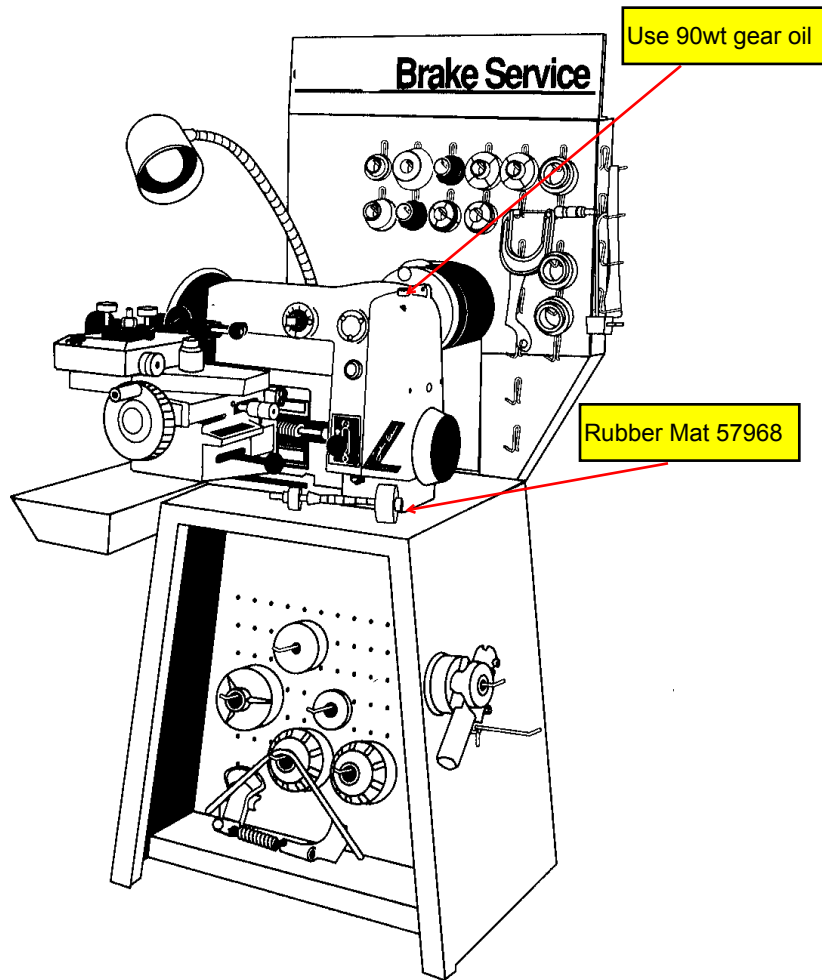


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*Company*

## 701/702 Brake Lathe Parts Reference



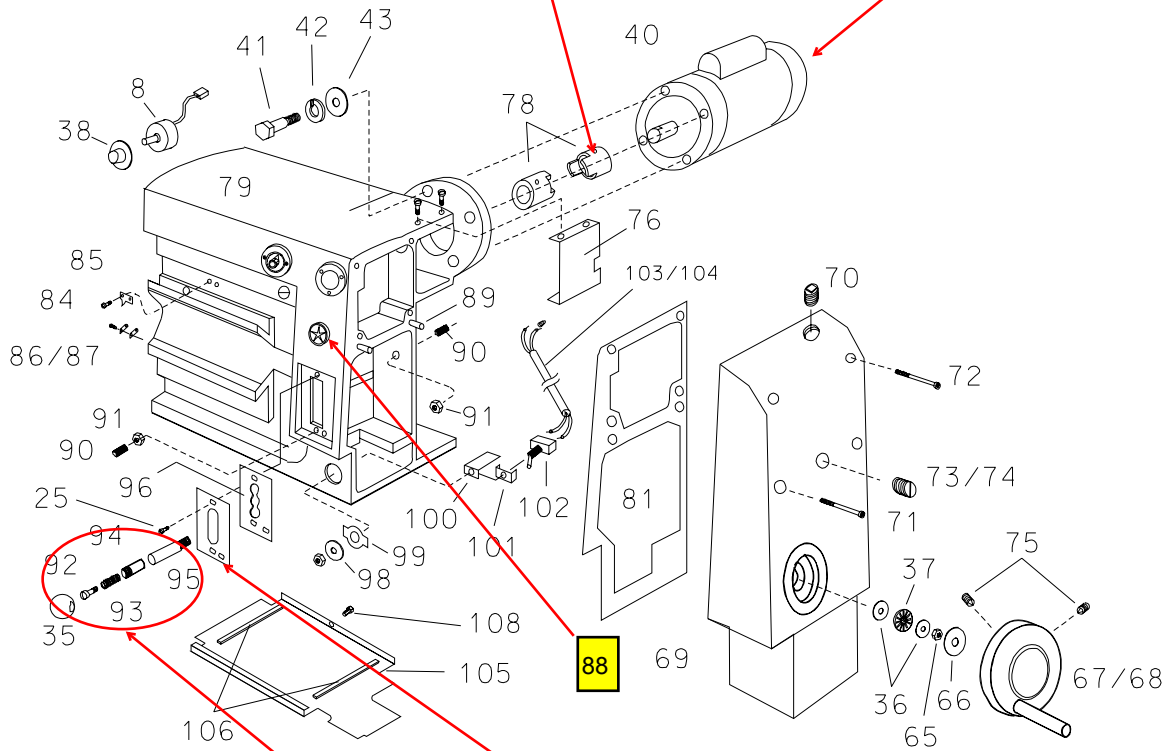
FORM 4894-2

"FOR REFERENCE ONLY"

