



# Thurston<sup>TM</sup> Manufacturing Company



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# LandRunner 3

## 37' Frame, LF

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Manual Number: 0270127  
06-14-16

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LR 3, LF



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.



## Introduction

LR 3, LF



### General Information:

The LandRunner 3 was designed and built to BLU-JET standards. The LandRunner 3 tubular framework (4" x 6") gives you the strength to tackle any terrain. Highly versatile row spacing capabilities meet your requirements in virtually any fertilizer application, pre-plant, side-dress, RidgeTill, or NoTill. The LandRunner 3 toolbar rank (38") provides superior residue flow.

The LandRunner 3 was designed to be used in combination with BLU-JET's Super 1200 Coultter, SealPro II disc sealers and BLU-JET's complete line of shank mountings.



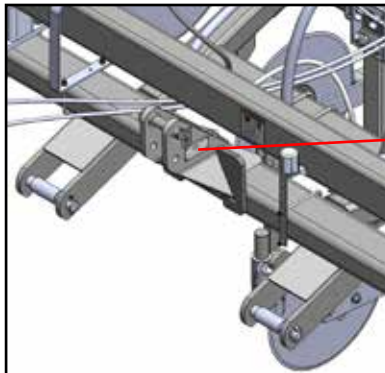
**F**or your convenience we have four easy ways to register your warranty.

- Call our toll free number and ask for warranty registration. 1-800-658-3127
- Fax completed warranty registration form.  
Fax: 402-385-3043
- Register on-line in warranty page at [www.blu-jet.com](http://www.blu-jet.com)
- Complete and return registration form.

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 location



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 \_\_\_\_\_

LR 3, LF



## 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. Trouble shooting
- 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. \_\_\_\_\_

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:

**Register  
Warranty  
One of  
Four Ways**

- Call our toll free number and ask for warranty registration.  
1-800-658-3127
- Fax your completed warranty registration form.  
1-402-385-3043
- Register on-line at:  
[www.blu-jet.com](http://www.blu-jet.com)
- Complete and mail the warranty registration form.

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

LR 3, LF

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*

022398\mgmt



LR 3, LF

**RECOGNIZE SAFETY INFORMATION**

- This is the safety-alert symbol. When you see this 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 signs.
- 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 an 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 mph max.) (32 kmph max.) at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.

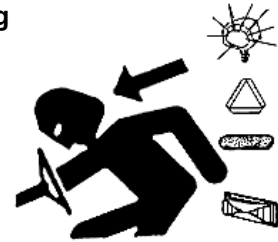


LR 3, LF



**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. Make 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.



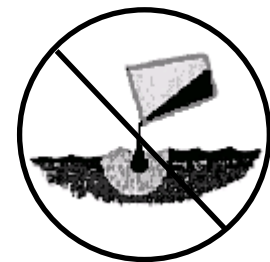
**AVOID HIGH PRESSURE FLUIDS**

- 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**

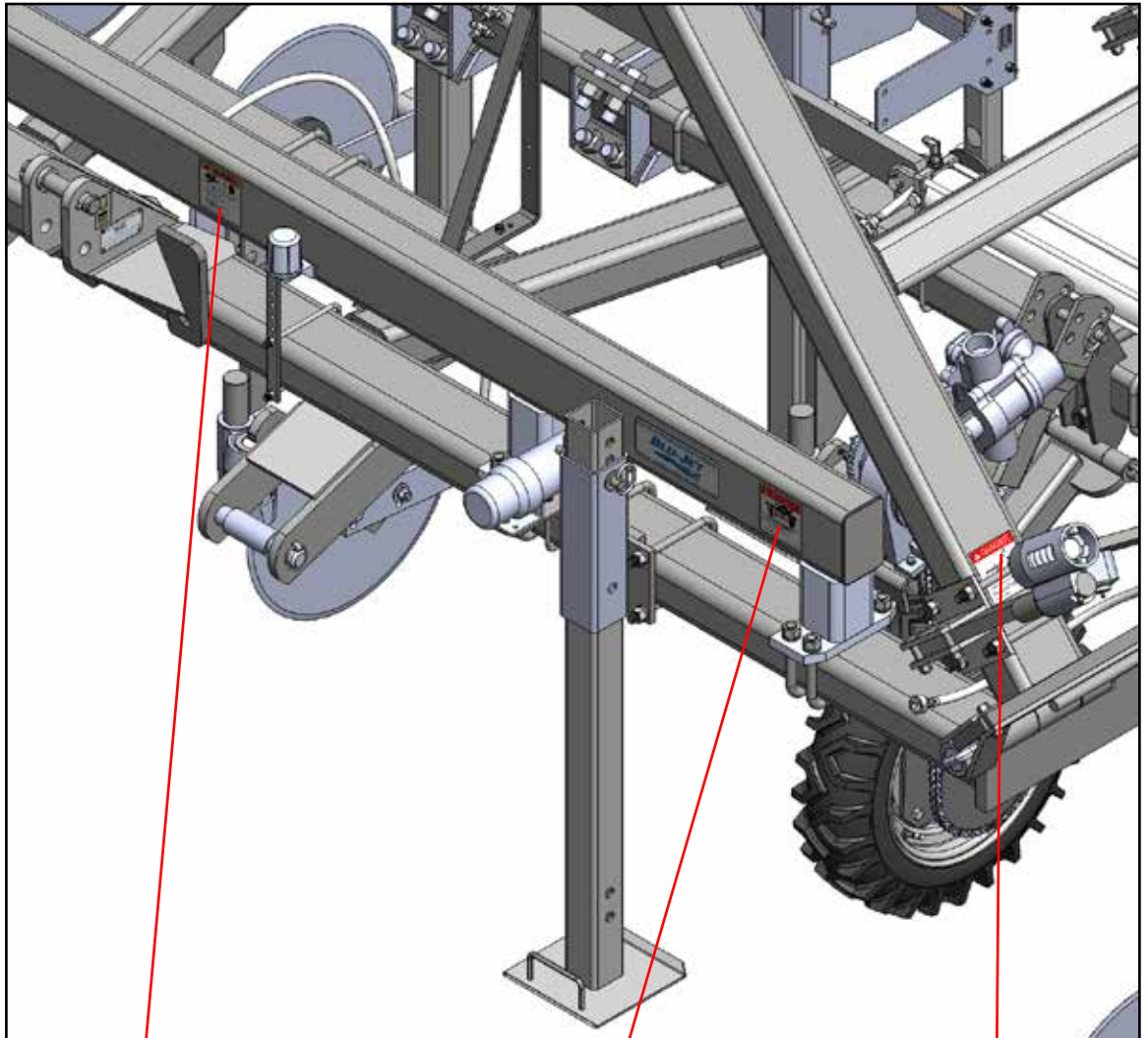
- Improperly disposing of fluids can harm the environment and ecology. Before draining any fluids, contact your local environmental agency for the proper waste disposal methods.
- Use proper container when draining fluids. Do not use food or beverage containers that may mislead someone into drinking 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.



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**Observe Safety Signs**



**AP2914**

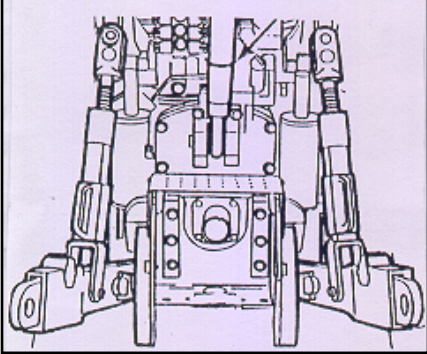

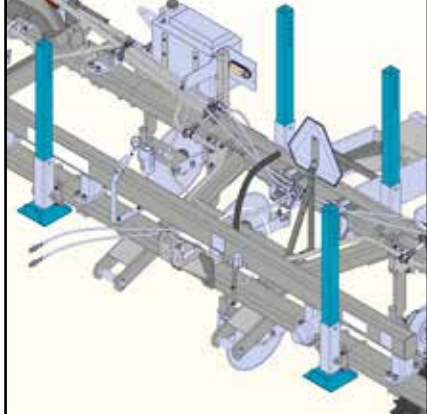
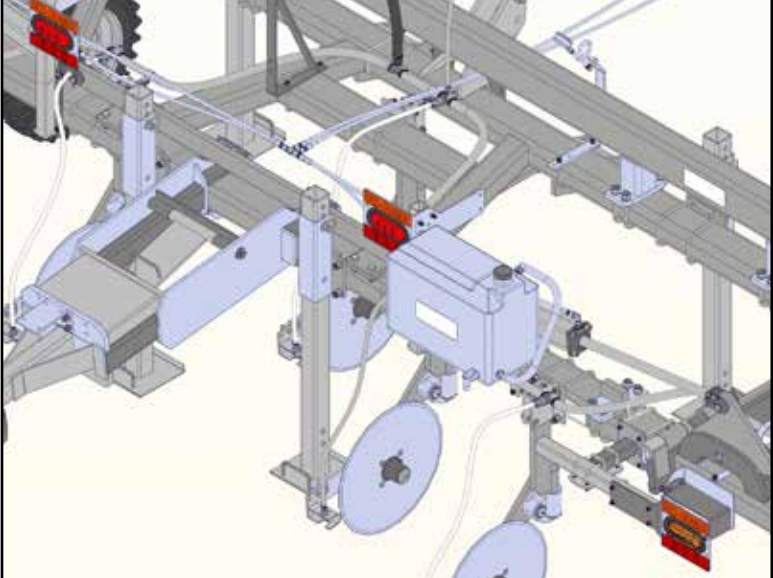


**AP2483-8-98**



**AP2234-7-98**

LR 3, LF

Task	Procedures	Illustrations
<p>▶ 3-Point adjustments</p> <p>▶ Mounting implement</p>	<ol style="list-style-type: none"> <li>1. Measure tractor linkages on pull arms to insure equal length for level operation as viewed across the rear of the tractor. Check tractor tire pressure for equal inflation. Be certain that the proper pins are used in either CAT. III or CAT. IV hookup.</li> <li>2. Mount implement with pull pin kit. Connect hydraulic hoses.</li> <li>3. Attach 7 pin electrical harness.</li> <li>4. Raise park stands.</li> </ol>	  
<p>▶ Checking lights</p>	<ol style="list-style-type: none"> <li>5. Check lights for proper operation.</li> </ol>	

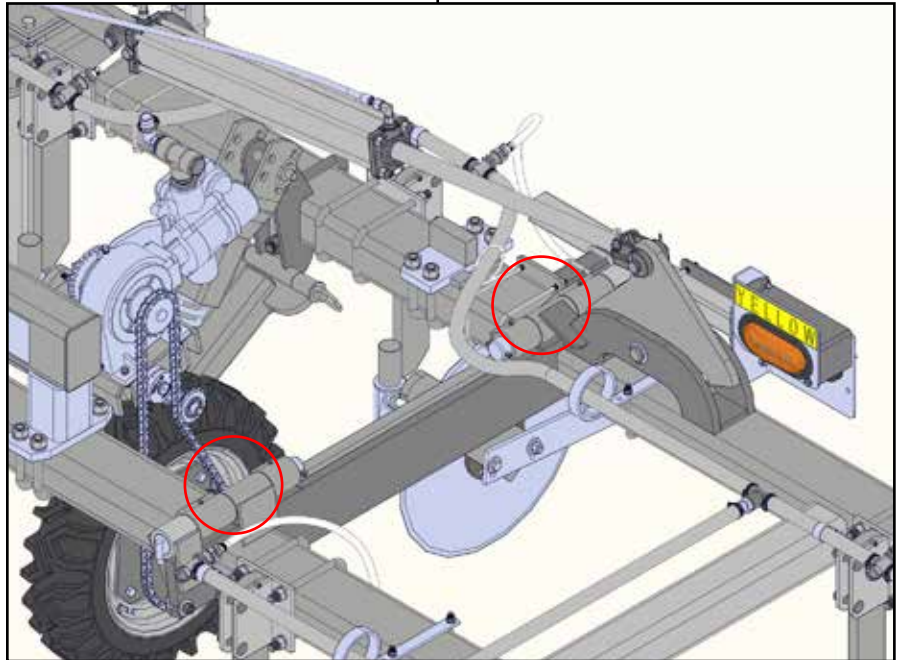
**LR 3, LF**

**Task**

**Procedures**

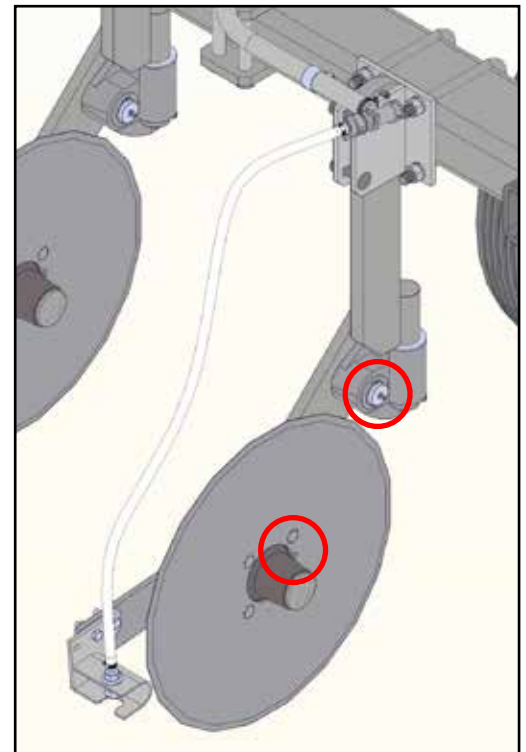
**Illustrations**

▶ **Lubricate wing hinges**



▶ **Coulter lubrication**

6. Grease all zerks daily.
7. Grease coulters arm pivots daily.
8. Grease all coulters arm pivots  
The plug on the coulters hub can be removed. A zerk can be installed. Hub and spindle assembly should be greased twice seasonally.
9. Loosen carriage bolts and adjust coulters shanks in flatback until the blade is running at a depth of 4 to 5 inches.



LR 3, LF

Task

Procedures

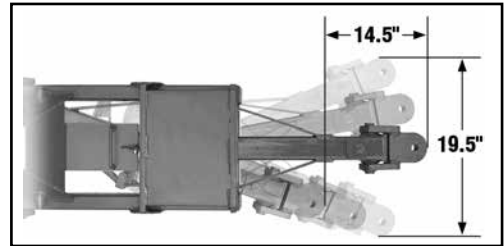
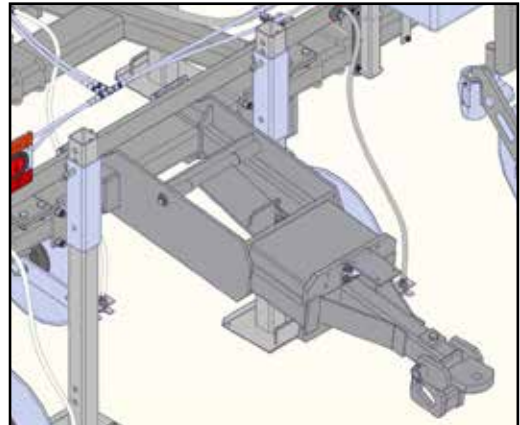
Illustrations

▶ Nurse tank hitch

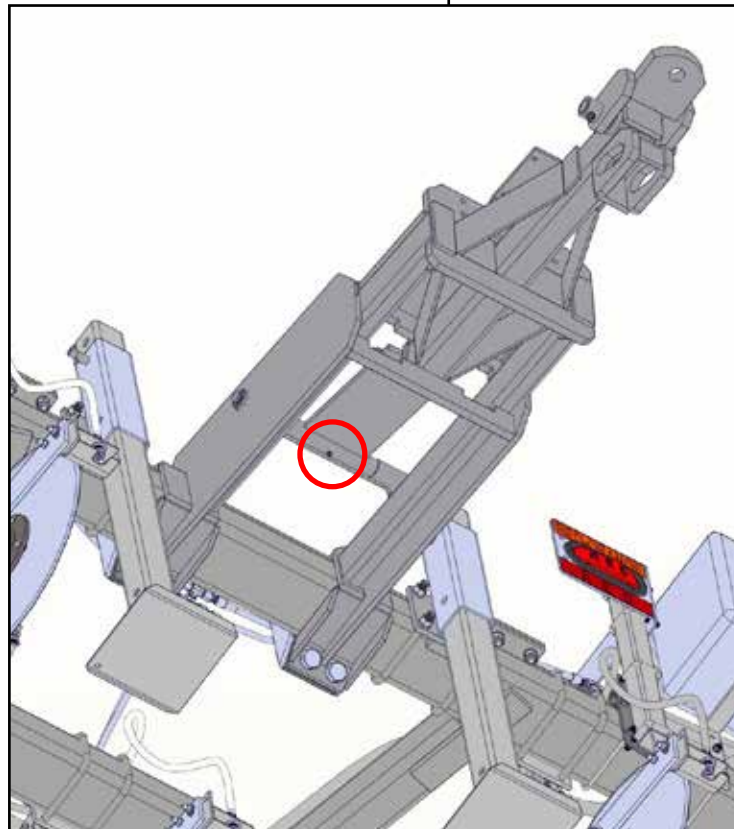
▶ **NOTE:**  
Periodically check Latch mechanism to ensure proper latching in the extended position.

10. Nurse tank hitch can be retracted and moved from side to side for easy hookup. Hitch will automatically lock in the extended position.

**WARNING**  
**Pinch point**  
 To prevent injury  
 Keep hands clear when extending or retracting the swing side insert



▶ Lubricate nurse tank hitch latch daily



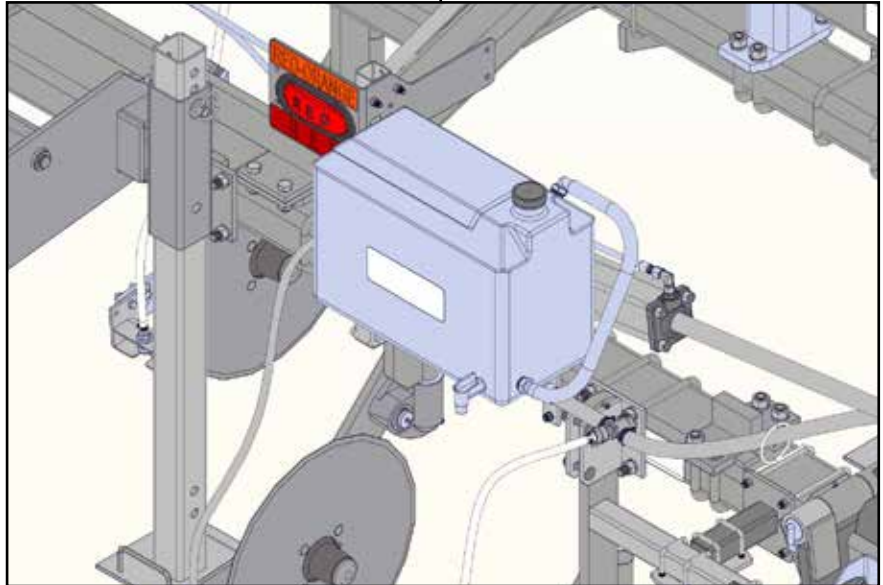
LR 3, LF

Task

Procedures

Illustrations

▶ **Emergency water tank operation and maintenance**



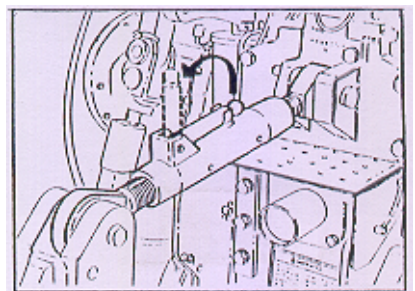
11. Locate nine-gallon emergency water tank/toolbox. Change water daily to provide fresh clean water to flush exposed skin or eyes. Drain water daily in cold temperatures to prevent freezing and bursting tank.



12. 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.

▶ **Leveling implement**

13. The implement must operate in the level position. Adjust the third link to modify the tool bar positions.



## Operating Instructions Pump Setting

LR 3, LF

Task

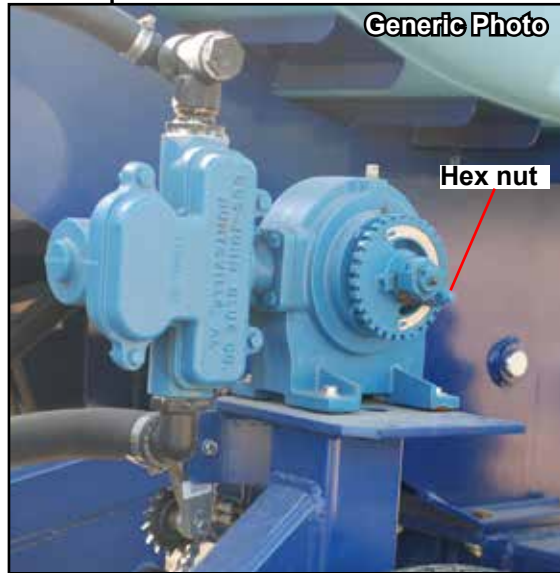
Procedures

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

LR 3, LF



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

$$\text{Actual N} \div \% \text{ of N} = \text{lbs. solution per acre}$$

#### 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)

$$\text{lbs. solution per acre} \div \text{weight per gallon} = \text{GPA}$$

#### 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 13"** 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.

LR 3, LF

- **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.

$$\text{Rows} \times \text{Spacing} = \text{Swath width}$$

$$16 \text{ rows} \times 30" = 480" \text{ (swath width)}$$

**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.

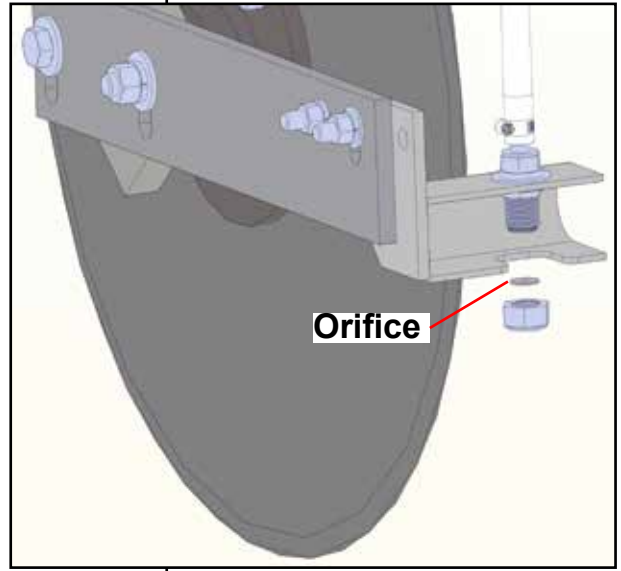
It is recommended that a fine line (80 mesh) stainer be used on extremely low rate applications to prevent plugging nozzles.

	<h2>Operating Instructions</h2> <h3>Rate Orifice Installation</h3>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>

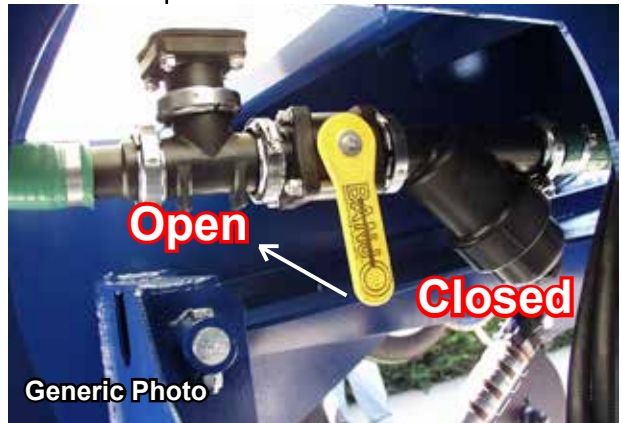
► **Pump setting**

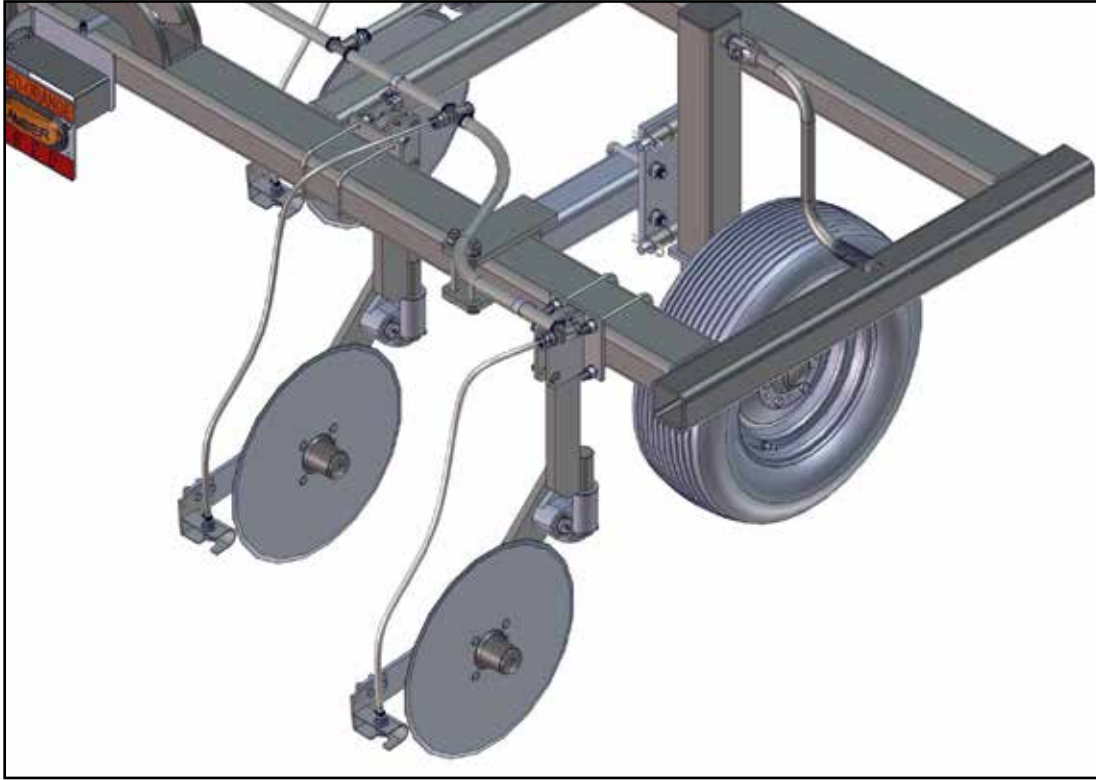


1. Consult row spacing rate chart for orifice size.
2. Remove nozzle nut and insert orifice.




3. Open tank valve in the field.





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.



	<b>30 Inch Spacing Rate Chart</b>		
	<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>

		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
Orifice #	PSI									
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.



## 36 Inch Spacing Rate Chart

LR 3, LF

Task


Procedures

Illustrations

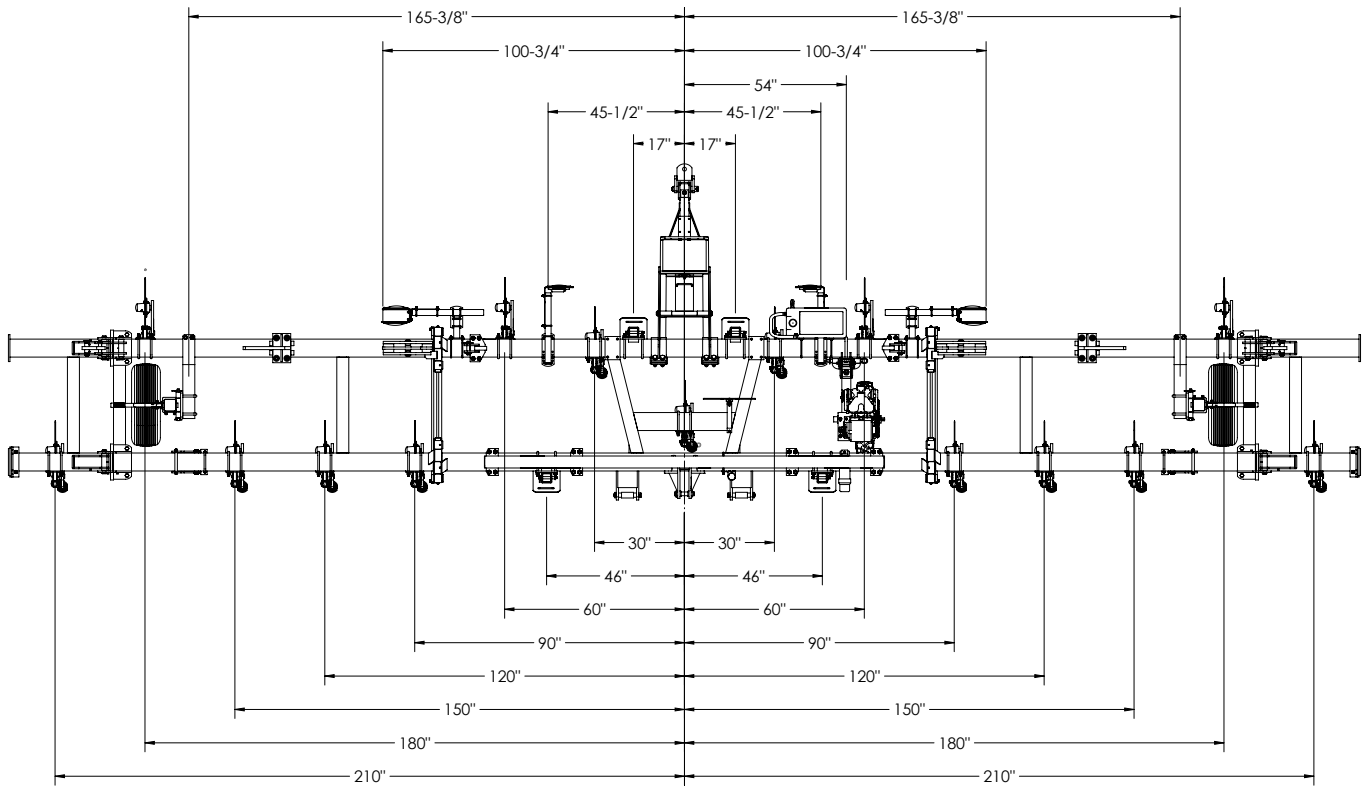
Orifice #	PSI	GPM 10.65 lb./gal 28%	Gallons per Acre 36 Inch Spacing							
			5 mph	6 mph	7 mph	8 mph	9 mph	10 mph	11 mph	12 mph
4916 49	60	0.320	10.5	8.8	7.5	6.6	5.9	5.3	4.8	4.4
	80	0.369	12.2	10.1	8.7	7.6	6.8	6.1	5.5	5.1
	100	0.413	13.6	11.3	9.7	8.5	7.6	6.8	6.2	5.7
	120	0.452	14.9	12.4	10.7	9.3	8.3	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.

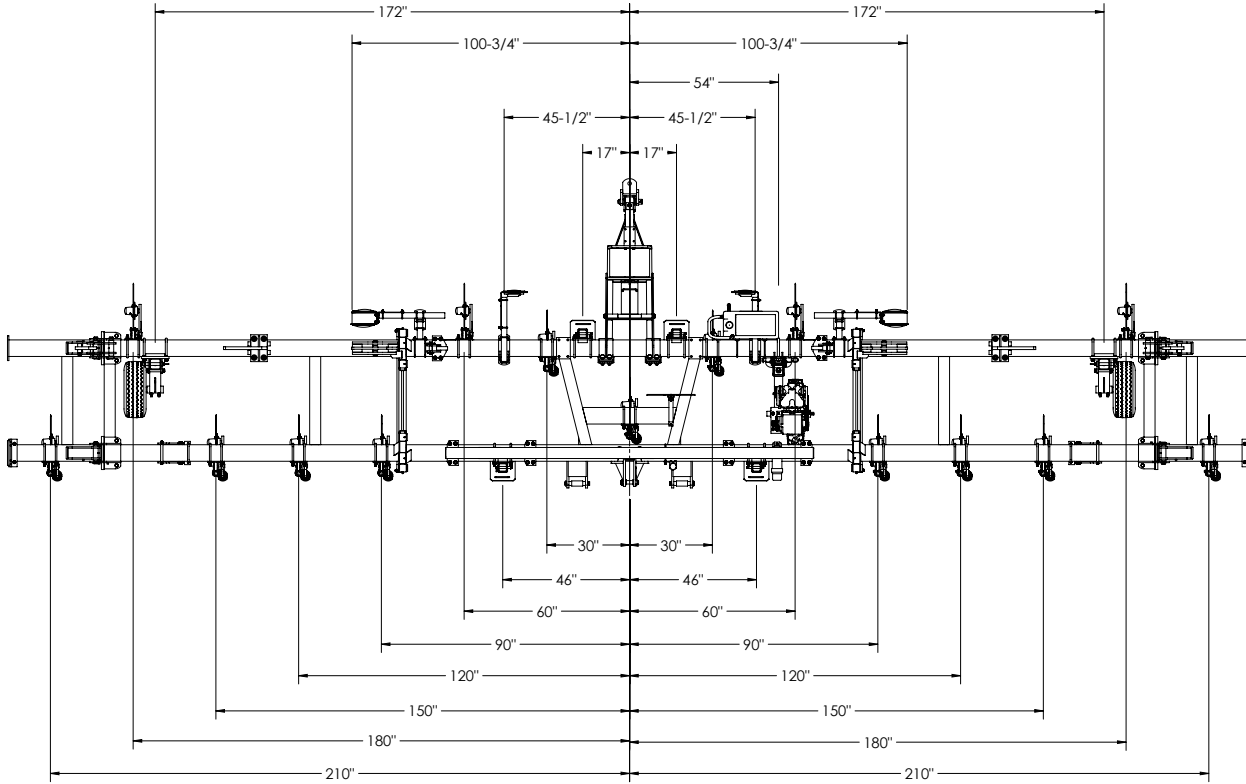
\* Standard equipment sizes.

	<b>Manual Adjust Gauge Wheels 15 Row 30</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>

LANDRUNNER 3 LF  
 MANUAL ADJUST GW  
 15 ROW 30"

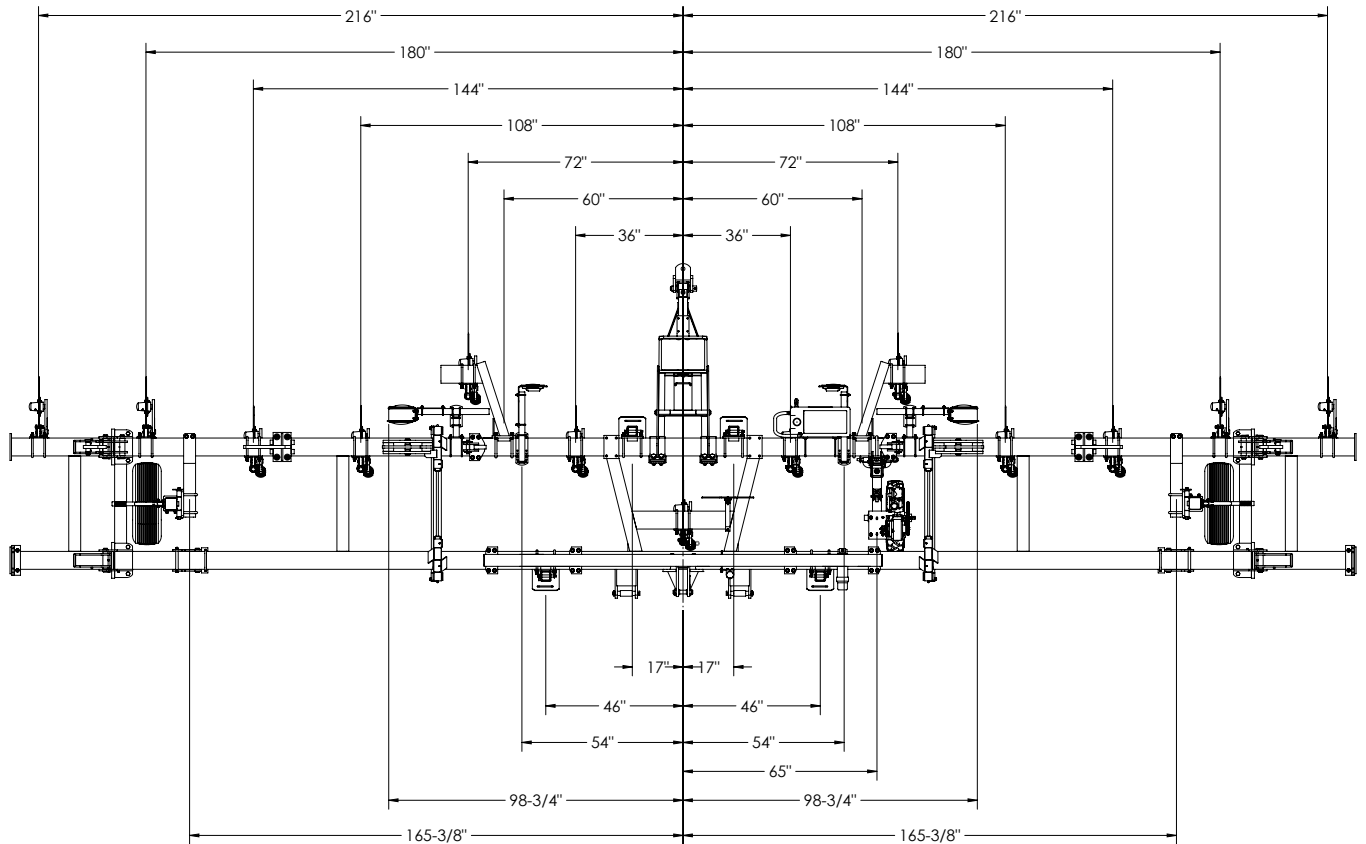


## LANDRUNNER 3 LF VERTICAL PIN ADJUST GW 15 ROW 30"

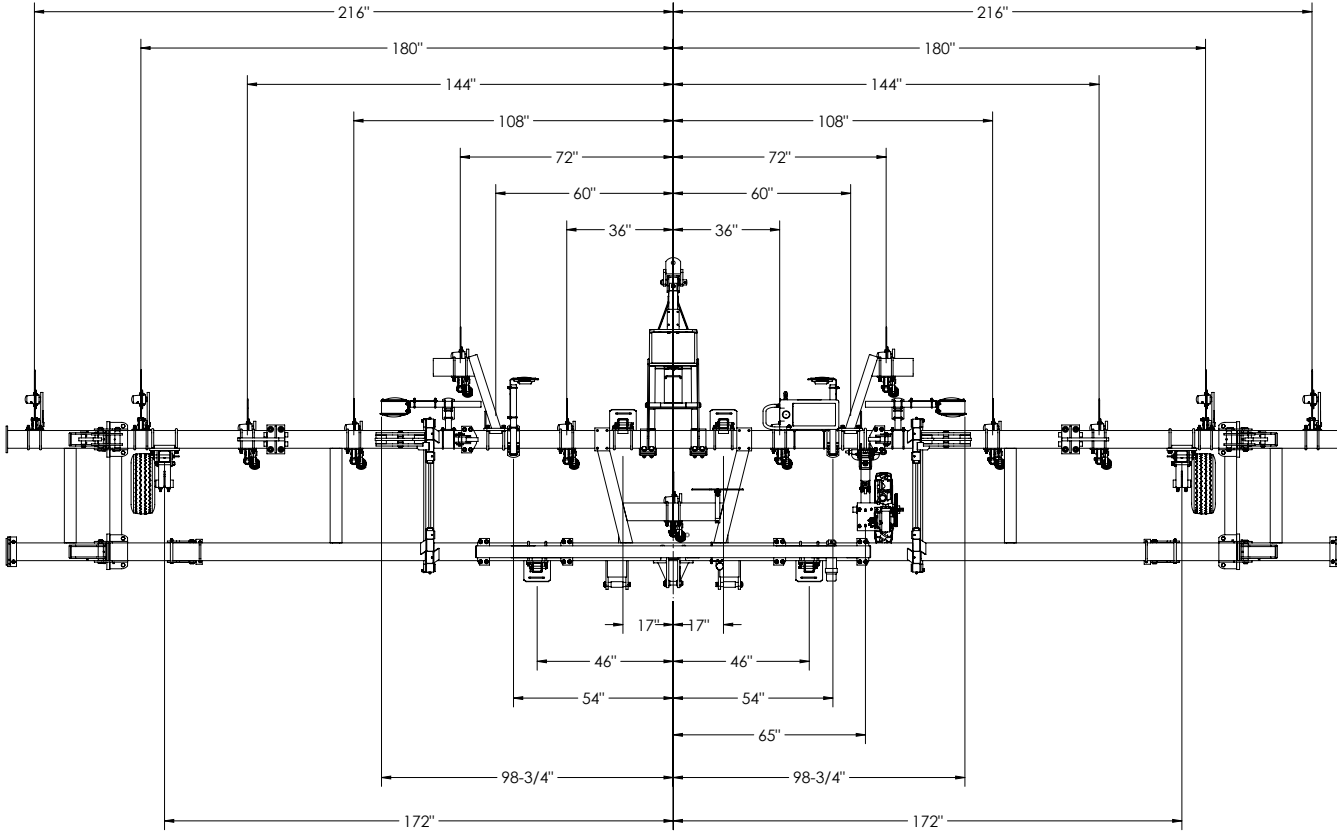




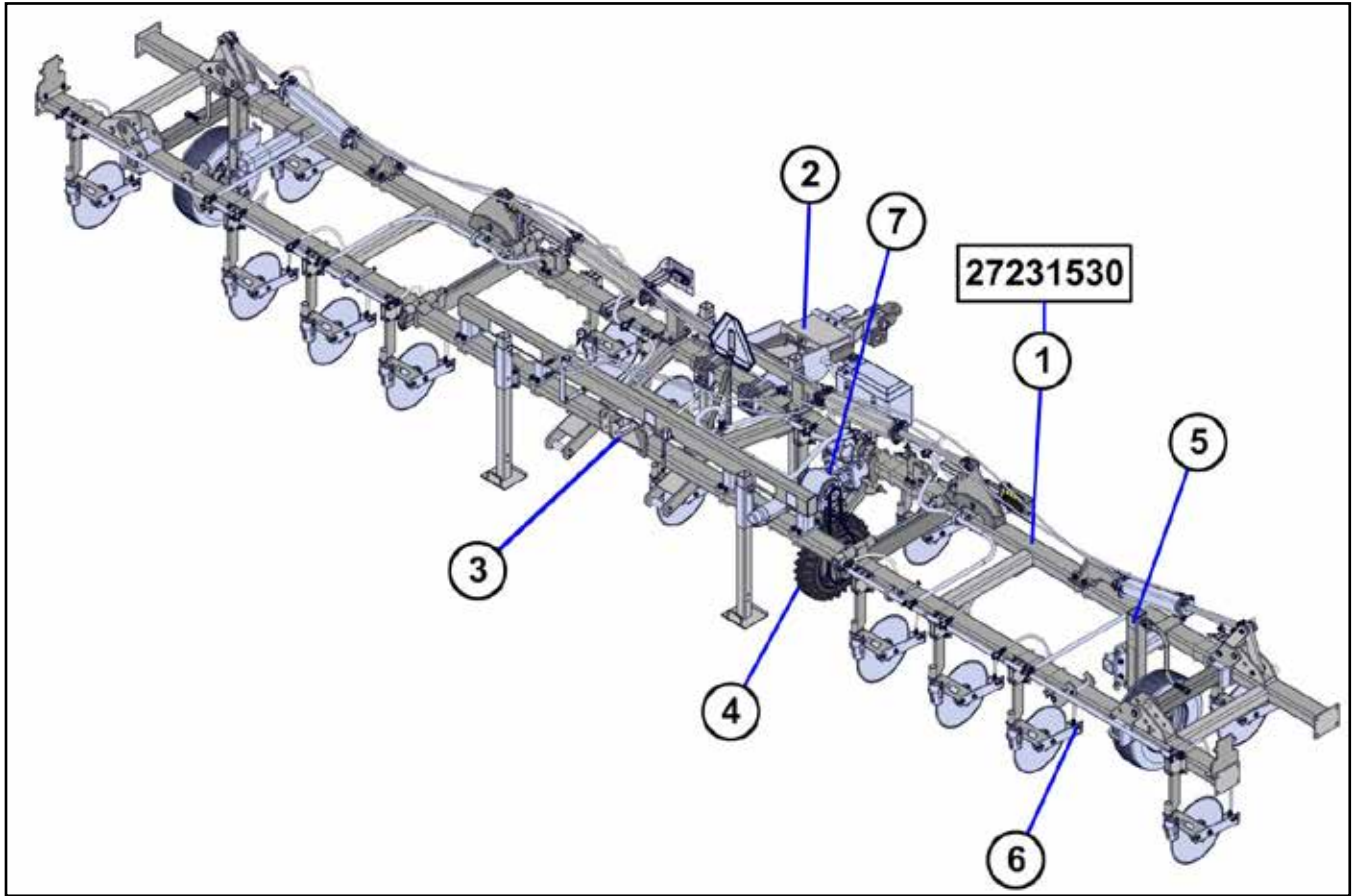
LANDRUNNER 3 LF  
MANUAL ADJUST GW  
13 ROW 36"



## LANDRUNNER 3 LF VERTICAL PIN ADJUST GW 13 ROW 36"



<b>BLU-JET</b>	<b>Frame, LandRunner 3, 37', Manual Gauge Wheels (27231530)</b>		
<b>LR 3, LF</b>	Task	Procedures	Illustrations



BOM ID	Qty	Item No	Description
1	1	27231530	LANDRUNNER 3 LIQUID FERTILIZER
2	1	27210958	NURSE TANK HITCH, AUTOLOK, 4" X 6" MOUNTING
3	1	27211010	LANDRUNNER 3 LF, 15R30, BASE UNIT, 37'
4	1	27211015	GROUND DRIVE PUMP KIT, 60T SPROCKET
5	1	27211016	LANDRUNNER 3, MANUAL GAUGE WHEEL
6	15	AAM3353	JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW
7	1	CP2569	PUMP, TWIN PISTON, NGP-9055, 68.4 GAL



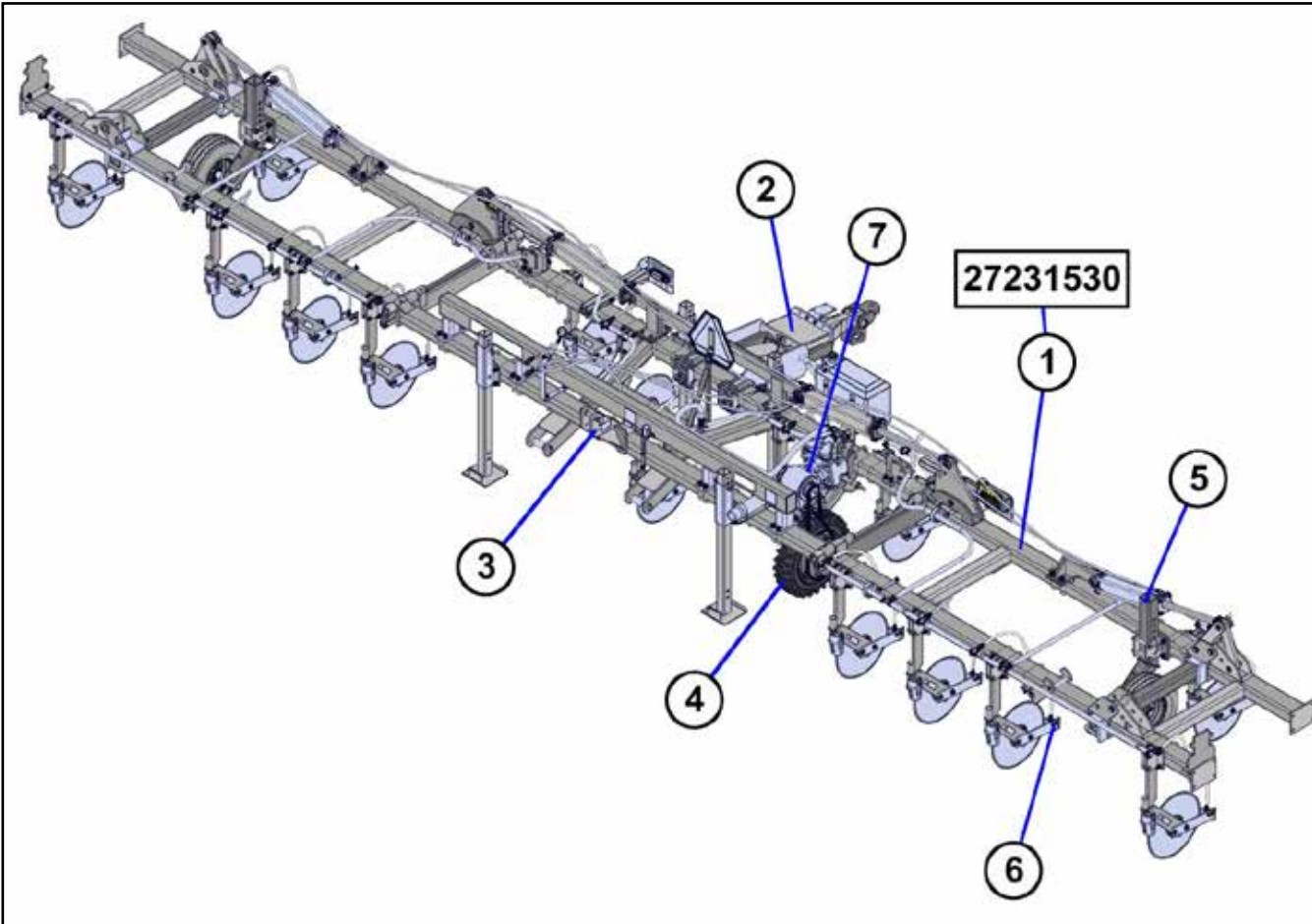
## Frame, LandRunner 3, 37', Pin Adjust Gauge Wheels (27231530)

LR 3, LF

Task

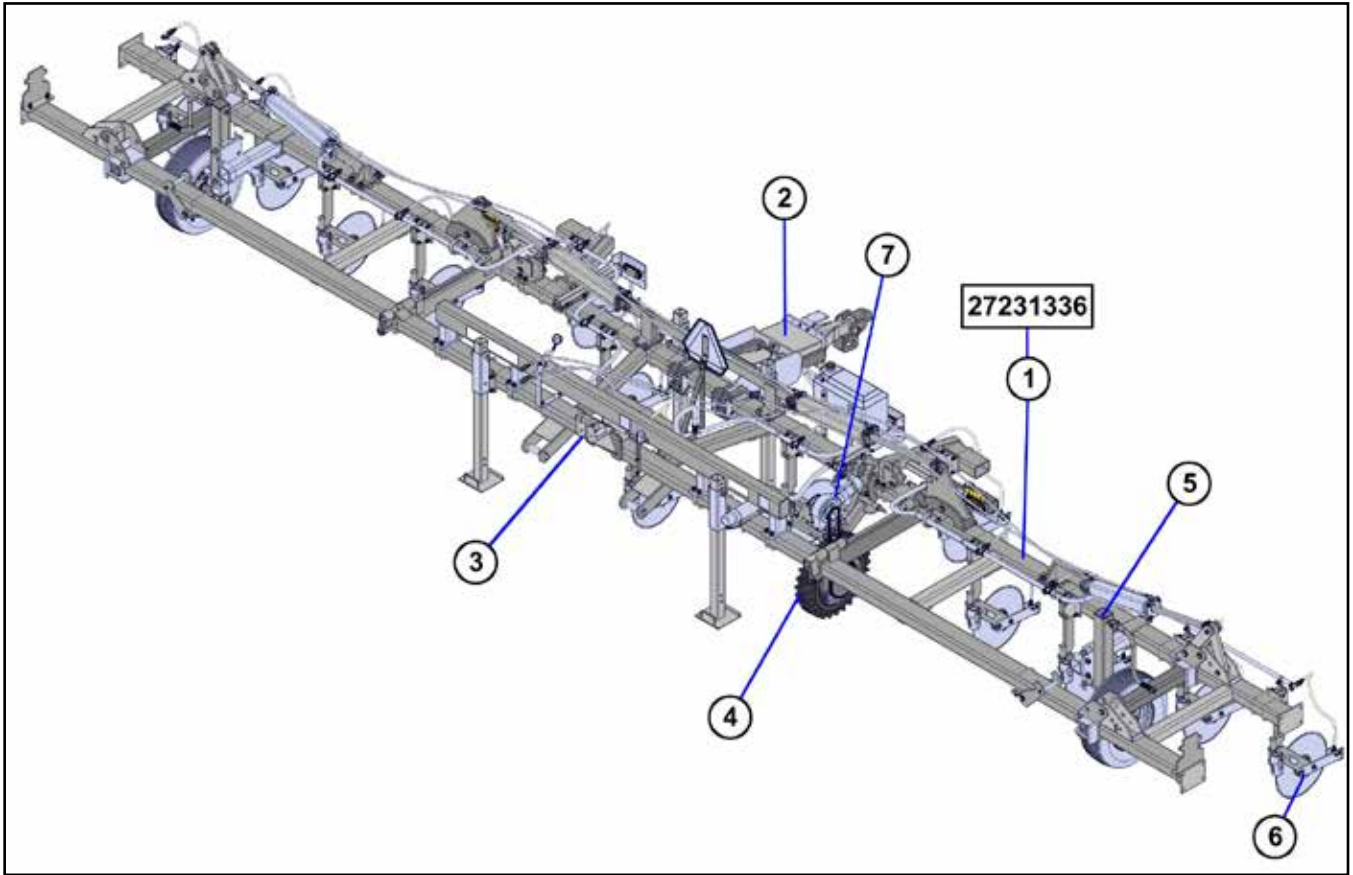
Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	27231530	LANDRUNNER 3 LIQUID FERTILIZER
2	1	27210958	NURSE TANK HITCH, AUTOLOK, 4" X 6" MOUNTING
3	1	27211010	LANDRUNNER 3 LF, 15R30, BASE UNIT, 37'
4	1	27211015	GROUND DRIVE PUMP KIT, 60T SPROCKET
5	1	27211017	GAUGE WHEEL, VERTICAL PIN ADJUST, ANGLED, 1 PAIR
6	15	AAM3353	JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW
7	1	CP2569	PUMP, TWIN PISTON, NGP-9055, 68.4 GAL

<b>BLU-JET</b>	<b>Frame, LandRunner 3, 37', Manual Gauge Wheels (27231336)</b>		
<b>LR 3, LF</b>	Task	Procedures	Illustrations



BOM ID	Qty	Item No	Description
1	1	27231336	LANDRUNNER 3 LIQUID FERTILIZER
2	1	27210958	NURSE TANK HITCH, AUTOLOK, 4" X 6" MOUNTING
3	1	27211013	LANDRUNNER 3 LF, 13R36, BASE UNIT, 37'
4	1	27211014	GROUND DRIVE PUMP KIT, 50T SPROCKET
5	1	27211016	LANDRUNNER 3, MANUAL GAUGE WHEEL
6	13	AAM3353	JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW
7	1	CP2568	PUMP, SINGLE PISTON, NGP-7055, 34.2 GAL



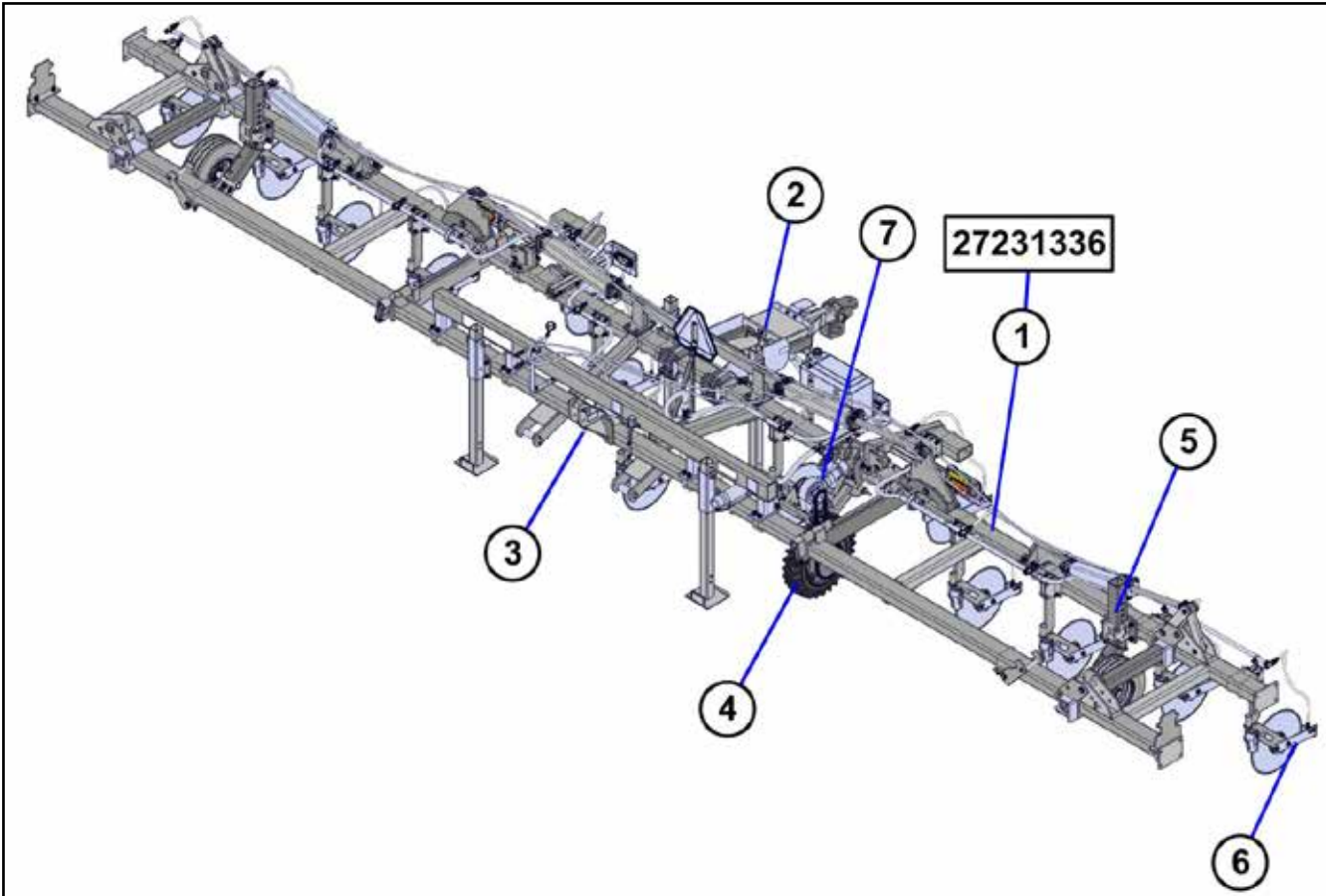
## Frame, LandRunner 3, 37', Pin Adjust Gauge Wheels (27231336)

