


PART DESCRIPTION		<b>OPERA-SH HARDWARE</b>	
PART NUMBER		<b>OPERA-SH</b>	
DRAWN DATE:		2004-09-20	
LAST UPDATE:		INITIAL	J.P.
		2009-10-20	
MANARAS-OPERA 136 ONEIDA DRIVE POINTE-CLAIRE, QC, H9R 1A8 TEL: 1-800-361-2260 FAX: 1-888-626-0606		DRAWN BY:	SHEET:
		N. VIAU	1 of 3

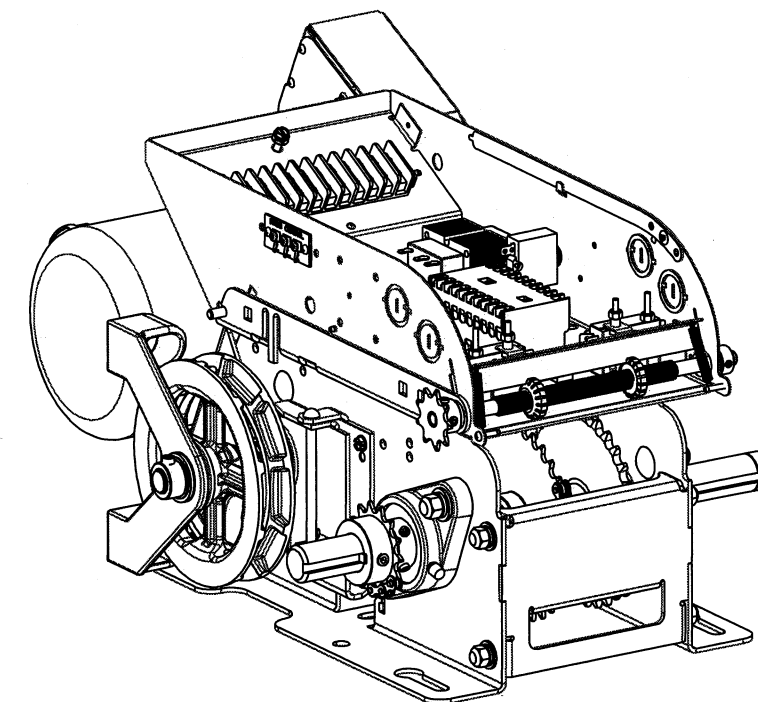
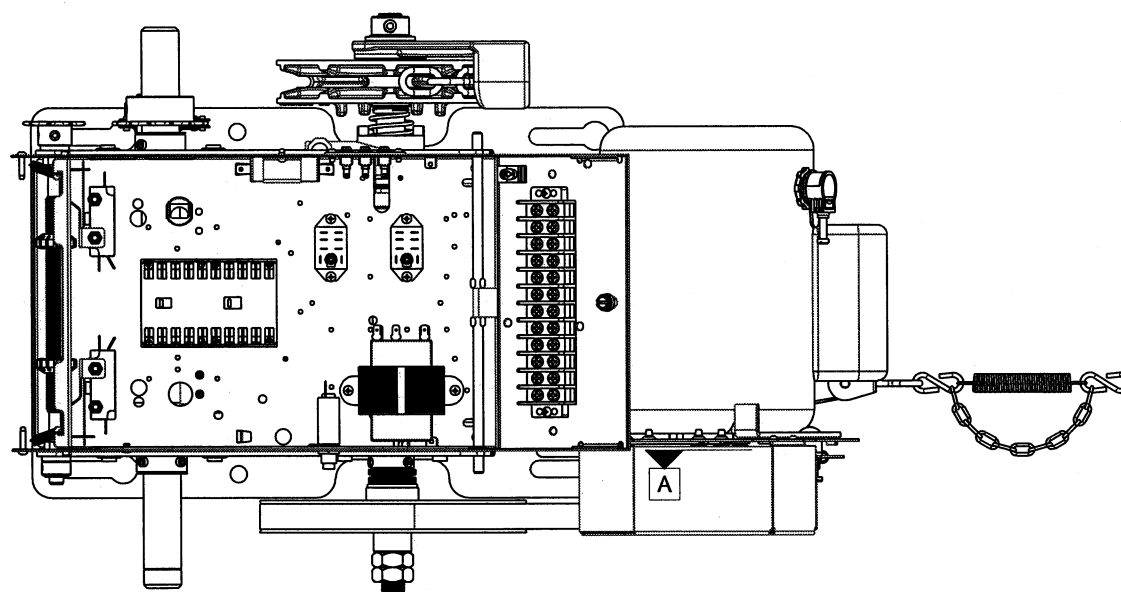
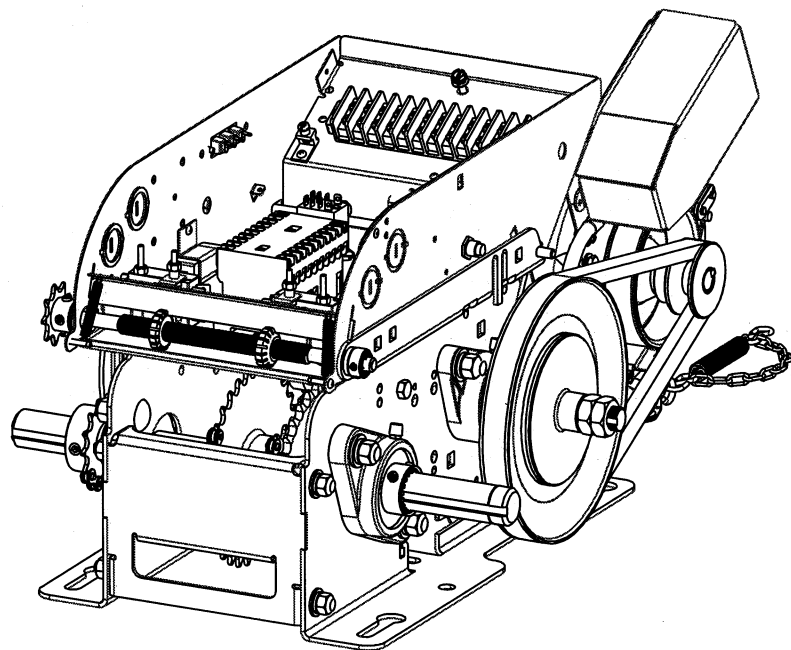
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No.	Qty	DESCRIPTION	# MANARAS	REV			
1	4	6-32 HEX NUT ZP	NUT002		71	4	INTERNAL TOOTH LOCKWASHER NO6 ZP
2	6	6-32 HEX NYLON LOCK NUT ZP	NUT018		72	1	KEY 0.188 X 2.4 (INCL. W/ MOTOR)
3	2	6-32 X 1 MACHINE SCREW	SCREW042		73	1	KEY 1/4 X 1
4	4	6-32 X 2-1/2 MACHINE SCREW	SCREW046		74	1	KEY 3/16 X 1-1/2 ROUNDED ENDS
5	14	6-32 X 3/8 TYPE F S-TAP. SCREW	SCREW094		75	1	KEY 3/16 X 9/16
6	8	6-32 X 5/8 TYPE F S-TAP. SCREW	SCREW095		76	1	LEFT HAND SIDE FOR OPERA
7	2	10-24 X 1/2 TYPE F S-TAP. SCREW	SCREW067		77	6	LIMIT SWITCH SPACER 1/4 X 1/4 ALU.
