



6300 APPLICATOR

LIQUID FERTILIZER

OWNERS MANUAL ASSEMBLY INSTRUCTIONS AND PARTS LIST OM-6300

HEARTLAND AG SYSTEMS
1180 STATE HWY 7 EAST
HUTCHINSON, MN. 55350
(320) 587-4030

ISSUE
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WARRANTY REGISTRATION

TO THE DEALER:

Inspect the implement thoroughly after assembly to be certain it is functioning properly before delivering it to the customer. Check off each item as it is found satisfactory or after proper adjust 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, "level operation", "drawbar height", etc.
 - ____ 5. Proper tongue weight after all options are mounted.
- Adjustments made if required.
- ____ 6. Overall condition. Touch-up paint any scratches. Clean and polish
 - ____ 7. Operator's manual.

Seller Information

Date set-up _____
Signature _____
Dealer name _____
Address _____
City, state, zip _____
Phone _____

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

- ____ 1. Safe operation and service
- ____ 2. Correct machine installation and operation.
- ____ 3. Correct and periodic lubrication and maintenance.
- ____ 4. Daily and periodic inspection.
- ____ 5. Troubleshooting.
- ____ 6. Storing machine.
- ____ 7. Heartland AG Systems parts and service
- ____ 8. Have the customer write the machine model and serial number in the space provided in the manual introduction
- ____ 9. Give the customer the operator's manual and encourage the customer to read the manual carefully.

Customer Information

Date delivered _____
Customer name _____
Customer address _____
Signature _____
Model number _____
Serial number _____

PLEASE FILL OUT THIS SHEET AND RETURN TO HEARTLAND AG SYSTEMS

1180 State Highway 7 East Hutchinson, MN 55350

www.heartlandag.com | Heartland Agriculture, LLC dba Heartland AG Systems

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TO THE OWNER

This manual has been prepared to assist you in the assembly of your new equipment and contains information pertaining to safety, operating information and all its parts.

Our personnel in sales and service are always available to assist you when questions arise concerning the assembly and operation of your machine.

When ordering parts, please refer to part numbers and descriptions as listed throughout this book. All parts and whole goods will be shipped FOB Hutchinson, Minnesota. Always check merchandise immediately upon receipt for damage or shortage. Note any discrepancy on the carrier's bill of lading and notify Heartland AG Systems within 10 days.

Any returned goods will be subject to a 20 percent restocking charge.

Heartland AG Systems 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.

Warranty Policies and Terms

The Heartland Agriculture, LLC warranty is a limited warranty that is provided to the retail purchaser in return for consideration paid as part of the purchase price for a product. The selling dealer must review the warranty coverage with the retail purchaser and obtain a signature on the Operators Manual for warranty verification.

The warranty described here is for Heartland Agriculture, LLC doing business as Heartland AG Systems and its product line Heartland AG Systems Equipment sold and registered in the United States and Canada and normally operated in the United States and Canada.

Warranty Period

The warranty period for all coverage begins at the time that any person, dealer or agent first places the unit into service. At the latest, a unit is placed into service when purchased or delivered to a purchaser.

What's Covered

If a defect in material or workmanship is found in a unit and reported during the Warranty period, Heartland AG Systems will pay parts and labor costs to repair the defects if the services are performed by an authorized Heartland AG Systems dealer. If parts are needed during the repair, Heartland AG Systems will, at its option, use genuine Heartland AG Systems, or remanufactured parts.

Heartland AG Systems provides no warranty, express or implied, for a component or other item that is separately warranted to the purchaser by its manufacturer, such as tires. Check with your local dealer for these details.

Exclusive Remedy

The remedy of repairing a defect in material or workmanship at a Heartland AG Systems dealership under the terms of this warranty is the purchaser's exclusive remedy and is in lieu of any other remedy otherwise available.

No Modification or Extension of Warranty

The Heartland AG Systems Warranty is limited to the written terms in the warranty statement. Heartland AG Systems does not authorize any person, dealer, or agent to change or extend the terms of this warranty in any manner. Any assistance to the purchaser in the repair or operation of any Heartland AG Systems product outside the terms or limitations or exclusions of this warranty will not constitute a waiver of the terms, limitations or exclusions of this warranty, nor will such assistance extend or re-establish the warranty.

The warranty is void if the unit is used in an application for which it is not designed or the unit has been scrapped, salvaged, stolen, junked or totaled.

Limitations and Exclusions

The Heartland AG Systems warranty gives you specific legal rights and you may also have other rights, which vary from state to state. This section contains the entire Heartland AG Systems warranty. Heartland AG Systems makes no other representations or warranties, expressed or implied, and specifically excludes the implied warranties of merchantability and fitness for particular purpose. Heartland AG Systems will not be liable for incidental or consequential damages resulting from a breach of the written warranty or any implied warranty.

- These limitations and exclusions may not be allowed by some states or provinces and shall not apply to the extent such limitations or exclusions are not allowed by applicable state/provincial law.

Owner's Responsibility

The Heartland AG Systems Warranty remains in effect during the warranty period if the owner performs the required maintenance at the recommended intervals outlined in the product's operator's manual and the unit is operated within its rated capacity. Genuine Heartland AG Systems service parts or Heartland AG Systems approved service parts that meet Heartland AG Systems specifications must be used for maintenance and repairs.

What Is Not Covered

- Replacement of non-defective wear items expected to be replaced during the warranty period, including, but not limited to: lights, fuses, belts, drive sprockets and chains, hose, soil engaging tools, spray tips, fertilizer deflectors, spinner blades and accessories or items replaced due to customer demand.
- Normal maintenance parts and service, including, but not limited to lubrication, coolants, and filters.
- All travel costs associated with hauling or towing a customer's machine to and from a repair center related to any warranty repair unless specifically covered by a program or policy.
- Repairs arising from any unauthorized modification to the product.
- Repairs arising from service performed by agents not approved by Heartland AG Systems.
- Repairs arising from storage deterioration, failure to maintain the equipment, improper use of the equipment, collision or other accident, vandalism, or other casualty, or operation beyond the rated capacity or specifications.
- Repairs arising from abuse or neglect including, but not limited to operation without adequate lubricants or coolant, over-speeding, contaminated fluids, improper storage, starting, warm-up, or shutdown practices.
- Failure of the machine, its implements or attachments caused by improper field application or overloading.
- Premiums charged for over-time labor costs.
- Economic loss, including lost profits, crop loss, equipment rental or other expenses.
- Cost associated with cleaning of machine in preparation for service.
- Loss or damage during shipment.

- Cost of initial setup or installation of any optional equipment or attachments to a unit.
- Items used for repairs include, but are not limited to: solvents, cleaners, anti-seize lubricants, oil-dry, shop towels, shop supplies, special tools, etc.
- Included, but not limited to are checkups, adjustments, and shimming, tune-ups, spread pattern checks, etc.
- Unauthorized modification or field fixes.
- All costs of special tools or shop supplies incurred with repairs.
- Claims for stolen equipment or parts.
- Claims for replacing a complete assembly when the repair is less than the replacement.
- Claims involving the inspection or reconditioning of units.
- Shop comebacks: any duplicate, repeat, or comeback repair resulting from improper diagnosis, testing, or poor service work.
- Cost of removing or installing Non-Heartland AG Systems optional equipment or attachments.

Base Warranty Coverage

- Base Warranty is the factory warranty provided to the customer at no additional cost for a specific period covering the complete machine.

• Liquid Applicators, except tires	1 Year
• Spreaders and Tenders, except tires	1 Year
• Nh3 Wagons, except tires	1 Year
• Bumper Hitches	1 Year
• Disc Covers	1 Year
• Parts	90 Days
• Tandem Wagons (except tires and main frame)	1 year
o Tandem Wagon main frame	5 Years
• Nitromaster Toolbars shall carry the following pro-rated warranty:	
o Year one, all components except tires	100%
o Year two, center section and wings	80%
o Year three, center section and wings	50%
o Year four, center section and wings	25%
o Year five, center section and wings	10%

Tires

Tires installed on all Heartland AG Systems Equipment are warranted and serviced by their manufacturer's service outlets. Some manufacturers have separate service outlets for off road agricultural and construction equipment. Service is available by contacting the tire manufacturer's local representative.

Warranty Registration

All machinery items, which are invoiced by Heartland AG Systems on separate receivables, must be registered for warranty. The warranty period for all coverage begins at the time that any person, dealer, or agent first places the unit into service. New machine warranty coverage begins when the machine is registered. Registration is accomplished when a properly completed Warranty Registration is received and processed by Heartland AG Systems.

Operator's Manual/Warranty Receipt Verification

The Heartland AG Systems New Equipment Limited Warranty for Agricultural Equipment statement must be filled out and signed by the customer indicating receipt and an understanding of the operator's manual and the warranty statement,

- The original form must be mailed to the address on the form.
- Make one copy for the Dealer. This copy must be retained by your dealership the same as any other legal document.
- Make a second copy for the customer.

Heartland AG Systems Responsibility

If a defect in material or workmanship is found in a product during its warranty period, Heartland AG Systems will pay parts and labor costs to repair the defect when the service is performed by an authorized Heartland AG Systems dealer or agent. If parts are needed during the repair, Heartland AG Systems will, at its option, use genuine Heartland AG Systems new or remanufactured parts. These responsibilities include, but are not limited to:

- Costs for repairs that are the result of defects in material and workmanship
- Payment to dealers per policy in a timely manner
- Service information to dealers
- Identify product deficiencies and take corrective action by field campaigns
- Make determination of premature wear
- Provide unit that is free of defects in material & workmanship

Dealer Responsibility

Heartland AG Systems dealers are responsible for providing prompt, courteous, and willing service to all Heartland AG Systems equipment owners. These responsibilities include but are not limited to:

- Equipment set-up and pre-delivery
- Sell the right product for the intended application
- Inspect the unit and initiate recovery action on any shipping damage and or shortages
- Instruct customer on proper use, maintenance, and safety features of machine
- Advise and explain warranty coverage to customer
- Diagnose the problem, repair the unit, and submit claims in accordance with the terms and conditions of the warranty claim policies
- Take responsibility for saying "NO" to customers on non-warranty failures
- Apply failure analysis to questionable repairs
- Complete product update campaigns
- Have properly trained technicians and adequate tools for the job
- Retain proper documentation of failure repaired

Owners Responsibility

The Heartland AG Systems warranty remains in effect during the stated warranty period if the owner performs the required maintenance at the recommended times as outlined in the products operator's manual. Genuine Heartland AG Systems or Heartland AG Systems approved service parts must be used for maintenance. Additionally, the owner will pay for all transportation or travel expenses related to any warranty repair.

These responsibilities include, but are not limited to:

- Perform maintenance as indicated in the operator's manual
- Use the unit in the correct application (non-abusive)
- Notify dealer of failures and have the machine available for repair in a timely manner
- Training operators
- Travel cost, towing charges, and service calls
- Normal wear items
- Machine damage (accidental)
- Adjustments for application
- Machine inspection (daily walk-around)

Warranty Eligibility

The dealer is responsible to determine that any Heartland AG Systems equipment is covered by Heartland AG Systems warranty before performing a repair and that the repair is a warrantable failure. Any dealer who is in doubt of the equipment's warranty eligibility may call Heartland AG Systems for verification.

Warranty Repairs Made by the Customer



Heartland Agriculture, LLC



If a Heartland AG Systems dealer determines that the customer is capable, and the customer requests permission to perform select(warranty)repairs on his product, the Heartland AG Systems dealer is authorized to grant this customer request. The servicing dealer should provide the parts to the customer upon request, and to assure that customer is properly instructed on how to perform the repairs correctly.

The servicing dealer is responsible and accountable for claim accuracy and validity; specifically, in areas such as the parts replaced date, and assurances that the parts are installed as instructed by Heartland AG Systems. The comments section of the claim should clearly state that the customer installed the parts. The claim reimbursement will be for parts and applicable handling only. No labor is allowed! All replacement parts must be held for possible recall.

Parts Shortages on Whole-Goods

Dealers may submit a claim for parts shortages discovered during pre-delivery or during final assembly at the dealer's location. All claims for shortages must be submitted 5 days from the original ship date from the plant and before the warranty start date.

Warranty Reimbursement Policies

Heartland AG Systems provides for warranty reimbursement due to defects in material or workmanship only. Warranty does not include restoring any machine or portion thereof, which has accumulated hours of operation, to factory new condition. This includes customer owned and used equipment.

Except for only a few items not available through Heartland AG Systems, all Heartland AG Systems manufactured equipment warranty repairs must be performed using only Heartland AG Systems genuine new or remanufactured parts and accessories. Installation of non-Heartland AG Systems parts does not qualify for warranty reimbursement and can void the machine's warranty.

Parts

It is fully expected that all claims be filed using part numbers from the applicable Heartland AG Systems equipment parts book whenever such part number exists. Heartland AG Systems shall reimburse the dealer at the dealer net price (cost) in effect on the parts replaced date.

Labor

Heartland AG Systems shall reimburse the dealer at 80% of the dealer's posted retail shop labor rate. The retail shop labor rate shall be subject to verification by Heartland AG Systems from copies of actual dealer invoices to customers.

Outside Charges

Specialized repair such as that done by a machine shop will be accepted as part of a warranty claim at actual cost. Explain the parts used and the service work performed in the description section of the claim and retain a copy of the receipt. Retain a copy of the invoice with the shop work order to support the claim. Outside repairs that exceed the cost of the same repair, if performed by the dealer, will be reimbursed at a lower rate.

Freight

Heartland AG Systems will pay the freight charges when a warranty recalled part is to be returned to Heartland AG Systems.

Travel

Travel will only be reimbursed when authorized by a field campaign.

Repairing or Replacing Parts and Components

When performing a warranty repair, a complete part or component should not be replaced under warranty if the repair can be accomplished at a lower cost. If the total cost of the repair including the cost of parts, labor, and/or outside labor or materials is less than 75% of the cost of the parts, the part must be repaired.

Filters and Lubricants

Replacement of lubricants and filters do not qualify for warranty reimbursement unless damage caused by a defect in material or workmanship results in contamination or sudden loss of fluid. Lack of maintenance, operator misuse, or neglect will not qualify for warranty reimbursement.

Claim Form Guidelines

Claims Must Have

1. Product identification number (PIN) or serial number. All characters of the PIN must be used on the warranty claim.
 - Claims for parts warranty must use the word "PARTS" for the PIN. An invoice that shows date of sale or date of installation must be supplied for all parts claims.
2. Model Number
3. Date of failure – Claims must be submitted within 30 days or repair.
4. Date of repair
5. Warranty start date. Date the unit warranty starts or date the parts were sold for parts warranty.
6. Description of the problem. Describe all problems pertinent to the claim.

Comments should be as precise as possible, attach a separate sheet if necessary, to describe the problem.
7. Description of the work performed. List each significant action of the repair.
8. Itemize labor. Provide a breakdown of labor for each significant repair action in the "Describe Work Performed" column.
9. Shop order numbers. The shop order number field is used for recording your shop work order number that is related to the claim. The shop order number field can also be used to record the parts invoice number when claiming a parts warranty.
10. Customer information. Customer information includes the customer name, city, state, county, and postal code. It must match the warranty registration.
11. Warranty claim total. The total of all reimbursement costs requested.
12. Dealer signature and date. All claims must be signed and dated by the distributor to be validated.

INTRODUCTION

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.

Right hand and left hand sides of the machine are determined by (standing behind the machine) facing in the direction the machine will travel when going forward.

SAFETY INFORMATION

DANGER: This message denotes the most serious specific potential hazard. This sign will have the color combination of RED and WHITE.

WARNING: This message denotes a specific potential hazard.

CAUTION: This message denotes a reminder of safety practices.



NOTE: Indicates a special point of information.

Carefully read and follow all safety signs.

Reinstall safety signs that are damaged or missing.