LR 3, LF


Task

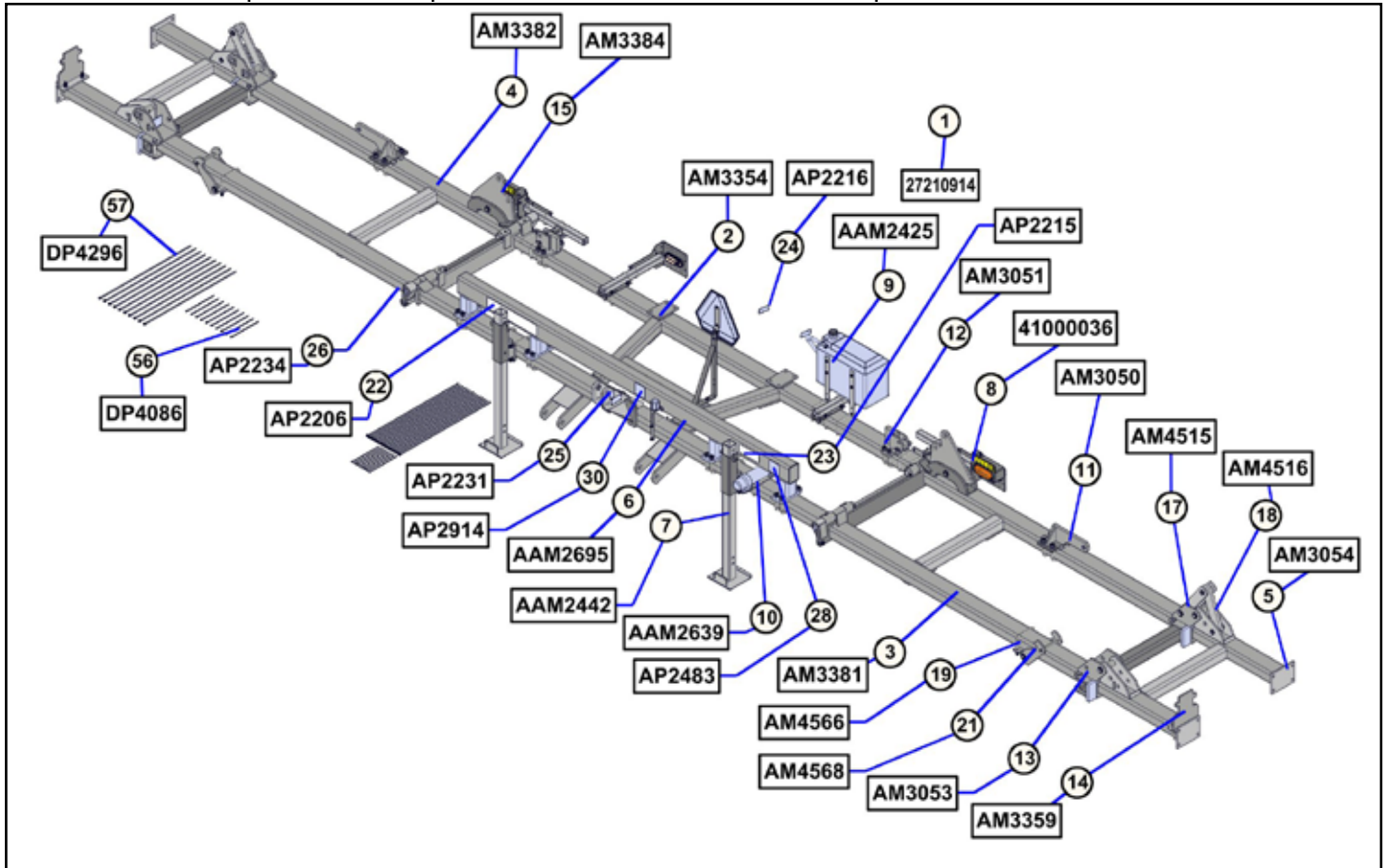
Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	27231336	LANDRUNNER 3 LIQUID FERTILIZER
2	1	27210958	NURSE TANK HITCH, AUTOLOK, 4" X 6" MOUNTING
3	1	27211013	LANDRUNNER 3 LF, 13R36, BASE UNIT, 37'
4	1	27211014	GROUND DRIVE PUMP KIT, 50T SPROCKET
5	1	27211017	GAUGE WHEEL, VERTICAL PIN ADJUST, ANGLED, 1 PAIR
6	13	AAM3353	JETSTREAM LIQUID ASSEMBLY, TEE-JET CHECK, 1 ROW
7	1	CP2568	PUMP, SINGLE PISTON, NGP-7055, 34.2 GAL

	<b>LandRunner 3, Frame, 37', 8'7", 2'8", 180 Degree Fold (27210914)</b>		
	LR 3, LF	Task	Procedures



BOM ID	Qty	Item No	Description
1	1	27210914	FRAME, LANDRUNNER 3, 37', 8' 7", 2' 8", 180 DEGREE FOLD
2	1	AM3354	FRAME, MAIN, LANDRUNNER 3, 13'6" CENTER SECTION
2A	8	BP3072	GREASE ZERK, 1/4"-28
3	1	AM3381	WING, 8'7" PRIMARY, LEFT HAND, WITH DOWN FLEX
4	1	AM3382	WING, 8'7" PRIMARY, RIGHT HAND, WITH DOWN FLEX
5	2	AM3054	WING, 2'8", LANDRUNNER, 180 DEGREE FOLD
5A	4	BP3072	GREASE ZERK, 1/4"-28
6	1	AAM2695	CENTER SECTION BOLT-ON BRACE
7	2	AAM2442	PARKING STAND ASSEMBLY
8	1	41000036	LIGHTING KIT, LANDRUNNER
9	1	AAM2425	SAFETY TANK, TOOLBOX ASSEMBLY, 4" X 6"
10	1	AAM2639	MANUAL HOLDER WITH 6" X 4" MOUNTING
11	2	AM3050	CYLINDER LUG, LANDRUNNER, 180 DEGREE FOLD
11A	2	BP3516	TENSION BUSHING, 1-1/4" X 1" X 1" OAL
12	2	AM3051	WING STOP, LANDRUNNER, 180 DEGREE FOLD
13	4	AM3053	HINGE, LANDRUNNER, 180 DEGREE FOLD
14	2	AM3359	WING REST & LATCH, LANDRUNNER, 180 DEGREE FOLD
15	2	AM3384	ROCKER PLATE, LANDRUNNER, 180 DEGREE FOLD
16	2	AM3389	BOLT ON WING SPACER




## LandRunner 3, Frame, 37', 8'7", 2'8", 180 Degree Fold (27210914) Continued

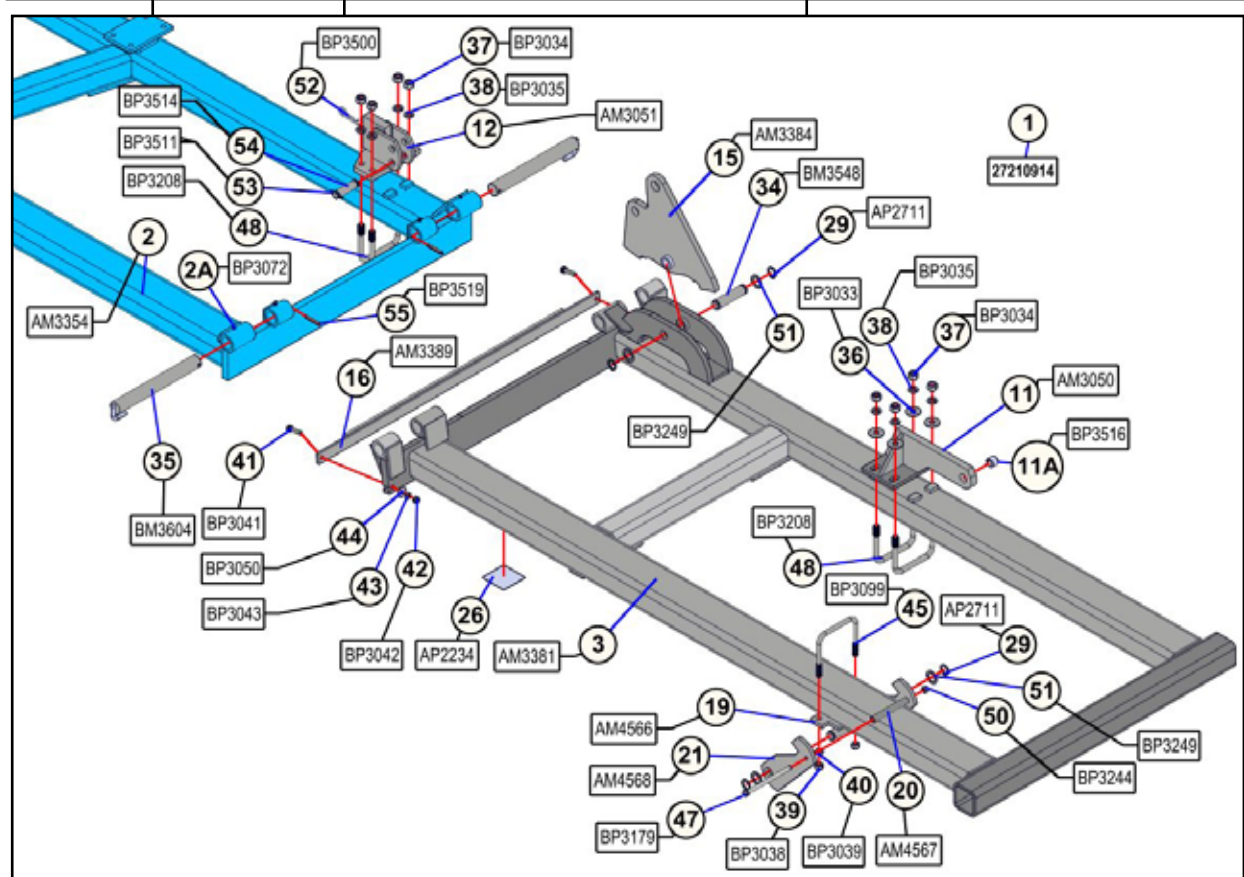
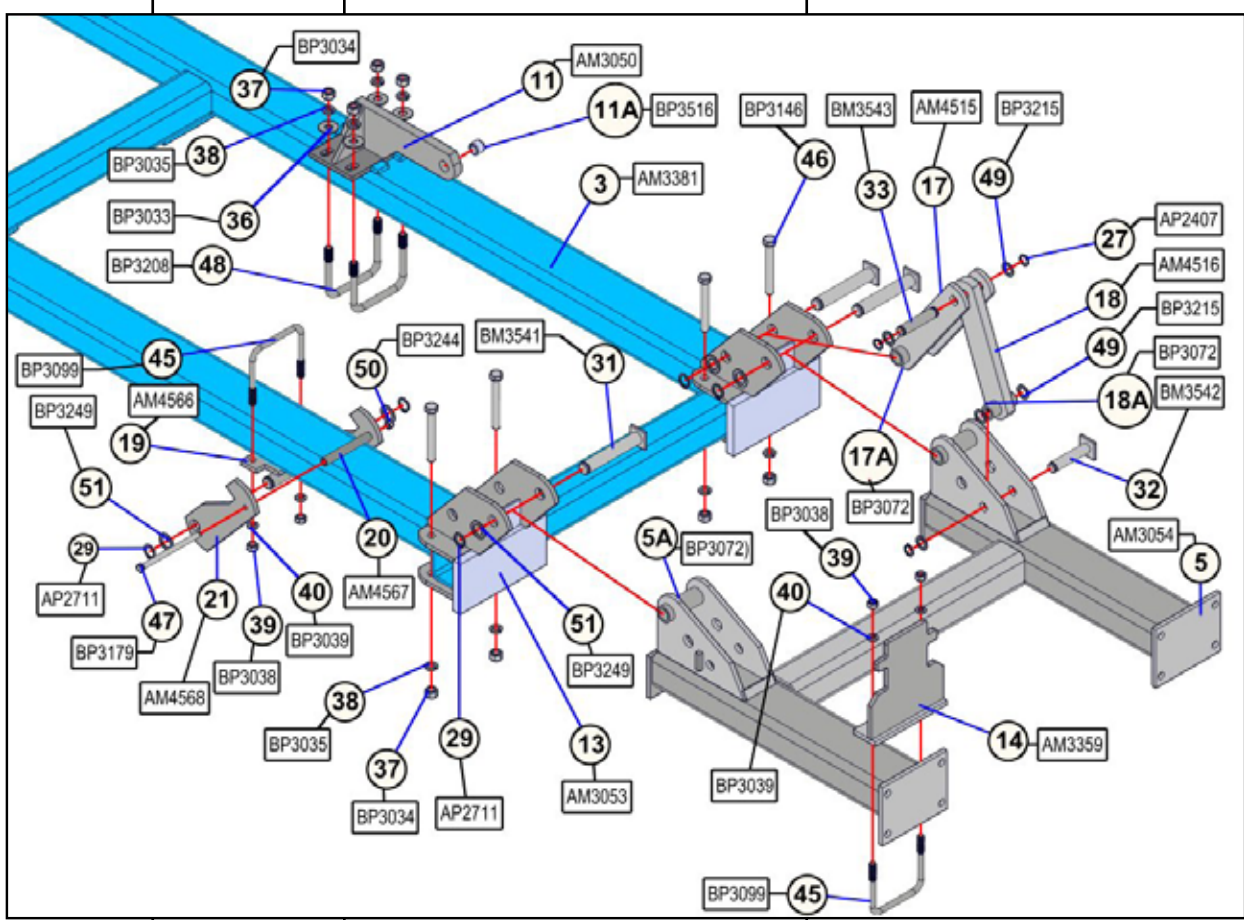
LR 3, LF

Task		Procedures	Illustrations
17	2	AM4515	LINKAGE, SECONDARY WING, DOUBLE
17A	2	BP3072	GREASE ZERK, 1/4"-28
18	2	AM4516	LINKAGE, SECONDARY WING, SINGLE
18A	4	BP3072	GREASE ZERK, 1/4"-28
19	2	AM4566	WING LATCH PIVOT, SECONDARY WING
20	2	AM4567	PIPE, SPACER
21	4	AM4568	SECONDARY WING LOCK PLATE
22	2	AP2206	DECAL, LANDRUNNER
23	4	AP2215	DECAL, BLU-JET, 3" X 8"
24	2	AP2216	DECAL, BLU-JET, SMALL, 1-1/2" X 4"
25	1	AP2231	DECAL, FEMA, 2-1/2" X 1-1/2"
26	2	AP2234	DECAL, DANGER STAND CLEAR FALLING WING
27	6	AP2407	SNAP RING, 1" EXTERNAL, HEAVY DUTY
28	1	AP2483	DECAL, DANGER, FALLING FROM EQUIPMENT
29	14	AP2711	SNAP RING, 1-1/4" EXTERNAL, HEAVY DUTY
30	1	AP2914	DECAL, WARNING, HIGH-PRESSURE FLUID
31	6	BM3541	PIN, 1-1/4" X 7-3/16", WITH ANTI-ROTATION
32	2	BM3542	PIN, 1" X 4-5/8", WITH ANTI-ROTATION
33	2	BM3543	PIN, 1" X 4-5/16", DOUBLE GROOVED, PLATED
34	2	BM3548	PIN, 1-1/4" X 4-3/4", DOUBLE GROOVED, PLATED
35	4	BM3604	PIN, 1-3/4" X 14-3/8" WITH ANTI-ROTATION
36	8	BP3033	WASHER, FLAT, 3/4", PLATED, TYPE A, SERIES W
37	24	BP3034	NUT, HEX, 3/4"-10, GRADE 2, PLATED
38	24	BP3035	WASHER, LOCK, 3/4", PLATED
39	8	BP3038	NUT, HEX, 5/8"-11, GRADE 2
40	8	BP3039	WASHER, LOCK, 5/8", PLATED
41	4	BP3041	HEX CAP SCREW, 1/2"-13 X 2", GRADE 5, PLATED
42	4	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
43	4	BP3043	WASHER, LOCK, 1/2", PLATED
44	4	BP3050	WASHER, FLAT, 1/2", PLATED
45	4	BP3099	U-BOLT, 5/8"-11 X 6" X 6", PLATED
46	8	BP3146	HEX CAP SCREW, 3/4"-10 X 6", GRADE 5, PLATED
47	2	BP3179	HEX CAP SCREW, 1/2"-13 X 8", GRADE 5, PLATED
48	8	BP3208	U-BOLT, 3/4"-10 X 6"W X 5-11/16"L, PLATED
49	10	BP3215	MACHINERY BUSHING, 1-1/2" OD X 1" ID, 14 GAUGE, PLATED
50	2	BP3244	NUT, HEX LOCK, 1/2"-13, PLATED
51	14	BP3249	MACHINERY BUSHING, 1-7/8" OD X 1-1/4" ID, 14 GAUGE, PLATED
52	2	BP3500	PIN, HAIR CLIP, 3/16"
53	2	BP3511	PIN, COTTER, 3/16" X 1-3/4"
54	2	BP3514	PIN, CLEVIS, 1" X 3-1/4"
55	4	BP3519	PIN, ROLL, 3/8" X 2-1/2", PLAIN
56	10	DP4086	CABLE TIE 11-3/8"
57	10	DP4296	CABLE TIE 33"



	<b>LandRunner 3, Frame, 37', 8'7", 2'8", 180 Degree Fold (27210914) Continued</b>		
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<b>LR 3, LF</b>	Task	Procedures	Illustrations
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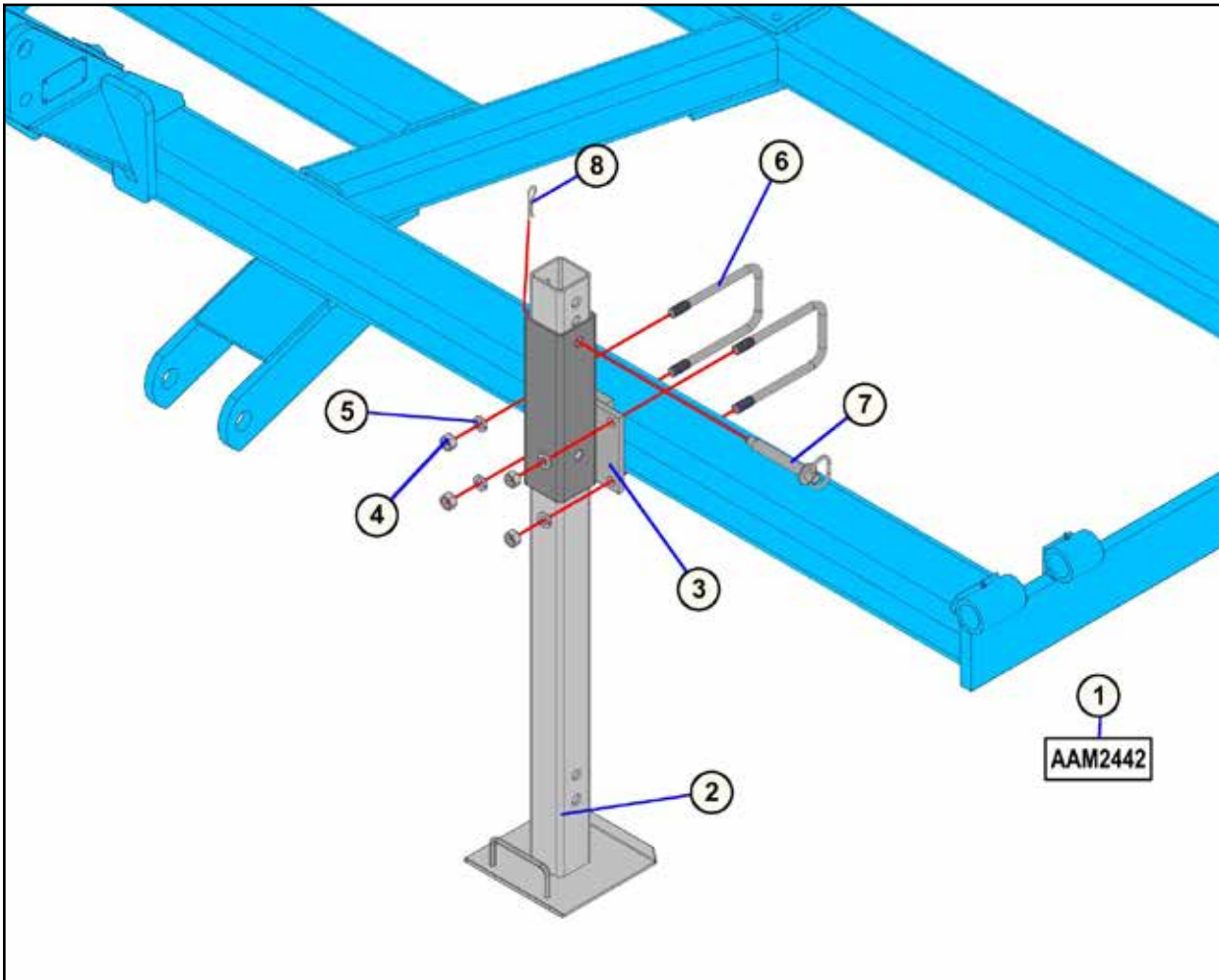
## Parking Stand (AAM2442)

LR 3, LF


Task

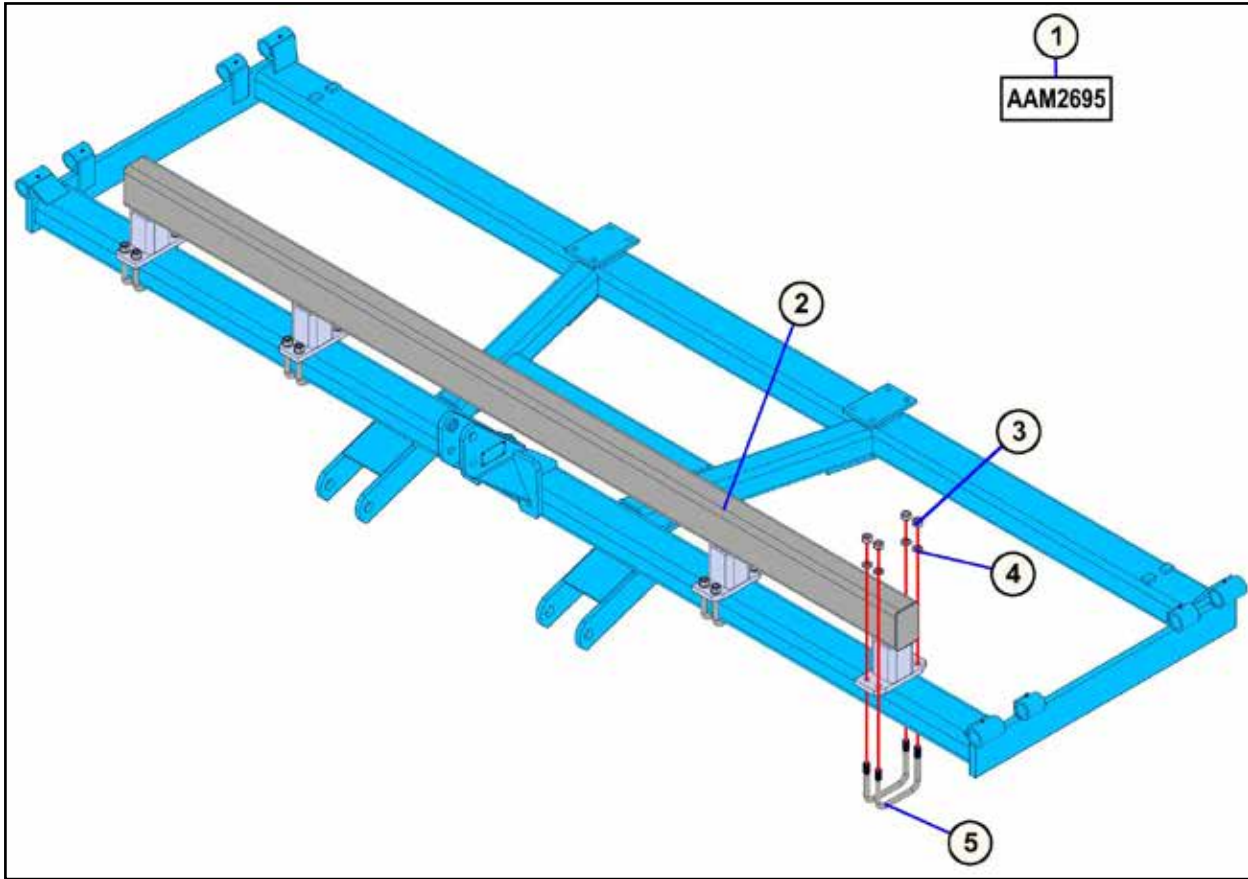
Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	AAM2442	PARKING STAND ASSEMBLY
2	1	AM4682	PARK STAND
3	1	AM5054	BRACKET, PARK STAND MOUNTING, 4" X 6"
4	4	BP3038	NUT, HEX, 5/8"-11, GRADE 2
5	4	BP3039	WASHER, LOCK, 5/8", PLATED
6	2	BP3331	U-BOLT, 5/8"-11 X 4"W X 7-3/4"L, PLATED
7	1	BP3502	PIN, HITCH, 3/4" X 4-1/2"
8	1	BP3504	PIN, HAIRCLIP, 1/8"

	<b>Center Section Bolt-on Brace (AAM2695)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>



BOM ID	Qty	Item No	Description
1	1	AAM2695	CENTER SECTION BOLT-ON BRACE
2	1	AM2123	BRACE, CENTER SECTION BOLT-ON
3	16	BP3034	NUT, HEX, 3/4"-10, GRADE 2, PLATED
4	16	BP3035	WASHER, LOCK, 3/4", PLATED
5	8	BP3208	U-BOLT, 3/4"-10 X 6"W X 5-11/16"L, PLATED

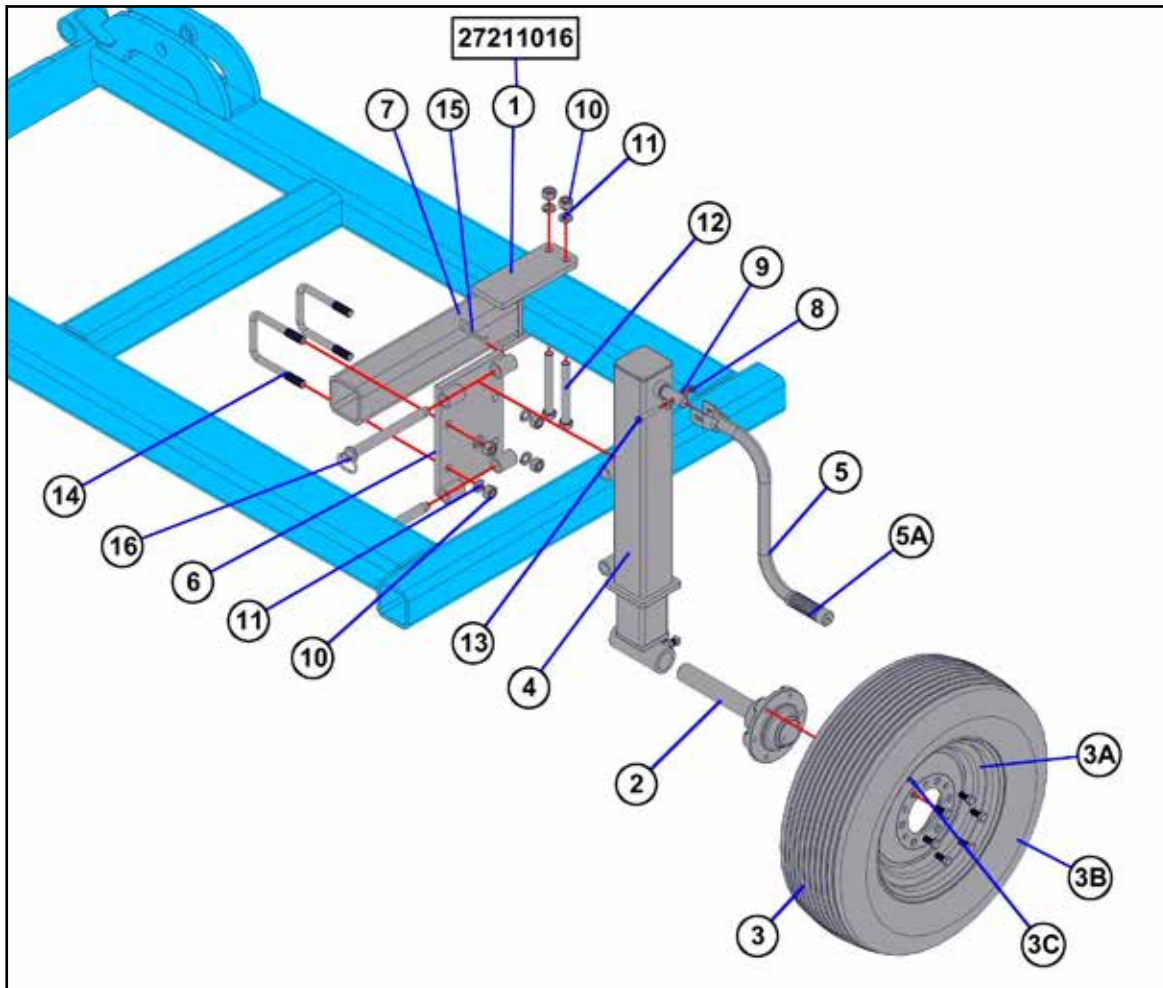
## LandRunner 3 Manual Gauge Wheel (27211016)

LR 3, LF

Task

Procedures

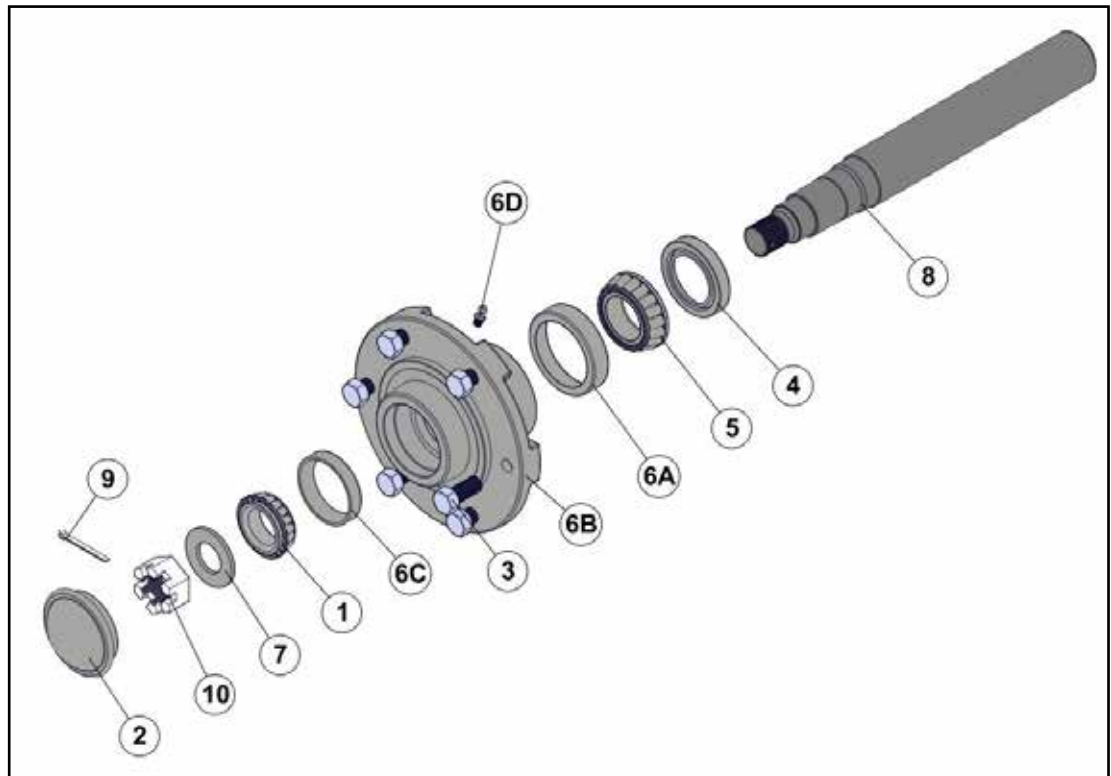
Illustrations



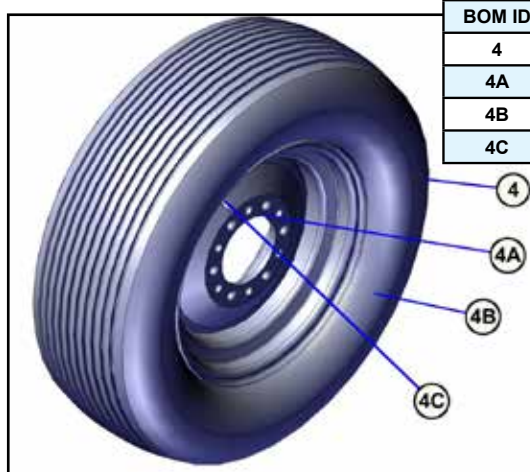
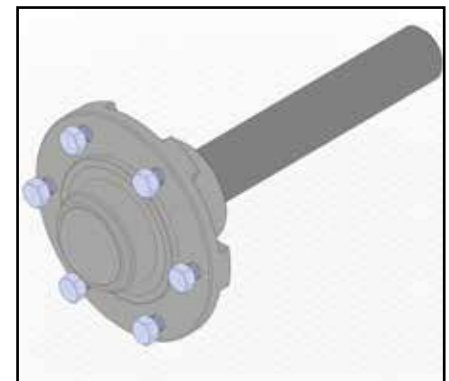
BOM ID	Qty	Item No	Description
1	1	27211016	LR III, MANUAL GAUGE WHEEL
2	2	AAM2705	ASSEMBLY, HUB AND SPINDLE, 611 HUB, 1-3/4" X 14"
3	2	AAM2752	WHEEL, 27 X 9.50-15, 6 PLY, 15 X 6 X 6, WHITE
3A	2	AP2001	RIM, 15 X 6 X 6, WHITE
3B	2	AP2071	TIRE, 27 X 9.50- 5,6 PLY, TERRA RIB
3C	2	AP2790	VALVE STEM, METAL
4	2	AM2505	JACK, VERTICAL GAUGE WHEEL
5	2	AM2526	CRANK WITH GRIP, 90 LONG
5A	2	AP2413	GRIP, JACK HANDLE
6	2	AM3013	BRACKET, INLINE TRANSPORT WING MOUNTING
7	2	AM3015	WING EXTENSION GAUGE WHEEL MOUNT 3 POINT ONLY
8	2	BP3003	NUT, HEX LOCK, 3/8"-16, GRADE 2, PLATED
9	4	BP3015	WASHER, FLAT, 3/8", PLATED
10	12	BP3034	NUT, HEX, 3/4"-10, GRADE 2, PLATED
11	12	BP3035	WASHER, LOCK, 3/4", PLATED
12	4	BP3036	HEX CAP SCREW, 3/4"-10 X 6-1/2", GRADE 5, PLATED
13	2	BP3096	HEX CAP SCREW, 3/8"-16 X 2-1/2", GRADE 5, PLATED
14	4	BP3174	U-BOLT, 3/4" - 10 X 4"W X 6"L
15	4	BP3500	PIN, HAIR CLIP, 3/16"
16	4	BP3505	PIN, 15/16" X 9" WITH HANDLE

**BLU-JET** Hub And Spindle Assembly, 611 Hub, 1-3/4" x 14" (AAM2705)

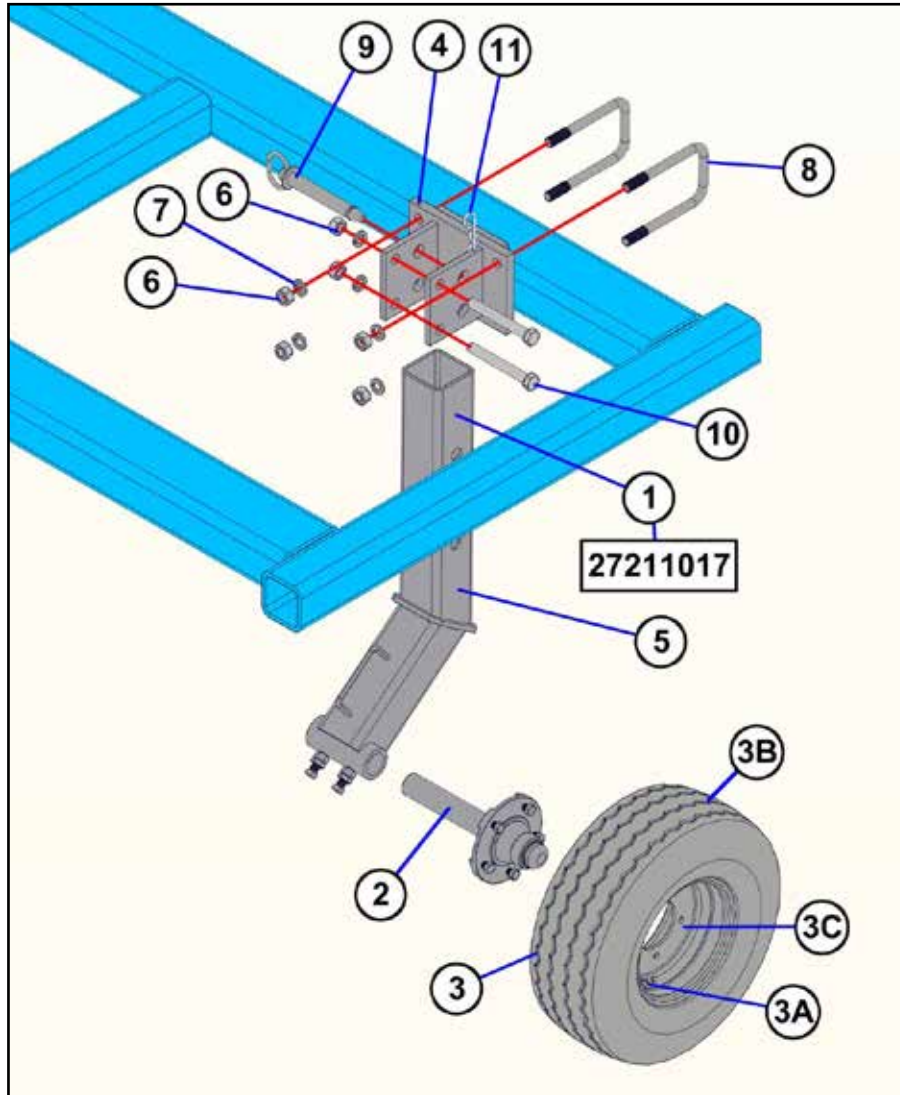
LR 3, LF	Task	Procedures	Illustrations
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BOM ID	Qty	Item No	Description
1	1	AP2023	BEARING CONE, LM 67048
2	1	AP2048	HUB CAP, 1513
3	6	AP2049	WHEEL BOLT, 1/2"-20 X 1"
4	1	AP2066	GREASE SEAL, CR 16289
5	1	AP2078	BEARING CONE, JL 69349
6	1	AP2123	HUB WITH CUPS, 6 BOLT, 611301-6
6A	1	AP2077	BEARING CUP, JL 69310
6B	1	AP2123-Hub	HUB, 6 BOLT, 611301-6
6C	1	AP2524	BEARING CUP, LM 67010
6D	1	BP3072	GREASE ZERK, 1/4"-28
7	1	AP2146	WASHER, SPINDLE, 2" X 1-1/16" X .134"
8	1	AP2168	SPINDLE, 1-3/4" X 14", S7203-I-00
9	1	AP2426	PIN, COTTER, 5/32" X 1-3/4"
10	1	AP2811	NUT, SPINDLE, 1"-14

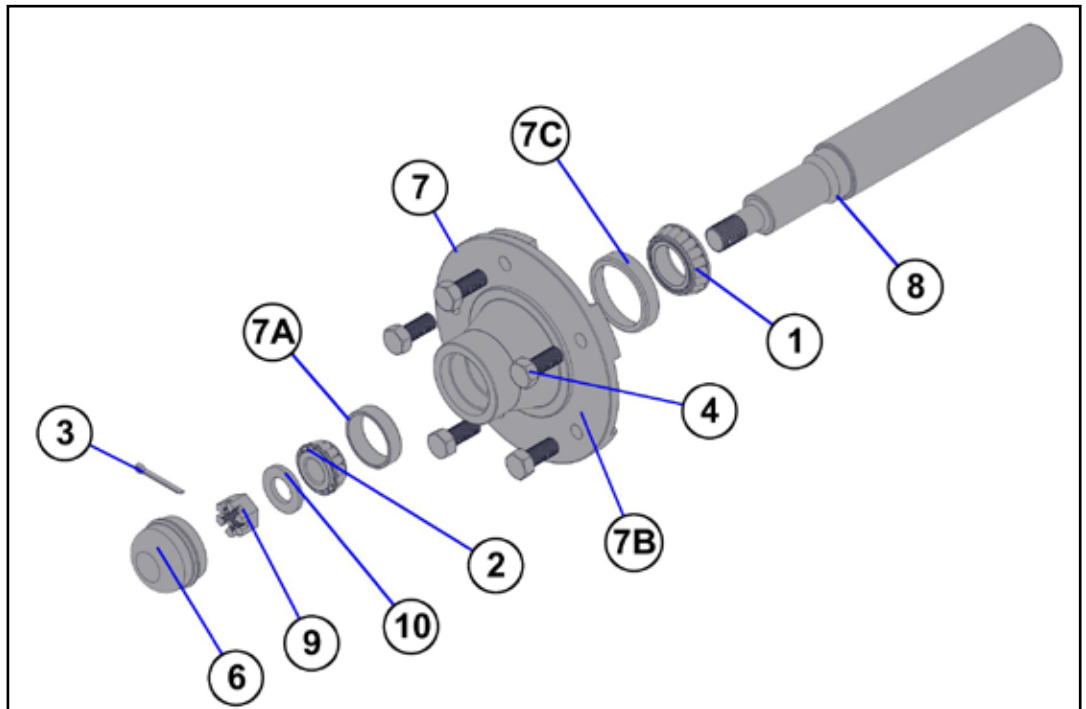


BOM ID	Qty	Item No	Description
4	2	AAM2752	WHEEL, 27 X 9.50-15, 6 PLY, 15 X 6 X 6, WHITE
4A	1	AP2001	RIM, 15 X 6 X 6, WHITE
4B	1	AP2071	TIRE, 27 X 9.50- 5,6 PLY, TERRA RIB
4C	1	AP2790	VALVE STEM, METAL

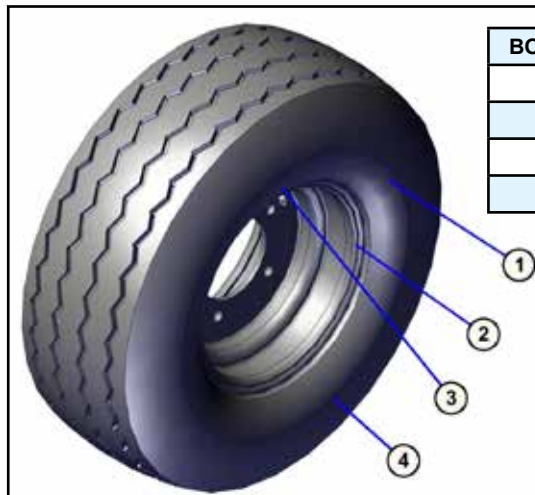
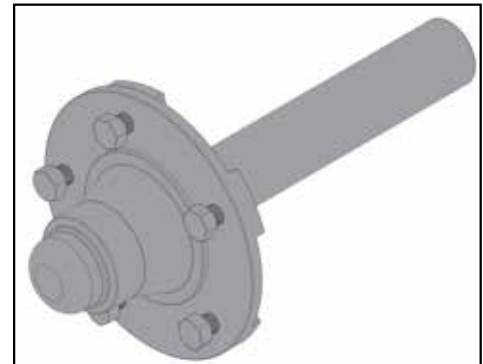


BOM ID	Qty	Item No	Description
1	1	27211017	GAUGE WHEEL, VERTICAL PIN ADJUST, ANGLED, 1 PAIR
2	2	AAM2707	ASSEMBLY, HUB & SPINDLE, 511 HUB, 1-3/4 X 13
3	2	AAM2781	WHEEL, 20.5 X 8.0-10, 10 X 6, WHITE
3A	2	AP2395	VALVE STEM, METAL
3B	2	AP2834	TIRE, 20.5 X 8.0-10, LOAD RATING E
3C	2	AP2893	RIM, 10 X 6, 5 BOLT, 5.5 BC, 4" PILOT
4	2	AM2391	BRACKET, GAUGE WHEEL MOUNTING, 4"X 6" MOUNTING
5	2	AM2392	GAUGE WHEEL LEG, VERTICAL PIN ADJUST, ANGLED
6	12	BP3034	NUT, HEX, 3/4"-10, GRADE 2, PLATED
7	12	BP3035	WASHER, LOCK, 3/4", PLATED
8	4	BP3047	U-BOLT, 3/4"-10 X 4"W X 7-3/4"L
9	2	BP3051	PIN, 1" X 6", HITCH, PLATED
10	4	BP3146	HEX CAP SCREW, 3/4"-10 X 6", GRADE 5, PLATED
11	2	BP3500	PIN, HAIR CLIP, 3/16"

<b>BLU-JET</b> 	<b>Hub And Spindle Assembly, 511 Hub, 1-3/4" x 13" (AAM2707)</b>		
	LR 3, LF	Task	Procedures



BOM ID	Qty	Item No	Description
1	1	AP2023	BEARING CONE, LM 67048
2	1	AP2024	BEARING CONE, LM 11949
3	1	AP2029	PIN, COTTER, 5/32" X 1-1/2"
4	5	AP2049	WHEEL BOLT, 1/2"-20 X 1"
5	1	AP2052	GREASE SEAL, CR 14974
6	1	AP2053	HUB CAP, 1524
7	1	AP2124	HUB WITH CUPS, 5 BOLT, 511300-5
7A	1	AP2075	BEARING CUP, LM 11910
7B	1	HUB	HUB,5 BOLT, 5.5" BOLT CIRCLE, 4" PILOT
7C	1	AP2524	BEARING CUP, LM 67010
8	1	AP2169	SPINDLE, 1-3/4" X 13", S7151-H-00
9	1	AP2704	NUT, SPINDLE, 3/4"-16
10	1	AP2705	WASHER, SPINDLE, 1-1/2" X 13/16" X .134"



BOM ID	Qty	Item No	Description
1	1	AAM2781	WHEEL, 20.5 X 8.0-10, 10 X 6, WHITE
2	1	AP2893	RIM, 10 X 6, 5 BOLT, 5.5 BC, 4" PILOT
3	1	AP2395	VALVE STEM, METAL
4	1	AP2834	TIRE, 20.5 X 8.0-10, LOAD RATING E



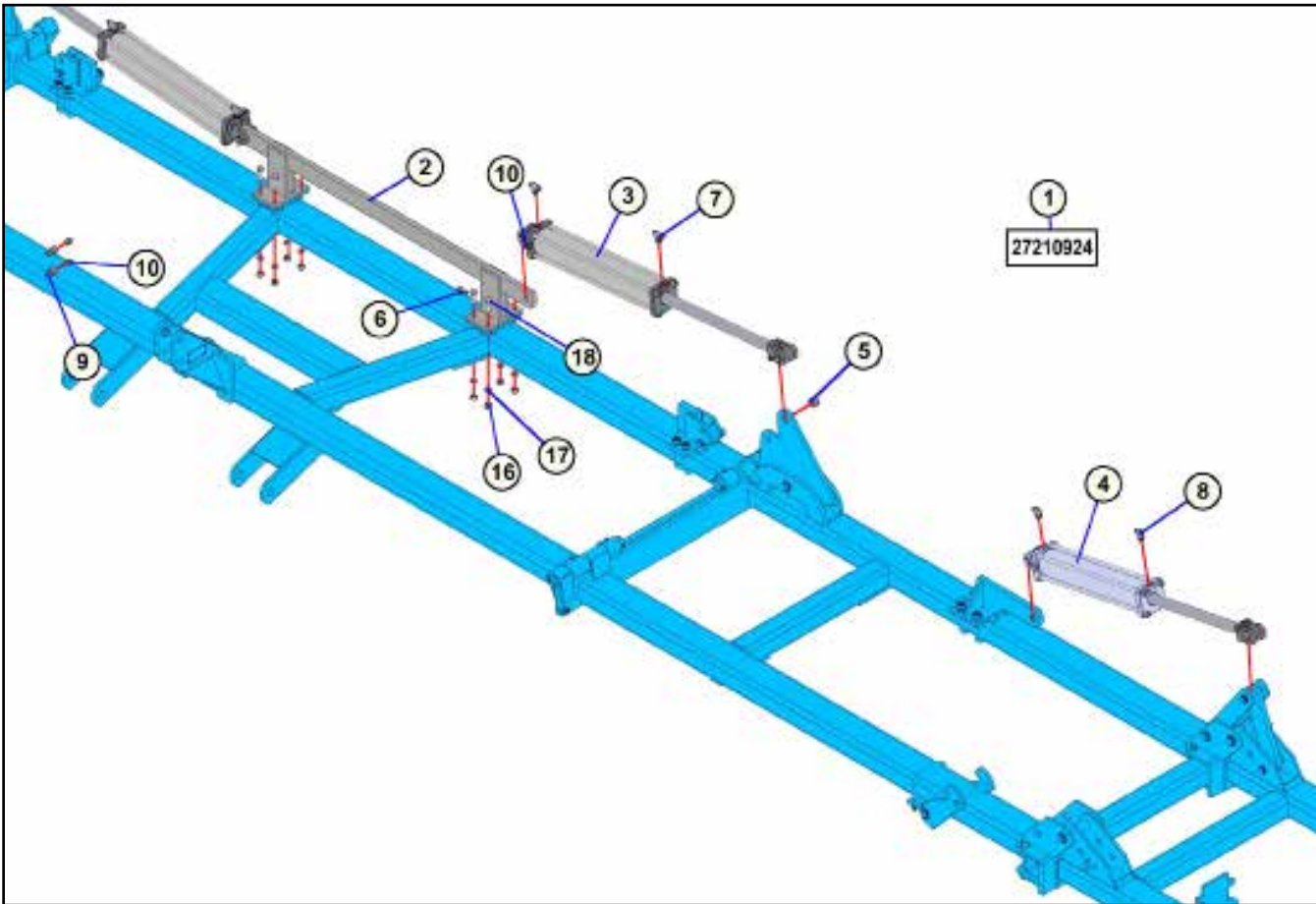
# LandRunner 3, 41' Hydraulics 180 Degree Fold (27210924)

LR 3, LF

Task

Procedures

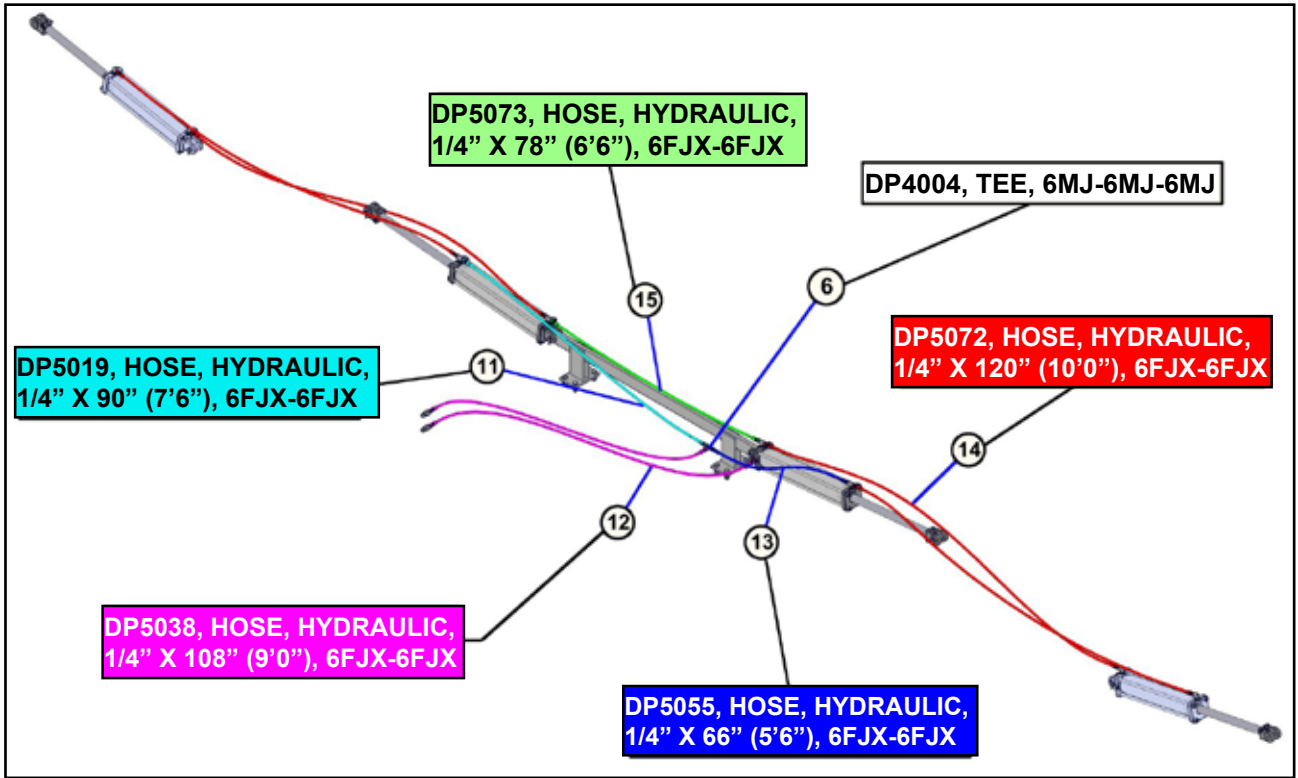
Illustrations



BOM ID	Qty	Item No	Description
1	1	27210924	HYD, 41', LR III, 4" 180* FOLD
2	1	AM3351	BRACKET, CYL LUG, 4" CYL, LR/LW 180° FOLD
3	2	DP4248	CYLINDER, HYD, 4 X 24, 3000 PSI, B400240ABACB07E
4	2	DP4375	CYLINDER, HYD, 4 X 20, 3000 PSI, B400200ABACB07E
5	2	BP3570	TENSION BUSHING, 1-1/2" X 1" X 1" OAL
6	1	DP4004	TEE, 6MJ-6MJ-6MJ
7	4	DP4181	TEE, BRANCH, 8MSAE X 6MJ-6MJ, 6803-6-6-8
8	4	DP4301	ADAPTER, 6MJ-8MSAE, 90°
9	2	DP4383	COUPLER, PIONEER, 8MQBA-8FSAE
10	3	DP4394	ADAPTER, 8MSAE-6MJIC, 6400-6-8
11	1	DP5019	HOSE, HYD, 1/4 X 90 (7'6"), 6FJX-6FJX
12	2	DP5038	HOSE, HYD, 1/4 X 108 (9'0"), 6FJX-6FJX
13	1	DP5055	HOSE, HYD, 1/4 X 66 (5'6"), 6FJX-6FJX
14	4	DP5072	HOSE, HYD, 1/4 X 120 (10'0"), 6FJX-6FJX
15	1	DP5073	HOSE, HYD, 1/4 X 78 (6'6"), 6FJX-6FJX
16	8	BP3038	NUT, HEX, 5/8"-11, GRD 2
17	8	BP3039	WASHER, LOCK, 5/8", PLTD
18	8	BP3171	HEX CAP SCREW, 5/8"-11 X 2", GRD 5, PLTD



<b>BLU-JET</b>	<b>LandRunner 3, 41' Hydraulics 180 Degree Fold (27210924)</b>		
<b>LR 3, LF</b>	Task	Procedures	Illustrations



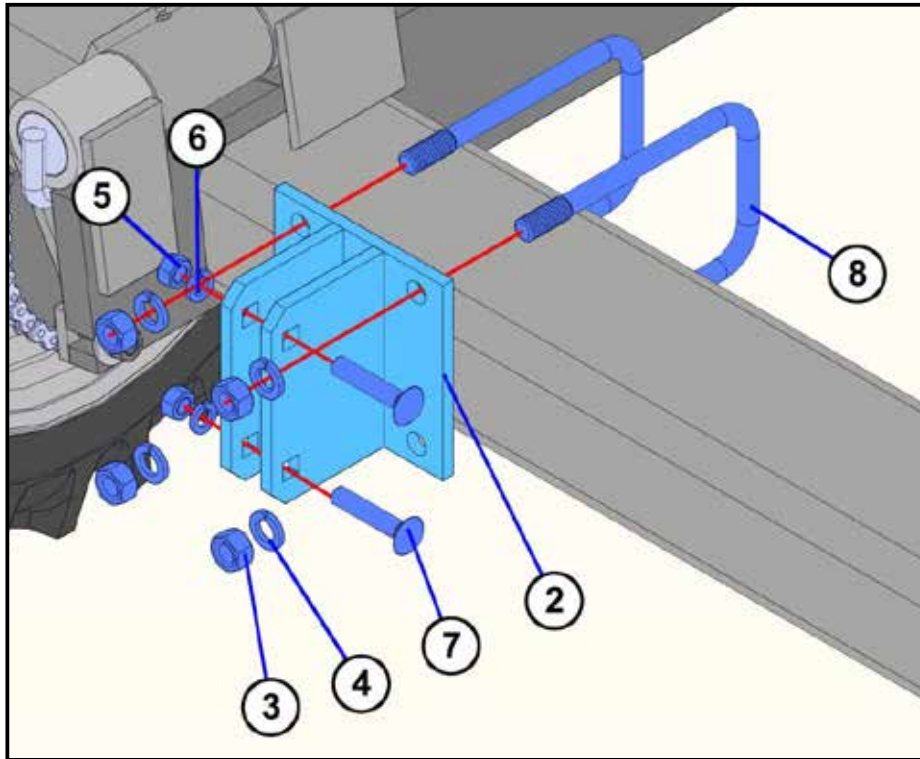
## Flatback Coultter Mounting 4" x 6" (AAM4798)

LR 3, LF


Task

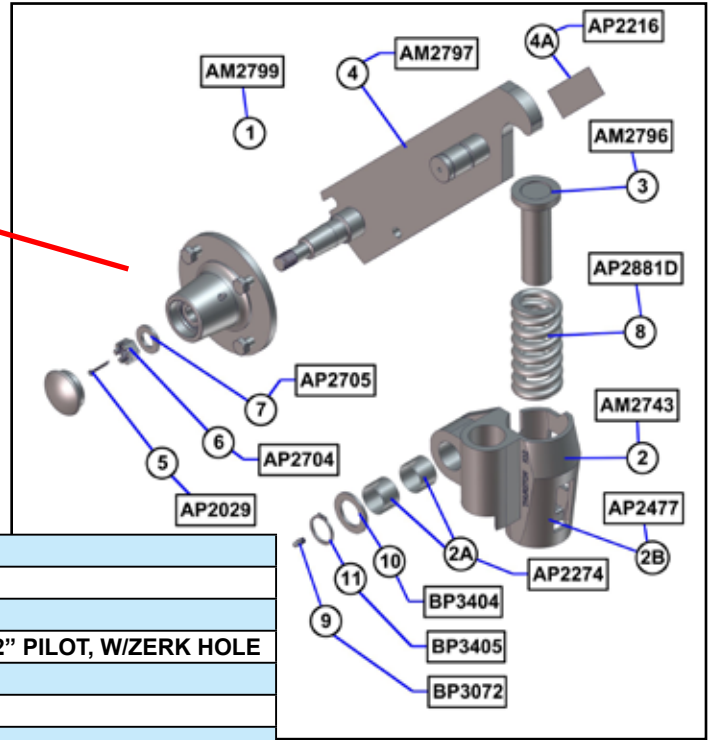
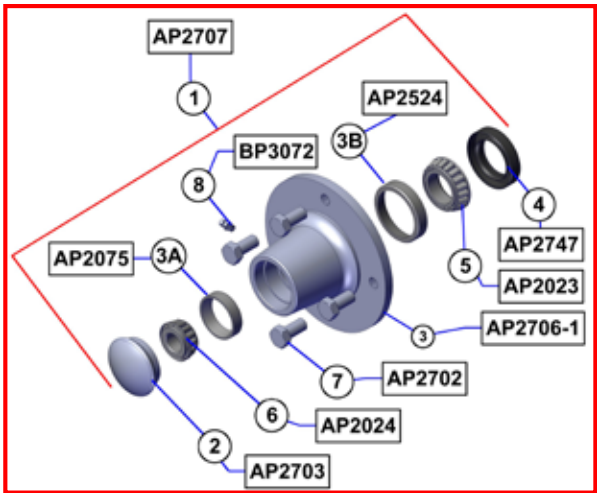
Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	AAM4798	BRACKET, FLATBACK COULTER MOUNTING, 4" X 6"
2	1	AM4772	BRACKET, FLATBACK, 4" X 6", CENTERED
3	4	BP3038	NUT, HEX, 5/8"-11, GRADE 2
4	4	BP3039	WASHER, LOCK, 5/8", PLATED
5	2	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
6	2	BP3043	WASHER, LOCK, 1/2", PLATED
7	2	BP3229	BOLT, CARRIAGE, 1/2"-13 X 2-1/2", GRADE 5, PLATED
8	2	BP3331	U-BOLT, 5/8"-11 X 4" X 7-3/4", PLATED

