

Attachment Assembly Instructions

MAGNATRAC® RT1150

BEFORE YOU BEGIN ADDING ATTACHMENTS... ... a few important facts for your understanding & safety.



CAUTION: When adding attachments to your RT1150, always proceed slowly. Loads can quickly shift, causing injuries or damage to your equipment. Always add front attachments first, prior to adding attachments to the rear.

References of left & right are determined by sitting on your RT1150 and looking forward. (Driver's Left, Driver's Right)

The length of a Bolt is determined by measuring the threaded shank below the Bolt's head.

Though the following instructions are inclusive, some of the Steps have already been completed at the factory...just go on if you find a particular step has already been completed for you.

Photos of various assembly Steps are located throughout the instructions and we've tried to keep the more timely photos next to the instructions of the components they describe. NOTE: some photos show completion of Steps that will come later in the instructions. You will find it helpful though, to look at photos from other sections of these instruction to see different views of particular parts you are presently assembling.

As many of the components you will be working with are awkward and occasionally heavy, it's a good idea to have a helper available for assistance.



CAUTION: It can never be mentioned too much; always work on your Crawler with it's Parking Brake on, the Engine shut off, the Ignition Key removed [or ignition switch turned to STOP] and the (-) Ground Cable removed from Battery. When starting/running the unit, make sure the area is well ventilated!

In order to make lining up the cylinders easier, it's helpful to unscrew the plastic plugs half-way, then put a "pin" in the "rod end" tube (chrome movable end) and tap the pin with a mallet to break loose the seal. Once the "rod end" is out fully, you can remove the plastic plug completely. Proceed with caution when doing this, as cylinders may have residual hydraulic oil in them from testing. Always point the cylinder openings away from yourself and others.



WARNING: Seek medical attention immediately if you get hydraulic fluid injected in your skin, eyes, etc.

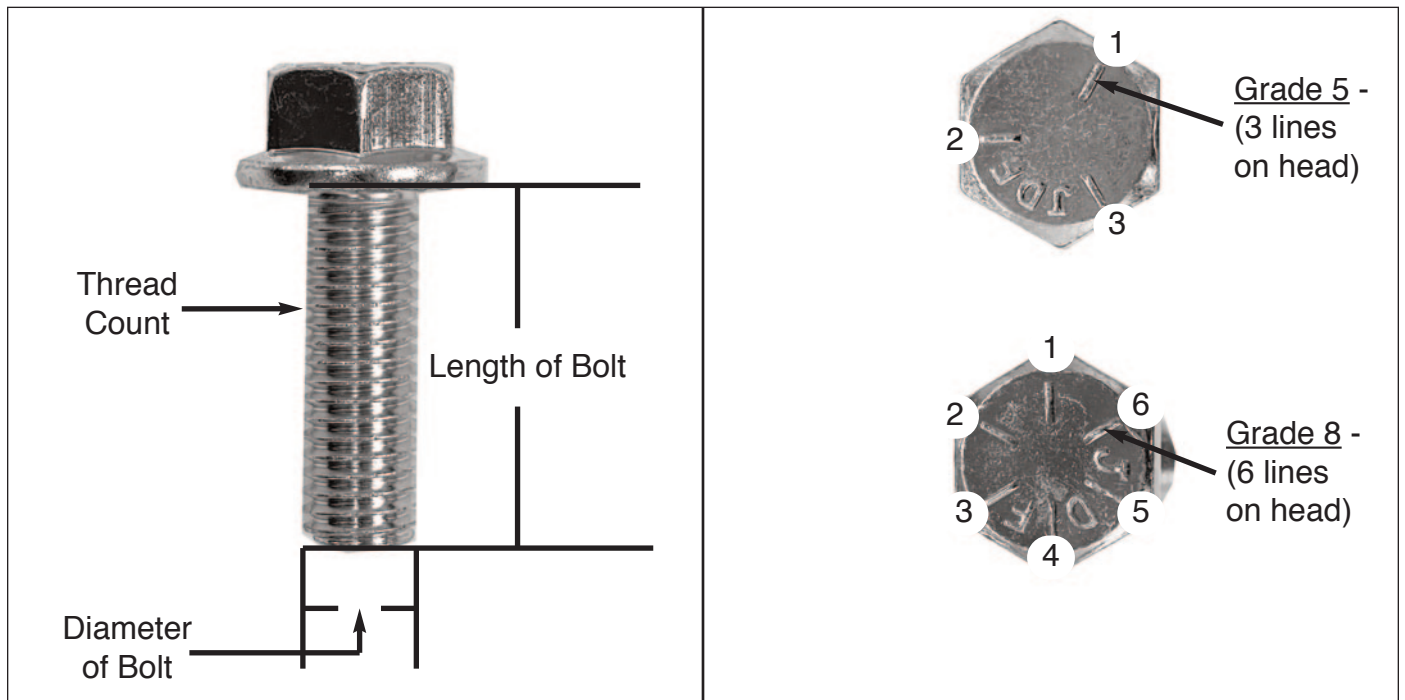
Bolt Torque-Tension Relationship



CAUTION: All material included below is advisory only, and its use by anyone is voluntary. Extreme caution should be used when using a formula for torque/tension relationships. Torque is only an indirect indication of tension. Under/over tightening of fasteners can result in costly equipment failure or personal injury. All bolts and nuts used are Grade 5 unless noted in the description. Grade 8 nomenclature will be shown as G8 in the description. (Fine thread bolts are not shown, call the factory for details)

Note: The length of a Bolt is determined by measuring the threaded shank below the Bolt's head. The diameter of a bolt is measured by the "width" of the bottom of the shank. Thread count is measured by counting the number of threads down the side of the shank.

<u>Bolt Diameter & Thread Count</u>	<u>Grade 5 - (3 lines on head)</u>	<u>Grade 8 - (6 lines on head)</u>
1/4" x 20.....	101 in. lbs.....	143 in. lbs.
5/16" x 18.....	209 in. lbs.....	295 in. lbs.
3/8" x 16.....	31 ft. lbs.....	44 ft. lbs.
7/16" x 14.....	49 ft. lbs.....	70 ft. lbs.
1/2" x 13.....	75 ft. lbs.....	106 ft. lbs.
9/16" x 12.....	109 ft. lbs.....	154 ft. lbs.
5/8" x 11.....	150 ft. lbs.....	212 ft. lbs.
3/4" x 10.....	267 ft. lbs.....	376 ft. lbs.
7/8" x 9.....	429 ft. lbs.....	606 ft. lbs.
1" x 8.....	644 ft. lbs.....	909 ft. lbs.



<u>Item #</u>	<u>Description</u>	<u>Page #</u>
UPGRADES		
FVS20	Float Valve Upgrade (Fully Assembled)	5
CI40	Center Idler Upgrade (Fully Assembled)	7
CU50	Convenience Upgrade (Fully Assembled)	8

FRONT MOUNTED

HYDRO FRONT HITCH ATTACHMENTS - 15" to 20" LIFT

HFH15	Hydraulic Front Hitch Kit (Fully Assembled)	10
DB44	Dozer Blade Kit	17
BD7	Blade Drawbar Kit	19
FW15	Front Counterweight Kit (Fully Assembled)	20
HE47	Hitch Extender kit	22

HYDRO LOADER ATTACHMENTS - 48" LIFT

HL300	Hydraulic Loader (Fully Assembled)	24
BK295	Material Bucket Kit	28
FP30	Front Plate Kit (Fully Assembled)	32

REAR MOUNTED

HYDRO REAR HITCH ATTACHMENTS

HRH35	Hydraulic Rear Hitch Kit (Partially Assembled)	37
HA14	Hitch Adapter Kit	44
LCA9	Log Crane Adaptor/Drawbar Kit	45
LW228	Log Crane/Drawbar Kit	46
TR23	Tripple Shank Ripper Kit	47

BACKHOE, ROLL-OVER, & REAR COUNTERWEIGHT ATTACHMENTS

AM39-B	Angle Mount Kit (Fully Assembled)	49
TW6	Tractor Weight Kit (Partially Assembled)	54
ROPS20	Roll-over Protective Structure Kit (Fully Assembled)	55
D1060UG	Backhoe Kit (Fully Assembled, 2nd Pallet)	59
B612	Bucket Kit (Fully Assembled, 2nd Pallet)	82
BR50	Frost/Chisel Tooth Kit	83
RT24	Rock/Debris Thumb Kit	85

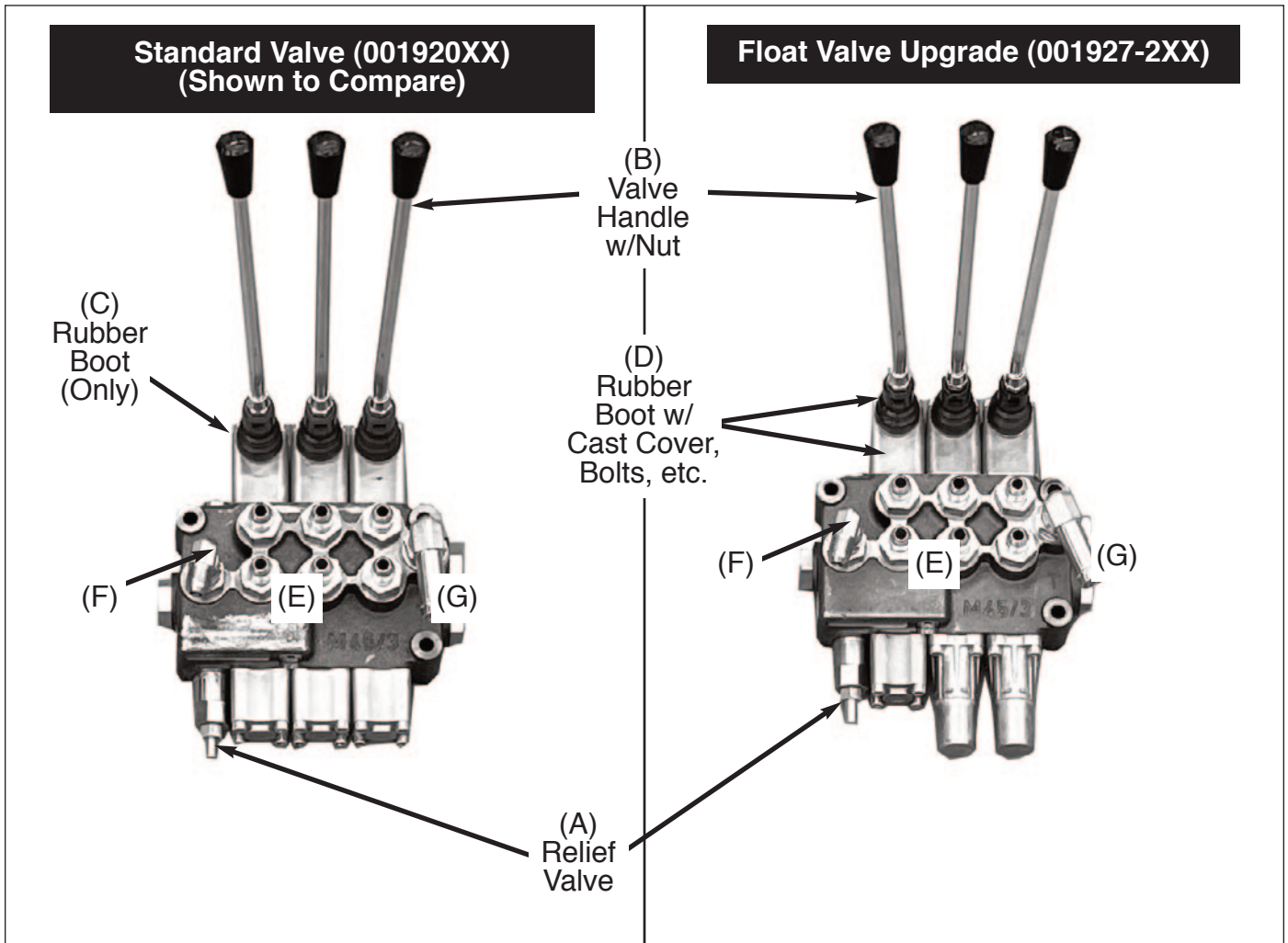
Instructions for the rubber track system are included in the main section of the RT1150 Manual.
 Instructions for any third party attachments are included with the actual attachment.

UPGRADES

Note: Any upgrades you purchased with your MAGNATRAC, will be fully assembled.

Float Valve Upgrade FVS20

Part #	Description	Qty.
001927-2XX	Valve Sub-Assembly with 2 Float Sections	(1)

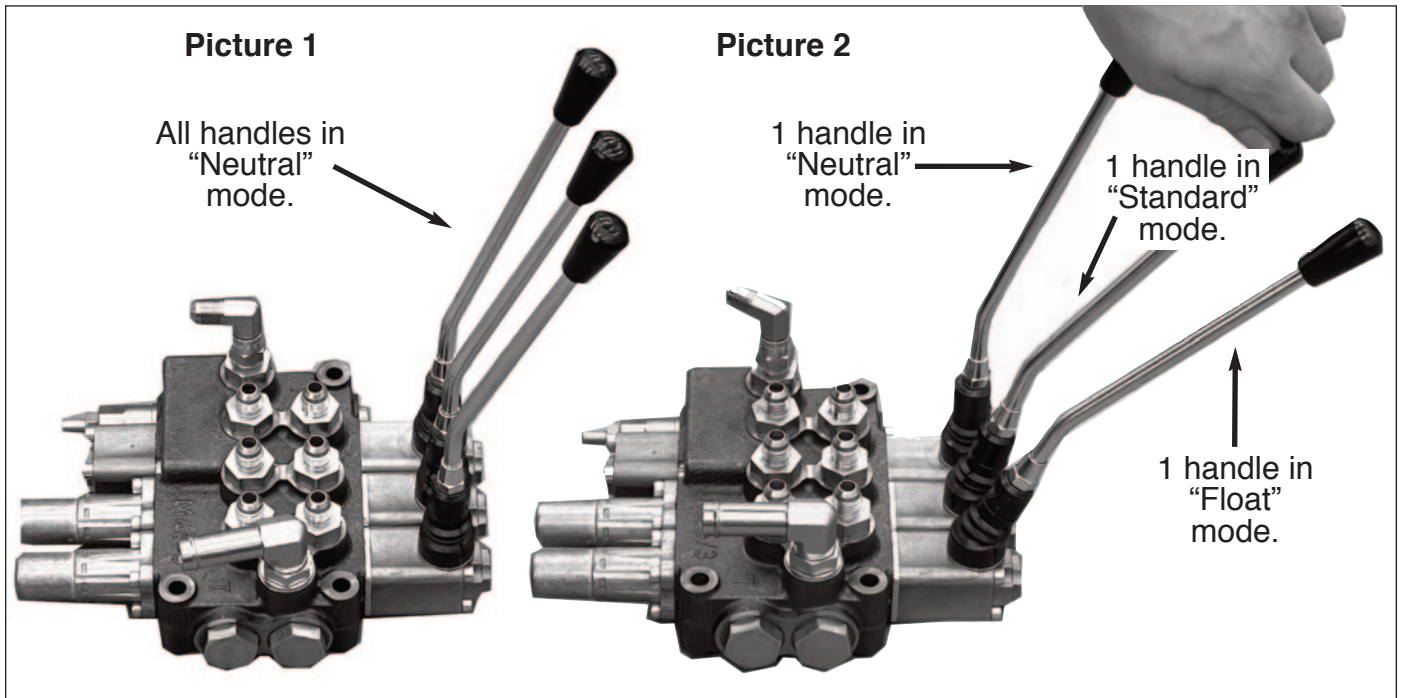


#001927-2XX Valve Assembly Parts Breakdown

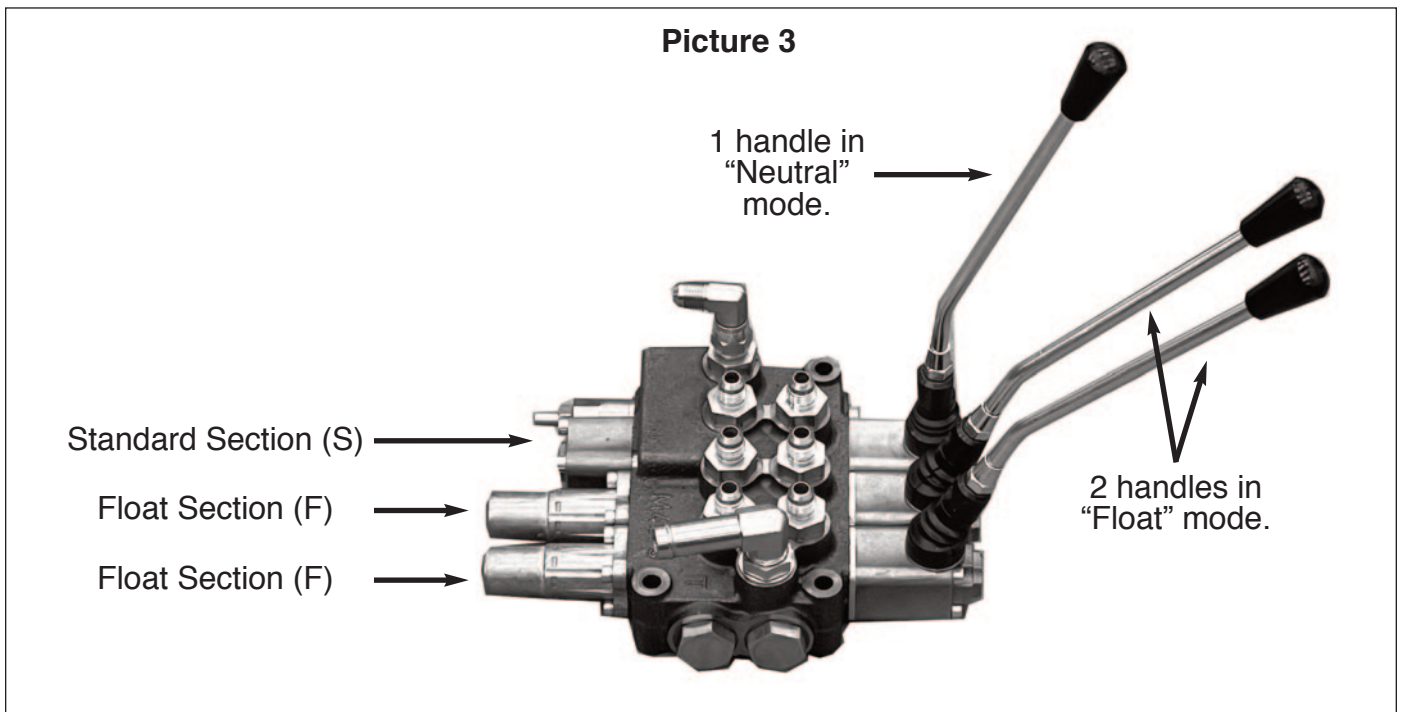
Part #	Description	Reference #
VALVE-HYD.CONT.-06	Relief Adjustment Valve	A
VALVE-HYD.CONT.-02	Valve Handle with Nut	B
VALVE-HYD.CONT.-04	Rubber Boot Only	C
VALVE-HYD.CONT.-03	Rubber Boot w/Cast Cover, Bolts	D
000790	Straight Fitting, 848-FSO-06x08	E
000676	Fitting, 90°, 879-FS-06	F
001738	Fitting, Hose Barb, 4601-1008	G

Picture 1: Float Valve Upgrade shown in “Neutral” mode. No attachment is engaged at this time.

Picture 2: Float Valve Upgrade shown in “Neutral”, “Standard” & “Float” mode. Center handle is in “Standard” mode, so attachment is engaged, but does NOT float.

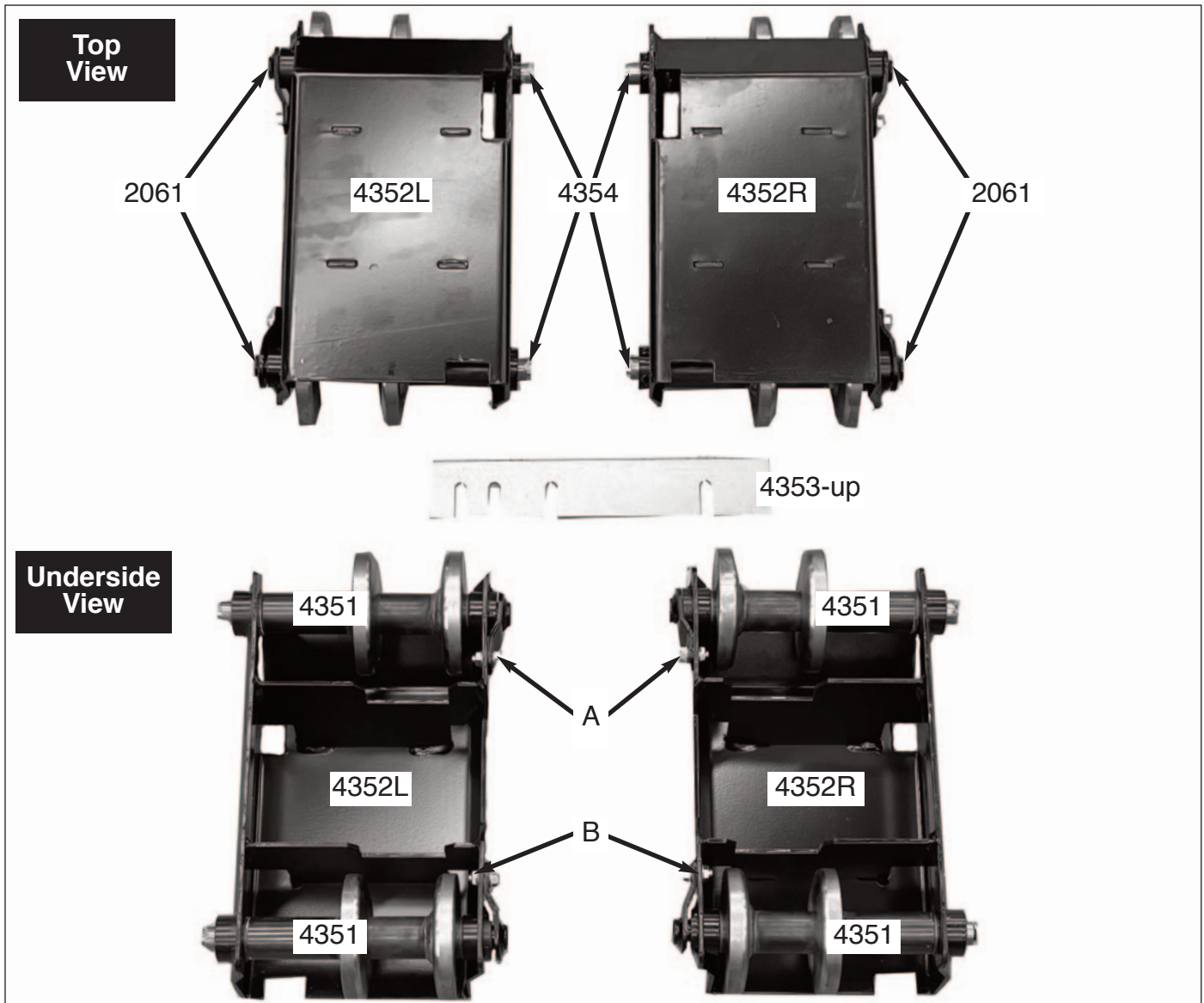


Picture 3: Float Valve Upgrade shown below, with both front and rear attachment handles in the “Float” operating mode. Push handles forward “twice” to enter the “Float” mode. Handles will stay in this position, without any hand pressure. This allows you to “Float” a front bucket/blade or rear attachment, (such as a 3rd party box blade) over the ground. Floating attachments is great for snow removal, finish grading, etc.



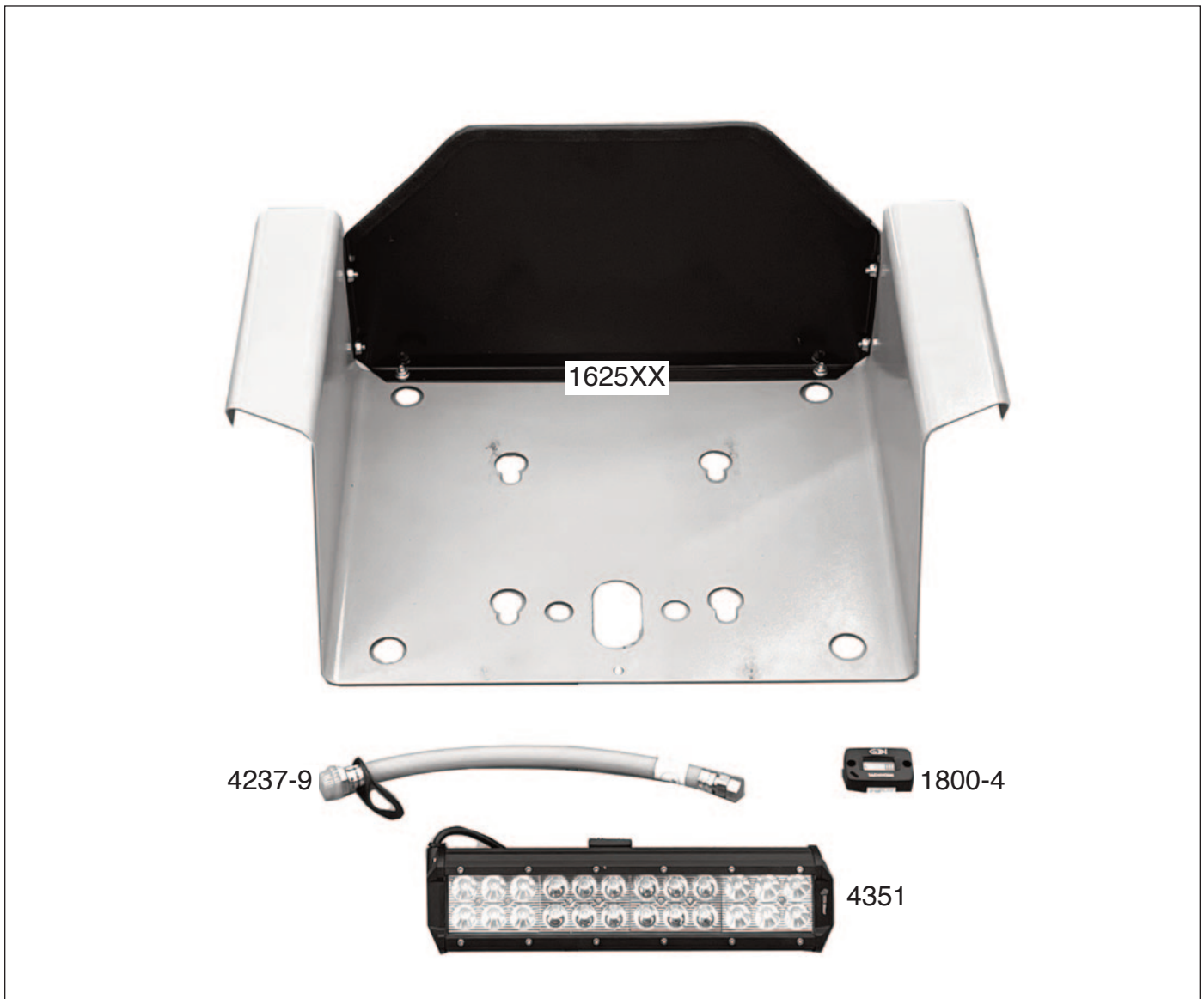
Center Idler Upgrade CI40

Part #	Description	Reference #	Qty.
004351	Center Idler		(4)
004352L	Left Idler Frame		(1)
004352R	Right Idler Frame		(1)
004353-up	Shim		(12+,-)
004354	Quick Release Center Axle		(4)
000240	O-Ring, 1-1/8" OD x 7/8" ID (Not Shown)		(24)
000242	Washer, 18 GA x 7/8" ID x 1-1/2" OD (HT)		(16)
002061	1/8" NPT Straight Grease Zerk		(4)
BOLT-5/16-123	5/16"-18 x 1" HX Spin Lock Bolt	A	(4)
NUT-5/16-231	5/16"-18 Spin Lock Nut	B	(4)
BOLT-3/8-128	3/8"-18 x 1" Spin Lock Bolt (Not Shown)	C	(8)
NUT-3/8-232	3/8"-18 Spin Lock Nut (Not Shown)	D	(8)



Convenience Upgrade CU50

Part #	Description	Qty.
01625XX	Arm Rest Sub-Assembly	(1)
001800-4	Hour-Tach Meter	(1)
004237-9	Engine Oil Drain Hose for Honda GXV390	(1)
004351	LED Headlight, 18W	(1)



FRONT MOUNTED ATTACHMENTS

Note: Your Front lifting system, (HFH15 Hydro Fornt Hitch, or HL300 Hydro Loader) if purchased with your MAGNATRAC, will be fully assembled. The final assembly of all other smaller attachments: such as a dozer blade, bucket, etc. will need to be completed by the customer.

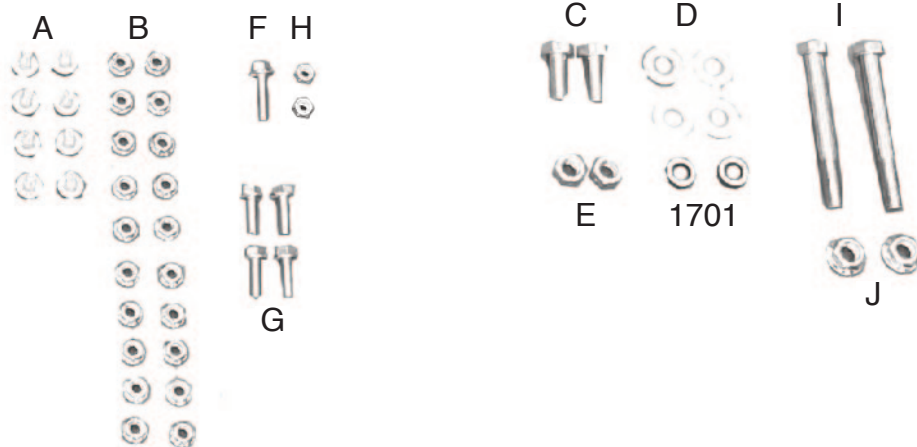
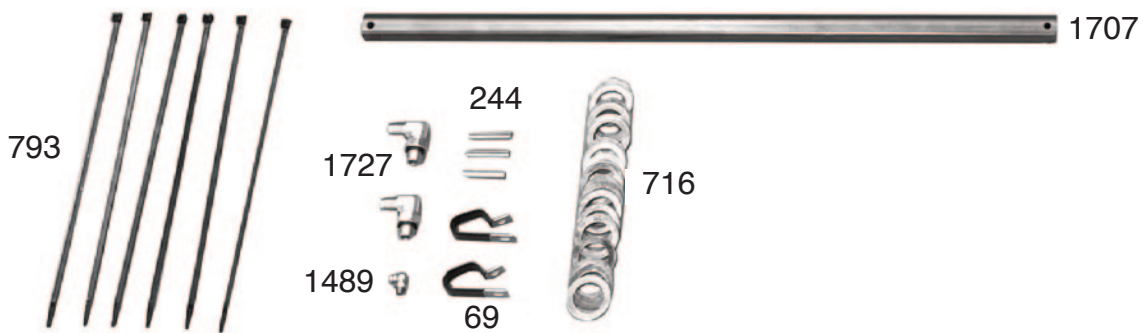
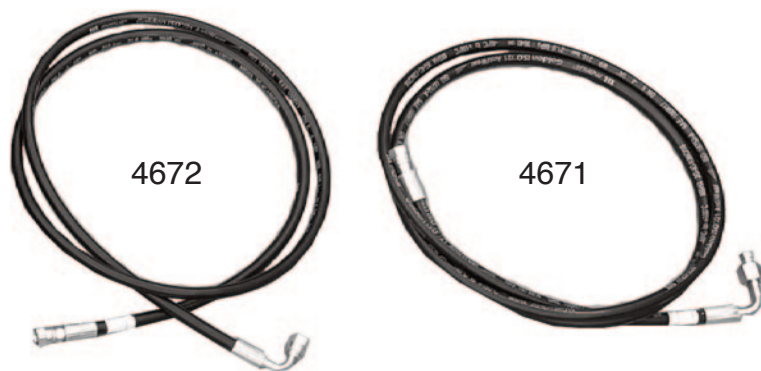
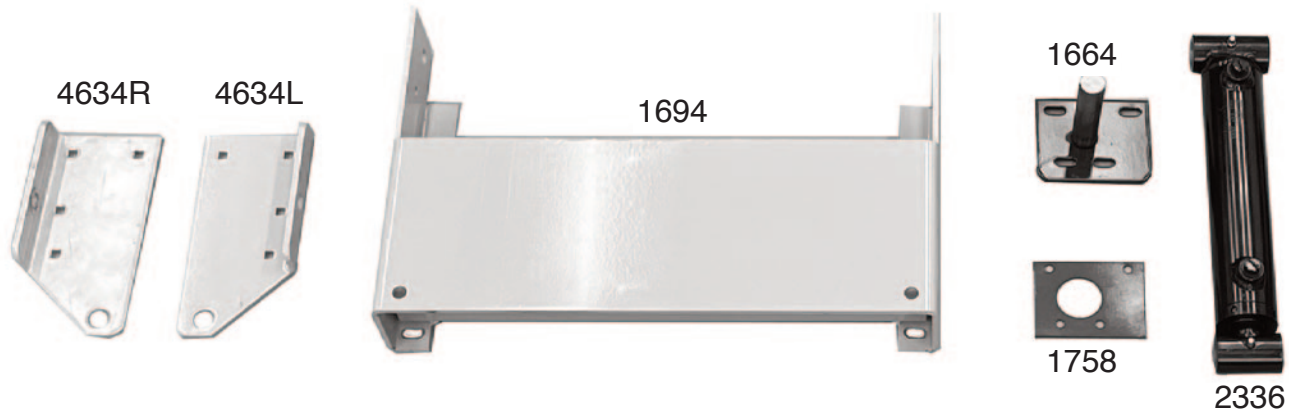
Hydro Front Hitch Kit

HFH15

Note: Your HFH15 - Hydro Front Hitch Kit will be factory assembled, if purchased with a MAGNATRAC order. Kit instructions are for customers buying a HFH15 Hydro Front Hitch at a later date.

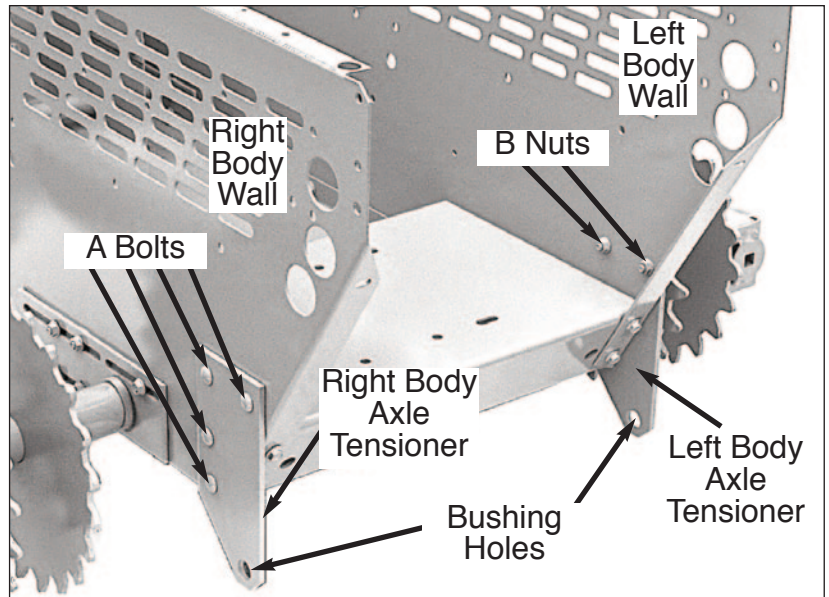
NOTE: Quick release pins are available for easy removal of your hydro front hitch mounted attachments. Our part number is #002208, Spring Loaded Pin. These would take the place of the #I Bolts & #J Nuts in these instructions. For the most secure way to connect your attachments, use the #I Bolts & #J Nuts.

Part #	Description	Reference #	Qty.
000069	Coated Hose Clip		(2)
000244	Spring Pin 1/4" OD x 1" Long		(3)
000716	Washer, 1" ID		(25)
000793	Hose Tie		(6)
001489	Grease Zerk, 90 deg., 1/4" x 28		(1)
001664	Cylinder Mount with Welded Pin		(1)
001694	Front Hitch		(1)
001701-up	Bushing, 1/2IDx3/4OD		(2)
001707-up	Rod 1 dia. x 24"		(1)
001727	Fitting, 90 degree, 849-FSO-06x06		(2)
001758	Spacer Plate for Cylinder Mount		(1)
002336	Cylinder, 2" Bore x 7.5 Stroke		(1)
	- (4) 002332 Oilite Bearing, 1 x 1-1/8 x 1		
004634L	Body Axle Tensioner (Driver's Left)		(1)
004634R	Body Axle Tensioner (Driver's Right)		(1)
004671	Hose, 1/4 x 91-1/2" (Top of Valve to Top of Cyl.)		(1)
004672	Hose, 1/4 x 84" (Bottom of Valve to Bottom of Cyl.)		(1)
BOLT-5/16-83	5/16-18 x 3/4 Carriage Bolt	A	(8)
NUT-5/16-231	5/16-18 Spin Lock Nut	B	(12)
BOLT-1/2-32	1/2-13 x 1-1/4 G5 Bolt	C	(2)
WASH-1/2-264	1/2 SAE Flat Washer	D	(4)
NUT-1/2-244	1/2-13 Dot Lock Nut	E	(2)
BOLT-5/16/123	5/16-18 x 1 Spin Lock Bolt	F	(4)
BOLT-5/16-8	5/16-18x 1-1/2 Spin Lock Bolt	G	(1)
NUT-5/16-221	5/16-18 Nylon Lock Nut	H	(2)
BOLT-1/2-50	1/2-13 x 4-1/2 G5 Bolt	I	(2)
NUT-1/2-234	1/2-13 Spin Lock Nut	J	(2)

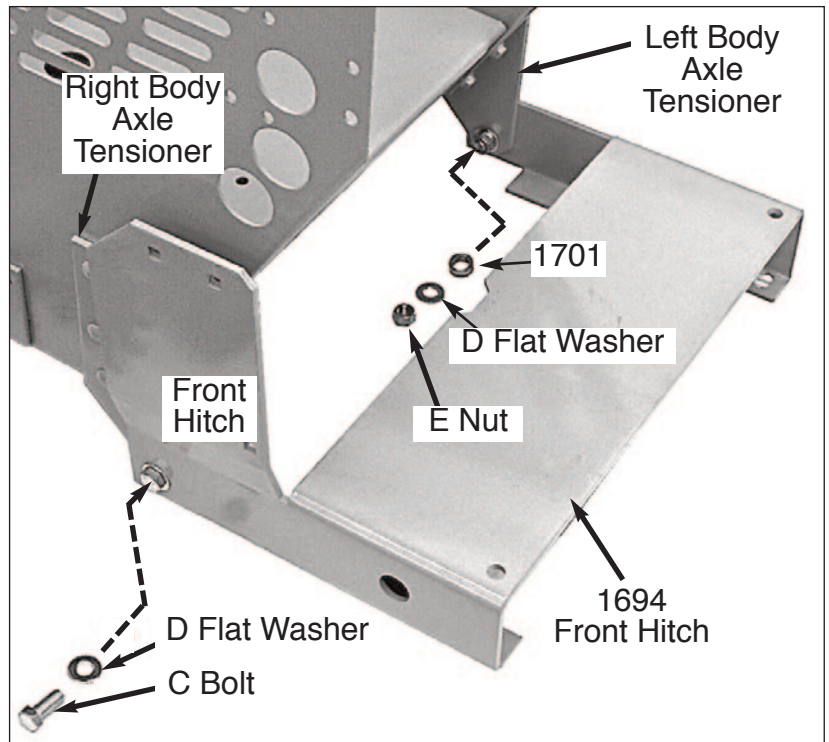


NOTE: STEP 1 may have been completed at the Factory, if so continue to STEP 2. Photos of #4634 Body Axle Tensioners & #1694 Front Hitch, may differ from what is shown.

STEP 1. Using #A Bolts (5/16-18 x 3/4 Carriage Bolts), mount the #4634L & #4634R Body Axle Tensioner to the “*corresponding corner*” of the Body Walls. Secure inside Body with #B 5/16-18 Spin Lock Nuts... tighten... See Photo at right. **Note: This step may have been completed at the factory.**



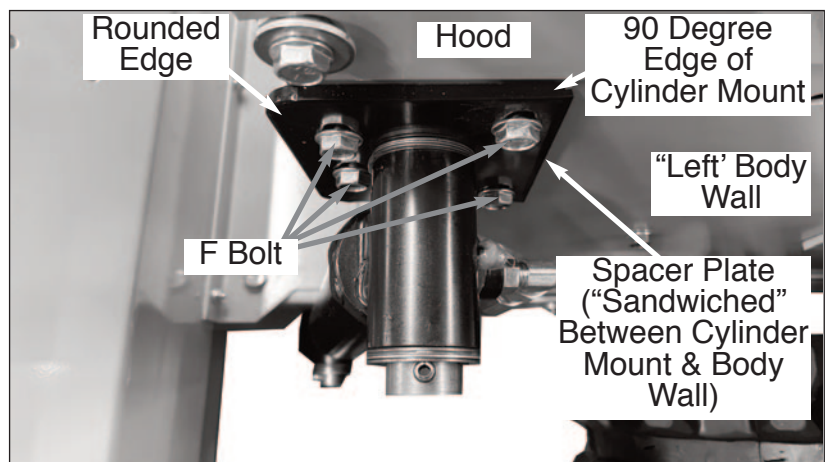
STEP 2. Align Bushing Holes in *left & right* Body Axle Tensioners with mating holes in *lower rear* of #1694 Front Hitch. On each side, insert an #C Bolt into #D Flat Washer and then into its' aligned Holes on left & right.



STEP 3. Inside, slip a #1701 Bushing over end of *each* #C Bolt... Bushing goes inside Holes of Body Axle Tensioner. Secure inside on each side with #D Flat Washer and #E Nut...fully tighten both Nuts... see Photo at right.

STEP 4. Remove the (2) Bolts securing the “Left Body Wall” to the side of the “Front Grill”. In their place, using (4) #F Bolts and (4) #B Nuts, mount the #1664 Cylinder Mount & #1758 Spacer Plate...note the “rounded corner” should be towards the “front” and the “90 degree edge” should be placed toward the “rear”..tighten!

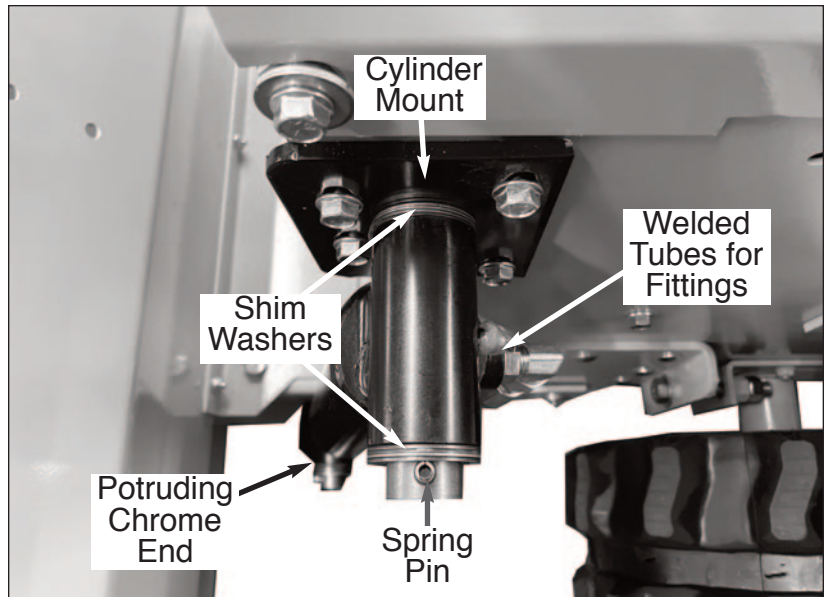
[NOTE: The #1758 Spacer Plate should be placed between the #1664 Cylinder Mount and “outside face” of Body Wall. Also for greatest final “lift height” push Cylinder Mount as high as it will go, as you tighten the (4) #F Bolts & (4) B Nuts.]



STEP 5. Slide (approx. 5) #716 shim washers onto #1664 Cylinder Mount, then slide #2336 Cylinder onto cylinder mount.

Note: The “potruding chrome” end should be towards the bottom, and the “welded tubes” for the fittings should be toward the rear.

