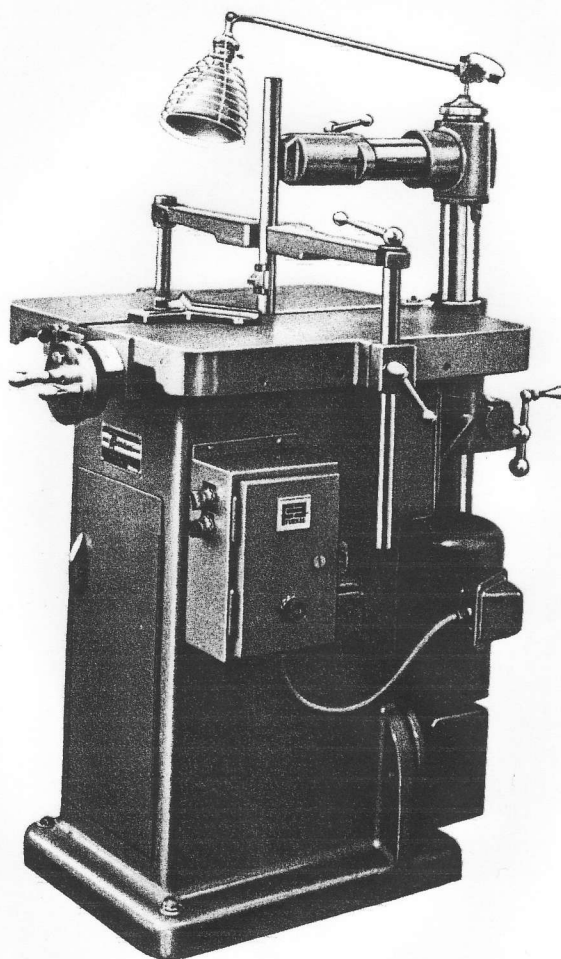


Morrison

KEYSEATER

MODEL K 1 1/4" CAPACITY

PARTS LIST and SERVICE MANUAL



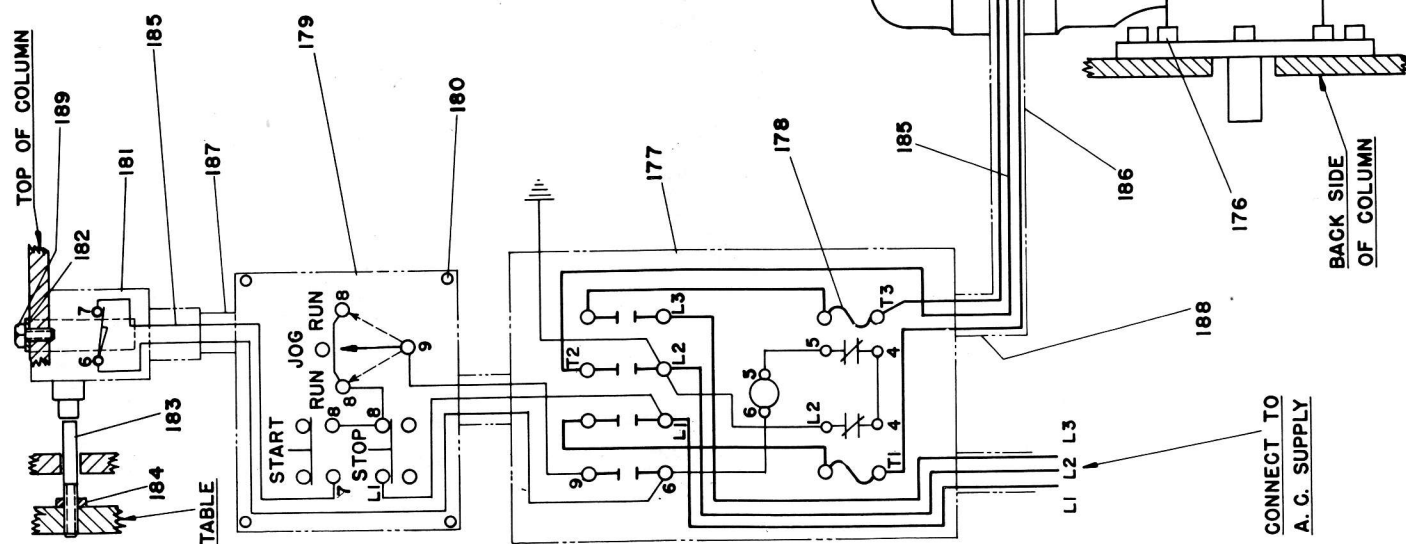
It is important for prompt service to give Serial Number
of Machine when requesting information or ordering parts

THE D. C. MORRISON CO.