Warranty is provided for customers who operate and maintain their equipment as described in this manual. Warranty registration is accomplished by the dealer completing and forwarding the WARRANTY REGISTRATION FORM along with a copy of the dealer's invoice to Heartland Ag Systems. It is in your best interest to insure that this has been done.

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

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

MODEL NUMBER _____

SERIAL NUMBER _____

DATE PURCHASED _____

SAFETY INFORMATION CONTINUED

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 the controls properly. Do not let anyone operate without instructions.

Keep your machine in proper working condition. Unauthorized modification to the machine may impair the function and/ or safety and affect the machine life

PROTECT CHILDREN AND BYSTANDERS

Before you back, LOOK CAREFULLY behind for children

Clear area of children, pets, and bystanders

TRANSPORT SAFETY

-- Always use safety chains during road transportation.

-- Check wheel nuts daily

-- Use hydraulic cylinder transport lock-up during road transportation.

-- Maximum recommended road speed is 25 MPH

-- Clear machine of personnel and obstructions

PART NUMBER: 699102



PART NUMBER: 30481



PART NUMBER: 699107



PART NUMBER: 699101



PART NUMBER: USA



PART NUMBER: 699104



6300 APPLICATOR ASSEMBLY PROCEDURE WITH LIQUID PUMP DRIVE

Your 6300 applicator is shipped with the small parts and hardware packed in boxes marked for the different sections of the machine. If there are any items missing, contact Ag Systems Inc immediately.

ASSEMBLE THE CADDY AND TOOL BAR

- Step 1. Select a smooth level surface for the assembly of your equipment.
- Step 2. Refer to the illustration on page 13. Place the caddy frame (item 1) upon four steel sawhorses. One at each corner of the frame.
- Step 3. Install the axle assemblies (item 12). The hubs are pre-assembled to the axles. The left hand and right hand axles are identical. Position the axles at the track width preferred and secure with the bolts (item 14) and appropriate hardware. The narrow setting will give you a 120 inch track med setting 132" and The wide setting will be a 152" track width. Tighten the hardware securely.
- Step 4. Mount the tire (item 89) on the rim (item 87) and mount the wheels on the hubs.
- Step 5. Install the bottom linkage arms (item 3) in the bottom set of holes in the brackets at the front of the caddy. Mount the arms with the linkage pins (item 8) and secure with the bolts (item 9) and appropriate hardware.
- Step 6. Install the torsion frame (item 2) in the top set of holes in the brackets at the front of the caddy. Mount the torsion frame with the pivot pins (item 4) and secure with the bolts (item 5) and appropriate hardware.
- Step 7. Install the hydraulic cylinders (item 75) with the body on the caddy and the shaft on the torsion frame. Note, the butt end ports should be to the top of the cylinder and the rod end ports should be on the side.
- Step 8. Place the tool bar center section (item 1, page 11) in two sawhorses, one at each end and have on hand a hoist or jacks or other lifting device. Attach the linkage arms (item 3, page 13) to the bottom set of holes in the brackets on the tool bar. Mount with the linkage pins (item 8) and appropriate hardware. Attach the torsion frame to the top set of holes in the brackets on the tool bar with the pivot pins (item 4) and appropriate hardware.
- Step 9. Assemble the poles (item 2, page 11) left hand, and (item 3) right hand to the front of the tool bar with the bolts (item 5) and appropriate hardware. Assemble the hitch mount (item 8) to the front of the poles with the bolts (item 9) and appropriate hardware. Install the jack (item 18) and lower it to the ground. You may now remove the supports from the tool bar and caddy.
- Step 10. Mount the Perfect Hitch (item 17) to the poles and other attachments as supplied.
See (item 22, and item 23 or item 30.
- Step 11. **Continue assembling the caddy.**
Refer to the illustration on page 13. Mount the accessories brackets (item 83) on each end of the torsion frame cross member. Slip the depth control rings (item 82) and the transport locks (item 79) over the accessories bracket for storage.
- Step 12. Position the ground wheel drive bracket (item 18) on the left hand rear corner of the caddy frame. Assemble with the U-bolts (item 19 and 20) and appropriate hardware. The U-bolt item 19 would straddle the rear crossmember and item 20 would straddle the side tube. Mount the hinge bracket (item 26) on the tube of the GWD bracket (item 18) with the U-bolts (item 23) and appropriate hardware. For a 120 inch wheel track, the center of this bracket should be located 51 1/2 inches from the center of the caddy.

Step 13. ASSEMBLE THE GROUND WHEEL DRIVE (GWD.)

- A. Assemble the bearings (item 62) to the inside of the pump drive bracket (item 47) with the appropriate hardware.
- B. Assemble the shaft (item 60) with the sprocket (item 51) the square key (item 52) the hub (item 49) and the square key (item 61) and secure with the setscrews in the hub and the sprocket.
- C. Assemble the idler sprocket (item 55) to the pump drive bracket with the bolt (item 56) and one washer (item 57) on each side of the sprocket and fasten with the lock washer (item 58) and the nut (item 59).
- D. . Install the shaft assembly in the bearings in the pump drive bracket and secure with the set screws in the bearings. Mount the wheel (item 48) on the hub (item 49) Mount this assembly on the hinge bracket (item 26) with the shaft (item 27) and appropriate hardware.
- A. Mount the pivot anchor (item 40) on the tube of the GWD bracket (item 18) and attach it to the pump drive bracket (item 47) with the clevis pin (item 42) and hairpin (item 43).
- F. Position the eye bolt (item 66) thru the slotted hole in the pump drive bracket and attach it to the hinge bracket (item 26) with the clevis pin (item 73) and the cotter pin (item 74).
- G. Position the transport lock pin (item 70) thru the guide tube on the pump mount bracket and install the expansion pin (item 72) in the end hole of the lock pin. Insert the hairpin (item 71) in the hole in the guide tube and thru the hole nearest the handle in the lock pin.
- H. Assemble the spring (item 67) and the spring cap (item 68) to the eyebolt and secure with two nuts (item 69). Turn the nuts onto the eyebolt to a point so that at least 3/4 inch of thread is protruding from the nuts.
- I. Mount the pump (NOT SHOWN) and install the drive chain (item 53) and the link (item 54). Adjust the idler and drive sprocket positions so that all three sprockets line up and the drive wheel (item 48) is centered on the caddy wheel. You may have to move the sprocket on the shaft or reposition the shaft in the bearings and/or add washers to the idler sprocket.

Step 14. Install the push rod assembly (items 30 to 39) with one end on the torsion frame and the other end clamped to the square tube on the pump drive bracket (item 47).

Step 15. Adjust the push rod assembly. Position any temporary shim (approximately 1/4" thick) at the end of the transport lock pin (item 70). On the push rod assembly, extend the adjustable clevis (item 32) far enough so that all play is removed from the assembly. Remove the temporary shim from the transport lock pin. You should now be able to push in the transport lock pin and freely insert the hairpin (item 71). If you cannot insert the hairpin, repeat the above procedure using a thicker shim. When this assembly is adjusted satisfactorily, secure it in place with the nut (item 31) on the adjustable clevis.

ASSEMBLE THE WINGS OF THE TOOL BAR

Step 16. Refer to the illustration on page 11. Assemble the primary wings (item 45) to the center section. Place the primary wings on steel sawhorses and assemble to the center section with the hinge pins (item 37). Position the hose guide (item 67) to the pivot pin and secure all with the bolt (item 38) etc.

Step 17. Assemble the primary wing cylinders (item 40 or 40A) onto the center section with the body on the center section and the shaft towards the wings. Secure the butt end with the pin (item 41). Do not secure the shaft until the hydraulic system has been purged of air.

Step 18. Assemble the secondary wings (item 61) to the primary wings with the hinge pins (item 64). Position the hose guide (item 67) to the pivot pin and secure all with the bolt (item 65) etc. Assemble the cylinder link (item 57) to the primary wing with the linkage pin (item 58) and hardware as shown. Assemble the cylinder link (item 63) to the secondary wing with the linkage pin (item 68) and hardware shown. Mount the hydraulic cylinder (item 40) size 3 x 24 onto the primary wing with the body on the primary wing and the shaft towards the secondary wing. Secure the butt end with the pin (item 41). Do not secure the shaft end until the hydraulic system has been purged of air.

Step 19. Mount the wing hook block (item 71) on the secondary wing so that the latch pin is located 24

inches from the wing hinge pin. Assemble the latch assembly (item 51) with the swing stop bushing (item 52) and when used, the locking strap (item 80) as shown in the enlarged view on page 11. Assemble all to the primary wing with the hardware shown.

MOUNTING THE GAUGE WHEELS

- Step 20 If your tool bar is equipped with mechanical gauge wheels refer to the illustration on page 15 and the shank location illustration page. The gauge wheel assembly should be located as far to end of the secondary wing as is practical, considering coulter locations and other obstructions. The pivot arm with the wheel hub should be located as indicated on these illustrations. To ensure the bar is running level, the gauge wheel height should be adjusted to coincide with the depth control segments used on the hydraulic cylinders on the center section and any hydraulic wheels.
- Step 21 Refer to page 22. Mount the saddle and tank as indicated. The fitting and hose arrangement may be found on page 23.
- Step 22. Install the hydraulic fittings and hoses as indicated on the hydraulic schematic illustration on page 18.
- Step 23. **Purge the air from the hydraulic system**
- Firmly anchor the pole to a heavy stationary object or attach it to a tractor.
 - Pressurize the hydraulic system. Fully extend all cylinders. Make sure the shafts of the cylinders do not hit any obstructions as they are extending. With the cylinders in the extended position, circulate the oil for approximately one minute. Retract the cylinders.
 - Refer to step 20 and 21. Attach the shaft end of the cylinders to the primary wings and the secondary wings with the pins and hardware indicated.
 - Partially lift the wings and stop. Observe if the wings will sag. This would indicate there is air in the system.
 - Repeat steps B and C until the system operates satisfactorily.
 - Secure the hydraulic hoses as needed.
- Step 24. Mount the coulter brackets and coulters at the desired spacing. And assemble the desired knives to the coulters.
- Step 25. Install the chemical application hoses and secure safely.
- Step 26. Fold the wings and raise the machine to full transport height. Secure the transport locks at the caddy cylinders and the ground wheel control. Release the hydraulic pressure so that the supported items are resting on their transport locks.
- CAUTION:** BEFORE MOVING THE MACHINE. Read the operating instructions and warnings on the page following these assembly instructions. .
- Step 30. . With the machine in transport position, check to see that all hoses are in a safe and secure position. Check that all hardware is tightened securely.
- Your new applicator is now ready to go to work.**

Caution;; Check all fasteners daily to make sure they continue to be secure.

WARNING;; Operating the unit with loosened fasteners may cause damage and result in voiding the equipment warranty.

OPERATING INSTRUCTIONS

USE OF DEPTH CONTROL SPACERS

WARNING:

Failure to use, or incorrect use of the depth control spacers on the toolbar lift cylinders will result in voiding the equipment warranty.

Correct use of the lift cylinder depth control spacers is needed to maximize equipment performance. Incorrect use will cause the equipment to operate at uneven depths and even result in equipment damage.

To gain maximum performance from your equipment, the depth control spacers that have been provided with your equipment must be used when you place your equipment in the field. It is imperative that an equal number of spacers of equal size are placed on each of the toolbar lift cylinders before placing your equipment in service. Failure to do so may cause damage and result in voiding the equipment warranty. Use of stroke control spacers (depth control spacers) on the wing lift cylinders is not recommended, or necessary when spacers are properly placed on the center section lift cylinders.

To set the equipment to the proper depth for your field conditions, place the toolbar in the field to the desired tillage depth. Use the cylinder spacers provided with your equipment. If two cylinders are used, place an equal number of spacers of equal size on each of the cylinders. It is very important that both toolbar lift cylinders are functioning with the same size of cylinder spacers before you continue to operate your equipment. If you require deeper depth, lift the equipment, remove and replace a spacer with a thinner spacer. If you require a shallower depth, remove a spacer and replace it with a thicker spacer. Once the equipment has been set to your desired tillage depth by using the correct depth control spacers you will not need to change them.

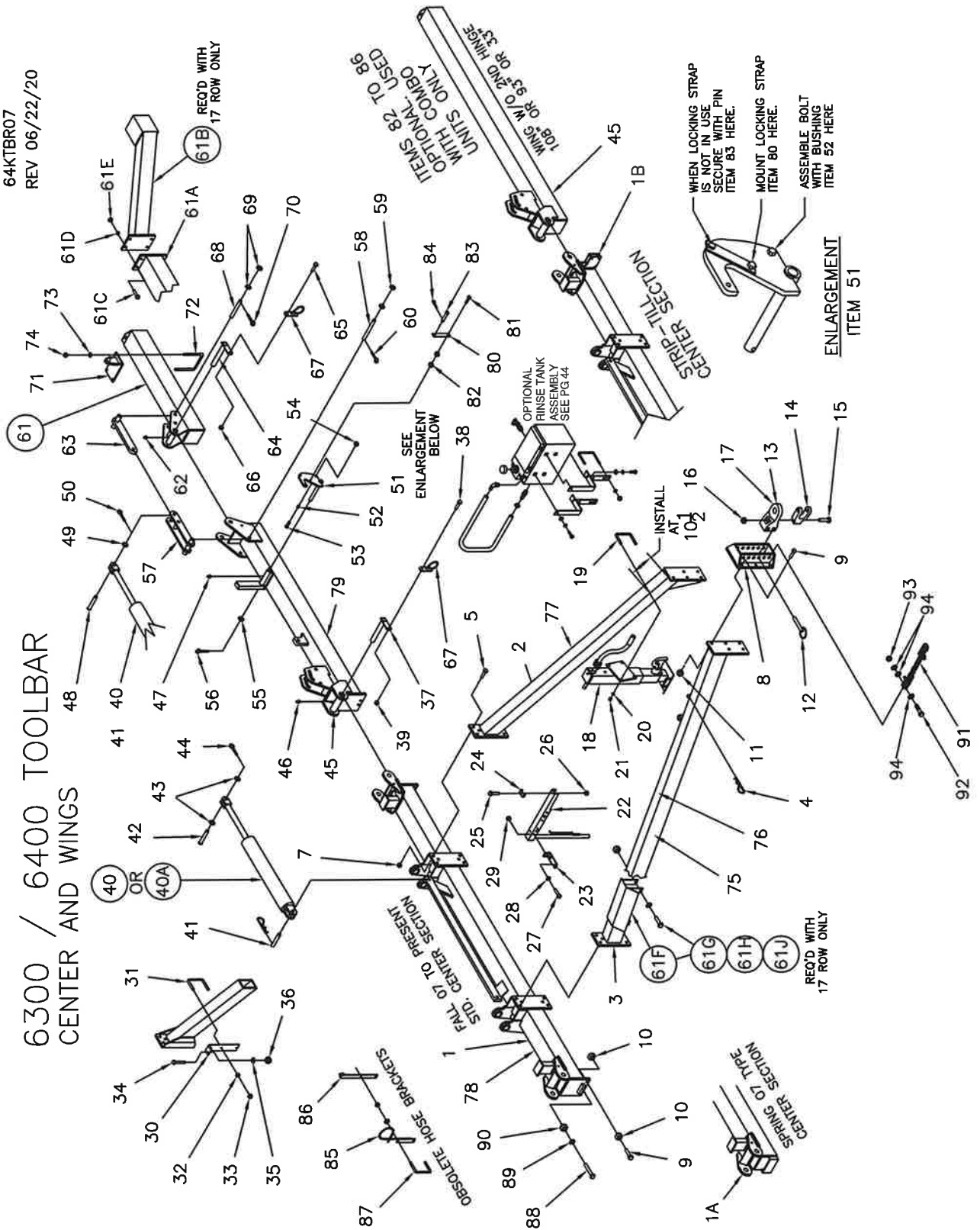
USE OF TRANSPORT LOCK

WARNING:

Failure to use the transport locks may result in equipment damage or personal injury. Equipment transport locks are provided for safety when transporting equipment over the road and should remain with the equipment. The transport locks also prevent the equipment from settling or dropping when the equipment is disconnected from the hydraulic power source. When you are finished with a field and you find it necessary to move the equipment to a new location, simply raise the toolbar out of the ground and place the transport locks provided on to the lift cylinder. You do not need to remove the spacers for transport. Slide the spacers up on the cylinder rod far enough so that the transport lock will pass below and around the spacers. Then secure the transport locks with the pins provided. When you are finished with the equipment and it is to be parked, it is imperative to place the transport locks around the lift cylinder rods to prevent the equipment from settling.

