

INDEX

MACHINE & TOOL CO.

Jackson, Michigan, U.S.A.

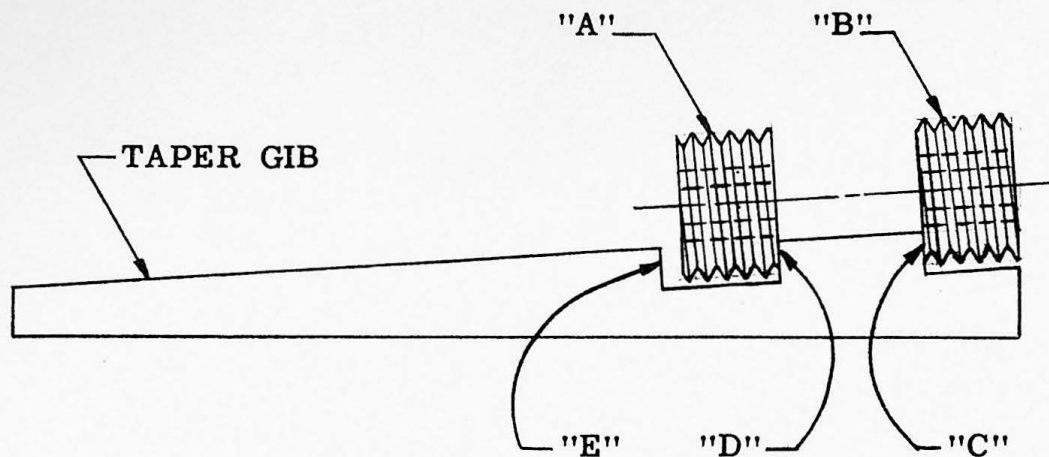
UINO U.S.A.

PARTS LIST
FOR
MODEL 645 INDEX HIGH SPEED
VERTICAL MILLING MACHINE

SERIAL NO. 645-10316

INDEX MACHINE & TOOL CO.
JACKSON, MICH. U. S. A.

TAPER GIB ADJUSTMENT INSTRUCTIONS



TO ADJUST TAPER GIB

- 1 - Loosen Hollow Lock Screw "B" by turning to the left.
- 2 - Turn Hollow Lock Screw "A" to the right until it contacts point "E" - - continue turning to the right until all undesired slack is removed.
- 3 - Then reverse Lock Screw "A" until it makes contact with point "D".
- 4 - Turn Lock Screw "B" to the right until it makes contact with point "C", then tighten.
- 5 - When adjusting table gibs, be sure to adjust both right and left hand gibs equally.

Warning! Tighten Lock Screw "B" only enough to hold gib in place.

PARTS LIST

INDEX MILL

MODEL 645

BM645-31

UNIVERSAL HEAD

Chg. No.	Part Name	Part No.	Amt.	Key No.	Chg. No.	Part Name	Part No.	Amt.	Key No.
	Head - Universal	9090	1	B1	21	Adapter	o	1946	B235
	3/8-16x3/4 Soc. Hd. Cap Screw		4	B2	22		o		B236
	Grease Fitting 1610		1	B3	23		o		B237
	Oil Cup 1219		1	B4	19	Bar - Adapter Draw 3/8-24 Thd.	2476-2		B59
	Dowel 5/16 x 1		2	B5	20	Adaptor - Draw Bar 5/8-11	2475 o	2475	B60
	T-Bolt - Head	2389	4	B6	24		o		B238
	Washer W-10		4	B7	25		o		B239
	1/2-13 Heavy Hex. (7/8 Flats) Nut		4	B8	26	Adapter	o	1949	B240
	Scale - Depth	2393	1	B9		Case - Head Feed Gear	9094	1	B61
	#6-32x1/4 Rd. Hd. Mach. Screw		2	B10		5/16-18x5/8 Soc. Hd. Cap Screw		4	B62
	#6 Washer SAE		2	B11		5/16-18x5/8 Hex. Hd. Cap Screw		2	B63
	Rod - Feed Trip	2374	1	B12		5/16 x 5/8 Dowel		1	B64
	Nut - Positive Stop	2377	1	B13		1/4 Pipe Plug		1	B65
	#10-32x1/4 Hex. Soc. Set Screw		1	B14		3/8 Street El		1	B66
	5/32 Dia. x 1/16 Brass Slug		1	B15		3/8 Pipe Plug (Sq. Hd.)		1	B67
	Dial - Depth Gauge	2376	1	B16		Plate - Spindle Feed	2474	1	B68
	Nut - Dial Lock	2375	1	B17	1	Cover - Head Side	7054A	1	B69
	Washer - Feed Trip Rod	2464	1	B18		1/4-20x1/2 Fil. Hd. Cap screw		12	B70
	Collar - Feed Trip Rod	2463	1	B19		1/4 x 3/4 Dowel		2	B71
	1/8 x 1 Rollpin		1	B20		3/8 Hex. Soc. Pipe Plug		1	B72
	Link - Trip Rod	2367	1	B21		Oil Gauge 4040		2	B73
	#10-32x1/4 Hex. Soc. Set screw		1	B22	1A	Block - Clutch Lever Pivot	2469	1	B74
	Cam - Feed Trip Rod	2394	1	B23		1/4-20x5/8 Nylok Soc. Hd. CapScrew		2	B75
	Plunger - Feed Trip Rod	2460	1	B24	2	Lever - Clutch Engaging	4414A	1	B76
	Spring 9-0804-31		1	B25		5/32 x 1 Rollpin		1	B77
	Plug - Spring Retaining	2378	1	B26		Pin - Clevis	2452	1	B78
	1/8 x 1 Rollpin		1	B27		3/32 x 3/4 Cotter Pin		1	B79
16	Housing - Spring	2428	1	B28 *	3	Pin - Clutch	2385A	1	B80
17	#10-24x1 Fil. Hd. Cap Screw		2	B29 *	27	Nut - Clutch Pin Stop	2477		B81
					4	Nut - Clutch Pin	2461A	1	B82
	Special Spindle Parts:			B30		#10-32 x1/4 Hex. Soc. Set Screw		1	B83
	Spindle - R-8 Taper	o 4427	1	B31		Spring - Clutch Leaf	2462	7	B84
	Spacer - R-8 Taper Spindle (inner)	o 2470	1	B32		3/8-16x5/8 Button Hd. Cap Screw		1	B85
	Key - R-8 Spindle	o 2471	4	B33	28	Rod - Feed Trip	2403	1	B86
	Bar - Long Draw (R-8 Spindle)	o 2472-2	1	B34	28	Spring Bowled	2532	1	B87
	Spindle (St'd)	4416	1	B35	28	Spring J-162-A		1	B88
	Ball Bearing 773L06		1	B36		Bracket - Trip Rod	2366	1	B88A
	Snap Ring 5100-118		1	B37		#10-24x1 Fil. Hd. Mach. Screw		2	B89
	Ball Bearing QOLO7DB		2	B38		3/16 x 1 Rollpin		2	B90
	Spacer - Spindle Bearing (inner) (St'd)**	2371	1	B39		1/8 x 3/4 Rollpin		1	B91
	Spacer - Spindle Bearing (outter)	2372	1	B40		1/8 x 1 Rollpin		1	B92
	Nut - Spindle Bearing Lock	1153A	1	B41		Pin - Latch	2395	1	B93
	Nut - Quill Lower Seal	1152	1	B42		Lever - Hand Feed Trip	2402	1	B94
	Bar - St'd Long Draw	** 2391	1	B43	36	Shaft - Bevel Gear Feed	4425	1	B95
	Washer - Draw Bar	1482	1	B44	36	"O" Ring 3/4 x 9/16 x 3/32		1	B95A
	Nut - Draw Bar	1133	1	B45	5	Spring Bowled Leaf	2479	1	B96
	Box Wrench 583			B46		Ball Bearing 455501		1	B97
	Quill	4415	1	B47		Bail Bearing 3LO3		1	B98
	1/8 Radiator Pipe Plug - Slotted		1	B48		Oil Seal 63x287		1	B99
	Key - Quill Feed Trip	2390	1	B49		Spool - Feed Shifter	2423	1	B100
	5/16-18x3/4 Soc. Hd. Cap Screw		2	B50	6	Key - Feed Change	2430A	1	B101
	Pointer - Scale	2465	1	B51		Washer - Spacer	2429	3	B102
	#6-32x3/16 Rd. Hd. Mach. Screw		1	B52		Gear - 45T Feed	2409	1	B103
	Clamp - Quill Lock (Tapped)	2396	1	B53		Gear - 36T Feed	2410	1	B104
	Clamp - Quill Lock	2397	1	B54		Gear - 26T Feed	2411	1	B105
	Screw - Quill Lock	1933	1	B55		Spacer - Feed Gear	2431	1	B106
	Lever - Quill Clamp	2007	1	B56		Pinion - Bevel Gear	2434	1	B107
	1/4-20x3/8 Hex. Soc. Set Screw		1	B57	37	Plug - Bearing	2432	1	B108
						1/4-20x5/16 Rd. Hd. Mach. Screw		1	B109
						Gear - Bevel	2435	2	B110
						Bushing AA-710-16		2	B111
						Shaft - Reverse Feed	4424	1	B112
						Ball Bearing 3202		2	B113
						Shaft - Reverse Feed Shifter	2442	1	B114
18	Bar - 7/16-14 L.H.	o 1949-2		B58					

