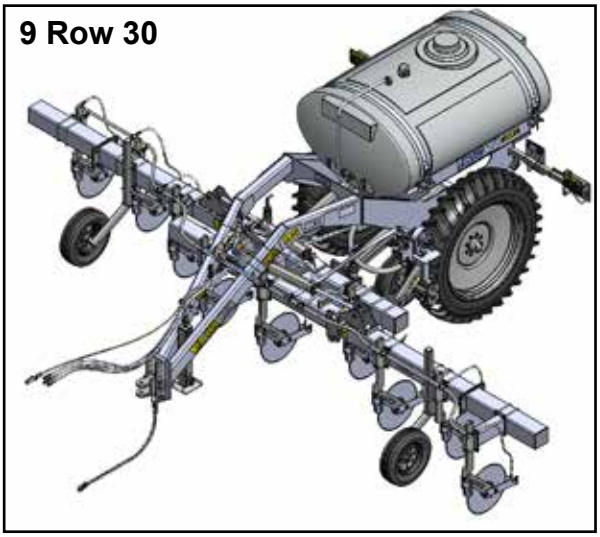
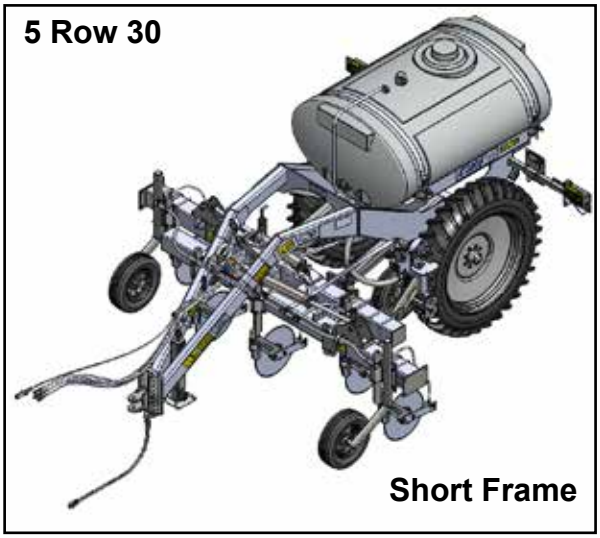
BLU-JET

AT2000™

Assembly and Operators Manual





Manual Number
0602001
Rev. 6-14-16

All Terrain Liquid Fertilizer Injection Toolbar

$20.00 Net.

Thurston™
Manufacturing Company

AGRIREP™ BLU-JET Simonsen IRON WORKS

Thurston Manufacturing Company • *1708 H Ave • Box 218 • Thurston, Nebraska, 68062-0218*
Phone: *402-385-3041* • ***Fax:*** *402-385-3043* • ***E-mail:*** *box218@thurstonmfgco.com*

/BLU-JET @BLU-JET01 /SIronWorks @SIronWorks

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Manual Number 0602001
6-14-16

Welcome to Thurston Manufacturing Company. Our goal is to provide quality products and services to our customers. The company's BLU-JET products have a reputation for quality, excellence in design and proven durability. Energetic, resourceful and continuous improvement goals in Environmental, Safety, Quality, Production and Engineering keep our firm at the cutting edge of technology.
We hope your BLU-JET equipment will give you years of service.

Read this manual carefully. It will instruct you on how to operate and service your machine safely and correctly. Failure to do so could result in personal injury and, or equipment damage.

SAFETY INFORMATION

DANGER Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. The sign will have the color combination of ***red*** and ***white***.

WARNING Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury. The sign will have the color combination of ***orange*** and ***black***.

CAUTION Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. The sign will have the color combination of ***yellow*** and ***black***.

NOTE: Indicates a special point of information.

Carefully read and follow all safety signs. Reinstall safety signs that are damaged or missing.

Right-hand and left-hand sides of the implement are determined by facing in the direction the implement will travel when going forward.

General Information:

The BLU-JET AT2000 applicator features a 7" x 7" (17.8 cm x 17.8 cm), narrow folding toolbar. High flotation tires reduce the risk of deep compaction within the soil profile. The 525 gallon (1987 liter) elliptical tank provides the capacity needed to run longer between fills. The AT2000 is designed for BLU-JET's JetStream coulter injection or coulter knife injection.

Warranty is provided for customers who operate and maintain their equipment as described in this manual. Warranty registration is accomplished by the dealer completing and forwarding the WARRANTY REGISTRATION FORM to Thurston Manufacturing Company. It is in your best interest to insure that this has been done.

For your convenience we have three easy ways to register your warranty.

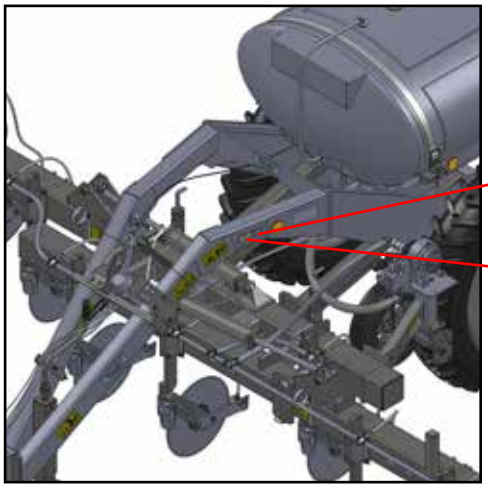
- ***Fax completed warranty registration form. Fax: 1.402.385.3043***
- ***Register on-line in warranty page at www.BLU-JET.com.***
- ***Complete and return registration form-by mail.***

Thurston Manufacturing Company
1708 H Avenue. P.O. Box 218
Thurston, NE 68062, USA

Thurston Manufacturing Company Warranty does not cover the following:

1) **Cleaning, transporting, mailing and service call charges.**
2) **Depreciation or damage caused by normal wear, accidents, improper protection or improper use.**

See complete Warranty for details.



The Serial Number is located from the rear of the tool bar on the left-hand side of the tongue.

Record your implement model and serial number in the space provided below. Your dealer needs this information to give you prompt, efficient service when you order parts.

MODEL NO._____

SERIAL NO._____

DATE PURCHASED_____

Dealer Checklist

► **To The Dealer:**

Inspect the implement thoroughly after assembly to be certain it is functioning properly before delivering it to the customer. The following checklist is a reminder of points to cover. Check off each item as it is found satisfactory or after proper adjustment is made.

► PRE-DELIVERY CHECKLIST

- ○ **1. All hardware properly tightened**
- ○ **2. Lubrication of grease fittings**
- ○ **3. All decals properly located and readable**
- ○ **4. Other adjustments for machine level height, etc.**
- ○ **5. Overall condition (touch up any scratches, clean and polish)**
- ○ **6. Operator's manual**

DATE SET UP_____
SIGNATURE_____

► DELIVERY

Review the operator's manual with the customer. Explain the following:

- ○ **1. Safe operation and service**
- ○ **2. Correct machine installation and operation**
- ○ **3. Daily and periodic lubrication and maintenance**
- ○ **4 Daily and periodic inspections**
- ○ **5. Troubleshooting**
- ○ **6. Storing machine**
- ○ **7. Thurston Manufacturing Company parts and service**
- ○ **8. Have the customer write the machine model and serial number in space provided in manual introduction.**
- ○ **9. Give customer the operator's manual and encourage the customer to read the manual carefully.**
- ○ **10. Completion and mailing of warranty registration form.**

DATE DELIVERED_____
SIGNATURE_____
MODEL NO._____
SERIAL NO._____

To The Owner

► **Thank you for your recent purchase of a new BLU-JET implement. The primary objective of Thurston Manufacturing Company is to build and provide you with a quality product. However, in the event that a problem does occur, it is imperative that your warranty registration is on file in order to accurately respond to your specific service circumstances. For your convenience we have four easy ways to register your warranty:**

- ***Fax completed warranty registration form. Fax: 1.402.385.3043***
- ***Register on-line in warranty page at: www.BLU-JET.com***
- ***Complete and return registration form-by mail.***

Thurston Manufacturing Company
1708 H Avenue. P.O. Box 218
Thurston, NE 68062, USA

This manual has been prepared to assist you in the assembly of your new machine and contains information pertaining to safety, operation and all of its parts. Our personnel in sales and service are always available to assist you when questions arise concerning the assembly or operation of your tool bar.

When ordering parts, please refer to part numbers and descriptions as listed throughout this book. All parts and whole goods will be shipped FOB Thurston, Nebraska or FOB your regional distributor. Always check merchandise immediately upon receipt for damage or shortage. Note any discrepancy on carrier's bill of lading and notify Sender within 10 days. Returned goods will be subject to a 15% restocking charge. Thurston Manufacturing Company reserves the right to make improvements and modifications on equipment without obligation to change previously built equipment. All prices are subject to change without notice.

Limited Warranty

Thurston Manufacturing Company warrants each new BLU-JET machine primary framework to be free from defects in material and workmanship for a period of five (5) years, normal wear of wearing parts excepted. Thurston Manufacturing Company further warrants each new BLU-JET product to be free from defects in material and workmanship, normal wear of wearing parts excepted, for a period of one (1) year. All accessories purchased and resold by Thurston Manufacturing Company will be warranted according to their respective manufacturer. Tires on BLU-JET equipment are warranted through their respective tire manufacturers and their network of dealers in your local area.

Warranty begins from date of delivery to the original purchaser and applies to all new BLU-JET products that have not been altered and are being used for the intended purpose. Negligence, abuse or modification of equipment manufactured by or purchased and resold by Thurston Manufacturing Company will void this warranty.

The obligation of Thurston Manufacturing Company to honor this warranty is limited to the repair or replacement of defective merchandise, to the original purchaser, subject to inspection of equipment in question by an authorized Thurston Manufacturing Company sales or service technician. In the USA, freight of warranty replacement parts including main frame centers and wings will be prepaid for a period of one (1) Year by Thurston Manufacturing Company. Shipments of repaired or replaced parts including main frame centers and wings after one year will be paid by the customer.

Return of defective goods must be made within thirty (30) days of failure to Thurston Manufacturing Company, Thurston, Nebraska USA or to the nearest authorized BLU-JET Distributor or Rep Sales and service outlet.

Thurston Manufacturing Company will not be held responsible for any repair charges made by customers without prior written consent and prior equipment inspection by an authorized Thurston Manufacturing Company sales or service technician.

This warranty shall not be interpreted to render liability for injury or damages of any kind, direct, consequential or contingent to person or property. This warranty does not extend to loss of crops, economic and/or commercial loss, loss because of delay in crop production or any expense incurred for labor, supplies, substitute machinery, rental or for any other reason. This warranty is subject to any existing condition of supply, which may directly affect Thurston Manufacturing Company's ability to obtain materials of manufacture and delivery of replacement parts.

Thurston Manufacturing Company reserves the right to make improvements in design and changes in specifications at any time without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify or enlarge this warranty nor its exclusions, limitations and reservations. Thurston Manufacturing Company makes no representations or warranties, expressed or implied (including implied warranties of merchantability and fitness), except for those set forth in Thurston Manufacturing Company's current applicable published warranty policies and procedures.

Layton W. Jensen, President/CEO

022398\mgmt

RECOGNIZE SAFETY INFORMATION

- This is the safety-alert symbol. When you see his symbol on your machine or in this manual, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

FOLLOW SAFETY INSTRUCTIONS

- Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety sign.
- Learn how to operate the machine and how to use controls properly.
- Do not let anyone operate without instruction.
- Keep your machine in proper working condition.
- Unauthorized modification to the machine may impair the function and, or safety and affect machine life

PROTECT CHILDREN AND BYSTANDERS

- Before you back, LOOK CAREFULLY behind for children.
- Clear area of children, pets and bystanders.

HIGHWAY AND TRANSPORT OPERATIONS

Adopt safe driving practices:

- Keep the brake pedals latched together at all times. NEVER USE INDEPENDENT BRAKING WITH MACHINE IN TOW AS LOSS OF CONTROL AND/OR UPSET OF UNIT CAN RESULT.
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for a emergency stop to be safe and secure. Keep speed to a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive.
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving the tractor and equipment on the road or highway under (20 m.p.h. max.) (40 k.p.h. max.) at night or during the day, use flashing amber warning lights and a Slow Moving Vehicle (SMV) identification emblem.

HIGHWAY AND TRANSPORT OPERATIONS

- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersection, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Always operate equipment in a position to provide maximum visibility at all times. Makes allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.

TRANSPORT SAFETY

- A safety chain will help control drawn equipment should it accidentally separate from the drawbar.
- Attach the chain to the tractor drawbar support or other anchor location. Provide only enough slack in the chain to permit turning.
- Use hydraulic cylinder transport lockup during road transportation.

- **Maximum road speed is 20 m.p.h. (32 k.p.h) with an empty tank.**

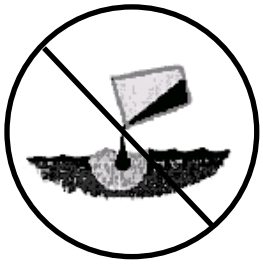
Tank Fill	Maximum	Maximum
525 Gallons	Highway	Application Speed
2,000 Liters	20 m.p.h.	10 m.p.h.
	32 k.p.h.	16 k.p.h.

AVOID HIGH PRESSURE FLUIDS

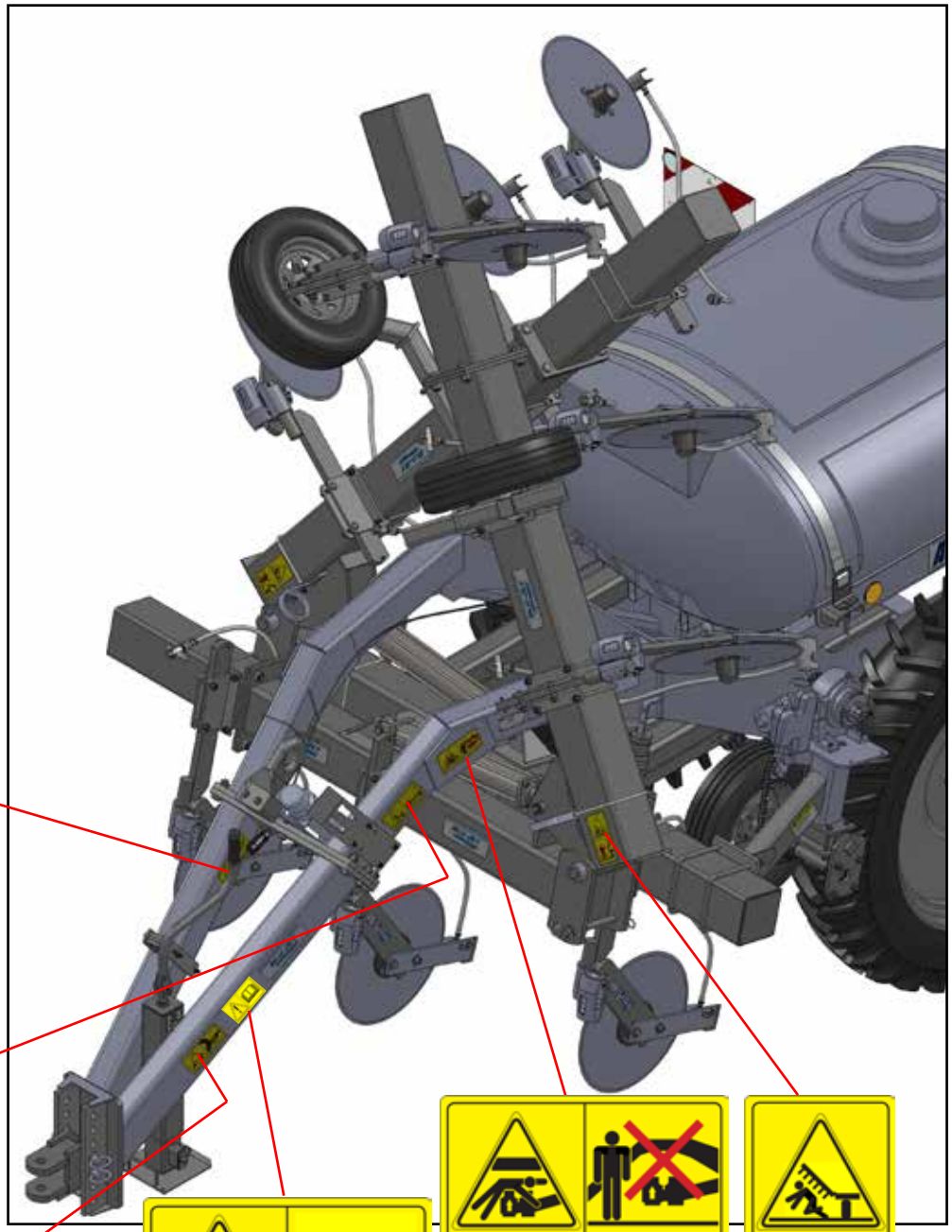
- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
- Search for leaks with a piece of cardboard.
- Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately.

DISPOSE OF FLUIDS PROPERLY

- Improperly disposing of fluids can harm the environment and ecology. Before draining any fluids, contact your local environmental agency for the proper waste disposal methods.
- Use proper container when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.
- DO NOT pour oil into the ground, down a drain, or into a stream, pond, or lake. Observe relevant environmental protection regulations when disposing of oil and other harmful waste.

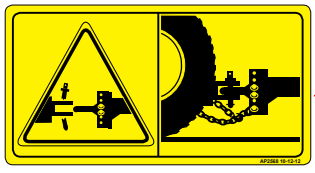


Observe Safety Signs



AP2565

AP2564



AP2568

AP2567

AP2569

AP2566

AP2564: FALLING HAZARD DO NOT CLIMB ON MACHINE
AP2565: HIGH PRESSURE FLUID HAZARD
AP2566: FALLING WING HAZARD
AP2567: READ OPERATORS MANUAL
AP2568: SAFETY CHAIN
AP2569: CRUSHING HAZARD

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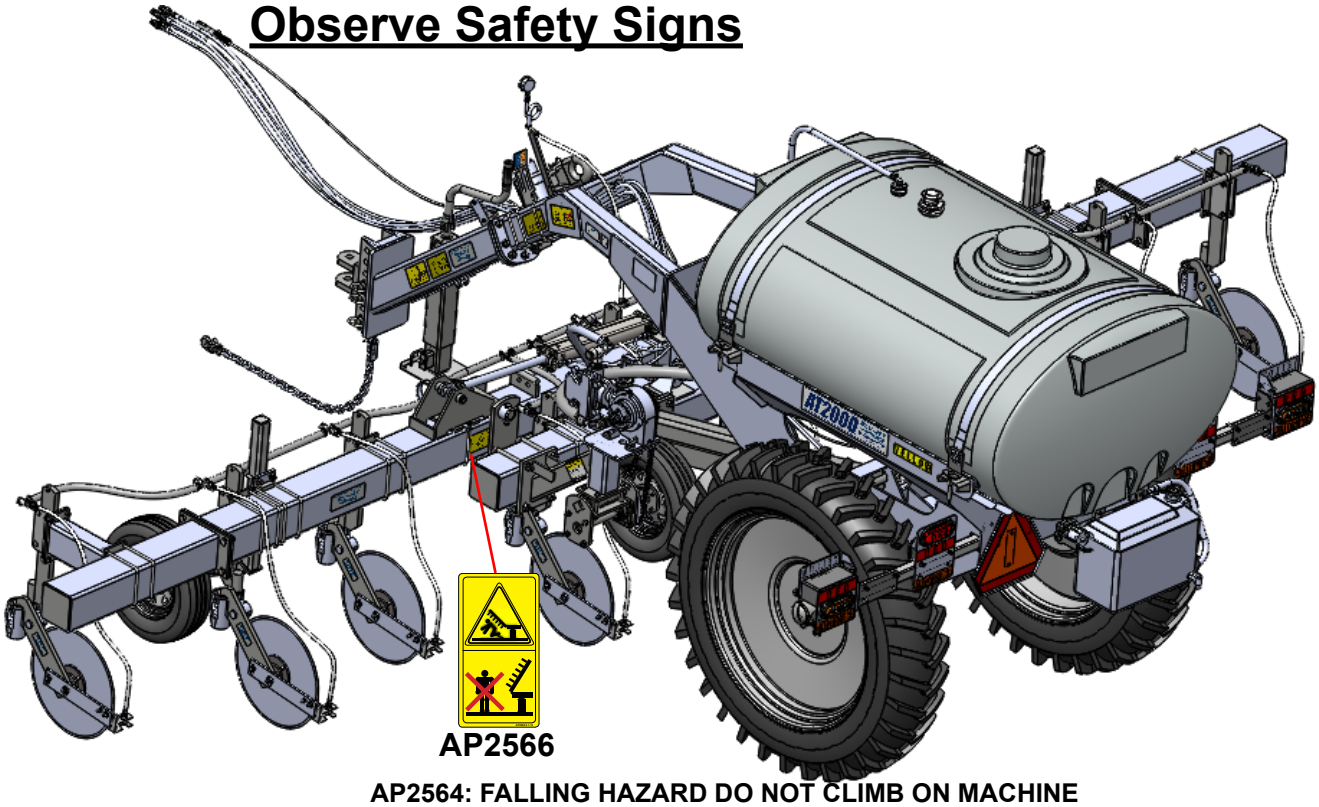

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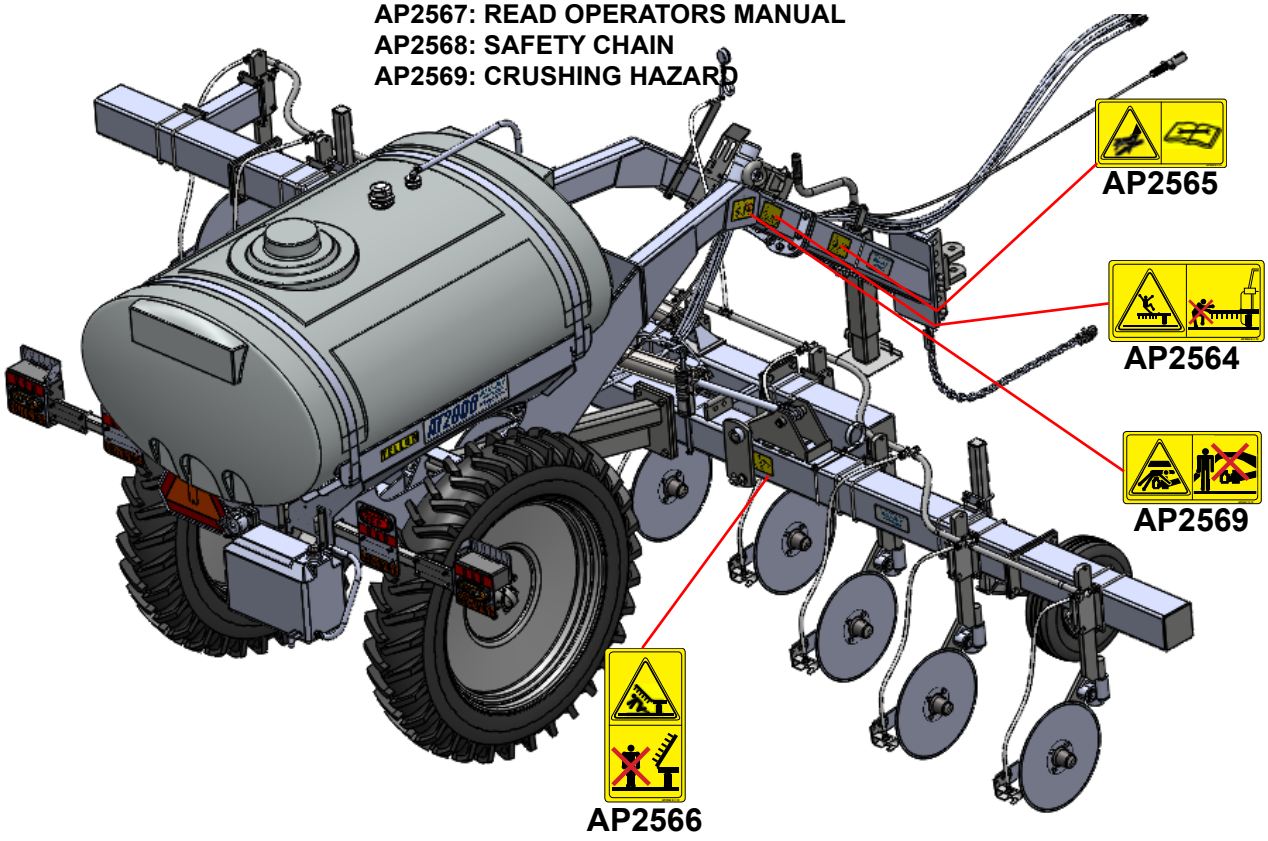


Hitch

1. The tractor must be equipped with a drawbar and a drawbar safety chain clevis. For rigid frame tractors equipped with swinging drawbar, the drawbar must be located in a fixed position in the center of the tractor. Refer to your tractor operators manual for drawbar adjustment and drawbar operating instructions.

NOTE: Implement hitch weights are designed to match tractor size ranges. Check the following chart to confirm your particular implement specification.

Category	PTO Power (HP)	Maximum Vertical Static Load (lbs) Drawbar Position Short	Regular	Extended
0	≤ 38	1,574	1,124	787
1	≤ 64	2,698	1,798	1,349
2	≤ 154	4,946	3,372	2,473
3	≤ 248	6,070	4,046	2,922
4	≤ 402	7,418	4,946	3,597
5	≤ 671	10,116	6,744	N/A

Tractor to tool bar connection

2. Before connecting the tool bar to the tractor drawbar, raise the tractor three point hitch (if equipped) to prevent interference between the implement and the tractor.
Connect the tool bar to tractor drawbar ONLY. DO NOT connect the tool bar to any other part of the tractor. Connect the tool bar clevis to the tractor drawbar with hitch pin. Install the safety chain through the tractor drawbar support bracket.

Safety hitch pin

3. Always use a safety hitch pin of the correct diameter. Make sure that the hitch pin is locked in place with a safety type lock pin or other locking device.

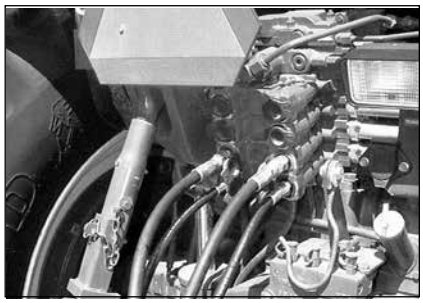
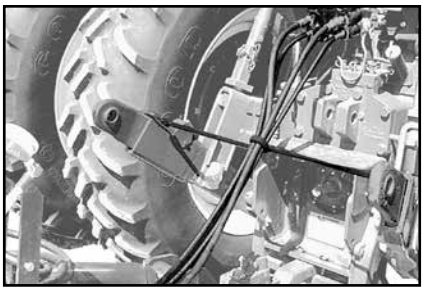
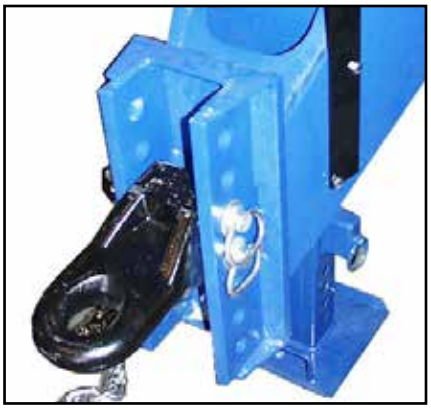
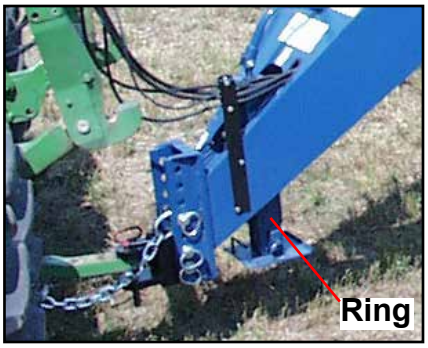
Safety chain

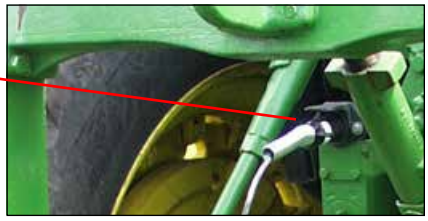
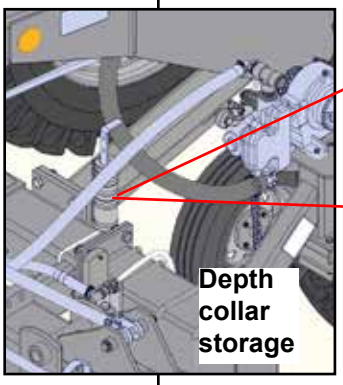
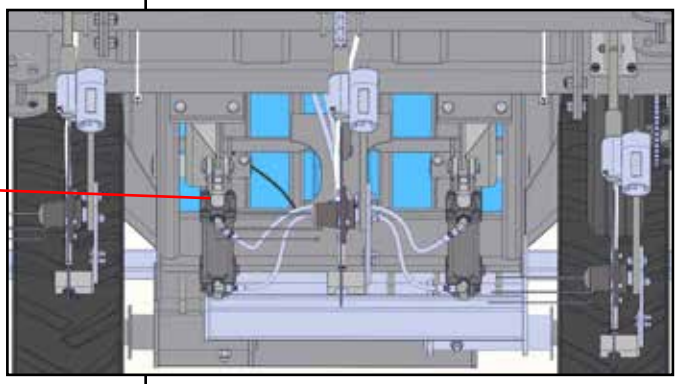
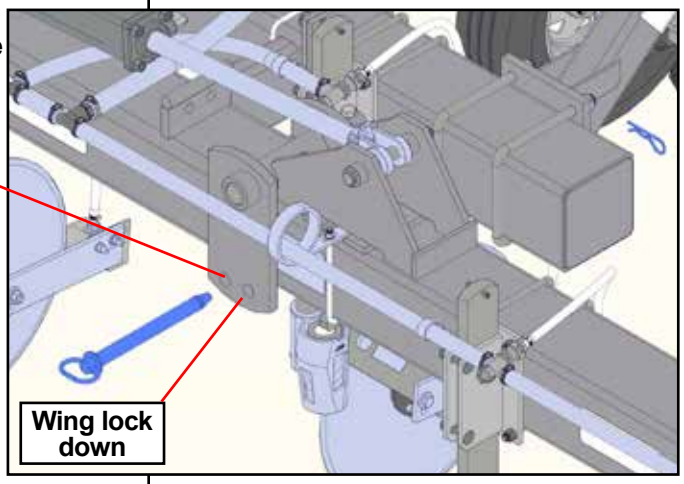
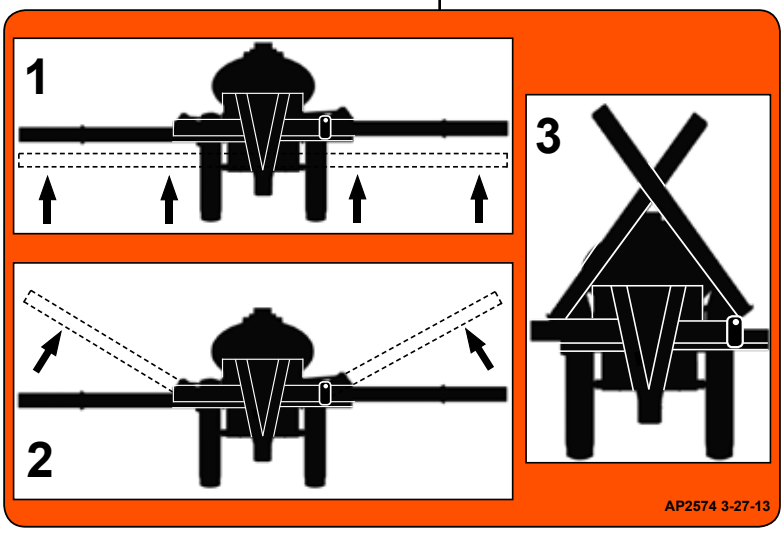
4. Always use a safety chain between the toolbar and the tractor. Install the chain to the tractor drawbar support bracket. Support the center of the chain with a clevis installed to the tractor drawbar.

WARNING In case the tractor hitch pin is lost during transporting. The safety chain must be attached between the implement and tractor to prevent separated implement from running freely and causing damage or injury.

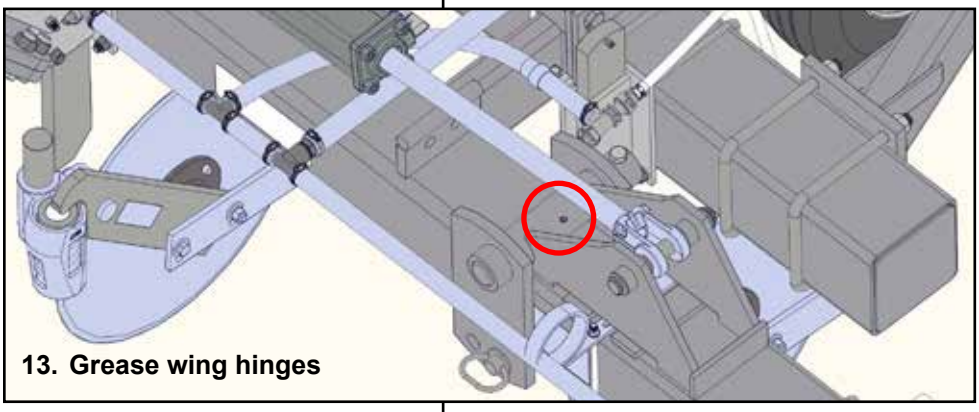
WARNING Do not move articulated tractor steering wheel until everyone is clear of the equipment. Moving the steering wheel can swing or move attached equipment which could cause serious personal injury.

WARNING Tractor drawbar must be in a fixed position before transporting implement. Implement will sway or slam against tractor resulting in equipment damage or injury to personnel.

Task	Procedures	Illustrations
► **Remote hydraulic**	**5. Connect the tool bar hydraulic hoses to the tractor remote couplers. The 3/8" (9,5 cm) hoses supply oil to the tool bar lift cylinders. The 1/4" (6 mm) hoses supply oil to the wing fold cylinders.**	
► **NOTE:** **Always connect the hoses so the toolbar raises when the tractor remote control lever is moved rearward and lowers when the lever is moved forward.**	**WARNING** Hydraulic fluid escaping under pressure can have enough force to penetrate the skin. Hydraulic fluid may also infect a minor cut or opening in the skin. If injured by escaping fluid, see doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system. Relieve all pressure before disconnecting the lines or performing other work on the hydraulic systems.	
► **Remote hydraulic**	**6. It may be necessary to tie the hydraulic hoses up to keep them away from the hitch area. A tarp strap around the hoses and between the two point arms works well.**	
► **Leveling main frame**	**7. Before leveling the machine tire pressure should be checked. Inflate main frame tires to 56 P.S.I. (385 kPa) Max. Before operating the machine the main frame must be level. Place toolbar on level surface. Adjust the hitch up or down in the tongue connector and connect to tractor.**	
► **Jack stand**	**8. Pull ring on drop leg jack plunger to lower or raise sand pad.**	

Task	Procedures	Illustrations
Attaching electrical harness	**9. Attach 7 pin electrical harness before road transport.**	
	10. Before road transport install depth collars on lift cylinder.	 
Wing lock down pin	**11. Place wing lock down pin in storage hole before folding.**	
NOTE: Raise center section before folding wings	**12. Raise center section before folding wings.**	

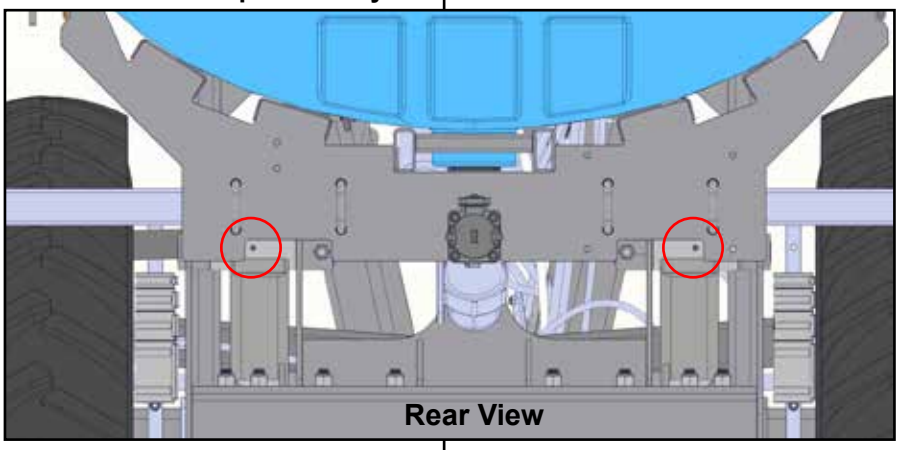
Primary wing lubrication daily



13. Grease wing hinges

Lift arm pivot lubrication daily

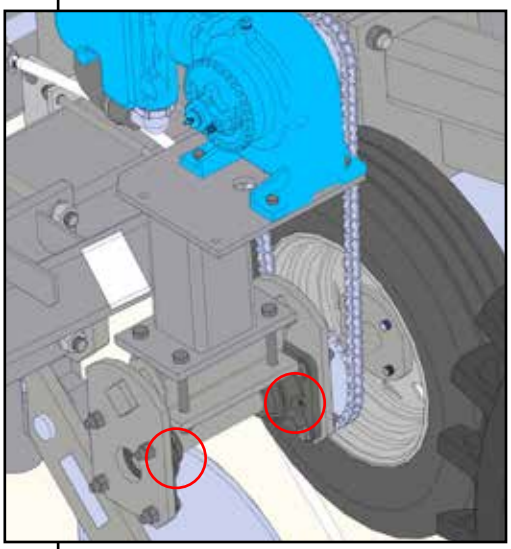
14. Grease lift arm pivots daily.



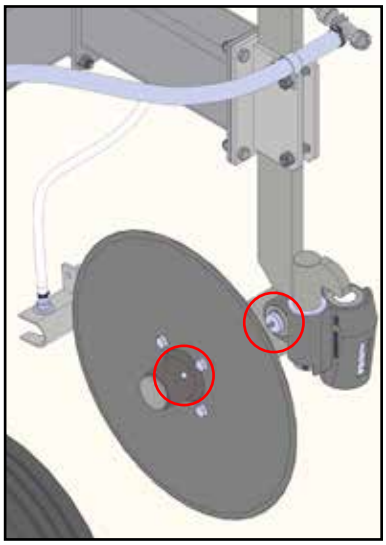
Rear View

Pump bearings lubrication daily

15. Grease the zerks on the pillow block bearing at the bottom of the pump assembly.

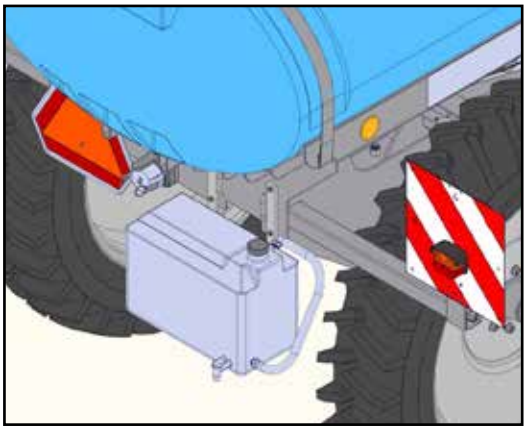
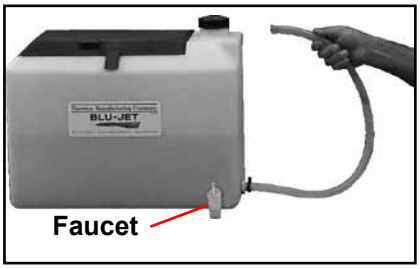
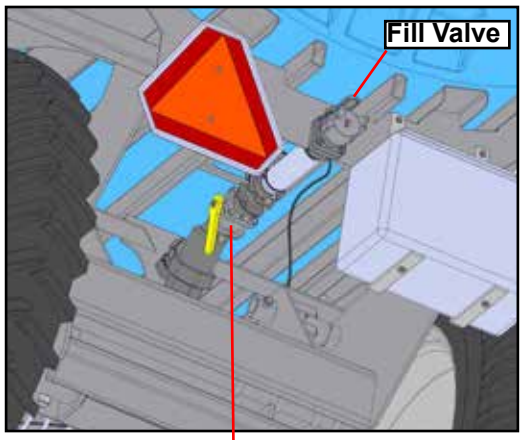
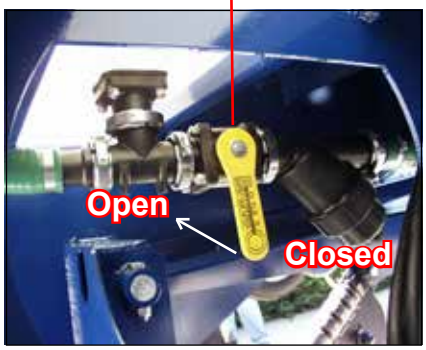


Coulter pivot shaft and hub lubrication

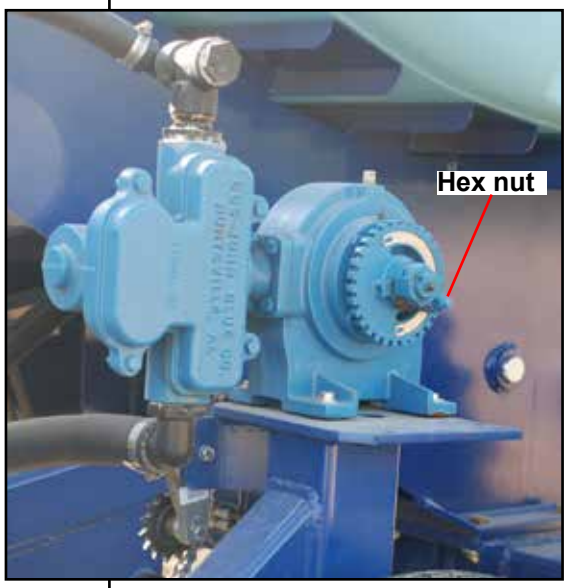


16. Grease all coulter arm pivots daily
Hub and spindle assembly should be *greased twice seasonally*

Operating Instructions

AT2000	Task	Procedures	Illustrations
►	**Safety water tank operation and maintenance**	**17. Location of Nine-gallon safety water tank/toolbox. Change water daily to provide fresh clean water to flush exposed skin or eyes. Drain water daily in cold temperatures to prevent freezing and bursting tank.**	
		18. In case of exposure to fertilizer, open faucet or pull top end of hose loose to flush exposed part of body. Remove contaminated clothes as soon as possible.	
►	**Bottom fill valve operation**	**19. Attach fill hose to fill port. Close valve ahead of strainer. Open fill valve. Fill tank. Close fill valve.**	
►	**NOTE: Do not engage pump until valve is opened.**		
►	**Bottom fill plumbing screen**	**20. Screen should be checked and cleaned periodically.** 	

Operating Instructions
Pump Setting

AT2000	Task	Procedures	Illustrations
►	**Pump setting**		
►	**NOTE:** Consult pump manual for setting instructions	1. Read pump manual for rate setting instructions. 2. Loosen pump setting hex nut.	
		3. Place pump wrench on notched sprocket. Dial in setting from pump setting chart.	
		4. Tighten hex nut to secure pump setting.	

High Pressure Coulter Injection System Nozzle Calibration Work sheet

Calibration of these systems involves two separate sets of calculations. The first being a procedure of setting rate and the second being a procedure of obtaining system pressure.

FIRST: These systems utilize a positive-displacement, ground-driven, piston pump to establish the GPA (gallon per acre) rate. Because the pump is ground-driven, this rate will be very consistent provided you do not exceed the pumps capacity or pressure ratings (120 PSI Maximum).

SECOND: The injection system nozzles are what determine system operation pressure at a particular flow rate and ground speed. Because the system requires nozzle pressure in the 60 PSI to 120 PSI range to inject fertilizer into the soil properly, it becomes necessary to size the nozzle correctly to maintain this 60-120 PSI optimum operating pressure at various speeds. In effect, the operating speed is limited by the range of pressure necessary for proper injection system operation.

Remember that nozzle size has no affect on rate, only system operating pressure.

High Pressure Injection System Pump Calibration Work sheet

Step 1: Rate Calculation (gallons per acre)

Actual pounds of nitrogen per acre desired ÷ percent of nitrogen in solution equals pounds of solution per acre

Actual N ÷ % of N = lbs. solution per acre

Examples:

100 lbs. of actual N desired .28 (% of N in solution) = 357 lbs. per acre
100 lbs. of actual N desired .32 (% of N in solution) = 312 lbs. per acre

Step 2: Pounds per acre of solution ÷ weight per gallon of solution equal GPA (GPA= gallons per acre of solution)

lbs. solution per acre ÷ weight per gallon = GPA

Examples:

357 lbs. of 28% N solution 10.65 lbs. per gallon = 33.5 GPA
312 lbs. of 32% N solution 11.4 lbs. per gallon = 27.37 GPA

Step 3: Use the John Blue, pump setting, slide-rule chart. The standard BLU-JET sprocket combination is 18 to 50.

Step 4: Loaded Radius:

We recommend using a loaded radius of 10” for the standard BLU-JET tire drive wheel when used with the John Blue LM 4450 pump.

Add 1/2” to the loaded radius if soil builds up on the small tire in wet conditions.

► **Step 5:** Swath width is the number of rows being applied (Example: A 15 row 30” machine will cover 16 rows.) times the spacing between the rows.

Rows x Spacing = Swath width

16 rows x 30” = 480” (swath width)

Step 6: Example:

1. Using the chart, align loaded radius (10”) with 18 to 50 sprocket combination setting.
2. Using the chart, align swath width (480”) with arrow under sprocket ratio.
3. Using the chart, GPA rate (LM 4450) pump) from step 2 above will align with correct pump setting.

Once the correct pump setting has been obtained from the pump calibration work sheet it becomes necessary to select a nozzle size that will result in a system operating pressure that falls within the recommended range of 60 PSI to 120 PSI. It is important to remember that GPA rate will not be affected by changing nozzle sizes. The only way the GPA rate will change is if you change pump settings. A gauge is provided to double check calculations and monitor pressure during operation.

To simplify calibration we supplied a chart based on 28% nitrogen solution in 30” row spacings.

Example: Using the 30” spacing chart, with 7 MPH as the target operating speed and 115 lbs. N/acre as the target rate; you can see that nozzle size 4916-95 will produce 80 PSI @ 7 MPH. Also if you look under the 8 MPH column you will see that this nozzle size will produce 100 PSI.

It is recommended that a mid-range pressure of 80 to 100 PSI is used to allow for speed variances in field operation, if possible.

It is recommended that the stream stabilizer nozzle inserts always be used with these nozzles to improve the solid-stream characteristics of the spray pattern and consequently the injection and over spray reduction characteristics of nozzle. These stainless steel nozzle orifices are commercially available almost everywhere and there are several sizes available between those on our chart if needed.

It is recommended that a fine line (80 mesh) stainer be used on extremely low rate applications to prevent plugging nozzles.

BLU-JET	Blank Calibration Work Sheet		
AT2000	Task	Procedures	Illustrations

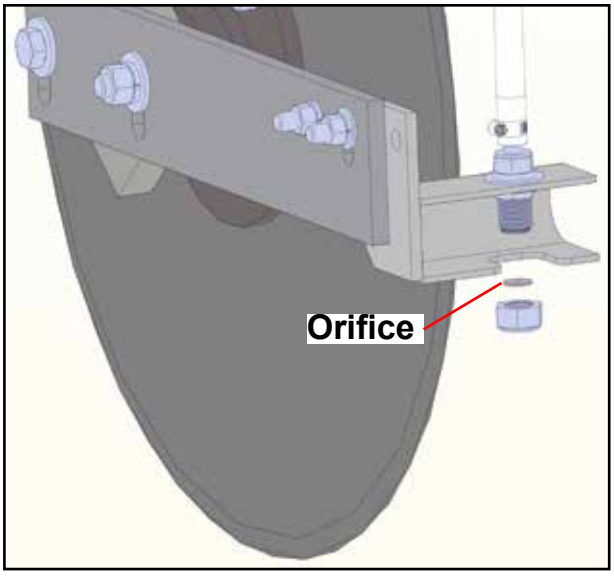
Operating Instructions
Rate Orifice Installation

AT2000	Task	Procedures	Illustrations

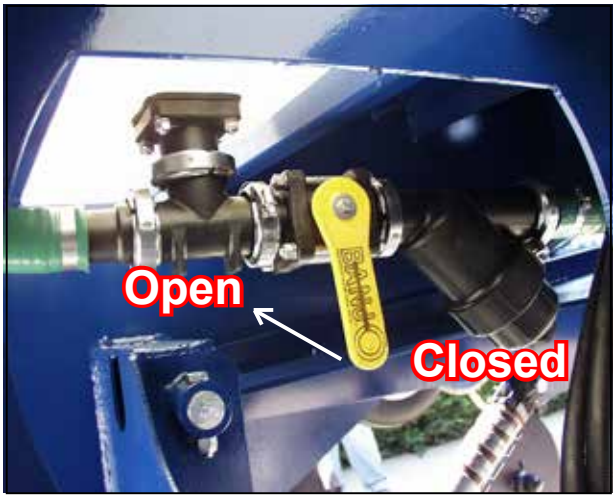
► **Pump setting**

1. **Consult row spacing rate chart for orifice size.**

2. **Remove nozzle nut and insert orifice.**



3. **Open tank valve in the field.**



Generic Photo

1. **Travel a few meters and check blade depth. 4” (10 cm) Adjust gauge wheels or coulters to achieve the 4” (10 cm) depth.**

2. **Check all nozzles for stream of liquid behind blade.**

3. **Make adjustment to nozzle assembly so stream is in line with the blade trench.**

22 Inch Spacing Rate Chart

Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 22 Inch Spacing							
			5 mph	6 mph	7 mph	8 mph	9 mph	10 mph	11 mph	12 mph
4916 49	60	0.320	17.3	14.4	12.3	10.8	9.6	8.6	7.8	7.2
	80	0.369	19.9	16.6	14.2	12.5	11.1	10.0	9.1	8.3
	100	0.413	22.3	18.6	15.9	13.9	12.4	11.1	10.1	9.3
	120	0.452	24.4	20.3	17.4	15.3	13.6	12.2	11.1	10.2
4916 57	60	0.432	23.4	19.5	16.7	14.6	13.0	11.7	10.6	9.7
	80	0.499	27.0	22.5	19.3	16.9	15.0	13.5	12.3	11.2
	100	0.558	30.1	25.1	21.5	18.8	16.7	15.1	13.7	12.6
	120	0.612	33.0	27.5	23.6	20.6	18.3	16.5	15.0	13.8
*4916 63	60	0.528	28.5	23.8	20.4	17.8	15.8	14.3	13.0	11.9
	80	0.610	32.9	27.4	23.5	20.6	18.3	16.5	15.0	13.7
	100	0.682	36.8	30.7	26.3	23.0	20.5	18.4	16.7	15.3
	120	0.747	40.3	33.6	28.8	25.2	22.4	20.2	18.3	16.8
*4916 70	60	0.652	35.2	29.3	25.2	22.0	19.6	17.6	16.0	14.7
	80	0.753	40.7	33.9	29.0	25.4	22.6	20.3	18.5	16.9
	100	0.842	45.5	37.9	32.5	28.4	25.3	22.7	20.7	18.9
	120	0.922	49.8	41.5	35.6	31.1	27.7	24.9	22.6	20.8
*4916 78	60	0.810	43.7	36.4	31.2	27.3	24.3	21.9	19.9	18.2
	80	0.935	50.5	42.1	36.1	31.6	28.1	25.2	23.0	21.0
	100	1.045	56.5	47.0	40.3	35.3	31.4	28.2	25.7	23.5
	120	1.145	61.8	51.5	44.2	38.6	34.4	30.9	28.1	25.8
*4916 86	60	0.984	53.2	44.3	38.0	33.2	29.5	26.6	24.2	22.1
	80	1.137	61.4	51.1	43.8	38.4	34.1	30.7	27.9	25.6
	100	1.271	68.6	57.2	49.0	42.9	38.1	34.3	31.2	28.6
	120	1.392	75.2	62.6	53.7	47.0	41.8	37.6	34.2	31.3
*4916 95	60	1.201	64.9	54.1	46.3	40.5	36.0	32.4	29.5	27.0
	80	1.387	74.9	62.4	53.5	46.8	41.6	37.4	34.0	31.2
	100	1.551	83.7	69.8	59.8	52.3	46.5	41.9	38.1	34.9
	120	1.699	91.7	76.4	65.5	57.3	51.0	45.9	41.7	38.2
4916 107	60	1.524	82.3	68.6	58.8	51.4	45.7	41.1	37.4	34.3
	80	1.760	95.0	79.2	67.9	59.4	52.8	47.5	43.2	39.6
	100	1.967	106.2	88.5	75.9	66.4	59.0	53.1	48.3	44.3
	120	2.155	116.4	97.0	83.1	72.7	64.7	58.2	52.9	48.5
4916 120	60	1.917	103.5	86.2	73.9	64.7	57.5	51.7	47.0	43.1
	80	2.213	119.5	99.6	85.4	74.7	66.4	59.8	54.3	49.8
	100	2.474	133.6	111.3	95.4	83.5	74.2	66.8	60.7	55.7
	120	2.710	146.4	122.0	104.5	91.5	81.3	73.2	66.5	61.0

The 4916 series of orifices are available in many sizes falling between those listed on this chart.

* Standard equipment sizes.

30 Inch Spacing Rate Chart

Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 30 Inch Spacing							
			5 mph	6 mph	7 mph	8 mph	9 mph	10 mph	11 mph	12 mph
4916 49	60	0.320	12.7	10.5	9.0	7.9	7.0	6.3	5.8	5.3
	80	0.369	14.6	12.2	10.4	9.1	8.1	7.3	6.6	6.1
	100	0.413	16.3	13.6	11.7	10.2	9.1	8.2	7.4	6.8
	120	0.452	17.9	14.9	12.8	11.2	9.9	8.9	8.1	7.5
4916 57	60	0.432	17.1	14.3	12.2	10.7	9.5	8.6	7.8	7.1
	80	0.499	19.8	16.5	14.1	12.4	11.0	9.9	9.0	8.2
	100	0.558	22.1	18.4	15.8	13.8	12.3	11.1	10.0	9.2
	120	0.612	24.2	20.2	17.3	15.1	13.5	12.1	11.0	10.1
*4916 63	60	0.528	20.9	17.4	14.9	13.1	11.6	10.5	9.5	8.7
	80	0.610	24.2	20.1	17.3	15.1	13.4	12.1	11.0	10.1
	100	0.682	27.0	22.5	19.3	16.9	15.0	13.5	12.3	11.3
	120	0.747	29.6	24.7	21.1	18.5	16.4	14.8	13.4	12.3
*4916 70	60	0.652	25.8	21.5	18.4	16.1	14.3	12.9	11.7	10.8
	80	0.753	29.8	24.9	21.3	18.6	16.6	14.9	13.6	12.4
	100	0.842	33.3	27.8	23.8	20.8	18.5	16.7	15.2	13.9
	120	0.922	36.5	30.4	26.1	22.8	20.3	18.3	16.6	15.2
*4916 78	60	0.810	32.1	26.7	22.9	20.0	17.8	16.0	14.6	13.4
	80	0.935	37.0	30.9	26.4	23.1	20.6	18.5	16.8	15.4
	100	1.045	41.4	34.5	29.6	25.9	23.0	20.7	18.8	17.2
	120	1.145	45.3	37.8	32.4	28.3	25.2	22.7	20.6	18.9
*4916 86	60	0.984	39.0	32.5	27.8	24.4	21.7	19.5	17.7	16.2
	80	1.137	45.0	37.5	32.2	28.1	25.0	22.5	20.5	18.8
	100	1.271	50.3	41.9	35.9	31.5	28.0	25.2	22.9	21.0
	120	1.392	55.1	45.9	39.4	34.5	30.6	27.6	25.1	23.0
*4916 95	60	1.201	47.6	39.6	34.0	29.7	26.4	23.8	21.6	19.8
	80	1.387	54.9	45.8	39.2	34.3	30.5	27.5	25.0	22.9
	100	1.551	61.4	51.2	43.9	38.4	34.1	30.7	27.9	25.6
	120	1.699	67.3	56.1	48.1	42.0	37.4	33.6	30.6	28.0
4916 107	60	1.524	60.3	50.3	43.1	37.7	33.5	30.2	27.4	25.1
	80	1.760	69.7	58.1	49.8	43.5	38.7	34.8	31.7	29.0
	100	1.967	77.9	64.9	55.6	48.7	43.3	39.0	35.4	32.5
	120	2.155	85.3	71.1	61.0	53.3	47.4	42.7	38.8	35.6
4916 120	60	1.917	75.9	63.2	54.2	47.4	42.2	37.9	34.5	31.6
	80	2.213	87.6	73.0	62.6	54.8	48.7	43.8	39.8	36.5
	100	2.474	98.0	81.7	70.0	61.2	54.4	49.0	44.5	40.8
	120	2.710	107.3	89.4	76.7	67.1	59.6	53.7	48.8	44.7

The 4916 series of orifices are available in many sizes falling between those listed on this chart.

* Standard equipment sizes.

Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 36 Inch Spacing							
			5 mph	6 mph	7 mph	8 mph	9 mph	10 mph	11 mph	12 mph
4916 49	60	0.320	10.5	8.8	7.5	6.6	5.9	5.3	4.8	4.4
	80	0.369	12.2	10.1	8.7	7.6	6.8	6.1	5.5	5.1
	100	0.413	13.6	11.3	9.7	8.5	7.6	6.8	6.2	5.7
	120	0.452	14.9	12.4	10.7	9.3	8.3	7.5	6.8	6.2
4916 57	60	0.432	14.3	11.9	10.2	8.9	7.9	7.1	6.5	5.9
	80	0.499	16.5	13.7	11.8	10.3	9.2	8.2	7.5	6.9
	100	0.558	18.4	15.4	13.2	11.5	10.2	9.2	8.4	7.7
	120	0.612	20.2	16.8	14.4	12.6	11.2	10.1	9.2	8.4
*4916 63	60	0.528	17.4	14.5	12.5	10.9	9.7	8.7	7.9	7.3
	80	0.610	20.1	16.8	14.4	12.6	11.2	10.1	9.1	8.4
	100	0.682	22.5	18.8	16.1	14.1	12.5	11.3	10.2	9.4
	120	0.747	24.7	20.5	17.6	15.4	13.7	12.3	11.2	10.3
*4916 70	60	0.652	21.5	17.9	15.4	13.5	12.0	10.8	9.8	9.0
	80	0.753	24.9	20.7	17.8	15.5	13.8	12.4	11.3	10.4
	100	0.842	27.8	23.2	19.8	17.4	15.4	13.9	12.6	11.6
	120	0.922	30.4	25.4	21.7	19.0	16.9	15.2	13.8	12.7
*4916 78	60	0.810	26.7	22.3	19.1	16.7	14.8	13.4	12.1	11.1
	80	0.935	30.9	25.7	22.0	19.3	17.1	15.4	14.0	12.9
	100	1.045	34.5	28.7	24.6	21.6	19.2	17.2	15.7	14.4
	120	1.145	37.8	31.5	27.0	23.6	21.0	18.9	17.2	15.7
*4916 86	60	0.984	32.5	27.1	23.2	20.3	18.0	16.2	14.8	13.5
	80	1.137	37.5	31.3	26.8	23.4	20.8	18.8	17.0	15.6
	100	1.271	41.9	34.9	30.0	26.2	23.3	21.0	19.1	17.5
	120	1.392	45.9	38.3	32.8	28.7	25.5	23.0	20.9	19.1
*4916 95	60	1.201	39.6	33.0	28.3	24.8	22.0	19.8	18.0	16.5
	80	1.387	45.8	38.1	32.7	28.6	25.4	22.9	20.8	19.1
	100	1.551	51.2	42.6	36.6	32.0	28.4	25.6	23.3	21.3
	120	1.699	56.1	46.7	40.0	35.0	31.1	28.0	25.5	23.4
4916 107	60	1.524	50.3	41.9	35.9	31.4	27.9	25.1	22.9	21.0
	80	1.760	58.1	48.4	41.5	36.3	32.3	29.0	26.4	24.2
	100	1.967	64.9	54.1	46.4	40.6	36.1	32.5	29.5	27.0
	120	2.155	71.1	59.3	50.8	44.4	39.5	35.6	32.3	29.6
4916 120	60	1.917	63.2	52.7	45.2	39.5	35.1	31.6	28.7	26.4
	80	2.213	73.0	60.9	52.2	45.6	40.6	36.5	33.2	30.4
	100	2.474	81.7	68.0	58.3	51.0	45.4	40.8	37.1	34.0
	120	2.710	89.4	74.5	63.9	55.9	49.7	44.7	40.7	37.3

The 4916 series of orifices are available in many sizes falling between those listed on this chart.

* Standard equipment sizes.

