

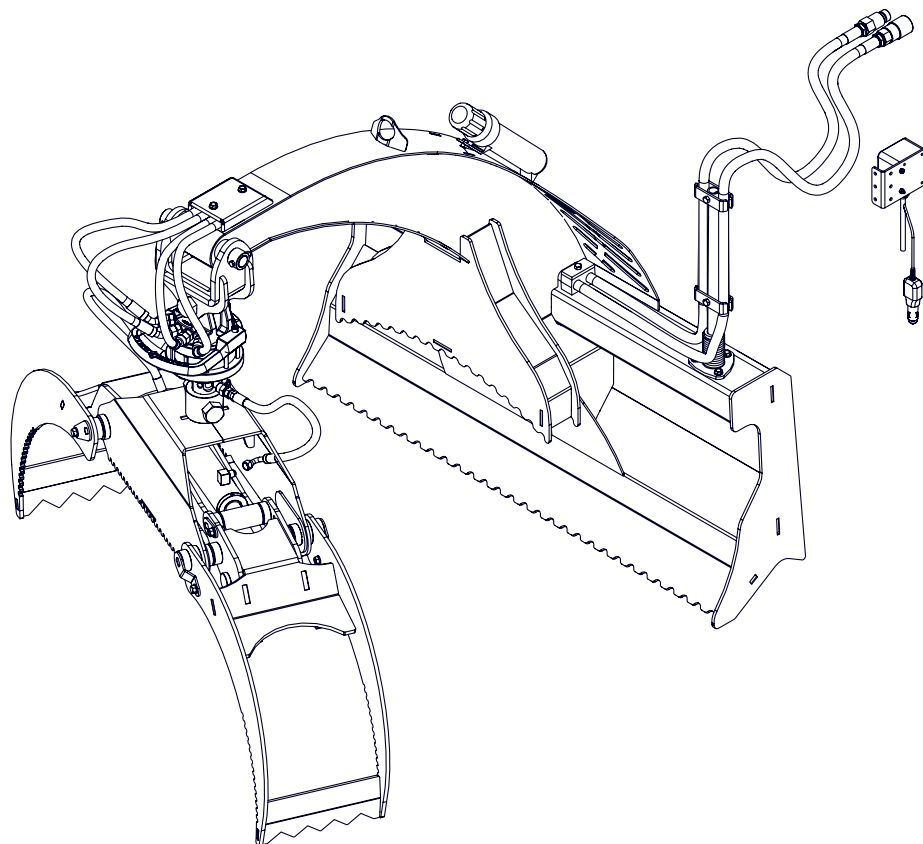


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LXG420R

Skid Steer Grapple

Starting with S/N's
420R001 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.

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Maintenance should be performed by
trained personnel only.



Refer to the operators
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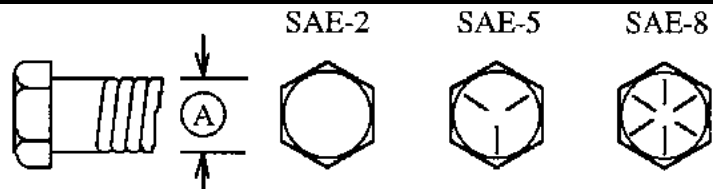
Bolt Torque

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.

