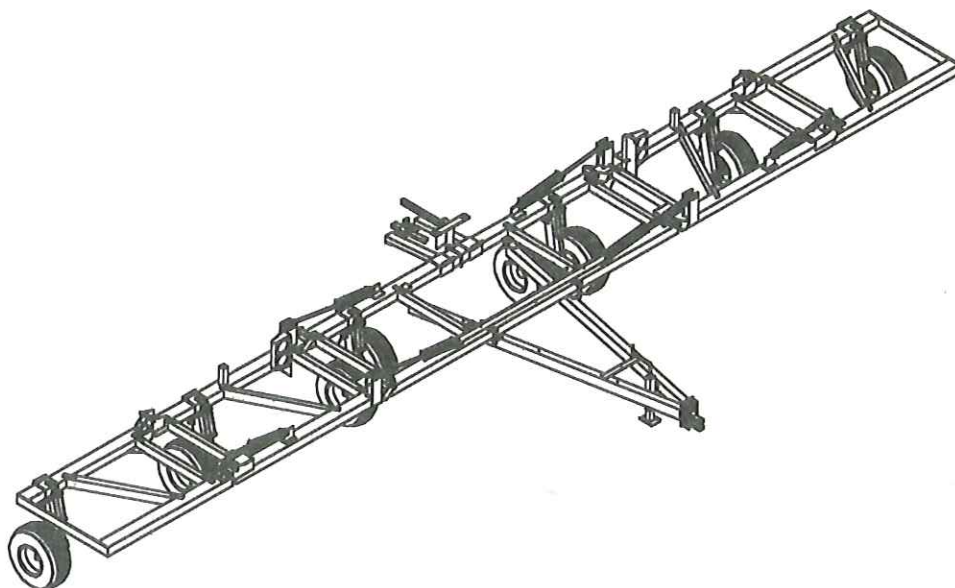




PROGRESSIVE
FARM PRODUCTS, INC.

OPERATOR'S MANUAL
1500 SERIES
50 FOOT NH3 TOOLBAR



COME VISIT US ON THE WEB AT: www.progressivefarm.com

SETUP AND OPERATION

When ordering parts, provide the complete serial and model number, as well as the desired part number and description.

For convenience and future reference, record the following information in the spaces provided below:

DATE PURCHASED: ____/____/____

DEALER NAME: _____

DEALER PHONE: _____

MODEL NUMBER: _____

SERIAL NUMBER: _____

NOTE: Throughout this manual, references of “right” or “right side” and “left” or “left side” are always from a point behind the implement facing forward, in the direction of travel.

SAFETY FIRST!

FOLLOW THESE RULES:

Comply with your state and local laws governing highway safety while moving machinery on the highway.

The SMV reflector emblem should be used at all times on public roads, and always use the flashing warning lights on your tractor.

Drive at a reasonable speed to maintain complete control of your machine at all times. Do not exceed 20 MPH (32.2 km/h) while transporting. Avoid heavily traveled roads whenever possible.

Hydraulic fluid escaping under pressure can have enough force to penetrate your skin. If you are injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system. Relieve all pressure before disconnecting any lines or performing other work on the hydraulic system. To find a leak under pressure, use a small piece of cardboard or wood, NEVER use your hands.

At least once a year, inspect all hydraulic hoses for leaks, cracks, abrasions, and pinched areas. Tighten fittings or replace hoses as needed.

Always be sure the hydraulic lines and cylinders are free of air and do not leak. After connecting any new parts, replacing old parts, or servicing the hydraulic components, carefully cycle the hydraulic cylinders several times to purge trapped air from the system. Check all the connections for any leakage.

Always block up raised equipment when servicing it. NEVER rely on the hydraulic system to support the implement during servicing.

SAFETY FIRST!

FOLLOW THESE RULES:

Keep all safety equipment, such as hitch pins, chains, SMV emblems, lights, reflectors, etc... in good repair. Please note all safety decals, and keep them in place. New decals are available from your dealer.

Misuse, abuse, neglect, or modification of this machine can cause:

- mechanical breakdown
- property damage
- personal injury or death

Always use proper safety precautions and common sense. Set a good example and show your workers how to work safely, be an example, not a statistic.

Recommended Tire Pressures

Tire Size & Ply	Pressure
13.6 x 38 - 12 ply	44 PSI
12.5L x 15 - 12 ply	50 PSI
12.5L x 15 - 8 ply	36 PSI
16.5 x 16.1 - 10 ply	36 PSI
18.4 x 26 - 10 ply	26 PSI
5:30 x 12 - 6 ply	55 PSI
18 x 8:50 x 8 - 4 ply	22 PSI
4:80 x 8 - 4 ply	42 PSI

BOLT TORQUE

- 1.** Improperly tightened bolts will result in damage, breakage, expense, and lost time.
- 2.** Always replace bolts with the specified grade and type.
- 3.** Torque all fasteners to the proper value during assembly, then check after every two (2) hours of operation until they remain tight.
- 4.** Use the following torque chart as a guide to insure proper tightening of the fasteners.
- 5.** Make a daily inspection of the implement checking for loose bolts as well as leaking hoses.

BOLT Ø - TPI	 GRADE 2	 GRADE 5	 A - 325	 GRADE 8
3/8 - 16	25	35		50
7/16 - 14	35	55		80
1/2 - 13	55	85		125
9/16 - 12	75	125		175
5/8 - 11	105	170		235
3/4 - 10	185	305		425
7/8 - 9	170	445		690
1 - 8	260	670		1030
1-1/8 - 7	365	900		1460
1-1/4 - 7	515	1275		2060
1-3/8 - 6	675	1675		2700
1-1/2 - 6	900	2150		3500

TORQUE VALUES ARE IN FT./LBS. AND ARE BASED ON PLATED OR GREASE COATED HARDWARE. INCREASE VALUES 5 - 10% FOR FINE THREADS. USE 65% OF THE LISTED VALUE FOR JAM NUTS.

Assembly Instructions

1500 – 50' Anhydrous Toolbar

Be sure to remove excess paint from pins and bushing bores. Apply a thin coat of grease to pins before installing them. Use "Anti-seize" or equivalent on all non-greasable joints and pins. Never strike a pin directly with a hammer – always use a block to absorb the shock if a pin does not easily fit. Striking a pin directly will cause the end of the pin to spread.

Be sure to lubricate all grease zerks. Refer to the lubrication drawing for all zerk locations and time intervals for greasing.

Mainframe, Inner Wing, Outer Wing, and Hitch Assembly

1. Lay the hitch on the ground, placing the mainframe on top of it.
2. Center the mainframe on the hitch and attach the two together using the hardware from bag #102001.
3. Lay the inner wings beside the mainframe and attach the wings to the mainframe using the pins and hardware included in the wing hinge (make sure the paint is removed and pins are greased prior to installation).
4. Place the outer wings beside the inner wings as shown. Attach the outer wings to the inner wings using the pins and hardware included on the wings.

Mainframe/Wing Wheel Assembly

1. Lift the toolbar into the air from the rear center of the mainframe.
2. Place the wheel arms in their approximate locations (refer to the correct shank spacing drawings for the exact wheel placement).
3. Attach the saddle clamps using hardware from one of the following bags:
Tandem mainframe/Single inner wings/Single outer wings – 102081,
Tandem/Tandem/Single – 102082.
4. Attach the wheel arms to the clamp assembly using pins and hardware included on the lower clamp assembly.
5. Attach the 3-3/4" x 10" rephase cylinders to the wheel arms that are attached to the mainframe. Install tire/wheel assemblies and transport locks. **Note: Make sure lug bolts are tightened prior to transporting of unit.**
6. Lower the mainframe, letting the toolbar rest on the mainframe wheels. Raise one of the inner wings and repeat the steps 1-5 listed above only using 3-1/2" x 10" rephase cylinders.
7. Repeat process for the opposite inner wing.
8. Raise up one of the outer wings and repeat steps 1-5 listed above only using 3-1/4" x 10" rephase cylinders. Repeat process for other outer wing.

9. After all wing wheels are installed, lift mainframe back into the air, relieving pressure on the cylinders. Remove the safety locks and lower the bar.

Attaching the Wing Fold Cylinders

1. Locate the 3" x 24" hydraulic cylinders. Using hardware from the cylinders and hardware bag #213003, attach the cylinders to the mainframe, leaving the clevis end unattached.
2. Be sure to attach the butt end of the cylinders to the mainframe.
3. Locate the 4" x 16" cylinders. Using hardware from bag #213003, attach the cylinders to the inner wing making sure the butt ends of the cylinders are attached to the inner wing. Leave the clevis end unattached.

Hydraulic Hose Installation

1. Refer to the "Hydraulic Schematic Drawings". Lay out the hydraulic hoses from hose packages #212003 (Wingfold) and #212053 (Wheel Mount) in their approximate locations.
2. Using hardware from bag #213003 (Wingfold) and #213052 (Wheel Mount) to attach the hoses to the divider/combiner valve and respective cylinders.
3. Attach the hoses to the bolts welded on the right hitch tube using hose holdowns. **Do not tie hoses down at this point.**
4. Hook up the toolbar to a hydraulic unit and charge all cylinders with oil to purge the air from the cylinders. Attach the clevis ends of the cylinders to the toolbar. **Note: The outer wings require a roller bar and roller wheels attached to each cylinder.**

Coulter and Shank Assembly

1. Lower the toolbar to a good working height.
2. Select the proper exploded view drawings (Rigid Shank or Auto Reset Shank). Use hardware from bag #102027 for rigid shank or #102028 for auto reset for assembly and installation of shank mounts.
3. On rigid shank mounts, be sure to leave one inch of threads below the lock nut of the spring loaded T-Rod and a distance of 1-1/2" between the bottom of the "T" and the 3/4" nut.
4. On auto reset shanks, be sure to leave 1/2" of threads below the lock nut of the spring loaded T-Rod and a distance of 1-7/8" – 2" between the bottom of the "T" and the 3/4" nut. The spring should be compressed to approximately 9-1/2" to 9-3/4". **Note: These measurements are approximate. Field conditions may cause the need for further adjustments.**
5. Refer to the coulter spacing drawings in the back of the book for correct locations/placement of shank mounts.
6. Note there are left and right shank assemblies. When placing an assembly, notice that the shank will line up with either the left or right u-bolt.

Disk Sealers

1. Use hardware from bag #102029 to assemble and mount the disk sealers to the shank.
2. For Rigid Shank Mounts, measurement (when tightened down) should be approximately 15-1/2" from the back edge of the shank mount to the back side (at the bend) of the disk sealer shank mounting bracket (part #801694).
3. For Auto Reset Shank Mounts, measurement (when tightened down) should be approximately 6" from the back edge of the shank mount to the back side (at the bend) of the disk sealer shank mounting bracket (part #801694).

Note: Measurements are approximate. Adjustments may need to be made depending upon the depth the knives are running in the ground. For optimum performance, do not run the sealer blades any more than 2-3 inches in the ground.

Anhydrous Rear Hitch Assembly

1. Place the rear hitch behind the toolbar, centering it on the mainframe. Using the hardware from bag #102030 (Rigid Rear Hitch) or #102035 (Floating Rear Hitch) to attach to the toolbar.

NH3 Bracket and Gauge Assembly

1. Attach the bracket, swing arm, and gauge stand as shown using hardware from bag #102184 (3/8" NH3 Kit - 45'), 102185 (1/2" NH3 Kit - 45'), 102199 (3/8" NH3 Kit 47-1/2' - 50'), or 102200 (1/2" NH3 Kit 47-1/2' - 50').
2. Attach all hoses and fittings as shown in the schematic.
3. It may necessary to plug some of the outlets on the manifolds. It is strongly recommended to space these evenly around the manifold.
4. Tie down the hydraulic and NH3 hoses with tie straps (not provided) to keep them from being pinched in the hinge points.

Safety Light Assembly

1. Using the hardware from bag #102032, attach the lights on the rear tube of the wings as shown making sure the red and yellow lights are visible from the rear of the bar.

SAFETY DECALS – SERIAL NUMBER – LUBRICATION

- (A) WING HINGE
(B) WHEEL ASSEMBLY ARM HINGE (ZERK LOCATED INSIDE ARM TUBE)

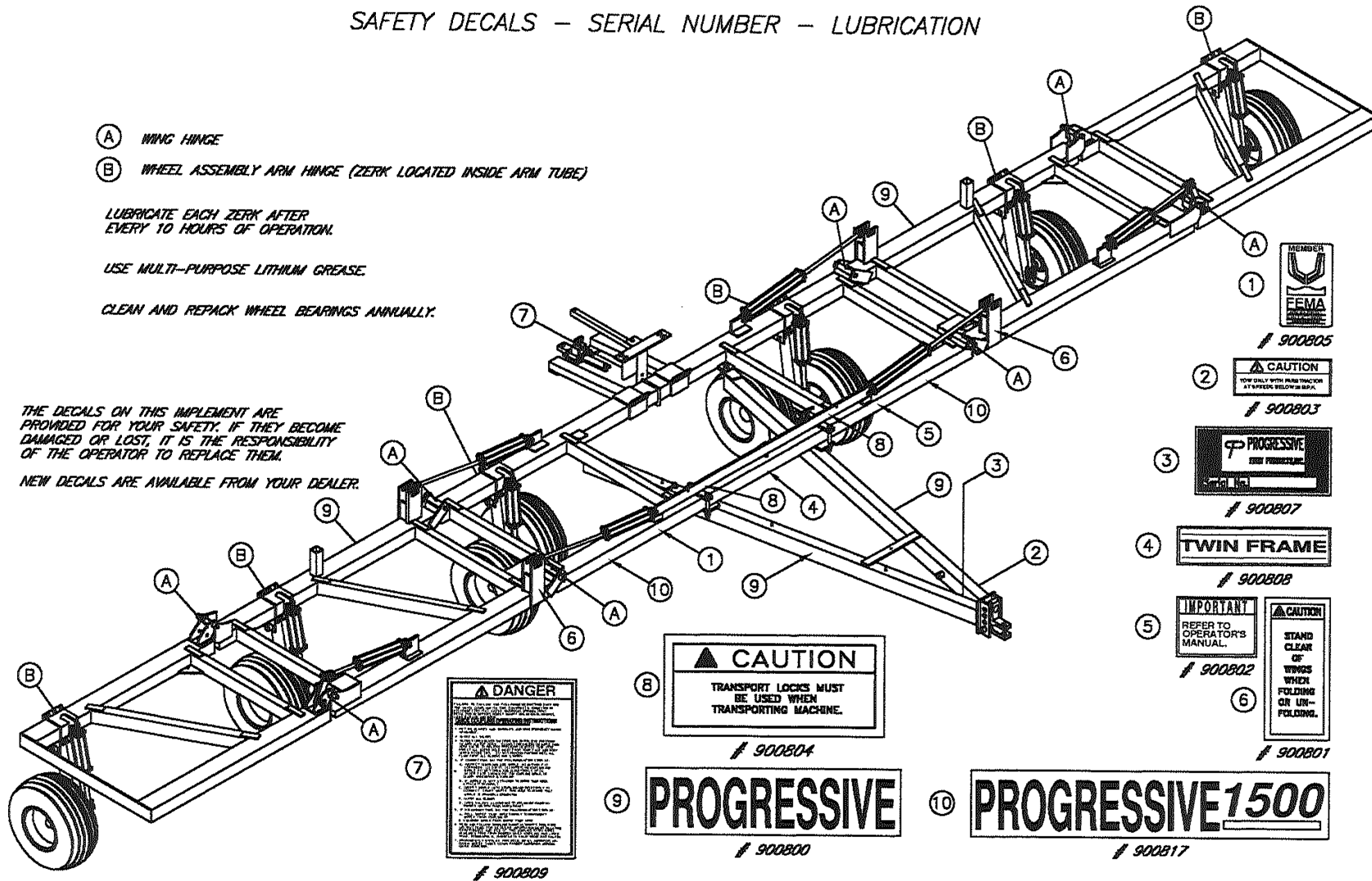
LUBRICATE EACH ZERK AFTER
EVERY 10 HOURS OF OPERATION.

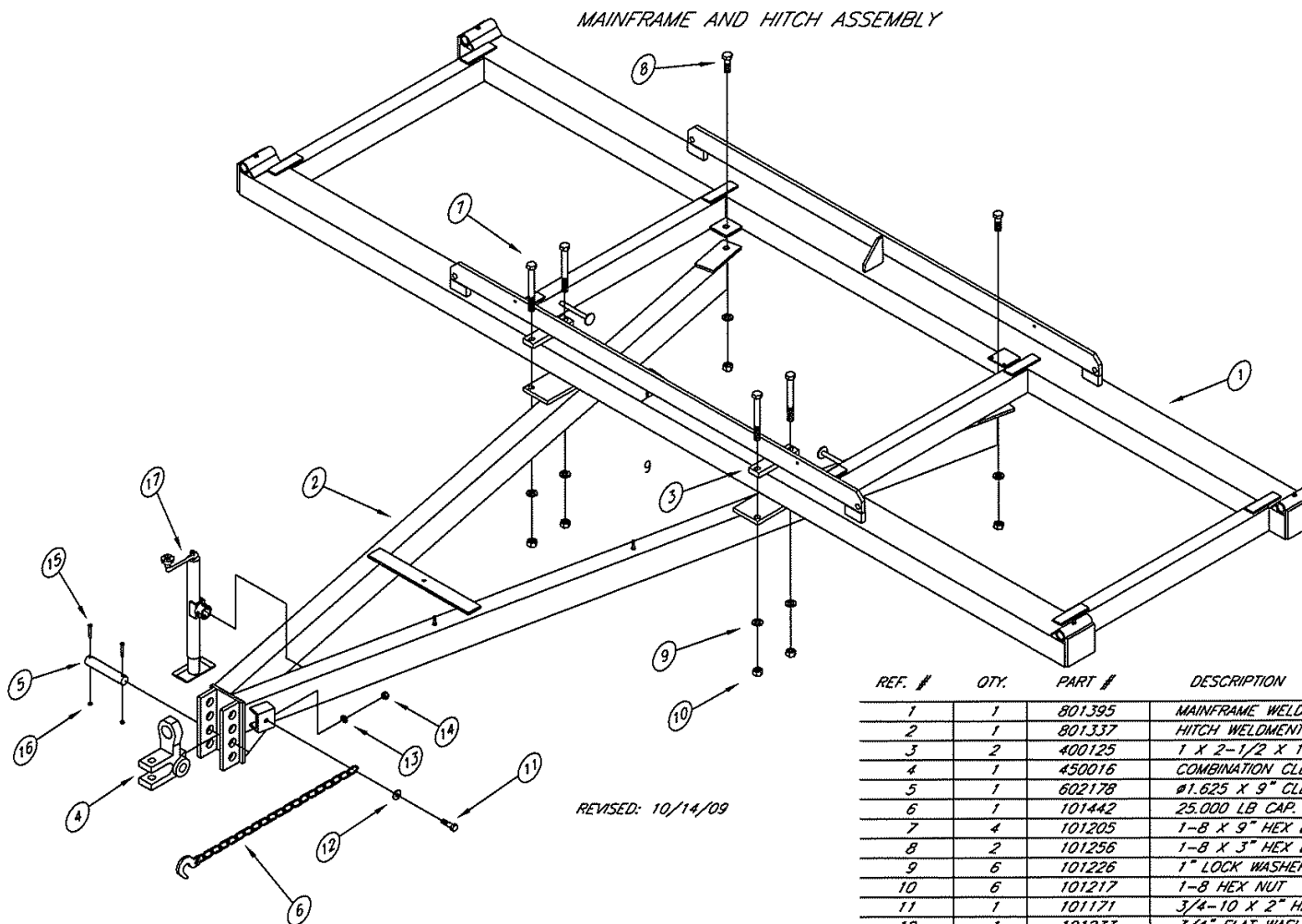
USE MULTI-PURPOSE LITHIUM GREASE.

CLEAN AND REPACK WHEEL BEARINGS ANNUALLY.

THE DECALS ON THIS IMPLEMENT ARE
PROVIDED FOR YOUR SAFETY. IF THEY BECOME
DAMAGED OR LOST, IT IS THE RESPONSIBILITY
OF THE OPERATOR TO REPLACE THEM.

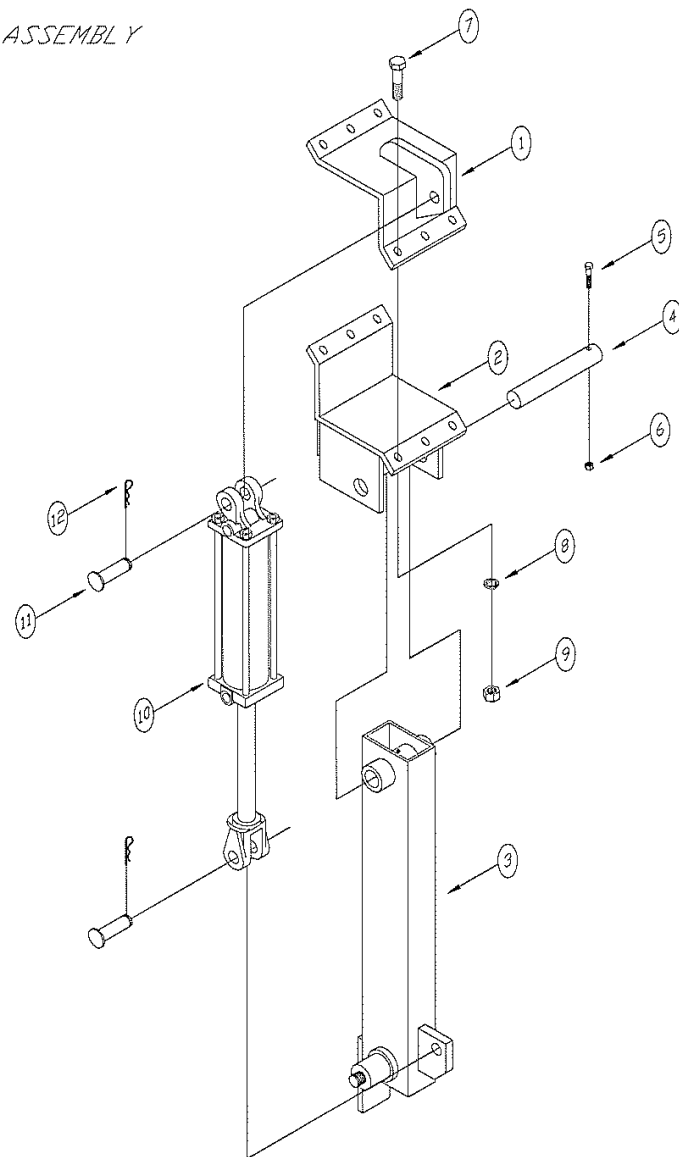
NEW DECALS ARE AVAILABLE FROM YOUR DEALER.





