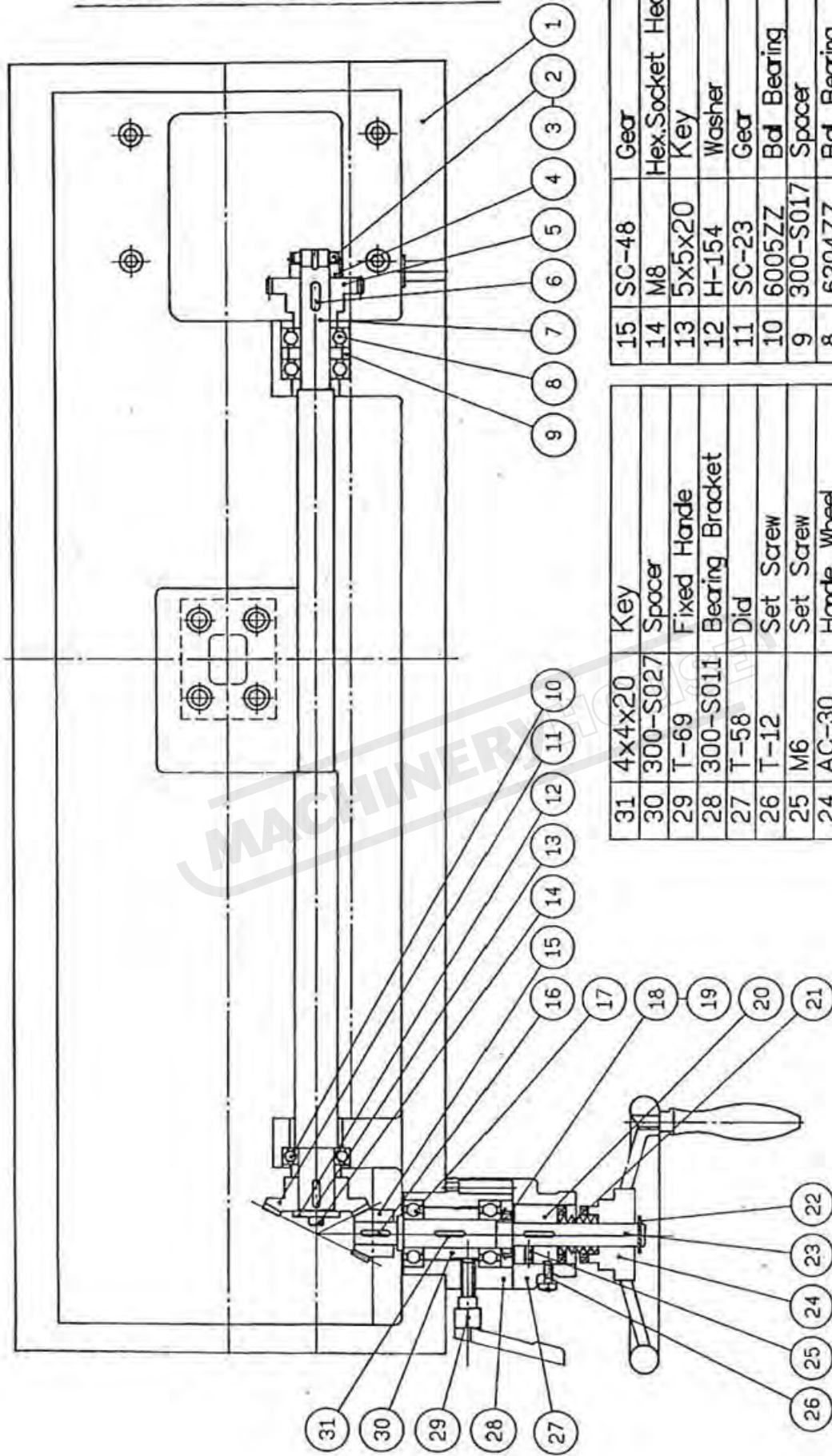


PARTS LIST

MACHINERYHOUSE

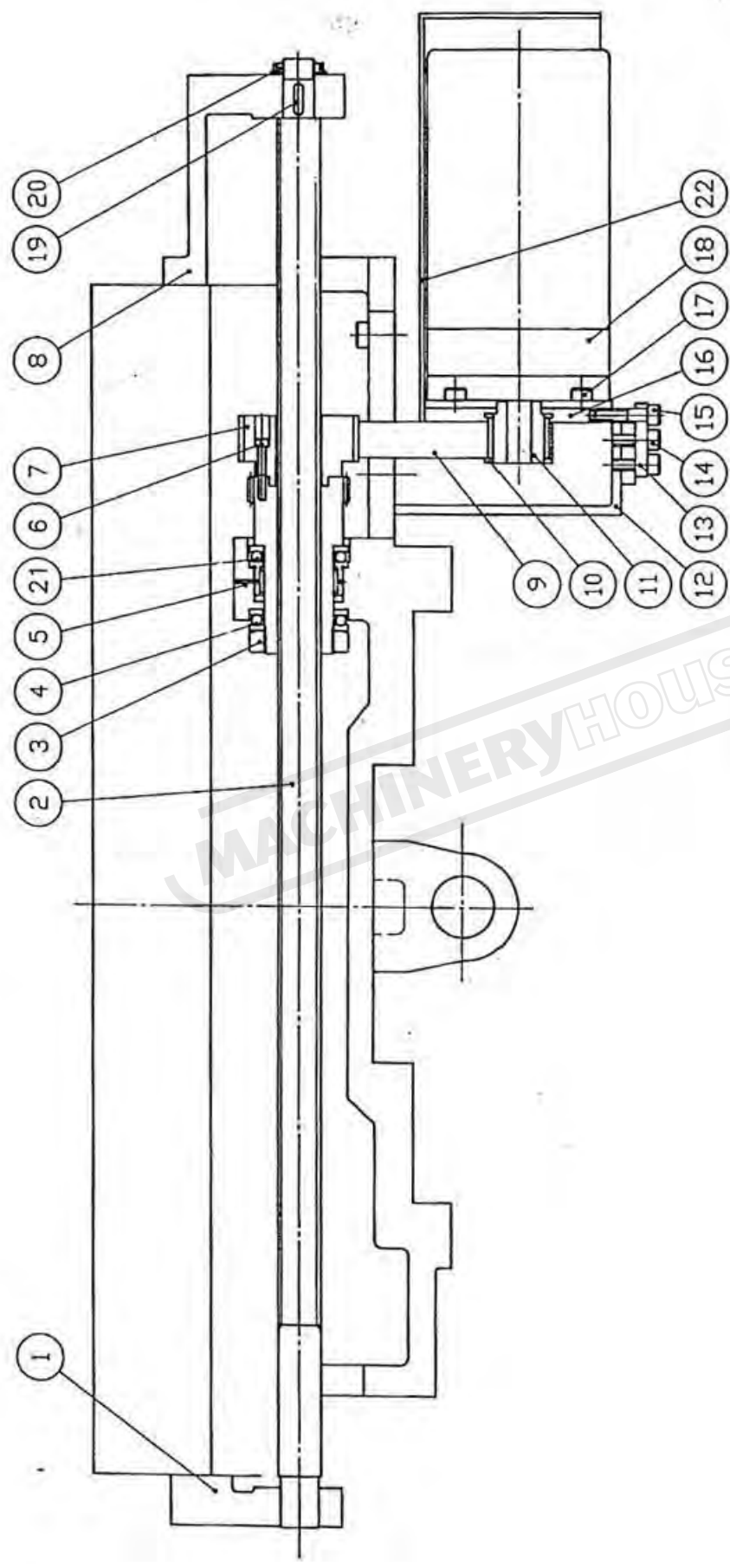
LONGITUDINAL FEED



31	4x4x20	Key
30	300-S027	Spacer
29	T-69	Fixed Handle
28	300-S011	Bearing Bracket
27	T-58	Did
26	T-12	Set Screw
25	M6	Set Screw
24	AC-30	Handle Wheel
23	300-S010	Shaft
22	S-16	Snap Ring
21	T-42-1	Spring
20	AC-31	Did Holder
19	AW-04	Washer
18	AN-04	Lock Nut
17	6204ZZ	Bd Bearing
16	5x5x20	Key

