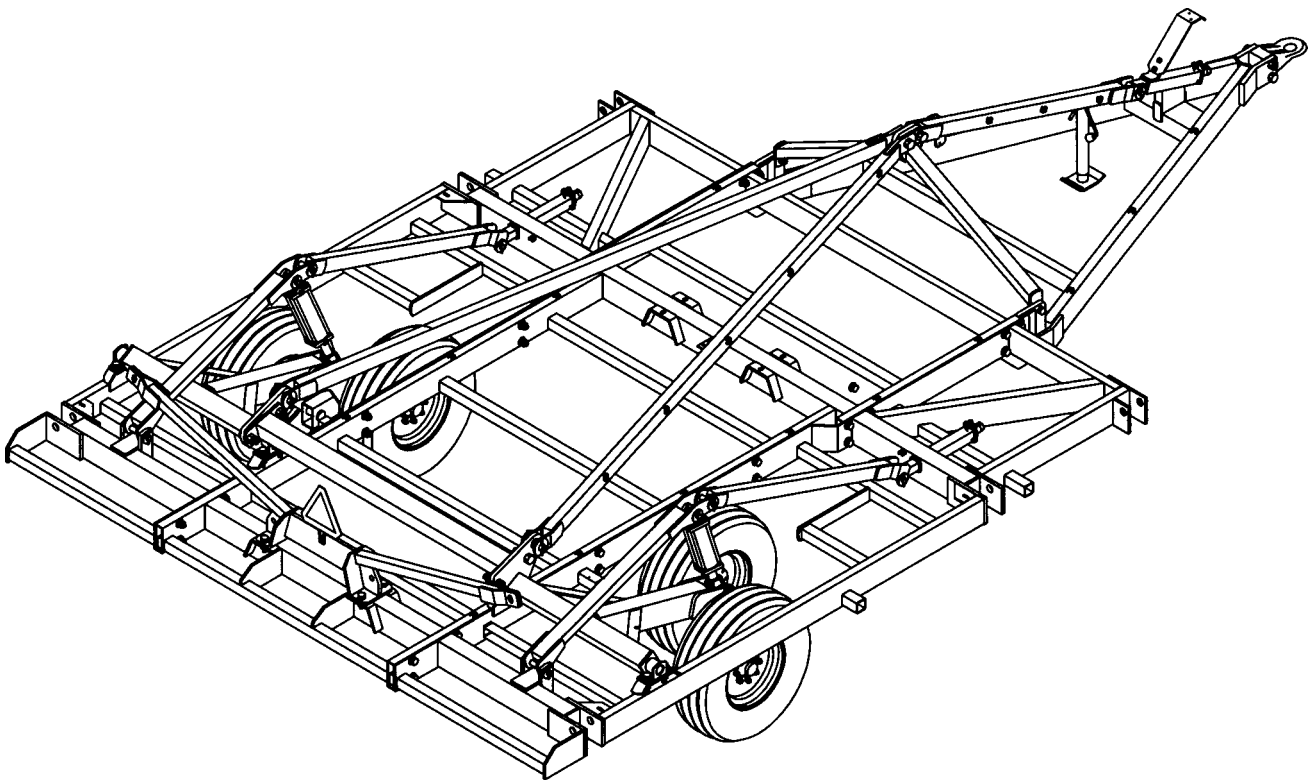


***3800 SERIES***  
**FIELD CULTIVATORS**

Kongsilde  
3800 Series



**ASSEMBLY INSTRUCTIONS**

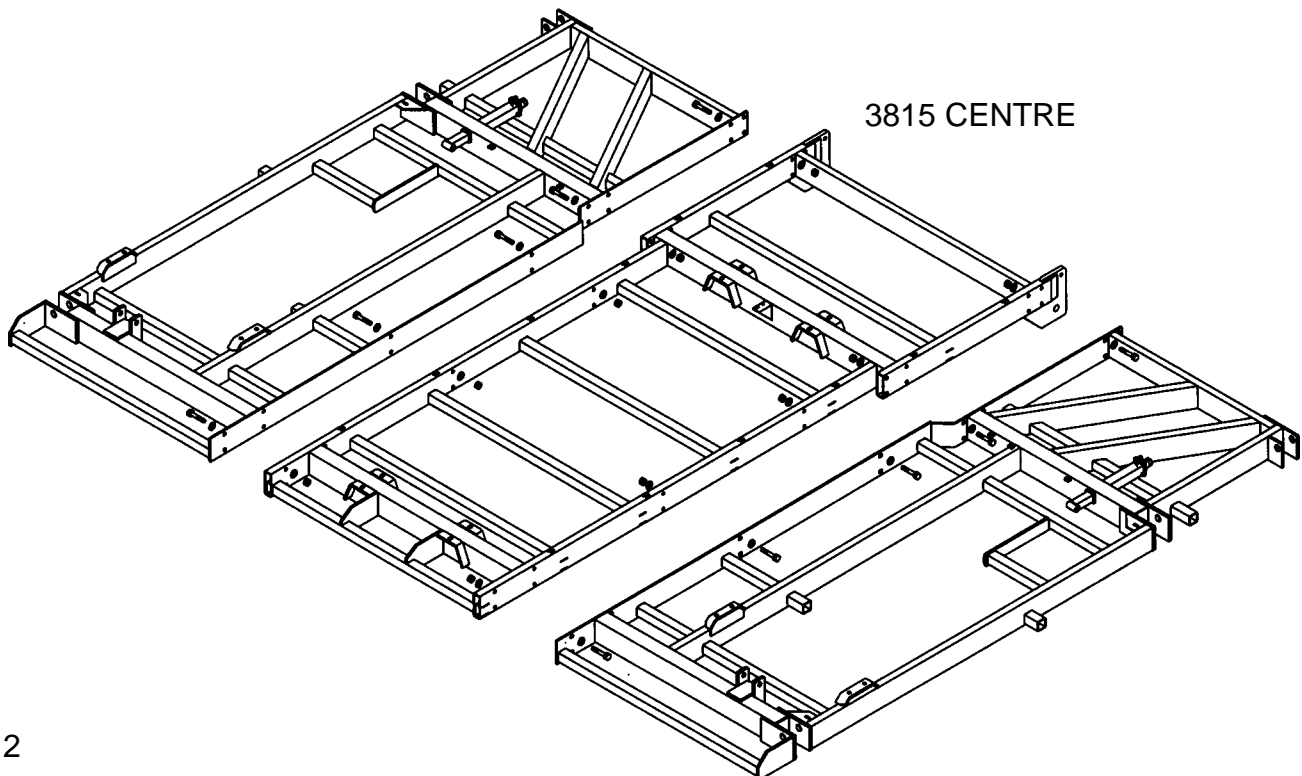
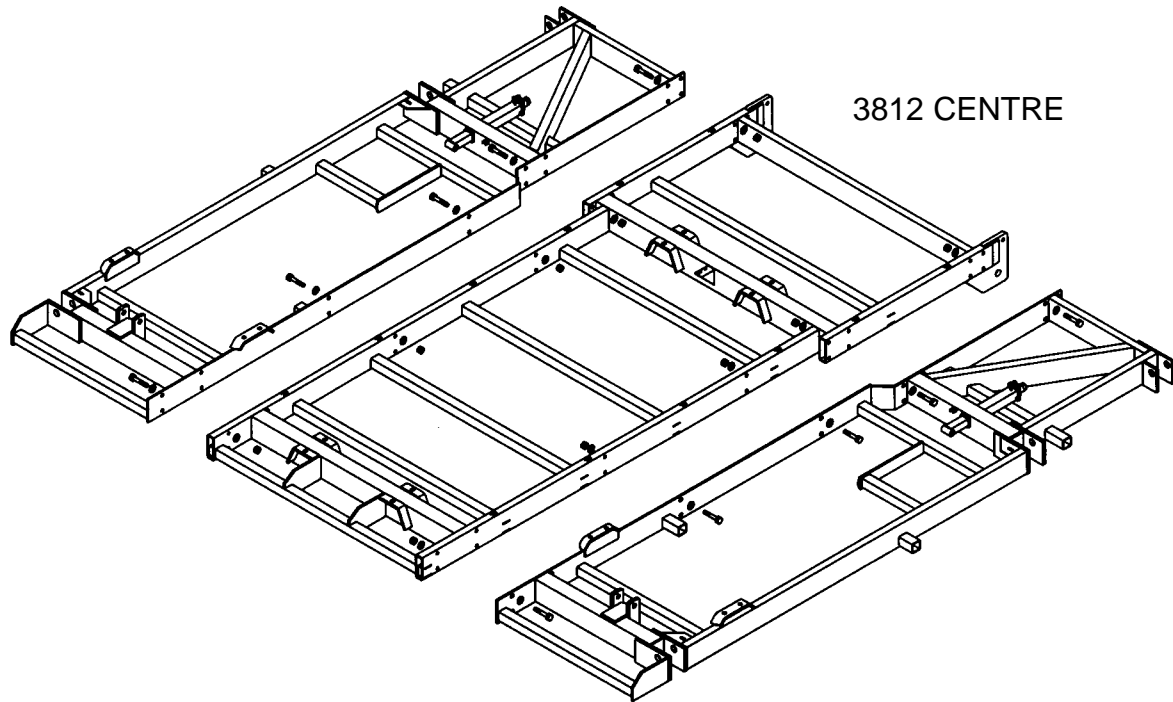
## **3800 Cultivator Assembly Instructions**

### **Centre Section**

Start with the top view layouts of cultivator frame sections and begin by sorting out the frames for the centre section you are assembling.

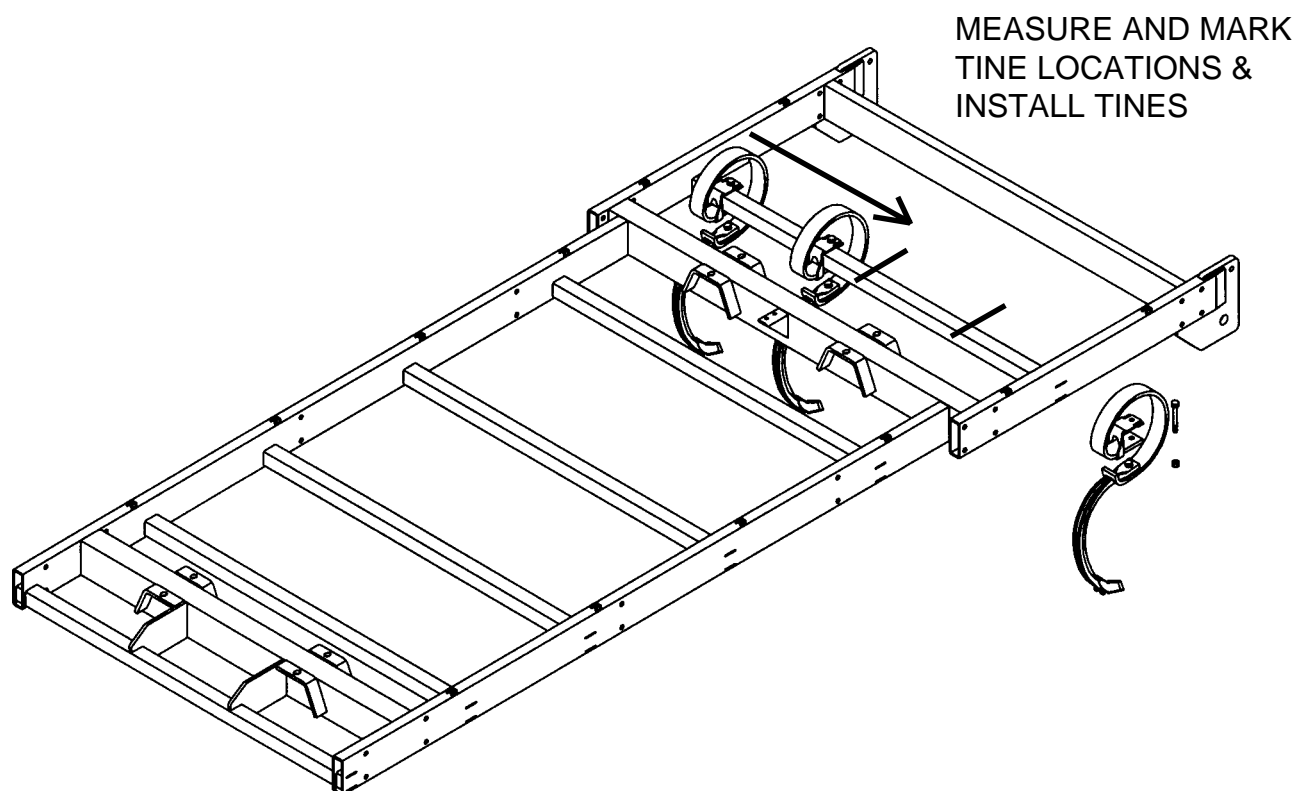
A 3812 centre section is comprised of 3 different frame components; a centre frame weldment and L.H. and R.H. narrow wheel frame weldments.

A 3815 centre section is comprised of a centre frame weldment and L.H. and R.H. wide wheel frame weldments. Please note that the centre section wheel frames are different from the wing wheel frames in that the centre frames have a built in front frame extension.



Mark out the tine locations on the toolbars of each frame section, as shown on the tine pattern diagrams in the back of the book. Draw a vertical line with a marker on the front of the toolbar tube. The tine locations are measured from the edge of the frame to the center of each tine. Place the frame sections on 2 steel stands (if available), and assemble the tines to the frame with the tine clamps, bolts and locknuts supplied. The mounting bolt will cover up the tine location marks on the frame.

**Note: the 15 x 65 tines and clamps have been packaged separately from the 12 x 65 tines and clamps. The clamps are especially difficult to tell apart if they get mixed.** Once the tines have been installed on the frame sections, the tines will act as a support stand for the cultivator frame while you continue the assembly of the frame components. Look at the tines after assembly, you should be able to see the “V” pattern, i.e. the tines will form systematic lines.



Assemble the centre section frame according to the diagrams in the parts list provided. The larger components are shipped loose and the smaller components and hardware bags are shipped in the centre section crate.

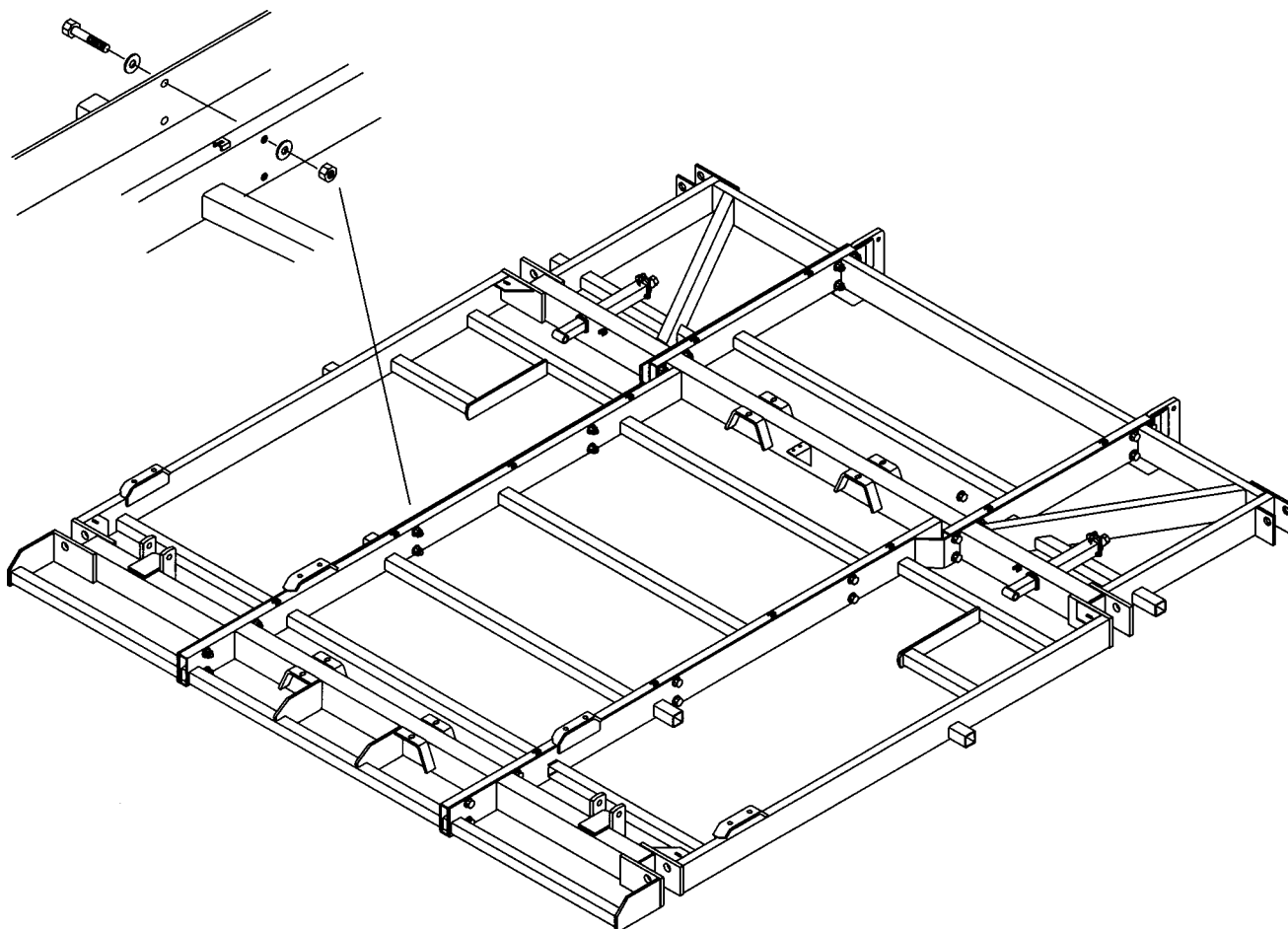
**NOTE: Do not open and dump all of the hardware bags in one area.** Try to keep the assembly area tidy and avoid mixing up the hardware in each of the bags. This will speed up the assembly process since the hardware is presorted and bagged for your convenience. Pay close attention to the parts list and diagrams so that the correct hardware is used for each component in the assembly.

Move the 3 frame components into place beside each other as shown below. Line up the holes and slots of the inside frame members and start inserting the bolts. Note that there are 2 washers provided for use on both sides of the frame bolt connections.

Start at the back of the cultivator frame and insert the bolts with washers one set of holes at a time. Install a second washer on the threaded side of the bolt before installing the locknut. (A round punch or small prying tool will help you to align the holes.)

Work your way to the front of the frames inserting one set of bolts at a time leaving the nuts loose until all the bolts are inserted. Take care to line up and level the frame tubes with each other before tightening the locknuts. Take care to tighten the top and bolts evenly, working from front to back. It may be helpful to clamp the frame sections together until you are finished tightening the bolts and locknuts to ensure that the frames remain aligned and level with each other.

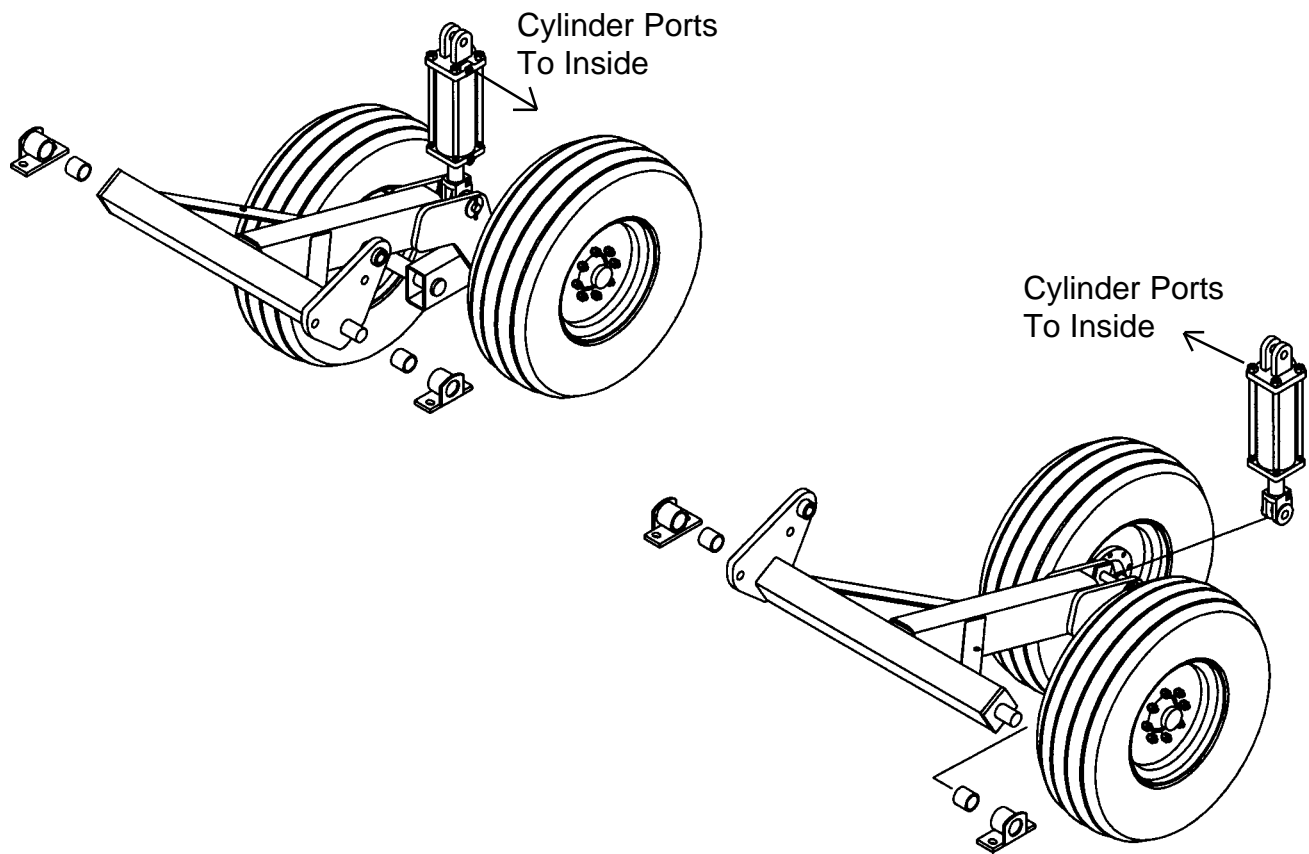
Install washers on both sides of the frame bolt connections:



Sort out the left and right hand tandem wheel arms. Note that the centre tandem wheel arms are different from the wing wheel arms, in that the centre wheel arms have an attachment plate for the rockshaft and the centre tandem wheels have 8 bolt hubs.

Before mounting the tires on the hubs, attach the rod end clevis of the 4 x 12 master cylinders to the wheel arms with the special mounting pin, washers and roll pins supplied. (This is important as it is difficult to insert the long cylinder pin once the tandem wheels are mounted.) Note that the cylinders are installed pointing downward with the rod end clevis attaching to the wheel arm and the cylinder ports facing into the center of the machine.

