

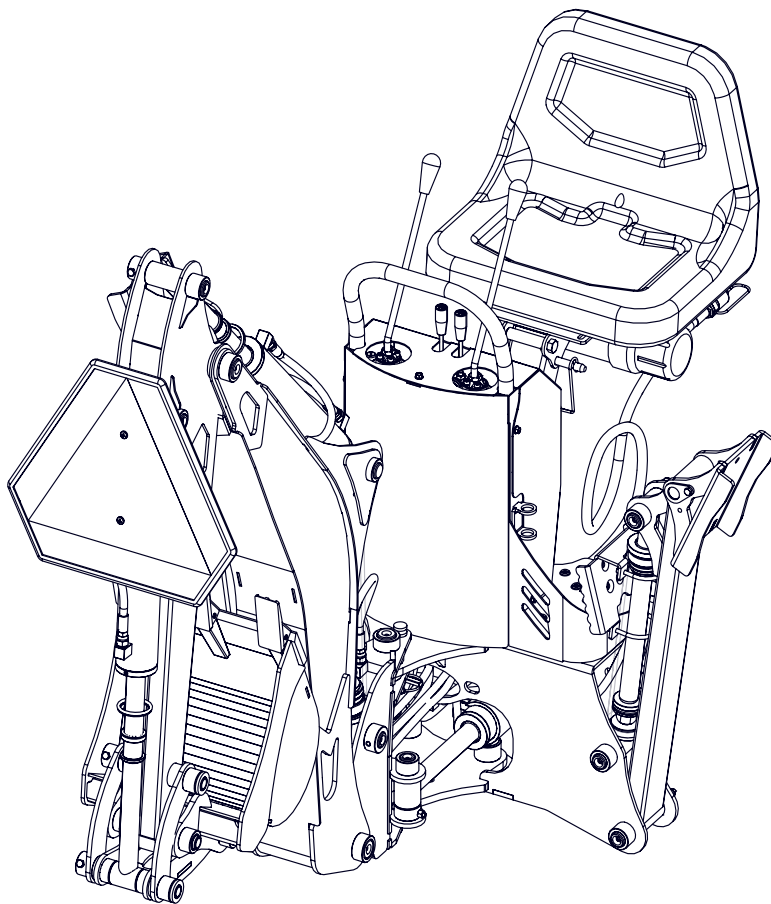


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GX620 Backhoe

Parts Manual

Starting with S/N's
3620514 and on



Refer to the operators
manual for safe
operation and
maintenance



3011T100 GX620 RevD1 Parts Manual.151215
150517

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.

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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.



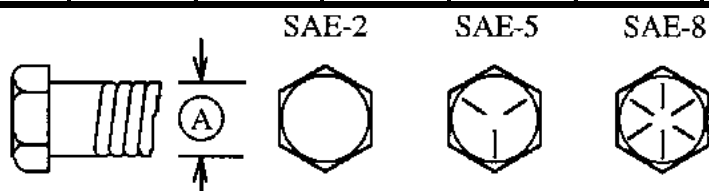
Refer to the operators
manual for safe
operation and
maintenance

Bolt Torque**CHECKING BOLT TORQUE**

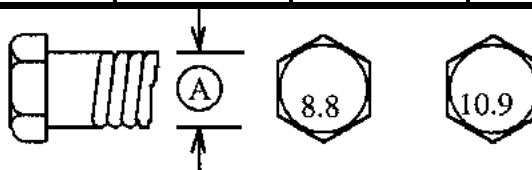
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

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.

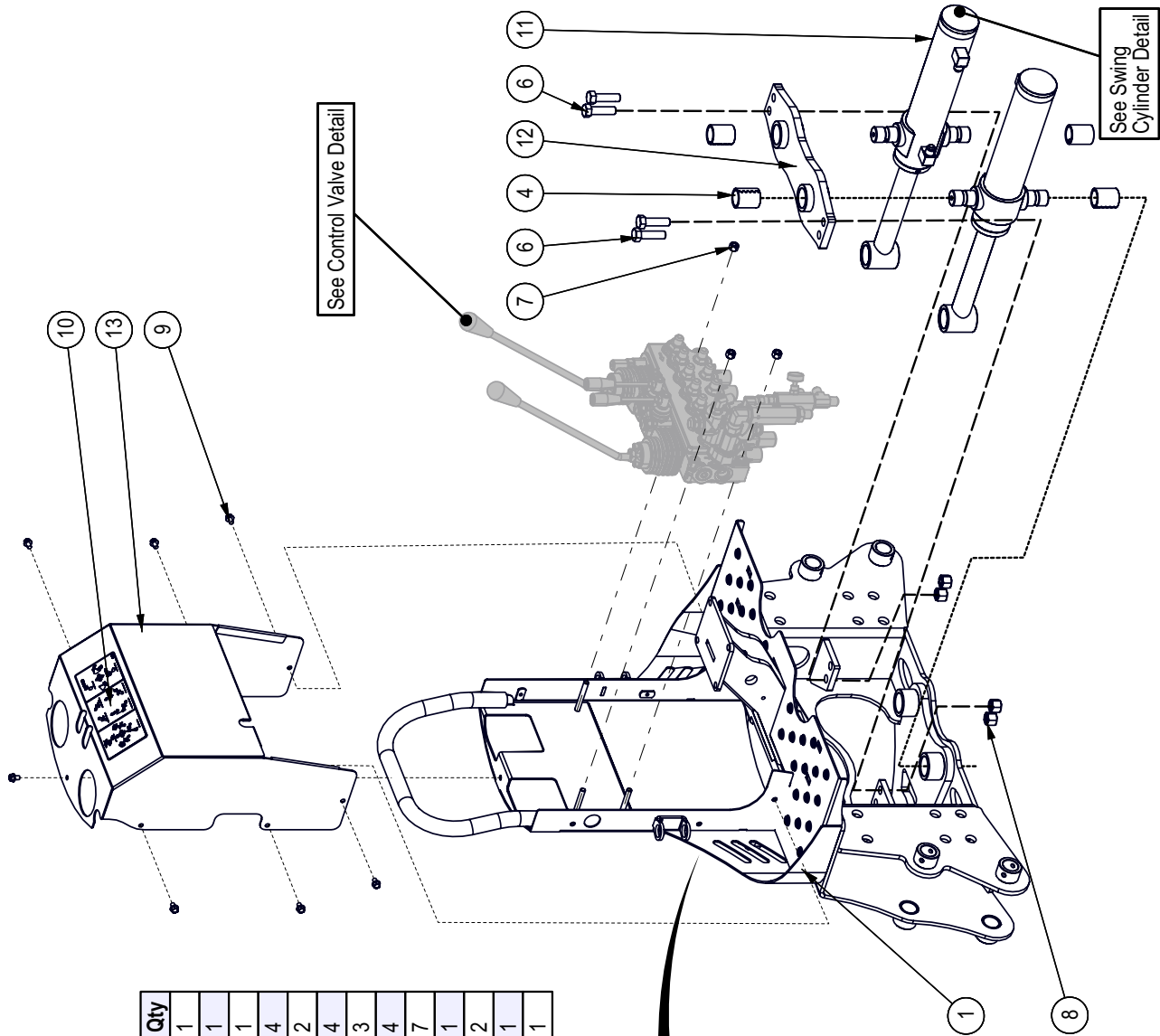
Hydraulic Fitting Torque**Tightening Flare Type Tube Fittings ***

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.