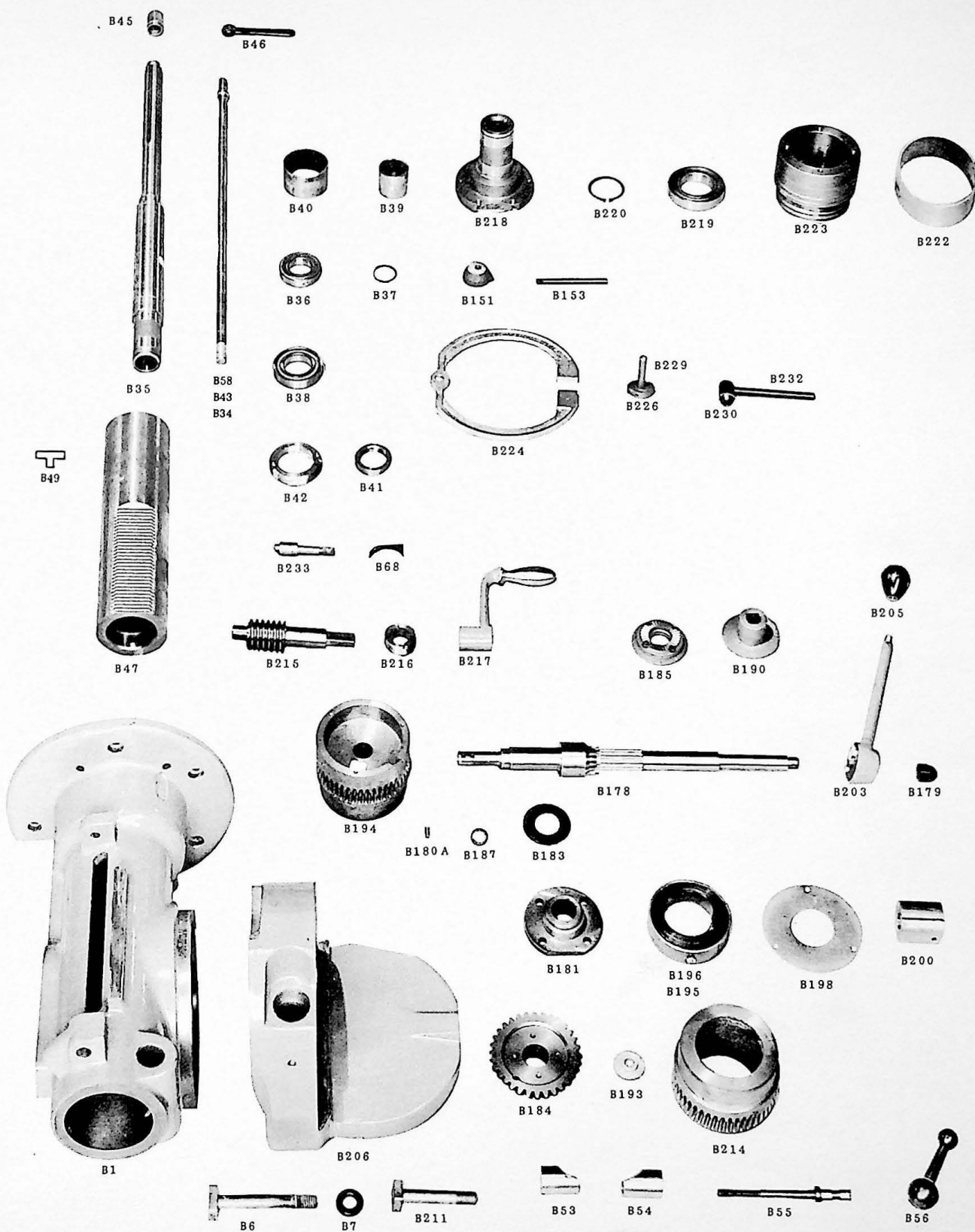
NOTE: Special Order Short Draw
Bar With Adaptors:

PARTS LIST

INDEX MILL

MODEL 645

BM645-31

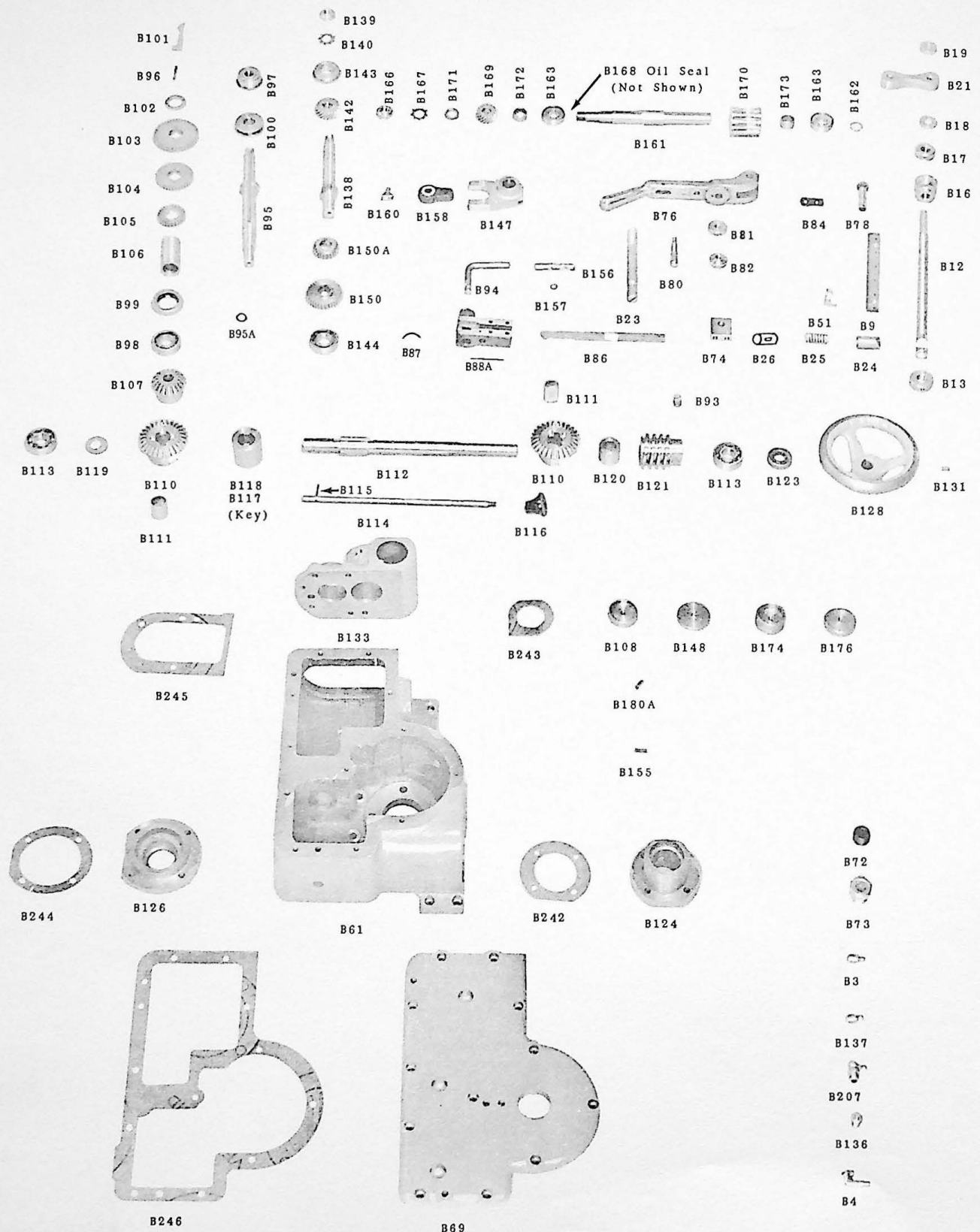


PARTS LIST

INDEX MILL

BM645-31

MODEL 645



PARTS LIST

INDEX MILL

MODEL 645

BM645-31

UNIVERSAL HEAD SUPPLEMENTAL CHANGES TO PARTS LIST First Serial 645-8700

Reference;
Section BM 645-31
Sheets 4 & 5

Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers	Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers
1	7054	7054A	B69	645-8755	21	1946		B235	645-8700 Discontinued
1A		2469	B74	645-8755	22	1/2-13x1 Hex.Soc.Set Scw.		B236	645-8700 Discontinued
2	4414	4414A	B76	645-8765 Thru except 8764	23	1/8 x 3/4 Rollpin		B237	645-8700 Discontinued
3	2385	2385A	B80	645-8765	24	5/8-11x1-1/4 Hex.Soc.Set Scw.		B238	645-8700 Discontinued
4	2461	2461A	B82	645-8765	25	5/32"x7/8 Rollpin		B239	645-8700 Discontinued
5	J158A1/2	2479	B96	645-8744	26	1949		B240	645-8700 Discontinued
6	2430	2430A	B101	645-8744	27		2477	B81	645-8765
7	4417	4417A	B178	645-8728	28		2403	B86	645-8744 (With Chg "D")
8	4417A	4417B	B178	645-8788	28	J-162-A) 2459)	2532	B87	645-8744
9	2382	2382A	B187	645-8788	29		2545	B180-A	645-8728
10	5100-62	5108-75	B188	645-8788	30	2381		B191	645-8728 Discontinued
11		5 Wood- ruff	B180	645-8728	31		1781	B242	645-8765
12	2380	2380A	B190	645-8728	32		1782	B243	645-8765
13	2457		B189	645-8728 Discontinued	33		1783	B244	645-8765
14	Oil Seal 63 x 383		B192	645-8759 Discontinued	34		1784	B245	645-8765
15	2408 2407	3/8x1-1/2 Dowel	B225	645-8751 Discontinued	35		1785	B246	645-8765
16	2428		B28	645-8764 Discontinued Except 645-8768 2428 Used	36		4425	B95	Chg "E" Added For O-Ring, Key # B95A. (All 4425 Shaft Replace- ments Must Use 3/4 x 9/16 x 3/32 O-Ring)
17	10x24x1	Fil.Hd. Cap Scw.	B29	645-8764 Discontinued	36		3/4x9/16 x3/32 O-Ring	B95A	Use With 4425 Shaft
18	2392	1949-2	B58	645-8700	37	2432 2420	2420-A		All Machines
19		2476-2	B59	645-8700	38	2379	2379-A		All Machines
20	1947	2475	B60	645-8700	39	2380-A	2380-B		All Machines