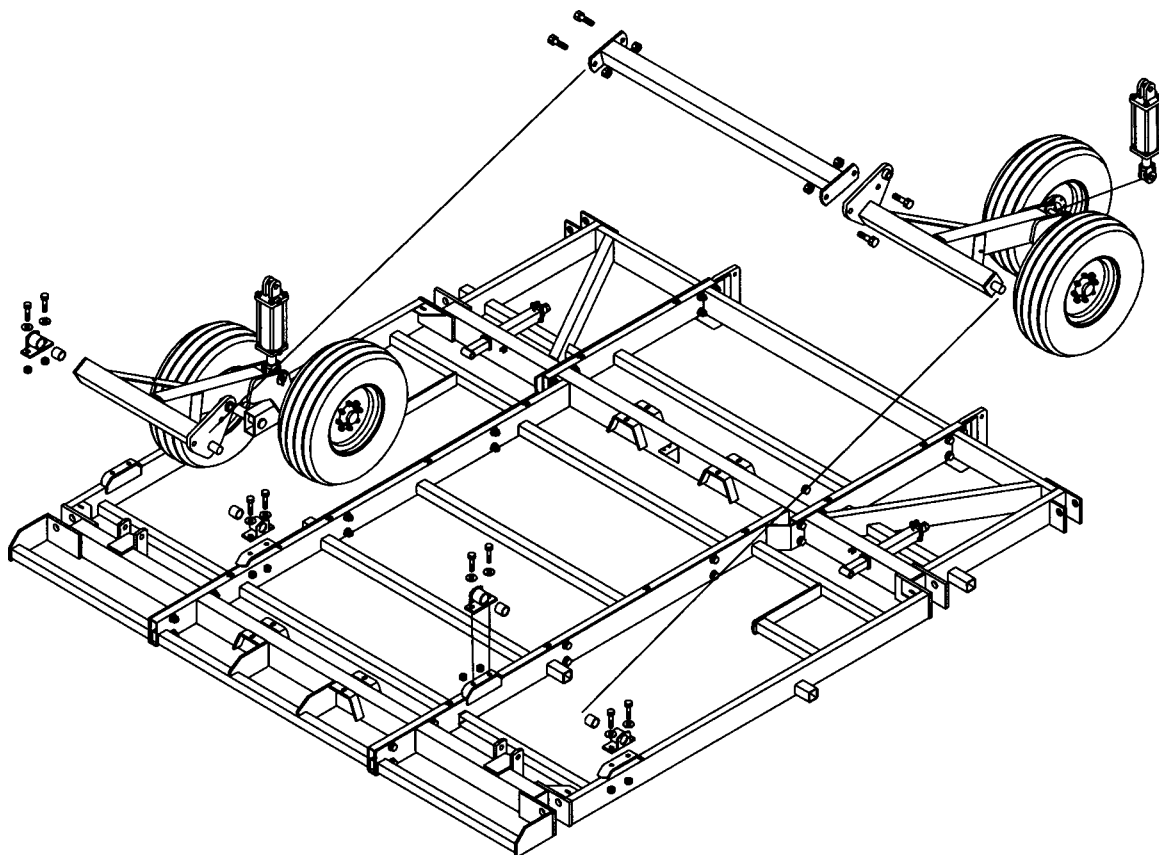
Mount the 11.5L x 15 – 12ply tires with 8 bolt rims to the hubs and secure the lug nuts.



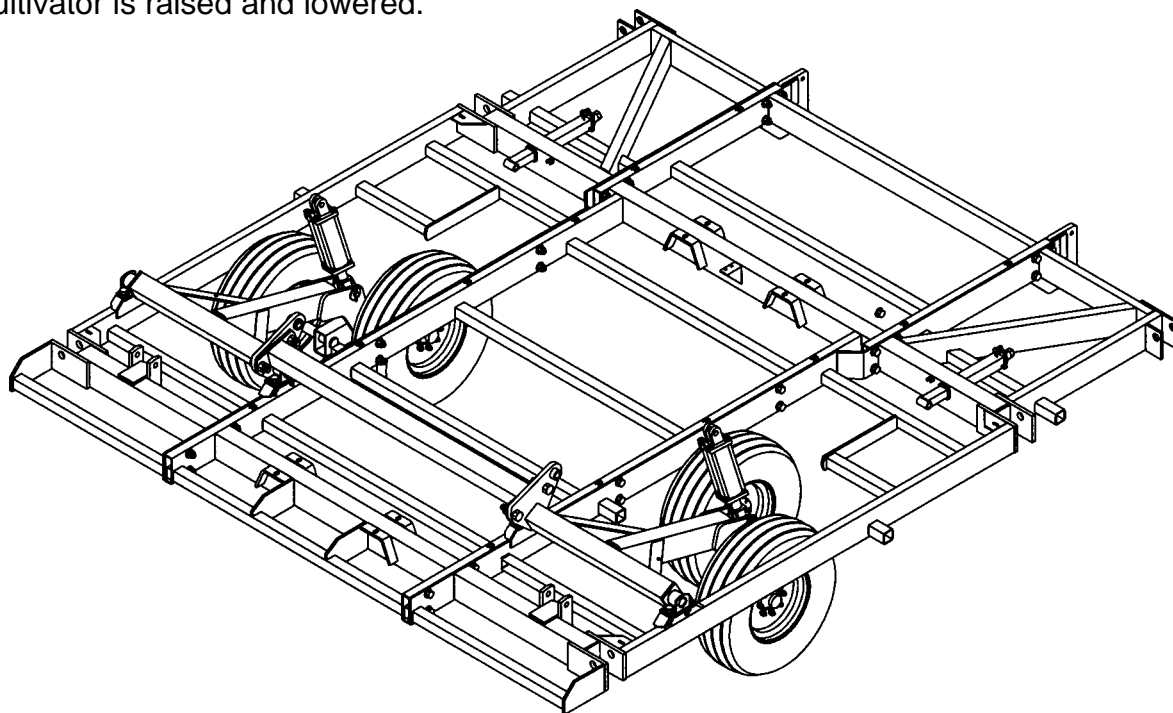
Install the oil impregnated bronze pivot bushings on the ends of the stub shafts on the wheel arms. Install the pivot anchor weldment on the stub shafts once the pivot bushings have been installed.

**NOTE:** It may be necessary to lightly sand off the paint on the outside of the stub shaft and the inside of the pivot anchor to assure proper assembly of the bronze bushings. It is best if the fit of the bronze bushings is a bit loose so they can be assembled by hand. You must not drive or hammer the bronze bushings into place as they may crack if too much force is applied.

Pay close attention to the diagram provided for the proper orientation of the L.H. or R.H. walking tandem. Carefully hoist the entire wheel arm assembly with cylinder and tires installed, into position in the appropriate wheel frame and secure the pivot anchors to the anchor mounts on the frames with the bolts, washers and locknuts provided. Leave the bolts and nuts loose until the rockshaft and self levelling linkages have been attached.



Connect the centre tandem wheel arms together by installing the rockshaft between them with the nuts and bolts provided. The rockshaft will keep the cylinders in unison when the cultivator is raised and lowered.



Gather the components for the wheel depth adjustment system. Once again be sure to use the appropriate size pins, washers and roll pins provided according to the parts assembly diagram for the centre wheels.

**Note: all pin lengths given in the parts list reflect the effective length of the pin between the holes.**

Be sure to follow the correct order of assembly as indicated by the numbers shown on the diagram below. This assembly order has been worked out, in order to ensure the easiest alignment of the holes and pins.

*(In **Step 1** - The rod end clevis should have been attached to the wheel arm first in a previous step, as the long pin is difficult to assemble when the tires are mounted. If you did not do this step earlier, the tandem arm will have to be tipped down to allow the pin to get past the tire.)*

**Step 2** - Adjustment sliders are pre-assembled in the wheel frames at the factory. The adjusters are now 1" ACME thread and should not require any lubrication. (If desired you may disassemble the adjuster and lubricate the threads with Anti-Seize, but this is not normally required.)

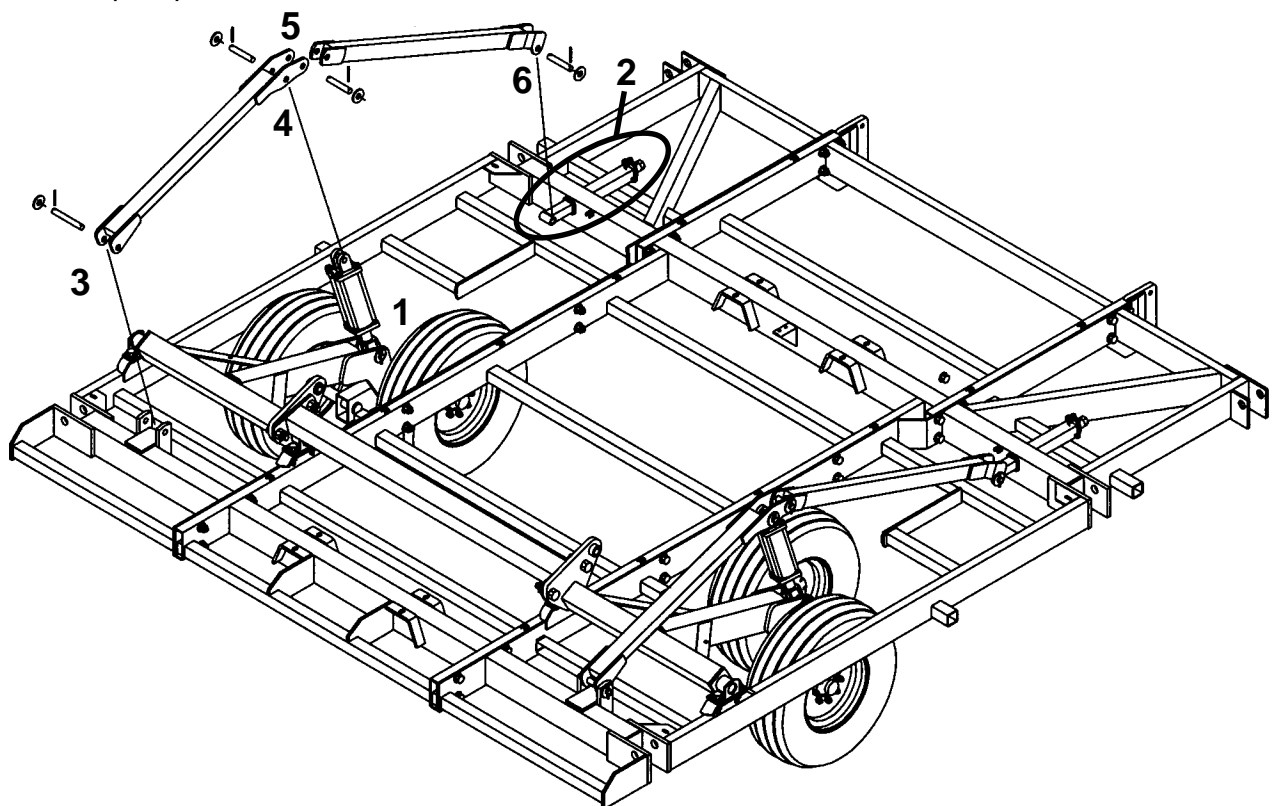
Assemble the adjustment sliders by hand, by turning the threaded adjustment into the nut on the end of the slider. Insert the slider assembly into the adjustment tube in the front 4 x 6 cross member of the frame so that the stub end of the threaded adjuster comes through the hole in the tube end plate. Turn the adjustment casting on to the threaded stub end of the adjuster and secure it with the roll pin provided.

**Step 3** - Attach the bottom end of the rear wheel tower to the anchor mount on the cultivator frame with the pin, washers and roll pins provided.

**Step 4** - Attach the butt end clevis of the 4 x 12 master cylinder to the lower hole in the rear wheel tower with the pin, washers and roll pins provided.

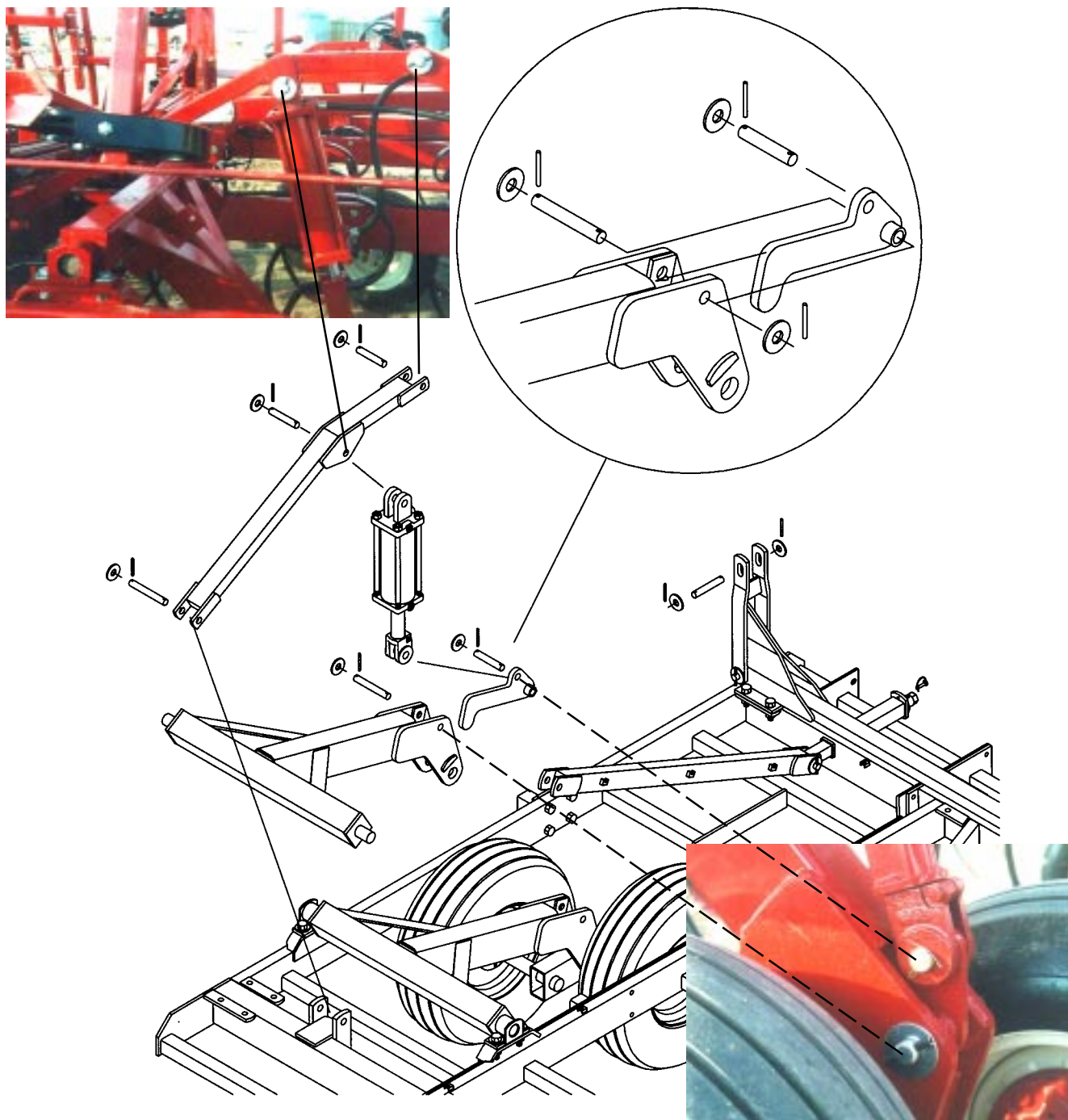
**Step 5** - Attach the front wheel tower to the upper hole in the rear wheel tower. Note that the front tower should be turned so the hose holders are to the bottom side.

**Step 6** - Attach the bottom end of the front wheel tower to the adjustment slider with the pin, washers and roll pins provided.



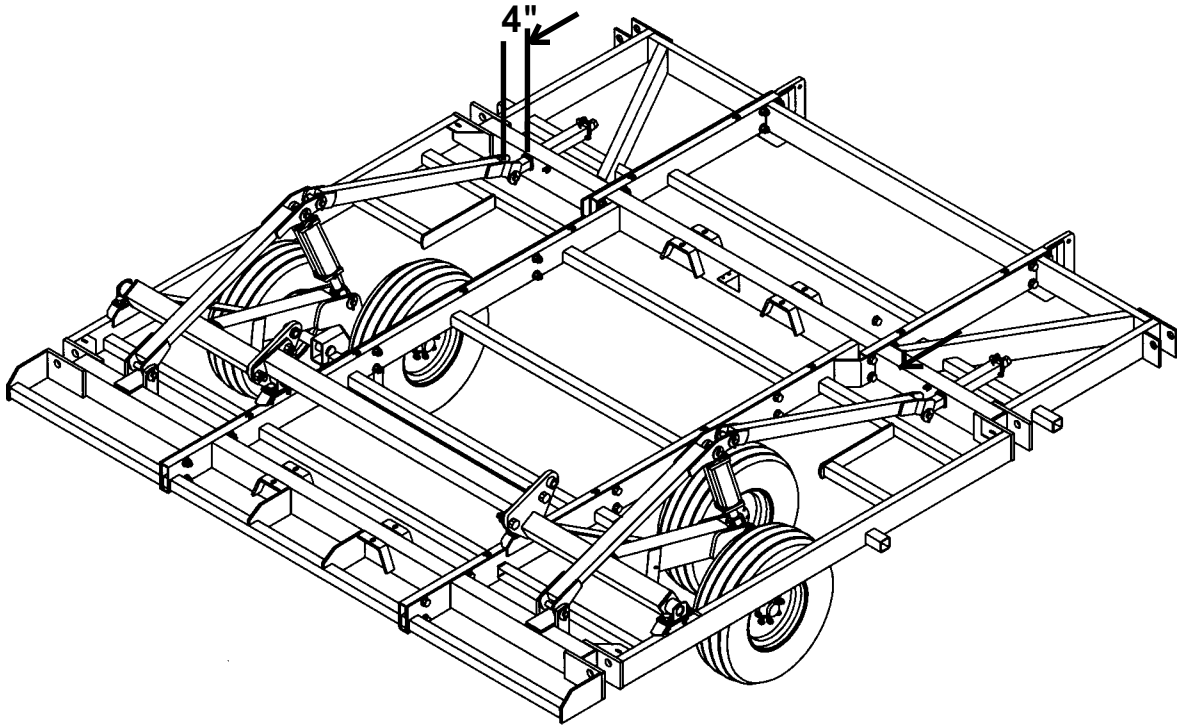
As a special order option, the 3800 Series Cultivators can be supplied with special rear wheel towers and wheel arm cylinder inserts that will allow the cultivator to work deeper in light soils than the standard machine. Applications for this type of deeper tillage unit include vegetable crops such as potatoes ect. that are typically planted in light sandy soils.

Part numbers for these special deep tillage components are described in the 3800 Parts List. The special rear wheel towers and wheel arm cylinder mount inserts are assembled as shown in the diagrams and photos below.

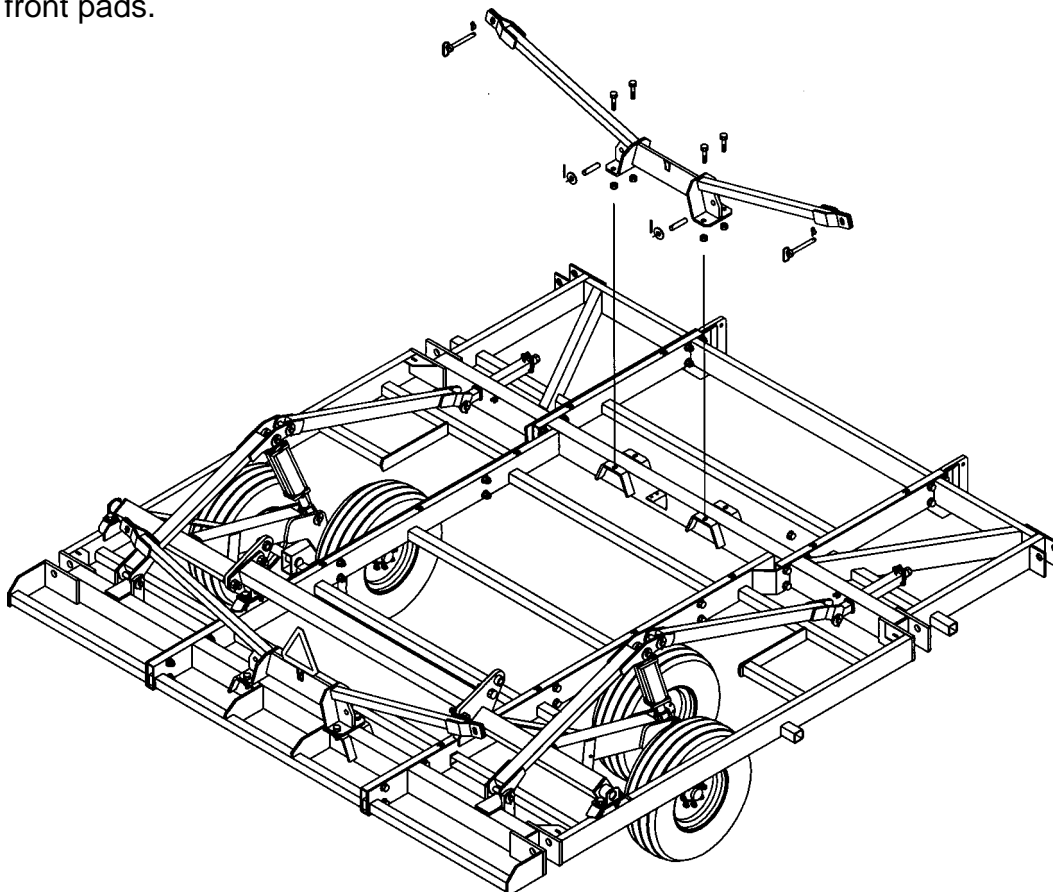




Take care to adjust all the sliders to the same dimension (approximately 4" from the tube to the pin), with the wheels resting on the ground. The slider adjustment can be fine-tuned later when the cultivator is assembled and leveled in the field.



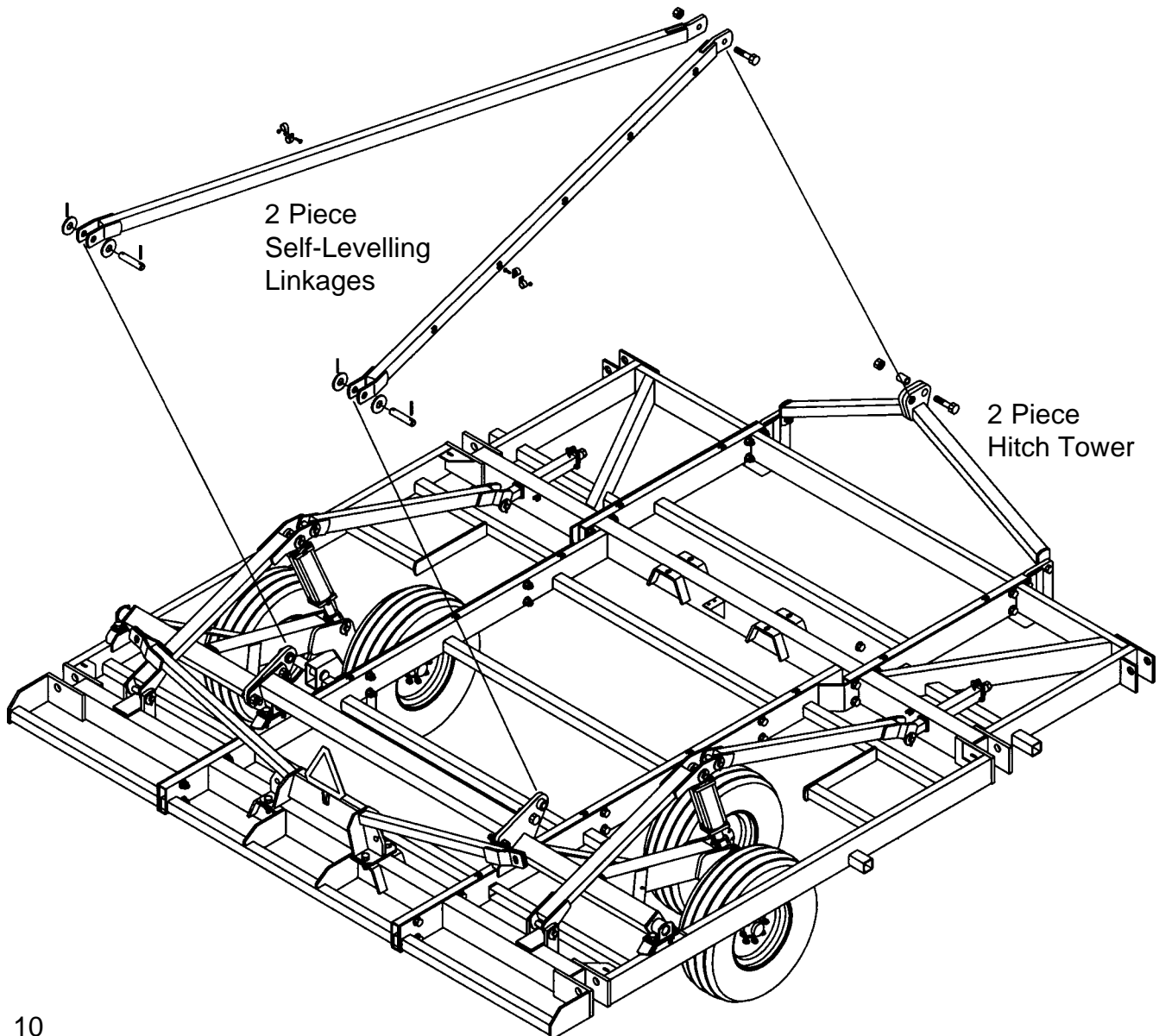
Bolt the folding bracket for the wing fold cylinders to the rear mounting pads on the centre section. Make sure that the folding bracket is turned so that the SMV sign spade is facing the rear of the cultivator. Note that on double wing fold models a second folding bracket is mounted to the front pads.



