	
8	EBY10310	Pulse motor drive unit	1	
9	EBY01340	Inverter unit	1	
10	EBY01300	CPU-Board	1	
11	EBY01320	Power board	1	
12	EBY01290	Control unit of sources of electricity	1	
13	KF530160	Bar switch	1	
14	KC530240	Bar switch bracket (Small)	5	
15	KF530120	Push button switch NS319 (Green)	1	
	KF530111	Push button switch NS319 (Red)	1	
16	KC530230	Bar switch bracket (Large)	4	
17	KF530150	Push button switch cap	1	
18	KC520020	Transformer cover set	1	
19		Automat transformer 3 P	1	
		Automat transformer 1 P	1	
20	HV330011	Automat bracket spacer	1	
21	HV330020	Automat bracket	1	
22	KV330010	Automat base	1	
23		Automat driver	1	
24		Tapping screw M4×20		
25		Pan screw M4×8		
26		Hex. socket bolt M6×10		
27		Hex. socket flange bolt M6×6		
28		Hex. socket flange bolt M6×16		
29		Hex. socket bolt M10×20		
30	KV330020	Turning cover a'ssy	1	
31		Truss screw M4×6		
32	KV330040	Unit base cover	1	



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**

② Control system (NR Type)

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	EAY038A1	NR-Automat controller	1	
2	EBY01550	5480 690-thousand needle memory board BENR	1	
3	EBY01600	TFT-Color LCD LQ-10D02T BENR	1	
4	EBY01540	5421 I/O-Board BENR	1	
5	EBY01530	5411 CPU-Board BENR	1	
6	EBY01580	5470 Back right board BENR	1	
7	EBY01330	Buck-Board	1	
8	EBY10310	Pluse motor drive unit	1	
9	EBY01340	Inverter unit	1	
10	EBY01300	CPU-board	1	
11	EBY01320	Power-board	1	
12	EBY01290	Power control unit	1	
13	KF530160	Bar switch	1	
14	KC530240	Bar switch bracket (small)	5	
15	KF530120	Push button switch NS319 (Green)	1	
	KF530111	Push button switch NS319 (Red)	1	
16	KC530230	Bar switch bracket (large)	4	
17	KF530150	Push button switch cap	1	
18	KC520020	Transformer cover set	1	
19		Automat transformer 3 P	1	
		Automat transformer 1 P	1	
20	HV330010	Automat base	1	
21	HV330040	Automat bracket	1	
22	KV330010	Automat base	1	
23		Automat driver	1	
24		Tapping screw M4×20		
25		Tapping truss screw M3.5×8		
26		Hex. socket bolt M8×20		
27		Hex. socket flange bolt M6×20		
28		Hex. socket flange bolt M6×12		
29		Hex. socket bolt		
30	KV330020	Turning cover a'ssy	1	
31		Truss screw M4×6		
32	KV330040	Unit base cover	1	
33	EBY01560	5452 B/B board BENR	1	
	EBY01410	5452 B/B board BENR	1	
34		Inlet GL-2030HI	1	
35	EBY01590	Switching power supply MRW160 BENR	1	
36	EBY01570	5460 Switch relay board BENR	1	
37		FDD FD-05HG-261	1	

