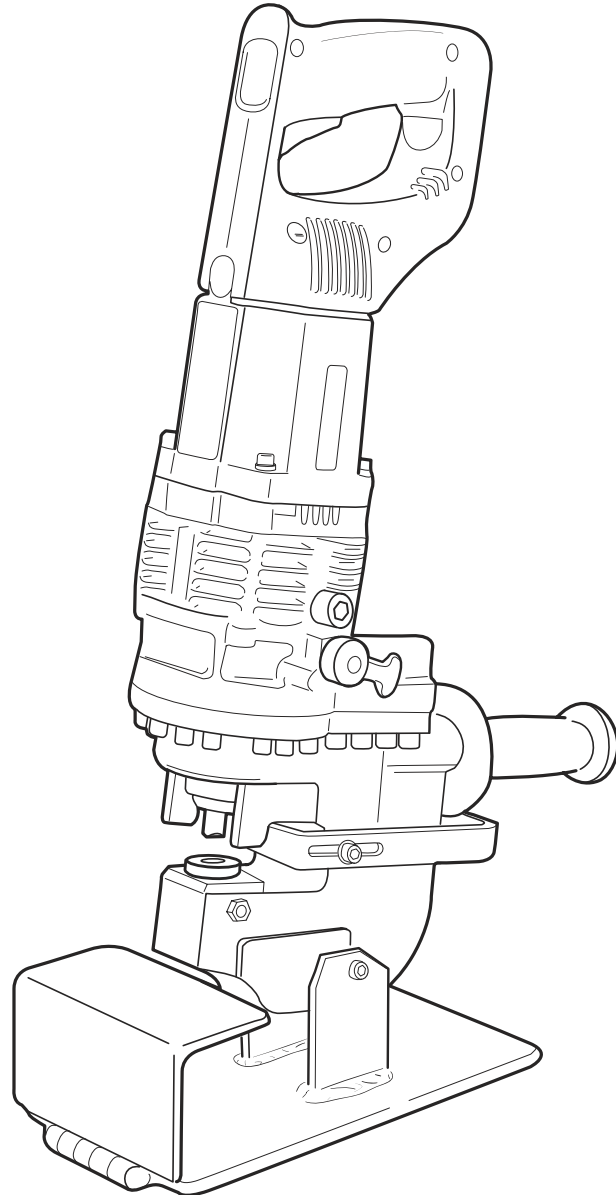


