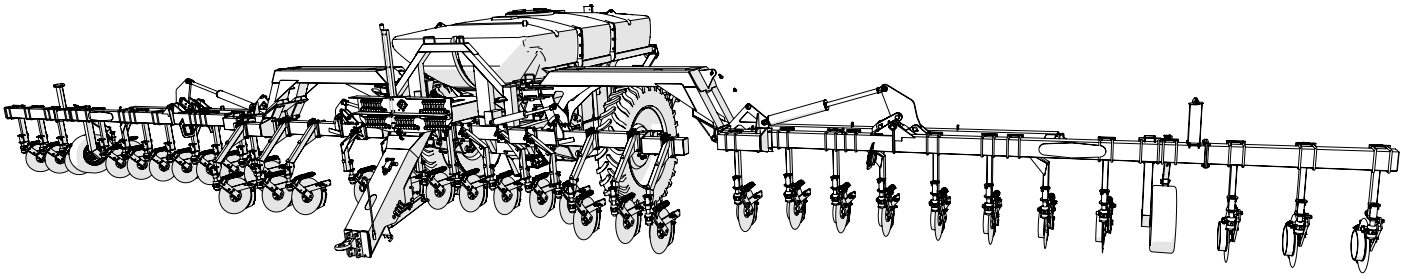
Manual

nitro gro

ASSEMBLY MANUAL

MODEL 6018



Rev. 4.20.2020

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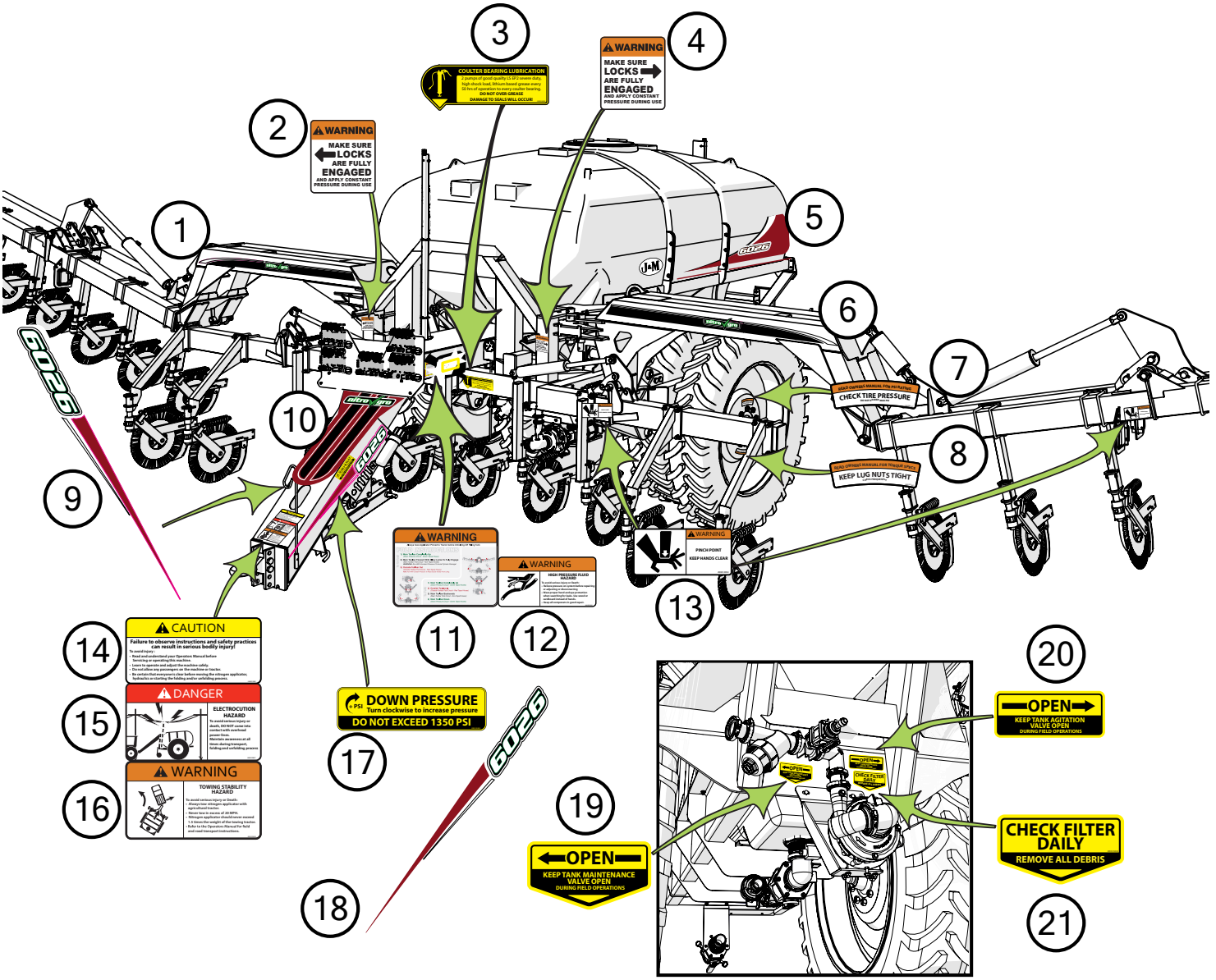
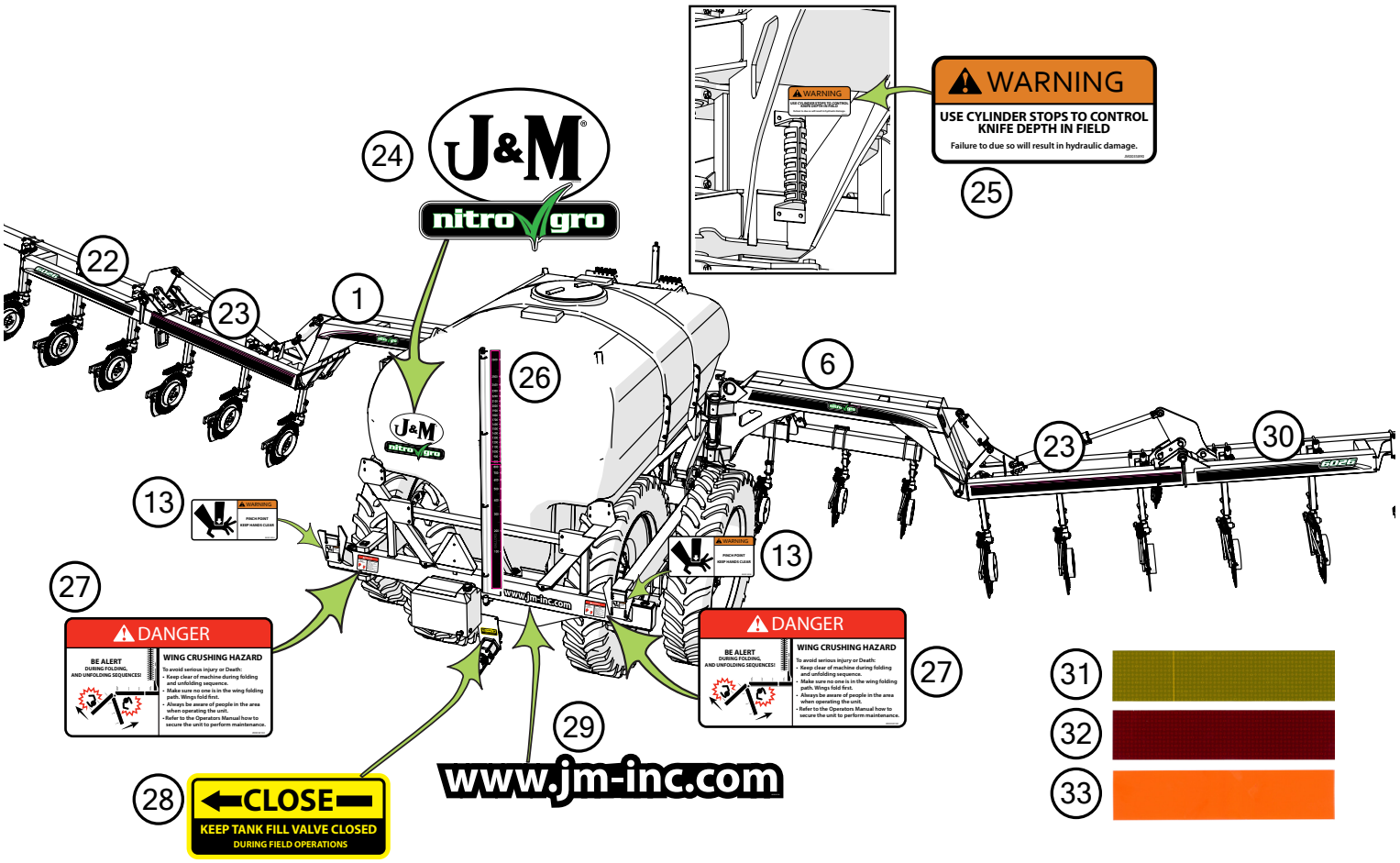
www.jm-inc.com

Decals



	Description	Part No.
1	NitroGro Wing Decal (Front Right, Rear Left)	JM0055012
2	Make Sure Locks are Fully Engaged Decal (Right)	JM0055013
3	Coulter Bearing Lubrication Decal	JM0038099
4	Make Sure Locks are Fully Engaged Decal (Left)	JM0055018
5	6018 Tank Stripes Red (Left)	JM0055208
5	6018 Tank Stripes Green (Left)	JM0055209
5	6018 Tank Stripes Red (Right)	JM0055210
5	6018 Tank Stripes Green (Right)	JM0055211
6	NitroGro Wing Decal (Front Left, Rear Right)	JM0055023
7	Check Tire Pressure NitroGro Decal	JM0038097
8	Tighten All Wheel Nuts NitroGro Decal	JM0035885
9	Tongue 6018 Stripe Red (Right)	JM0055212
9	Tongue 6018 Stripe Green (Right)	JM0055213
10	Tongue NitroGro Top Red Decal	JM0055027
10	Tongue NitroGro Top Green Decal	JM0055028

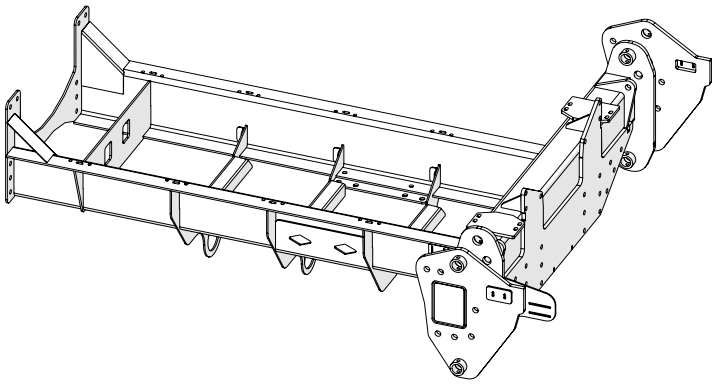
Decals

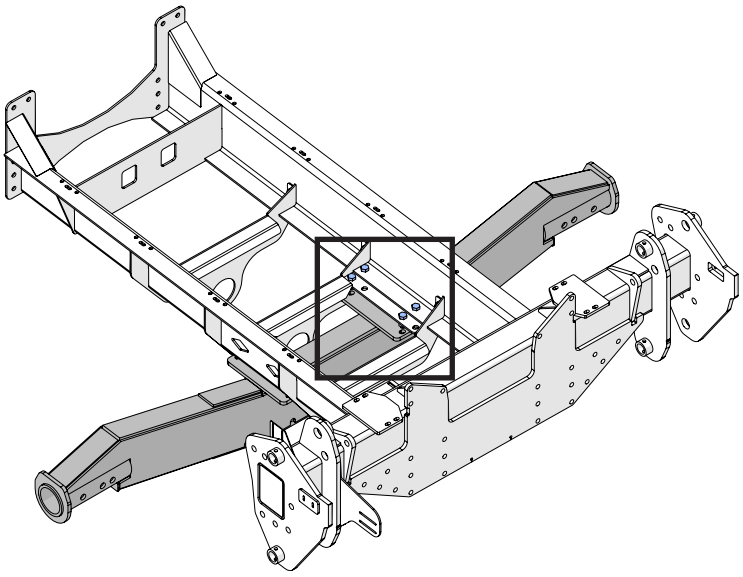


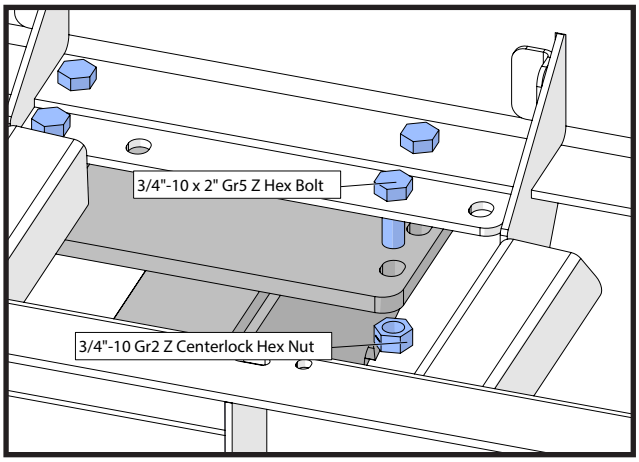
	Description	Part No.
11	Fold Instructions Decal	JM0055029
12	High Pressure Fluid Hazard Decal	JM0035880
13	Pinch Point Keep Hands Clear Decal	JM0014994
14	Failure to Observe Instructions Decal	JM0035881
15	Electrocution Hazard NitroGro Decal	JM0035887
16	Towing Stability Hazard NitroGro Decal	JM0035882
17	Down Pressure Do Not Exceed 1350 PSI Decal	JM0035892
18	Tongue 6018 Stripe Red (Left)	JM0055214
18	Tongue 6018 Stripe Green (Left)	JM0055215
19	Keep Tank Maintenance Valve Open NitroGro Decal	JM0039478
20	Keep Tank Agitation Vavle Open Decal	JM0039479
21	Check Filter Daily Decal	JM0035884
22	6018 Back Wing Stripe (Left)	JM0055216
23	Back Wing Solid Stripe	JM0055033
24	J&M NitroGro Logo 14.375 x 12.125	JM0055034
25	Use Cylinder Stops Decal NitroGro	JM0035890
26	Gallon Marker for NitroGro	JM0055035
27	Wing Crushing Hazard Decal	JM0038100
28	Keep Tank Fill Valve Closed Decal	JM0035891
29	www.jm-inc.com Decal	JM0038108
30	6018 Back Wing Stripe (Right)	JM0055217
31	Yellow Reflector	JM0009946
32	Red Reflector	JM0009945
33	Orange Reflector	JM0009944

Assembly Instructions

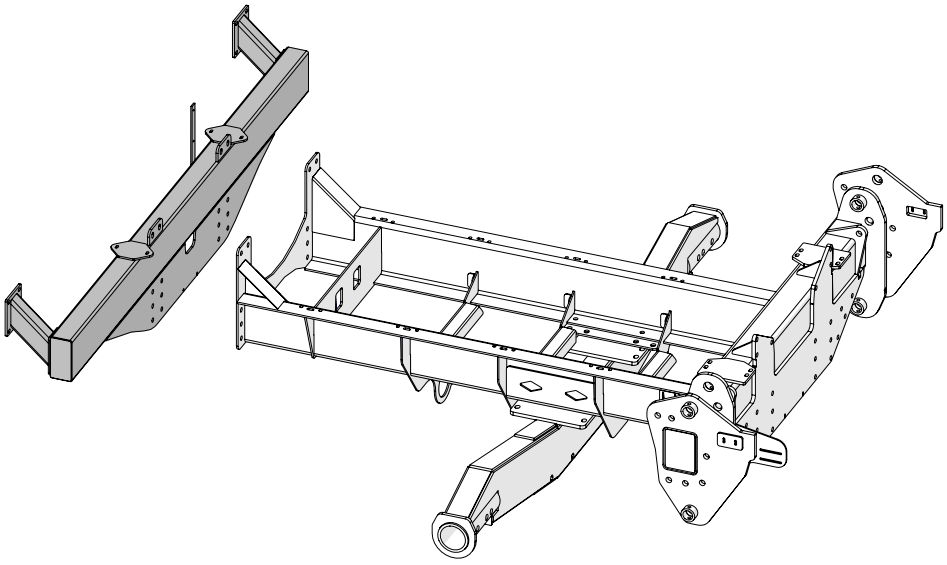
Start with main frame and prop it up on stands at least 26" off of the ground. Bring in the axle where it is shown in the image below. Secure with the hardware shown in the image.

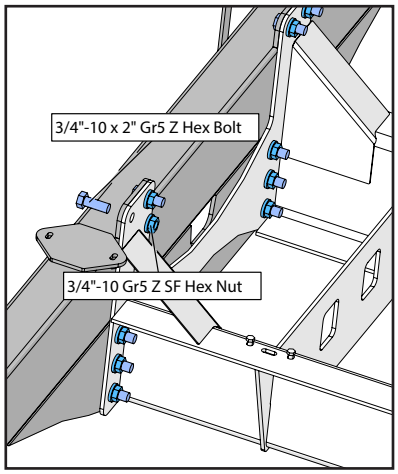






Add the bumper shown.

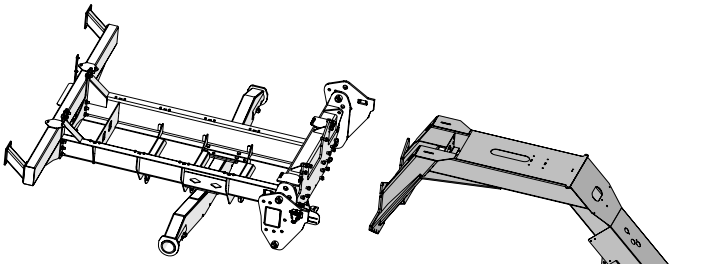


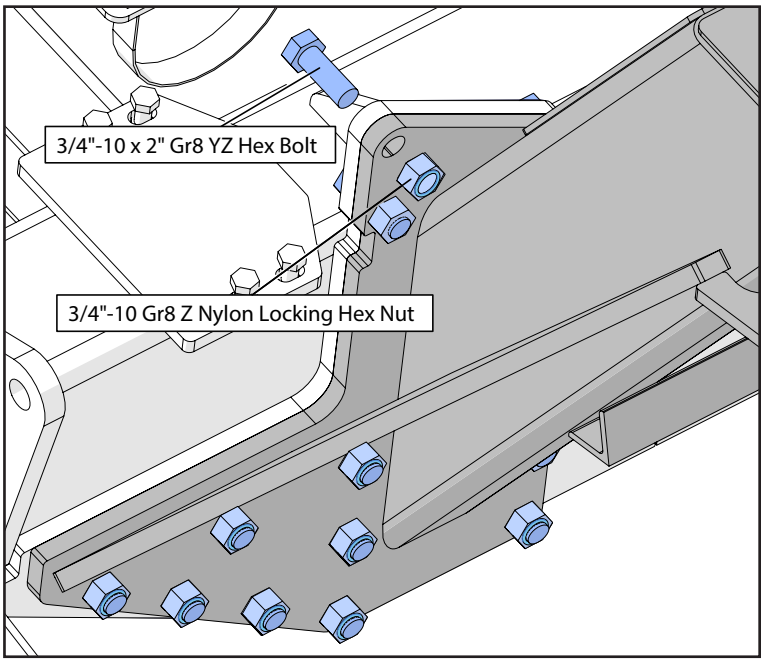


Tighten all nuts and bolts pictured above to 260 ft-lbs.

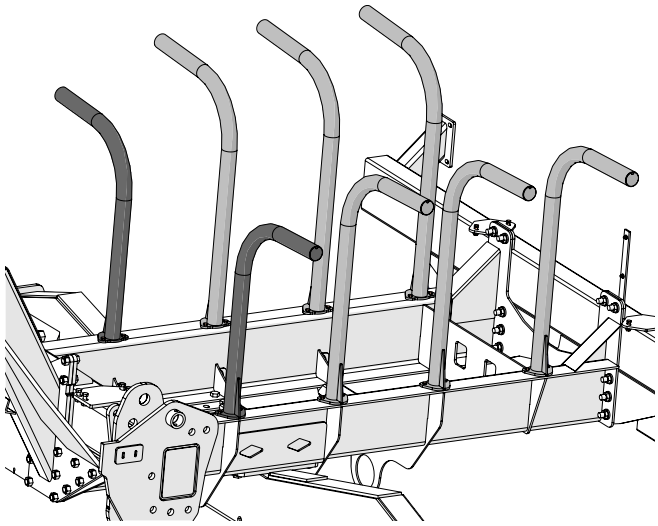
Assembly Instructions

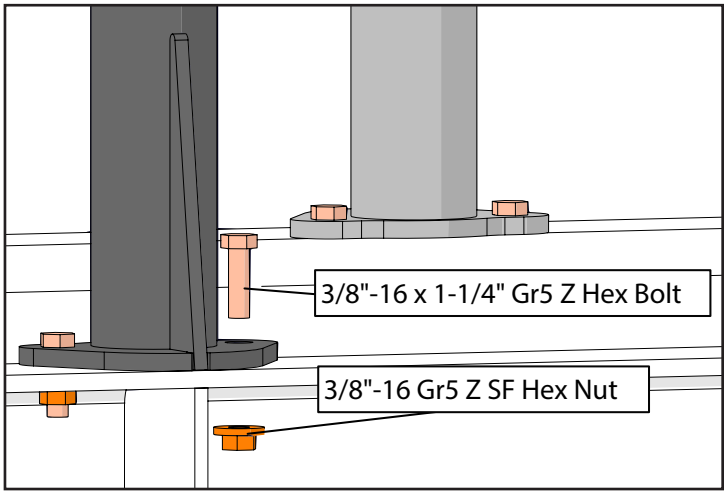
Mount the tongue to the main frame using the orientation and bolts shown in the images below. There will be 26 bolts and nuts in all. Tighten these bolts and nuts to 380 ft-lbs.