10 A

6300 / 6400 TOOLBAR CENTER AND WINGS



6300/6400 TOOLBAR

CENTER SECTION AND WINGS

64KTBRST07
06/04/25

LIQUID AND DRY APPLICATORS

ITEM	PART NO.	DESCRIPTION	QTY.
1	47003730	STD CTR SECTION, fall 07 to present	1
1A	47003730*	STD CENTER SECTION, (to spring 07)	1
1B	47015023	CENTER SECTION, STRIP-TILL APLCTR.	1
2	47003749*	POLE, LEFT HAND (OBSOLETE SPRING 2007)	1
	47005128*	POLE, LEFT HAND (FALL 2006 TO PRESENT)	1
3	47003750*	POLE, RIGHT HAND (OBSOLETE SPRING 2007)	1
	47015129*	POLE, RIGHT HAND (FALL 2006 TO PRESENT)	1
4	18590094	HAIRPIN BRIDGE, (#8) 3/16 DIA.	1
5	18098435	BOLT, 3/4-10NC. X 2 1/2 GR. 8	12
6	---	3/4	---
7	18458452	LOCK NUT, 3/4-10NC.	12
8	47008355	HITCH MOUNT	1
9	18098435	BOLT, 3/4-10NC. X 2 1/2 GR. 8	14
10	---	3/4	---
11	18458452	LOCK NUT, 3/4-10NC.	18
12	600182	HITCH PIN, 1 X 6	2
	PI-301V3C	PERFECT HITCH ASSEMBLY	1
		INCLUDES ITEMS 13 TO 16	
13	PPI-301V3	PERFECT HITCH, (1 1/2" DRAWPIN)	1
14	PPI-208VR	PERFECT HITCH CLEVIS	1
		WITH 1 1/4 OBROUND HOLE	
		5400 LBS. VERTICAL CAPACITY	
15	18058452	BOLT, 3/4-10NC. X 5 GR. 8	1
16	18458452	LOCKNUT, 3/4-10NC. GR. 8	1
17	PPI-421ADI	PERFECT HITCH, (2" DRAWPIN)	1
		8410 LBS. VERTICAL CAPACITY	
18	70926	JACK,	1
		FOR REPAIR PARTS SEE SEPARATE JACK ILLUSTRATION	
19	47010154	U-BOLT,	2
20	18911600	LOCK WASHER,	4
21	18449100	HEX. NUT,	4
22	47005087	PIVOTING HOSE BRACKET	1
23	47005092	GAUGE BRACKET	1
24	47015091	HYD HOSE CLAMP	4
25	18056832	BOLT, 3/8-16NC. X 2 1/4	2
26	18459200	LOCKNUT "NYLOK" 3/8-16NC.	1
27	18056830	BOLT, 3/8-16NC. X 2	2
28	18811200	FLAT WASHER, 3/8	1
29	18496800	FLANGE NUT, 3/8-16NC	1
		ITEMS 30 TO 36 ARE OPTIONAL	
30	47010171	BRACKET, SELECTOR VALVE	1
31	47001028	U-BOLT, 3/8-16NC.	1
32	18891200	LOCKWASHER, 3/8	2
33	18436800	HEX. NUT, 3/8-16NC.	2
34	18056469	BOLT, 5/16-18NC. X 3 1/4	2
35	18811100	LOCKWASHER, 5/16	2
36	18406400	HEX. NUT, 5/16-18NC.	2
37	47003762	HINGE PIN, CENTER/PRIMARY	2
38	18057428	BOLT, 1/2-13NC. X 1 3/4	2
39	18497400	FLANGED NUT, 1/2-13NC.	2
40	47300093	HYDRAULIC CYLINDER 3 X 24	4
		OR FOR TRACTORS WITH LESS THAN 2500 PSI USE (2) 40 & (2) 40A	
		AND THE SAME FOR 17 ROW UNITS @ 30 INCH SPACINGS	
40A	47300094	HYDRAULIC CYLINDER 3 1/2 X 24	2
41	47003514	CYLINDER PIN KIT (1 X 4) (2 PINS)	2
42	18549054	CLEVIS PIN, (1 X 5)	2
43	18852200	1" FLATWASHER SAE	4
44	18560826	COTTER PIN, 3/16 X 1 1/2	2
45	47003753	PRIMARY WING, WITH 2ND HINGE	2
		---	---
	47015030	PRIMARY WING, NO-HINGE (93" WING)	2
	47005726	PRIMARY WING, NO-HINGE (108" WING)	2

* DATE OF MANUFACTURE IS REQUIRED
TO INSURE CORRECT SERVICE PARTS

ITEM	PART NO.	DESCRIPTION	QTY.
46	18901805	GREASE ZERK, STRAIGHT	2
47	18901807	GREASE ZERK, 45 DEGREE	2
48	18549054	CLEVIS PIN, (1 X 5)	2
49	18852200	FLATWASHER, 1"	2
50	18560826	COTTER PIN, (3/16 X 1 1/2)	2
51	47003821	LATCH WELDMENT	2
52	47003834	SWING STOP BUSHING	2
53	18051628	BOLT, 3/8-16NC. X 1 3/4	2
54	18496800	FLANGE NUT, 3/8-16NC.	2
55	18852200	FLATWASHER, 1"	2
56	18560826	COTTER PIN, (3/16 X 1 1/2)	2
57	47003787	CYLINDER LINK, PRIMARY WING	2
58	47003767	LINKAGE PIN, PRIMARY	2
59	18852200	1" FLATWASHER SAE	4
60	18560826	COTTER PIN, 3/16 X 1 1/2	4
61	47003780	SECONDARY WING, (LIQ ONLY) 50.5"	2
	47003927	SECONDARY WING, (LIQ ONLY) 28.5"	2
61A	47003933	2NDARY WING, 50.5" W BOLT-ON PLT 2	
61B	47003929	BOLT-ON FORWARD ANGLED OFFSET	2
61C	18058434	BOLT, HX 3/4 NC X 2 1/2 GR5ZP	8
61D	18891800	LOCKWASHER, 3/4" ZP	8
61E	18418400	NUT, HEX 3/4" NC ZP	8
61F	47003939	COULTER REST WELDMENT	2
61G	18057454	BOLT, HEX 1/2-13 NC X 5 GR5 ZC	4
61H	18891400	LOCKWASHER 1/2 ZC	4
61J	18417400	NUT, HEX 1/2-13 NC ZC	4
62	18901807	GREASE ZERK, 45 DEGREE	2
63	47003791	CYLINDER LINK, SECONDARY WING	2
64	47003765	HINGE PIN, PRIMARY/SECONDARY	2
65	18057428	BOLT, 1/2-13NC. X 1 3/4	2
66	18497400	FLANGED NUT, 1/2-13NC.	2
67	47003843	HOSE GUIDE, WINGS	4
68	47003786	LINKAGE PIN, SECONDARY	2
69	18852200	1" FLATWASHER SAE	4
70	18560826	COTTER PIN, 3/16 X 1 1/2	4
71	47003829	HOOK BLOCK	2
72	47302730	U-BOLT, 1/2-13NC. (7 X 8 1/2)	4
73	18891400	LOCKWASHER, 1/2 ZC	8
74	18417400	HEX. NUT, 1/2-13NC. ZC	8
75		DECAL, 6400 (MODEL NUMBER)	2
76	699100	DECAL, WARNING-CLEAR TONGUE	1
77	699104	DECAL, CAREFUL-CLEAR MACHINE	1
78	699107	DECAL, AG-SYSTEMS INC.	2
79	699101	DECAL, DANGER-FALLING WINGS	2
		ITEM 80 TO 84 USED ON COMBO UNITS ONLY	
80	47009848	WING LOCK STRAP	2
81	18051628	BOLT, 3/8-16NC. X 1 3/4	2
82	18436800	HEX. NUT, 3/8-16NC.	4
83	18541655	CLEVIS PIN, 3/8 X 1 3/4	2
84	18590091	HAIRPIN BRIDGE, .091 X 2 3/8	2
85	47010165	HOSE BRACKET (OBSOLETE 2007)	
86	47010168	BRACKET, PRESS. GAUGE (OBS. 2007)	
87	47001028	U-BOLT, 3/8-16NC. (OBSOLETE 2007)	
88	18058443	BOLT, 3/4-10 NC X 4 (OPTIONAL)	4
89	18891800	LOCKWASHER, 3/4 ZC (OPTIONAL)	4
90	18418400	HEXNUT, 3/4-10NC ZC (OPTIONAL)	4

NOTE: FOR OPTIONAL RINSE TANK KIT SEE
PAGE 44 OF THIS MANUAL

91	PPSC4156BS	CHAIN, SAFETY 1/2" X 56" LG	1
92	18059061	BOLT HX CAP GR5 NC ZC 1 X 4	1
93	18459002	NUT NYLOCK 1 GR 5	1
94	18852200	WASHER FLAT 1" SAE ZC	3
(ITEMS 91-4 CAN BE ORDERED AS A KIT P/N:47090314)			

6300CDYLQ
12-01-14

6300 LIQUID APPLICATOR CADDY AND GROUND WHEEL DRIVE

28 HARDWARE TO MOUNT PUMP TO BRACKET.
PUMP NOT SHOWN HERE, SEE PAGE 22
FOR PUMP & PLUMBING INFO.

INSTALL ITEM 62
ON INSIDE SURFACE
OF ITEM 47 TO
ALLOW SPROCKET
ALIGNMENT

INSTALL ITEM 62
ON INSIDE SURFACE
OF ITEM 47

LITE
BRACKET KIT
SEE SEPARATE
ILLUSTRATION
ON PAGE 20

LOCATE SERIAL TAG ON
REAR SIDE OF THIS
GUSSET PLATE

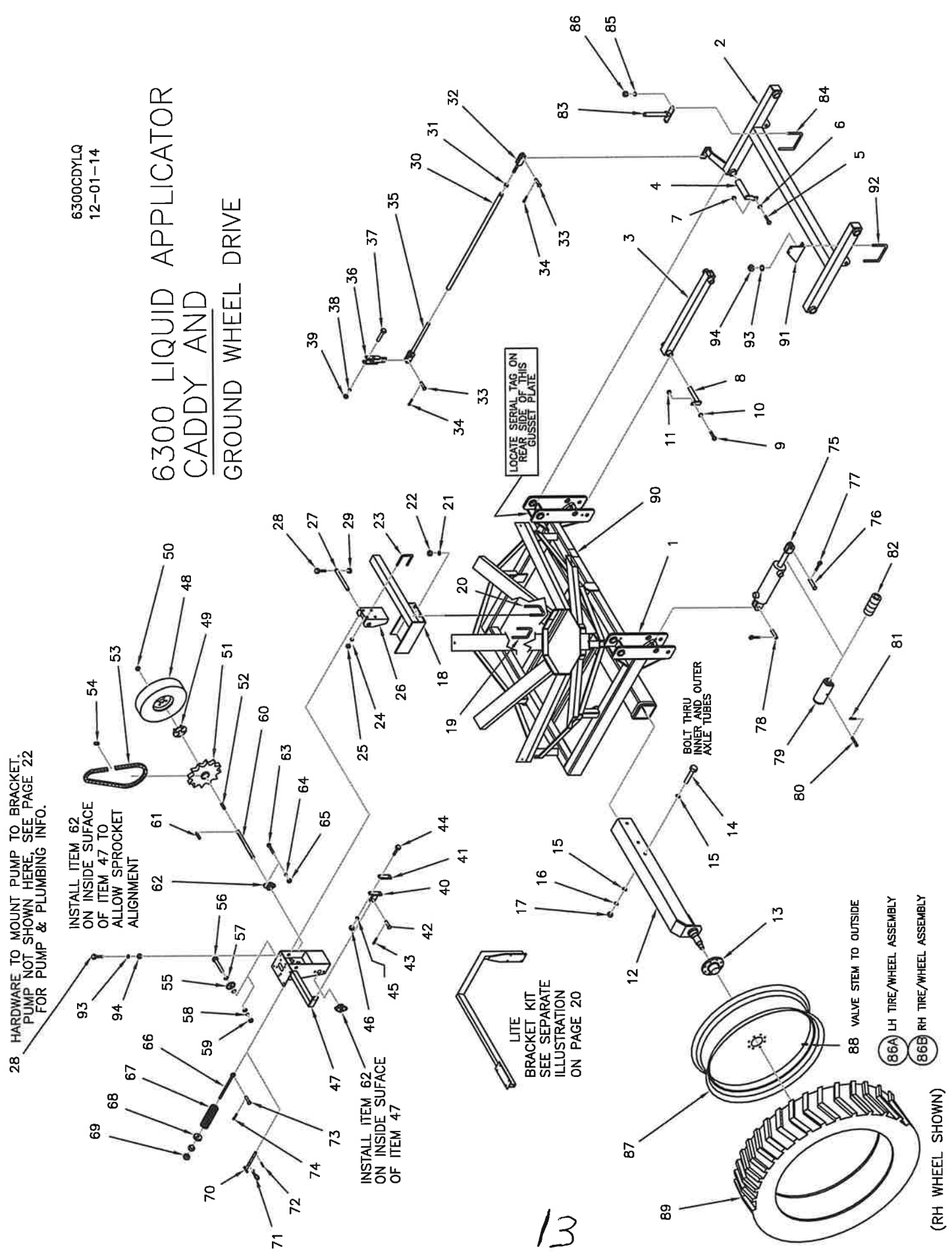
BOLT THRU
INNER AND OUTER
AXLE TUBES

88 VALVE STEM TO OUTSIDE

86A LH TIRE/WHEEL ASSEMBLY

86B RH TIRE/WHEEL ASSEMBLY

(RH WHEEL SHOWN)



