

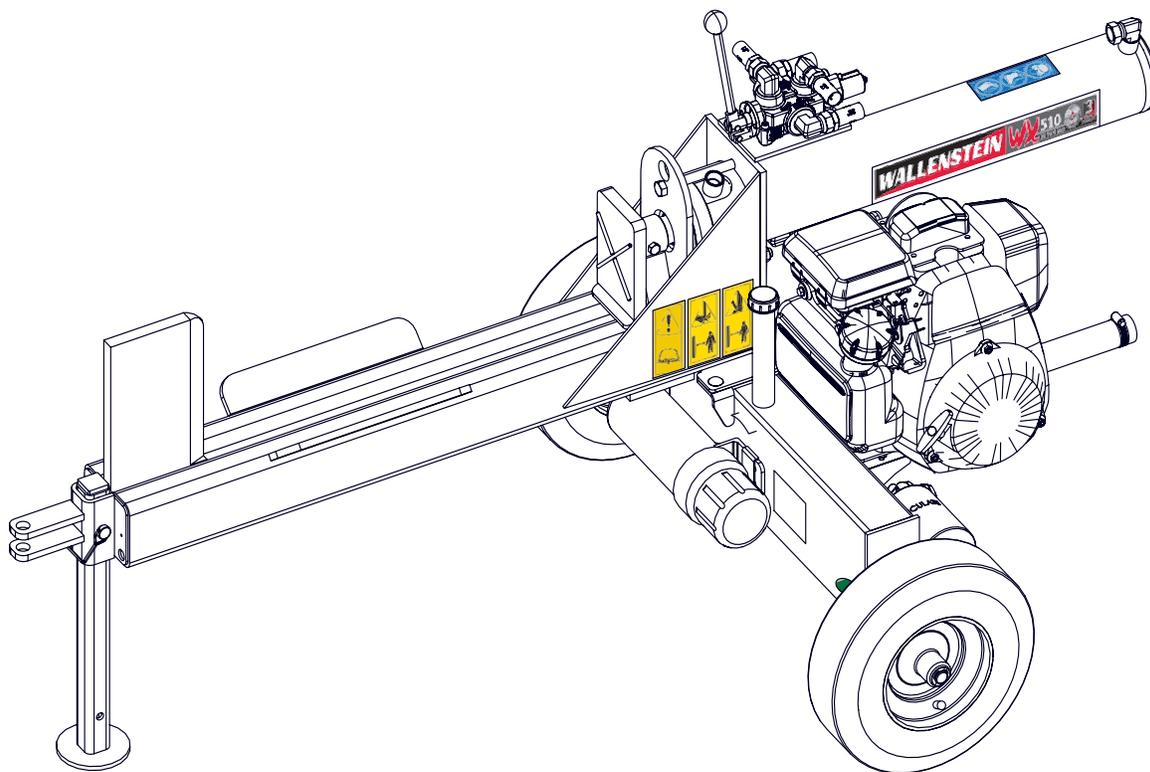


EMB Manufacturing Inc.  
4144 Boomer Line · St. Clements, On · N0B 2M0 · Canada  
Ph: (519) 699-9283 · Fax: (519) 699-4146  
www.wallensteinequipment.com

# WX510 Trailer Log Splitter Parts Manual

Starting with S/N's

230065 AND ON



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 Page

<b>Bolt Torque.....</b>	<b>4</b>
<b>Hydraulic Fitting Torque .....</b>	<b>5</b>
<b>Wheel Lug Torque .....</b>	<b>5</b>
<b>Main Parts.....</b>	<b>6</b>
<b>Splitter Base.....</b>	<b>7</b>
<b>Splitter Tank.....</b>	<b>8</b>
<b>Hitch Assembly .....</b>	<b>9</b>
<b>Hub Assembly.....</b>	<b>10</b>
<b>Engine and Hydraulics Assembly .....</b>	<b>10</b>
<b>Cylinder Assembly .....</b>	<b>11</b>
<b>Valve Assembly.....</b>	<b>11</b>
<b>Valve Seal Kit.....</b>	<b>12</b>
<b>Hydraulic Hose List .....</b>	<b>12</b>
<b>Hydraulic Schematic .....</b>	<b>13</b>
<b>Label Layout.....</b>	<b>14</b>
<b>Accessories.....</b>	<b>15</b>

Maintenance should be performed by  
trained personnel only.