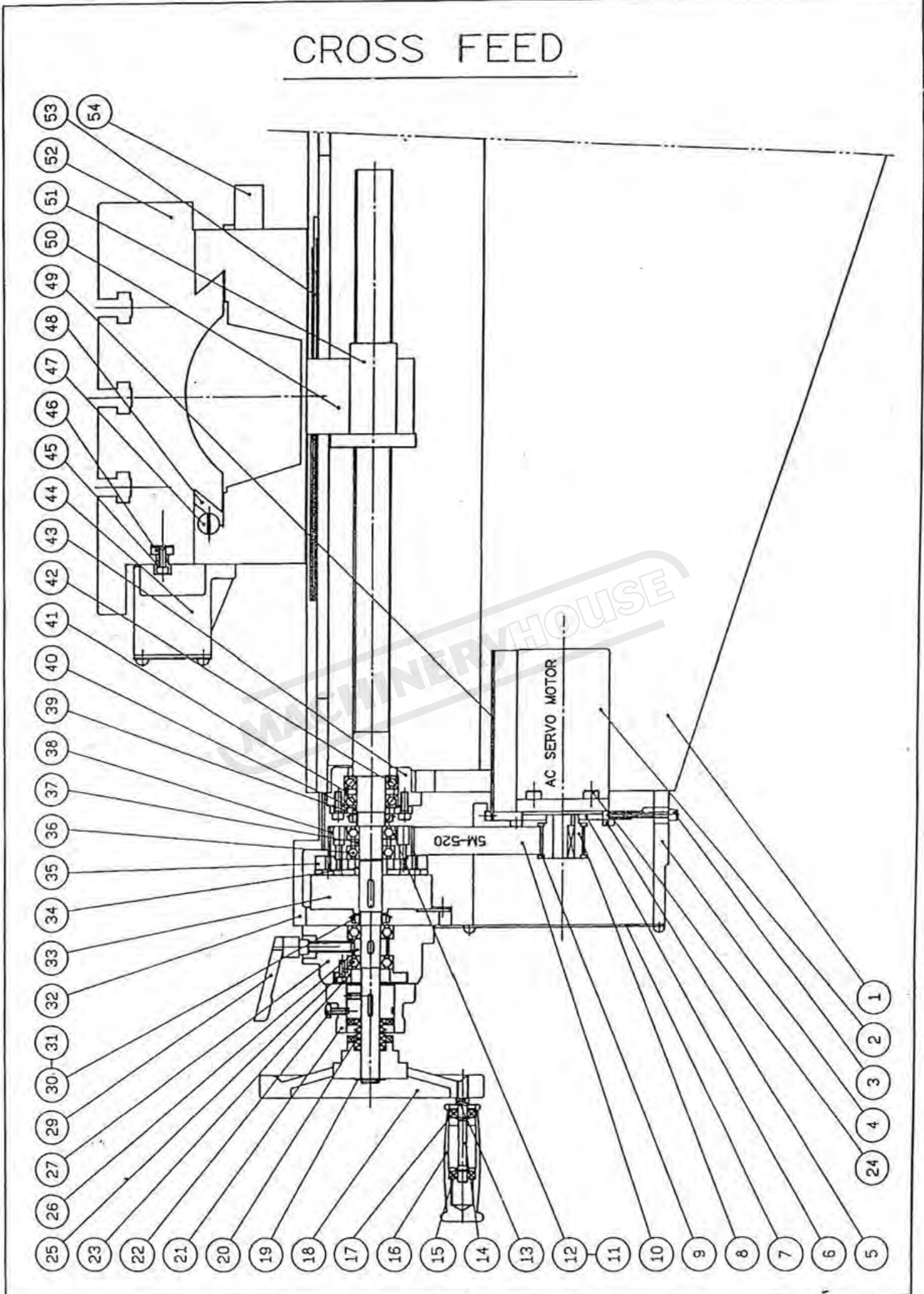
15	SC-48	Gear
14	M8	Hex.Socket Head Bolt
13	5x5x20	Key
12	H-154	Washer
11	SC-23	Gear
10	6005ZZ	Bd Bearing
9	300-S017	Spacer
8	6204ZZ	Bd Bearing
7	300-S012	Shaft
6	4x4x20	Key
5	300-S015	Gear
4	300-S018	Spacer
3	AW-04	Washer
2	AN-04	Lock Nut
1	300-S054	Saddle
ITEM	PART No.	NAME

LONGITUDINAL FEED



ITEM	PART No.	NAME
22	300-S31A	Motor Cover
21	NAX4532Z	Needle Bearing
20	AN-04	Lock Nut
19	4x4x20	Key
18		AC Servo Motor
17	MB	Hex.Socket Head Bolt
16	300-S032	Motor Plate
15	M8	Hex.Socket Head Bolt
14	M8	Hex.Socket Head Bolt
13	SP-060	Fixed Plate
12	300-S030	Feed Box
11	SP-047	Time Pulley
10	SP-025	Flang
9	5M-475-25W	Time Balt
8	300-T003	Bearing Sets
7	300-S023	Time Pully
6	M5	Hex.Socket Head Bolt
5	300-S001	Saddle
4	51109	Thrust Bearing
3	MR45	Lock Nut
2	300-T006	Ball Screw
1	300-T002	Bearing Sets

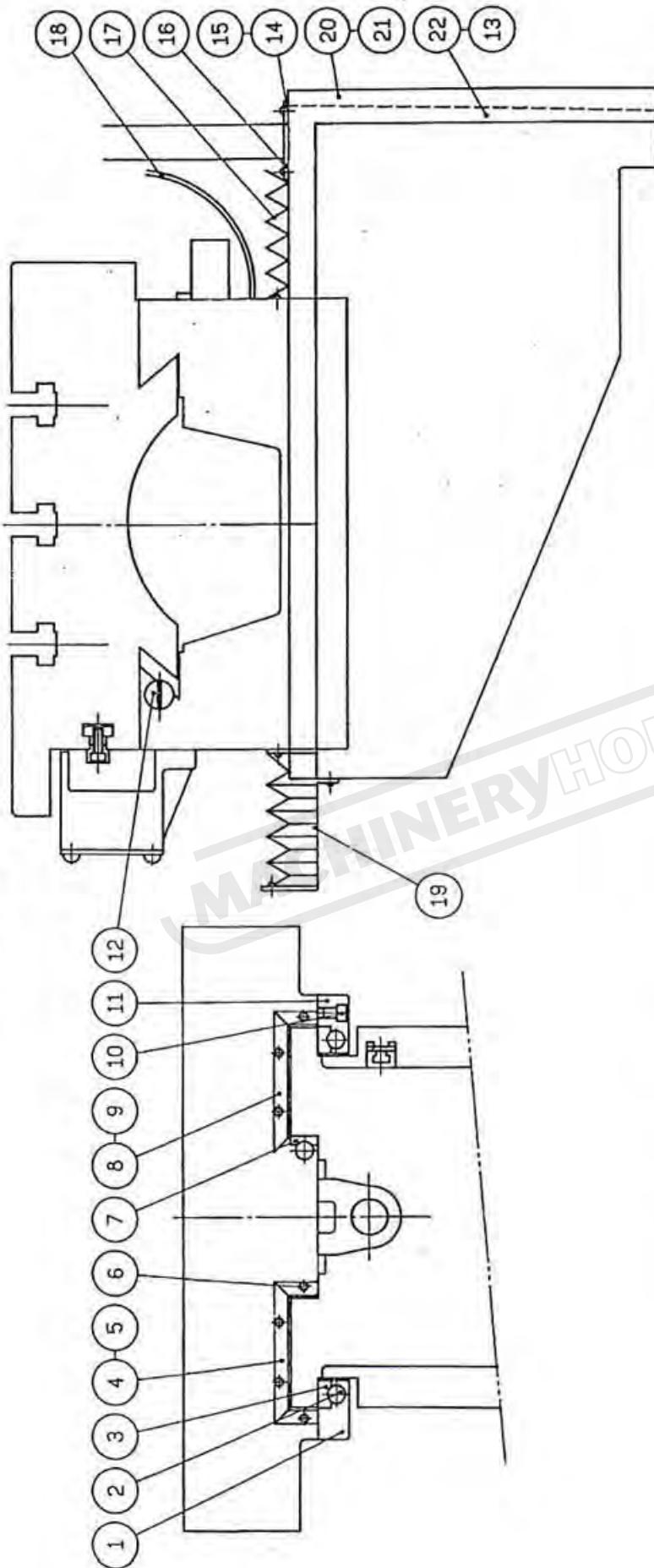
CROSS FEED



CROSS FEED

NO	NAME	NO	NAME
1	Knee	42	Ball Bearing
2	AC Servo Motor	43	Baring Bracket
3	Hex.Socket Head Bolt	44	Limit Case
4	Feed Box	45	Dog
5	Hex.Socket Head Bolt	46	Nut
6	Motor Bracket	47	Adjusting Screw
7	Cover	48	Gib
8	Belt Wheel	49	Cover
9	Flange	50	Bracket
10	Belt	51	Ball Screw
11	Lock Nut	52	Table
12	Lock Washer	53	Chip Guard
13	Nut	54	Table Rear Cover
14	Shaft		
15	Snap Ring		
16	Handle		
17	Ball Bearing		
18	Handlet Wheel		
19	Snap Ring		
20	Spring		
21	Dial		
22	Set Screw		
23	Baring Stop		
24	Hex.Socket Head Bolt		
25	Ball Bearing		
26	Spacer		
27	Baring Bracket		
28			
29	Handle Screw		
30	Lock Nut		
31	Lock Washer		
32	Feed Box		
33	Magnetic Clutch		
34	Spacer		
35	Spacer		
36	Ball Bearing		
37	Spacer		
38	Belt Wheel		
39	Baring Stop		
40	Spacer		
41	Spacer		

