

WALLENSTEIN

MODEL GX-500 BACKHOE



OPERATING INSTRUCTIONS AND PARTS MANUAL

Warranty

This product is warranted to be free of defects in materials and workmanship under normal use and service, for a period of one year from the date of purchase, when operated and maintained in accordance with the Operating and Maintenance Instructions supplied with this unit. This warranty does not cover misuse or negligence.

Under no circumstances will the manufacturer be liable for any consequential damage or expense of any kind, including loss of profits. The manufacturer is under no circumstances liable for tractor damage of any kind. The manufacturer is not liable for the maintenance of the product.

This warranty is extended only to the original purchaser. Warranty is void if repairs are attempted by anyone other than an Authorized Service Centre.

If a difficulty develops with the product, you should contact your nearest Authorized Repair Centre, or distributor. Only these locations are authorized to make repairs to the product or affect the replacement of defective parts, which will be done at no charge within a reasonable time after the receipt of the product. Units or parts should be returned at the customer's expense to the nearest repair location or Authorized Service Centre. Pack unit in a strong carton and pad tightly to avoid damage. Damage in-transit is not covered by warranty. Include original purchase receipt with any claim (keeping a copy for your files).

The distributor's liability under warranty is limited to repair of the product and/or replacement of parts and is given to the purchaser in lieu of all other remedies including incidental and consequential charges. There are no warranties, expressed or implied other than those specified herein.

For the nearest Authorized Service Centre call:

EMB MFG INC.

4144 BOOMER LINE

ST. CLEMENTS, ON

NOB 2M0

PHONE: 519-699-9283 FAX 519-699-4146

www.embmfg.com email: sales@embmfg.com

Valuable information for your records.

Date of Purchase: _____

Selling Dealer: _____

Backhoe Model: _____

CAUTION!

A CAREFUL OPERATOR IS THE BEST OPERATOR!

Most accidents can be prevented by becoming familiar with all controls before operating the backhoe, keeping in mind the safety precautions stated below, and working safely.

- Read Operator's Manual before operation.
- Enter and exit operator's platform from between stabilizers and tires only.
- Operate backhoe from operator's seat only and be sure the seat is firmly locked into position. Always keep your feet on the foot rest area.
- Backhoe digging forces can lift and turn tractor over. For maximum stability, set stabilizers to remove weight from rear tractor tires without lifting them off the ground. Always lower both stabilizers to avoid risk of overturning. Sufficient counterweight or a front end loader might be required in some applications to improve stability. See your dealer for more information.
- Check all hoses and fittings for damage or leaks before operating the backhoe.
- All levers must be in the neutral position when starting your tractor.
- Before operating the backhoe, look for obstructions in the line of movement. Stay clear from low overhead electrical wires when the backhoe is in the upper position. Verify the ground's conditions before digging and ensure digging area is free from underground cables and pipes.
- Keep people and animals at a safe distance while operating the backhoe and never let anyone into the bucket or onto the backhoe when driving tractor. Never leave an unattended tractor running.
- Never move tractor while operating backhoe.
- Do not use backhoe without front end loader attached.
- To avoid handling stability problems, never exceed the maximum capacity of your backhoe.
- Never use your backhoe as a battering ram (swinging left to right) to push earth. This could affect the good working condition of your backhoe.
- Never operate the tractor's three point hitch if the backhoe is connected to it.
- Keep the valve and lever setting clear from any obstructions. Never remove the safety guards on the stabilizers, cylinders, or the relief valve covering box. Keep all guards in place.
- Do not repair or service backhoe unless it is mounted on tractor and securely supported. Loss of oil or removal of parts could cause backhoe to collapse.
- When attaching or detaching, always stand on the tractor side of the stabilizer outside of rear wheel. Swing lock pin must be in center lock position before detaching backhoe from tractor.
- Before transport, attach SLOW MOVING VEHICLE sign and engage swing and boom lock. When the backhoe is in either the parked position or in transportation, make sure the locking pins are securely in place.
- A minimum of 25% of tractor weight must be on the front tractor wheels with backhoe in transport position.

