

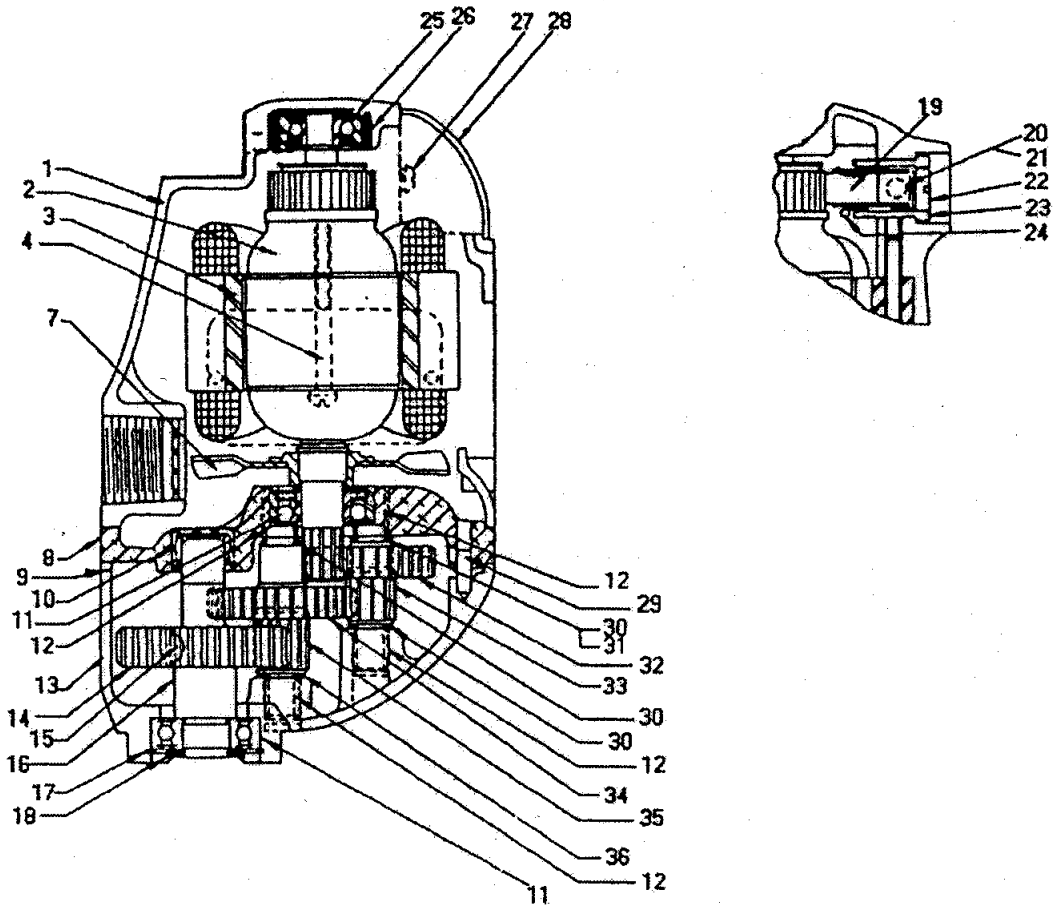
**PORTABLE MAGNETIC DRILLS**

**OPERATOR'S MANUAL**  
**MODEL 