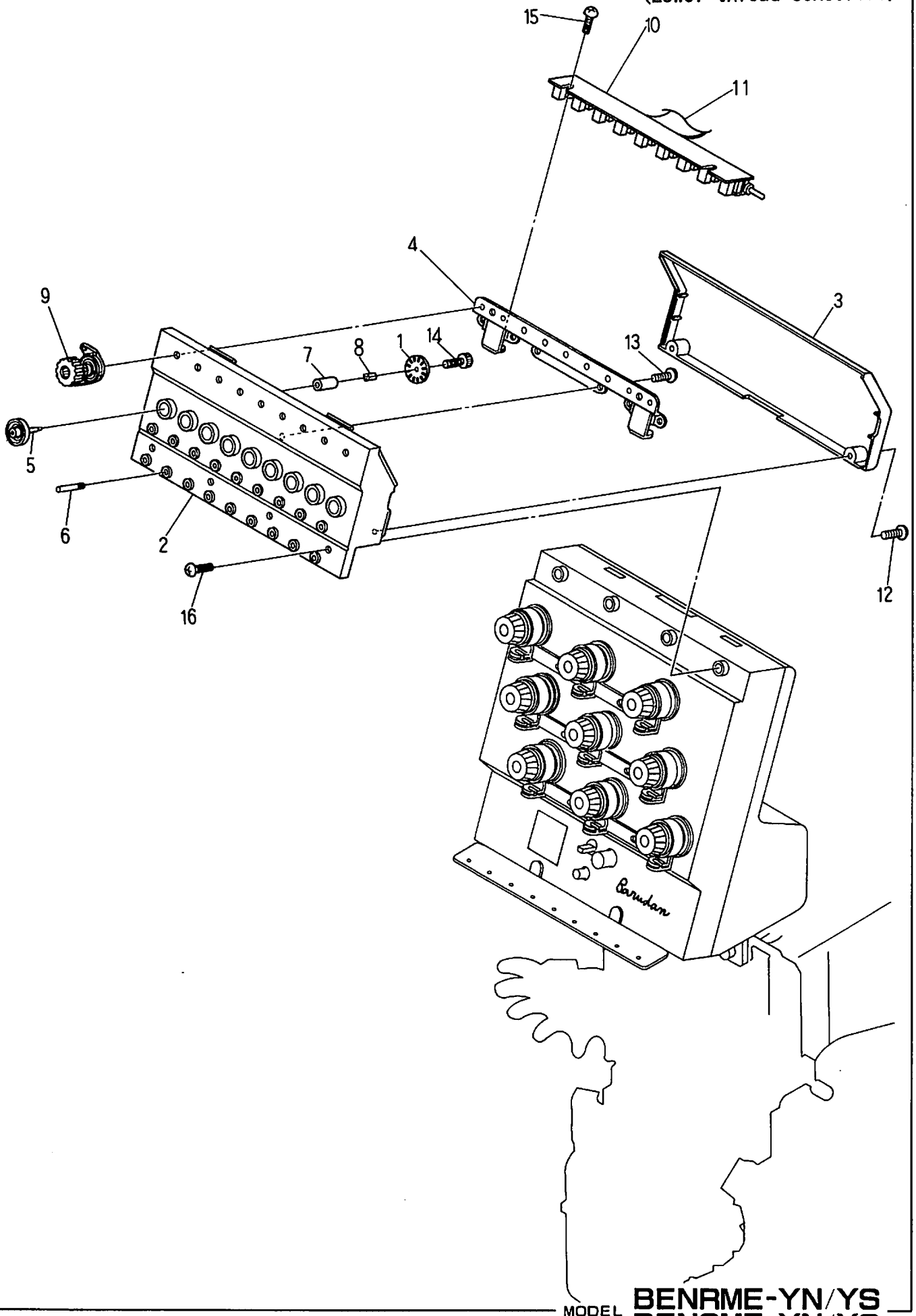


②7 O p t i o n

ITEM	LIST No.	DESCRIPTION	Q'TY	REMARK
1	HP711200	Fluorescent lamp set (LRP 4013T 15/16LG 100V)	1	For 12head and 15head
	HP711210	Fluorescent lamp set (LRP 4013T 25LG 200V)	1	For 12head and 15head
2	KG710161	Fluorescent lamp stand base	2	
3	1JP12380	Spool holder (12T P=380 YS)	1	
	2CHT912380	Spool holder (12T P=380 YS)	1	
	1JP15380	Spool holder (15T P=380 YS)	1	
	2CHT915380	Spool holder (15T P=380 YS)	1	
4	HP241430	Second tension unit complete (D=13.5)		
5	KF240900	Thread guide ceramic (For spool stand)		
6	HT710000	Spool holder pin	H×9	
7	HP710791	Spool holder base	6	15...8
8	KR510130	Cable duct No.4 cover	1	
9	MT510791	Nut for cable duct	2	
10	KR510120	Cable duct No.4	1	
11	A9052036	Push button switch SB-221N/O OFF Red		
12	A9052032	Push button switch SB-221N/O ON Green		
13		Hex, socket bolt M8×45		
14		Pan screw M4×6		
15		Hex, socket bolt M6×15		
16		Hex, socket set screw M5×8		
17		Hex, bolt M8×20		
18		Flush screw M5×6		
19		Flush screw M4×12		
20	1UKS12380	Duct cable (BENSME-12)	1	
	1UKS15380	Duct cable (BENSME-15)	1	
21	KR330160	Spool holder spacer		
22	2DKV12380	Flat cable NS-12 P380	1	Choice and use
	2DKV15380	Flat cable NS-15 P380	1	Choice and use
23		Hex, socket bolt		

Barudan

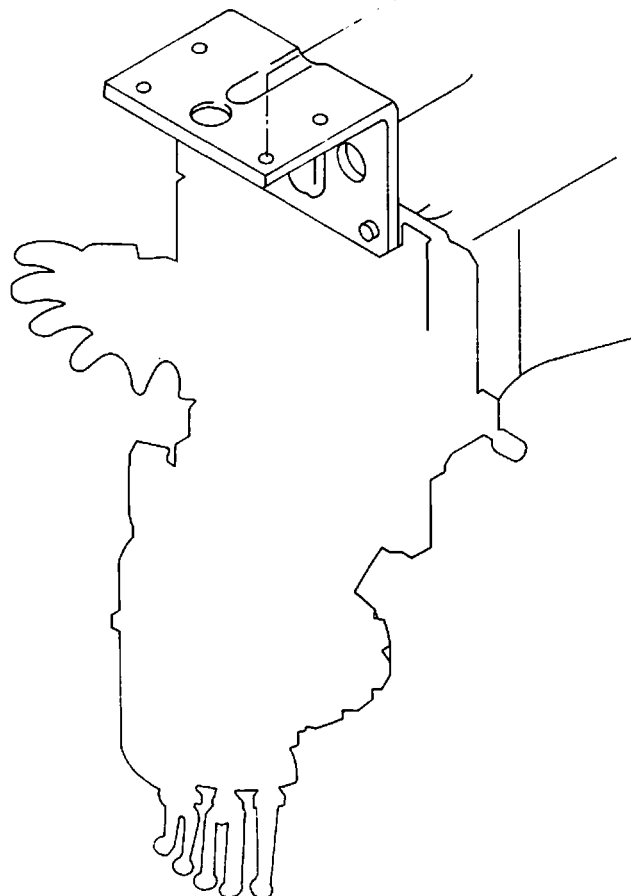
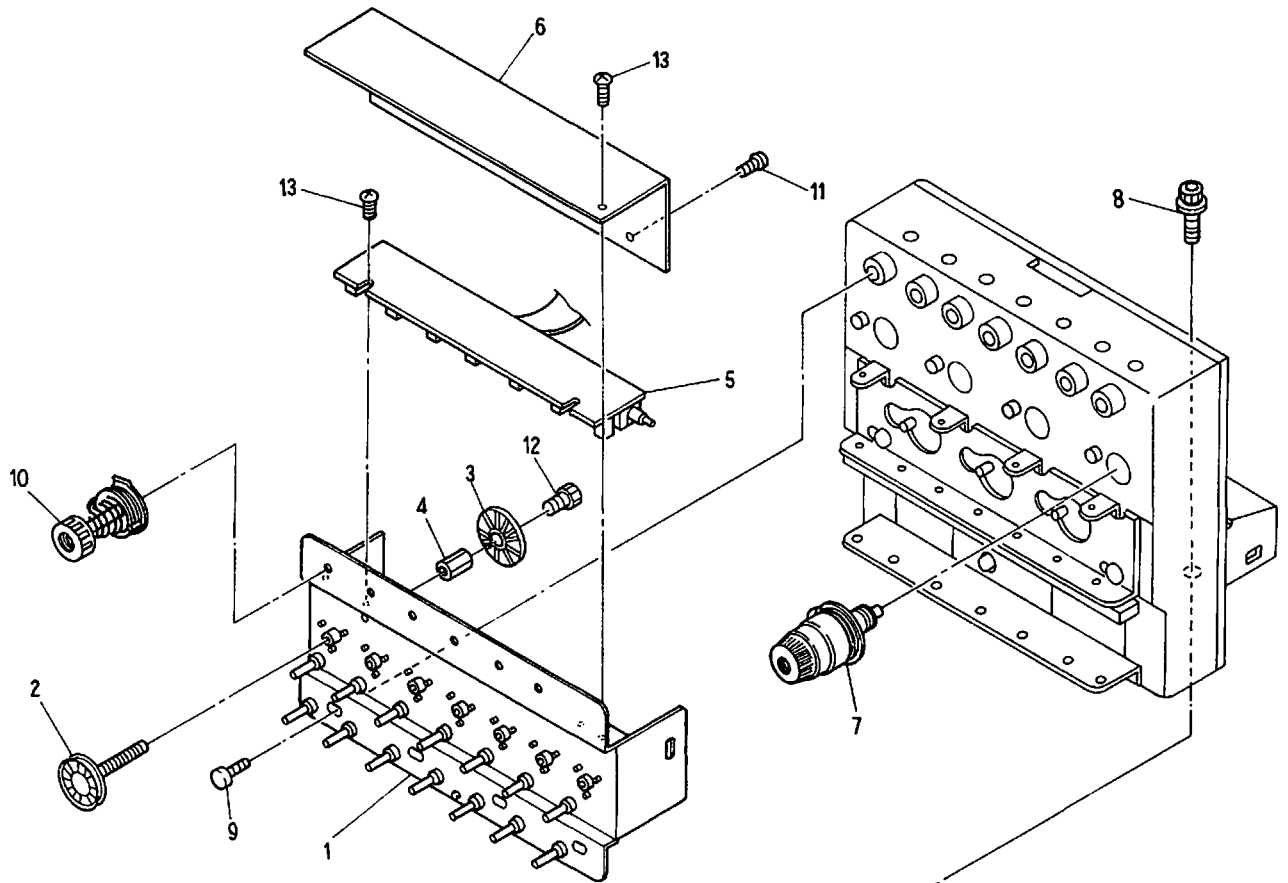
⑳ Thread guide mechanism  
(Lower thread sensorium)



