



BUX ELECTRO-MAGNETIC DRILL PRESS MODEL L-1

ORDERING OF PARTS

The parts price list should be referred to when ordering replacement parts. ALWAYS INCLUDE COMPLETE NAMEPLATE DATA WHEN ORDERING REPLACEMENT PARTS. Parts may be purchased from your BUX Authorized Service Station or from the factory.

PARTS LIST L-1

Index No.	Part No.		Qty.
1	1144	SCREW, 10-32x5/8	14
2	1164	BAR, Slide Retainer	1
3	1165	BAR, Slide Retainer w/Stop	1
4-5	1180	STRIP, Slide Wear	2
6	1017	BAR, Torque, Left	1
7	1018	BAR, Torque, Right	1
8	1124	SCREW (MS35458-10)	1
9	8130	SCREW, Soc. Hd., Cap. 10-32x3/8	4
10	1031	SLIDE, Front	1
11	8088	SCREW, Socket Hd., 10-32x1/2	8
12	2016	RACK	1
13	1061L	STRIP, Gib, Side, Left	1
14	1061R	STRIP, Gib, Side, Right	1
15	1150L	STRIP, Gib, Back, Left	1
16	1150R	STRIP, Gib, Back, Right	1
17	1124	SCREW, Set (Nylok)	7
18	1079	SCREW, Mach, Rd. Hd., 10-32x1/4	2
19	1303	POST ASSEMBLY	1
20	8065	HEX NUT (Esna)	1
21	3122	WASHER, Shim	1
22	3116	SEAL, "O" Ring	1
23	2011	GEAR, Pinion	1
24	2012	PIN, Roll (Esna)	1
25	8106	DEPTH GAUGE RING with Decal	1
26	3142	SHAFT, Pinion	1
27	1041	ROD, Handle	4
28	1042	BALL, Handle	4
29	1062	SHACKLE	1
30	1076	SCREW, Mach., Rd. Hd. 8-32x1/4	2
31	3110	RECEPTACLE ASSEMBLY	1
32	1064	NUT, Knurled	1
33	1047	STABILIZER LEG	1
34	1090	SCREW, Parker-Kalon, Type A #4x3/4	1
35	1067	CLIP, Strain	1
36	1078	SCREW (AN515-6-8)	2
37	1117	PLATE, Switch Indicator	1
38	1138	SWITCH, Toggle	1
39	1073	SCREW, Cap (MS35299-7)	4
40	1039	LAMP	1
41	2239	LAMPHOLDER ASSY., 220v	1
41	1139	LAMPHOLDER ASSY., 120v	1
42	2027	BRACKET, Rectifier, Top	1
42	2028	BRACKET, Rectifier, Bottom	1
43	1025	RECTIFIER, 120v	1
43	2210	RECTIFIER, 220v	1
44	2074	POLE PIECE	1
45	1265	COIL ASSEMBLY, 120v	1
45	2250	COIL ASSEMBLY, 220v	1
46	1102	"O" RING, Spacer	10
47	2528	PLATE, Retainer	1
48	2527	SPRING, Lock Ring	1
	8086	CABLE, Power	1

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OPERATING AND MAINTENANCE INSTRUCTIONS

OPERATION

The BUX Electro-Magnetic Drill Press may be operated in any position—vertical, horizontal, or inverted. Before attempting to operate the drill press, however, you must understand the following principles of operation.

DRILLING THIN AND NON-FERROUS MATERIAL . . . The electro-magnet contained in the drill press operates at its nominal gripping power on material $\frac{1}{2}$ -inch or more thick, as shown in the graph below. To drill thin or non-ferrous material, simply place a $\frac{1}{2}$ -inch thick plate against the back of the material. This plate should be 6 by 6 inches or larger. When the magnet is energized by turning on the switch, the plate and the drill press will be held securely in place.

SURFACE . . . It is *not* necessary to have a clean, smooth, or unpainted surface to operate the press. However, for drilling large holes without a pilot hole, remove any loose rust, grime, or dirt in order to assure maximum drill point pressure.

ENERGIZING THE ELECTRO-MAGNET . . . Place the drill press on the material to be drilled near the punch mark. Turn the power switch ON. This applies full power to the magnet coil.

DRILLING IN HORIZONTAL OR OVERHEAD POSITIONS . . . If drilling in a horizontal or overhead position, hold the press with your left hand on the magnet switch. Hold the press with your right hand on the pinion shaft hub so that a twist of the wrist will move the drill bit in and out enough to locate the bit on the punch mark. Place the drill press on the punch mark and turn on the magnet switch. *Always use a safety chain or cable when drilling in overhead positions.* If the power source fails, the press will drop. The safety chain should be positioned so that the press would drop away from the operator.

OPERATING SEQUENCE

1. Place the press on the material to be drilled with the bit on the punch mark.
2. Turn the feed handles to bring the drill bit down flush with the base of the magnet.
3. Turn on the magnet switch.
4. Loosen the knurled nut and adjust the stabilizer leg to come into firm contact with the material being drilled and hand tighten the knurled nut.
5. Turn on the drill and apply pressure lightly to the feed handles in direct line with the bit until a full cut is obtained, then increase pressure to complete the drilling.

SERVICE AND MAINTENANCE

LUBRICATION . . . Oil all moving and sliding surfaces on the drill stand daily with a few drops of high grade motor oil. To oil the pinion shaft bushings, remove the two oil hole screws located directly above the centerline of the pinion shaft and put a few drops of oil in each hole. Always replace the screws. Oil the contacting surfaces on the slide and rack by moving the slide to the extreme up and down position.

DISASSEMBLY . . . Remove the drill and disconnect it from the drill press before starting disassembly.

PINION SHAFT . . . Remove the hex nut on the end of the pinion shaft. Pull the pinion shaft (with the pinion gear) out of the drill post.

SLIDE AND RACK . . . Remove the stop screw from torque bar. Pull the slide and rack up until it comes out of the retainer bars and drill post.

DRILL POST AND ELECTRICAL COMPONENTS . . . Remove the four cap screws holding the drill post to the magnet pole piece. Facing the front (slide) of the drill press, lean the drill post to the left, keeping it close to the magnet so as not to place a strain on the wires running between the post and the magnet. With the post lying on its side, disconnect the two wires running between the post and the magnet. The magnet assembly will be released from the press for further disassembly. Remove the drill cord receptacle and disconnect the wiring. Remove the strain clip on the power input cord for the drill press and pull the cord out of the drill post. Remove screw located left side of post approximately half way up, then withdraw rectifier from post cavity. Disconnect wiring to the rectifier terminals. In order to properly install a new rectifier, be sure the "AC" or input power leads are connected to the yellow color coded terminals. The "DC" output terminals are color coded black and red respectively and may be connected to the load with either polarity.

ELECTRO-MAGNETIC COIL . . . To remove coil, first remove lock ring from groove on pole piece center. Then remove retainer plate and coil will come right out easily.

