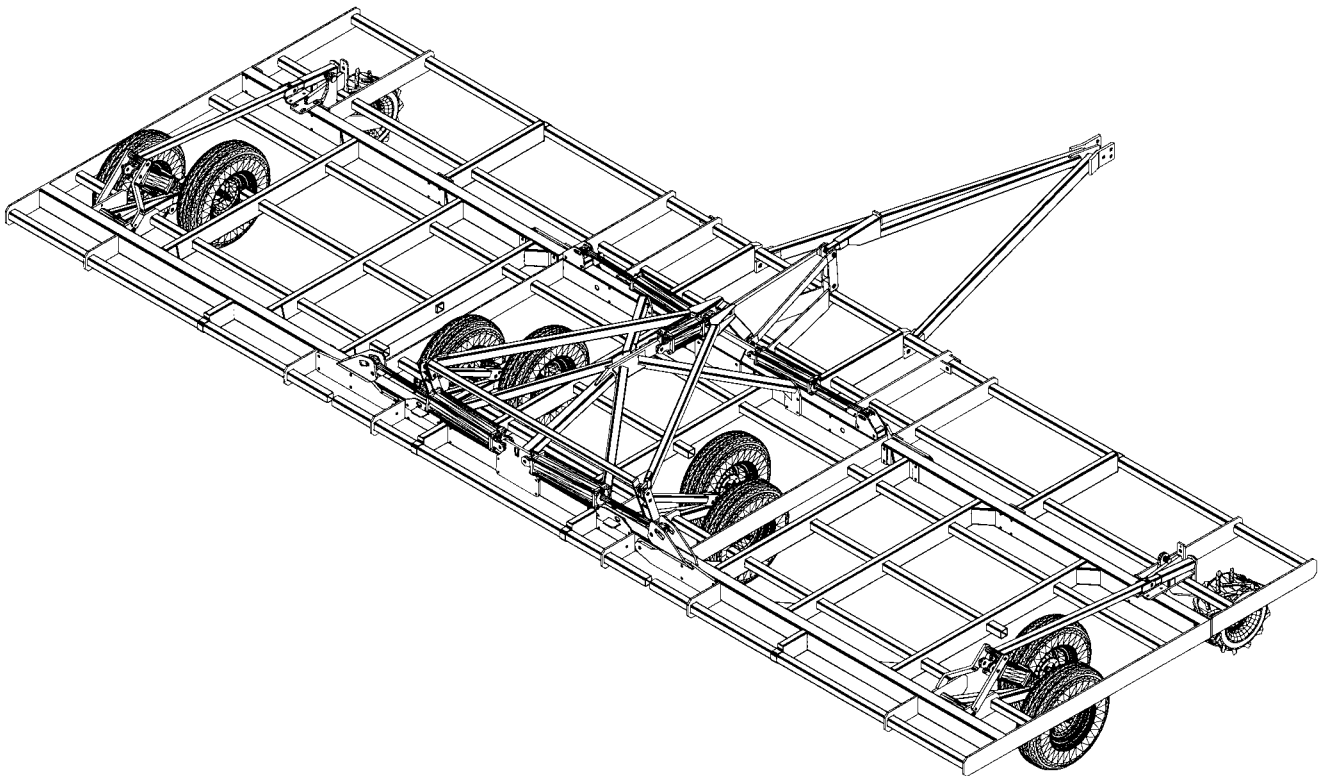




2800 SERIES

FIELD CULTIVATORS

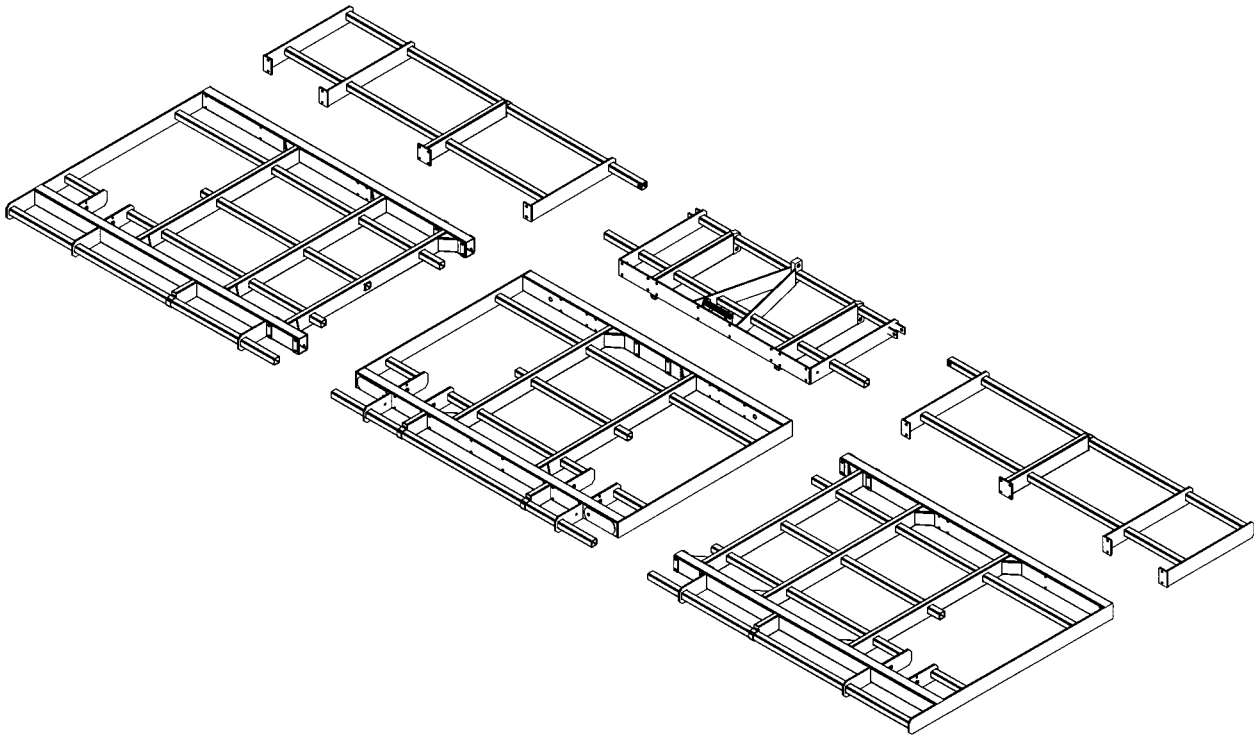
Kongskilde
2800 Series



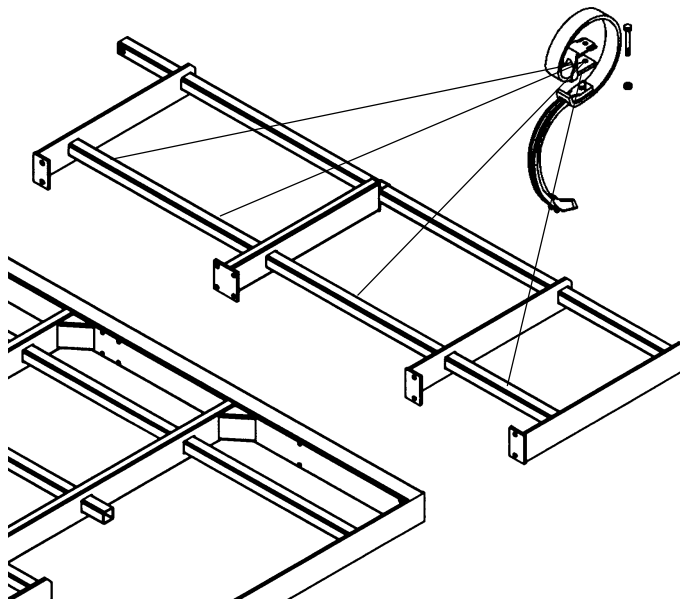
ASSEMBLY INSTRUCTIONS

FRAME ASSMEBLY

Sort out the frame sections for the size of cultivator you are assembling.



Locate the tine patterns in the back of the booklet for the model of cultivator you ordered and begin marking the tine locations on the toolbar tubes as shown in the photographs. Place the frame sections on support stands if available for easier mounting of the tines.



ASSEMBLY INFORMATION & DETAIL PHOTOS



Cultivator frame.

Steel support stand.

Place cultivator frames on support stand for tine assembly.



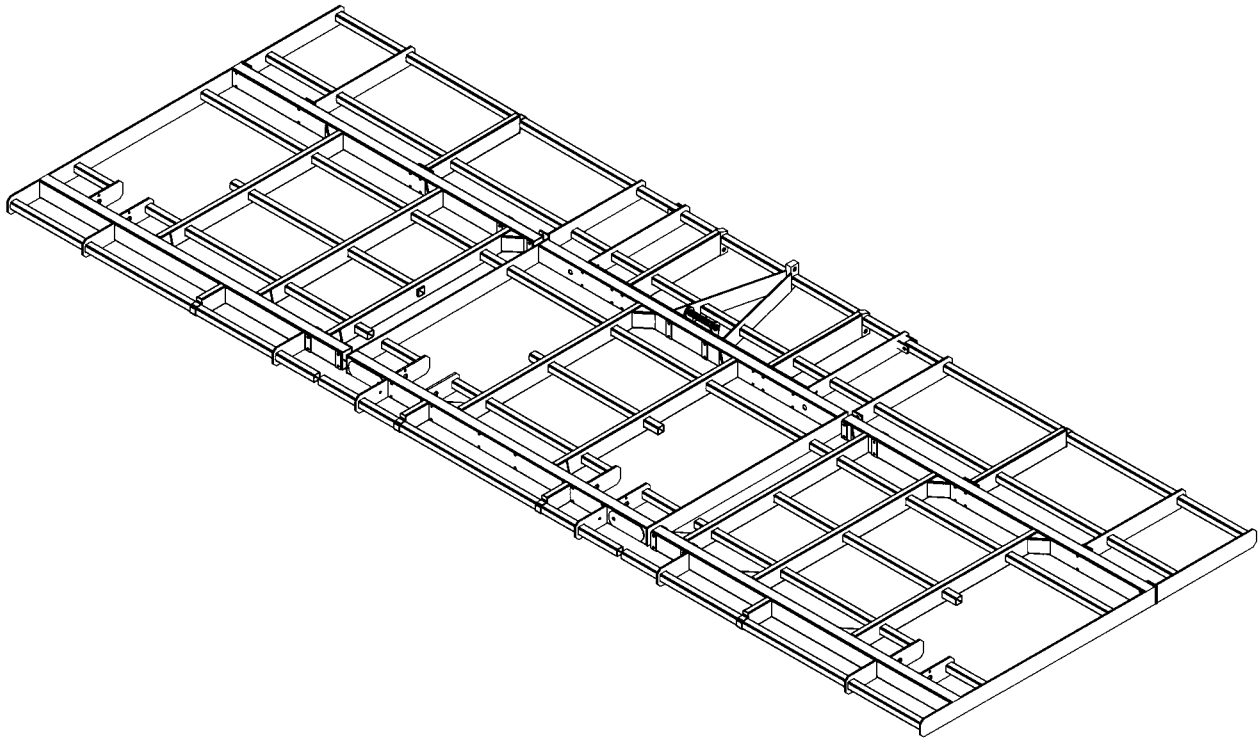
Mark tine location on frames and mount tines with tine clamps and bolts according to the tine pattern diagrams in the back of the book for the cultivator frame section you are assembling.

Note that there are 3 different tine patterns: 80mm, 100mm and 160mm, depending on the model of cultivator you ordered. Tine quantities delivered with the unit are based on the tine spacing chosen at time of order.

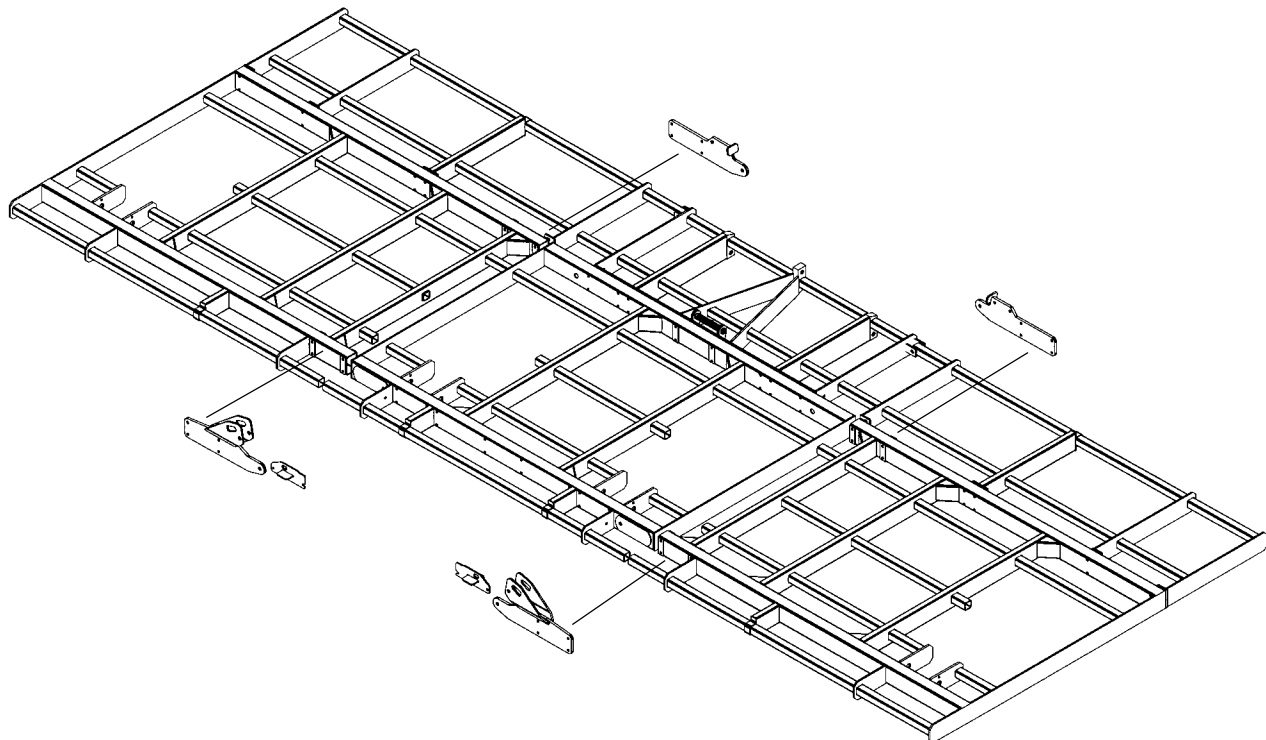


Tines mounted in the wheel area should be left loose until after the wheel arm assemblies are installed.

When the tines are mounted to the frames, move the frame sections together and assemble the frames with the bolts, nuts, washers and pins provided in the assembly hardware bags. (Note: The assembly diagrams do not show tines installed for easier viewing.)



Install the front and rear folding hinges, hinge pins and lock plates to the frames at the same time as you assemble the wing frames and centre section.





Typical wing and front frame sub-assembly with tines mounted.
 Assemble the main centre frame and wing frames. After the tines are mounted the frames can be moved into position for easier assembly as the tines act as a support stand for the frame sections.



Close-up detail of front frame assembly and front wing hinge.

Wing main frame.

Front 5-bar frame.

Front folding hinge weldment.

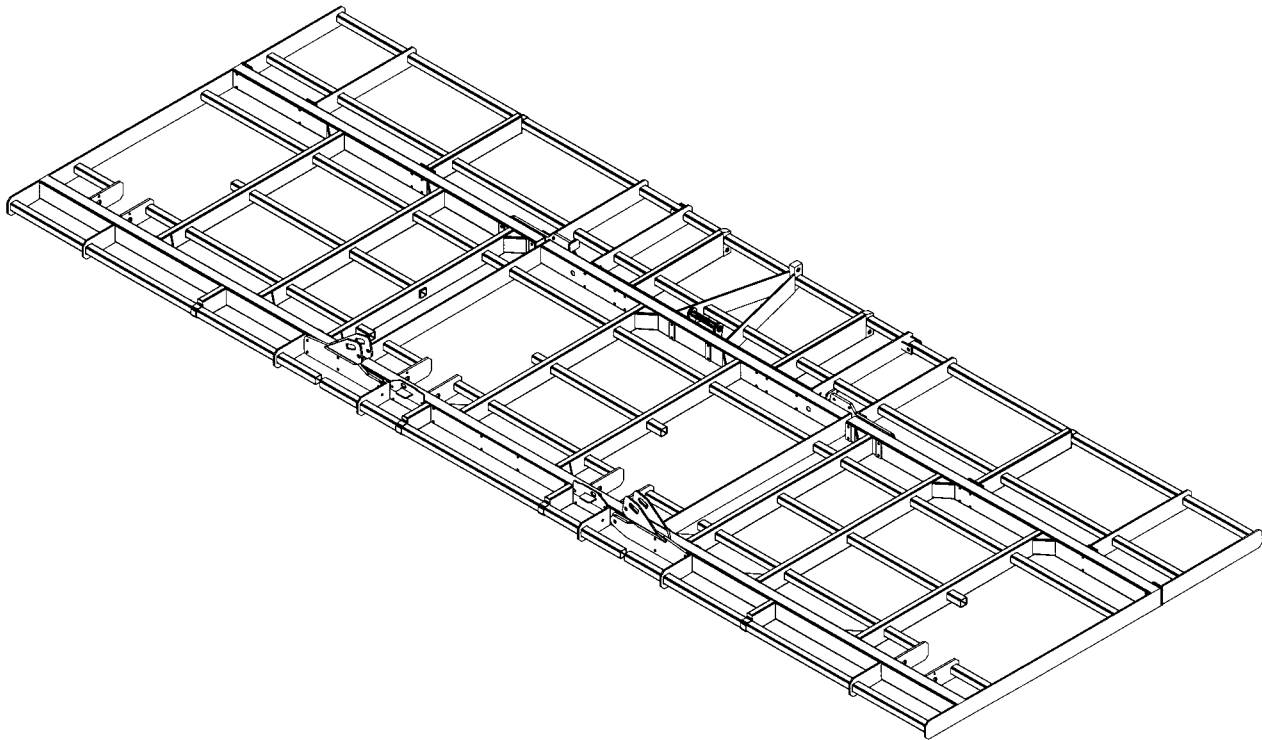


Close-up detail of rear frame assembly and rear wing hinge.

