



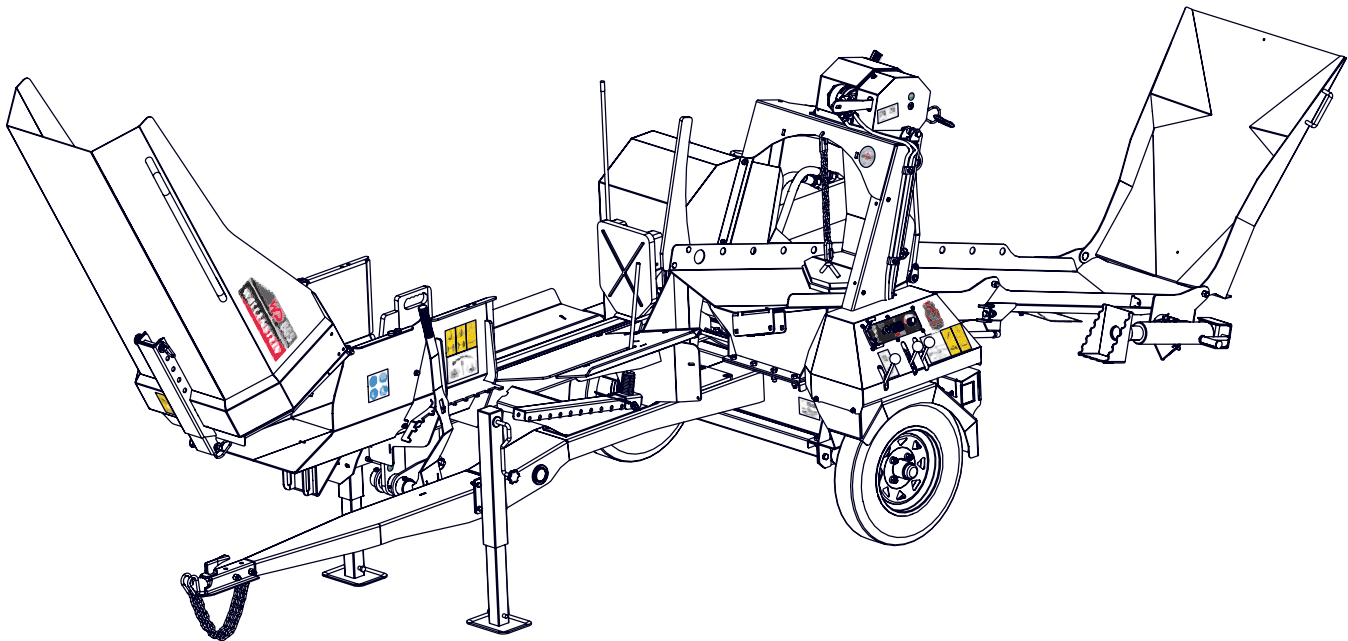
EMB Manufacturing Inc.
4144 Boomer Line · St. Clements, Ontario · N0B 2M0 · Canada
www.wallensteinequipment.com

PARTS MANUAL

WP865

Wood Processor

Serial Number 2E9US1115FS660140 & up



Refer to the operators manual for safe operation and maintenance

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 **WARNING!**

Refer to the operators manual for safe operation and maintenance.

Maintenance should be performed by trained personnel only.

Foreword

EMB Manufacturing has prepared this parts manual to assist customers in ordering quality OEM replacement parts.

Regular maintenance, and replacing old, worn or broken parts with the correct OEM parts, is essential in prolonging the life of your EMB product. Please refer to this manual to identify replacement parts.

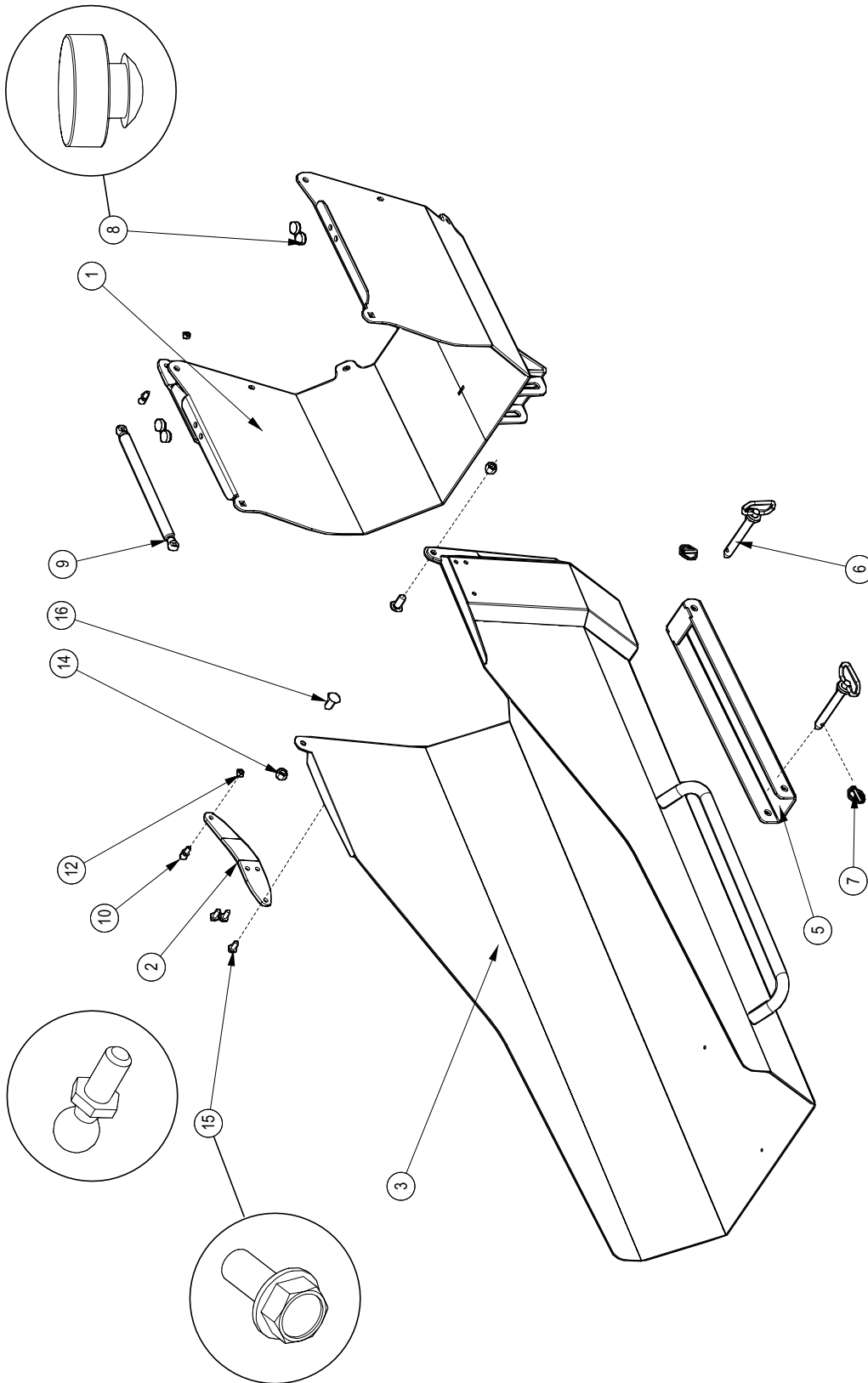
To order parts, please contact your dealer for further information. If your dealer is no longer available please go to our website: <http://www.wallensteinequipment.com> and click on the [Dealer Locator](#) to find the nearest dealer.

All information contained in this parts manual is current as per the revision date at the bottom of the page. EMB reserves the right to change product specifications at any time without notice.

If your product specifications differ from those contained in this manual, contact EMB Manufacturing for information.

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Splitter Chute Assembly



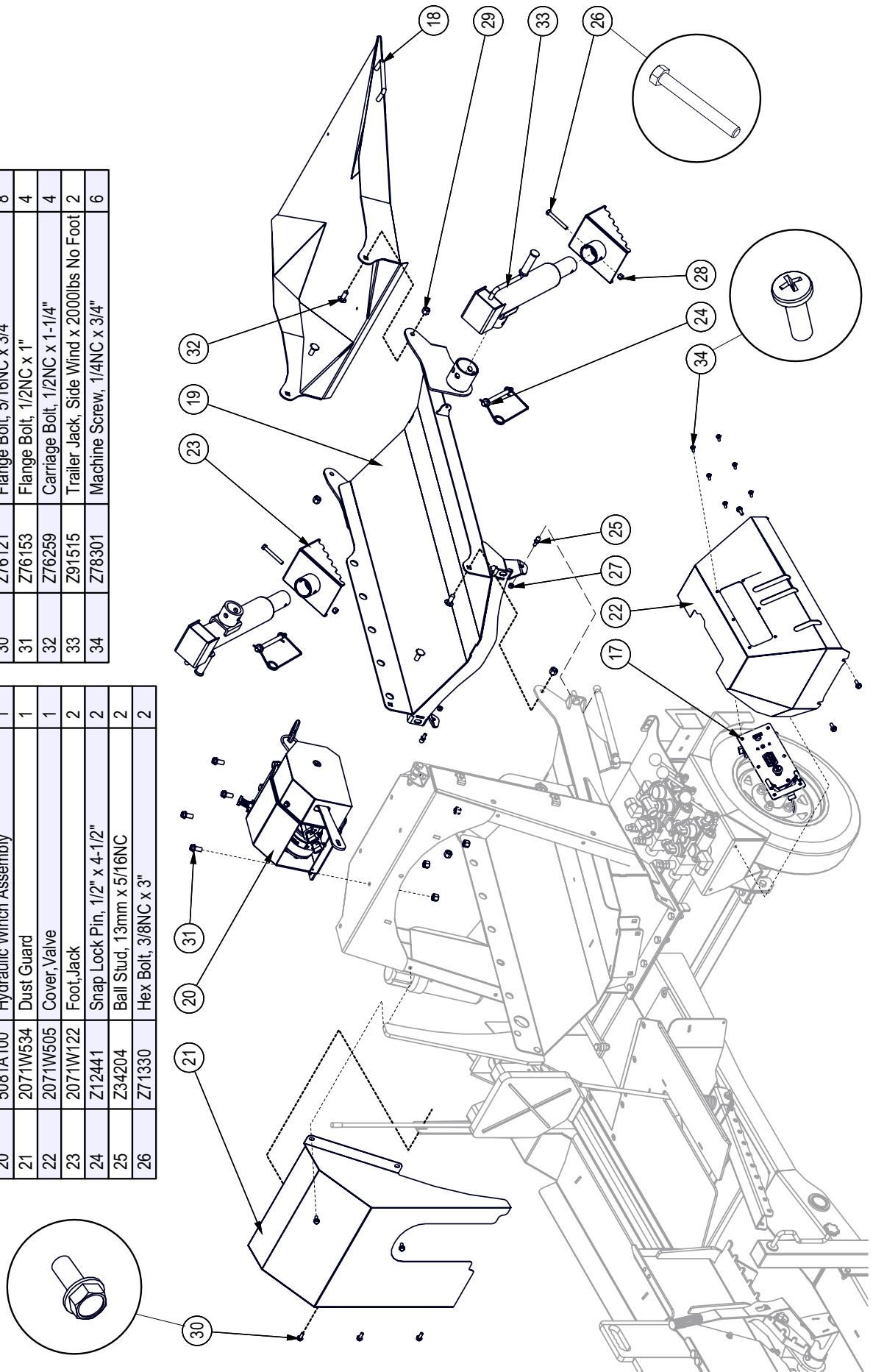
Item	Part Number	Description	Qty
9	Z34203	Gas Spring, 10mm x 8.44 Stroke	1
10	Z34204	Ball Stud 13mm x 5/16	2
12	Z72221	Hex Lock Nut, 5/16NC	2
14	Z72251	Hex Lock Nut, 1/2NC	2
15	Z76121	Flange Bolt, 5/16NC x 3/4	3
16	Z76259	Carriage Bolt, 1/2NC x 1-1/4	2