# 701/702 Main Housing

SM set screw 1103437  
LG set screw 1177440

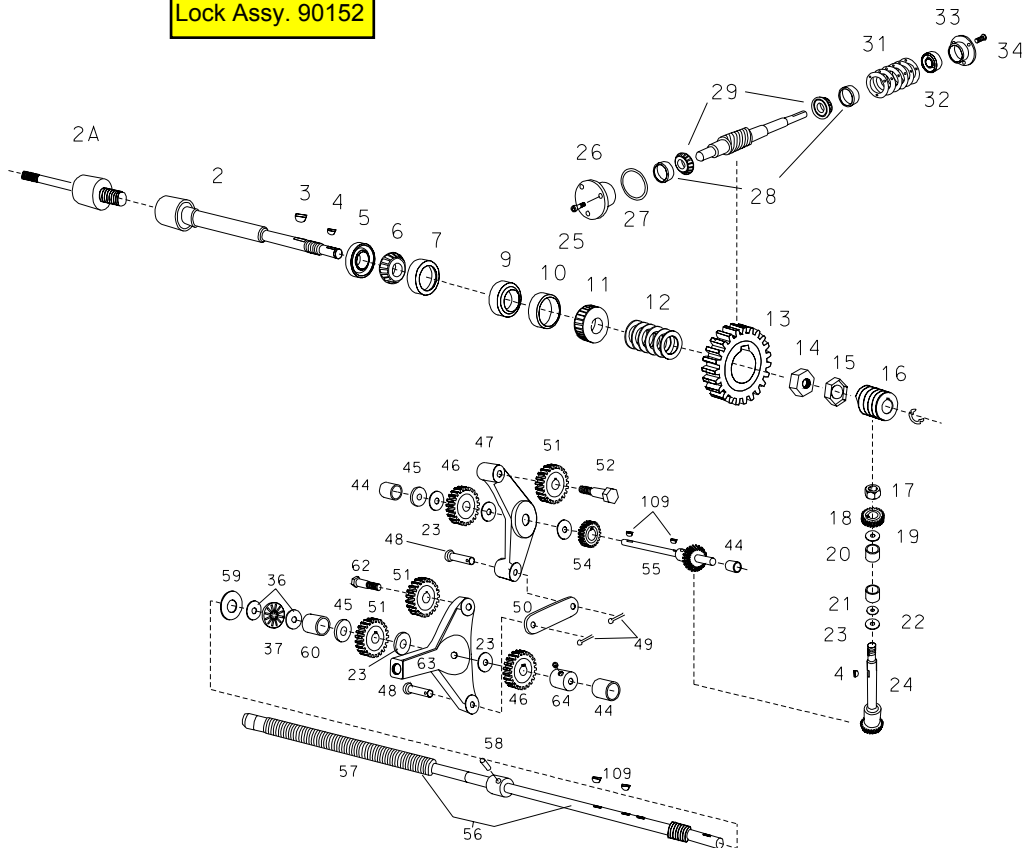
2speed switch 91124



# 701/702 Gear Train

Lock Assy. 90152

97

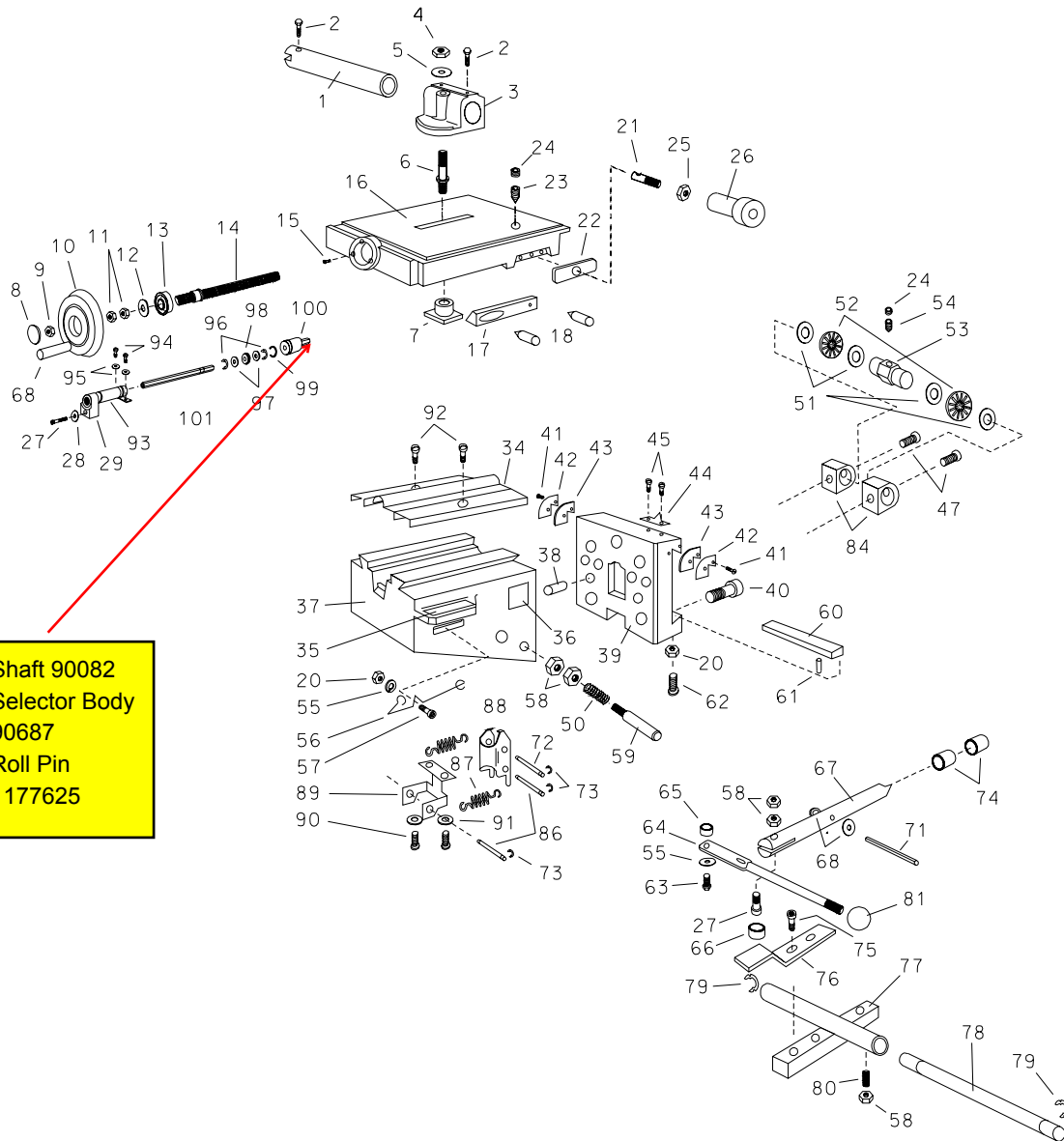


Ref.	Part no.	Description	Ref.	Part no.	Description
1	90547	Self-centering Arbor Nut	60	1177647	Bronze Bearing - Feed Screw 1/2 x 5/8 x 9/16"
2	90688	Spindle	62	1007680	LH Shoulder Bolt
2a	90043	Arbor, 1" Dia.	63	2006844	Gear Shift Bracket
3	1109881	#608 Woodruff Key	*	10151	Collar, Set
4	1100905	#404 Woodruff Key	64	90499	Spacer Plate
5	1101518	Front Oil Seal, Spindle	65	1120263	ESNA Thin Nut, 1/2-20
6	1101441	Front Bearing Cone, Spindle	66	8027201	Washer, Neoprene Seal
7	1177644	Front Bearing Cup, Spindle	67	90658	Handwheel Assy., Carriage Traverse
8	90672	Speed Control/Cable Assembly	68	90659	Handwheel
	90702	Speed Control/Start Switch		1016888	Handle
	70897	Connector, 6-pin	69	90664	End Cover
9	1177749	Rear Oil Seal, Spindle	70	90750	Oil Fill Plug
10	1177512	Rear bearing Cup, Spindle	71	1122022	HSC Screw, 1/4-20x3-3/4"
11	1177511	Rear Bearing Cone, Spindle	72	1112289	HSC Screw, 1/4-20x3.0"
12	8009650	Shim, worm Gear (0.005")	73	8022550	Gasket, Oil Drain Plug (3/8" ID)
13	90656	Worm Gear, 12 Pitch	74	1007010	Oil Drain Plug
14	1016859	Special Hex Nut, 1-14 TPI	75	1103470	Soc. Setscrew, 5/16-18x1/2"
15	1187063	Pal Nut, 1-14 TPI	76	90714	Speed Control Cover Boss
16	90655	Worm Gear 16 Pitch	78	90690	Motor-to-Shaft Coupling
17	1109587	Hex Jam Nut, 3/8 X 24 TPI	79	90643	Lathe Housing
18	1006591	Helical Gear, End Cover Shaft	80	1100759	Grease Fitting
19	8017520	Fiber washer, 1/2 x 1-3/8 x 0.015"	81	90661	Gasket, End Cover
20	1177646	Bronze Bearing-Cover Shaft (top)	82	NLU	Logo Label
21	1177648	Bronze Bearing-Cover Shaft (bottom)	83	1101509	Oilite Bearing, 3/4"x7/8"x1.0"
22	1185187	O-Ring, 1/2 x 11/16 x 3/32"	84	1118150	But. Hd. Screw #10-24x1/4"
23	8000390	Fiber Washer, 1/2x1.0x1/32"	85	90670	Carriage Alignment Pointer
24	90663	Shaft Assembly, End Cover	87	8009630	Lower Gib wiper
25	1101467	Screw, BHSC #10-24x3/8"	88	90660	Oil Level Gauge
26	1016804	Front Cap, Worm Shaft Bearing	89	1110180	Dowel Pin, End Cover, 3/16x3/4"