PARTS LIST

INDEX MILL

MODEL 645

BM645-31

UNIVERSAL HEAD

Chg. No.	Part Name	Part No.	Amt.	Key No.	Chg. No.	Part Name	Part No.	Amt.	Key No.
	3/32 x 3/4 Spirol Pin		1	B115	37	Plug - Upper Cross Feed Shaft	2420	1	B174
	Knob 3704SC (#10-24)		1	B116		1/4-20x5/16 Rd. Hd. Mach. Screw		1	B175
	Key - Feed Reversing	2438	2	B117		Plug - Gear Case Cover	2433	1	B176
	Sleeve - Feed Drive	2436	1	B118		1/4-20x5/16 Rd. Hd. Mach. Screw		1	B177
	Washer - Thrust	2458	1	B119	7 & 8	Shaft - Cross	4417-B	1	B178
	Spacer - Thrust	2437	1	B120		1/2-20 Acorn Nut		1	B179
	Worm - Cross Shaft Feed	2439	1	B121	11	#5 Woodruff Key		2	B180
	Key	2440-16	2	B122	29	Spring - Clutch	2545	1	B180-A
	Oil Seal 63 x 67		1	B123		Bushing - Flanged	2370	1	B181
	Cap - Front Bearing	2365	1	B124		5/16-18x1-1/4 Soc. Hd. Cap Screw		4	B182
	1/4-20x5/8 Fil. He. Cap Screw		4	B125		Spacer - Cross Shaft	2383	1	B183
	Cap - Rear Bearing	2364	1	B126		Gear - Cross Shaft Worm	4420	1	B184
	1/4-20x5/8 Fil. Hd. Cap Screw		4	B127	38	Clutch - Drive	2379	1	B185
	Wheel - Hand	4412	1	B128		#10-24x5/8 Nylock Screw		4	B186
	1/4-20x3/8 Hex. Soc. Set Screw		1	B129	9	Spacer - Cross Shaft	2382A	1	B187
	5/32 Dia. Ball		1	B130	10	Snap Ring 5108-75		1	B188
	Spring J-158A (Cut 7/16L)		1	B131	13	Key - Clutch	2457	1	B189
	#10-32x3/16 Hex. Soc. Set Screw		1	B132	39,12	Clutch - Driven	2380-A	1	B190
	Cover - Gear Case Top	4411	1	B133	30	Spring - Clutch	2381	1	B191
	1/4-20x1/2 Soc. Hd. Cap Screw		4	B134	14	Oil Seal		1	B192
	1/4 x 3/4 Dowel		2	B135	29	Center - Cross Shaft Plug	2384	1	B193
	1/8 Relief Fitting 47200		1	B136		Gear - Head Tilting Worm (Forward)	4413	1	B194
	Grease Fitting 1930		1	B137		Case - Spring	2455	1	B195
	Shaft - 15T Gear Feed	2414	1	B138		Spring - Counterbalance	2387	1	B196
	Lock Nut N-01		1	B139		Rivet 38-108-04-13		1	B197
	Lock Washer W-01		1	B140		Cover - Spring	2388	1	B198
	#3 Woodruff Key		1	B141		#8-32x1/2 Rd. Hd. Mach. Screw		3	B199
	20T Helical Gear H1620R		1	B142		Coupling - Feed Handle	2386	1	B200
	Ball Bearing 4773L03		1	B143		3/16 x 1-1/2 Rollpin		1	B201
	Ball Bearing 3L02		1	B144		Handle - Spindle Feed	2108	1	B203
	Snap Ring 5100-66		1	B145		1/4x5/8 Pin #250-0875 HBK		2	B204
	Key	2440-16	1	B146		Knob 5008-5 (3/8-16)		1	B205
	Fork - Feed Shifter	2424	1	B147		Adaptor - Universal Head Mounting	9091	1	B206
	Plug - Feed Shaft	2415	1	B148		Grease Fitting 1612		1	B207
	1/4-20x5/16 Rd. Hd. Mach. Screw		1	B149		1/4-20x1/2 Hex. Soc. Set Screw		1	B208
	Gear - 34T Feed	2412	1	B150		3/16 Dia. x 1/4 Brass Slug		1	B209
	Gear - 24T Feed	2413	1	B150A		5/16 x 1 Dowel		2	B210
	Boss - Feed Handle	2368	1	B151		T-Bolt (Into Overarm)	1943	4	B211
	1/4-20x3/8 Hex. Soc. Set Screw		1	B152		Washer W-10		4	B212
	Handle - Feed Shift	2398	1	B153		1/2-13 Heavy Hex. (7/8 Flat) Nut		4	B213
	7/32 Dia. Ball		2	B154		Gear - Head Tilting Worm (Sidewise)	4426	1	B214
	Spring	1232	1	B155		Worm - Forward Head Tilting	1848	1	B215
	Shaft - Feed Shifter	2427	1	B156		Nut - Head Tilting Worm	1849	1	B216
	O-Ring 3/8 x 1/4 x 1/16		1	B157		Crank (1/2" Sq.)	1809	1	B217
	Arm - Feed Shifter	2425	1	B158		Support - Spindle Pulley Bearing	4418	1	B218
	1/4-20x3/8 Knurled Cup Point		1	B159		Ball Bearing 773L09		2	B219
	Key - Shifter	2426	1	B160		Snap Ring 5102-177		1	B220
31	Gasket for 2365	1781	1	B242		5/16-18 x 1 Hex. Soc. But. Hd. Cap Screw		5	B221
32	Gasket For Bracket 4411 Back	1782	1	B243		Spacer	2405	1	B222
33	Gasket for Retainer 2364	1783	1	B244		Worm - Spindle Pulley	4422	1	B223
34	Gasket for Cover 4411 Bottom	1784	1	B245		Brake	4336	1	B224
35	Gasket for Cover 7054-A	1785	1	B246	15	3/8 Dia. x 1-1/2 Dowel		1	B225
	Shaft - Upper Cross Feed	2416	1	B161		Cam - Brake	2026	1	B226
	Snap Ring 5100-59		1	B162		5/32 x 3/4 Rollpin		1	B227
	Ball Bearing QOLO2		2	B163	15	Support - Brake Cam	2408	1	B228
	#5 Woodruff Key		1	B164		Shaft - Brake	2401	1	B229
	#213 Woodruff Key (403)		1	B165		Boss - Brake Handle	2399	1	B230
	Lock Nut N-01		1	B166		1/8 x 3/4 Rollpin		2	B231
	Lock Washer W-01		1	B167		Handle - Brake	2400	1	B232
	Oil Seal 63 x 121		1	B168		Pin - Spindle Pulley Lock	2456	1	B233
	16T Helical Gear H1616R -		1	B169					
	Gear - 13T Worm	2404	1	B170					
	Spacer - Upper Cross Feed Shaft	2417	1	B171					
	Spacer - Upper Cross Feed Shaft	2418	1	B172					
	Spacer - Upper Cross Feed Shaft	2419	1	B173					

NOTE: *Used 1st 50 Mills Only

**Not Used With Special R-8 Taper Spindle Listed
On Sheet 4, BM45-31

LITHO U.S.A.

INDEX MACHINE & TOOL CO.

JACKSON, MICH. U. S. A.



PARTS LIST

INDEX MILL

BM645-32

MODEL 645

UNIVERSAL HEAD PULLEY GUARD

SUPPLEMENTAL CHANGES TO PARTS LIST

Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers
1	9089	9089A	B301	645-8774
2	4419 2408 2407	4419A	B306	645-8751
3	4423	4423A	B309	645-8774
4	Belt Tightening Mechanism Used 1st 50 Mills Only		B331	645-8773 Discontinued

Reference:
Section BM645-32
Sheet 7

PARTS LIST

INDEX MILL

MODEL 645

BM645-32

UNIVERSAL HEAD PULLEY GUARD

Chg. No.	Part Name	Part No.	Amt.	Key No.
1	Guard-Pulley	9089A	1	B301
	3/16 x 1-3/8 Rollpin		1	B302
	5/8 x 2 Hex. Soc. Shoulders Screw		1	B303
	Chart-Spindle Speed	1970	1	B304
	#0(.073) x 1/4 Drive Screw		4	B305 *
2	Ring-Pulley Guard Clamp	4419A	1	B306 †
	Plate-Head Motor Mounting	4318	1	B307
	3/8-16 x 1-1/4 Hex. Hd. Cap Screw		4	B308
	3/8 Washer, SAE		4	B308A
3	Housing-Jack Shaft	4423A	1	B309
	Ball Bearing 7505		2	B310
	Snap Ring 5000-206		2	B311
	1/8 Grease Fitting 1925		1	B312
	Shaft-Jack	1942	1	B313
	#11 (3/16 x 7/8) Woodruff Key		2	B314
	Snap Ring 5100-75		1	B315
	Snap Ring 5100-93		1	B316
X	Pulley-Motor	4323	1	B317X
	5/16-18 x 1/2 Hex. Soc. Set Screw		2	B318
	Pulley-Top Jack Shaft	4324	1	B319
	Pulley-Bottom Jack Shaft	4325	1	B320
	Pulley-Spindle	4421	1	B321
	V-Belt (Motor Pulley)		1	B322
	V-Belt (Spindle Pulley)		1	B323
	Plate-Spindle Drive	2406	1	B324
	1/4-20 x 2-1/4 Soc. Hd. Cap Screw		4	B325
	Belt Tightening Mechanism: (Used 51st Mill and Up)			
	Handle-Belt Tension	2467	1	B326
	5/32 x 1 Pollpin			B327
	5/32 x 5/8 Pin 156-0625-HBK		2	B328
	Shaft-Belt Tension	2468	1	B329
	3/8-24 Nut 20FC-624		1	B330
4	Belt Tightening Mechanism: (Used 1st 50 Mills Only)			
				B331
	Pivot-Ball	2443	1	
	Turnbuckle	2444	1	
	Screw-Turnbuckle	2445	1	
	3/8-16 Hex. Nut		1	
	Clevis	2446	1	
	Link-Clevis	2447	1	
	3/16 x 11/16 Spirol Pin		3	
	Hub-Belt Tension Handle	2448	1	
	5/32 x 1-1/4 Rollpin		1	
	Handle	2398	2	
	Shaft-Belt Tension Hub	2449	1	

NOTE: * Parker-Kalon

† Part 4419A and A 3/8 x 1-1/2 Dowel,
Will Replace Parts 2407, 2408 and
4419 Used On First 50 Mills.