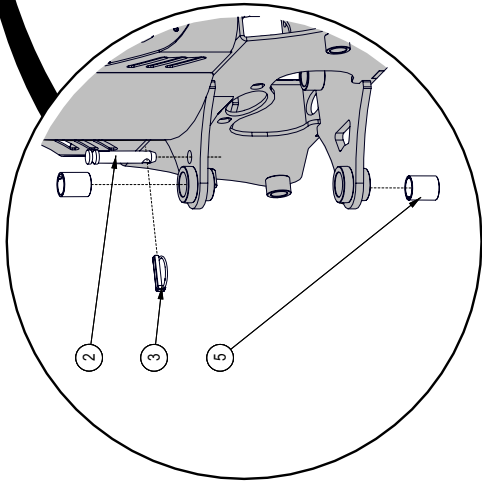
Tube Size OD	Nut Size Across Flats	Torque Value•		Recommended Turns To Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4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

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

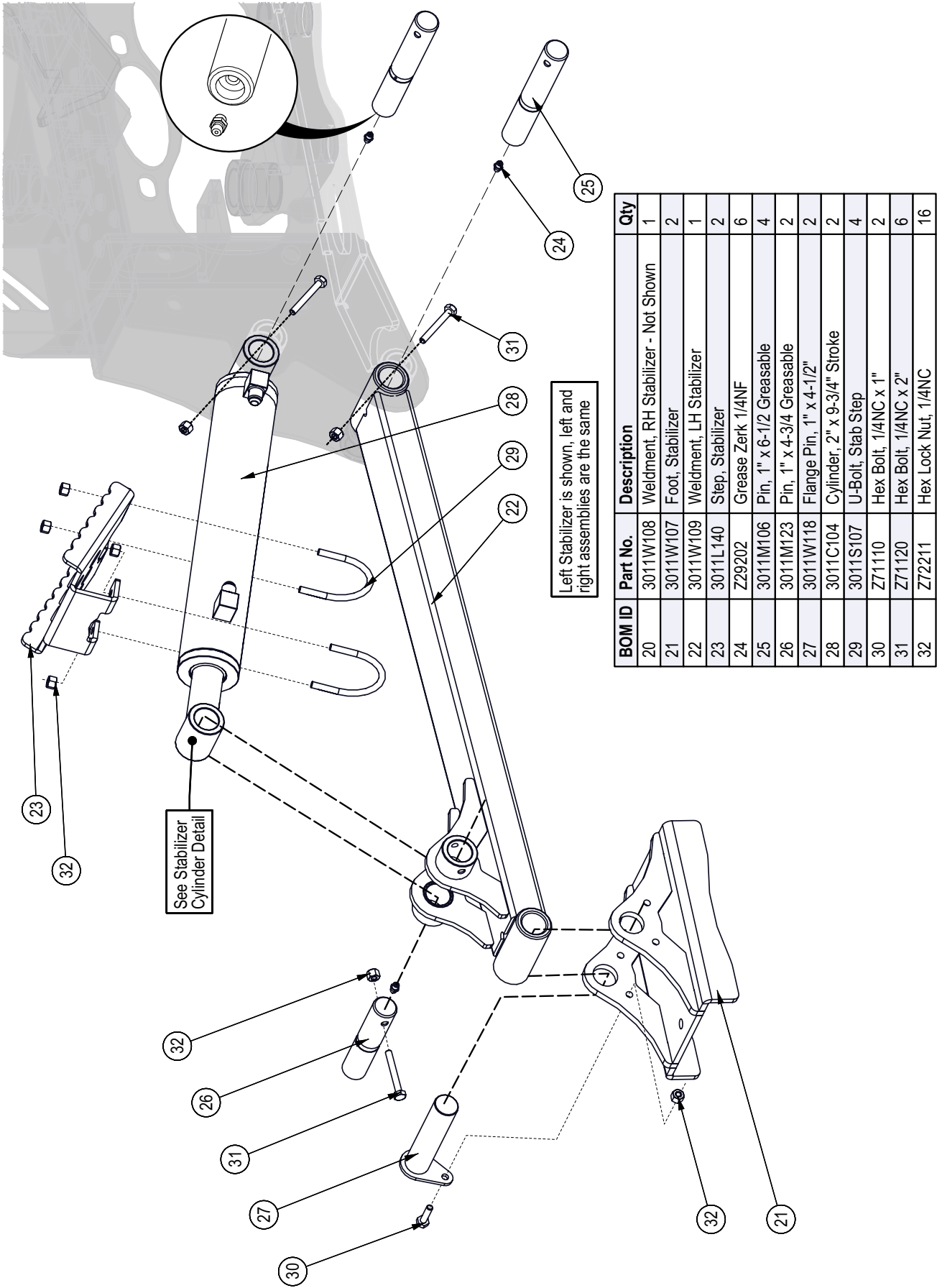
Main Frame Assembly



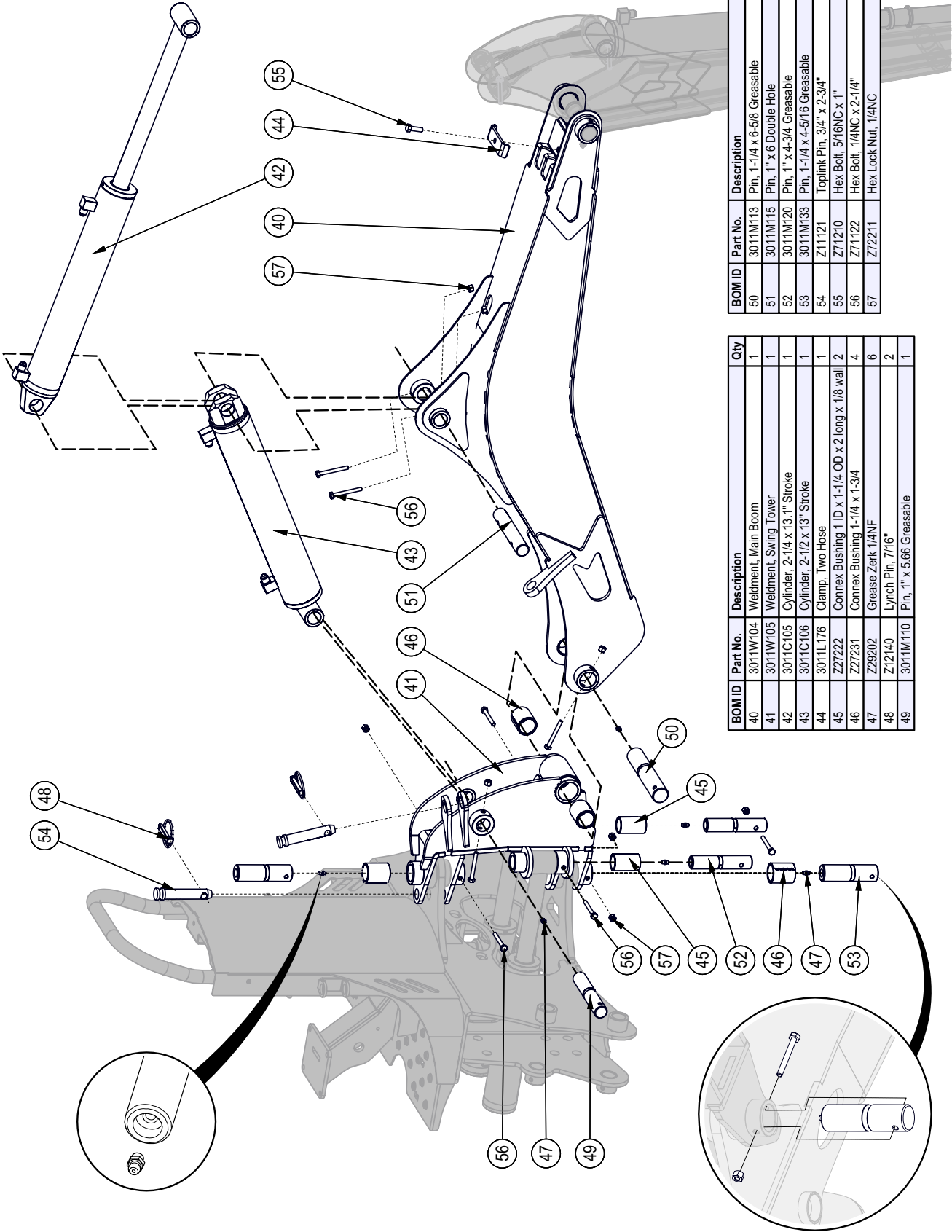
BOM ID	Part No.	Description	Qty
1	3011W150	Main Frame	1
2	Z11121	Toplink Pin, 3/4" x 2-3/4"	1
3	Z12140	Lynch Pin, 7/16"	1
4	Z27221	Connex Bushing 1 ID x 1-1/4 OD x 1-1/2 long x 1/8 wall	4
5	Z27231	Connex Bushing 1-1/4 x 1-3/4	2
6	Z71517	Hex Bolt, 1/2NC x 1-3/4"	4
7	Z72221	Hex Lock Nut, 5/16NC	3
8	Z72251	Hex Lock Nut, 1/2NC	4
9	Z76113	Flange Bolt, 1/4NC x 3/8"	7
10	Z94152	GX Backhoe Operation Decal	1
11	3011C103	Cylinder, 2" x 7-3/4 Stroke	2
12	3011W151	Bar, Swing Cylinder Retaining	1
13	3011L204	Shield, Control Valve	1



