

# WALLENSTEIN

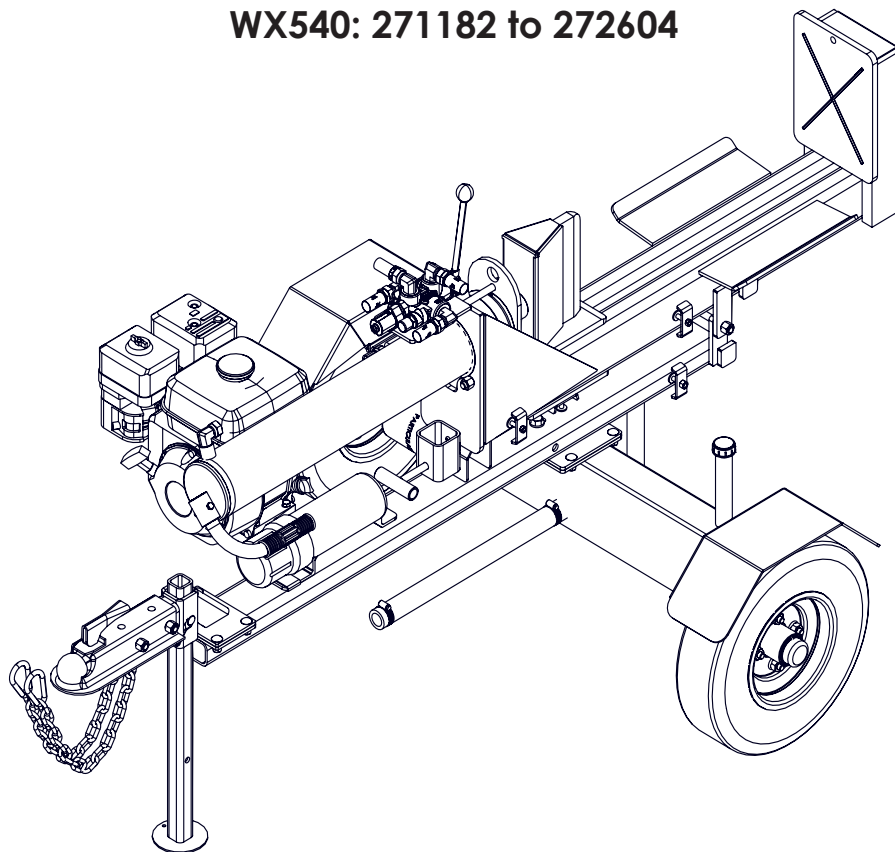
EMB Manufacturing Inc.  
4144 Boomer Line · St. Clements, On · N0B 2M0 · Canada  
Ph: (519) 699-9283 · Fax: (519) 699-4146  
www.wallensteinequipment.com

## WX540 SERIES Trailer Log Splitter Parts Manual

Starting with S/N's

WX540L: 2E9US1115ES271182 to 2E9US1115ES272604

WX540: 271182 to 272604



Refer to the operators  
manual for safe  
operation and  
maintenance

## Foreword

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

Proper and regular service and replacing old, worn or broken parts with the correct OEM parts are essential to prolonging the life of your EMB product. Please refer to this manual before ordering any replacement parts.

All information contained in this parts manual is based on the latest product specification available at the time of printing this manual. If your product differs from the specifications contained within this manual contact EMB Mfg. for information.

EMB reserves the right to alter specifications on their products at any time.

Reproduction of this parts manual of any kind is prohibited without prior written permission from EMB Mfg.

For parts and information please contact your dealer. If your dealer is no longer available please go to our website: <http://www.wallensteinequipment.com> and click on "FIND A DEALER NEAR YOU" for information on a local dealer.

# Table of Contents

**Bolt Torque..... 4**

**Hydraulic Torque ..... 5**

**Wheel Torque ..... 5**

**Main Parts..... 6**

**Splitter Bed Assembly..... 7**

**Main Base Assembly ..... 8**

**Engine and Hydraulics Assembly ..... 9**

**Cylinder Assembly ..... 10**

**Hub Assembly ..... 10**

**Valve Assembly..... 11**

**Z56209 Service Kit..... 11**

**Hydraulic Schematic ..... 12**

**Hydraulic Hose List ..... 12**

**WX540L Wiring Schematic ..... 13**

**WX540L Lighting ..... 13**

**Label Layout..... 14**

**Accessories..... 15**

Maintenance should be performed by trained personnel only.



Refer to the operators manual for safe operation and maintenance

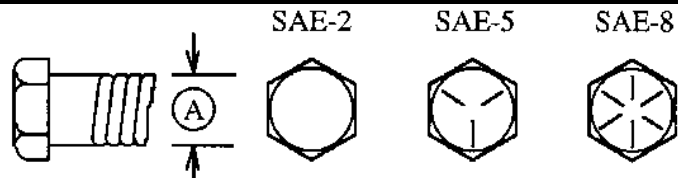
**Bolt Torque**

**CHECKING BOLT TORQUE**

The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

**ENGLISH TORQUE SPECIFICATIONS**

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

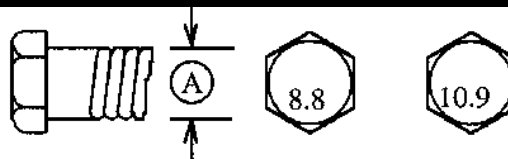


**METRIC TORQUE SPECIFICATIONS**

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

\* Torque value for bolts and capscrews are identified by their head markings.

Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



**Hydraulic 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. Lubricate connection and hand tighten swivel nut until snug.
  4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.
- The torque values shown are based on lubricated connections as in reassembly.