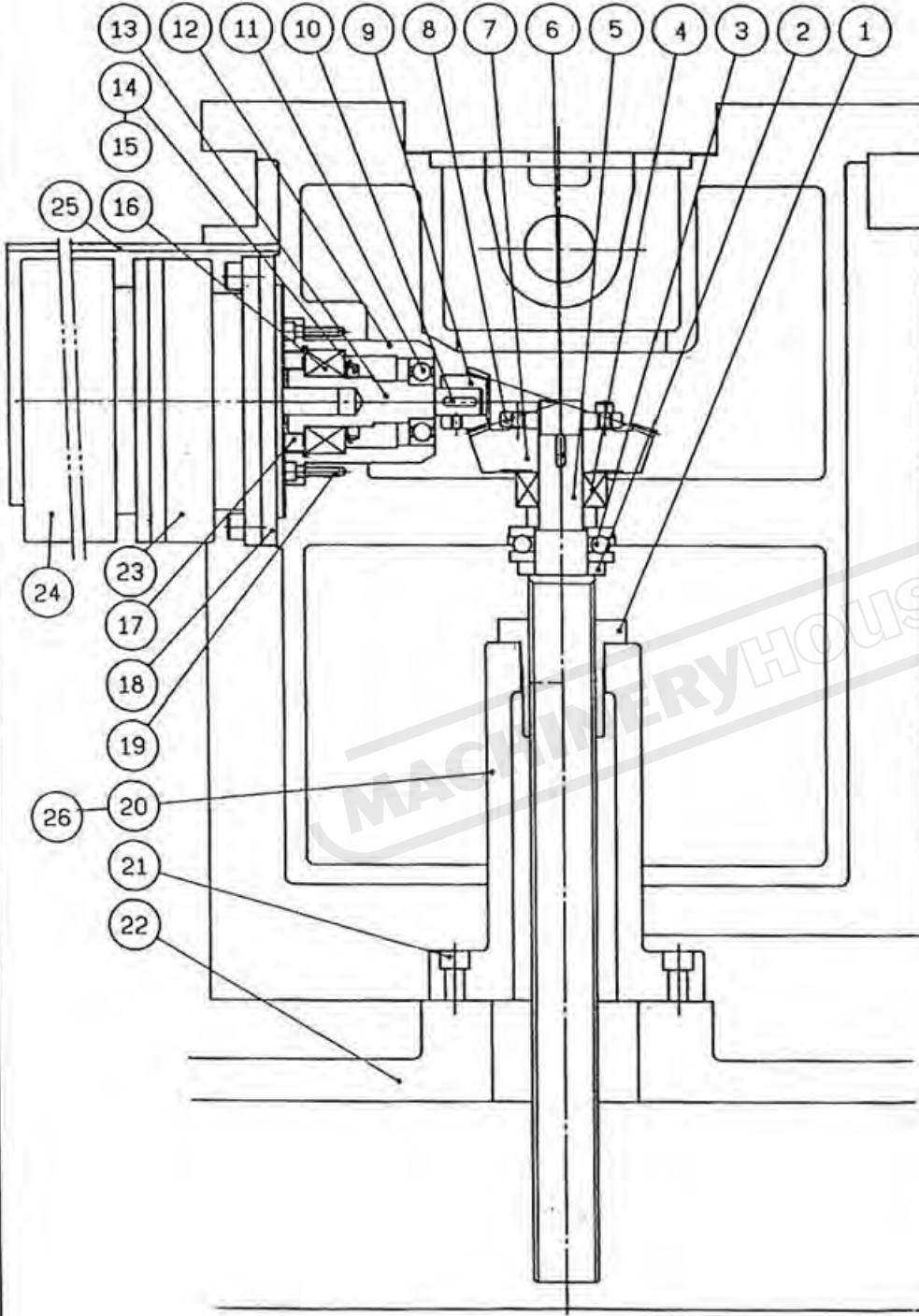
SADDLE SLIDE WAY GUARD



ITEM	PART. NO.	NAME
22	K-159	Gib
21	K-148	Gib Holder(L)
20	K-147	Gib Holder(R)
19	300-S071	Chip Guard
18	S-84	Chip Guard
17	K-101	Chip Guard
16	K-160	Wiper
15	K-161	Wiper
14	K-162	Wiper
13	K-158	Gib
12	300-T042	Gib Holder

ITEM	PART NO.	NAME
11	300-S056	Gib Holder(R)
10	M12x35L	Hex. Socket Bolt
9	300-S062	Wiper
8	300-S061	Wiper
7	300-S057	Gib
6	M5x0.8Px12L	Pan Head Screw
5	300-S060	Wiper
4	300-S060	Wiper
3	300-S058	Gib
2	C-41	Adjusting Screw
1	300-S055	Gib Holder(L)

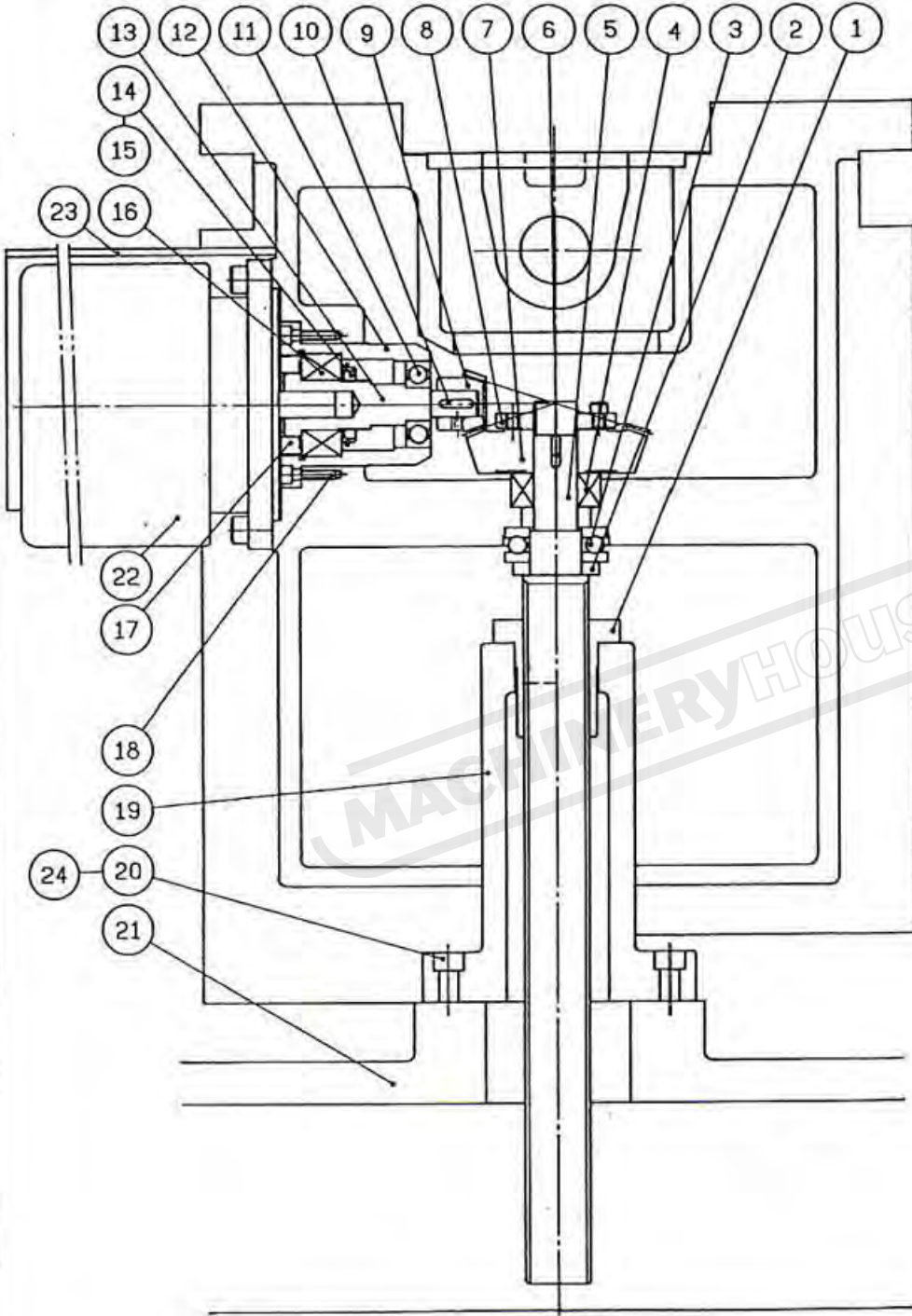
Z AXIS FEED (SERVO MOTOR)



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S: 1/3

ITEM	PART NO.	NAME	ITEM	PART NO.	NAME	ITEM	PART NO.	NAME
26	K-149(S-500)	Lead Screw Housing	20	K-173	Lead Screw Housing	10	5x5x20	Key
25	K-169A	Motor Cover	19	M6x15L	Hex. Socket Bolt	9	K-166	Gear
24	850W	Ac Sever Motor	18	300-S096	Motor Bracket	8	K-168	Nut
23	SVB-12	Gear Reducer	17	K-112A	Nut	7	K-167	Gear
22	300-B052	Base	16	5206	Angular Ball Bearing	6	7x8x20	Key
21	M10x30L	Hex. Socket Bolt	15	AW-05	Washer	5	K-163C	Leadscrew
			14	AN-05	Nut	4	5205	Angular Ball Bearing
			13	K-115	Shaft	3	51306	Thrust Ball Bearing
			12	K-125	Bearing Bracket	2	K-146	Collar
			11	6304	Ball Bearing	1	K-145A	Nut

