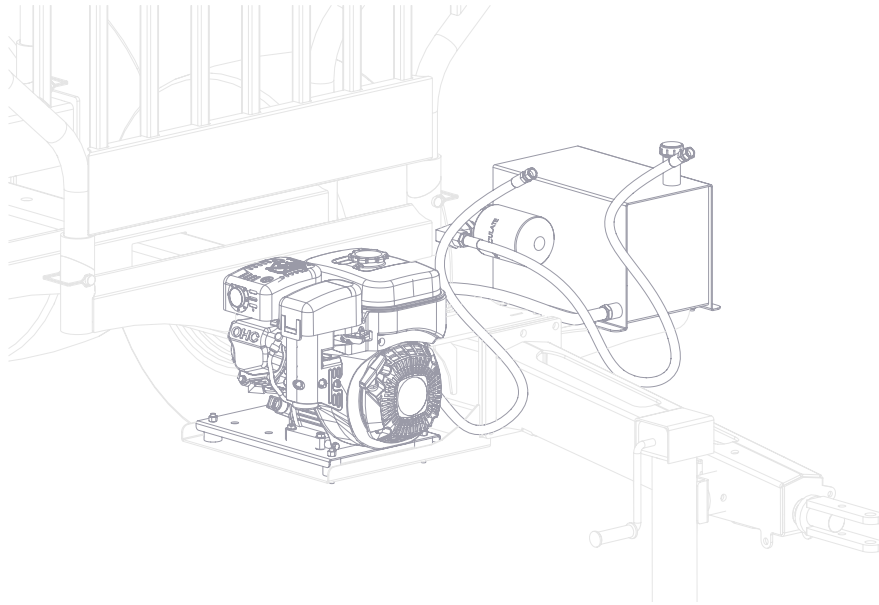


WALLENSTEIN

BY EMB MFG INC.

EMB Manufacturing Inc.
4144 Boomer Line · St. Clements, Ontario · N0B 2M0 · Canada
www.wallensteinequipment.com

TIMBER TALON



L301

POWER PACK – SUBARU ENGINE Accessory Installation Instructions

See inside cover for grapple compatibility chart

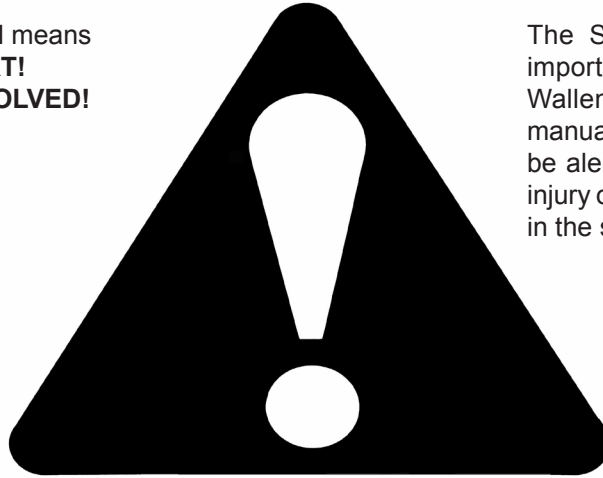


Do not attempt to start or operate the equipment without thoroughly reviewing this manual for safe and proper operation.

**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.



Warning

Operation Hazard

Review your Grapple & Log Trailer Manual for safe operating and handling procedures before beginning work.



Warning

Handling Hazard


Use caution when handling heavy equipment. Objects may fall and cause crushing injury to hands and feet. Lifting heavy objects may cause back or leg strain injuries.

Grapple Compatibility Chart for Power Pack L301 – Subaru


MODEL	Power Pack
	6081A300
Wallenstein	L301
LX95	x

Accessory Installation Instructions

L301 POWER PACK KIT – SUBARU ENGINE

 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.

 **Caution:** this kit is constructed of heavy gauge steel, be sure to use caution moving and installing the kit, avoid dropping or pinching body parts on corners and edges of the kit.

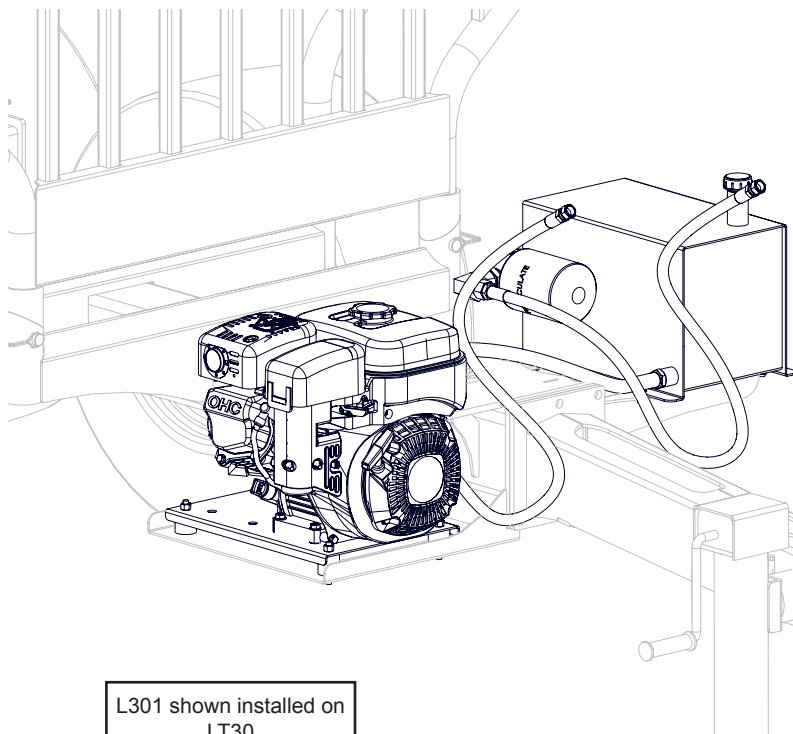
The Wallenstein Timber Talon Power Pack, allows independent power for the LX grapple: **L301 for LX95** features a 7 HP Subaru Engine. The power pack also includes a hydraulic pump and 17.5 litre (4.6 us gal) reservoir tank.