REF. #	QTY.	PART #	DESCRIPTION
1	1	801395	MAINFRAME WELDMENT
2	1	801337	HITCH WELDMENT
3	2	400125	1 X 2-1/2 X 10-1/4" CLAMP PLATE
4	1	450016	COMBINATION CLEVIS
5	1	602178	#1.625 X 9" CLEVIS PIN
6	1	101442	25,000 LB CAP. SAFETY CHAIN ASSEMBLY
7	4	101205	1-8 X 9" HEX BOLT
8	2	101256	1-8 X 3" HEX BOLT Gr. 8 YLW. ZINC
9	6	101226	1" LOCK WASHER
10	6	101217	1-8 HEX NUT
11	1	101171	3/4-10 X 2" HEX BOLT
12	1	101233	3/4" FLAT WASHER
13	1	101224	3/4" LOCK WASHER
14	1	101215	3/4-10 HEX NUT
15	2	101128	3/8-16 X 2-1/2" HEX BOLT
16	2	101455	3/8-16 TOPLOCK NUT
17	1	400014	IMPLEMENT JACK

RIGHT TANDEM WHEEL ARM ASSEMBLY



REFERENCE#
1550A001

DATE:
10/13/09

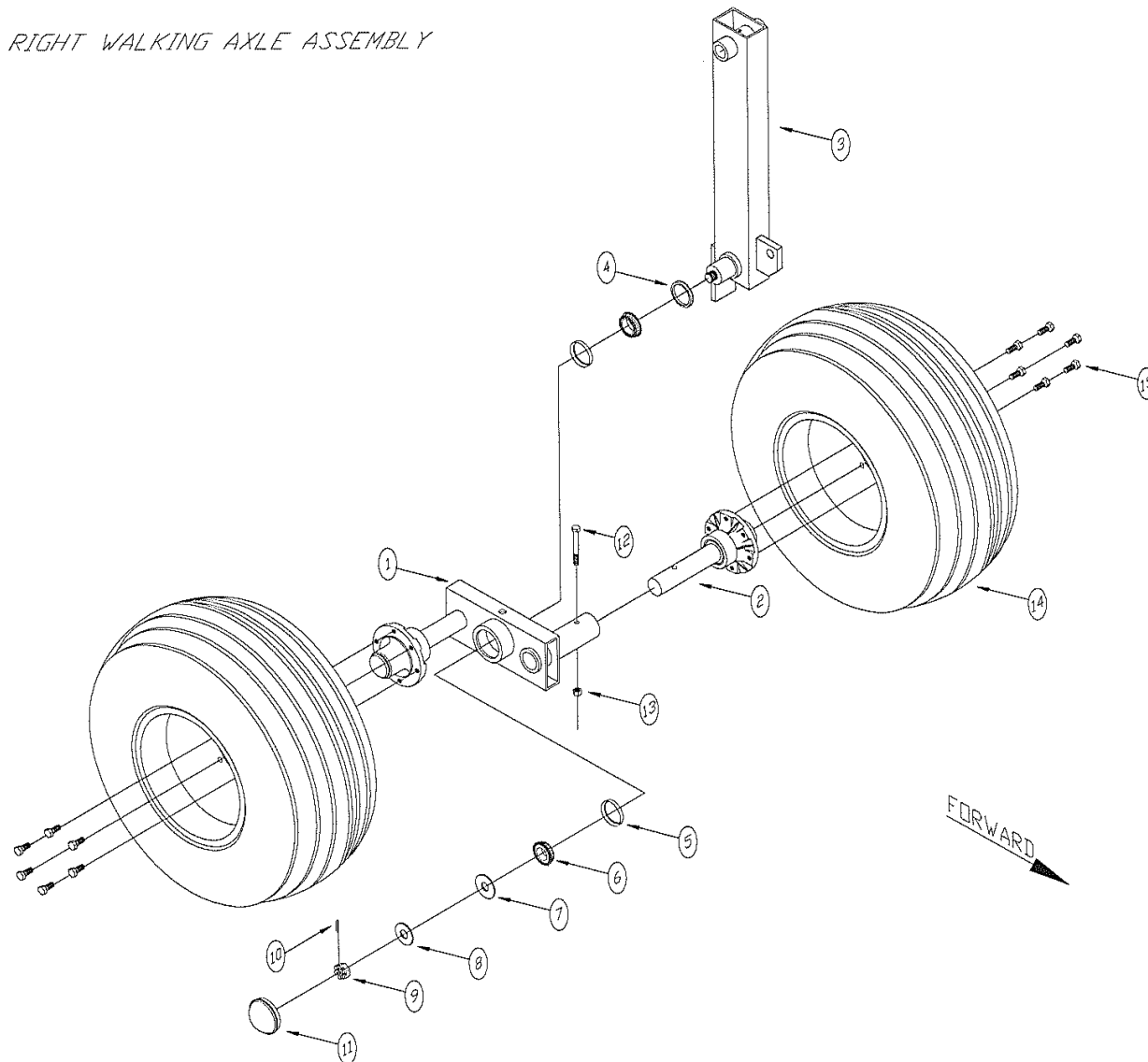
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RIGHT TANDEM WHEEL ARM ASSEMBLY

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP (WHEEL) WELDMENT
2	1	801754	RIGHT LOWER SADDLE CLAMP WELDMENT
3	1	802072	RIGHT TANDEM WHEEL ARM WELDMENT
4	1	602129	Ø1.500 X 9-3/8" PIN
5	1	101140	7/16-14 X 3" HEX BOLT
6	1	101456	7/16-14 TOPLOCK NUT
7	6	101173	3/4-10 X 3" HEX BOLT
8	6	101224	3/4" LOCK WASHER
9	6	101215	3/4-10 HEX NUT
10	1	204016	3-1/2 X 10 REPHASE CYLINDER
11	2	602228	Ø1.00 X 3-1/4" PLATED CYLINDER PIN
12	2	101249	5/32 X 1-3/4" COTTER PIN

RIGHT WALKING AXLE ASSEMBLY



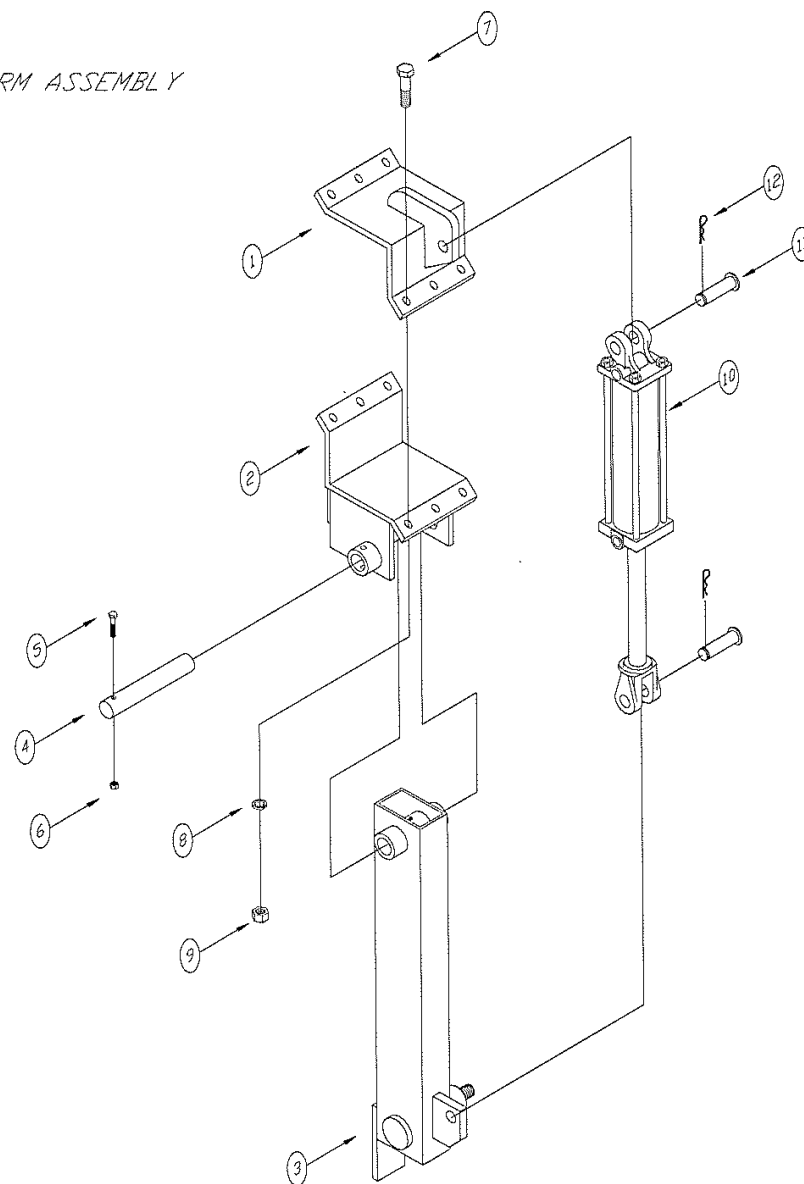
REFERENCE# 1550A002	DATE 10/14/09	REV
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RIGHT WALKING AXLE ASSEMBLY

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	802070	RIGHT WALKING AXLE WELDMENT
2	1	301120A	6 BOLT HUB AND SPINDLE (FRONT TANDEM)
3	1	802072	RIGHT TANDEM WHEEL ARM WELDMENT
4	1	G906486	BEARING SEAL
5	2	LM506810	BEARING RACE
6	2	LM506849	BEARING
7	1	101500	2-3/4 O.D. X 1" I.D. - FLAT WASHER
8	1	101499	2-1/2 O.D. X 1" I.D. - FLAT WASHER
9	1	301218	1-8 CASTELLATED NUT
10	1	101451	3/16 X 2-1/2" COTTER PIN
11	1	G909930	HUB CAP
12	1	101152	1/2-13 X 3-1/2" HEX BOLT
13	1	101457	1/2-13 TOPLOCK NUT
14	2	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEM.
15	12	301151	9/16-18 X 1-1/8" UNF LUG BOLT

LEFT TANDEM WHEEL ARM ASSEMBLY



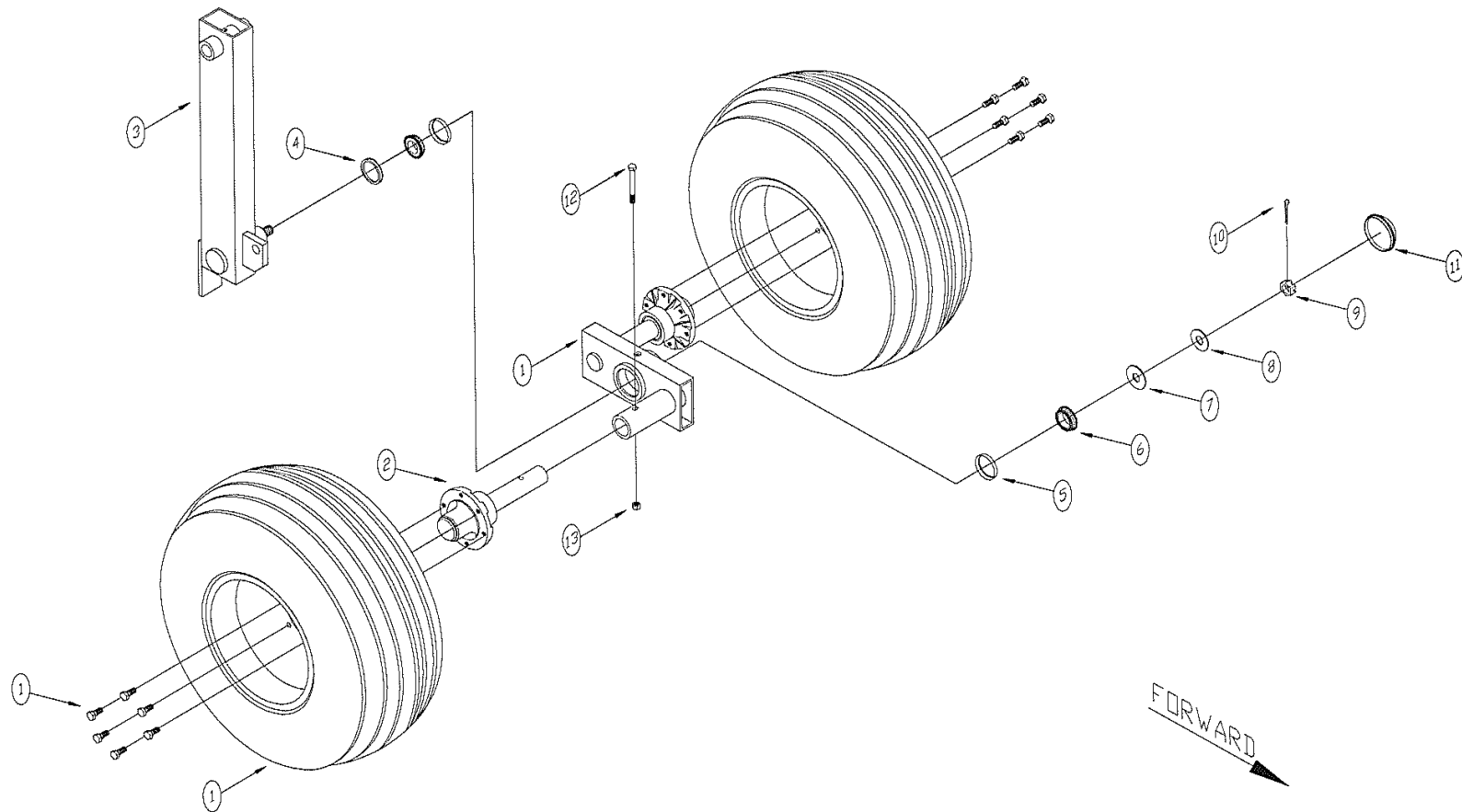
REFERENCE#	DATE	REV
1550A003	10/14/09	

LEFT TANDEM WHEEL ARM ASSEMBLY

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP (WHEEL) WELDMENT
2	1	801753	LEFT LOWER SADDLE CLAMP WELDMENT
3	1	802073	LEFT TANDEM WHEEL ARM WELDMENT
4	1	602129	Ø1.500 X 9-3/8" PIN
5	1	101140	7/16-14 X 3" HEX BOLT
6	1	101456	7/16-14 TOPLOCK NUT
7	6	101173	3/4-10 X 3" HEX BOLT
8	6	101224	3/4" LOCK WASHER
9	6	101215	3/4-10 HEX NUT
10	1	204016	3-1/2 X 10 REPHASE CYLINDER
11	2	602228	Ø1.00 X 3-1/4" PLATED CYLINDER PIN
12	2	101249	5/32 X 1-3/4" COTTER PIN

LEFT WALKING AXLE ASSEMBLY

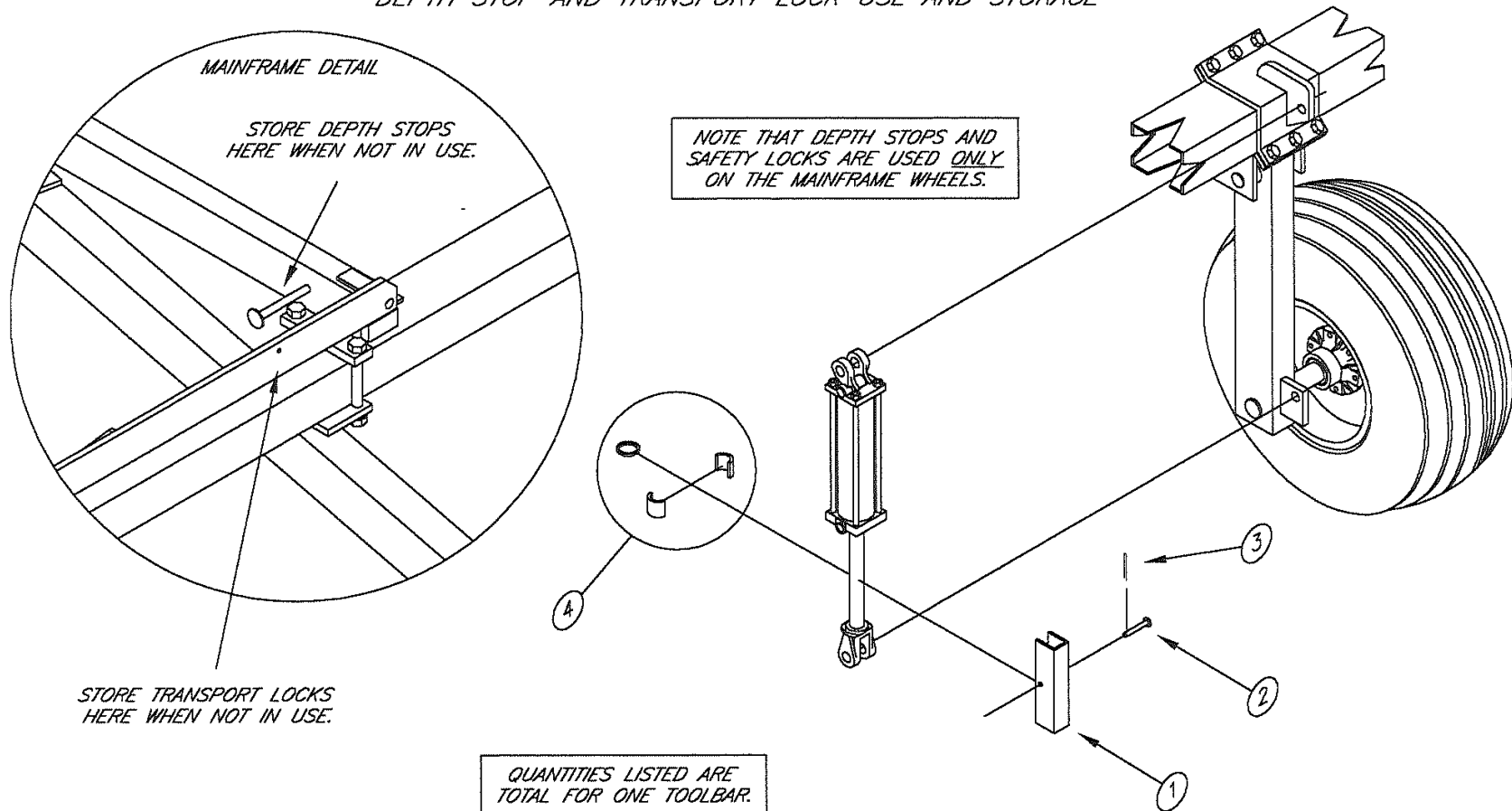


LEFT WALKING AXLE ASSEMBLY

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	802071	LEFT WALKING AXLE WELDMENT
2	1	301120A	6 BOLT HUB AND SPINDLE (FRONT TANDEM)
3	1	802073	LEFT TANDEM WHEEL ARM WELDMENT
4	1	G906486	BEARING SEAL
5	2	LM506810	BEARING RACE
6	2	LM506849	BEARING
7	1	101500	2-3/4 O.D. X 1" I.D. - FLAT WASHER
8	1	101499	2-1/2 O.D. X 1" I.D. - FLAT WASHER
9	1	301218	1-8 CASTELLATED NUT
10	1	101451	3/16 X 2-1/2" COTTER PIN
11	1	G909930	HUB CAP
12	1	101152	1/2-13 X 3-1/2" HEX BOLT
13	1	101457	1/2-13 TOPLOCK NUT
14	2	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEM.
15	12	301151	9/16-18 X 1-1/8" UNF LUG BOLT

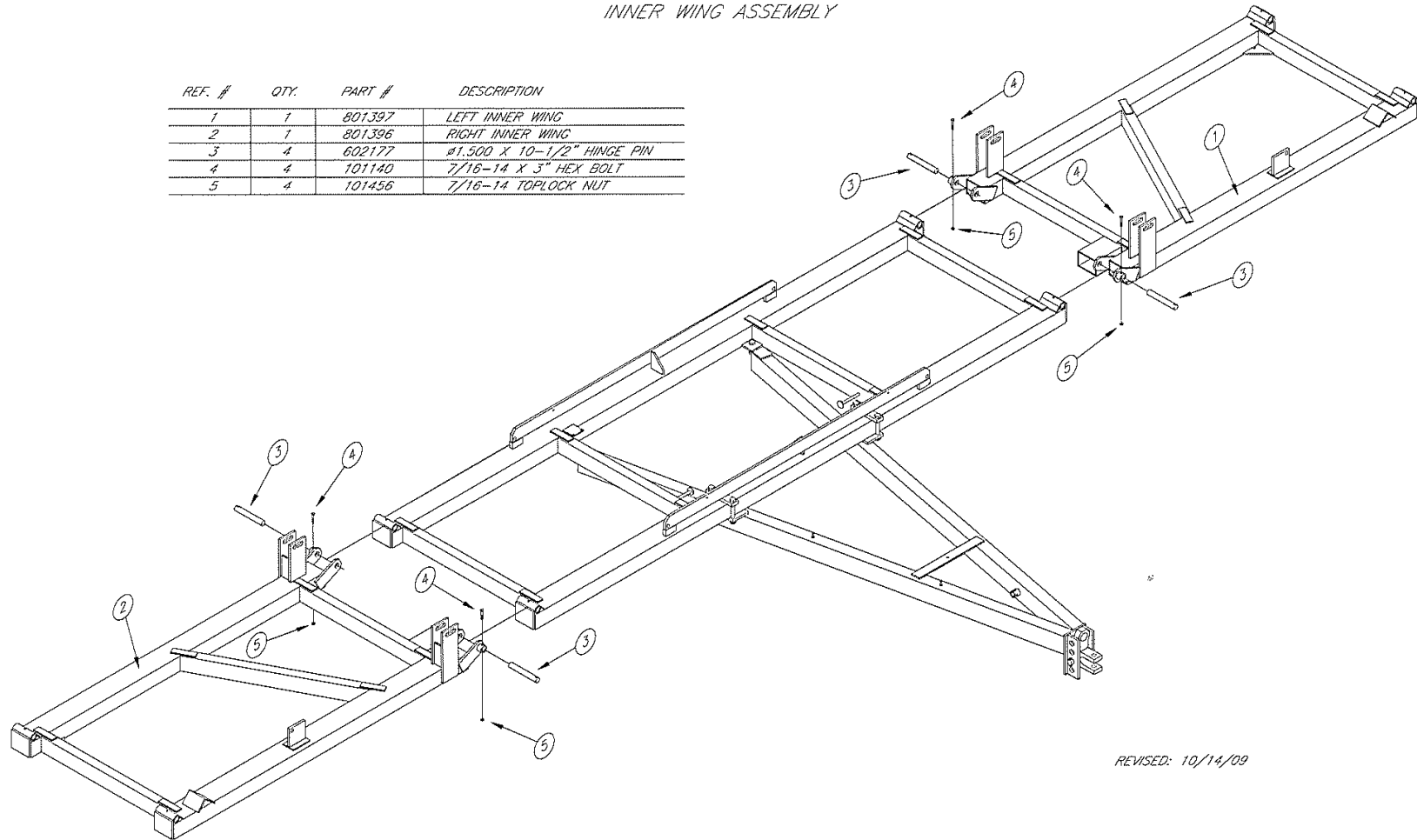
DEPTH STOP AND TRANSPORT LOCK USE AND STORAGE



REF #	QTY.	PART #	DESCRIPTION
1	2	400083	8" STROKE CYLINDER SAFETY LOCK
2	2	101257	3/8 X 3" LATCH PIN
3	2	101258	3/32 X 1-1/2" HAIR PIN
4	2	450061	CYLINDER DEPTH STOP (PKG OF 4)

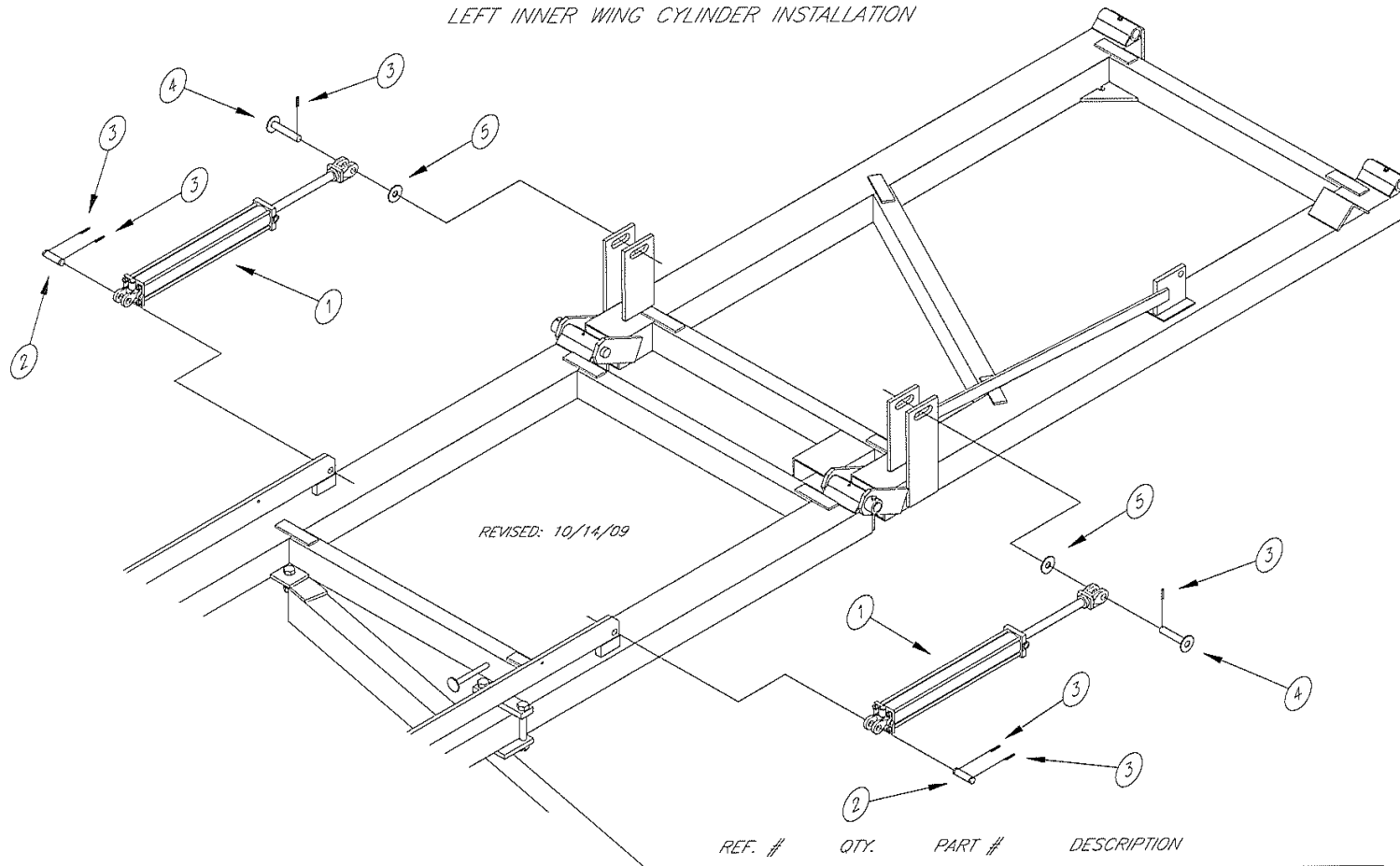
INNER WING ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801397	LEFT INNER WING
2	1	801396	RIGHT INNER WING
3	4	602177	#1.500 X 10-1/2" HINGE PIN
4	4	101140	7/16-14 X 3" HEX BOLT
5	4	101456	7/16-14 TOPLOCK NUT