MODEL BENRME-YN/YS  
BENSME-YN/YS



②⑧ Thread guide mechanism  
(Lower thread sensorium) (YS use)



MODEL **BENRME-YN/YS**  
**BENSME-YN/YS**





# I N D E X

LIST No.	PAGE No.	ITEM	LIST No.	PAGE No.	ITEM
1AKS123804800	3	2	A 9 0 1 2 0 5 2	4 7	6
1AKS153804800	3	2	A 9 0 1 2 0 5 2	4 9	6
1BKS123804800	3	1	A 9 0 1 2 0 5 2	5 1	1 0
1BKS153804800	3	1	A 9 0 1 2 0 5 2	5 3	1 8
1FKS123804800	4 1	1	A 9 0 1 2 0 5 3	1 7	3 1
1FKS153804800	4 1	1	A 9 0 1 2 0 5 6	2 9	1 2
1 J P 1 2 3 8 0	5 9	3	A 9 0 1 2 0 6 4	4 3	2 2
1 J P 1 5 3 8 0	5 9	3	A 9 0 1 2 1 1 4	1 3	2 7
1KKK123804800	3	3	A 9 0 1 2 1 3 7	3 5	7
1KKK153804800	3	3	A 9 0 1 2 1 4 3	3 5	5
1 P K V 1 2 3 8 0	9	2 7	A 9 0 1 2 1 6 4	1 5	2 9
1 P K V 1 5 3 8 0	9	2 7	A 9 0 1 2 1 6 4	4 3	2 4
1 U K S 1 2 3 8 0	5 9	2 0	A 9 0 1 2 1 8 6	3	2 4
1 U K S 1 5 3 8 0	5 9	2 0	A 9 0 1 2 1 9 0	1 9	4
1WKK123804800	4 1	2	A 9 0 1 2 2 0 8	3 3	2 0
1WKK153804800	4 1	2	A 9 0 1 2 2 3 1	7	8
2 C H T 9 1 2 3 8 0	5 9	3	A 9 0 1 2 2 5 0	7	6
2 C H T 9 1 5 3 8 0	5 9	3	A 9 0 1 2 2 5 5	7	1 1
2 D K V 1 2 3 8 0	5 9	2 2	A 9 0 1 2 2 5 9	3	1 4
2 D K V 1 5 3 8 0	5 9	2 2	A 9 0 1 2 2 6 3	4 5	8
A 9 0 1 0 0 1 7	9	5	A 9 0 1 2 2 6 4	4 3	2 7
A 9 0 1 0 0 3 6	4 3	1 7	A 9 0 1 2 2 6 6	5	8
A 9 0 1 1 0 1 7	3 7	8	A 9 0 1 2 3 2 0	3 7	1 8
A 9 0 1 1 0 2 1	1 5	7	A 9 0 1 2 3 2 4	6 3	9
A 9 0 1 1 0 2 1	1 7	2 1	A 9 0 1 3 0 4 5	2 7	1 6
A 9 0 1 1 0 2 2	1 7	2 3	A 9 0 1 3 0 6 6	1 3	2 1
A 9 0 1 1 0 2 3	1 7	2 0	A 9 0 1 4 0 5 1	2 1	1 9
A 9 0 1 1 1 0 7	7	7	A 9 0 1 4 0 5 5	1 7	1 9
A 9 0 1 1 1 1 0	4 7	9	A 9 0 1 4 0 6 3	9	3 8
A 9 0 1 1 1 1 0	4 9	9	A 9 0 2 0 1 7 0	4 9	2 0
A 9 0 1 1 1 1 0	5 3	1 2	A 9 0 2 0 1 7 0	5 3	1 4
A 9 0 1 1 1 1 5	1 9	9	A 9 0 2 0 2 0 0	3 7	1 3
A 9 0 1 1 1 1 9	3 7	3 4	A 9 0 5 2 0 0 5	3 1	1 2
A 9 0 1 1 1 3 1	4 3	2 3	A 9 0 5 2 0 2 4	4 9	1 5
A 9 0 1 1 1 3 2	4 3	2 5	A 9 0 5 2 0 2 4	5 1	3 4
A 9 0 1 1 1 5 2	1 5	6	A 9 0 5 2 0 2 8	2 7	1 0
A 9 0 1 2 0 0 1	3 3	1 3	A 9 0 5 2 0 3 0	4 9	2 5
A 9 0 1 2 0 0 2	3 1	5	A 9 0 5 2 0 3 0	5 1	2 0
A 9 0 1 2 0 0 2	3 5	8	A 9 0 5 2 0 3 1	4 9	1 6
A 9 0 1 2 0 0 7	9	3 4	A 9 0 5 2 0 3 1	5 1	1 2
A 9 0 1 2 0 0 7	1 1	2 3	A 9 0 5 2 0 3 2	5 9	1 2
A 9 0 1 2 0 0 7	1 3	2 6	A 9 0 5 2 0 3 6	5 9	1 1
A 9 0 1 2 0 2 7	1 1	1 6	A 9 0 5 3 0 7 0	3 7	3 1
A 9 0 1 2 0 3 2	3	2 3	A 9 0 5 6 0 0 8	1 3	2
A 9 0 1 2 0 5 1	2 1	2 0	A 9 0 5 6 0 1 3	2 9	1 9