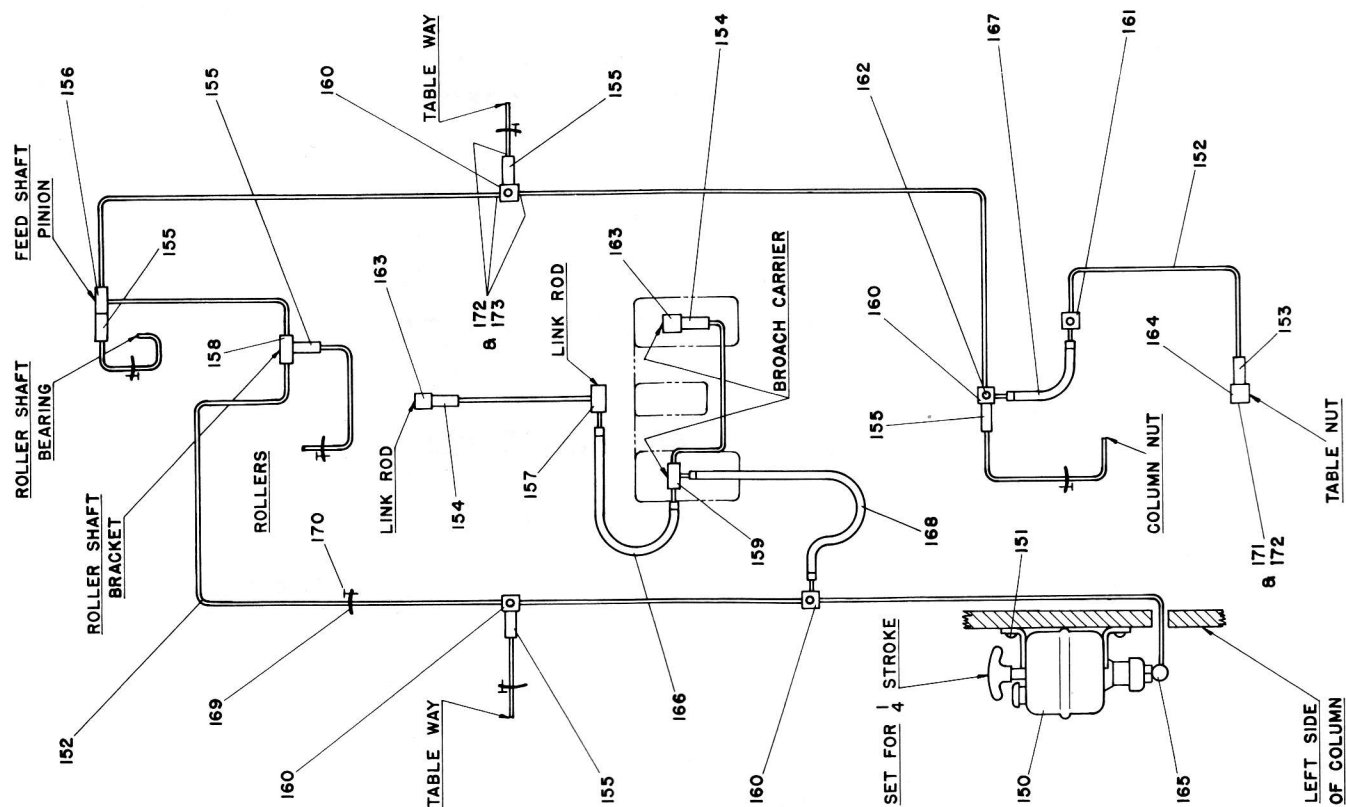
201 Johnson St., Covington, Ky. 41011, U. S. A.

Telephone: 859/581-7511 • FAX: 859/581-9642 • E-mail: dcmorrison@fuse.net • Website: www.DCMORRISON.COM

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.