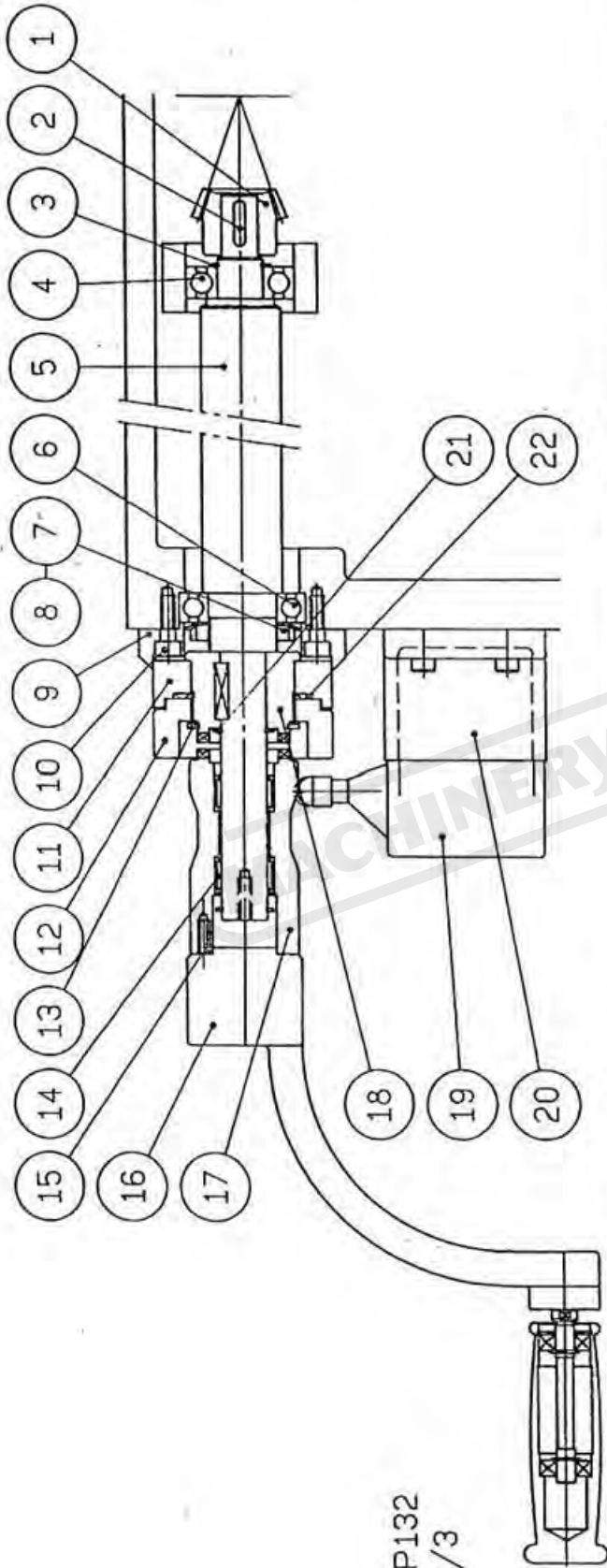
Z AXIS FEED (AC MOTOR)



5000P327
S: 1/3

ITEM	PART NO.	NAME
24	K-149(S-500)	Hex. Socket Bolt
23	K-117	Motor Cover
22	1HP-12P	Ac Motor
21	300-B052	Base
ITEM	PART NO.	NAME
20	M10x30L	Hex. Socket Bolt
19	K-173	Lead Screw Housing
18	M6x15L	Hex. Socket Bolt
17	K-112A	Nut
16	5206	Angular Bal Bearing
15	AW-05	Washer
14	AN-05	Nut
13	K-115	Shaft
12	K-125	Bearing Bracket
11	6304	Bal Bearing
ITEM	PART NO.	NAME
10	5x5x20	Key
9	K-166	Gear
8	K-168	Nut
7	K-167	Gear
6	7x8x20	Key
5	K-163C	Leadscrew
4	5205	Angular Bal Bearing
3	51306	Thrust Bal Bearing
2	K-146	Collar
1	K-145A	Nut
ITEM	PART NO.	NAME

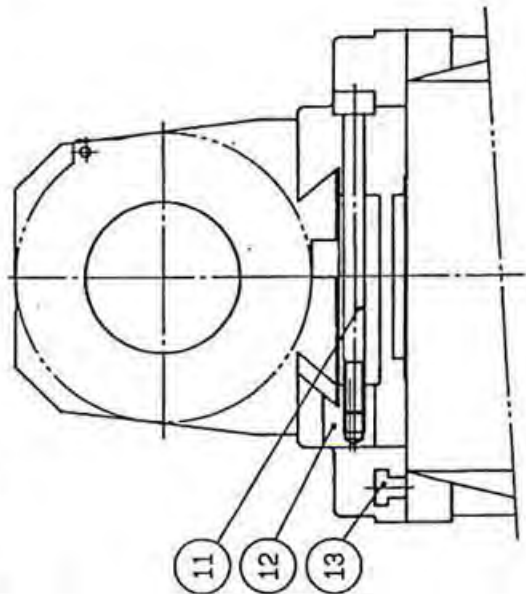
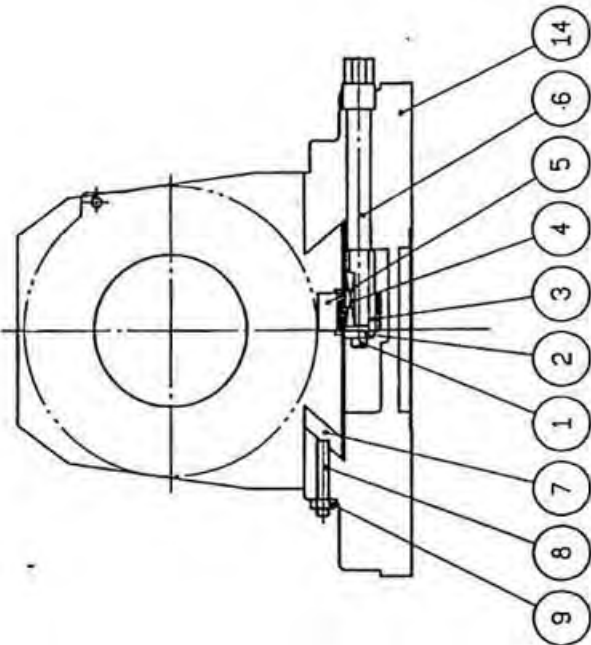
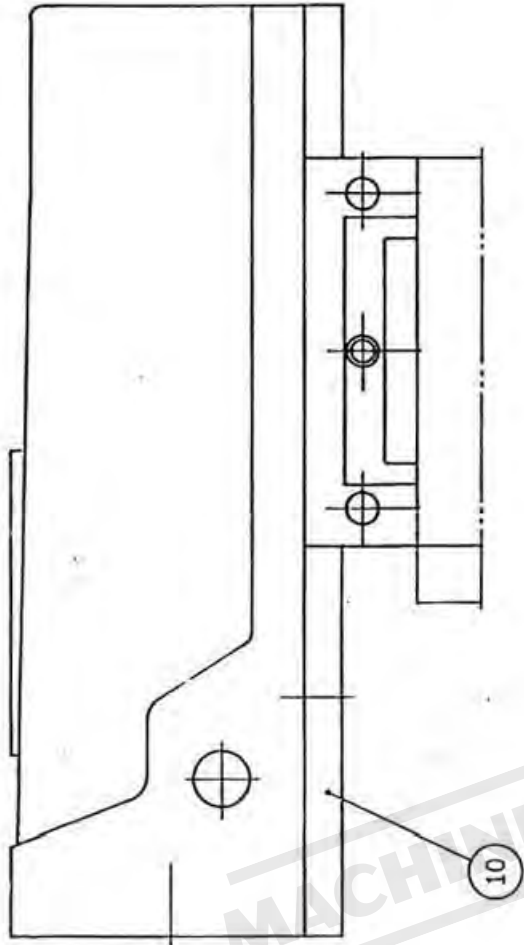
Z AXIS FEED



5000P132
S: 1/3

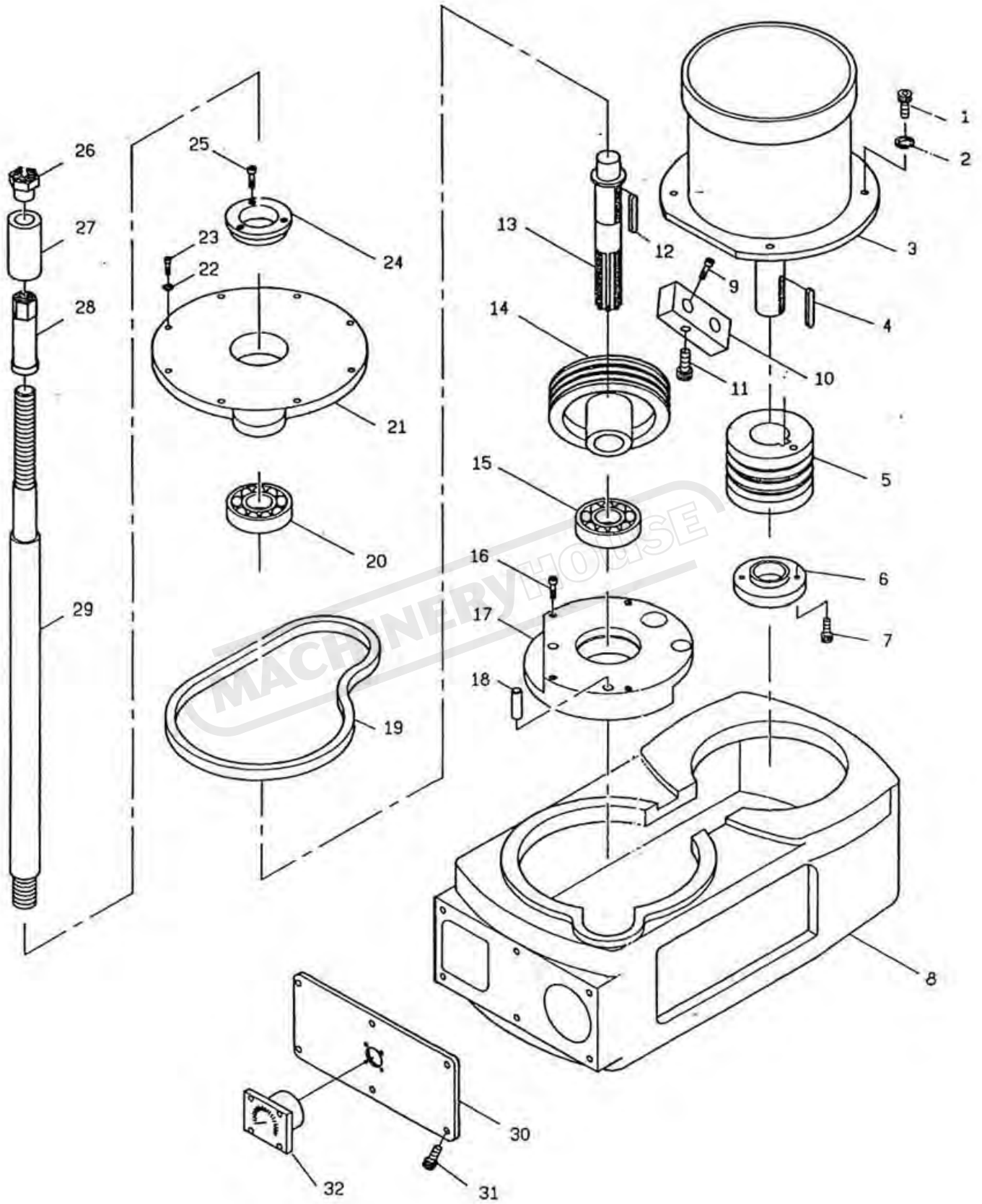
ITEM	PART NO.	NAME	ITEM	PART NO.	NAME
22	6206	Bearing Washer	11	K-154	Dial
21	S-20	Snap Ring	10	M6x20L	Hex. Socket Bolt
20	K-170	Micro Switch Bracket	9	K-153	Bearing Stop
19		Micro Switch	8	AW-06	Washer
18	K-155	Clutch	7	AN-06	Nut
17	K-157	Clutch	6	6006ZZ	Ball Bearing
16	K-165	Elevating Crank	5	K-151	Shaft
15	M6x20L	Hex. Socket Bolt	4	6204ZZ	Ball Bearing
14	TLA2016Z	Needle Roller Bearings	3	S-20	Snapring
13	S-40	Snap Ring	2	5x5x20	Key
12	K-156	Dial Lock Nut	1	K-166	Gear
ITEM	PART NO.	NAME	ITEM	PART NO.	NAME