Stabilizer Leg Assembly



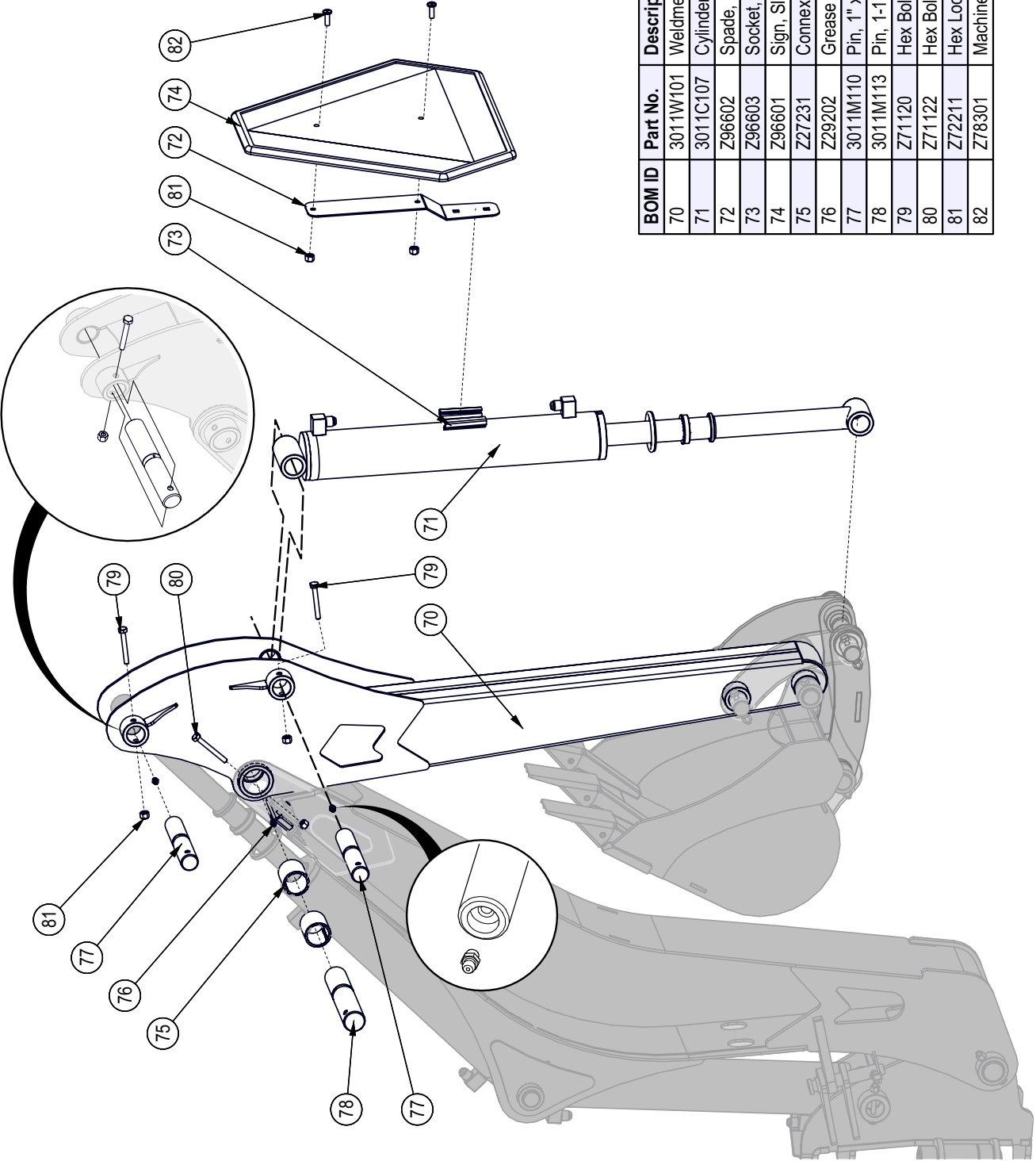
Main Boom Assembly



BOM ID	Part No.	Description	Qty
50	3011M113	Pin, 1-1/4 x 6-5/8 Greasable	1
51	3011M115	Pin, 1" x 6 Double Hole	1
52	3011M120	Pin, 1" x 4-3/4 Greasable	2
53	3011M133	Pin, 1-1/4 x 4-5/16 Greasable	2
54	Z11121	Toolink Pin, 3/4" x 2-3/4"	2
55	Z71210	Hex Bolt, 5/16NC x 1"	1
56	Z71122	Hex Bolt, 1/4NC x 2-1/4"	8
57	Z72211	Hex Lock Nut, 1/4NC	8

BOM ID	Part No.	Description	Qty
40	3011W104	Weldment, Main Boom	1
41	3011W105	Weldment, Swing Tower	1
42	3011C105	Cylinder, 2-1/4 x 13, 1" Stroke	1
43	3011C106	Cylinder, 2-1/2 x 13" Stroke	1
44	3011L176	Clamp, Two Hose	1
45	Z27222	Connex Bushing 1 ID x 1-1/4 OD x 2 long x 1/8 wall	2
46	Z27231	Connex Bushing 1-1/4 x 1-3/4	4
47	Z29202	Grease Zerk 1/4NF	6
48	Z12140	Lynch Pin, 7/16"	2
49	3011M110	Pin, 1" x 5.66 Greasable	1

