

The DC *Morrison* Company

Home of The Morrison Keyseater



Morrison Keyseater

Model K – 1 ¼ Inch Capacity

Parts List / Service Manual

- For prompt service it is important to give serial number of machine when requesting information or ordering parts

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Safety Notes

CAUTION: Only authorized and trained personnel may operate this equipment. You must always act in accordance with the Operator's manual, safety decals, safety procedures, and instructions for safe machine operation. Untrained personnel present a hazard to themselves and the machine

IMPORTANT: Do not operate this machine until you have read all warnings, cautions, and instruction

CAUTION:

- When you use this machine, you must always follow basic safety precautions to reduce the risk of personal injury and mechanical damage.
- Do not operate without all guards and covers in place.
- Be sure machine is electrically grounded.
- Always follow safe machining practices when you run this machine.
- All machines present hazards from moving cutting tools, belts and pulleys, high voltage electricity and noise..
- The work area must be adequately illuminated to allow clear view and safe operation of the machine. Adequate illumination is the responsibility of the user.
- Cutting tools, workholding, workpiece and coolant are beyond the scope and control of DC Morrison / Morsco AEC LLC.
- Each of these potential hazards associated with it (sharp edges, heavy lifting considerations, chemical composition, etc) and it is the responsibility of the user to take appropriate action (PPE, training, etc).
- Cleaning of the machine is required during normal use and prior to maintenance or repair. Safe use of this equipment requires training and might require appropriate PPE and is the responsibility of the user.
- This operator's manual is intended as a reference guide and is not to be the sole source of training.

DANGER: Do not enter the machining area any time the machine is in motion, or at any time that machine motion is possible. Severe injury or death may result. Motion is possible when the power is on and the machine is not Stopped.

Basic safety:

- This machine can cause severe bodily injury.
- Consult your local safety codes and regulations before you operate the machine. Contact your dealer if you have questions about safety issues.

- It is the machine owner’s responsibility to make sure that everyone who is involved in installing and operating the machine is fully acquainted with the operation and safety instructions provided with the machine, BEFORE they work with the machine. The ultimate responsibility for safety rests with the machine owner and the individuals who work with the machine.
- Use appropriate eye and ear protection when you operate the machine.
- Use appropriate gloves to remove processed material and to clean the machine.

Electrical safety:

- The electrical power must meet the required specifications. Attempting to run the machine from any other source can cause severe damage and will void the warranty.
- The electrical panel should be closed and the key and latches on the control cabinet should be secured at all times, except during installation and service. At those times, only qualified electricians should have access to the panel. When the main circuit breaker is on, there is high voltage throughout the electrical panel (including the circuit boards and logic circuits) and some components operate at high temperatures; therefore, extreme caution is required. Once the machine is installed, the control cabinet must be locked, with the key available only to qualified service personnel.
- Do not reset a circuit breaker until the reason for the fault is investigated and understood.