	<h1>Super 1200 Flex Coultter and Shank Parts</h1>		
<b>LR 3, LF</b>	Task	Procedures	Illustrations



**AP2707, HUB ASSEMBLY, 4 BOLT**

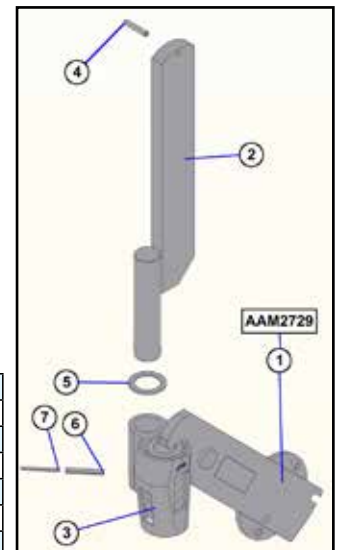
BOM ID	Qty	Item No	Description
1	1	AP2707	HUB ASSEMBLY, 4 BOLT
2	1	AP2703	HUB CAP, 1610
3	1	AP2706-1	HUB W/ CUPS, 4 BOLT, 5" BC, 3.62" PILOT, W/ZERK HOLE
3A	1	AP2075	BEARING CUP, LM 11910
3B	1	AP2524	BEARING CUP, LM 67010
4	1	AP2747	GREASE SEAL, 15235TB
5	1	AP2023	BEARING CONE, LM 67048
6	1	AP2024	BEARING 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

**► AAM2729 COULTER, SUPER 1200, 19, 1 ROW**

BOM ID	Qty	Item No	Description
1	1	AAM2729	COULTER, SUPER 1200, 19, 1R
2	1	AM2738	COULTER SHANK, 19"
3	1	AM2799	ASSEMBLY, COULTER ARM WITH HUB & KNEE CASTING, HEAVY DUTY
4	1	BP3162	PIN, ROLL, 3/8" X 2", PLATED
5	1	BP3466	MACHINERY BUSHING, 2-1/2" OD X 1-3/4" ID, 10 GAUGE, 18-8 STAINLESS STEEL
6	1	BP3519	PIN, ROLL, 3/8" X 2-1/2", PLAIN
7	1	BP3534	PIN, ROLL, 7/32" X 2-1/2", PLAIN



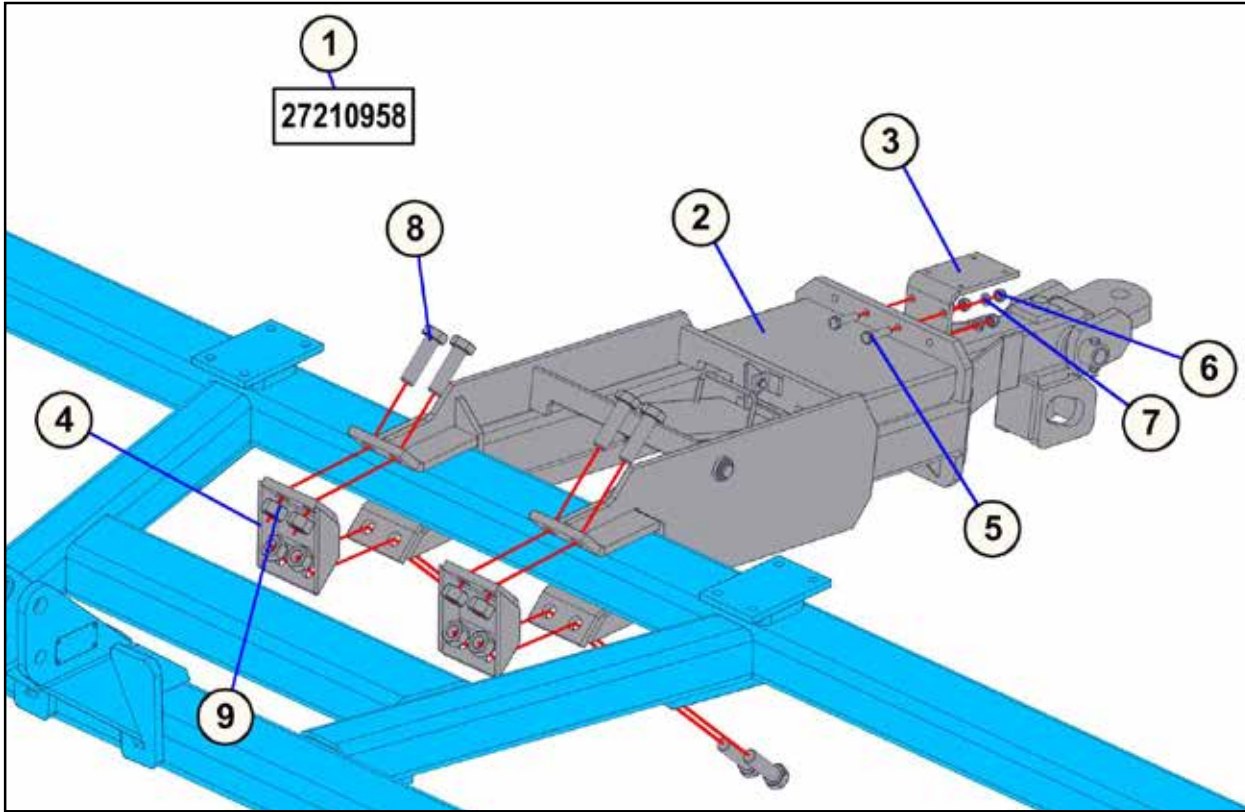
## Auto-Lok Nurse Tank Hitch Assembly (27210958)

LR 3, LF


Task

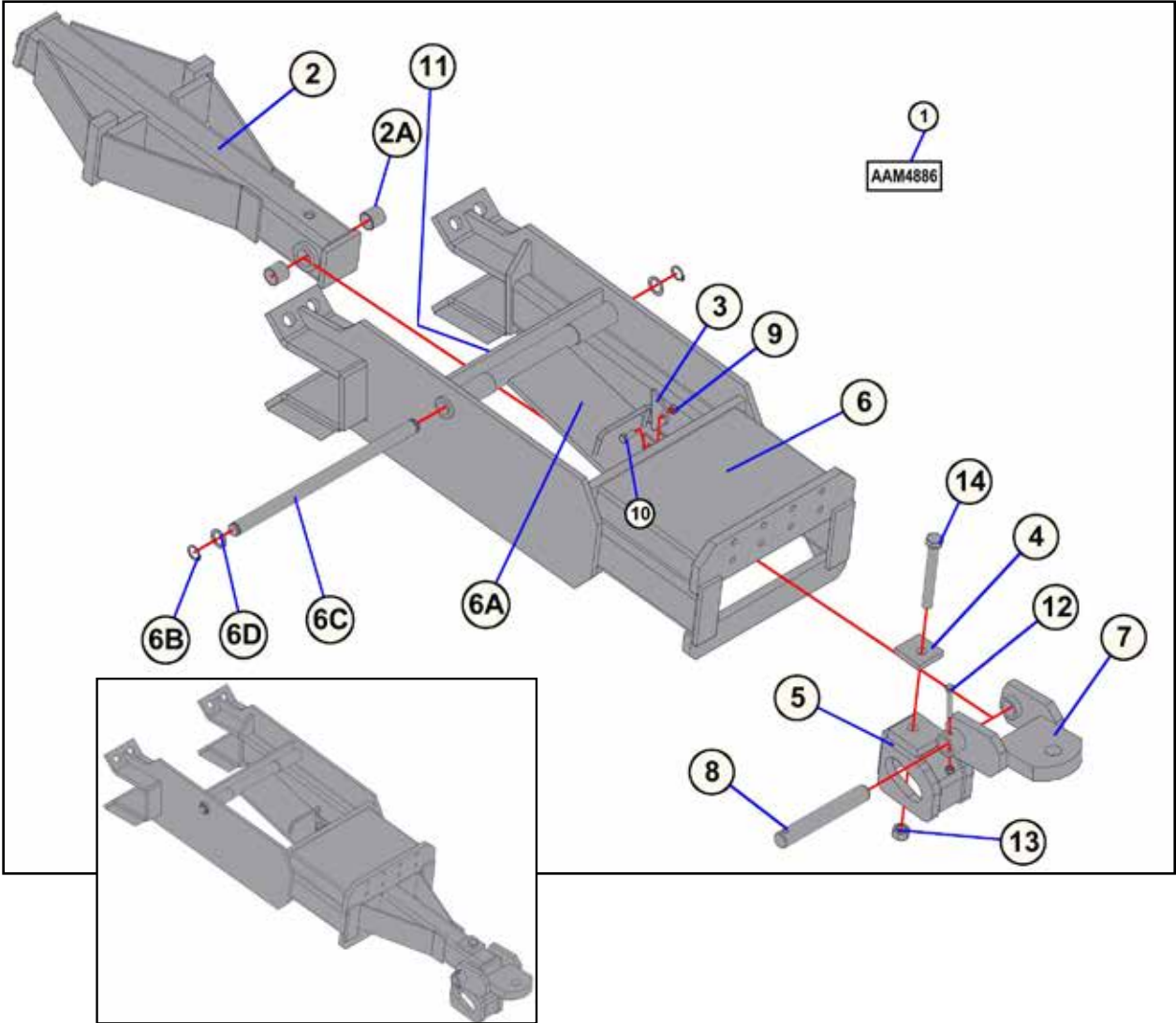
Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	27210958	NURSE TANK HITCH, AUTOLOK, 4" X 6" MOUNTING
2	1	AAM4886	ASSEMBLY, NURSE TANK HITCH, AUTO-LOK, 4" X 6" CLAMP MOUNTING
3	1	AM6193	SUPERSHOOTER MOUNTING, NURSE TANK HITCH, LOW PROFILE
4	2	AM6232	BRACKET, MOUNTING CLAMP
5	4	BP3041	HEX CAP SCREW, 1/2"-13 X 2", GRADE 5, PLATED
6	4	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
7	4	BP3043	WASHER, LOCK, 1/2", PLATED
8	8	BP3263	HEX CAP SCREW, 1"-8 X 3-1/2", GRADE 8, PLATED
9	8	BP3223	NUT, TOP LOCK, 1"-8, GRADE C, PLATED

	<b>Assembly, Nurse Tank Hitch, Auto-Lok, 4" X 6" Clamp Mounting (AAM4886)</b>		
	LR 3, LF	Task	Procedures



BOM ID	Qty	Item No	Description
1	1	AAM4886	ASSEMBLY, NURSE TANK HITCH, AUTO-LOK, 4" X 6" CLAMP MOUNTING
2	1	AM4533	HITCH, SWING SLIDE INSERT, STANDARD
2A	2	AP2156	BUSHING, 1-13/32" OD X 1-1/4" ID X 1-1/4" OAL
3	1	AM4539	SAFETY LATCH
4	1	AM4540	BACKING PLATE, SAFETY CHAIN LOOP
5	1	AM6230	BRACKET, SAFETY CHAIN ATTACHMENT
6	1	AM6231	HITCH, NURSE TANK, MAIN FRAME, STANDARD, CLAMP MOUNTING
6A	1	AM4536	INSERT LATCH, NURSE TANK HITCH
6B	2	AP2407	SNAP RING, 1" EXTERNAL, HEAVY DUTY
6C	1	BM3667	PIN, 1" X 18-1/8"
6D	2	BP3215	MACHINERY BUSHING, 1-1/2" OD X 1" ID, 14 GAUGE, PLATED
7	1	AM6233	FLIPPER HITCH, STANDARD, NURSE TANK HITCH
8	1	BM3665	PIN, 1-1/4" X 8-13/16" OAL, WITH 13/32" HOLE, PLATED
9	2	BP3003	NUT, HEX LOCK, 3/8"-16, GRADE 2, PLATED
10	1	BP3006	HEX CAP SCREW, 3/8"-16 X 1", GRADE 5, PLATED
11	1	BP3072	GREASE ZERK, 1/4"-28
12	1	BP3096	HEX CAP SCREW, 3/8"-16 X 2-1/2", GRADE 5, PLATED
13	1	BP3442	NUT, HEX LOCK, 3/4"-10, TOP LOCK, GRADE C, PLATED
14	1	BP3449	HEX CAP SCREW, 3/4"-10 X 6", GRADE 8, PLATED



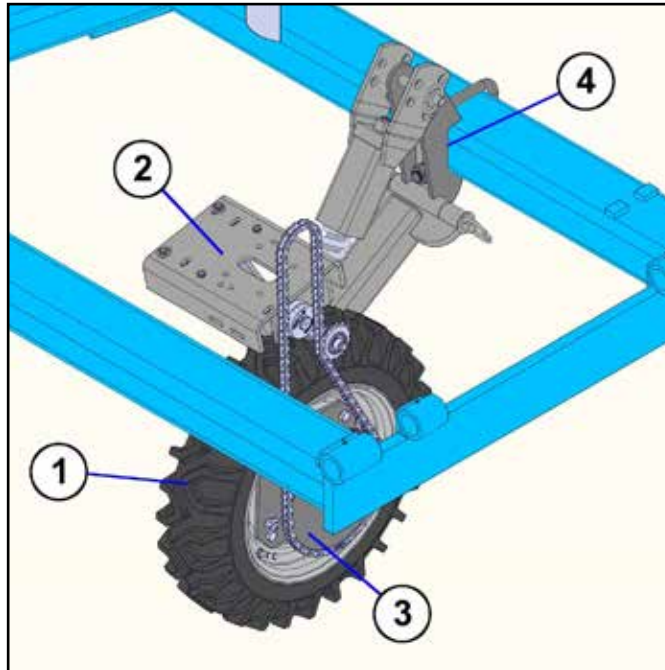
# Ground Drive Pump Kit, 50T Sprocket Assembly (27211014)

LR 3, LF

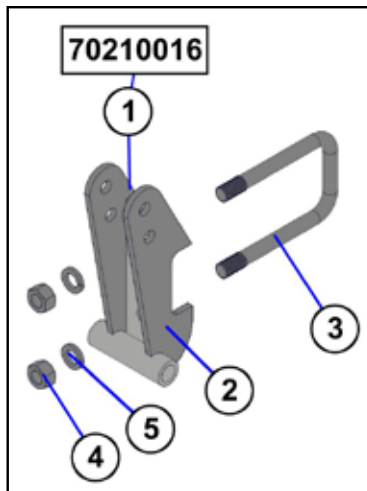
Task

Procedures

Illustrations

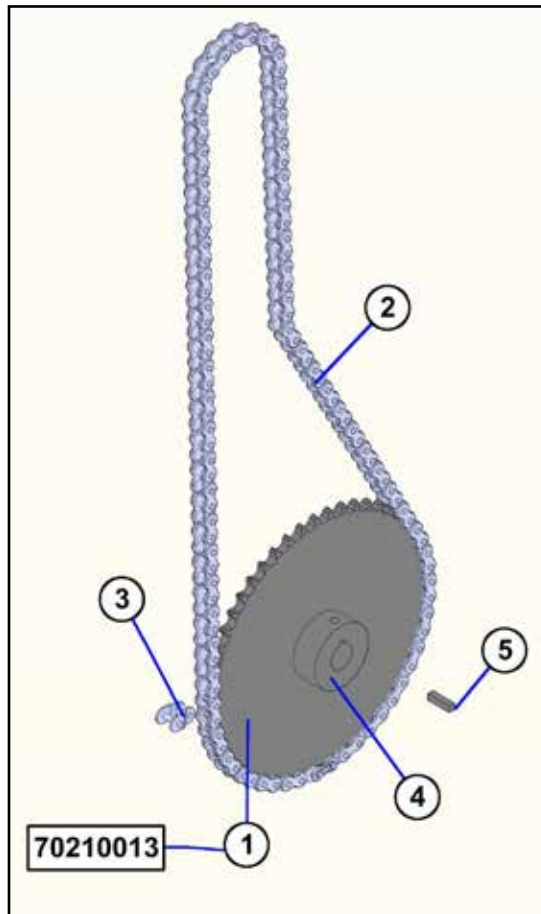


BOM ID	Qty	Item No	Description
1	1	27211014	GROUND DRIVE PUMP KIT, 50T SPROCKET
2	1	70210012	GROUND DRIVE BASE UNIT ASSEMBLY
3	1	70210013	50 TOOTH STANDARD RATE PISTON PUMP DRIVE KIT
4	1	70210016	4" X 6" TOOLBAR MOUNTING, GROUND DRIVE WHEEL

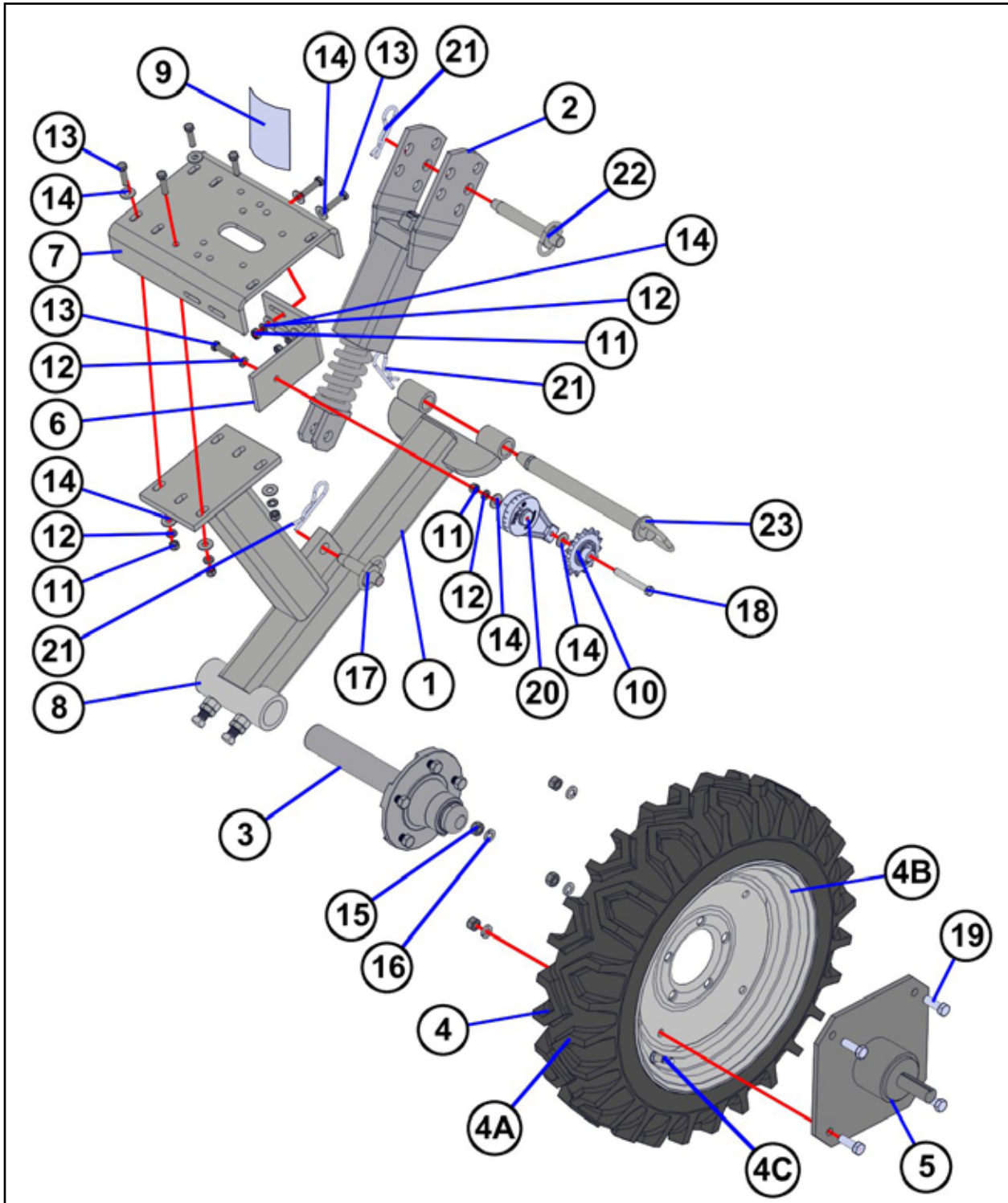


BOM ID	Qty	Item No	Description
1	1	70210016	4" X 6" TOOLBAR MOUNTING, GROUND DRIVE WHEEL
2	1	AM2182	BRACKET, MOUNTING, 4"
3	1	BP3337	U-BOLT, 7/8" - 9" X 4"W X 7-3/4"L
4	2	BP3338	NUT, HEX, 7/8"-9, GRADE 2, PLATED
5	2	BP3339	WASHER, LOCK, 7/8", PLATED


	<b>Ground Drive Pump Kit, 50T Sprocket Assembly (27211014)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>



BOM ID	Qty	Item No	Description
1	1	70210013	50 TOOTH STD RATE PISTON PUMP DRIVE KIT
2	1	AP2110	CHAIN, ROLLER, SS, #50, 130 PITCH
3	1	AP2112	#50 STAINLESS CONNECTOR
4	1	AP2604	SPROCKET, 5050 X, W/ HUB, 1" RND BORE, 1/4" KEYWAY
5	1	BM3527	1/4" X 1/4" X 1" KEY





<b>BLU-JET</b> 	<b>Ground Drive Base Unit Assembly (70210012)</b>		
	<b>LR 3, LF</b>	Task	Procedures

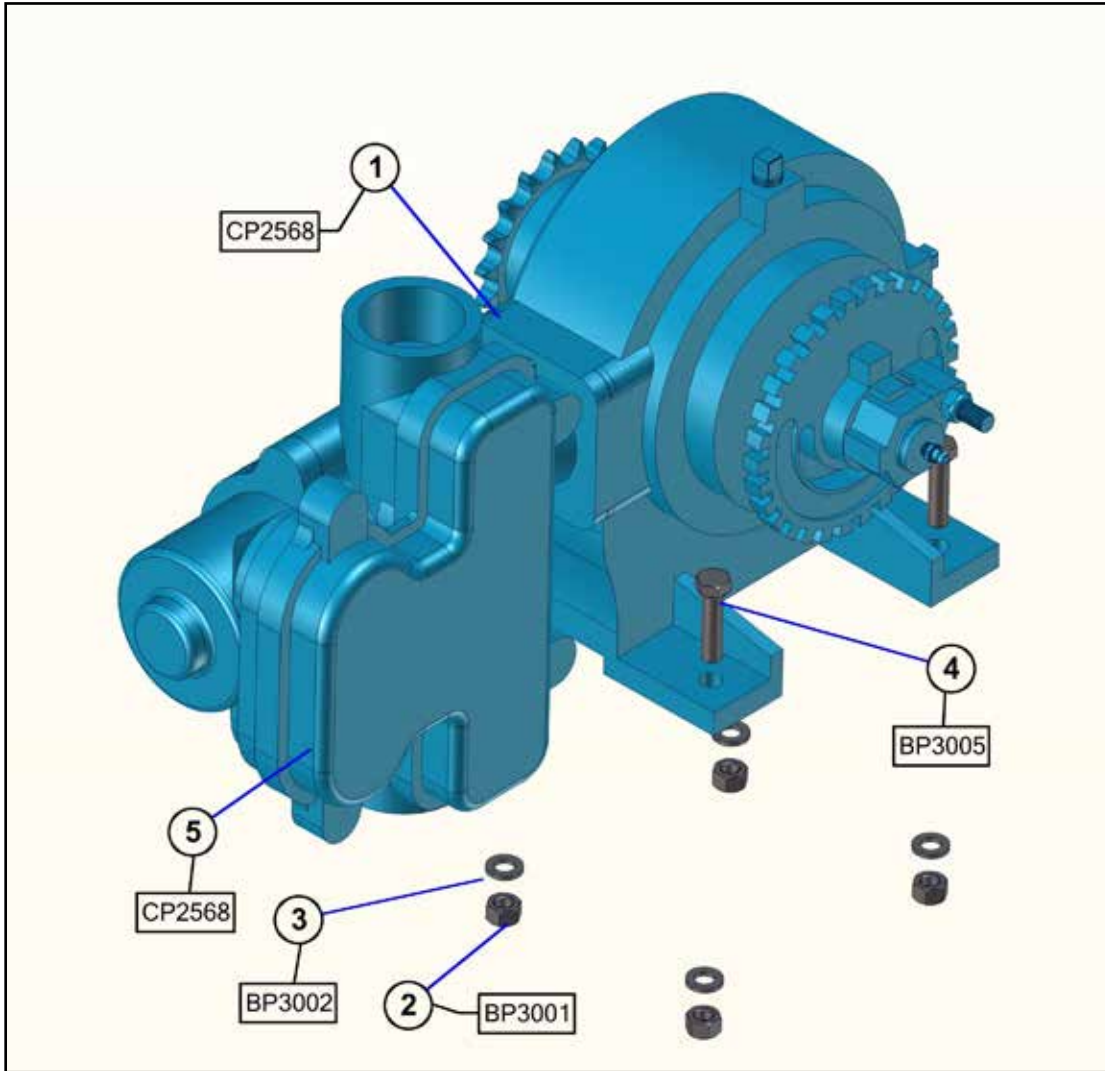
BOM ID	Qty	Item No	Description
1	1	70210012	GROUND DRIVE BASE UNIT ASSEMBLY
2	1	AAM2089	ASSEMBLY, SPRING ADJUSTER, GROUND DRIVE WHEEL
3	1	AAM2707	ASSEMBLY, HUB & SPINDLE, 511 HUB, 1-3/4" X 13"
4	1	AAM2750	WHEEL 5.00-15.4, 4 PLY 15 X 5 X 5, WHITE, 4 HOLE
4A	1	AP2002	TIRE, 5.00-15, 4 PLY SURE GRIP TRACTION
4B	1	AP2250	RIM, 15 X 5 X 5, WHITE W/ FOUR EXTRA HOLES
4C	1	AP2790	VALVE STEM, METAL
5	1	AM2021	GDW ADAPTER PLATE & HUB
6	1	AM2165	BRACKET, ROTARY TENSION ARM MOUNTING
7	1	AM2180	UNIVERSAL PUMP MOUNTING PLATE
8	1	AM2181	GROUND DRIVE WHEEL FRAME
9	1	AP2209	DECAL, CAUTION GROUND DRIVE WHEEL,
10	1	AP2382	SPROCKET, IDLER, 15T #50 CHAIN, W/ CLEVIS ADAPTER
11	7	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
12	8	BP3002	WASHER, LOCK, 3/8", PLATED
13	7	BP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRADE 5, PLATED
14	12	BP3015	WASHER, FLAT, 3/8", PLATED
15	4	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
16	4	BP3043	WASHER, LOCK, 1/2", PLATED
17	1	BP3070	PIN, HITCH, 3/4" X 2"
18	1	BP3116	HEX CAP SCREW, 3/8"-16 X 3", GRADE 5 PLATED
19	4	BP3126	HEX CAP SCREW, 1/2"-13 X 1-1/2", GRADE 5 PLATED
20	1	BP3239	TENSIONER, RT1002
21	3	BP3500	PIN, HAIR CLIP, 3/16"
22	1	BP3502	PIN, HITCH, 3/4" X 4-1/2"
23	1	BP3510	PIN, HITCH, 1" X 10", PLATED

LR 3, LF

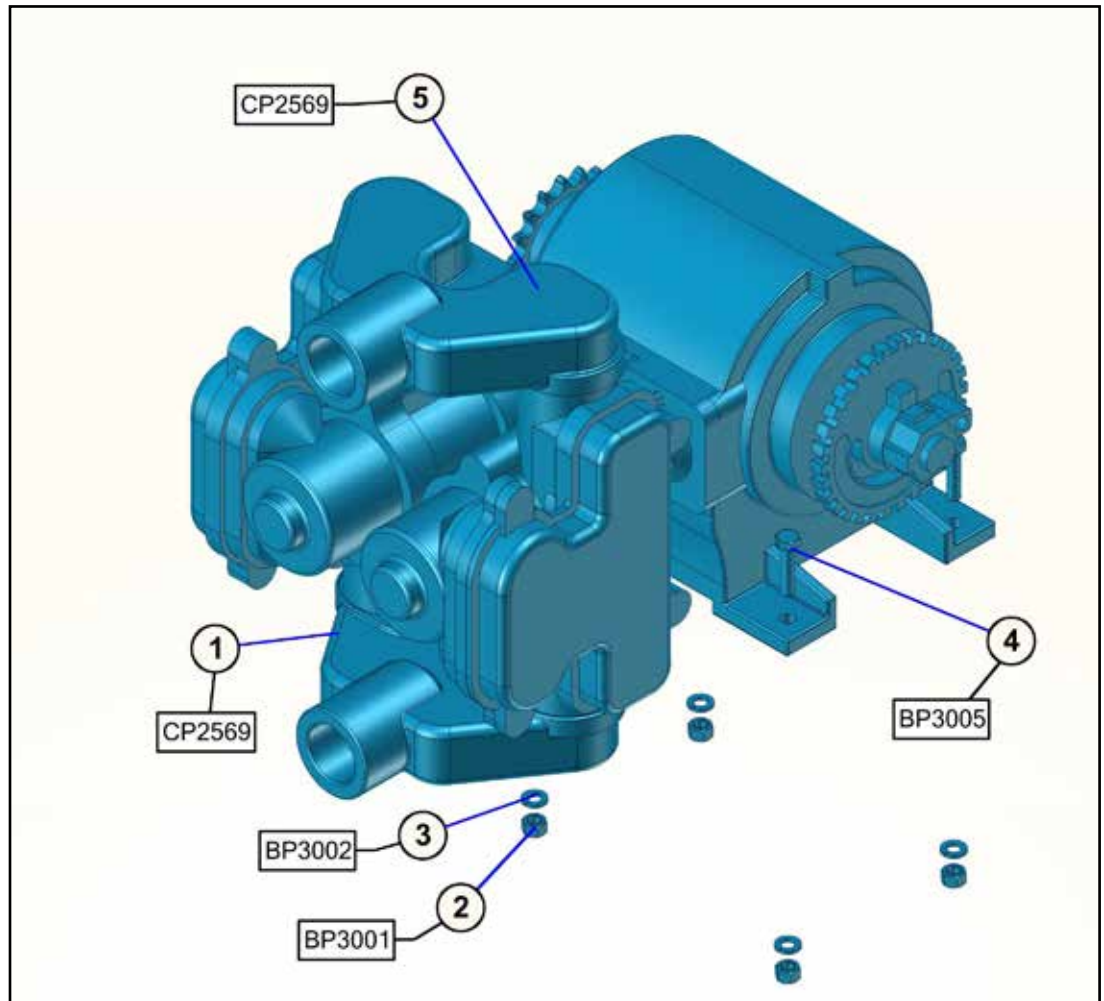
Task

Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	CP2568	PUMP, SINGLE PISTON, NGP-7055, 34.2 GALLON
2	4	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
3	4	BP3002	WASHER, LOCK, 3/8", PLATED
4	4	BP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRADE 5, PLATED
5	1	CP2568	PUMP, SINGLE PISTON, NGP-7055, 34.2 GALLON



BOM ID	Qty	Item No	Description
1	1	CP2569	PUMP, TWIN PISTON, NGP-9055, 68.4 GALLON
2	4	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
3	4	BP3002	WASHER, LOCK, 3/8", PLATED
4	4	BP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRADE 5, PLATED
5	1	CP2569	PUMP, TWIN PISTON, NGP-9055, 68.4 GALLON



# Manifold Assembly LandRunner 3 LF 15 Row 30 (27211020)

LR 3, LF

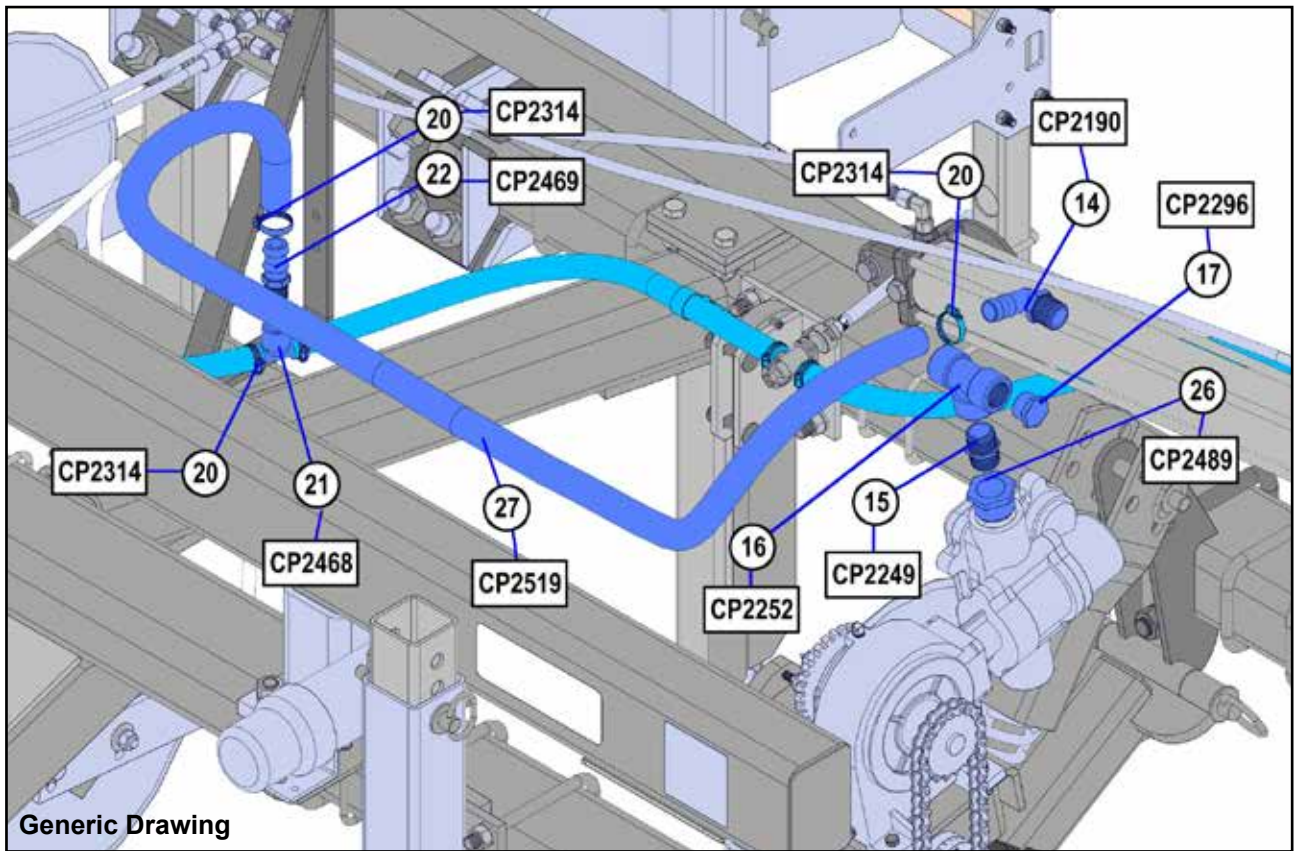
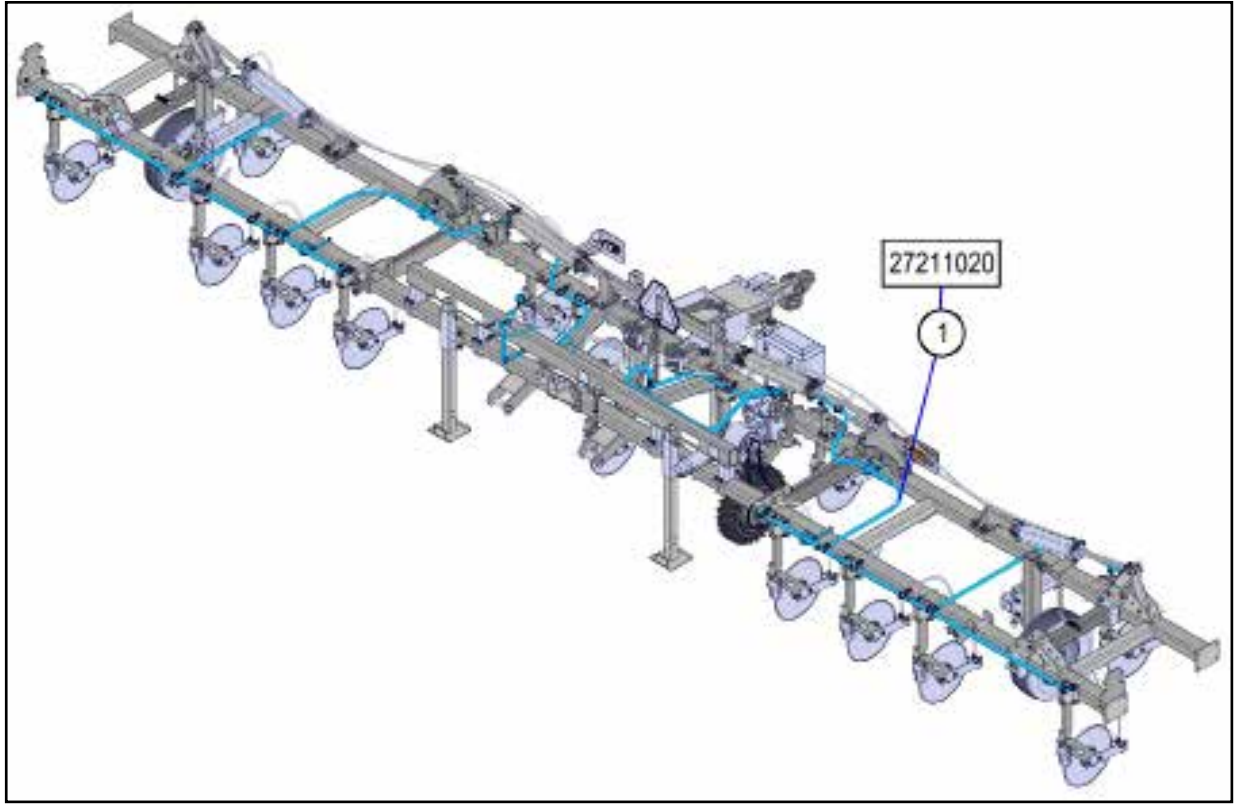
Task

Procedures

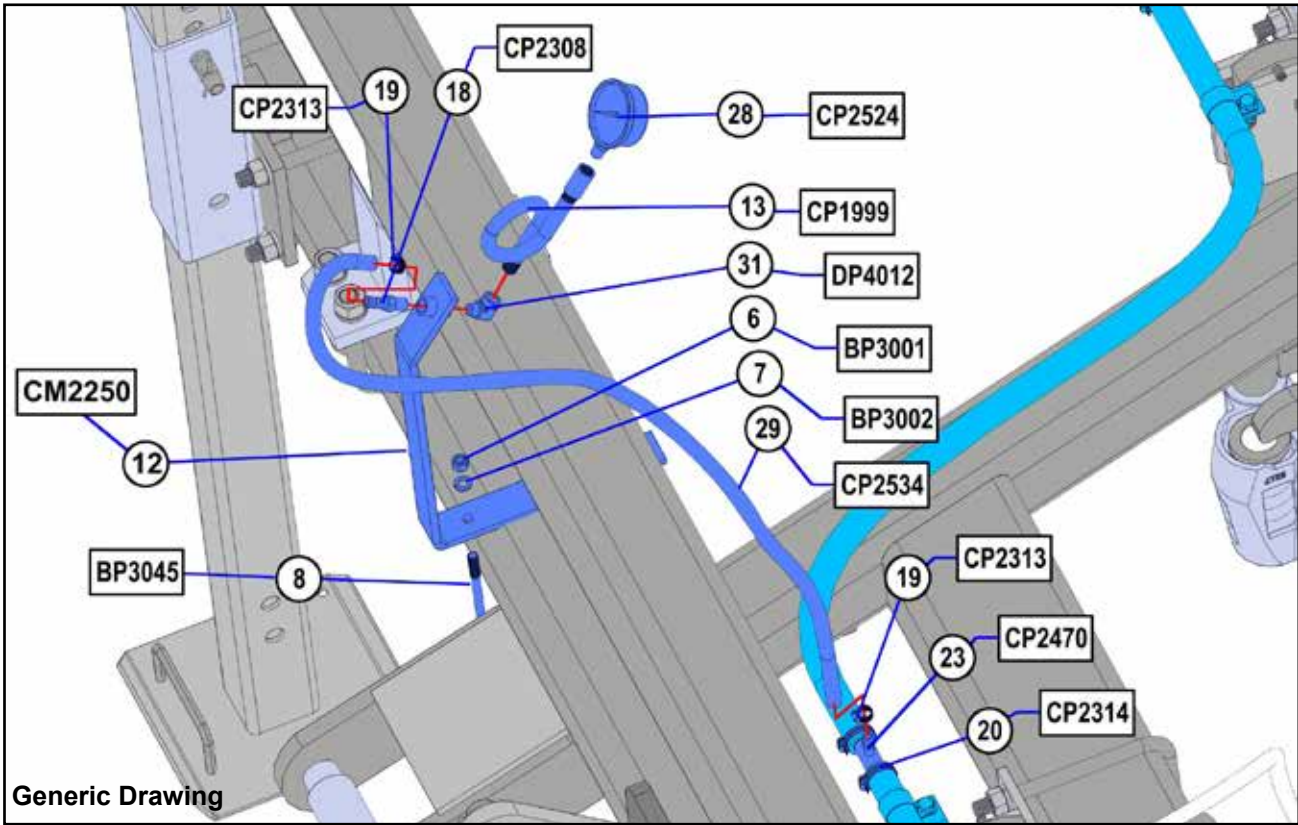
Illustrations

BOM ID	Qty	Item No	Description
1	1	27211020	MANIFOLD ASSEMBLY, LANDRUNNER 3, LF, 15 ROW
2	4	AAM2437	HOSE RETAINER ASSEMBLY, CLOSED LOOP, 4" X 6" TUBE
2A	4	AM4015	HOSE RETAINER, CLOSED LOOP, 6" & 7" MOUNTING
2B	8	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
2C	8	BP3002	WASHER, LOCK, 3/8", PLATED
2D	4	BP3045	U-BOLT, 3/8"-16 X 6"W X 5"L, PLATED
3	15	AM3628	BRACKET, MOUNTING, LIQUID TRUNK LINE
4	2	AP2280-1	HOSE RETAINER, 6" X 4", WITH PLASTIC CAPS
5	15	AP3809	1-1/4" HOSE SUPPORT CLAMP, 3/8" BOLT
6	2	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
7	2	BP3002	WASHER, LOCK, 3/8", PLATED
8	1	BP3045	U-BOLT, 3/8"-16 X 6"W X 5"L, PLATED
9	15	BP3450	NUT, HEX, 3/8"-16, F594 GR 1 CW
10	15	BP3451	WASHER, LOCK, 3/8", 18-8 STAINLESS STEEL
11	15	BP3453	HEX CAP SCREW, 3/8"-16 X 1", F593 GR 1 CW
12	1	CM2250	GAUGE HOLDER, FRAME MOUNTING
13	1	CP1999	GAUGE PROTECTOR, PIGTAIL
14	1	CP2190	ELBOW, 90°, 1"MP X 1"HB, POLY
15	1	CP2249	NIPPLE, CLOSE, 1" POLY
16	1	CP2252	TEE, 1" FP, POLY
17	1	CP2296	PLUG, 1" PIPE, POLY
18	1	CP2308	HOSE BARB
19	2	CP2313	HOSE CLAMP, WORM GEAR, 1/4" - 5/8" TUBING, STAINLESS STEEL
20	40	CP2314	HOSE CLAMP, WORM GEAR, 1/2" - 1" TUBING, STAINLESS STEEL
21	5	CP2468	TEE, 3/4"FP X 3/4"HB X 3/4"HB, POLY TTF121212PP
22	1	CP2469	HOSE BARB, 3/4"MP X 1"HB, POLY, TA101216PP
23	1	CP2470	TEE, 3/8"HB X 3/4"HB X 3/4"HB, NYLON, TT961212
24	1	CP2472	HOSE, EPDM RUBBER, 3/4", 200#
25	6	CP2487	DIAPHRAGM CHECK VALVE, SINGLE SHANK, 3/4" HOSE
26	1	CP2489	REDUCER BUSHING 1-1/2"MP X 1"FP, POLY
27	1	CP2519	HOSE, EPDM RUBBER, 1", 200
28	1	CP2524	GAUGE, 0-160 PSI, GLYCERIN FILLED
29	1	CP2534	HOSE, EVA,N 3/8" BRAID JET STREAM
30	4	CP2577	HOSE BARB, 3/4"MP X 3/4"HB, POLY
31	1	DP4012	STREET ELBOW, 4MP-4FP, 90°

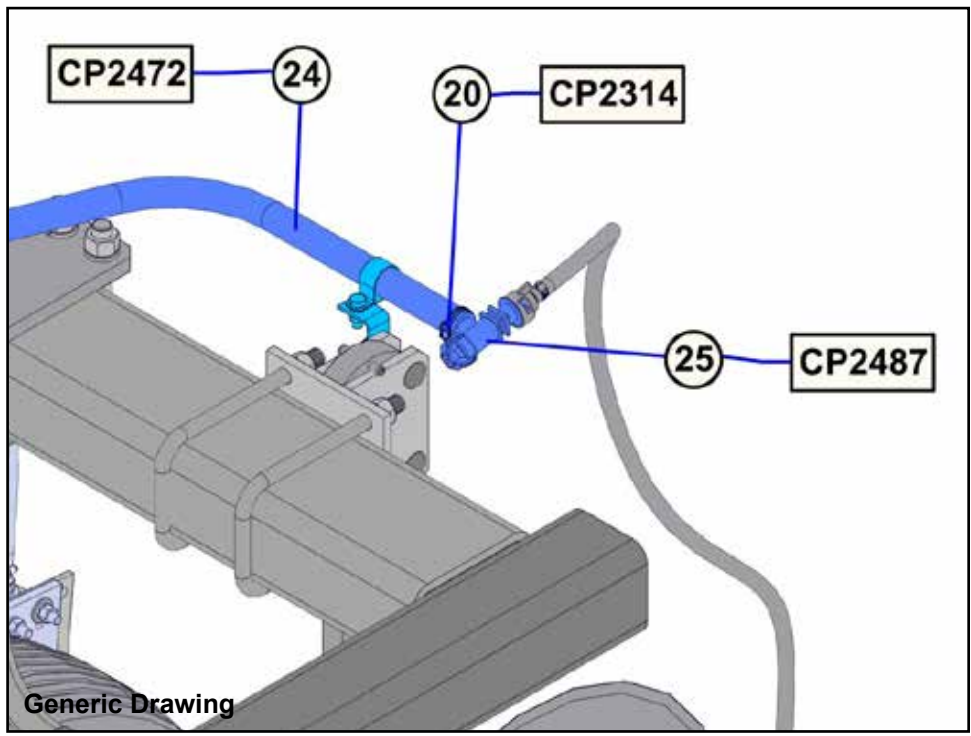
	<b>Manifold Assembly LandRunner 3 LF 15 Row 30 (27211020)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>




Generic Drawing

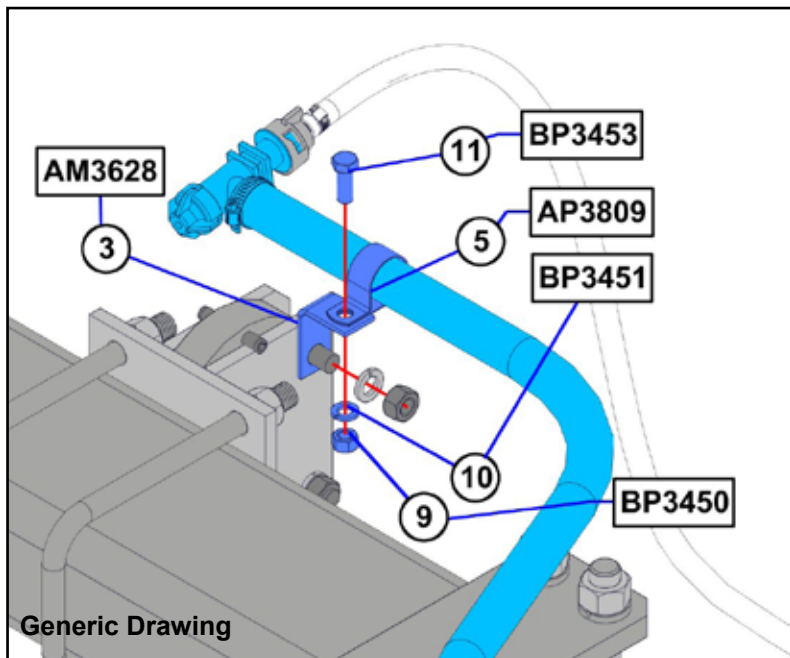
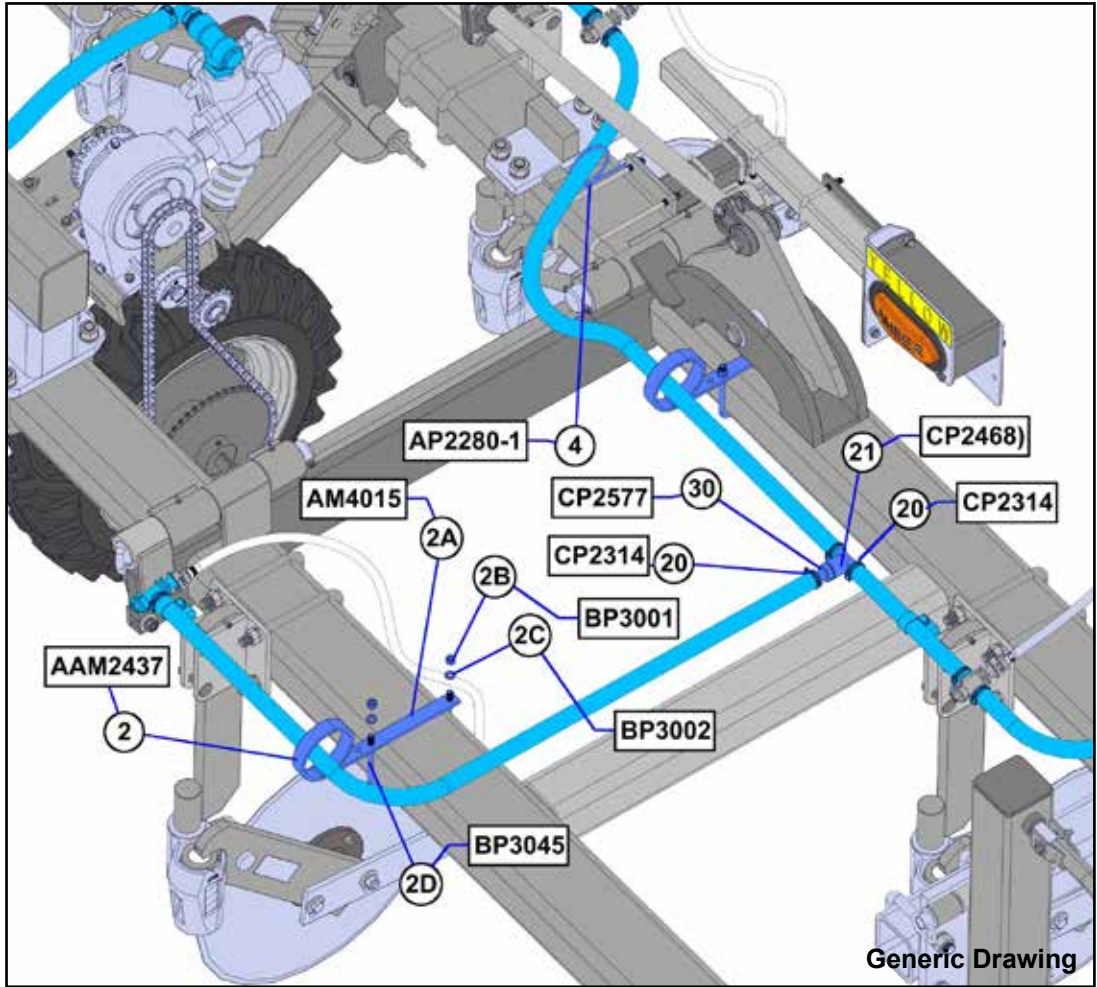


Generic Drawing



Generic Drawing

	<b>Manifold Assembly LandRunner 3 LF 15 Row 30 (27211020)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>





# Manifold Assembly LandRunner 3 LF 13 Row 36 (27211023)

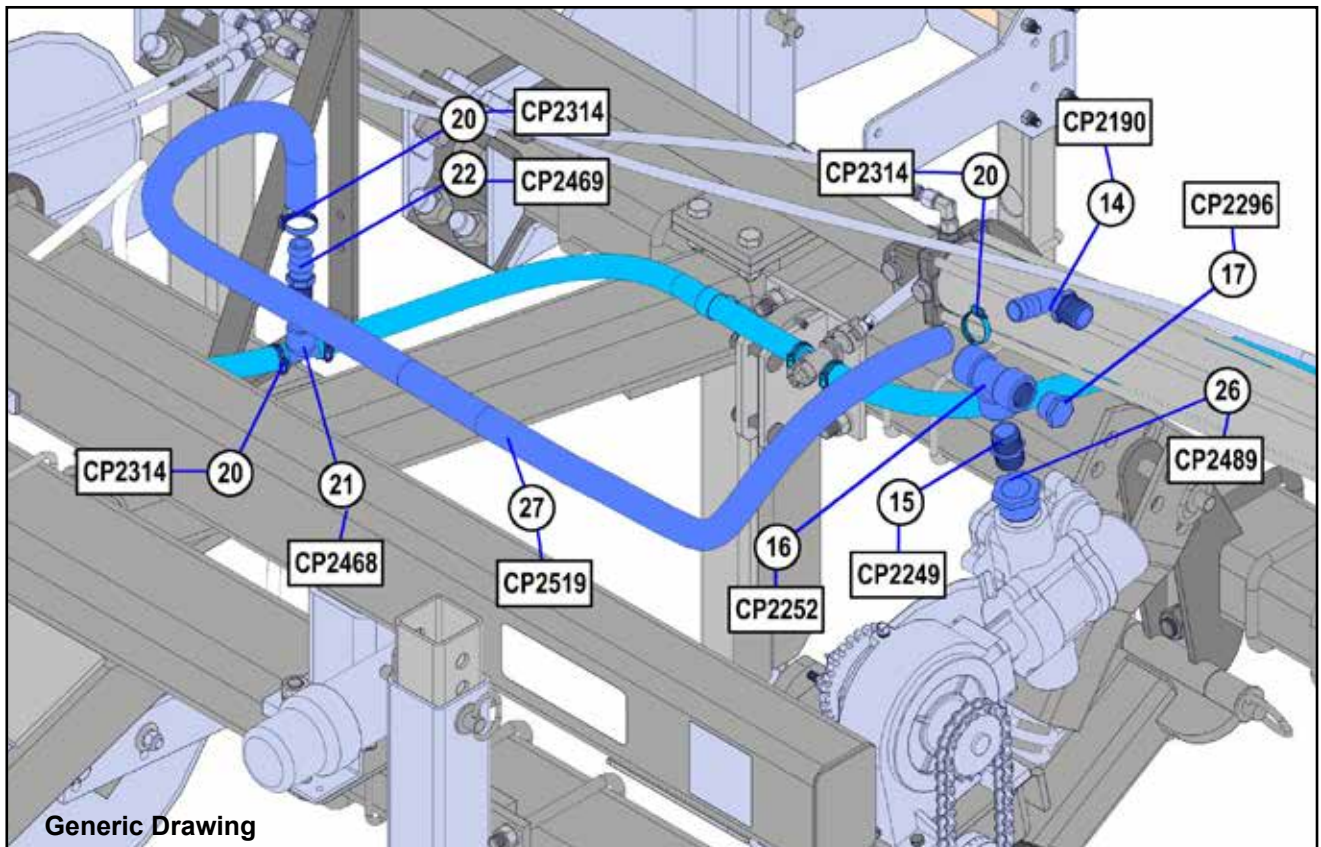
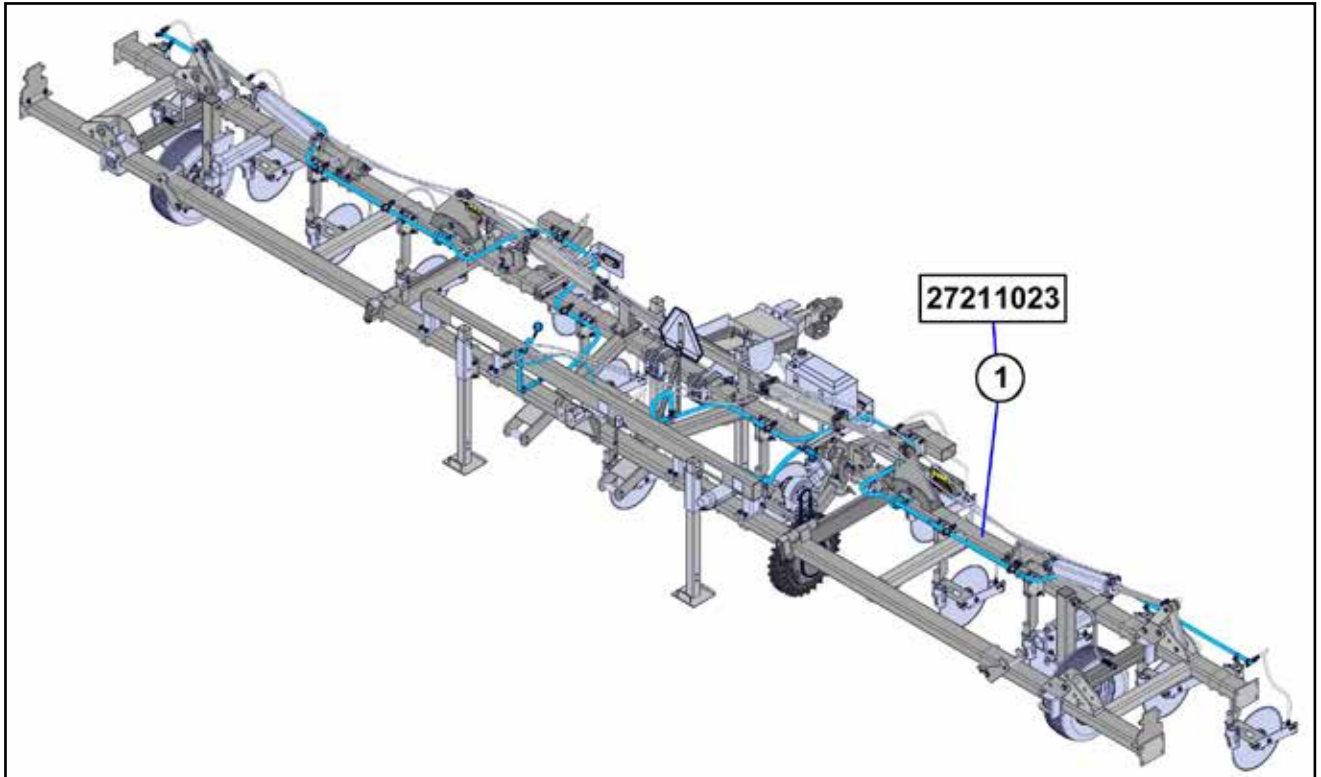
LR 3, LF

