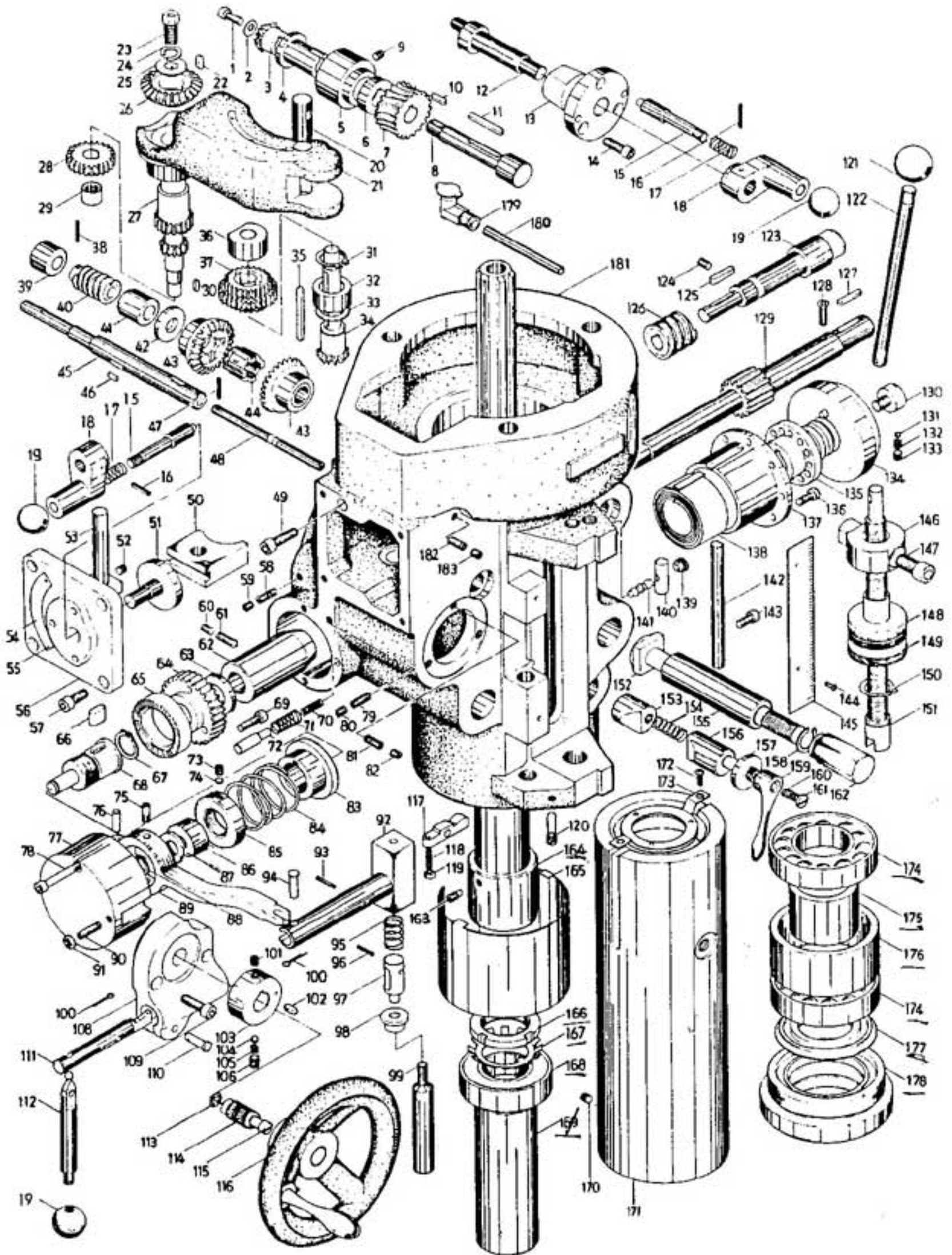


1	H5021	Vertical Adjusting Worm Shaft	58	3H4028-2	Left Hand Column Wiper Holder (2 Req.)
2	5022	Worm Thrust Washer			
3	5020	Vertical Adjusting Worm	59	3H4028	Knee Wiper Felt
4	5023	Roll. Pin	60	3H4028-1	Knee Wiper Felt
5	H5018	Ram	61	4038	Knee/Column Gib
6	5027-1	Set Screw	62	1001-1	Stop screw (2Req.)
7	5027	Nut	63	3040	Chip Guards
8	5019	Ram Adapter	64	H3039-1	Chip Guards
9	5033	Quill Housing ADJ. Gear	65	H3039	Chip Guards
10	5034	Roll Pin	66	3H4001	Knee
11	5035	Socket Head Cap Screw(2 Req.)	67	H1003	Socket Head Cap Screw (4 Req.)
12	5016	Ram Adapter Plate	68	H1002	Column Cover
13	5031	Plate (2 Req.)	69	4025	Socket Head Cap Screw (3 Req.)
14	5032	Round HD Drive Screw (28Req)	70	4024-1	Grease Nipple
15	5029	Spring Washer (3 Req.)	71	4024	Elevating Screw Nut
16	H5028	Adapter Locking Bolt (3 Req.)	72	H4026	Pedestal
17	5030	Turret Plate	73	4027	Socket Head Cap Screw (4Req.)
18	5003	Spider	74	H1004	Filter
19	5043	Angle Plate	75	3B1005	Knee Cover
20	5028-1	Adapter Locking Bolt Washer	76	1006	Flat Head Socket Screw (4Req.)
21	5026	Adapter Pivot Pin	77	4036	Socket Head Cap Screw (2 Req.)
22	5016-1	Plate (3 Req)	78	4034	Bevel Gear Cover
23	H5001	Turret	79	4020	Key
24	H5002	Ram/Turret Gib	80	4021	Elevating Screw Assembly
25	H5044	Ram Plate	81	4023	Jam Nut
26	H5004	Locking Bolt (4 Req.)	82	4023-1	Spring Washer
27	5005	Spring Washer (4 Req.)	83	4023-2	Washer
28	5015	Ram Pinion Screw	84	4019	Bevel Gear
29	H5007	Gib Screw (2Req.)	85	4022	Washer