WALLENSTEIN

By: EMB MFG INC.

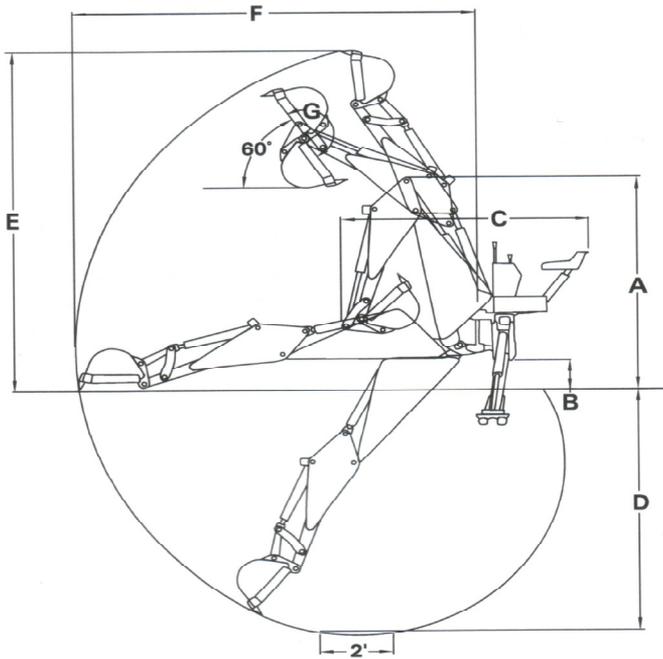
GX500 BACKHOE



STANDARD FEATURES

- Optimum performance with 4-6 gpm hydraulic system
- Compact design for sub-compact tractors
- Quick attach, simple on/off, subframe mounting available
- 3 Point Hitch Kit available
- Optional PTO hydraulic pump kit available (PTO60)
- Replaceable bucket teeth
- Continuous steel formed bucket with wear plates
- Transport and boom rotation lock
- Bucket available in 9", 12", 15"
- Street Pads optional

All specifications subject to change without notice.



Product Specifications	<u>GX500</u>
A Transport Hight (with boom fully raised)	56"
Transport Width (with stabilzers up)	41"
B Ground Clearance	8"
C Transport Length	62"
Transport Weight	525 lbs
D Digging Depth (2 ft.flat bottom")	5 1/2" ft.
E Overall Operating Height (fully raised)	85"
F Reach From Swing Post	90"
G Bucket Rotation	180 degrees
Swing Arc	160 degrees
Stabilizer Spread Operating Position	78"
System Relief Valve Setting	2200 psi
Dipper Boom Digging Force	825 lbs
Bucket Digging Force	1450 lbs
Boom Lift Capcacity (approx)	300 lbs
Hydraulic Volume Requirements	4-6 gpm
Recommended Tractor HP	15-25 HP
Bucket Sizes Available	9", 12", 15"
3 Point Hitch	Category 1
Main Boom Cylinder Diameter	2"
All Other Cylinders	5 1 3/4" & 2"

Starting Operation

Back up tractor close to backhoe, then plug the two hoses from the backhoe into the tractor auxillary outlets. With the stabilizers, lift the backhoe to the right height (approximately 8" ground clearance on GX-500). Raise tractor lift arms to correct height. Insert pins. Never attempt to raise three point hitch while backhoe is on tractor— damage to tractor or backhoe could occur.