Wing main frame.

Rear folding hinge weldment.

Move the wing assemblies into position beside the centre section and install the wing hinge pins. Secure the wing hinge pins in place with the nut and bolt provided as shown in the detail photos



Detail view of frame assembly at front corner showing front hinge.



Wing fold hinge pin assembly detail.

Bolt 5/8" x 2" with locknut to secure wing fold hinge pin in place.



Detail view of front hinges with pivot pins installed.

Front frame Hinge Pin 1" x 110mm long with 2 roll pins and washers on both sides.

NOTE: All Pin Lengths listed in these assembly instructions are measured as the distance between the roll pins.



Detail view of rear folding hinge assembly.

Install the rear folding cylinder clevis pin 1" x 145mm with the roll pins and washers provided.

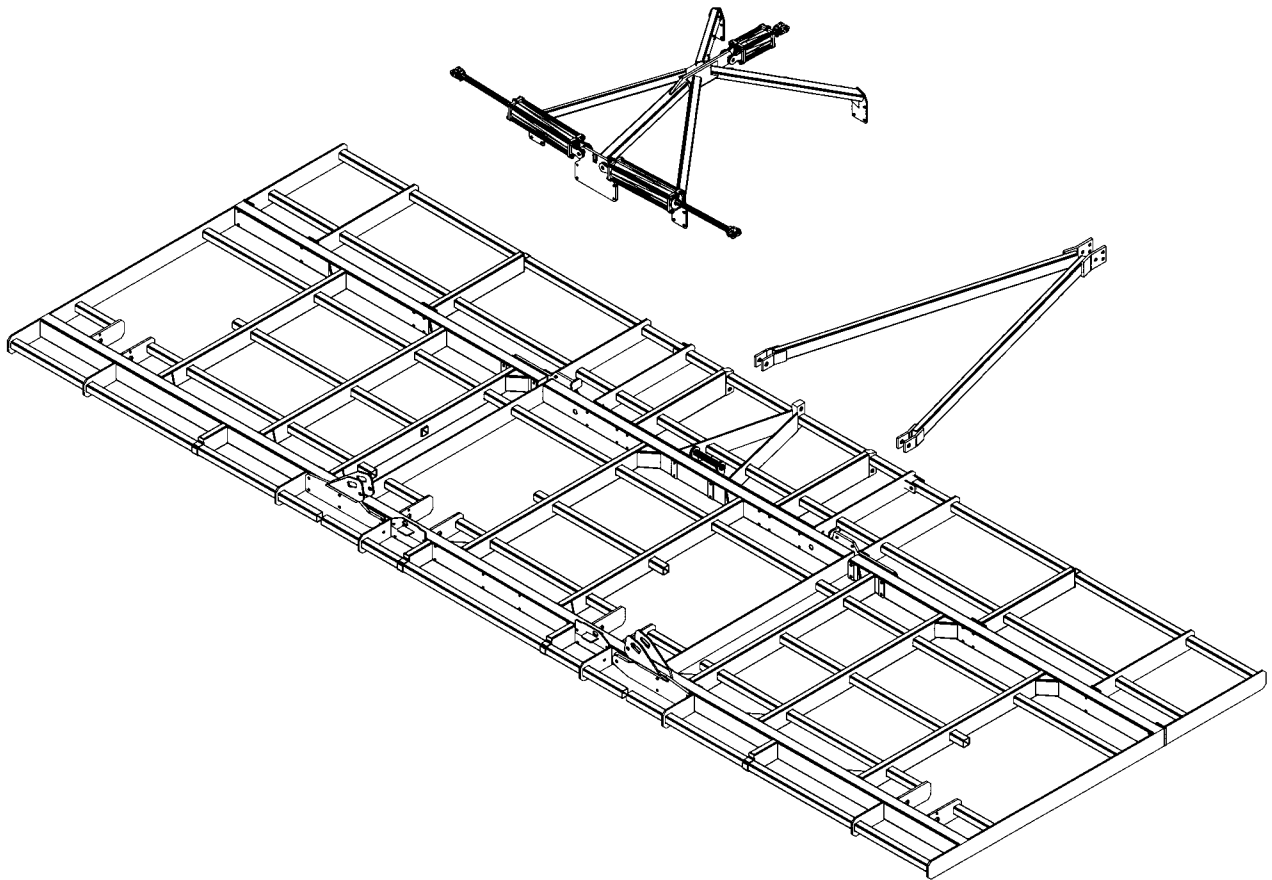
601232036 - Rear Hinge weldment



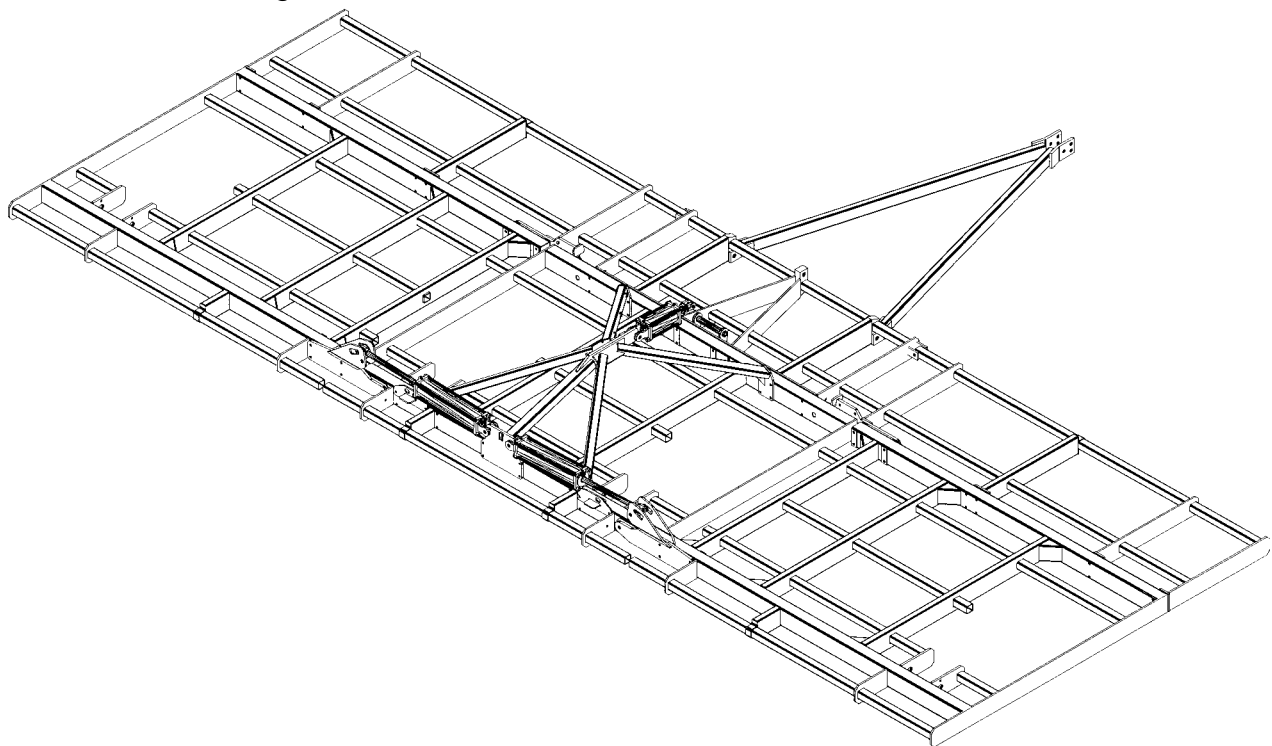
Detail view of rear folding lock plate assembly.

601232039 - Wing Lock Bracket mounts with 2 bolts as shown.

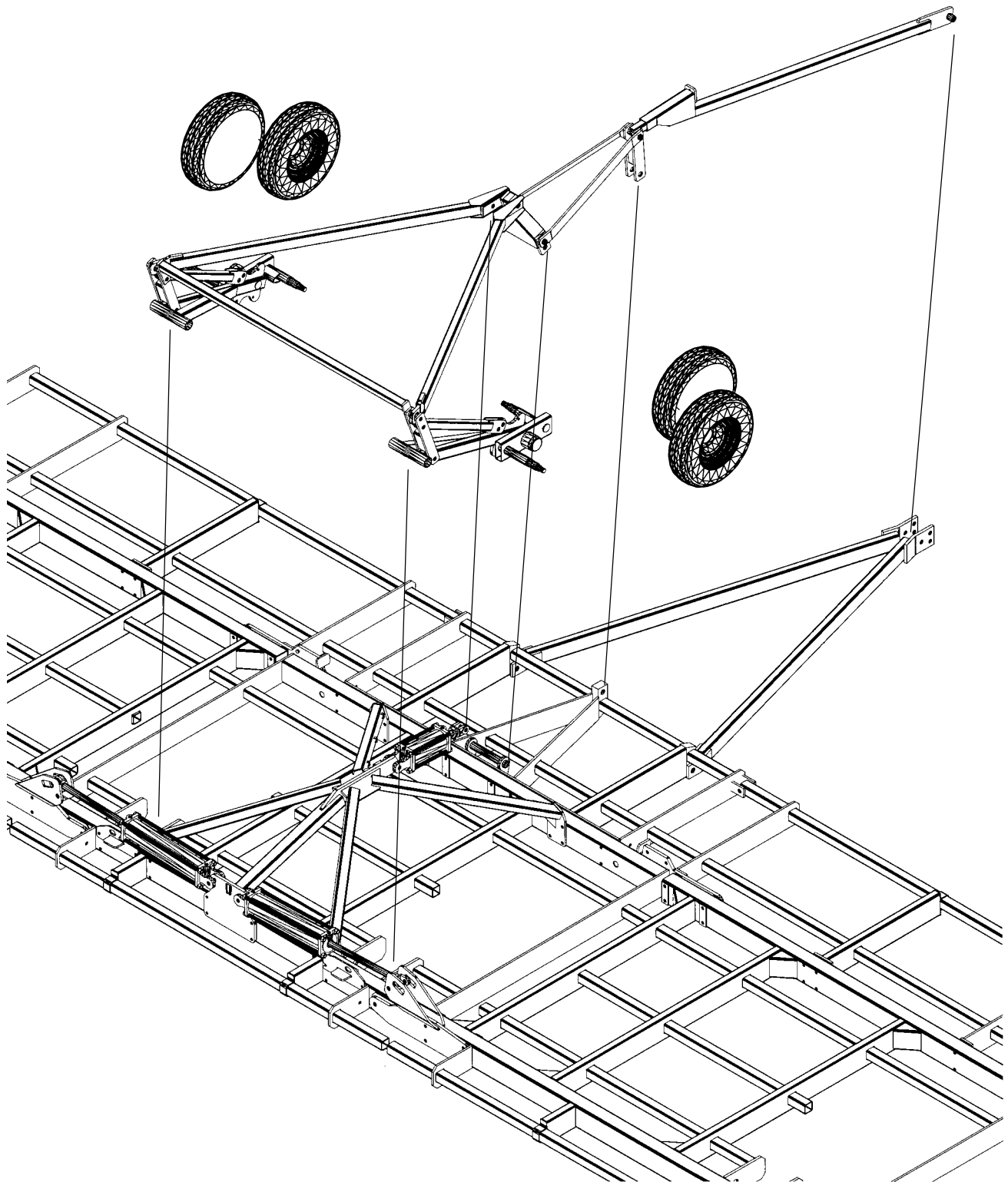
Install the top frame weldment with the bolts and nuts provided. When the top frame is bolted into position, attach the cylinders to the top frame with the cylinder pins provided.



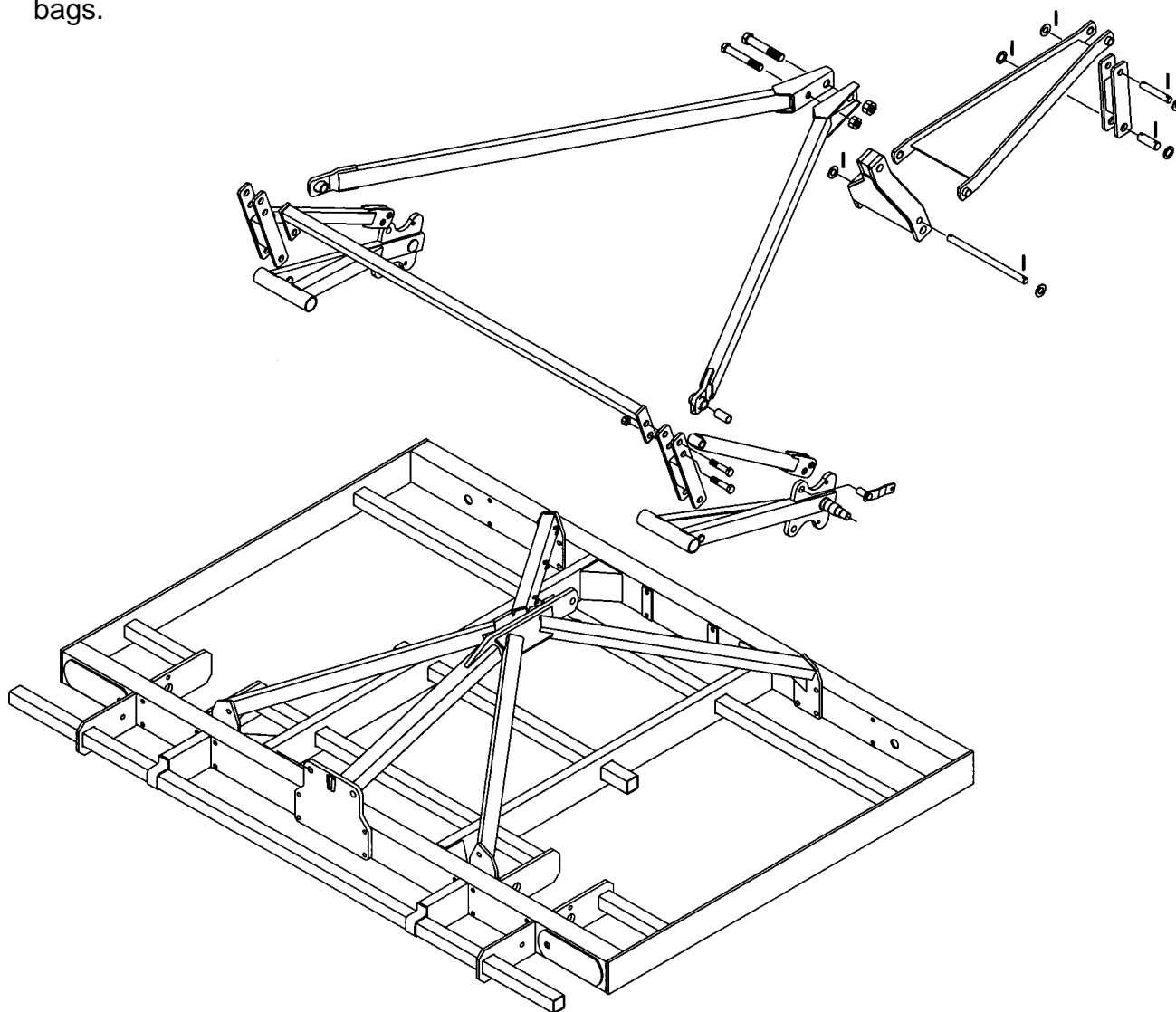
The draw hitch side tubes can also be attached with the draw pins provided in the centre section hardware bag.



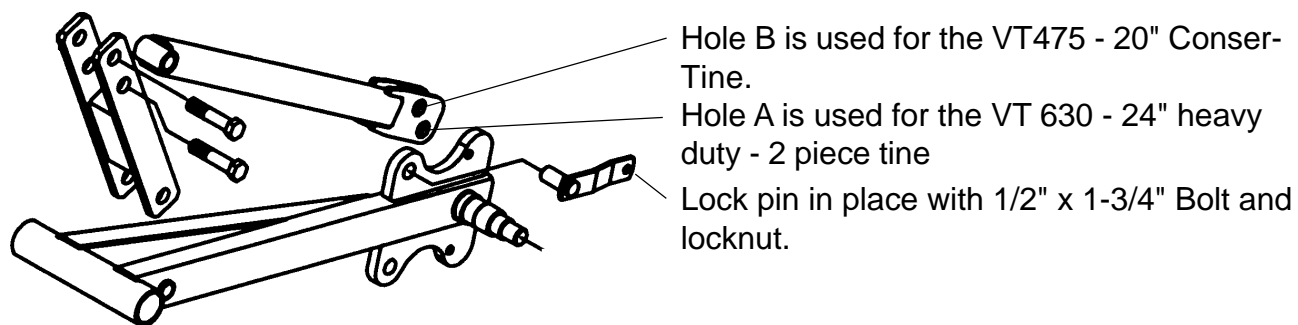
Sort out the pieces for the centre section self levelling linkages and wheel arm linkages. The parts should be installed separately starting with the wheel arms and moving forward to the hitch or vice versa. See the detail photos on the following pages for proper assembly. **IMPORTANT NOTE:** The assembly diagram does not show the wheels mounted on the wheel arms. This was done to make the assembly diagram less complicated to see. However, it is best to assemble the wheels on the wheel arms before lifting the wheel arms into the frames.



Detailed assembly diagram showing installation of the centre section wheel arms, A frame links and self levelling pivot links. All bolts and pins are provided in the assembly hardware bags.