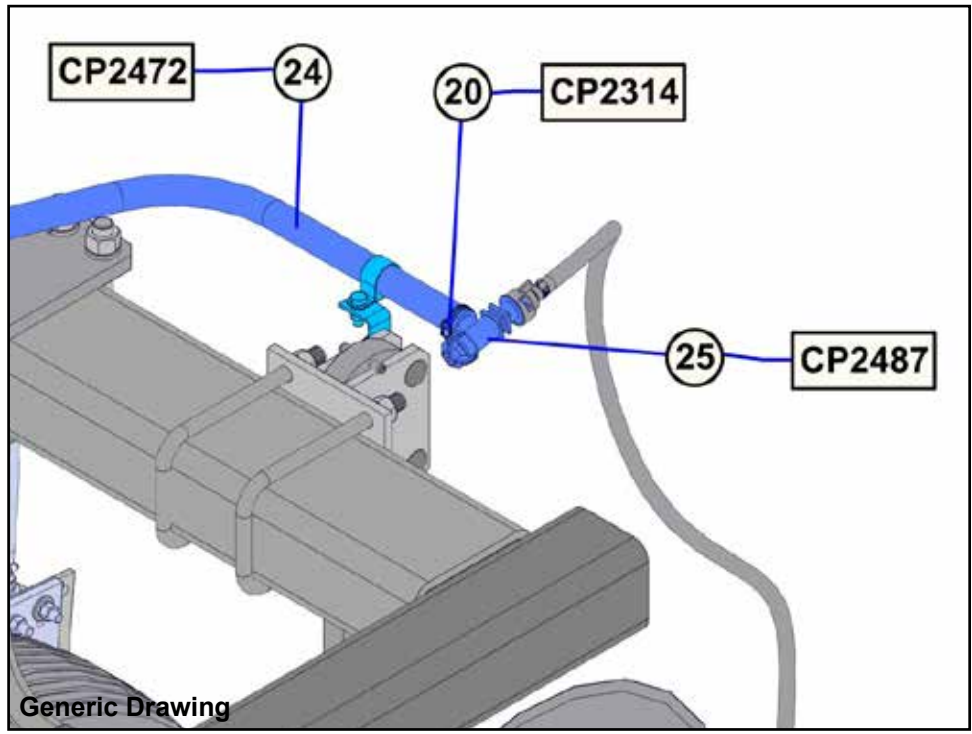
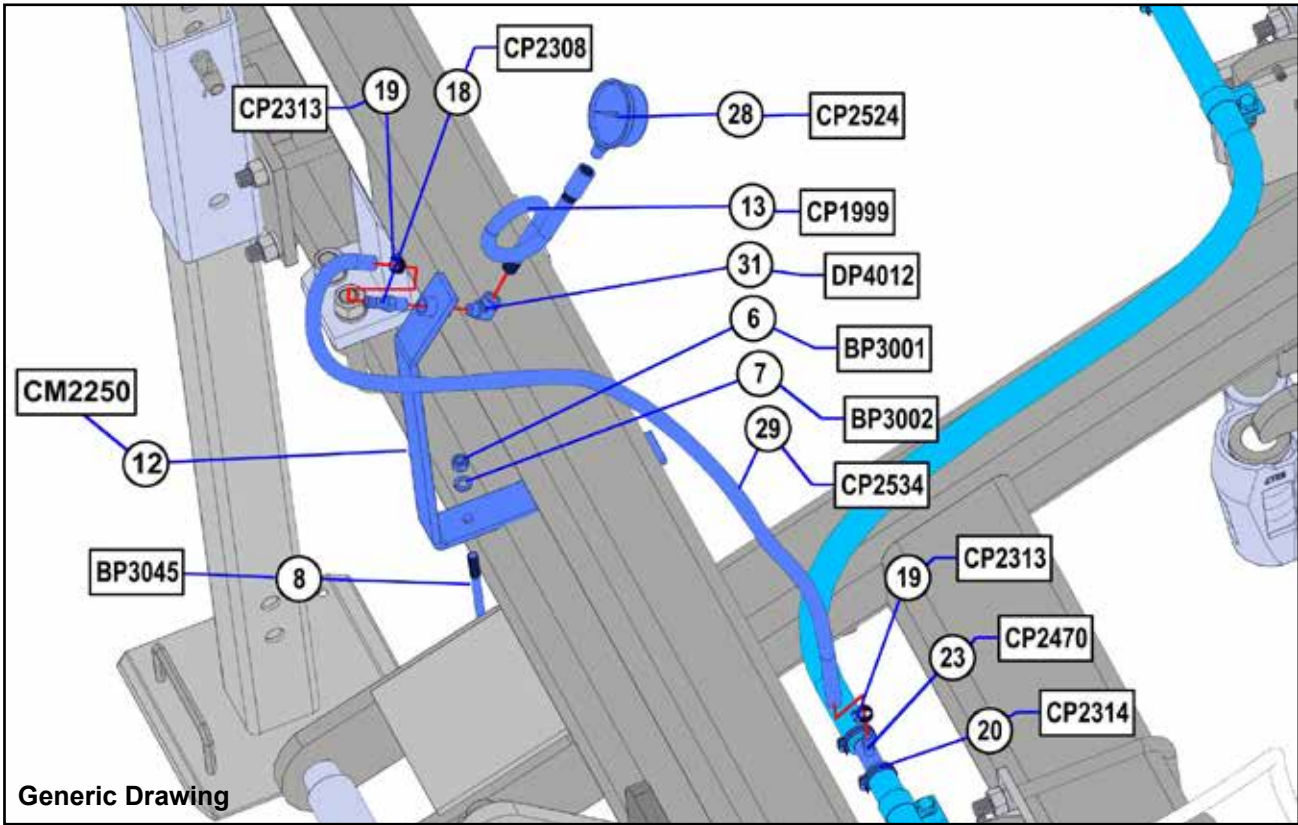
Task	Procedures	Illustrations
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BOM ID	Qty	Item No	Description
1	1	27211023	MANIFOLD ASSEMBLY, LANDRUNNER 3, LF, 13R36
2	2	AAM2437	HOSE RETAINER ASSEMBLY, CLOSED LOOP, 4" X 6 TUBE
2A	2	AM4015	HOSE RETAINER, CLOSED LOOP, 6" & 7" MOUNTING
2B	4	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
2C	4	BP3002	WASHER, LOCK, 3/8", PLATED
2D	2	BP3045	U-BOLT, 3/8"-16 X 6"W X 5"L, PLATED
3	13	AM3628	BRACKET, MOUNTING, LIQUID TRUNK LINE
4	2	AP2280-1	HOSE RETAINER, 6" X 4", W/PLASTIC CAPS
5	13	AP3809	1-1/4" HOSE SUPPORT CLAMP, 3/8" BOLT
6	2	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
7	2	BP3002	WASHER, LOCK, 3/8", PLATED
8	1	BP3045	U-BOLT, 3/8"-16 X 6"W X 5"L, PLATED
9	13	BP3450	NUT, HEX, 3/8"-16, F594 GR 1 CW
10	13	BP3451	WASHER, LOCK, 3/8", 18-8 STAINLESS STEEL
11	13	BP3453	HEX CAP SCREW, 3/8"-16 X 1", F593 GR 1 CW
12	1	CM2250	GAUGE HOLDER, FRAME MOUNTING
13	1	CP1999	GAUGE PROTECTOR, PIGTAIL
14	1	CP2190	ELBOW, 90°, 1"MP X 1"HB, POLY
15	1	CP2249	NIPPLE, CLOSE, 1" POLY
16	1	CP2252	TEE, 1" FP, POLY
17	1	CP2296	PLUG, 1" PIPE, POLY
18	1	CP2308	HOSE BARB
19	2	CP2313	HOSE CLAMP, WORM GEAR, 1/4" - 5/8" TUBING, STAINLESS STEEL
20	28	CP2314	HOSE CLAMP, WORM GEAR, 1/2" - 1" TUBING, STAINLESS STEEL
21	1	CP2468	TEE, 3/4"FP X 3/4"HB X 3/4"HB, POLY TTF121212PP
22	1	CP2469	HOSE BARB, 3/4"MP X 1"HB, POLY, TA101216PP
23	1	CP2470	TEE, 3/8"HB X 3/4"HB X 3/4"HB, NYLON, TT961212
24	1	CP2472	HOSE, EPDM RUBBER, 3/4", 200#
25	2	CP2487	DIAPHRAM CHECK VALVE, SINGLE SHANK, 3/4"HOSE
26	1	CP2489	REDUCER BUSHING 1-1/2"MP X 1"FP, POLY
27	1	CP2519	HOSE, EPDM RUBBER, 1", 200
28	1	CP2524	GAUGE, 0-160 PSI, GLYCERIN FILLED
29	1	CP2534	HOSE, EVA,N 3/8" BRAID JET STREAM
30	1	DP4012	STREET ELBOW, 4MP-4FP, 90°

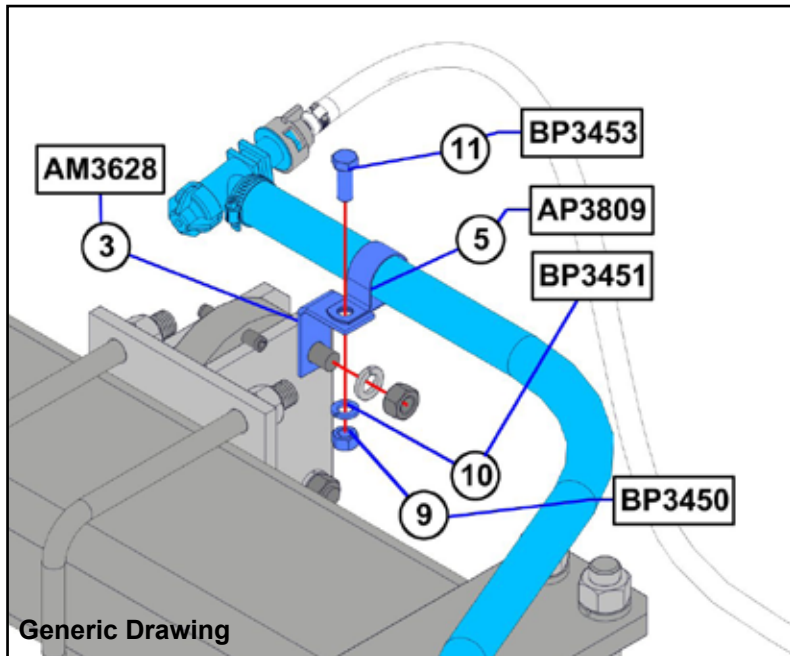
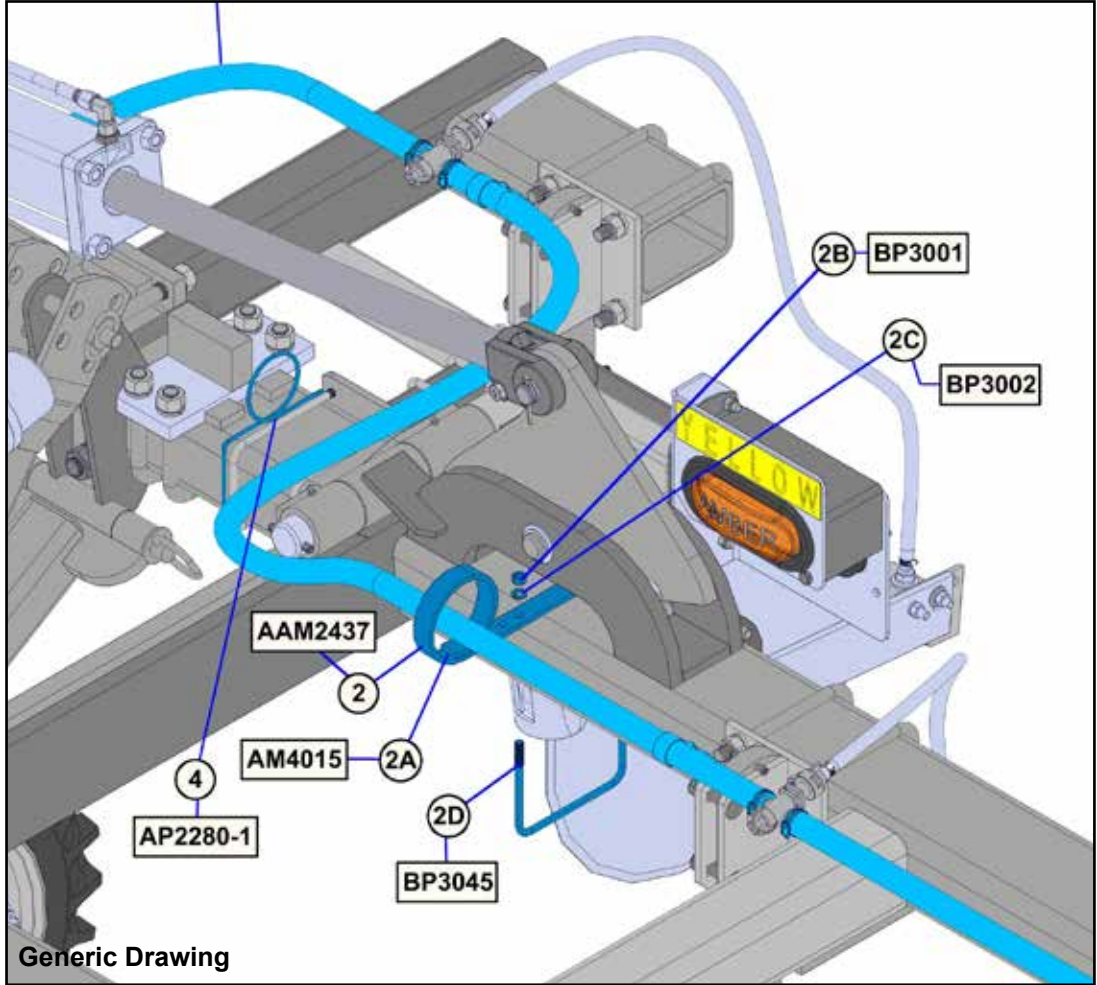


	<b>Manifold Assembly LandRunner 3 LF 13 Row 36 (27211023)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>

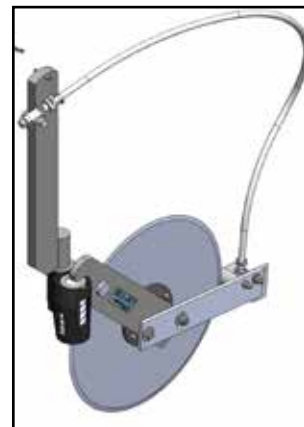
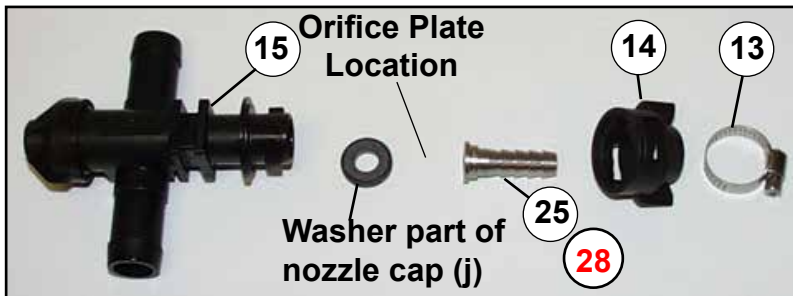
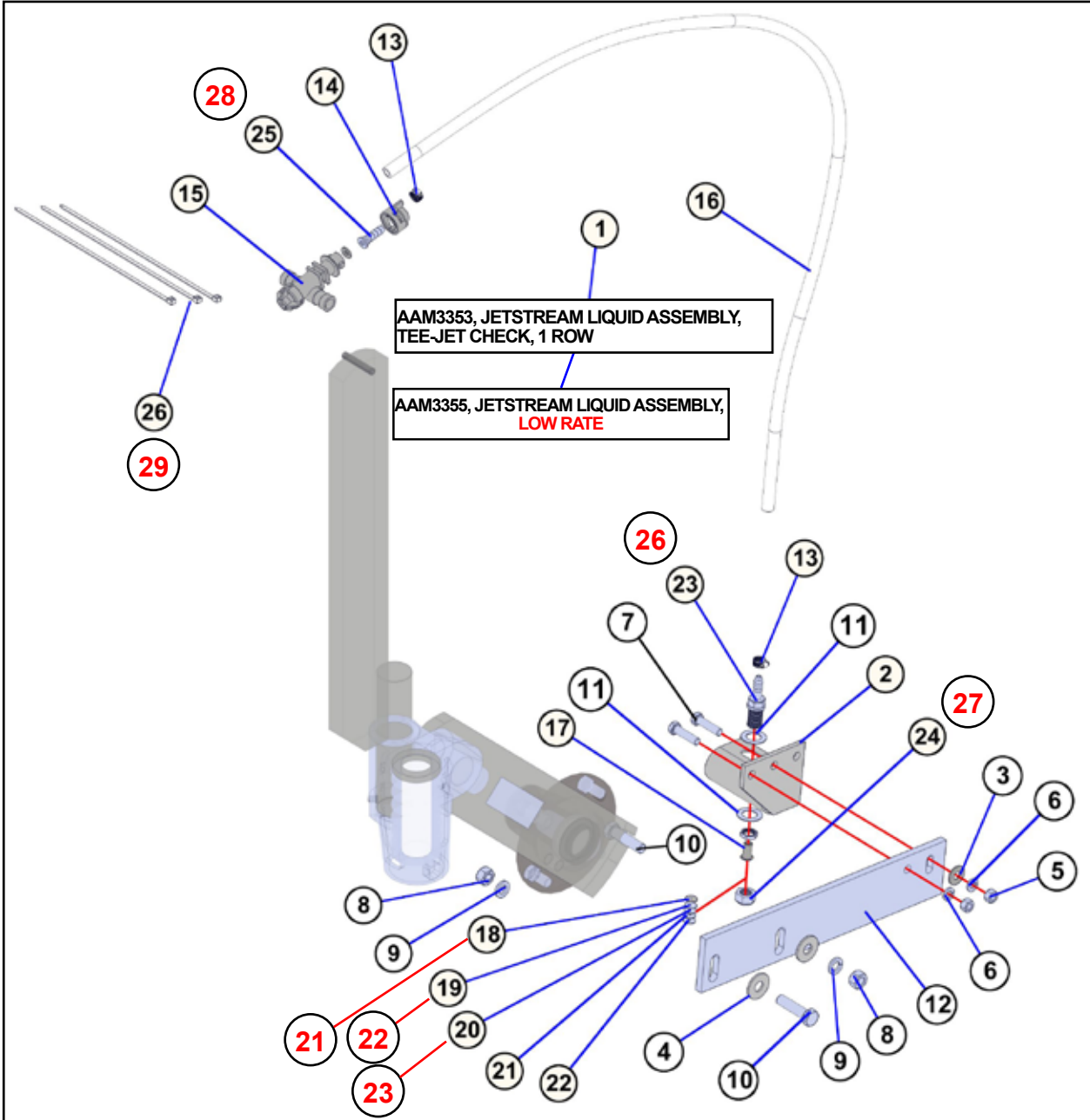





	<b>Manifold Assembly LandRunner 3 LF 13 Row 36 (27211023)</b>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>



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



<b>BLU-JET</b> 	<b>JetStream Liquid Assembly (AAM3353)</b>		
	<b>JetStream Liquid Assembly Low Rate (AAM3355)</b>		
<b>L</b>	Task	Procedures	Illustrations

► **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", PLATED
4	2	BP3050	WASHER, FLAT, 1/2", PLATED
5	2	BP3450	NUT, HEX, 3/8"-16, F594 GRADE 1
6	2	BP3451	WASHER, LOCK, 3/8", 18-8 STAINLESS STEEL
7	2	BP3454	HEX CAP SCREW, 3/8"-16 X 1-1/2", F593 GRADE 1
8	2	BP3455	NUT, HEX, 1/2"-13, F594 GRADE 1
9	2	BP3456	WASHER, LOCK, 1/2", 18-8 STAINLESS STEEL
10	2	BP3459	HEX CAP SCREW, 1/2"-13 X 2", F593 GRADE 1
11	2	BP3461	WASHER, FLAT, 5/8", 1-1/2" OD, 0.078", 18-8 STAINLESS STEEL
12	1	CM2305	JET STREAM MOUNTING ARM
13	2	CP2313	HOSE CLAMP, WORM GEAR, 1/4" - 5/8" TUBING, STAINLESS STEEL
14	1	CP2467	NOZZLE CAP, 25608-1-NYR
15	1	CP2488	DIAPHRAGM CHECK VALVE, DOUBLE SHANK, 3/4 HOSE
16	1	CP2534	HOSE, EVA, N 3/8" 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" HOSE, STAINLESS STEEL
24	1	CP2589	NOZZLE CAP, STAINLESS STEEL
25	1	CP5046	HOSE BARB INSERT, 3/8", STAINLESS STEEL
26	3	DP4086	CABLE TIE 11-3/8" STANDARD

► **AAM3355 JetStream Liquid Assembly, Low Rate, 1 Row**

BOM ID	Qty	Item No	Description
1	1	AAM3355	JETSTREAM LIQUID ASSEMBLY, LOW RATE
2	1	AM3627	NOZZLE MOUNT, JETSTREAM
3	2	BP3015	WASHER, FLAT, 3/8", PLATED
4	2	BP3050	WASHER, FLAT, 3/8", PLATED
5	2	BP3450	NUT, HEX, 3/8"-16, F594 GRADE 1
6	2	BP3451	WASHER, LOCK, 3/8", 18-8 STAINLESS STEEL
7	2	BP3454	HEX CAP SCREW, 3/8"-16 X 1-1/2", F593 GRADE 1
8	2	BP3455	NUT, HEX, 1/2"-13, F594 GRADE 1
9	2	BP3456	WASHER, LOCK, 1/2", 18-8 STAINLESS STEEL
10	2	BP3459	HEX CAP SCREW, 1/2"-13 X 2", F593 GRADE 1
11	2	BP3461	WASHER, FLAT, 5/8" X 1-1/2" OD X 0.078", 18-8 STAINLESS STEEL
12	1	CM2305	JET STREAM MOUNTING ARM
13	2	CP2313	HOSE CLAMP, 1/4" - 5/8" TUBING, STAINLESS STEEL
14	1	CP2467	NOZZLE CAP, 25608-1-NYR
15	1	CP2488	DIAPHRAGM CHECK VALVE, DOUBLE SHANK, 3/4" HOSE
16	1	CP2534	HOSE, EVA,N 3/8" BRAID JET STREAM
17	1	CP2537	STREAM STABILIZER-STAINLESS STEEL, JET STREAM
18	1	CP2538	ORIFICE PLATE #4916-40 JET STREAM
19	1	CP2539	ORIFICE PLATE #4916-49 JET STREAM
20	1	CP2540	ORIFICE PLATE #4916-57 JET STREAM
21	1	CP2541	ORIFICE PLATE #4916-63 JET STREAM
22	1	CP2542	ORIFICE PLATE #4916-70 JET STREAM
23	1	CP2543	ORIFICE PLATE #4916-78 JET STREAM
24	1	CP2557	ORIFICE PLATE #4916-35 JET STREAM
25	1	CP2559	ORIFICE PLATE #4916-30 JET STREAM
26	1	CP2578	NOZZLE BODY, WITH NUT, 3/8" HOSE, STAINLESS STEEL
27	1	CP2589	NOZZLE CAP, STAINLESS STEEL
28	1	CP5046	HOSE BARB INSERT, 3/8", STAINLESS STEEL
29	3	DP4086	CABLE TIE 11-3/8"

Orifice plates set only change

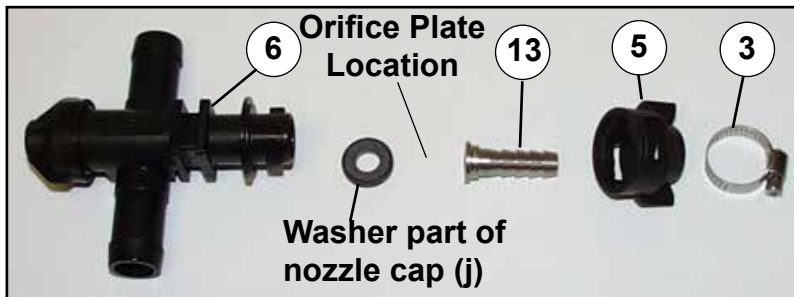
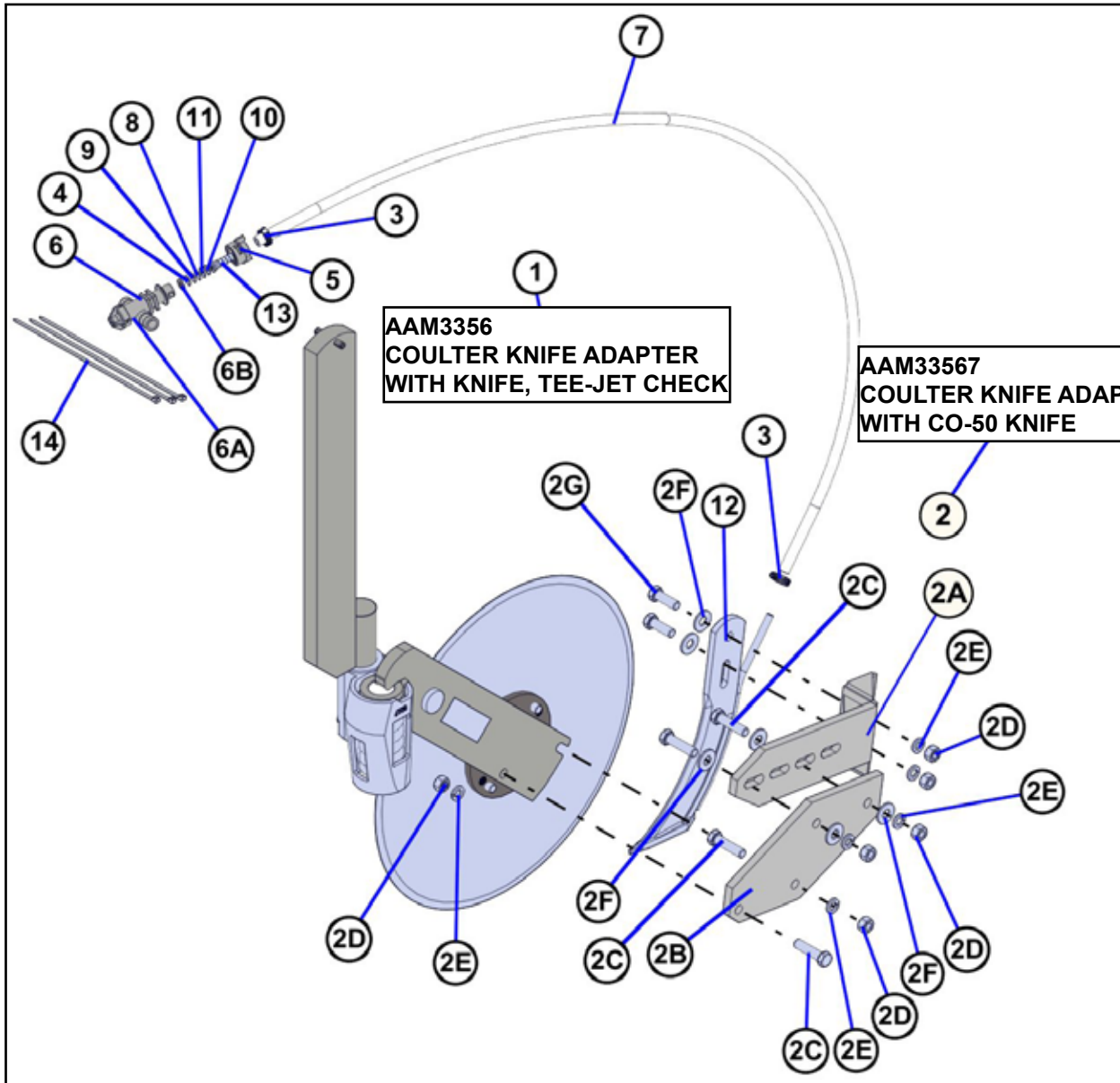
# JetStream Coulter Knife Assembly (AAM3356)

LR 3, LF

Task

Procedures

Illustrations





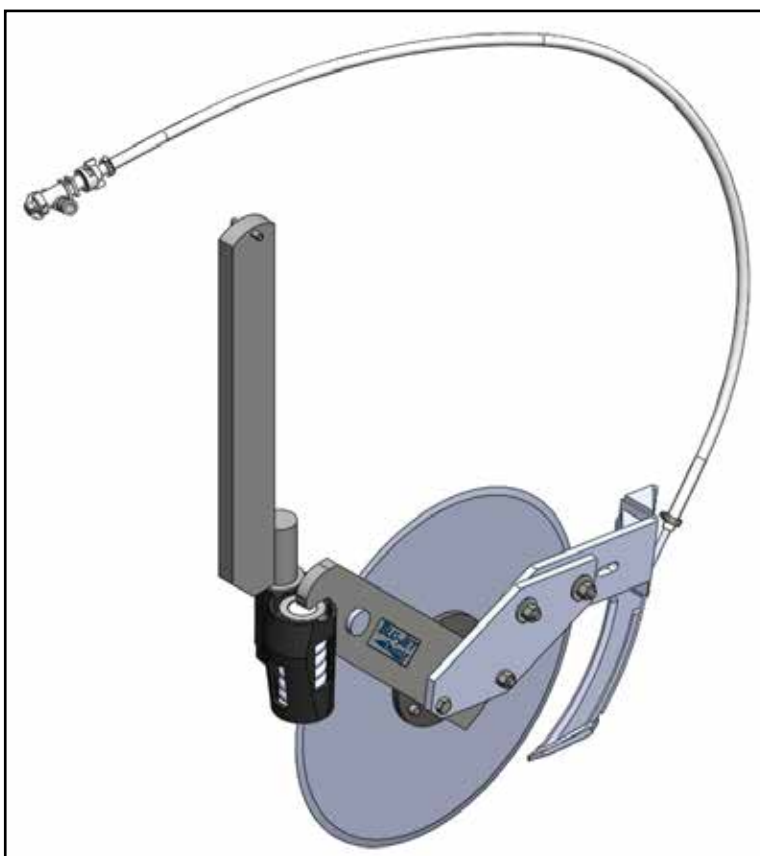
# JetStream Coulter Knife Assembly (AAM3356)

LR 3, LF

Task	Procedures	Illustrations
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► **AAM3356 Coulter Knife Assembly, With Knife, Tee-Jet Check**

BOM ID	Qty	Item No	Description
1	1	AAM3356	COULTER KNIFE ASSEMBLY, WITH KNIFE, CHECK VALVE
2	1	AAM3357	COULTER KNIFE ADAPTER, WITH CO-50 KNIFE
2A	1	AM3313	KNIFE HOLDER/ MOUNTING ARM
2B	1	AM3324	ADAPTER PLATE, COULTER KNIFE
2C	4	BP3041	HEX CAP SCREW, 1/2"-13 X 2", GRADE 5, PLATED
2D	6	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
2E	6	BP3043	WASHER, LOCK, 1/2", PLATED
2F	6	BP3050	WASHER, FLAT, 1/2", PLATED
2G	2	BP3126	HEX CAP SCREW, 1/2"-13 X 1-1/2", GRADE 5, PLATED
3	2	CP2313	HOSE CLAMP, 1/4" - 5/8" TUBING, STAINLESS STEEL
4	1	CP2325	ORIFICE PLATE #4916-110 JET STREAM
5	1	CP2467	NOZZLE CAP, 25608-1-NYR
6	1	CP2488	DIAPHRAGM CHECK VALVE, DOUBLE SHANK, 3/4" HOSE
6A	1	CP2488-BODY	DIAPHRAGM CHECK VALVE BODY, DOUBLE SHANK, 3/4" HOSE
6B	1	CP2488-WASHER	DIAPHRAGM CHECK VALVE WASHER
7	1	CP2534	HOSE, EVA,N 3/8" BRAID JET STREAM
8	1	CP2544	ORIFICE PLATE #4916-86 JET STREAM
9	1	CP2545	ORIFICE PLATE #4916-95 JET STREAM
10	1	CP2570	ORIFICE PLATE #4916-120 JET STREAM
11	1	CP2571	ORIFICE PLATE #4916-136 JET STREAM
12	1	CP5038	CO-50 3/8" LIQUID KNIFE EXTRA THIN
13	1	CP5046	HOSE BARB INSERT, 3/8", STAINLESS STEEL
14	3	DP4086	CABLE TIE 11-3/8"



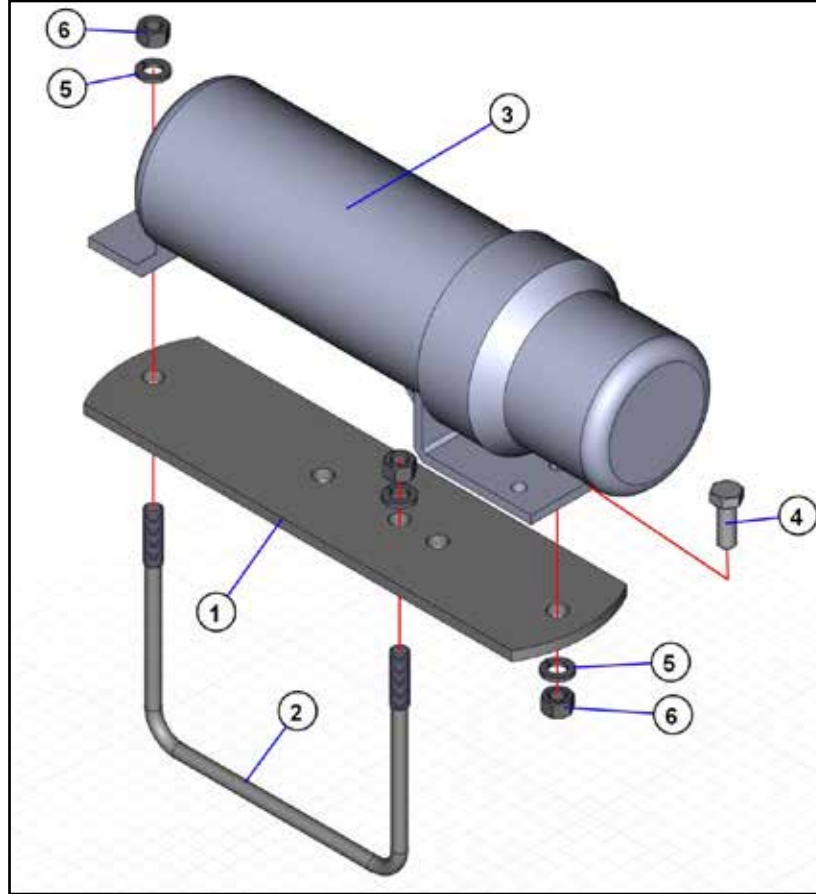
## AAM2639 Manual Holder With 6" x 4" Mounting

LR 3, LF

Task

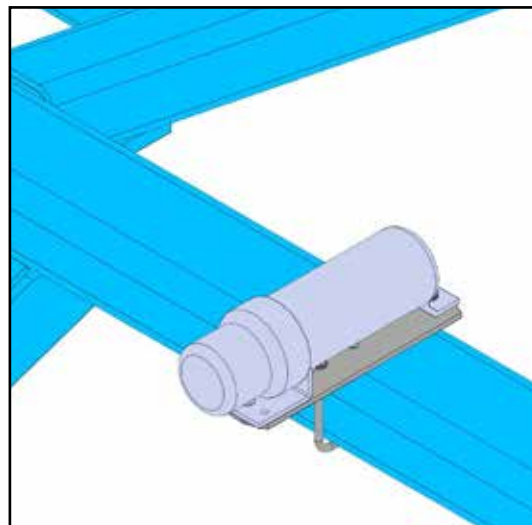
Procedures

Illustrations



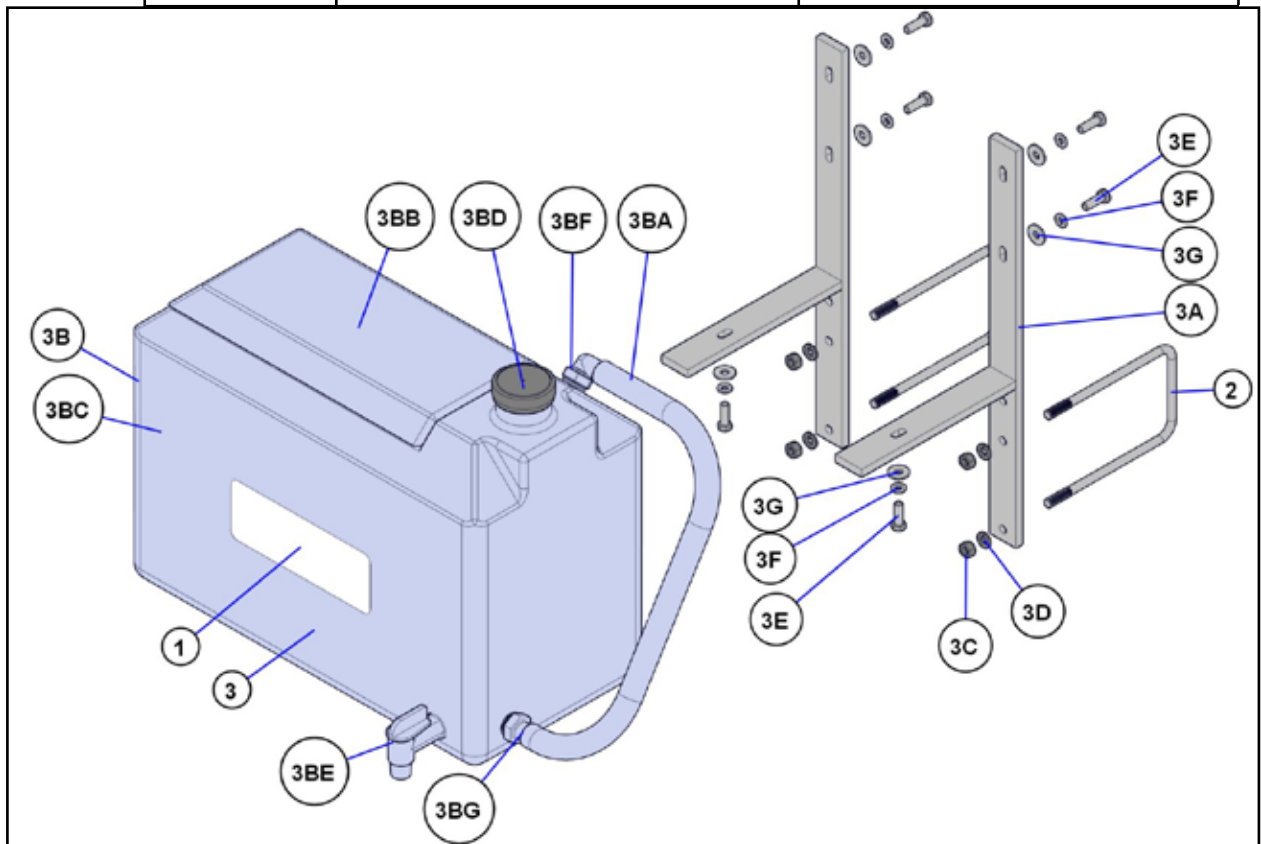
### ► AAM2639 MANUAL HOLDER WITH 6" X 4" MOUNTING

BOM ID	Qty	Item No	Description
1	1	AM7640	BRACKET, MOUNTING, MANUAL HOLDER
2	1	BP3045	U-BOLT, 3/8"-16 X 6" W X 5" L
3	1	AP4254	MANUAL HOLDER, BLACK
4	1	BP3006	HEX CAP SCREW, 3/8"-16 X 1", GRADE 5, PLATED
5	3	BP3002	WASHER, LOCK, 3/8", PLATED
6	3	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED



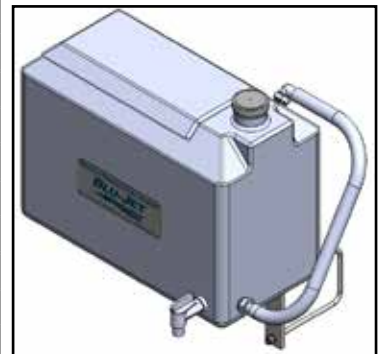


<b>BLU-JET</b>	<b>AAM2425 Safety Tank, Toolbox Assembly, 4" x 6"</b>		
	<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>



► **AAM2425 SAFETY TANK, TOOLBOX ASSEMBLY, 4" X 6"**

BOM ID	Qty	Item No	Description
1	1	AP2215	DECAL, BLU-JET, 3" X 8"
2	2	BP3214	U-BOLT, 3/8"-16 X 4" W X 7" L
3	1	PKG00040	PACKAGE, 9 GALLON SAFETY TANK
3A	2	AM2136	BRACKET, TANK MOUNTING, 9 GALLON
3B	1	AP2137	SAFETY TANK, 9 GALLON
3BA	1	AP2137 HOSE	3/4" CLEAR HOSE - CP2069 - 24" LENGTH
3BB	1	AP2137 LID	TOOLBOX LID
3BC	1	AP2137 TANK	TANK
3BD	1	AP2272	2" FILL CAP
3BE	1	AP2329	SPIGOT
3BF	1	CP2471	ELBOW, 90 DEGREE, 3/4"MP X 3/4" HOSE BARB
3BG	1	CP2577	HOSE BARB, 3/4"MP X 3/4" HOSE BARB
3C	4	BP3001	NUT, HEX, 3/8"-16, GRADE 2, PLATED
3D	4	BP3002	WASHER, LOCK, 3/8", PLATED
3E	6	BP3108	HEX CAP SCREW, 5/16"-18 X 1", GRADE 5, PLATED
3F	6	BP3158	WASHER, LOCK, 5/16", PLATED
3G	6	BP3159	WASHER, FLAT, 5/16", PLATED





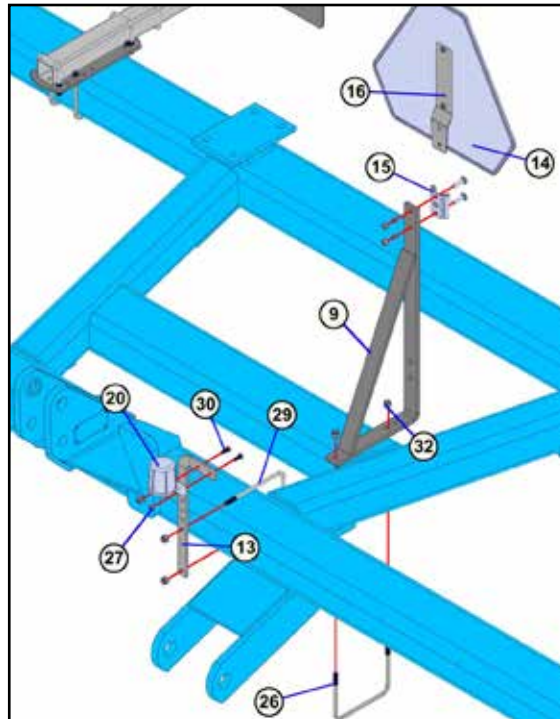
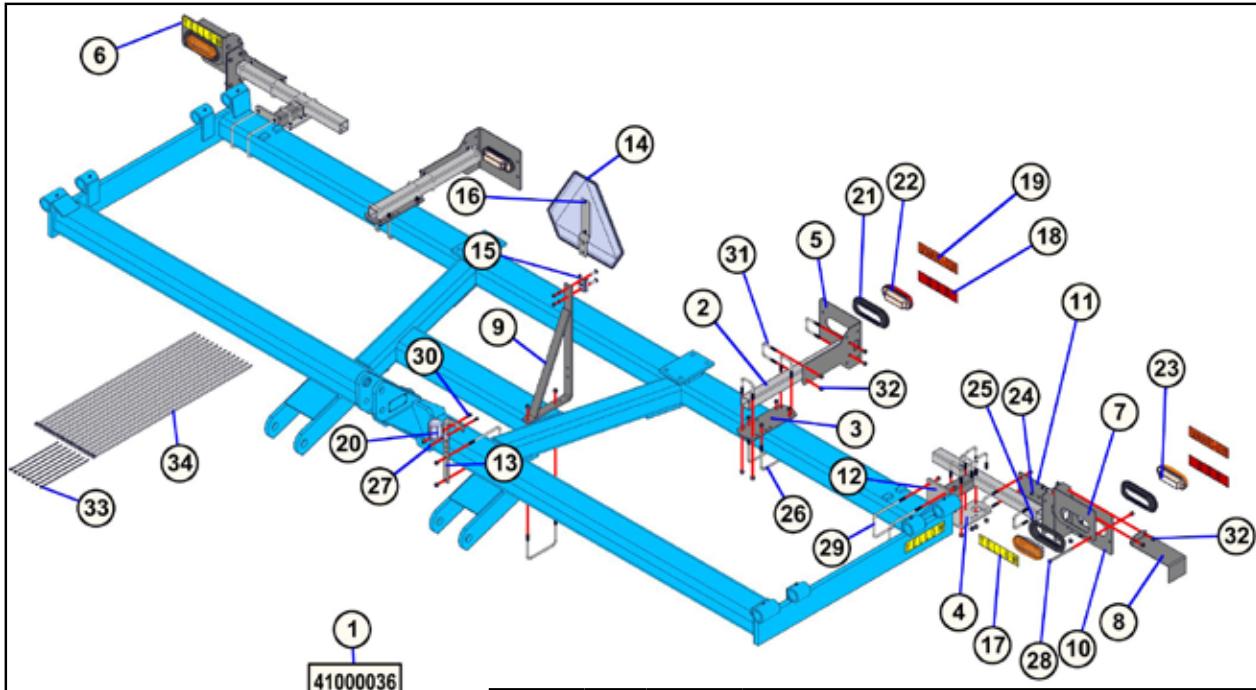
# Lighting Kit (41000036)

LR 3, LF

Task

Procedures

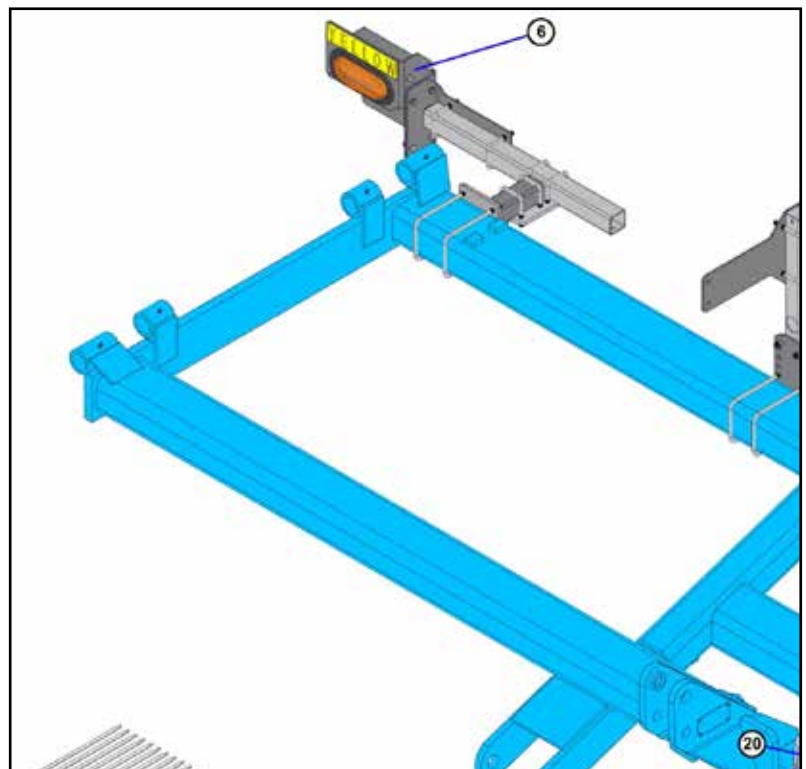
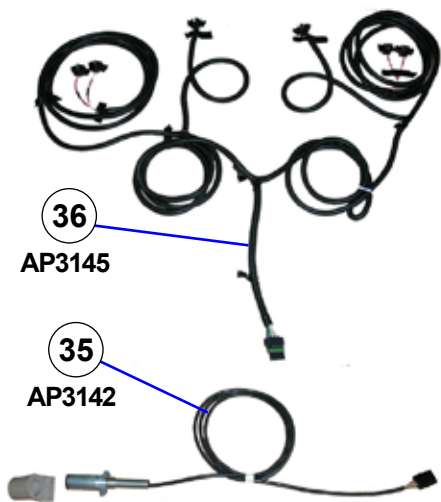
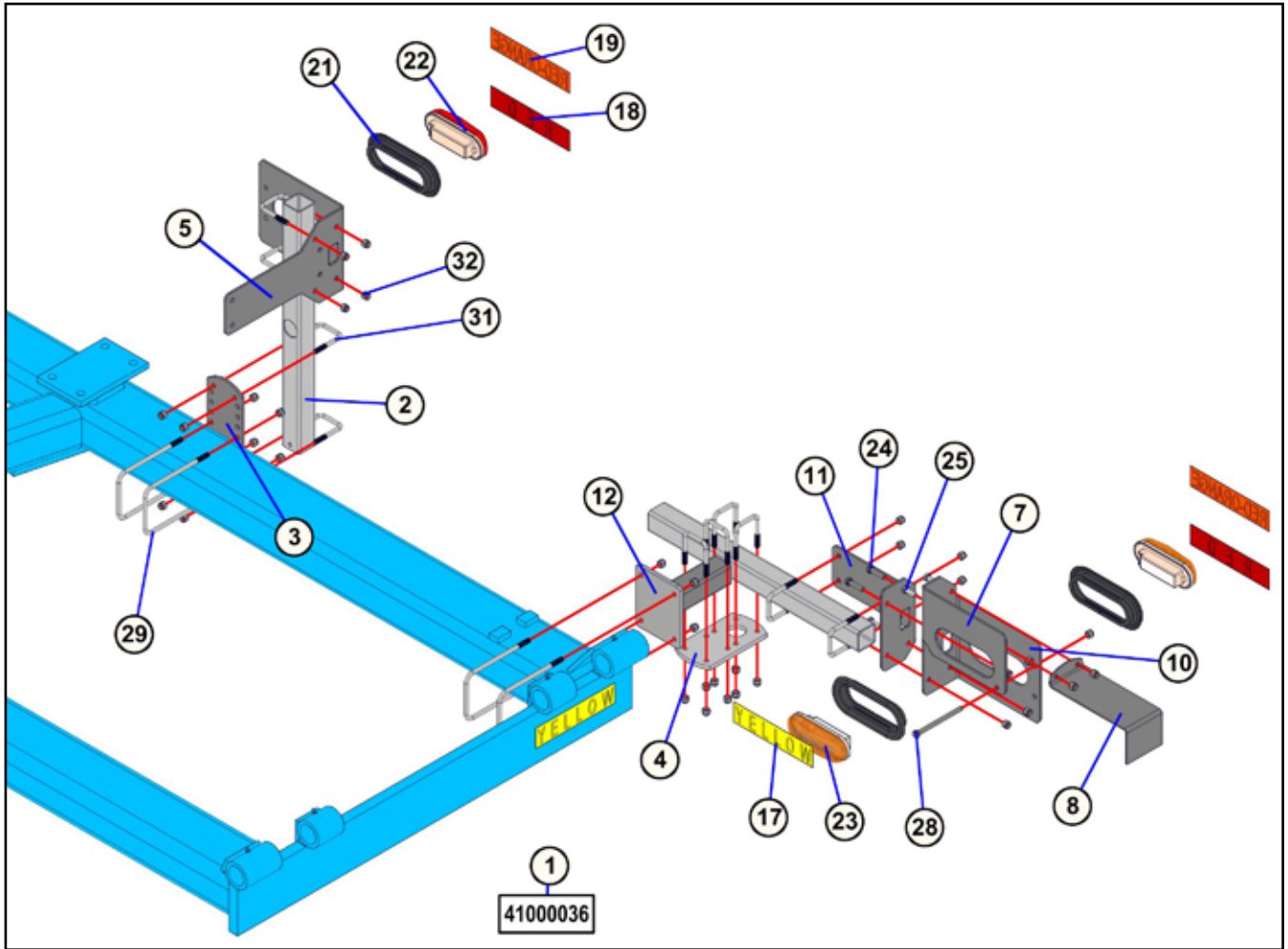
Illustrations



BOM ID	Qty	Item No	Description
1	1	41000036	LIGHTING KIT, LANDRUNNER
2	4	AM3407	TUBE, LIGHT BRACKET, (1'11-7/8")
3	2	AM3408	MOUNTING PLATE, LIGHT POST
4	2	AM3410	MOUNTING PLATE, LIGHT POST
5	2	AM3414	LIGHT BRACKET, REAR
6	1	AM3415	LIGHT BRACKET, FRONT, LEFT HAND
7	1	AM3417	LIGHT BRACKET, FRONT, RIGHT HAND
8	2	AM3418	SHIELD, LIGHT BRACKET
9	1	AM3420	BRACKET, SMV MOUNTING
10	2	AM3421	LIGHT BRACKET, SIDE MOUNT
11	2	AM3422	LIGHT BRACKET, SIDE MOUNT BAR
12	2	AM3423	LIGHT BRACKET, 7", 4" MOUNT
13	1	AM4575	BRACKET, DUST CAP HOLDER
14	1	AP2542	SMV SIGN (SLOW MOVING VEHICLE)
15	1	AP2543	SMV MOUNTING SOCKET
16	1	AP2544	SMV MOUNTING SPADE
17	4	AP2547	DECAL, REFLECTOR, YELLOW, 2" X 9"
18	4	AP2548	DECAL, REFLECTOR, RED, 2" X 9"
19	4	AP2551	DECAL, FLUORESCENT, RED-ORANGE, 2" X 9", NON-REFLECTIVE
20	1	AP3142	ELECTRICAL HARNESS, 10' MAIN 5-WIRE, 7 PIN & DUST CAP
21	6	AP3551	GROMMET, OVAL, MODEL 60
22	2	AP4312	LAMP, LED, OVAL, STOP TURN & TAIL, RED
23	4	AP4415	LAMP, LED, OVAL, TURN SIGNAL, AMBER
24	4	BP3005	HEX CAP SCREW, 3/8"-16 X 1-1/2", GRADE 5, PLATED
25	8	BP3006	HEX CAP SCREW, 3/8"-16 X 1", GRADE 5, PLATED
26	1	BP3045	U-BOLT, 3/8"-16 X 6"W X 5"L, PLATED
27	2	BP3053	NUT, HEX, 1/4"-20, GRADE 2
28	2	BP3118	HEX CAP SCREW, 3/8"-16 X 5", GRADE 5, PLATED
29	9	BP3214	U-BOLT, 3/8"-16 X 4"W X 7"L
30	2	BP3233	HEX CAP SCREW, 1/4"-20 X 3/4", GRADE 2, PLATED
31	20	BP3736	U-BOLT, 3/8"-16 X 2"W X 3"L, PLATED
32	74	CP2660	NUT, HEX LOCK, 3/8"-16, NYLOCK
33	8	DP4086	CABLE TIE 11-3/8"
34	14	DP4296	CABLE TIE 33"
35	1	AP3142	ELECTRICAL HARNESS, 10' MAIN 5 WIRE, 7 PIN & DUST CAP
36	1	AP3145	ELECTRICAL HARNESS, 27' REAR 5 WIRE

**NOTE:**  
Consult  
row spacing  
diagram  
for light  
bracket  
locations

	<h2>Lighting Kit (41000036)</h2>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>



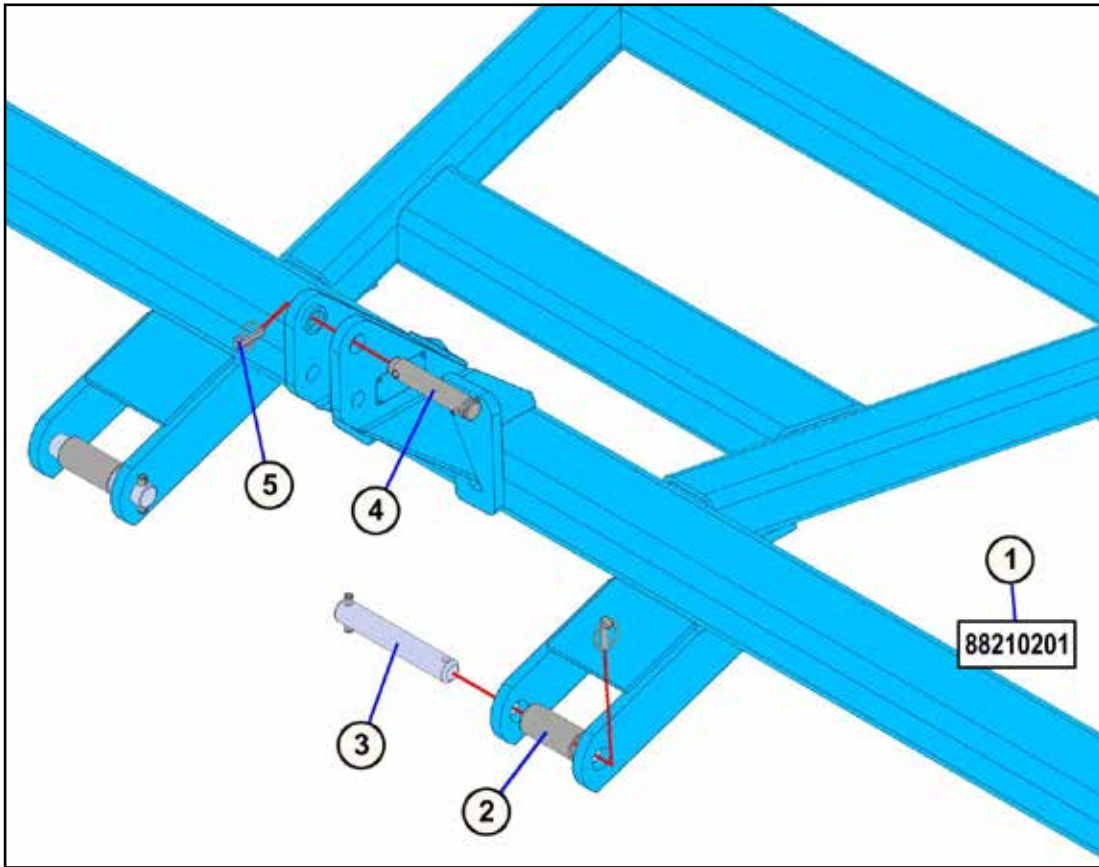
## Category III Pull Pin Kit (88210201)

LR 3, LF

Task

Procedures

Illustrations



BOM ID	Qty	Item No	Description
1	1	88210201	PULL PIN KIT, CATEGORY III
2	2	BM3512	BUSHING
3	2	BM3805	PIN, CATEGORY III LOWER HITCH, 1-7/16" X 7-1/2"
4	1	BP3509	PIN, CATEGORY III TOP LINK, 1-1/4" X 4-23/32"
5	3	BP3517	LYNCH PIN, 7/16"

## Assembly (Main Frame)

LR 3, LF

Task

Procedures

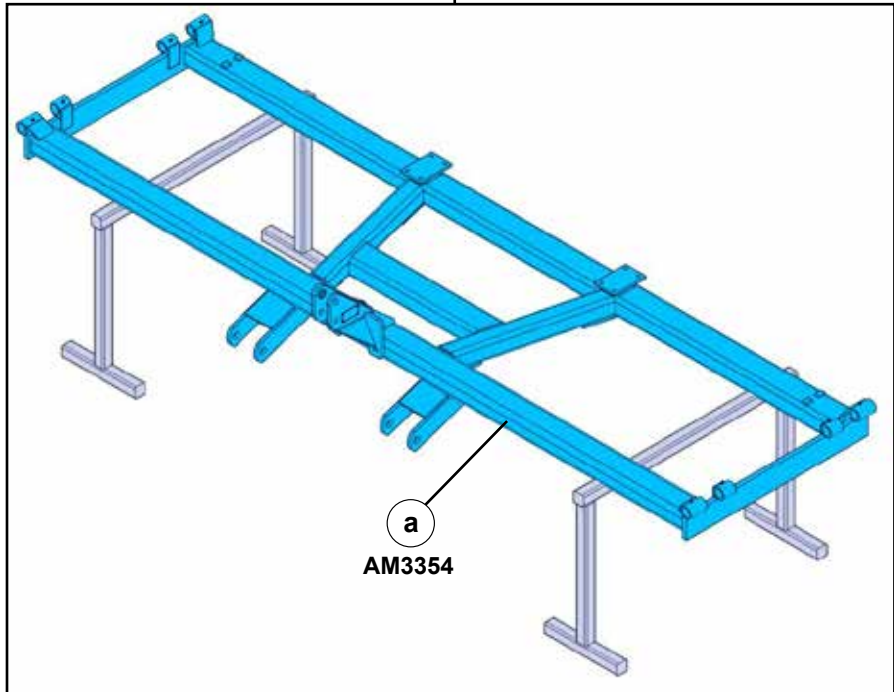
Illustrations

► Positioning main frame on stands

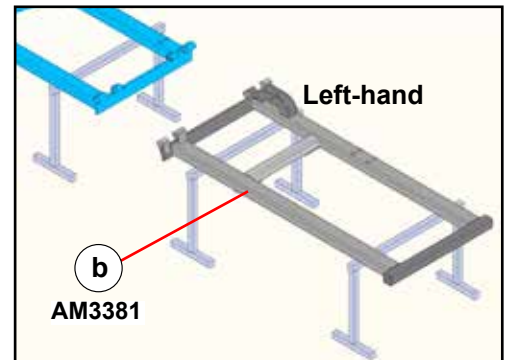
► **NOTE:**  
Left-hand and right-hand as viewed from the rear.



