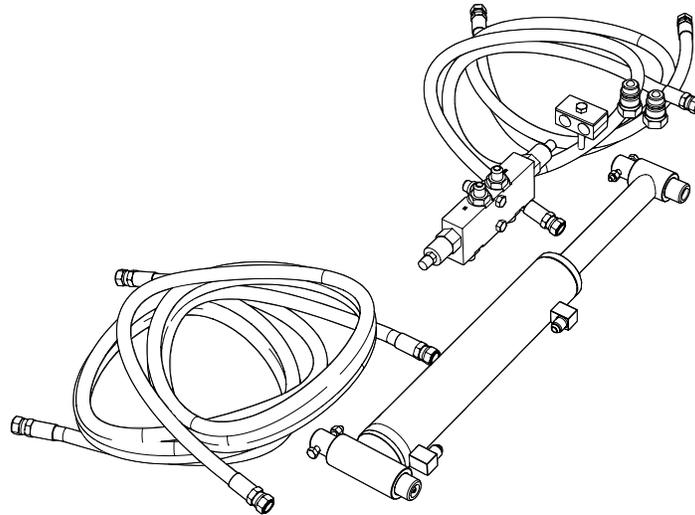


# WALLENSTEIN

BY EMB MFG INC.

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

## TIMBER TALON



# L650

## HYDRAULIC ARTICULATED DRAWBAR Accessory Installation Instructions

See inside cover for grapple compatibility chart

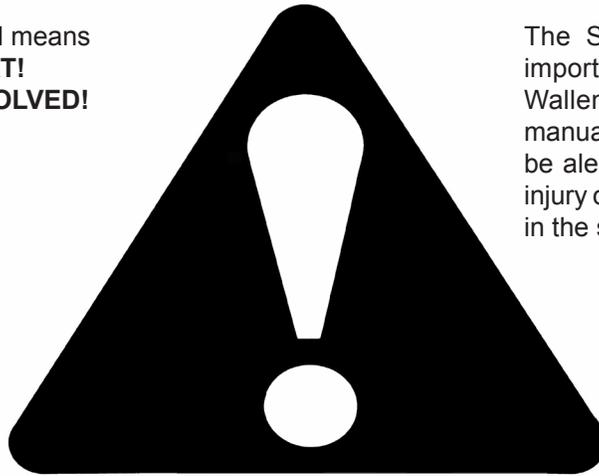


Do not attempt to start or operate the equipment without thoroughly reviewing this manual for safe and proper operation.

**Keep this manual with the  
machine at all times**

# SAFETY ALERT SYMBOL

This Safety Alert symbol means  
**ATTENTION! BE ALERT!**  
**YOUR SAFETY IS INVOLVED!**



The Safety Alert symbol identifies important safety messages on the Wallenstein Equipment and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

**3 Big Reasons**

**Accidents Disable and Kill**  
**Accidents Cost**  
**Accidents Can Be Avoided**

## SIGNAL WORDS:

Note: The use of the signal words **DANGER**, **WARNING**, **CAUTION** and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the following guide-lines:

**DANGER** - Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

**WARNING** - Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**CAUTION** - Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE** - Indicates a situation that could result in damage to the machine or other property.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or EMB Mfg, 4144 Boomer Line, St. Clements, ON, N0B 2M0. Phone (519) 699-9283 or Fax (519) 699-4146.

# Grapple Compatibility Chart for Hydraulic Articulated Drawbar Kit L650

MODEL	Hydraulic Articulated Drawbar Kit
	6083A350
Wallenstein	L650
<b>LT60 Trailer</b>	x

# Accessory Installation Instructions

## L650 HYDRAULIC ARTICULATED DRAWBAR KIT

 Always wear the appropriate safety gear when installing this kit or working around the machine. This includes but is not limited to:

- Hard hat for protection to the head.
- Safety glasses protection for the eyes.
- Gloves for hand protection.
- Safety shoes with slip resistant soles and steel toes.