Note that the wheel pivot link shown below has 2 holes. This is in order to provide proper clearance and depth settings for either the 20" or 24" underframe clearance of the tines. On newer models this link has been replaced with a 2 piece adjustable linkage with only one hole which can be lengthened or shortened as necessary to provide proper underframe clearance for 20" or 24" tine options. The new adjustable wheel link also provides side to side levelling for the centre section.





Detail view of the assembly of the Wheel Arm Pivot Linkages.

Install the pins with roll pins provided note that there should be 1 washer on this side of pin.
600383100 - Pin 1" x 95mm
with 3/8" Roll Pins and 1" Washer.

Install wheel axle pin with locking plate and secure in place with the bot and locknut.



Attach the Wheel Link Connector to the Wheel Arm Pivot Links and A-Frame Wheel Links with the bolts provided. Remember to install the spacer bushings so the upper pivot point will not bind when the bolts are tightened.

Bolt 1" x 5-1/2" Gr.8 with Locknuts



601232021 - Wheel Link Connector

601232050 - Centre Link Spacer Bushing
Must be installed in A-Frame wheel Link before installing bolt.

601232022 - A-Frame Wheel Link

Wheel Arm Pivot Link



Overview of A-frame and wheel connector linkages.

601232021 - Wheel Link Connector

Wheel Arm Pivot Link

601232022 - A-Frame Wheel Links



Master Cylinder connection to the Main Pivot Arm and A-Frame Wheel Links

601232022 - A-Frame Wheel Links

601232020 - Main Pivot Arm



Detail view of Master cylinder connected to the cross frame and A-Frame links.



Install the main pivot arm and attach the self levelling link with the pins provided.

601232020 - Main Pivot Arm

601232019 - Self Levelling Link

601232015 - Hitch Pivot Link



- 601232022 - A-Frame Wheel Links
- Bolt 1" x 7" Gr.8 with Locknut
- Bolt 1-1/4" x 7" Gr.8 with Locknut
- 601232020 - Main Pivot Arm
- 600383104 - Pin 1" x 415mm with 3/8" Roll Pins and 1" Washers
- 600383105 - Pin 1-1/4" x 345mm with 3/8" Roll Pins and 1-1/4" Washers
- 601232019 - Self Levelling Link



Top view of Self Levelling Link installed.
See the detail photo for Pin and Bolt connections



- 601232019 - Self Levelling Link
- 601242275 - Pin 1" x 151mm with 3/8" Roll Pins and 1" Washers
- Draw tongue hitch adjuster
- 601232015 - Hitch Pivot Link
Install the new Hitch Pivot Link with the pins provided. Note that the self levelling link and hitch adjuster must also be connected before inserting the upper pin.
- 600383103 - Pin 1-1/4" x 95mm with 3/8" Roll Pins and 1-1/4" Washers



Overview of the draw hitch assembly.

Hitch link center tube.

Draw hitch side tube.



Attach hitch adjuster to the front pivot link with the pin provided.

Self Levelling Link.

Pivot link - hitch.

Pitch adjuster assembly - Sets fore and aft levelling.



Draw clevis assembly

Draw Clevis.

Pin 1" x 152mm with rollpins only.

Bolts 1" x 7" Gr.8 with stover locknuts
Insert bolts from opposite sides.



Cultivator front frame.

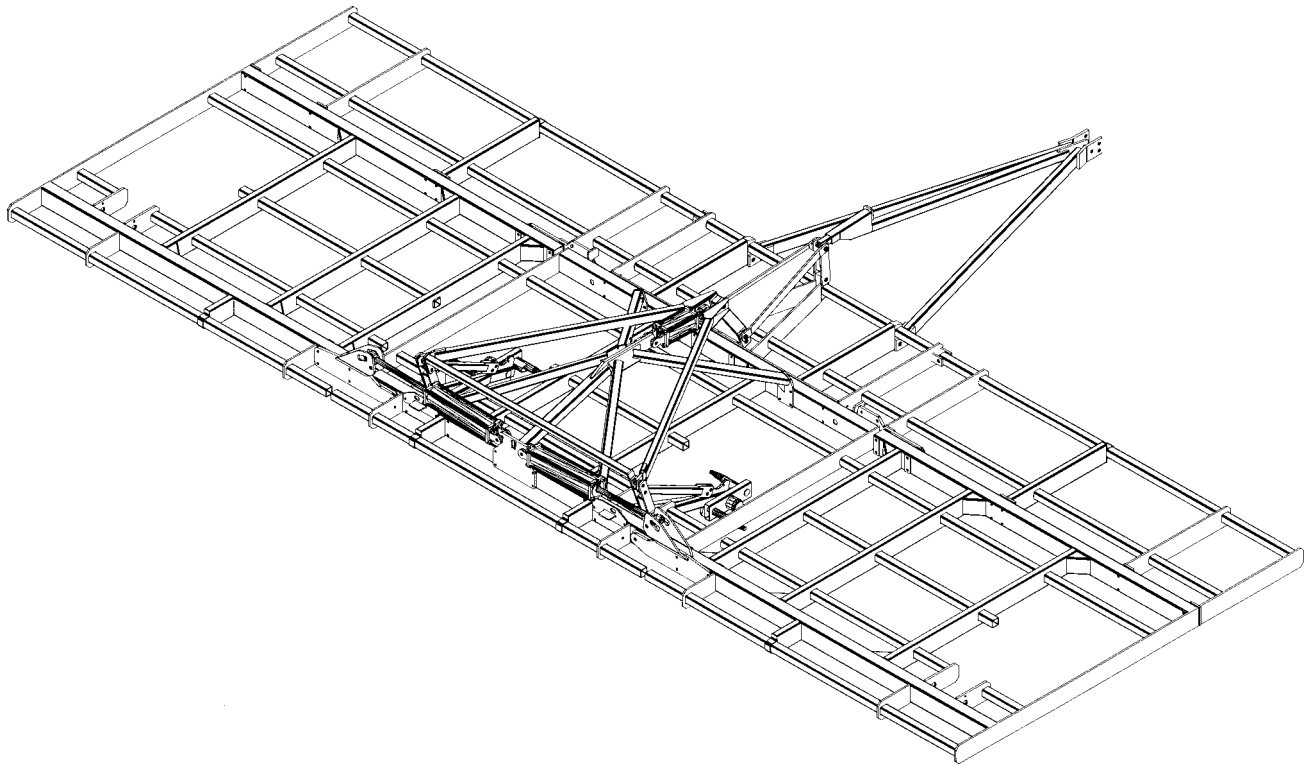
Pin 1 1/4" x 95mm with rollpins & washers.

Draw hitch side tube.

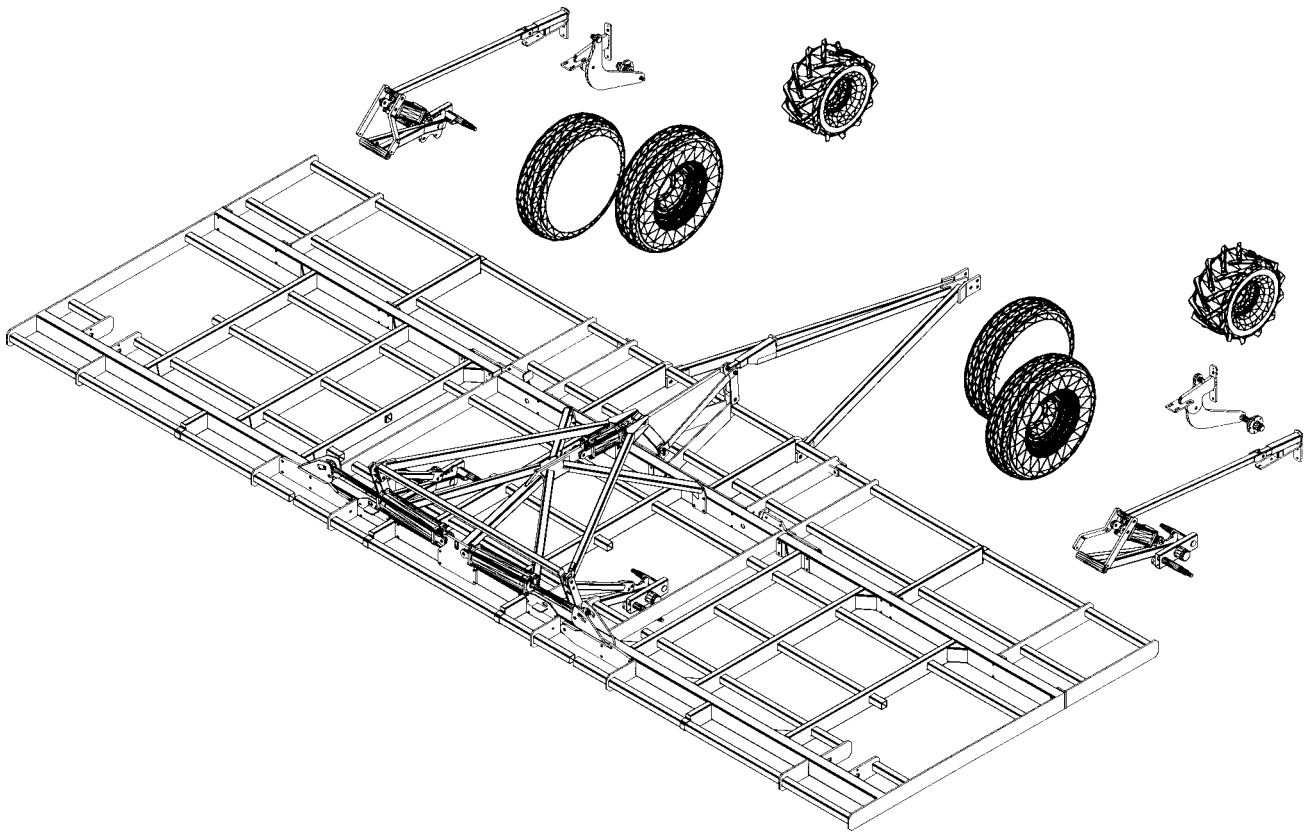
Overview of completed centre section assembly with X-frame and A-frame connections with master lift cylinder and wheel arm connections. The X-frame gives strength to centre frame and provides the anchor point for the master cylinder and folding cylinders. The A-frame linkage between master cylinder and centre section wheel arms keeps centre wheels working in unison. Performs the function of a rockshaft. The self levelling links keep the centre section level in both the raised and lowered positions for both road transport and field work.



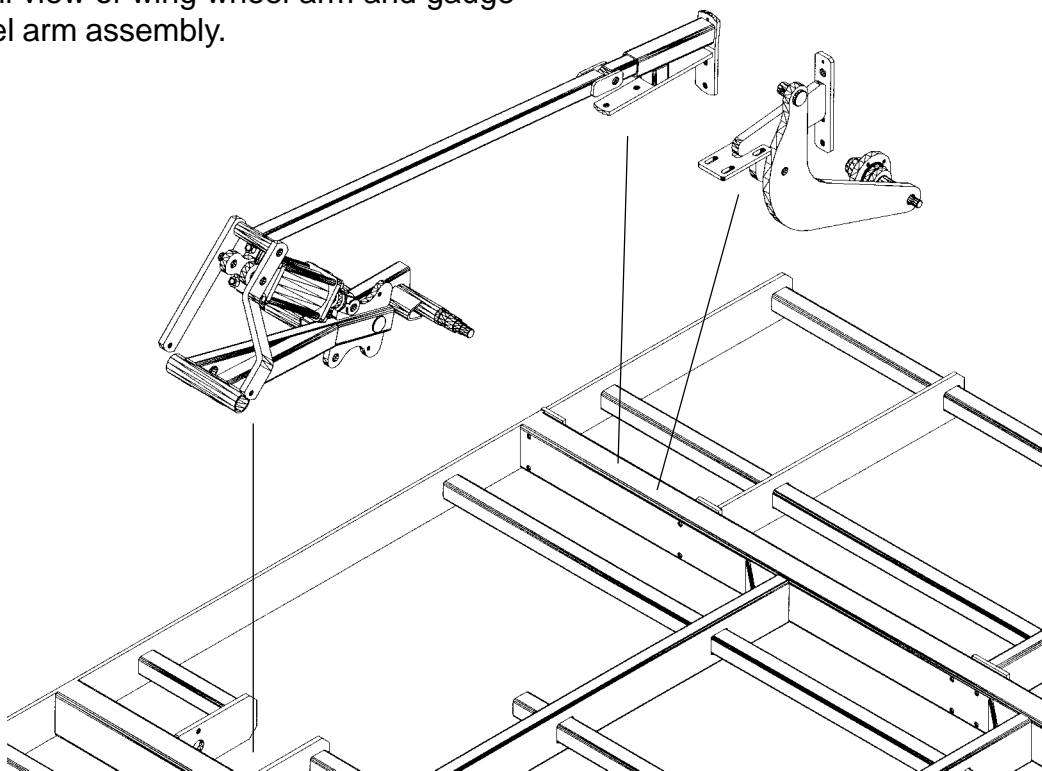
Leave all nuts and bolts loose until after the complete draw hitch and self levelling linkage system is in place. Once the self levelling linkages, wheel arms, wheel linkages, hitch linkages are in position on the cultivator the bolts can be tightened.



Gather the wing wheel arm and gauge wheel components and assemble them on to the cultivator wing frames. Once again the wheels are not shown mounted for clarity but it will be easier to mount the wheels on the wheel arms before they are set into position in the frame.



Detail view of wing wheel arm and gauge wheel arm assembly.





Mount the wheels on the wheel arm and lift the assembly into the wing frame.



Wing wheel tower adjustment linkage.
Pivot Bolt 1" x 8 1/2" with locknut.

Cylinder anchor Pin 1" x 195mm with 2 roll pins and washers.

Bolts 5/8" x 2" with locknut.

Wheel arm axle weldment.



Side view detail of Left wing wheel cylinder and wheel tower assembly with same hardware as above. Note cylinder ports face to inside of machine.

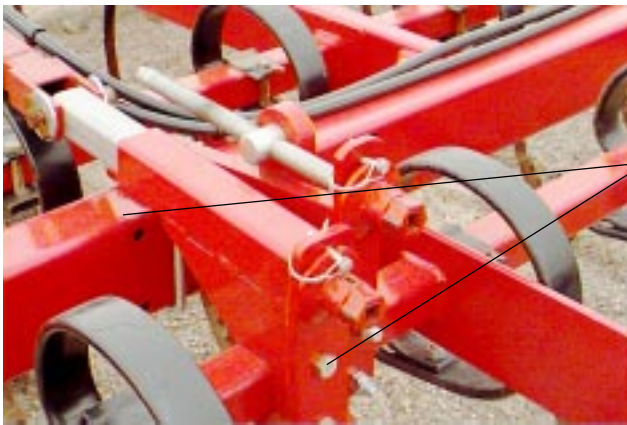


Side view detail of Right wing wheel cylinder and orientation of hydraulic hose connections. Note cylinder ports to inside of machine.



Detail view of tandem wing wheel arm assembly.

Rod end pin for wing wheel cylinder is the standard pin supplied with the cylinder. Note on some new models this pin is now changed to a 1" x 70mm welded pin and is locked in position with a 1/2" x 1-3/4" Bolt and 1/2" Locknut.



Detail view of wing wheel depth adjustment assembly.

Wheel adjuster now mounts with U-Bolts in 2 places on toolbar tube and frame tube.



Wing wheel adjustment slider.

Pin 1" x 90mm with 2 roll pins and washers

U-bolts for wheel adjuster mounting.



Front view showing wing wheel tower mounting and gauge wheel mounting.

Note that there is just enough space allowed to fit the gauge wheel mounting bracket and adjuster in between the frame member and the wing wheel depth adjuster.

601231012 - Gauge Wheel Tire, Tube & Rim mounts to outside of wheel arm.

601232054 - Gauge Wheel Hub & Spindle Assy. with 1" washer and 1" nut.

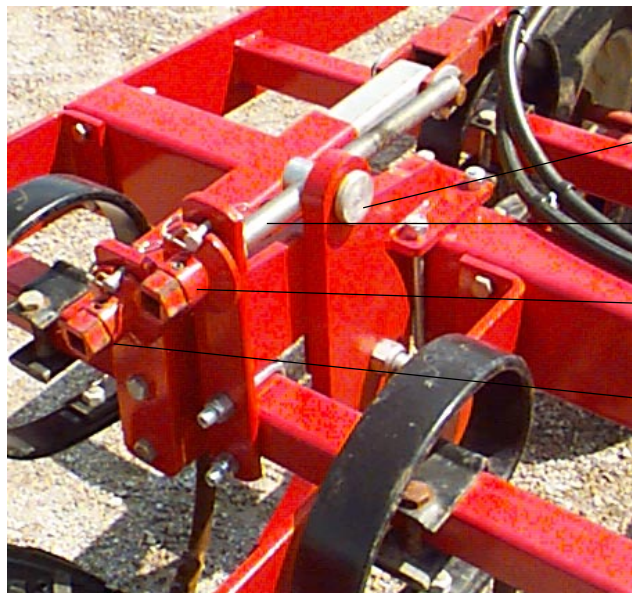


Overview of proper placement and mounting of the gauge wheel assembly with U-bolts provided.

601232031 - Wing Wheel Adjustment Slider with U-Bolts supplied.

601232040 - Gauge Wheel Mounting Bracket with U-Bolts supplied.

601232048 - Gauge Wheel Arm with 1" x 3" mounting bolt and 1" locknut supplied.



Detail view of Gauge Wheel adjustment mechanism.

