

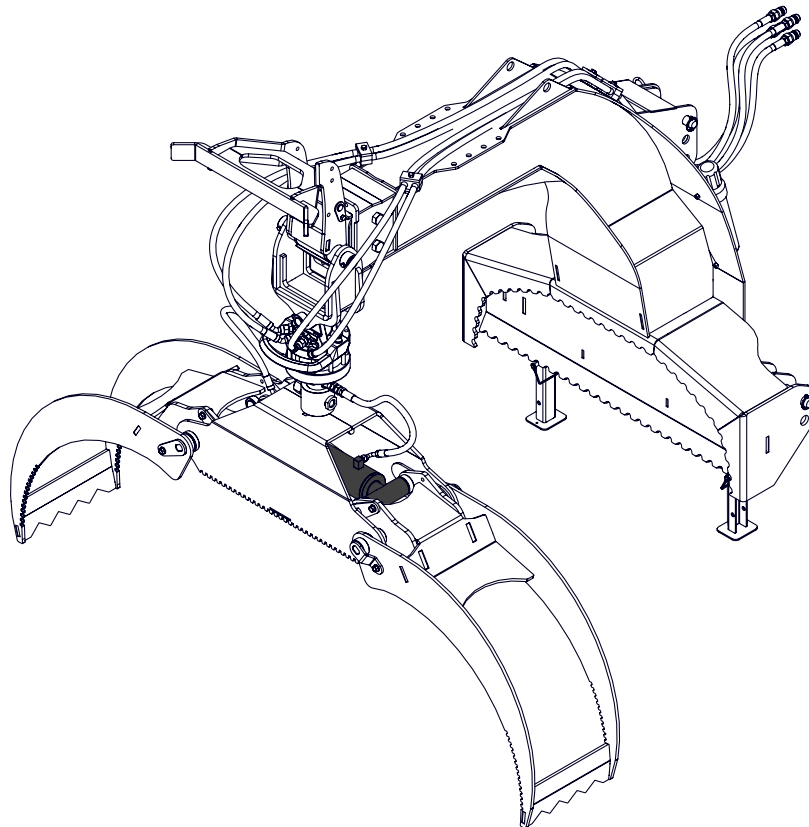


EMB Manufacturing Inc.
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LXG330R

Three Point Hitch Grapple

Starting with S/N's
330R001 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.



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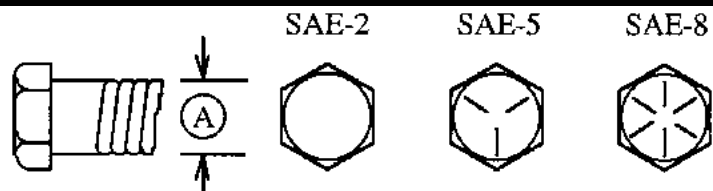
Bolt Torque

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.