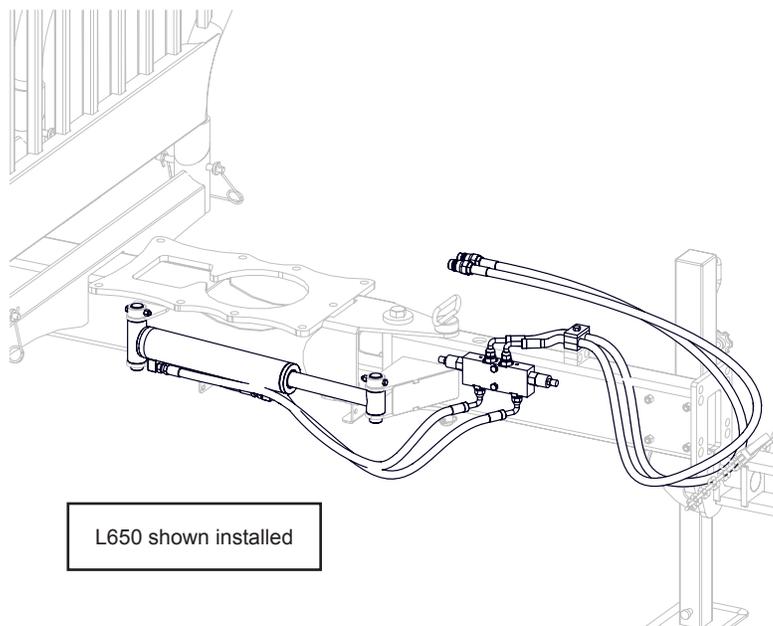
The Wallenstein Timber Talon Hydraulic Articulated Drawbar kit, allows LT60 trailers draw bar to be controlled hydraulically, to make those tight bush corners easier to navigate. **The drawbar kit requires the use of the tractor's remote hydraulics.**

The Hydraulic Articulated Drawbar Kit is installed on the drawbar of the LT60 trailer. The trailer features mounting points required to mount the kit. No modification is required. Have a container handy to store parts that have been removed. See the chart on page 3 to ensure you have the correct kit for your model grapple.

This manual features LT60 Trailer and a L650 kit installed. Please read this manual thoroughly.

To outfit the LT60 Trailer with the **L650 Hydraulic Articulated Drawbar Kit**, hydraulic lines will need to be removed, so have some rags on hand for fluid drips, and have a container handy to store parts that have been removed.

Illustrations show typical assembly. This assembly procedure is one time only. Once assembled, only regular maintenance and minor adjustments are required. Tighten all hardware using the "Bolt Torque" chart at the back of this manual unless otherwise specified.



### **WARNING** High Pressure Fluid Hazard

To prevent serious injury or death from high pressure fluid:

- Receive pressure on the system before repairing or adjusting.
- Wear proper hand and eye protection when searching for leaks.
- Keep all components in good repair.

### **CAUTION** Operation Hazard

**High Pressure** Review your grapple manual for safe operating and handling procedures before beginning work.

### **NOTICE**

Read and follow installation and setup instructions.

A hazardous condition exists if the unit is improperly installed, or if the kit is modified or changed in any way. Damage to the machine or accessory will result.

## INSTALLATION INSTRUCTIONS

**!** Ensure your log grapple trailer and the area around it is clean and free of debris, resting on dry level ground, wheel chock applied and the engine shut off. Have the **Hydraulic Articulated Drawbar kit** and tools close by on a work surface.

Unpack the hydraulic articulated drawbar kit. Lay the parts out on the work surface and use the parts list in the back of this manual to check that all parts are included. All hardware and small parts are assembled to the parts.

### **!** WARNING Operation Hazard

Keep all bystanders out of the work zone, at least 20 ft (6 m) away from the work area.