27	1101468	O-Ring, Bearing Cap, 1-1/4 IDx1-3/8"	90	1103455	Socket Setscrew, 1/4-20x7/8"
28	1177642	Bearing Cup, Worm Shaft	91	1121549	Hex Jam Nut, 1/4-20
29	1177641	Bearing Cone, Worm Shaft	92	1102547	RHM Screw, #10-24x1-1/4"
30	90657	Worm Drive Shaft, 12 Pitch	93	6001110	Spring, Gear Shift Handle
31	8027228	Shim, Seal Retainer Cap, .002"	94	90151	Feed Lock
	8009660	Shim, Seal Retainer Cap, .005"	95	90700	Feed Handle
32	1177650	Oil Seal, Worm Shaft	96	8027192	Cover, Shift Selector
33	2006890	Cap, Seal Retainer	97	8027191	Plate, Shift Selector
35	90150	Gear Shift Ball - White	98	1101749	Lockwasher, Internal Teeth
36	5001535	Race, Needle Bearing Thrust, 1/2"	99	1206548	ON-OFF Plate (Toggle Switch)
37	5001534	Needle Bearing 1/2"	100	7007614	Insulator, Toggle Switch
38	90694	Speed Control Knob	101	7007632	Insulator, Switch Proper
39	90698	Speed Control Decal	102	1122277	ON-OFF Toggle Switch
40	90689	Motor 1 HP, 115VAC used on 701	103	2511366	2-Conductor Wire, Toggle Switch
	91125	Motor 1.0/.5 HP for 702	104	61039	Wire Nut
41	1100047	HHC Screw, 3/8-16x1-1/4"	105	90641	Lathe Housing Bottom Plate
42	1100243	Lockwasher 3/8"	106	60353	Foam Tape, 3/8" wide
43	1100256	STD. 3/8" Washer	108	1101710	SHCS Screw, #10-24x3/8"
44	1177647	Bearing, Idler Shaft - Bronze	109	1177640	#304 Woodruff Key
45	1016824	Gear Spacer	*	90668	Final Drive Shaft
46	1006560	Spur Gear - 30 Tooth	*	1185388	3/4" Retainer Ring
47	2006822	Gear Shift Arm	*	1101511	Oilite Bearing 3/4"x 1-1/4"x1.0"
48	1006670	Clevis Pin - Shift Link	*	90243	Warning Label
49	1100362	Cotter Pin, 3/32" x 1/2"	*	90778	"701PF" Decal
50	8009510	Shifter Link	*	90638	"702PF" Decal
51	1006541	Spur Gear - 24 Tooth	*	90247	Fuse Label
52	1006680	RH Shoulder Bolt	*	90152	Ball & Lock Feed - Gear Shift ULLabel
53	8009670	Fiber Washer 1/2"x13/16"x1/32"	*	90778	"JOHN BEAN 700 Series" Decal
54	1006550	Spur Gear - 15 Tooth	*	90248	Caution Label
55	90674	Idler Gear & Shaft Assembly	*	90722	Warning Label (Trans Cover)
56	90666	Carriage Feed Screw Assy. (Inc. 57,58)	*	8025030	Oil Label
57	90667	Screw Only, Carriage Feed			
58	1177799	Roll Pin - Feed Screw			
59	5001536	Felt Washer, Feed Screw			
*	90701	Motor Assembly Wire			
*	35148	Strain Relief			