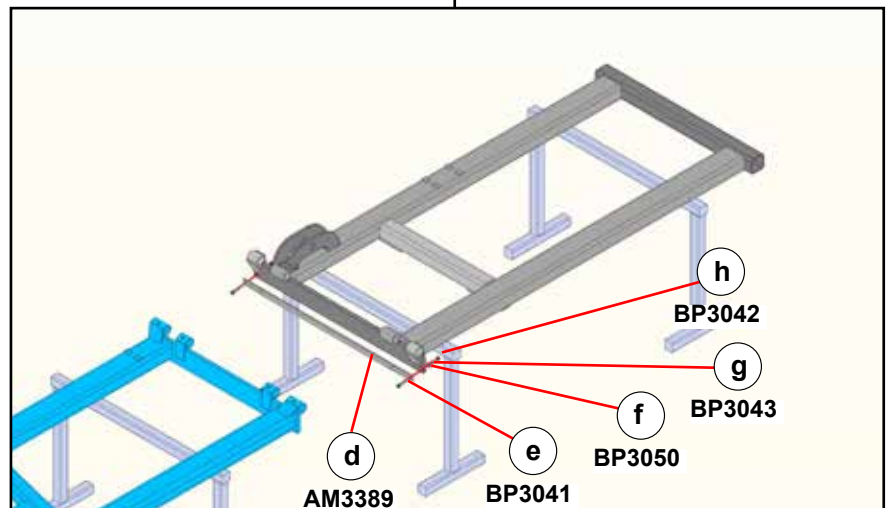
**DANGER**  
Secure frame to stands



1. Place (a) (AM3354) 13'6" center section on sturdy stands, about 36" high on hard level surface.
2. Place (b) (AM3381) 8'7" Left-hand primary wing and (c) (AM3382) 8'7" right-hand primary wing on stands and install (d) (AM3389) bolt-on wing spacer to wings with (e) (BP3041) 1/2" x 2" hex cap screws, (f) (BP3050) 1/2" flat washers, (g) (BP3043) 1/2" lock washers and (h) (BP3042) 1/2" hex nuts.



3.



## Assembly (Wing Mounting)

LR 3, LF

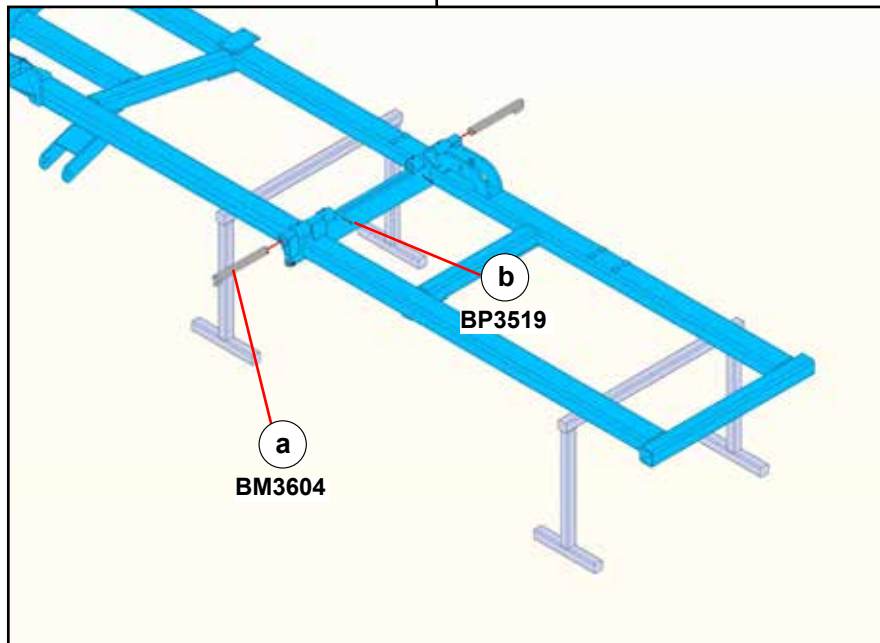
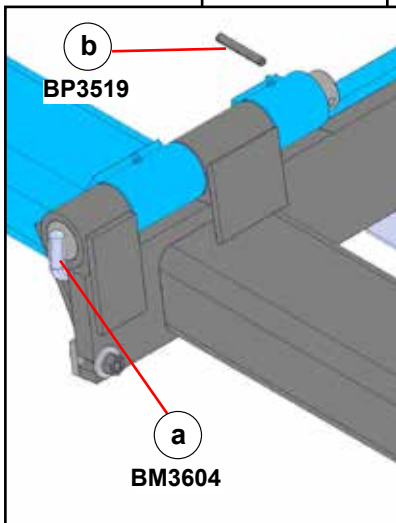
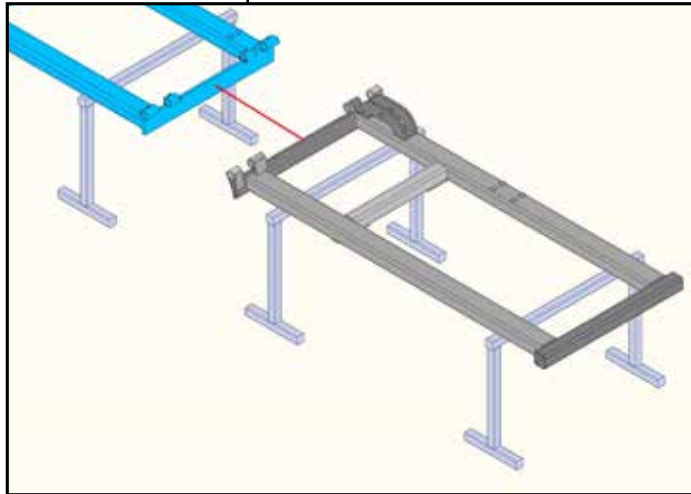
Task

Procedures

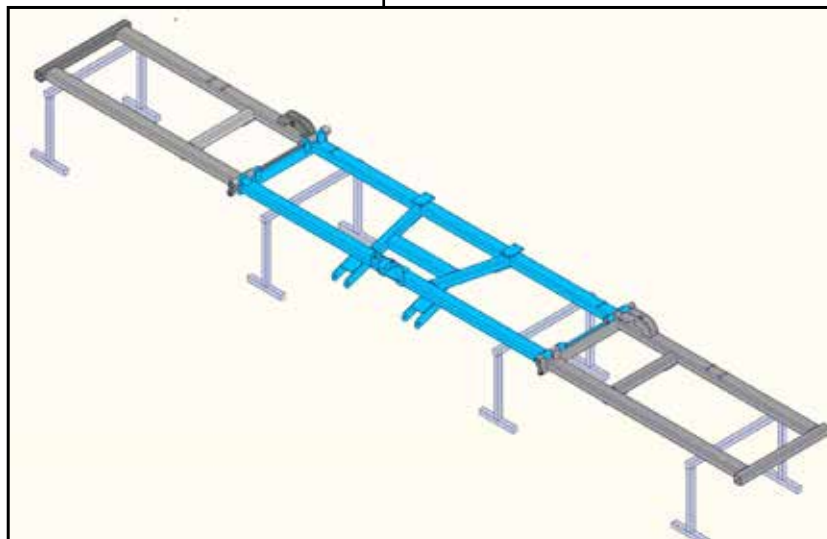
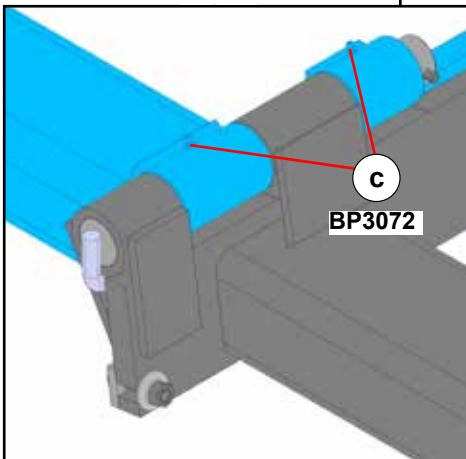
Illustrations

► **Mounting wings**

1. Raise folding wing into position with a forklift.
2. Insert (a) (BM3604) 1-3/4" x 14-3/8" anti-rotation hook pin into front and rear hinge loops.
3. Pin hook must be inserted between main frame plate and hinge loop brace.
4. Hammer (b) (BP3519) 3/8" x 2-1/2" plain roll pin into end of hinge pins.



5. Install two (c) (BP3072) 1/4"-28 grease zerks into each hinge loop.



## Assembly (Wing Stops and Rocker Plates)

LR 3, LF

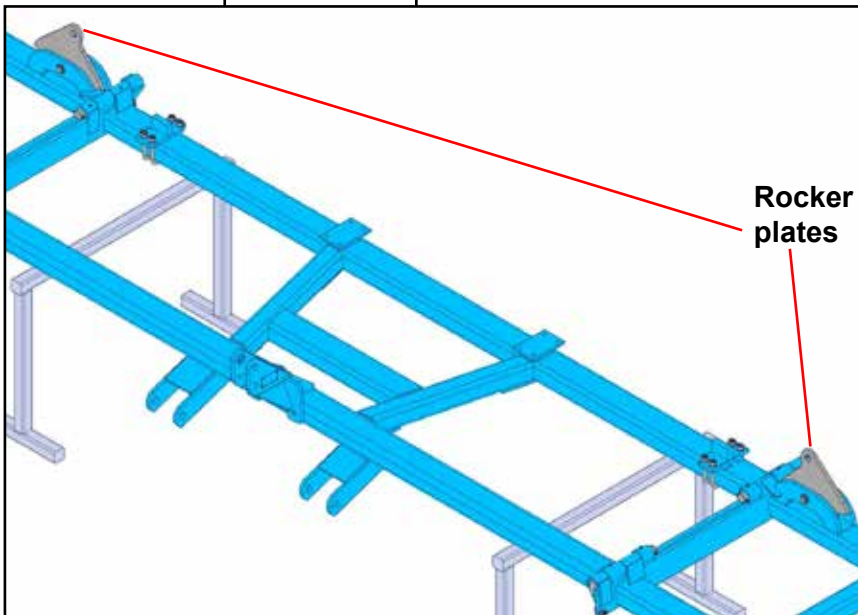
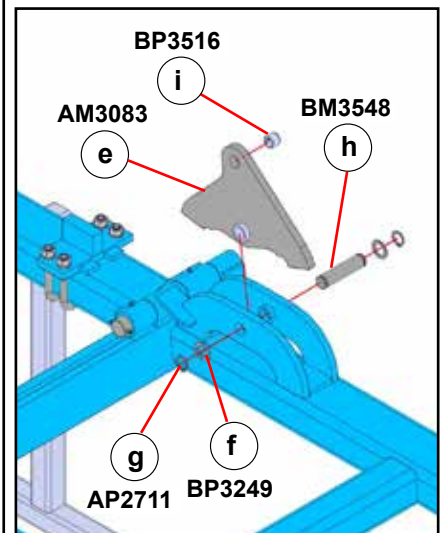
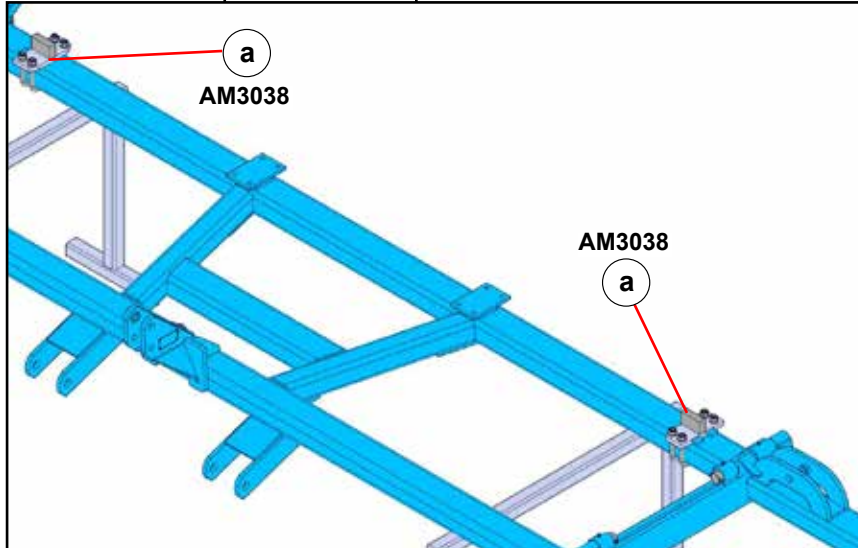
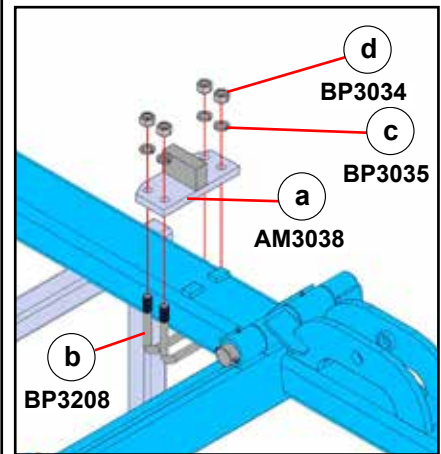
Task

Procedures

Illustrations

▶ Installing bolt-on primary wing stops

1. Position (a) (AM3038) wing stops to the inside of the main frame blocks.
2. Secure stops with (b) (BP3208) 3/4" x 6"W x 5-11/16"L u-bolts, (c) (BP3035) 3/4" lock washers and (d) (BP3034) 3/4" hex cap screws.



3. Insert (e) (AM3083) rocker plate in primary wing weldment. Place (f) (BP3249) 1-7/8" OD x 1-1/4" ID 14 Ga. machinery bushing and (g) (AP2711) 1-1/4" snap ring on (h) (BM3548) 1-1/4" x 4-3/4" double grooved pin. Insert pin assembly through weldment and rocker plate. Secure pin with (f) (BP3249) 1-7/8" OD x 1-1/4" ID 14 Ga. machinery bushing and (g) (AP2711) 1-1/4" snap ring.
4. Install (i) (BP3516) 1-1/4" x 1" OAL tension bushing in rocker plate if not installed at the factory.

## 180 Degree Fold Assembly Secondary Wings

LR 3, LF

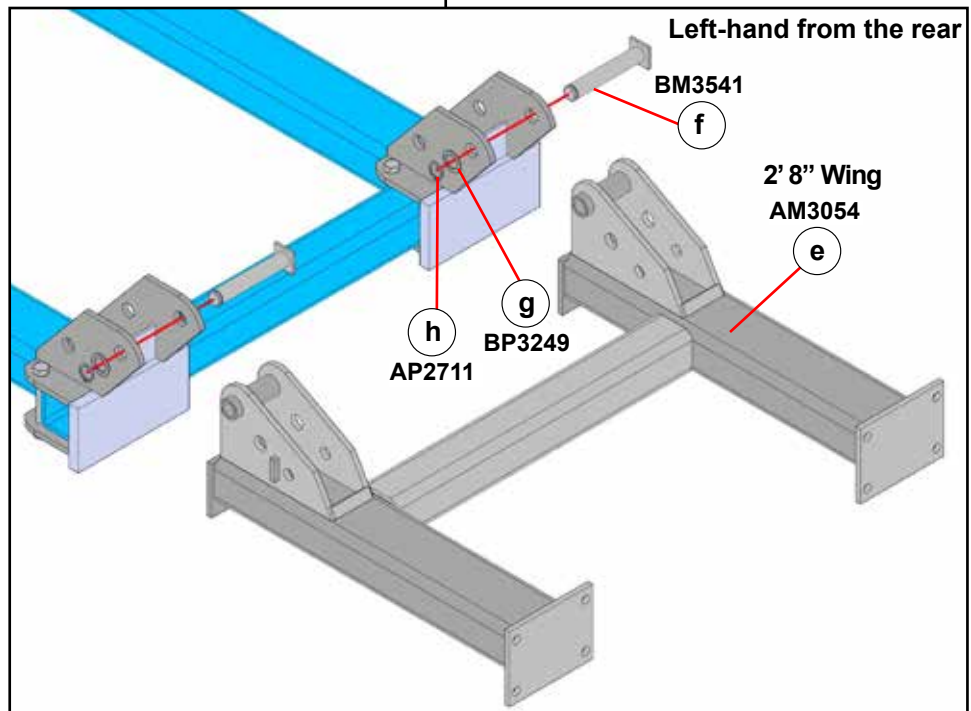
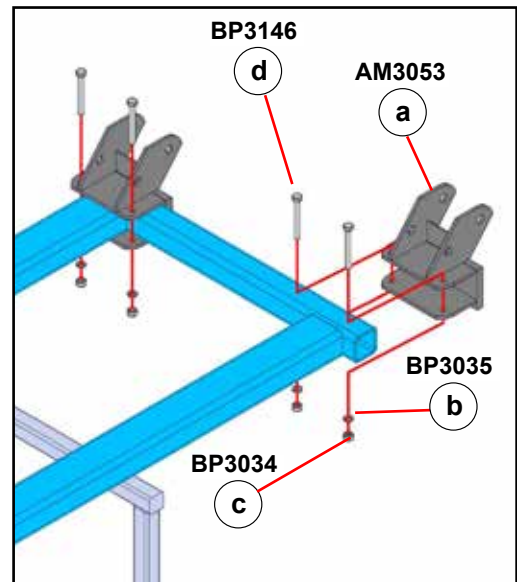
Task

Procedures

Illustrations

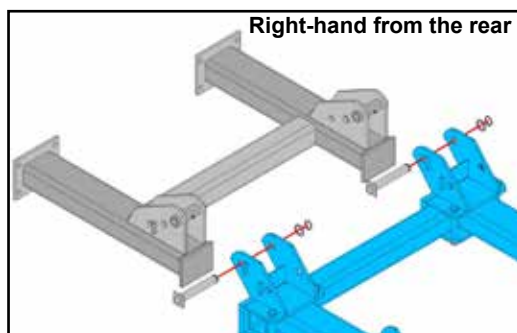
- ▶ Mounting secondary wing hinges
- ▶ Installation of secondary bolt-on wing hinges.

1. Place (a) (AM3053) 180 degree fold hinges over the end of secondary wings.
2. Secure with (d) (BP3146) 3/4"-10 x 6" hex cap screws, (b) (BP3035) 3/4" lock washers and (c) (BP3034) 3/4" hex nuts.



- ▶ Mounting secondary 180 degree fold wings.

3. Position (e) (AM3054) 2' 8" 180 degree fold wing into hinge weldments with a forklift. Insert (f) (BM3541) 1-1/4" x 7-3/4" pins with groove into top hole of hinge weldment.
4. Secure hinges with (g) (BP3249) 1-7/8" OD x 1-1/4" ID machinery bushings, 14 gauge and (h) (AP2711) 1-1/4" external, heavy duty snap rings.

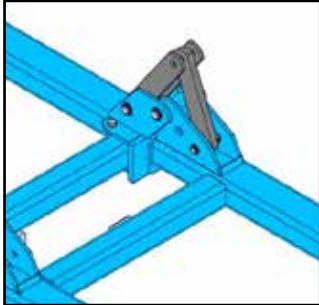




	180 Degree Fold Assembly Secondary Wing Linkages		
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LR 3, LF	Task	Procedures	Illustrations
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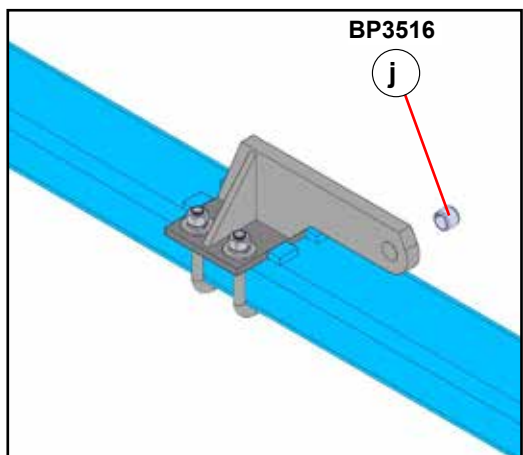
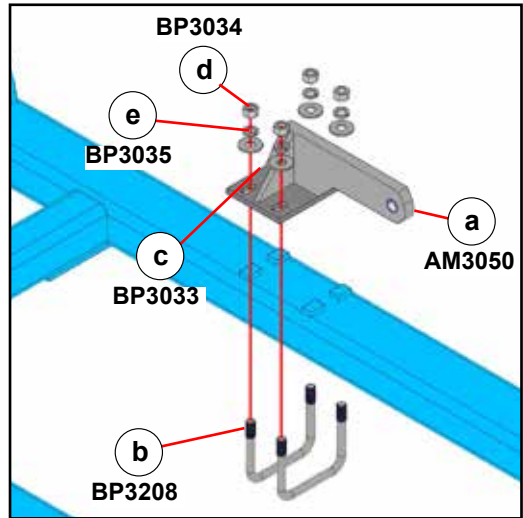
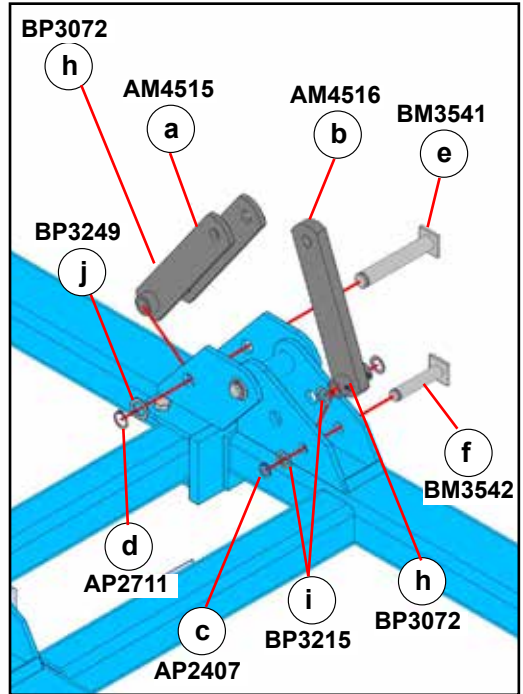
▶ Wing linkage assembly



▶ Cylinder lug 180 degree fold parts

▶ **NOTE:**  
Tension bushing installed at factory

1. Insert (a) (AM4515) secondary wing linkage into secondary wing hinge weldment. Secure with (e) (BM3541) 1-1/4" x 7-3/16" pin, (j) (BP3249) 1-1/4" ID x 1-7/8" OD machinery bushing and (d) (AP2711) 1-1/4" snap ring.
2. Place (b) (AM4516) secondary wing linkage into primary wing weldment. Insert (f) (BM3542) 1" x 4-5/8" pin. Place (i) (BP3215) 1-1/2" x 1" machinery bushings on each side of the linkage as pin is inserted. Secure with (i) (BP3215) 1-1/2" x 1" machinery bushing and (c) (AP2407) 1" snap ring.
3. Install (h) (BP3072) 1/4" grease zerks into secondary wing linkages.
4. Place (a) (AM3050) cylinder lug behind weldments on primary wing. Secure with (b) (BP3208) 3/4" x 6" x 5-3/4" u-bolts (c) (BP3033) 3/4" flat washers (e) (BP3035) 3/4" lock washers and (d) (BP3034) 3/4" hex nuts.
5. Install (j) (BP3516) 1-1/4" x 1" x 1" OAL tension bushing in cylinder lug.



# 180 Degree Fold Assembly Wing Stop

LR 3, LF

Task

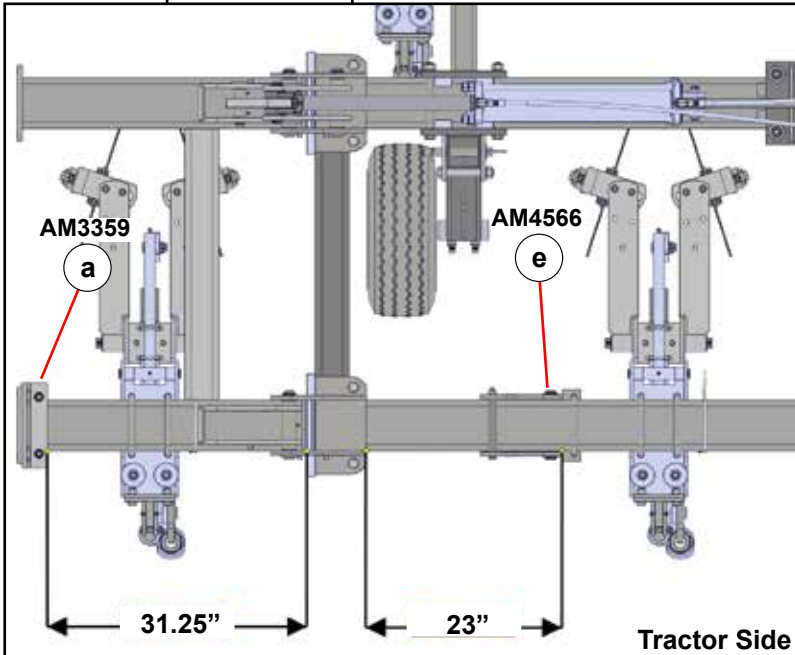
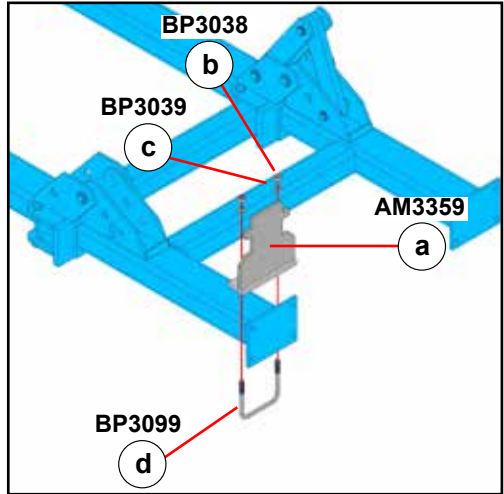
Procedures

Illustrations

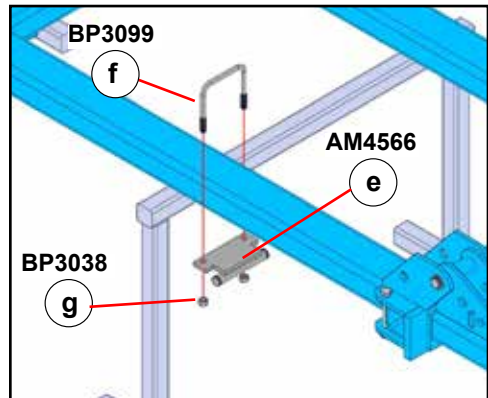
Wing rest installation

**NOTE:**  
Consult row spacing diagram for wing rest location

- Place (a) (AM3359) wing rest latch on end of secondary tractor side wing weldment and install (d) (BP3099) 5/8" -11 x 6" x 6" u-bolt, (c) (BP3039) 5/8" lock washers and (b) (BP3038) 5/8" -11 hex nuts. *Fold wing when system is charged and adjust wing rest before tightening hex nuts.*

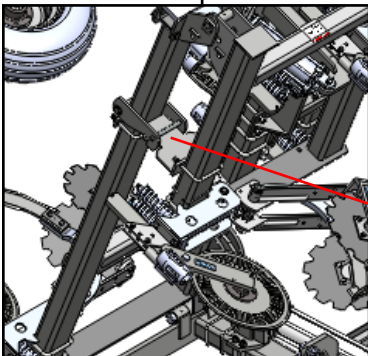
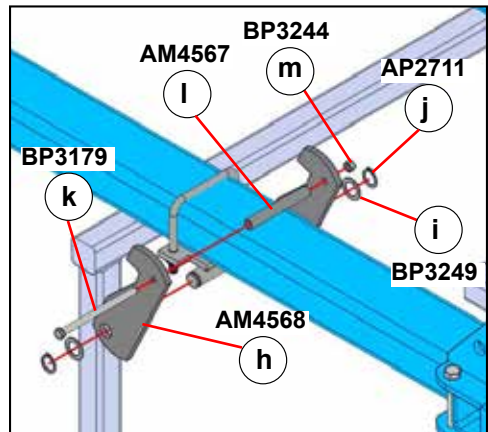


- Place (e) (AM4566) wing latch pivot on bottom of front primary wing tube. Install (f) (BP3099) 5/8" x 6" x 6" u-bolt into pivot bracket. Place (g) (BP3038) 5/8" hex nuts on u-bolt. **Tighten hex nuts enough so the pivot bracket will still slide on tube.**



**NOTE:**  
Wing lock plates should move freely over wing rest latch

- Install (h) (AM4568) secondary wing lock plates on each sides of pivot bracket. Secure with (i) (BP3249) 1-7/8" OD x 1-1/4" ID machinery bushing and (j) (AP2711) 1-1/4" snap ring heavy duty.
- Raise both wing lock plates and install (k) (BP3179) 1/2" x 8" hex cap screw through plate, (l) (AM4567) pipe spacer and second plate. Secure with (m) (BP3244) 1/2" hex lock nut.
- Position assemblies according to diagram on each wing.
- When hydraulics are installed and charged, fold secondary wing over and position wing latch so hook will move freely over wing rest latch. Secure hex nuts on u-bolts.



## Assembly (Nurse Tank Hitch Auto-Lok)

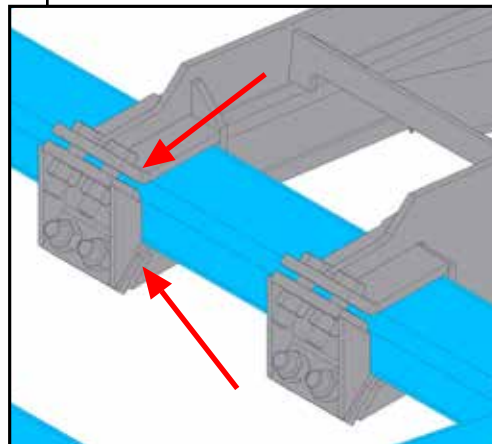
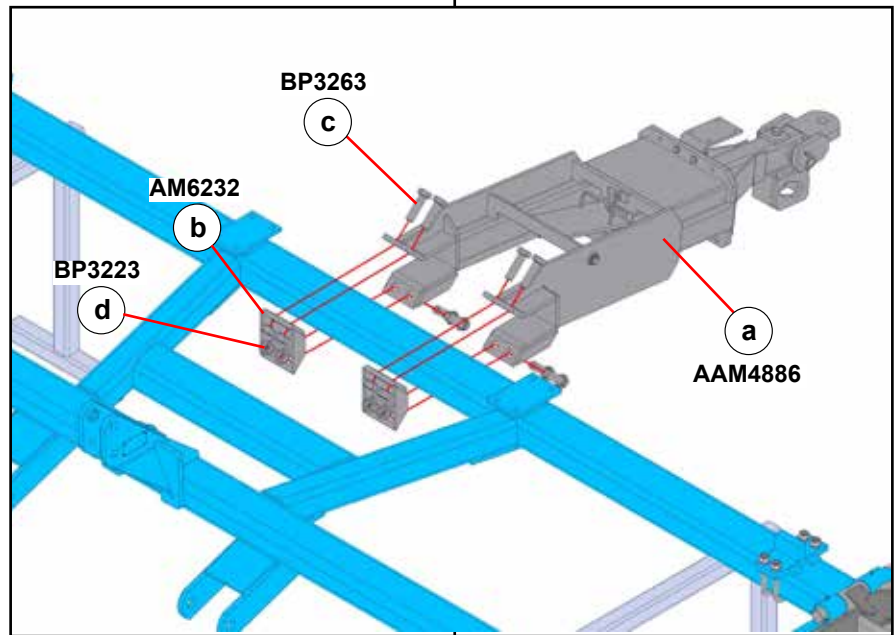
LR 3, LF

Task

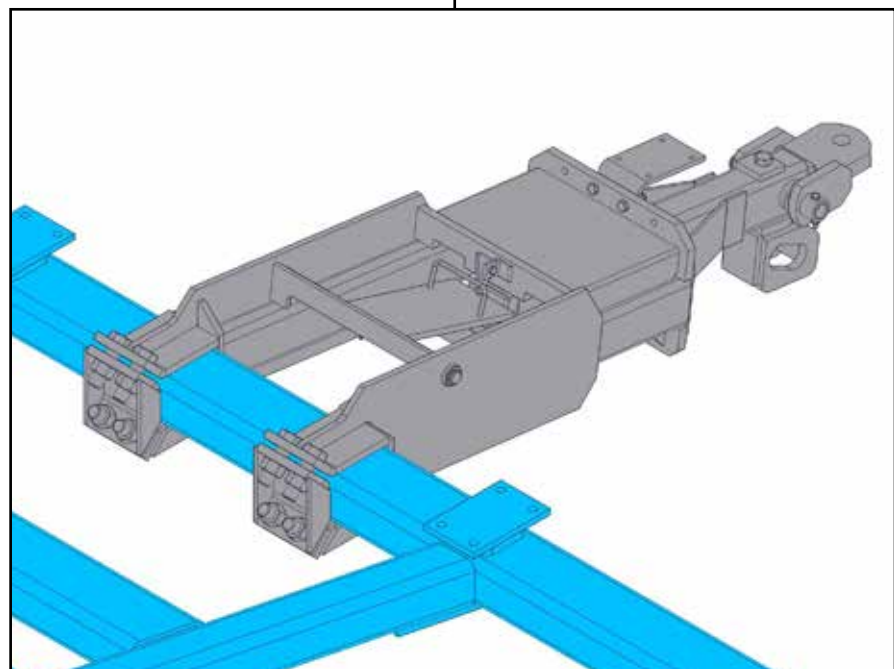
Procedures

Illustrations

► Mounting Auto-Lok nurse tank hitch



1. Center (a) (AAM4886) Auto-Lok nurse tank hitch on rear main frame.
2. Attach (b) (AM6232) mounting clamp brackets to hitch with (c) (BP3263) 1" x 8-1/2", grade 8 hex cap screws and (d) (BP3223) 1" grade C top lock nuts.
3. Tighten 1" nuts evenly. The gap between the clamp and the hitch weldment should be same top and bottom.



LR 3, LF

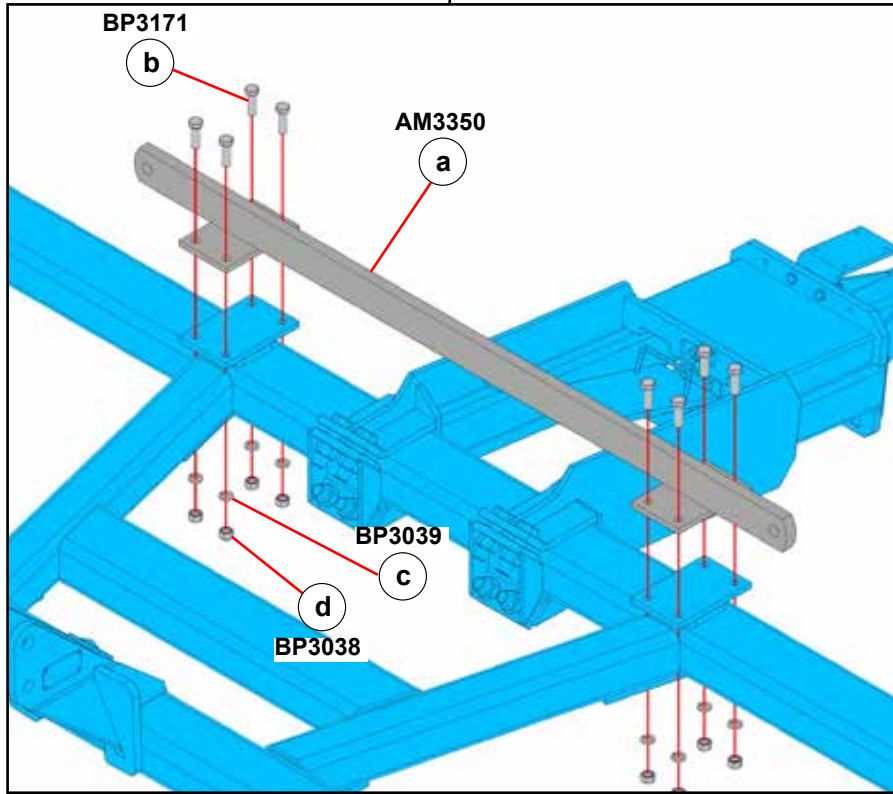
Task

Procedures

Illustrations

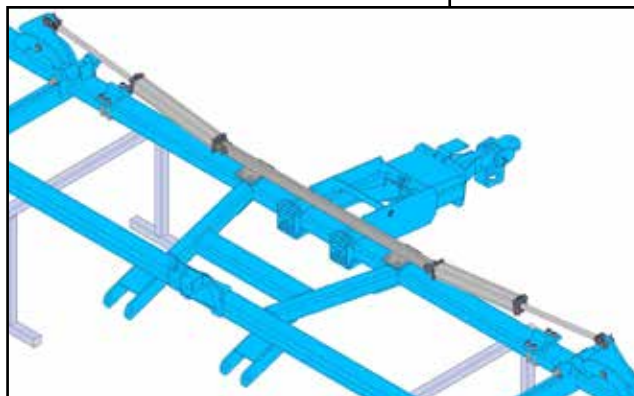
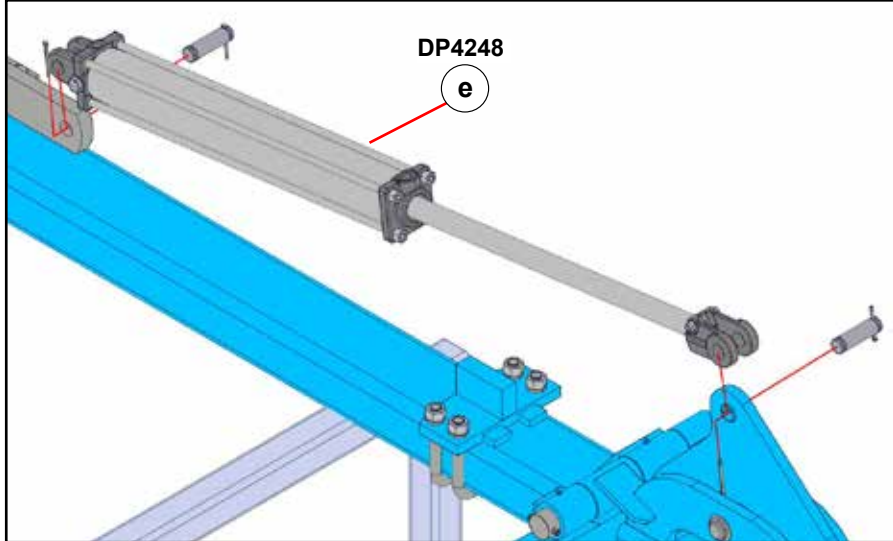
► **Mounting cylinder lug bracket**

1. Place (a) (AM3350) cylinder lug bracket on rear frame weldments.
2. Secure with (b) (BP3171) 5/8" x 2", grade 5, hex cap screws, (c) (BP3039) 5/8" lock washers and (d) (BP3038) 5/8" hex nuts.



► **Mounting cylinders**

3. Mount (e) (DP4248) 4 x 24 hydraulic cylinders with cylinder pins.



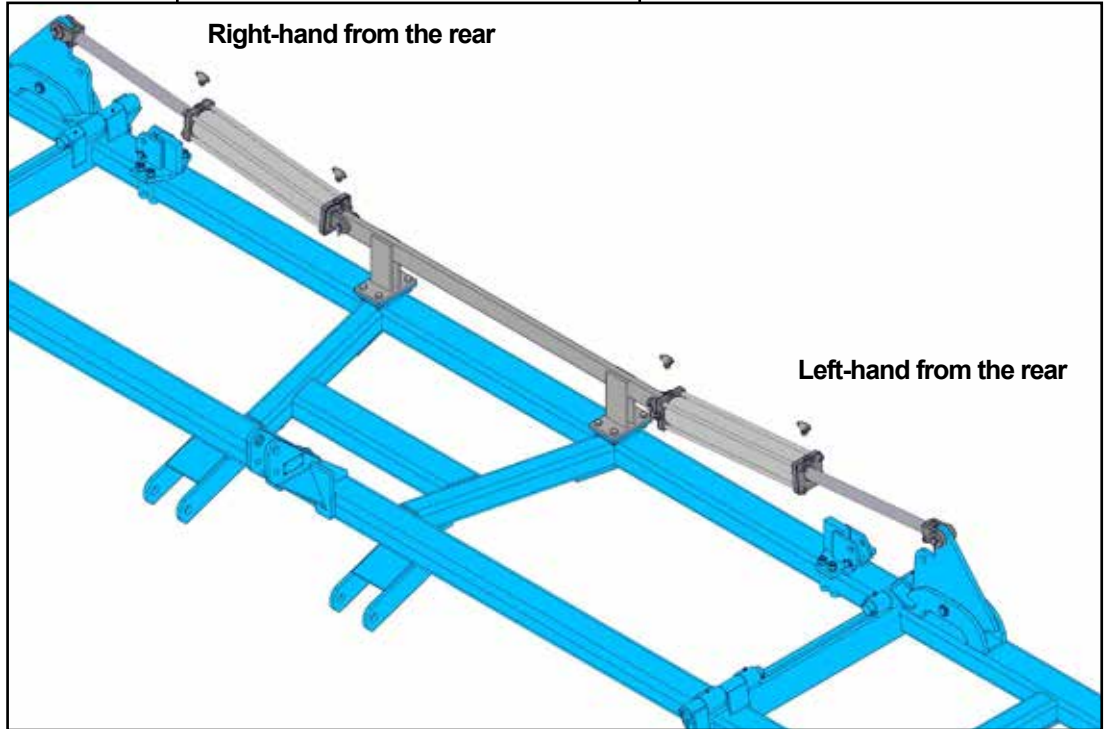
LR 3, LF

Task

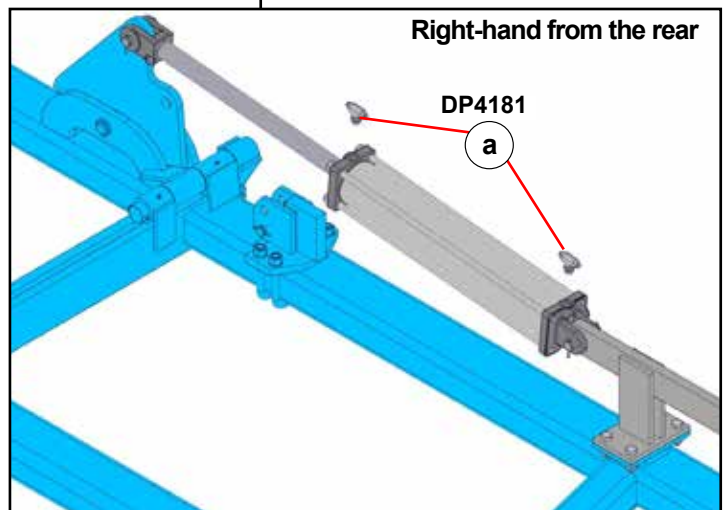
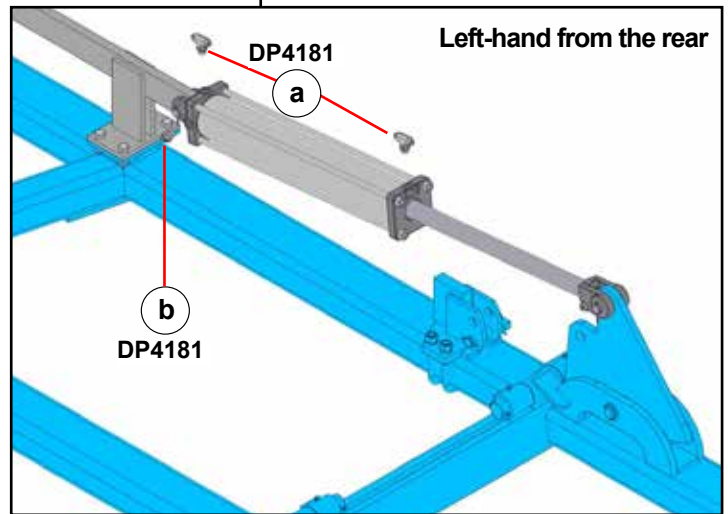
Procedures

Illustrations

► Installing wing cylinder fittings



1. Install (a) (DP4181) 8MSAE x 6MJ-6MJ tee branch in top port of each wing cylinder.
2. Install (b) (DP4394) adapter, 8MSAE-6MJIC in side port of left-hand primary wing cylinder.



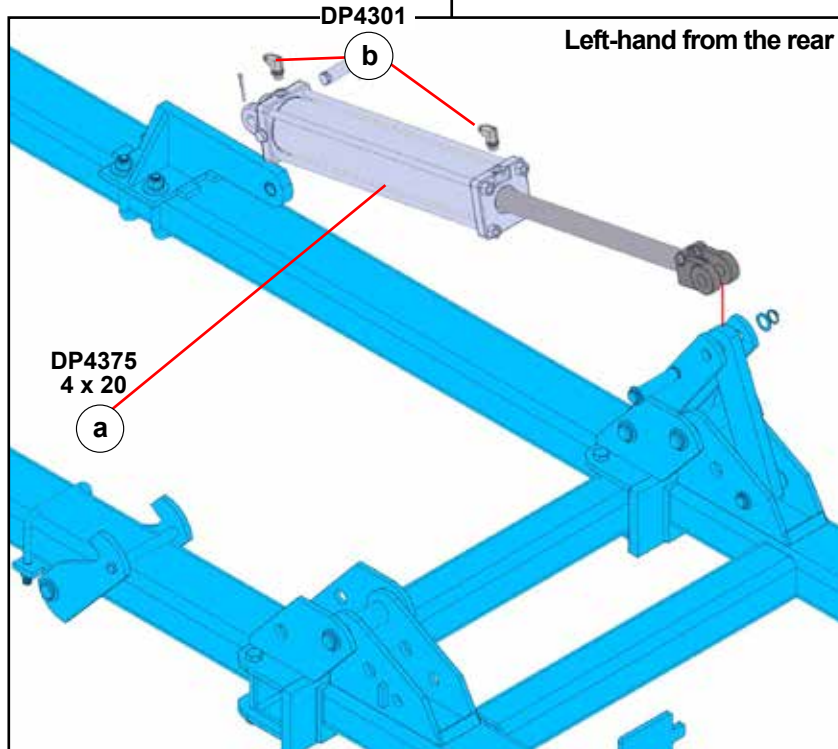
LR 3, LF

Task

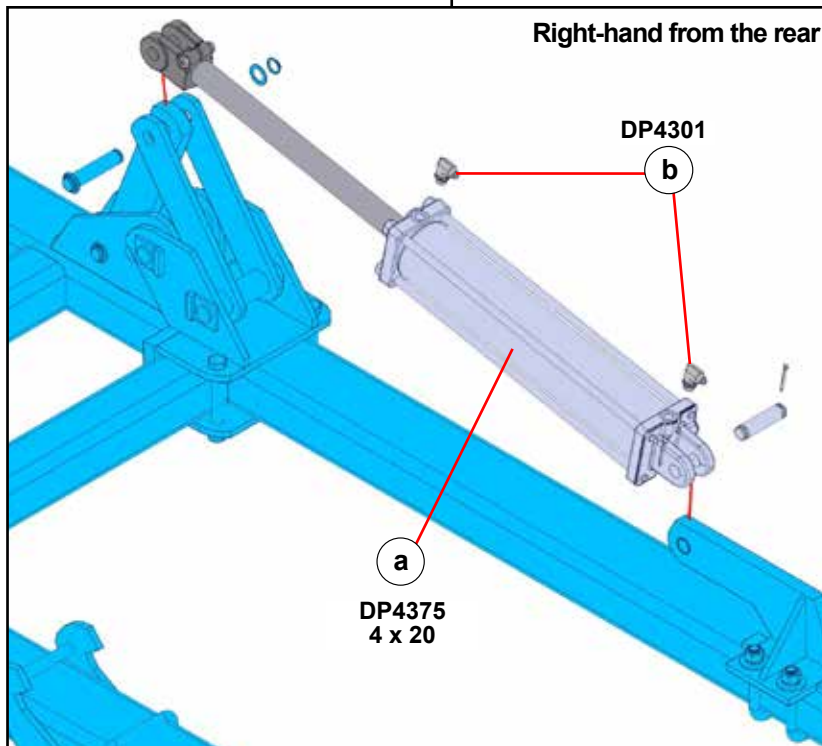
Procedures


Illustrations

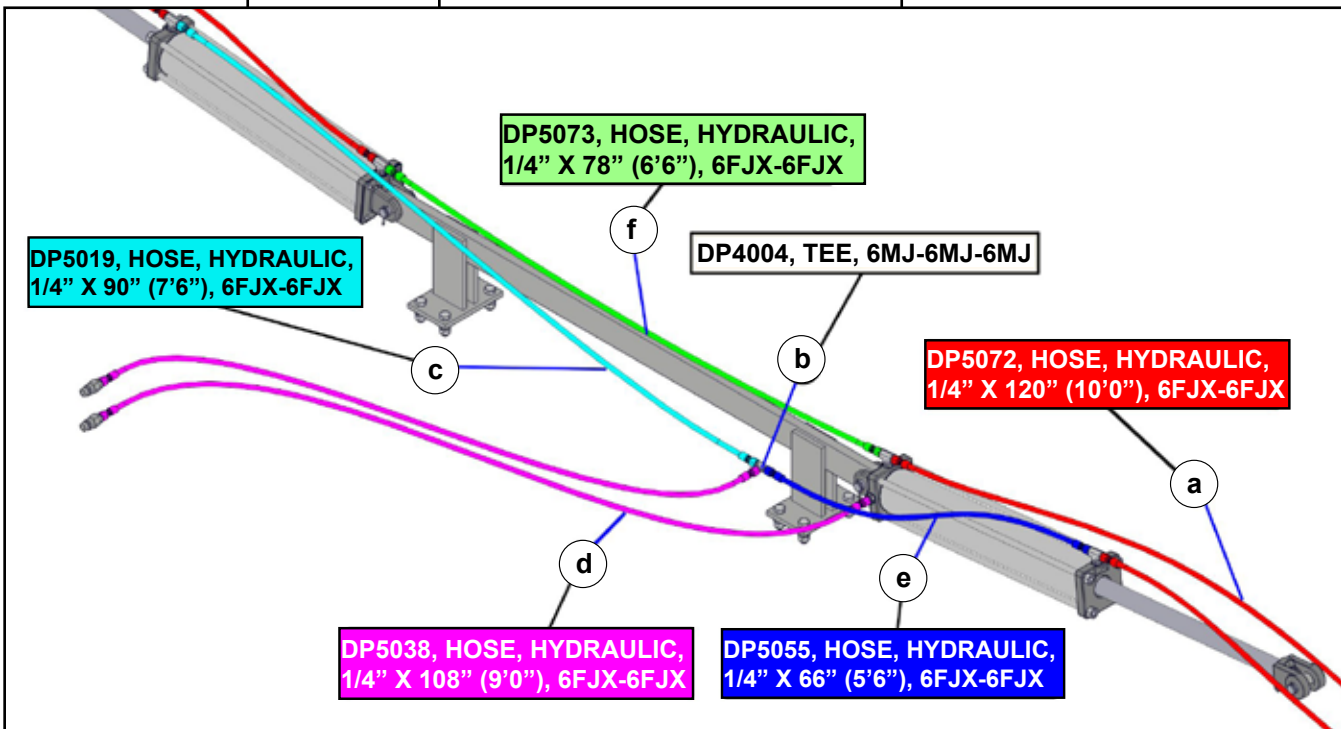
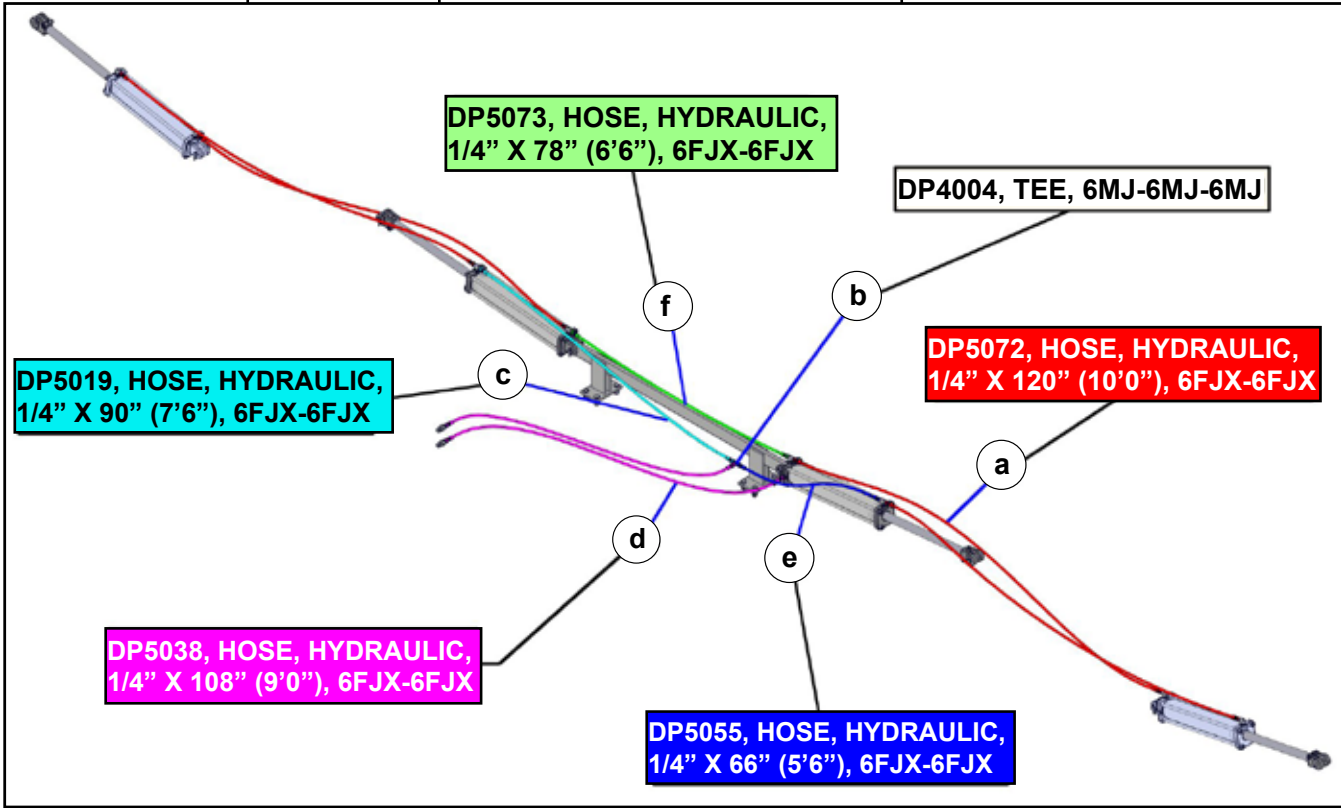
► Installing secondary wing and cylinder fittings



1. Attach butt end of (a) (DP4375) 4" x 20" hydraulic cylinder to center section cylinder lug.
2. When cylinders are charged, remove pin assembly and insert (a) (DP4375) 4" x 20" hydraulic cylinder clevis between wing linkages. Replace linkage pin.
3. Install (b) (DP4301) 6MJ-8MSAE 90 degree adapters in top ports.