38 Inch Spacing Rate Chart

Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 38 Inch Spacing							
			5	6	7	8	9	10	11	12
			mph	mph	mph	mph	mph	mph	mph	mph
4916 49	60	0.320	10.0	8.3	7.1	6.2	5.6	5.0	4.5	4.2
	80	0.369	11.5	9.6	8.2	7.2	6.4	5.8	5.2	4.8
	100	0.413	12.9	10.7	9.2	8.1	7.2	6.4	5.9	5.4
	120	0.452	14.1	11.8	10.1	8.8	7.8	7.1	6.4	5.9
4916 57	60	0.432	13.5	11.3	9.7	8.4	7.5	6.8	6.1	5.6
	80	0.499	15.6	13.0	11.2	9.8	8.7	7.8	7.1	6.5
	100	0.558	17.5	14.5	12.5	10.9	9.7	8.7	7.9	7.3
	120	0.612	19.1	15.9	13.7	11.9	10.6	9.6	8.7	8.0
*4916 63	60	0.528	16.5	13.8	11.8	10.3	9.2	8.3	7.5	6.9
	80	0.610	19.1	15.9	13.6	11.9	10.6	9.5	8.7	7.9
	100	0.682	21.3	17.8	15.2	13.3	11.8	10.7	9.7	8.9
	120	0.747	23.4	19.5	16.7	14.6	13.0	11.7	10.6	9.7
*4916 70	60	0.652	20.4	17.0	14.6	12.7	11.3	10.2	9.3	8.5
	80	0.753	23.5	19.6	16.8	14.7	13.1	11.8	10.7	9.8
	100	0.842	26.3	21.9	18.8	16.5	14.6	13.2	12.0	11.0
	120	0.922	28.8	24.0	20.6	18.0	16.0	14.4	13.1	12.0
*4916 78	60	0.810	25.3	21.1	18.1	15.8	14.1	12.7	11.5	10.5
	80	0.935	29.2	24.4	20.9	18.3	16.2	14.6	13.3	12.2
	100	1.045	32.7	27.2	23.3	20.4	18.2	16.3	14.9	13.6
	120	1.145	35.8	29.8	25.6	22.4	19.9	17.9	16.3	14.9
*4916 86	60	0.984	30.8	25.6	22.0	19.2	17.1	15.4	14.0	12.8
	80	1.137	35.5	29.6	25.4	22.2	19.7	17.8	16.2	14.8
	100	1.271	39.7	33.1	28.4	24.8	22.1	19.9	18.1	16.6
	120	1.392	43.5	36.3	31.1	27.2	24.2	21.8	19.8	18.1
*4916 95	60	1.201	37.6	31.3	26.8	23.5	20.9	18.8	17.1	15.6
	80	1.387	43.4	36.1	31.0	27.1	24.1	21.7	19.7	18.1
	100	1.551	48.5	40.4	34.6	30.3	26.9	24.2	22.0	20.2
	120	1.699	53.1	44.3	37.9	33.2	29.5	26.6	24.1	22.1
4916 107	60	1.524	47.6	39.7	34.0	29.8	26.5	23.8	21.7	19.8
	80	1.760	55.0	45.8	39.3	34.4	30.6	27.5	25.0	22.9
	100	1.967	61.5	51.3	43.9	38.4	34.2	30.8	28.0	25.6
	120	2.155	67.4	56.1	48.1	42.1	37.4	33.7	30.6	28.1
4916 120	60	1.917	59.9	49.9	42.8	37.4	33.3	30.0	27.2	25.0
	80	2.213	69.2	57.7	49.4	43.2	38.4	34.6	31.4	28.8
	100	2.474	77.4	64.5	55.3	48.3	43.0	38.7	35.2	32.2
	120	2.710	84.7	70.6	60.5	53.0	47.1	42.4	38.5	35.3

The 4916 series of orifices are available in many sizes falling between those listed on this chart.

* Standard equipment sizes.

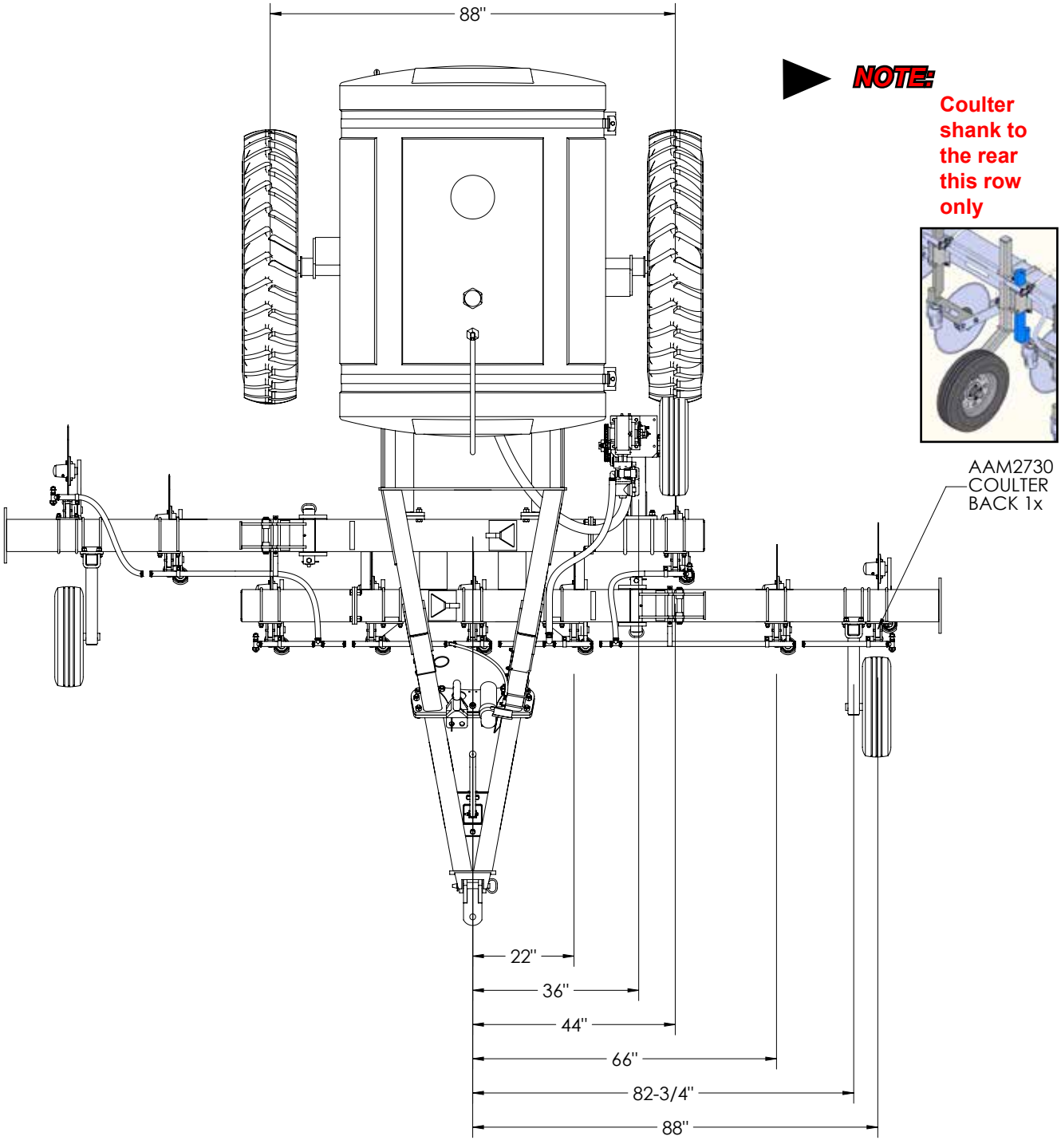
40 Inch Spacing Rate Chart

Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 40 Inch Spacing							
			5	6	7	8	9	10	11	12
			mph	mph	mph	mph	mph	mph	mph	mph
4916 49	60	0.320	9.5	7.9	6.8	5.9	5.3	4.7	4.3	4.0
	80	0.369	11.0	9.1	7.8	6.8	6.1	5.5	5.0	4.6
	100	0.413	12.3	10.2	8.8	7.7	6.8	6.1	5.6	5.1
	120	0.452	13.4	11.2	9.6	8.4	7.5	6.7	6.1	5.6
4916 57	60	0.432	12.8	10.7	9.2	8.0	7.1	6.4	5.8	5.4
	80	0.499	14.8	12.4	10.6	9.3	8.2	7.4	6.7	6.2
	100	0.558	16.6	13.8	11.8	10.4	9.2	8.3	7.5	6.9
	120	0.612	18.2	15.1	13.0	11.4	10.1	9.1	8.3	7.6
*4916 63	60	0.528	15.7	13.1	11.2	9.8	8.7	7.8	7.1	6.5
	80	0.610	18.1	15.1	12.9	11.3	10.1	9.1	8.2	7.5
	100	0.682	20.3	16.9	14.5	12.7	11.3	10.1	9.2	8.4
	120	0.747	22.2	18.5	15.8	13.9	12.3	11.1	10.1	9.2
*4916 70	60	0.652	19.4	16.1	13.8	12.1	10.8	9.7	8.8	8.1
	80	0.753	22.4	18.6	16.0	14.0	12.4	11.2	10.2	9.3
	100	0.842	25.0	20.8	17.9	15.6	13.9	12.5	11.4	10.4
	120	0.922	27.4	22.8	19.6	17.1	15.2	13.7	12.5	11.4
*4916 78	60	0.810	24.0	20.0	17.2	15.0	13.4	12.0	10.9	10.0
	80	0.935	27.8	23.1	19.8	17.4	15.4	13.9	12.6	11.6
	100	1.045	31.0	25.9	22.2	19.4	17.2	15.5	14.1	12.9
	120	1.145	34.0	28.3	24.3	21.3	18.9	17.0	15.5	14.2
*4916 86	60	0.984	29.2	24.4	20.9	18.3	16.2	14.6	13.3	12.2
	80	1.137	33.8	28.1	24.1	21.1	18.8	16.9	15.3	14.1
	100	1.271	37.7	31.5	27.0	23.6	21.0	18.9	17.2	15.7
	120	1.392	41.3	34.5	29.5	25.8	23.0	20.7	18.8	17.2
*4916 95	60	1.201	35.7	29.7	25.5	22.3	19.8	17.8	16.2	14.9
	80	1.387	41.2	34.3	29.4	25.7	22.9	20.6	18.7	17.2
	100	1.551	46.1	38.4	32.9	28.8	25.6	23.0	20.9	19.2
	120	1.699	50.5	42.0	36.0	31.5	28.0	25.2	22.9	21.0
4916 107	60	1.524	45.3	37.7	32.3	28.3	25.1	22.6	20.6	18.9
	80	1.760	52.3	43.5	37.3	32.7	29.0	26.1	23.8	21.8
	100	1.967	58.4	48.7	41.7	36.5	32.5	29.2	26.6	24.3
	120	2.155	64.0	53.3	45.7	40.0	35.6	32.0	29.1	26.7
4916 120	60	1.917	56.9	47.4	40.7	35.6	31.6	28.5	25.9	23.7
	80	2.213	65.7	54.8	46.9	41.1	36.5	32.9	29.9	27.4
	100	2.474	73.5	61.2	52.5	45.9	40.8	36.7	33.4	30.6
	120	2.710	80.5	67.1	57.5	50.3	44.7	40.3	36.6	33.5

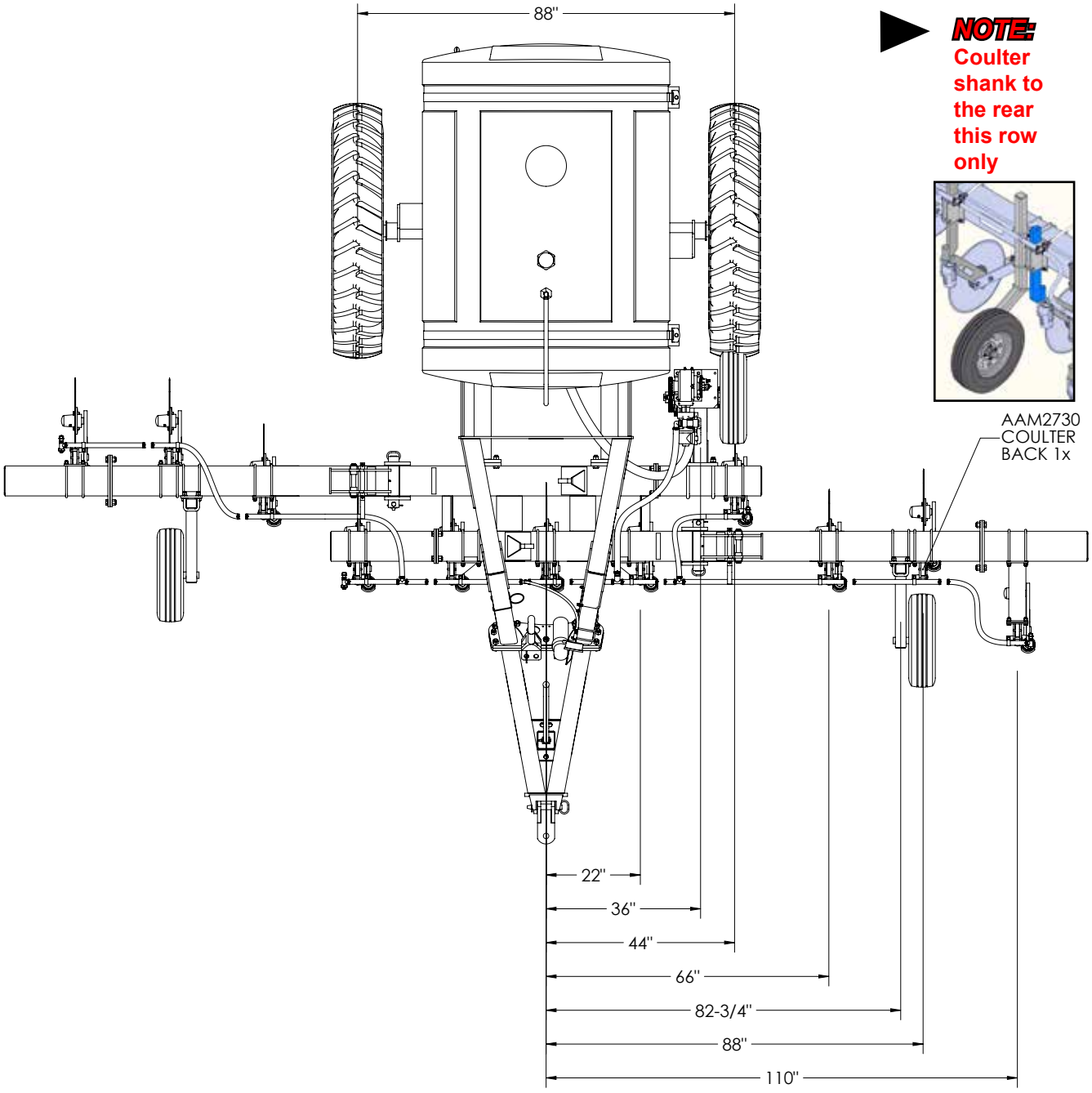
The 4916 series of orifices are available in many sizes falling between those listed on this chart.

* Standard equipment sizes.

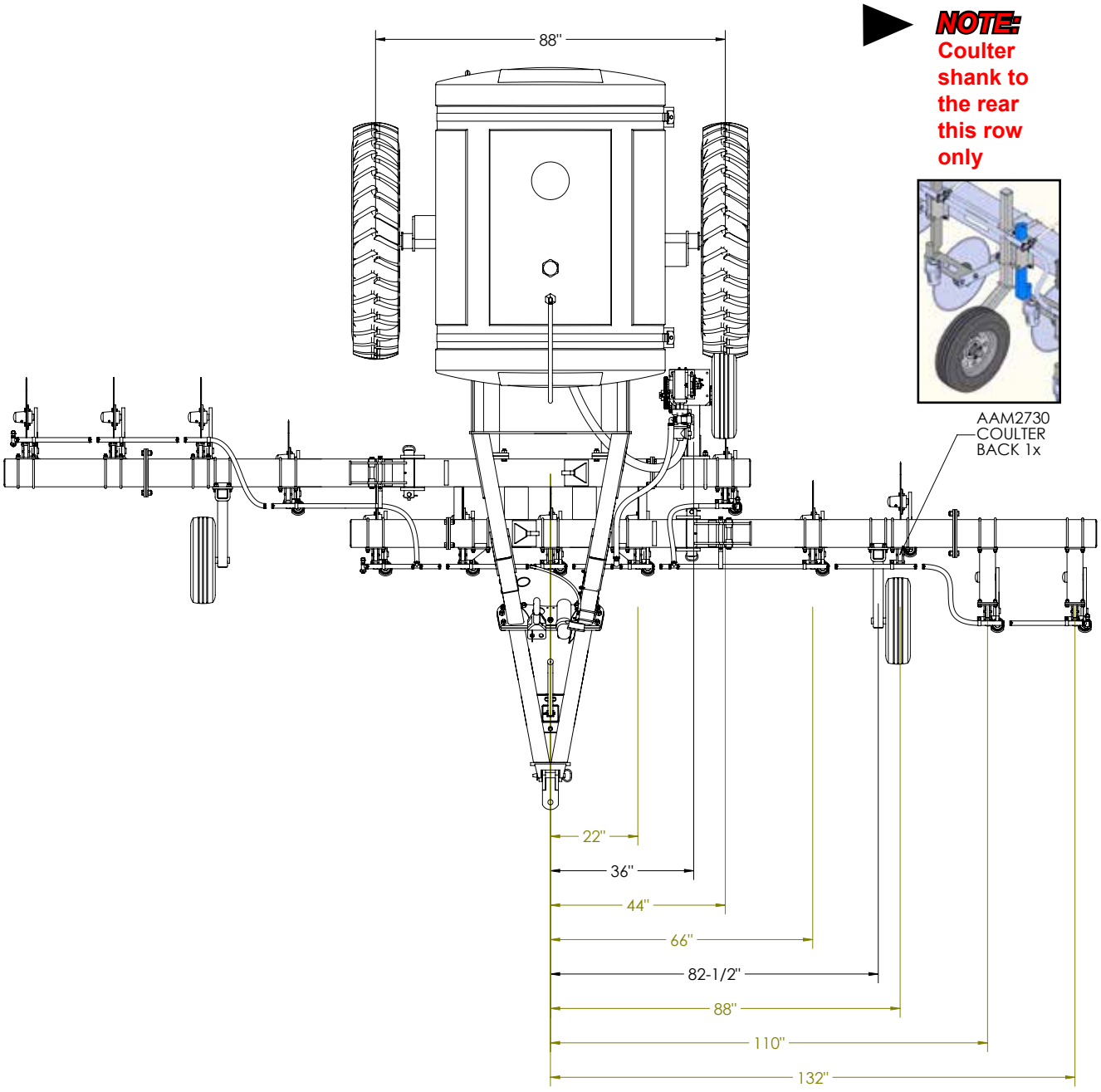
BLU-JET	22 Inch Row Spacing (9 Row 22”) (56 cm)		
AT2000	Task	Procedures	Illustrations



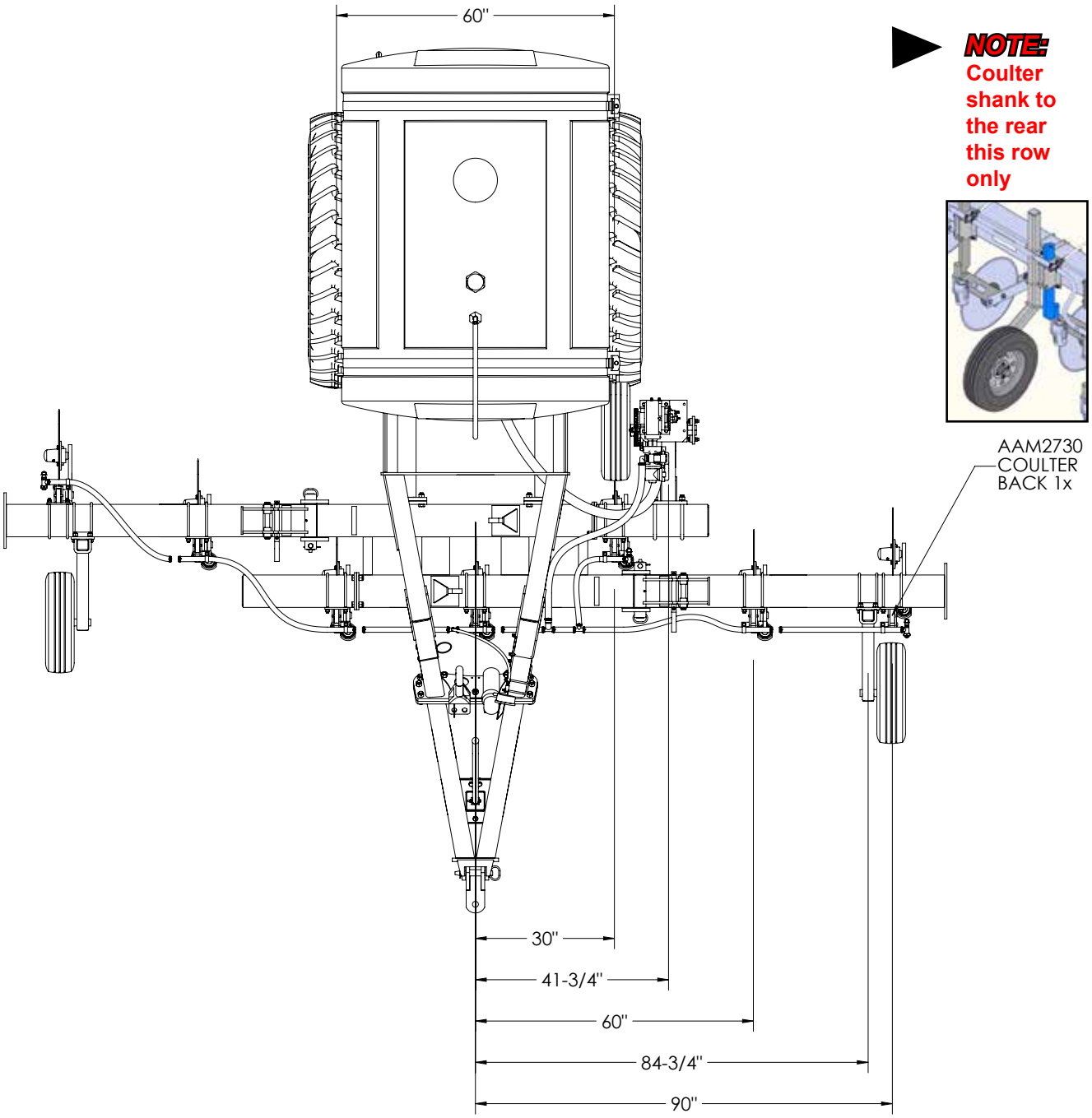
BLU-JET	22 Inch Row Spacing (11 Row 22”) (56 cm)		
AT2000	Task	Procedures	Illustrations



BLU-JET	22 Inch Row Spacing (13 Row 22”) (56 cm)		
AT2000	Task	Procedures	Illustrations

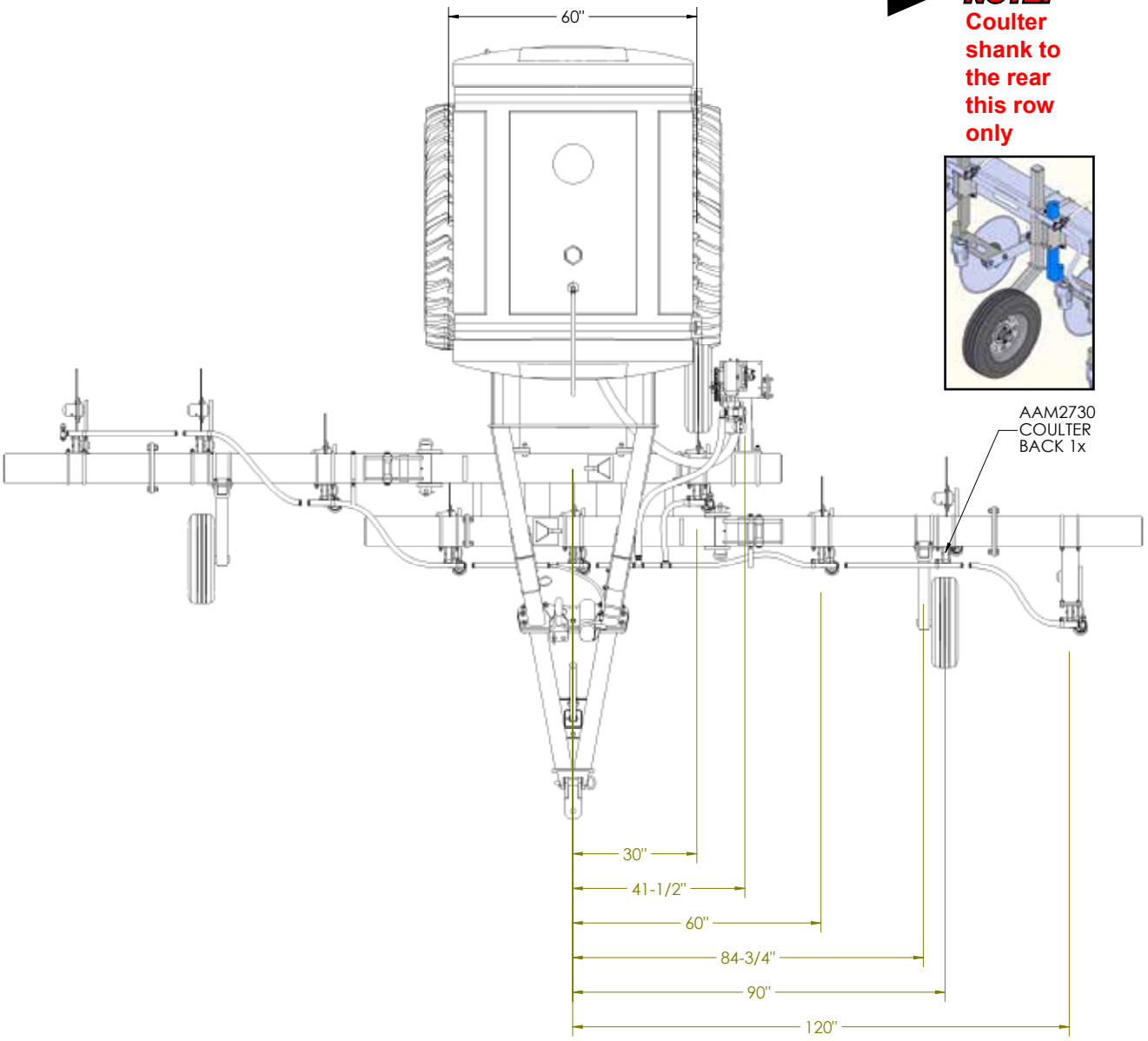


BLU-JET	30 Inch Row Spacing (7 Row 30”) (76 cm)		
AT2000	Task	Procedures	Illustrations

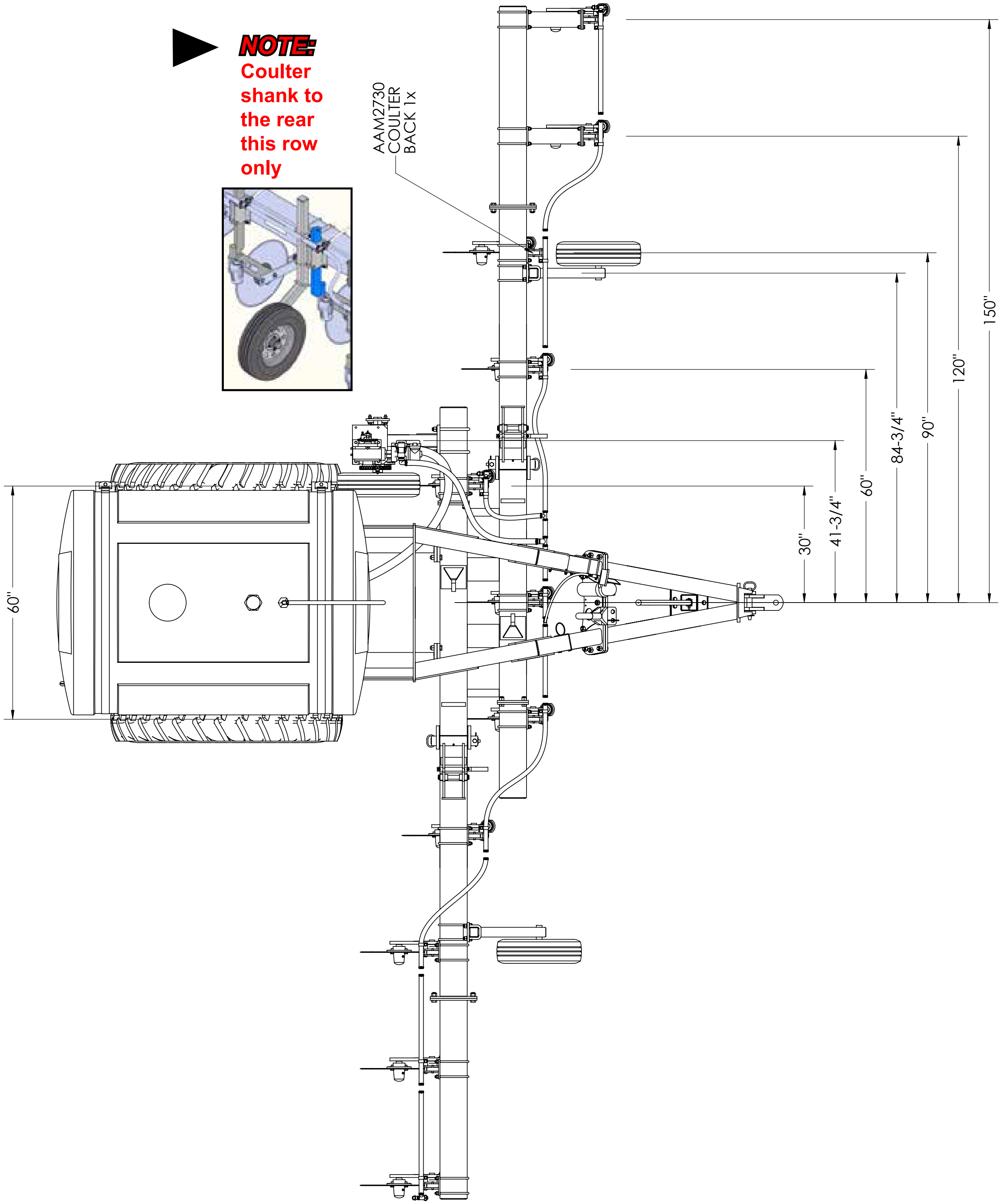


BLU-JET	30 Inch Row Spacing (9 Row 30”) (76 cm)		
AT2000	Task	Procedures	Illustrations

NOTE:
Coulter shank to the rear this row only

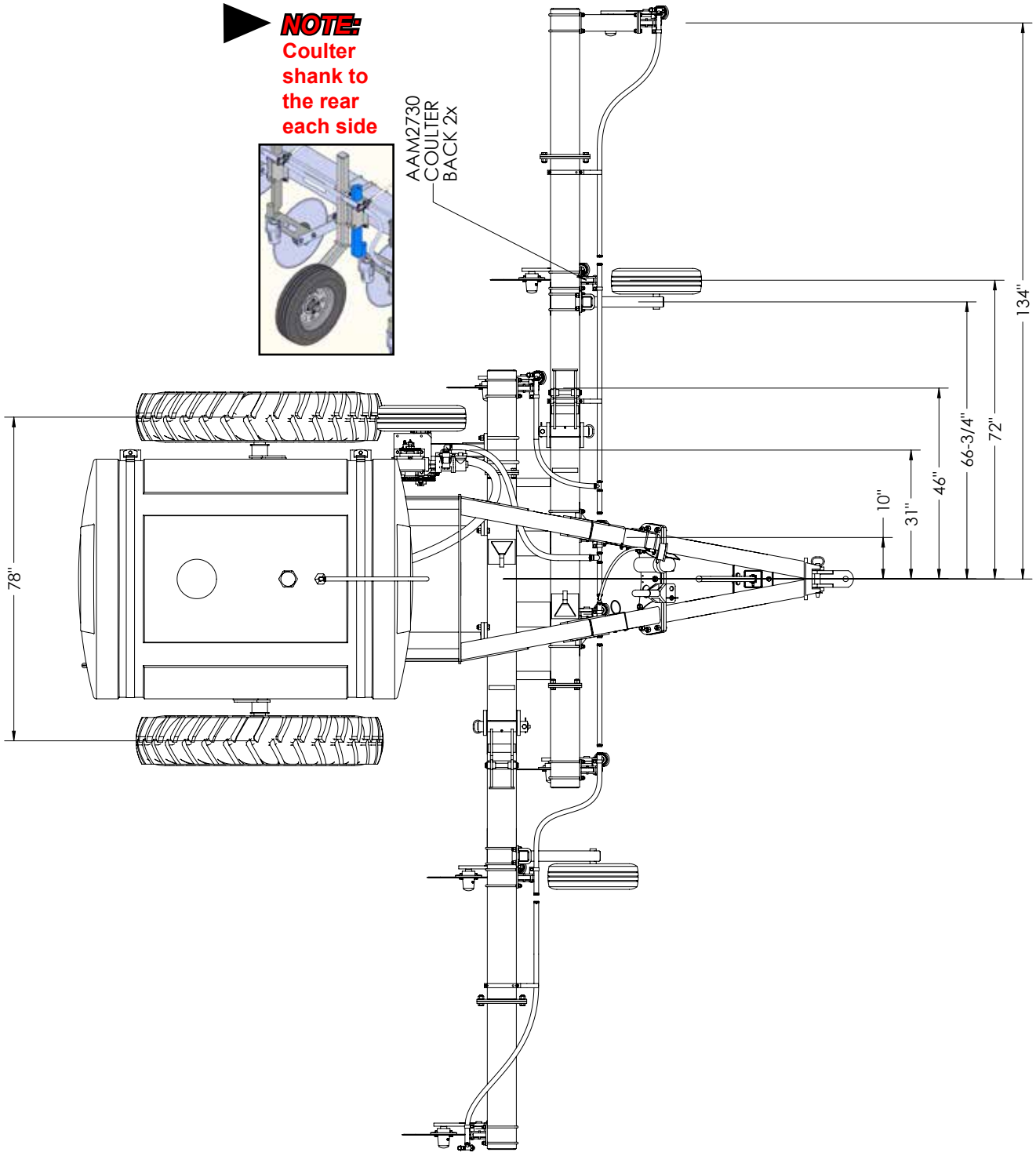


NOTE:
Coulter shank to the rear this row only



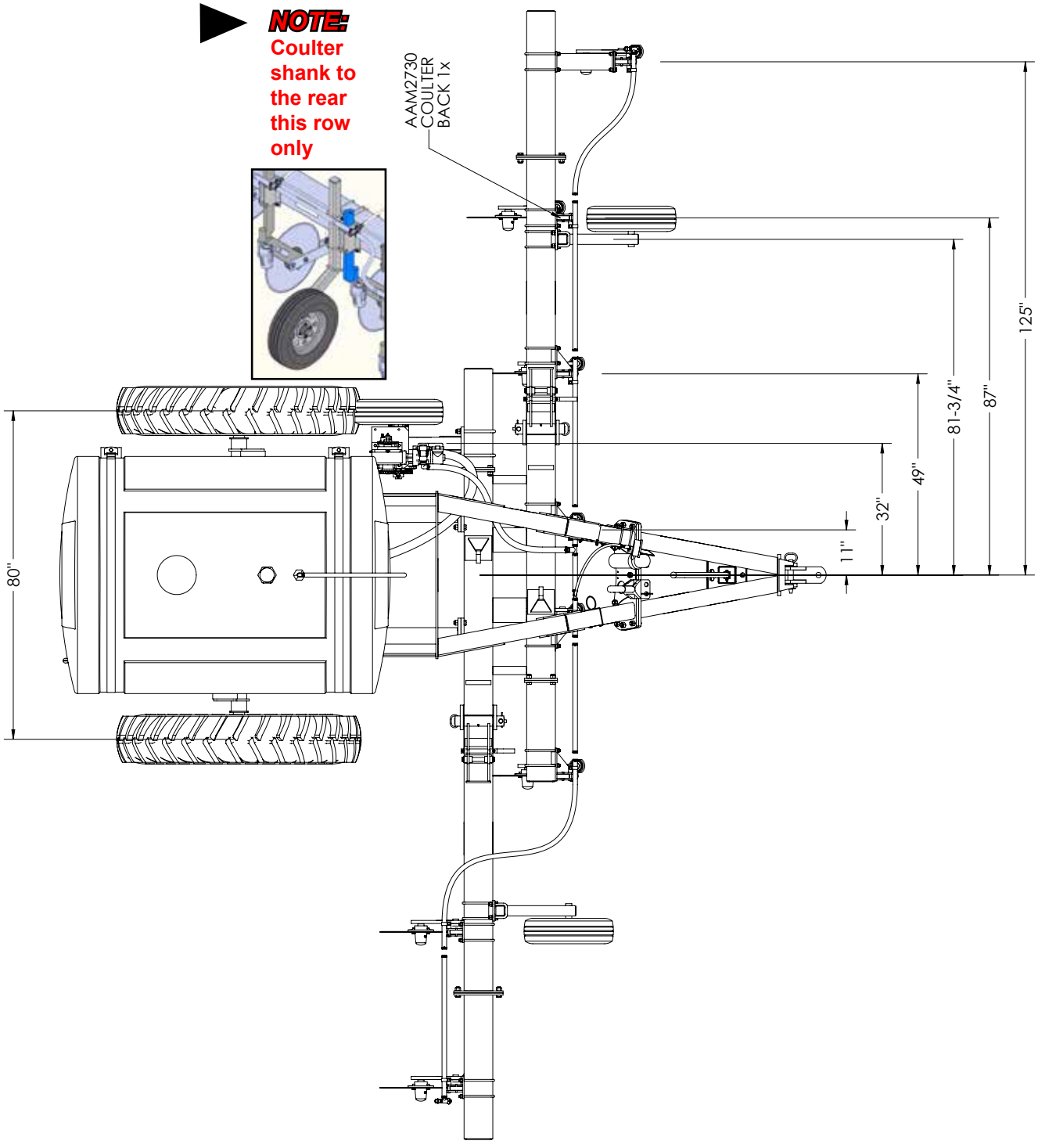
BLU-JET	36 Inch Row Spacing (8 Row 36”) (91,4 cm)		
AT2000	Task	Procedures	Illustrations

NOTE:
Coulter shank to the rear each side

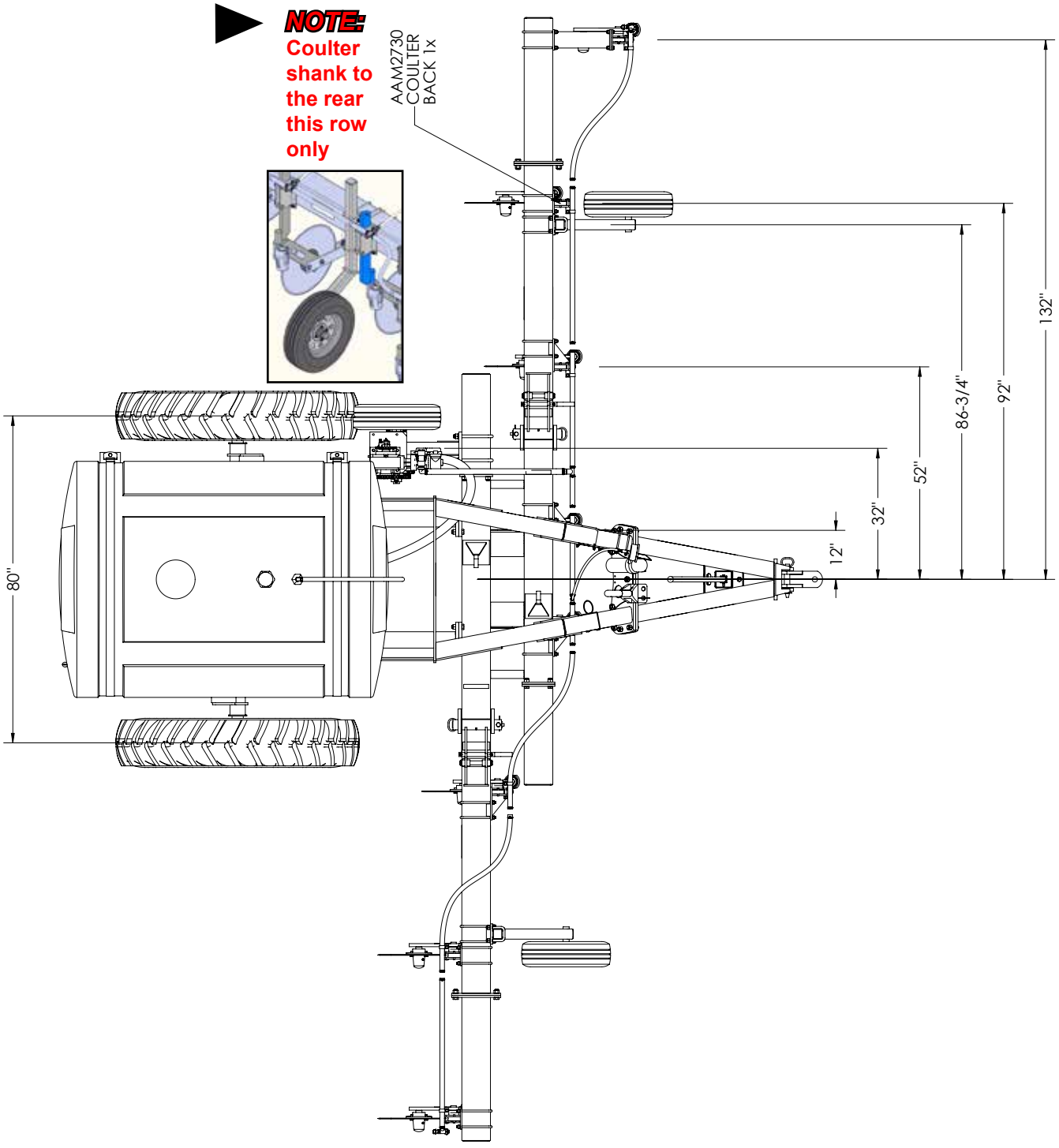


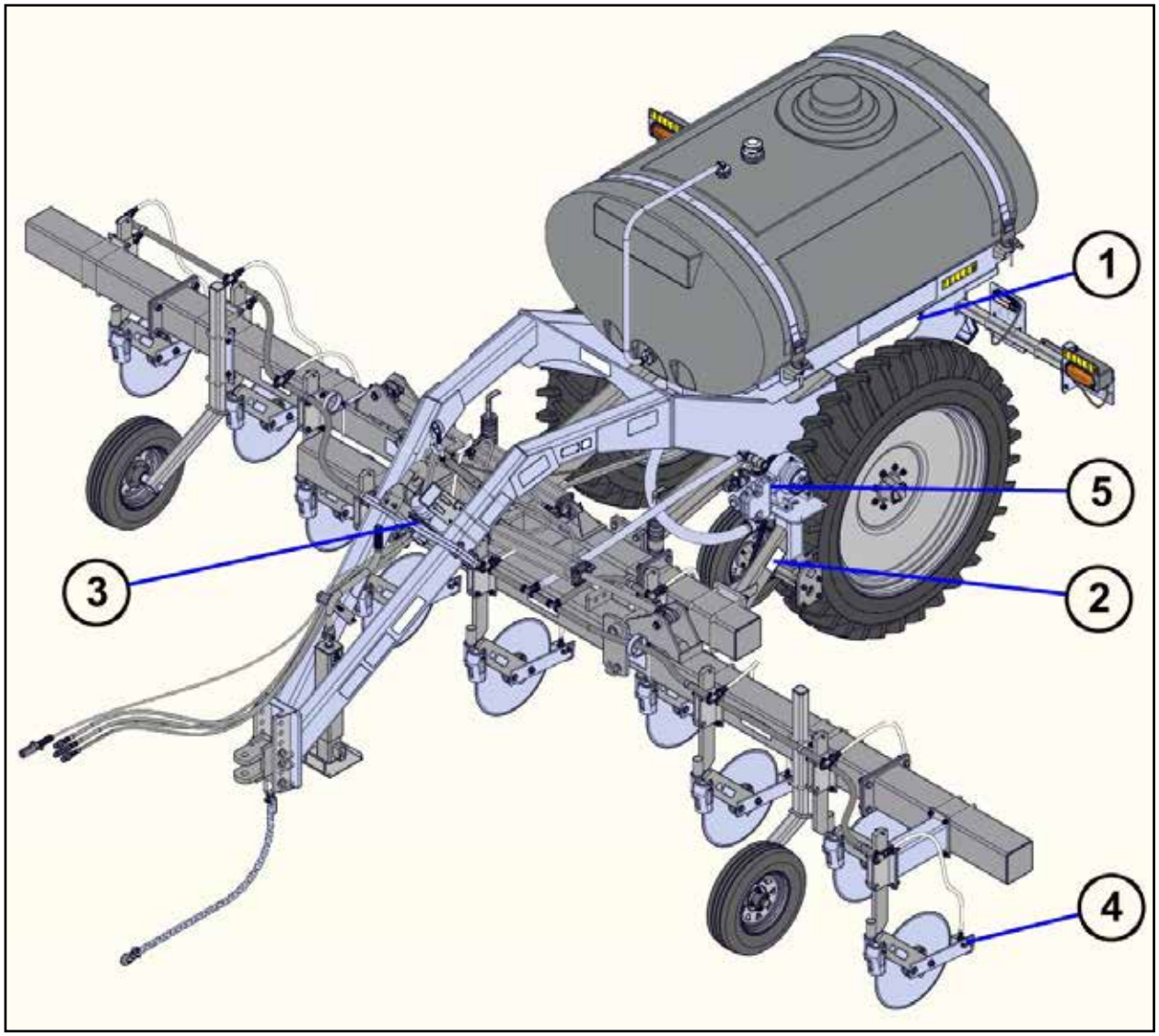
BLU-JET	38 Inch Row Spacing (7 Row 38”) (97,5 cm)		
AT2000	Task	Procedures	Illustrations

NOTE:
Coulter shank to the rear this row only

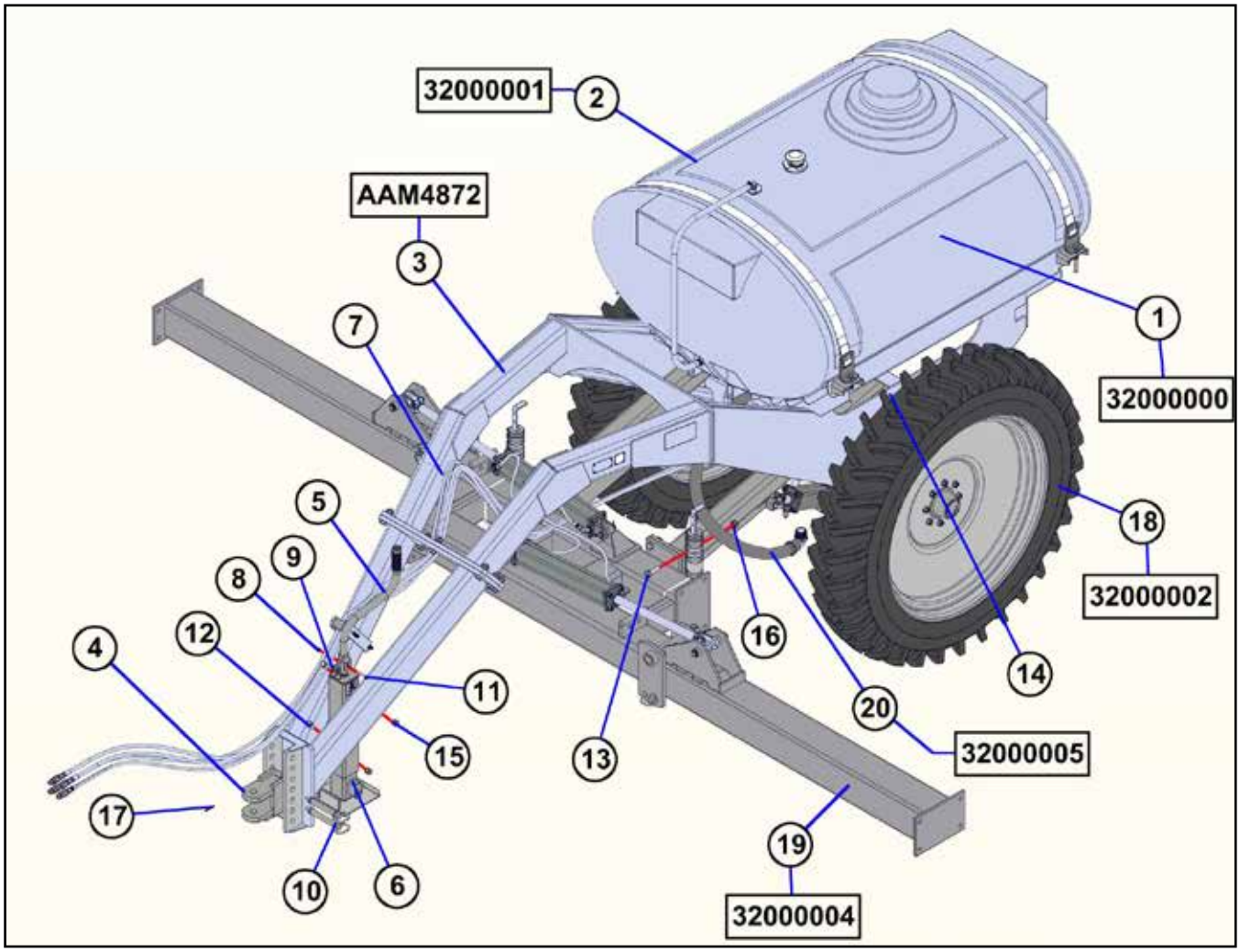


BLU-JET	40 Inch Row Spacing (7 Row 40”) (101,6 cm)		
AT2000	Task	Procedures	Illustrations

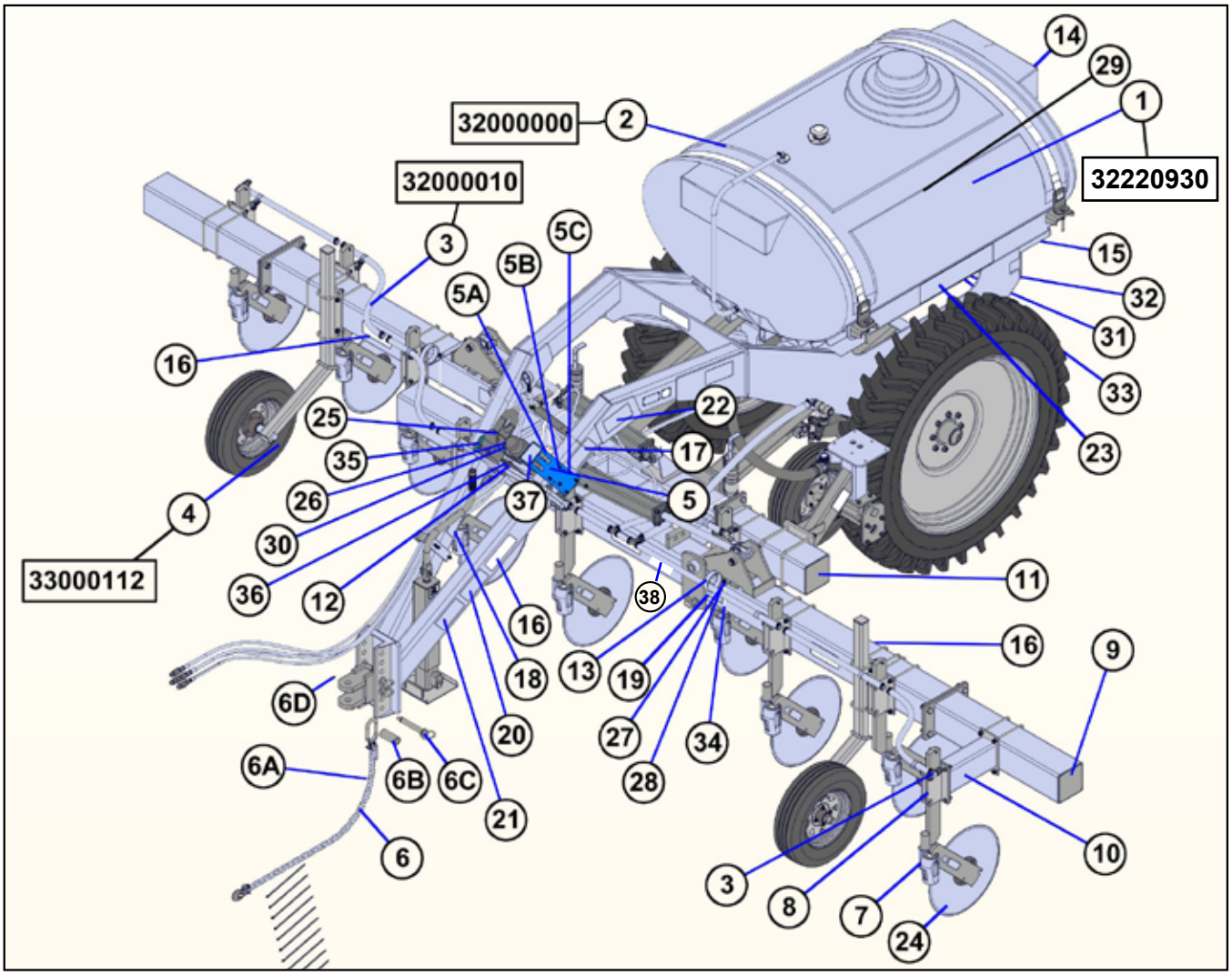




BOM ID	Qty	Item No	Metric Description
1	1	32220930	AT2000 9 ROW 30” LIQUID APPLICATOR
2	1	32000009	PUMP DRIVE KIT, 32 TOOTH SPROCKET
3	1	32000930	AT2000 9 ROW 30” STANDARD TOOLBAR
4	9	AAM3353	JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW
5	1	CP2568	PUMP, SINGLE PISTON, NGP-7055



BOM ID	Qty	Item No	Description
1	1	32000000	AT2000, SHIPPING ASSEMBLY
2	1	32000001	AT2000 MAIN FRAME
3	1	AAM4872	ASSEMBLY, AT2000 CART WITH TANK
4	1	AM2144	HITCH, CLEVIS
5	1	AM2570	CRANK WITH GRIP, 80 DEGREE, THURSTON MANUFACTURING COMPANY BLUE
6	1	AM3705	JACK, AT2000, 9TWDL (TOP WIND DROP LEG)
7	1	AP2280	HOSE RETAINER, 6” X 4” (15,2 cm X 10,2 cm)
8	1	BP3003	NUT, HEX LOCK, 3/8”-16, GRADE 2, PLATED (9,5 mm)
9	2	BP3015	WASHER, FLAT, 3/8”, PLATED (9,5 mm)
10	2	BP3051	PIN, 1” X 6”, PLATED (2,5 cm X 15,2 cm)
11	1	BP3096	HEX CAP SCREW, 3/8”-16 X 2-1/2”, GRADE 5, PLATED (9,5 mm X 6,4 cm)
12	3	BP3097	HEX CAP SCREW, 5/8”-11 X 1-1/2”, GRADE 5, PLATED (15,9 mm X 3,8 cm)
13	8	BP3197	HEX CAP SCREW, 3/4”-10 X 2-1/2”, GRADE 8, PLATED (19,1 mm X 6,4 cm)
14	2	BP3205	MACHINERY BUSHING, 2-1/2” OD X 1-3/4” ID, 10 GAUGE, PLATED (6,4 cm X 4,4 cm X 3,4 mm)
15	3	BP3375	NUT, HEX LOCK, 5/8”-11, NYLOCK (15,9 mm)
16	8	BP3442	NUT, HEX LOCK, 3/4”-10, TOP LOCK, GRADE C, PLATED (19,1 mm)
17	2	BP3511	PIN, COTTER, 3/16” X 1-3/4” (4,8 mm X 4,4 cm)
18	1	32000002	WHEEL/AXLE, AT2000, ADJUSTABLE
19	1	32000004	AT2000 STANDARD TOOLBAR
20	1	32000005	BOTTOM FILL PLUMBING KIT, AT2000 TANK, 1 PUMP, 2” FILL (5,1 cm)

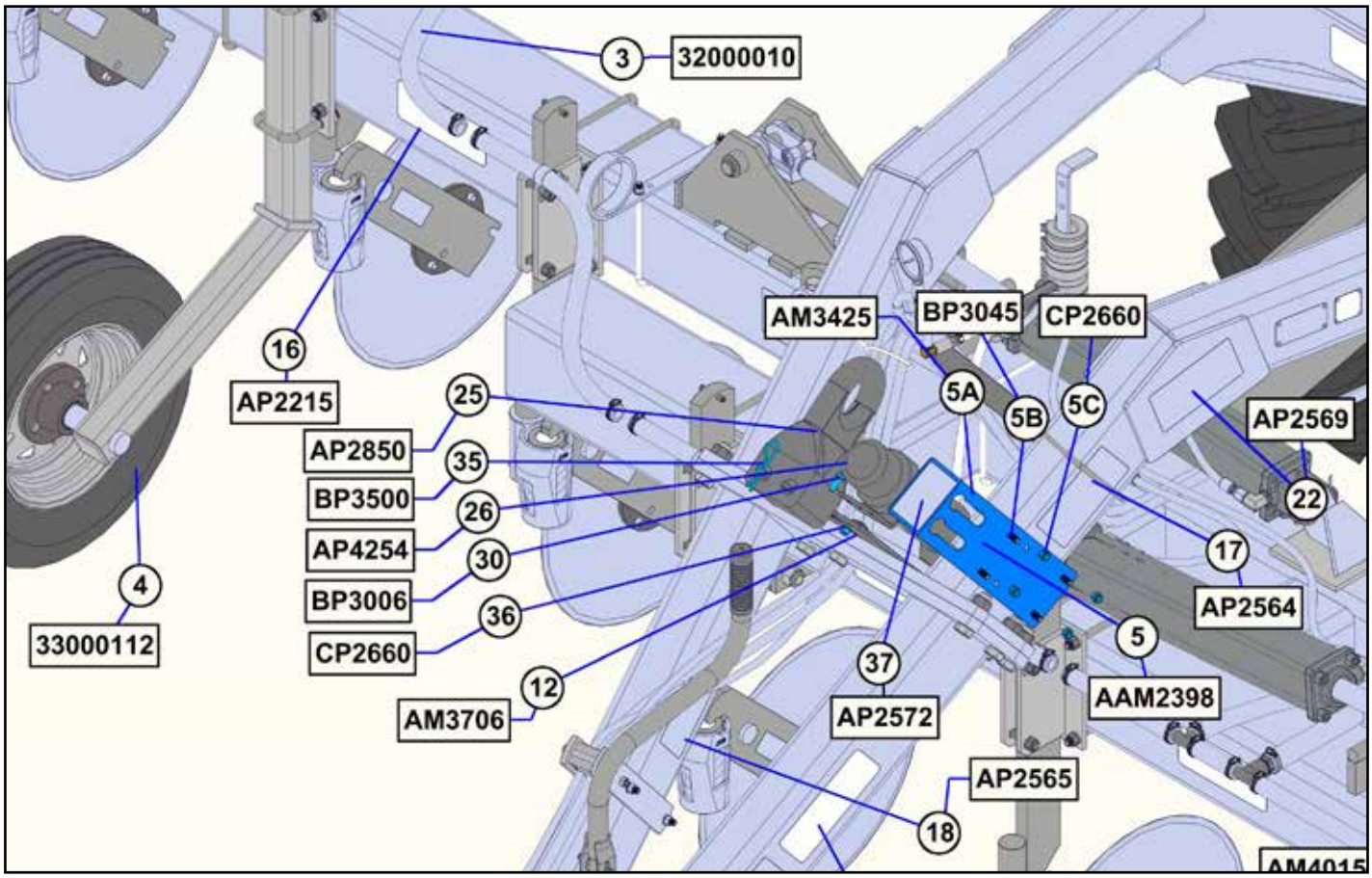


NOTE:
Close-up views on the following pages

AT2000 9 Row 30” (32220930)