10904**



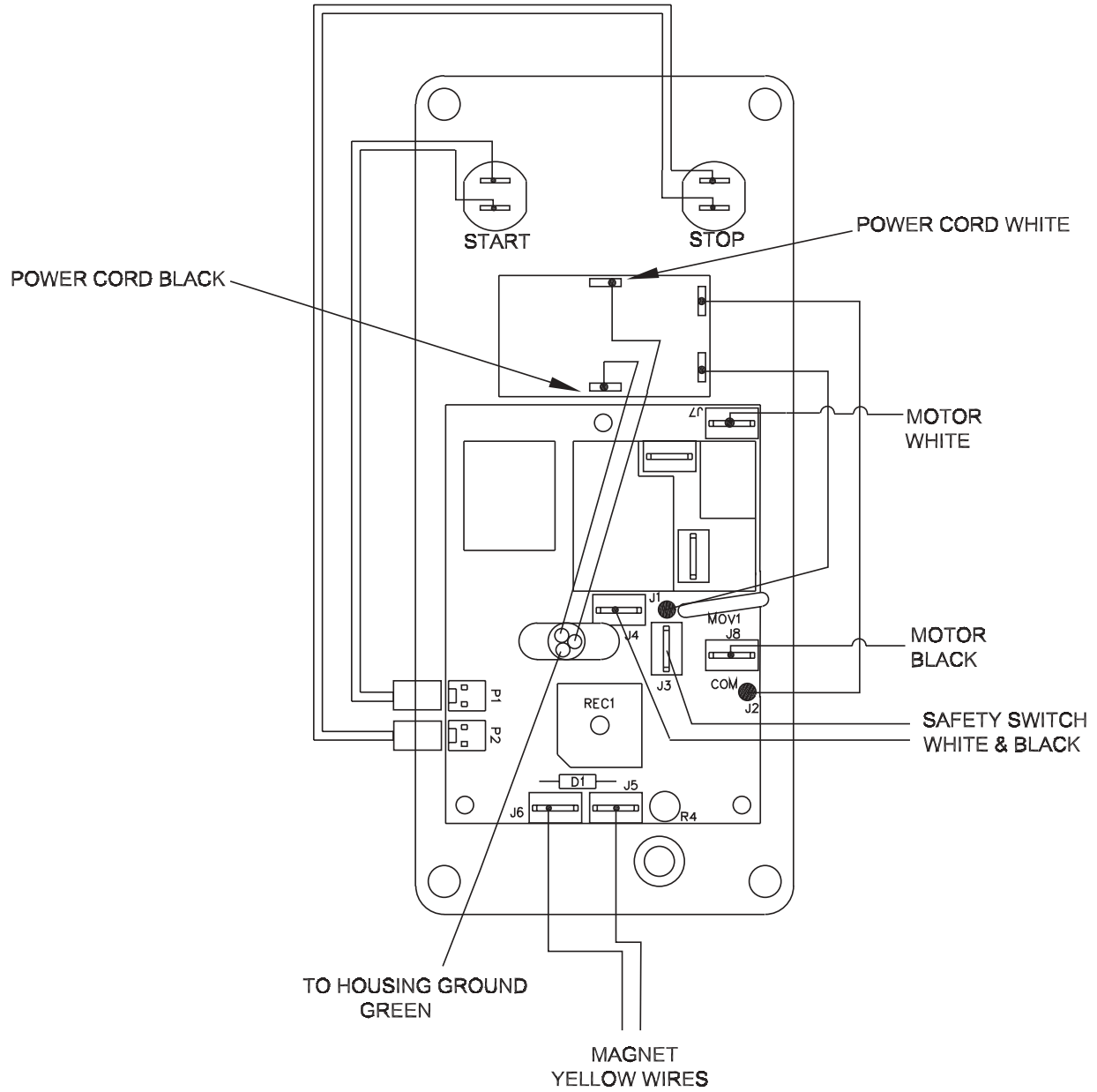
**FOR USE WITH "12,000-SERIES" ROTABROACH® CUTTERS**