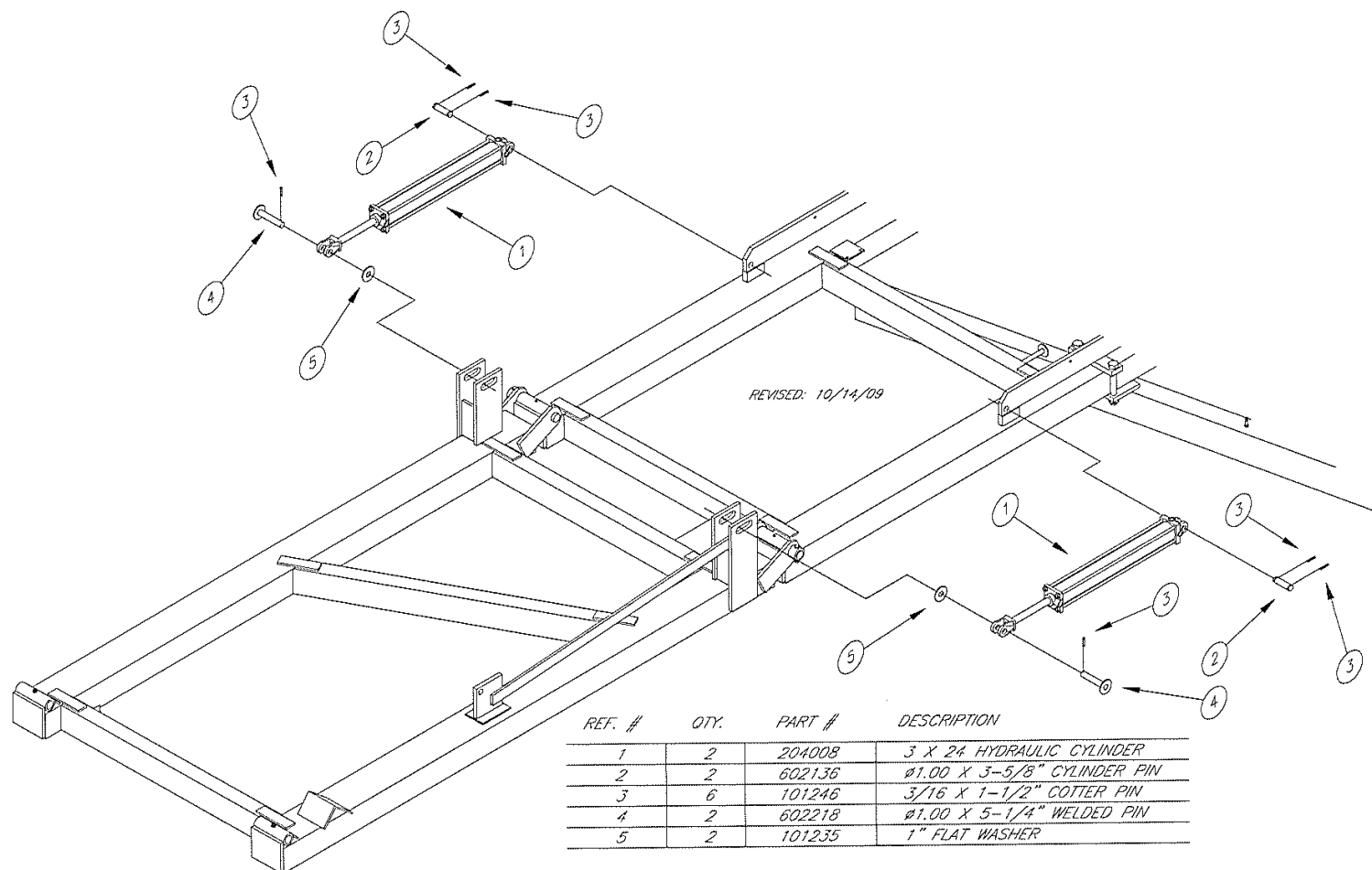
REVISED: 10/14/09

LEFT INNER WING CYLINDER INSTALLATION



REF. #	QTY.	PART #	DESCRIPTION
1	2	204008	3 X 24 HYDRAULIC CYLINDER
2	2	602136	Ø1.00 X 3-5/8" CYLINDER PIN
3	6	101246	3/16 X 1-1/2" COTTER PIN
4	2	602218	Ø1.00 X 5-1/4" WELDED PIN
5	2	101235	1" FLAT WASHER

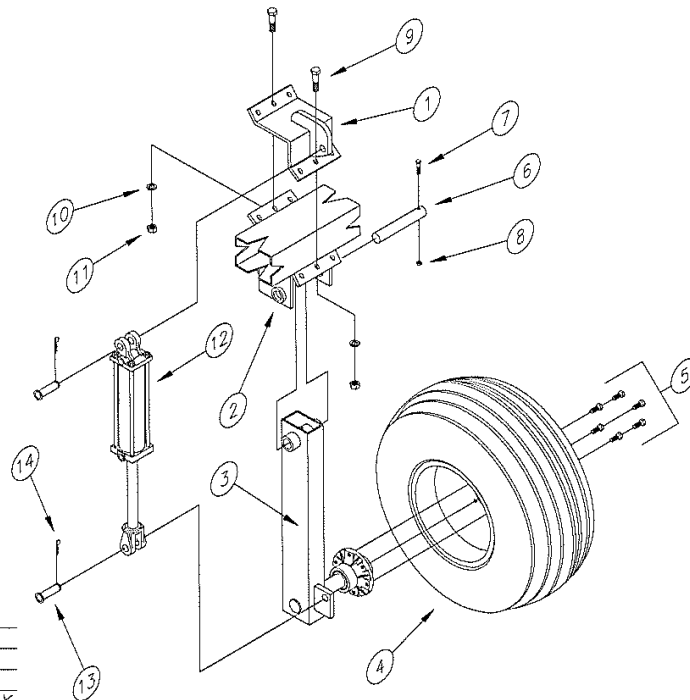
RIGHT INNER WING CYLINDER INSTALLATION



REF. #	QTY.	PART #	DESCRIPTION
1	2	204008	3 X 24 HYDRAULIC CYLINDER
2	2	602136	Ø1.00 X 3-5/8" CYLINDER PIN
3	6	101246	3/16 X 1-1/2" COTTER PIN
4	2	602218	Ø1.00 X 5-1/4" WELDED PIN
5	2	101235	1" FLAT WASHER

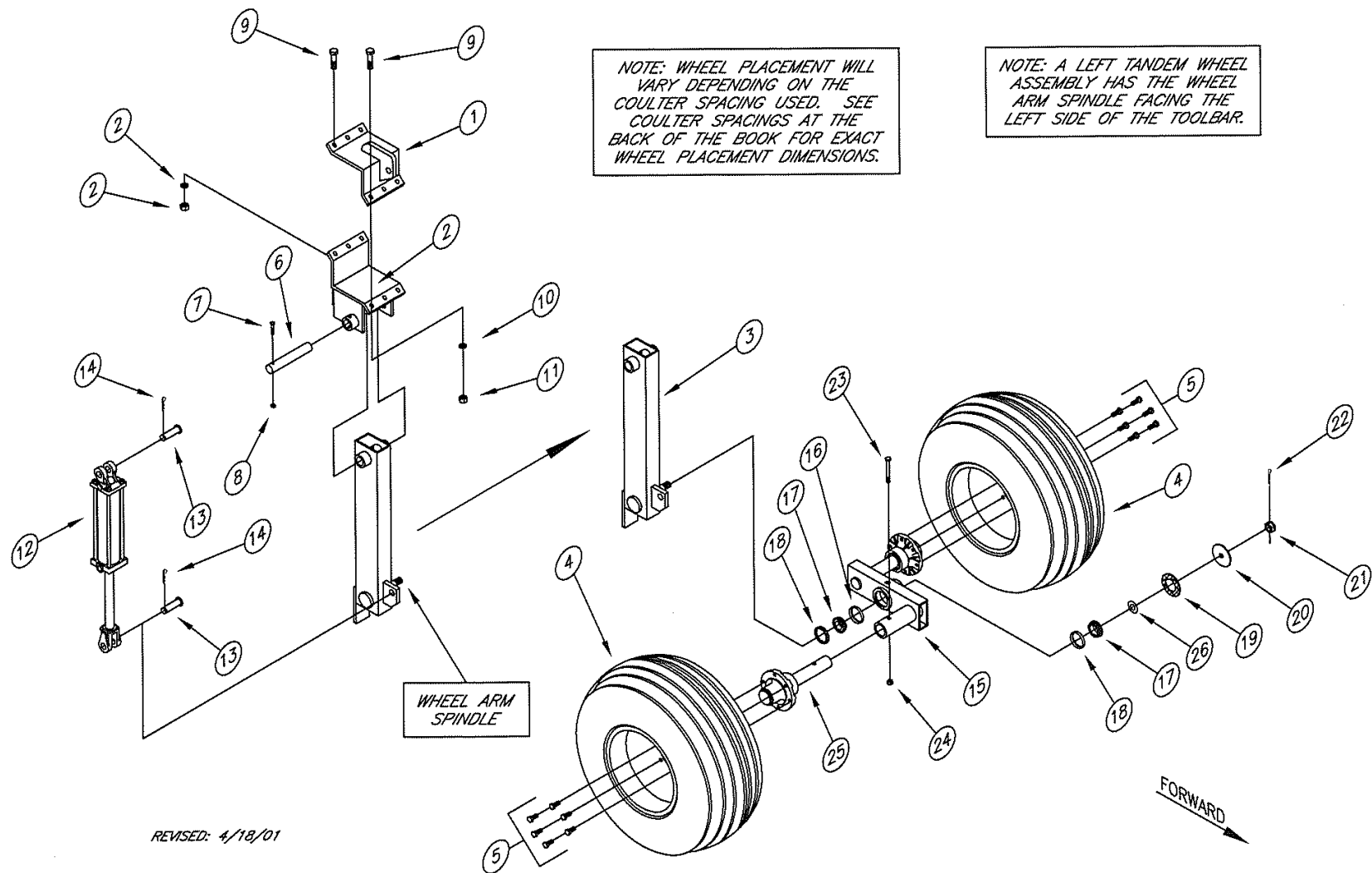
LEFT INNER WING WHEEL ASSEMBLY

NOTE THAT WHEEL
PLACEMENT WILL VARY
DEPENDING ON THE
COULTER SPACING USED.
SEE COULTER SPACINGS
AT THE BACK OF THE
BOOK FOR EXACT WHEEL
PLACEMENT DIMENSIONS.



REF. #	QTY.	PART #	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP
2	1	801753	LEFT LOWER SADDLE CLAMP
3	1	801341	LEFT WHEEL ARM
4	1	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEMBLY
5	6	301151	9/16-18 X 1-1/8\" UNF LUG BOLT
6	1	602129	Ø1.500 X 9\" HINGE PIN
7	1	101140	7/16-14 X 3\" HEX BOLT
8	1	101456	7/16-14 TOPLOCK NUT
9	6	101173	3/4-10 X 3\" HEX BOLT
10	6	101224	3/4\" LOCK WASHER
11	6	101215	3/4-10 HEX NUT
12	1	204016	3-1/2 X 10 REPHASE CYLINDER
13	2	602228	Ø1.00 X 3-1/4\" CYLINDER PIN
14	2	101249	5/32 X 1-3/4\" COTTER PIN

LEFT TANDEM WHEEL ASSEMBLY



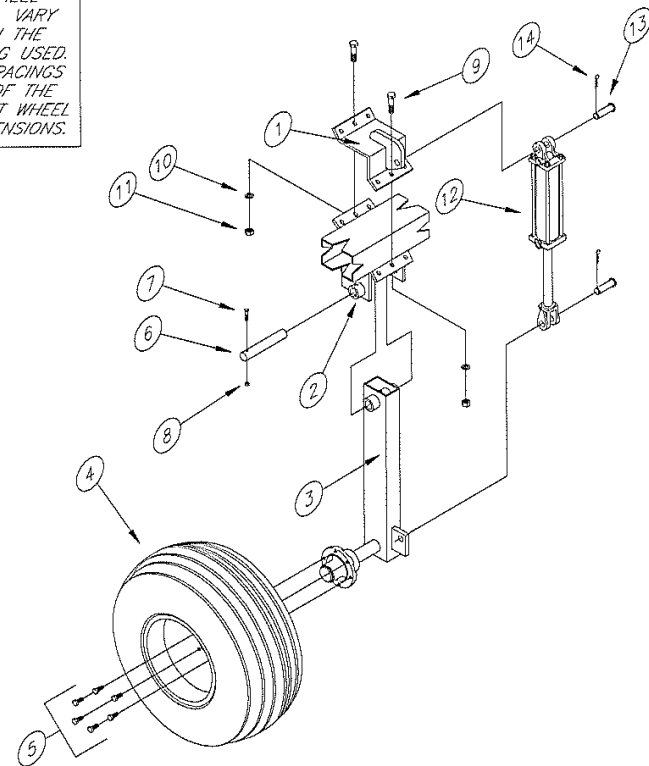
LEFT TANDEM WHEEL ASSEMBLY (EXPLODED)

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>	<i>REVISED: 7/09/01</i>
<i>1</i>	<i>1</i>	<i>801338</i>	<i>TOP SADDLE CLAMP (WHEEL) WELDMENT</i>	
<i>2</i>	<i>1</i>	<i>801753</i>	<i>LEFT LOWER SADDLE CLAMP WELDMENT</i>	
<i>3</i>	<i>1</i>	<i>801349</i>	<i>TANDEM WHEEL ARM WELDMENT</i>	
<i>4</i>	<i>2</i>	<i>301194</i>	<i>12.5L X 15SL 8 PLY TIRE & WHEEL ASSEM.</i>	
<i>5</i>	<i>12</i>	<i>301151</i>	<i>9/16-18 X 1-1/8" UNF LUG BOLT</i>	
<i>6</i>	<i>1</i>	<i>602129</i>	<i>Ø1.500 X 9-3/8" PIN</i>	
<i>7</i>	<i>1</i>	<i>101140</i>	<i>7/16-14 X 3" HEX BOLT</i>	
<i>8</i>	<i>1</i>	<i>101456</i>	<i>7/16-14 TOPLOCK NUT</i>	
<i>9</i>	<i>6</i>	<i>101173</i>	<i>3/4-10 X 3" HEX BOLT</i>	
<i>10</i>	<i>6</i>	<i>101224</i>	<i>3/4" LOCK WASHER</i>	
<i>11</i>	<i>6</i>	<i>101215</i>	<i>3/4-10 HEX NUT</i>	
<i>12*</i>	<i>1</i>	<i>204016</i>	<i>3-1/2 X 10 REPHASE CYLINDER</i>	
<i>13</i>	<i>2</i>	<i>602228</i>	<i>Ø1.00 X 3-1/4" PLATED CYLINDER PIN</i>	
<i>14</i>	<i>2</i>	<i>101249</i>	<i>5/32 X 1-3/4" COTTER PIN</i>	
<i>15</i>	<i>1</i>	<i>801757</i>	<i>LEFT WALKING AXLE WELDMENT</i>	
<i>16</i>	<i>1</i>	<i>301154</i>	<i>OIL SEAL - TCM 203062</i>	
<i>17</i>	<i>2</i>	<i>301129</i>	<i>BEARING CONE - LM501349</i>	
<i>18</i>	<i>2</i>	<i>301135</i>	<i>BEARING CUP - LM501310</i>	
<i>19</i>	<i>1</i>	<i>301216</i>	<i>4.000 O.D. X 1.031 I.D. FELT PAD</i>	
<i>20</i>	<i>1</i>	<i>301217</i>	<i>4.000 O.D. X 1.031 I.D. X 3/16" WASHER</i>	
<i>21</i>	<i>1</i>	<i>301218</i>	<i>1-8 CASTELLATED NUT</i>	
<i>22</i>	<i>1</i>	<i>101451</i>	<i>3/16 X 2-1/2" COTTER PIN</i>	
<i>23</i>	<i>1</i>	<i>101152</i>	<i>1/2-13 X 3-1/2" HEX BOLT</i>	
<i>24</i>	<i>1</i>	<i>101457</i>	<i>1/2-13 TOPLOCK NUT</i>	
<i>25</i>	<i>1</i>	<i>301120A</i>	<i>6 BOLT HUB AND SPINDLE (FRONT TANDEM)</i>	
<i>26</i>	<i>1</i>	<i>101226</i>	<i>1" FLAT WASHER - PLT.</i>	

** BE SURE TO USE THE 3-1/2" CYLINDERS ON THE MAINFRAME WHEEL ASSEMBLIES
AND THE 3-1/4" CYLINDERS ON THE WING WHEEL ASSEMBLIES.*

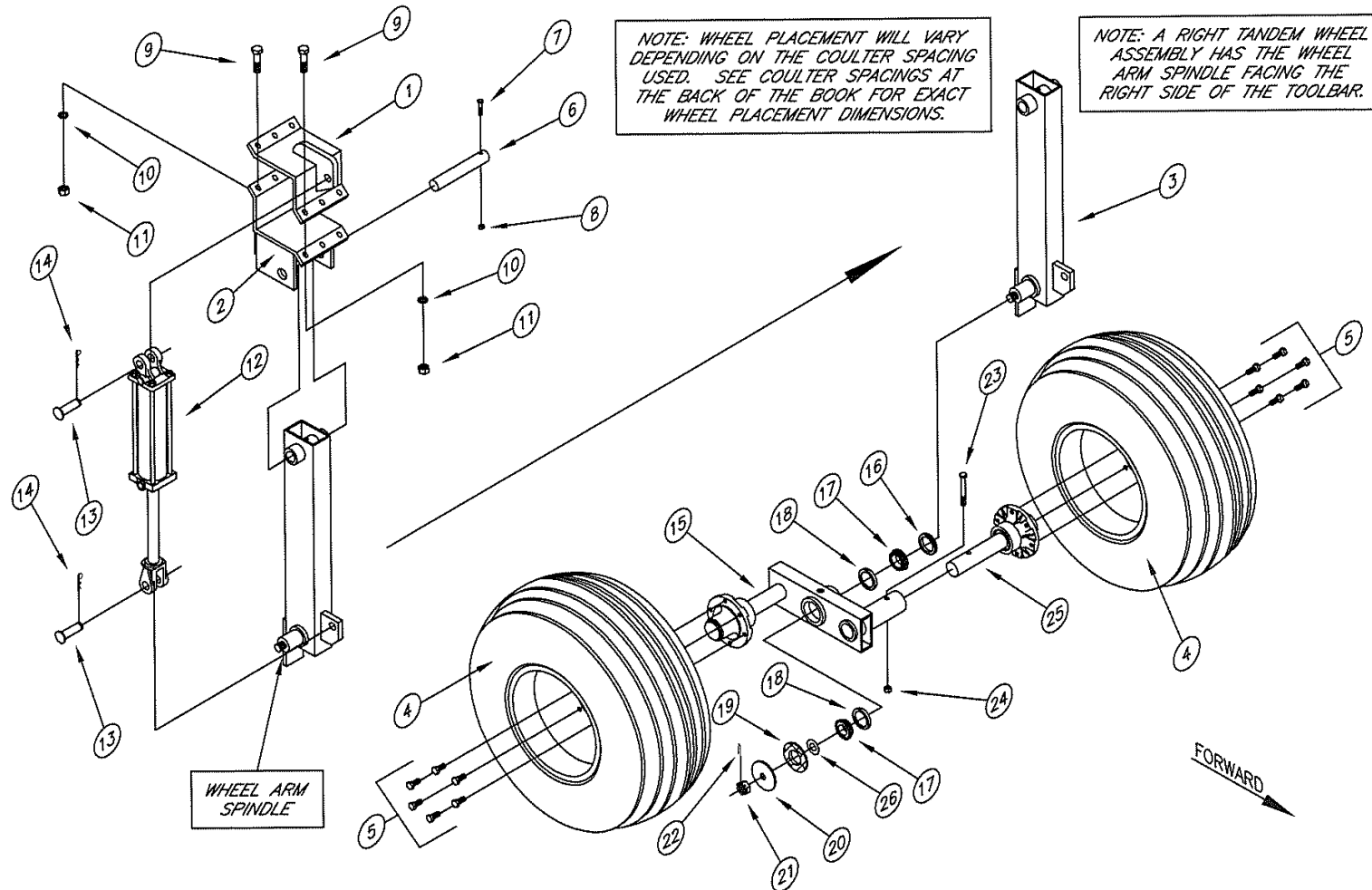
RIGHT INNER WING WHEEL ASSEMBLY

NOTE THAT WHEEL
PLACEMENT WILL VARY
DEPENDING ON THE
COULTER SPACING USED.
SEE COULTER SPACINGS
AT THE BACK OF THE
BOOK FOR EXACT WHEEL
PLACEMENT DIMENSIONS.