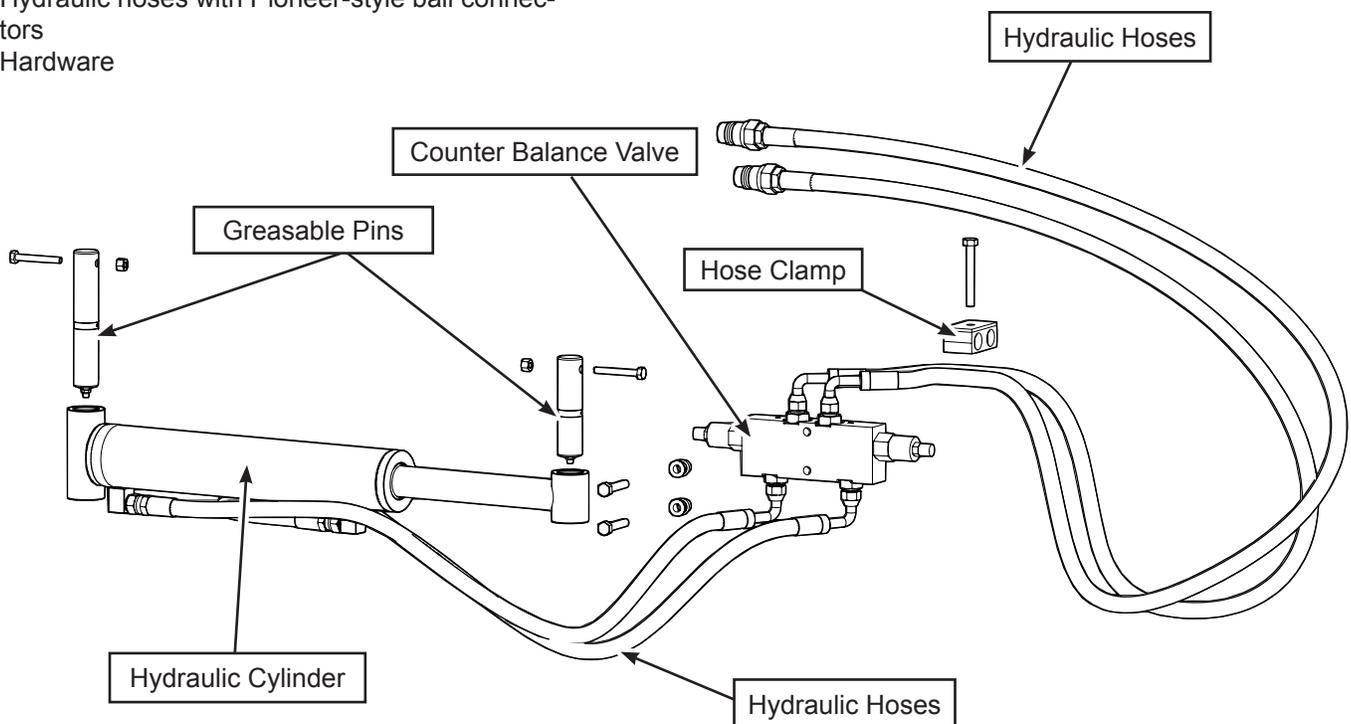
### **!** CAUTION Operation Hazard

Be aware of potential pinch points when installing Hydraulic Articulated Drawbar.

## Hydraulic Articulated Drawbar Components

Kit includes:

- Hydraulic Cylinder
- Counter Balance Valve
- Hydraulic hoses with Pioneer-style ball connectors
- Hardware



## ASSEMBLY

Basic tools needed:

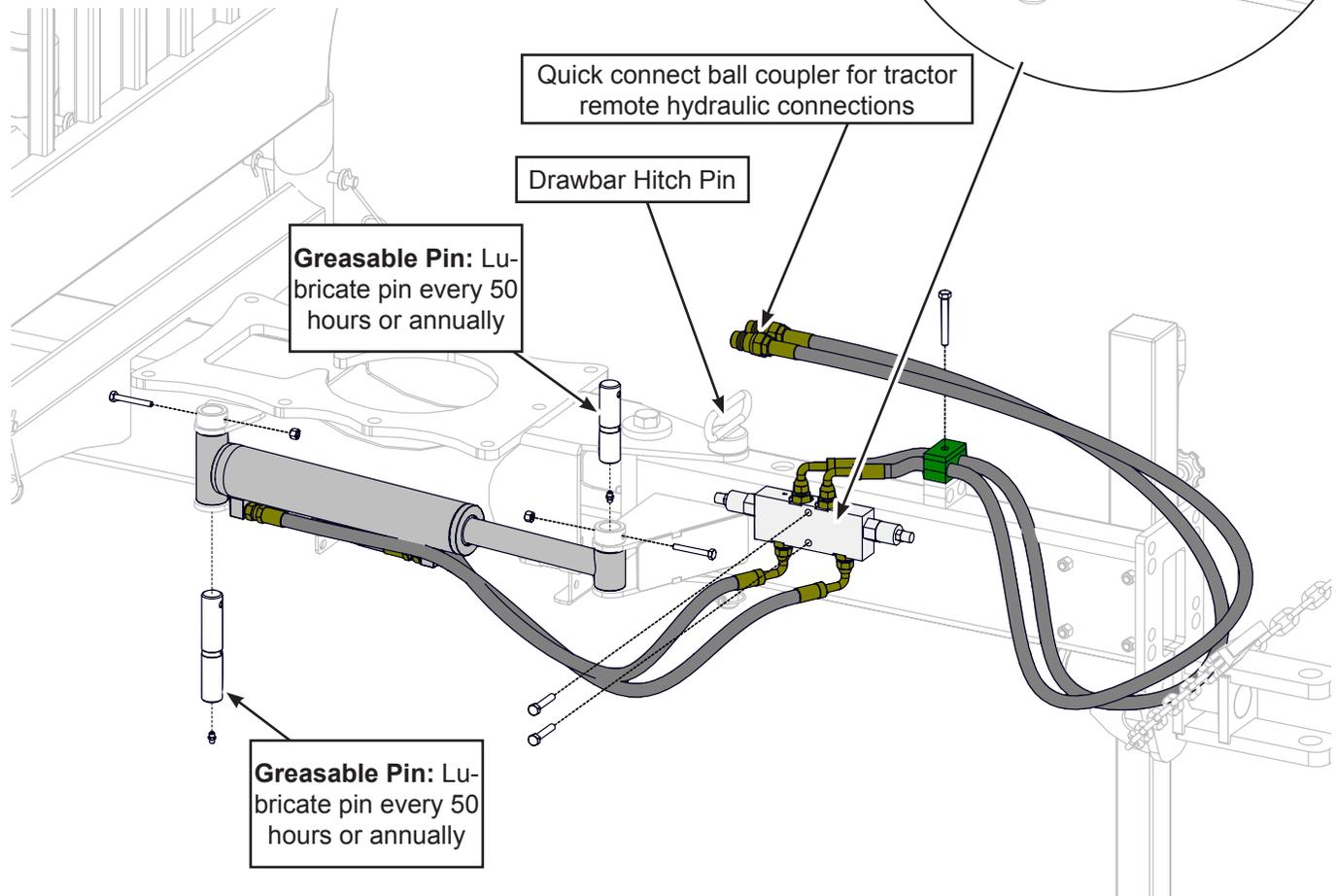
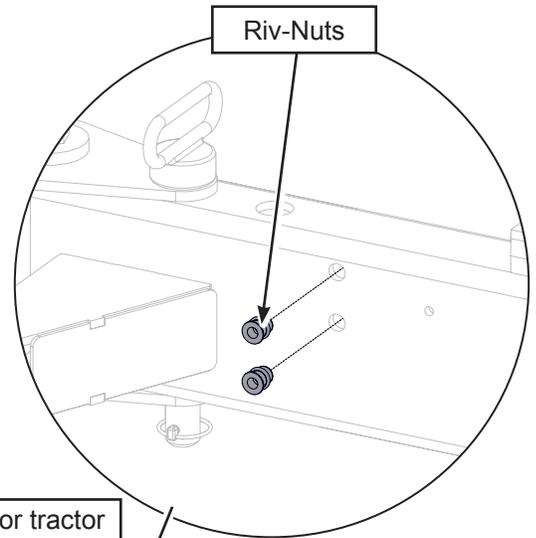
- Standard set of wrenches or sockets
- Riv-nut installation tool

Prepare for Installation:

1. Move the trailer to an level, open area.
2. To avoid tripping hazards, ensure there is no debris or objects in the area.
3. Ensure the trailer is clean and clear of debris.