8	1	10-24 X 3/4 TYPE F S-TAP. SCREW	SCREW023		78	1	MANUAL HOIST COUPLING
9	6	10-24 X 3/8 TYPE F S-TAP. SCREW	SCREW022		79	1	MOTOR
10	4	10-32 HEX NUT ZP	NUT005		80	1	MOTOR PULLEY 2.0 x 5/8 5L STL
11	1	10-32 X 3/16 SET SCREW	SCREW098		81	1	OILLITE WASHER (.625X1.00X.125)
12	1	#41-1R48P(INCL.1CL)	CHAIN059		82	1	OPEN LIMIT ACTUATOR
13	1	#410-1R32P(INCL.1CL)	CHAIN006		83	1	OPERA - CBOX ARM
14	2	#410-1R48P(INCL.1CL)	CHAIN058		84	1	OPERA CBOX ARM L BRACKET
15	1	#50 CONNECTING LINK 50-1	LINK011		85	1	OPERA CBOX CAMPLATE
16	2	1" ID 2-BOLT FLANGE BEARING	BEARING012		86	1	OPERA CBOX ROD SPRING
17	2	1/4-20 HEX NYLON LOCK NUT ZP	NUT020		87	1	OPERA CLUTCHPLATE
18	1	1/4-20 X 1-1/4 RND HD SQ NECK BOLT	BOLT083		88	1	OPERA CONTROL BOX
19	1	1/4-20 X 3/4 HEX BOLT	BOLT002		89	1	OPERA CONTROL BOX COVER
20	2	1/4-20 X 5/16 SET SCREW	SCREW001		90	1	OPERA COVER ARM
21	8	1/4-28 X 1/4 SET SCREW	SCREW002		91	1	OPERA HANDLE
22	8	3/8-16 HEX NUT ZP	NUT010		92	2	OPERA LIMIT SHAFT BUSHING
23	8	3/8-16 X 1-1/4 RND HD SQ NECK BOLT	BOLT059		93	1	OPERA MOTOR PLATE
24	12	5/16-18 HEX NUT ZP	NUT007		94	1	OPERA POCKETWHEEL
25	12	5/16-18 X 3/4 RND HD SQ NECK BOLT	BOLT093		95	1	OPERA SPACER 1"
26	9	5/16-18 X 5/16 SET SCREW	SCREW003		96	1	OPERA SPACER 3/4"
27	2	5/8-18 HEX JAM NUT ZP	NUT013		97	1	OSH INPUT SHAFT
28	1	7X7 1/16"X33 CW	CABLE		98	1	OSH OUTPUT SHAFT
29	1	ADJUSTMENT BRAKE LEVER	LEVER064	3	99	1	PIN COTTER 1/8 X 1-1/2
30	8	BELLEVILLE WASHER (31.5X16.3X0.8)	WASHER035		100	1	PIN COTTER 3/16 X 2-1/2
