



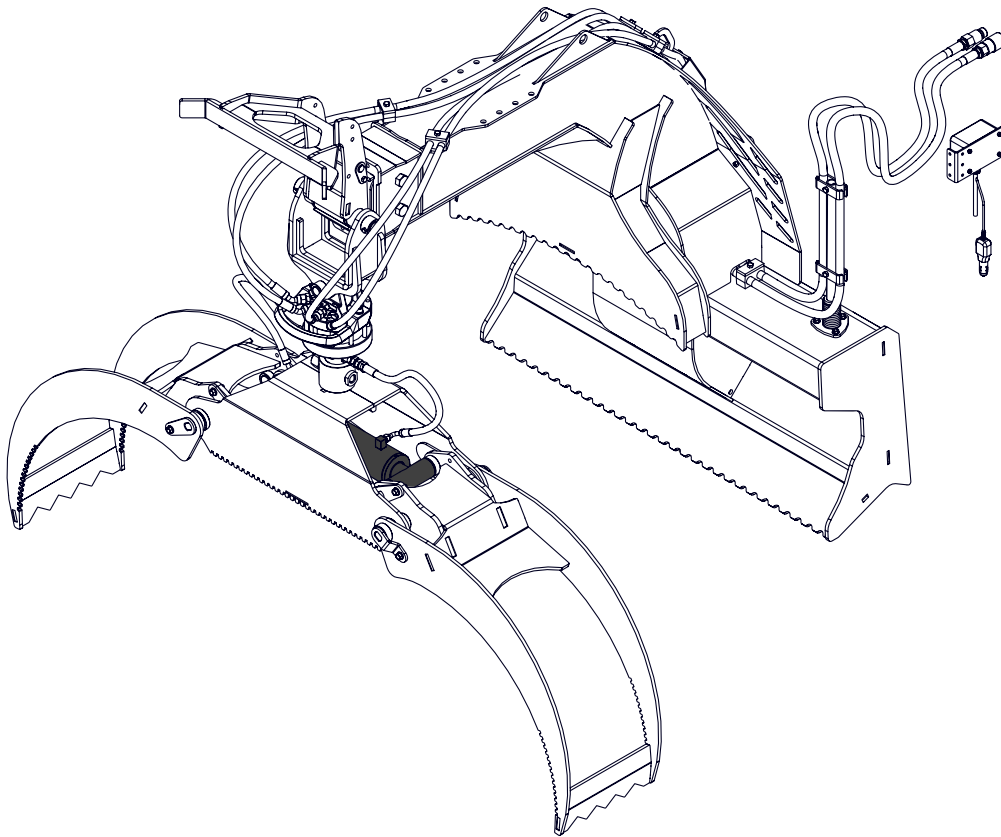
EMB Manufacturing Inc.  
4144 Boomer Line · St. Clements, Ontario · N0B 2M0 · Canada  
[www.wallensteinequipment.com](http://www.wallensteinequipment.com)

# PARTS MANUAL

## LXG430R

### Skid Steer Grapple

Serial Number 430R001 & up



Refer to the operators manual for safe operation and maintenance

## 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, are essential to 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 at the date of printing. 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.

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

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 **WARNING!**

Refer to the operators manual for safe operation and maintenance.

Maintenance should be performed by trained personnel only.

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**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	
	lb•ft	N•m	lb•ft	N•m	lb•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	
	lb•ft	N•m	lb•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.

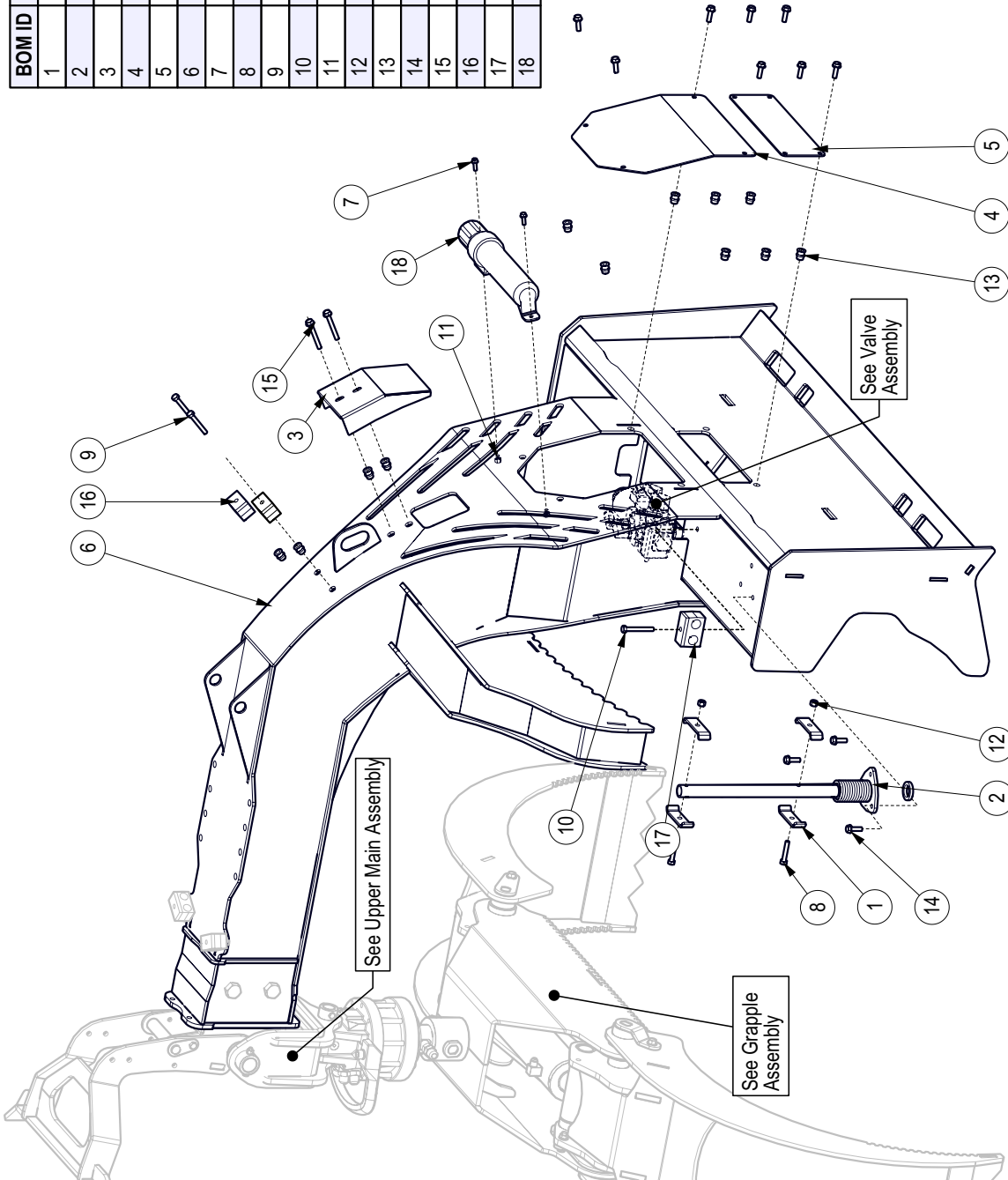
If a torque wrench is not available, use the FFFT (Flats From Finger Tight) method.