Disconnecting Procedure

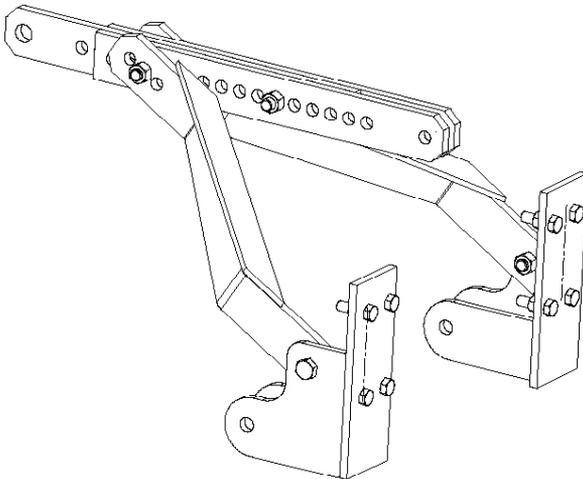
When disconnecting the backhoe from the tractor, lower stabilizers and lift backhoe until pins slide out easily. Remove pins and move tractor ahead a few inches, lowering the backhoe to the ground by lifting the stabilizers. Disconnect all hydraulic lines from the tractor. Always store your backhoe on a flat and solid surface in a dry location. Be sure to have the bucket attached to the backhoe prior to storage to avoid a stability problem when re-attaching the backhoe.

Maintenance

Grease all lubrication points with a grease gun daily. See tractor manual for hydraulic oil/filter change recommendations. Check daily for oil leaks, tighten if necessary. Check daily for loose or missing pins and bolts, replace or tighten if necessary.

Initial Setup

When using a tractor with the backhoe for the first time, the 3 point hitch rigid link may need to be adjusted so the backhoe operators platform sits level. Set up 3 point hitch mounting kit as shown in the photograph below. The backhoe should have approximately 8" of ground clearance.

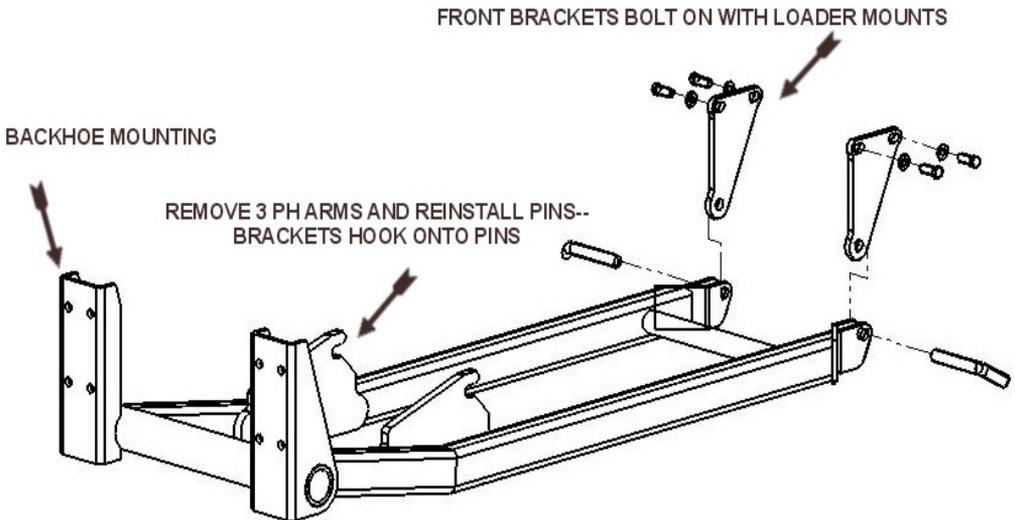


SUBFRAME MOUNTING



When setting up subframe to backhoe for the first time:

- 1: Install front brackets on loader mounts.
- 2: Bolt subframe to backhoe with hardware included in the mounting kit.
- 3: Remove rear 3 pth arms on tractor
- 4: Back tractor over subframe until it is near to the rear hooks. Attach hydraulics and lift backhoe & subframe to required height to hook in subframe. Front end of subframe can be lowered and raised by slowly lifting up or pushing down with main boom.
- 5: Install pins in front brackets and subframe.

