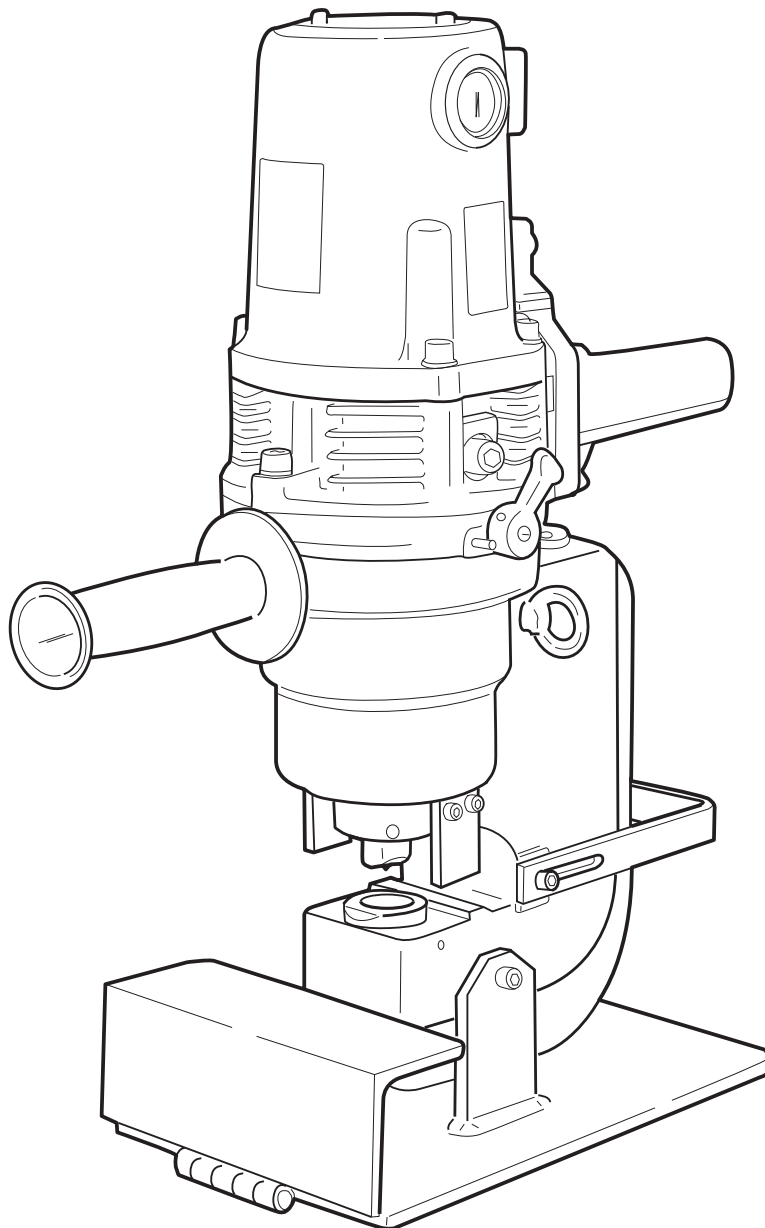


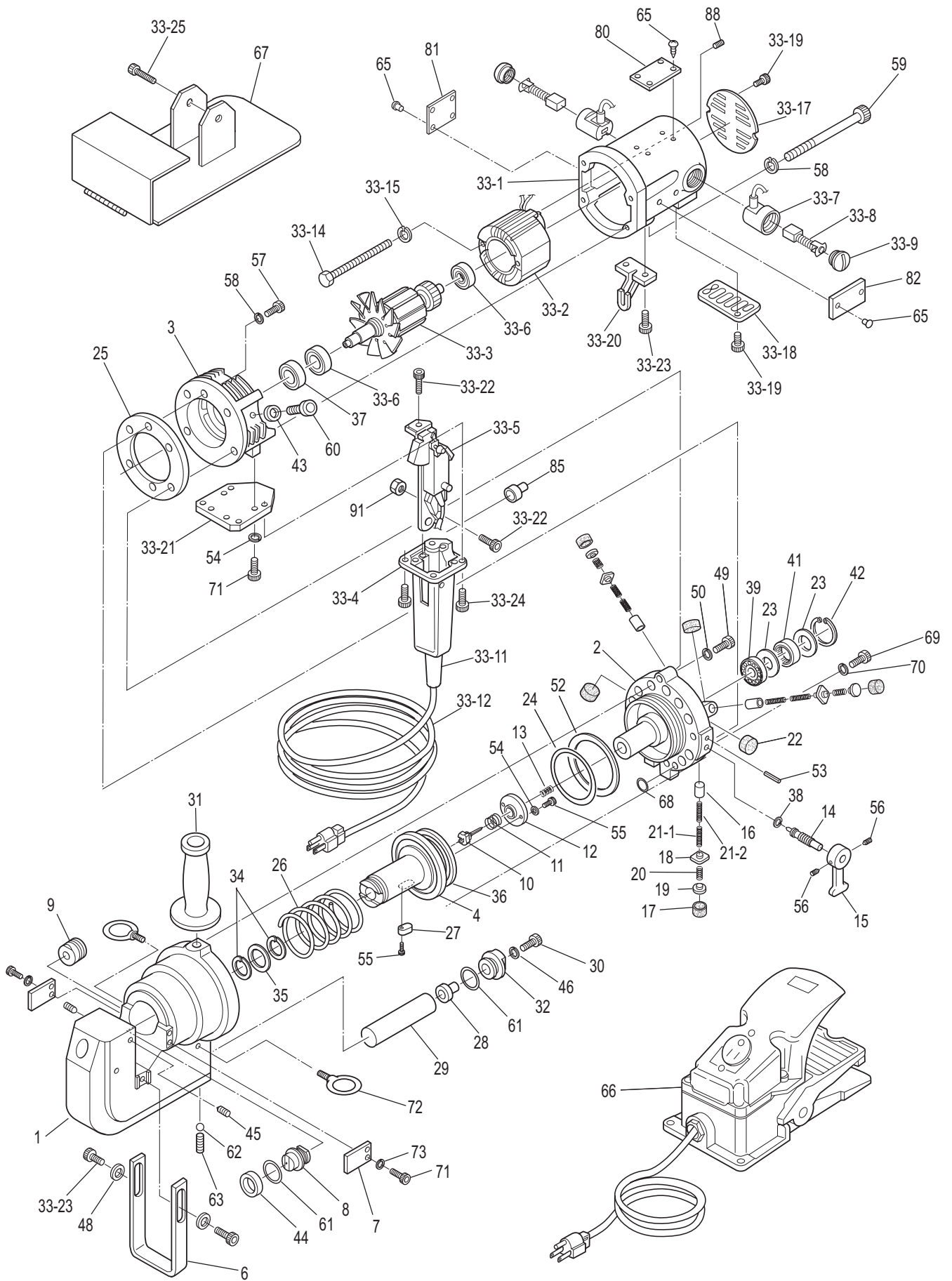
Hougen[®]-**Ogura**[™]

PUNCH PRO[™] ELECTRO-HYDRAULIC HOLE PUNCHER



**OPERATOR'S MANUAL
Model 75006**

75006 EXPLODED VIEW



PARTS LIST - 75006

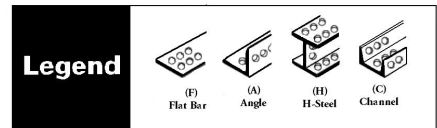
DET. #	PART#	DESCRIPTION	QTY.
1	75331	"C" FRAME	1
2	75332	CYLINDER	1
3	75333	PUMP HOUSING	1
4	75334	PUNCH PISTON	1
6	75335	HOLE LOCATOR	1
6	75164	"O" RING	1
7	75336	STRIPPER	2
8	75575	PUNCH (13/16" DIA)	1
9	75606	DIE (13/16" C-TYPE)	1
	75607	DIE (13/16" D-TYPE)	1
10	75337	RELEASE VALVE	1
11	75338	VALVE RETURN SPRING	1
12	75268	STOP PLATE	1
13	75339	VALVE RELEASE SPRING	1
14	75046	RETURN VALVE	1
15	75047	RETURN LEVER	1
16	75270	PISTON PUMP	3
17	75049	RUBBER PACKING	3
18	75050	CHECK VALVE	3
19	75051	SPRING RETAINER	3
20	75052	CHECK VALVE SPRING	3