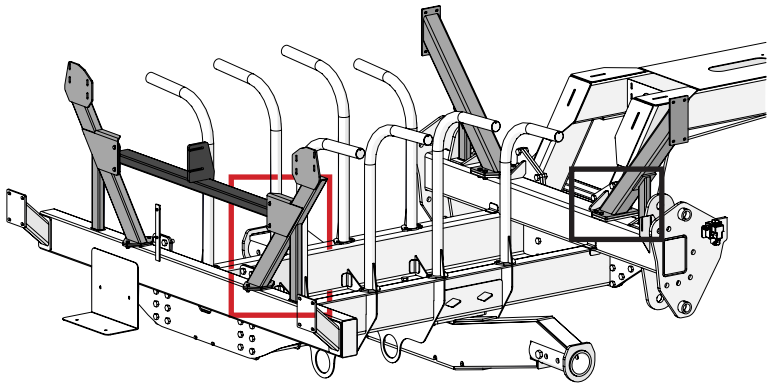
Add the "tank support ribs" in the picture shown, with the two shorter ribs towards the front of the applicator.

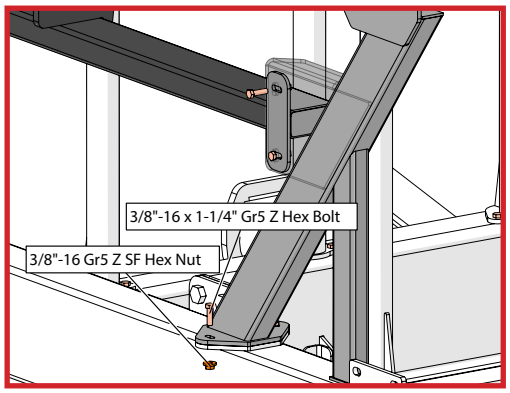


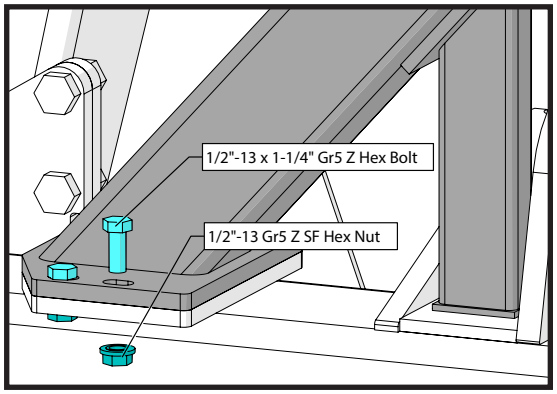


Assembly Instructions

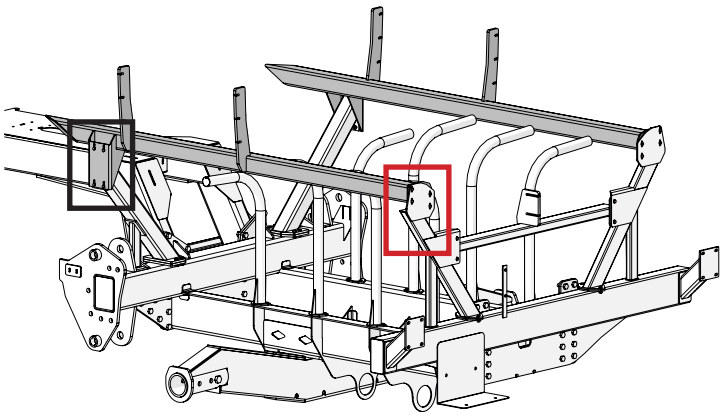
Add the front and back tank supports as shown.

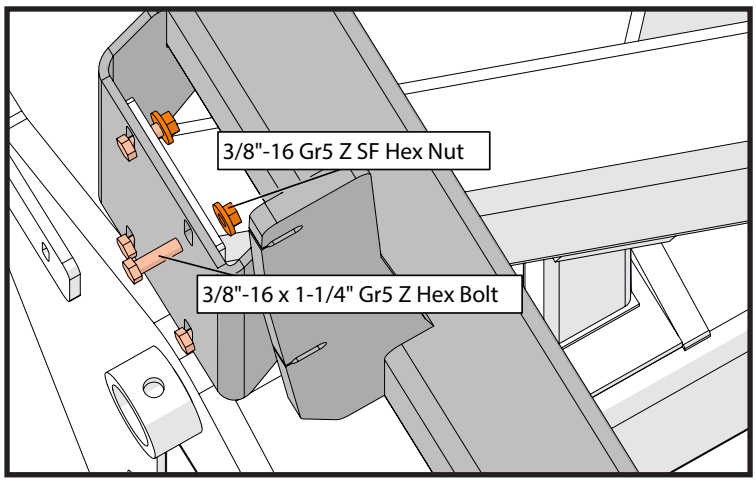


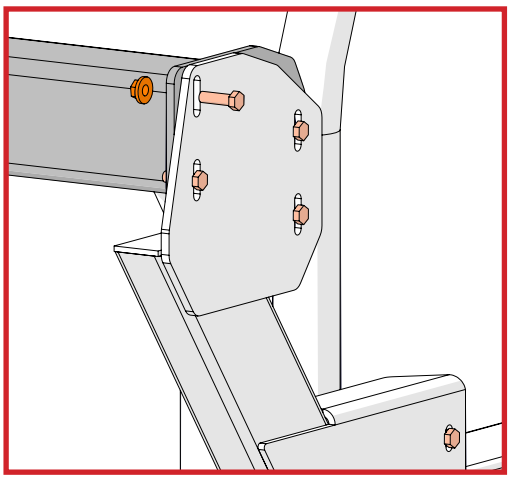




Add the side supports.

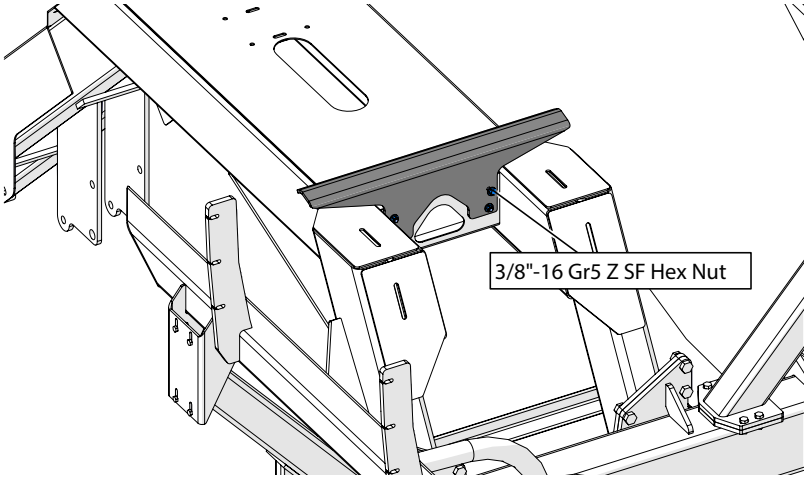


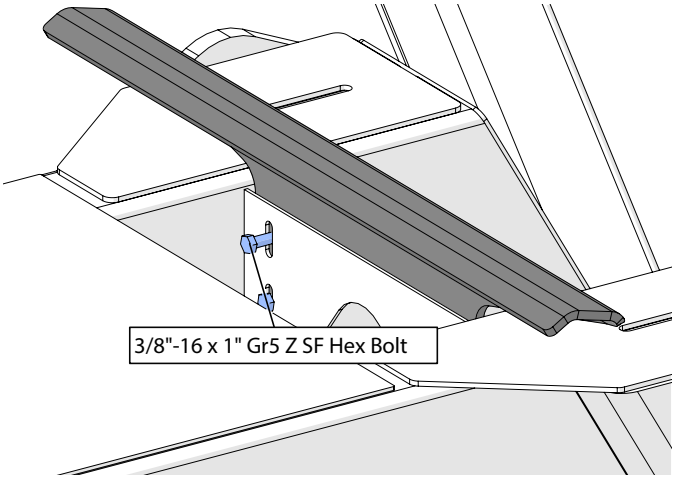




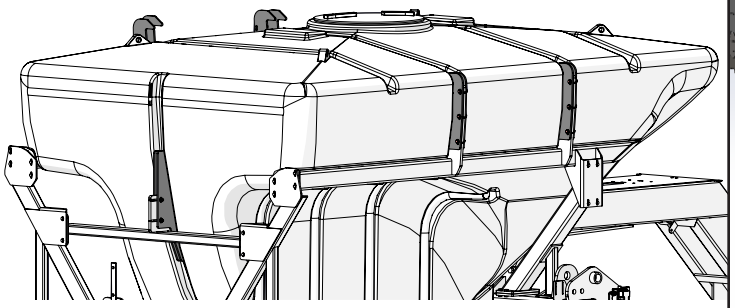
Assembly Instructions

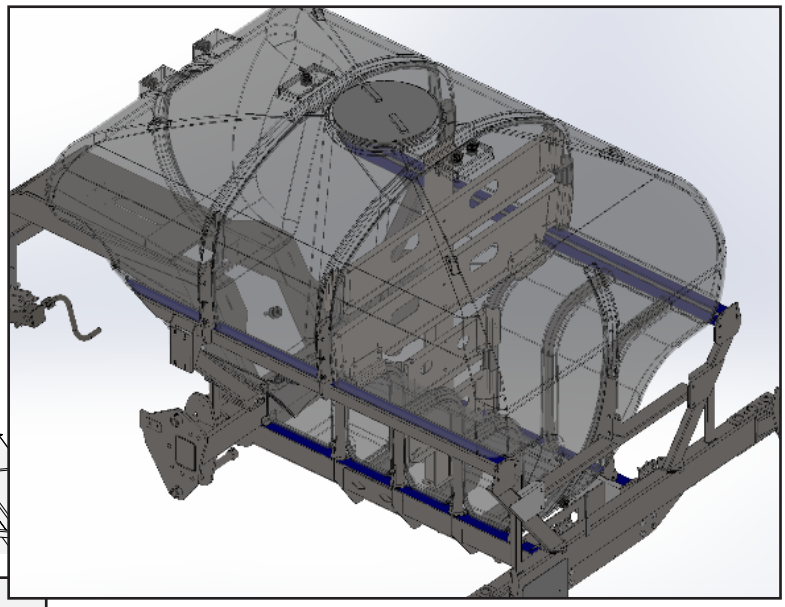
Add the front tank support on the tongue weldment.

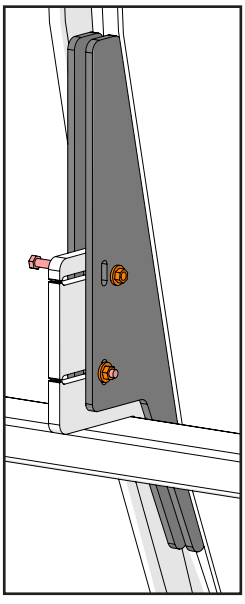


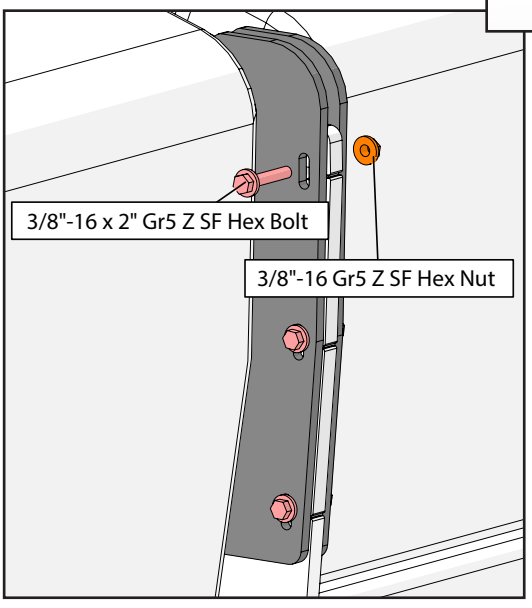


Add the tank and secure the brackets. Use the picture below as a reference for location and hardware. T**ank hits as evenly as possible on all support structures. Use slots to minimize gaps as much as possible on all support surfaces. Main support surfaces are in blue below.**



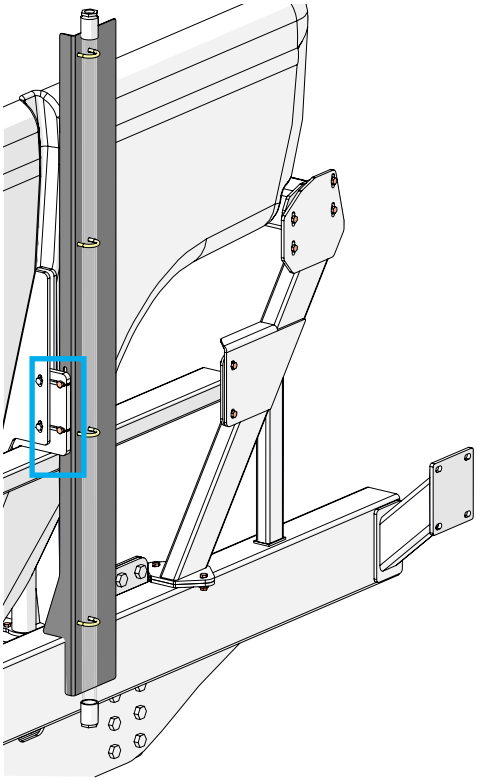


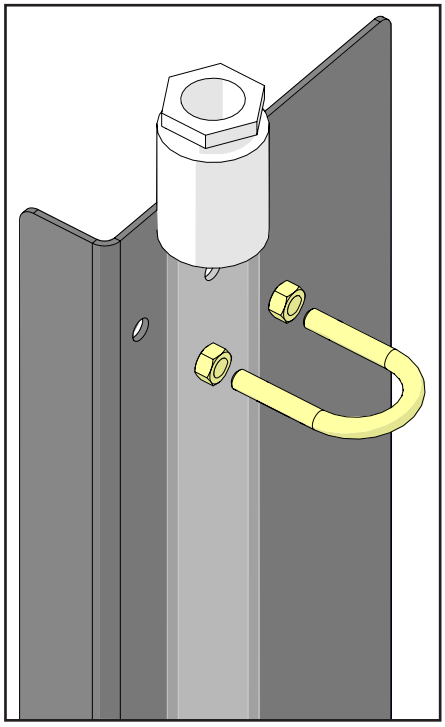




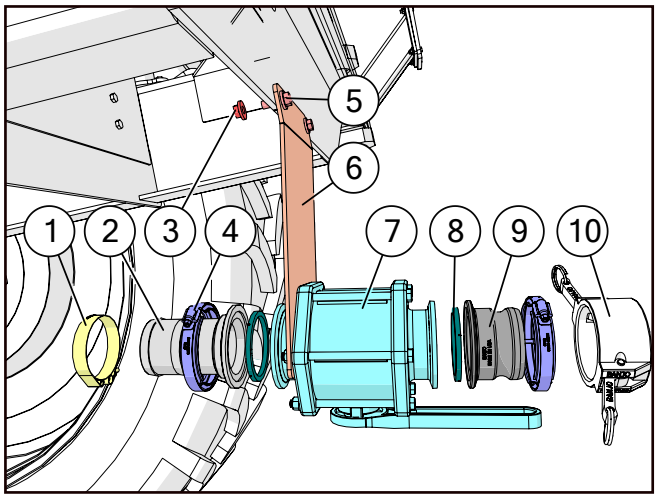
Assembly Instructions

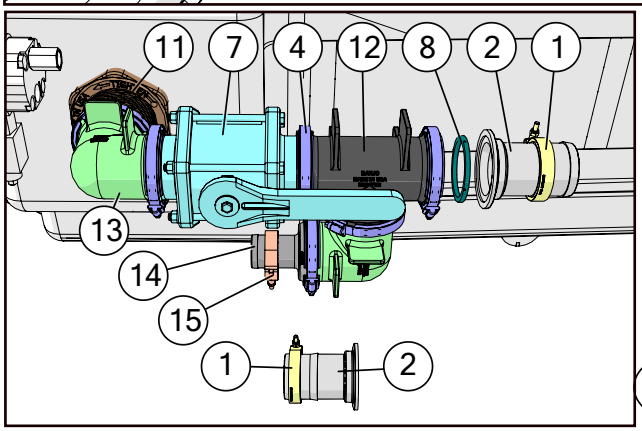
Add the rear tank sight glass bracket with sight glass attached. Will require (2) 3/8" x 1" Z Gr 5 SF hex bolt and (2) 3/8" Z Gr 2 hex nuts. The blue box in the picture below shows the location of the bolts and nuts. The sight glass is secured by a 5/16" U-bolt and (2) 5/16" centerlock hex nuts.

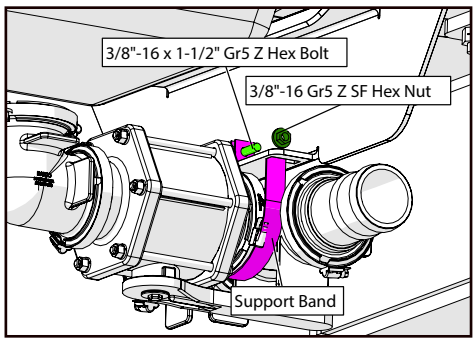




Add the fill valves at the back of the applicator and directly underneath the tank in the exposed "sump". All connections must have a gasket. Do not forget the support band, which holds the valve assembly up.



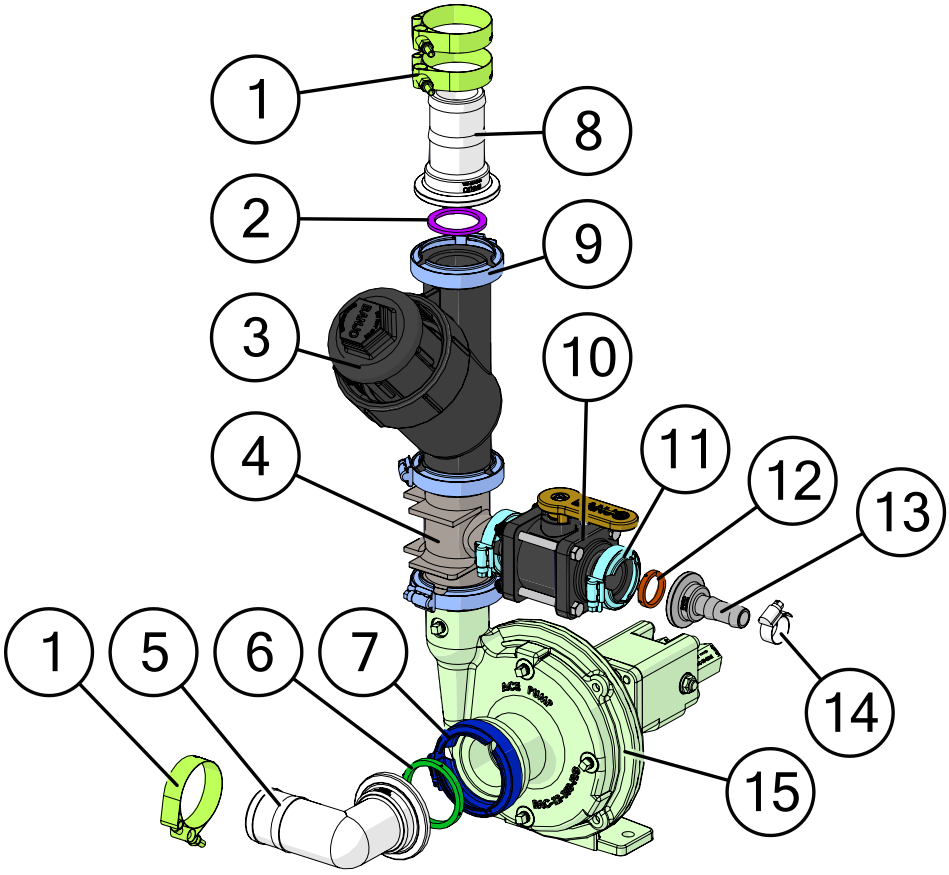


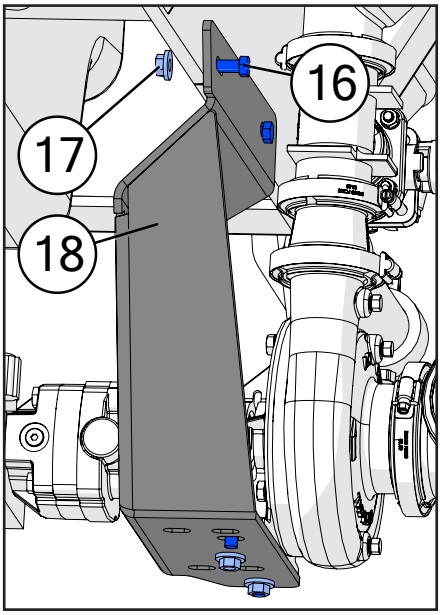


	Description	Part No.
1	T-Bolt Hose Clamp 3" Hose, 3-5/16" Min OD	JM0035248
2	3" Manifold Flange x 3" Hose Barb	JM0021244
3	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
4	Manifold Worm Screw Clamp 3"	JM0035237
5	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
6	Ball Valve Mount Plate 3" Banjo	JM0038663
7	Ball Valve - 3" Full Port Flange Manifold	JM0021230
8	3" Manifold Gasket with Rib EPDM	JM0021239
9	3" Manifold Flange x 3" QDC Male	JM0035205
10	3" Poly Cam Lever Cap	JM0035206
11	3" MNF x 3" FNPT Tank Fitting BTM DRN	JM0035114
12	3" Manifold Tee	JM0021232
13	3" Manifold Flange; 90° Coupling	JM0033979
14	3" Manifold Flange x 2" Hose Barb	JM0034333
15	T-Bolt Hose Clamp 2" Hose, 2-5/16" Min OD	JM0035247

Assembly Instructions

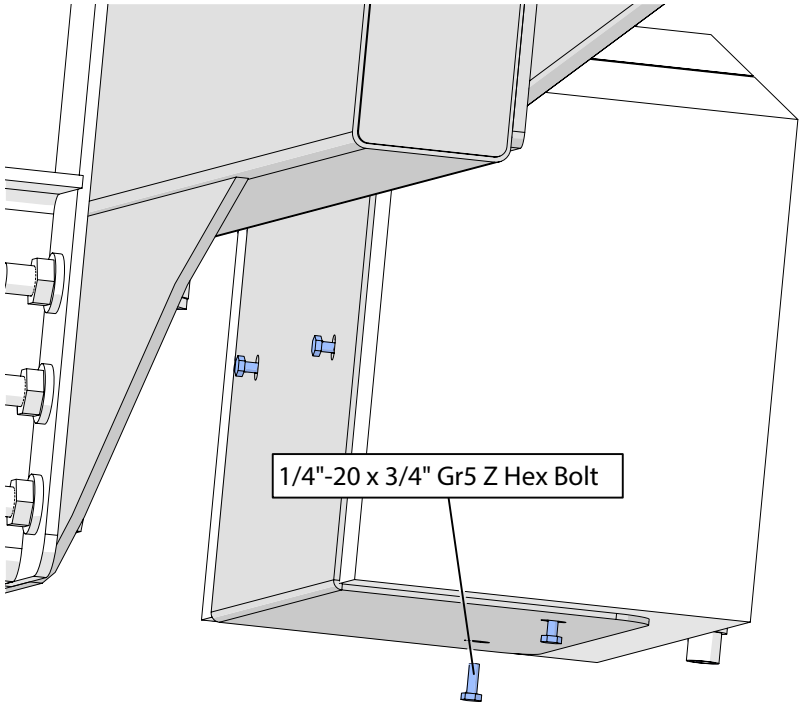
Add the pump mounting bracket as well as the pump and components as shown in the images and table below. The pump location is underneath the connection between the main frame and tongue. Each connection in the manifold will need to have a gasket.