# I N D E X

LIST No.	PAGE No.	ITEM	LIST No.	PAGE No.	ITEM
A 9 0 5 6 0 1 8	2 7	1	H B 2 3 0 3 8 3	1 9	5
A 9 0 5 6 0 2 0	2 1	6	H B 2 3 0 3 9 0	1 9	3
A 9 0 6 5 0 2 6	3 1	1 8	H B 2 3 0 4 0 1	1 9	1
A 9 0 6 5 0 3 5	3 3	2 7	H B 2 3 0 4 1 4	1 9	1 2
E A Y 0 3 8 A 1	5 7	1	H B 2 3 0 4 2 0	1 9	1 1
E B Y 0 0 9 1 0	6 3	5	H B 2 3 0 5 6 0	2 1	7
E B Y 0 0 9 2 0	6 3	5	H B 2 3 0 5 8 0	2 1	1 3
E B Y 0 1 1 0 0	2 3	1 2	H B 2 3 0 5 9 0	1 9	2
E B Y 0 1 1 2 0	3 3	6	H B 2 3 0 6 5 0	1 5	3 5
E B Y 0 1 2 4 0	5 5	3	H B 2 3 0 7 5 0	1 5	2 2
E B Y 0 1 2 5 0	5 5	2	H B 2 4 0 0 2 0	2 1	1 4
E B Y 0 1 2 6 0	5 5	4	H B 2 4 0 0 3 0	2 1	1 5
E B Y 0 1 2 7 0	5 5	5	H B 2 4 0 0 4 1	2 1	1 1
E B Y 0 1 2 9 0	5 5	1 2	H B 2 4 0 0 7 0	2 1	1 8
E B Y 0 1 2 9 0	5 7	1 2	H B 2 4 0 0 8 0	2 1	2 2
E B Y 0 1 3 0 0	5 5	1 0	H B 2 4 0 0 9 0	2 1	2 1
E B Y 0 1 3 0 0	5 7	1 0	H B 2 4 0 1 1 0	2 1	1 7
E B Y 0 1 3 2 0	5 5	1 1	H B 2 4 0 2 6 0	2 5	1 1
E B Y 0 1 3 2 0	5 7	1 1	H B 2 4 0 2 7 0	2 5	1 1
E B Y 0 1 3 3 0	5 5	7	H B 3 1 0 2 8 0	3 7	1 1
E B Y 0 1 3 3 0	5 7	7	H B 5 4 0 0 4 0	6 3	1
E B Y 0 1 3 4 0	5 5	9	H B 5 4 0 0 5 0	6 3	1
E B Y 0 1 3 4 0	5 7	9	H B 5 4 0 0 6 0	6 3	6
E B Y 0 1 3 5 0	5 5	6	H B 7 9 0 0 3 0	2 3	3 7
E B Y 0 1 4 1 0	5 7	3 3	H H 4 8 1 9 3 1	4 7	1 6
E B Y 0 1 5 3 0	5 7	5	H H 4 8 1 9 3 1	5 3	7
E B Y 0 1 5 4 0	5 7	4	H H 4 8 1 9 7 0	4 7	1 2
E B Y 0 1 5 5 0	5 7	2	H H 4 8 1 9 7 0	4 9	1 2
E B Y 0 1 5 6 0	5 7	3 3	H H 4 8 1 9 7 0	5 3	1 3
E B Y 0 1 5 7 0	5 7	3 6	H H 4 8 1 9 8 0	4 7	1 1
E B Y 0 1 5 8 0	5 7	6	H H 4 8 1 9 8 0	4 9	1 1
E B Y 0 1 5 9 0	5 7	3 5	H H 4 8 1 9 8 0	5 3	5
E B Y 0 1 6 0 0	5 7	3	H H 4 8 1 9 9 1	4 7	3
E B Y 1 0 3 1 0	5 5	8	H H 4 8 1 9 9 1	4 9	3
E B Y 1 0 3 1 0	5 7	8	H H 4 8 1 9 9 1	5 1	7
E B Y C 1 1 5 0	2 5	1 2	H H 4 8 1 9 9 1	5 3	2 0
F R 6 0 0 5 2 8	4 3	2	H H 4 8 2 1 1 0	4 7	4
F R 6 0 0 5 2 9	4 3	3	H H 4 8 2 1 1 0	4 9	4
F R 9 2 3 0 0 2 9 0 A	4 3	1	H H 4 8 2 1 1 0	5 1	8
H B 2 3 0 1 4 0	1 7	2 2	H H 4 8 2 1 1 0	5 3	2 1
H B 2 3 0 1 6 0	1 5	2 0	H P 2 3 1 3 9 0	9	1 3
H B 2 3 0 1 7 0	2 1	3	H P 2 4 1 1 1 2	2 5	6
H B 2 3 0 2 7 0	1 5	2 1	H P 2 4 1 1 2 2	2 5	6
H B 2 3 0 2 9 1	1 5	4	H P 2 4 1 1 5 0	2 5	2
H B 2 3 0 3 7 2	1 9	1 0	H P 2 4 1 1 6 0	2 5	7