Refer to the operators  
manual for safe  
operation and  
maintenance

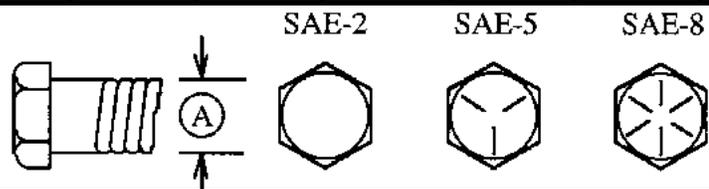
**Bolt Torque**

**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.

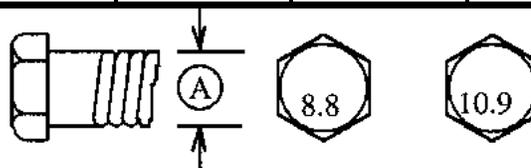
**ENGLISH TORQUE SPECIFICATIONS**

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**

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



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.

### 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. 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.

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
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
<b>3/8</b>	<b>11/16</b>	<b>24</b>	<b>18</b>	<b>1</b>	<b>1/6</b>
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

The torque values shown are based on lubricated connections as in reassembly.

### 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.

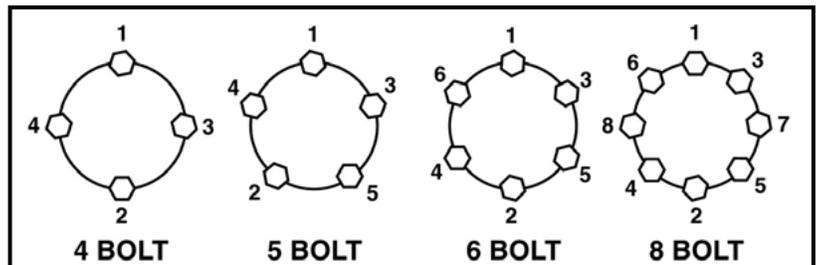
Wheel lugs should be torqued before first road use and after each wheel removal. Check and re torque after the first 16Km (10 miles), 40Km (25 miles), and again at 80Km (50 miles). Check periodically thereafter.

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.

- 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.

