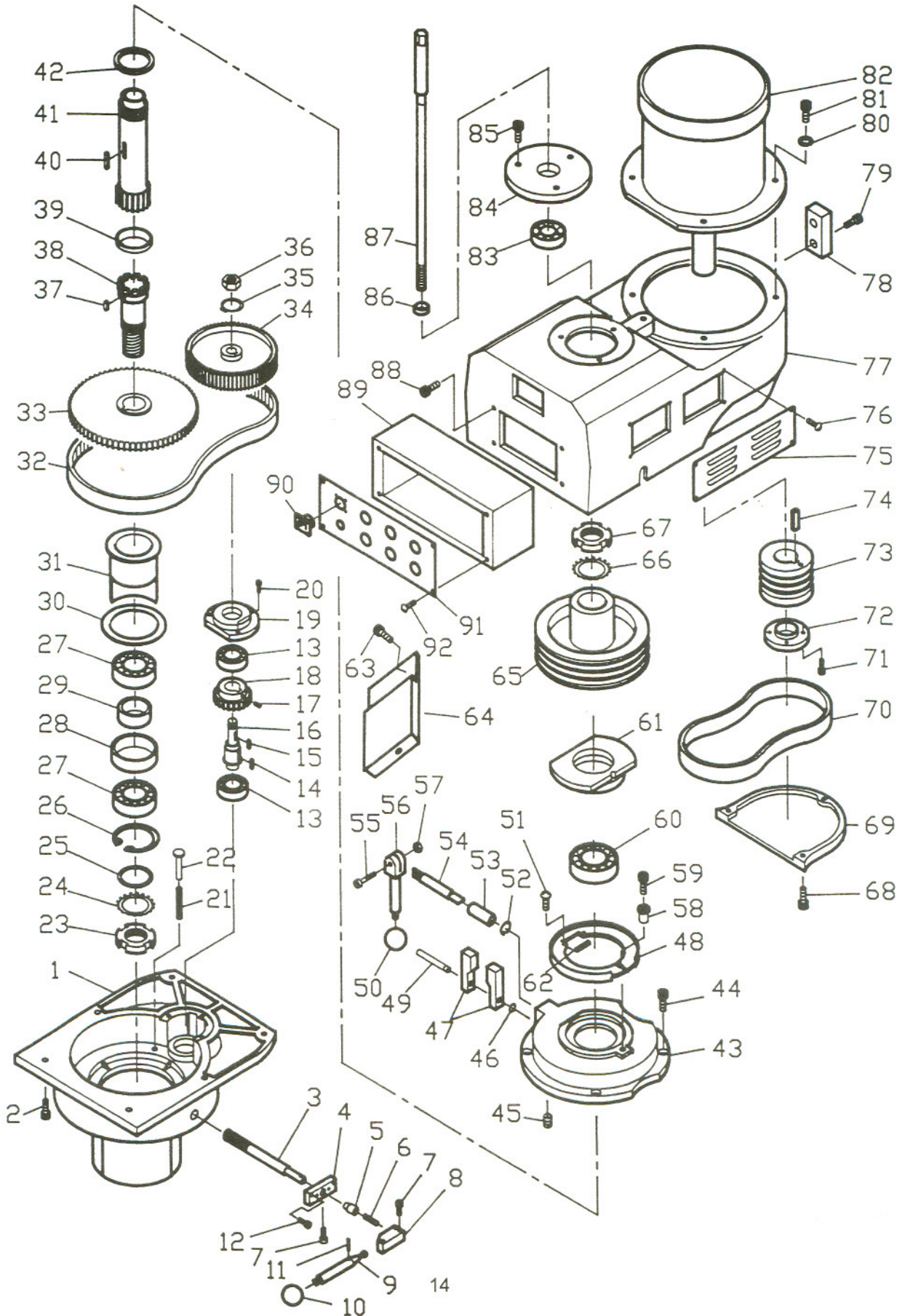


**Parts List for the JTM-1050 EVS Turret Mill  
Inverter Speed Head Assembly**

Index No.	Part No.	Description	Size	Qty.
1	PVS-082	Housing		1
2	TS-1503051	Hex Socket Cap Screw	M6*20	6
3	PVS-087	Gear Shaft Pinion		1
4	PVS-089	Detent Plate		1
5	PVS-090	Bearing Stop		1
6	PVS-091	Spring		1
7	TS-1503011	Hex Socket Cap Screw	M5*14	3
8	PVS-092	Pinion Block		1
9	PVS-094	Pinion Crank		1
10	PVS-099	Plastic Ball		1
11	IVS-011	Spring Pin	3*20	1
12	TS-1502041	Hex Socket Cap Screw	M5*16	3
13	BB-6203ZZ	Ball Bearing	6203ZZ	2
14	KEY5518	Key	5*5*18	1
15	KEY5515	Key	5*5*15	1
16	PVS-067	Counter Shaft		1
17	TS-1523011	Set Screw	M6*6	1
18	PVS-066	Bull Gear		1
19	PVS-064	Bearing Housing		1
20	TS-1502051	Hex Socket Cap Screw	M5*20	3
21	PVS-084	Spring		3
22	PVS-102	Spring Shaft		3
23	PVS-081	Nut		1
24	PVS-109	Lock Washer		1
25	PVS-103	Washer		1
26	PVS-080	Snap Ring	C-62	1
27	BB-6908ZZ	Ball Bearing	6908ZZ	2
28	PVS-079	Bearing Washer		1
29	PVS-078	Bearing Washer		1
30	PVS-076	Washer		1
31	PVS-075	Rack Cup		1
32	PVS-063	Timing Belt	225L100	1
33	PVS-074	Gear		1
34	PVS-062	Timing Belt Pulley		1
35	IVS-035	Spring Washer	5/8"	1
36	PVS-061	Nut	5/8"-18NF	1
37	KEY8712	Key	8*7*12	1
38	PVS-073	Spindle Gear Hub		1
39	PVS-100	Collar		1
40	KEY7740	Key	7*7*40	1
41	4VS-H003	Spindle Pulley Hub		1
42	IVS-042	Collar		1
43	PVS-050	Lower Housing Cover		1
44	TS-1503051	Hex Socket Cap Screw	M6*20	4
45	TS-1523011	Set Screw	M6*6	1
46	IVS-046	Snap Ring	S-8	1
47	PVS-059	Brake Stud		2
48	PVS-047	Brake Lining		1