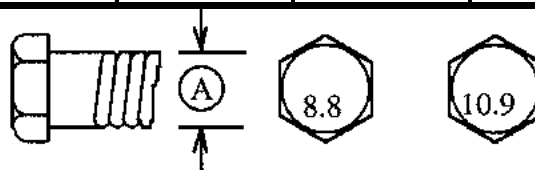
ENGLISH TORQUE SPECIFICATIONS

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 ***

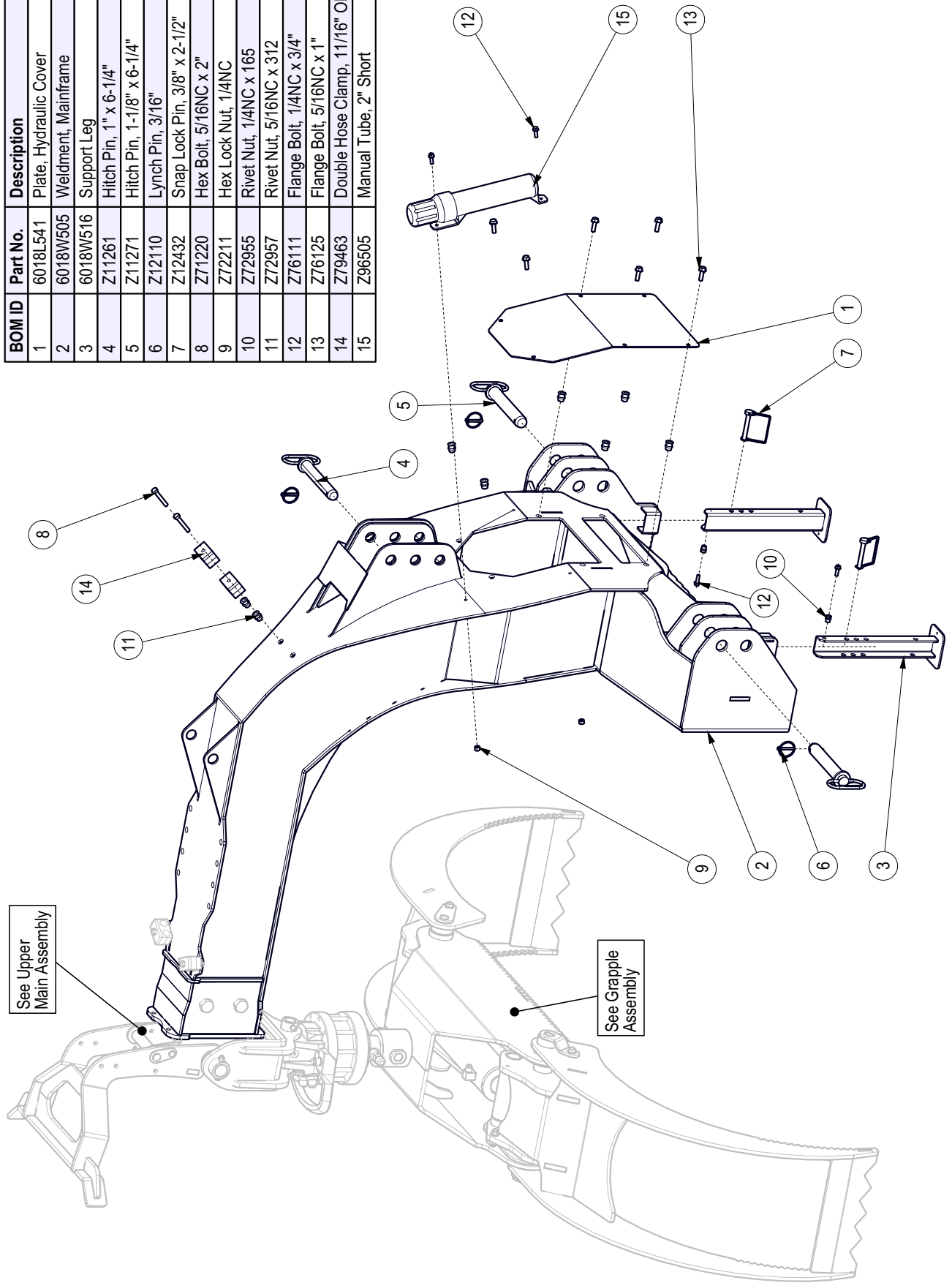
1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the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