BOM ID	Qty	Item No	Description
1	1	32000930	AT2000, 9 Row 30” (76 cm) WITH STANDARD BUNDLES
2	1	32000000	AT2000, SHIPPING ASSEMBLY
3	1	32000010	MANIFOLD ASSEMBLY, AT2000, 3/4” EPDM HOSE, 9 ROW (1,9 cm)
4	2	33000112 single	GAUGE WHEEL, 155/80R12 TIRE
5	1	AAM2398	HOSE END HOLDER, 2 HOSE, WITH U-BOLTS
5A	1	AM3425	BRACKET, HOSE HOLDER, 2 HOSE
5B	2	BP3045	U-BOLT, 3/8”-16 X 6”W X 5”L, PLATED (9,5 mm X 15,2 cm X 12,7 cm)
5C	4	CP2660	NUT, HEX LOCK, 3/8”-16, NYLOCK (9,5 mm)
6	1	AAM2422	TRANSPORT CHAIN KIT
6A	1	AP2150	TRANSPORT CHAIN
6B	1	BM3498	BUSHING, SAFETY CHAIN
6C	1	BP3051	PIN, 1” X 6”, PLATED (2,5 cm X 15,2 cm)
6D	1	BP3511	PIN, COTTER, 3/16” X 1-3/4” (4,8 mm X 4,4 cm)
7	9	AAM2730	COULTER, SUPER 1200, 23” SHANK, 1 ROW
8	9	AAM2821	COULTER, FLATBACK, CENTERED ASSEMBLY, 7” X 7” (17,8 cm X 17,8 cm)
9	2	AAM4873	WING EXTENSION KIT, 34” (86 cm)
10	1	AAM4875	FLATBACK EXTENSION WITH HARDWARE
11	2	AAM4876	WING EXTENSION KIT, 24” (70 cm)
12	1	AM3706	UTILITY PLATE
13	2	AM4015	HOSE RETAINER, CLOSED LOOP
14	2	AM4421	BRACKET, TANK MOUNT
15	1	AP2137	SAFETY TANK
16	9	AP2215	DECAL, BLU-JET, 3” X 8” (7,6 cm X 20,3 cm)
17	2	AP2564	DECAL, SAFETY PICTORIAL, FALLING FROM EQUIPMENT
18	2	AP2565	DECAL, SAFETY PICTORIAL, HIGH PRESSURE FLUID
19	4	AP2566	DECAL, SAFETY PICTORIAL, FALLING WING
20	1	AP2567	DECAL, SAFETY PICTORIAL, READ OPERATOR’S MANUAL
21	1	AP2568	DECAL, SAFETY PICTORIAL, SAFETY CHAIN
22	2	AP2569	DECAL, SAFETY PICTORIAL, CRUSHING HAZARD
23	2	AP2570	DECAL, AT2000
24	9	AP2840	COULTER BLADE 20”, SMOOTH (50,8 cm)
25	1	AP2850	PERFECT HITCH, CATEGORY III, BLACK
26	1	AP4254	MANUAL HOLDER, BLACK
27	4	BP3001	NUT, HEX, 3/8”-16, GRADE 2, PLATED (9,5 mm)
28	4	BP3002	WASHER, LOCK, 3/8”, PLATED (9,5 mm)
29	4	BP3005	HEX CAP SCREW, 3/8”-16 X 1-1/2”, GRADE 5, PLATED (9,5 mm X 3,8 cm)
30	2	BP3006	HEX CAP SCREW, 3/8”-16 X 1”, GRADE 5, PLATED (9,5 mm X 2,5 cm)
31	6	BP3108	HEX CAP SCREW, 5/16”-18 X 1”, GRADE 5, PLATED (7,9 mm X 2,5 cm)
32	6	BP3158	WASHER, LOCK, 5/16”, PLATED (7,9 mm)
33	6	BP3159	WASHER, FLAT, 5/16”, PLATED (7,9 mm)
34	2	BP3335	U-BOLT, 3/8”-16 X 7”W X 8”L, PLATED (9,5 mm X 17,8 cm X 20,3 cm)
35	1	BP3500	PIN, HAIR CLIP, 3/16” (4,8 mm)
36	6	CP2660	NUT, HEX LOCK, 3/8”-16, NYLOCK (9,5 mm)
37	1	AP2572	DECAL, HYDRAULIC CIRCUITS, AT2000
38	1	AP2574	DECAL, RAISE CENTER BEFORE FOLDING

NOTE:
Close-up views on the following pages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AP2215
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AP2850
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BP3500
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AP4254
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BP3006
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CP2660
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33000112
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AM3706
AM3425
BP3045
CP2660
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AP2569
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AP2564
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AAM2398
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AP2572
AP2565
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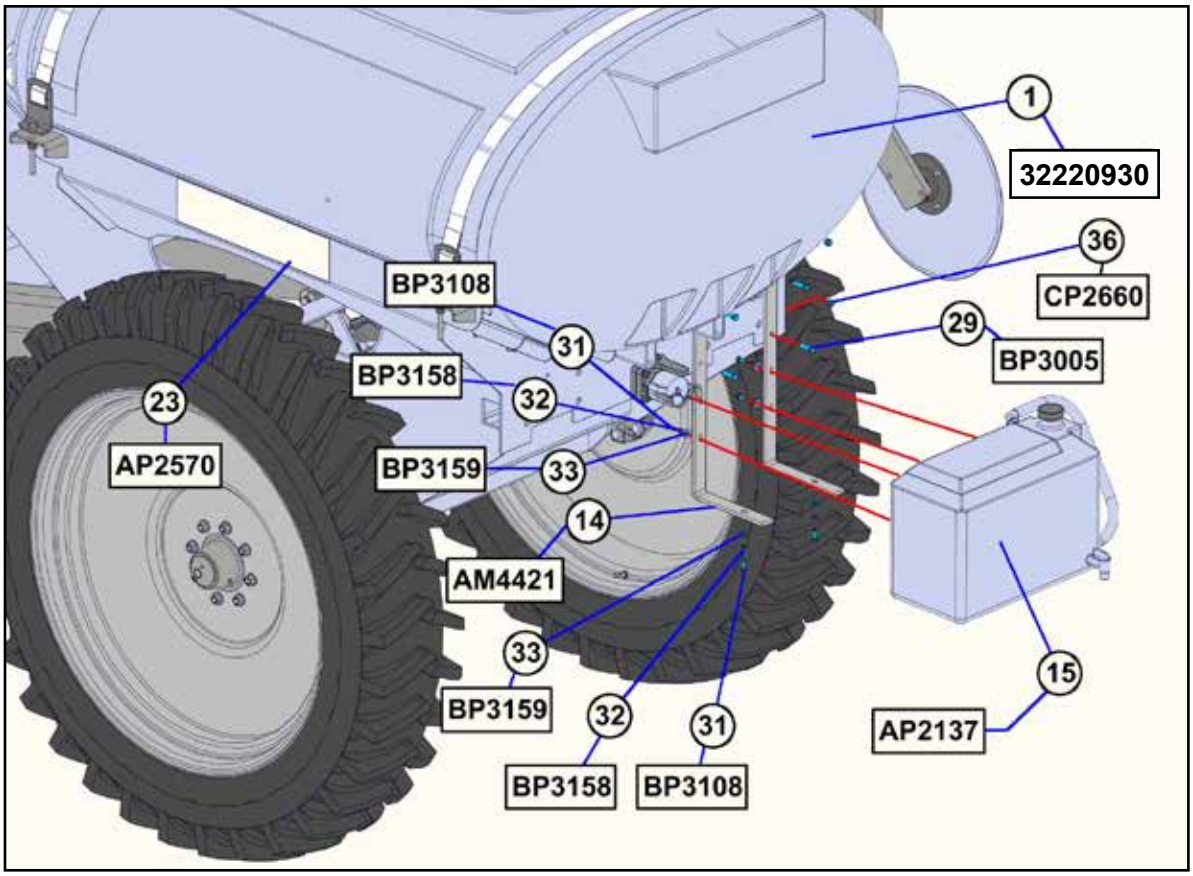
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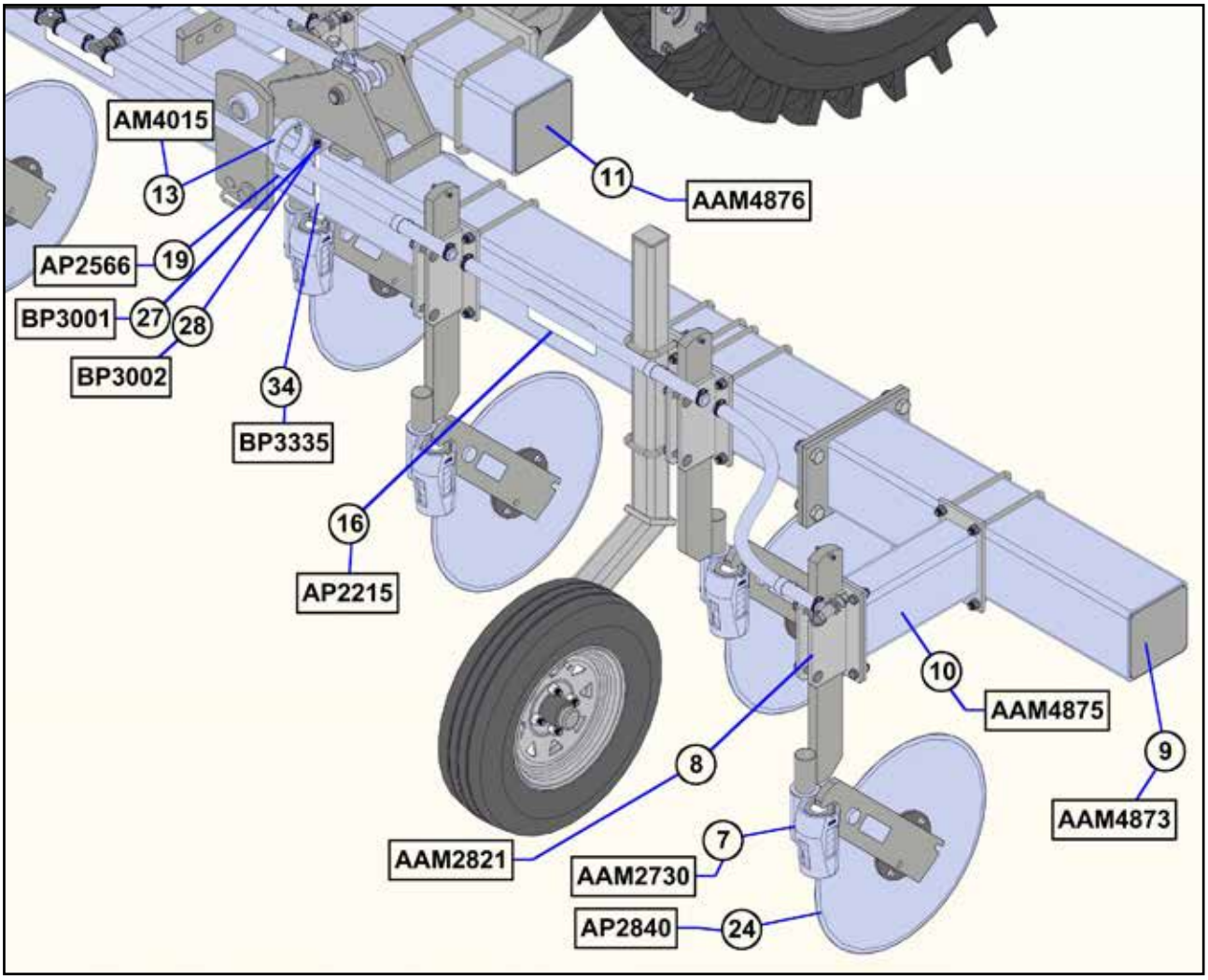
AP2137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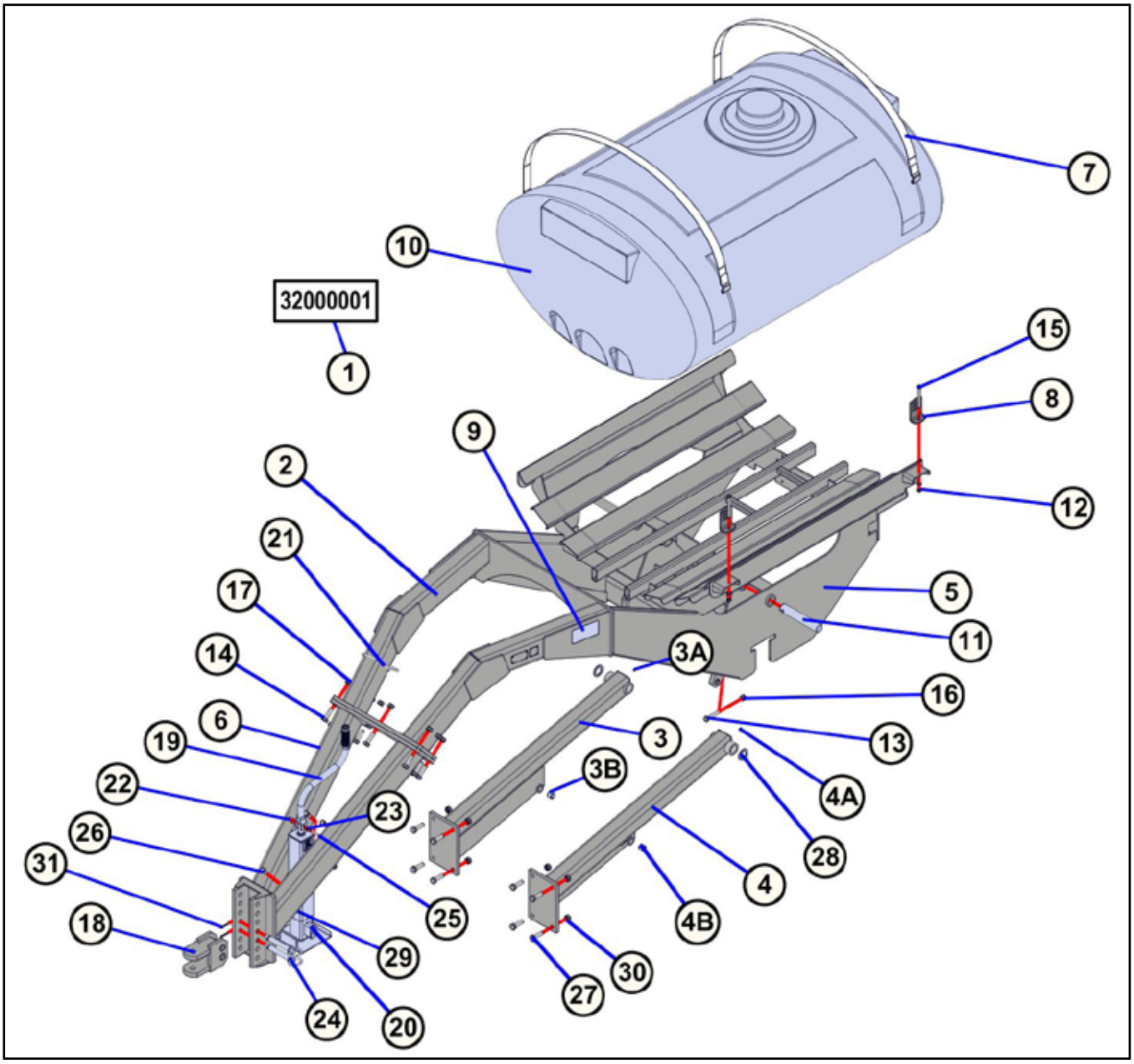
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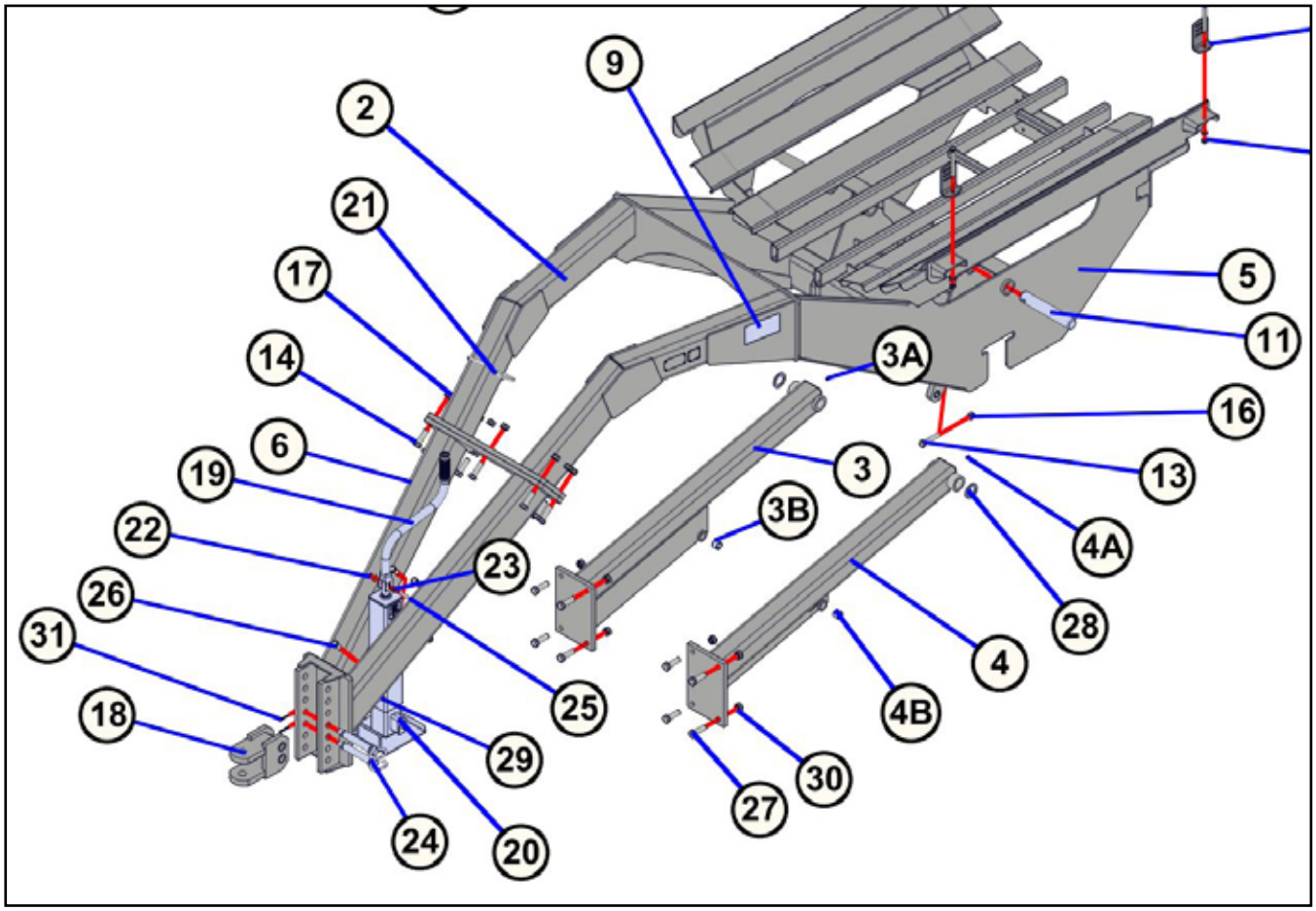
BOM ID	Qty	Item No	Description
1	1	32000001	AT2000 MAIN FRAME
2	1	AAM4872	ASSEMBLY, AT2000 CART WITH TANK
3	1	AM3555	ARM, TOOLBAR LIFT, LEFT HAND
3A	1	BP3072	GREASE ZERK, 1/4”-28 (6,4 mm)
3B	1	BP3516	TENSION BUSHING, 1-1/4” X 1” X 1” OAL (3,2 cm X 2,5 cm X 2,5 cm)
4	1	AM3556	ARM, TOOLBAR LIFT, RIGHT HAND
4A	1	BP3072	GREASE ZERK, 1/4”-28 (6,4 mm)
4B	1	BP3516	TENSION BUSHING, 1-1/4” X 1” X 1” OAL (3,2 cm X 2,5 cm X 2,5 cm)
5	1	AM3701	FRAME, MAIN, AT2000
6	1	AM3702	TONGUE, AT2000
7	2	AM3703	TANK STRAP, 5 cm X 244 cm, POLYESTER WEBBING, BLUE
8	2	AM4432	BRACKET, TANK STRAP ADJUSTMENT, 5 cm STRAP
9	1	AP2573	LABEL, CE PRODUCT INFORMATION
10	1	AP4351	TANK, 2000 LITER ELLIPTICAL
11	2	BM3496	PIN, 1-3/4” X 10-3/4” OAL (4,4 cm X 27,3 cm)
12	4	BP3042	NUT, HEX, 1/2”-13, GRADE 2, PLATED (12,7 mm)
13	2	BP3135	HEX CAP SCREW, 5/8”-11 X 3-1/2”, GRADE 5, PLATED (15,9 mm X 8,9 cm)
14	11	BP3197	HEX CAP SCREW, 3/4”-10 X 2-1/2”, GRADE 8, PLATED (19,1 mm X 6,4 cm)
15	2	BP3217	HEX CAP SCREW, 1/2”-13 X 5”, FULL THREAD, GRADE 8, PLATED (12,7 mm X 12,7 cm)
16	2	BP3375	NUT, HEX LOCK, 5/8”-11, NYLOCK (15,9 mm)
17	11	BP3442	NUT, HEX LOCK, 3/4”-10, TOP LOCK, GRADE C, PLATED (19,1 mm)
18	1	AM2144	HITCH, CLEVIS
19	1	AM2570	CRANK WITH GRIP, 80 DEGREE
20	1	AM3705	JACK, AT2000, 9TWDL (TOP WIND DROP LEG)
21	1	AP2280	HOSE RETAINER, 6” X 4” (15,2 cm X 10,2 cm)
22	1	BP3003	NUT, HEX LOCK, 3/8”-16, GRADE 2, PLATED (9,5 mm)
23	2	BP3015	WASHER, FLAT, 3/8”, PLATED (9,5 mm)
24	2	BP3051	PIN, 1” X 6”, PLATED (2,5 cm X 15,2 cm)
25	1	BP3096	HEX CAP SCREW, 3/8”-16 X 2-1/2”, GRADE 5, PLATED (9,5 mm X 6,4 cm)
26	3	BP3097	HEX CAP SCREW, 5/8”-11 X 1-1/2”, GRADE 5, PLATED (15,9 mm X 3,8 cm)
27	8	BP3197	HEX CAP SCREW, 3/4”-10 X 2-1/2”, GRADE 8, PLATED (19,1 mm X 6,4 cm)
28	2	BP3205	MACHINERY BUSHING, 2-1/2” OD X 1-3/4” ID, 10 GAUGE, PLATED (6,4 cm X 4,4 cm X 3,4 mm)
29	3	BP3375	NUT, HEX LOCK, 5/8”-11, NYLOCK (15,9 mm)
30	8	BP3442	NUT, HEX LOCK, 3/4”-10, TOP LOCK, GRADE C, PLATED (19,1 mm)
31	2	BP3511	PIN, COTTER, 3/16” X 1-3/4” (4,8 mm X 4,4 cm)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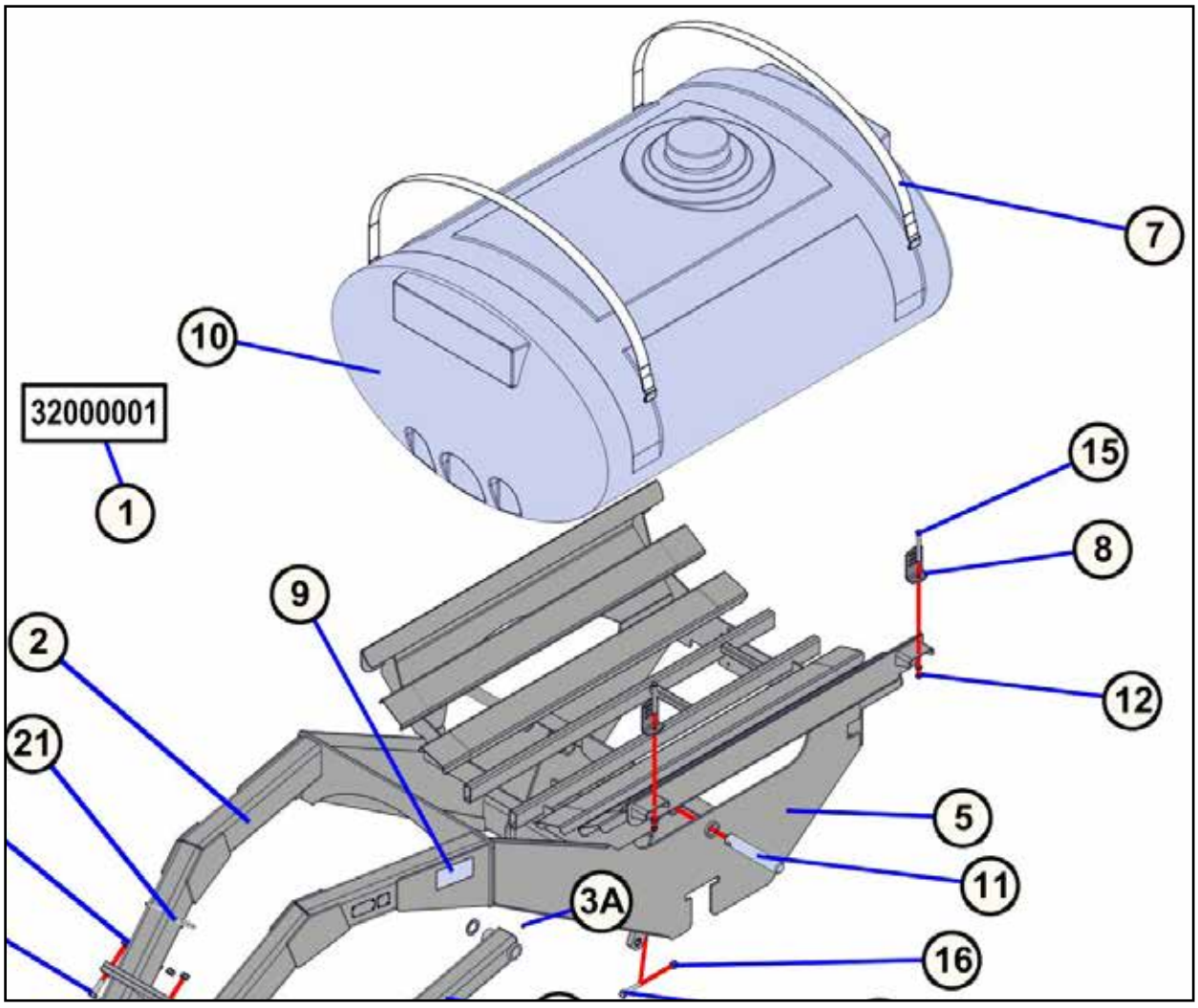
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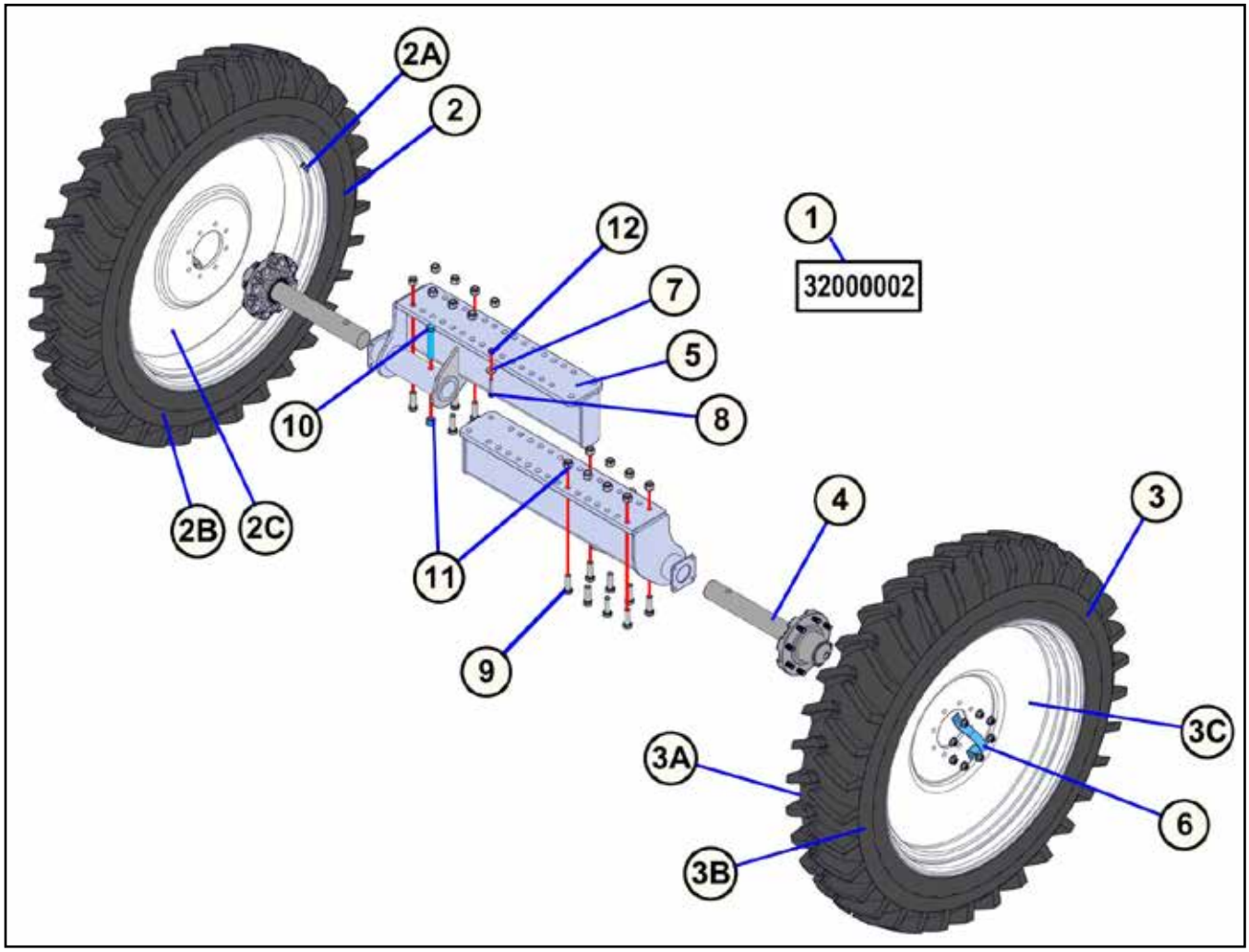
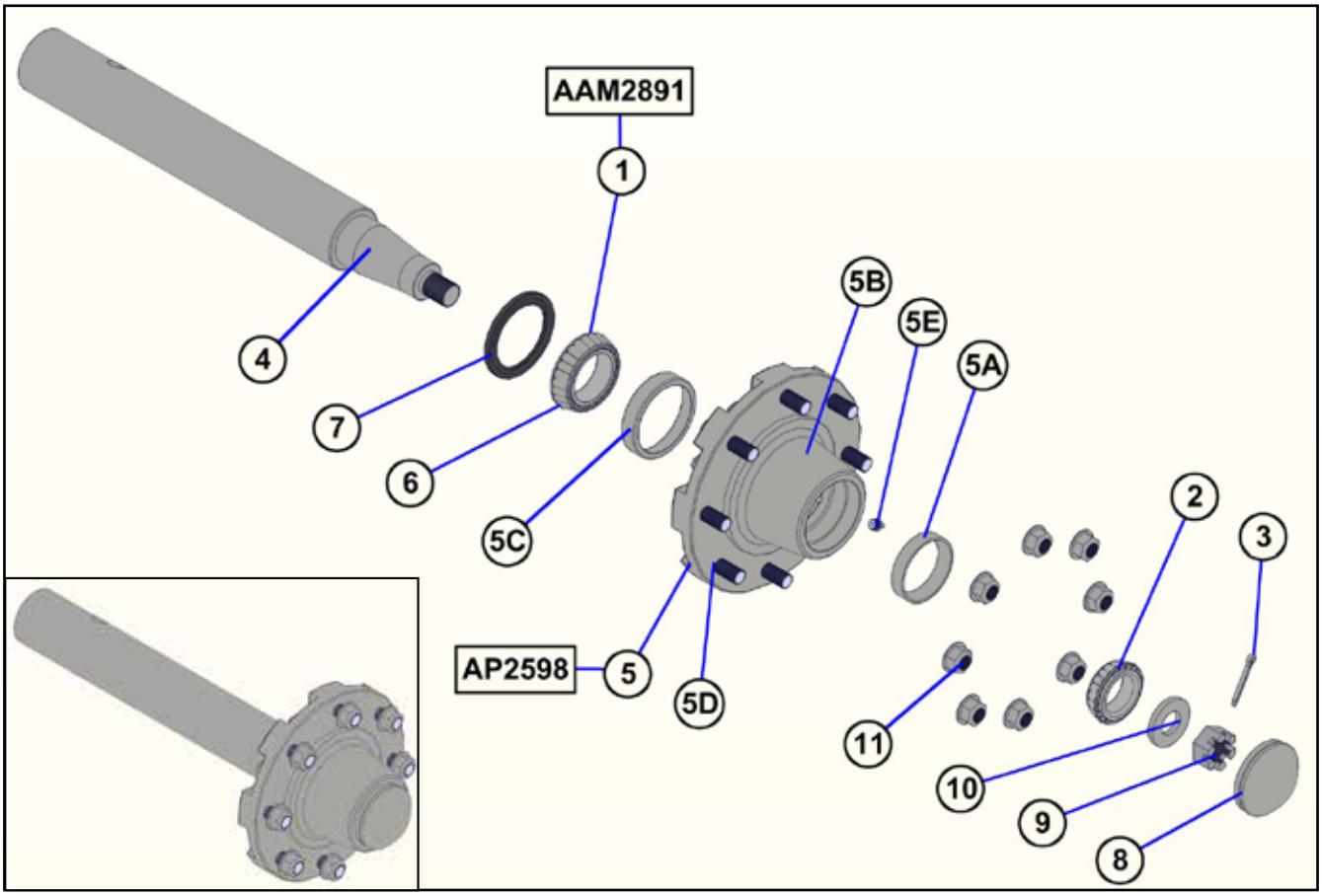
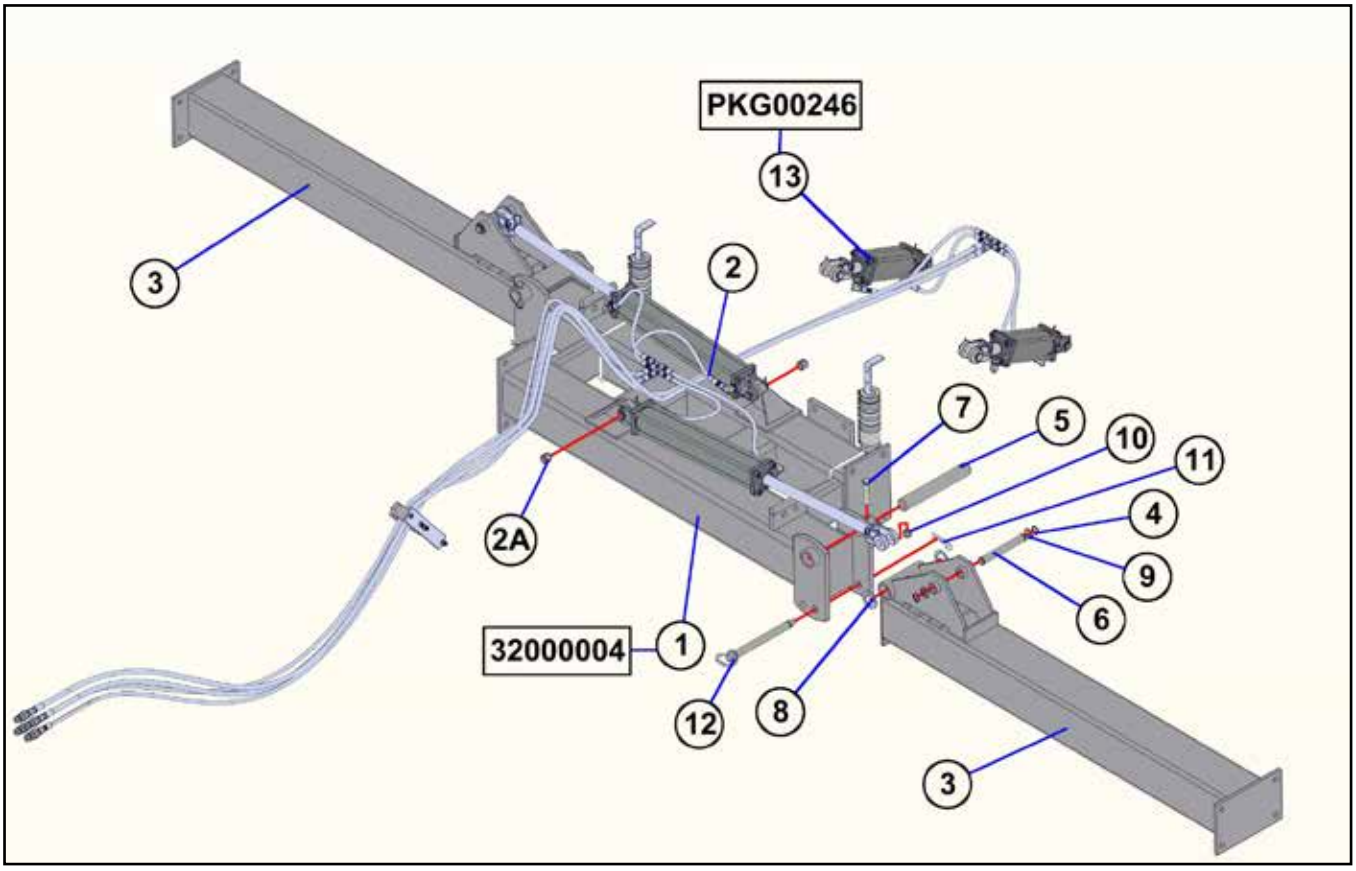


BOM ID	Qty	Item No	Metric Description
1	1	32000002	AT2000 ADJUSTABLE WHEEL/AXLE
2	1	AAM2771	WHEEL, 12.4 X 38, 14 PLY 38 X 10 X 8, LEFT-HAND ASSEMBLY
2A	1	AP2790	VALVE STEM, METAL
2B	1	AP2867	TIRE, 12.4 X 38, 14 PLY, TRACTION GRIP
2C	1	AP4238	RIM, 38” X 10” X 8”, WHITE (96,5 cm X 25,4 cm X 20,3 cm)
3	1	AAM2772	WHEEL, 12.4 X 38, 14 PLY 38 X 10 X 8, RIGHT-HAND ASSEMBLY
3A	1	AP2790	VALVE STEM, METAL
3B	1	AP2867	TIRE, 12.4 X 38, 14 PLY, TRACTION GRIP
3C	1	AP4238	RIM, 38” X 10” X 8”, WHITE (96,5 cm X 25,4 cm X 20,3 cm)
4	2	AAM2891	ASSEMBLY, HUB & SPINDLE, 608(B) HUB, 2-3/4” X 23” SPINDLE, WITH FLANGE LOCK NUT (7,0 cm X 58,4 cm)
5	2	AM3718	AXLE, AT2000, BOLT-ON
6	2	AM4597	HUB CAP STRAP
7	1	BP3050	WASHER, FLAT, 1/2”, PLATED (12,7 mm)
8	1	BP3128	HEX CAP SCREW, 1/2”-13 X 2-1/2”, GRADE 5 PLATED (12,7 mm X 6,4 cm)
9	16	BP3140	HEX CAP SCREW, 3/4”-10 X 2-1/2”, GRADE 5 PLATED (19,1 mm X 6,4 cm)
10	2	BP3144	HEX CAP SCREW, 3/4”-10 X 5”, GRADE 5 PLATED (19,1 mm X 12,7 cm)
11	18	BP3296	NUT, HEX LOCK, 3/4”-10, NYLOCK (19,1 mm)
12	1	BP3704	NUT, LOCK, NYLON INSERT, 1/2”-13 (12,7 mm)

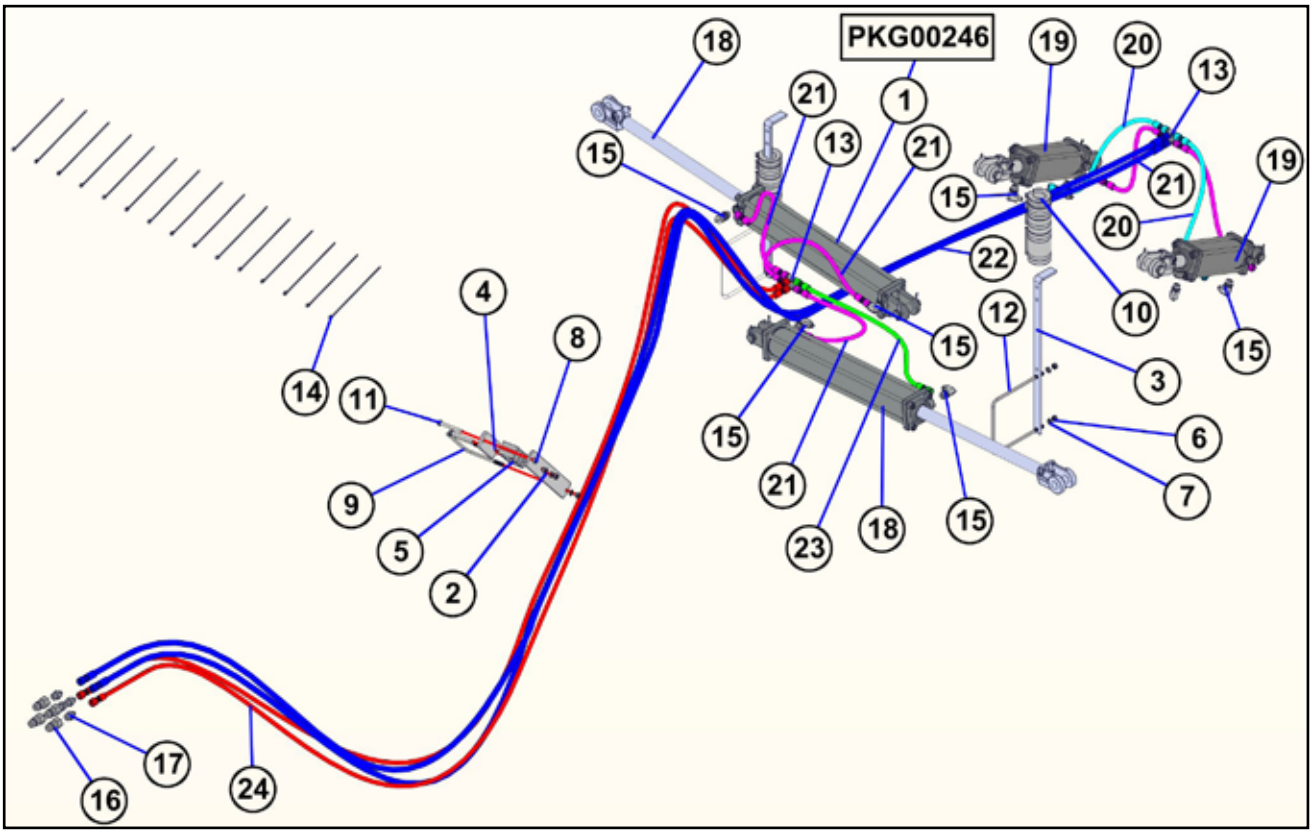


BOM ID	Qty	Item No	Description
1	1	AAM2891	ASSEMBLY, HUB & SPINDLE, 608(B) HUB, 2-3/4” X 23” SPINDLE, FLANGE LOCK NUT (7,0 cm X 58,4 cm)
2	1	AP2082	BEARING CONE, LM 501349
3	1	AP2122	COTTER PIN, 7/32” X 1-3/4” (0,6 cm X 4,4 cm)
4	1	AP2597	SPINDLE, 2-3/4” X 23” (7 cm X 58,4 cm)
5	1	AP2598	HUB WITH CUPS, 8 BOLT, WITH STUDS, 608301-8
5A	1	AP2086	BEARING CUP, LM 501310
5B	1	AP2598-Hub	HUB, 8 BOLT, 608(B)
5C	1	AP2804	BEARING CUP, JLM 506810
5D	8	AP2814	BOLT, WHEEL STUD, 5/8”-18 X 2-1/4” (1,6 cm X 5,7 cm)
5E	1	BP3268	GREASE ZERK
6	1	AP2805	BEARING CONE, JLM 506849
7	1	AP2808	GREASE SEAL, CR 27394
8	1	AP2809	HUB CAP, 1609
9	1	AP2811	NUT, SPINDLE, 1”-14 (2,5 cm)
10	1	AP2812	WASHER, SPINDLE, 2-1/8” X 1-1/16” X .250” (5,4 cm X 2,7 cm X 0,6 cm)
11	8	BP3287	NUT, HEX LOCK, 5/8”-18 FLANGE, SPIRALOCK THREAD (1,6 cm)

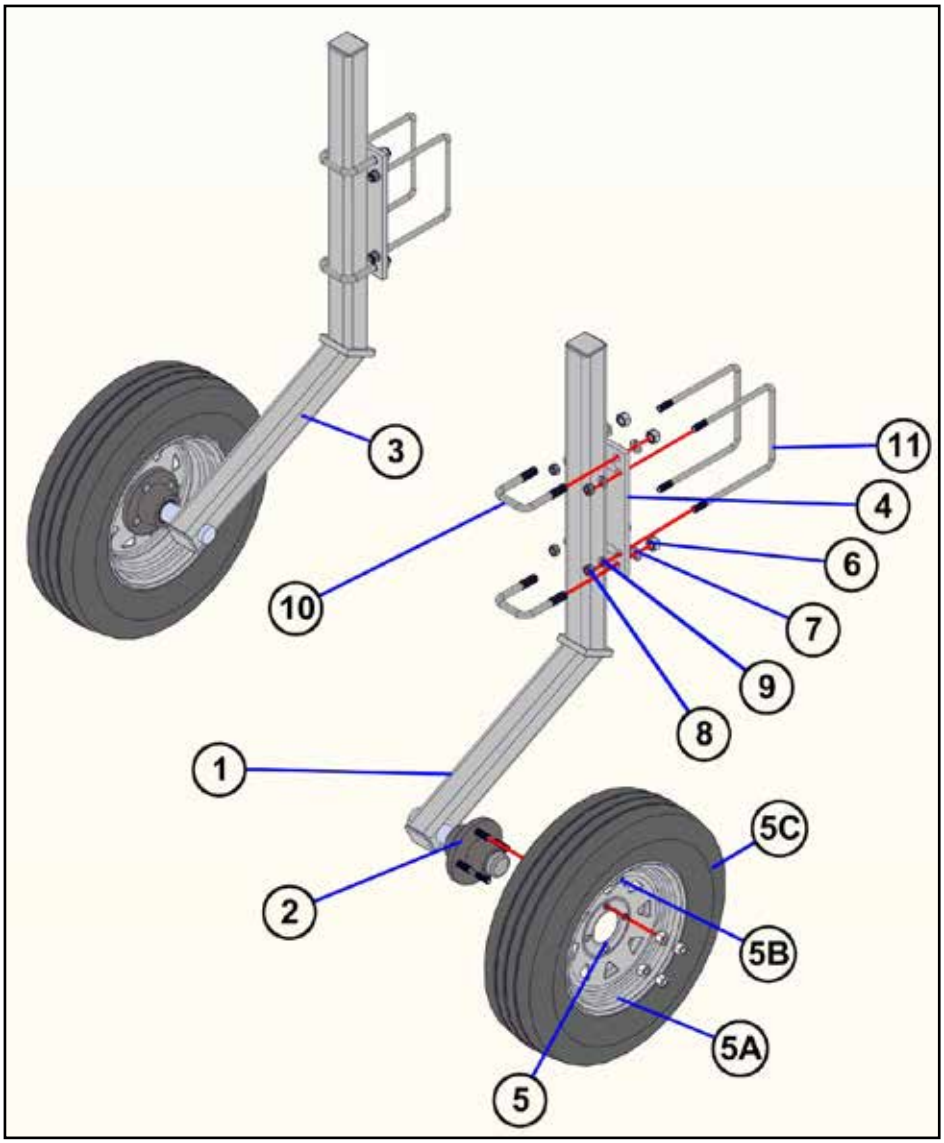


BOM ID	Qty	Item No	Description
1	1	32000004	AT2000 STANDARD TOOLBAR
2	1	AM3707	TOOLBAR CENTER SECTION, AT2000
2A	2	BP3516	TENSION BUSHING, 1-1/4” X 1” X 1” OAL (3,2 cm X 2,5 cm X 2,5 cm)
3	2	AM3709	WING, STANDARD TOOLBAR, AT2000
4	4	AP2407	SNAP RING, 1” EXTERNAL, HEAVY DUTY (2,5 cm)
5	2	BM3485	PIN, 1-3/4” X 12-1/8” OAL, PLATED (4,4 cm X 30,8 cm)
6	2	BM3725	PIN, 1” X 7-1/2”, DOUBLE GROOVED (2,5 cm X 19,1 cm)
7	2	BP3135	HEX CAP SCREW, 5/8”-11 X 3-1/2”, GRADE 5, PLATED (15,9 mm X 8,9 cm)
8	4	BP3205	MACHINERY BUSHING, 2-1/2” OD X 1-3/4” ID, 10 GAUGE, PLATED (6,4 cm X 4,4 cm X 3,4 mm)
9	4	BP3215	MACHINERY BUSHING, 1-1/2” OD X 1” ID, 14 GAUGE, PLATED (3,8 cm X 2,5 cm 1,9 mm)
10	2	BP3375	NUT, HEX LOCK, 5/8”-11, NYLOCK (15,9 mm)
11	2	BP3500	PIN, HAIR CLIP, 3/16” (4,8 mm)
12	2	BP3510	PIN, 1” X 10”, HITCH, PLATED (2,5 cm X 25,4 cm)
13	1	PKG00246	HYDRAULIC KIT, AT2000

AT2000 Standard Toolbar (PKG00246)

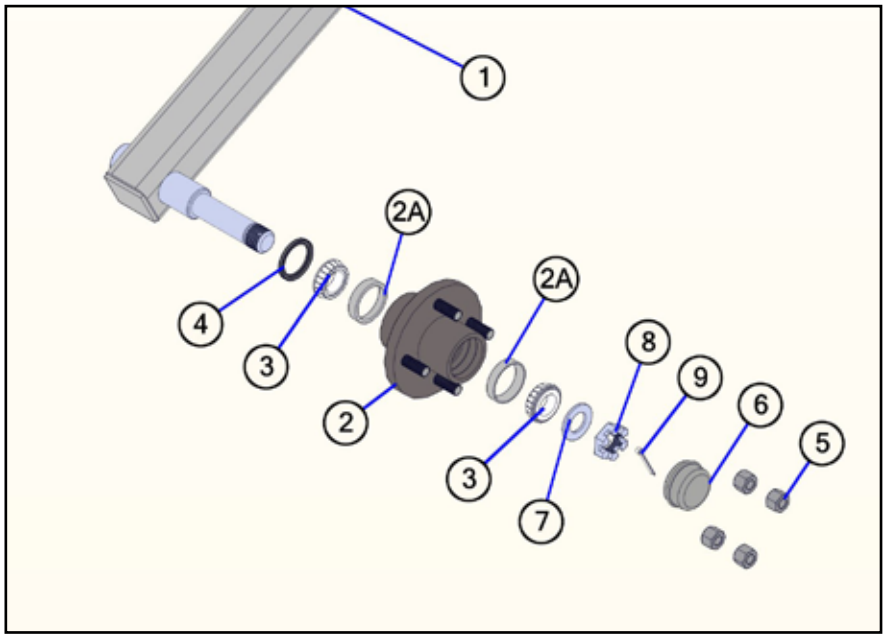


BOM ID	Qty	Item No	Description
1	1	PKG00246	HYDRAULIC KIT, AT2000
2	1	AM3713	HOSE HOLDER STRAP
3	2	AM4817	BRACKET, DEPTH COLLAR STORAGE
4	1	AM7518	HOSE HOLDER RETAINER
5	1	AP2871	HOSE RETAINER
6	6	BP3001	NUT, HEX, 3/8”-16, GRADE 2, PLATED (9,5 mm)
7	6	BP3002	WASHER, LOCK, 3/8”, PLATED (9,5 mm)
8	2	BP3003	NUT, HEX LOCK, 3/8”-16, GRADE 2, PLATED (9,5 mm)
9	1	BP3045	U-BOLT, 3/8”-16 X 6”W X 5”L, PLATED (9,5 mm X 15,2 cm X 12,7 cm)
10	2	BP3076	DEPTH COLLAR SET
11	2	BP3116	HEX CAP SCREW, 3/8”-16 X 3”, GRADE 5, PLATED (9,5 mm X 7,6 cm)
12	2	BP3335	U-BOLT, 3/8”-16 X 7”W X 8”L, PLATED (9,5 mm X 17,8 cm X 20,3 cm)
13	4	DP4004	TEE, 6MJ-6MJ-6MJ
14	15	DP4086	CABLE TIE 11-3/8” (28,9 cm)
15	8	DP4301	ADAPTER, 6MJ-8MSAE, 90 DEGREE
16	4	DP4383	COUPLER, PIONEER, 8MQBA-8FSAE
17	4	DP4394	ADAPTER, 8MSAE-6MJIC, 6400-6-8
18	2	DP4492	CYLINDER, HYDRAULIC, 3” X 20” (7,6 cm X 50,8 cm)
19	2	DP4516	CYLINDER, HYDRAULIC, 3” X 6” (7,6 cm X 15,2 cm)
20	2	DP5048	HOSE, HYDRAULIC, 1/4” X 22” (6,4 mm X 55,9 cm), 6FJX-6FJX
21	5	DP5054	HOSE, HYDRAULIC, 1/4” X 20” (6,4 mm X 50,8 cm), 6FJX-6FJX
22	2	DP5200	HOSE, HYDRAULIC, 3/8” X 202” (9,5 mm X 5,1M), 6FJX-8MSAE
23	1	DP5267	HOSE, HYDRAULIC, 1/4” X 32” (6,4 mm X 81,3 cm), 6FJX-6FJX
24	2	DP5268	HOSE, HYDRAULIC, 1/4” X 144” (6,4 mm X 3,66 m), 6FJX-6FJX



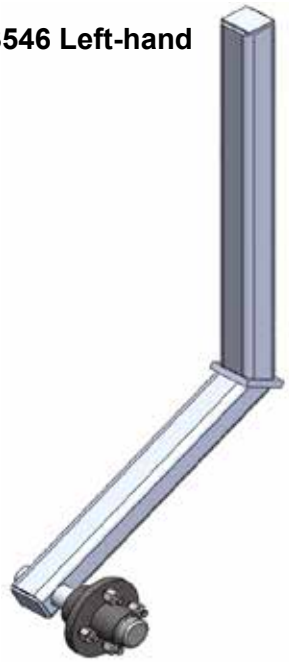
33000112 GAUGE WHEELS, AT GULL TOOLBAR, 155/80R12 TIRES

BOM ID	Qty	Item No	Description
1	2	33000112 single	GAUGE WHEEL, 155/80R12 TIRE
2	1	AM3546	ASSEMBLY, GAUGE WHEEL, LEFT HAND
3	1	AM3548	ASSEMBLY, GAUGE WHEEL, RIGHT HAND
4	2	AM3626	GAUGE WHEEL MOUNT
5	2	AP4240	WHEEL, 155/80R12, 4” BOLT CIRCLE (10,2 cm BOLT CIRCLE)
5A	2	AP2374	RIM, 12” X 4” X 4”, WHITE, 12440 (30,5 cm X 10,2 cm X 10,2 cm)
5B	2	AP2790	VALVE STEM, METAL
5C	2	AP4241	TIRE, P155/80R12
6	8	BP3038	NUT, HEX, 5/8”-11, GRADE 2 (15,9 mm)
7	8	BP3039	WASHER, LOCK, 5/8”, PLATED (15,9 mm)
8	8	BP3042	NUT, HEX, 1/2”-13, GRADE 2, PLATED (12,7 mm)
9	8	BP3043	WASHER, LOCK, 1/2”, PLATED (12,7 mm)
10	4	BP3300	U-BOLT, 5/8”-11 X 2-1/2” X 4”, PLATED (15,9 mm X 6,4 cm X 10,2 cm)
11	4	BP3356	U-BOLT, 1/2”-13 X 7”W X 8-1/4”L, BLACK (12,7 mm X 17,8 cm X 21 cm)

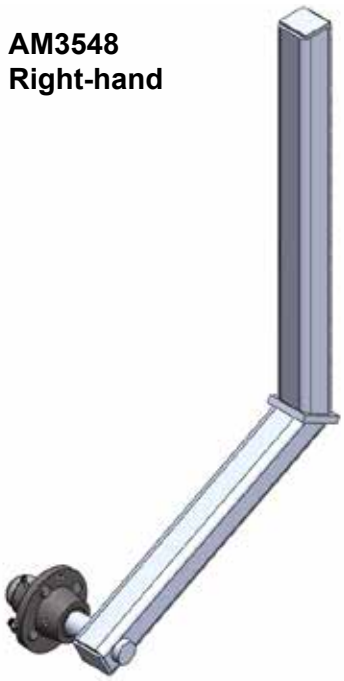


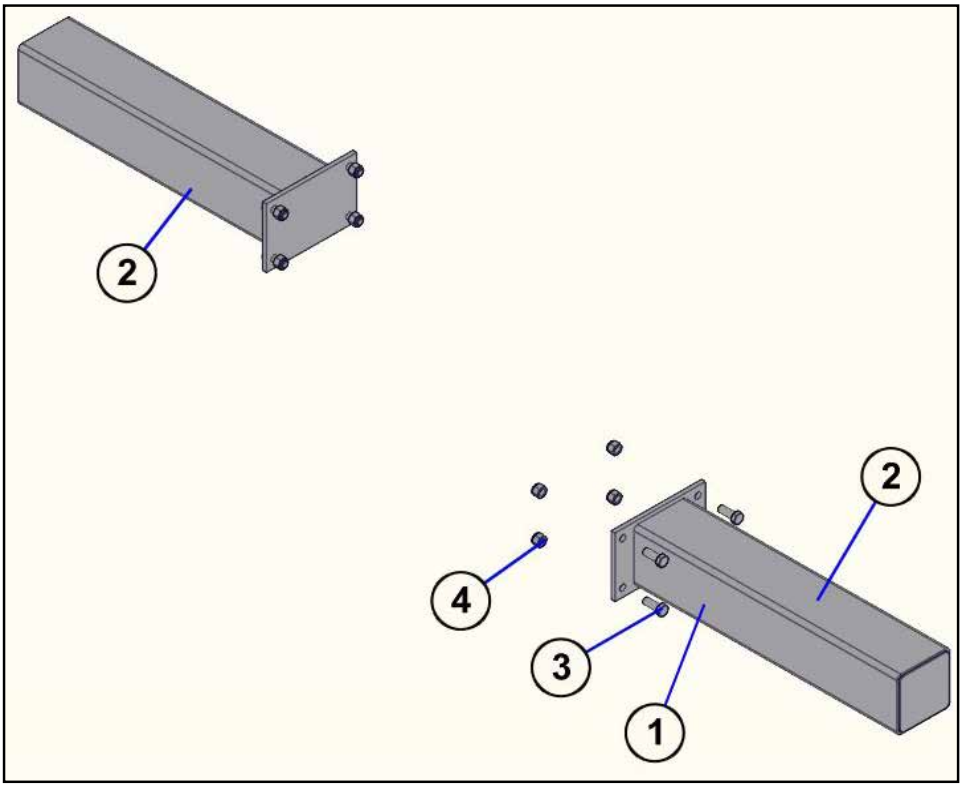
BOM ID	Qty	Item No	Description
1	1	AM3546	ASSEMBLY, GAUGE WHEEL, LEFT HAND
2	1	AP2375	HUB, 4 BOLT, 4” BOLT CIRCLE, (10,2 cm BOLT CIRCLE)
2A	2	AP2376	BEARING CUP, L44610
3	2	AP2377	BEARING CONE, L44649
4	1	AP2378	GREASE SEAL, 15191VB
5	4	AP2379	WHEEL NUT, 1/2”-20 (12,7 mm)
6	1	AP2380	HUB CAP
7	1	AP2381	WASHER, SPINDLE, 1-3/4” X 1” X .125” (4,4 cm X 2,5 cm X 0,3 cm)
8	1	AP2387	NUT, SPINDLE, 1”-14 (2,5 cm)
9	1	AP2426	PIN, COTTER, 5/32” X 1-3/4” (4,0 mm X 4,4 cm)