Bolt the 2-piece hitch tower to the upper holes on front frame extension brackets. Once the hitch tower is installed, the triangular self-leveling connection linkage that connects the hitch to the wheel arms can be installed. Take care to install the replaceable spacer bushings into the top pivot plates on the hitch tower before attaching the self levelling links and inserting the mounting bolt. Use the rear hole in the hitch tower for the self levelling links.

*(NOTE: If desired the assembly of the draw tongue and self-levelling mechanism can be left until after the wings have been assembled and attached to the centre section. This will allow for easier movement around the front of the cultivator if space is limited in the assembly area.)*

Note that the 3812 centre (shown below) has a narrow 2-piece triangular self-leveling linkage, whereas the 3815 centre (not shown) has a wider 2-piece triangular linkage. The 2-piece links are the same and can be flipped over to mount on either the left or right. Connect the wide end of the self-leveling linkage to the pivot bushings on the wheel arms with the pivot pins provided. Take care when inserting the pins so as not to push out the replaceable tension bushings in the wheel arm pivots. Washers and Roll Pins are provided to secure the pivot pins in place. Secure the mounting bolt and nut connecting the links to the hitch tower.



## MOUNTING THE DRAW TONGUE AND HITCH LINKAGES:

**Step 1** - Attach the draw tongue assembly to the lower holes in the front frame draw plate of the cultivator with the pins, washers and roll pins provided.

**Step 2** - Support the front of the hitch by installing and lowering the front jack.

**Step 3** - The Hitch Adjustment Slider is pre-assembled in the Hitch Weldment at the factory. The adjusters are now 1" ACME thread and should not require any lubrication. (If desired you may disassemble the adjuster and lubricate the threads with Anti-Seize, but this is not normally required.) Insert the hitch adjuster assembly into the short tube on the front of the hitch cross member, so that the stub end of the threaded adjuster comes through the hole in the tube end plate. Turn the adjustment casting on to the threaded stub end of the adjuster and secure it with the roll pin provided.

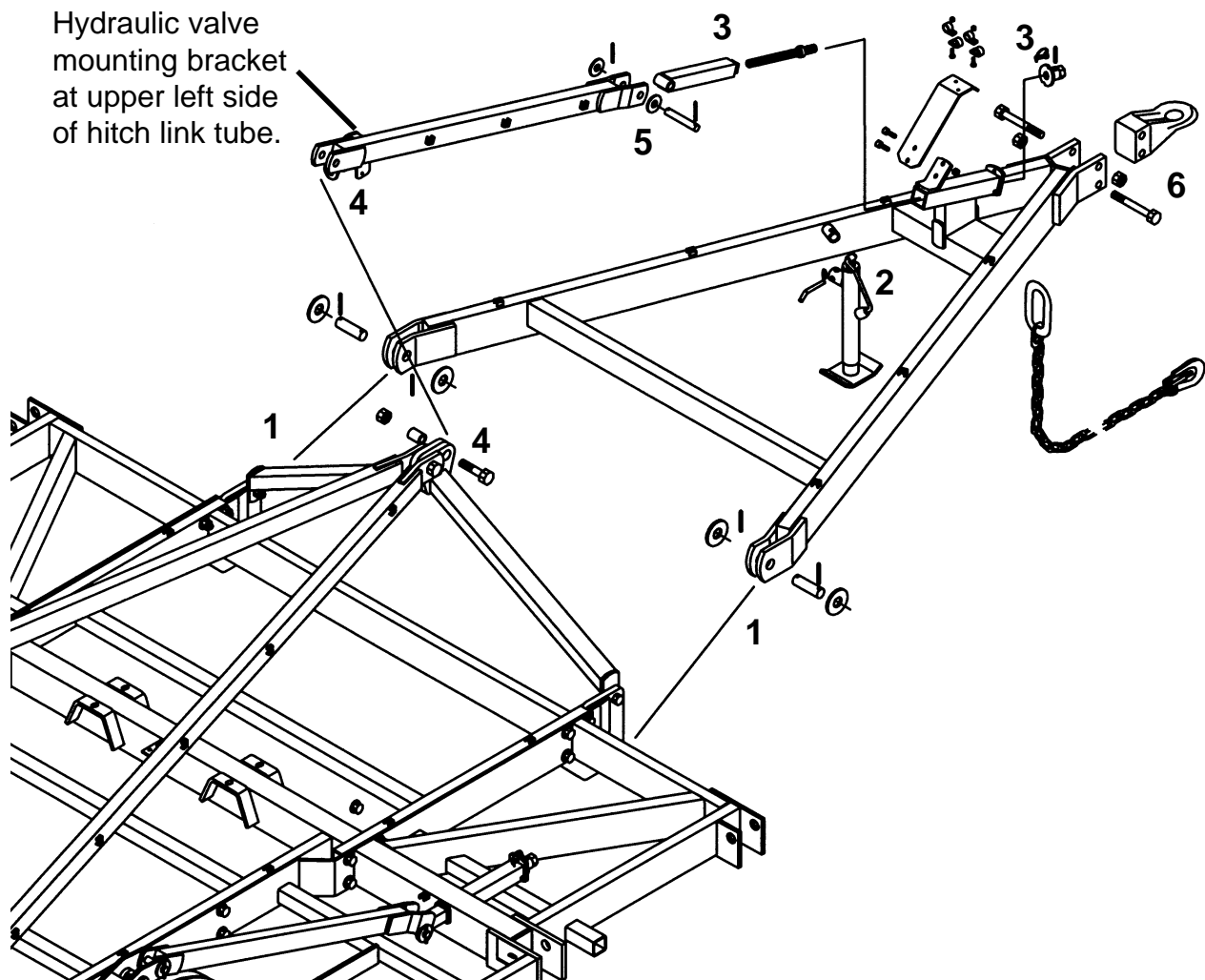
**Step 4** - Once the draw tongue is attached to the cultivator, the hitch link tube can be connected to the front hole in the top plate of the hitch tower. Be sure to insert the spacer bushing before attaching the linkage with the bolt and locknut. Take care to flip the hitch link tube so that the mounting bracket for the single point hydraulic valves is on the left side near the top of the link.

**Step 5** - Connect the lower end of the hitch link tube to the end of the slider with the pin provided.

NOTE: It may be necessary to raise or lower the front of the draw tongue in order to align all of the holes in the linkages and insert the pin. This can be done via the tongue jack or by adjusting the slider in or out to align the holes. Insert and secure the pin with the washers and roll pins provided.

**Step 6** - Attach the cast draw hitch clevis with the Grade 8 Bolts provided. **Note: Insert the bolts from opposite directions**, one from the left side and the other from the right.

The hose holder tower can also be installed at this time along with the safety chain.



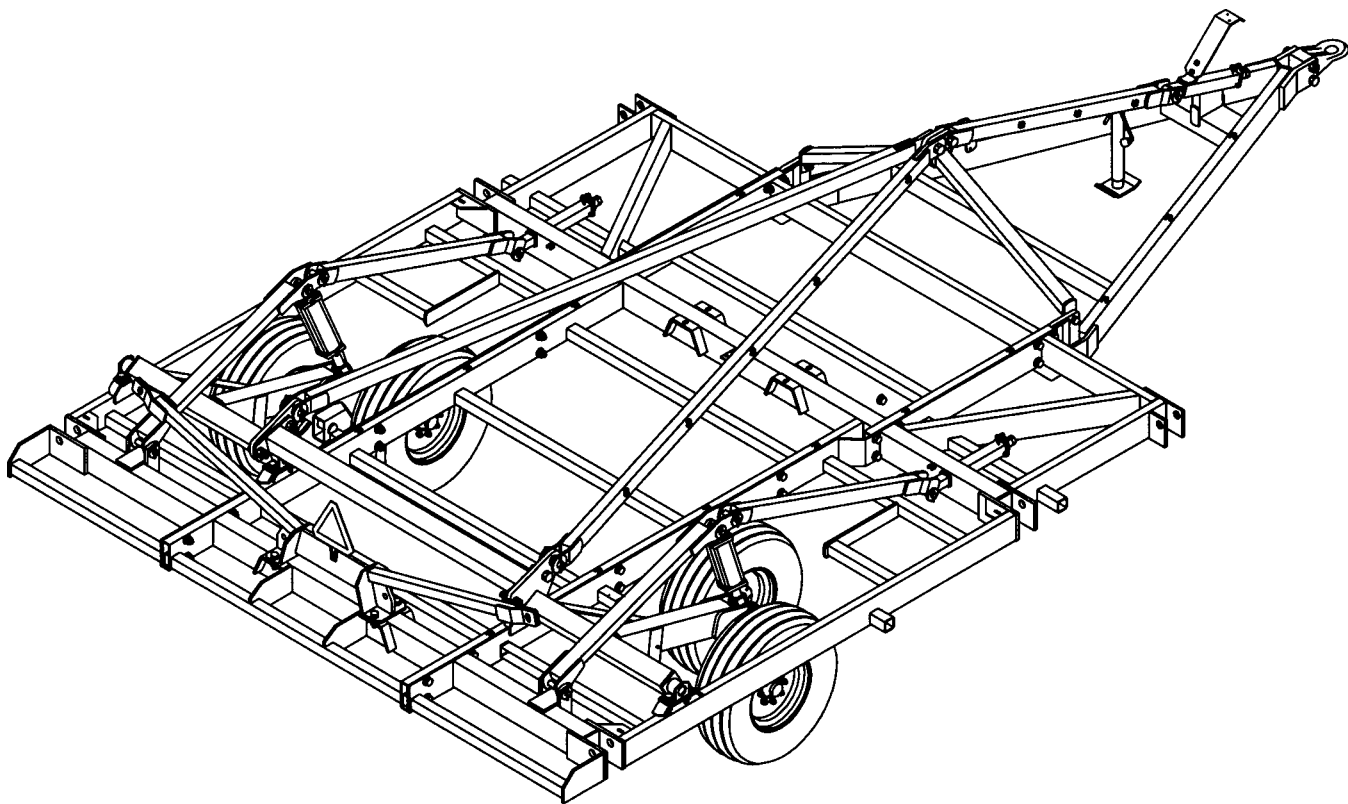
Check all of the connections, pivot points and nuts and bolts to make sure the completed centre section has been assembled properly and that all connections are secure and the nuts and bolts are tight.

Make sure that the wheel adjustment sliders are set to the same measurement of 4". This is important to ensure that the cultivator will be level from side to side and avoid twisting of the rockshaft.

***NOTE: On the diagram below the tines are not shown to allow the completed frame assembly to be shown more clearly.***

Gather up any extra hardware that has not been used and set it aside as it may be needed during the assembly of the wings or folding components.

If desired you may install the single point hydraulic system shown on page , otherwise the next step is to begin the assembly of the wing frame sections.

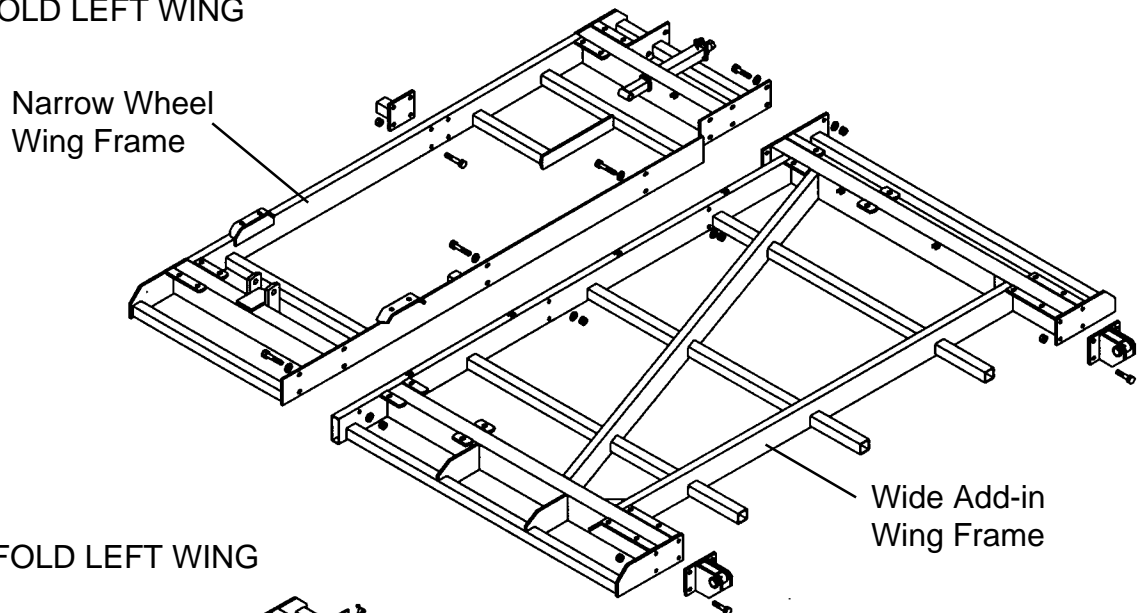


## Wing Frame Assembly

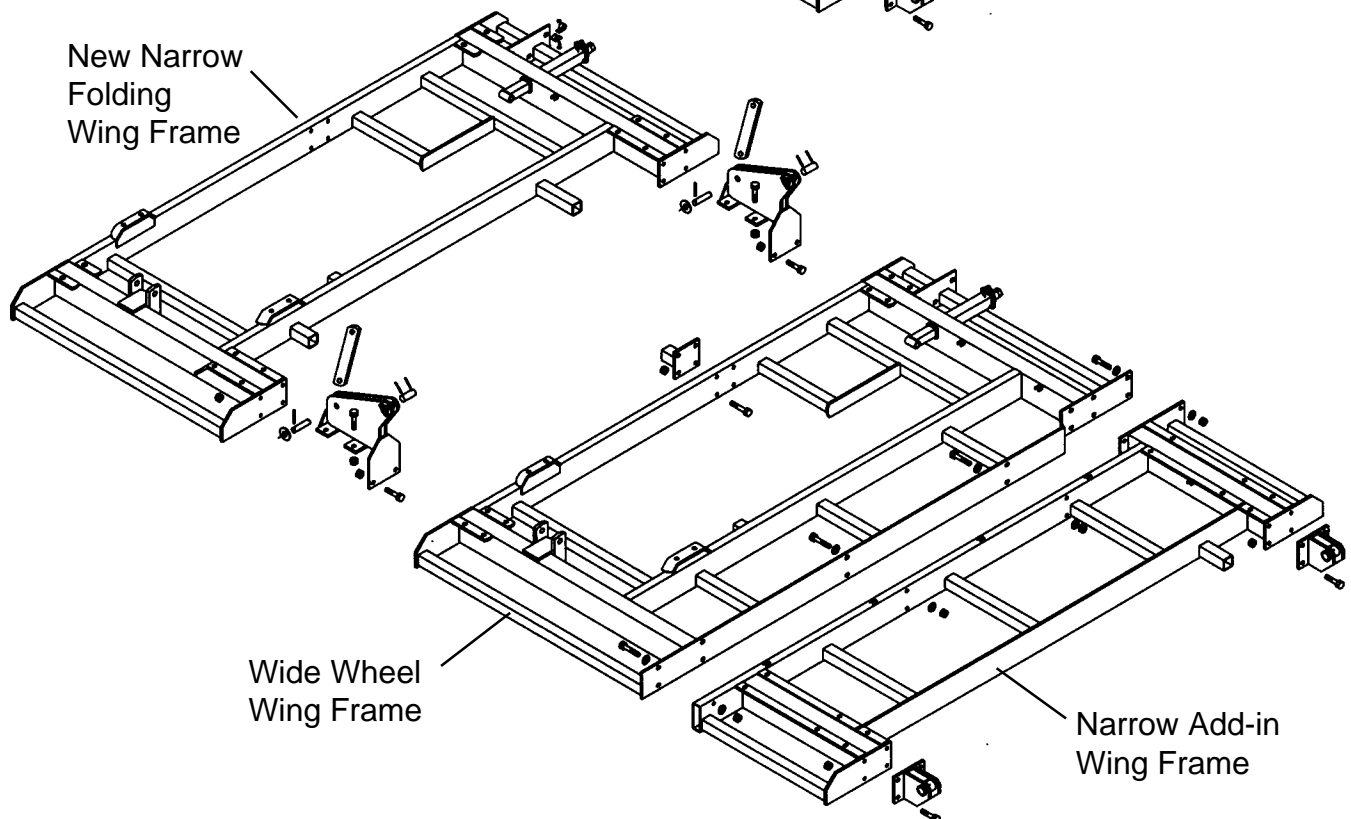
The assembly of the wing frames is similar to that of the centre section. Start with the top view layouts of the wing frame sections and begin by sorting out the frame sections for the cultivator size you are assembling.

With the exception of the new narrow folding wing, all other wing frames are comprised of 4 different frame components shown below. By combining a L.H. or R.H. wide or narrow inner frame weldment with a L.H. or R.H. wide or narrow wheel frame weldment you can make all other single or double fold wing frame sections. An example of a LH single fold and double fold wing is shown below.

### SINGLE FOLD LEFT WING

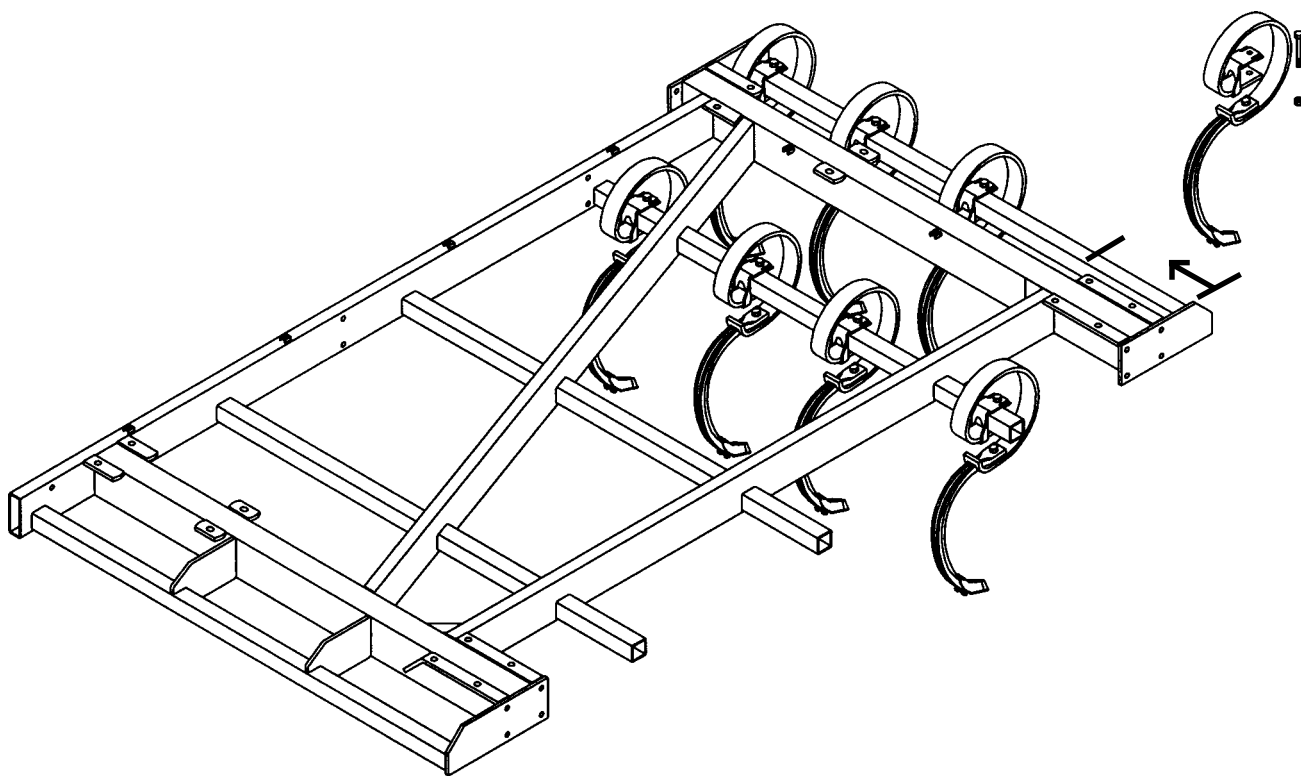


### DOUBLE FOLD LEFT WING



Mark out the tine locations on the toolbars of each frame section, as shown on the tine pattern diagrams in the back of the book. Draw a vertical line with a marker on the front of the toolbar tube. The tine locations are measured from the edge of the frame to the center of each tine. Place the frame sections on 2 steel stands (if available), and assemble the tines to the frame with the tine clamps, bolts and locknuts supplied. The mounting bolt will cover up the tine location marks on the frame.

**Note:** the 15 x 65 tines and clamps have been packaged separately from the 12 x 65 tines and clamps. The clamps are especially difficult to tell apart if they get mixed. Once the tines have been installed on the frame sections, the tines will act as a support stand for the cultivator frame while you continue the assembly of the frame components. Look at the tines after assembly, you should be able to see the “V” pattern, i.e. the tines will form systematic lines.



Assemble the wing frame sections according to the parts diagrams provided. The larger components are shipped loose and the smaller components and hardware bags are shipped in the wing assembly crates.