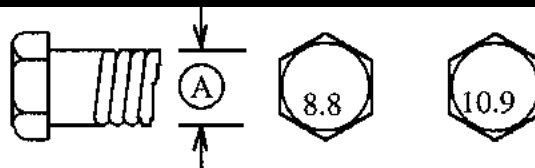
ENGLISH TORQUE SPECIFICATIONS

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 *

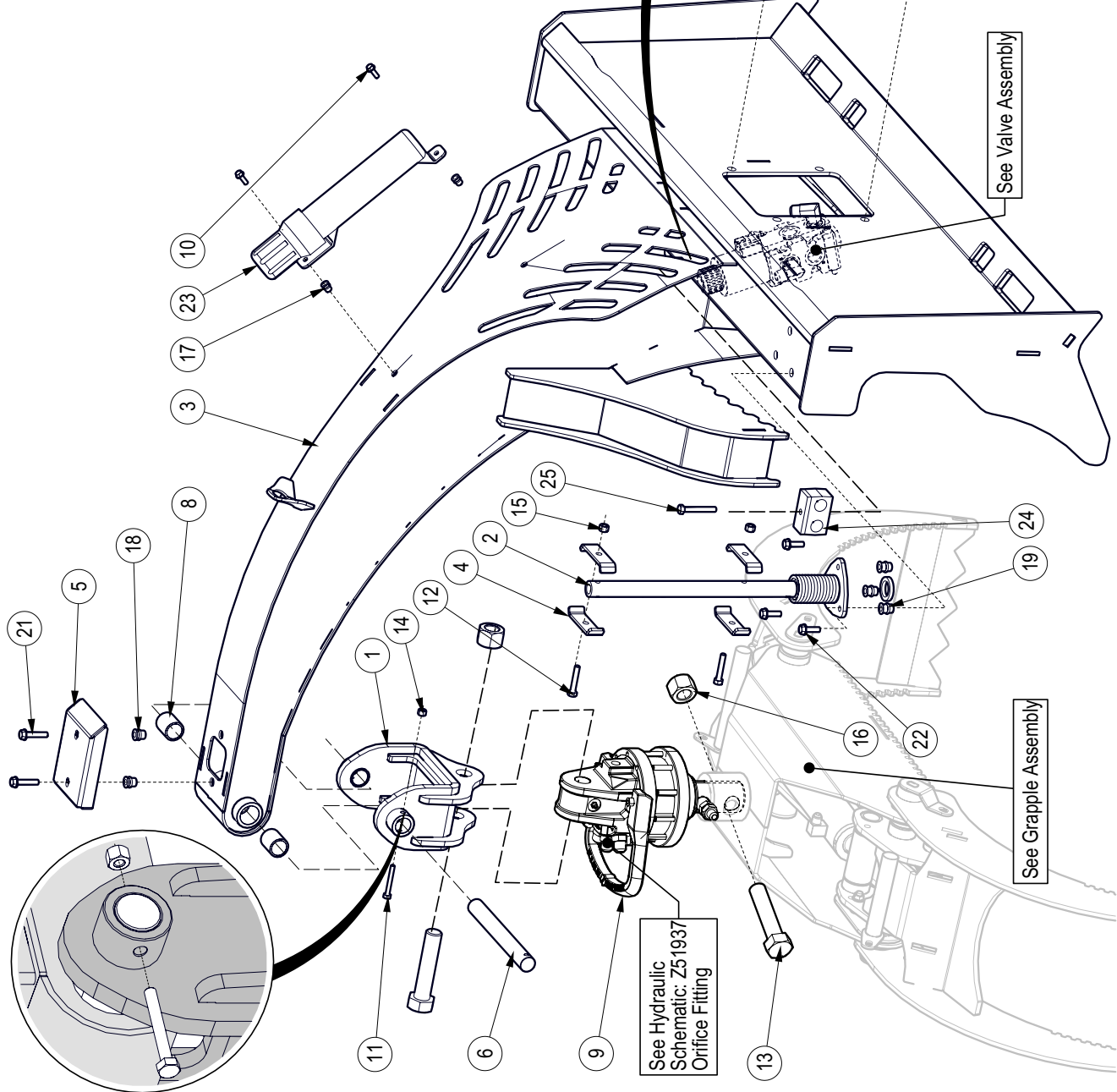
1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

Tube Size OD	Nut Size Across Flats	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
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

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

BOM ID	Part No.	Description	Qty
1	6018W007	Weldment, Hanger	1
2	6071W102	Hose Mount Whip	1
3	6073W001	Weldment, Mainframe	1
4	3011L176	Clamp, Two Hose	4
5	6018L031	Cover, Hydraulic Hose	1
6	6018M015	Pin, Rotator Mount	1
7	6073L014	Plate, Hydraulic Valve Cover	1
8	Z27109	Composite Bearing, 1" ID x 1-1/2" long x 1/8" Wall	2
9	Z54107	Hydraulic Rotator, CR300W	1
10	Z76111	Flange Bolt, 1/4NC x 3/4"	2
11	Z71120	Hex Bolt, 1/4NC x 2"	1
12	Z71217	Hex Bolt, 5/16NC x 1-3/4"	2
13	Z71911	Hex Bolt, 1NC x 4-1/2"	2
14	Z72211	Hex Lock Nut, 1/4NC	1
15	Z72221	Hex Lock Nut, 5/16NC	2
16	Z72291	Hex Lock Nut, 1NC	2
17	Z72955	Rivet Nut, 1/4NC x 165	2
18	Z72956	Rivet Nut, 5/16NC x 150	2
19	Z72957	Rivet Nut, 5/16NC x 312	7
20	Z76121	Flange Bolt, 5/16NC x 3/4"	4
21	Z76123	Flange Bolt, 5/16NC x 1-1/2"	2
22	Z76125	Flange Bolt, 5/16NC x 1"	3
23	Z96505	Manual Tube, 2" Short	1
24	Z79464	Double Hose Clamp, 13/16" OD	1
25	Z71222	Hex Bolt, 5/16NC x 2-1/4"	1