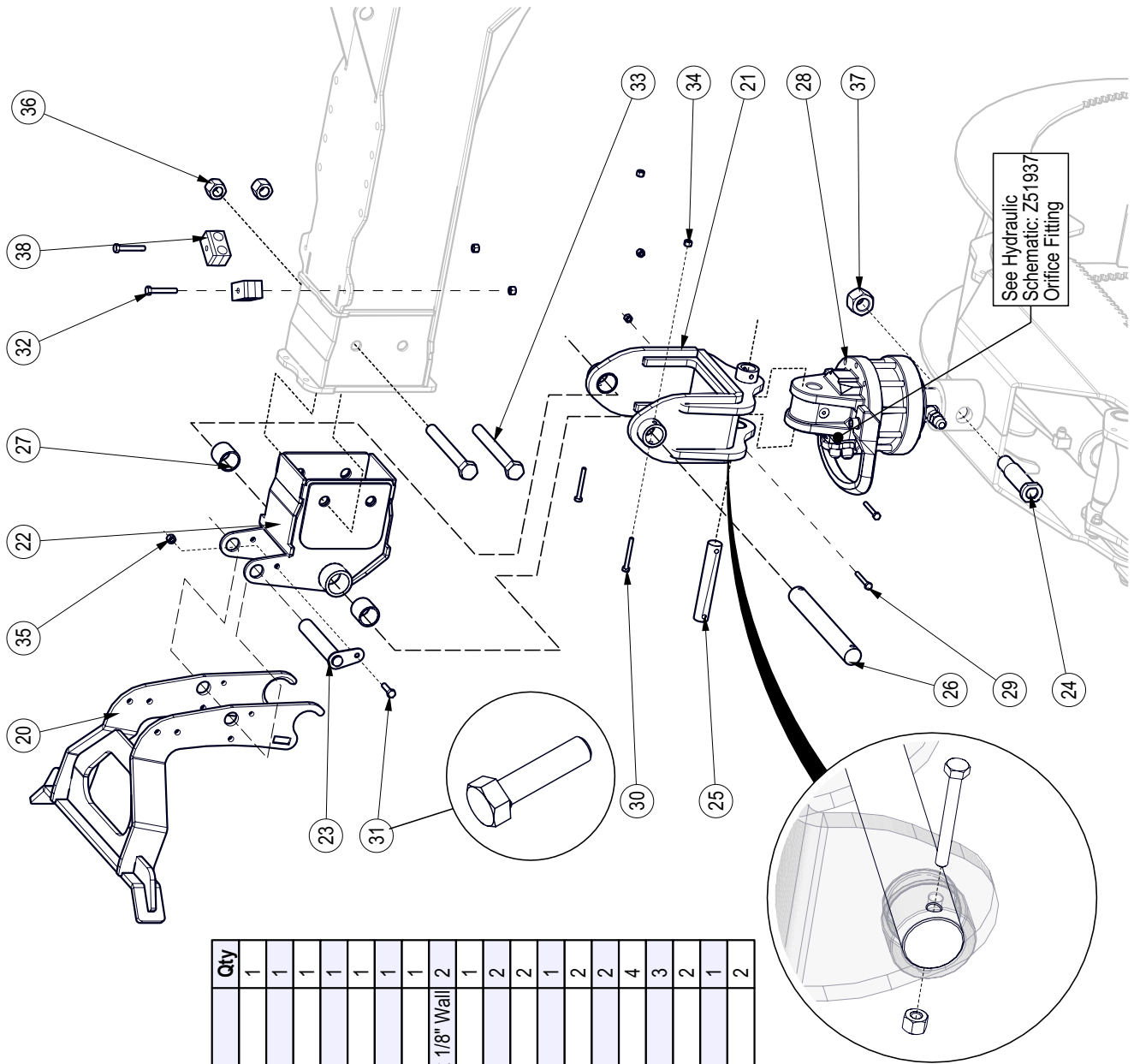
The torque values shown are based on lubricated connections as in reassembly.

Lower Main Frame Assembly

BOM ID	Part No.	Description	Qty
1	6018L541	Plate, Hydraulic Cover	1
2	6018W505	Weldment, Mainframe	1
3	6018W516	Support Leg	2
4	Z11261	Hitch Pin, 1" x 6-1/4"	1
5	Z11271	Hitch Pin, 1-1/8" x 6-1/4"	2
6	Z12110	Lynch Pin, 3/16"	3
7	Z12432	Snap Lock Pin, 3/8" x 2-1/2"	2
8	Z71220	Hex Bolt, 5/16NC x 2"	2
9	Z72211	Hex Lock Nut, 1/4NC	2
10	Z72955	Rivet Nut, 1/4NC x 165	2
11	Z72957	Rivet Nut, 5/16NC x 312	8
12	Z76111	Flange Bolt, 1/4NC x 3/4"	4
13	Z76125	Flange Bolt, 5/16NC x 1"	6
14	Z79463	Double Hose Clamp, 1 1/16" OD	2
15	Z96505	Manual Tube, 2" Short	1