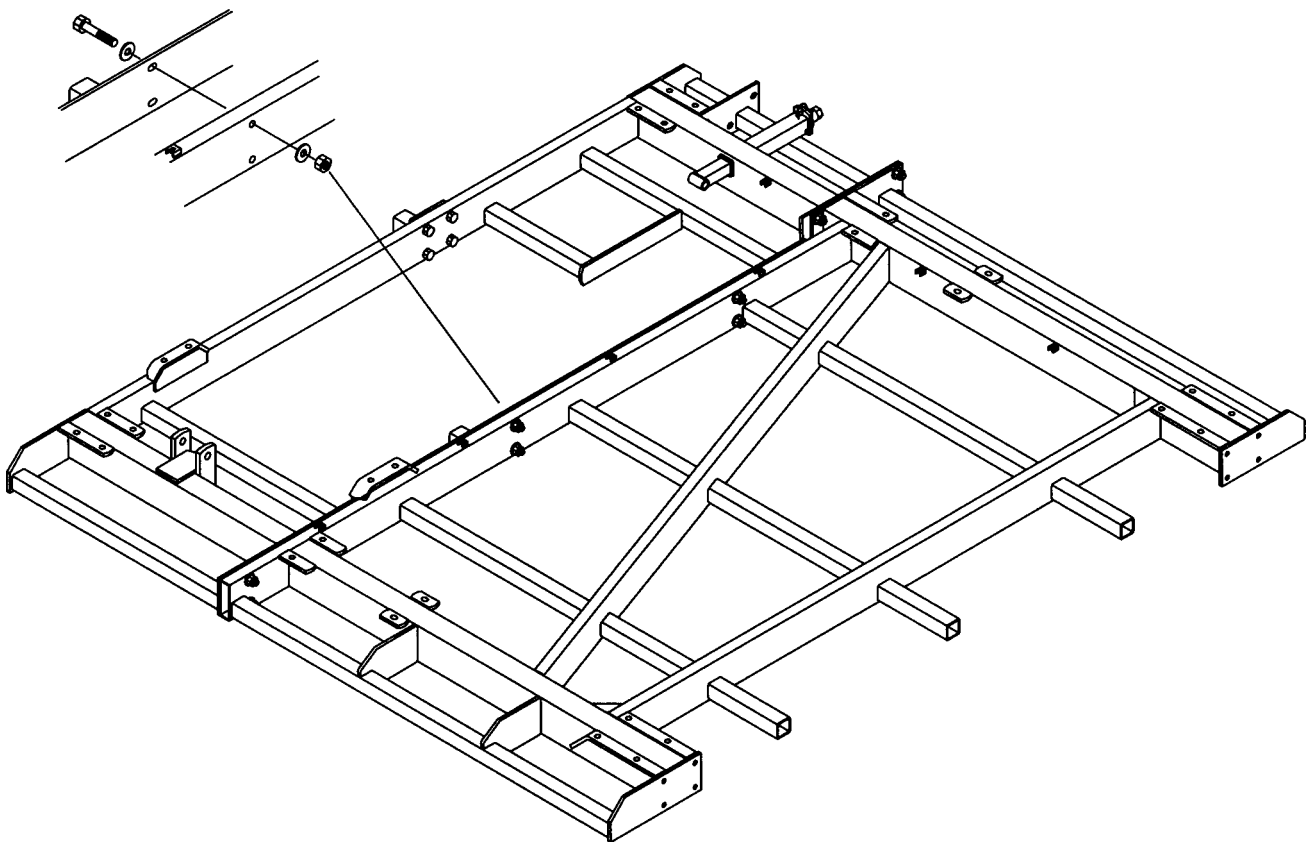
**NOTE:** Do not open and dump all of the hardware bags in one area. Try to keep the assembly area tidy and avoid mixing up the hardware in each of the bags. This will speed up the assembly process since the hardware is presorted and bagged for your convenience. Pay close attention to the parts list and diagrams so that the correct hardware is used for each component in the assembly.

Move the 2 wing frame components into place beside each other. Line up the holes and slots of the inside frame members and start inserting the bolts. Note that there are 2 washers provided for use on both sides of the frame bolt connections.

Start at the back of the wing frames and insert the bolts with washers one set of holes at a time. Install a second washer on the threaded side of the bolt before installing the locknut. (A round punch or small prying tool will help you to align the holes.)

Work your way to the front of the frames inserting one set of bolts at a time leaving the nuts loose until all the bolts are inserted. Take care to line up and level the frame tubes with each other before tightening the locknuts. Take care to tighten the top and bolts evenly, working from front to back. It may be helpful to clamp the frame sections together until you are finished tightening the bolts and locknuts to ensure that the frames remain aligned and level with each other.

Install washers on both sides  
of the frame bolt connections

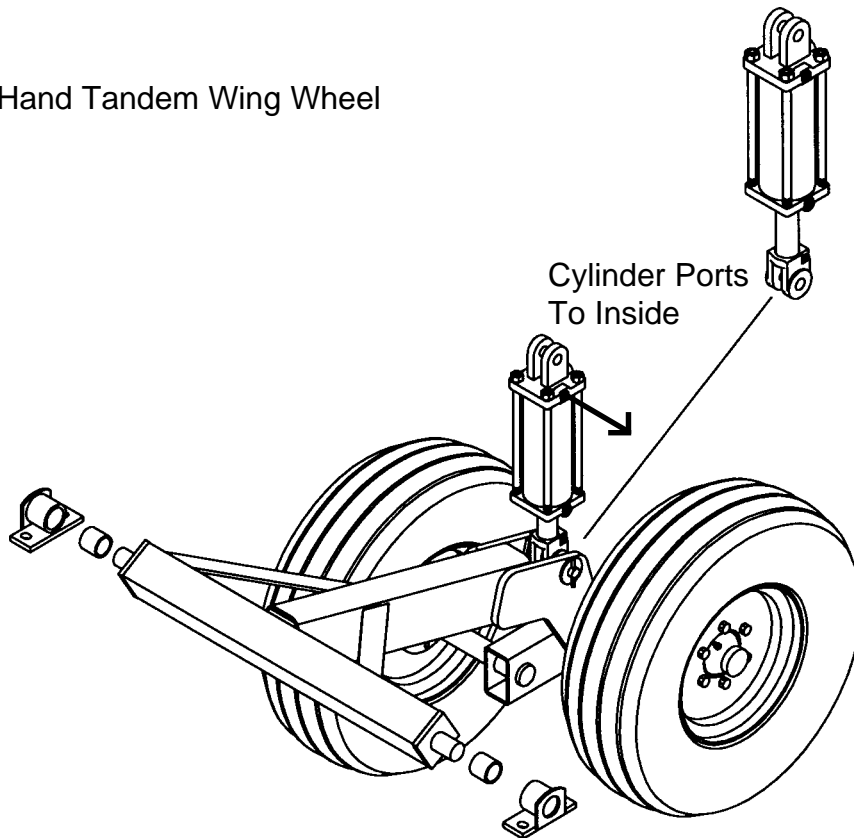


Sort out the left and right hand tandem wheel arms. Note that the wing tandem wheels have 6 bolt hubs. Before mounting the tires on the hubs, attach the wing wheel lift cylinders to the wheel arms with the special mounting pin, washers and roll pins supplied. (This is important as it is difficult to insert the long cylinder pin once the tandem wheels are mounted.)

Refer to the hydraulic diagram to insure the proper cylinder size is installed for the wing sections you are assembling. Note that the cylinders are installed pointing downward with the rod end clevis attaching to the wheel arm and the cylinder ports facing into the centre of the machine.

Mount the 11.5L x 15 – 8ply tires with 6 bolt rims to the hubs and secure the lug bolts.

Left Hand Tandem Wing Wheel

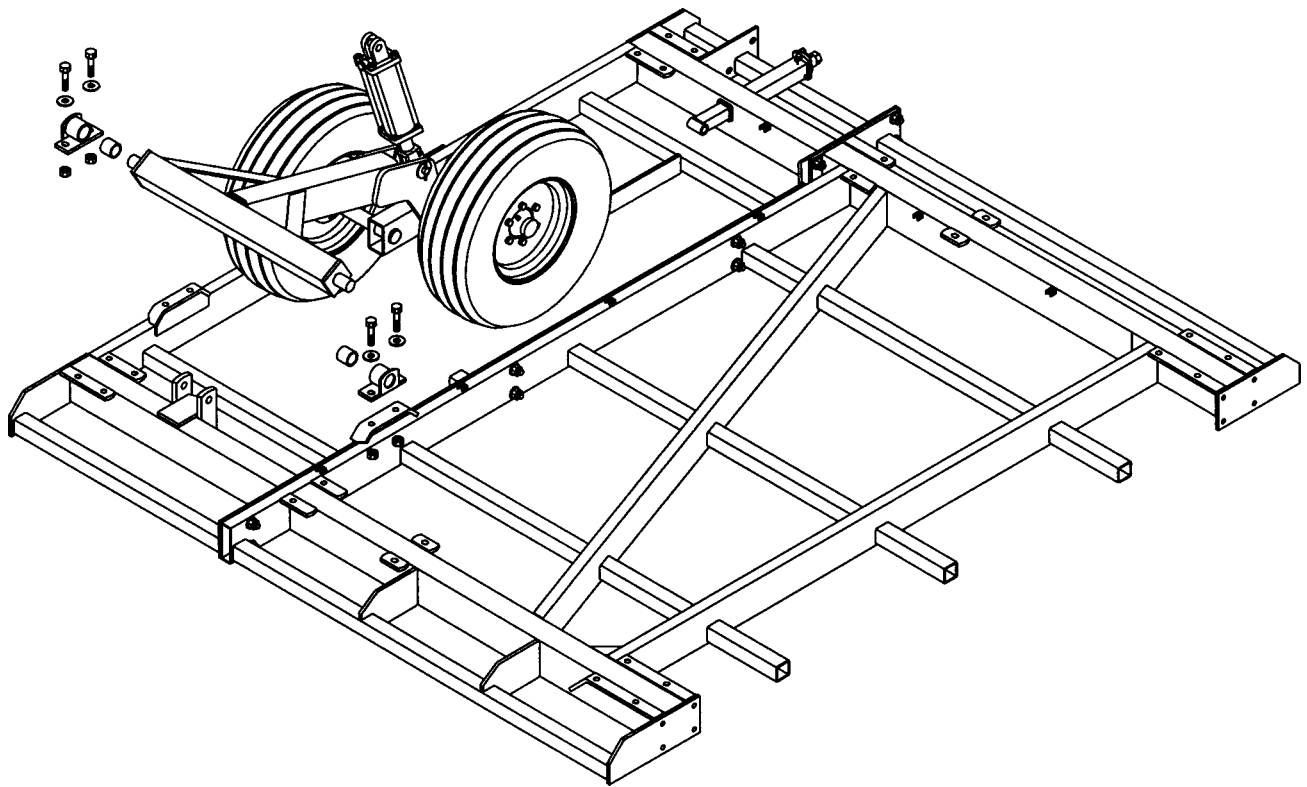


Install the oil impregnated bronze pivot bushings on the ends of the stub shafts on the wheel arms. Install the pivot anchor weldment on the stub shafts once the pivot bushings have been installed.

**NOTE:** It may be necessary to lightly sand off the paint on the outside of the stub shaft and the inside of the pivot anchor to assure proper assembly of the bronze bushings. It is best if the fit is a bit loose so they can be assembled by hand. You must not drive on the bronze bushings as they may crack if too much force is applied.



Pay close attention to the diagram provided for the proper orientation of the L.H. or R.H. walking tandem. Carefully hoist the entire wheel arm assembly with cylinder and tires installed, into position in the appropriate wing wheel frame and secure the pivot anchors to the anchor mounts on the frames with the bolts, washers and locknuts provided. Leave the bolts and nuts loose until the wheel towers have been installed.



Sort out the wheel tower parts and depth adjustment system according to the wing wheel assembly diagram. Once again be sure to use the appropriate size pins, washers and roll pins provided for this part of the assembly.

**Note:** all pin lengths given in the parts list reflect the effective length of the pin between the holes.

Be sure to follow the correct order of assembly as indicated by the numbers shown on the diagram below. This assembly order has been worked out, in order to ensure the easiest alignment of the holes and pins.

*(In **Step 1** - The rod end clevis should have been attached to the wheel arm first in a previous step, as the long pin is difficult to assemble when the tires are mounted. If you did not do this step earlier, the tandem arm will have to be tipped down to allow the pin to get past the tire.)*

**Step 2** - Adjustment sliders are pre-assembled in the wheel frames at the factory. The adjusters are now 1" ACME thread and should not require any lubrication. (If desired you may disassemble the adjuster and lubricate the threads with Anti-Seize, but this is not normally required.)

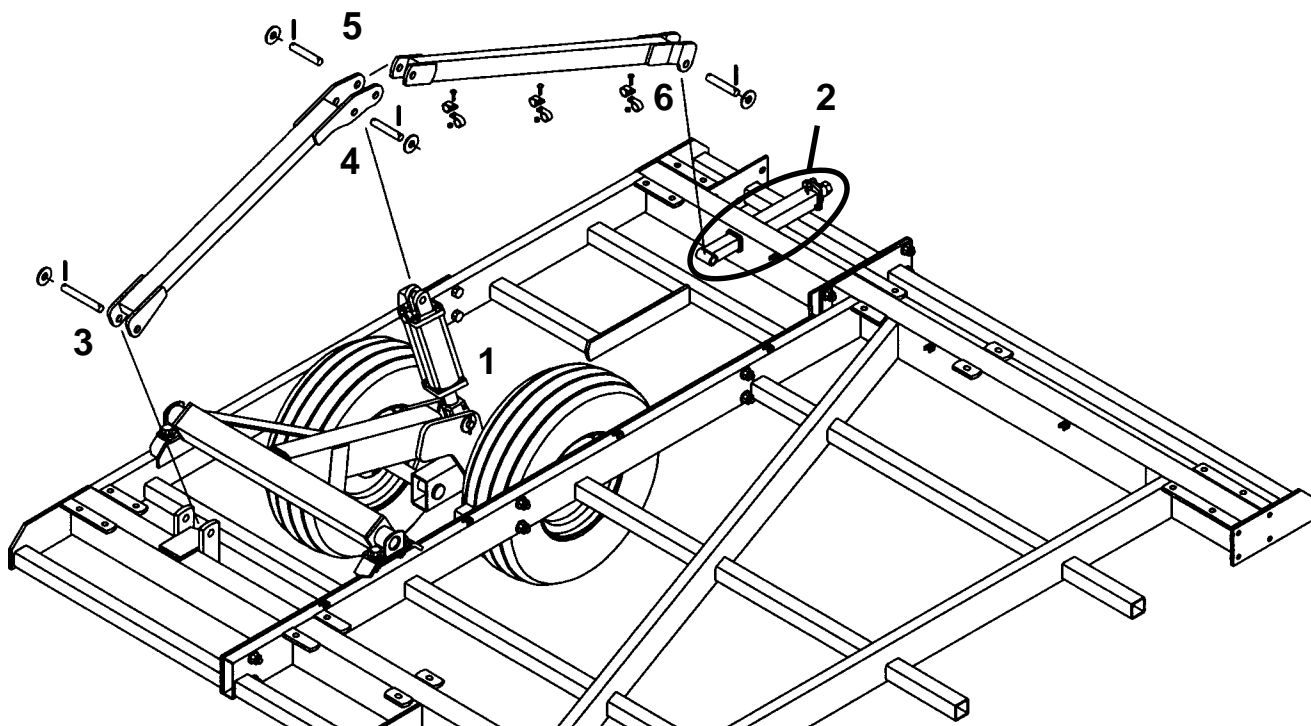
Assemble the adjustment sliders by hand, by turning the threaded adjustment into the nut on the end of the slider. Insert the slider assembly into the adjustment tube in the front 4 x 6 cross member of the frame so that the stub end of the threaded adjuster comes through the hole in the tube end plate. Turn the adjustment casting on to the threaded stub end of the adjuster and secure it with the roll pin provided.

**Step 3** - Attach the bottom end of the rear wheel tower to the anchor mount on the cultivator frame with the pin, washers and roll pins provided.

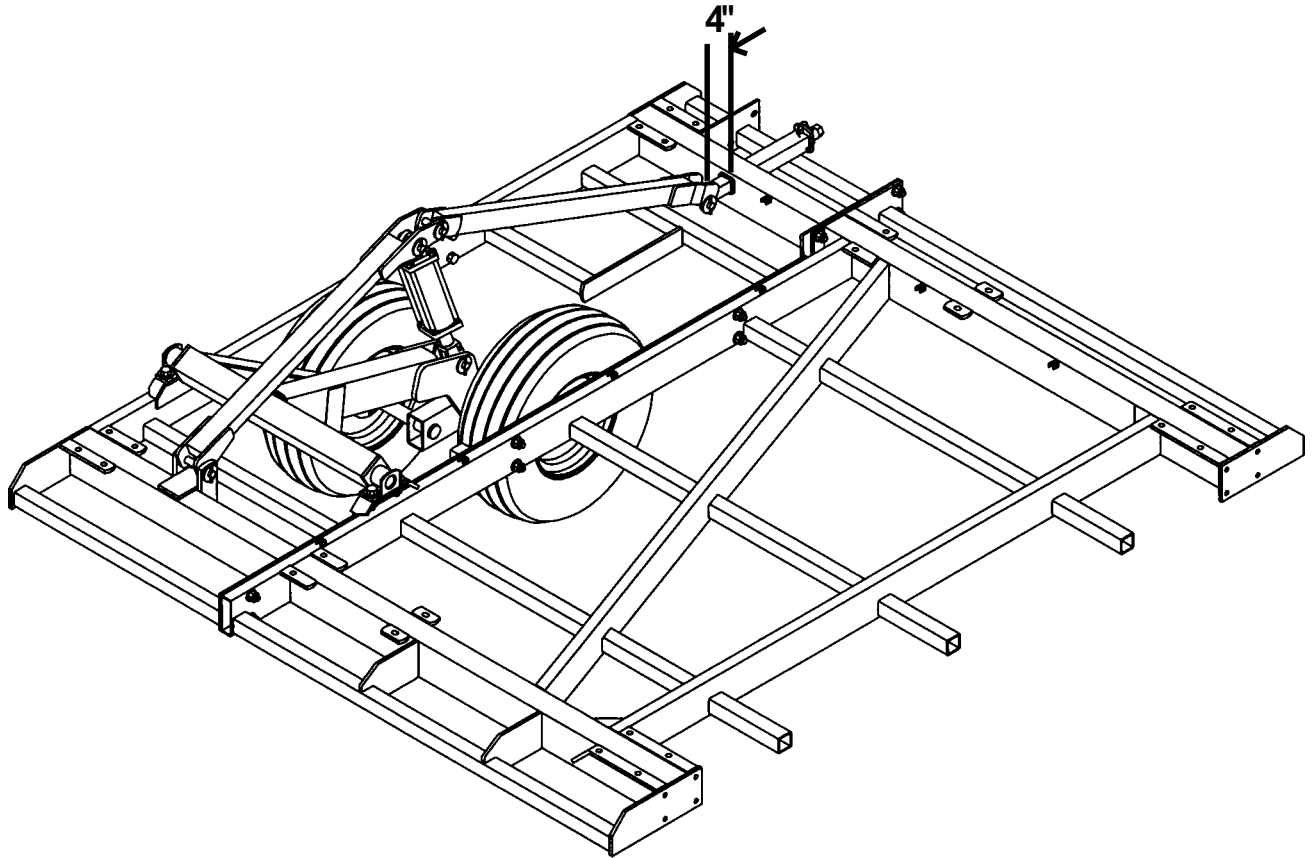
**Step 4** - Attach the butt end clevis of the wing wheel cylinder to the lower hole in the rear wheel tower with the pin, washers and roll pins provided.

**Step 5** - Attach the front wheel tower to the upper hole in the rear wheel tower. Note that the front tower should be turned so the hose holders are to the bottom side.

**Step 6** - Attach the bottom end of the front wheel tower to the adjustment slider with the pin, washers and roll pins provided.



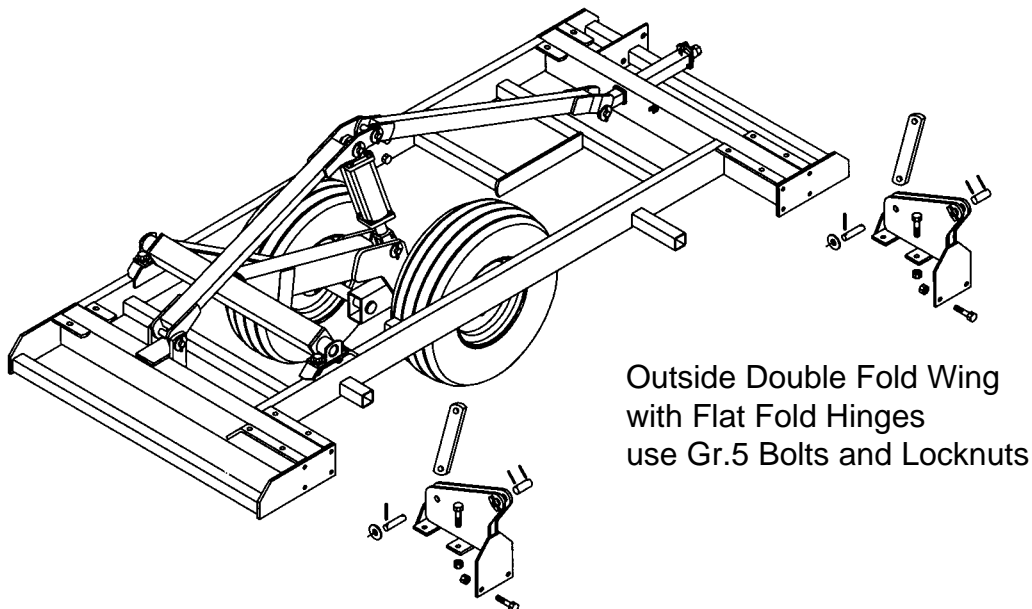
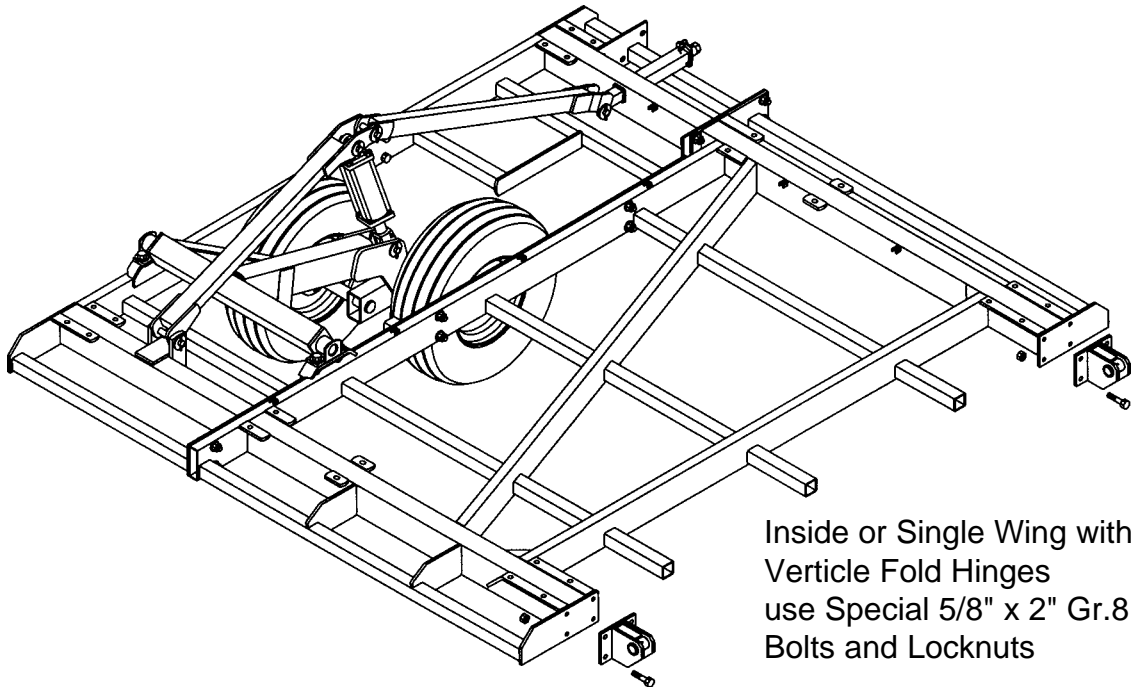
Finish the assembly of the wheel tower mechanism by adjusting the sliders to the same dimension (approximately 4" from the edge of the tube to the pin), with the wheels resting on the ground. The slider adjustment can be fine-tuned later when the cultivator is fully assembled and leveled in preparation for working in the field.