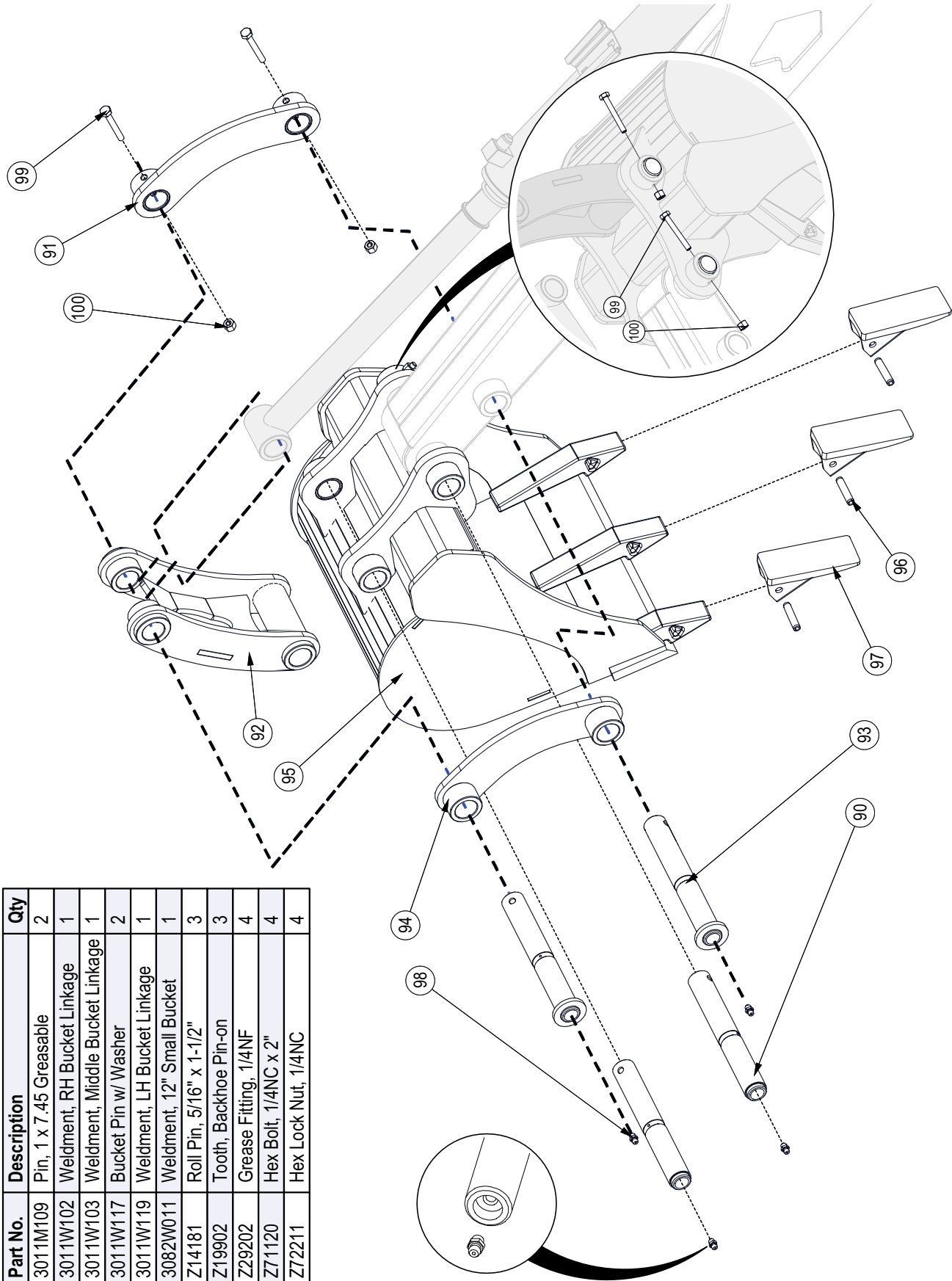
Dipper Boom Assembly



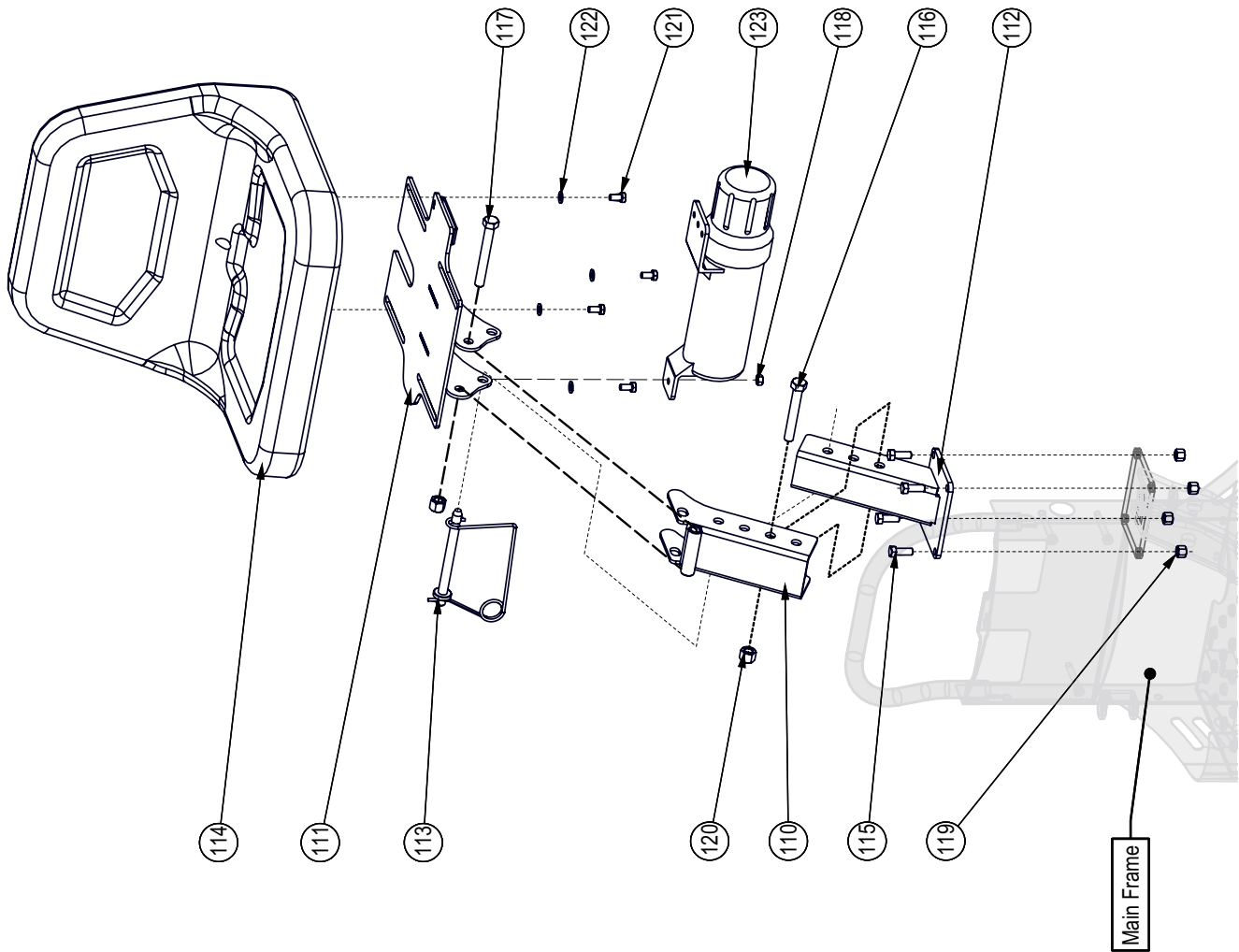
BOM ID	Part No.	Description	Qty
70	3011W101	Weldment, Dipper Boom	1
71	3011C107	Cylinder, 2-1/4 x 12-7/8" Stroke	1
72	Z96602	Spade, Slow Moving Vehicle	1
73	Z96603	Socket, Slow Moving Vehicle	1
74	Z96601	Sign, Slow Moving Vehicle	1
75	Z27231	Connex Bushing 1-1/4 x 1-3/4	2
76	Z29202	Grease Zerk 1/4NF	3
77	3011M110	Pin, 1" x 5.66 Greasable	2
78	3011M113	Pin, 1-1/4 x 6-5/8 Greasable	1
79	Z71120	Hex Bolt, 1/4NC x 2"	2
80	Z71122	Hex Bolt, 1/4NC x 2-1/4"	1
81	Z72211	Hex Lock Nut, 1/4NC	5
82	Z78301	Machine Screw, 1/4NC x 3/4"	2