See the chart on page 3 to ensure you have the correct kit for your model grapple & trailer.

This manual features the LX95 Log Grapple with a LT30 Trailer and a L301 with Power Pack with a 7 HP Subaru Engine installed. Please read this manual thoroughly.

The Power Pack is installed on the drawbar of the LT trailers. The trailer features mounting points required to mount the kit, no modification is required.

The **L301 Power Pack Kit** comes partially assembled. 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. Tighten all hydraulic connections using the “Hydraulic Fitting Torque” chart at the back of this manual unless otherwise specified.



L301 shown installed on
LT30

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.

WARNING Operation Hazard

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 **Power Pack** and tools close by on a work surface.

Unpack the Power Pack. 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 and at least 20 ft (6 m) away from the work area.

CAUTION Operation Hazard

Be aware of potential pinch points when installing power pack.

WARNING Handling Hazard

Use caution when handling heavy equipment. Objects may fall and cause crushing injury to hands and feet. Lifting heavy objects may cause back or leg strain injuries.

Power Pack Components

Kit includes:

- Engine & Mount
- A 4.6 US gal (17.5 L) Hydraulic Tank Reservoir
- Hydraulic Hoses
- Fasteners and hardware

ASSEMBLY

Basic tools needed:

- Standard set of wrenches and sockets

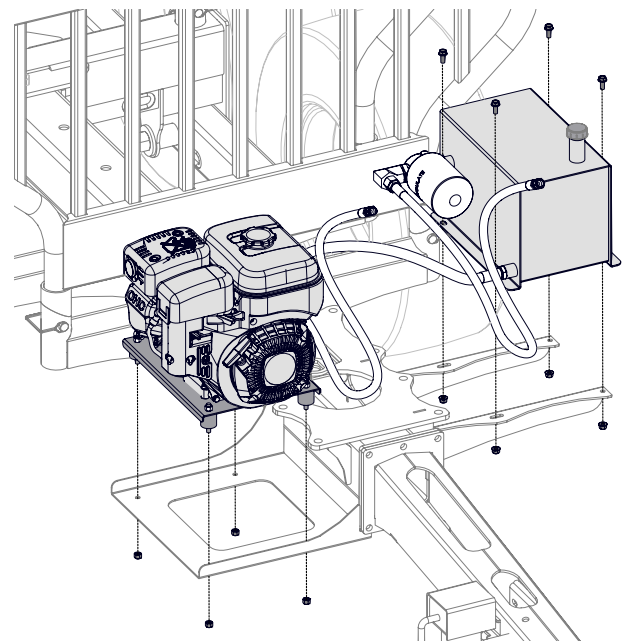
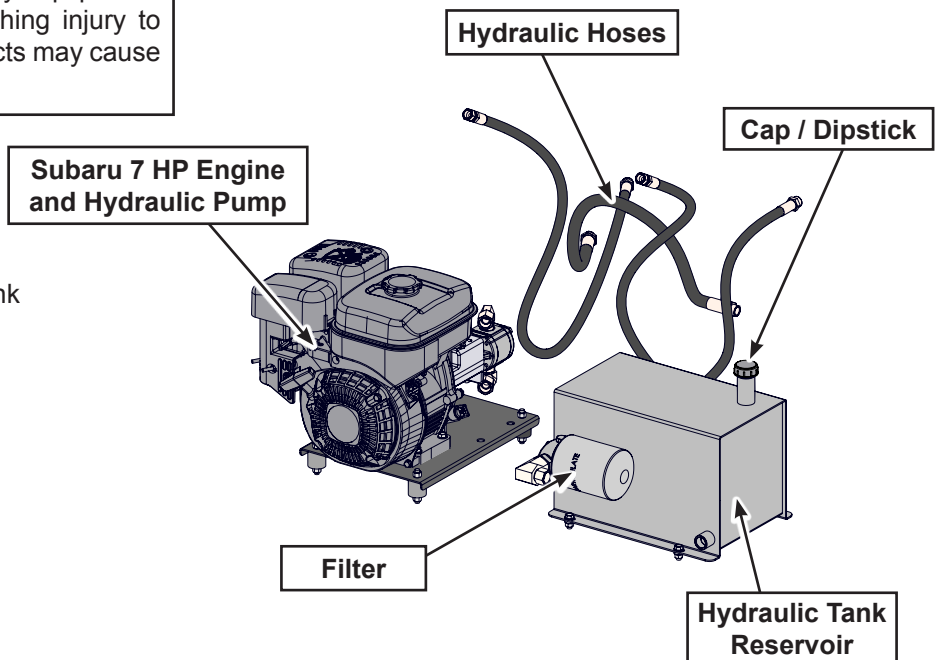
Prepare for Installation:

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 Power Pack

Brackets to mount the Power Pack components are pre-installed on the LT30 trailer.

1. Mount the engine to the engine mount bracket with the hardware included.
2. Next mount the reservoir tank to the mount brackets with the nuts and bolts included.
3. Use the hydraulic hose connection schematic and connect the hoses as described in the schematic. (See hydraulic fitting torque chart at the back of this manual).



