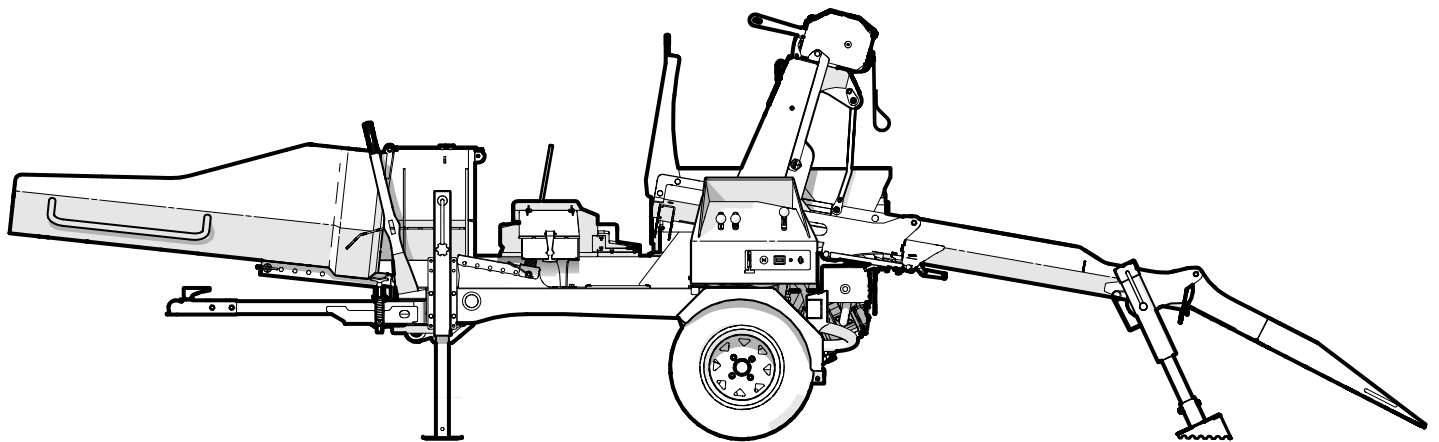


PARTS MANUAL

Serial Number 22E9US1119HS840001 & up

WP840 FIREWOOD PROCESSOR



Foreword

This Wallenstein parts manual is prepared to assist customers in ordering quality OEM replacement parts.

Regular maintenance combined with replacing old, worn or broken parts with the correct OEM parts is essential in prolonging the life of your Wallenstein product. Refer to this manual to identify replacement parts.

To order parts, contact your Wallenstein dealer or distributor. Have the product model and serial number handy.

If your dealer is no longer available, please go to our website: <http://wallensteinequipment.com> and click on the [Dealer Locator](#) to find the nearest dealer.

All information contained in this parts manual is current as per the revision date at the bottom of the page. Wallenstein reserves the right to change product specifications at any time without notice.

If your product specifications differ from those contained in this manual, contact Wallenstein for current information.

Reproduction of information in this parts manual is prohibited without prior written permission from Wallenstein Equipment Inc.

Wallenstein Equipment Inc. • © 2019

WARNING!

Refer to the operators manual for safe operation and maintenance.

Maintenance should be performed by trained personnel only.

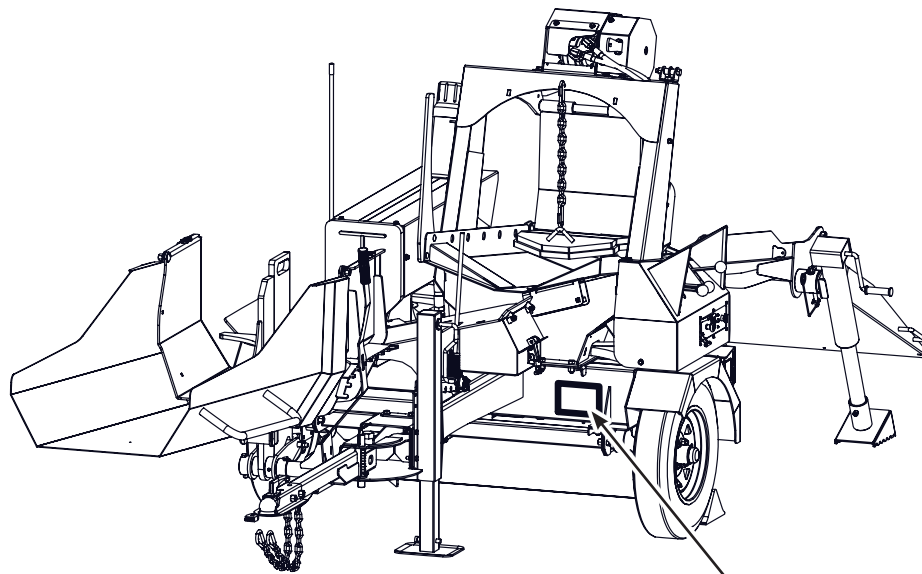
Serial Number Location

Always provide the model and serial number of your Wallenstein product when ordering parts or requesting service or other information. This information is found on the product information plate as shown below.

Record your product information here for future reference.

Model _____

Serial Number _____



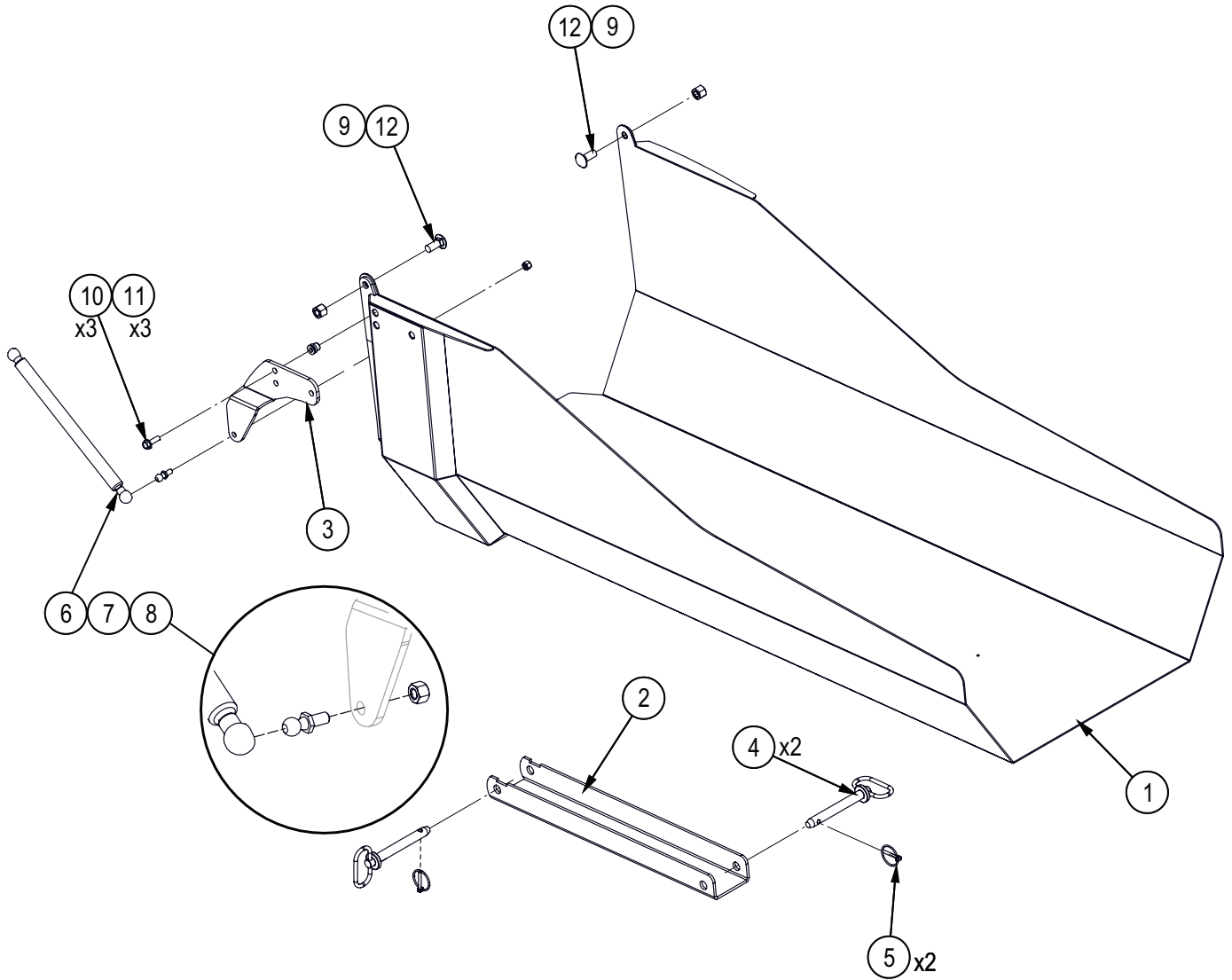
Model and Serial
Number Location

www.wallensteinequipment.com

Contents

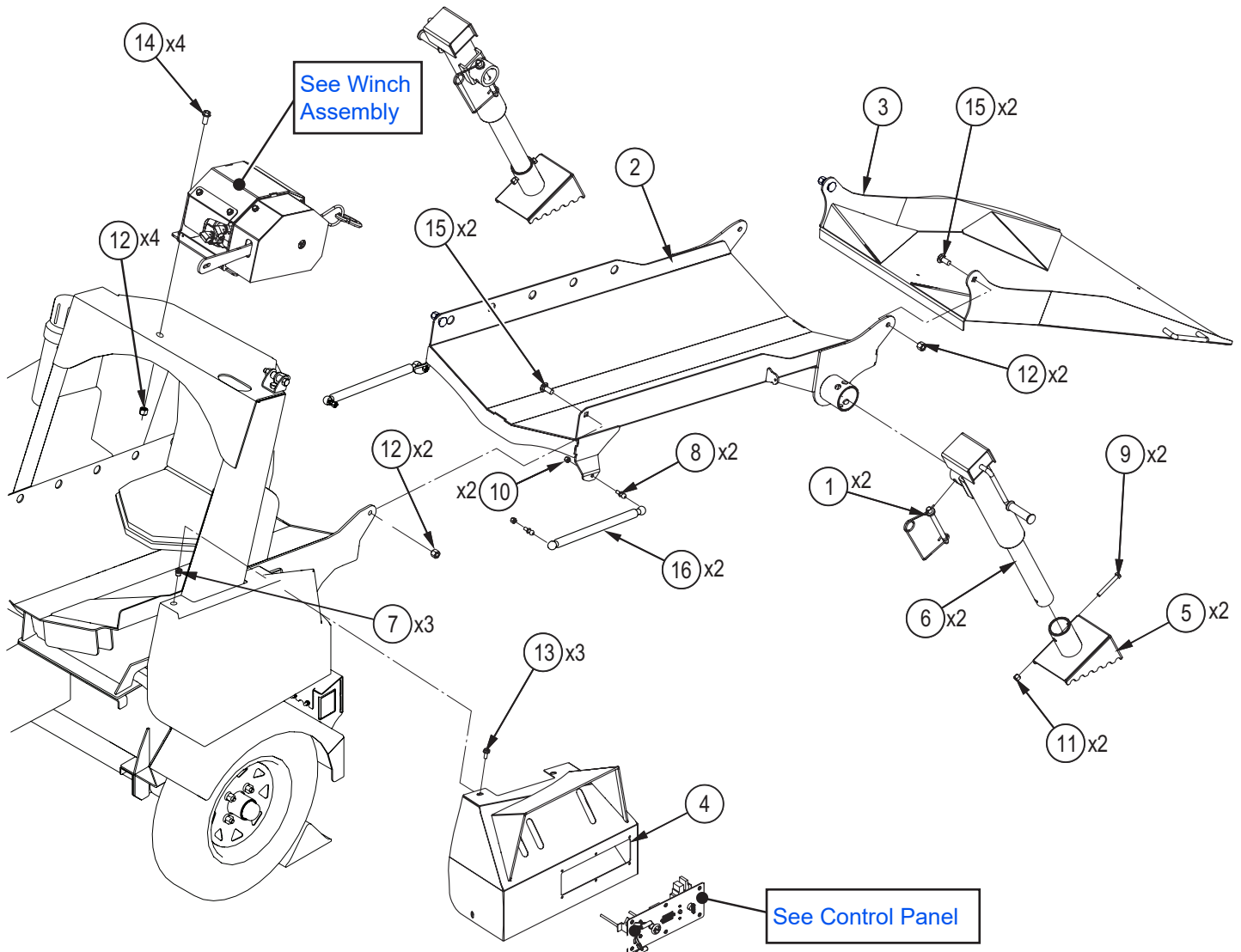
Splitter Chute Assembly.....	4
Lead In Chute Assembly	5
Log Hold Down Assembly.....	6
Splitter Main Frame Assembly.....	7
Log Chute Assembly	8
Running Gear	9
Hydraulic Splitter Assembly	10
Engine and Pump Assembly.....	11
Hydraulic Winch.....	12
Winch Drum.....	13
Panel Assembly.....	14
Tool Box Lid.....	15
Handle Clamp Assembly	15
Cylinder.....	16
Hub Assembly	16
Lights and Harness.....	17
Valve Assembly	18
Hydraulic Circuit	19
Decal Layout.....	20
Control Panel Decals	23
Accessories.....	24
Common Bolt Torque Values	25
Hydraulic Fitting Torque Values	26
Wheel Lug Torque Values.....	26

