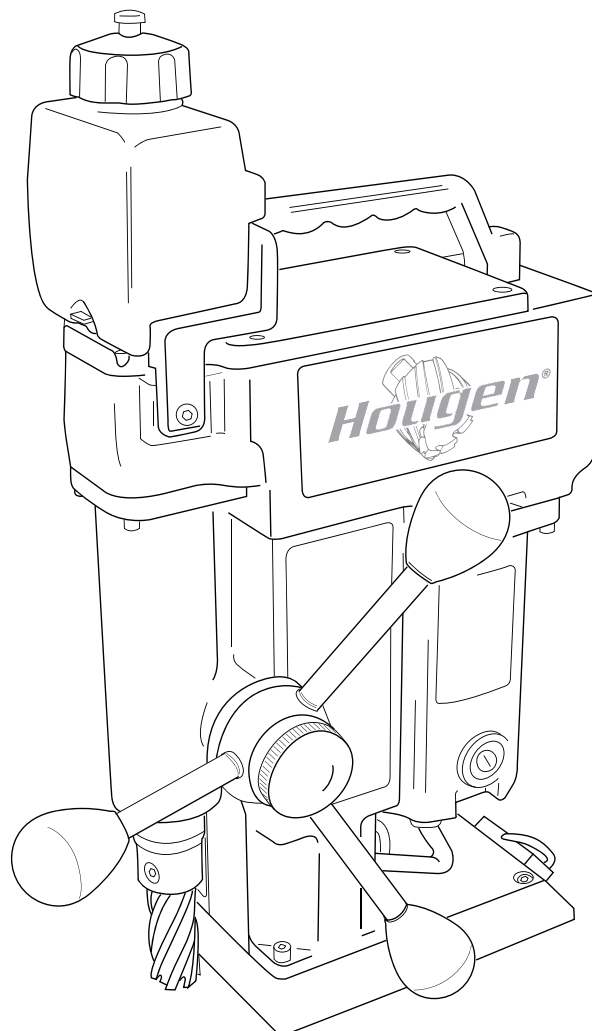




HMD501 PORTABLE MAGNETIC DRILL

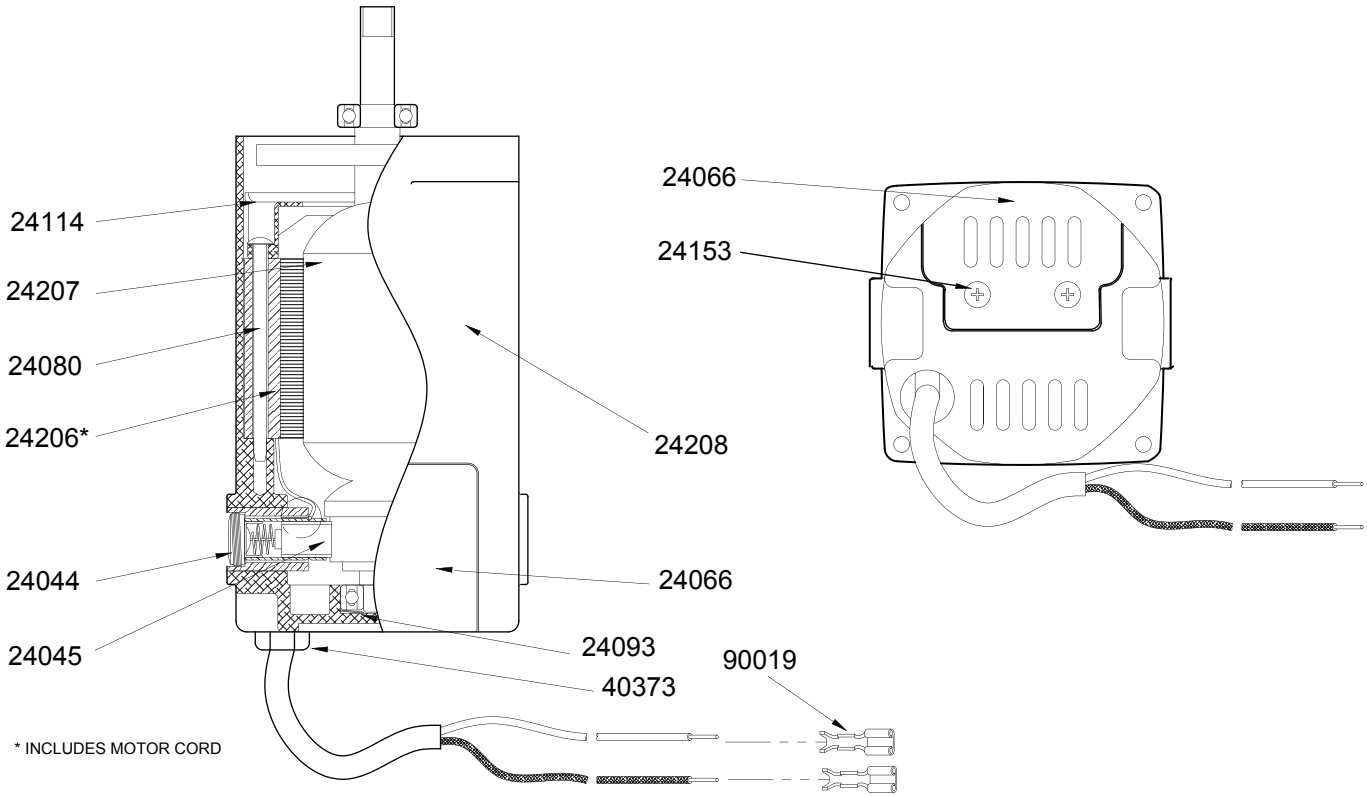
OPERATOR'S MANUAL

COVERS DRILL PART NUMBER 0501302



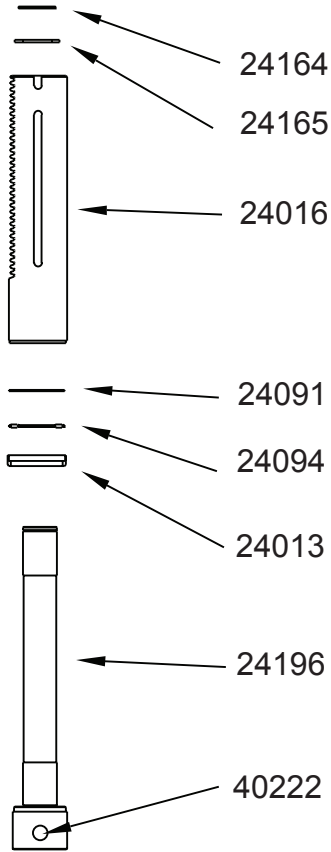
FOR USE WITH "12,000-SERIES" HOUGEN[®] CUTTERS

HMD501 MOTOR - 24205



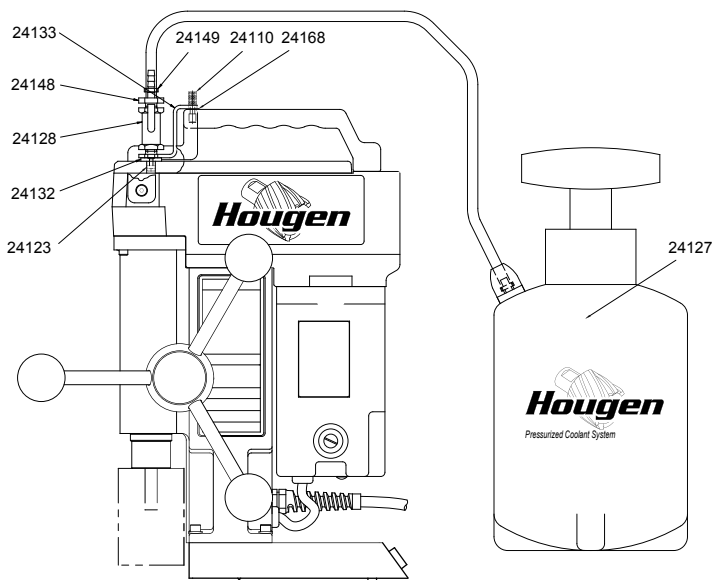
Part #	Description	Qty
24206	Field	1
24207	Armature	1
24208	Motor Housing Assy	1
24044	Cap for Brush	2
24045	Brush (Package of 2)	1
24066	Access Door	1
24080	Screw Self Tapping #10 x 3-1/4	2
24093	Spring Washer	1
24114	Motor Baffle	1
24153	Screw Self Tapping	2
40373	Strain Relief	1
90019	Terminal	2