Power Pack Features

The LX Series Timber Talon has an LT trailer mount Hydraulic Power Pack kit accessory. The following describes the functions of the features in the kit. The kit requires installation into the grapples hydraulic system.

Always read the Subaru engine operator's manual supplied with the machine for the detailed operating procedures.

Before starting to work, all operators should familiarize themselves with the location and function of controls.

1. Gas Engine:

Always read the engine Operator's manual supplied with the machine for detailed procedures.

a. Ignition Switch:

This switch controls the electrical power to the engine electrical system. Turn the switch clockwise to turn the electrical system ON and the engine will run. Turn the switch counterclockwise to stop the engine.

b. Fuel Shut-Off Valve:

Each engine is equipped with a valve between the fuel tank and the carburettor. Slide the fuel valve upwards to turn the fuel OFF and down to turn ON. Turn the fuel OFF before transporting.

c. Throttle:

This lever controls the engine speed. Slide the lever to the left to increase engine speed and slide the lever to the right to decrease.

d. Choke:

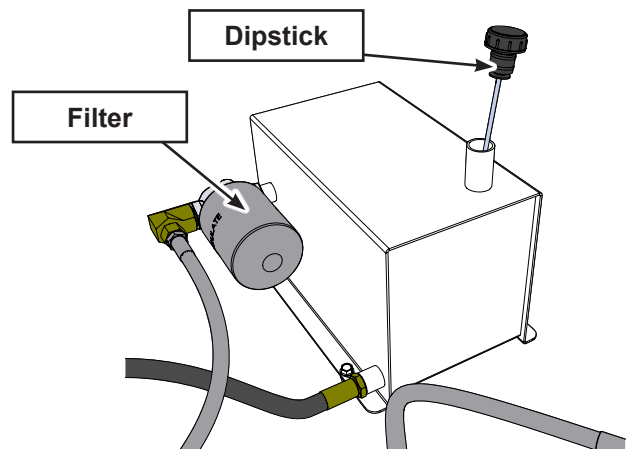
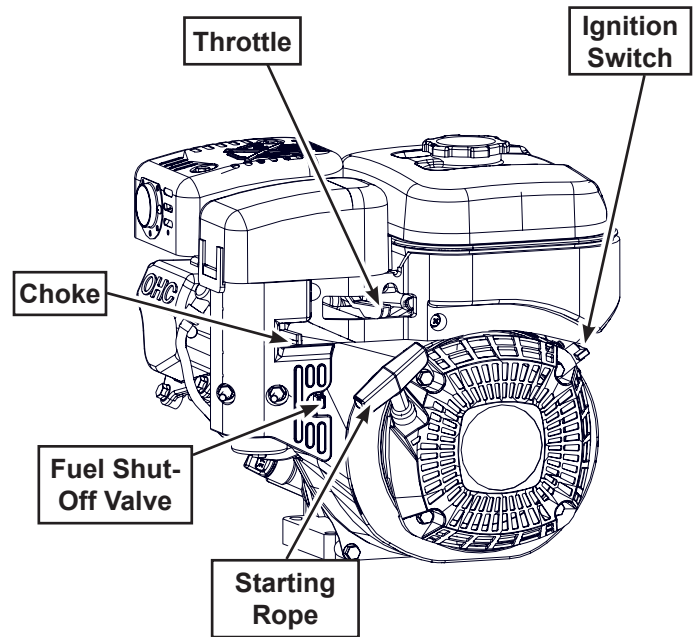
The choke controls the fuel/air mixture to the engine. Move choke laterally to the left to close the choke for starting when the engine is cold. Slide the lever to the right to open the choke as the engine warms. Always slide the lever fully to the right when operating the machine.

e. Starting Rope:

This retracting rope and T-bar is used to turn the engine over for starting. Grasp the T-bar firmly and pull the rope sharply to start the engine.

2. Hydraulic Reservoir:

The hydraulic reservoirs for each kit feature a dip stick with high and low indicators and a spin on filter cartridge.



OPERATION

After following operating safety and preparation procedure in the LT30 owners manual, the grapple / trailer should be set up and ready to run. Power Pack Subaru engine manual should also be reviewed. Review Section of the owners manual for safe zone and work zone.



WARNING

High Pressure Fluid Hazard

To prevent serious injury or death from high pressure fluid:

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



WARNING

Operation Hazard

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



WARNING

Fire Hazard

Gasoline is highly flammable and explosive. Turn engine off and let cool before refueling.



WARNING

Carbon Monoxide Hazard

Engine emits toxic carbon monoxide. Do not run in enclosed area.



CAUTION

Operation Hazard

Hot muffler can burn you. Stay away if engine has been running.



CAUTION

Operation Hazard

Be aware of potential pinch points when installing Power Pack.

NOTICE

Read and follow installation and setup instructions.

Read Engine Owner's Manual before operation. 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.