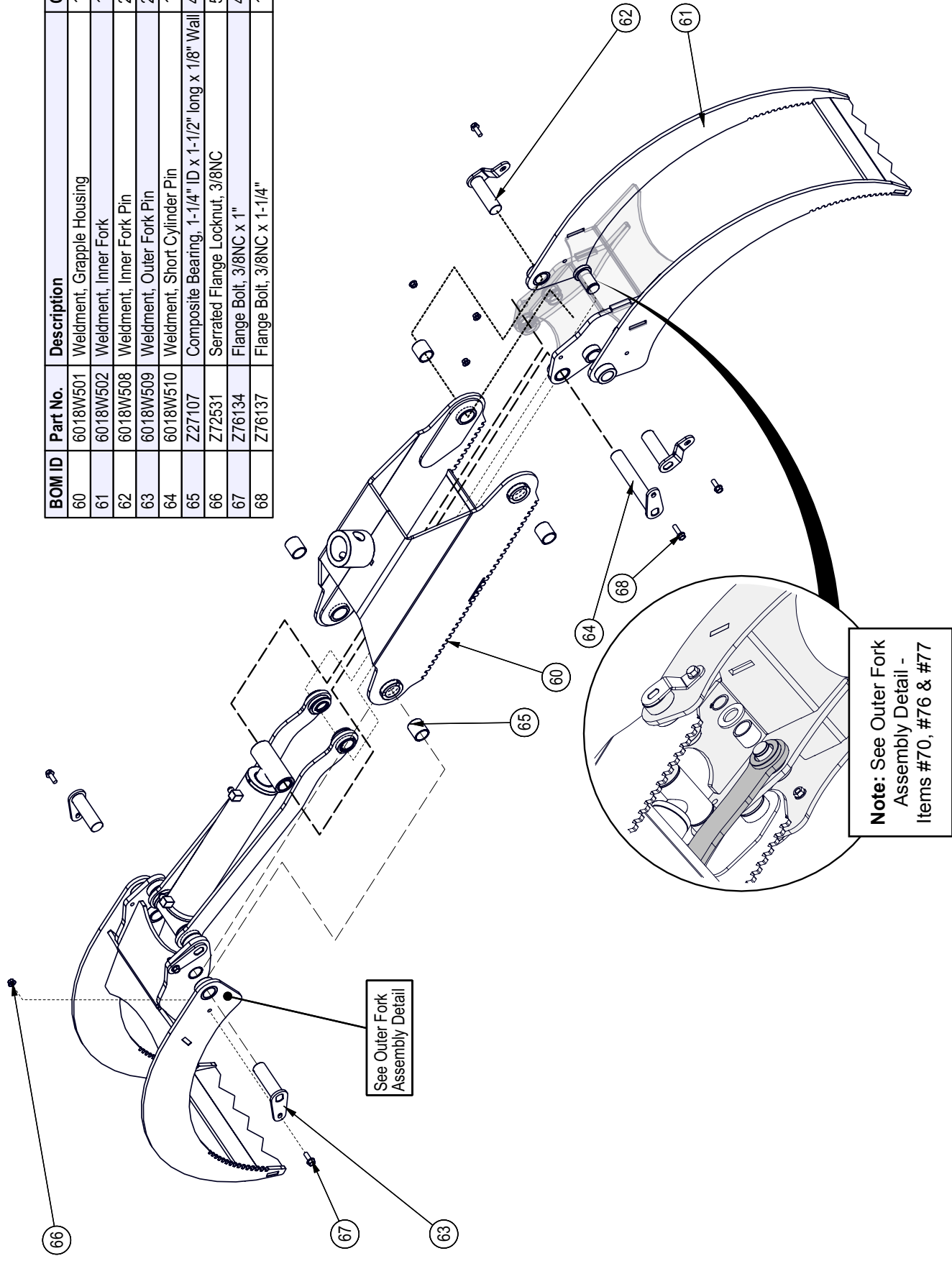
Upper Main Frame Assembly



BOM ID	Part No.	Description	Qty
20	6018W513	Weldment, Push Bar	1
21	6018W507	Weldment, Hanger	1
22	6018W506	Weldment, Hanger Arm	1
23	6018W515	Weldment, Push Bar Mount Pin	1
24	6018W514	Weldment, Clamp Mount Pin	1
25	6018M514	Pin, Rotator Swing	1
26	6018M515	Pin, Rotator Mount	1
27	Z27107	Composite Bearing, 1-1/4" ID x 1-1/2" long x 1/8" Wall	2
28	Z54110	Hydraulic Rotator, CR400W	1
29	Z71120	Hex Bolt, 1/4NC x 2"	2
30	Z71122	Hex Bolt, 1/4NC x 2-1/4"	2
31	Z71212	Hex Bolt, 5/16NC x 1-1/4"	1
32	Z71220	Hex Bolt, 5/16NC x 2"	2