Bucket & Linkage Assembly

BOM ID	Part No.	Description	Qty
90	3011M109	Pin, 1 x 7.45 Greasable	2
91	3011W102	Weldment, RH Bucket Linkage	1
92	3011W103	Weldment, Middle Bucket Linkage	1
93	3011W117	Bucket Pin w/ Washer	2
94	3011W119	Weldment, LH Bucket Linkage	1
95	3082W011	Weldment, 12" Small Bucket	1
96	Z14181	Roll Pin, 5/16" x 1-1/2"	3
97	Z19902	Tooth, Backhoe Pin-on	3
98	Z29202	Grease Fitting, 1/4NF	4
99	Z71120	Hex Bolt, 1/4NC x 2"	4
100	Z72211	Hex Lock Nut, 1/4NC	4



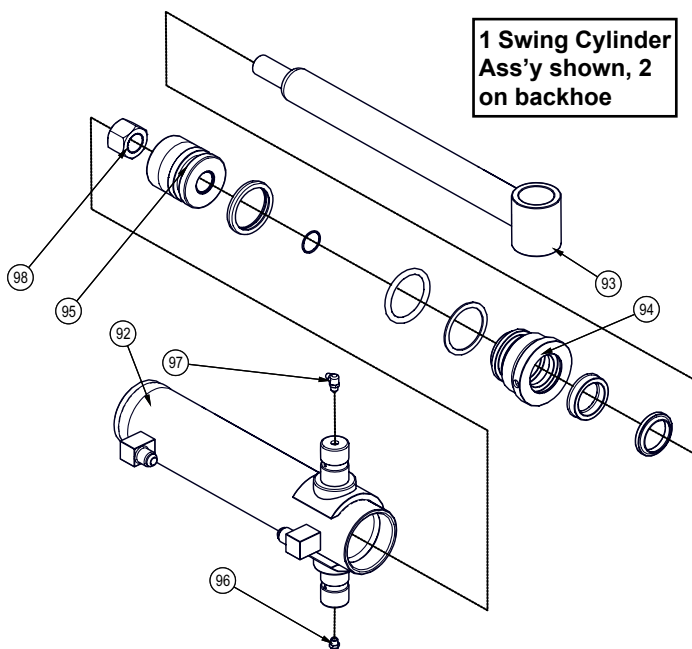
Seat Assembly



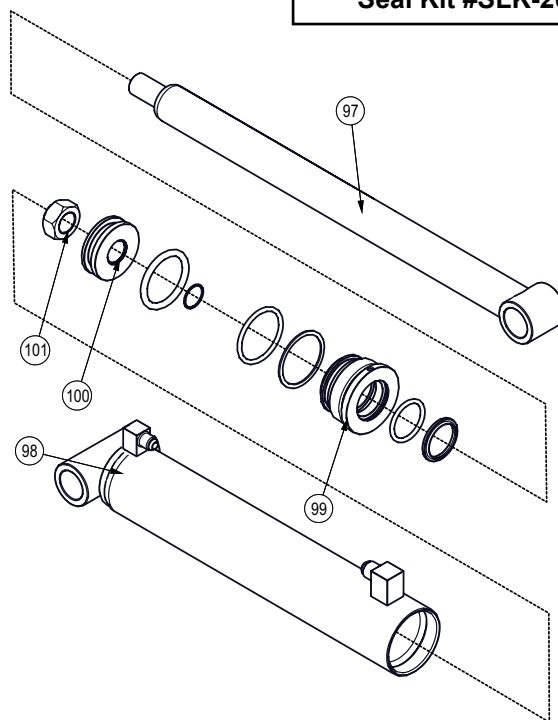
BOM ID	Part No.	Description	Qty
110	3011W112	Mount, Seat	1
111	3011W113	Plate, Seat	1
112	3011W111	Base, Seat	1
113	Z12441	Snap Lock Pin, 1/2" x 4-1/2"	1
114	Z19201	High-Back Backhoe Seat	1
115	Z71310	Hex Bolt, 3/8NC x 1"	4
116	Z71535	Hex Bolt, 1/2NC x 3-1/2"	1
117	Z71540	Hex Bolt, 1/2NC x 4"	1
118	Z72121	Hex Nut, 5/16NC	1
119	Z72231	Hex Lock Nut, 3/8NC	4
120	Z72251	Hex Lock Nut, 1/2NC	2
121	Z77152	Hex Bolt, M8x1.25 x 16mm	4
122	Z77352	DIN 125 Washer, M8	4
123	Z96503	Manual Tube, 3-1/2" Short	1

Swing Cylinder Assembly**Seal Kit #SLK-2012**

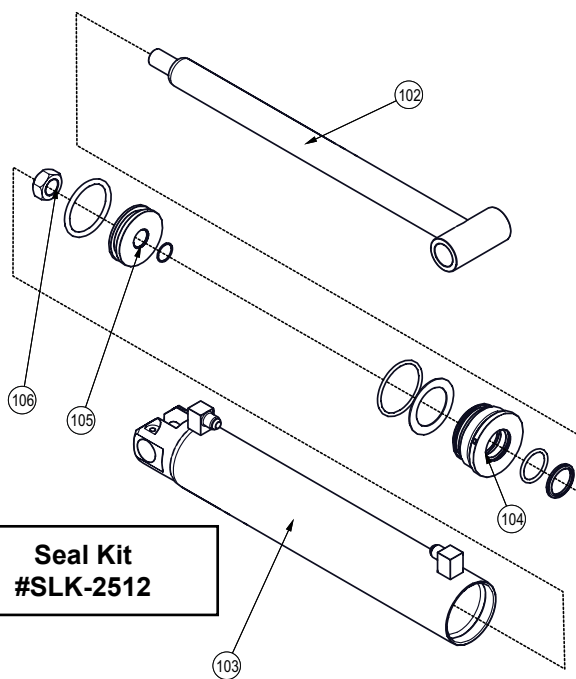
1 Swing Cylinder Ass'y shown, 2 on backhoe



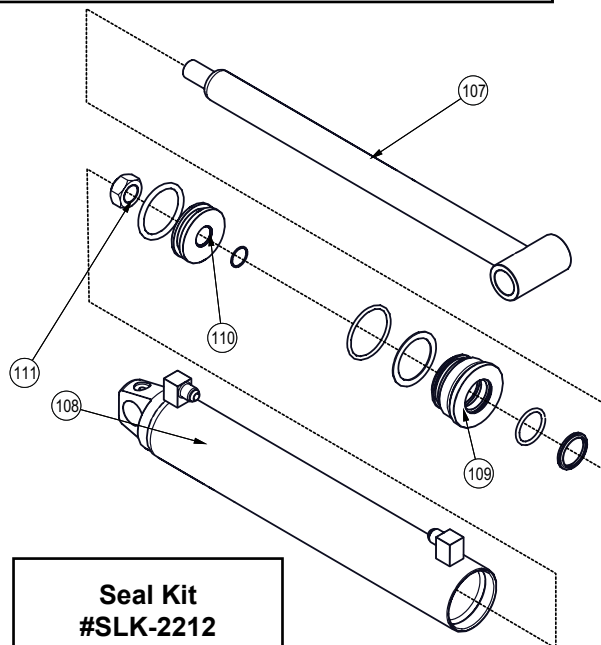
BOM ID	Part No.	Description	Qty
92	3011C1034	Barrel, 2" Trunnion Mount	1
93	3011C1033	Rod, 1-1/4 x 3/4	1
94	G200-125S	Gland, 2" x 1-1/4"	1
95	P750-200CP	Piston, 2" Bore x Cushion	1
96	Z29202	Grease Zerk 1/4NF	1
97	Z29203	Grease Zerk 90, 1/4NF	1
98	Z72272	Hex Lock Nut 3/4NF Grade 8	1