NLU - No Longer Used

# Figure 2

## Cross Slide Carriage & Tool Post Group



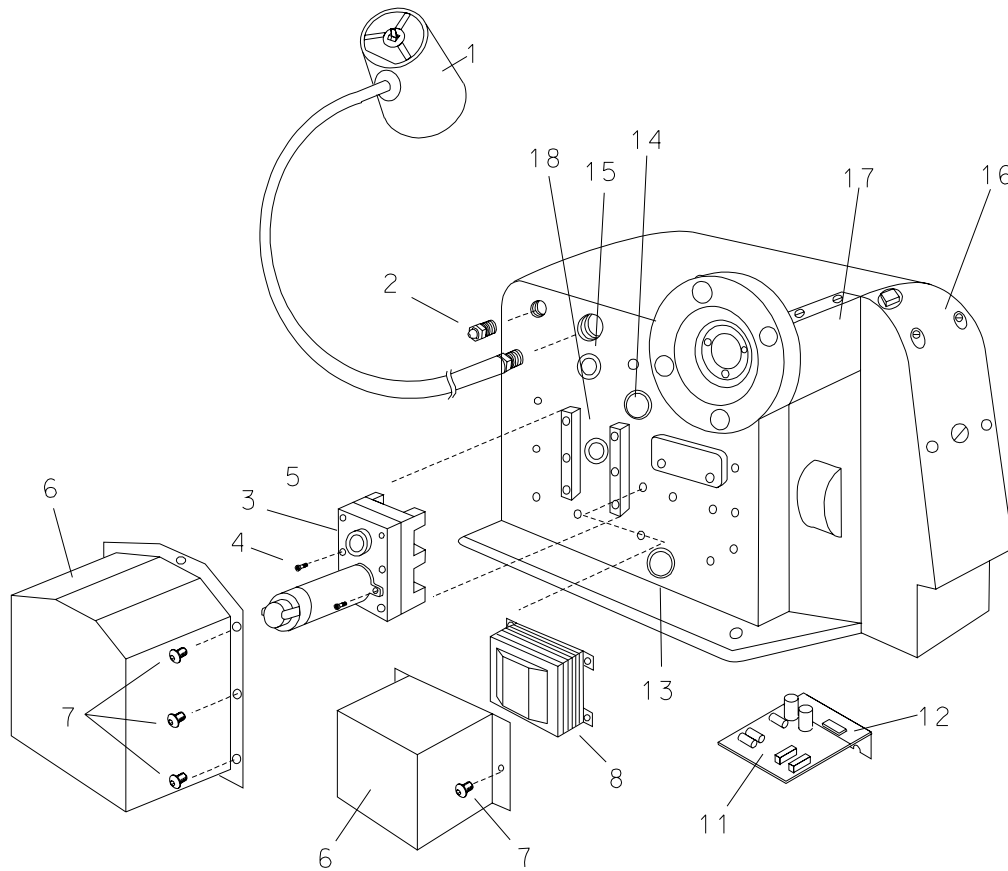
Shaft 90082  
 Selector Body  
 90687  
 Roll Pin  
 1177625

90709 Cross Slide Sub Assembly  
 90676 Knee Sub Assembly  
 90220 Switch Shut Off Assembly

<u>Ref.</u>	<u>Part no.</u>	<u>Description</u>	<u>Ref.</u>	<u>Part no.</u>	<u>Description</u>
1	1006691	Tool Post Holder	67	1016852	Feed Control Shaft
2	1015540	Sq. Hd. Screw 3/8-16x3/4"	68	NLU	
3	90653	Tool Post	71	1177551	Roll Pin, Feed Control Shaft 3/16 x 1 3/4"
4	1109285	Hex Nut 1/2-13 Heavy	72	1016841	Link Pivot Shaft
5	1107385	SAE Washer 1/2"	73	1101510	Type E Retaining Ring, 1/4"
6	90681	Adjustable Pivot Post	74	1101508	Oilite Bearing, 3/4x7/8x3/4"
7	1016843	Pivot Post T-Nut	75	1110818	Soc. Setscrew, 5/16-18x1-1/4"
8	90282	Button Plug	76	90677	Carriage Control Lock Spring
9	1109591	Hex Nut 5/8-18	77	2511345	Carriage Control Lock Pivot
10	90678	Dial Wheel Assembly	78	1016844	Lock Pivot Shaft
10a	1016888	Handle	79	1185427	Type E Retainer Ring, 1/2"
11	8027258	Dial wheel Locking Element	80	1103480	Soc. Setscrew, 5/16-18x1-1/4"
12	8027272	Dial wheel Shim	81	8009610	Plastic Ball
13	1185064	Ball Bearing	84	1016890	Feed Nut Carrier
14	90071	Cross Slide Feed Screw	86	1016895	Spring Anchor Shaft
15	1120023	Truss Hd. Screw 1/4-20x1/2"	87	6002488	Spring
16	90709	Cross Slide Subassembly	88	90684	Link Control
	9010340	Cross Slide Assembly	89	8027324	Anchor Bracket
17	8027286	Cross Slide Gib	90	1177619	Mach. Screw 1/4-20x1/2"
18	1016867	Guide Pin, Cross Slide Gib	91	1100241	Lockwasher, 1/4"
20	1121549	Hex Jam Nut, 1/4-20	92	1115142	Screw FH #8-32x7/16"
21	1016868	Mounting Lock Screw	93	90067	Bearing Tube Assembly
22	8027285	Pressure Lock Plate	94	1187794	Screw, 1/4-20x5/8"
23	1110770	Cove Pt. Setscrew, 1/4-20x3/8"	95	1100241	Lockwasher 1/4"
24	1177531	Mac-It Screw, 1/4-20x1/8"	96	90075	Retainer Clip
25	1120249	ESNA Lock Nut, 5/16-24	97	90074	Support washer
26	1016869	Lock Nut, Cross Slide Gib	98	90076	Bearing, Conveyor Type
27	1112293	HHC Screw, 5/16-18x1-1/2"	99	1118716	Internal Retaining Ring
28	8027010	Feed Nut washer	100	90686	Hex Drive Selector
29	90077	Cross Slide Feed Nut	101	90070	Hex Drive Shaft
34	90073	Cross Feed Cover			
35	90757	Feed Selector Label			
36	8017740	Feed Instruction Decal			
37	90647	Carriage Knee			
38	1110189	Dowel Pin 3/8x1.0"			
39	90648	Carriage Slide			
40	1102362	SHS Screw, 3/8-16x1.0"			
41	1185028	RHM Screw, 1/4-20x3/8"			
42	90682	Gib Wiper Plate			
43	8009640	Gib Wiper Felt			
44	90670	Carriage Alignment Pointer			
45	1118150	BHHS Screw, #10-24x1/4"			
47	1102343	SHC Screw, 1/4-20x1/2"			
50	6002110	Spring (p/o Switch Shut-off assy 90220)			
51	5001530	Needle Bearing Thrust Race, 3/4"			
52	5001529	Needle Bearing, 3/4"			
53	1016845	Carriage Feed Nut			
54	8025720	Nylon Insert, Carriage Nut			
56	6002494	Detent Spring			
57	1102345	SHC Screw, 1/4-20x1.0"			
58	1182563	Hex Jam Nut, 5/16-18			
59	90219	Shut-off Sleeve			
*	1102355	Hex bolt shut off rod			
60	8027215	Carriage Gib			
61	1110180	Dowel Pin, Carriage Gib			
62	1101515	Sq. Hd. Screw, 1/4-20x1.0"			
63	1111599	HHC Screw, 1/4-20x5/8"			
64	8027220	Carriage Control Lever			
65	1016835	Lever Pivot Spacer			
66	8027222	Pressure Lock Cap			