Splitter Chute Assembly



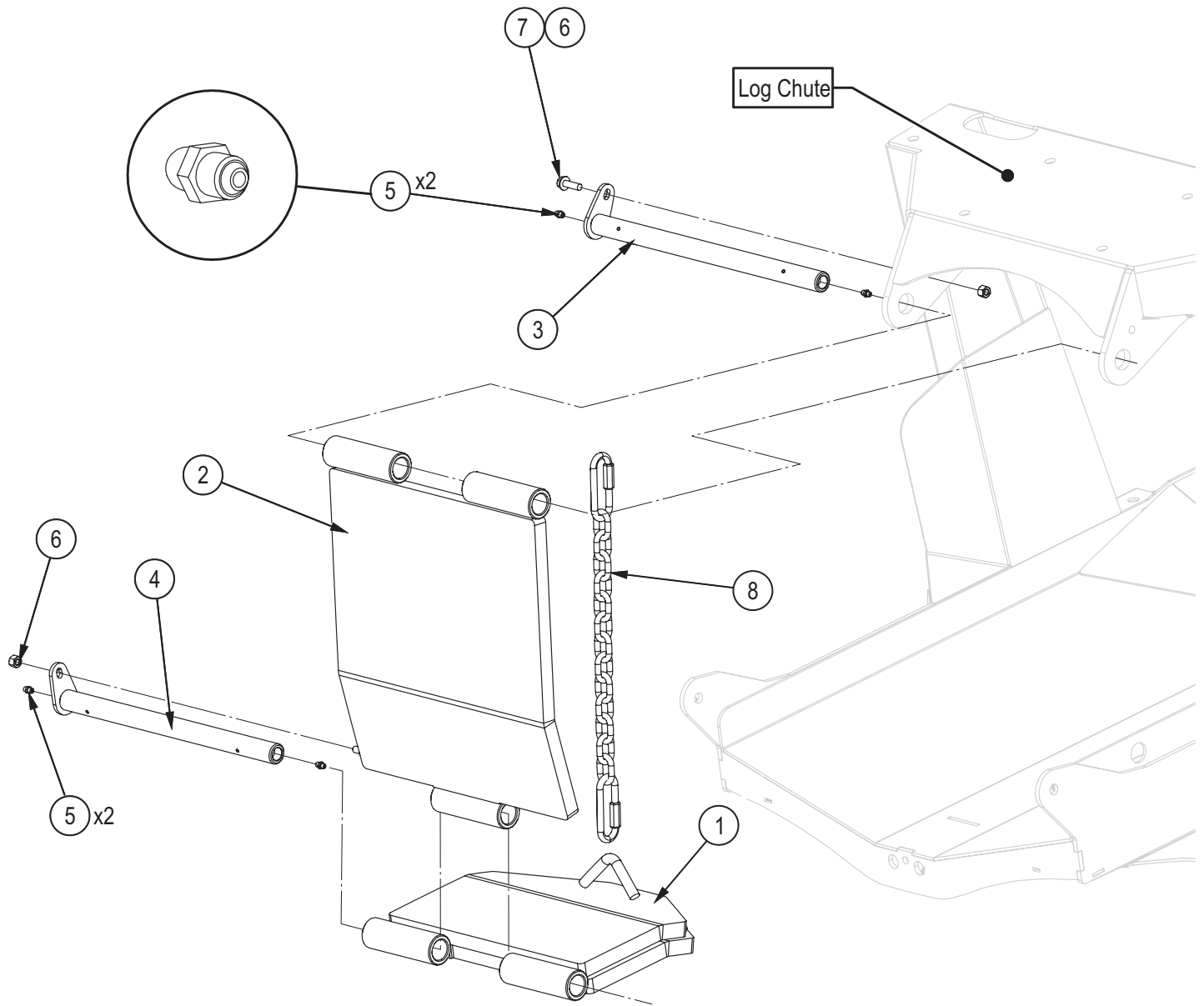
Item No.	Part No.	Description	Qty
1	2251W041	Splitter Chute	1
2	2071W114	Chute Adjuster	1
3	2071L188	Plate, Spring Mount	1
4	Z11232	Hitch Pin, 5/8" x 4-1/4"	2
5	Z12110	Lynch Pin, 3/16"	2
6	Z34203	Gas Spring, 10mm OD x 540mm x 215mm x 158 lbs	1
7	Z34204	Ball Stud, 13mm x 5/16NC	1
8	Z72221	Hex Lock Nut, 5/16NC	1
9	Z72251	Hex Lock Nut, 1/2NC	2
10	Z72956	Rivet Nut, 5/16NC x 150	3
11	Z76125	Flange Bolt, 5/16NC x 1"	3
12	Z76259	Carriage Bolt, 1/2NC x 1-1/4"	2

Lead In Chute Assembly



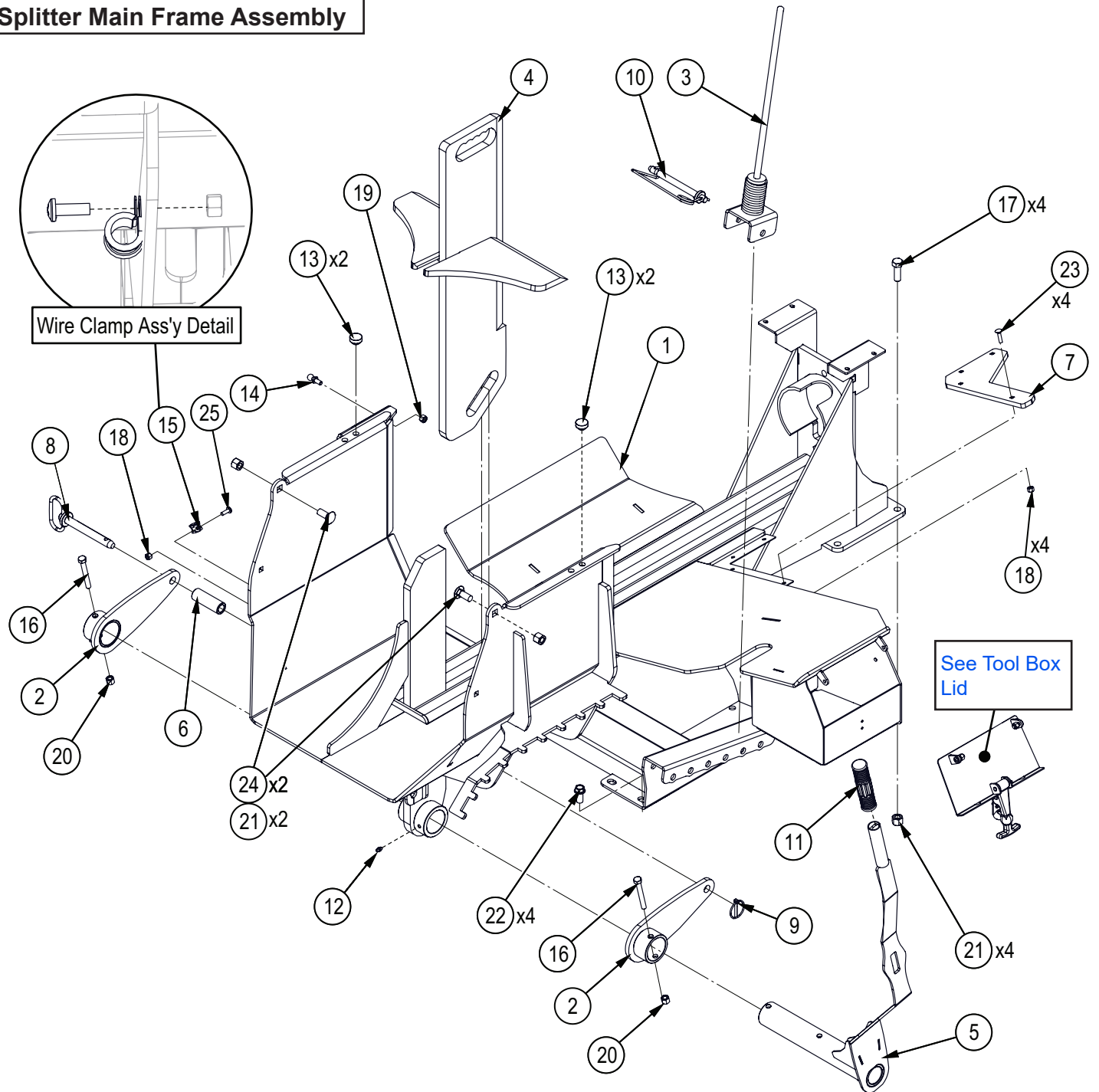
Item No.	Part No.	Description	Qty
1	Z12441	Snap Lock Pin, 1/2" x 4-1/2"	2
2	2251W016	Chute, Bottom	1
3	2251W017	Chute, Lead In	1
4	2251W043	Valve Cover	1
5	2251W020	Foot, Jack	2
6	Z91515	Trailer Jack, Side Wind x 2000lbs No Foot	2
7	Z72956	Rivet Nut, 5/16NC x 150	3
8	Z34204	Ball Stud, 13mm x 5/16NC	2
9	Z71330	Hex Bolt, 3/8NC x 3"	2
10	Z72221	Hex Lock Nut, 5/16NC	2
11	Z72231	Hex Lock Nut, 3/8NC	2
12	Z72251	Hex Lock Nut, 1/2NC	8
13	Z76121	Flange Bolt, 5/16NC x 3/4"	3
14	Z76153	Flange Bolt, 1/2NC x 1"	4
15	Z76259	Carriage Bolt, 1/2NC x 1-1/4"	4
16	Z34203	Gas Spring, 10mm ODx540x215mmx158 lbs	2

Log Hold Down Assembly



Item No.	Part No.	Description	Qty
1	2071W102	Hold Down Bottom	1
2	2071W110	Log Hold Down Long	1
3	2071W112	Pin, Log Hold Down	1
4	2071W136	Pin, Log Hold Down	1
5	Z29202	Grease Fitting, 1/4NF	4
6	Z72221	Hex Lock Nut, 5/16NC	2
7	Z76125	Flange Bolt, 5/16NC x 1"	1
8	Z92311	Chain, 1/4" x 21" with Two Quicklinks	1

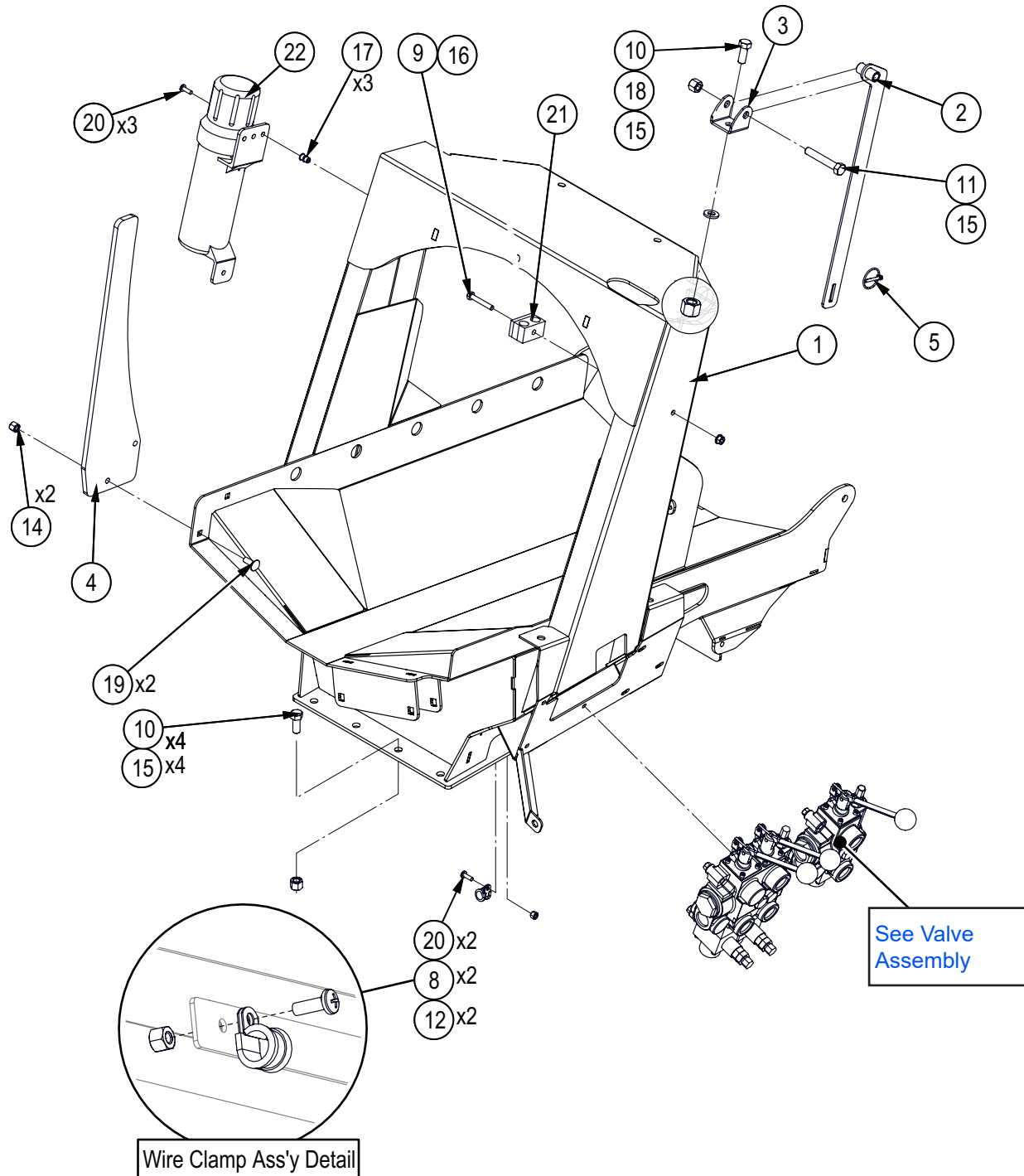
Splitter Main Frame Assembly



Item No.	Part No.	Description	Qty
1	2251W030	Main Frame	1
2	2071W111	Arm Wedge Lifter	2
3	2071W190	Log Stop Whip	1
4	2071W532	Wedge 4 Way	1
5	2071W533	Wedge Position Handle	1
6	2071M123	Roller Wedge Lift	1
7	2251S002	Edge, Log Table Long	1
8	Z11232	Hitch Pin, 5/8" x 4-1/4"	1
9	Z12110	Lynch Pin, 3/16"	1
10	Z12441	Snap Lock Pin, 1/2" x 4-1/2"	1
11	Z19321	Handle Grip, 1"	1
12	Z29202	Grease Fitting, 1/4NF	1
13	Z19909	Rubber Bumper, 7/16" x 1"	4