ARBOR ASSEMBLY - 24199



Part #	Description	Qty
24013	Thrust Bearing Seal	1
24016	Quill	1
24091	Thrust washer	1
24094	Thrust Needle Bearing	1
24164	LH Retaining Ring	1
24165	Washer	1
24196	Arbor	1
40222	Set Screw	2

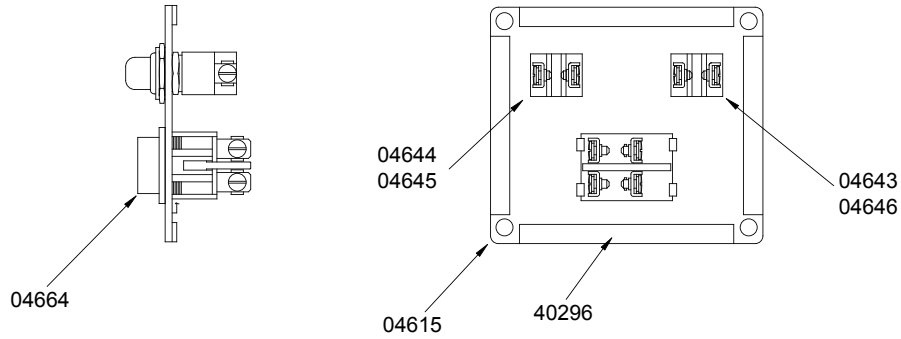
OPTIONAL PRESSURIZED COOLANT BOTTLE 24140



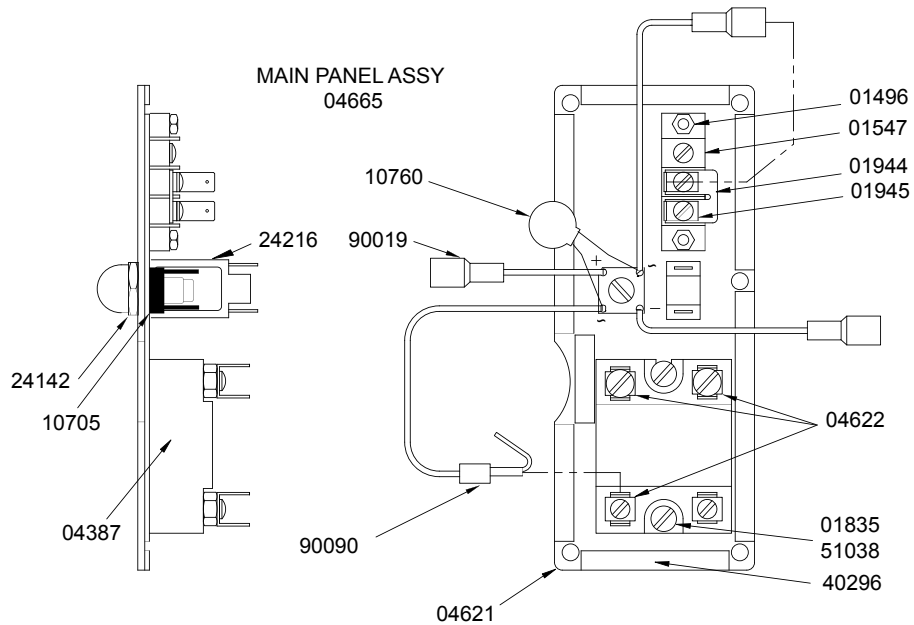
Part #	Description	Qty
24110	Screw Thumb	1
24123	O-Ring	1
24127	1 Gal. Coolant Bottle	1
24128	Shutoff valve	1
24132	Adapter	1
24133	Bracket	1
24148	Insert Barb	1
24149	Clamp	1
24168	Nylon Flat Washer	1