Item	Part Number	Description	Qty
1	2019W993	Chute, Extension	1
2	2071L188	Plate, Spring Mount	1
3	2071W104	Splitter Chute	1
5	2071W114	Chute Adjuster	1
6	Z11232	Hitch Pin 5/8 x 4-1/4	2
7	Z12110	Latch Pin 3/16	2
8	Z19909	Rubber Bumper 7/16 x 1	4

Lead In Chute Assembly

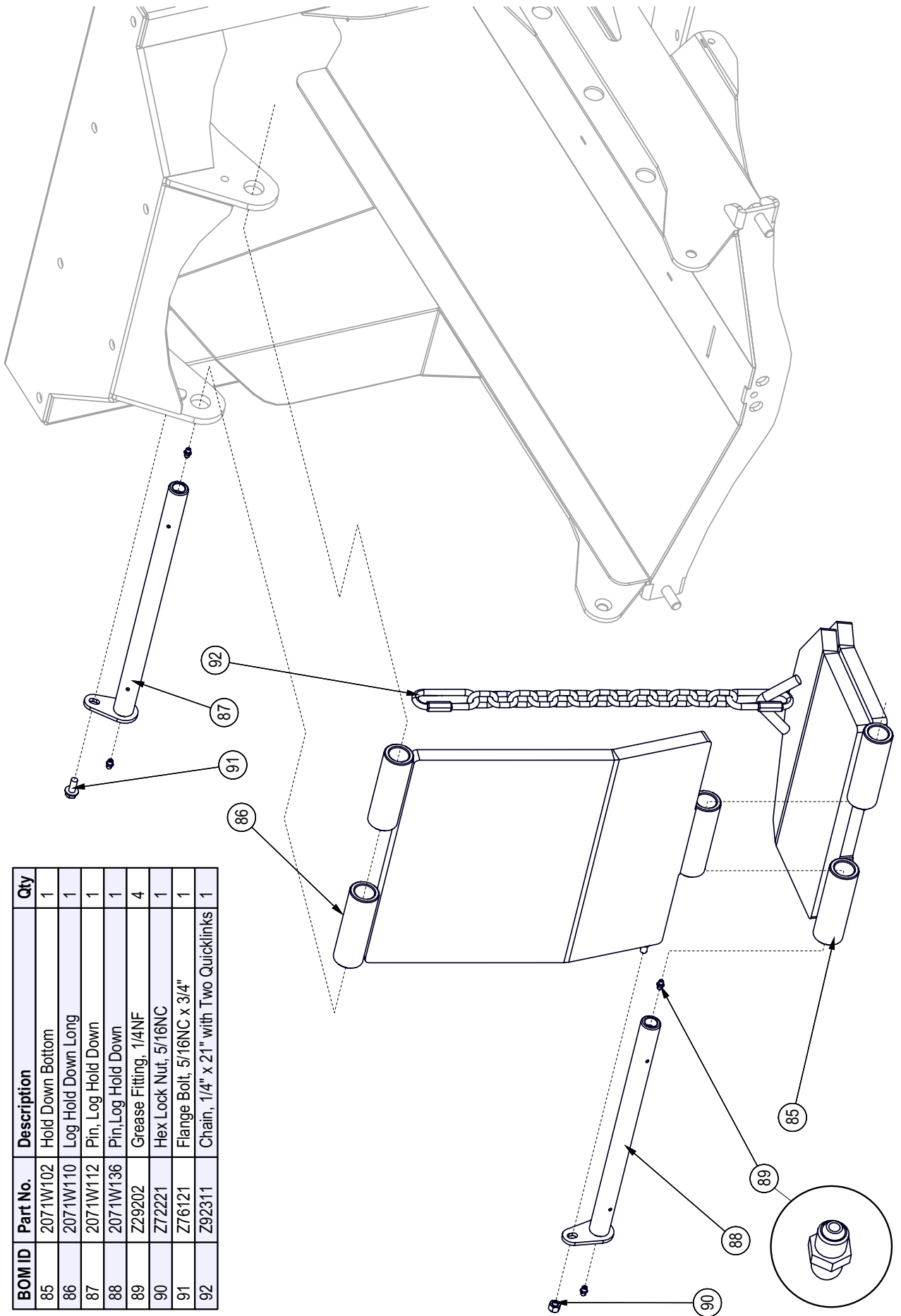
BOM ID	Part No.	Description	Qty
17	2071W507	Remote Start Panel	1
18	2071W101	Chute, Lead In	1
19	2071W118	Chute, Bottom	1
20	5081A100	Hydraulic Winch Assembly	1
21	2071W534	Dust Guard	1
22	2071W505	Cover, Valve	1
23	2071W122	Foot, Jack	2
24	Z12441	Snap Lock Pin, 1/2" x 4-1/2"	2
25	Z34204	Ball Stud, 13mm x 5/16NC	2
26	Z71330	Hex Bolt, 3/8NC x 3"	2

BOM ID	Part No.	Description	Qty
27	Z72221	Hex Lock Nut, 5/16NC	2
28	Z72231	Hex Lock Nut, 3/8NC	2
29	Z72251	Hex Lock Nut, 1/2NC	8
30	Z76121	Flange Bolt, 5/16NC x 3/4"	8
31	Z76153	Flange Bolt, 1/2NC x 1"	4
32	Z76259	Carriage Bolt, 1/2NC x 1-1/4"	4
33	Z91515	Trailer Jack, Side Wind x 2000lbs No Foot	2
34	Z78301	Machine Screw, 1/4NC x 3/4"	6

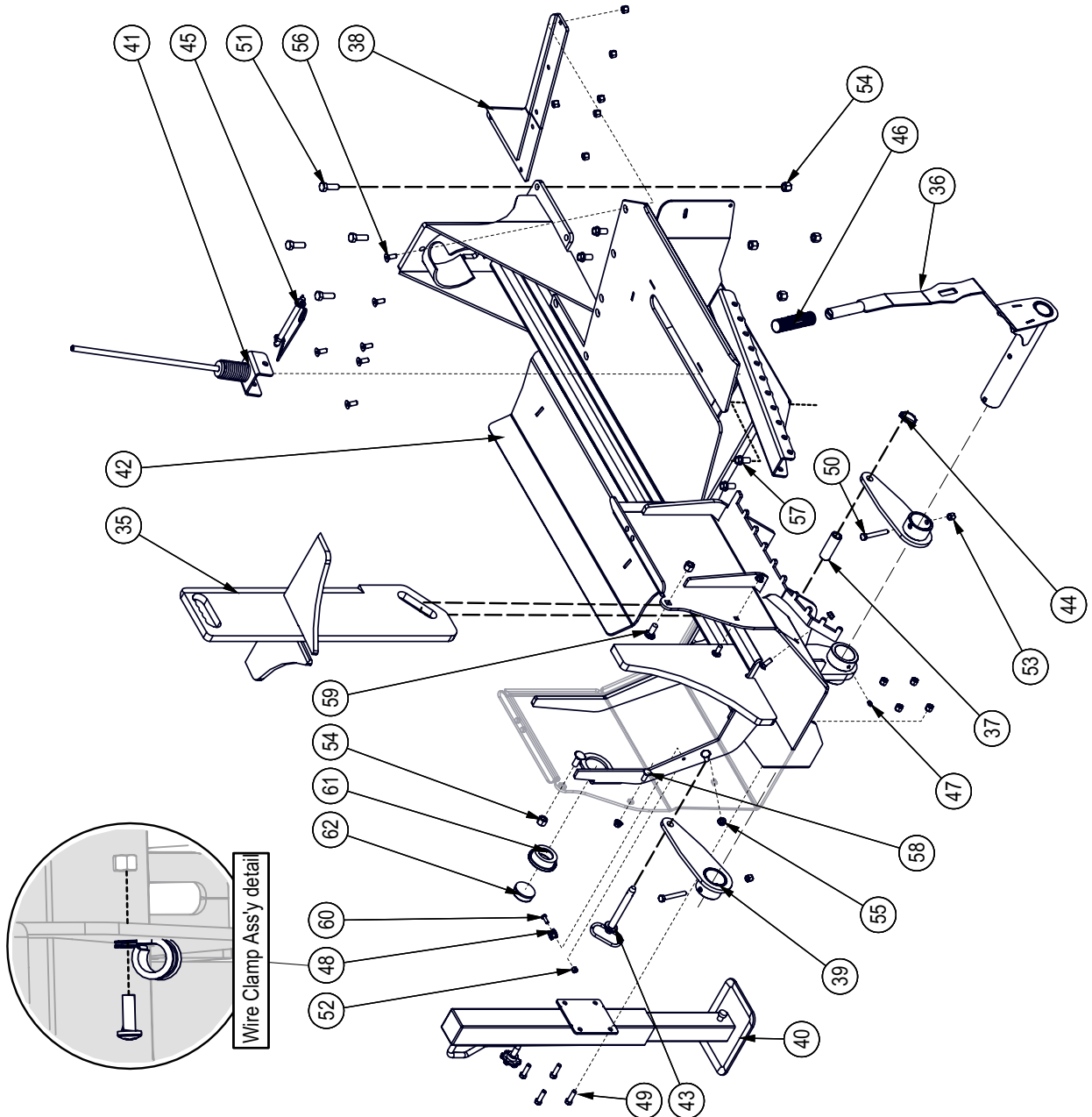


Log Hold Down Assembly

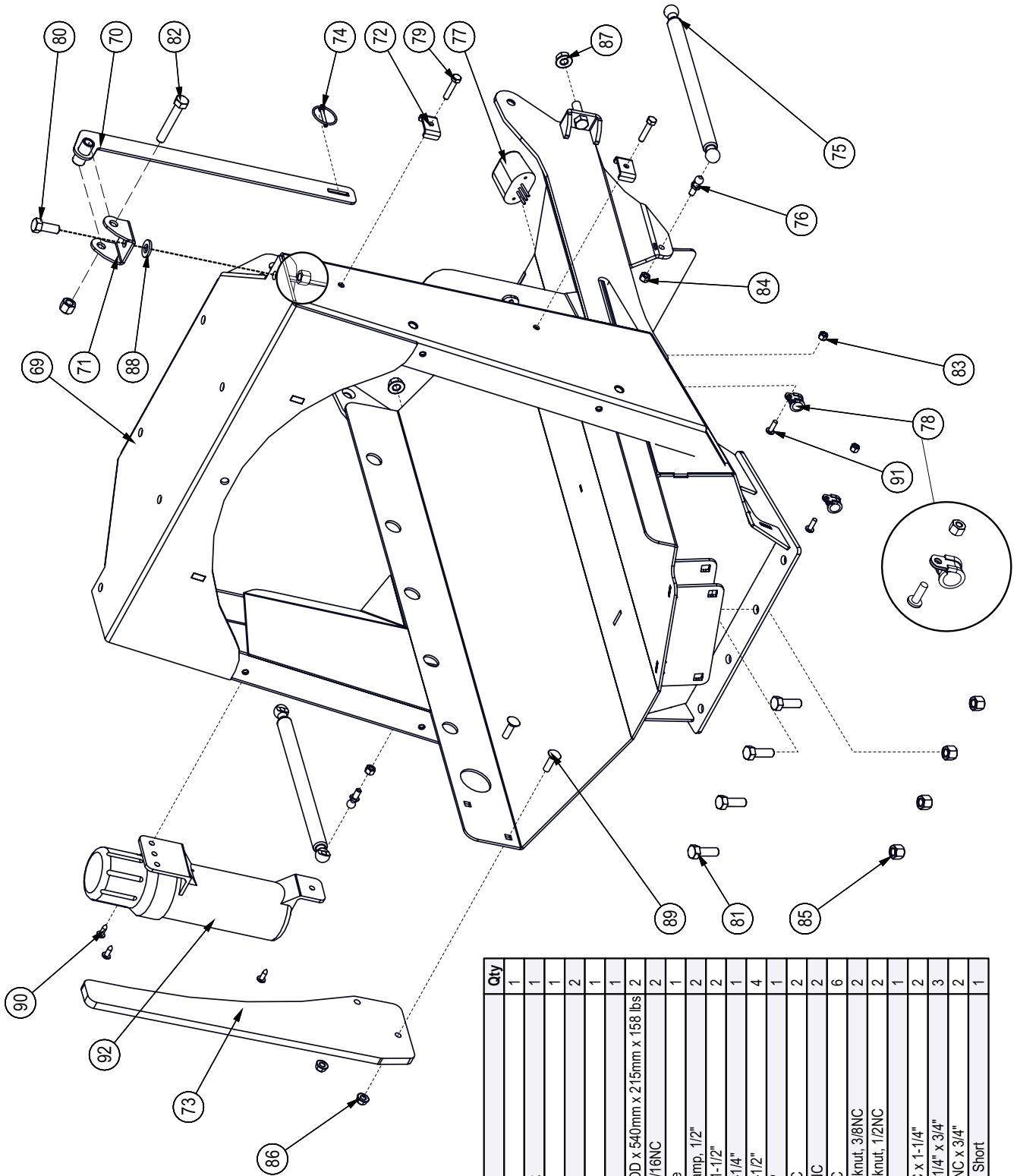
BOM ID	Part No.	Description	Qty
85	2071W102	Hold Down Bottom	1
86	2071W110	Log Hold Down Long	1
87	2071W112	Pin, Log Hold Down	1
88	2071W136	Pin, Log Hold Down	1
89	Z29202	Grease Fitting, 1/4NF	4
90	Z72221	Hex Lock Nut, 5/16NC	1
91	Z76121	Flange Bolt, 5/16NC x 3/4"	1
92	Z92311	Chain, 1/4" x 21" with Two Quicklinks	1