PARTS LIST

INDEX MILL

BM645-33

MODEL 645



OVER ARM - UNIVERSAL HEAD

SUPPLEMENTAL CHANGES TO PARTS LIST

Reference:
Section BM645-33
Sheet 9

Chg. No.	Old Part No.	New Part No	Key No.	Machine Serial Numbers
1	2453	1848	B403	645-8789
2	2454	1849	B404	645-8789
3		2480	B405	645-8789

PARTS LIST

INDEX MILL

MODEL 645

BM645-33

OVERARM - UNIVERSAL HEAD

Chg. No.	Part Name	Part No.	Amt.	Key No.
	Overarm	9093	1	B401
	Grease Fitting 1610		1	B402
1	Worm-Sidewise Head Tilting	1848	1	B403
2	Nut-Sidewise Tilting Worm	1849	1	B404
3	Spacer-Tilting Nut	2480	1	B405
	Anchor-Chain End	2421	2	B406
	1/4-20 x 5/8 Soc Hd. Cap Screw		4	B407
	5/32 x 1 Rollpin		2	B408
	40 Roller Chain		1	B409
	Turret	9092	1	B410
	5/16-18 x 1/2 Hex. Soc. Set Screw		1	B411
	Stud-Turret	2450	4	B412
	1/2-13 Hard Heavy Hex. Nut		4	B413
	Washer W-10		4	B414
	Dowel-Turret	2042	1	B415
	T-Boil-Turret	2208	4	B416
	5/8-11 Heavy Hex. Nut		4	B417
	5/8 Washer, SAE		4	B418
	34 Engineers Wrench		1	B419
	Shaft-Overarm Adjustment	2422	1	B420
	Sprocket-Overarm	2451	1	B421
	5/32 x 1 Rollpin		1	B422

NOTE - Special Order-Turret Spacers:

Spacer-Turret 4"	o	1981	B423
5/8-11 x 4 Soc. Hd. Cap Screw (4)	o		B424
Spacer-Turret 6"	o	1982	B425
5/8-11 x 6 Soc. Hd. Cap Screw (4)	o		B426
Adaptor-Universal Slotmaster	o	4284	B427
1/2-13 x 1-1/4 Soc. Hd. Cap Screws (4)	o		B428

LITHO U.S.A.

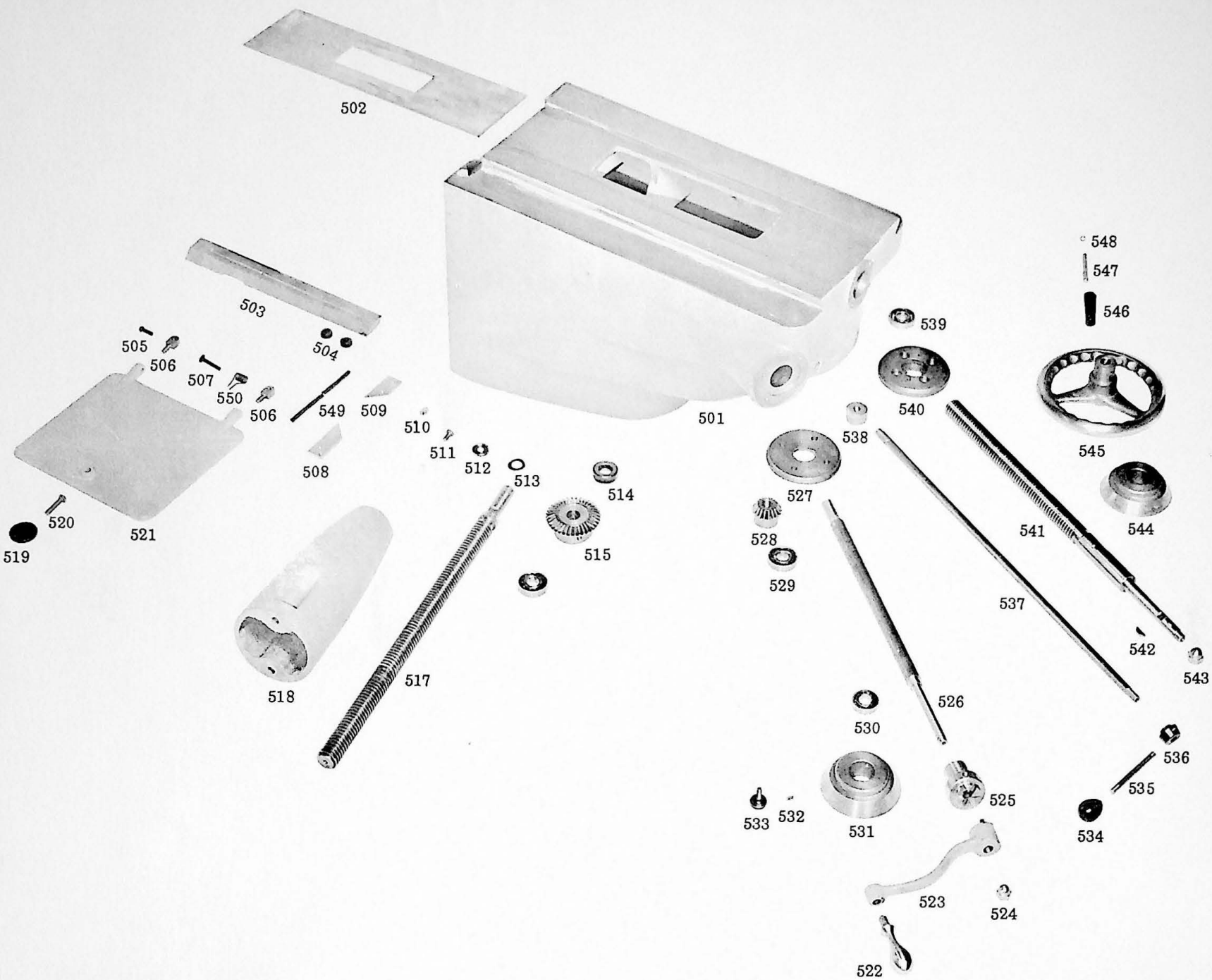
INDEX MACHINE & TOOL CO.**JACKSON, MICH. U. S. A.**

PARTS LIST

BM645-5

MODEL 645

INDEX MILL



INDEX MACHINE & TOOL CO.

-11-

JACKSON, MICH. U. S. A.

PARTS LIST

INDEX MILL

BM645-5

MODEL 645

KNEE AND COLUMN DOOR

Reference:
Section BM45-5
Sheet 11

Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers	Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers
1	1808-1	2036	522	1808-1 Handle. Ser 45-546 6920 Thru 8368 Used With Crank 1010.	7	4312	4312-B	519	4312 Door, 9NK-3/8 Knob,
			547			4312-A		520	1257 Latch, Two 1/8 x 5/8
			548	2036 Handle, Ser 45-8369 & Up Used With Crank 1010-A, Handle Pin 2037 and 5/16 Snap Ring.				521	Roll Pins, 1548 Collar,
									1997 Shaft And Two 1/4 x 3/4 Rivets, Ser 45-6920 Thru 7174.
2	1010	1010-A	523	1010 Crank, Ser 45-6920 Thru 8368 - 1010-A Crank, Ser 45-8369 & Up					4312-A Door, 9NK-3/8 Knob, Two 1/8 x 5/8 Roll Pins, One 1/4 x 3/4 Rivet, One 1/4 x 1-3/8 Rivet, One 3/8 x 1-1/4 Rivet And 1160 Spring, Ser 45-7175 Thru 7716.
3	1907	1907-A	536	1907 Boss, Ser 45-6920 Thru 8171 Excluding 8158. 1907-A Boss, Ser 45-8172 & Up Including 8158.					4312-B Door, H766-D Knob, One 1/8 x 5/8 Roll Pin, One 1/4 x 3/4 Rivet, One 1/4 x 1-3/8 Rivet, 1160 Spring And 5/16-18 x 1-1/4 Rd Hd Machine Screw, Ser 45-7717 & Up.
4	9052	9052-A	501	9052 Knee, Ser 45-6920 Thru 7966 Including 7944, 7946, 7971, 7974, 7975, 7976, 7977, 7978, 7979, And 7989.	8	9052-A	9052-B	501	10" Saddle Feed Unit Knee
				*9052-A Knee, Ser 45-7967 And Up Excluding 7944, 7946, 7971, 7974, 7975, 7976, 7977, 7978, 7979, And 7989.	9	9081	9081-A	501	12" Saddle Feed Unit Knee
					10	2300-1	1869	537	2300-1 Replaced By 1869, All Machines
					11	2314	2314-A	536	All Machines
					12	1907-A	2314-A	536	All Machines
					13	3L03	773L03	529	All Machines
					14	3203	77503	530	All Machines
5	1902	1902	502	Special Note: 1902 Cover Is 5-1/16 Inches Wide On Ser 45-6941, 6943, 6944, 6945 And 6957.					
6	1014	4339-A	545	1014 Dial Retainer, Ser 45-6020 Thru 7847 - 1015 Crank, Ser 45-6920 Thru 7847 - 4339-A Hand-wheel, Ser 45-7848 And Up (Ser 7717 Crank And Retainer - Both Ends)					
	1015								

*Spherical Radius (For 1907-A Boss) Added To Knees 9052-A Used On Serials 45-8158. 45-8172 And Up.