HMD501 PANELS

PANEL ASSY END
04663



MAIN PANEL ASSY
04665



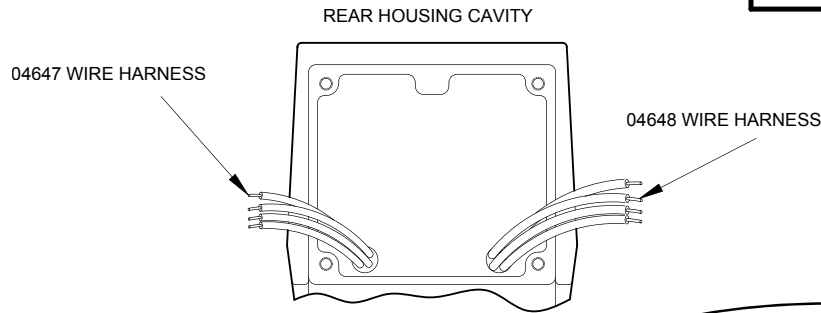
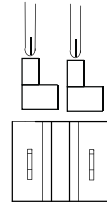
HMD501 PANEL PARTS

Part #	Description	Qty	Part #	Description	Qty
01496	Spacer	2	04647	Wire Assy	1
01547	Term Strip	1	04648	Wire Assy	1
01835	Nylon Nut	2	04663	Panel Assy End	1
01944	Jumper Terminal	1	04664	Rocker Switch	1
01945	Spade Terminal	3	04665	Panel Assy Main	1
04387	Relay 240VAC	1	10705	Rectifier	1
04615	Faceplate End	1	10760	Surge Suppressor	1
04621	Faceplate Front	1	24142	Cover Splash	1
04622	Double Terminal	3	24216	Circuit Breaker 7 Amp	1
04643	Seal Red	1	40296	Seal	2 ft
04644	Seal Green	1	51038	Flat Washer	2
04645	Switch - ON	1	90019	Terminal Female	3
04646	Switch - OFF	1	90020	Terminal Male	4