Splitter Cradle Assembly



BOM ID	Part No.	Description	Qty
35	2071W532	Wedge 4 Way	1
36	2071W533	Wedge Position Handle	1
37	2071M123	Roller Wedge Lift	1
38	2071S126	Edge, Log Table	1
39	2071W111	Arm Wedge Lifter	2
40	2071W116	Drop Leg Jack Assembly	1
41	2071W190	Log Stop Whip	1
42	2072W609	Splitter	1
43	Z11232	Hitch Pin, 5/8" x 4-1/4"	1
44	Z12110	Lynch Pin, 3/16"	1
45	Z12441	Snap Lock Pin, 1/2" x 4-1/2"	1
46	Z19321	Handle Grip, 1"	1
47	Z29202	Grease Fitting, 1/4NF	1
48	Z62819	Rubberized Wire Clamp, 1/2"	1
49	Z71312	Hex Bolt, 3/8NC x 1-1/4"	4
50	Z71330	Hex Bolt, 3/8NC x 3"	2
51	Z71515	Hex Bolt, 1/2NC x 1-1/2"	4
52	Z72211	Hex Lock Nut, 1/4NC	1
53	Z72231	Hex Lock Nut, 3/8NC	12
54	Z72251	Hex Lock Nut, 1/2NC	6
55	Z72531	Serrated Flange Locknut, 3/8NC	4
56	Z75233	FHCS, 3/8NC x 1"	6
57	Z76153	Flange Bolt, 1/2NC x 1"	4
58	Z76231	Carriage Bolt, 3/8NC x 1"	4
59	Z76259	Carriage Bolt, 1/2NC x 1-1/4"	2
60	Z78301	Machine Screw, 1/4NC x 3/4"	1
61	Z61202	Grommet, Round x Open Back	1
62	Z61205	Marker Lamp, Round x Amber	1

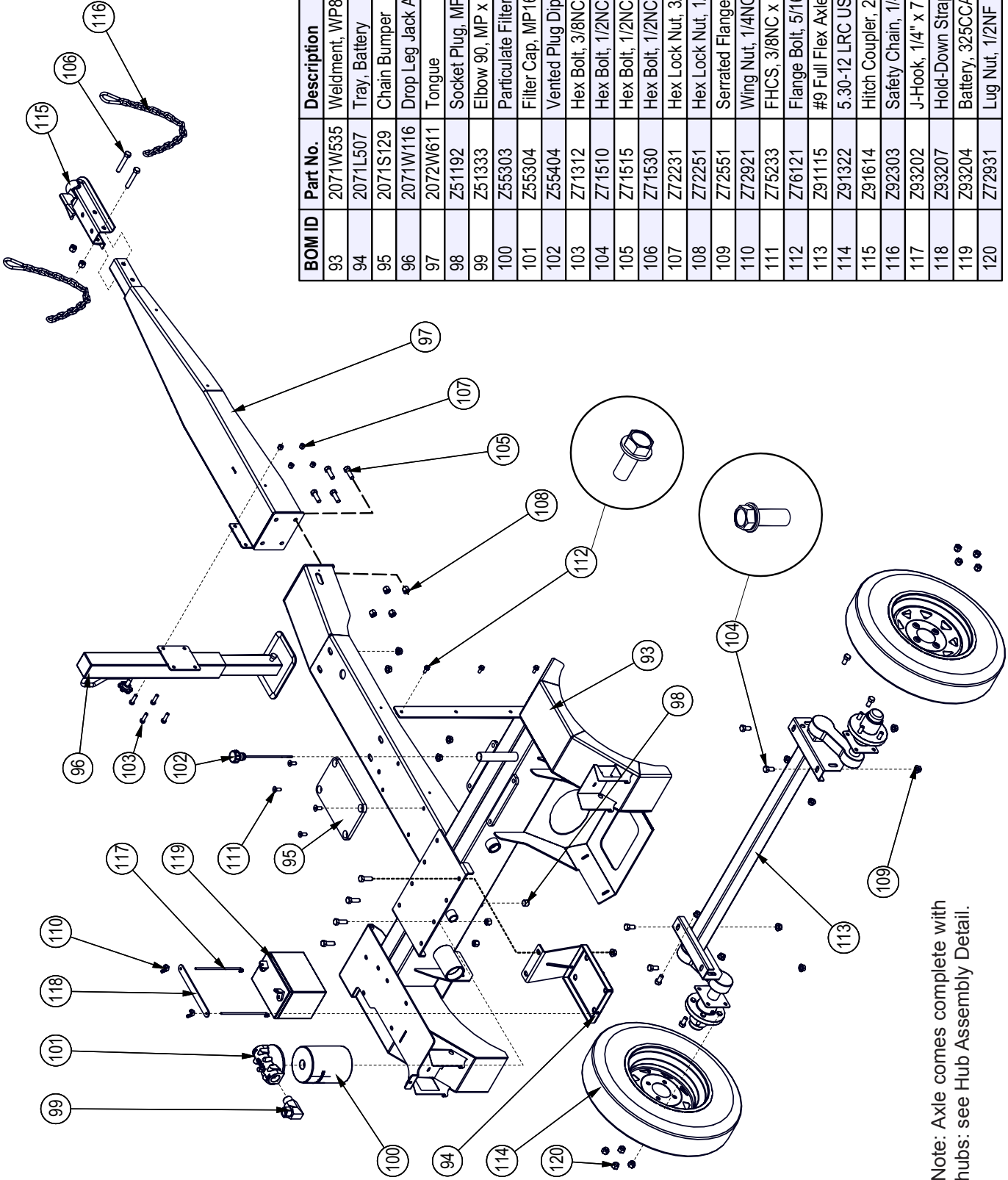


Log Chute Assembly

BOM ID	Part No.	Description	Qty
69	2071W115	Chute, Log	1
70	2071W121	Arm, Log Chute Lock	1
71	2071L123	Clevis, Latch Mount	1
72	2071L504	Hose Clamp, 2x 1/4	2
73	2071S506	Saw Guide	1
74	Z12110	Lynch Pin, 3/16"	1
75	Z34203	Gas Spring, .10mm OD x 540mm x 215mm x 158 lbs	2
76	Z34204	Ball Stud, .13mm x 5/16NC	2
77	Z61301	License Lamp, White	1
78	Z62819	Rubberized Wire Clamp, 1/2"	2
79	Z71215	Hex Bolt, 5/16NC x 1-1/2"	2
80	Z71512	Hex Bolt, 1/2NC x 1-1/4"	1
81	Z71515	Hex Bolt, 1/2NC x 1-1/2"	4
82	Z71530	Hex Bolt, 1/2NC x 3"	1
83	Z72211	Hex Lock Nut, 1/4NC	2
84	Z72221	Hex Lock Nut, 5/16NC	2
85	Z72251	Hex Lock Nut, 1/2NC	6
86	Z72531	Serrated Flange Locknut, 3/8NC	2
87	Z72551	Serrated Flange Locknut, 1/2NC	2
88	Z73151	SAE Washer, 1/2"	1
89	Z76232	Carriage Bolt, 3/8NC x 1-1/4"	2
90	Z716721	Self-tapping Screw, 1/4" x 3/4"	3
91	Z718301	Machine Screw, 1/4NC x 3/4"	2
92	Z96503	Manual Tube, 3-1/2" Short	1

ECN0381

BOM ID	Part No.	Description	Qty
93	2071W535	Weldment, WP830 Tank Base	1
94	2071L507	Tray, Battery	1
95	2071S129	Chain Bumper	1
96	2071W116	Drop Leg Jack Assembly	1
97	2072W611	Tongue	1
98	Z51192	Socket Plug, MP 08	1
99	Z51333	Elbow 90, MP x FFX 1612	1
100	Z55303	Particulate Filter, FP16	1
101	Z55304	Filter Cap, MP16 x FP16	1
102	Z55404	Vented Plug Dipstick x 9"	1
103	Z71312	Hex Bolt, 3/8NC x 1-1/4"	4
104	Z71510	Hex Bolt, 1/2NC x 1"	8
105	Z71515	Hex Bolt, 1/2NC x 1-1/2"	8
106	Z71530	Hex Bolt, 1/2NC x 3"	2
107	Z72231	Hex Lock Nut, 3/8NC	4
108	Z72251	Hex Lock Nut, 1/2NC	8
109	Z72551	Serrated Flange Locknut, 1/2NC	14
110	Z72921	Wing Nut, 1/4NC	2
111	Z75233	FHCS, 3/8NC x 1"	4
112	Z76121	Flange Bolt, 5/16NC x 3/4"	3
113	Z91115	#9 Full Flex Axle, 2200lbs x 54" HF	1
114	Z91322	5.30-12 LRC USA Trail 4on4" (E-Marked)	2
115	Z91614	Hitch Coupler, 2" Ball x 2" x 3500lbs	1
116	Z92303	Safety Chain, 1/4" x 2ft with Snap	2
117	Z93202	J-Hook, 1/4" x 7"	2
118	Z93207	Hold-Down Strap, 1" x 8-1/2"	1
119	Z93204	Battery, 325CCA	1
120	Z72931	Lug Nut, 1/2NF	8