 <b>LR 3, LF</b>	<b>Assembly (Wing Cylinder Hoses)</b>		
	Task	Procedures	Illustrations



LR 3, LF

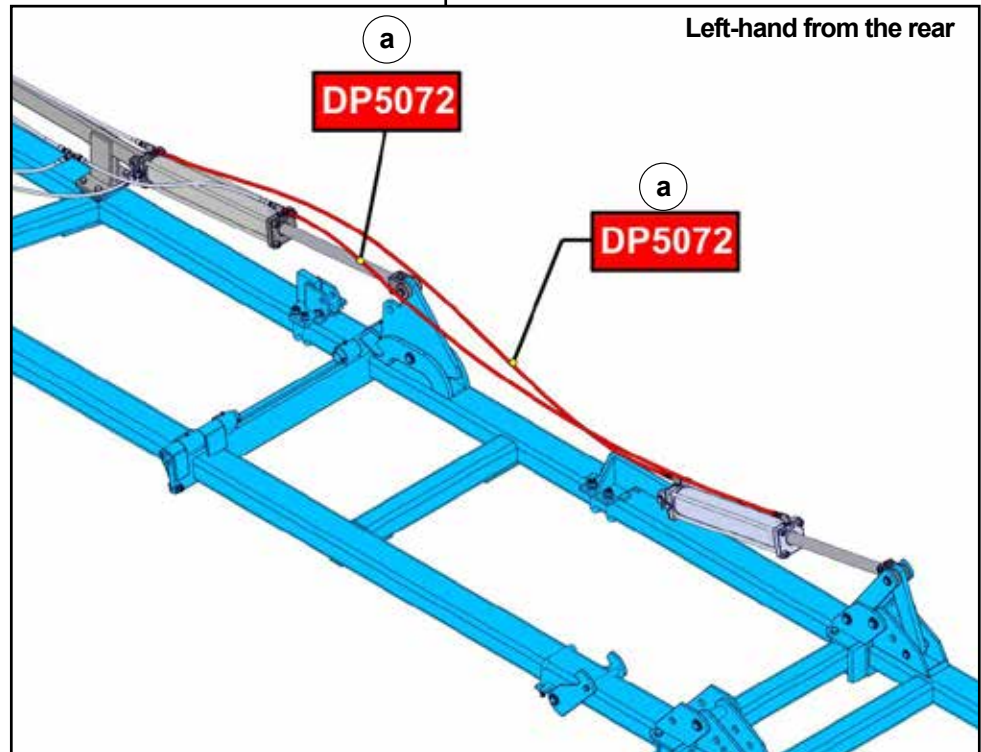
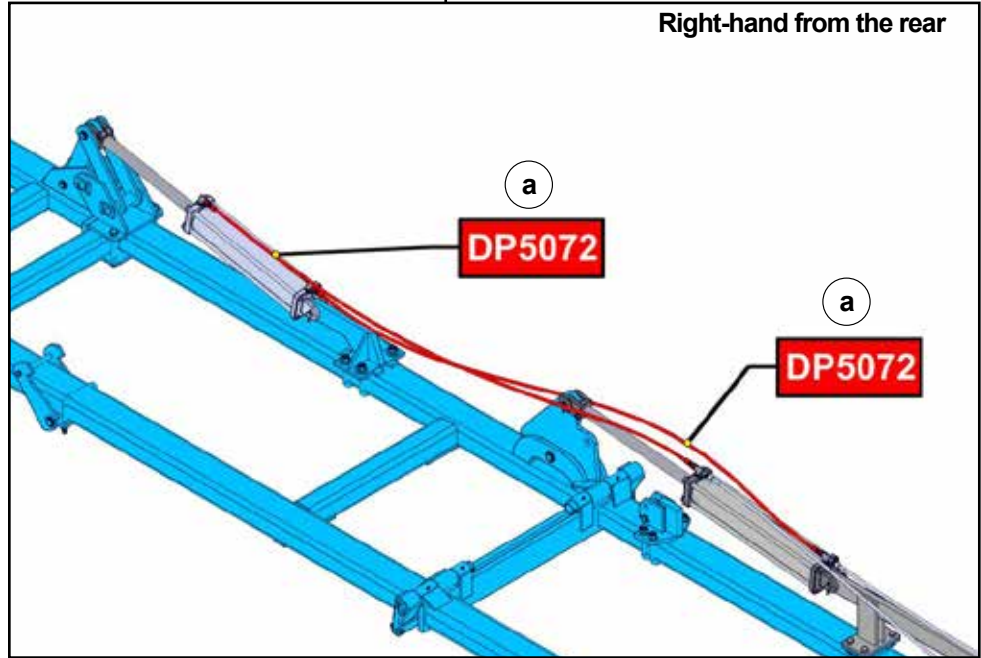
Task

Procedures


Illustrations

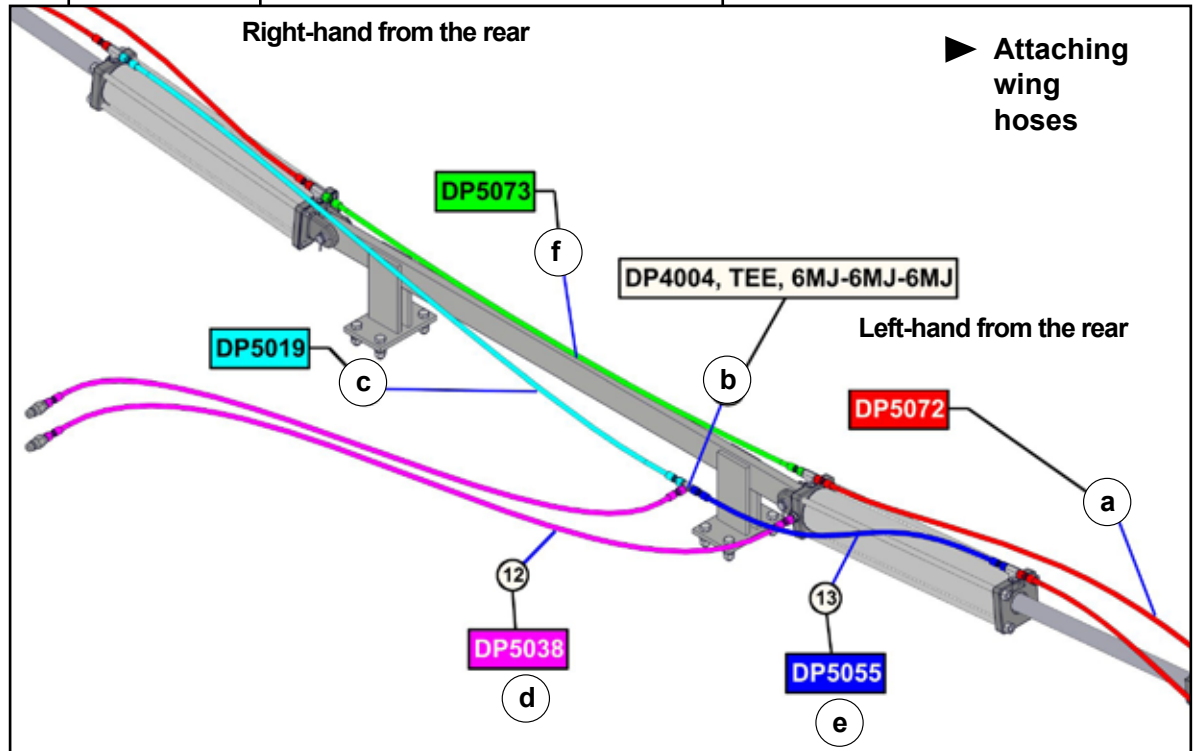
▶ **Attaching wing hoses**

1. Attach (a) (DP5072) hydraulic hoses, 1/4" X 120" (10'0"), 6FJX-6FJX to the rod and butt ends of the primary and secondary cylinders.

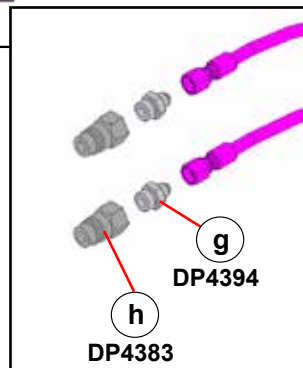
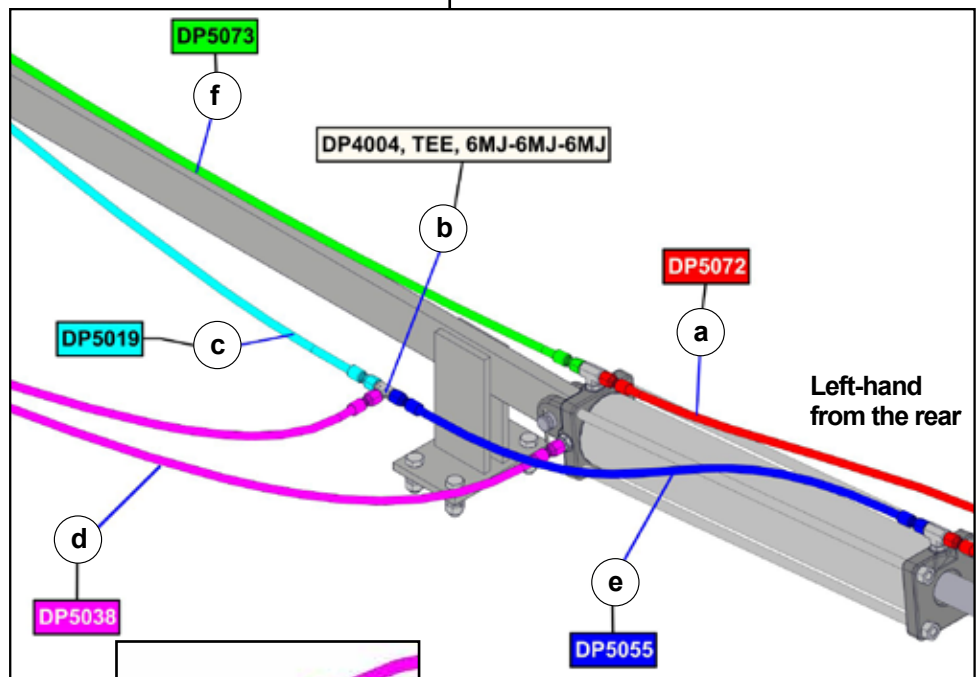




	<b>Assembly (Wing Cylinder and Tractor Hoses)</b>		
	LR 3, LF	Task	Procedures



1. Attach (c) (DP5019) hydraulic, hose, 1/4" X 90" (7'6"), 6FJX-6FJX to red end of right-hand primary wing cylinder. Extend to butt end of left-hand primary cylinder and install (b) (DP4004) 6MJ-6MJ-6MJ tee.
2. Attach (e) (DP5055) hydraulic, hose, 1/4" X 66" (5'6"), 6FJX-6FJX to (b) tee. Extend to rod end of left-hand primary cylinder.
3. Install (f) (DP5073) hydraulic hose, 1/4" X 78" (6'6"), 6FJX-6FJX to butt ends of primary wing cylinder tees.
4. Install (d) (DP5238) hydraulic hoses 1/4" X 108" (22'0"), 6FJX-6FJX to (b) tee and side port adapter. Extend to tractor.
5. Install (g) (DP4394) adapter, 8MSAE-6MJIC and (h) (DP4383) pioneer coupler, 8MQBA-8FSAE on each hose.



## Assembly (Center Section Brace)

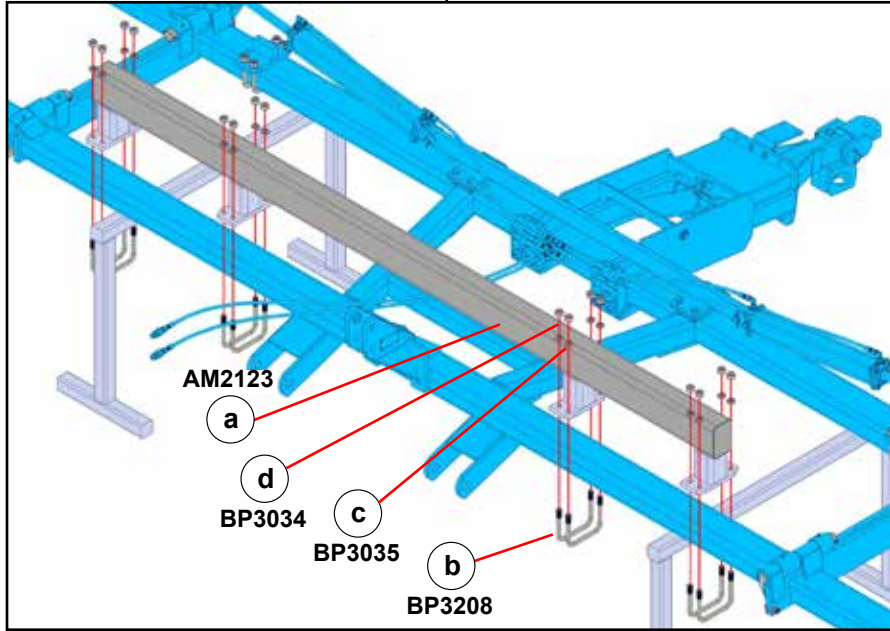
LR 3, LF

Task

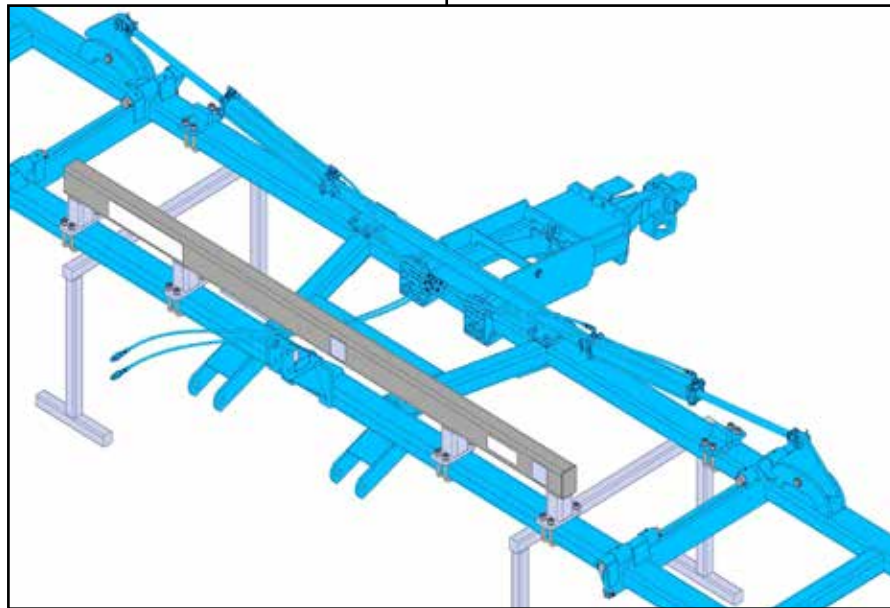
Procedures

Illustrations

► Installing center section brace



1. Center (a) (AM2123) bolt-on center section brace on front main frame.
2. Secure with (b) (BP3208) 3/4" x 6"W x 5-11/16"L, u-bolts, (c) (BP3035) 3/4" lock washers and (d) (BP3034) 3/4" hex cap screws.



## Assembly (Parking Stands)

LR 3, LF

Task

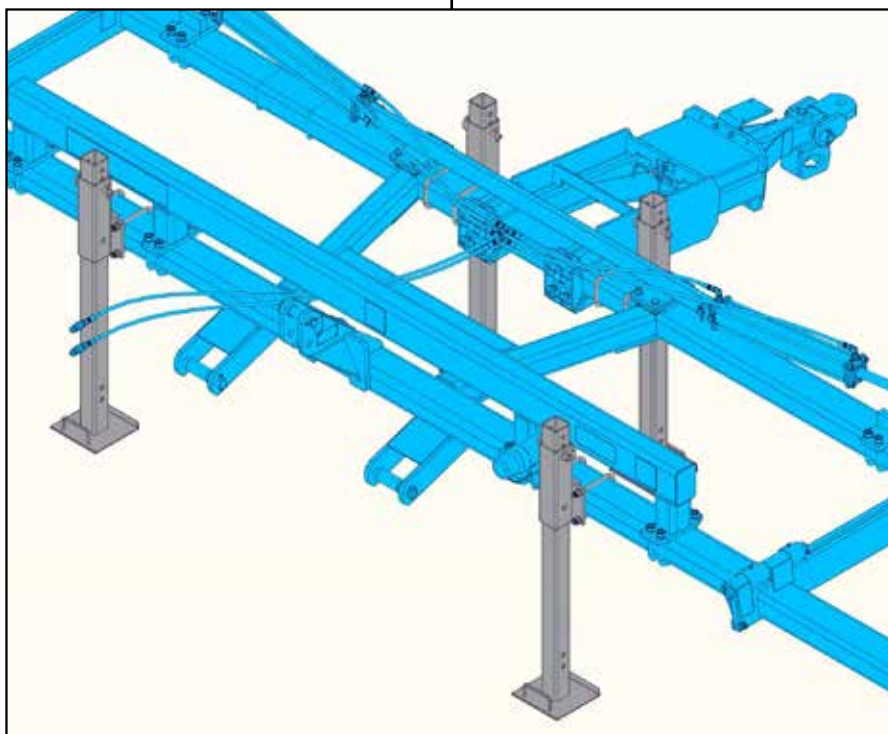
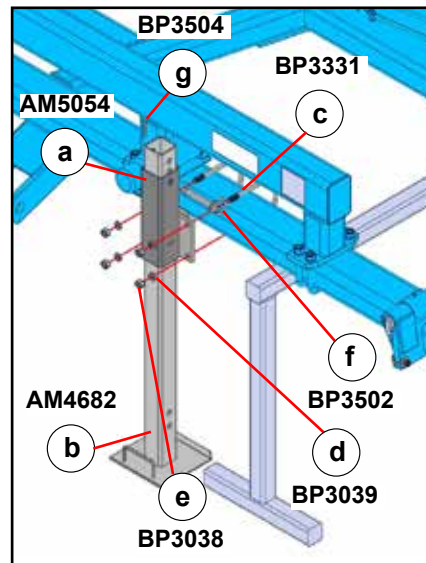
Procedures

Illustrations

▶ Installing parking stands

▶ **NOTE:**  
Consult row spacing pages for park stand placement

1. Place (a) (AM5054) park stand mounting bracket over (b) (AM4682) park stands.
2. Position park stand assemblies 46" from center of the frame to center of bracket on each side.
3. Secure bracket to frame with (c) (BP3331) 5/8" x 4" x 7-3/4" u-bolts, (d) (BP3039) 5/8" lock washers and (e) (BP3038) 5/8" hex nuts.
4. Adjust park stand and insert (f) (BP3502) 3/4" hitch pins. Secure pin with (g) (BP3504) 1/8" hair pin clips.
5. Position rear park stand assemblies near cylinder lug weldments on the mainframe.



## Assembly (Manual Holder)

LR 3, LF

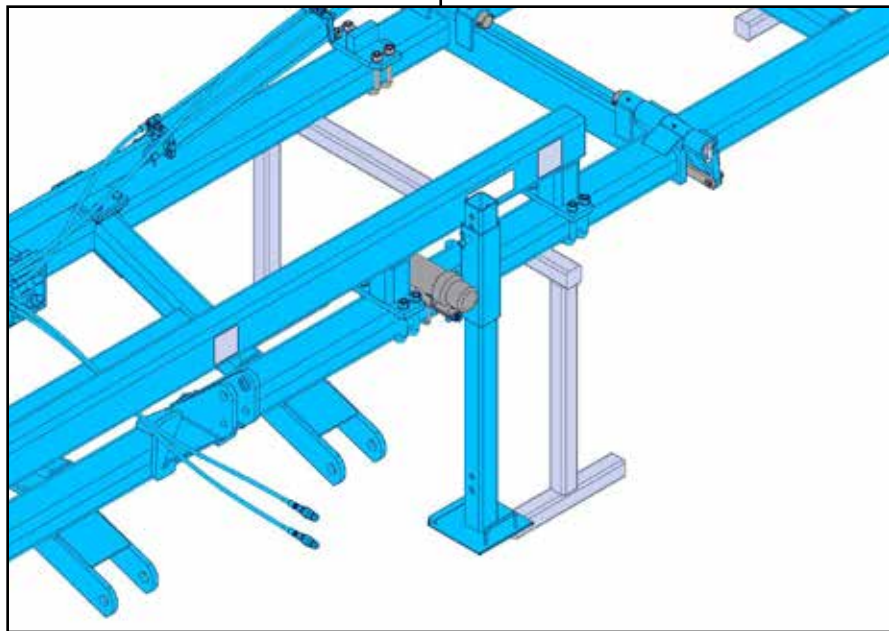
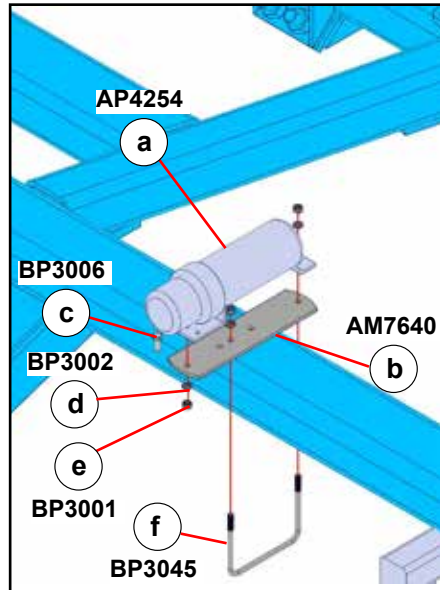
Task


Procedures

Illustrations

► Installing manual holder

1. Mount (a) (AP4254) manual holder to (b) (AM7640) manual holder bracket with (c) (BP3006) 3/8" x 1" hex cap screw. Secure with (d) (BP3002) 3/8" lock washer and (e) (BP3001) 3/8" hex nut.
2. Consult row spacing page for manual holder location.
3. Attach assembly to frame with (f) (BP3045) 3/8" x 6"W x 5"L u-bolt, (d) (BP3002) 3/8" lock washers and (e) (BP3001) 3/8" hex nuts.

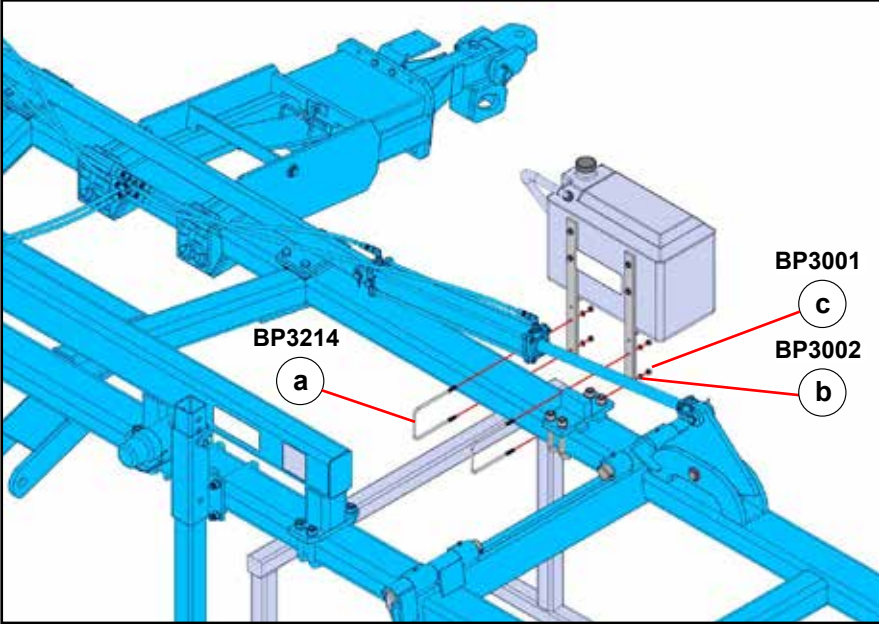


	<h2 style="margin: 0;">Assembly (Safety Tank)</h2>		
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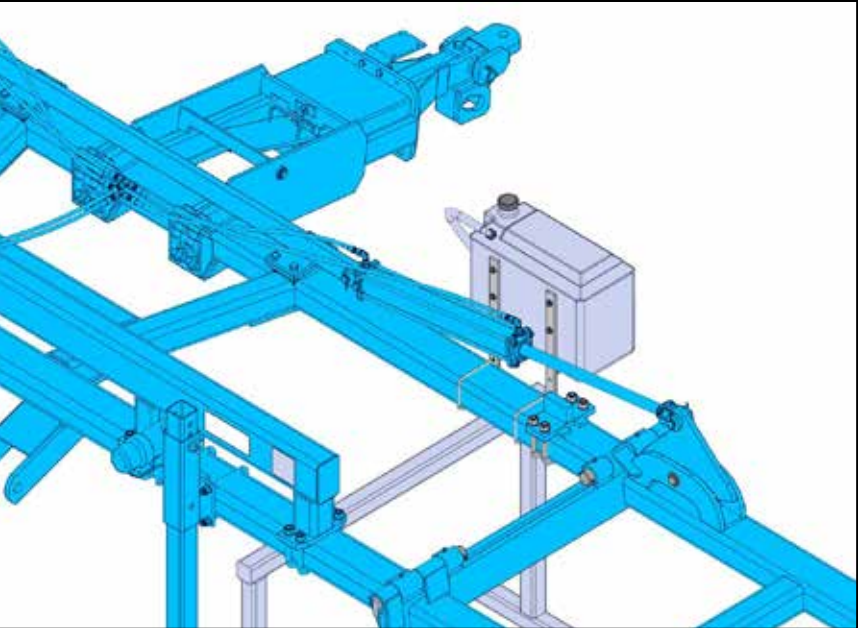
LR 3, LF	Task	Procedures	Illustrations
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▶ Installing safety tank

▶ **NOTE:**  
Consult row spacing pages for tank placement



1. Consult row spacing layouts for tank location. Mount to frame with two (a) (BP3214) 3/8"-16 x 4-1/16" x 7" u-bolts, (b) (BP3002) 3/8" lock washers, and (c) (BP3001) 3/8" hex nuts.



LR 3, LF

Task

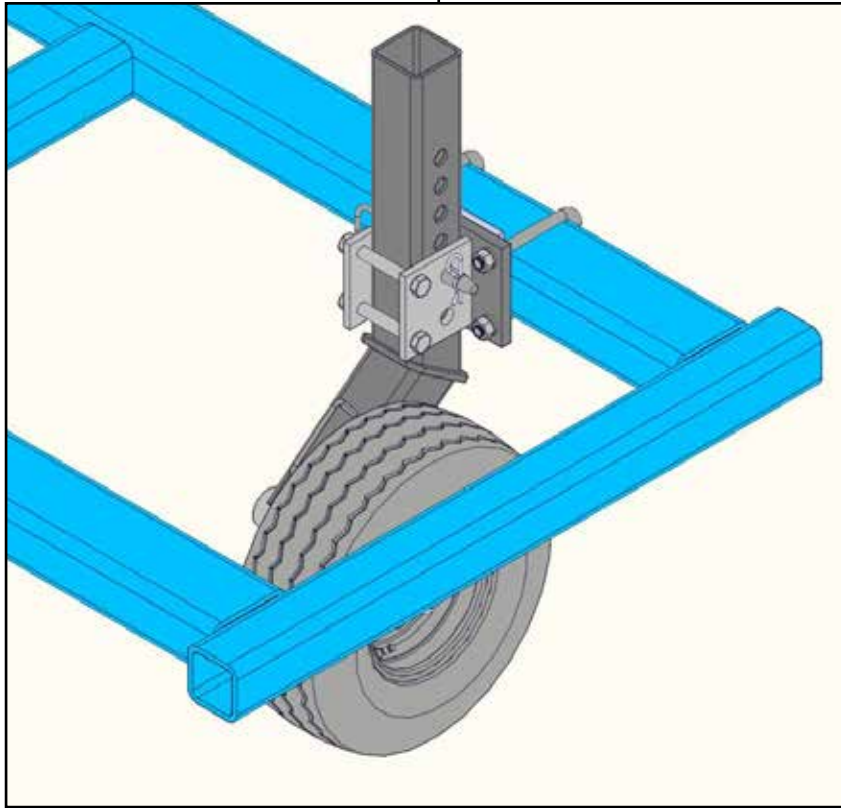
Procedures

Illustrations

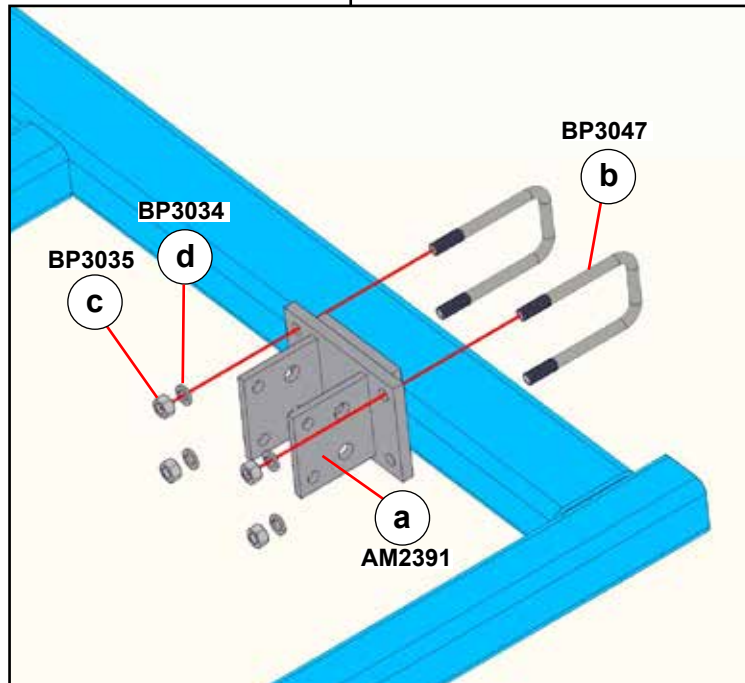
▶ Vertical pin adjust gauge wheel angled

▶ **NOTE:**  
Consult row spacing pages for gauge wheel placement

▶ Tire pressure (AAM2781)  
20.5 x 8.0-10, 10 x 6 (32 psi. Max.)



1. Consult row spacing pages for placement of gauge wheels. Attach (a) (AM2391) gauge wheel bracket with (b) (BP3047) 3/4" x 4" W x 7-3/4" L u-bolts. Secure with four (c) (BP3035) 3/4" lock washers and four (d) (BP3034) 3/4" hex nuts.



## Assembly (Vertical Pin Adjust Gauge Wheels, Angled)

LR 3, LF

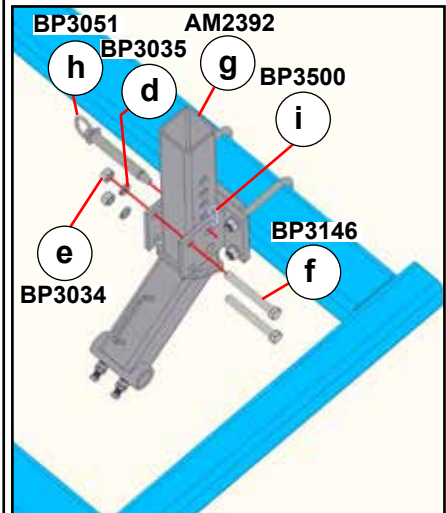
Task

Procedures

Illustrations

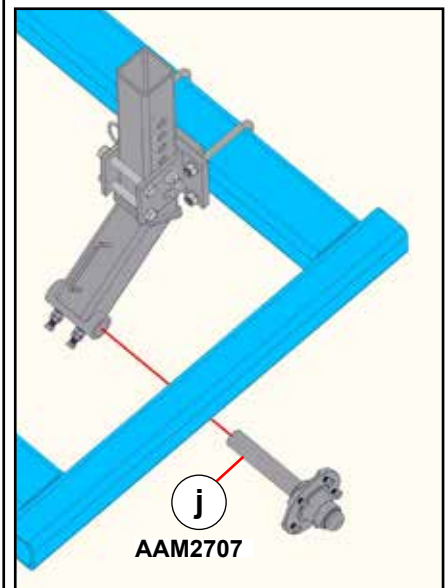
▶ Vertical pin adjust gauge wheel angled

2. Install (f) (BP3146) two 3/4" x 6" hex cap screws through mounting bracket with two (d) (BP3035) 3/4" lock washers and two (e) (BP3034) 3/4" hex nuts. Do not tighten.
3. Insert (g) (AM2392) gauge wheel leg, angled into mounting bracket.
4. Install (h) (BP3051) 1" x 6" hitch pin and (i) (BP3500) 3/16" hair pin clip.

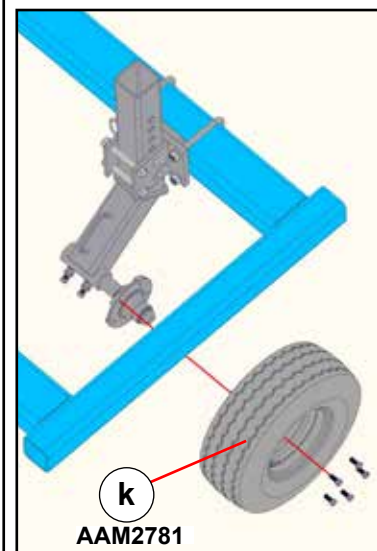


▶ **NOTE:**  
Consult row spacing pages for hub and spindle location

5. Loosen jam nuts and bolts and insert (j) (AAM2707) 1-3/4" x 13" hub and spindle into wheel leg arm. Spindle should be flush with the end of the tube. Tighten jam bolts.



6. Remove wheel bolts and install (k) (AAM2781) 20.5 x 8.0, 10 x 6 wheel.



7. After final depth adjustment is decided, tighten 3/4" hex nuts on mounting bracket.

## Assembly (Manual Adjust Gauge Wheels)

LR 3, LF

Task

Procedures

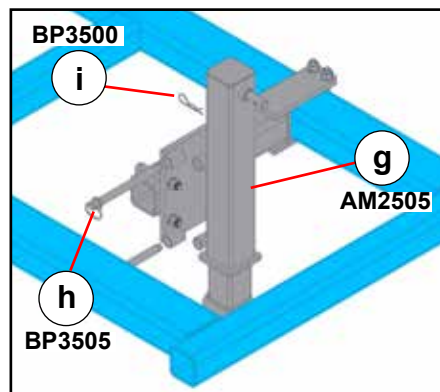
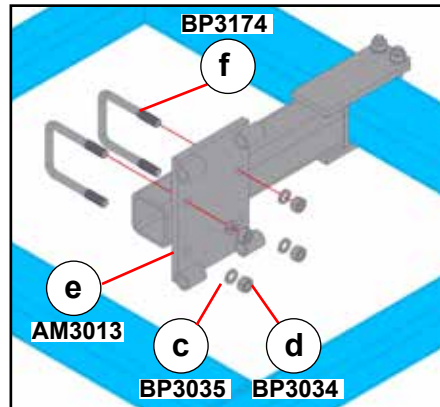
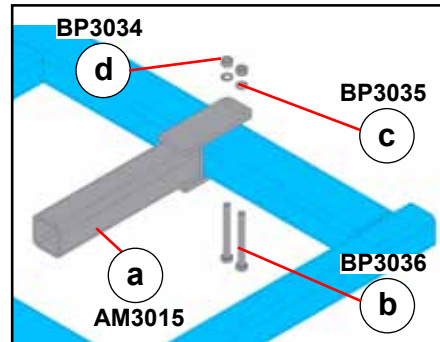
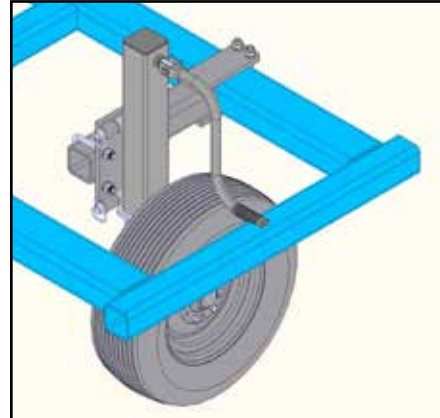
Illustrations

▶ Manual adjust gauge wheel

▶ **NOTE:**  
Consult row spacing pages for gauge wheel placement

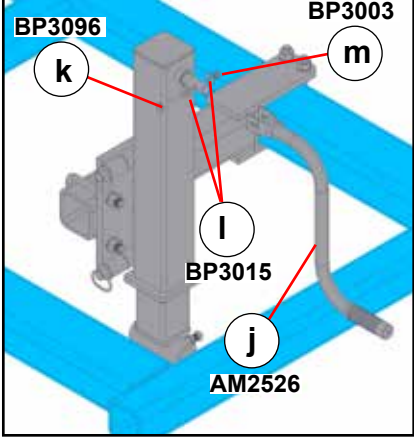
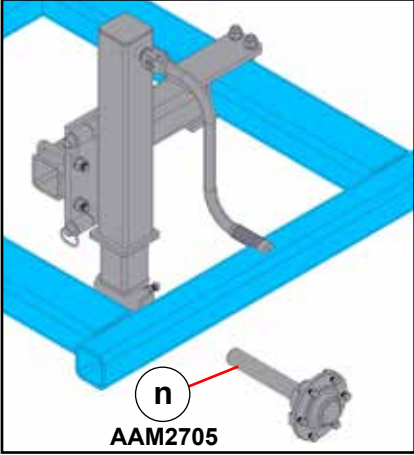
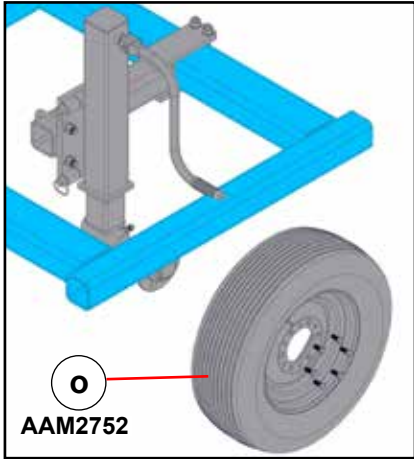
▶ Tire pressure (AAM2752)  
27 x 9.5, 6 ply  
15 x 6 x 6  
(32 psi. Max.)

1. Consult row spacing pages for placement of gauge wheels.
2. Attach (a) (AM3015) gauge wheel extension wing mount to frame with (b) (BP3036) 3/4" x 6-1/2" hex cap screws, grade 5, (c) (BP3035) 3/4" lock washers and (d) (BP3034) 3/4" hex cap screws.
3. Mount (e) (AM3013) in-line transport wing bracket to extension with (f) (BP3174) 3/4" x 4"W x 6"L u-bolts, (c) (BP3035) 3/4" lock washers and (d) (BP3034) 3/4" hex cap screws.
4. Attach (g) (AM2505) vertical gauge wheel jack to mount with (h) (BP3505) 15/16" x 9" pins with handles. Secure with (i) (BP3500) hair pin clips.





	Assembly (Manual Adjust Gauge Wheels)		
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LR 3, LF	Task	Procedures	Illustrations
<p>▶</p>	<p><b>Manual adjust gauge wheel</b></p>	<ol style="list-style-type: none"> <li>5. Attach (j) (AM2526) 90 long crank to jack with (k) (BP3096) 3/8" x 2-1/2" hex cap screw, (l) (BP3015) 3/8" flat washers and (m) (BP3003) 3/8" lock hex nut.</li>   <li>6. Loosen jam nuts and bolts and insert (n) (AAM2705) 1-3/4" x 13" hub and spindle into wheel leg arm. Spindle should be flush with the end of the tube. Tighten jam bolts.</li>   <li>7. Remove wheel bolts and install (o) (AAM2752) 27 x 9.50, 6 ply, 15 x 6 x 6 wheel.</li> </ol>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">  </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">  </div> <div style="border: 1px solid black; padding: 5px;">  </div>

## Assembly (Ground Drive Wheel)

LR 3, LF

Task

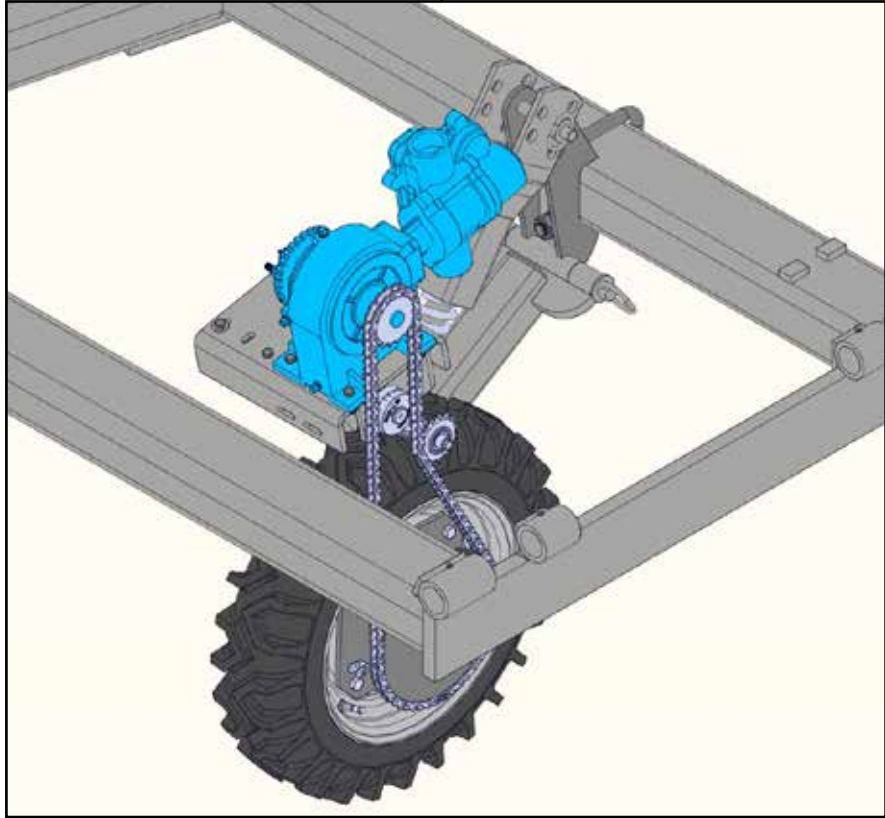
Procedures

Illustrations

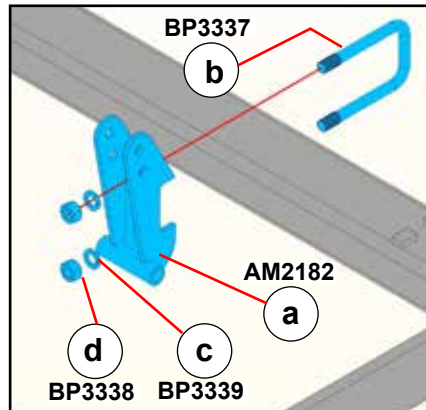


Ground drive wheel

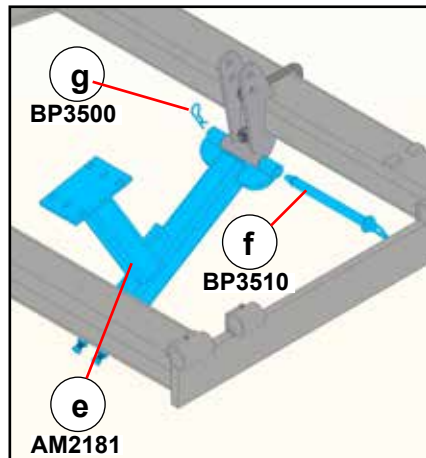
**NOTE:**  
Consult row spacing pages for ground drive wheel mounting



1. Attach (a) (AM2182) 4" mounting bracket to rear frame with (b) (BP3337) 7/8" x 9" x 4"W x 7-3/4"L U-bolt, (c) (BP3339) 7/8" lock washers and (d) (BP3338) 7/8", grade 2, plated hex nuts.



2. Position (e) (AM2181) ground drive wheel frame on mounting bracket and insert with (f) (BP3510) 1" x 10" hitch pin. Secure pin with (g) (BP3500) 3/16" hair pin clip.



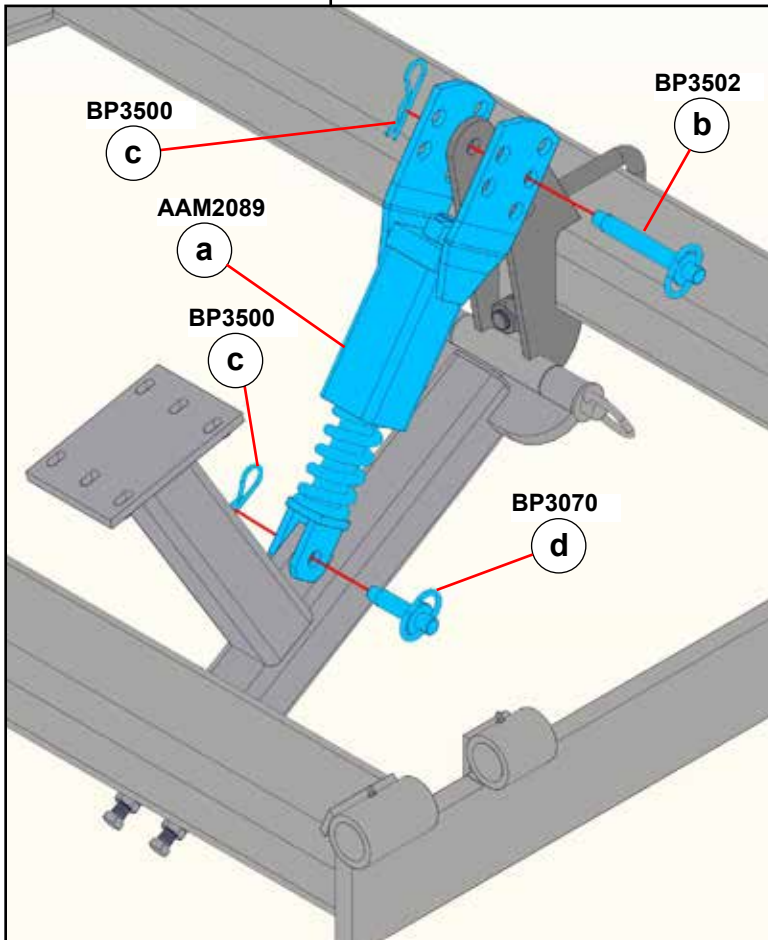
	Assembly (Ground Drive Wheel)		
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LR 3, LF	Task	Procedures	Illustrations
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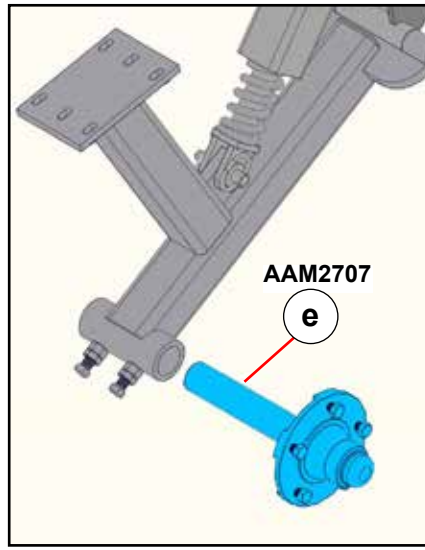
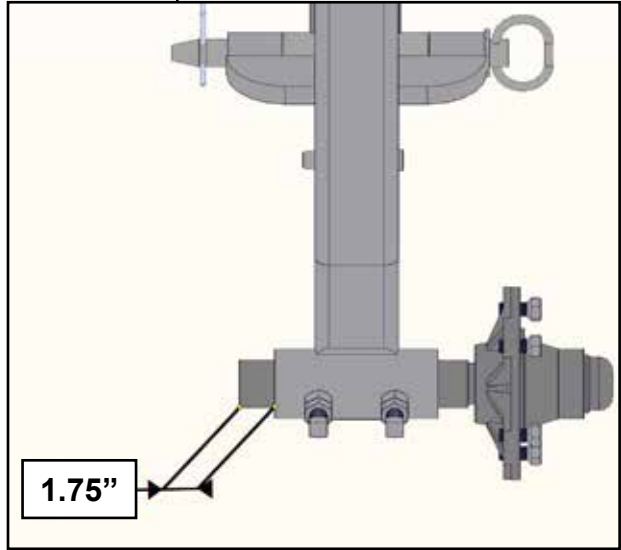
▶ **Mounting spring assembly adjuster**

3. Attach (a) (AAM2089) spring assembly adjuster to mounting bracket with (b) BP3502 3/4" x 4-1/2" hitch pin. Secure pin with (c) (BP3500) 3/16" hair pin clip. Raise ground drive wheel frame up to spring adjuster and insert (d) (BP3070) 3/4" x 2" hitch pin. Secure pin with (c) (BP3500) 3/16" hair pin clip.
  
4. Loosen set screws and insert (e) (AAM2707) 511 hub, 1-3/4" x 13" hub spindle assembly.

**NOTE:**  
 Extend the spindle passed the loop 1.75". This is a starting position.  
 Tighten set screws enough to hold spindle in position.  
 Tighten set screws and lock nuts after the chain is aligned.



▶ **Hub and spindle attaching**



## Assembly (Ground Drive Wheel)

LR 3, LF

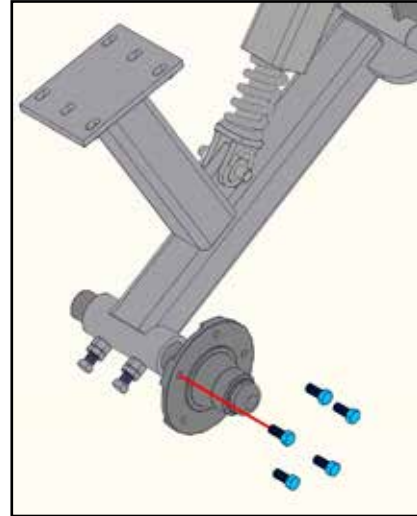
Task

Procedures

Illustrations

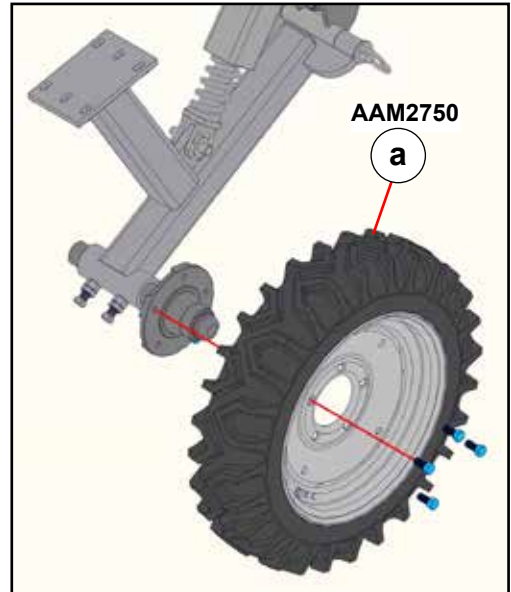
▶ Mounting wheel to hub

5. Remove lug bolts from hub.



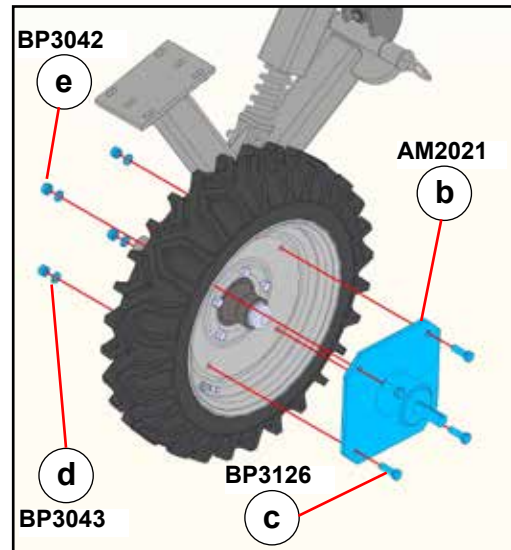
▶ **NOTE:**  
Tire loaded radius is 13" when inflated to 35-40


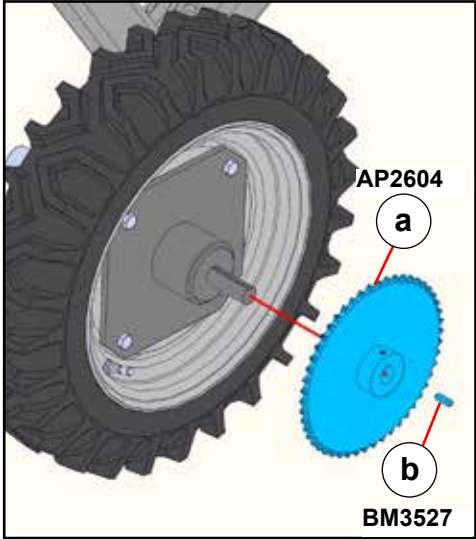
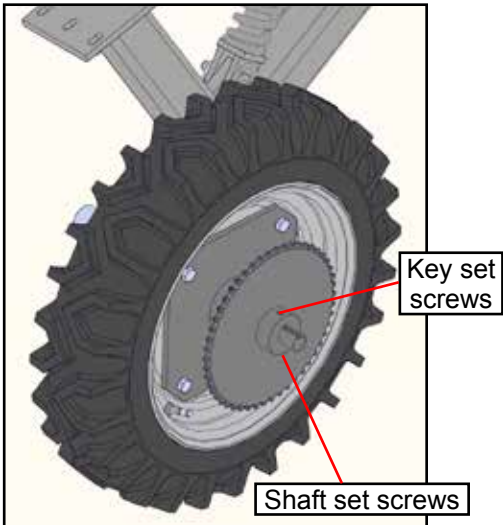
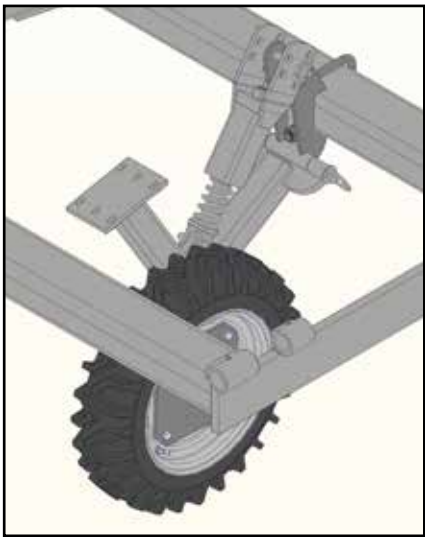
6. Mount (a) (AAM2750) 5.00-15.4, 4 ply 15 x 5 x 5, four hole wheel.



▶ Mounting ground drive wheel adapter plate

7. Align (b) (AM2021) GDW adapter plate and hub with holes in rim. Insert (c) (BP3126) 1/2" x 1-1/2", grade 5, hex cap screws. Secure plate to rim with (d) (BP3043) 1/2" lock washers and (e) (BP3042) 1/2", grade 2, hex nuts.



	<h2 style="text-align: center;">Assembly (Ground Drive Wheel)</h2>		
LR 3, LF	Task	Procedures	Illustrations
<p>▶ Installation of ground drive sprocket</p>		<p>8. Before installing the sprocket, cover the shaft with anti-seize.</p> <p>9. Slide (a) (AP2604) sprocket, 5050 x w/hub 1" RND bore, over the ground adapter plate shaft. Push sprocket against mount and install (b) (BM3527) 1/4" x 1/4" x 1" key.</p> <p>10. Do not tighten set screw on the shaft and the set screw on the key until the chain is aligned.</p>	 
<p>▶ Ground drive base unit assembled</p>		<p>11. Ground drive base unit assembled on rear frame.</p>	

## Assembly (Ground Drive Wheel)

LR 3, LF

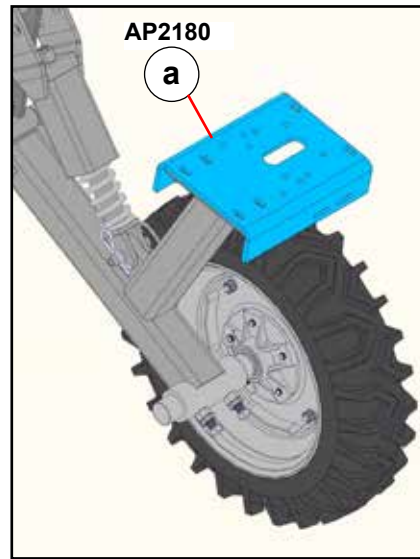
Task

Procedures

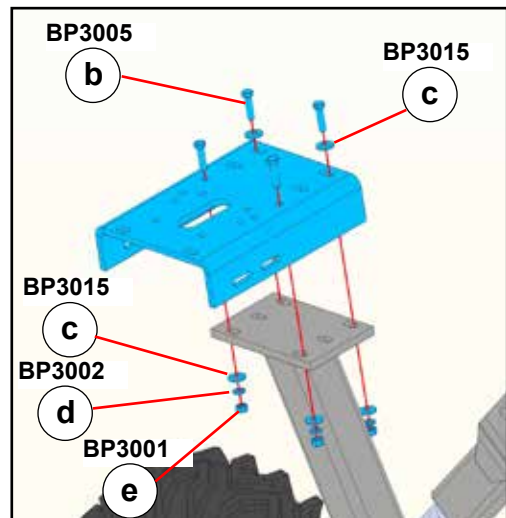
Illustrations

► Installation of universal pump mounting

12. Place (a) (AM2180) universal pump mounting on ground drive wheel frame. Line up mounting plate with end of drive wheel frame. Pull plate down away from spring.



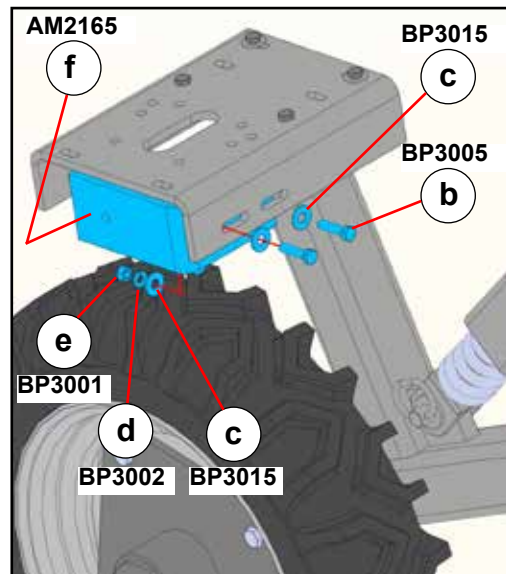
13. Install four (b) (BP3005) 3/8"-16 x 1-1/2" hex cap screws from the top. Use two (c) (BP3015) 3/8" flat washers on slotted holes.



14. Place four (c) (BP3015) 3/8" flat washers, (d) (BP3002) 3/8" lock washers and (e) (BP3001) 3/8"-16 hex nuts on 3/8" hex cap screws. Tighten hex nuts.

► Installing the rotary tension arm mounting bracket

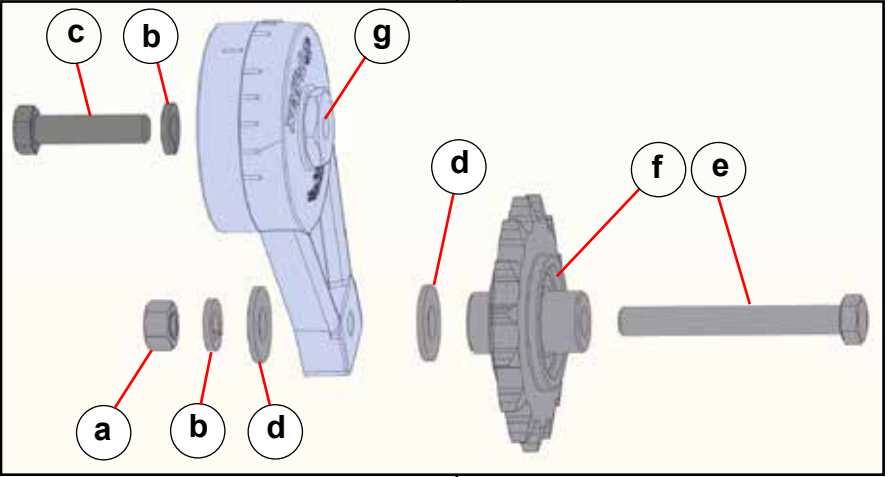
15. Mount (f) (AM2165) rotary tension arm mounting bracket to the inside of the pump mounting with two (b) (BP3005) 3/8"-16 x 1-1/2" hex cap screws, four (c) (BP3015) 3/8" flat washers, two (d) (BP3002) 3/8" lock washers and (e) (BP3001) 3/8"-16 hex nuts. *Do not tighten at this time.*



	Assembly (Ground Drive Wheel)		
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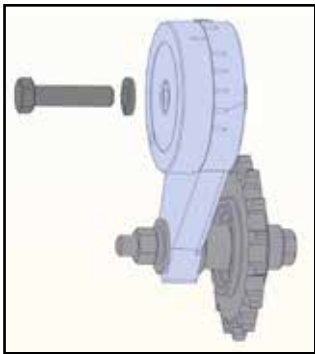
LR 3, LF	Task	Procedures	Illustrations
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16. **a.** BP 3001 4 Nut, hex, 3/8”-16, grade 2 plated
- b.** BP 3002 2 Washer, lock, 3/8”, plated
- c.** BP 3005 1 Hex cap screw 3/8”-16 x 1” x 1/2”
- d.** BP 3015 4 Washer, flat, 3/8”, plated
- e.** BP 3116 1 Hex cap screw, 3/8”-16 x 3”
- f.** AP 2382 1 Idler sprocket, 15T #50 chain w/clevis adapter
- g.** BP 3239 1 Tensioner, RT 1002



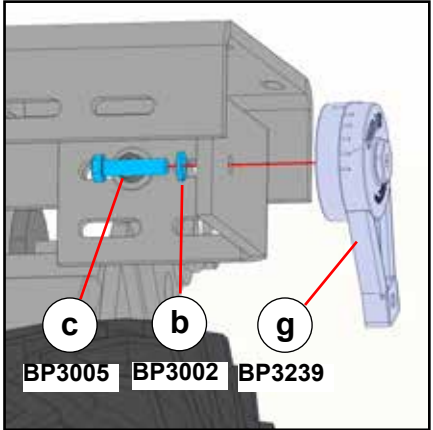
▶ **Installing tensioner arm**

17. Place **(b)** (BP3002) 3/8” lock washer **(c)** (BP3005) 3/8”-16 x 1-1/2” hex cap screw into tension arm mounting bracket.
18. Install **(g)** (BP3239) tensioner RT 1002 on 3/8’ hex cap screw and tighten.