6300 LIQUID APPLICATOR

CADDY AND GROUND WHEEL DRIVE

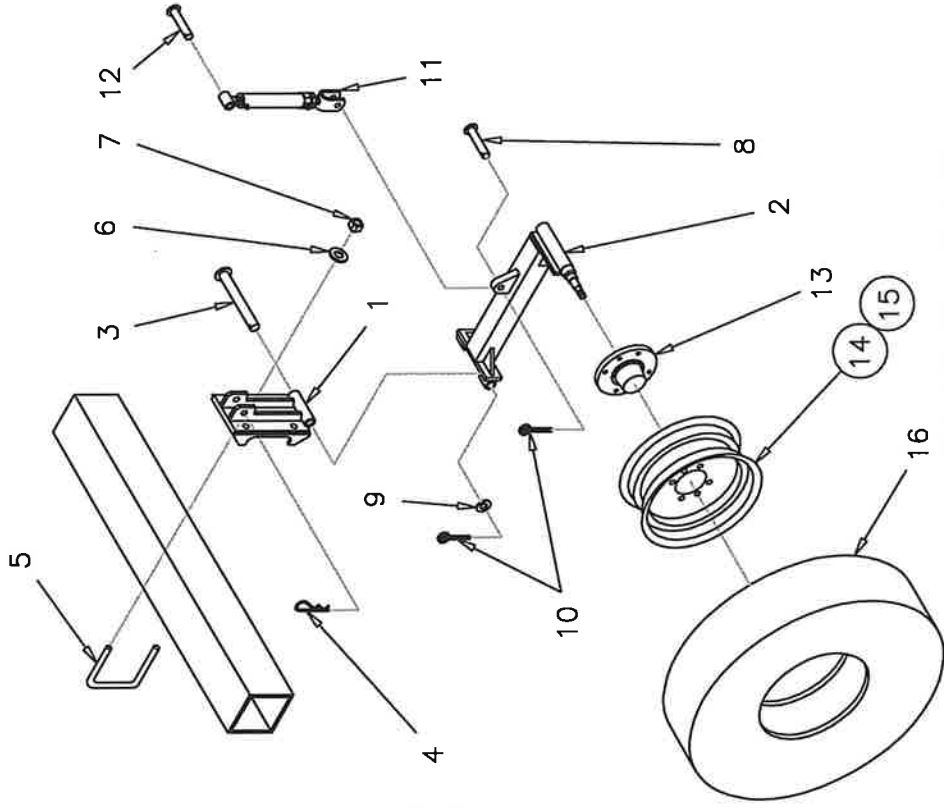
6300CDYLQLS
12-01-14

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47005647	CADDY FRAME, 6300	1	46	18417400	HEX. NUT, 1/2-13NC.	2
2	47003794	TORSION FRAME	1	47	47003260	PUMP DRIVE BRACKET	1
3	47003800	BOTTOM LINKAGE ARM	2	48	44105519	DRIVE WHEEL ASSEMBLY (40 PSI)	1
4	47003338	PIVOT PIN	4	49	47007068	HUB, PUMP DRIVE WHEEL	1
5	18057428	BOLT, 1/2-13NC. X 1 3/4	4	50	47005011	WHEEL NUT, 1/2-20NF (16.5 X 6.5-8)	4
6	18811400	FLATWASHER, 1/2	4	51	10342	DRIVE SPROCKET (50B40)	1
7	18457650	LOCKNUT, 1/2-13NC.	4	52	47006519	SQUARE DRIVE KEY, 1/4 X 1 1/2	1
8	47003341	LINKAGE PIN	4	53	47005604	ROLLER CHAIN, #50 X 63 3/4"	1
9	18057428	BOLT, 1/2-13NC. X 1 3/4	4	54	31212	CONNECTING LINK	1
10	18811400	FLATWASHER, 1/2	4	55	34318	IDLER SPROCKET	1
11	18457650	LOCKNUT, 1/2-13NC.	4	56	18057934	BOLT, 5/8-11NC. X 2 1/2	1
	47015636	AXLE ASSEMBLY COMPLETE	4	57	18811600	FLATWASHER, 5/8	3
		INCLUDES ITEMS 12 AND 13		58	18891600	LOCKWASHER, 5/8	1
12	47005636	AXLE WELDMENT ONLY	2	59	18417900	HEX. NUT, 5/8-11NC.	1
13	47009115	HUB COMPLETE (8 BOLT 7500#)	2	60	47003357	SHAFT, GROUND WHEEL DRIVE	1
14	18058476	BOLT, 3/4-10NC. X 8 1/2	2	61	47006519	SQUARE DRIVE KEY, 1/4 X 1 1/2	1
15	18811800	FLATWASHER, 3/4	4	62	47008462	BEARING ASSEMBLY, 1 INCH	2
16	18891800	LOCKWASHER, 3/4	2	63	18057426	BOLT, 1/2-13NC. X 1 1/2	4
17	18418400	HEX. NUT, 3/4-10NC.	2	64	18891400	LOCKWASHER, 1/2	4
				65	18417400	HEX. NUT, 1/2-13NC.	4
18	47005633	GROUND WHEEL DRIVE BRACKET	1	66	47301547	EYE BOLT	1
19	44001616	U-BOLT, 5/8-11NC. (4 X 5 1/2)	1	67	47301524	COMPRESSION SPRING	1
20	47006951	U-BOLT, 5/8-11NC. (4 X 7 1/4)	1	68	47301530	SPRING CAP	1
21	18891600	LOCKWASHER, 5/8	4	69	18417900	HEX. NUT, 5/8-11NC.	2
22	18417900	HEX. NUT, 5/8-11NC.	4	70	47007197	TRANSPORT LOCK PIN	1
23	47306677	U-BOLT, 5/8-11NC. (3 X 4 1/2)	2	71	18590094	HAIRPIN BRIDGE, (.177 DIA.)	1
24	18891600	LOCKWASHER, 5/8	4	72	18511033	EXPANSION PIN 1/4 X 1 1/2	1
25	18417900	HEX. NUT, 5/8-11NC.	4	73	18541428	CLEVIS PIN, 1/2 X 1 3/4	1
26	47003266	HINGE BRACKET	1	74	18560722	COTTER PIN, 5/32 X 1	1
27	47003344	PIVOT SHAFT, HINGE BRACKET	1	75	47300091	HYDRAULIC CYLINDER, 3 1/2 X 8	2
28	18056830	BOLT, 3/8-16NC. X 2	5	76	18541651	CLEVIS PIN, 1 X 4 1/2	2
29	18457800	LOCKNUT, 3/8-16NC	1	77	18560826	COTTER PIN, 3/16 X 1 1/2	2
30	47015659	PUSH ROD WELD'T. (6300 ONLY)	1	78	47003514	CYL. PIN KIT (1 X 4) (2 PINS)	1
30A	47995659	PUSH ROD ASSEMBLY (6300 ONLY)	1	79	47003314	TRANSPORT LOCK	2
		INCLUDES ITEMS 30, 31 AND 32		80	18541254	CLEVIS PIN, TRANSPORT LOCK	2
31	18449003	HEX. JAM NUT, 3/4-10NC.	1	81	18590916	HAIRPIN BRIDGE, (1/8 DIA.)	2
32	47003320	CLEVIS END	1	82	47005455	"SET" DEPTH CONTROLS	2
33	18541835	CLEVIS PIN, 3/4 X 2 1/2	2	83	47003331	ACCESSORIES BRACKET	2
34	18590148	HAIRPIN BRIDGE, NO 9, .148 DIA.)	2	84	47001028	U-BOLT,	2
35	47003322	LINKAGE, SWIVEL BAR	1	85	18891200	LOCKWASHER,	4
36	47003326	PIVOT ARM	1	86	18436800	HEX. NUT,	4
37	18057442	BOLT, 1/2-13NC. X 3 1/2	2	86A	40014	TIRE AND RIM ASSEMBLED, L.H.	1
38	18891400	LOCKWASHER, 1/2	2	86B	40014R	TIRE AND RIM ASSEMBLED, R.H.	1
39	18417400	HEX. NUT, 1/2-13NC.	2			INCLUDES ITEMS 87, 88, AND 89	
40	47003385	PIVOT ANCHOR	2			(TIRE PRESSURE 52 PSI)	
41	47003386	CLAMP PLATE, PIVOT ANCHOR	2	87	47002600HD	RIM, 38 X W10 (8 HOLE)	2
42	18541830	CLEVIS PIN, 3/4 X 2	1	88	20120022	VALVE STEM	2
43	18590148	HAIRPIN BRIDGE, NO 9, .148 DIA.)	1	89	470545	TIRE, 320/85 R38 (52 PSI)	2
44	18057454	BOLT, 1/2-13NC. X 5	2	90	30481	DECAL, TIGHTEN LUG NUTS	1
45	18891400	LOCKWASHER, 1/2	2	91	47008049	MANIFOLD BRACKET	1
				92	47001028	U-BOLT, 3/8-16NC.	1
				93	18891200	LOCK WASHER, 3/8	6
				94	18436800	HEX. NUT, 3/8-16NC.	1

MECHANICAL GAUGE WHEEL ASSEMBLY

64KMCHGW
REV 06-10-14

FOR 7 X-7 TOOLBAR



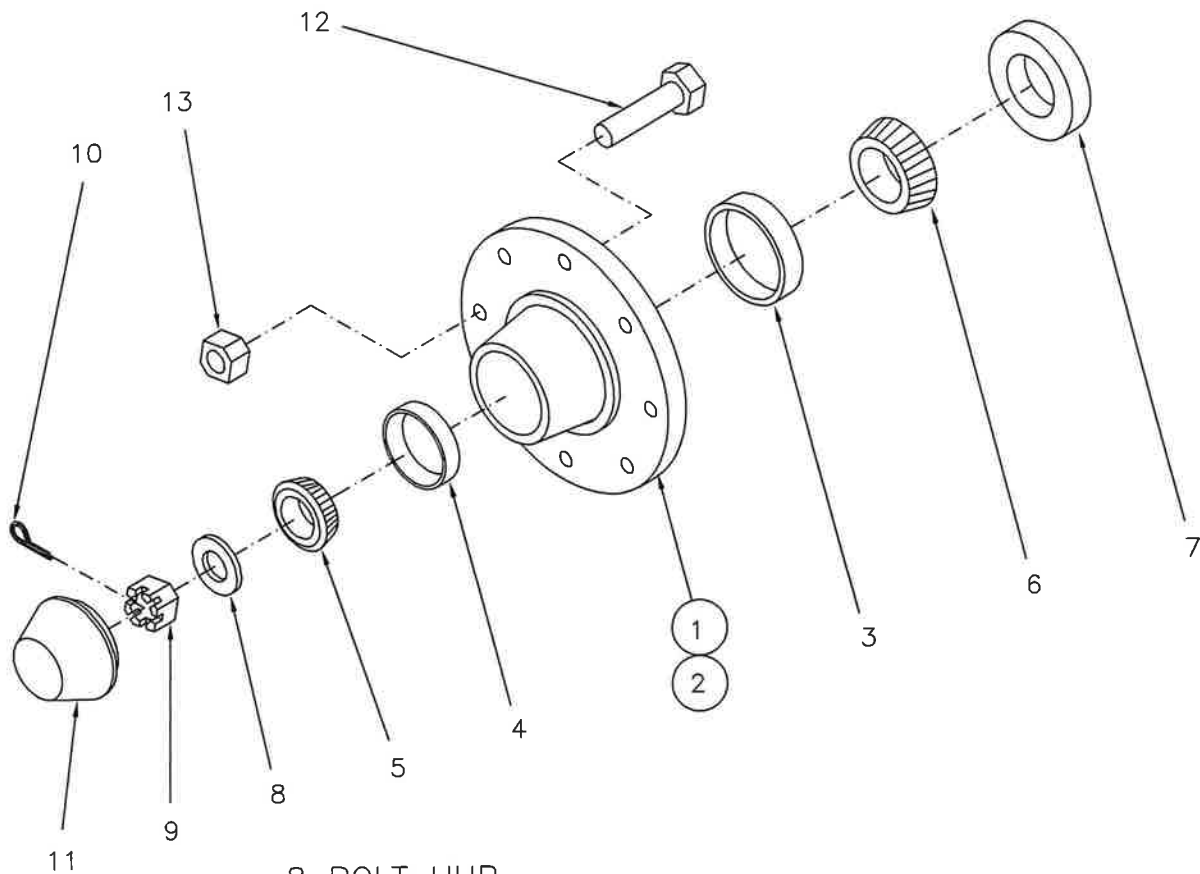
FOR A 6400 TOOLBAR (LIQUID OR DRY FERTILIZER) WITH THE SHANKS AT 30 INCH SPACING, MOUNT THE PIVOT ARM WITH THE HUB ORIENTED TOWARD THE END OF THE TOOLBAR.
FOR 38 INCH SPACING (LIQUID APPLICATION) THE HUB IS ORIENTED TOWARD THE CENTER OF THE TOOLBAR.

"SET" OF (2) GAUGE WHEEL ASSEMBLIES P.N. 47648001

ITEM	PART NO.	DESCRIPTION	QTY
1	47004742	MOUNTING BRACKET	2
	47000413	PIVOT ARM COMPLETE, INCLUDES ITEMS 2 AND 13	2
2	47010413	PIVOT ARM	2
3	47010425	PIVOT PIN	2
4	18560866	COTTER PIN, 3/16 X 1 1/2	2
5	47305002	U-BOLT, 5/8-11NC. (FOR 7 X 7 BAR)	4
6	18891600	LOCK WASHER, 5/8	8
7	18417900	HEX. NUT, 5/8-11NC.	8
8	18541835	CLEVIS PIN, 3/4 X 2 1/2	2
9	18852200	FLATWASHER, 1" SAE ZC	2
10	18560726	COTTER PIN, 5/32 X 1 1/2	4
11	690063	JACK, TURNBUCKLE TYPE	2
12	18541566	CLEVIS PIN, 3/4 X 3 1/2	2
13	47005348	HUB ASSEMBLY COMPLETE, (5) BOLT	2
14	47005590	WHEEL, 15" X 5 BOLT	2
15	20120012	VALVE STEM	2
16	20067015	TIRE, 670 X 15 (INFLATE TO 32 PSI)	2
	40015	TIRE & WHEEL ASS'Y (ITEMS 14 - 16)	2

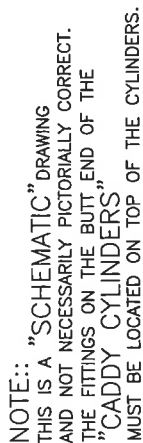
HUB ASSEMBLIES

6200HUB
06/04/25



8 BOLT HUB

ITEM	DESCRIPTION	6000 lb. CAPACITY PART NO.	7500 lb. CAPACITY PART NO.	QTY.
1	HUB COMPLETE MFGR. PART NUMBER INCLUDES ITEMS 2 THRU 7 AND 11 THRU 13 ONLY	47009712 HD812-5	47009115 H817	1
2	HUB WITH RACES	47005712	47005115	1
3	INNER BEARING RACE	47005372	47005328	1
4	OUTER BEARING RACE	47005272	47005131	1
5	OUTER BEARING CONE	47005279	47005349	1
6	INNER BEARING CONE	47005378	47005387	1
7	GREASE SEAL	47005017	47005776	1
8	SPINDLE WASHER	18000017	18000023	1
9	SPINDLE NUT	18489100	18000038	1
10	COTTER PIN 3/16 X 2	18560830	18560830	1
11	DUST CAP	47005917	47005212	1
12	LUG BOLT	47005041	47005735	8
13	LUG NUT	47005040	47005736	8

64KTBRLG
REV 04-15-13

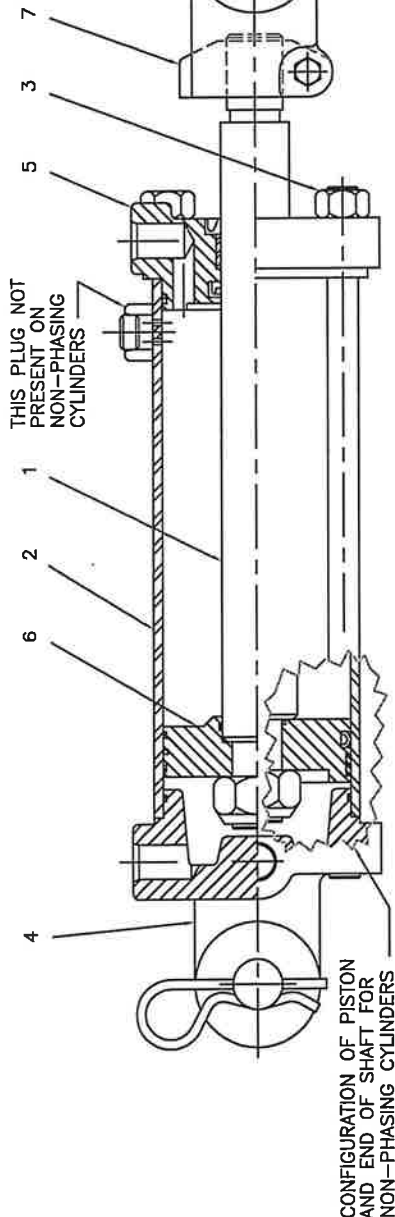
*SAE 33524SP (3 1/2 X 24)
2500 PSI HYD SYSTEMS