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

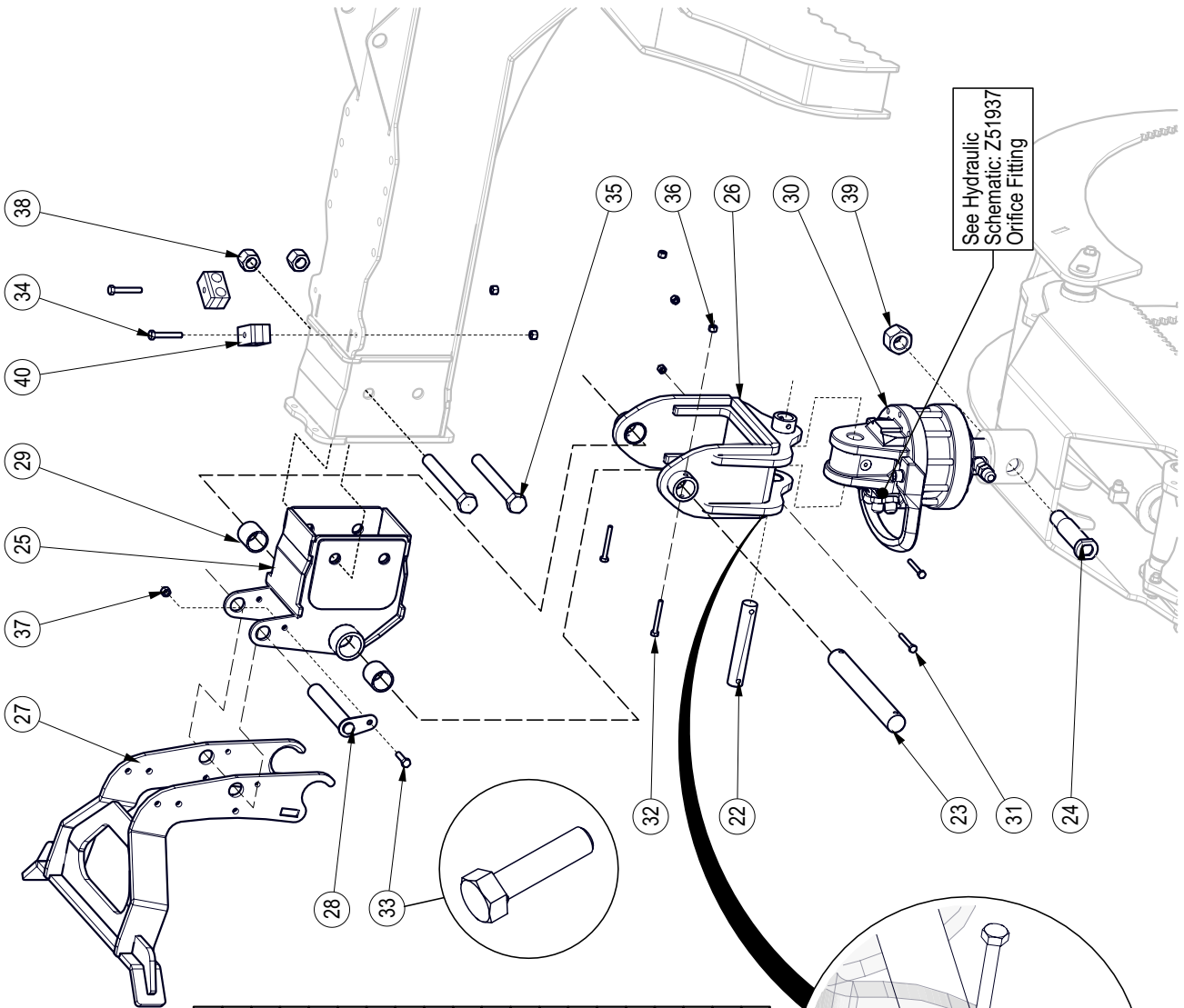
Values shown are for non-lubricated connections.