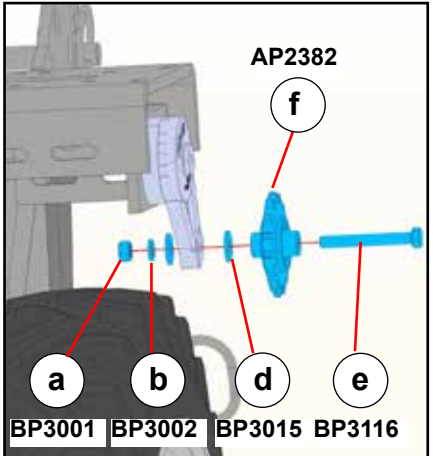


▶ **Mounting idler sprocket**

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



▶ **NOTE:**  
*Flat washers are used to align the sprocket with the chain. Start with three between sprocket and tensioner.*



## Assembly (Ground Drive Wheel)

LR 3, LF

Task

Procedures

Illustrations

▶ Locating injection pump parts

(CP2527) John Blue Double piston pump pictured

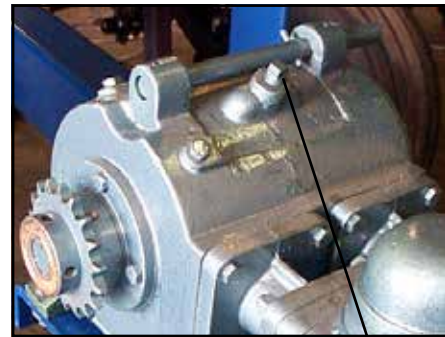


▶ Installation of vent plug



**CAUTION**  
Read red tag wired to vent plug.

20. Open (CP2526) John Blue Single piston pump or (CP2527) John Blue Double piston pump box. Check parts. (Bolts, chart and vent plug included with pump.)



21. Remove the plug and replace with vented plug provided with pump.



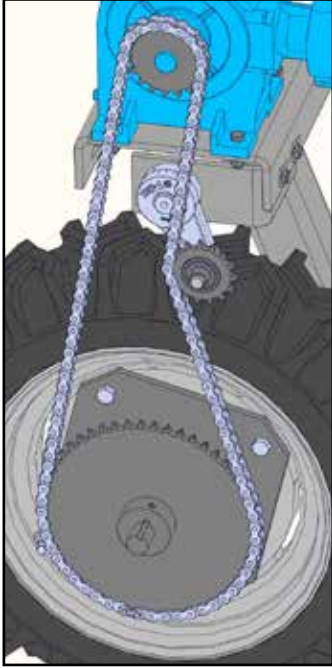

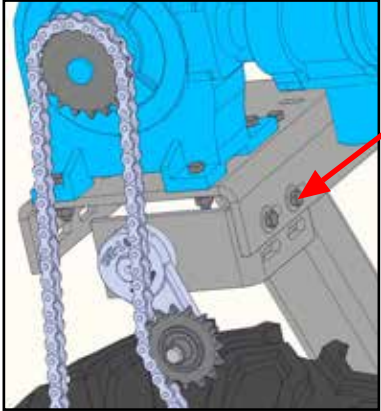
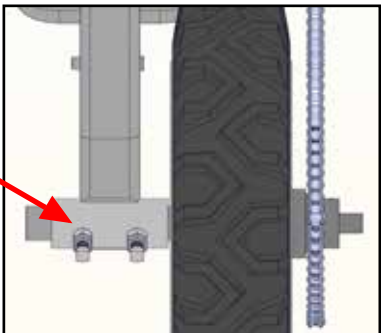


▶ Mounting John Blue pump on ground drive assembly

22. Position John Blue pump on pump mounting. Install the 3/8" hex cap screws from the top. Secure with 3/8" flat washers, 3/8" lock washers and 3/8" hex nuts.

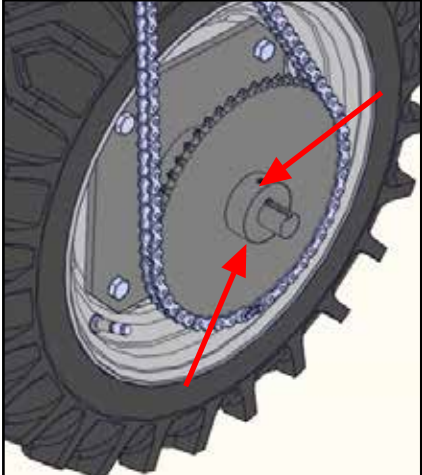

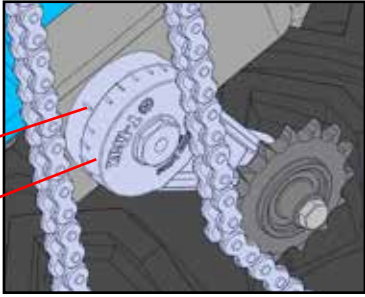

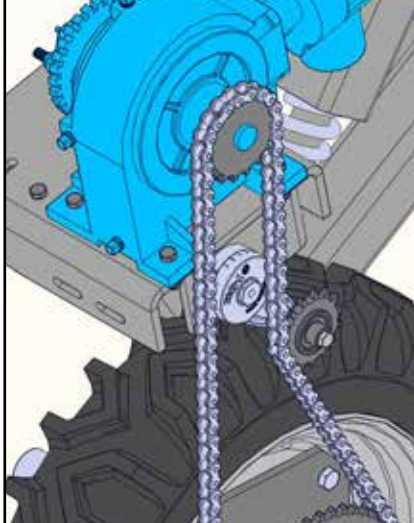





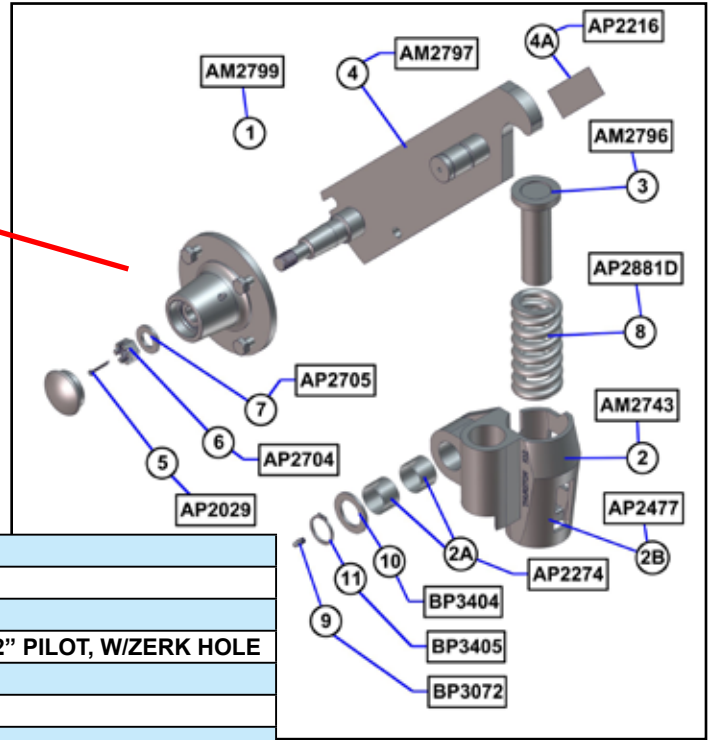
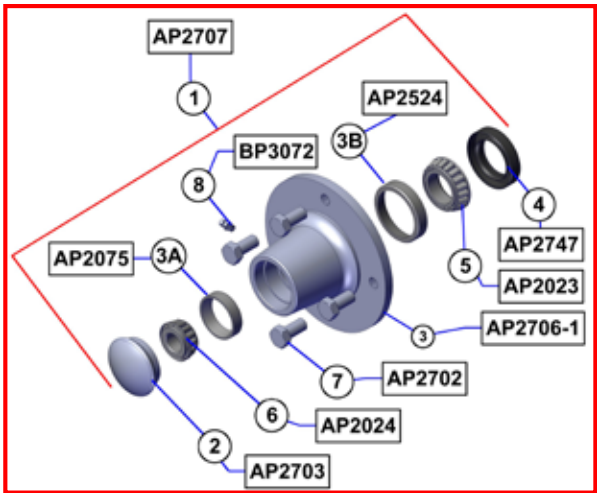
	<h2 style="text-align: center;">Assembly (Ground Drive Wheel)</h2>		
LR 3, LF	Task	Procedures	Illustrations
<ul style="list-style-type: none"> <li>▶ Installation of roller chain</li> <li>▶ <b>NOTE:</b> <i>Tensioner must be mounted on the slack side of the chain</i></li> <li>▶ Securing tension arm mounting bracket</li> <li>▶ Securing hub and spindle assembly</li> </ul>		<p>23. Place (AP2110) roller chain SS, #50 130 pitch over pump sprocket, under tensioner and around wheel drive sprocket.</p>  <p>24. Remove extra links and connect chain together with (AP2112) #50 stainless connector.</p> <p>25. Align chain on sprockets. Spin wheel to assure alignment and tighten tension arm mounting bracket hex nuts.</p> <p>26. Check for alignment and secure set screws and lock nuts on spindle loop.</p>	   

## Assembly (Ground Drive Wheel)

LR 3, LF

Task	Procedures	Illustrations
<p>▶ <b>Securing drive sprocket set screws</b></p>	<p>27. Check drive sprocket for proper chain alignment. Secure the set screw on the shaft first and set screw on the key last.</p> 	
<p>▶ <b>Adjusting tensioner</b></p>	<p>28. Loosen 3/8" hex cap screw at the rear of the tensioner. Place a 15/16" wrench on the hex nut on the tensioner. Adjust the arm down until the center mark aligns with center mark on the arm. This is a starting point further adjustment may be need later.</p>  <p>29. Tighten 3/8" hex nut at the rear of the tensioner bracket to lock adjustment in position.</p>	 <p style="text-align: center;">Generic Photo</p>
		

	<h1>Super 1200 Flex Coultter and Shank Parts</h1>		
<b>LR 3, LF</b>	Task	Procedures	Illustrations



**AP2707, HUB ASSEMBLY, 4 BOLT**

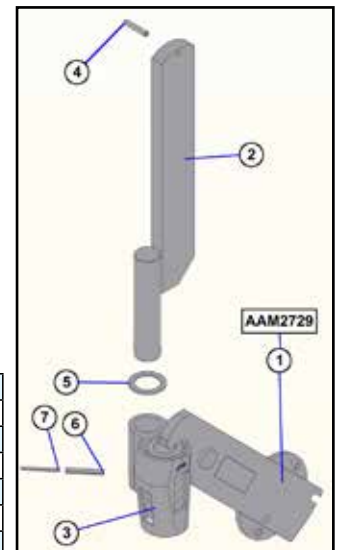
BOM ID	Qty	Item No	Description
1	1	AP2707	HUB ASSEMBLY, 4 BOLT
2	1	AP2703	HUB CAP, 1610
3	1	AP2706-1	HUB W/ CUPS, 4 BOLT, 5" BC, 3.62" PILOT, W/ZERK HOLE
3A	1	AP2075	BEARING CUP, LM 11910
3B	1	AP2524	BEARING CUP, LM 67010
4	1	AP2747	GREASE SEAL, 15235TB
5	1	AP2023	BEARING CONE, LM 67048
6	1	AP2024	BEARING 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

**► AAM2729 COULTER, SUPER 1200, 19, 1 ROW**

BOM ID	Qty	Item No	Description
1	1	AAM2729	COULTER, SUPER 1200, 19, 1R
2	1	AM2738	COULTER SHANK, 19"
3	1	AM2799	ASSEMBLY, COULTER ARM WITH HUB & KNEE CASTING, HEAVY DUTY
4	1	BP3162	PIN, ROLL, 3/8" X 2", PLATED
5	1	BP3466	MACHINERY BUSHING, 2-1/2" OD X 1-3/4" ID, 10 GAUGE, 18-8 STAINLESS STEEL
6	1	BP3519	PIN, ROLL, 3/8" X 2-1/2", PLAIN
7	1	BP3534	PIN, ROLL, 7/32" X 2-1/2", PLAIN



# Coulter Assembly

LR 3, LF

Task

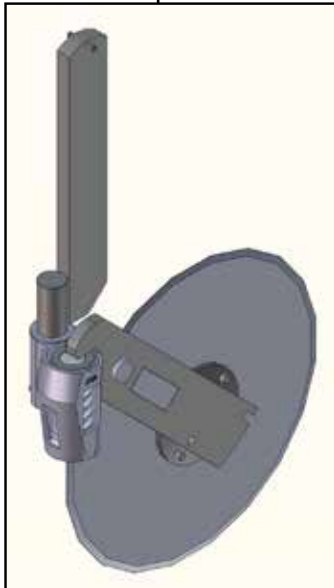
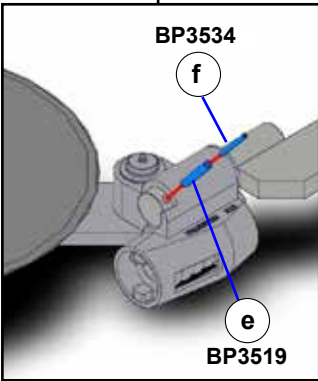
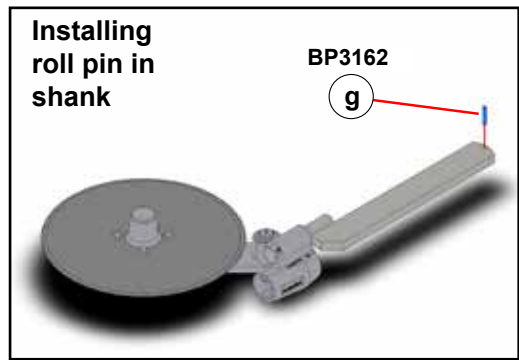
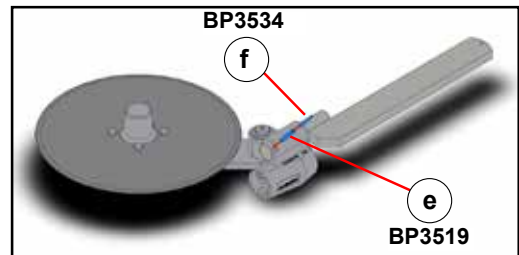
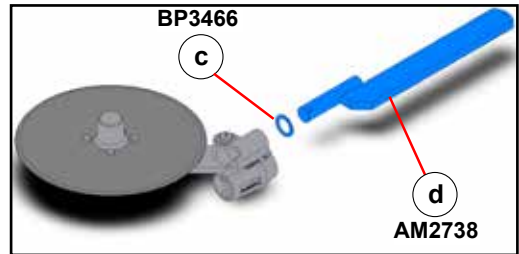
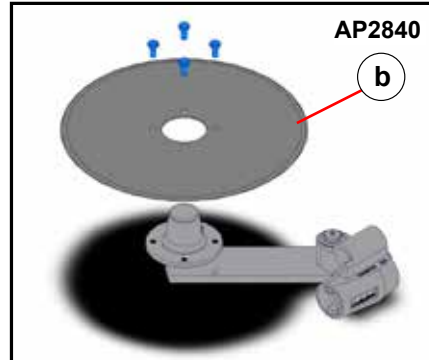
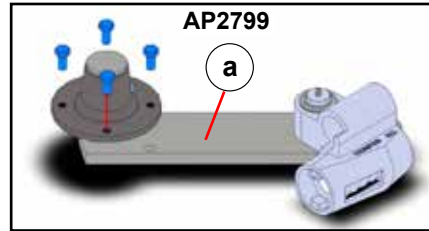
Procedures


Illustrations

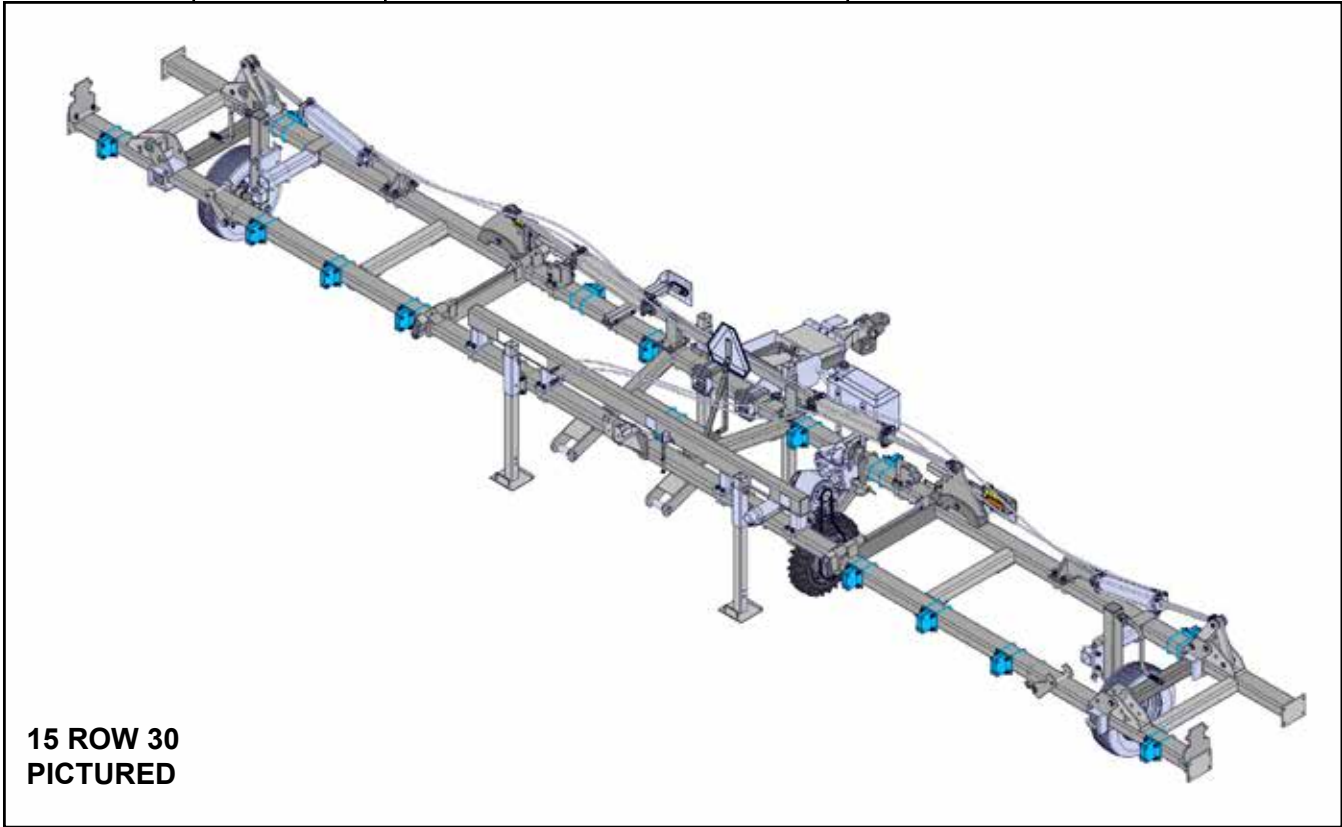
▶ Preparing coulters for mounting

1. Remove hex cap screws from hub (a) (AM2799) coulters arm with hub and knee casting assembly.
2. Place (AP2840) 20" smooth coulters blade on coulters assembly and replace hex cap screws.
3. Install (c) (BP3466) 2-1/2" OD x 1-3/4" ID, 10 GA., 18-8 SS machinery bushing over (d) (AM2738) 19" coulters shank weldment.
4. Insert the 19" coulters shank into coulters assembly. Start (e) (BP3519) 3/8" x 2-1/2" roll pin in base of coulters shank. Insert the (f) (BP3534) 7/32" x 2/1/2" roll pin in the end of the 3/8" 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" roll pin through the shank weldment top hole.

**AAM2729**  
Super 1200 coulters 1 row  
(Blade not part of bundle.)



	<h2>Assembly (Flatbacks)</h2>		
<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>	<b>Illustrations</b>

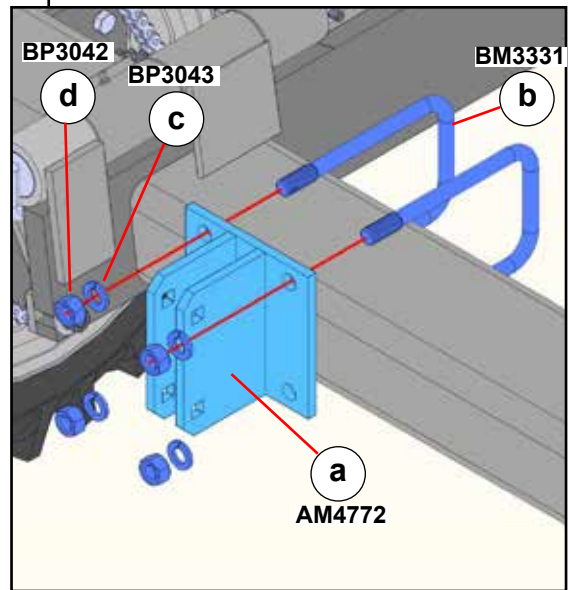


▶ **Mounting  
coulters**

▶ **NOTE:**  
*Consult  
row spacing  
pages for  
measurements*

▶ **NOTE:**  
*Consult  
row spacing  
pages for  
11 Row 36  
flatback  
locations*

1. Level wings with center section and mark out row spacings from center.
2. Install (a) (AM4772) 4" x 6" flatbacks on toolbar with (b) (BP3331) 5/8"-11 X 4" X 7-3/4" u-bolts. Secure with (c) (BP3043) 1/2" lock washers and (d) (BP3042) 1/2" hex nuts.



# Assembly (Coulter Mounting)

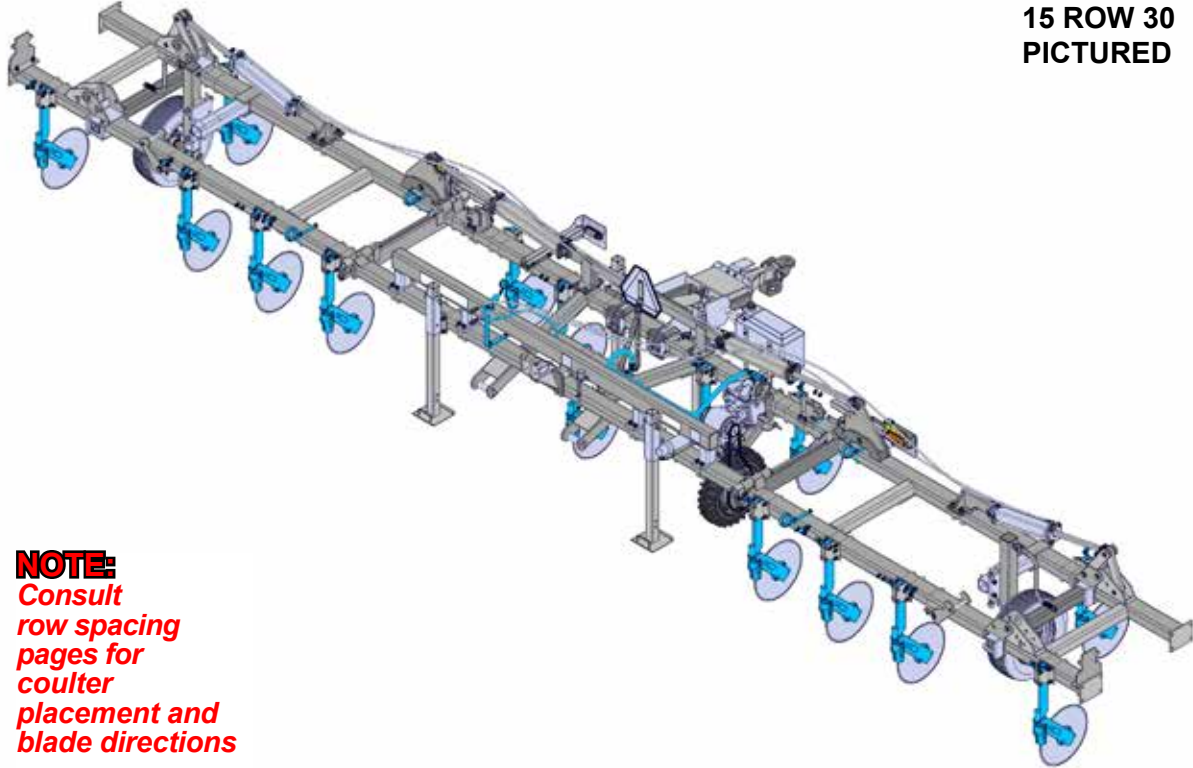
LR 3, LF

Task

Procedures

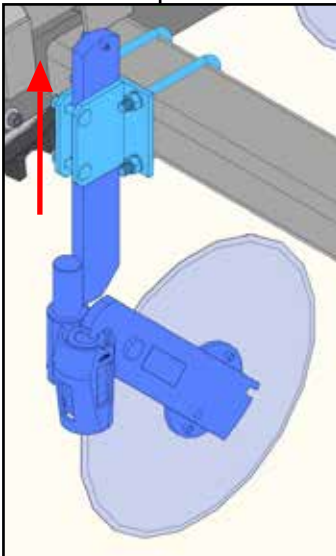
Illustrations

15 ROW 30  
PICTURED

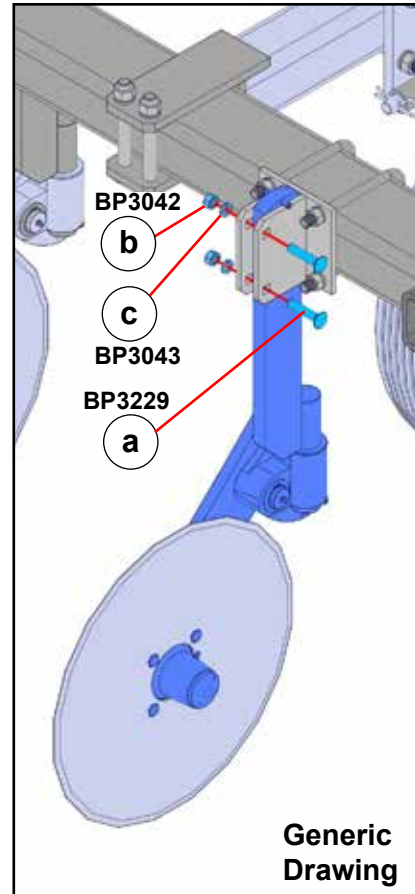


**NOTE:**  
Consult  
row spacing  
pages for  
coulters  
placement and  
blade directions

**Mounting  
coulters**



1. Insert coulters shank into the mounting and allow assembly to rest on shank roll pin.
2. Insert (a) (BP3229) 1/2"-13 x 2-1/2" carriage bolt into top hole of bracket. Push coulters shank assembly back into the bracket and insert the bottom carriage bolt. Place (b) (BP3043) 1/2" lock washer and (c) (BP3042) 1/2"-13 hex nut on each carriage bolt. **Do not tighten at this point.**
3. Raise coulters shank assembly in bracket and place a 3" spacer between the roll pin and the top of the bracket. Tighten the 1/2" hex nuts. **This height is a starting point.**



Generic  
Drawing



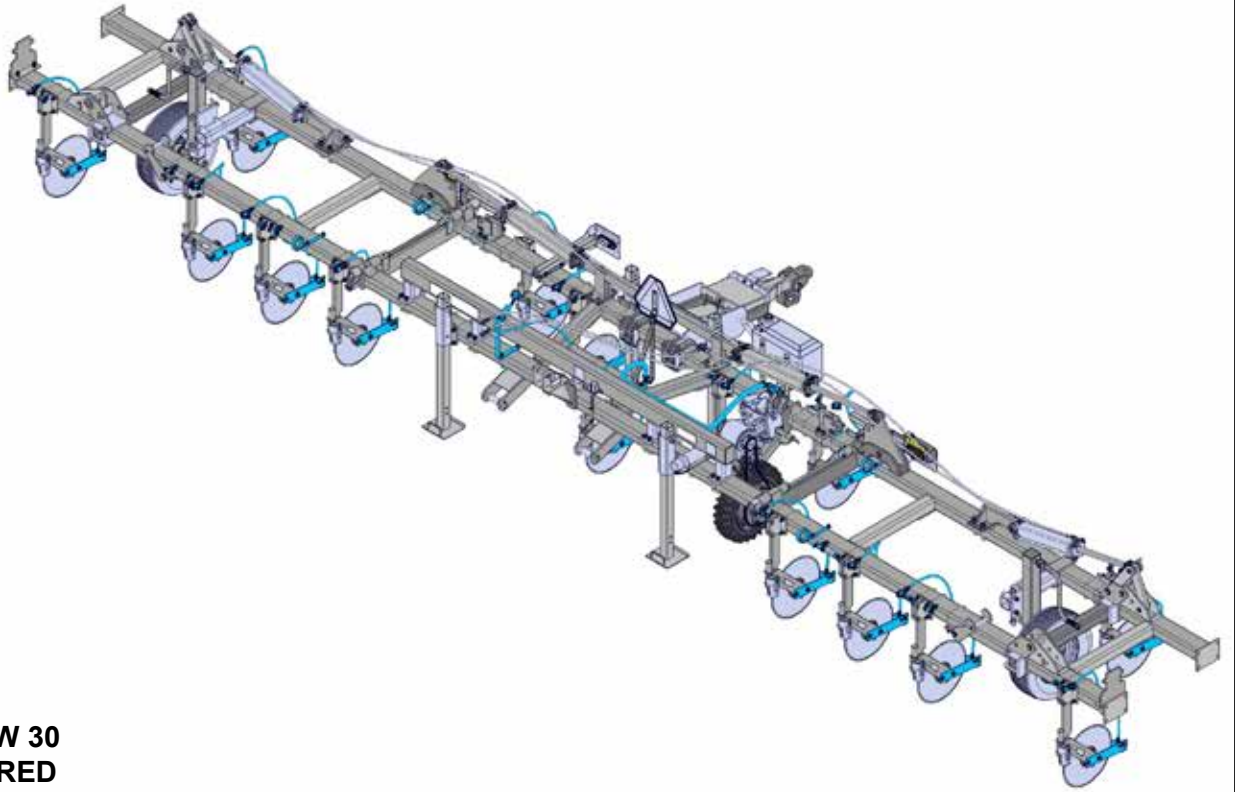
# Assembly (Liquid Injection)

LR 3, LF

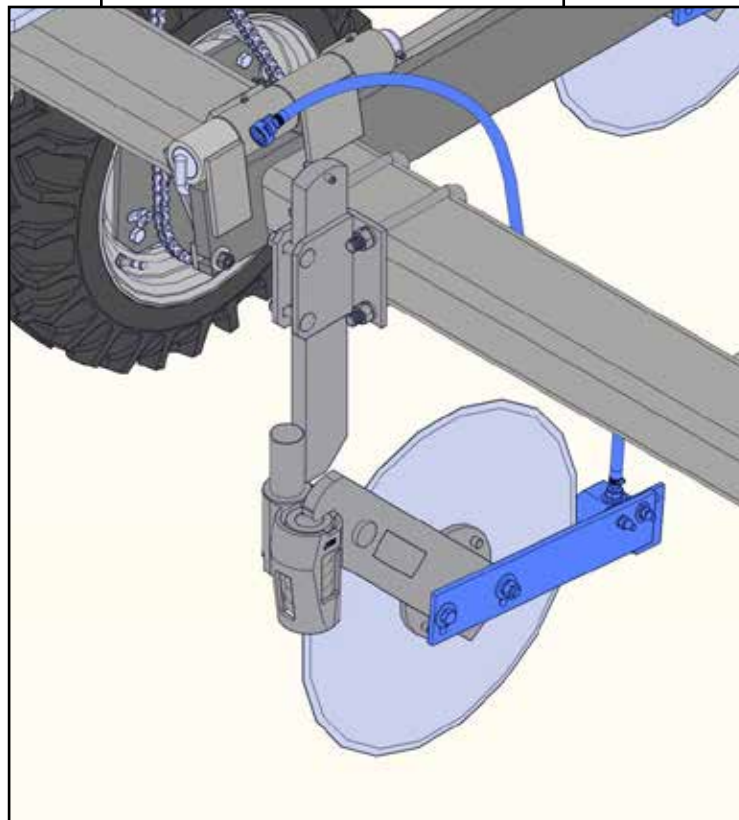
Task

Procedures

Illustrations



15 ROW 30  
PICTURED



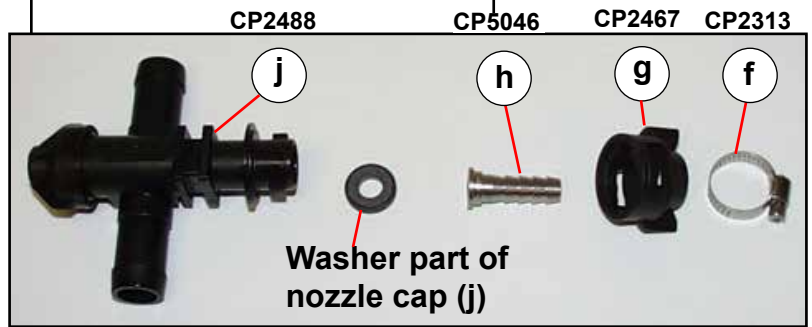
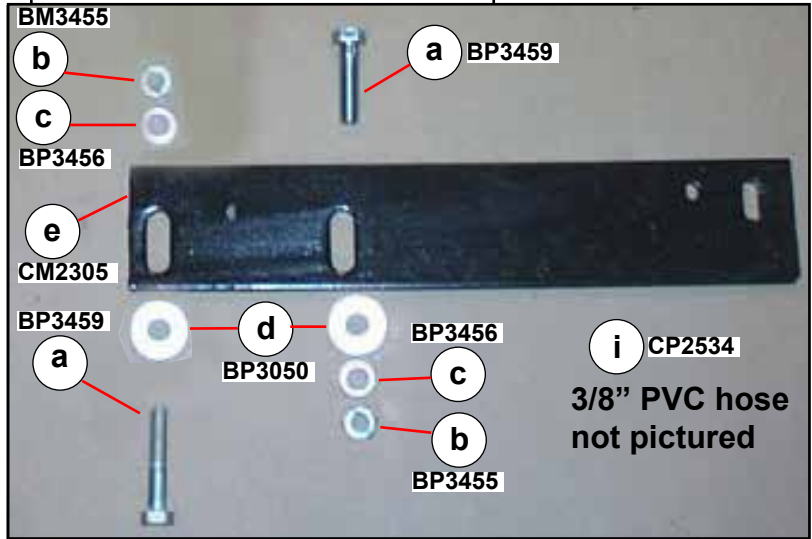
## Assembly (Liquid Injection)

LR 3, LF

Task	Procedures	Illustrations
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► **Clear liquid injection parts**

1. JetStream Clear Liquid injection ([AAM3353](#))

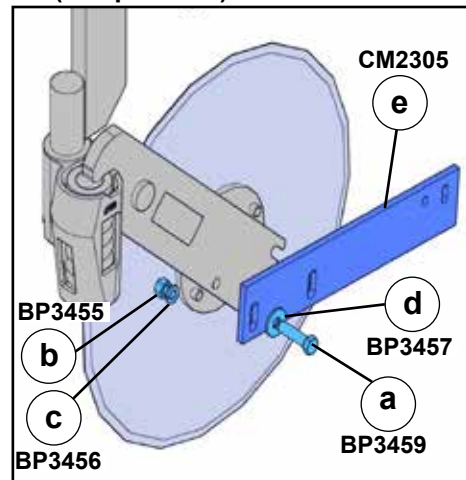


- |    |                        |   |  |
|----|------------------------|---|--|
| a. | <a href="#">BP3459</a> | 2 | Hex cap screw, 1/2"-13, x 2", F593 GR 1 CW           |
| b. | <a href="#">BP3455</a> | 2 | Nut, hex, 1/2"-13, F594 GR 1 CW                      |
| c. | <a href="#">BP3456</a> | 2 | Washer,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

► **Attaching injection mounting brackets**



2. Place (e) ([CM2305](#)) Jet Stream mounting arm on coultter arm. Place (d) ([BP3050](#)) 1/2" plated flat washer on (a) ([BP3459](#)) 1/2" x 2" hex cap screw into coultter arm slotted hole through mounting arm. Place (c) ([BP3456](#)) 1/2" lock washer and (b) ([BP3455](#)) 1/2" hex nut on hex cap screw next to blade.





## Assembly (Liquid Injection)

LR 3, LF

Task

Procedures

Illustrations

▶ **Attaching injection mounting brackets**

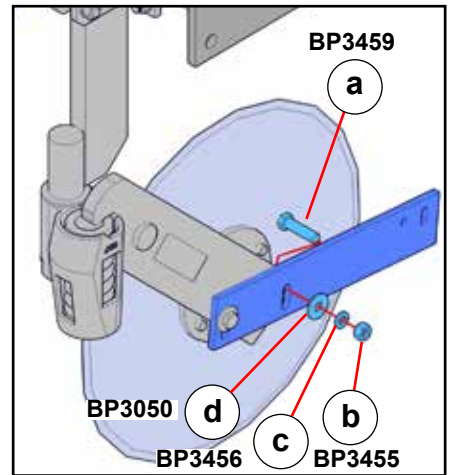


▶ **Nozzle assembly parts**

▶ **Nozzle body assembly**

▶ **NOTE:**  
Consult rate chart for orifice size

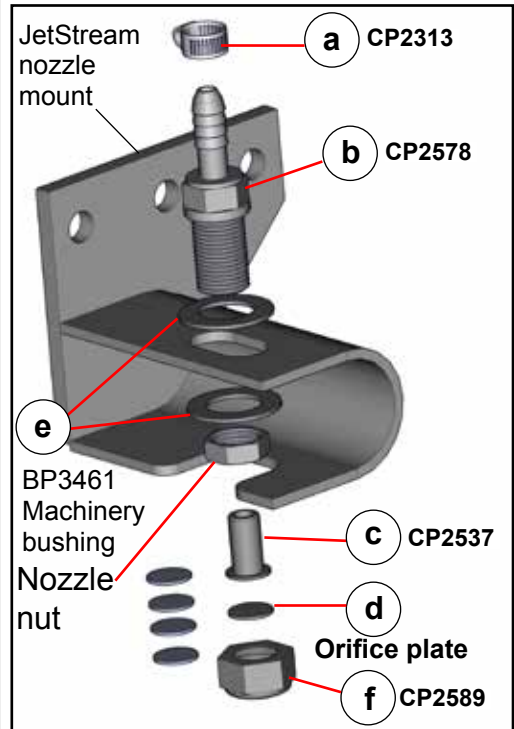
1. Raise mounting arm and insert (a) (BP3459) 1/2" x 2" hex cap screw blade side into coultter arm slotted hole through mounting arm. Place (d) (BP3050) 1/2" flat washer, (c) (BP3456) 1/2" lock washer on hex cap screw. Raise mounting arm and secure with (b) (BP3455) 1/2" hex nut.



2. **Nozzle Assembly**
- a. CP2313 1 Stainless steel hose clamp 5/8"-1"
  - b. CP2578 1 Straight nozzle body with/nut, 3/8" 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

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

*Nozzle assembly should be aligned with blade after coultter 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.

# Assembly (Liquid Injection)

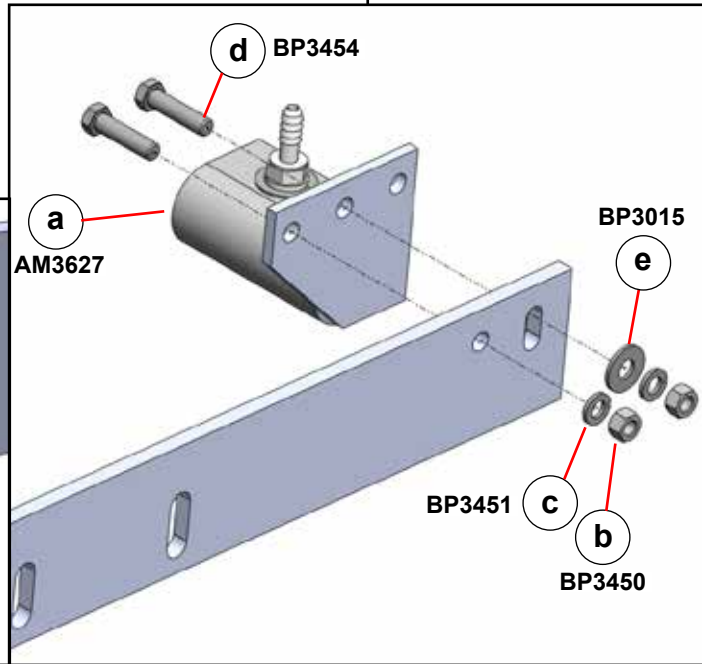
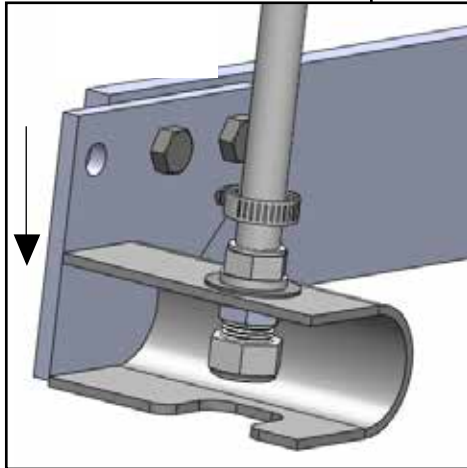
LR 3, LF

Task

Procedures

Illustrations

▶ Jet Stream mounting bracket parts

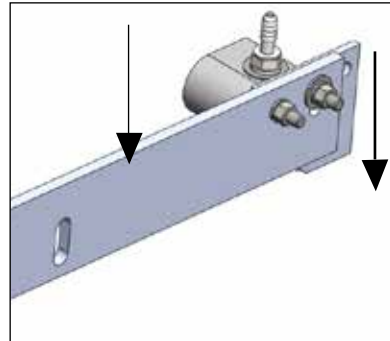


▶ **NOTE:**  
*Rotate rear of nozzle mount down before securing*

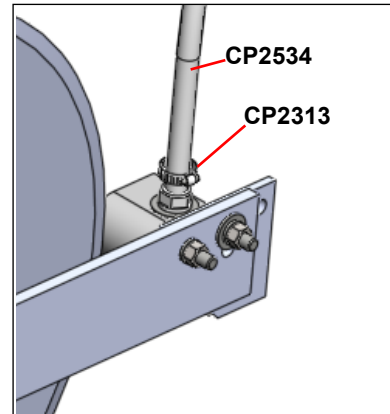
▶ Attaching PVC hose to assembly

1.
  - a. **AM3627** 1 Nozzle mount, JetStream
  - b. **BP3450** 2 Nut, Hex, 3/8"-16, F594 GR 1 CW
  - c. **BP3451** 2 Washer, Lock, 3/8", 18-8 SS
  - d. **BP3454** 2 3/8"-16 x 1-1/2" hex cap screw, F593 GR 1 CW
  - e. **BP3015** 1 Washer, flat, 3/8", Plated

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



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



4. Cut lengths from bulk (**CP2534**) 3/8" PVC 250# psi hose as needed. Push hose over hose barb and secure with (**CP2313**) stainless steel hose clamp 5/8"-1.

# Coulter Mounting

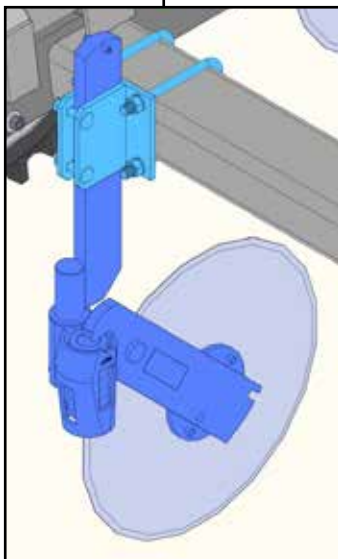
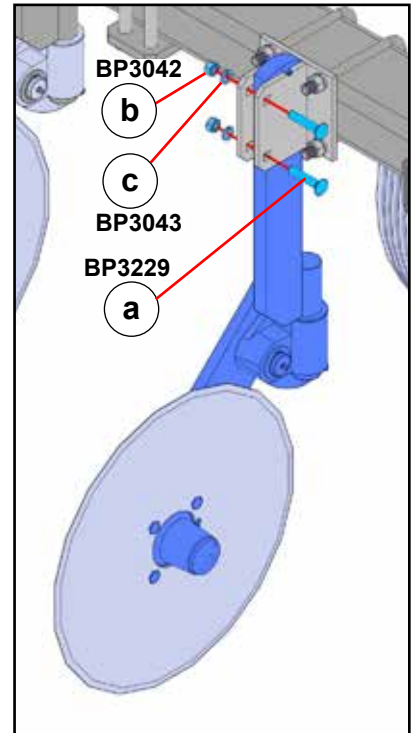
LR 3, LF

Task

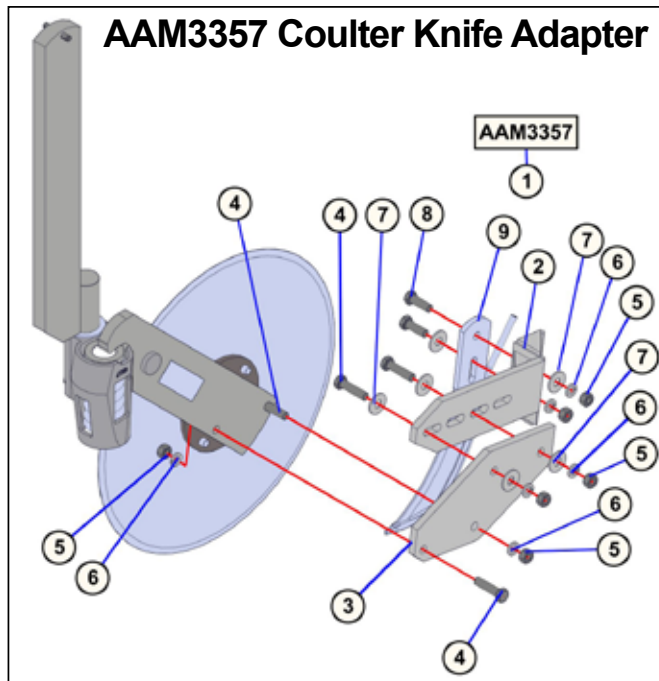
Procedures

Illustrations

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.*



## AAM3357 Coulter Knife Adapter



BOM ID	Qty	Item No	Description
1	1	AAM3357	COULTER KNIFE ADAPTER, WITH CO-50 KNIFE, 1 ROW
2	1	AM3313	KNIFE HOLDER/ MOUNTING ARM
3	1	AM3324	ADAPTER PLATE, COULTER KNIFE
4	4	BP3041	HEX CAP SCREW, 1/2"-13 X 2", GRADE 5, PLATED
5	6	BP3042	NUT, HEX, 1/2"-13, GRADE 2, PLATED
6	6	BP3043	WASHER, LOCK, 1/2", PLATED
7	6	BP3050	WASHER, FLAT, 1/2", PLATED
8	2	BP3126	HEX CAP SCREW, 1/2"-13 X 1-1/2", GRADE 5, PLATED
9	1	CP5038	CO-50 3/8" LIQUID KNIFE EXTRA THIN

## Assembly (Knife Injection)

LR 3, LF

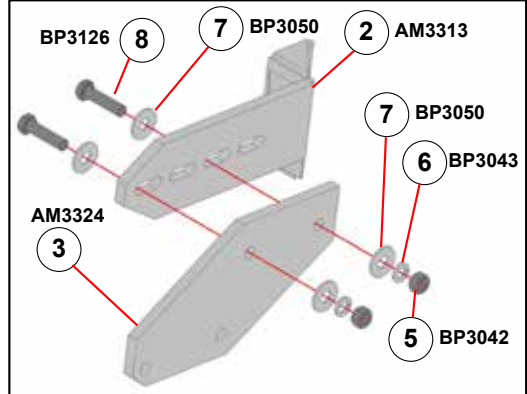
Task

Procedures

Illustrations

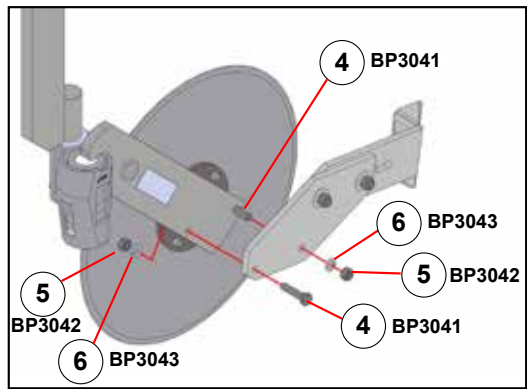
▶ Assemble knife holder and adapter plate

1. Pre-assemble (2) (AM3313) mounting arm knife holder and (3) (AM3324) coultter knife adapter plate.
2. Secure assembly with (8) (BP3126) 1/2" x 1-1/2", grade 5, hex cap screws, (7) (BP3050) 1/2", flat washers, (6) (BP3043) 1/2", lock washers and (5) (BP3042) 1/2", hex nuts.

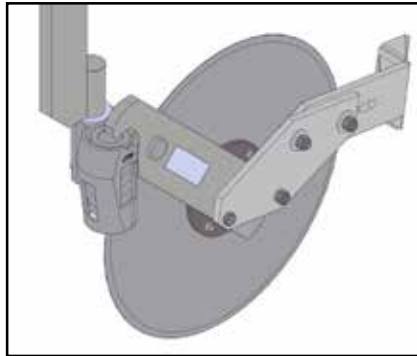


▶ Mounting to coultter arm

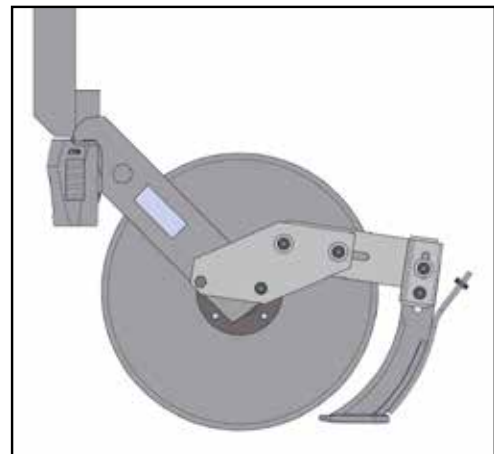
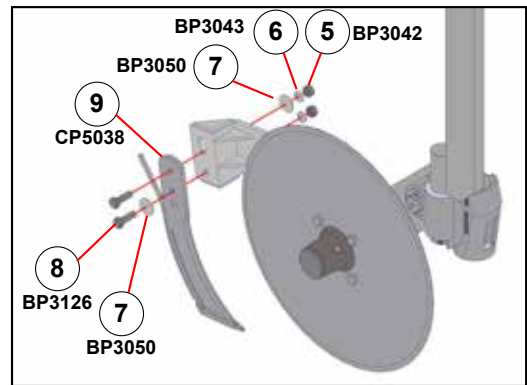
3. Mount assembly to coultter arm by inserting (4) (BP3041) 1/2" x 2", grade 5, hex cap screw into notched hole at the base of coultter arm. Install (6) (BP3043) 1/2", lock washer and (5) (BP3042) 1/2", hex nut. Insert (4) (BP3041) 1/2" x 2", grade 5, hex cap screw into adapter plated through hole in coultter arm. Secure with (6) (BP3043) 1/2", lock washer and (5) (BP3042) 1/2", hex nut.
4. Tighten each 1/2" hex nuts.



▶ Attaching knife



5. Attach (9) (CP5038) liquid knife to mounting arm with (8) (BP3126) 1/2" x 1-1/2", grade 5, hex cap screws, (7) (BP3050) 1/2" flat washers, (6) (BP3043) 1/2" lock washers and (5) (BP3042) 1/2" hex nuts.
6. Adjust the knife and knife holder arm until the knife is 1/2" from blade. This is a starting point.
7. Center of knife must align with blade edge to avoid trash plugging.



## Assembly (Hose Support Clamps)

LR 3, LF

Task

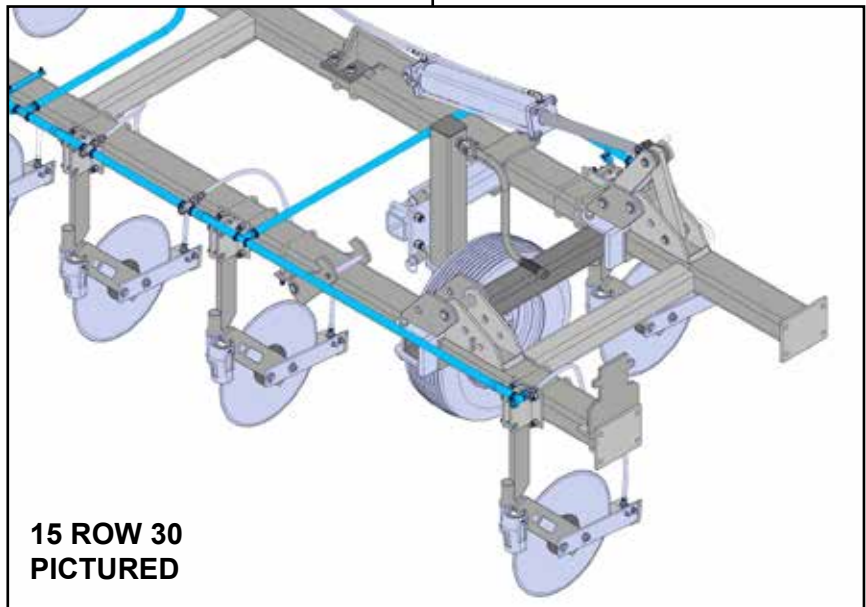
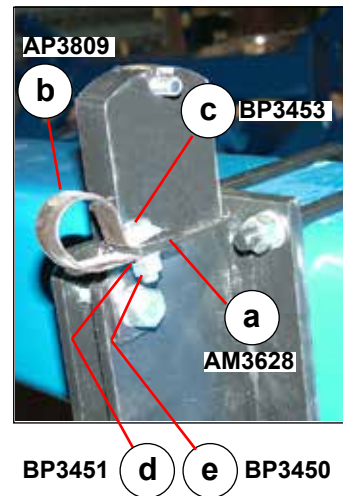
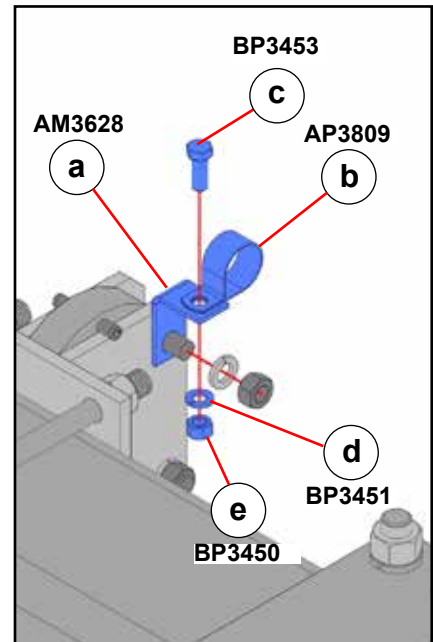
Procedures

Illustrations

▶ **Attaching hose support clamps**

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

1. Remove 1/2" hex nut and lock from top carriage bolt of each flatback. Install (a) (AM3628) liquid trunk line mounting bracket over carriage bolt. Replace 1/2" lock and hex nut.
2. Attach (b) (AP3809) 1-1/4" hose support clamp to (a) with (c) (BP3453) 3/8" x 1" hex cap screw, (d) (BP3451) 3/8" lock washer, 18-8 SS and (e) (BP3450) 3/8" hex nut, F594 GR 1 CW.