PARTS LIST

INDEX MILL

MODEL 645

BM645-5

KNEE AND COLUMN DOOR

10" STROKE SADDLE KNEE PARTS

Chg. No.	Part Name	Part No.	Amt.	Key No.
8, 4	Knee	9052-A	1	501
5	Cover - Knee	1902	1	502
	Gib - Knee To Column	1852	1	503
	3/4 - 16 x 3/8 Hollow Lock Screw		2	504
	1/4 x 3/4 Round Hd Rivet		1	505
	Hinge - Column Door	1890	2	506
	1/4 x 1-3/8 Truss Hd Rivet		1	507
	Wiper - LH Column Way	1952	1	508
	Wiper - RH Column Way	1951	1	509
	# 1610 Alemite Fitting		4	510
	5/16 - 18 x 1/2 Hex Hd Cap Screw		1	511
	Washer	1020	1	512
	Shim		1	513
	Thrust Bearing D-5		1	514
	Gear - Knee Bevel	1904	1	515
	Screw - Knee Elevating	1847	1	517
	Support - Knee	4313	1	518
	Knob H 766-D		1	519
	5/16 - 18 x 1-1/4 Rd Hd Machine Screw		1	520
7	Door - Column	4312-B	1	521
1	Handle	1808-1	1	522
2	Crank - Knee Elevating	1010	1	523
	7/16 - 20 Acorn Nut		1	524
	Retainer - Crank Boss & Dial	1009	1	525
†	Shaft - Knee Elevator Pinion	1846	1	526
	Bracket - Elevator Shaft Dial	1007	1	527
	Pinion - Knee Bevel Gear	1903	1	528
13	Bearing - Pinion 3L03		1	529
14	Bearing - Elevator Shaft 3203		1	530
	Dial - Elevator Shaft	1008	1	531
	Brass Slug 3/16 Dia x 1/4		1	532
†	Screw - Dial Thumb	1041-1	2	533
	Knob 187 - 5/16 - 18		1	534
	Handle - Knee Lock Screw	1906	1	535
†12,3	Boss - Knee Lock Screw Handle	1907-A	1	536
†	Screw - Knee Lock	1869	1	537
	Lock - Knee Gib	1870	1	538
†	Bearing - Saddle Lead Screw 20203		2	539
†	Bracket - Saddle Dial	1012-A	1	540
	Screw - Saddle Lead	1891	1	541
	# 7 Woodruff Key		1	542
	1/2 - 20 Acorn Nut		1	543
†	Dial - Saddle Feed	1013	1	544
† 6	Wheel - Hand	4339-A	1	545
	Handle - Hand Wheel	2036	1	546
	Pin - Hand Wheel Handle	2037	1	547
	5/16 Snap Ring		1	548
	Strip - Way Wiper - 9" Long (Fit)		1	549
	Spring - Column Door	1160	1	550

*12" STROKE SADDLE KNEE PARTS

Chg. No.	Part Name	Part No.	Amt.	Key No.
9	Knee	9081	1	501
	Cover Assembly (Not Shown)			
	Composed Of:			
	Cover-Primary Knee	2303	1	502-A
	3/16 x 1/2 Flat Hd Rivet		1	
	Collar - Knee Cover Stop	2313	1	
	Cover Assembly			
	Composed Of:			
	Cover-Secondary Knee (Long)	2304	1	502
	3/16 x 1/4 Pan Hd Rivet		2	
	Shaft - Knee Elevator Pinion	2299	1	526
† 11	Boss - Knee Lock Screw Handle	2314	1	536
† 10	Screw - Knee Lock	2300-1	1	537
	Lock - Knee Gib	2301	1	538
†	Screw - Saddle Lead	2298	1	541

† SPECIAL NOTE -

The following parts are not used when machine is equipped with a saddle feed unit (see MB645-23 for saddle feed unit parts).

Shaft - Knee Elevator Pinion	1846	1	526
Boss - Knee Lock Screw	1907-A	1	536
Screw - Knee Lock	1869	1	537
Screw - Saddle Lead	1891	1	541
Boss - Knee Lock Screw	2314	1	536
Screw - Knee Lock	2300-1	1	537
Screw - Saddle Lead	2298	1	541
Dial - Saddle Feed	1013	1	544
Handwheel	4339-A	1	545
Bracket - Saddle Dial	1012-A	1	540
Screw - Saddle Dial Thumb	1041-1	1	533
(One Only Replaced)			

*NOTE -

Parts listed in this column replace same on similar "Key" numbered parts listed in column at left, headed - "10" Stroke Saddle Knee Parts", all other parts remain the same.

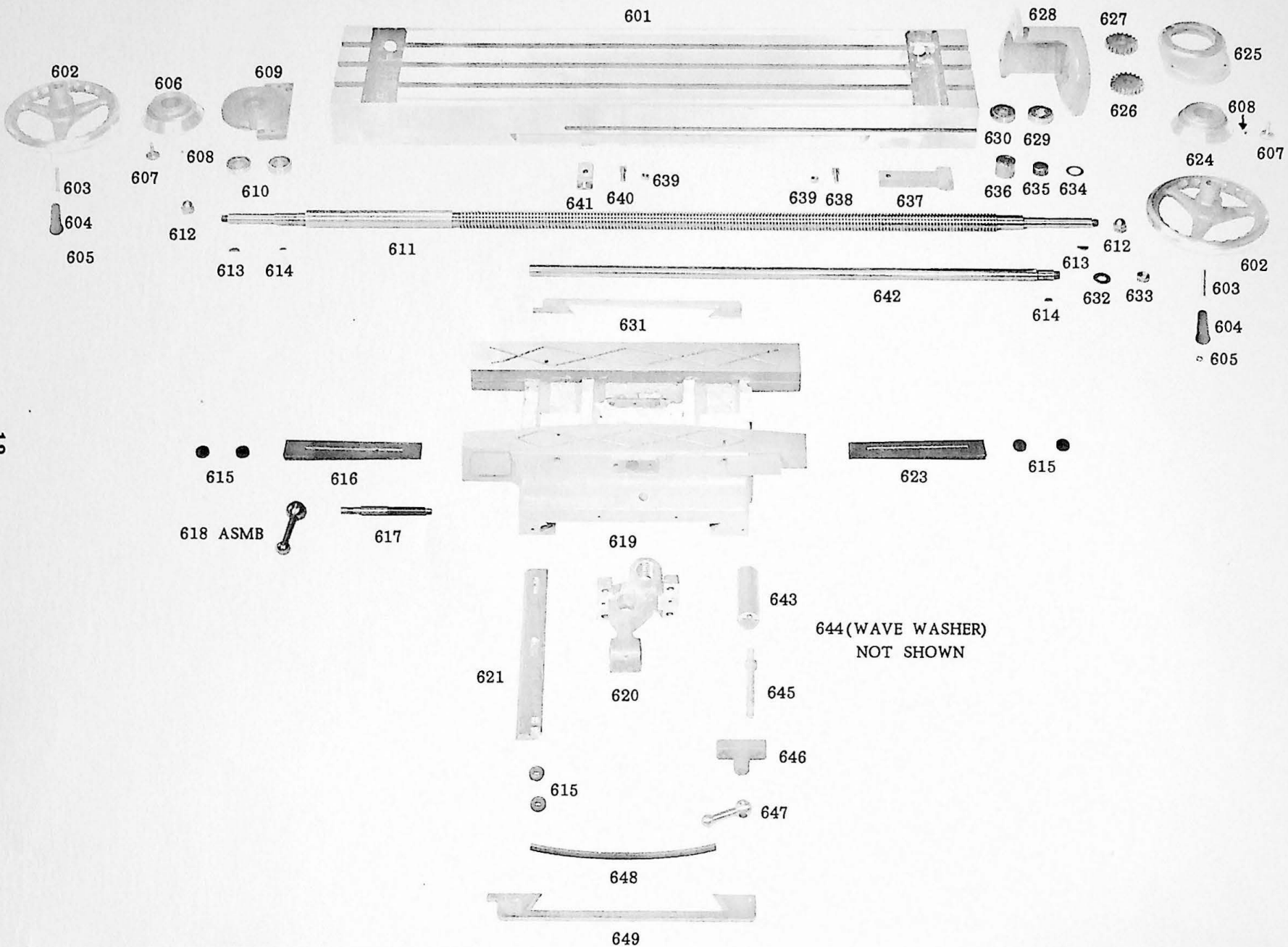
Above parts first used on Serial 45-8134.

PARTS LIST

INDEX MILL

BM45-6

MODEL 45



PARTS LIST

INDEX MILL

BM45-6

MODEL 45

TABLE AND SADDLE

Reference:
Section BM45-6
Sheet 13

Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers	Chg. No.	Old Part No.	New Part No.	Key No.	Machine Serial Numbers
1	1043-2	4340	611	40" Lead Screw 1043-2, Ser 45-6920 Thru 7847. 40" Lead Screw 4340, Ser 45-7848 & Up.	8	1045-C	2128	623	1045-C Gib, Ser 45-6920 - 7966 Including 7944, 7946, 7971, 7974, Thru 7979 And 7989. 2128 Gib, Ser 45-7967 & Up, Excluding 7944, 7946, 7971, 7974 Thru 7979 And 7989.
2	1043-1	4338	611	46" Lead Screw 1043-1, Ser 45-6920 Thru 7854. 46" Lead Screw 4338, Ser 45-7855 & Up.	9	1958 1987	2082 1037	641 640	1037 T-Bolt & 2082 LH Cam Replace - 1987 T-Bolt & 1958 LH Cam Any Serial.
3	1014 1015	4339-A	602	1014 Dial Retainer And 1015 Crank, Ser 45-6920-7847 (Ser 45-7717, Crank & Retainer - Both Ends Of Table) 4339-A Hand-wheel, Ser 45-7848 & Up.	10	1918 1919	1918-A 2125	646 645	1918 Bracket & 1919 Screw, Ser 45-6920 Thru 7966 Including 7944, 7946, 7971, 7974 Thru 7979 And 7989. 1918-A Bracket & 2125 Screw, Ser 45-7967 & Up, Excluding Above Serials.
4	1026-A	1907-A	618	1026-A Handle, Ser 45-6920 Thru 7966 - 1907-A Boss, 1906 Handle, 187-5/16-18 Knob, Ser 45-7967 & Up.	11	4311 4366		620	4311 Nut, Ser 45-6920 And Up. 4366 Auto-Lub Nut Ser 45-7968 & Up, (Optional With Saddle 9077)
5	9055	9077	619	9055 Saddle, Ser 45-6920 Thru 7966 Including 7944, 7946, 7971, 7974, 7975, 7976, 7977, 7978, 7979 And 7989 - 9077 Saddle, Ser 45-7967 & Up Excluding 7944, 7946, 7971, 7974, Thru 7979. Also Ser 7989.	12	9060 9062-A	9060 9062-A	601	40" Table With Long Vernier Scale Slot (Part Chg. "H") Ser 45-7996 And Up. 46" Table With Long Vernier Scale Slot (Part Chg. "K") Ser 45-7987 And Up.
6	1871	4365	621	1871 Gib, Ser 45-6920 Thru 7966 Including 7944, 7946, 7971, 7974 Thru 7979 And 7989. 4365 Gib, Ser 45-7967 & Up, Excluding 7944, 7946, 7971, 7974, Thru 7979 And 7989.					
7	1049 3/4-16 Jam Nut	2029 2031 1013	625 636 624	1049 Cover, 3/4-16 Jam Nut, Ser 45-6920 Thru 7847 1013 Dial, 2029 Cover And 2031, Spacer, Ser 45-7848 & Up.					

