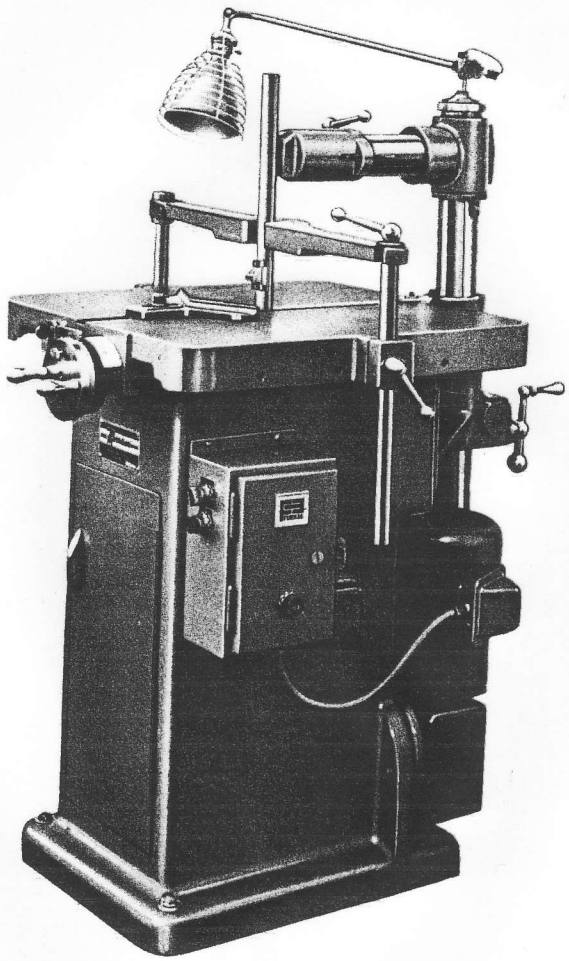
Morrison

KEYSEATER

MODEL K 1 1/4" CAPACITY

PARTS LIST and SERVICE MANUAL



It is important for prompt service to give Serial Number of Machine when requesting information or ordering parts

THE D. C. MORRISON CO.

