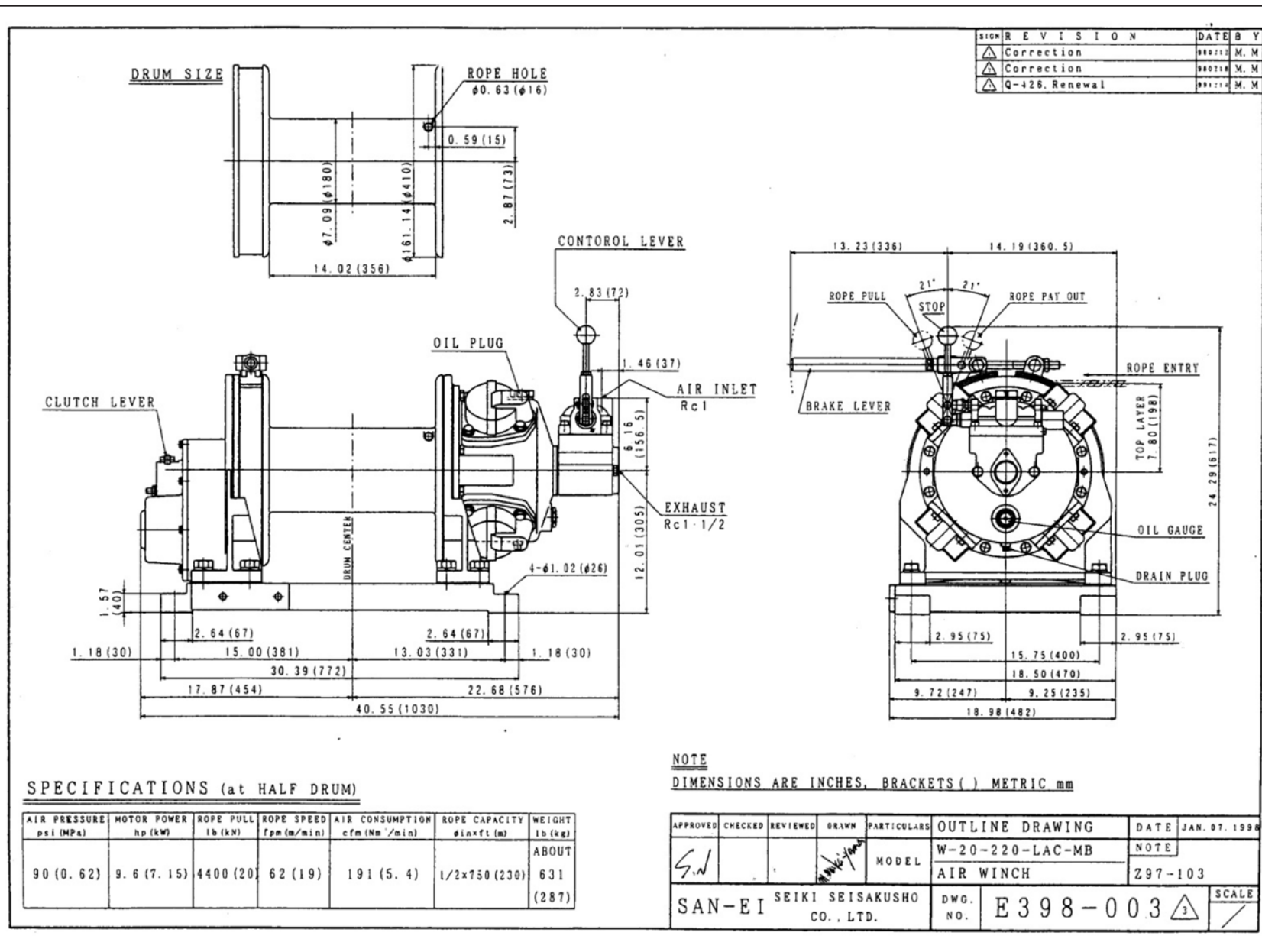




MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake

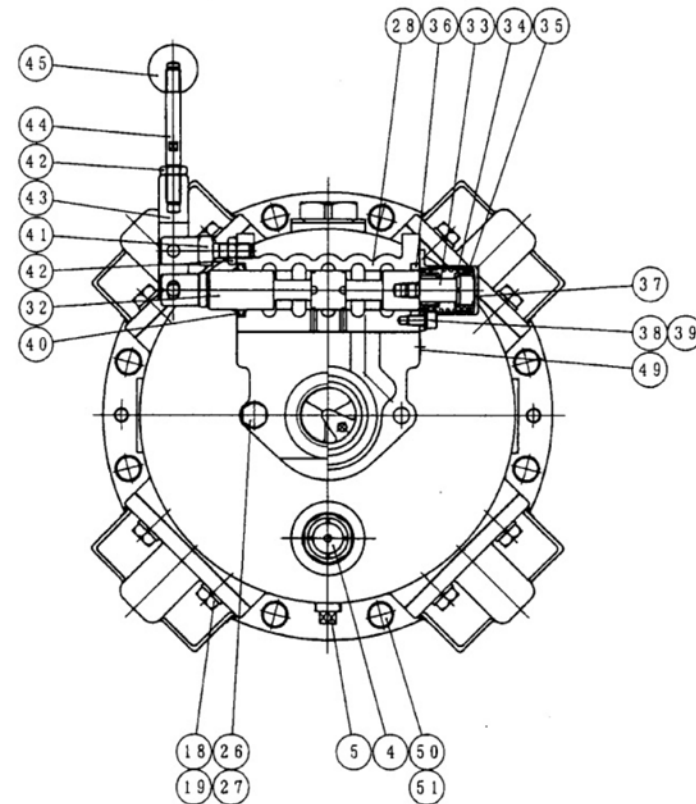
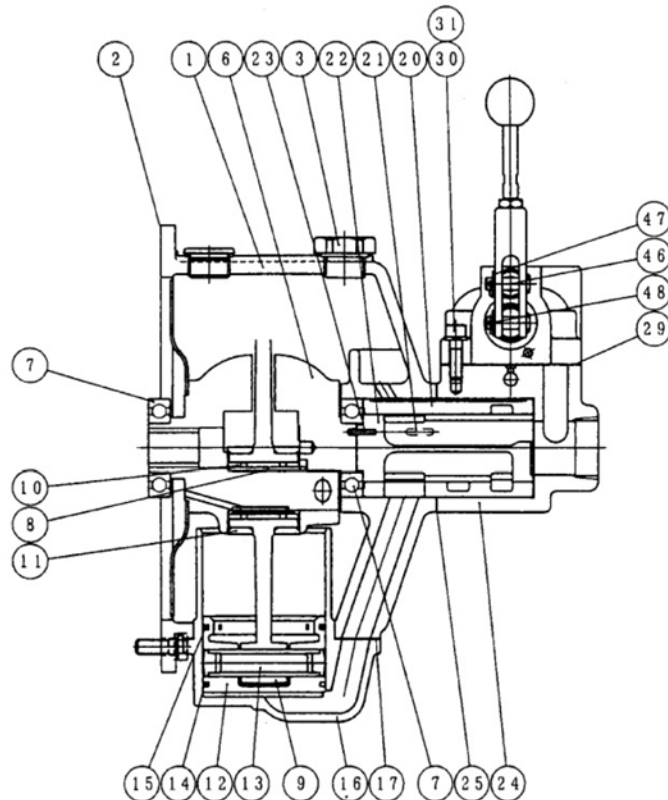




MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake



PARTS LIST: E397-275

APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	ASSEMBLY DRAWING	DATE	1997. 11. 07
S.N.				MODEL	DM220-HFSS	NOTE	
					AIR MOTOR		
SAN-EI	SEIKI SEISAKUSHO	DWG.	E 3 9 7 - 2 7 4	SCALE			
CO., LTD.		NO.					



MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake

REVISION									
DATE BY									
No.	PART NUMBER	PARTS NAME	Q'TY	REMARKS	No.	PART NUMBER	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	PHP-T20	Hex. Socket Plug	1	1/4B
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: E397-274

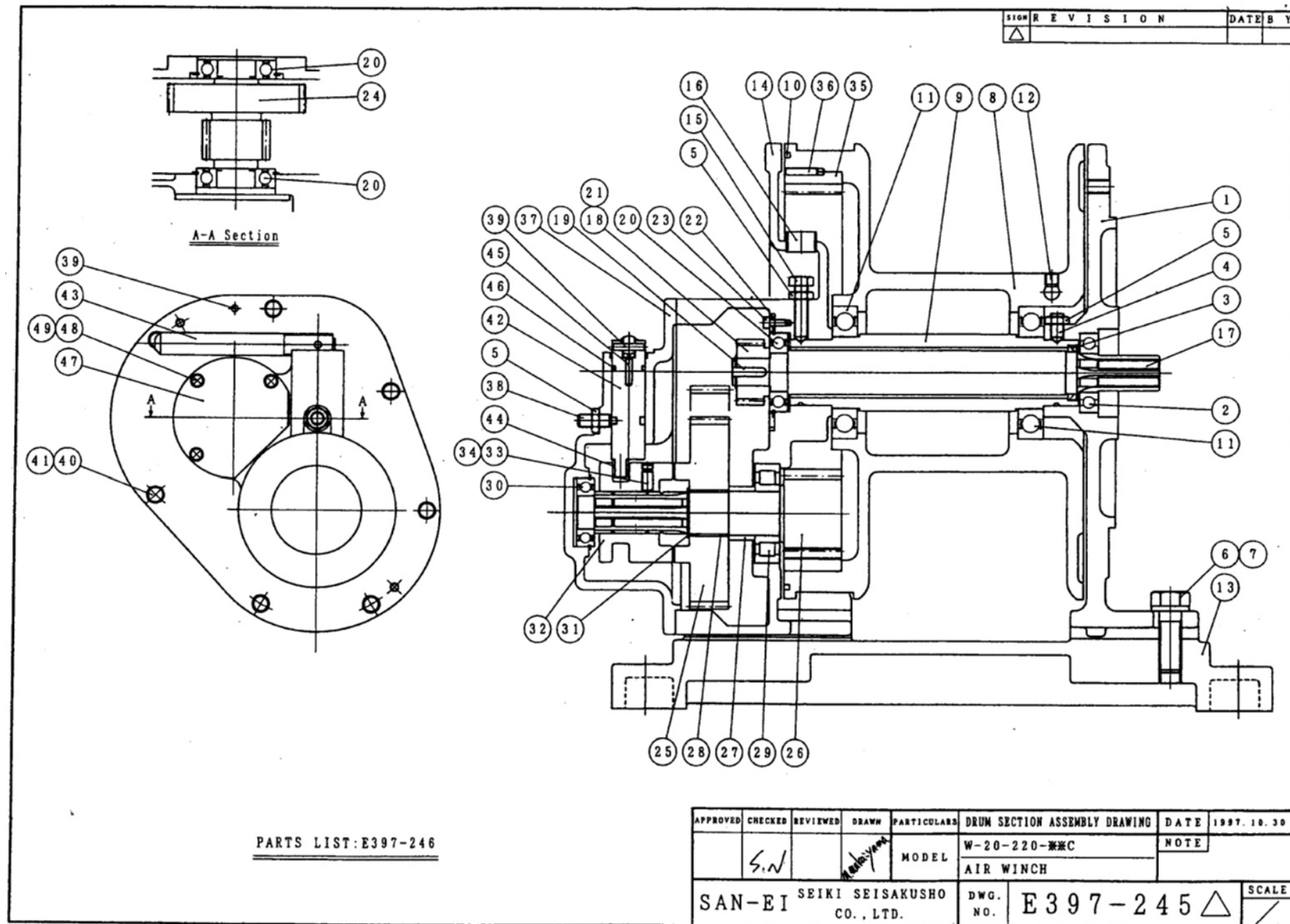
APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	PARTS LIST	DATE	1997. 11. 07
<i>[Signature]</i>	<i>[Signature]</i>		<i>[Signature]</i>	MODEL	DM220-HFSS	NOTE	
					AIR MOTOR		
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E397-275	SCALE



MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake





MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake

SIGNATURE									
REVISION									
DATE									
Correction									
M.M.									