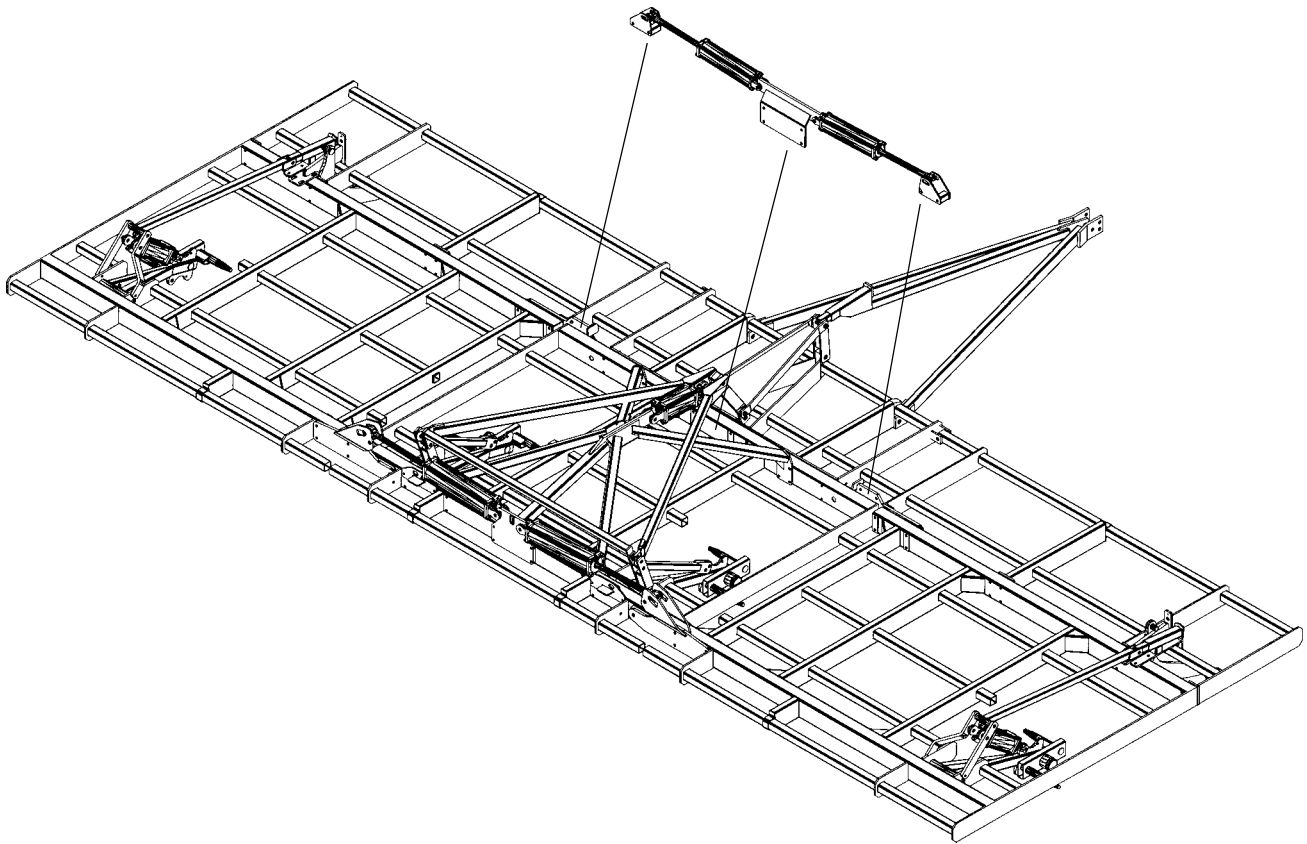
Gauge wheel trunion.

Gauge wheel threaded adjuster.

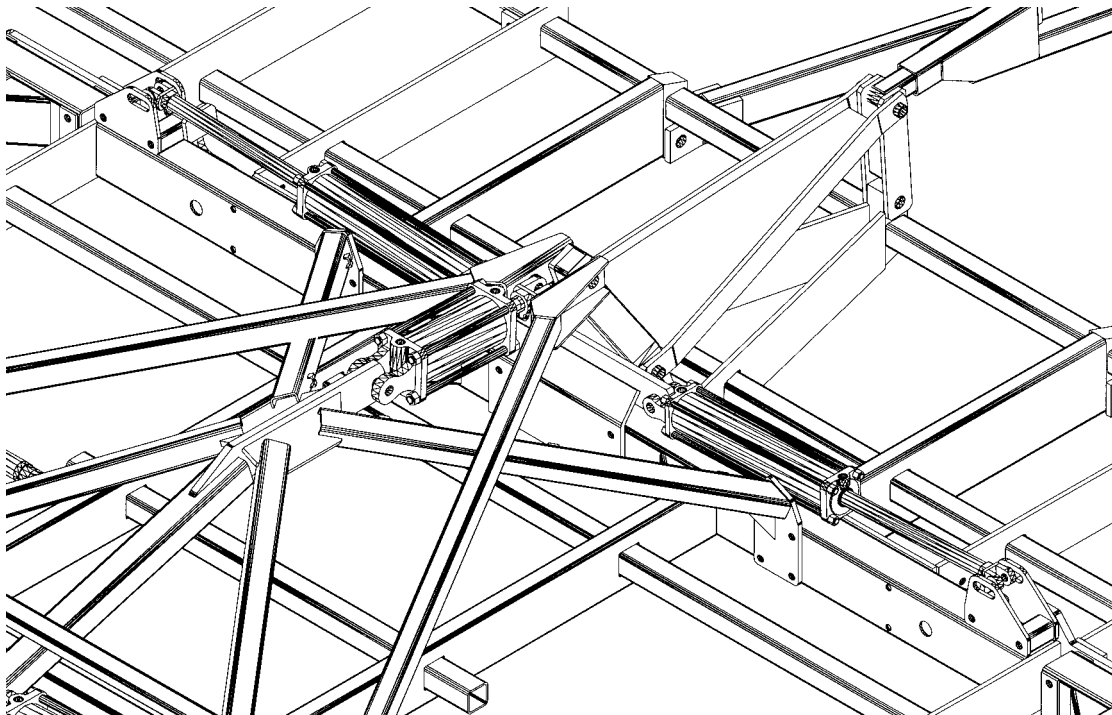
Gauge wheel adjustment casting.

Wing wheel depth adjuster.

The 9M model folding hydraulics includes a second set of front fold assist cylinders and cylinder mounting brackets. Assemble the front fold assist with the mounting brackets and hardware provided.



Detail view of front fold assist mounted in position.





Detail photo show the hydraulic front fold assist system on the 9M model. Install the mounting brackets and cylinders according to the detail photos and the hydraulic layout diagram on the following pages.



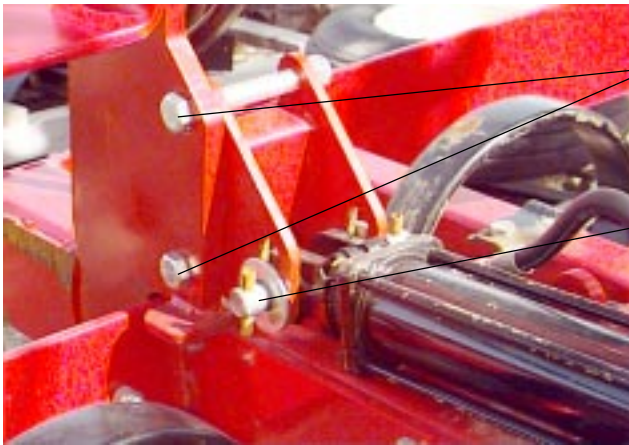
601232024 - Centre Fold Assist Bracket
Install the centre fold assist bracket on the back side of the centre frame tube on the 9M models. The bracket is used as the anchor mount for the new front fold assist cylinders. There are four long 5/8" x 6-1/2" bolts supplied with locknuts that are inserted thru the front frame, main frame tube and cylinder fold bracket.



After mounting the centre fold bracket, mount the fold assist cylinder brackets on the backside of the hinge plate as shown.

601232038 - Fold Assist Bracket - Wing

601232037 - Front Fold Hinge



The fold assist bracket mounts with two Bolts 3/4" x 6 Gr.8 with locknuts provided.

The cylinder rod end clevis attaches to the long slot in the fold bracket with pins provided.

601242354 - Pin 1" x 110mm
with 3/8" Roll Pins and 1" Washers.



There are two different front fold assist cylinders as show. The cylinders attach to the centre fold assist bracket with the standard cylinder pins provided with the cylinders.

600474501 - 3.25 x 16 Rephasing Cylinder

601232024 - Fold Assist Bracket - Centre
Cylinder Pin and Clip pin

600474506 - 3.5 x 16 Rephasing Cylinder

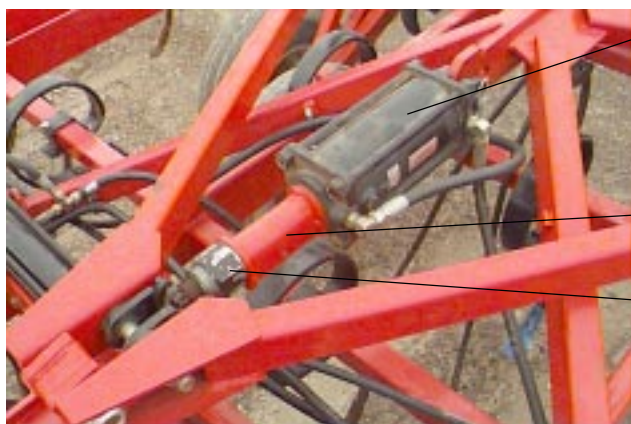


The hydraulic hose lines and fittings are provided in the hose kit bag.

For proper installation of the hose lines and fittings refer to the hose layout diagram provided later in the booklet.



Detail view of the rear folding hydraulics cylinder mounts and hose connections. The hoses can be routed according to the hydraulic fold diagram provided later in the booklet.



Side view detail of master cylinder and orientation of hydraulic hose connections.

Insert cylinder lock before road transporting.

Mechanical Stroke Control adjusts working depth of machine.



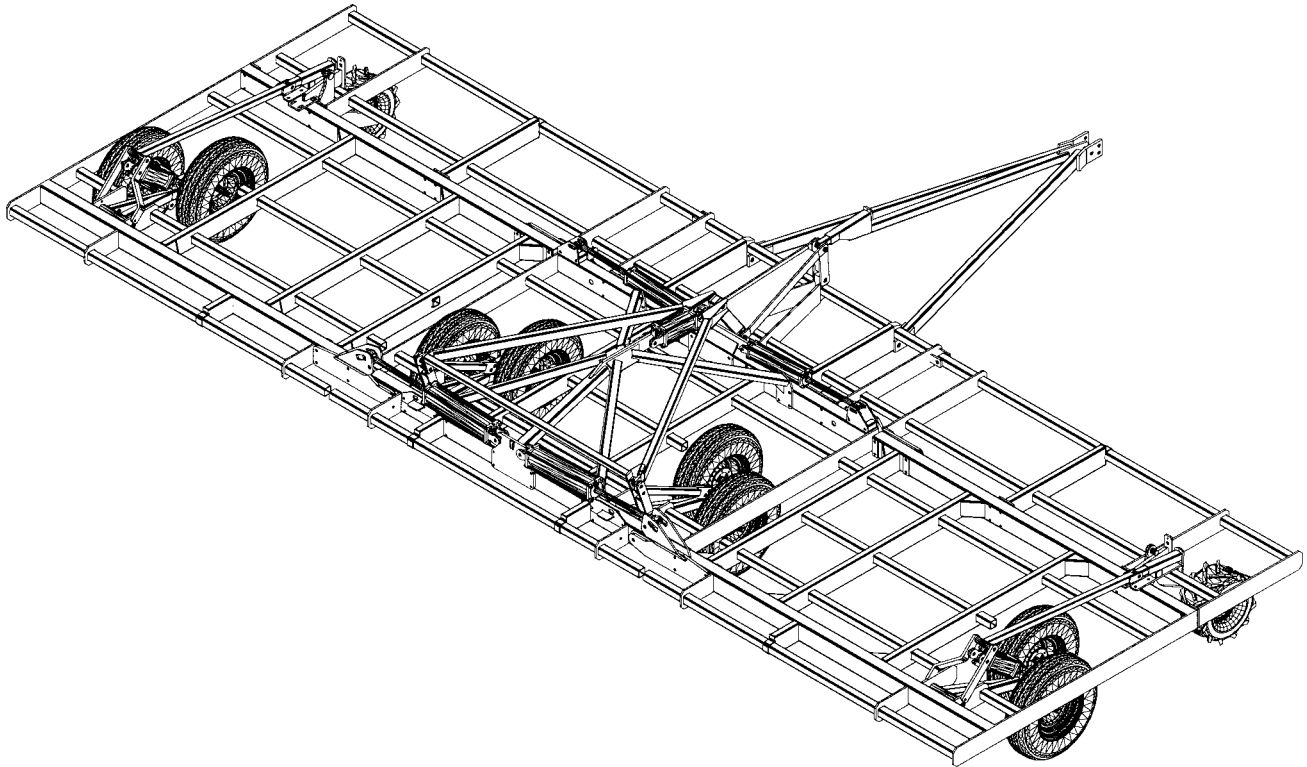
For road transport or storage in the folded position the wing fold lock pins are always inserted thru these holes.

Use 601242264 - Wing Fold Lock Pin with Handle and Lynch pins.

When the cultivator frame is fully assembled check all nuts and bolts and secure if loose.

Double check the hose layout and hydraulic connections according to the hydraulic diagram.

Be sure to read the Owners Manual before attempting to fold or operate the cultivator. The Owners Manual provides important instructions and safety precautions that must be followed before attempting to hook up and move the cultivator after assembly.



If you have purchased optional levelling attachments such as the double rotaharrows shown on the cultivator below, refer to the Manual provided with the Harrow Assembly for proper installation and adjustment of the attachments.



Hydraulic Diagrams and Tine Pattern Reference Section:

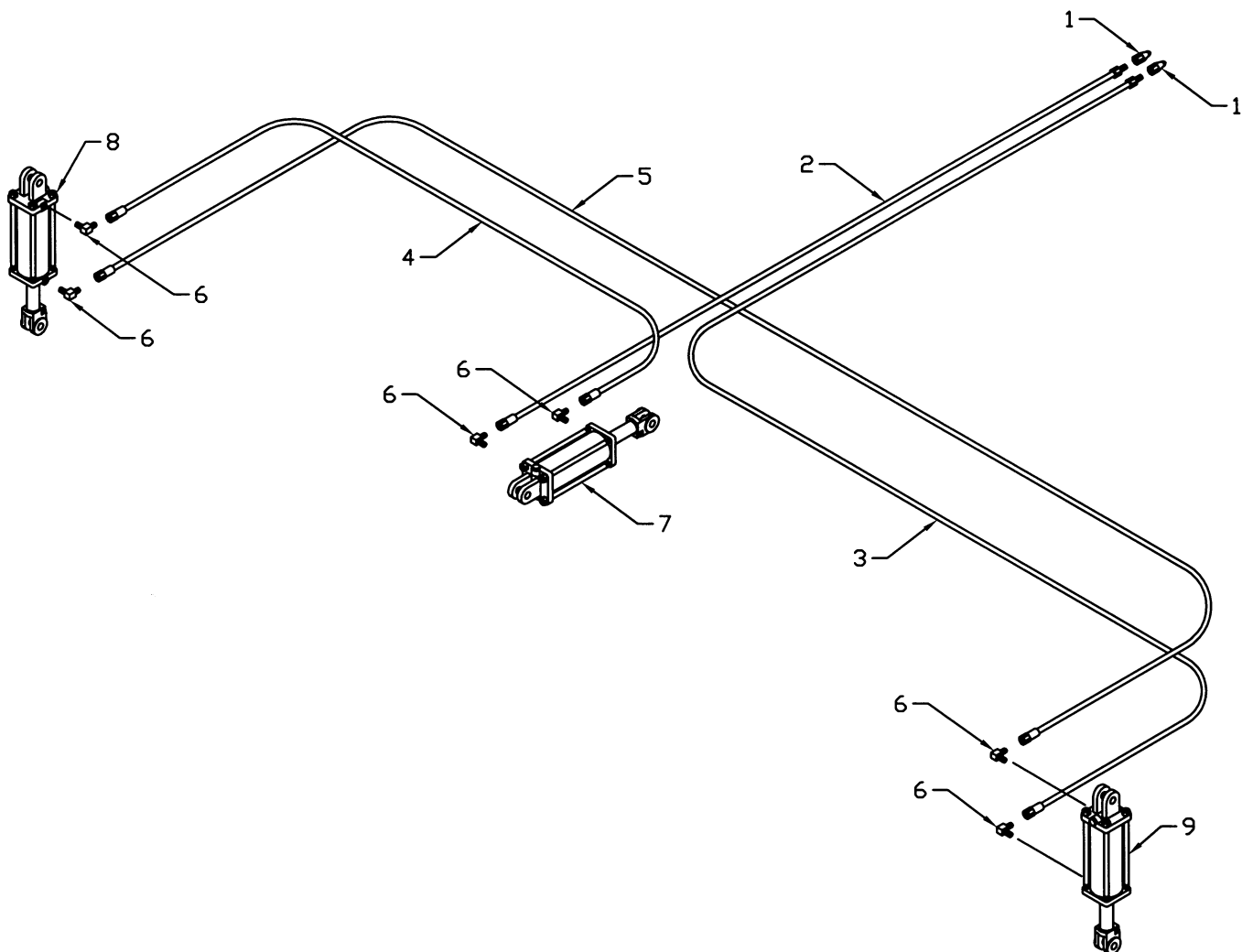
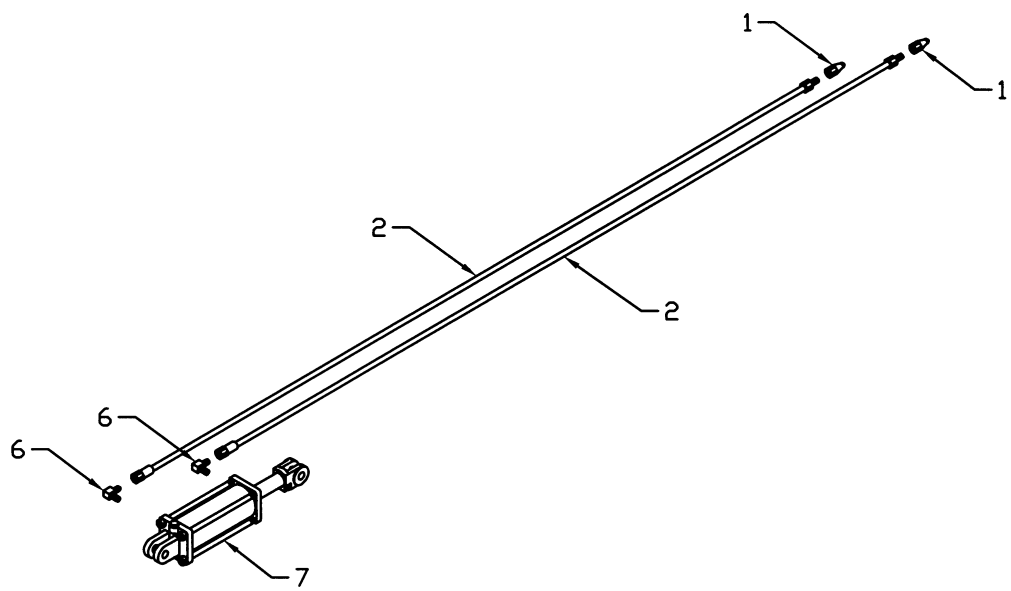
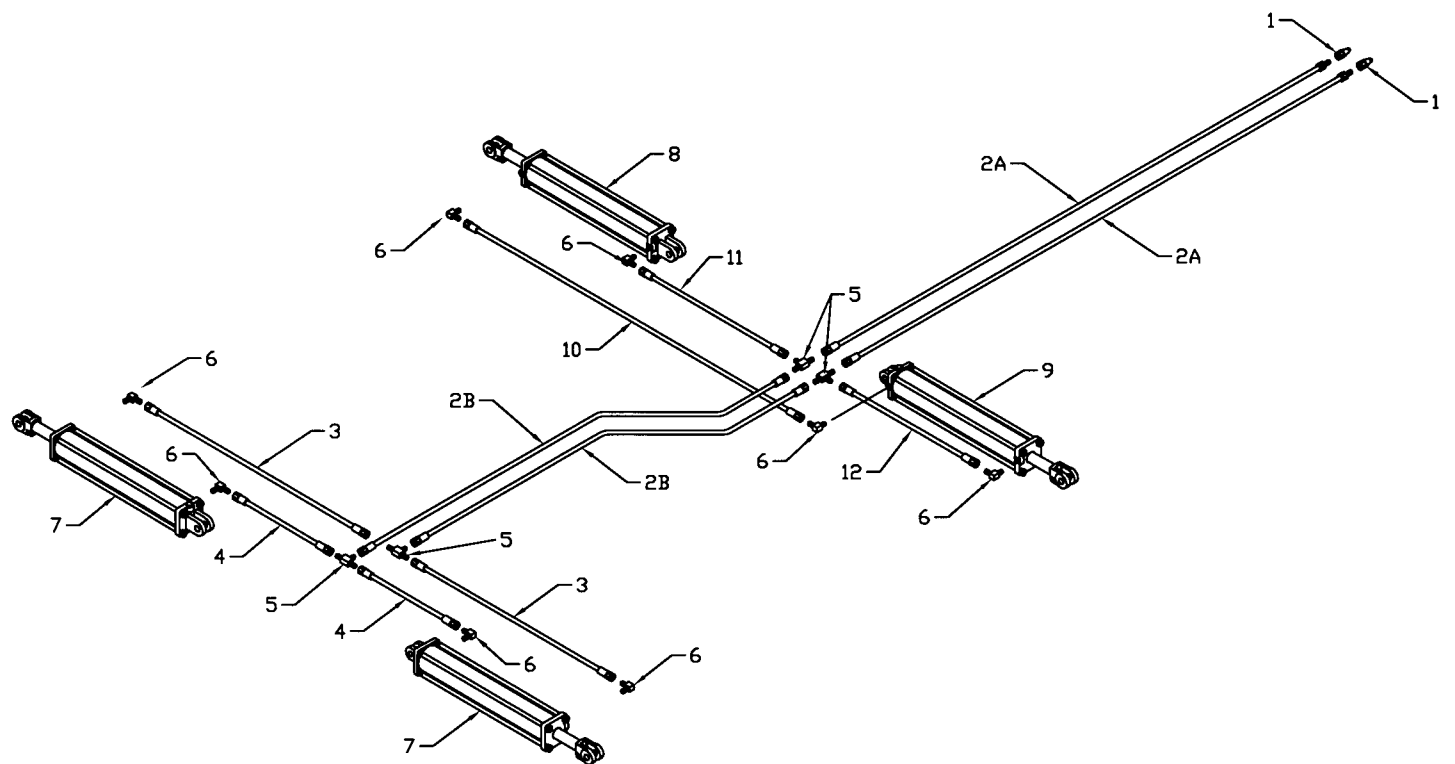
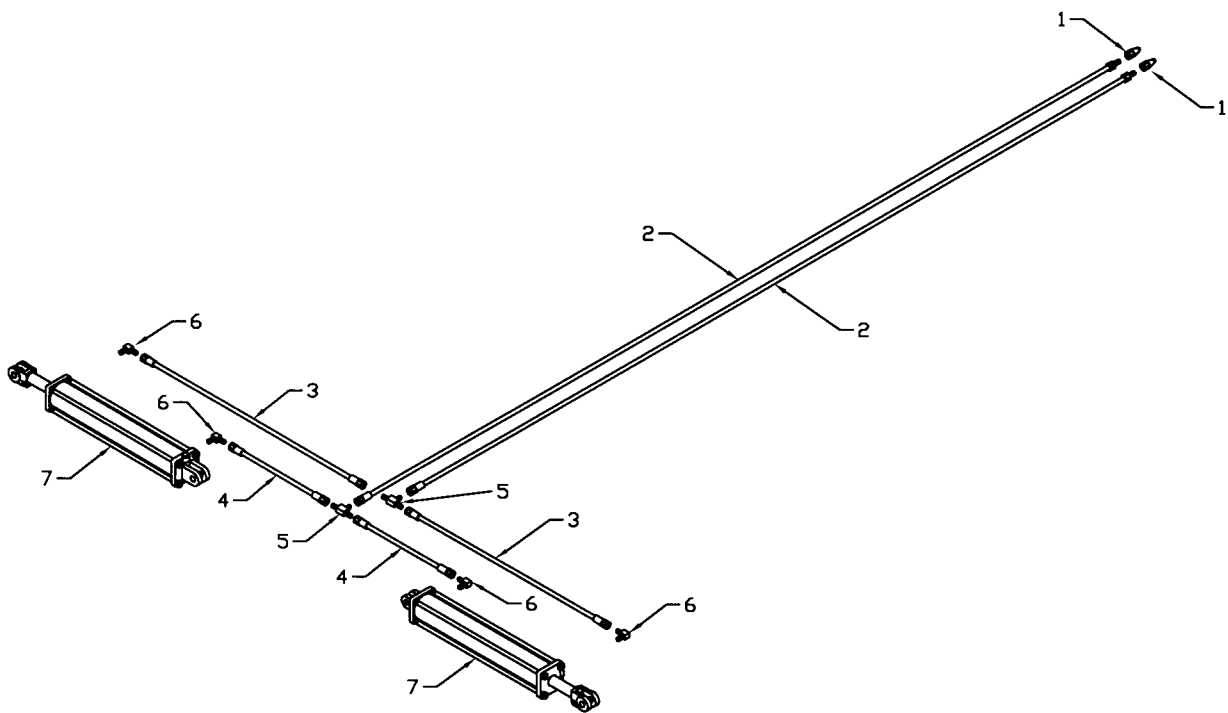


Fig.	Part no.	Description
1	600470110	Quick Coupler (Optional-not part of hose kit)
2	600470233	1/2" Hose 1/2" Pipe x 1/2" JIC - 230" (all models)
3	600470244	1/2" Hose 1/2" Pipe x 1/2" JIC - 375" (2800-60-20')
	600470235	1/2" Hose 1/2" Pipe x 1/2" JIC - 395" (2800-70-23')
	600470245	1/2" Hose 1/2" Pipe x 1/2" JIC - 415" (2800-80-26')
	600470234	1/2" Hose 1/2" Pipe x 1/2" JIC - 435" (2800-90-30')
4	600470182	1/2" Hose 1/2" JIC x 1/2" JIC - 175" (2800-60-20')
	600470239	1/2" Hose 1/2" JIC x 1/2" JIC - 195" (2800-70-23')
	600470177	1/2" Hose 1/2" JIC x 1/2" JIC - 215" (2800-80-26')
	600470137	1/2" Hose 1/2" JIC x 1/2" JIC - 235" (2800-90-30')
5	600470147	1/2" Hose 1/2" JIC x 1/2" JIC - 310" (2800-60-20')
	600470149	1/2" Hose 1/2" JIC x 1/2" JIC - 350" (2800-70-23')
	600470151	1/2" Hose 1/2" JIC x 1/2" JIC - 390" (2800-80-26')
	600470153	1/2" Hose 1/2" JIC x 1/2" JIC - 430" (2800-90-30')
6	600470049	Elbow 1/2" O-ring x 1/2" JIC - 90 Degree
7	600474502	Cylinder 4.5 x 8 Rephasing with Mechanical Stroke Control - Midway
8	600474503	Cylinder 4.25 x 8 Rephasing - Midway
9	600474504	Cylinder 4 x 8 Rephasing - Midway
	600361039	Carriage Bolt 1/4" x 1"
	600365006	Locknut 1/4"
	600470047	Hose Clamp 1/2"



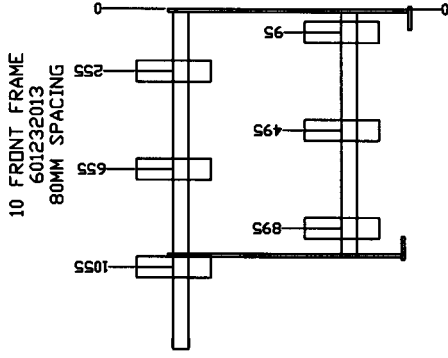
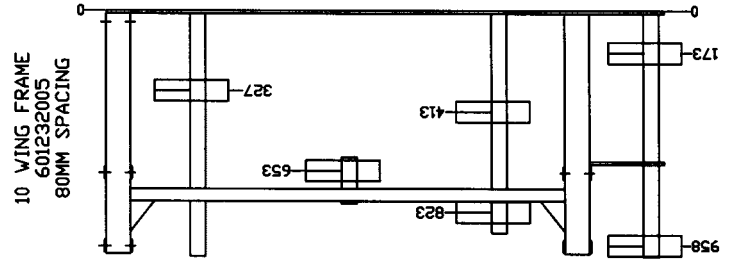
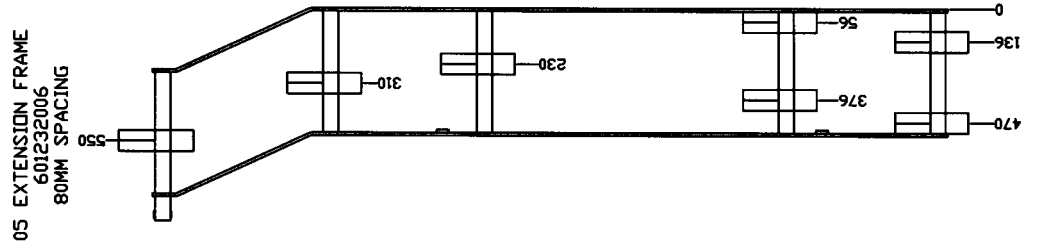
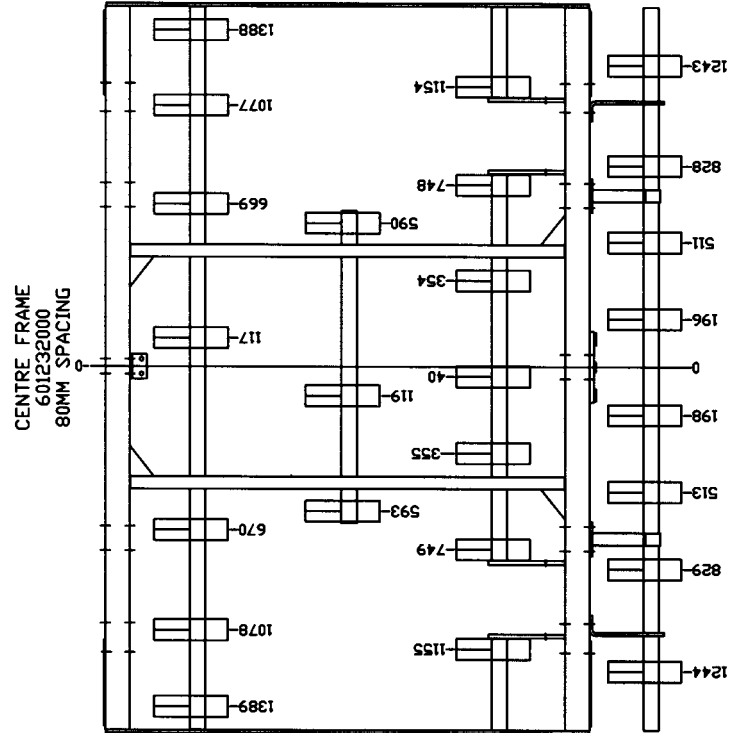
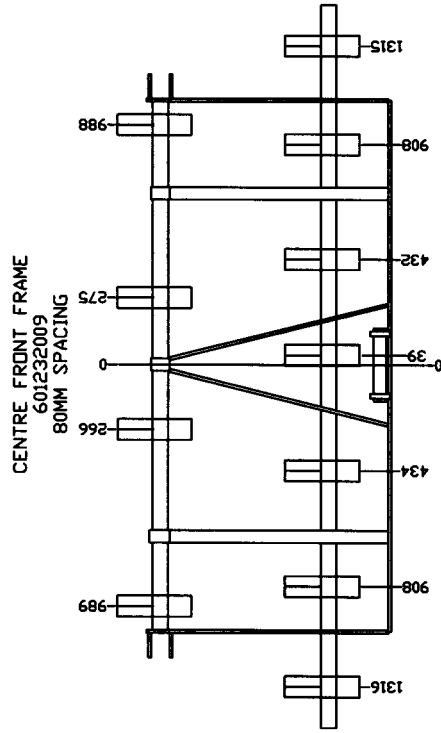
Spare part list / 2800 Wing Fold Hydraulics. Date: 2000, 06.

Fig.	Part no.	Description
1	600470110	Quick Coupler (Optional-not part of hose kit)
2	600470232	3/8" Hose 1/2" Pipe x 3/8" JIC - 280" (2800-50-60-70-80)
2A	600470157	3/8" Hose 1/2" Pipe x 3/8" JIC - 215" (2800-90-30')
2B	600470194	3/8" Hose 3/8" JIC x 3/8" JIC - 80" (2800-90-30')
3	600470102	3/8" Hose 3/8" JIC x 3/8" JIC - 32" (2800-all models)
4	601140316	3/8" Hose 3/8" JIC x 3/8" JIC - 20" (2800-all models)
5	600470003	Tee 3/8" JIC
6	600470124	Elbow 1/2" O-ring x 3/8 JIC
7	600474505	Cylinder 4.5 x 20 - Midway
8	600474506	Cylinder 3.5 x 16 Rephasing - Midway
9	600474501	Cylinder 3.25 x 16 Rephasing - Midway
10	600470408	3/8" Hose 3/8" JIC x 3/8" JIC - 50" (2800-90-30')
11	600470242	3/8" Hose 3/8" JIC x 3/8" JIC - 36" (2800-90-30')
12	600470243	3/8" Hose 3/8" JIC x 3/8" JIC - 16" (2800-90-30')
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"

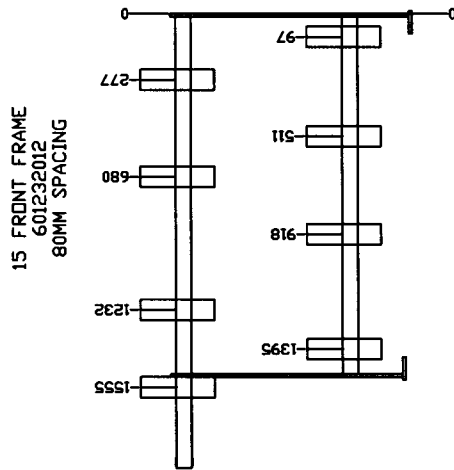
CULTIVATOR SIZE
3 METER / 10'-0"

CULTIVATOR SIZE
4 METER / 13'-2"