AM3546 Left-hand

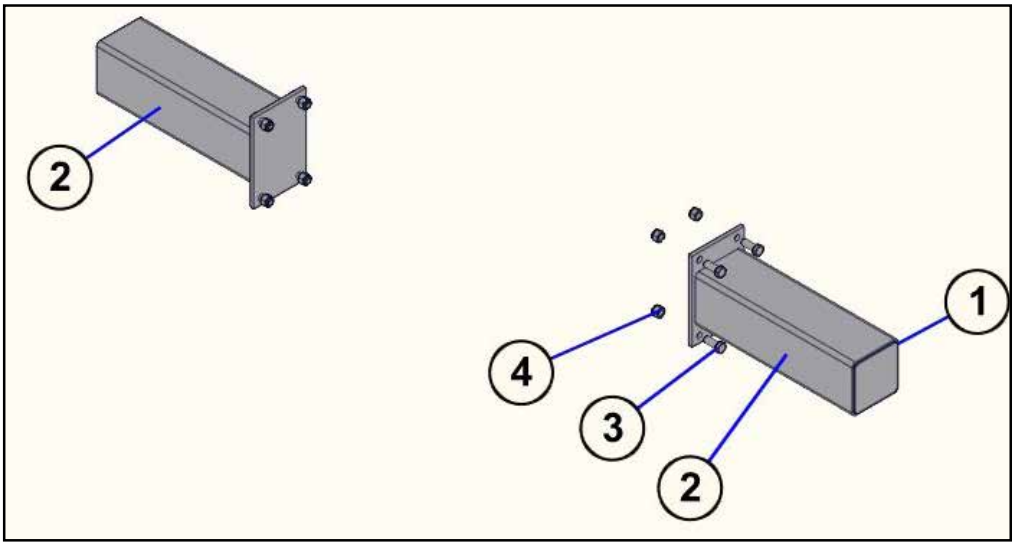


AM3548 Right-hand

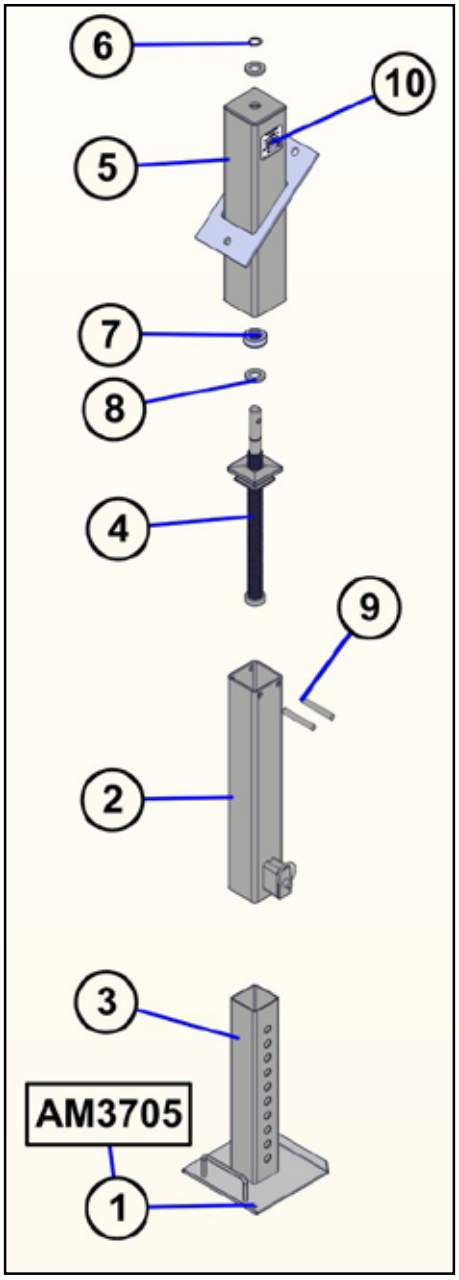




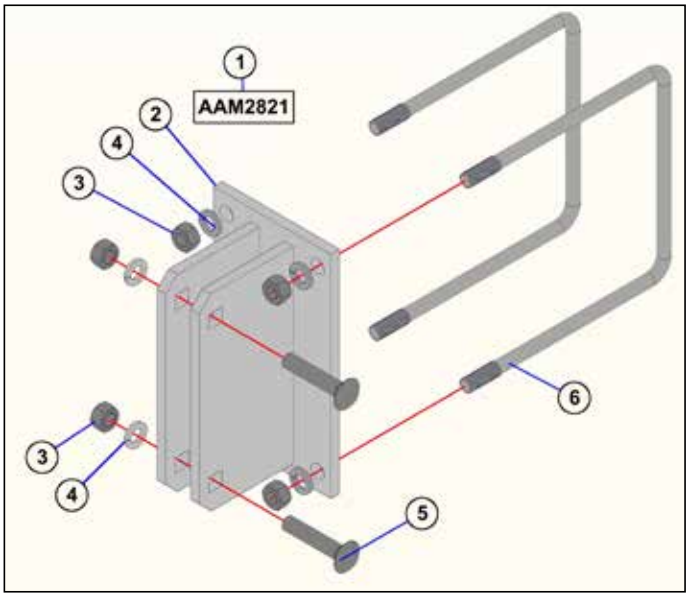
BOM ID	Qty	Item No	Description
1	2	AAM4873	WING EXTENSION KIT, 35” (89 cm)
2	2	AM3710	WING, EXTENSION, 35” (89 cm)
3	8	BP3139	HEX CAP SCREW, 3/4”-10 X 2”, GRADE 5, PLATED (19,1 mm X 5,1 cm)
4	8	BP3296	NUT, HEX LOCK, 3/4”-10, NYLOCK (19,1 mm)



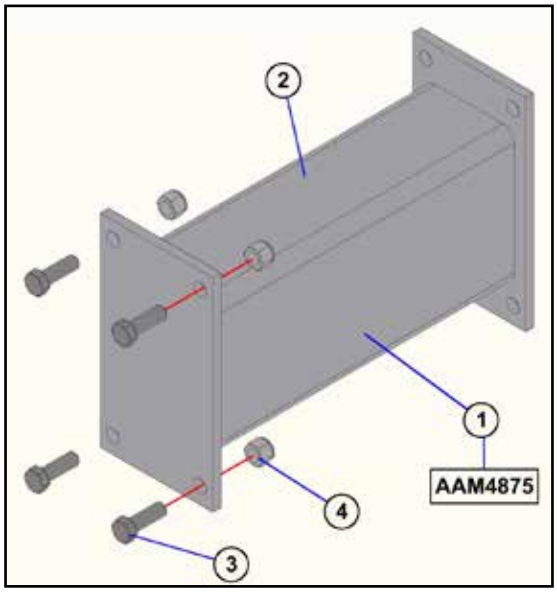
BOM ID	Qty	Item No	Description
1	2	AAM4876	WING EXTENSION KIT, 24” (61 cm)
2	2	AM3714	WING, EXTENSION, 24” (61 cm)
3	8	BP3139	HEX CAP SCREW, 3/4”-10 X 2”, GRADE 5, PLATED (19,1 mm X 5,1 cm)
4	8	BP3296	NUT, HEX LOCK, 3/4”-10, NYLOCK (19,1 mm)



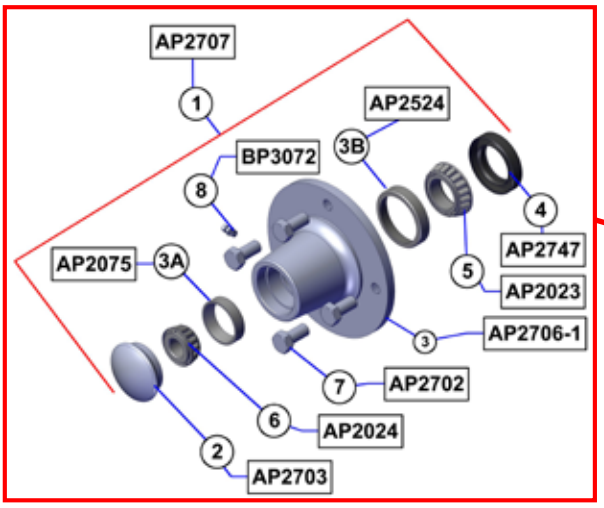
BOM ID	Qty	Item No	Description
1	1	AM3705	JACK, AT2000, 9TWDL (TOP WIND DROP LEG)
2	1	AM2524	INTERMEDIATE TUBE WITH PLUNGER ASSEMBLY
3	1	AM2525	DROP LEG WITH PAD & HANDLE
4	1	AM2534	SCREW ASSEMBLY
5	1	AM3704	JACK, TOP TUBE, BOLT ON MOUNTING
6	1	AP2407	SNAP RING, 1” EXTERNAL, HEAVY DUTY (2,5 cm)
7	1	AP2410	THRUST BEARING, NICE 609
8	1	EM1736	BEARING SEAT
9	2	EM1739	ROD
10	1	EM3016	9000# LABEL

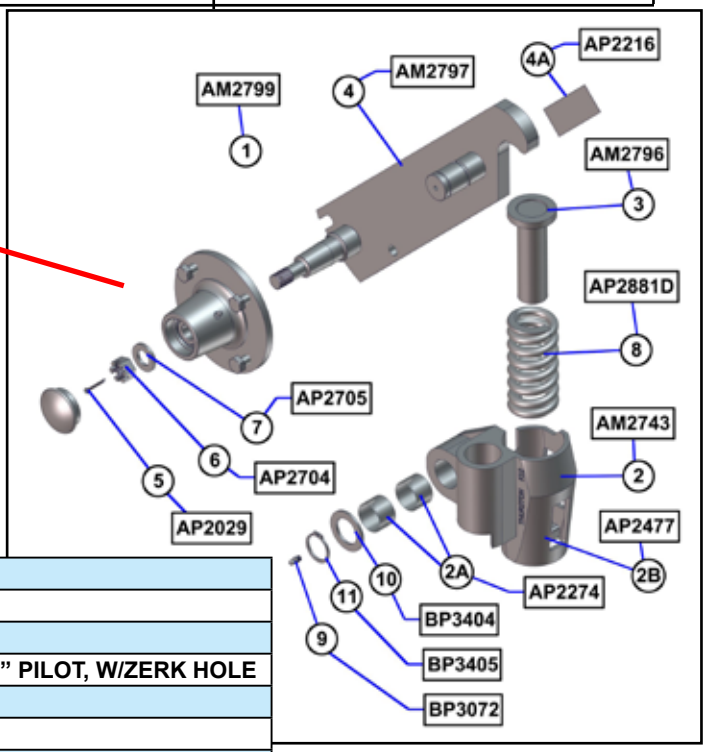


BOM ID	Qty	Item No	Description
1	1	AAM2821	COULTER, FLATBACK CENTERED ASSEMBLY, 7” X 7” (17,8 cm X 17,8 cm)
2	1	AM4425	BRACKET, FLATBACK, 7”X 7”, CENTERED (17,8 cm X 17,8 cm)
3	6	BP3042	NUT, HEX, 1/2”-13, GRADE 2, PLATED (12,7 mm)
4	6	BP3043	WASHER, LOCK, 1/2”, PLATED (12,7 mm)
5	2	BP3229	BOLT, CARRIAGE, 1/2”-13 X 2-1/2”, GRADE 5, PLATED (12,7 mm X 6,4 cm)
6	2	BP3356	U-BOLT, 1/2”-13 X 7”W X 8-1/4”L, GLOSS BLACK (12,7 mm X 17,8 cm X 21 cm)



BOM ID	Qty	Item No	Description
1	1	AAM4875	FLATBACK EXTENSION WITH HARDWARE
2	1	AM3712	FLATBACK EXTENSION
3	4	BP3126	HEX CAP SCREW, 1/2”-13 X 1-1/2”, GRADE 5, PLATED (12,7 mm X 3,8 cm)
4	4	BP3704	NUT, LOCK, NYLON INSERT, 1/2”-13 (12,7 mm)



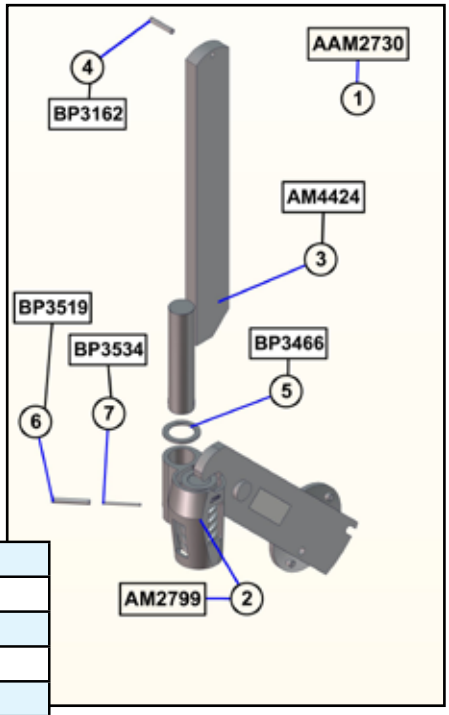


AP2707, HUB ASSEMBLY, 4 BOLT

BOM ID	Qty	Item No	Description
1	1	AP2707	HUB ASSEMBLY, 4 BOLT
2	1	AP2703	HUB CAP, 1610
3	1	AP2706-1	HUB W/ CUPS, 4 BOLT, 5” BC, 3.62” PILOT, W/ZERK HOLE
3A	1	AP2075	BEARING CUP, LM 11910
3B	1	AP2524	BEARING CUP, LM 67010
4	1	AP2747	GREASE SEAL, 15235TB
5	1	AP2023	BEARING CONE, LM 67048
6	1	AP2024	BEARING CONE, LM 11949
7	4	AP2702	HEX CAP SCREW, 1/2”-20 X 1”, GRADE 5, PLATED
8	1	BP3072	GREASE ZERK, 1/4”-28

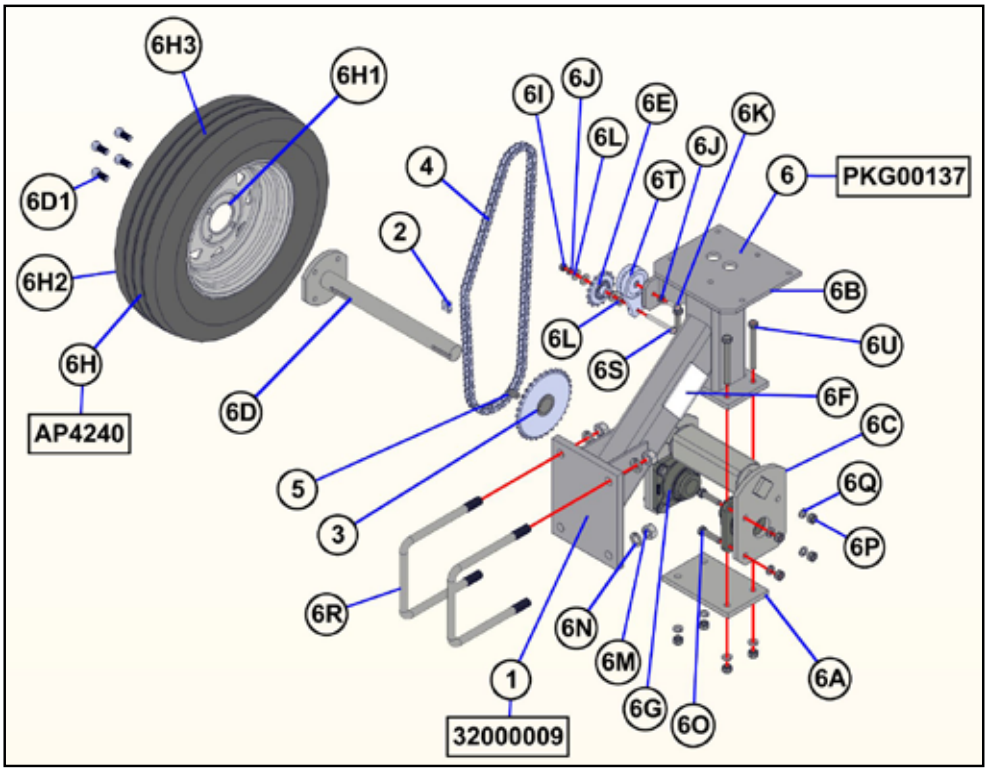
AM2799, ASSEMBLY, COULTER ARM WITH HUB & KNEE CASTING, HD

BOM ID	Qty	Item No	Description
1	1	AM2799	ASSEMBLY, COULTER ARM WITH HUB & KNEE CASTING, HD
2	1	AM2743	CASTING, COULTER KNEE, HD, MACHINED WITH BUSHINGS
2A	2	AP2274	BUSHING, 1-17/32” OD X 1-3/8” ID” X 1” OAL
2B	1	AP2477-1	CASTING, COULTER KNEE, MACHINED
3	1	AM2796	SPRING CAP & GUIDE, HD COULTER
4	1	AM2797	COULTER ARM, HD
4A	1	AP2216	DECAL, BLU-JET, SMALL, 1-1/2” X 4”
5	1	AP2029	PIN, COTTER, 5/32” X 1-1/2”
6	1	AP2704	NUT, SPINDLE, 3/4”-16
7	1	AP2705	WASHER, SPINDLE, 1-1/2” X 13/16” X .134”
8	1	AP2881D	SPRING, 2.472” OD X 5.875” OAL, .468 WIRE DIAMETER
9	1	BP3072	GREASE ZERK, 1/4”-28
10	1	BP3404	MACHINERY BUSHING, 2-1/8” OD X 1-3/8” ID X 10 GAUGE, PLATED
11	1	BP3405	SNAP RING, 1-3/8” EXTERNAL, 5160-137

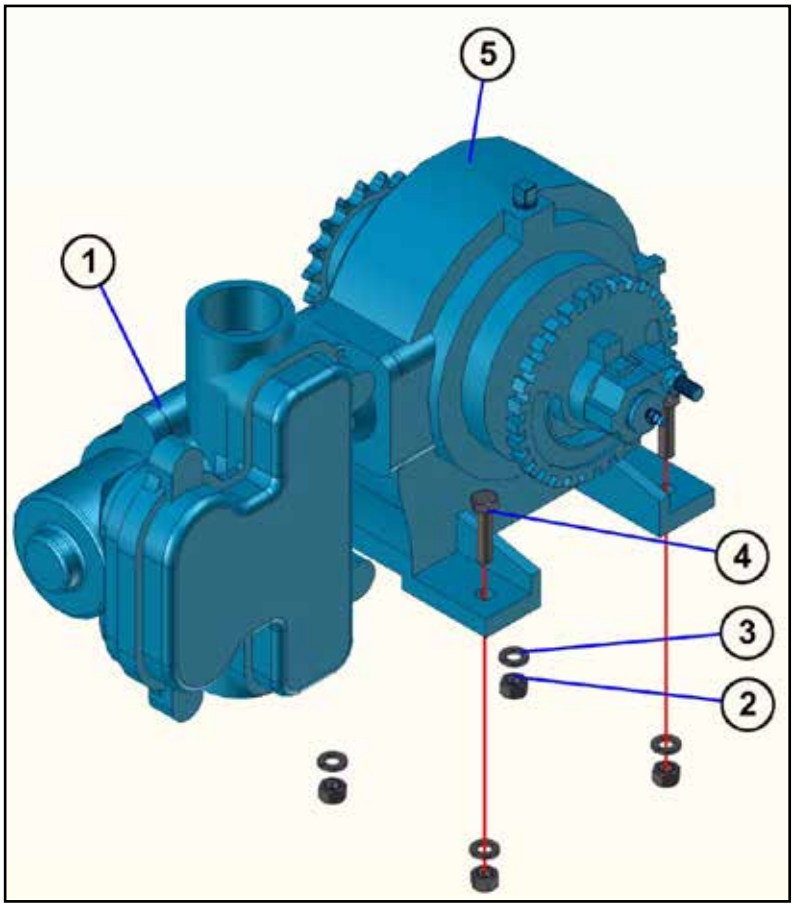


AAM2730 COULTER, SUPER 1200, 23, 1 ROW

BOM ID	Qty	Item No	Description
1	1	AAM2730	COULTER, SUPER 1200, 23” SHANK, 1 ROW
2	1	AM2799	COULTER ARM WITH HUB & KNEE CASTING, HEAVY DUTY
3	1	AM4424	COULTER SHANK, 23”
4	1	BP3162	PIN, ROLL, 3/8” X 2”, PLATED
5	1	BP3466	MACHINERY BUSHING, 2-1/2” X 1-3/4”X 10 GAUGE, STAINLESS STEEL
6	1	BP3519	PIN, ROLL, 3/8” X 2-1/2”
7	1	BP3534	PIN, ROLL, 7/32” X 2-1/2”

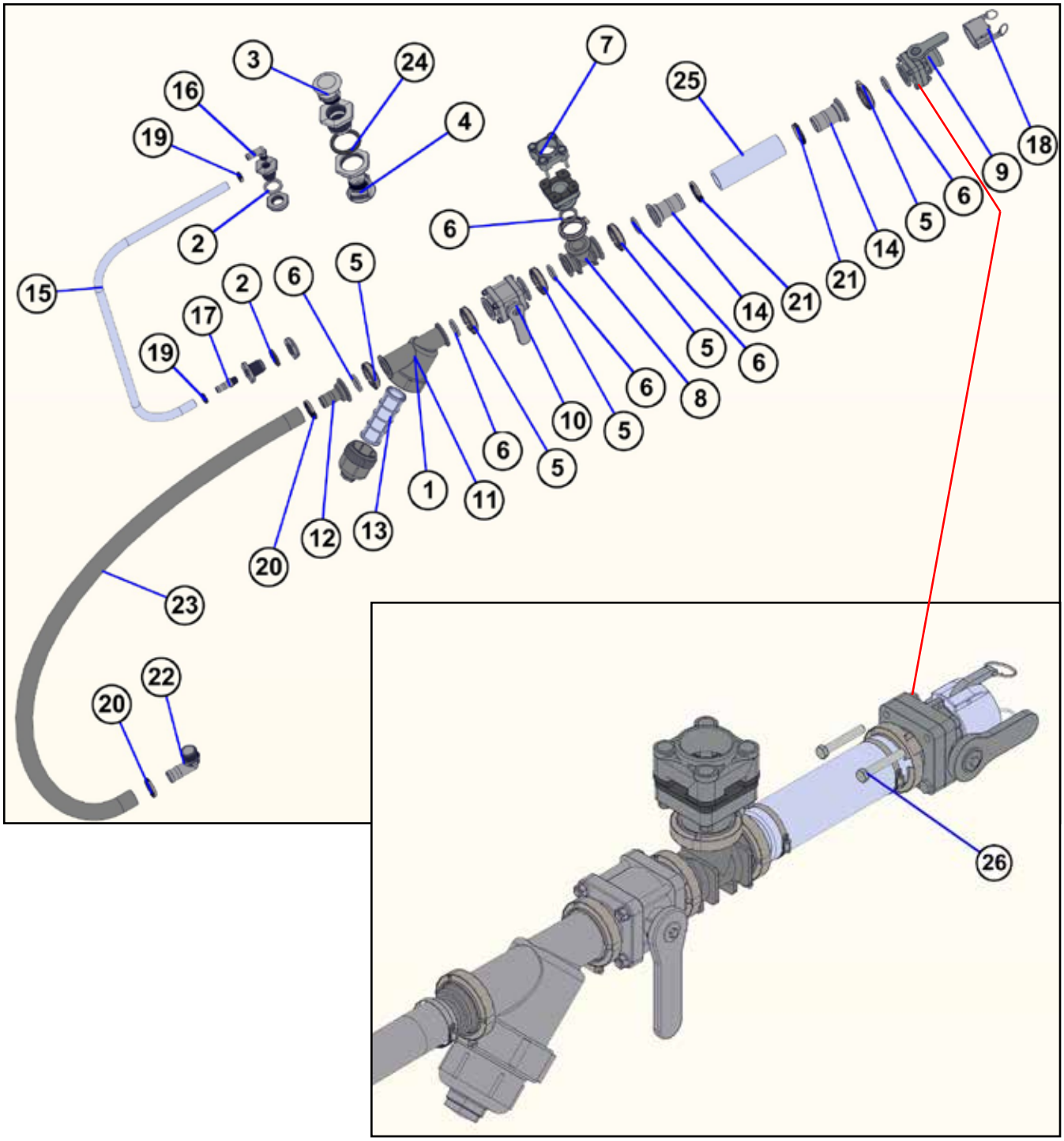


BOM ID	Qty	Item No	Description
1	1	32000009	PUMP DRIVE KIT, 32 TOOTH SPROCKET
2	1	AP2112	#50 STAINLESS CONNECTOR LINK
3	1	AP2442	SPROCKET, 5032 X, WITH HUB
4	1	AP2783	CHAIN, ROLLER, STAINLESS STEEL, #50, 94 PITCHES
5	1	BM3526	KEY, 3/8” X 3/8” X 1” (9,5 mm X 9,5 mm X 2,5 cm)
6	1	PKG00137	PACKAGE, PUMP DRIVE
6A	1	AM3513	BACKING PLATE, PUMP DRIVE
6B	1	AM3514	PUMP MOUNT
6C	1	AM3515	AXLE MOUNT, PUMP DRIVE
6D	1	AM3516	PUMP DRIVE WHEEL MOUNT
6D1	4	AP2049	WHEEL BOLT, 1/2”-20 X 1” (1,3 cm X 2,5 cm)
6E	1	AP2382	SPROCKET, IDLER, 15 TOOTH #50 CHAIN, WITH CLEVIS ADAPTER
6F	1	AP2472	DECAL, CAUTION, AVOID PUMP DAMAGE
6G	2	AP2697	BEARING, 1-1/2” WITH 4 BOLT FLANGE & LOCK COLLAR
6H	1	AP4240	WHEEL, 155/80R12, 4” BOLT CIRCLE (10,2 cm BOLT CIRCLE)
6H1	1	AP2374	RIM, 12” X 4” X 4”, WHITE, 12440 (30,5 cm X 10,2 cm X 10,2 cm)
6H2	1	AP2790	VALVE STEM, METAL
6H3	1	AP4241	TIRE, P155/80R12
6I	1	BP3001	NUT, HEX, 3/8”-16, GRADE 2, PLATED (9,5 mm)
6J	2	BP3002	WASHER, LOCK, 3/8”, PLATED (9,5 mm)
6K	1	BP3006	HEX CAP SCREW, 3/8”-16 X 1”, GRADE 5, PLATED (9,5 mm X 2,5 cm)
6L	4	BP3015	WASHER, FLAT, 3/8”, PLATED (9,5 mm)
6M	4	BP3034	NUT, HEX, 3/4”-10, GRADE 2, PLATED (19,1 mm)
6N	4	BP3035	WASHER, LOCK, 3/4”, PLATED (19,1 mm)
6O	8	BP3041	HEX CAP SCREW, 1/2”-13 X 2”, GRADE 5, PLATED (12,7 mm X 5,1 cm)
6P	12	BP3042	NUT, HEX, 1/2”-13, GRADE 2, PLATED (12,7 mm)
6Q	12	BP3043	WASHER, LOCK, 1/2”, PLATED (12,7 mm)
6R	2	BP3058	U-BOLT, 3/4”-10 X 7”W X 9”L (1,9 cm X 17,8 cm X 22,9 cm)
6S	1	BP3116	HEX CAP SCREW, 3/8”-16 X 3”, GRADE 5, PLATED (9,5 mm X 7,6 cm)
6T	1	BP3239	TENSIONER, RT1002
6U	4	BP3693	HEX CAP SCREW, 1/2”-13 X 4-1/2”, GRADE 5, PLATED (1,3 cm X 11,4 cm)



BOM ID	Qty	Item No	Description
1	1	CP2568	PUMP, SINGLE PISTON, NGP-7055
2	4	BP3001	NUT, HEX, 3/8”-16, GRADE 2, PLATED (9,5 mm)
3	4	BP3002	WASHER, LOCK, 3/8”, PLATED (9,5 mm)
4	4	BP3005	HEX CAP SCREW, 3/8”-16 X 1-1/2”, GRADE 5, PLATED (9,5 mm X 3,8 cm)
5	1	CP2568	PUMP, SINGLE PISTON

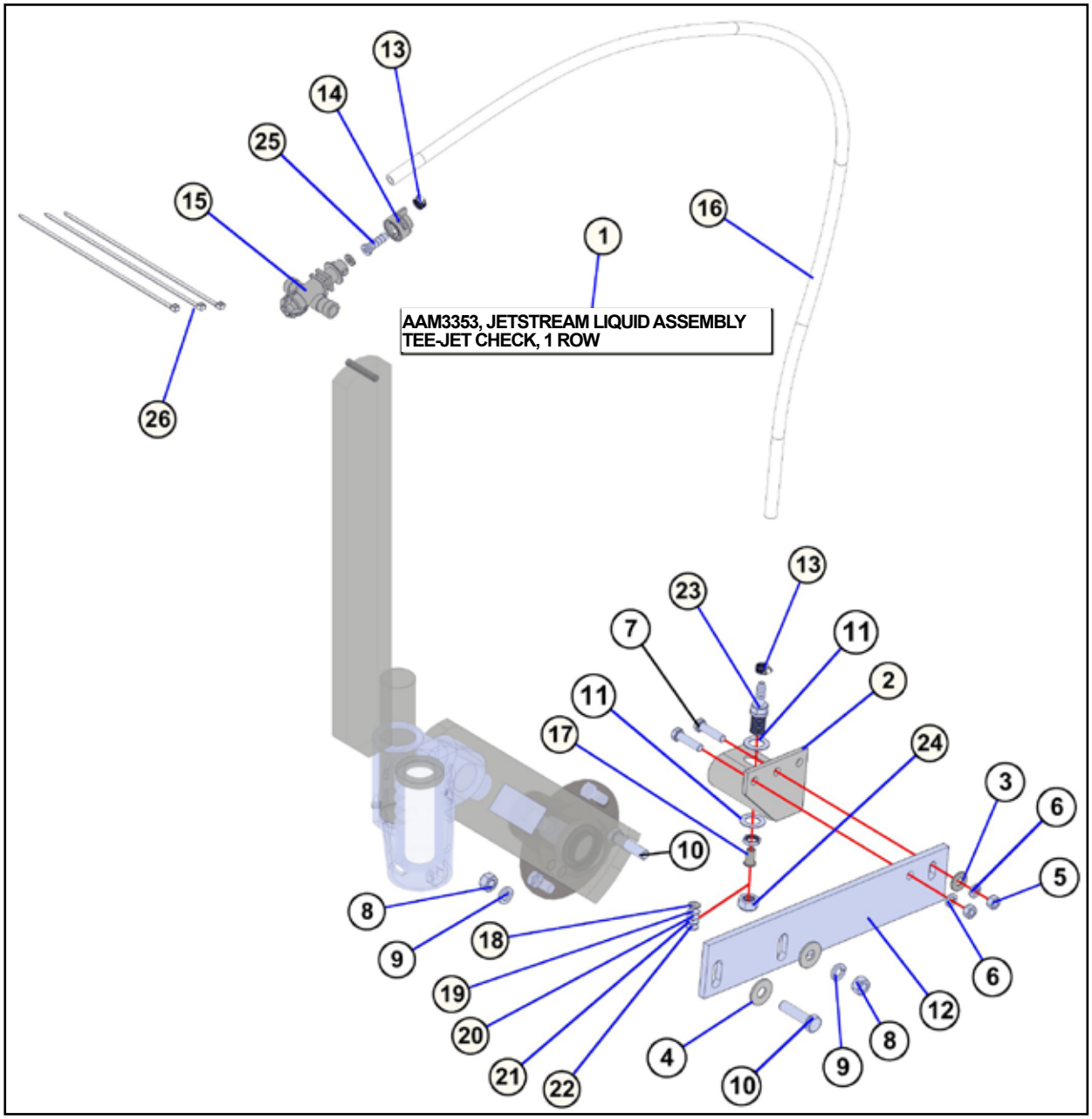
BLU-JET	Bottom Fill Plumbing Kit (32000005)		
AT2000	Task	Procedures	Illustrations

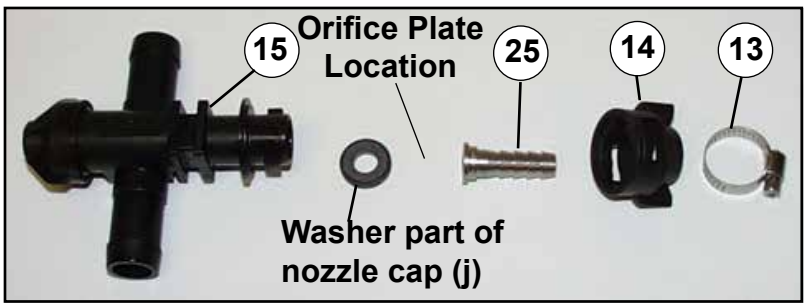


Bottom Fill Plumbing Kit (32000005)

BOM ID	Qty	Item No	Description
1	1	32000005	BOTTOM FILL PLUMBING KIT, AT2000, 2” FILL (5,1 cm)
2	2	CP2040	TANK OUTLET FITTING 1/2” FPT (1,3 cm)
3	1	CP4042	HOODED VENT, 2” MPT POLY WITH SCREEN (5,1 cm)
4	1	CP4043	HOODED VENT, 2” MPT POLY WITH OUT SCREEN (5,1 cm)
5	6	CP2044	CLAMP, 2” WORM SCREW, FLANGE (5,1 cm)
6	6	CP2045	GASKET, EPDM, 2” FLANGE, (5,1 cm)
7	1	CP2046	TANK OUTLET FITTING, 2” FLANGED (5,1 cm)
8	1	CP2047	TEE, 2” FLANGE (5,1 cm)
9	1	CP2048	VALVE, BALL, 2”- 1-1/2” PORT- 2” MALE ADAPTER (5,1 cm - 3,8 cm 5,1 cm)
10	1	CP2049	VALVE, BALL, 2” - 1-1/2” PORT (5,1 cm - 3,8 cm)
11	1	CP2050	STRAINER, 2” FLANGE, LINE (5,1 cm)
12	1	CP2051	HOSE BARB, 2” FLANGE X 1-1/2” HOSE (5,1 cm X 3,8 cm)
13	1	CP2055	STRAINER SCREEN, 30 MESH, LS230
14	2	CP2056	HOSE BARB, 2” FLANGE X 2” HOSE (5,1 cm X 5,1 cm)
15	1	CP2069	HOSE, SITE GAUGE, 3/4” (1,9 cm)
16	1	CP2070	ELBOW, 90 DEGREE, 1/2” MP X 3/4” HOSE BARB, POLY (1,3 cm X 1,9 cm)
17	1	CP2071	HOSE BARB, 1/2” MP X 3/4” HOSE BARB, POLY (1,3 cm X 1,9 cm)
18	1	CP2235	CAP, 2” (5,1 cm)
19	2	CP2314	HOSE CLAMP, 1/2” - 1” TUBING, STAINLESS STEEL (1,3 cm - 2,5 cm)
20	2	CP2316	HOSE CLAMP, 1-1/4” - 2” TUBING, STAINLESS STEEL (3,2 cm - 5,1 cm)
21	2	CP2408	HOSE CLAMP, 2” - 2-1/2” TUBING, STAINLESS STEEL (5,1 cm - 6,4 cm)
22	1	CP2490	ELBOW, 90 DEGREE, 1-1/2”MP X 1-1/2”HOSE BARB, POLY (3,8 cm X 3,8 cm)
23	1	CP2532	HOSE, EPDM RUBBER, 1-1/2” (3,8 cm)
24	1	CP2550	TANK OUTLET FITTING, 2” (5,1 cm)
25	1	CP2590	HOSE, EPDM RUBBER, 2”, REINFORCED, 100# (5,1 cm)
26	2	BP3096	HEX CAP SCREW, 3/8”-16 X 2-1/2”, GRADE 5, PLATED (9,5 mm x 6,4 cm)

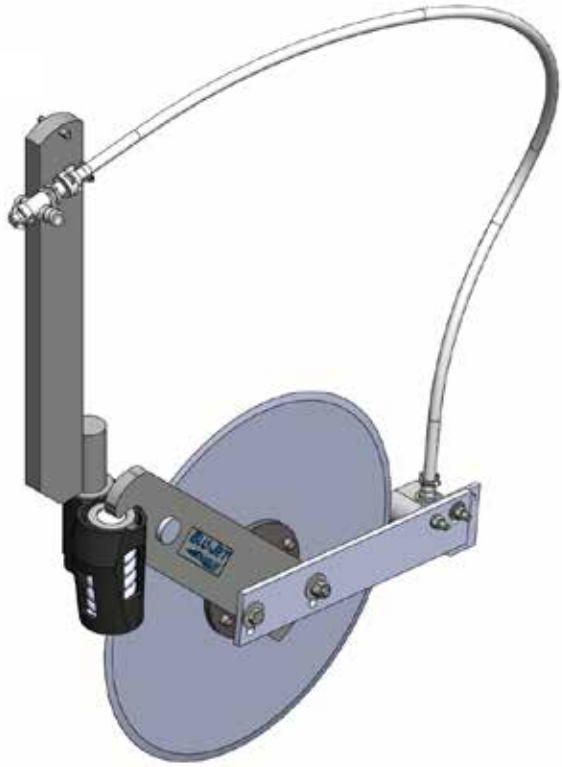
► **AAM3353 JetStream Liquid Assembly, Tee-Jet Check, 1 Row**

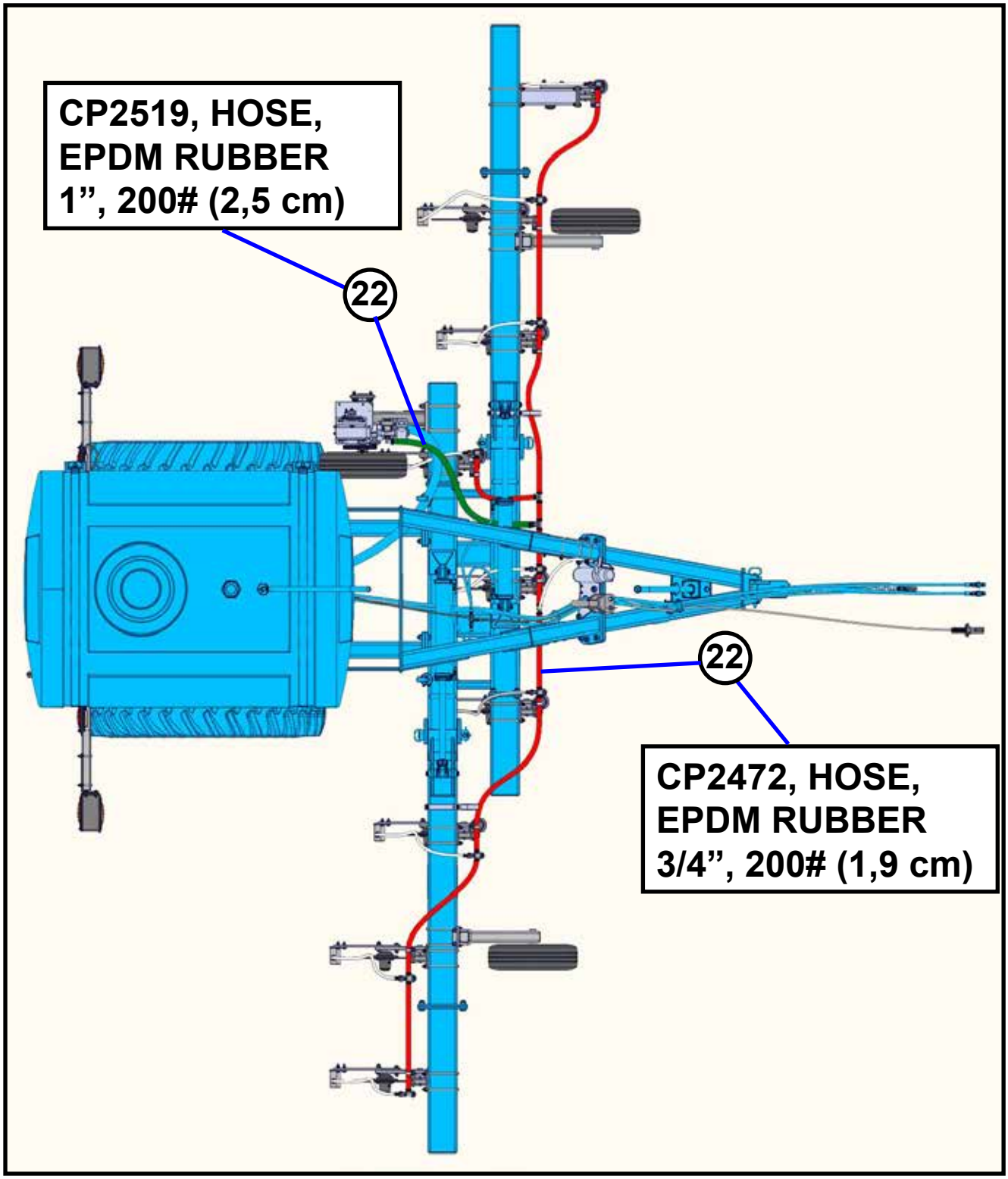




► AAM3353 JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW

BOM ID	Qty	Item No	Description
1	1	AAM3353	JETSTREAM LIQUID ASSEMBLY TEE-JET CHECK, 1 ROW
2	1	AM3627	NOZZLE MOUNT, JETSTREAM, AT3000/ AT4000/ AT4600
3	1	BP3015	WASHER, FLAT, 3/8” (9,5 mm), PLATED
4	2	BP3050	WASHER, FLAT, 1/2” (12,7 mm), PLATED
5	2	BP3450	NUT, HEX, 3/8”-16, (9,5 mm) F594 GRADE 1
6	2	BP3451	WASHER, LOCK, 3/8” (9,5 mm), 18-8 STAINLESS STEEL
7	2	BP3454	HEX CAP SCREW, 3/8”-16 X 1-1/2” (9,5 mm x 10,2 mm), F593 GRADE 1
8	2	BP3455	NUT, HEX, 1/2”-13 (12,7 mm), F594 GRADE 1
9	2	BP3456	WASHER, LOCK, 1/2” (12,7 mm), 18-8 STAINLESS STEEL
10	2	BP3459	HEX CAP SCREW, 1/2”-13 (12,7 mm) X 2” (5,1 cm), F593 GRADE 1
11	2	BP3461	WASHER, FLAT, 5/8” (15,9 mm), 1-1/2” (10,2 cm) OD, 0.078” (2 mm), 18-8 STAINLESS STEEL
12	1	CM2305	JET STREAM MOUNTING ARM
13	2	CP2313	HOSE CLAMP, WORM GEAR, 1/4” (6,4 mm) - 5/8” (15,9 mm) TUBING, STAINLESS STEEL
14	1	CP2467	NOZZLE CAP, 25608-1-NYR
15	1	CP2488	DIAPHRAGM CHECK VALVE, DOUBLE SHANK, 3/4” (19 mm) HOSE
16	1	CP2534	HOSE, EVA, 3/8” (9,5 mm) BRAID JET STREAM
17	1	CP2537	STREAM STABILIZER-STAINLESS STEEL JET STREAM
18	1	CP2541	ORIFICE PLATE #4916-63 JET STREAM
19	1	CP2542	ORIFICE PLATE #4916-70 JET STREAM
20	1	CP2543	ORIFICE PLATE #4916-78 JET STREAM
21	1	CP2544	ORIFICE PLATE #4916-86 JET STREAM
22	1	CP2545	ORIFICE PLATE #4916-95 JET STREAM
23	1	CP2578	NOZZLE BODY, STRAIGHT WITH NUT, 3/8” (9,5 mm) HOSE, STAINLESS STEEL
24	1	CP2589	NOZZLE CAP, STAINLESS STEEL
25	1	CP5046	HOSE BARB INSERT, 3/8” (9,5 mm), STAINLESS STEEL
26	3	DP4086	CABLE TIE 11-3/8” (28,9 cm) STANDARD




CP2519, HOSE, EPDM RUBBER 1”, 200# (2,5 cm)
22
22
CP2472, HOSE, EPDM RUBBER 3/4”, 200# (1,9 cm)

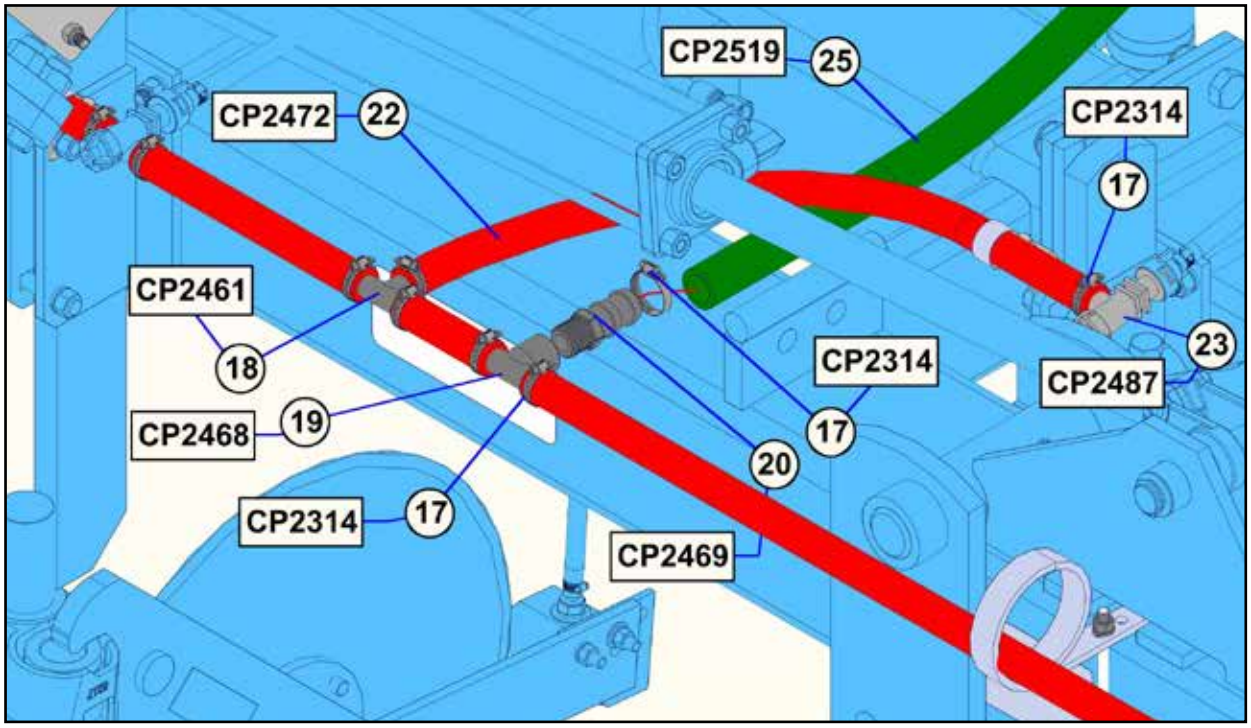
Manifold Assembly 3/4” (1,9 cm) (32000010)

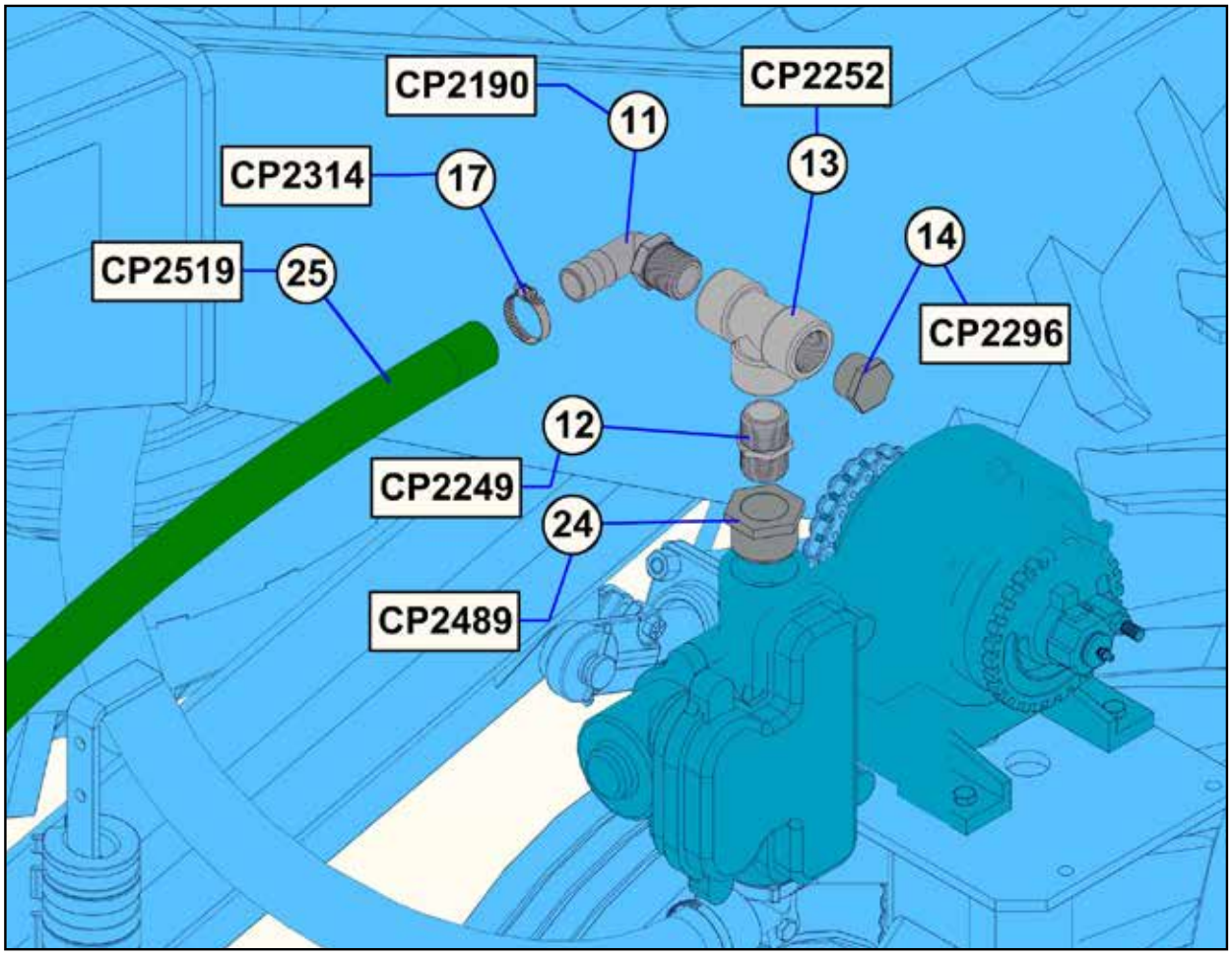
BOM ID	Qty	Item No	Description
1	1	32000010	MANIFOLD ASSEMBLY, AT2000, 3/4” HOSE, 9 ROW (1,9 cm)
2	9	AM3628	BRACKET, MOUNTING, LIQUID TRUNK LINE
3	1	AP3709	ELBOW, 90 DEGREE, STREET, BRASS, 1/4” (6,4 mm)
4	9	AP3809	1-1/4” HOSE SUPPORT CLAMP, 3/8” BOLT (3,2 cm 9,5 mm)
5	9	BP3001	NUT, HEX, 3/8”-16, GRADE 2, PLATED (9,5 mm)
6	9	BP3002	WASHER, LOCK, 3/8”, PLATED (9,5 mm)
7	9	BP3006	HEX CAP SCREW, 3/8”-16 X 1”, GRADE 5, PLATED (9,5 mm X 2,5 cm)
8	1	BP3045	U-BOLT, 3/8”-16 X 6”W X 5”L, PLATED (9,5 mm X 15,2 cm X 12,7 cm)
9	1	CM2221	NH3 GAUGE HOLDER, TONGUE MOUNT
10	1	CP1999	GAUGE PROTECTOR, PIGTAIL
11	1	CP2190	ELBOW, 90 DEGREE, 1”MP X 1”HB, POLY (2,5 cm 2,5 cm)
12	1	CP2249	NIPPLE, 1”MP, POLY (2,5 cm)
13	1	CP2252	TEE, 1” FP, POLY (2,5 cm)
14	1	CP2296	PLUG, 1” MP, POLY (2,5 cm)
15	1	CP2308	HOSE BARB
16	2	CP2313	HOSE CLAMP, 1/4” - 5/8” TUBING, STAINLESS STEEL (0,6 cm - 1,6 cm)
17	24	CP2314	HOSE CLAMP, 1/2” - 1” TUBING, STAINLESS STEEL (1,3 cm - 2,5 cm)
18	1	CP2461	TEE, 3/4”HB X 3/4”HB X 3/4”HB, POLY (1,9 cm)
19	1	CP2468	TEE, 3/4”FP X 3/4”HB X 3/4”HB, POLY (1,9 cm)
20	1	CP2469	HOSE BARB, 3/4”MP X 1”HB, POLY (1,9 cm X 2,5 cm)
21	1	CP2470	TEE, 3/8”HB X 3/4”HB X 3/4”HB, POLY (1,9 cm)
22	1	CP2472	HOSE, RUBBER, 3/4”, 200# (1,9 cm)
23	3	CP2487	DIAPHRAGM CHECK VALVE, SINGLE SHANK, 3/4” HOSE (1,9 cm)
24	1	CP2489	REDUCER BUSHING 1-1/2”MP X 1”FP, POLY (3,8 cm X 2,5 cm)
25	1	CP2519	HOSE, RUBBER, 1”, 200# (2,5 cm)
26	1	CP2524	GAUGE, GLYCERIN FILLED
27	1	CP2534	HOSE, EVA, 3/8” BRAID JET STREAM (9,5 mm)
28	2	CP2660	NUT, HEX LOCK, 3/8”-16, NYLOCK (9,5 mm)

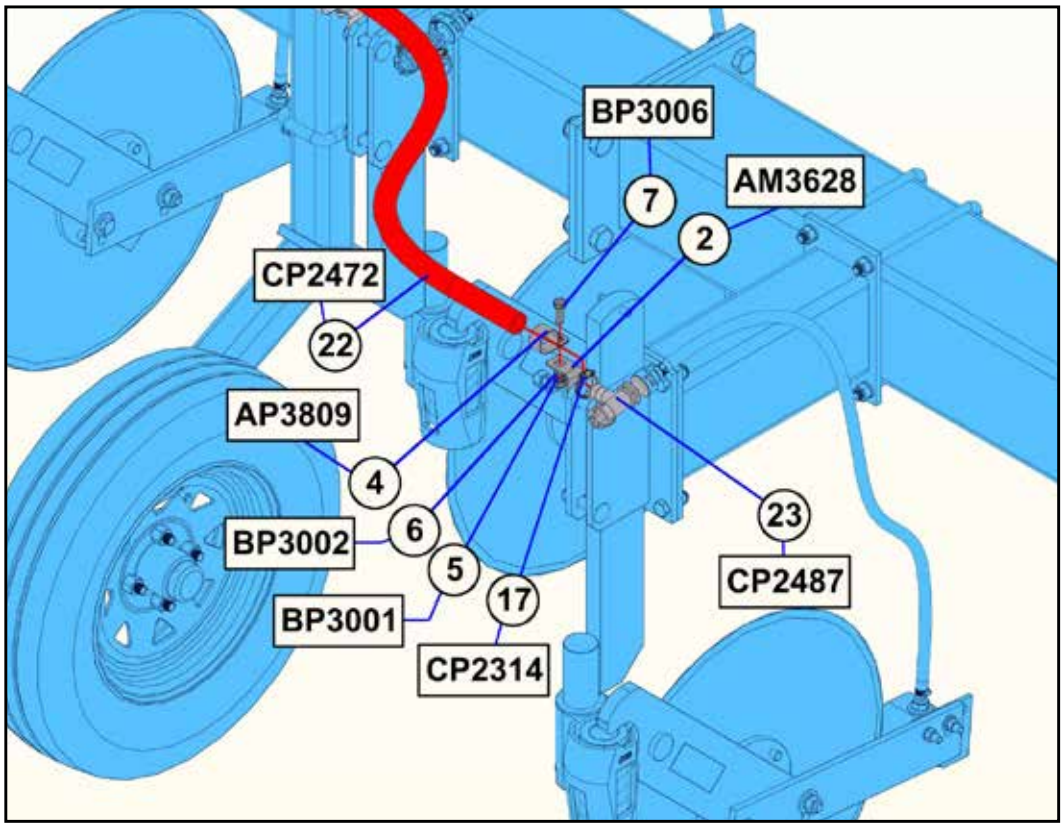
ABBREVIATIONS

NH3- ANHYDROUS AMMONIA
MP- MALE PIPE THREAD
FP- FEMALE PIPE THREAD
HB- HOSE BARB
SS- STAINLESS STEEL
POLY- NONMETALLIC
EVA- ETHYL VINYL ACETATE
EPDM- ETHYLENE PROPYLENE DIENE MONOMER

BLU-JET	Manifold Assembly 3/4” (1,9 cm) (32000010)		
AT2000	Task	Procedures	Illustrations