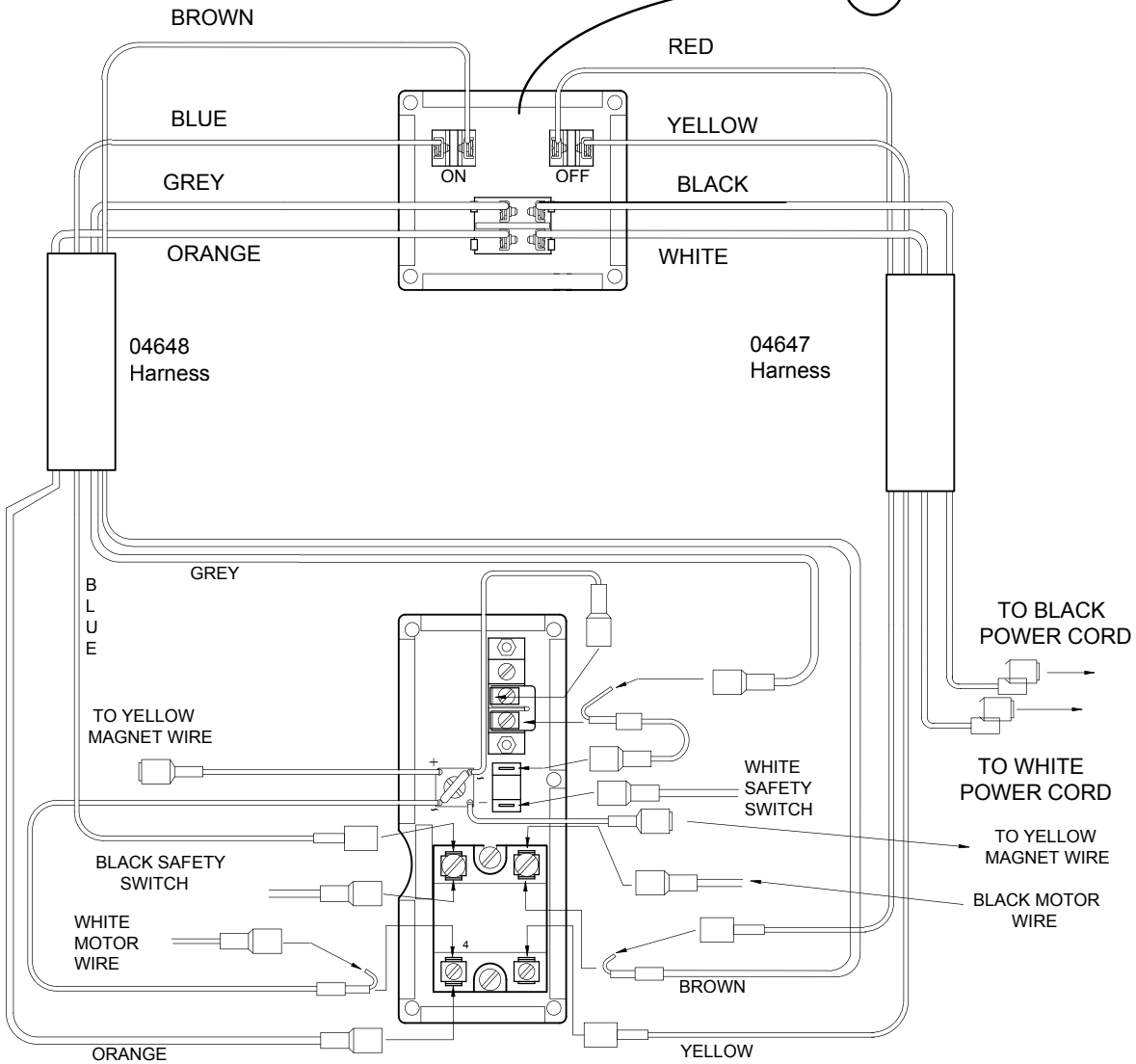
HMD501 HOOK UP DIAGRAM

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NOTE: wire harness 04648 & 04647 now uses flag connectors to complete connections to the switches. The retaining screws and locking plates must be removed prior to installation.