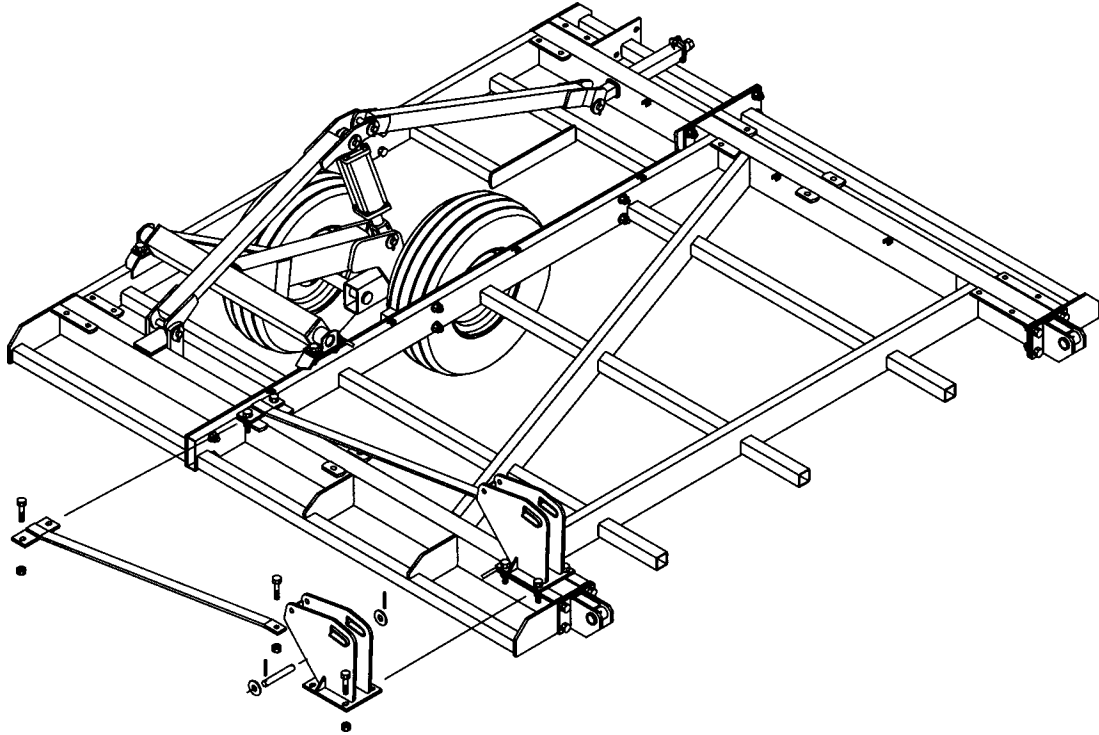
Refer to the parts assembly diagrams for double fold or single fold wings for proper assembly of the hinges and folding brackets and identification of the assembly hardware. The single fold wings are relatively simple as they have a single set of verticle hinges and single folding brackets (with brace) for the single pair of folding cylinders.

The double fold wings are more complex as they have both verticle fold hinges and flat fold hinges on the wings with double folding brackets for mounting 4 pair of folding cylinders. The cylinders and Hydraulics are described in detail in the hydraulic layout and parts diagrams.

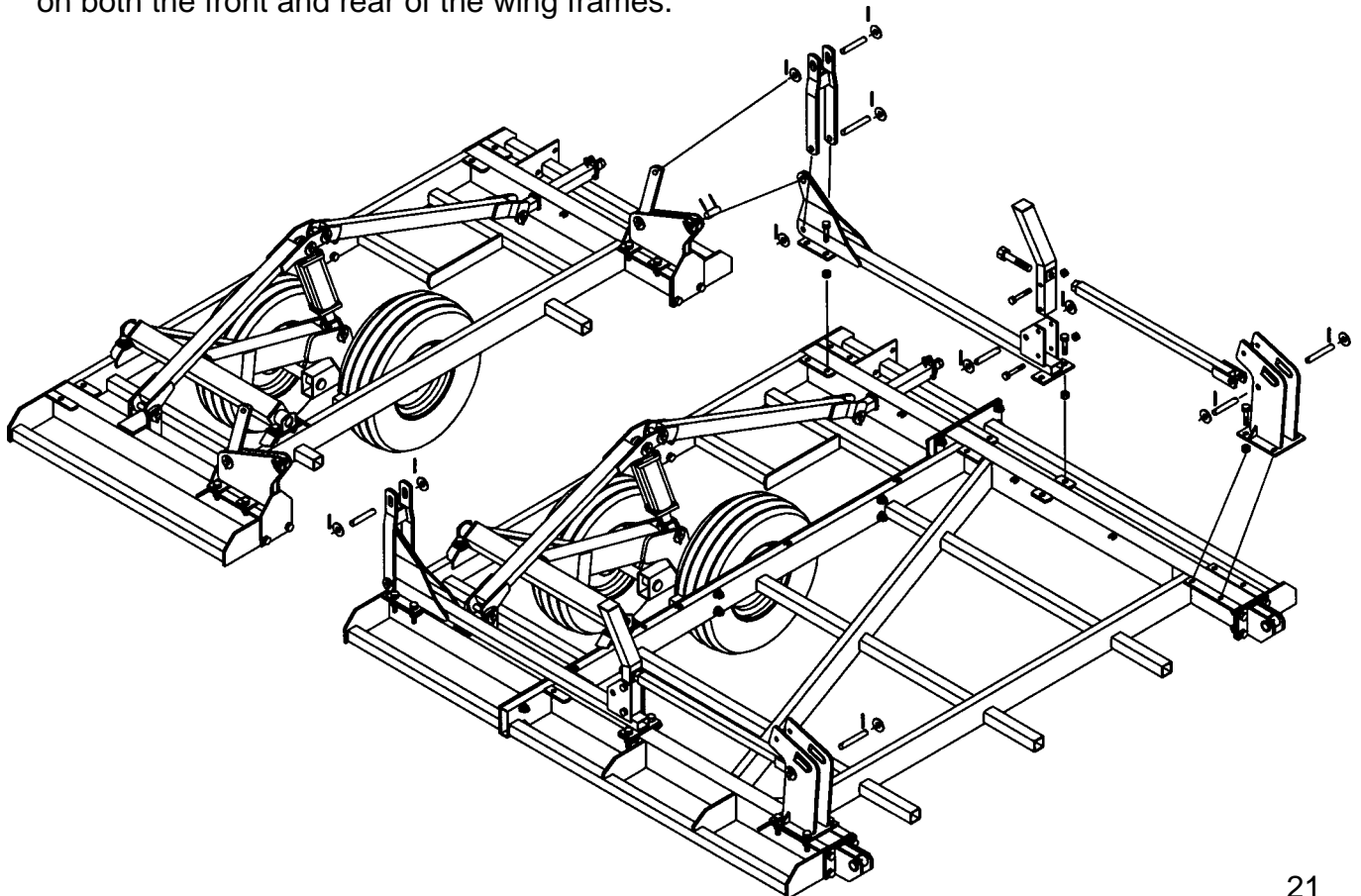
When assembling the verticle fold hinges to the inside member of the wing frame assembly be sure to use the grade 8 bolts and nuts provided, they are packaged in a separate bag. The nuts and bolts have special markings on them in order to differentiate them from a standard grade nut and bolt. Leave the hinge bolts loose until final assembly of the cultivator, as this will make it easier to insert the hinge pins when attaching the wings to the centre section.

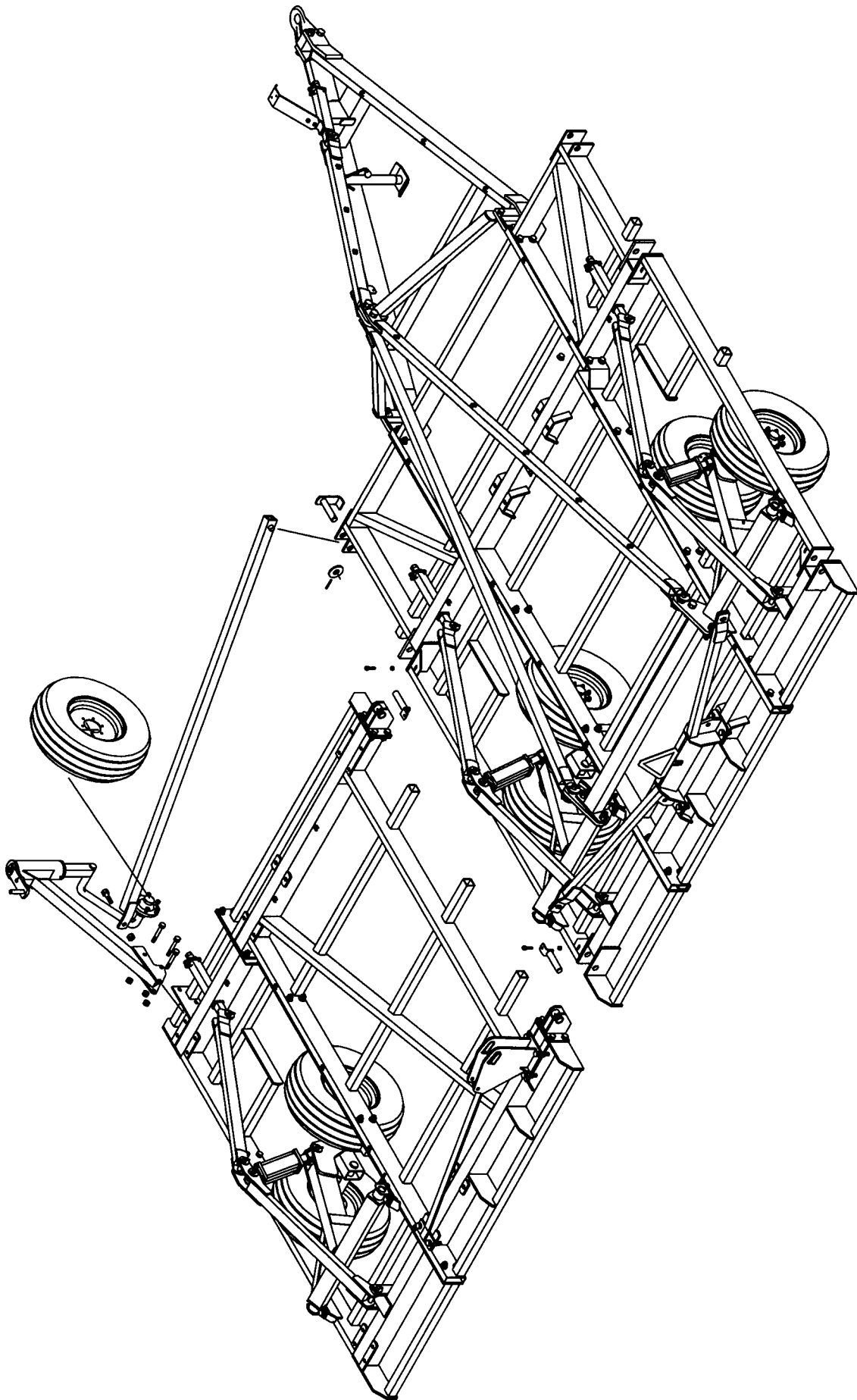


Bolt the folding uprights and braces for the wing fold cylinders to the mounting plates on the wing frames as shown below. Note that on single fold models the folding bracket and brace is mounted on the rear of the wing frame only.



On double wing fold models, the folding uprights and braces with flat folding hinges are mounted on both the front and rear of the wing frames.





## Final Assembly

Final assembly will require enough space to fully layout the cultivator, plus working room around it. Access to the rear bar for the mounting of the harrows is also required.

If you haven't already done so, mount the hitch to the center frame according to the parts diagrams and make the connection between the tongue and the self-leveling hitch tower and linkages. Refer to the instructions for this as outlined earlier in the centre section assembly.

Move the inside wings into position beside the centre section, and put in the hinge pins. Place a bolt through the lock plate to hold the pin in position and prevent it from backing out. Tighten the Gr.8 vertical hinge bolts and locknuts.

Mount the castoring gauge wheels to the mounting bracket in front of the wings and instal the wheel on the hub.

Assemble the front frame extension braces as shown on the assembly diagram. Braces are different lengths for each cultivator model. Insert the hinge pin in one end of the brace, and secure with washer and roll pin. Attach the other end of the brace to the front plate of the gauge wheel arm with the bolt and locknut provided.

If the unit is a double fold wing, move the outside wing frames into position. Adjust the folding uprights, braces and hinge components as required to ease the assembly.

Tighten all bolts and nuts on the wing bolt on components.

## SINGLE POINT HYDRAULIC DEPTH ADJUSTMENT:

We have updated the Single Point Hydraulics for 3800 Series Field Cultivators to include a Rebound Valve Assembly and a new Trigger Bar Assembly with Crank Adjust Mechanism.

The rebound valve helps to prevent air ingestion into the hydraulic system and prevents the cylinders from operating unevenly. This is an advantage on large cultivators such as the 3800 Series in maintaining depth accuracy.

It is important to remember to raise the cultivator when turning at the end of the field, to fully extend and rephase the hydraulic wheel lift cylinders. However, the rebound valve helps to keep the implement level and hold the working depth by stabilizing the hydraulic pressure in the system when the cultivator is operating.

***IMPORTANT NOTICE: THE REBOUND VALVE HAS BEEN PRESET BY THE MANUFACTURER AND SHOULD NOT BE TAMPERED WITH OR RE-ADJUSTED FOR ANY REASON.***

Please refer to the 3800 Operator Manual for more information on the 3800 field adjustments or when trouble shooting problems with the hydraulic system.

The new Trigger Arm Assembly and Crank Adjust Mechanism is easier to adjust and use than the original system, and provides protection for the stroke control valve by adding a spring loaded striker bolt to the striker plate assembly.



NEW REBOUND VALVE ASSEMBLY

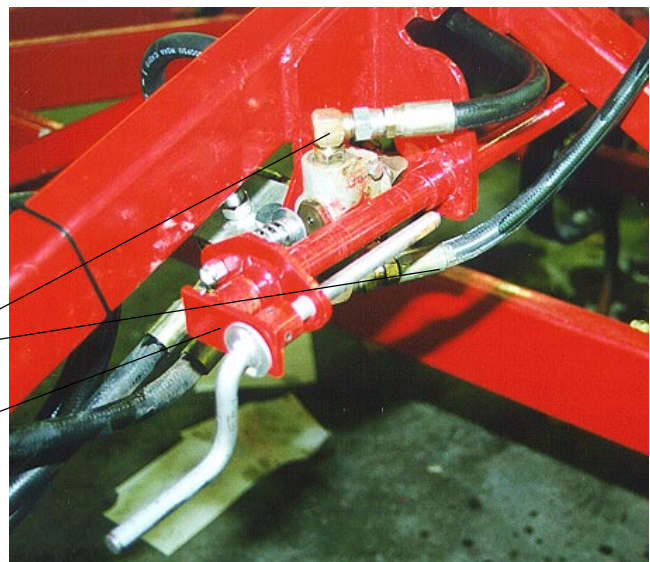
VALVE PORTS - HOSES TO TOP OF WHEEL LIFT CYLINDERS

NEW CRANK ADJUST FOR SINGLE POINT VALVE TRIGGER ASSEMBLY

VALVE PORT - C2 100" HOSE TO WHEEL LIFT RETURN LINE TEE

VALVE PORT - C1 16" HOSE TO REAR PORT OF SINGLE POINT VALVE

VALVE PORTS - V1 & V2 145" HOSES TO TRACTOR





## **SINGLE POINT HYDRAULIC ASSEMBLY:**

Please refer to the Parts lists and Hydraulic diagrams on the following pages for proper installation of the single point hydraulic valves, hoses and linkages.

Begin the assembly by installing the hydraulic fittings into the valves. The fittings can be turned into the valves by hand and tightened later when the hose lines are attached.

Install the Poppet Valve to the left side of the mounting plate on the hitch adjuster. Insert the short bolt #6 through the lowest hole in the mounting plate and valve body. Attach the valve with the poppet activator pin pointing forward or towards the tractor and secure the locknut.

Using the long bolt #23, attach the Rebound Valve to the right side of the mounting bracket on the hitch linkage with valve ports V2 & V2 pointing towards the tractor. Insert the long bolt through the Rebound Valve first and then through the upper (forward) hole in the mounting bracket and the upper hole in the Poppet Valve. The bolt is long enough to go thru both valves and the mounting plate. Secure the locknut.

Install the final mounting bolt #22 through the rear hole in the Rebound Valve and mounting bracket. (NOTE: If the valve does not mount flush with the bracket it may be necessary to install 2 shim washers on the mounting bolts between the Rebound Valve and the mounting plate.) Check the position of the valves and secure the locknuts.

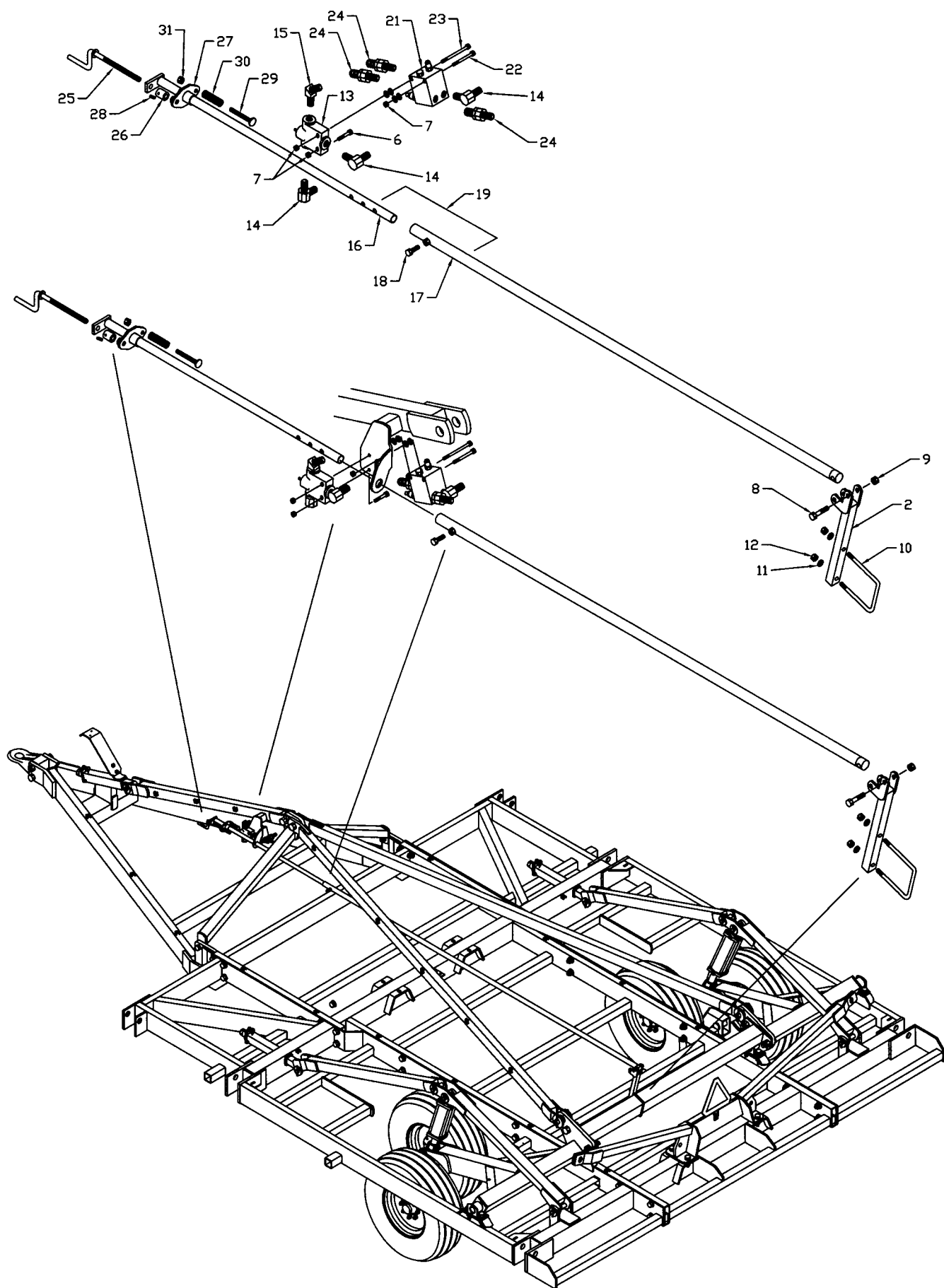
Assemble the Adjuster and Trigger Arm mechanism according to the parts diagram. When the crank adjuster and spring loaded striker have been assembled, slide the adjuster assembly through the hole in the valve mounting plate. Insert the adjuster tube into the longer trigger arm tube and secure the set screw into one of the 3 adjustment holes.

Attach the short activation arm to the front side of the rockshaft with the U-bolt provided. The double pivot plates should face the front of the machine as shown. The activation arm should be mounted slightly left of centre, in order to line up with the hole in the valve plate on the left side of the hitch adjustment link.

Attach the trigger arm to the activation arm on the rockshaft.

Note that the activation arm has 2 sets of pivot mounts: the trigger arm mounts to the upper position for standard machines, and to the lower position for deep-till (potato) machines.

Make sure that the trigger arm is in line with the front and rear mounting points so that it will move smoothly back and forth in a straight line when the cultivator moves up and down, and see that the striker bolt will contact the poppet valve pin. Secure the locknuts.



**Spare part list** / 3800 Single Point Hydraulic Assembly. Date: 2000, 12. Serial #021450>

<b>Fig.</b>	<b>Part no.</b>	<b>Description</b>
2	01 242 308	Single Point Hydraulics Activation Arm
6	00 356 148	Bolt 5/16" x 2 1/2"
7	00 366 003	Locknut 5/16"
8	00 356 022	Bolt 1/2" x 2 1/2"
9	00 366 005	Locknut 1/2"
10	00 373 073	U-Bolt 3/8" x 4" x 6"
11	00 381 006	Flat Washer 3/8"
12	00 366 004	Locknut 3/8"
13	00 470 070	Stroke Control Valve
	00 470 072	Replacement Cartridge for Stroke control Valve - Not Shown
14	00 470 049	1/2" ORB x 1/2" JIC - 90 Degree Elbow
15	00 470 179	1/2" ORB x 1/2" JIC - 45 Degree Elbow
16	601242365	Single Point Hydraulic Adjuster
17	601242364	Single Point Hydraulics Trigger Arm
18	600372008	Set Screw 3/8" x 1-3/4"
19	601241141	Single Point Hydraulics Trigger Arm Assembly (Items 16,17,18)
21	600470229	Rebound Valve
22	600356034	Bolt 5/16" x 4"
23	300356035	Bolt 5/16" x 5 1/2"
24	600470048	1/2" ORB x 1/2" JIC - Straight Fitting
25	601242367	Hand Crank Adjuster
26	601242368	Crank Lock Bushing
27	601242366	Single Point Striker Weldment
28	600372006	Set Screw 1/4" x 3/4" (2 Required in Lock Bushing)
29	601141555	Striker Bolt
30	601140556	Striker Spring
31	601366004	Locknut 3/8"
<i>(For Hydraulic Hoses &amp; Connections see Wheel Hydraulic Diagrams)</i>		

## HYDRAULICS:

Assemble the base of all fold cylinders with the appropriate pins indicated by the parts diagrams. Place the flat fold linkages in their designated locations, and place the flat fold cylinder rod pin in place on the double link only, allowing the cylinder to be stroked. **IMPORTANT! All air must be removed from the fold hydraulics before the cultivator is folded!**

Layout the hoses and fittings according to the hose diagrams, and plumb the hydraulics. Double check the lift cylinder part numbers with the diagram to be sure they are in the correct locations.

Connect the cultivator to the tractor draw bar and connect the hoses to the tractors remote hydraulic ports.

Charge the fold hydraulics, and run the cylinders full stroke in and out several times in order to remove all the air from the system. It is important to remove the air from the lines by cycling the wing fold cylinders in and out until they operate smoothly. (In some cases it may be necessary to remove one of the long hose lines and hold the end of the hose over a pail in order to bleed the line and ensure all air is removed.) Check all of the hose connections for leaks. Extend the fold cylinders completely and install the remaining pins.

**Failure to properly charge the wing fold hydraulics with oil could allow the wings to free fall when folding, causing damage to the equipment and possible injury to the operator or bystanders. Never fold the cultivator wings by any mechanical method! Always charge the hydraulic system first and use it to fold and unfold the wings. Stand clear of the machine and watch for overhead hazards such as power lines when folding and unfolding.**

Charge the wheel lift hydraulic system. Since this is a series rephase system, no hoses need to be removed in order to bleed the system. The cylinders only need to be extended and retracted fully, holding the hydraulic lever in the tractor a few seconds each cycle to remove air from the system. The single point hydraulics should be adjusted so it is inactive during this phase of the assembly, so that the wheel lift cylinders can stroke fully in and out without activating the single point poppet valve. Instructions for setting and operating the single point adjustment is covered in detail in the operators manual in the field adjustments section.