# MOTOR PARTS DIAGRAM

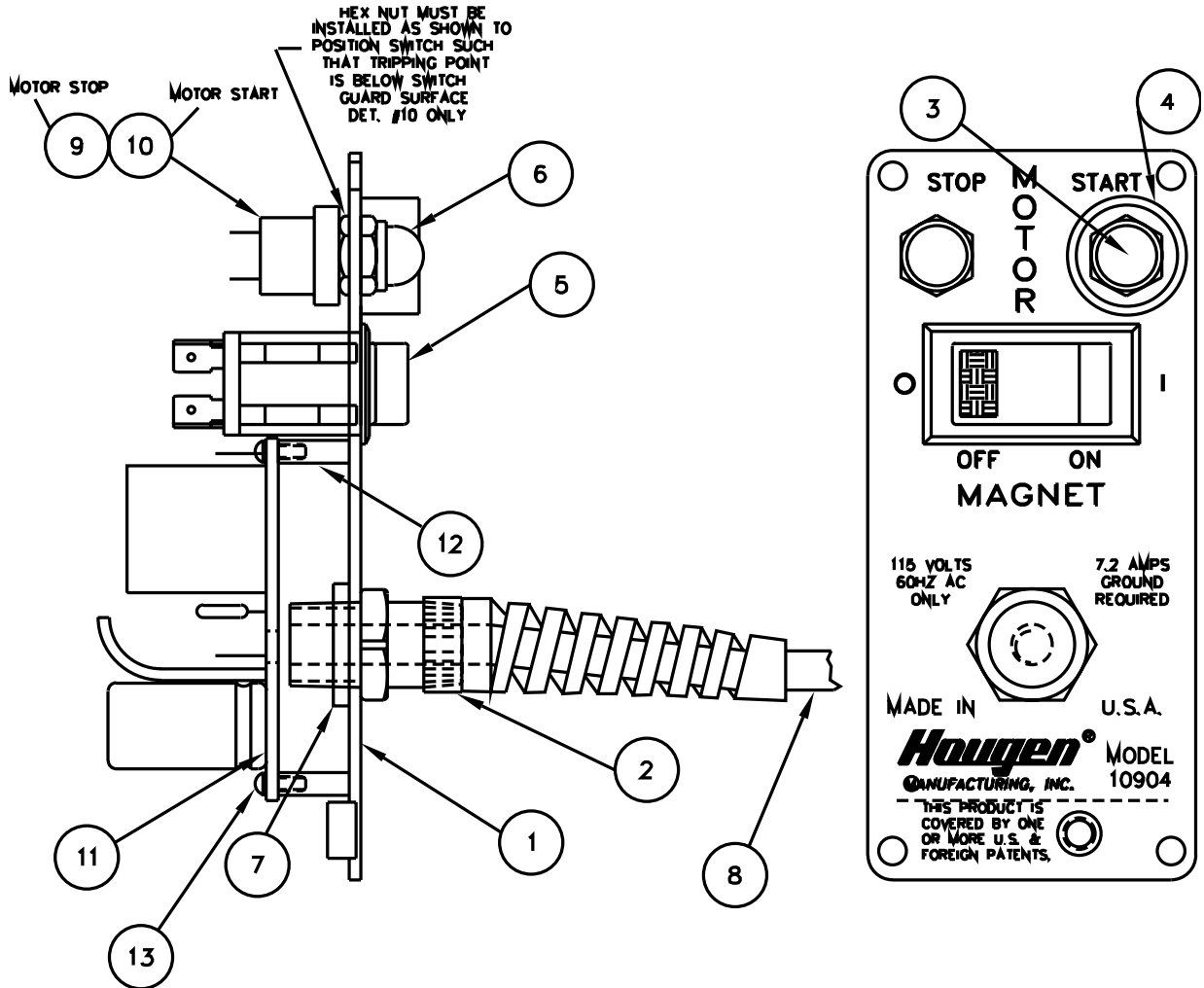


Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.
1	BD-144266	Field Case	1	19	10995	Brush Assy. (pair)	1
2	BD-445786-31	Armature	1	20	BD-376	Set Screw	2
3	BD-400322-71	Field	1	21	BD-400718	Nylon Ball	2
4	BD-12158	Screw & Washer	2	22	BD-46210	Brush Holder Plug	2
6	BD-133410	Fan	1	23	BD-61208-03	Brush Holder	2
8	BD-51404-03	Gear Case Cover	1	24	BD-46212	Brush Lead Terminal	2
9	BD-143691-00	Gasket	1	25	BD-330003-04	Ball Bearing	1
10	BD-135937	Needle Bearing	1	26	BD-132332	Bearing Sleeve	1
11	BD-700964	Ball Bearing	2	28	BD-21235	Brush Cover	1
12	BD-21246	Needle Bearing	4	30	BD-51407	Fiber Washer	4
13	BD-51403-06	Gear Case	1	31	BD-51405	1st. Inter Gear Assy.	1
14	BD-400147	Spindle Gear	1	32	BD-49082	1st.133410 Inter Gear	1
15	BD-7027	Key	1	33	BD-51401	1st. Inter Pinion	1
16	BD-133316-01	Spindle	1	34	BD-51406	2nd. Inter Gear Assy.	1
17	BD-99022-02	Retaining Ring	1	35	BD-21822	2nd. Inter Gear	1
18	10992	Washer	1	36	BD-51402	2nd. Inter Pinion	1