## Install the kit

1. Install the 2 x riv-nuts into the drawbar.
2. Install the cylinder:
  - Remove the greasable pins from the cylinder.
  - Place the cylinder in position on the drawbar.
  - Install the greasable pins into the draw bar.
  - Secure each pin with the nut and bolt.
3. Install the valve:
  - Line the valve up with the riv-nuts.
  - Install the 2 bolts and tighten down.
  - Secure hoses with the hose clamp.
4. Remove the drawbar hitch pin.
5. Insert the quick connect hydraulic lines to tractor remotes.



## OPERATION



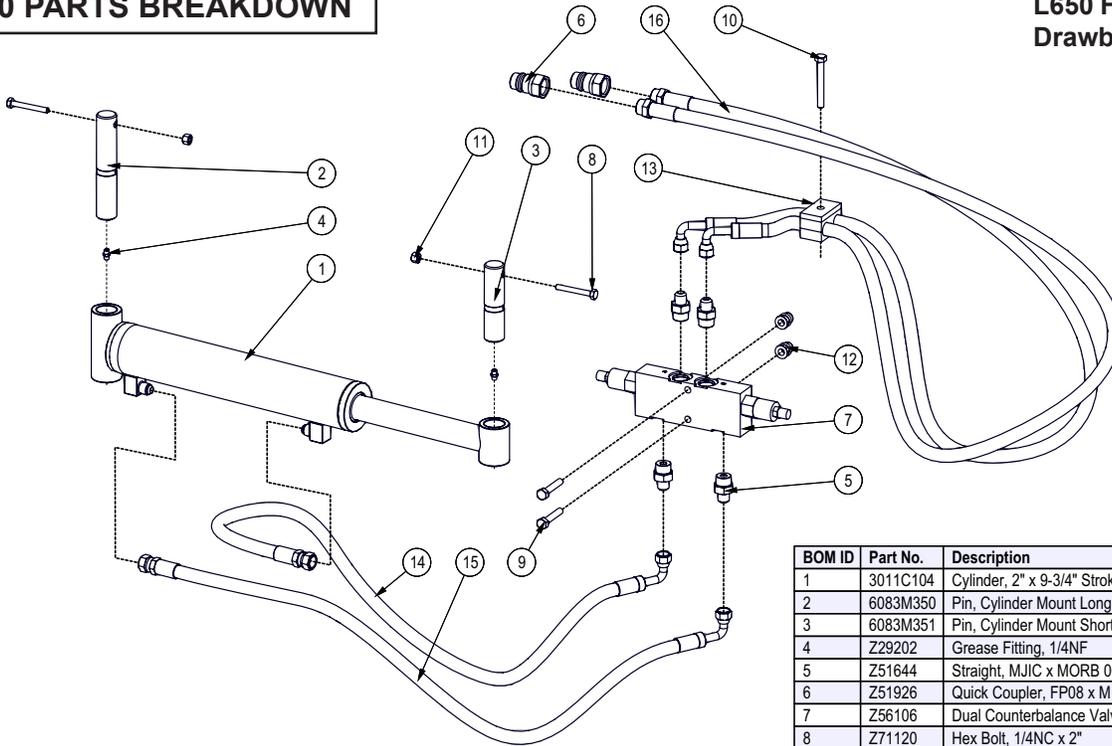
### **WARNING** Operation Hazard

Install drawbar hitch pin when travelling on public roads.

1. Use your tractor remote hydraulics to steer as required.
2. Do not use the cylinder when not moving, damage may occur.
3. Remove drawbar hitch pin when using the articulating drawbar.
4. Install the drawbar hitch pin when travelling on roads.