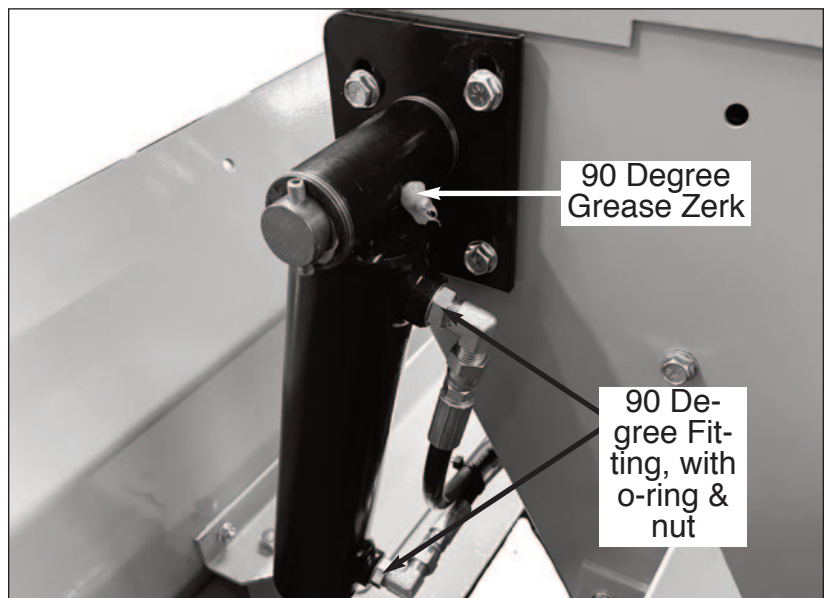
STEP 6. Slide additional #716 shim washers (approx. 4) onto cylinder mount, and drive #244 Spring Pin through Cylinder Mount as shown.



STEP 7. Remove staight grease fitting on “top end” of cylinder, and replace with #1489 90 Degree Grease Fitting. Turn grease zerk until it faces the outside of the machine...fully tighten.

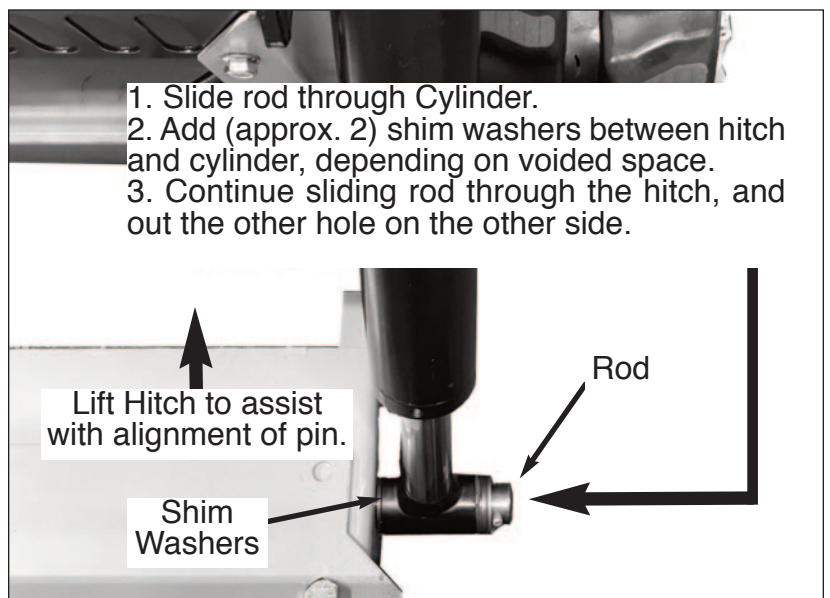
STEP 8. Remove plastic plugs from welded tubes on the side of cylinder, and replace with #1727 90 Degree Fittings with o-ring..angle “top” fitting “downward” and “bottom” fitting “inward”, towards tractor. Hand turn fitting nuts... tighten fully.

Note: No teflon paste or tape should be used. Fittings have o-rings installed, when tightened fully, they create a seal.



STEP 9. Slide #1707 Rod through the potruding end of the cylinder, then add approx. (2) #716 Shim Washers between the #1694 Front Hitch and the cylinder. Continue sliding pin all the way through the front hitch.

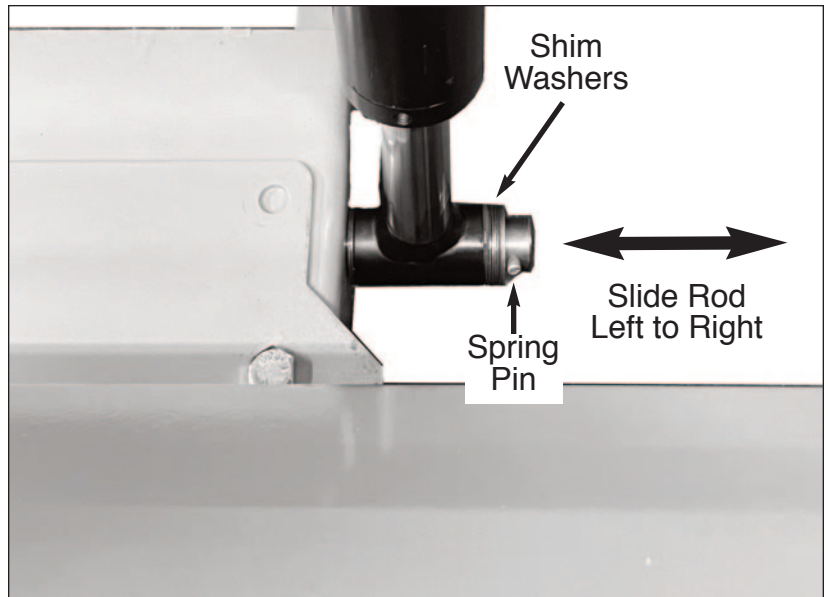
Hint: The qty. of shims used is determined by keeping the cylinder as vertical as possible, and filling the voided space between the cylinder & the front hitch. Lift upward on hitch to help with aligning the rod.



1. Slide rod through Cylinder.
2. Add (approx. 2) shim washers between hitch and cylinder, depending on voided space.
3. Continue sliding rod through the hitch, and out the other hole on the other side.

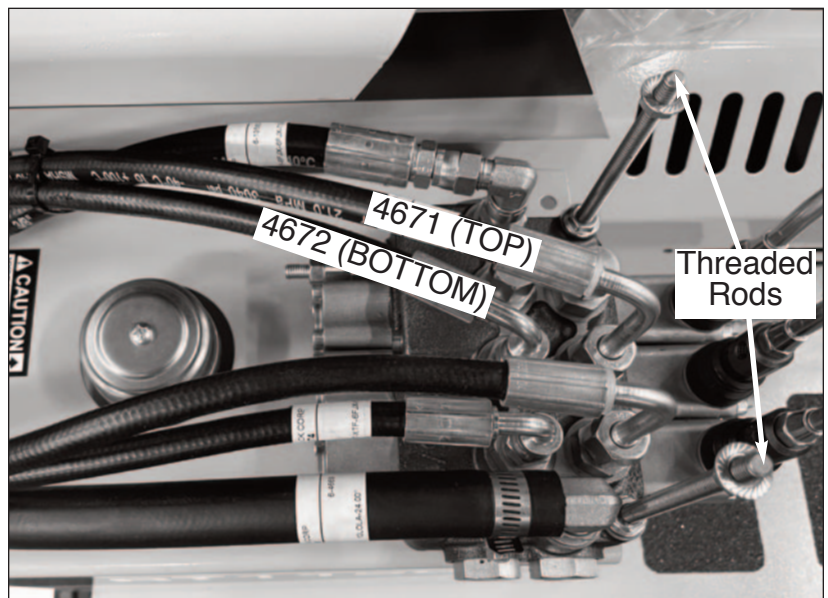
STEP 10. Position rod evenly left to right, so you have enough room to add shim washers on each side of the rod, allowing for inserting a Spring Pin on each side of the rod.

Pound #244 spring pin into each hole on both sides of the rod, so that spring pin is “potruding” evenly through the rod.

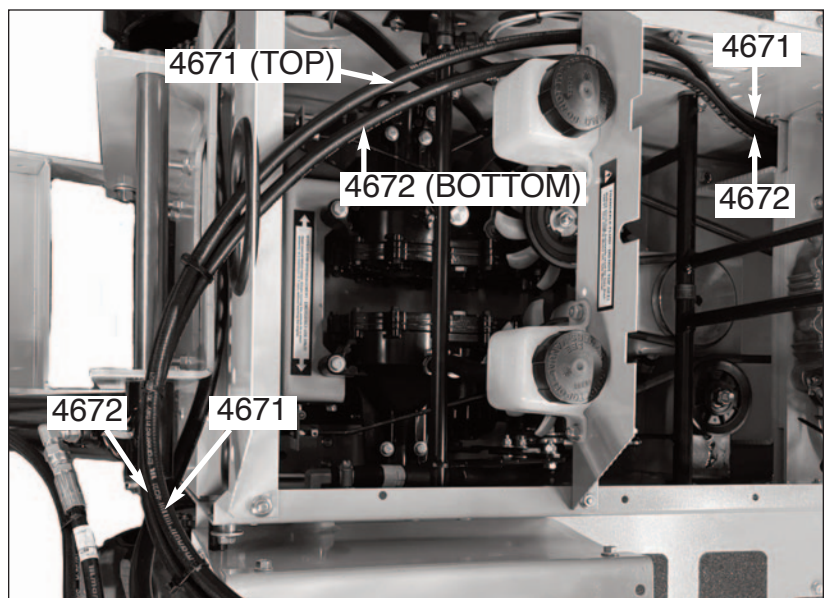


STEP 11. Remove valve cover, by loosening and removing the 2 nuts (on top of valve cover), potruding from the top of the threaded rods. Once removed, you will have access to the valve to make the hydraulic front hitch hose connections.

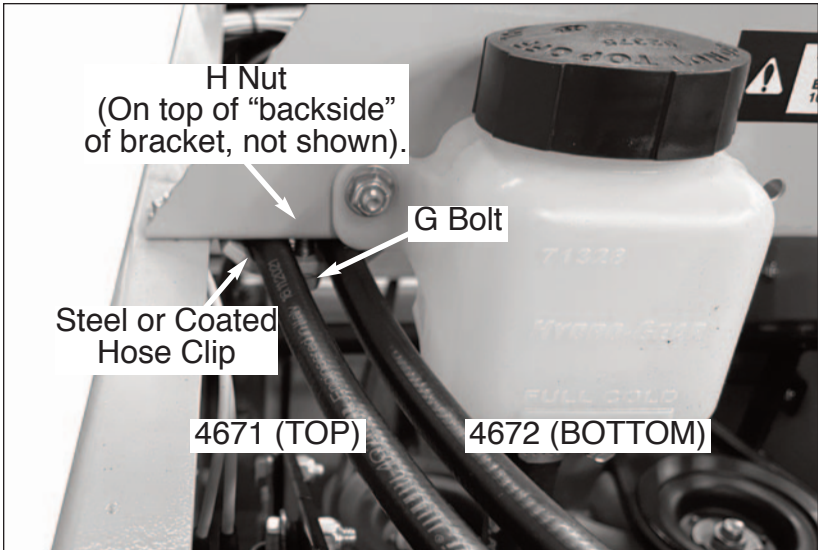
STEP 12. Remove any plugs/or caps from the middle section of the valve (middle handle). Thread the #4672 (bottom hose) onto the straight fitting. Angle as shown...tighten. Thread the #4671 (top hose) onto the straight fitting. Angle as shown...tighten.



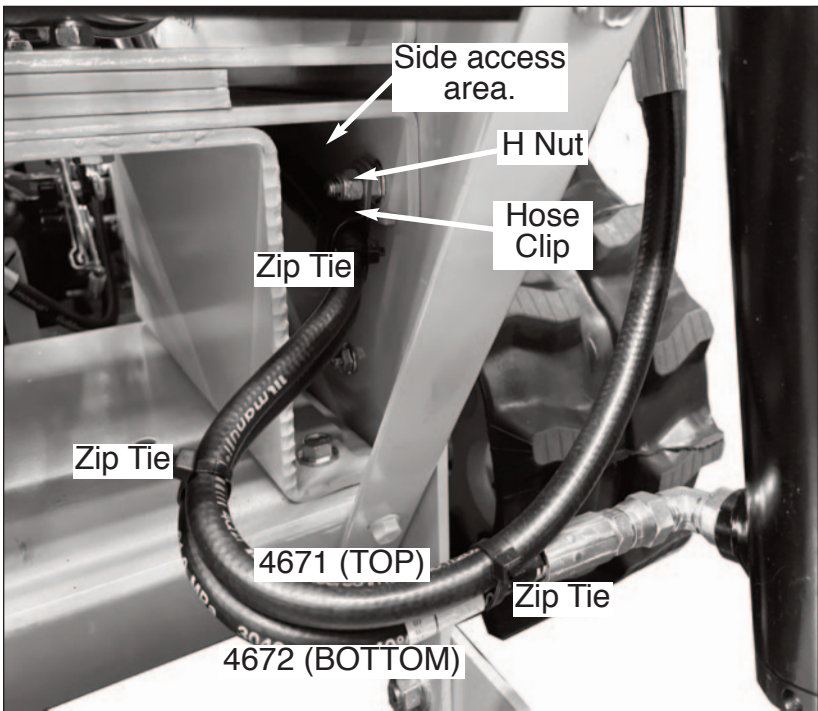
STEP 13. Remove seat and rear cover. Keeping track of which hose is top and bottom...group both the #4672 and the #4671 hoses together, then through rear hole in back support panel, and then forward as shown.



STEP 14. Continue routing hoses as shown. Depending on what style hose clip was sent with your order, install **steel or coated** hose clip (from underside), loosely secure hoses and hose clip with #G Bolt and #H Nut.



STEP 15. Feed hoses through "side" access area, under engine. Continue routing hoses as shown, keeping the #4671 Top Hose, on top, and #4672 Bottom hose, on bottom. Install hose clip on "protruding" body bolt, and "pull apart" hose clip to feed both hoses through it. Loosely secure both hoses with hose clip, and side body bolt and #H Nut.

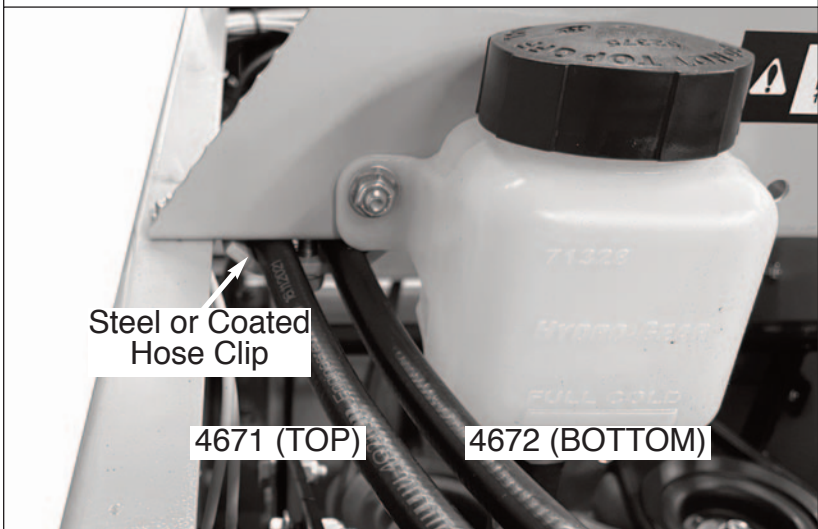


STEP 16. Connect #4671 Top Hose to "top" fitting on cylinder. Hand tighten. Connect #4672 Bottom Hose to "bottom" fitting on cylinder. Hand tighten.

STEP 17. Go back and make sure your hoses have nice fluid curves to them, and are not rubbing on any sharp steel edges. Tighten Top and Bottom hoses to cylinder fittings at this time.

STEP 18. Secure hoses (in cylinder area), with (3) #793 Zip ties at this time. Using a side cutter...cut excess zip ties from hoses.

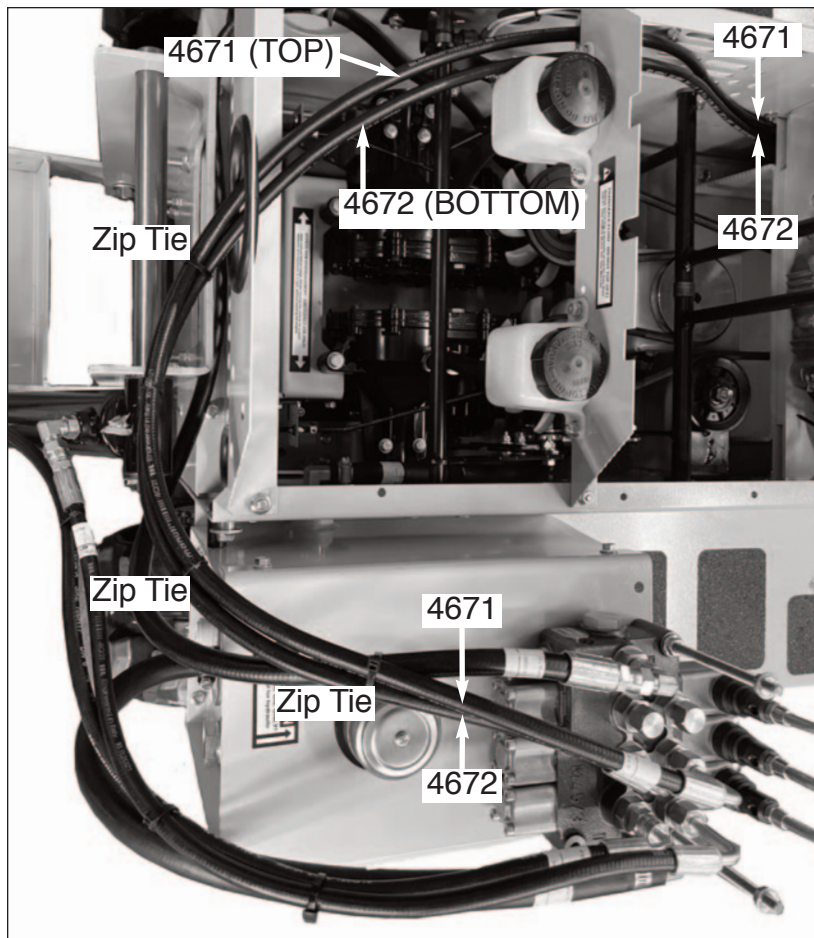
STEP 19. Tighten steel or coated hose clip, bolt and nut...take care to not "crush" the hoses.



STEP 20. Group the #4671 Top and #4672 Bottom hoses as needed, and secure with (3) more #793 zip ties as shown.

STEP 21. Check your work at this time...

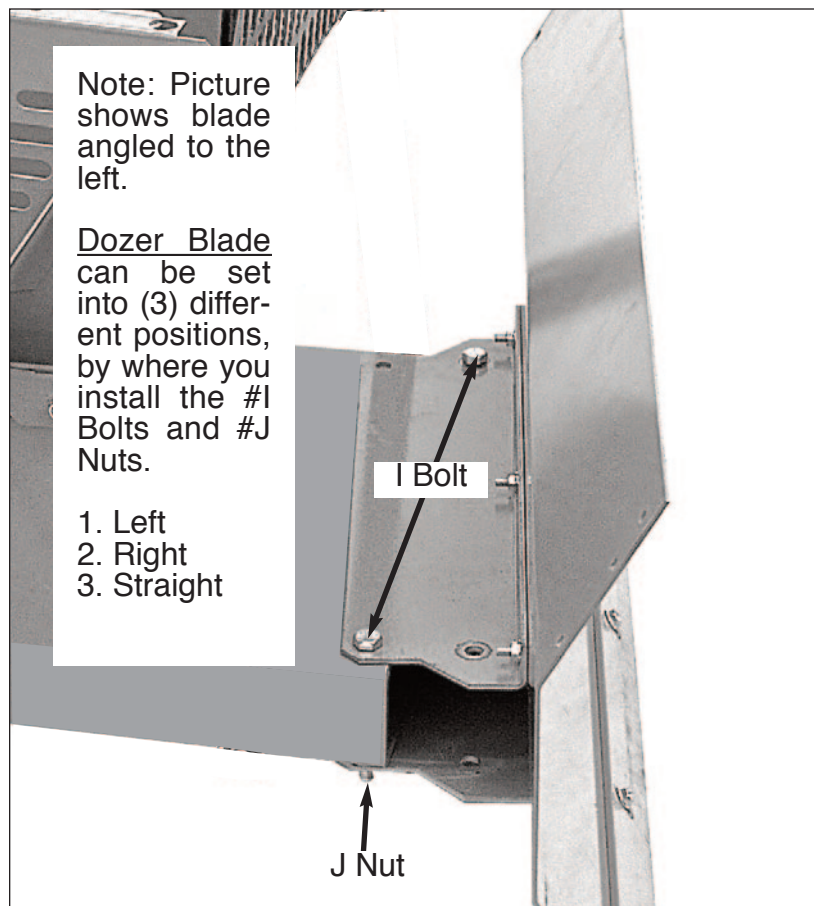
1. Verify hose paths will not be hitting any sharp edges, and zip ties are secure.
2. Make sure hose clip and clamp are secure.
3. Verify all hoses are tight to the valve and cylinder.
4. Verify all fittings are in the correct position, and are tight on the cylinder and the valve.



STEP 22. Replace seat pan and seat. Start unit and test run for any leaks. Tighten any needed hoses, fittings, etc. If not adding a hydro rear hitch, replace valve cover, thread on nuts and tighten.

STEP 23. Insert (2) #I Bolts and secure (2) #J Nuts to the end of the front hitch. These will be used to mount your front attachments, such as: blade or hitch extender, etc.

NOTE: If adding a hydro rear hitch or backhoe, go to those sections at this time, to install those hoses. After all hoses are run from all attachments, check hydraulic fluid level on tank. See RT1150 manual, add as needed. Replace valve cover after all additional hoses are ran from other attachments.



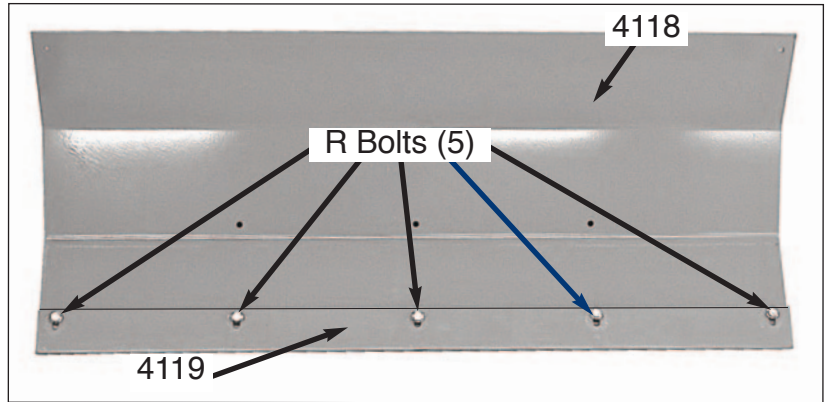
Dozer Blade Kit

DB44

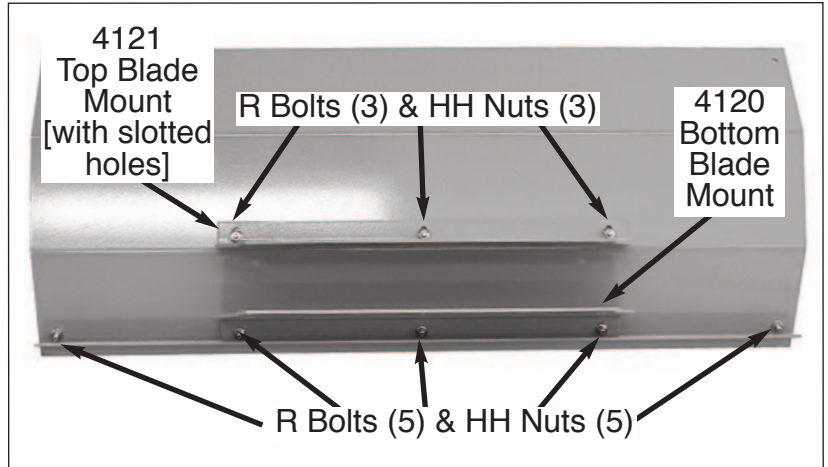
Part #	Description	Reference #	Qty.
004118	Blade, 42" wide		(1)
004119	Edge, 42" wide		(1)
004120	Bottom Blade Mount (4 hole)		(1)
004121	Top Blade Mount (4 hole)		(1)
BOLT-5/16-123	5/16-18x1 Spin Lock Bolt	R	(8)
NUT-5/16-231	5/16-18 Spin Lock Nut	HH	(8)



STEP 1. Locate the five (5) 5/16" slots in #4119 Edge with mating five 5/16" holes in *lower edge* of #4118 Blade. From the *front*, slip a #R Bolt into each of these mating five slots & holes.



STEP 2. Rotate Blade. On the *reverse side* align the three 5/16" holes in *edge* of #4120 Bottom Blade Mount with the *three* mating #R Bolts in *center* of Blade... see Photo at right.

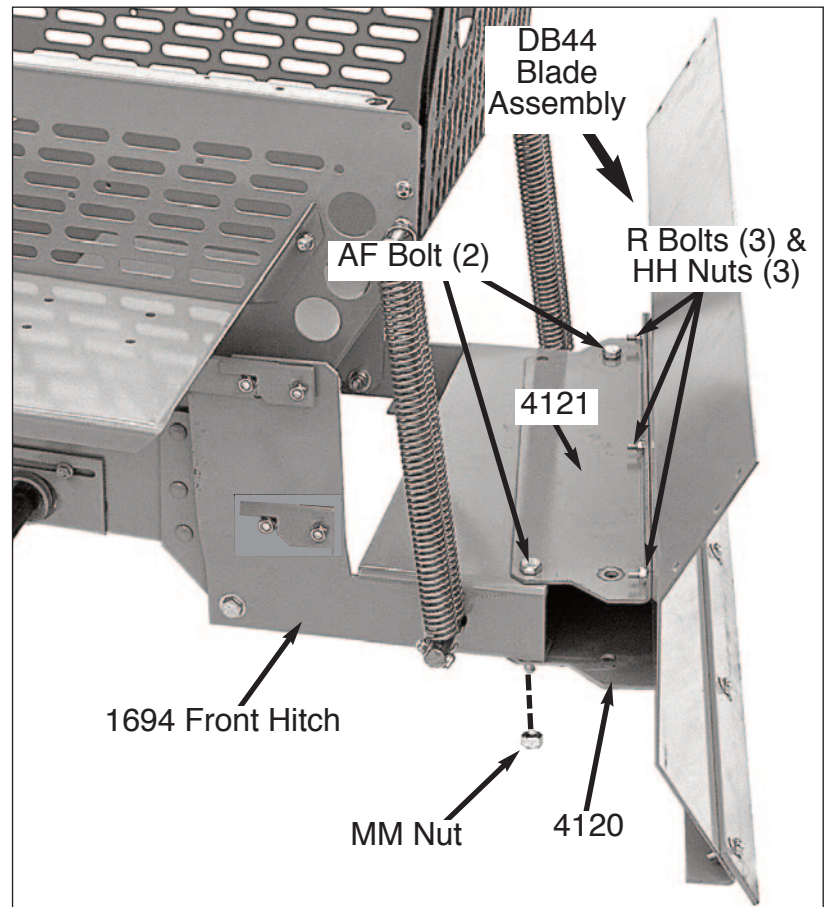


NOTE: Holes in #4119 Edge are slotted to allow horizontal movement to square bottom of Edge with ground if needed.

Secure all five #R Bolts [from STEPS 1 & 2] with #HH Nuts on *rear* of Blade... tighten... see Photo at right.

STEP 3. Insert three (3) #R Bolts into remaining three 5/16" holes in *front face* of #4118 Blade.

Behind Blade, slip the three mating 5/16" *slotted holes* of *top edge* of #4121 Top Blade Mount over the three protruding #R Bolts... secure with three (3) #HH Nuts... leave Nuts loose... see Photo upper near right.



Mounting Blade to Front Hitch:

Slip Blade Assembly onto #1694 Front Hitch... align 1/2" holes in #4121 Top and #4120 Bottom Mounts with mating 1/2" holes in Front Hitch. Insert #AF Bolts into mating holes... secure below with II Nuts.

NOTE: [#AF Bolts & #MM Nuts are from the HFH15 Hydro Front Hitch]

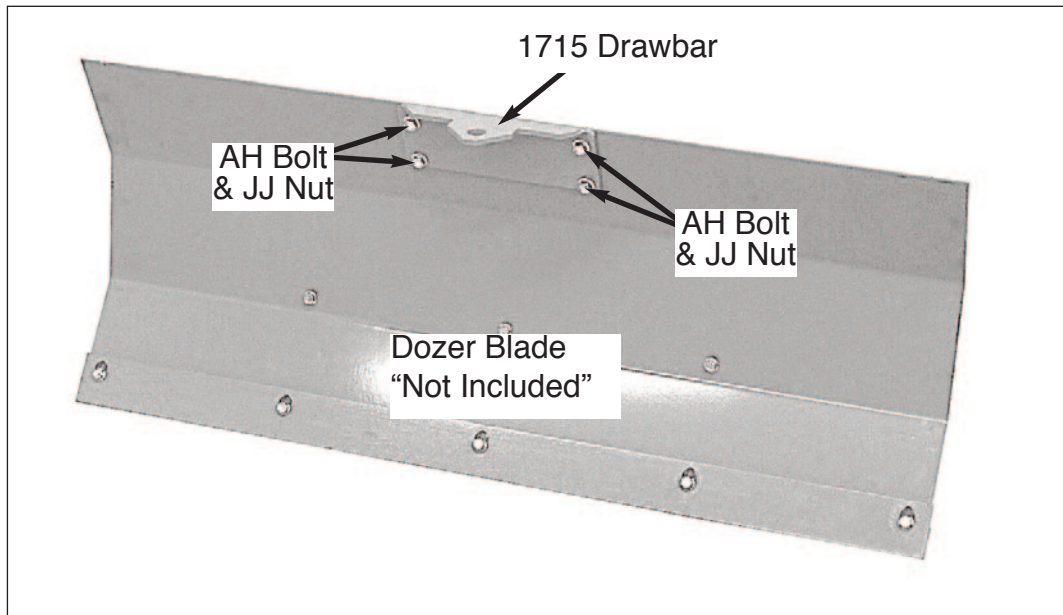
Tighten the #R Bolts (3) and #HH Nuts (3) on #Top Blade Mount.

NOTE: Blade angle can be set to push straight ahead, angle left or right. Disregard springs and latches shown in the picture.

Blade Drawbar Kit

BD7

Part #	Description	Reference #	Qty.
001715	Drawbar		(1)
BOLT-3/8-128	3/8-16x1 Spin Lock Bolt	AH	(4)
NUT-3/8-232	3/8-16 Spin Lock Nut	JJ	(4)



STEP 1. Per Photo above, align top of #1715 Drawbar with “top edge” of Dozer Blade.

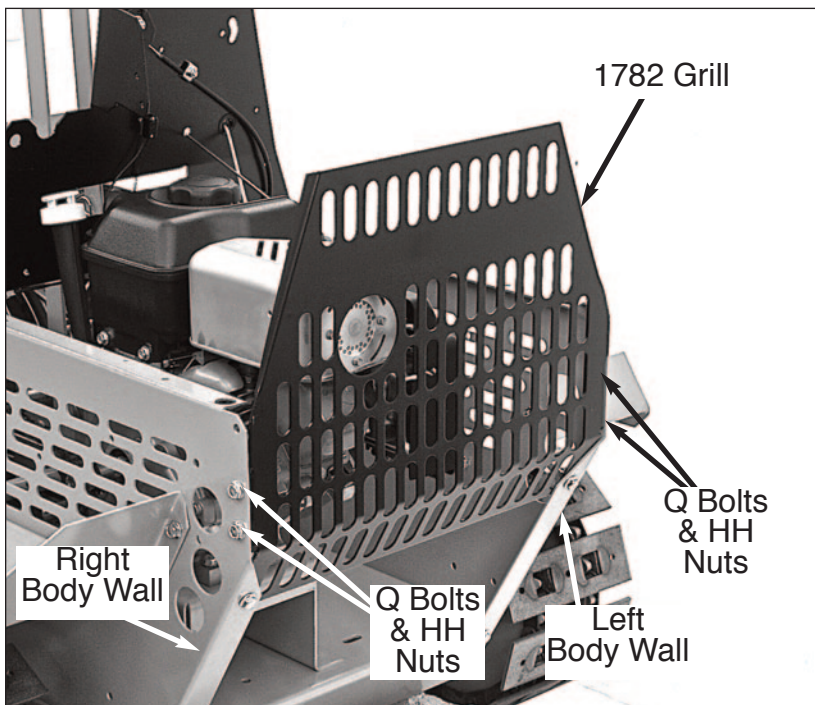
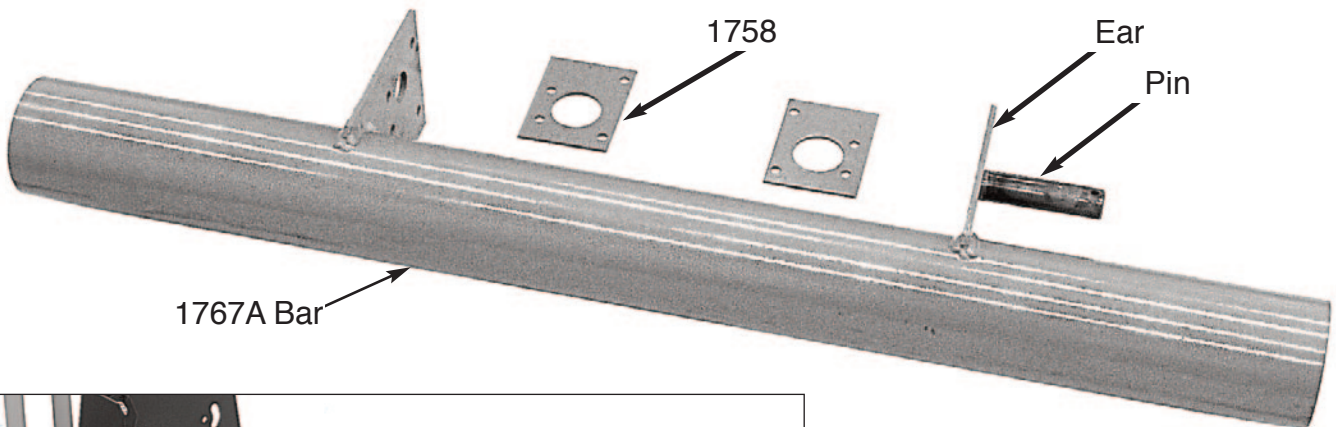
STEP 2. Clamp Drawbar in position and using the four (4) 3/8” holes in Drawbar as a template, drill four 3/8” holes in Dozer Blade.

STEP 3. Using AH Bolts & JJ Nuts secure Drawbar to Dozer Blade top edge... fully tighten Nuts.

Front Counterweight FW15

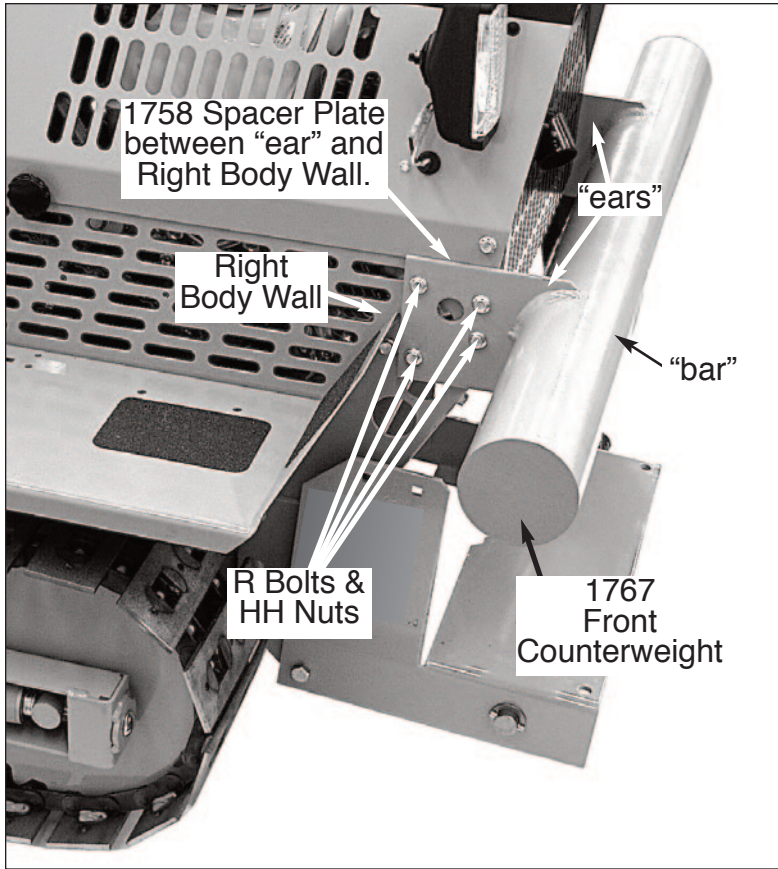
Note: Your FW15 - Front Counterweight Kit will be factory assembled, if purchased with a MAGNATRAC. Kit instructions are for those that are adding a FW15 - Front Weight Kit at a later date.

Part #	Description	Reference #	Qty.
001758	Spacer Plate		(2)
001767	Front Counterweight		(1)
BOLT-5/16-123	5/16-18x1 Spin Lock Bolt	R	(8)
NUT-5/16-231	5/16-18 Spin Lock Nut	HH	(8)



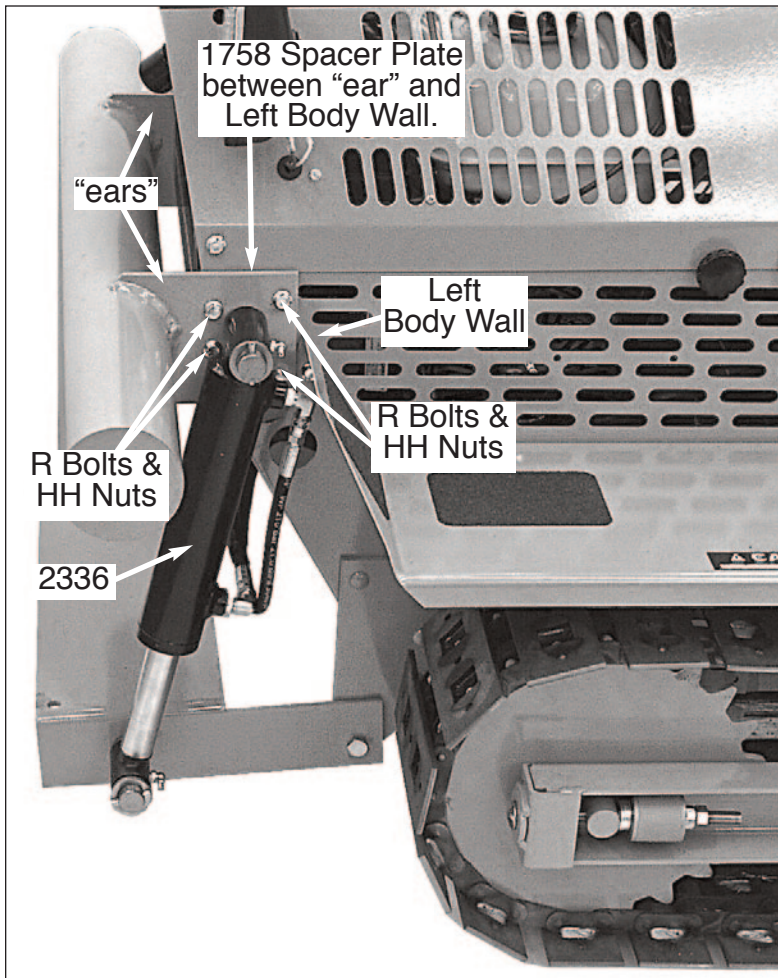
CAUTION: The #1767 Front Counterweight that you will be installing is extremely heavy and requires a “helper”, or a safe lifting device to lift it into position.

STEP 1. Remove the two (2) Q Bolts & HH Nuts on each side holding #1782 Grill to Left & Right Body Walls... do not remove Grill... see Photo at left.



STEP 2. Raise the #1767 Counterweight into position such that the "ears" of the "bar" cradled the Right & Left Body Walls.

STEP 3. Insert a #1758 Spacer Plate between each "ear" and its mating Right or Left Body Wall. Align the four (4) 5/16 holes in each "ear" with 5/16 holes in its respective Right or Left Body Wall and 5/16 holes in right and left ends of #1782 Grill... see Photos at left and lower left.

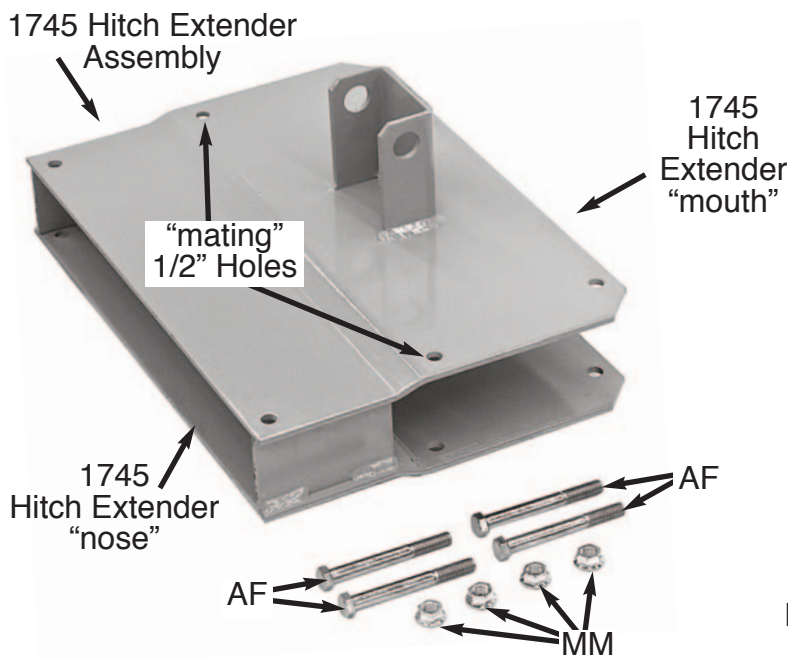


STEP 4. From *outside*, slip an R Bolt into each aligned set of 5/16 holes... secure inside Body & Grill with HH Nuts... tighten all eight Bolts.

PROCEDURE NOTE: Proceed to STEP 5, page 13 in your HFH15 Hydro Front Hitch instructions, to finish the installation of the of the #2336 Cylinder, Hoses, etc.

Hitch Extender Kit HE47

Part #	Description	Reference #	Qty.
001745	Hitch Extender Assembly		(1)
BOLT-1/2-50	1/2-13x4-1/2 Bolt	AF	(4)
NUT-1/2-234	1/2-13 Spin Lock Nut	MM	(4)
[Requires Bolts & Nuts from the HFH15 Hydro Front Hitch Kit as well.]			
BOLT-1/2-50	1/2-13x4-1/2 Bolt	AF	(2)
NUT-1/2-234	1/2-13 Nut	MM	(2)

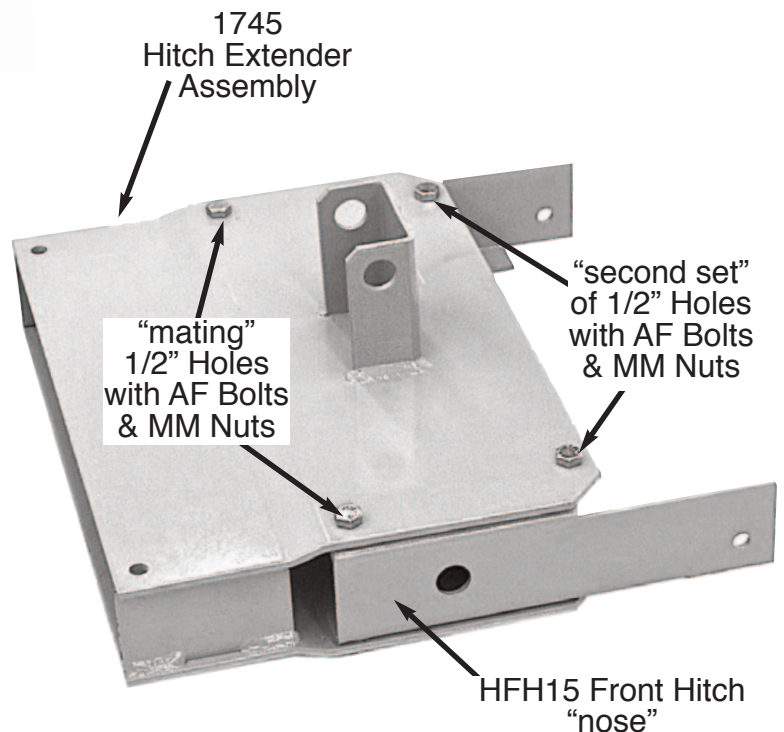


STEP 1. Slide the “nose” of your HFH15 Front Hitch into mating “taller” rear end of your #1745 Hitch Extender... see Photo below.

