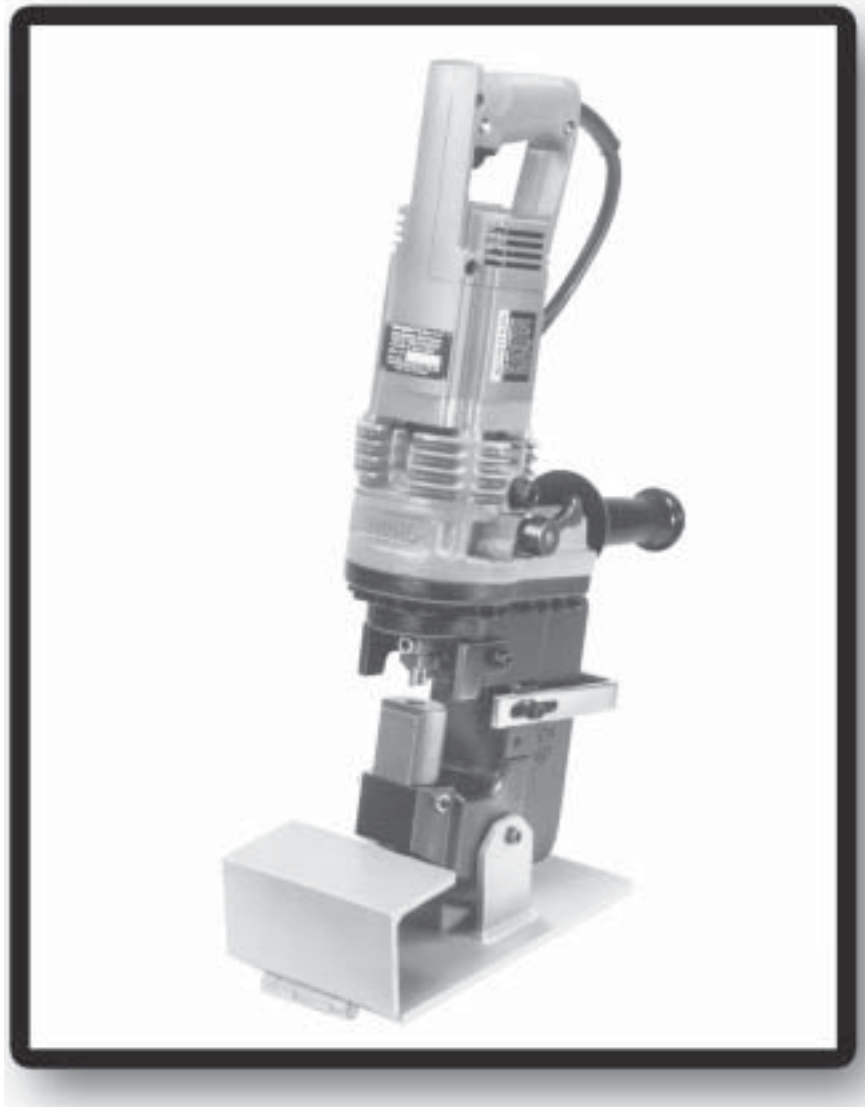


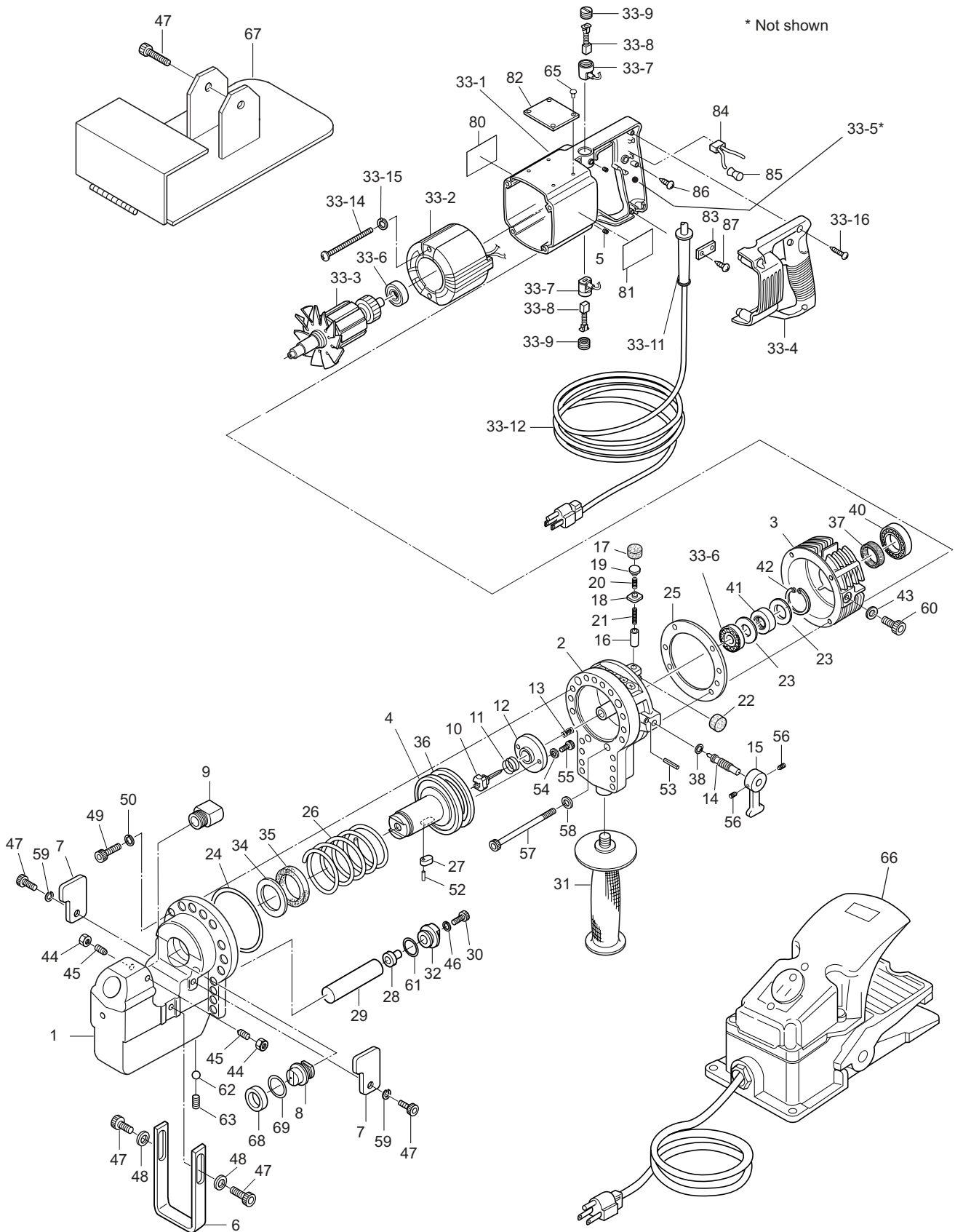
Hougen®-Ogura™

PUNCH PRO™ ELECTRO-HYDRAULIC HOLE PUNCHER

OPERATOR'S MANUAL
Model 75003



75003 EXPLODED VIEW



PARTS LIST - 75003

DET. #	PART#	DESCRIPTION	QTY.	DET. #	PART#	DESCRIPTION	QTY.
1	75180	"C" CYLINDER	1	33-8	75813	CARBON BRUSH	2
2	75181	CYLINDER	1	33-9	75815	BRUSH CAP	2
3	75127	PUMP HOUSING	1	33-11	75074	STRAIN RELIEF	1
4	75128	PUNCH PISTON	1	33-12	75148	POWER CORD	1
5	75318	SCREW SS M5 x 6MM	2	33-14	75810	SCR-SHC M5 x 75MM	2
6	75182	HOLE LOCATOR	1	33-15	75150	HELI LOCK WASHER 5MM	2
7	75131	STRIPPER (SHORT)	2	33-16	75151	SCR-PANHEAD M4 x18MM	4
	75131L	STRIPPER (LONG)	2	34	75152	BACK UP RING	1
8	75427	PUNCH (9/16 DIA.)	1	35	75153	ROD SEAL PACKING	1
9	75466	DIE (LONG 9/16" "A" TYPE	1	36	75154	PACKING	1
	75467	DIE (LONG 9/16" "B" TYPE	1	37	75084	OIL SEAL	1
10	75042	RELEASE VALVE	1	38	75085	"O" RING	1
11	75043	VALVE RETURN SPRING	1	40	75087	BALL BEARING	1
12	75183	STOP PLATE	1	41	75088	ROLLER BEARING	1