NLU - No Longer Used

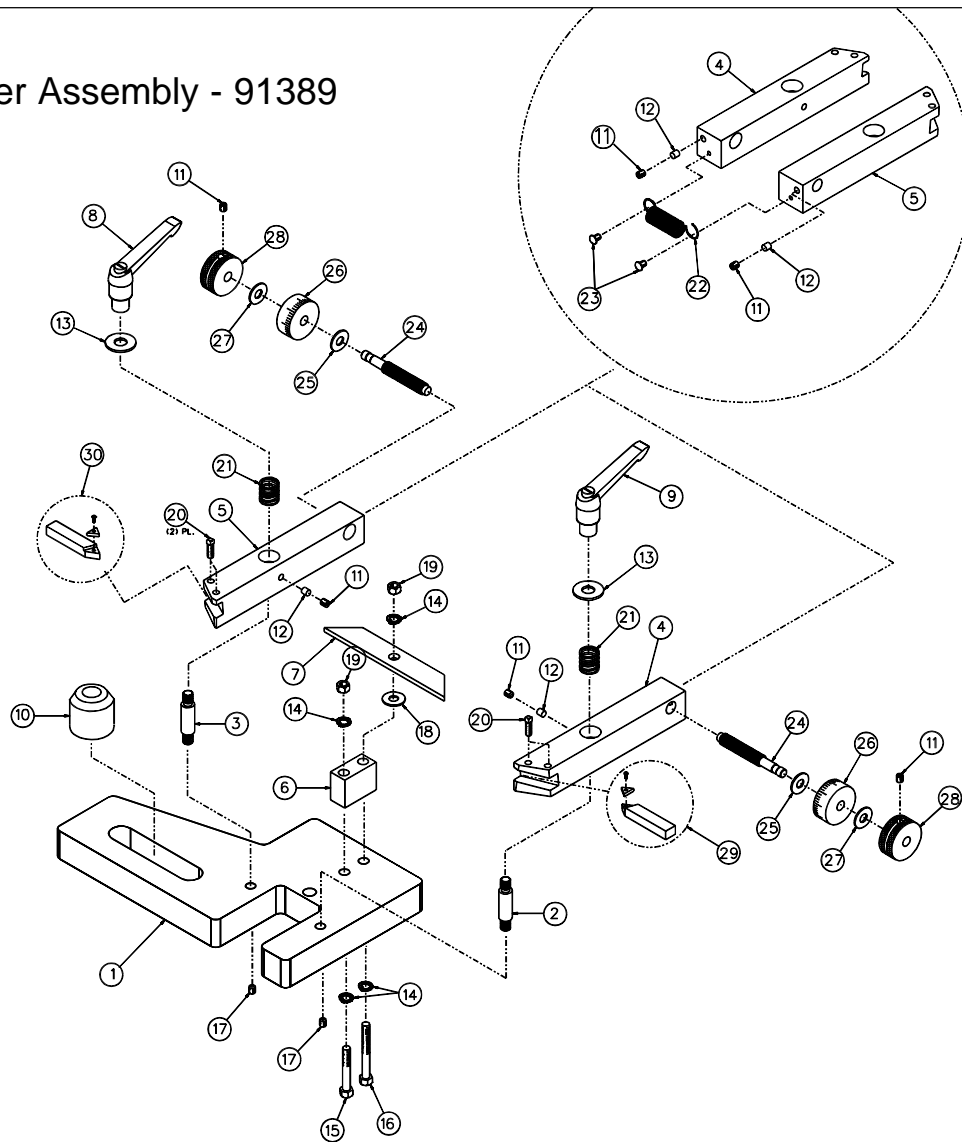
**Figure 3**  
**DC Motor & Electronic Components**