33	Z71765	Hex Bolt, 3/4NC x 6-1/2"	2
34	Z72211	Hex Lock Nut, 1/4NC	4
35	Z72221	Hex Lock Nut, 5/16NC	3
36	Z72271	Hex Lock Nut, 3/4NC	2
37	Z72291	Hex Lock Nut, 1NC	1
38	Z79463	Double Hose Clamp, 11/16" OD	2

Grapple Assembly

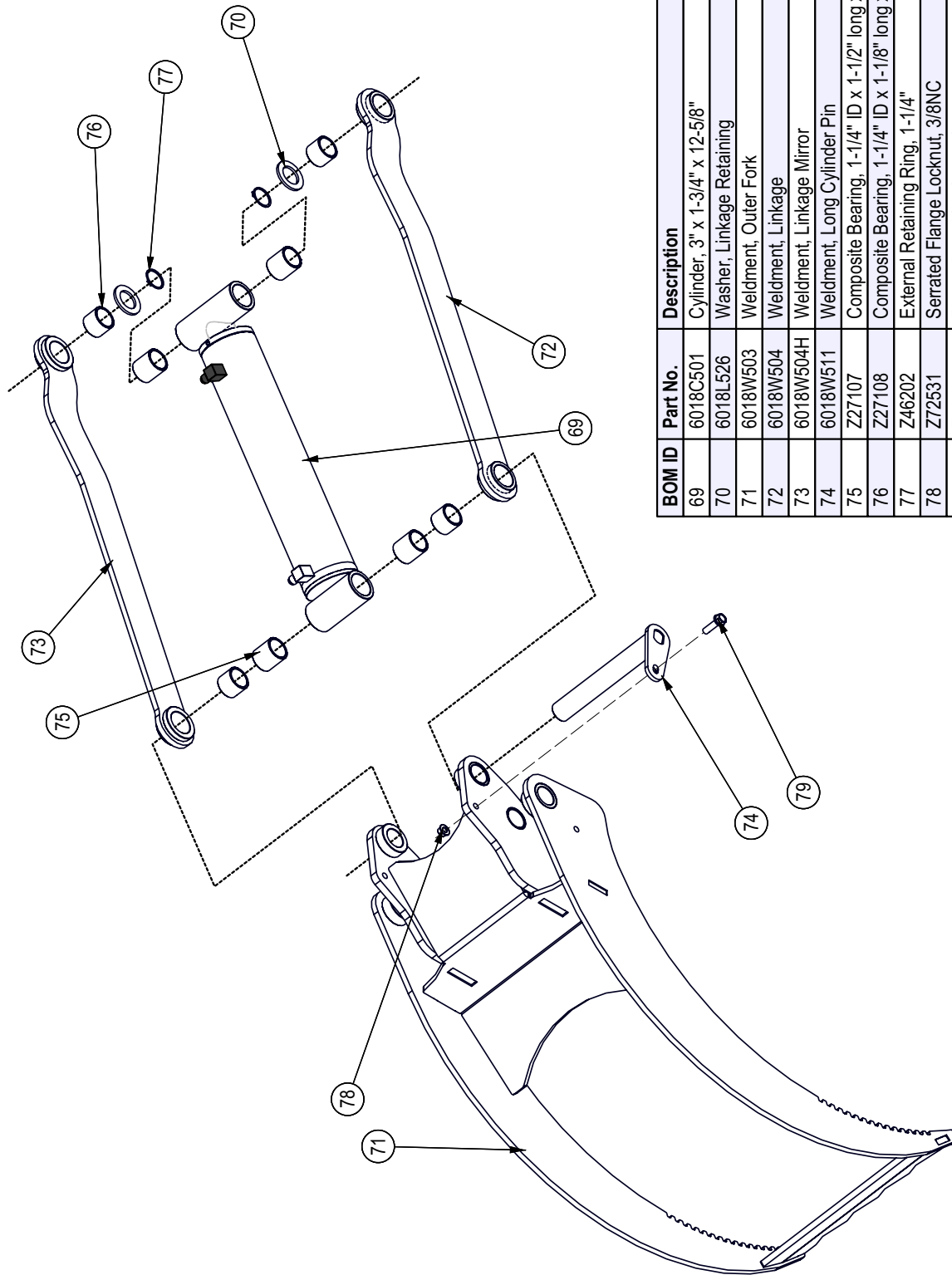
BOM ID	Part No.	Description	Qty
60	6018W501	Weldment, Grapple Housing	1
61	6018W502	Weldment, Inner Fork	1
62	6018W508	Weldment, Inner Fork Pin	2
63	6018W509	Weldment, Outer Fork Pin	2
64	6018W510	Weldment, Short Cylinder Pin	1
65	Z27107	Composite Bearing, 1-1/4" ID x 1-1/2" long x 1/8" Wall	4
66	Z72531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