STEP 2. Align two (2) 1/2” holes at mid-point of #1745 Hitch Extender with mating 1/2” holes in “nose” of HFH15 Front Hitch.

STEP 3. Insert an #AF Bolt into each of these two sets of mating 1/2” holes... secure below with #MM Nuts... tighten.

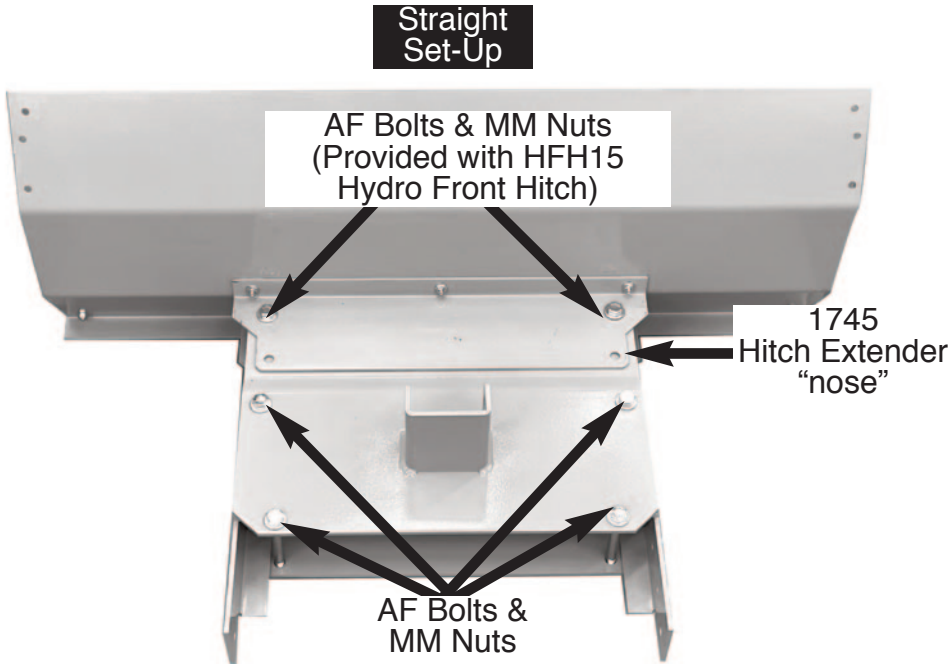
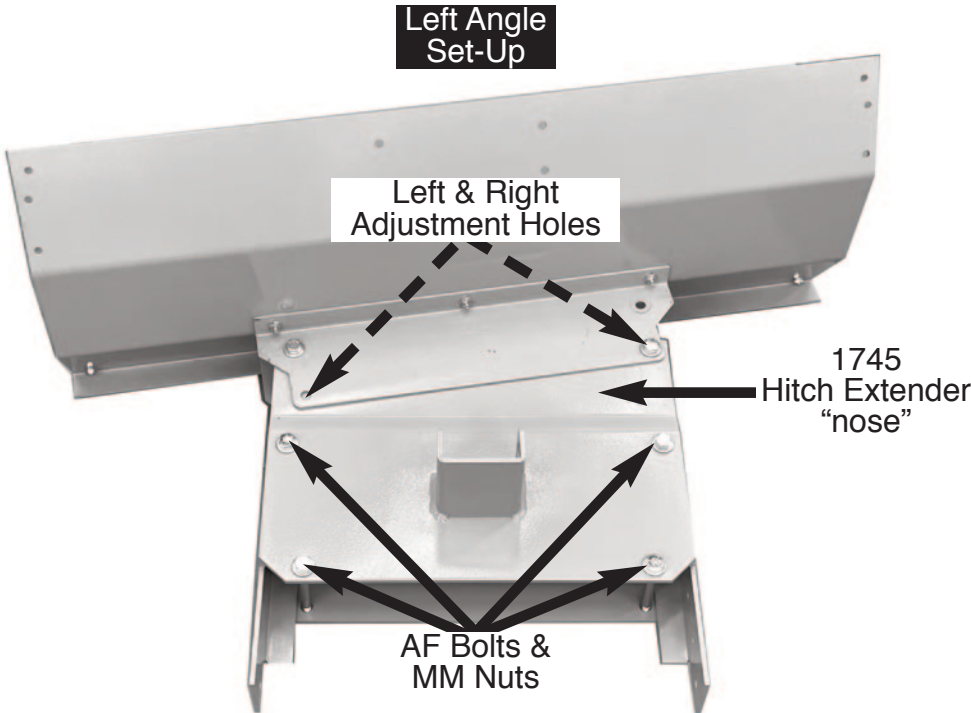
STEP 4. Insert a “second set” of #AF Bolts secured with MM Nuts into the two remaining rear 1/2” holes of #1745 Hitch Extender Assembly.... fully tighten.



Using the Hitch Extender

NOTE: In use, the “nose” of the new #1745 Hitch Extender will now replace the former “nose” of the HFH15 Front Hitch... note the hitch extender has the same adjustment holes as the hydro front hitch, which allows you to **angle the blade left, right and straight.**

Using the two (2) AF Bolts and (2) MM Nuts from your Hydro Front Hitch Kit, secure the Hitch Extender to dozer blade... tighten securely.



Hydro Front Loader Kit

HL300

Note: Your HL300 - Hydro Front Loader Kit is factory assembled, if purchased with a MAGNATRAC. Assembly instructions are NOT available at this time. Quick release pins are included for easy removal of your loader arm and front mounted attachments. These quick release pins and some fasteners included with your HL300 Hydro Loader, are needed to mount your front attachments.

Painted Parts List

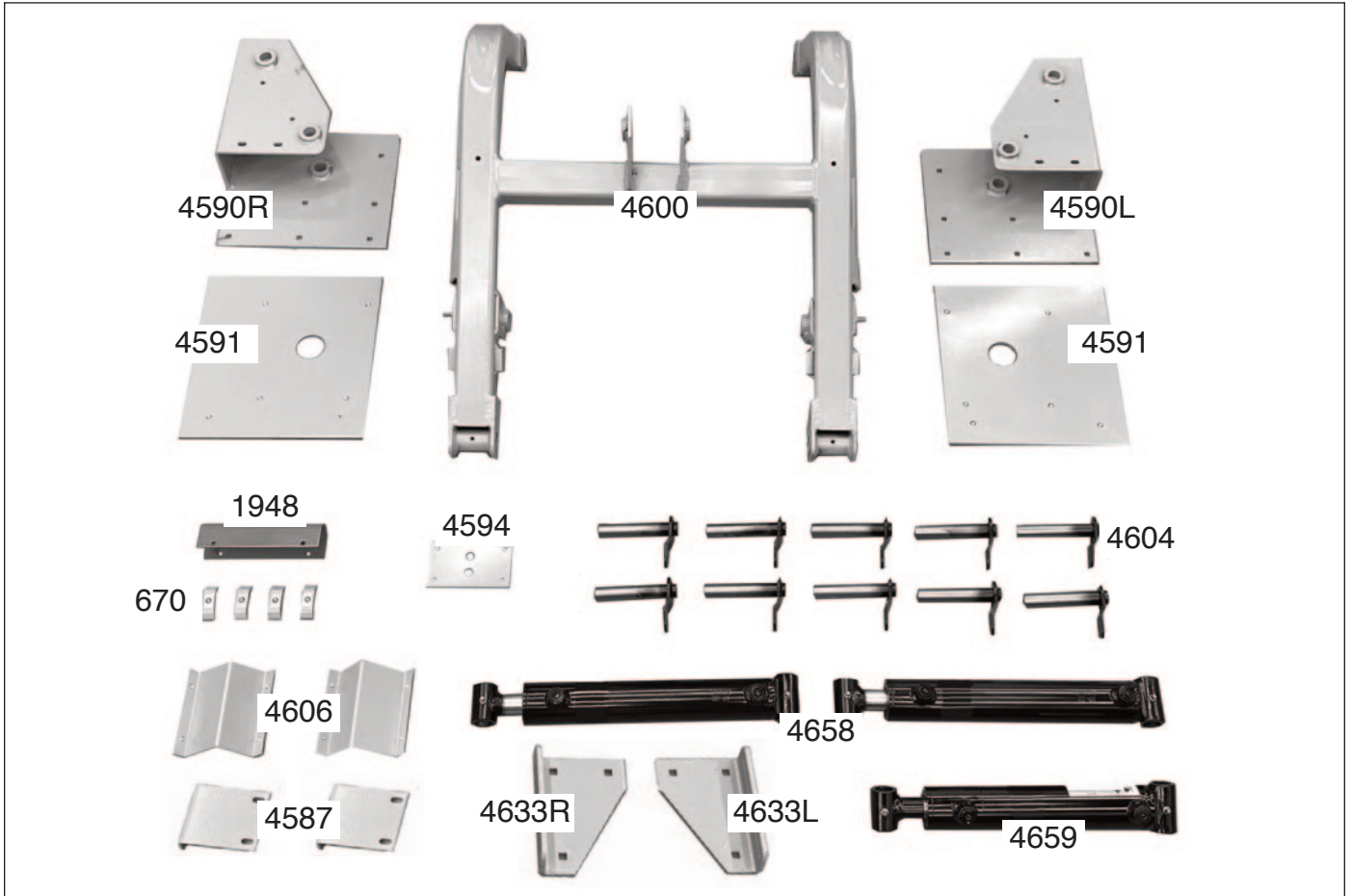
Part #	Description	Qty.
000670	Hose Clip, Standard, painted	(4)
001948	Cylinder Lock, painted	(1)
004587	Fender Support, painted	(2)
004590L	Loader upright, left, painted	(1)
004590R	Loader upright, right, painted	(1)
004591	Upright Spacer, painted	(2)
004594	Bulkhead Bracket, painted	(1)
004600	Loader Arm, painted	(1)
	- (4) 001259 Oilite Bearing, 7/8 x 1 1/8 x 1	
004604	Welded Pin with Flange, painted end	(10)
004606	Fitting Cover, painted	(2)
004633L	Body Axle Tensioner, (Driver's Left)	(1)
004633R	Body Axle Tensioner, (Driver's Right)	(1)
004658	8" Cylinder - 2" Bore x 8" Stroke x 1 1/4" Rod	(2)
	- (4) 004611 Oilite Bearing, 1.025 OD x 7/8" ID x 1" long	
004659	10" Cylinder - 2" Bore x 10" Stroke x 1 1/4" Rod	(1)
	- (4) 004611 Oilite Bearing, 1.025 OD x 7/8" ID x 1" long	

See next page for Additional Parts & Fastener List.

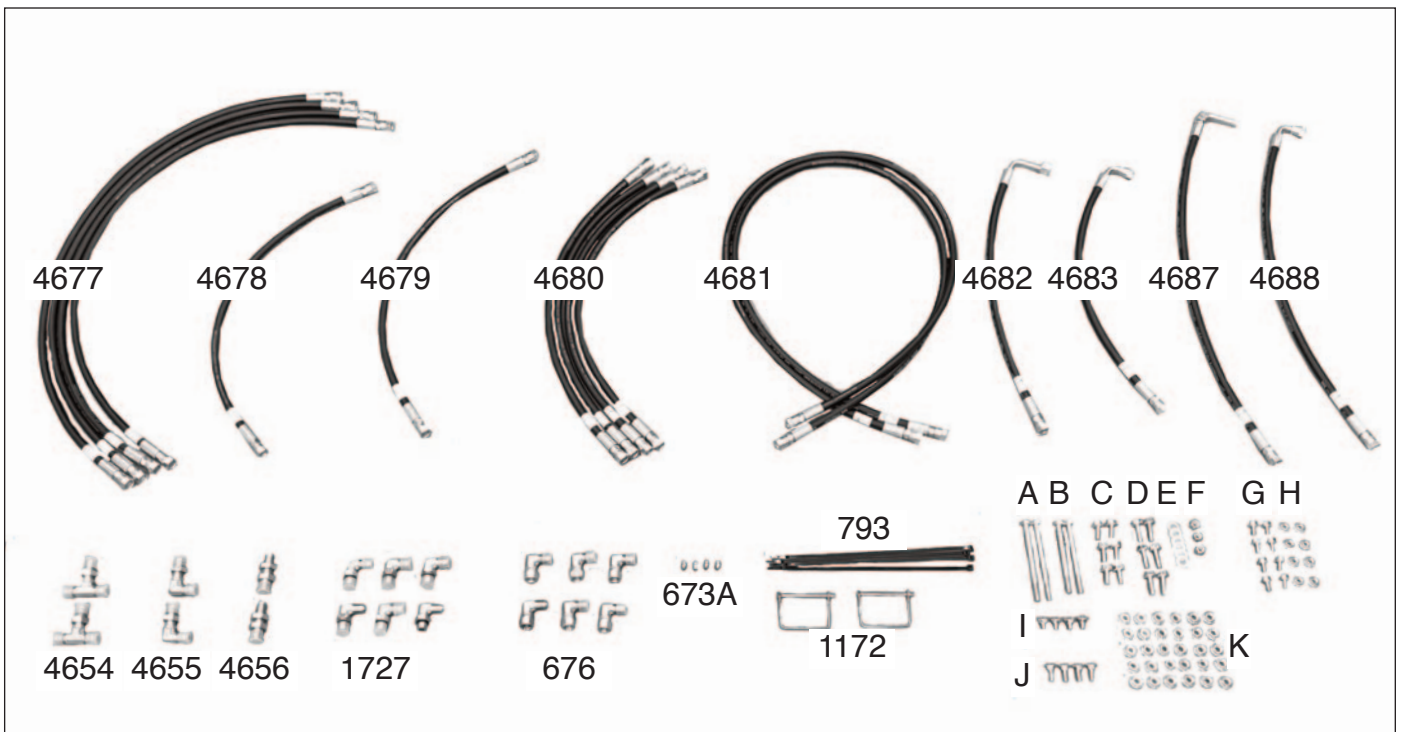
Additional Parts & Fastener List

Part #	Description	Reference #	Qty.
000673A	1/4-28 Straight Grease Fitting, zerk		(4)
000676	Fitting, 90 deg, 879-FS-06		(6)
000793	Hose Tie Black		(4)
001172	1/4 x 2-1/2" Zinc Single Wire Tab Lock Pin		(2)
001727	Fitting, 90 deg., 849-FSO-06x06		(6)
004654	Fitting, 870-FS-06 Bulkhead Branch Tee		(2)
004655	Fitting, 855BH-FS-06 Adapter 90 Deg Bulkhead		(2)
004656	Fitting, 832-FS-06 Bulkhead Hd Union 3/8" tube		(2)
004677	Hose, 1/4" x 40-1/2" Lift Arm		(4)
004678	Hose, 1/4" x 24" Inside Body, Dump (Bottom)		(1)
004679	Hose, 1/4" x 25" Inside Body, Dump (Top)		(1)
004680	Hose, 1/4" x 30" Inside Body Lift		(4)
004681	Hose, 1/4" x 59" Dump, Arm		(2)
004682	Hose, 1/4" x 20-1/2" Dump, Top		(1)
004683	Hose, 1/4" x 19-1/2" Dump, Bottom		(1)
004687	Hose, 1/4" x 26.5"		(1)
004688	Hose, 1/4" x 24.5"		(1)
BOLT-5/16-15	5/16 - 18 X 4 1/2 G5 BOLT	A	(2)
BOLT-5/16-14	5/16 - 18 X 4 G5 BOLT	B	(2)
BOLT-5/16-121	5/16 - 18 X 3/4 SPIN LOCK BOLT	C	(6)
BOLT-5/16-123	5/16 - 18 X 1 SPIN LOCK BOLT	D	(6)
WASH-5/16-261	5/16 SAE FLAT WASHER	E	(6)
NUT-5/16-221	5/16 - 18 NYLON LOCK NUT	F	(3)
BOLT-1/4-118	1/4 - 20 X 1/2 SPIN LOCK BOLT	G	(8)
NUT-1/4-230	1/4 - 20 SPIN LOCK NUT	H	(8)
BOLT-5/16-88	5/16 - 18 X 1/2" CARRIAGE BOLT	I	(4)
BOLT-5/16-83	5/16 - 18 X 3/4 G5 CARRIAGE BOLT	J	(4)
NUT-5/16-231	5/16 - 18 SPIN LOCK NUT	K	(30)

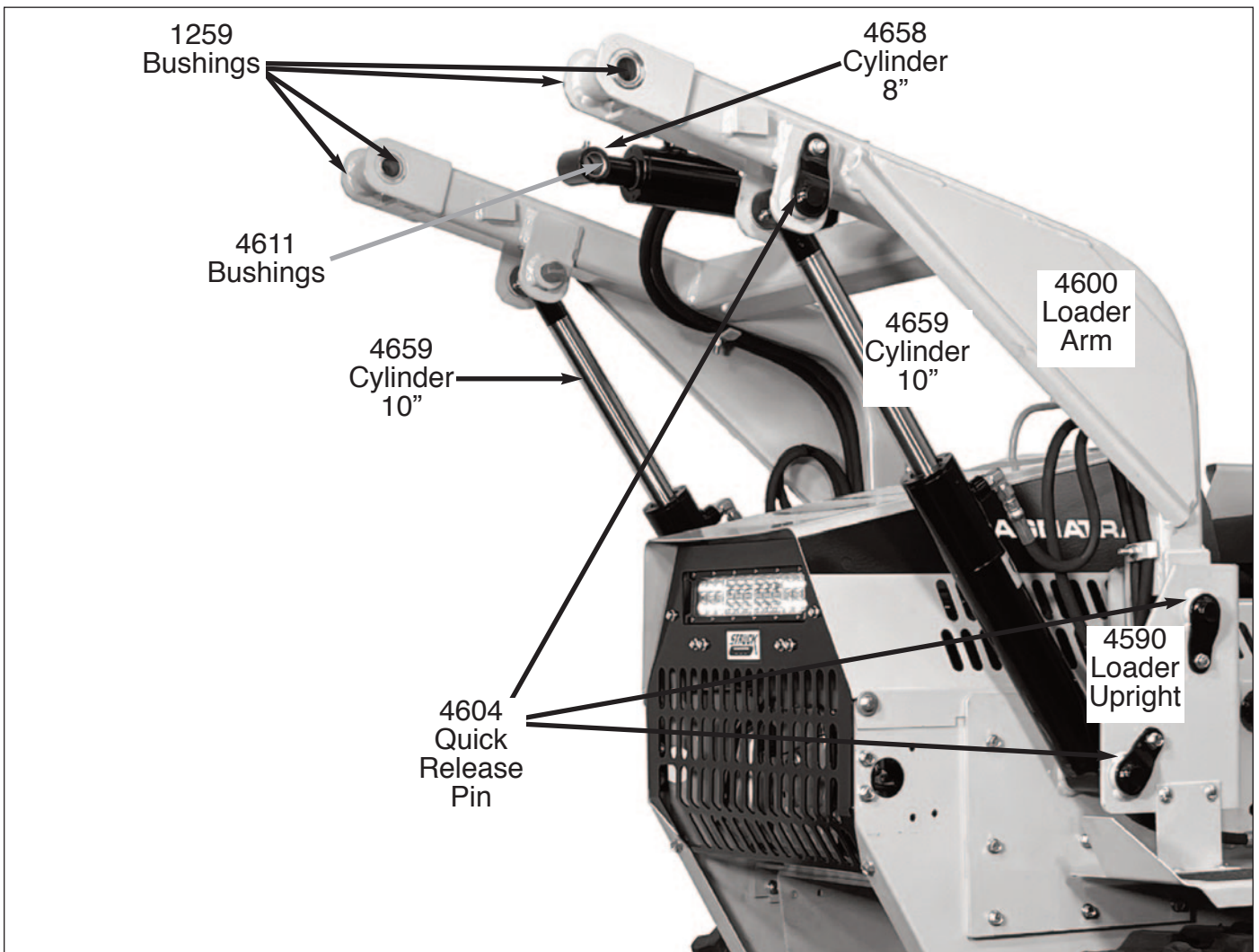
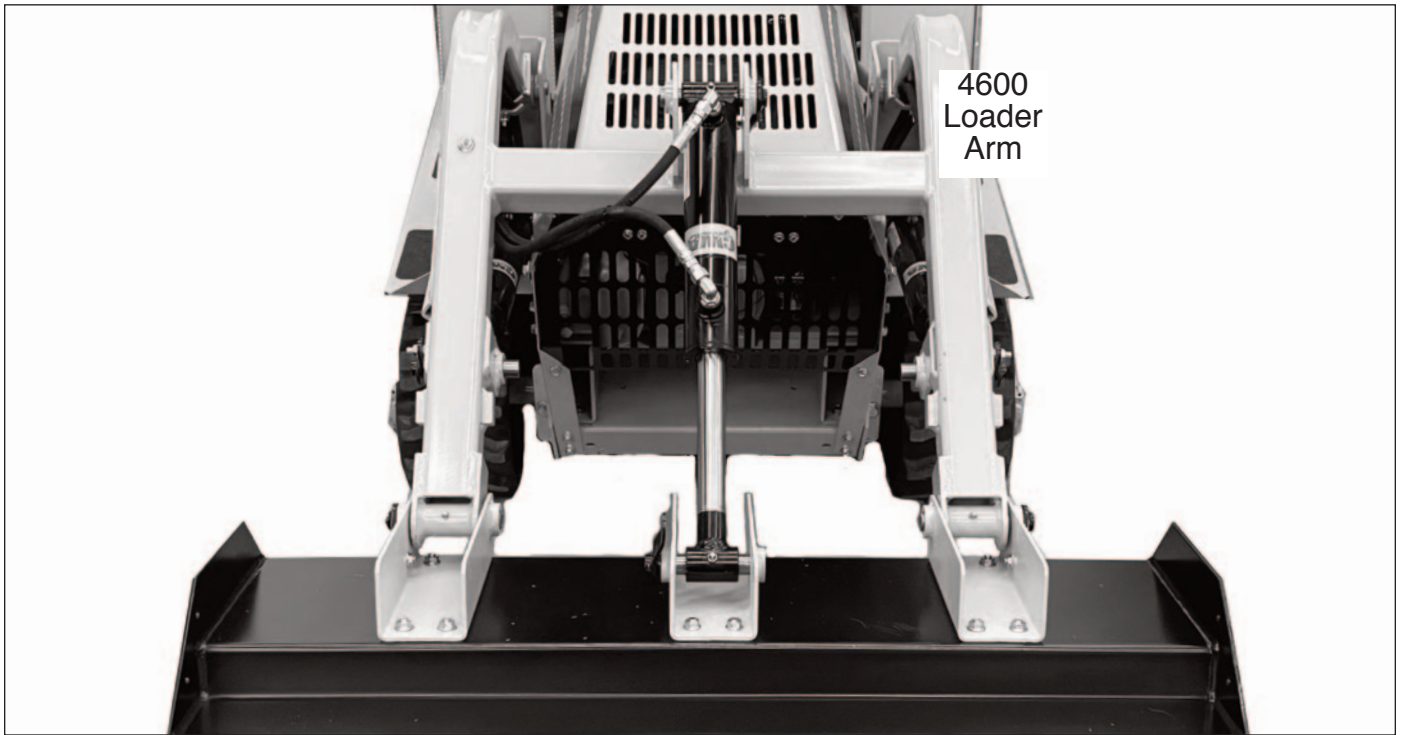
Painted parts included with your HL300 Hydro Loader.



Additional parts & fasteners included with your HL300 Hydro Loader.



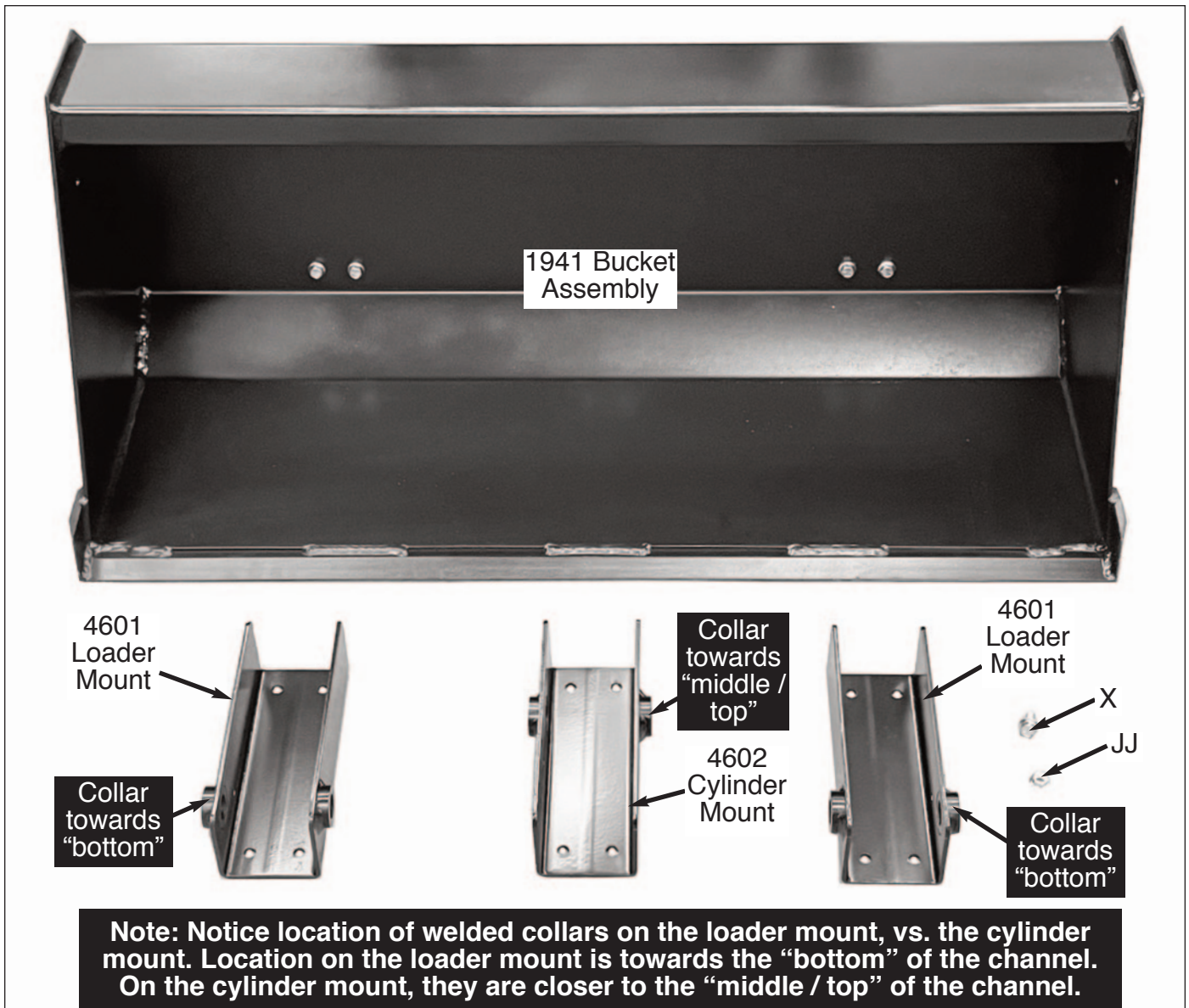
Assembled part photos.



Bucket Kit

BK295-B

Part #	Description	Reference #	Qty.
001941	Bucket Assembly		(1)
004601	Loader Mount (Bottom collars)		(2)
004602	Cylinder Mount (Middle collars)		(1)
BOLT-3/8-127	3/8-16x3/4 Spin Lock Bolt	X	(12)
NUT-3/8-232	3/8-16 Spin Lock Nut	JJ	(12)



STEP 1. Insert four (4) X Bolts through the back of the bucket, then through one of the “Loader” Mounts as shown in the picture. Make sure collars are towards the “bottom”. Thread nuts onto the bolts, so the nuts are showing through the the backside of the loader mount. Tighten all 4 bolts and nuts.

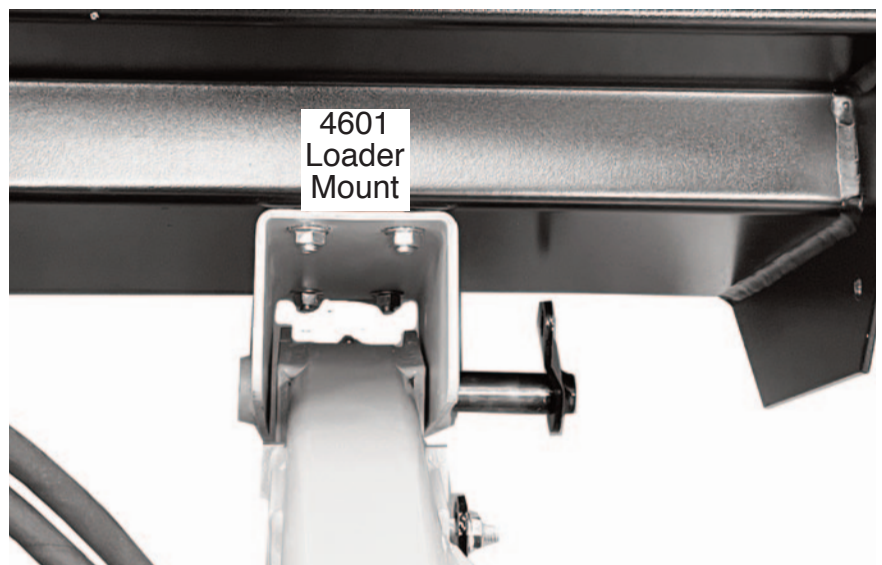
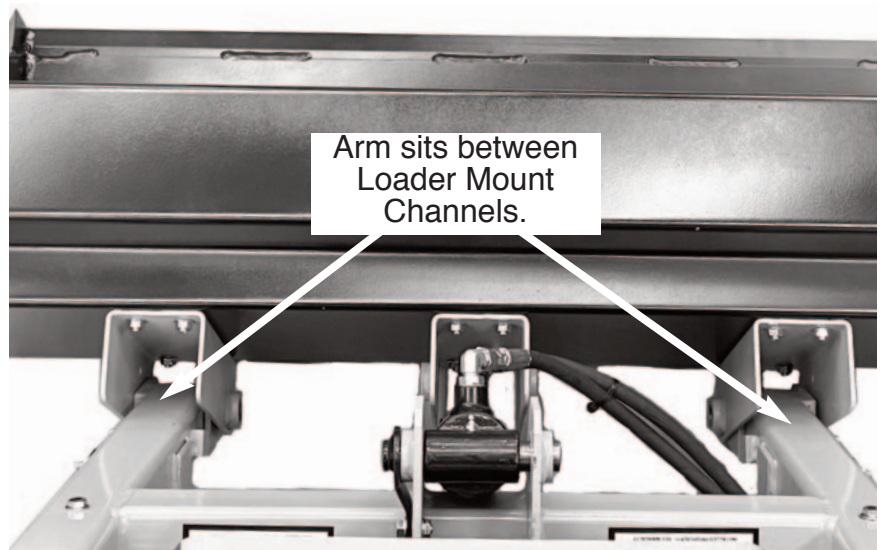
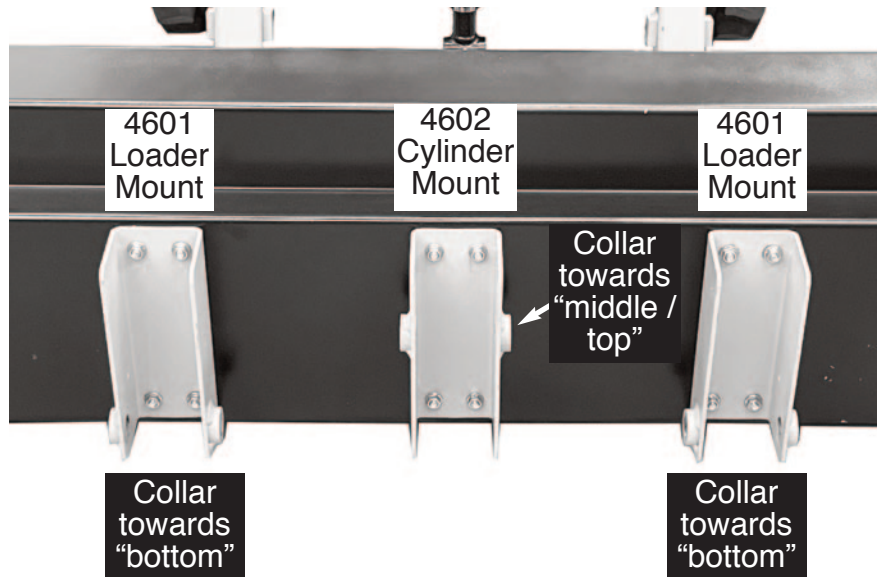
STEP 2. Apply the same process from step 1 to the other “Loader” mount. Tighten bolts and nuts.

STEP 3. Insert four (4) X Bolts through the back of the bucket, then through the “Cylinder” Mount. Make sure collars are towards the “middle/top”. Thread nuts onto the bolts, so the nuts are showing through the the backside of the cylinder mount. Tighten all 4 bolts and nuts.

STEP 4. With loader arm fully downward, drive tractor forward, until loader arm sits between both loader mount channels. Shut unit off.

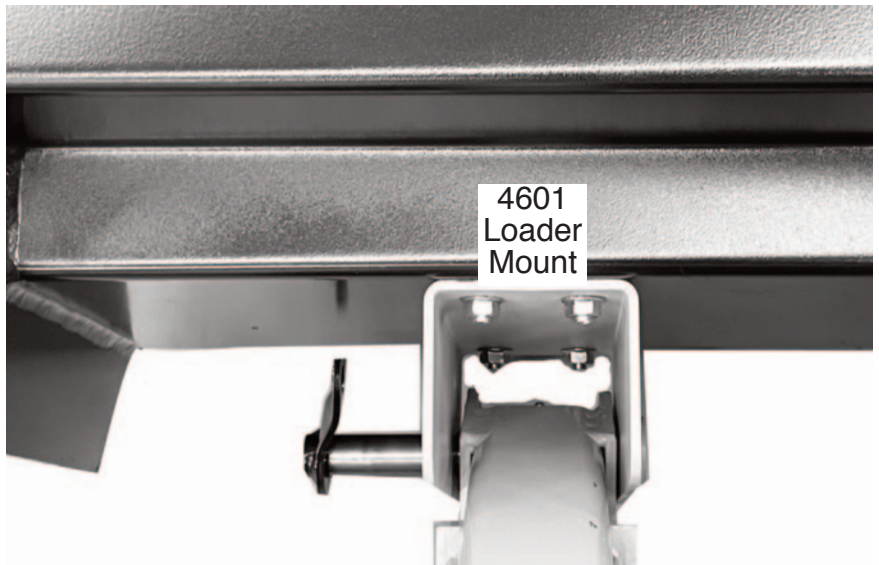
STEP 5. Take a quick attach mounting pin (included with your HL300 Loader), and insert through loader mount channel and through loader arm.

HINT: Make sure both holes of the loader arm and channel are closely lined up. Lifting the bucket slightly forward/backward and up/down will help to align the pin. **DO NOT FORCE PIN IN, BY POUNDING HEAVILY ON THE QUICK ATTACH MOUNTING PIN.**



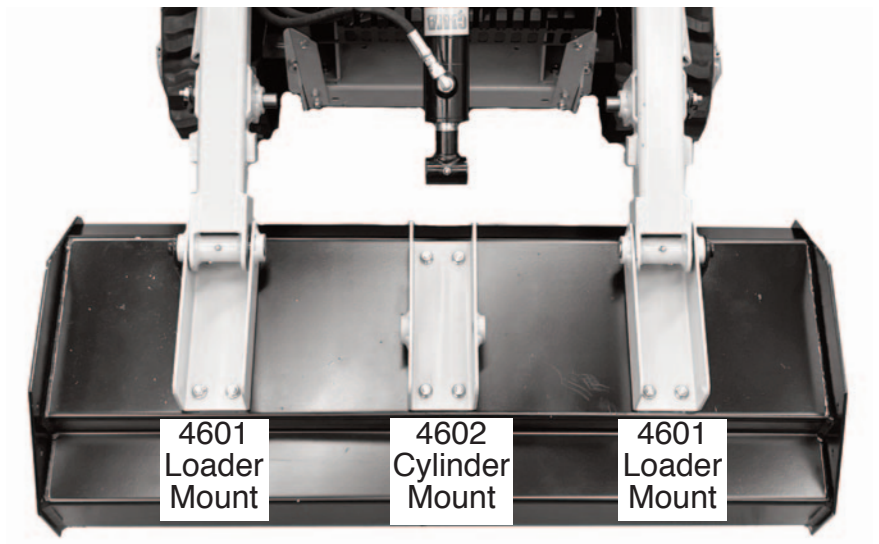
STEP 6. Repeat the same process from the previous step, to the other loader mount channel.

NOTE: Don't worry about securing the mounting pins to the channels at this time. That will be advised in later steps.

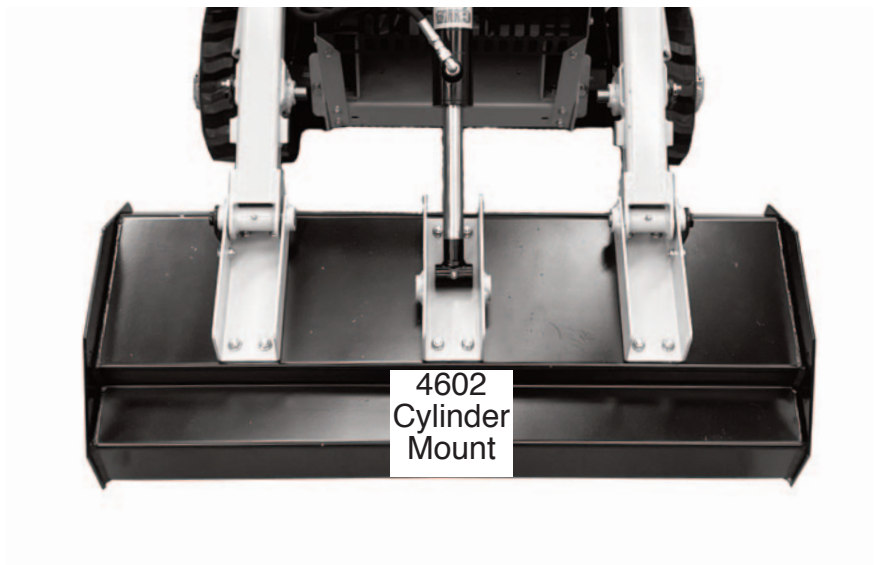


STEP 7. Start unit, and slowly lift the loader arm upward. Your bucket will quickly rotate forward freely and hang downward.

CAUTION: The bucket will swing forward quickly! Make sure no bystanders are in the area.

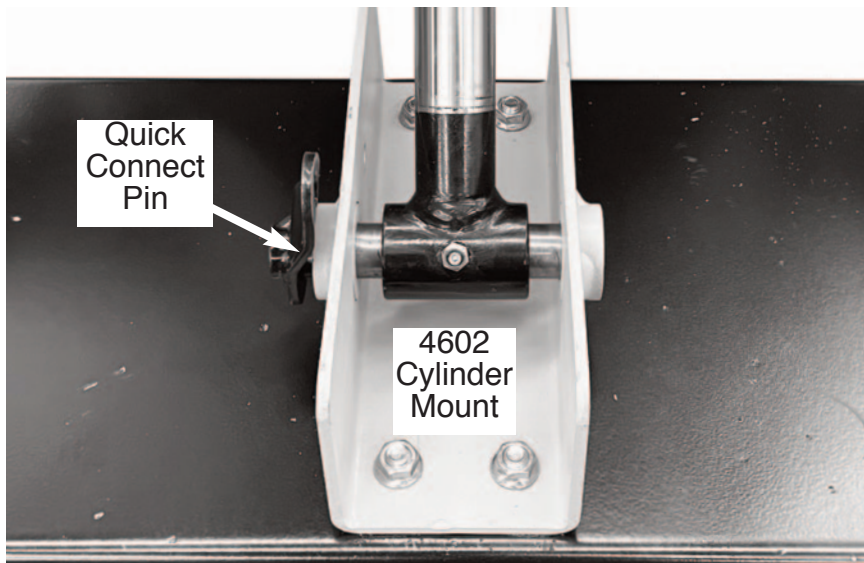


STEP 8. Using the attachment valve control, fully extend the loader dump cylinder until it reaches the end of its' stroke.

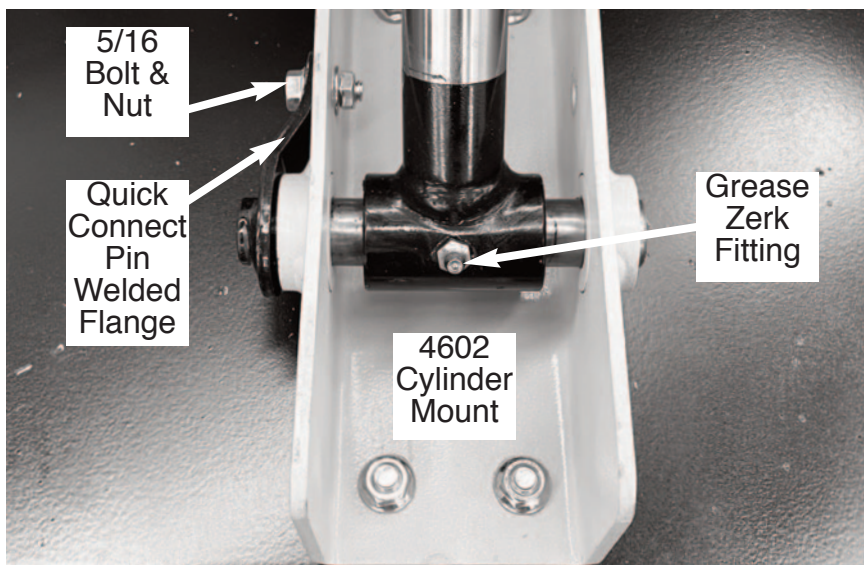


STEP 9. Take another quick attach mounting pin (**included with your HL300 Loader**), and insert it through cylinder mount channel and through cylinder. Gently pound through with mallet.

HINT: Lifting the bucket slightly forward/backward and up/down will help to align the pin. DO NOT FORCE PIN IN, BY POUNDING HEAVILY ON THE QUICK ATTACH MOUNTING PIN.



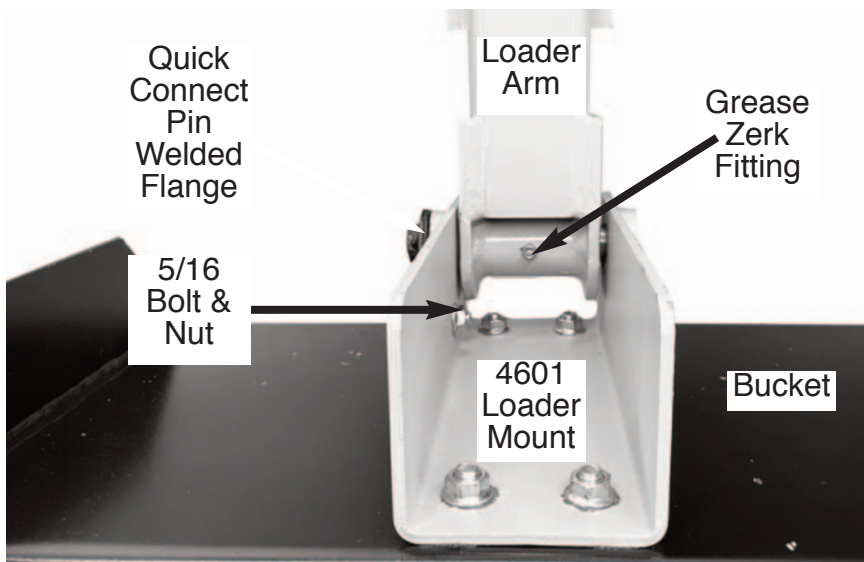
STEP 10. Once quick connect pin is fully through both sides of the cylinder mount, turn quick connect flange, and align hole with hole in the side of the cylinder mount. You may need to gently tap the flange to match up with the hole.



STEP 11. Insert 5/16 bolt through mated holes and thread on nut. Bolts and nuts provided with your HL300 Loader). Tighten bolt and nut.