201 Johnson St., Covington, Ky. 41011, U. S. A.

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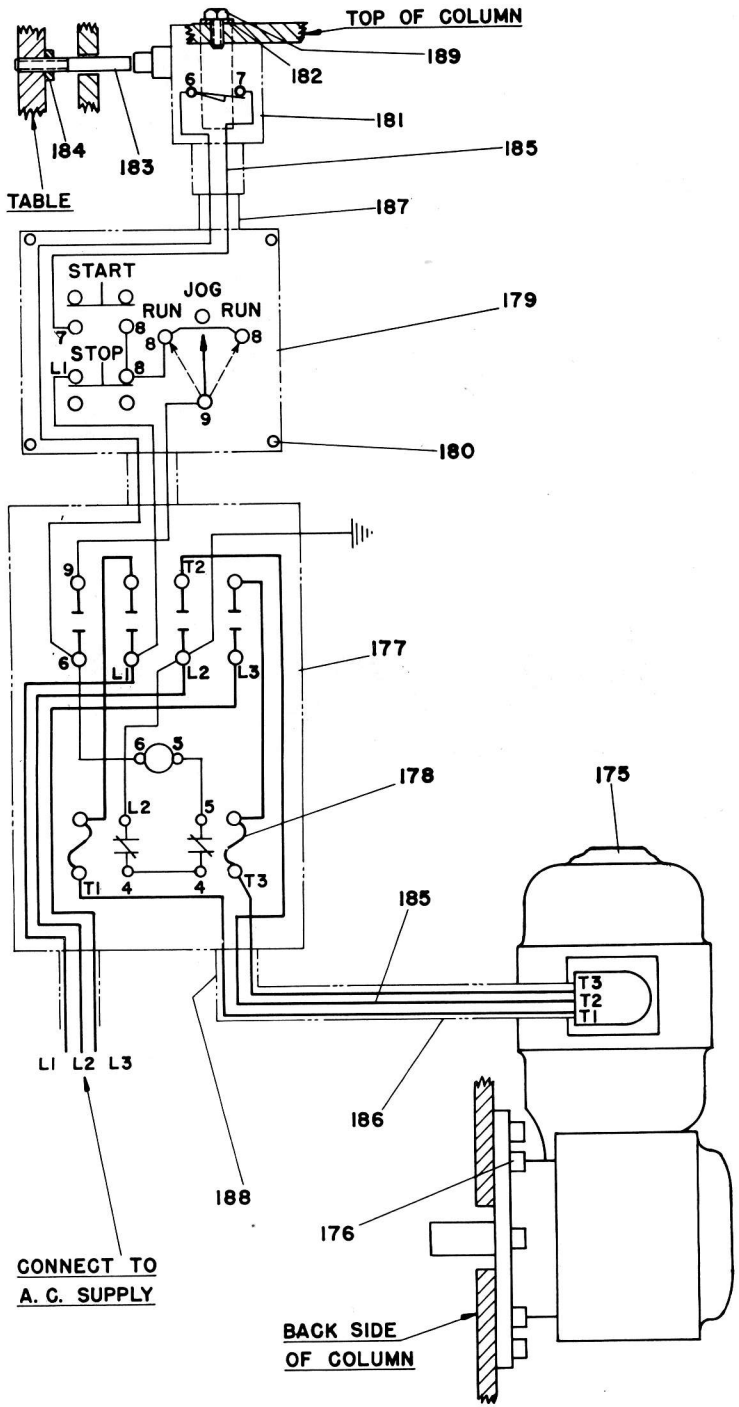
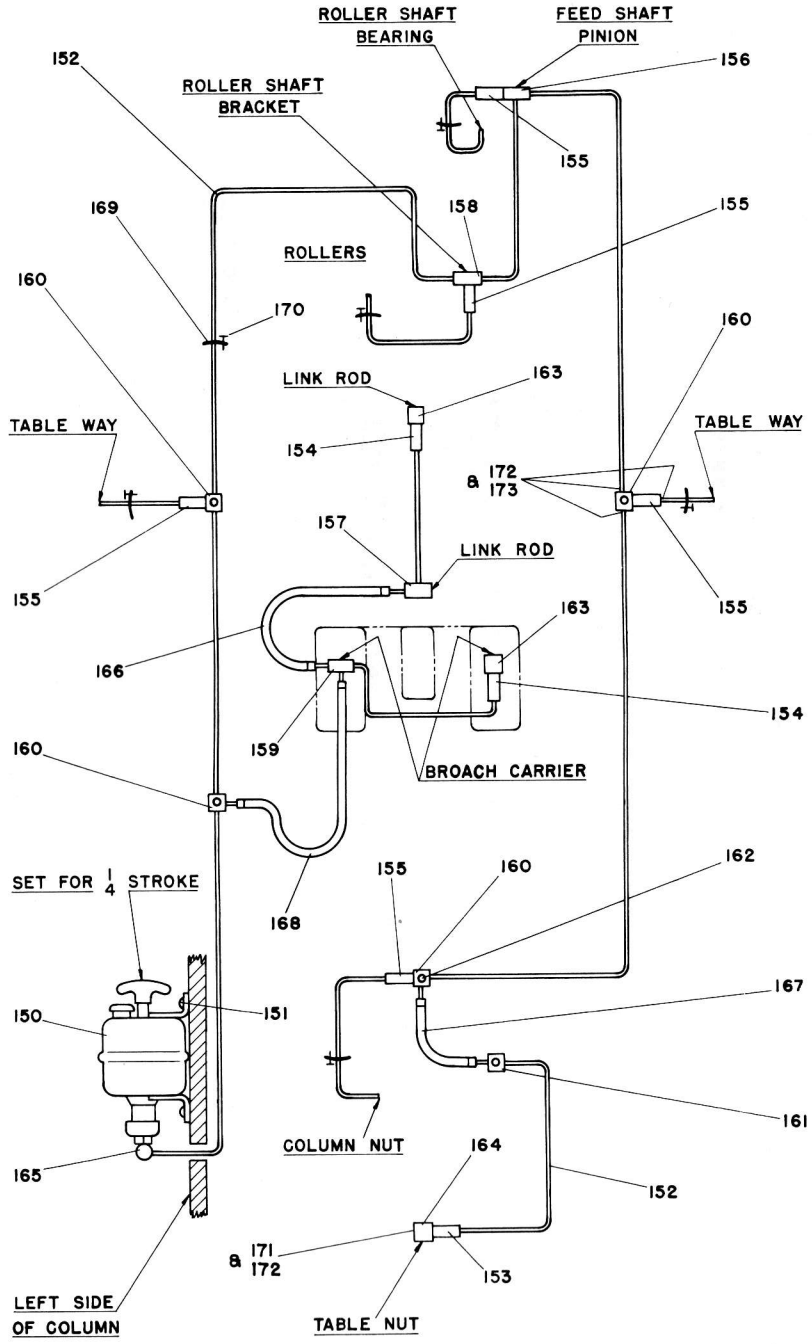
ELECTRICAL DIAGRAM