49	PVS-058	Brake Finger Pivot Stud		1
50	PVS-099	Plastic Ball		2
51	IVS-051	Round Head Screw		4
52	IVS-052	Snap Ring	S-12	1
53	PVS-052	Brake Shaft Sleeve		1
54	PVS-053	Brake Lock Shaft		1
55	TS-1503061	Hex Socket Cap Screw	M6*25	1
56	PVS-054	Brake Lock Block		1
57	TS-1540041	Nut	M6	1
58	PVS-048	Lock Screw		1
59	TS-1502041	Hex Socket Cap Screw	M5*16	1
60	BB-6010ZZ	Ball Bearing	6010ZZ	1
61	PVS-046	Bearing Cover		1
62	PVS-049	Brake Spring		2
63	TS-1502031	Hex Socket Cap Screw	M5*12	2
64	IVS-064	Brake Ring		1
65	4VS-002	Pulley		1
66	IVS-066	Washer		1
67	IVS-067	Lock Nut		1
68	TS-1502051	Hex Socket Cap Screw	M5*20	3
69	PVS-011	Motor Pulley Cover		1
70	IVS-070	Belt		1
71	TS-1502041	Hex Socket Cap Screw	M5*16	6
72	1020-H071	Lock Ring		1
73	1020-H070	Motor Pulley		1
74	KEY10830	Key	10*8*30	1
75	PVS-101	Cover		2
76	IVS-076	Round Head Screw		8
77	PVS-001	Housing		1
78	SP-060	Block		1
79	TS-1504051	Hex Socket Cap Screw	M8*25	3
80	IVS-080	Spring Washer	M10	4
81	IVS-081	Hex Socket Cap Screw	M10*30	4
82	IVS-082	Inverter Motor	3HP/4P	1
83	BB-6007ZZ	Ball Bearing	6007ZZ	1
84	PVS-013	Cover		1
85	TS-1502041	Hex Socket Cap Screw	M5*16	3
86	PVS-115	Draw Bar Washer		1
87	PVS-114	Draw Bar		1
88	TS-1503021	Hex Socket Cap Screw	M6*10	4
89	4VSE187	Operation Box		1
90	IVS-090	R.P.M Indicator		1
91	4VSE186	Operation Panel		1
92	IVS-092	Round Head Screw		6