BP3006
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2
CP2472
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AP3809
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6
BP3002
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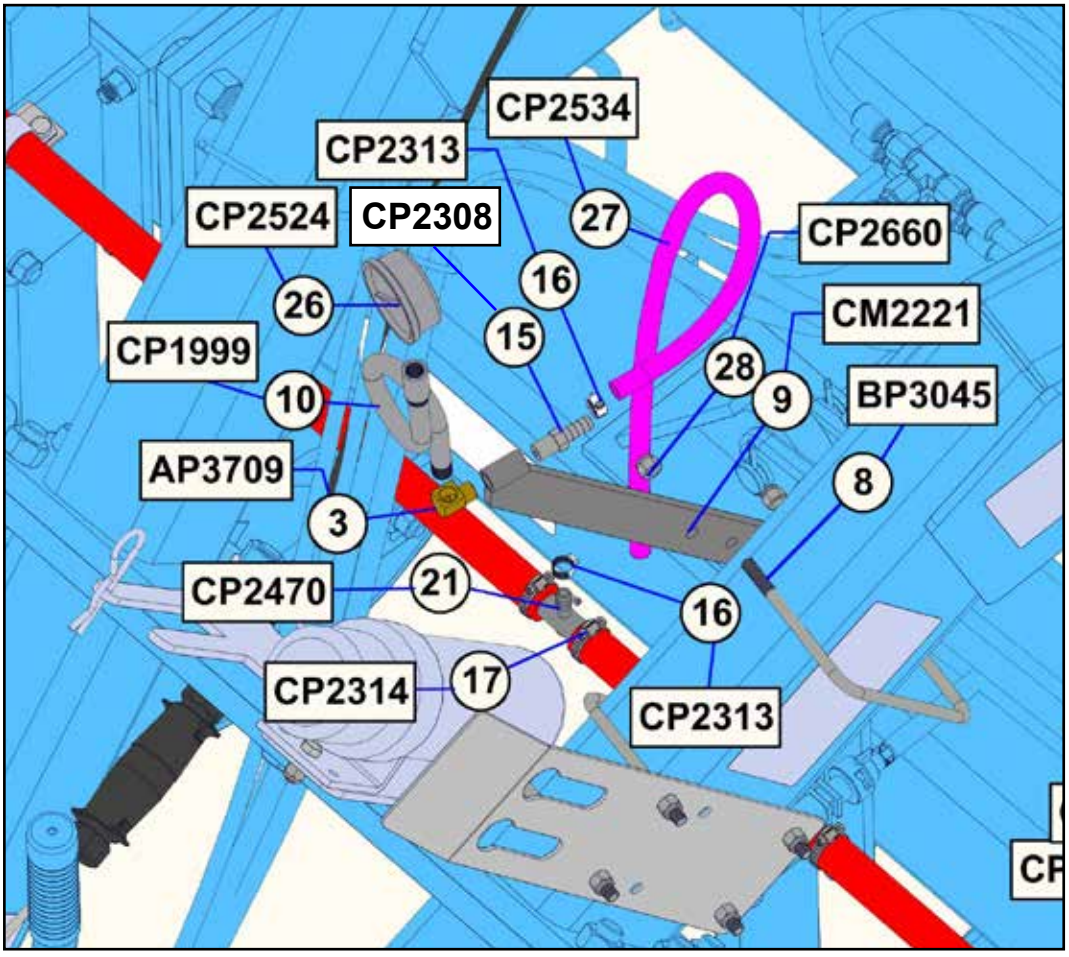
17
BP3001
CP2314
23
CP2487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CP2313
CP2524
CP2308
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CP2660
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CM2221
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BP3045
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CP2470
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CP2314
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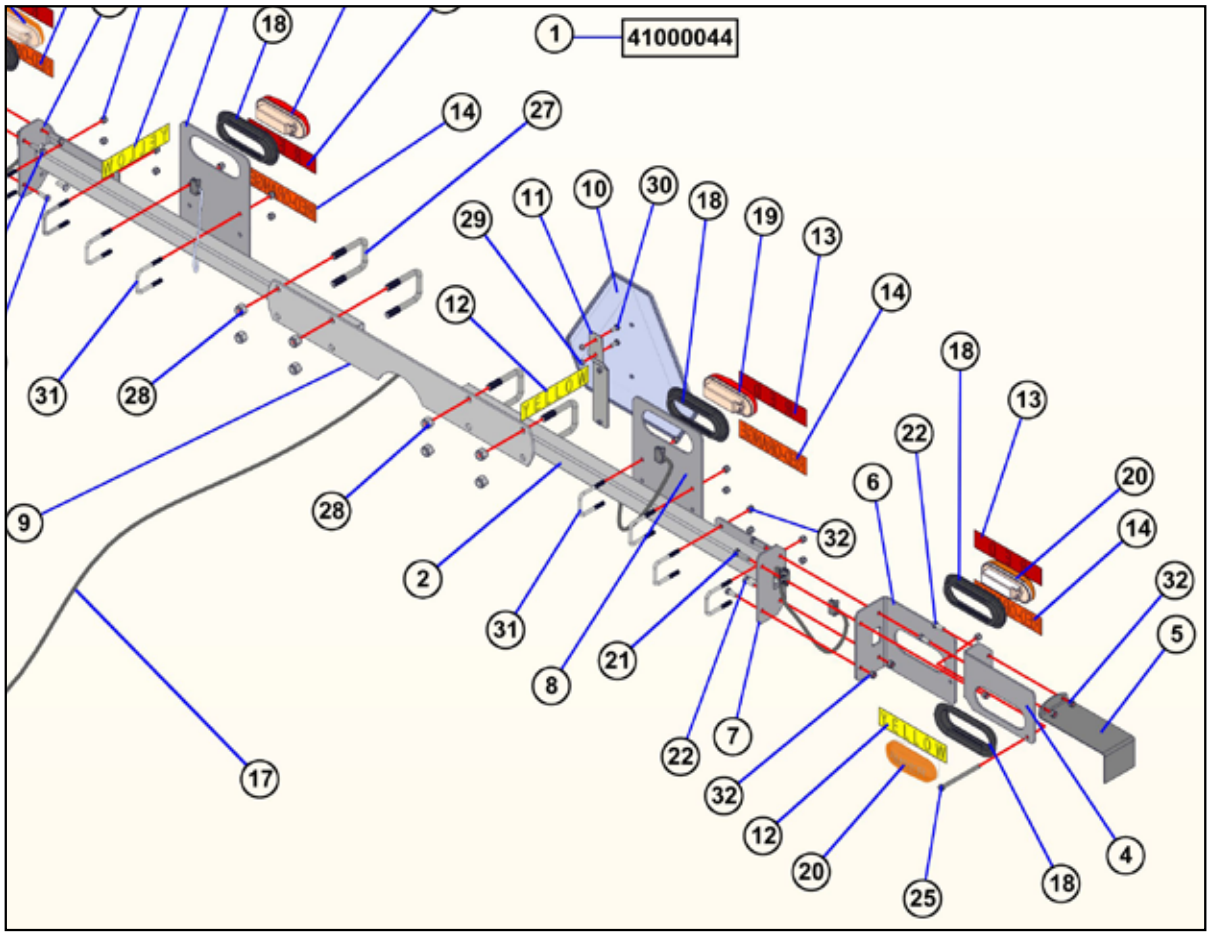
CP2313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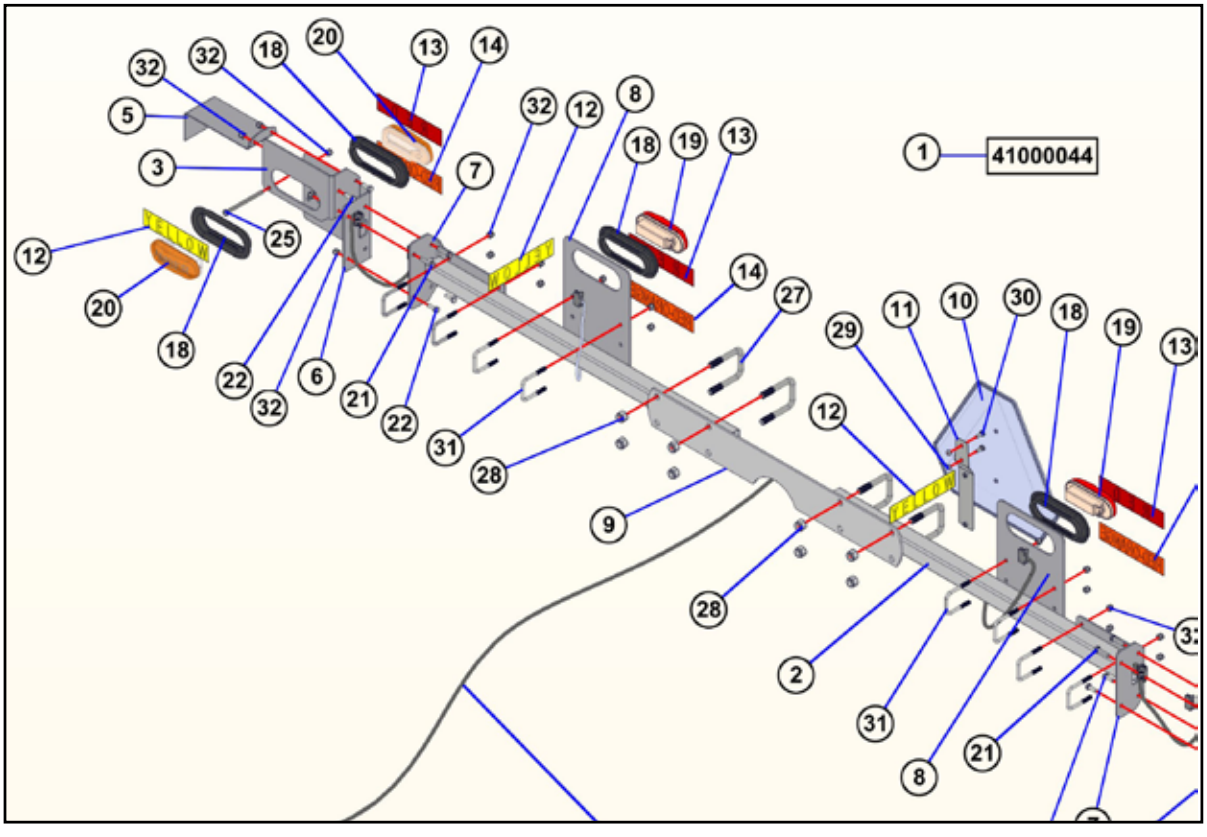
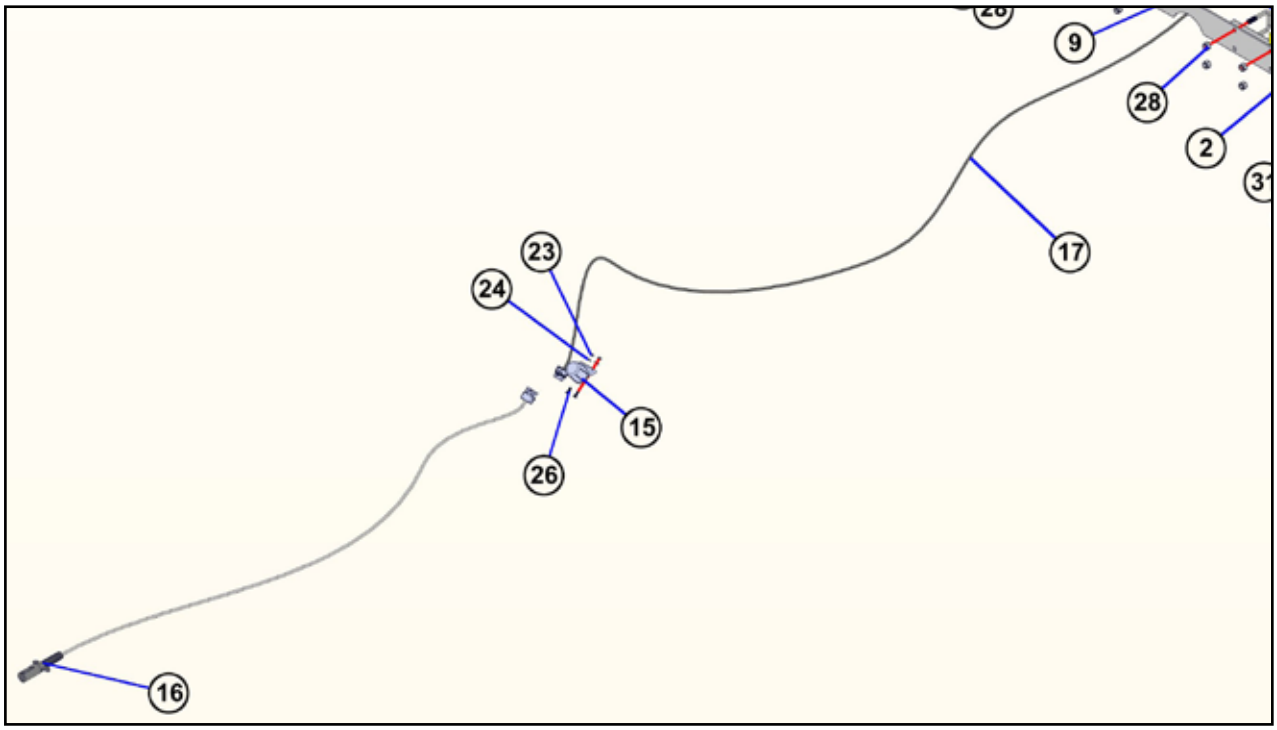
41000044
YELLOW
MARKER

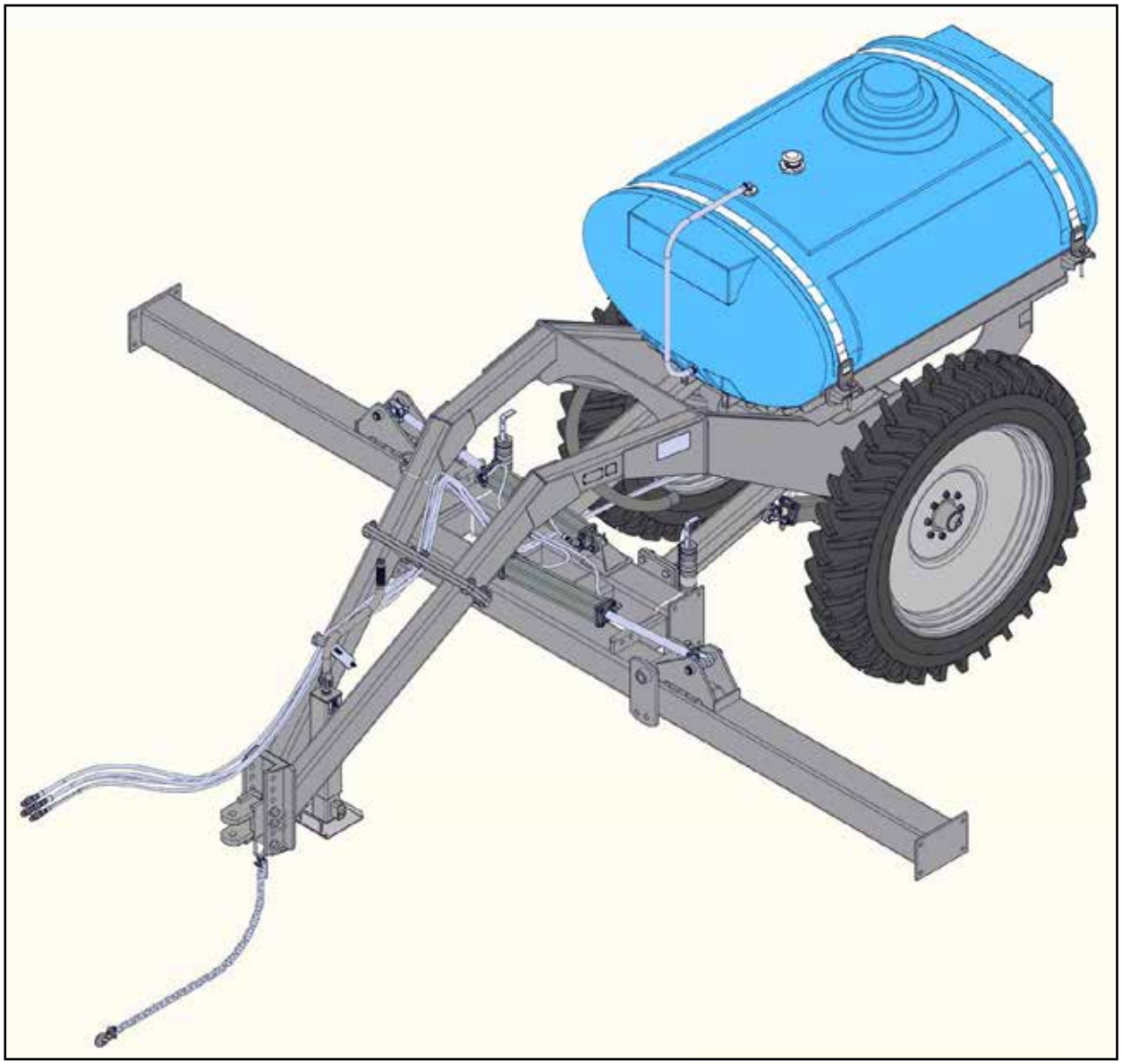

1
41000044
YELLOW
MARKER

Lighting Kit (41000044)

AT2000 | Task | Procedures | Illustrations

BOM ID	Qty	Item No	Metric Description
1	1	41000044	LIGHTING KIT, AT2000, US
2	2	AM3409	TUBE, LIGHT BRACKET, 3'5-7/8" (1,1 M)
3	1	AM3415	LIGHT BRACKET, FRONT, LEFT-HAND
4	1	AM3417	EM5977 (3/16" A1011 CS TYPE B) (5 MM)
5	2	AM3418	SHIELD, LIGHT BRACKET
6	2	AM3421	LIGHT BRACKET, SIDE MOUNT
7	2	AM3422	LIGHT BRACKET, SIDE MOUNT BAR
8	2	AM3429	LIGHT MOUNT
9	1	AM3715	BACKING PLATE, LIGHT KIT
10	1	AP2542	SMV SIGN (SLOW MOVING VEHICLE)
11	1	AP2544	SMV MOUNTING SPADE
12	4	AP2547	DECAL, REFLECTOR, YELLOW, 2" X 9" (5,1 CM X 22,9 CM)
13	4	AP2548	DECAL, REFLECTOR, RED, 2" X 9" (5,1 CM x 22,9 CM)
14	4	AP2551	DECAL, FLUORESCENT, RED-ORANGE, 2" X 9" (5,1 CM x 22,9 CM), NON-REFLECTIVE
15	1	AP2829	DUST CAP
16	1	AP3142	ELECTRICAL HARNESS, 10' (3M) MAIN 5-WIRE, 7 PIN & DUST CAP
17	1	AP3155	ELECTRICAL HARNESS, 17' (5.2M), 2 POST, 5-WIRE
18	6	AP3551	GROMMET, OVAL, MODEL 60
19	2	AP4312	LAMP, LED, OVAL, STOP TURN & TAIL, RED
20	4	AP4415	LAMP, LED, OVAL, TURN SIGNAL, AMBER, LED
21	4	BP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRADE 5, PLATED (9,5 MM X 3,8 CM)
22	8	BP3006	HEX CAP SCREW, 3/8"-16 X 1", GRADE 5, PLATED (9,5 MM X 2,5 CM)
23	2	BP3053	NUT, HEX, 1/4"-20, GRADE 2 (6,4 MM)
24	2	BP3055	WASHER, FLAT, 1/4", PLATED (6,4 MM)
25	2	BP3118	HEX CAP SCREW, 3/8"-16 X 5", GRADE 5, PLATED (9,5 MM X 12,7 CM)
26	2	BP3233	HEX CAP SCREW, 1/4"-20 X 3/4", GRADE 5, PLATED (6,4 MM X 1,9 CM)
27	4	BP3300	U-BOLT, 5/8"-11 X 2-1/2" X 4", PLATED (15,9 MM X 6,4 CM X 10,2 CM)
28	8	BP3375	NUT, HEX LOCK, 5/8"-11, NYLOCK (15,9 MM)
29	2	BP3644	NUT, HEX LOCK, 5/16"-18, TOP LOCK (8 MM)
30	2	BP3691	HEX CAP SCREW, 5/16"-18 X 3/4", GRADE 5, PLATED (7,9MM X 1,9 CM)
31	8	BP3736	U-BOLT, 3/8"-16 X 2"W X 3"L, PLATED (9,5MM X 5,1CM X 7,6 CM)
32	30	CP2660	NUT, HEX LOCK, 3/8"-16, NYLOCK (9,5 MM)





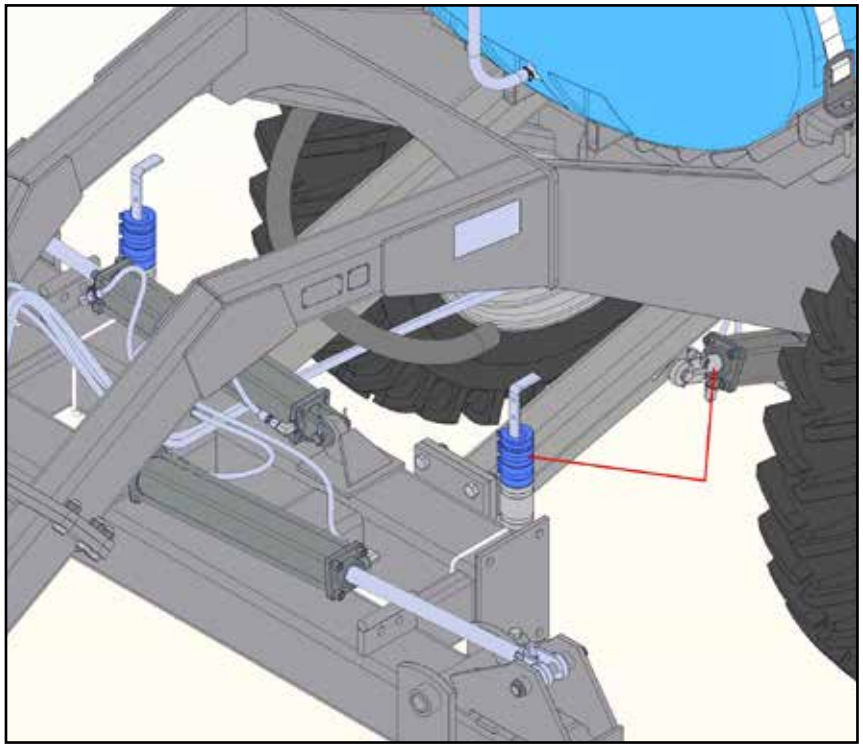
1. **Remove all shipping restraints from assembly.**

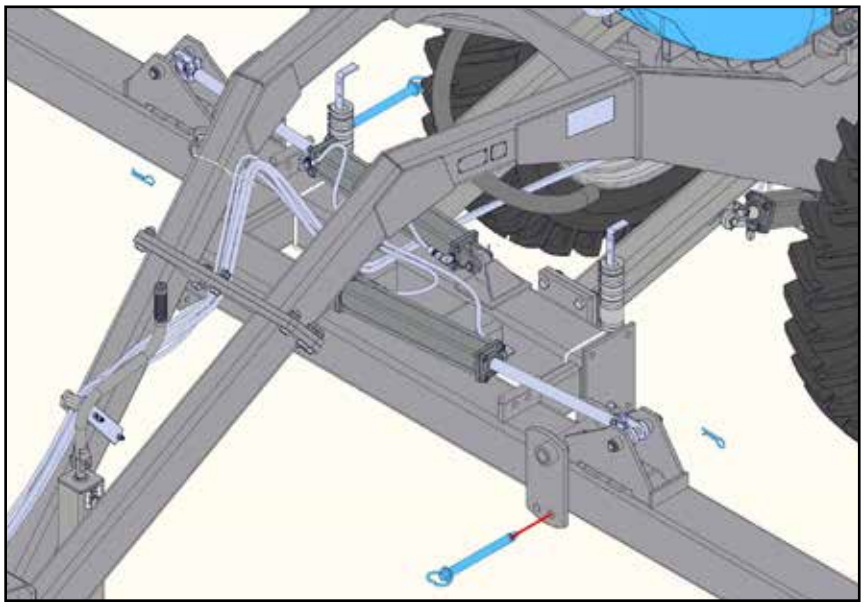
2. **Connect toolbar to tractor before unfolding wings.**

3. **Connect hydraulic hoses to tractor and unfold wings.**

4. **Raise center section and wings.**

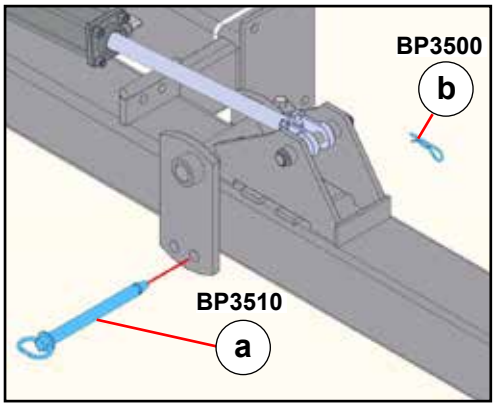
1. **Raise main frame and install all the depth collars except the 4" (10 cm) on the lift cylinders.**

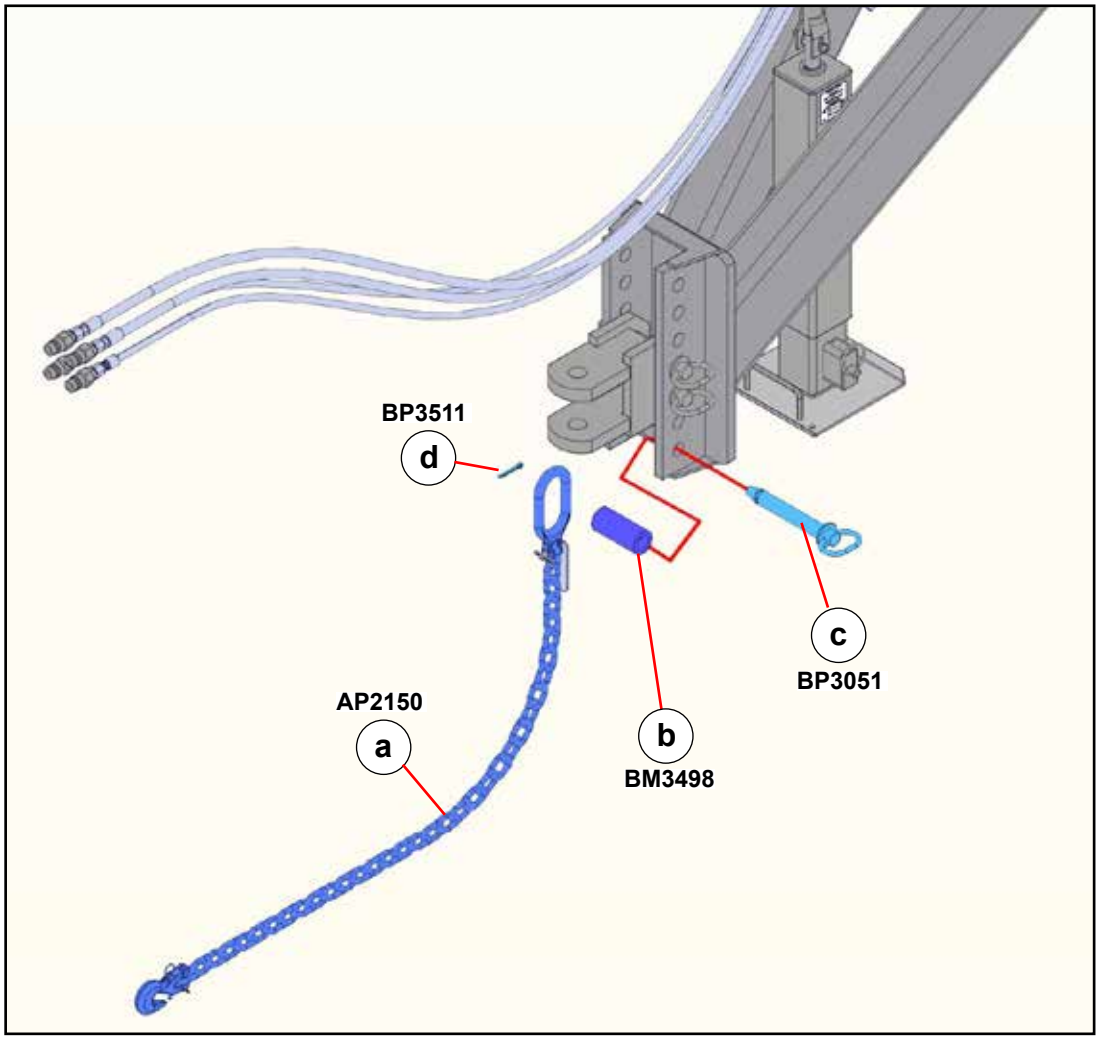




2. **Insert (a) (BP3510) 1" x 10" (2,5 cm x 25,4 cm) hitch pin in main frame and wing assembly to lock the wing down during assembly.**

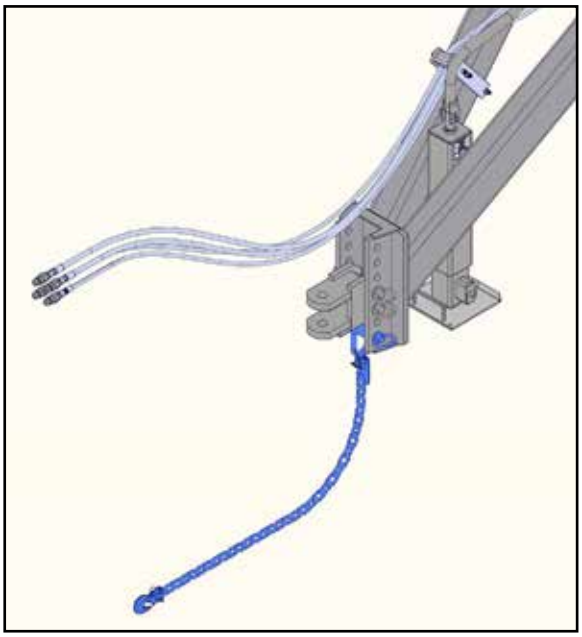
3. **Secure pin with (b) (BP3500) 3/16" (4,8 mm) hair pin clip.**

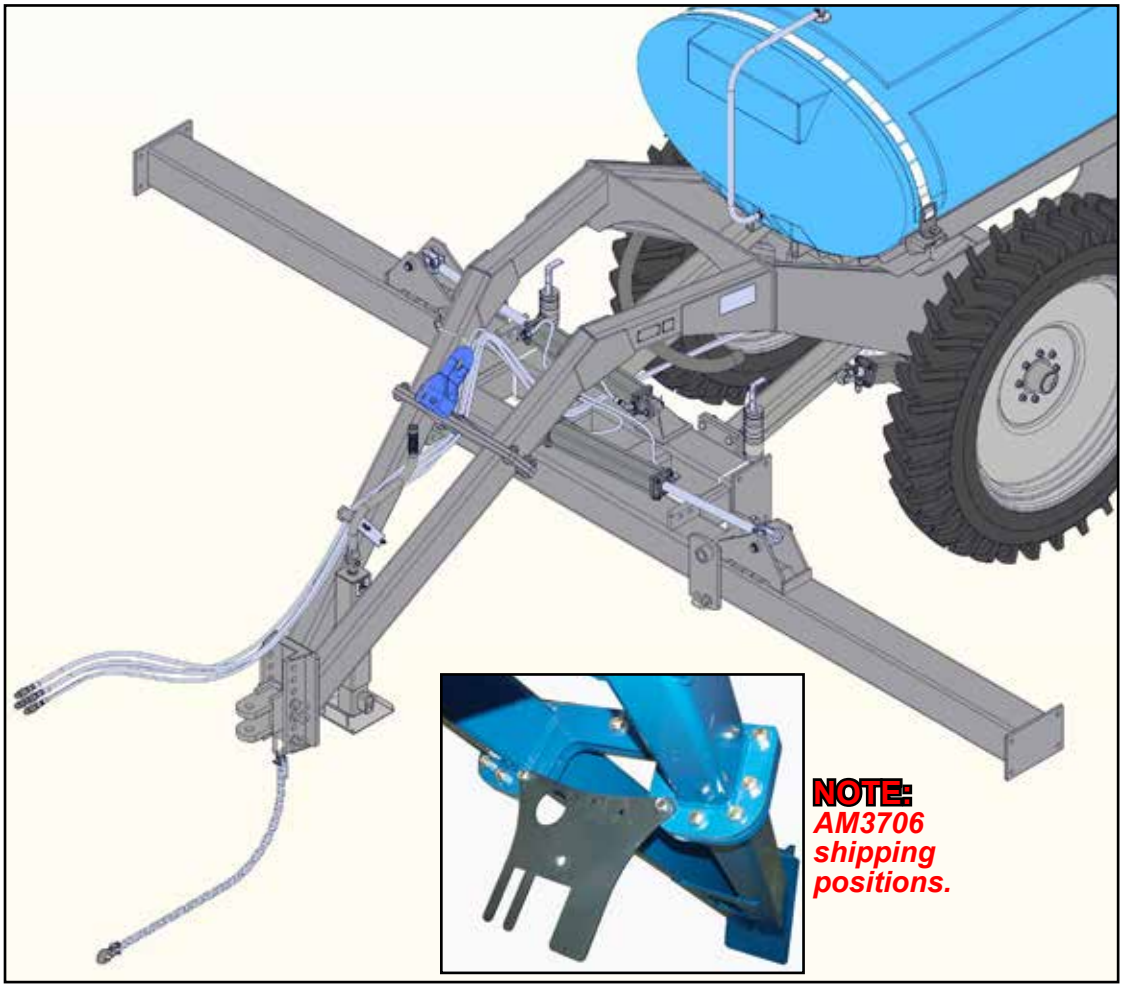




1. Insert (b) (BM3498) safety chain bushing into (a) (AP2150) transport chain.

2. Raise assembly to bottom hole of hitch and insert (c) (BP3051) 1” x 6” (2,5 cm x 15,2 cm) hitch pin through bushing. Secure pin with (d) (BP3511) 3/16” x 1-3/4” (4,8 mm x 4,4 cm) cotter pin.



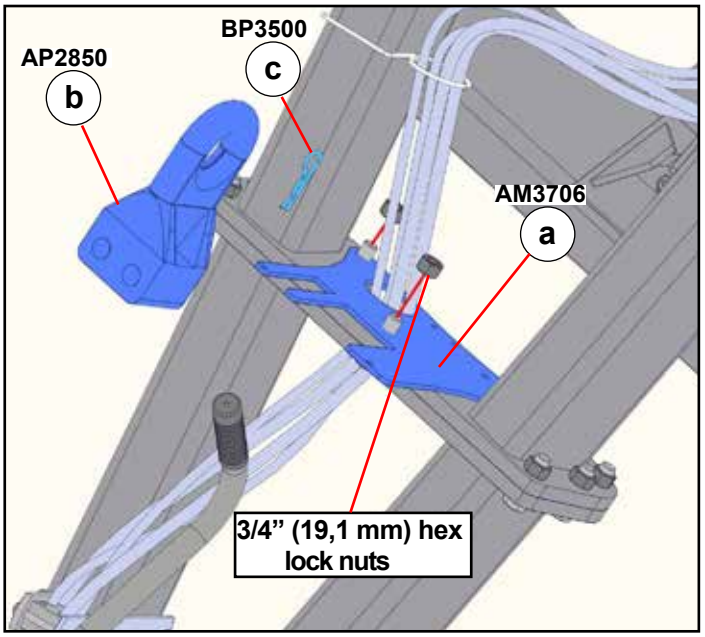


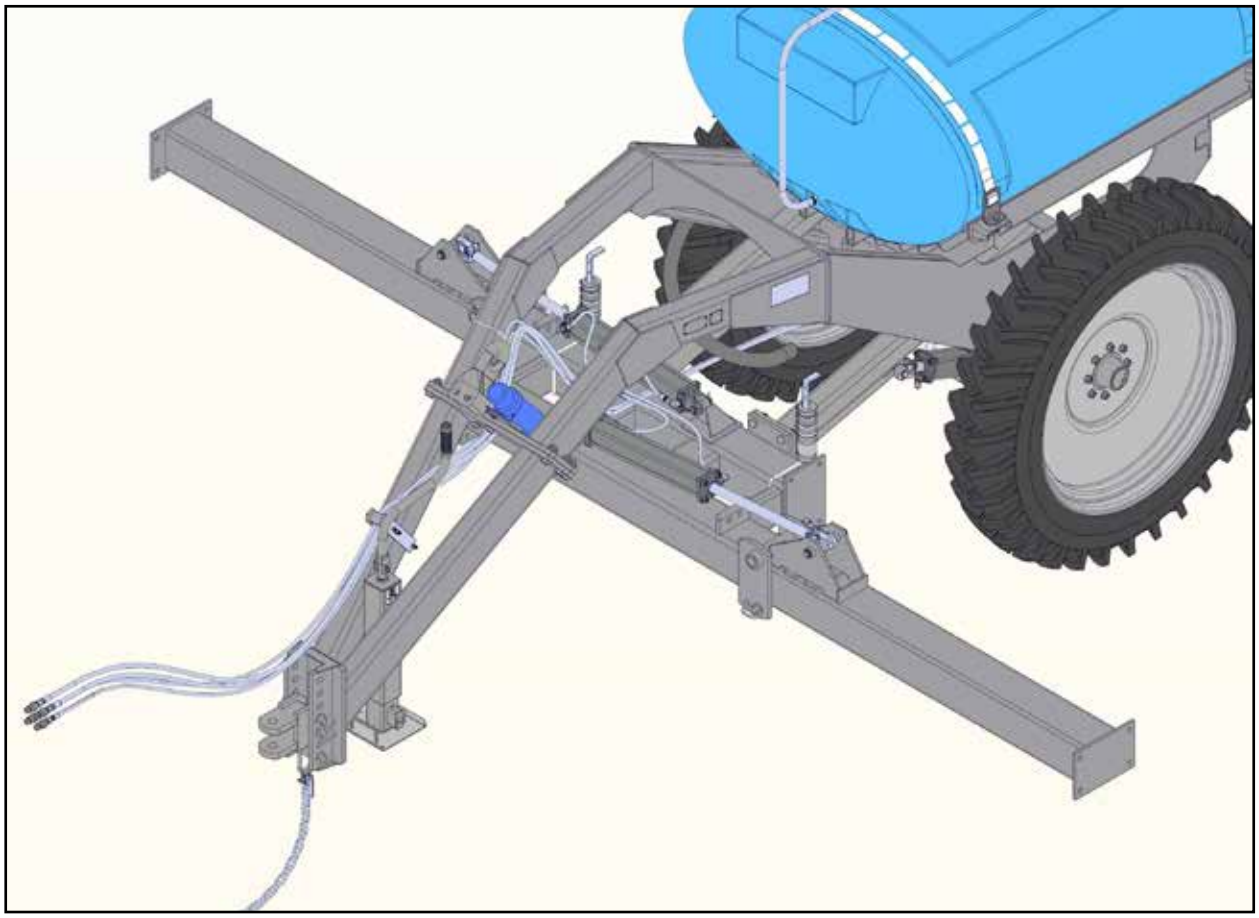
1. Remove hydraulic hoses from hose holder and place above wire hose holder.

2. Remove 3/4” (19,1 mm) hex lock nuts from tongue connector. Place (a) (AM3706) utility plate on two 3/4” (19,1 mm) hex cap screws. Secure plate with 3/4” (19,1 mm) hex nuts.

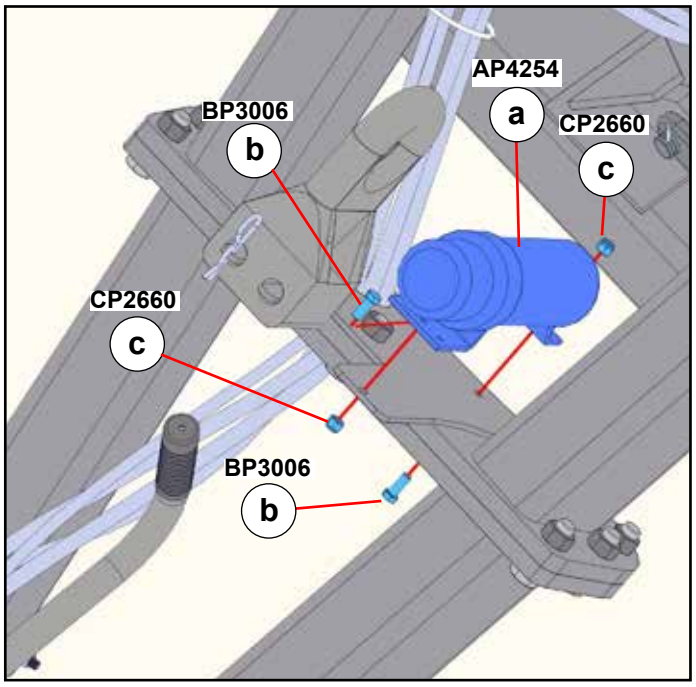
3. Place (b) (AP2850) Black perfect hitch CAT. III on forks of utility plate. Insert (c) (BP3500) 3/16” (4,8 mm) hair pin clip to secure hitch.

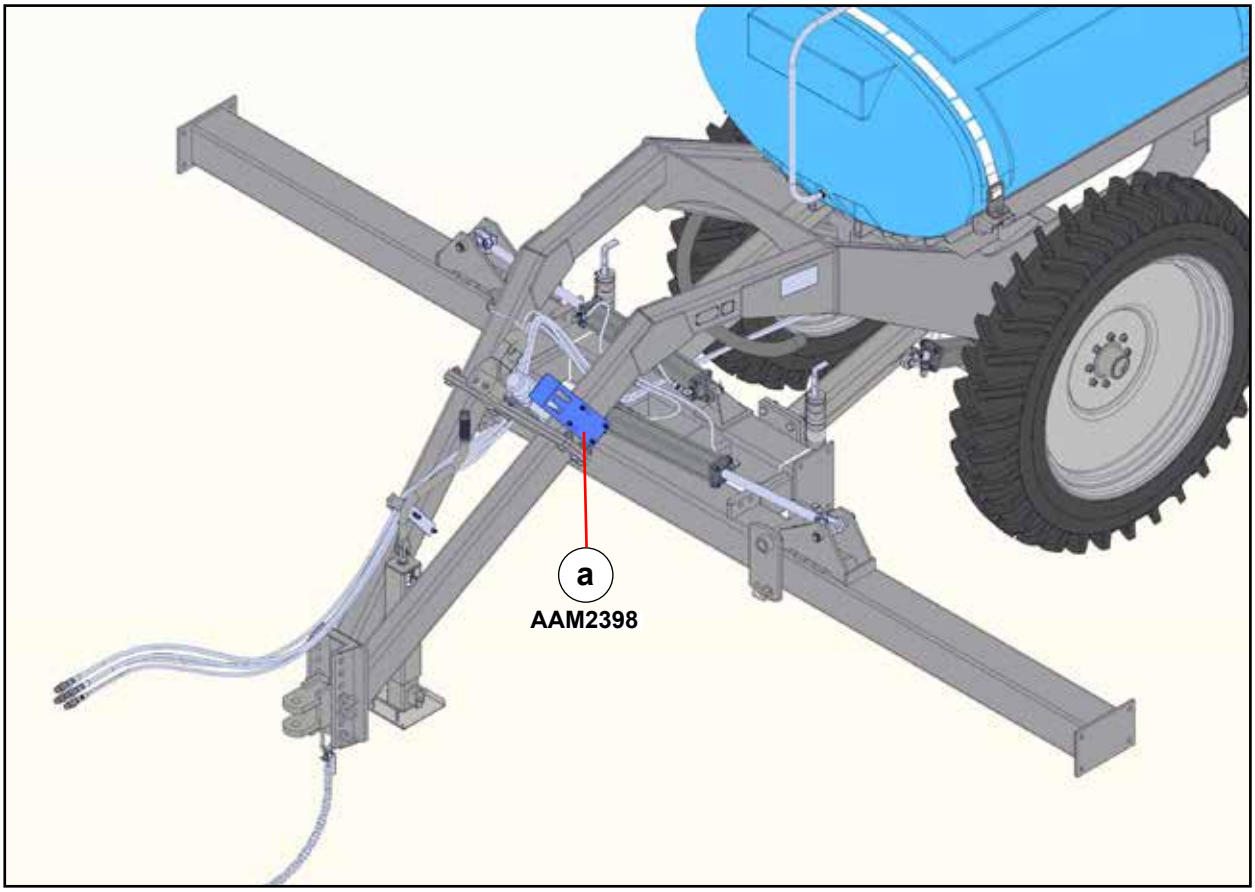
4. Insert hydraulic hoses through utility plate and hose holder.



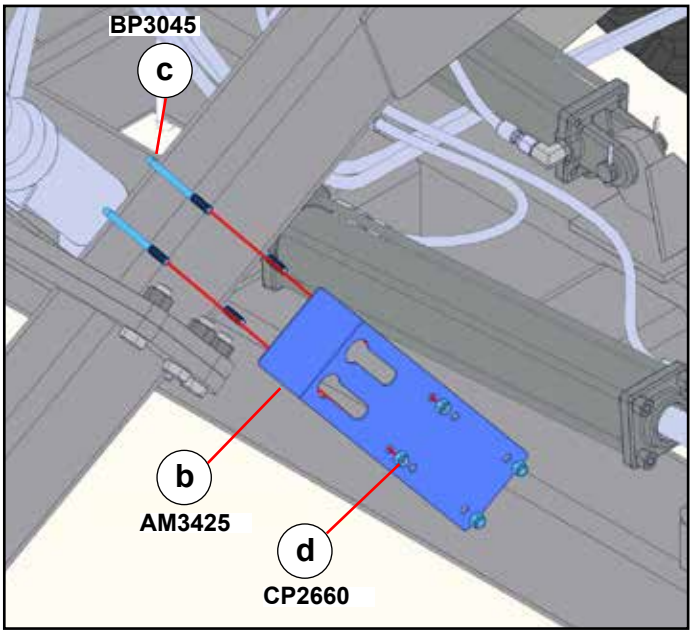


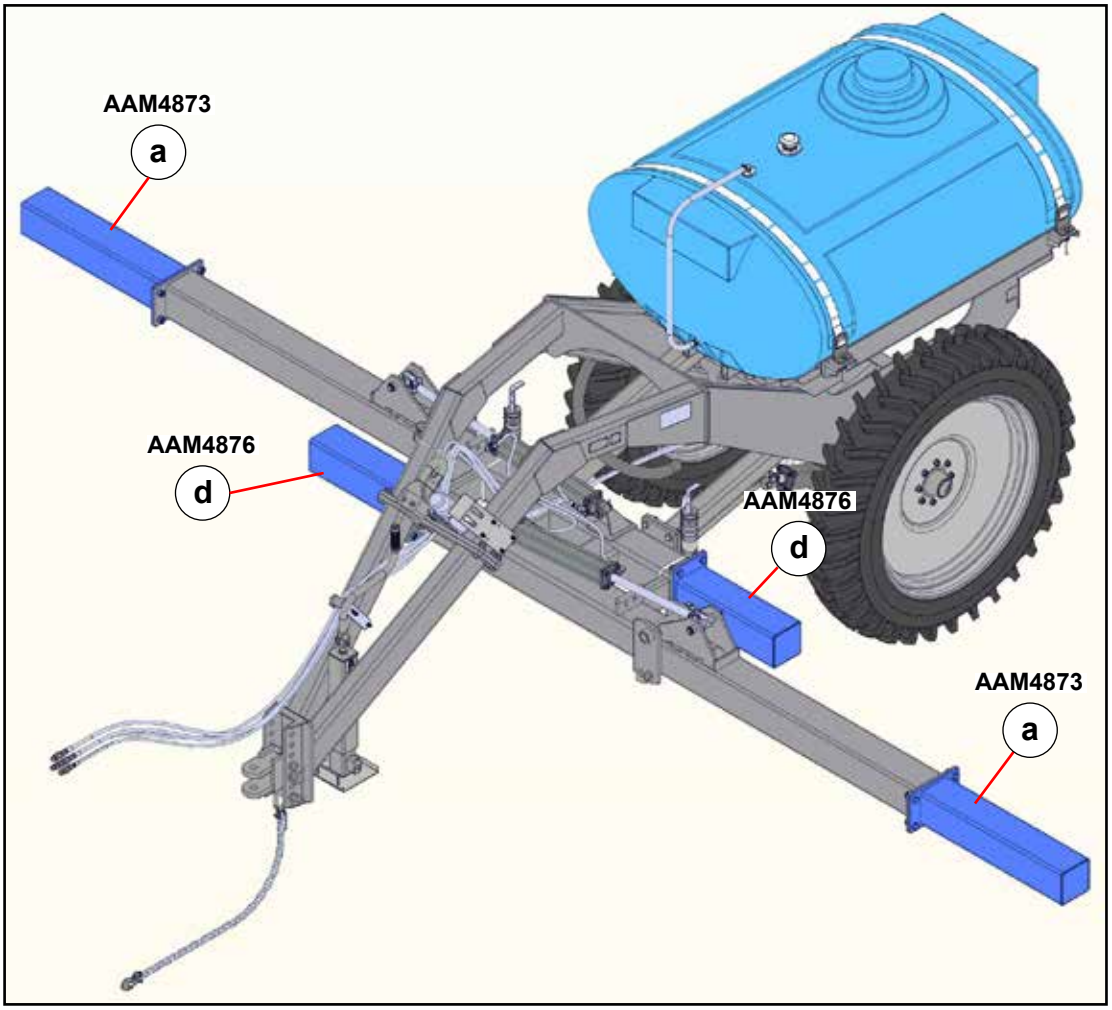
1. Mount (a) (AP4254) Black manual holder to tongue with (b) (BP3006) 3/8” x 1” (9,5 mm x 2,5 cm) hex cap screws and (c) (CP2660) 3/8” (9,5 mm) hex lock nuts, Nylock.





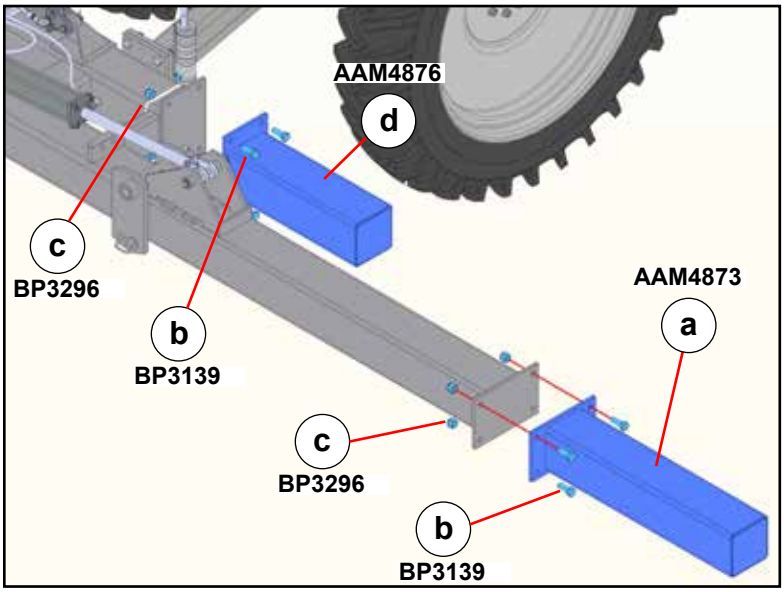
1. Mount (b) (AM3425) 2 hose holder bracket to left-hand tongue with (c) (BP3045) 3/8" x 6"W x 5"L (9,5 mm x 15,2 cm x 12,7 cm) u-bolts and (d) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.





1. Attach (a) (AM4873) 34” (86 cm) wing extension kits to primary wings with (b) (BP3139) 3/4” x 2” (19,1 mm x 5,1 cm) hex cap screws and (c) (BP3296) 3/4” (19,1 mm) hex lock nuts, Nylock.

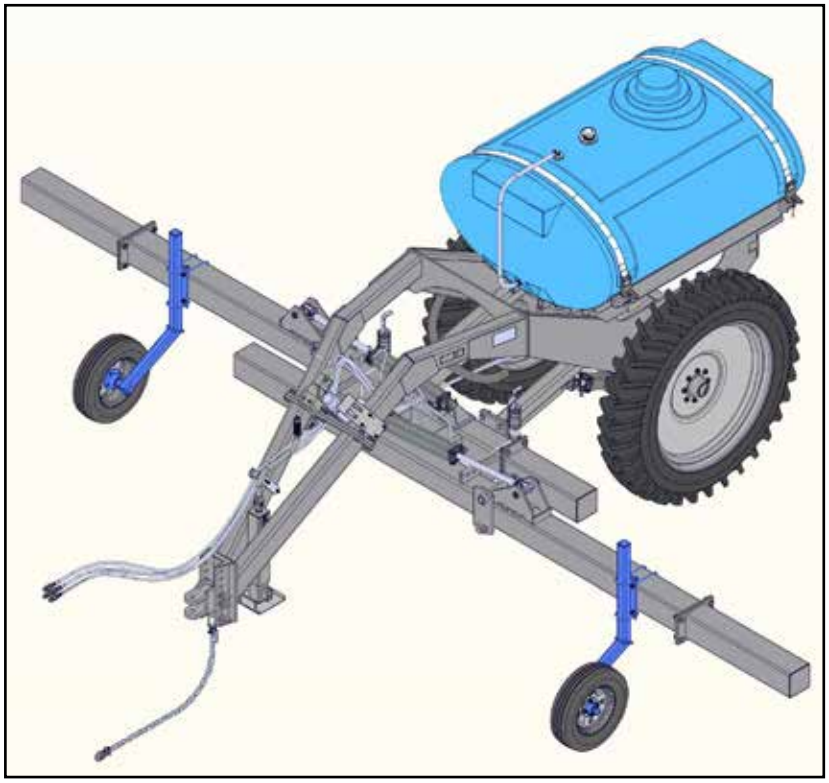
2. Attach (d) (AM4876) 24” (70 cm) wing extension kits to main frame with (b) (BP3139) 3/4” x 2” (19,1 mm x 5,1 cm) hex cap screws and (c) (BP3296) 3/4” (19,1 mm) hex lock nuts, Nylock.



NOTE: *Consult row spacing pages for measurements*

NOTE: *Left-hand and right-hand as viewed from the rear*

NOTE: *Adjust gauge wheel tire after rows are mounted. Tire should be centered with the blade.*

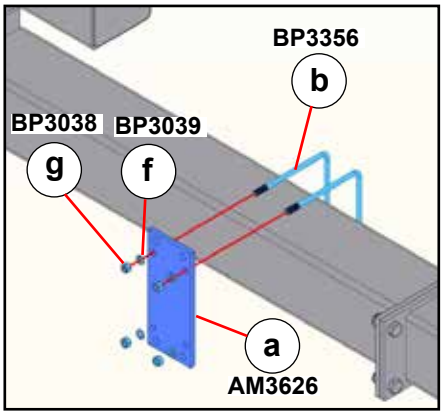


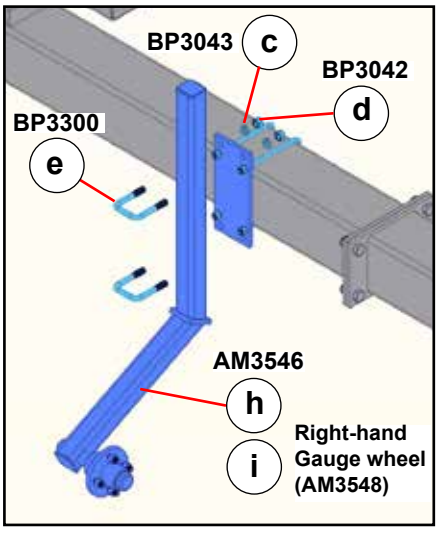
1. Place (a) (AM3626) gauge wheel mounting on tractor side of primary wing.

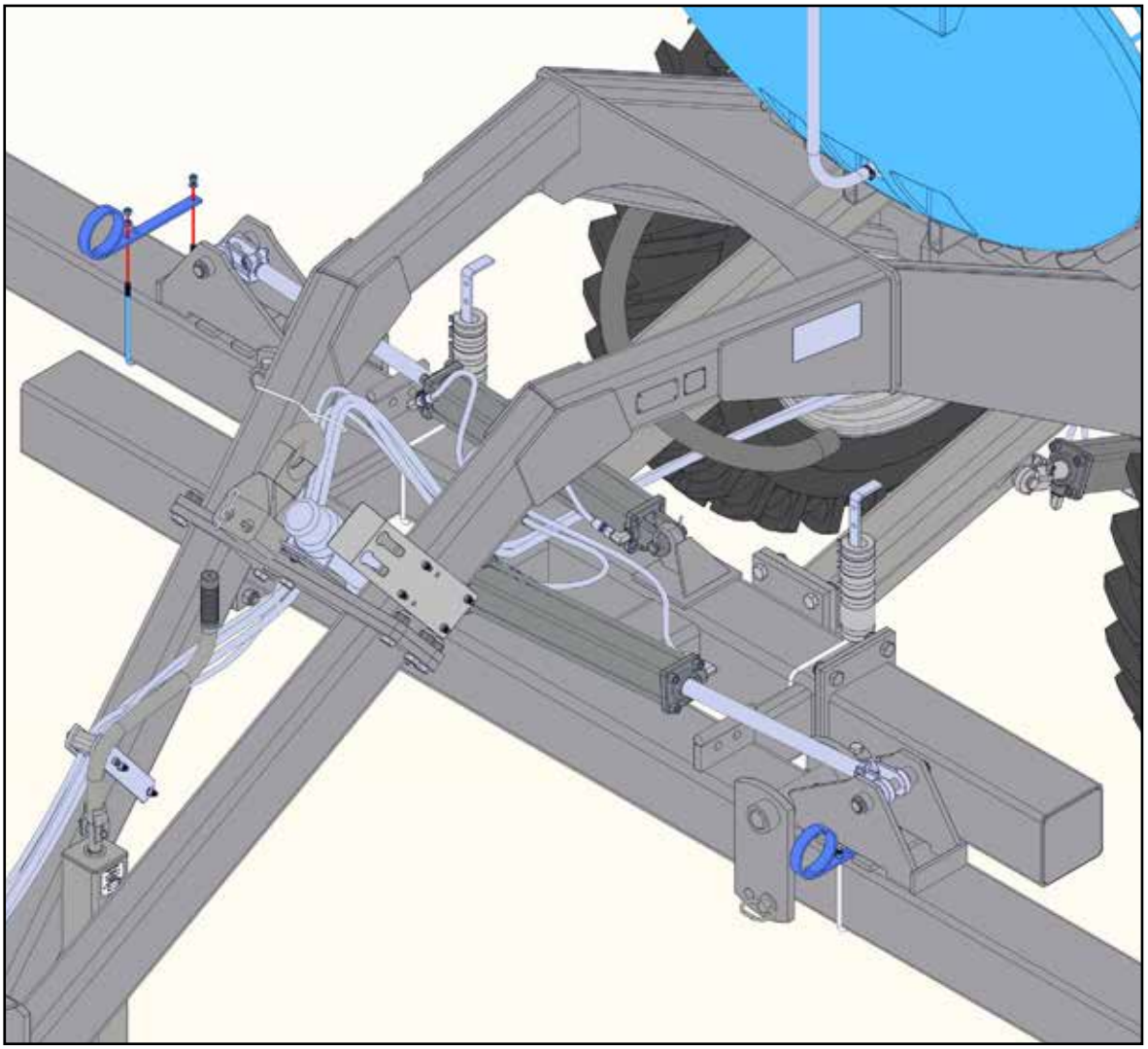
2. Attach mounting with (b) (BP3356) 1/2" x 7"W x 8-1/4"L (12,7 mm x 17,8 cm x 21 cm) u-bolts, (c) (BP3043) 1/2" (12,7 mm) lock washers and (d) (BP3042) 1/2" 12,7 mm) hex nuts.

3. Insert (e) (BP3300) 5/8" x 2-1/2" x 4" (15,9 mm x 6,4 cm x 10,2 cm) u-bolts into mounting plate and place (f) (BP3039) 5/8" (15,9 mm) lock washers and (g) (BP3038) 5/8" (15,9 mm) hex nuts on u-bolts. Insert (h) (AM3546) left-hand or (i) (AM3548) right-hand gauge wheel assembly through u-bolts. Extend assembly up 8" (20,3 cm) and tighten 5/8" (15,9 mm) hex nuts. *Gauge wheels will require adjustment in the field.*

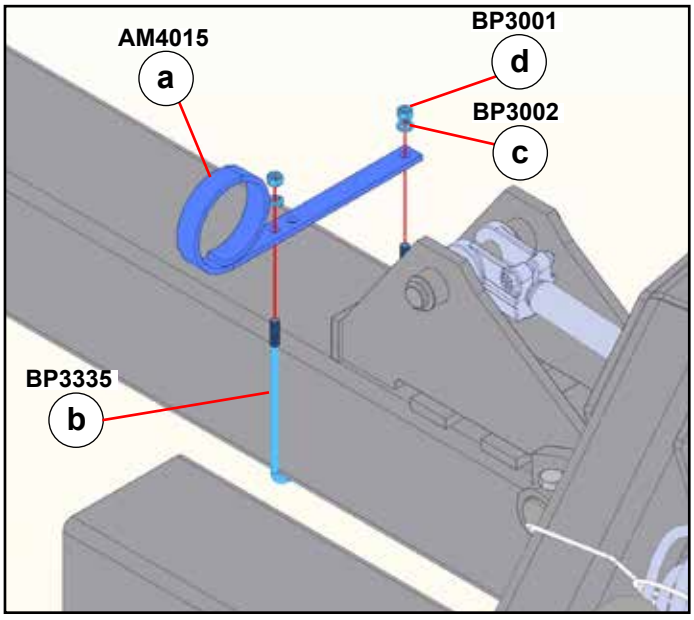
4. Mount gauge wheel tire.







1. Attach (a) (AM4015) closed loop hose retainers to frame with (b) (BP3335) 3/8” x 7”W x 8”L (9,5 mm x 17,8 cm x 20,3 cm) u-bolts. Secure with (c) (BP3002) 3/8” (9,5 mm) lock washers and (d) (BP3001) 3/8” (9,5 mm) hex nuts.



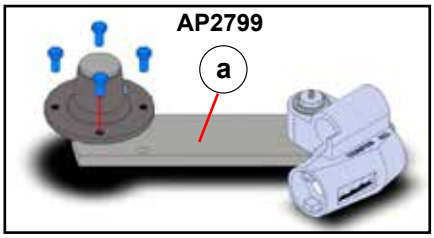
Coulter Assembly

AT2000

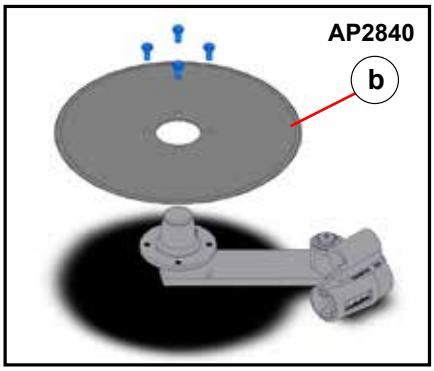
Task	Procedures	Illustrations

► Preparing coulters for mounting

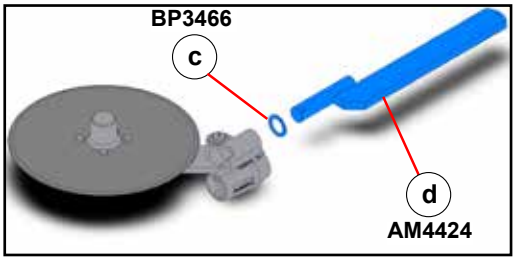
1. **Remove hex cap screws from hub (a) (AM2799) coulter arm with hub and knee casting assembly.**

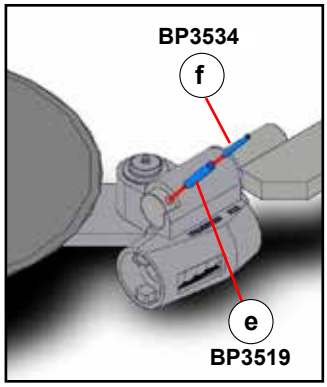


2. **Place (AP2840) 20” (51 cm) smooth coulter blade on coulter assembly and replace hex cap screws.**

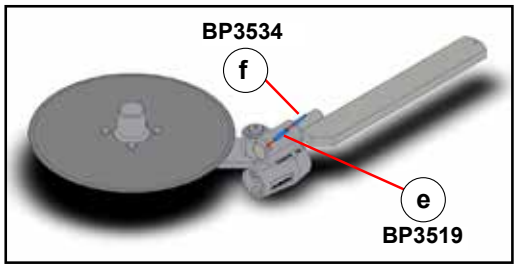


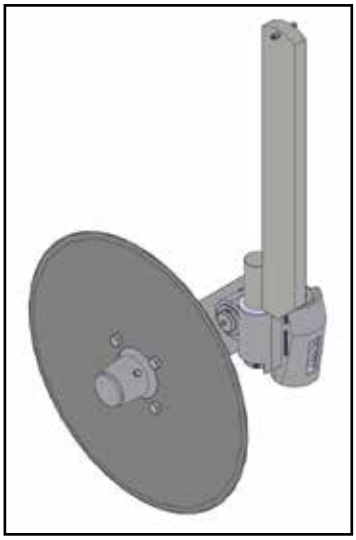
3. **Install (c) (BP3466) 2-1/2” OD x 1-3/4” ID, (6,4 cm x 4,5 cm) 10 GA, 18-8 SS machinery bushing over (d) (AM4424) 23” (58 cm) coulter shank weldment.**





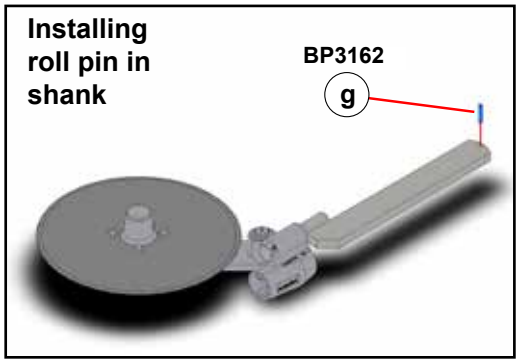
4. **Insert the 23” (58 cm) coulter shank into coulter assembly. Start (e) (BP3519) 3/8” x 2-1/2” (9,5 mm x 6,4 cm) roll pin in base of coulter shank. Insert the (f) (BP3534) 7/32” x 2-1/2” (5,6 mm x 6,4 cm) roll pin in the end of the 3/8” (9,5 mm) roll pin and drive both pins together. Leave an equal amount of pin on each sides of the shank.**



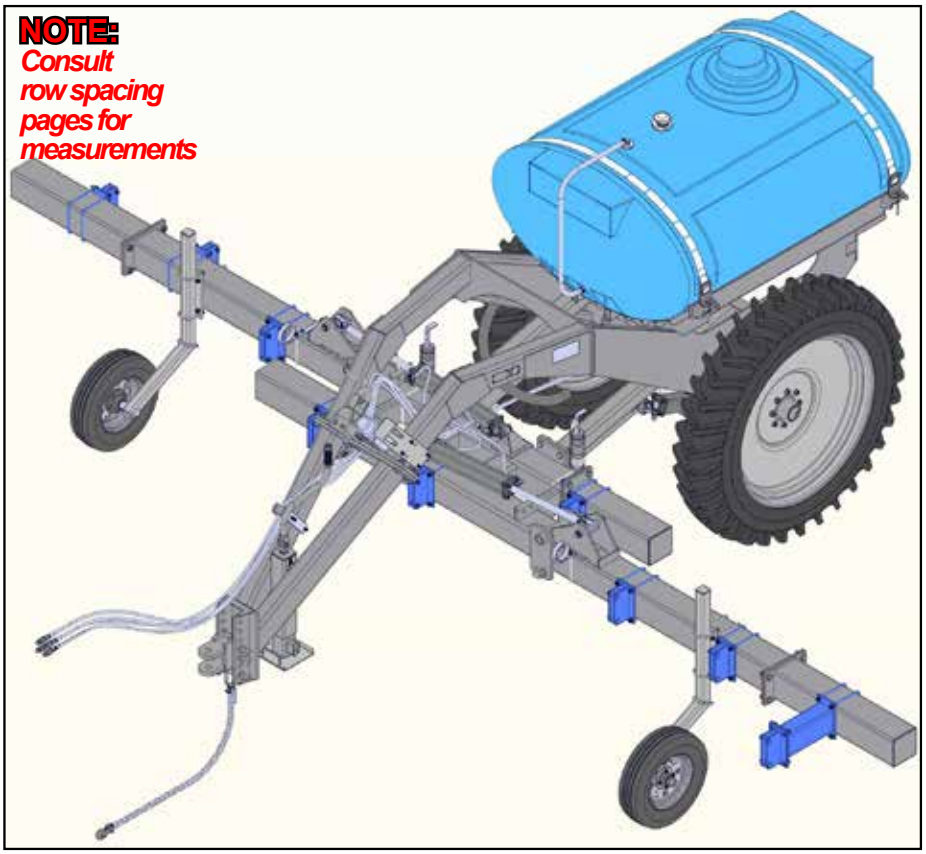


5. **Install the (g) (BP3162) 3/8” x 2” (9,5 mm x 5,1 cm) roll pin through the shank weldment top hole.**

AAM2728
Super 1200 coulter 1 row (Blade not part of bundle.)