LUBRICATION DIAGRAM



SAFETY PRECAUTIONS

Carefully read instruction manual before operating machine. DO NOT operate without all guards and covers in position. Be sure machine is electrically grounded. Remove or fasten loose articles of clothing such as neckties, etc. Confine hair. Remove jewelry such as finger rings, watches, bracelets, etc. Always use face shield, goggles, or glasses to protect eyes and other personal safety equipment as required. Stop machine before making adjustments or cleaning chips from work area. Keep the floor around the machine clean and free from scraps, sawdust, oil or grease to minimize the danger of slipping.

OPERATING INSTRUCTIONS
1-1/4" MORRISON KEYSEATER

WIRING-In wiring motor, looking into the base of the machine, BE SURE large bull gear turns clockwise.

OILING- Use "one shot" oiling system hourly. Also oil between the cutter bar and the spools in the cutter bar supports. Oil motors as per instructions on motor plates. The motor was filled with oil before leaving factory.

OPERATION- Turn handwheel counterclockwise until table is all the way forward. This insures full feed. (If table is run past its normal travel a limit switch will turn off the motor. To start again turn handwheel counterclockwise bringing table forward to its correct starting position.) Swing overhead arm and clamp bar out of the way.

Use the Cutter Bar Support which supports cutter at table level. The support is placed in the groove behind the cutter bar so that the cutter bar is riding firmly in the spool. The support is then locked in place by the adjustable ring found on the column.

Set tool post or cutter bar so that the cutting edge of the cutter is 1/16", and **no more** than 1/8" above the work **at the top of the stroke** (use jog switch for convenience when setting up work). Be sure cutter will clear work at bottom of stroke.*

Locate and center work by using centering vee so that it **just** clears cutter **on down stroke**. Clamp centering vee securely. Adjust the swinging clamp bar so that the clamp bar bears firmly on the work **on both sides of the cutter bar**. To do this have clamp bar resting on left hand side of work and then when it is tightened, it will bear firmly on both sides.

Adjust overhead arm as close to the work as possible. When doing this support the bottom of the vertical column with your left hand so that it does not slip or fall when lower column clamp is loosened.