BOM ID	Part No.	Description	Qty
1	3011L176	Clamp, Two Hose	4
2	6071W102	Hose Mount Whip	1
3	6073L514	Box, Hydraulic Hose Cover	1
4	6073L516	Plate, Short Hydraulic Cover	1
5	6073L517	Plate, Lower Hydraulic Cover	1
6	6073W501	Weldment, Mainframe	1
7	Z76111	Flange Bolt, 1/4NC x 3/4"	2
8	Z71217	Hex Bolt, 5/16NC x 1-3/4"	2
9	Z71222	Hex Bolt, 5/16NC x 2-1/4"	2
10	Z71225	Hex Bolt, 5/16NC x 2-1/2"	1
11	Z72211	Hex Lock Nut, 1/4NC	2
12	Z72221	Hex Lock Nut, 5/16NC	2
13	Z72957	Rivet Nut, 5/16NC x 312	12
14	Z76125	Flange Bolt, 5/16NC x 1"	11
15	Z76126	Flange Bolt, 5/16NC x 2-1/2"	2
16	Z79463	Double Hose Clamp, 11/16" OD	2
17	Z79464	Double Hose Clamp, 13/16" OD	1
18	Z96505	Manual Tube, 2" Short	1

**Lower Main Frame Assembly**



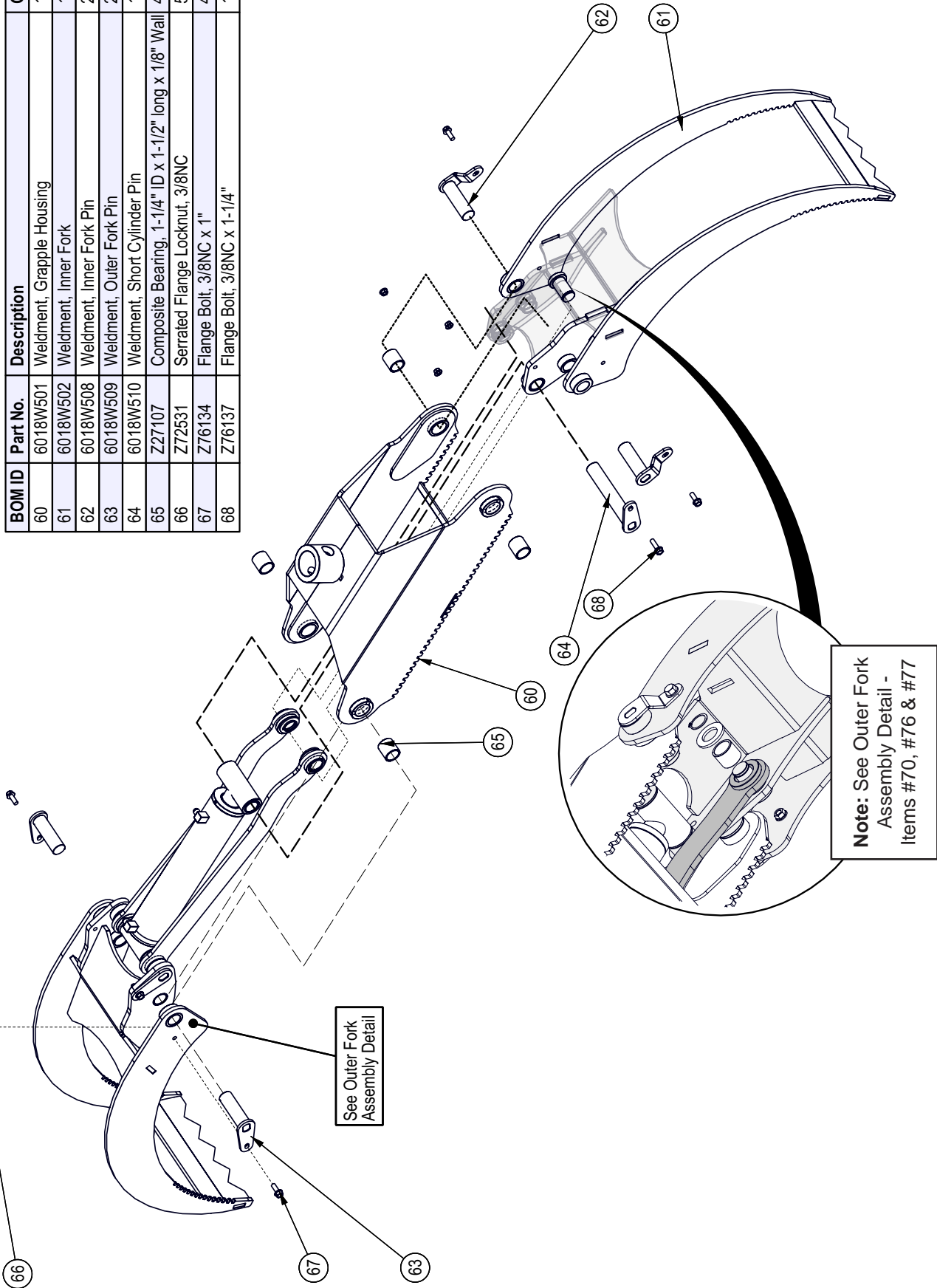
**Upper Main Frame Assembly**



BOM ID	Part No.	Description	Qty
22	6018M514	Pin, Rotator Swing	1
23	6018M515	Pin, Rotator Mount	1
24	6018W514	Weldment, Clamp Mount Pin	1
25	6018W506	Weldment, Hanger Arm	1
26	6018W507	Weldment, Hanger	1
27	6018W513	Weldment, Push Bar	1
28	6018W515	Weldment, Push Bar Mount Pin	1
29	Z27107	Composite Bearing, 1-1/4" ID x 1-1/2" long x 1/8" Wall	2
30	Z54110	Hydraulic Rotator, CR400W	1
31	Z71120	Hex Bolt, 1/4NC x 2"	2
32	Z71122	Hex Bolt, 1/4NC x 2-1/4"	2
33	Z71212	Hex Bolt, 5/16NC x 1-1/4"	1
34	Z71220	Hex Bolt, 5/16NC x 2"	2
35	Z71765	Hex Bolt, 3/4NC x 6-1/2"	2
36	Z72211	Hex Lock Nut, 1/4NC	4
37	Z72221	Hex Lock Nut, 5/16NC	3
38	Z72271	Hex Lock Nut, 3/4NC	2
39	Z72291	Hex Lock Nut, 1NC	1
40	Z79463	Double Hose Clamp, 11/16" OD	2

**Grapple Assembly**

BOM ID	Part No.	Description	Qty
60	6018W501	Weldment, Grapple Housing	1
61	6018W502	Weldment, Inner Fork	1
62	6018W508	Weldment, Inner Fork Pin	2
63	6018W509	Weldment, Outer Fork Pin	2
64	6018W510	Weldment, Short Cylinder Pin	1
65	Z27107	Composite Bearing, 1-1/4" ID x 1-1/2" long x 1/8" Wall	4
66	Z72531	Serrated Flange Locknut, 3/8NC	5
67	Z76134	Flange Bolt, 3/8NC x 1"	4
68	Z76137	Flange Bolt, 3/8NC x 1-1/4"	1