HYDRAULIC FITTING TORQUE					
Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(in.)	(in.)	(N.m)	(lb-ft)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

**Wheel Torque**

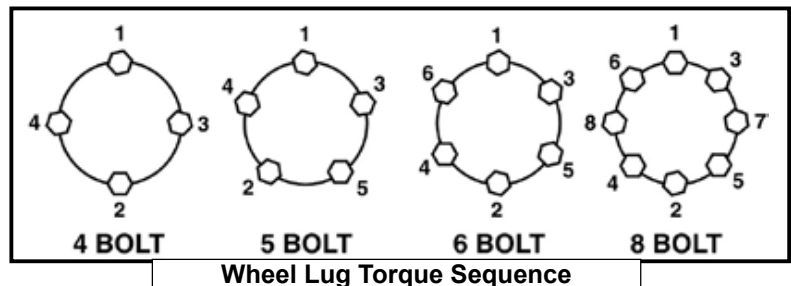
It is extremely important safety procedure to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

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

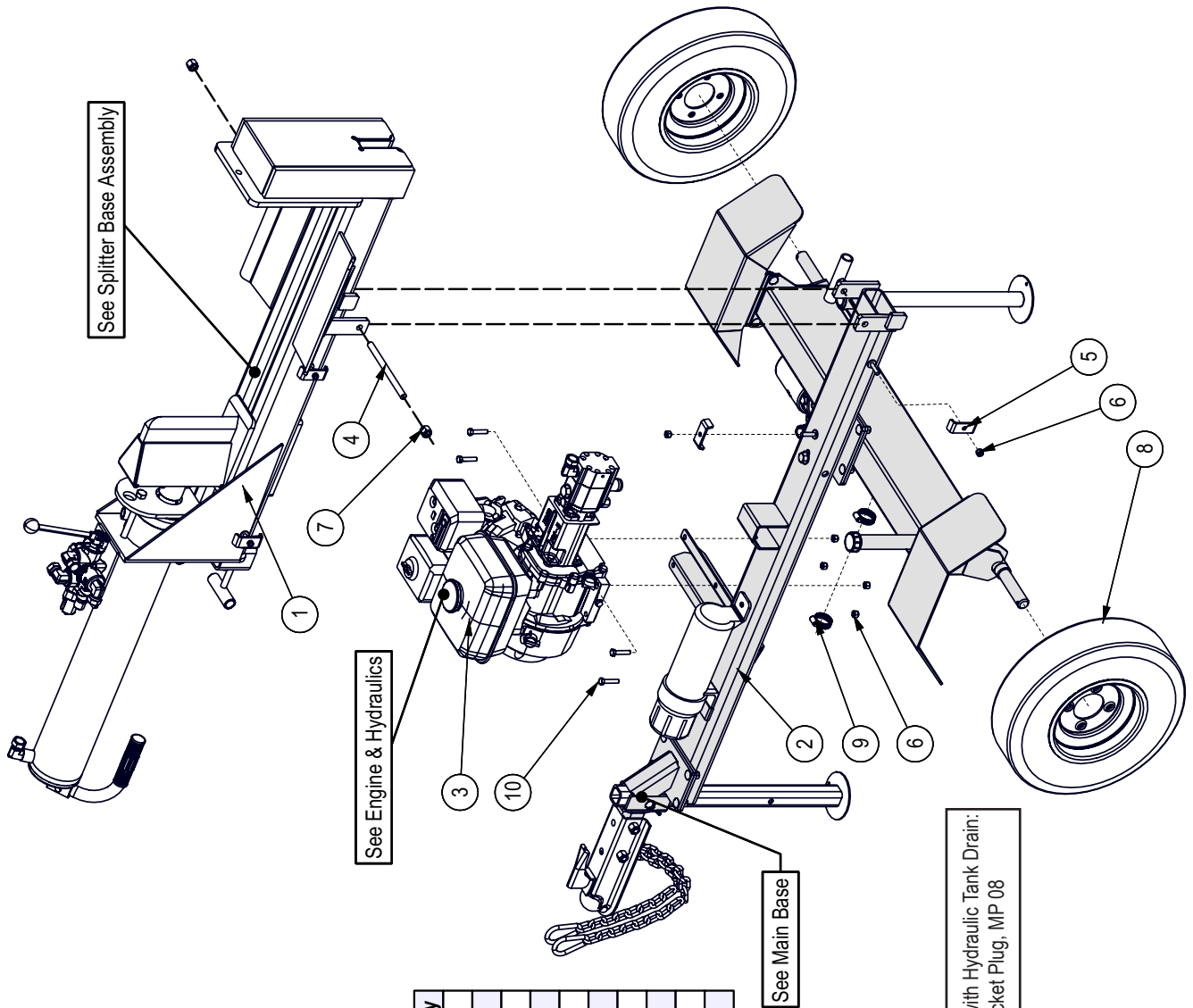
Note: Wheel lugs must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle.

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

Wheel Torque Requirements			
Wheel Size	1st Stage	2nd Stage	3rd Stage
8"	12 - 20	30 - 35	45 - 55
12"	20 - 25	35 - 40	50 - 60
13"	20 - 25	35 - 40	50 - 60
14"	20 - 25	50 - 60	90 - 120
15"	20 - 25	50 - 60	90 - 120
16"	20 - 25	50 - 60	90 - 120