31	1	BRAKE BAND ASSEMBLY HEAVY DUTY	BRAKEPART019		101	1	PIN SLOTTED SPRING 1/4 X 1-3/4
32	1	BRAKE DRUM	DRUM005	1	102	1	PIN SLOTTED SPRING 5/16 X 2
33	1	BRAKE LEVER	LEVER065	8	103	1	PLATED BRAKE PLATE
34	1	BRAKE LEVER PIVOT	BUSHING053	3	104	1	PLATED SOLENOID COVER
35	1	BX CONNECTOR STRAIGHT 3/8	ADAPTER030		105	1	POP RIVET 1/8 X (0.126-0.187)
36	2	CABLE CLAMP 3/16"	CLIP018		106	3	POP RIVET 5/32 X (0.063-0.125)
37	1	CABLE HOSE OD 3/16	CABLE027		107	1	PULLEY 7" x 5/8" 5L/B
38	1	CABLE SLEEVE 1/16	SLEEVE001		108	1	PUSH NUT 177-061
39	2	CABLE STRAIN RELIEF 5/8 OD	BUSHING058		109	1	PUSH NUT 1/4"
40	2	CAM LIMIT OPERA	CAM011	2	110	1	RADIO CONTROL TERM STRIP
41	1	CBOX SWITCH SUPPORT	BRACKET193	1	111	1	RESET
42	1	CHAIN GUIDE 6 3/8	GUIDE012		112	1	RIGHT HAND SIDE FOR OPERA
43	1	CL.PAD 5/8x4x0.125"	CLUTCHPAD005	3	113	1	ROD CBOX OPERA
44	1	CLOSE LIMIT ACTUATOR	LEVER092	2	114	2	S HOOK
45	1	COLLAR 1"	COLLAR007		115	1	SHAFT #2 LIMIT SHAFT C12L14
46	1	COLLAR 3/4	COLLAR005		116	1	SINGLE LIM. SW. AND LEVER
47	1	COLLAR 5/8"	COLLAR004		117	1	SINGLE SWIVEL PULLEY 1.0
48	1	COMP. SPRING DISC. OSH	SPRING043		118	1	SOLENOID
49	1	CUT-OFF SWITCH SPDT -SP.TABS	LIMIT019	2	119	1	SPR410B9X3/8 2SS
50	1	DISCONNECT CHAIN 5" LONG	CHAIN082		120	1	SPROCKET
51	1	DISCONNECT FORK	FORK001	5	121	1	SPROCKET
52	1	DISCONNECT FORK AXLE	PIN022		122	1	SPROCKET 410B14 X 1K0 1S3/8
53	1	DOUBLE SPROCKET OPERA 1"	SPR410B14A32X1	2	123	1	SPROCKET 41B32X1 PH5/16