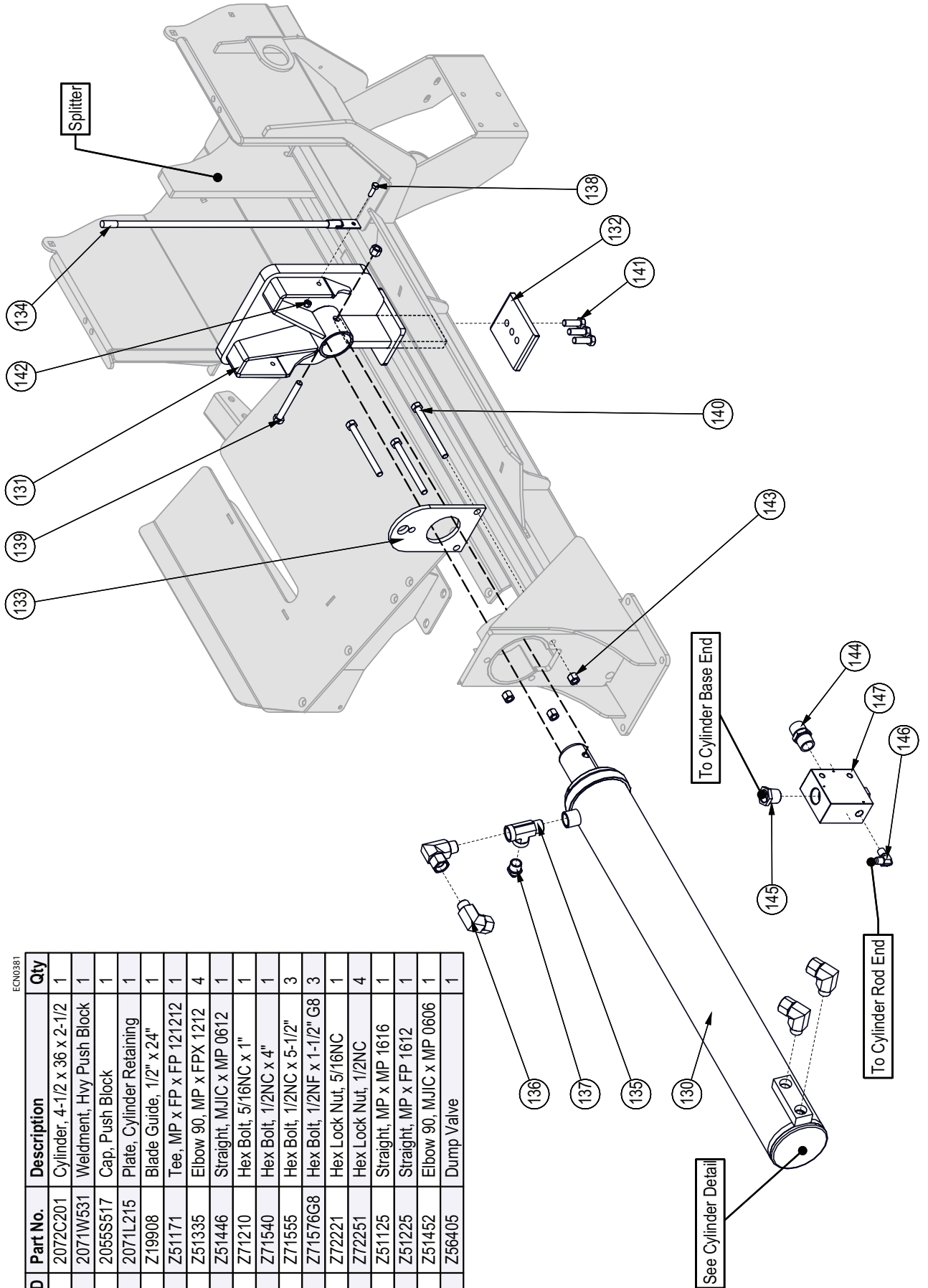
Running Gear

Note: Axle comes complete with hubs: see Hub Assembly Detail.

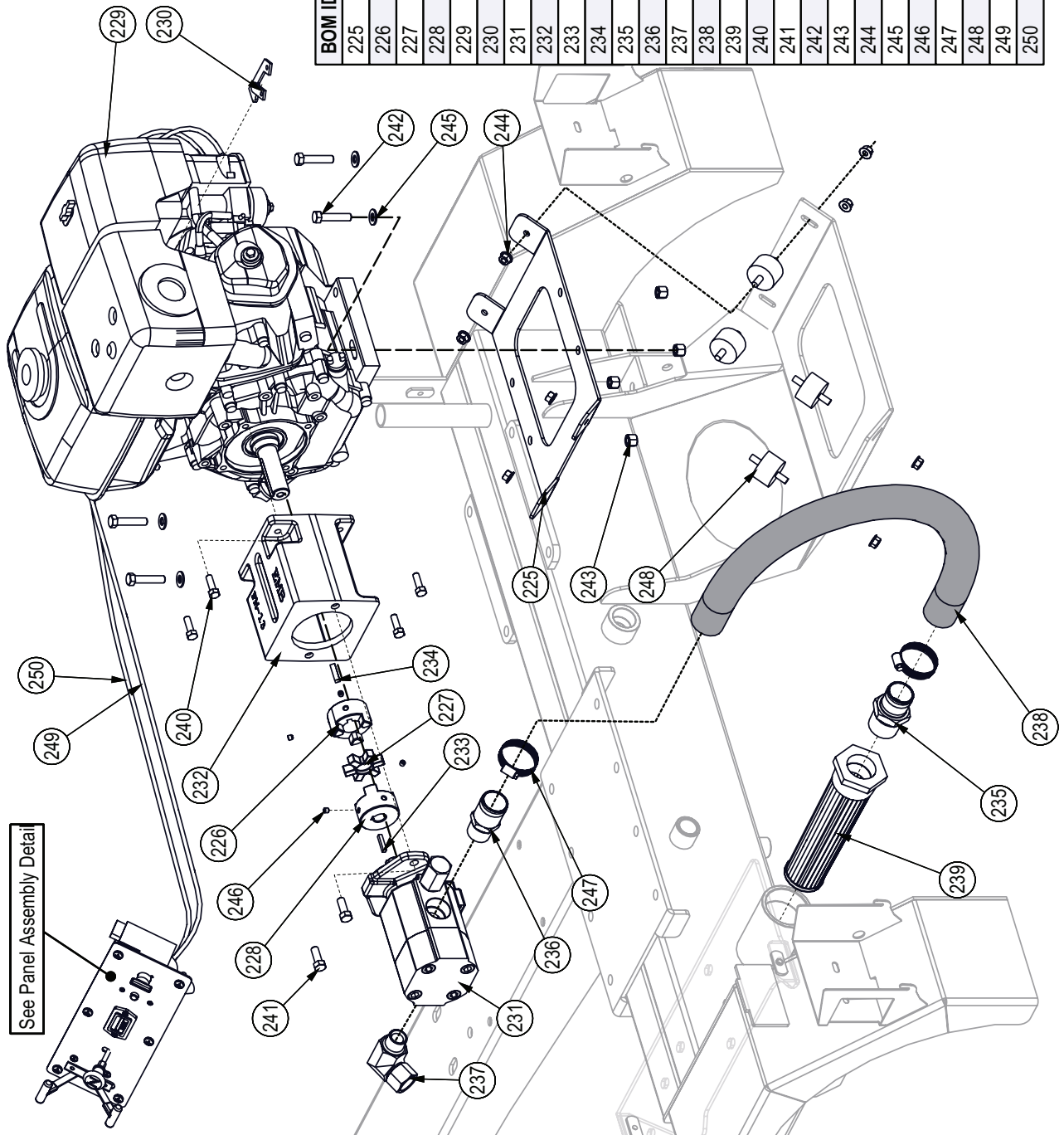
Hydraulic Splitter Assembly

ECN0381

BOM ID	Part No.	Description	Qty
130	2072C201	Cylinder, 4-1/2 x 36 x 2-1/2	1
131	2071W631	Weldment, Hvy Push Block	1
132	2055S517	Cap, Push Block	1
133	2071L215	Plate, Cylinder Retaining	1
134	Z19908	Blade Guide, 1/2" x 24"	1
135	Z51171	Tee, MP x FP x FP 121212	1
136	Z51335	Elbow 90, MP x FPX 1212	4
137	Z51446	Straight, MJIC x MP 0612	1
138	Z71210	Hex Bolt, 5/16NC x 1"	1
139	Z71540	Hex Bolt, 1/2NC x 4"	1
140	Z71555	Hex Bolt, 1/2NC x 5-1/2"	3
141	Z71576G8	Hex Bolt, 1/2NF x 1-1/2" G8	3
142	Z72221	Hex Lock Nut, 5/16NC	1
143	Z72251	Hex Lock Nut, 1/2NC	4
144	Z51125	Straight, MP x MP 1616	1
145	Z51225	Straight, MP x FP 1612	1
146	Z51452	Elbow 90, MJIC x MP 0606	1
147	Z56405	Dump Valve	1

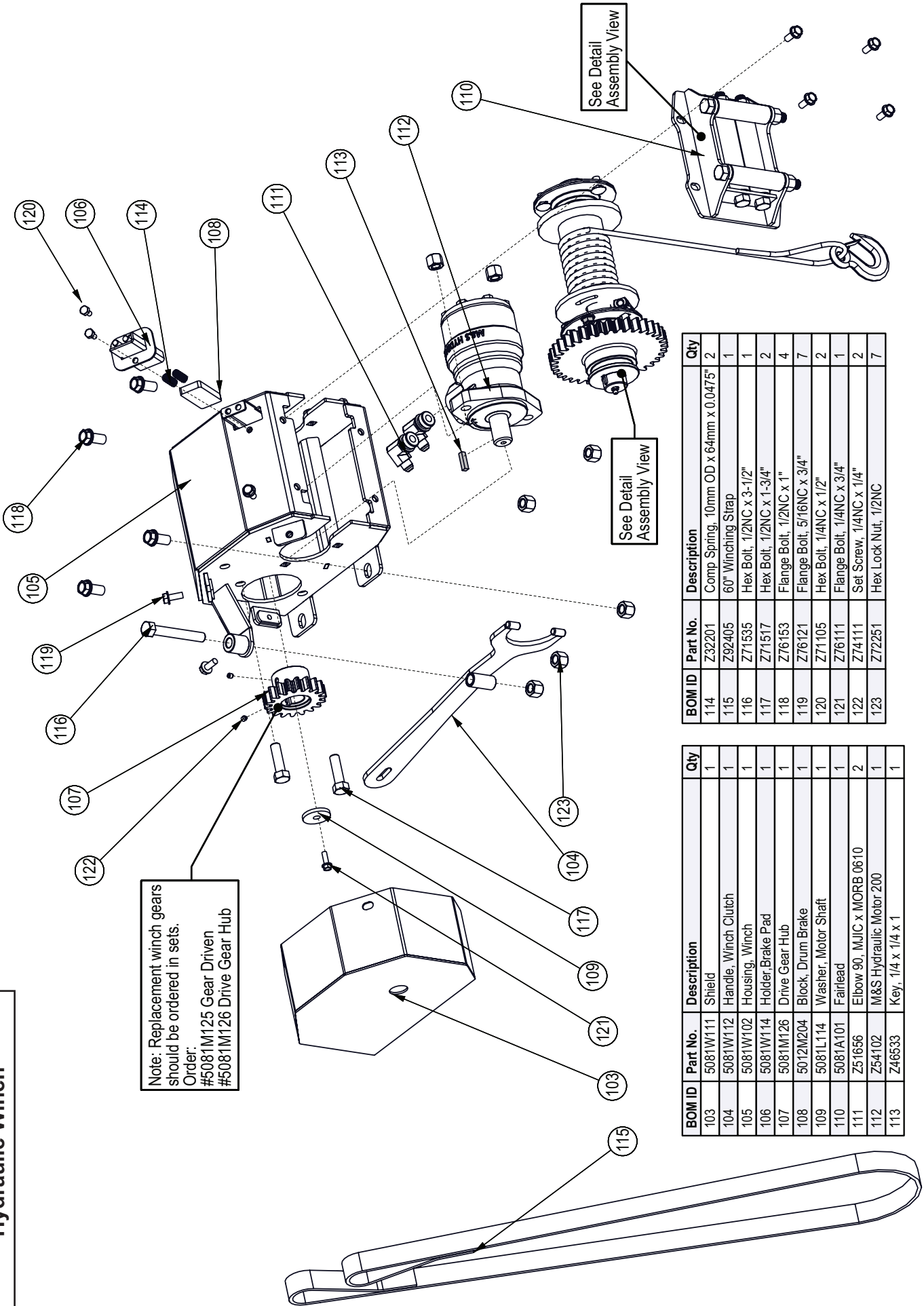


BOM ID	Part No.	Description	Qty
225	2251L019	Plate, Engine Mount	1
226	Z46404	Shaft Coupling, L095 x 1"	1
227	Z46405	Spider, L095	1
228	Z46419	Shaft Coupling, L095 x 5/8"	1
229	Z47147	Honda GX390UXE6, Electric	1
230	Z47914	Kit, Remote Choke	1
231	Z53206	Two-Stage Pump, 22GPM	1
232	Z53808	Pump Mount, PM-13	1
233	Z46522	Key, 3/16" x 3/16" x 1"	1
234	Z46533	Key, 1/4" x 1/4" x 1"	1
235	Z51185	Straight, MHB x MP 2020	1
236	Z51186	Straight, MHB x MP 2016	1
237	Z51335	Elbow 90, MP x FPX 1212	1
238	Z52408	Suction Hose, 1-1/4" x 30"	1
239	Z55102	Suction Strainer, MP32	1
240	Z71274	Hex Bolt, 5/16NF x 1"	4
241	Z71310	Hex Bolt, 3/8NC x 1"	2
242	Z71317	Hex Bolt, 3/8NC x 1-3/4"	4
243	Z72231	Hex Lock Nut, 3/8NC	4
244	Z72521	Serrated Flange Locknut, 5/16NC	8
245	Z73131	SAE Washer, 3/8"	4
246	Z74111	Set Screw, 1/4NC x 1/4"	4
247	Z79404	Hose Clamp, SAE #24 (2")	2
248	Z79933	Isolator, 1-9/16" Dia x 1" x 5/16NC	4
249	Z92115	Remote Choke Cable 68"	1
250	Z92116	Remote Throttle Cable 66"	1