REF. #	QTY.	PART #	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP
2	1	801754	RIGHT LOWER SADDLE CLAMP
3	1	801342	RIGHT WHEEL ARM
4	1	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEMBLY
5	6	301151	9/16-18 X 1-1/8" UNF LUG BOLT
6	1	602129	Ø1.500 X 9" HINGE PIN
7	1	101140	7/16-14 X 3" HEX BOLT
8	1	101456	7/16-14 TOPLOCK NUT
9	6	101173	3/4-10 X 3" HEX BOLT
10	6	101224	3/4" LOCK WASHER
11	6	101215	3/4-10 HEX NUT
12	1	204016	3-1/2 X 10 REPHASE CYLINDER
13	2	602228	Ø1.00 X 3-1/4" CYLINDER PIN
14	2	101249	5/32 X 1-3/4" COTTER PIN

RIGHT TANDEM WHEEL ASSEMBLY

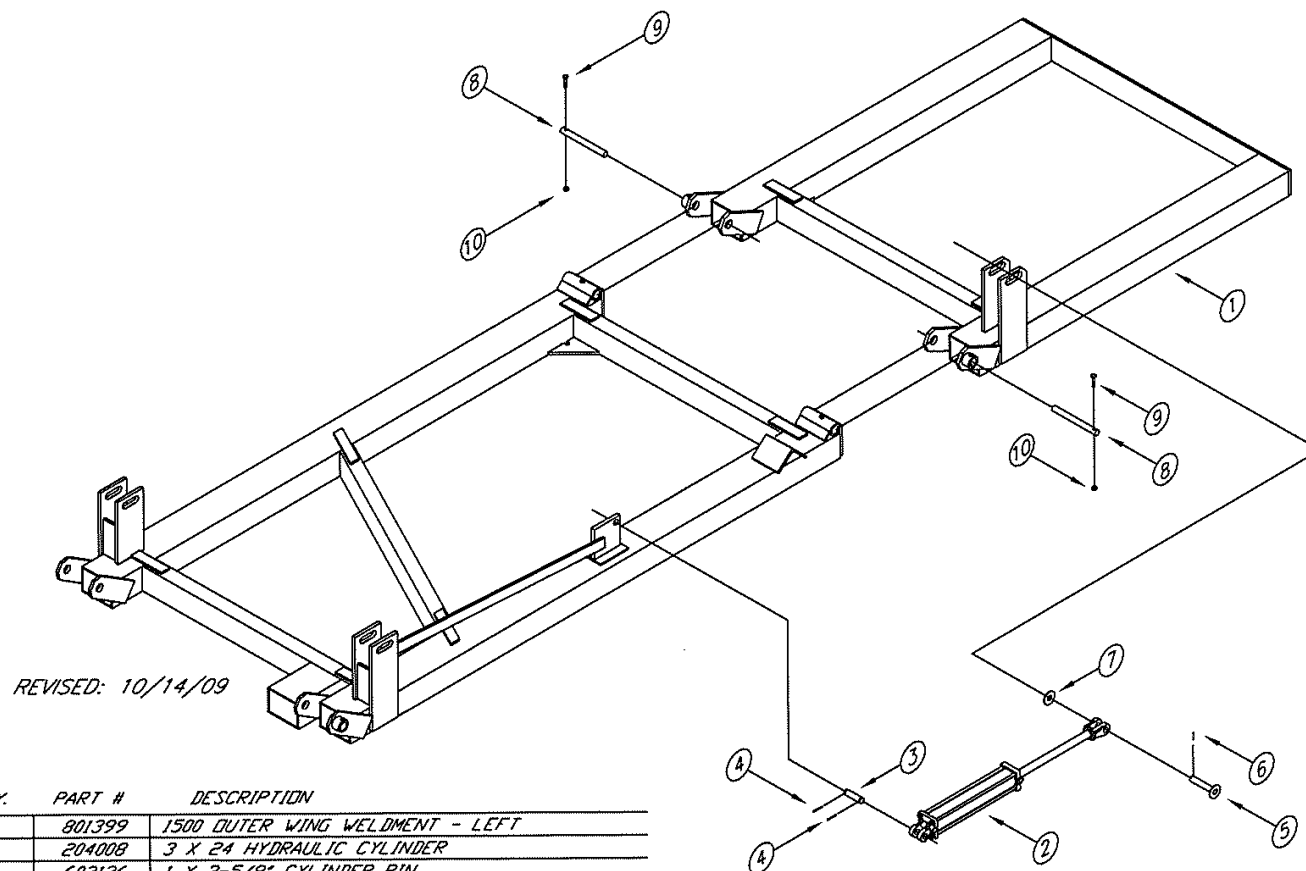


RIGHT TANDEM WHEEL ASSEMBLY (EXPLODED)

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>	<i>REVISED: 7/09/01</i>
1	1	801338	TOP SADDLE CLAMP (WHEEL) WELDMENT	
2	1	801754	RIGHT LOWER SADDLE CLAMP WELDMENT	
3	1	801350	TANDEM WHEEL ARM WELDMENT	
4	2	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEM.	
5	12	301151	9/16-18 X 1-1/8" UNF LUG BOLT	
6	1	602129	Ø1.500 X 9-3/8" PIN	
7	1	101140	7/16-14 X 3" HEX BOLT	
8	1	101456	7/16-14 TOPLOCK NUT	
9	6	101173	3/4-10 X 3" HEX BOLT	
10	6	101224	3/4" LOCK WASHER	
11	6	101215	3/4-10 HEX NUT	
12*	1	204016	3-1/2 X 10 REPHASE CYLINDER	
13	2	602228	Ø1.00 X 3-1/4" PLATED CYLINDER PIN	
14	2	101249	5/32 X 1-3/4" COTTER PIN	
15	1	801758	RIGHT WALKING AXLE WELDMENT	
16	1	301154	OIL SEAL - TCM 203062	
17	2	301129	BEARING CONE - LM501349	
18	2	301135	BEARING CUP - LM501310	
19	1	301216	4.000 O.D. X 1.031 I.D. FELT PAD	
20	1	301217	4.000 O.D. X 1.031 I.D. X 3/16" WASHER	
21	1	301218	1-8 CASTELLATED NUT	
22	1	101451	3/16 X 2-1/2" COTTER PIN	
23	1	101152	1/2-13 X 3-1/2" HEX BOLT	
24	1	101457	1/2-13 TOPLOCK NUT	
25	1	301120A	6 BOLT HUB AND SPINDLE (FRONT TANDEM)	
26	1	101226	1" FLAT WASHER - PLT	

* BE SURE TO USE THE 3-1/2" CYLINDERS ON THE MAINFRAME WHEEL ASSEMBLIES
AND THE 3-1/4" CYLINDERS ON THE WING WHEEL ASSEMBLIES.

OUTER WING ASSEMBLY - LEFT

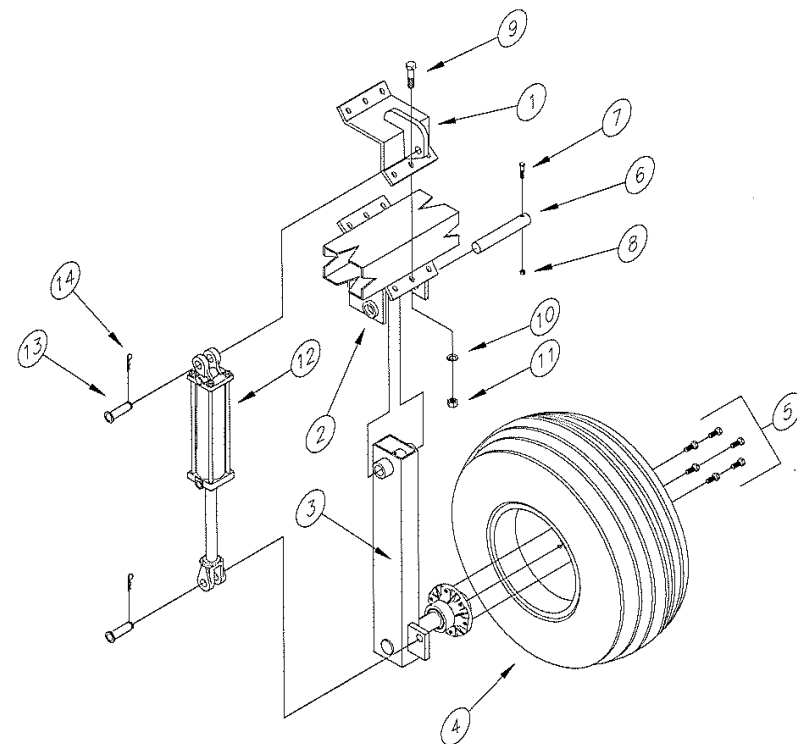


REF. #	QTY.	PART #	DESCRIPTION
1	1	801399	1500 OUTER WING WELDMENT - LEFT
2	1	204008	3 X 24 HYDRAULIC CYLINDER
3	1	602136	1 X 3-5/8" CYLINDER PIN
4	2	101366	RETAINING CLIP
5	1	801613	1" DIAM. X 5-1/4" WELDED CYLINDER PIN
6	1	101347	3/16 X 2" COTTER PIN
7	1	801539	1" FLAT WASHER
8	2	602166	1.5 DIAM. X 10-1/2" HINGE PIN
9	2	101127	3/8-16 X 2" HEX. BOLT PLT
10	2	101455	3/8 - 16 TOP LOCK HEX NUT PLT.

LEFT OUTER WING WHEEL ASSEMBLY

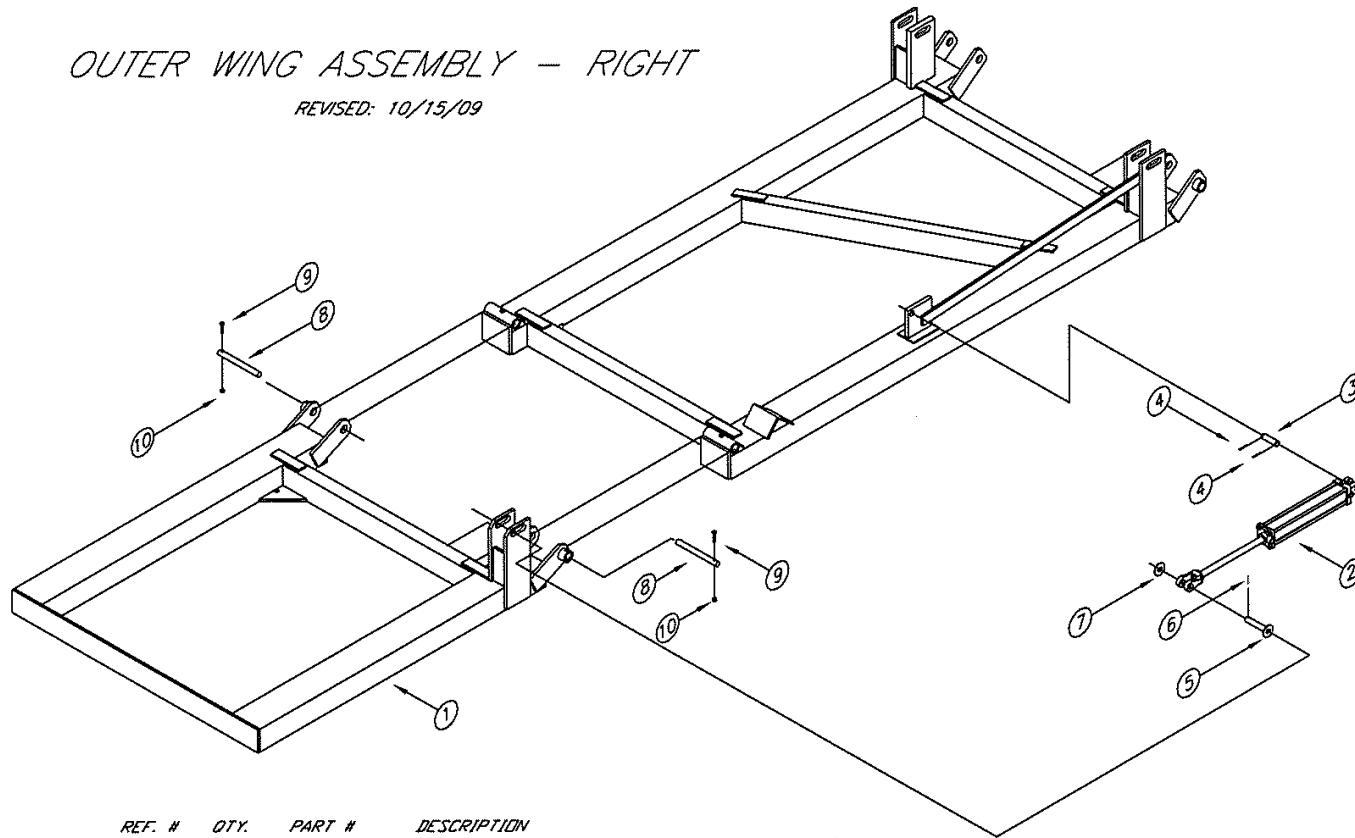
NOTE THAT WHEEL
PLACEMENT WILL VARY
DEPENDING ON THE
COULTER SPACING USED.
SEE COULTER SPACINGS
AT THE BACK OF THE
BOOK FOR EXACT WHEEL
PLACEMENT DIMENSIONS.

REF. #	QTY.	PART #	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP
2	1	801753	LEFT LOWER SADDLE CLAMP
3	1	801341	LEFT WHEEL ARM
4	1	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEMBLY
5	6	301151	9/16-18 X 1-1/8" UNF LUG BOLT
6	1	602129	Ø1.500 X 9" HINGE PIN
7	1	101140	7/16-14 X 3" HEX BOLT
8	1	101456	7/16-14 TOPLOCK NUT
9	6	101173	3/4-10 X 3" HEX BOLT
10	6	101224	3/4" LOCK WASHER
11	6	101215	3/4-10 HEX NUT
12	1	204015	3-1/4 X 10 REPHASE CYLINDER
13	2	602228	Ø1.00 X 3-1/4" CYLINDER PIN
14	2	101249	5/32 X 1-3/4" COTTER PIN



OUTER WING ASSEMBLY – RIGHT

REVISED: 10/15/09

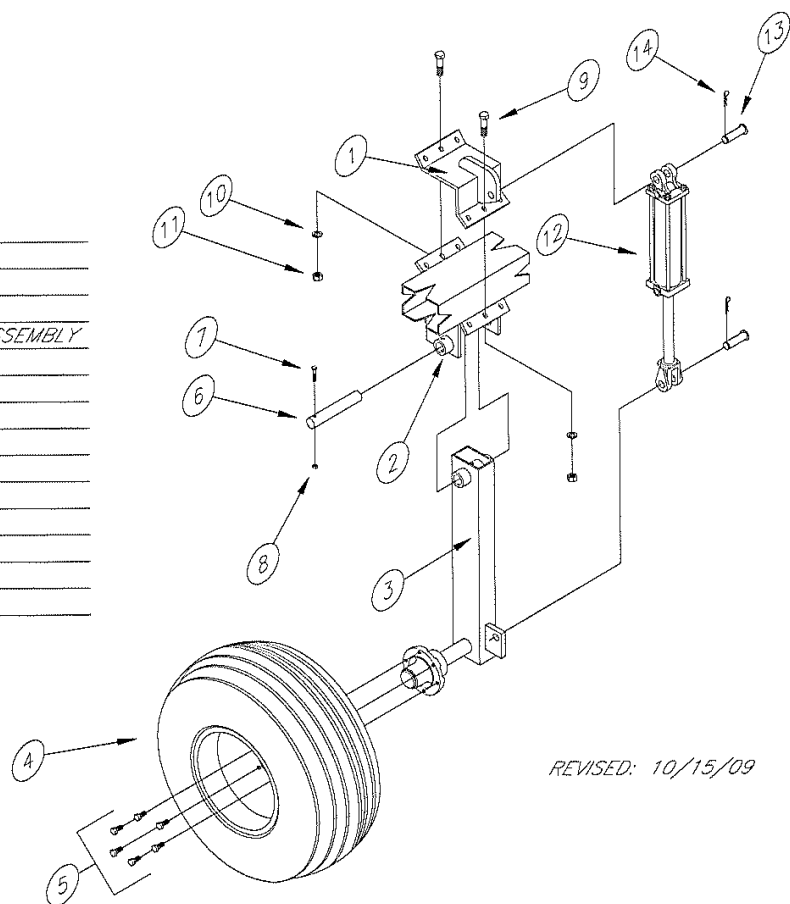


REF. #	QTY.	PART #	DESCRIPTION
1	1	801399	1500 OUTER WING WELDMENT - LEFT
2	1	204008	3 X 24 HYDRAULIC CYLINDER
3	1	602136	1 X 3-5/8" CYLINDER PIN
4	2	101366	RETAINING CLIP
5	1	801613	1" DIAM. X 5-1/4" WELDED CYLINDER PIN
6	1	101347	3/16 X 2" COTTER PIN
7	1	801539	1" FLAT WASHER
8	2	602166	1.5 DIAM. X 10-1/2" HINGE PIN
9	2	101127	3/8-16 X 2" HEX. BOLT PLT
10	2	101455	3/8 - 16 TOP LOCK HEX NUT PLT.

RIGHT OUTER WING WHEEL ASSEMBLY

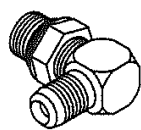
NOTE THAT WHEEL
PLACEMENT WILL VARY
DEPENDING ON THE
COULTER SPACING USED.
SEE COULTER SPACINGS
AT THE BACK OF THE
BOOK FOR EXACT WHEEL
PLACEMENT DIMENSIONS.

REF. #	QTY.	PART #	DESCRIPTION
1	1	801338	TOP SADDLE CLAMP
2	1	801754	RIGHT LOWER SADDLE CLAMP
3	1	801342	RIGHT WHEEL ARM
4	1	301194	12.5L X 15SL 8 PLY TIRE & WHEEL ASSEMBLY
5	6	301151	9/16-18 X 1-1/8" UNF LUG BOLT
6	1	602129	Ø1.500 X 9" HINGE PIN
7	1	101140	7/16-14 X 3" HEX BOLT
8	1	101456	7/16-14 TOPLOCK NUT
9	6	101173	3/4-10 X 3" HEX BOLT
10	6	101224	3/4" LOCK WASHER
11	6	101215	3/4-10 HEX NUT
12	1	204015	3-1/4 X 10 REPHASE CYLINDER
13	2	602228	Ø1.00 X 3-1/4" CYLINDER PIN
14	2	101249	5/32 X 1-3/4" COTTER PIN

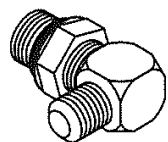


REVISED: 10/15/09

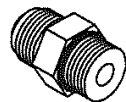
HYDRAULIC SYSTEM COMPONENTS IDENTIFICATION



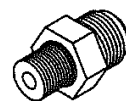
201001



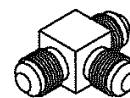
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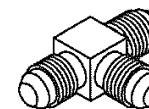
201004



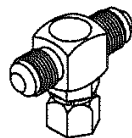
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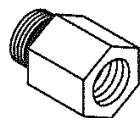
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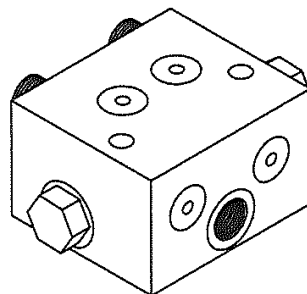
201010



201011



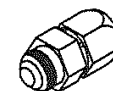
201012



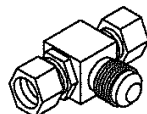
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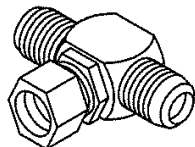
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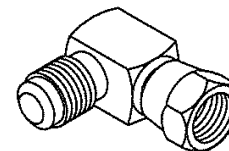
201044



201050



201058



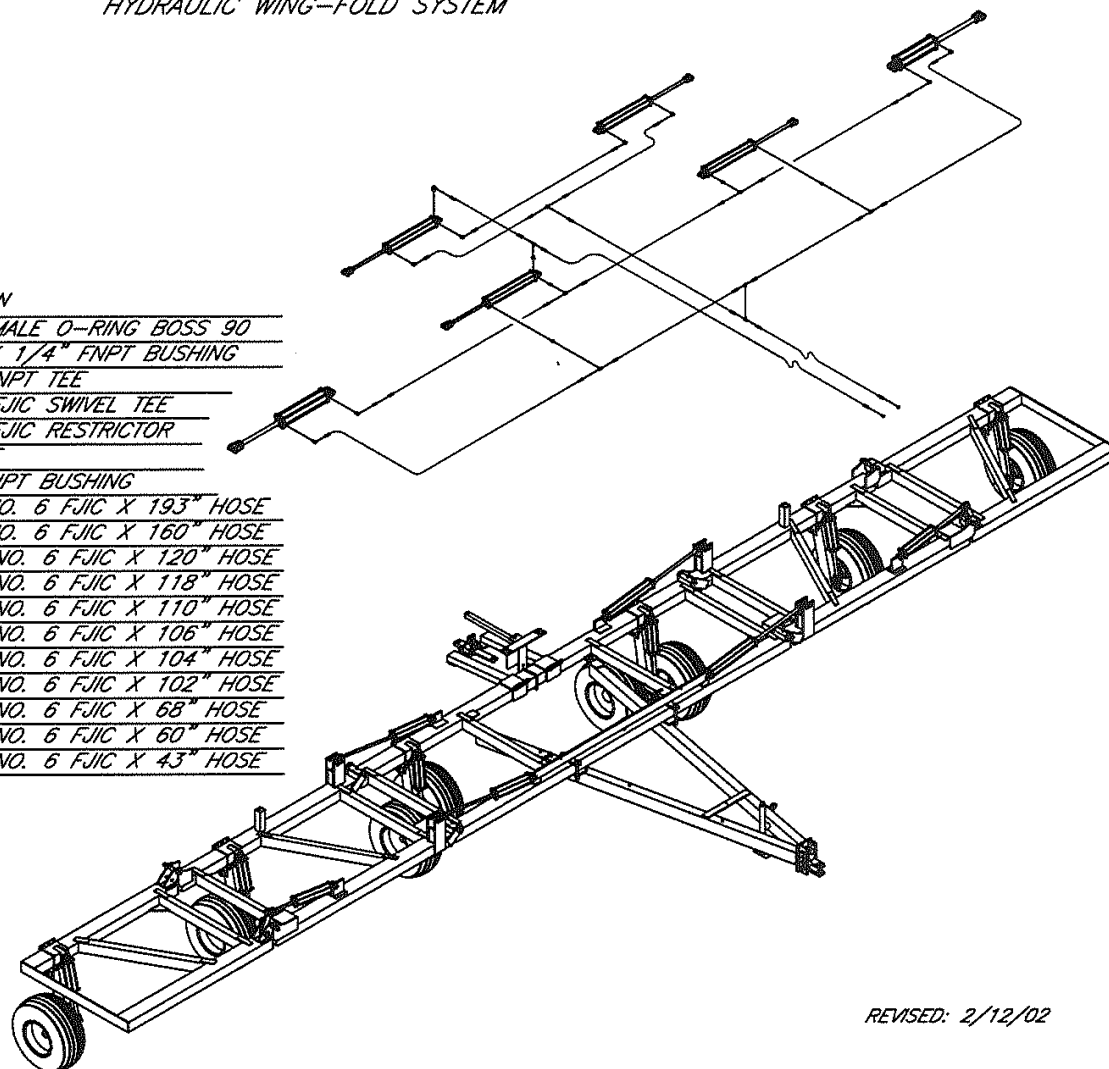
201059

This diagram shows an exploded view of a mechanical assembly. It features four main components, each consisting of a cylindrical body with a threaded rod and a nut. These components are arranged in a rectangular pattern. Various other parts, including washers, spacers, and a central bracket, are shown in their relative positions. Numbered callouts (1 through 18) point to specific parts and assembly points throughout the diagram.