54	1	DPDT 24V RELAY	RELAY024		124	1	STEEL COLLAR 0.375" IDX(22563)
55	1	DPDT RELAY	RELAYXXX		125	1	TELEM. REVERS. CONT. 24V
56	2	EXT. RETAINING RING	CLIP017		126	1	TERMINAL STRIP 12 POSITIONS
57	1	EXTENSION SPRING E480-063-3275	SPRING027		127	2	TOGGLE SWITCH SPRING
58	2	EXTERNAL 1" SELF-LOCKING RET. RING	CLIP023		128	1	TRANSFO TO 24V
59	1	EXTERNAL 3/8 RETAINING RING	CLIP021		129	1	TROLLEY ARM DISCONNec SPRING
60	2	FDGHE FW 5/8 ID x 11/8 TRA1018	BEARING024		130	12	TYPE A PLAIN WASHER 1/4 W ZP
61	1	FLANGE BEARING 1" C16-3F5	BEARING007		131	2	TYPE A PLAIN WASHER 3/16 ZP
62	2	FLANGE PILLOW BLOCK 0,75	BEARING044		132	8	TYPE A PLAIN WASHER 5/16 W ZP
63	1	FLT WASHER 1/4 (.266X.75X.062) ZP	WASHER061		133	2	TYPE A PLAIN WASHER 5/8 N ZP
64	1	FORK PIVOT BRACKET	BRACKET201	1	134	1	TYPE A PLAIN WASHER NO 8 ZP
65	1	GROUND LUG TA61G-UL	CONNECTOR039		135	4	TYPE A PLAIN WASHER NO 10 ZP
66	1	HAND CHAIN 31.4-19.5-1000	CHAIN002		136	2	TYPE B PLAIN WASHER No.4 R ALU
67	4	HELICAL SPRING LOCK WASH NO 10 ZP	WASHER025		137	1	TYPE B, INSIDE LENGTH 29
68	8	HELICAL SPRING LOCK WASHER 3/8 ZP	WASHER030		138	4	UNIMAX SNAP-ACTING SWITCH SP-DT
69	12	HELICAL SPRING LOCK WASHER 5/16 ZP	WASHER028				
70	4	HELICAL SPRING LOCK WASHER NO 6 ZP	WASHER023				

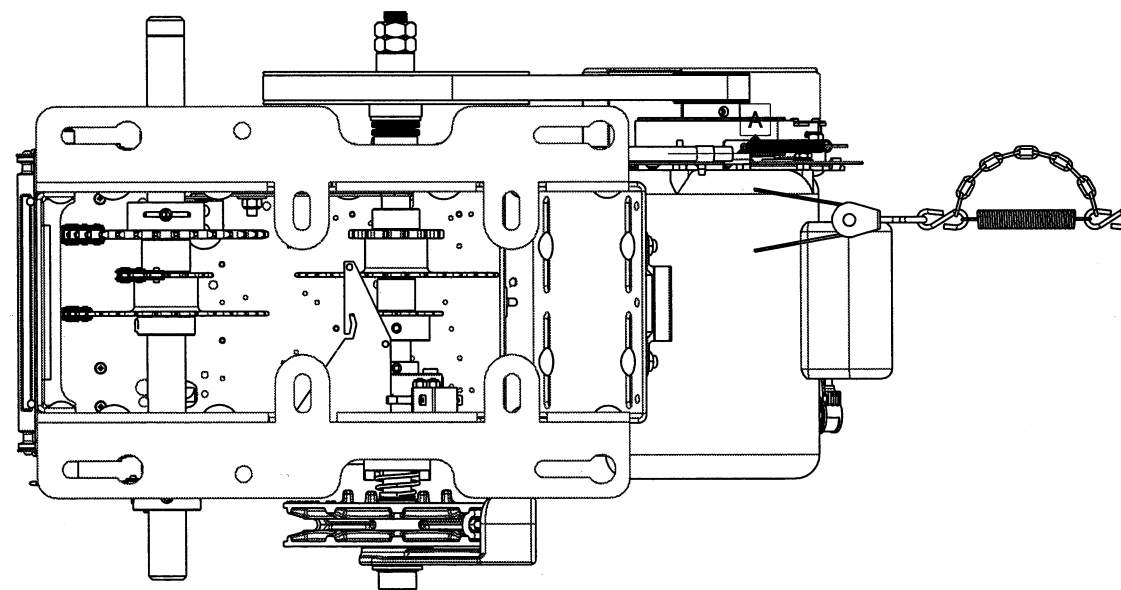
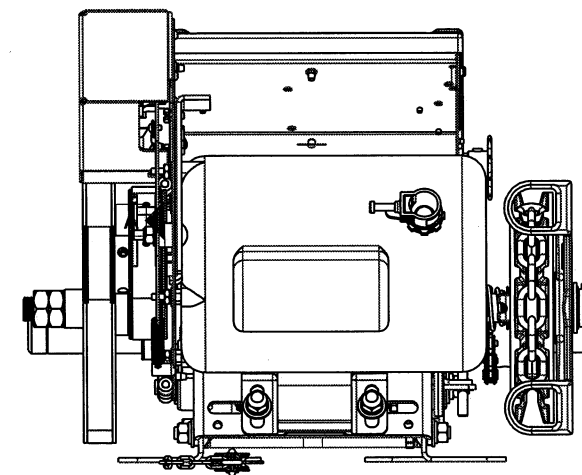
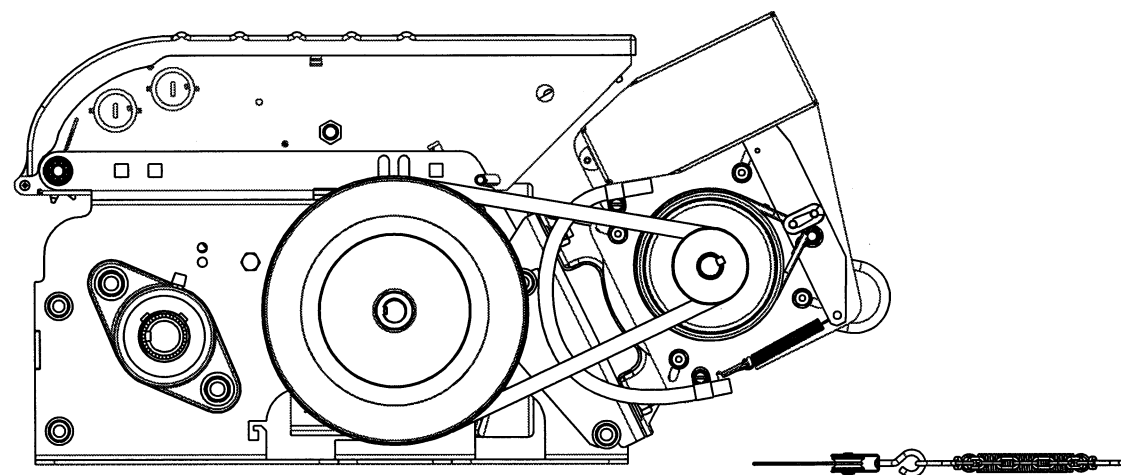
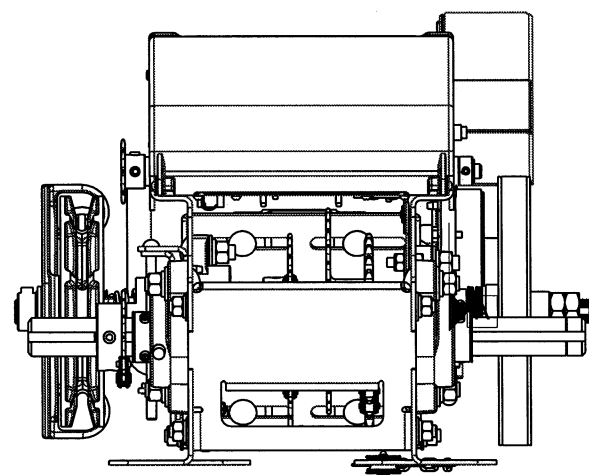
Qty	DESCRIPTION	# MANARAS