Main Assembly



Detail of Item #25 & #24 Installation

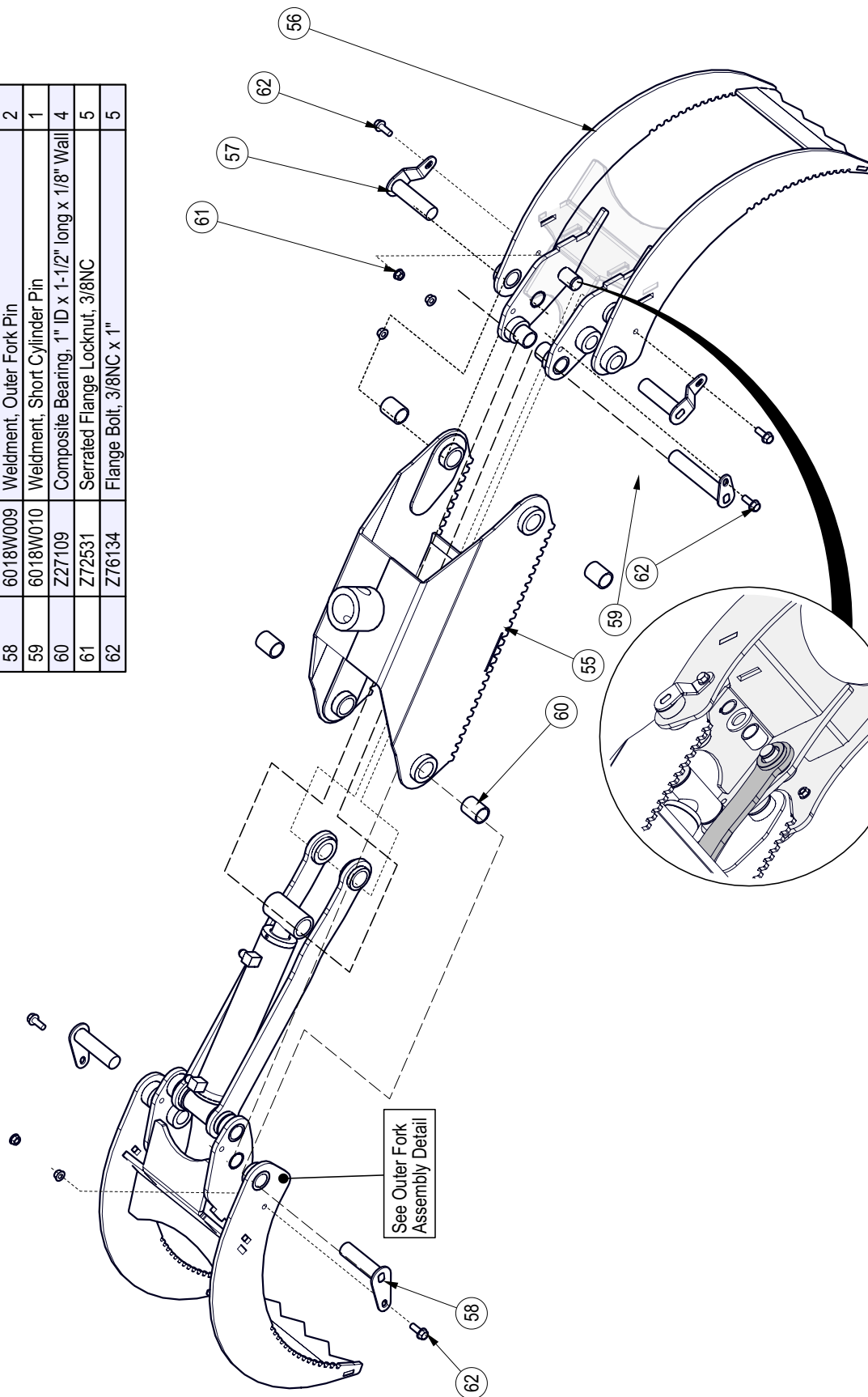
See Valve Assembly

See Grapple Assembly

See Hydraulic Schematic: Z51937 Orifice Fitting

Grapple Assembly

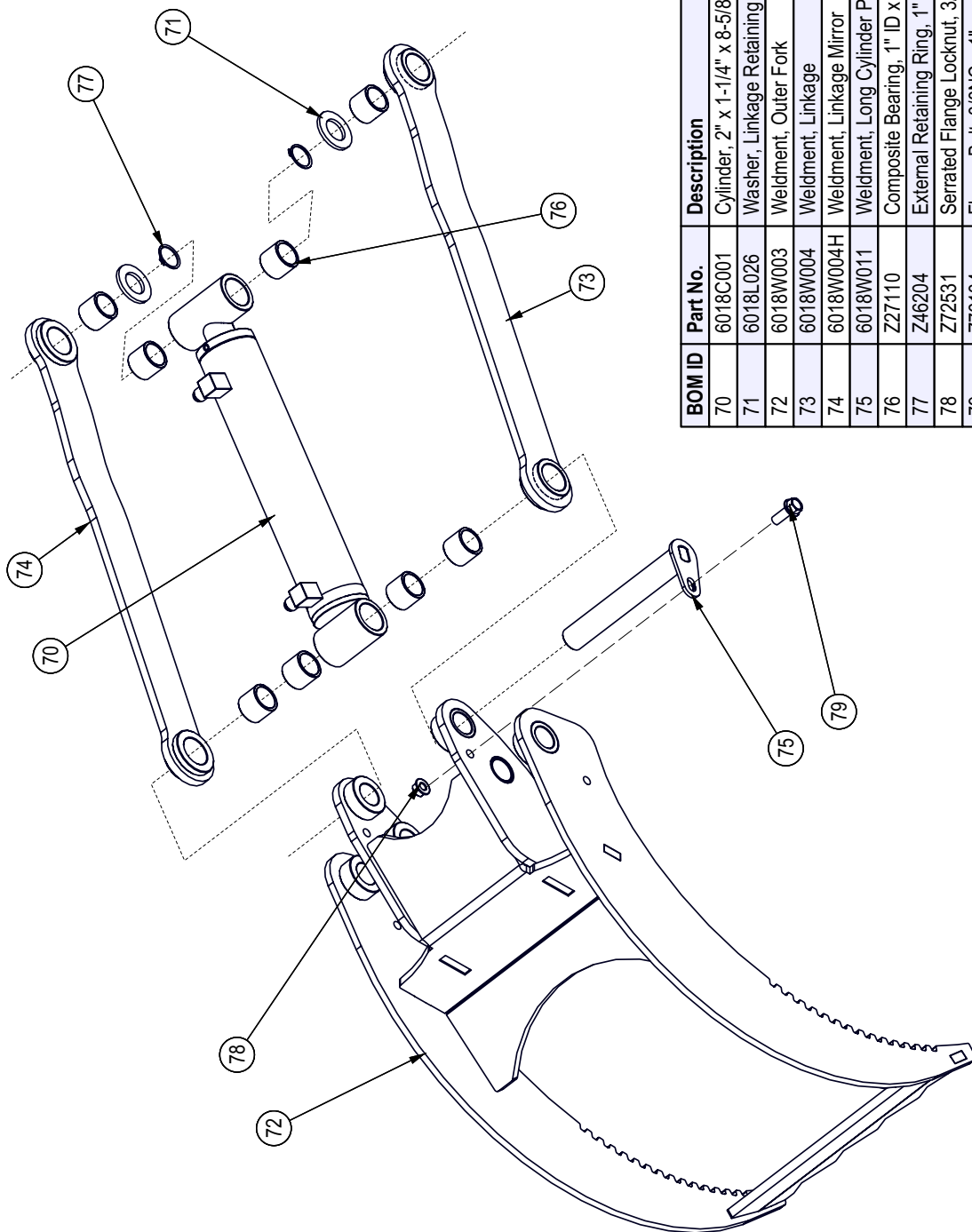
BOM ID	Part No.	Description	Qty
55	6018W001	Weldment, Grapple Housing	1
56	6018W002	Weldment, Inner Fork	1
57	6018W008	Weldment, Inner Fork Pin	2