30	H5007-1	Gib Screw Nut (2 Req.)	86	4040	Sealed Ball Bearing 5305#
31	H5006	Ram Lock Plunger (2 Req.)	87	4039	Bearing Retainer Ring
32	H5010	Ram Lock Stud (2 Req.)	88	4041	Socket Head Cap Screw (3Req.)
33	5014	Plastic Ball	89	4042	Socket Head Cap Screw
34	5013	Ram Pinion Handle	90	4042-1	Spring Washer
35	5012	Ram Pinion	91	4017-1	Washer
36	H1001	Column	92	4014	Bevel Pinion
37	H4043	Knee Lock Plunger	93	4014-1	Washer
38	3031	Lock Bolt (5 Req.,)	94	2008	Grease Scaled Bearing 6204# (2 Req.)
39	3030	Lock Bolt Handle (5 Req.)	95	4015	Key
40	H4044	Knee Lock Plunger	96	3H4017	Elevating Shaft for 13 $\frac{3}{4}$ " Knee
41	2031	Stop Piece T-Bolt (2 Req.)	97	4006	Bearing Cap
42	2030	Table Stop Bracket (2 Req.)	98	2011	Bearing Retaining Ring
43	2032	Hex Nut (2 Req.)	99	4009	Socket Head Cap Screw (3Req.)
44	3028	Gib Adjusting Screw (6 Req.)	100	4011	Dial Holder
45	3H3001	Saddle	101	4010	Dial With 100 Graduations
46	3026	Saddle/Table Gib	102	4016	Dial Lock Nut
47	H3032	Saddle Lock Plunger	103	4013	Gearshaft Clutch Insert
48	3027-	Saddle/Knee Gib	104	4012	Fix Gearshaft Clutch Nut
49	H3029-1	Table Lock Plunger	105	4002	Elevating Screw Assembly
50	3035	Table Stop Bracket	106	4004	Washer
51	3036	Socket Head Cap Screw (2 Req.)	107	4005	Socket Head Cap Screw
52	2035	Plug (2 Req.)	108	4003	Handle
53	2001-50	Table "50"			
54	3038	Oval Head Screw (12 Req.)			
55	3H3037-1	Saddle Knee Wiper Plate(2 Req.)			
56	3H3037	Felt Wipers (2 Req.)			
57	H3029	Table Lock Plunger			