REVISED: 2/12/02

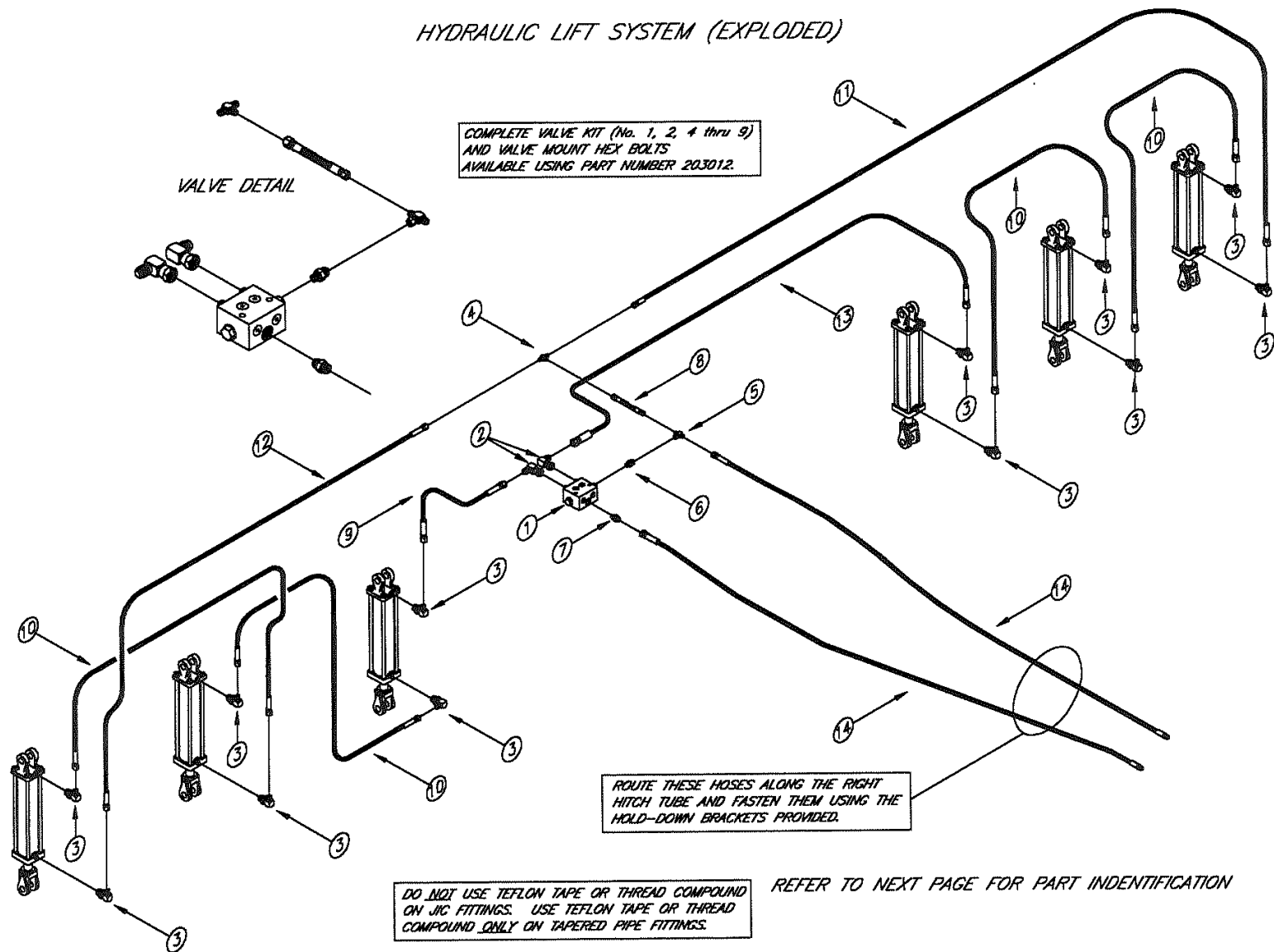
HYDRAULIC WING-FOLD SYSTEM

REF. #	QTY.	PART #	DESCRIPTION
1	9	201001	NO. 6 MJIC X NO. 8 MALE O-RING BOSS 90
2	5	201012	NO. 8 MALE O-RING X 1/4" FNPT BUSHING
3	5	201011	NO. 6 MJIC X 1/4" MNPT TEE
4	1	201050	NO. 6 MJIC X NO. 6 FJIC SWIVEL TEE
5	2	201044	NO. 6 MJIC X NO. 6 FJIC RESTRICTOR
6	2	201009	NO. 6 MJIC UNION TEE
7	2	201014	1/2" MNPT X 3/8" FNPT BUSHING
8	1	202157	1/4 X 3/8 MNPT X NO. 6 FJIC X 193" HOSE
9	1	202158	1/4 X 3/8 MNPT X NO. 6 FJIC X 160" HOSE
10	1	202035	1/4 X NO. 6 FJIC X NO. 6 FJIC X 120" HOSE
11	2	202030	1/4 X NO. 6 FJIC X NO. 6 FJIC X 118" HOSE
12	2	202159	1/4 X NO. 6 FJIC X NO. 6 FJIC X 110" HOSE
13	2	202048	1/4 X NO. 6 FJIC X NO. 6 FJIC X 106" HOSE
14	1	202009	1/4 X NO. 6 FJIC X NO. 6 FJIC X 104" HOSE
15	1	202034	1/4 X NO. 6 FJIC X NO. 6 FJIC X 102" HOSE
16	1	202108	1/4 X NO. 6 FJIC X NO. 6 FJIC X 68" HOSE
17	1	202004	1/4 X NO. 6 FJIC X NO. 6 FJIC X 60" HOSE
18	1	202160	1/4 X NO. 6 FJIC X NO. 6 FJIC X 43" HOSE

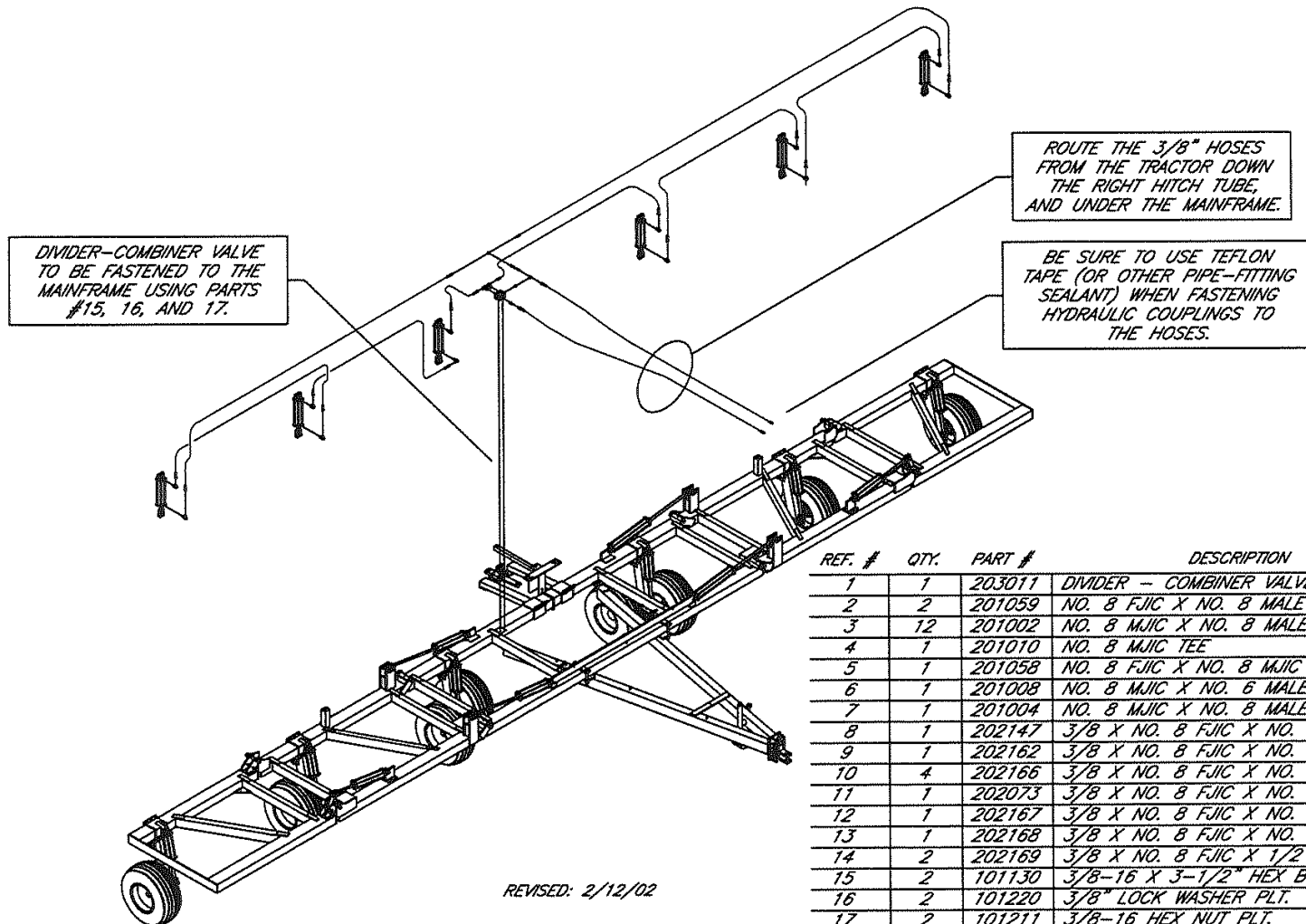


REVISED: 2/12/02

HYDRAULIC LIFT SYSTEM (EXPLODED)



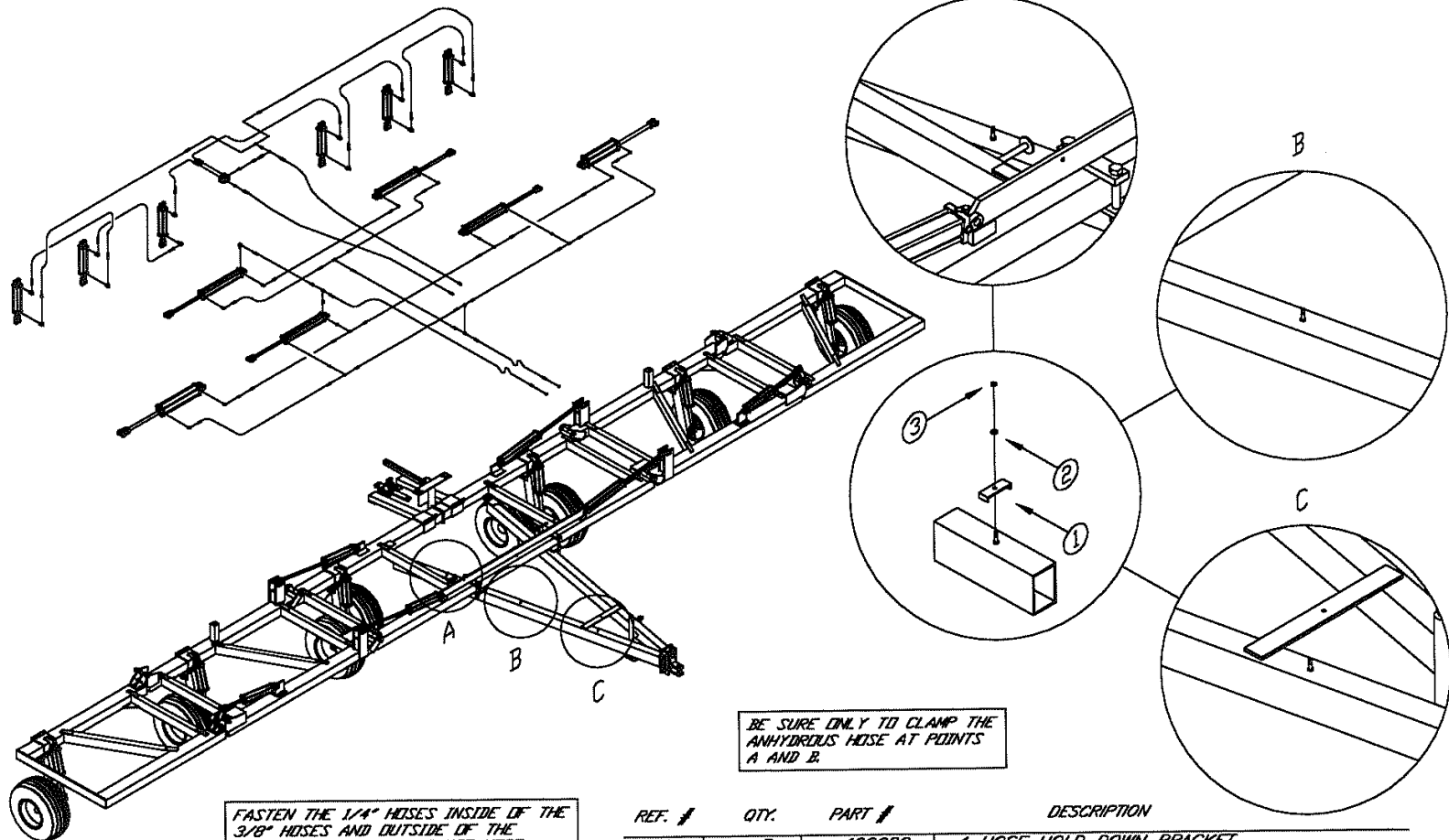
HYDRAULIC LIFT SYSTEM



REF. #	QTY.	PART #	DESCRIPTION
1	1	203011	DIVIDER - COMBINER VALVE
2	2	201059	NO. 8 FJIC X NO. 8 MALE JIC SWIVEL 90
3	12	201002	NO. 8 MJIC X NO. 8 MALE O-RING BOSS 90
4	1	201010	NO. 8 MJIC TEE
5	1	201058	NO. 8 FJIC X NO. 8 MJIC BRANCH TEE
6	1	201008	NO. 8 MJIC X NO. 6 MALE O-RING STRAIGHT
7	1	201004	NO. 8 MJIC X NO. 8 MALE O-RING STRAIGHT
8	1	202147	3/8 X NO. 8 FJIC X NO. 8 FJIC X 6" HOSE
9	1	202162	3/8 X NO. 8 FJIC X NO. 8 FJIC X 43" HOSE
10	4	202166	3/8 X NO. 8 FJIC X NO. 8 FJIC X 132" HOSE
11	1	202073	3/8 X NO. 8 FJIC X NO. 8 FJIC X 324" HOSE
12	1	202167	3/8 X NO. 8 FJIC X NO. 8 FJIC X 274" HOSE
13	1	202168	3/8 X NO. 8 FJIC X NO. 8 FJIC X 114" HOSE
14	2	202169	3/8 X NO. 8 FJIC X 1/2" MNPT X 220" HOSE
15	2	101130	3/8-16 X 3-1/2" HEX BOLT PLT.
16	2	101220	3/8" LOCK WASHER PLT.
17	2	101211	3/8-16 HEX NUT PLT.

HOSE ROUTES AND HOSE CLAMP ASSEMBLY

FASTEN THE 3/8" HOSES TOWARDS THE OUTER EXTREMITIES OF THE HOSE CLAMPS AT POINTS A, B, AND C.

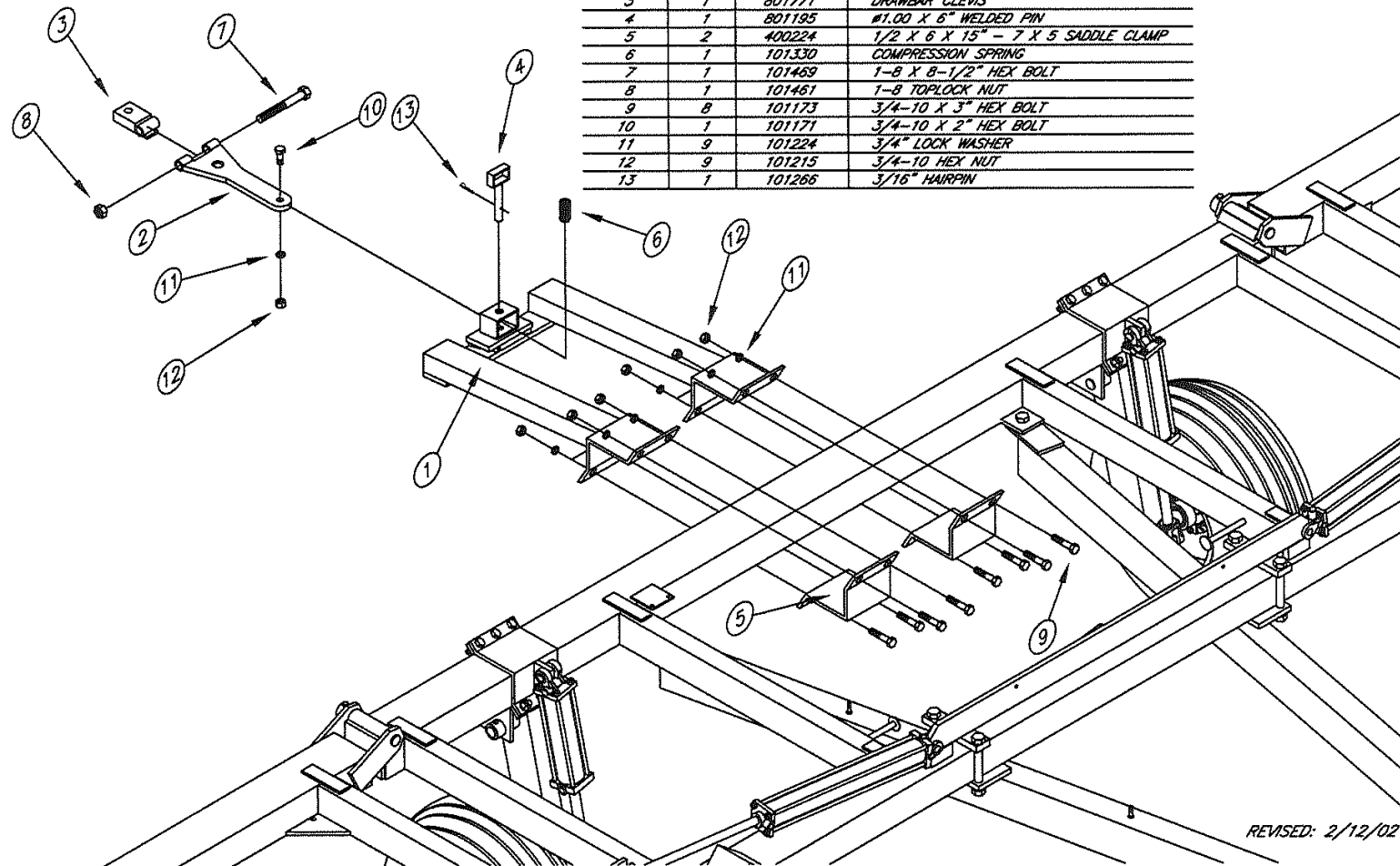


BE SURE ONLY TO CLAMP THE ANHYDROUS HOSE AT POINTS A AND B.

FASTEN THE 1/4" HOSES INSIDE OF THE 3/8" HOSES AND OUTSIDE OF THE ANHYDROUS PRESSURE GAUGE HOSE (NOT SHOWN) AND THE WIRING FOR THE IMPLEMENT LIGHTS (NOT SHOWN).

REF. #	QTY.	PART #	DESCRIPTION
1	3	400080	4 HOSE HOLD DOWN BRACKET
2	3	101220	3/8" LOCK WASHER - PLT.
3	3	101211	3/8-16 HEX NUT - PLT.

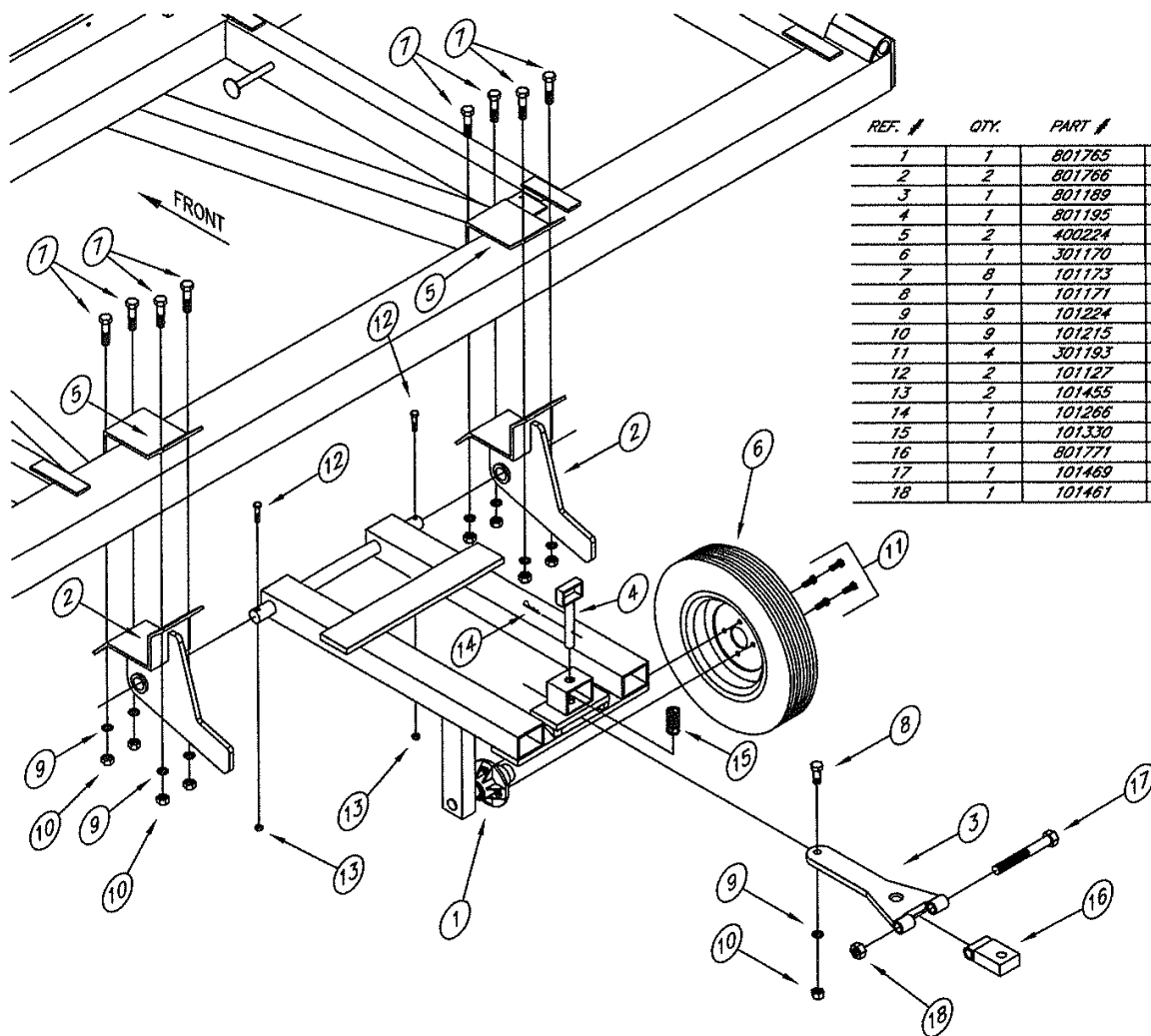
NURSE TRAILER HITCH ASSEMBLY



REF. #	QTY.	PART #	DESCRIPTION
1	1	801087A	ANHYDROUS NURSE TRAILER HITCH
2	1	801189	DRAWBAR
3	1	801771	DRAWBAR CLEVIS
4	1	801195	#1.00 X 6" WELDED PIN
5	2	400224	1/2 X 6 X 15" - 7 X 5 SADDLE CLAMP
6	1	101330	COMPRESSION SPRING
7	1	101469	1-8 X 8-1/2" HEX BOLT
8	1	101461	1-8 TOPLOCK NUT
9	8	101173	3/4-10 X 3" HEX BOLT
10	1	101171	3/4-10 X 2" HEX BOLT
11	9	101224	3/4" LOCK WASHER
12	9	101215	3/4-10 HEX NUT
13	1	101266	3/16" HAIRPIN

REVISED: 2/12/02

FLOATING REAR HITCH ASSEMBLY



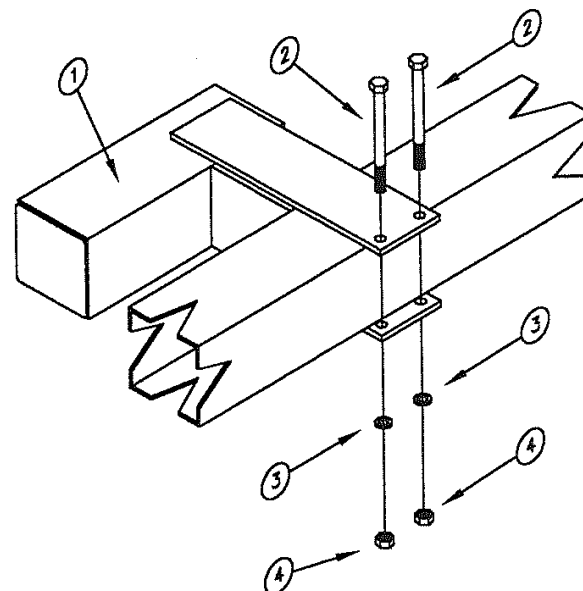
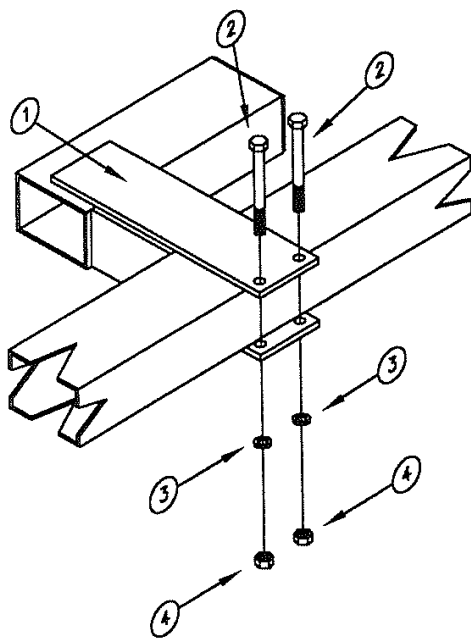
REVISED: 9/18/01

ATTACH THE SADDLE CLAMPS LOOSELY TO THE TOOLBAR, THEN INSERT PIN ENDS OF THE HITCH INTO THE PIVOT PLATES. ATTACH THE HITCH USING THE 7/16" HEX BOLTS. SLIDE THE PIVOT PLATES SO THAT THE HITCH IS CENTERED ON THE TOOLBAR, THEN TIGHTEN THE SADDLE CLAMPS.

OFFSET BRACKET ASSEMBLY

REF #	QTY	PART #	DESCRIPTION
1	1	801731	OFFSET BRACKET FOR 7 X 5 TUBE
2	2	101438	3/4-10 X 7-1/2" HEX BOLT
3	2	101224	3/4" LOCK WASHER
4	2	101215	3/4-10 HEX NUT

ENTIRE ASSEMBLY (ITEMS 1-4) MAY BE ORDERED USING PART # 900072.