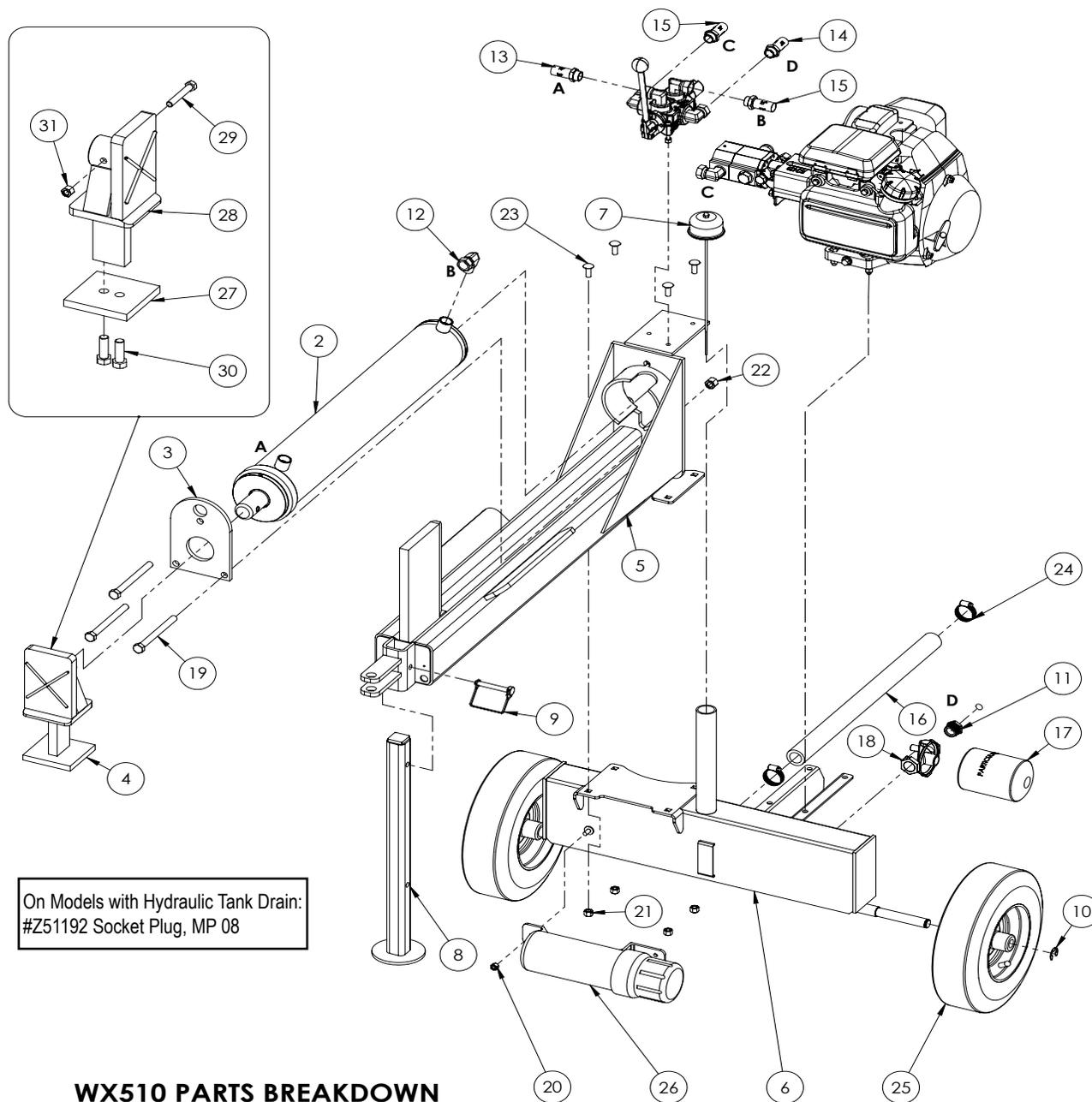
#### Wheel Torque Requirements

Wheel Size	Torque Unit	1st Stage	2nd Stage	3rd Stage
8"	ft-lbs	12 - 20	30 - 35	45 - 55
	Nm	16 - 26	39 - 45.5	58.5 - 71.5
12"	ft-lbs	20 - 25	35 - 40	50 - 60
	Nm	26 - 32.5	45.5 - 52	65 - 78
13"	ft-lbs	20 - 25	35 - 40	50 - 60
	Nm	26 - 32.5	45.5 - 52	65 - 78
14"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156
15"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156
16"	ft-lbs	20 - 25	50 - 60	90 - 120
	Nm	26 - 32.5	65 - 78	117 - 156



Wheel Lug Torque Sequence

**Main Parts**



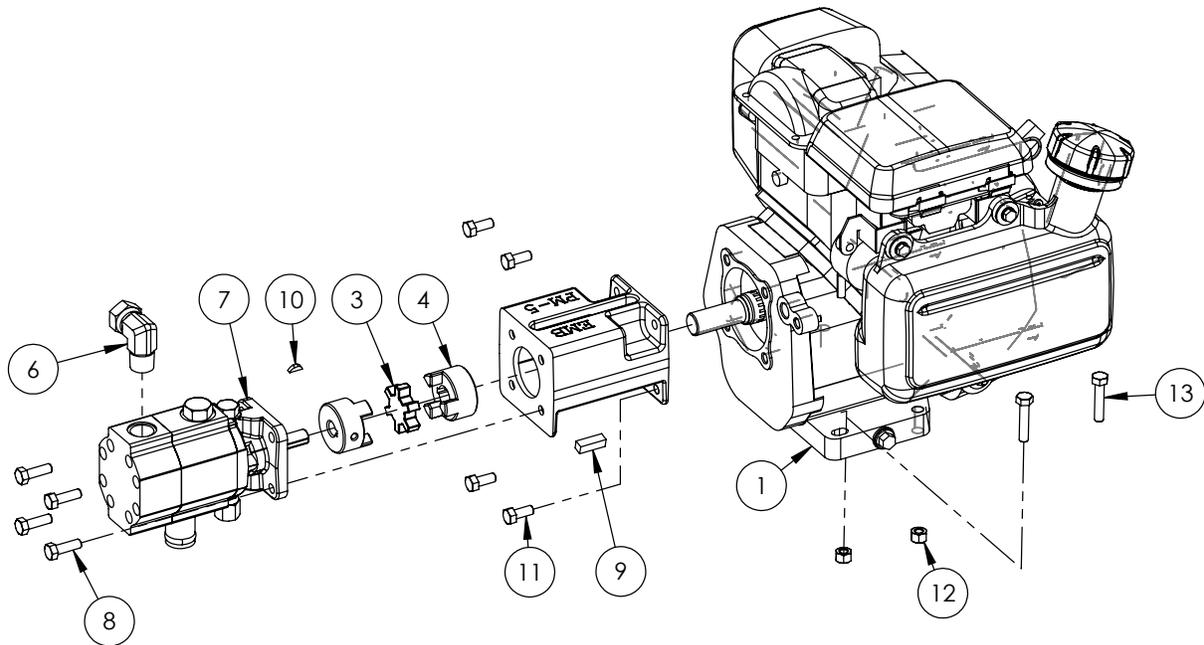
On Models with Hydraulic Tank Drain:  
#Z51192 Socket Plug, MP 08