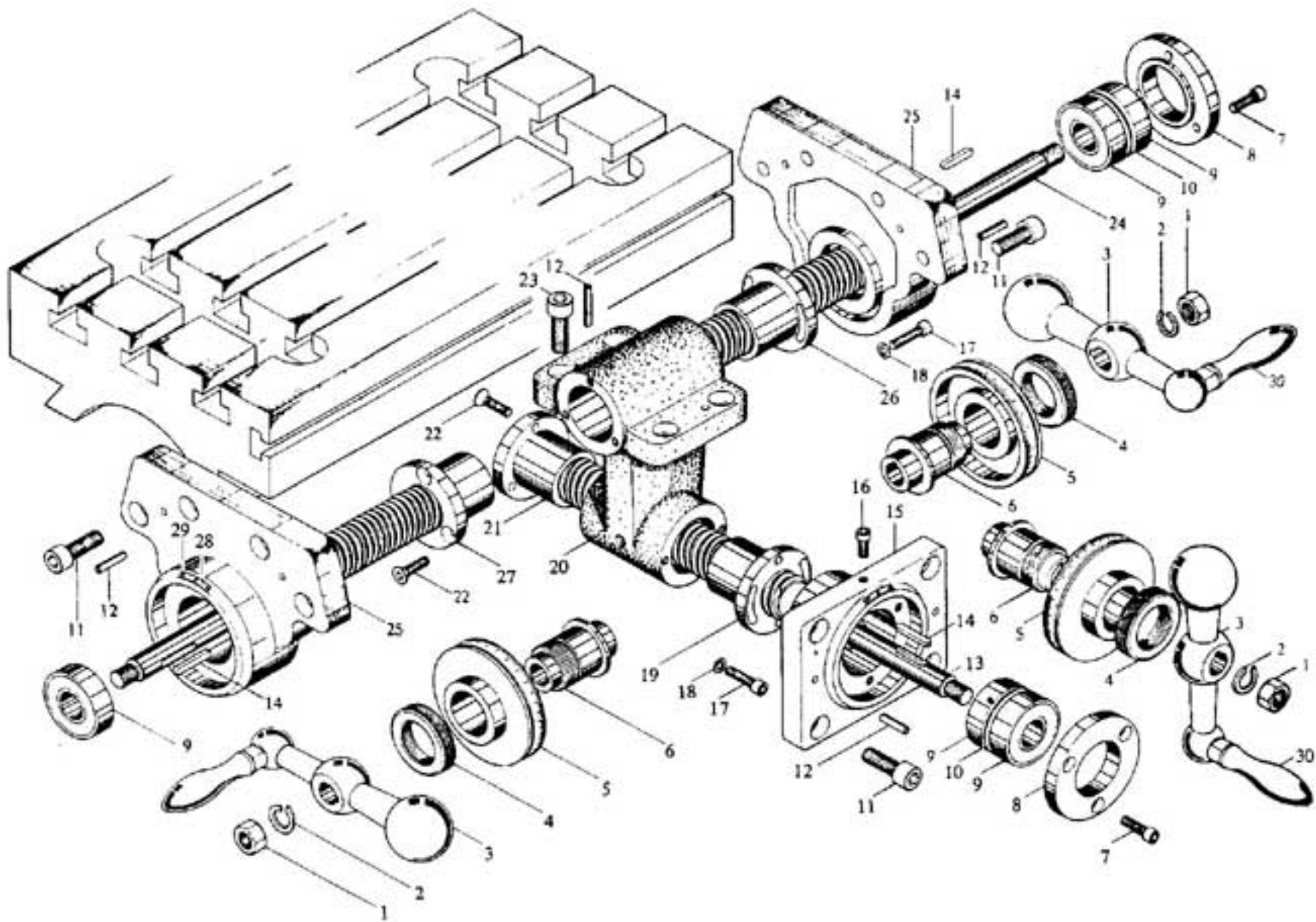


## 3K/3VK HEAD

ITEM NO.	PARTS NO.	DESCRIPTION	ITEM NO.	PARTS NO.	DESCRIPTION
1	6141	RD, HD, Screw	46	6230	Key
2	6140	Bevel Pinion Washer	47	6217	Roll Pin
3	6139	Feed Bevel Pinion	48	6216	Reverse Clutch Rod
4	6138	Feed Worm Gear Shaft Sleeve	49	6121-1	Cap Screw
5	6137	Worm Cradle Bushing	50	6162	Feed Gear Shift Fork
6	6136	Worm Gear Spacer	51	6166	Cluster Gear Shift Crank
7	6134	Feed Drive Worm Gear	52	6164	Set Screw
8	6133	Feed Drive Worm Gear Shaft	53	6163	Feed Shift Rod
9	6123	Set Screw	54	6256	Vari-Speed Dial
10	6142	Key	55	6256-1	Drive Screw (2 Req.)
11	6135	Key	56	6161	Cluster Gear Cover
12	6126	Worm Gear Cradle Throw-out	57	6165	Cap Screw (4 Req.)
13	6125	Shift Sleeve	58	6227-1	Set Screw
14	6132	Cap Screw (3 Req.)	59	6227-2	Set Screw
15	6169	Gear Shift Plunger (2 Req.)	60	6186-1	Set Screw
16	6128	Roll Pin (2 Req.)	61	6186-2	Set Screw
17	6170	Compression Spring (2 Req.)	62	6186	Quill Pinion Shaft Bushing
18	6168	Shift Crank (2 Req.)	63	6190	Pinion Shaft Worm Gear Spacer
19	6131	Black Plastic Ball (3 Req.)	64 -	6187	Overload Clutch Worm Gear
20	6122	Feed Engage Pin	65 --	6188	Overload Clutch Ring
21	6121	Worm Gear Cradle	66	6195-1	Key
22	6147	Cluster Gear Key	67	6188-1	Snap Ring
23	6150	Cap Screw	68	6195	Overload Clutch Sleeve
24	6149-1	Spring Washer	69	6189	Round Head Screw (3 Req.)
25	6149	Washer	70	6191	Compression Spring
26	6148	Feed Reverse Bevel Gear	71	6192	Compression Spring
27	6143	Feed Driving Gear	72	6193	Overload Clutch Lever Spring
28	6144	Feed Driving Gear			Plunger
29	6252	Needle Bearing BA66#	73	6199	Set Screw
30	6145	Key	74	6199-1	Brass Plug
31	6158	Snap Ring	75	6202	Clutch Ring Pin (2 Req.)
32	6156	Bevel Gear Bearing	76	6204	Pin
33	6159	Bevel Gear Thrust Spacer	77	6205	Clutch Arm Cover
34	6151	Cluster Gear Shaft	78	6206	Cap Screw (2 Req.)
35	6160	Cluster Gear Key	79	6224-1	Set Screw
36	6157	Cluster Gear Shaft Upper Bearing	80	6224-2	Set Screw
37	6153	Cluster Gears Assembly	81	6156-1	Set Screw
38	6226	Roll Pin	82	6156-2	Set Screw
39	6227	Bushing	83	6194	Overload Clutch
40	6225	Worm	84	6197	Safety Clutch Spring
41	6224	Feed Worm Shaft Bushing	85	6198	Overload Clutch Locknut
42	6223	Feed Worm Shaft Thrust Washer	86	6200	Clutch Ring
43	6220	Feed Reverse Bevel Gear(2 Req.)	87	6201	Overload Clutch Washer
44	6222	Feed Reverse Clutch	88	6195-1	Snap Ring
45	6209	Feed Worm Shaft	89	6203	Overload Clutch Trip Lever
			90	6207	Socket Set Screw
			91	6208	Chem Blacked Locknut