Stabilizer Cylinder Assembly**Seal Kit #SLK-2012**

BOM ID	Part No.	Description	Qty
97	3011C1043	Rod, 1-1/4"	1
98	3011C1044	Barrel, 2" Bore	1
99	G200-125S	Gland, 2" x 1-1/4"	1
100	P750-200SP	Piston, 2" Bore	1
101	Z72276	Hex Top-lock Nut, 3/4NF	1

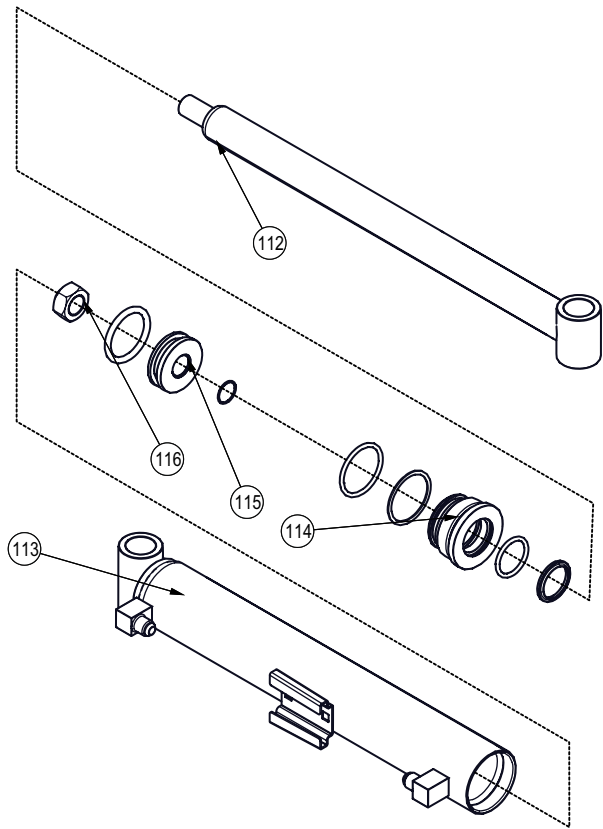
Main Tower Cylinder Assembly

BOM ID	Part No.	Description	Qty
102	3011C1063	Rod, 1-1/4" x 1NF	1
103	3011C1064	Barrel, 2-1/2"	1
104	G250-125S	Gland, 2-1/2" x 1-1/4"	1
105	P100-250SP	Piston, 2-1/2" Bore	1
106	Z72276	Hex Top-lock Nut, 3/4NF	1

Dipper Boom Cylinder Assembly

BOM ID	Part No.	Description	Qty
107	3011C1053	Rod, 1-1/4" x 3/4NF	1
108	3011C1054	Barrel, 2-1/4"	1
109	G225-125S	Gland, 2-1/4" x 1-1/4"	1
110	P750-225SP	Piston, 2-1/4" Bore	1
111	Z72276	Hex Top-lock Nut, 3/4NF	1

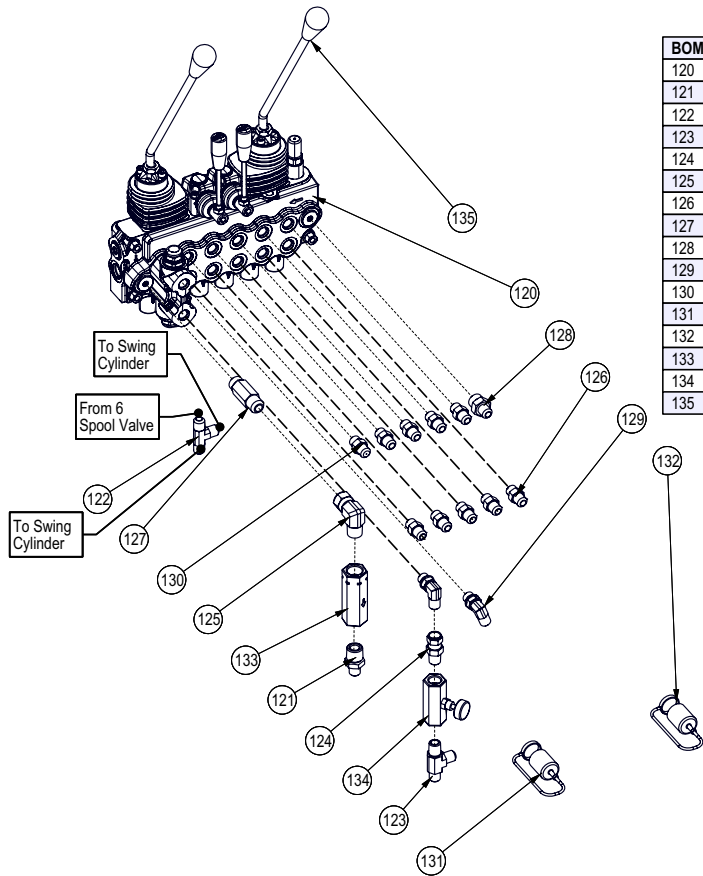
Bucket Cylinder Assembly



Seal Kit
#SLK-2212

BOM ID	Part No.	Description	Qty
112	3011C1073	Rod, 1-1/4" x 3/4NF	1
113	3011C1074	Barrel, 2-1/4"	1
114	G225-125S	Gland, 2-1/4" x 1-1/4"	1
115	P750-225SP	Piston, 2-1/4" Bore	1
116	Z72276	Hex Top-lock Nut, 3/4NF	1