<b>Ref.</b>	<b>Part no.</b>	<b>Description</b>	<b>Ref.</b>	<b>Part no.</b>	<b>Description</b>
1	90730	Lamp Assembly	13	8027275	Rubber Grommet - NLU
	7006200	Lamp - 115V/40 Watt	14	90703	Grommet .875 ID x 1.625 OD
	7007633	Shade	15	90745	Grommet .375 ID x 0.75 OD
	7007634	Reflector	16	90662	End Cover Assembly
	7007635	Grommet	17	90710	Coupling Cover
	7007636	Socket with Switch	*	1118157	Rd Hd Screw #10-24x3/8" - NLU
2	1100759	Grease Fitting	18	90668	Final Drive Shaft
3	90669	DC Motor Assembly	*	2511355	Power Cord Assembly
4	1122112	Cap Hex Soc Hd Screw #10-24x1-1/2"	*	999694	PVC Tubing, Power Cord - NLU
5	1177625	Spring Pin 1/8 x 11/16"	*	1102566	Ground Screw RHS Brass 1/4"-20x3/8"
6	90699	DC Motor Cover	*	1100241	Lockwasher 1/4" - Housing Guard
7	1101467	Soc Hd Cap Hex Screw #10-24x3/8"	*	90721	Transformer to Power Cable Assy.
8	90691	Transformer	*	90706	DC Motor Cable Assembly
9	90713	Transformer Cover	*	63548	In-line Fuse Holder
10	1101467	Soc Hd Cap Hex Screw #10-24x3/8"	*	90705	Transformer Cable Assembly - Sec
11	90671	PCB Assembly	*	90707	Speed Control Cable Assembly
12	90697	PCB Bracket	*	60353	Foam Tape (Adhesive Backed)
			*	74110	Fuse, 2.0 Amp. SLOW BLOW