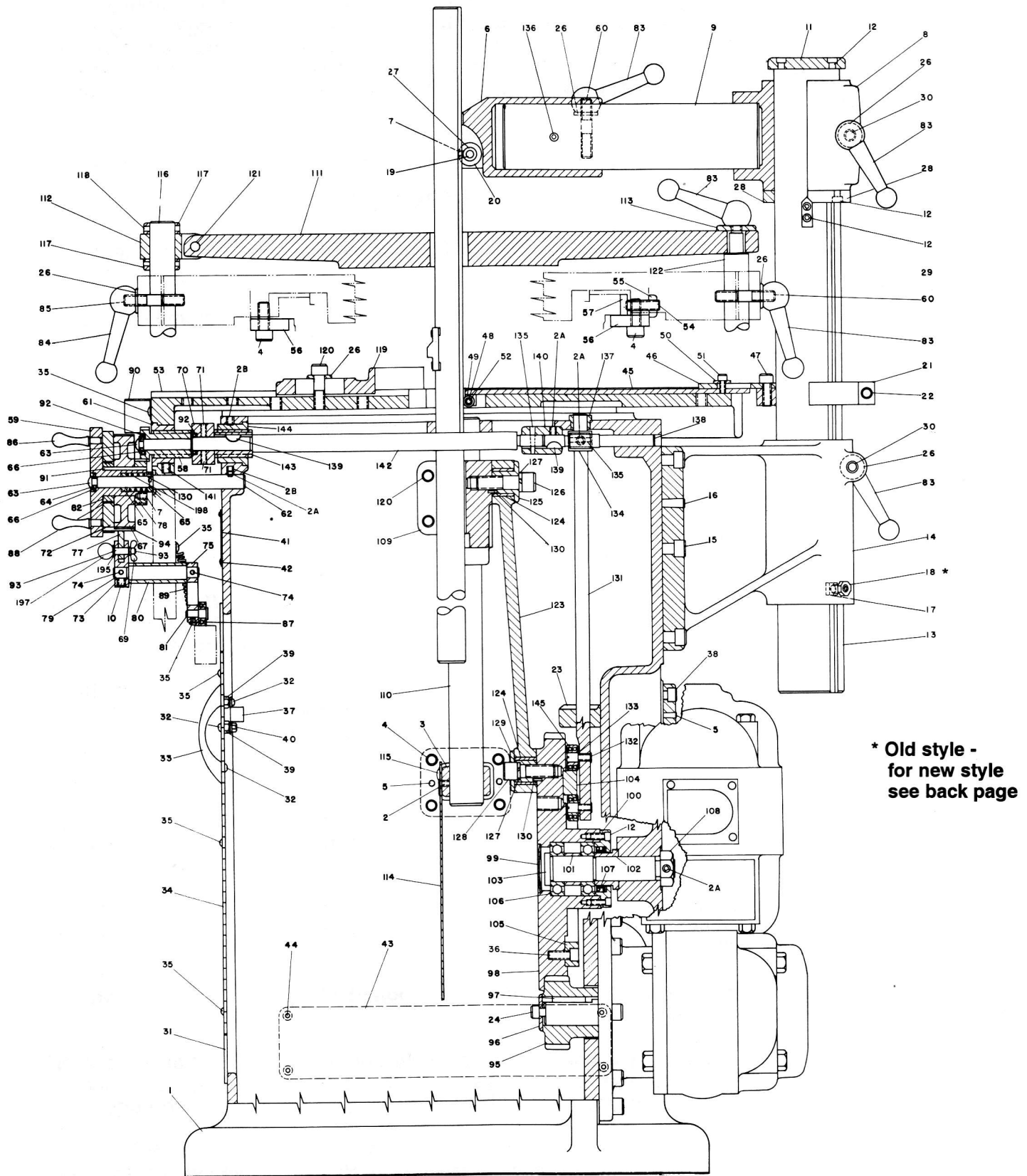
Adjust overhead arm so that the cutter bar is riding firmly in the spool and lock in place. Ratchet pawl can be set to feed one tooth, two teeth or three teeth giving .002", .004" or .006" feed.

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.