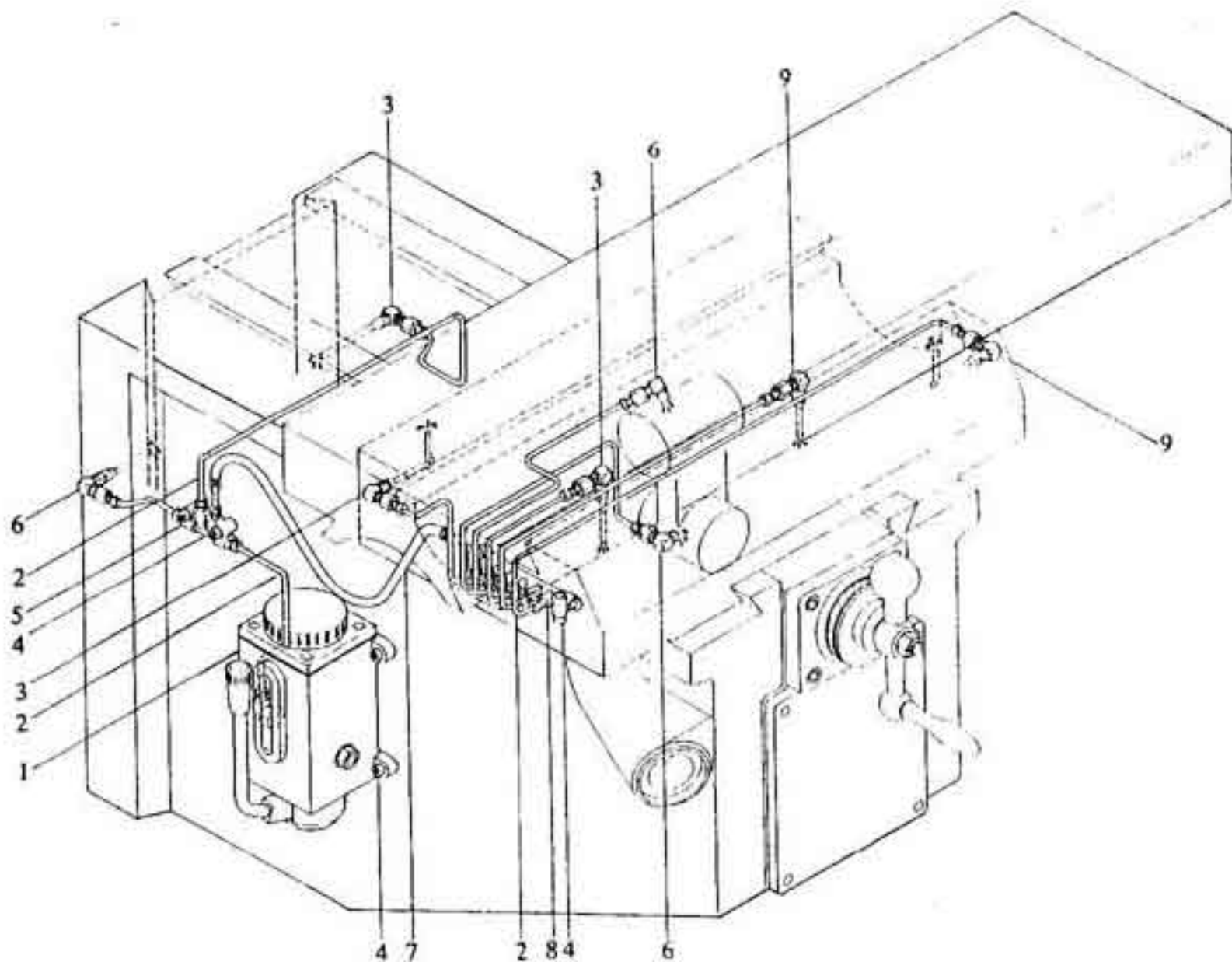
ITEM NO.	PARTS NO.	DESCRIPTION
92	6236	Cam Rod Sleeve Assy
93	6237	Roll Pin
94	6236-1	Dowel Pin
95	6242	Compression Spring
96	6241	Roll Pin
97	6240	Trip Plunger
98	6118-1	Trip Plunger Bushing
99	6118	Feed Trip Plunger
100	6257	Cotter Pin (2 Req.)
101	6219	Set Screw
102	6229	Key
103	6218	Handwheel Clutch
104	6255	Steel Ball
105	6219-2	Compression Spring
106	6219-1	Handwheel Clutch Spring Screw
107	6257	Cotter Pin
108	6231	Feed Trip Bracket
109	6232	Cap Screw
110	6231-1	Dowel Pin
111	6239	Cam Rod
112	6234	Trip Handle
113	6215	Snap Ring
114	6213	Reverse Knob
115	6214	Feed Reverse Knob Stud
116	6210	Handwheel
117	6111	Feed Trip Lever
118	6113	Socket Set Screw
119	6113-1	Locknut
120	6112	Trip Lever Pin
121	6173	Black Plastic Ball Handles
122	6174	Pinion Shaft Hub Handle
123	5040	ADJ Worm Shaft
124	5042	Socket Set Screw
125	5041	Key
126	5039	Worm Gear
127	6184	Key
128	6172-1	Cap Screw
129	6172	Quill Pinion Shaft
130	6183	Pinion Shaft Hub Screw
131	6176	Steel Ball
132	6175	Compression Spring
133	6177	Steel Ball
134	6178	Rack Feed Handle Hub
135	6182	Pinion Shaft Hub Sleeve
136	6180-1	RD. Head Screw (2 Req.)
137	6180	Spring Cover
138	6181	Clock Spring (Clock Spring Assy)

