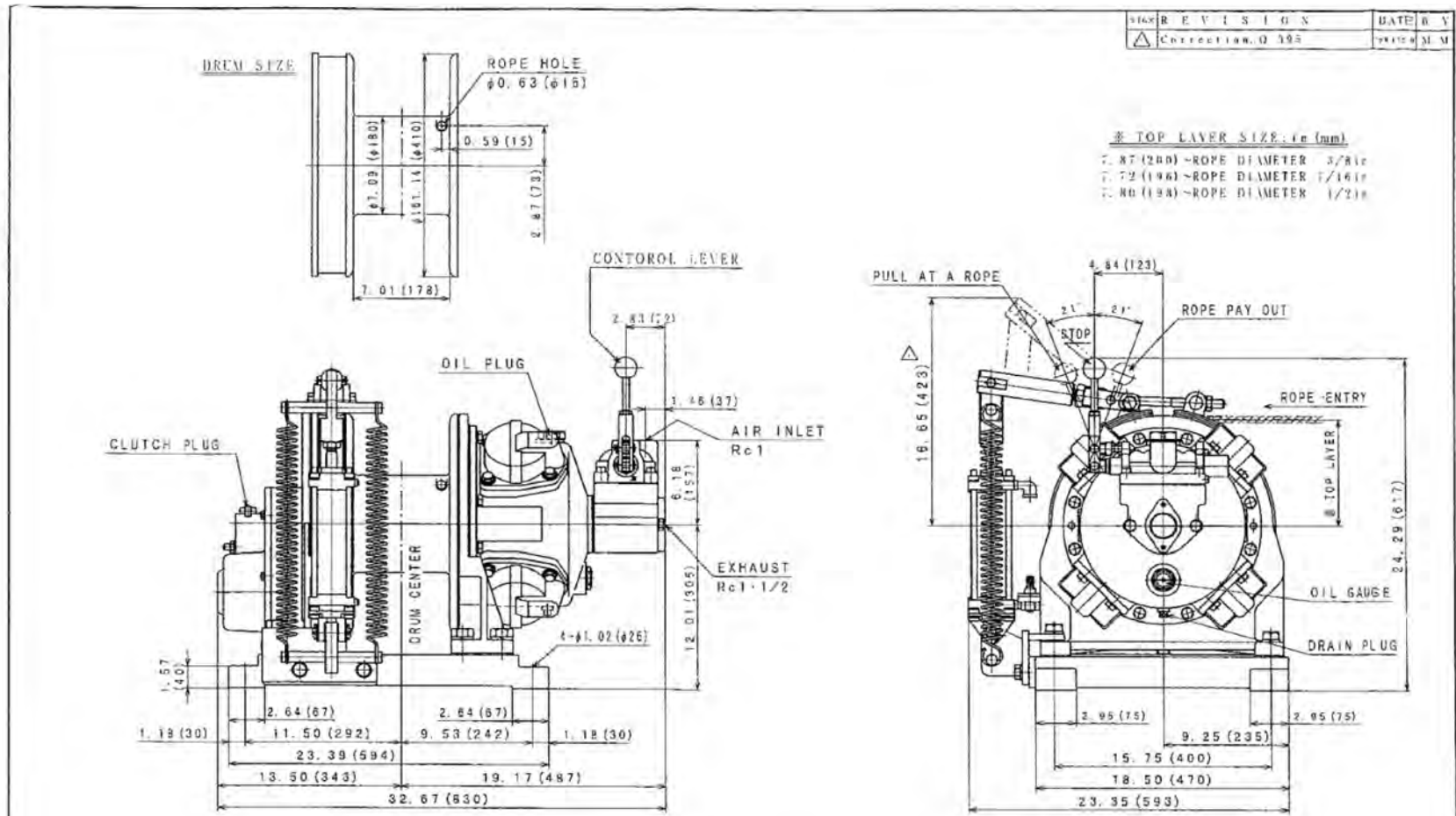




MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake



SPECIFICATIONS (at HALF DRUM)

AIR PRESSURE psi (kPa)	MOTOR POWER hp (kW)	ROPE PULL lb (kg)	ROPE SPEED fpm (m/min)	AIR CONSUMPTION cfm (Nm ³ /min)	ROPE CAPACITY = 1000 ft (m)	WEIGHT lb (kg)
90 (6.2)	9.8 (7.15)	2200 (10)	121 (37)	1.91 (5.4)	3/8x374 (205)	ABOUT
					7/16x473 (145)	587
					1/2x373 (115)	(267)

NOTE

DIMENSIONS ARE INCHES, BRACKETS () METRIC mm.

APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	OUTLINE DRAWING	DATE	BAR IN. 1998
S. N			M. M	MODEL	W-10-220-SAAB	NOTE	
					AIR WINCH	Z98-013	
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E398-047	SCALE

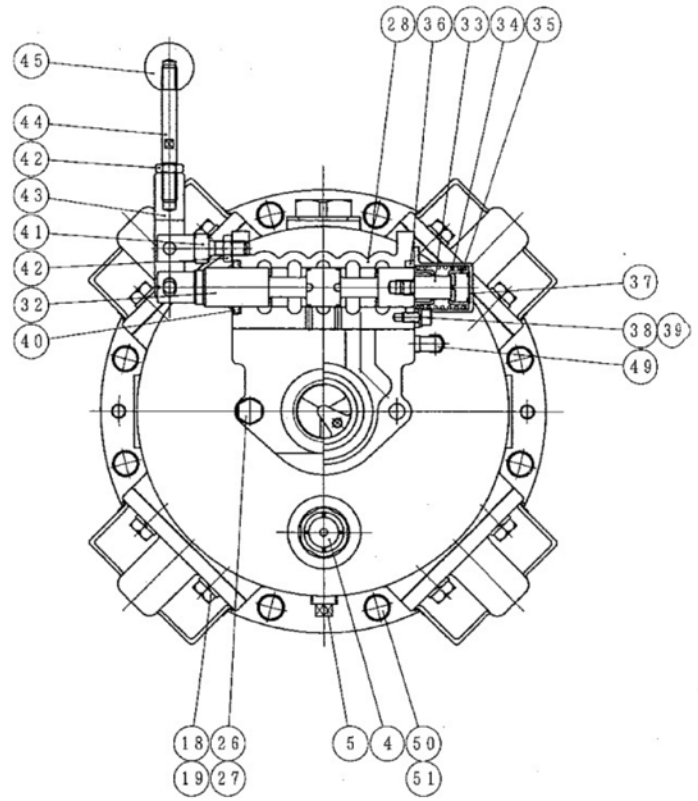
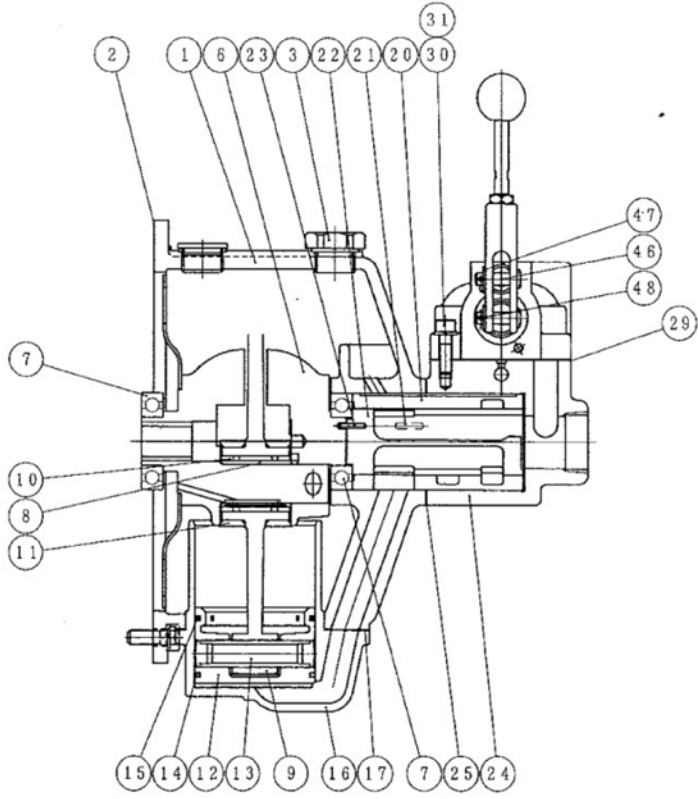


MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake

SIGN	REVISION	DATE	BY
△	Correction	08 11 97	M. M
△	Q-126. Renewal	08 12 97	M. M
△	Q-140. Renewal	08 01 98	M. S



PARTS LIST: E397-277

APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	ASSEMBLY DRAWING	DATE	1997. 11. 07
	M. M		M. S	MODEL	DM220B-HFS5	NOTE	
					AIR MOTOR		
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E 3 9 7 - 2 7 6	SCALE



MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake

REVISION	DATE	BY
Q140. Renewal		M.S

No.	PART NO.	PARTS NAME	Q'TY	REMARKS	No.	PART NO.	PARTS NAME	Q'TY	REMARKS
1	E397-2741	Crank Case	1		31	SW1-10	Spring Washer	5	10 (Cap)
2	E397-2742	Crank Case Packing	1		32	E397-27432	Spool	1	
3	E397-2803	Oil Plug	1		33	E397-27433	Spool End	1	
4	E397-2804	Oil Gauge	1		34	E397-27434	Spring	1	
5	E397-2745	Plug	1	1/2B	35	E397-27435	Spring Seat	1	
6	E397-2746	Crank Complete	1Set		36	E397-27436	Spacer	1	
7	E397-2747	Ball Bearing	2	6208	37	E397-27437	Cover	1	
8	E397-2748	Shaft Sleeve	1		38	CS-816	Hex. Socket Cap Screw	2	M8x16
9	E397-2749	Connecting Rod	4		39	E397-27022	Spring Washer	2	8
10	E397-27410	Rod Bearing	1		40	E397-27440	Dust Seal	1	
11	E397-27411	Rod Ring	2		41	E397-27441	Support Bolt	1	
12	E397-27412	Piston	4		42	E397-27442	Hex. Nut	2	M12-3
13	E397-27413	Piston Pin	4		43	E397-27443	Lever Support	1	
14	E397-27414	Piston Ring	4		44	E397-27444	Control Lever	1	
15	E397-27415	Oil Ring	4		45	E397-27445	Knob	1	
16	E397-27416	Cylinder	4		46	E397-27446	Lever Pin	2	
17	E397-27417	Cylinder Packing	4		47	E397-27447	Plane Washer	2	10
18	E397-27418	Hex. Bolt	16	M12x30	48	SNP-3.220	Split Pin	2	φ3.2x20
19	E397-28021	Spring Washer	16	12	49	E397-28059	Copper Tube Joint	1	B-8-PT1/4
20	E397-27420	Valve Sleeve	1		50	E397-27450	Hex. Bolt	8	M12x35
21	E397-27421	Key	1	5x5x23	51	SW2-12	Spring Washer	8	12
22	E397-27422	Rotary Valve	1						
23	SNP-420	Spring Pin	1	φ4x20					
24	E397-27424	Valve Chest	1						
25	E397-27425	Valve Chest Packing	1						
26	E397-27426	Hex. Bolt	2	M12x140					
27	SW2-12	Spring Washer	2	12					
28	E397-27428	Valve Body	1						
29	E397-27429	Valve Body Packing	1						
30	E397-27430	Hex. Socket Cap Screw	5	M10x35					