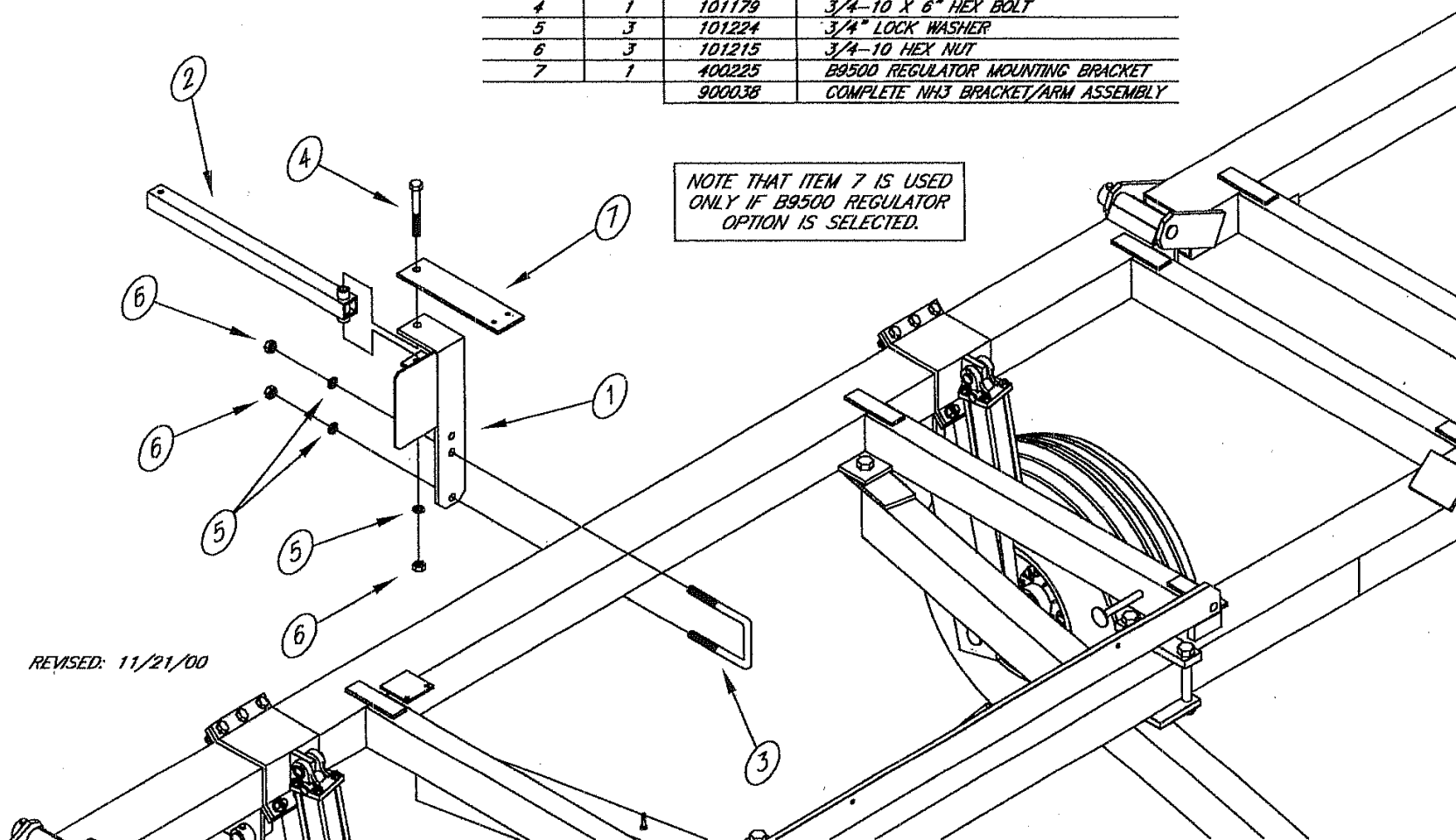


REF #	QTY	PART #	DESCRIPTION
1	1	801730	OFFSET BRACKET FOR 7 X 7 TUBE
2	2	101182	3/4-10 X 9" HEX BOLT
3	2	101224	3/4" LOCK WASHER
4	2	101215	3/4-10 HEX NUT

ENTIRE ASSEMBLY (ITEMS 1-4) MAY BE ORDERED USING PART # 900074.

SINGLE REGULATOR BRACKET ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801683	SWING ARM MOUNTING BRACKET
2	1	801276	SWING ARM
3	1	101317	3/4-10 X 5 X 8-1/2" U-BOLT
4	1	101179	3/4-10 X 6" HEX BOLT
5	3	101224	3/4" LOCK WASHER
6	3	101215	3/4-10 HEX NUT
7	1	400225	B9500 REGULATOR MOUNTING BRACKET
		900038	COMPLETE NH3 BRACKET/ARM ASSEMBLY



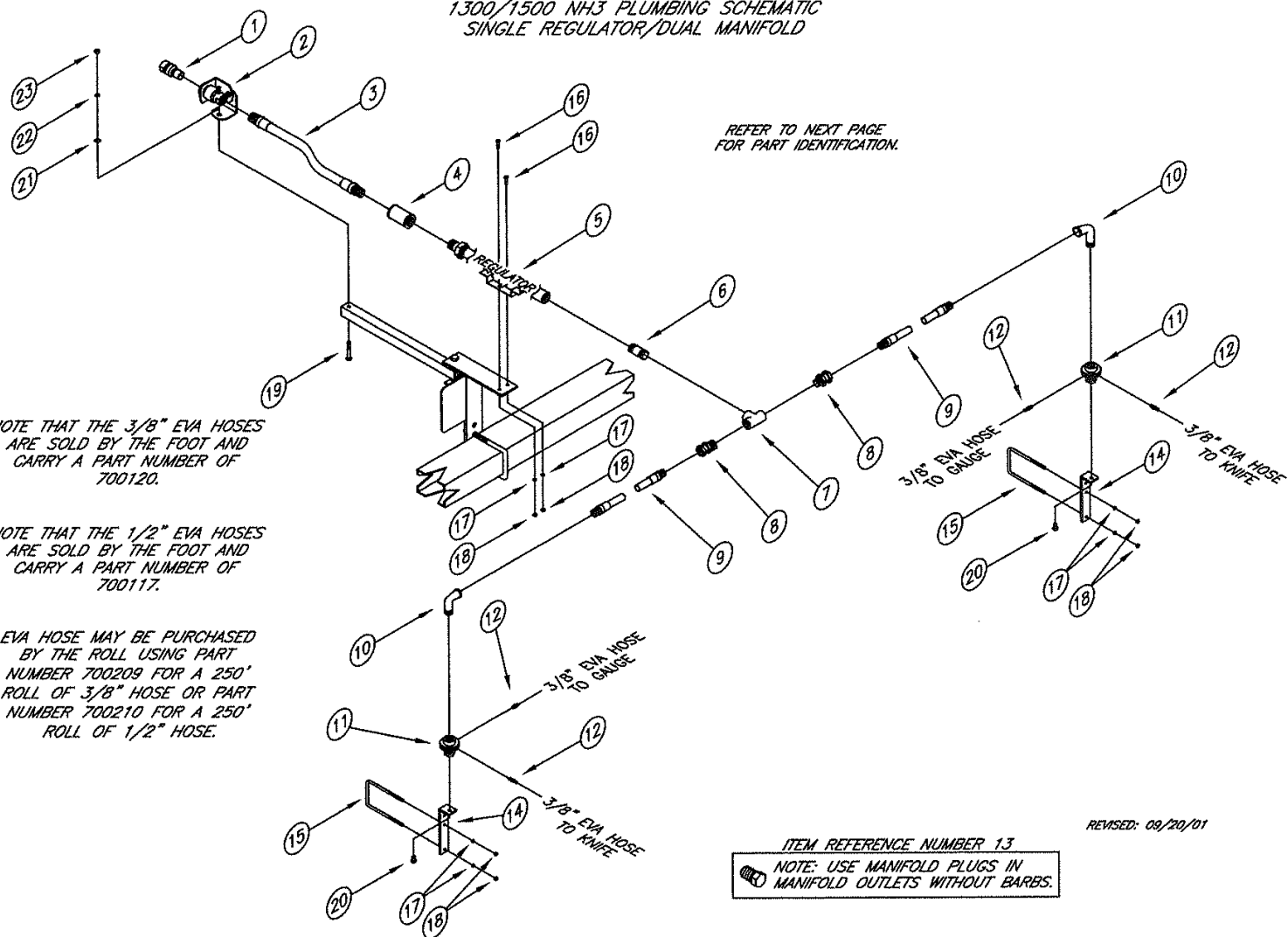
1300/1500 NH₃ PLUMBING SCHEMATIC
SINGLE REGULATOR/DUAL MANIFOLD

REFER TO NEXT PAGE
FOR PART IDENTIFICATION.

NOTE THAT THE 3/8" EVA HOSES
ARE SOLD BY THE FOOT AND
CARRY A PART NUMBER OF
700120.

NOTE THAT THE 1/2" EVA HOSES
ARE SOLD BY THE FOOT AND
CARRY A PART NUMBER OF
700117.

EVA HOSE MAY BE PURCHASED
BY THE ROLL USING PART
NUMBER 700209 FOR A 250'
ROLL OF 3/8" HOSE OR PART
NUMBER 700210 FOR A 250'
ROLL OF 1/2" HOSE.



ITEM REFERENCE NUMBER 13

NOTE: USE MANIFOLD PLUGS IN
MANIFOLD OUTLETS WITHOUT BARBS.

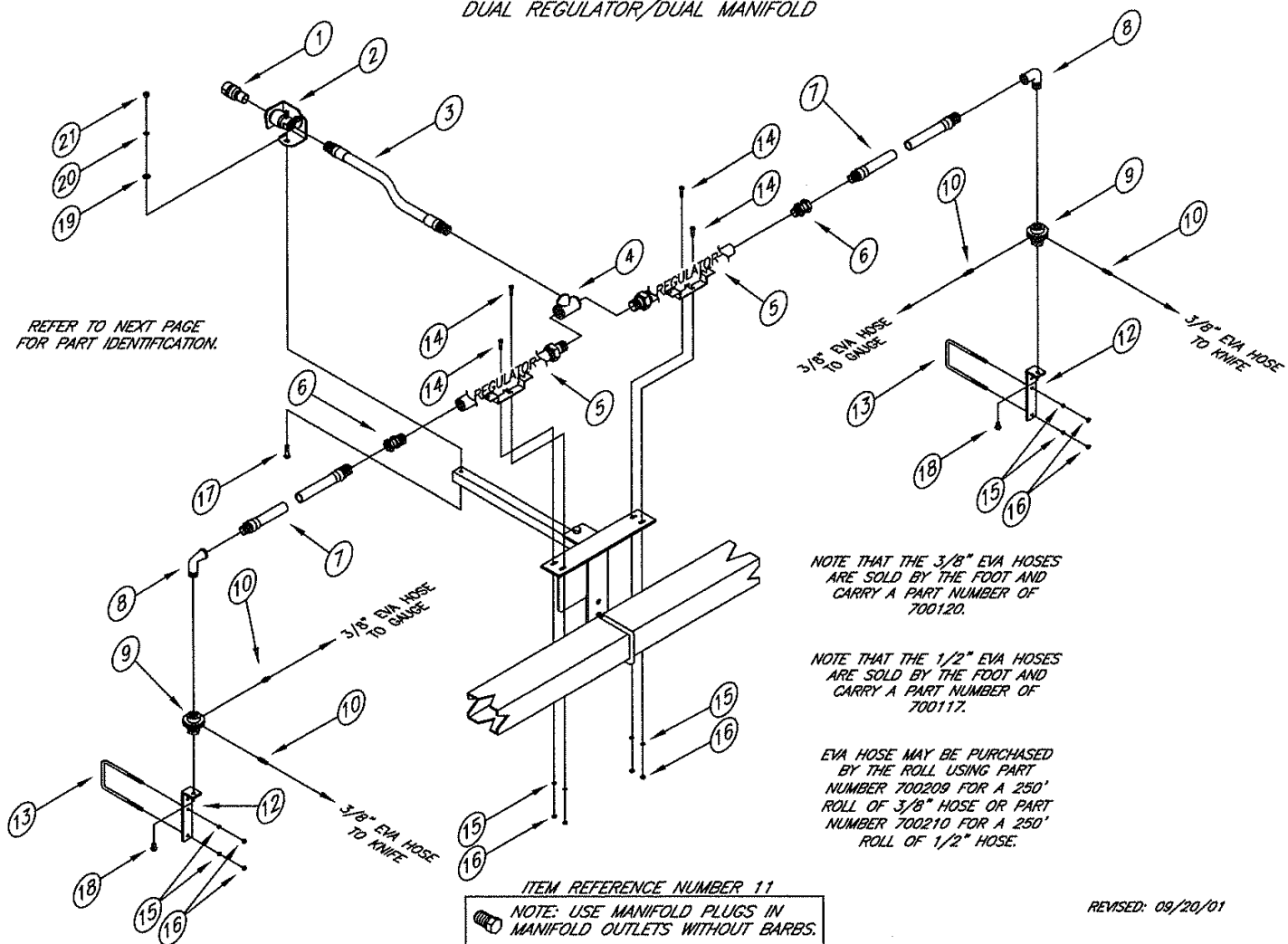
REVISED: 09/20/01

*1300/1500 NH3 PLUMBING SCHEMATIC
SINGLE REGULATOR/DUAL MANIFOLD*

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>700278</i>	<i>1-1/4" MALE COUPLER TIP (NH3)</i>
<i>2</i>	<i>1</i>	<i>700276</i>	<i>1-1/4" QUICK COUPLER ASSEMBLY</i>
<i>3</i>	<i>1</i>	<i>700274</i>	<i>1-1/4" AA HOSE X 32" LONG</i>
<i>4</i>	<i>1</i>	<i>700275</i>	<i>1-1/4" SCHEDULE 80 COUPLER</i>
<i>5</i>	<i>1</i>	<i>700273</i>	<i>NH3/B9500 METER W/ HYDRAULIC SHUT-OFF</i>
<i>6</i>	<i>1</i>	<i>700257</i>	<i>1" CLOSE NIPPLE - BLACK PIPE</i>
<i>7</i>	<i>1</i>	<i>700227</i>	<i>1" FNPT TEE - BLACK PIPE</i>
<i>8</i>	<i>2</i>	<i>700306</i>	<i>1" MNPT X 1" FNPT SWIVEL COUPLER</i>
<i>9</i>	<i>2</i>	<i>700274A</i>	<i>1" AA HOSE X 120" LONG</i>
<i>10</i>	<i>2</i>	<i>700256</i>	<i>1" ST. ELBOW - BLACK PIPE</i>
<i>11</i>	<i>2</i>	<i>700272</i>	<i>NH3 MANIFOLD - 14 OUTLET</i>
<i>-</i>	<i>2</i>	<i>700310</i>	<i>NH3 MANIFOLD - 18 OUTLET 27-34 SHANKS</i>
<i>-</i>	<i>2</i>	<i>700311</i>	<i>NH3 MANIFOLD - 24 OUTLET 35-39 SHANKS</i>
<i>12</i>	<i>AS REQ.</i>	<i>700277</i>	<i>1/4 MNPT X 3/8" HOSE BARB</i>
<i>-</i>	<i>AS REQ.</i>	<i>700208</i>	<i>1/4 MNPT X 1/2" HOSE BARB</i>
<i>-</i>	<i>AS REQ.</i>	<i>700312</i>	<i>1/8 MNPT X 3/8" HOSE BARB-18 & 24 OUTLET MAN.</i>
<i>13</i>	<i>AS REQ.</i>	<i>700211</i>	<i>1/4 MNPT X 1/2" MANIFOLD PLUG</i>
<i>-</i>	<i>AS REQ.</i>	<i>700313</i>	<i>1/8 MNPT X 1/2" MANIFOLD PLUG</i>
<i>14</i>	<i>2</i>	<i>400142</i>	<i>3/8 X 2 X 12-1/2" MANIFOLD BRACKET</i>
<i>15</i>	<i>2</i>	<i>101417</i>	<i>3/8-16 X 5 X 8-1/2" U-BOLT</i>
<i>16</i>	<i>2</i>	<i>101125</i>	<i>3/8-16 X 1" HEX BOLT</i>
<i>17</i>	<i>6</i>	<i>101220</i>	<i>3/8" LOCK WASHER</i>
<i>18</i>	<i>6</i>	<i>101211</i>	<i>3/8-16 HEX NUT</i>
<i>19</i>	<i>1</i>	<i>101152</i>	<i>1/2-13 X 3-1/2" HEX BOLT</i>
<i>20</i>	<i>2</i>	<i>101397</i>	<i>1/2-13 X 3/4" HEX BOLT</i>
<i>21</i>	<i>1</i>	<i>101231</i>	<i>1/2" FLAT WASHER</i>
<i>22</i>	<i>1</i>	<i>101222</i>	<i>1/2" LOCK WASHER</i>
<i>23</i>	<i>1</i>	<i>101213</i>	<i>1/2-13 HEX NUT</i>
<i>-</i>	<i>AS REQ.</i>	<i>700126</i>	<i>3/8 - 1/2" STAINLESS HOSE CLAMP</i>
<i>-</i>	<i>2</i>	<i>202230</i>	<i>1/4 X 1/4" MNPT X 1/2" MNPT X 270" HYD. HOSE</i>
<i>-</i>	<i>2</i>	<i>201061</i>	<i>1/4 MNPT X 1/4" FNPT SWIVEL 90°</i>

REVISED: 09/20/01

1300/1500 NH3 PLUMBING SCHEMATIC
DUAL REGULATOR/DUAL MANIFOLD

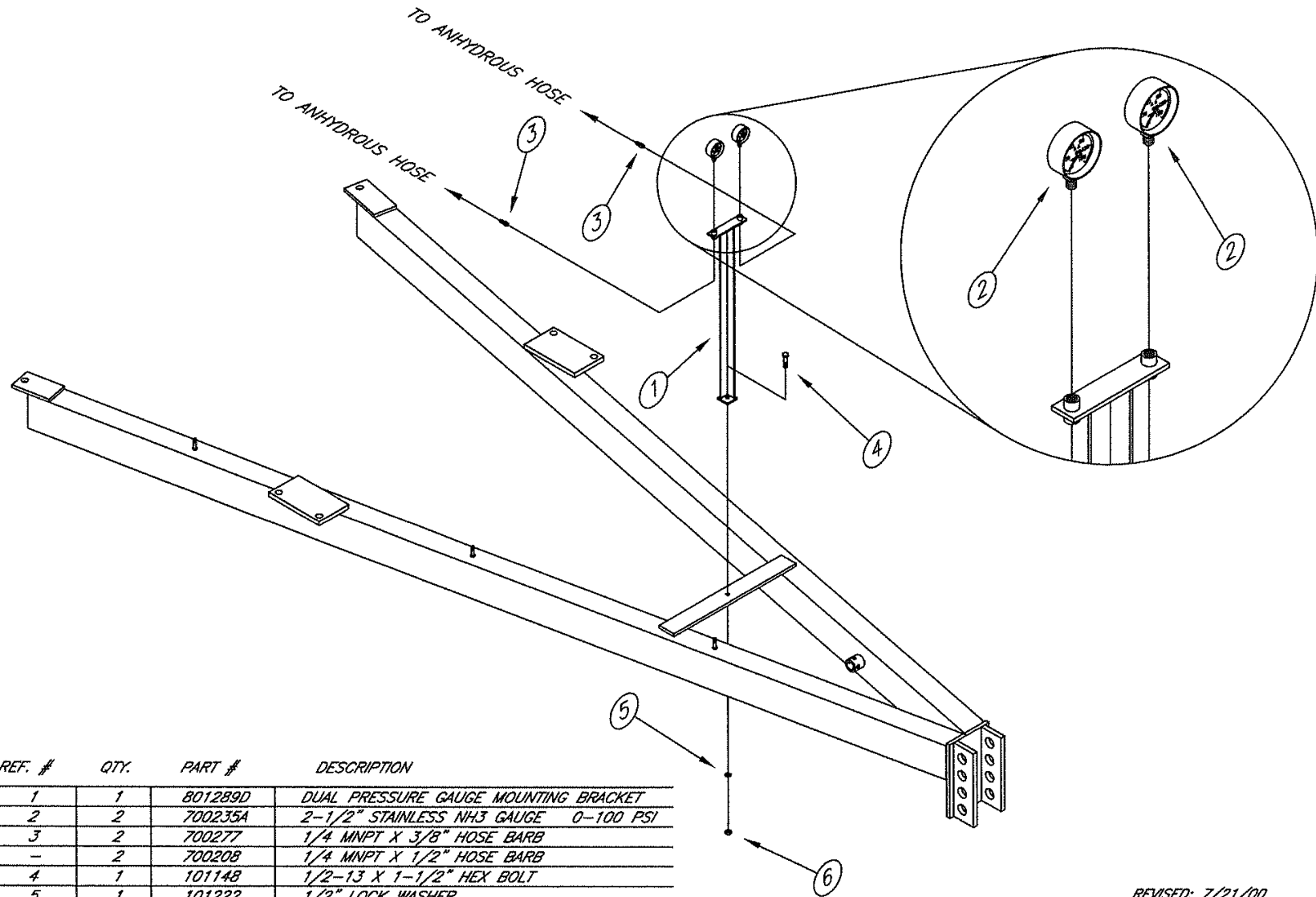


*1300/1500 NH3 PLUMBING SCHEMATIC
DUAL REGULATOR/DUAL MANIFOLD*

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>700278</i>	<i>1-1/4" MALE COUPLER TIP (NH3)</i>
<i>2</i>	<i>1</i>	<i>700276</i>	<i>1-1/4" QUICK COUPLER ASSEMBLY</i>
<i>3</i>	<i>1</i>	<i>700274</i>	<i>1-1/4" AA HOSE X 32" LONG</i>
<i>4</i>	<i>1</i>	<i>700255</i>	<i>1-1/4" TEE - BLACK PIPE</i>
<i>5</i>	<i>2</i>	<i>700273</i>	<i>NH3/B9500 METER W/ HYDRAULIC SHUT-OFF</i>
<i>6</i>	<i>2</i>	<i>700306</i>	<i>1" MNPT X 1" FNPT SWIVEL COUPLER</i>
<i>7</i>	<i>2</i>	<i>700274A</i>	<i>1" AA HOSE X 120" LONG</i>
<i>8</i>	<i>2</i>	<i>700256</i>	<i>1" ST. ELBOW - BLACK PIPE</i>
<i>9</i>	<i>2</i>	<i>700272</i>	<i>NH3 MANIFOLD - 14 OUTLET</i>
<i>-</i>	<i>2</i>	<i>700310</i>	<i>NH3 MANIFOLD - 18 OUTLET 27-34 SHANKS</i>
<i>-</i>	<i>2</i>	<i>700311</i>	<i>NH3 MANIFOLD - 24 OUTLET 35-39 SHANKS</i>
<i>10</i>	<i>AS REQ.</i>	<i>700277</i>	<i>1/4 MNPT X 3/8" HOSE BARB</i>
<i>-</i>	<i>AS REQ.</i>	<i>700208</i>	<i>1/4 MNPT X 1/2" HOSE BARB</i>
<i>-</i>	<i>AS REQ.</i>	<i>700312</i>	<i>1/8 MNPT X 3/8" HOSE BARB-18 & 24 OUTLET MAN.</i>
<i>11</i>	<i>AS REQ.</i>	<i>700211</i>	<i>1/4 MNPT X 1/2" MANIFOLD PLUG</i>
<i>-</i>	<i>AS REQ.</i>	<i>700313</i>	<i>1/8 MNPT X 1/2" MANIFOLD PLUG</i>
<i>12</i>	<i>2</i>	<i>400142</i>	<i>3/8 X 2 X 12-1/2" MANIFOLD BRACKET</i>
<i>13</i>	<i>2</i>	<i>101417</i>	<i>3/8-16 X 5 X 8-1/2" U-BOLT</i>
<i>14</i>	<i>4</i>	<i>101125</i>	<i>3/8-16 X 1" HEX BOLT</i>
<i>15</i>	<i>8</i>	<i>101220</i>	<i>3/8" LOCK WASHER</i>
<i>16</i>	<i>8</i>	<i>101211</i>	<i>3/8-16 HEX NUT</i>
<i>17</i>	<i>1</i>	<i>101152</i>	<i>1/2-13 X 3-1/2" HEX BOLT</i>
<i>18</i>	<i>2</i>	<i>101397</i>	<i>1/2-13 X 3/4" HEX BOLT</i>
<i>19</i>	<i>1</i>	<i>101231</i>	<i>1/2" FLAT WASHER</i>
<i>20</i>	<i>1</i>	<i>101222</i>	<i>1/2" LOCK WASHER</i>
<i>21</i>	<i>1</i>	<i>101213</i>	<i>1/2-13 HEX NUT</i>
<i>-</i>	<i>AS REQ.</i>	<i>700126</i>	<i>3/8 - 1/2" STAINLESS HOSE CLAMP</i>
<i>-</i>	<i>2</i>	<i>202249</i>	<i>1/4 X No. 6 MJIC X 6 FJIC X 20" HYD. HOSE</i>
<i>-</i>	<i>2</i>	<i>202154</i>	<i>1/4 X 1/4" MNPT X 1/2" MNPT X 276" HYD. HOSE</i>
<i>-</i>	<i>2</i>	<i>201061</i>	<i>1/4 MNPT X 1/4" FNPT SWIVEL 90°</i>
<i>-</i>	<i>2</i>	<i>201011</i>	<i>1/4 MNPT X No. 6 MJIC TEE</i>