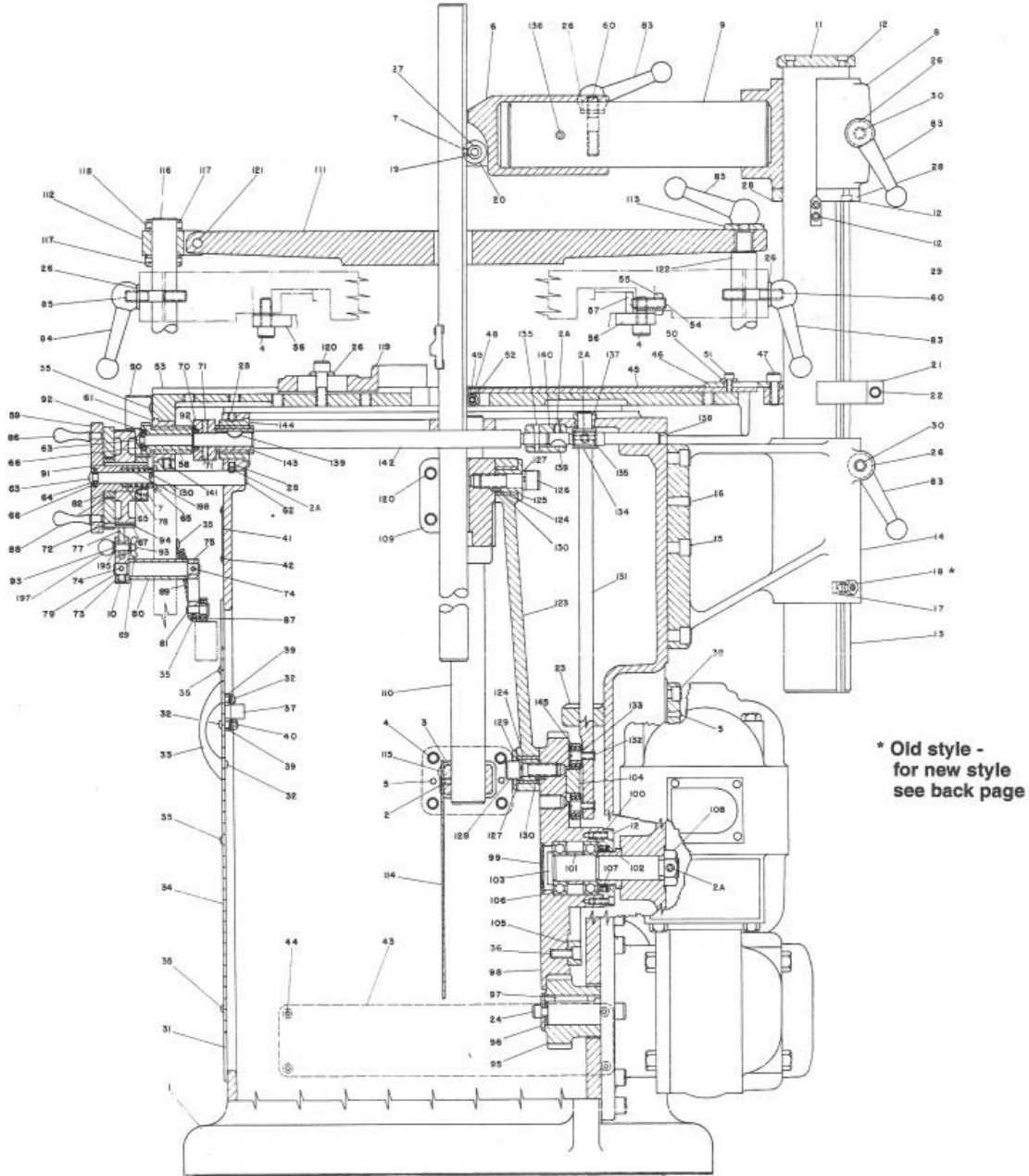
Operating Instructions

Wiring – Insure that motor is rotating in the proper direction after wiring. Look into base of machine. large bull gear should rotate clockwise,

Oiling – Use “One-Shot” oiling system hourly. Also oil between the cutter bar and the spools in the cutter bar support. Oil motor as per instructions on motor plate. The motor was filled with oil before leaving the 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.