No.	PART NUMBER	PARTS NAME	QTY	REMARKS	No.	PART NUMBER	PARTS NAME	QTY	REMARKS
1	E397-2451	Crank Case Cover	1		31	E397-24531	Retaining Ring	1	S38
2	E397-2452	Ball Bearing	1	6207	32	E397-24532	Clutch	1	
3	E397-2453	Oil Seal	1	SC38508	33	E397-24533	Plunger	1	PBF-10-KS
4	E397-2454	Hex.Socket Set Screw	1	M12x30	34	E397-24534	Hex.Socket Set Screw	1	M10x10
5	E397-27442	Hex.Nut	3	M12-3	35	E397-24535	Internal Gear	1	
6	E397-2456	Hex.Bolt	8(6)	M20x60	36	NP-630	Parallel Pin	2	#6x30
7	E397-2457	Spring Washer	8(6)	20	37	E397-24537	Gear Case Cover	1	
8	E397-2458L	Drum	1		38	E397-24538	Plunger	1	SP12-1
9	E397-2459L	Drum Shaft	1		39	SNP-628	Spring Pin	2	#6x28
10	E397-24510	Packing	1		40	E302-11135	Hex. Bolt	7	M8x25 ▲
11	E397-24511	Ball Bearing	2	6213ZZ	41	SW2-8	Spring Washer	7	8
12	E397-24512	Hex.Socket Set Screw	1	M12x12	42	E397-24542	Clutch Eccentric	1	
13	E397-24513L	Bed	1		43	E397-24543	Clutch Lever	1	
14	E397-24514	Gear Case	1		44	E397-24544	Inner Ring	1	IR10x14x16
15	E397-24515	Drum Shaft Set Bolt	1		45	E397-24545	Plunger	1	SP-8-2
16	PHP-T50	Hex. Socket Plug	1	3/4B	46	OR-P24	O Ring	1	P24
17	E397-24517L	Motor Shaft	1		47	E397-24547	Cover	1	
18	E397-24518	First Pinion	1		48	E397-27049	Hex. Bolt	3	M6x20
19	E397-24519	Key	1	8x7x27	49	E397-27050	Spring Washer	3	6
20	E397-24520	Ball Bearing	3	6207ZZNR					
21	E302-10512	Retaining Ring	1	S25					
22	E397-24522	Bearing Support	1						
23	CS-616	Hex.Socket Cap Screw	3	M6x16					
24	E397-24524	Second Pinion	1						
25	E397-24525	Second Gear	1						
26	E397-24526	Third Pinion	1						
27	E397-24527	Collar	1						
28	E397-24528	Gear Bushing	1	R-ML4030					
29	E397-24529	Roller Bearing	1	NJ308E					
30	E397-24530	Ball Bearing	1	6206ZZNR					

NOTE: Bracket () are Model; W-20-220-※※C-AB

ASSEMBLY DRAWING: E397-245

APPROVED	CHECKED	REVIEWED	DRAWN	PARTICULARS	DRUM SECTION PARTS LIST	DATE	1997. 10. 30
	S.N.			MODEL	W-20-220-※※C	NOTE	
					AIR WINCH		
SAN-EI SEIKI SEISAKUSHO CO., LTD.					DWG. NO.	E397-246	SCALE



MICHIGAN PNEUMATIC TOOL, INC.

MP-W20220LACMB

4400 lb. Long Drum Winch w/ Manual Brake