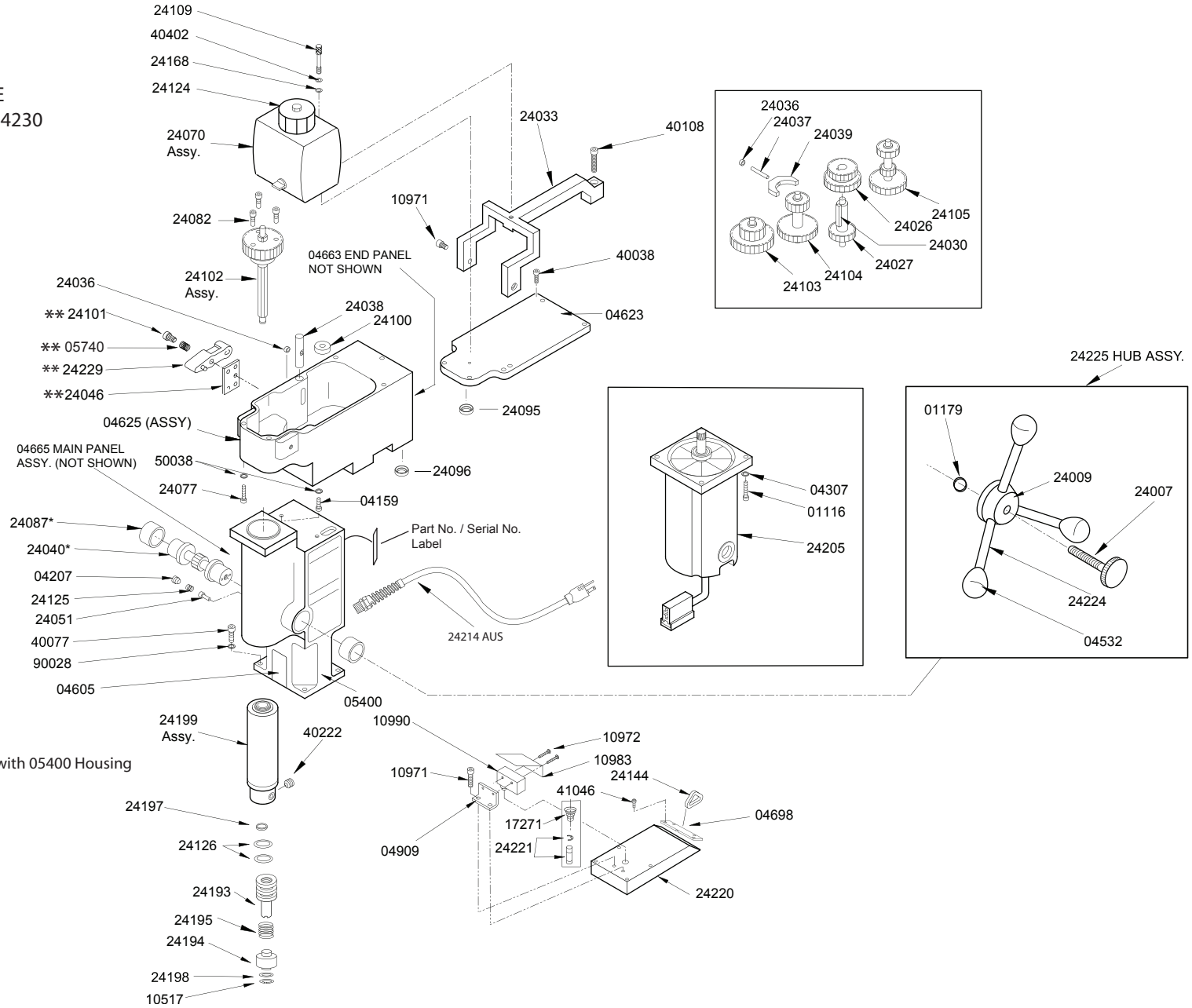


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HOUGEN HMD501

** THESE PARTS ARE
AVAILABLE IN KIT # 24230



* included with 05400 Housing

HMD501 DRILL PARTS LIST

Part #	Description	Qty	Part #	Description	Qty
01116	Screw SHC #10-32	4	24087	Bearing Bushing	2
01179	O-Ring	1	24095	Lip Seal (Gear Box Cover)	1
04157	Screw FHSCC #10-32	2	24096	Lip Seal (Armature Shaft)	1
04158	Screw Self Thread #10-24	1	24100	Ball Bearing	9
04159	Screw LHSCS #10-32	2	24101	Screw SHSLD 1/4-38	1
04207	Screw SOC Set 3/8-16	1	24102	Spline Shaft Assy	1
04307	Flat Washer #10	4	24103	Spur Gear & Shaft Assy 15 Tooth	1
04532	Feed Knob	3	24104	Spur Gear & Shaft Assy 14 Tooth	1
04605	Plate	1	24105	Spur Gear & Shaft Assy 15-20T	1
04623	Cover & Bearing Assy	1	24109	Screw Capt Thumb 1/4-20	1
04625	Gear Box Assy	1	24124	Cap Coolant Bottle	1
04663	End Panel	1	24145	Compression Spring	1
04665	Main Panel	1	24126	O-Ring	2
04698	Chain Hold Down	1	24144	Ring "D" x 1" Wide	1
04909	Bracket Safety Switch	1	24158	Gear Box & Bearing Assy	1
05400	Housing Assy	1	24168	Flat Nylon Washer	1
05740	Spring	1	24193	Extension - Spline Shaft	1
10517	Retaining Ring	1	24194	Spring Plunger	1
10560	Washer #10	1	24195	Compression Spring	1
10971	Screw SHC 1/4-20	2	24197	O-Ring	1
10972	Screw BHC #6-32	2	24198	Lip Seal	1
10983	Shield Microswitch	1	24199	Quill & Arbor Assy	1
10990	Microswitch	1	24205	Motor Assy	1
17271	Taper Spring	1	24213	Power Cord	1
24007	Knob for Feed Hub	1	24214	Power Cord - AUS	1
24009	Feed Hub	1	24219	Magnet Safety Switch	1
24017	Gear Shift Handle	1	24220	Magnet Assy	1
24026	Gear 32 & 39 Tooth	1	24221	Plunger Assy	1
24027	Gear & Shaft #2	1	24224	Feed Handle	3
24030	Key	1	24225	Feed Hub Assy	1
24033	Carrying Handle	1	24229	Handle Assembly	1
24036	Gear Shift Spacer Washer	2	40038	Screw SHC #10-32	6
24037	Dowel Pin	1	40077	Screw SHC 1/4-20	4
24038	Gear Shift Pin	1	40108	Screw SHC 1/4-20 x 1-1/4	1
24039	Gear Shift Yolk	1	40222	Set Screw 7/16-14	2
24040	Feed Gear	1	40402	Flat Washer	1
24046	Gear Switch Plate	1	41044	Screw BHC #10-32	9
24051	Quill Travel Stop	1	41046	Screw SHC #10-32	4
24070	Coolant Bottle Assy	1	50038	Helical Washer #10	4
24077	Screw SHCS #10-32	4	90028	Washer Helical 1/4"	4
24082	Screw SHCS #6-32	3			