*SAE 33524SP (3 1/2 X 24)

*REQUIRED ONLY WITH TRACTORS WITH LESS THAN 2500 PSI HYD SYSTEMS

HOSE LIST CONSISTS OF P.N. 640001 (COMPLETE BASE PKG.)			640001S (WING PACKAGE)		FITTING LIST CONSISTS OF			650103 (BASE PKG)		608211 (WING PKG.)	
ITEM	PART NO.	DESCRIPTION	QTY	ADD QTY	ITEM	PART NO.	DESCRIPTION	QTY	PLUS	QTY	PLUS
10	604180	HOSE, 1/4 X 180"	2	0	1	6801-6-8R	ADAPTER ELBOW #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)	1		1	
11	604204	HOSE, 1/4 X 204"	1	0							
12	604216	HOSE, 1/4 X 216"	1	0	2	6801-6-8	ADAPTER ELBOW #6 MJIC X #8 M O-RING	4		1	
13	604031	HOSE, 1/4 X 29"	1	0	3	6400-6-8R	CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)	1		1	
14	604097	HOSE, 1/4 X 97"	1	0							
15	604151	HOSE, 1/4 X 151"	1	0	4	6400-6-8	CONNECTOR, #6 MJIC X #8 M O-RING	2		1	
16	604065	HOSE, 1/4 X 65"	1	0	5	6600-6	BRANCH TEE, #6 MJIC X #6 FJIC SWIVEL	1		2	
17	604120	HOSE, 1/4 X 120"	1	0	6	6602-6	RUN TEE, #6 MJIC X #6 FJIC SWIVEL	2		2	
18	604086	HOSE, 1/4 X 86"	0	4	7	6500-6	ELBOW, #6 MJIC X #6 FJIC SWIVEL	3		1	
					8	2603-6	UNION TEE, #6 MJIC	1		1	

6000CYL06
rev 05/16/18



ITEM NO.	REPAIR PART DESCRIPTION	CYL. 1 1/2 X 4	CYL. 3 1/2 X 8	CYLINDER 4 X 8	CYLINDER 3 X 24	CYLINDER 3 X 14	QTY. REQ'D.
1	PISTON ROD	47005437 (AK-284)	A350080BAA07A	A400080BAA07A	47300093	47005491	1
2	TUBE	010700882	011015438A	010729750A	010729750A	010719750A	1
3	TIE ROD ASSEMBLY	060800136	051910563A	051526063A	051526063A	051526063A	1
4	BUTT	170201123	170301134	170201282	170201282	170201282	4
5	GLAND ASSEMBLY	14170005F	14190005F	14150005F	14150005F	14150005F	1
6	PISTON	080800083	08178805F	08158805F	08158805F	08158805F	1
7	CLEVIS ASSEMBLY	070800071	071900260	071500244	071500244	071500244	1
	REPAIR KIT	100000444	100000577	110000326	100000423	100000423	1
		4700AK284 (PRE 2018)	470333500	47034000	470333000	470333000	1
		(CAST CLEVIS)					
		20214 (POST 2018)					
		(WELDED CLEVIS)					

Repair kit items not available individually.

TIE ROD DISASSEMBLY--/ASSEMBLY PROCEDURE.

With the cylinder removed from the machine, cleaned, drained of oil and fully retracted, proceed as follows.

DISASSEMBLY.

1. Secure the cylinder in a vice or other method to prevent rotation. Clean the immediate area so the parts can be laid out.
2. Remove the tie rod nuts. Pull the shaft assembly from the cylinder. Remove the tube item (2).
3. Loosen the clevis nut and remove the clevis item (7) from the shaft assembly.
4. Place the shaft assembly in a vice with brass or copper jaws so as not to damage the shaft.
5. Remove all seals from the butt, (item 4) gland assembly, (item 5) and piston (item 6) for replacement. Clean and inspect all parts for damage, (nicks, scratches, cracks etc.). Replace as necessary. If you have any question please contact Prince Engineering (712-277-4061)

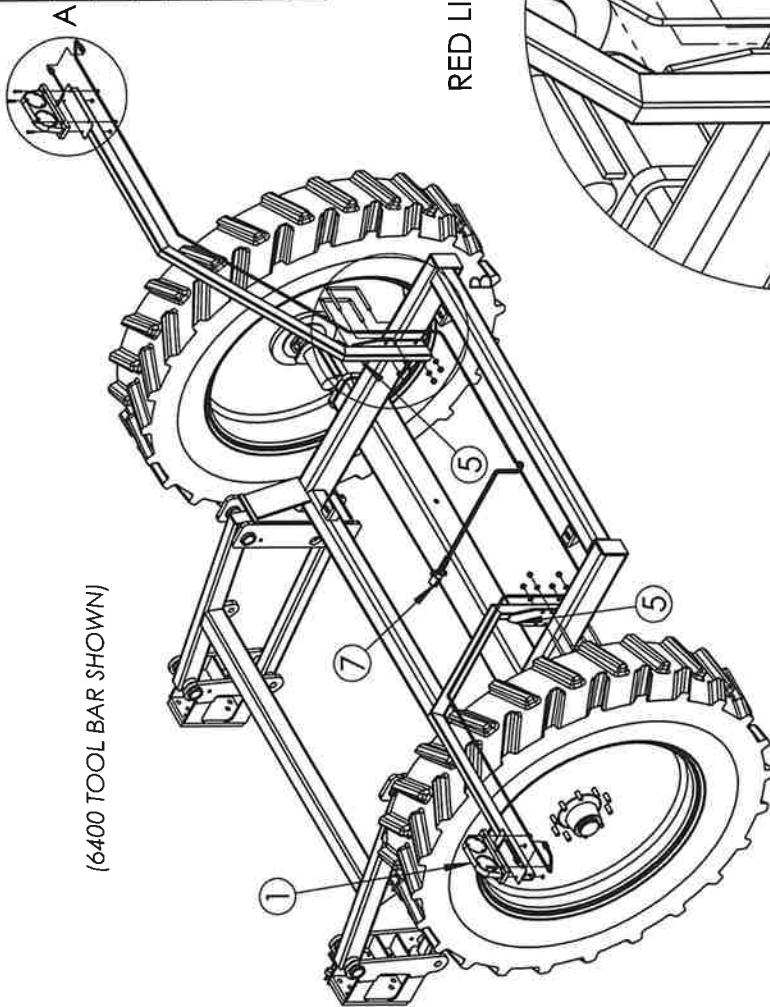
REASSEMBLY.

1. Replace all the seals on items (4), (5), and (6) except, for non-phasing cylinders do not replace the small o-ring on the ID of the piston item (6) until you are ready to attach the shaft item (1).
2. For non-phasing cylinders, place the small o-ring seal for the piston over the shaft turnaround. Apply a light coat of grease to the seal. Slip the piston item (6) onto the turnaround with the o-ring counterbore towards the shaft shoulder. Take care not to pinch the o-ring between the piston and the shoulder.
3. Replace the shaft end nut and secure.
4. Apply a light coat of grease to the seals on the gland item (5) and slip the gland over the shaft end. Be very careful not to damage the seals.
5. Slip the entire assembly into the lightly oiled tube, item (2) with the piston first making sure the tube slips over the OD seals of the gland.
6. Assemble the nuts to the tie rods and torque uniformly.
6. Test the reassembled cylinder for leaks and install in your machine. If you have any problems please contact Prince Engineering (712-277-4061)

SAFETY LIGHT KIT FOR TOOLBARS

P/N: 47999697

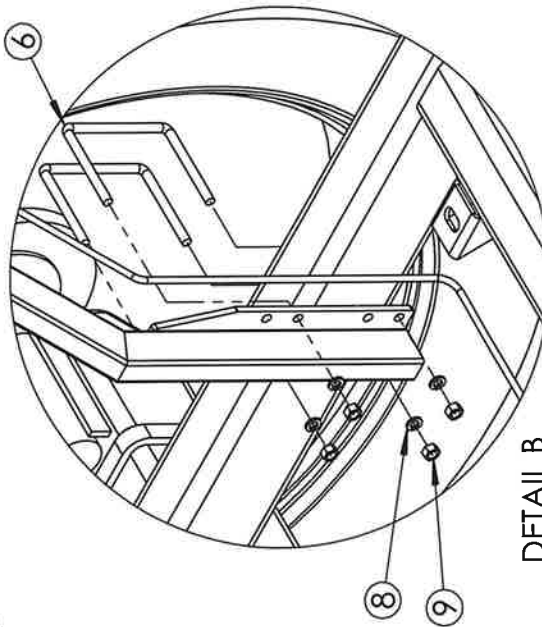
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	54209-008	DUAL LAMP ASSY, LH	1
2	54209-022	DUAL LAMP ASSY, RH	1
3	18055724	BOLT HX CAP G5 NCZC 1/4 X 1 1/4	8
4	18495700	NUT HX SER FLG 1/4 NC ZC	8
5	47009697	LITE KIT BRACKET	2
6	47006545	U-BOLT, 1/2-13 UNC.	4
7	71675	35' HD CABLE WITH 7 PIN PLUG	1
8	18891400	WASHER, 1/2 LOCK ZC	8
9	18417400	NUT, HX 1/2 NC ZC	8
10	504560	NYLON TIE STRAP	5



(6400 TOOL BAR SHOWN)

ROUTE LIGHT HARNESS THROUGH
TUBE OF ITEM#5 ON BOTH SIDES

RED LIGHTS TO INSIDE



DETAIL A
SCALE 1:7

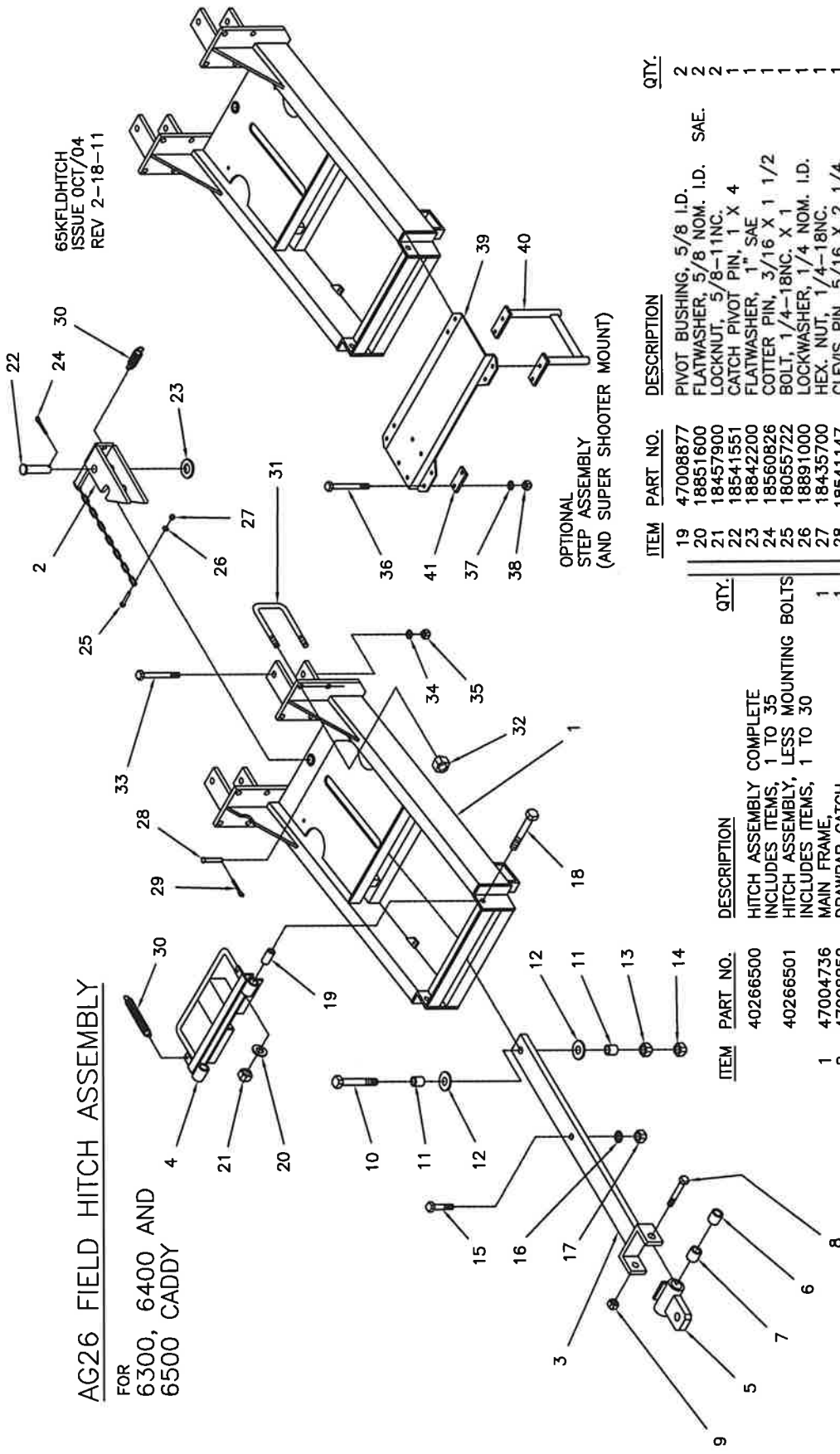
DETAIL B
SCALE 1:10

AMBER REPLACEMENT LENS PN 802650
RED REPLACEMENT LENS PN 802651

AG26 FIELD HITCH ASSEMBLY

FOR
6300, 6400 AND
6500 CADDY

65KFLDHTCH
ISSUE OCT/04
REV 2-18-11



QTY.

SAE.

DESCRIPTION

ITEM PART NO.

QTY.

DESCRIPTION

ITEM PART NO.

QTY.

DESCRIPTION

ITEM PART NO.

QTY.