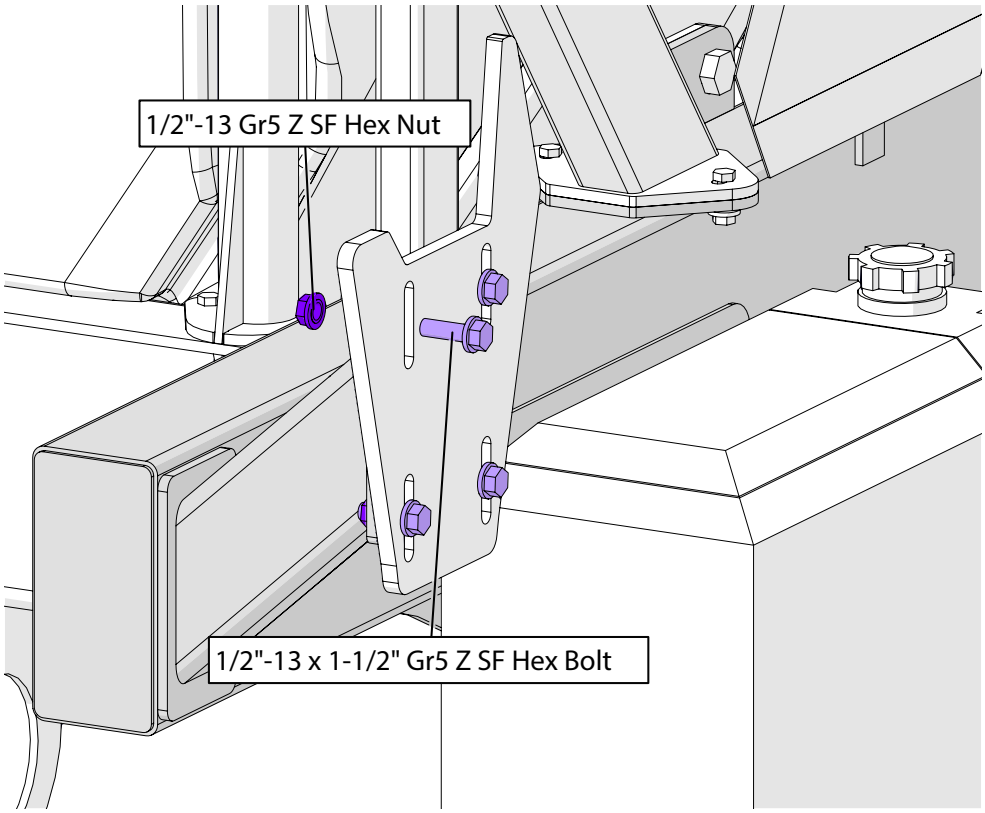


	Description	Part No.
1	T-Bolt Hose Clamp 2" Hose, 2-5/16" Min OD	JM0035247
2	Manifold Gasket for M200 Fittings	JM0021145
3	Manifold Y Strainer - M200 Manifold Flange, 30 Mesh	JM0033803
4	M200 Manifold Flange x M200 Manifold Flange x M100 Manifold Flange; Tee	JM0035116
5	2" Hose Barb x M220 Manifold Flange; 90 Degree	JM0033807
6	Manifold Gasket for M220 Fittings	JM0035278
7	Manifold Flange Clamp for M220	JM0035238
8	2" Hose Barb x M200 Manifold Flange; Straight	JM0033796
9	Manifold Flange Clamp for M200 Fittings	JM0035251
10	Ball Valve with M100 Manifold Flange	JM0033824
11	Manifold Flange Clamp for M100 Fittings	JM0032496
12	Manifold Gasket for M100 Fittings with Rib	JM0035239
13	M100 Manifold Flange x 3/4" Hose Barb; Straight	JM0021401
14	3/4" Hose Clamp SS	JM0039205
15	FMSC-150F-HYD-206 Ace Pump	JM0038662
16	3/8"-16 x 1-1/4" Gr5 Z Hex Bolt	JM0016675
17	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
18	Applicator Pump Mounting Bracket	JM0050799

Attach the hand wash tank as shown below.

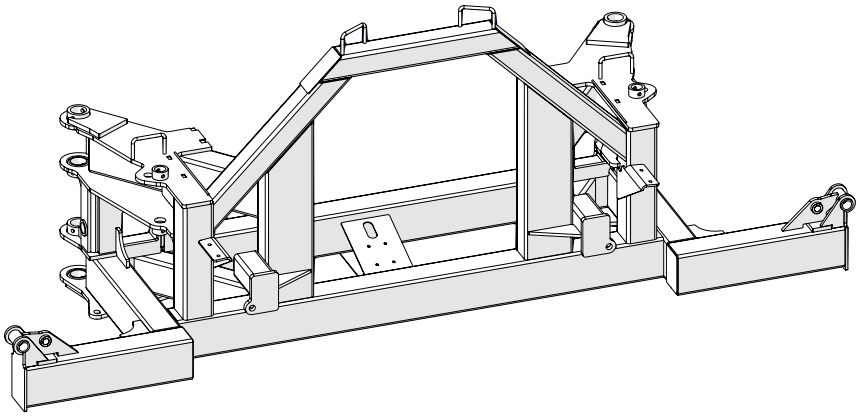


Attach the wing rest plate as shown below. Leave bolts loose for now.

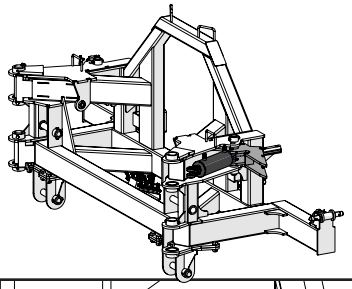


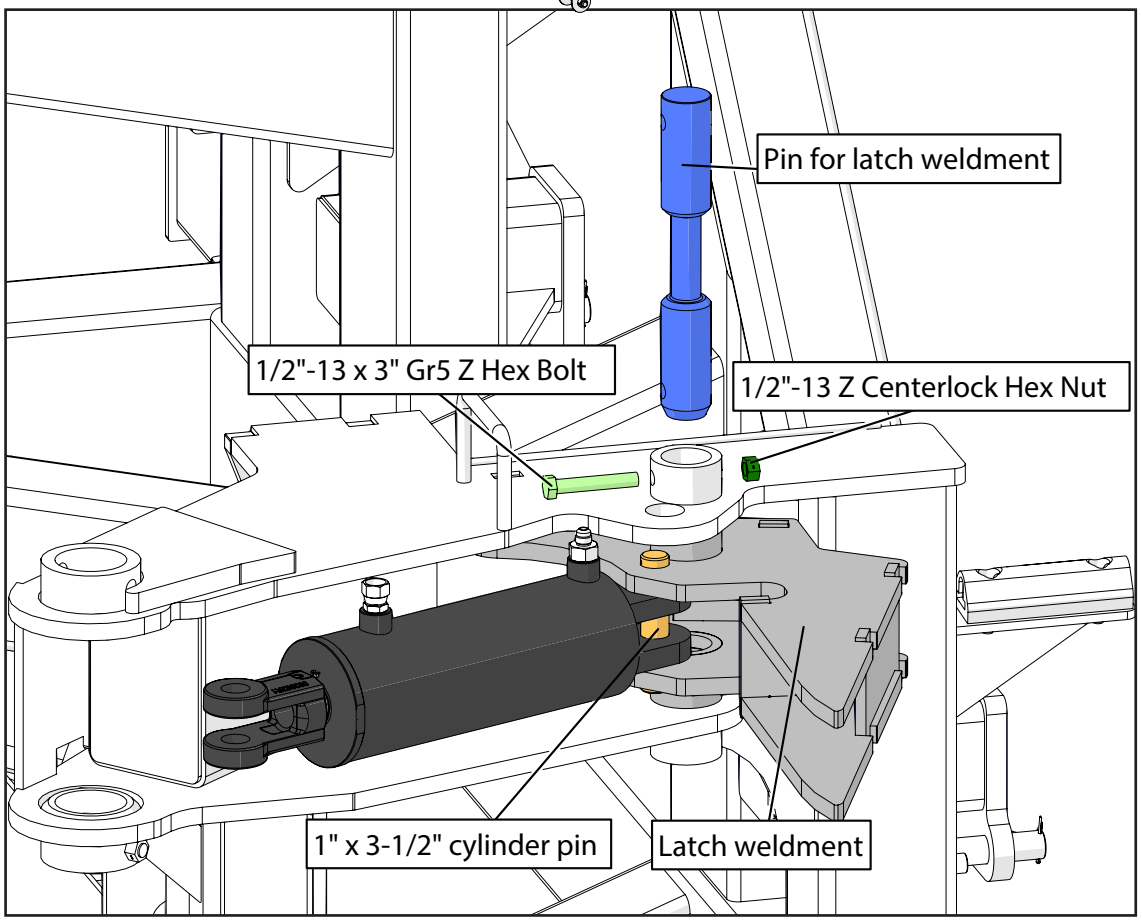
Assembly Instructions

Start the assembly of the toolbar with the main toolbar. Prop up to a desired working height. Make room for the main frame with the tongue to be inserted from behind.

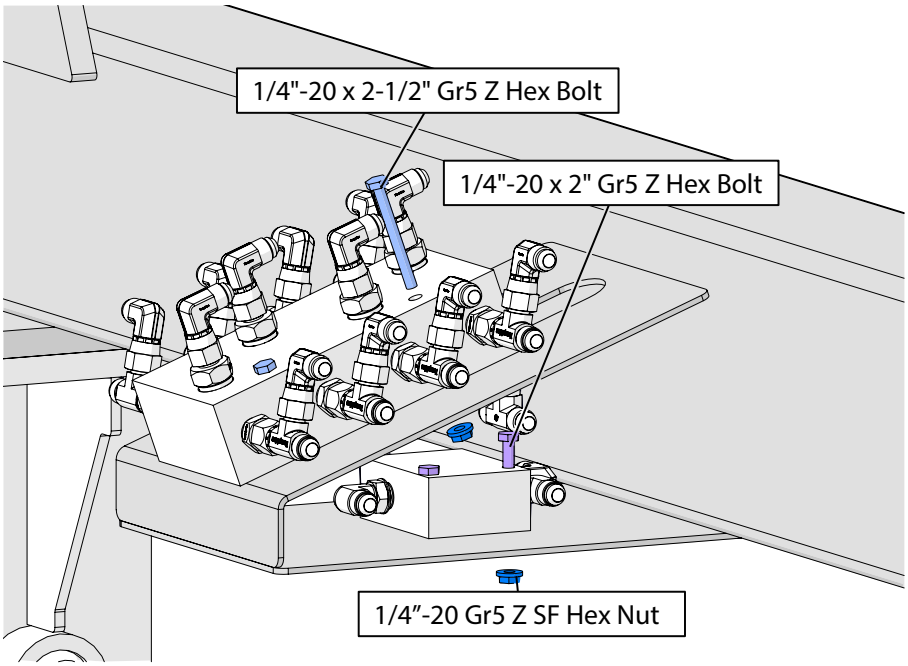


Pin the latch weldment using dumbell shaped 11-1/4" x 1-3/4" pin. Then pin the 4" x 8" cylinder to the latch weldment using the 1" x 3-1/2" cylinder pin and cotter pins. Repeat on the other side.

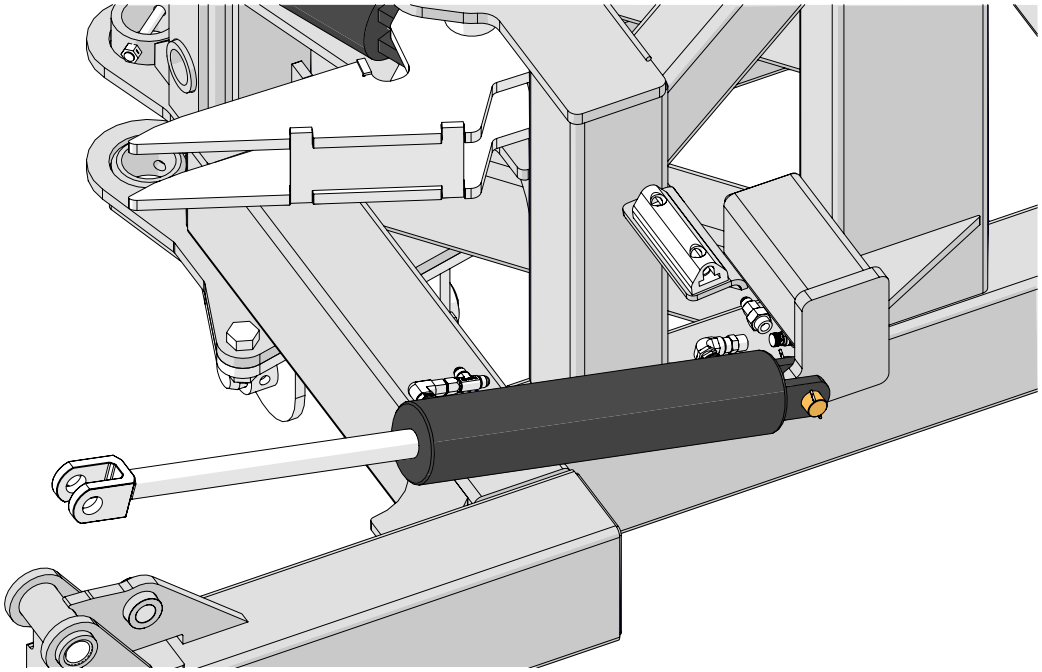




Bolt the hydraulic blocks to the center of the main toolbar.

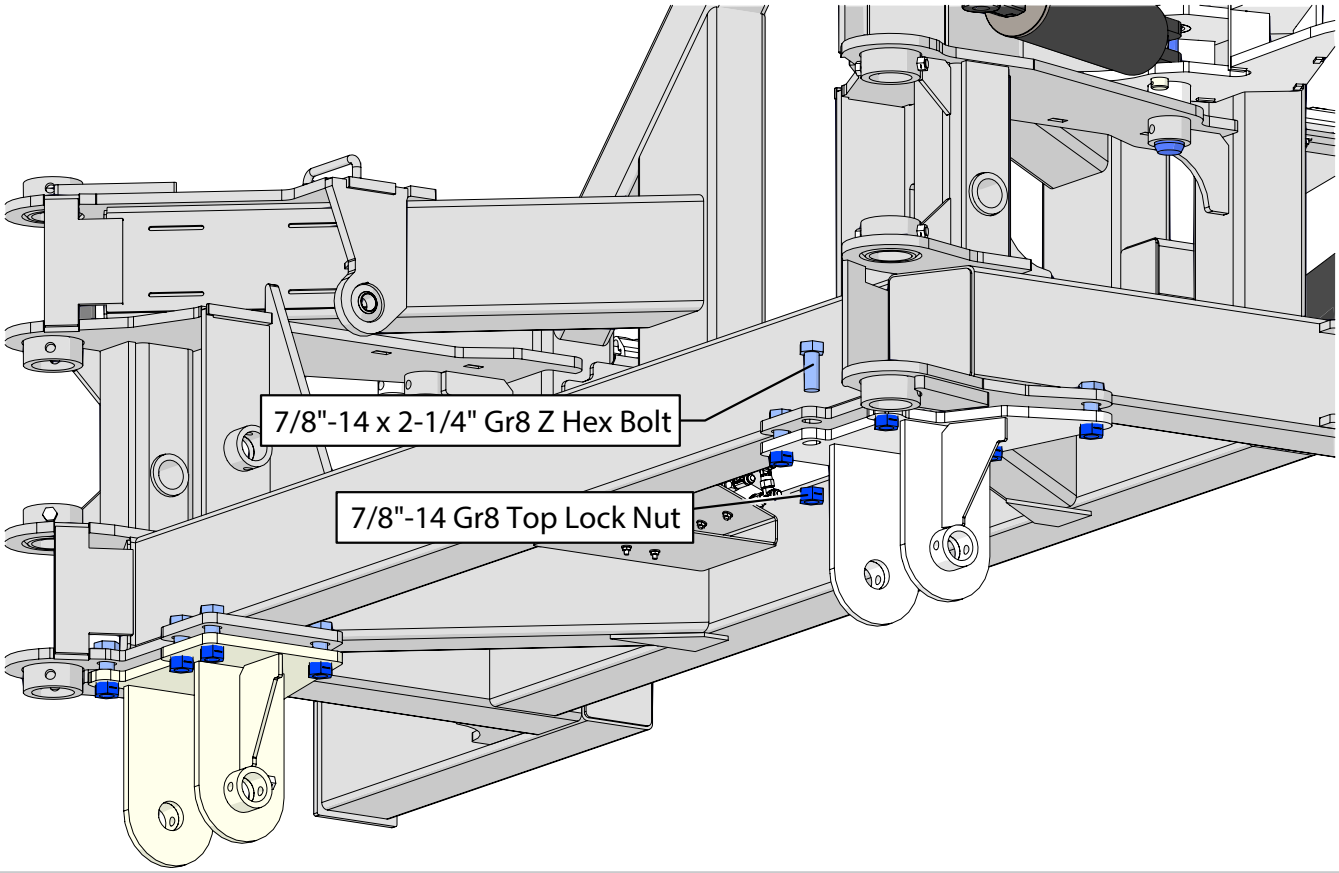


Add the toolbar stub wing cylinders on each side using the 1” x 3-1/2” clevis pins.

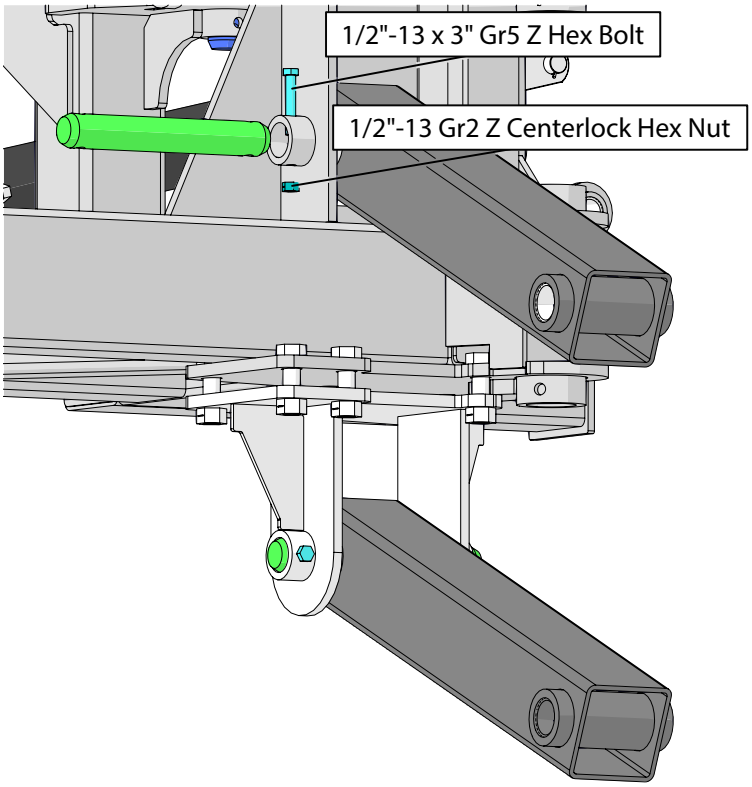


Assembly Instructions

Add the toolbar to the main frame attachment weldments. Do NOT tighten down the bolts. Let them hang to give you more movement when connecting the parrallel linkage arms to the main frame.