Engine & Pump Assembly

Hydraulic Winch

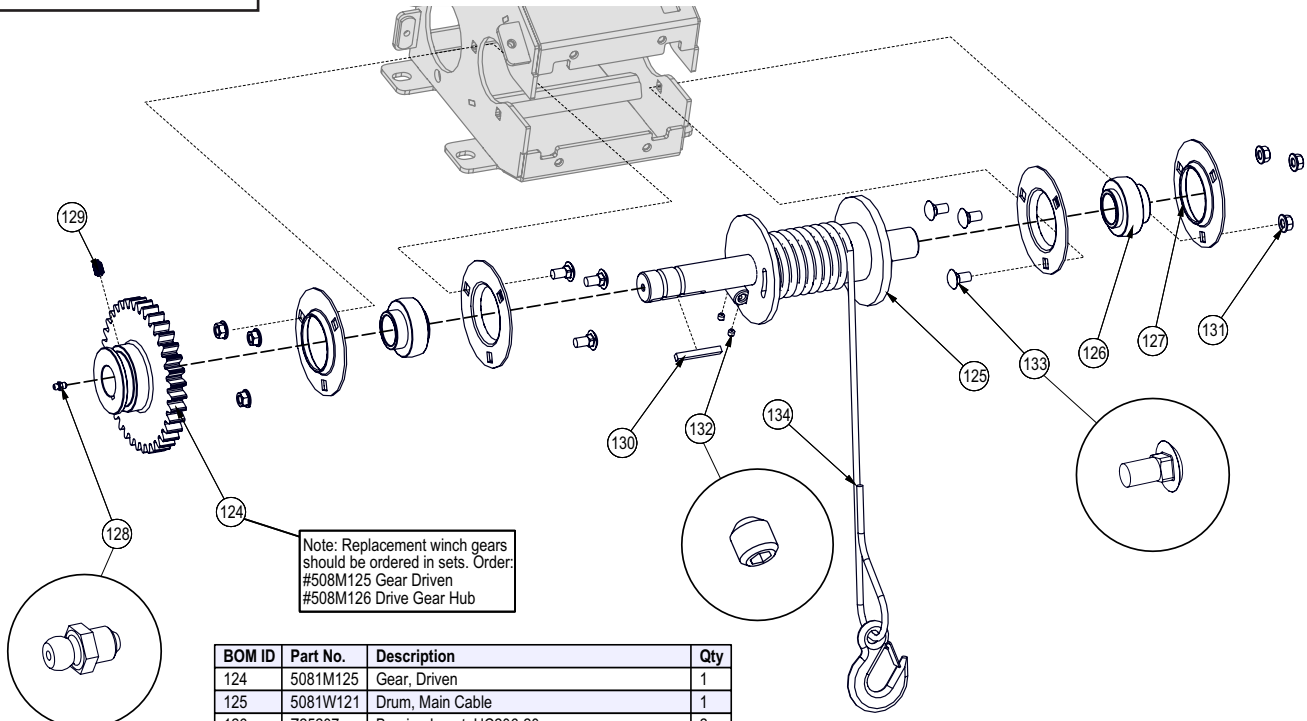


Note: Replacement winch gears should be ordered in sets.
 Order:
 #5081M125 Gear Driven
 #5081M126 Drive Gear Hub

BOM ID	Part No.	Description	Qty
114	Z32201	Comp Spring, 10mm OD x 64mm x 0.0475"	2
115	Z92405	60" Winching Strap	1
116	Z71535	Hex Bolt, 1/2NC x 3-1/2"	1
117	Z71517	Hex Bolt, 1/2NC x 1-3/4"	2
118	Z76153	Flange Bolt, 1/2NC x 1"	4
119	Z76121	Flange Bolt, 5/16NC x 3/4"	7
120	Z71105	Hex Bolt, 1/4NC x 1/2"	2
121	Z76111	Flange Bolt, 1/4NC x 3/4"	1
122	Z74111	Set Screw, 1/4NC x 1/4"	2
123	Z72251	Hex Lock Nut, 1/2NC	7

BOM ID	Part No.	Description	Qty
103	5081W111	Shield	1
104	5081W112	Handle, Winch Clutch	1
105	5081W102	Housing, Winch	1
106	5081W114	Holder, Brake Pad	1
107	5081M126	Drive Gear Hub	1
108	5012M204	Block, Drum Brake	1
109	5081L114	Washer, Motor Shaft	1
110	5081A101	Fairlead	1
111	Z51656	Elbow 90, MJIC x MORB 0610	2
112	Z54102	M&S Hydraulic Motor 200	1
113	Z46533	Key, 1/4 x 1/4 x 1	1

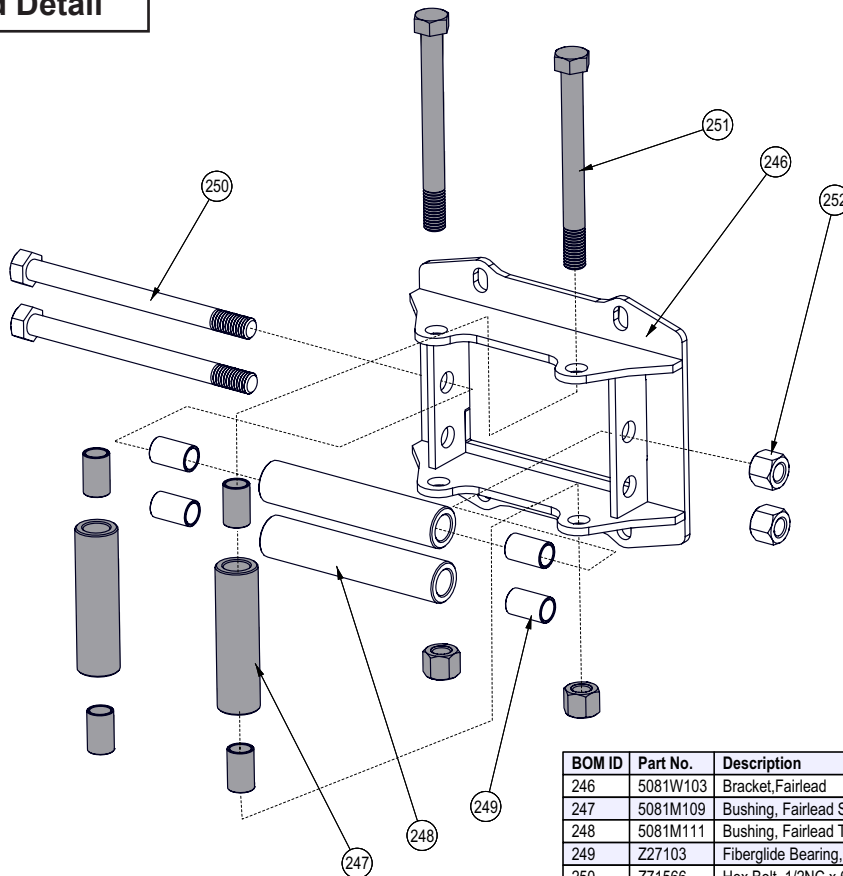
Winch Drum Detail



Note: Replacement winch gears should be ordered in sets. Order:
#508M125 Gear Driven
#508M126 Drive Gear Hub

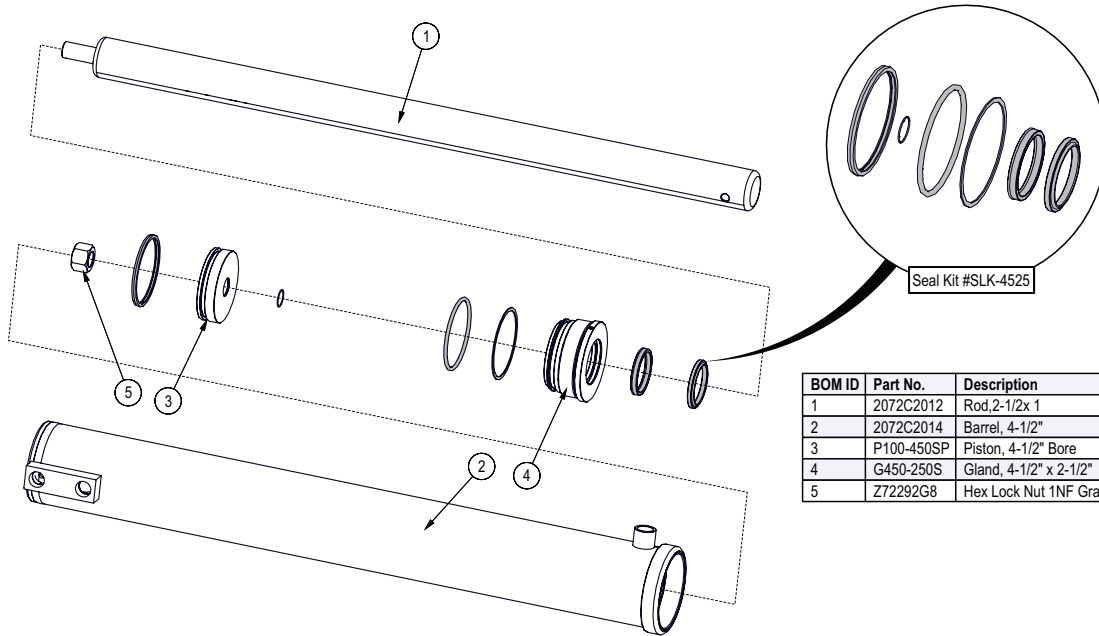
BOM ID	Part No.	Description	Qty
124	5081M125	Gear, Driven	1
125	5081W121	Drum, Main Cable	1
126	Z25207	Bearing Insert, UC206-20	2
127	Z25301	3-Bolt Flange Bearing, PF206 x Flange Only	4
128	Z29202	Grease Fitting, 1/4NF	1
129	Z34302	Spring Plunger, 3/8NC x 5/8" x 21 lbs	1
130	Z46531	Key, 1/4" x 1/4" x 2"	1
131	Z72531	Serrated Flange Locknut, 3/8NC	6
132	Z74111	Set Screw, 1/4NC x 1/4"	2
133	Z76233	Carriage Bolt, 3/8NC x 3/4"	6
134	Z92112	Synthetic Winch Rope, 1/4 x 50ft with Grab Hook	1