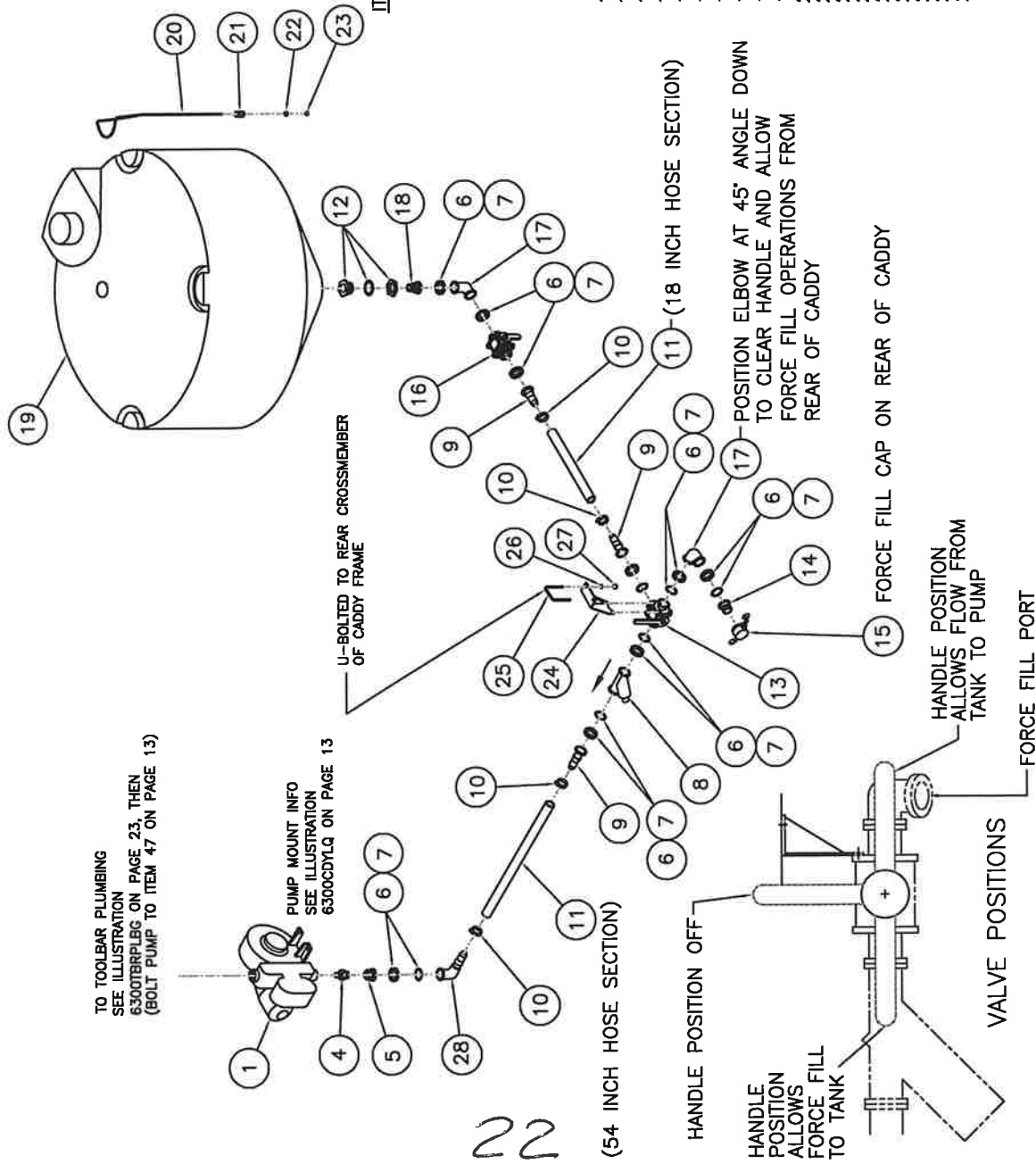
DESCRIPTION

19	47008877	PIVOT BUSHING, 5/8 I.D.	2	
20	18851600	FLATWASHER, 5/8 NOM. I.D.	2	
21	18457900	LOCKNUT, 5/8-11NC.	2	
22	18541551	CATCH PIVOT PIN, 1" X 4	1	
23	18842200	FLATWASHER, 1" SAE	1	
24	18560826	COTTER PIN, 3/16 X 1 1/2	1	
25	18055722	BOLT, 1/4-18NC. X 1	1	
26	18891000	LOCKWASHER, 1/4 NOM. I.D.	1	
27	18435700	HEX. NUT, 1/4-18NC.	1	
28	18541147	CLEVIS PIN, 5/16 X 2 1/4	1	
29	18560622	COTTER PIN, 1/8 X 1	1	
30	000018	EXTENSION SPRING	3	
31	44001616	U-BOLT, 5/8-11NC.	4	
32	18457900	LOCK NUT, 5/8-11NC	8	
33	18058460	BOLT, 3/4-10NC. X 6 1/2	2	
34	18891800	LOCK WASHER, 3/4	2	
35	18418400	HEX. NUT, 3/4-10NC.	2	
36	47999865	OPTIONAL STEP ASSEMBLY	8	
37	18056863	INCLUDES ITEMS, 36 TO 41	8	
38	18891200	BOLT, 3/8-16NC. X 6 1/2	8	
39	18436800	LOCKWASHER, 3/8	8	
40	47009865	HEX. NUT, 3/8-16NC.	1	
41	47009874	SUPER SHOOTER MOUNT	1	
42	47019875	STEP WELDMENT	1	
43	47019875	MOUNTING PAD	2	
1	40266500	HITCH ASSEMBLY COMPLETE	1	
2	40266501	INCLUDES ITEMS, 1 TO 35	1	
3	47004736	HITCH ASSEMBLY, LESS MOUNTING BOLTS	1	
4	47008852	INCLUDES ITEMS, 1 TO 30	1	
5	47008853	MAIN FRAME,	1	
6	47008854	DRAWBAR CATCH	1	
7	47008855	DRAWBAR	1	
8	47008856	DRAWBAR LOCK	1	
9	47008857	DRAWBAR HITCH,	1	
10	47008858	INCLUDES ITEMS, 6 AND 7	1	
11	47008859	FIBER BUSHING	1	
12	47008860	SPACER BUSHING	1	
13	47008861	SPECIAL BOLT, 1-8NC. X 6 7/8	2	
14	47008862	HEX. LOCKNUT, 1-8NC.	1	
15	47008863	BOLT, 7/8-9NC. X 5 1/2	1	
16	47008864	CATCH BUSHING, 7/8 I.D.	1	
17	47008865	FLATWASHER, 1 1/4 NOM. I.D. (SAE)	2	
18	47008866	HEX. NUT, 7/8-9NC.	1	
19	47008867	LOCKNUT, 7/8-9NC.	1	
20	47008868	BOLT, 3/4-10 NC. X 2	1	
21	47008869	LOCKWASHER, 3/4	1	
22	47008870	HEX. NUT, 3/4-10NC.	1	
23	47008871	BOLT, 5/8-11NC. X 3 1/2	1	

LIQUID PLUMBING (FLANGED FITTINGS METHOD) (2010 TO SPRING 2013)

1000 GALLON CONE TANK
FOR 6300 TWO WHEEL CADDY
(TANK TO PUMP PARTS)

ILLUSTRATION

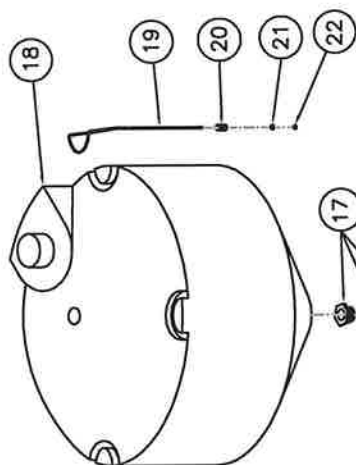


ITEM	PART NO.	DESCRIPTION	QTY.
1	20024455	PUMP ASSEMBLY, HI-PRESSURE	1
2	20024405	PUMP ASSEMBLY, LO-PRESSURE	1
		ITEMS 2 AND 3 WERE OBSOLETE AND OMITTED	
4	21200150	REDUCER NIPPLE 1 1/2 TO 2"	1
5	M220FPT	POLY 2" FLANGE X 2" FM NPT	1
6	200230	GASKET, 2" FLANGE	10
7	FC220	FLANGE CLAMP 2"	10
8	ML5220-50	LINE STRAINER, 2" FLANGED	1
9	M220BRB	HOSEBARB 2" FLANGE X 2"	3
10	200258	HOSE CLAMP, 1 9/16 TO 2 1/2	4
11	12012710	SOLUTION HOSE, 2 INCH X 72 INCH	1
12	20020019	TANK BUNG ASSEMBLY, 2 NPT	1
13	M220BL	BALL VALVE, 3-WAY, 2" FLANGE TYPE 1	1
14	M220A	MANIFOLD FLANGE ADAPTER 2"	1
15	200172	CAP, 2 INCH	1
16	290450	MANIFOLD VALVE, FULL PORT 2 INCH	1
17	M220CPG90	2 INCH POLY ELBOW, 90 DEGREES	2
18	M220MPT	POLY NIPPLE, 2" FLANGE X 2" NPT	1
19	18937	CONE TANK, 1000 GALLON	1
20	47005657	TANK HOLD DOWN	4
21	47000550	SPRING, STRAP TENSION	4
22	18496800	FLANGE NUT, 3/8-16 NC ZC	4
23	18436800	HEX NUT, 3/8-16 NC SS	4
24	47015673	PLUMBING SUPPORT BRKT WELDMENT	1
25	47006487	U-BOLT 1/2-13 FITS 4 X 4 TUBE	2
26	18891400	LOCKWASHER, 1/2 ZP	2
27	18417400	NUT, HEX, 1/2-13NC ZC	2
28	M220BRB90	90° HOSEBARB 2" FLANGE X 2" HOSE	1

LIQUID PLUMBING (THREADED FITTINGS METHOD) (FALL 2013 & NEWER)

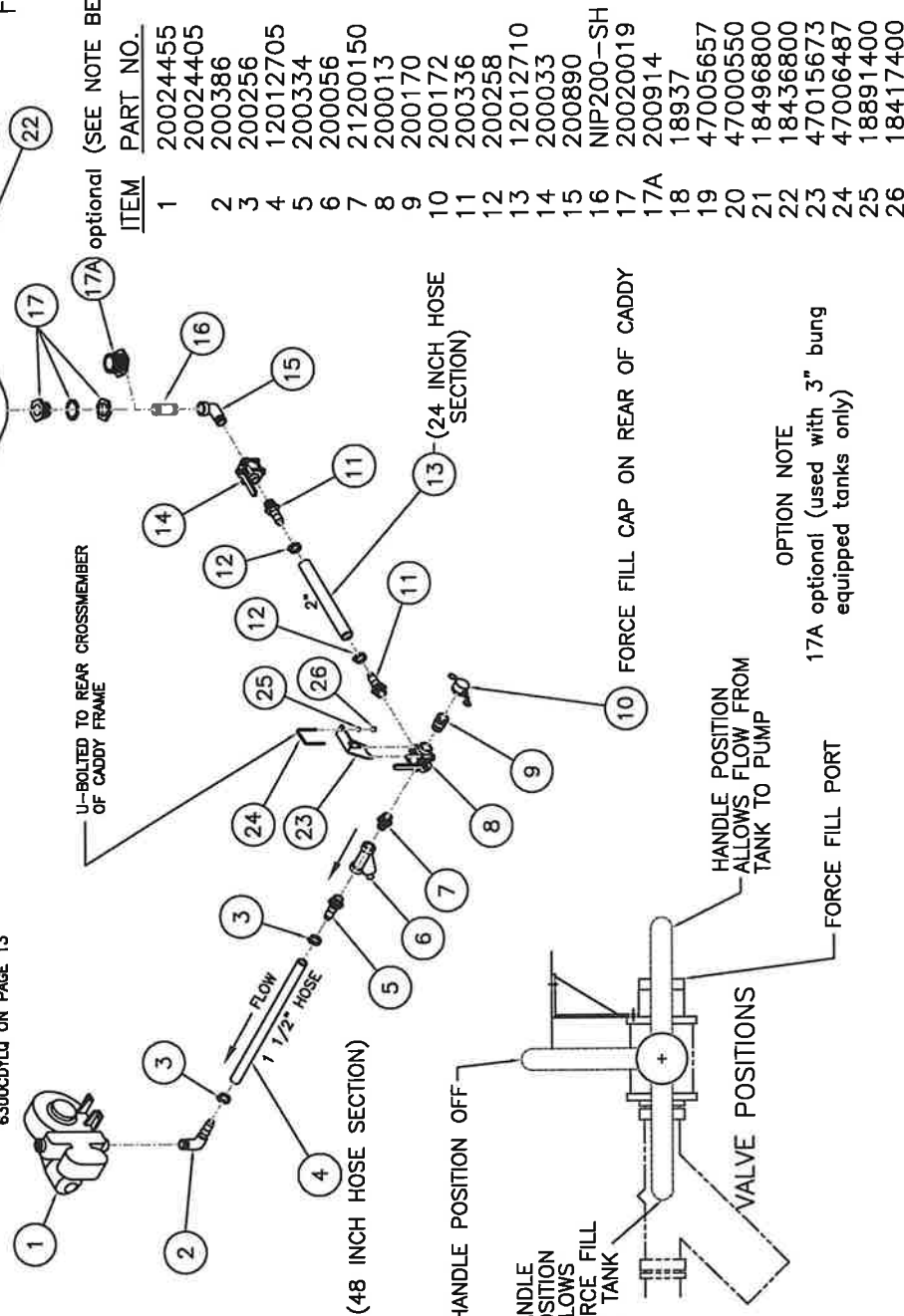
1000 GALLON CONE TANK
FOR 6300 TWO WHEEL CADDY
(TANK TO PUMP PARTS)

ILLUSTRATION



TO TOOLBAR PLUMBING
SEE ILLUSTRATION
6300TBRPLG ON PAGE 23, THEN
(BOLT PUMP TO ITEM 47 ON PAGE 13)

PUMP MOUNT INFO
SEE ILLUSTRATION
6300CDYLO ON PAGE 13



(SEE NOTE BELOW)

ITEM	PART NO.	DESCRIPTION	QTY.
1	20024455	PUMP ASSEMBLY, HI-PRESSURE	1
2	20024405	PUMP ASSEMBLY, LO-PRESSURE	OPT.
3	200386	HOSEBARB ELBOW, 1 1/2" NPT/HOSE	1
4	200256	HOSE CLAMP, 1 5/16 - 2 1/4	2
5	12012705	HOSE, SOLUTION 1 1/2 INCH X 4 FT	1
6	200334	HOSEBARB 1.5" NPT" X 1.5" HOSE	1
7	200056	LINE STRAINER, 1 1/2" NPT	1
8	21200150	REDUCER NIPPLE 2 X 1 1/2	1
9	200013	3-WAY VALVE, SIDE LOAD, 2 INCH NPT	1
10	200170	MALE ADAPTER, 2 INCH NPT	1
11	200172	CAP ASSEMBLY 2 INCH	1
12	200336	HOSEBARB 2" NPT" X 2" HOSE	2
13	200258	HOSECLAMP, 1 9/16" TO 2 1/2"	2
14	12012710	SOLUTION HOSE, 2 INCH X 2 FT	1
15	200033	VALVE, FULL PORT, 2 INCH	1
16	200890	2 INCH STREET ELBOW, 90 DEGREES	1
17	NIP200-SH	POLY CLOSE NIPPLE, 2" NPT	1
17A	20020019	TANK BUNG ASSEMBLY, 2" NPT.	1
18	200914	REDUCER BUSHING 3" NPT TO 2" NPT	1
19	18937	CONE TANK, 1000 GALLON	1
20	47005657	TANK HOLD DOWN	4
21	47000550	SPRING, STRAP TENSION	4
22	18496800	FLANGE NUT, 3/8-16 NC ZC	4
23	18436800	HEX NUT, 3/8-16 NC SS	4
24	47015673	PLUMBING SUPPORT BRKT WELDMENT	1
25	47006487	U-BOLT 1/2-13 FITS 4 X 4 TUBE	1
26	18891400	LOCKWASHER, 1/2 ZP	2
	18417400	NUT, HEX, 1/2-13NC ZC	2

OPTION NOTE

17A optional (used with 3" bung equipped tanks only)

22A

22B

LIQUID PLUMBING

6300, 6400, 6500 SERIES APPLICATORS ONLY

NON-MANIFOLD PLUMBING

STANDARD PRESSURE SYSTEM ONLY

(SPRAY BOOM STYLE PLUMBING FOR
UNITS LESS THAN 11 ROWS)

APPLICATION RATE

THIS METHOD IS USED FOR
UP TO MAX 30 GAL/ ACRE

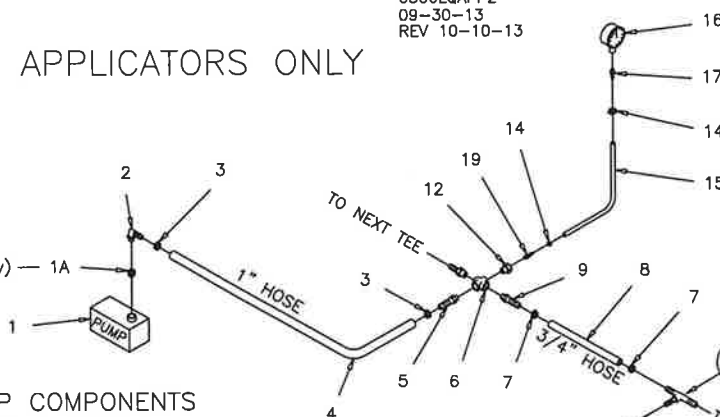
QUANTITIES MARKED *
ARE FOR EACH ROW ONLY.