13	75184	VALVE RELEASE SPRING	1	42	75089	RET. RING	1
14	75046	RETURN VALVE	1	43	75090	WASHER SEAL	1
15	75047	RETURN LEVER	1	44	75091	HEX NUT M6	2
16	75048-A	PUMP PISTON 5.996MM x 13MM	1-3	45	75189	SCREW SS M6 x 15MM	2
	75048-B	PUMP PISTON 5.997MM x 13MM	1-3	46	75155	HELI. LOCK	1
	75048-C	PUMP PISTON 5.998MM x 13MM	1-3	47	75156	SOC. HD. SCREW M8 x 15MM	6
	75048-D	PUMP PISTON 5.999MM x 13MM	1-3	48	75157	FLAT WASHER 6MM	2
	75048-E	PUMP PISTON 6.000MM x 13MM	1-3	49	75158	SOC. HD. SCREW M8 x 20MM	18
	75048-F	PUMP PISTON 6.001MM x 13MM	1-3	50	75159	SERR. FLAT WASHER 8MM	18
	75048-G	PUMP PISTON 6.002MM x 13MM	1-3	52	75099	ROLL PIN 2.5MM x 10MM	1
	75048-H	PUMP PISTON 6.003MM x 13MM	1-3	53	75100	ROLL PIN 4MM x 20MM	1
	75048-I	PUMP PISTON 6.004MM x 13MM	1-3	54	75101	FLAT WASHER 4MM	2
	75048-J	PUMP PISTON 6.005MM x 13MM	1-3	55	75102	SOC. HD. SCR. M4 x 6MM	2
17	75049	RUBBER PACKING	3	56	75160	SOC. HD. SCR. M6 x 8MM	2
18	75050	CHECK VALVE	3	57	75161	SOC. HD. SCR. M5 x 90MM	4
19	75051	SPRING RETAINER	3	58	75105	FLAT WASHER 5MM	4