# I N D E X

L I S T No.	PAGE No.	ITEM	L I S T No.	PAGE No.	ITEM
HP 2 4 1 1 8 0	2 5	3	HT 2 3 0 1 8 0	1 7	2 8
HP 2 4 1 3 7 1	2 5	8	HT 2 3 0 2 0 1	1 9	2 1
HP 2 4 1 3 8 1	2 5	8	HT 2 3 0 2 2 0	2 1	4
HP 2 4 1 4 1 0	2 5	1	HT 2 3 0 2 5 1	1 7	8
HP 2 4 1 4 3 0	5 9	4	HT 2 3 0 2 6 3	1 7	2 4
HP 2 4 1 4 3 0	6 3	1 0	HT 2 3 0 3 6 1	2 9	2 3
HP 2 4 1 4 4 0	2 5	5	HT 2 3 0 4 6 0	2 1	5
HP 2 4 1 4 5 0	2 5	4	HT 2 3 0 5 7 0	1 7	1 8
HP 2 4 1 4 6 0	2 5	4	HT 2 3 0 8 0 0	1 7	1
HP 2 4 1 4 7 0	2 5	1 0	HT 2 3 0 8 1 0	1 7	2
HP 2 4 1 4 8 0	2 5	1 0	HT 2 3 0 8 3 0	2 9	3 5
HP 2 5 0 0 5 0	2 5	2 0	HT 2 4 0 0 0 0	1 5	2
HP 3 1 3 6 9 0	3 7	2	HT 2 4 0 0 1 0	1 5	1 8
HP 3 2 0 1 1 0	3 7	3 3	HT 2 4 0 0 2 0	2 3	9
HP 3 2 1 1 4 0	9	4 4	HT 2 4 0 0 6 0	2 3	1 0
HP 4 8 2 9 4 0	4 7	2 0	HT 2 4 0 1 0 0	6 1	1
HP 4 8 2 9 4 0	4 9	2 1	HT 2 4 0 1 2 0	2 3	1
HP 4 8 2 9 4 0	5 1	5	HT 2 4 0 1 3 0	2 3	2
HP 4 8 2 9 4 0	5 3	1 5	HT 2 4 0 1 4 0	2 3	3
HP 4 8 2 9 5 0	4 5	9	HT 2 4 0 1 5 0	2 3	4
HP 4 8 2 9 5 0	4 7	2 2	HT 2 4 0 1 6 0	2 3	5
HP 4 8 2 9 5 0	4 9	2 3	HT 2 4 0 1 7 0	2 3	6
HP 4 8 2 9 5 0	5 1	1 6	HT 2 4 0 1 8 0	2 3	7
HP 4 8 2 9 5 0	5 3	2 3	HT 2 4 0 2 1 0	2 3	1 5
HP 4 8 3 1 1 1	5 1	1 7	HT 2 4 0 2 2 0	2 3	1 6
HP 4 8 3 3 7 0	5 1	1 8	HT 2 4 0 2 3 0	2 3	1 7
HP 7 1 0 7 9 1	5 9	7	HT 2 4 0 2 4 0	2 3	1 8
HP 7 1 1 2 0 0	5 9	1	HT 2 4 0 2 5 0	6 1	2
HP 7 1 1 2 1 0	5 9	1	HT 2 4 0 2 7 0	6 1	3
HS 4 6 0 0 3 0	4 3	5	HT 2 4 0 2 8 0	6 1	4
HS 4 6 0 0 5 0	4 3	6	HT 2 4 0 2 9 0	6 1	5
HS 4 6 0 2 0 0	4 3	4	HT 2 4 0 3 0 0	6 1	6
HS 4 6 0 2 1 0	4 3	7	HT 2 4 0 3 1 0	6 1	7
HS 7 3 0 0 0 0	4 3	1 0	HT 2 4 0 3 2 0	2 3	1 4
HT 2 3 0 0 4 1	1 7	7	HT 2 4 0 3 3 0	2 3	1 9
HT 2 3 0 0 5 1	1 7	5	HT 2 4 0 3 4 0	6 1	9
HT 2 3 0 0 6 2	1 7	1 6	HT 2 4 1 1 7 0	2 5	3
HT 2 3 0 0 8 0	1 5	1 5	HT 2 7 0 0 0 1	2 9	2
HT 2 3 0 0 9 0	1 5	1 1	HT 2 7 0 0 1 0	2 9	2 2
HT 2 3 0 1 0 0	1 5	1 2	HT 2 7 0 0 2 1	2 9	5
HT 2 3 0 1 1 1	1 7	1 5	HT 2 7 0 0 3 0	2 9	1
HT 2 3 0 1 2 0	1 7	1 1	HT 2 7 0 0 4 0	2 9	4
HT 2 3 0 1 3 0	1 7	3	HT 2 7 0 0 6 2	2 9	2 5
HT 2 3 0 1 4 2	1 7	9	HT 2 7 0 0 7 0	2 7	3
HT 2 3 0 1 5 1	1 7	4	HT 2 7 0 0 8 0	2 9	1 1