**WX510 PARTS BREAKDOWN**

ITEM	WX510	Description	QTY.
1	2011A103	Assembly, Valve with Fittings	1
2	2011C101	Cylinder, 4 x 24 x 1-1/2	1
3	2014S421	Plate, Cylinder Retaining (Bolt)	1
4	2051A101	Assembly, Push Block	1
5	2051W101	Cylinder Weldment, WX510	1
6	2051W108	Weldment, WX510 Base	1
7	Z55404	Vented Plug Dipstick x 9"	1
8	2051W106	Jack Stand, Front	1
9	Z12432	Snapper Pin 3/8 x 2-1/2	1
10	Z46203	External Retaining Ring, 3/4"	2
11	Z51221	Reducer FP x MP 1208	1
12	Z51331	Elbow 90 MP x FFX 0808	1
13	Z52301	1/2 Hose, MP08 x MP08 x 13"	1
14	Z52303	1/2 Hose, MP08 x MP08 x 33"	1
15	Z52305	1/2 Hose, MP08 x MP08 x 21"	2
16	Z52405	Suction Hose, 1" x 22"	1
17	Z55301	Oil Filter - 3/4 - Particulate	1
18	Z55302	Filter Cap, 3/4 x 3/4	1
19	Z71555	Hex Bolt 1/2NC x 5-1/2	3
20	Z72221	Hex Lock Nut 5/16NC	1
21	Z72231	Hex Lock Nut 3/8NC	4
22	Z72251	Hex Lock Nut 1/2NC	3
23	Z76231	Carriage Bolt 3/8NC x 1	4
24	Z79401	Hose Clamp, #16	2
25	Z91311	4.10-6 290# NHS Tire	2
26	Z96503	Manual Tube 3-1/2 Short	1

ITEM	PART NO.	Description	QTY.
27	2051S117	Cap, Push Block (Bolt)	1
28	2051W102	Push Block, Bolted	1
29	Z71325	Hex Bolt 3/8NC x 2-1/2	1
30	Z71576	Hex Bolt 1/2NF x 1-1/2	2
31	Z72231	Hex Lock Nut 3/8NC	1