MACHINE LAYOUT

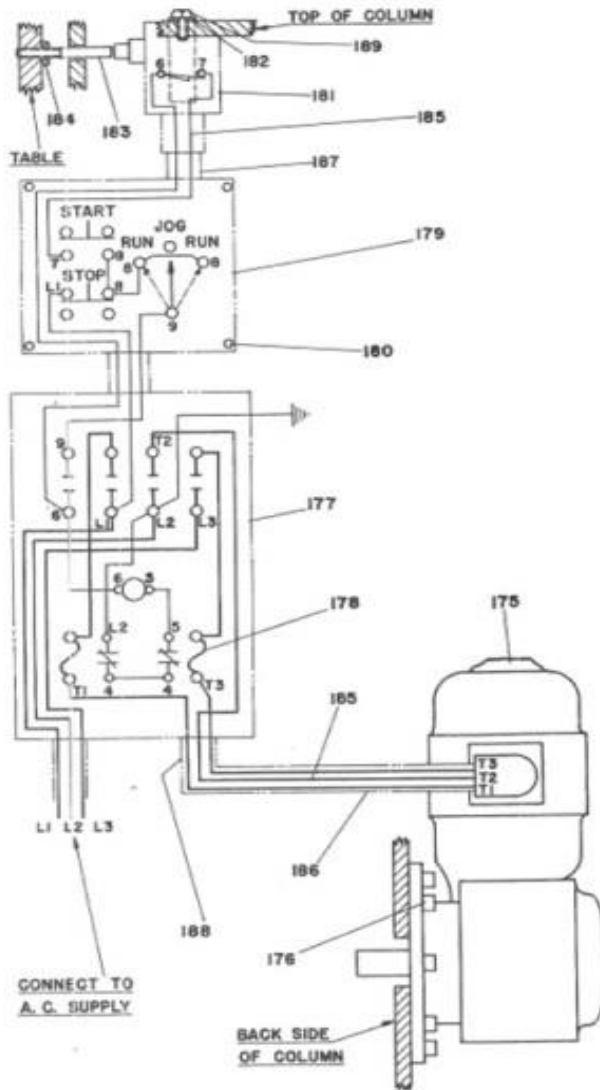


* Old style -
for new style
see back page

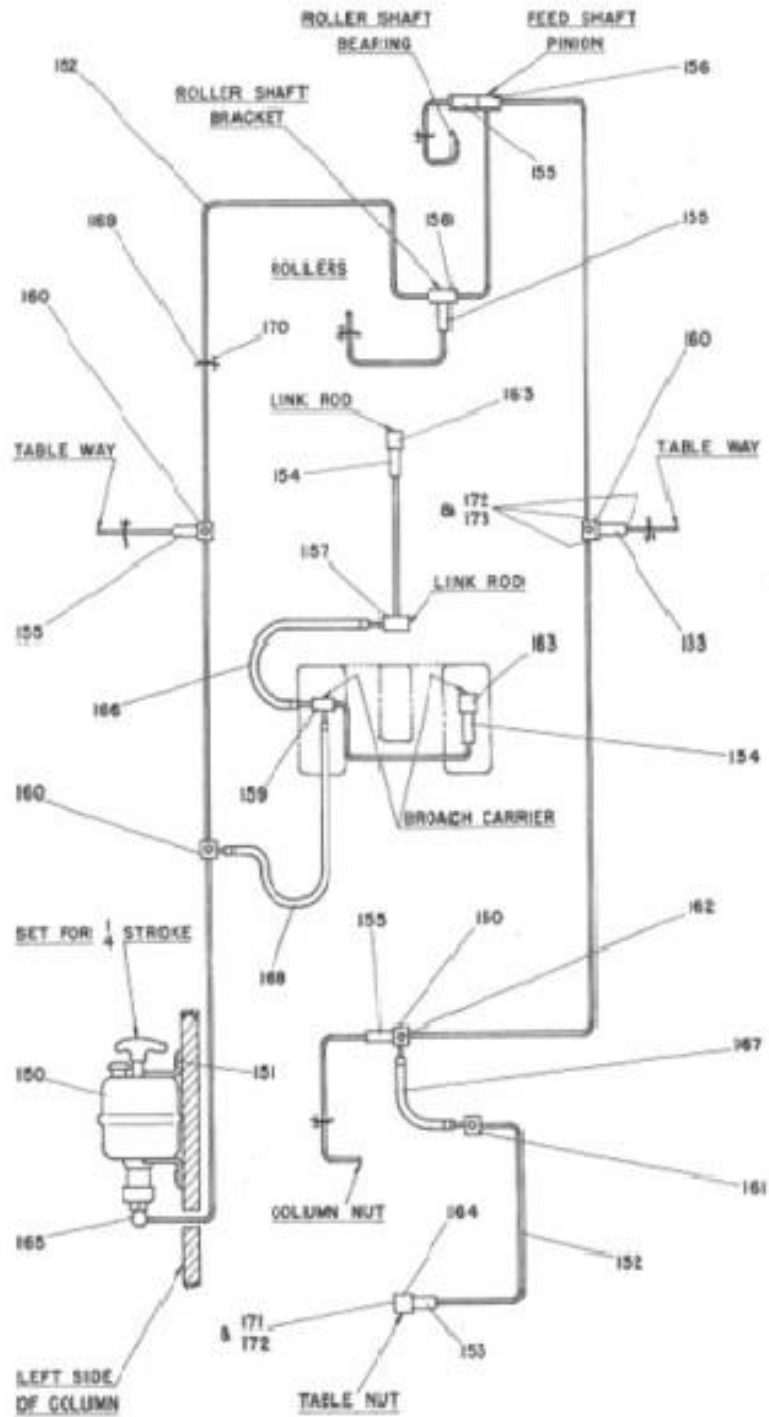
Part No.	Item ID	Part No.	Item ID	Part No.	Item ID
1	COLUMN	78	# 78 RATCHET GEAR	150-2	AUTOMATIC OILER COMPLET
2	SCREW	79	# 79 RAT LEV SHAFT	150	AUTOMATIC OIL NSTALLED
2A	SCREW	80	# 80 LEV SHAFT BUSH	151	SCREW
2B	SCREW	81	# 81 LEV ROLLER STUD	152	FT OF TUBING
3L	SL. RD. BRACKET	82	# 82 DIAL BUSHING	153	MTR UN FSA-O
3R	SL. RD. BRACKET	83	# 83 R.H. BALL LEVER	154	MTR UNIT FSA-1
4	SCREW	84	# 84 L.H. BALL LEVER	155	MTR UNIT FJB-O
5	PIN	85	# 85 TABLE L.H. STUD	156	METER - UNIT FTB-0
6	BROACH HD GUIDE	86	# 86 H/W HANDLE	157	MTR UNIT FTC-1
7	SCREW	87	# 87 CAM LEVER BEAR	158	MTR UNIT FTG-O
8	HZL TUBE SUPP	88	# 88 DIAL SPRING	159	MTR UNIT FTG-1
9	HZL TUBE	89	N 89 CAM LEV SPRING	160	JUNCTION 3 WAY
10	SCREW	90	# 90 RAT GEAR GUARD	161	JUNCTION 2 WAY
11	VERT TUBE CAP	91	# 91 RATCHET KEY	162	SCREW
12	SCREW	92	#92 FEED SHFT BEAR- NEEDS 2	163	CONCT 90o ELBOW
13	VERT TUBE	93	# 93 RAT PAWL STUD	164	CNCTR 45o ELBOW
14	COLUMN BRACKET	94	# 94 PAWL STOP PIN	165	ADAPTER ELBOW
15	SCREW	95	# 95 MOTOR PINION	166	HOSE ASSEMBLY""