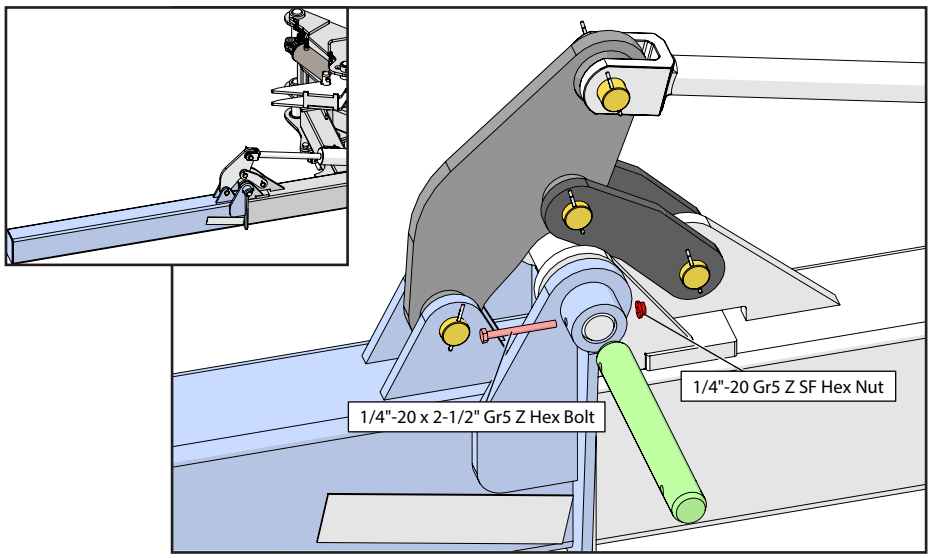


Add the parrallel linkage bars to both sides of the main toolbar.

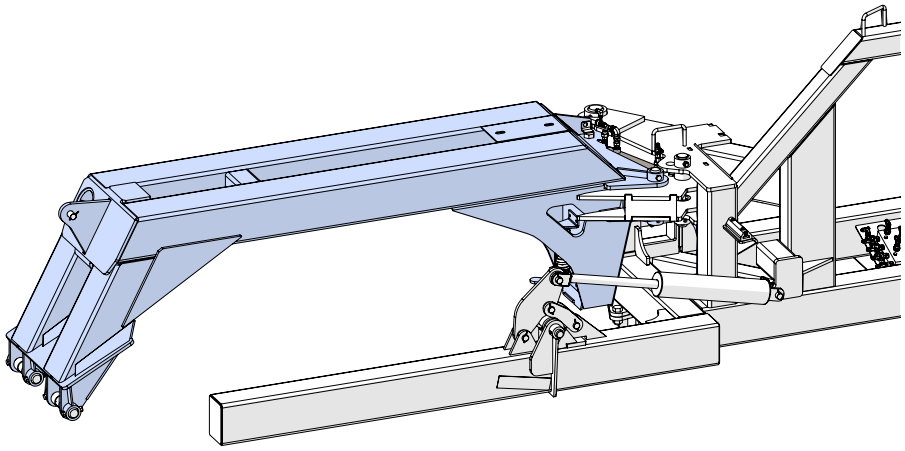


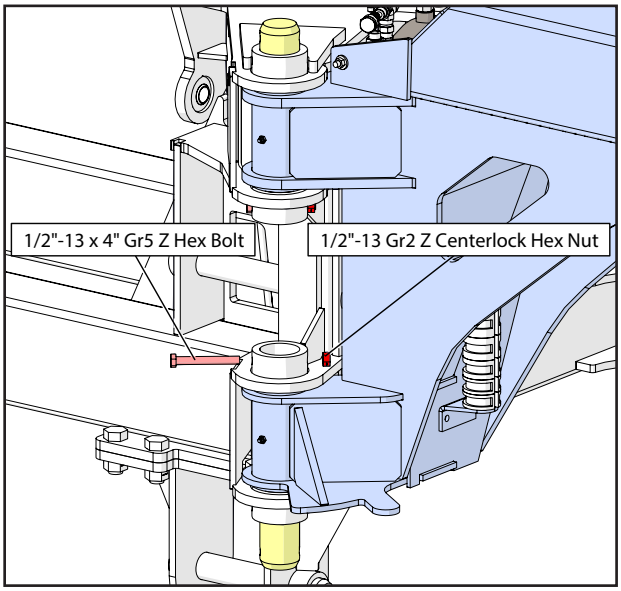
Assembly Instructions

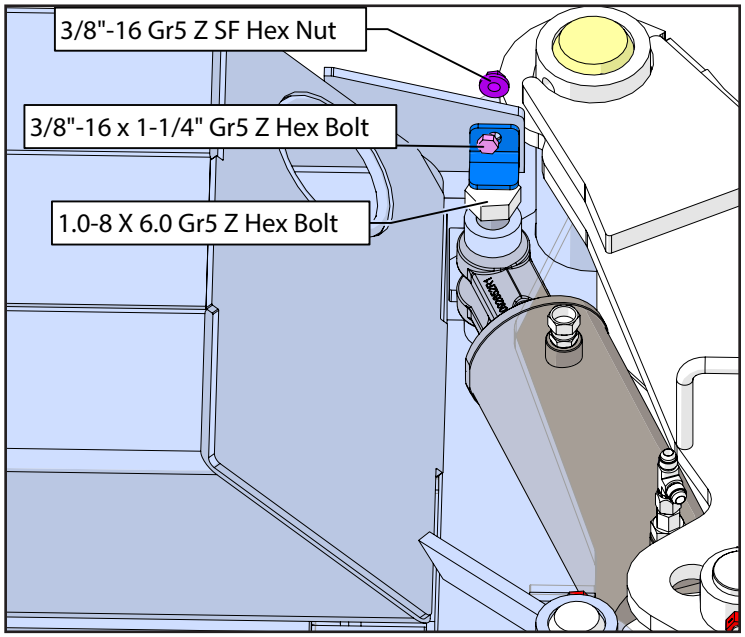
Add the stub wings on each side along with the linkage plates. The green pin shown below is 1-1/4" x 9-3/4".



Attach the inside wing on either side using a 2-1/2" x 11-1/4" clevis pin, shown in yellow below.

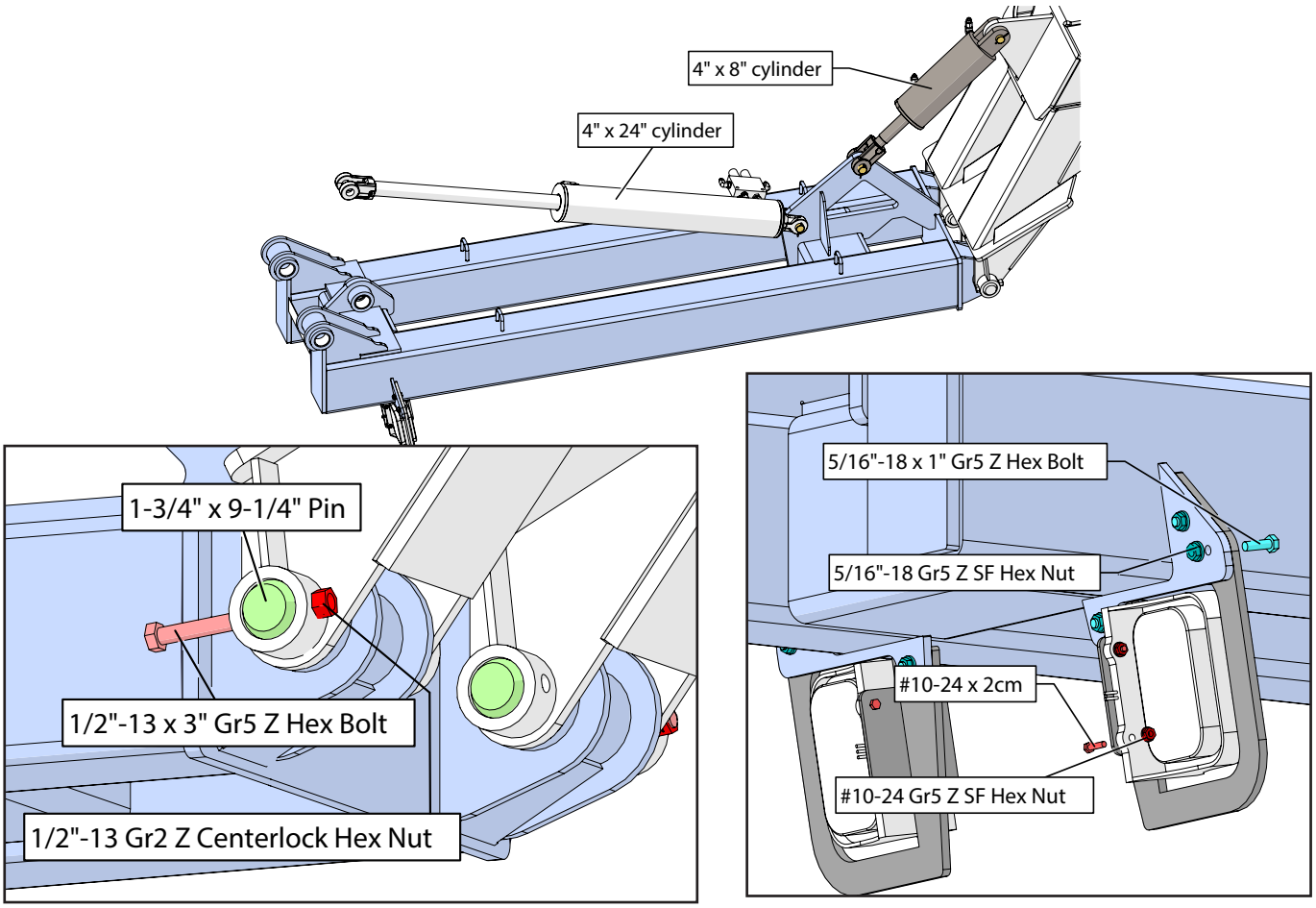




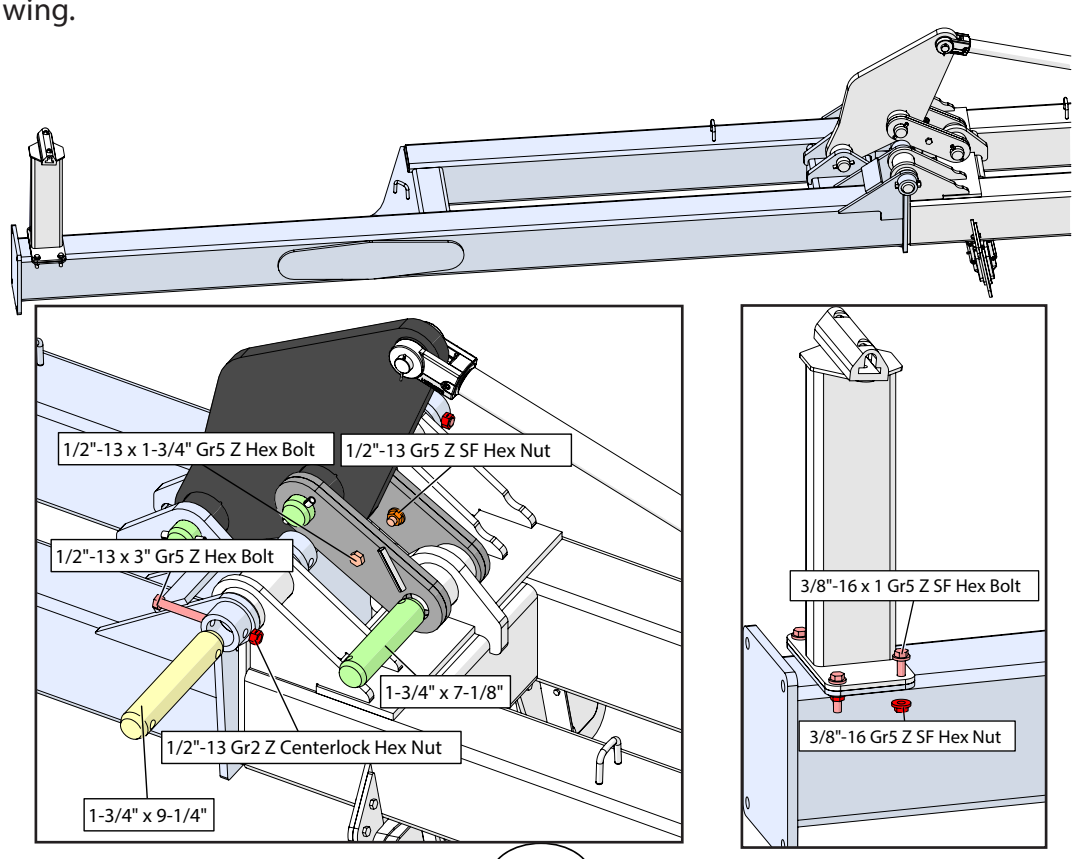


Assembly Instructions

Add the middle wing and light brackets, lights, and cylinders, as shown below.

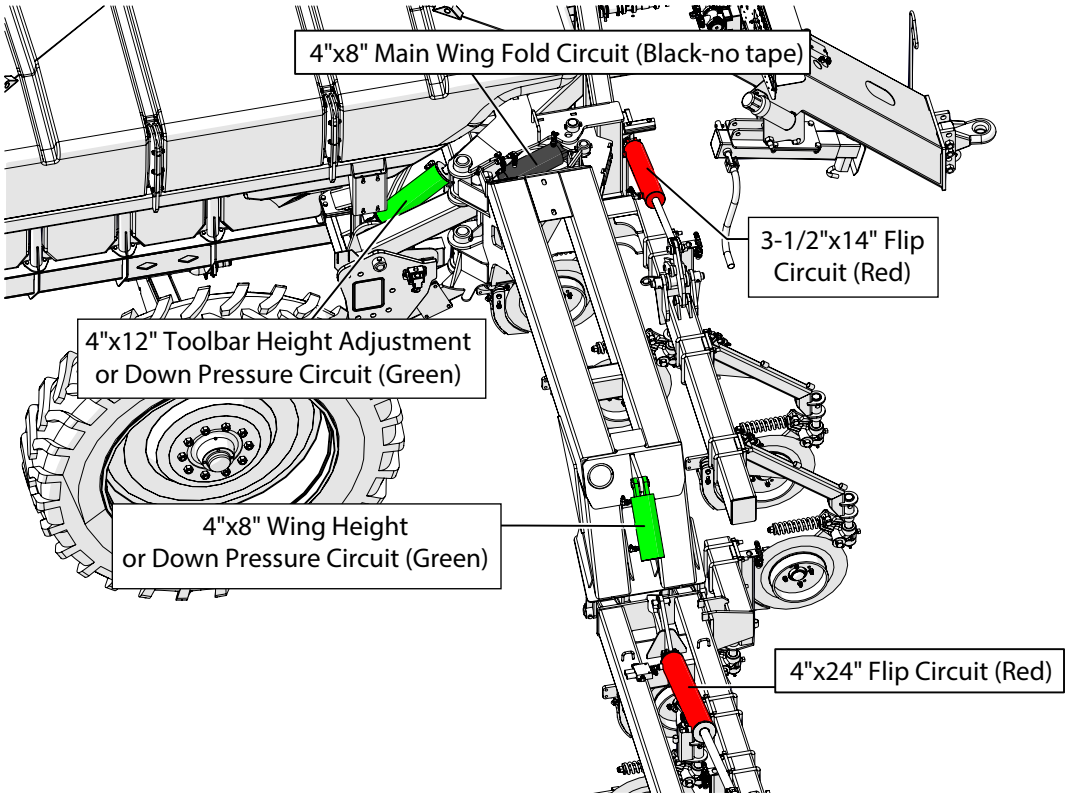


Add the outside wing.

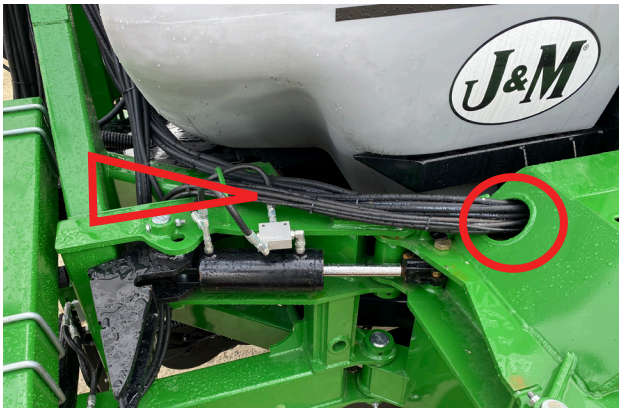


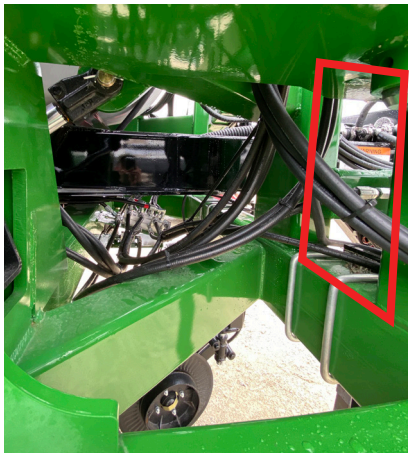
Assembly Instructions

The cylinders below are color coded to the circuit of the hoses you will attach to your tractor.



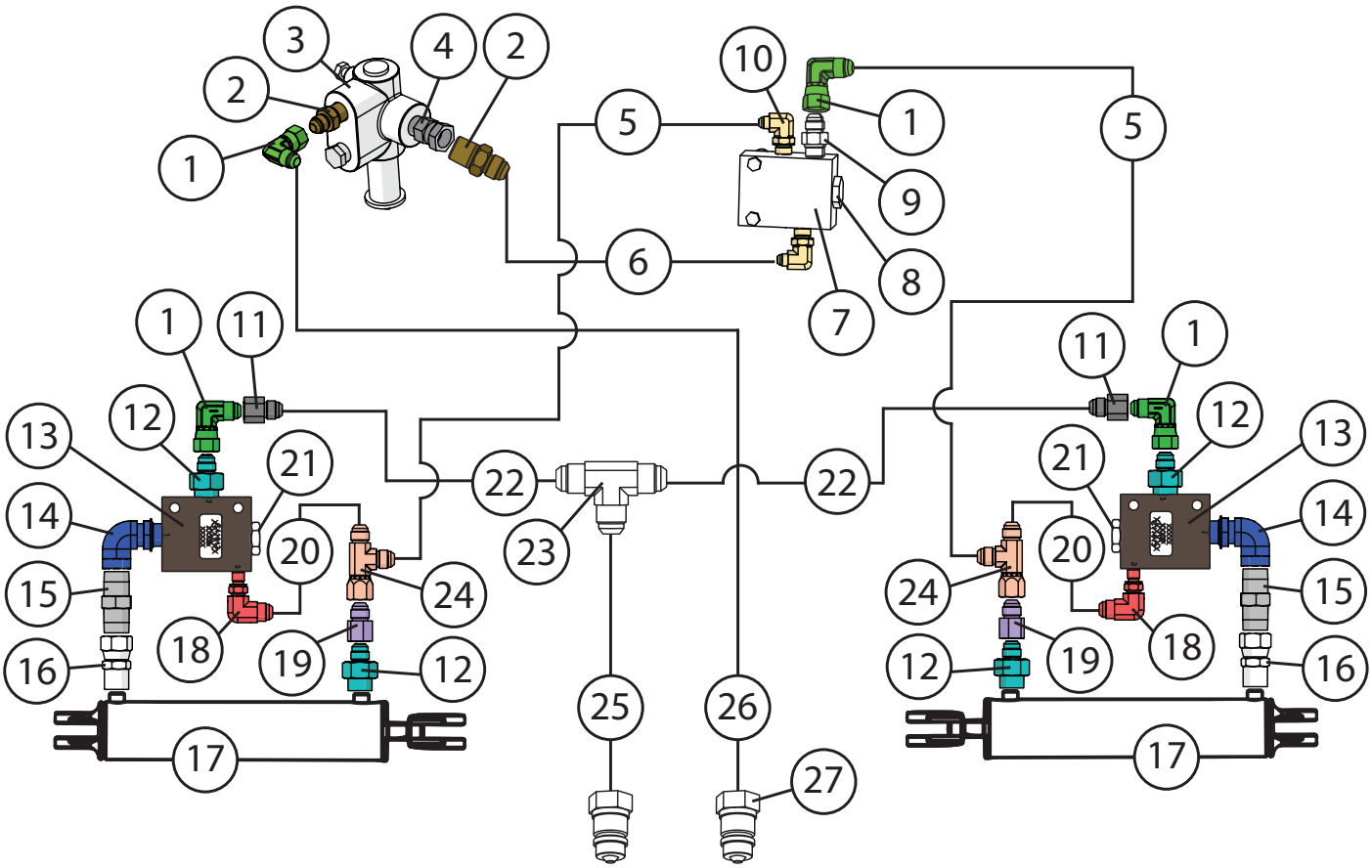
The hydraulic hoses will weave through certain points of the applicator to keep from getting damaged. The pictures below show where those will be. Complete as much of the hydraulics as you can before attaching the toolbar to the main frame. Once you attach the toolbar to the main frame, connect the remaining hydraulic hoses.

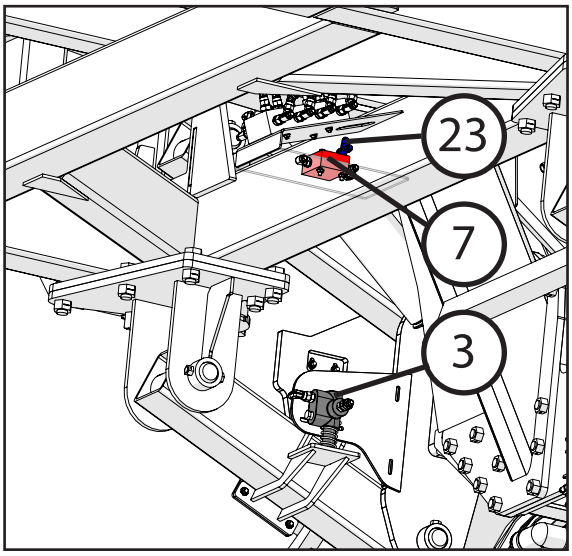




The image above is taken with wings in. You are assembling with wings out and need to leave slack to make the bend.