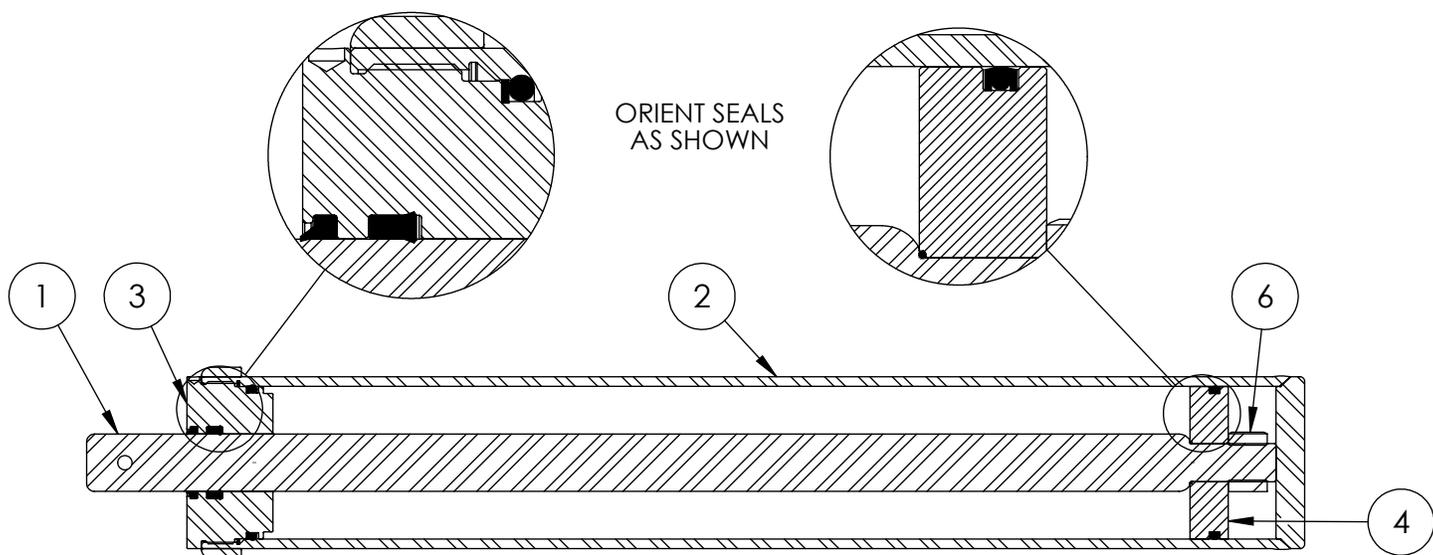
## Engine and Hydraulics Assembly



### 2051A104 PARTS BREAKDOWN

ITEM	PART NO.	DESCRIPTION	QTY
1	Z47306	Honda GC160 Engine	1
2	Z53801	Pump Mounting, PM-5	1
3	Z46408	Coupler Spider L075	1
4	Z46406	Shaft Coupler L075 x 3/4	1
5	Z46410	Shaft Coupler L075 x 1/2	1
6	Z51331	Elbow 90 MP x FPX 0808	1
7	Z53204	Pump, 11gpm Two-Stage	1
8	Z71210	Hex Bolt 5/16NC x 1	4
9	Z46542	Key 5/16 x 5/16 x 1	1
10	Z46592	Woodruff Key, 1/8 x 1/2	1
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

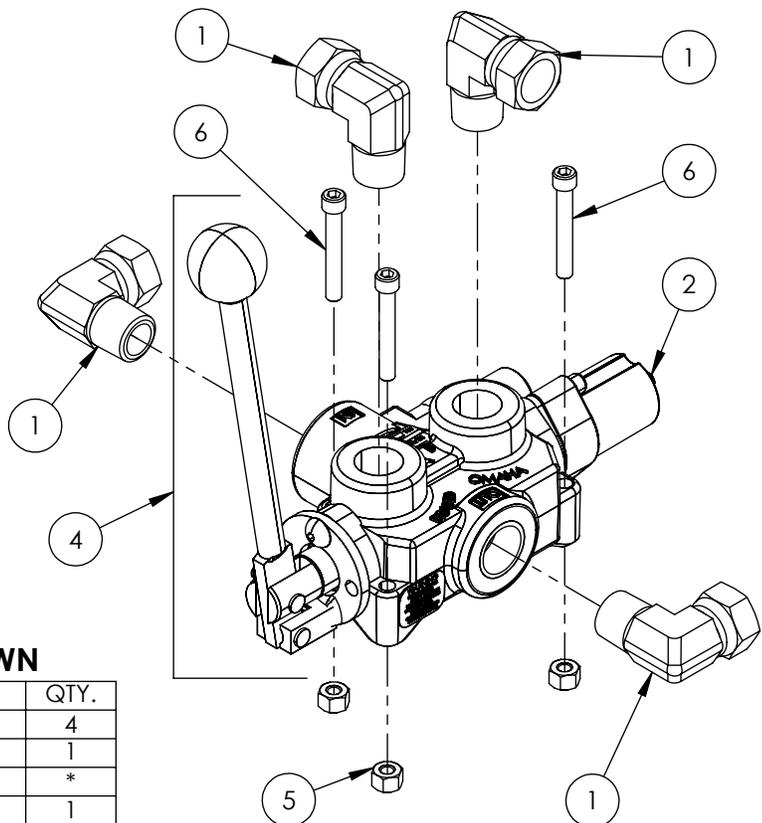
**Cylinder Assembly**



**4" x 24" STROKE CYLINDER PARTS**

ITEM	PART NO.	Description	QTY.
1	2011C1012	Rod, 1-1/2 x 1	1
2	2011C1014	Barrel, 4"	1
3	G400-150SA	4" Bore x 1-1/2" Rod Gland	1
4	P100-400SA	4" Bore Piston	1
5	SLK-4015	Seal Kit, 4 x 1-1/2	1
6	Z72292G8	Hex Lock Nut 1NF Grade 8	1