# Inverter Speed Head Assembly



## Head Assembly

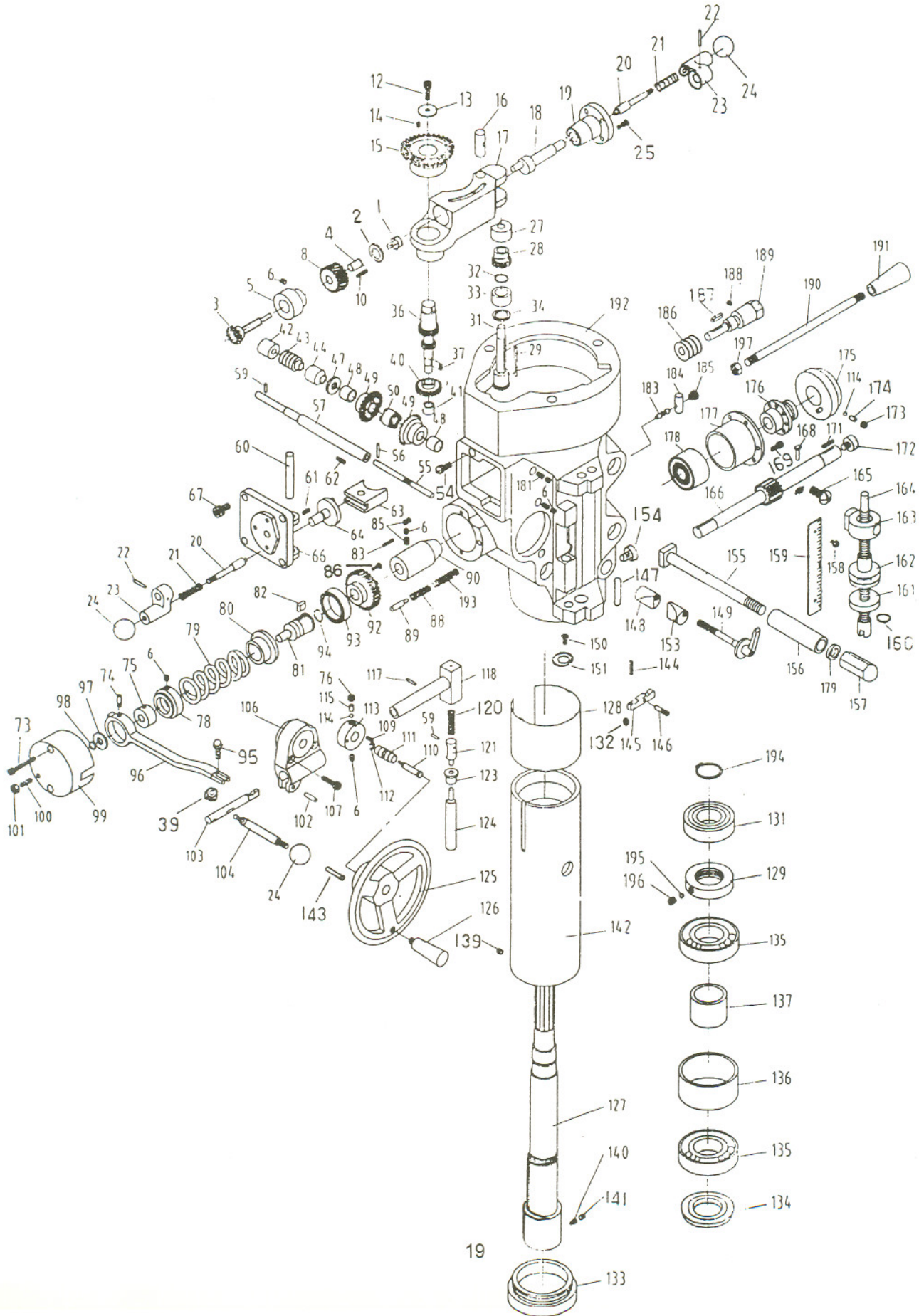
1	TS-1503031	Hex Socket Cap Screw	M6*12	1
2	1050B-2	Washer		1
3	1050B-3	Feed Bevel Pinion		1
4	1050B-4	Worm Gear Shaft Sleeve		1
5	1050B-5	Bushing		1
6	TS-1522011	Set Screw		1
8	1050B-8	Worm Gear		1
10	KEY3312	Key	3*3*12	1
12	TS-1504031	Hex Socket Cap Screw	M8*16	1
13	B-13	Washer		1
14	KEY3308	Key	3*3*8	2
15	B-15	Bevel Gear		1
16	B-16	Feed Engage Pin		1
17	1050B-17	Worm Gear Cradle		1
18	B-18	Worm Gear Cradle Shaft		1
19	1050B-19	Shaft Sleeve		1
20	B-20	Gear Shaft Plunger		2
21	B-21	Spring		2
22	1050B-22	Spring Pin	3*20	2
23	B-23	Shift Crank		2
24	B-24	Black Plastic Ball		3
25	TS-1503010	Hex Socket Cap Screw	M5x12	3
27	B-27	Bushing		1
28	B-28	Gear		1
29	KEY3345	Key	3*3*45	1
31	1050B-31	Gear Shaft		1
32	1050B-32	Snap Ring	S-16	1
33	1050B-33	Bevel Gear Bushing		1
34	1050B-34	Spacer		1
36	1050B-36	Gear		1
39	TS-1540031	Nut	M5	1
40	1050B-40	Feed Drive Gear		1
41	1050B-41	Needle Bearing		1
42	1050B-42	Bushing		1
43	1050B-43	Worm Gear		1
44	B-44	Bushing		1
47	B-47	Washer		1
48	B-48	Bushing		2
49	B-49	Bevel Gear		2
50	B-50	Feed Reverse Clutch		1
54	TS-1503061	Hex Socket Cap Screw	M6*25	1
55	B-55	Reverse Clutch Rod		1
56	B-56	Spring Pin	3*20	1
57	B-57	Feed Worm Shaft		1
58	TS-1523011	Set Screw	M6*6	1
59	B-59	Spring Pin	3*12	2
60	B-60	Chip Guards		1
61	TS-1522031	Set Screw	M5*10	1
62	KEY3315	Key	3*3*15	2
63	B-63	Feed Gear Shift Fork		1
64	B-64	Gear Shift Crank		1
66	B-66	Cluster Gear Cover		1

67	TS-1502031	Hex Socket Cap Screw	M5*12	4
73	TS-1502081	Hex Socket Cap Screw	M5*35	2
74	B-74	Clutch Ring Pin		2
75	B-75	Clutch Ring		1
76	TS-1523021	Set Screw	M6*8	1
78	B-78	Clutch Locknut		1
79	B-79	Safety Clutch Locknut		1
80	B-80	Overload Clutch		1
81	B-81	Overload Clutch Sleeve		1
82	KEY5813	Key	5*8*13	1
83	B-83	Hex Socket Head Bolt		3
85	TS-1523011	Set Screw	M6*6	2
86	B-86	Cross Plate Screw	M4*16	4
88	B-88	Spring		1
89	B-89	Spring Plunger		1
90	B-90	Bushing		1
92	B-92	Worm Gear		1
93	B-93	Clutch Ring		1
94	B-94	Snap Ring	S-10	1
95	TS-1502051	Hex Socket Cap Screw	M5*20	1
96	B-96	Clutch Trip Lever		1
97	B-97	Clutch Washer		1
98	B-98	Snap Ring	S-10	1
99	B-99	Clutch Arm Cover		1
100	C-19-1	Set Screw	M6*16	1
101	TS-1540041	Nut	M6	1
102	B-102	Spring Pin	5*18	1
103	B-103	Cam Rod		1
104	B-104	Trip Handle		1
106	B-106	Feed Trip Bracket		1
107	TS-1503051	Hex Socket Cap Screw	M6*20	1
108	TS-1523031	Set Screw	M6*10	1
109	KEY3310	Key	3*3*10	1
110	B-110	Knob Stud		1
111	B-111	Reverse Knob		1
112	B-112	E-Ring	E-6	1
113	B-113	Handle Wheel Clutch		1
114	B-114	Steel Ball	3/16"	2
115	B-115	Compression Spring		2
116	B-116	Set Screw	M8*6	1
117	B-117	Spring Pin	3*15	1
118	B-118	Cam Rod Sleeve		1
119	B-119	Spring Pin	3*12	1
120	B-120	Compression Spring		1
121	B-121	Trip Plunger		1
123	B-123	Bushing		4
124	B-124	Feed Trip Plunger		1
125	B-125	Handle Wheel		1
126	B-126	Handle		1
127	B-127	Spindle		1
128	B-128	Quill Skirt		1
129	B-129	Locknut		1
131	BB-6206ZZ	Ball Bearing	6206ZZ	1
132	B-132	Nut	M4	1