1	DPDT 120V RELAY	RELAY026
1	SOLENOID SWITCH 120V	SOLENOID001
1	TRANSFO 120/240V-24V 40VA	TRANSF143
1/2HP	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR254
1/2HP	1PH - 10 AMPS RESET	RESET007
3/4HP	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR255
3/4HP	1PH - 15 AMPS RESET	RESET012
1HP	MOTOR 1HP - 120V/230V - 1PH	MOTOR256
1HP	1PH - 17 AMPS RESET	RESET014
1	DPDT 240V RELAY	RELAY027
1	SOLENOID SWITCH 240V	SOLENOID002
1	TRANSFO 120/240V-24V 40VA	TRANSF143
1/2HP	MOTOR 1/2HP - 120V/230V - 1PH	MOTOR254
1/2HP	1PH - 5 AMPS RESET	RESET002
3/4HP	MOTOR 3/4HP - 120V/230V - 1PH	MOTOR255
3/4HP	1PH - 8 AMPS RESET	RESET005
1HP	MOTOR 1HP - 120V/230V - 1PH	MOTOR256
1HP	1PH - 9 AMPS RESET	RESET006
1	SOLENOID SWITCH 240V	SOLENOID002
1	TRANSFO 240V/208V-24V 40VA	TRANSF037
-	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR271
-	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR273
-	MOTOR 1HP - 208V/460V - 3PH	MOTOR275
1	SOLENOID SWITCH 440V	SOLENOID003
1	TRANSFO 480V-24V 40VA	TRANSF088
-	MOTOR 1/2HP - 208V/460V - 3PH	MOTOR271
-	MOTOR 3/4HP - 208V/460V - 3PH	MOTOR273
-	MOTOR 1HP - 208V/460V - 3PH	MOTOR275
1	SOLENOID SWITCH 575V	SOLENOID004
1	TRANSFO 575V-24V 40VA	TRANSF142
-	MOTOR 1/2HP - 575V - 3PH	MOTOR272
-	MOTOR 3/4HP - 575V - 3PH	MOTOR274
-	MOTOR 1HP - 575V - 3PH	MOTOR276

PART DESCRIPTION		<b>OPERA-SH HARDWARE</b>	
PART NUMBER		<b>OPERA-SH</b>	
DRAWN DATE:		2009-04-07	
LAST UPDATE:		2009-10-20	
INITIAL		J.P.	