Item No.	Part No.	Description	Qty
14	Z34204	Ball Stud, 13mm x 5/16NC	1
15	Z62819	Rubberized Wire Clamp, 1/2"	1
16	Z71330	Hex Bolt, 3/8NC x 3"	2
17	Z71515	Hex Bolt, 1/2NC x 1-1/2"	4
18	Z72211	Hex Lock Nut, 1/4NC	5
19	Z72221	Hex Lock Nut, 5/16NC	1
20	Z72231	Hex Lock Nut, 3/8NC	2
21	Z72251	Hex Lock Nut, 1/2NC	6
22	Z76153	Flange Bolt, 1/2NC x 1"	4
23	Z76212	Carriage Bolt, 1/4NC x 1"	4
24	Z76259	Carriage Bolt, 1/2NC x 1-1/4"	2
25	Z78301	Machine Screw, 1/4NC x 3/4"	1

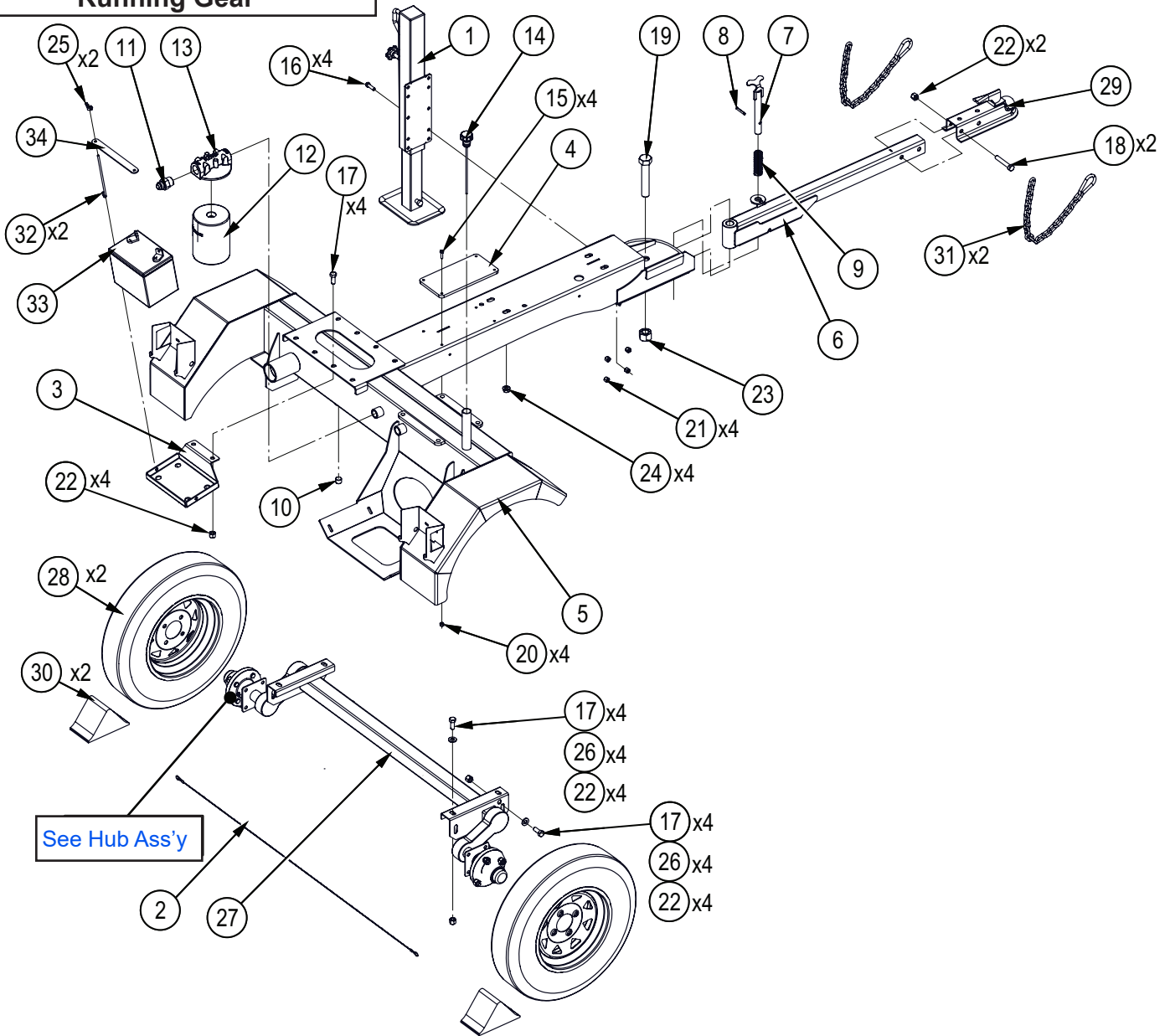
Log Chute Assembly



Item No.	Part No.	Description	Qty
1	2251W015	Chute, Log	1
2	2071W121	Arm, Log Chute Lock	1
3	2071L123	Clevis, Latch Mount	1
4	2251S003	Saw Guide	1
5	Z12110	Lynch Pin, 3/16"	1
8	Z62819	Rubberized Wire Clamp, 1/2"	2
9	Z71220	Hex Bolt, 5/16NC x 2"	1
10	Z71512	Hex Bolt, 1/2NC x 1-1/4"	5
11	Z71530	Hex Bolt, 1/2NC x 3"	1
12	Z72211	Hex Lock Nut, 1/4NC	2

Item No.	Part No.	Description	Qty
14	Z72231	Hex Lock Nut, 3/8NC	2
15	Z72251	Hex Lock Nut, 1/2NC	6
16	Z72521	Serrated Flange Locknut, 5/16NC	1
17	Z72962	Rivet Nut, 1/4NC x 260	3
18	Z73151	SAE Washer, 1/2"	1
19	Z76231	Carriage Bolt, 3/8NC x 1"	2
20	Z78301	Machine Screw, 1/4NC x 3/4"	5
21	Z79463	Double Hose Clamp, 11/16" OD	1
22	Z96503	Manual Tube, 3-1/2" Short	1

Running Gear

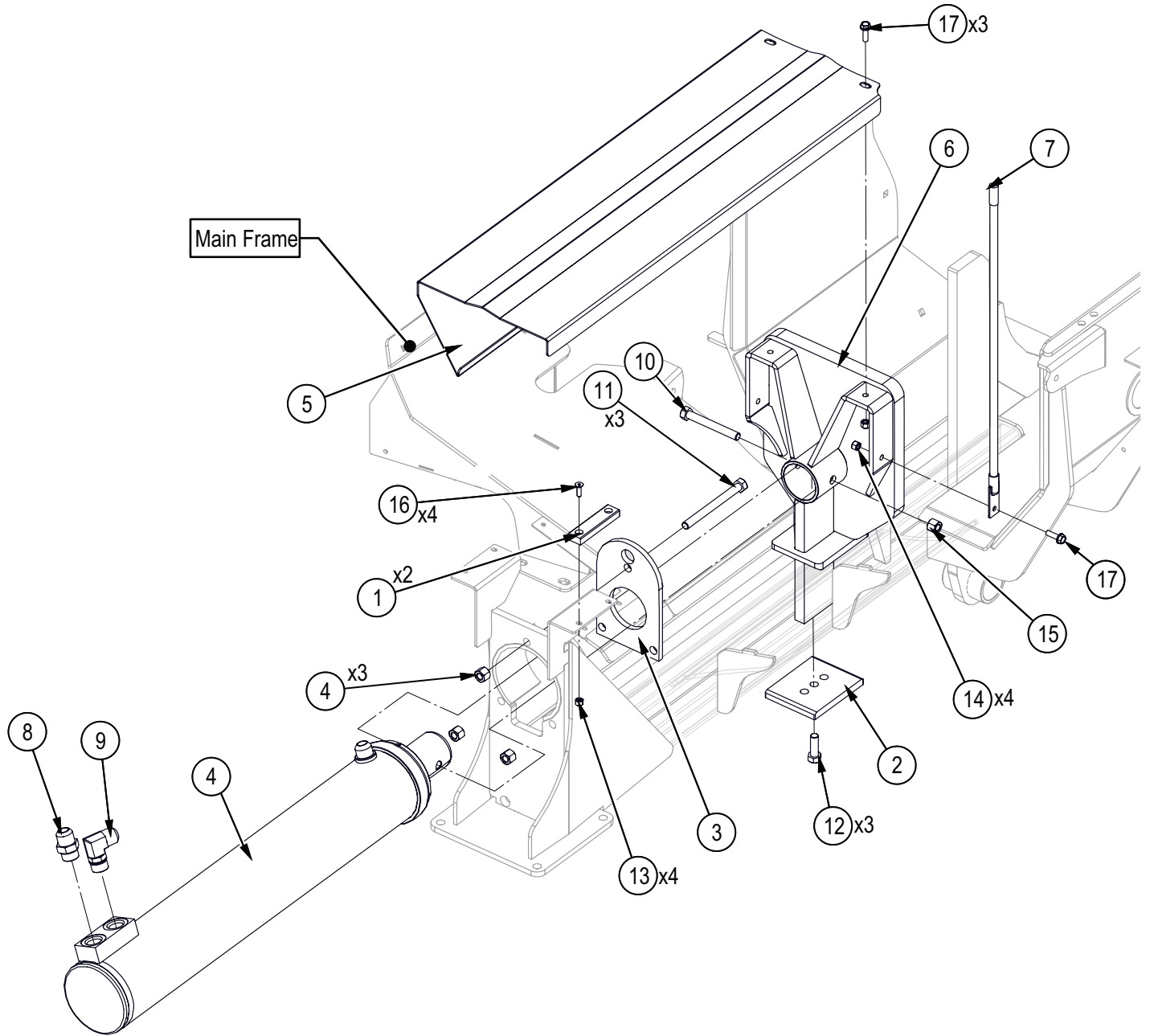


Item No.	Part No.	Description	Qty
1	1082W503	Jack for 1082A502	1
2	2251F012	Aircraft Cable, 1/16" x 55"	1
3	2251L021	Tray, Battery	1
4	2251S004	Chain Bumper	1
5	2251W035	WP830 Tank Base	1
6	2251W039	Pivot Tongue	1
7	2251W040	Locking Pin, Tongue	1
8	Z14172	Roll Pin, 1/4" x 1-3/4"	1
9	Z32307	Comp Spring, 1.1" OD x 3-1/2" x 0.08"	1
10	Z51192	Socket Plug, MP 08	1
11	Z514403	Straight, MJIC x MP 1216	1
12	Z55303	Particulate Filter, FP16	1
13	Z55304	Filter Cap, MP16 x FP16	1
14	Z55404	Vented Plug Dipstick x 9"	1
15	Z71110	Hex Bolt, 1/4NC x 1"	4
16	Z71312	Hex Bolt, 3/8NC x 1-1/4"	4
17	Z71512	Hex Bolt, 1/2NC x 1-1/4"	12
18	Z71530	Hex Bolt, 1/2NC x 3"	2

Item No.	Part No.	Description	Qty
19	Z719110	Hex Bolt, 1NC x 5-1/2"	1
20	Z72211	Hex Lock Nut, 1/4NC	4
21	Z72231	Hex Lock Nut, 3/8NC	4
22	Z72251	Hex Lock Nut, 1/2NC	14
23	Z72291	Hex Lock Nut, 1NC	1
24	Z72551	Serrated Flange Locknut, 1/2NC	4
25	Z72921	Wing Nut, 1/4NC	4
26	Z73151	SAE Washer, 1/2"	8
27	Z91115	#9 Full Flex Axle, 2200lbs x 54" HF	1
28	Z91322	5.30-12 LRC USA Trail 4on4" (E-Marked)	2
29	Z91614	Hitch Coupler, 2" Ball x 2" x 3500lbs	1
30	Z91903	Wheel Chock	2
31	Z92303	Safety Chain, 1/4" x 2ft with Snap	2
32	Z93202	J-Hook, 1/4" x 7"	2
33	Z93204	Battery, 325CCA	1
34	Z93207	Hold-Down Strap, 1" x 8-1/2"	1

Note: Axle comes complete with hubs: see Hub Assembly.