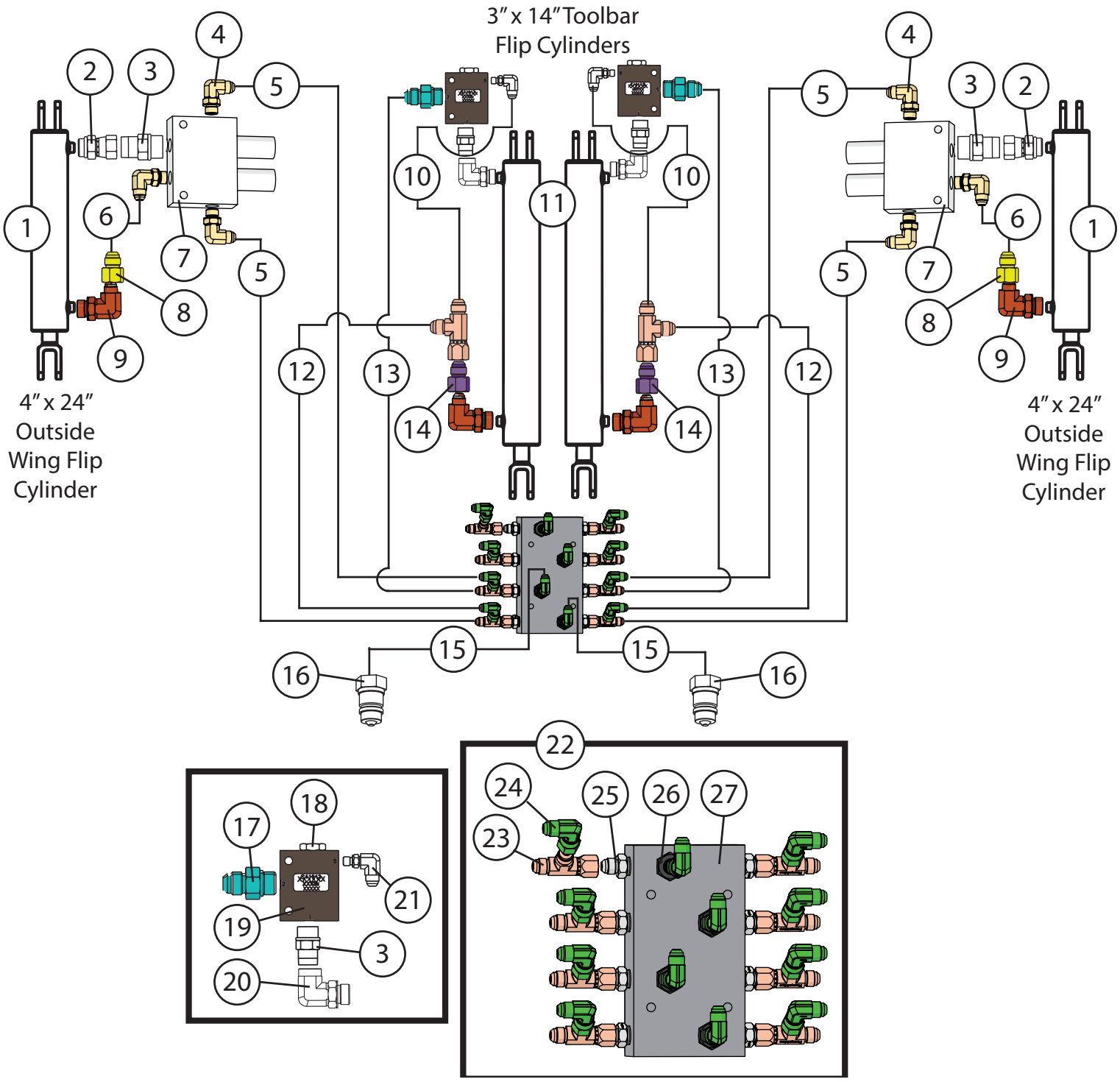
Main Wing Fold Circuit Hydraulic Schematic (Black-No Tape)





	Description	Part No.
1	3/8" Male JIC x 3/8" Female JIC Swivel; 90 Degree Elbow	JM0010295
2	3/8" Male JIC x 3/8" Male NPT; Straight	JM0037167
3	Flow Diverter Valve	JM0018250
4	3/8" Male NPT x 3/8" Female NPT Swivel with .062 Orifice (Restrictor)	JM0018362
5	3/8" x 72" Hydraulic Hose 72inch6M3K-6G-6FJX-6G-6FJX	JM0049157
6	3/8" x 53" Hydraulic Hose 53inch6M3K-6G-6FJX-6G-6FJX	JM0049155
7	50 by 50 Flow Divider Valve	JM0047737
8	3/8" Male NPT Plug	JM0018261
9	3/8" Male JIC x 3/8" Male ORB; Straight	JM0043614
10	3/8" Male JIC x 3/8" Male ORB; 90 Degree Elbow	JM0026121
11	3/8" Male JIC x 3/8" Female JIC with .062 Orifice	JM0047738
12	3/8" Male JIC x 1/2" Male ORB; Straight	JM0010302
13	Pilot Operated Check Valve Body, Single Cavity, SAE Ports	JM0054912
14	1/2" Male ORB x 1/2" Female NPT Swivel; 90 Degree Elbow	JM0047392
15	1/2" Male NPT x 1/2" Male NPT Hex Nipple	JM0030039
16	1/2" Male ORB x 1/2" Female NPT Swivel; Straight	JM0026804
17	4" Bore, 8" Stroke Welded Hydraulic Cylinder	JM0030757
18	3/8" Male JIC x 1/4" Male ORB; 90 Degree Elbow	JM0054921
19	3/8" Male JIC x 3/8" Female JIC with .047 Orifice	JM0054918
20	1/4" x 12" 12inch4M3K-4G-6FPX-4G-6FJX	JM0054920
21	Pilot Check Valve Hyd (FA/VBBA-5) (FA/LNL)	JM0050870
22	3/8" x 85" Hydraulic Hose 85inch6M3K-6G-6FJX-6G-6FJX	JM0049158
23	3/8" Male JIC x 3/8" Male JIC x 3/8" Male JIC; Tee	JM0055046
24	3/8" Male JIC x 3/8" Female JIC Swivel x 3/8" Male JIC; Tee	JM0037163
25	3/8" x 192" Hydraulic Hose 192inch6M3K-6G-8MP-6G-6FJX	JM0053803
26	3/8" x 210" Hydraulic Hose 210inch6M3K-6G-8MP-6G-6FJX	JM0053807
27	1/2" Female NPT Pioneer (PQC-1)	JM0018254

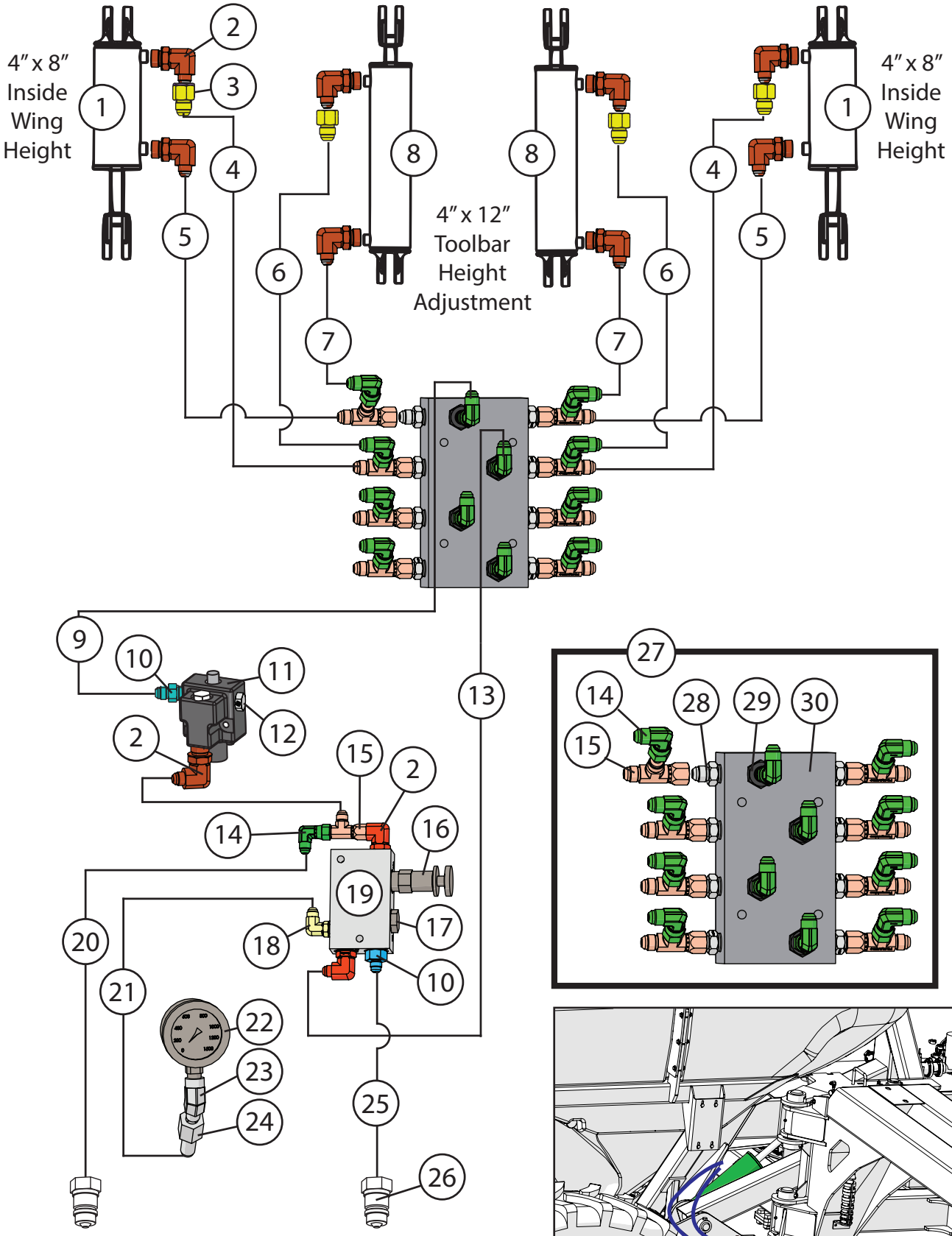
Wing Flip Circuit Hydraulic Schematic (Red)



Wing Flip Circuit Hydraulic Schematic (Red)

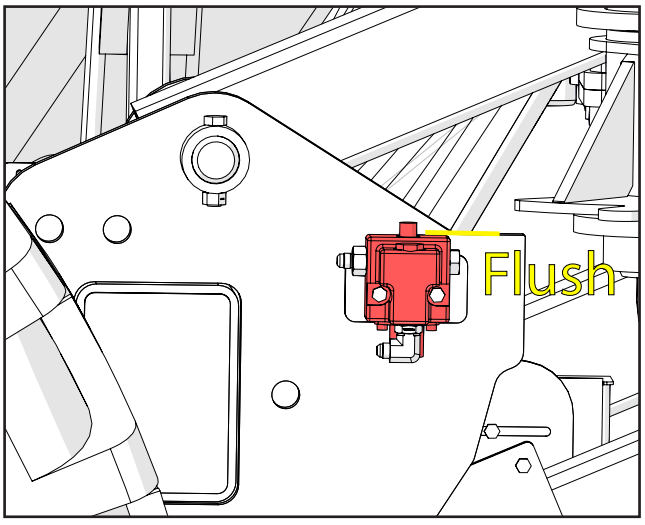
	Description	Part No.
1	4" Bore, 24" Stroke Welded Hydraulic Cylinder	JM0030730
2	1/2" Male ORB x 1/2" Female NPT Swivel; Straight	JM0026804
3	1/2" Male NPT x 1/2" Male O-Ring Hex Nipple	JM0048977
4	3/8" Male JIC x 3/8" Male ORB; 90 Degree Elbow	JM0026121
5	3/8" x 195" Hydraulic Hose 195inch6M3K-6G-6FJX-6G-6FJX	JM0049164
6	3/8" x 25" Hydraulic Hose 25inch6M3K-6G-6FJX-6G-6FJX	JM0049162
7	Dual Counter Balance Valve	JM0047740
8	3/8" Male JIC x 3/8" Female JIC with .094 Orifice	JM0047735
9	3/8" Male JIC x 1/2" Male ORB; 90 Degree Elbow	JM0037159
10	1/4" x 12" 12inch4M3K-4G-6FPX-4G-6FJX	JM0054920
11	3.5" x 14" Welded Non-Cushion JD Cylinder	JM0055022
12	3/8" x 53" Hydraulic Hose 53inch6M3K-6G-6FJX-6G-6FJX	JM0049155
13	3/8" x 36" Hydraulic Hose 36inch6M3K-6G-6FJX-6G-6FJX	JM0049163
14	3/8" Male JIC x 3/8" Female JIC with .062 Orifice	JM0047738
15	3/8" x 192" Hydraulic Hose 192inch6M3K-6G-8MP-6G-6FJX	JM0053803
16	1/2" Female NPT Pioneer (PQC-1)	JM0018254
17	3/8" Male JIC x 1/2" Male ORB; Straight	JM0010302
18	Pilot Check Valve Hyd (FA/VBBA-5) (FA/LNL)	JM0050870
19	Pilot Operated Check Valve Body, Single Cavity, SAE Ports	JM0054912
20	1/2" Male ORB x 1/2" Female NPT Swivel; 90 Degree Elbow	JM0047392
21	3/8" Male JIC x 1/4" Male ORB; 90 Degree Elbow	JM0054921
22	Main 6000 Series Manifold Block with Fittings	JM0054931
23	3/8" Male JIC x 3/8" Female JIC Swivel x 3/8" Male JIC; Tee	JM0037163
24	3/8" Male JIC x 3/8" Female JIC Swivel; 90 Degree Elbow	JM0010295
25	3/8"Male JIC x 3/8" Male NPT; Straight	JM0037167
26	3/8" Male JIC x 1/2" Male NPT; Straight	JM0037172
27	Main Manifold Block (NitroGro)	JM0028902

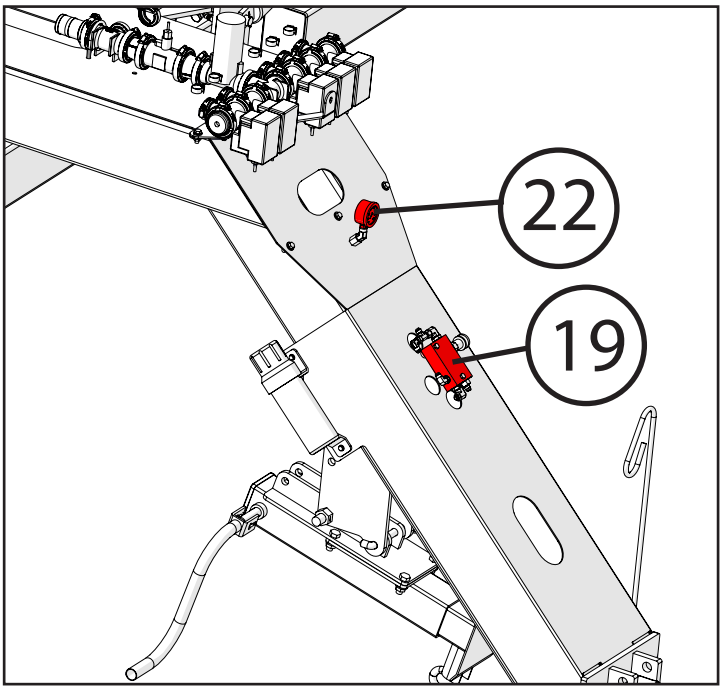
Down Pressure Circuit Hydraulic Schematic (Green)



Down Pressure Circuit Hydraulic Schematic (Green)

	Description	Part No.
1	4" Bore, 8" Stroke Welded Hydraulic Cylinder	JM0030757
2	3/8" Male JIC x 1/2" Male ORB; 90 Degree Elbow	JM0037159
3	3/8" Male JIC x 3/8" Female JIC with .094 Orifice	JM0047735
4	3/8" x 165" Hydraulic Hose 165inch6M3K-6G-6FJX-6G-6FJX	JM0049161
5	3/8" x 180" Hydraulic Hose 180inch6M3K-6G-6FJX-6G-6FJX	JM0049160
6	3/8" x 36" Hydraulic Hose 36inch6M3K-6G-6FJX-6G-6FJX	JM0049163
7	3/8" x 53" Hydraulic Hose 53inch6M3K-6G-6FJX-6G-6FJX	JM0049155
8	4" Bore, 12" Stroke Welded Hydraulic Cylinder	JM0045585
9	3/8" x 85" Hydraulic Hose 85inch6M3K-6G-6FJX-6G-6FJX	JM0049158
10	3/8" Male JIC x 1/2" Male ORB; Straight	JM0010302
11	Cross Remote Stroke Control Valve	JM0051269
12	1/2" Male O-Ring Plug	JM0047733
13	3/8" x 115" Hydraulic Hose 115inch6M3K-6G-6FJX-6G-6FJX	JM0049169
14	3/8" Male JIC x 3/8" Female JIC Swivel; 90 Degree Elbow	JM0010295
15	3/8" Male JIC x 3/8" Female JIC Swivel x 3/8" Male JIC; Tee	JM0037163
16	Hydraforce Pressure Reducing/Relieving Valve	JM0034800
17	Hydraforce Check Valve 5psi Bias Spring	JM0034805
18	3/8" Male JIC x 3/8" Male ORB; 90 Degree Elbow	JM0026121
19	Manifold with 1/2" ORB Ports for PRV and CV (SFP26157)	JM0034773
20	3/8" x 87" Hydraulic Hose 87inch6M3K-6G-8MP-6G-6FJX	JM0053806
21	3/8" x 25" Hydraulic Hose 25inch6M3K-6G-6FJX-6G-6FJX	JM0049167
22	Pressure Gauge 0-1500psi, 2" Face, 1/4" NPT Bottom Mount Donaldson	JM0037152
23	1/ 4" Male NPT x 1/4" Female NPT Rigid; 45 Degree Elbow	JM0037156
24	1/4" Female NPT x 3/8" Male JIC Compression Bulk Head Fitting	JM0037155
25	3/8" x 81" Hydraulic Hose 81inch6M3K-8G-6MP-6G-6FJX	JM0049168
26	1/2" Female NPT Pioneer (PQC-1)	JM0018254
27	Main 6000 Series Manifold Block with Fittings	JM0054931
28	3/8"Male JIC x 3/8" Male NPT; Straight	JM0037167
29	3/8" Male JIC x 1/2" Male NPT; Straight	JM0037172
30	Main Manifold Block (NitroGro)	JM0028902

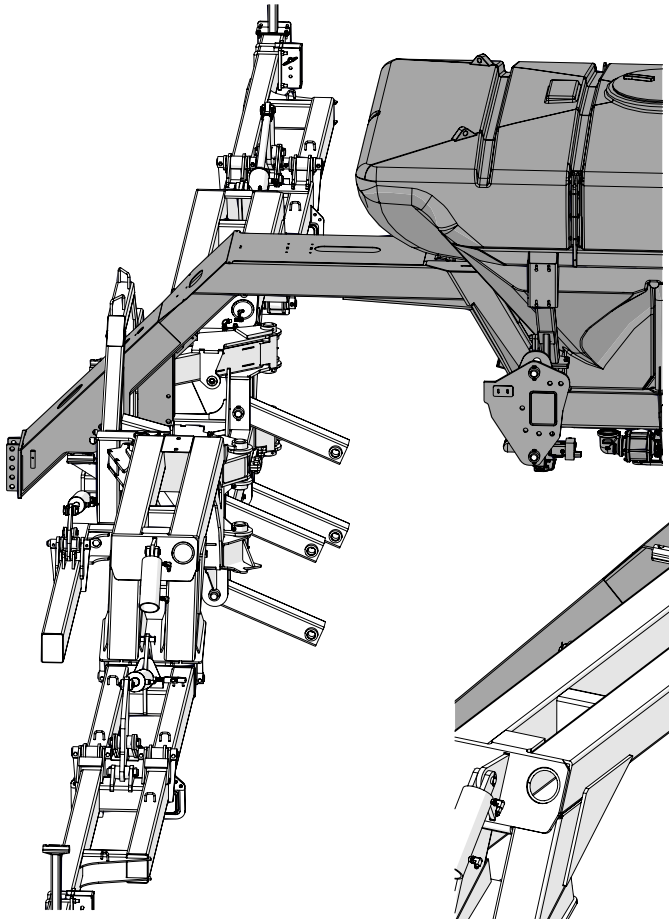


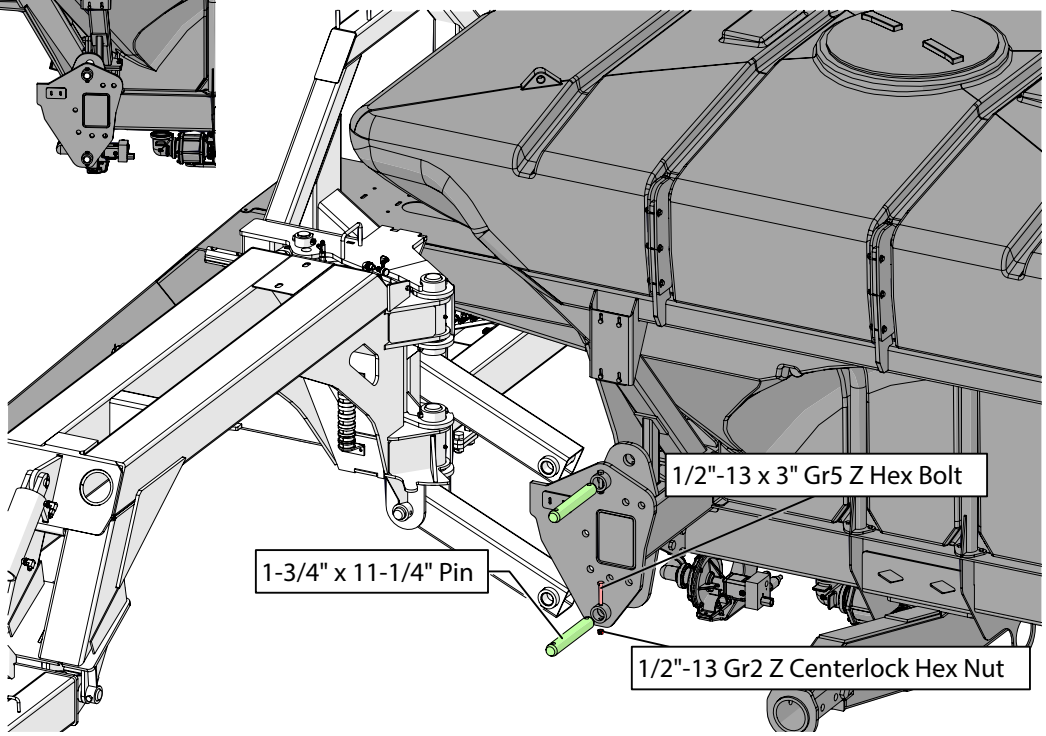


Try to get the top of the cross vlave as flush as possible to the wing rest. This will ensure cross valve is completely compressed when the toolbar is lowered. This will stop the toolbar from pressuriizing into the rest any further.