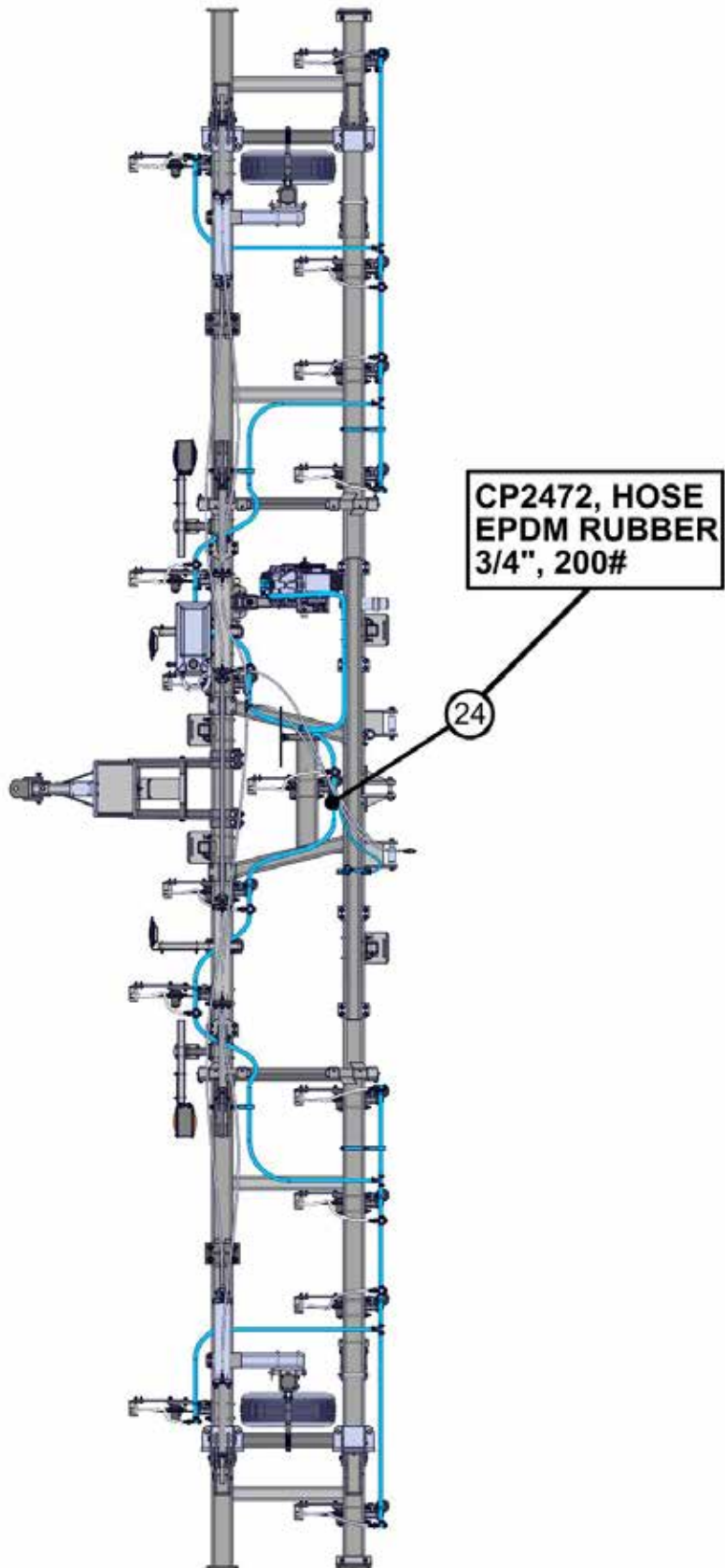
# Assembly (Manifold 15 Row 30 27211020)

LR 3, LF

Task

Procedures

Illustrations



## Assembly (Hose Support Clamps)

LR 3, LF

Task

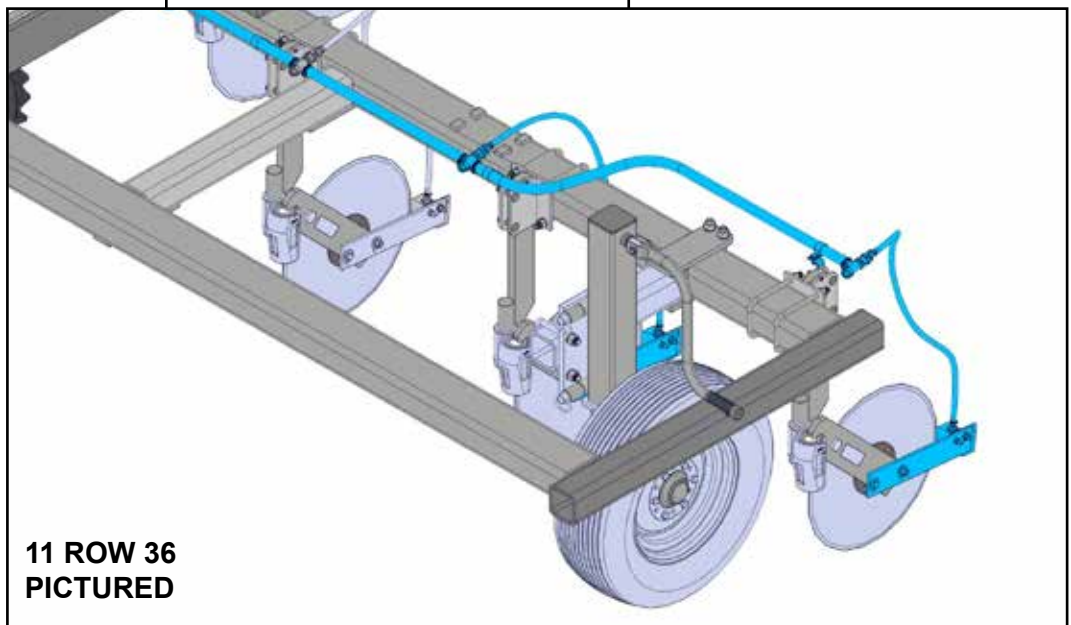
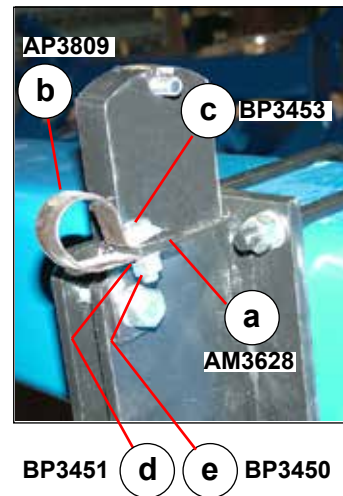
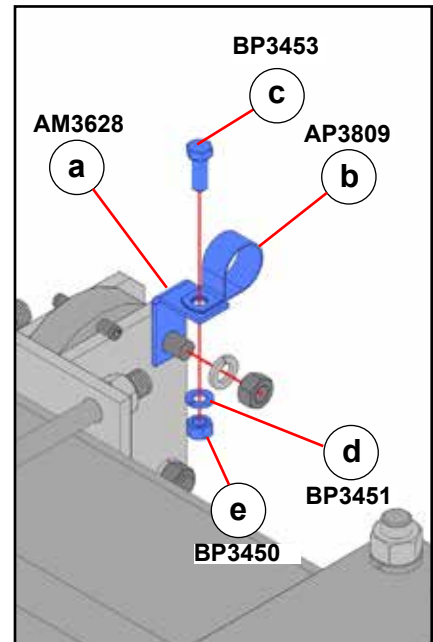
Procedures

Illustrations

▶ **Attaching hose support clamps**

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

1. Remove 1/2" hex nut and lock from top carriage bolt of each flatback. Install (a) (AM3628) liquid trunk line mounting bracket over carriage bolt. Replace 1/2" lock and hex nut.
2. Attach (b) (AP3809) 1-1/4" hose support clamp to (a) with (c) (BP3453) 3/8" x 1" hex cap screw, (d) (BP3451) 3/8" lock washer, 18-8 SS and (e) (BP3450) 3/8" hex nut, F594 GR 1 CW.





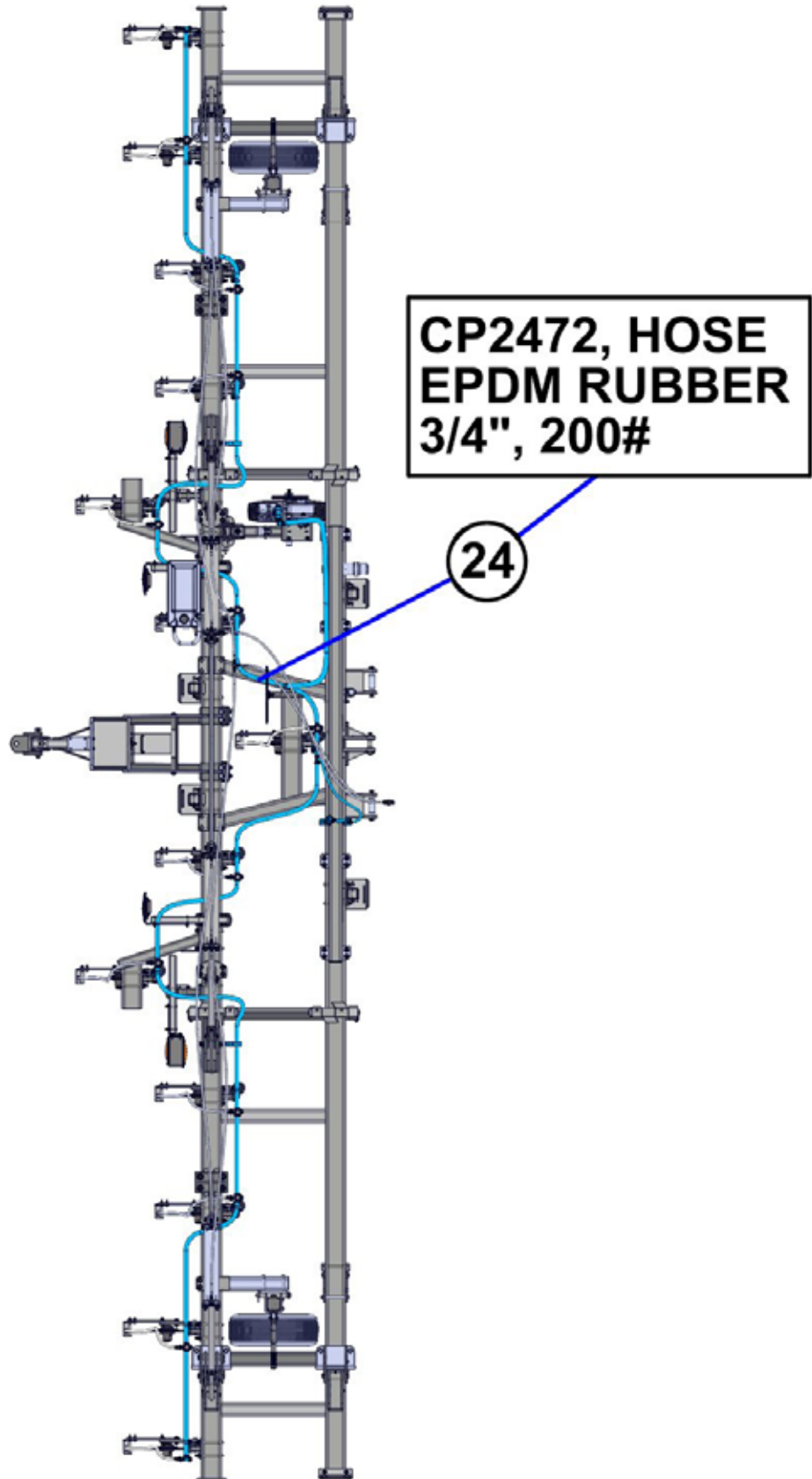
# Assembly (Manifold 13 Row 36 27211023)

LR 3, LF

Task

Procedures

Illustrations





	Assembly (Manifold Liquid Injection)		
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LR 3, LF	Task	Procedures	Illustrations
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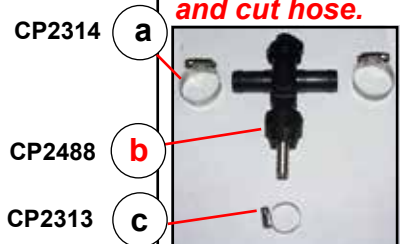


**NOTE:**  
 Allow extra hose in hinge areas to avoid kinking of hose

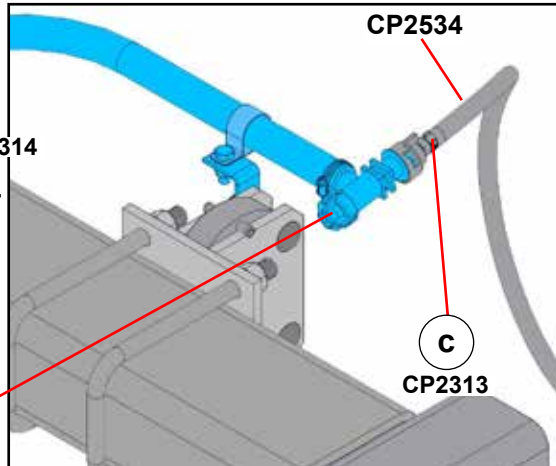
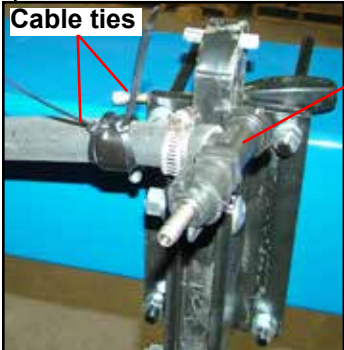
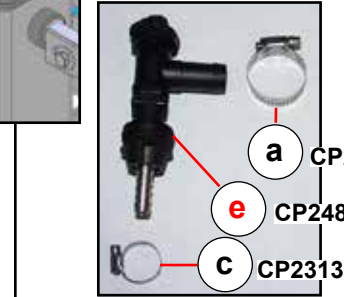
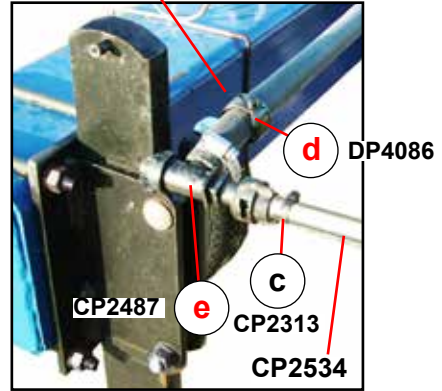
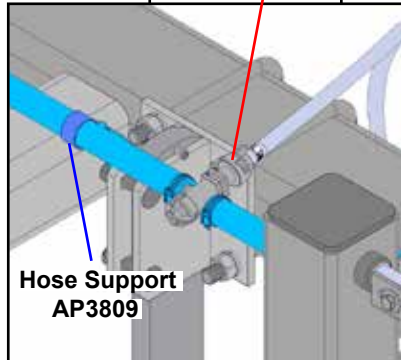
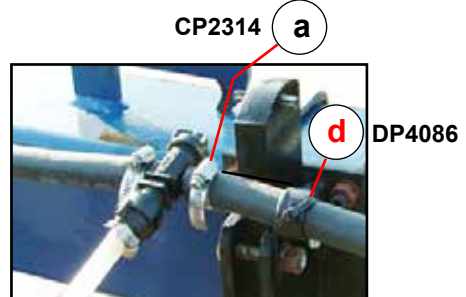


**NOTE:**  
 Start with the end row. Complete end row assembly. Secure end row with cable ties. Pull hose to next row and cut hose.

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" hose at each row. Place (a) (CP2314) 1/2" - 1" worm gear hose clamp over each end of the 3/4" hose. Insert (b) (CP2488) diaphragm check valve, double shank 3/4" hose into each end of the 3/4" hose. Secure with worm gear hose clamps.

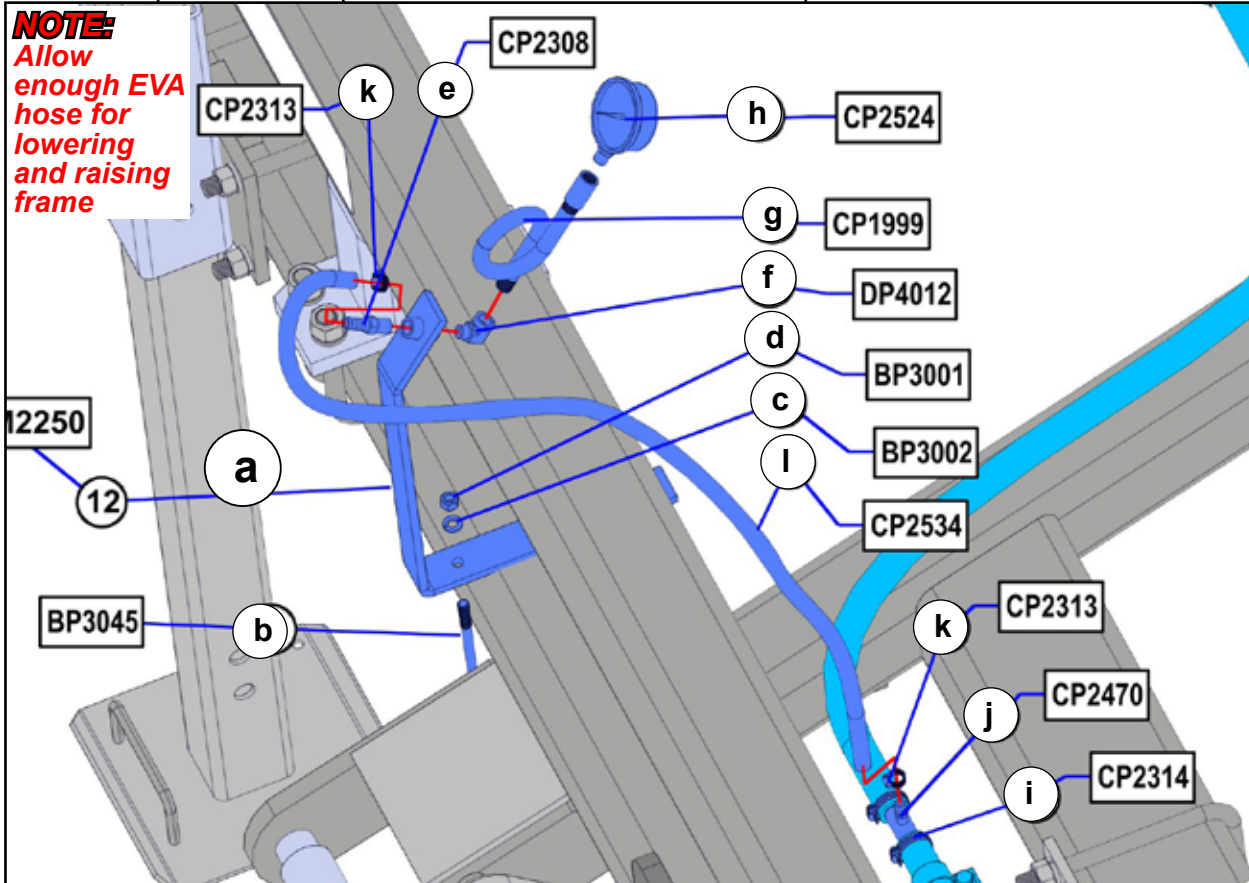


3. Secure 3/4" hose to row (AP3809) 1-1/4" hose support clamp with (d) (DP4086) 11-3/8" cable ties.
4. Trim hose on last rows and place (a) (CP2314) 1/2" - 1" worm gear hose clamp over end of the 3/4" hose. Install (e) (CP2487) diaphragm check valve single shank, 3/4" hose. Secure with worm gear clamp.
5. Attach (CP2534) 3/8" PVC 250# psi hose to check valve assembly with (c) (CP2313) stainless steel hose clamp 1/4"-5/8".

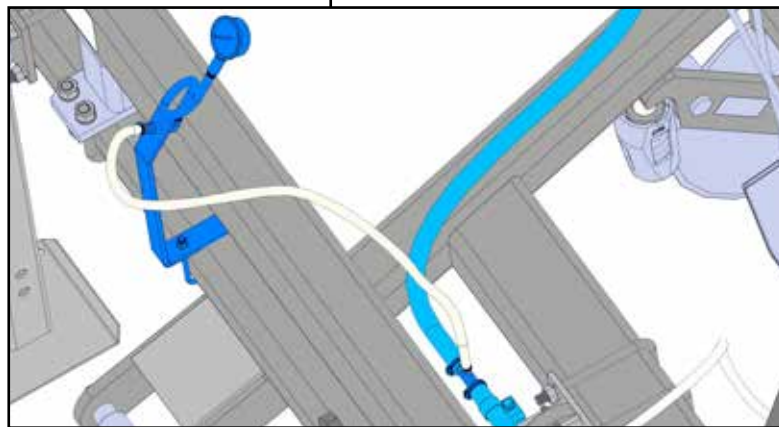


**NOTE:**


Allow enough EVA hose for lowering and raising frame



1. Attach (a) (EM6680) frame gauge mount to frame with (b) (BP3045) 3/8" x 6"W x 5"L u-bolt. Secure with (c) (BP3002) 3/8" lock washers and (d) (BP3001) 3/8" hex nuts.
2. Tape pipe threads on (e) (CP2308) hose barb and install in gauge mount front weldment.
2. Tape pipe threads on (f) (DP4012) 4mp-4mp, 90 degree street elbow and install in gauge mount rear weldment.
3. Tape threads of (g) (CP1999) pigtail gauge protector and install in (a).
4. Place **two drops** of any clear oil in top opening of (g).
5. Tape threads of (h) (CP2524) glycerin filled gauge and install in top port of pigtail gauge protector.
6. Cut 3/4" hose between center rows and place (i) (CP2314) worm gear hose clamps 1/2"-1" on each hose end.



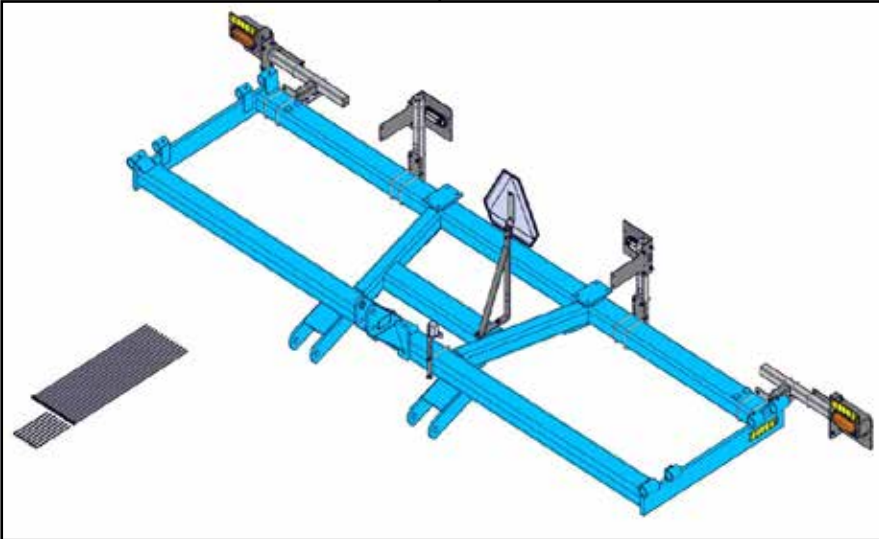
7. Insert (j) (CP2470) 3/8HB - 3/4HB - 3/4HB tee into 3/4" hose. Point 3/8HB end up. Tighten worm gear clamps.
8. Place (k) (CP2313) worm gear hose clamp 1/4" - 5/8" on (l) (CP2534) 3/8" EVA hose. Install hose on tee. Tighten worm gear clamp. Extend EVA hose to (e).
9. Place (k) (CP2313) worm gear hose clamp 1/4" - 5/8" on (l) (CP2534) 3/8" EVA hose. Install on (e). Tighten worm gear clamp.

	Assembly (41000036 Light Kit)		
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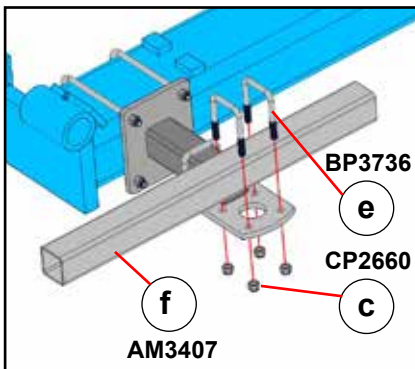
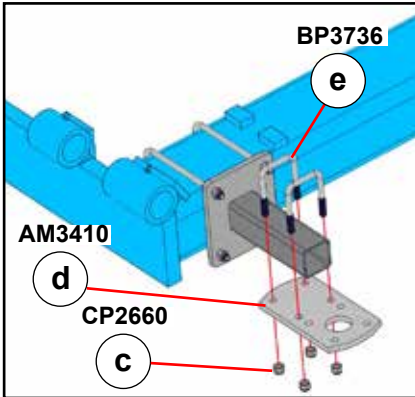
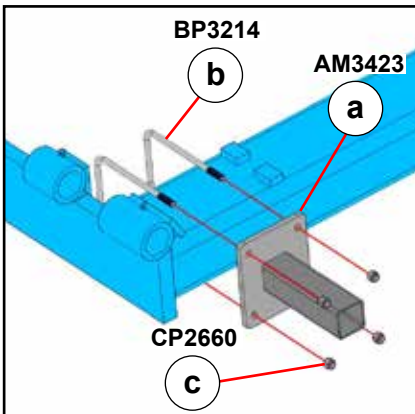
LR 3, LF	Task	Procedures	Illustrations
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▶ Mounting light kit brackets

▶ **NOTE:**  
Consult row spacing diagram for light bracket locations



1. Consult row spacing pages for bracket locations.
2. Mount (a) (AM3423) 7", 4", light bracket mounting to frame with (b) (BP3214) 3/8" x 4"W x 7"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.
3. Attach (d) (AM3410) light post mounting plate with (e) (BP3736) 3/8" x 2"W x 3"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.
4. Center (f) (AM3407) 1' 11-7/8" light bracket tube with the the hole down on mounting plated with (e) (BP3736) 3/8" x 2"W x 3"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.



LR 3, LF

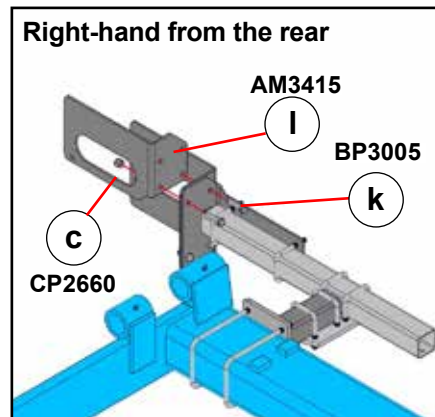
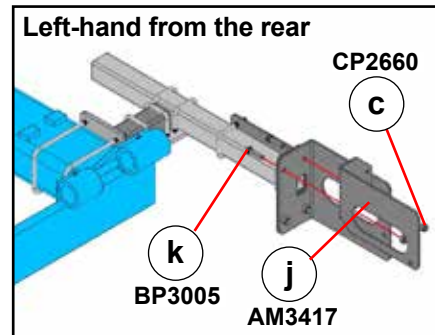
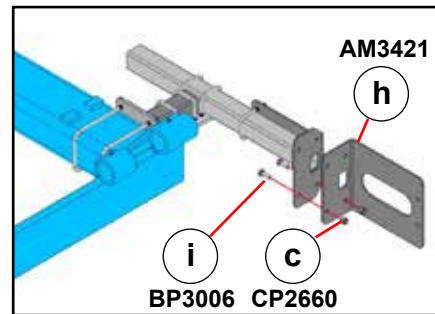
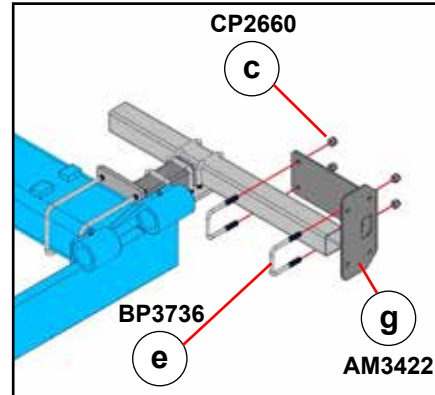
Task


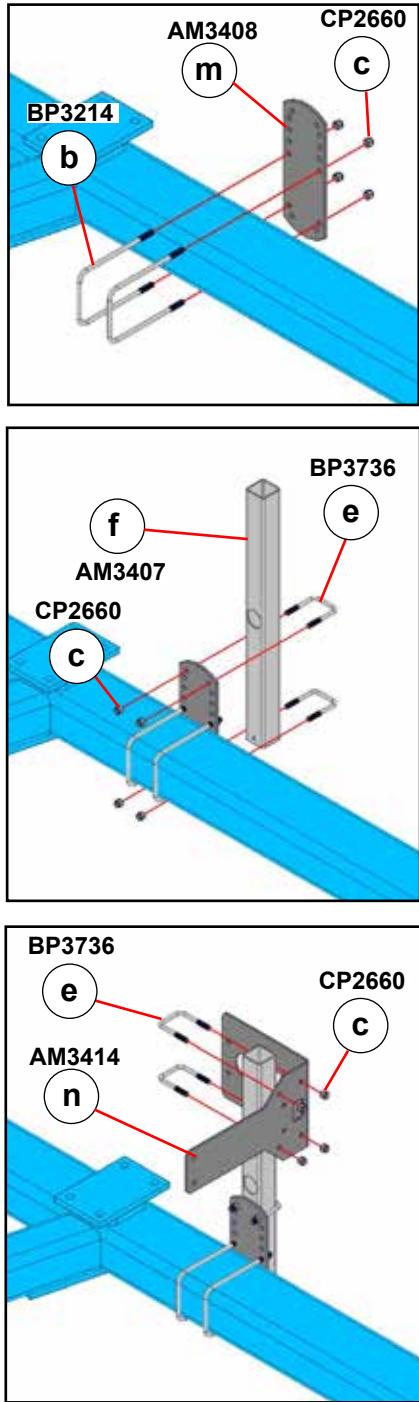
Procedures

Illustrations

► **Mounting light kit brackets**

1. Mount (g) (AM3422) side mount bar light bracket to outside tube end with (e) (BP3736) 3/8" x 2"W x 3"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.
2. Attach (h) (AM3421) side mount light bracket with (i) (BP3006) 3/8" x 1", hex cap screws and (c) (CP2660) 3/8" hex lock nuts.
3. Mount (j) (AM3417) light bracket front RH to assembly with (k) (BP3005) 3/8" x 1-1/2" hex cap screws and (c) (CP2660) 3/8" hex lock nuts.
4. Mount (l) (AM3415) light bracket front LH to assembly with (k) (BP3005) 3/8" x 1-1/2" hex cap screws and (c) (CP2660) 3/8" hex lock nuts.



	<h2 style="text-align: center;">Assembly (41000036 Light Kit)</h2>		
LR 3, LF	Task	Procedures	Illustrations
<p>▶</p>	<p><b>Mounting light kit brackets</b></p>	<ol style="list-style-type: none"> <li>1. Consult row spacing pages for bracket location.</li> <li>2. Secure (m) (AM3408) light post T mounting plate to frame with (b) (BP3214) 3/8" x 4"W x 7"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.</li> <li>3. Attach (f) (AM3407) 1' -11-7/8" light bracket tube with (e) (BP3736) 3/8" x 2"W x 3"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.</li> <li>4. Mount (n) (AM3414) rear light bracket even with top of tube with (e) (BP3736) 3/8" x 2"W x 3"L u-bolts and (c) (CP2660) 3/8" hex lock nuts.</li> </ol>	 <p>The illustrations show the following steps:</p> <ul style="list-style-type: none"> <li><b>Step 1:</b> A light post T mounting plate (AM3408, labeled 'm') is being secured to a blue frame using u-bolts (BP3214, labeled 'b') and hex lock nuts (CP2660, labeled 'c').</li> <li><b>Step 2:</b> A light bracket tube (AM3407, labeled 'f') is being attached to the frame using u-bolts (BP3736, labeled 'e') and hex lock nuts (CP2660, labeled 'c').</li> <li><b>Step 3:</b> A rear light bracket (AM3414, labeled 'n') is being mounted to the frame using u-bolts (BP3736, labeled 'e') and hex lock nuts (CP2660, labeled 'c').</li> </ul>

## Assembly (41000036 Light Kit)

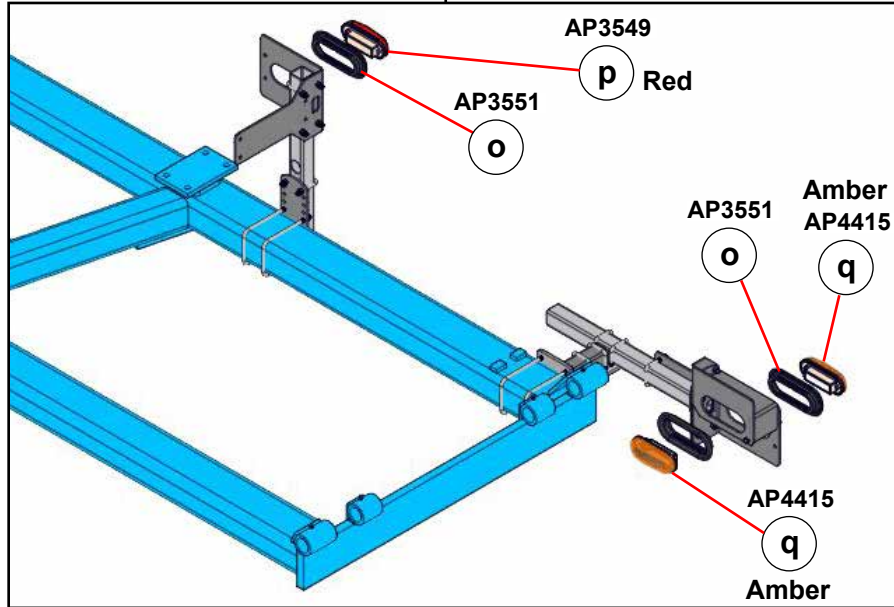
LR 3, LF

Task

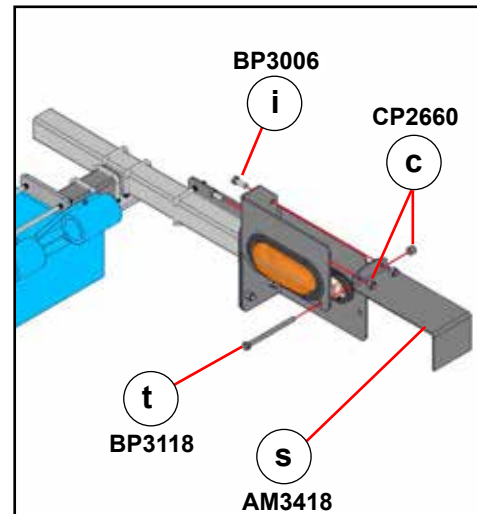
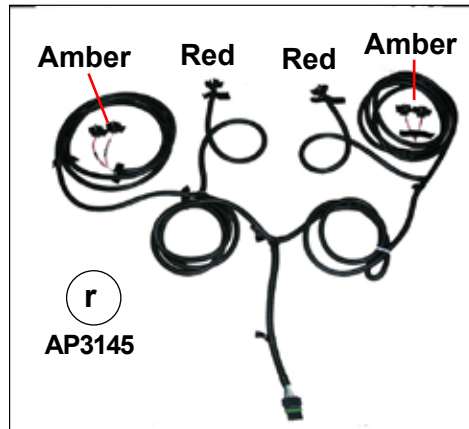
Procedures


Illustrations

▶ **Installing Red and Amber lamps**



1. Insert (o) (AP3551) model 60 oval grommets into mountings.
2. Insert (p) (AP3549) Red lamp into grommet. Insert (q) (AP4415) Amber lamp into outside grommets.
3. Attach (r) (AP3145) 27' rear wiring harness to the Red and Amber lamps.
4. Install (s) (AM3418) light bracket shield on each Amber lamp assembly with two (i) (BP3006) 3/8" x 1", grade 5, hex cap screws. Secure with (c) (CP2660) 3/8" hex lock nuts.
5. Insert (t) (BP3118) 3/8" x 5" hex cap screw through tractor side hole and secure with (c) (CP2660) 3/8" hex lock nut.

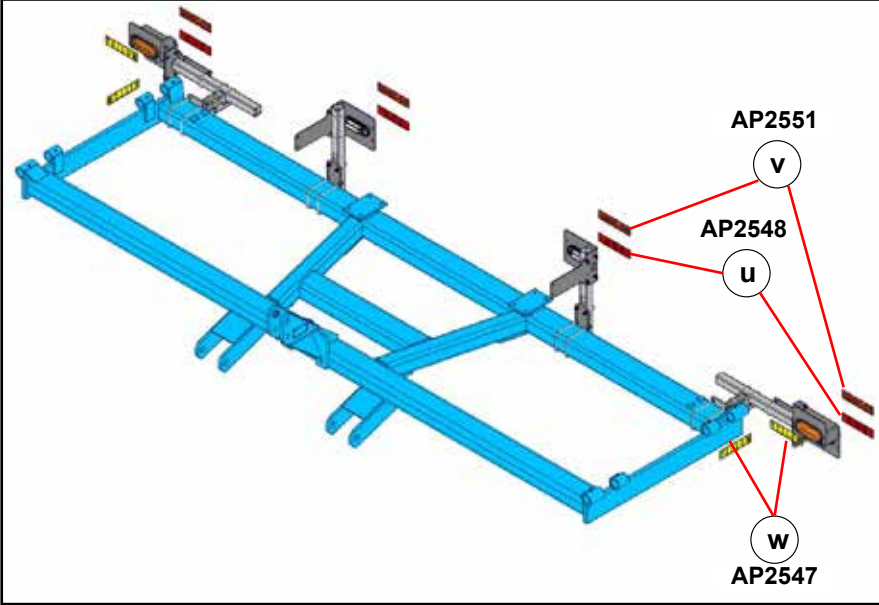


	Assembly (41000036 Light Kit)		
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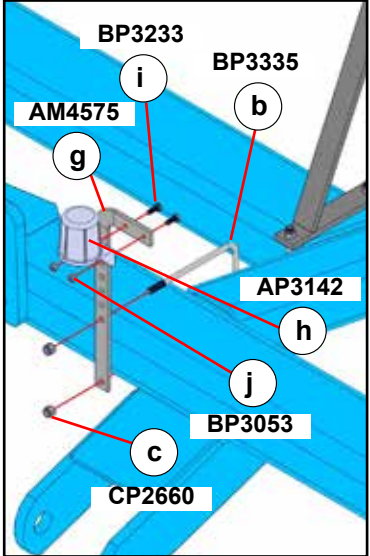
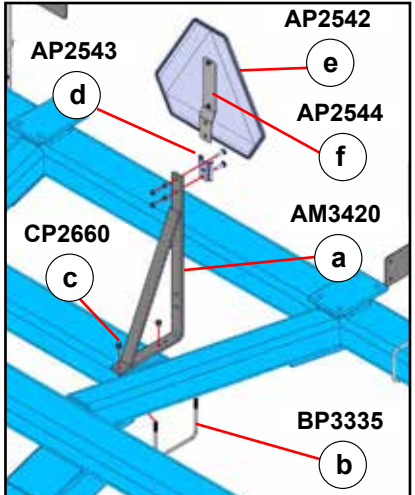
LR 3, L	Task	Procedures	Illustrations
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▶ Installing reflectors

1. Attach (u) (AP2548) 2 x 9 Red reflectors **below** Red and Amber lights.
2. Attach (v) (AP2551) 2 x 9 Red-Orange reflectors **above** Red and Amber lights.
3. Attach (w) (AP2547) 2 x 9 Yellow reflectors **above** Amber lights and on rear main frame plate.



4. Attach (a) (AM3420) SMV mounting bracket with (b) (BP3335) 3/8" x 7"W x 8"L u-bolt and (c) (CP2660) 3/8" hex lock nuts.
5. Attach (d) (AP2543) SMV mounting socket with hardware provided with socket.
6. Mount (e) (AP2542) SMV sign to (f) (AP2544) SMV mounting spade with hardware provided with spade.
7. Insert assembly into socket.
8. Mount (g) (AM4575) dust cap holder bracket to two point frame with (b) (BP3335) 3/8" x 7"W x 8"L u-bolt and (c) (CP2660) hex lock nuts.
9. Attach (h) (AP3142) 7 pin 10' main electrical harness and dust cap to bracket with (i) (BP3233) 1/4" X 3/4" hex cap screws and (j) (BP3053) 1/4" hex nuts.



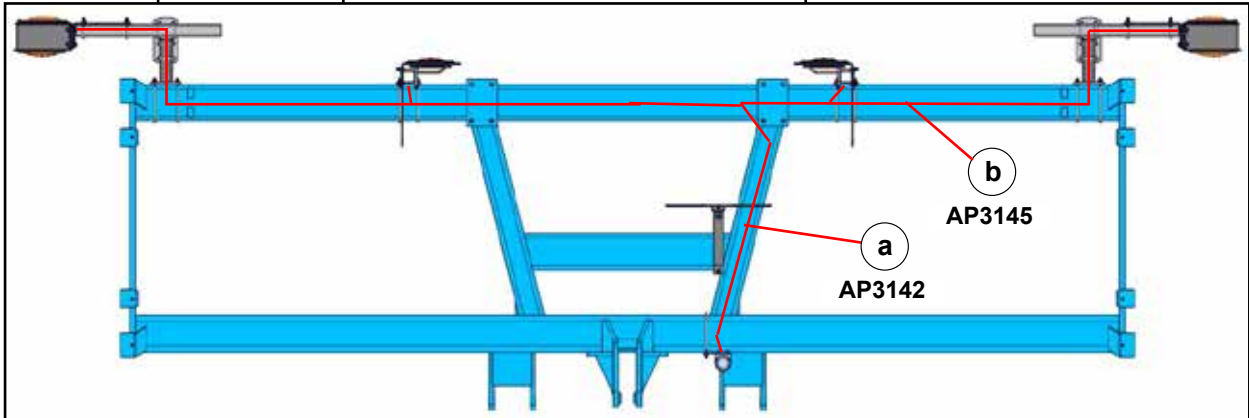
### Assembly (41000036 Light Kit)

LR 3, LF

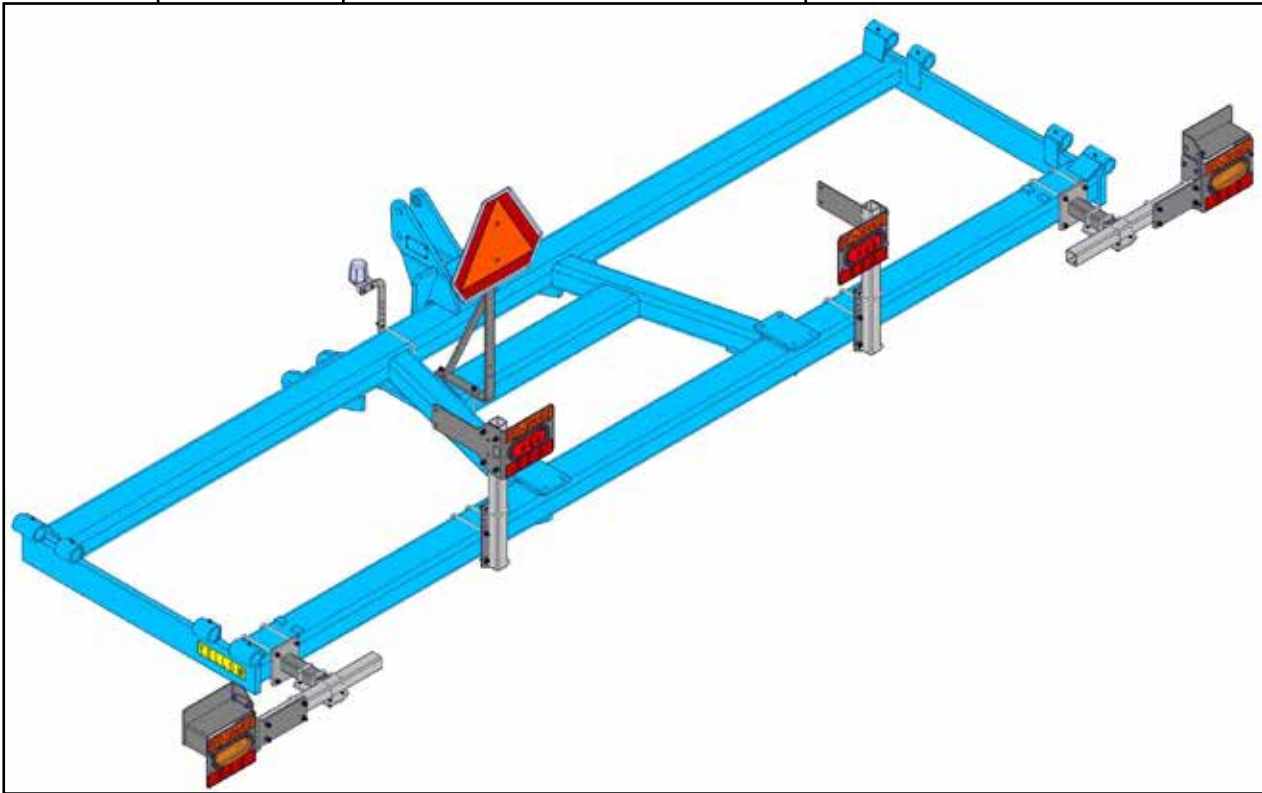
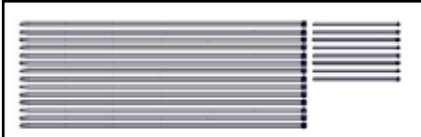
Task

Procedures


Illustrations

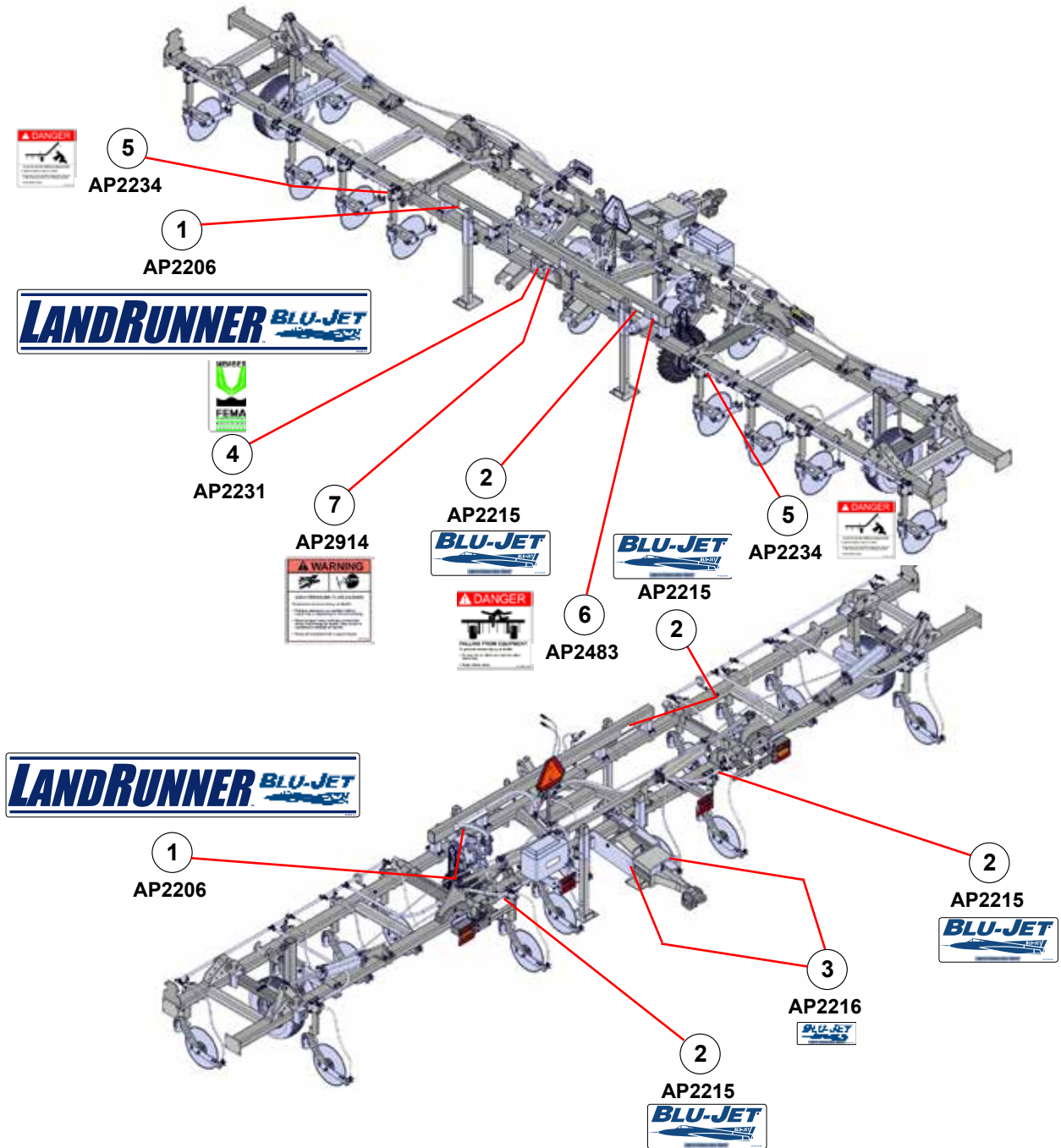


1. Connect (a) (AP3142) 10' main, 7 pin and dust cap electrical harness to (b) (AP3145) 27' rear electrical harness. Extend (a) to dust cap.
2. Secure harness with cable ties.





	<b>Decals</b>		
LR 3, LF	Task	Procedures	Illustrations



- |    |   |        |  |
|----|---|--------|--|
| 1. | 2 | AP2206 | Decal, LandRunner                      |
| 2. | 4 | AP2215 | Decal, BLU-JET, 3" x 8"                |
| 3. | 2 | AP2216 | Decal, BLU-JET, 1-1/2" x 4"            |
| 4. | 1 | AP2231 | Decal, FEMA, 2-1/2" x 1-1/2"           |
| 5. | 4 | AP2234 | Decal, Danger Stand Clear Falling Wing |
| 6. | 1 | AP2483 | Decal, Danger, Falling From Equipment  |
| 7. | 1 | AP2914 | Decal, Warning, High Pressure Fluid    |

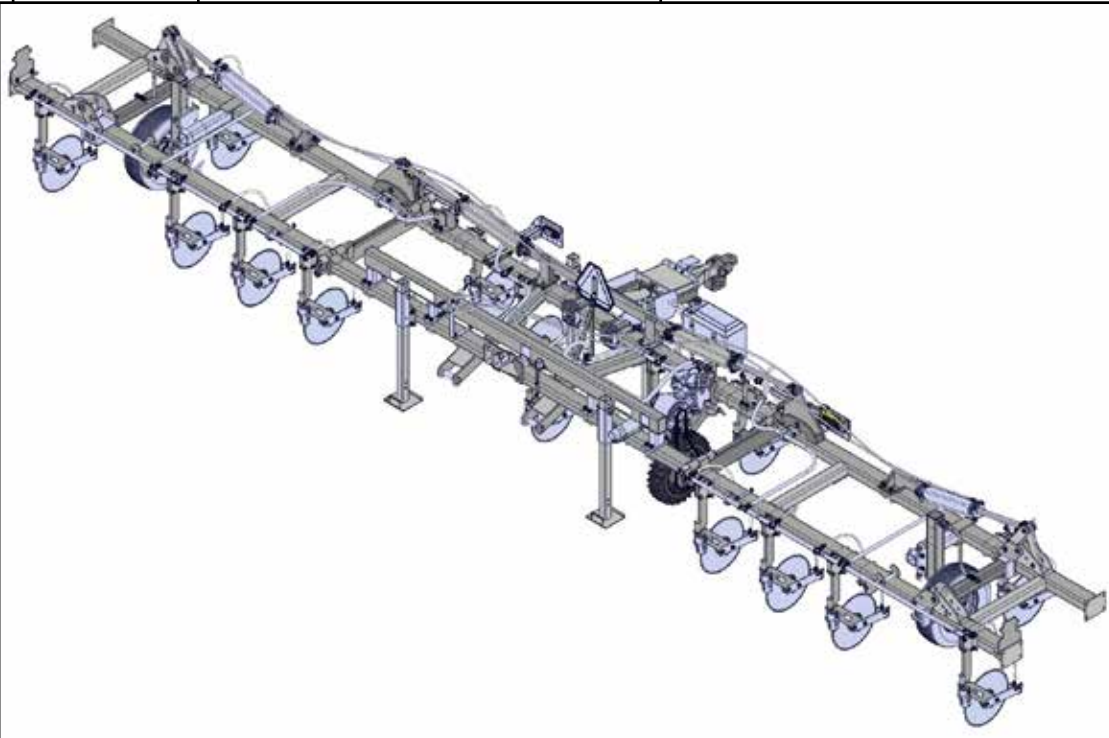
## Charging Cylinders

LR 3, LF

Task

Procedures

Illustrations



▶ **Connecting hydraulic hoses**

1. Connect the hydraulic hoses to the tractor remote couplers. The 1/4" hoses supply oil to the wing cylinders. Mark 1/4" hose pairs with paint or tape. Mark hoses so that they are plugged in correctly each time.

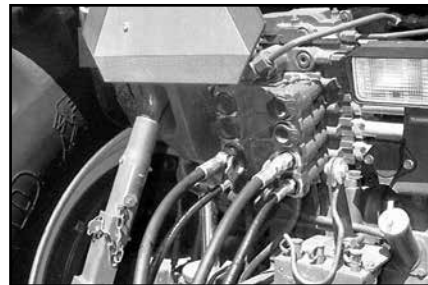
▶ **Charging cylinders**

**CAUTION**

*Always hook tool bar to tractor before filling oil lines*

**NOTE:**  
*Charging a hydraulic system will remove oil from a tractors hydraulic reservoir. Be sure to check tractor oil level after charging a new system*

2. Hook implement to tractor. Connect the hydraulic lines to tractor ports.
3. Begin by holding the tractor remote lever in one direction until the cylinders are fully extended or retracted. Hold 1 minute to purge air from lines. Reverse the direction of the remote lever to charge the other side of the system. Hold 1 minute to purge air from lines. Continue process until cylinders are extending and retracting completely.



Generic example



**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.



## Specifications

LR 3, LF

Tractor Attachment:..... 3 Point

Main frame:..... Heavy Duty 4" x 6"

Weight:..... 13'6" Center, 8'7" Primary Wing, 2'8" Outer Wing, 5,914 lbs.

Toolbar Rank:..... 38"

Transport Width:..... 15R30: 19'-7"  
13R36: 18'-5'

Blade:..... 20 in. Smooth

Pull Pin Kit:.....CAT. III

Fold Cylinder Size:.....4 x 24 (3,000 psi. SAE-34024) Repair Kit: DP 4310  
4 x 20 (3,000 psi. SAE-34000) Repair Kit: DP 4310

Vertical Pin Adjust Gauge Wheels. 1 pair. Weight: 237 lbs.  
Gauge Wheel Tire:..... 20.5 x 8.0-10, 10 x 6 (32 PSI. Max.)

Manual Adjust Gauge Wheel 1 pair. Weight: 422 lbs.  
Gauge Wheel Tire:..... 27 x 9.5-15, 6 Ply, 15 x 6 x 6 (32 PSI. Max.)

Nurse Tank Hitch Auto-Lok 4" x 6" with Hardware 356 lbs.

JetStream Assembly 106 lbs.

Coulter Knife Liquid Assembly 201 lbs.

Ground Drive Pump Kit 50 Tooth Sprocket 183 lbs.

Ground Drive Pump Kit 60 Tooth Sprocket 186 lbs.

Single Piston Pump 105 lbs.

Twin Piston Pump 155 lbs.

Lighting Kit:..... Standard

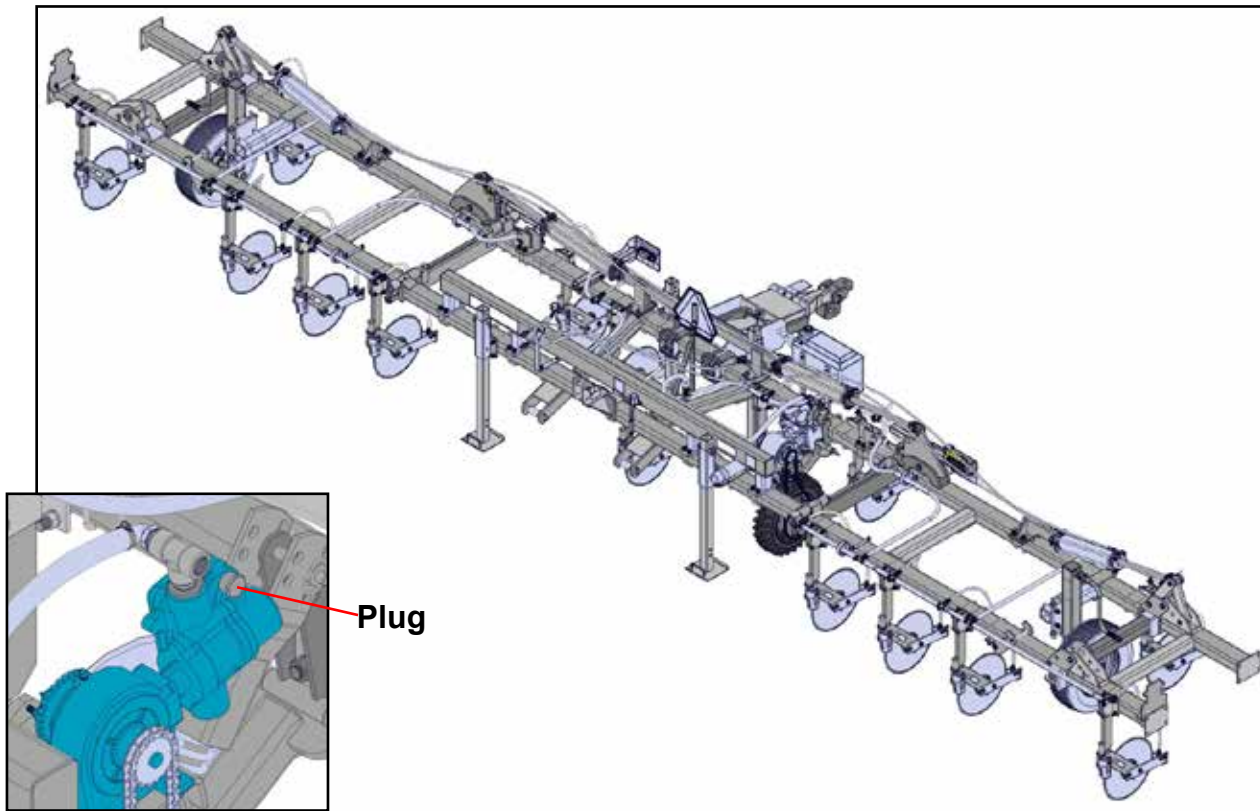
Safety Water Tank:..... Standard

Coulter:..... Super 1200 Flex Weight: 60 lbs.

Remote Outlets:..... 1 pair

Warranty:..... 5 year Frame/1 year Components

LR 3, LF



► **Preparing for storage**


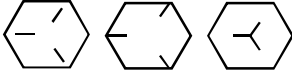

- A. Drain and rinse tank of all fertilizer.
- B. Remove plug from pump tee. Install a watering hose fitting in tee. Attach hose and turn on water. Turn pump wheel to rinse the components of fertilizer.
- C. Remove hose fitting. Insert a flexible hose fill container into tee. Pour Recreational Vehicle 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.

<b>BLU-JET</b> <small>HYDRAULIC SYSTEMS</small>	<b>Torque Specifications</b>		
	<b>LR 3, LF</b>	<b>Task</b>	<b>Procedures</b>

**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			*Thick nuts must be used with Grade 8 bolts		1460	1680	1980	2278	2380	2720	3227	3688
1 1/2					1940	2200	2631	2983	3160	3560	4285	4827

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

<b>STANDARD TORQUE DATA HYDRAULIC TUBES AND FITTINGS</b>				
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.



## Hydraulic Cylinder Repair Kits

**LR 3, LF**

Task	Procedures	Illustrations
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MFG #	Bore/							
<b>TMC #</b>	<b>Stroke</b>	<b>Repair Kit</b>	<b>Clevis</b>	<b>Butt</b>	<b>Gland</b>			
SAE-34024 DP 4248	4" X 24"	PMCK-SAE-34000 DP 4310	100000326 DP 4115	141900037 DP 4270	081900354 DP 4326			
SAE-34020 DP 4375	4" X 20"	PMCK-SAE-34000 DP 4310	100000326 DP 4115	141900037 DP 4270	081900354 DP 4326			
MFG #	Bore/				<b>4 Req</b>	<b>2 Req</b>	<b>4 Req</b>	
<b>TMC #</b>	<b>Stroke</b>	<b>Piston</b>	<b>Piston Rod</b>	<b>Barrel</b>	<b>Tie Rod</b>	<b>Clevis Pin</b>	<b>Cotter Pin</b>	
SAE-34024 DP 4248	4" X 24"	071900260 DP 4328	011000324 DP 4336	051900015 DP 4347	170301292 DP 4352	190400035 BP 3497	220001504 BP 3511	
SAE-34020 DP 4375	4" X 20"	071900260 DP 4328	011000323 DP 4357	051900014 DP 4353	170301252 DP 4354	190400035 BP 3497	220001504 BP 3511	

### LR 3, LF

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 (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.

#### Tie-rod

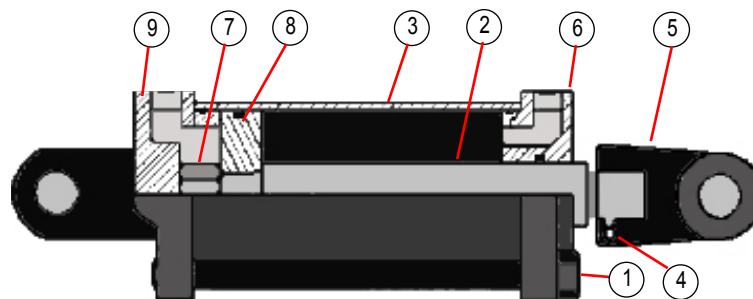
3/8" tie-rods 20-23 ft./lbs. (27-31 Nm)

1/2" tie-rods 45-52 ft./lbs. (61-70 Nm)

5/8" tie-rods 95-105 ft./lbs. (129-142 Nm)


3/4" tie-rods 150-165 ft./lbs (203-224 Nm)

5. Test for leaks and reinstall in machine. If you have any problems contact Prince Hydraulics (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 or replacement of any part of the system.
7. Connect implement to the tractor drawbar correctly before operating or making any adjustments.

	<b>Notes</b>		
<i>LR 3, LF</i>	Task	Procedures	Illustrations