(BM-90HV) RAM ASSEMBLY



ITEM	PART NO.	NAME
14	300-C095	Swivel Base
13	R-73	Lock Screw
12	300-C096	Lock Block
11	300-C104	Ram Lock Bolt
10	R-75A	Ram
9	M10	Nut
8	M10x60L	Set Screw
7	300-C093	Gib
6	R-68	Ram Pinion
5	R-67	Rack
4	5x5x30L	Key
3	R-62	Gear
2	R-63	Washer
1	M6x20L	Hex. Socket Bolt

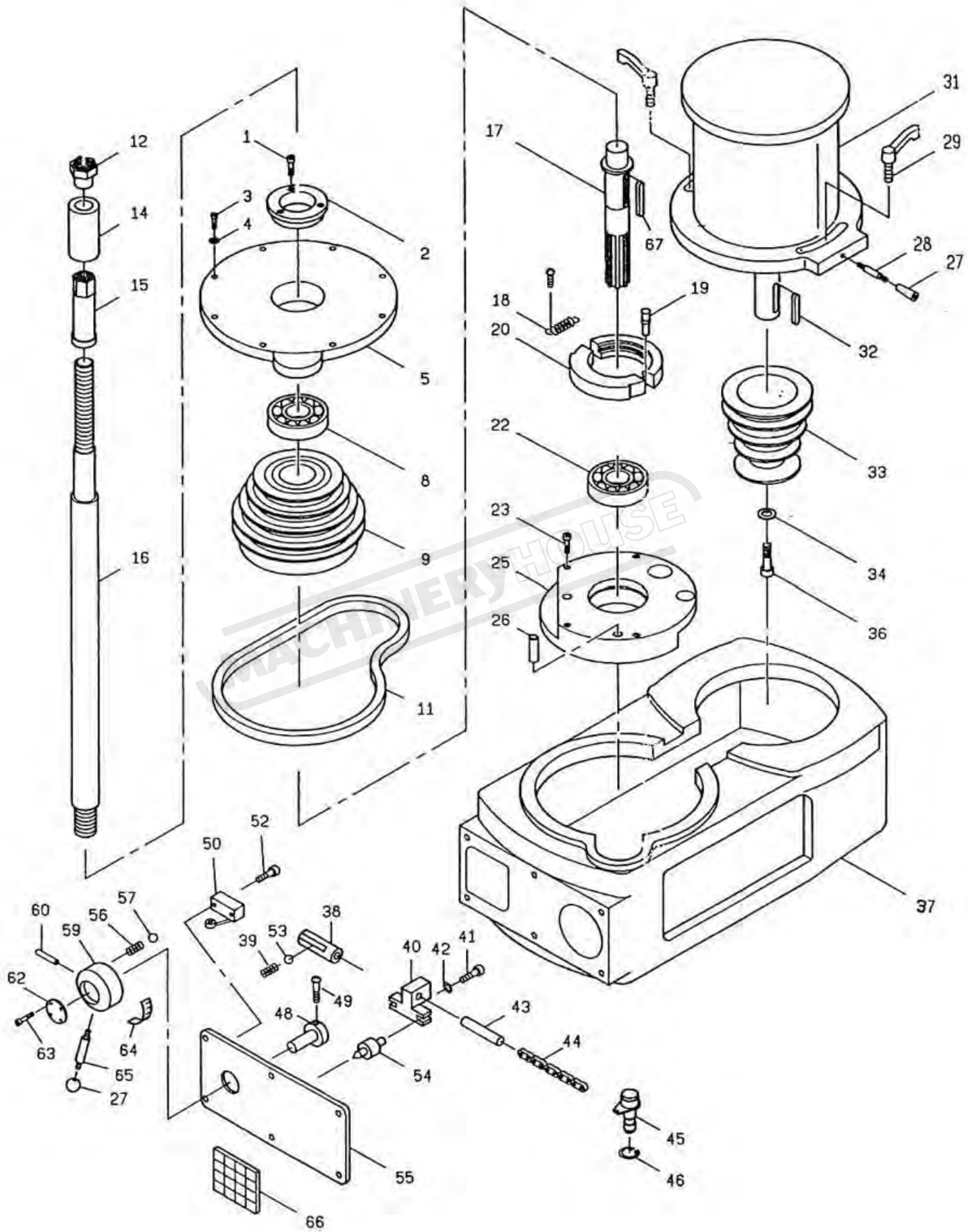
INVERTER TOP HOUSING (BM-90HV, BM-90VE)



INVERTER TOP HOUSING (BM-90HV, BM-90VE)

NO	NAME	NO	NAME
1	Hex.Socket Head Bolt		
2	Washer		
3	Motor		
4	Key		
5	Pully		
6	Pully Stop Ring		
7	Hex.Socket Head Bolt		
8	Head Body		
9	Hex.Socket Head Bolt		
10	Bracket		
11	Hex.Socket Head Bolt		
12	Key		
13	Gear Shaft		
14	Pully		
15	Ball Bearing		
16	Hex.Socket Head Bolt		
17	Bearing Supporter		
18	Pin		
19	Belt		
20	Ball Bearing		
21	Bearing Supporter		
22	Washer		
23	Hex.Socket Head Bolt		
24	Bearing Stop Ring		
25	Hex.Socket Head Bolt		
26	Nut		
27	Outer Sleeve		
28	Inner Sleeve		
29	Draw Bar		
30	Brake Seat		
31	Hex.Socket Head Bolt		
32	Rpm Indicator		
33			
34			
35			
36			
37			
38			
39			
40			
41			