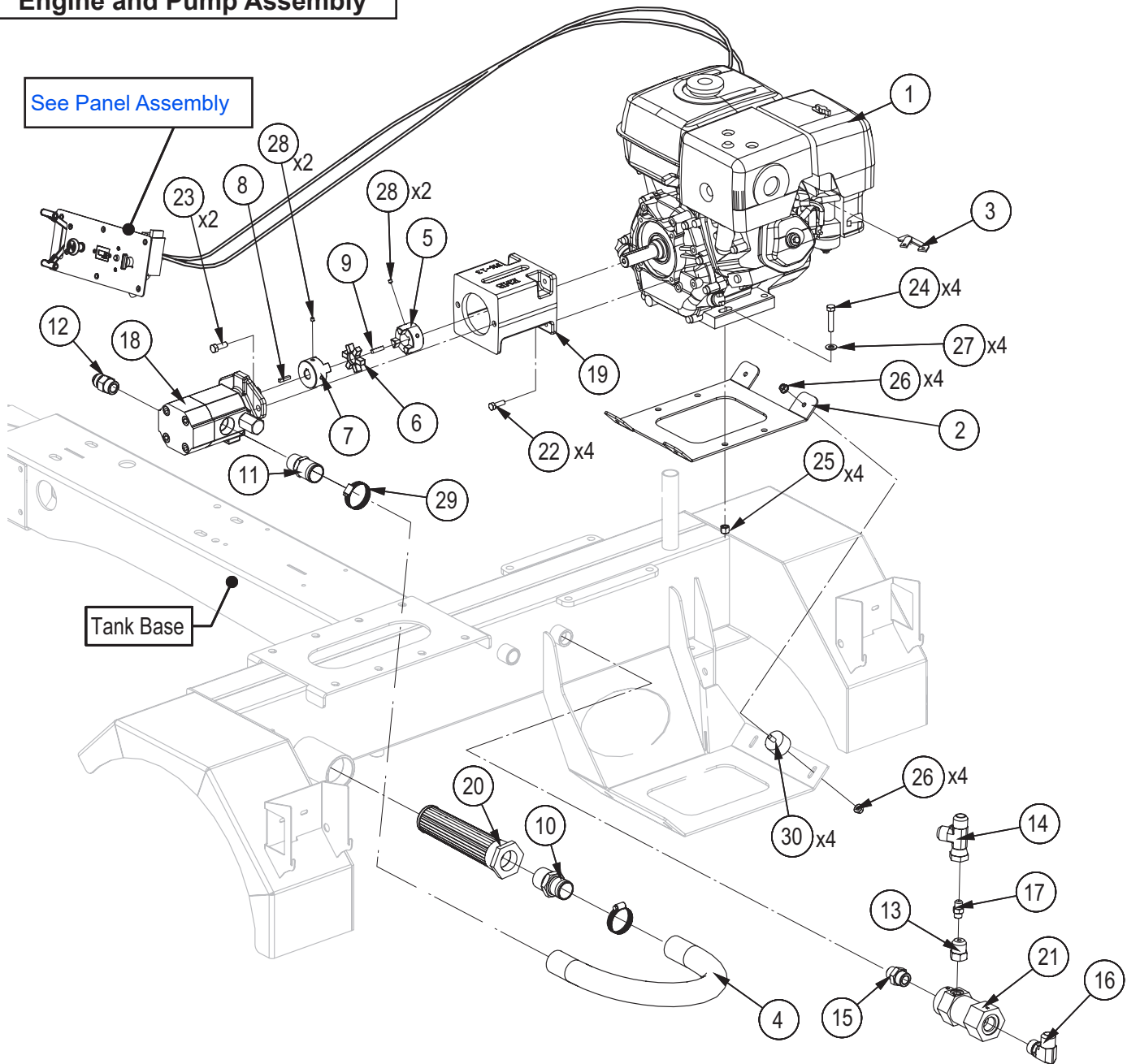
Hydraulic Splitter Assembly



Item No.	Part No.	Description	Qty
1	1022S208	Rotor Hood Slide	2
2	2055S517	Cap, Push Block	1
3	2071L215	Plate, Cylinder Retaining	1
4	2251C001	Cylinder, 4-1/2 x 24 x 2-1/2	1
5	2251L009	Cover, Sliding	1
6	2251W038	Hvy Push Block	1
7	Z19908	Blade Guide, 1/2" x 24"	1
8	Z516414	Straight, MJIC x MORB 1212	1
9	Z516501	Elbow 90, MJIC x MORB 1212	1

Item No.	Part No.	Description	Qty
10	Z71540	Hex Bolt, 1/2NC x 4"	1
11	Z71555	Hex Bolt, 1/2NC x 5-1/2"	3
12	Z71576G8	Hex Bolt, 1/2NF x 1-1/2" G8	3
13	Z72211	Hex Lock Nut, 1/4NC	4
14	Z72221	Hex Lock Nut, 5/16NC	4
15	Z72251	Hex Lock Nut, 1/2NC	4
16	Z75211	FHCS, 1/4NC x 7/8"	4
17	Z76125	Flange Bolt, 5/16NC x 1"	4

Engine and Pump Assembly



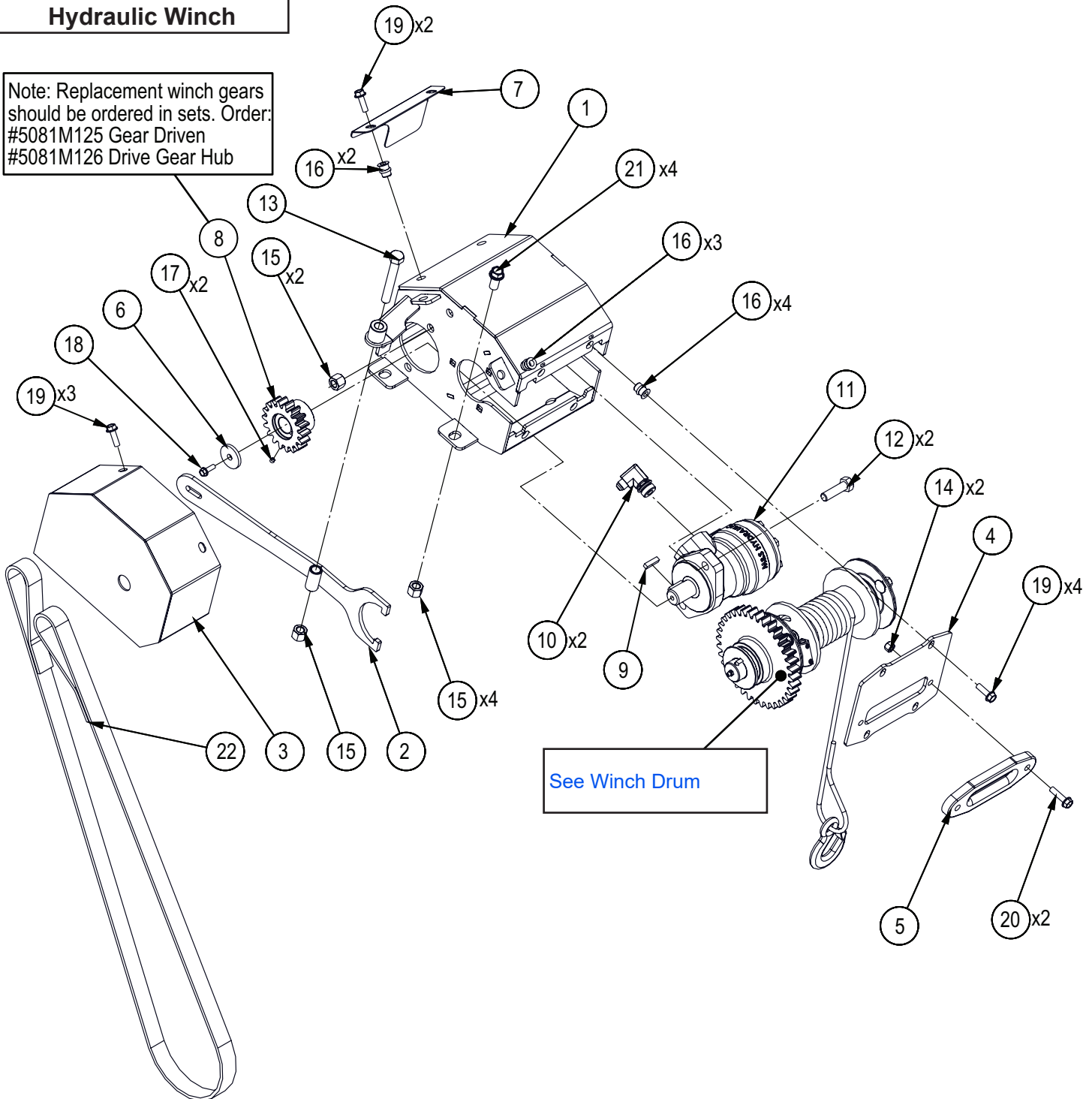
Item No.	Part No.	Description	Qty
1	Z47147	Honda GX390UQXE6, Electric	1
2	2251L019	Plate, Engine Mount	1
3	Z47914	Kit, Remote Choke	1
4	2251F004	Suction Hose, 1-1/4" x 30"	1
5	Z46404	Shaft Coupling, L095 x 1"	1
6	Z46405	Spider, L095	1
7	Z46419	Shaft Coupling, L095 x 5/8"	1
8	Z46522	Key, 3/16" x 3/16" x 1"	1
9	Z46533	Key, 1/4" x 1/4" x 1"	1
10	Z51185	Straight, MHB x MP 2020	1
11	Z51186	Straight, MHB x MP 2016	1
12	Z514401	Straight, MJIC x MP 1212	1
13	Z514905	Straight, FJIC x MJIC 0612	1
14	Z51597	Tee, MJIC x FJIC x MJIC 121212	1
15	Z51613	Straight, MORB x MP 1212	1
16	Z516501	Elbow 90, MJIC x MORB 1212	1

Item No.	Part No.	Description	Qty
17	Z51929	Straight, MJIC x MORB 0606 x 0.047	1
18	Z53206	Two-Stage Pump, 22GPM	1
19	Z53808	Pump Mount, PM-13	1
20	Z55102	Suction Strainer, MP32	1
21	Z56408	Dump Valve	1
22	Z71274	Hex Bolt, 5/16NF x 1"	4
23	Z71310	Hex Bolt, 3/8NC x 1"	2
24	Z71317	Hex Bolt, 3/8NC x 1-3/4"	4
25	Z72231	Hex Lock Nut, 3/8NC	4
26	Z72521	Serrated Flange Locknut, 5/16NC	8
27	Z73131	SAE Washer, 3/8"	4
28	Z74111	Set Screw, 1/4NC x 1/4"	4
29	Z79404	Hose Clamp, SAE #24 (2")	2
30	Z79933	Isolator, 1-9/16" Dia x 1" x 5/16NC	4

ECN0405

Hydraulic Winch

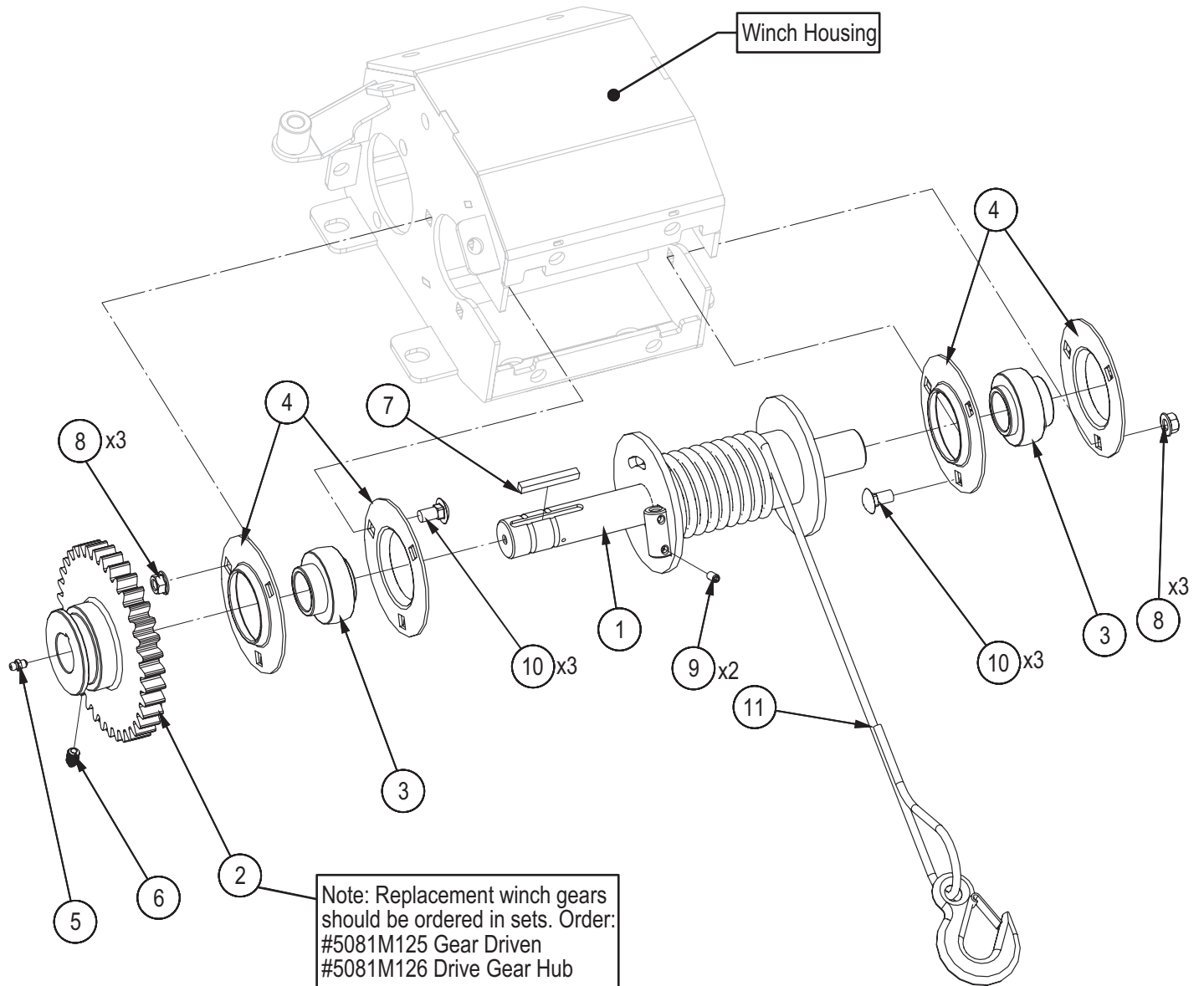
Note: Replacement winch gears should be ordered in sets. Order:
 #5081M125 Gear Driven
 #5081M126 Drive Gear Hub