Check all fittings, and hoses for leaks. Attach the hoses to the frame with the hose clamps, carriage bolts and nuts. Plastic tie straps may also be used to keep the hoses tidy.

With the cultivator raised, fold the wings, carefully at first. As each wing falls over center, feather the hydraulic control.

Check that the hoses are not binding, pulling, or have any pinch points, and that no interference is occurring with any of the moving frame components. Continue to fold the inside wings following the same procedure.

With the cultivator fully assembled and you are satisfied that the cultivator raises and lowers, and folds and unfolds properly you can begin to assemble and attach the leveling harrows according to the harrow layouts provided in separate instruction booklets with the harrow components.

## Leveling Attachments Assembly

With the machine unfolded and lowered to the ground, assemble the harrow arms to the rear toolbar at the positions shown on the harrow layout diagrams.

Assemble the rollers based on the locations indicated by the layout diagrams.

Check the machine for any loose bolts, nuts, and hydraulic leaks

## SAFETY PRECAUTIONS FOR Folding and Transporting Implements:

Fold and lock the wings in the transport position, with the wing fold lock pins shown.

Place the transport stops on the centre wheel cylinders, and attach the safety tow chain and SMV sign before transporting.

### **IMPORTANT NOTICE:**

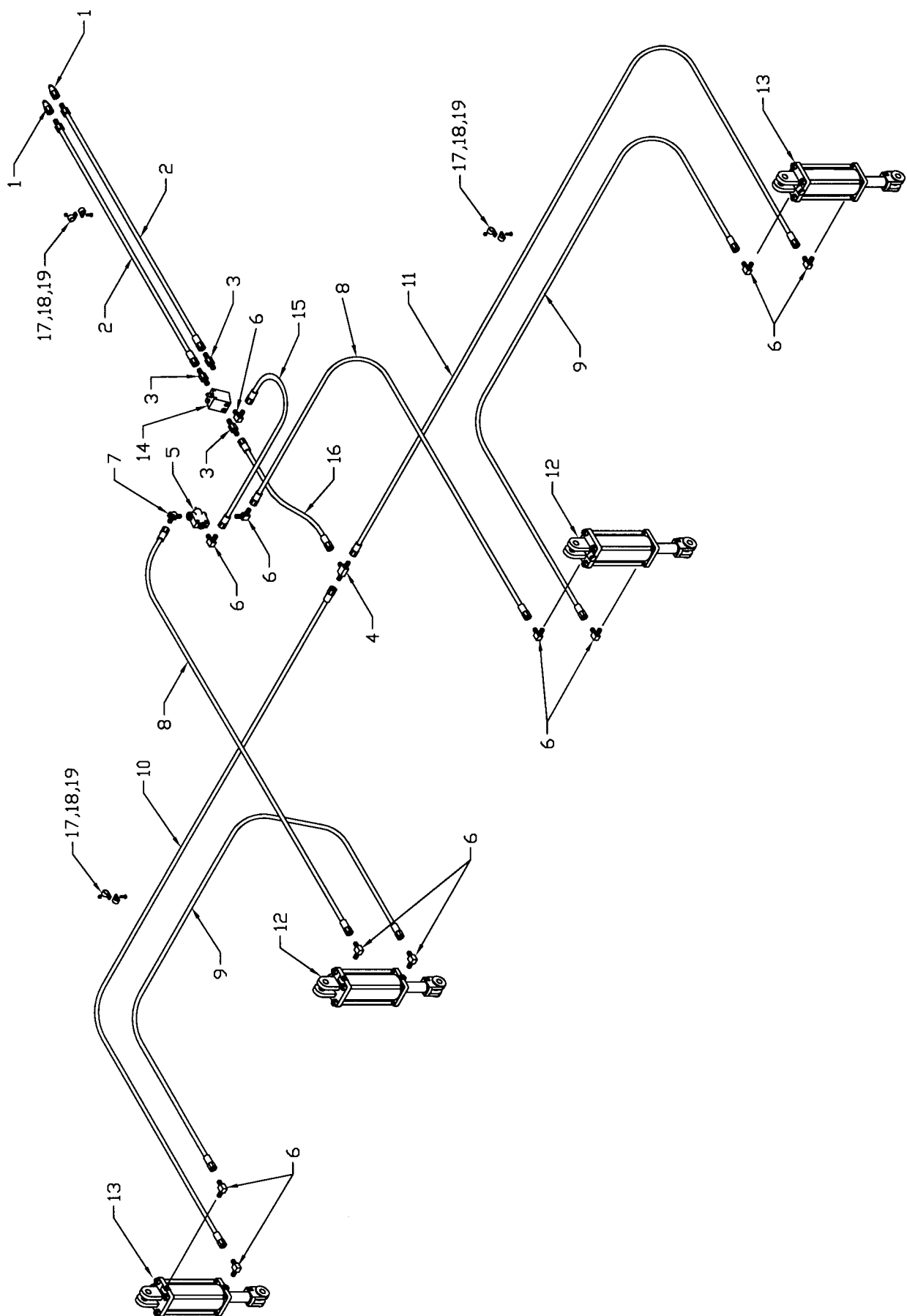
***3800 Series cultivators may be assembled in combinations that exceed normal widths and heights for transporting on public roadways. It is the responsibility of the operator to ensure the safety of the chosen route, and to comply with all state and local laws when transporting large or oversized implements on public or private roadways. Careful consideration must be given to avoid contact with obstacles along the chosen route such as: bridges, tunnels, overpasses, guard rails, road signs, traffic lights, power lines, and other utilities.***

***Take care, especially when transporting, folding or unfolding the implement around power lines.***

***Make sure all wheel bolts are secure and tires are in good condition and inflated properly.***

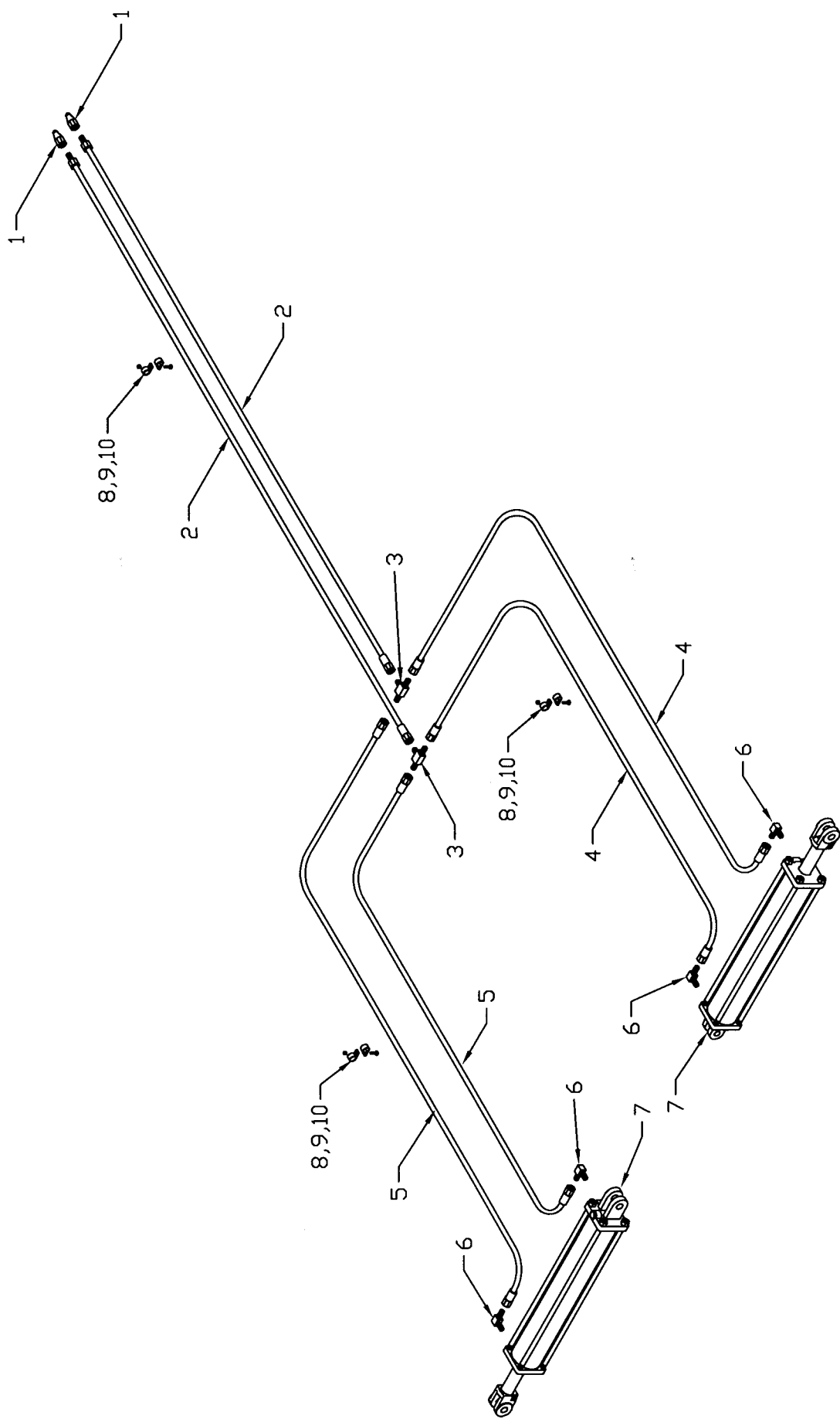
***Make sure all safety transport pins and lockouts are properly installed and safety tow chains are connected as required for compliance.***

***Make sure all SMV signs, and reflectors are installed on the unit.***



**Spare part list / 3800 Single Fold Wheel Hydraulics. Date: 2001, 01.**

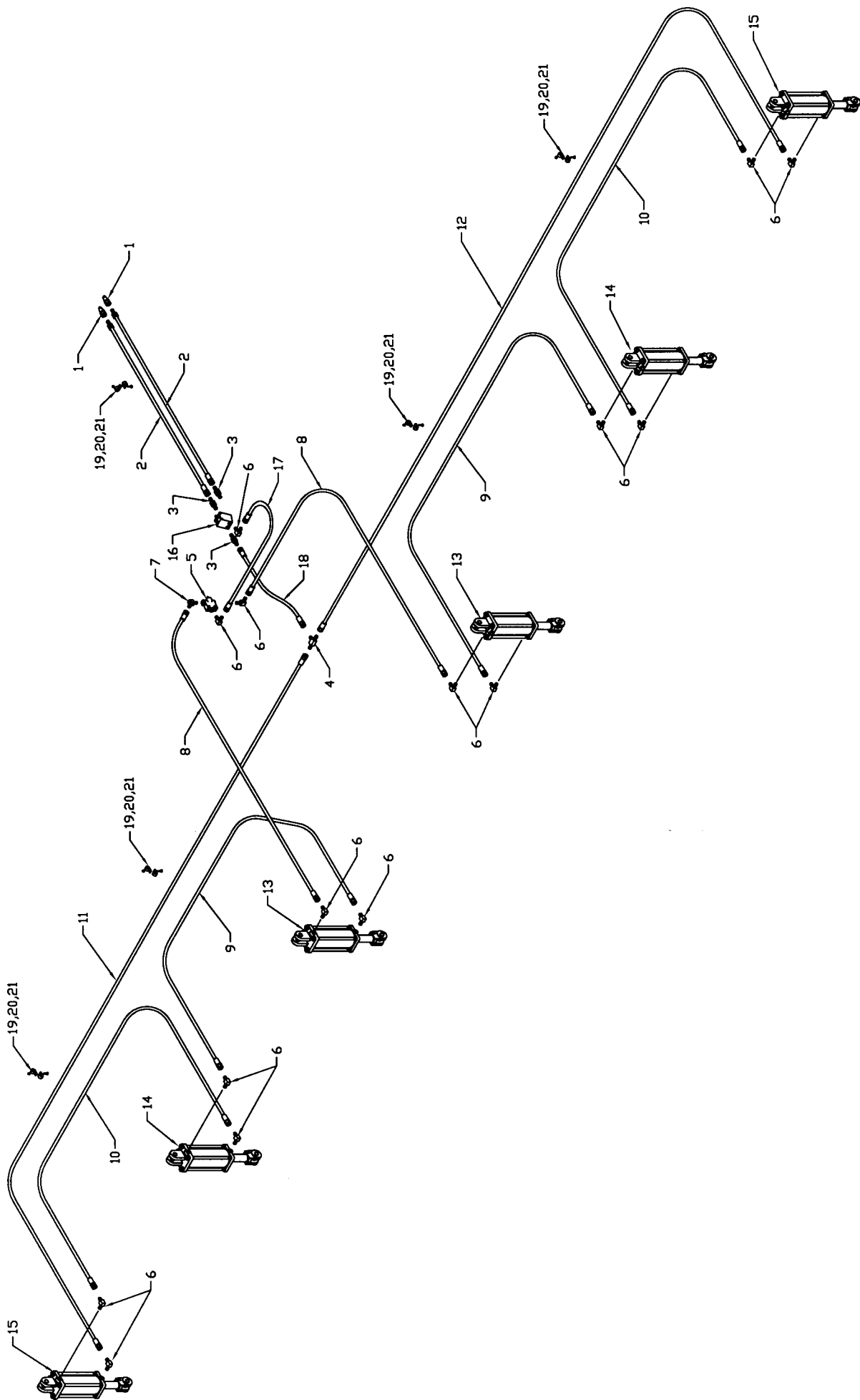
<b>Fig.</b>	<b>Part no.</b>	<b>Description</b>
1	00 470 110	Quick Coupler (Optional-not part of hose kit)
2	00 470 129	1/2" Hose 1/2" Pipe x 1/2" JIC - 145" (all models)
3	00 470 048	1/2" O-ring x 1/2" JIC - Straight
4	00 470 004	1/2" Tee Fitting
5	00 470 070	Control Valve for Single Point Hydraulics
	00 470 072	Replacement Cartridge for Stroke control Valve - Not Shown
6	00 470 049	Elbow 1/2" O-ring x 1/2" JIC - 90 Degree
7	00 470 179	Elbow 1/2" O-ring x 1/2" JIC - 45 Degree
8	00 470 176	1/2" Hose 1/2" JIC x 1/2" JIC - 165" (all 3812 models)
	00 470 182	1/2" Hose 1/2" JIC x 1/2" JIC - 175" (all 3815 models)
9	00 470 178	1/2" Hose 1/2" JIC x 1/2" JIC - 185" (3812-22, 3815-25)
	00 470 135	1/2" Hose 1/2" JIC x 1/2" JIC - 210" (3812-25, 3815-28)
	00 470 186	1/2" Hose 1/2" JIC x 1/2" JIC - 230" (3812-28, 3815-32)
	00 470 139	1/2" Hose 1/2" JIC x 1/2" JIC - 250" (3812-32, 3815-35)
	00 470 142	1/2" Hose 1/2" JIC x 1/2" JIC - 270" (3812-35, 3815-38)
10	00 470 181	1/2" Hose 1/2" JIC x 1/2" JIC - 155" (3812-22)
	00 470 182	1/2" Hose 1/2" JIC x 1/2" JIC - 175" (3812-25, 3815-25)
	00 470 185	1/2" Hose 1/2" JIC x 1/2" JIC - 195" (3812-28, 3815-28)
	00 470 177	1/2" Hose 1/2" JIC x 1/2" JIC - 215" (3812-32, 3815-32)
	00 470 137	1/2" Hose 1/2" JIC x 1/2" JIC - 235" (3812-35, 3815-35)
	00 470 140	1/2" Hose 1/2" JIC x 1/2" JIC - 255" (3815-38)
11	00 470 177	1/2" Hose 1/2" JIC x 1/2" JIC - 215" (3812-22)
	00 470 137	1/2" Hose 1/2" JIC x 1/2" JIC - 235" (3812-25, 3815-25)
	00 470 140	1/2" Hose 1/2" JIC x 1/2" JIC - 255" (3812-28, 3815-28)
	00 470 143	1/2" Hose 1/2" JIC x 1/2" JIC - 275" (3812-32, 3815-32)
	00 470 146	1/2" Hose 1/2" JIC x 1/2" JIC - 295" (3812-35, 3815-35)
	00 470 187	1/2" Hose 1/2" JIC x 1/2" JIC - 315" (3815-38)
12	00 474 456	Cylinder 4 x 12 - black
13	00 474 447	Cylinder 3 3/4 x 12 - black
14	00 470 229	Rebound Valve Assembly
15	00 470 230	1/2" Hose 1/2" JIC x 1/2" JIC - 16" (all models)
16	00 470 231	1/2" Hose 1/2" JIC x 1/2" JIC - 100" (all models)
17	00 361 039	Carriage Bolt 1/4" x 1"
18	00 365 006	Locknut 1/4"
19	00 470 047	Hose Clamp 1/2"



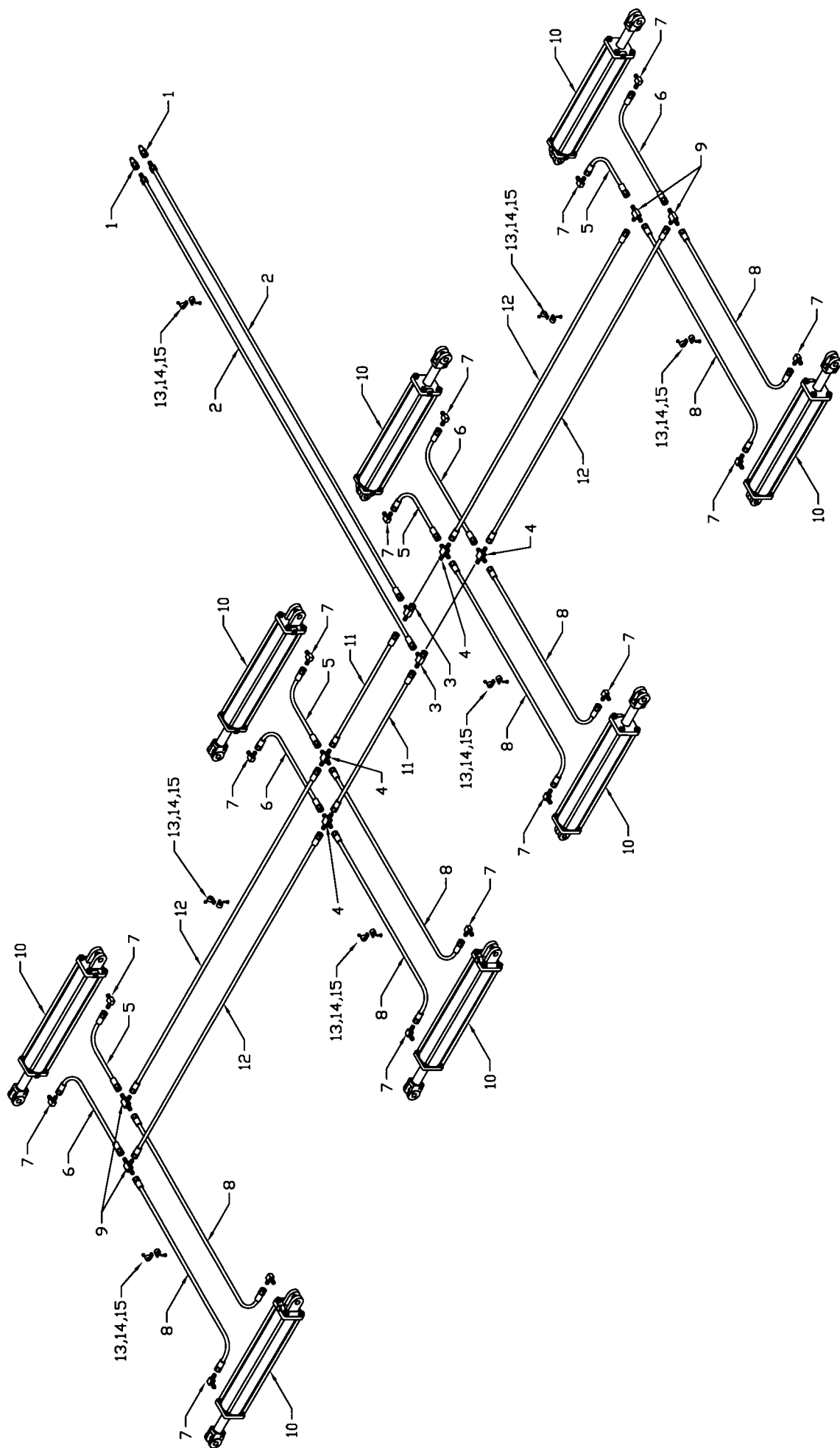


**Spare part list** / 3800 Single Wing Fold Hydraulics. Date: 2001, 01.

<b>Fig.</b>	<b>Part no.</b>	<b>Description</b>
1	00 470 110	Quick Coupler
2	00 470 157	3/8" Hose 1/2" Pipe x 3/8" JIC - 215"
3	00 470 003	Tee 3/8" JIC
4	00 470 162	1/4" Hose 3/8" JIC x 3/8" JIC - 112" (3812, 3815)
5	00 470 169	1/4" Hose 3/8" JIC x 3/8" JIC - 175" (3812)
	00 470 184	1/4" Hose 3/8" JIC x 3/8" JIC - 215" (3815)
6	00 470 124	Elbow 1/2" O-ring x 3/8 JIC
7	00 474 462	Cylinder 4 x 30 - black
8	00 361 039	Carriage Bolt 1/4" x 1"
9	00 365 006	Locknut 1/4"
10	00 470 007	Hose Clamp 3/8"



<b>Fig.</b>	<b>Part no.</b>	<b>Description</b>
1	00 470 110	Quick Coupler
2	00 470 129	1/2" Hose 1/2" Pipe x 1/2" JIC - 145" (all models)
3	00 470 048	1/2" O-ring x 1/2" JIC - Straight
4	00 470 004	1/2" Tee Fitting
5	00 470 070	Control Valve for Single Point Hydraulics
	00 470 072	Replacement Cartridge for Stroke control Valve - Not Shown
6	00 470 049	Elbow 1/2" O-ring x 1/2" JIC - 90 Degree
7	00 470 179	Elbow 1/2" O-ring x 1/2" JIC - 45 Degree
8	00 470 176	1/2" Hose 1/2" JIC x 1/2" JIC - 165" (all 3812 models)
	00 470 182	1/2" Hose 1/2" JIC x 1/2" JIC - 175" (all 3815 models)
9	00 470 135	1/2" Hose 1/2" JIC x 1/2" JIC - 210" (3812-35D, 3815-38D)
	00 470 186	1/2" Hose 1/2" JIC x 1/2" JIC - 230" (3812-38,42 3815-42,45)
	00 470 139	1/2" Hose 1/2" JIC x 1/2" JIC - 250" (3812-42H,45,48, 3815-45H,48,52)
	00 470 142	1/2" Hose 1/2" JIC x 1/2" JIC - 270" (3812-45H,52,55, 3815-48H,55,58)
10	00 470 178	1/2" Hose 1/2" JIC x 1/2" JIC - 185" (3812-35D,38,42H,45H, 3815-38D,42,45H,48H)
	00 470 135	1/2" Hose 1/2" JIC x 1/2" JIC - 210" (3812-42,45, 3815-45,48)
	00 470 186	1/2" Hose 1/2" JIC x 1/2" JIC - 230" (3812-48,52, 3815-52,55)
	00 470 139	1/2" Hose 1/2" JIC x 1/2" JIC - 250" (3812-55, 3815-58)
11	00 470 137	1/2" Hose 1/2" JIC x 1/2" JIC - 235" (3812-35D)
	00 470 140	1/2" Hose 1/2" JIC x 1/2" JIC - 255" (3812-38, 3815-38D)
	00 470 143	1/2" Hose 1/2" JIC x 1/2" JIC - 275" (3812-42,42H, 3815-42)
	00 470 146	1/2" Hose 1/2" JIC x 1/2" JIC - 295" (3812-45,45H, 3815-45,45H)
	00 470 187	1/2" Hose 1/2" JIC x 1/2" JIC - 315" (3812-48, 3815-48,48H)
	00 470 188	1/2" Hose 1/2" JIC x 1/2" JIC - 335" (3812-52, 3815-52)
	00 470 189	1/2" Hose 1/2" JIC x 1/2" JIC - 355" (3812-55, 3815-55)
	00 470 190	1/2" Hose 1/2" JIC x 1/2" JIC - 375" (3815-58)
12	00 470 146	1/2" Hose 1/2" JIC x 1/2" JIC - 295" (3812-35D)
	00 470 187	1/2" Hose 1/2" JIC x 1/2" JIC - 315" (3812-38, 3815-38D)
	00 470 188	1/2" Hose 1/2" JIC x 1/2" JIC - 335" (3812-42,42H, 3815-42)
	00 470 189	1/2" Hose 1/2" JIC x 1/2" JIC - 355" (3812-45,45H, 3815-45,45H)
	00 470 190	1/2" Hose 1/2" JIC x 1/2" JIC - 375" (3812-48, 3815-48,48H)
	00 470 191	1/2" Hose 1/2" JIC x 1/2" JIC - 395" (3812-52, 3815-52)
	00 470 192	1/2" Hose 1/2" JIC x 1/2" JIC - 415" (3812-55, 3815-55)
	00 470 193	1/2" Hose 1/2" JIC x 1/2" JIC - 435" (3815-58)
13	00 474 456	Cylinder 4 x 12 - black
14	00 474 447	Cylinder 3 3/4 x 12 - black
15	00 474 431	Cylinder 3 1/2 x 12 - black
16	00 470 229	Rebound Valve Assembly
17	00 470 230	1/2" Hose 1/2" JIC x 1/2" JIC - 16" (all models)
18	00 470 231	1/2" Hose 1/2" JIC x 1/2" JIC - 100" (all models)
19	00 361 039	Carriage Bolt 1/4" x 1"
20	00 365 006	Locknut 1/4"
21	00 470 047	Hose Clamp 1/2"