OPERATING SAFETY

- Stop and disable engine, remove ignition key and place in your pocket and wait for all moving parts to stop before servicing, adjusting or repairing.
- Keep the working area clean and free of debris to prevent tripping. Operate only on level ground.
- Please remember it is important that you read the operator's manual and heed the safety signs on the Timber Talon and Power Pack. They are there for your safety, as well as the safety of others. **The safe use of this machine is strictly up to you, the operator.**
- Before moving, making, adjustments or servicing, put the machine in safe condition:
 - Install boom pin lock
 - Shut off the engine
 - Turn fuel valve off
 - Ensure boom is in safe position
 - Secure the tow vehicle / trailer from movement
- Review section on Safety in the Trailer **operators manual** and set up the operator safe zone and work zone.
- Personal protection equipment is recommended. Do not allow long hair, loose-fitting clothing, or jewellery to be around moving parts.
- Be aware of potential pinch points when installing and using the Power Pack. Keep clear and keep bystanders clear during installation and use.
- Do not refuel the engine while it is in operation or still hot. Do not refuel the engine near open flames, pilot lights or sparking electrical devices.
- Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
- Review safety instructions before each use or at least annually.

Starting Procedure

1. Close the choke if the engine is cold.
2. Move the throttle to its 1/3 throttle position.
3. Open the fuel supply valve.
4. Turn the ignition switch to "on". Grasp the T bar on the pull cord firmly, and pull the rope sharply to start the engine.
5. Run the engine for a few minutes to allow it to warm.
6. Gradually open the choke.
7. Increase engine speed to full throttle.
8. Ensure stabilizers are lowered and firmly placed and proceed with work.

Stopping

1. Move grapple to safe location
 - Secure the trailer from movement
 - Close the grapple and set it on the ground, or clamp the grapple to trailer frame or log.
 - If possible, install boom pin lock
 - Shut off the engine
 - Turn fuel valve off
 - Ensure load is secure
2. Move throttle to idle position to slow engine RPM.
3. Stop engine using ignition switch.

Emergency Stopping

If an emergency occurs:

1. **Shut off the engine,**
2. **If possible, carefully lower the grapple load onto the trailer or ground**
3. Correct emergency situation before restarting engine and resuming work.

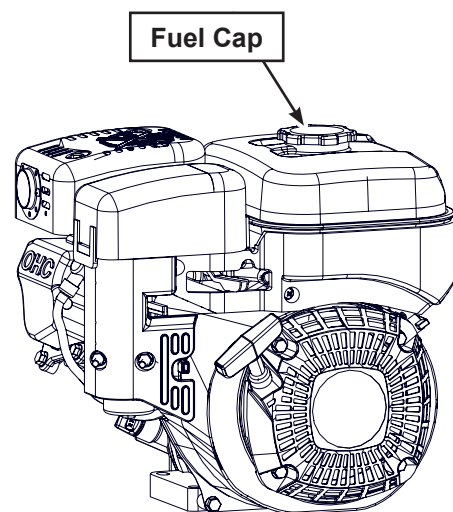
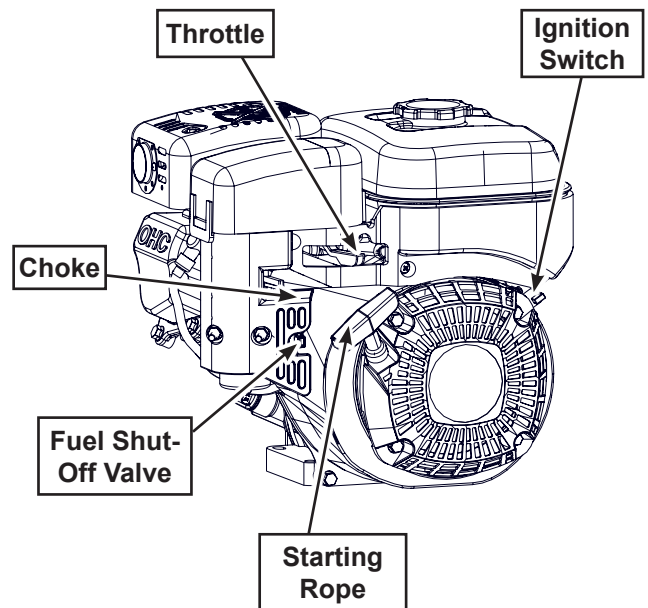
Refueling

Timber Talon Power Packs require fuel to run. Avoid running the tank dry. Use the appropriate grade of fuel, and use caution to prevent spilling. Do not smoke while refueling.

Please review the engine owners manual for additional instructions.

To add fuel:

1. Ensure the machine is in **safe condition** before beginning to fuel.
2. Allow the engine and muffler to cool.
3. Clean area around fuel fill cap and remove cap.
4. Using a clean funnel, fill fuel tank to 1/2" (1 cm) below bottom of filler neck to provide space for any fuel expansion. Do not overfill.
5. Install fuel fill cap securely and wipe up any spilled fuel.



Maintenance

By following a careful service and maintenance program for your machine, you will enjoy many years of trouble-free operation.

Put the machine in **safe condition** before working on this machine.

- Grapple closed and resting on trailer.
- Install boom pin lock.
- Shut off the engine.
- Turn fuel valve off.
- Ensure load is secure.

Engine

See Service Record Chart

Engine Service: refer to engine owners manual for service.

- Air cleaner
- Oil change

Hydraulic Oil Fill

The hydraulic tank on the L301 power pack is located opposite the engine beside the trailer tongue. It is equipped with a cap / dipstick that shows the level of oil in the tank. Hydraulic oil level should be checked daily, and the quality of the oil should be inspected every 50 hrs. If the oil is dirty or smells burnt, it should be replaced.