Winch Fairlead Detail



BOM ID	Part No.	Description	Qty
246	5081W103	Bracket, Fairlead	1
247	5081M109	Bushing, Fairlead Side	2
248	5081M111	Bushing, Fairlead Top	2
249	Z27103	Fiberglide Bearing, 1/2" ID x 1" long x 1/16" wall	8
250	Z71566	Hex Bolt, 1/2NC x 6-1/4" x 5-1/4" Shank	2
251	Z71567	Hex Bolt, 1/2NC x 5" x 4" Shank	2
252	Z72251	Hex Lock Nut, 1/2NC	4

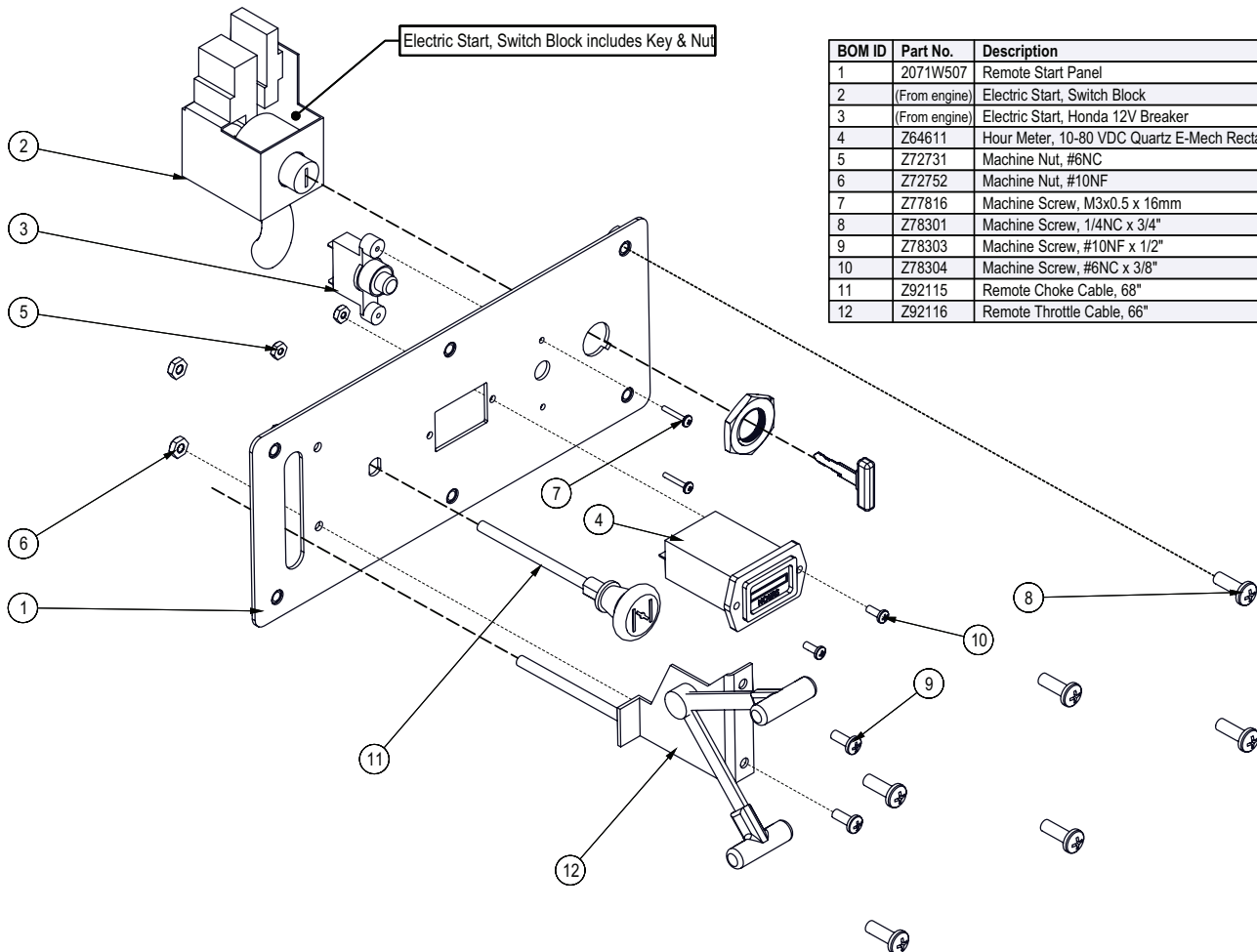
Cylinder Detail



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BOM ID	Part No.	Description	Qty
1	2072C2012	Rod, 2-1/2x 1	1
2	2072C2014	Barrel, 4-1/2"	1
3	P100-450SP	Piston, 4-1/2" Bore	1
4	G450-250S	Gland, 4-1/2" x 2-1/2"	1
5	Z72292G8	Hex Lock Nut 1NF Grade 8	1

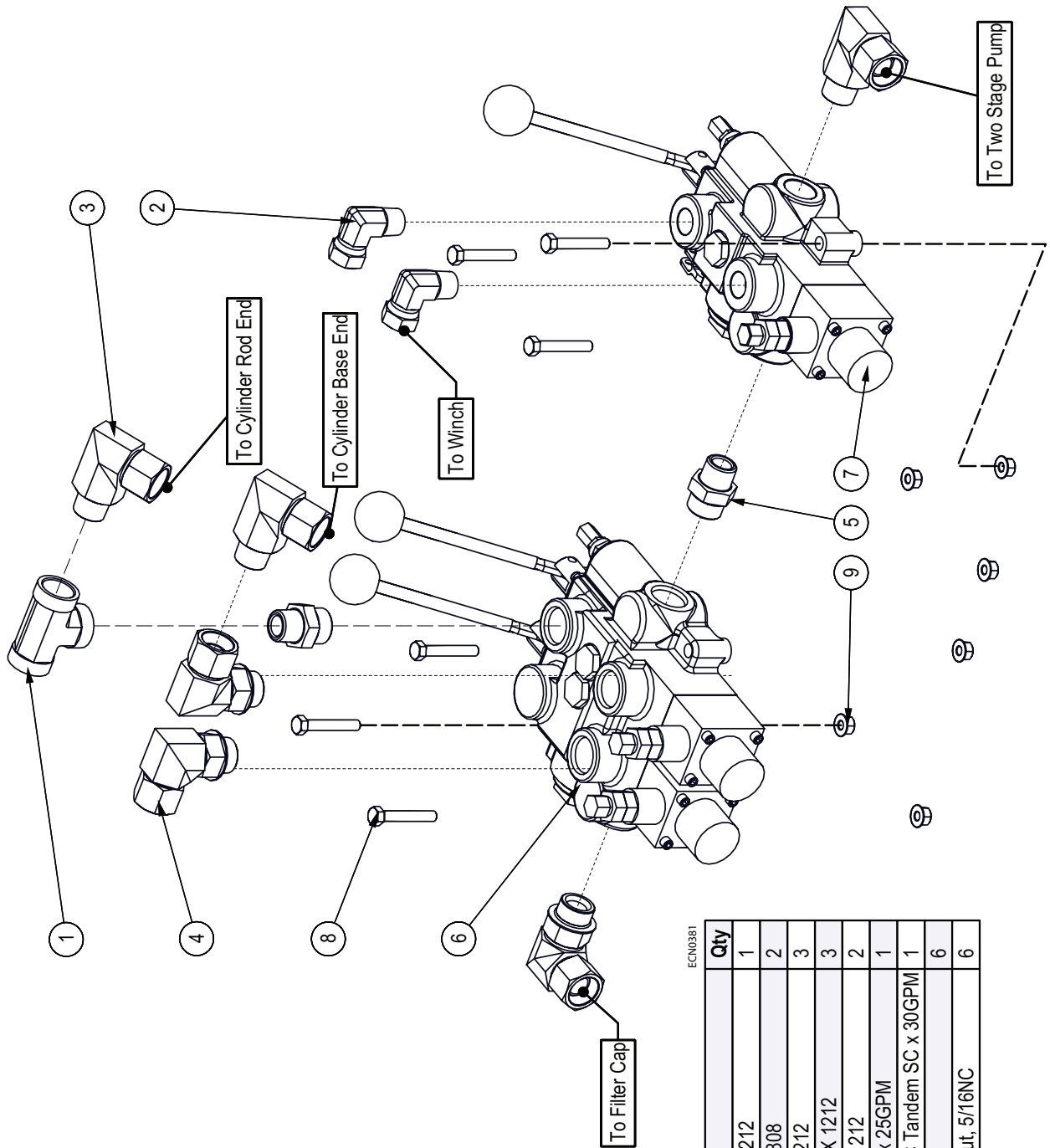
Panel Assembly Detail



ECN0381

BOM ID	Part No.	Description	Qty
1	2071W507	Remote Start Panel	1
2	(From engine)	Electric Start, Switch Block	1
3	(From engine)	Electric Start, Honda 12V Breaker	1
4	Z64611	Hour Meter, 10-80 VDC Quartz E-Mech Rectangular	1
5	Z72731	Machine Nut, #6NC	2
6	Z72752	Machine Nut, #10NF	2
7	Z77816	Machine Screw, M3x0.5 x 16mm	2
8	Z78301	Machine Screw, 1/4NC x 3/4"	6
9	Z78303	Machine Screw, #10NF x 1/2"	2
10	Z78304	Machine Screw, #6NC x 3/8"	2
11	Z92115	Remote Choke Cable, 68"	1
12	Z92116	Remote Throttle Cable, 66"	1