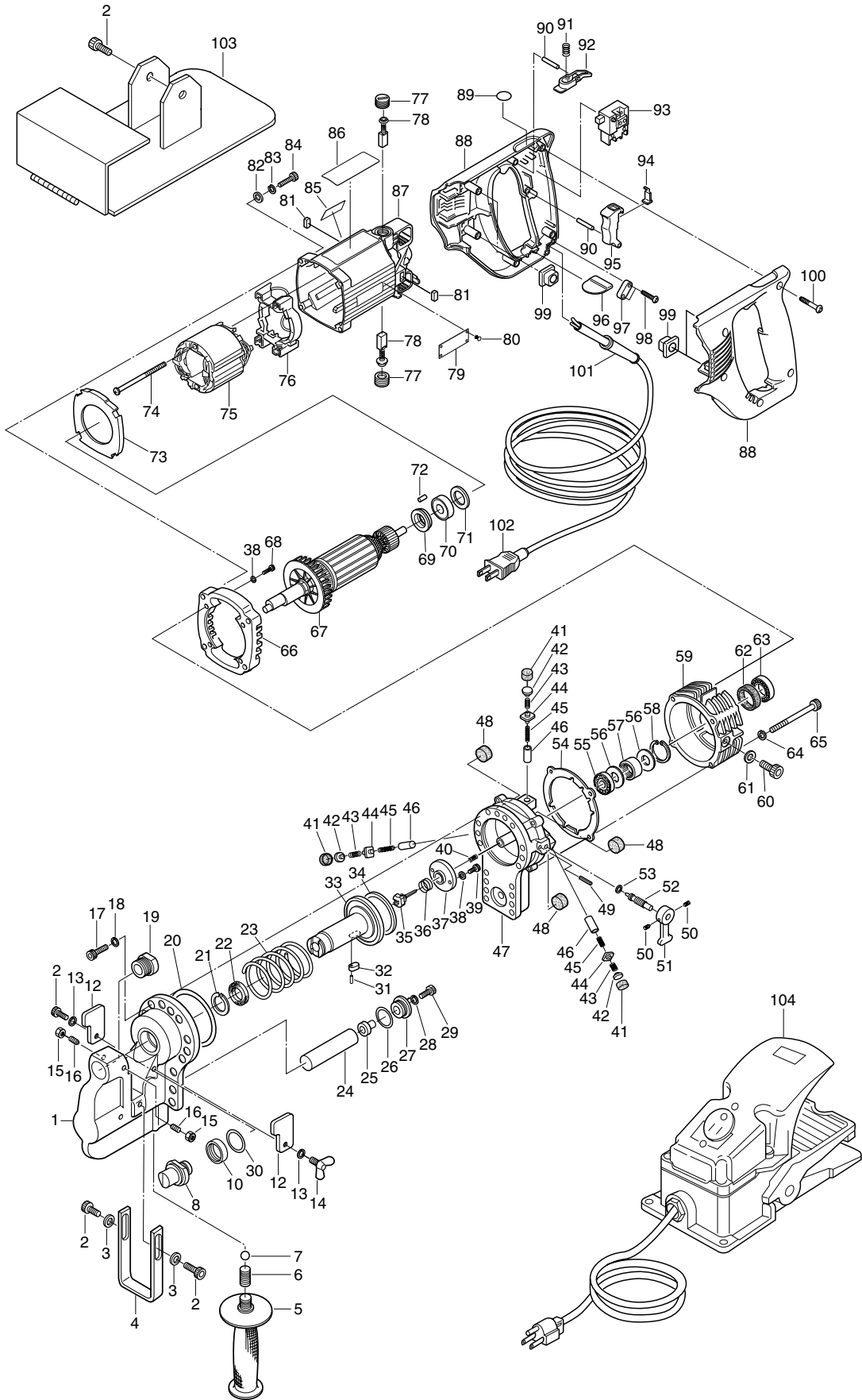
Hougen[®]-**Ogura**[™]