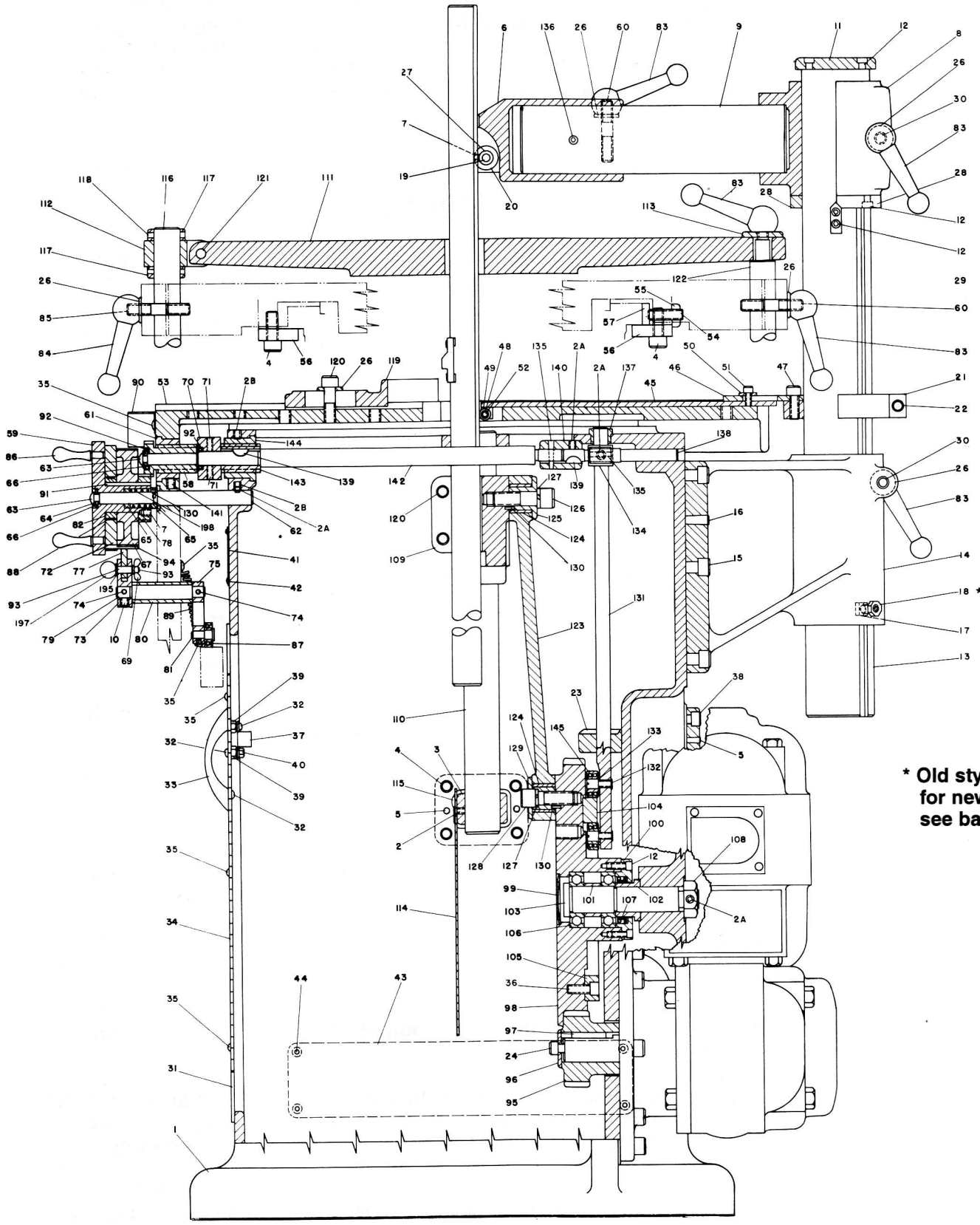
Adjust overhead arm so that the cutter bar is riding firmly in the spool and lock in place. Ratchet pawl can be set to feed one tooth, two teeth or three teeth giving .002", .004" or .006" feed.

Brush on a heavy sulphur-base oil as a coolant when cutting steel keyways. (Use generously.)

Start the keyseater and then with the ratchet feed on, let it run until cutter just touches work, and then set micrometer to desired depth. Do not feed in by hand-too deep a cut might be taken, resulting in broken cutters, or damage to the cutter bar.

* The Keyseater left the factory set for a stroke of 6". If the piece to be keywayed is longer than 5" the stroke can be increased to 9" by **changing the link rod on the bull gear to the outer position.** For keyways under 5" the shorter stroke is recommended.