REFER TO THE
ASSEMBLY ILLUSTRATIONS
TO DETERMINE ACTUAL
QUANTITIES FOR YOUR
TOOLBAR DEPENDING ON
THE NUMBER OF ROWS.

(Piston Pumps Only) — 1A

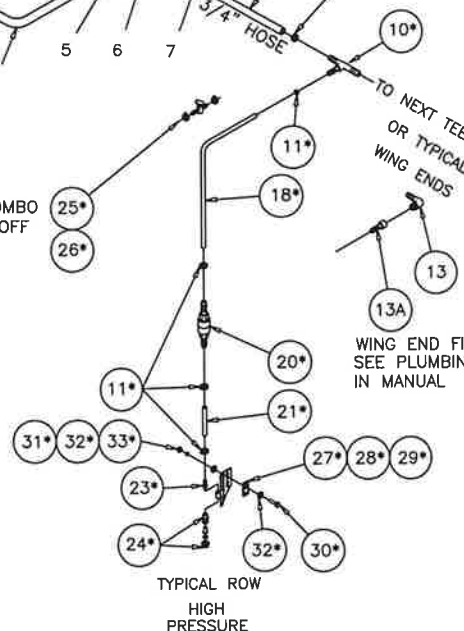
FOR TANK TO PUMP COMPONENTS
SEE PAGE 22 OF THIS MANUAL

6300LQAPP2
09-30-13
REV 10-10-13



USE CABLE TIES TO
SECURE PLUMBING
TO TOOLBAR

OPTIONAL COMBO
WING SHUT-OFF
VALVES



WING END FITTINGS
SEE PLUMBING LAYOUTS
IN MANUAL

TYPICAL ROW
HIGH
PRESSURE

NOTE: QTYS* OF SOME ITEMS VARY DEPENDING
ON THE NUMBER OF ROWS REQUIRED

SEE PAGE 24 FOR PLUMBING REFERENCE GUIDE

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, HP SINGLE PISTON	1
	NGP-9055	PUMP ASSEMBLY, HP TWIN PISTON	OPT
	501603	9303C HYD CENTRIFUGAL PUMP ONLY	OPT
	501603OPEN	HYD PUMP COMPLETE KIT, INCLUDES HYD PUMP, and the following hoses	OPT
	604324	HYD HOSE W ENDS, 1/2" X 3/4"	OPT
	605324	HYD HOSE W ENDS, 3/4" X 3/4"	OPT
1A	2150100	REDUCER BUSHING 1 1/2 - 1	1
2	200380	HOSEBARB ELBOW, 1 MNPT X 1 HB	1
3	200250	HOSE CLAMP, 3/4" - 1 3/4"	2
4	10040000	SPRAYER HOSE, 1" X 30 FT LONG	1
5	200328	HOSEBARB, POLY 1" NPT X 1 HSB	1
6	250100	POLY CROSS, 1 INCH	1
7	200248	HOSECLAMP, 1 11/16 TO 1 1/2	2*
8	200228	HOSE, 3/4 ID X	2*
9	HB100-075	HOSEBARB, POLY 1" X 3/4 HOSE	2
10	HB1075-050	HOSEBARB TEE, 3/4 HOSE TO 1/2"	1*
11	200244	HOSECLAMP, 7/16 - 7/8"	4*
12	210025	REDUCER BUSHING, POLY 1" X 1/4"	1
13	200376	ELBOW, 3/4 NPT X 3/4 HOSE	2*
13A	200449	FEMALE HOSE BARB, 3/4 NPT X 1/2	2
14	200244	HOSECLAMP, 7/16 - 7/8"	2
15	100804	TUBING, BRAIDED EVA 1/2" X 10 FT	1
16	100347	PRESSURE GAUGE, 0 TO 160 PSI	1
17	100859	HOSEBARB, 1/4 NPT X 1/2 SS	1
18	100804	HOSE, BRAIDED 1/2 X 44 FT. (11 ROW)	1
		HOSE, BRAIDED 1/2 X 48 FT. (12 ROW)	1
		HOSE, BRAIDED 1/2 X 52 FT. (13 ROW)	1
		HOSE, BRAIDED 1/2 X 60 FT. (15 ROW)	1
		HOSE, BRAIDED 1/2 X 68 FT. (17 ROW)	1
19	200294	HOSEBARB, 1/4 NPT X 1/2" HOSE	1
20	115286-01	CHECKVALVE, POLY	1*
21	100804	HOSE, BRAIDED 1/2" X 1 FT	1*
22	47309038	NOZZLE BRACKET	1*
23	100859	HOSEBARB, 1/4 NPT X 1/2 SS	1*
24	504017	NOZZLE BODY ASSY, INCLUDES (1) EACH OF	1*
	500192	NOZZLE BODY	
	504015	STREAM STABILIZER	
	502338	OR (SELECT FROM ORIFICE CHART)	
	503127	CAP	
	609643	CABLE TIES (28 inches) (not shown)	1*
	4455	CHART, SLIDE RULE INJECTION	1
25	500553	COMBO WING SHUTOFF VALVE (per row)	1* optional
26	200244	HOSE CLAMP, 7/16 - 1" (per row)	2* optional

ITEM	PART NO.	DESCRIPTION	QTY.
27	47306661	SHIM, 1/4 X 2 X 4 1/2	1*
28	47306662	SHIM, 1/8 X 2 X 4 1/2	1*
29	47306663	SHIM, 14GA X 2 X 4 1/2	1*
30	18057434	BOLT, HX HD 1/2 X 2 1/2 GR 5	1*
31	18417400	NUT, HEX, 1/2NC ZC	1*
32	18811400	FLATWASHER, USS ZC 1/2	1*
33	18891400	WASHER, LOCK 1/2 ZC	1*

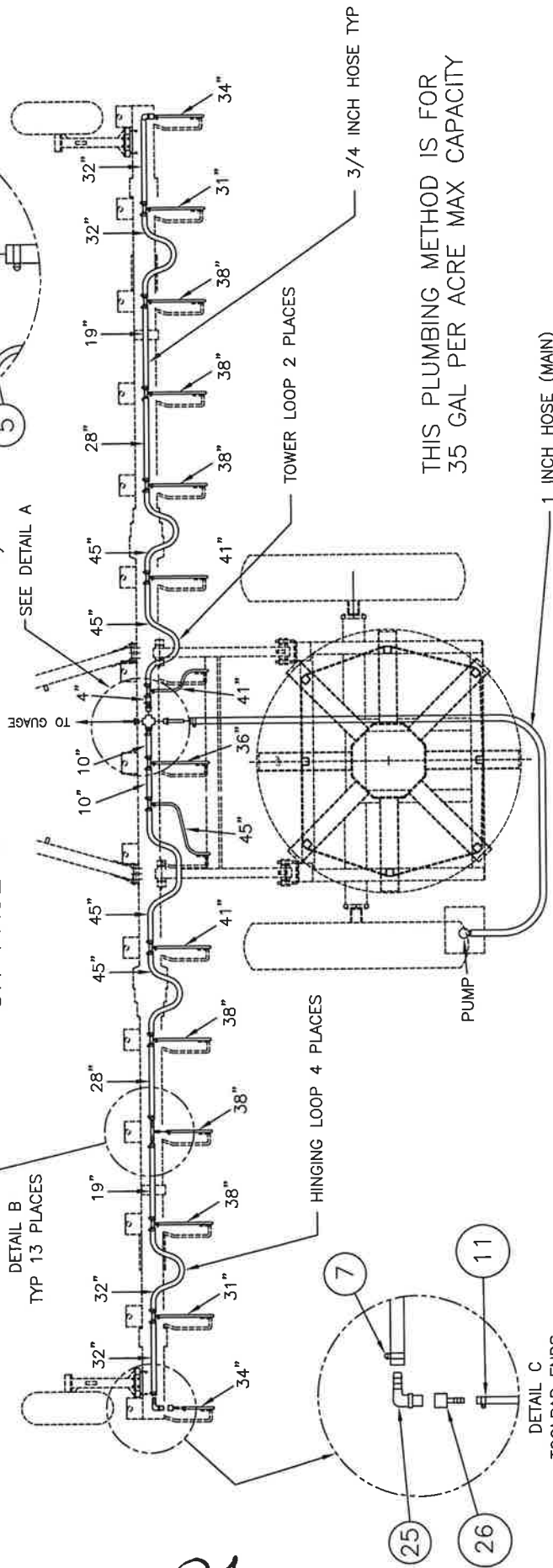
63KSPRABOOMPLBG
10-09-12
REV 10-23-11

REV 10-23-13

FIG. 6

DETAIL A

11, 12, 6, 8, 5



DETAIL C
TOOLBAR ENDS
TYP 2 PLACES

EXAMPLE:
AG37 COULTERS AT 30 INCH SPACING
15 ROWS STANDARD PRESSURE ONLY

LIQUID PLUMBING 6300 SERIES APPLICATORS BRANCH LINE METHOD NON-MANIFOLD PLUMBING (SPRAY-BOOM STYLE) HIGH PRESSURE SYSTEM REPLACEMENT PARTS ILLUSTRATION

APPLICATION RATE
THIS METHOD IS USED FOR
UP TO MAX 70 GAL/ ACRE
WITH RAVEN SYSTEM
20 GAL @ 40 PSI
40 GAL @ 80 PSI

QUANTITIES MARKED *
ARE FOR ONE NOZZLE ONLY.

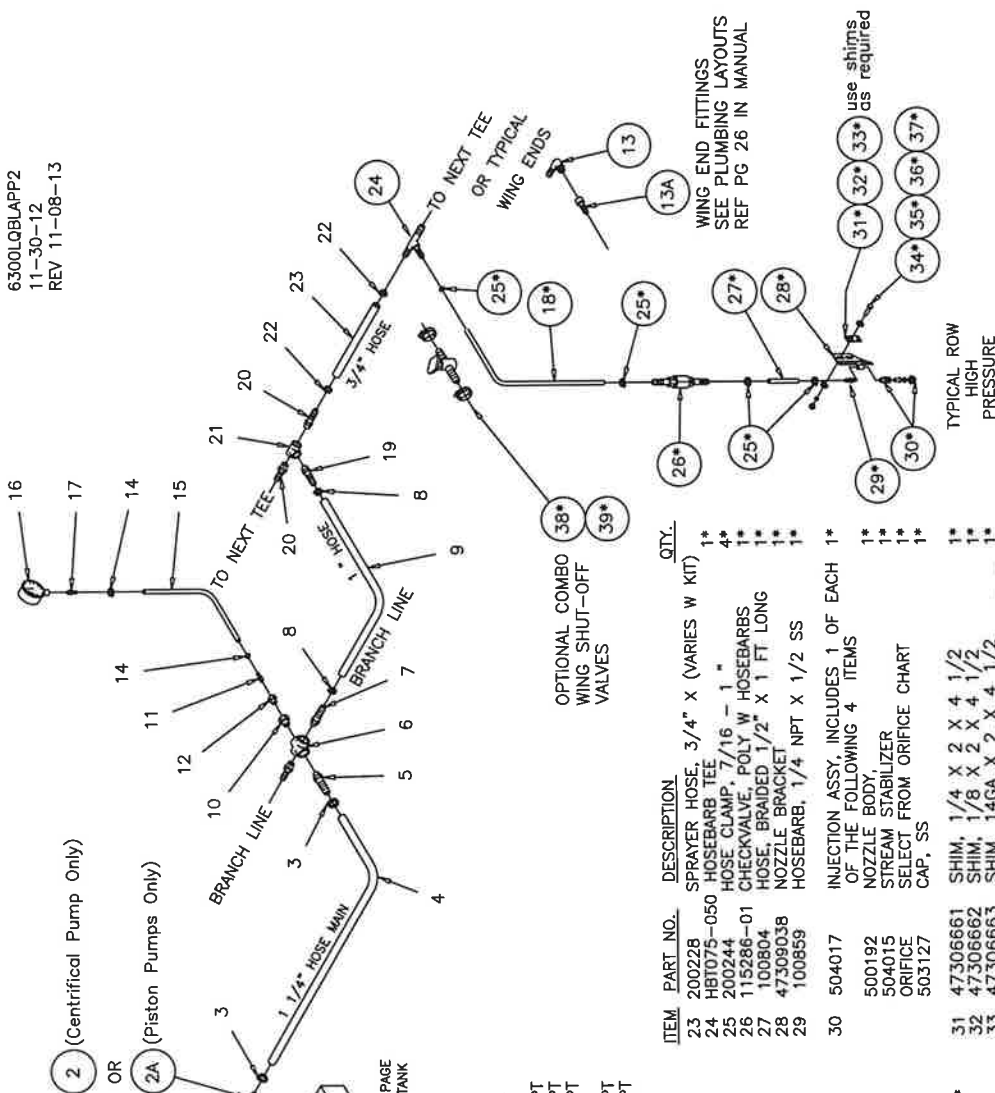
REFER TO THE PLUMBING LAYOUT TO DETERMINE
ACTUAL QUANTITIES FOR YOUR TOOLBAR DEPENDING ON
THE NUMBER OF ROWS.

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, SINGLE PISTON	1
	NGP-9055	PUMP ASSEMBLY, TWIN PISTON	OPT
1A	501603	9303C HYD CENTRIFUGAL PUMP ONLY	OPT
	501603OPEN	HYD COMPLETE PUMP PKG INCLUDES PUMP, AND THE FOLLOWING HOSES	OPT
	604324	HYD HOSE W ENDS 1/2" X 3/4"	OPT
	605324	HYD HOSE W ENDS 3/4" X 3/4"	OPT
2	HB125-90	HOSEBARB ELBOW, 1.25" NPT X 1.25 HB	1
2A	HB155/100-90	HB RB ELBOW, 1.50" NPT X 1.25 HB	1
3	200256	HOSE CLAMP, 1 5/16 TO 2 1/4	2
4	200235	SPRAYER HOSE, 1 1/4" X 12 FT	1
5	200330	HOSEBARB, POLY 1 1/4" X 1 1/4	1
6	250125	POLY CROSS, 1 1/4" INCH	1
7	200327	HOSEBARB, POLY 1 1/4" X 1" HOSE	2
8	200250	HOSE CLAMP, 3/4" - 1 3/4"	2
9	10040000	SPRAYER HOSE 1 INCH X DEPENDS	2
10	2125100	REDUCER BUSHING, POLY 1.25" X 1"	1
11	200294	HOSEBARB, POLY 1 1/4" X 1/2" HOSE	1
12	2100025	REDUCER BUSHING, POLY 1" X 1/4"	1
13	200376	ELBOW, 3/4 NPT X 3/4 HOSE	4
13A	200449	FEMALE HOSEBARB, 3/4 NPT X 1/2"	4
14	200244	HOSE CLAMP, 7/16 - 1 1/2" X 10 FT	2
15	100804	TUBING, BRAIDED EVA 1/2" X 160 PSI	1
16	100347	PRESSURE GAUGE, 0 TO 160 PSI	1
17	100859	HOSEBARB, 1/4 NPT X 1/2 SS	1
18	100804	HOSE, BRAIDED 1/2 X 44 FT (11 ROW)	1
		HOSE, BRAIDED 1/2 X 48 FT (12 ROW)	1
		HOSE, BRAIDED 1/2 X 52 FT (13 ROW)	1
		HOSE, BRAIDED 1/2 X 60 FT (15 ROW)	1
		HOSE, BRAIDED 1/2 X 68 FT (17 ROW)	1
19	200328	HOSEBARB, POLY 1" NPT X 1" HOSE	2*
20	HB100-075	HOSEBARB, POLY 1" NPT X 3/4"	4
21	261100	TEE, POLY 1 INCH FPT	2
22	200250	HOSECLAMP, 3/4" - 1 3/4"	4*