**Main Parts**



See Splitter Base Assembly

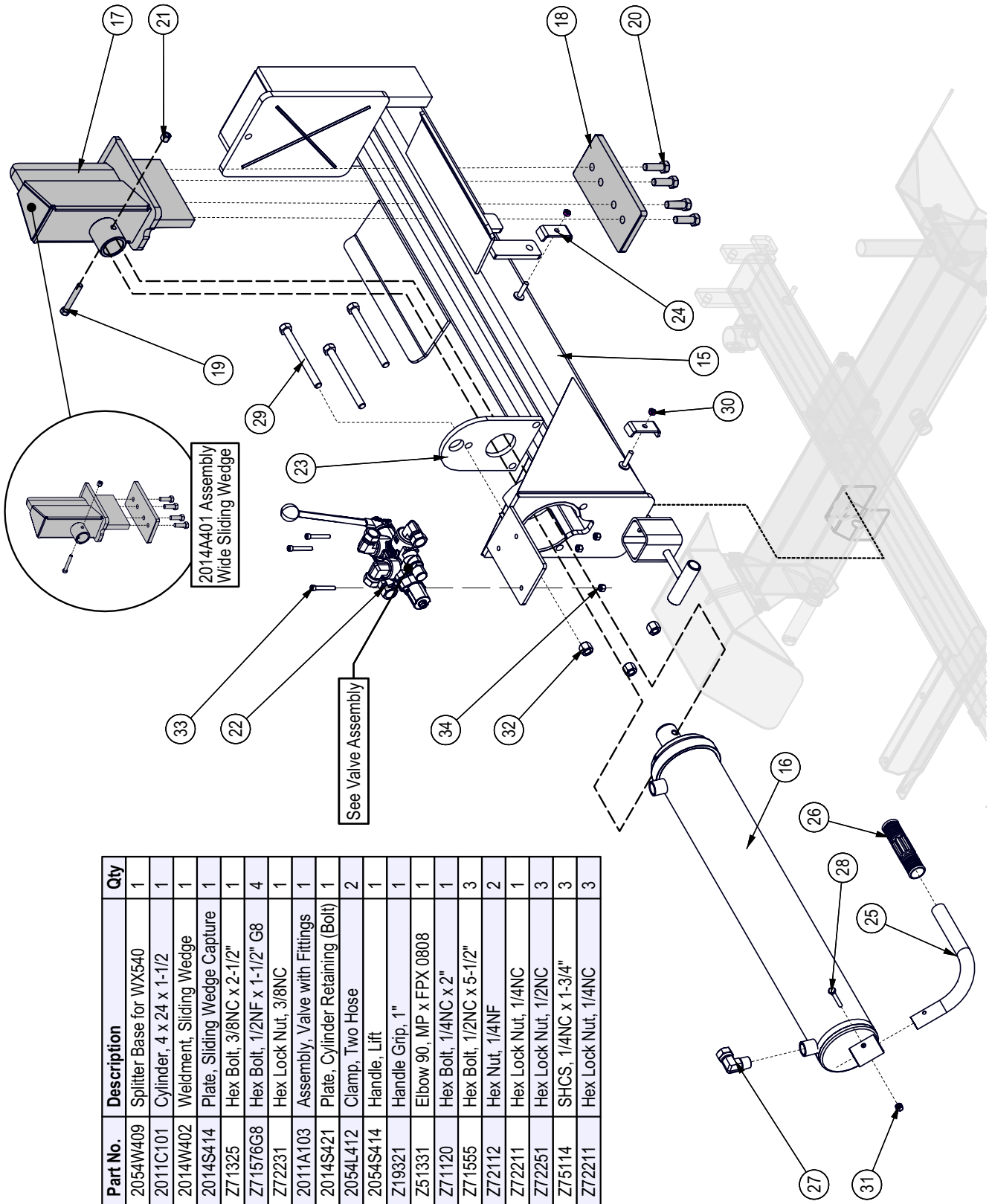
See Engine & Hydraulics

See Main Base

On Models with Hydraulic Tank Drain:  
#Z51192 Socket Plug, MP 08

BOM ID	Part No.	Description	Qty
1	2054A401	Assembly, Splitter Base	1
2	2054A601	Assembly, Main Base	1
3	2052A205	Assembly, GX 5.5hp Engine to 11gpm Pump	1
4	2016M602	Pin, Pivot Threaded	1
5	2054L412	Clamp, Two Hose	2
6	Z7221	Hex Lock Nut, 5/16NC	6
7	Z72251	Hex Lock Nut, 1/2NC	2
8	Z91301	4.80-8 LRB SportTrail 4on4"	2
9	Z79401	Hose Clamp, SAE #16 (1-1/2")	2
10	Z71215	Hex Bolt, 5/16NC x 1-1/2"	4