MACHINE LAYOUT

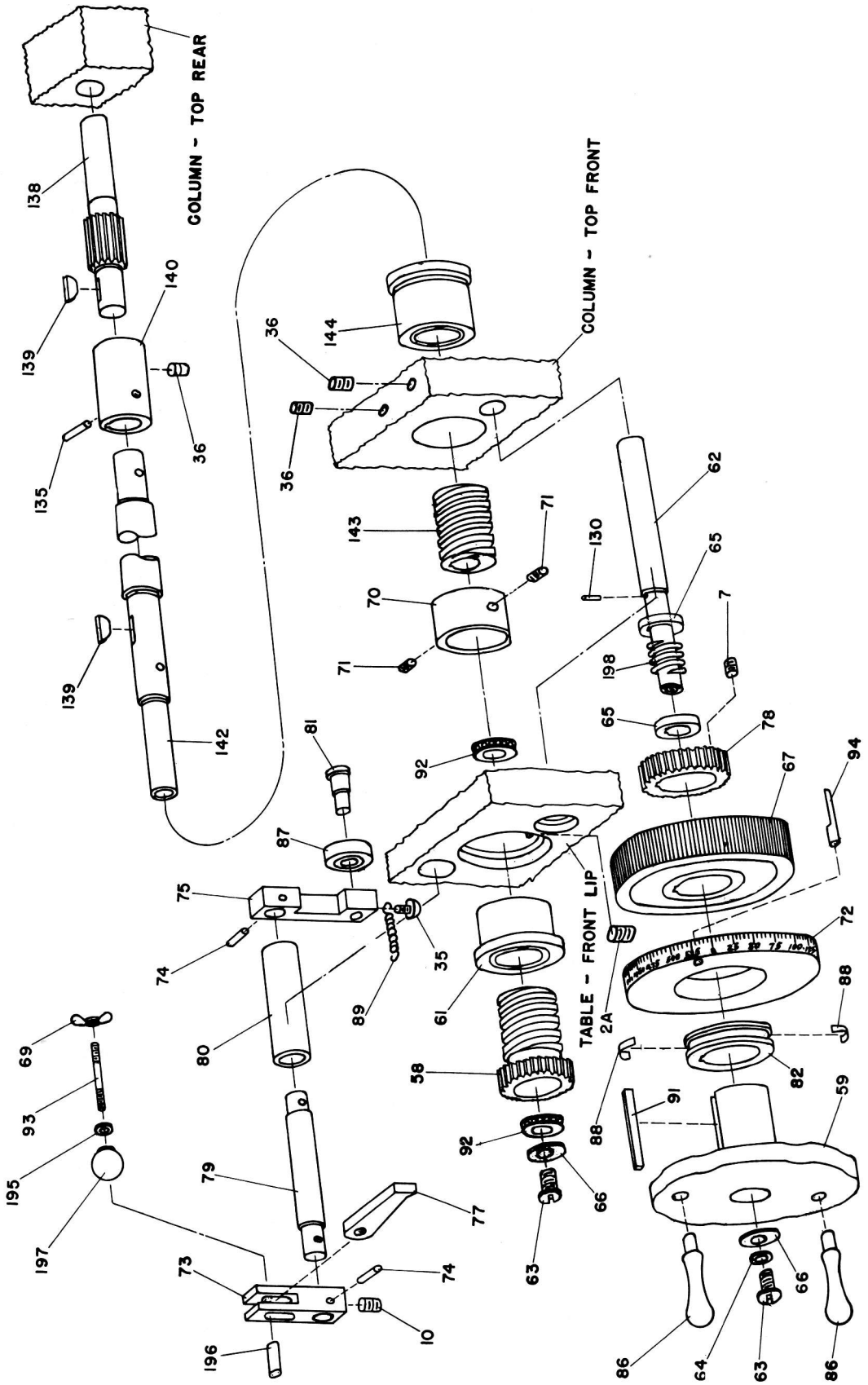


* Old style - for new style see back page

Parts Description Refer Part Number Page 5

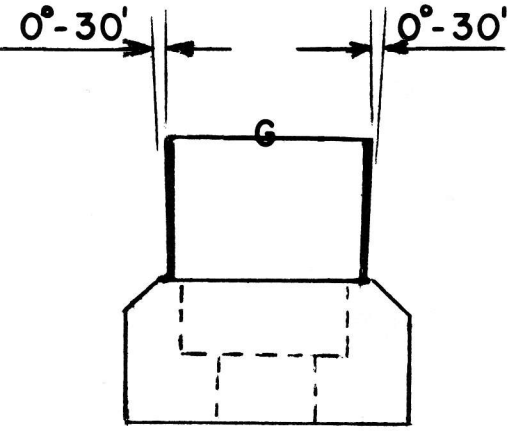
Part No.	Part
1	Column
2	Screw
2 A	Screw
2 B	Screw
3	Slide Rod Bracket
4	Screw
5	Pin
6	Broach Head Guide
7	Screw
8	Horizontal Tube Support
9	Horizontal Tube
10	Screw
11	Vertical Tube Cap
12	Screw
13	Vertical Tube
14	Column Bracket
15	Screw
16	Pin
17	Vertical Tube Key
18	Jam Nut
19	Spool Shaft
20	Centering Spool
21	Bar Support Collar
22	Screw
23	Cam Shaft Bracket
24	Motor Pinion Screw
26	Ball Lever Washer
27	Spool Bearing
28	Locating Collar
29	Tube Locating Key
30	Bracket Stud
31	Column Door
32	Screw
33	Door Handle
34	Door Hinge
35	Screw
36	Screw
37	Door Latch
38	Screw
39	Door Latch Spacer
40	Nut
41	Name Plate
42	Drive Screw
43	Name Plate
44	Screw
45	Bar Support
46	Support Slide
47	Screw
48	Support Bearing
49	Support Roller
50	Support Washer
51	Screw
52	Spool Shaft
53	Table
54	Screw
55	Nut
56	Table Clamp
57	Table Gib
58	Table Worm and Gear
59	Ratchet Handwheel
60	Table R. H. Stud
61	Table Nut
62	Handwheel Ratchet Shaft
63	Screw
64	Lock Washer
65	Ratchet Shaft Collar
66	Feed Shaft Washer
67	Ratchet Wheel
69	Wing Nut
70	Ratchet Cam
71	Screw
72	Micrometer Dial
73	Ratchet Lever
74	Pin
75	Cam Roller Crank Lever
77	Ratchet Pawl
78	Ratchet Gear
79	Ratchet Lever Shaft
80	Lever Shaft Bushing
81	Lever Roller Stud
82	Dial Bushing
83	R. H. Ball Lever
84	L. H. Ball Lever
85	Table L. H. Stud
86	Handwheel Handle
87	Cam Lever Bearing
88	Dial Spring
89	Cam Lever Spring
90	Ratchet Gear Guard
91	Ratchet Key
92	Feed Shaft Bearing
93	Ratchet Pawl Stud
94	Pawl Stop Pin
95	Motor Pinion
96	Motor Shaft Washer
97	Motor Shaft Key