“12,000-SERIES” HOUGEN CUTTERS

Cutter Dia. (Inches)	Decimal Equivalent	Part Number		
		1" D.O.C.	2" D.O.C.	3" D.O.C.
Use with Pilot →		10531	10532	
7/16	.4375	12114	12214	----
Use with Pilot →		10533	10534	
1/2	.5000	12116	12216	----
9/16	.5625	12118	12218	----
5/8	.6250	12120	12220	----
11/16	.6875	12122	12222	----
Use with Pilot →		10527	10528	24131
3/4	.7500	12124	12224	3-12224
13/16	.8125	12126	12226	3-12226
7/8	.8750	12128	12228	3-12228
15/16	.9375	12130	12230	3-12230
1	1.0000	12132	12232	3-12232
1-1/16	1.0625	12134	12234	3-12234
1-1/8	1.1250	12136	12236	3-12236
1-3/16	1.1875	12138	12238	3-12238
1-1/4	1.2500	12140	12240	3-12240
1-5/16	1.3125	12142	12242	3-12242
1-3/8	1.3750	12144	12244	3-12244
1-7/16	1.4375	12146	12246	3-12246
1-1/2	1.5000	12148	12248	3-12248
1-9/16	1.5625	12150	12250	3-12250
1-5/8	1.6250	12152	12252	3-12252
1-11/16	1.6875	12154	12254	3-12254
1-3/4	1.7500	12156	12256	3-12256
1-13/16	1.8125	12158	12258	3-12258
1-7/8	1.8750	12160	12260	3-12260
1-15/16	1.9375	12162	12262	3-12262
2	2.0000	12164	12264	3-12264
2-1/16	2.0625	----	12266	----
2-1/8	2.1250	----	12268	----
2-3/16	2.1875	----	12270	----
2-1/4	2.2500	----	12272	----
2-5/16	2.3125	----	12274	----
2-3/8	2.3750	----	12276	----

Cutter Dia. (Metric)	Decimal Equivalent	Part Number		
		1" D.O.C.	2" D.O.C.	3" D.O.C.
Use with Pilot →		10531	10532	
12mm	.4724	12312	12413	----
Use with Pilot →		10533	10534	
13mm	.5118	12313	12413	----
14mm	.5512	12314	12414	----
15mm	.5906	12315	12415	----
16mm	.6299	12316	12416	----
17mm	.6693	12317	12417	----
18mm	.7087	12318	12418	----
Use with Pilot →		10527	10528	24131
19mm	.7480	12319	12419	12519
20mm	.7874	12320	12420	12520
21mm	.8268	12321	12421	12521
22mm	.8661	12322	12422	12522
23mm	.9055	12323	12423	12523
24mm	.9449	12324	12424	12524
25mm	.9843	12325	12425	12525
26mm	1.0236	12326	12426	12526
27mm	1.0630	12327	12427	12527
28mm	1.1024	12328	12428	12528
29mm	1.1417	12329	12429	12529
30mm	1.1811	12330	12430	12530
31mm	1.2205	12331	12431	12531
32mm	1.2598	12332	12432	12532
33mm	1.2992	12333	12433	12533
34mm	1.3386	12334	12434	12534
35mm	1.3779	12335	12435	12535
36mm	1.4173	12336	12436	12536
37mm	1.4567	12337	12437	12537
38mm	1.4961	----	12438	12538
39mm	1.5354	----	12439	12539
40mm	1.5743	----	12440	12540
41mm	1.6142	----	12441	12541
42mm	1.6535	----	12442	12542
43mm	1.6929	----	12443	12543
44mm	1.7323	----	12444	12544
45mm	1.7717	----	12445	12545
46mm	1.8110	----	12446	12546
47mm	1.8504	----	12447	12547
48mm	1.8898	----	12448	12548
49mm	1.9291	----	12449	12549
50mm	1.9685	----	12450	12550
51mm	2.0079	----	12451	12551