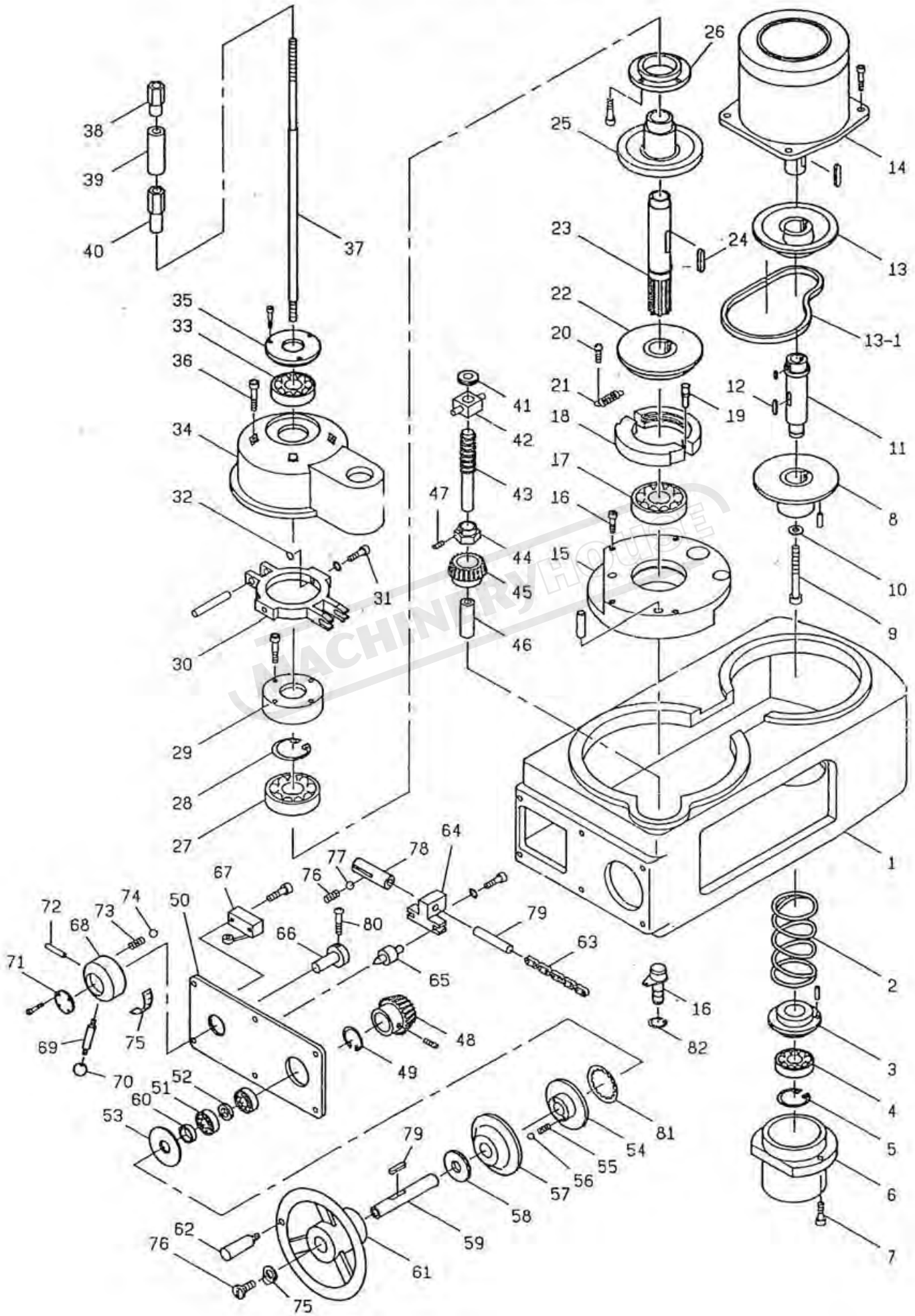
TOP HOUSIN BMT 6300S



TOP HOUSING (BMT 6300S)

NO	MANE	NO	MANE
1	Socket Screw	36	Socket Screw
2	Bearing Cover	37	Pulley Case
3	Socket Screw	38	Adjusting Nut
4	Spring Washer	39	Spring
5	Top Cover	40	Brake Slide
6	Lock Nut	41	Hex Bolt
7	Self-Lock Washer	42	Washer
8	Ball Bearing	43	Chain Adjusting Screw
9	Spindle Pulley	44	Roller Chain
10	Steel Brake Ring	45	Brake Cam
11	V Belt, B37	46	"E" Snap Ring
12	Nut	47	Taper Pin
13	Knock Pin	48	Eccentric Shaft
14	Outer Sleeve	49	Knock Pin
15	Inner Sleeve	50	Micro-Switch
16	Draw Bar	51	Washer
17	Pinion Shaft	52	Hex Bolt
18	Brake Spring	53	Steel Ball
19	Brake Shoe Pin	54	Shaft
20	Brake Shoe	55	Brake Seat
21		56	Spring
22	Ball Bearing	57	Steel Ball
23	Socket Screw	58	Knock Pin
24		59	Brake Lever Nut
25	Bearing Housing	60	Knock Pin
26	Pin	61	Knock Pin
27	Plastic Handle	62	Direction Indicating Plate
28	Lever	63	Rivet
29	Lever Nut	64	Brake Position Plate
30		65	Lever
31	Vertical Spindle Motor	66	Spindle Speeds Chard
32	Key	67	Key
33	Motor Pulley		
34	Washer		
35	Spring Washer		

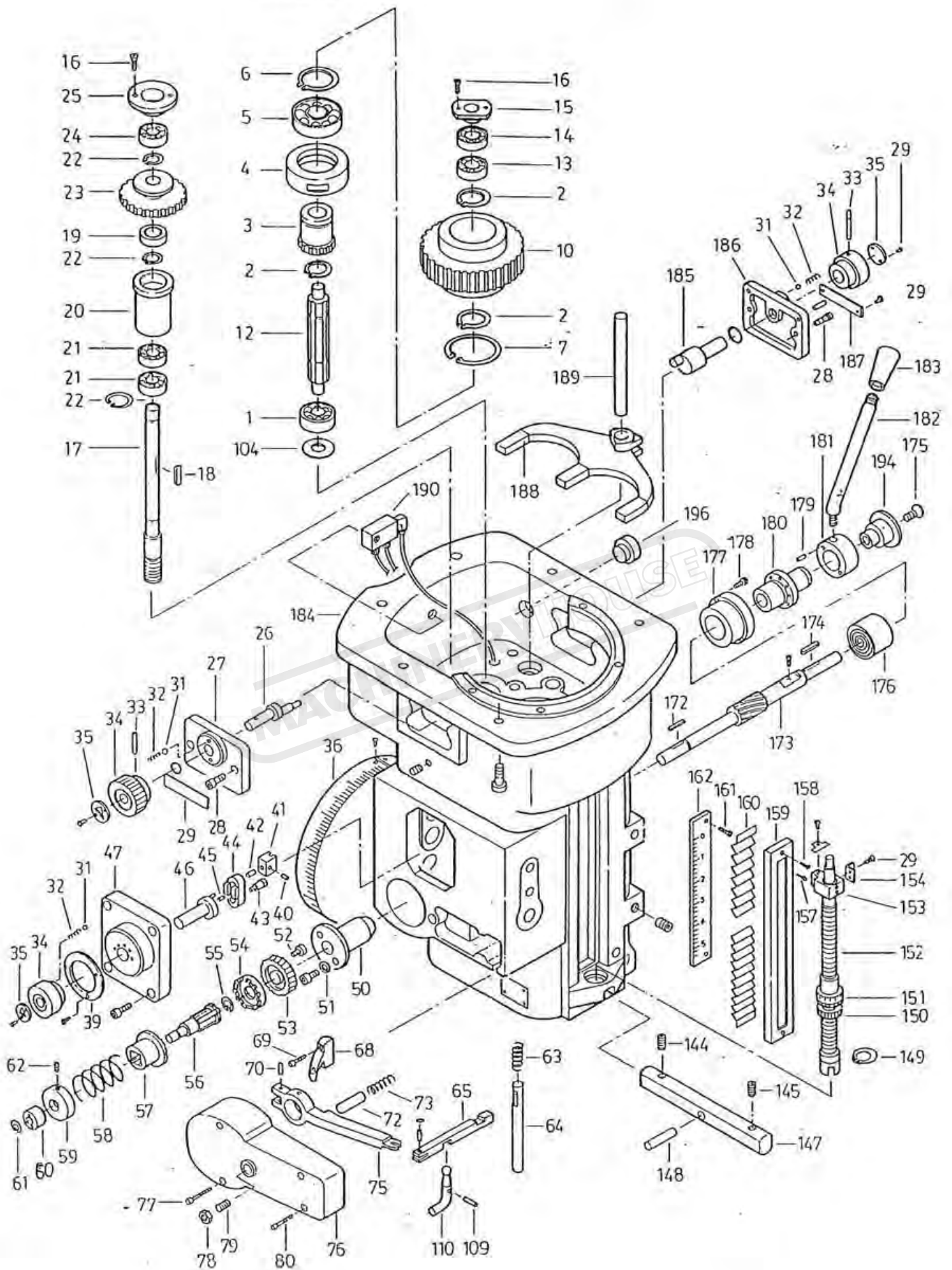
(VS-500A) TOP HOUSING (GVS-500A)



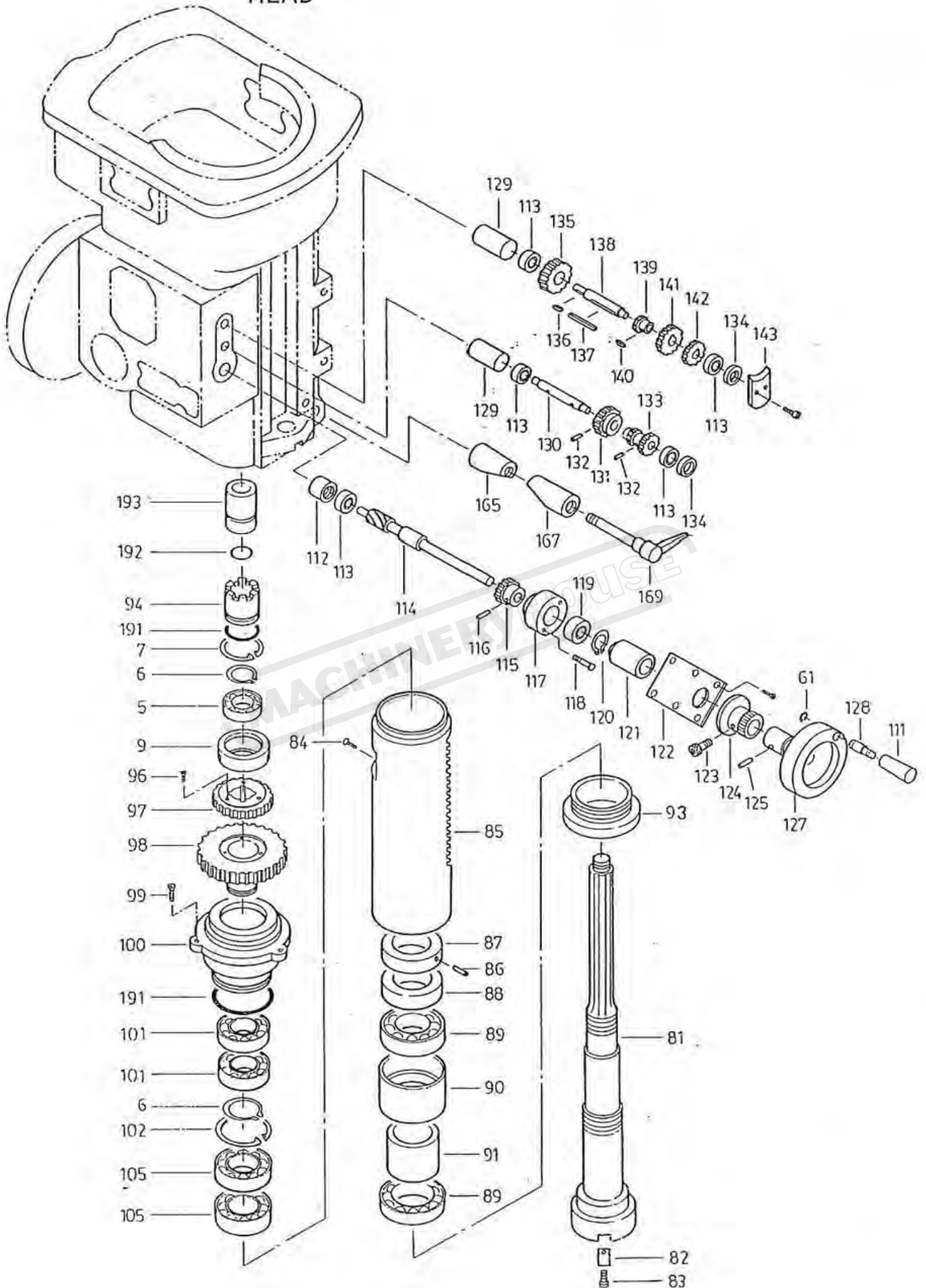
TOP HOUSING (VS-500A)
(GVS-500A)