58	6018W009	Weldment, Outer Fork Pin	2
59	6018W010	Weldment, Short Cylinder Pin	1
60	Z27109	Composite Bearing, 1" ID x 1-1/2" long x 1/8" Wall	4
61	Z72531	Serrated Flange Locknut, 3/8NC	5
62	Z76134	Flange Bolt, 3/8NC x 1"	5



See Outer Fork
Assembly Detail

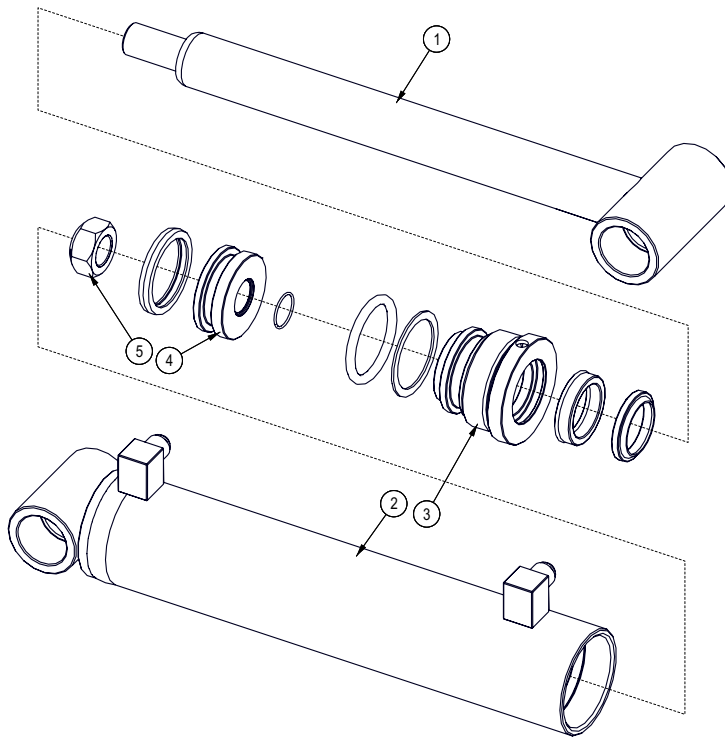
Note: See Outer Fork
Assembly Detail -
Items #71, #76 & #77