ITEM NO.	PARTS NO.	DESCRIPTION
139	6114	Reverse Trip Ball Lever Screw
140	6109	Feed Reverse Trip plunger
141	6110	Reverse Trip Ball Lever
142	6251	Set Bar
143	6251-1	Cap Screw
144	6244	Chem Blacked RD. HD. Screw (2 Req.)
145	6243	Micrometer Scale
146	6105	Quill stop Knob
147	6106	Screw
148	6107	Micrometer Nut
149	6108	Quill Micro-stop Nut
150	6115	Snap Ring
151	6104	Quill Stop Micro-screw
152	5036	T-Bolt Assy (4. Req.)
153	6116B	Quill Lock Sleeve
154	6116-1	Compression Spring
155	6120	Lower Clamping Bolt Spacer (2 Req.)
156	6116A	Quill Lock Sleeve Tapped
157	6117	Quill Lock Bolt
158	5037	Spring Washer
159	6119	Lock Handle
160	6117-1	Spring
161	6117-2	Spring Screw
162	5038	Locknut (4 Req.)
163	6253	Special Socket Set Screw
164	6084 -	Spindle -
165	6086	Quill Skirt
166	6090	Locknut
167	6091	Lockwasher
168	6092	Bearing
169	6094	Sleeve
170	6085-1	Set Screw
171	6085	Quill
172	6088-1	Felt Washer Screw (2 Req.)
173	6088	Felt Washer
174	6093	Bearing (2 Req.)
175	6096	Bearing Spacer-Large
176	6095	Bearing Spacer-Small
177	6097	Spindle Dirt Shield
178	6098	Nose-Piece
179	6258	Oil Cap
180	6259	Copper Pipe
181	6101	Quill Housing
182	6157-1	Set Screw
183	6157-2	Set Screw