PARTS LIST

INDEX MILL

MODEL 45

BM45-6

TABLE AND SADDLE

Chg. No.	Part Name	Part No.	Amt.	Key No.
12	Table - 40"	9060	1	601
12	Table - 46"	9062-A	1	
3	Wheel - Hand	4339-A	2	602
	Pin	2037	2	603
	Handle	2036	2	604
	5/16 Snap Ring		2	605
	Dial - Lead Screw, LH End	1013	1	606
	Screw - Dial Thumb	1041-1	2	607
	Brass Slug - 3/16 Dia. x 1/4		2	608
	Bracket - Table End	1046	1	609
	Bearing - Lead Screw 20203		2	610
1	Screw - 40" Table Lead	4340	1	611
2	Screw - 46" Table Lead	4338	1	
	1/2 - 20 Acorn Nut		2	612
	#7 Woodruff Key		2	613
	#3 Woodruff Key		2	614
	3/4 - 16 x 3/8 Hollow Lock Screw		6	615
	Gib - LH Table To Saddle	1034-C	1	616
	Screw - Saddle Lock - Use With:			
	R.T.U. & Verniers Or Rod Tray	2112-1	1	617
	Verniers, Rod Trays Or R.T.U.	2112-2	1	
	Mill Without Extras	2112-3	1	
	Handle Assembly Composed Of:			
4	Knob 187 - 5/16 - 18		1	618
4	Handle - Lock Screw	1906	1	
4	Boss - Lock Screw Handle	1907-A	1	
5	Saddle	9077	1	619
11	Nut - Lead Screw - Std.	4311	1	620
11	Nut - Lead Screw (For Auto-Oil System)	4366	1	
6	Gib - Saddle To Knee	4365	1	621
8	Gib - RH Table To Saddle	2128	1	623
7	Dial - Lead Screw, RH End	1013	1	624
7	Cover - Lead Screw Bracket	2029	1	625
	Gear - Aux. Feed Shaft (5/8 Hole)	1068	1	626
	Gear - Lead Screw (3/4 Hole)	1067	1	627
	Bracket - Table Lead Screw	4003	1	628
	Bearing - Right End Lead Screw			
	73L04		1	629
	Bearing - Auxiliary Shaft 77R10		1	630
	Wiper - Back Of Saddle Way	1953-RH	1	631

Chg. No.	Part Name	Part No.	Amt.	Key No.
	Spacer - Aux. Shaft	1069	1	632
	1/2 - 20 Hex Jam Nut		1	633
	1/2" S.A.E. Washer (Not Shown)		1	
	Shim - Lead Screw Shaft	2030	1	634
	Spacer - Use When 1067 Gear Is Not Used	1067-C	1	635
7	Spacer - Table Dial	2031	1	636
	Cam - RH Table Feed Stop	1957	1	637
	T - Bolt	1037	1	638
	5/16 - 24 Hex Nut		2	639
9	T - Bolt	1037	1	640
9	Cam - LH Table Feed Stop	2082	1	641
	Shaft - Aux. Feed Shaft 40"			
	(Not Used When R.T.U. Is Used)	1050-2	1	642
	Shaft - Aux. Feed Shaft 46"			
	(Not Used When R.T.U. Is Used)	1050-1	1	
	Wedge - Table Lock (Use With Lock Screw 2125)	1920	1	643
	Washer - 7/16 Wave (Not Shown)		1	644
10	Screw - Table Lock	2125	1	645
10	Bracket - Table Lock Screw	1918-A	1	646
	Handle - Table Lock Screw	1627-A	1	647
	Strip - Way Wiper 15" Long (Fit)		1	648
	Wiper - Front Of Saddle Way	1953-LH	1	649

NOTE 1:

Non-Spinning Hand Wheels shall be used on all Machines Equipped With A Rapid Traverse Unit.

NOTE 2:

When the Non-Spinning Hand Wheel Assembly is Required, the parts listed below replace the two Hand Wheels 4339-A, Dials 1013, and Woodruff Keys #7.

NON-SPINNING HAND WHEEL PARTS (Not Shown):

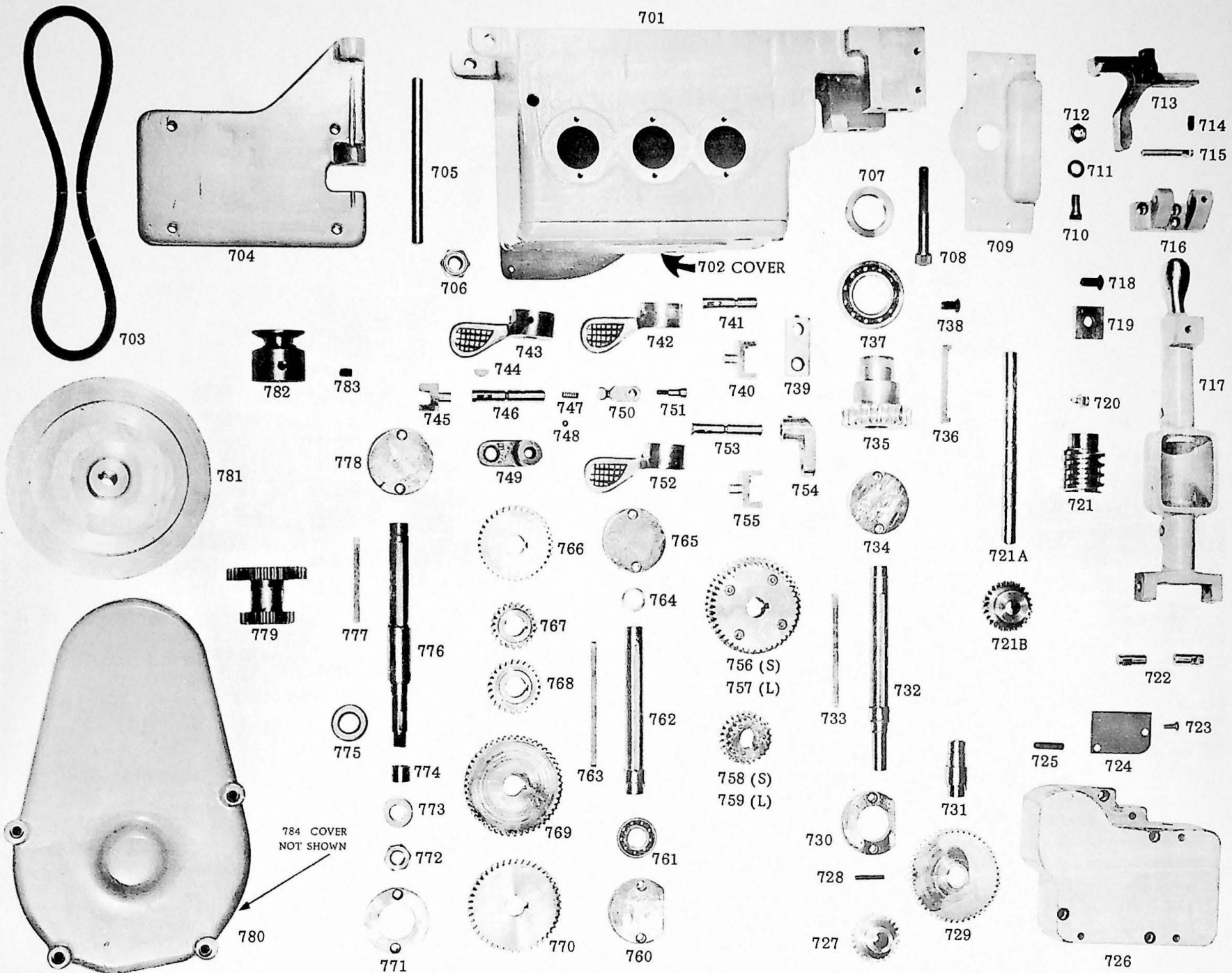
WHEEL-Non Spinning Hand	4409	2
187-0625 HBK Pin		4
SLEEVE-Dial & Hand Wheel Drive	2351	2
Snap Ring RS-157		2
5/32 x 1-1/4 Rollpin		2
DIAL-Table Feed	2352	2
3/16 Dia. x 3/32 Brass Slug		2
SPACER-Sleeve	2353	2
SPRING-Handwheel	2354	2

PARTS LIST

BM645-7

MODEL 645

INDEX MILL



INDEX MACHINE & TOOL CO.

JACKSON, MICH. U. S. A.