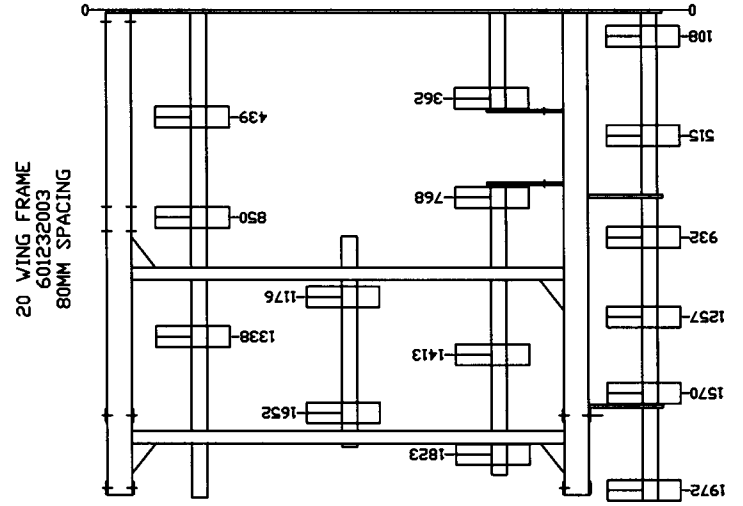
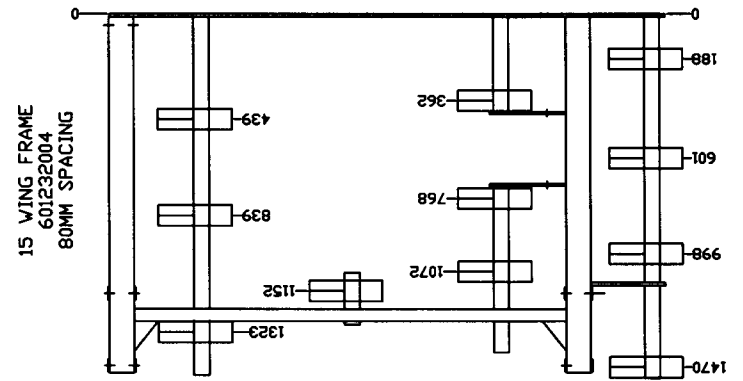
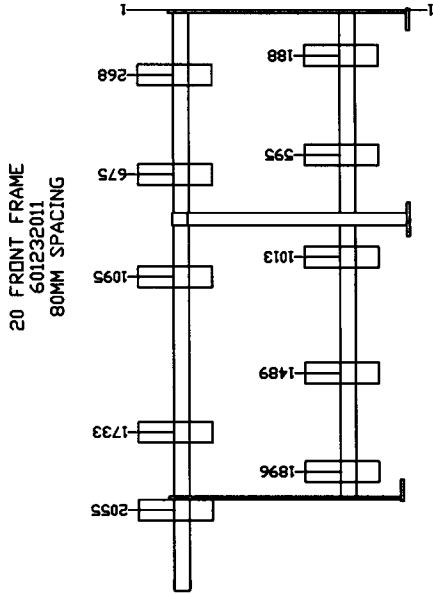
CULTIVATOR SIZE
5 METER / 16'-5"



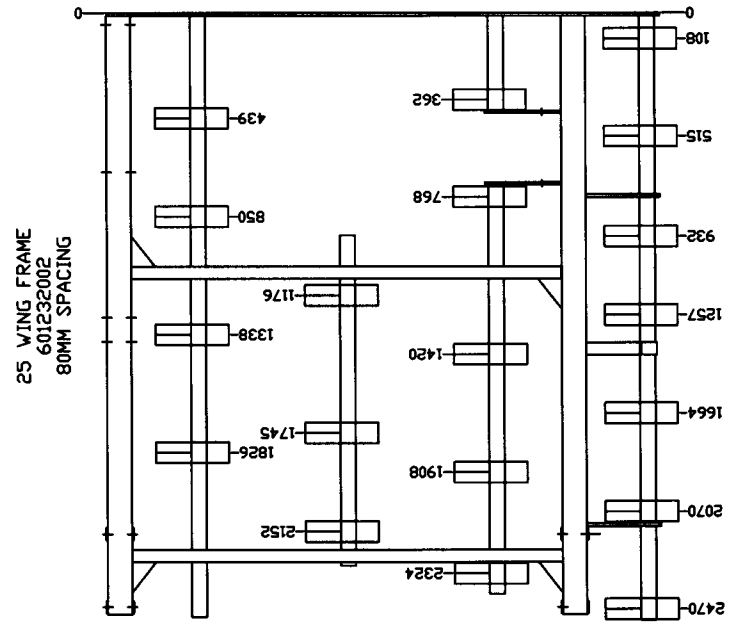
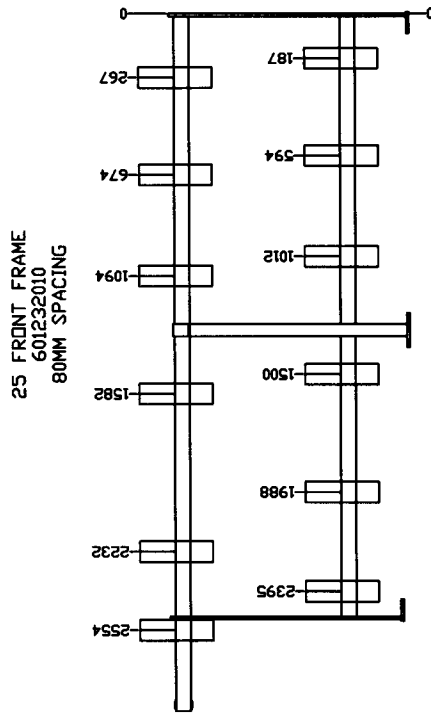
CULTIVATOR SIZE
6 METER / 19'-8"



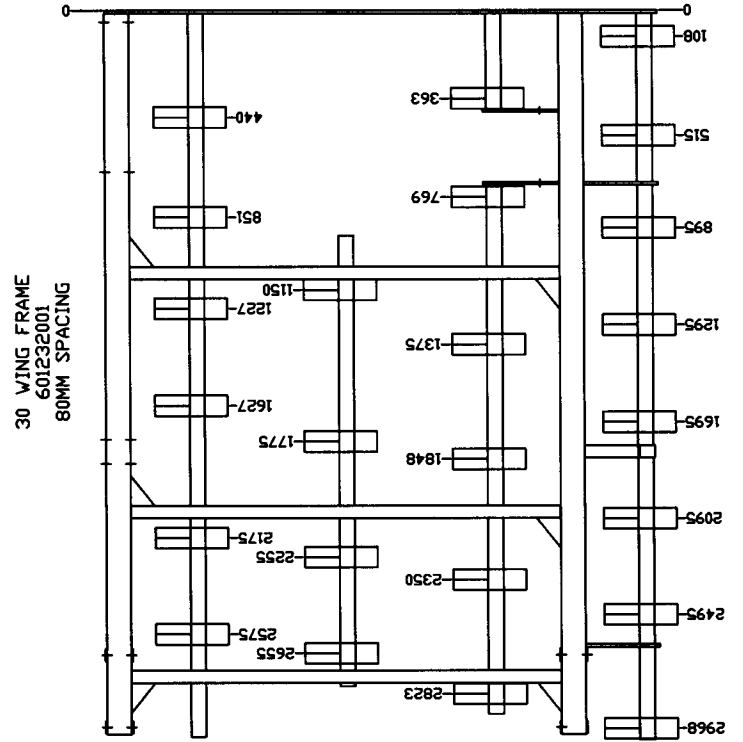
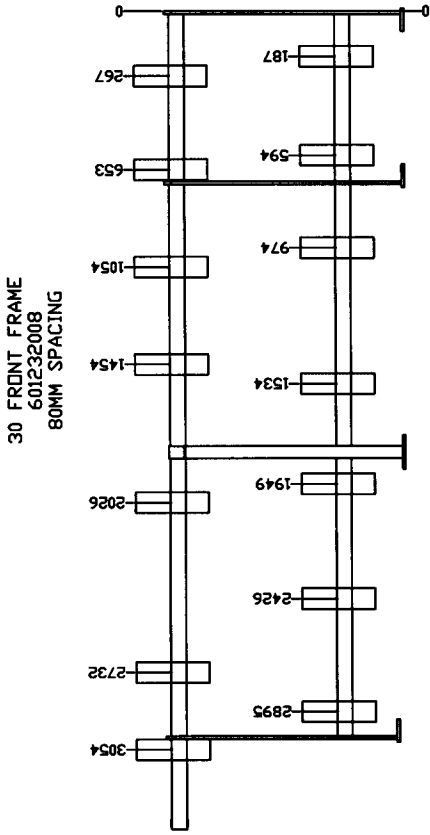
CULTIVATOR SIZE
7 METER / 23'-0"



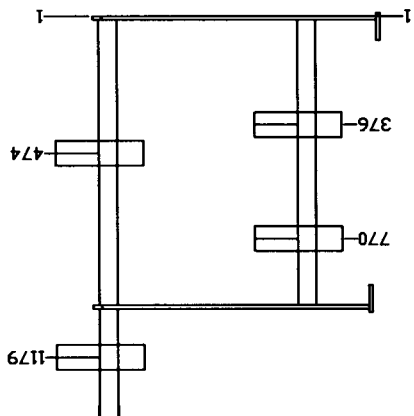
CULTIVATOR SIZE
8 METER / 26'-3"



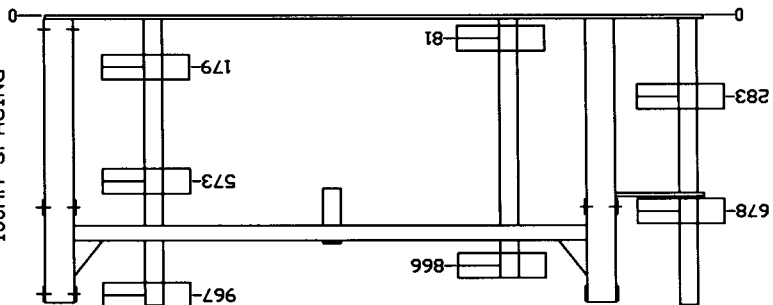
CULTIVATOR SIZE
9 METER / 29'-6"



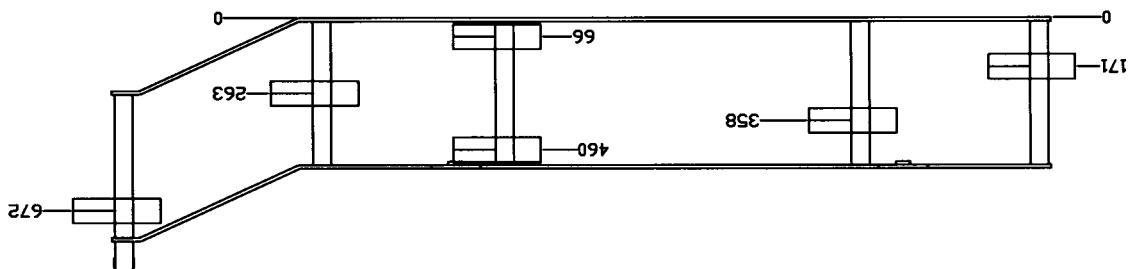
10 FRONT FRAME
601232013
100MM SPACING



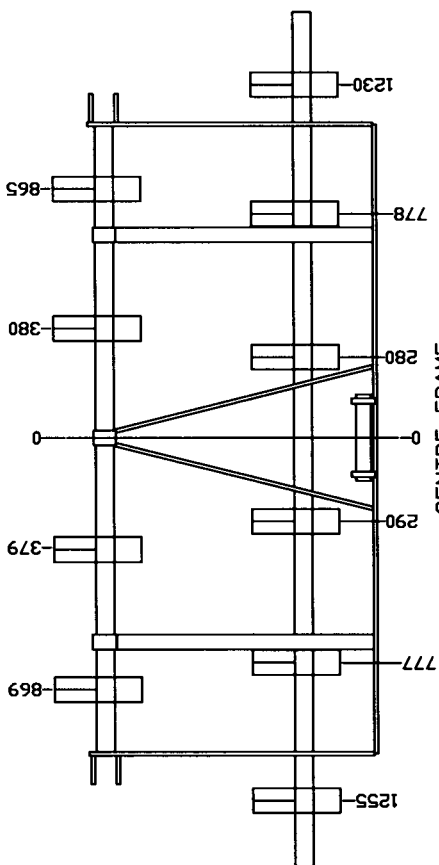
10 WING FRAME
601232005
100MM SPACING



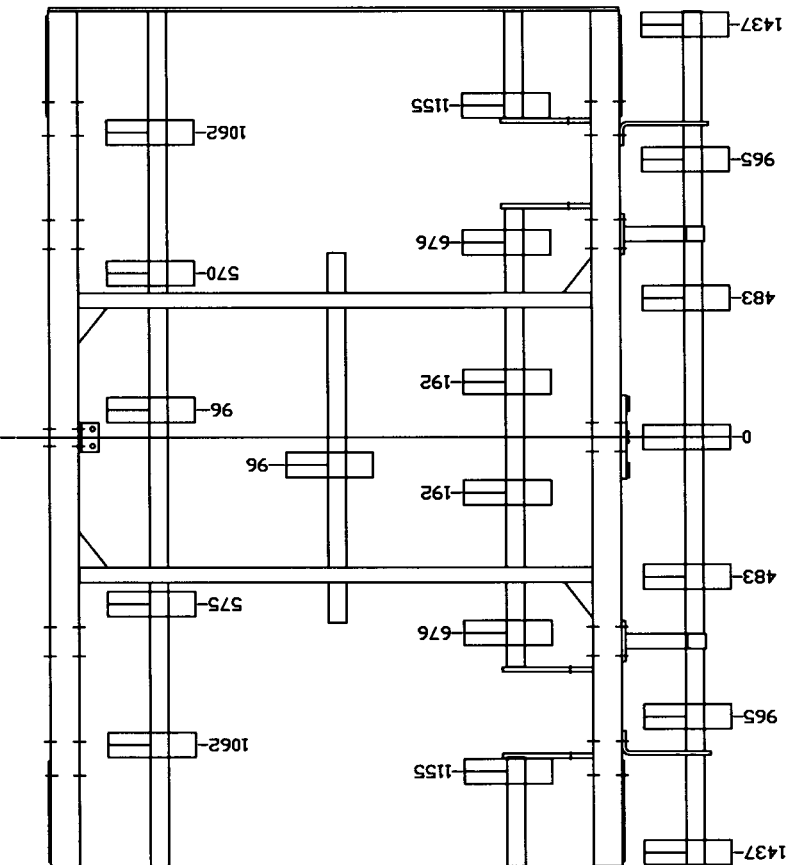
05 EXTENSION FRAME
601232006
100MM SPACING