133	B-133	Nose Piece		1
134	B-134	Spindle Dirt Shield		1
135	BB-7207C	Angular Bearing	7207	1
136	B-136	Spacer		1
137	B-137	Spacer		1
138	BB-7207C	Angular Bearing	7207	1
139	B-139	Set Screw		1
140	B-140	Set Screw		1
141	TS-1523011	Set Screw	M6*6	1
142	B-142	Quill		1
143	B-143	Spring Pin	3*16	1
144	B-144	Set Screw	M4*20	1
145	B-145	Feed Trip Lever		1
146	B-146	Trip Lever Pin		1
147	B-147	Indicator Rod		1
148	B-148	Quill Lock Sleeve		1
149	B-149	Lock Handle		1
150	B-150	Round Head Screw	M5*8	2
151	B-151	Washer	M5	2
153	B-153	Quill Lock Sleeve		1
154	B-154	Indicator Rod Screw		1
155	B-155	T-Bolt		4
156	B-156	Spacer		4
157	B-157	Adapter Nut		4
158	B-158	Round Head Screw		2
159	B-159	Micrometer Scale		1
160	B-160	Snap Ring	S-16	1
161	B-161	Quill Micro-Stop Nut		1
162	B-162	Quill Micro-Stop Nut		1
163	B-163	Quill Stop Knob		1
164	B-164	Quill Micro-Stop Nut		1
165	B-165	Round Head Screw	M10*15	1
166	B-166	Quill Pinion Shaft		1
168	B-168	Pin		1
169	TS-1503010	Hex Socket Cap Screw	M5*12	2
171	KEY3320	Key	3*3*20	1
172	B-172	Pinion Shaft Hub Screw		1
173	B-173	Set Screw	5/16"*1/4"	1
174	B-174	Compression Spring		1
175	B-175	Handle Hub		1
176	B-176	Hub Sleeve		1
177	B-177	Spring Cover		1
178	B-178	Clock Spring		1
179	B-179	Washer		4
181	TS-1523041	Set Screw	M6*12	2
183	B-183	Reverse Trip Ball Lever		1
184	B-184	Reverse Trip Plunger		1
185	B-185	Trip Ball Lever Screw		1
186	B-186	Worm Gear		1
187	KEY4418	Key	4*4*18	1
188	B-188	Set Screw		1
189	B-189	Worm Shaft		1
190	B-190	Pinion Shaft Hub Handle		1
191	B-191	Black Plastic Ball		1

192	B-192	Quill Housing		1
193	B-193	Compression Spring		1
194	B-194	Snap Ring	S-30	1
195	B-195	Bush		1
196	TS-1523011	Set Screw	M6*6	1
197	B-197	Nut		1