# HOOK UP DIAGRAM

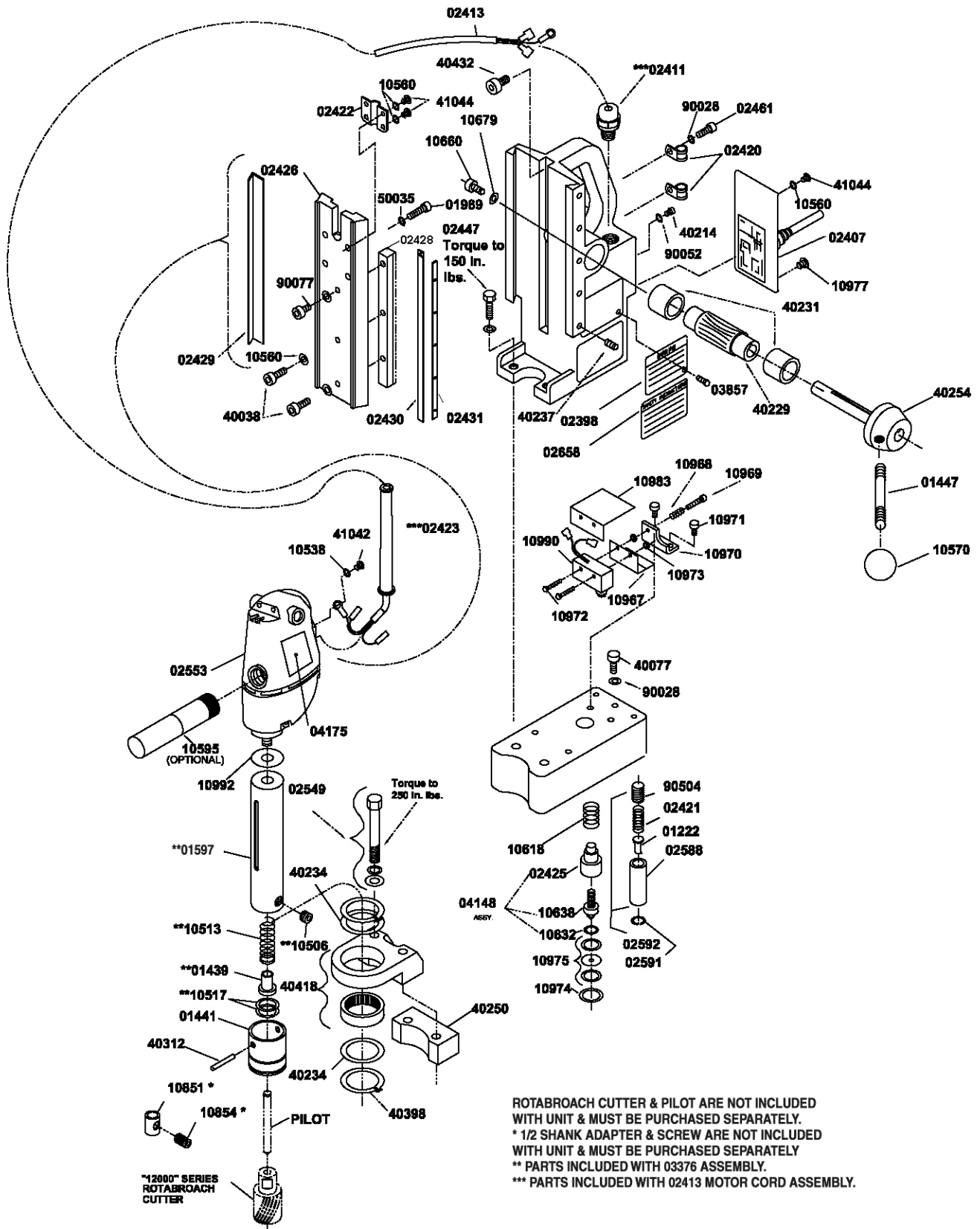


# CONTROL PANEL / PARTS LIST



DETAIL NO.	PART NO.	DESCRIPTION	NO. REQ'D
1	02400	FACEPLATE-115V	1
2	02401	STRAIN RELIEF	1
3	02409	SWITCH BOOT GREEN	1
4	01226	SWITCH GUARD	1
5	02402	MAGNET SWITCH	1
6	01228	SWITCH BOOT RED	1
7	02405	LOCK NUT	1
8	02412	POWER CORD ASSY.	1
9	01335	MOTOR STOP SWITCH ASSY.	1
10	01334	MOTOR START SWITCH ASSY.	1
11	02541	PRINTED CIRCUIT BOARD	1
12	02548	STAND OFF	3
13	02547	PHILLIPS HEAD SCREW	3