**Splitter Bed Assembly**

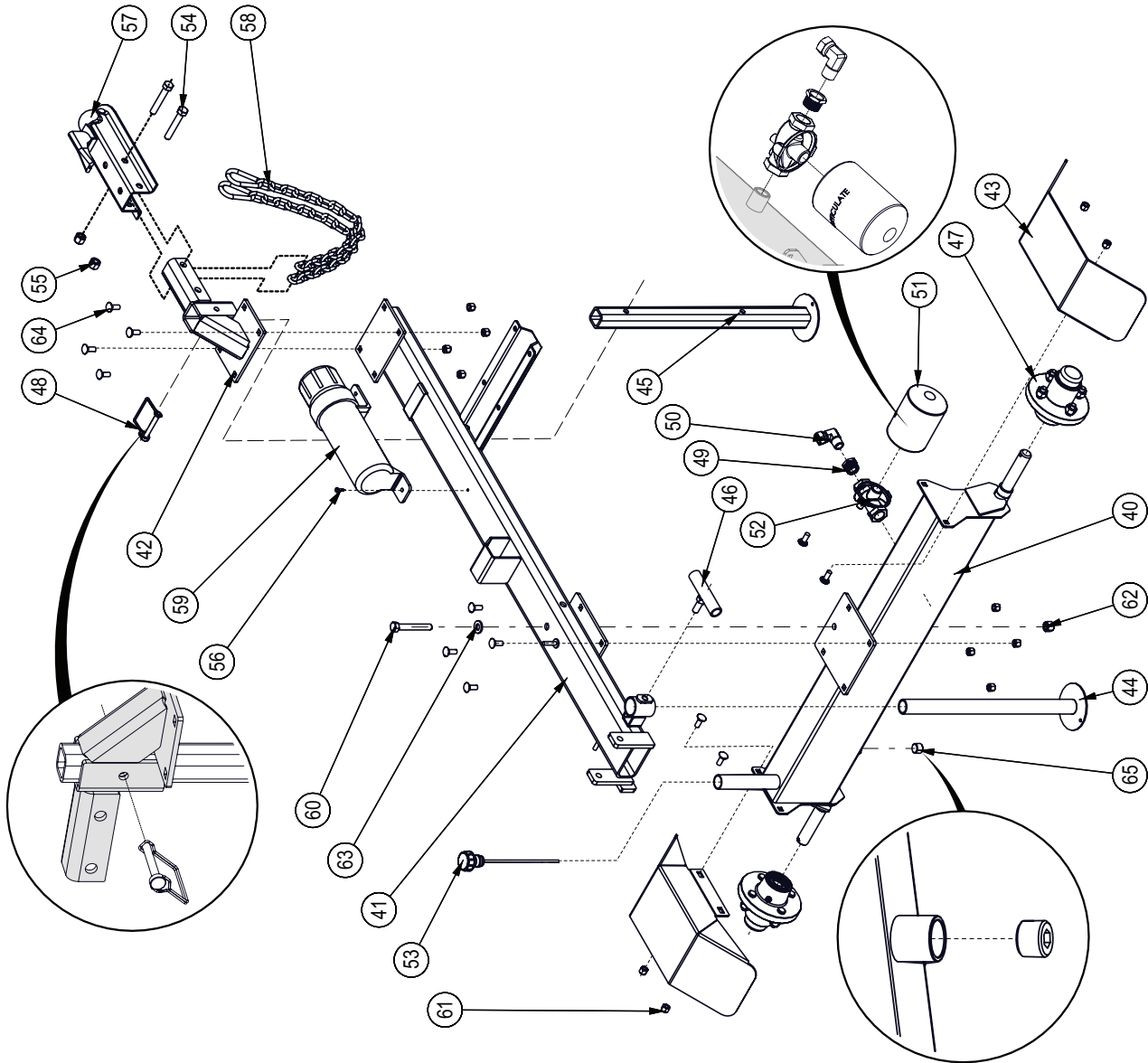


BOM ID	Part No.	Description	Qty
15	2054W409	Splitter Base for WX540	1
16	2011C101	Cylinder, 4 x 24 x 1-1/2	1
17	2014W402	Weldment, Sliding Wedge	1
18	2014S414	Plate, Sliding Wedge Capture	1
19	Z71325	Hex Bolt, 3/8NC x 2-1/2"	1
20	Z71576G8	Hex Bolt, 1/2NF x 1-1/2" G8	4
21	Z72231	Hex Lock Nut, 3/8NC	1
22	2011A103	Assembly, Valve with Fittings	1
23	2014S421	Plate, Cylinder Retaining (Bolt)	1
24	2054L412	Clamp, Two Hose	2
25	2054S414	Handle, Lift	1
26	Z19321	Handle Grip, 1"	1
27	Z51331	Elbow 90, MP x FPX 0808	1
28	Z71120	Hex Bolt, 1/4NC x 2"	1
29	Z71555	Hex Bolt, 1/2NC x 5-1/2"	3
30	Z72112	Hex Nut, 1/4NF	2
31	Z72211	Hex Lock Nut, 1/4NC	1
32	Z72251	Hex Lock Nut, 1/2NC	3
33	Z75114	SHCS, 1/4NC x 1-3/4"	3
34	Z72211	Hex Lock Nut, 1/4NC	3

**Note:**  
2054W661-L Weldment, WX540-L Tank required for model WX540L

BOM ID	Part No.	Description	Qty
40	2054W661	Weldment, WX540 Tank - Axle	1
41	2054W602	Weldment, Trailer Spine	1
42	2054W604	Weldment, Hitch Mount	1
43	2054W408	Weldment, Fender	2
44	2054W405	Jack Stand, Rear	1
45	2054W406	Jack Stand, Front	1
46	2054W407	Handle, Rear Jack Lock	1
47	Z91202	Idle Hub Assy, 1000lbs x 4or4" x 1"	2
48	Z12432	Snap Lock Pin, 3/8" x 2-1/2"	1
49	Z51221	Straight, MP x FP 1208	1
50	Z51331	Elbow 90, MP x FPX 0808	1
51	Z55301	Particulate Filter, FP12	1
52	Z55302	Filter Cap, MP12 x FP12	1
53	Z55404	Vented Plug Dipstick x 9"	1
54	Z71530	Hex Bolt, 1/2NC x 3"	2
55	Z72251	Hex Lock Nut, 1/2NC	2
56	Z76712	Self-tapping Screw, #10 x 3/4"	1
57	Z91614	Hitch Coupler, 2" Ball x 2" x 3500lbs	1
58	Z92303	Safety Chain, 1/4" x 2ft with Snap	2
59	Z96503	Manual Tube, 3-1/2" Short	1
60	Z71537	Hex Bolt, 1/2NC x 3-3/4"	1
61	Z72231	Hex Lock Nut, 3/8NC	12
62	Z72251	Hex Lock Nut, 1/2NC	1
63	Z73151	SAE Washer, 1/2"	1
64	Z76231	Carriage Bolt, 3/8NC x 1"	12
65	Z51192	Socket Plug, MP 08	1