# Head Assembly



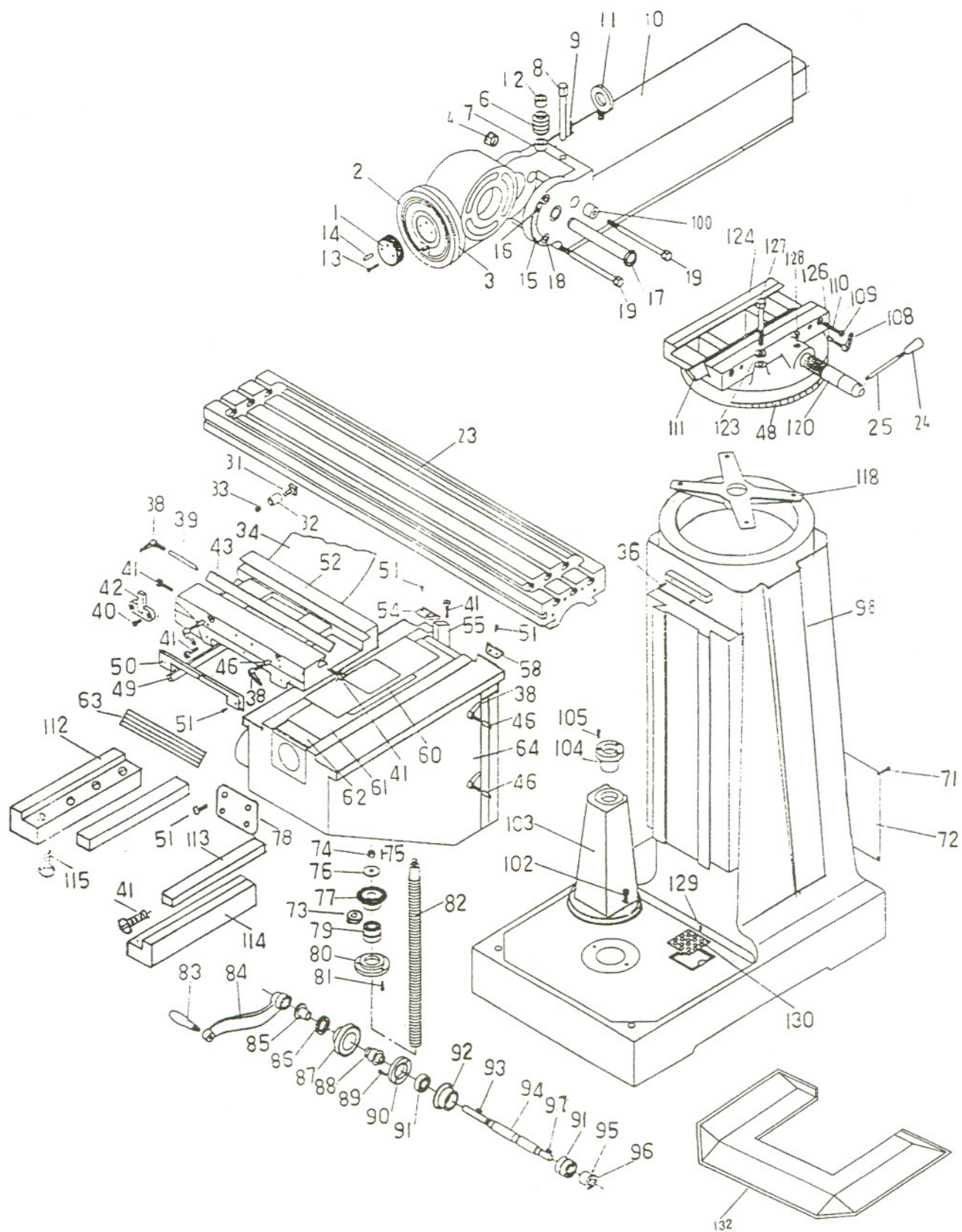


## Base Assembly

1	1050C-1	Worm Washer		1
2	1050C-2	Ram Adapter		1
3	1050C-3	Adapter Scale		1
4	1050C-4	Lock Nut		1
6	1050C-6	Worm Gear		1
7	1050C-12	Collar		1
8	1050C-8	Worm Shaft		1
9	KEY5550	Key	5*5*50	1
10	1050C-10	Ram		1
11	1050C-11	Hook	3/4"	1
12	C-7-1	Washer		1
13	TS-1504061	Hex Socket Cap Screw	M8*30	2
14	1050C-14	Spring Pin		1
15	1050C-15	Angle Plate		1
16	1050C-16	Rivet		10
17	1050C-17	Adapter Pivot Stud		1
18	C-18	Washer		3
19	C-19	Locking Bolt		3
23	C-23	Table		1
31	C-31	T-Bolt		2
32	C-32	Table Stop Piece		2
33	C-33	Hex Nut	3/8"-16NC	2
34	C-34	Chip Guard		1
36	C-36	Pan Head Screw	3/16"*3/8"	4
38	C-38A	Saddle Lock Bolt		5
39	C-39	Saddle Lock Plunger		1
40	C-40	Hex Socket Cap Screw		2
41	C-41	Adjusting Screw		10
42	C-42	Table Stop Bracket		1
43	C-43	Gib		1
46	C-46	Table Lock Plunger		4
49	C-49	Saddle Knee Gib		1
50	C-50-1	Wiper		2
51	C-51	Pan Head Screw		18
52	C-52	Saddle		1
54	C-54	Knee Wiper Felt		1
55	C-55	Knee Column Gib		1
58	C-58	Knee Wiper Felt		1
60	C-60	Chip Guards		1
61	C-61	Chip Guards		1
62	C-62	Chip Guards		1
63	C-63	Chip Guards		1
64	C-64	Knee		1
71	C-71	Pan Head Screw		8
72	C-72	Cover		1
73	C-23-1	Washer		1
74	C-74	Nut	1/2"-20NF	1
75	KEY5525	Key	5*5*25	1
76	C-76	Washer		1
77	C-77	Bevel Gear		1
78	C-78	Front Cover		1
79	BB-5305ZZ	Ball Bearing	5305	1