# MODEL 10904



ROTABROACH CUTTER & PILOT ARE NOT INCLUDED WITH UNIT & MUST BE PURCHASED SEPARATELY.  
 \* 1/2 SHANK ADAPTER & SCREW ARE NOT INCLUDED WITH UNIT & MUST BE PURCHASED SEPARATELY  
 \*\* PARTS INCLUDED WITH 03376 ASSEMBLY.  
 \*\*\* PARTS INCLUDED WITH 02413 MOTOR CORD ASSEMBLY.

# PARTS LIST

PART NO.	DESCRIPTION	QTY. REQ'D.
01222	GLIDE POST NOSE	2
01439	1/4-28 X 1/2 SHC SCREW	1
01441	EJECTOR COLLAR	1
01447	FEED HANDLE	3
01597	ARBOR BODY	1
01989	1/4-28 X 3/4 SHC SCREW	1
02398	SAFETY TAG	1
02399	WARNING TAG	1
02407	CONTROL PANEL 115V	1
02411	STRAIN RELIEF - MTR. CORD	1
02413	MOTOR CORD ASSEMBLY	1
02418	DRILL HOUSING ASSEMBLY	1
02420	MOTOR CORD CLAMP	2
02421	GLIDE POST SPRING	2
02422	MOTOR CORD BRACKET	1
02423	MOTOR CORD FLEX PROTE.	1
02425	PLUNGER BODY	1
02426	SLIDE, MOTOR MOUNT	1
02428	RACK GEAR	1
02429	BRASS GIB - RIGHT	1
02430	BRASS GIB - LEFT	1
02431	STEEL GIB	1
02447	BOLT-HEX HEAD 1/4-28	2
02448	MAGNET - 115V	1
02461	1/4-20 X 3/8 BHC SCREW	2
02549	3/8" BOLT KIT	1
02553	115V MOTOR REPLAC.	1
02588	BODY - GLIDE POST	2
02592	GLIDE POST ASSEMBLY	2
03376	ARBOR ASSEMBLY	1
03857	SCREW-HEX HEAD #4-40	16
04148	PLUNGER ASSEMBLY	1
10506	3/8-24 X .305 SS SCREW	2
10513	ARBOR SPRING	1
10517	RETAINING RING	2
10538	LOCKWASHER #8 EXT.	1
10560	LOCKWASHER #10 EXT.	11
10570	FEED HANDLE KNOB	3
10595	HANDLE-OPTIONAL	1

PART NO.	DESCRIPTION	QTY. REQ'D.
10618	S/S COMP. SPRING	1
10632	RETAINING RING	1
10638	SAFETY SWITCH BRG. ASSY.	1
10660	1/4-20 X 5/8 SHC SCREW	1
10679	1/4" FLAT WASHER	1
10967	S/S MOUNTING SPRING	1
10968	S/S ADJUSTMENT SPRING	1
10969	S/S ADJUSTMENT SCREW	1
10970	S/S ADJUSTMENT BRKT.	1
10971	SCREW, SHC 1/4-20 X 1/2	2
10972	SCREW, BHC #6-32 X 7/8	2
10973	NUT W/NYLON #6-23	2
10974	RETAINING RING	1
10975	S/S SEAL ASSEMBLY	1
10977	SCREW, BHC 1/4-20 X 1/4	1
10983	S/S SHIELD	1
10990	S/S ASSEMBLY	1
10992	ARBOR SPACER	1
40038	SCREW, SHC #10-32 X 5/8	2
40077	SCREW, SHC 1/4-20 X 1"	1
40214	SCREW. SHC #6-32 X 1/2	1
40229	FEED GEAR	1
40231	BRONZE BUSHING	2
40234	THRUST WASHER	2
40237	GIB SCREW	5
40250	FRONT SUPP. BRKT. SPACER	1
40254	HUB ASSEMBLY	1
40312	ROLL PIN ALTERED	1
40398	RETAINING RING	1
40418	FRONT SUPP. BRACKET	1
40432	SCREW, SHC 1/4-28 X 3/8	1
41042	SCREW, BHC #8-32 X 3/8	1
41044	SCREW, BHC #10-32 X 3/8	6
50035	LOCKWASHER 1/4 EXT	4
90028	LOCKWASHER 1/4 HELI.	5
90052	LOCKWASHER #6 EXT.	1
90077	SCREW BHC #10-32 X 1/2	1
90504	S/S SCREW 7/16-20 X 3/8	2