NO	NAME	NO	NAME
1	Head Body	42	Screw Seat
2	Spring	43	Screw
3	Fixed Flange	44	Nut
4	Ball Bearing	45	Bevel Gear
5	C -Ring	46	Bushing
6	Bearing Seat	47	Set Screw
7	Hex.Socket Head Bolt	48	Bevel Gear
8	Motor Pully	49	C -Ring
9	Hex.Socket Head Bolt	50	Fixed Plate
10	Washer	51	Ball Bearing
11	Trans Shaft	52	Spacer
12	Key Belt	53	Gear
13	Motor Pully	54	Discentral Ring
14	Motor	55	Spring
15	Bearing Seat Stop Ring	56	Steel Ball
16	Hex.Socket Head Bolt	57	Speed Meter
17	Ball Bearing	58	Spacer
18	Brake Plate	59	Shaft
19	Fixed Pin	60	Spacer
20	Round Head Bolt	61	Handle Wheel
21	Spring	62	Handle
22	Pully	63	Chain
23	Gear Shaft	64	Moving Block
24	Key	65	Shaft
25	Pully	66	Fixed Ring
26	Bearing Stop	67	Mico Switch
27	Ball Bearing	68	Handel Seat
28	C -Ring	69	Handle
29	Bearing Seat	70	Plastic Ball
30	Changing Speed Crank	71	Cap
31	Hex.Socket Head Bolt	72	Pin
32	Ring	73	Spring
33	Ball Bearing	74	Steel Ball
34	Changing Speed Seat	75	Name Plate
35	Bearing Stop	76	Spring
36	Hex.Socket Head Bolt	77	Steel Ball
37	Drawbar	78	Sleeve Nut
38	Nut	79	Adjustment Stud
39	Sleeve	80	Pin
40	Nut	81	Gear
41	Thrust Bearing	82	C -Ring

HEAD



HEAD



HEAD

NO	NAME	NO	NAME
1	Taper Roller Bearing	36	Head Swivelling Scale Ring
2	Snap Ring	37	Set Screw
3	Backgear	38	Socket Screw
4	Bearing Support Ring	39	Trade Mark
5	Ball Bearing	40	Pin
6	Snap Ring	41	Feed Gear Shift Fork
7	Snap Ring	42	Pin
8	Flat Hd Set Screw	43	Pin
9	Bearing Cover	44	Shift Crank
10	MC-Nylon Gear	45	Taper Pin
11	Gear Sleeve	46	Eccentric Shaft
12	Backgear Spline Shaft	47	Cluster Gear-Cover
13	Ball Bearing	48	Socket Screw
14	Ball Bearing	49	Feedrate Plate
15	Bearing Cover (A)	50	Quill Pinion Shaft Bushing
16	Flat Hd Set Screw	51	Spring Washer
17	Worm Shaft	52	Socket Screw
18	Sliding Key	53	Worm whed
19	Oil Seal	54	Overload Clutch Ring
20	Bearing Sleeve	55	Snap Ring
21	Ball Bearing	56	Overload Clutch Sleeve
22	Snap Ring	57	Overload Clutch
23	Feed Clutch Gear	58	Safety Clutch Spring
24	Taper Roller Bearing	59	Locknut
25	Bearing Cover	60	Clutch Ring
26	Eccentric Shaft	61	Snap Ring
27	Power Feed Cover	62	Set Screw
28	Socket Screw	63	Spring
29	Rivet	64	Trip Plugger
30	Feed Clutch Indicating Plate	65	Cam Rod
31	Steel Ball	66	Snap Ring
32	Spring	67	Pin
33	Knock Pin	68	Bracket
34	Dial	69	Socket Screw
35	Dial Indicating Plate	70	Pin

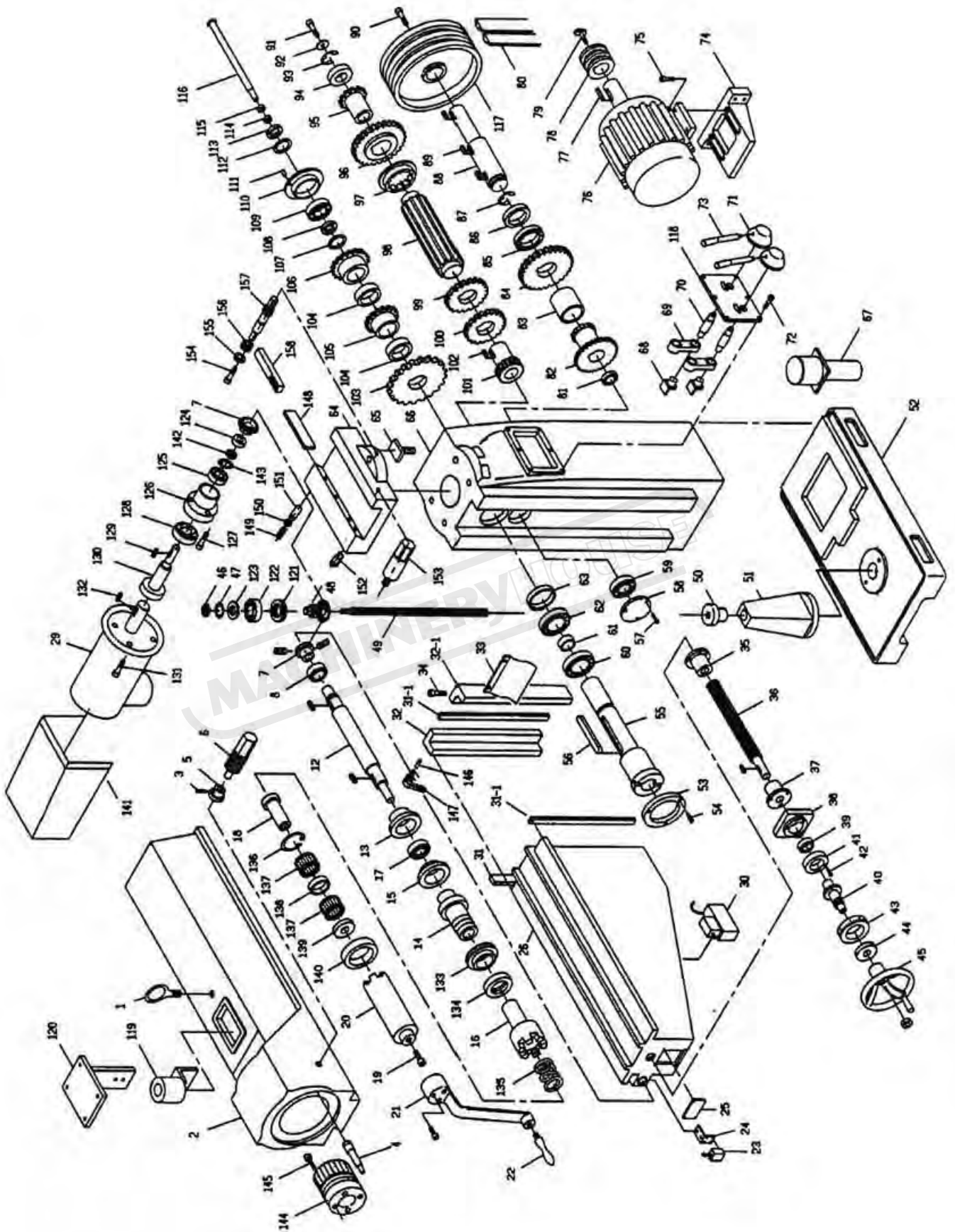
HEAD

NO	MANE	NO	MANE
71	Set Screw	106	Spring Housing
72	Ball Head Pin	107	Spring
73	Spring	108	Washer
74	"CAUTION" Plate	109	Pin
75	Overload Clutch Trip Lever	110	Feed Engage Lever
76	Trip Lever Cover	111	Plastic Handle
77	Socket Bolt	112	Cylindrical Block
78	Hex Nut	113	Ball Bearing
79	Set Screw	114	Wormshaft
80	Socket Bolt	115	Gear
81	Vertical Spindle	116	Knock Pin
82	Key	117	Worm Shaft Bearing Housing
83	Socket Screw	118	Socket Bolt
84	Socket Screw	119	Ball Bearing
85	Quill	120	Snap Ring
86	Set Screw	121	Spacer
87	Locknut	122	Microfeed Plate
88	Collar		Microfeed Plate
89	Ball Bearing	123	Rd Hd Screw
90	Outer Collar	124	Microdial
91	Inner Coller		Microdial
92	Oil Seal	125	Microdial Screw
93	Nose-Piece	126	Knock Pin
94	Clutch Sleeve	127	Microfeed Handwheel
95	Bearing Support Ring	128	Handle Screw
96	Socket Screw	129	Cylindrical Block
97	Spindle Gear Cluster	130	Gear Shaft
98	Spindle Gear Cluster	131	Gear
99	Socket Screw	132	Knock Pin
100	Bearing Housing	133	Gear Cluster
101	Ball Bearing	134	Spacer
102	Snap Ring	135	Wormwheel
103	Locknut	136	Key
104	Washer	137	Sliding Key
105	Ball Bearing	138	Sliding Gear Shaft