REVISED: 7/26/00

DUAL GAUGE BRACKET ASSEMBLY



REF. #	QTY.	PART #	DESCRIPTION
1	1	801289D	DUAL PRESSURE GAUGE MOUNTING BRACKET
2	2	700235A	2-1/2" STAINLESS NH3 GAUGE 0-100 PSI
3	2	700277	1/4 MNPT X 3/8" HOSE BARB
-	2	700208	1/4 MNPT X 1/2" HOSE BARB
4	1	101148	1/2-13 X 1-1/2" HEX BOLT
5	1	101222	1/2" LOCK WASHER
6	1	101213	1/2-13 HEX NUT

REVISED: 7/21/00

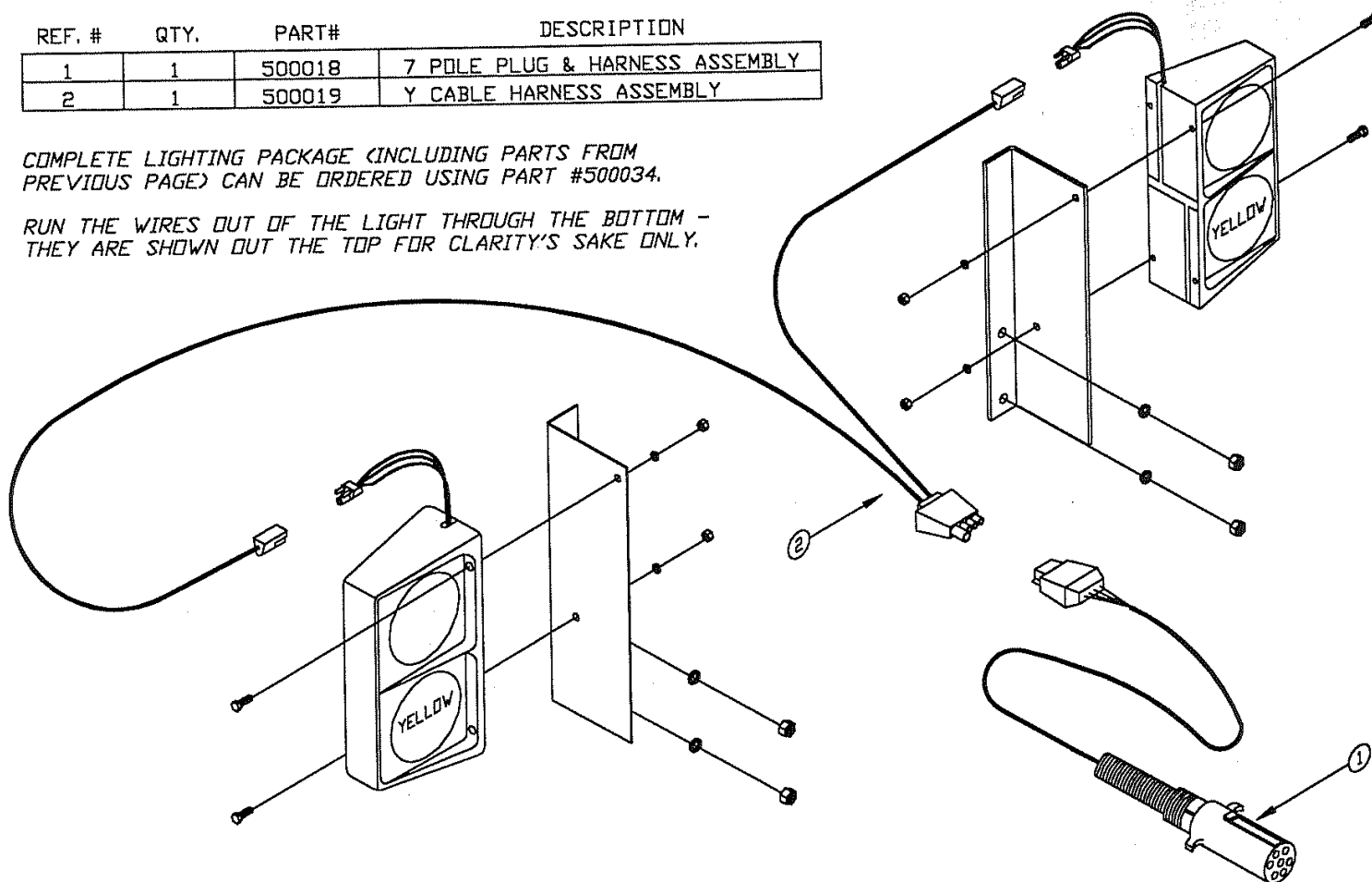
CONNECT Y CABLE TO THE RIGHT AND LEFT LIGHT UNITS AS SHOWN. THE GREEN, BROWN, AND WHITE WIRES CONNECT TO THE RIGHT LIGHT. THE YELLOW, BROWN, AND WHITE WIRES CONNECT TO THE LEFT LIGHT.

WHEN THE BAR IS FOLDED, THE YELLOW LIGHTS MUST BE ON THE OUTSIDE AND THE RED LIGHTS MUST BE ON THE INSIDE. WHEN UNFOLDED, THE YELLOW LIGHTS ARE ON THE BOTTOM.

REF. #	QTY.	PART#	DESCRIPTION
1	1	500018	7 POLE PLUG & HARNESS ASSEMBLY
2	1	500019	Y CABLE HARNESS ASSEMBLY

COMPLETE LIGHTING PACKAGE (INCLUDING PARTS FROM PREVIOUS PAGE) CAN BE ORDERED USING PART #500034.

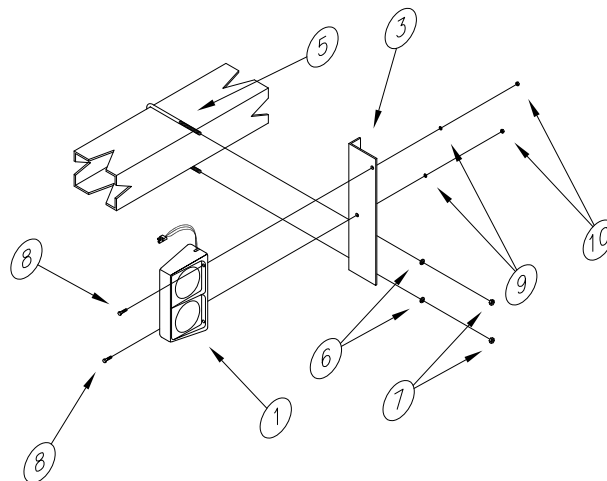
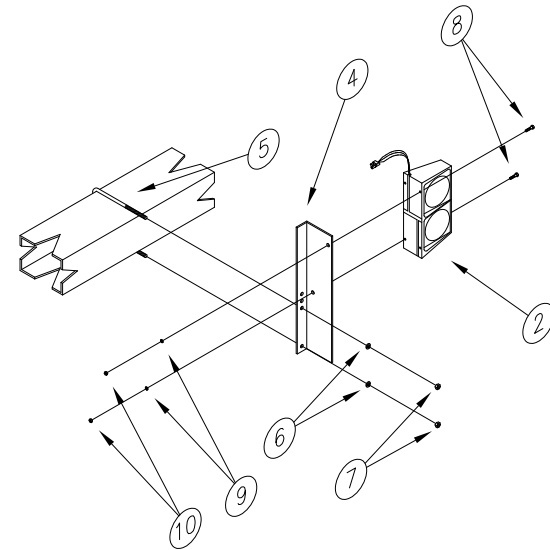
RUN THE WIRES OUT OF THE LIGHT THROUGH THE BOTTOM - THEY ARE SHOWN OUT THE TOP FOR CLARITY'S SAKE ONLY.



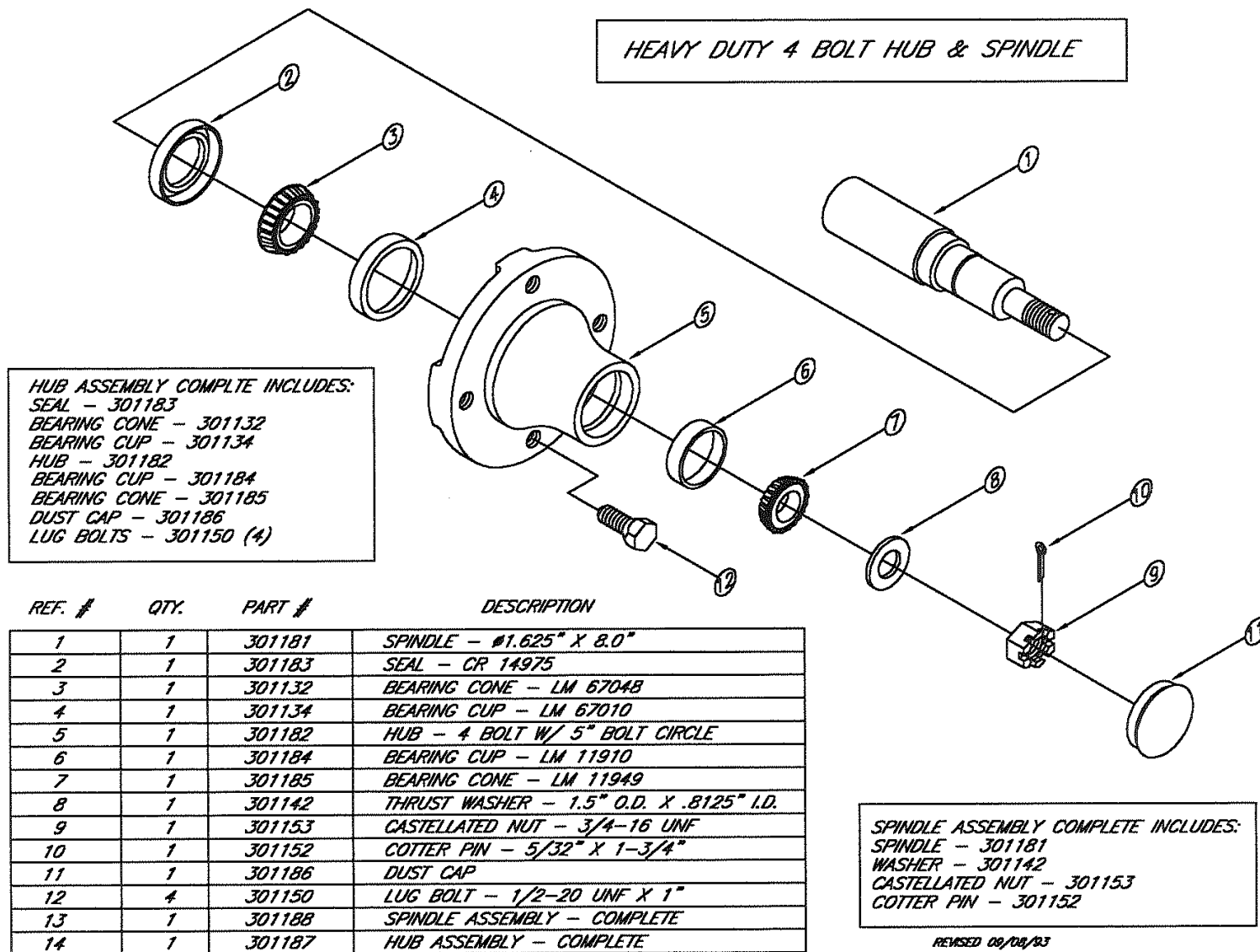
LIGHTING PACKAGE

REF. #	QTY.	PART #	DESCRIPTION
1	1	500015	RIGHT HAND LIGHT UNIT
2	1	500016	LEFT HAND LIGHT UNIT
3	1	76500038	RIGHT LIGHT MOUNTING BRACKET
4	1	76500039	LEFT LIGHT MOUNTING BRACKET
5	2	101417	3/8-16 X 5 X 8-1/2" U-BOLT
6	4	101220	3/8" LOCK WASHER
7	2	101211	3/8-16 HEX NUT
8	4	101102	1/4-20 X 1" HEX BOLT
9	4	101218	1/4" LOCK WASHER
10	4	101209	1/4-20 HEX NUT

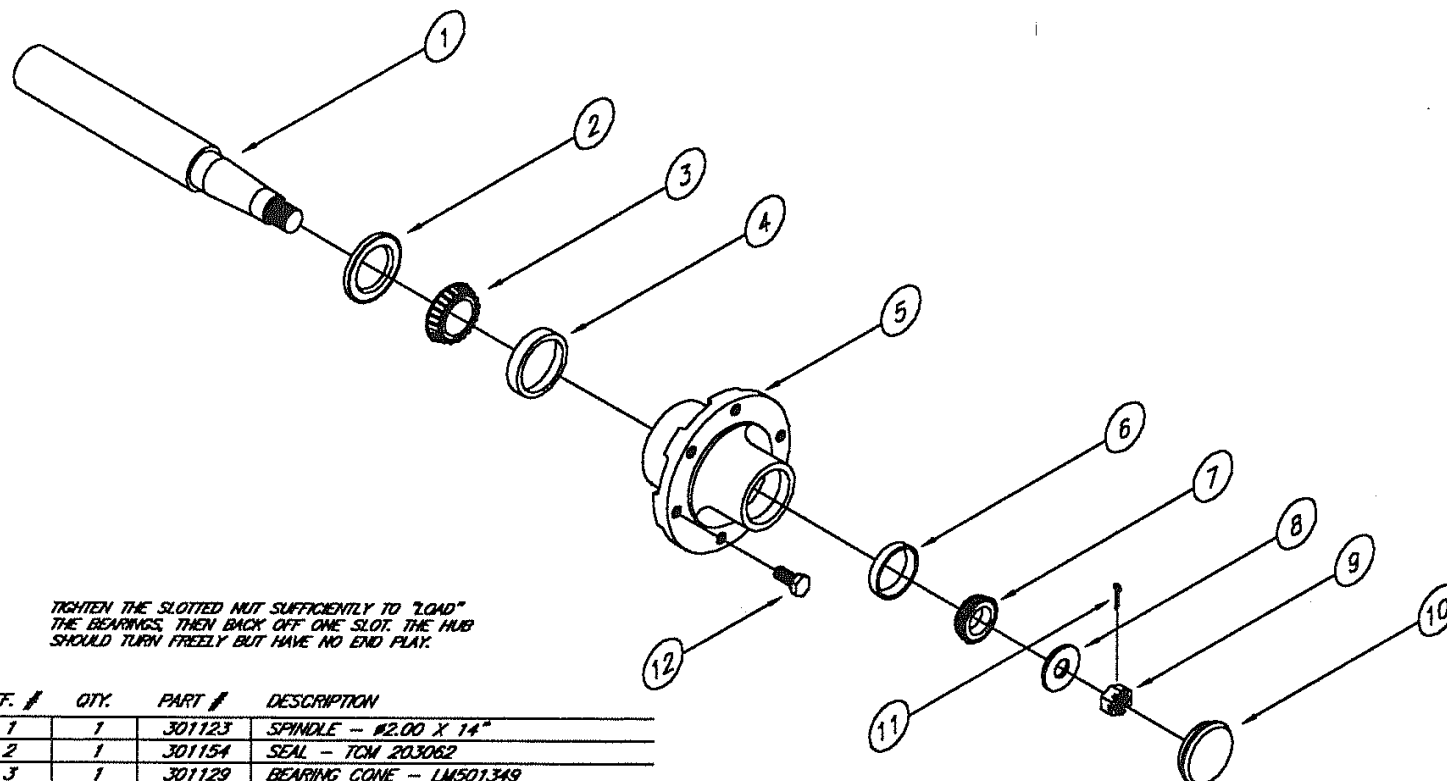
THE RED AND YELLOW LIGHTS SHOULD BE VISIBLE FROM BEHIND THE IMPLEMENT. ONLY THE YELLOW LIGHT SHOULD BE VISIBLE FROM THE FRONT.



ATTACH LIGHT MOUNTING BRACKETS TO THE REAR TUBE OF THE INNER WING AS CLOSE TO THE MAINFRAME AS COULTER SPACING WILL ALLOW.



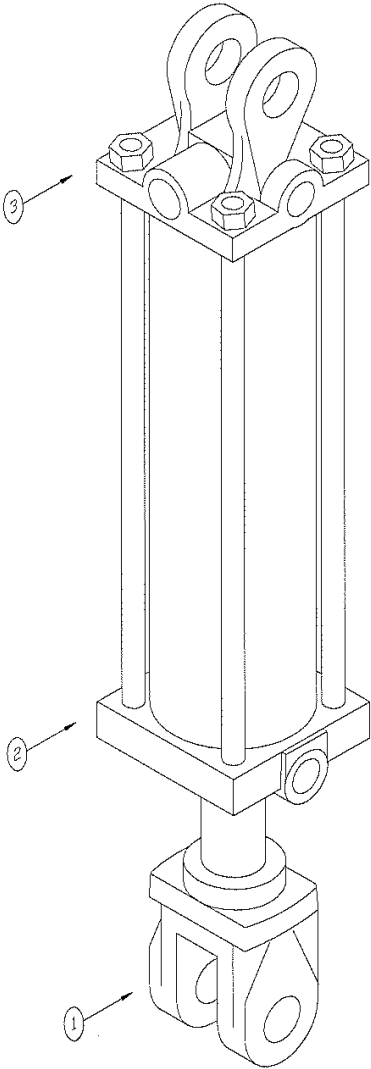
6 BOLT HUB & SPINDLE



TIGHTEN THE SLOTTED NUT SUFFICIENTLY TO "LOAD" THE BEARINGS, THEN BACK OFF ONE SLOT. THE HUB SHOULD TURN FREELY BUT HAVE NO END PLAY.

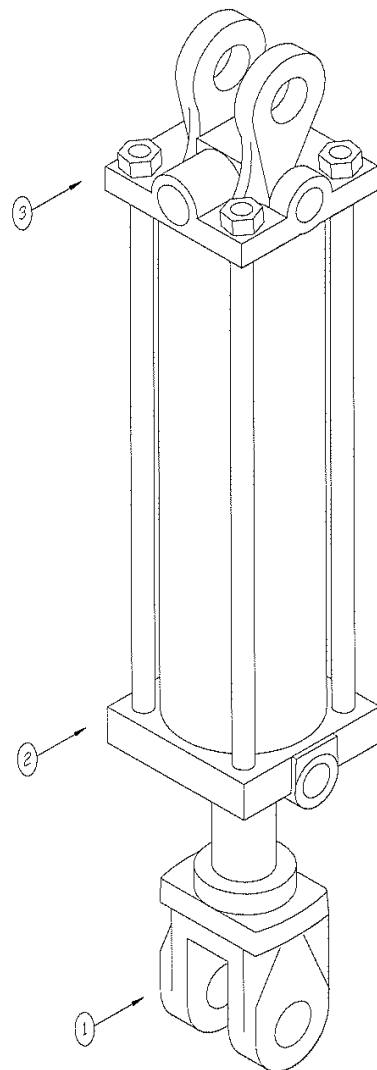
REF. #	QTY.	PART #	DESCRIPTION
1	1	301123	SPINDLE -- #2.00 X 14"
2	1	301154	SEAL -- TCM 203062
3	1	301129	BEARING CONE -- LM501349
4	1	301135	BEARING CUP -- LM501310
5	1	301126	6 BOLT HUB -- 6" BOLT CIRCLE
6	1	301134	BEARING CUP -- LM67010
7	1	301132	BEARING CONE -- LM67048
8	1	301157	WASHER -- 2" O.D. X 13/16" I.D.
9	1	301153	SLOTTED NUT -- 3/4-16 UNF
10	1	301143	DUST CAP
11	1	101249	COTTER PIN -- 5/32 X 1-3/4"
12	6	301151	LUG BOLT -- 9/16-18 UNF X 1-1/8"
-	1	301164	SPINDLE ASSEMBLY -- COMPLETE
-	1	301160	HUB ASSEMBLY -- COMPLETE

3-1/4 X 10" REPHASE CYLINDER



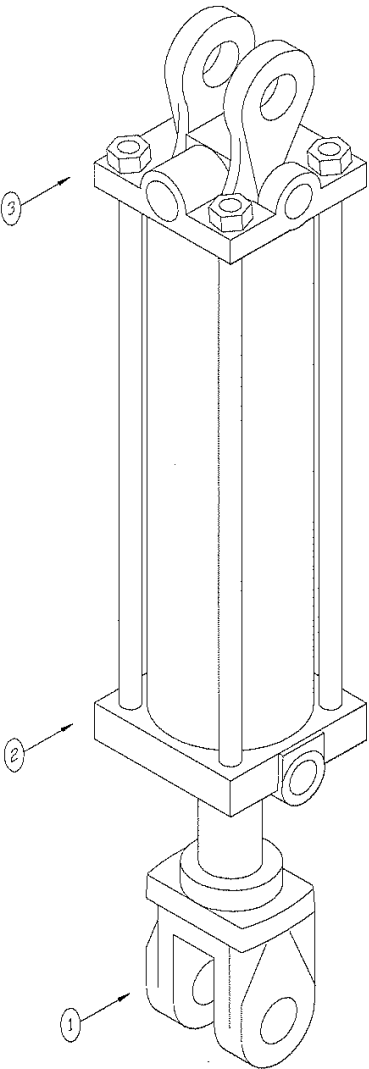
ITEM	QTY	PART#	DESCRIPTION
1	1	205181	ROD CLEVIS
2	1	205182	ROD CAP
3	1	205183	CLEVIS CAP
-	1	204015	3-1/4 X 10" REPHASE CYLINDER
-	1	205178	SEAL KIT

3-1/2 X 10" REPHASE CYLINDER



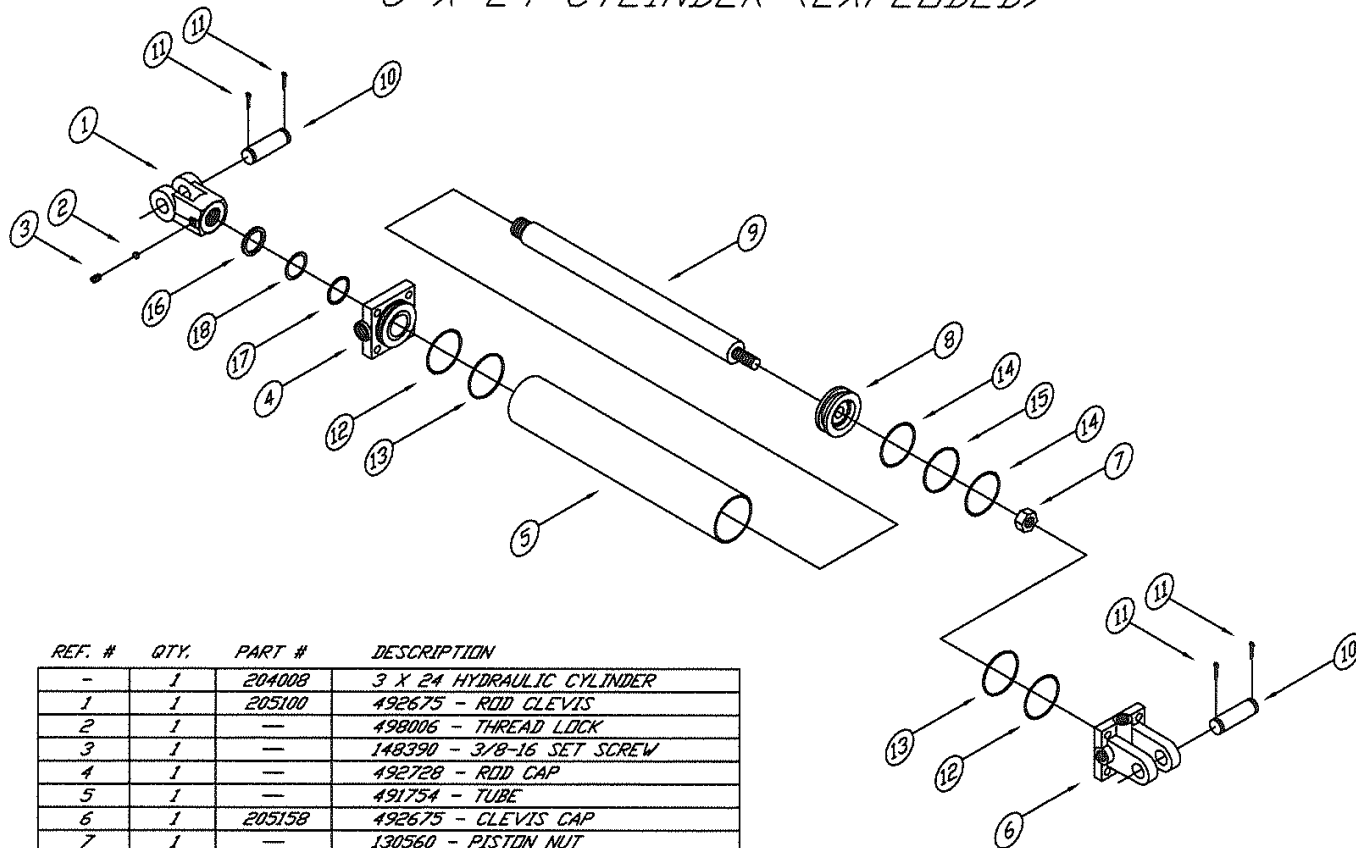
ITEM	QTY	PART#	DESCRIPTION
1	1	205184	ROD CLEVIS
2	1	205185	ROD CAP
3	1	205186	CLEVIS CAP
-	1	204016	3-1/2X 10" REPHASE CYLINDER
-	1	205179	SEAL KIT

3-3/4 X 10" REPHASE CYLINDER



ITEM	QTY	PART#	DESCRIPTION
1	1	205187	ROD CLEVIS
2	1	205188	ROD CAP
3	1	205189	CLEVIS CAP
-	1	204017	3-3/4 X 10" REPHASE CYLINDER
-	1	205180	SEAL KIT

LION 3000 TC SERIES 3 X 24 CYLINDER (EXPLODED)



REF. #	QTY.	PART #	DESCRIPTION
-	1	204008	3 X 24 HYDRAULIC CYLINDER
1	1	205100	492675 - ROD CLEVIS
2	1	-	498006 - THREAD LOCK
3	1	-	148390 - 3/8-16 SET SCREW
4	1	-	492728 - ROD CAP
5	1	-	491754 - TUBE
6	1	205158	492675 - CLEVIS CAP
7	1	-	130560 - PISTON NUT
8	1	-	494719 - PISTON
9	1	-	492631 - ROD
10	2	602136	#1" X 3-5/8" PLATED CYLINDER PIN
11	4	101266	#3/16" HAIRPIN
12	2	205016	#40 O-RING B.U.
13	2	205016	#10 O-RING
14	2	205016	#14 O-RING B.U.