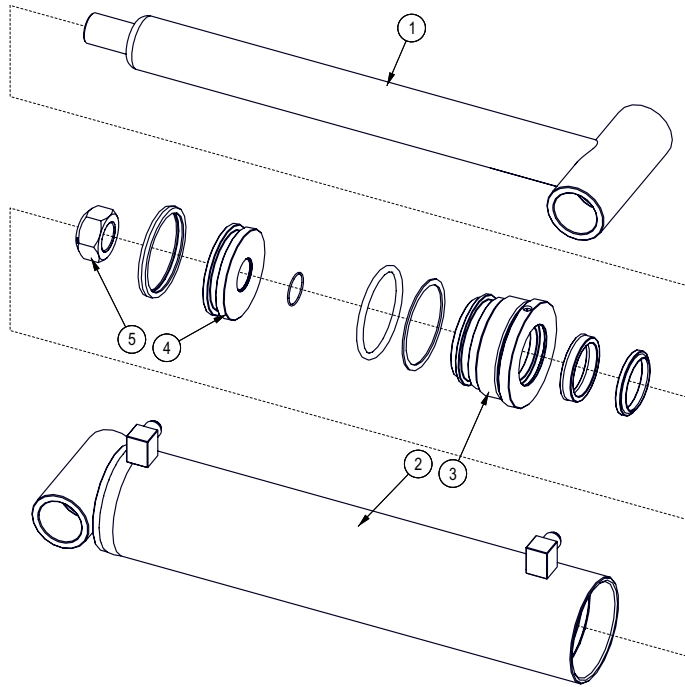
Note: See Outer Fork Assembly Detail - Items #70, #76 & #77

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

Hydraulic Hose List

Part No.	Description	Qty
6018F501	3/8" Hose, FJIC08 x 90FJIC06 x 21	2
6018F502	3/8" Hose, 45FJIC08 x MP08 x 108	4