PUNCH PRO[™] ELECTRO-HYDRAULIC HOLE PUNCHER



OPERATOR'S MANUAL
Model 75002.5A

75002.5A EXPLODED VIEW



PARTS LIST - 75002.5A

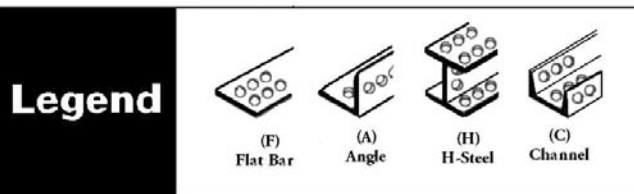
Det #	Part #	Description	Qty	Det #	Part #	Description	Qty
1	75177	"C" FRAME	1	48	75054	MAGNET	3
2	75156	SCREW M6 X 15MM	6	49	75100	ROLL PIN	1
3	75157	FLAT WASHER 6MM	2	50	75160	SCR-SET M6 X 8MM	2
4	75176	HOLE LOCATOR	1	51	75047	RETURN LEVER	1
5	75063	PUNCHER HANDLE	1	52	75046	RETURN VALVE	1
6	75192	SCR-SOC SET M10	1	53	75085	O-RING	1
7	75191	STEEL BALL BEARING	1	54	75173	GASKET	1
8	75427	9/16" PUNCH	1	55	75086	BALL BEARING	1
10	75902	RETAINING NUT	1	56	75055	SPACER	2
11	75903	PIN SPANNER	1	57	75088	ROLLER BEARING	1
12	75131	STRIPPER	2	58	75089	RETAINING RING	1
13	75162	WASHER-HELI LOCK	2	59	75861	PUMP CASE	1
14	75175	SCR-WING HD M6 X 15MM	1	60	75107	SCR-SHC M10 X 15MM	1
15	75091	NUT HEX M6	2	61	75090	SEAL WASHER	1
16	75189	SCR-SOC SET M6 X 20MM	2	62	75084	OIL SEAL	1
17	75158	SCR-SHC M8 X 20MM	18	63	75087	BALL BEARING	1
18	75159	FLAT WASHER 8MM	18	64	75862	WASHER HW5MM	4
19	75444	DIE-RD 9/16A	1	65	75873	BOLT HB5 X 50MM	4
	75445	DIE-RD 9/16B	1	66	75874	SUB PLATE	1
20	75185	O-RING	1	67	75821	ARMATURE	1
21	75152	BACKUP RING	1	68	75826	BOLT HB4 X 20MM	4
22	75153	PACKING ROD SEAL	1	69	75822	PAPER WASHER	1
23	75187	PUNCH RETURN SPRING	1	70	75823	BALL BEARING 608 LLB	1
24	75137	OIL BLADDER	1	71	75824	THURST WASHER 16MM	1
25	75136	SCR - BLADDER	1	72	75825	RUBBER PIN 4MM	1
26	75190	O-RING	1	73	75827	FAN GUIDE	1
27	75188	SCR-BLADDER BUSHING	1	74	75828	SCREW 5 X 65MM	2
28	75155	WASHER-HELI LOCK	1	75	75829	FIELD 115V	1
29	75138	SCR-BLADDER RET.	1	76	75830	FIELD SUPPORT SET	1
30	75904	O-RING	1	77	75831	BRUSH CAP	2
31	75099	ROLL PIN	1	78	75832	CARBON BRUSH (PAIR)	2
32	75135	PUNCH PISTON KEY	1	79	75864	CAUTION TAG	1
33	75901	PUNCH PISTON	1	80	75833	RIVET	4
34	75154	PACKING	1	81	75834	ANTI VIBRATION RUBBER B	2
35	75042	RELEASE VALVE	1	82	75835	FLAT WASHER 5MM	4
36	75043A	VALVE RETURN SPRING	1	83	75836	SPRING WASHER 5MM	4
37	75183	STOP PLATE	1	84	75837	BOLT HB 5 X 25MM	4
38	75101	FLAT WASHER	2	85	75865	WARNING TAG	1
39	75102	SCR-SHC M4 X 6MM	2	86	75867	NAME TAG	1
40	75184	VALVE RELEASE SPRING	1	87	75838	MOTOR HOUSING SET	1
41	75049	SEAL-PACKING	3	88	75839	HANDLE SET	1
42	75051	SPRING REATINER	3	89	75840	LABEL	1
43	75052	CHECK VALVE SPRING	3	90	75841	PIN 3MM	2
44	75050	CHECK VALVE	3	91	75842	COMPRESSION SPRING 4MM	1
45	75053	PISTON RETURN SPRING	3	92	75843	ROCK BUTTON	1
46	75048-A	PUMP PISTON 5.996 X 13MM	1-3	93	75844	SWITCH TG71B	1
	75048-B	PUMP PISTON 5.997 X 13MM	1-3	94	75845	SPACER	1
	75048-C	PUMP PISTON 5.998 X 13MM	1-3	95	75846	SWITCH LEVER	1
	75048-D	PUMP PISTON 5.999 X 13MM	1-3	96	75847	RUBBER PLATE	1
	75048-E	PUMP PISTON 6.000 X 13MM	1-3	97	75848	CORD CLAMP	1
	75048-F	PUMP PISTON 6.001 X 13MM	1-3	98	75849	SCREW 4 X 18MM	2
	75048-G	PUMP PISTON 6.002 X 13MM	1-3	99	75850	ANTI VIBRATION RUBBER A	4
	75048-H	PUMP PISTON 6.033 X 13MM	1-3	100	75841	SCREW 4 X 25MM	5
	75048-I	PUMP PISTON 6.004 X 13MM	1-3	101	75852	STRAIN RELIEF	1
	75048-J	PUMP PISTON 6.005 X 13MM	1-3	102	75870	POWER CORD	1
47	75174	CYLINDER	1	103	75166	WORK STAND	1
				104	75110	FOOT SWITCH	1