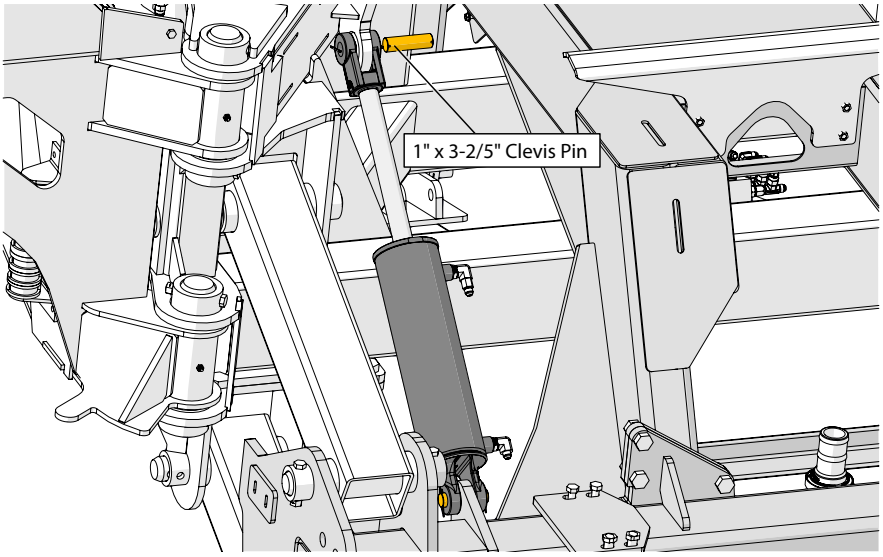
Assembly Instructions

Lift the tank and frame with a hoist and guide it through the center of the main toolbar, as shown in the images below. Connect the parrallel linkage arms to the frame, also shown in the image below. You may have to pivot the tan/frame assembly forwards or backwards in order for easy installment of the pins.





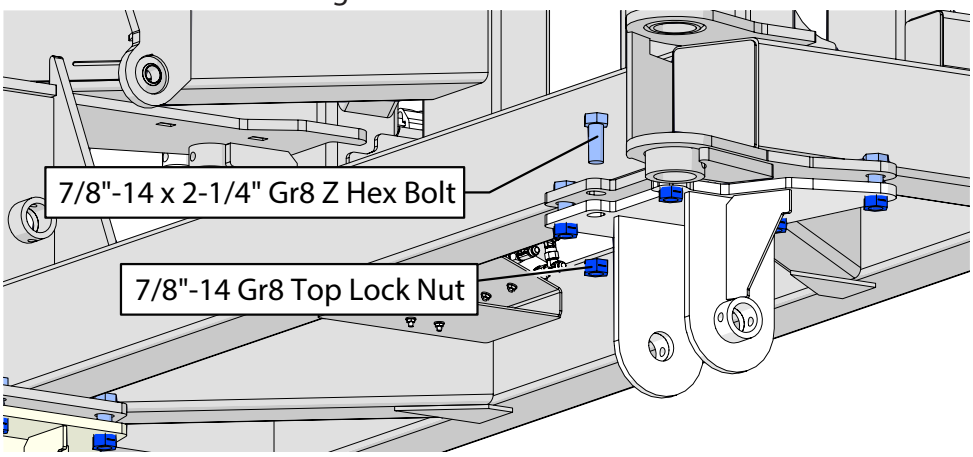
Connect the 4" x 12" cylinder, shown below, which is just inside the parrallel linkage arms (on each side).

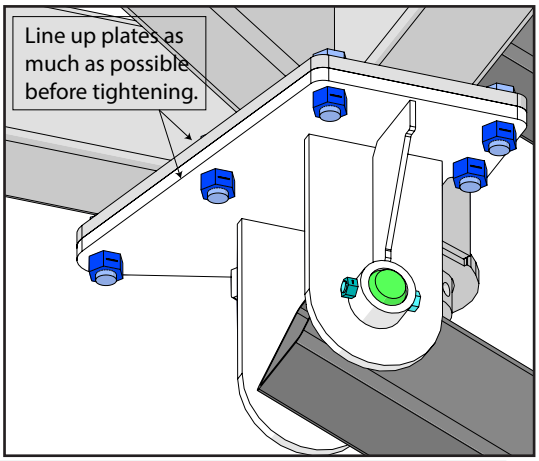


***Connect all hydraulic hoses.**

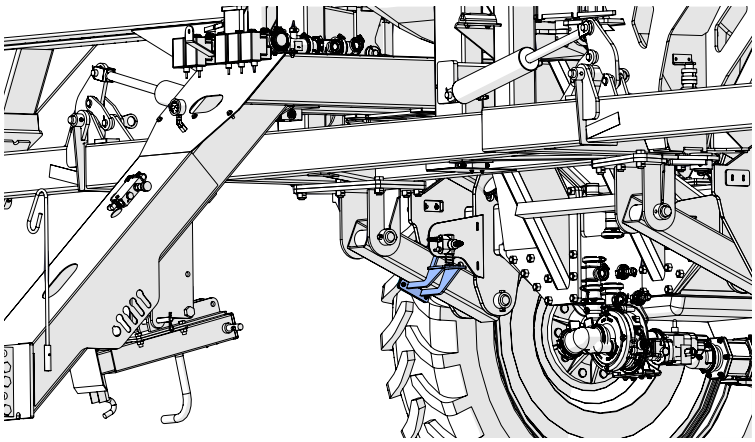
Assembly Instructions

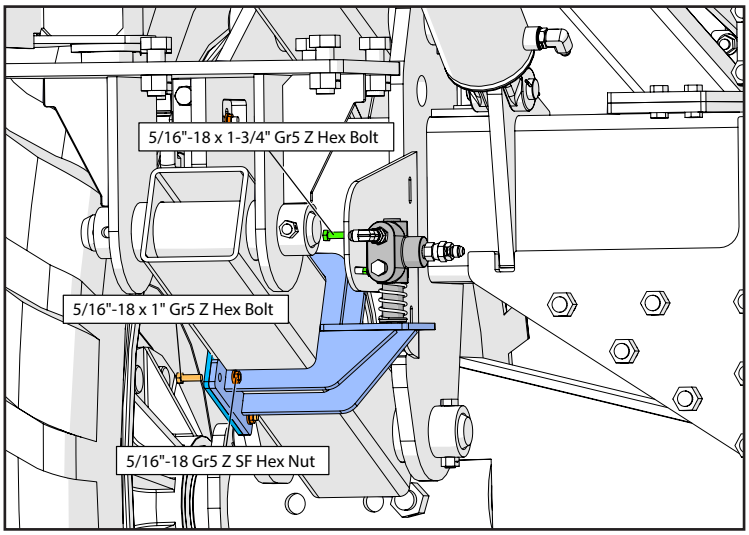
Line up the parrallel linkage weldment (shown in white below) as best you can with the mounting plates on the center toolbar section. Tighten the 6 nuts and bolt on each side down to 550-660 ft-lbs.



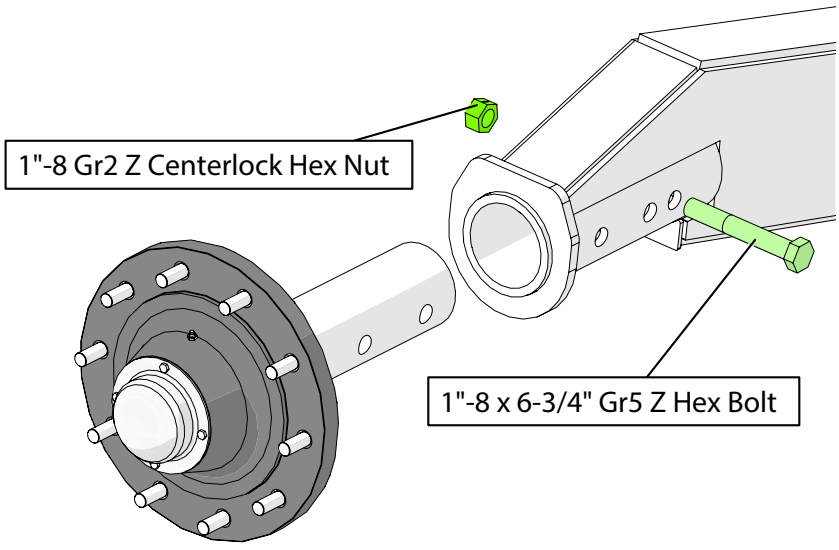


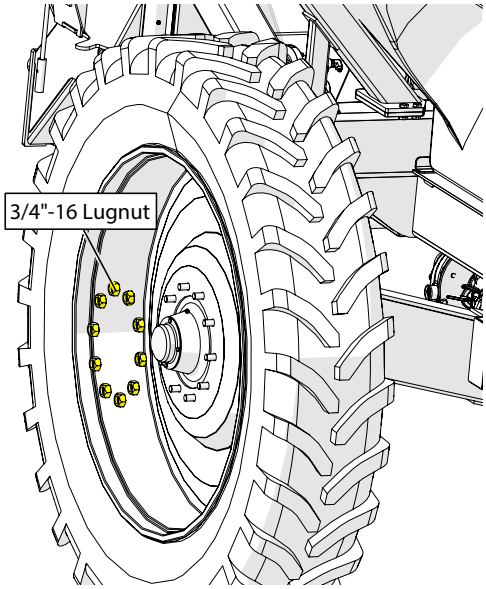
Attach the weldment that engages the flow diverter valve. To set height of weldment for the diverter valve lift the toolbar fully, the weldment on the parrallel arm should fully compress the spring on the diverter valve.





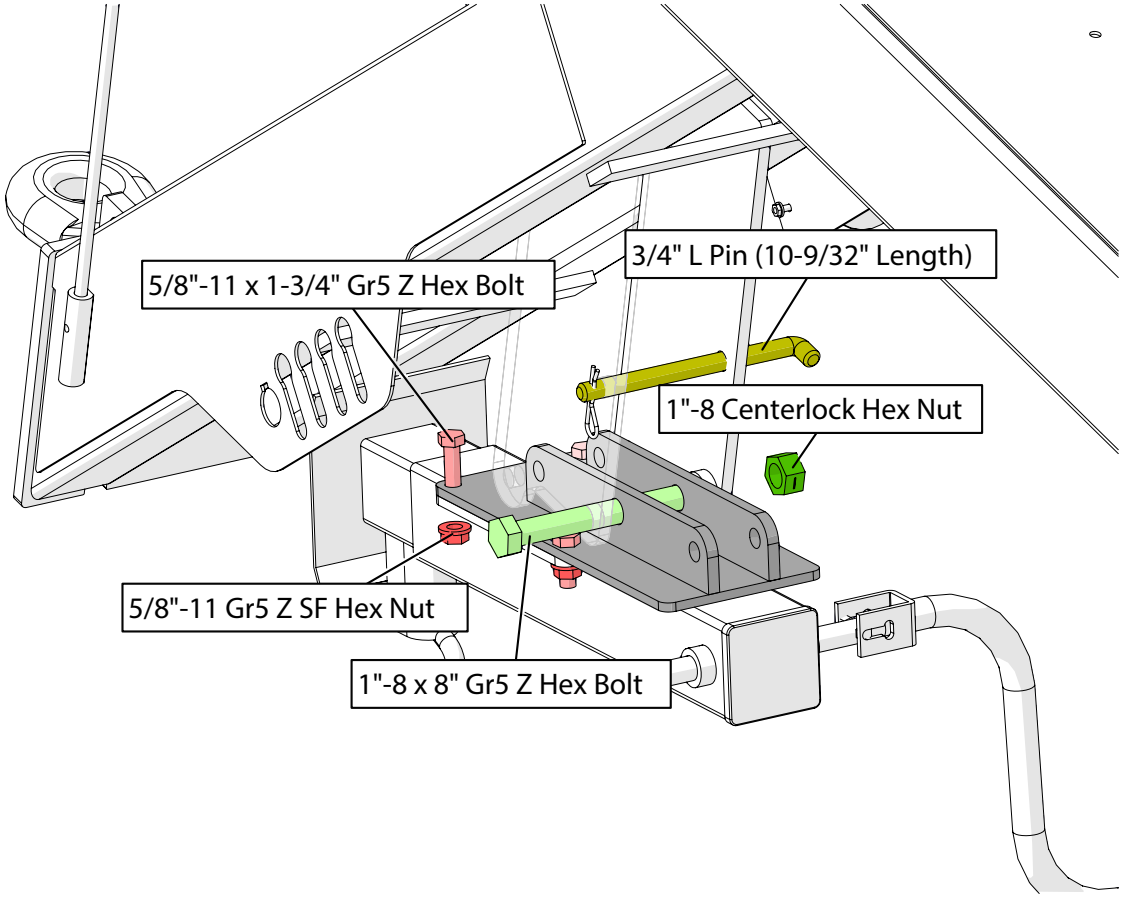
Attach the spindles and mount tires on each side and secure with 3/4″-16 lugnuts. Tighten the lugnuts in a star pattern.



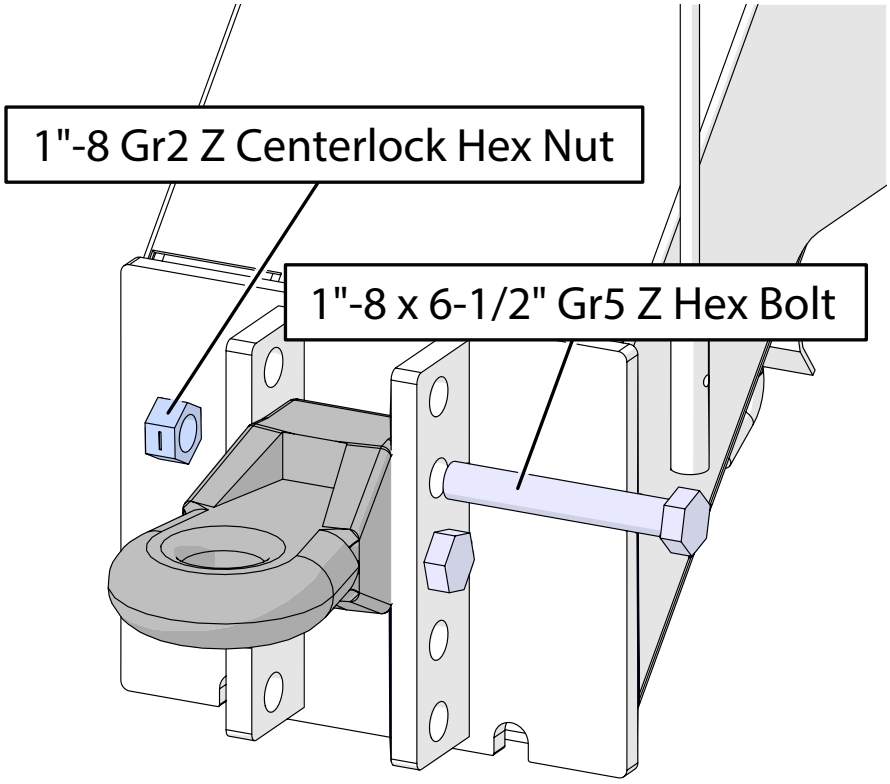


Assembly Instructions

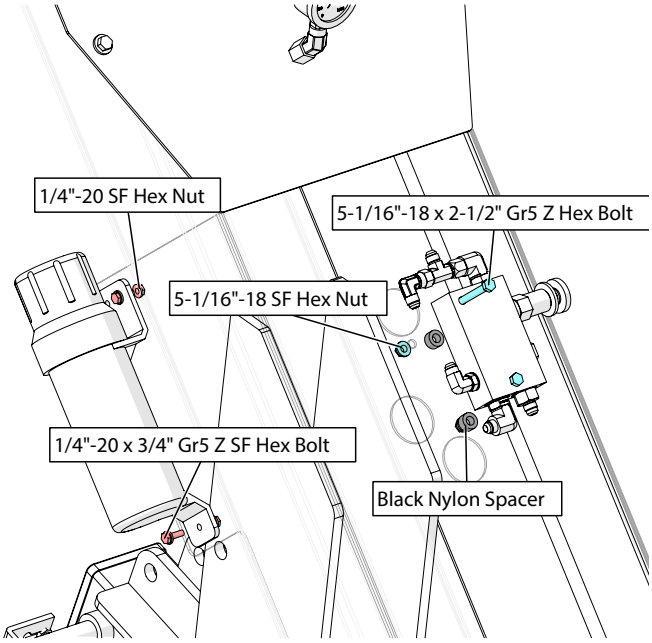
Assemble the jack, as shown below. After assembly, place the jack in an upright position and support the applicator using the jack. Once the applicator is supported by the jack, remove any unnecessary blocks or props.



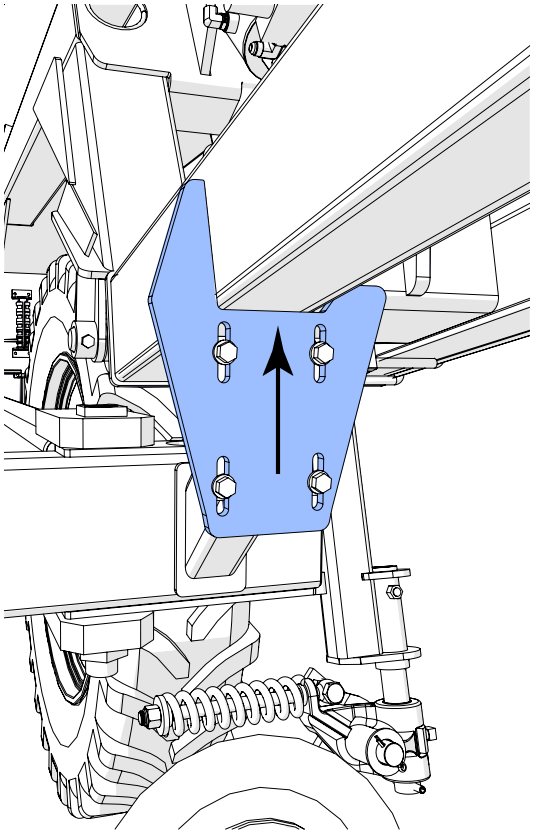
Attach the hitch.



Add the following items using the hardware shown in the image below.



If you have all hydraulics connected and want to test now would be a good time before adding more to the applicator. With the toolbar folded up and completely lowered so the cross valve button is pressed down, slide the rear cradle stops up to the wings in the rear and tighten bolts as well.

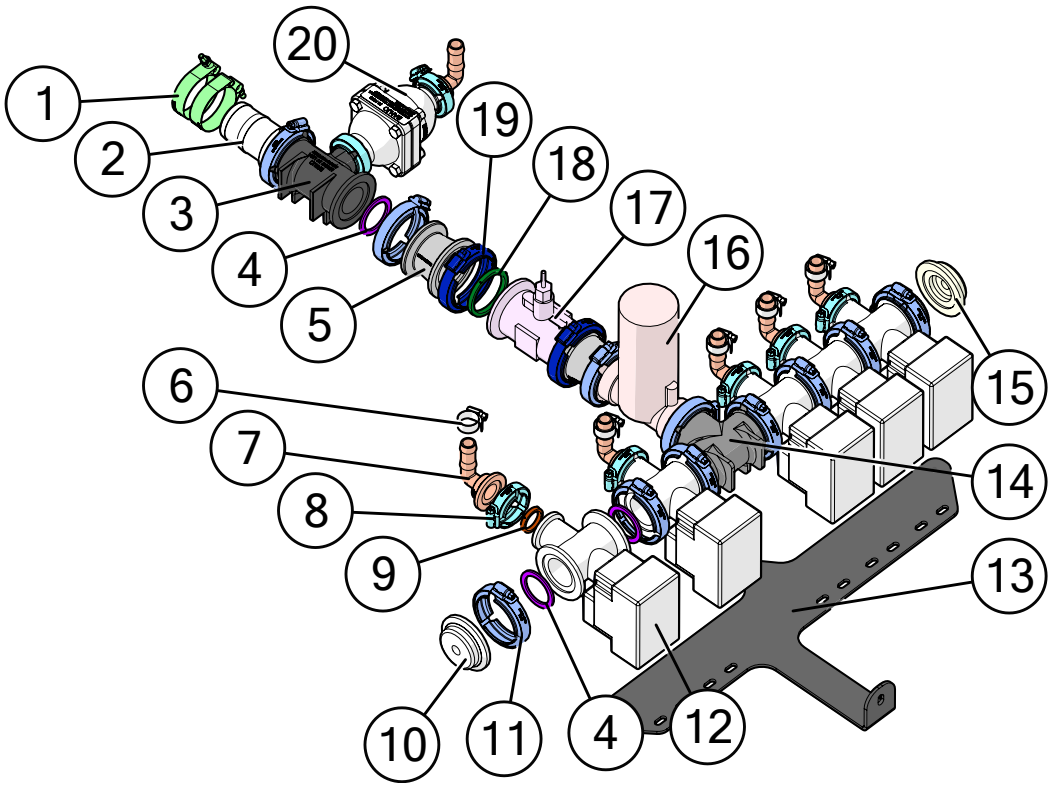


Assembly Instructions

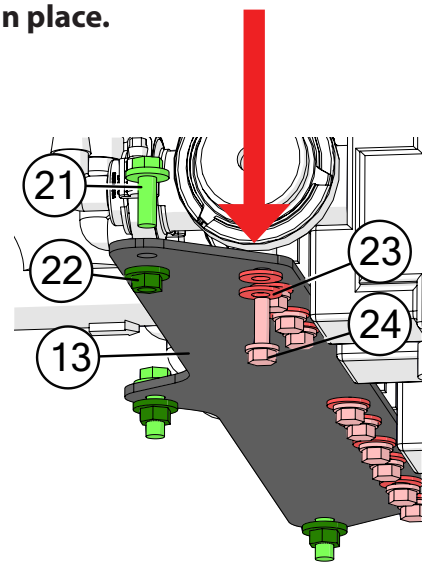
Mount the flow manifold to the top of the tongue, followed by the flow monitor and front tank gauge. These pictures are for reference for how it will look.