**Spare part list** / 3800 Double Wing Fold Hydraulics. Date: 2001, 01.

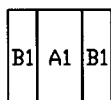
<b>Fig.</b>	<b>Part no.</b>	<b>Description</b>
1	00 470 110	Quick Coupler
2	00 470 157	3/8" Hose 1/2" Pipe x 3/8" JIC - 215" (all models)
3	00 470 097	Swivel Tee Run 3/8" JIC
4	00 470 125	Tube Cross
5	00 470 164	1/4" Hose 3/8" JIC x 3/8" JIC - 20" (all models)
6	00 470 167	1/4" Hose 3/8" JIC x 3/8" JIC - 30" (all models)
7	00 470 124	Elbow 1/2" O-ring x 3/8 JIC
8	00 470 162	1/4" Hose 3/8" JIC x 3/8" JIC - 112 (all models)
9	00 470 003	Tee 3/8" JIC
10	00 474 462	Cylinder 4 x 30 - black
11	00 470 161	3/8" Hose 3/8" JIC x 3/8" JIC - 65" (3812)
	00 470 170	3/8" Hose 3/8" JIC x 3/8" JIC - 100" (3815)
12	00 470 194	3/8" Hose 3/8" JIC x 3/8" JIC - 80" (3812-35D, 3815-38D)
	00 470 170	3/8" Hose 3/8" JIC x 3/8" JIC - 100" (3812-38,42, 3815-42,45)
	00 470 158	3/8" Hose 3/8" JIC x 3/8" JIC - 120" (3812-42H,45,48, 3815-45H,48,52)
	00 470 159	3/8" Hose 3/8" JIC x 3/8" JIC - 140" (3812-45H,52,55, 3815-48H, 55,58)
13	00 361 039	Carriage Bolt 1/4" x 1"
14	00 365 006	Locknut 1/4"
15	00 470 007	Hose Clamp 3/8"

# 3800 SERIES FAMILY OF CULTIVATORS

## SINGLE FOLD

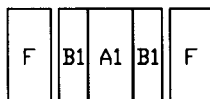
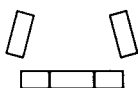
12' CENTER

①



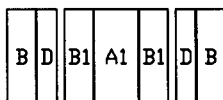
WORKING: 3.7 m 12'-1"  
TRANSPORT: 3.6 m 12'-1"  
HEIGHT: NA

②



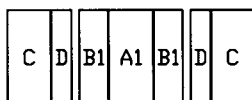
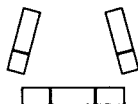
WORKING: 6.7m 22'-0"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 3.2m 10'-9"

③



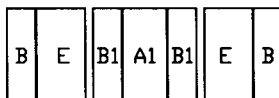
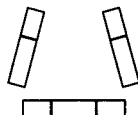
WORKING: 7.7m 25'-3"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 3.5m 11'-6"

④



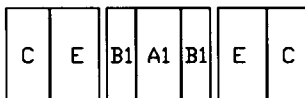
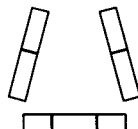
WORKING: 8.7 m 28'-6"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.0m 11'-10"

⑤



WORKING: 9.7 m 31'-10"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.4m 13'-6"

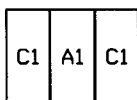
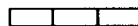
⑥



WORKING: 10.6 m 35'-1"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.9m 15'-2"

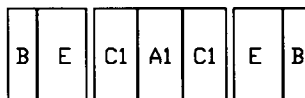
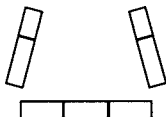
15' CENTER

⑦



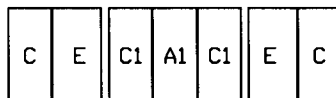
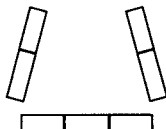
WORKING: 4.7 m 15'-5"  
TRANSPORT: 4.6 m 15'-5"  
HEIGHT: NA

⑧



WORKING: 10.7 m 35'-1"  
TRANSPORT: 5.8 m 19'-2"  
HEIGHT: 4.4m 13'-6"

⑨



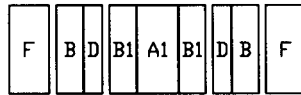
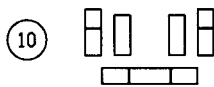
WORKING: 11.6 m 38'-4"  
TRANSPORT: 5.8 m 19'-2"  
HEIGHT: 4.9m 15'-2"

WELDMENT A1 - CENTER WELDMENT  
WELDMENT B1 - CENTER NARROW WHEEL FRAME  
WELDMENT C1 - CENTER WIDE WHEEL FRAME  
WELDMENT B - NARROW WHEEL FRAME  
WELDMENT C - WIDE WHEEL FRAME  
WELDMENT D - NARROW WING ADD IN  
WELDMENT E - WIDE WING ADD IN  
WELDMENT F - NARROW ONE PIECE WING

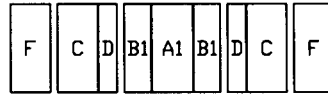
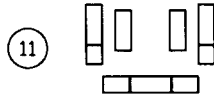
# 3800 SERIES FAMILY OF CULTIVATORS

## DOUBLE FOLD

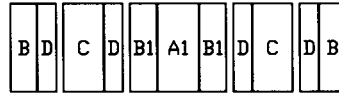
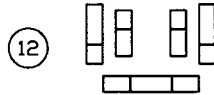
### 12' CENTER



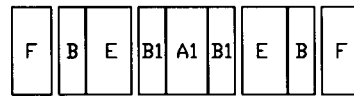
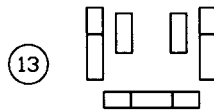
WORKING: 10.7 m 35'-0"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 3.2m 10'-9"



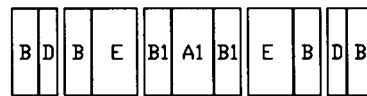
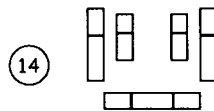
WORKING: 11.7 m 38'-4"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 3.7m 11'-10"



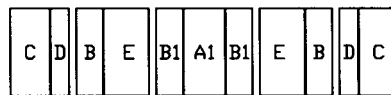
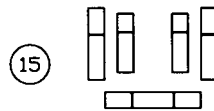
WORKING: 12.7 m 41'-11"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 3.7m 11'-10"



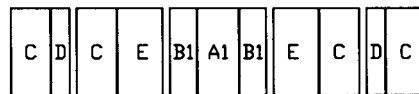
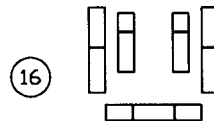
WORKING: 12.7 m 41'-11"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.1m 13'-6"



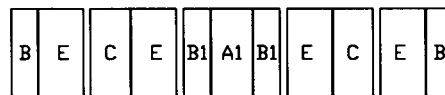
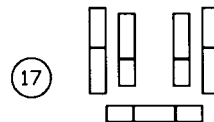
WORKING: 13.7 m 45'-0"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.1m 13'-6"



WORKING: 14.7 m 48'-3"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.1m 13'-6"

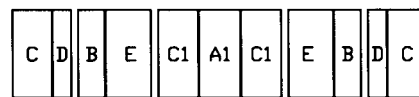
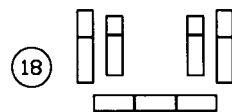


WORKING: 15.7 m 51'-6"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.6m 15'-2"

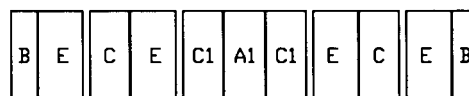
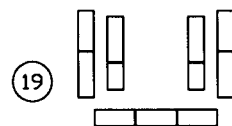


WORKING: 16.7 m 54'-9"  
TRANSPORT: 4.8m 15'-10"  
HEIGHT: 4.6m 15'-2"

### 15' CENTER



WORKING: 15.7 m 51'-6"  
TRANSPORT: 6.0m 19'-8"  
HEIGHT: 4.1m 13'-6"



WORKING: 17.7m 58'-0"  
TRANSPORT: 6.0m 19'-8"  
HEIGHT: 4.6m 15'-2"

WELDMENT A1 - CENTER WELDMENT  
WELDMENT B1 - CENTER NARROW WHEEL FRAME  
WELDMENT C1 - CENTER WIDE WHEEL FRAME  
WELDMENT B - NARROW WHEEL FRAME  
WELDMENT C - WIDE WHEEL FRAME  
WELDMENT D - NARROW WING ADD IN  
WELDMENT E - WIDE WING ADD IN  
WELDMENT F - NARROW ONE PIECE WING

TRANSPORT WIDTH IS POINT TO POINT DISTANCE - TO CLEAR TIRES ADD 24"  
HEIGHT IS MAXIMUM TO DOUBLE ROLLING HARROWS

## 5 Bar Double Offset "V" Tine Pattern

## Number of Tines per row

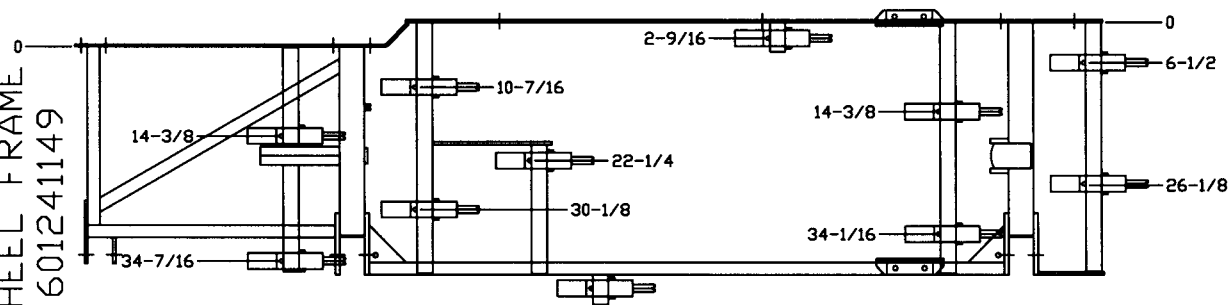
Toolbar No		3812-12	3812-22	3812-25	3812-28	3812-32	3812-35		3815-15	3815-25	3815-28	3815-32	3815-35	3815-38		3812-35	3812-38	3812-42	3812-45	3812-48	3812-52	3812-55		3815-38	3815-42	3815-45	3815-48	3815-52	3815-55	3815-58
Front	1	8	14	16	18	20	22		10	16	18	20	22	24		22	24	26	28	30	32	34		24	26	28	30	32	34	36
	2	7	13	15	17	19	21		9	15	17	19	21	23		21	23	25	27	29	31	33		23	25	27	29	31	33	35
	3	10	14	16	18	20	22		12	16	18	20	22	24		22	24	26	28	30	32	34		24	26	28	30	32	34	36
	4	7	13	15	17	19	21		9	15	17	19	21	23		21	23	25	27	29	31	33		23	25	27	29	31	33	35
Rear	5	7	13	15	17	19	21		9	15	17	19	21	23		21	23	25	27	29	31	33		23	25	27	29	31	33	35
Total		39	67	77	87	97	107		49	77	87	97	107	117		107	117	127	137	147	157	167		117	127	137	147	157	167	177



3812 CENTRE SECTION

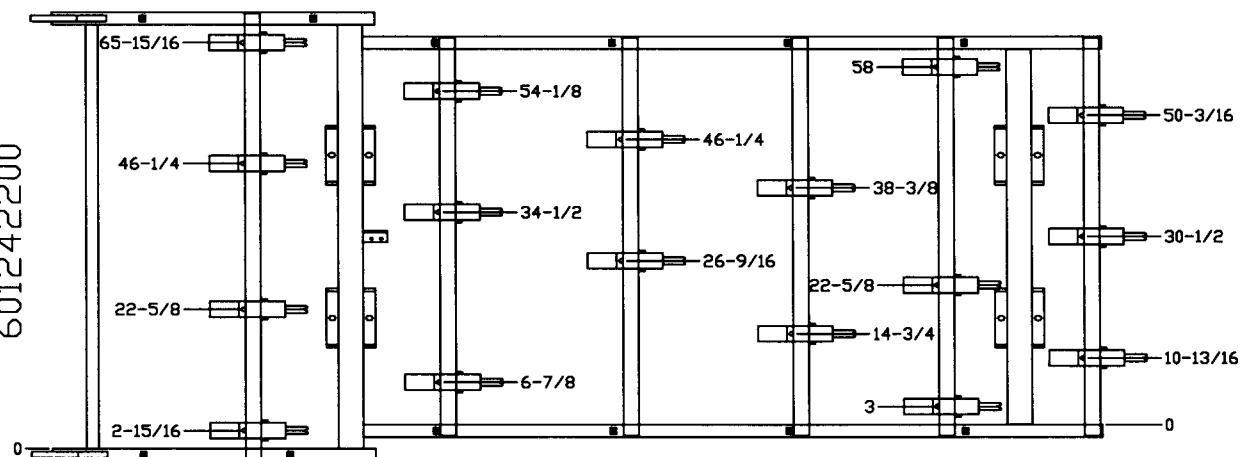
**B1**

LH CENTRE  
WHEEL FRAME  
601241149



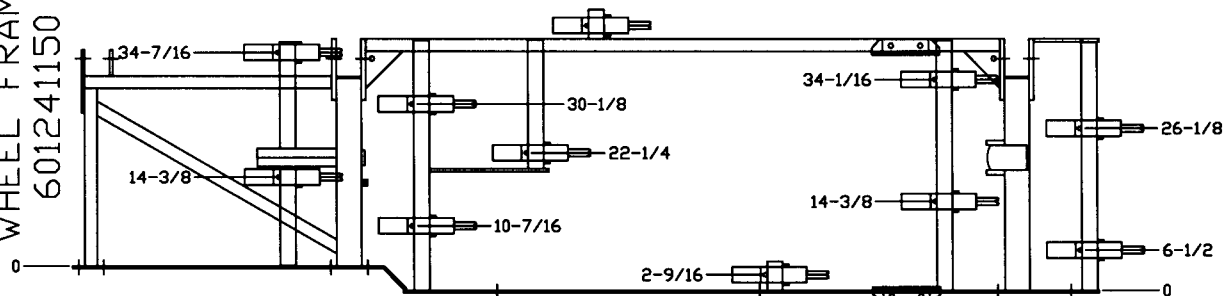
**A1**

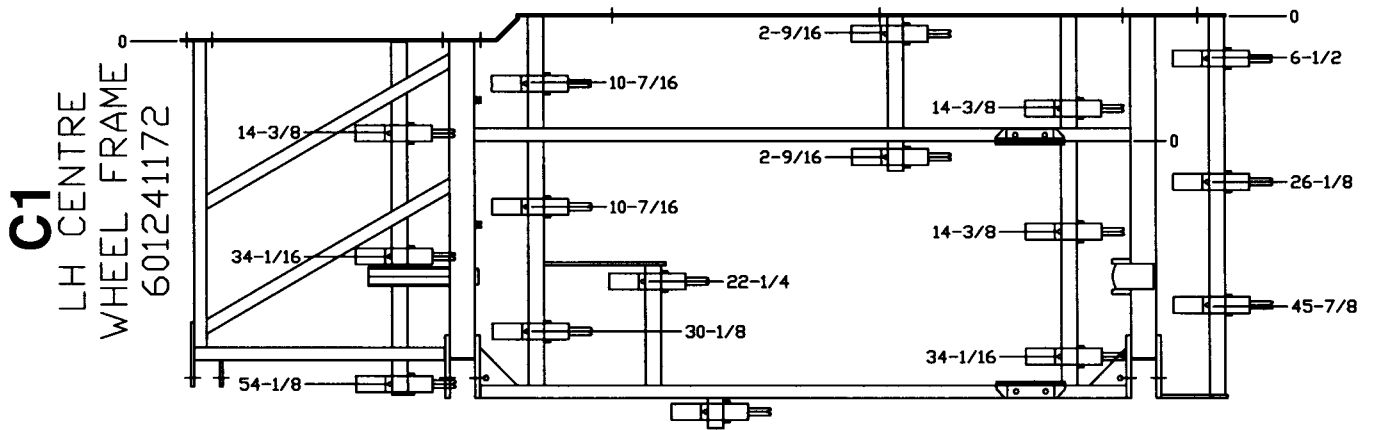
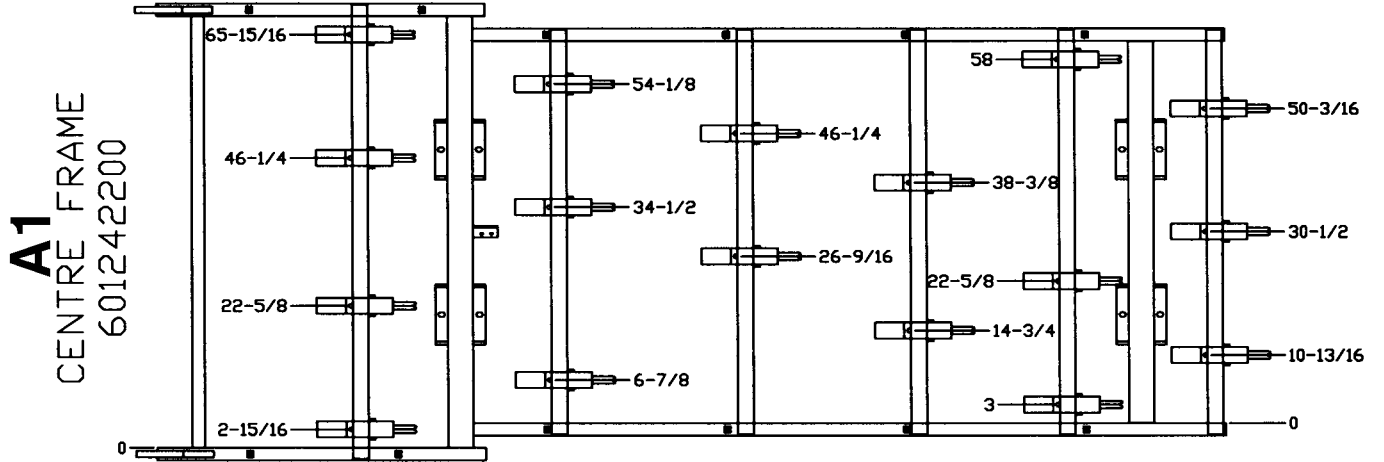
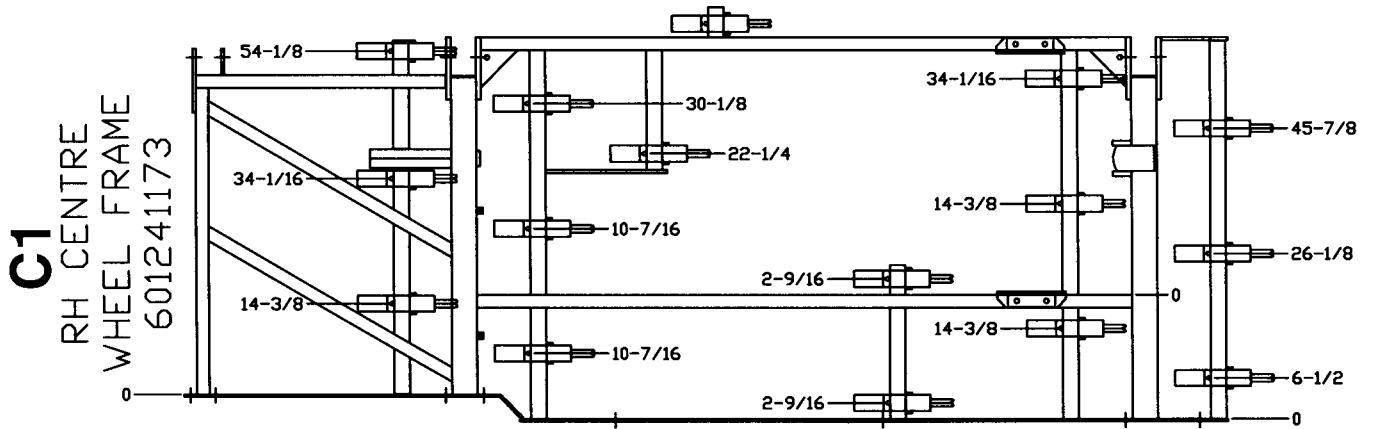
CENTRE FRAME  
601242200