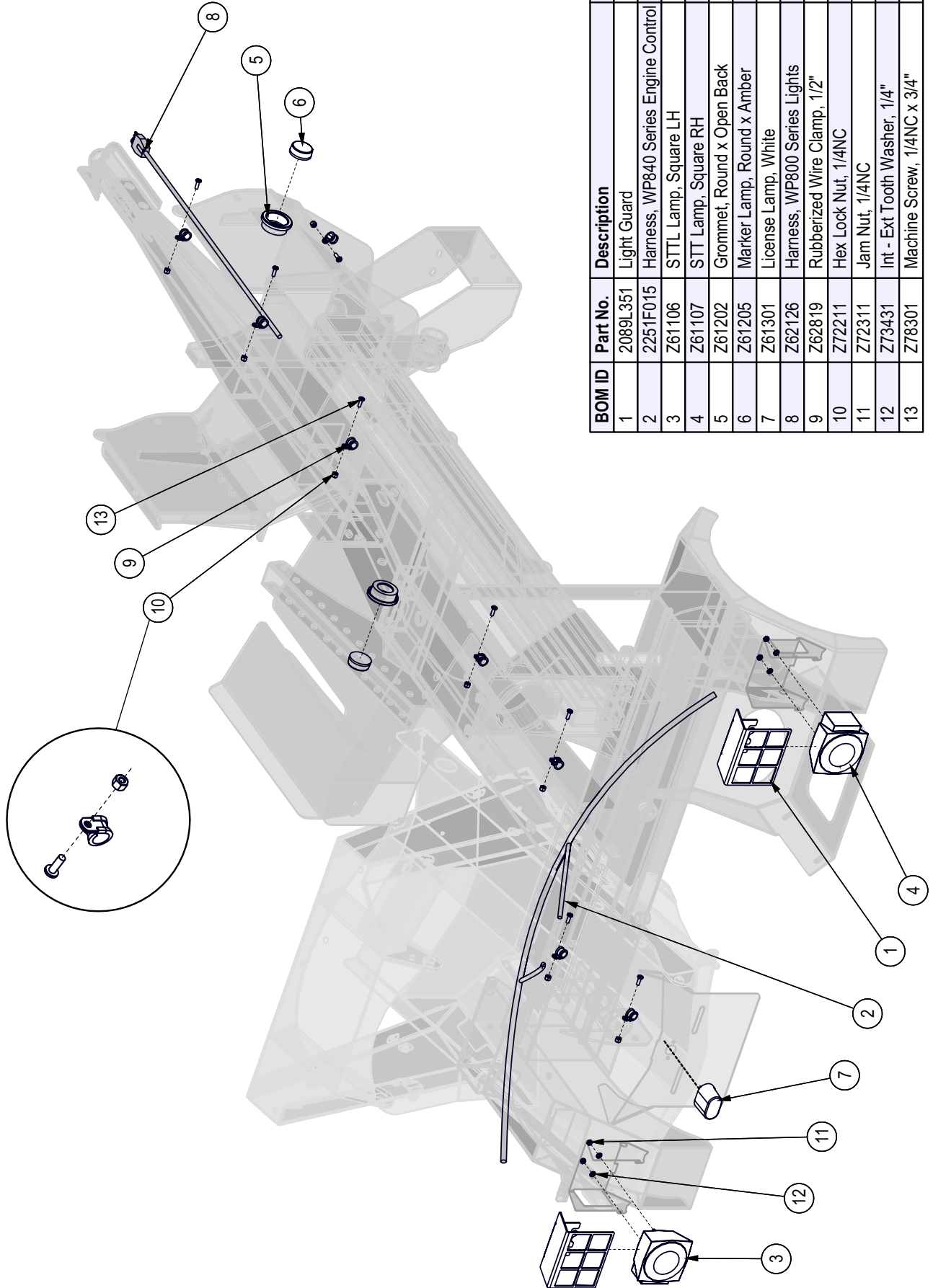
Valve Detail



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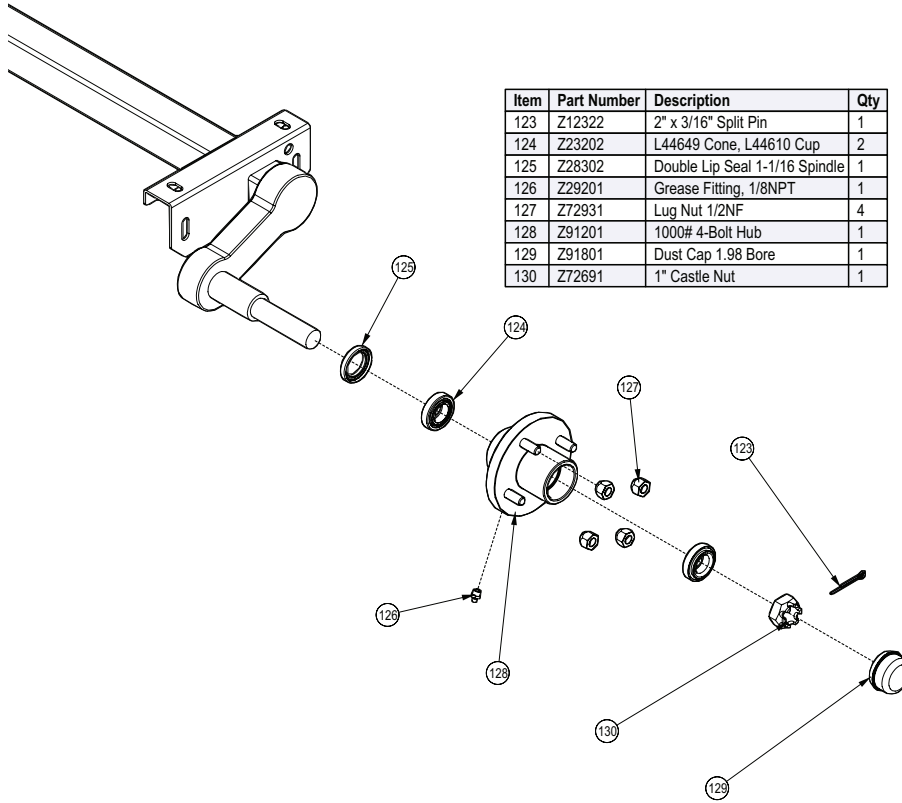
BOM ID	Part No.	Description	Qty
1	Z51293	Tee, FP x FP x FP 121212	1
2	Z51331	Elbow 90, MP x FFX 0808	2
3	Z51335	Elbow 90, MP x FFX 1212	3
4	Z51389	Elbow 90, MORB x FFX 1212	3
5	Z51613	Straight, MORB x MP 1212	2
6	Z56213	Auto-Cycle Valve, OC x 25GPM	1
7	Z56214	Single Spool Valve, VC Tandem SC x 30GPM	1
8	Z71220	Hex Bolt, 5/16NC x 2"	6
9	Z72521	Serrated Flange Locknut, 5/16NC	6

Lights and Harness Detail



BOM ID	Part No.	Description	Qty
1	2089L351	Light Guard	2
2	2251F015	Harness, WP840 Series Engine Control	1
3	Z61106	STTL Lamp, Square LH	1
4	Z61107	STT Lamp, Square RH	1
5	Z61202	Grommet, Round x Open Back	2
6	Z61205	Marker Lamp, Round x Amber	2
7	Z61301	License Lamp, White	1
8	Z62126	Harness, WP800 Series Lights	1
9	Z62819	Rubberized Wire Clamp, 1/2"	8
10	Z72211	Hex Lock Nut, 1/4NC	8
11	Z72311	Jam Nut, 1/4NC	4
12	Z73431	Int - Ext Tooth Washer, 1/4"	4
13	Z78301	Machine Screw, 1/4NC x 3/4"	8

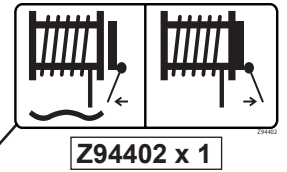
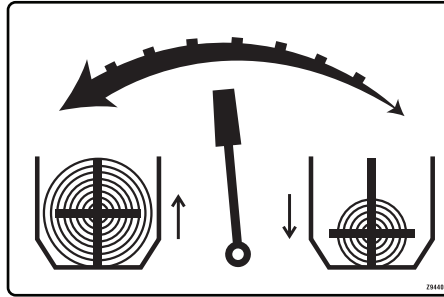
Hub Assembly Detail



Hydraulic Hose List

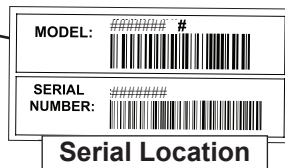
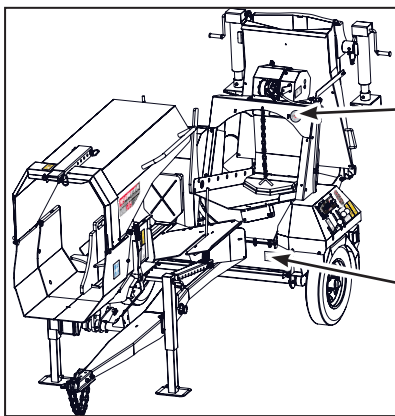
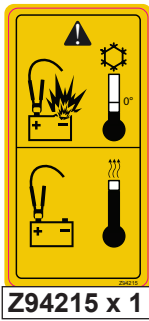
Part Number	Description	Qty.
Z52408	Suction hose, 1-1/4" x 30"	1
Z52409	3/4" Hose, MP12 x MP12 x 36	1
Z52411	3/4" Hose, MP12 x MP12 x 14	1
Z52123	1/4" Hose, FJIC06 x NP08 x 45	2
Z52413	3/4" Hose, MP12 x MP12 x 18	1
2071F501	3/4" Hose, MP08 x MP08 x 40.5	1
2071F502	3/4" Hose, MP08 x MP08 x 54	1
2071F503	3/4" Hose, MP08 x MP08 x 28	1
2071F504	1/4" Hose, FJIC06 x 90FJI06 x 25	1

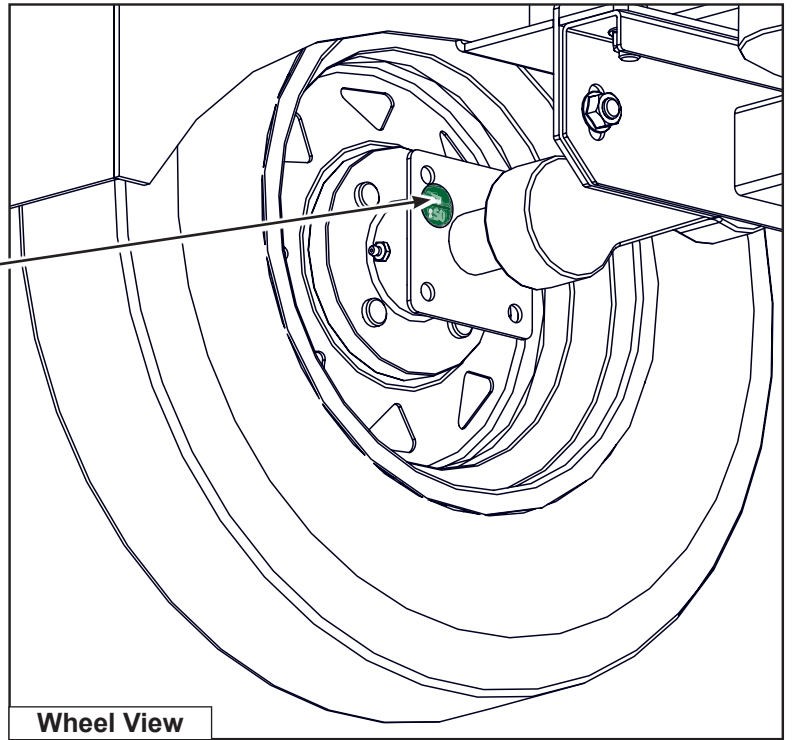
Label Layout



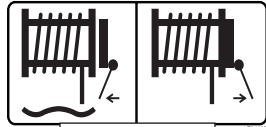
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See Control Panel Layout on Page 21





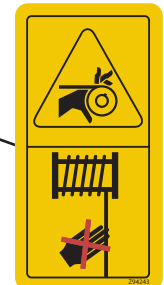
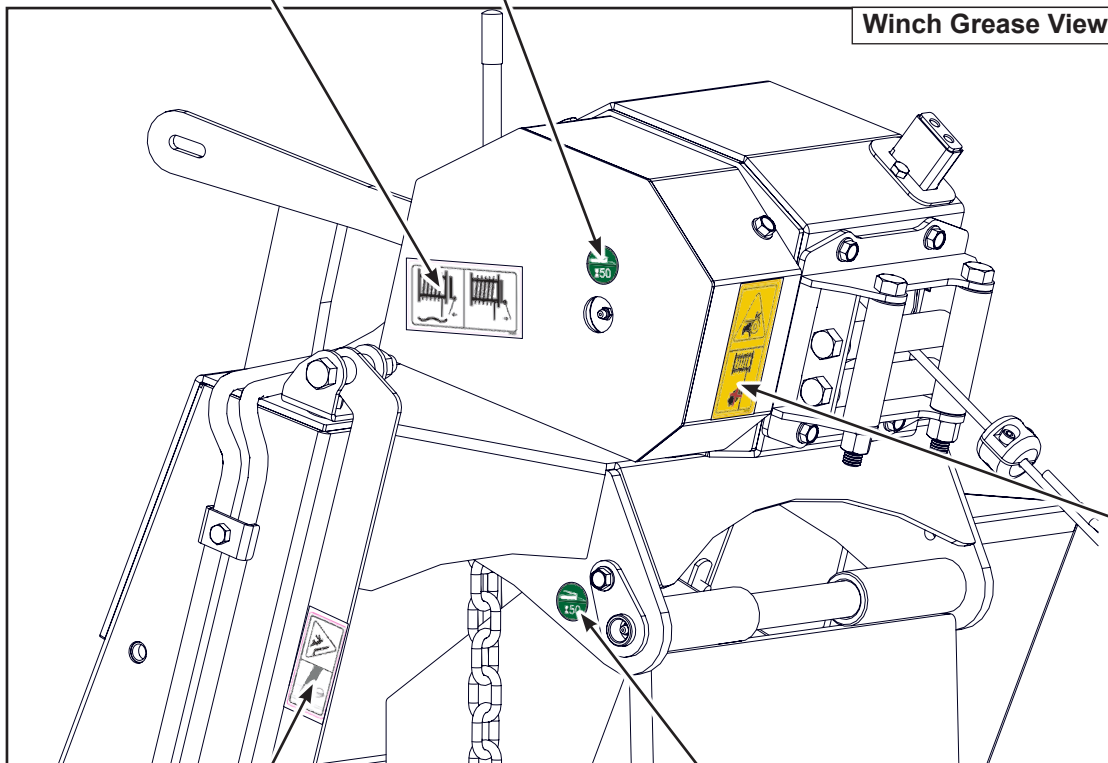
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1 on each side