98	Bull Gear
99	Bull Gear Plug
100	Bull Gear Collar
101	Bull Gear Spacer
102	Bull Gear Sleeve
103	Bull Gear Stud
104	Cam Outer Ring
105	Cam Inner Ring
106	Bull Gear Bearing
107	Bull Gear Oil Seal
108	Bull Gear Stud Nut
109	Broach Carrier
110	Carrier Slide Rod
111	Work Clamp
112	Clamp Hinge
113	Work Clamp Washer
114	Bull Gear Guard
115	Screw
116	Hinge Side Rod
117	Collar Rod
118	Taper Pin
119	Centering Vee
120	Screw
121	Pin
122	Clamp Side Rod
123	Link Rod
124	Link Rod Bearing
125	Link Rod Sleeve
126	Screw
127	Lock Washer
128	L. H. Screw
129	Link Rod Sleeve
131	Cam Shaft
132	Roller Stud
133	Roller Stud Washer
134	Roller Shaft Rack
135	Pin
136	Broach Head Guide Screw
137	Roller Shaft Bushing
138	Feed Shaft Pinion
139	Woodruff Key
140	Feed Shaft Coupling
141	Screw
142	Feed Shaft
143	Column Worm
144	Column Nut
145	Roller Bearing
150	Lubricator
151	Screw
152	Tubing
153	Meter — Unit
154	Meter — Unit
155	Meter — Unit
156	Meter — Unit
157	Meter — Unit
158	Meter — Unit
159	Meter — Unit
160	Junction — 3 Way
161	Junction — 2 Way
162	Screw
163	Connector — 90° Elbow
164	Connector — 45° Elbow
165	Adapter — Elbow
166	Hose Assembly — 6"
167	Hose Assembly — 7"
168	Hose Assembly — 18"
169	Clip — Single Tubing
170	Screw
171	Nut — Compression
172	Bushing — Compression
173	Sleeve — Compression
175	Motor — 1½ H.P.
176	Screw
177	Starter — non-rev. Magnetic
178	Heater — Overload
179	Switch — Motor
180	Screw
181	Switch — Safety
182	Bracket — Switch (Safety)
183	Rod — Safety Switch
184	Nut — Jam Hex
185	Wire — 14 TW
186	Conduct — Flex.
187	Connector — Straight
188	Connector — Angle
189	Screw
195	Ratchet Stud Washer
196	Ratchet Pawl Bush
197	Ratchet Pawl Knob
198	Spring
199-209	Back Bracket Assembly