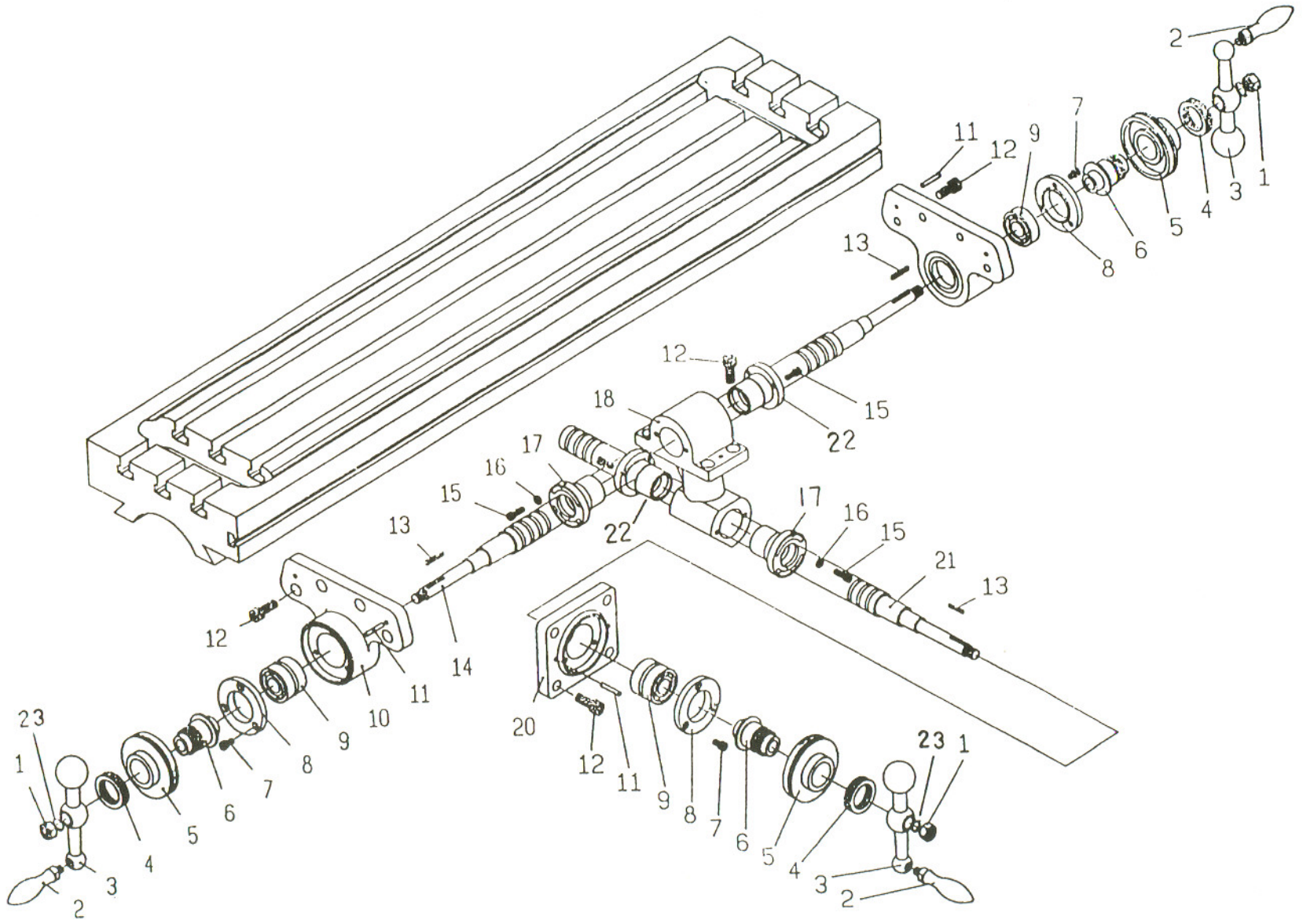
80	C-80	Bearing Stop	1
81	TS-1503051	Hex Socket Cap Screw	M6*20 3
82	C-82	Leadscrew	1
83	C-83	Handle	1
84	C-84	Elevating Crank	1
85	C-85	Gear Shear Clutch	1
86	C-86	Dial Lock Nut	1
87	C-87	Dial	1
88	C-88	Dial Holder	1
89	TS-1503051	Hex Socket Cap Screw	M6*20 3
90	C-90	Bearing Stop	1
91	BB-6204ZZ	Ball Bearing	6204ZZ 2
92	C-92	Bearing Stop	1
93	KEY3318	Key	3*3*18 1
94	C-94	Shaft	1
95	C-95	Grub Set Screw	1
96	C-96	Bevel Gear	1
97	KEY4418	Key	4*4*18 1
98	C-98	Column	1
100	C-19-1	Collar	1
102	TS-1505051	Hex Socket Cap Screw	M10*35 2
103	C-103	Lead Screw Housing	1
104	C-82-1	Lead Screw Nut	1
105	TS-1503051	Hex Socket Cap Screw	M6*20 3
108	C-38A	Lock Bolt	2
109	C-109	Nut	3/8" 2
110	C-110	Set Screw	2
111	C-111	Gib	1
112	C-112	Gib Holder (L)	1
113	C-113	Gib	1
114	C-114	Gib Holder(R)	1
115	TS-1505051	Hex Socket Cap Screw	M10*35 8
118	C-118	Spider	1
120	C-120	Ram Pinion	1
123	C-123	Spring Washer	4
124	C-124	Turret	1
126	C-126	Ram Lock Plunger	2
127	C-127	Locking Bolt	4
128	C-128	Ram Pinion Set Screw	1
129	C-129	Rivet	2
130	C-130	Strainer	1
131	JM-1050	Stripe Decal (not shown)	1
132	C-132	Chip Pan	1