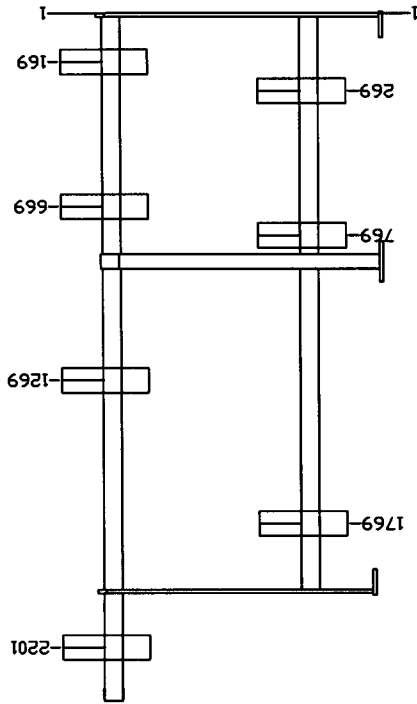
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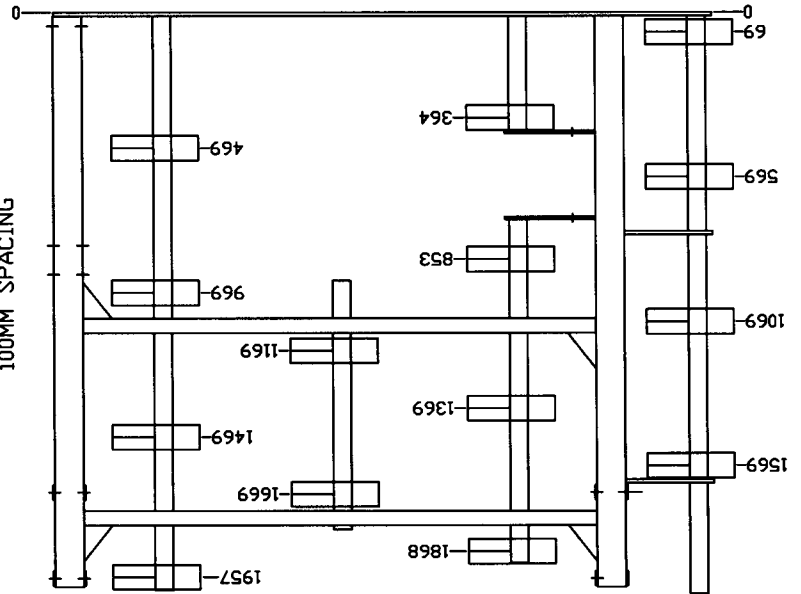
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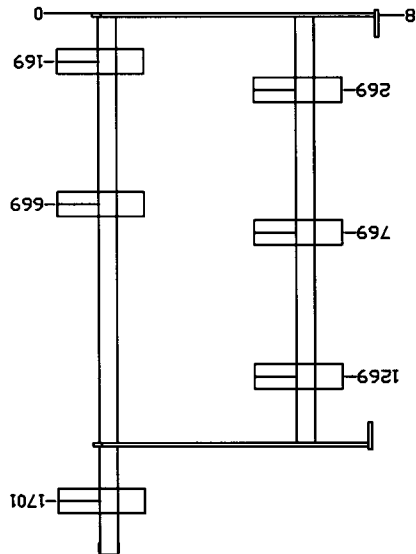
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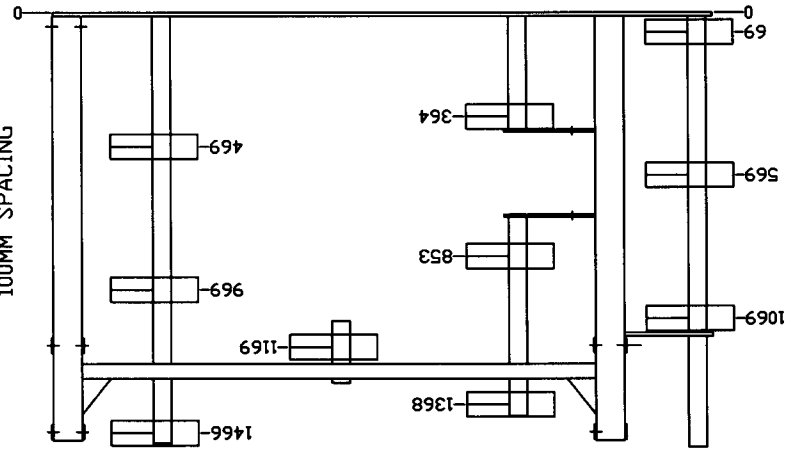
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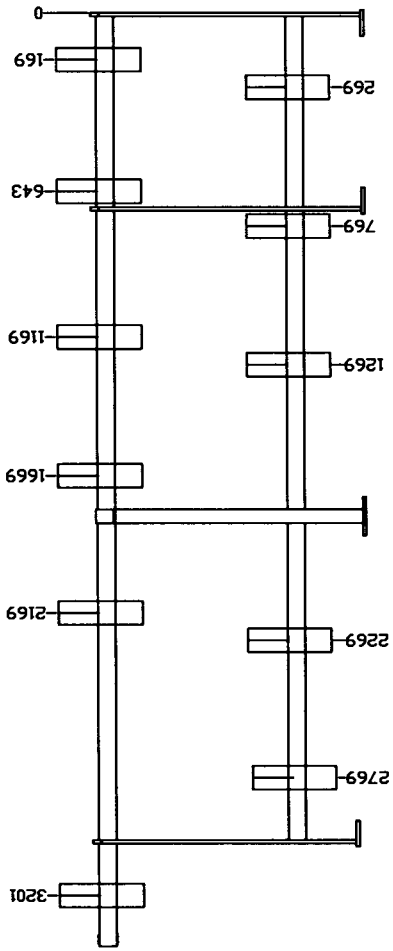
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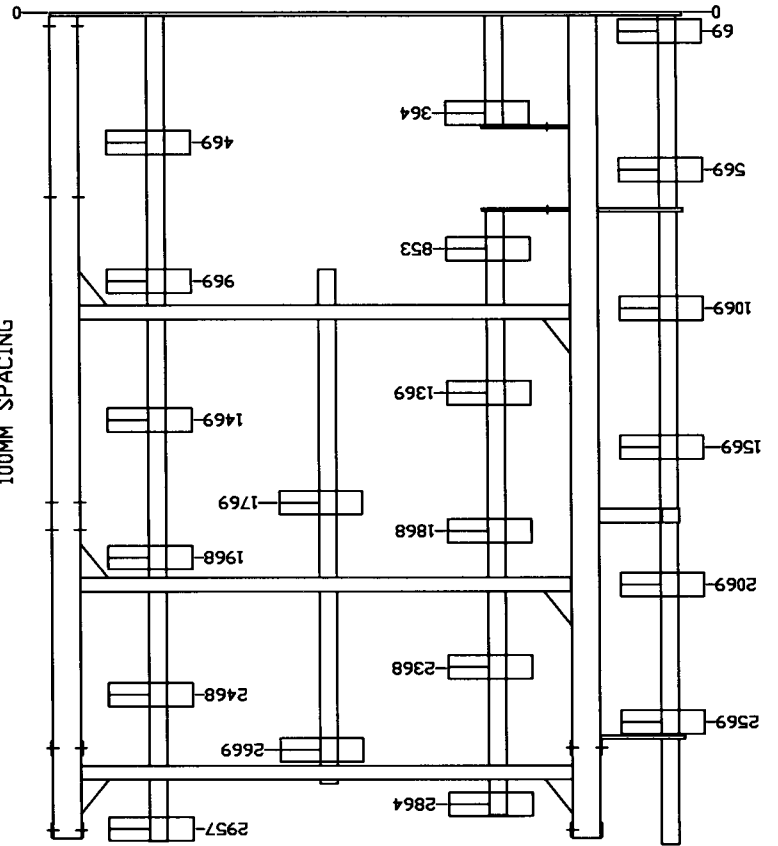
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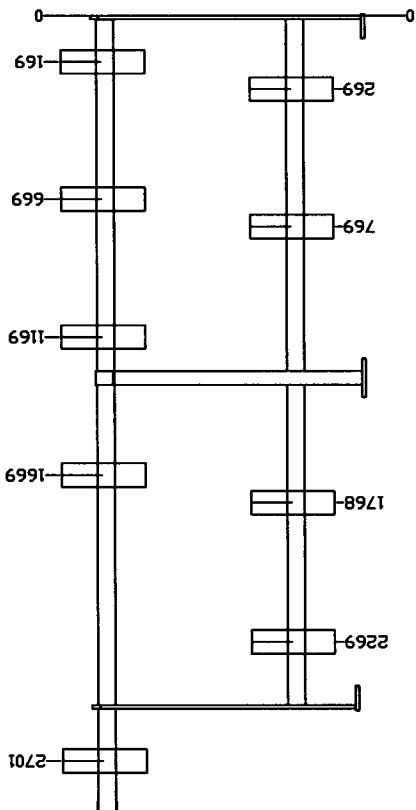
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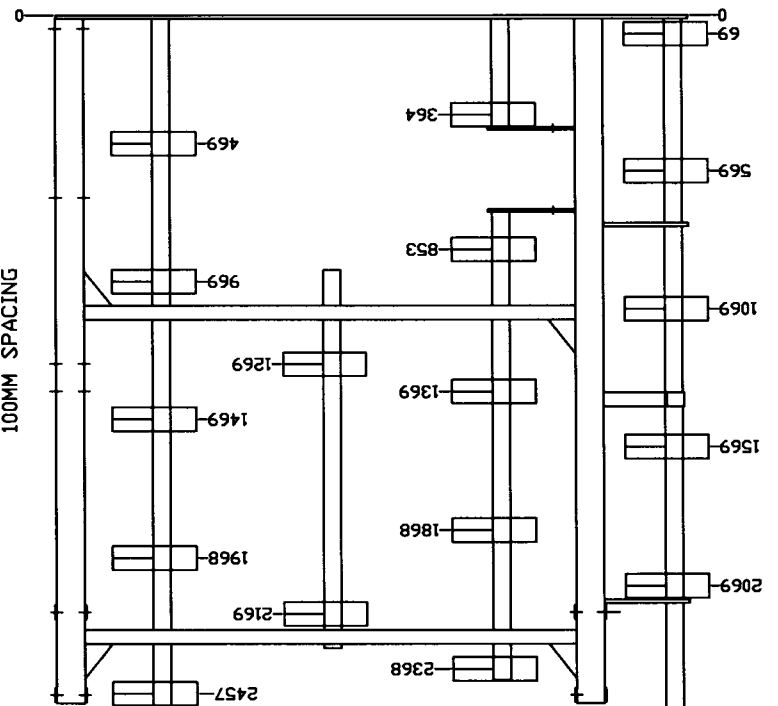
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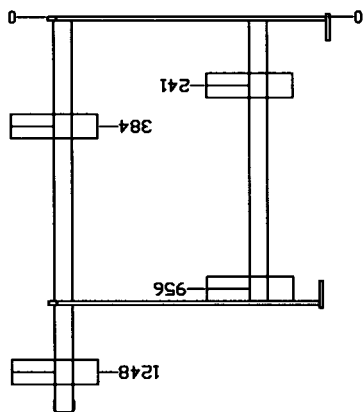
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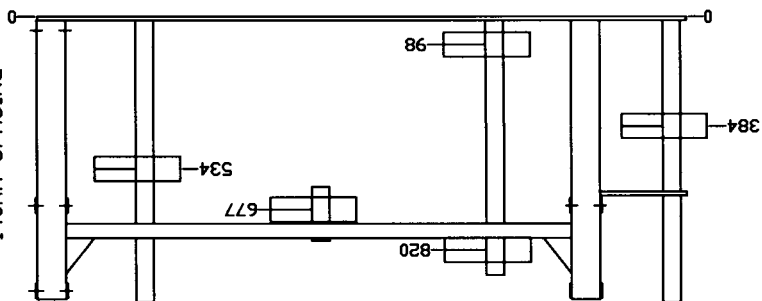
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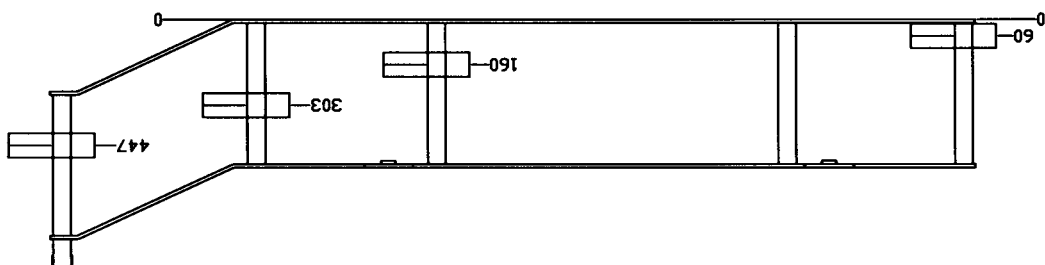
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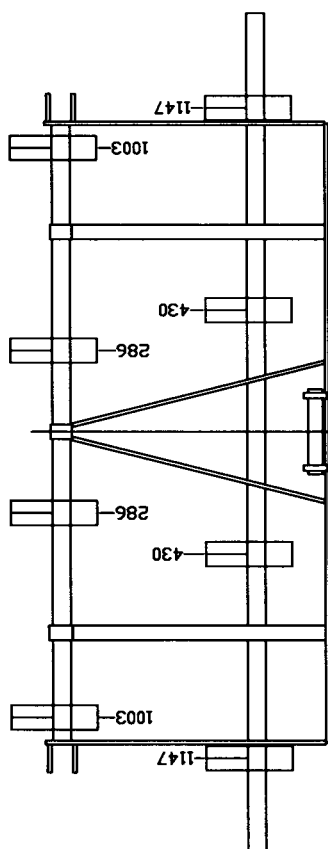
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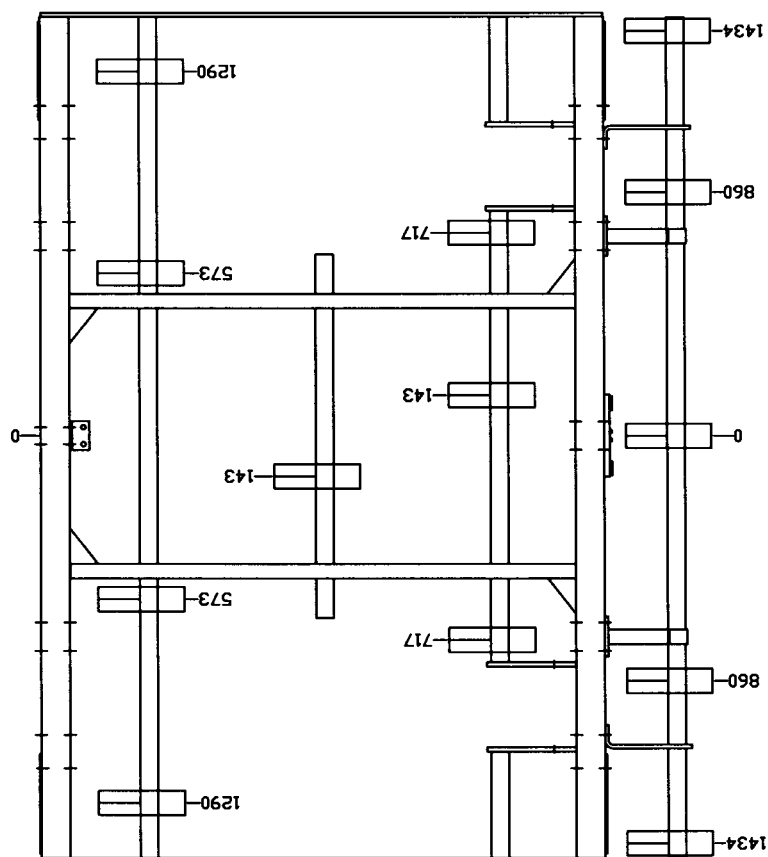
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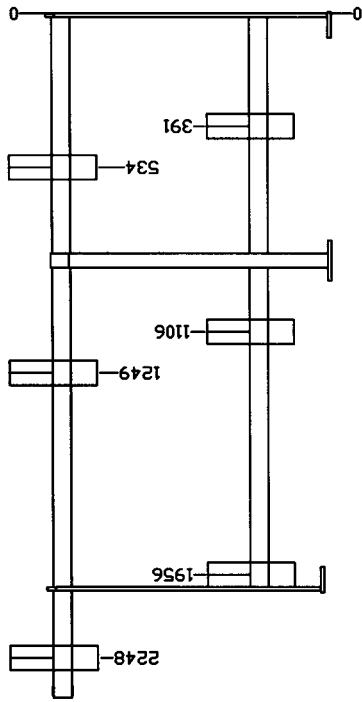
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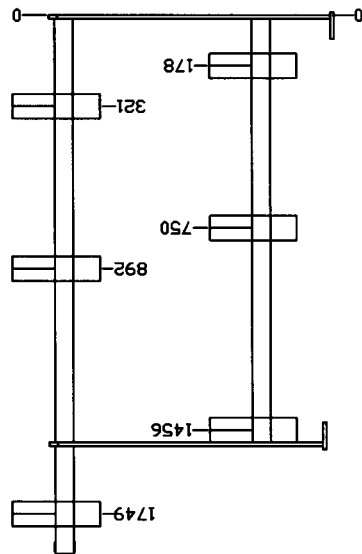
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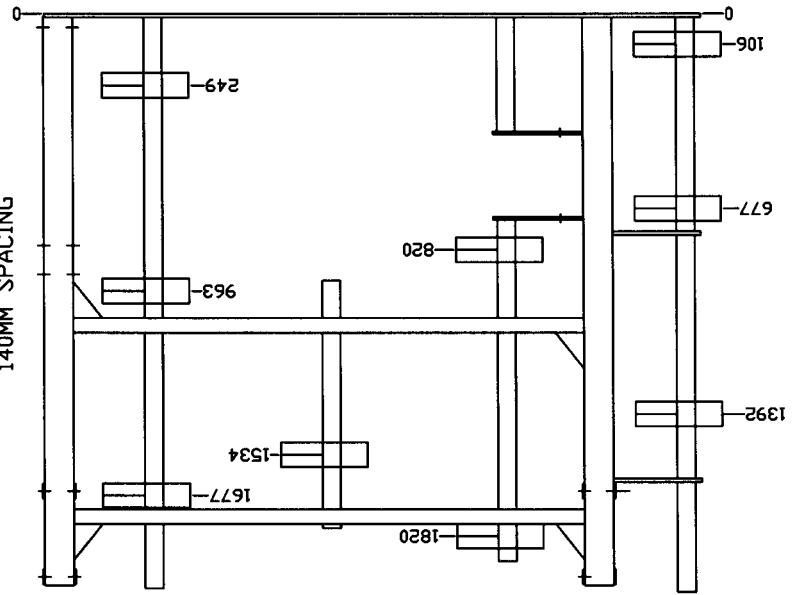
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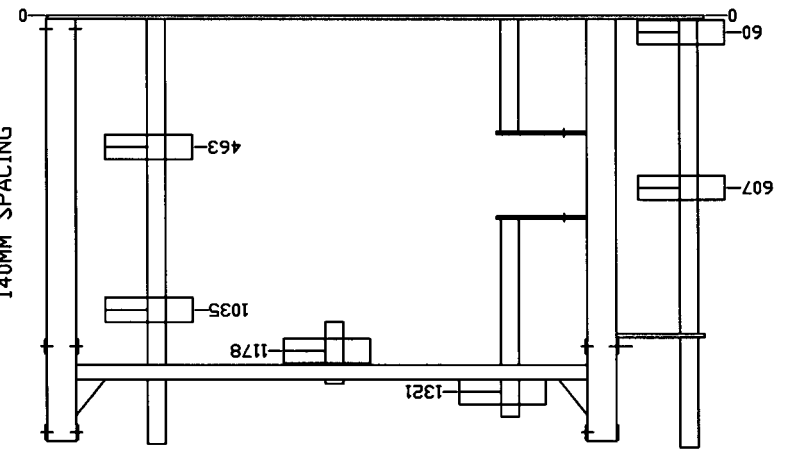
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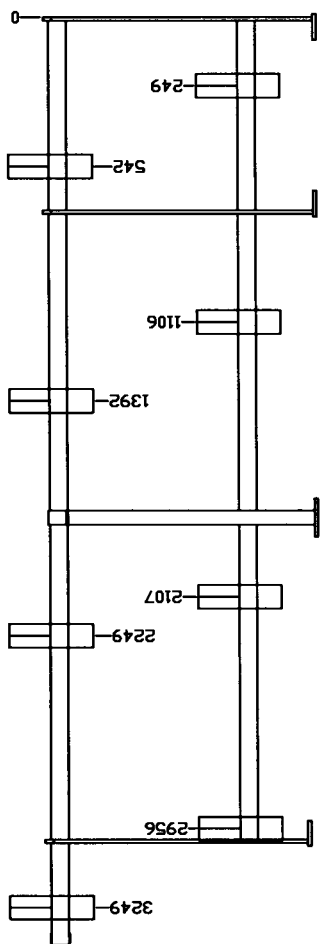