**Valve Assembly**

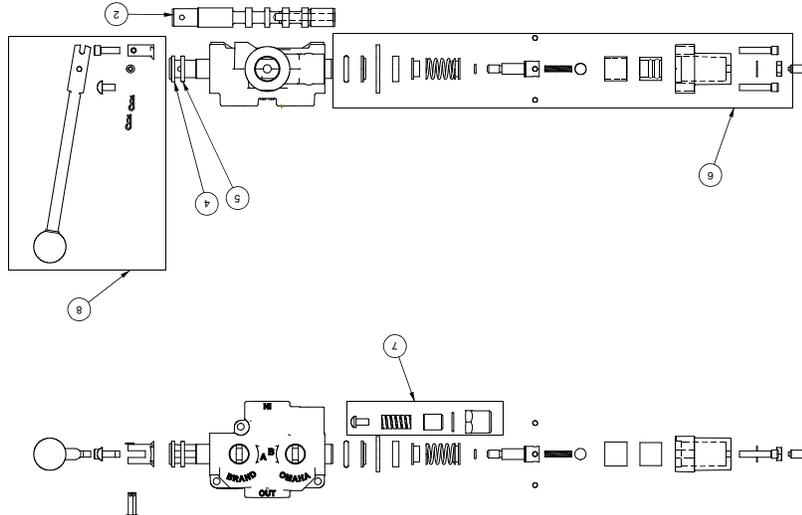


**VALVE AND FITTINGS PARTS BREAKDOWN**

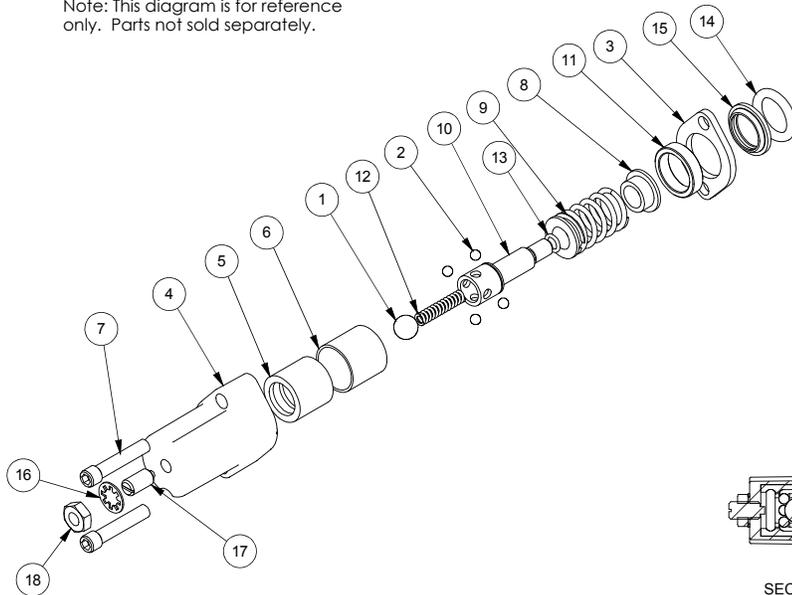
ITEM	PART NO.	Description	QTY.
1	Z51331	Elbow 90 MP x FPX 0808	4
2	Z56209	Valve, Single Function Detent	1
3	*Z56210*	Valve, Closed Center	*
4	Z56915	Complete Handle Kit for Z56209	1
5	Z72111	Hex Lock Nut 1/4NC	3
6	Z75114	SHCS, 1/4NC x 1-3/4	3

\*CLOSED CENTER VALVE REQUIRED FOR "C" MODELS.\*

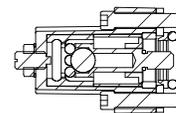
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	AOCAS18	AO CASTING
2	2	LS304T4J	SPOOL
3	1	P1740	NAME TAG
4	1	SF308	WIPER
5	1	LS304	O-RING
6	1	SUB-LS	SUB-LS
7	1	B5057	7/16 BALL
8	1	DC7604	3/16 BALL
9	1	SF306	RETAINER
10	1	SF477L	SH LS ENDCAP
11	1	SF477L	SH LS ENDCAP
12	1	XDC872	LS SLEEVE
13	1	SF486	ALLEN SCREW
14	1	SF483	SPACER
15	1	SF489	CENTER STOP
16	2	SF490	CENTERING SPRING
17	1	SF492	HOUSING
18	1	SF315	SPACER
19	1	LS305	DETENT SPRING
20	1	DC7883	O-RING 3-902
21	1	SF496	METRIC O-RING
22	1	LS306	LS WIPER
23	1	SF502	5/16 LOCK WASHER
24	1	SF503	SPRING PLUNGER
25	1	SF504	5/16 HEX JAM NUT
26	1	SUB-R	RELIEF
27	1	P1603	CAP NUT
28	1	SF322	O-RING 2-016
29	1	SF364A	ADJ SCREW
30	1	B505	SPRING
31	1	SF361A	POPPET
32	1	Z56915	HANDLE KIT
33	1	SF377	RETAINER
34	1	SF378	SEAL RETAINER
35	1	SF379A	CLAVIS
36	1	SF368	HANDLE
37	2	SF369	PIN
38	2	P1767	PIN CLIP
39	1	HP5	MAOCH SCREW
40	1	SF311	KNOB
41	1	SF308	CAP SCREW
42	1	SF303T4J	SPRING TAG
43	1	P1654	WARNING TAG



Note: This diagram is for reference only. Parts not sold separately.