# I N D E X

L I S T №	PAGE №	ITEM	L I S T №	PAGE №	ITEM
HT 2 7 0 0 9 0	2 9	1 4	KB 2 4 0 0 5 1	2 3	1 3
HT 2 7 0 1 0 0	2 9	1 0	KB 2 4 0 0 5 1	2 5	1 3
HT 2 7 0 1 1 0	2 7	1 4	KB 2 4 0 0 6 0	2 5	1 6
HT 2 7 0 1 2 0	2 9	9	KB 2 4 0 0 7 0	2 5	1 6
HT 2 7 0 1 6 0	1 3	1 5	KB 2 4 0 1 0 0	2 5	1 5
HT 2 7 0 1 8 0	1 3	1 6	KB 2 5 0 0 2 0	2 3	2 1
HT 2 7 0 3 5 0	2 9	2 4	KB 2 5 0 0 2 0	2 5	1 7
HT 2 7 0 6 4 0	2 9	2 0	KB 2 5 0 0 3 0	2 3	2 2
HT 2 7 0 8 3 0	2 9	3 5	KB 2 5 0 0 3 0	2 5	1 8
HT 7 1 0 0 0 0	5 9	6	KB 2 5 0 0 4 0	2 3	2 3
HV 2 4 0 0 0 0	2 3	3 6	KB 2 5 0 0 4 0	2 5	1 9
HV 3 3 0 0 1 0	5 7	2 0	KB 2 5 0 0 5 0	2 3	2 5
HV 3 3 0 0 1 1	5 5	2 0	KB 2 5 0 0 5 0	2 5	2 1
HV 3 3 0 0 2 0	5 5	2 1	KB 2 5 0 0 6 0	2 3	2 6
HV 3 3 0 0 4 0	5 7	2 1	KB 2 5 0 0 6 0	2 5	2 2
HV 4 8 0 0 1 0	4 7	1 4	KB 2 7 0 0 2 0	1 3	2 5
HV 4 8 0 0 2 0	4 7	1 8	KC 1 1 0 9 1 0	3	9
HV 4 8 0 0 4 0	4 7	1 0	KC 2 2 0 2 1 0	1 1	1 9
HV 4 8 0 0 4 0	4 9	1 0	KC 2 2 0 6 5 0	1 1	1 5
HV 4 8 0 0 4 0	5 3	4	KC 2 2 0 6 5 0	1 3	2 3
HV 4 8 0 0 5 0	4 7	5	KC 2 5 0 4 7 1	1 1	1 7
HV 4 8 0 0 5 0	4 9	5	KC 2 5 0 4 8 2	1 1	1 8
HV 4 8 0 0 5 0	5 1	9	KC 2 5 1 3 3 0	9	4 2
HV 4 8 0 0 5 0	5 3	1 9	KC 2 7 0 1 0 1	2 9	1 8
HV 4 8 0 0 6 0	4 7	1 5	KC 2 7 0 2 7 1	2 9	6
HV 4 8 0 0 6 0	5 3	9	KC 2 7 0 2 9 2	2 9	7
HV 4 8 0 1 1 0 1 0 3 5	4 7	1 9	KC 2 7 0 9 7 0	1 3	2 2
HV 4 8 0 1 1 0 1 3 8 0	5 1	1 4	KC 2 7 0 9 8 0	1 3	1 9
HV 5 1 0 0 2 0	4 7	3 8	KC 2 7 1 0 0 1	1 3	1 2
KB 2 1 0 1 6 0	9	2 5	KC 2 7 1 0 2 1	1 3	1 1
KB 2 1 0 1 7 0	2 1	1	KC 2 7 1 0 3 1	1 3	1 0
KB 2 3 0 0 1 0	9	2 8	KC 2 7 1 0 4 1	1 3	9
KB 2 3 0 0 3 0	9	3 1	KC 2 7 1 0 7 0	1 3	2 9
KB 2 3 0 0 5 0	9	3 3	KC 2 7 1 1 2 0	1 3	2 8
KB 2 3 0 0 6 0	1 9	8	KC 2 7 1 1 3 0	1 3	3 0
KB 2 3 0 0 7 0	1 9	7	KC 2 7 1 1 4 0	3 1	7
KB 2 3 0 0 8 0	1 9	6	KC 2 7 1 1 5 1	3 1	1 1
KB 2 3 0 0 9 0	1 5	5	KC 2 7 1 1 6 2	3 1	1 5
KB 2 3 0 1 0 0	1 5	8	KC 2 7 1 4 3 0	3 1	1 7
KB 2 3 0 1 1 0	1 5	9	KC 2 7 1 4 4 0	3 1	1
KB 2 3 0 1 7 0	2 1	3	KC 2 7 1 9 4 0	1 3	7
KB 2 4 0 0 1 0	1 5	1 4	KC 2 7 1 9 6 0	1 3	3
KB 2 4 0 0 2 1	1 5	3	KC 3 1 2 8 9 0	3 9	7
KB 2 4 0 0 3 0	2 1	2	KC 3 2 0 5 9 0	3 9	5
KB 2 4 0 0 4 0	2 1	1 6	KC 3 2 0 8 2 0	3 7	3 0