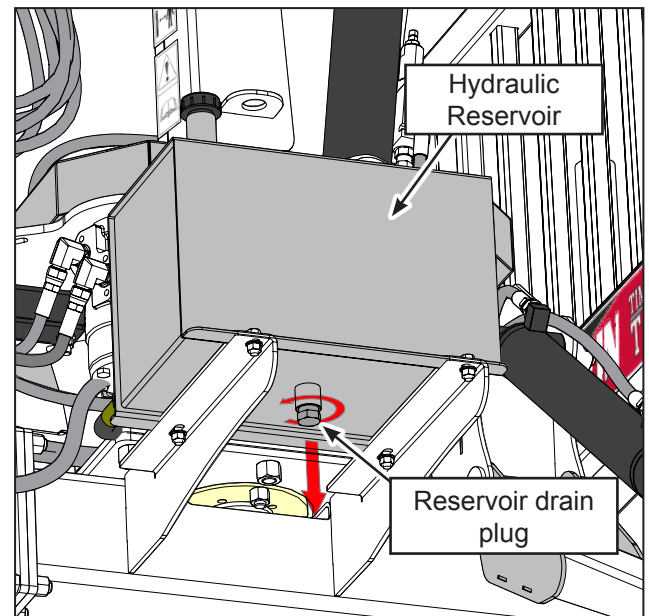
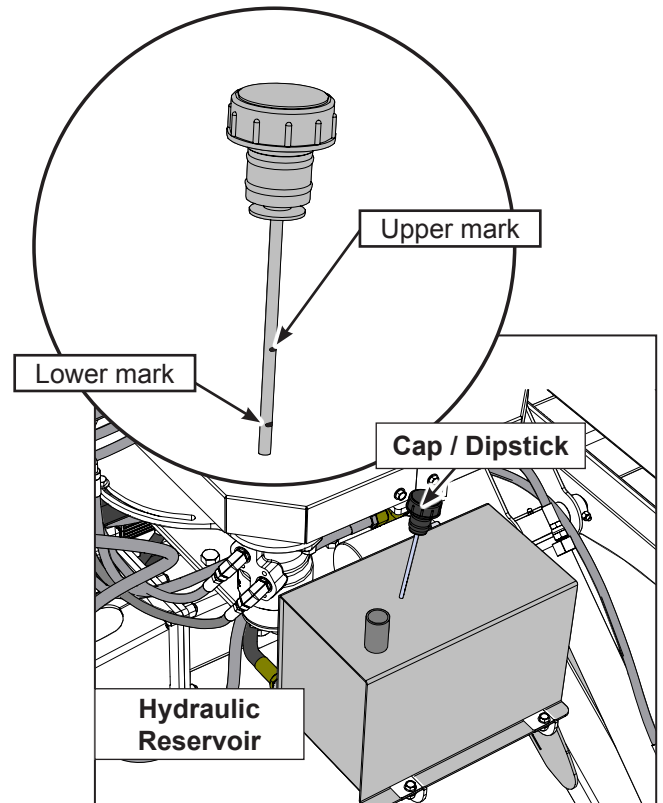
1. Ensure the machine is in **safe condition**.
2. Allow the engine and muffler to cool.
3. Clean area around fill cap and remove cap.
4. Using a clean funnel, fill the tank according to the oil dip stick.
 - Never fill the oil tank above the **upper** (maximum) line at the top of the dip stick.
 - Do not run the machine with the oil level below the **bottom** (minimum) line at the bottom of the dip stick.
 - Reservoir Capacity 14.6 US gal (17.5 L).
 - Use Dexron III hydraulic oil for all operating conditions.
5. Install fill cap securely and wipe up any spilled fuel.

Check levels after changing filters or servicing hydraulic components.

Hydraulic Oil Drain

The hydraulic tank may occasionally need to be drained. The drain plug is located at the bottom of the hydraulic tank. Follow this procedure to drain the tank.

1. Ensure the machine is in **safe condition**.
2. Allow the machine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin. It is best to change oil while the machine is warm to keep the contaminants in suspension.
3. Have a drain pan ready than can hold 4.6 US gal (17.5 L)
4. Clean area around drain and remove the plug.
5. Allow the oil to drain, then flush the tank.
6. Replace the plug, and refill the tank with 4.6 US gal (17.5 L) of Dexron III hydraulic oil.
7. Dispose of used oil in a environmentally acceptable fashion.