STEP 12. Apply the same process from step 10 & 11 to both of the outside loader mounts. All three pins should be fully secured to the bucket, and all flanges should be secured to the mounts.

STEP 13. With a flexible nose grease gun, lubricate all grease zerk fittings on the loader arm and hydraulic cylinder. Operate bucket with the attachment controls to confirm bucket operates properly.

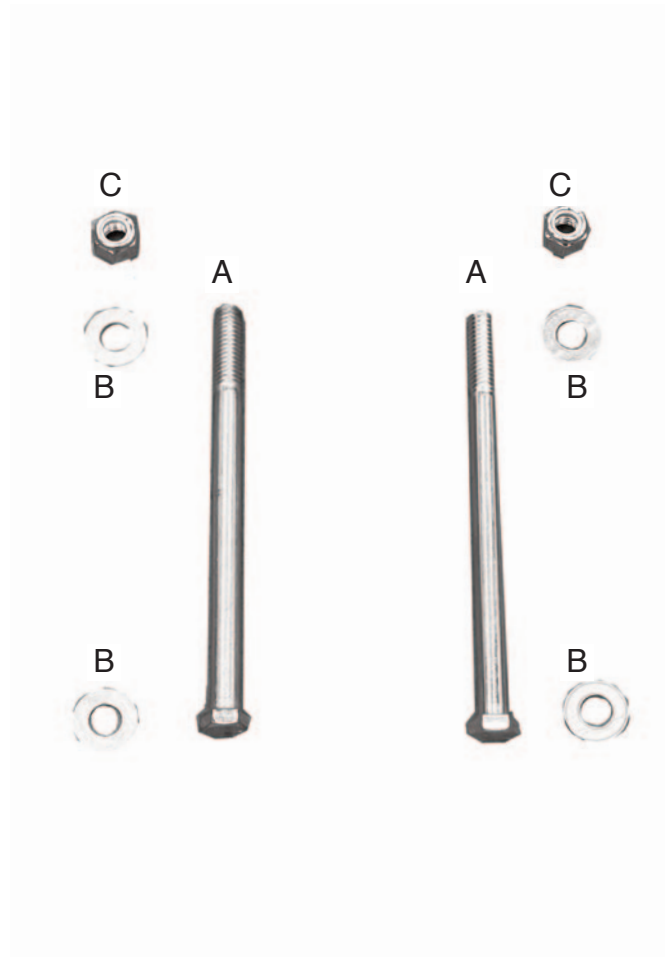
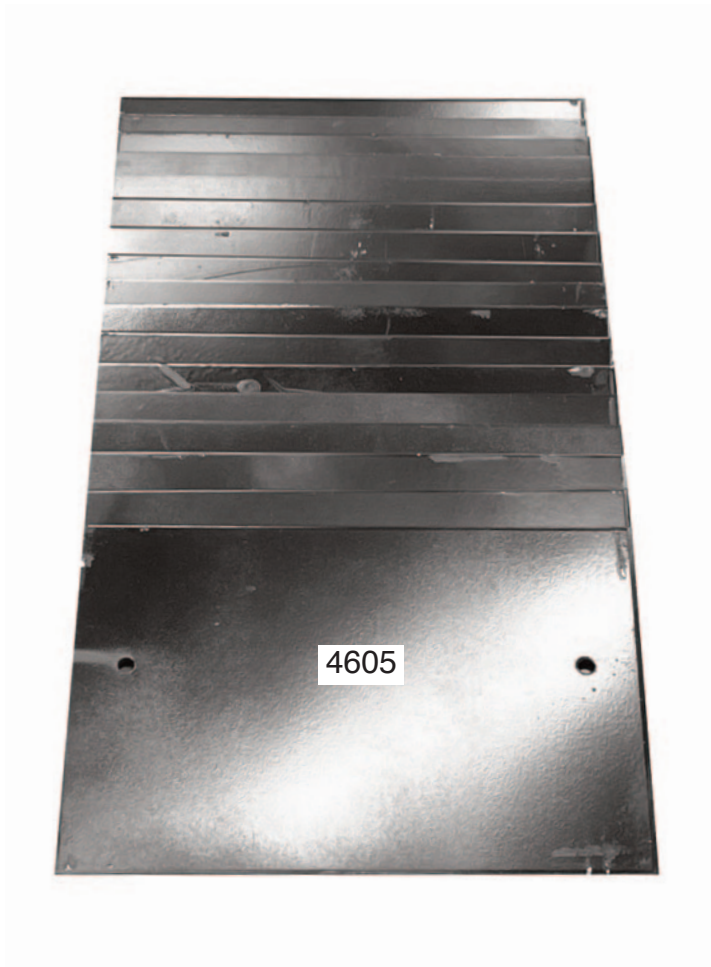


Front Plate Kit

FP30

Note: Your FP30 - Front Plate Kit will be factory assembled, if purchased with a MAGNATRAC. Assembly instructions are for customers adding it at a later date.

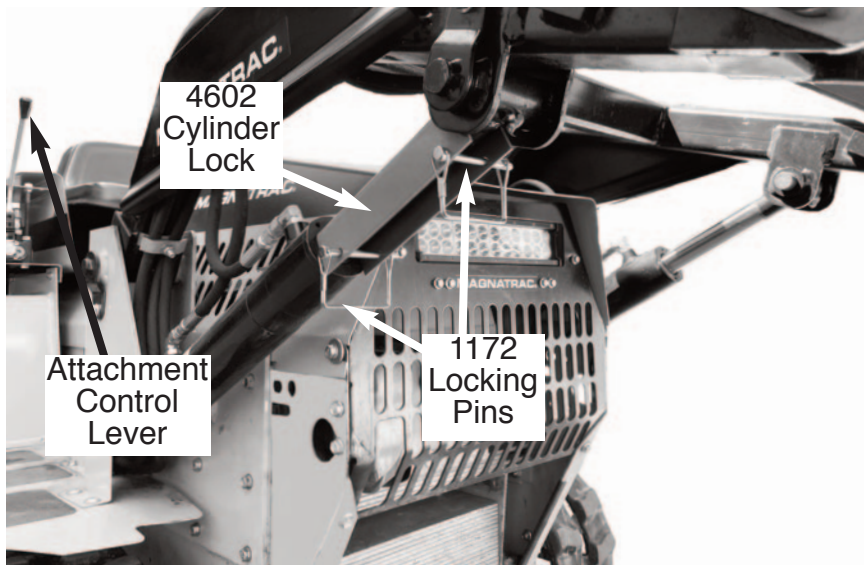
Part #	Description	Reference #	Qty.
004605	Counterweight Plate		(17)
BOLT-3/8-30	3/8"-16 x 5-1/2" G5 Bolt	A	(2)
WASH-3/8-262	3/8" SAE Flat Washer	B	(4)
NUT-3/8-222	3/8"-16 Nylon Lock Nut	C	(2)



STEP 1. Make sure your MAGNATRAC is sitting on flat ground! Start unit, using attachment control lever, gently raise loader arm to full height. Shut off ignition, and safely get off the unit.

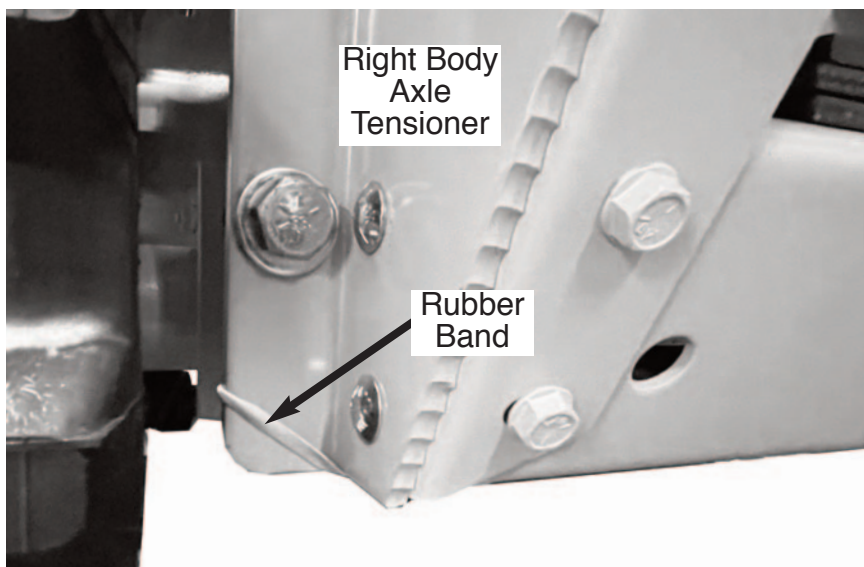
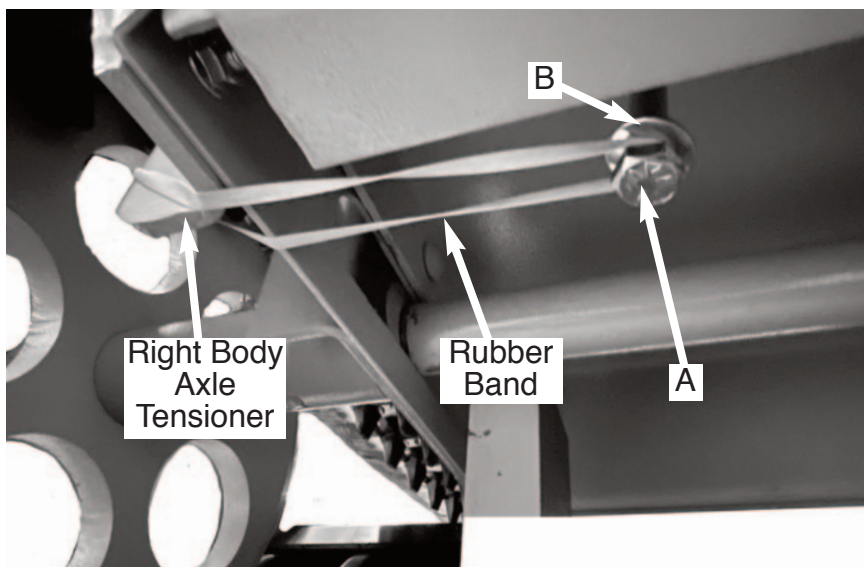
STEP 2. Install Cylinder Lock around chrome part of cylinder as shown, and secure with (2) #1172 Locking Pins.

STEP 3. Make sure no bystanders are in the area, or underneath the loader arm. Gently engage the attachment control lever forward. The loader arm should lower and make contact with the Cylinder Lock.

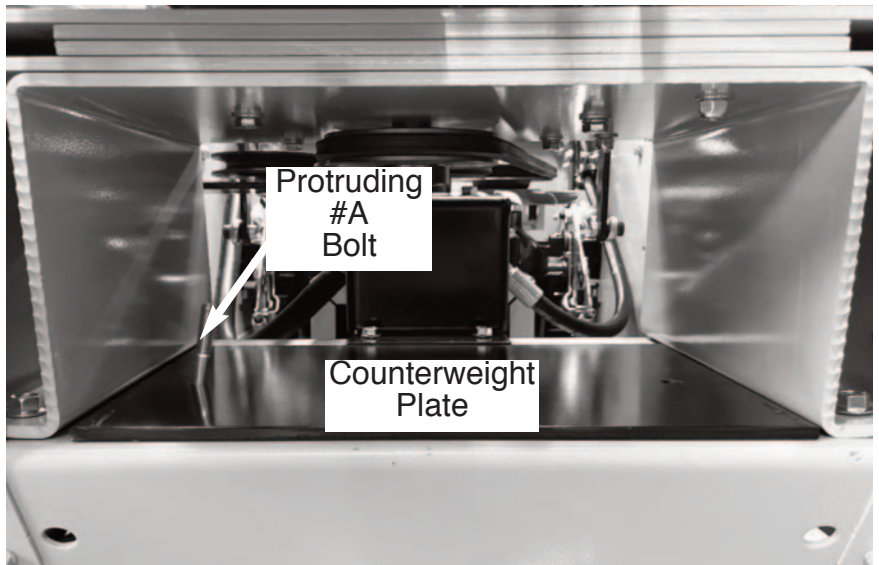


STEP 4. Using the 2 pictures to the right as a guide, lay underneath the "Supported" loader arm and front of the tractor, and insert (1) #A Bolt with (1) #B Flat Washer upward as shown. Wrap a rubber band around head of bolt, and the "Right Body Axle Tensioner" as shown. Note: Design of Right Body Axle Tensioner may vary from what is shown.

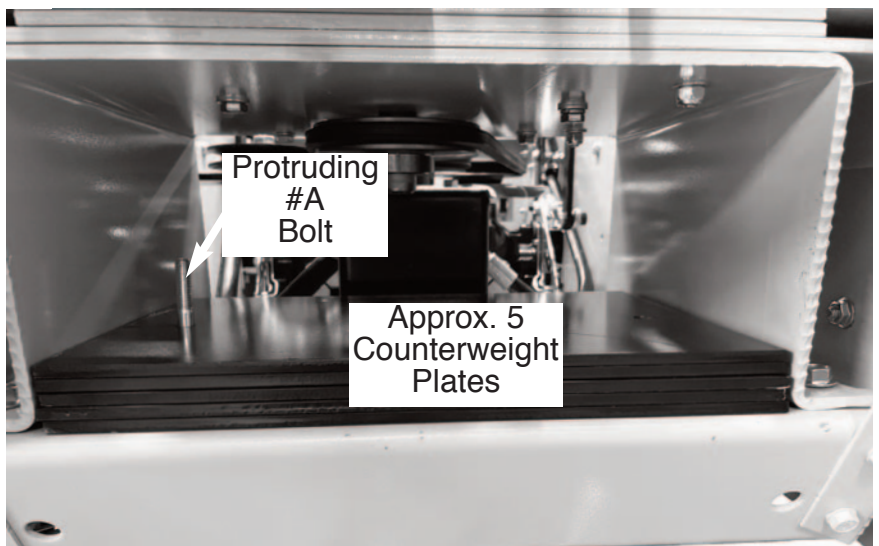
HINT: This will allow the bolt to stay in place, while you add the counterweight plates onto the top of the protruding bolt in the next steps.



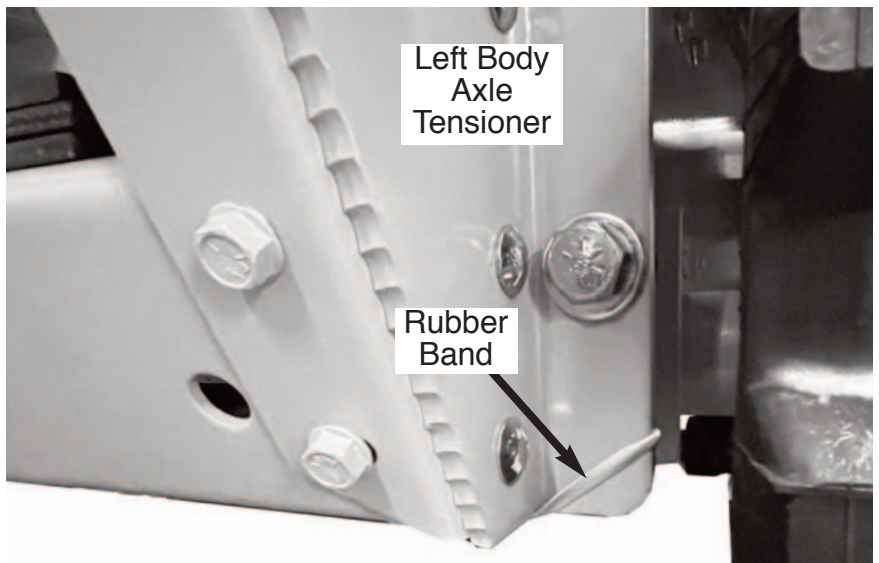
STEP 5. Place (1) counterweight plate into the area shown, align hole in plate with protruding #A bolt.



STEP 6. Add approx. 5 more counterweight plates into the area shown, align holes in plates with protruding #A bolt.

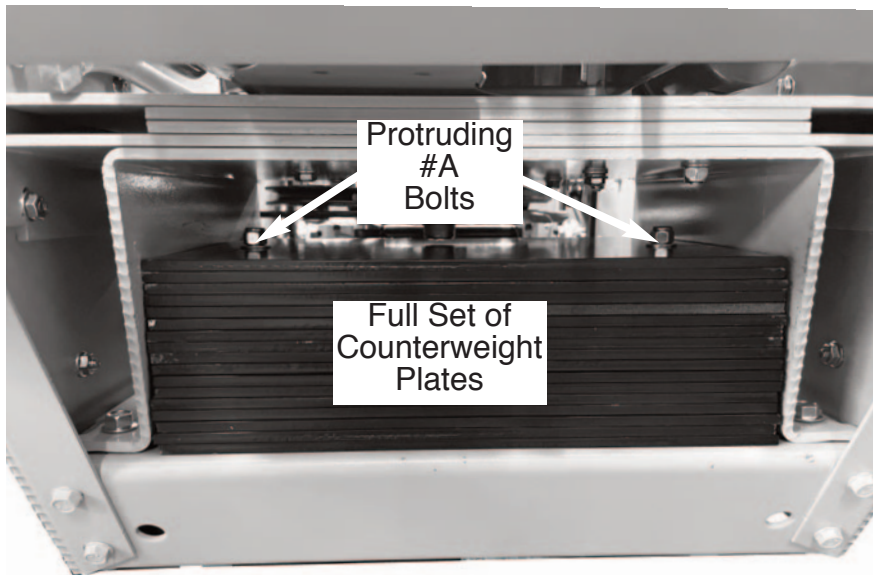


STEP 7. Using the same process from the previous steps, insert (1) #A Bolt with (1) #B Flat Washer upward, on the other side as shown. Wrap a rubber band around head of bolt, and the opposite "Left Body Axle Tensioner" as shown. Note: Design of Left Body Axle Bracket may vary from what is shown.

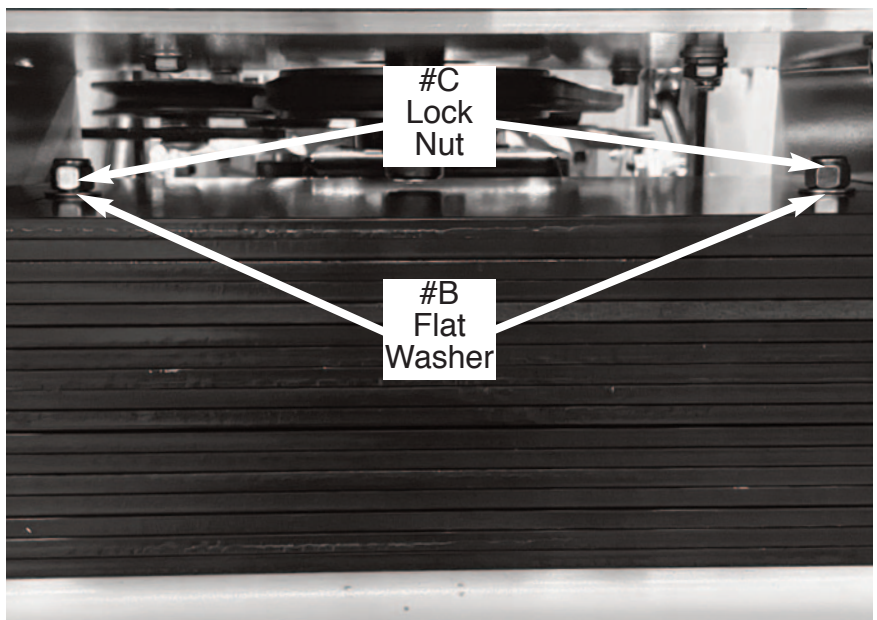


STEP 8. Continue adding counterweight plates into the area shown, while aligning both holes in the weight plates with protruding #A bolts.

HINT: You may need to gently tap the weight plates to align them, or temporarily remove one of the #A Bolts in order to align the full set of weight plates into position.



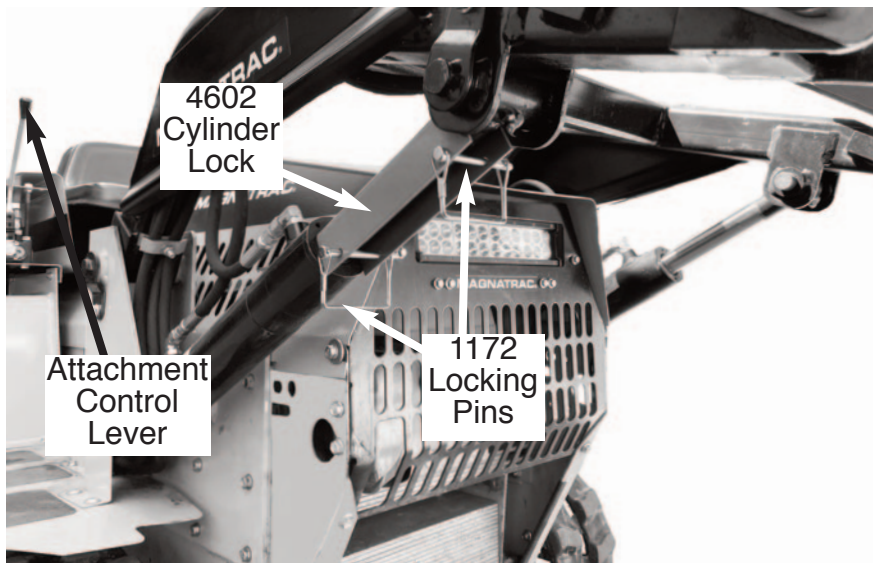
STEP 9. Add #B Flat Washer and thread on #C Lock Nut to the top of both #A Bolts. Using a ratchet and a wrench, (from above and below), tighten all nuts and bolts at this time.



STEP 10. While making sure no bystanders or others are in the area, start the unit. Using attachment control lever, gently raise loader arm to full height. Shut off unit, and safely get off the unit.

STEP 11. Remove the (2) Locking Pins, and fully remove the Cylinder Lock from around the cylinder.

STEP 12. While making sure no bystanders or others are in the area, use the attachment control lever, to gently lower the loader arm to the ground.



REAR MOUNTED ATTACHMENTS

Note: Your main rear attachments, (HRH35 Hydro Rear Hitch, or D1060UG Backhoe) if purchased with your MAGNATRAC, will be fully assembled by our factory technicians. The final assembly of all other smaller attachments, such as: three shank ripper, log crane, log crane adapter, etc. will need to be completed by the customer.

Backhoe will be fully assembled, but on a secondary pallet. Only 1 main rear attachment can be mounted at any time, however the hydraulic cylinder and hoses for the HRH35 Hydraulic Rear Hitch can stay mounted on the machine, while a backhoe is installed. See specific attachment sections for additional installation steps.

Hydro Rear Hitch Kit

HRH35-B

Note: Your HRH35 - Hydro Rear Hitch Kit (if purchased when you place a MAGNATRAC order), will be factory assembled if no backhoe is purchased. These kit instructions are for customers buying a HRH35 Hydro Rear Hitch at a later date. To properly install your *HRH35 Hydraulic Rear Hitch Kit*, begin by completing assembly of your ROPS20 Roll-Over Protective Structure and AM39 Angle Mounts (if purchased), then come back to these instructions.

NOTE: Quick release pins are available for easy removal of rear hitch mounted attachments. Our part number is #002208, Spring Loaded Pin. These would take the place of the #F Bolts & #G Nuts in these instructions. For the most “secure way” to attach your attachments, use the #F Bolts & #G Nuts.

Part #	Description	Reference #	Qty.
000126-up	3rd Party Attachment Pin, unpainted		(1)
000244	Spring Pin 1/4 x 1		(4)
000676	Fitting 879-FS-06		(2)
000716	Washer 1” ID		(25)
000793	Tie, plastic, standard		(2)
001693	Bail		(1)
001701-up	Bushing, 1/2ID x 3/4OD, unpainted		(2)
001706-up	Shaft, 1” OD x 14” Long, unpainted		(2)
001727	Fitting, 90 deg., 849-FSO-06x06		(2)
004130	Rear Mount		(1)
004673	Hose, 1/4, 27-1/2” (Top)		(1)
004674	Hose, 1/4, 33-1/2” (Bottom)		(1)
002336	Cylinder, 2” Bore x 7.5 Stroke		(1)
	- (4) 002332 Oilite Bearing, 1 x 1-1/8 x 1		
BOLT-3/8-128	3/8-16 x 1 Spin Lock Bolt	A	(6)
NUT-3/8-232	3/8-16 Spin Lock Nut	B	(6)
BOLT-1/2-32	1/2-13 x 1-1/4 G5 Bolt	C	(2)
WASH-1/2-264	1/2 SAE Flat Washer	D	(4)
NUT-1/2-244	1/2-13 Dot Lock Nut	E	(2)
BOLT-1/2-50	1/2-13 x 4-1/2 G5 Bolt	F	(2)
NUT-1/2-234	1/2-13 Spin Lock Nut	G	(2)



4130



1693



2336



4673

4674



1727



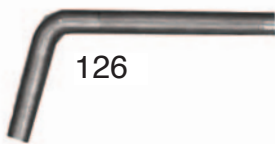
244



716



793



126



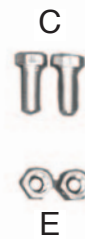
1706



1706



A



C



D



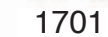
F



B



E

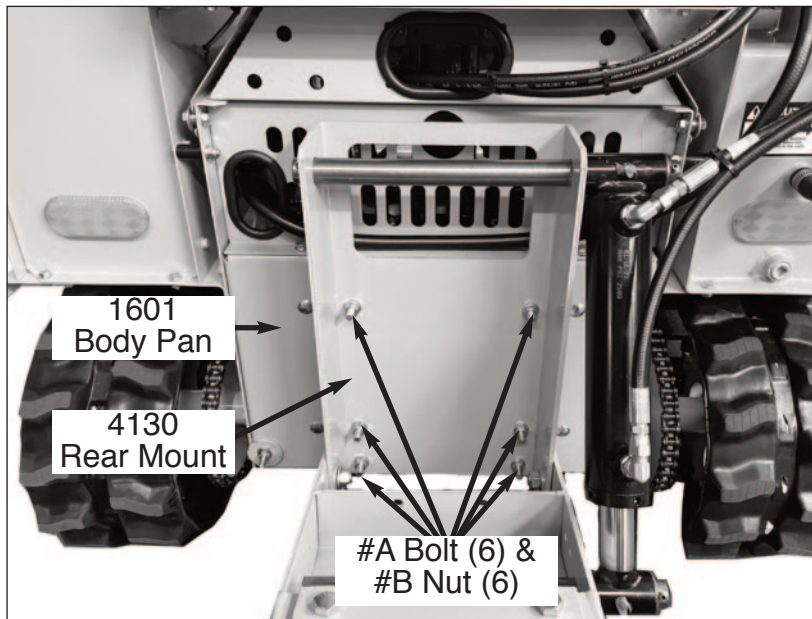


1701

NOTE: STEP 1 may have already been completed at the Factory. If so, skip to STEP 2. The Rear Mount may look different what is shown in the picture to the right.

STEP 1. Align the (6) 3/8" Holes in #4130 Rear Mount with mating six (6) 3/8" Holes in rear surface of #1601 Body Pan.

From *outside or inside of body*, insert an #A Bolt into each of the six 3/8" holes aligned above. Secure #A Bolts with #B Nuts... tighten... see Photo at right.

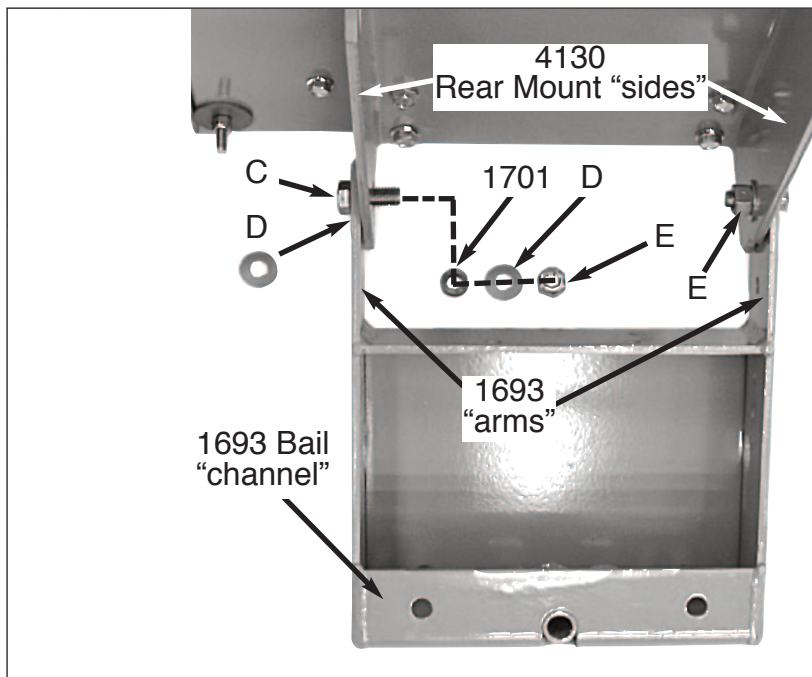


STEP 2. Slip "arms" of #1693 Bail around "sides" of #4130 Rear Mount.

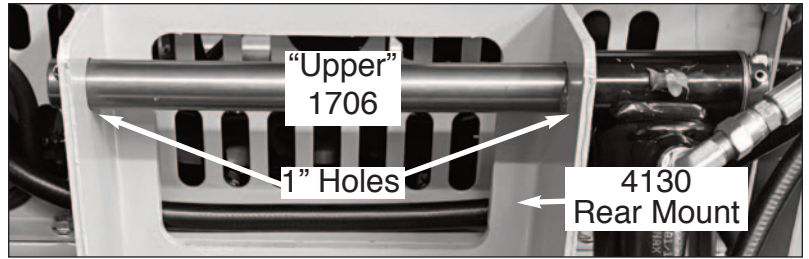
STEP 3. Align either the *lower or upper 1/2"* holes in #1693 Bail "arms" with mating 5/8" holes in "sides" of #4130 Rear Mount.

NOTE: You can experiment with the *two hole positions* to "fine tune" the Rear Hitch raising & lowering characteristics to the job you're doing.

STEP 4. From *outside*, insert a #C Bolt with a #D Washer into each pair of *aligned 1/2"* and *5/8"* holes *above*. Over each protruding #C Bolt slip on in order: #1701 Bushing, #D Washer and secure with #E Nut...tighten fully.



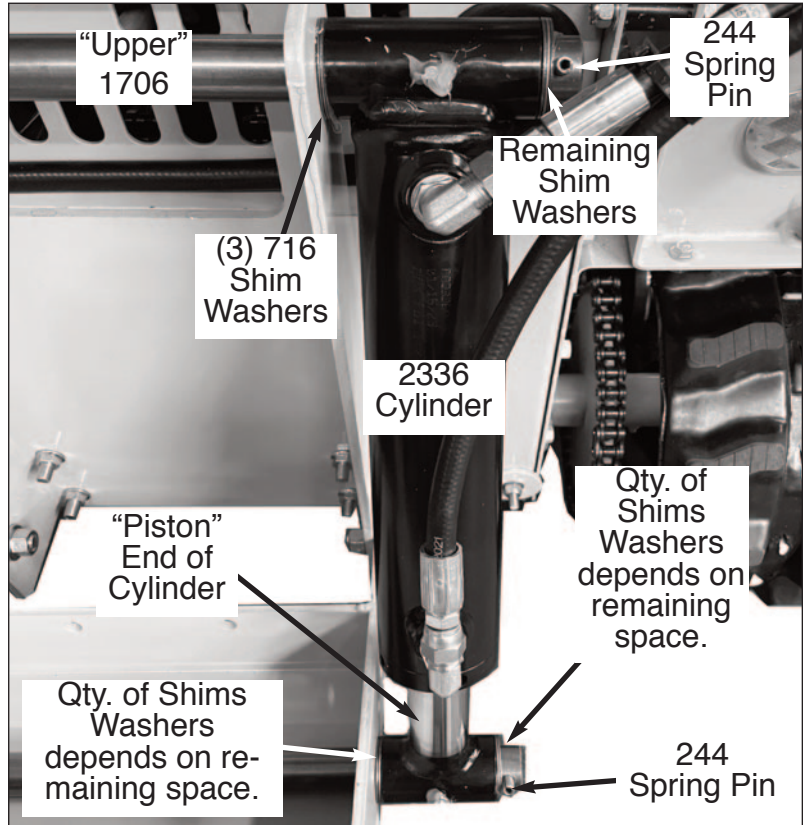
STEP 5. Slide #1706 Shaft into top two 1" holes in #4130 Rear Mount.



PROCEDURE NOTE: The remaining steps on this page, will require viewing the 3 pictures on the bottom right.

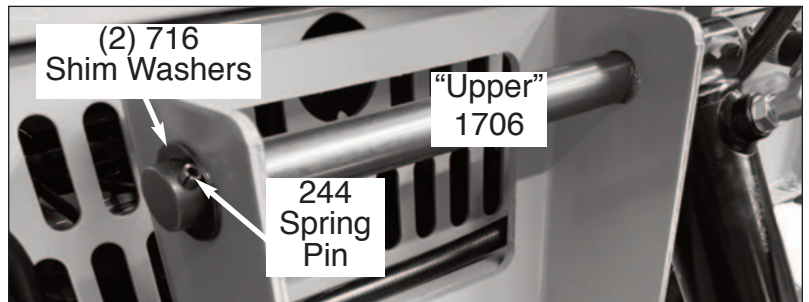
STEP 6. Over shaft end on "right side" slip on (3) #716 Washers, followed by "upper tube end" of #2336 Cylinder. Add (2) #716 Washers to the protruding left shaft end and "drive" a #244 Spring Pin into the hole on the left side of the shaft. (See picture on the bottom right).

(NOTE: Cylinder *body* is "up" and Holes for fittings, point rearward.

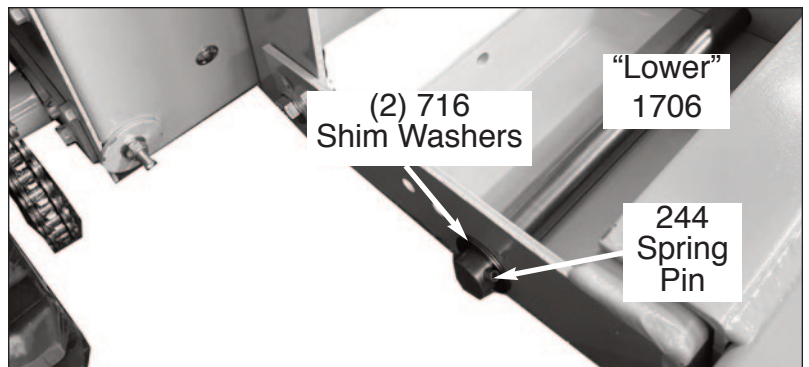


STEP 7. Push upper #1706 Shaft fully to the right, and shim out the space on the right hand side with additional #716 Shim Washers, and "drive" a #244 Spring Pin into the hole on the right side of the shaft.

STEP 8. Align tube on "piston end" of Cylinder with 1" hole on "outside right face" of #1693 Hitch Bail and determine number of #716 Washers required to shim out distance.



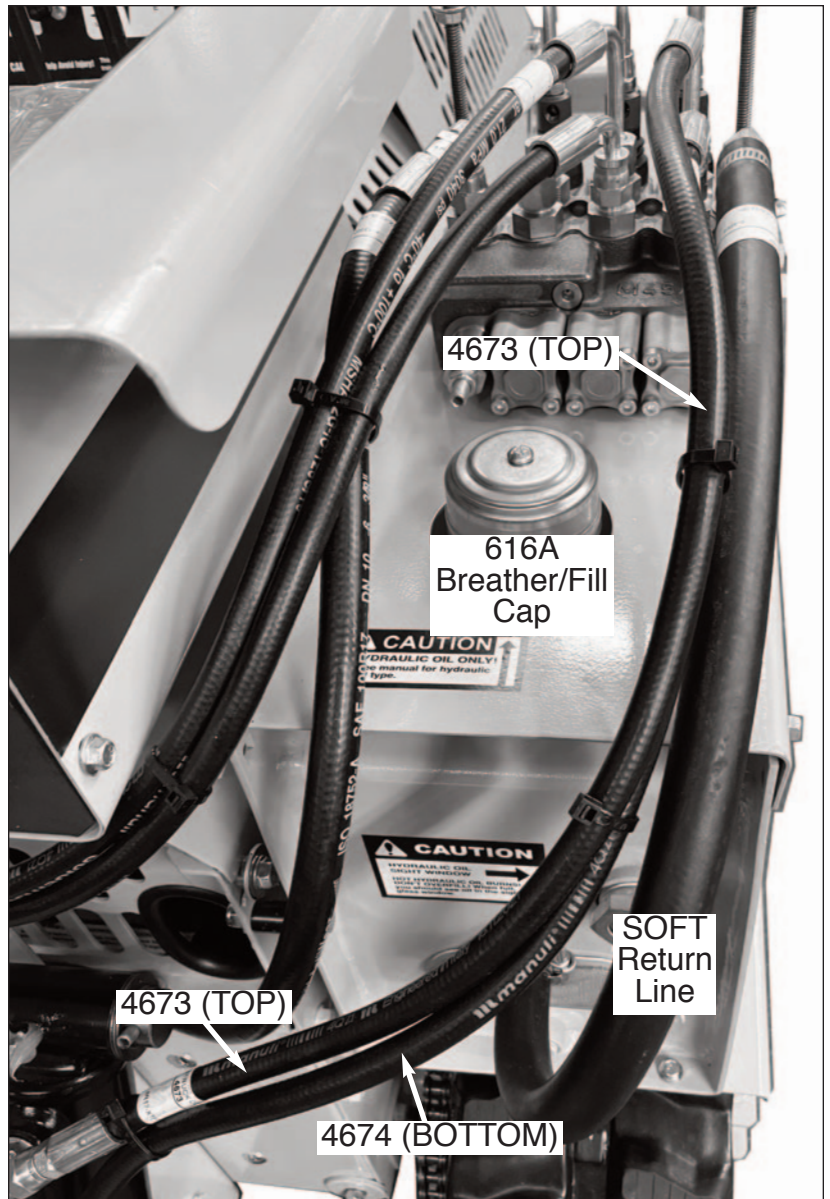
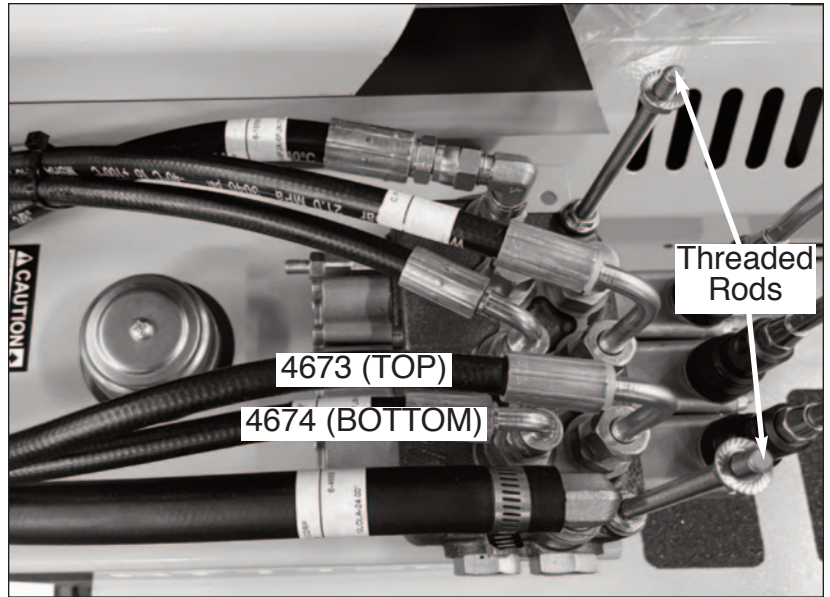
STEP 9. In manner similar to Steps 6 & 7, pass a second #1706 Shaft through the "Piston" End of cylinder, then through the qty. of #716 Washers determined in the previous step, then through both sides of the Bail. Shim left side with (2) #716 Washers and secure with #244 Spring Pin. Push "Lower" #1706 Shaft fully to the right, then shim out the space with #716 Shim Washers and secure with #244 Spring Pin.



STEP 10. If not done already during the install of your front lifting system, remove valve cover by loosening and removing the 2 nuts (on top of valve cover), protruding from the top of the threaded rods. Once removed, you will have access to the valve to make the hydraulic rear hitch hose connections.

STEP 11. Remove any plugs/or caps from the “outside” section of the valve (handle furthest away from driver). Thread the #4674 (bottom hose) onto the straight fitting. Angle as shown...tighten. Thread the #4673 (top hose) onto the straight fitting. Angle as shown...tighten.

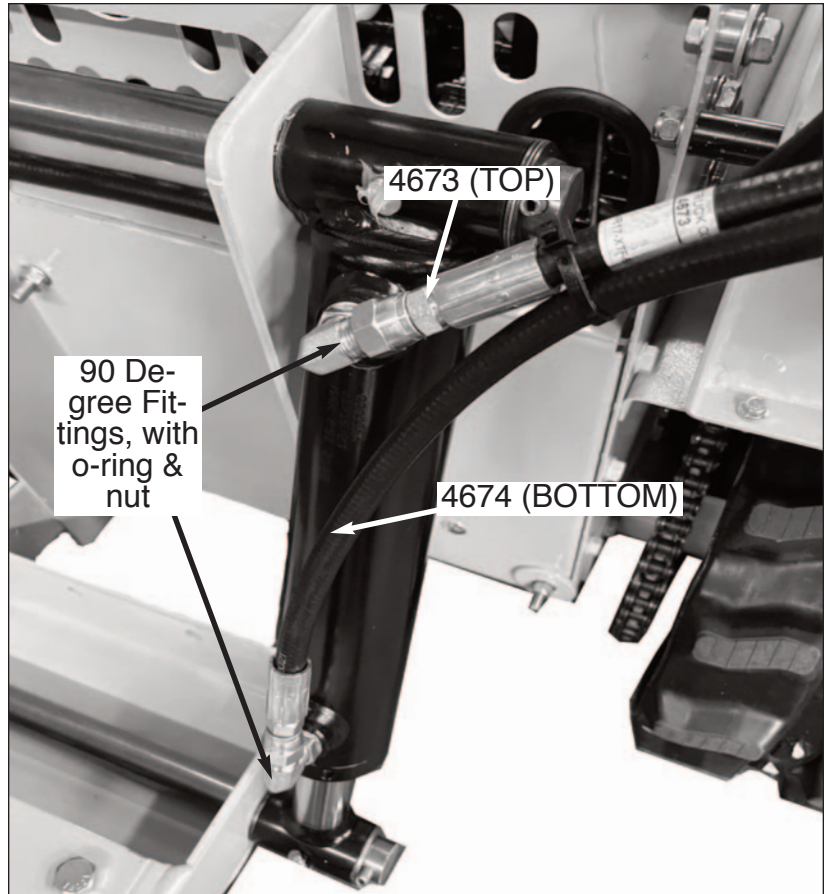
STEP 12. Run hoses towards the outside of the machine, next to the soft “return” hose. Doing this allows for easier access to the #616A Hydraulic Breather/Fill Cap. Continue routing hoses as shown, keeping the #4673 Top Hose, on top, and #4674 Bottom hose, on bottom.



STEP 13. Remove plastic plugs from welded tubes on the side of cylinder, and replace with #1727 90 Degree Fittings with o-ring..angle “top” fitting “at 45 degree angle” towards the attachment valve, and “bottom” fitting “straight up”, towards top fitting. Hand turn fitting nuts... tighten fully.

Note: No teflon paste or tape should be used. Fittings have o-rings installed, when tightened fully, they create a seal.