20	75052	CHECK VALVE SPRING	3	59	75162	HELI WASHER 6MM	2
21	75053	PISTON RETURN SPRING	3	60	75107	SOC. HD. SCR. M10 x 15MM	1
22	75054	MAGNET	3	61	75190	"O" RING	1
23	75055	SPACER	2	62	75191	STEEL BALL	1
24	75185	"O" RING	1	63	75192	SCREW SS M10 x 10MM	1
25	75186	GASKET	1	65	75109	RIVET	12
26	75187	PUNCH RETURN SPRING	1	66	75110	FOOT SWITCH	1
27	75135	PUNCH PISTON KEY	1	67	75194	WORK STAND	1
28	75136	BLADDER SCREW	1	68	75165	PUNCH RETAINING NUT	1
29	75137	OIL BLADDER	1	69	75164	"O" RING	1
30	75138	BLADDER RET. SCREW	1	80	75033	WARNING TAG	1
31	75063	PUNCHER HANDLE	1	81	75034	CAUTION TAG	1
32	75188	BLADDER BUSHING SCREW	1	82	75029	NAME PLATE	1
33-1	75811	MOTOR HOUSING	1	83	75112	POWER CORD RETAINER	1
33-2	75816	FIELD	1	84	75163	FIILTER CAPACITOR	1
33-3	75141	ARMATURE	1	85	75113	WIRE CONN (LARGE)	1
33-4	75812	SWITCH COVER	1	86	75350	PAN HD. SCREW M4 x 8MM	1
33-5	75143	SWITCH	1	87	75079	PAN HD. SCREW M4 x 10MM	1
33-6	75086	BALL BEARING	2				
33-7	75814	BRUSH HOLDER	2				