Item No.	Part No.	Description	Qty
1	2251W018	Housing, Winch	1
2	5081W122	Handle, Winch Clutch	1
3	5081W111	Shield	1
4	2251L071	Mount, Hawse Fairlead	1
5	2251M003	Synthetic Fairlead	1
6	5081L114	Washer, Motor Shaft	1
7	5081L138	Guard	1
8	5081M126	Drive Gear Hub	1
9	Z46533	Key, 1/4" x 1/4" x 1"	1
10	Z51656	Elbow 90, MJIC x MORB 0610	2
11	Z54109	Hydraulic Motor, 100CCR	1
12	Z71517	Hex Bolt, 1/2NC x 1-3/4"	2

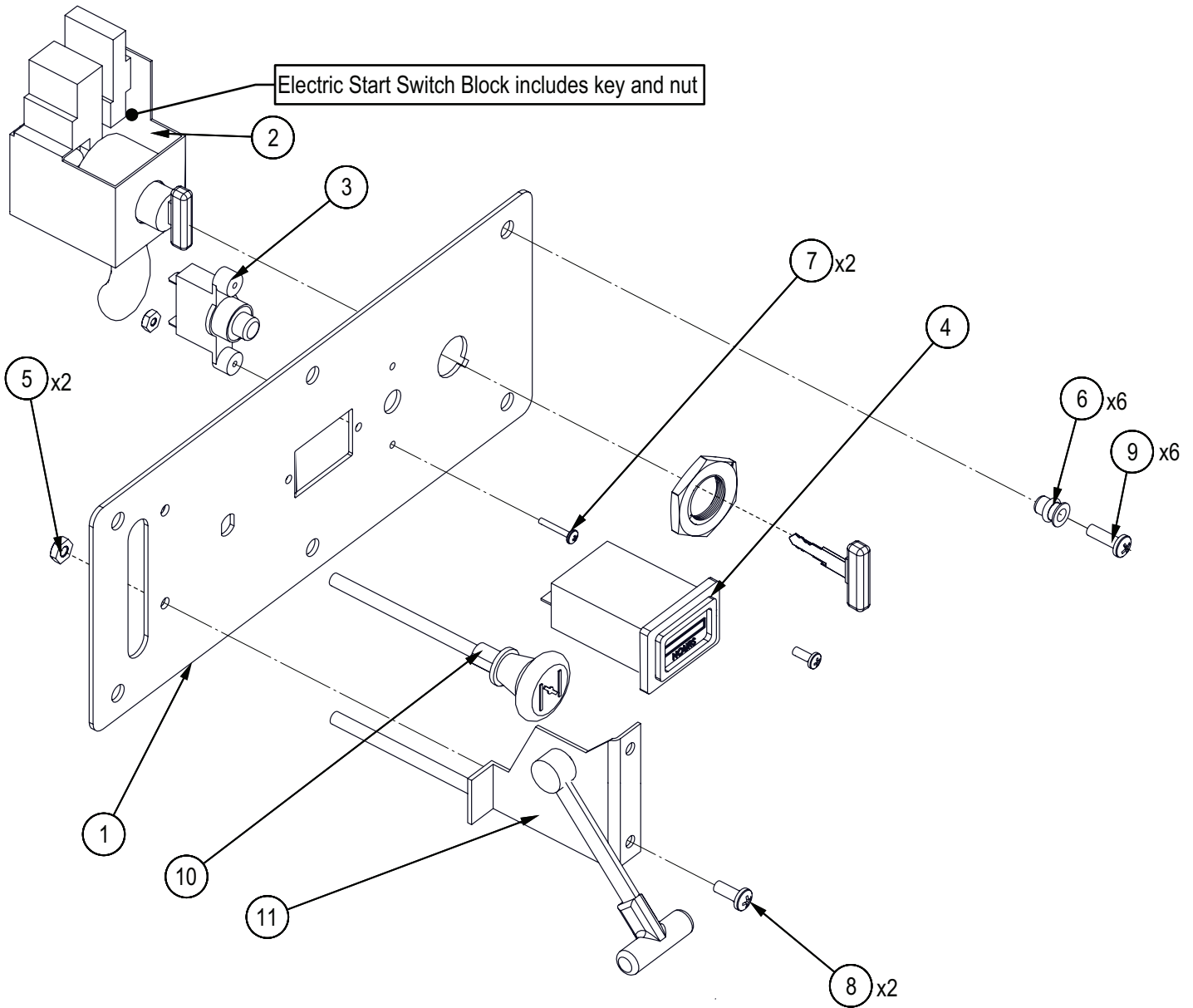
Item No.	Part No.	Description	Qty
13	Z71535	Hex Bolt, 1/2NC x 3-1/2"	1
14	Z72221	Hex Lock Nut, 5/16NC	2
15	Z72251	Hex Lock Nut, 1/2NC	7
16	Z72957	Rivet Nut, 5/16NC x 312	9
17	Z74111	Set Screw, 1/4NC x 1/4"	2
18	Z76111	Flange Bolt, 1/4NC x 3/4"	1
19	Z76125	Flange Bolt, 5/16NC x 1"	9
20	Z76128	Flange Bolt, 5/16NC x 1-1/4"	2
21	Z76153	Flange Bolt, 1/2NC x 1"	4
22	Z92405	Winching Strap, 1" x 5ft	1

Winch Drum



Item No.	Part No.	Description	Qty
1	2251W019	Drum, Main Cable	1
2	5081M125	Gear, Driven	1
3	Z25207	Bearing Insert, UC206-20	2
4	Z25301	3-Bolt Flange Bearing, PF206 x Flange Only	4
5	Z29202	Grease Fitting, 1/4NF	1
6	Z34302	Spring Plunger, 3/8NC x 5/8" x 21 lbs	1
7	Z46531	Key, 1/4" x 1/4" x 2"	1
8	Z72531	Serrated Flange Locknut, 3/8NC	6
9	Z74113	Set Screw, 1/4NC x 1/2"	2
10	Z76233	Carriage Bolt, 3/8NC x 3/4"	6
11	Z92112	Synthetic Winch Rope, 1/4 x 50ft with Grab Hook	1

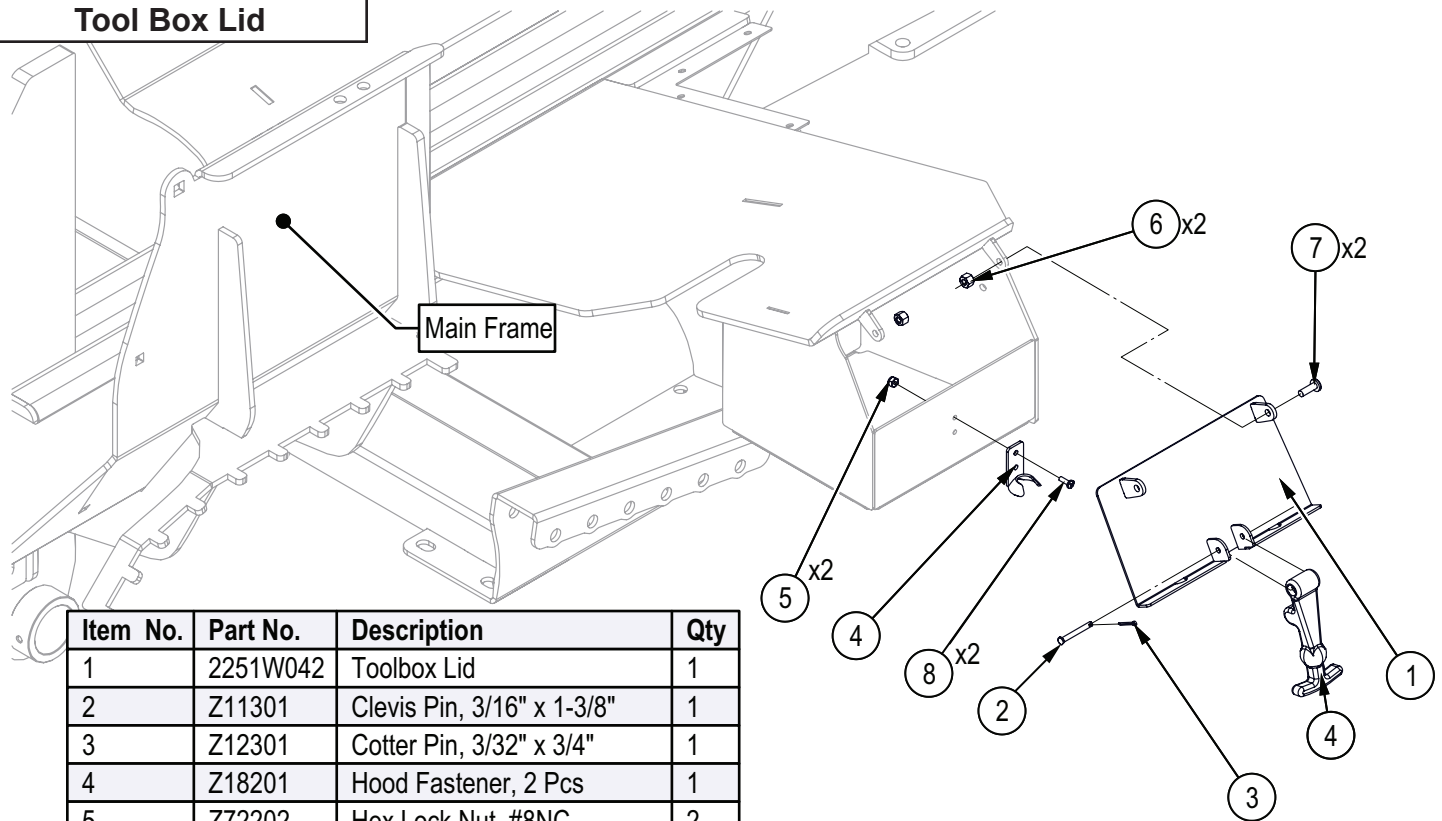
Panel Assembly



Item No.	Part No.	Description	Qty
1	2251W021	Control Panel	1
2	Z47171-2	Electric Start, Switch Block	1
3	Z47171-3	Electric Start, Honda 12V Breaker	1
4	Z64612	Tach/Hour Meter, Snap Mount	1
5	Z72752	Machine Nut, #10NF	2
6	Z72953	Rivet Nut, #10NC x 130	6
7	Z77816	Machine Screw, M3x0.5 x 16mm	2
8	Z78303	Machine Screw, #10NF x 1/2"	2
9	Z78312	Machine Screw, #10NC x 5/8"	6
10	Z92115	Remote Choke Cable, 68"	1
11	Z92116	Remote Throttle Cable, 66"	1