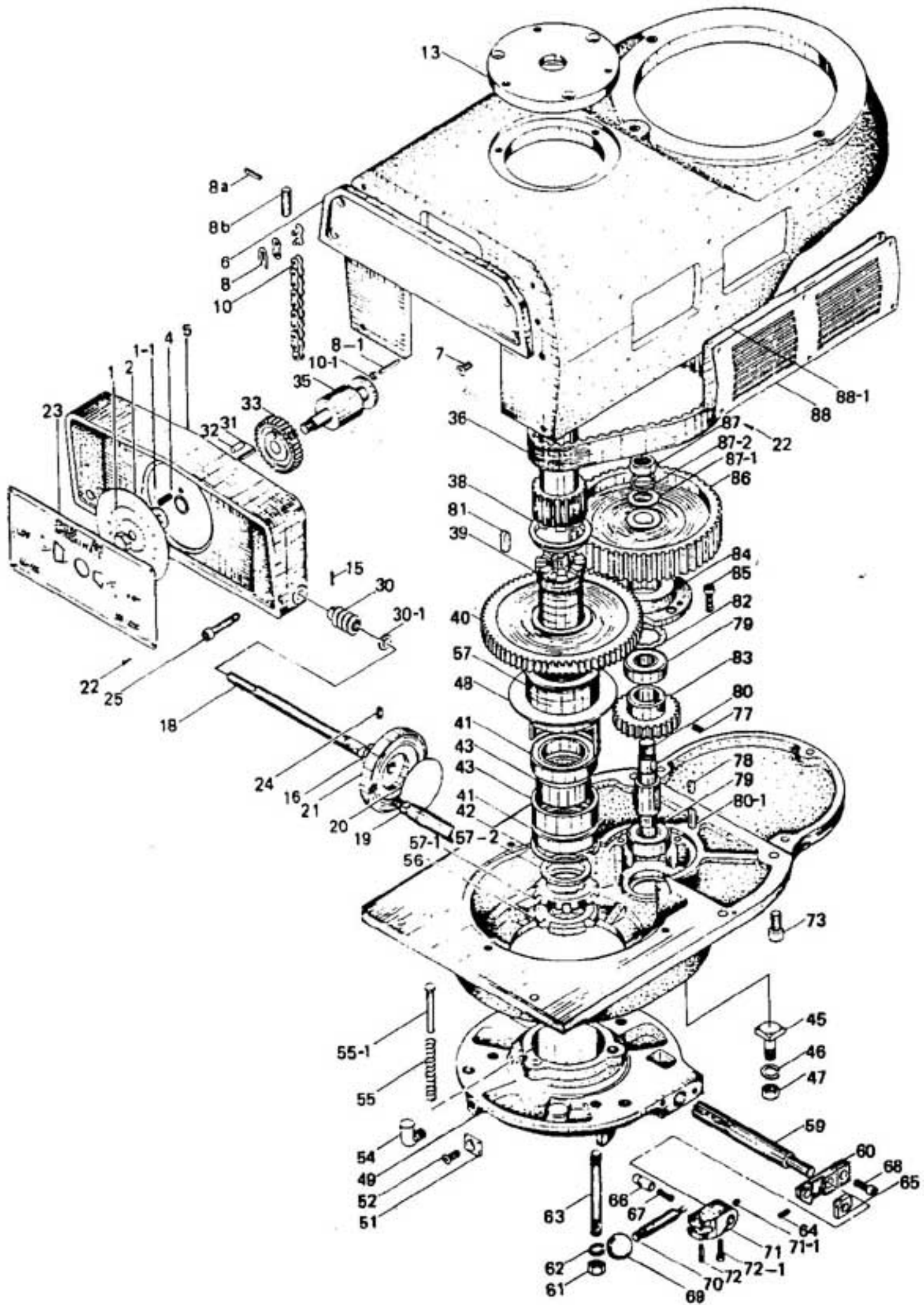


## LEADSCREW ASSEMBLY

ITEM NO.	PARTS NO.	DESCRIPTION	ITEM NO.	PARTS NO.	DESCRIPTION
1	2004	Jam Nut (3 Req.)	16	3005-1	Stop Screw (4 Req.)
2	2004-1	Spring Washer (3 Req.)	17	3025-2	Socket Screw (4 Req.)
3	H2018	Ball Crank Handle (3 Req.)	18	3025-3	Washer (4 Req.)
4	2016	Dial Lock Nut (3 Req.)	19	3020-2A	Cross Feed Nut
5	2012	Dial with 200 Graduations (3 Req.)	20	H3025	Feed Nut Bracket
6	2014	Dial Holder (3 Req.)	21	3020-2B	Cross Feed Nut
7	2036	Socket Cap Screw (6 Req.)	22	3025-1	Flat Head Socket Screw (6 Req.)
8	2011	Bearing Retainer Ring (2 Req.)	23	3024	Socket Cap Screw (4 Req.)
9	2008	Grease Seal Ball Bearing 6204# (5 Req.)	24	2002	Longitudinal Feed Screw 50"
10	2010	Washer (2 Req.)	25	2006	Bearing Bracket (2 Req.)
11	2026	Socket Cap Screw (12 Req.)	26	3020-1A	Long Feed Nut
12	2027	Roll Pin (8 Req.)	27	3020-1B	Long Feed Nut
13	H3002	Cross Feed Screw for 13 $\frac{3}{4}$ " Knee	28	5016-1	Plate (3 Req.)
14	2003	Key (3 Req.)	29	5032	Round HD Drive Screw (6 Req.)
15	3005	Cross Feed Bearing Bracket	30	H2018 -1	Ball Crank Handle Grip (3 Req.)