21-1	75340	PISTON RETURN SPRING	3
21-2	75341	PISTON RETURN SPRING	3
22	75054	MAGNET	3
23	75271	SPACER	2
24	75272	O-RING	1
25	75342	GASKET	1
26	75343	PUNCH RETURN SPRING	1
27	75275	PUNCH PISTON KEY	1
28	75136	BLADDER SCREW	1
29	75344	OIL BLADDER	1
30	75138	BLADDER RETAINING SCREW	1
31	75063	PUNCH HANDLE	1
32	75345	BLADDER BUSHING SCREW	1
33-1	75277	MOTOR HOUSING	1
33-2	75278	FIELD	1
33-3	75279	ARMATURE	1
33-4	75346	SWITCH HANDLE	1
33-5	75365	SWITCH	1
33-6	75281	BALL BEARING	1
33-7	75282	BRUSH HOLDER	2
33-8	75283	CARBON BRUSH (PAIR)	1
33-9	75284	BRUSH CAP	2
33-11	75074	STRAIN RELIEF	1
33-12	75347	POWER CORD	1
33-14	75285	HEX HD BOLT M5 X 50MM	2
33-15	75150	HEL LOCK WASHER 5MM	2
33-17	75287	MOTOR TOP GRILL	1
33-18	75288	MOTOR SIDE GRILL	1
33-19	75289	PAN HD SCREW M5 X 8MM	4
33-20	75348	SUPPORT BRACKET	1