# L650 PARTS BREAKDOWN

# L650 Hydraulic Articulated Drawbar Kit for LT30



BOM ID	Part No.	Description	Qty
1	3011C104	Cylinder, 2" x 9-3/4" Stroke	1
2	6083M350	Pin, Cylinder Mount Long	1
3	6083M351	Pin, Cylinder Mount Short	1
4	Z29202	Grease Fitting, 1/4NF	2
5	Z51644	Straight, MJIC x MORB 0608	4
6	Z51926	Quick Coupler, FP08 x M ISO 7241-1	2
7	Z56106	Dual Counterbalance Valve, 48GPM	1
8	Z71120	Hex Bolt, 1/4NC x 2"	2
9	Z71217	Hex Bolt, 5/16NC x 1-3/4"	2
10	Z71225	Hex Bolt, 5/16NC x 2-1/2"	1
11	Z72211	Hex Lock Nut, 1/4NC	2
12	Z72957	Rivet Nut, 5/16NC x 312	2
13	Z79463	Double Hose Clamp, 1 1/16" OD	1
14	Z52218	3/8" Hose, FJIC06 x 90FJIC06 x 39"	1
15	Z52270	3/8" Hose, FJIC06 x 90FJIC06 x 34"	1
16	Z52271	3/8" Hose, 90FJIC06 x MP08 x 60"	2

## Bolt Torque

### CHECKING BOLT TORQUE

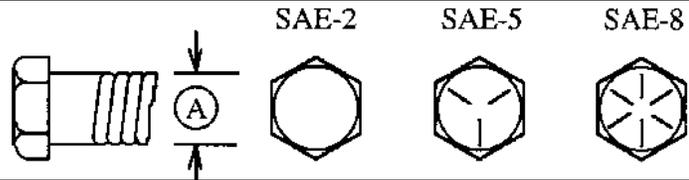
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

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.

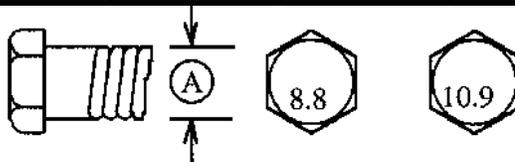
### ENGLISH TORQUE SPECIFICATIONS

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



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

HYDRAULIC FITTING TORQUE					
Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turn)
(in.)	(in.)				
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

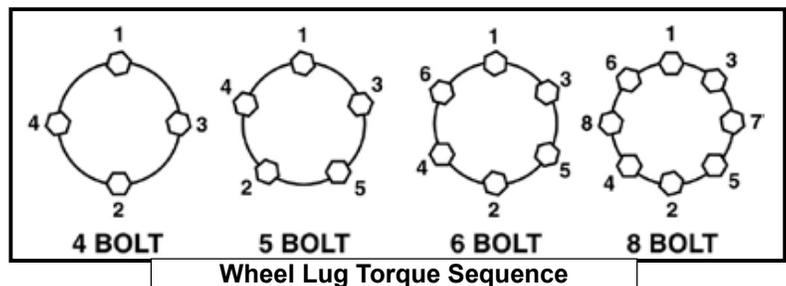
It is extremely important safety procedure to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

Wheel lugs should be torqued before first road use and after each wheel removal. Check and re torque after the first 10 miles, 25 miles, and again at 50 miles. 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.

Wheel Torque Requirements			
Wheel Size	1st Stage	2nd Stage	3rd Stage
8"	12 - 20	30 - 35	45 - 55
12"	20 - 25	35 - 40	50 - 60
13"	20 - 25	35 - 40	50 - 60
14"	20 - 25	50 - 60	90 - 120
15"	20 - 25	50 - 60	90 - 120
16"	20 - 25	50 - 60	90 - 120

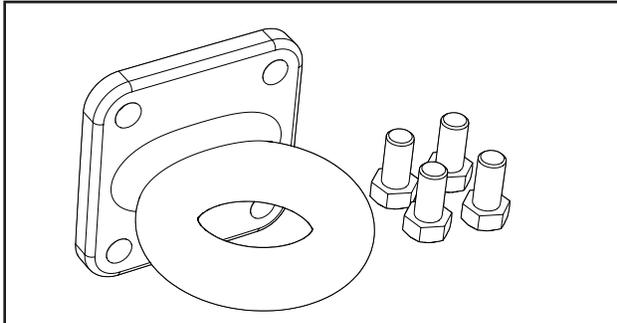
1. Start all lugs by hand to prevent cross threading.
2. Tighten lugs in sequence, per wheel lug torque sequence chart.
3. The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements chart.