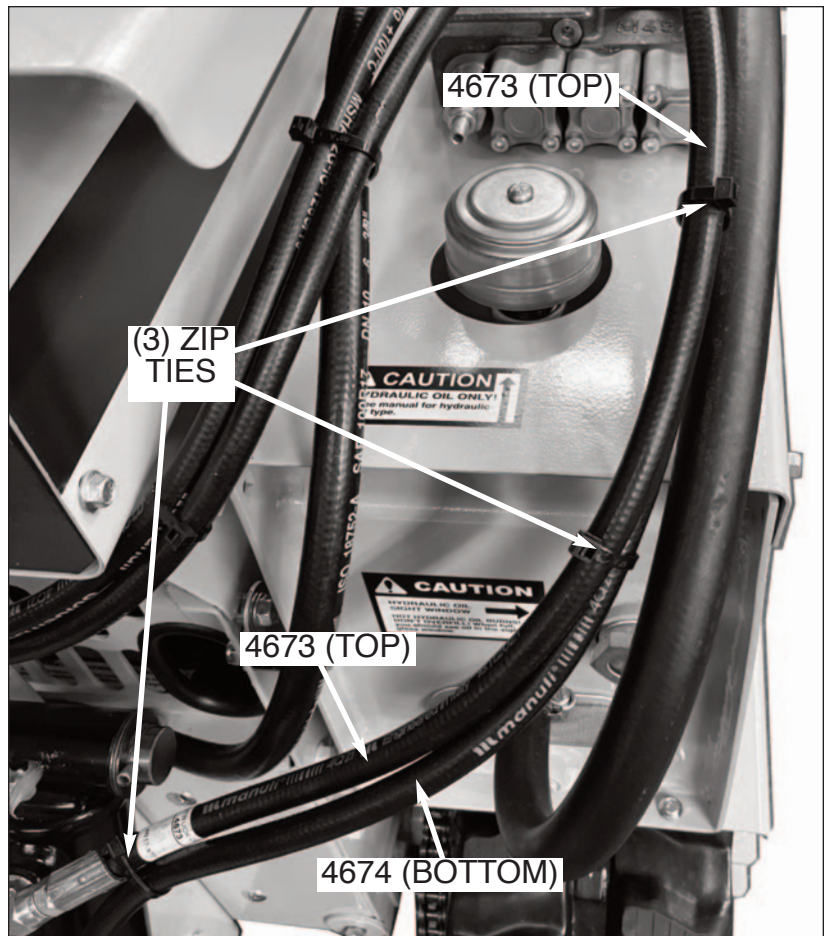
STEP 14. Connect #4673 Top Hose to “top” fitting on cylinder. Hand tighten. Connect #4674 Bottom Hose to “bottom” fitting on cylinder. Hand tighten.



STEP 15. Go back and make sure your hoses have nice fluid curves to them, and are not rubbing on any sharp steel edges. Tighten Top and Bottom hoses to cylinder fittings at this time.

STEP 16. Secure TOP & BOTTOM hoses, with (3) #793 Zip ties at this time. Using a side cutter...cut excess zip ties from hoses.

STEP 17. Grease both “grease zerks’ on top and bottom of cylinder at this time. A flexible “nose” grease gun with a lockable zerk adapter is advised.



STEP 18. Check your work at this time...

1. Verify hose paths will not be hitting any sharp edges, and zip ties are secure.
2. Verify all hoses are tight to the valve and cylinder.
3. Verify all fittings are in the correct position, and are tight on the cylinder and the valve.

STEP 19. Replace seat pan, seat, and safe starting wires. Start unit and test run for any leaks. Tighten any needed hoses, fittings, etc. Operate rear hitch valve handle back and forth 3 times, to push any air through the system and out the breather cap. Replace valve cover, thread on nuts and tighten.

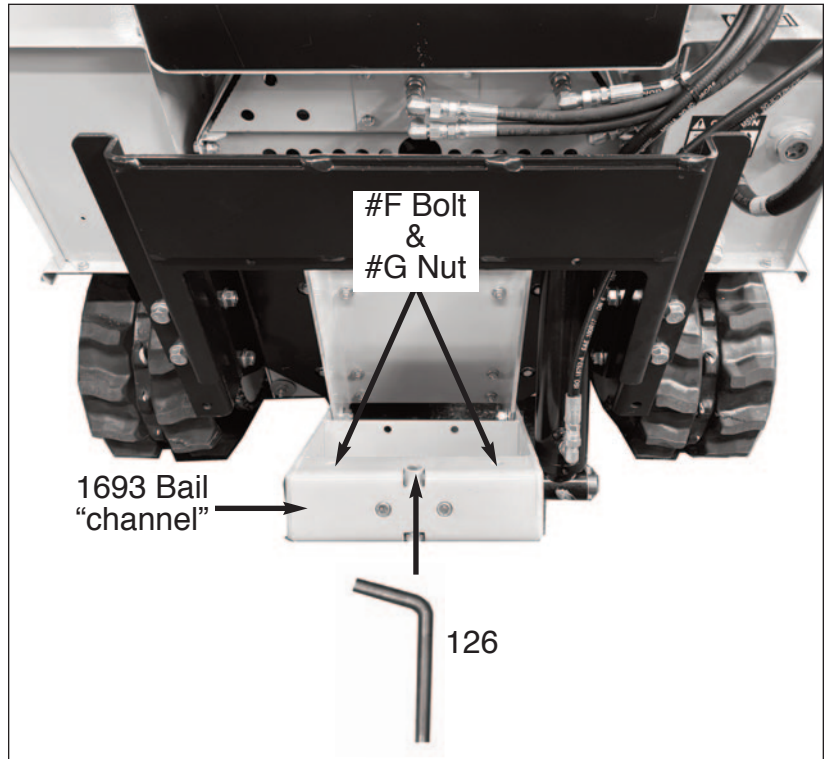
STEP 20. Insert (2) #F Bolts and secure (2) #G Nuts to the end of the bail. These will be used to mount your rear attachments, such as: ripper, etc.

STEP 21. The #126 Attachment Pin is used to connect any 3rd Party Attachments to your hydro rear hitch, such as: garden cart, garden plow, (See bottom right picture) etc. Contact us for more information on these 3rd party attachments.

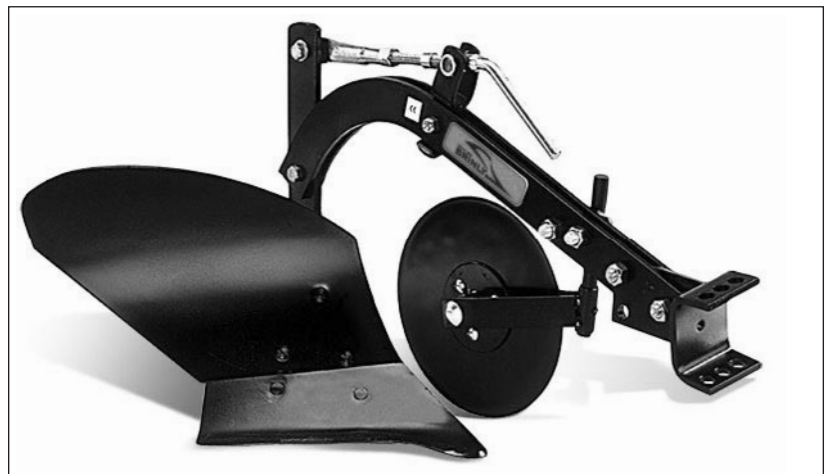
NOTE: If adding a backhoe or other rear attachments, go to those sections at this time.

After all hoses are run from all attachments, check hydraulic fluid level on hydraulic tank. See RT1150 manual, add as needed. Replace valve cover after all additional hoses are ran from other attachments.

Picture below shown with Hydro Rear Hitch and Angle Mount Kit, with Rear Counterweight Plate installed. Note: Counterweight bracket with suitcase weights and hydro rear hitch attachment, can be mounted at the same time.



Picture below is a 3rd party plow attachment, that can be mounted with our #126 Attachment Pin, directly to our Hydro Rear Hitch.



Hitch Adapter Kit HA14

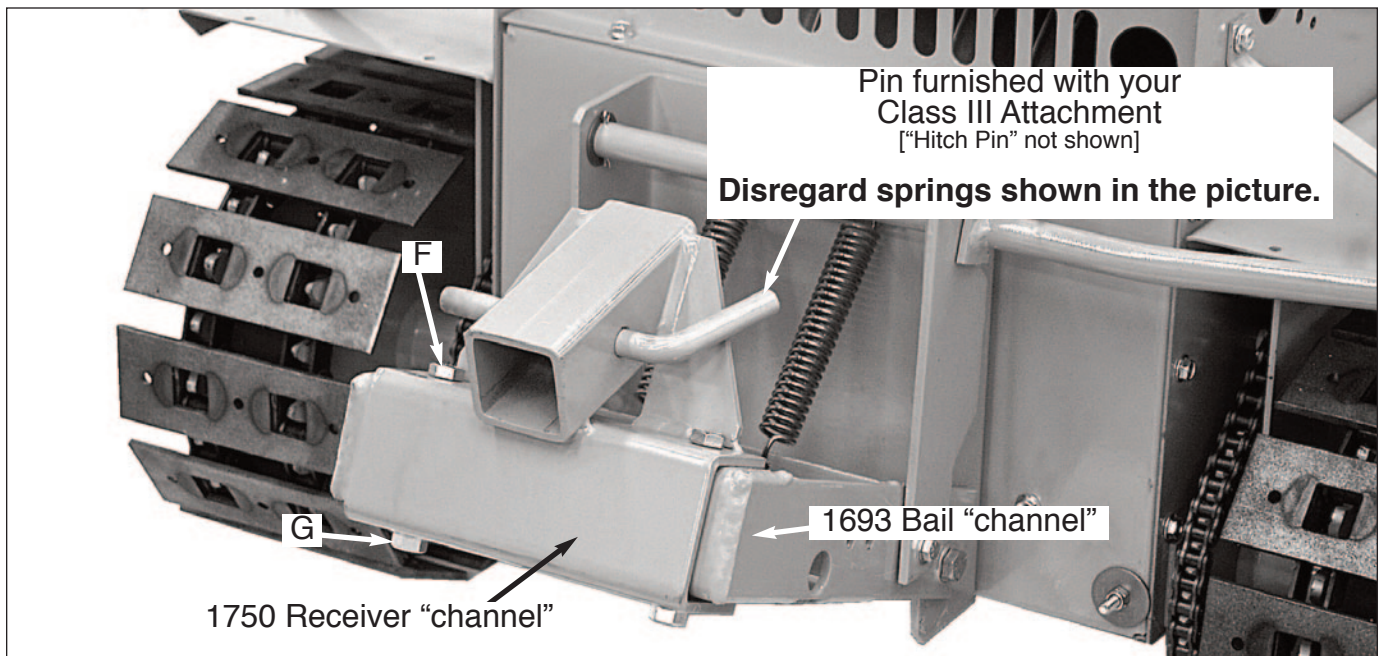
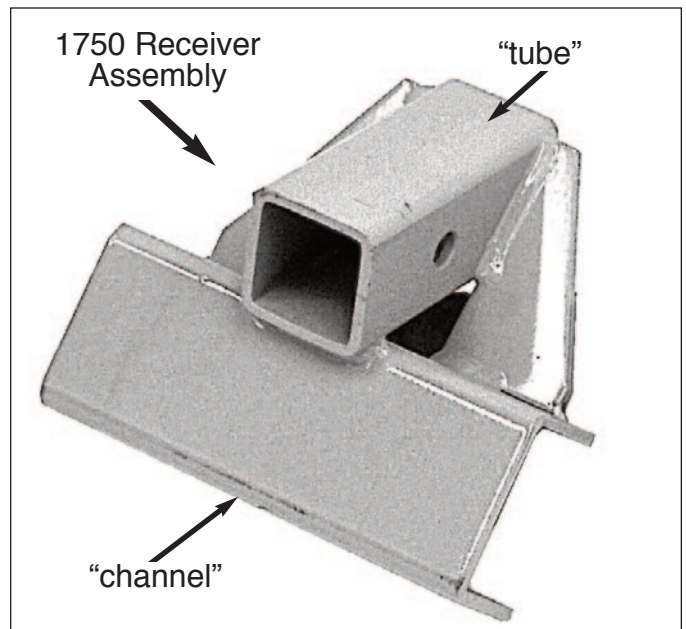
Part #	Description	Qty.
001750	Receiver Assembly [Class III opening, 2"]	(1)

NOTE: #F Bolts and #G Nuts described and shown below are provided with your HRH35 Hydro Rear Hitch Kit.

STEP 1. Slip “channel” portion of #1750 Receiver Assembly around mating “channel” of #1693 Bail... align mating 1/2” holes... see Photo at right and below.

STEP 2. From above, insert #F Bolt into each set of mating 1/2” holes... secure below with #G Nuts... tighten... see Photo below.

NOTE: After mounting your Class #2 Attachment to the “tube” of your #1750 Receiver, use the “Pin” that comes with the Attachment to secure it... “lock” the Pin with the “Hitch Pin” also furnished with your Class III Attachment.

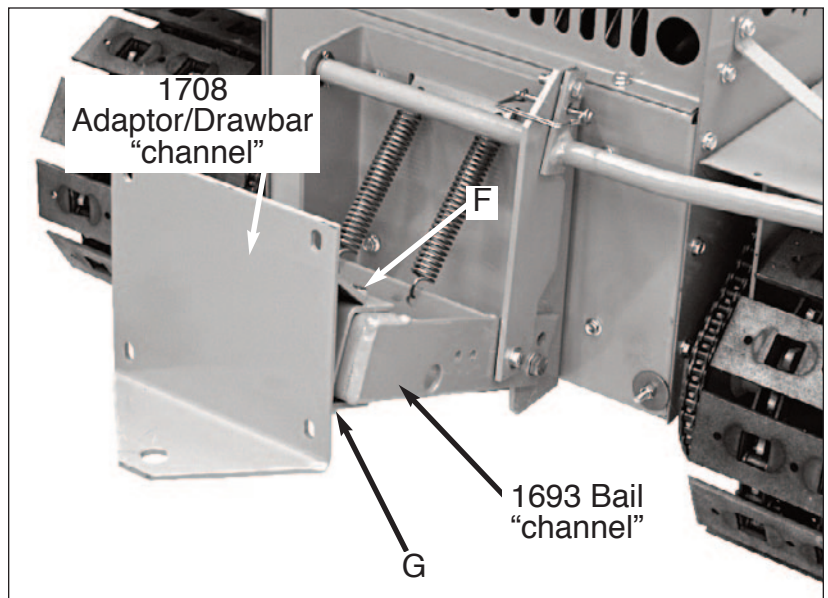


Log Crane Adaptor/Drawbar Kit LCA9

Part #	Description	Qty.
001708	Log Crane Adapter / Drawbar	(1)
NOTE:		
1. #F Bolts and #G Nuts described and shown below are provided with your Hydro Rear Hitch.		
2. #AH Bolts and #JJ Nuts described and shown below are provided with the LW228 Kit.		

STEP 1. Slip “channel” portion of #1708 Adaptor/Drawbar around mating “channel” of #1693 Bail... align mating 1/2” holes... see Photo at right.

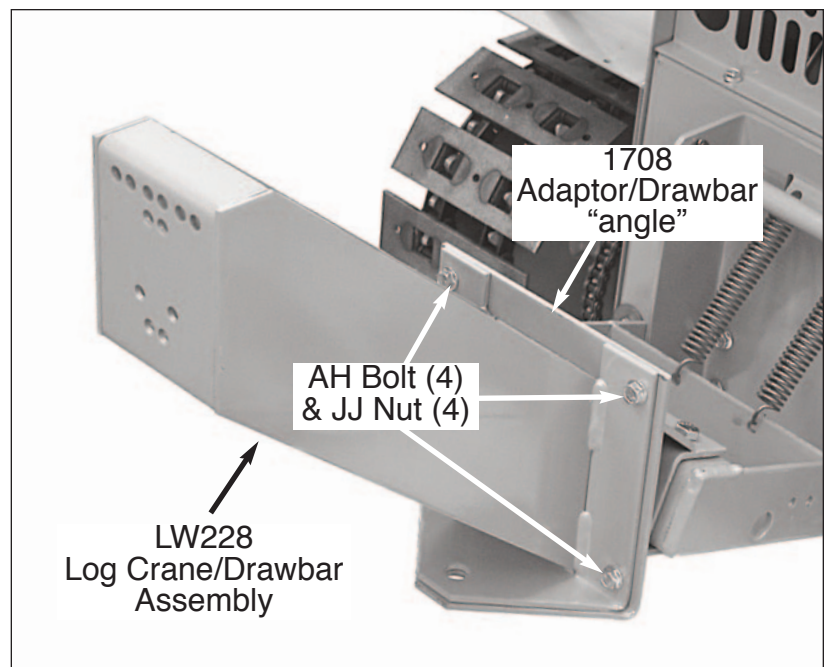
STEP 2. From above, insert #F Bolt into both sets of mating 1/2” holes... secure below with #G Nuts... tighten... see Photo at right.



Attaching optional #LW228 Log Crane/Drawbar Assembly

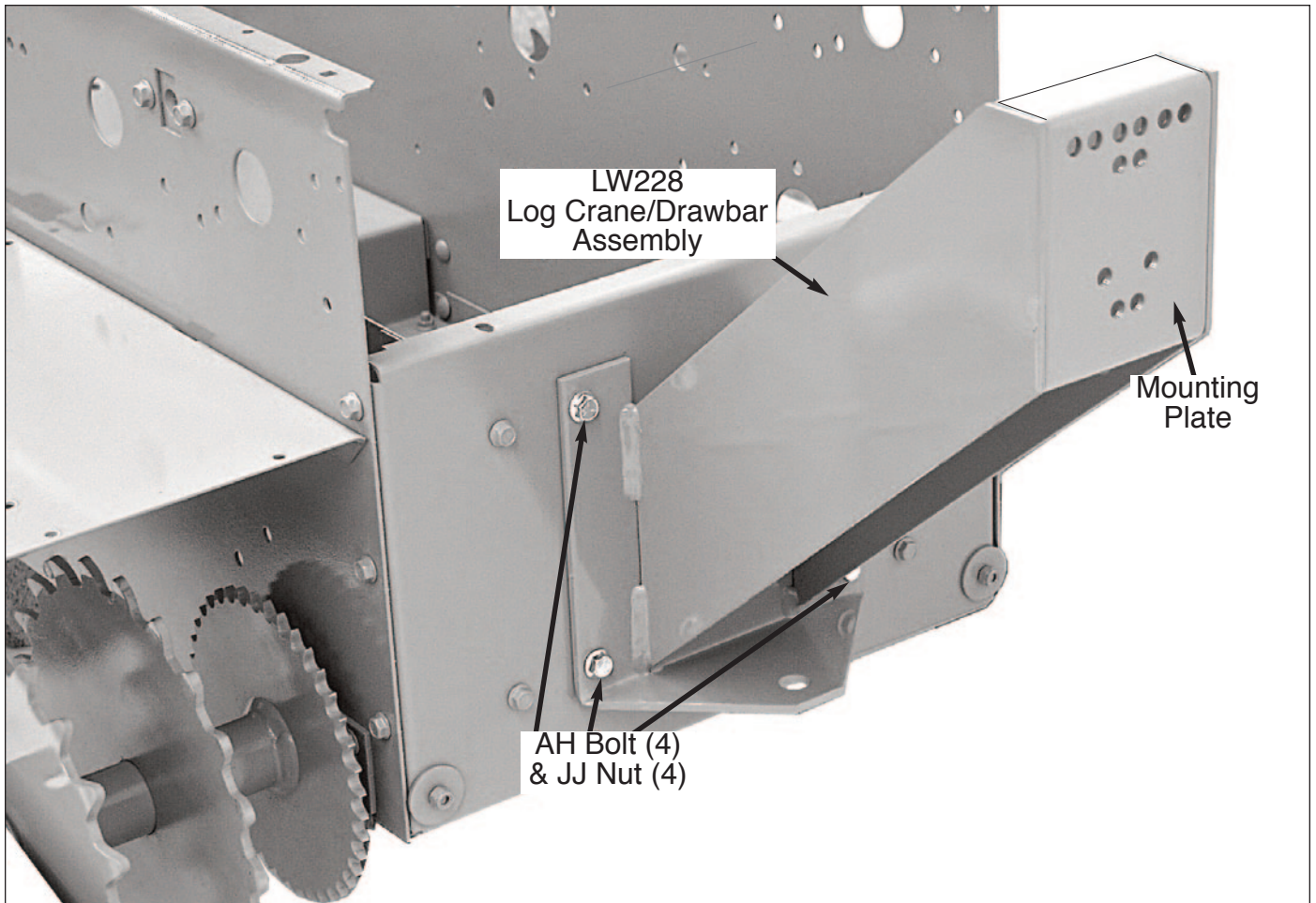
STEP 1. Align the pattern of four (4) 3/8” holes in #LW228 Log Crane/Drawbar Assembly with mating 3/8” slots in #1708 Adaptor/Drawbar assembly.

STEP 2. Secure with four (4) AH Bolts and JJ Nuts [furnished with your LW228 Kit]... tighten... see Photo at right.



Log Crane/Drawbar Kit LW228

Part #	Description	Reference #	Qty.
002270	Crane Assembly		(1)
BOLT-3/8-128	3/8-16x1 Spin Lock Bolt	AH	(4)
NUT-3/8-232	3/8-16 Spin Lock Nut	AJ	(4)



STEP 1. Align the pattern of four (4) 3/8" holes in #LW228 Log Crane/Drawbar Assembly with mating 3/8" holes in rear of Body.

STEP 2. Secure *outside* with four (4) AH Bolts and inside Body with four (4) AJ Nuts... tighten... see Photo above.

NOTE: Hole pattern on Crane's Mounting Plate will fit our LW16 Manual Winch, and many other 3rd party popular winches.

Tripple Ripper Kit

TR23-A (Version A)

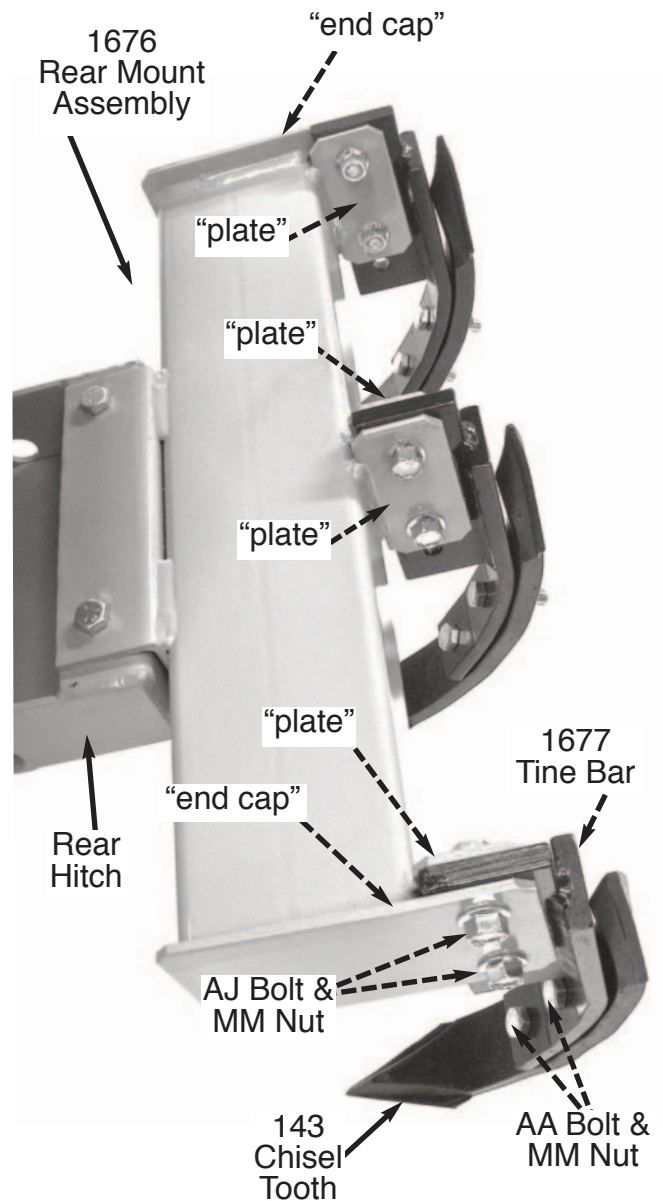
Part #	Description	Reference #	Qty.
001676	Rear Mount Assembly		(1)
001677	Tine Bar		(3)
000143	Chisel Tooth		(3)
BOLT-1/2-134	1/2-13x1-1/2 Spin Lock Bolt	AJ	(6)
NUT-1/2-234	1/2-13 Spin Lock Nut	MM	(12)
BOLT-1/2-34	1/2-13x2 G5 Bolt	AA	(6)

Note: Due to the height of the ripper teeth, the TR23 Three Shank Ripper may need to be removed from the MAGNATRAC, prior to loading and unloading from a trailer.

NOTE: For ease of assembly, it's suggested at this time to mount your #1676 Rear Mount Assembly to your Rear Hitch. Use the bolts and nuts provided with your Hydraulic Rear Hitch. Fully tighten.

STEP 1. Using #AJ Bolts & #MM Nuts mount the three #1677 Tine Bars to there respective "end caps" and "plates"... see Photo at right... fully tighten.

STEP 2. Using #AA Bolts and #MM Nuts mount a #143 Chisel Tooth to rear face of each #1677 Tine Bar... see Photo at right... fully tighten.



Tripple Ripper Kit

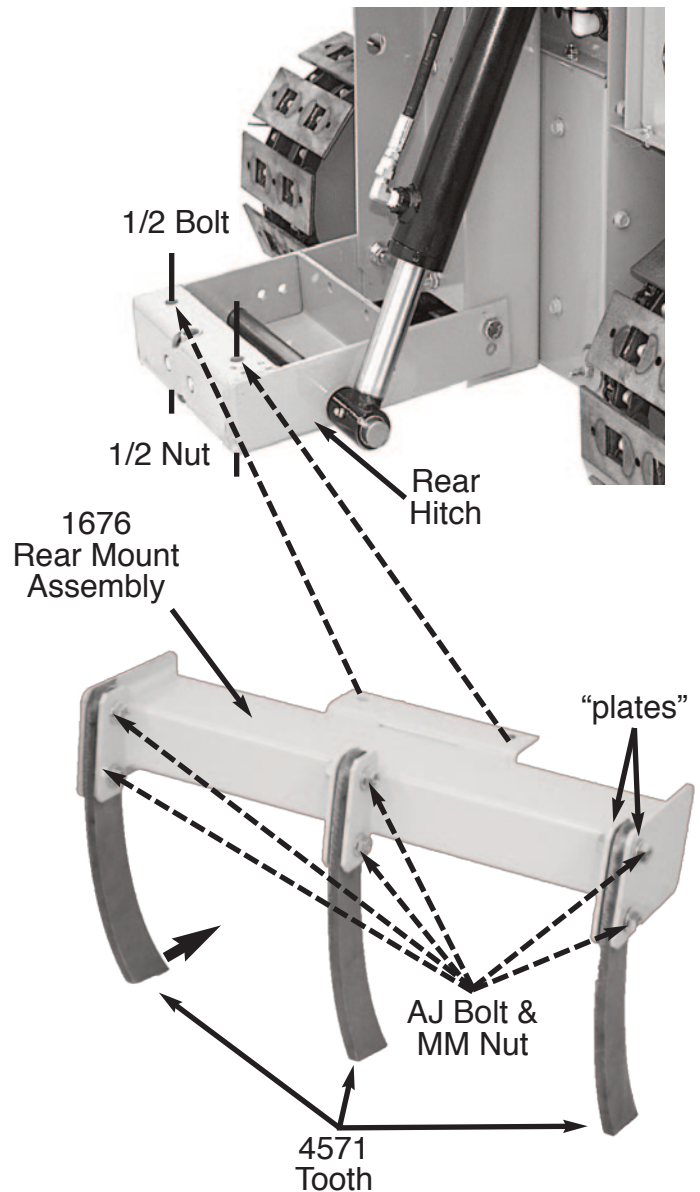
TR23-B (Version B)

Part #	Description	Reference #	Qty.
001676	Rear Mount Assembly		(1)
004571	Ripper Tooth		(3)
BOLT-1/2-134	1/2-13x1-1/2 Spin Lock Bolt	AJ	(6)
NUT-1/2-234	1/2-13 Spin Lock Nut	MM	(6)

Note: Due to the height of the ripper teeth, the TR23 Three Shank Ripper may need to be removed from the MAGNATRAC, prior to loading and unloading from a trailer.

NOTE: For ease of assembly, it's suggested at this time to mount your #1676 Rear Mount Assembly to your Rear Hitch, using the 1/2-13x4-1/2" Spin Lock Bolts & 1/2" Nuts provided with your Rear Hitch...fully tighten.

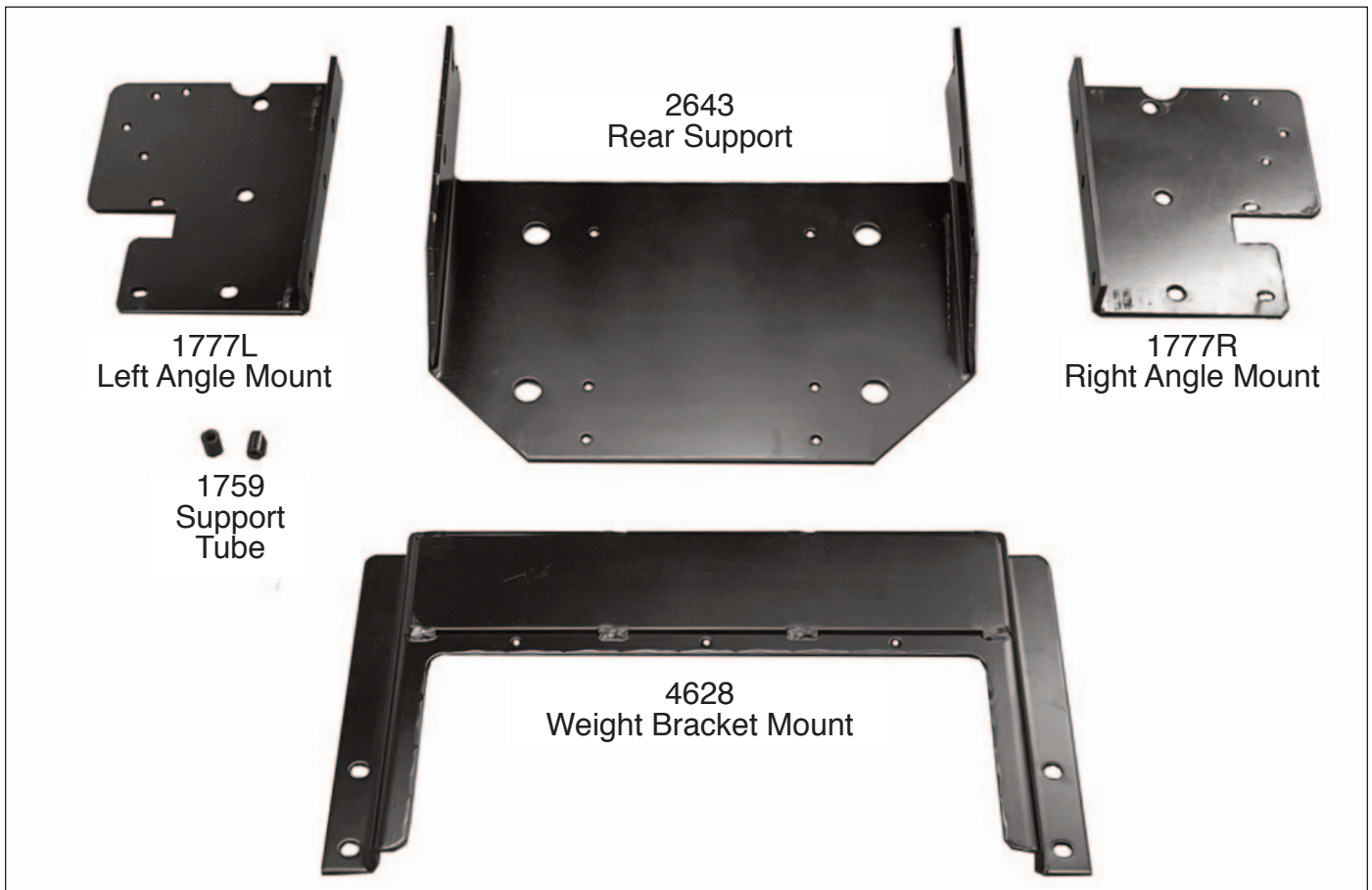
STEP 1. Using #AJ Bolts & #MM Nuts, mount the three #4571 Ripper Teeth between their respective "plates", with tooth "bottom" edge pointing towards the rear of tractor... see Photo at right... fully tighten.



Angle Mount Kit AM39-B

Part #	Description	Reference #	Qty.
001759	Support Tube		(2)
001777R	Right Mount		(1)
001777L	Left Mount		(1)
002643	Rear Support		(1)
004628	Weight Bracket Mount		(1)
BOLT-5/16-200	5/16-18x1-1/4 Bolt G8	AP	(12)
NUT-5/16-256	5/16-18 Nut G8	AQ	(12)
WASH-5/16-261	5/16 Flat Washer	SS	(12)
WASH-5/16-276	5/16 Lock Washer	AU	(12)
BOLT-1/2-133	1/2-13x1 Spin Lock Bolt	AY	(6)
BOLT-1/2-134	1/2-13x1-1/2 Spin Lock Bolt	AJ	(6)
NUT-1/2-234	1/2-13 Spin Lock Nut	MM	(12)

Note: Your AM39 - Angle Mount Kit will be assembled, if purchased with a machine. Instructions are for those that are adding it after taking delivery of their unit. The #004628 Weight Bracket will not be installed if you purchased a backhoe. Please keep for later use if removing a backhoe.

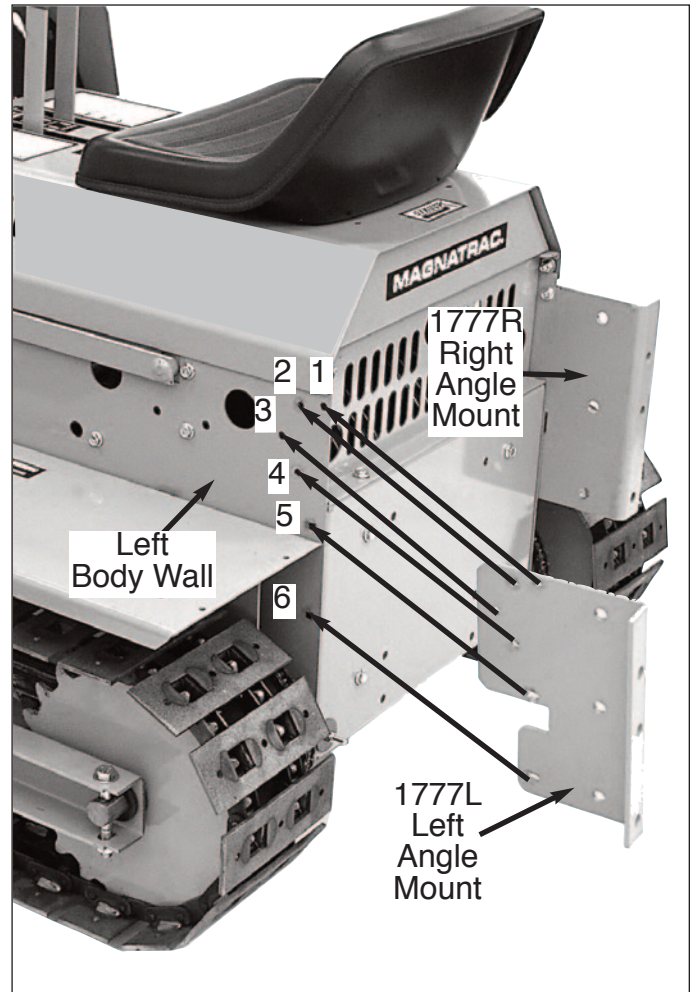


STEP 1. Remove any Bolts that are occupying the six (6) 5/16" holes indicated by "the labeled numbers" that are located at the rear of **both** the Left & the Right Body Walls. Do the same to both left & right sides.

STEP 2. Mount #1777R and #1777L Right & Left Angle Mounts to their respective Right & Left Body Walls... note that the "lip" of Mount points outwardly... see Photo at left.

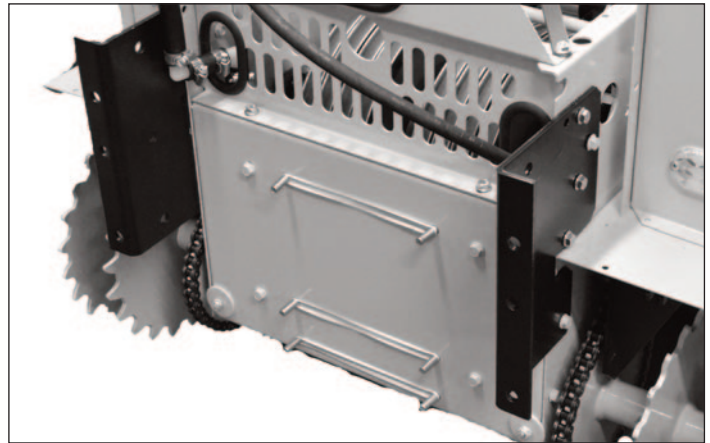
STEP 3. Insert six (6) #AP Bolts into six (6) #SS Washers. Align 5/16" holes of Left Angle Mount with mating 5/16" holes in Left Body Wall. "Inside" Body secure with #AU Lock Washers and #AQ Nuts... leave "finger tight" if you are going to add a ROPS20 now, otherwise fully tighten.

STEP 4. In a similar manner as STEP 3 above, mount the #1777R Right Angle Mount to the "outside face" of Right Body Wall. "Inside" Body secure with #AU Lock Washers and #AQ Nuts... leave "finger tight" if you are going to add a ROPS20, otherwise fully tighten.



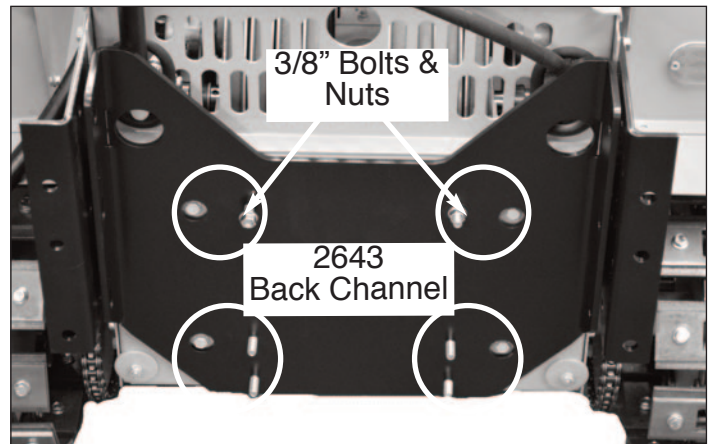
STEP 5. Remove any rear attachments like rear hitch or hydraulic tank to gain access to the back of the tractor. Remove seat and seat pan. See RT1150 manual. Tie back any hoses that may interfere with the area.

STEP 6. Re-insert (6) 3/8" Bolts through the rear panel of the tractor that came from your PP35 Power Pack. Wrap rubber bands around them as shown in picture.



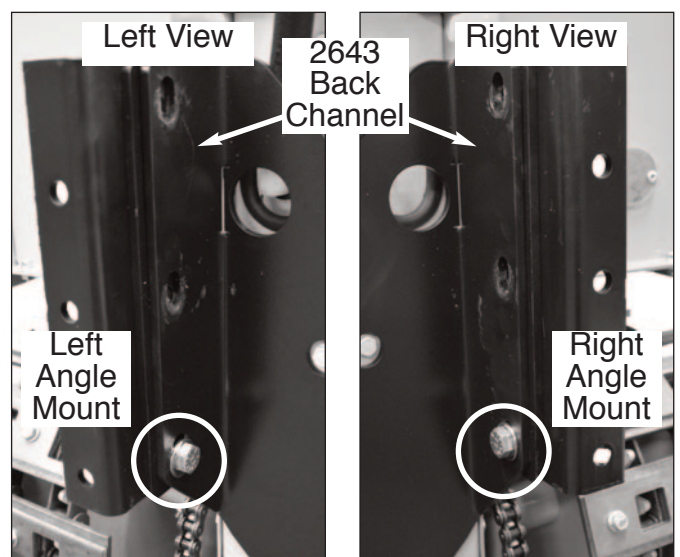
NOTE: PROCEED TO (STEP 3) OF PAGE 55, IF YOU WILL BE INSTALLING A ROPS20 - ROLL-OVER PROTECTIVE STRUCTURE.

STEP 7. Install #2643 Back Channel as shown, making sure to keep the bolt heads sticking out of the holes in the #2643 Back Channel. Loosely turn on (2) #JJ Nuts onto the top (2) 3/8" bolts to hold up the #2643 Back Channel.

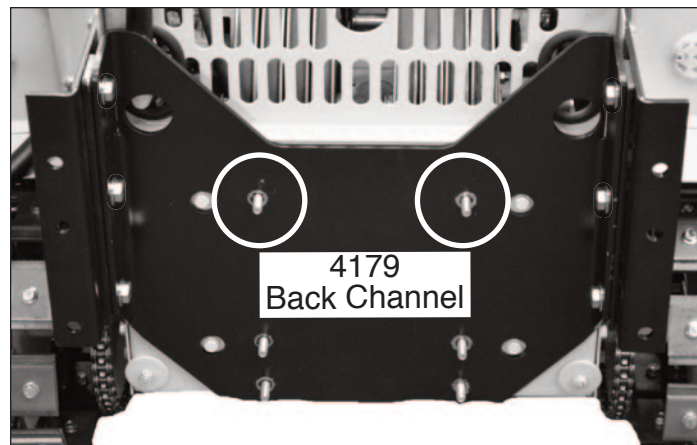


STEP 8. Using a punch or a long bolt as a guide to line up the bolt holes, insert (1) AY Bolt through the lower hole on the #2643 Back Channel, through the corresponding lower hole on the Left Angle Mount. Attach a #MM Nut. **Leave loose.** Do the same process to the Right Angle Mount.

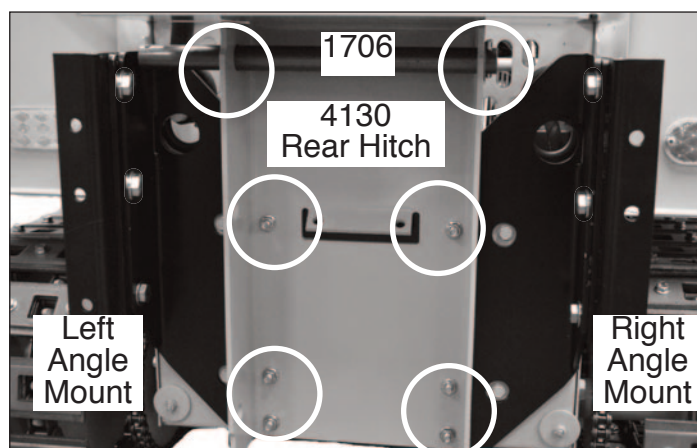
STEP 9. Using the instructions from the previous step, insert the remaining (2) AY Bolts through the top and middle holes in each angle mount...**Leave loose.**



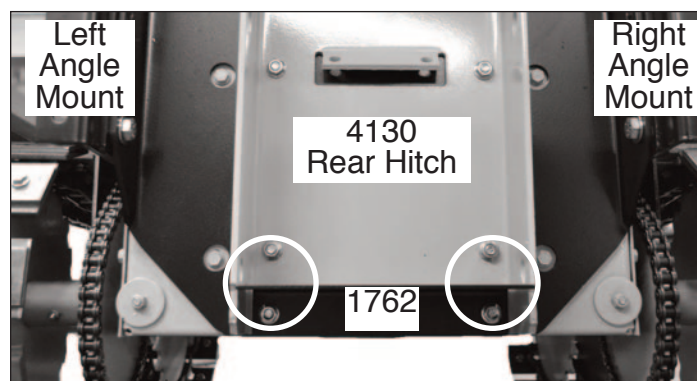
STEP 10. Remove the (2) #JJ Nuts from the top 2 holes. All bolts protruding through the rear of the machine should **NOT** have any #JJ nuts on them at this time.



STEP 11. If you are attaching a HRH35 Hydro Rear Hitch to the back of the tractor, re-insert your #1706 Shaft from your HRH35 Hydro Rear Hitch prior to attaching the #4130 rear hitch to the back of the tractor. Re-install the #4130 rear hitch as shown. See page 49 in this manual. After completion, all Bolts & Nuts on the #4130 Rear Hitch and the Left & Right Angle Mounts should be **tightened at this time**.



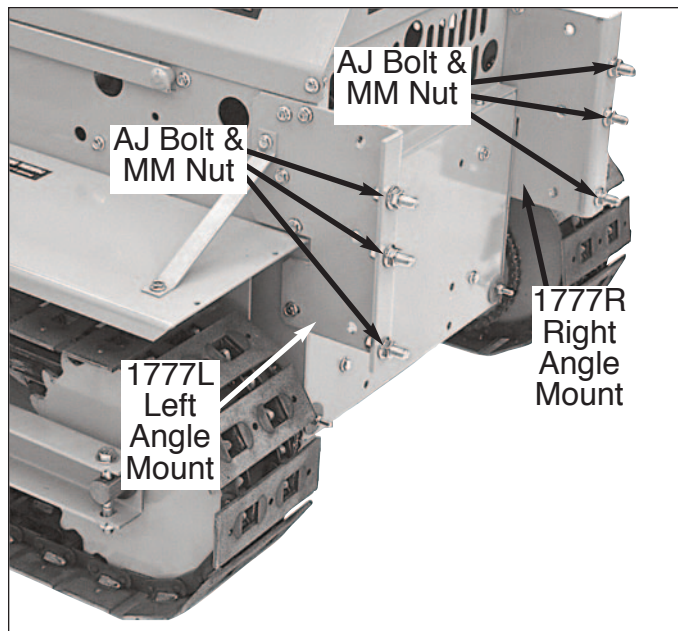
STEP 12. If you are attaching a Backhoe to the back of the tractor, please re-install the #1762 Backhoe Bracket at this time. After completion, all Bolts & Nuts on the #4130 Rear Hitch, Left & Right Angle Mounts and the #1762 Backhoe Bracket should be **tightened at this time**.