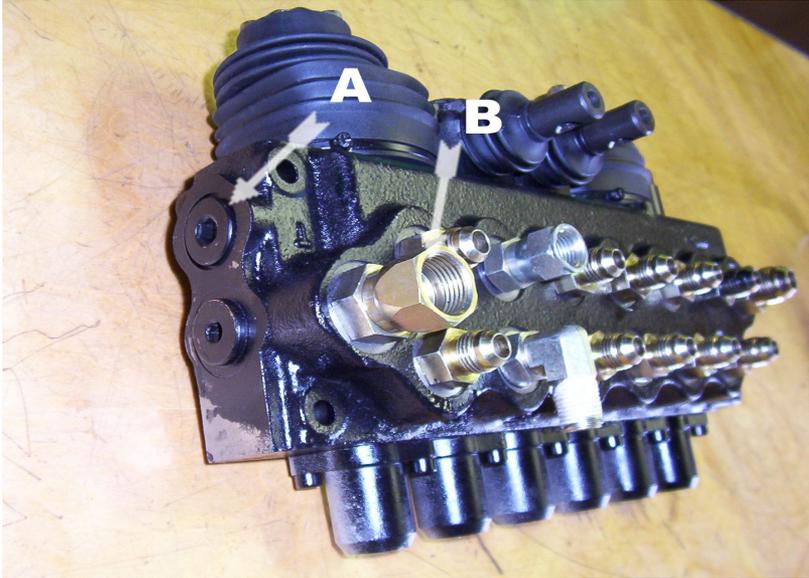


		REPAIR KITS		Valve Breakdown Diagram		Quantity		Part #	
			Position	Description					
33	joystick kit	B13211	1	BSP plug 1/2"		2		B13220	
	valve seal kit (123 spool O-rings & 2 gaskets(#28)		2	O-ring		12		B13233	
34	Lever block kit (stabilizer spools)	B13213	3	V08		6		B13237	
35	end cap kit (spool centering)	B13218	4	cap		6		B13238	
			5	M5 x14 cap screw		6		B13240	
			6	VR5 kit		1		B13241	
	<u>VALVE SPOOLS</u>		7	working section SD5/6		1		N/A	
9	valve spool (all spools except main boom)	B13217	8	main relief (2250psi)		1		B13216	
9	Metering/load check combo spool (main boom-needs load check)	B13223	9	spool SD5		1		(see left)	
			10	nut-M5-P1.25		1		B13236	
31	Closed centre plug	B13221	11	complete lever base (stabilizer spools)		2		B13213	
	Power beyond plug	B13222	12	hex socket cap screw M5-P 0.8x35		6		B13242	
	Relief valve replacement (solid plug)		13	lever-M8 x 125 (stabilizier)		2		B13214	
	offly life with closed centre system	some applications)	14	jam nut M8-1.25		2		B13234	
			15	rod end with stud		4		B13228	
	Backhoe valve is normally set up for center hydraulic system. When using backhoe with closed center system, AET SD5 plug (#31 in diagram) must be replaced with closed center plug.		16	rubber boot for joystick		2		B13212	
			17	hex socket cap screw M6-P1.0x25		8		B13235	
			18	jam nut M12-P1.75		2		B13235	
			19	lever-M12 x 250		2		B13215	
			20	1/4" lock washer		8		B13244	
			21	lever holder		2		B13229	
			22	nut - M6-P1.0		2		B13245	
			23	rod end		2		B13226	
			24	rod end guide		2		B13227	
			25	flat head socket screw M5-P0.8x14		4		B13246	
			26	attachment block		2		B13224	
			27	attachment plate		2		B13232	
			28	gasket		2		B13231	
			29	hex socket cap screw M5-P0.8 x 354		4		B13247	
			30	disk lock		4		B13248	
			31	AET SDG plug		1		(see left)	
			32	snare		2		B13210	
				Complete valve		1		B13055	

CLOSED CENTRE PLUG INSTALLATION

THE CLOSED CENTRE PLUG IS FOR INSTALLATION ON THE BACKHOE VALVE ON UNITS WHICH WILL BE USED ON TRACTORS WITH A CLOSED CENTRE HYDRAULIC SYSTEM.