## ACCESSORIES

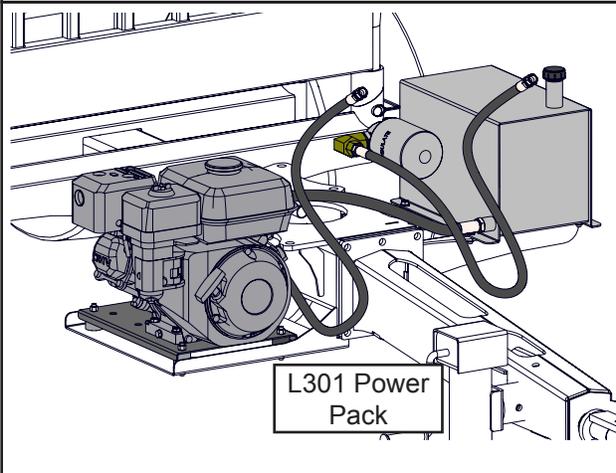
Call your dealer for pricing and availability

For replacement parts, go to [www.wallensteinequipment.com](http://www.wallensteinequipment.com) and click on "Parts and Manuals" to download the latest parts manual for your model, then call your dealer to order.



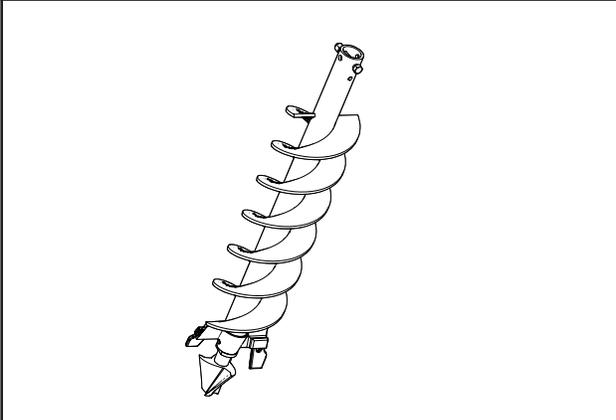
### #L640 PINTLE HITCH

For **LT60 trailer only**.  
Pintle hitch accessory to match up to your existing pintle hook.



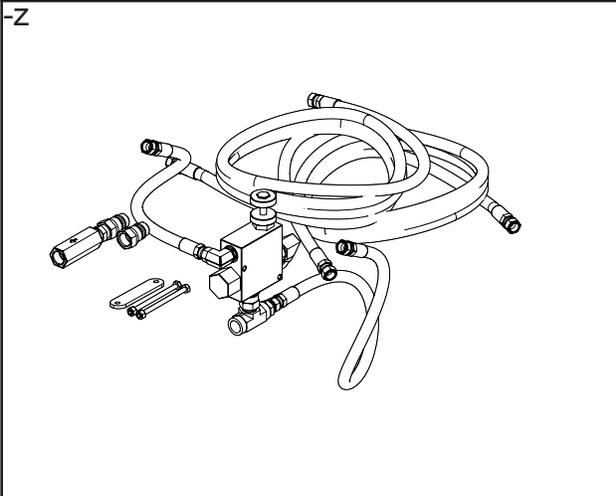
### #L601 LX115 POWER PACK #L301 LX95 POWER PACK

Independently power your LX grapple: **L601 for LX115** features a Honda 9 HP engine, and the **L301 for LX95** contains a 6 HP Honda. Both power packs include hydraulic pump and 4.6 US gal (17.5 L) reservoir tank.