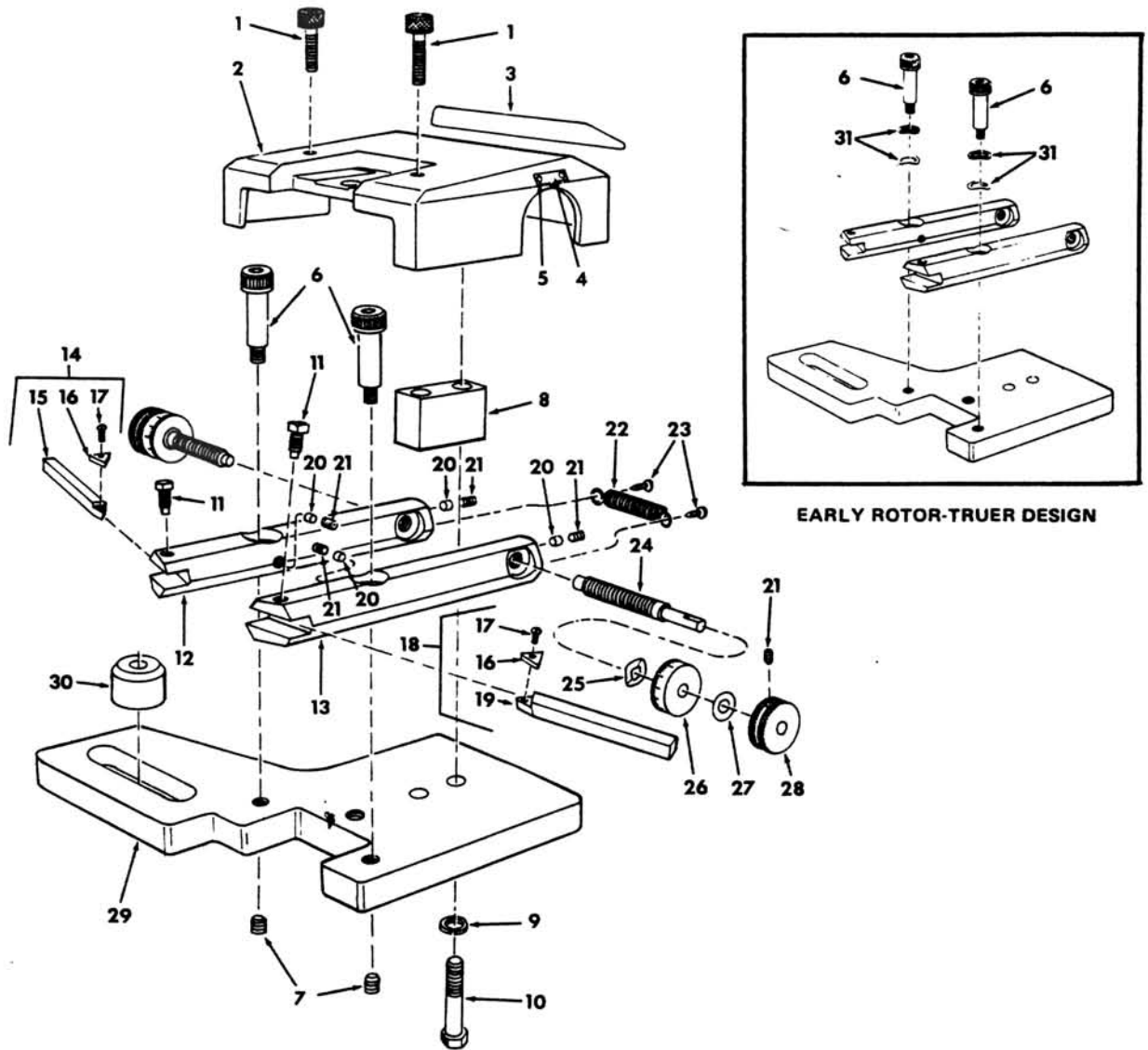
NLU - No Longer Used

Figure 4  
Rotor Truer Assembly - 91389



Ref. Qty.	No.	Used	Part Number	Description	Ref. Qty.	No.	Used	Part Number	Description
	1	1	00090649000	Support, Tool Bar		16	1	01111615000	Screw, Hex, 3/8-16x3 1/2
	2	1	00091390000	Stud - Tool Bar, LH		17	2	01103490000	Screw, Set
	3	1	00091391000	Stud - Tool Bar, RH					3/8 -16 x.38 CP PT
	4	1	00091385000	Tool Bar - LH		18	1	01100256000	Washer - Flat, 3/8
	5	1	00091384000	Tool Bar - RH		19	2	01121509000	Nut - Hex
	6	1	08027124000	Block - Striker					3/8-16 UNC-2B CAD/ZN
	7	1	00091379000	Plate - Pointer		20	4	01101892000	Screw - Set
	8	1	00091381000	Handle - RH					5/16 -18 X 7/8 SQ HD
	9	1	00091382000	Handle - LH		21	2	00091380000	Spring - Compression
	10	1	00090711000	Spacer		22	1	06002488000	Spring
				1.75Ox.516IDx1.56L		23	2	01118669000	Screw - Drive
	11	4	01112790000	Screw, Set					#10 x 1/2 RD HD Z
				1/4 - 20 X 3/8 HS		24	2	01016776000	Screw - Micrometer
	12	4	00090746000	Insert		25	2	06002486000	Washer - Wave
				Nylon Torlon #4301		26	2	01016774000	DIAL - Micrometer
	13	2	01101310000	Washer - Flat		27	2	08000360000	Washer - Nylatron GS
	14	4	01100243000	Washer, 3/8 Lock Spg		28	2	01016775000	Knob - Micrometer
	15	1	01111614000	Screw		29	1	00090495000	Cutter - With tri-tip, LH
				HHCS, 3/8-16 x 3 ZN		30	1	00090494000	Cutter - With tri-tip, RH

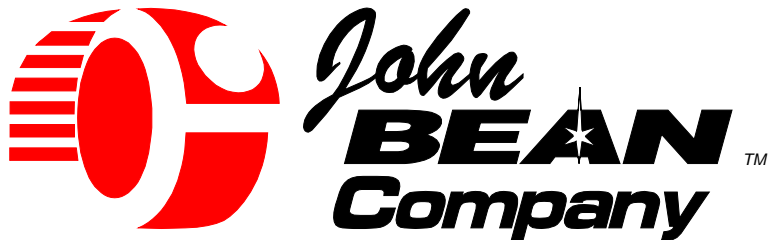