# I N D E X

L I S T No.	PAGE No.	ITEM	L I S T No.	PAGE No.	ITEM
K C 3 3 0 1 6 1	3 3	9	K F 2 3 0 6 5 0	1 9	1 5
K C 3 3 0 1 7 0	3 3	3	K F 2 3 0 6 6 1	1 9	1 9
K C 3 3 0 1 8 0	3 1	6	K F 2 3 0 6 7 0	1 7	1 2
K C 3 3 0 1 8 0	3 3	7	K F 2 3 0 6 7 0	1 9	2 0
K C 3 3 0 1 8 0	3 3	1 0	K F 2 3 0 9 1 0	1 7	1 0
K C 3 3 0 1 9 0	3 3	8	K F 2 4 0 9 0 0	5 9	5
K C 3 3 0 2 1 0	3 3	2 5	K F 2 5 0 9 0 0	1 1	2 1
K C 3 3 0 2 3 0	3 5	6	K F 3 3 0 3 8 1	1 7	2 7
K C 3 3 0 2 6 0	3 5	1 2	K F 3 3 0 3 8 1	1 9	1 7
K C 3 3 0 2 8 0	3 3	2	K F 5 3 0 1 1 1	5 5	1 5
K C 3 3 0 2 9 0	3 5	3	K F 5 3 0 1 1 1	5 7	1 5
K C 3 3 0 4 1 0	1 7	2 5	K F 5 3 0 1 2 0	5 5	1 5
K C 3 3 0 4 1 0	1 9	1 8	K F 5 3 0 1 2 0	5 7	1 5
K C 3 3 0 4 1 0	3 1	2	K F 5 3 0 1 5 0	5 5	1 7
K C 3 3 0 5 1 0	3 1	3	K F 5 3 0 1 5 0	5 7	1 7
K C 3 3 0 5 1 0	3 5	9	K F 5 3 0 1 6 0	5 5	1 3
K C 3 3 0 6 1 0	3 3	2 1	K F 5 3 0 1 6 0	5 7	1 3
K C 3 3 0 8 5 0	3 5	1 1	K G 2 3 0 6 1 0	3 5	1
K C 3 3 0 9 1 0	3 5	1 6	K G 2 5 0 0 1 0	2 5	2 0
K C 5 2 0 0 2 0	5 5	1 8	K G 3 3 0 2 2 0	3 3	1 4
K C 5 2 0 0 2 0	5 7	1 8	K G 7 1 0 1 6 1	5 9	2
K C 5 3 0 2 3 0	5 5	1 6	K K 1 4 0 0 1 0	7	2
K C 5 3 0 2 3 0	5 7	1 6	K K 1 4 0 0 2 0	3	1 1
K C 5 3 0 2 4 0	5 7	1 4	K K 1 4 0 0 3 0	7	4
K C 5 3 0 2 4 0	5 5	1 4	K K 1 4 0 0 5 0	5	2
K F 2 2 0 1 3 0	9	1 1	K K 1 4 0 0 6 1	3	1 2
K F 2 2 0 2 3 0	1 1	1 0	K K 1 4 0 0 7 0	7	1
K F 2 2 0 2 7 1	1 1	4	K K 1 4 0 0 8 0	7	1 3
K F 2 2 0 2 9 0	1 1	1 1	K K 1 4 0 1 0 1	3	1 0
K F 2 2 0 4 1 0	1 1	8	K K 1 4 0 1 1 1	5	3
K F 2 2 0 4 4 0	1 1	7	K K 1 4 0 1 2 0	5	1
K F 2 2 0 4 6 0	9	1 9	K K 1 4 0 1 3 0	4 7	2 1
K F 2 2 0 4 7 0	1 1	1	K K 1 4 0 1 3 0	4 9	2 2
K F 2 2 0 4 8 0	1 1	1 3	K K 1 4 0 1 4 1	7	3
K F 2 2 0 7 5 0	1 1	9	K K 1 4 0 1 5 1	7	5
K F 2 3 0 2 4 0	1 7	1 3	K K 1 4 0 1 6 0	3	1 3
K F 2 3 0 2 5 0	1 7	1 4	K K 1 4 0 1 7 0	3	7
K F 2 3 0 3 6 0	3 3	1 7	K K 1 4 0 2 0 1	5	7
K F 2 3 0 4 2 0	9	3 0	K K 1 4 0 2 1 0	5	5
K F 2 3 0 5 0 0	1 5	1 3	K K 1 4 0 2 2 0	5	4
K F 2 3 0 5 8 0	2 9	3	K K 1 4 0 2 8 1	5	6
K F 2 3 0 6 3 0	1 9	1 4	K K 1 4 0 2 9 1	5	9
K F 2 3 0 6 3 0	3 5	2	K K 1 4 0 3 3 0	7	9
K F 2 3 0 6 4 0	1 3	3 1	K K 1 4 0 3 4 0	7	1 2
K F 2 3 0 6 4 0	1 9	1 6	K K 1 4 0 3 5 0	5	1 0

# I N D E X

L I S T No.	PAGE No.	ITEM	L I S T No.	PAGE No.	ITEM
KK 1 4 0 3 7 0	5	2 1	KL 2 2 0 1 2 0	1 1	2 0
KK 1 4 0 3 8 0	7	1 0	KL 2 2 0 1 3 0	9	1 4
KK 1 4 0 3 9 0	3	1 0	KL 2 2 0 1 4 0	9	2 0
KK 1 4 0 4 0 0	5	1	KL 2 2 0 1 4 0	1 1	3
KK 4 6 0 0 0 0	4 3	1 9	KL 2 2 0 1 5 0	9	8
KK 4 6 0 0 1 0	4 3	1 6	KL 2 3 0 2 8 0	1 9	1 3
KK 4 6 0 0 2 0	4 3	2 0	KL 2 5 0 0 4 0	9	7
KK 4 6 0 0 3 1	4 3	1 8	KL 2 5 0 0 5 1	9	2 6
KK 4 6 0 0 4 0	4 3	1 4	KL 2 5 0 0 7 1	1 1	5
KK 4 6 0 0 5 0	4 3	9	KL 2 7 0 0 0 0	2 9	8
KK 4 6 0 0 6 1	4 3	1 1	KL 2 7 0 0 4 0	2 9	1 3
KK 4 6 0 0 7 0	4 3	1 2	KL 2 7 0 0 6 0	2 9	1 5
KK 4 6 0 0 8 0	4 3	1 5	KL 2 7 0 0 7 0	2 9	1 7
KK 4 6 0 0 9 0	4 3	1 3	KL 2 7 0 0 8 1	2 7	2
KK 4 6 0 1 2 0	4 3	2 1	KL 2 7 0 0 9 1	2 7	1 1
KK 4 6 0 1 3 0	4 3	8	KL 2 7 0 1 0 1	2 7	5
KK 4 6 0 1 4 0	4 3	2 6	KL 2 7 0 1 1 0	2 7	8
KK 4 8 0 0 1 0	4 7	1	KL 2 7 0 1 2 0	2 7	7
KK 4 8 0 0 1 0	4 9	1	KL 2 7 0 1 3 0	2 7	6
KK 4 8 0 0 2 0	5 3	2 5	KL 2 7 0 2 6 0	2 7	9
KK 4 8 0 0 3 0	5 1	1	KL 2 7 0 3 8 0	1 3	1 3
KK 4 8 0 0 4 0	4 5	3	KL 2 7 0 4 4 0	2 7	1 3
KK 4 8 0 0 5 0	4 5	5	KL 2 7 0 4 5 0	2 7	1 2
KK 4 8 0 0 7 0	4 5	1	KL 2 7 0 5 2 0	2 9	1 6
KK 4 8 0 1 0 0	4 1	4	KL 3 2 0 0 0 0	9	3 5
KK 4 8 0 1 1 0	5 1	1 5	KL 3 2 0 0 2 0	9	3 7
KK 4 8 0 1 2 0	4 5	7	KL 3 3 0 0 2 0	3 5	1 7
KK 4 8 0 1 3 1	4 5	4	KL 3 3 0 0 4 0	3 3	1 8
KK 4 8 0 1 4 0	4 5	2	KL 3 3 0 0 5 0	3 3	1 6
KK 4 8 0 1 4 0	4 7	1 3	KN 1 2 1 3 5 0	3 5	1 4
KK 4 8 0 1 4 0	4 9	1 3	KN 2 7 0 9 5 2	1 3	2 0
KK 4 8 0 1 6 1	4 5	6	KN 2 7 0 9 6 1	1 3	1 4
KL 2 1 0 1 1 3	1 1	6	KN 2 7 1 7 1 2	3 1	2 2
KL 2 1 0 1 4 0	9	1 7	KN 2 7 2 3 5 0	3 1	8
KL 2 2 0 0 0 0	9	1 6	KN 2 7 2 4 0 0	1 3	4
KL 2 2 0 0 1 0	9	2 4	KN 2 7 2 4 0 0	2 7	4
KL 2 2 0 0 2 0	9	2 9	KN 2 7 2 4 0 0	2 9	2 1
KL 2 2 0 0 3 0	9	1 5	KN 3 1 0 0 0 0	3 7	1
KL 2 2 0 0 4 0	9	6	KN 3 1 0 0 1 0	3 7	1 2
KL 2 2 0 0 5 0	9	2 1	KN 3 3 0 2 4 0	3 5	1 0
KL 2 2 0 0 6 0	1 1	2	KN 3 3 0 2 5 0	3 5	4
KL 2 2 0 0 7 0	1 1	1 2	KN 4 5 0 3 0 0	4 9	1 7
KL 2 2 0 0 8 0	9	1 2	KN 4 5 0 3 0 0	5 1	1 1
KL 2 2 0 0 9 0	9	4	KN 4 5 0 3 1 1	5 1	1 9
KL 2 2 0 1 0 0	9	1	KN 4 8 0 0 6 1	4 7	7