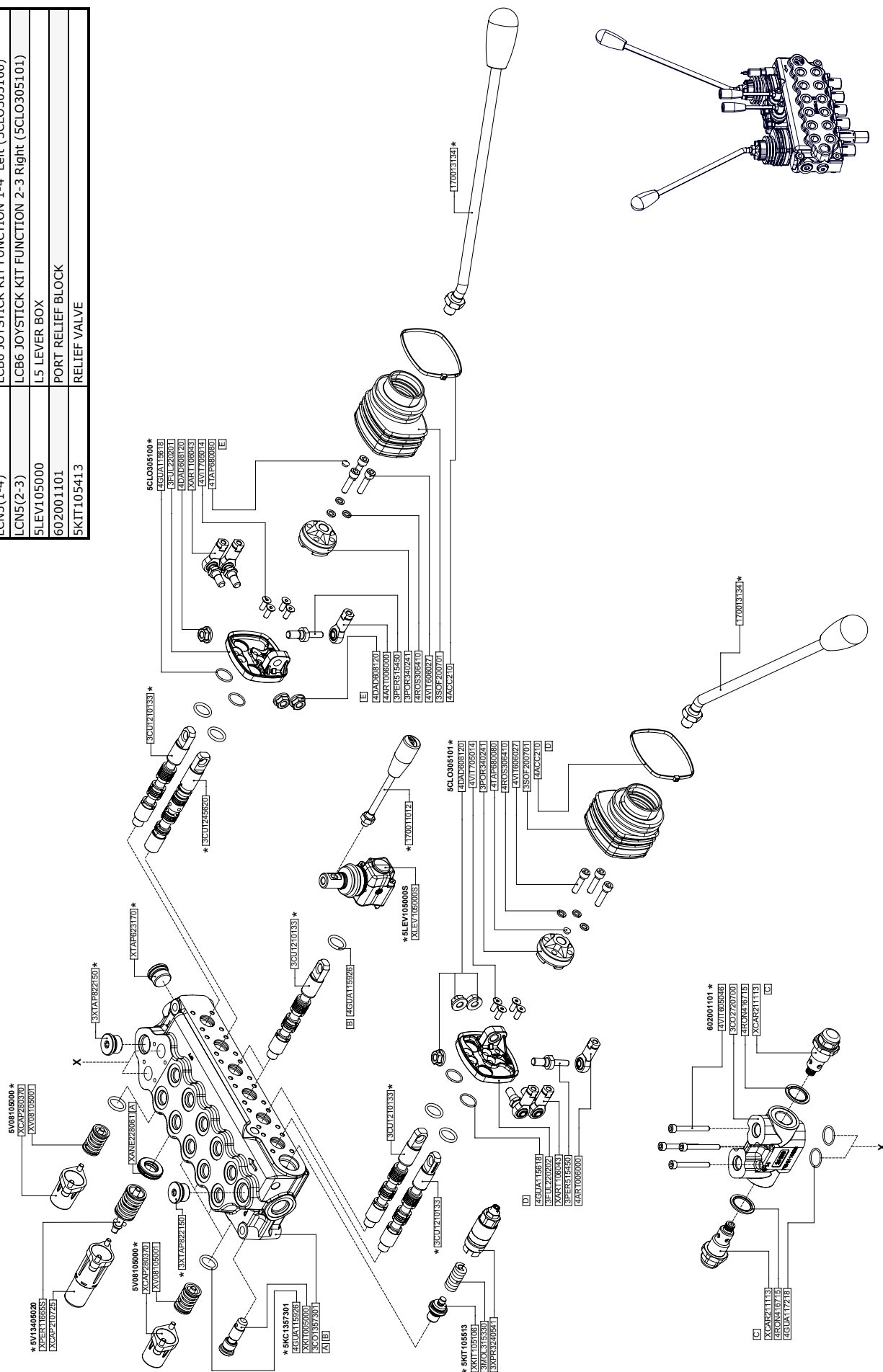
Hydraulics & Valve Assemblies



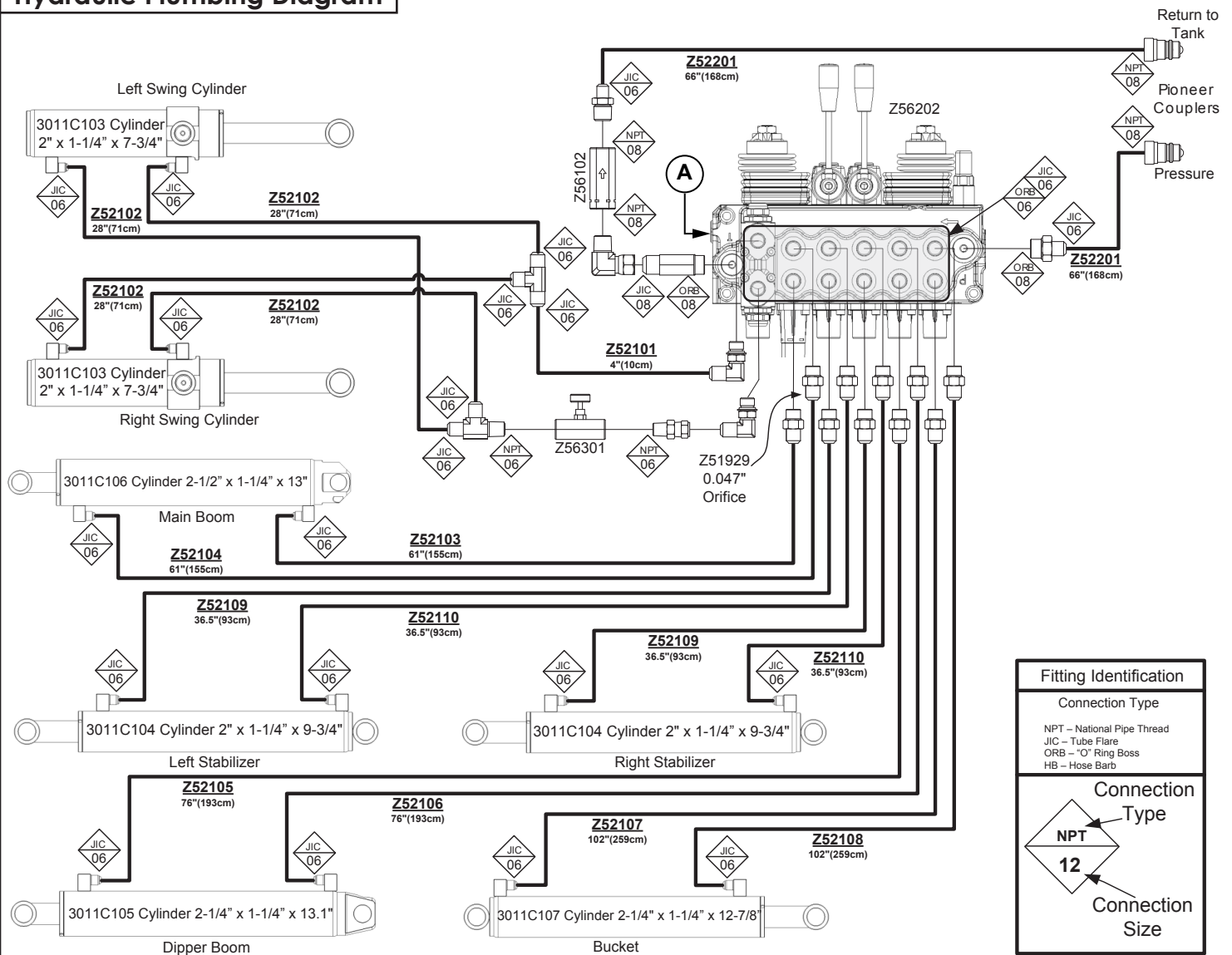
BOM ID	Part No.	Description	Qty
120	Z56202	Six Spool Valve, VC x 12GPM	1
121	Z51441	Straight, MJIC x MP 0608	1
122	Z51483	Tee, MJIC x MJIC x MJIC 060606	1
123	Z51486	Tee, MJIC x MP x MJIC 060606	1
124	Z51511	Straight, MP x FJICX 0606	1
125	Z51521	Elbow 90, MP x FJICX 0808	1
126	Z51641	Straight, MJIC x MORB 0606	9
127	Z51642	Straight, MJIC x MORB 0808 Long Custom	1
128	Z51644	Straight, MJIC x MORB 0608	1
129	Z51651	Elbow 90, MJIC x MORB 0606	2
130	Z51929	Straight, MJIC x MORB 0606 x 0.047" Orifice	1
131	Z52831	Nipple Cap, ISO 7241-1 x Red	1
132	Z52832	Nipple Cap, ISO 7241-1 x Black	1
133	Z56102	Check Valve, FP08 x 0PSI	1
134	Z56301	Flow Control, Needle x 0-9GPM	1
135	Z56910	Backhoe Lever Bent - 12"	2