MANARAS-OPERA 136 ONEIDA DRIVE POINTE-CLAIRE, QC, H9R 1A8 TEL: 1-800-361-2260 FAX: 1-888-626-0606		 DRAWN BY: N. VIAU SHEET: 2 of 3	

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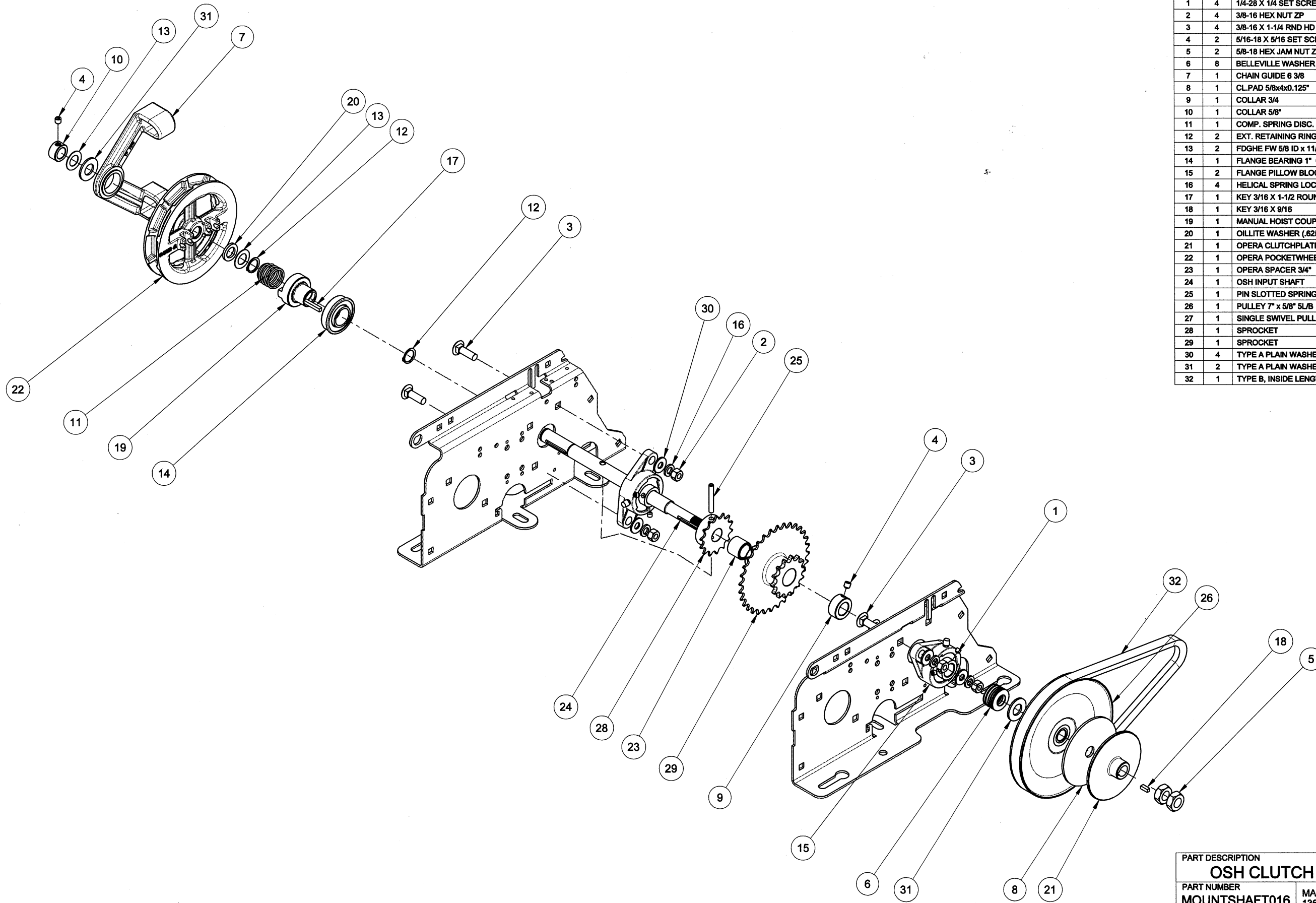
TOP AND ISO VIEWS SHOWN WITHOUT COVER047



PART DESCRIPTION		<b>OPERA-SH HARDWIRE</b>	
PART NUMBER		MANARAS-OPERA	
<b>OPERA-SH</b>		136 ONEIDA DRIVE	
DRAWN DATE:		POINTE-CLAIRE, QC, H9R 1A8	
2007-12-03		TEL: 1-800-361-2260	
LAST UPDATE:		FAX: 1-888-626-0606	
2009-10-20		INITIAL	J.P.