NOTE: THE OPTIONAL PTO PUMP (PTO 70) IS AN OPEN CENTRE SYSTEM AND DOES NOT REQUIRE THE CLOSED CENTRE PLUG.



CLOSED CENTRE PLUG

CLOSED CENTRE PLUG INSTALLATION:

TO CONVERT A BACKHOW FOR CFOR CLOSED CENTRE OPERATION REMOVE PLUG A. AND INSTALL CLOSE CENTER PLUG WITH LONG SHOULDER.

MAINTENANCE & STORAGE

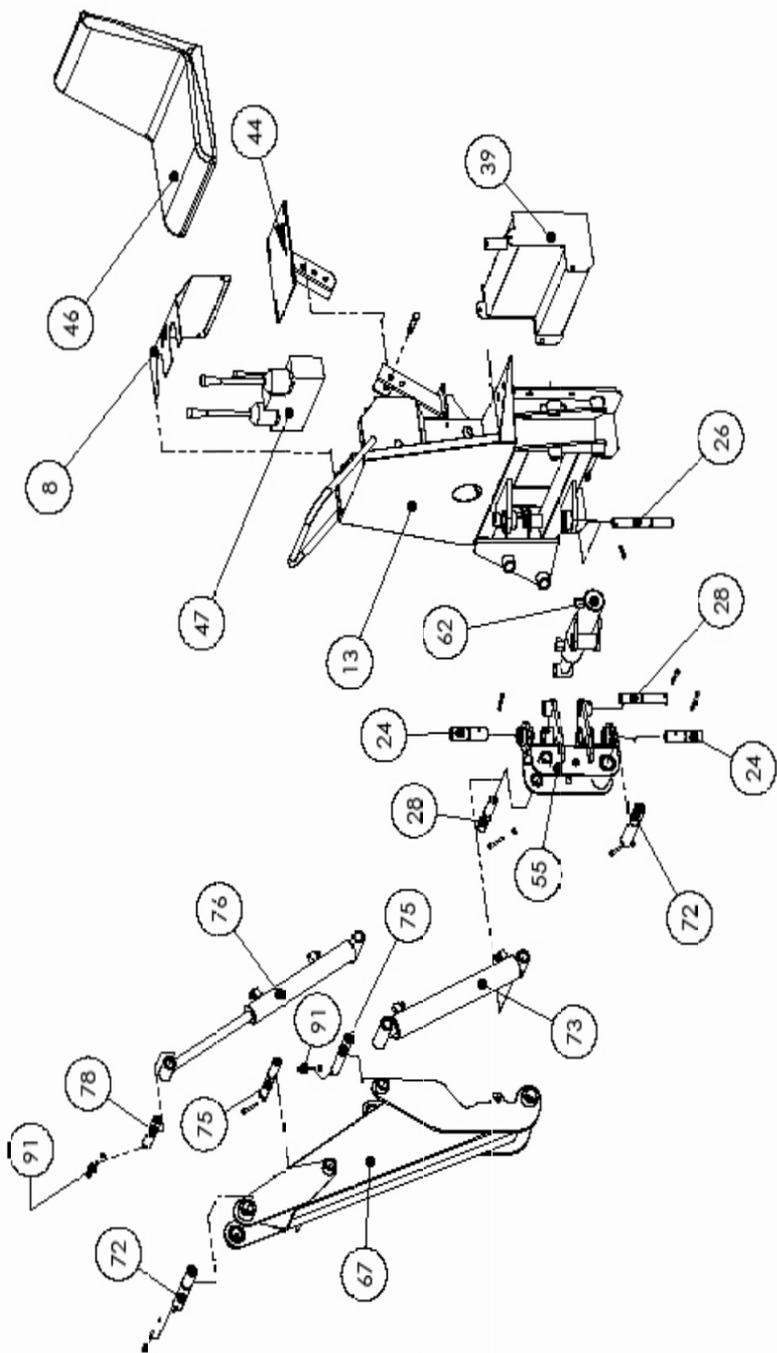
Grease machine daily to ensure maximum performance and longevity, and to reduce wear on pivots. Replace pins and bushings when necessary to avoid damaging key components.