ROUND PUNCHES AND DIES FOR 75002.5A

Round Punch Size				Material		Die	
Nomial	Actual	Metric	No.	Thickness	Style	Size	No.
1/4"	.256	6.5mm	75421	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/4 A	75432
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/4 B	75433
5/16"	.315	8mm	75422	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 5/16 A	75434
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 5/16 B	75435
11/32"	.335	8.5mm	75423	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 11/32 A	75436
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 11/32 B	75437
3/8"	.394	10mm	75424	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 3/8 A	75438
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 3/8 B	75439
				19/64 (.297) max.	C	Die 3/8 C	75450
7/16"	.433	11mm	75425	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 7/16 A	75440
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/16 B	75441
				19/64 (.297) max.	C	Die 7/16 C	75451
1/2"	.512	13mm	75426	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/2 A	75442
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/2 B	75443
				19/64 (.297) max.	C	Die 1/2 C	75452
9/16"	.551	14mm	75427	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 9/16 A	75444
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 9/16 B	75445
				19/64 (.297) max.	C	Die 9/16 C	75453
5/8"	.625	15.9mm	75428	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 5/8 A	75446
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 5/8 B	75447
11/16"	.688	17.5mm	75429	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 11/16 A	75448
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 11/16 B	75449
3/4"	.748	19mm	75430	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 3/4 A	75729
				>1/8 (.125) to 3/16 (.188) 10 to 7 GA.	F, A, H	Die 3/4 B	75730
25/32"	.787	20mm	75431	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 25/32 A	75731
				>1/8 (.125) to 3/16 (.188) 10 to 7 GA.	F, A, H	Die 25/32 B	75732

OBLONG PUNCHES AND DIES FOR 75002.5A

OBLONG PUNCH			MATERIAL		DIE		
Nominal	Size		Part No.	Thickness	Style	Size	Part No.
	Actual	Metric					
1/4" x 1/2"	.256	6.5mm	75638	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/4 x 1/2 A	75643
	x .512	x 13mm		>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/4 x 1/2 B	75644
				19/64 (.297) max.	C	Die 1/4 x 1/2 C	75653
11/32" x 1/2"	.335	8.5mm	75639	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 11/32 x 1/2 A	75645
	x .512	x 13mm		>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 11/32 x 1/2 B	75646
				19/64 (.297) max.	C	Die 11/32 x 1/2 C	75654
7/16" x 5/8"	.433	11mm	75640	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 7/16 x 5/8 A	75647
	x .650	x 16.5mm		>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/16 x 5/8 B	75648
				19/64 (.297) max.	C	Die 7/16 x 5/8 C	75655
1/2" x 3/4"	.512	13mm	75641	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/2 x 3/4 A	75649
	x .768	x 19.5mm		>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/2 x 3/4 B	75650
9/16" x 13/16"	.551	14mm	75642	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 9/16 x 13/16 A	75651
	x .827	x 21mm		>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 9/16 x 13/16 B	75652



SQUARE PUNCHES AND DIES FOR 75002.5A

SQUARE PUNCH			MATERIAL		DIE		
Nominal	Size		Part No.	Thickness	Style	Size	Part No.
	Actual	Metric					
1/4"	.256	6.5mm	75800	>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/4 B	75804
5/16"	.315	8mm	75801	>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 5/16 B	75805
3/8"	.394	10mm	75802	>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 3/8 B	75806
7/16"	.433	11mm	75803	>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/16 B	75807