		DRAWN BY:	SHEET:
		G. THOMAS	3 of 3

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No	Qty	DESCRIPTION	# MANARAS	REV
1	4	1/4-28 X 1/4 SET SCREW	SCREW002	
2	4	3/8-16 HEX NUT ZP	NUT010	
3	4	3/8-16 X 1-1/4 RND HD SQ NECK BOLT	BOLT059	
4	2	5/16-18 X 5/16 SET SCREW	SCREW003	
5	2	5/8-18 HEX JAM NUT ZP	NUT013	
6	8	BELLEVILLE WASHER (31.5X16.3X0.8)	WASHER035	
7	1	CHAIN GUIDE 6 3/8	GUIDE012	
8	1	CL.PAD 5/8x4x0.125"	CLUTCHPAD005	3
9	1	COLLAR 3/4	COLLAR005	
10	1	COLLAR 5/8"	COLLAR004	
11	1	COMP. SPRING DISC. OSH	SPRING043	
12	2	EXT. RETAINING RING	CLIP017	
13	2	FDGHE FW 5/8 ID x 11/8 TRA1018	BEARING024	
14	1	FLANGE BEARING 1" C16-3F*5	BEARING007	
15	2	FLANGE PILLOW BLOCK 0,75	BEARING044	
16	4	HELICAL SPRING LOCK WASHER 3/8 ZP	WASHER030	
17	1	KEY 3/16 X 1-1/2 ROUNDED ENDS	KW013	5
18	1	KEY 3/16 X 9/16	KW031	5
19	1	MANUAL HOIST COUPLING	COUPLING019	1
20	1	OILLITE WASHER (.625X1.00X.125)	WASHER057	
21	1	OPERA CLUTCHPLATE	CLUTCHPLATE006	3
22	1	OPERA POCKETWHEEL	POCKETWHEEL005	1
23	1	OPERA SPACER 3/4"	SPACER008	1
24	1	OSH INPUT SHAFT	SHAFT116	4
25	1	PIN SLOTTED SPRING 1/4 X 1-3/4	PIN020	
26	1	PULLEY 7" x 5/8" SL/B	PULLEY020	5
27	1	SINGLE SWIVEL PULLEY 1.0	PULLEY016	
28	1	SPROCKET	SPR410B14X3/4	
29	1	SPROCKET	SPR41B14AA10B32X75	
30	4	TYPE A PLAIN WASHER 5/16 W ZP	WASHER008	
31	2	TYPE A PLAIN WASHER 5/8 N ZP	WASHER014	
32	1	TYPE B, INSIDE LENGTH 29	VBELTB29	

PART DESCRIPTION			
OSH CLUTCH SHAFT - KIT			
PART NUMBER		MANARAS-OPERA	
MOUNTSHAFT016		136 ONEIDA DRIVE	
DRAWN DATE:		POINTE-CLAIRE, QC, H9R 1A8	
2009-03-27		TEL: 1-800-361-2260	
LAST UPDATE:		FAX: 1-888-626-0606	
2009-04-21		INITIAL	
		G.T	
DRAWN BY:		SHEET:	
G. THOMAS		4 of 4	

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