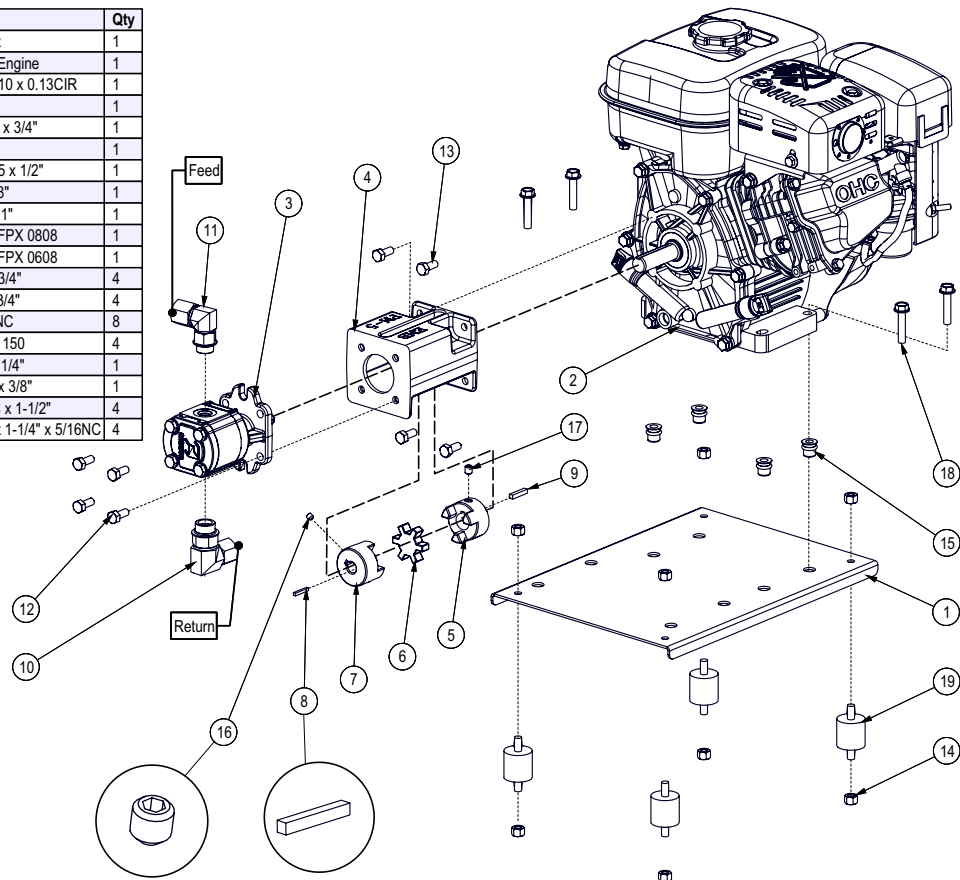
IMPORTANT

Use care when draining the tank to prevent spilling the contents and contaminating the workplace.

L301 Power Pack - Subaru Engine / Pump Parts Breakdown

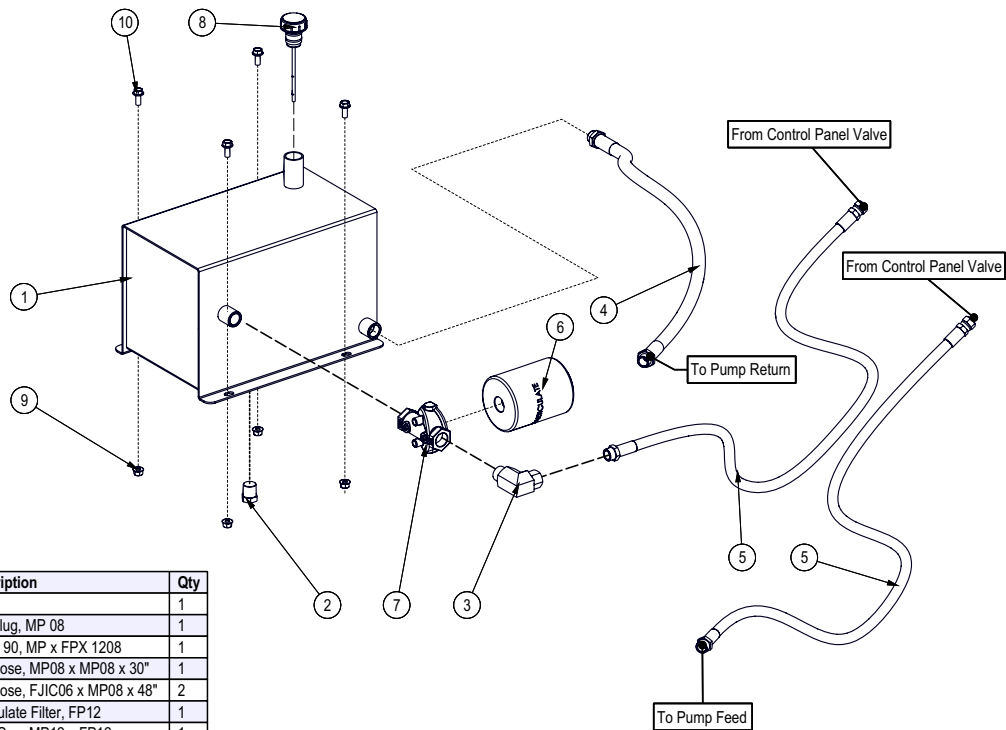
L301 Power Pack - Subaru Engine for LX95 / LT30

BOM ID	Part No.	Description	Qty
1	6081L205	Plate, Engine Mount	1
2	Z47714	Subaru SP210 7hp Engine	1
3	Z53103	Gear Pump, Series 10 x 0.13CIR	1
4	Z53801	Pump Mount, PM-5	1
5	Z46406	Shaft Coupler, L075 x 3/4"	1
6	Z46408	Spider, L075	1
7	Z46410	Shaft Coupling, L075 x 1/2"	1
8	Z46511	Key, 1/8" x 1/8" x 7/8"	1
9	Z46522	Key, 3/16" x 3/16" x 1"	1
10	Z51383	Elbow 90, MORB x FPX 0808	1
11	Z51385	Elbow 90, MORB x FPX 0608	1
12	Z71207	Hex Bolt, 5/16NC x 3/4"	4
13	Z71273	Hex Bolt, 5/16NF x 3/4"	4
14	Z72221	Hex Lock Nut, 5/16NC	8
15	Z72956	Rivet Nut, 5/16NC x 150	4
16	Z74111	Set Screw, 1/4NC x 1/4"	1
17	Z74121	Set Screw, 5/16NC x 3/8"	1
18	Z76123	Flange Bolt, 5/16NC x 1-1/2"	4
19	Z79931	Isolator, 1-1/4" Dia x 1-1/4" x 5/16NC	4