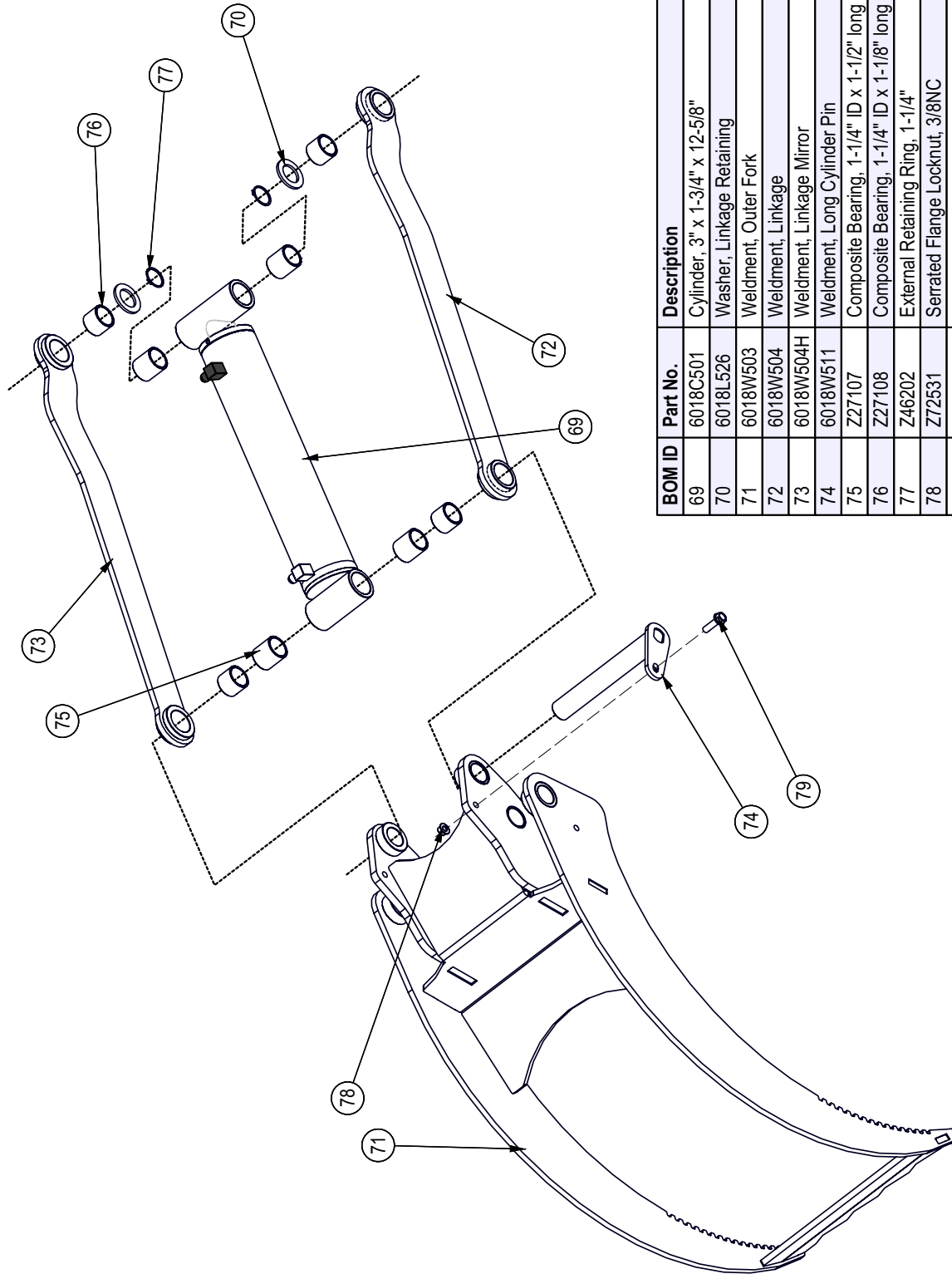


See Outer Fork Assembly Detail

**Note:** See Outer Fork Assembly Detail - Items #70, #76 & #77

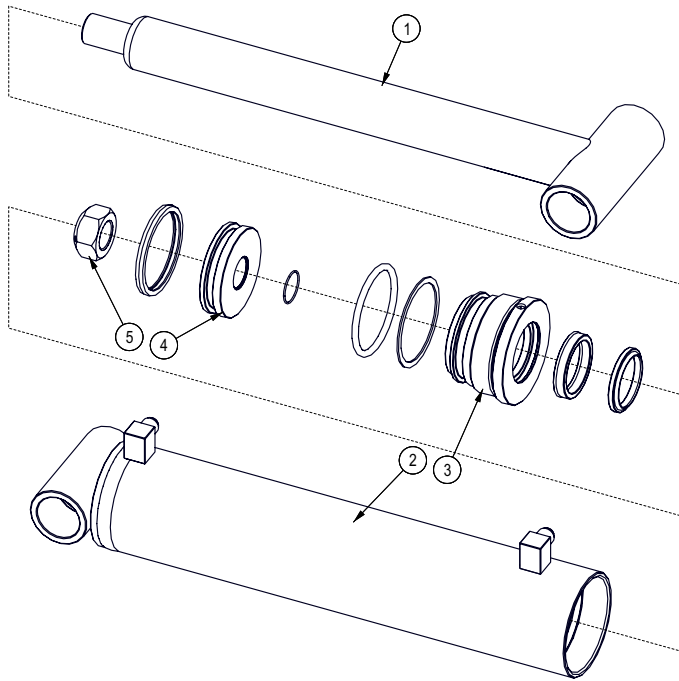


**Outer Fork Assembly Detail**



BOM ID	Part No.	Description	Qty
69	6018C501	Cylinder, 3" x 1-3/4" x 12-5/8"	1
70	6018L526	Washer, Linkage Retaining	2
71	6018W503	Weldment, Outer Fork	1
72	6018W504	Weldment, Linkage	1
73	6018W504H	Weldment, Linkage Mirror	1
74	6018W511	Weldment, Long Cylinder Pin	1
75	Z27107	Composite Bearing, 1-1/4" ID x 1-1/2" long x 1/8" Wall	4
76	Z27108	Composite Bearing, 1-1/4" ID x 1-1/8" long x 1/8" Wall	4
77	Z46202	External Retaining Ring, 1-1/4"	2
78	Z72531	Serrated Flange Locknut, 3/8NC	1
79	Z76137	Flange Bolt, 3/8NC x 1-1/4"	1