LOCATIONS OF GREASE FITTINGS.



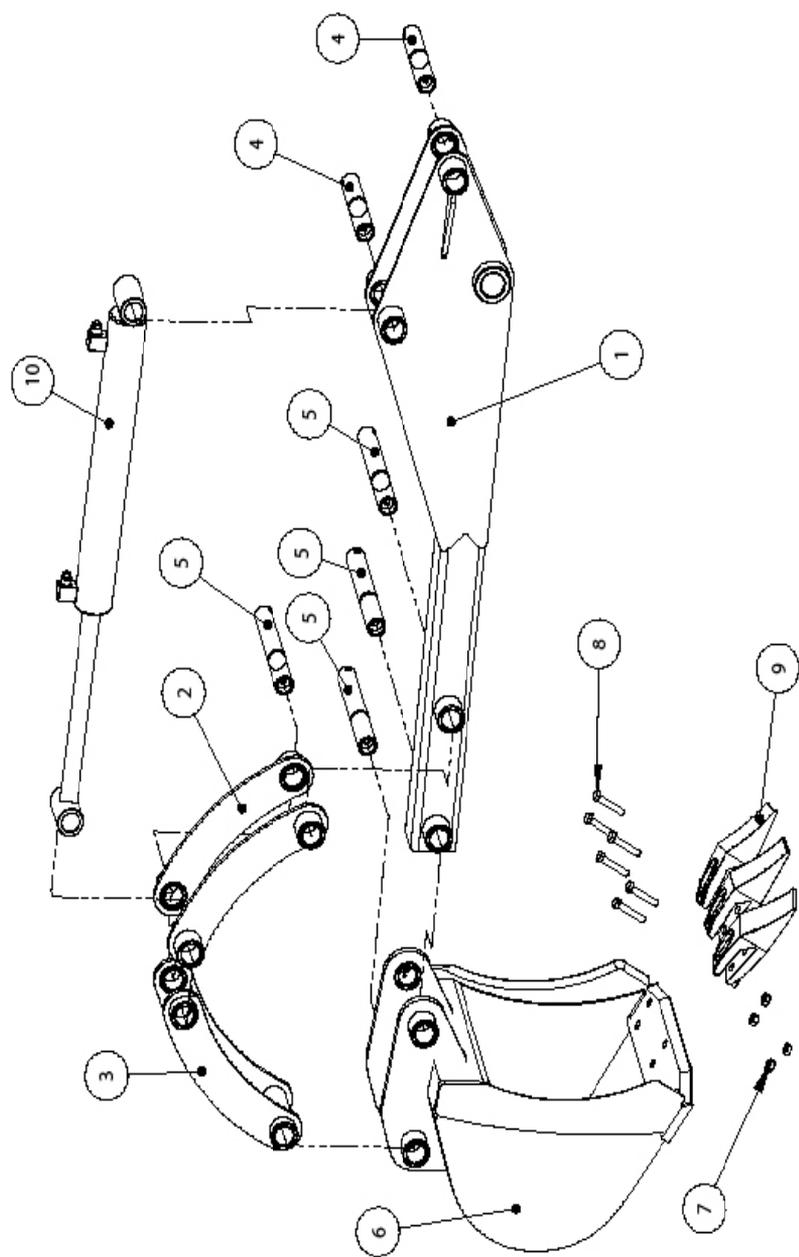
STORAGE:

Store backhoe in a dry vented location. If storing for long periods of time you may wish to protect with a rust deterrent or oil. Storing backhoe outside may cause the cylinder shafts to rust if not greased or protected.