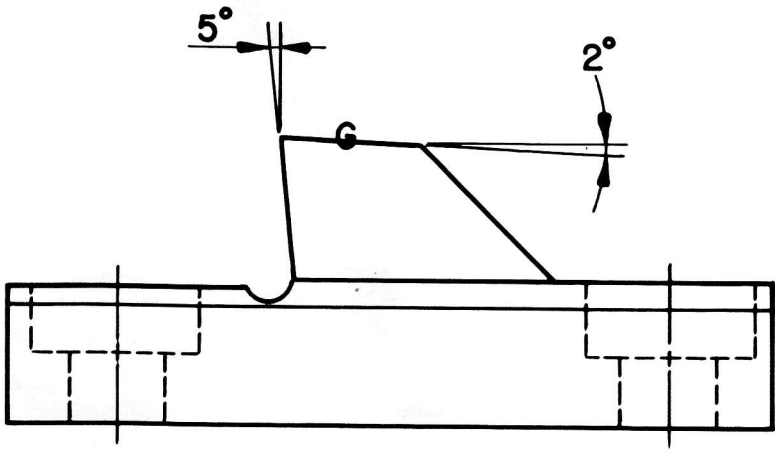
AUTOMATIC FEED DIAGRAM



Parts Description Refer Part Number Page 5

CUTTER DIAGRAM





Factory cutters are ground .0015" oversize on width, and as above for general purpose work.

To resharpen grind surface marked "G".

CUTTERS GALLING: Lack of coolant, use high sulfur base cutting oil. Brush on generously.

Cutters ground incorrectly. For correct angles refer above. Cutters are ground at factory with a 5° cutting angle and ½° side clearance. For very tough materials this angle could be increased up to 15°, the side clearance could be increased up to 2°. However this tends to shorten tool life as it becomes undersized when resharpened.

CHATTERING DURING CUTTING OPERATION: Improper set up, work should rest solidly on table.

Cutter too dull, refer above.

Lack of coolant, refer above.

Cutter set more than ⅛" above work at top of stroke. See operation instructions.