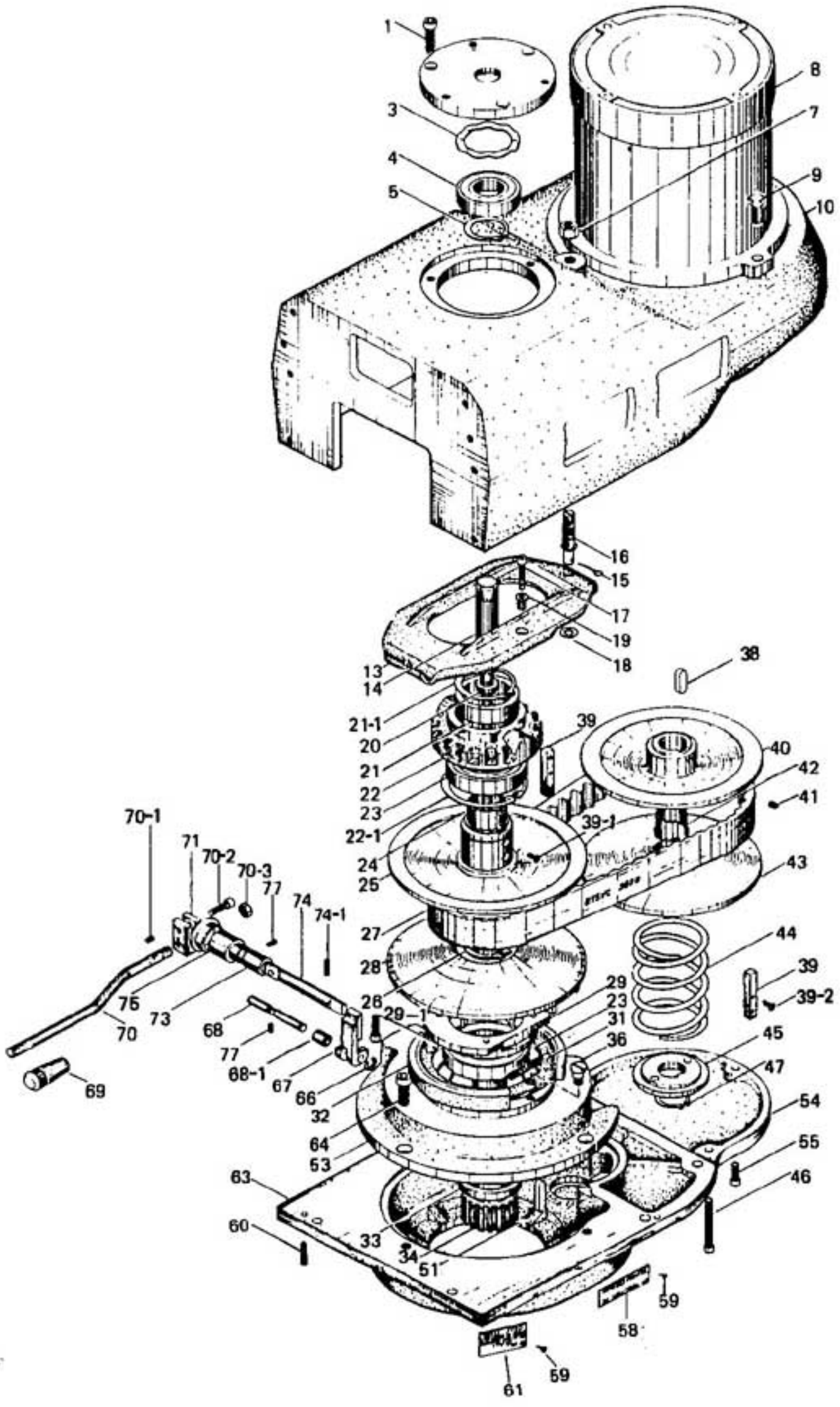


1	9001	Hand Oiler	6	9006	Ratio Distribution Controller - CPS3 (3 Req.)
2	9002	Aluminum Pipe	7	9007	Outside Steel Wire Soft Tube
3	9003	Ratio Distribution Controller - CPS4 (3 Req.)	8	9008	"A" Type Distributor - A8
4	9004	Socket Cap Screw (8 Req.)	9	9009	Ratio Distribution Controller CPS5 (2 Req.)
5	9005	"A" Type Distributor - A4			



### 3VK HEAD BACK GEAR

ITEM NO.	PARTS NO.	DESCRIPTION	ITEM NO.	PARTS NO.	DESCRIPTION
1	8001	Socket Cap Screw (3 Req.)	40	8040	Stationary Motor Varidisc
3	8003	Spring Washer	41	8041	Socket set Screw
4	8004	Ball Bearing 6007#	42	8042	Plastic Insert (2 Req.)
5	8005	Snap Ring	43	8043	Adjustable Motor Varidisc Assembl
7	8007	Hex Jam Nut	44	8044	Spring for Varidisc Motor Shaft
8	8008	Motor 3HP (Complete unit)	45	8045	Adjustable Varidisc Spring Collar.
9	8009	Hex HD Screw (2 Req.)	46	8046	Socket HD Cap Screw (2 Req.)
10	H8010	Belt Housing	47	8047	Ret. Ring
13	8013	Speed Change Plate	51	8051	Key
14	8014	Drawbar	53	H8053	Belt Housing Base
15	8015	Cotter Pin	54	H8054	Motor Pulley Cover
16	8016	Speed Change Plate Pivot Stud	55	8055	Socket Cap Screw
17	8017	Socket HD Cap Screw (2Req.)	58	8058	H1-LOW Range Nameplate
18	8018	Washer	59	8059	Drive Screw (6 Req.)
19	8019	Pivot Sleeve (2Req.)	60	8060	Taper Pin (2 Req.)
20	8020	Draw Bar Washer	61	8061	Quill Feed Nameplate
21	8021	Spacer	63	H8063	Gear Housing
21-1	8021-1	Snap Ring	64	8064	Socket Cap Screw (3 Req.)
22	8022	Spindle Pulley Bearing Sliding Housing	66	8066	Snap Ring
22-1	8022-1	Snap Ring	67	8067	Brake Finger Pivot Stud (2 Req.)
23	8023	Ball Bearing 6010# (2 Req.)	68	H8068.	Brake Operating Finger.
24	8024	Plastic Insert (2 Req.)	68-1	H8068-1	Spacer
25	8025	Adjustable-Driven Varidisc	69	3H8069	Bakelite Ball Handle
26	8026	Snap Ring	70	H8070	Brake Lock Handle
27	8027	Belt	70-1	H8070-1	Socket Set Screw
28	8028	Stationary Driven Varidisc	70-2	H8070-2	Socket Cap Screw
29	H8029	Brake Bearing Cap	70-3	H8070-3	Jam Nut
29-1	8029-1	Socket HD Cap Screw (4 Req.)	71	H8071	Brake Lock Handle
31	8031	Brake Spring (2 Req.)	73	H8073	Sleeve for Brake Lock Shaft
32	8032	Brake Shoe Assembly	74	H8074	Brake Lock Shaft
33	8033	Spindle Pulley Spacer	74-1	8074-1	Roll Pin
34	8034	Spindle Pulley Hub	75	8075	Rubber Bushing
36	8036	Brake Shoe Pivot Sleeve Screw	77	8077	Socket Set Screw (2 Req.)
38	8038	Drive Key			
39	8039	Key (2 Req.)			
39-1	8039-1	Flat HD Socket Cap Screw (2 Req.)			
39-2	8039-2	Flat HD Socket Cap Screw (2 Req.)			