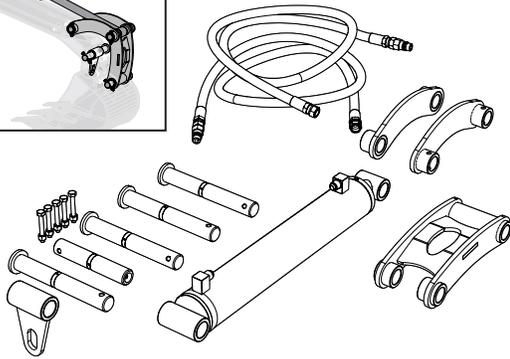
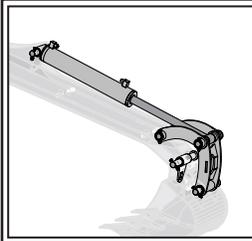
### #LA610 6" DIAMETER AUGER KIT #LA910 9" DIAMETER AUGER KIT

For **all LX models**.  
A great way to get your fence post jobs done quickly and efficiently. Both augers are capable of a 42" (107 cm) hole depth.



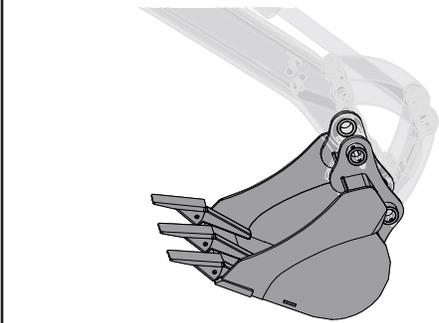
### #L101 TRACTOR HYDRAULIC KIT

For **all LX models**  
Makes use your existing tractor remote hydraulics. Comes with everything you need to attach and control your hydraulics. Includes: flow control, hoses, and hardware. (L101 included in L400 3-point hitch grapple version.)



### #BA201 BACK HOE ACCESSORY

For all LX models. (Bucket not included)  
Trenching made easier with this great accessories, includes: hydraulic cylinder, hoses, bucket linkage, pins & hardware.

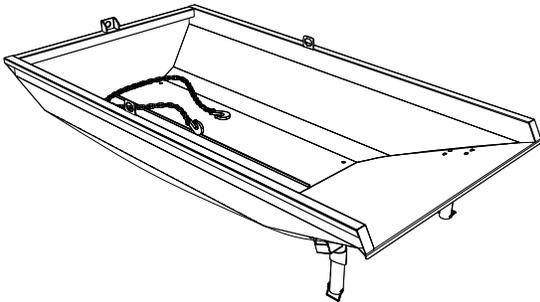


### #BACK HOE BUCKET OPTIONS

for #BA201 Back Hoe Kit:

Choose the bucket you need for the job at hand.

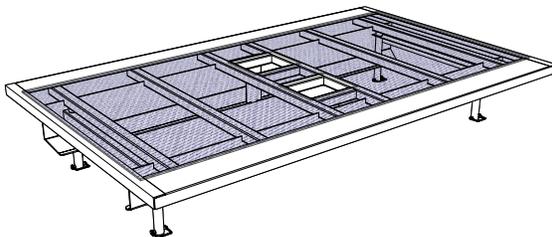
- BK2690** – 9" 3-Tooth Bucket
- BK2612** – 12" 3-Tooth Bucket
- BK2615** – 15" 4-Tooth Bucket
- BK2618** – 18" 4-Tooth Bucket



### #L310 LT30 DUMP BOX #L620 LT60 DUMP BOX

One for each **LT trailer**.

Load, transport and easily dump your loads, made for use with the back hoe kit. For **LT30 trailer the L310** holds 25 ft<sup>3</sup> (0.7 m<sup>3</sup>). For the **LT60 trailer the L620** holds 45 ft<sup>3</sup> (1.3 m<sup>3</sup>), both dump boxes come complete with a 6 ft (1.8 m) chain used for dumping.



### #L330 LT30 EXPANDED METAL FLAT BED #L630 LT60 EXPANDED METAL FLAT BED

One for each **LT trailer**.

Transporting material and equipment made easy. Simply drop on this flat bed and your set to go!  
**LT30 trailer L330** has a 9 ft x 5 ft (274 cm x 152 cm) cargo bed.  
**LT60 trailer the L620** has a 10.5 ft x 5.9 ft (321 cm x 179 cm) cargo bed.