L301 Power Pack Tank Parts Breakdown

L301 Power Pack Tank for LX95 / LT30

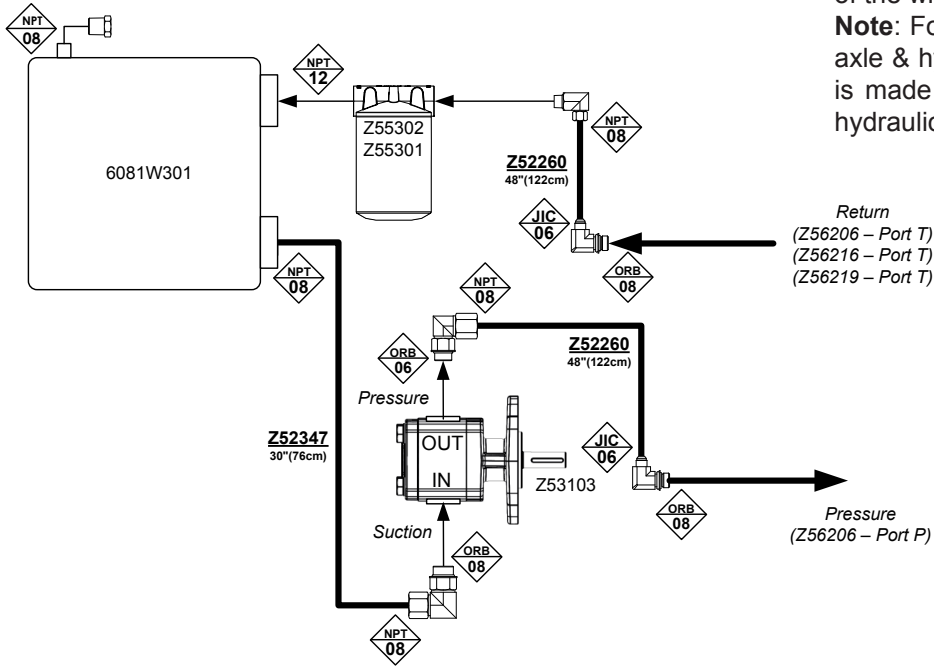


BOM ID	Part No.	Description	Qty
1	6081W301	Tank	1
2	Z51191	Hex Plug, MP 08	1
3	Z51334	Elbow 90, MP x FPX 1208	1
4	Z52347	1/2" Hose, MP08 x MP08 x 30"	1
5	Z52260	3/8" Hose, FJIC06 x MP08 x 48"	2
6	Z55301	Particulate Filter, FP12	1
7	Z55302	Filter Cap, MP12 x FP12	1
8	Z55402	Vented Plug Dipstick x 5"	1
9	Z72521	Serrated Flange Locknut, 5/16NC	4
10	Z76121	Flange Bolt, 5/16NC x 3/4"	4

PLUMBING DIAGRAM

Note: For models with hydraulic winch: hose connection is made at the return port of the winch hydraulic control Z56216.

Note: For models with hydraulic tandem axle & hydraulic winch: hose connection is made at the return port of the winch hydraulic control Z56219.



Bolt Torque

CHECKING BOLT TORQUE

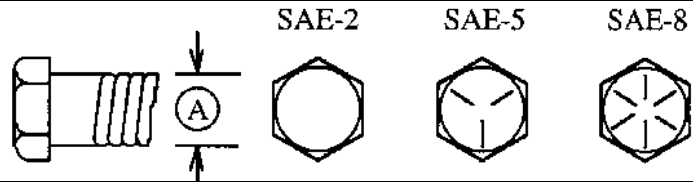
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

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.

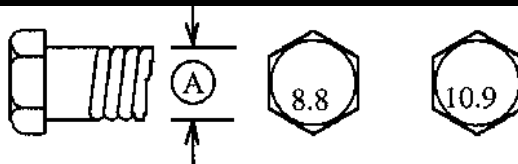
ENGLISH TORQUE SPECIFICATIONS

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

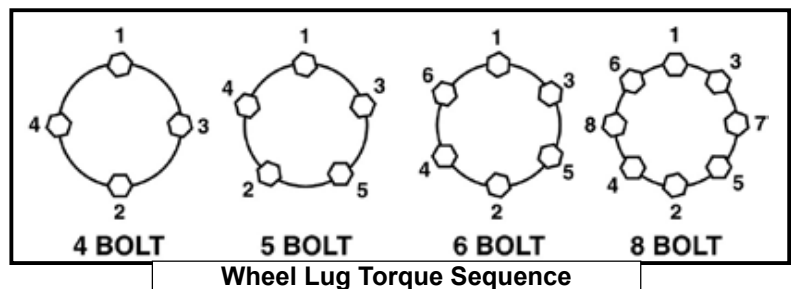
It is extremely important safety procedure to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