DET. #	PART#	DESCRIPTION	QTY.
33-21	75349	ADAPTOR PLATE	1
33-22	75350	PAN HD SCREW M4 X 8MM	4
33-23	75156	SOC HD SCREW M6 X 15MM	4
33-24	75351	SOC HD SCREW M6 X 18MM	4
33-25	75301	SOC HD SCREW M8 X 15MM	2
34	75293	BACK UP RING	2
35	75294	ROD SEAL PACKING	1
36	75295	PACKING	1
37	75296	OIL SEAL	1
38	75085	O-RING	1
39	75086	BALL BEARING	1
40	75297	BALL BEARING	1
41	75088	ROLLER BEARING	1
42	75298	RETAINING RING	1
43	75090	WASHER SEAL	1
44	75352	PUNCH RETINING NUT	1
45	75092	SOC SET SCREW M6 X 15MM	2
46	75155	HELI LOCK WASHER M10	1
48	75157	FLAT WASHER	2
49	75316	SOC HD SCREW M10 X 25MM	11
50	75353	SERR. FLAT WASHER 10MM	11
52	75309	BACK UP RING	1
53	75100	ROLL PIN 4MM X 20MM	1
54	75105	SERR. FLAT WASHER 5MM	6
55	75307	SOC HD SCREW M5 X 10MM	3
56	75160	SOC SET SCREW M6 X 8MM	2
57	75236	SOC HD SCREW M8 X 30MM	1
58	75093	HEL LOCK WASHER 8MM	5
59	75354	SOC HD SCREW M8 X 85MM	4
60	75107	SOC HD SCREW M10 X 15MM	1
61	75355	O-RING	2
62	75356	STEEL BALL	1
63	75357	SOC SET SCREW M12 X 15MM	1
65	75109	RIVET	10
66	75110	FOOT SWITCH	1
67	75359	WORK STAND	1
68	75360	O-RING	1
69	75303	SOC HD M12 X 25MM	2
70	75304	SERR FLAT WASHER 12MM	2
71	75361	SOC HD SCREW M5 X 15MM	8
72	75362	EYE BOLT	2
73	75150	HELI LOCK WASHER 5MM	4
80	75033	WARNING TAG	1
81	75034	CAUTION TAG	1
82	75032	NAME TAG	1
85	75113	WIRE CONNECTOR (LARGE)	1
88	75318	SOC SET SCREW M5 X 6MM	2
89	75247	PAN HD SCREW M3 X 5MM	2
91	75310	HEX NUT M4	2