Z94402 x 1



Z94426 x 1



Z94243 x 1

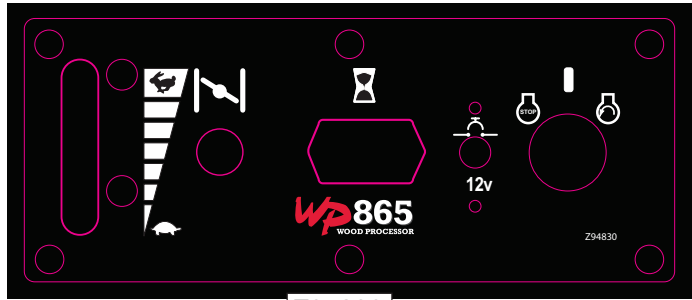


Z94403 x 1



Z94426 x 2
1 on each side

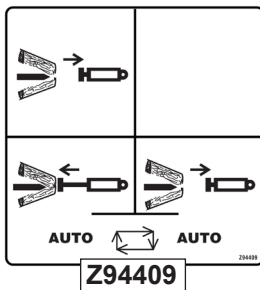
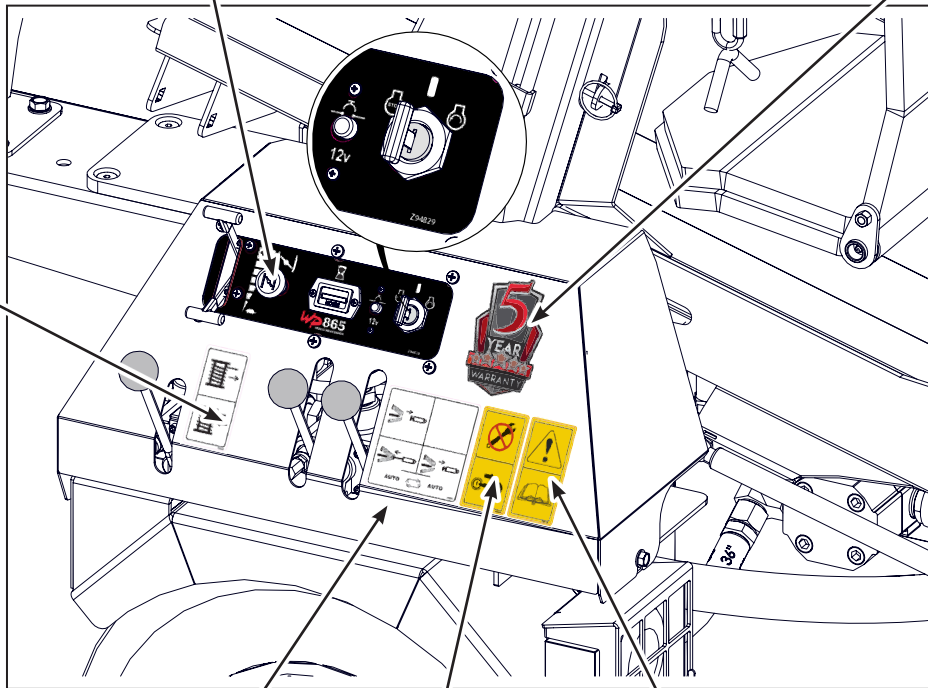
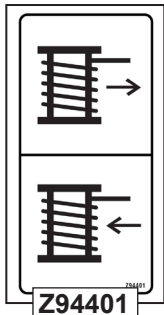
Control Panel Labels



Z94830



Z94163



Z94409



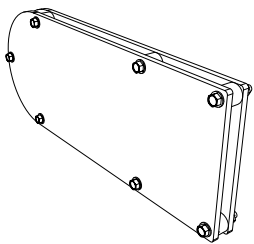
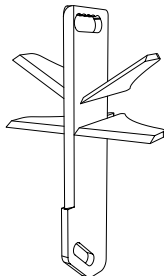
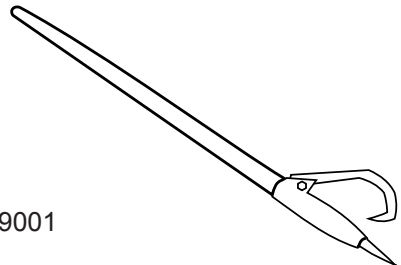
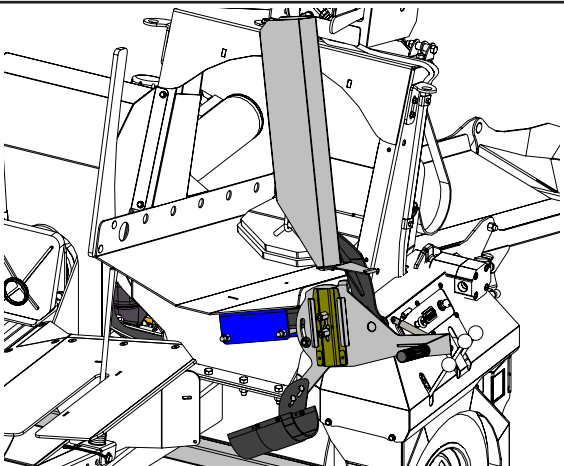
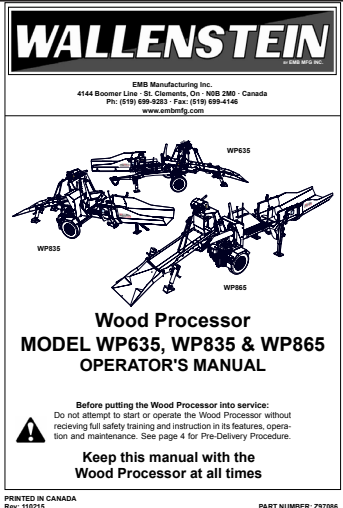
Z94228



Z94119

Accessories

Call your dealer for pricing and availability

 <p>#2089A570</p>	<p>#2089A570 NYLON CHAINSAW HOLSTER For models: WP835EU, WP865EU easy to install, fastens to Wood Processor Nylon holder, safely holds your chainsaw keeping it off the ground and out of the way!</p>
 <p>#2089W571</p>	<p>#2089W571 6-WAY WEDGE Easy to install in minutes, and you're ready to go! 6 way splitting wedge, Boost your productivity and make quick work out of chunks by splitting into six pieces at once. This is an ideal way to save time</p>
 <p>#Z99001</p>	<p>#Z99001 48" LOG PEAVEY Helps to move those heavy log timbers into position, and finish getting your last logs through the Wood Processor!</p>
	<p>#P200 PIVOTING CHAINSAW HOLDER For all WP Series Easy mounting to most chain saws, the pivoting chain saw holder securely holds your saw in place allowing for easier cutting and saving time handling your chainsaw.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Available: P210 Spare Pivoting Chainsaw Adaptor Save time switching out chainsaws with a spare adaptor for your second chainsaw!</p> </div>
 <p>WALLENSTEIN <small>EMB Manufacturing Inc. 4144 Bomer Line, St. Charles, Ont. N0B 2M0 - Canada Ph: (519) 699-9293 - Fax: (519) 699-4146 www.embmfg.com</small></p> <p>Wood Processor MODEL WP635, WP835 & WP865 OPERATOR'S MANUAL</p> <p><small>Before putting the Wood Processor into service: Do not attempt to start or operate the Wood Processor without receiving full safety training and instruction in its features, operation and maintenance. See page 4 for Pre-Delivery Procedure.</small></p> <p>Keep this manual with the Wood Processor at all times</p> <p><small>PRINTED IN CANADA Rev: 110216</small> <small>PART NUMBER: Z97086</small></p>	<p>#Z97086 WP635, WP835 & WP865 WOOD PROCESSOR OPERATOR'S MANUAL</p> <p>Available as a download at www.wallensteinequipment.com</p>


Bolt Torque

Checking Bolt Torque

The tables shown give correct torque values for various bolts and capscrews. Tighten all bolts to the torque values specified in the table, unless indicated otherwise. Check tightness of bolts periodically.

IMPORTANT! If replacing hardware, use fasteners of the same grade.

IMPORTANT! Torque figures indicated in the table are for non-greased or non-oiled threads. Do not grease or oil threads unless indicated otherwise. When using a thread locker, increase torque values by 5%.

 **NOTE:** Bolt grades are identified by their head markings.

Imperial Bolt Torque Specifications						
Bolt Diameter	Torque Value					
	SAE Gr. 2		SAE Gr. 5		SAE Gr. 8	
	lbf•ft	N•m	lbf•ft	N•m	lbf•ft	N•m
1/4"	6	8	9	12	12	17
5/16"	10	13	19	25	27	36
3/8"	20	27	33	45	45	63
7/16"	30	41	53	72	75	100
1/2"	45	61	80	110	115	155
9/16"	60	95	115	155	165	220
5/8"	95	128	160	215	220	305
3/4"	165	225	290	390	400	540
7/8"	170	230	420	570	650	880
1"	225	345	630	850	970	1320



Metric Bolt Torque Specifications				
Bolt Diameter	Torque Value			
	Gr. 8.8		Gr. 10.9	
	lbf•ft	N•m	lbf•ft	N•m
M3	0.4	0.5	1.3	1.8
M4	2.2	3	3.3	4.5
M6	7	10	11	15
M8	18	25	26	35
M10	37	50	52	70
M12	66	90	92	125
M16	166	225	229	310
M20	321	435	450	610
M30	1,103	1 495	1,550	2 100
M36	1,917	2 600	2,700	3 675



Hydraulic Fitting Torque

Tightening Flare Type Tube Fittings

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Hand-tighten swivel nut until snug.
4. To prevent twisting the tube, use two wrenches. Place one wrench on the connector body and tighten the swivel nut with the second. Torque to values shown.

If a torque wrench is not available, use the FFFT (Flats From Finger Tight) method.

Hydraulic Fitting Torque					
Tube Size OD	Hex Size Across Flats	Torque value		Flats From Finger Tight	
		lbf•ft	N•m	Flats	Turns
3/16	7/16	6	8	2	1/6
1/4	9/16	11–12	15–17	2	1/6
5/16	5/8	14–16	19–22	2	1/6
3/8	11/16	20–22	27–30	1-1/4	1/6
1/2	7/8	44–48	59–65	1	1/6
5/8	1	50–58	68–79	1	1/6
3/4	1-1/4	79–88	107–119	1	1/8
1	1-5/8	117–125	158–170	1	1/8

Values shown are for non-lubricated connections.

Wheel Lug Torque

It is extremely important safety procedure to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

Wheel lugs should be torqued before first road use and after each wheel removal. Check and re torque after the first 10 miles (16 Km), 25 miles (40 Km), and again at 50 miles (80 Km). Check periodically thereafter.

NOTE: *Wheel lugs must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle.*

- Start all lugs by hand to prevent cross threading.
- Tighten lugs in sequence, per wheel lug torque sequence chart.
- The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements chart.

Wheel Lug Nut Torque				
Wheel Size	Units	1st Stage	2nd Stage	3rd Stage
8"	lbf•ft N•m	12–20 16–26	30–35 39–45.5	45–55 58.5–71.5
12"	lbf•ft N•m	20–25 26–32.5	35–40 45.5–52	50–60 65–78
13"	lbf•ft N•m	20–25 26–32.5	35–40 45.5–52	50–60 65–78
14"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156
15"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156
16"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156

Wheel Lug Torque Pattern