# I N D E X

L I S T No	PAGE No	ITEM	L I S T No	PAGE No	ITEM
KN 4 8 0 0 6 1	4 9	7	KS 4 8 0 0 3 0	4 1	3
KN 4 8 0 0 6 1	5 1	3	KT 2 3 0 0 0 0	1 5	1 9
KN 4 8 0 0 6 1	5 3	1 7	KT 2 3 0 0 1 0	1 5	1 7
KN 4 8 3 4 5 0	5 1	4	KT 2 3 0 0 3 1	1 5	1 0
KN 4 8 3 4 5 0	5 3	1 6	KT 2 3 0 0 4 0	1 5	1 6
KN 4 9 0 1 2 1	5 3	1 1	KT 2 3 0 0 5 1	1 5	3 6
KN 4 9 0 1 3 0	5 3	3	KT 3 3 0 0 0 1	3 3	1 2
KN 5 1 1 0 2 0	3 9	9	KU 2 4 1 4 0 0	2 5	1 4
KN 5 4 0 0 7 0	6 3	6	KU 4 6 0 2 7 0	4 9	1 8
KN 5 4 0 5 0 0	6 3	2	KU 4 6 0 2 7 0	5 1	1 3
KN 5 4 0 5 1 0	6 1	8	KU 4 6 0 3 4 2	4 9	2 4
KN 5 4 0 5 1 0	6 3	4	KV 3 1 0 0 2 1	3 7	6
KN 5 4 0 5 2 0	6 3	3	KV 3 1 0 0 4 1	3 7	3
KN 5 4 0 7 6 0	6 3	7	KV 3 1 0 0 5 0	3 7	4
KP 3 2 1 1 4 0	3 9	2	KV 3 1 0 0 6 1	4 7	3 9
KR 1 4 0 0 1 0	3	4	KV 3 1 0 0 7 0	3 7	9
KR 1 4 0 0 2 0	3	5	KV 3 1 0 0 8 0	3 7	1 0
KR 1 4 0 0 4 0	3	6	KV 3 1 0 0 9 0	3 7	5
KR 1 4 0 0 5 0	3	2 1	KV 3 3 0 0 1 0	3 5	1 5
KR 3 1 0 0 4 1	3 7	2 6	KV 3 3 0 0 1 0	5 5	2 2
KR 3 1 0 0 9 0	3 9	1	KV 3 3 0 0 1 0	5 7	2 2
KR 3 1 0 1 0 0	3 9	1 0	KV 3 3 0 0 2 0	3 5	1 3
KR 3 1 0 1 1 0	3 9	1 1	KV 3 3 0 0 2 0	5 5	3 0
KR 3 1 0 1 2 0	3 9	4	KV 3 3 0 0 2 0	5 7	3 0
KR 3 1 0 1 3 0	3 9	3	KV 3 3 0 0 3 0	5 3	1
KR 3 3 0 1 1 0	3 9	6	KV 3 3 0 0 4 0	5 5	3 2
KR 3 3 0 1 6 0	5 9	2 1	KV 3 3 0 0 4 0	5 7	3 2
KR 4 8 0 0 5 0	4 7	8	KV 4 7 0 0 1 0	5 3	1 0
KR 4 8 0 0 5 0	4 9	8	KV 4 7 0 0 2 0	5 3	8
KR 4 8 0 0 6 0	4 7	2	KV 4 7 0 0 3 0	5 3	6
KR 4 8 0 0 6 0	4 9	2	KV 4 8 0 1 7 0	5 1	2
KR 4 8 0 0 6 0	5 1	6	KV 4 8 0 1 7 0	5 3	2 4
KR 4 8 0 0 6 0	5 3	2 2	MA 1 4 0 3 2 0	3	2 2
KR 4 8 0 3 3 0	4 1	7	MA 2 5 0 1 3 1	1 1	1 4
KR 5 1 0 1 2 0	5 9	1 0	MT 4 6 0 2 4 0	4 9	1 4
KR 5 1 0 1 3 0	5 9	8	MT 4 6 0 2 4 0	5 1	2 5
KS 1 4 0 0 1 0	3	8	MT 5 1 0 7 9 1	5 9	9
KS 1 4 0 0 4 0	5 3	2	WW 3 1 0 2 1 0	3 7	2 4
KS 2 3 0 0 1 0	1 5	1			
KS 2 7 0 0 1 0	1 3	1			
KS 2 7 0 0 3 0	3 1	1 0			
KS 3 1 0 0 1 1	3 7	7			
KS 3 1 0 0 2 0	3 7	1 4			
KS 3 1 0 0 3 1	3 7	1 5			
KS 4 8 0 0 1 0	4 1	5			