This hose for the pressure gauge comes off of the end of the manifold shown here.

Assembly Instructions

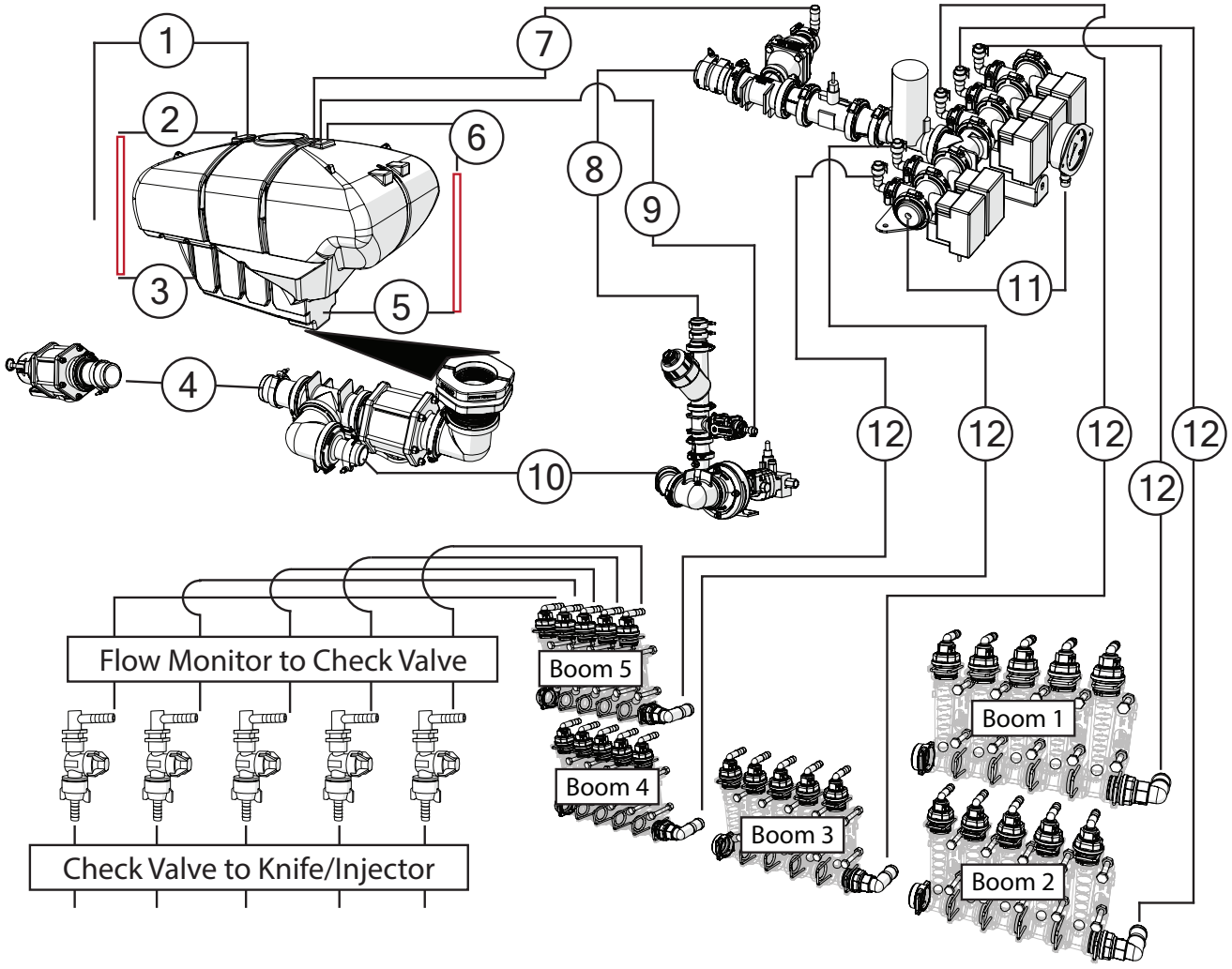


It is important to have two washers to hold the manifolds in place.

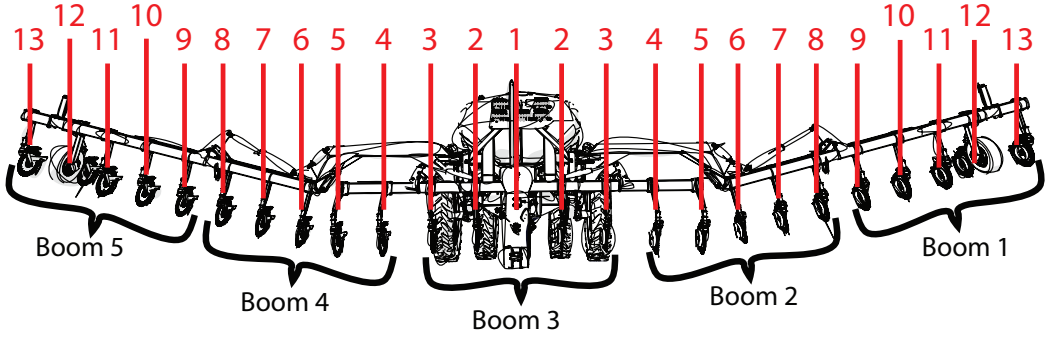


	Description	Part No.
1	T-Bolt Hose Clamp 2" Hose, 2-5/16" Min OD	JM0035247
2	2" Hose Barb x M200 Manifold Flange; Straight	JM0033796
3	M200 Manifold Flange x M200 Manifold Flange x M100 Manifold Flange; Tee	JM0035116
4	Manifold Gasket for M200 Fittings	JM0021145
5	2" Full Port Manifold x 2" Manifold Flange Reducer Coupling	JM0035131
6	3/4" Hose Clamp SS	JM0039205
7	M100 Manifold Flange x 3/4" Hose Barb; 90 Degree	JM0032501
8	Manifold Flange Clamp for M100 Fittings	JM0032496
9	Manifold Gasket for M100 Fittings with Rib	JM0035239
10	Manifold Plug for M200 Fittings with 1/4" NPT for Gauge	JM0021147
11	Manifold Flange Clamp for M200 Fittings	JM0035251
12	Raven Boom Valve	JM0032478
13	Top Tongue Raven Mounting Bracket	JM0054334
14	M200 Manifold Flange x M200 Manifold Flange x M200 Manifold Flange; Tee	JM0021140
15	Manifold Plug for M200 Fittings	JM0021146
16	Raven Control Valve M200 Manifold Flange (1-1/2")	JM0038726
17	Raven Flow Meter M220 Manifold Flange (RFM100P)	JM0038727
18	Manifold Gasket for M220 Fittings	JM0035278
19	Manifold Flange Clamp for M220	JM0035238
20	100psi Spike Valve with M100 Manifold Flanges	JM0032499
21	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092
22	3/8"-16 Gr5 Z SF Hex Nut	JM0002152
23	1/4" ID, 3/4" OD Z Flat Washer	JM0003090
24	1/4"-20 x 3/4" Gr5 Z Hex Bolt	JM0001507

Fertilizer Hose Routing



	70cm Row Spacing			
	Flow Monitor to Check Valve		Check Valve to Knife/Injector	
	Description	Part No.	Description	Part No.
Coulter 1	140" x 3/8" Fertilizer Hose	JM0050813	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 2	130" x 3/8" Fertilizer Hose	JM0050812	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 3	140" x 3/8" Fertilizer Hose	JM0050813	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 4	160" x 3/8" Fertilizer Hose	JM0050814	65" x 3/8" Fertilizer Hose	JM0050811
Coulter 5	190" x 3/8" Fertilizer Hose	JM0050815	65" x 3/8" Fertilizer Hose	JM0050811
Coulter 6	246" x 3/8" Fertilizer Hose	JM0050816	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 7	276" x 3/8" Fertilizer Hose	JM0050817	65" x 3/8" Fertilizer Hose	JM0050811
Coulter 8	306" x 3/8" Fertilizer Hose	JM0050818	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 9	336" x 3/8" Fertilizer Hose	JM0050819	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 10	366" x 3/8" Fertilizer Hose	JM0050820	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 11	396" x 3/8" Fertilizer Hose	JM0050821	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 12	426" x 3/8" Fertilizer Hose	JM0050822	55" x 3/8" Fertilizer Hose	JM0050810
Coulter 13	456" x 3/8" Fertilizer Hose	JM0050823	65" x 3/8" Fertilizer Hose	JM0050811

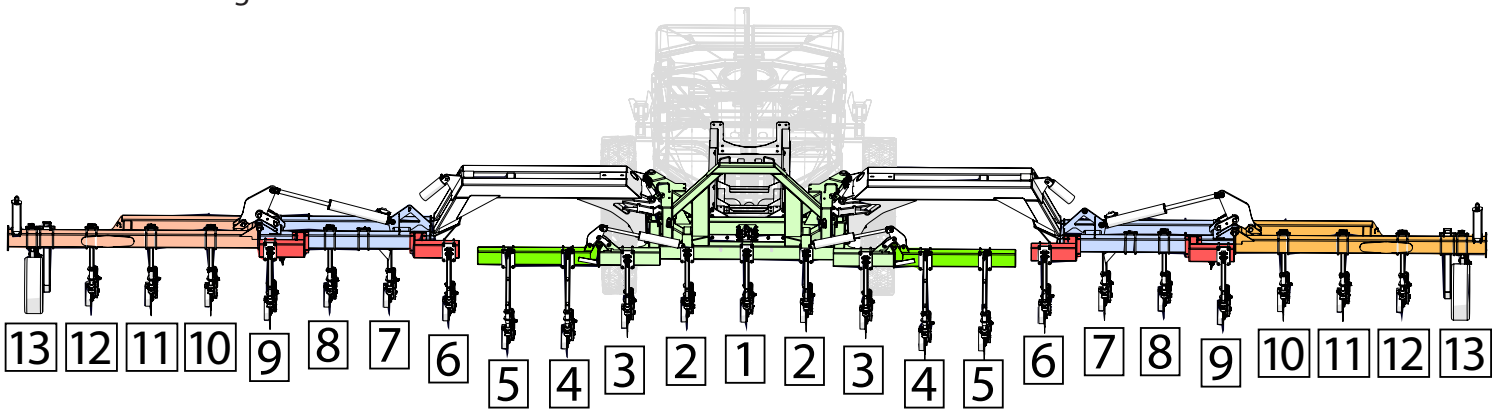


Fertilizer Hose Routing

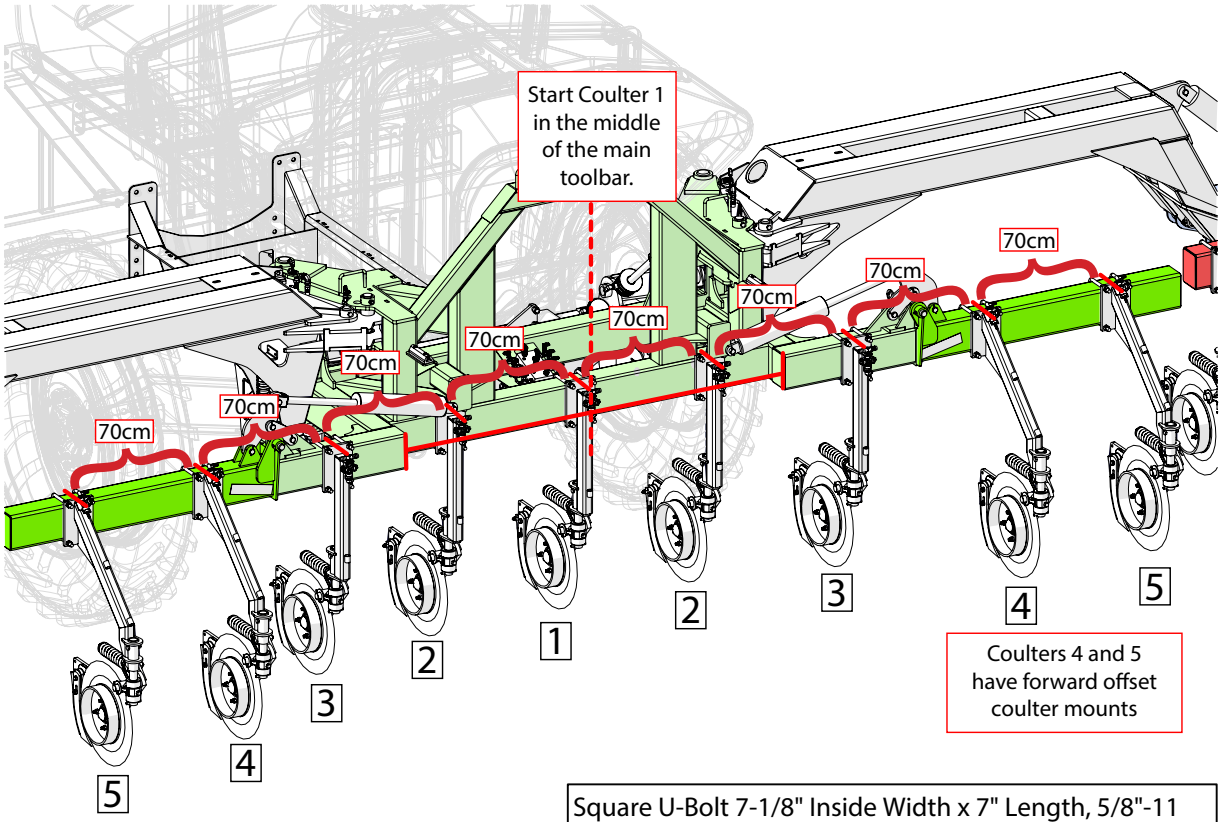
	Description	Part No.
1	120" x 3/4" Fertilizer Hose	JM0050830
2	48" x 3/4" Fertilizer Hose	JM0050825
3	36" x 3/4" Fertilizer Hose	JM0050824
4	3" x 60" Fertilizer Suction Hose - 2600 Tank	JM0050836
5	96" x 3/4" Fertilizer Hose	JM0050826
6	60" x 3/4" Fertilizer Hose	JM0050827
7	53" x 3/4" Fertilizer Hose	JM0050829
8	2" x 96" Pump to Raven Flow Control Line	JM0050834
9	126" x 3/4" Fertilizer Hose	JM0050831
10	2" x 50" Tank to Pump Hose - 150 Pump	JM0050833
10	3" x 42" Tank to Pump Hose - 750 Pump	JM0050835
11	1/4" x 2' Hose - 1/4" Brass Fitting Each End	JM0047863
12	30" x 3/4" Fertilizer Hose	JM0050828
13	55" x 3/8" Fertilizer Hose	JM0050810
14	65" x 3/8" Fertilizer Hose	JM0050811
15	130" x 3/8" Fertilizer Hose	JM0050812
16	140" x 3/8" Fertilizer Hose	JM0050813
17	160" x 3/8" Fertilizer Hose	JM0050814
18	190" x 3/8" Fertilizer Hose	JM0050815
19	246" x 3/8" Fertilizer Hose	JM0050816
20	276" x 3/8" Fertilizer Hose	JM0050817
21	306" x 3/8" Fertilizer Hose	JM0050818
22	336" x 3/8" Fertilizer Hose	JM0050819
23	366" x 3/8" Fertilizer Hose	JM0050820
24	396" x 3/8" Fertilizer Hose	JM0050821
25	426" x 3/8" Fertilizer Hose	JM0050822
26	456" x 3/8" Fertilizer Hose	JM0050823

Coulter Spacing

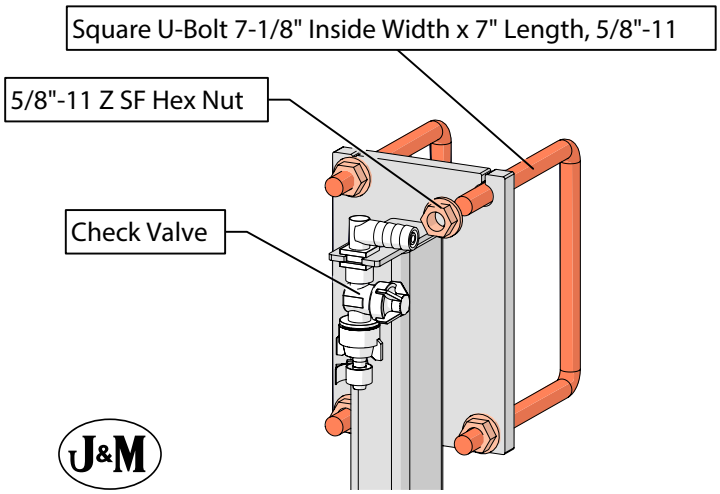
Use this image as a reference for the entire coulter spacing section. Each coulter is numbered starting in the center and working outward.



Fasten the first coulter in the center of the main toolbar. Measure 70cm on each side to place the next coulter and repeat for all 25 coulters. Mount coulters on the main toolbar in front as shown in the picture below. It is best to start by placing the square U-bolts where you want the coulter to be located.

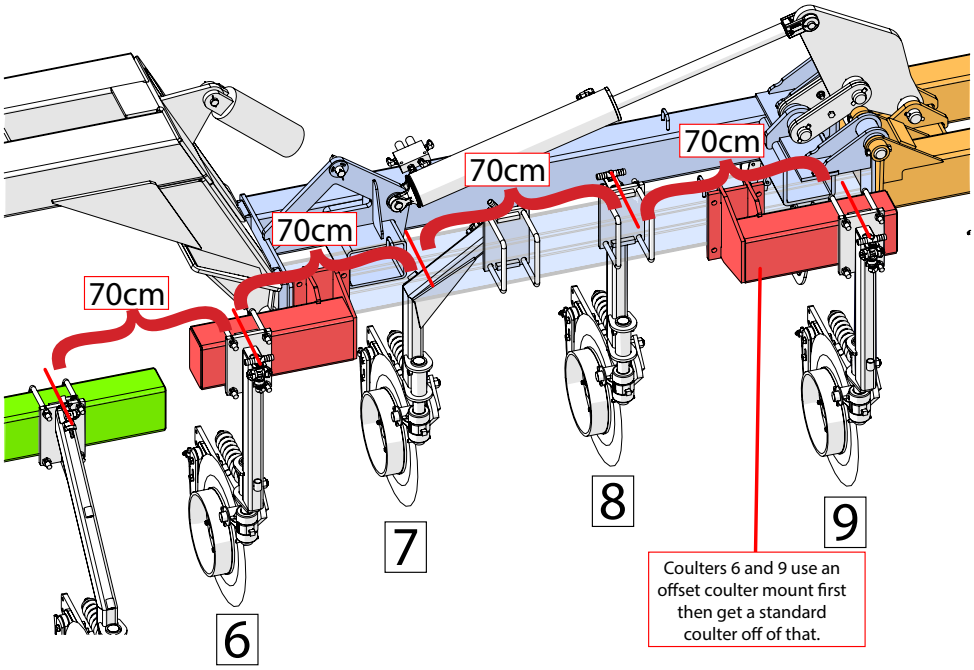


After placing the U-bolts, add the coulter weldment and tighten down using the hardware shown on the right. After tightening, slide the check valve into place on the weldment. The bottom parts of the coulter will be added later.