Hydraulic Schematic

Fitting Identification

Connection Type

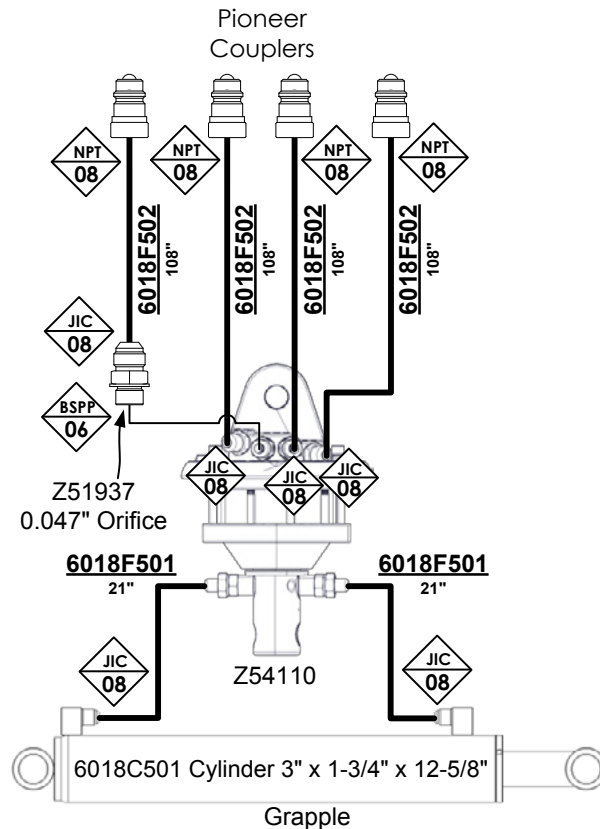
NPT – National Pipe Thread
 JIC – Tube Flare
 ORB – "O" Ring Boss
 HB – Hose Barb
 BSPP – British Standard Pipe (Parallel)