ROUND PUNCHES AND DIES FOR 75003

ROUND PUNCHES			MATERIAL		DIE		
SIZE			PART NO.	THICKNESS	STYLE	SIZE	PART NO.
NOMINAL	ACTUAL	METRIC					
1/4"	(.256)	6.5MM	75421	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 1/4 A	75454
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 1/4 B	75455
5/16"	(.315)	8MM	75422	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 5/16 A	75456
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 5/16 B	75457
11/32"	(.335)	8.5MM	75423	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 11/32 A	75458
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 11/32 B	75459
3/8"	(.394)	10MM	75424	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 3/8 A	75460
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 3/8 B	75461
			75476 (LP)	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE 3/8 A	75438
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	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 GAGE	F,A,H	DIE LD 7/16 A	75462
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 7/16 B	75463
			75477 (LP)	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE 7/16 A	75440
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	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 GAGE	F,A,H	DIE LD 1/2 A	75464
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 1/2 B	75465
			75478 (LP)	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE 1/2 A	75442
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	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 GAGE	F,A,H	DIE LD 9/16 A	75466
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 9/16 B	75467
			75479 (LP)	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE 9/16 A	75444
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	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 GAGE	F,A,H	DIE LD 5/8 A	75468
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 5/8 B	75469
11/16"	(.688)	17.5MM	75429	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 11/16 A	75470
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 11/16 B	75471
3/4"	(.750)	19MM	75430	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 3/4 A	75472
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 3/4 B	75473
25/32"	(.787)	20MM	75431	5/64 (.078) TO 1/8" (.125) 14 TO 11 GAGE	F,A,H	DIE LD 25/32 A	75474
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GAGE	F,A,H	DIE LD 25/32 B	75475

OBLONG PUNCHES AND DIES FOR 75003

OBLONG PUNCH			MATERIAL		DIE		
SIZE			PART NO.	THICKNESS	STYLE	SIZE	PART NO.
NOMINAL	ACTUAL	METRIC					
1/4+ X 1/2"	.256 X .512	6.5MM X 13MM	75638	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE LD 1/4+ X 1/2 A	75656
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GA.	F,A,H	DIE LD 1/4+ X 1/2 B	75657
			75666 (LP)	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE 1/4+ X 1/2 A	75643
				>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)	C	DIE 1/4+ X 1/2 C	75653	
11/32" X 1/2"	.335 X .512	8.5MM X 13MM	75639	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE LD 11/32 X 1/2 A	75658
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GA.	F,A,H	DIE LD 11/32 X 1/2 B	75659
			75667 (LP)	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE 11/32 X 1/2 A	75645
				>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)	C	DIE 11/32 X 1/2C	75654	
7/16" X 5/8"	.433 X .650	11MM X 16.5MM	75640	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE LD 7/16 X 5/8 A	75660
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GA.	F,A,H	DIE LD 7/16 X 5/8 B	75661
			75668 (LP)	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE 7/16 X 5/8 A	75647
				>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)	C	DIE 7/16 X 5/8 C	75655	
1/2+ X 3/4"	.512 X .768	13MM X 19.5MM	75641	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE LD 1/2+ X 3/4 A	75662
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GA.	F,A,H	DIE LD 1/2+ X 3/4 B	75663
9/16" X 13/16"	.551 X .827	14MM X 21MM	75642	5/64 (.078) TO 1/8 (.125) 14 TO 11 GA	F,A,H	DIE LD 9/16 X 13/16 A	75664
				>1/8 (.125) TO 1/4 (.250) 10 TO 3 GA.	F,A,H	DIE LD 9/16 X 13/16 B	75665