PARTS LIST

INDEX MILL

MODEL 645

BM645-7

TABLE POWER FEED UNIT

Chg. No.	Part Name	Part No.	Amt.	Key No.	Chg. No.	Part Name	Part No.	Amt.	Key No.
1	Housing - Table Power Feed Gear	9061	1	701		Gear 21T (S)	1300	1	758
	Cover - T.P.F. Gear Housing	4327	1	702		Gear 25T (L)	1301	1	759
	V-Belt - Table Power Feed Unit		1	703		#8 - 32 x 5/8 Soc Hd Cap Screw		7	
	Bracket - Table Feed Motor	4328-A	1	704		Cover - Middle Table Feed Bearing	1973	1	760
	Mounting				5	Bearing - T.P.F. Shaft Ball - 93L02		8	761
	Shaft - Motor Bracket	1978	1	705		Shaft - Middle Table Feed Gear	1968	1	762
	Oil Level Gauge 4040		1	706		Key	2055-B	1	763
	Nut - Worm Gear	1053	1	707		Spacer - Middle Feed Gear Shaft	1975	1	764
	3/8 - 16 x 2 3/4 Soc Hd Cap Screw		2	708		Spacer - Middle Shaft (Not Shown)			
	Cover - Table Feed Worm	1961	1	709		15/16 Long	1288	1	
	Insert - Latch	1264	1	710		Cover - Bearing	1974	1	765
	5/16 Lock Washer		1	711		Gear - Middle Shaft 36T	1293	1	766
	5/16 Hex Jam Nut		1	712		Gear - Middle Shaft 21T	1294-A	1	767
	Latch - Table Feed	1956	1	713		Gear - Middle Shaft 25T	1295-A	1	768
	Spring - Latch	1251	1	714		Gear - Middle Shaft 48T	1296	1	769
	Pin - Table Feed Latch	1990	1	715		Gear - Middle Shaft 44T	1297	1	770
	Bracket - Table Feed Latch	1955	1	716		Retainer - Bearing	1284	1	771
8	Lever - Table Feed Engagement	4330	1	717		7/16 - 14 Hex Jam Nut		1	772
	5/16 - 18 x 5/8 Button Hd Cap Screw		1	718		7/16 SAE Washer		1	773
	Plate - Table Feed Lever Latch	1986	1	719		Spacer - Pulley Shaft	1283	1	774
	#1610 Alemite Fitting		1	720		Oil Seal 11220		1	775
	Worm - Table Feed	1054	1	721		Shaft - Table Feed Gear Pulley	1969	1	776
	Shaft - Table Feed Worm	1962	1	721A		Key	2055-C	1	777
	Gear - Top Outboard Feed	1963	1	721B		Cover - Bearing	1974	1	778
	Pin - Table Feed Lever Pivot	1991	2	722		Gear - Sliding Cluster	1292	1	779
	#10 - 24 x 3/8 Rd Hd Machine Screw		2	723		Guard - Table Feed Pulley	4326-A	1	780
	Cover - Outboard Bearing Housing	1998	1	724		Pulley - Driven	4048	1	781
	1/4 x 3/4 Dowel		1	725		Pulley - Table Feed Motor	1971	1	782
2	Housing - Outboard Bearing	4329	1	726		5/16 - 18 x 3/8 Soc Set Screw		1	783
	Gear - Bottom Outboard Feed	1965	1	727		Cover - Pulley Guard (Not Shown)	4429	1	784
	5/32 x 1 Roll Pin		1	728	6	Bearing - 73L05 (Not Shown)		2	785
† 3	Gear - Middle Outboard Feed	1964	1	729	† 7	Cover - Top Front Bearing Hole	2582	1	786
	Retainer - Table Feed Bearing	1972	1	730		(Not Shown)			
4	Shaft - Outboard Table Feed Gear	1966	1	731					
	Shaft - Top Table Feed Gear	1967	1	732					
	Key	2055-A	1	733					
	Cover - Bearing	1974	1	734					
	Gear - Aux. Feed Shaft Worm	1051	1	735					
	Key - Worm Gear	1052	1	736					
	Bearing - Worm Gear Ball 73L06		1	737					
	5/16 - 18 x 1/2 Button Hd Cap Screw		1	738					
	Arm - Upper LH Shifter	1993	1	739					
	Fork - Upper Shifter	1308	1	740					
	Shaft - Upper LH Shifter	1992	1	741					
	Lever - Upper LH Shifter	1306-A	1	742	1	9061	9104	701	Combination T.P.F. And Saddle Feed Unit Gear Housing (See Chg. 7)
	Lever - Lower Shifter	1305	1	743					
	#3 Woodruff Key		3	744	2	4329	4452	726	With Change No 1
	Fork - Lower Shifter	1996	1	745	† 3	1964	2581	729	With Change No 1
	Shaft - Lower & Upper RH Shifter	1994	1	746	4	1966	Out	731	With Change No 1
	Spring	1232	6	747	5	93L02			Now Six 93L02 Bearings (See Change No 6)
	1/4 Dia. Ball			748					Replaces Two 93L02 Bearings And Is Used With 2581 Gear And 9104 Housing (Chg. No 1)
	Arm - Lower & Upper RH Shifter	1995	1	749	6		73L05		Added With 9104 Housing
	Pawl - Safety Gear Shift		1	750	† 7			2582	786
	1/4 x 3/8 Shoulder Screw		1	751	8	4330	4330-A	717	4330-A Requires Handle
	Lever - Upper RH Shifter	1305-B	1	752					2044 And One 1/4 - 20 x 2 Soc. Hd. Cap Screw.
	Shaft - Lower & Upper RH Shifter	1994	1	753					All Machines
	Arm - Lower & Upper RH Shifter	1995	1	754					
	Fork - Upper Shifter	1308	1	755					
	Gear 44T (S)	1299	1	756					
	Gear 48T (L)	1298	1	757					

SUPPLEMENTAL CHANGES TO PARTS LIST STARTING WITH SERIAL 645 -

† SPACIAL NOTE -

The following parts are not used when machine is equipped with a saddle feed unit (see MB645-23 for saddle feed unit parts).

Gear - Middle Outboard Feed	2581	1	729
Cover - Top Front Bearing Hole	2582	1	786

LITHO U.S.A.

INDEX MACHINE & TOOL CO.

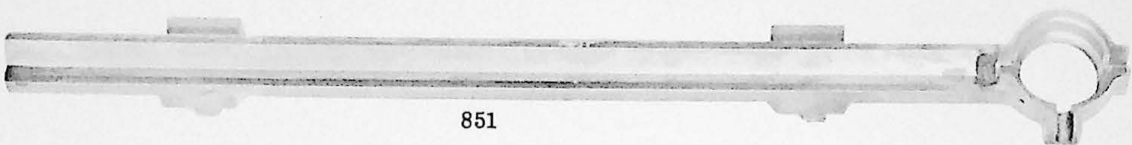
JACKSON, MICH. U. S. A.

PARTS LIST

INDEX MILL

BM45-8-9

MODEL 45



851



854

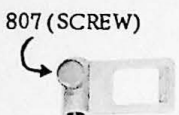
852



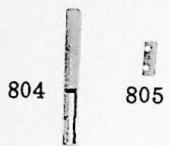
809



853



806



804

805



803



802



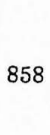
801



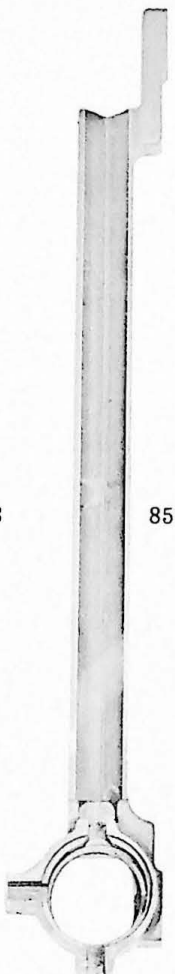
857



856



858



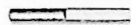
855



810



811



812



813



810

814



815



816



819



818

817 (SPACER)
NOT SHOWN

820 (SPACER)
NOT SHOWN

INDEX MACHINE & TOOL CO.

-17-

JACKSON, MICH. U. S. A.

PARTS LIST

INDEX MILL

BM 45-8-9

MODEL 45

VERNIERS AND ROD TRAYS

Reference:
Section BM45-8-9
Sheet 17

Chg. No.	Prior Part No.	New Part No.	Key No.	Machine Serial Numbers*
----------	----------------	--------------	---------	-------------------------

VERNIER ON SIDE OF MACHINE:

1	1959	4342	801	4342 Bracket Replaces 1959 Bracket
2	1960	2049	803	2049 Bracket Replaces 1960 Bracket
3	1575	2127	804	2127 Shaft Replaces 1575 Shaft

VERNIER ON FRONT OF MACHINE:

4	1917	1576	810	1576 Screw Replaces 1917 Screw
5	1915	{2085	811	2085 Bracket} —Replaces 1915 Bracket
5		{1575	812	1575 Shaft }
6	1916	2086	813	2086 Holder Replaces 1916 Holder

ROD TRAY ON FRONT OF MACHINE:

7	4331	} —7042	851	7042 Tray Replaces —{4331 Tray
7	1999		851	1999 Case
8	2000	2165	852	2165 Cover Replaces 2000 Cover

ROD TRAY ON SIDE OF MACHINE:

9	4332	} —4356	855	4365 Tray Replaces —{4332 Tray
9	1999		855	1999 Case
10	2000	2165	856	2165 Cover Replaces 2000 Cover
11	2005	2124	857	2124 Arm Replaces 2005 Arm
12		2039	809	See Table Change, BM45-6 Sheet 13.

*NOTE: All "PRIOR" Numbered Parts Listed On This Sheet Used On Serials 45-6920 Thru 7966 And Including 7944, 7946, 7971, 7974, 7975, 7976, 7977, 7978, 7979 And 7989. "NEW" Numbered Parts Used On Ser 45-7967 And Up, Excluding Above Serials.