HEAD

NO	MANE	NO	MANE
139	Gear	171	Lever
140	Key	172	Sliding Key
141	Gear	173	Pinion Shaft
142	Gear	174	Key
143	Enclose Plate	175	Set Screw
144	Set Screw	176	Balance Spring
145	Set Screw	177	Spring Housing
146	Hex Nut	178	Socket Screw
147	Feed Disengage Lever	179	Pin
148	Pin	180	Pinion Shaft Hub Sleeve
149	Snap Ring	181	Lever Collar
150	Quill Micro-Stop Nut	182	Lever
151	Micrometer Nut	183	Plastic Handle
	Micrometer Nut	184	Head Housing
152	Quill Stop Micro-Screw	185	Eccentric Shaft
153	Quill Stop Knob	186	"H-L" Cover
154	Scale Indicator	187	"H-L" Indicating Plate
155	"T" Piece	188	Backgear Fork
156	Rd Hd Screw	189	Fork Post
157	Socket Screw	190	Oil Nipple
158	Rd Hd Screw	191	O- Ring
159	Quill Cover	192	O- Ring
160	Dust Guard	193	Bushing
161	Rd Hd Screw	194	Handle Hub
162	Quill Travel Scale	195	Oil Seal
	Quill Travel Scale	196	Oil Lever Gage
163	Set Screw		
164	Pad		
165	Quill Lock Sleeve Tapped		
166	Spring		
167	Drilled Lock Sleeve		
168	Washer		
169	Bolt		
170	Lock Position Indicating Plate		

COLUMN KNEE (BM-90HV)



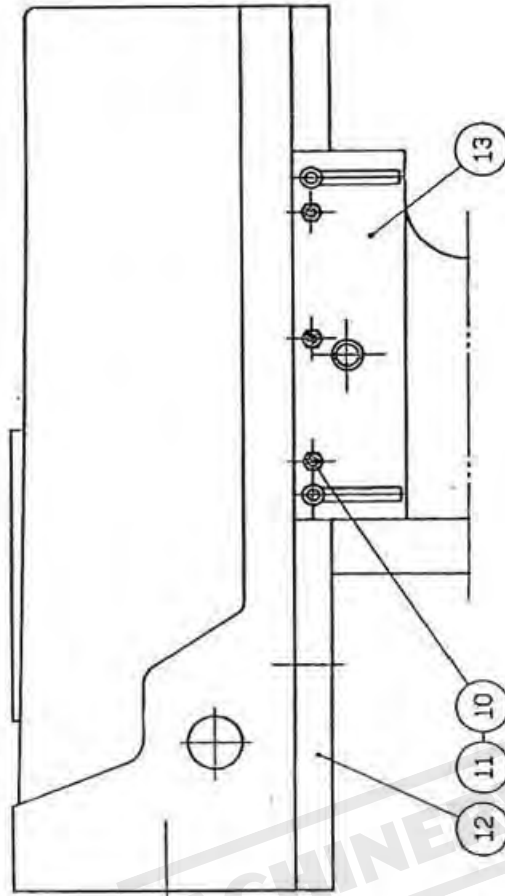
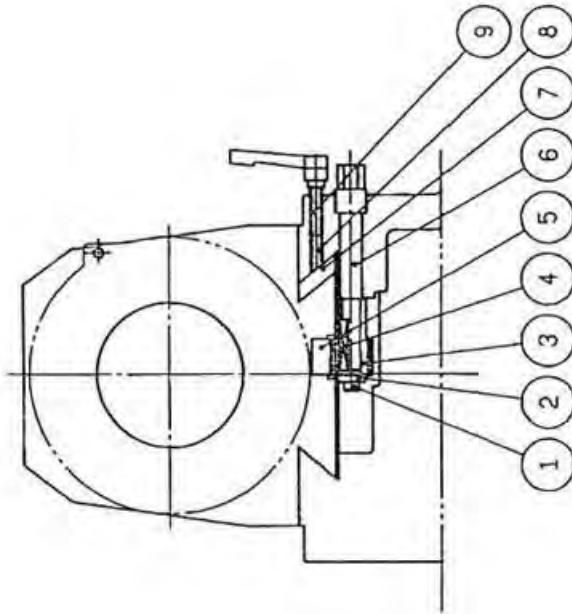
COLUMN KNEE

NO	NAME	NO	NAME
1	Hook	42	Hex.Socket Head Bolt
2	Arm	43	Dial Ring
3	Spring Pin	44	Dial Lock Nut
4	Bolt	45	Handle Wheel
5	Flange	46	Nut
6	Worm	47	Washer
7	Bevel Gear	48	Bevel Gear
8	Ball Bearing	49	Lead Screw
9	Lock Handle	50	Nut
10	Block	51	Lead Screw Housing
11	Set Screw	52	Base
12	Shaft	53	Fixed Ring
13	Baring Support	54	Hex.Socket Head Bolt
14	Shaft	55	Spindle
15	Baring Stop	56	Key
16	Clutch Shaft	57	Hex.Socket Head Bolt
17	Ball Bearing	58	Cap
18	Needle Shaft	59	Ball Bearing
19	Hex.Socket Head Bolt	60	Ball Bearing
20	Clutch Sleeve	61	Spacer
21	Elevating Crank	62	Ball Bearing
22	Handle	63	Spacer
23	Limiter	64	Swivel Base
24	Limiter Set	65	Bolt
25	Cover	66	Column
26	Knee	67	Coolant Pump
28	Set Screw	68	Block
29	Motor	69	Control Block
30	Lubrication Pump	70	Control Shaft
31	Gib	71	Hand Block
32	Gib Holder-L	72	Hex.Socket Head Bolt
32-1	Gib Holder-R	73	Handle
33	Chip Guard	74	Motor Blocket
34	Adjusting Screw	75	Hex.Socket Head Bolt
35	Nut	76	Motor
36	Lead Screw	77	Key
37	Nut	78	Pully
38	Baring Stop	79	Lock Screw
39	Spacer	80	Belt
40	Dial Holder	81	Ball Bearing
41	Baring Stop	82	Gear

COLUMN KNEE

NO	NAME	NO	NAME
83	Spacer	124	Washer
84	Gear	125	Ball Bearing
85	Ball Bearing	126	Bearing Bracket
86	Spacer	127	Hex.Socket Head Bolt
87	C- Ring	128	Bearing Bracket
88	Shaft	129	Key
89	Key	130	Shaft
90	Hex.Socket Head Bolt	131	Hex.Socket Head Bolt
91	Hex.Socket Head Bolt	132	Key
92	Cap	133	Dial
93	Spacer	134	Lock Nut
94	Ball Bearing	135	Spring
95	Gear	136	C- Ring
96	Gear	137	Needle Bearing
97	Gear	138	Spacer
98	Gear Shaft	139	Washer
99	Gear	140	Collar
100	Gear	141	Cover
101	Gear	142	Nut
102	Key	143	Washer
103	Gear	144	Head Tilt Block
104	Spacer	145	Hex.Socket Head Bolt
105	Gear	146	Brass Block
106	Gear	147	Lock Handle
107	Lock Washer	148	Gib
108	Lock Nut	149	Set Screw
109	Ball Bearing	150	Nut
110	Flange	151	Block
111	Hex.Socket Head Bolt	152	Lock Block
112	Lock Washer	153	Lock Handle Shaft
113	Lock Nut	154	Hex.Socket Head Bolt
114	Nut	155	Washer
115	Washer	156	Gear
116	Drawbar	157	Ram Pinior
117	Pully	158	Rack
118	Leed Screw		
119	Pump		
120	Pump Sets		
121	Thrust Bearing		
122	Ball Baring		
123	Washer		

ARM ASSEMBLY (BM-90VE)



ITEM	PART NO.	NAME
13	300-C092	Column
12	R-75A	Ram
11	M10	Nut
10	M10x60L	Set Screw
9	SC-9	Lock Bolt
8	C-46	Ram Lock Plunger
7	300-C093	Gib
6	300-C091	Ram Pinion
5	R-67	Rack
4	5x5x30L	Key
3	R-62	Gear
2	R-63	Washer
1	M6x20L	Hex. Socket Bolt

3600P102
S: 1/3