16	PIN	96	# 96 MTR SHAFT WASH	167	HOSE ASSEMBLY""
17	VERT TUBE KEY	97	# 97 MTR SHAFT KEY	168	HOSE ASSEMBLY""
18	JAM NUT	98	# 98 BULL GEAR *OLDER 75?	169	CLIP SING TUBE
19	SPOOL SHAFT	99	BULL GEAR PLUG	170	SCREW
20	CENTER. SPOOL	100	BULL GEAR COLL	171	NUT-COMPRESSION
21	BAR SUP COL N/S	101	BULL GEAR SPACE	172	BUSHING-COMPRESSION
21	BAR SUP COL O/S	102	B/G SLEEVE	173	SLEEVE-COMPRESSION
22	SCREW	103	B/G STUD	175	MOTOR
23	CAM SHAFT BRACK	104	CAM OUTER RING N/S (1 PC)	175	DSW
24	MTR PIN SCREW	104	CAM OS (2PC) -75 & OLDER-	176	SCREW
26	BALL LEVER WASH	105	CAM INNER RING (1 PC)	177	ELECTRIC BOX
27	SPOOL BEARING -NEEDS 2	105	CAM INNER RING OS(2PC)	178	HTR OVERLOAD
28	LOCATING COLLAR	106	B/G BEARING - NEEDS 2	179	CONNECTOR
29	TUBE LOCAT. KEY	107	OIL SEAL	179	COMP MAG STARTER
30	BRACKET STUD	107	B/G OIL SEAL	179	JOG RUN SWITCH
31	COLUMN DOOR	108	B/G STUD NUT	179	SWITCH MOTOR
32	SCREW	109	BROACH CAR N/S	179	OFF STOP SWITCH
33	DOOR HANDLE	109	BROACH CAR O/S	179	MAGNET CONTACT
34	DOOR HINGE	110	CARR SLIDE ROD	179	STOP SWITCH
35	SCREW	111	HOLD DOWN BRACKET	180	SCREW
36	SCREW	112	CLAMP HINGE	181	SWTCH - SAFETY
37	DOOR LATCH	113	WK CLAMP WASHER	182	BRACK SWTCH SAF