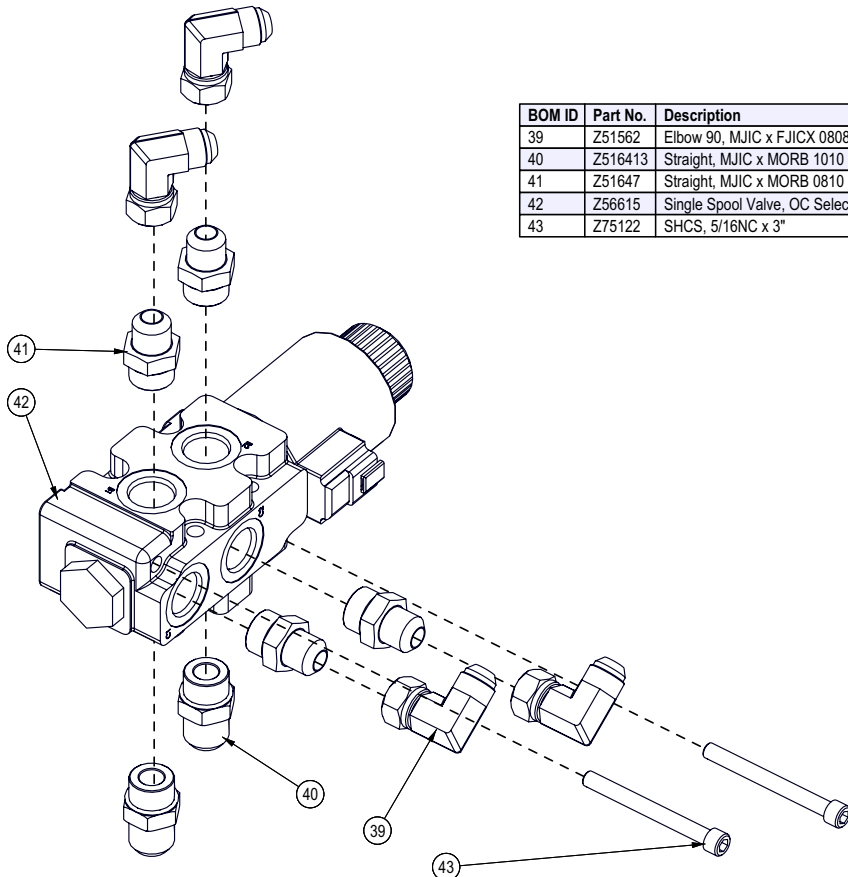
### Cylinder Assembly



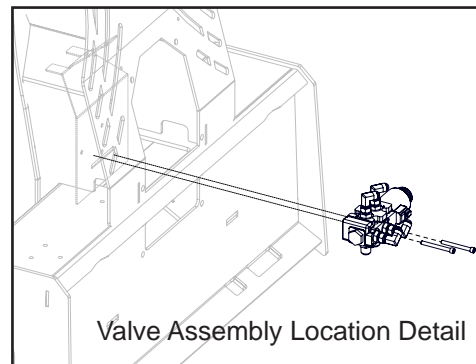
**Seal Kit #SLK-3017**

BOM ID	Part No.	Description	Qty
1	6018C5013	Rod, 1-3/4" 1"	1
2	6018C5014	Barrel, 3"	1
3	G300-175S	Gland, 3" x 1-3/4"	1
4	P100-300SP	Piston, 3" Bore	1
5	Z722909G8	Hex Top-lock Nut, 1-14NF G8	1