# Base Assembly



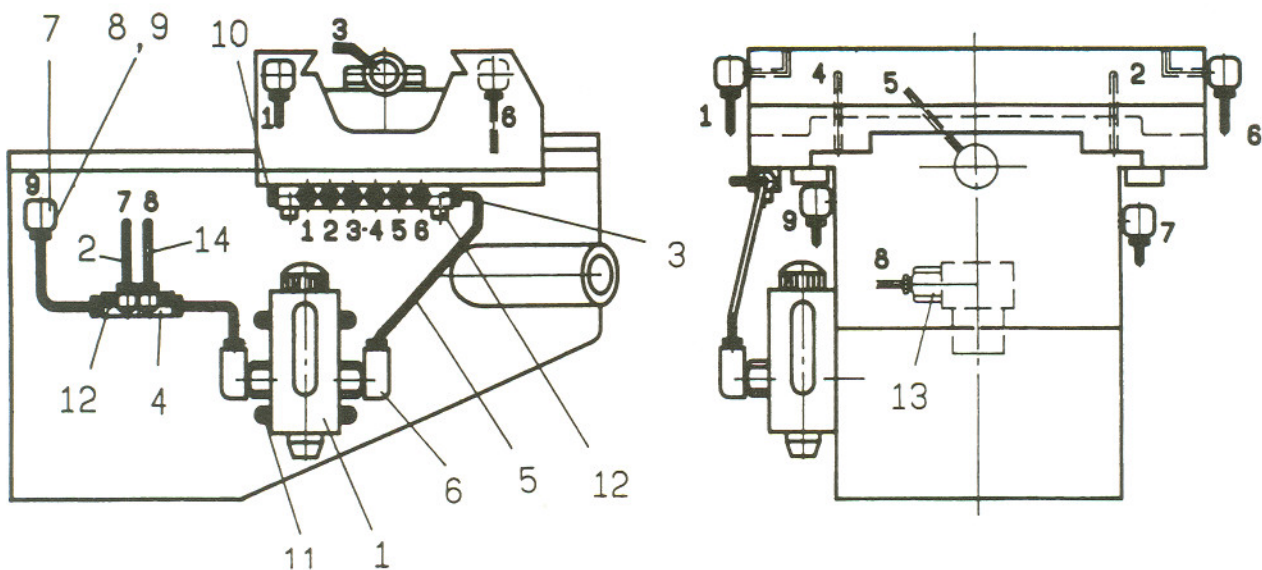
### Leadscrew Assembly

1.....	D-1.....	Nut.....	1/2"-20NF.....	3
2.....	D-2.....	Handle.....		3
3.....	D-3.....	Ball Crank.....		3
4.....	D-4.....	Dial Lock Nut.....		3
5.....	D-5.....	Dial.....		3
6.....	D-6.....	Dial Holder.....		3
7.....	TS-1503031.....	Hex Socket Cap Screw.....	M6*12.....	9
8.....	C-90.....	Bearing Stop.....		3
9.....	BB-6204ZZ.....	Ball Bearing.....	6204ZZ.....	5
10.....	D-10.....	Bearing Bracket.....		2
11.....	D-11.....	Spring Pin.....	.5*25.....	6
12.....	TS-1505031.....	Hex Socket Cap Screw.....		16
13.....	KEY3325.....	Key.....	3*3*25.....	2
13A.....	KEY3318.....	Key.....	3*3*18.....	2
14.....	D-14.....	Leadscrew.....		1
15.....	TS-1503061.....	Hex Socket Cap Screw.....		10
16.....	H-9.....	Washer.....		4
17.....	D-17.....	Feed Screw Nut.....		2
18.....	D-18.....	Feed Nut Bracket.....		1
20.....	D-20.....	Cross Bearing Bracket.....		1
21.....	D-21.....	Cross Feed Screw.....		1
22.....	D-22.....	Cross Feed Nut.....		2
23.....	D-23.....	Spring Washer.....	1/2".....	3