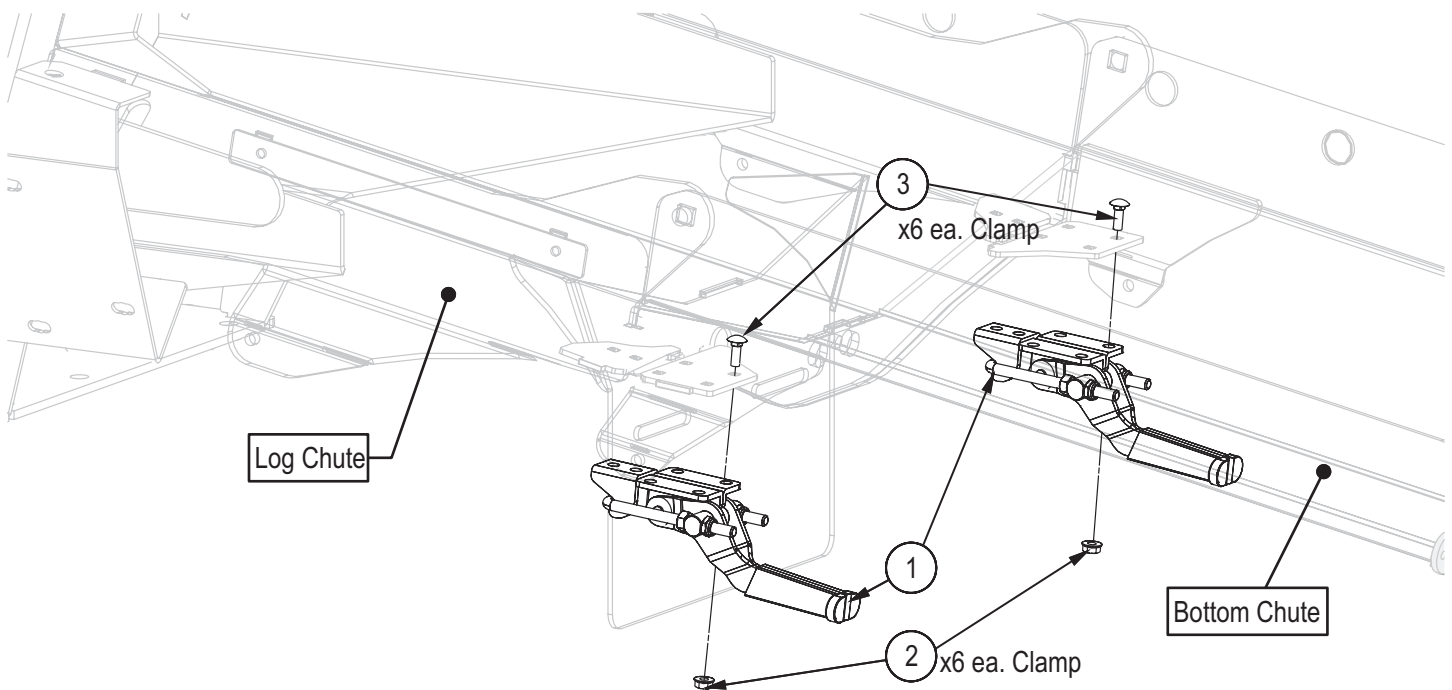
ECN0414

Tool Box Lid



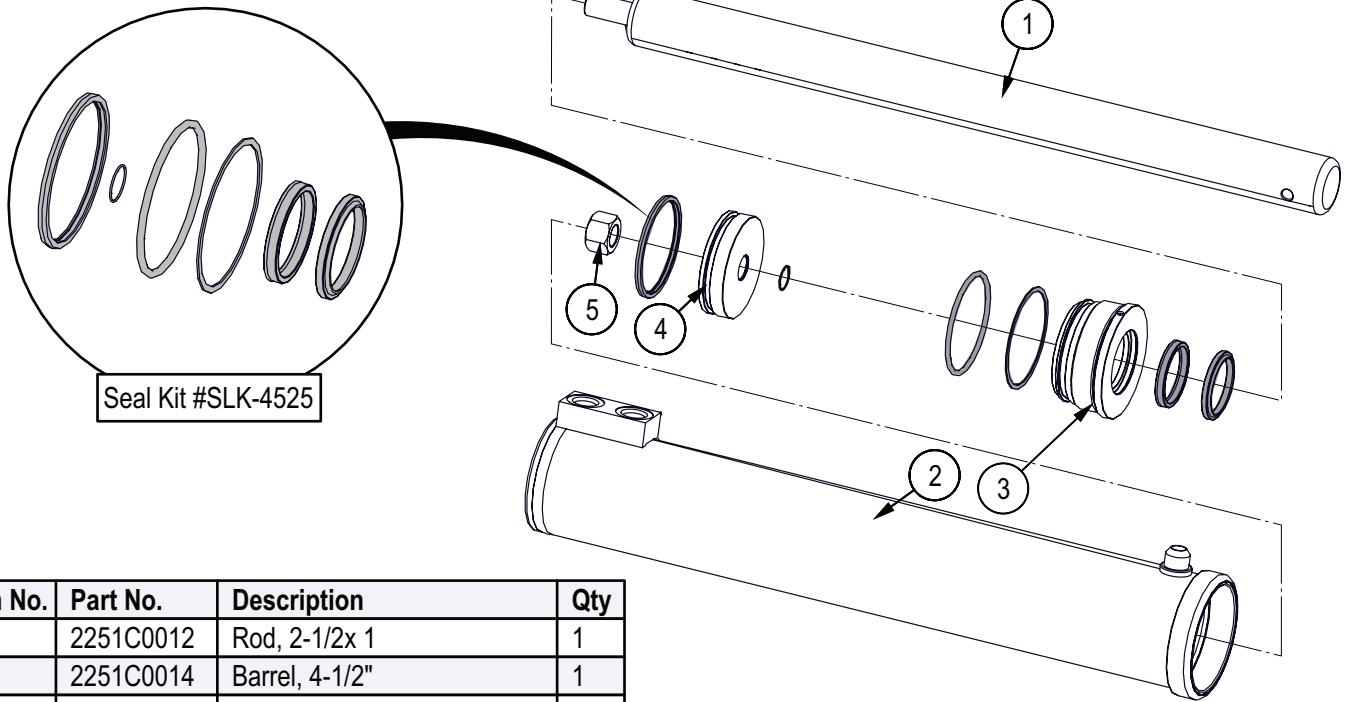
Item No.	Part No.	Description	Qty
1	2251W042	Toolbox Lid	1
2	Z11301	Clevis Pin, 3/16" x 1-3/8"	1
3	Z12301	Cotter Pin, 3/32" x 3/4"	1
4	Z18201	Hood Fastener, 2 Pcs	1
5	Z72202	Hex Lock Nut, #8NC	2
6	Z72211	Hex Lock Nut, 1/4NC	2
7	Z78301	Machine Screw, 1/4NC x 3/4"	2
8	Z78309	Machine Screw, #8NC x 1/2"	2

Handle Clamp Assembly



Item No.	Part No.	Description	Qty
1	Z19511	Handle Clamp, Latch Type x 2-Piece	2
2	Z72511	Serrated Flange Locknut, 1/4NC	12
3	Z76211	Carriage Bolt, 1/4NC x 3/4"	12

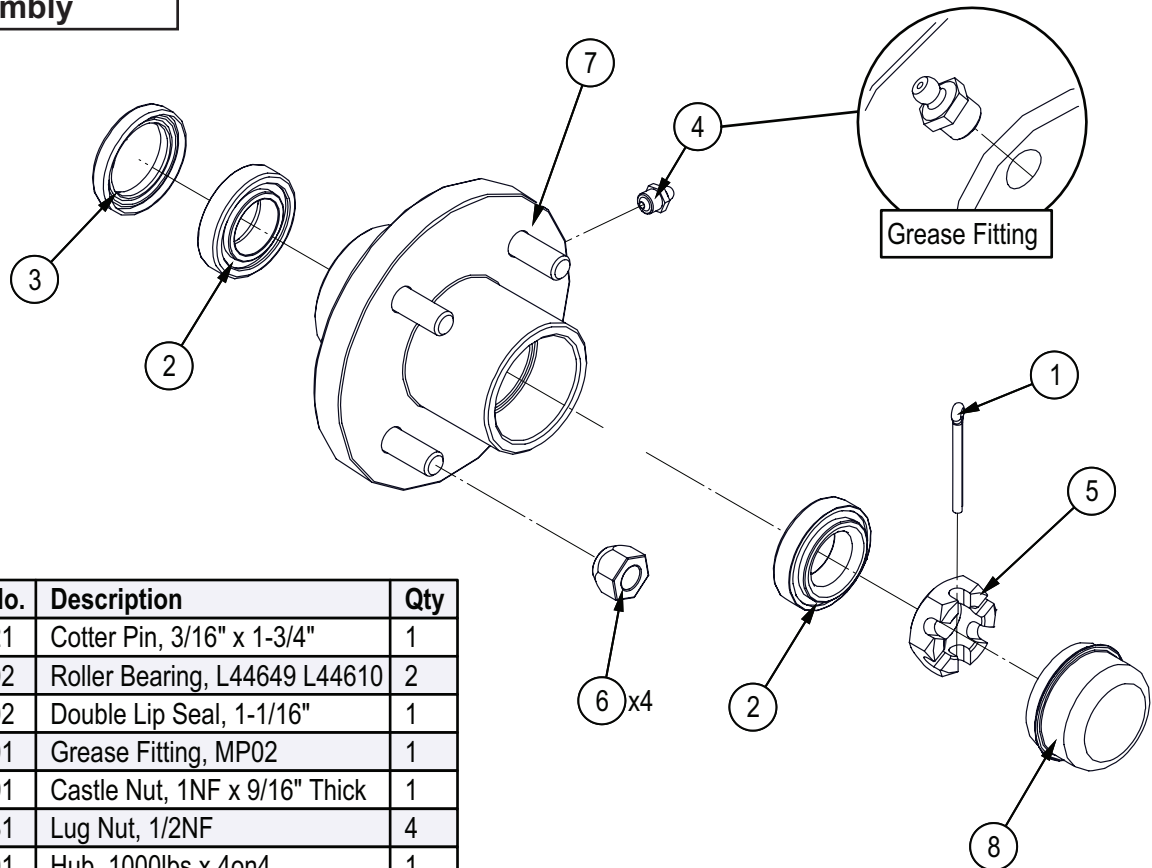
Cylinder



Seal Kit #SLK-4525

Item No.	Part No.	Description	Qty
1	2251C0012	Rod, 2-1/2x 1	1
2	2251C0014	Barrel, 4-1/2"	1
3	G450-250S	Gland, 4-1/2" x 2-1/2"	1
4	P100-450SP	Piston, 4-1/2" Bore	1
5	Z722909G8	Hex Top-lock Nut, 1-14NF G8	1