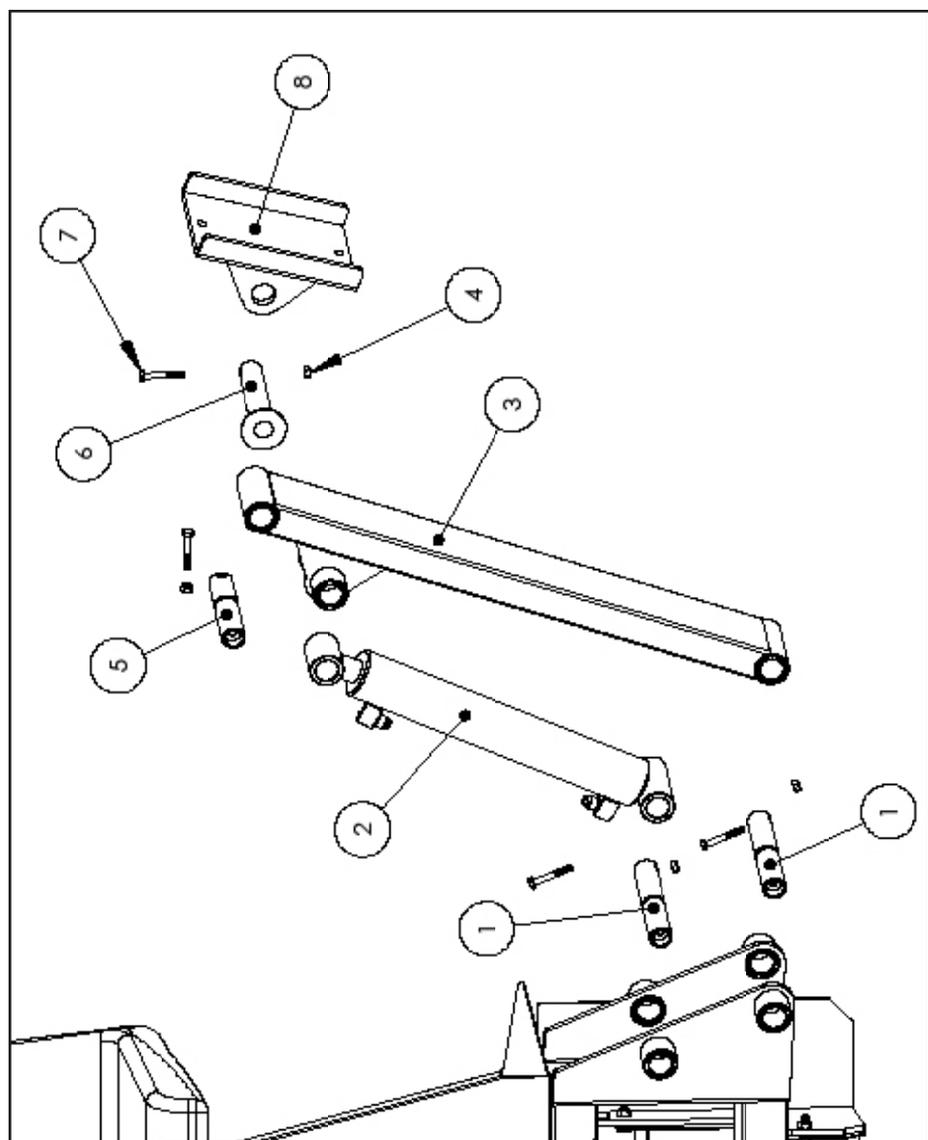
MAIN UNIT PARTS DIAGRAM

<u>Item Number</u>	<u>Description</u>	<u>Part #</u>	<u>Dimensions</u>
8	VALVE COVER	B14011	
13	MAIN FRAME	B14012	
24	SWING PIN	B14013	1.25 x 4.5
26	CYLINDER PIVOT PIN	B14020	1 x 7.5
28	PIN	B14021	1 x 5.91
39	RESERVOIR (PTO60)		
44	SEAT BASE	B14022	
46	SEAT	B13053	
47	VALVE	B13055	
55	BOOM PIVOT	B14014	
62	SWING CYLINDER	B14015	
67	MAIN BOOM	B14016	
72	PIN	B14023	1 x 1.2
73	MAIN BOOM CYLINDER	B14017	
75	PIN	B14024	1 x 7.5"
76	DIPPER CYLINDER	B14018	
78	PIN	B14025	1 x 5.37"
91	PIN RETAINING BOLT/LOCKNUT	B14019	