Connection Type

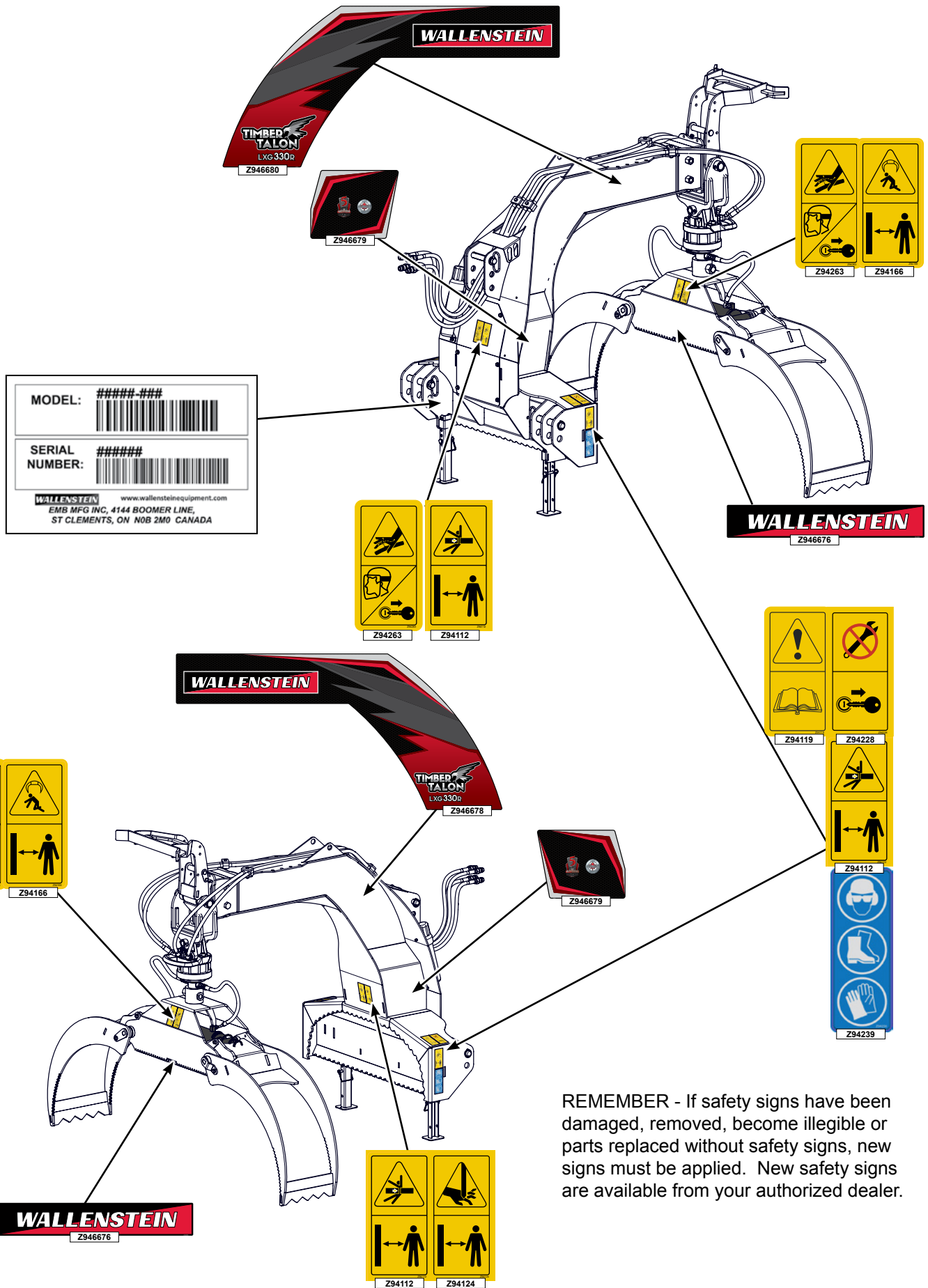
NPT

12

Connection Size



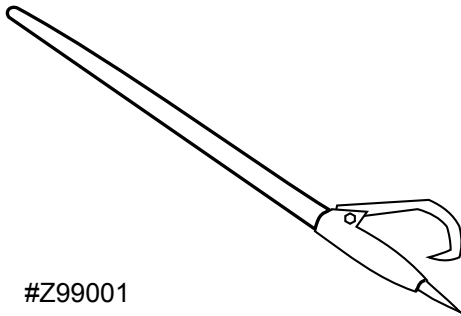
Labels



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

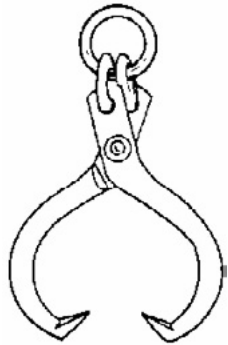
Call your dealer for pricing and availability



#Z99001

#Z99001 48" LOG PEAVEY

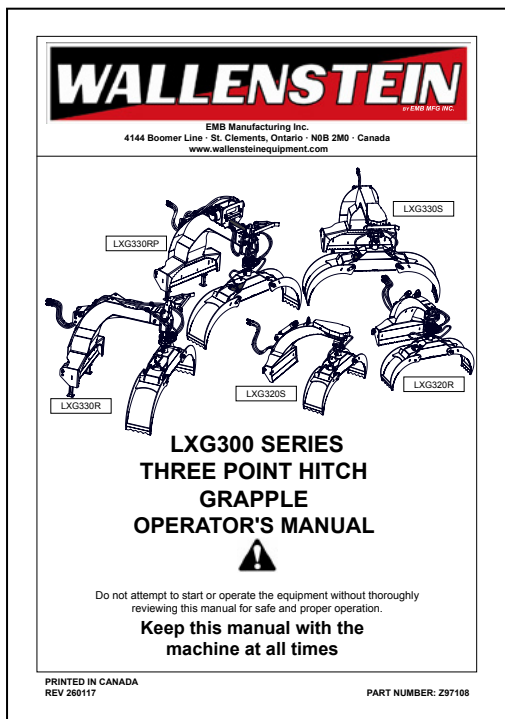
Quality 2 3/8" diameter hardwood handle, with a Western Duck Bill Hook.
Helps to move those heavy log timbers into position.



#Z99003

#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.



#Z97108 GRAPPLE OPERATOR'S MANUAL

Available as a download at
www.wallensteinequipment.com