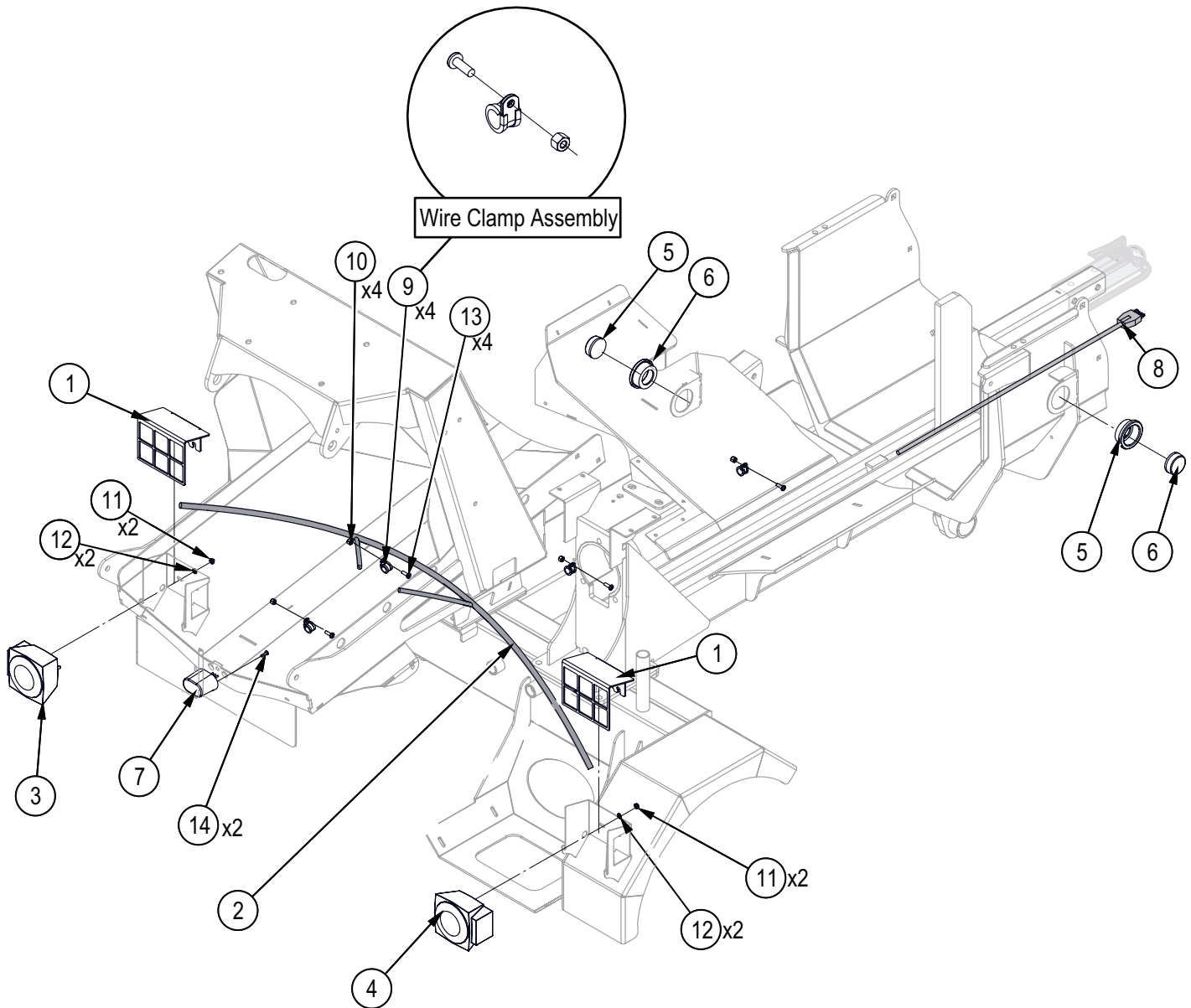
Hub Assembly



Grease Fitting

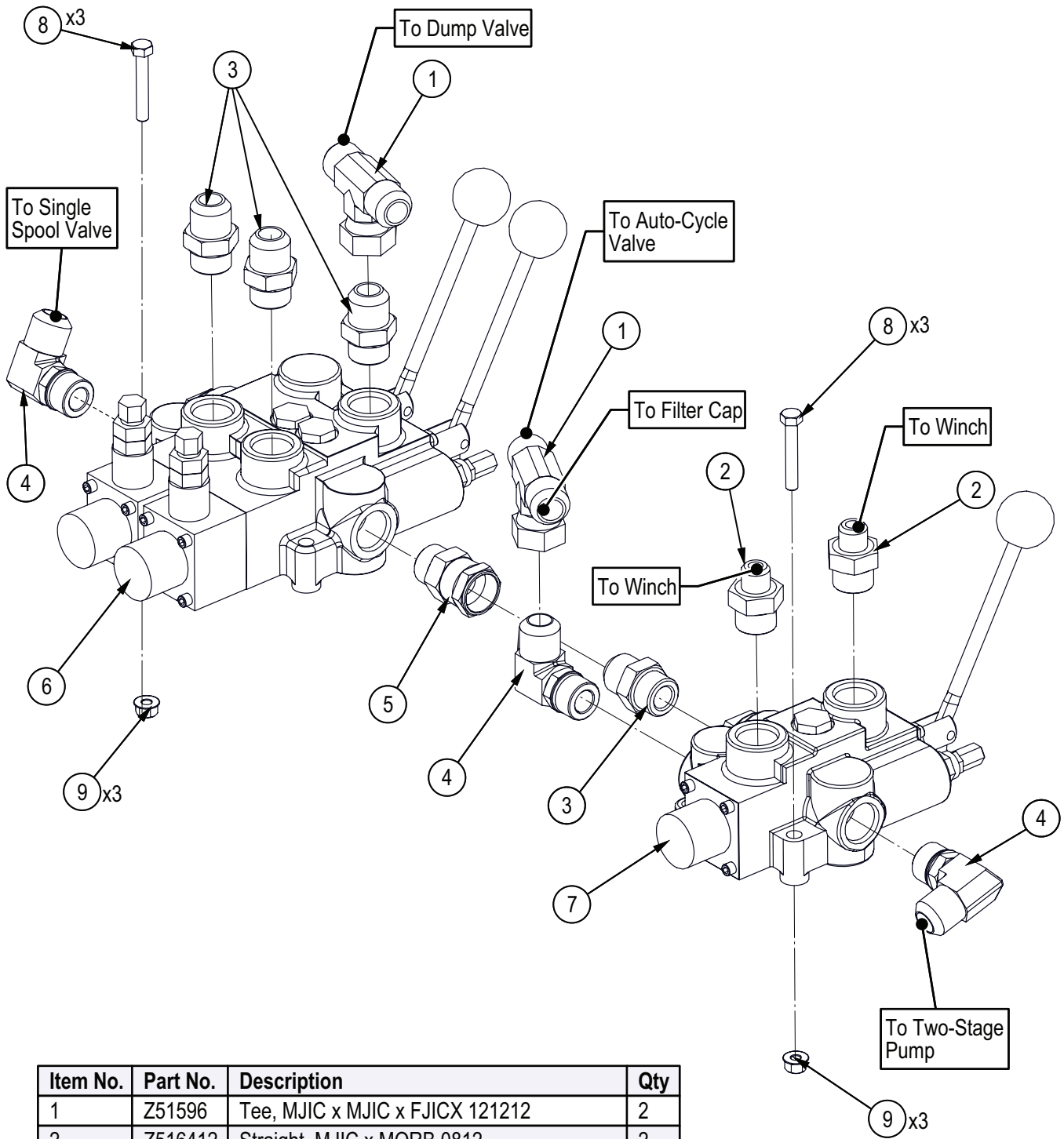
Item No.	Part No.	Description	Qty
1	Z12321	Cotter Pin, 3/16" x 1-3/4"	1
2	Z23202	Roller Bearing, L44649 L44610	2
3	Z28302	Double Lip Seal, 1-1/16"	1
4	Z29201	Grease Fitting, MP02	1
5	Z72691	Castle Nut, 1NF x 9/16" Thick	1
6	Z72931	Lug Nut, 1/2NF	4
7	Z91201	Hub, 1000lbs x 4on4	1
8	Z91801	Dust Cap, 1.98 Bore	1

Lights and Harness



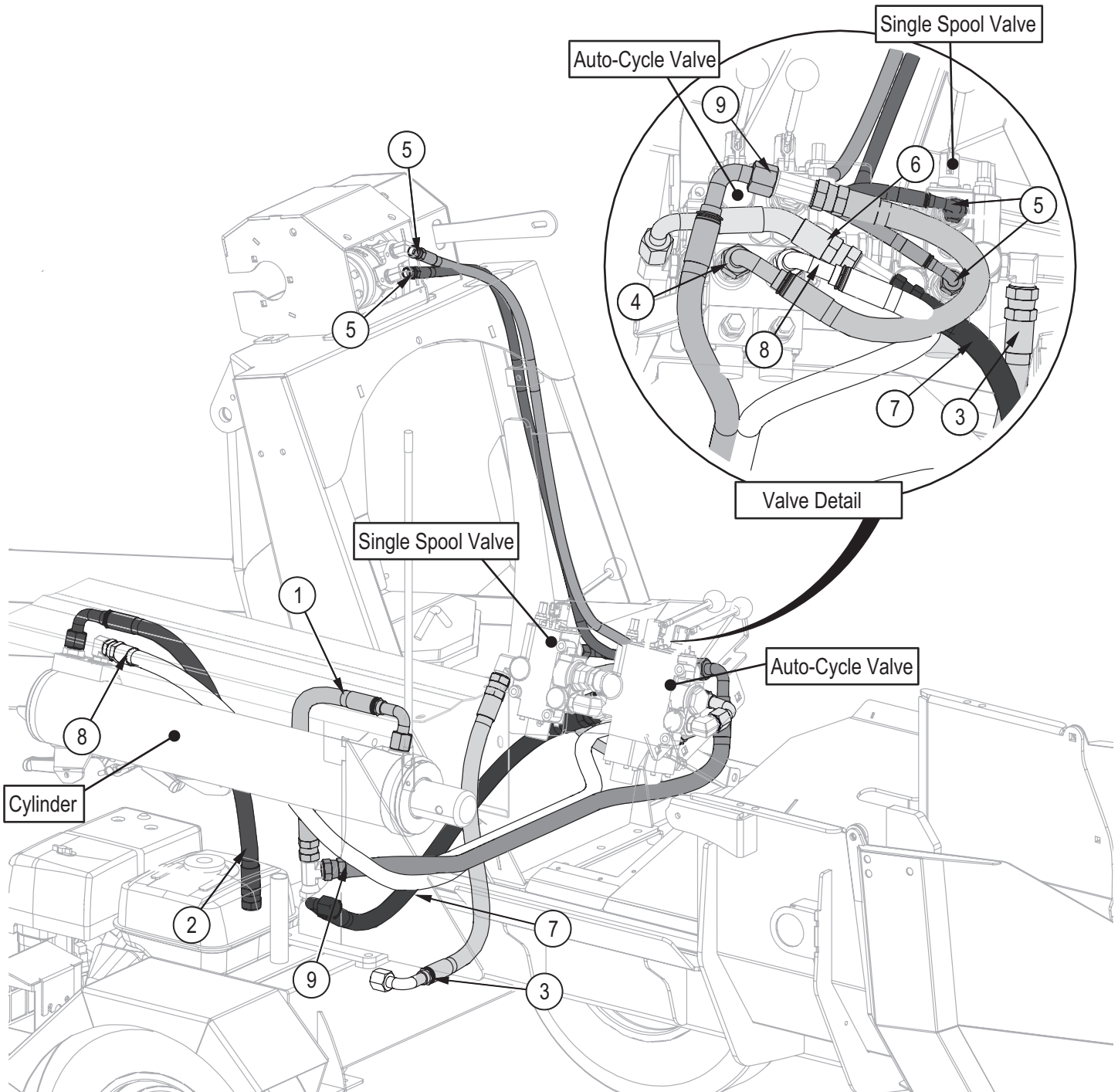
Item No.	Part No.	Description	Qty
1	2089L351	Light Guard	2
2	2251F015	Harness, WP840 Series Engine Control	1
3	Z61106	STTL Lamp, Square LH	1
4	Z61107	STT Lamp, Square RH	1
5	Z61202	Grommet, Round x Open Back	2
6	Z61205	Marker Lamp, Round x Amber	2
7	Z61301	License Lamp, White	1
8	Z62126	Harness, WP800 Series Lights	1
9	Z62819	Rubberized Wire Clamp, 1/2"	4
10	Z72211	Hex Lock Nut, 1/4NC	4
11	Z72311	Jam Nut, 1/4NC	4
12	Z73431	Int - Ext Tooth Washer, 1/4"	4
13	Z78301	Machine Screw, 1/4NC x 3/4"	4
14	Z78312	Machine Screw, #10NC x 5/8"	2

Valve Assembly



Item No.	Part No.	Description	Qty
1	Z51596	Tee, MJIC x MJIC x FJICX 121212	2
2	Z516412	Straight, MJIC x MORB 0812	2
3	Z516414	Straight, MJIC x MORB 1212	4
4	Z516501	Elbow 90, MJIC x MORB 1212	3
5	Z51764	Straight, MORB x FJICX 1212	1
6	Z56213	Auto-Cycle Valve, OC x 25GPM	1
7	Z56224	Single Spool Valve, PB Tandem SC x 30GPM	1
8	Z71220	Hex Bolt, 5/16NC x 2"	6
9	Z72521	Serrated Flange Locknut, 5/16NC	6

Hydraulic Circuit



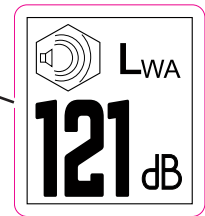
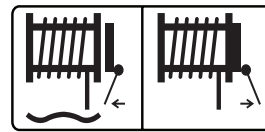
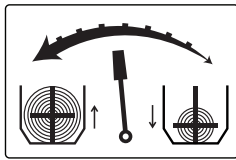
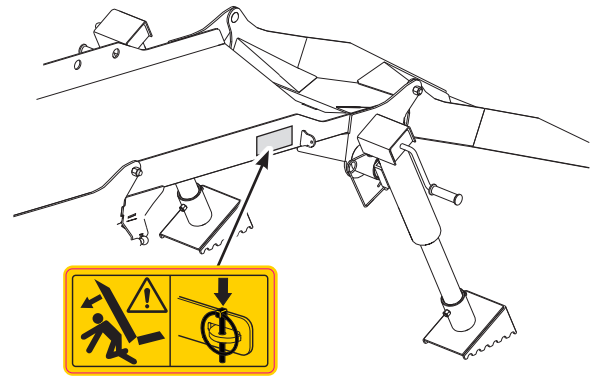
Item No.	Part No.	Description	Qty
1	2251F001	3/4" Hose, FJIC12 x 90FJIC12 x 18"	1
2	2251F002	3/4" Hose, FJIC12 x 90FJIC12 x 23"	1
3	2251F003	3/4" Hose, FJIC12 x 90FJIC12 x 25"	1
4	2251F006	3/4" Hose, FJIC12 x 90FJIC12 x 17"	1
5	2251F007	3/8" Hose, FJIC06 x 90FJIC08 x 47"	2
6	2251F008	3/4" Hose, FJIC12 x 90FJIC12 x 5"	1
7	2251F009	3/4" Hose, FJIC12 x 90FJIC12 x 38"	1
8	2251F010	3/4" Hose, FJIC12 x 90FJIC12 x 70"	1
9	2251F011	3/4" Hose, FJIC12 x 90FJIC12 x 34.5"	1

ECR03625

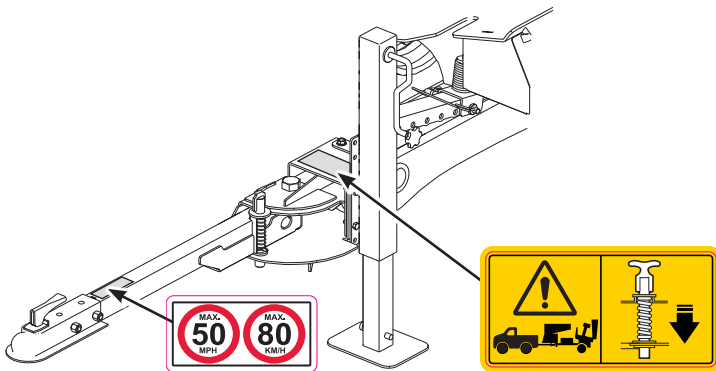
Decal Layout

IMPORTANT! If parts are replaced that have safety signs on them, new signs must be applied. Safety signs must always be replaced if they become damaged, are removed, or become illegible.