DIPPER BOOM PARTS DIAGRAM

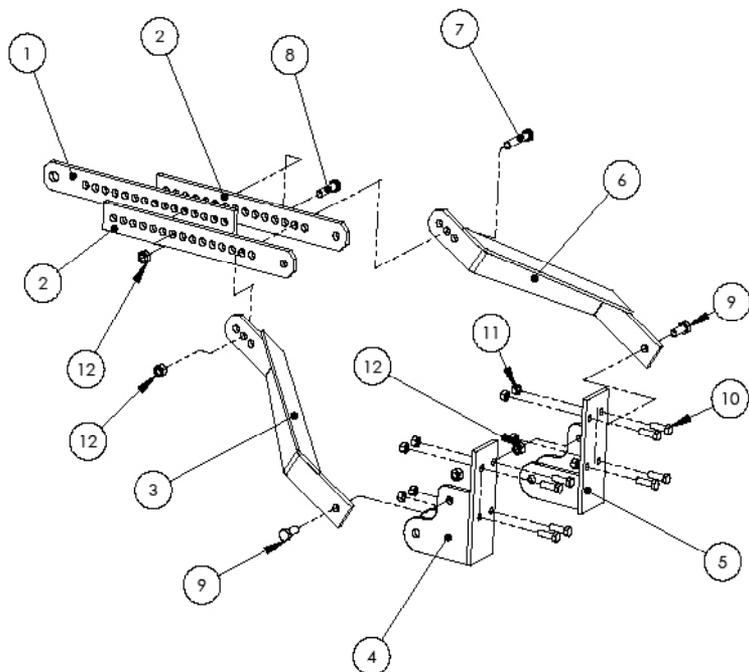
<u>Item Number</u>	<u>Description</u>	<u>Part #</u>	<u>Dimenesions</u>
1	DIPPER BOOM	B14026	
2	BOOM LINKAGE	B14027	
3	BUCKET LINKAGE	B14028	
4	PIN	B14029	1 X 5 3/8"
5	PIN	B14050	1 X 7 1/2"
6	BUCKET	*****	
7	3/8" LOCK NUT	*	
8	3/8" x 1 3/4" BOLT	*	
9	BUCKET TOOTH	BKT40	
10	BUCKET CYLINDER	B14051	



STABILIZER PARTS DIAGRAM

<u>Item</u>	<u>Description</u>	<u>Part #</u>	<u>Dimensions</u>
1	Pin	B14021	1 x 5 7/8"
2	LH STABILIZER CYLINDER *	B14052	
	RH STABILIZER CYLINDER *	B14053	
3	LH STABILIZER *	B14055	
	RH STABILIZER *	B10456	
4	1/4" LOCKNUT	**	
5	PIN	B14054	1 x 4 7/8"
6	PIN (WITH WELDED HEAD)	B14057	1 x 5"
7	1/4" X BOLT	**	
8	STABILIZER SHOE	B14058	
	* WHEN SITTING ON BACKHOE SEAT		

PT300 PARTS DIAGRAM



<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART#</u>
1	CENTRE LINK	B13082
2	SIDE LINK	B13083
3	RH BRACE	B13501
4	RH LIFT BRACKET	B13052
5	LH LIFT BRACKET	B13053
6	LH BRACE	B13054
7	3/4" X 4 1/2" BOLT	**
8	3/4" X 3" BOLT	**
9	3/4" X 2" BOLT	**
10	5/8" X 2" BOLT	**
11	5/8" LOCKNUT	**
12	3/4" LOCKNUT	**

PART# BOM500-0805