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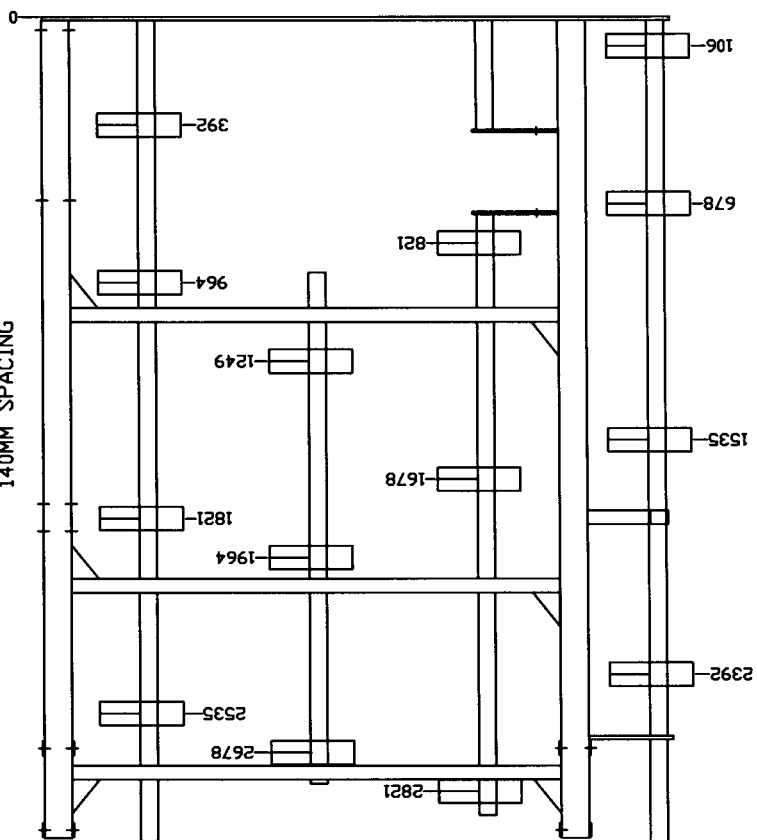
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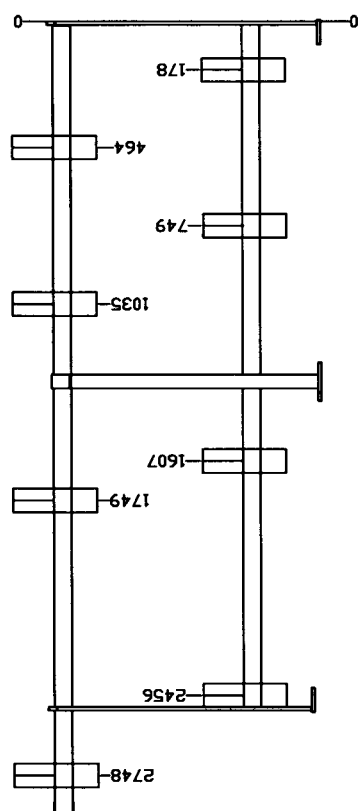
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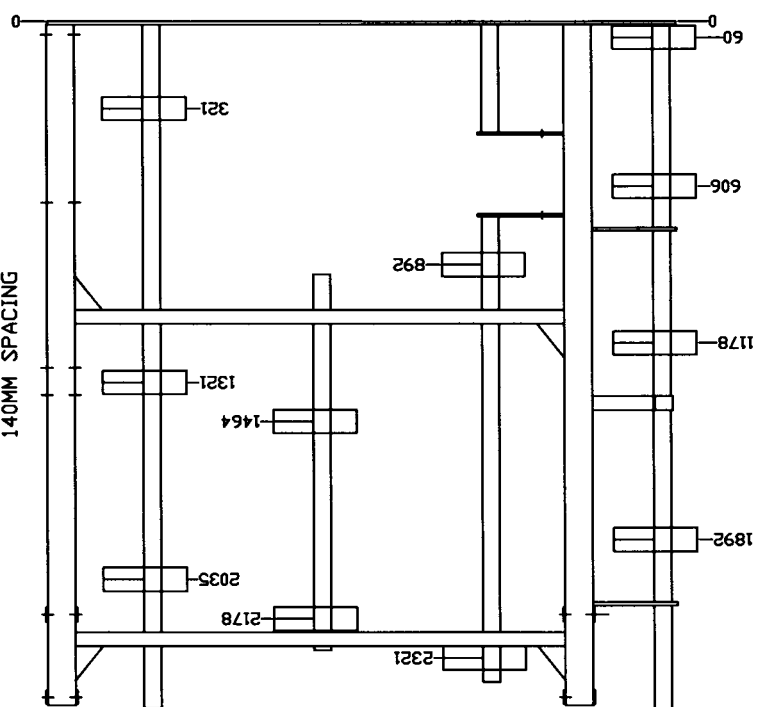
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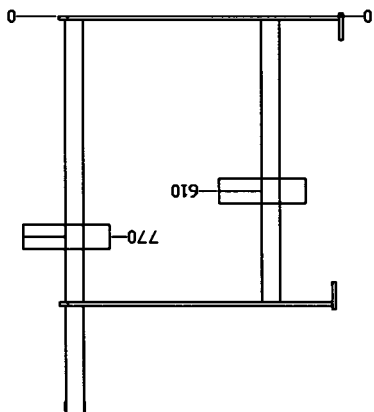
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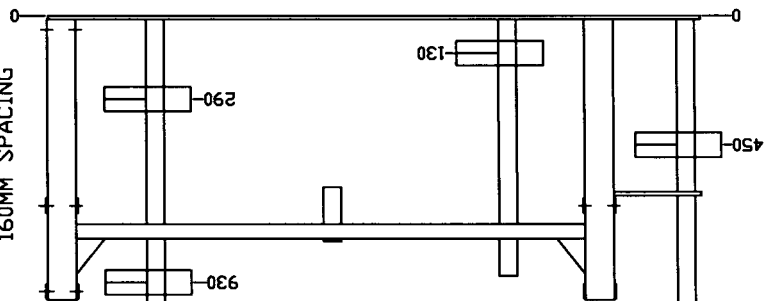
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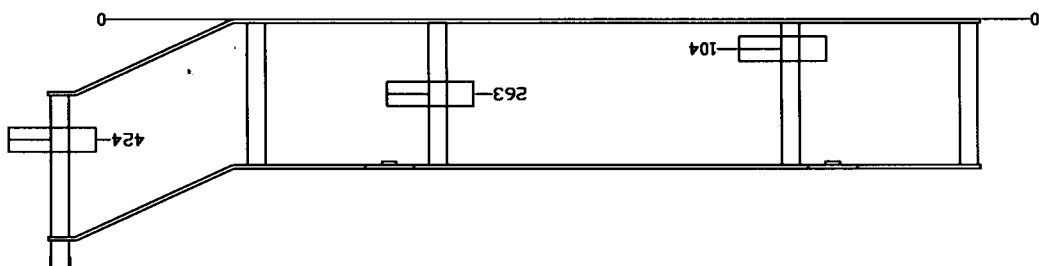
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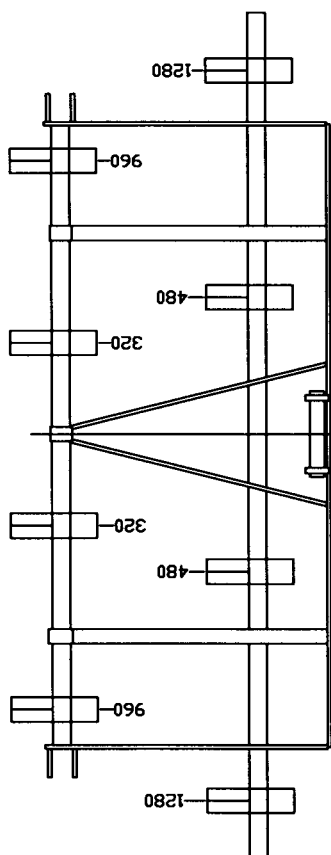
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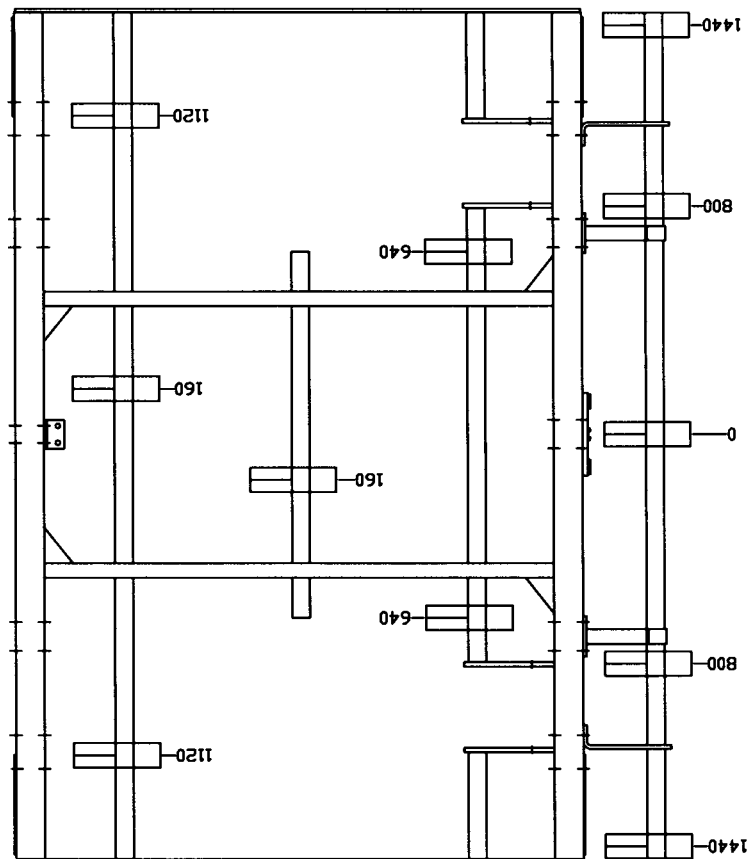
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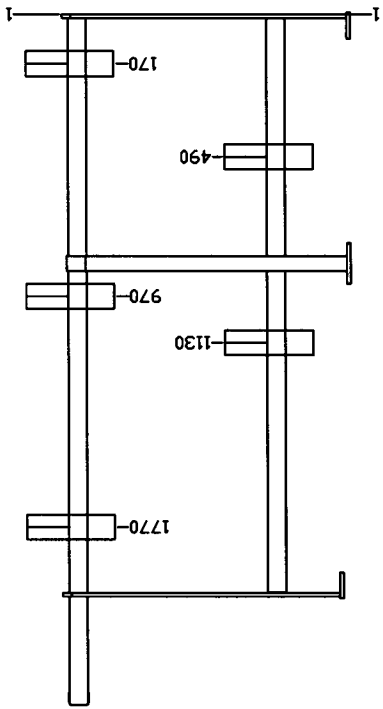
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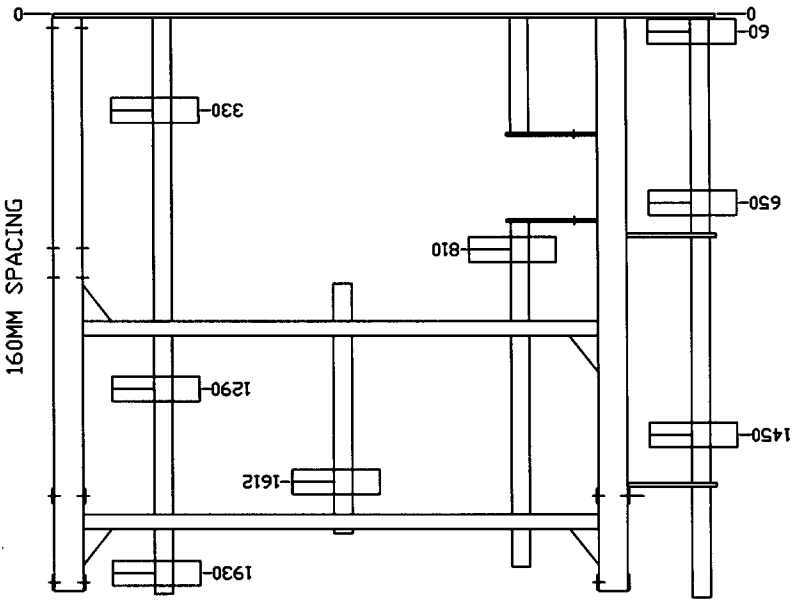
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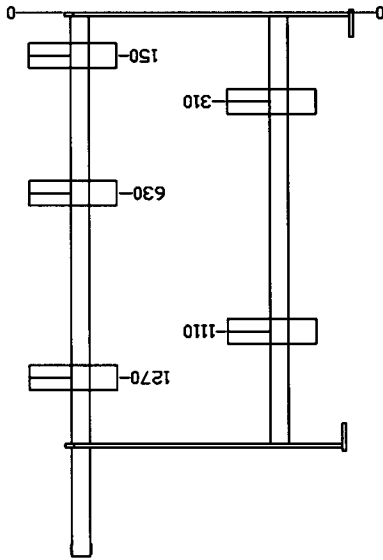
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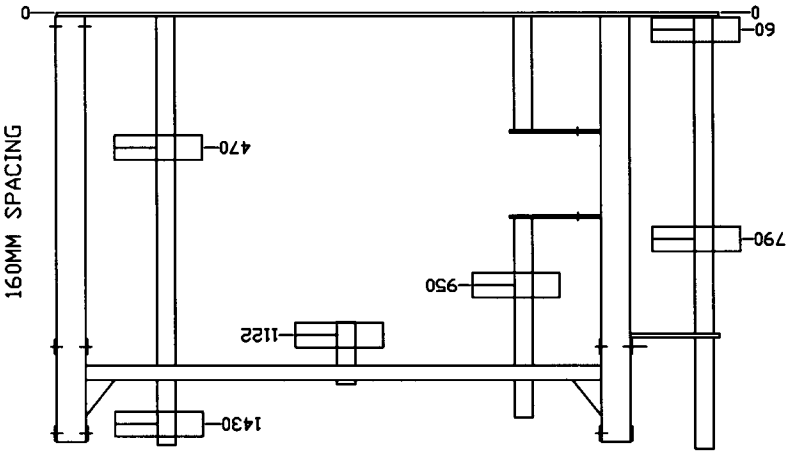
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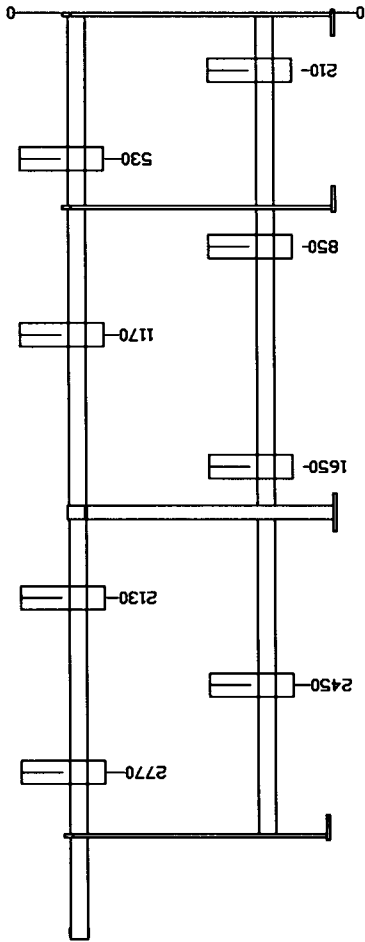
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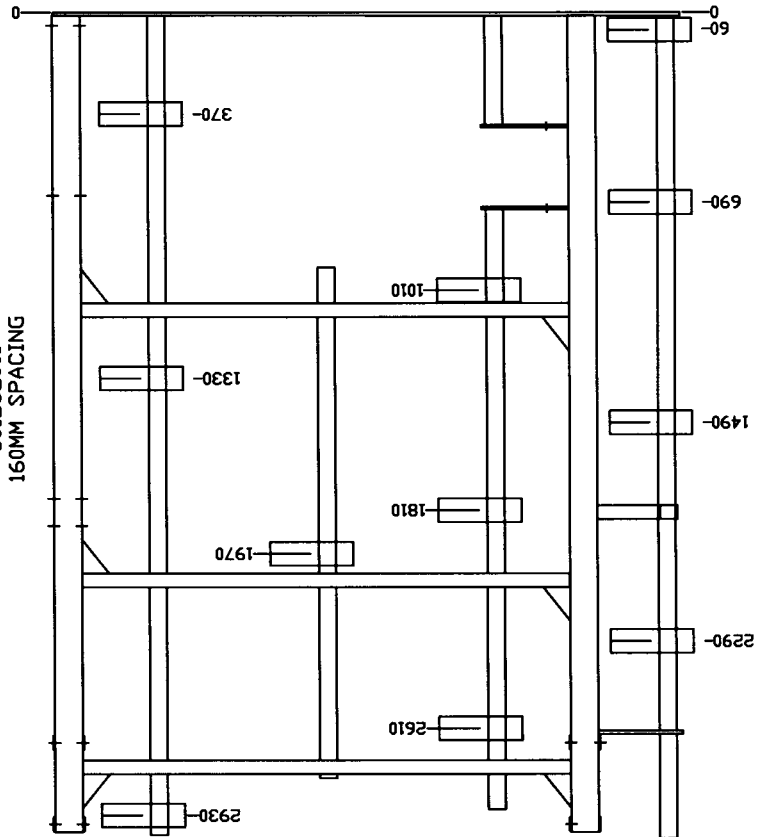
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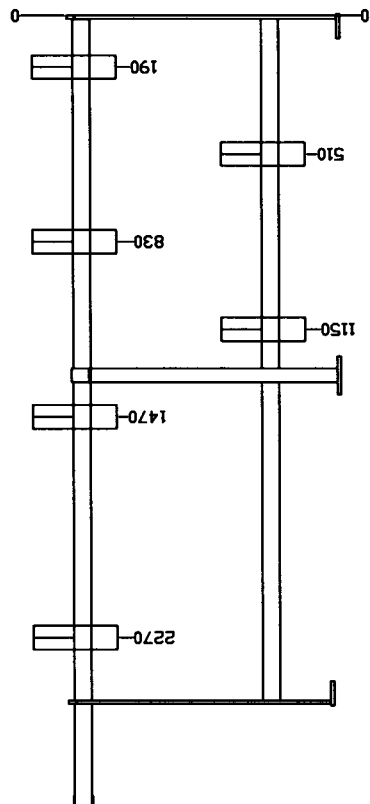
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30 WING FRAME
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25 FRONT FRAME
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25 WING FRAME
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160MM SPACING