PARTS LIST

INDEX MILL

MODEL 45

BM45-8-9

VERNIERS AND ROD TRAYS

Chg. No.	Part Name	Part No.	Amt.	Key No.
*Verniers On Side Of Machine:				
1	Bracket - Knee Vernier Mounting	4342	1	801
	Scale - Knee Vernier (10.3-0)	1979	1	802
2	Bracket - Side Vernier Holder	2049	1	803
3	Shaft - Vernier Holder	2127	1	804
	Blade - Vernier (25-0)	1578	1	805
	Holder - Adjustable Vernier	1574	1	806
	Screw - Thumb	1576	1	807

Verniers On Front Of Machine:				
	Scale - Vernier (0-21")	1577-A	1	809
12	Scale - Vernier (0-27")	2039	1	809
4	Screw - Thumb	1576	1	810
5	Bracket - Front Vernier Holder	2085	1	811
5	Shaft - Vernier Holder	1575	1	812
6	Holder - Vernier Blade	2086	1	813
	Blade - Vernier (0-25)	1572	1	814

Vernier Spacers Required

With R.T.U.:

	Spacer Under Left End Of Tray	2170	1	815
	Spacer Under Right End Of Tray	2169	1	816
	Spacer Under Bracket 2124	2163	1	817

Rod Tray Spacers Required

With R.T.U.:

	Spacer Under Right End Of 4342	2131	1	818
	Spacer Under Left End Of 4342	2132	1	819
	Spacer Under Bracket 2049	2164	1	820

Rod Tray On Front Of Machine:

7	Tray - Front Rod	7042	1	851
8	Cover - Dial Indicator Case	2165	1	852
	Dial Indicator 25-111		1	853
	Arm - Front Rod Stop	2002	1	854
	T - Bolt (Not Shown)	1037	1	

*Rod Tray On Side Of Machine:

9	Tray - Side Rod	4356	1	855
10	Cover - Dial Indicator Case	2165	1	856
11	Arm - Side Rod Stop	2124	1	857
	Screw - Thumb (Not Shown)	1576	1	810
	Pin - Adjustable Rod Stop	2126	1	858
	Dial Indicator 25-111		1	853

Chg. No.	Part Name	Part No.	Amt.	Key No.
‡Verniers On Side Of Machine:				
	Bracket - Knee Vernier Scale	4398	1	801-A
	Scale - Knee Vernier (14-0)	2302	1	802-A

Spacers Required With R.T.U.:

	Spacer Under Right End Of 4398	2131	1	818
	Spacer Under Left End Of 4398	2132	1	819
	5/16-18 x 2-1/2 Soc Hd Cap Screw		2	
	Spacer Under Vernier Bracket 2049	2164	1	820
	5/16-18 x 2 Soc Hd Cap Screw		2	
	3/16 Dia x 1 Roll Pin		4	

‡Rod Tray On Side Of Machine:

	Tray - Side Rod	4399	1	855-A
--	-----------------	------	---	-------

Spacers Required With R.T.U.:

	Spacer Under Right End Of 4399	2169	1	816
	Spacer Under Left End Of 4399	2170	1	815
	Spacer Under Bracket 2124	2163	1	817
	5/16-18 x 2-3/4 Soc Hd Cap Screw		4	
	3/16 Dia x 1 Roll Pin		4	

*Used With 10" Stroke:

Saddle 9077 and Knee 9052-A excepting prior parts listed in supplemental changes.

‡Used With 12" Stroke "Saddle" Knee 9081.

All other parts same as for 10" Stroke Knee.

INDEX MACHINE & TOOL CO.

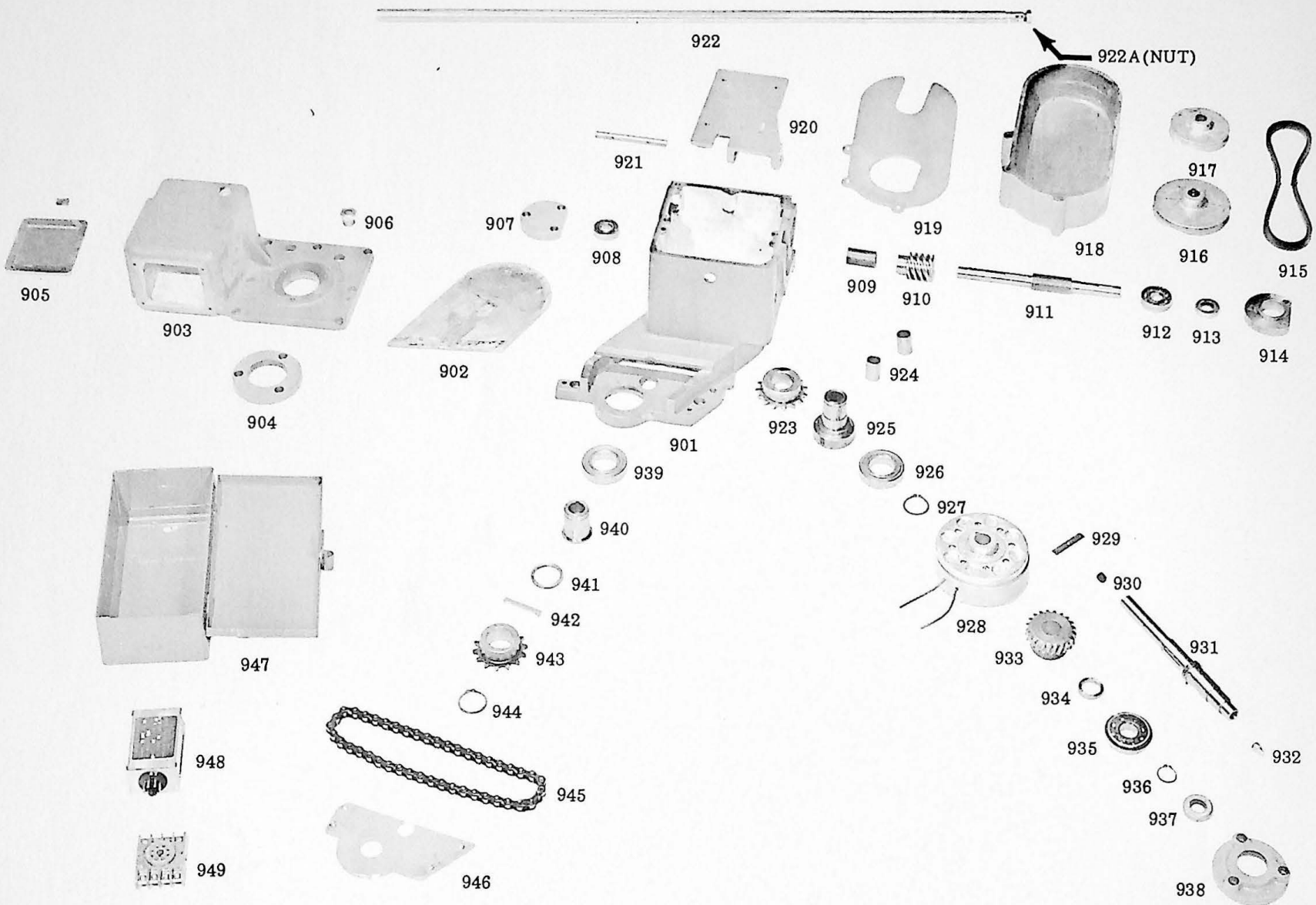
JACKSON, MICH. U. S. A.

PARTS LIST

INDEX MILL

BM45-14

MODEL 45



PARTS LIST

INDEX MILL

MODEL 45

BM45-14

RAPID TRAVERSE UNIT

Chg. No.	Part Name	Part No.	Amt.	Key No.
	Housing - Rapid Traverse Gear	9043	1	901
	Cover - Drive Sprocket	2088	1	902
	Cover - Switch Box & Gear Housing	7041	1	903
	Retainer - Bearing - Back	2068	1	904
	Cover - Switch Box	2121	1	905
	Oil Level Gauge 4040		1	906
	Cover - Bearing	2063	1	907
	Bearing - 3202 Ball		1	908
	Spacer - Worm	2066	1	909
	Worm - 4 Thread	2059	1	910
	Shaft - Worm	2061	1	911
	Bearing - 3203 Ball		1	912
	Seal - 51 x 89 Oil		1	913
	Retainer - Oil Seal	2062	1	914
	V-Belt - R.T.U.		1	915
	Pulley - 4" O.D.	2065	1	916
	Pulley - 3-1/4" O.D.	2064	1	917
	Guard - R.T.U. Pulley	4354	1	918
	Cover - Pulley Guard	4363	1	919
	Base - R.T.U. Motor	4345-A	1	920
	Pin - Motor Base Hinge	2079	1	921
	Shaft - 40" Table Aux. Feed	2072	1	922
	Shaft - 46" Table Aux. Feed	2073	1	
	1/2 - 20 Hex Jam Nut		1	922A
	Sprocket - Clutch Shaft	2056	1	923
	Bushing BD 90		2	924
	Sleeve - Clutch Drive	2075	1	925
	Bearing - Ball 4993L06		1	926
	1-1/8 Shaft Snap Ring		1	927
	Clutch - Magnetic		1	928
	Strip - Clutch Torque	2089	1	929
	1/8 Pipe Plug		1	930
	Shaft - Clutch Drive	2074	1	931
	#1610 Grease Fitting		1	932
	Gear - Worm	2060	1	933
	Spacer - Worm Gear	2077	1	934
	Bearing - 43204 Ball		1	935
	25/32 Shaft Snap Ring		1	936
	Seal - Oil 51 x 89		1	937
	Retainer - Oil Seal	2067	1	938
	Bearing - 993L06 Ball		1	939
	Sleeve - Aux. Shaft Drive	2069	1	940
	Spacer - Clutch Shaft Sprocket	2078	1	941
	Key - Aux. Shaft Drive	2070	1	942
	Sprocket - Aux. Shaft Driven	2057	1	943
	1-3/16 Shaft Snap Ring		1	944
	Chain	2058	1	945
	Cover - Driven Sprocket	2087	1	946
	Box - Control EMWCO 4-1/2 x 9 x 3		1	947
	Control CW601		1	948
	Octal Socket CP 309		1	949

LITHO U.S.A.

INDEX MACHINE & TOOL CO.**JACKSON, MICH. U. S. A.**