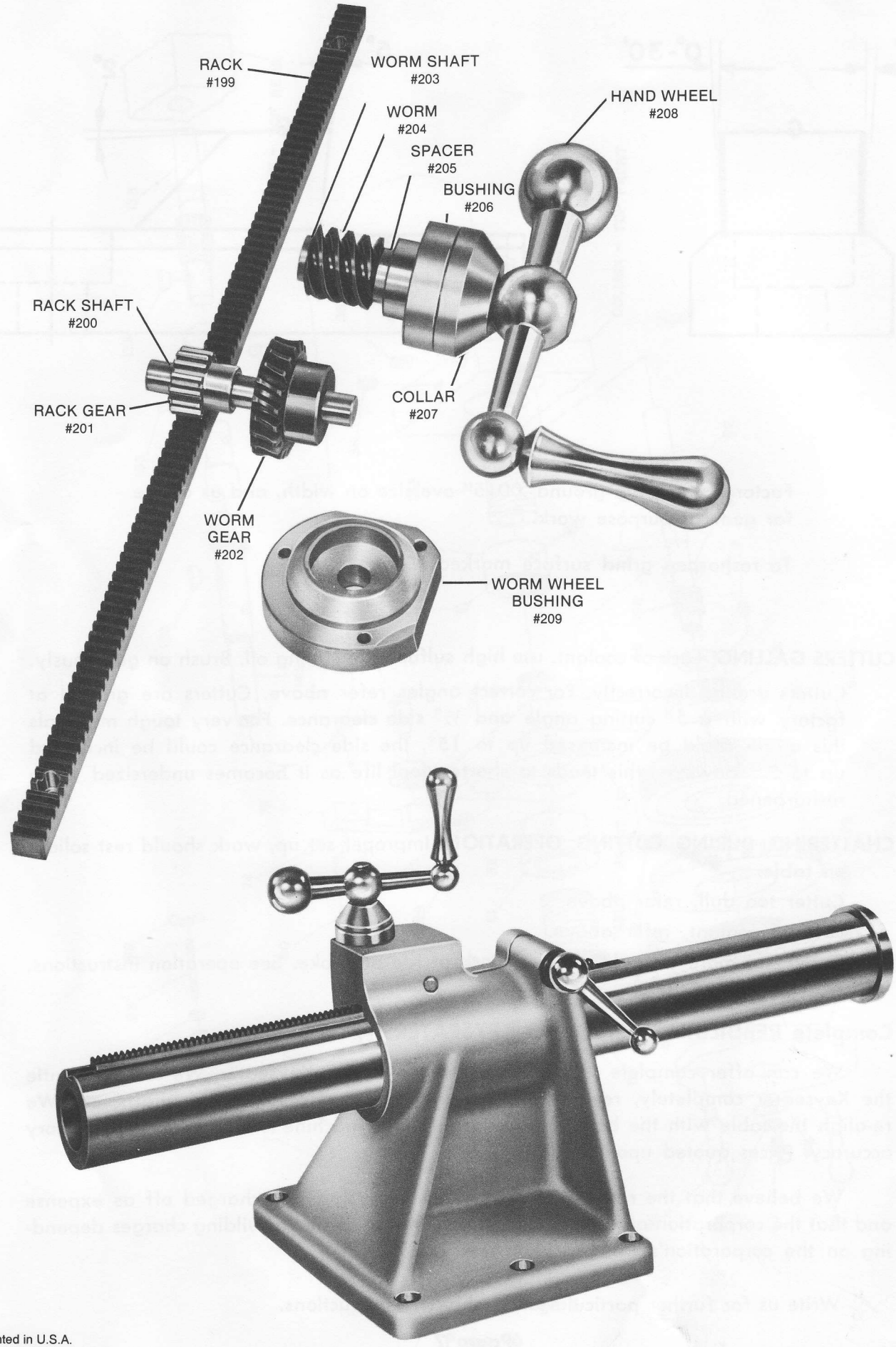
Complete REBUILDING Service on KEYSEATERS

We can offer complete rebuilding of your Morrison Keyseater. We can dismantle the Keyseater completely, replace all damaged or worn parts, gears, shafts, etc. We re-align the table with the base and can reship the machine with its original factory accuracy. Prices quoted upon request.

We believe that the reconditioning of machinery may be charged off as expense and that the corporation also saves a high percentage of the rebuilding charges depending on the corporation's tax bracket.

Write us for further particulars and shipping instructions.

BACK SHAFT BRACKET ASSEMBLY (NEW STYLE)



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