Outer Fork Assembly Detail



BOM ID	Part No.	Description	Qty
70	6018C001	Cylinder, 2" x 1-1/4" x 8-5/8"	1
71	6018L026	Washer, Linkage Retaining	2
72	6018W003	Weldment, Outer Fork	1
73	6018W004	Weldment, Linkage	1
74	6018W004H	Weldment, Linkage Mirror	1
75	6018W011	Weldment, Long Cylinder Pin	1
76	Z27110	Composite Bearing, 1" ID x 1" long x 1/8" Wall	8
77	Z46204	External Retaining Ring, 1"	2
78	Z72531	Serrated Flange Locknut, 3/8NC	1
79	Z76134	Flange Bolt, 3/8NC x 1"	1

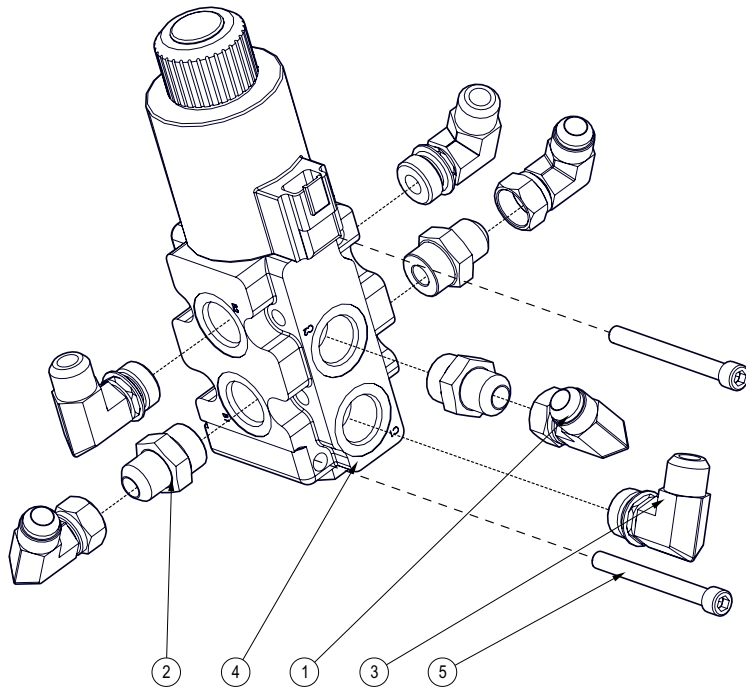
Cylinder Detail



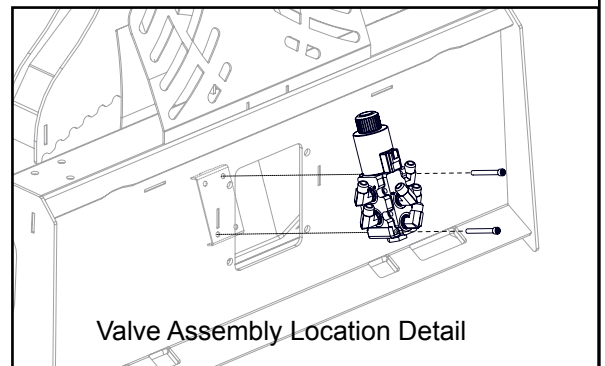
Seal Kit #SLK-2012

BOM ID	Part No.	Description	Qty
1	6018C0013	Rod, 1-1/4" x 3/4NF	1
2	6018C0014	Barrel, 2"	1
3	G200-125S	Gland, 2" x 1-1/4"	1
4	P750-200SP	Piston, 2" Bore	1
5	Z72276G8	Hex Top-lock Nut, 3/4NF G8	1