ASSEMBLY DRAWING: E397-276

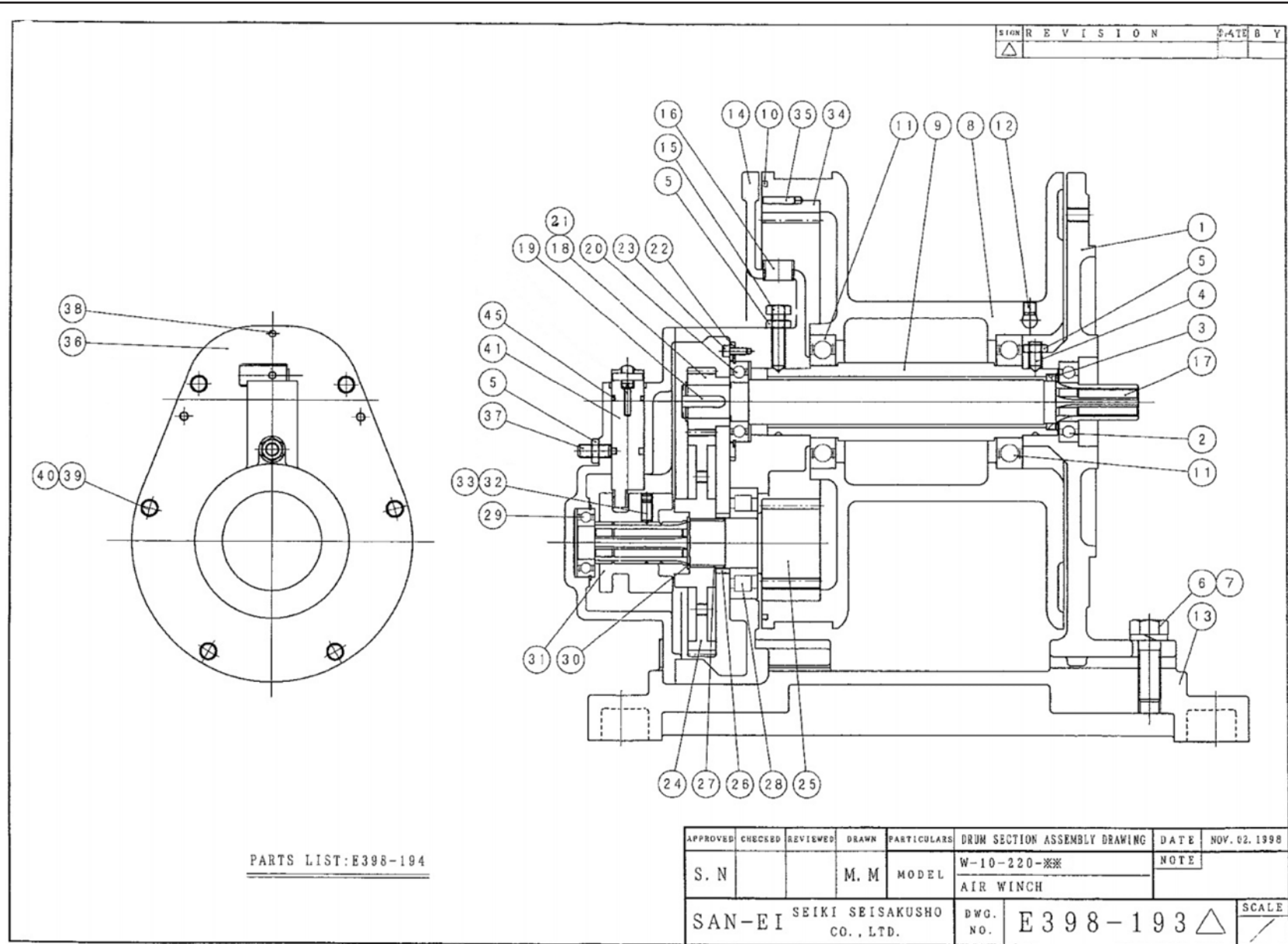
APPROVED	CHECKED	REVIEWED	DESIGN	PARTICULARS	PARTS LIST	DATE	1997. 11. 07
	M. M		M. S	MODEL	DM220B-HFS5	NOTE	
					AIR MOTOR		
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E397-277	SCALE



MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake





MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake

REVISION	DATE
△ Correction Q-441	***** M.S

No.	PART NO.	PARTS NAME	QTY	REMARKS	No.	PART NO.	PARTS NAME	QTY	REMARKS
1	E397-2451	Crank Case Cover	1		31	E397-24532	Clutch	1	
2	E397-2452	Ball Bearing	1	6207	32	E397-24533	Plunger	1	PBF-10-KS
3	E397-2453	Oil Seal	1	SC38508	33	E398-19333	Hex. Socket Set Screw	1	M10x8 △
4	E397-2454	Hex. Socket Set Screw	1	M12x30	34	E398-19334	Internal Gear	1	
5	E397-27442	Hex. Nut	3	M12-3	35	NP-630	Parallel Pin	1	φ6x30
* 6	E397-2456	Hex. Bolt	8 (5)	M20x60	36	E398-19336	Gear Case Cover	1	
* 7	E397-2457	Spring Washer	8 (5)	20	37	E397-24538	Plunger	1	SP12-1
8	E397-2458S	Drum (Short)	1		38	SNP-628	Spring Pin	1	φ6x28
9	E397-2459S	Drum Shaft (Short)	1		39	E302-11135	Hex. Bolt	6	M8x25
10	E397-24510	Packing	1		40	SW2-8	Spring Washer	6	8
11	E397-24511	Ball Bearing	2	6213ZZ	41	E397-24542CEP	Clutch Plug	1	
12	E397-24512	Hex. Socket Set Screw	1	M12x12	42				
13	E397-24513S	Bed (Short)	1		43				
14	E398-19314	Gear Case	1		44				
15	E397-24515	Drum Shaft Set Bolt	1		45	OR-P24	O-Ring	1	P-24
16	PHP-T50	Hex. Socket Plug	1	3/4B					
17	E398-19317S	Motor Shaft (Short)	1						
18	E398-19318	First Pinion	1						
19	E398-19319	Key	1	10x8x33					
20	E397-24520	Ball Bearing	1	6207ZZNR					
21	E398-19321	Retaining Ring	1	S30					
22	E397-24522	Bearing Support	1						
23	CS-616	Hex. Socket Cap Screw	3	M6x16					
24	E398-19324	First Gear	1						
25	E398-19325	Second Pinion	1						
26	E398-19326	Collar	1						
27	E397-24528	Gear Bushing	1	R-ML4030					
28	E398-19328	Roller Bearing	1	NJ309					
29	E397-24530	Ball Bearing	1	6206ZZNR					
30	E398-19330	Retaining Ring	1	S40					

NOTE: Bracket () are Model: W-10-220-***C-AB

ASSEMBLY DRAWING: E398-193

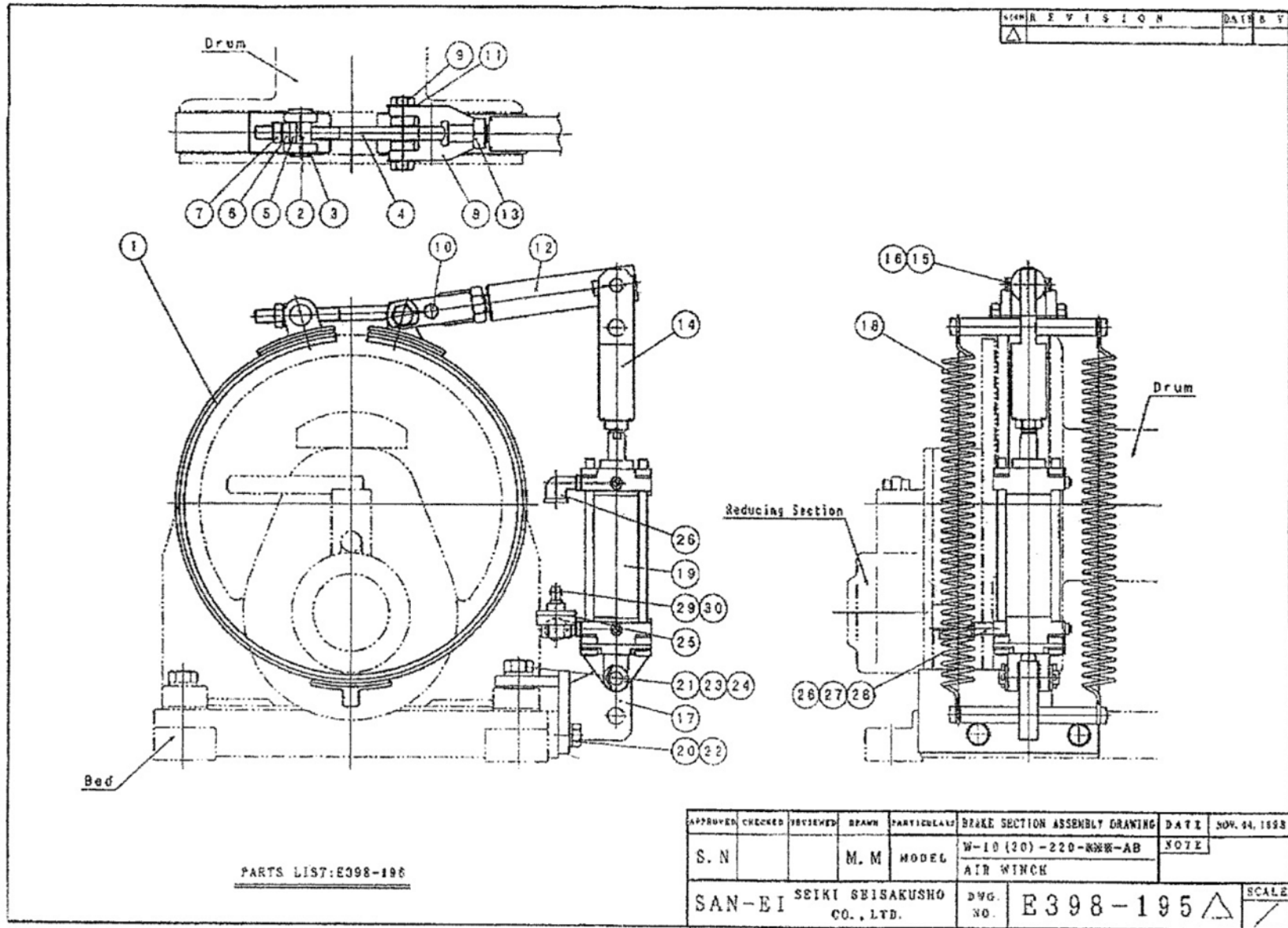
APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	DRUM SECTION PARTS LIST	DATE	REV. 02. 1999
S. N			M. M	MODEL	W-10-220-*** AIR WINCH	NOTE	
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E398-194 △	SCALE



MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake





MICHIGAN PNEUMATIC TOOL, INC.

MP-W10220SAAB

2200 lb. Short Drum Winch w/ Auto Brake

No.	PART NO.	PARTS NAME	QTY	REMARKS	No.	PART NO.	PARTS NAME	QTY	REMARKS
1	E397-2571	Brake Assembly	1Set		19	E398-19519	Air Cylinder	1	CA1DFN63-150N
2	E397-2572	Brake Pin	1		20	E302-1116	Hex. Bolt	2	M16x40
3	E397-25712	Retaining Ring	1	S25	21	E398-19521	Hex. Bolt	2	M20x75
4	E397-2574	Adjuster Bolt	1		22	E302-1117	Spring Washer	2	16
5	E397-2573	Distance Piece	1		23	E397-2457	Spring Washer	2	20
6	E397-2575	Hex. Nut	1	M16	24	E398-19524	Plain Washer	2	20
7	E397-2576	Hex. Nut	1	M16-3	25	E397-25522	Quick Exhaust Valve	1	AQ2000-02
8	E397-2577	Brake Lever Block	1		26	5502-6	Street Elbow	2	3/8B
9	E397-2579	Lever Pin	2		27	PF20964	Bushing	1	1/4x3/8B
10	E397-2578	Parallel Pin	1	φ16x65	28	H0404	Pipe	1	8Ax50mm
11	E397-25710	Lock Washer	2	16	29	E397-28059	Copper Tube Joint	1	B-8-PT1/4
12	E398-19512	Brake Lever	1		30	E398-19530	Copper Tube	1m	φ8
13	E397-25510	Hex. Nut	1	M24-3					
14	E398-19514	Cylinder Connection	1						
15	E398-19515	Cylinder Pin	1						
16	E398-19516	Split Pin	2	φ4x32					
17	E398-19517	Cylinder Bracket	1						
18	E398-19518	Brake Spring	2						

*Not pictured

Model number with guard: **MP-W10220SAABG**
Guard Part Number: **E398-001G**

Model number with guard & pendant: **MP-W10220SPABG**
Guard Part Number: **E302-104G**
Pendant Part Number: **E398-001G**

Model number with pendant: **MP-W10220SPAB**
Pendant Part Number: **E302-142PC**

ASSEMBLY DRAWING: E398-196

APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	BRAKE SECTION PARTS LIST	DATE	NOV. 04. 1998
S. N			M. M	MODEL	W-10 (20) -220-***-AB	NOTE	
					AIR WINCH		
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E398-196	SCALE