NOTE:
Consult row spacing pages for measurements

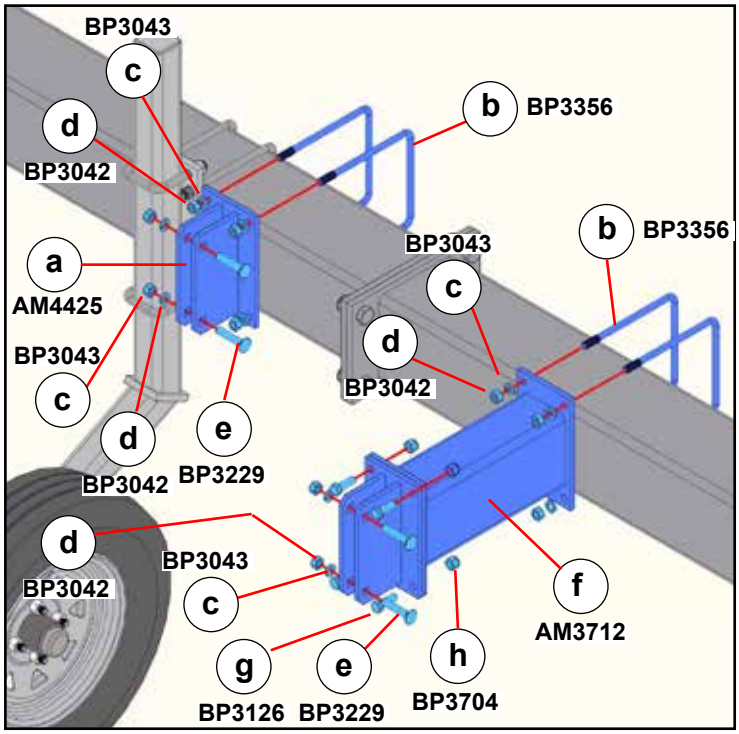


1. Level wings with center section and mark out row spacings from center.

2. Install (a) (AM4425) 7” x 7” (17,8 cm X 17,8 cm) centered flatback brackets on toolbar with (b) (BP3356) 1/2” x 7” x 8/1/4” (12,7 mm x 17,8 cm x 21 cm) u-bolts. Secure with (c) (BP3043) 1/2” (12,7 mm) lock washers and (d) (BP3042) 1/2” (12,7 mm) hex nuts.

3. Install (e) (BP3229) 1/2” x 2-1/2” (12,7 mm x 6,4 cm) carriage bolts. Place (d) and (c) on bolts. *Do not tighten.*

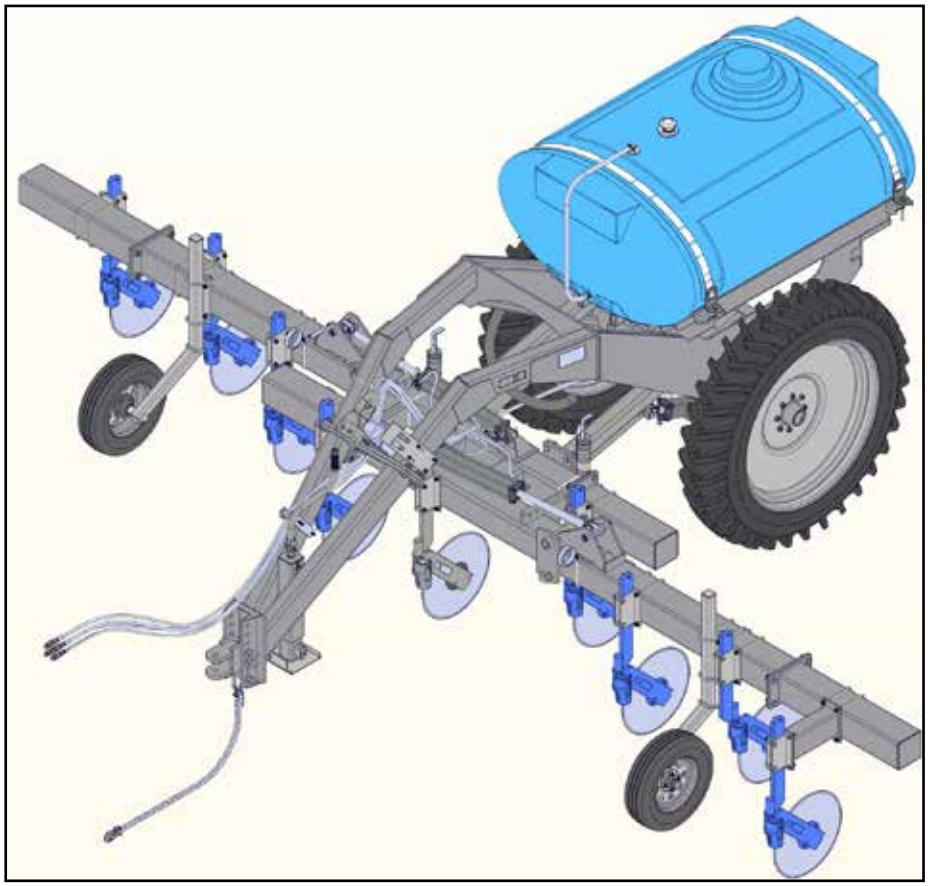
4. Attach (f) (AM3712) flatback extension with (b) (BP3356) 1/2” x 7” x 8/1/4” (12,7 mm x 17,8 cm x 21 cm) u-bolts. Secure with (c) (BP3043) 1/2” (12,7 mm) lock washers and (d) (BP3042) 1/2” (12,7 mm) hex nuts.



5. Mount flatback with (g) (BP3126) 1/2” x 1-1/2” (12,7 mm x 3,8 cm) hex cap screws and (h) (BP3704) 1/2” (12,7 mm) nylon, lock nuts.

6. Install (e) (BP3229) 1/2” x 2-1/2” (12,7 mm x 6,4 cm) carriage bolts. Place (d) and (c) on bolts. *Do not tighten.*

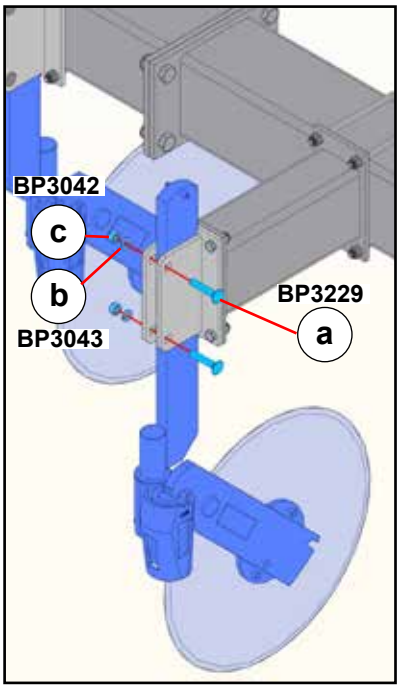
Assembly (Coulter Mounting)

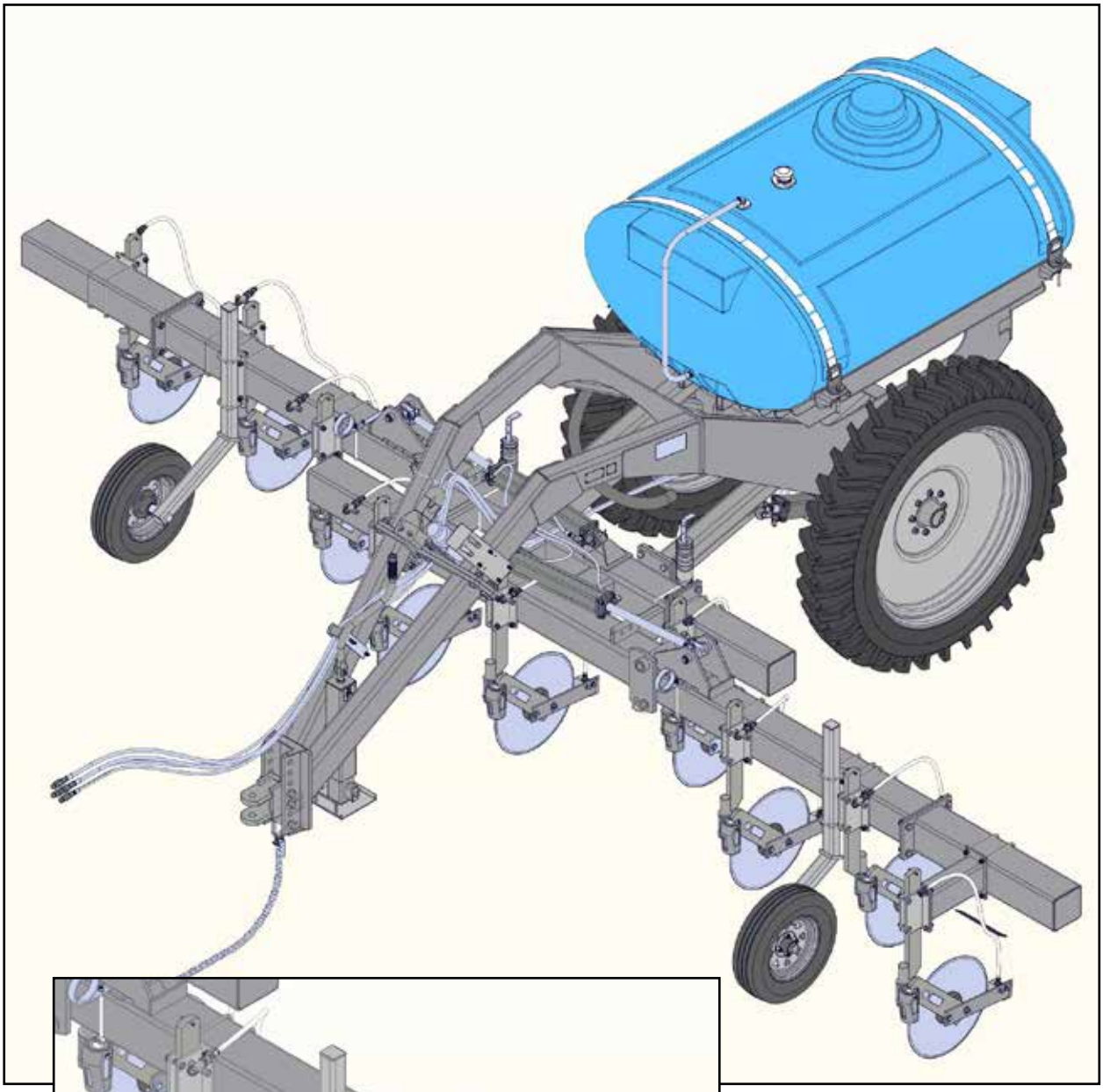


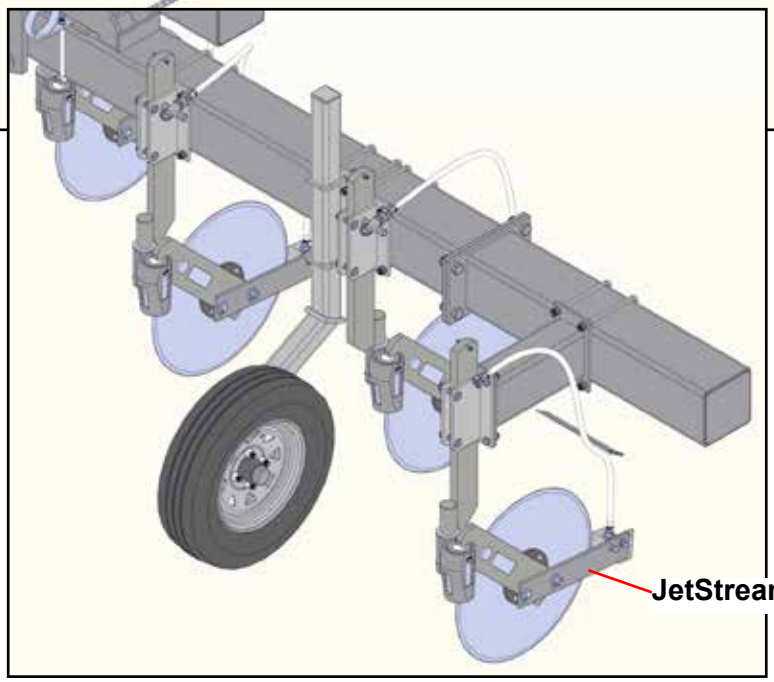
1. **Insert coulter shank into the mounting and allow assembly to rest on shank roll pin.**

2. **Insert (a) (BP3229) 1/2”-13 x 2-1/2” (12,7 mm x 6,4 cm) carriage bolt into top hole of bracket. Push coulter shank assembly back into the bracket and insert the bottom carriage bolt. Place (b) (BP3043) 1/2” (12,7 mm) lock washer and (c) (BP3042) 1/2”-13 (12,7 mm) hex nut on each carriage bolt. *Do not tighten at this point.***

3. **Raise coulter shank assembly in bracket and place a 3” (8,9 cm) spacer between the roll pin and the top of the bracket. Tighten the 1/2” (12,7 mm) hex nuts. *This height is a starting point.***



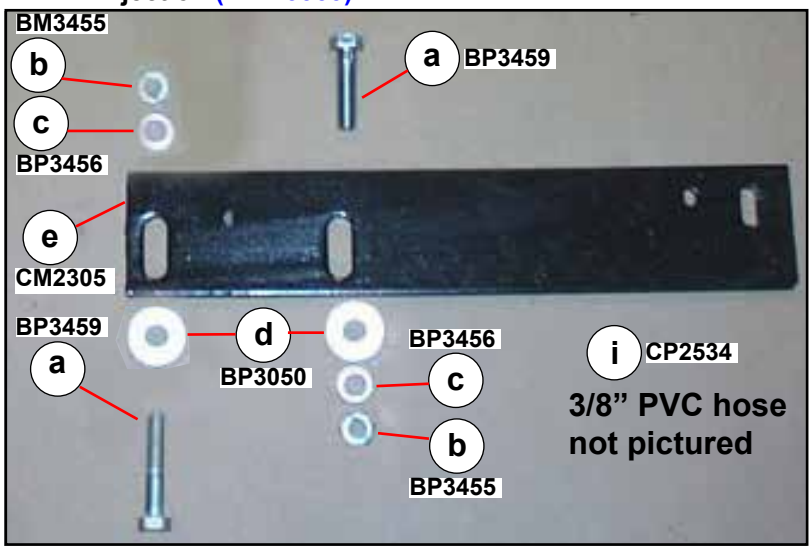


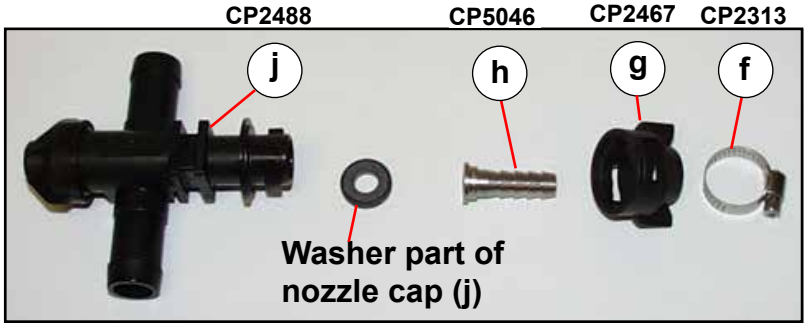


JetStream Assembly

Clear liquid injection parts

1. JetStream Clear Liquid injection (AAM3353)

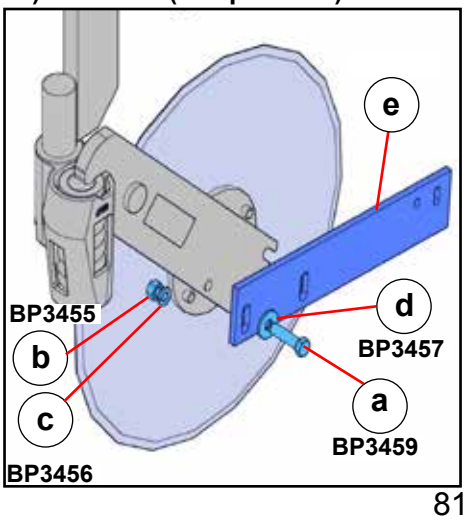




a.	BP3459	2	Hex cap screw, 1/2"-13, x 2", F593 GR 1 CW (12,7 mm x 5,1 cm)
b.	BP3455	2	Nut, hex, 1/2"-13, F594 GR 1 CW (12,7 mm)
c.	BP3456	2	Washer, Lock, 1/2", 18-8 SS (12,7 mm)
d.	BP3050	2	Washer, flat, 1/2", Plated (12,7 mm)
e.	CM2305	1	Jet Stream mounting arm
f.	CP2313	2	Stainless steel hose clamp 5/8"-1" (0,6 cm - 1,6 cm)
g.	CP2467	1	Nozzle cap, 25608-1-NYR
h.	CP5046	1	Hose barb insert, 3/8" (9,5 mm) hose Stainless Steel
i.	CP2534	5	3/8" (9,5 mm) PVC 250# PSI hose Jet Stream
j.	CP2488	1	Diaphragm check valve, double shank 3/4" (1,9 cm) hose
k.	DP4086	3	Cable Tie 11-3/8" (28,9 cm) standard (Not pictured)

Attaching injection mounting brackets

2. Place (e) (CM2305) Jet Stream mounting arm on coulter arm. Place (d) (BP3050) 1/2" plated (12,7 mm) flat washer on (a) (BP3459) 1/2" x 2" (12,7 mm x 5,1 cm) hex cap screw into coulter arm slotted hole through mounting arm. Place (c) (BP3456) 1/2" (12,7 mm) lock washer and (b) (BP3455) 1/2" (12,7 mm) hex nut on hex cap screw next to blade.

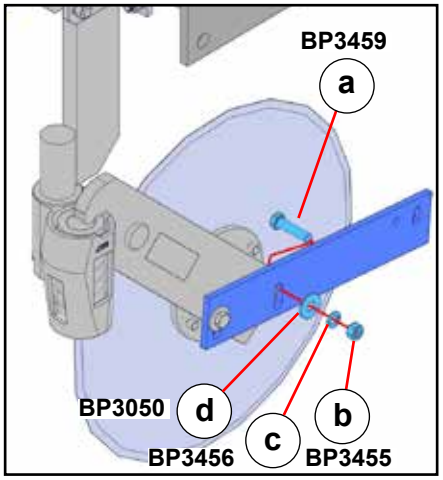


Assembly (Liquid Injection)

AT2000	Task	Procedures	Illustrations

Attaching injection mounting brackets

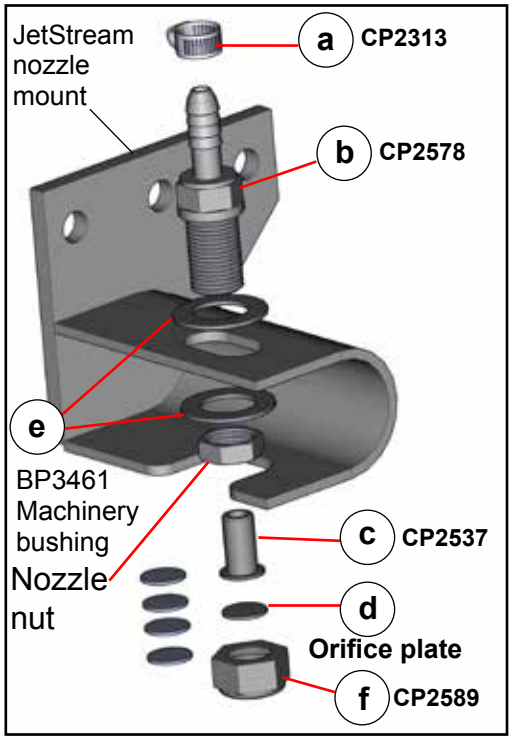
1. Raise mounting arm and insert (a) (BP3459) 1/2" x 2" (12,7 mm x 5,1 cm) hex cap screw blade side into coulter arm slotted hole through mounting arm. Place (d) (BP3050) 1/2" (12,7 mm) flat washer, (c) (BP3456) 1/2" (12,7 mm) lock washer on hex cap screw. Raise mounting arm and secure with (b) (BP3455) 1/2" (12,7 mm) hex nut.



Nozzle assembly parts

2. Nozzle Assembly

a. CP2313	1	Stainless steel hose clamp 5/8"-1" (0,6 cm -1,6 cm)
b. CP2578	1	Straight nozzle body with/nut, 3/8" (9,5 mm) hose, SS
c. CP2537	1	Stream stabilizer -SS
d. Orifice plate:		
CP2541	1	#4916-63
CP2542	1	#4916-70
CP2543	1	#4916-78
CP2544	1	#4916-86
CP2545	1	#4916-95
f. CP2589	1	Nozzle cap, SS



Nozzle body assembly

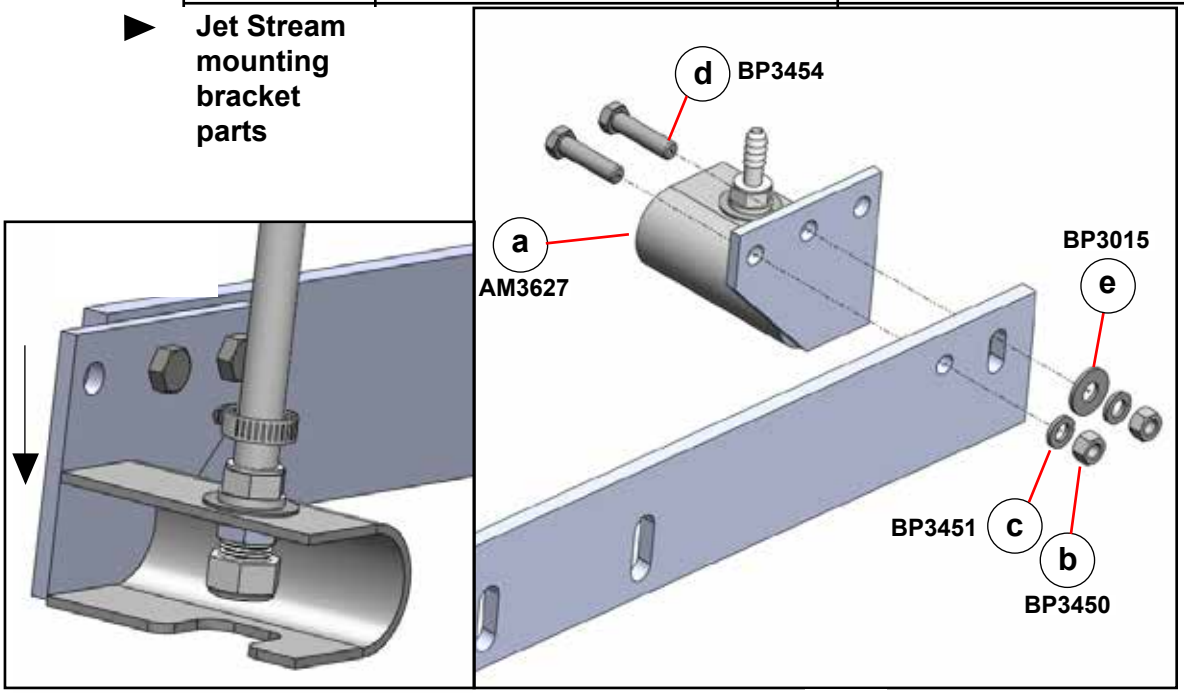
3. Place JetStream nozzle mount in vise. Insert (b) (CP2578) straight nozzle body into (e) (BP3461) 5/8", 1-1/2" OD, 0.78, (15,9 mm; 3,8 cm) 18-8 SS, flat washer. Insert into nozzle mount. Place second (e) (BP3461) 5/8", 1-1/2" OD, 0.78 (15,9 mm; 3,8 cm) 18-8 SS, flat washer over threads of nozzle assembly, center assembly on slotted hole and secure with nozzle nut.

NOTE: *Consult rate chart for orifice size*

Nozzle assembly should be aligned with blade after coulter assembly is complete.

4. Place orifice plate (d) into (f) (CP2589) nozzle cap. Insert (c) (CP2537) stream stabilizer-SS into nozzle cap. Install assembly into nozzle body.

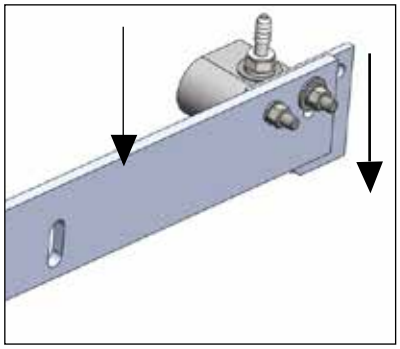
Jet Stream mounting bracket parts



NOTE: *Rotate rear of nozzle mount down before securing*

1. a. AM3627 1 Nozzle mount, JetStream
   b. BP3450 2 Nut, Hex, 3/8”-16, F594 GR 1 (9,5 mm)
   c. BP3451 2 Washer, Lock, 3/8”, 18-8 SS (9,5 mm)
   d. BP3454 2 3/8”-16 x 1-1/2” (9,5 mm x 3,8 cm) hex cap screw, F593 GR 1
   e. BP3015 1 Washer, flat, 3/8”, Plated (9,5 mm)

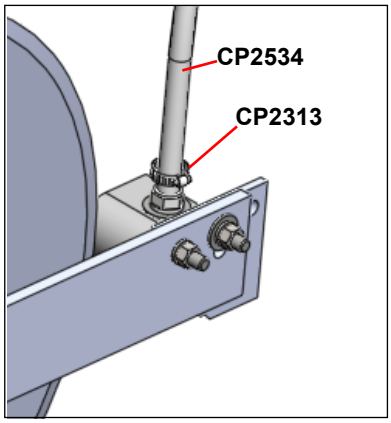
2. Mount (a) (AM3627) JetStream nozzle mount to JetStream mounting arm with two (d) (BP3454) 3/8” x 1-1/2” (9,5 mm x 3,8 cm) hex cap screws, F594 GR 1. Secure each hex cap screws with (e) (BP3015) 3/8” (9,5 mm) flat washers, (c) (BP3451) 3/8” (9,5 mm) lock washers, 18-8 SS and (b) (BP3450) 3/8” (9,5 mm) hex nuts, F594 GR 1.



Attaching PVC hose to assembly

3. Push assembly down. Secure with (e) (BP3015) 3/8” (9,5 mm) flat washers, (c) (BP3451) 3/8” (9,5 mm) lock washers 18-8 SS and (b) (BP3450) 3/8”-16 (9,5 mm) hex nuts F594 GR 1.

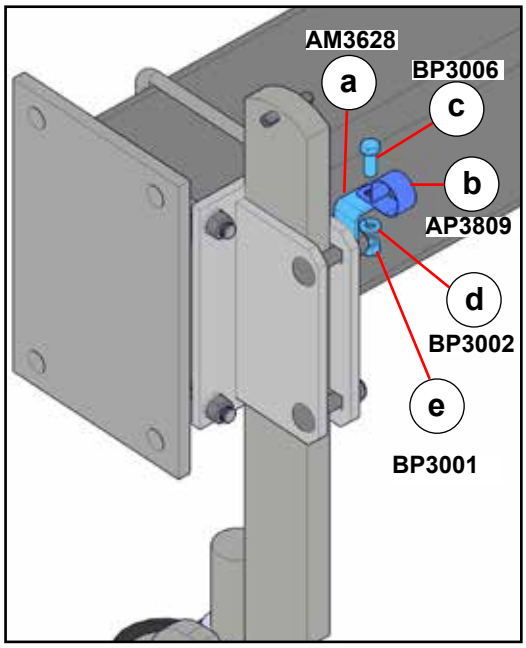
4. Cut lengths from bulk (CP2534) 3/8” (9,5 mm) PVC 250# psi hose as needed. Push hose over hose barb and secure with (CP2313) stainless steel hose clamp 5/8”-1” (0,6 cm - 1,6 cm).

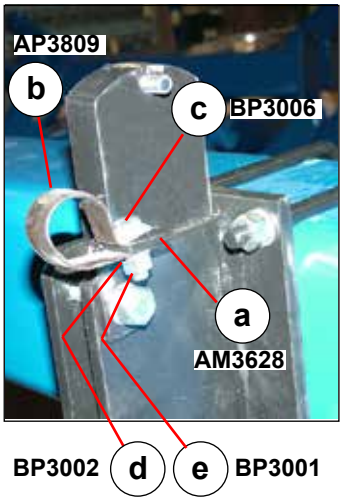


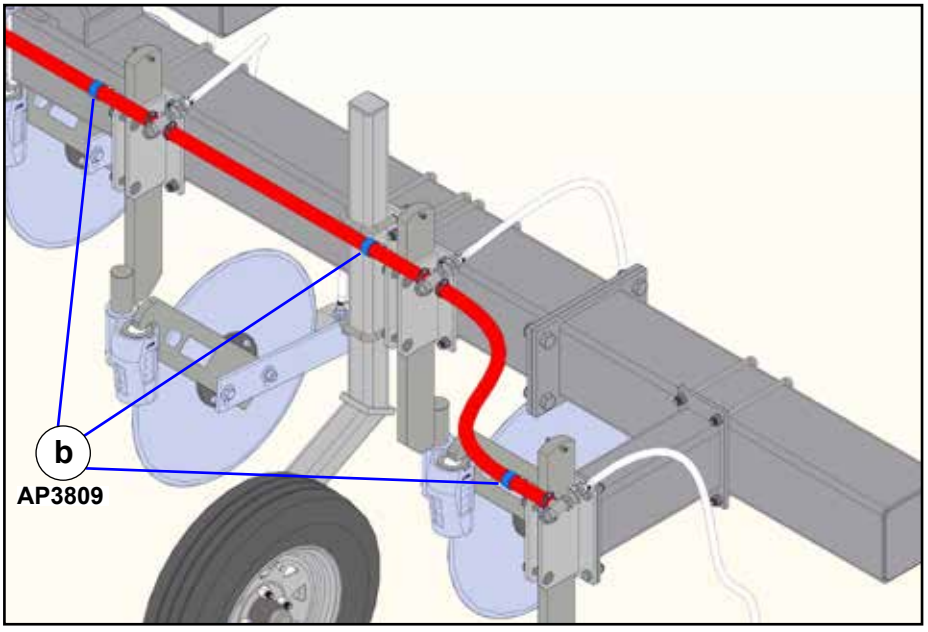
NOTE:
Do not tighten hose support clamps until hoses are inserted and adjusted

1. Remove 1/2” (1,3 cm) hex nut and lock washer from top carriage bolt of each flatback. Install (a) (AM3628) liquid trunk line mounting bracket over carriage bolt. Replace 1/2” (1,3 cm) lock washer and hex nut.

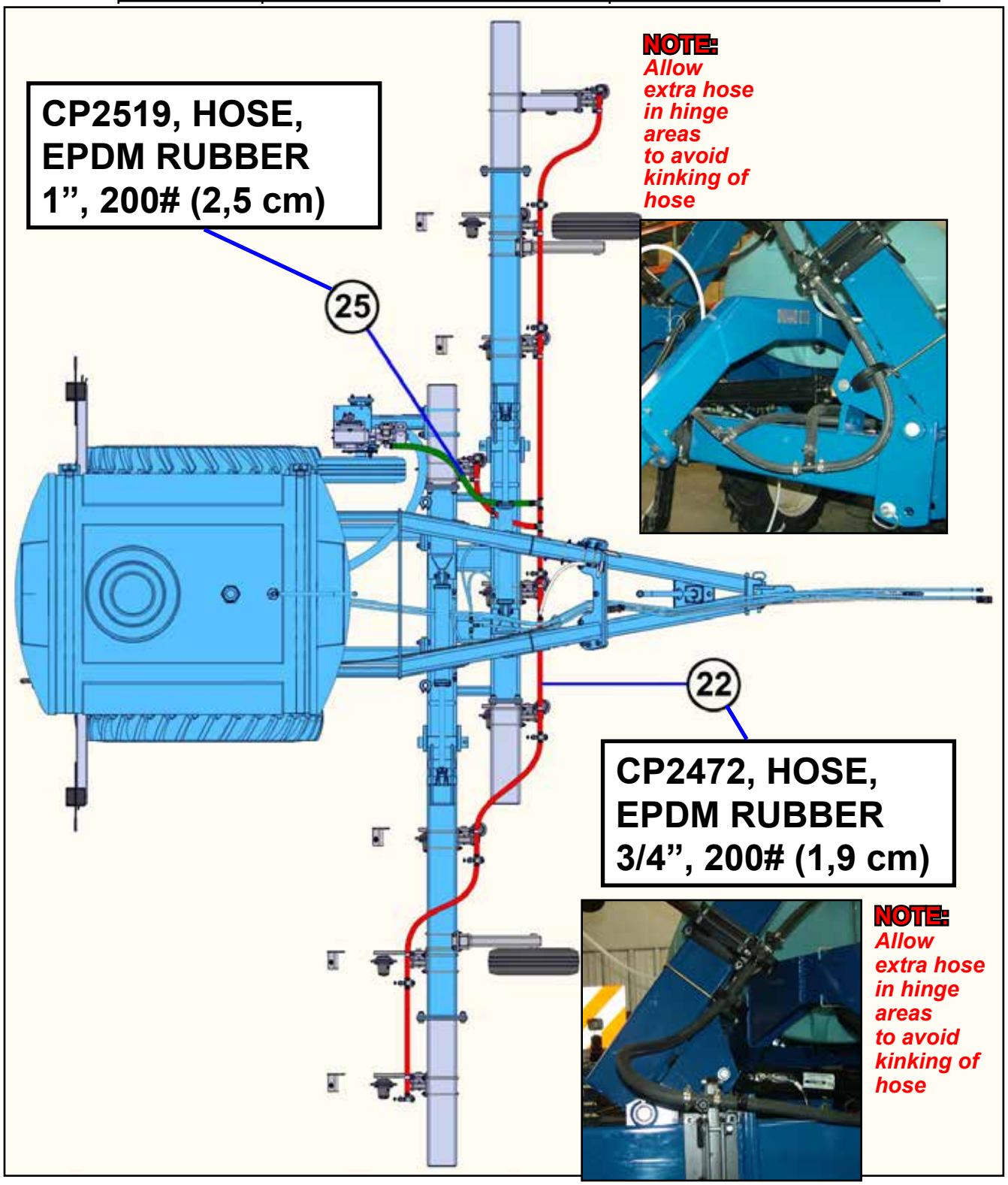
2. Attach (b) (AP3809) 1-1/4” (3,2 cm) hose support clamp to (a) with (c) (BP3006) 3/8” x 1” (9,5 mm x 2,5 cm) hex cap screw, (d) (BP3002) 3/8” (9,5 mm) lock washer, and (e) (BP3001) 3/8” (9,5 mm) hex nut,







BLU-JET	Manifold Assembly 3/4” (1,9 cm) (32000010)		
AT2000	Task	Procedures	Illustrations



NOTE: *Allow extra hose in hinge areas to avoid kinking of hose*

NOTE: *Start with the end row. Complete end row assembly. Secure end row with cable ties. Pull hose to next row and cut hose.*

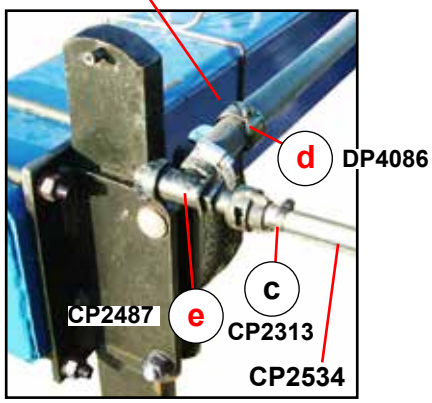
1. Work hose down toolbar frame through hose retainers and hose support clamps.

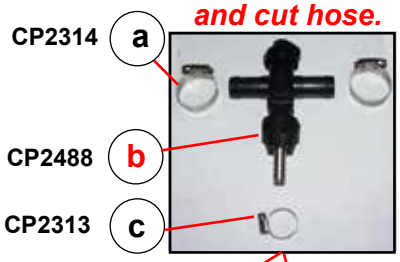
2. *Cut and complete each row assembly before cutting the next row.*
Cut 3/4" (1,9 cm) hose at each row. Place (a) (CP2314) 1/2" - 1" (1,3 cm - 2,5 cm) worm gear hose clamp over each end of the 3/4" (1,9 cm) hose. Insert (b) (CP2488) diaphragm check valve, double shank 3/4" (1,9 cm) hose into each end of the 3/4" (1,9 cm) hose. Secure with worm gear hose clamps.

3. Secure 3/4" (1,9 cm) hose to row (AP3809) 1-1/4" (3,2 cm) hose support clamp with (d) (DP4086) 11-3/8" (28,9 cm) cable ties.

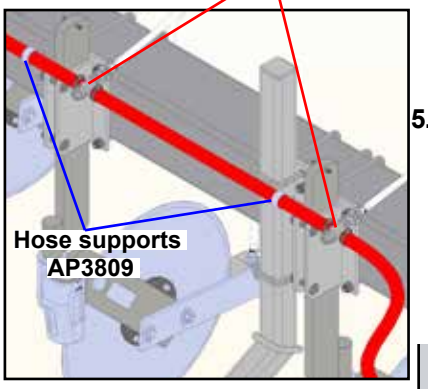
Hose support clamp

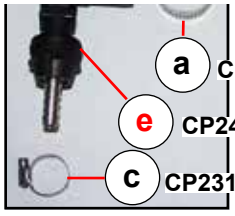
4. Trim hose on last rows and place (a) (CP2314) 1/2" - 1" (1,3 cm - 2,5 cm) worm gear hose clamp over end of the 3/4" (1,9 cm) hose. Install (e) (CP2487) diaphragm check valve single shank, 3/4" (1,9 cm) hose. Secure with worm gear clamp.

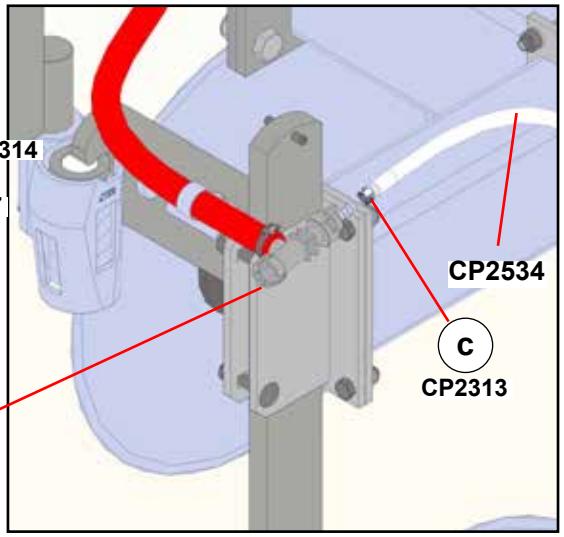


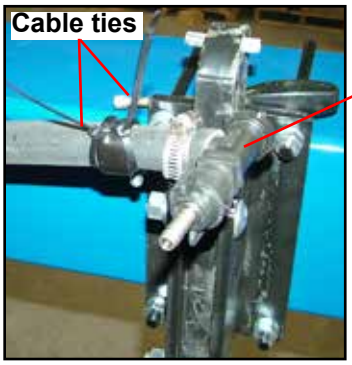


5. Attach (CP2534) 3/8" (9,5 mm) PVC 250# psi hose to check valve assembly with (c) (CP2313) stainless steel hose clamp 1/4"-5/8" (6,4 mm - 1,6 cm).

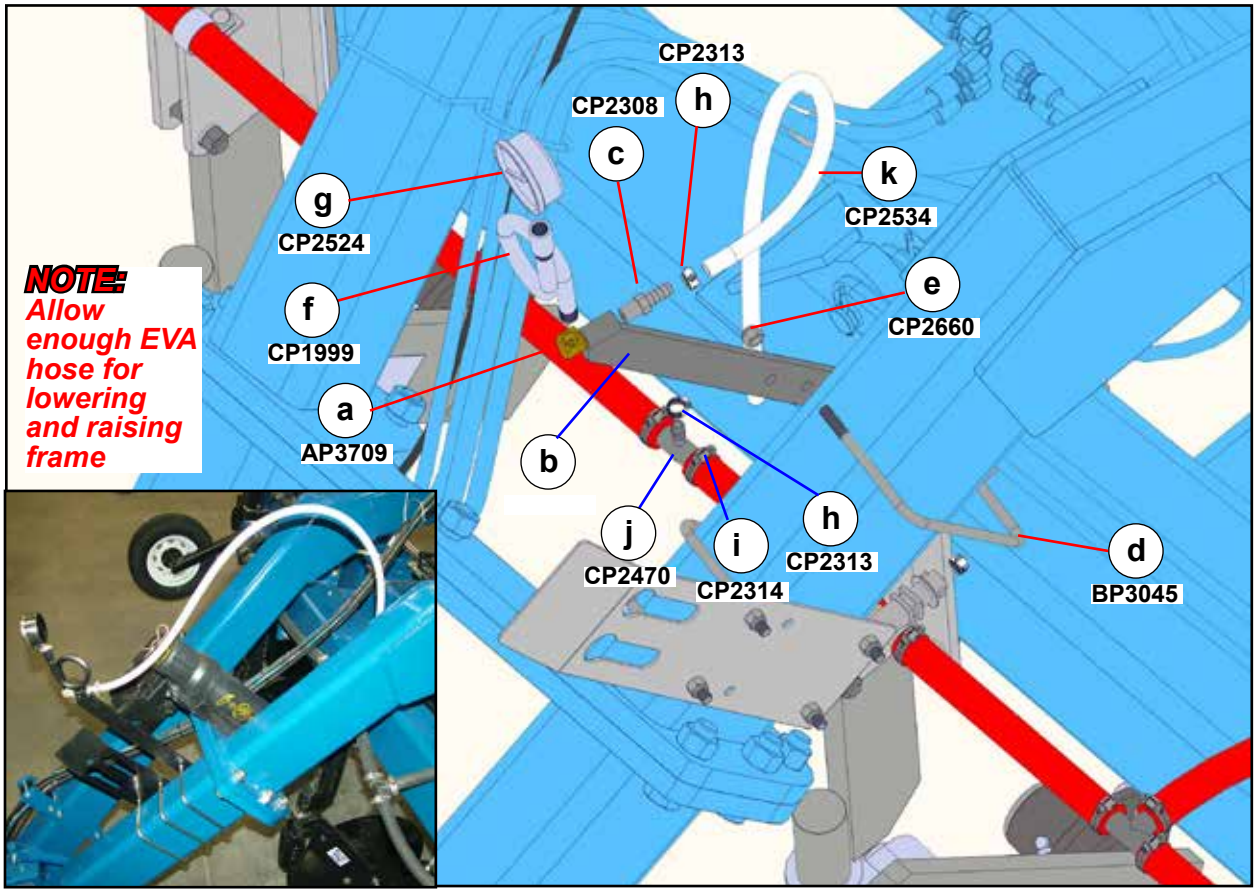






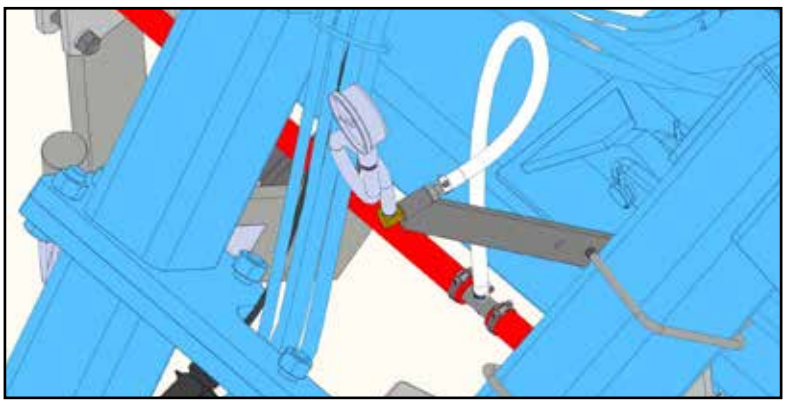


Assembly (Manifold Liquid Injection)



NOTE: *Allow enough EVA hose for lowering and raising frame*

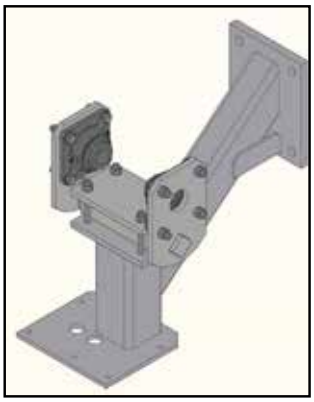
1. Tape pipe threads on (a) (AP3709) 1/4" (6,4 mm) 90 degree street elbow and install in (b) (cm2221) NH_3 tongue mount gauge holder.
2. Tape pipe threads on (c) (CP2308) hose barb and install in (b) (CM2221) NH_3 tongue mount gauge holder.
3. Attach (b) to left-hand tongue tube with (d) (BP3045) 3/8" x 6"W x 5"L (9,5 mm x 15,2 cm x 12,7 cm) u-bolt and (e) (CP2660) 3/8" (9,5 mm) hex lock nuts.
4. Tape threads of (f) (CP1999) pigtail gauge protector and install in (a).
5. Place two drops of any clear oil in top opening of (f).
6. Tape threads of (g) (CP2524) glycerin filled gauge and install in top port of pigtail gauge protector.
7. Cut 3/4" (1,9 cm) hose between center rows and place (i) (CP2314) worm gear hose clamps 1/2"-1" (1,3 cm - 2,5 cm) on each hose end.

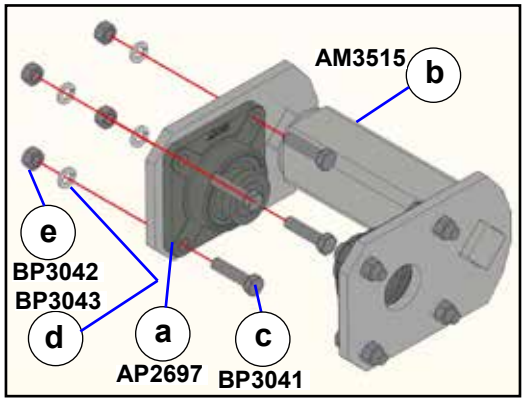


8. Insert (j) (CP2470) 3/8HB - 3/4HB - - 3/4HB (9,5 mm - 1,9 cm - 1,9 cm) tee into 3/4" (1,9 cm) hose. Point 3/8HB end up. Tighten worm gear clamps.
9. Place (h) (CP2313) worm gear hose clamp 1/4" - 5/8" (0,6 cm - 1,6 cm) on (k) (CP2534) 3/8" (9,5 mm) EVA hose. Install hose on tee. Tighten worm gear clamp. Extend EVA hose to (c).
10. Place (h) (CP2313) worm gear hose clamp 1/4" - 5/8" (0,6 cm - 1,6 cm) on (k) (CP2534) 3/8" (9,5 mm) EVA hose. Install on (c). Tighten worm gear clamp.

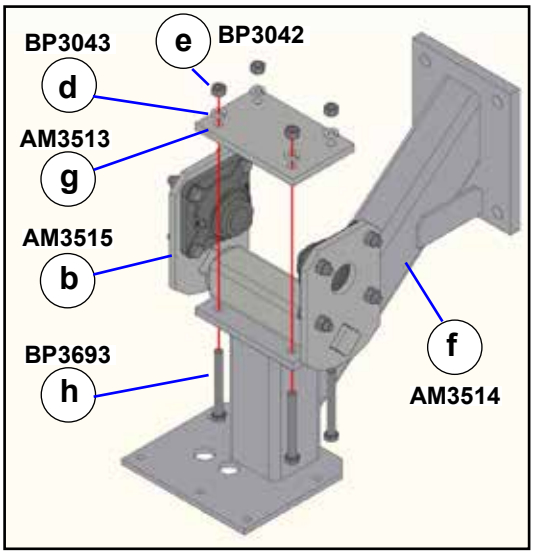
NOTE: *Left-hand and right-hand as viewed from the rear*

1. Attach (a) (AP2697) 1-1/2" (3,8 cm) Sq. 4 bolt flange & lock collar bearings to (b) (AM3515) axle pump drive mount with (c) (BP3041) 1/2" x 2" (1,3 cm x 5,1 cm) hex cap screws, (d) (BP3043) 1/2" (1,3 cm) lock washers and (e) (B3042) 1/2" (1,3 cm) hex nuts.



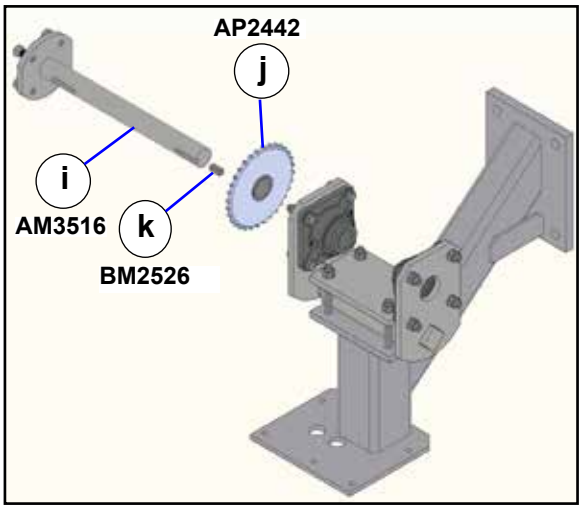


2. Pre-assembly the pump drive on the floor or bench. Attach (b) (AM3515) axle pump mount to (f) (AM3514) pump mount with (g) (AM3513) pump backing plate, (h) (BP3693) 1/2" x 4-1/2" (1,3 cm x 11,4 cm) hex cap screws, (d) (BP3043) 1/2" (1,3 cm) lock washers and (e) (BP3042) 1/2" (1,3 cm) hex nuts.

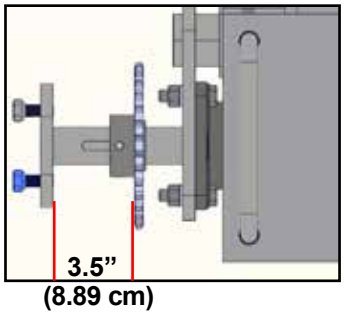


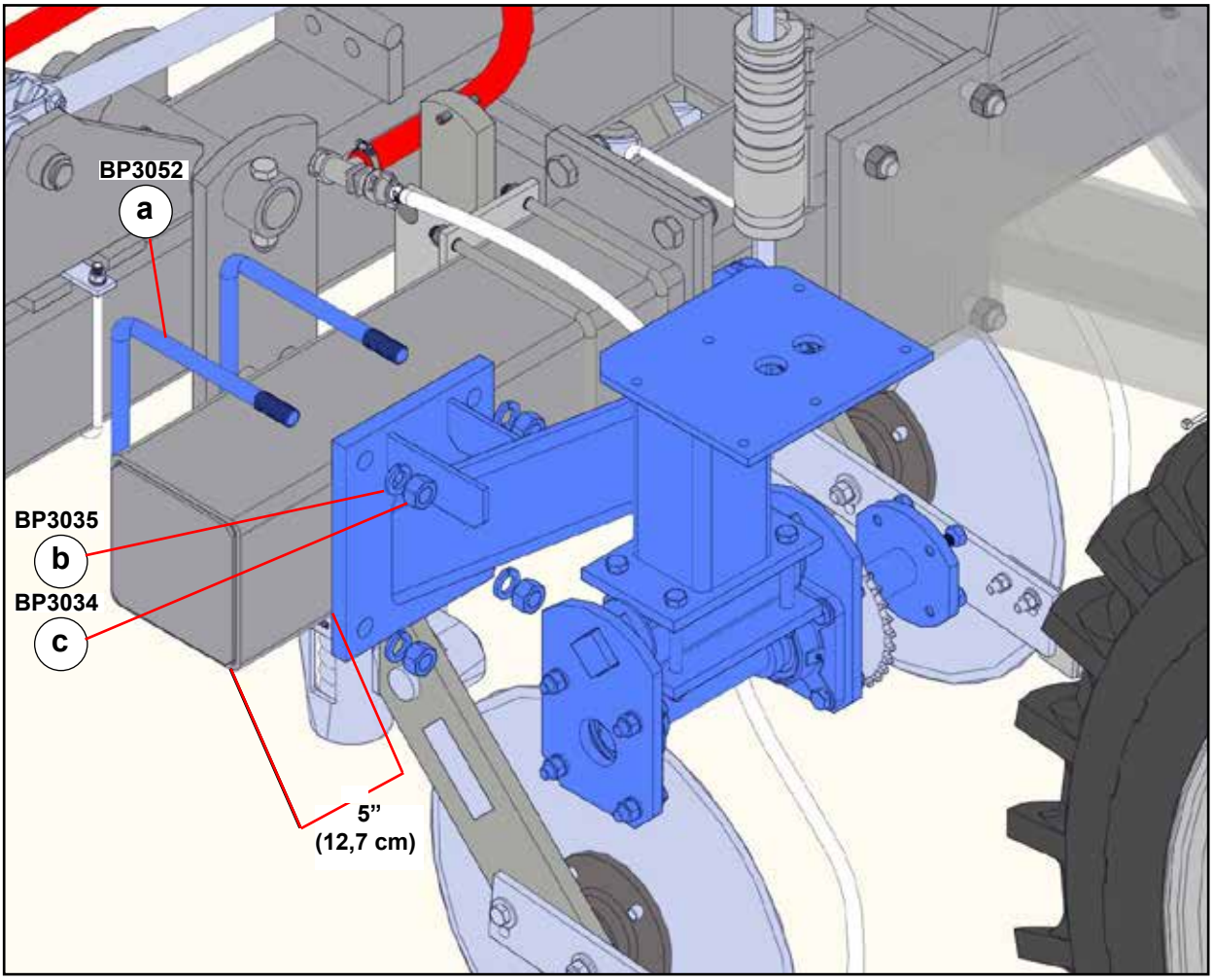
3. Apply anti-seize inside bearings and on end of wheel mount shaft. Install (j) (AP2442) 5032 x sprocket on shaft. Insert (i) (AM3516) pump drive wheel mount into pillow bearings. Place lock collars on shaft while inserting. ***Do not secure lock collars until wheel is centered on drive tire.***

4. Position the sprocket 3.5" (8.89 cm) from wheel plate. Insert (k) (BM2526) 3/8" x 3/8" (9,5 mm x 9,5 mm) key.



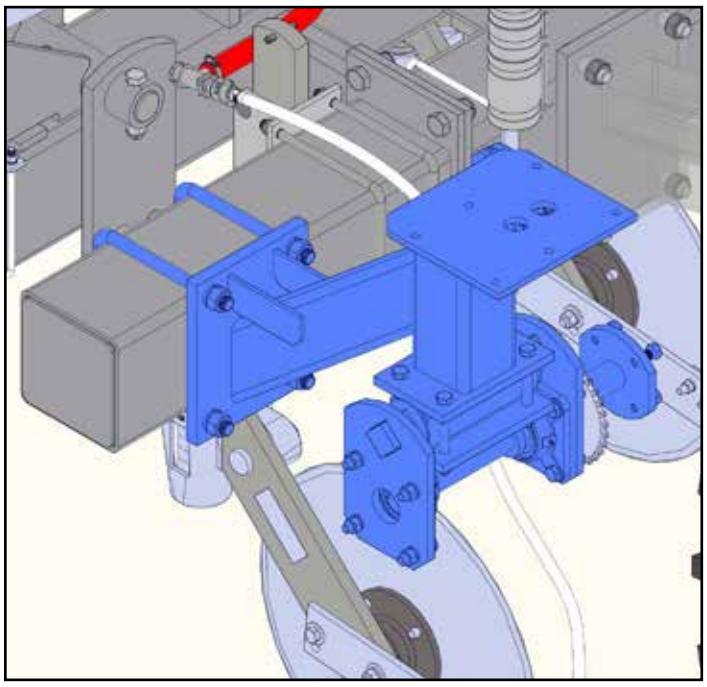
This is a starting point. Adjust sprocket when chain is installed.