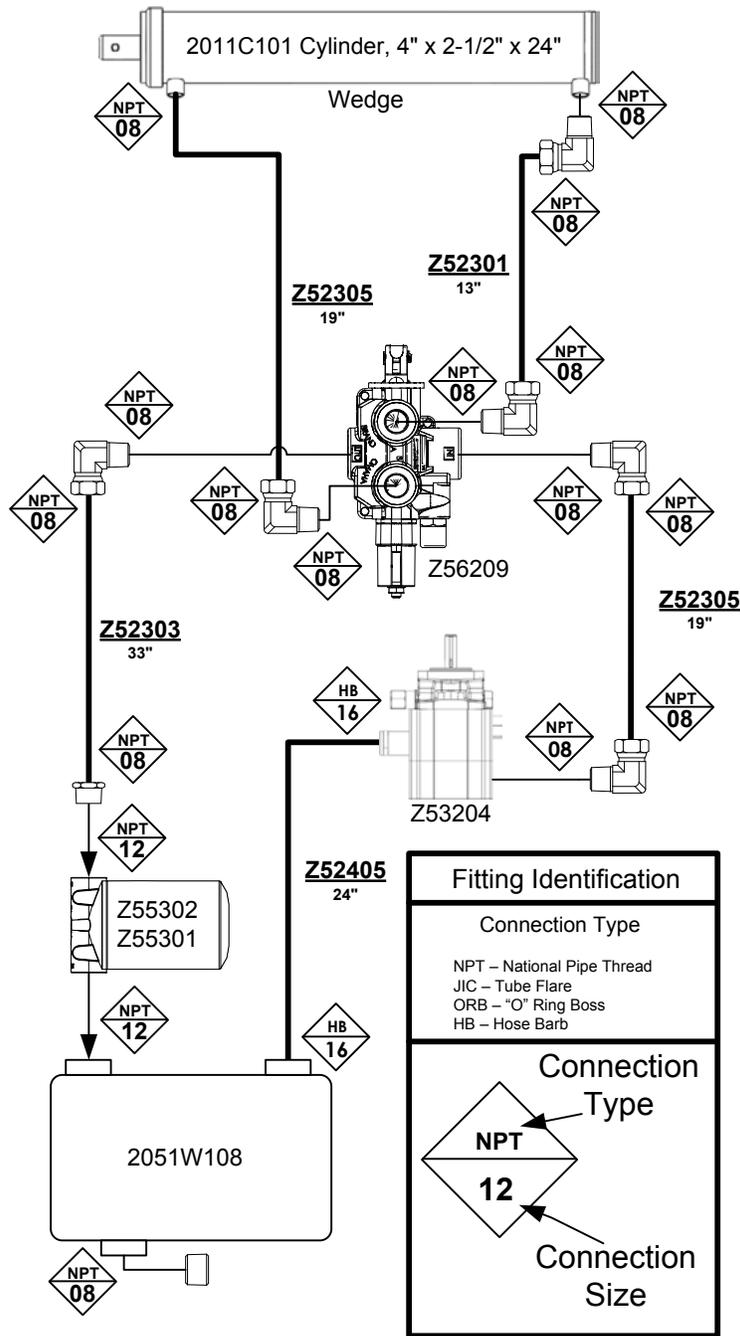
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	B5057	7/16 BALL
2	4	DC7604	3/16 BALL
3	1	SF306	RETAINER
4	1	SF477L	SH LS ENDCAP
5	1	SF480	SD SLEEVE
6	1	SF483	SPACER
7	2	SF486	ALLEN SCREW
8	2	SF489	CENTER STOP
9	1	SF490	CENTERING SPRING
10	1	SF492	HOUSING
11	1	SF315	SPACER
12	1	LS305	DETENT SPRING
13	1	DC7583	O-RING 3-902
14	1	SF496	METRIC O-RING
15	1	LS306	LS WIPER
16	1	SF502	5/16 LOCK WASHER
17	1	SF503	SPRING PLUNGER
18	1	SF504	5/16 HEX JAM NUT