### Valve Assembly

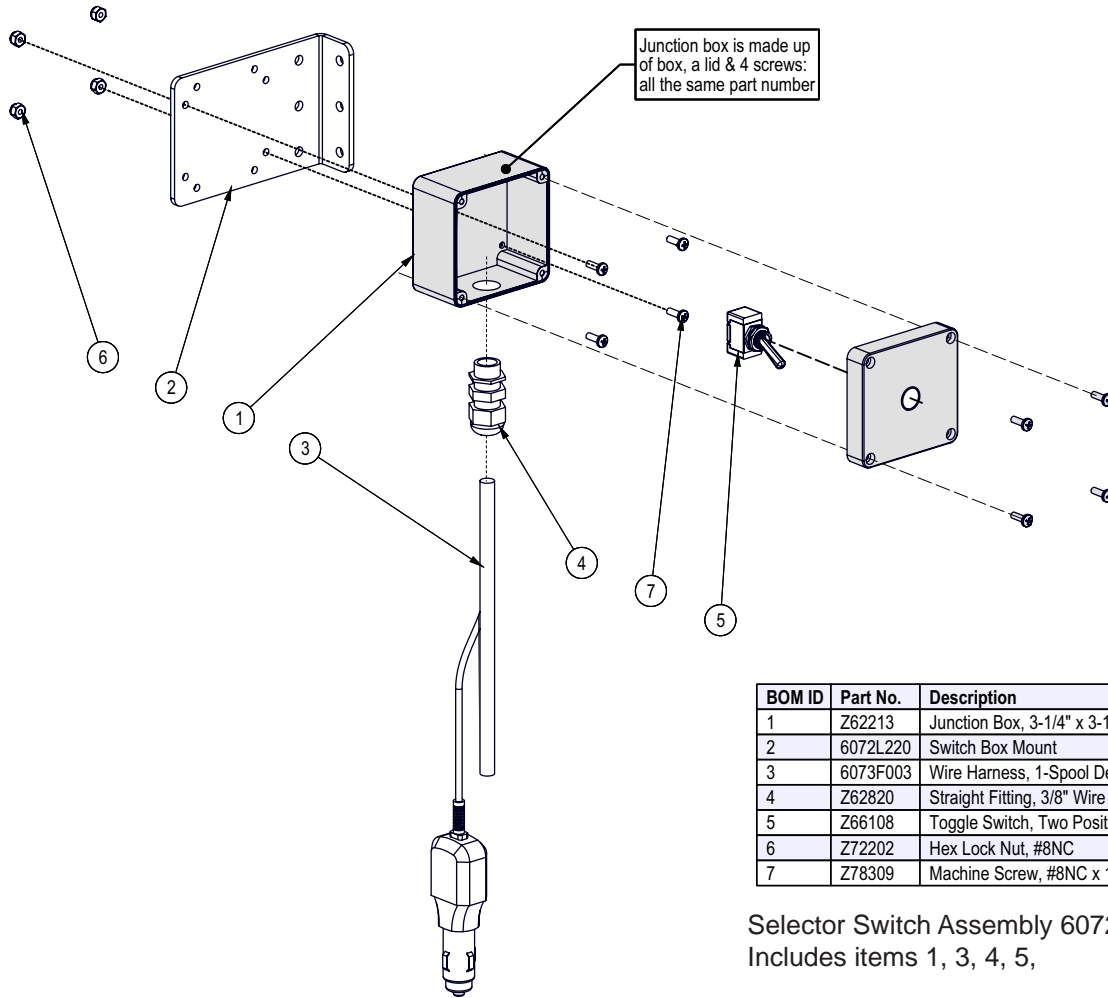


BOM ID	Part No.	Description	Qty
39	Z51562	Elbow 90, MJIC x FJICX 0808	4
40	Z516413	Straight, MJIC x MORB 1010	2
41	Z51647	Straight, MJIC x MORB 0810	4
42	Z56615	Single Spool Valve, OC Selector SOL x 21GPM	1
43	Z75122	SHCS, 5/16NC x 3"	2