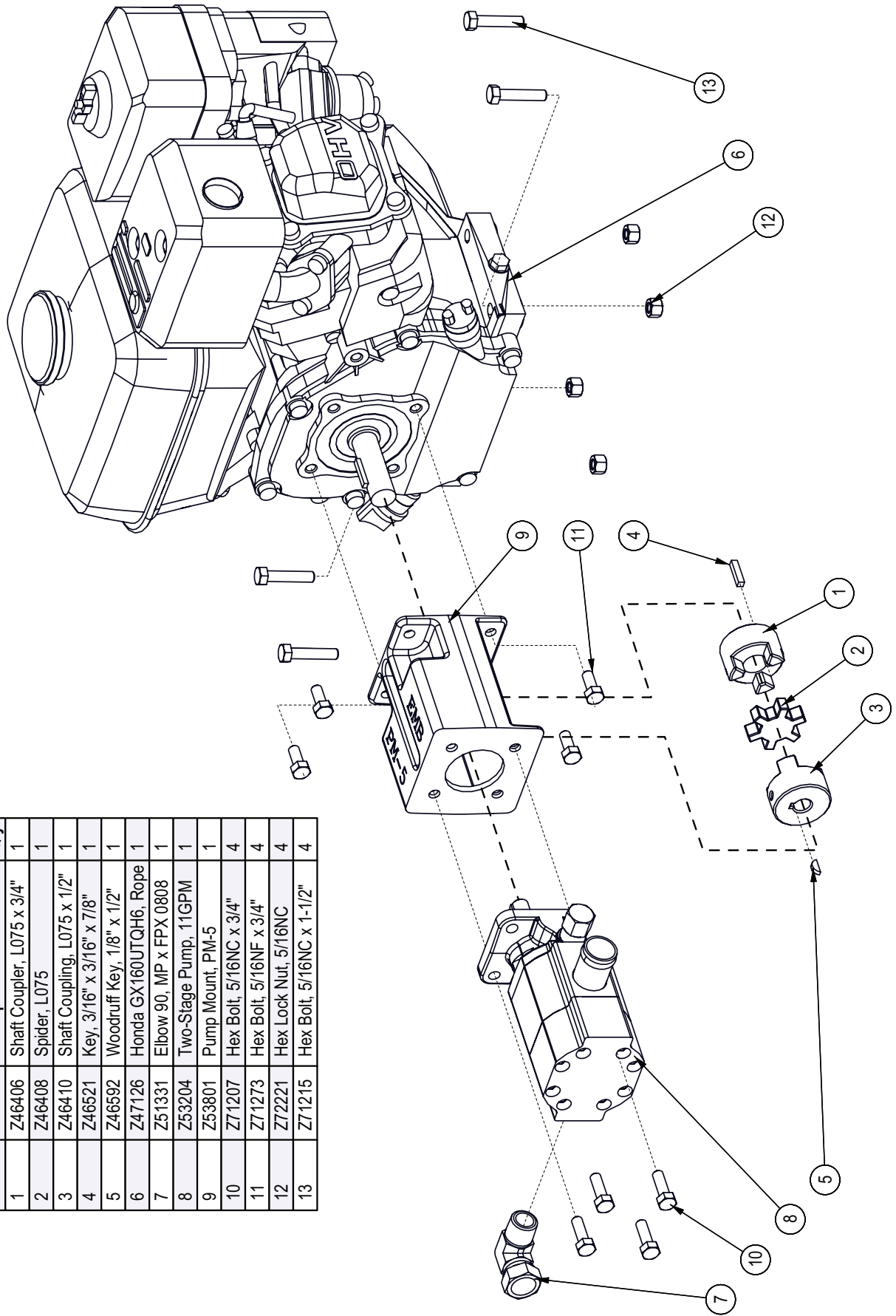
**Main Base Assembly**





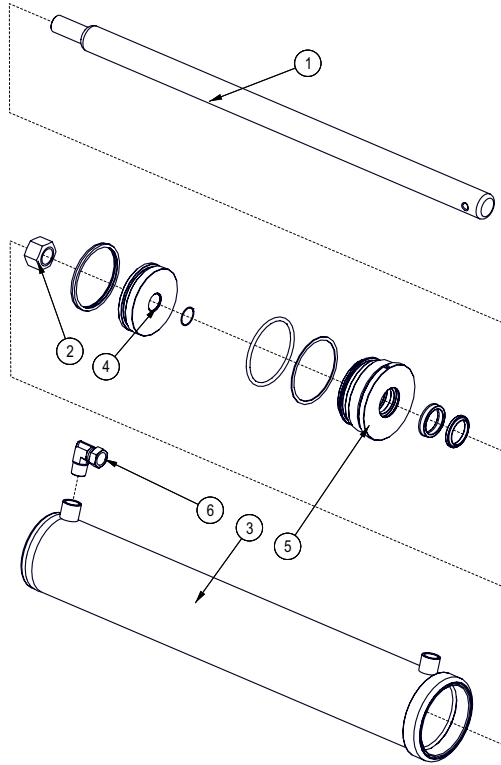
**Engine and Hydraulics Assembly**

BOM ID	Part No.	Description	Qty
1	Z46406	Shaft Coupler, L075 x 3/4"	1
2	Z46408	Spider, L075	1
3	Z46410	Shaft Coupling, L075 x 1/2"	1
4	Z46521	Key, 3/16" x 3/16" x 7/8"	1
5	Z46592	Woodruff Key, 1/8" x 1/2"	1
6	Z47126	Honda GX160UTQH6, Rope	1
7	Z51331	Elbow 90, MP x FFX 0808	1
8	Z53204	Two-Stage Pump, 11GPM	1
9	Z53801	Pump Mount, PM-5	1
10	Z71207	Hex Bolt, 5/16NC x 3/4"	4
11	Z71273	Hex Bolt, 5/16NF x 3/4"	4
12	Z72221	Hex Lock Nut, 5/16NC	4
13	Z71215	Hex Bolt, 5/16NC x 1-1/2"	4



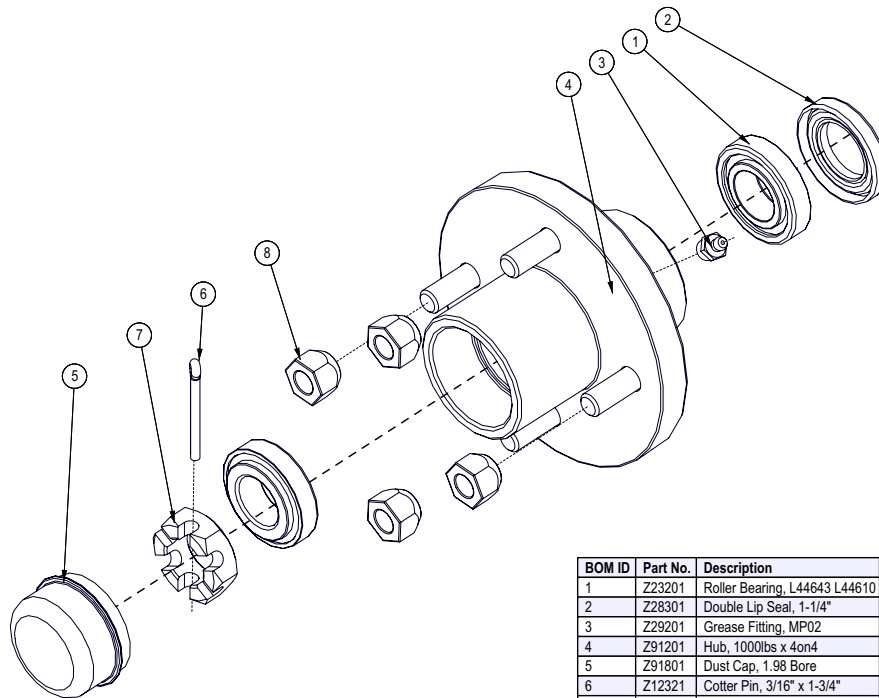
### Cylinder Assembly

### Seal Kit #SLK-4015



BOM ID	Part No.	Description	Qty
1	2011C1012	Rod, 1-1/2 x 1	1
2	Z72292G8	Hex Lock Nut 1NF Grade 8	1
3	2011C1014	Barrel, 4"	1
4	P100-400SP	Piston, 4" Bore	1
5	G400-150S	Gland, 4" x 1-1/2"	1
6	Z51331	Elbow 90, MP x FPX 0808	1