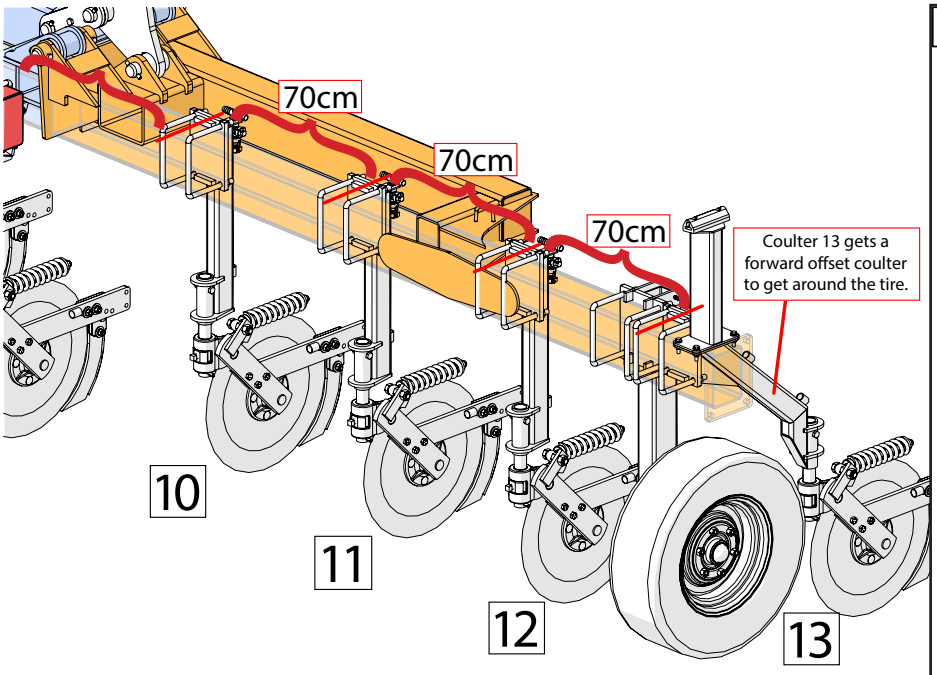


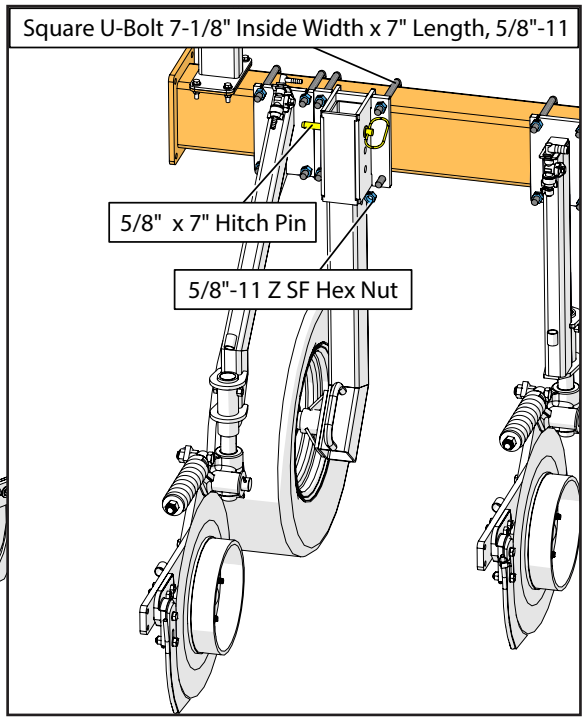
Coulter Spacing

Continue measuring 70cm outward for each coulter placement. Coulter "6" and "9" use an offset coulter mount (shown in red below) to fill the gap between the wing sections. Coulter "7" will use a standard offset coulter mount. It is important to measure where the coulter blade will be and not where it is mounted.



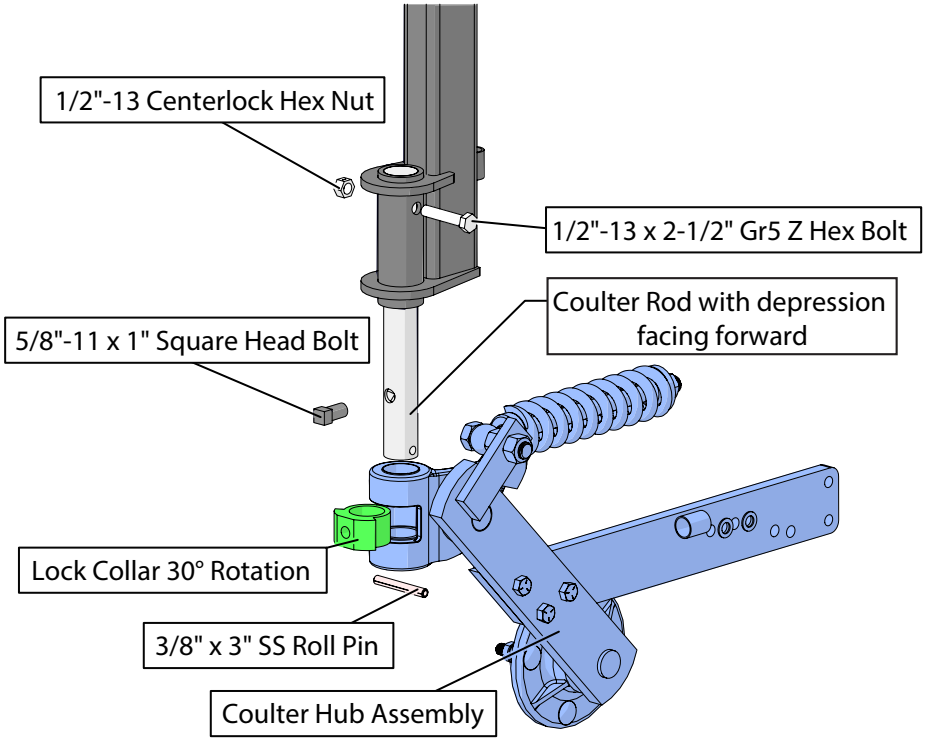
The outer-most wing uses standard coulters, with the exception of the last coulter, which needs to make room for the wheel mount. So Coulter "13" gets a forward offset coulter as shown below. The wheel mount uses the same hardware as the coulter shown below.



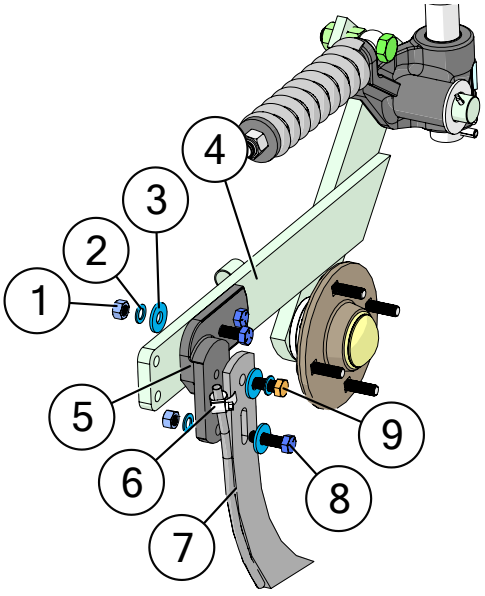


Coulter Assembly

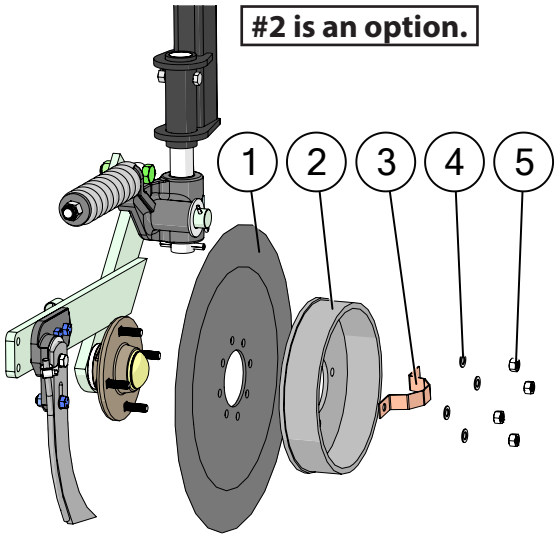
Assemble the bottom half of the coulter according to the picture below. It is important to ensure the rod with the depression is facing forward. Use the square head bolt to keep the 30° rotation lock collar in place.



Add the knife and blade assemblies.

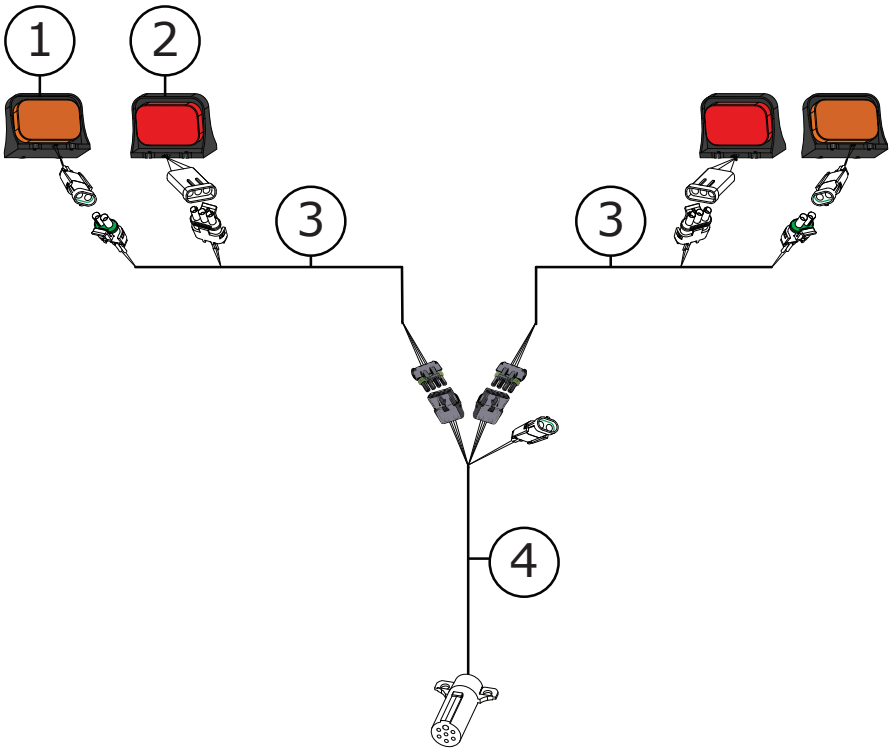


	Description	Part No.
1	1/2"-13 Gr5 Z Hex Nut	JM0002124
2	1/2" Gr2 Z Lock Washer	JM0019021
3	1/2" ID, 1-3/8" OD Z Flat Washer	JM0003082
4	Coulter Arm for GEP Coulter	JM0038397
5	Knife Bracket for GEP Coulter	JM0038279
6	3/8" Hose Clamp SS	JM0039206
7	C050 Wiese Knife	JM0031273
8	1/2"-13 x 1-3/4" Gr5 Z Hex Bolt	JM0002101
9	1/2"-13 x 1-1/4" Gr5 Z Hex Bolt	JM0001513

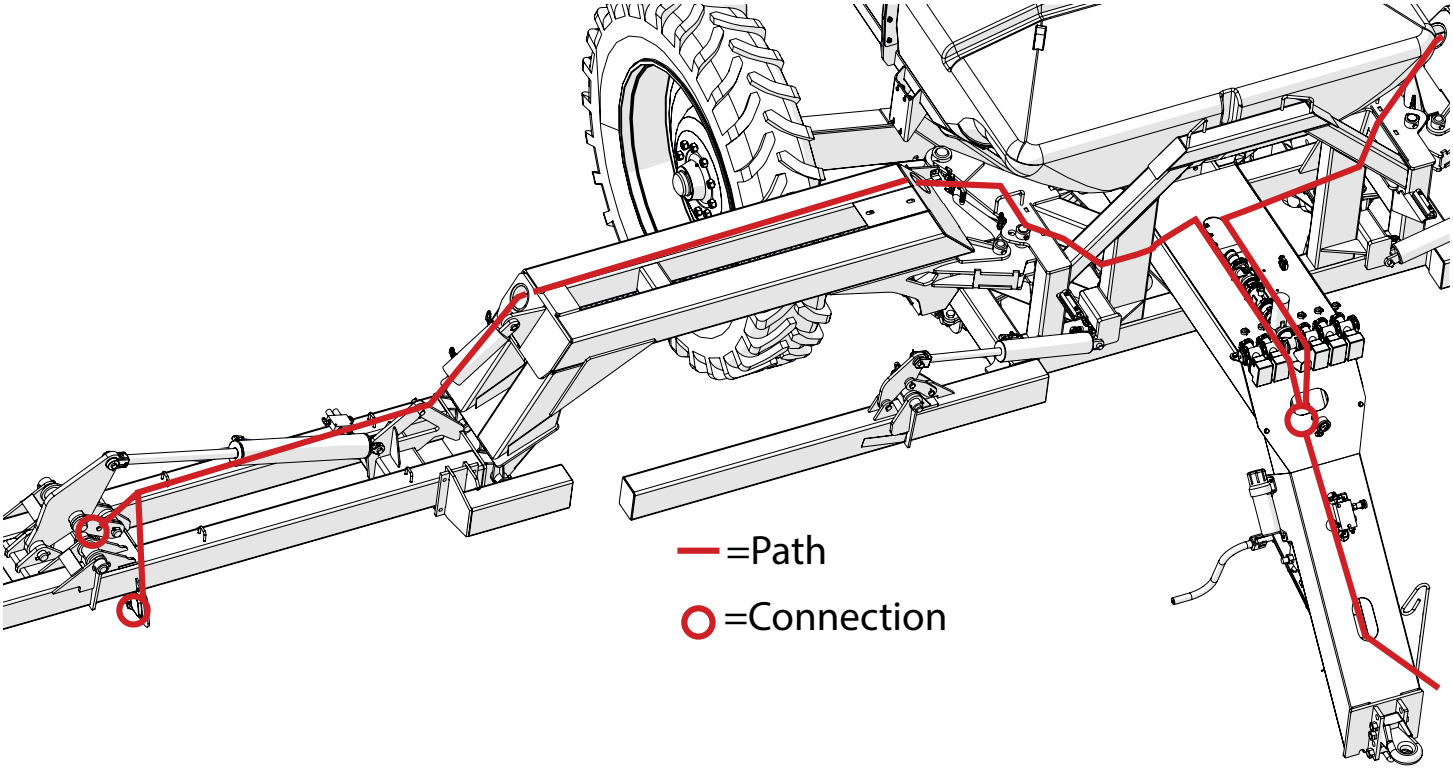


	Description	Part No.
1	20" Straight Coulter Blade with Ripple	JM0031269
1	20" Wavy Coulter Blade (5/8" Wave)	JM0038506
1	20" Wavy Coulter Blade (1-1/8" Wave)	JM0055196
2	GC5000 Depth Control Spool	JM0031281
3	Dust Cap Keeper for GEP Coulter	JM0038391
4	1/2" Gr2 Z Lock Washer	JM0019021
5	1/2"-13 Gr5 Z Hex Nut	JM0002124

Lights

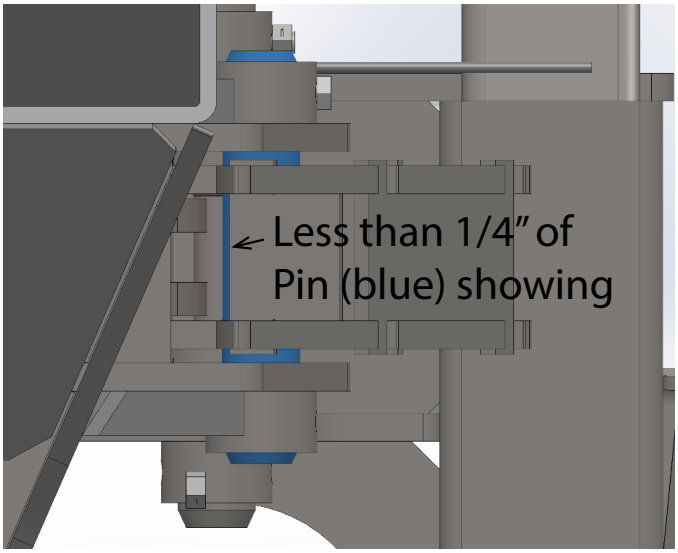


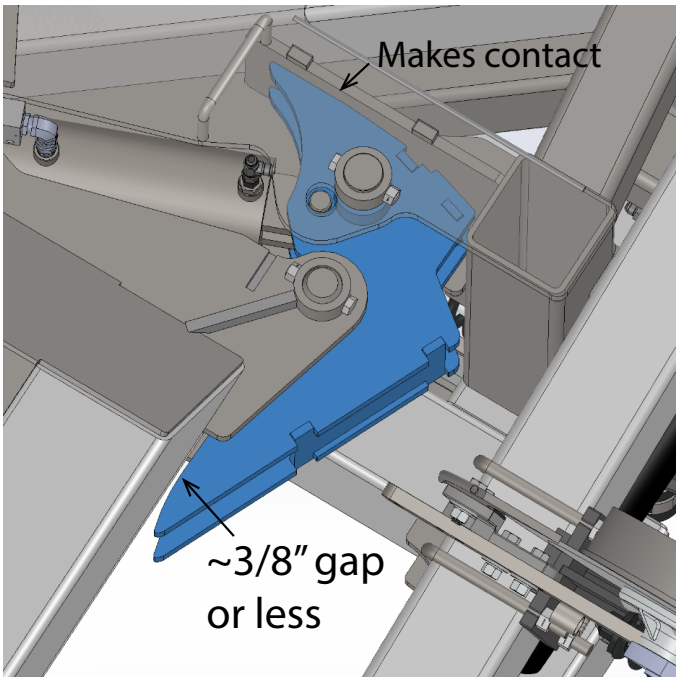
	Description	Part No.
1	Amber Light (Soil Conditioner, NitroGro)	JM0009975
2	Red Light (Soil Conditioner, NitroGro)	JM0009976
3	NitroGro 6000-Series Rear Harness	JM0055138
4	NitroGro 6000-Series Front Harness	JM0055137



Applicator Assembly Checklist

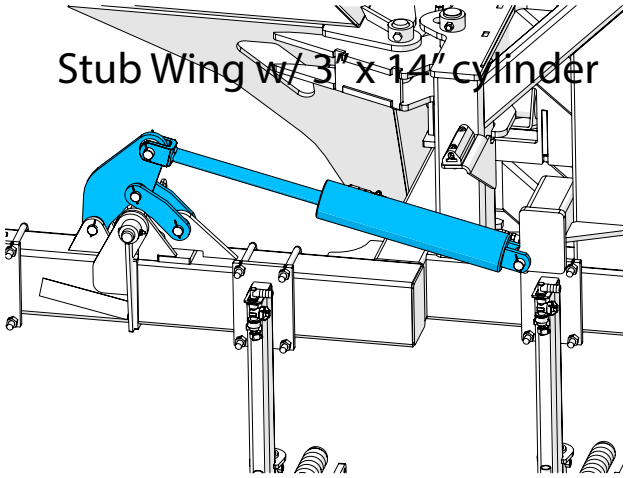
☐ **Latches pull tight and fully engaged on pin. There should be less then ¼" of pin showing when looking at the engaged latches from the side. The latches should be tight and not be able to be moved by hand at all. If latches are not fully engaging, tighten clevis on 4" x 8" cylinder one turn and check again. Do Not turn Rod to tighten clevis. Remove Pin and spin clevis.**

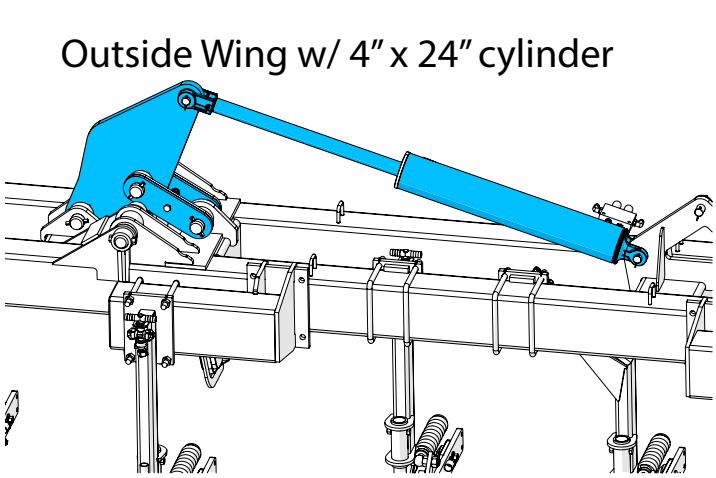




☐ **Check for Hydraulic Leaks. Especially the check valves on the 4" x 8" lock cylinders. Again, the latches should be tight and not be able to be moved by hand at all.**

☐ **When both the stub wings (3" x 14" cylinders) and the outside wings (4" x 24" cylinders) are folded out the cylinders and their linkages should be tight and not able to be moved by hand. If they can be moved my hand, loosen the clevis 1 turn and check again.**



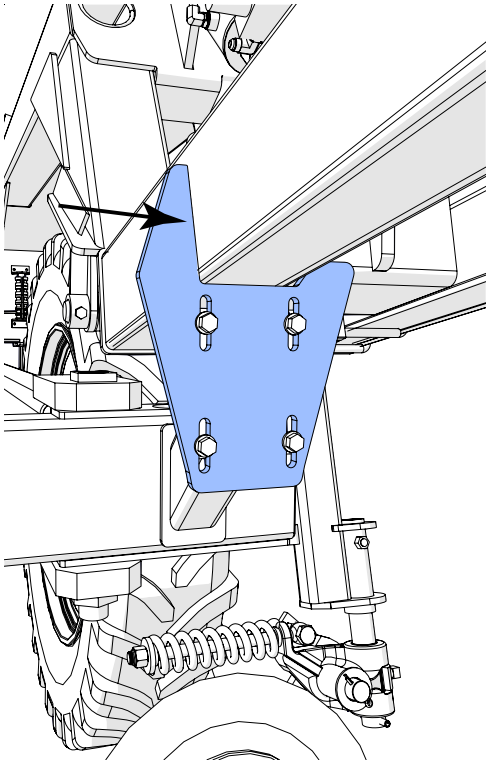


☐ **Check all hoses and wires for anything getting pinched or pulled tight, especially in between the toolbar and hitch as well as around the main wing pivots.**

☐ **Check to make sure all fasteners have been tightened on entire unit.**

☐ **Inside of tank is completely clean of all debris and plastic shavings. Use a shop vac to thoroughly clean the inside of the tank.**

☐ **Make sure wings hit cradle stops in rear when folding and don't bounce off while hydraulic pressure is applied. If they do not bottom out on rest with the clevis on the 4" x 8" cylinder may need to be loosened. If loosening the clevis on the 4" x 8" cylinder, make sure the latches are still engaging properly when unfolded. See the first item on this checklist for this.**



☐ **3/8" inlet hydraulic hose on pump goes to the inlet with "i". 1/2" outlet hose goes to check valve. Do not use flow arrow on check-valve because some are the wrong direction. If the unit gets a PWM valve, the valve should be on the hose going to the inlet of the pump.**