38	SCREW	114	B/G GUARD-STEEL	183	ROD SAFE SWITCH
39	DR LATCH SPACER	115	SCREW	184	NUT JAM HEX
40	NUT	116	HINGE SIDE ROD	185	WIRE 14 TW
41	NAME PLATE	117	COLLAR RODS- NEEDS 2	186	CONDUCT FLEX
42	DRIVE SCREW	118	TAPER PIN	187	CNCTR STRAIGHT
43	NAME PLATE	119	CENTERING VEE	188	CNCTR ANGLE
44	SCREW	119	EX SP (11" CENT. VEE)	189	SCREW
45	BAR SUPPORT	120	SCREW	190	2 SPEED MP
46	SUPPORTSLIDE NS	121	PIN	195	RAT STUD WASH
46	T SUPPORT GUIDE OS	122	CLAMP SLIDE ROD	196	RAT PAWL BUSH
47	SCREW	122A	SKT SET SCREW	197	RAT PAWL KNOB
48	SUPPORT BEARING - NEEDS 2	123	LINK ROD N/S	198	SPRING
49	SUPPORT ROLLER	123	LINK ROD O/S	199	RCK,BCK BRACKET
50	SUPPORT WASHER	124	LNK ROD BEAR NS	200	RCK SHFT BCK BR
51	SCREW	124	LNK ROD BEAR OS	201	RCK GR/S1615 BB
52	SPOOL SHAFT	125	LNK RD SL N/S	202	W/G W1220Q BB
53	TABLE	125	LNK RD SL O/S	203	WRM SHFT, BB
54	SCREW	126	SCREW	204	WRM, BB W12Q
55	NUT	127	LOCK WASHER	205	SPACER BCK BRKT
56	TABLE CLAMP (L or R)	128	L.H. SCREW	206	BUSH, BCK BRKT
57	TABLE GIB	129	LNK RD SL N/S	207	COLLAR
58	TABLE WORM&GEAR	129	LNK RD SL O/S	208	H/W BCK BRKT
59	RAT. HANDWHEEL	131	CAM SHAFT	209	CAP-WORM WH.BSH
60	TABLE R.H. STUD	132	ROLLER STUD	210	REDUCER (GROVE)
61	TABLE NUT	133	ROLL STUD WASH	210	GEAR BOX REPLACEMENT
62	H/W RAT SHAFT	134	ROLL SHAFT RACK	211	CAMLINK ROD COV
63	SCREW	135	PIN	212	SUP HNG SL/T.A.
64	LOCK WASHER	136	BR HD GDE SCREW	213	RUBBER GUARD
65	RAT SHAFT COLL	137	ROLL SHAFT BUSH	214	RESET SWITCH
66	FEED SHAFT WASH	138	FD SHFT PINION	300	COOLANT ELECTRIC BOX
67	RATCHET WHEEL	139	WOODRUFF KEY	301	COOLANT - OIL RETURN
69	WING NUT	140	FD SHT COUPLING	302	BROACH PACKAGE
70	RATCHET CAM	141	SCREW	303	HINGE AS
71	SCREW	142	FEED SHAFT	304	GUIDE HEAD SUPPORT
72	MICROMTR DIAL	143	COLUMN WORM	305	ANTI TAPER SLIDE ROLLER
73	RATCHET LEVER	144	COLUMN NUT	301-1	COOL. PUMP MOT
74	PIN	145	ROLL BEARING		
75	CAM ROL CRK LEV	150	LUBRICATOR		
77	RATCHET PAWL	150-1	RESERVOIR		