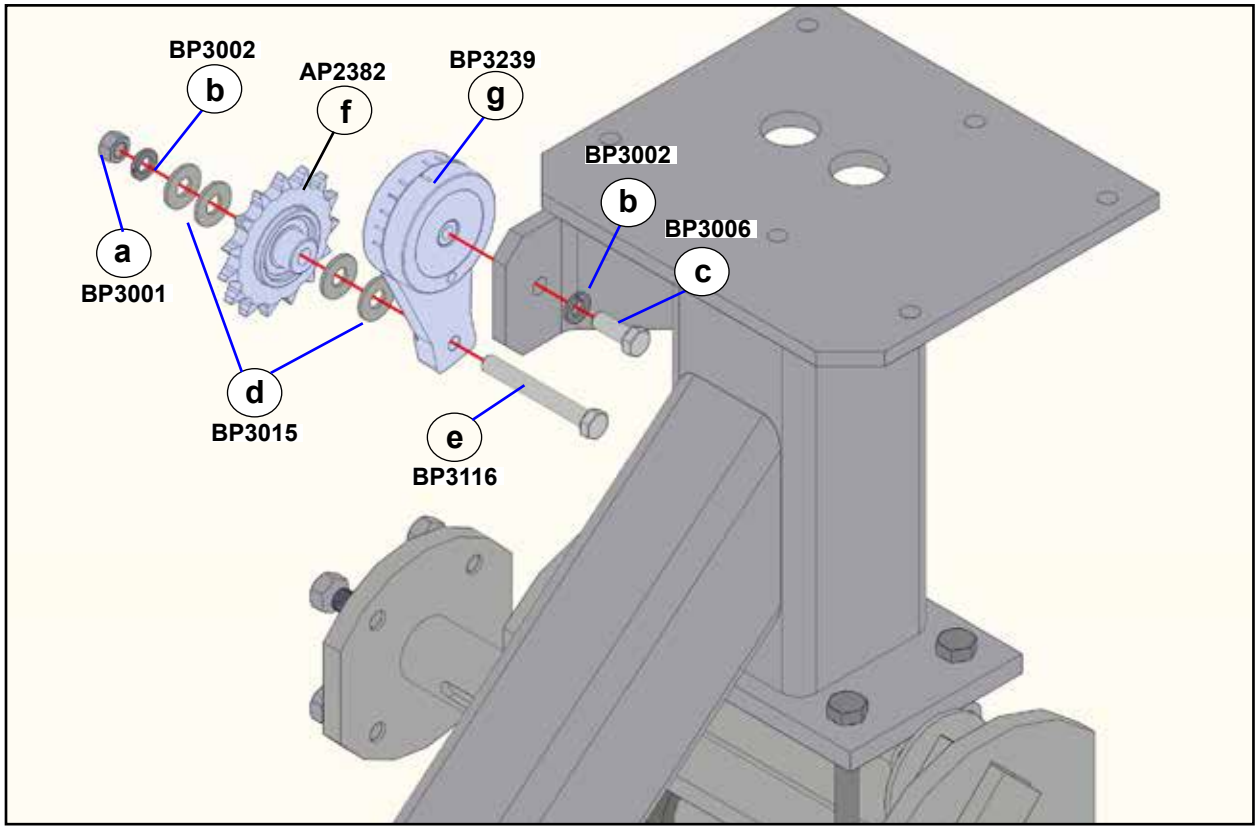


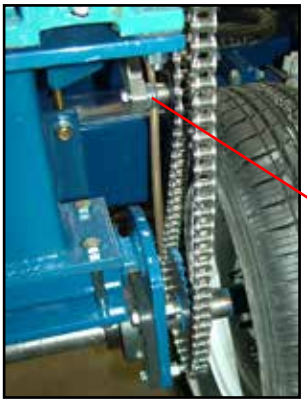


1. **Attach chain or lifting strap to pump assembly.**

2. **Raise assembly and mount to rear frame extension 5” (12,7 cm) from end of extension to mounting plate. Insert (a) (BP3052) 3/4” x 7”W x 9”L (1,9 cm x 17,8 cm x 22,9 cm) u-bolts. Secure with (b) (BP3035) 3/4” (1,9 cm) lock washers and (c) (BP3034) 3/4” (1,9 cm) hex nuts.**

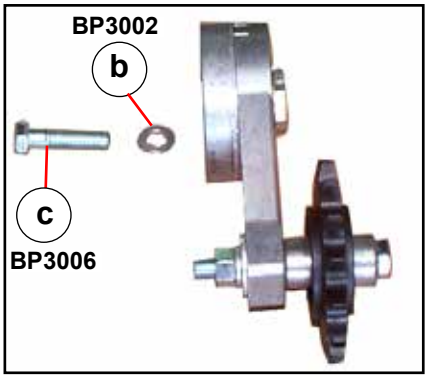






1. Place (b) (BP3002) 3/8” (9,5 mm) lock washer and (c) (BP3006) 3/8”-16 x 1” (9,5 cm x 2,5 cm) hex cap screw into tension arm mounting bracket.

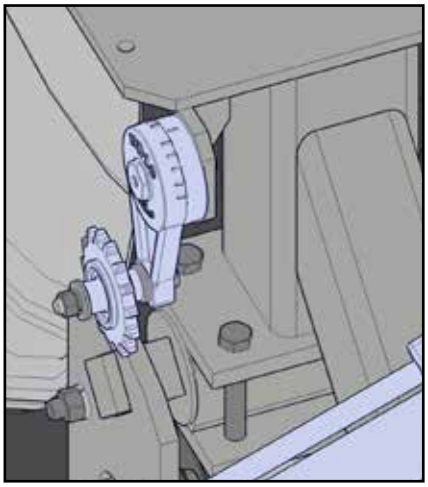
Flat washers



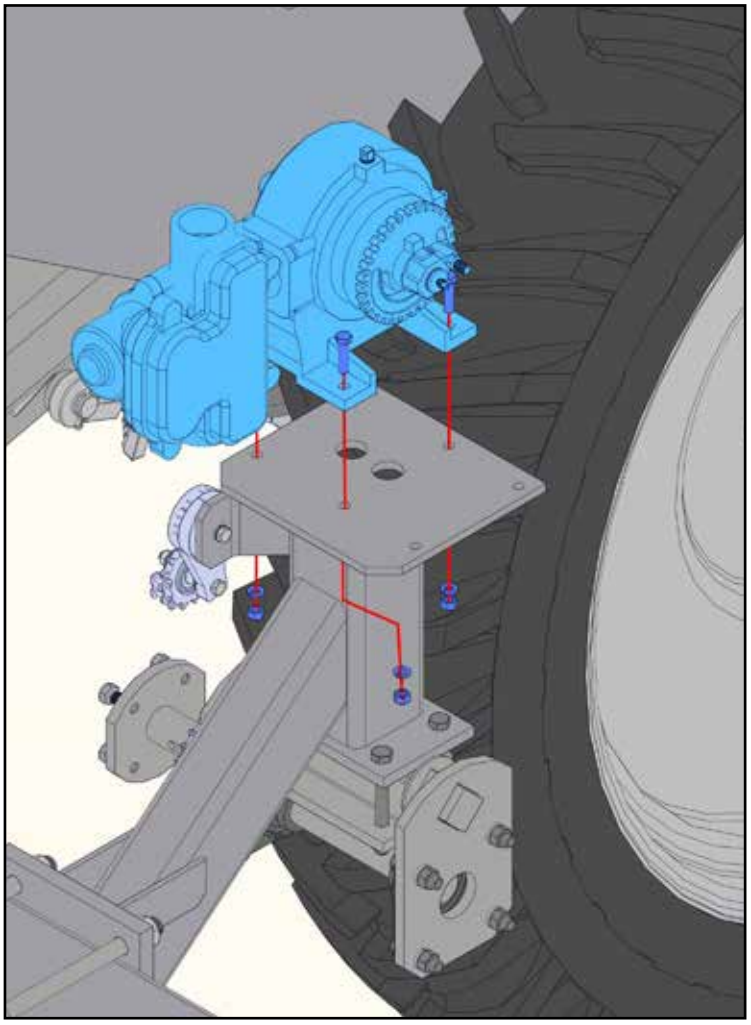
NOTE:
Flat washers are used to align the sprocket with the chain.

2. Install (g) (BP3239) tensioner RT 1002 on 3/8” (9,5 mm) hex cap screw and tighten.

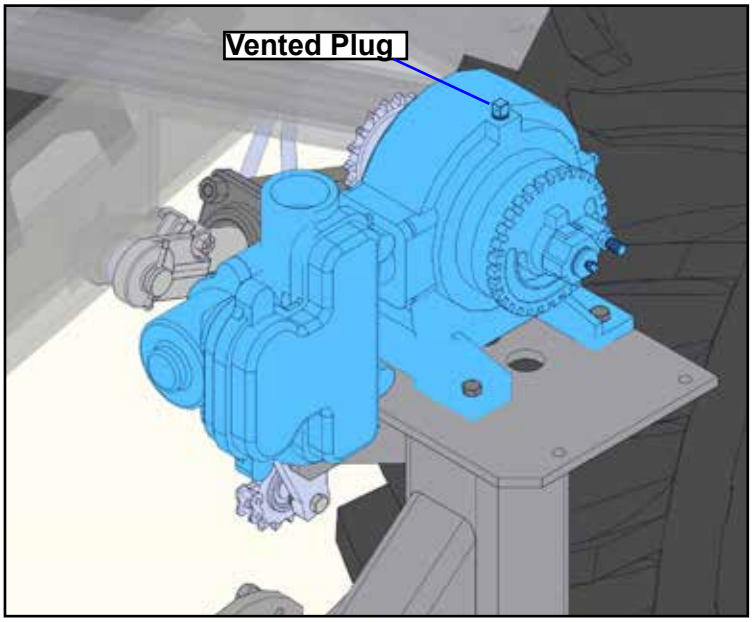
3. Insert (e) (BP3116) 3/8”-16 x 3” (9,5 mm x 7,6 cm) hex cap screw through (f) (AP2382) sprocket, idler 15T # 50 chain, w/clevis adapter, (d) (BP3015) 3/8” (9,5 mm) flat washers and tensioner. Secure with (b) (BP3002) 3/8” (9,5 mm) lock washer and (a) (BP3001) 3/8” (9,5 mm) hex nut.



1. **Place the pump on the pump mounting and secure with bolts included with pump.**
   - **3/8” x 1-1/2” (9,5 cm x 3,8 cm) hex cap screws,**
   - **3/8” (9,5 cm) lock washers**
   - **3/8” (9,5 cm) hex nuts)**

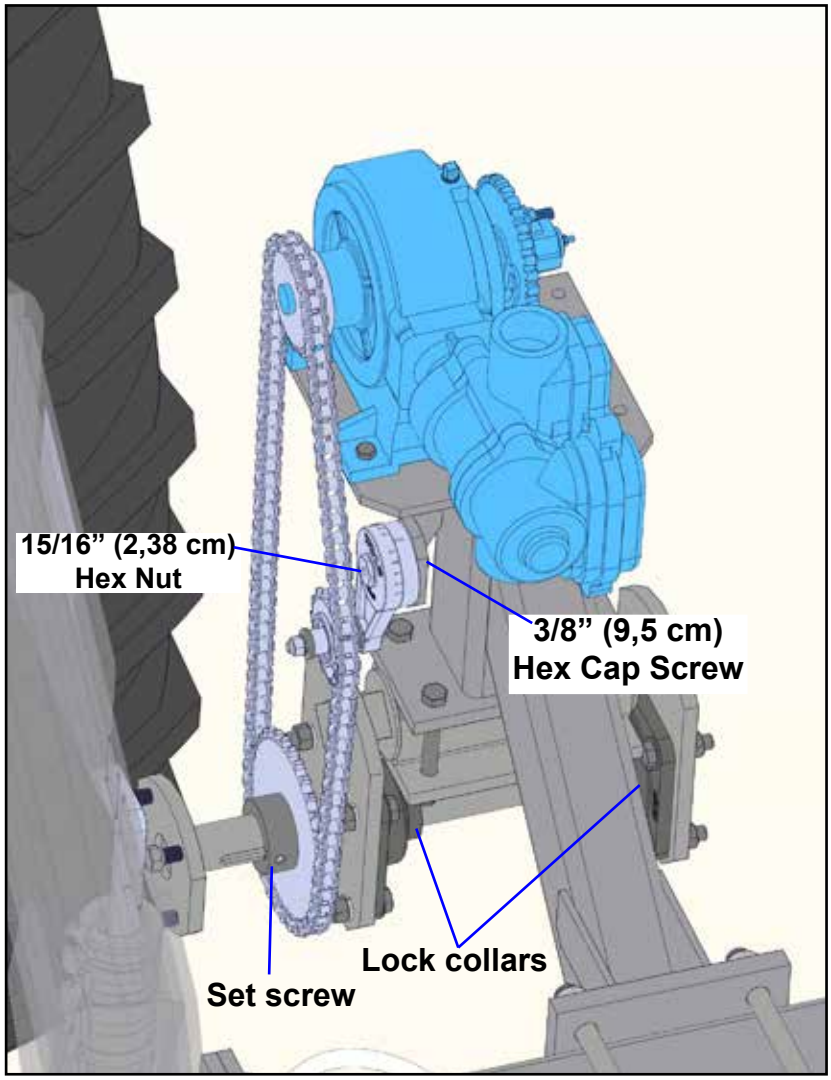


2. **Remove plug and replace with vented plug included with pump.**

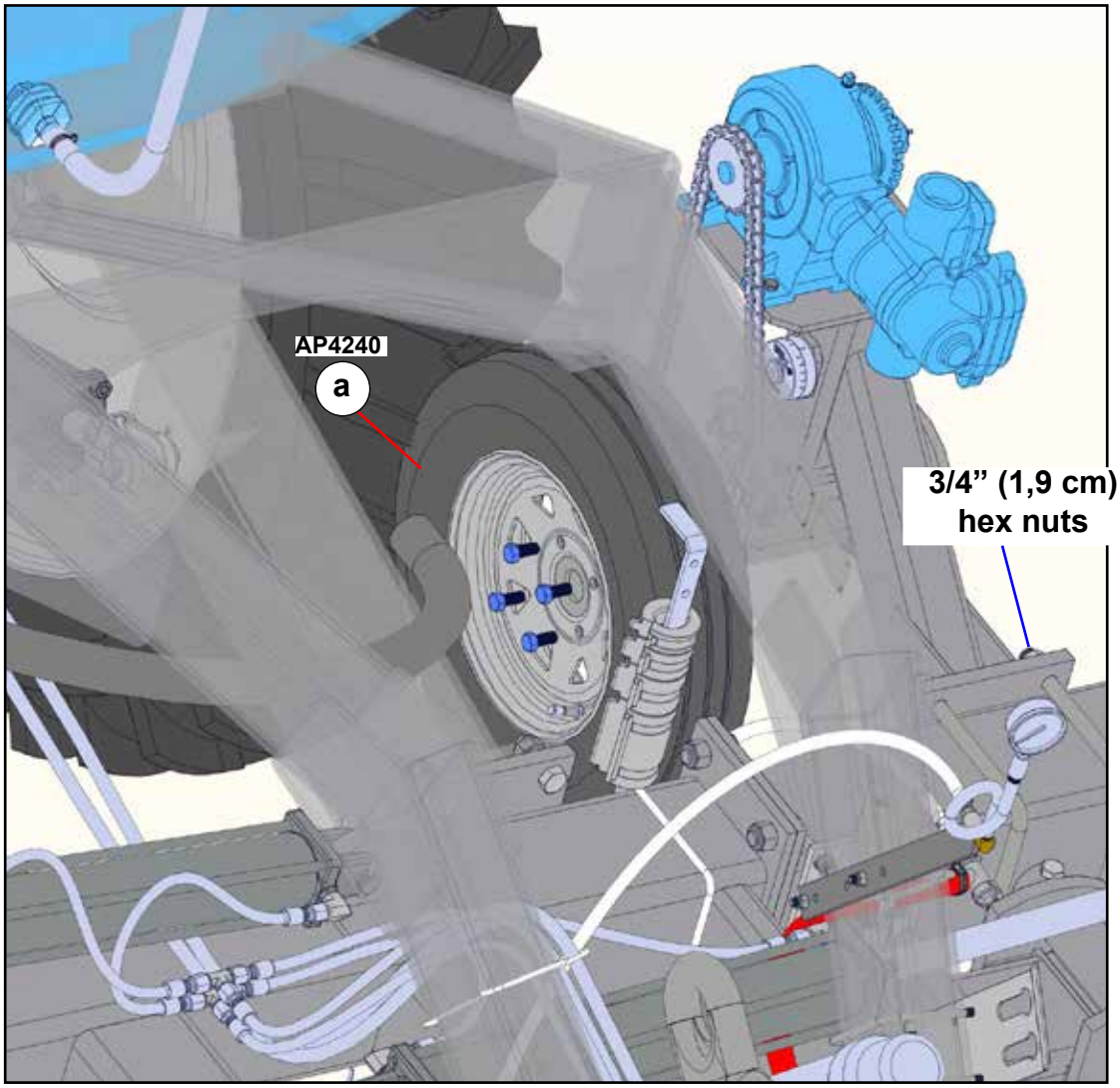


1. Place (a) (AP2783) roller chain, SS, #50, 94 pitch over pump sprocket, tensioner and around wheel drive sprocket.

2. Connect chain together with (AP2112) connector link #50.
3. Align chain on sprockets. Spin wheel to assure alignment and tighten tension arm mounting.
4. Secure lock collars and set screw on large sprocket.
5. Loosen 3/8” (9,5 cm) hex cap screw at the rear of the tensioner.
Place a 15/16” (2,38 cm) wrench on the hex nut on the tensioner.
Adjust the arm up until the center mark aligns with center mark on the arm. This is a starting point further adjustment may be needed later.



6. Tighten 3/8” (9,5 cm) hex nut at the rear of the tensioner bracket to lock adjustment in position.



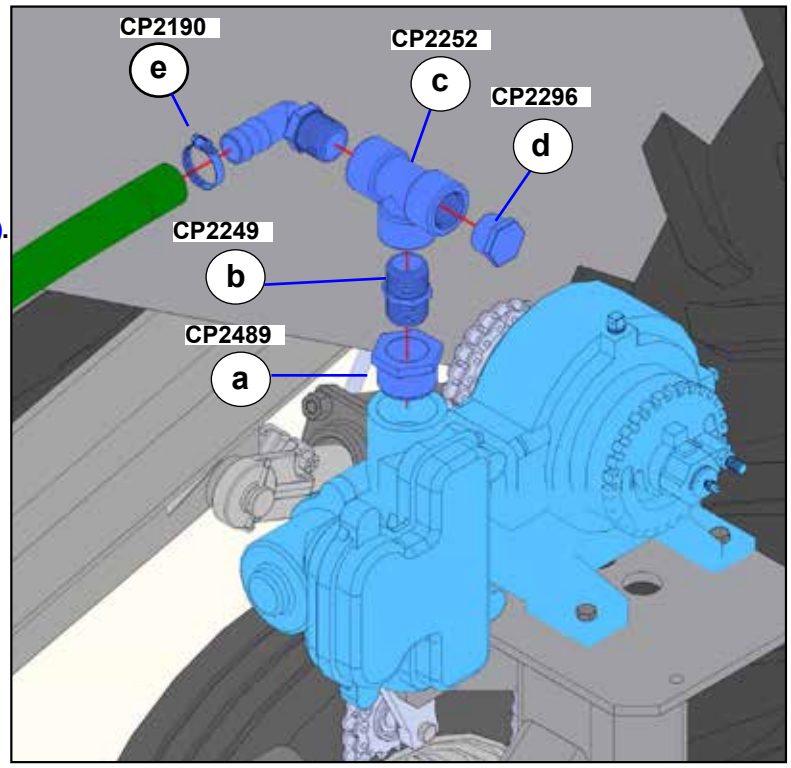
1. **Raise toolbar if wheel will not clear tractor tire.**

2. **Remove wheel bolts 1/2” x 1” (1,3 cm x 2,5 cm) from pump drive wheel mounting.**

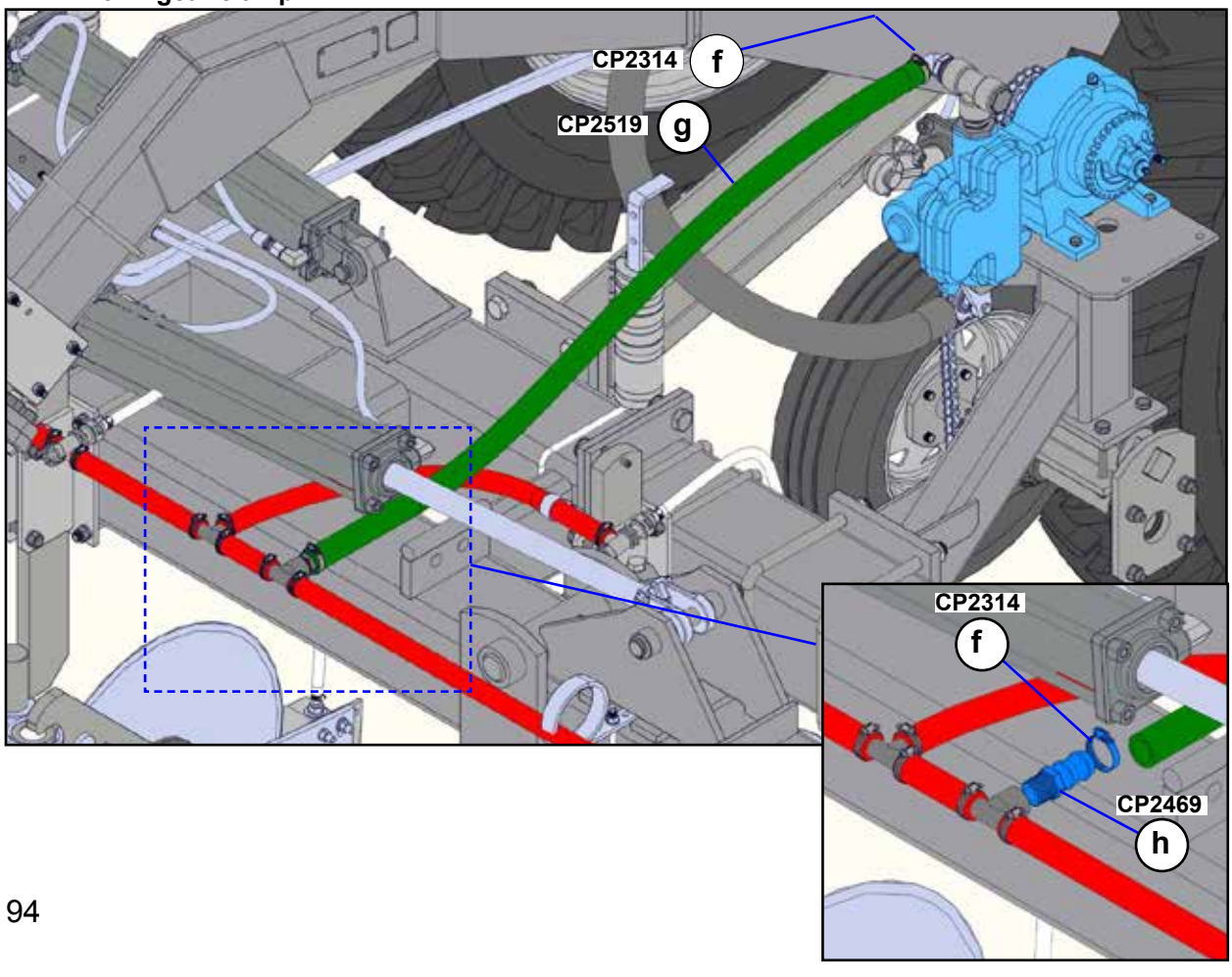
3. **Attach (a) (AP4240) 155/80R12, 4” (10,2 cm) wheel to pump drive mounting.**

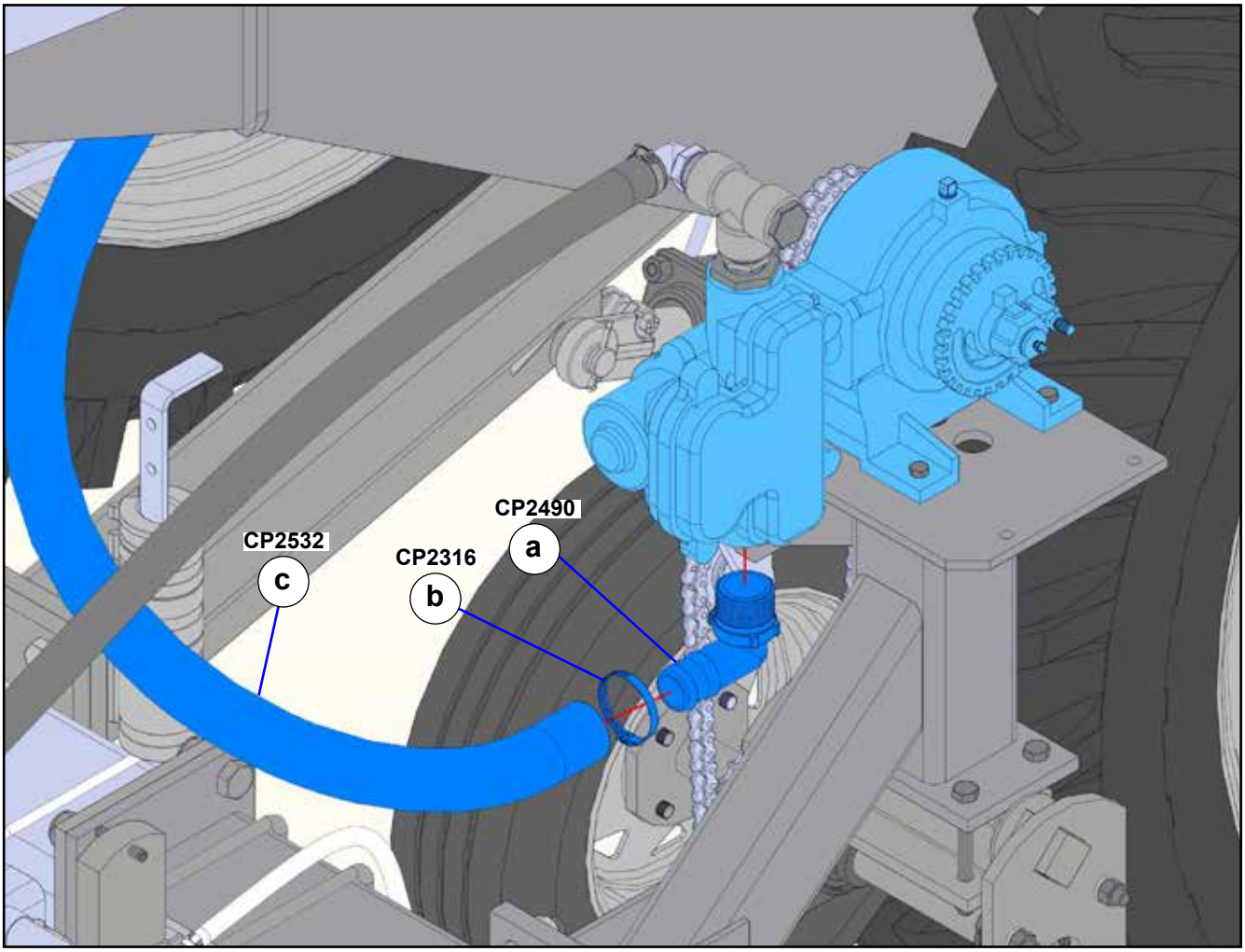
4. **Align assembly with drive tire and secure 3/4” (1,9 cm) hex nuts on mounting bracket.**

1. Apply sealant to (a) (CP2489) threads, 1-1/2” MP x 1” FP (3,8 cm x 2,5 cm) poly reducer bushing. Install in pump top port.
Apply sealant to (b) (CP2249) 1” (2,5 cm) poly close nipple install in (a).
Apply sealant to (c) (CP2252) 1” (2,5 cm) poly FP tee install on (b).
Apply sealant to (d) (CP2296) 1” (2,5 cm) poly pipe plug, install in end of (c).
Apply sealant to (e) (CP2190) 1” MPTx 1” HB (2,5 cm X 2,5 cm) 90 degree fitting, install in (c).
Place (f) (CP2314) 3/4” -1-1/2” (1,3 cm - 2,5 cm) worm gear hose clamp over (g) (CP2519) 1” (2,5 cm) suction hose and install on (e). Tighten worm gear clamp.

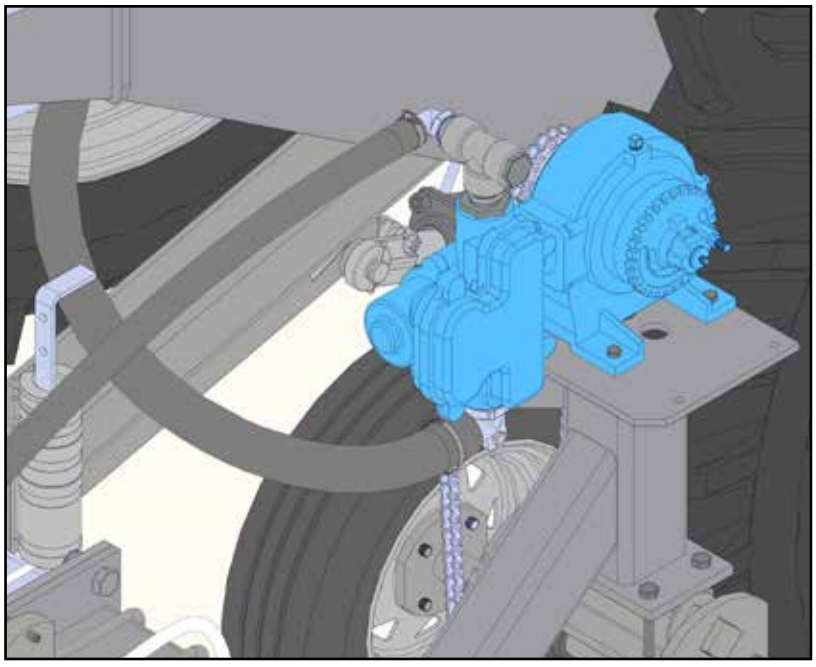


2. Extend (g) suction hose to (h) (CP2469) 3/4” MP-1” HP (1,9 cm x 2,5 cm) poly coupler and place (f) (CP2314) 3/4” -1-1/2” (1,3 cm - 2,5 cm) worm gear hose clamp over hose. Push hose on (h) and secure with worm gear clamp.



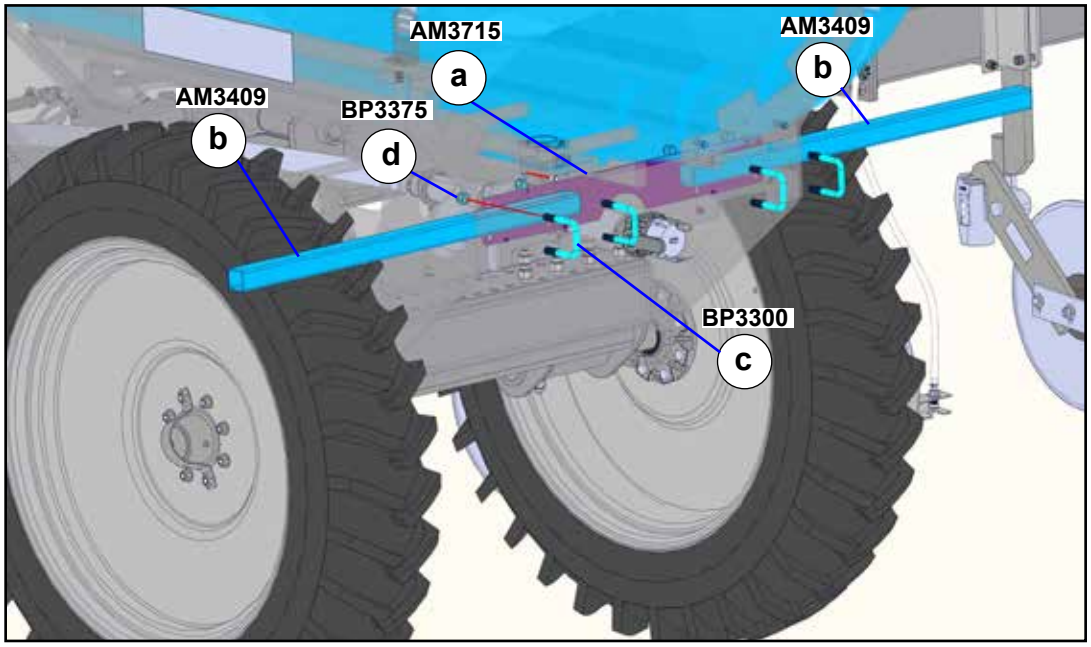


1. **Place sealant on (a) (CP2490) 1-1/2” MP x 1-1/2” (3,8 cm x 3,8 cm) HB 90 degree elbow. Install in bottom port of pump. Rotate elbow toward frame. Place (b) (CP2316) 1-1/2” - 2” (3,2 cm-5,1 cm) worm gear hose clamp over (c) (CP2532) 1-1/2” (3,8 cm) rubber 150# hose. Install on hose barb elbow. Secure hose with worm gear clamp.**

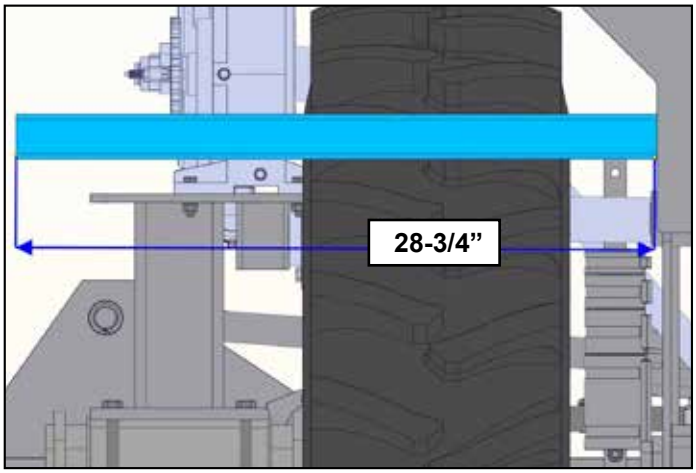


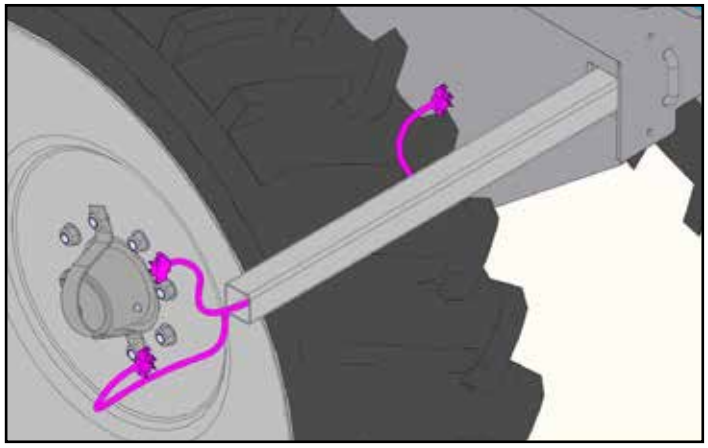
Light Kit Assembly

NOTE: *Left-hand and right-hand as viewed from the rear*



1. Position (a) (AM3715) backing plate over bottom fill plumbing hose.
2. Insert (b) (AM3409) light brackets into frame in front of the backing plate.
3. Insert (c) (BP3300) 5/8" x 2-1/2" x 4" (15,9 mm x 6,4 cm x 10,2 cm), u-bolts through frame, over tubes and into backing plate.
4. Install (d) (BP3375) 5/8" (15,9 mm) hex lock nuts, Nylock on each u-bolt. *Do not tighten until tubes are in position.*
5. Position light brackets 28-3/4" (73 cm) from the frame to the end of the tubes.
6. Tighten all hex cap screws.
7. Extend a wire from the end of the light tube to the center of frame. Tape the Amber light ends to the wire and pull through the tube.
8. Pull the Red wire end through the hole in the center of tube.
9. Repeat on the opposite side.

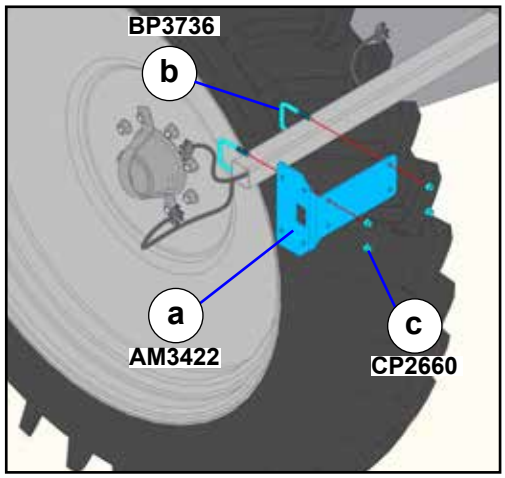




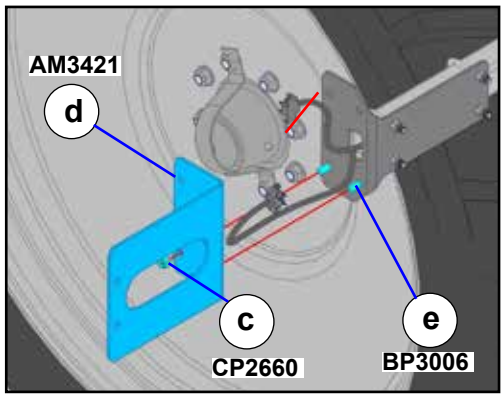
► **Light Kit Assembly**

► **NOTE:** *Left-hand and right-hand as viewed from the rear*

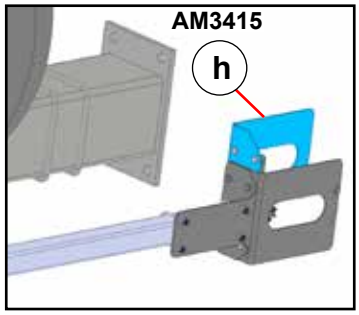
1. Install (a) (AM3422) side mount bar light bracket to end of tube with (b) (BP3736) 3/8" x 2" W x 3" L (9,5 mm x 5,1 cm x 7,6 cm), u-bolts and (c) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.

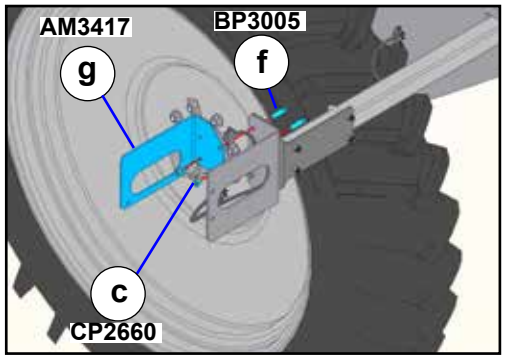


2. Attach (d) (AM3421) side mount light bracket to (a) with (e) (BP3006) 3/8" x 1" (9,5 mm x 2,5 cm) hex cap screws in the bottom holes of (a). Secure with (c) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.

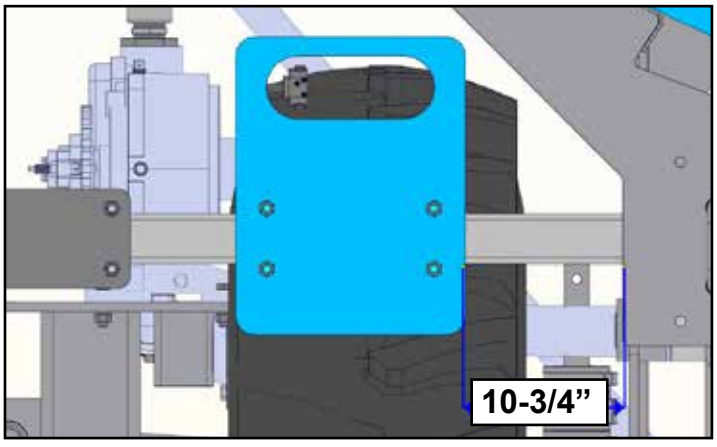


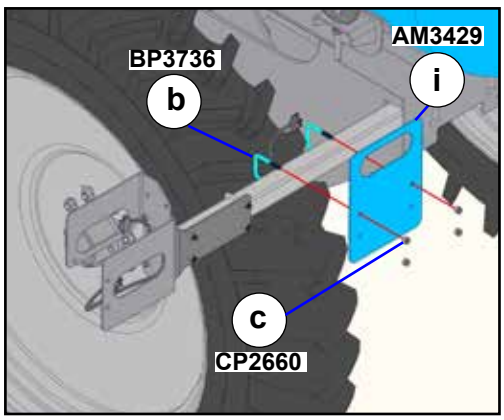
3. Insert (f) (BP3005) 3/8" x 1-1/2" (9,5 mm x 3,8 cm), grade 5, hex cap screws in top two holes of (a). Place (g) (AM3417) front right-hand light bracket and (h) (AM3415) left-hand light bracket over hex nuts. Secure with (c) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.





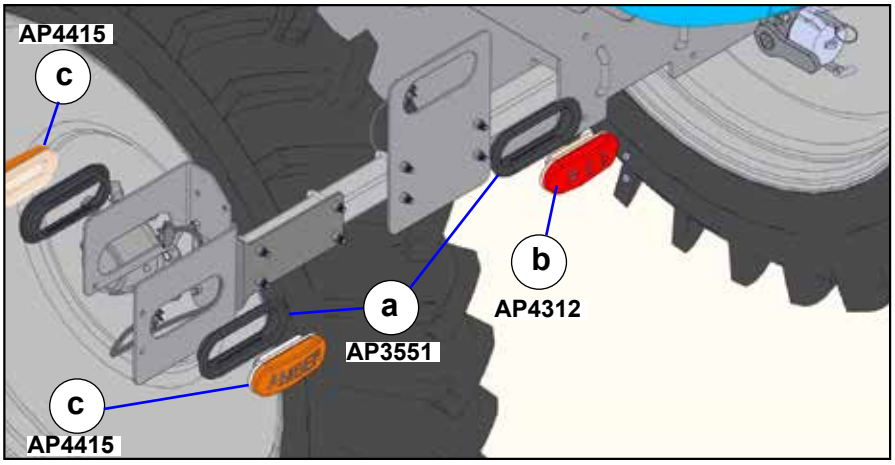
4. Attach (i) (AM3429) light mount to tube with (b) (BP3736) 3/8" x 2"W x 3"L (9,5 mm x 5,1 cm x 7,6 cm) u-bolts and (c) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.
Position light mount 10-3/4" (27,33 cm) from the side of the frame to light mount.

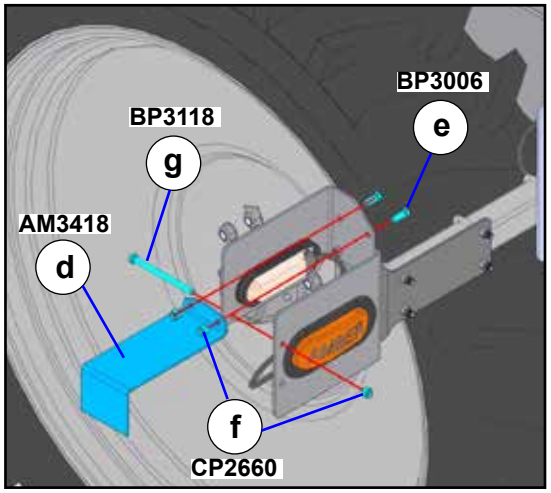


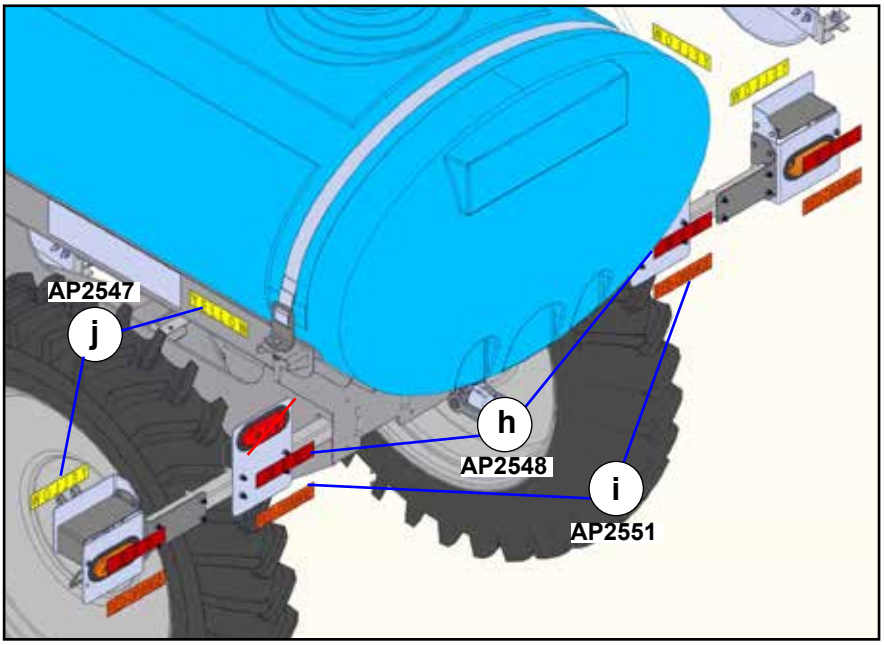


► Light Kit Assembly

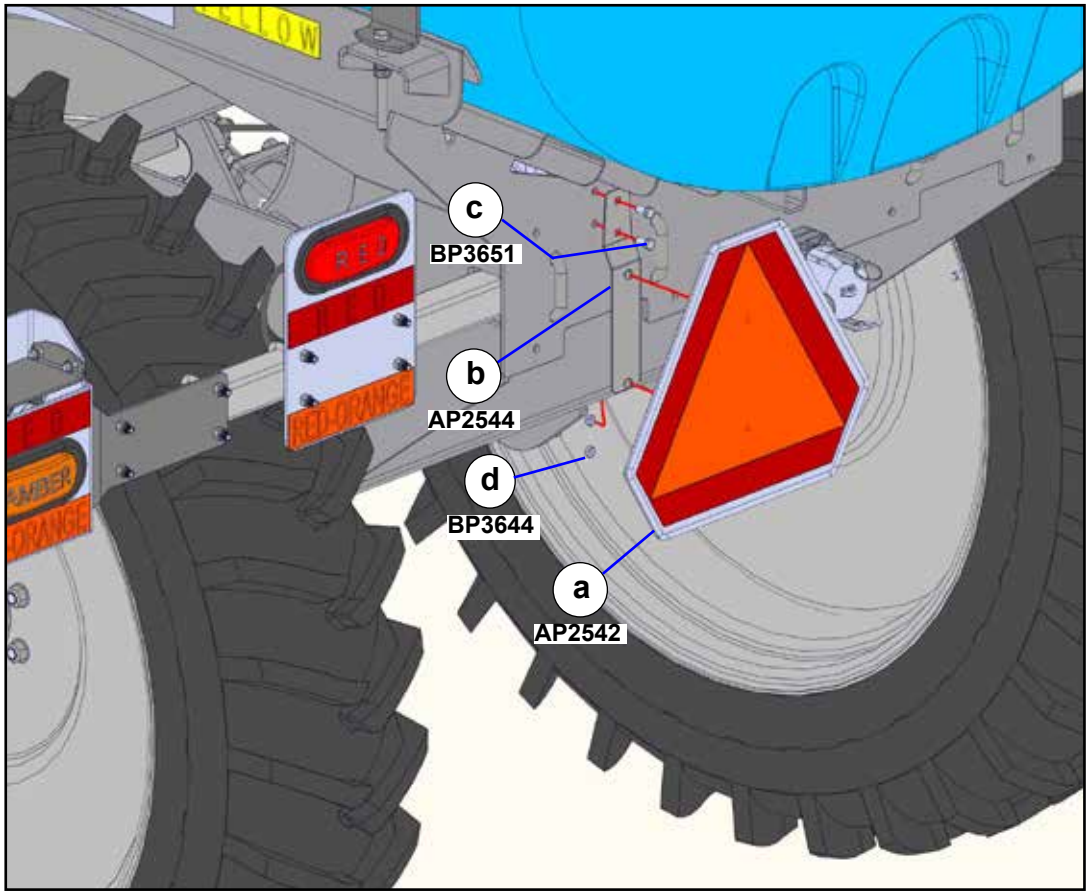
1. Insert (a) (AP3551) oval grommets into mountings.
2. Insert (b) (AP4312) Red lamp into inside grommets. Attach wiring harness connector.
3. Insert (c) (AP4415) Amber lamps into outside brackets. Attach wiring harness connectors.
4. Attach (d) (AM3418) light shield bracket to light assembly with (e) (BP3006) 3/8" x 1" (9,5 mm 2,5 cm) hex cap screws and (f) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.
5. Insert (g) (BP3118) 3/8" x 5" (9,5 mm x 12,7 cm) hex cap screw through tractor side hole and secure with (f) (CP2660) 3/8" (9,5 mm) hex lock nuts, Nylock.
6. Attach (h) (AP2548) 2" x 9" (5,1 cm x 22,9 cm) Red reflector below the Red lamp and above the Amber
7. Attach (i) (AP2551) 2" x 9" (5,1 cm x 22,9 cm) Red-Orange reflector below the Red reflector and below the Amber lamp.
8. Install (j) (AP2547) 2" x 9" (5,1 cm x 22,9 cm) Yellow reflector above the tractor side Amber lamps and on the side of the main





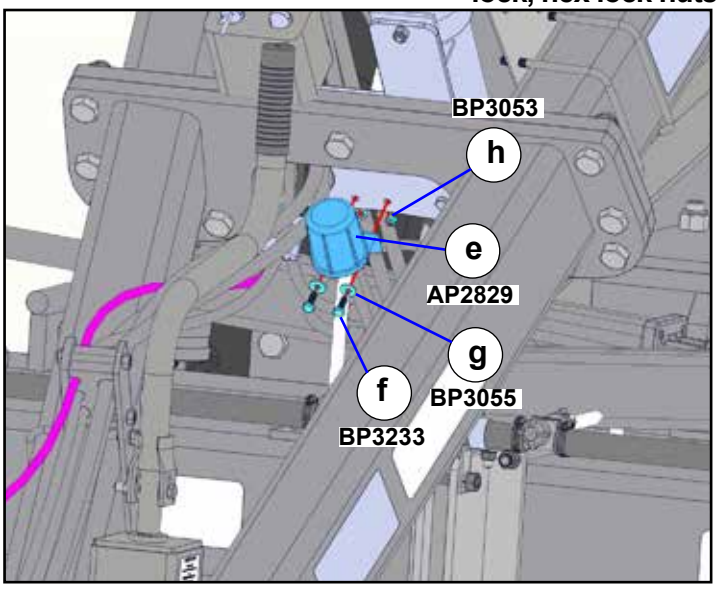


► **SMV Mounting**



1. Mount (a) (AP2542) SMV sign to (b) (AP2544) SMV mounting spade with hardware provide with SMV sign.

2. Attach SMV assembly to frame with (c) (BP3691) 5/16" x 3/4" (7,9 mm x 1,9 cm) grade 5, hex cap screws and (d) (BP3644) 5/16" (8 mm) top lock, hex lock nuts.



3. Attach (e) (AP2829) dust cap to tongue mounting with (f) (BP3233) 1/4" x 3/4" hex cap screws, (g) (BP3055) 1/4" flat washers, (h) (BP3053) 1/4" hex nuts.

Safety Tank Mounting

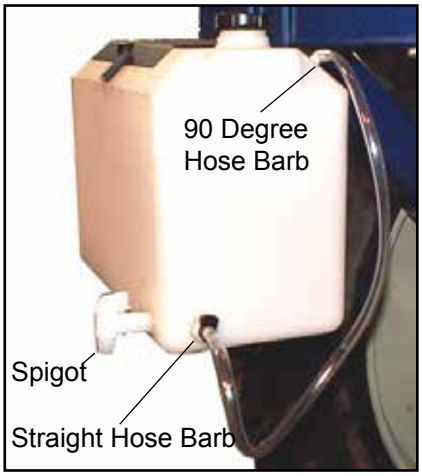
AT2000	Task	Procedures	Illustrations

Mounting safety tank

1. **Attach two (b) (AM4421) 9 gallon tank mounting brackets to (a) (AP2137) 9 gallon fresh water safety tank with six (e) (BP3159) 5/16” (7,9 mm) flat washers, (d) (BP3158) 5/16” (7,9 mm) lock washers and (c) (BP3108) 5/16” x 1” (7,9 mm x 2,5 cm hex cap screws.**

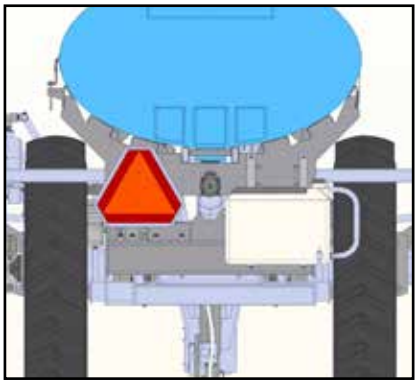
2. **Place sealant on tank spigot and install in the front of the tank.**
   Place sealant on hose barbs and install top and bottom.
   Place hose clamp on clear hose and attach to bottom tank hose barb.

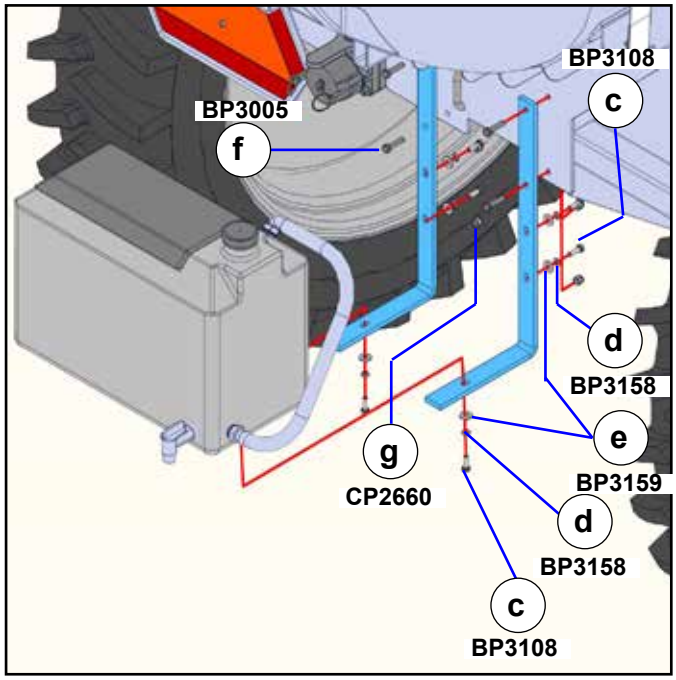
The top hose barb does not require a clamp.

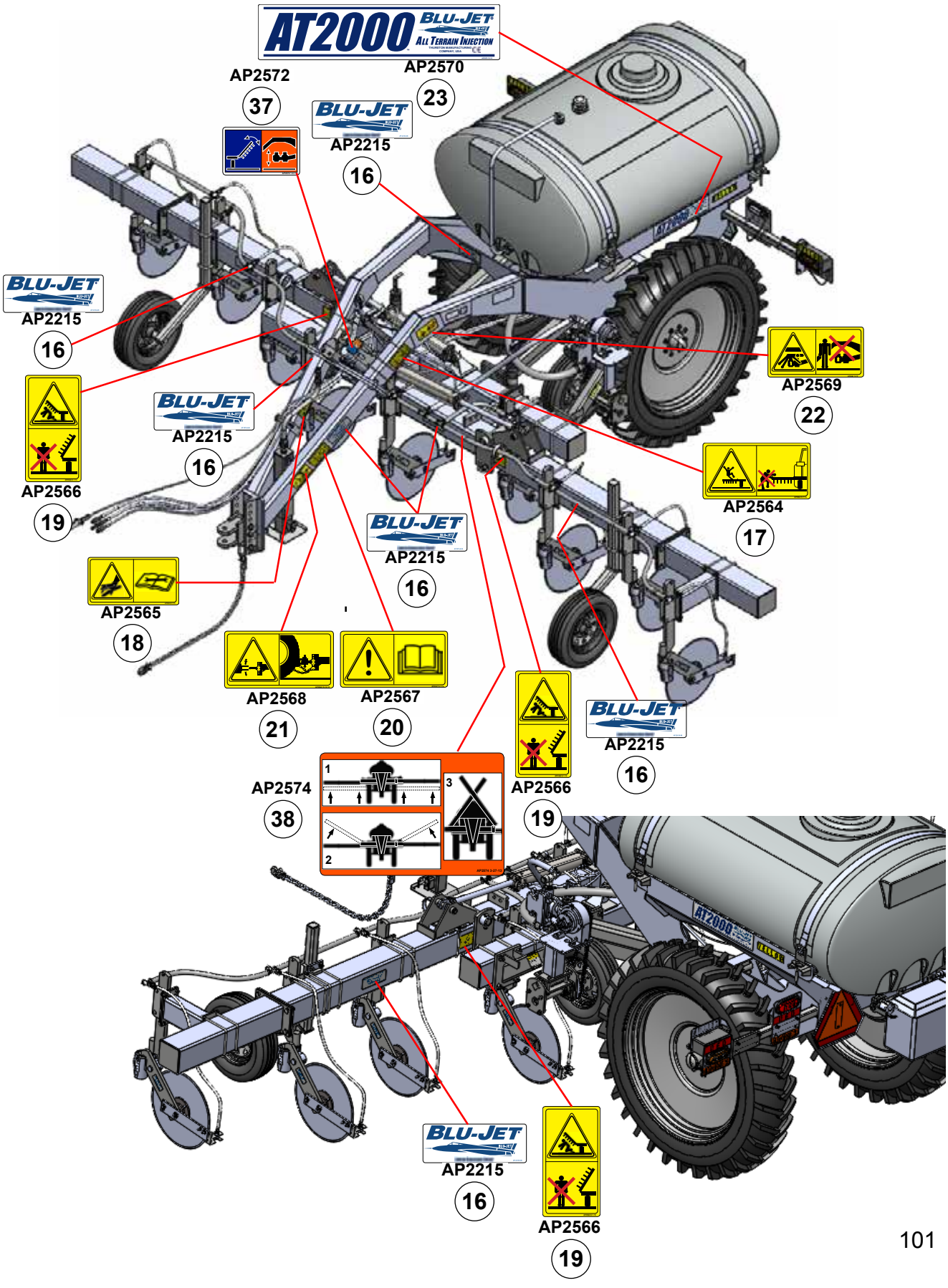


3. **Attach tank on the right-hand side with four (f) (BP3005) 3/8” x 1-1/2” (9,5 mm x 3,8 cm hex cap screws, inserted from the outside.**
   Secure with (g) (CP2660) 3/8” (9,5 mm) hex lock nuts, Nylock.

NOTE:
Right-hand and left-hand as viewed from the rear






AP2572
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AP2570
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AP2215
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AP2215
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AP2569
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AP2566
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AP2215
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AP2564
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AP2215
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AP2565
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AP2568
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AP2567
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AP2574
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AP2566
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AP2215
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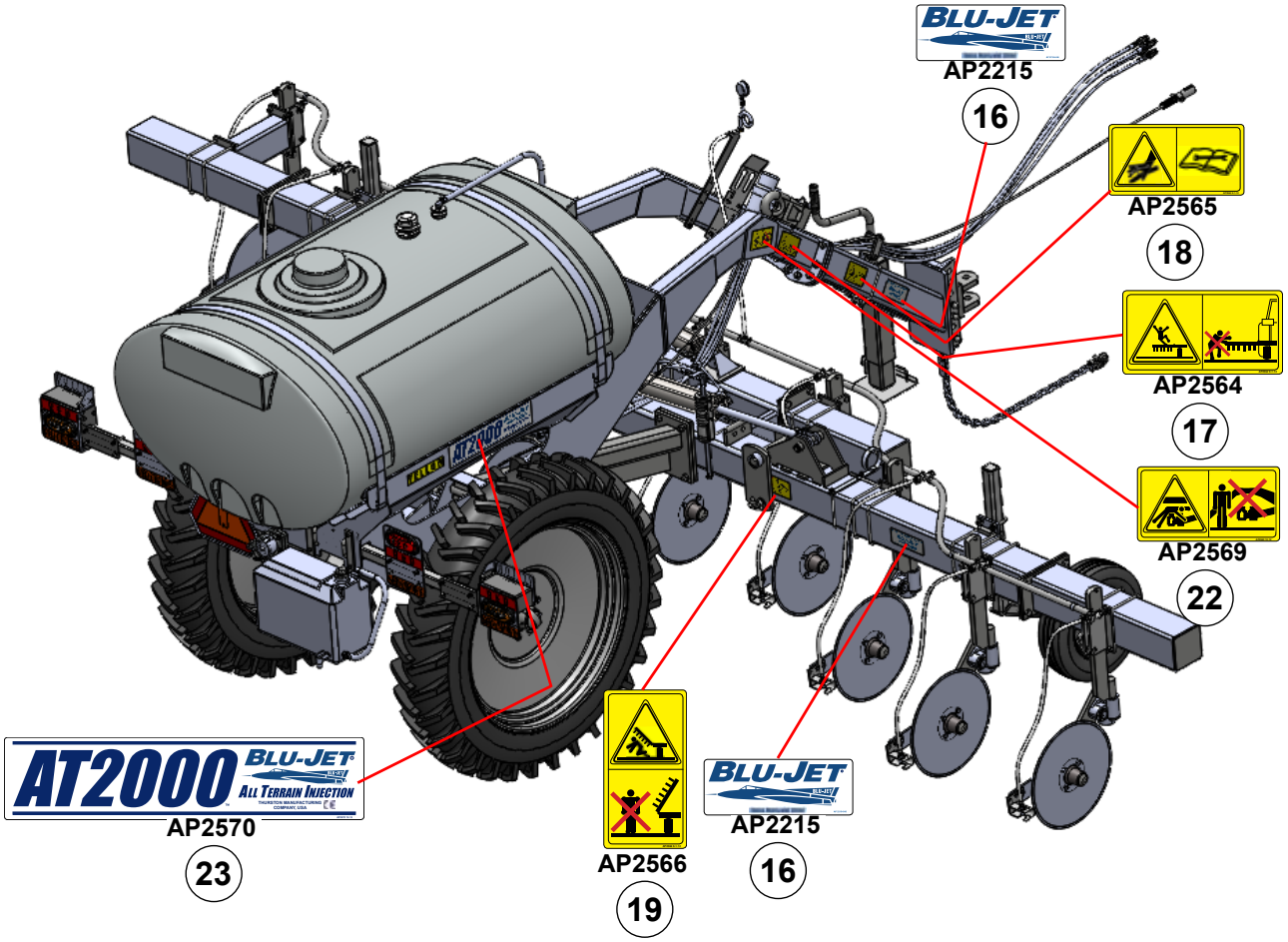
AP2215
16
AP2566
19

BOM ID	Qty	Item No	Description
16	9	AP2215	DECAL, BLU-JET, 3” X 8” (7,6 cm X 20,3 cm)
17	2	AP2564	DECAL, SAFETY PICTORIAL, FALLING FROM EQUIPMENT
18	2	AP2565	DECAL, SAFETY PICTORIAL, HIGH PRESSURE FLUID
19	4	AP2566	DECAL, SAFETY PICTORIAL, FALLING WING
20	1	AP2567	DECAL, SAFETY PICTORIAL, READ OPERATOR’S MANUAL
21	1	AP2568	DECAL, SAFETY PICTORIAL, SAFETY CHAIN
22	2	AP2569	DECAL, SAFETY PICTORIAL, CRUSHING HAZARD
23	2	AP2570	DECAL, AT2000
37	1	AP2572	DECAL, HYDRAULIC CIRCUITS, AT2000
38	1	AP2574	DECAL, RAISE CENTER BEFORE FOLDING



Tie-rod Cylinder Disassembly - Assembly Procedure

AT2000

With cylinder removed from machine, clean, drained of oil and fully retracted, proceed as follows:

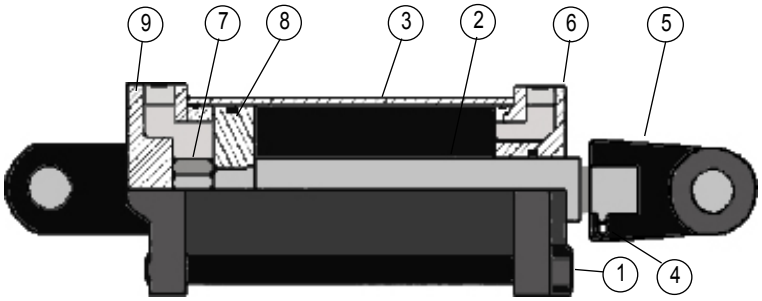
Disassembly:

1. **Secure cylinder in vice or other method to prevent rotation. With the immediate area clean of dirt so parts can be laid out.**
2. **Remove tie-rod nuts, item (1).**
3. **Pull rod assembly from cylinder. Remove tube item (3).**
4. **Loosen nut, item (4), and remove clevis, item (5), from rod assembly.**
5. **Place rod assembly in vice with copper or brass jaws so as not to damage.**
6. **Remove all seals from items (6), (8), and (9) for replacement. Clean and inspect all parts, for damage (nicks, scratches, cracks and etc.) replace as necessary. If you have any question please contact Prince Hydraulics 1-(712)-235-1220.**

Reassembly:

1. **Replace all seals in items (6), (8), and (9). Do not replace small O-ring on ID of piston item, (8) until ready to attach rod, item (2).**
2. **Place small ID O-ring seal for piston over rod turndown and apply light coat of grease to seal. Slip piston, item (8) onto turndown with ID counter bore towards rod shoulder. Take care not to pinch O-ring between piston and rod shoulder. Replace nut, item (7), and secure.**
3. **Apply light coat of grease to seals in gland, item (6), and slip gland over rod end, carefully so as not to damage seals. Slip entire assembly into lightly oiled tube, item (3), piston first. Insure tube slips up over OD seals of gland.**
4. **Take total assembly in step 3 and slip tube over OD seal on butt, item (9). Align ports in butt and gland and apply nuts, item (1), to tie-rods and toque uniformly.**
   Tierod
   3/8" (9,5 mm) tierods 20-23 lb-ft (27-31 Nm)
   1/2" (12,7 mm) tierods 45-52 lb-ft (61-70 Nm)
   5/8" (1,6 cm) tierods 95-105 lb-ft (129-142 Nm)
   3/4" (1,9 cm) tierods 150-165 lb-ft (203-224 Nm)

5. **Test for leaks and reinstall in machine. If you have any problems contact Prince Hydraulics 1-(712)-235-1220.**



WARNING Make sure you perform the required service and adjustments correctly. Failure will damage machine or injure operator.