**FIGURE 4 – ROTOR-TRUER ASSEMBLY**



Ref. No.	Part No.	Description
1	1016777	Screw, Tool Bar Lock
2	2013039	Cover, Tool Bar
3	8027129	Label, Name Plate
4	8027130	Plate, Feed Indicator
5	1118611	Screw, Indicator Plate Drive
6	1016780	Screw, Shoulder, Tool Bar Pivot
7	1187063	Screw, Socket Hd., 3/8"
8	8027124	Block, Striker
9	1103972	Washer, Lock, 3/8"
10	1106938	Screw, Hex. Hd. Cap, 3/8"-16 x 2-3/4", Striker Block
11	1101457	Screw, Sq. Hd. Set, 3/8"-16 x 5/8"
12	8027125	Bar, Tool, Right Hand
13	8027126	Bar, Tool, Left Hand
14	9010284	Bit Assy., Right Hand, Cat. No. 494 (includes indented items below)
15	8027134	Shank Only, Right Hand
16	8027158	Tip, Right Hand or Left Hand

Ref. No.	Part No.	Description
17	1118027	Screw, Rd. Hd. Mach.
18	9010285	Bit Assy., Left Hand, Cat. No. 495 (includes indented items below)
19	8027135	Shank Only, Left Hand
16	8027158	Tip, Left Hand or Right Hand
17	1118027	Screw, Rd. Hd. Mach.
20	8019060	Insert, Nylon, Tool Bar
21	1112790	Screw, Socket Hd., 1/4"-20 x 3/8"
22	6002488	Spring, Tool Bar
23	1118669	Screw, Rd. Hd. Drive, #10
24	1016776	Screw, Micrometer
25	6002486	Wave Washer, Micrometer Screw, 25/64" I.D.
26	1016774	Dial, Micrometer
27	8000360	Washer, Thrust, Nylon, 3/8"
28	1016775	Knob, Micrometer
29	8027257	Support, Tool Bar
30	1016653	Spacer
31	6002487	Washer, Wave, Shoulder Screw – (early design)





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