Leadscrew Assembly

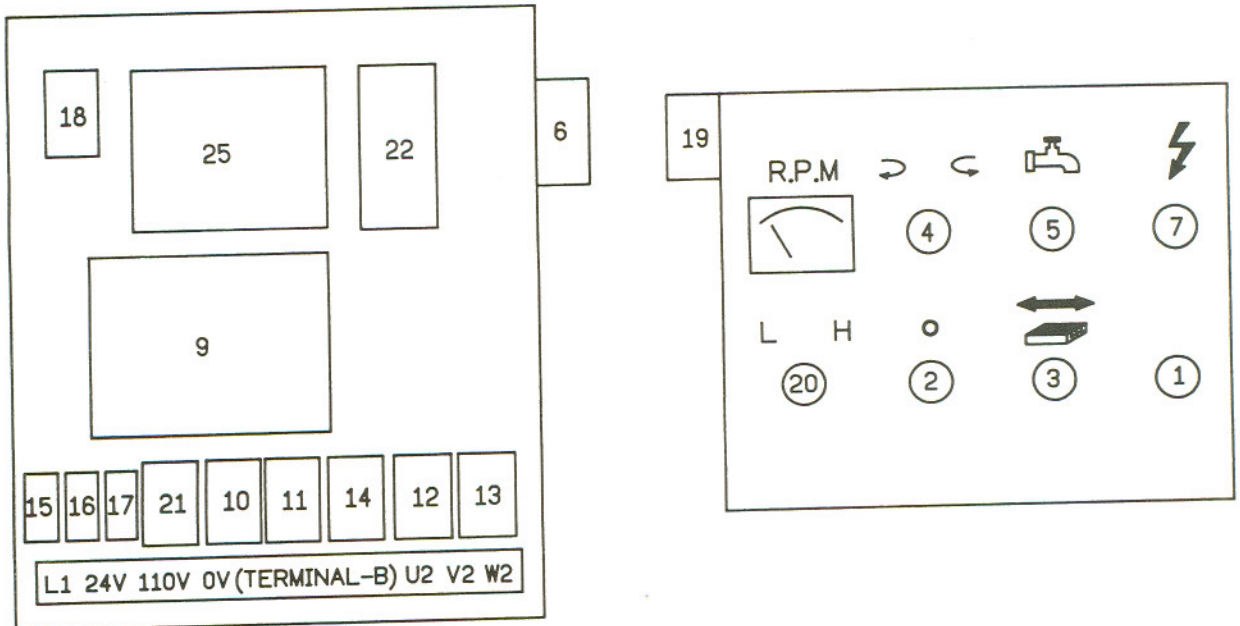
## One Shot Lubrication System



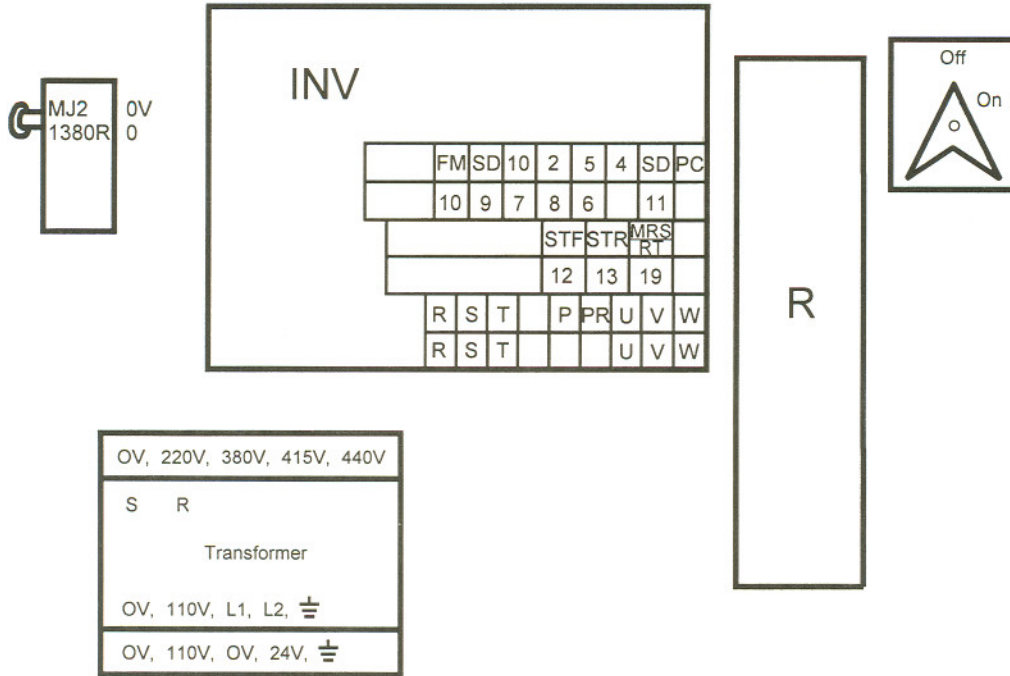
1	.....	CLA-8	.....	Handle Oiler	.....	1
2	.....	ALMP-04	.....	Aluminum Piece	.....	13.5
3	.....	A-8	.....	Oil Regulation Distributor	.....	1
4	.....	A-4	.....	Oil Regulation Distributor	.....	1
5	.....	A-5	.....	Flexible Steel Tube	.....	4*550
6	.....	PH-4011	.....	Elbow Joint	.....	2
7	.....	PI-401	.....	Elbow Joint	.....	6
8	.....	PA-4	.....	Thimble Nut	.....	20
9	.....	PB-4	.....	Thimble	.....	20
10	.....	PG-004	.....	Union	.....	1
11	.....	JTM4VS-BUTW1458	.....	Screw	.....	M6*14
12	.....	TS-1502061	.....	Hex Socket Cap Screw	.....	M5*25
13	.....	PD-401	.....	Straight Joint	.....	1
14	.....	A-14	.....	Nylon Piece	.....	4*700

## Electrical Panel

1	1050EVS-SB1	Emergency Stop	1
2	1050EVS-SB2	Spindle Stop	1
3	1050EVS-SB3	Power Feed On	1
4	1050EVS-SA1	Fwd.-0-Rev. Spindle On	1
5	1050EVS-SA2	Pump Select Switch	1
6	1050EVS-MS	Power On/Off	1
7	1050EVS-L1	Power Lamp	1
8	1050EVS-L2	Power Feed Lamp	1
9	1050EVS-TR	Transformer	1
10	1050EVS-M1	Motor Fwd. Contact Relay	1
11	1050EVS-M2	Motor Rev. Contact Relay	1
12	1050EVS-M3	Power Feed Contact Relay	1
13	1050EVS-M4	Pump Motor Contact Relay	1
14	1050EVS-M5	Inv. Motor Contact Relay	1
15	1050EVS-FU1	High Voltage Fuse	1
16	1050EVS-FU2	Low Voltage Fuse	1
17	1050EVS-FU3	Low Voltage Fuse	1
18	1050EVS-LS1	Door Limit Switch	1
19	1050EVS-LS2	Brake Limit Switch	1
20	1050EVS-VR1	Speed Adjuster Spindle	1
21	1050EVS-R1	Relay	1
22	1050EVS-R	Special Regenerative Brake	1
23	1050EVS-L	Work Lighting	1
24	1050EVS-PF	Power Feed	1
25	1050EVS-INV	Spindle Control	1



### Electrical Panel



			50	14				15				15				1				16				
S	110V	L2			19	R	11	3	15	R	11	3	15	R	11	3	14	U	V	W		R	S	T
FU1 3A	FU2 5A	FU3 3A	R1			M1 MOTOR FWD			M2 MOTOR REV			M5 INV MOTOR			M3 POWER FEED			M4 PUMP MOTOR						
S	1	24V	0		11	220V	12	4	5	220V	13	5	4	U	V	W		110V	0V	17		U <sub>2</sub>	V <sub>2</sub>	W <sub>2</sub>
			0	18				50				50				50				0				0

L1, 24V, 110V, 0V, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 17, 18, 220V, S, U, W,  $\text{⏏}$   $\text{⏏}$  U<sub>2</sub>, V<sub>2</sub>, W<sub>2</sub>, R, S, T,  $\text{⏏}$



Wiring Diagram

The JTM-1050EVS mill is pre-wired from the factory. Stock Number 690060 is Pre-wired 230V. Stock Number 690062 is Pre-wired 460V. This machine is not dual voltage.