### 3VK HEAD TOP HOUSING

ITEM NO.	PARTS NO.	DESCRIPTION	ITEM NO.	PARTS NO.	DESCRIPTION
1	H7001	Hex Cap Nut	52	7052	Flat HD Socket Cap Screw (2 Req.)
1-1	7001-1	Washer	54	7054	Oil Cap (2 Req.)
2	7002	Vari-Speed Dial	55	7055	Compression Spring (3 Req.)
4	7004	Full Dog Socket Set Screw	55-1	7055-1	Adjust Pin (3 Req.)
5	H7005	Speed Changer Housing	56	7056	Bearing Locknut
6	H7006	Name Plate	57	7057	Bearing Sleeve
7	H7007	Socket Cap Screw (4 Req.)	57-1	7057-1	Lock Washer
8	7008	Chain Joint	57-2	7057-2	Washer
8-1	7008-1	Roll Pin	59	7059	Bull Gear Shift Pinion
8a	7008a	Roll Pin	60	7060	HI-LOW Detent Plate
8b	7008b	Speed Change Stud	61	7061	Hex Nut (3 Req.)
10	H7010	Speed Change Chain	62	7062	Spring Washer (3 Req.)
10-1	7010-1	Washer	63	7063	Studs (3Req.)
13	7013	Top Bearing Cap	64	7064	Socket Set Screw
15	7015	Roll Pin	65	7065	Adjustable Plate
16	7016	Spring Washer	66	7066	HI-LOW Detent Plunger
18	H7018	Speed Change Shaft	67	7067	Spring
19	H7019	Handle	68	7068	Socket Cap Screw (2 Req.)
20	7020	Caution Plate	69	7069	Black Plastic Ball Handle
21	H7021	Speed Change Handwheel	70	7070	HI-LOW Shift Crank
22	H7022	Flat Hd. Cap Screw (16 Req.)	71	7071	HI-LOW Pinion Block
23	H7023	Plastic Face Plate	71-1	7071-1	Socket Set Screw
24	7024	Set Screw	72	7072	Roll Pin
25	H7025	Socket Cap Screw (4 Req.)	72-1	7072-1	Socket Cap Screw (2 Req.)
30	7030	Worm Gear	73	7073	Socket Cap Screw (6 Req.)
30-1	7030-1	Washer	77	7077	Socket Set Screw
32	7032	Pin (2 Req.)	78	7078	Key
33	7033	Speed Changer Spur Gear	79	7079	Ball Bearing 6203# (2 Req.)
35	H7035	Speed Changer Chain Drum	80	7080	Bull Gear Pinion Counter Shaft
35-1	7035-1	Roll Pin	80-1	7080-1	Key
36	7036	Belt	81	7081	Key
38	7038	Timing Pulley Clutch Sleeve	82	7082	Wave Spring Washer
39	7039	Splined Gear Hub	83	7083	Bull Gear Pinion
40	7040	Splindle Bull Gear Assembly	84	7084	Bull Gear Pinion Bearing Cap
41	7041	Ball Bearing 6908# (2 Req.)	85	7085	Socket Cap Screw (3 Req.)
42	7042	Snap Ring	86	7086	Timing Belt Pulley
43	7043	Bull Gear Bearing Spacer	87	7087	Jam Nut
45	7045	Vert, Tee Bolts (3 Req.)	87-1	7087-1	Washer
46	7046	Steel Washer (3 Req.)	87-2	7087-2	Spring Washer
47	7047	Nut (3 Req.)	88	H7088	Ventilator (2 Req.)
48	7048	Ball Bearing Gear Sleeve Washer	88-1	H7088-1	Rubber Cover (2 Req.)
49	7049	Fixed Clutch Bracket			
51	7051	Guide for Clutch Bracket (2 Req.)			