Valve Assembly Location Detail

**Selector Switch Assembly**



BOM ID	Part No.	Description	Qty
1	Z62213	Junction Box, 3-1/4" x 3-1/4" x 2-1/4"	1
2	6072L220	Switch Box Mount	1
3	6073F003	Wire Harness, 1-Spool Deutsch Connector	1
4	Z62820	Straight Fitting, 3/8" Wire	1
5	Z66108	Toggle Switch, Two Position	1
6	Z72202	Hex Lock Nut, #8NC	4
7	Z78309	Machine Screw, #8NC x 1/2"	4

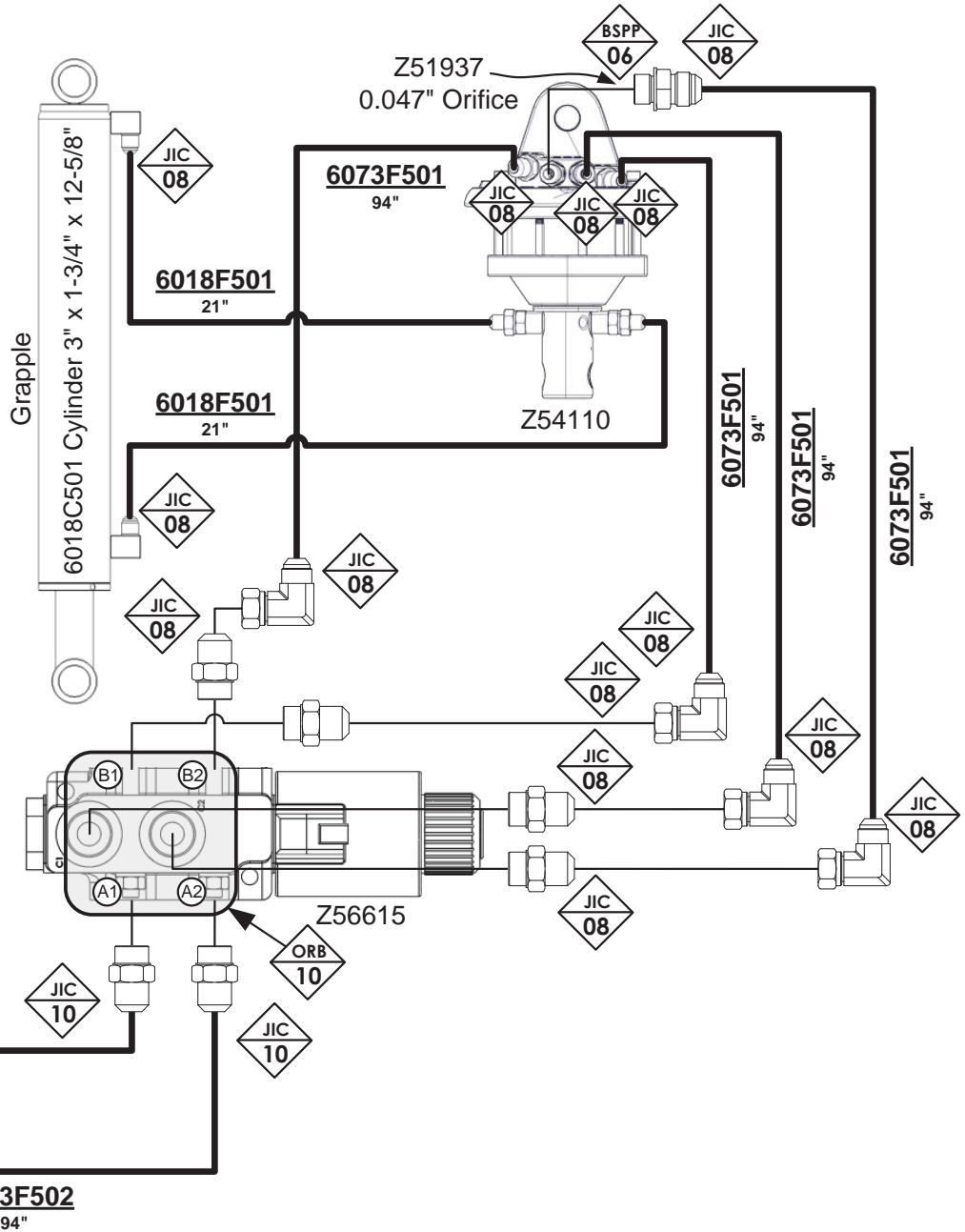
Selector Switch Assembly 6072A205  
Includes items 1, 3, 4, 5,

**Hydraulic Hose List**

Part No.	Description	Qty
6018F501	3/8" Hose, FJIC08 x 90FJIC06 x 21	2
6073F501	3/8" Hose, FJIC08 x 45FJIC08 x 94	4
6073F502	1/2" Hose, MP08 x 90FJIC10 x 94	2