STEP 13. If you are attaching a TW6 Tractor Weight Kit, tighten all Bolts & Nuts on the #4130 Rear Hitch and Left & Right Angle Mounts at this time.

STEP 14. Insert #AJ Bolt into “forward face” of each of the 1/2” holes in “bent edge” of #1777R Right and #1777L Left Angle Mounts.

STEP 15. Secure each #AJ Bolt at “rear” with #MM Nut... “finger tight” if you are going to add a D1060/UG Backhoe, ROPS20 Rollover Protective Structure or TW6 Tractor Weight Kit... otherwise, fully tighten at this time.

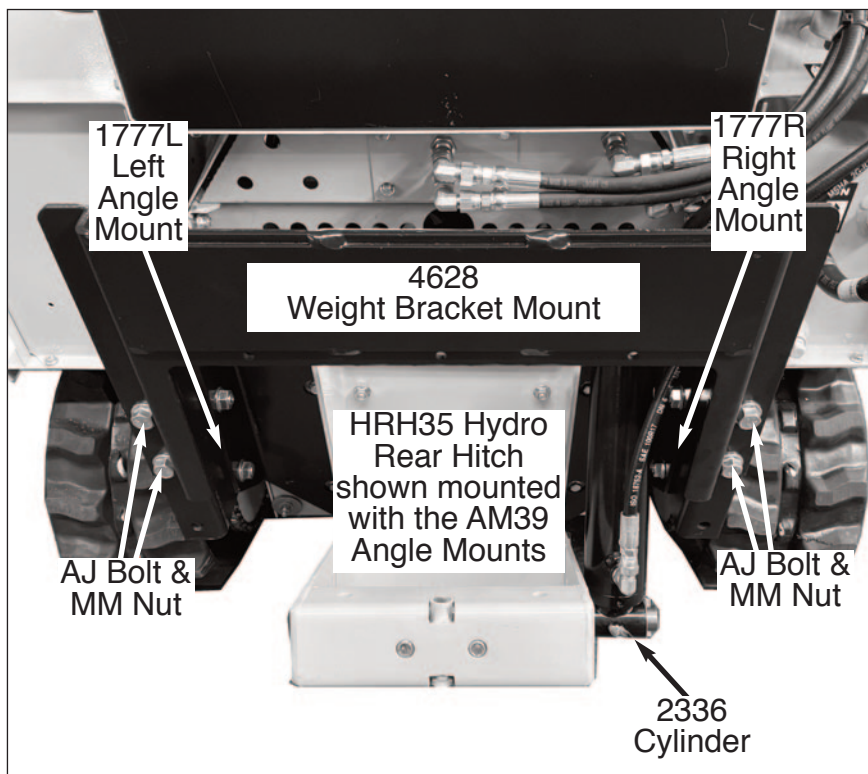


NOTE: At this time, complete the instructions for installing a D1060/UG Backhoe or ROPS20 Rollover Protective Structure. If you’re adding a TW6 Tractor Weight Kit without a ROPS20 Rollover Protective Structure, continue to the next step below. Otherwise, follow the instructions on adding your ROPS20 Rollover Protective Structure and then come back to the final step below to install the rear weight bracket required for the TW6 Tractor Weight Kit.

STEP 16. Remove the 2 top #AJ Bolts & Nuts from Steps 14 & 15. Re-insert from the “back-face” the (2) #AJ Bolts, through the weight bracket mount then into the 2 “top” holes in “bent edge” of #1777L Left and #1777R Right Angle Mounts.

STEP 17. Secure each #AJ Bolt with #MM Nut...and fully tighten all bolts & nuts.

It is advised, but not necessary, to keep the #AJ Bolt & #MM nut in the lower hole of the left and right angle mounts. Make sure to tighten Bolts & Nuts if leaving on the left & right angle mounts.



Tractor Weight Kit

TW6

Note: Make sure to install the AM39 - Angle Mount Kit, prior to installing the TW6 Tractor Weight Kit. Call factory with any questions! Never remove tractor suitcase weights with HL300 Hydro Loader in the upward position. Damage or injury to yourself or others, can occur!!!

Part #	Description	Reference #	Qty.
004665	Suitcase Weights		(6)

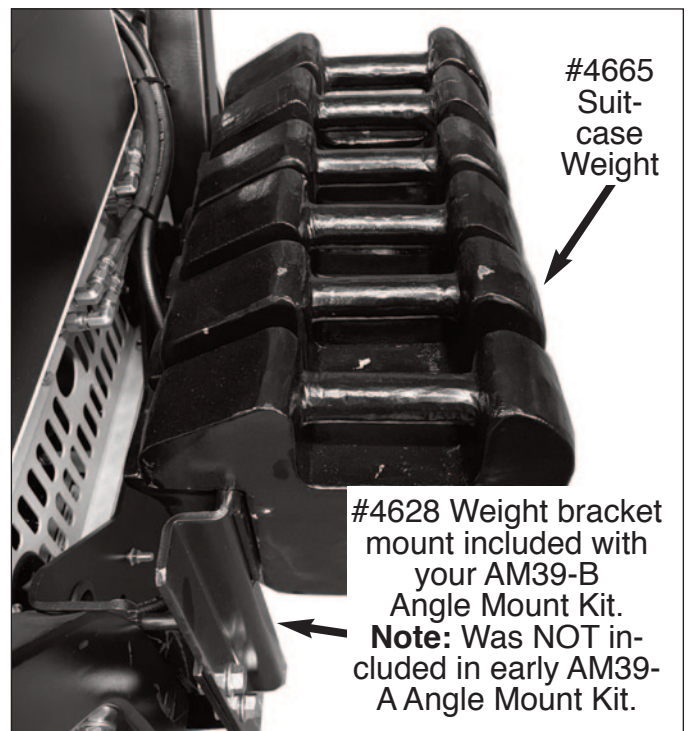
Suitcase weights are available through a variety of local and online retailers. A variety of different weights are available to meet your needs. We advise suitcase weights between 40-75 lbs/pc. for best results. Don't use weights in excess of 75 lbs. a piece. Never exceed the 400 lb. total rear weight capacity when adding tractor suitcase weights to the rear of your machine. Damage to the machine or injury may result.



STEP 1. Drop down from above, a suitcase weight onto the weight bracket mount supplied with your AM39 Angle Mount Kit. Slide suitcase weight to one side.

STEP 2. Drop down from above the remaining suitcase weights, slide over as needed.

Note: Weights can stay mounted on your machine with your HRH35 Hydro Rear Hitch Attachments. #4665 Suitcase Weights and #4628 Weight Bracket Mount will need to be removed, prior to mounting a backhoe to the rear of your machine.



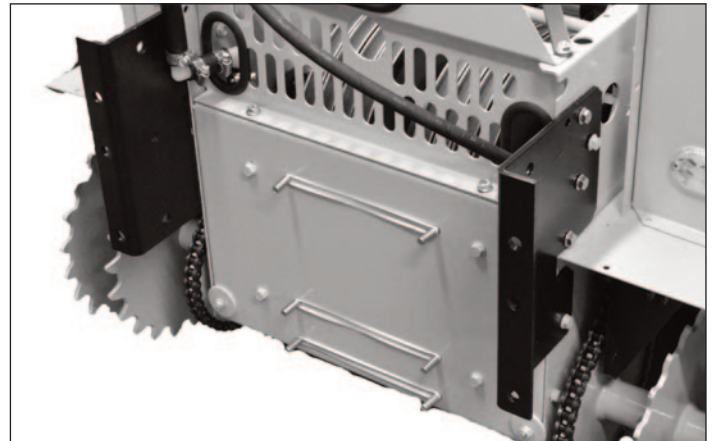
Roll-Over Protective Structure Kit

ROPS20

Note: Your ROPS20 - Roll-Over Protective Structure Kit will be factory assembled, if purchased with a MAGNATRAC. Kit instructions are for those that are adding it at a later date. Install AM39 - Angle Mounts before proceeding.

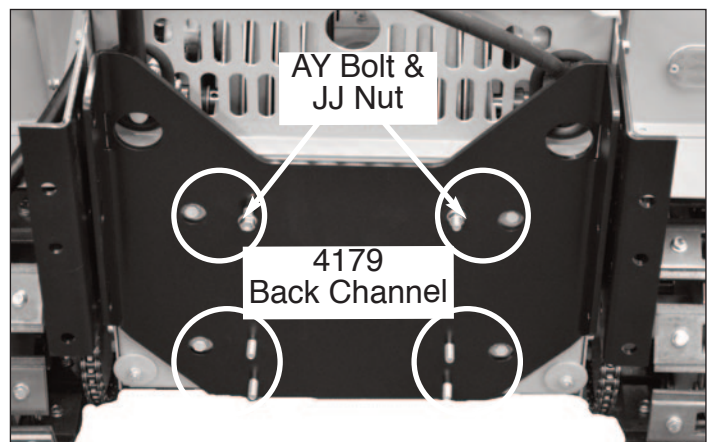
Part #	Description	Reference #	Qty.
000303	Seat Belt		(1)
004178	Bar Spacer		(2)
004179	Back Channel		(1)
004180	ROPS Loop		(1)
BOLT-3/8-129	3/8-16x1 1/4 Spin Lock Bolt	AY	(6)
NUT-3/8-232	3/8-16 Spin Lock Nut	JJ	(6)
BOLT-1/2-47	1/2-13x1-1/2 G8 Bolt	AW	(2)
BOLT-1/2-34-G8	1/2-13x2 G8 Bolt	AR	(2)
BOLT-1/2-139	1/2-13x4-1/2 G8 Bolt	AZ	(4)
NUT-1/2-208-G8	1/2-13 Nylon Lock Nut G8	AS	(8)
WASH-1/2-264-G8	1/2 Flat Washer G8	VV	(16)

STEP 1. Remove any rear attachments like backhoe, rear hitch or hydraulic tank to gain access to the back of the tractor. Remove seat and seat pan. See RT1150 manual. Tie back any hoses that may interfere with the area.



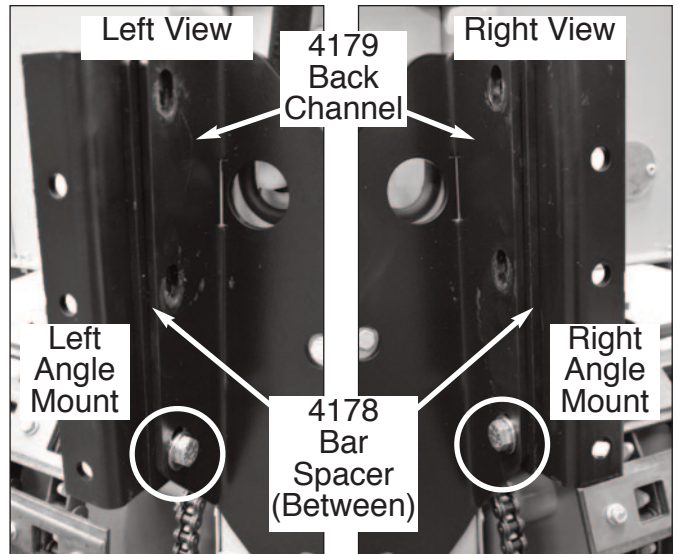
STEP 2. Insert (6) #AY Bolts through the rear panel of the tractor. Wrap rubber bands around them as shown in picture.

STEP 3. Remove #2643 Back Panel (from AM39, looks just like the #4179 Back Channel), if installed on your tractor previously. Install #4179 Back Channel as shown, making sure to keep the bolt heads sticking out of the holes in the #4179 Back Channel. Loosely turn on (2) #JJ Nuts onto the top 2 bolts to hold up the #4179 Back Channel.

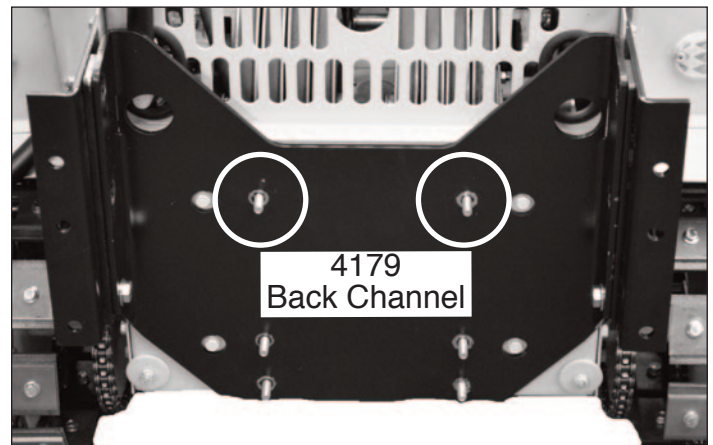


STEP 4. Make up (2) 1/2" bolt assemblies consisting of the following: (1) #AR Bolt and (1) #VV Washer.

STEP 5. Slide in a #4178 Bar Spacer between the left angle mount and the #4179 Back Channel. Using a punch or a long bolt as a guide to line up the bolt holes, insert (1) Bolt Assembly from step 3, through the lower hole on the #4179 Back Channel, through the corresponding lower hole on the #4178 Bar Spacer and then all the way through the other side of the Left Angle Mount. Attach a #VV Washer and then an #AS Nut. **Leave loose.** Do the same process to the Right Angle Mount.

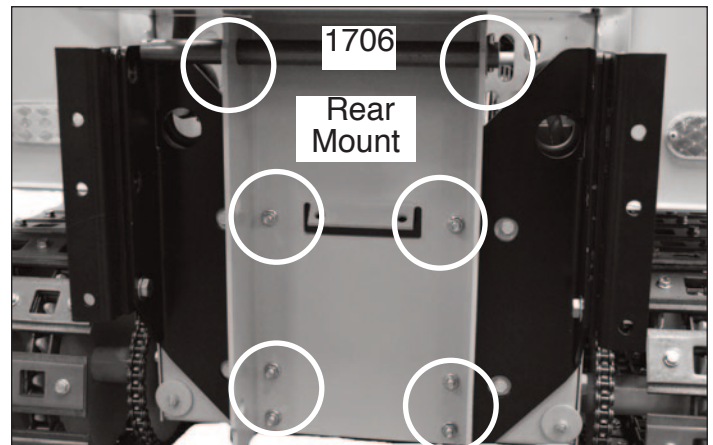


STEP 6. Remove the (2) #JJ Nuts from the top 2 holes. All bolts protruding through the rear of the RS1000 should **NOT** have any #JJ nuts on them at this time.

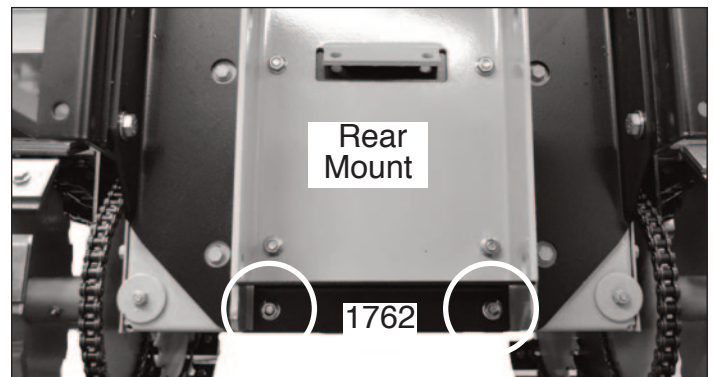


Note: There are a few variations of the Rear Mount shown in the next few photos. The process is still the same.

STEP 7. If you are attaching a HRH35 Hydro Rear Hitch to the back of the tractor, re-insert your #1706 Shaft from your HRH35 Hydro Rear Hitch prior to attaching the Rear Mount to the back of the tractor. Re-install the Rear Mount as shown. See pg. 49 in this manual. After completion, all #JJ Nuts on the Rear Mount should be **tightened at this time.**




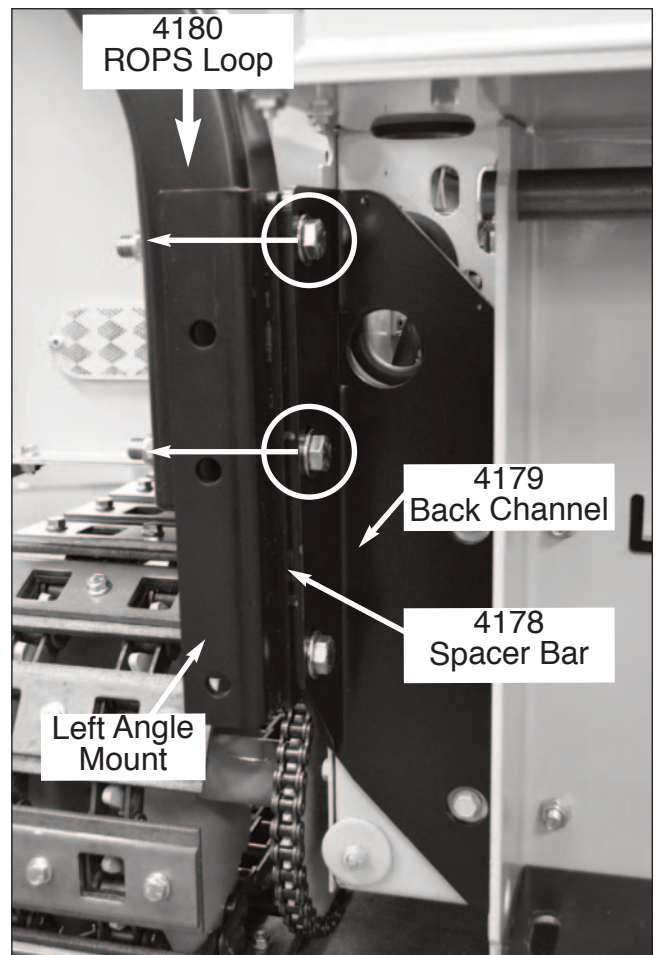
STEP 8. If you are attaching a Backhoe to the back of the tractor, please re-install the #1762 Backhoe Bracket at this time. After completion, all #JJ Nuts on the Rear Mount and the #1762 Backhoe Bracket should be **tightened at this time.**



STEP 9. Make up (4) 1/2" bolt assemblies consisting of the following: (1) #AZ Bolt and (1) #VV Washer. Place (2) assemblies near the left angle mount and (2) assemblies near the right angle mount.

STEP 10. At this time, use a lifting device such as a crane (with a 500 lb lifting capacity) to lift the #4180 ROPS Loop and lower into position. **(As shown in the 2 pictures)** If no lifting device is available, please have (2) people lift the #4180 ROPS loop and lower into position, while another person is ready to line up 1/2" bolt assemblies.

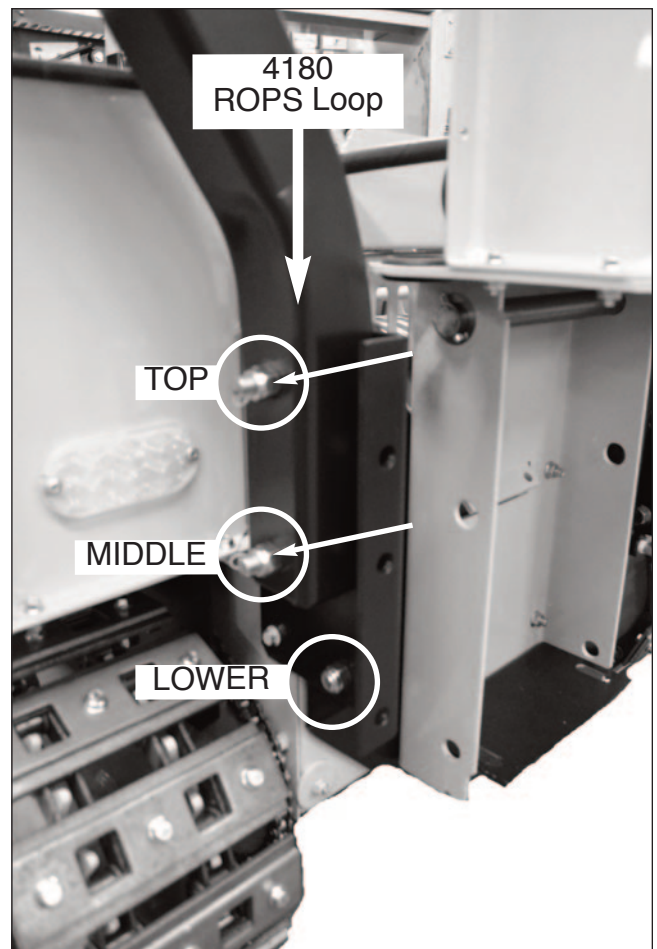
 **Make sure to steady the #4180 ROPS loop, prior to lowering into position, as the over head bend of the loop can quickly transfer its' weight potentially creating an unsafe situation.**



STEP 11. Using a punch or a long bolt as a guide to line up the bolt holes, insert (1) Bolt Assembly from step 8, through the **middle hole** on the #4179 Back Channel, then through the corresponding **middle hole** on the #4178 Bar Spacer, through the Left Angle Mount and finally through the the left side of the #4180 ROPS Loop. Loosely attach a #VV Washer and then an #AS Nut. **Leave loose.** Do the same process to the **middle hole on the right side.**

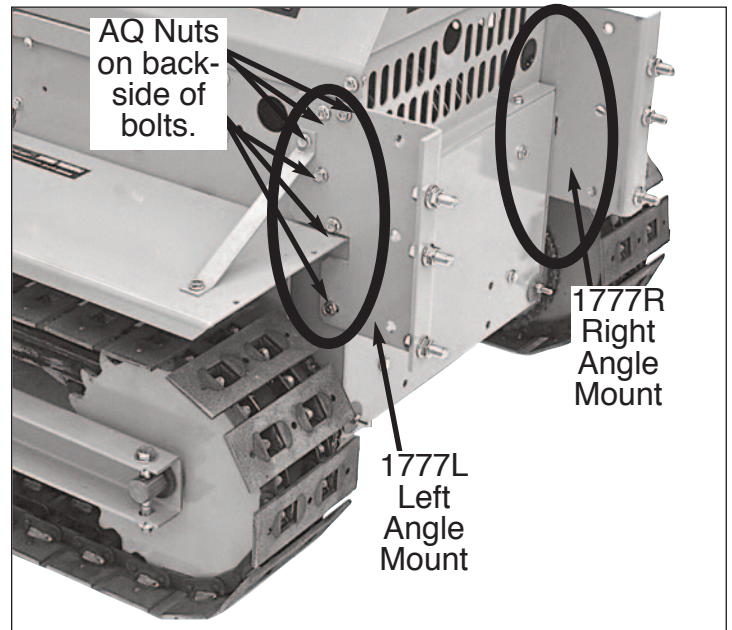
STEP 12. Applying the same process from step 10, thread a 1/2" bolt assembly through the **top hole** on the #4179 Back Channel, then through the corresponding **top hole** on the #4178 Bar Spacer, through the Left Angle Mount and finally through the the left side of the #4180 ROPS Loop. Loosely attach a #VV Washer and then an #AS Lock nut. **Leave loose.** Do the same process to the **top hole on the right side.**

Tighten all (6) 1/2" bolt assemblies at this time, including the lower bolt assemblies!





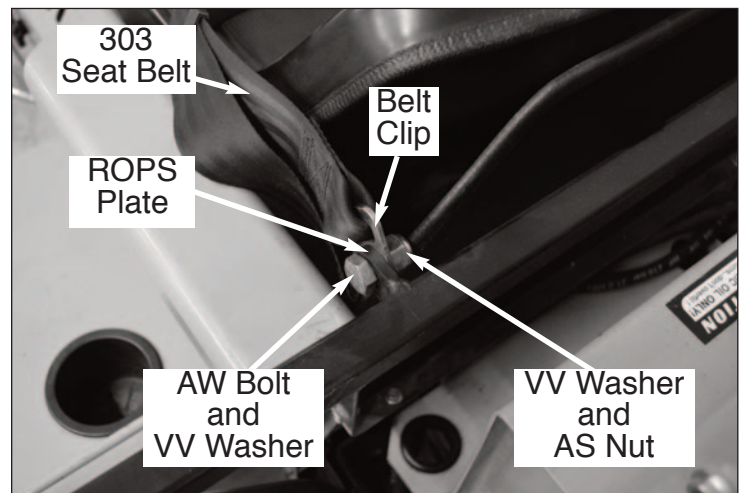
Make sure to fully tighten your #AQ Nuts from your AM39 Angle Mount Kit. They are located “Inside” the body on the ends of the bolts that are shown in the oval area. See the #1777L and #1777R Angle Mount Brackets in the photo to the right. **Make sure to tighten them on both angle mounts!**



STEP 13. Insert (1) #AW Bolt through (1) #VV Washer then through the ROPS Plate on the left side of your seat, then through #303 Seat Belt Clip and secure with (1) VV Washer (1) #AS Nut. **Tighten!** Do the same to the other ROPS Plate on the right side of your seat.

Check your assembly: The *buckle* of the #303 Seat Belt should be facing forward when it is around operator!

Check all bolt connections to make sure they are tight. Call the factory with any questions.



Your ROPS20 installation is complete.

At this time, re-attach and tighten any components or hoses that were tied back or re-routed at the beginning of your ROPS20 assembly.

Please continue onto the instructions for your other rear attachments.

HRH35 Hydro Rear Hitch > Page 37

AM39 ANgle Mount Kit > Page 49

D1060/UG Backhoe > Page 59



Backhoe Kit D1060UG

NOTE: Assemble and attach all front mounted attachments to the MAGNATRAC, prior to installing a backhoe. (HFH15 & FW15, or HL300 & FP30, etc.) Also install the AM39 Angle Mount Kit, and ROPS20 Roll-Over Structure (if purchased), prior to attaching your backhoe.

Some or all of these attachments may have been factory installed for you already. Please call if you have any questions on whether or not these attachments have been already installed!

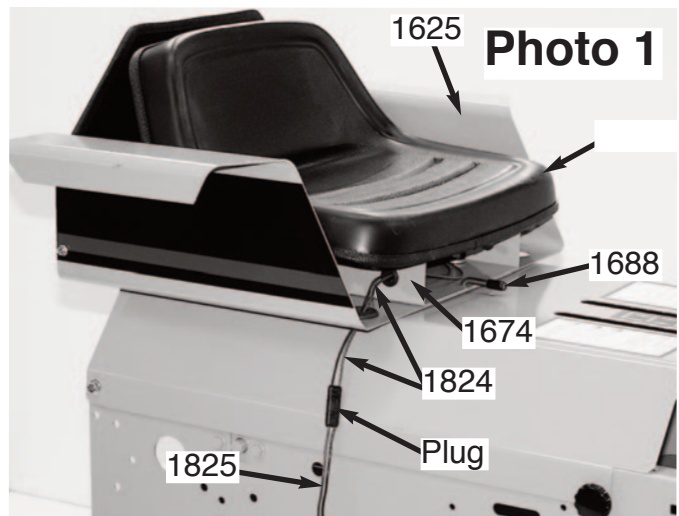
Your backhoe has been fully assembled, tested at our factory and shipped on a pallet. Below are the instructions to remove it from the pallet and attach it to your unit. Before proceeding, make sure to:

1. Have your Pallets on a flat surface, like garage floor or flat section of your driveway.
2. Remove the shrink wrap and banding. Be careful as loads can shift and move quickly!
3. Remove any other smaller attachments that may be on the Backhoe pallet and store in a clean dry area for later assembly.
4. But up the rear of the tractor pallet with the front of the Backhoe pallet, so the “rear of the tractor” and “backhoe frame” are at similar heights.

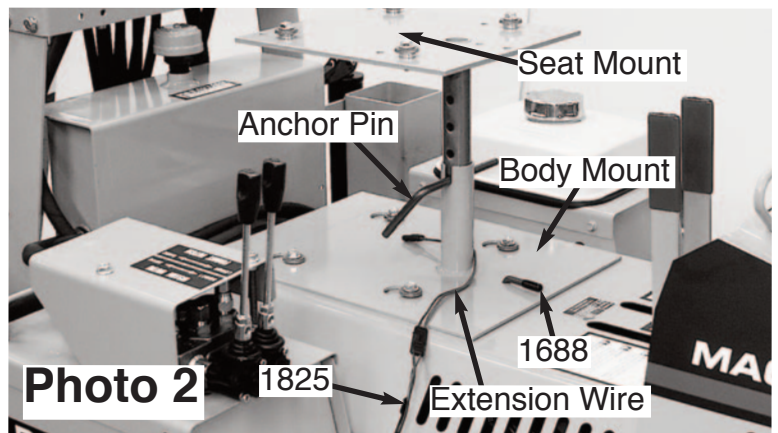
If you purchased a Backhoe after your original purchase, you’ll need to add the correct safe starting wires and rotating seat bracket to safely & properly operate the Backhoe. See Seat Mounting below.

Seat Mounting

STEP 1. Disconnect the “mating” #1824 & 1825 Seat Wires at their common “plug”. Remove #1688 Seat Pin. Remove #4562 Seat & #1674 Mounting Bracket Assembly and #1625 Arm Rests. (Photo 1).

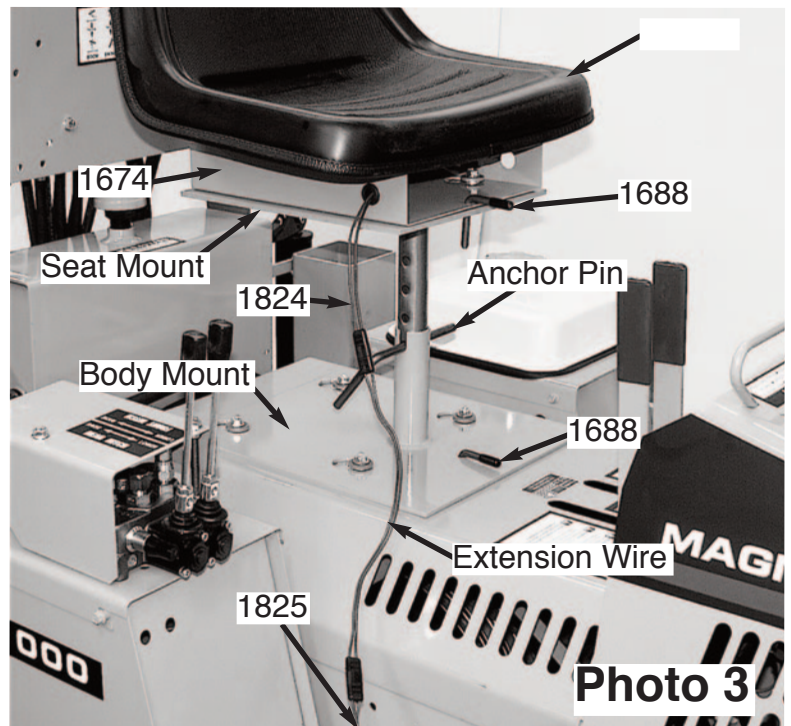


STEP 2. Mount Body Mount in place of #1625 Arm Rests (above) and secure with #1688 Pin (above). Insert tube of Seat Mount into mating tube of Body Mount... secure with Anchor Pin. [Note: Anchor Pin can be inserted at other levels for final seat height. In addition, seat can be rotated and secured in rearward position for “backhoeing”.] (Photos 2 & 3)



STEP 3. Connect Extension Wire to “open plug end” of #1825 Seat Wire. Connect remaining end of Extension Wire to “open plug end” of #1824 Seat Wire. (Photo 3)

STEP 4. Mount #1674 Mounting Bracket (with Seat attached) to the top of Seat Mount. Secure with second #1688 Pin. (Photo 3)



STEP 5. Locate Seat so that operator faces rearward, and is at a comfortable height. (Photo 4)

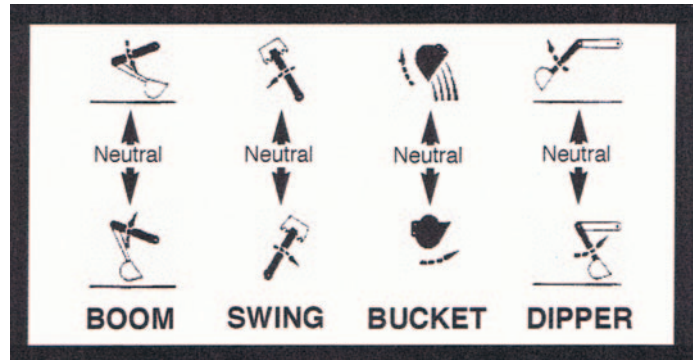
Leave at this position to help attach the backhoe at later steps.



Skip STEP 6 if you have the D1060UG Backhoe.

STEP 6. Now is a great time to familiarize yourself with your backhoe control decals and backhoe valve controls. Shown to the right is the decal for the D1060 Backhoe. This backhoe has (4) small handles on the valve that control all operations. It also has crank-down trailer jack type of stabilizers.

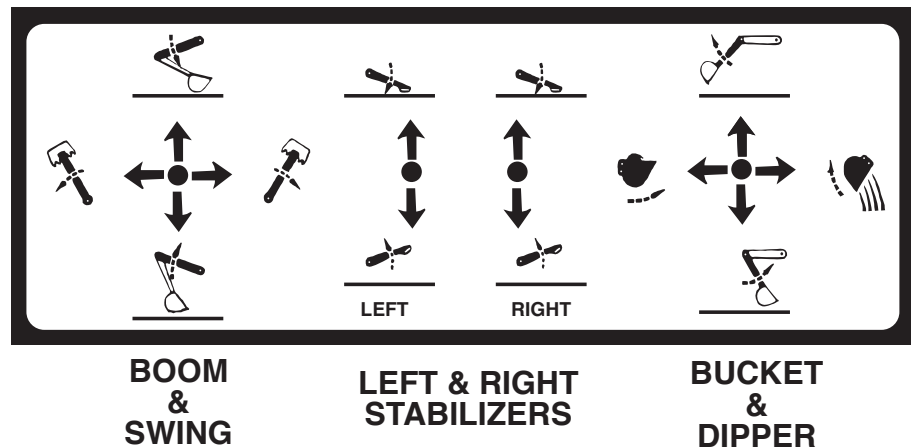
D1060 BACKHOE CONTROL LABEL



Skip STEP 7 if you have the D1060 Backhoe.

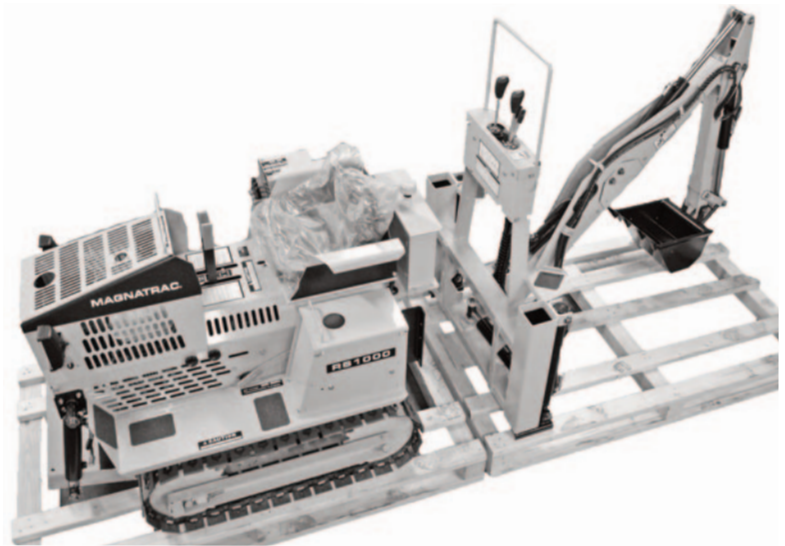
STEP 7. Now is a great time to familiarize yourself with your backhoe control decals, and backhoe valve controls. Shown to the right is the decal for the D1060UG Backhoe. This backhoe has (2) larger handles on the valve that control the main backhoe operations. It also has (2) smaller handles in the middle, that control the operation of your hydraulic stabilizers.

D1060UG BACKHOE CONTROL LABEL

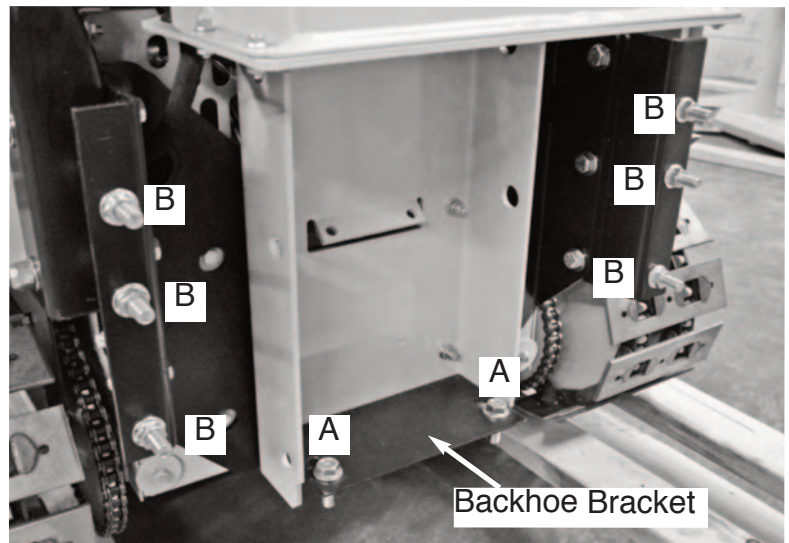


Backhoe Set Up

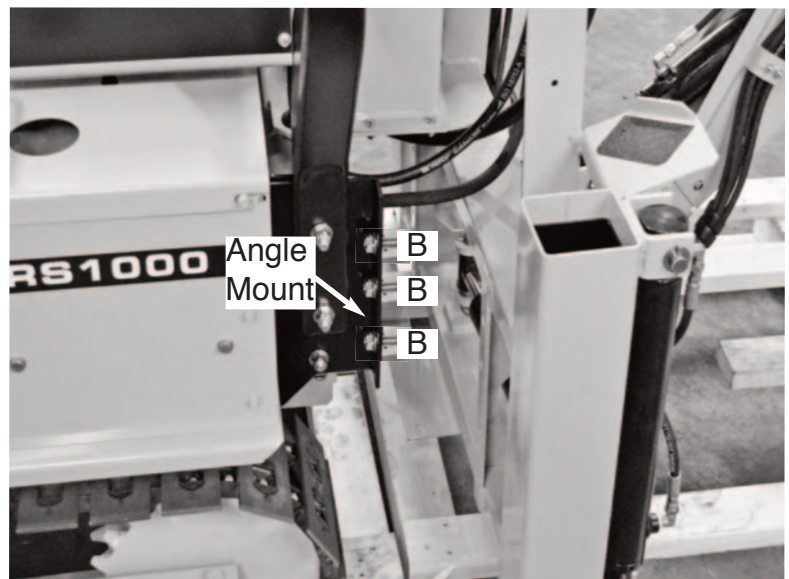
STEP 1. As mentioned earlier, your Backhoe pallet should be up against your tractor pallet as shown in the picture to the right, or be as close to the same height as possible



STEP 2. Remove the (2) 1/2" bolts and (2) 1/2" nuts (marked A) as shown in the area to the right. Note: Some machines may not have this backhoe bracket mounted & bolts and nuts may be packed in a separate bag.

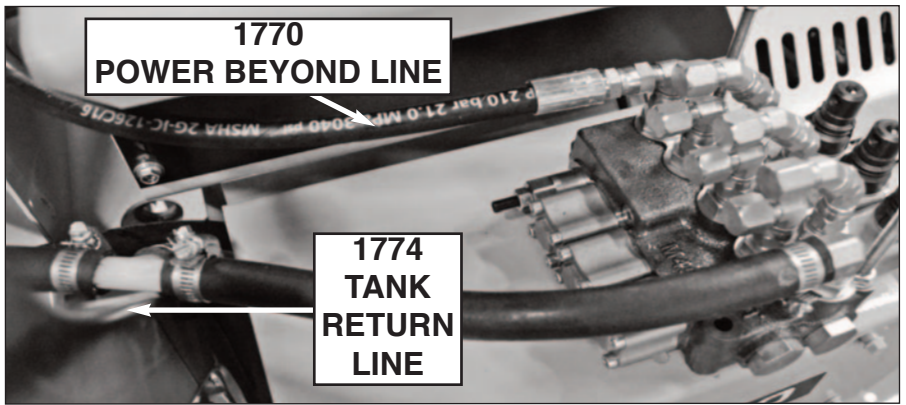


STEP 3. Start your MAGNATRAC, by following your starting instructions from Section 4 in your MAGNATRAC manual. Back up your machine until it is approx. 6" away from the backhoe frame. Note: Make sure to not puncture any hoses with any protruding bolts. Turn off your machine.



STEP 4. Loosen and remove the (3) nuts from the B marked areas on your angle mount bracket. (Do the same to the angle mount on the opposite side of your machine.)

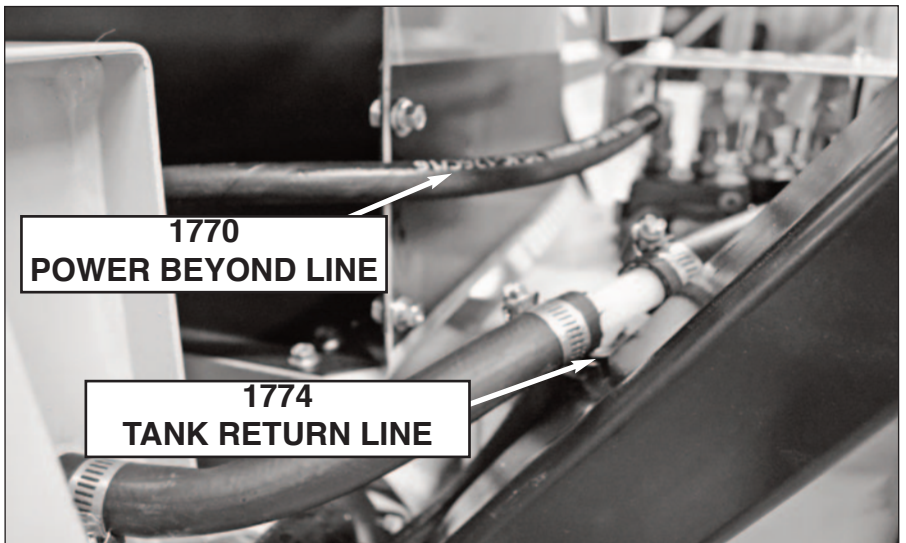
If you ordered a Backhoe at the time of purchase your backhoe hoses will be plugged and behind your seat. Skip to STEP 6.



STEP 5. If you are adding a backhoe at a later date, please call and speak with our techs to make sure you're running your pressure and return hoses correctly.

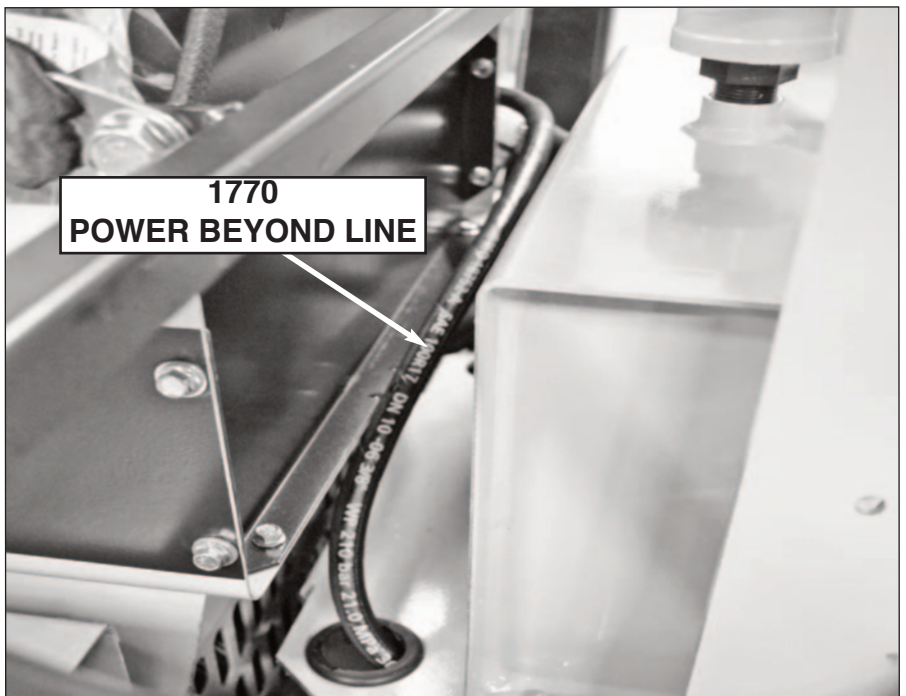
Your #1733 pump hose needs to be re-routed to the right hand side of the backhoe valve. (Marked "P" for pressure.) See next page.