6. **The hydraulic system MUST have the air removed from the system after initial machine set-up or following the repair of replacement of any part of the system.**

7. **Connect implement to the tractor drawbar correctly before operating or making any adjustments.**

MFG # / TMC #	Bore/ Stroke	Repair Kit	Clevis	Butt	Gland	Piston
SAE-33006 / DP 4516	3" X 6" (7,6 cm x 15,2 cm)	PMCK-SAE-33000 / DP4308	100000423 / DP4116	141500043 / DP4250	081500323 / DP4324	071500244 / DP4330
SAE-33020SP / DP 4492	3" X 20" (7,6 cm x 10,8 cm)	PMCK-SAE-33000 / DP4308	100000423 / DP4116	141500043 / DP4250	081500323 / DP4324	071500244 / DP4330

MFG # / TMC#	Piston Rod	Barrel	*4 Req* Tie Rod	*2 Req* Clevis Pin	*4 Req* Cotter Pin
SAE-33008 / DP 4516	010711750A / DP4678	0515080563A / DP4679	170201102 / DP4680	190400001 / BP3403	220001504 / BP3511
SAE-33020SP / DP 4492	010700437 / DP4441	051500013 / DP4442	170201241 / DP4443	190400001 / BP3403	220001504 / BP3511

Tank
Tank.....525 Gallon (2000 Liter) Elliptical

Hitch
Drawbar Connection.....Category III Cast Tongue

Safety Chain
Safety Chain.....20,000 lbs. (9000 Kg)

Hydraulics
Center Section Lift Cylinders.....Two 3” x 6” (7,6 cm x 15,2 cm) 3000 PSI (20700 kPa) Side Ported
Primary Cylinders.....Two 3” x 20” (7,6 cm x 10,8 cm) 3000 PSI (20700 kPa)

Wheels and Tires
Rim..... 8 Bolt, 38” x 10” (96,5 cm 25,4 cm) White AR&W
Tire.....12.4-38 14 Ply Tubeless
Wheel Bolt Torque.....85 to 100 lb-ft (115 Nm to 135 Nm)
Tire Pressure..... 56 PSI (385 kPa) Maximum

Pump Drive Tire
Tire.....155/80R12
Tire Pressure..... 44 PSI (300 kPa) Maximum

Parking Jack
Top Wind Jack.....9,000 lbs. (4000 Kg) Capacity

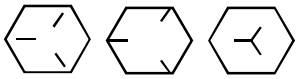
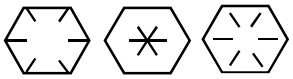
Tractor Requirements
Two Hydraulic Remotes..... 1,800 PSI (12500 kPa)
Electrical System.....12 volt, with 7 Pin Connector

Blade Size
Blade Size..... 20 in (51cm) Smooth

Transport Width	Transport Height	Weight
Under 10’ (3,05 M)	Under 11.5’ (3,5 M)	2900 Kg

Maximum Drawbar load .8158 Tons-Force (8 kN)

NOTE: Use these torque's unless special torque's are specified. Values are for UNC and UNF thread fasteners, plated or un-plated, as received from supplier. Fasteners can be dry or lubricated with normal engine oil. Values do not apply if graphite, moly-disulphide or other extreme pressure lubricant is used.

SAE Grade No.	2				5				*8			
Bolt head identification (see Note 1)												
Bolt Size	LB FT		Nm		LB FT		Nm		LB FT		Nm	
	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max
1/4	5	6	7	8	9	11	12	15	12	15	16	20
5/16	10	12	14	16	17	20.5	23	28	24	29	33	39
3/8	20	23	27	31	35	42	48	57	45	54	61	73
7/16	30	35	41	47	54	64	73	87	70	84	95	114
1/2	45	52	61	70	80	96	109	130	110	132	149	179
9/16	65	75	88	102	110	132	149	179	160	192	217	260
5/8	95	105	129	142	150	180	203	244	220	264	298	358
3/4	150	185	203	251	270	324	366	439	380	456	515	618
7/8	160	200	217	271	400	480	542	651	600	720	814	976
1	250	300	339	406	580	696	787	944	900	1080	1220	1464
1 1/8					800	880	1085	1193	1280	1440	1736	1953
1 1/14					1120	1240	1519	1681	1820	2000	2468	2712
1 3/8					1460	1680	1980	2278	2380	2720	3227	3688
1 1/2					1940	2200	2631	2983	3160	3560	4285	4827

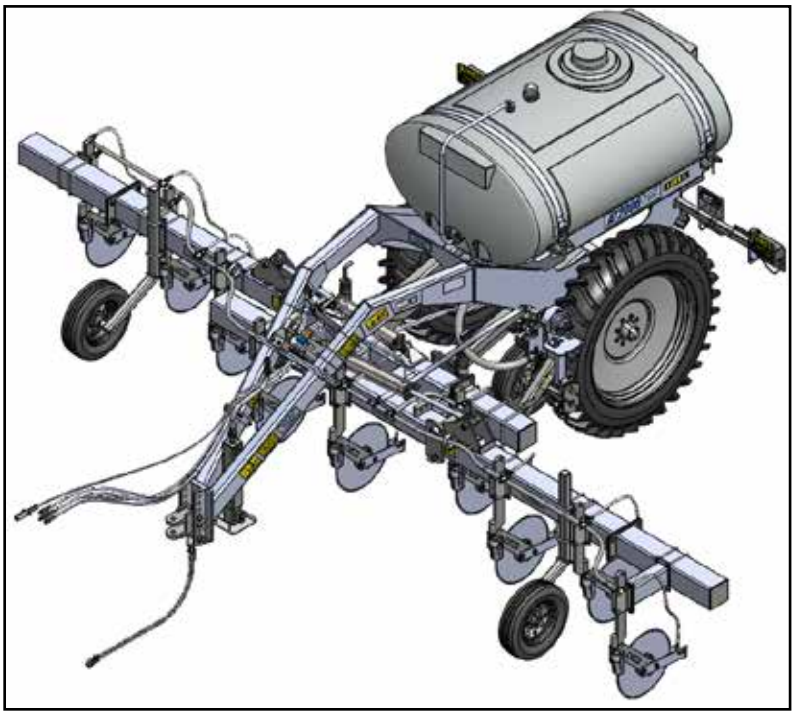
*Thick nuts must be used with Grade 8 bolts

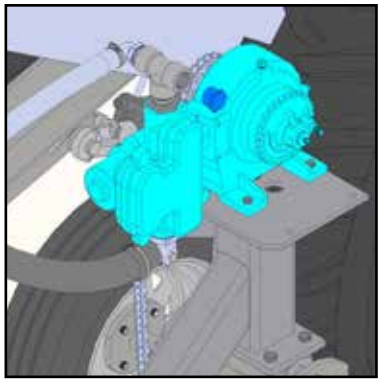
NOTE 1: Bolt head identification mark as per grade. Manufacturing marks will vary.

STANDARD TORQUE DATA
HYDRAULIC TUBES AND FITTINGS
O-ring boss Plugs, Adjustable Fitting
Lock nuts, Swivel JIC-37 degree Seats

SIZE	LB FT		Nm	
	Min.	Max.	Min.	Max.
4	6	10	8	14
5	10	15	14	20
6	15	20	20	27
8	25	30	34	41
10	35	40	47	54
12	60	70	81	95
14	70	80	95	109
16	80	90	108	122
20	95	115	129	156
24	120	140	163	190
32	250	300	339	407

Above torque figures are recommended for plain, cadmium or zinc plated fittings, dry or wet installation and swivel nuts either swaged or brazed.





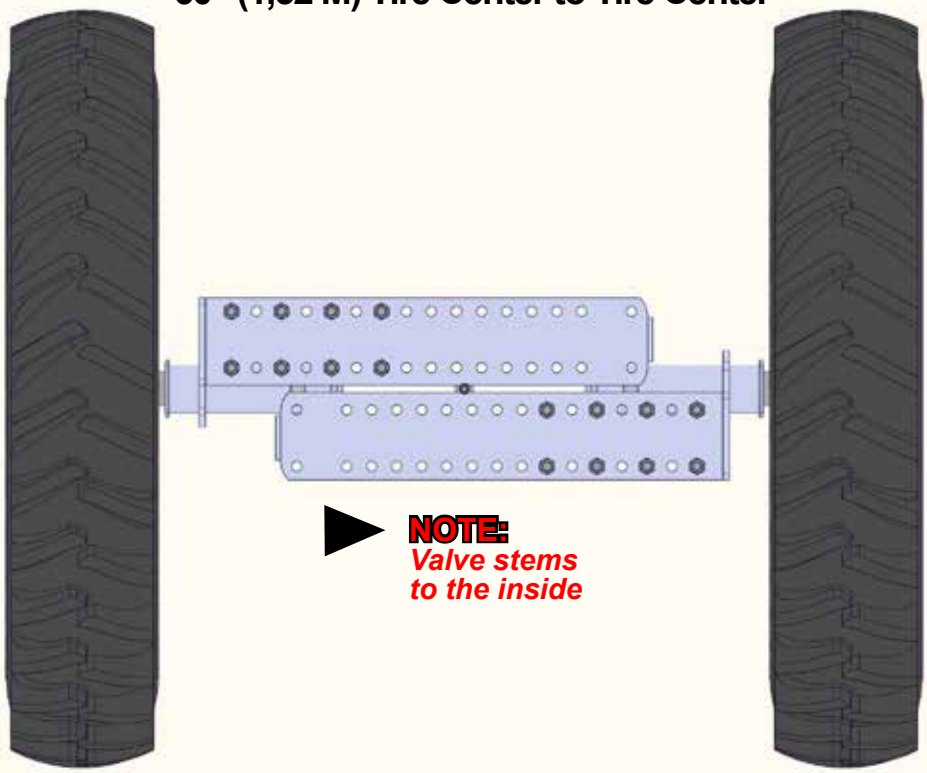
Preparing for storage

A. Drain and rinse tank of all fertilizer.
B. Remove plug from pump tee. Install a watering hose fitting in tee. Attach hose and turn on water. Turn pump wheel to rinse the components of fertilizer.
C. Remove hose fitting. Insert a flexible hose fill container into tee. Pour Recreational Vehicle Anti-freeze into pump while turning pump wheel to fill components with anti-freeze. Replace plug.
D. Consult pump manual for storage procedures.
E. Power wash machine to remove dirt and fertilizer residue.
F. Store the machine in a dry place. If the storage building has a dirt floor, place a board under the jack pad to prevent the pad from entering the ground.
G. Relieve pressure from hydraulic circuits. Heat from the sun can cause hydraulic systems to become over pressurized and cause hoses or components to burst.
H. Before storing, apply grease to all hydraulic cylinder rods to prevent rust or store with cylinders retracted if possible.
I. Place hydraulic hose ends in tongue hose holders.
J. Paint any surface that can rust.
K. Lubricate all grease fittings.
L. Inspect the machine for worn or broken parts and replace the parts as needed.

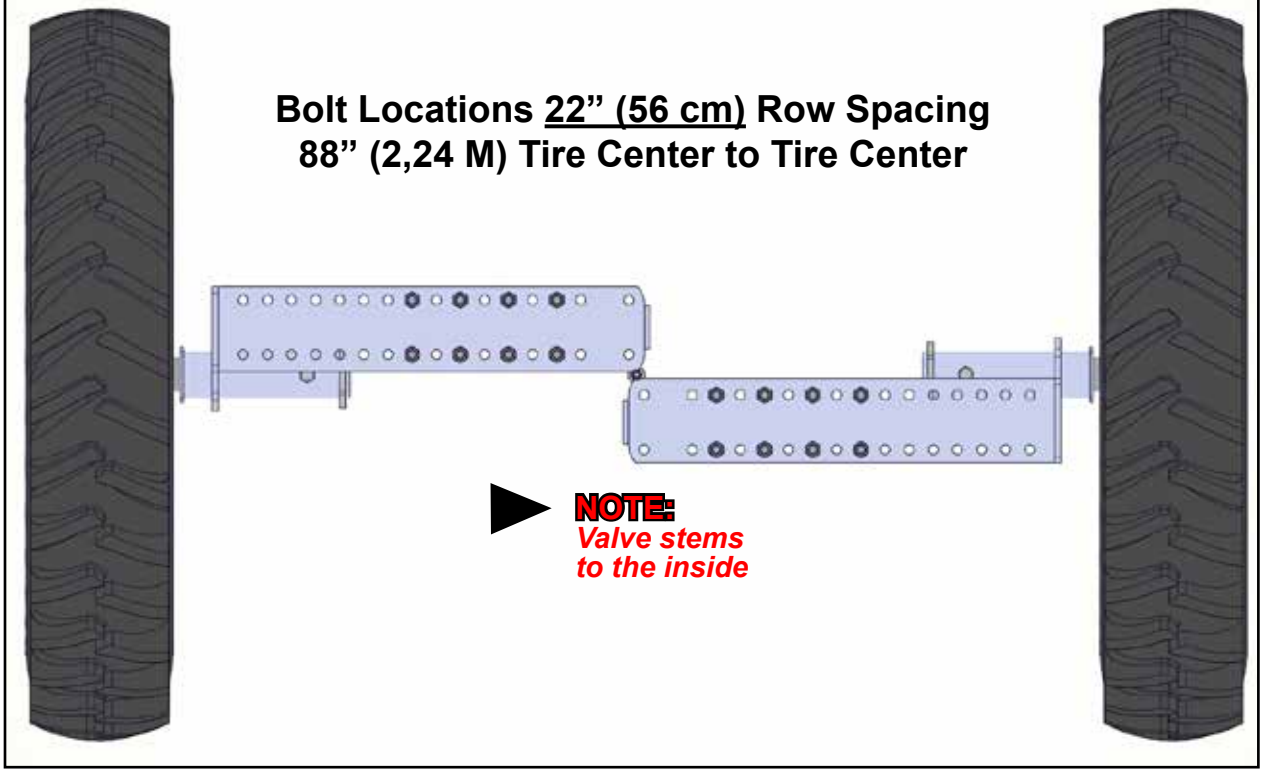
Removing from storage

A. Remove the protective grease from the hydraulic cylinder rods.
B. Assemble any parts taken off for storage or reconditioning.
C. Check the complete machine for loose bolts and cotter pins. Check for parts out of adjustment which could result in rapid wear, possible breaking and poor operation.
D. Lubricate the complete machine.
E. Check tires for correct air pressure.
F. Check wheel bolt torque.
G. Remove plug from pump tee. Install a watering hose fitting in tee. Attach hose and turn on water. Turn pump wheel to rinse the components of anti-freeze.

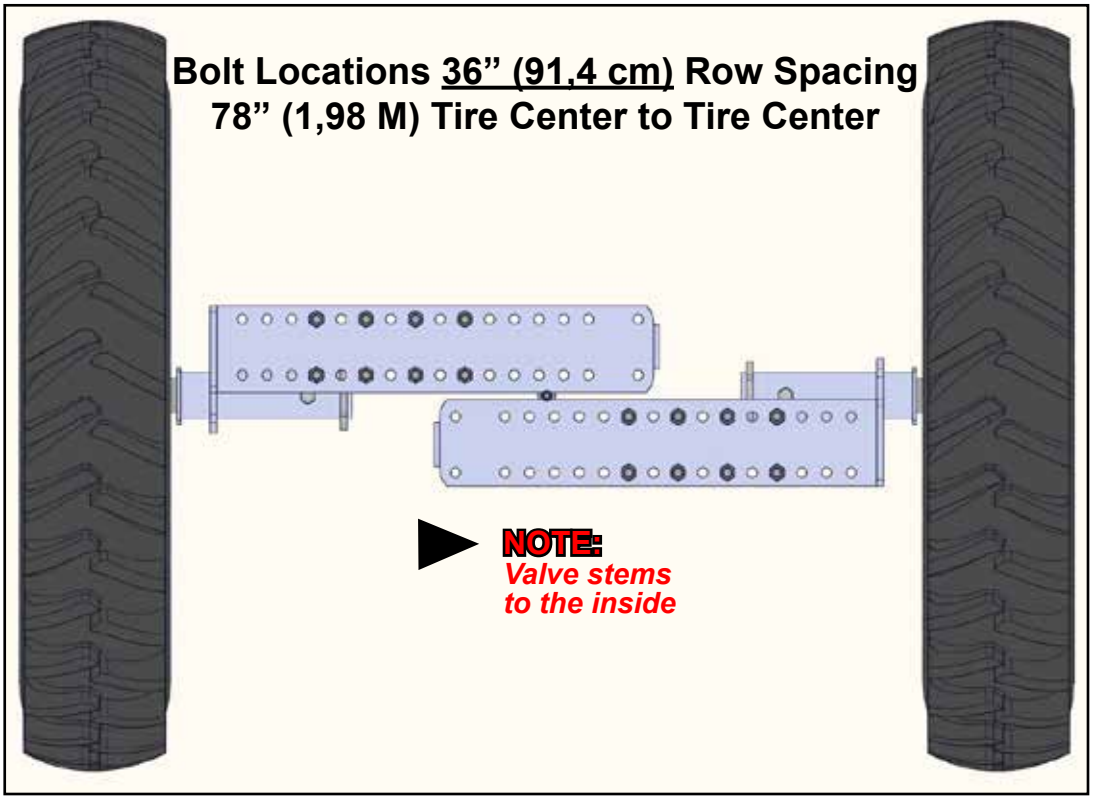
Bolt Locations <u>30” (76 cm)</u> Row Spacing
60” (1,52 M) Tire Center to Tire Center



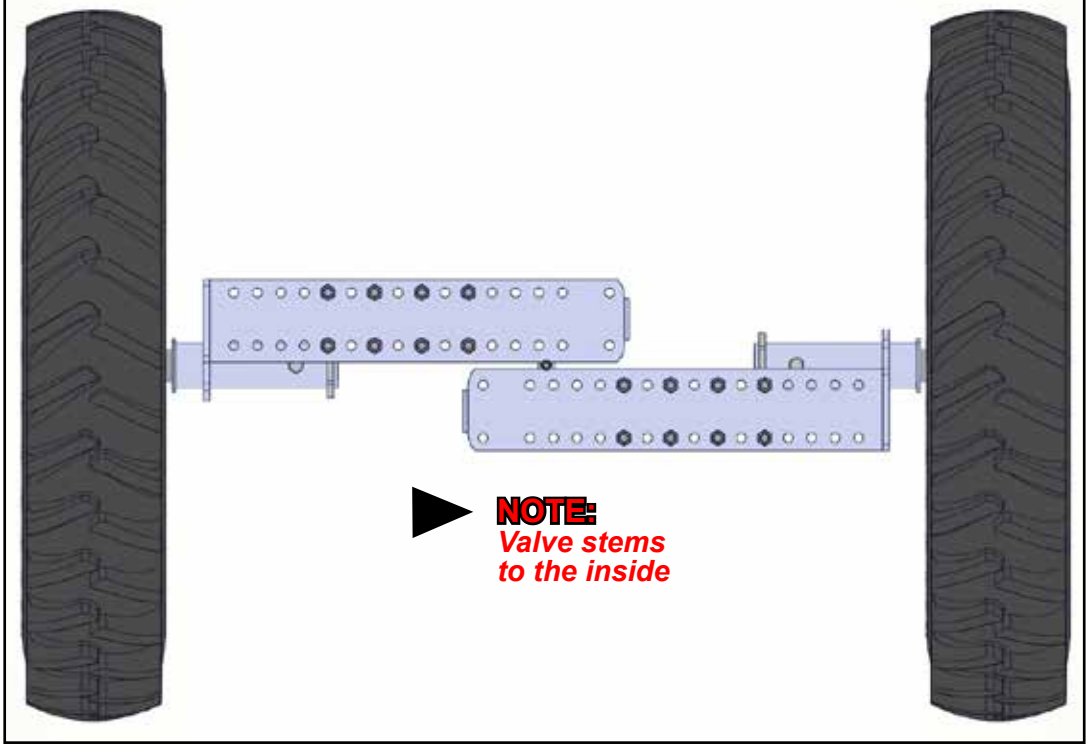
Bolt Locations <u>22” (56 cm)</u> Row Spacing
88” (2,24 M) Tire Center to Tire Center



Bolt Locations <u>36” (91,4 cm)</u> Row Spacing
78” (1,98 M) Tire Center to Tire Center



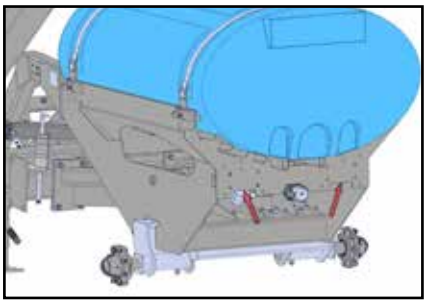
Bolt Locations <u>38” (97,5 cm)- 40” (101,6 cm)</u> Row Spacing
80” (2 M) Tire Center to Tire Center

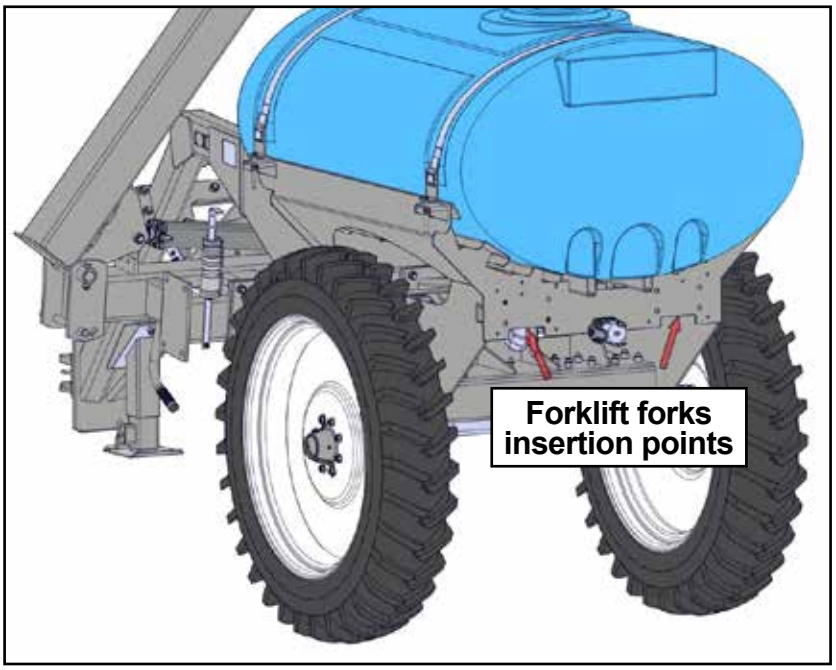


WARNING

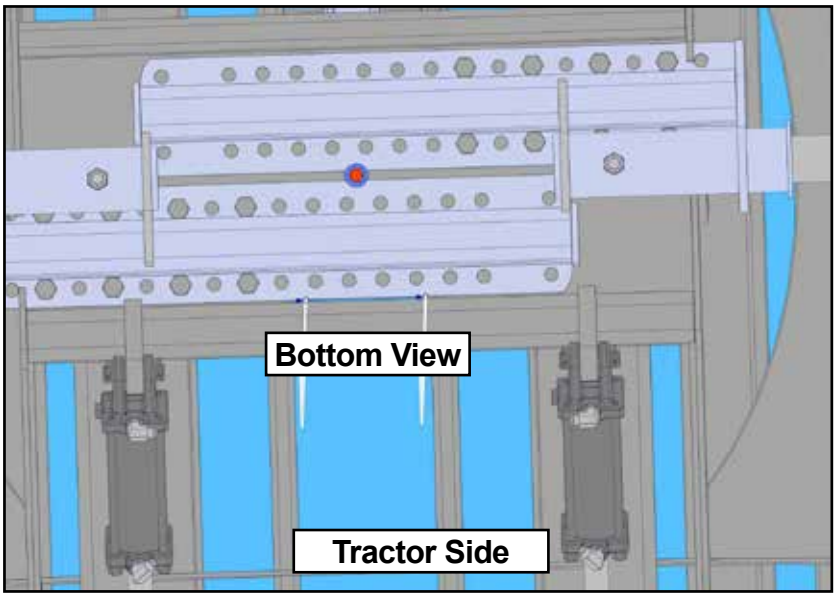
Keep bystanders away during axle adjustment.

1. **Insert forklift forks into slots at the rear of the toolbar.**
2. **Slowly raise the toolbar until the wheel can be rotated.**
3. **Remove wheels.**

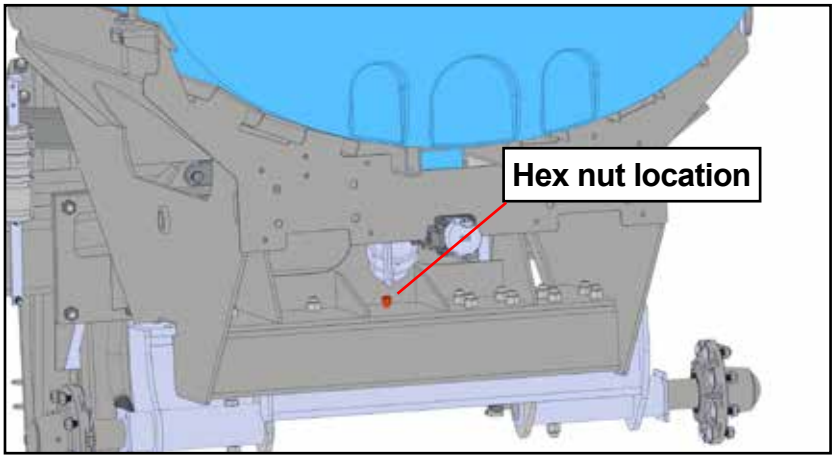




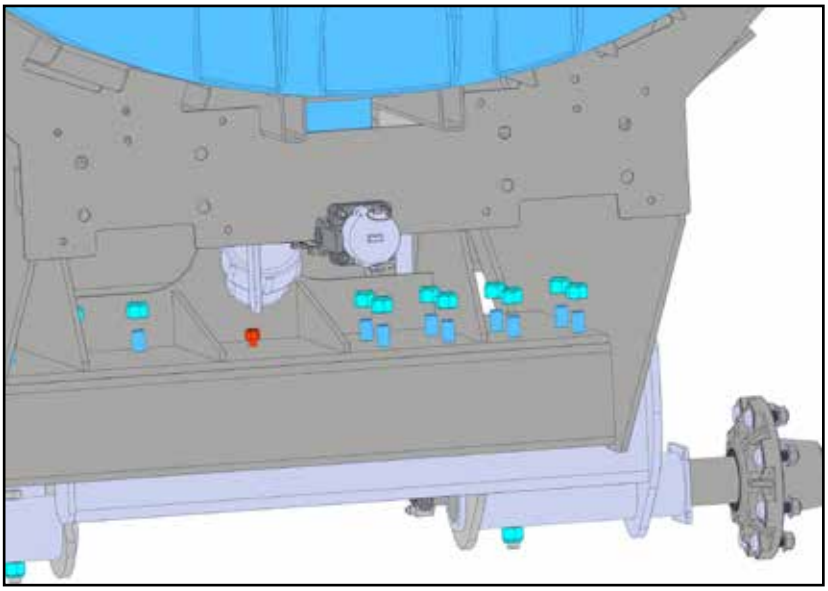
4. **Locate center bolt. This bolt guides the axles during adjustment.**



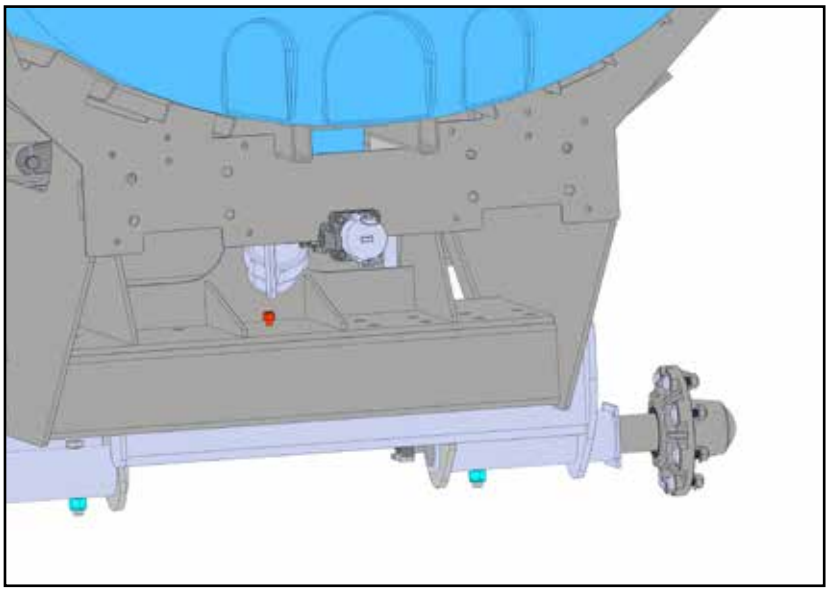
5. **Loosen hex nut . *Do not remove.***



6. **Adjust one axle at a time. Remove hex nuts and bolts from axle.**

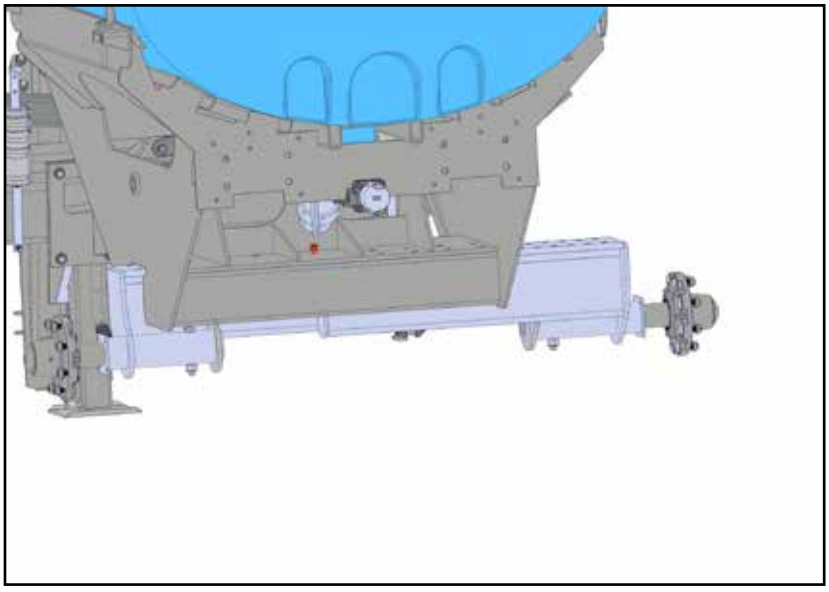


7. ***Do not remove the guide hex bolt (Red).***

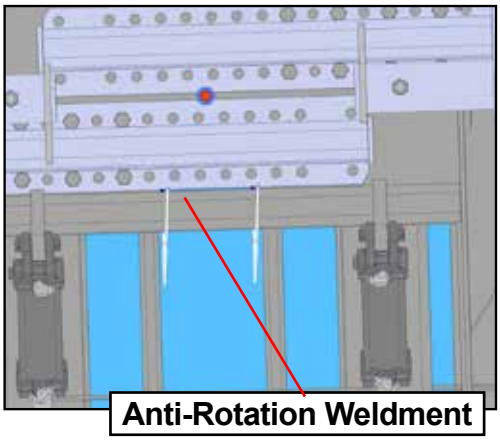


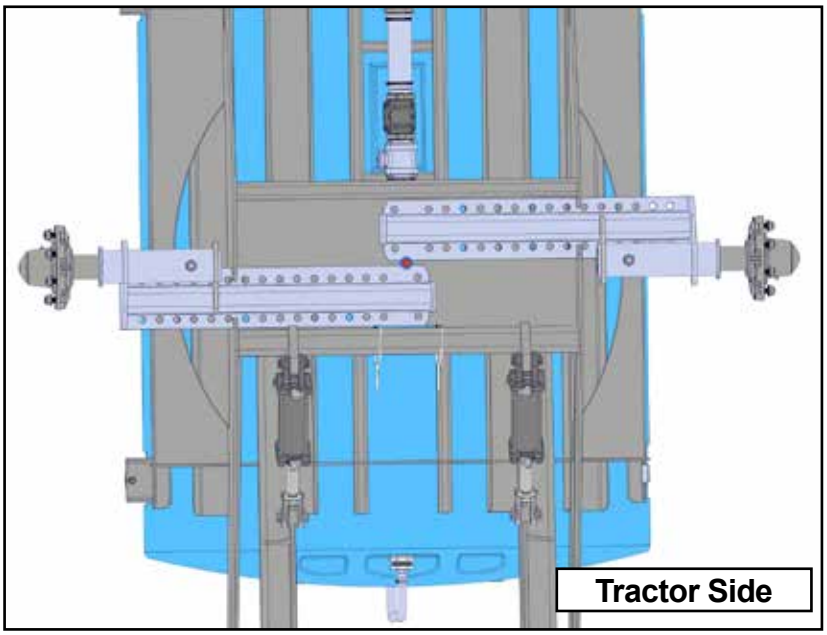
8. **Consult bolt location drawing pages for corresponding row spacing bolt patterns.**

9. **Slide axle out and align with frame hole patterns.**

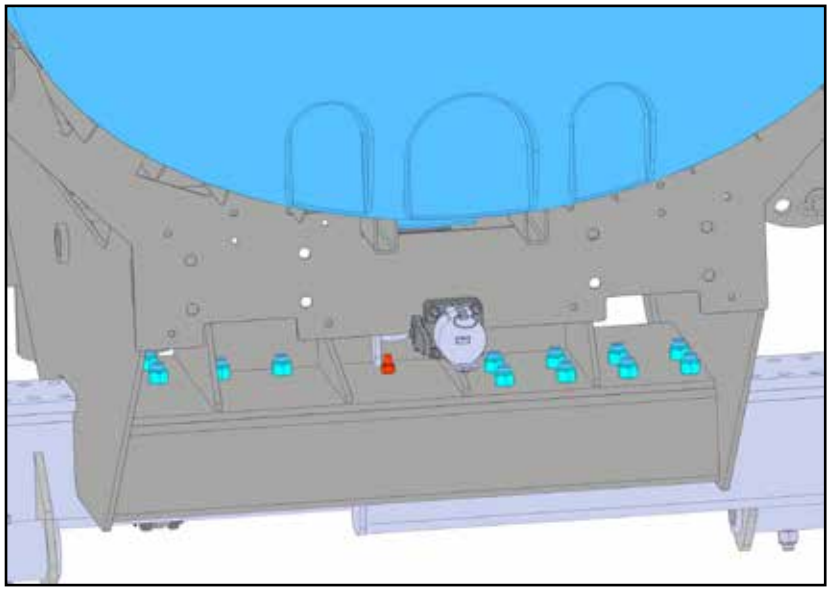


10. Align hole patterns and install hex cap screws from the bottom. Align hex heads with anti-rotation weldment.



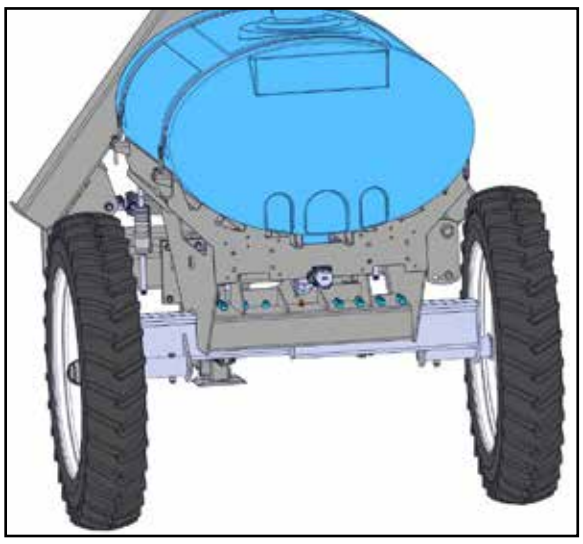


11. Tighten all the hex nuts including the guide bolt hex nut.

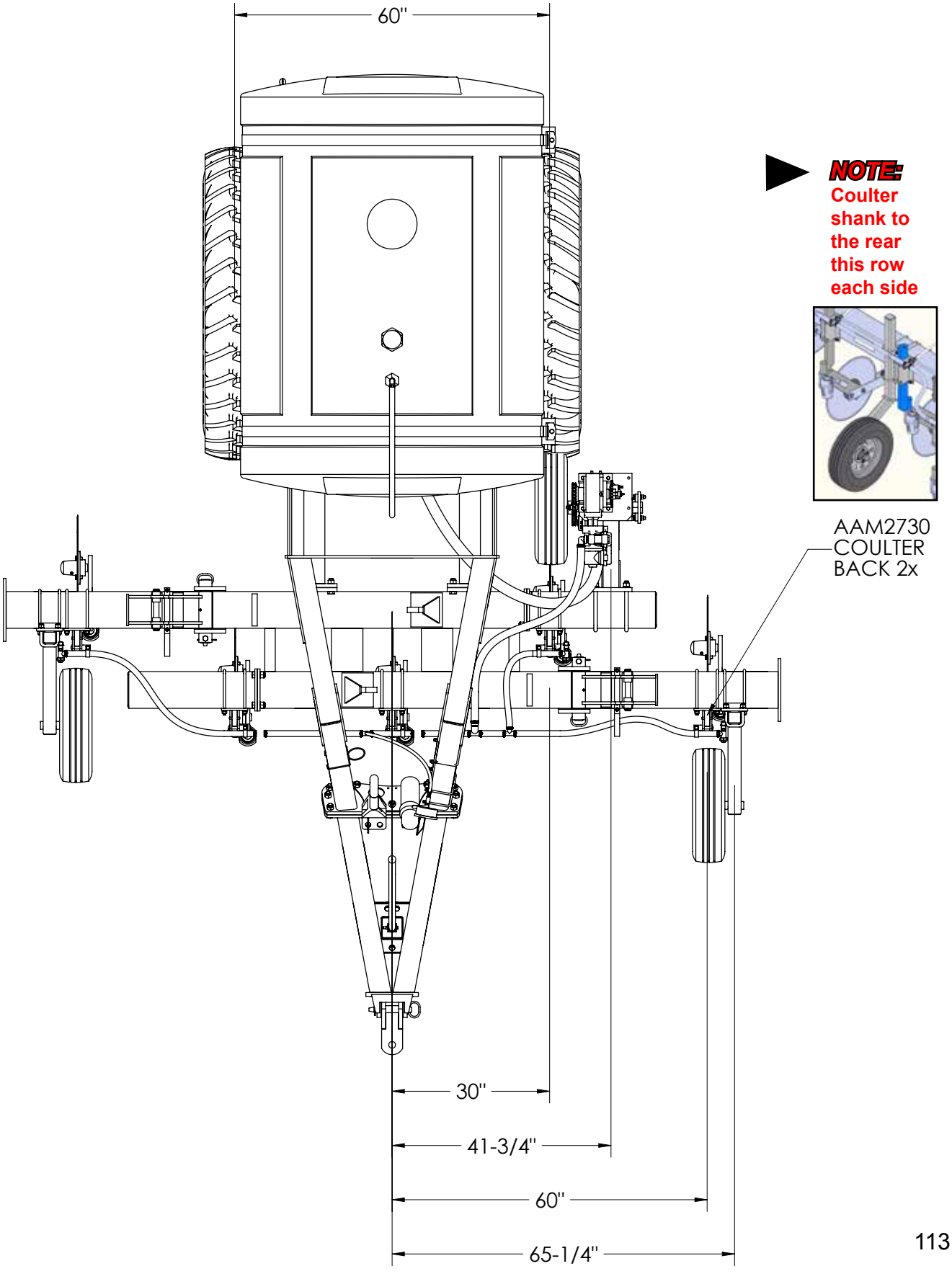


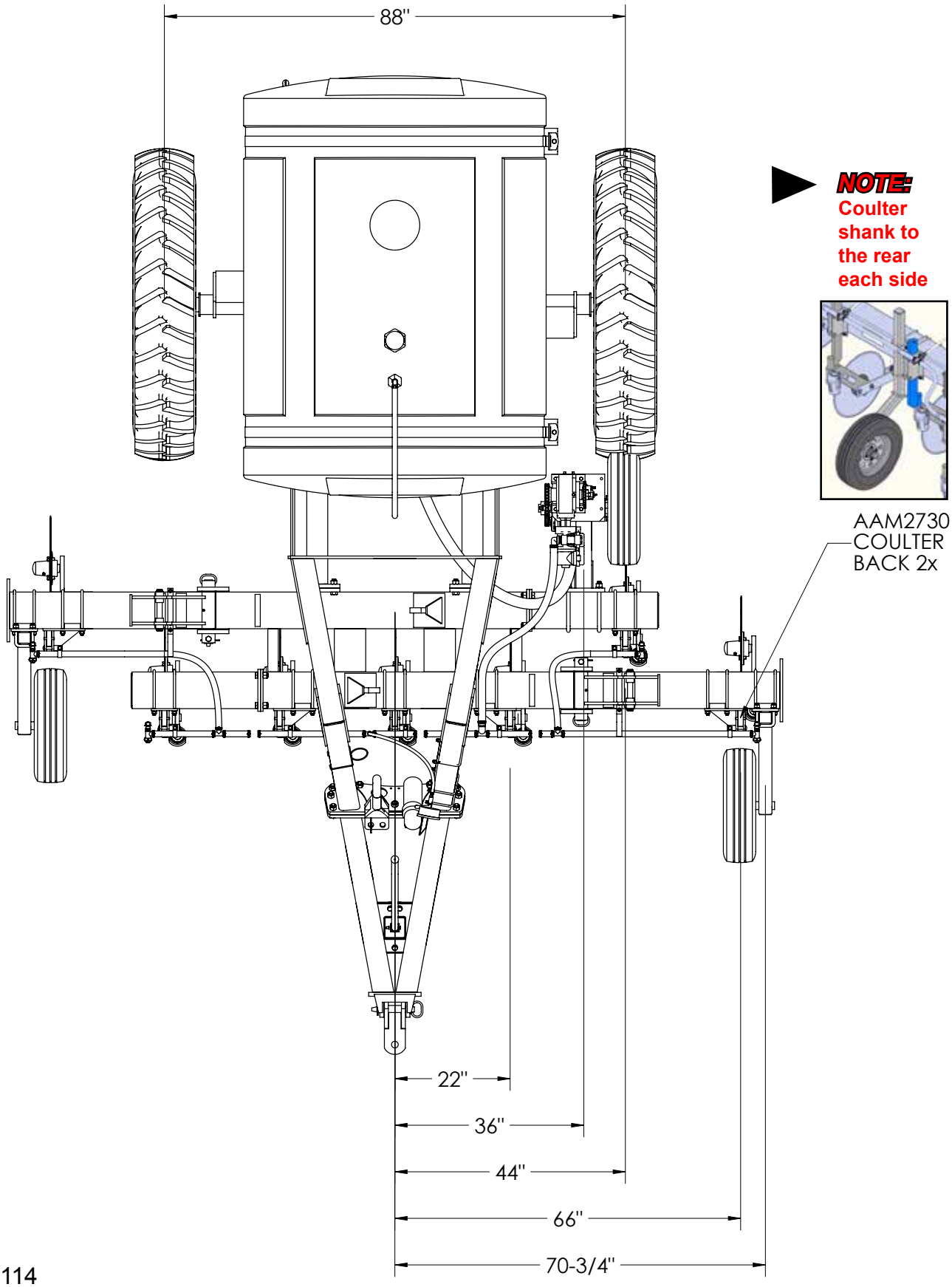
12. Mount wheels.

13. Lower toolbar. Check all hex nuts for tightness.

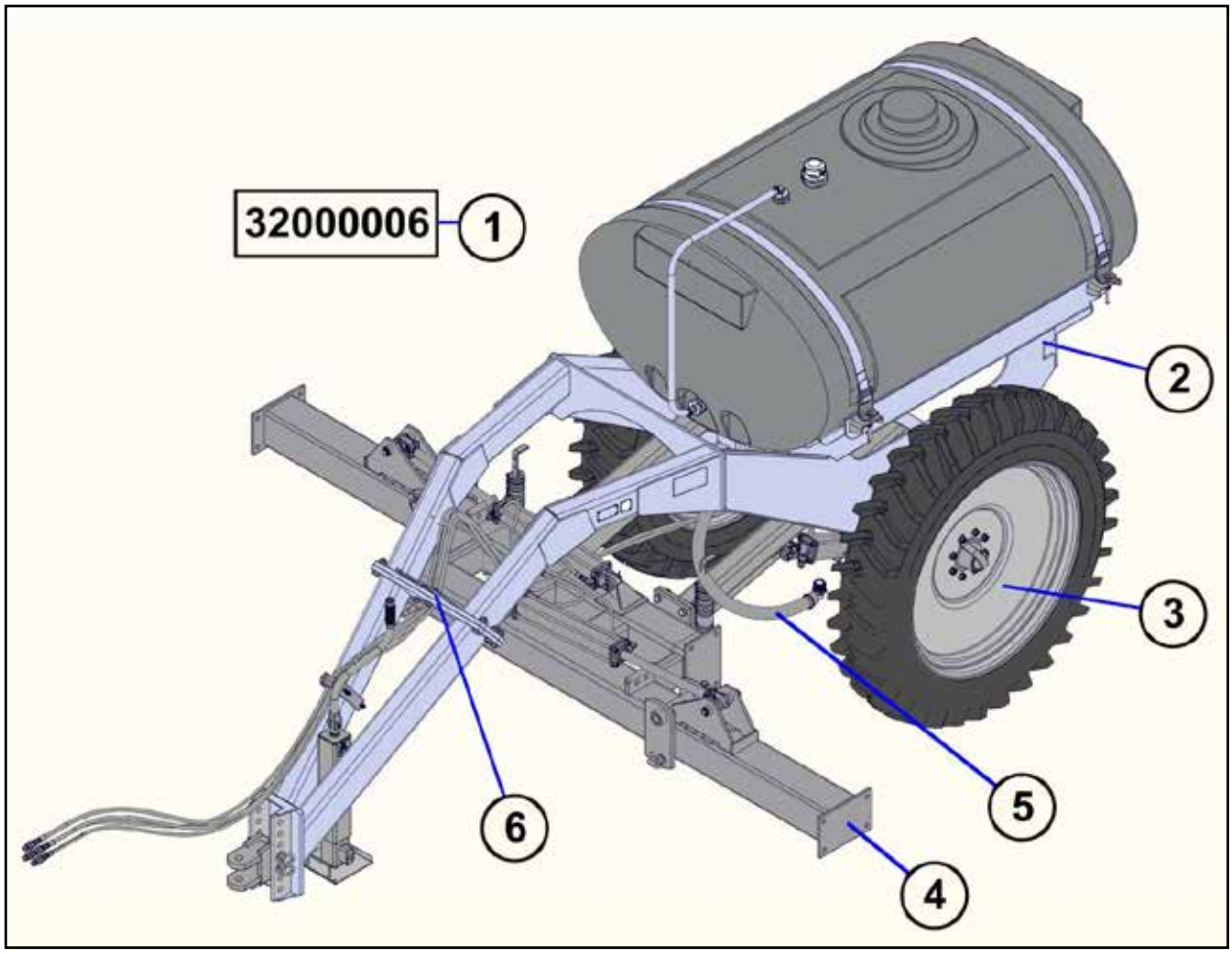


BLU-JET	30 Inch Row Spacing (5 Row 30”) (76 cm) Short Toolbar		
AT2000	Task	Procedures	Illustrations

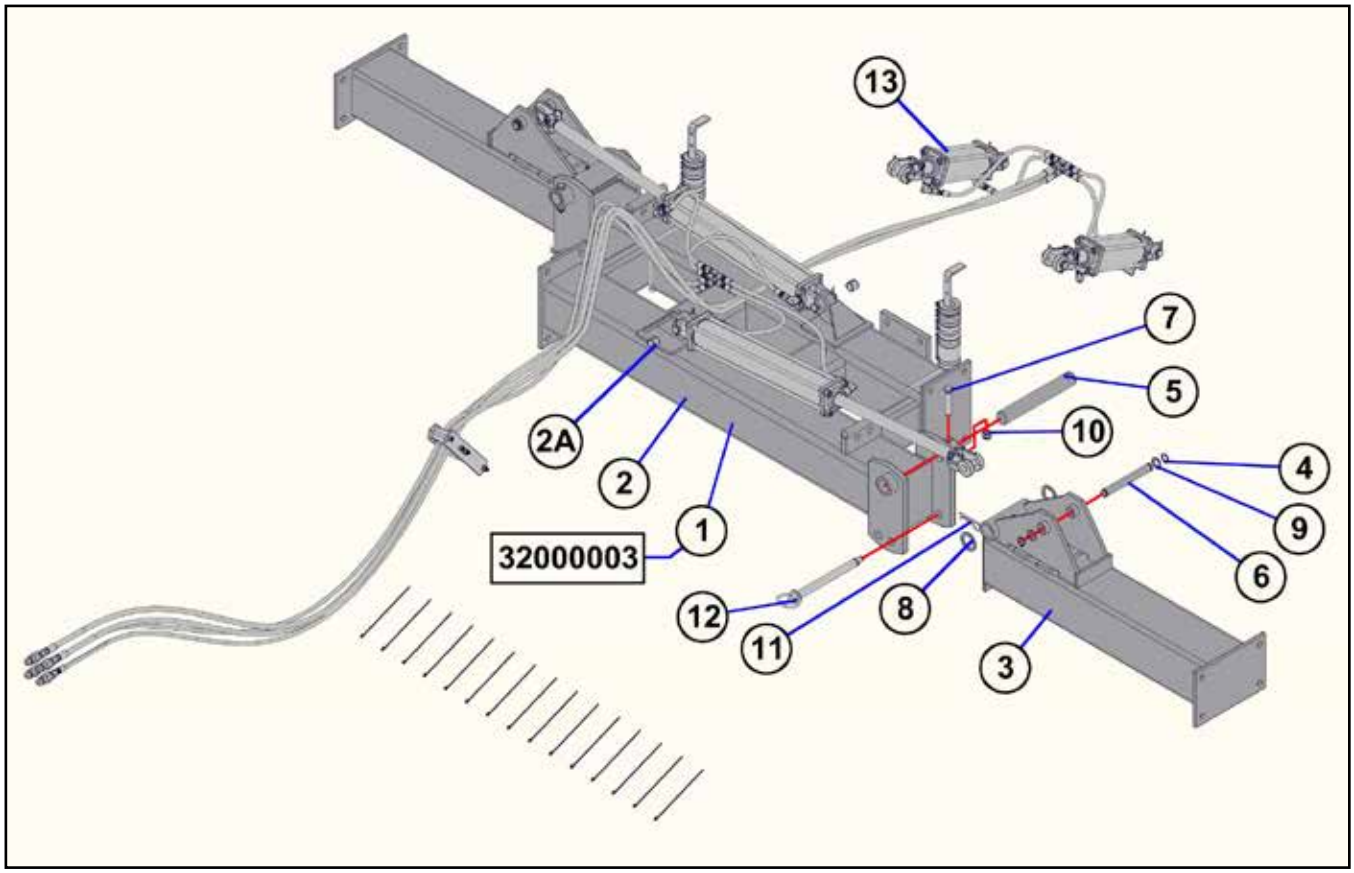



88"
NOTE:
Coulter shank to the rear each side
AAM2730
COULTER
BACK 2x
22"
36"
44"
66"
70-3/4"

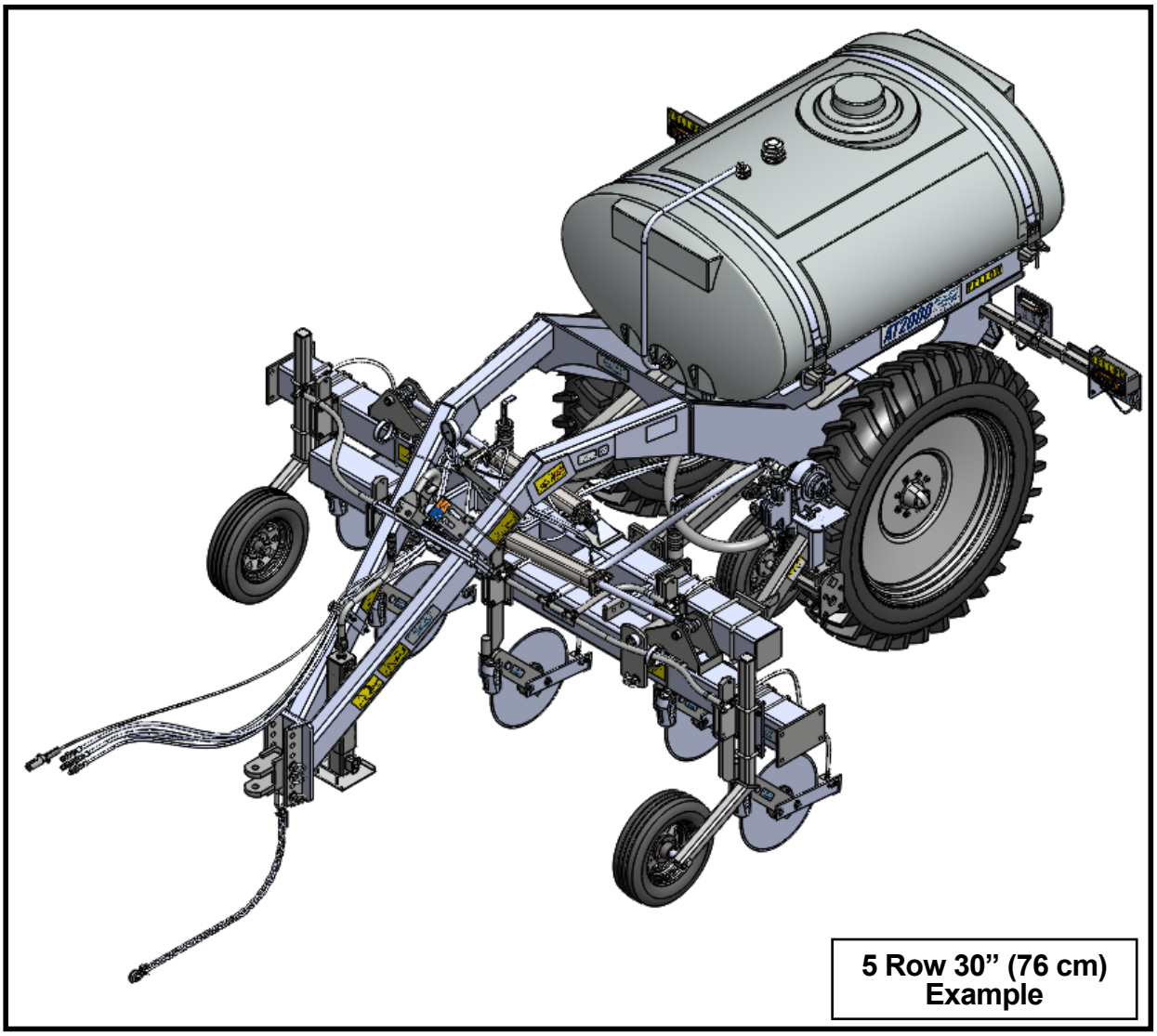
AT2000 Shipping Assembly Short Toolbar (32000006)



BOM ID	Qty	Item No	Metric Description
1	1	32000006	AT2000, SHIPPING ASSEMBLY SHORT TOOLBAR
2	1	32000001	AT2000 MAIN FRAME
3	1	32000002	AT2000 ADJUSTABLE WHEEL/AXLE
4	1	32000003	AT2000 SHORT TOOLBAR
5	1	332000005	BOTTOM FILL PLUMBING KIT, AT2000 TANK, 1 PUMP, 2” FILL (5,1 cm)
6	1	AM3706	UTILITY PLATE



BOM ID	Qty	Item No	Metric Description
1	1	32000003	AT2000 SHORT TOOLBAR
2	1	AM3707	TOOLBAR CENTER SECTION, AT2000
2A	2	BP3516	TENSION BUSHING, 1-1/4" X 1" X 1" OAL (3,2 cm X 2,5 cm X 2,5 cm)
3	2	AM3708	WING, SMALL TOOLBAR, AT2000
4	4	AP2407	SNAP RING, 1" EXTERNAL, HEAVY DUTY (2,5 cm)
5	2	BM3485	PIN, 1-3/4" X 12-1/8" OAL, PLATED (4,4CM X 30,8 cm)
6	2	BM3725	PIN, 1" X 7-1/2" USE-ABLE, DOUBLE GROOVED (2,5 cm X 19,1 cm)
7	2	BP3135	HEX CAP SCREW, 5/8"-11 X 3-1/2", GRADE 5, PLATED (15,9 mm X 8,9 cm)
8	4	BP3205	MACHINERY BUSHING, 2-1/2" OD X 1-3/4" ID, 10 GAUGE, PLATED (6,4 cm X 4,4 cm X 3,4 mm)
9	4	BP3215	MACHINERY BUSHING, 1-1/2" OD X 1" ID, 14 GAUGE, PLATED (3,8 cm X 2,5 cm 1,9 mm)
10	2	BP3375	NUT, HEX LOCK, 5/8"-11, NYLOCK (15,9 mm)
11	2	BP3500	PIN, HAIR CLIP, 3/16" (4,8 mm)
12	2	BP3510	PIN, 1" X 10" USE-ABLE, HITCH, PLATED (2,5 cm X 25,4 cm)
13	1	PKG00246	HYDRAULIC KIT, AT2000



5 Row 30” (76 cm) Example

BLU-JET	Notes		
AT2000	Task	Procedures	Illustrations