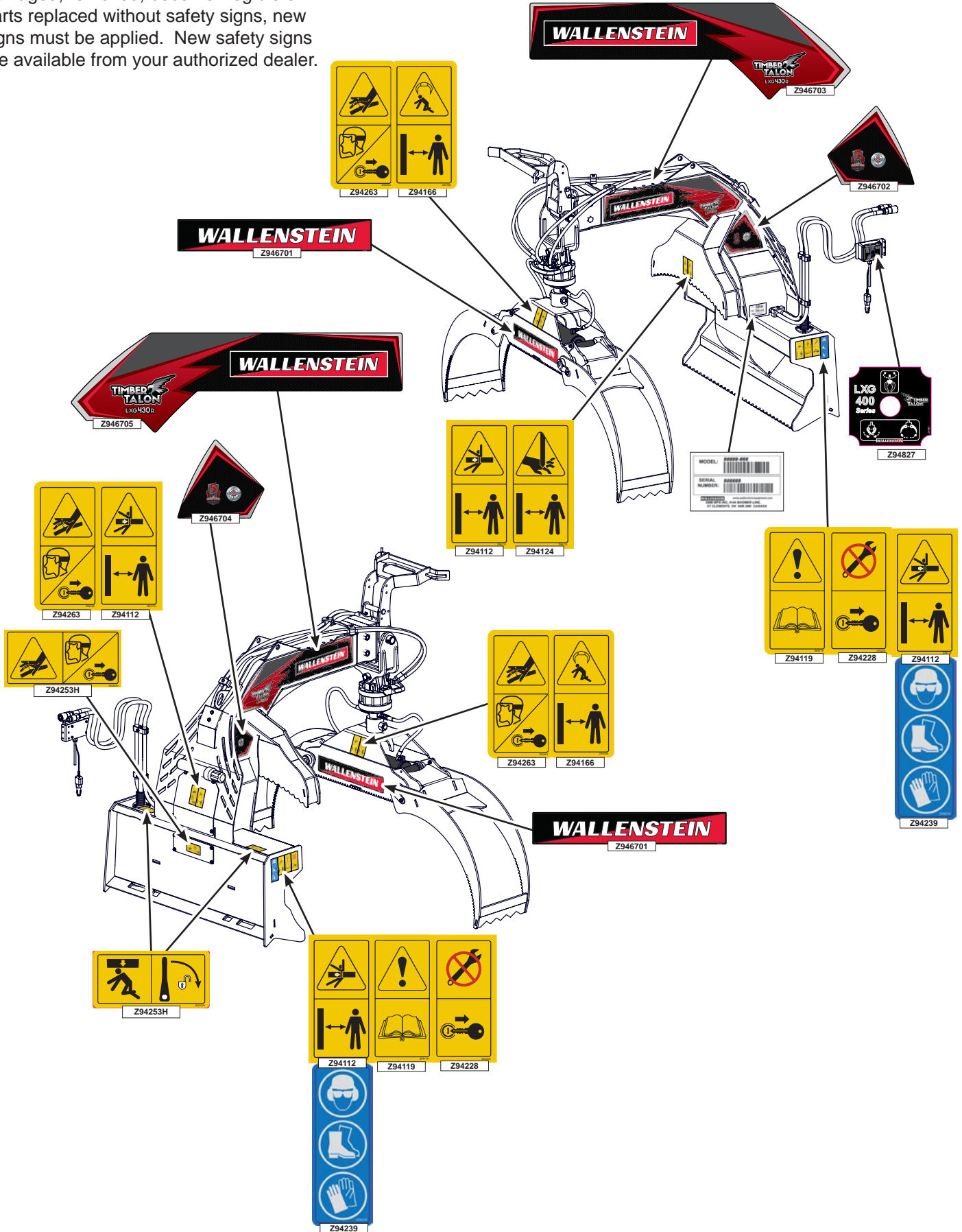
### Hydraulic Schematic

Fitting Identification	
Connection Type	
NPT – National Pipe Thread	
JIC – Tube Flare	
ORB – "O" Ring Boss	
HB – Hose Barb	
BSPP – British Standard Pipe (Parallel)	
Connection Type	
Type	
NPT	
12	
Connection Size	



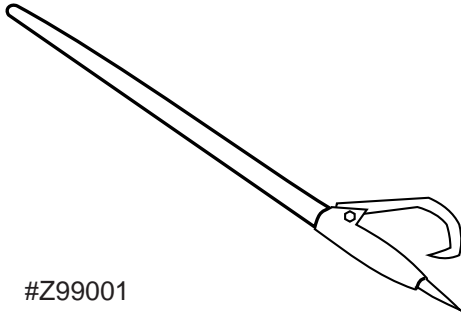
**Labels**

REMEMBER - If safety signs have been damaged, removed, become illegible or parts replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.



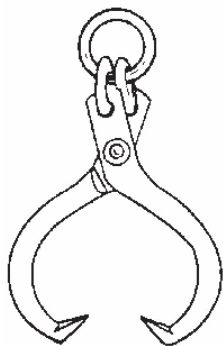
**Accessories**

Call your dealer for pricing and availability



**#Z99001 48" LOG PEAVEY**

Quality 2 3/8" diameter hardwood handle, with a Western Duck Bill Hook.  
Helps to move those heavy log timbers into position.



**#Z99003 SKIDDING TONGS**

Heavy Duty Forged Ring Skidding Tongs  
Maximum Opening: 25"  
Minimum Opening: 4-1/2"  
Tough log skidding tongs are a quick and easy way to skid logs.

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LXG430RP LXG430S  
LXG430R LXG420R  
LXG420S

**LXG400 SERIES SKIDSTEER  
GRAPPLE OPERATOR'S MANUAL**

**NOTICE**  
Operation Hazard:  
Do not activate hydraulic high flow to the remotes when using the grapple attachment. The grapple is designed to work with standard flow settings and will be damaged if used in high flow settings.

Do not attempt to start or operate the equipment without thoroughly reviewing this manual for safe and proper operation.  
**Keep this manual with the machine at all times**

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PART NUMBER: Z97107

**#Z97107 GRAPPLE OPERATOR'S MANUAL**

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