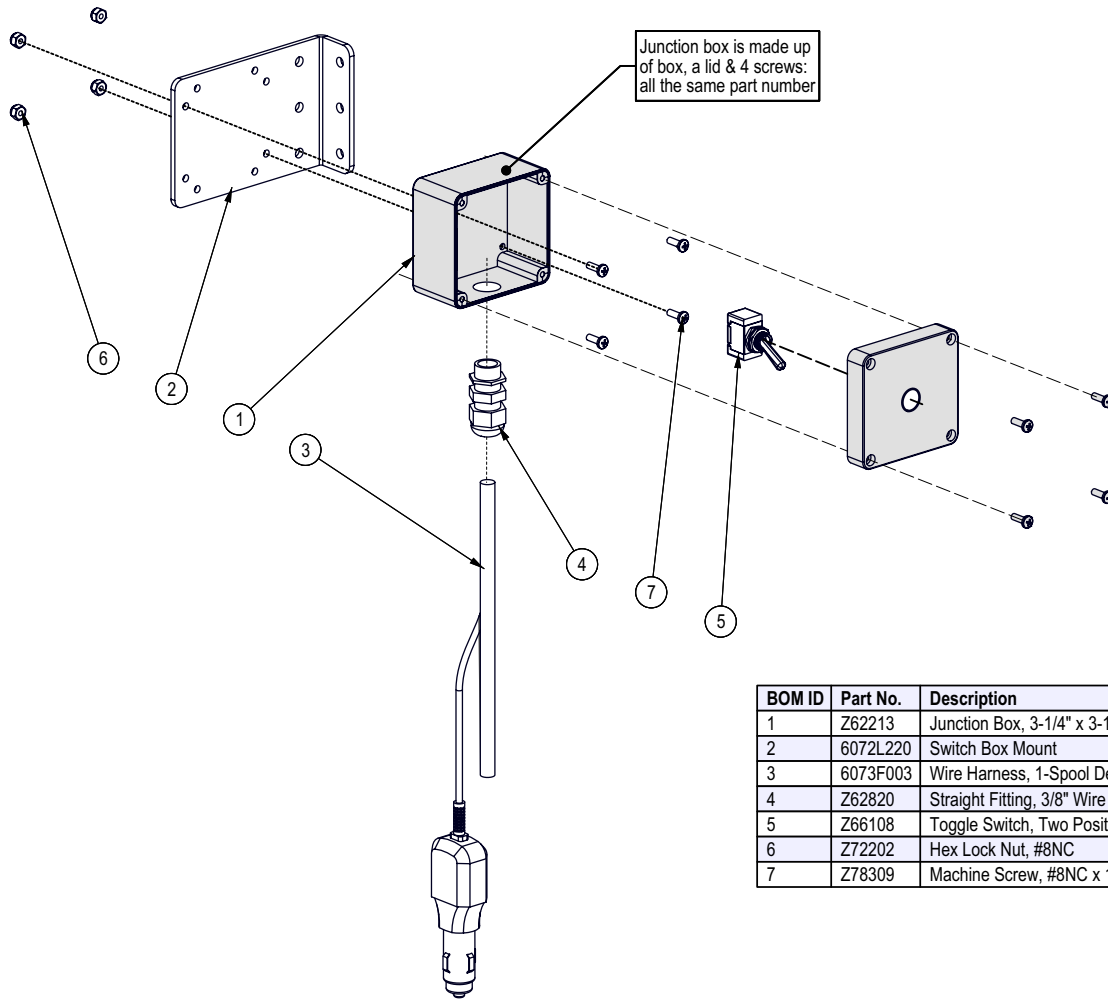
Valve Assembly



BOM ID	Part No.	Description	Qty
1	Z51562	Elbow 90, MJIC x FJICX 0808	3
2	Z51647	Straight, MJIC x MORB 0810	3
3	Z51658	Elbow 90, MJIC x MORB 0810	3
4	Z56615	Single Spool Valve, OC Selector SOL x 21GPM	1
5	Z75122	SHCS, 5/16NC x 3"	2