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

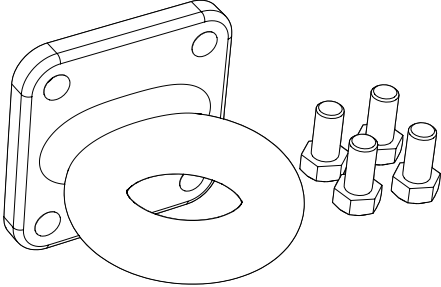
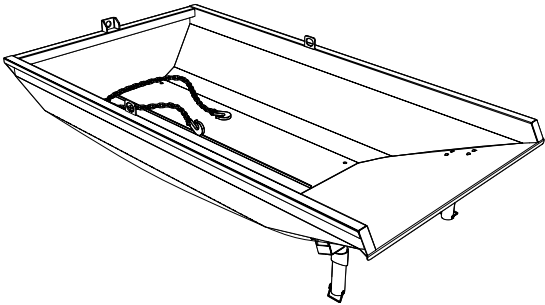
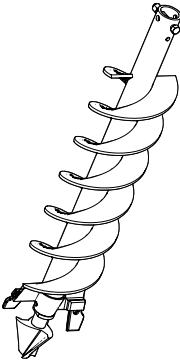
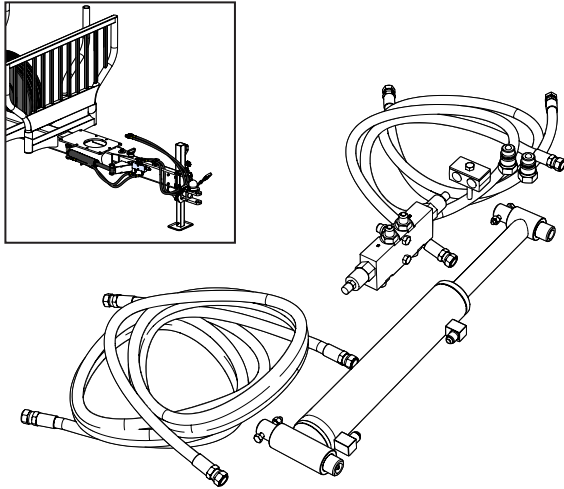
1. Start all lugs by hand to prevent cross threading.
2. Tighten lugs in sequence, per wheel lug torque sequence chart.
3. The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements chart.

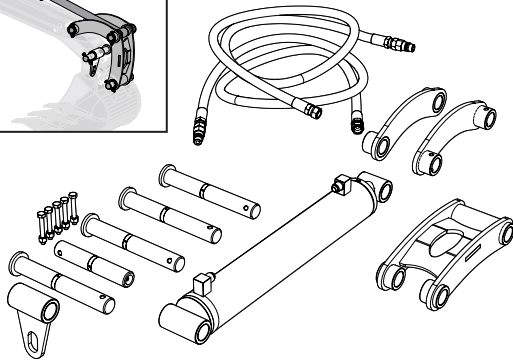
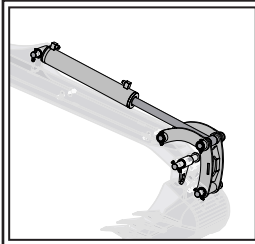


ACCESSORIES

Call your dealer for pricing and availability

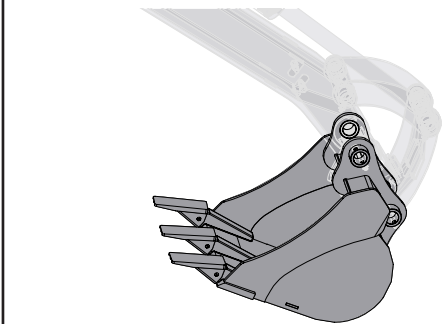
For replacement parts, go to www.wallensteinequipment.com and click on "Parts and Manuals" to download the latest parts manual for your model, then call your dealer to order.

	<p>#L640 PINTLE HITCH</p> <p>For LT60 trailer only. Pintle hitch accessory to match up to your existing pintle hook.</p>
	<p>#L310 LT30 DUMP BOX #L620 LT60 DUMP BOX</p> <p>One for each LT trailer. Load, transport and easily dump your loads, made for use with the back hoe kit. With the LT30 Trailer, the L310 holds 25 ft³ (0.7 m³). With the LT60 Trailer, the L620 holds 45 ft³ (1.3 m³). Both dump boxes come complete with a 6 ft (1.8 m) chain used for dumping.</p>
	<p>#LA610 6" DIAMETER AUGER KIT #LA910 9" DIAMETER AUGER KIT</p> <p>For all LX models. A great way to get your fence post jobs done quickly and efficiently. Both augers are capable of a hole depth of a 42" (107 cm).</p>
	<p>#L650 HYDRAULIC ARTICULATED DRAWBAR (Tractor remote hydraulics required)</p> <p>For LT60 trailer only. Tight bush trail corner navigation made easy with this handy hydraulic articulating drawbar. Available for off-road use only. It is controlled by your tractors remote hydraulics.</p>



#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.

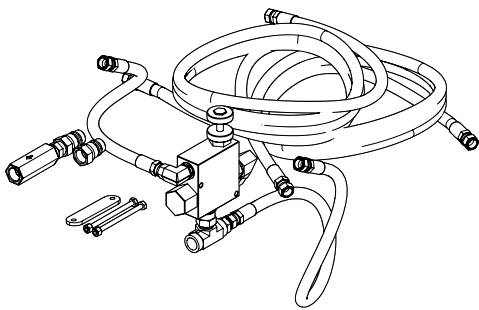


#BACK HOE BUCKET OPTIONS

for #BA201 Back Hoe Kit:

Choose the bucket you need for the job at hand.

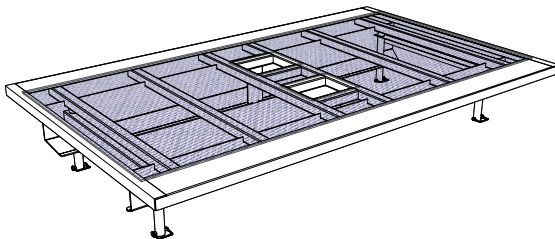
- BK2690** – 9" 3-Tooth Bucket
- BK2612** – 12" 3-Tooth Bucket
- BK2615** – 15" 4-Tooth Bucket
- BK2618** – 18" 4-Tooth Bucket



#L101 TRACTOR HYDRAULIC KIT

For all LX models

Uses the 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.)



#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.