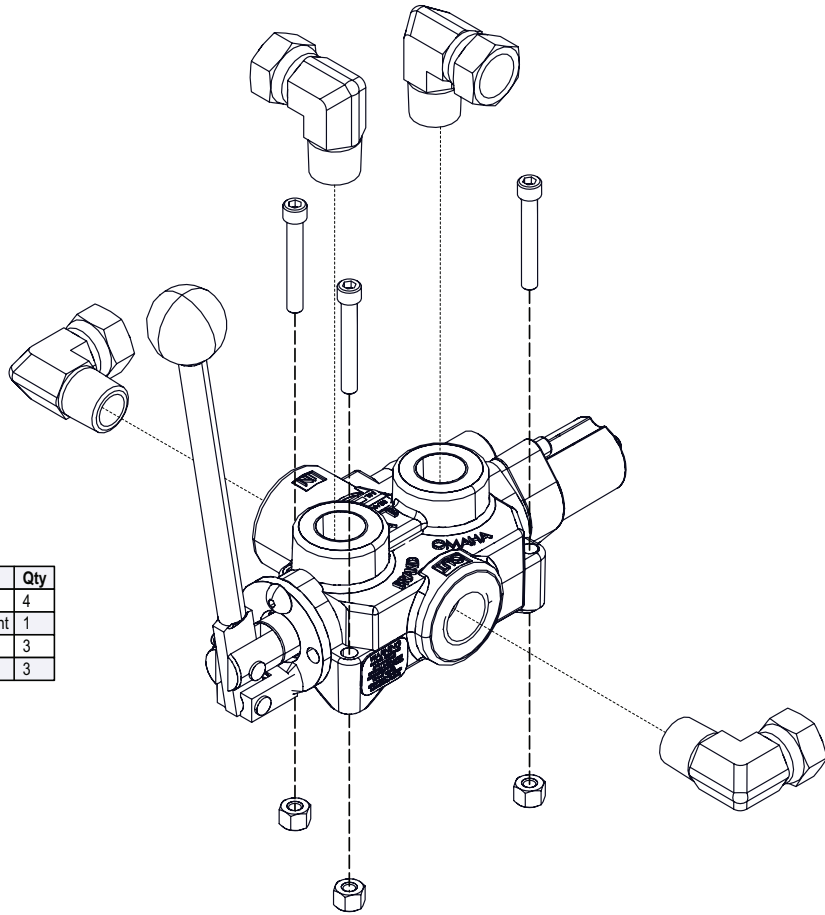
### Hub Assembly



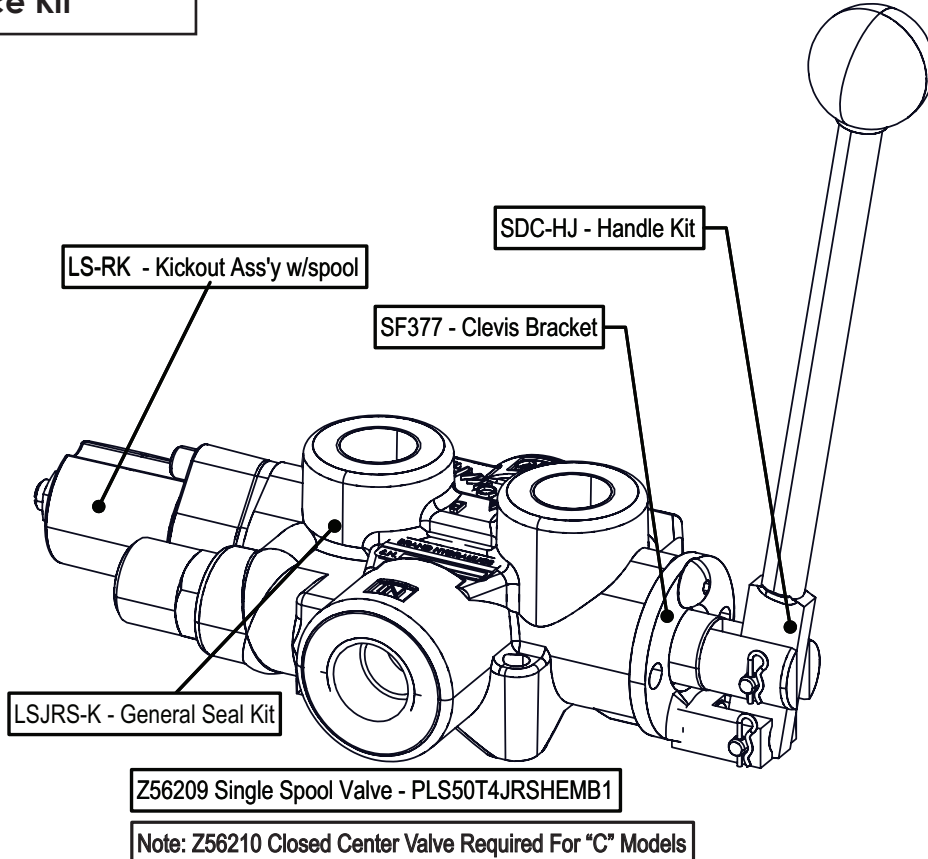
BOM ID	Part No.	Description	Qty
1	Z23201	Roller Bearing, L44643 L44610	2
2	Z28301	Double Lip Seal, 1-1/4"	1
3	Z29201	Grease Fitting, MP02	1
4	Z91201	Hub, 1000lbs x 4on4	1
5	Z91801	Dust Cap, 1.98 Bore	1
6	Z12321	Cotter Pin, 3/16" x 1-3/4"	1
7	Z72691	Castle Nut, 1NF x 9/16" Thick	1
8	Z72931	Lug Nut, 1/2NF	4