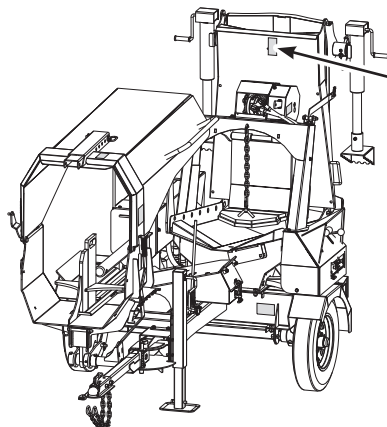
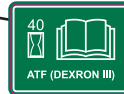
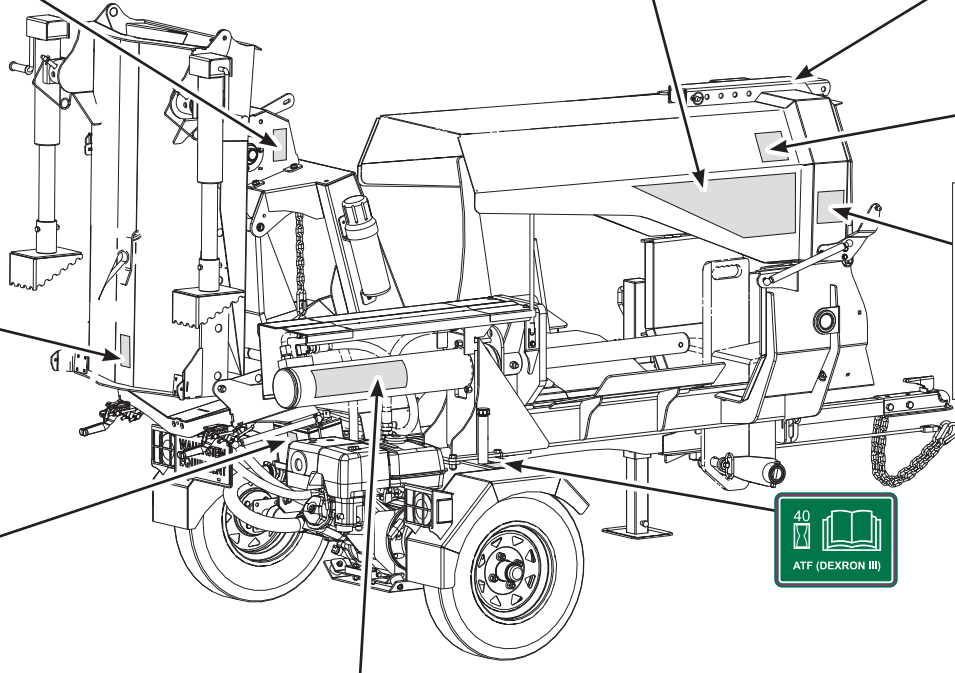
Safety signs are included in the product decal kit available from your authorized dealer. Decals are not available separately.



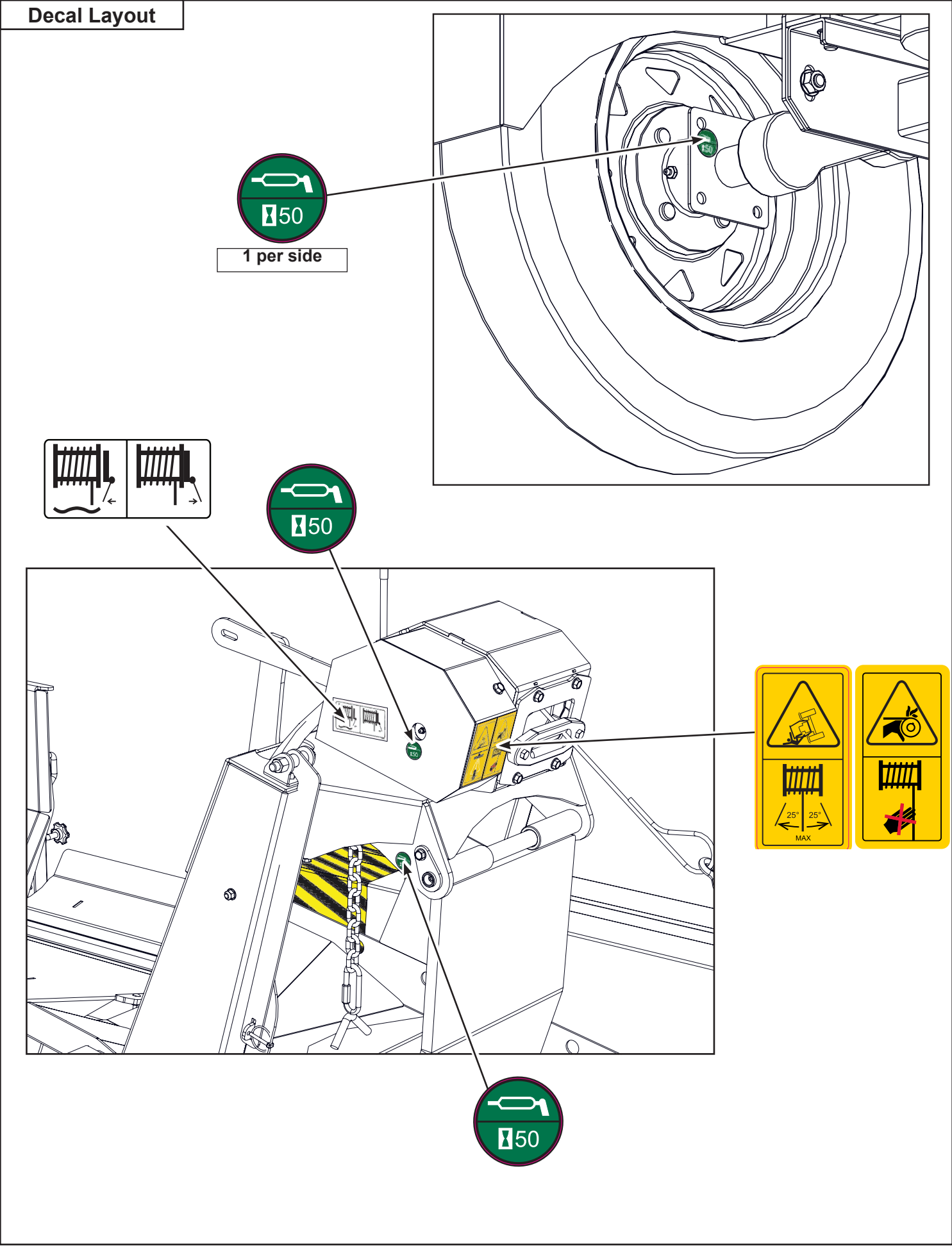
See Control Panel Decals



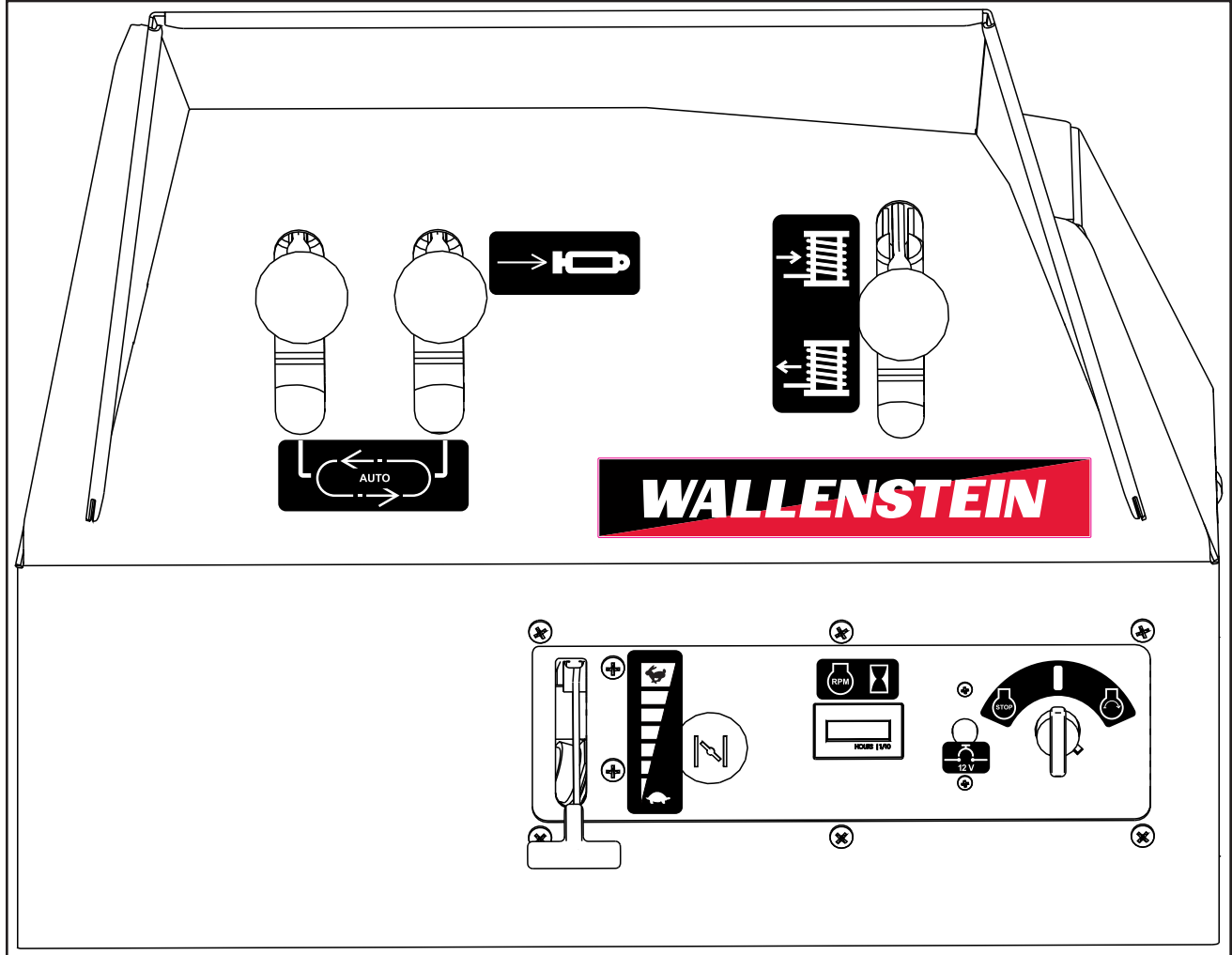
Decal Layout



Decal Layout

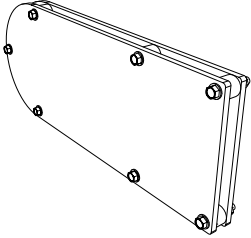
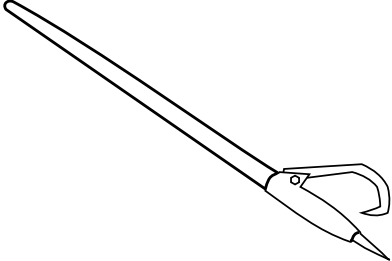
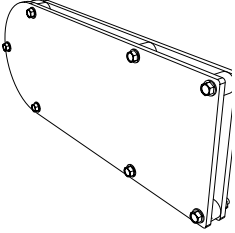


Control Panel Decals



Accessories

Call your dealer for pricing and availability

	<p>NYLON CHAINSAW HOLSTER P/N 2089A570</p> <p>For models: WP840EU, WP870EU easy to install, fastens to Wood Processor</p> <p>Nylon holder, safely holds your chainsaw keeping it off the ground and out of the way!</p>
	<p>6-WAY WEDGE – P/N 2089W572</p> <p>Easy to install in minutes, and you're ready to go!</p> <p>6 way splitting wedge, Boost your productivity and make quick work out of chunks by splitting into six pieces at once. This is an ideal way to save time</p>
	<p>48" LOG PEAVEY – P/N Z99001</p> <p>Helps to move those heavy log timbers into position, and finish getting your last logs through the Wood Processor!</p>
	<p>PIVOTING CHAINSAW HOLDER P/N P201</p> <p>For all WP Series</p> <p>Easy mounting to most chain saws, the pivoting chain saw holder securely holds your saw in place allowing for easier cutting and saving time handling your chainsaw.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Available: P211 Spare Pivoting Chainsaw Adaptor Save time switching out chainsaws with a spare adaptor for your second chainsaw!</p> </div>


Common Bolt Torque Values

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	
	lbf•ft	N•m	lbf•ft	N•m	lbf•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



SAE Gr. 2



SAE Gr. 5



SAE Gr. 8

Metric Bolt Torque Specifications

Bolt Diameter	Torque Value			
	Gr. 8.8		Gr. 10.9	
	lbf•ft	N•m	lbf•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
M14	83	112	116	158
M16	166	225	229	310
M20	321	435	450	610
M30	1,103	1 495	1,550	2 100



8.8



10.9

Hydraulic Fitting Torque Values

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.

Wheel Lug Torque Values

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 10 miles (16 km), 25 miles (40 km), and again at 50 miles (80 km). 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 Lug Nut Torque				
Wheel Size	Units	1st Stage	2nd Stage	3rd Stage
8"	lbf•ft N•m	12–20 16–26	30–35 39–45.5	45–55 58.5–71.5
12"	lbf•ft N•m	20–25 26–32.5	35–40 45.5–52	50–60 65–78
13"	lbf•ft N•m	20–25 26–32.5	35–40 45.5–52	50–60 65–78
14"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156
15"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156
16"	lbf•ft N•m	20–25 26–32.5	50–60 65–78	90–120 117–156

Wheel Lug Torque Pattern