Selector Switch Assembly



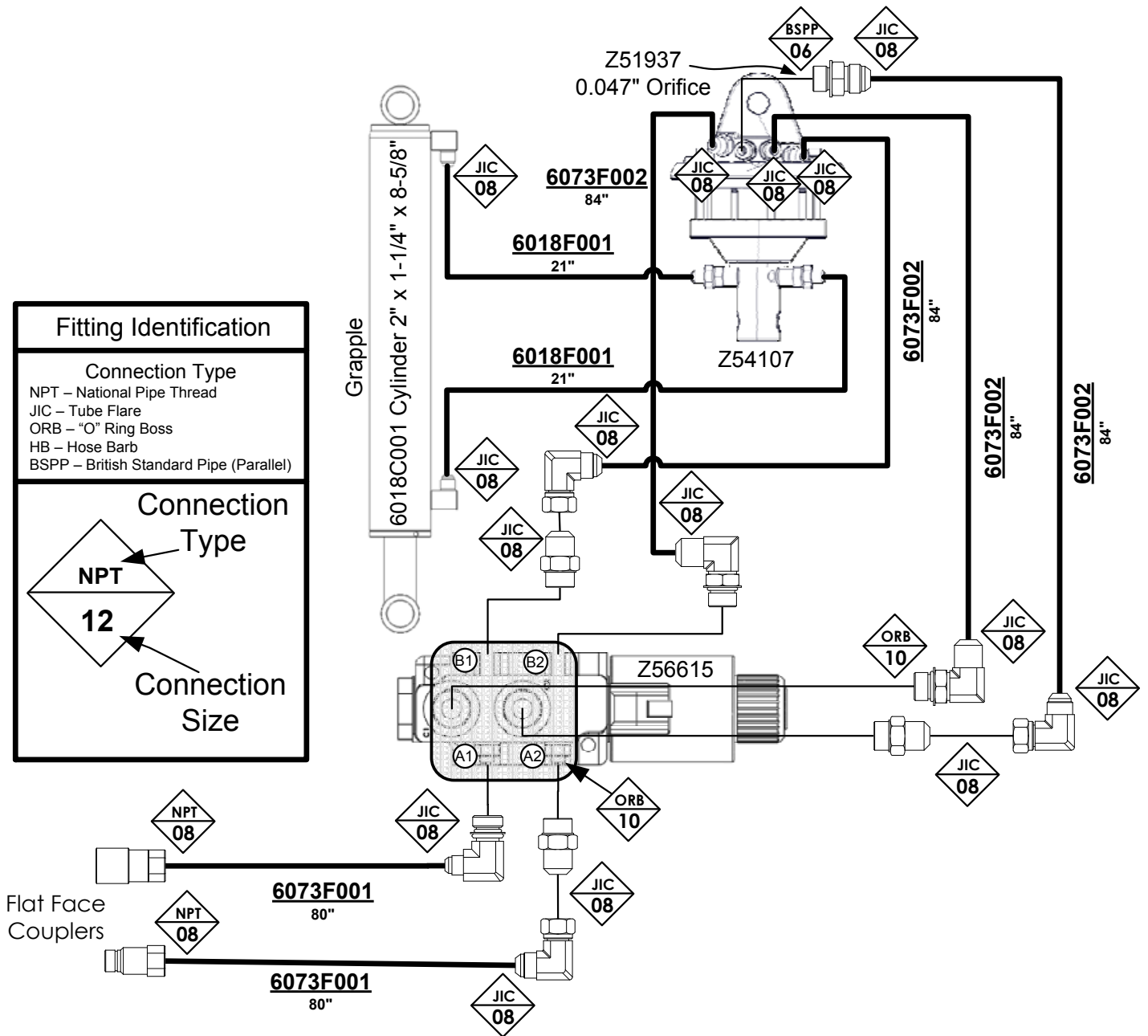
BOM ID	Part No.	Description	Qty
1	Z62213	Junction Box, 3-1/4" x 3-1/4" x 2-1/4"	1
2	6072L220	Switch Box Mount	1
3	6073F003	Wire Harness, 1-Spool Deutsch Connector	1
4	Z62820	Straight Fitting, 3/8" Wire	1
5	Z66108	Toggle Switch, Two Position	1
6	Z72202	Hex Lock Nut, #8NC	4
7	Z78309	Machine Screw, #8NC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

Hydraulic Hose List

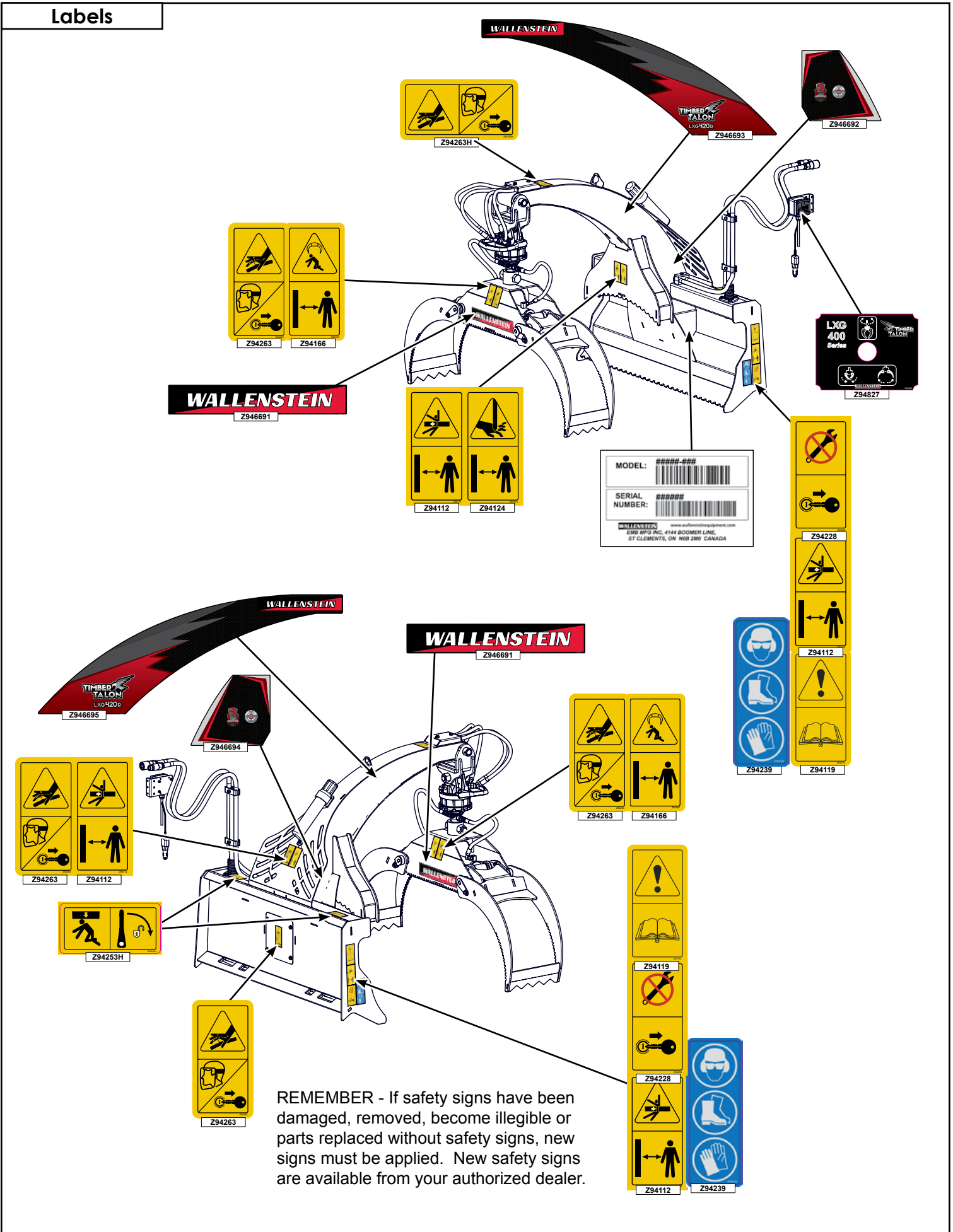
Part No.	Description	Qty
6018F001	3/8" Hose, FJIC06 x 90FJIC06 x 21	2
6073F001	1/2" Hose, FJIC08 x MP08 x 80	2
6073F002	3/8" Hose, 45JIC08 x FJIC08 x 84	4