The #1770 power-beyond hose gets routed from the left side of your backhoe valve to the inlet on the attachment valve. (Marked "P" for pressure.)

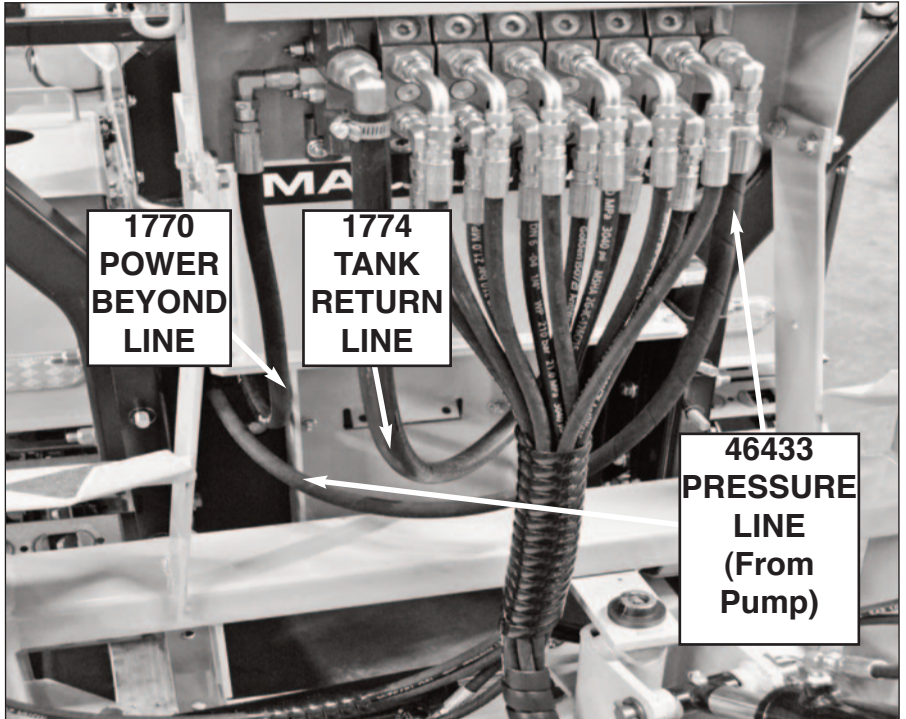


Your #1774 soft hose, is the return line to the hydraulic tank. You'll need to cut it and insert a plastic "T" fitting to allow proper return line to the tank. Hose clamps are provided to ensure proper tightness.

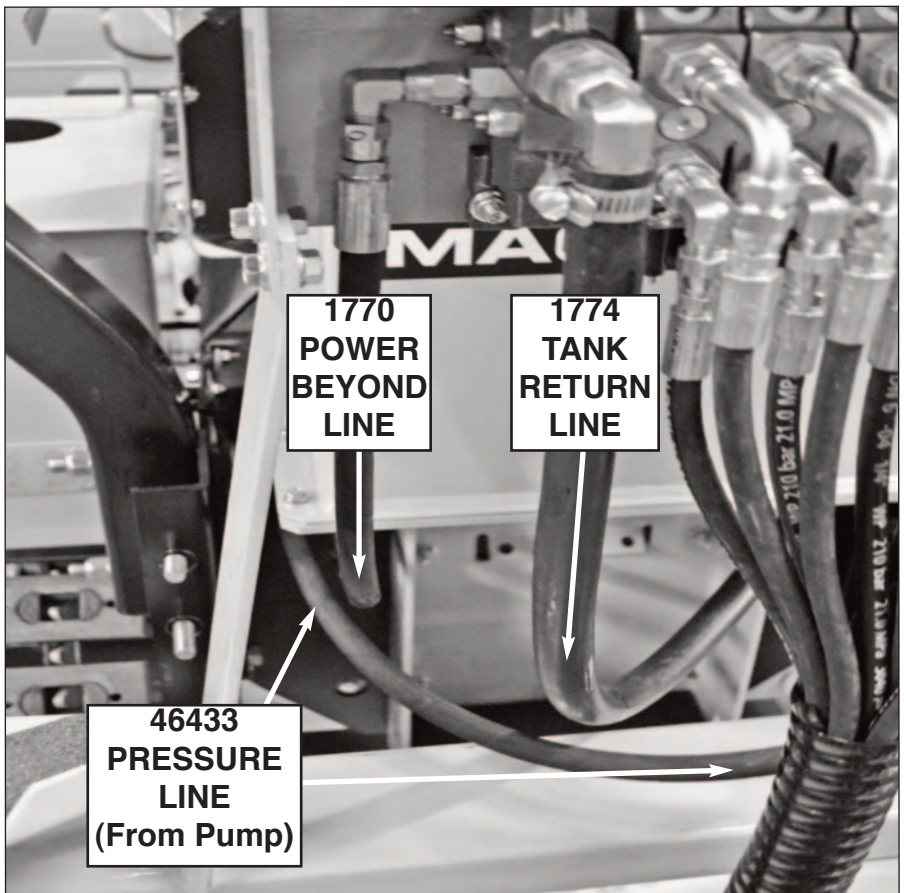
STEP 6. Use pages BM75 through BM78 to properly route your hoses. **Please call and speak with a Struck tech if you have any questions!**



Use these 2 pictures and the next 2 pages, to help with backhoe hose routing.



Please call and speak with a Struck tech if you have any questions!



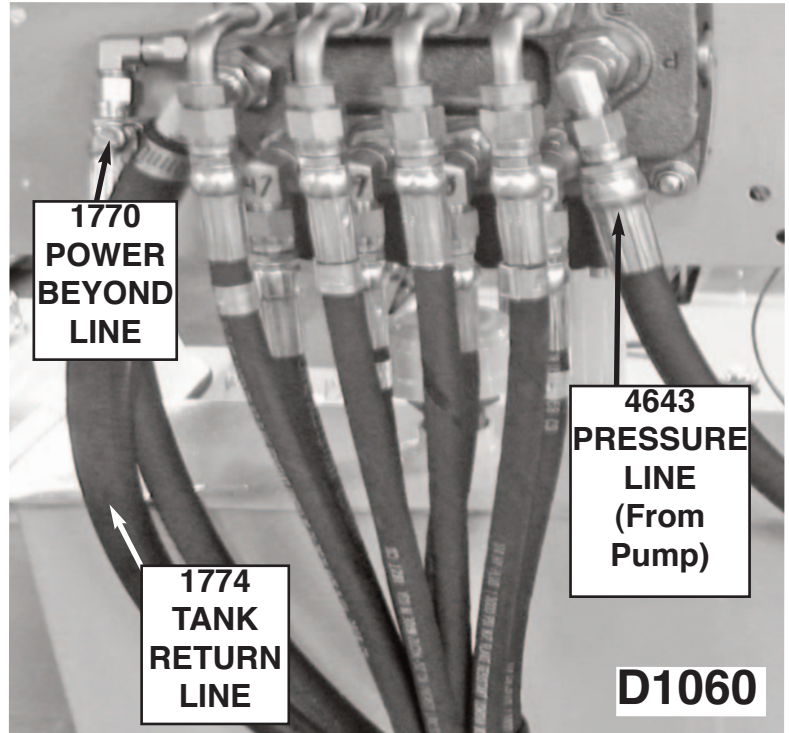
Skip to **STEP 8** if you have the **D1060UG Backhoe**.

STEP 7. Once hoses are properly routed, connect your D1060 Backhoe hoses. Use the steps below and the pictures on the next page as a guide.

1. Connect your #1770 Power Beyond Line as shown to the backhoe valve. **Tighten with wrench!**

2. Connect your #1774 Tank Return Line as shown. **Tighten fitting as shown, then tighten hose clamp!**

3. Connect your #4643 Pressure Line as shown to the backhoe valve. **Tighten with wrench! Move to STEP 17.**

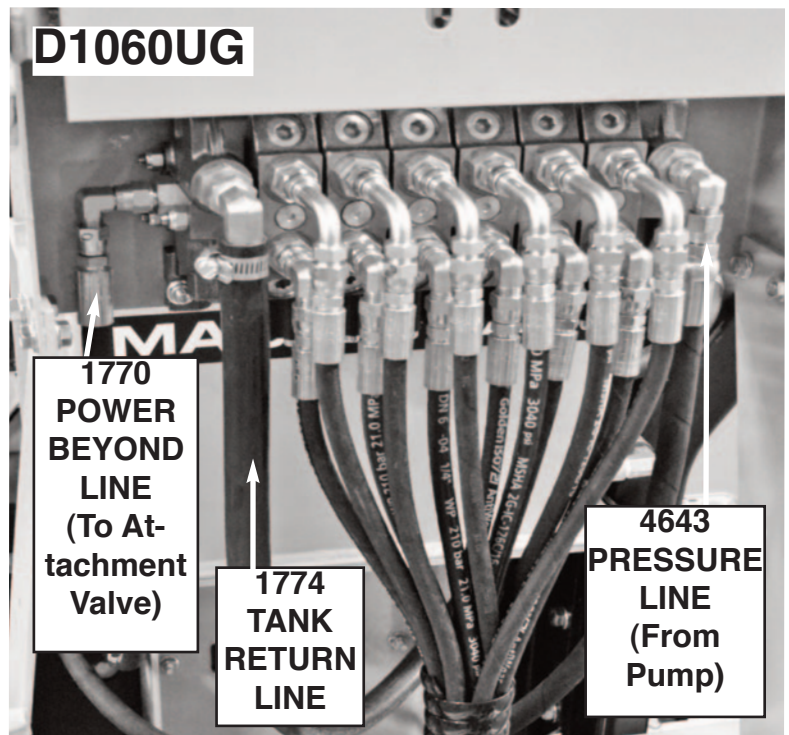


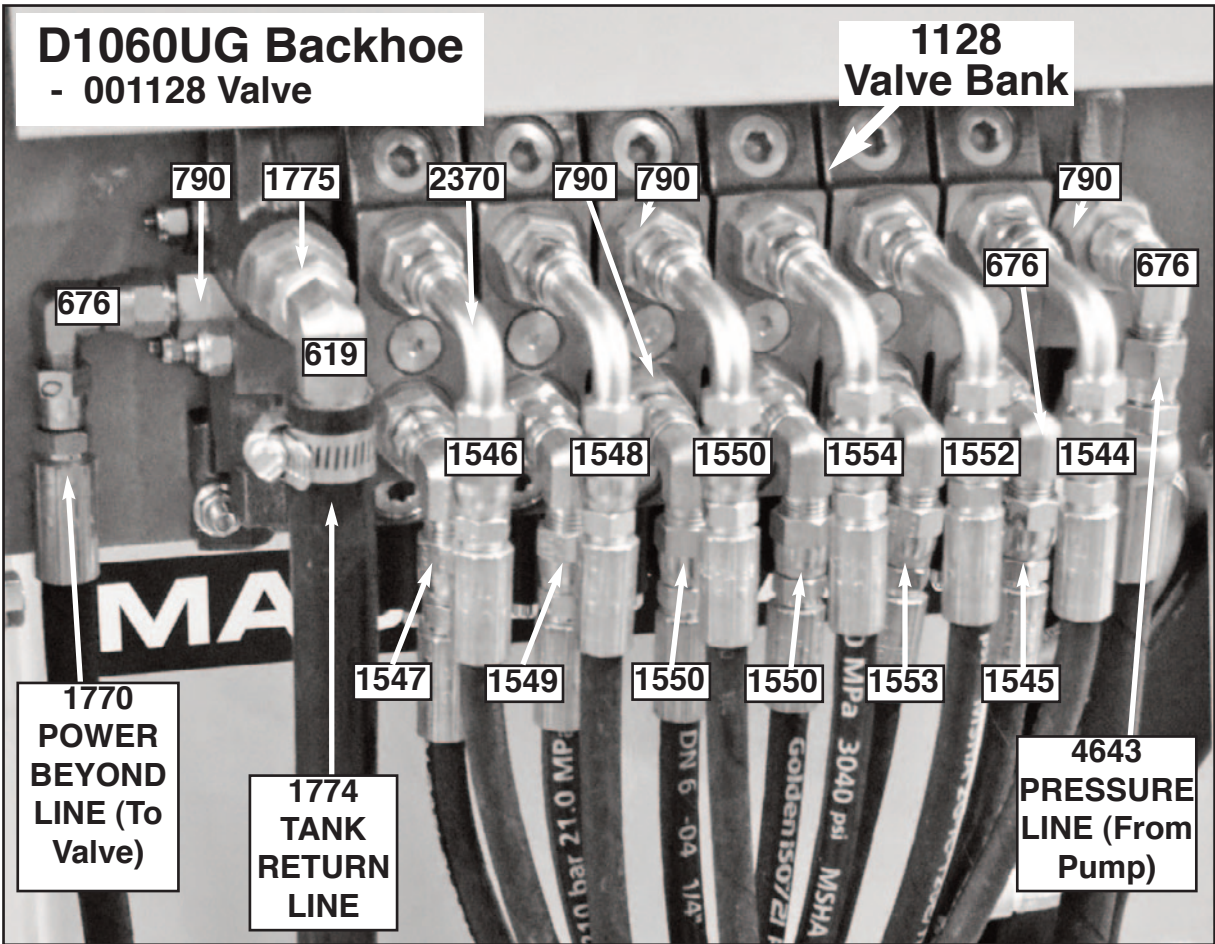
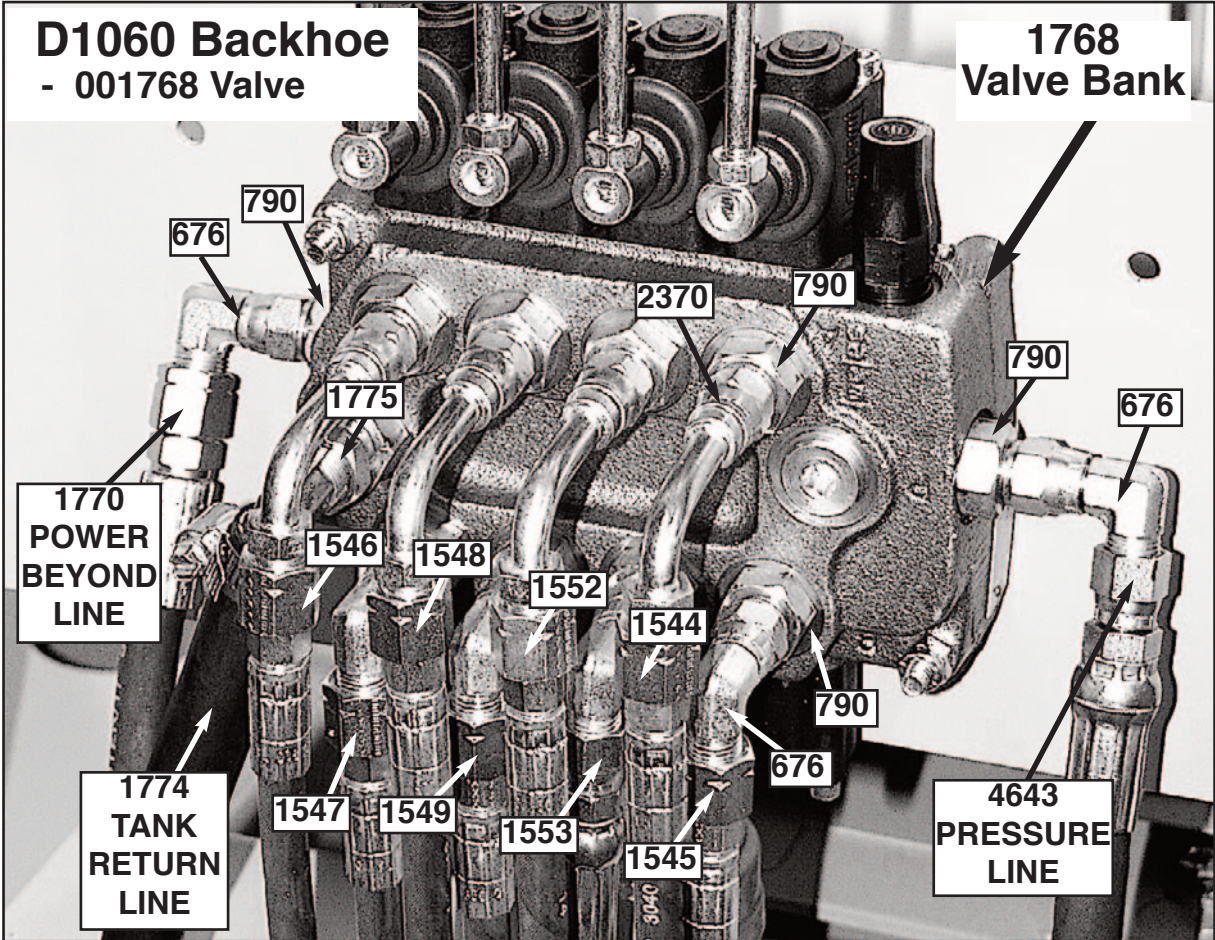
STEP 8. Once hoses are properly routed, connect your D1060UG Backhoe hoses. Use the steps below and the pictures on the next page as a guide.

1. Connect your #1770 Power Beyond Line as shown to the backhoe valve. **Tighten with wrench!**

2. Connect your #1774 Tank Return Line as shown. **Tighten fitting as shown, then tighten hose clamp!**

3. Connect your #4643 Pressure Line as shown to the backhoe valve. **Tighten with wrench!**





STEP 9. Start your MAGNATRAC, by following your starting instructions from Section 4 in your MAGNATRAC manual.



CAUTION! Make sure you understand your backhoe controls and operate them slowly! Bystanders can be injured from quick movements of the operator.

STEP 10. From the operator's seat of your tractor, use the left & right stabilizer levers on your backhoe valve, and lower the stabilizers to where the backhoe (3) frame holes line up with the left and right angle mount (3) bolts. (Total of 6) **Do not thread on the nuts to the bolts at this time!** **Note:** If you do not have hydraulic stabilizers, just crank the left & right stabilizer legs down by hand until the holes line up. This may take a few times of operating the backhoe, until the holes line up.

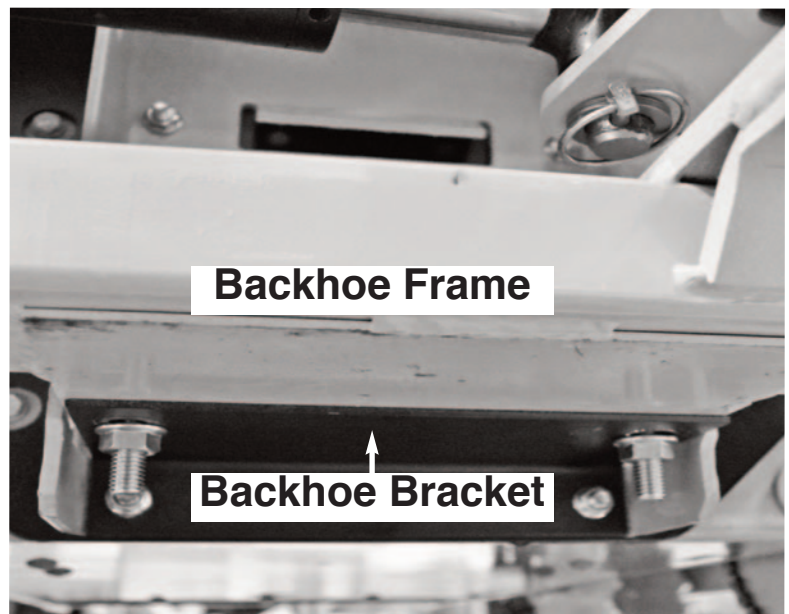
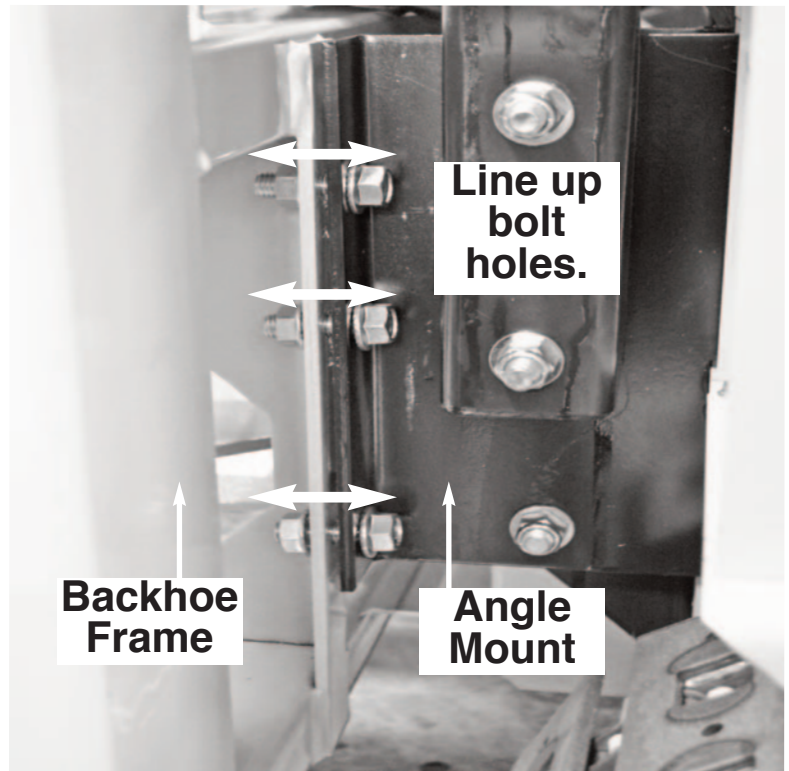
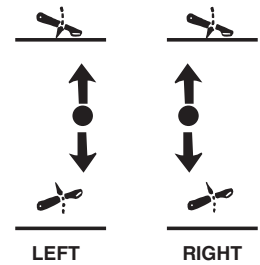
STEP 11. Make sure your stabilizers are high enough, that the backhoe bracket mounted to the rear of the tractor, is "below" the backhoe frame. See lower photo. If not attached, attach it now with 1/2" Bolt and Nuts.

STEP 12. Drive the machine rearward so you can insert the 2 rear bolts through the backhoe frame and backhoe bracket, as shown in the lower photo. Thread on nuts.

STEP 13. Thread on nuts as shown in the photo above. **Tighten all 1/2" Bolts and 1/2" Nuts at this time, (6) horizontal and (2) vertical.**

D1060UG BACKHOE CONTROL LABEL

LEFT & RIGHT
STABILIZERS



Testing Your Backhoe



Before testing your backhoe, make sure you understand your backhoe control decal and make sure all hose connections are tight. Also, make sure that all 1/2" bolts & 1/2" nuts have been tightened on the backhoe. Make sure no people, pets or other attachments are in your operating area.

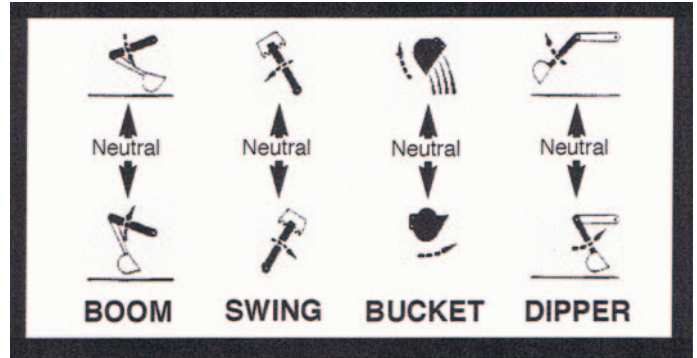
STEP 1. Start your MAGNATRAC, by following your starting instructions from your MAGNATRAC manual. Adjust seat to look like Photo 4 at the bottom of page 60. Adjust throttle of tractor to approx. 1/4" way upward.

STEP 2. From the operator's seat of your tractor, operate 1 lever at a time. Move the handle in one direction and hold it in that direction for approx. 3 seconds. Then move the handle in the opposite direction, repeating the same 3 second process. This is forcing any air in the backhoe lines, back to the tank and out of your breather.

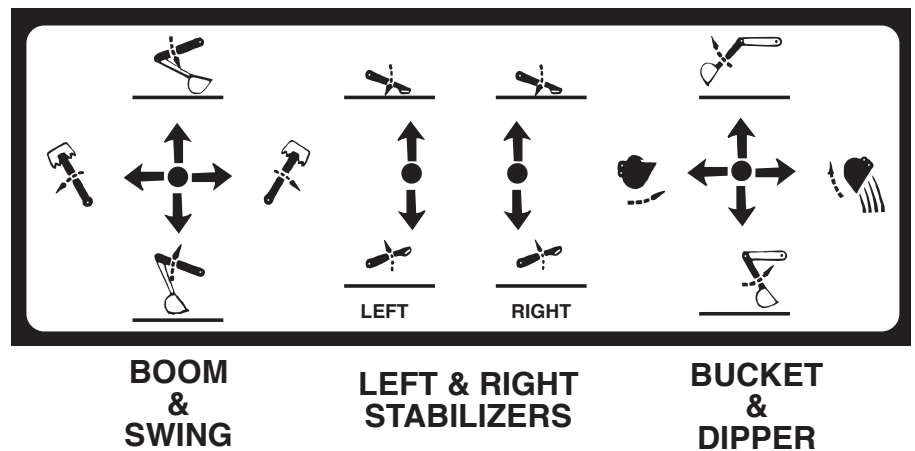
STEP 3. Repeat this same process in every handle, until you have moved all air back into the tank and out of the breather.

STEP 4. Check level of hydraulic tank by looking in the oil sight glass window. The top of the level should be showing in the sight glass window. If level is "below" the window, add additional hydraulic oil to the tank.

D1060 BACKHOE CONTROL LABEL



D1060UG BACKHOE CONTROL LABEL

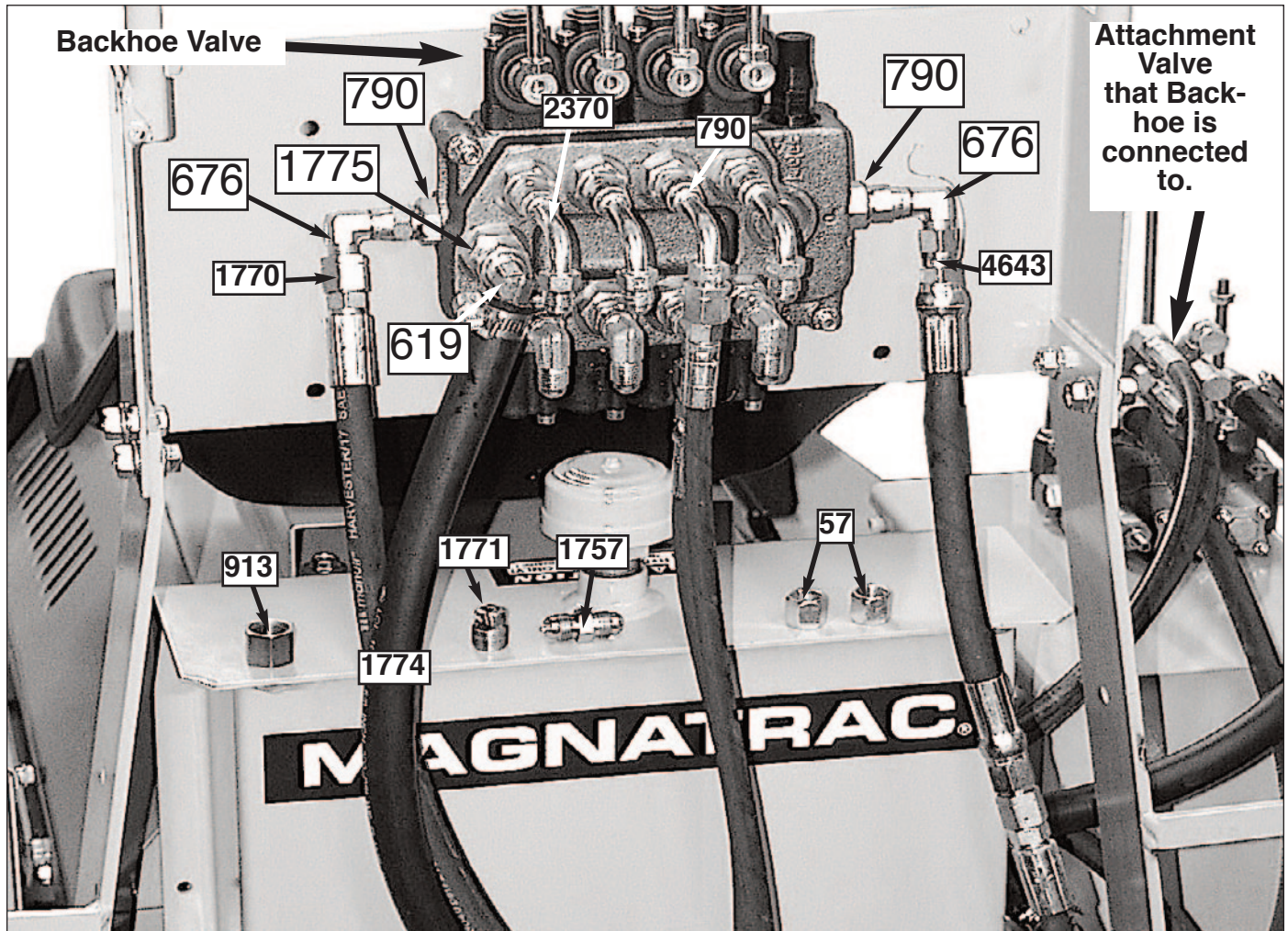


Disconnecting the Hydraulic System for removal of D1060/UG Backhoe.

Disconnecting the Hydraulic System of your Backhoe can be “potentially dangerous” if you are careless about “bleeding” all the pressure out of your hydraulic system. All Cylinders must be relaxed with no forces pushing or pulling that could “pressurize” them.

With engine off, you need to move **every** “Hydro” Control Lever fully back and forth until the component that it specifically operates no longer moves... **this also includes** the Control Levers of Valves that may also be connected to the Hydro system of the Backhoe.

Always feel free to call our Technical Department with any questions you may have!



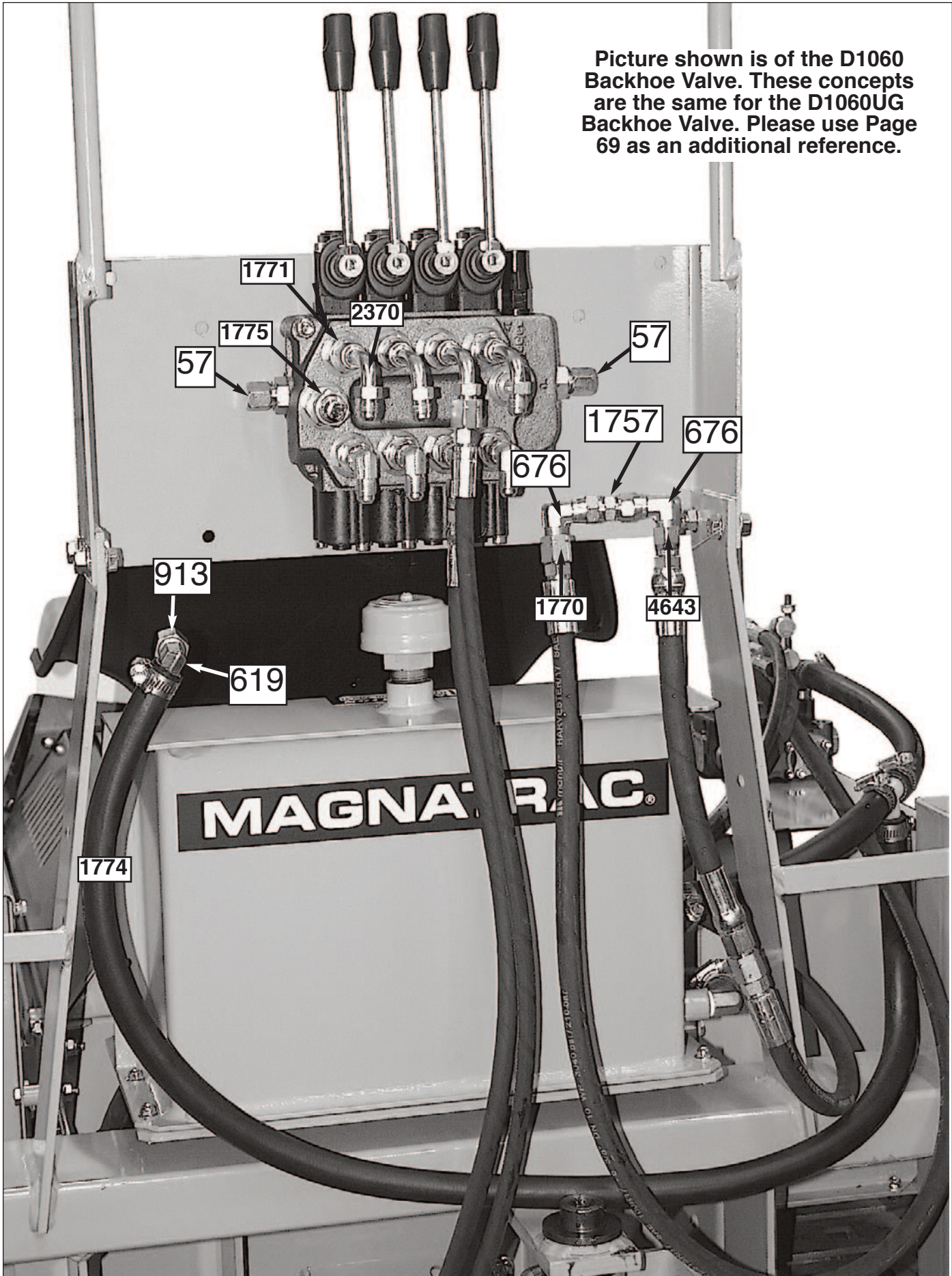
NOTE: The Photo above will help you identify each part you will be changing... the Photo [next page] will show you how it looks after the change.

STEP 1. Disconnect #676 Fitting [45 deg] from #790 Fitting on *left side* of Backhoe Valve. Disconnect #676 Fitting [45 deg] from *right side* of Backhoe Valve. “Cap” each of above #790 Fittings [on either side of Valve] with #57 Caps... tighten.

STEP 2. Join the two #676 Fittings (disconnected above) with a #1757 Fitting [straight]... tighten... Photo next page.

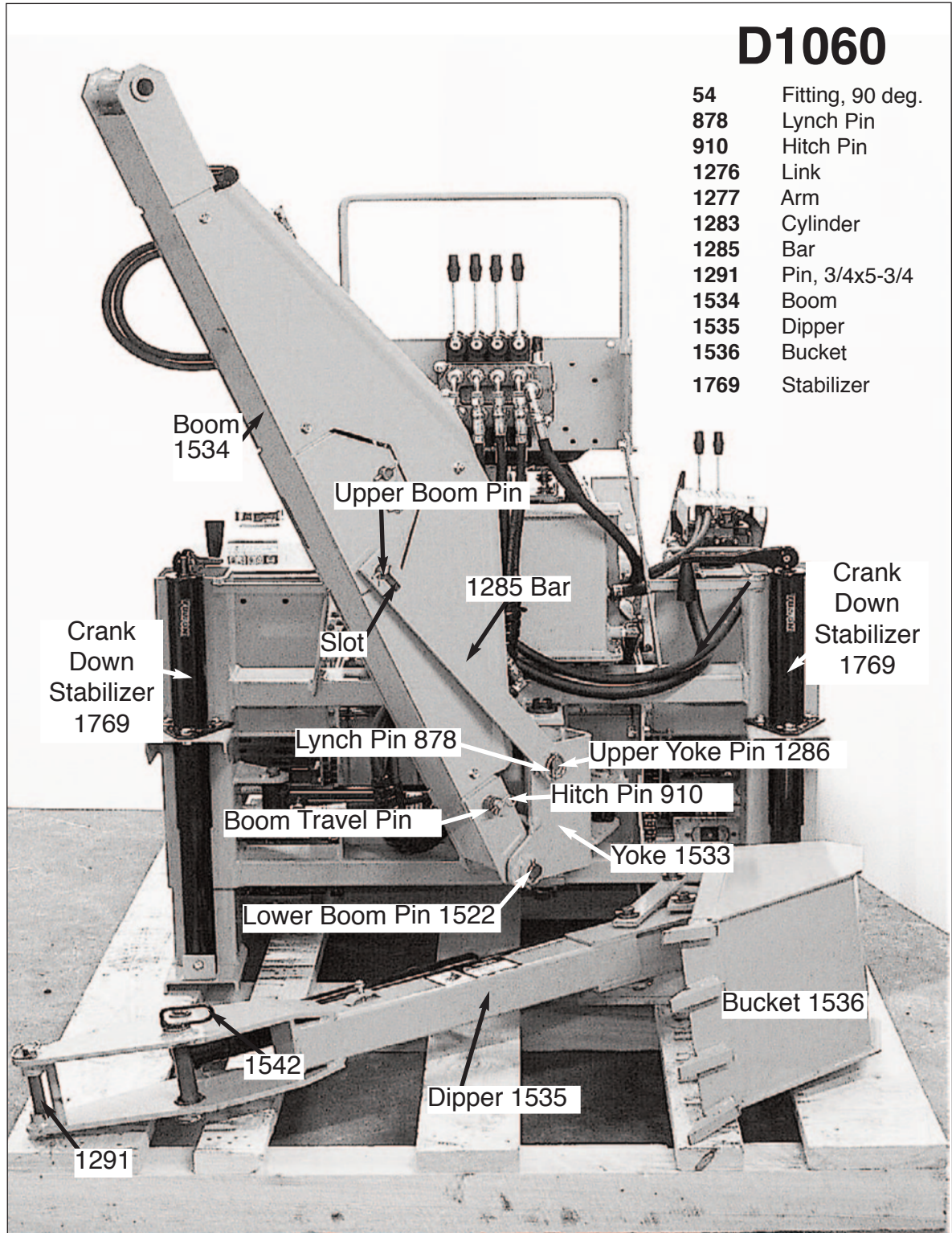
STEP 3. Disconnect #619 Fitting [45 deg] from #1757 Fitting [straight]. Plug #619 Fitting with #1775 Plug... tighten... Photo next page.

Picture shown is of the D1060 Backhoe Valve. These concepts are the same for the D1060UG Backhoe Valve. Please use Page 69 as an additional reference.



Backhoe Trailing

Shown below is the D1060 Backhoe from the rear, with the dipper removed. The #1285 Bar when locked to the #1286 Upper yoke pin, allows easy storage in garages, “sheds, etc. **This bar should be set on the “Boom Travel Pin” & locked in with hitch pin when trailering, with down pressure on the backhoe bucket. Call with Questions!**



The following Parts Lists and Identification Photos are included to help identify various components and their relationship to each other for later service or adjustment.

D1060 BACKHOE

PARTS LIST

000029xx	#2007 Cylinder, burnished	1
000054	Fitting, 90 degree, 849-FS-06x04	6
000214	Rear Axle	1
000244	Spring pin, 1/4" dia. X 1 1/2"	24
000504sfp	Seat pin	1
000670	Clip, painted	3
000672Bsfp	Pin, 5" short	2
000673A	Zerk, straight	5
000704	Washer, steel, 1 3/16" ID x 1 7/8" OD	8
000716	Washer, steel, 1" ID x 1 1/2" OD	8
000727	Snap ring, 1 3/16" ID	1
000878	Lynch pin, 1/4 pin w/ wire lock handle	1
000910	Hitch Pin	1
000913	Cap, steel, hex	1
000929	Spiral Wrap, 4ft section	1
000931	Hose clamp, 5/8"	4
000956	Fitting, 90 degree w/ restrictor	2
001276	Link	1
001277	Arm, (set of two)	1
001283	Cylinder	2
001285	Bar	1
001286sfp	Pin, 3/4x6-1/2"	1
001289sfp	Pin	2
001291sfp	Pin	6
001522	Cylinder, boom lift	1
001533	Yoke. w/bushings	1
001534	Boom	1
001535	Dipper Arm	1
001537	Boom Side	1
001538	Clip	1
001539	Tube	1
001540sfp	Pin, 1x6-5/8"	1
001541	Dipper Side	1
001542	Pin, with painted end	1
001544	Hose, 1/4 x 65"	1
001545	Hose, 1/4 x 61"	1
001546	Hose, 1/4 x 65"	1
001547	Hose, 1/4 x 81"	1
001548	Hose, 1/4 x 119"	1
001549	Hose, 1/4 x 119"	1

D1060 BACKHOE

PARTS LIST [continued]

001673sfp	Washer	4
001688sfp	Pin	1
001733	Pressure Hose, HP104-6FJX-6FJX-87"	1
001759	Tube Spacer	2
001757	Fitting, 842-FS-06	1
001762	Lower body angle mount	1
001763	Stabilizer leg	2
001764	Seat mount – upper	1
001765	Seat mount – lower	1
001766	Valve mount	1
001768XX	Backhoe Valve Assembly	1
-000676	-Fitting, 879-FS-06, 90 deg	6
-000790	-Fitting, 848-FSO-06x08, straight	11
-001041F	-Power Beyond Plug, 24SR-04	1
-001775	-Fitting, 60SB-10x06	1
-001768	-Valve, 4-spool, monoblock	1
-002370	-Fitting, 63UC-06x06	4
001769	Jack leg	2
001770	Hose, 3/8 x 53"	1
001771	BIP plug, 3/8	1
001772	Hose, HP104-6FJX-6FJX-38"	1
001774	Return dump hose, 5/8 soft x 45"	1
001776	Plastic tee connector	1
001778	D1060 frame	1
001851	12" loop, molded 2 contact seat wire	1
001867	Vinyl cap, 5/16 x 38"	1
001907	Cotter pin, 1/8 x 1"	1
002061	Zerk, 1/8 pipe thread	1
002077	Shim washer, 3/4" ID	38
002579	Shim washer, 7/8" ID	20
002582	Fitting, 889-FS-06, 45 degree	1

D1060 BACKHOE

FASTENER LIST

MAT-000052	Edging, black, per foot	1
DEC-001972	Decal set, D106, D1060. D1065	1
Bolt-5/16-8	5/16x18x1-1/2 G5 Cap Screw	1
Bolt-5/16-9	5/16x18x1-3/4 G5 Cap Screw	1
Bolt-5/16-10	5/16X18X2 G5 Cap Screw	2
Bolt-5/16-11	5/16x18x2-1/2 G5 Cap Screw	4
Bolt-5/16-15	5/16 x 18 x 4 1/2 G5 Cap Screw	1
Bolt-5/16-123	5/16 x 18 x 1 HX Spin Lock Bolt	4
Bolt-5/16-124	5/16 x 18 x 1 1/4 HX Spin lock bolt	12
Bolt-5/16-193	5/16 x 18 x 3/4 HX Spin lock self-tap	8
Bolt-5/16-199	5/16 x 18 x 1-1/2 HX Spin lock self-tap	1
Bolt-3/8-131	3/8 x 16 x 1-3/4 Spin lock bolt	10
Bolt-1/2-133	1/2 x13 x 1 Spin lock bolt	8
Nut-5/16-221	5/16 x 18 Nylon lock nut	7
Nut-5/16-231	5/16 x 18 Spin lock nut	16
Nut-3/8-232	3/8 x 16 Spin lock nut	10
Nut-1/2-234	1/2 x 13 Spin lock nut	8
Wash-5/16-261	5/16 Flat washer	20
Wash-1/2-264	1/2 Flat Washer	5

The following Parts Lists and Identification Photos are included to help identify various components and their relationship to each other for later service or adjustment.