**Valve Assembly**

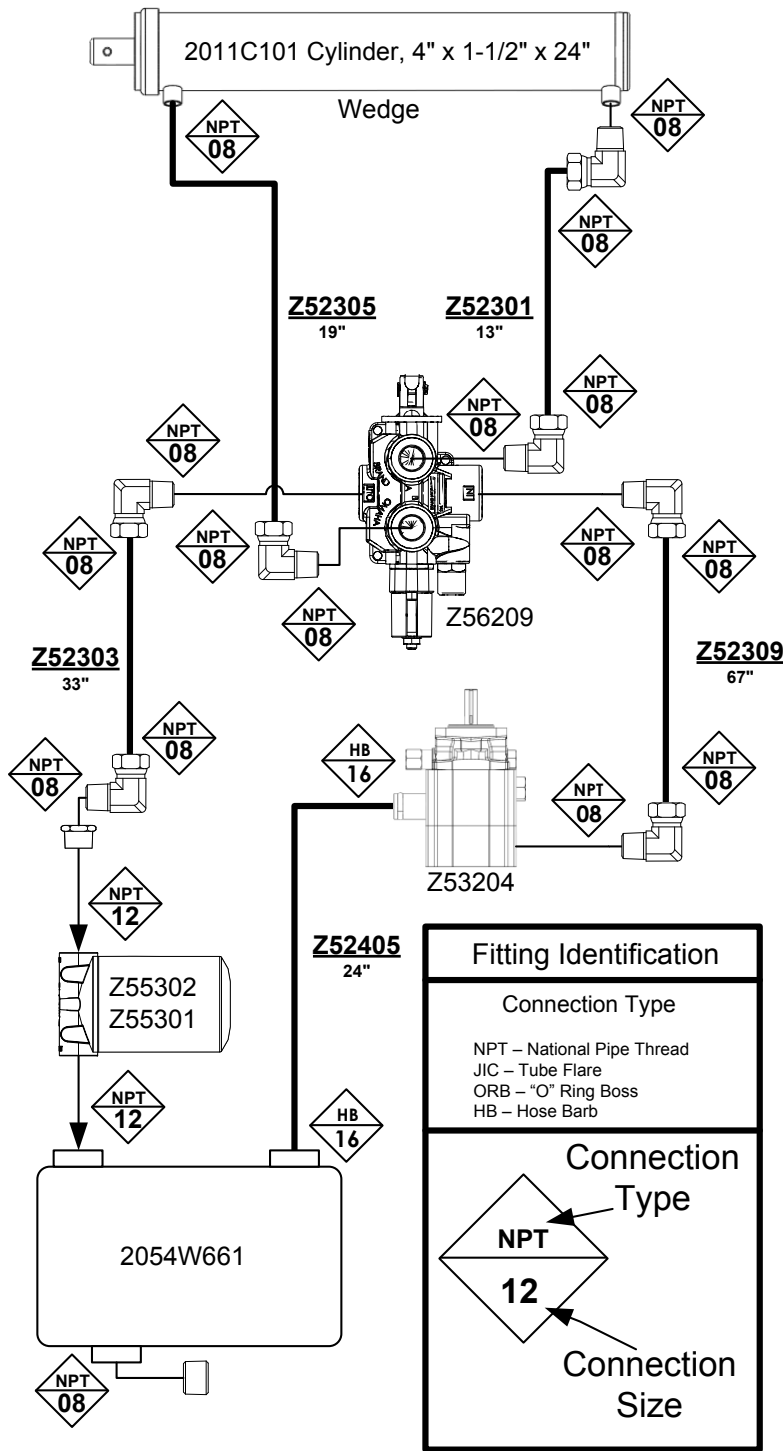
Item No.	Part No.	Description	Qty
1	Z51331	Elbow 90 MP x FPX 0808	4
2	Z56209	Valve, Single Function Detent	1
3	Z72211	Hex Lock Nut, 1/4NC	3
4	Z75114	SHCS, 1/4NC x 1-3/4"	3



**Z56209 Service Kit**



**Hydraulic Schematic**

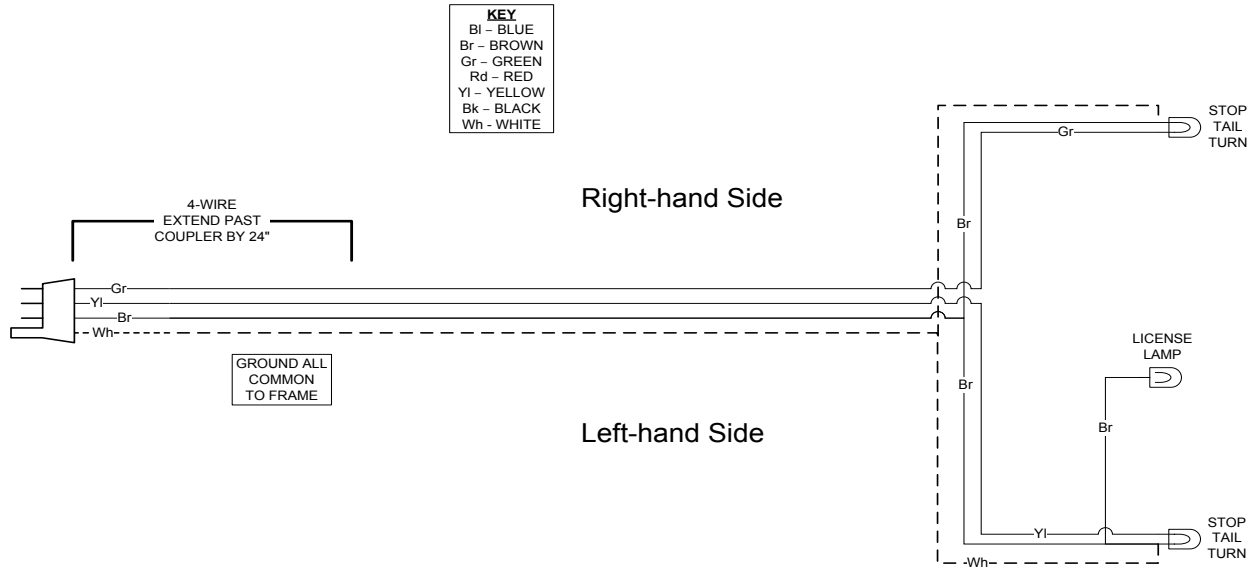


**Hydraulic Hose List**

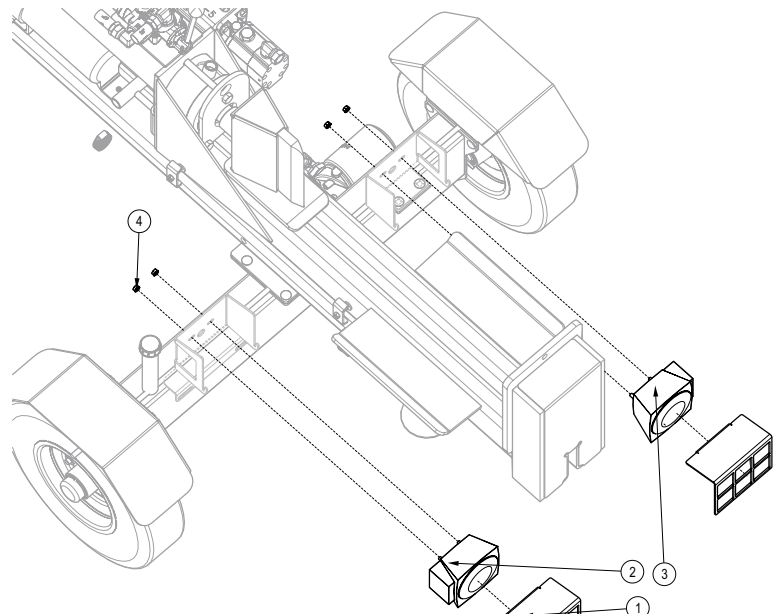
Part No.	Description	Qty
Z52405	Suction Hose, 1 x 24	1
Z52301	1/2" Hose, MP08 x MP08 x 13	1
Z52305	1/2" Hose, MP08 x MP08 x 19	1
Z52309	1/2" Hose, MP08 x MP08 x 67	1
Z52311	1/2" Hose, MP08 x MP08 x 72	1