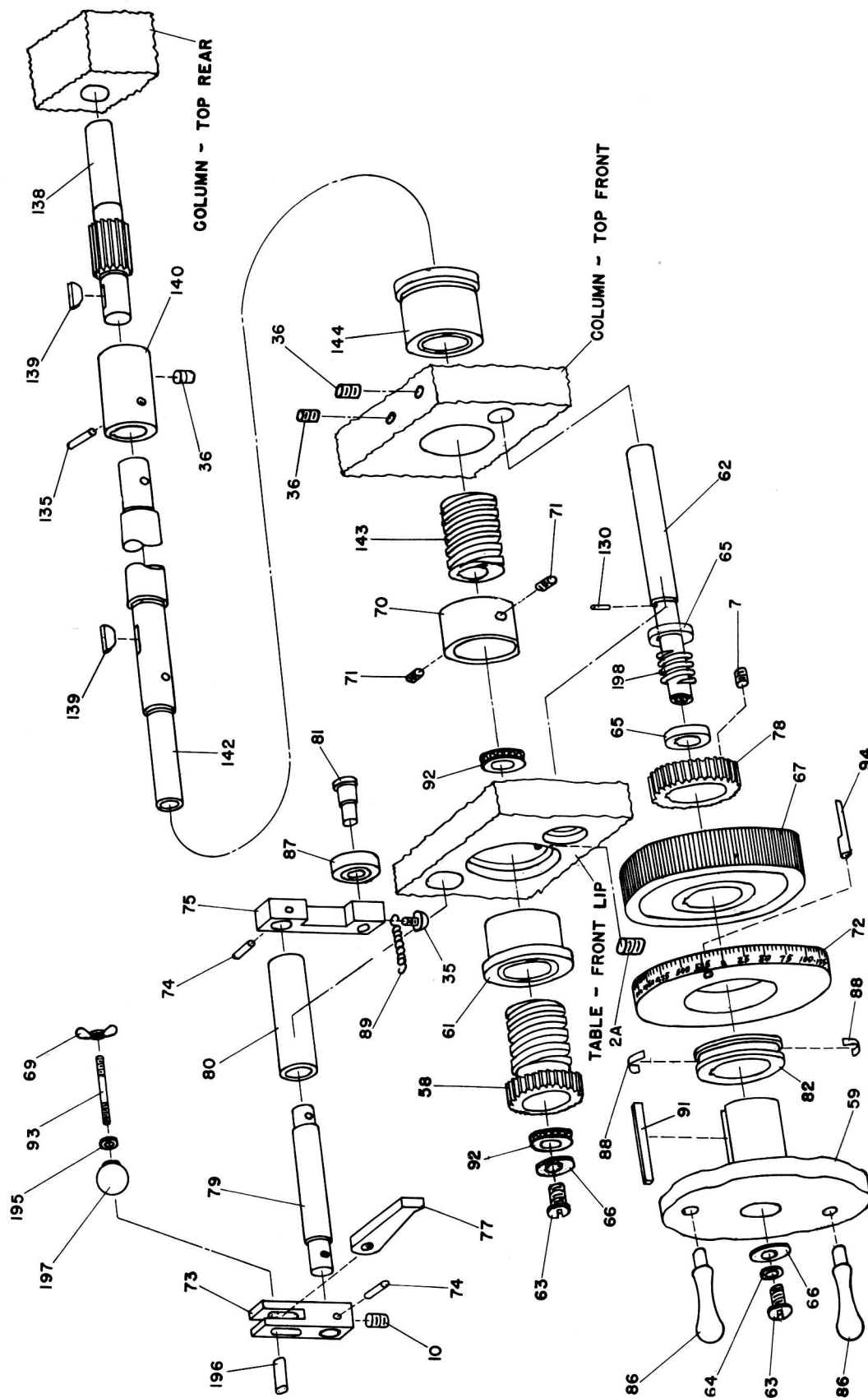
MACHINE LAYOUT



Parts Description Refer
Part Number Page 5

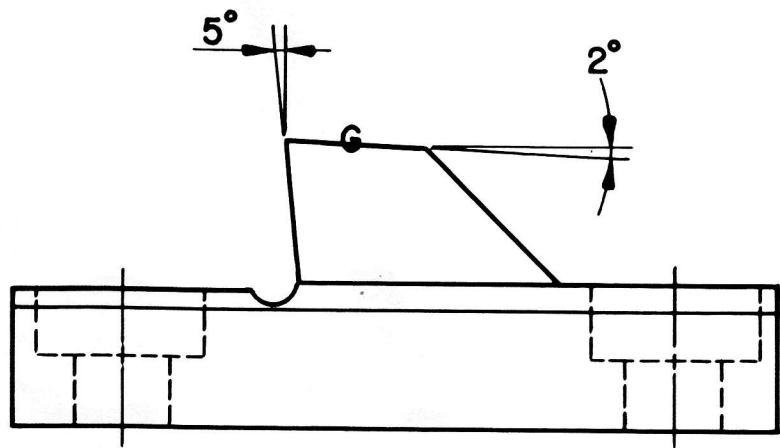
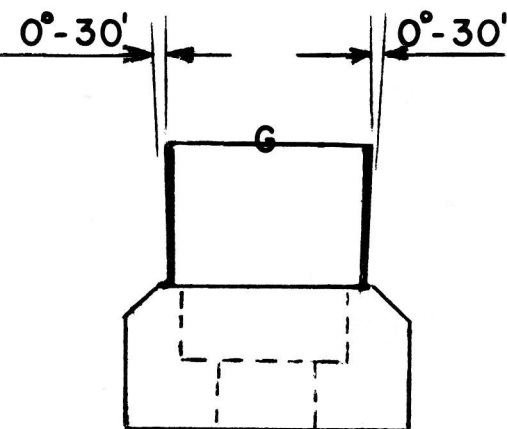
Part No.	Part	Part No.	Part	Part No.	Part
1	Column	63	Screw	128	L. H. Screw
2	Screw	64	Lock Washer	129	Link Rod Sleeve
2 A	Screw	65	Ratchet Shaft Collar		
2 B	Screw	66	Feed Shaft Washer	131	Cam Shaft
3	Slide Rod Bracket	67	Ratchet Wheel	132	Roller Stud
4	Screw	69	Wing Nut	133	Roller Stud Washer
5	Pin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