ELECTRICAL DIAGRAM

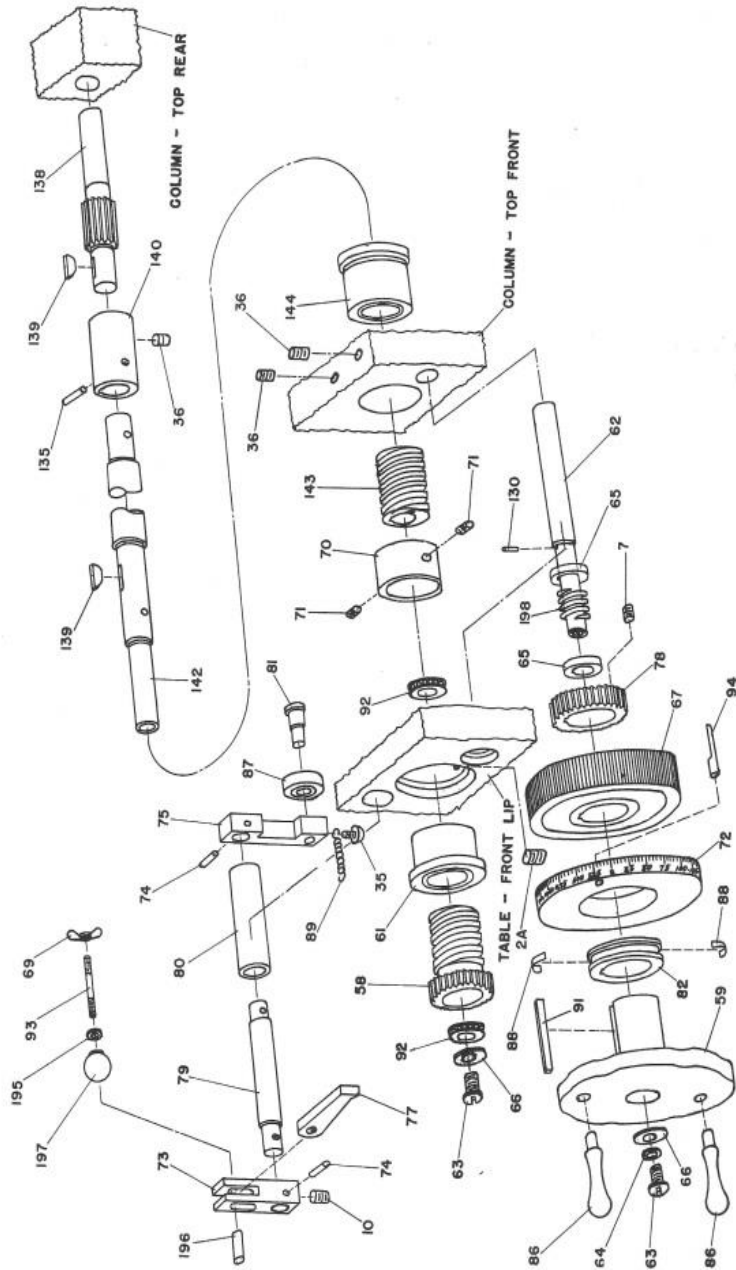


LUBRICATION DIAGRAM



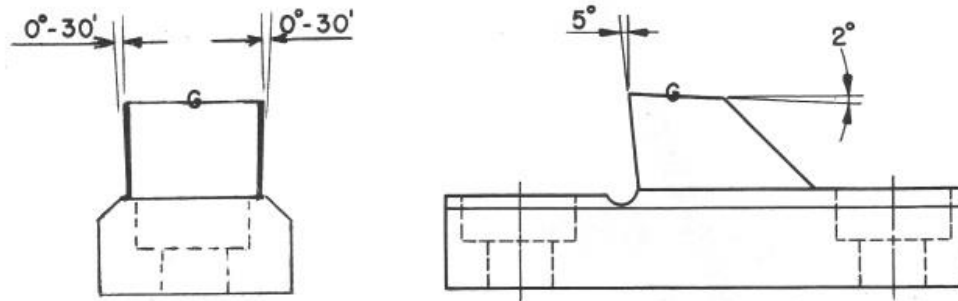
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AUTOMATIC FEED DIAGRAM



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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 based cutting oil. Brush on generously. Cutters ground incorrectly. For correct angles refer above. Cutters are ground with a 5 degree cutting angle and ½ degree side clearance. For tough materials this angle could be increased up to 15 degrees, the side clearance could be increased to 2 degrees. However this tends to shorten tool life as it becomes undersized when resharpened.