SECTION A-A



**Hydraulic Schematic**



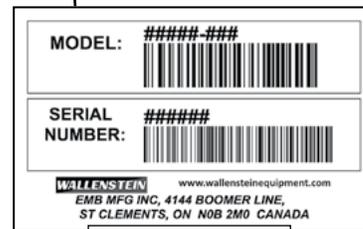
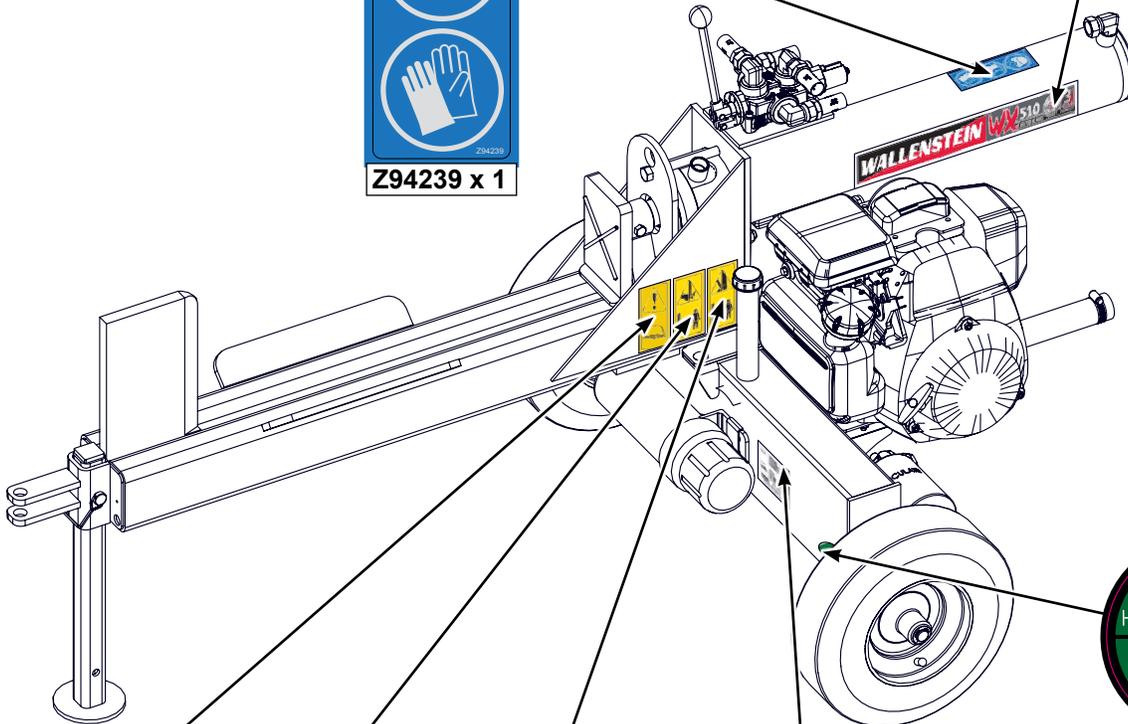
**Hydraulic Hose List**

Part No.	Description	Qty
Z52405	Suction Hose, 1 x 22	1
Z52301	1/2" Hose, MP08 x MP08 x 13	1
Z52303	1/2" Hose, MP08 x MP08 x 33	1
Z52305	1/2" Hose, MP08 x MP08 x 21	2

Label Layout



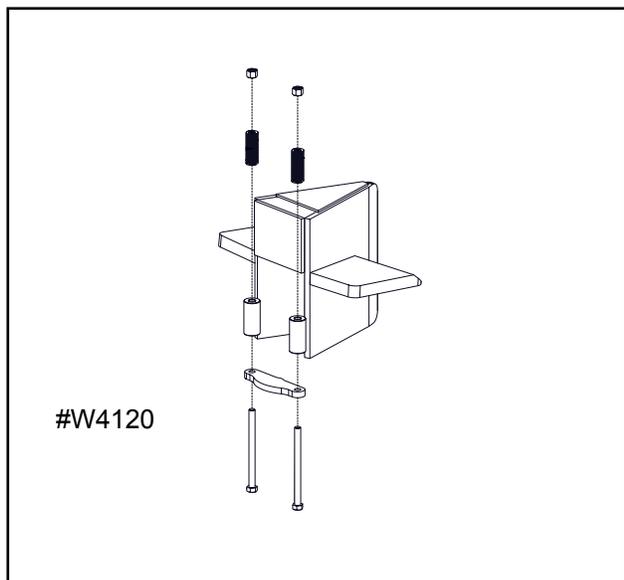
WX510 Z94679 x 2



Serial Location

**Accessories**

Call your dealer for pricing and availability



**#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, Ont. N0B 2M0 - Canada  
Ph: (519) 699-8283 - Fax: (519) 699-4146  
www.embmfg.com

WX520  
WX540  
WX640  
WX620  
WX920  
WX980  
WX960

**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)