**WX540L Wiring Schematic**

**WX TRAILER SPLITTER WIRING**

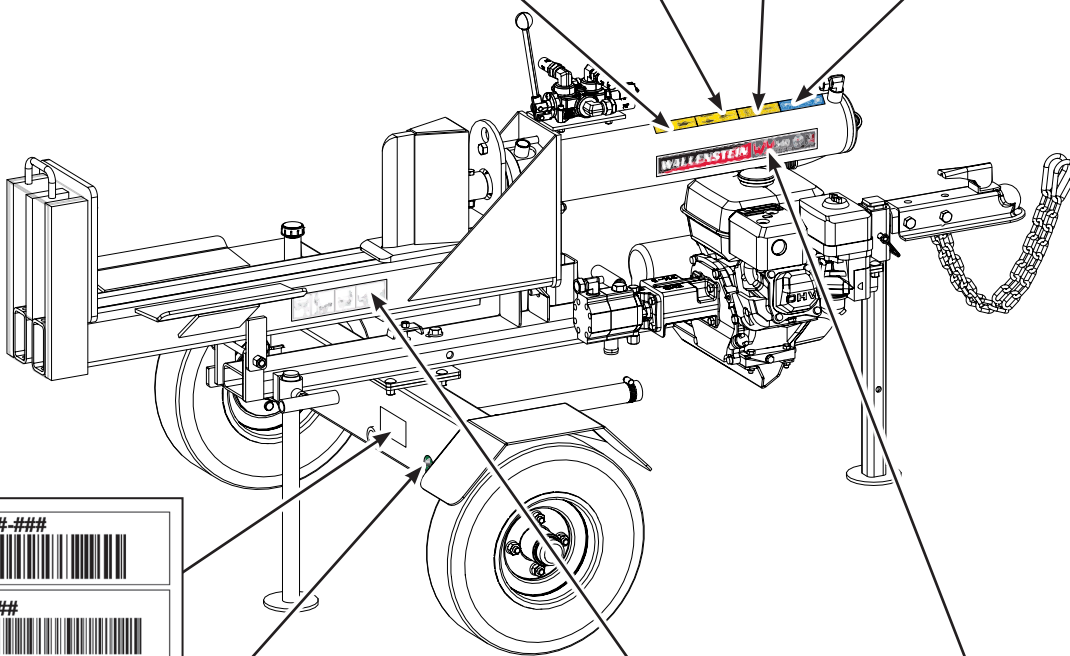


**WX540L Lighting**



BOM ID	Part No.	Description	Qty
1	2089L351	Light Guard	2
2	Z61106	STTL Lamp, Square LH	1
3	Z61107	STT Lamp, Square RH	1
4	Z72941	Serrated Washer Nut, 1/4NC	4

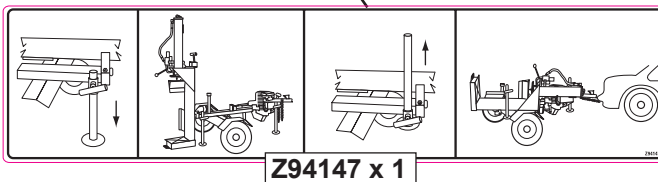
Label Layout



MODEL: #####-###  
 SERIAL NUMBER: #####

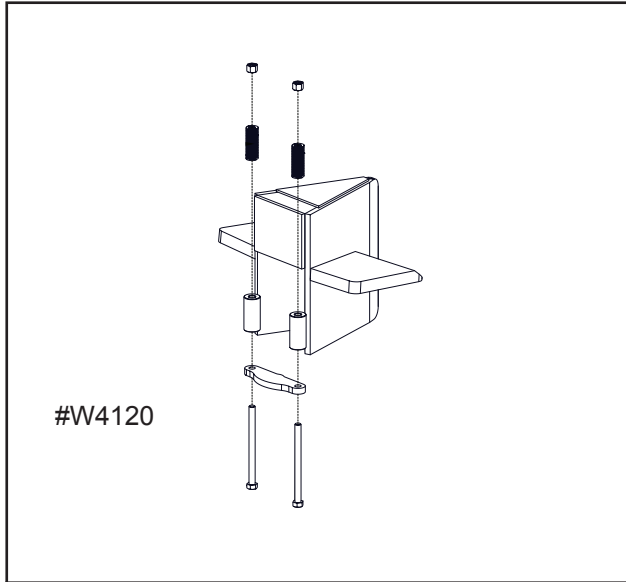
WALLENSTEIN www.wallensteinequipment.com  
 EMB MFG INC, 4144 BOOMER LINE,  
 ST CLEMENTS, ON N0B 2M0 CANADA

**Serial Location**



**Accessories**

Call your dealer for pricing and availability



#W4120

**#W4120 4 Way Wedge**

Boost your productivity and make quick work out of logs by splitting four pieces at once. This is an ideal way to save time.

**WALLENSTEIN**  
by EMB MFG. INC.

EMB Manufacturing Inc.  
4144 Boomer Line - St. Clements, On - N0S 2M0 - Canada  
Ph: (519) 699-9283 - Fax: (519) 699-4146  
www.embmfg.com

WX520 WX540  
WX640 WX620  
WX920 WX980 WX950

**TRAILER WOODSPLITTERS  
WX500, WX600 & WX900 SERIES**  
MODELS WX510, 515, 520, 520T, 530, & 540  
MODELS WX615, 620, 620T, 630 & 640  
MODELS WX910, 910T, 920, 930, 950, 960, 970 & 980  
as of May 2016

**OPERATOR'S MANUAL**

PRINTED IN CANADA  
REV 220716

PART NUMBER: Z97043

**#Z97043  
TRAILER WOODSPLITTER  
OPERATOR'S MANUAL**

Available as a download at  
[www.wallensteinequipment.com](http://www.wallensteinequipment.com)