## "12,000-SERIES"

Diameter (In & mm)	Decimal Equivalent	1" - 25.4MM DOC PART NO.	2" - 50.8MM DOC PART NO.
<b>PILOTS &gt;&gt;&gt;</b>		<b>10531</b>	<b>10532</b>
7/16	.4375	12114	12214
12MM	.4724	12312	12412
<b>PILOTS &gt;&gt;</b>		<b>10533</b>	<b>10534</b>
1/2	.5000	12116	12216
9/16	.5625	12118	12218
5/8	.6250	12120	12220
11/16	.6875	12122	12222
13MM	.5118	12313	12413
14MM	.5512	12314	12414
15MM	.5906	12315	12415
16MM	.6299	12316	12416
17MM	.6693	12317	12417
18MM	.7087	12318	12418
<b>PILOTS&gt;&gt;</b>		<b>10527</b>	<b>10528</b>
19MM	.7480	12319	12419
3/4	.7500	12124	12224
20MM	.7874	12320	12420
13/16	.8125	12126	12226
21MM	.8268	12321	12421
22MM	.8661	12322	12422
7/8	.8750	12128	12228
23MM	.9055	12323	12423
15/16	.9375	12130	12230
24MM	.9449	12324	12424
25MM	.9843	12325	12425
1	1.0000	12132	12232
26MM	1.0237	12326	12426
1-1/16	1.0625	12134	12234
27MM	1.0630	12327	12427
28MM	1.1020	12328	12428
1-1/8	1.1250	12136	12236
29MM	1.1417	12329	12429
30MM	1.1812	12330	12430
1-3/16	1.1875	12138	12238
31MM	1.2205	12140	12240
1-1/4	1.2500	12140	12240
32MM	1.2598	12332	12432
33MM	1.2993	12333	12433
1-5/16	1.3125	12142	12242
34MM	1.3386	12334	12434
1-3/8	1.3750	12144	12244
35MM	1.3779	12335	12435

## HOUGEN MAGNETIC DRILLS

MODEL NO.	DESCRIPTION	MAX HOLE SIZE	DEPTH
10904	SINGLE SPEED MAGNETIC DRILL 115V	1-1/4"	2"
10908	SINGLE SPEED MAGNETIC DRILL 230V	1-1/4"	2"
HMD100	SINGLE SPEED MAGNETIC DRILL 115V	1-1/16"	3/4"
HMD115	SINGLE SPEED MAGNETIC DRILL 115V	1-1/16"	3/4"
HMD500	TWO SPEED MAGNETIC DRILL 115V	2-3/8"	3"
10909	SINGLE SPEED MAGNETIC DRILL 230V	2-1/16"	3"
10909S	SINGLE SPEED MAGNETIC DRILL 230V	2-1/16"	3"
10914	SINGLE SPEED MAGNETIC DRILL 115V	2-1/16"	3"
10914S	SINGLE SPEED MAGNETIC DRILL 115V	2-1/16"	3"
10925	SINGLE SPEED POWER FEED 115V	2-1/16"	3"
10926	SINGLE SPEED POWER FEED 230V	2-1/16"	3"
10915	MULTI SPEED INDUSTRIAL DRILL 115V	3-1/16"	3
10916	MULTI SPEED INDUSTRIAL DRILL 230V	3-1/16"	3

## 10904 ACCESSORIES

Part No.	Description
02449	Ratchet Drive
02463	Tapping Kit #6 through 1/2"
02564	Chain Mount Pipe Adapter Kit
02608	Twist Drill Adapter
03845	Twist Drill Adapter Kit Includes 5 Twist Drills with flatted shanks
05000	Portable Vac Pad
10100	1" Arbor Extender
10200	2" Arbor Extender
10732	1/2" Jacobs Chuck (Requires 01829)
12958	Counter Sink Kit
12001	Cutter Kit 1" Depth of Cut Sizes 9/16, 11/16, 13/16, 15/16, 1-1/16
12002	Cutter Kit 2" Depth of Cut Sizes 9/16, 11/16, 13/16, 15/16, 1-1/16