ROUND PUNCHES AND DIES FOR 75006

ROUND PUNCH				MATERIAL		DIE	
Size			Part No.	Thickness	Style	Size	Part No.
Nominal	Actual	Metric					
7/16"	.433	11mm	75568	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 7/16 A	75578
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/16 B	75579
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 7/16 C	75580
				5/16 (.312) max.	C	Die 7/16 CC	75616
1/2"	.512	13mm	75569	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/2 A	75581
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/2 B	75582
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 1/2 C	75583
				5/16 (.312) max.	C	Die 1/2 CC	75617
9/16"	.552	14mm	75570	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 9/16 A	75584
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 9/16 B	75585
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 9/16 C	75586
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 9/16 D	75587
				5/16 (.312) max.	C	Die 9/16 CC	75618
				>5/16 (.312) to 1/2 (.500)	C	Die 9/16 CD	75619
5/8"	.625	15.9mm	75571	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 5/8 A	75588
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 5/8 B	75589
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 5/8 C	75590
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 5/8 D	75591
				5/16 (.312) max.	C	Die 5/8 CC	75620
				>5/16 (.312) to 1/2 (.500)	C	Die 5/8 CD	75621
11/16"	.688	17.5mm	75572	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 11/16 A	75592
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 11/16 B	75593
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 11/16 C	75594
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 11/16 D	75595
				5/16 (.312) max.	C	Die 11/16 CC	75622
				>5/16 (.312) to 1/2 (.500)	C	Die 11/16 CD	75623
3/4"	.750	19mm	75573	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 3/4 A	75596
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 3/4 B	75597
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 3/4 C	75598
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 3/4 D	75599
				5/16 (.312) max.	C	Die 3/4 CC	75624
				>5/16 (.312) to 1/2 (.500)	C	Die 3/4 CD	75625
25/32"	.787	20mm	75574	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 25/32 A	75600
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 25/32 B	75601
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 25/32 C	75602
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 25/32 D	75603
				5/16 (.312) max.	C	Die 25/32 CC	75626
				>5/16 (.312) to 1/2 (.500)	C	Die 25/32 CD	75627

ROUND PUNCH				MATERIAL		DIE	
Size			Part No.	Thickness	Style	Size	Part No.
Nominal	Actual	Metric					
13/16"	.812	20.6mm	75575	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 13/16 A	75604
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 13/16 B	75605
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 13/16 C	75606
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 13/16 D	75607
				5/16 (.312) max.	C	Die 13/16 CC	75628
				>5/16 (.312) to 1/2 (.500)	C	Die 13/16 CD	75629
7/8"	.875	22.2mm	75576	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 7/8 A	75608
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/8 B	75609
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 7/8 C	75610
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 7/8 D	75611
				5/16 (.312) max.	C	Die 7/8 CC	75630
				>5/16 (.312) to 1/2 (.500)	C	Die 7/8 CD	75631
15/16"	.938	23.8mm	75577	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 15/16 A	75612
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 15/16 B	75613
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 15/16 C	75614
				>3/8 (.375) to 15/32 (.469)	F, A, H	Die 15/16 D	75615



Punching capacity data is based on mild steel of 65,000 psi tensile strength.

OBLONG PUNCHES AND DIES FOR 75006

OBLONG PUNCH			MATERIAL		DIE		
Size			Part No.	Thickness	Style	Size	Part No.
Nominal	Actual	Metric					
7/16" x 5/8"	.433 x .650	11mm x 16.5mm	75705	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 7/16 x 5/8 A	75709
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 7/16 x 5/8 B	75710
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 7/16 x 5/8 C	75711
				5/16 (.312) max.	C	Die 7/16 x 5/8 CC	75723
1/2" x 3/4"	.512 x .768	13mm x 19.5mm	75706	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 1/2 x 3/4 A	75712
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 1/2 x 3/4 B	75713
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 1/2 x 3/4 C	75714
				5/16 (.312) max.	C	Die 1/2 x 3/4 CC	75724
9/16" x 13/16"	.551 x .827	14mm x 21mm	75707	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 9/16 x 13/16 A	75715
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 9/16 x 13/16 B	75716
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 9/16 x 13/16 C	75717
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 9/16 x 13/16 D	75718
				5/16 (.312) max.	C	Die 9/16 x 13/16 CC	75725
				5/16 (.312) to 1/2 (.500)	C	Die 9/16 x 13/16 CD	75726
11/16" x 13/16"	.709 x .827	18mm x 21mm	75708	5/64 (.078) to 1/8 (.125) 14 to 11 GA.	F, A, H	Die 11/16 x 13/16 A	75719
				>1/8 (.125) to 1/4 (.250) 10 to 3 GA.	F, A, H	Die 11/16 x 13/16 B	75720
				>1/4 (.250) to 3/8 (.375)	F, A, H	Die 11/16 x 13/16 C	75721
				>3/8 (.375) to 1/2 (.500)	F, A, H	Die 11/16 x 13/16 D	75722
				5/16 (.312) max.	C	Die 11/16 x 13/16 CC	75727
				5/16 (.312) to 1/2 (.500)	C	Die 11/16 x 13/16 CD	75728