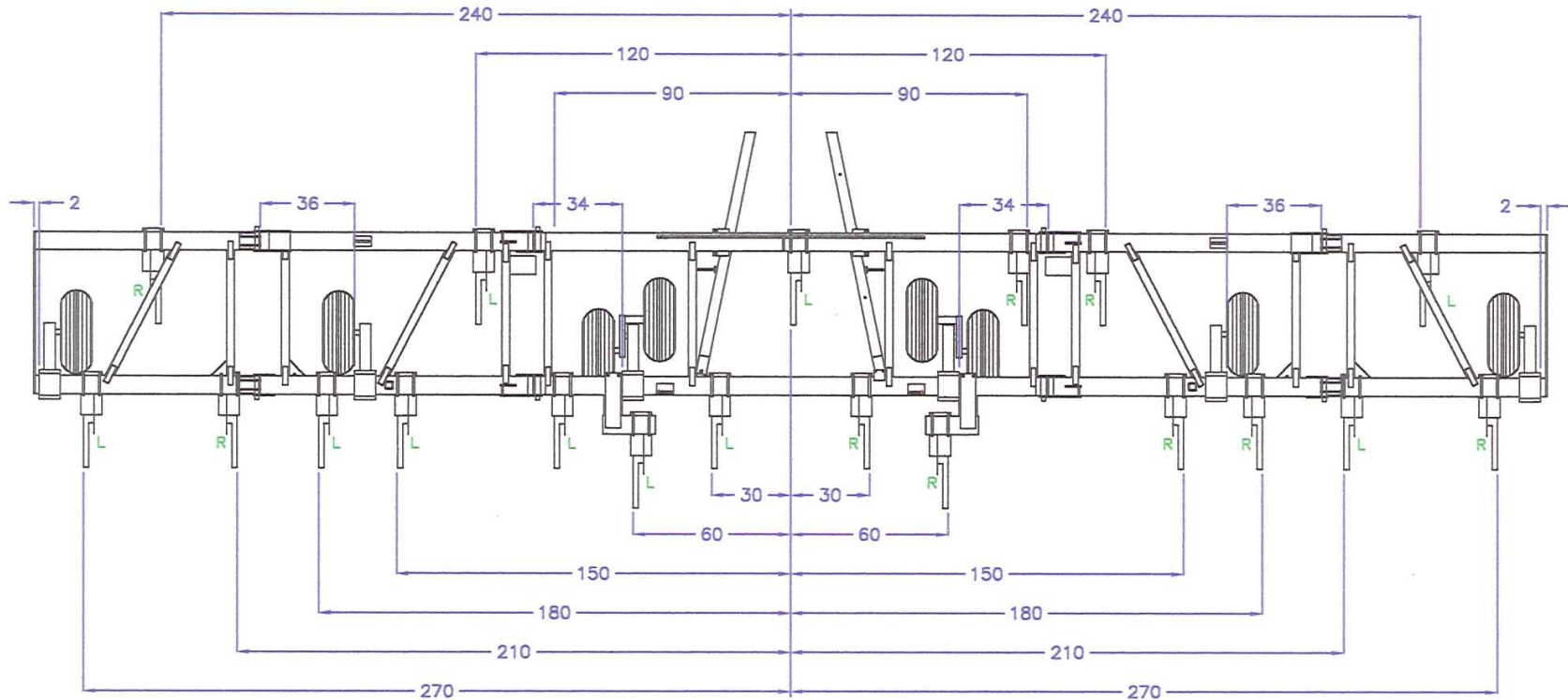
REF. #	QTY.	PART #	DESCRIPTION
15	1	205016	#12 O-RING
16	1	205016	#13 WIPER
17	1	205016	#11 ROD O-RING
18	1	205016	#24 ROD B.U.
-	1	205016	SEAL KIT COMPLETE

1550 COLTER ROW SPACING
30" ROWS WITH STANDARD WHEEL
CONFIGURATION - 19 SHANK

NOTE: WHEN USING OPTIONAL AUTORESET SHANKS, CONFIGURATION SHOWN MAY RESULT IN STRUCTURAL DAMAGE. TO AVOID THIS, CHECK ALL DISC SEALERS FOR CLEARANCE WHEN SHANK IS IN THE "TRIPPED" POSITION. AS NEEDED, RELOCATE SHANKS FROM THE FRONT BAR TO THE REAR BAR TO AVOID CLEARANCE PROBLEMS.

ALL WHEEL DIMENSIONS ARE TAKEN FROM THE END OF THE WING TO THE EDGE OF THE BRACKET.

ALL COLTER DIMENSIONS ARE TAKEN FROM THE MIDDLE OF THE BAR TO THE CENTER OF THE COLTER.

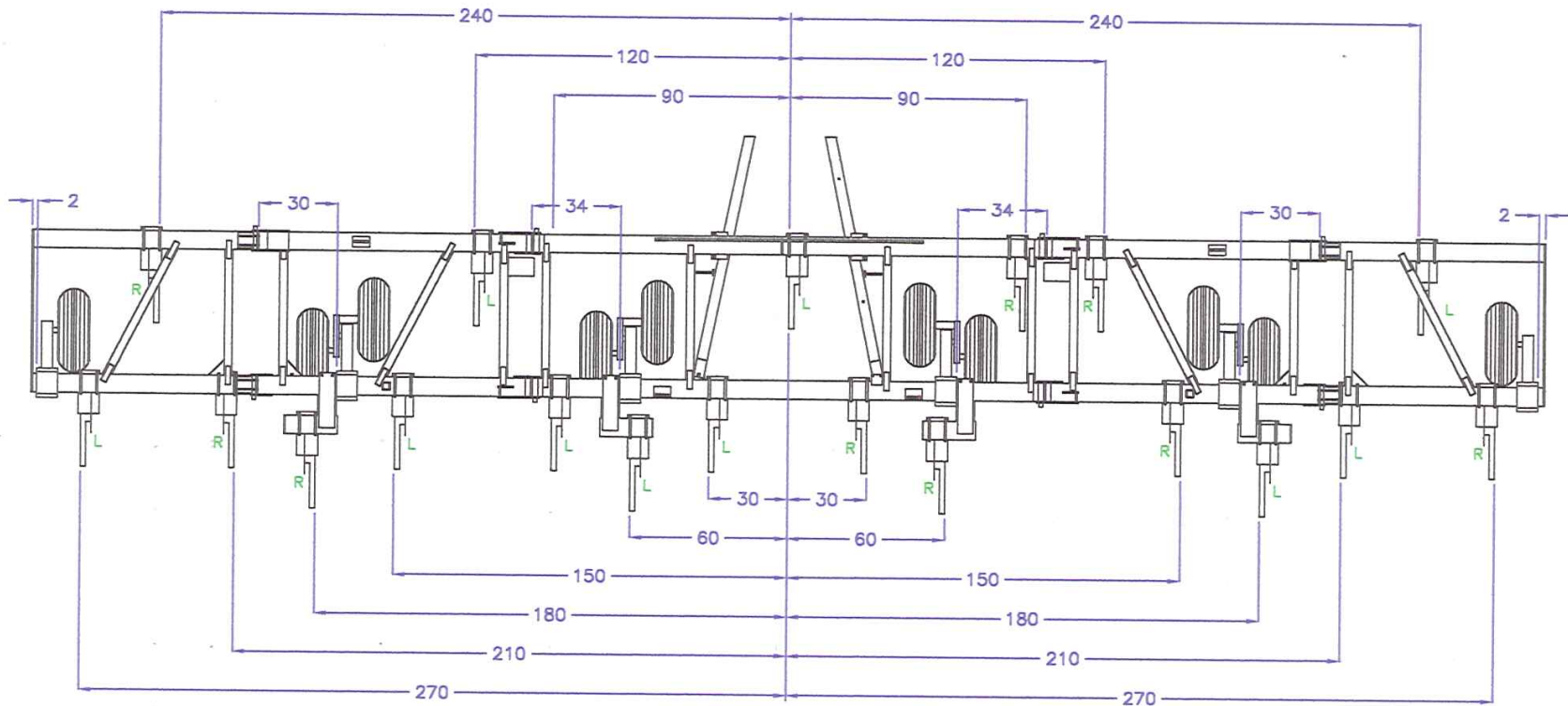


1550 COLTER ROW SPACING
30" ROWS WITH TANDEM/TANDEM
WHEEL OPTION - 19 SHANK

NOTE: WHEN USING OPTIONAL AUTORESET SHANKS, CONFIGURATION SHOWN MAY RESULT IN STRUCTURAL DAMAGE. TO AVOID THIS, CHECK ALL DISC SEALERS FOR CLEARANCE WHEN SHANK IS IN THE "TRIPPED" POSITION. AS NEEDED, RELOCATE SHANKS FROM THE FRONT BAR TO THE REAR BAR TO AVOID CLEARANCE PROBLEMS.

ALL WHEEL DIMENSIONS ARE TAKEN FROM THE END OF THE WING TO THE EDGE OF THE BRACKET.

ALL COLTER DIMENSIONS ARE TAKEN FROM THE MIDDLE OF THE BAR TO THE CENTER OF THE COLTER.

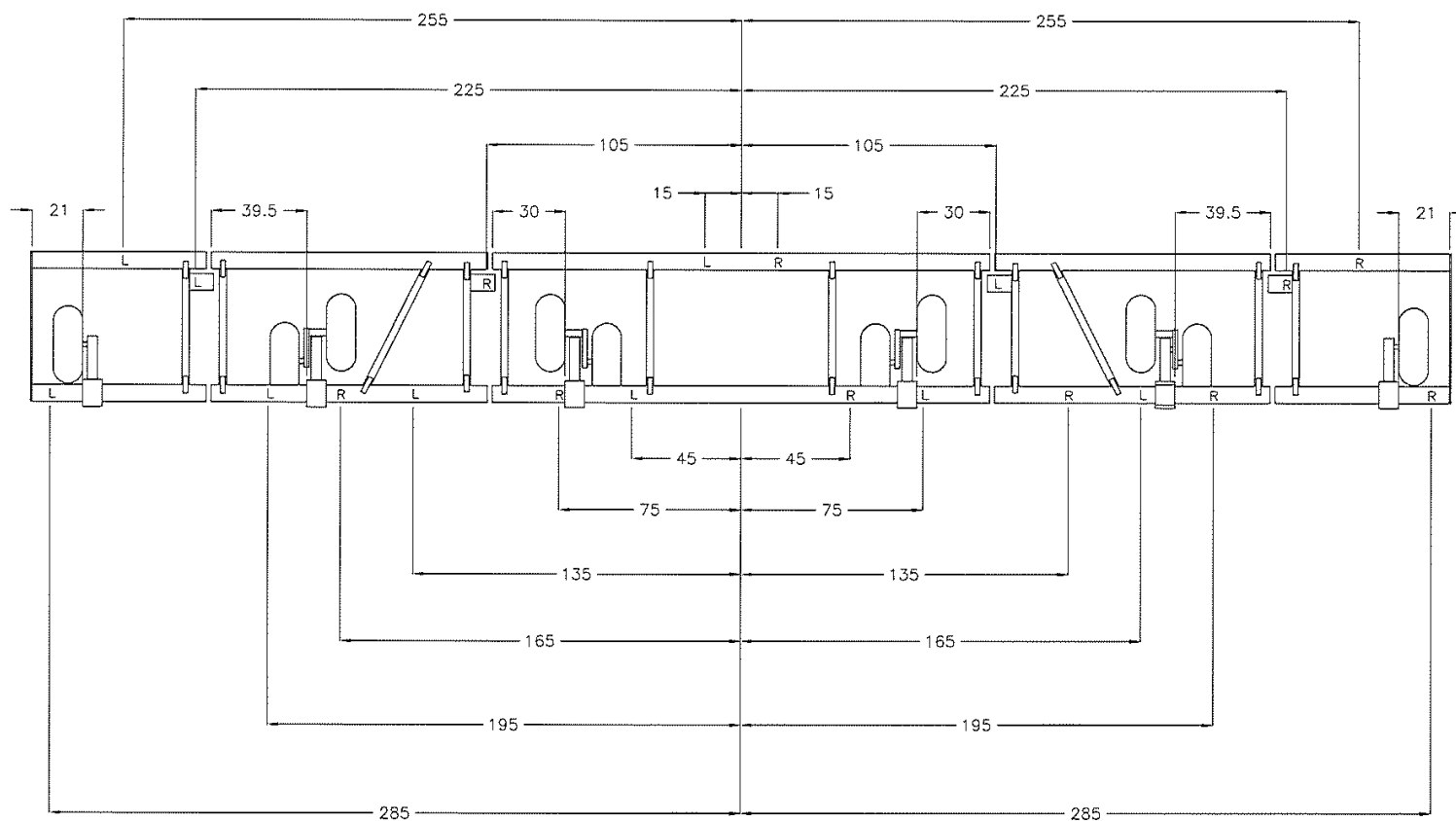


1550 COLTER ROW SPACING
30" ROWS WITH TANDEM/TANDEM
WHEEL OPTION - 20 SHANK

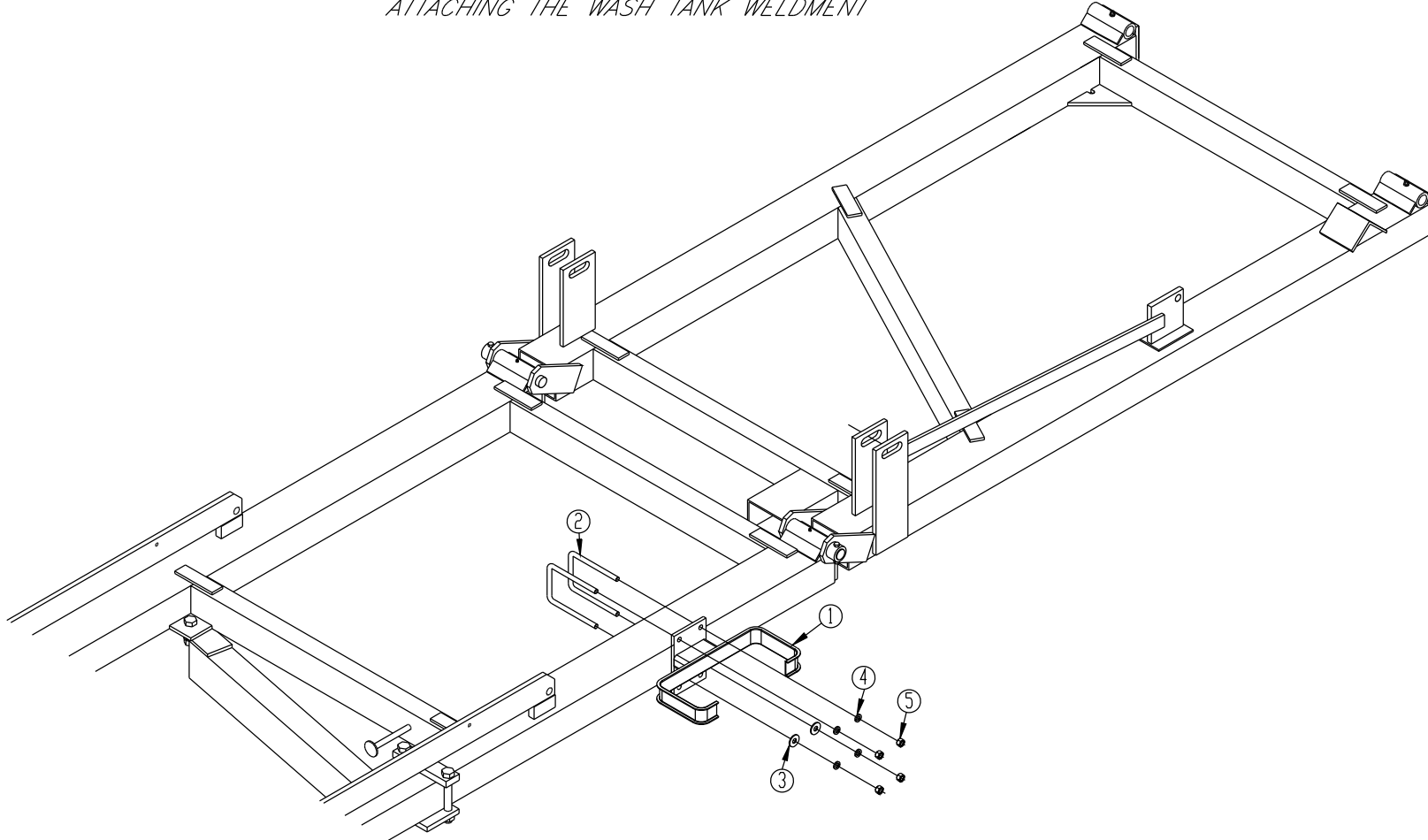
NOTE: WHEN USING OPTIONAL AUTORESET SHANKS, CONFIGURATION SHOWN MAY RESULT IN STRUCTURAL DAMAGE. TO AVOID THIS, CHECK ALL DISC SEALERS FOR CLEARANCE WHEN SHANK IS IN THE "TRIPPED" POSITION. AS NEEDED, RELOCATE SHANKS FROM THE FRONT BAR TO THE REAR BAR TO AVOID CLEARANCE PROBLEMS.

ALL WHEEL DIMENSIONS ARE TAKEN FROM THE END OF THE WING TO THE EDGE OF THE BRACKET.

ALL COLTER DIMENSIONS ARE TAKEN FROM THE MIDDLE OF THE BAR TO THE CENTER OF THE COLTER.



ATTACHING THE WASH TANK WELDMENT

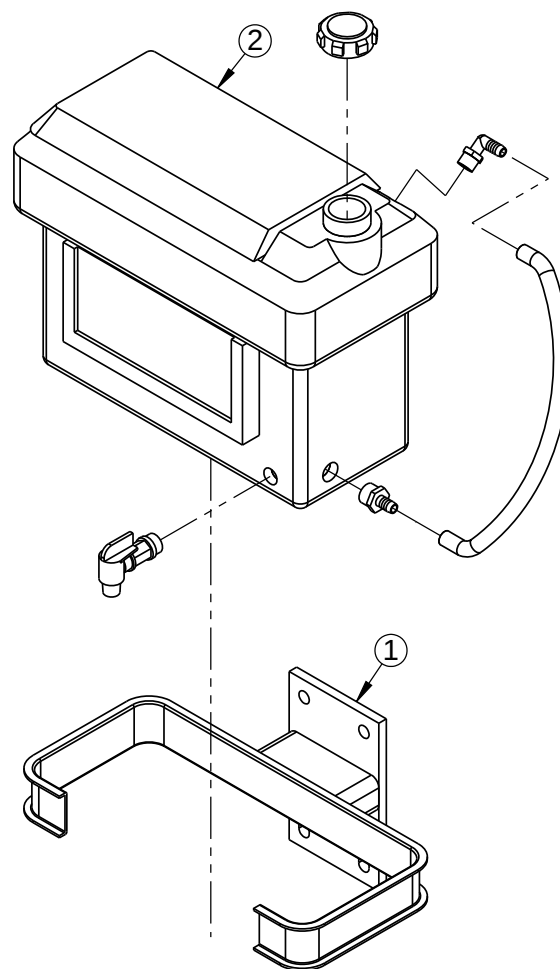


NOTE: POSITION BRACKET SO IT DOES NOT INTERFERE WITH ROW UNITS

REF. #	QTY.	PART #	DESCRIPTION
1	1	768011021	WASH TANK BRACKET WELDMENT
2	2	76101312	5/8"-11 X 5" X 8.5" U-BOLT-PLT
3	2	600381020	FLAT WASHER 5/8"
4	4	600382054	LOCK WASHER 5/8"
5	4	600365014	STANDARD NUT 5/8" (PLATED)

ATTACHING THE WASH TANK

ITEM NO.	PART NUMBER	Description1	QTY.
1	768011021	WASH TANK BRACKET WELDMENT	1
2	767500030	WASH TANK - COMPLETE	1





Progressive Farm Products



19500 N 1425 East Road • Hudson, IL 61748-9450 • (309) 454-1564 • FAX (309) 452-1610

WARRANTY

Main Frame, Wings, Wheel Supports Three (3) Years
All Other Components, except tiresOne (1) Year

Progressive Farm Products Inc. (PFP, Inc.) warrants each new PFP, Inc. product to be free from defects in material and workmanship. This warranty is in effect from the date of delivery to the original purchaser and is applicable only for the normal life expectancy of the machine or components, not to exceed the time periods listed above. Tires on PFP, Inc. equipment are warranted through the respective tire manufacturer. Contact a dealer of the manufacturer in your local area.

Under no circumstances will it cover any merchandise or components thereof which, in the opinion of the company, has been subjected to negligent handling, misuse, alternation, an accident, or if repairs have been made with parts other than those obtainable through PFP, Inc.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser any part that in our judgement shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to PFP, Inc. through a dealer from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind of nature, direct, consequential, or contingent to person or property. This warranty does not extend to loss of crops, loss because of delay or any expense of loss incurred for labor, supplies, substitute machinery, rental, or for any other reason.

There are no warranties, either expressed or implied, of merchantability of fitness for particular purpose intended or fitness for any other reason.

This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

PFP, Inc. reserves the right to make improvements in design or changes in specifications at any time without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations, and reservations.

**Progressive Farm Products Warranty does not include
cost of travel time, mileage, hauling, or labor.**