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	
NPT	Type
12	Connection Size



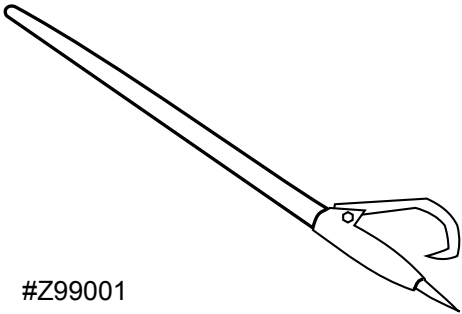
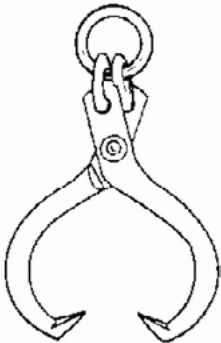
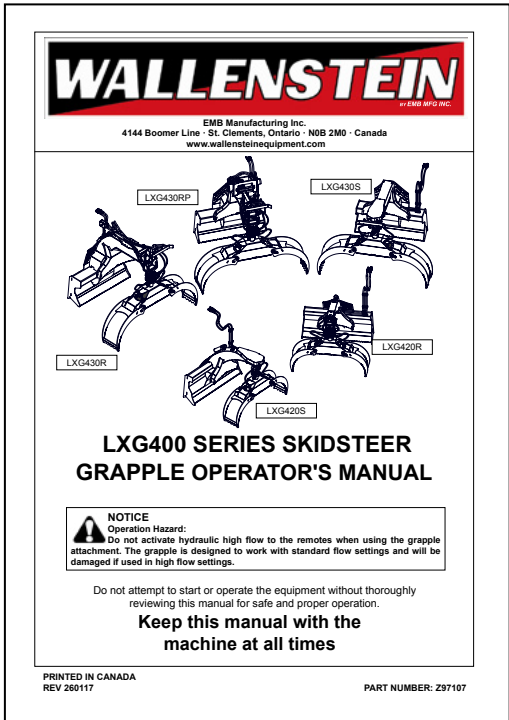
Labels



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

 <p>#Z99001</p>	<p>#Z99001 48" LOG PEAVEY</p> <p>Quality 2 3/8" diameter hardwood handle, with a Western Duck Bill Hook. Helps to move those heavy log timbers into position.</p>
 <p>#Z99003</p>	<p>#Z99003 SKIDDING TONGS</p> <p>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.</p>
 <p>WALLENSTEIN by EMB MFG INC.</p> <p>EMB Manufacturing Inc. 4144 Boomer Line • St. Clements, Ontario • N0B 2M0 • Canada www.wallensteinequipment.com</p> <p>LXG430RP LXG430S LXG430R LXG420S</p> <p>LXG400 SERIES SKIDSTEER GRAPPLE OPERATOR'S MANUAL</p> <p>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.</p> <p>Do not attempt to start or operate the equipment without thoroughly reviewing this manual for safe and proper operation.</p> <p>Keep this manual with the machine at all times</p> <p>PRINTED IN CANADA REV 260117</p> <p>PART NUMBER: Z97107</p>	<p>#Z97107 GRAPPLE OPERATOR'S MANUAL</p> <p>Available as a download at www.wallensteinequipment.com</p>