Valve Service Parts

Part No.	Description
3CU1210133	1(S)/SD5 SPOOL
3CU1245620	5P/SD5 SPOOL
3XTAP822150	TCEI SAE8 PLUG
4GUA115926	15.88X2.62 NBR 70 SH O-RING SEAL
XTAP623170	AET/SD5 PLUG
5V08105000	SPRING CENTER KIT
5V13405020	FLOAT KIT
LCN5(1-4)	LCB6 JOYSTICK KIT FUNCTION 1-4 Left (5CLO305100)
LCN5(2-3)	LCB6 JOYSTICK KIT FUNCTION 2-3 Right (5CLO305101)
5LEV105000	L5 LEVER BOX
602001101	PORT RELIEF BLOCK
5KIT105413	RELIEF VALVE



Hydraulic Plumbing Diagram



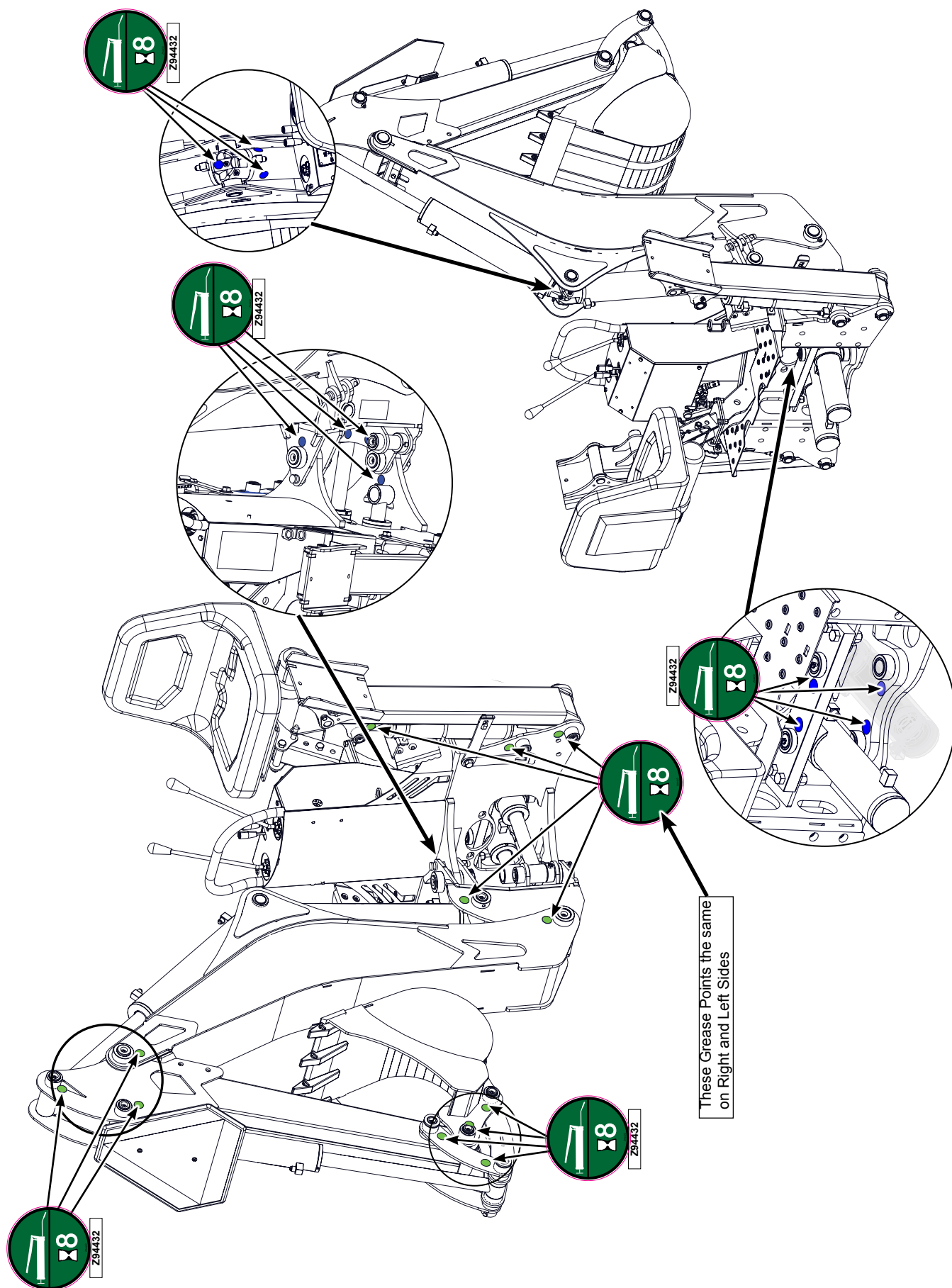
NOTE: Backhoes are designed for open-center hydraulic systems. For closed-center systems, plug p/n AEKSD5 must be installed at Position **A** in the control valve. See illustration.

Remove the end plug and replace the internal plug. Re-install end plug.

Part No.	Description	Qty
Z52201	3/8" Hose, 90FJIC06 x MP08 x 66	2
Z52102	1/4" Hose, FJIC06 x FJIC06 x 28	4
Z52103	1/4" Hose, FJIC06 x FJIC06 90 x 61	1
Z52104	1/4" Hose, FJIC06 x FJIC06 Long 90 x 61	1
Z52105	1/4" Hose, FJIC06 x FJIC06 90 x 76	1
Z52106	1/4" Hose, FJIC06 x FJIC06 Long 90 x 76	1
Z52107	1/4" Hose, FJIC06 x FJIC06 90 x 102	1
Z52108	1/4" Hose, FJIC06 x FJIC06 Long 90 x 102	1
Z52109	1/4" Hose, FJIC06 x FJIC06 x 90 x 36-1/2	2
Z52110	1/4" Hose, FJIC06 x FJIC06 Long 90 x 36-1/2	2



Label Layout - Grease Points



Accessories

BK2690 9" Bucket

- 3 teeth
- Bucket Volume: 0.5115 cubic ft

BK2612 12" Bucket

- 3 teeth
- Bucket Volume: 0.6934 cubic ft

BK2615 15" Bucket

- 4 teeth
- Bucket Volume: 0.8749 cubic ft

BK2618 18" Bucket

- 4 teeth
- Bucket Volume: 1.0567 cubic ft

BT5280 Clamp on mechanical thumb

Using the mechanical thumb allows you to better control material that is difficult to scoop or place with precision

PTO62 PTO Hydraulic Pump Kit 7GPM

The optional self contained PTO pump kit provides hydraulic power for tractors without available auxiliary power.

BP210 Street Pad Kit

protects pavement or cement from cleats on the backhoe stabilizer legs



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RANCHO SERIES BACKHOE GE605, GX620, GX720, GX920 & GX920 OPERATOR'S MANUAL

Warning
Underground Utility Hazard
Contacting underground utilities can cause electrocution. You must contact an underground utility locating/marketing service before digging.

Caution
Stability Hazard
The tractor must have a front bucket loader installed before installing the subframe and backhoe. The front loader is required to offset the weight of the backhoe, as well as provide the stability required to operate the backhoe safely.

NOTICE
Operation Hazard
Wallenstein backhoes are designed to operate at a specific flow rate. Operating the backhoe above the specified flow rate will cause damage to the seals and will void the warranty.
GE605 3.5-6 gpm (13.3-22.8 lpm)
GX Series 5-7 gpm (18.9-26.5 lpm)

NOTICE
When mounting a GE605 or GX620 backhoe to a skid steer that has a flow rate greater than 8 GPM (32 lpm), BFC501 Flow Divider Kit is required to prevent damage to the seals and voiding the warranty. Do not run the skid steer in high flow mode.

Keep this manual with the
Machine at all times



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PART NUMBER: Z97103

#Z97103 BACKHOE OPERATORS MANUAL

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