**B1**

RH CENTRE  
WHEEL FRAME  
601241150

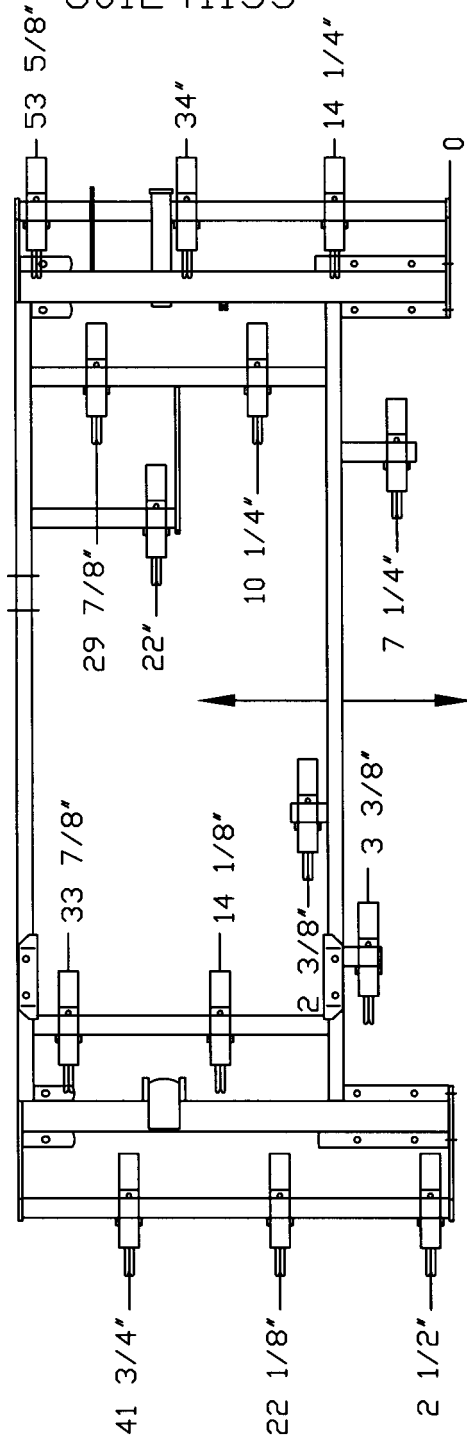




3812-22  
 3812-35D OUTSIDE  
 3812-38 OUTSIDE  
 3812-42H OUTSIDE  
 3812-45H OUTSIDE

**F**

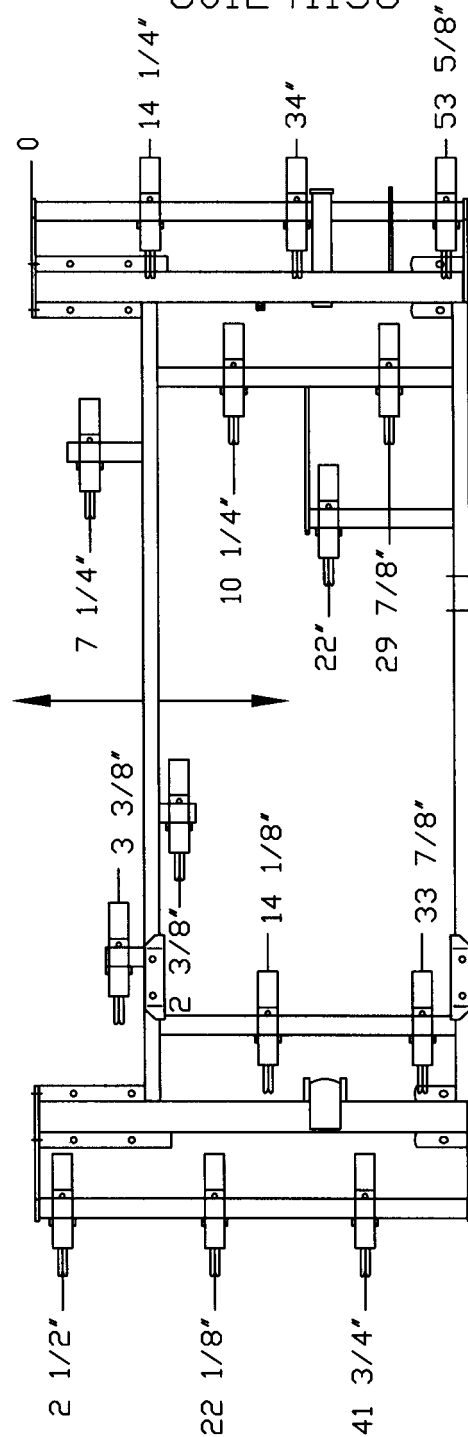
LH NARROW  
 WING FRAME  
 601241155



3815-25  
 3815-38D OUTSIDE  
 3815-42 OUTSIDE  
 3815-45H OUTSIDE  
 3812-48H OUTSIDE

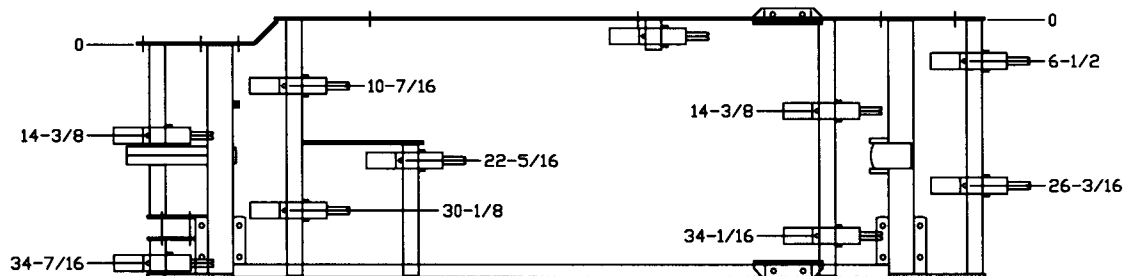
**F**

RH NARROW  
 WING FRAME  
 601241156

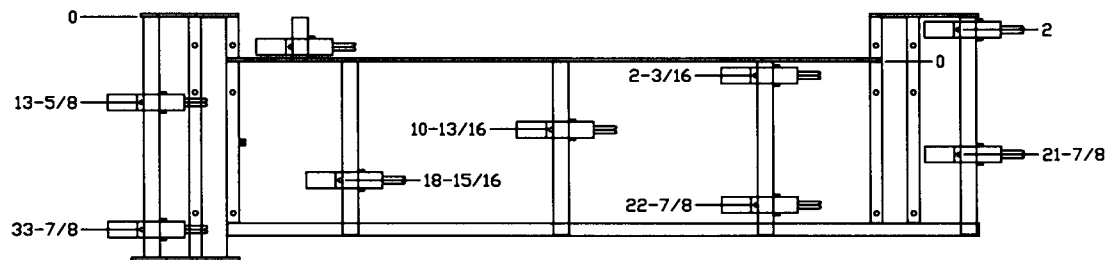


3812-25  
3812-35D INSIDE  
3812-42 OUTSIDE  
3812-45 OUTSIDE

**B**  
LH NARROW WING  
WHEEL FRAME  
601241151

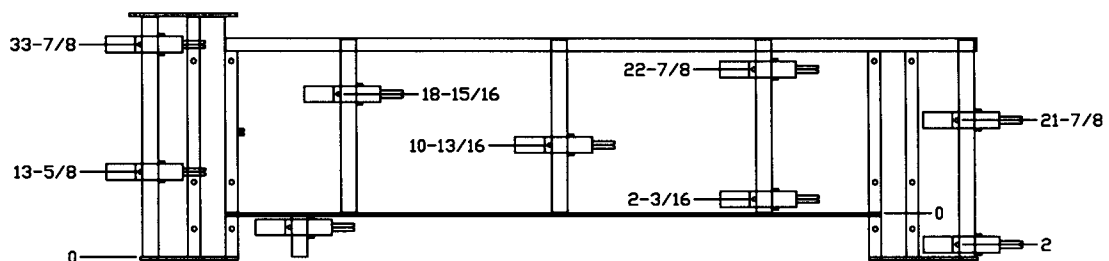


**D**  
LH NARROW  
ADD-IN  
601242238

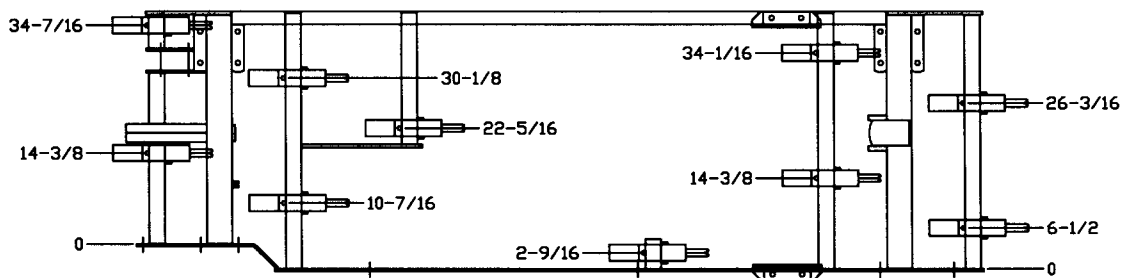


3815-29  
3815-38D INSIDE  
3815-45 OUTSIDE  
3815-48 OUTSIDE

**D**  
RH NARROW  
ADD-IN  
601242239



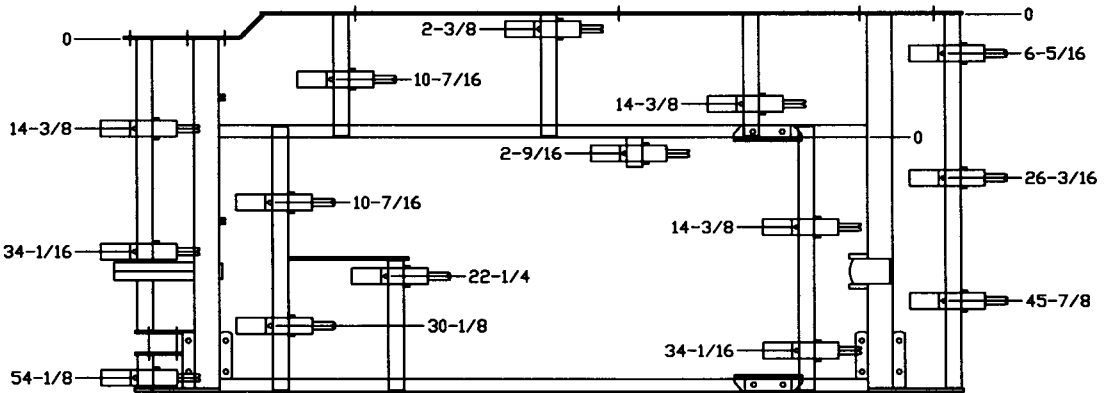
**B**  
RH NARROW WING  
WHEEL FRAME  
601241152



3812-29  
3812-38  
3812-42  
3812-48  
3812-52

INSIDE  
INSIDE  
OUTSIDE  
OUTSIDE

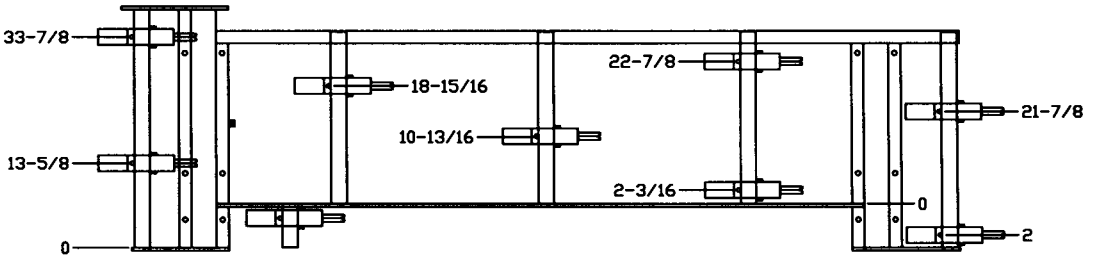
**C**  
LH WIDE WING  
WHEEL FRAME  
601241153



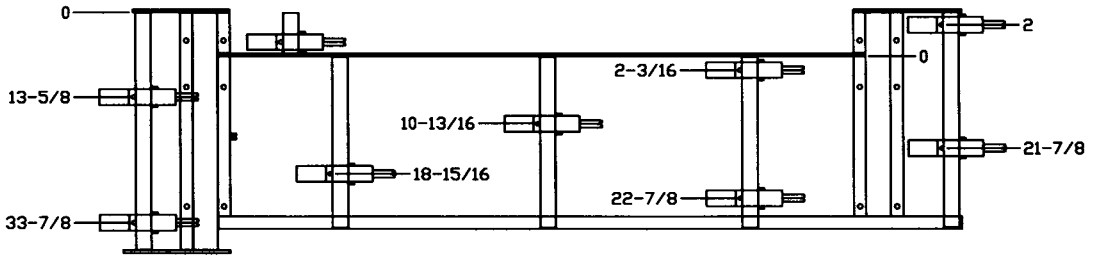
3815-32  
3815-42  
3815-45  
3815-52  
3815-55

INSIDE  
INSIDE  
OUTSIDE  
OUTSIDE

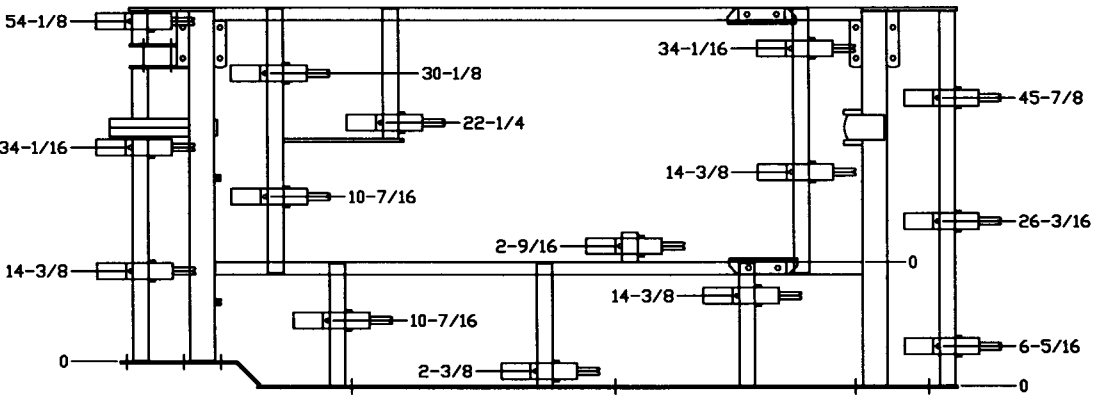
**D**  
RH NARROW  
ADD-IN  
601242239



**D**  
LH NARROW  
ADD-IN  
601242238

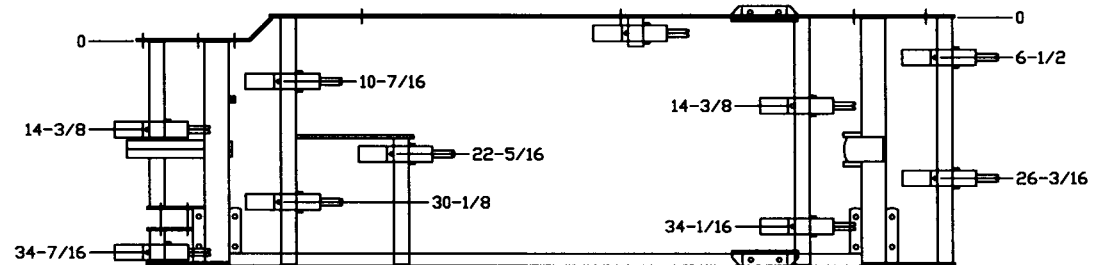


**C**  
RH WIDE WING  
WHEEL FRAME  
601241154

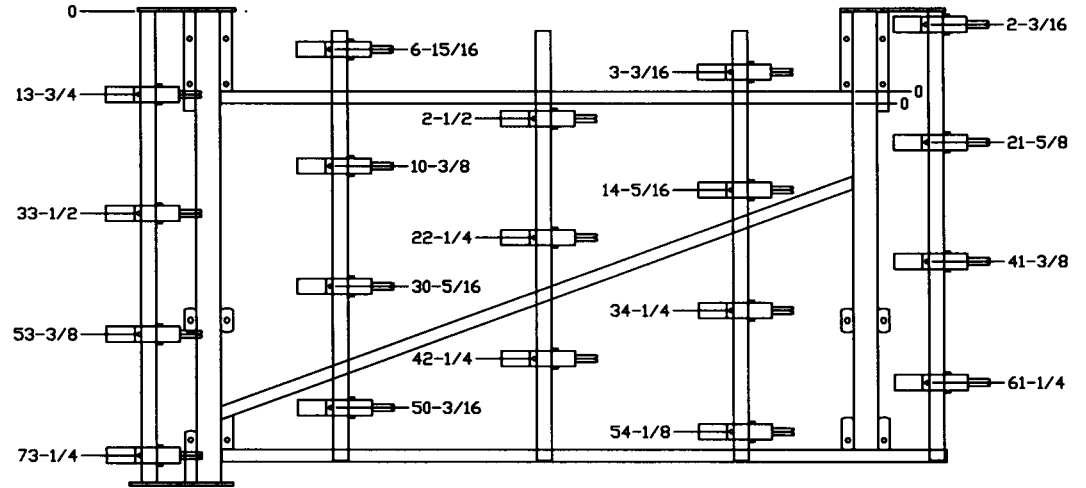


3812-32  
3812-42H INSIDE  
3812-45 INSIDE  
3812-48 INSIDE  
3812-55 OUTSIDE

**B**  
LH NARROW WING  
WHEEL FRAME  
601241151

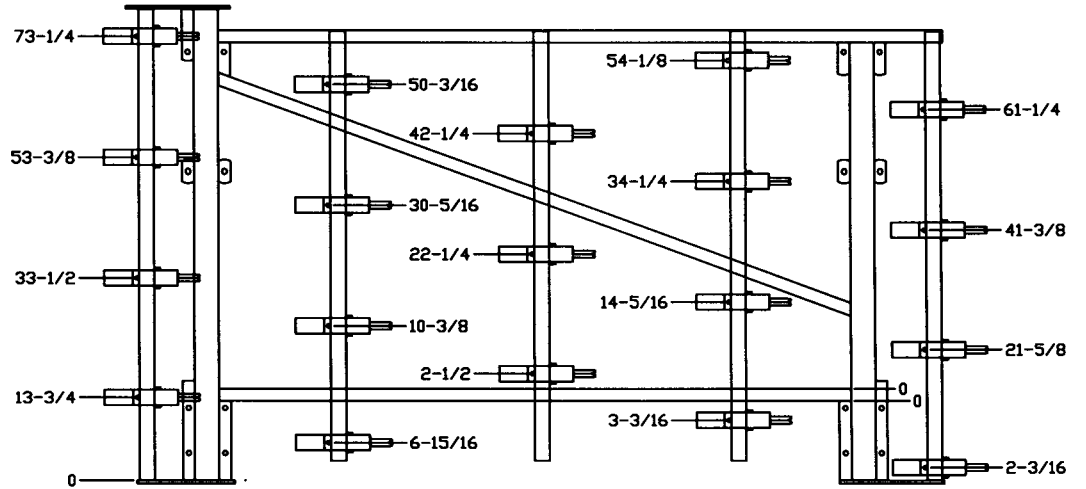


**E**  
LH WIDE  
ADD-IN  
601242236

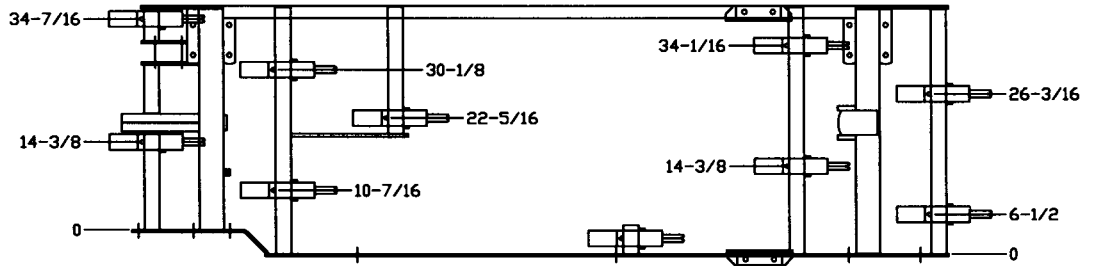


3815-35  
3815-45H INSIDE  
3815-48 INSIDE  
3815-52 INSIDE  
3815-58 OUTSIDE

**E**  
RH WIDE  
ADD-IN  
601242237

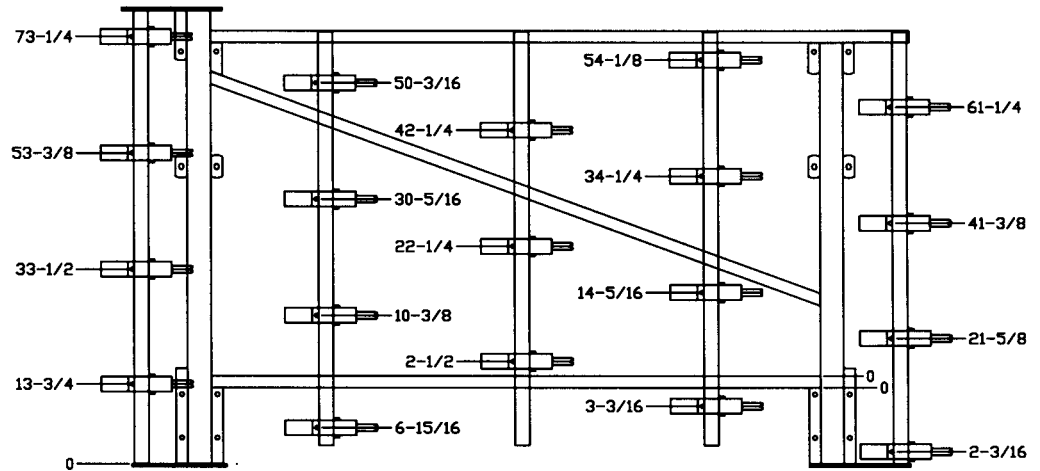


**B**  
RH NARROW WING  
WHEEL FRAME  
601241152



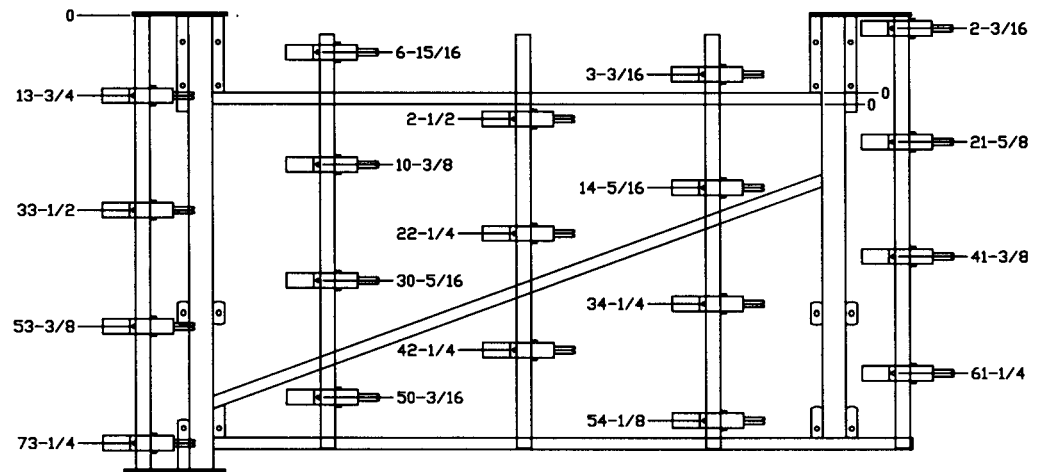
3815-38  
3815-48H INSIDE  
3815-55 INSIDE  
3815-58 INSIDE

**E**  
RH WIDE  
ADD-IN  
601242237

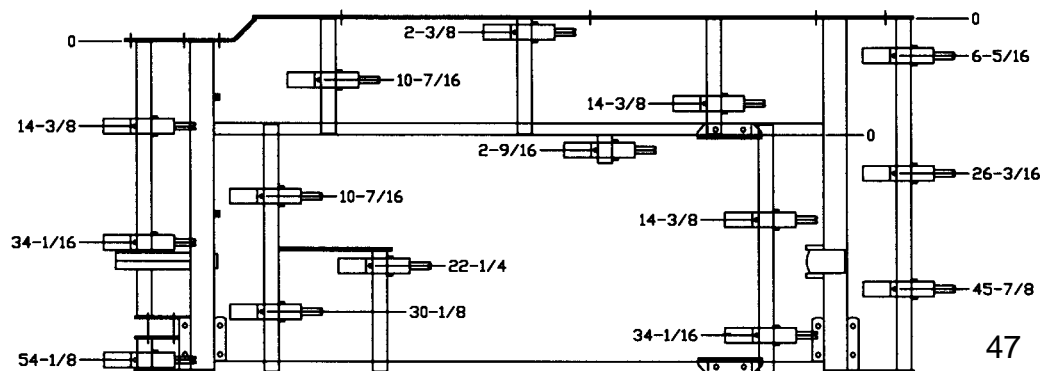


3812-35  
3812-45H INSIDE  
3812-52 INSIDE  
3812-55 INSIDE

**E**  
LH WIDE  
ADD-IN  
601242236



**C**  
LH WIDE WING  
WHEEL FRAME  
601241153



**C**  
RH WIDE WING  
WHEEL FRAME  
601241154