D1060UG BACKHOE PARTS LIST

000029xx	#20007 Cylinder, burnished	1
000214	Rear Axle	1
000244	Spring pin, 1/4" dia. X 1 1/2"	24
000504sfp	Seat pin	1
000670	Clip, painted	3
000672Bsfp	Pin, 5" short	2
000673A	Zerk, straight	5
000704	Washer, steel, 1 3/16" ID x 1 7/8" OD	8
000716	Washer, steel, 1" ID x 1 1/2" OD	8
000727	Snap ring, 1 3/16" ID	1
000821	Valve Mount	1
000878	Lynch pin, 1/4 pin w/ wire lock handle	1
000910	Hitch Pin	1
000913	Cap, steel, hex	1
000929	Spiral Wrap, 4ft section	1
000931	Hose clamp, 5/8"	4
000956	Fitting, 90 degree w/ restrictor	2
001128ZZ	Valve Assembly, D1060UG	1
-001128	-Valve, 6 Bank section 1	1
-001041F	-Power Beyon Plug, 24R-04	1
-002525	-Fitting, 848-FSO-06x10	2
-000790	-Fitting, 848-FSO-06x08, straight	11
-002370	-Fitting, 63UC-06x06, 90 degree	6
-000676	-Fitting, 879-FS-06, 90 degree	8
001275	Leg, right & left	1
001276	Link	1
001277	Arm, (set of two)	1
001283	Cylinder	4
001285	Bar	1
001286sfp	Pin, 3/4 x 6-1/2"	1
001289sfp	Pin, 3/4 x 4-5/8"	6
001291sfp	Pin	6
001522	Cylinder, boom lift	1
001533	Yoke. w/bushings	1
001534	Boom	1
001535	Dipper Arm	1
001537	Boom Side	1
001538	Clip	1
001539	Tube	1
001540sfp	Pin, 1x6-5/8"	1

D1060UG BACKHOE

PARTS LIST [continued]

001541	Dipper Side	1
001542	Pin, with painted end	1
001544	Hose, 1/4 x 65"	1
001545	Hose, 1/4 x 61"	1
001546	Hose, 1/4 x 65"	1
001547	Hose, 1/4 x 81"	1
001548	Hose, 1/4 x 119"	1
001549	Hose, 1/4 x 119"	1
001550	Hose, 1/4 x 47"	1
001551	Hose, 1/4 x 47"	1
001552	Hose, 1/4 x 35"	1
001553	Hose, 1/4 x 26"	1
001554	Hose, 1/4 x 47"	1
001555	Hose, 1/4 x 47"	1
001673sfp	Washer	4
001688sfp	Pin	1
001727	Fitting, 90 degree, 849-FSO-06x06	10
001733	Pressure Hose, HP104-6FJX-6FJX-87"	1
001759	Tube Spacer	2
001762	Lower body angle mount	1
001763	Stabilizer leg	2
001764	Seat mount – upper	1
001765	Seat mount – lower	1
001766	Valve mount	1
001769	Jack leg	2
001770	Hose, 3/8 x 53"	1
001771	BIP plug, 3/8	1
001772	Hose, HP104-6FJX-6FJX-38"	1
001774	Return dump hose, 5/8 soft x 45"	1
001776	Plastic tee connector	1
001778	D1060 frame	1
001851	12" loop, molded 2 contact seat wire	1
001867	Vinyl cap, 5/16 x 38"	1
001907	Cotter pin, 1/8 x 1"	1
001794	Backhoe Frame	1
002061	Zerk, 1/8 pipe thread	1
002077	Shim washer, 3/4" ID	38
002579	Shim washer, 7/8" ID	20
002582	Fitting, 889-FS-06, 45 degree	1

D1060UG BACKHOE

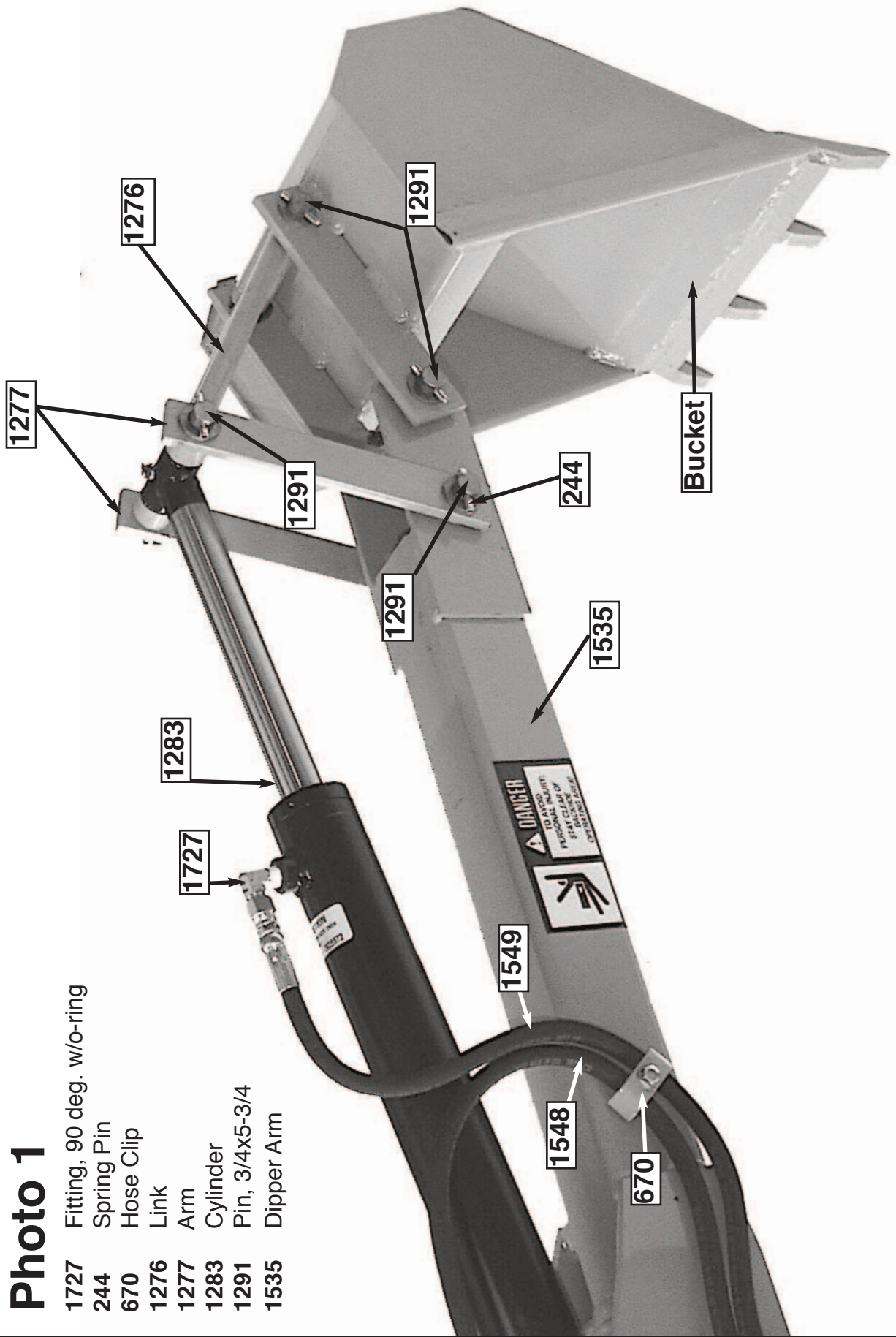
FASTENER LIST

MAT-000052	Edging, black, per foot	1
DEC-001972	Decal set, D106, D1060. D1065	1
Bolt-5/16-8	5/16x18x1-1/2 G5 Cap Screw	1
Bolt-5/16-9	5/16x18x1-3/4 G5 Cap Screw	1
Bolt-5/16-10	5/16X18X2 G5 Cap Screw	2
Bolt-5/16-11	5/16x18x2-1/2 G5 Cap Screw	4
Bolt-5/16-15	5/16 x 18 x 4 1/2 G5 Cap Screw	1
Bolt-5/16-123	5/16 x 18 x 1 HX Spin Lock Bolt	4
Bolt-5/16-124	5/16 x 18 x 1 1/4 HX Spin lock bolt	12
Bolt-5/16-193	5/16 x 18 x 3/4 HX Spin lock self-tap	8
Bolt-5/16-199	5/16 x 18 x 1-1/2 HX Spin lock self-tap	1
Bolt-3/8-131	3/8 x 16 x 1-3/4 Spin lock bolt	10
Bolt-1/2-133	1/2 x13 x 1 Spin lock bolt	8
Nut-5/16-221	5/16 x 18 Nylon lock nut	7
Nut-5/16-231	5/16 x 18 Spin lock nut	16
Nut-3/8-232	3/8 x 16 Spin lock nut	10
Nut-1/2-234	1/2 x 13 Spin lock nut	8
Wash-5/16-261	5/16 Flat washer	20
Wash-1/2-264	1/2 Flat Washer	5

D1060/UG

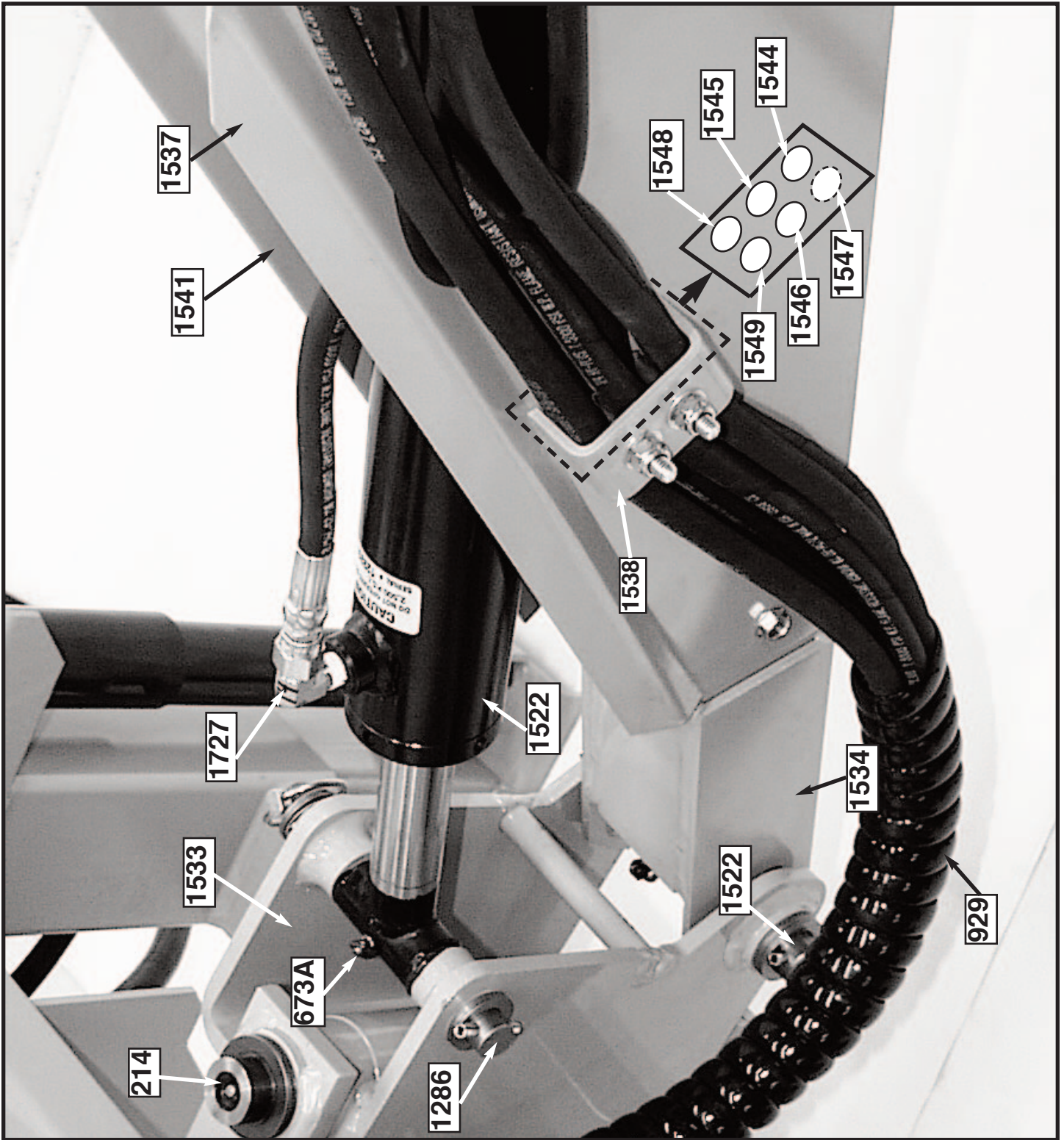
Photo 1

- 1727 Fitting, 90 deg. w/o-ring
- 244 Spring Pin
- 670 Hose Clip
- 1276 Link
- 1277 Arm
- 1283 Cylinder
- 1291 Pin, 3/4x5-3/4
- 1535 Dipper Arm

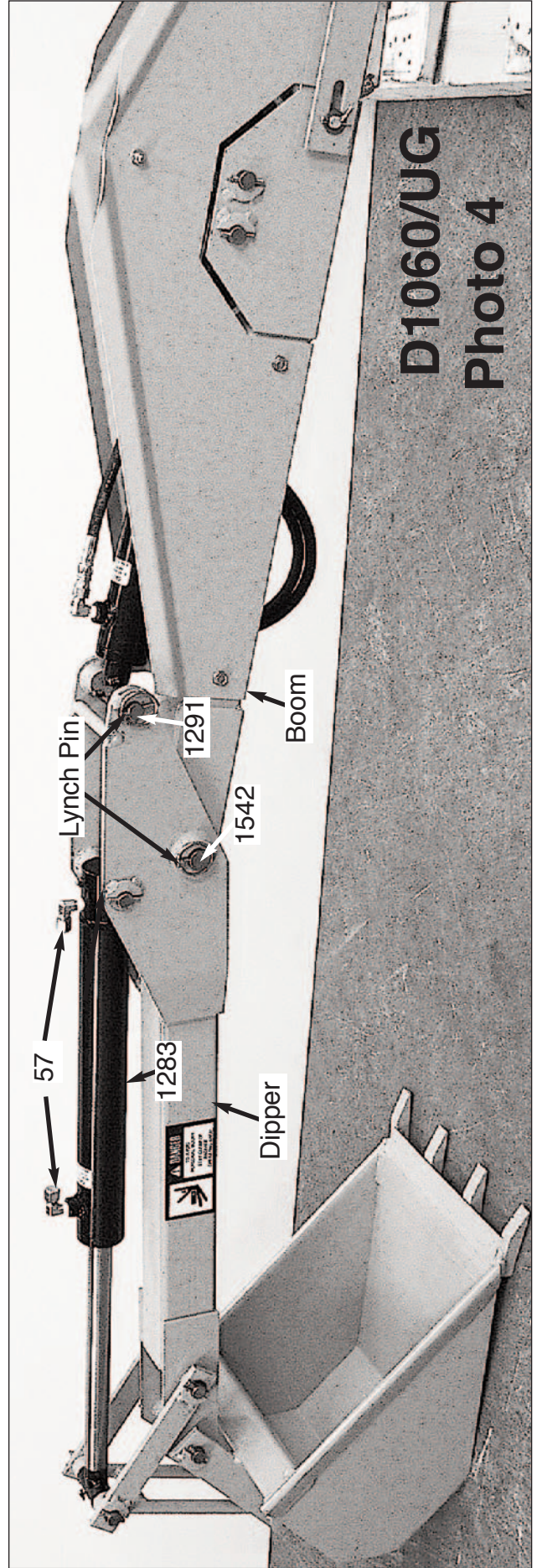
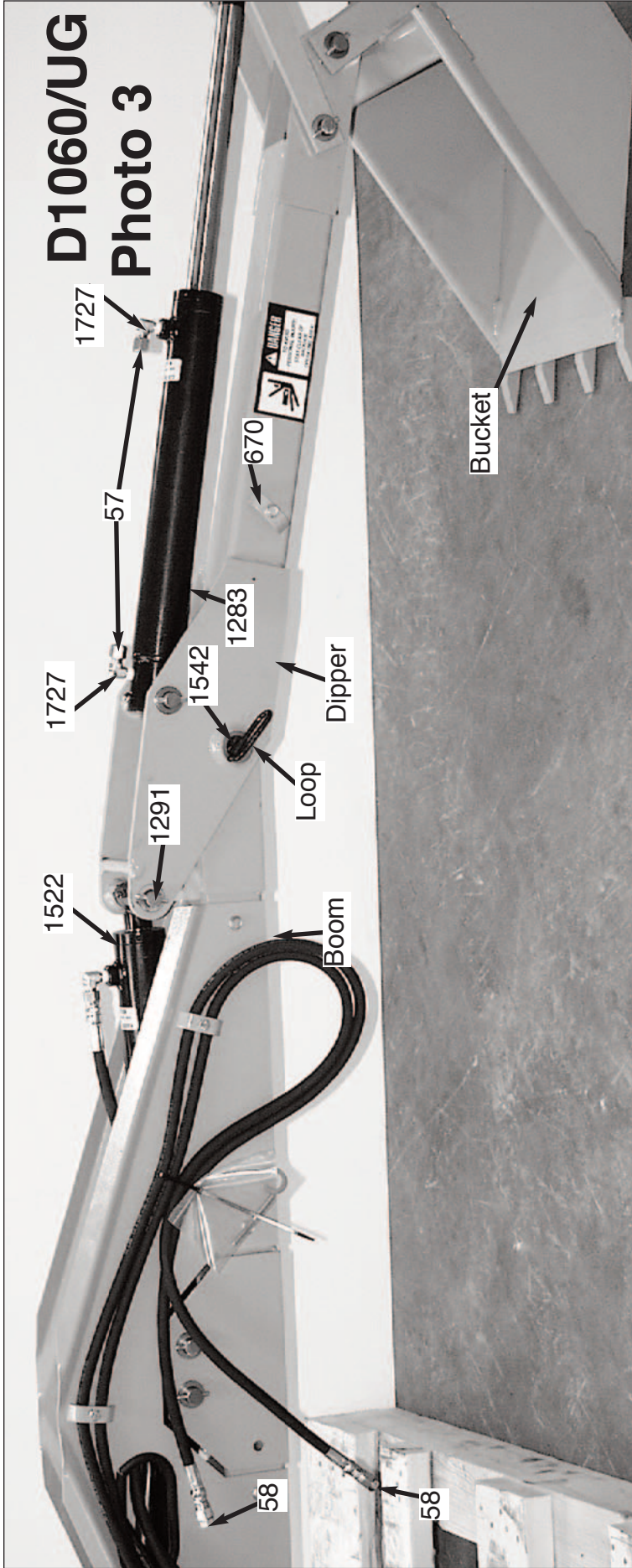


D1060/UG

Photo 2



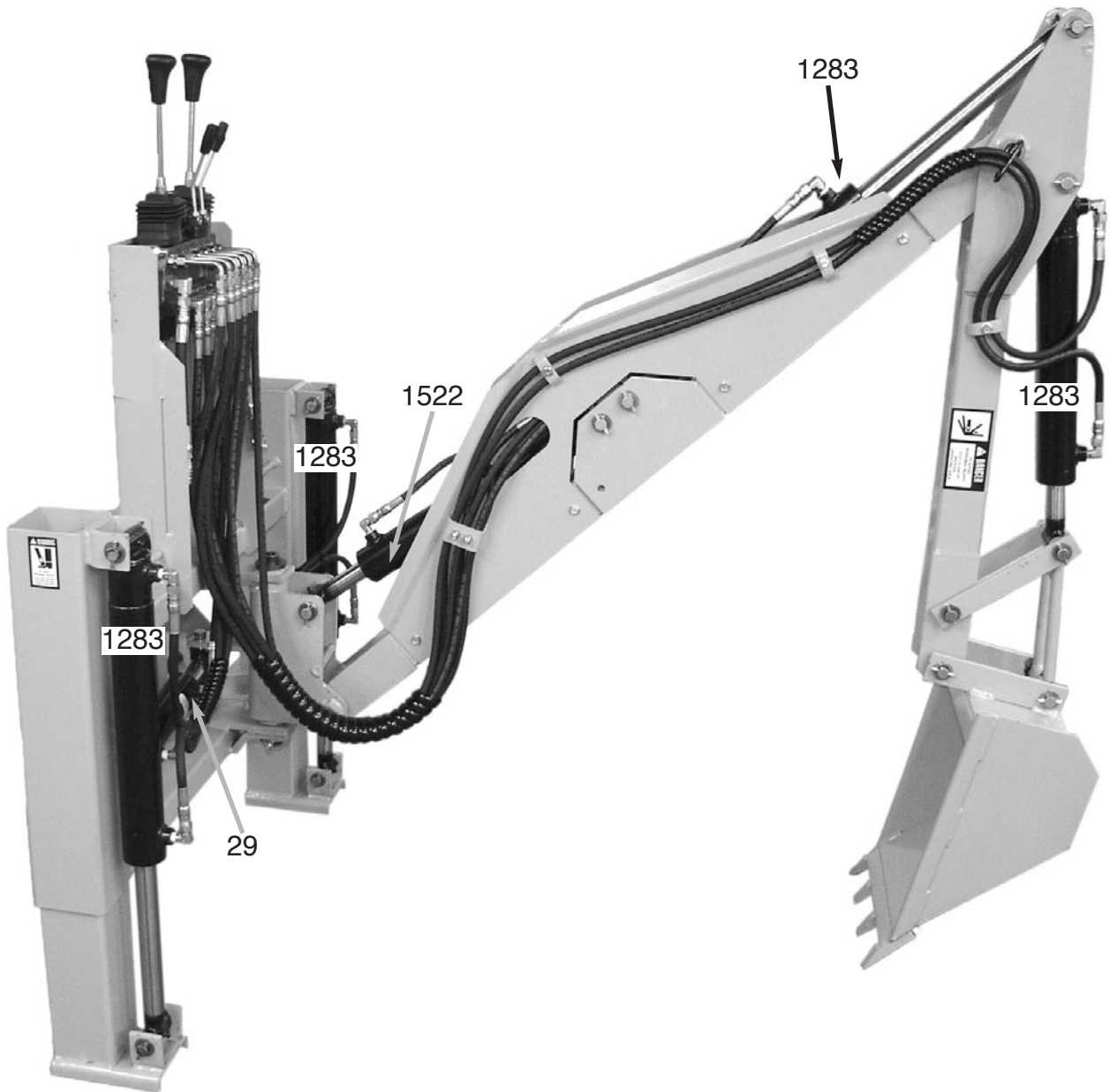
- 1727 Fitting, 90 deg. w/ o-ring
- 214 Rear Axle
- 673A Zerk
- 929 Spiral Wrap
- 1286 Pin, 3/4x5-3/4
- 1522 Cylinder
- 1533 Yoke
- 1534 Boom
- 1537 Side Wall, right
- 1538 Clip, Hose
- 1541 Side Wall, left
- 1544 Hose
- 1545 Hose
- 1546 Hose
- 1547 Hose
- 1548 Hose
- 1549 Hose

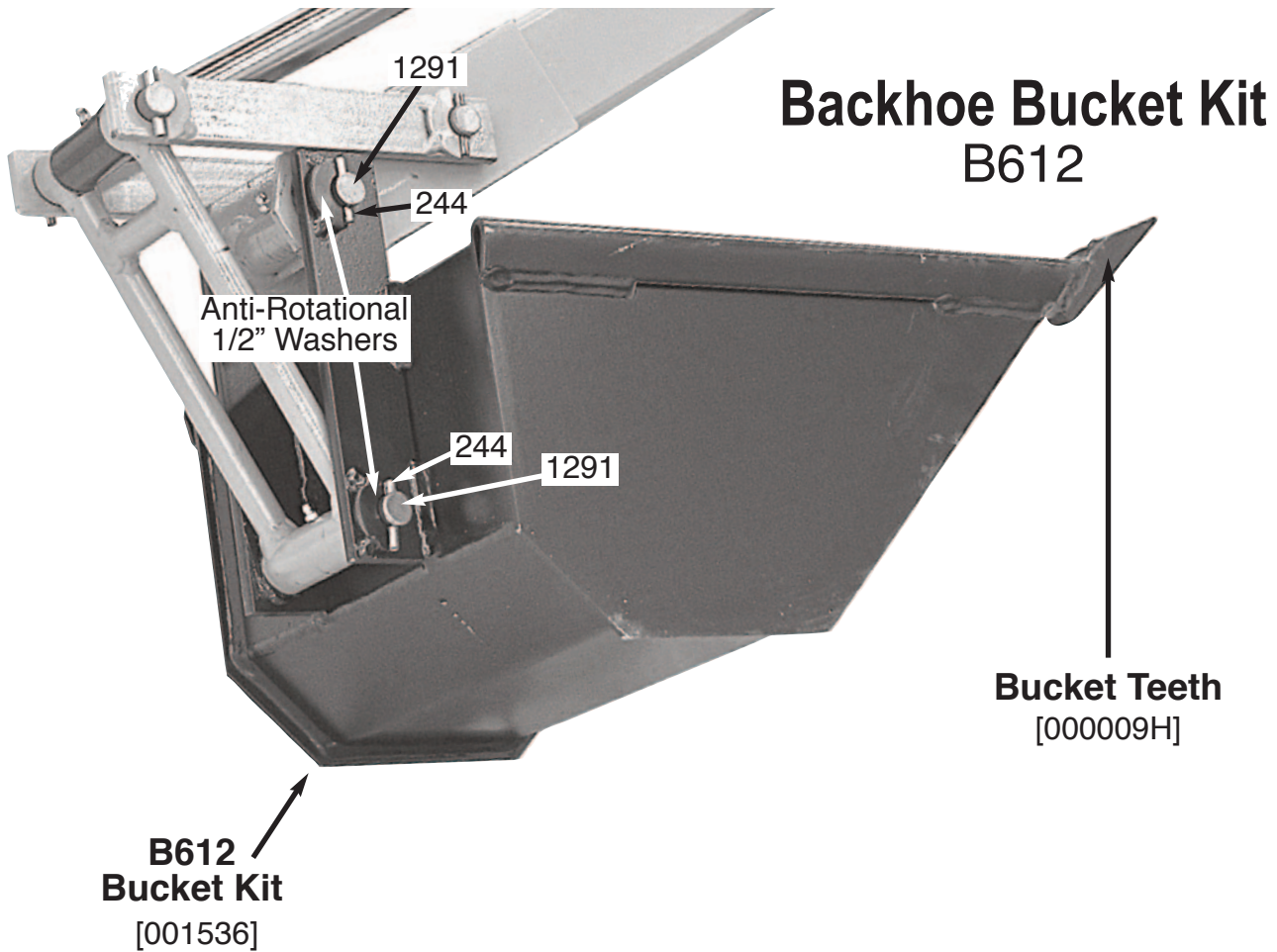


D1060UG

Photo 5

- 29 Cylinder (1)
- 1283 Cylinder (4)
- 1522 Cylinder (2)





Backhoe Bucket Removal & Replacement

STEP 1. Drive out the #244 Press Pins securing one end of each of the two (2) #1291 Pivot Pins... see Photo above.

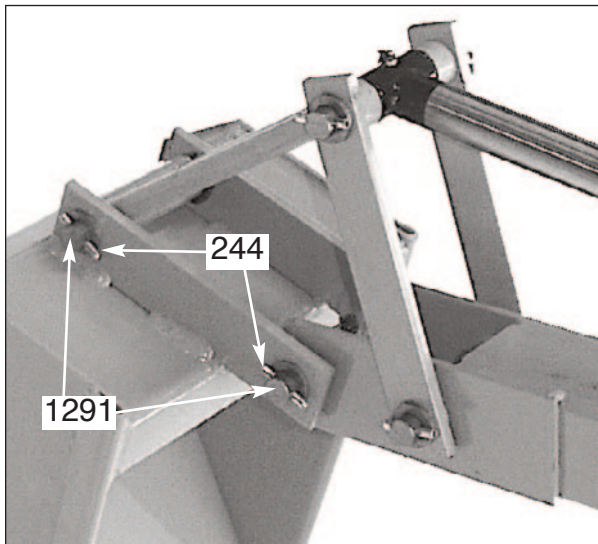
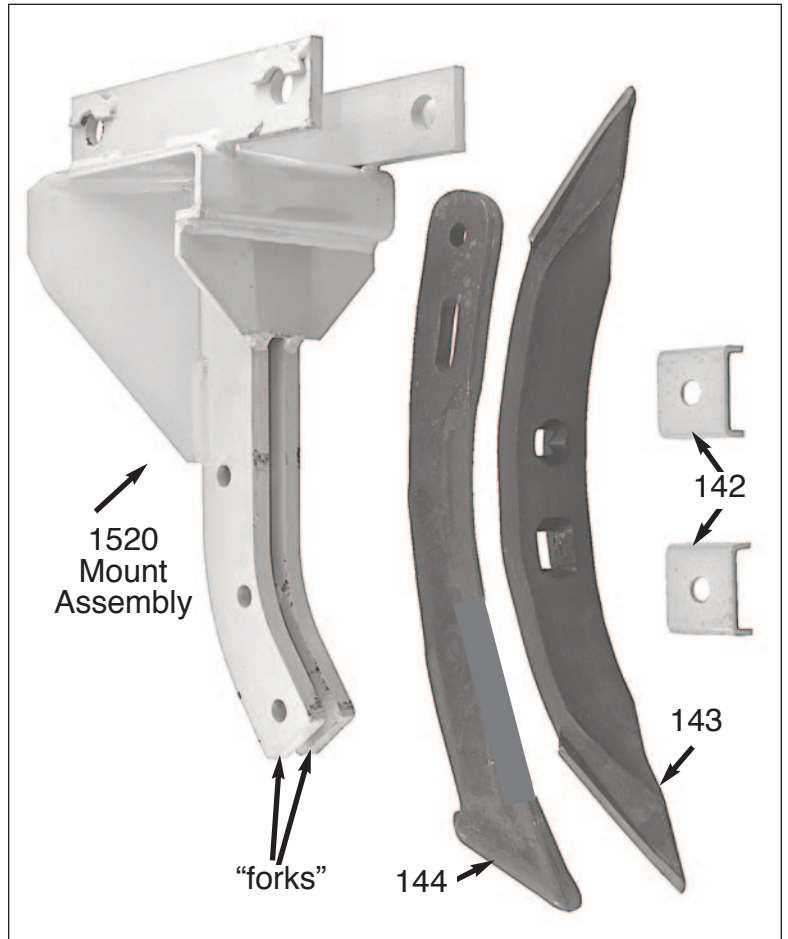
STEP 2. Drive out the two (2) #1291 Pivot Pins and release the Bucket... see Photo above.

STEP 3. Install "new" Bucket and secure in same way as previous Bucket with #1291 Pivot Pins and #244 Press Pins... see Photo above.

NOTE: Both #244 Pins [on one side] are trapped by Anti-Rotational 1/2" Washers so that #244 Pins can't rotate.

Frost/Chisel Tooth Kit BR50

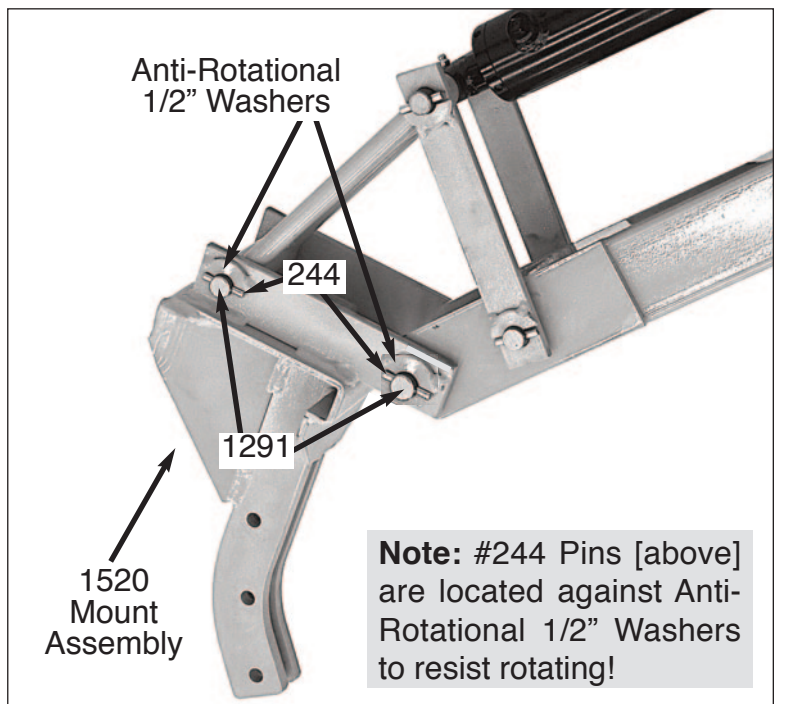
Part #	Description	Qty.
000142	Bracket	(2)
000143	Chisel Tooth	(1)
000144	Ripper Tooth	(1)
001520	Mount	(1)
Ref. #	Description	Qty.
AA	1/2-13x2 G5 Bolt	(2)
BB	1/2-13x3-1/2 G5 Plow Bolt	(2)
AK	1/2-13 Spin Lock Nut	(4)



STEP 1. Drive out the #244 Press Pins securing each of the two (2) #1291 Pivot Pins... see Photo above.

STEP 2. Drive out the two (2) #1291 Pivot Pins and release Bucket... Photo above.

STEP 3. Install #1520 Mount in identical manner as Bucket was installed... secure in same way with #1291 Pivot Pins and #244 Press Pins... see Photo at right.

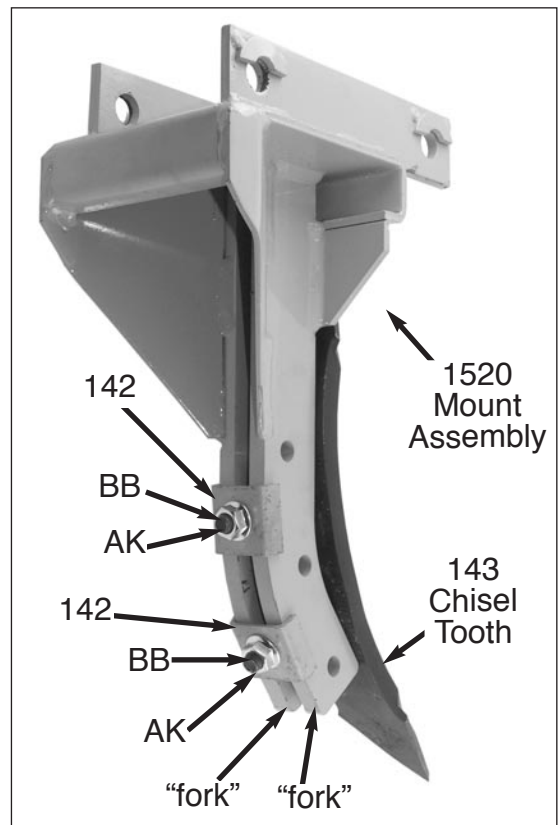


Chisel Tooth Installation

STEP A. Following Photo at right closely, lay #143 Chisel Tooth against the two “forks” matching the curve of the Chisel Tooth with curve of “forks”.

STEP B. Align two (2) holes in Chisel Tooth with mating slot formed by the two “forks”. Insert #BB Plow Bolt into each 1/2” hole of Chisel Tooth and through “forks”... secure behind with #142 Brackets and #AK Lock Nuts... tighten.

NOTE:
Only for use on the
D1060, D1060UG & D1065
Backhoes.



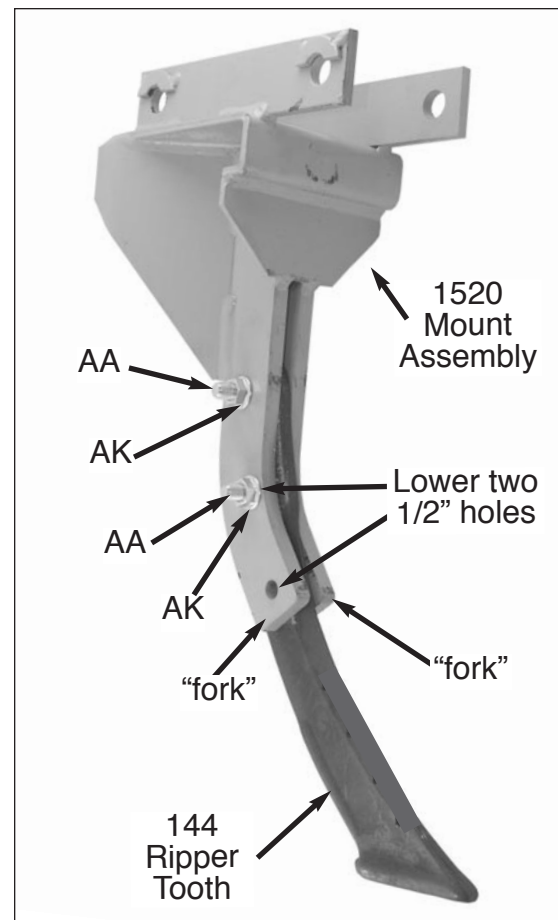
Ripper Tooth Installation

STEP A. Following Photo at right closely, slip the top of the “slotted end” of the #144 Ripper Tooth between the two “forks” of the #1520 Mount Assembly.

STEP B. Align the 1/2” slots in Ripper Tooth with matching 1/2” holes in “forks” of #1520 Mount Assembly.

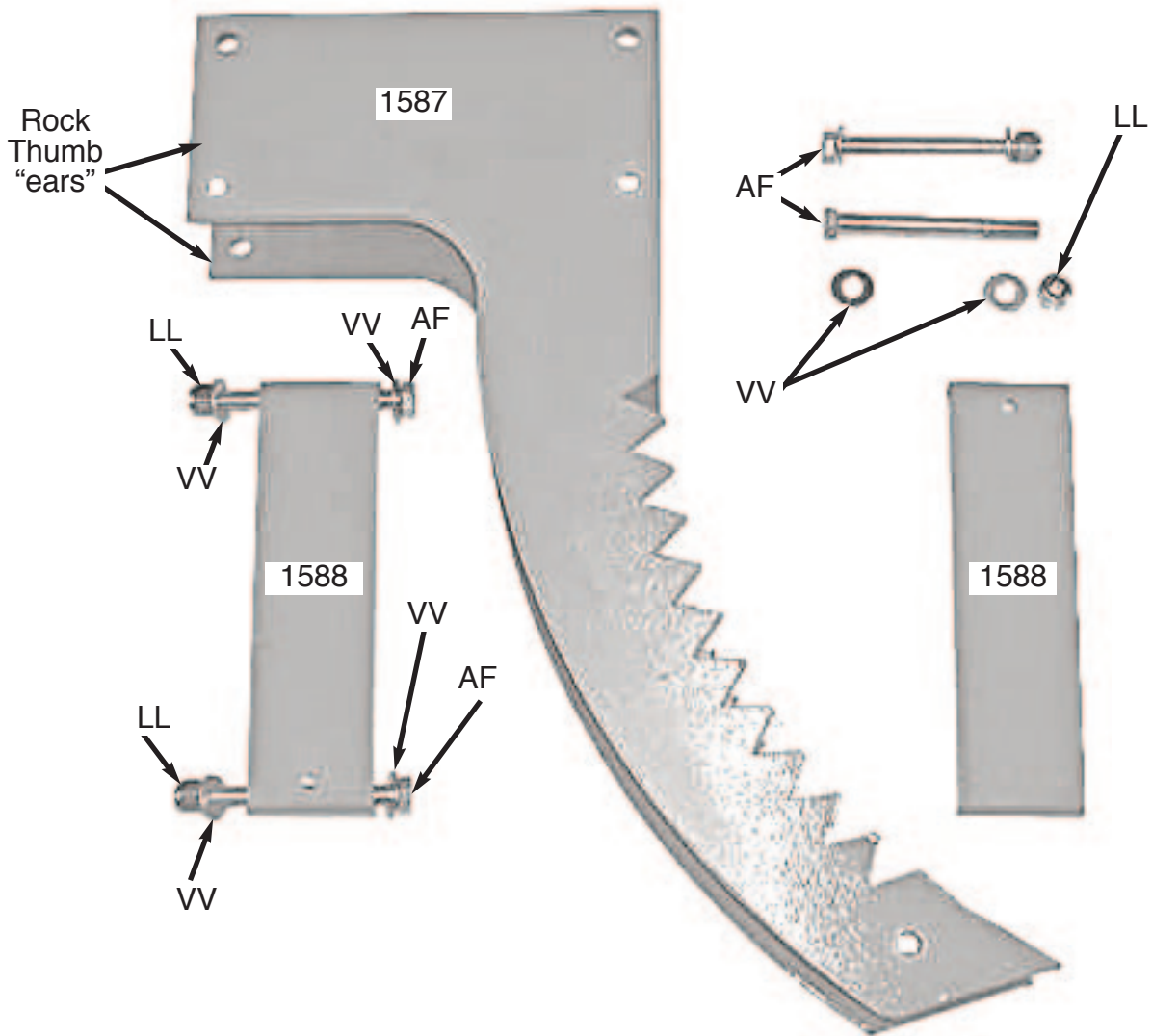
Slip #AA Bolts into these aligned 1/2” slots and holes and secure on reverse side with #AK Nuts.

NOTE: You may use the lower two 1/2” holes to give the Ripper Tooth a different working angle.



Rock/Debris Thumb Kit RT24

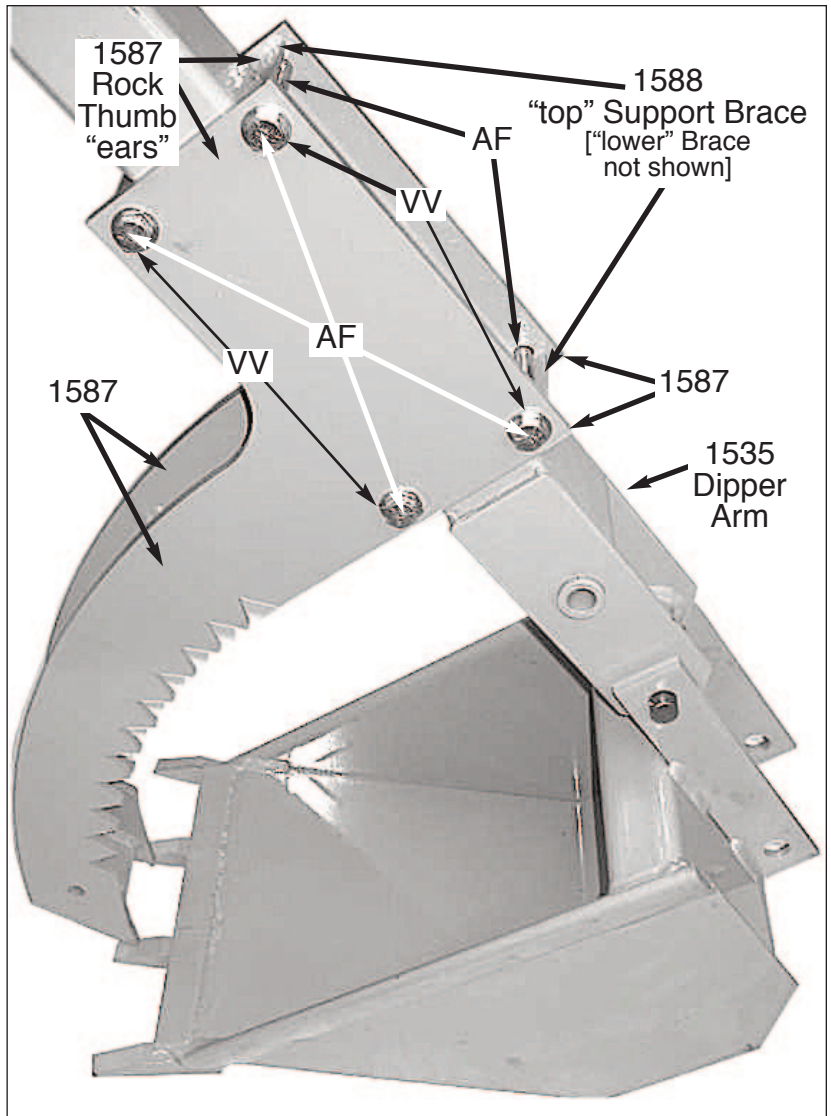
Part #	Description	Reference #	Qty.
001587	Adjustable Rock Thumb Assembly		(1)
001588	Support Brace		(2)
BOLT-1/2-50	1/2-13x4-1/2 Bolt	AF	(4)
NUT-1/2-223	1/2-13 Nylon Lock Nut	LL	(4)
WASH-1/2-264	1/2 Flat Washer	VV	(8)



STEP 1. Slip #1587 Rock Thumb “ears” around “lower end” of #1535 Dipper Arm. Slip #1588 Support Braces *between* Rock Thumb “ears” top and bottom.

STEP 2. Slip a #VV Washer over ends of four (4) AF Bolts. Insert them into the 1/2” holes provided in Rock Thumb “ears”. Have each Bolt go over and *cradle* the *right angle end* of their respective #1588 Support Brace top and bottom.

STEP 3. Secure end of each #AF Bolt with #VV Washer and #LL Nut... leave loose.



STEP 4. By “experimentation”, determine location [forward or back] of Rock Thumb “ears” to accommodate the general size of objects you plan on picking up and moving. When satisfied with location fully tighten all four (4) #LL Nuts... see Photo at right.