CHATTER DURING CUTTING:

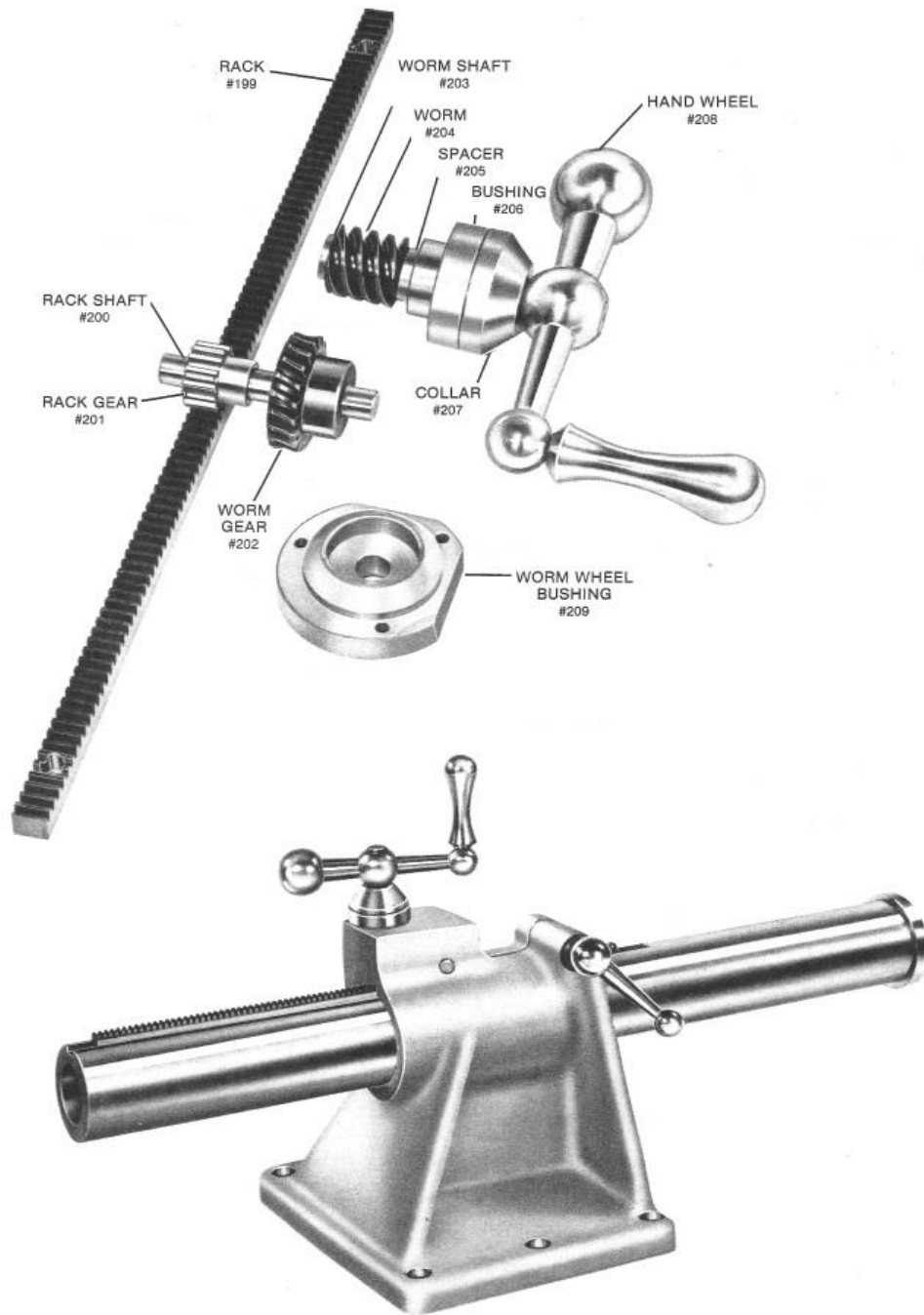
Improper setup. Work should rest solidly on table.

Cutter too dull. Refer above.

Lack of coolant. Refer above

Cutter set more than 1/8" above work piece. See operation instructions.

BACK SHAFT BRACKET ASSEMBLY (NEW STYLE)



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