AVAILABLE PUMP PACKAGE

NGP-7055 HI-PRESS. JBLUE SGL PISTON
NGP-9055 HI-PRESS. JBLUE TWIN PISTON
501603 PUMP ASSY, 9303C CENTRIFUGAL
501603OPEN 9303C HYD CNT PUMP PKG
WHICH INCLUDES HYD HOSES AND FITTINGS
AVAILABLE PUMP PLUMBING PACKAGE

20026001 JBLUE PUMP PLUMBING PKG
20026003 CENTRIFUGAL PUMP PKG SGL BALL VALVE
20026002 CENTRIFUGAL PUMP PKG TWO BALL VALVE



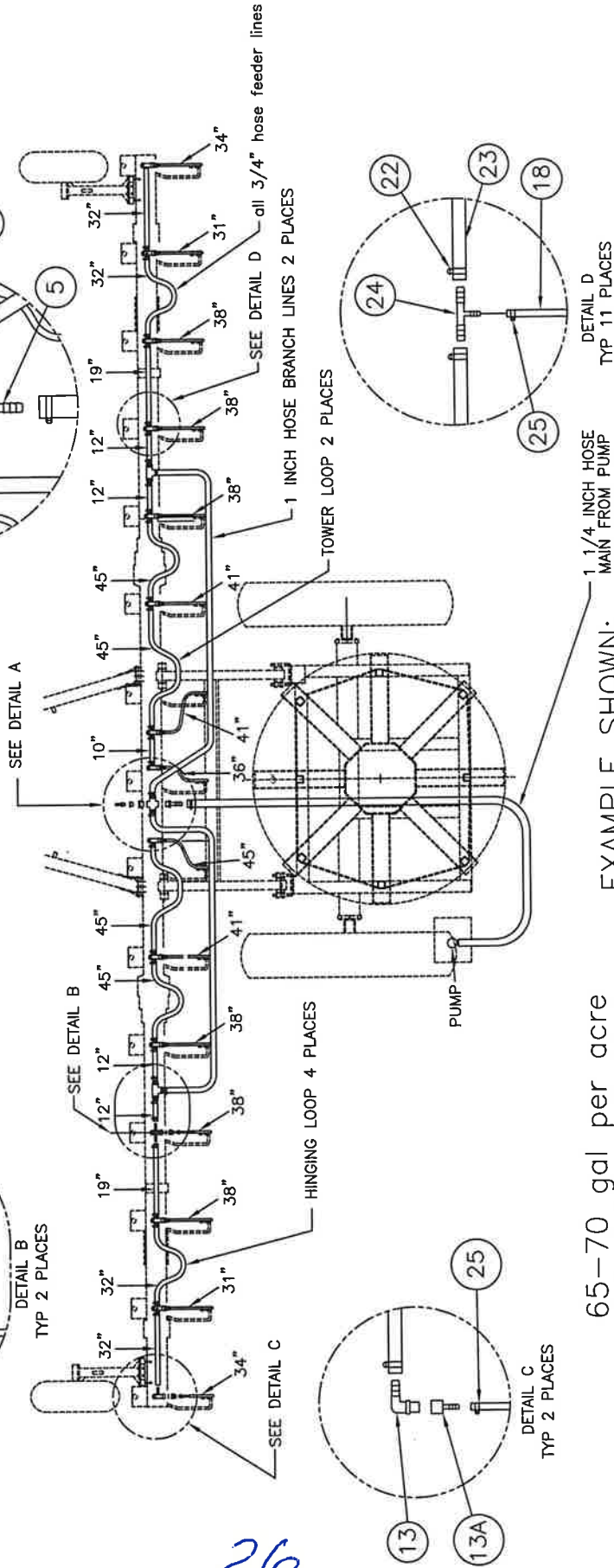
NOTE: QTY'S OF SOME ITEMS VARY
DEPENDING ON THE NUMBER OF
ROWS REQUIRED*

AVAILABLE HIGH PRESSURE PLUMBING KITS

11 ROW X 30' SP KIT NUMBER 601515
12 ROW X 30" SP KIT NUMBER 601518
13 ROW X 30" SP KIT NUMBER 601524
15 ROW X 30" SP KIT NUMBER 601533
17 ROW X 22" SP KIT NUMBER 601542
17 ROW X 30" SP KIT NUMBER 601545

63KBLSPRABOEMPLBG
10-10-12

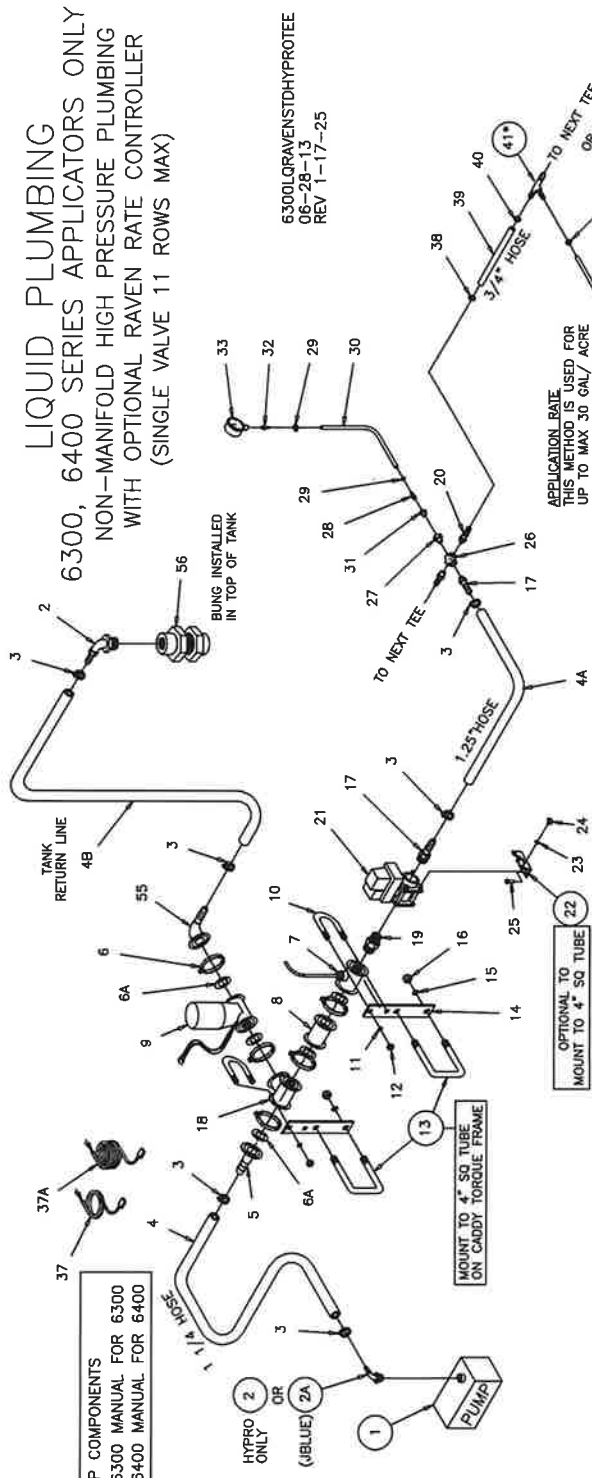
SPRAY-BOOM
BRANCH LINE METHOD
PLUMBING REFERENCE GUIDE
(WITHOUT MANIFOLD)
(SEE 6300LQBLAPP2 FOR PARTS
ON PAGE 25 OF THIS MANUAL)



65–70 gal per acre
with Raven system
20 gal @ 40 psi
40 gal @ 80 psi

EXAMPLE SHOWN:
AG37 COULTERS
15 ROWS
AT 30 INCH SPACING

LIQUID PLUMBING 6300, 6400 SERIES APPLICATORS ONLY NON-MANIFOLD HIGH PRESSURE PLUMBING WITH OPTIONAL RAVEN RATE CONTROLLER (SINGLE VALVE 11 ROWS MAX)



6300LORAVENSTDHYPROTEE
06-28-13
REV 1-17-25

APPLICATION RATE
THIS METHOD IS USED FOR
UP TO MAX 30 GAL/ ACRE

WING END FITTINGS
SEE PLUMBING LAYOUTS
IN MANUAL

TYPICAL ROW
HIGH
PRESSURE

QUANTITIES MARKED * ARE FOR ONE ROW ONLY.
MULTIPLY X NUMBER OF ROWS
REFER TO THE COULTER MOUNT ARRANGEMENTS TO DETERMINE
ACTUAL QUANTITIES FOR YOUR TOOLBAR DEPENDING ON
THE NUMBER OF ROWS.
ITEMS #10 THRU 16 ARE AVAILABLE AS KIT P/N: 71963

SEE TOOLBAR PLUMBING REFERENCE GUIDE
FOR GENERAL TOOLBAR PLUMBING

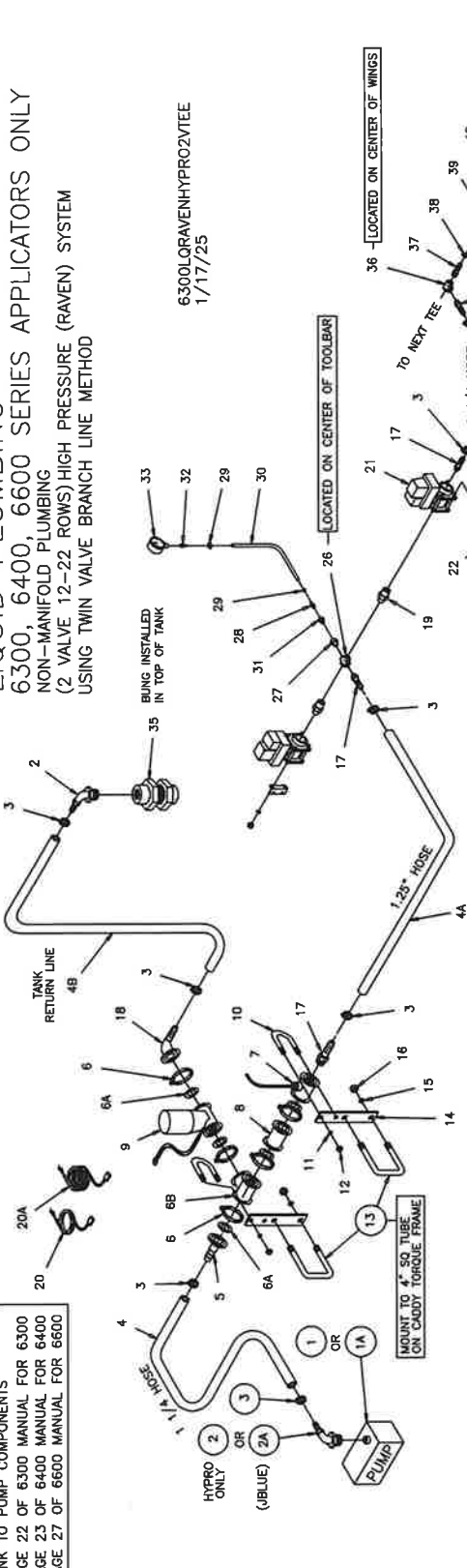
ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, SINGLE PISTON	1	34	609639	SHORT WIRE TIE, 17.5" (NOT SHOWN)	5
2	NGP-9055	PUMP ASSEMBLY, TWIN PISTON	1	35	609643	LONG WIRE TIE, 28" (NOT SHOWN)	59
3	501603	HYDRAULIC CENTRIFUGAL PUMP ONLY	OPT	36	1201579	FM PACKARD CONNECTOR (NOT SHOWN)	1
4	501603OPEN	HYD. PUMP COMPLETE KIT (NOT SHOWN)	OPT	37	12010717	M PACKARD CONNECTOR (NOT SHOWN)	2
5	604324	HYD HOSE W ENDS, 1/2" X 3/4" X 324"	OPT	38	12089679	CABLE SEAL (NOT SHOWN)	3
6	605324	HYD HOSE W ENDS, 3/4" X 324"	OPT	39	12010300	MALE TERMINAL PIN (NOT SHOWN)	9
7	4455	CHART, SLIDE RULE (NOT SHOWN)	1	40	12089040	MALE TERMINAL PIN (NOT SHOWN)	1
8	HB125-90	HOSEBARB ELBOW, 1.25" MPT X 1.25" HS	1	41	115-0171-085	CONSOLE CABLE	1
9	HB150/125-90	HOSEBARB ELBOW, 1.50" MPT X 1.25" HS	1	42	115-0171-085	12 FT CONTROL CABLE	1
10	200256	HOSE CLAMP, 1/2" ID, 2" X 1.25" HS	6	43	200250	HOSE CLAMP, 3/4" X 1 3/4"	8
11	200235	SPRAYER HOSE, 1.25" X 20 FT LONG	1	44	200228	HOSE, EPDM, 3/4" X 1 3/4"	1*
12	200235	SPRAYER HOSE, 1.25" X 5 FT LONG	1	45	200250	HOSE CLAMP, 3/4" X 1 3/4"	1*
13	200235	SPRAYER HOSE, 1.25" X 7 FT LONG	1	46	200250	HOSE CLAMP, 3/4" X 1 3/4"	1*
14	290417	HOSEBARB, 1.25" HOSE X 2 FLANGE	1	47	HB1075-050	HOSEBARB TEE	4
15	303199	HOSEBARB, 1.25" HOSE X 2 FLANGE	1	48	200376	ELBOW, 3/4 NPT X 3/4 HOSE	1/2
16	200229	GASKET, 2" FLANGE EPDM	5	49	200449	FEMALE HOSEBARB 3/4 NPT X 1/2	4
17	290411	COUPLING, FLANGE 2 X 2	1	50	200244	HOSECLAMP, 7/16-1.00"	4*
18	1-063-0171-793	FLOWMETER, RAVEN	1	51	100804	TUBING, BRADED EVA 1/2" X 4 FT	1*
19	1-063-0171-884	VALVE, SERVO RAVEN	1	52	100859	HOSEBARB 1/4 NPT X 1/2" SS	1*
20	47005791	U-CLAMP, NAPA (733-5364)	2	53	47308038	NOZZLE BRACKET	1*
21	18891200	LOCKWASHER, 3/8 ZC	4	54	504017	NOZZLE ASSY INCLUDES (1) EACH OF THE FOLLOWING PARTS LISTED BELOW	1*
22	18436800	NUT, HEX 3/8-16 ZC	4	55	500192	NOZZLE BODY	1*
23	47006487	U-BOLT, 1/2 NC	2	56	504015	STREAM STABILIZER	1*
24	47003911	BRACKET, RAVEN HYPRO KIT	2	57	503127	ORIFICE (SELECT FROM ORIFICE CHART)	1*
25	18891400	WASHER, LOCK 1/2 NC ZC	4	58	18057434	NOZZLE CAP, STD STAINLESS	1*
26	18417400	NUT, HEX 1/2-13 NC ZC	4	59	18811400	BOLT, HEX 1/2NC X 2 1/2 GR5 ZC	2*
27	HB125	HOSEBARB 1 1/4 MPT X 1 1/4 HOSE	2	60	18811400	FLATWASHER, 1/2 INCH ZC	2*
28	303196	TEE, 2" FLANGED, POLY	1	61	18811400	LOCKWASHER, 1/2 INCH ZC	2*
29	21150125	REDUCER COUPLING 2" TO 1 1/4"	1	62	47306661	NUT, HEX 1/2 NC ZC	1*
30	HB125-075	HOSEBARB 1 1/4 MPT X 3/4 HOSE	2	63	47306662	SHIM, 1/4"	1*
31	VE125	VALVE, ELECTRIC, ON/OFF	1	64	47306663	SHIM, 1/8"	1*
32	210271	VALVE BRACKET	1	65	115286-01	CHECKVALVE, POLY W HOSEBARBS	1*
33	18891200	LOCKWASHER, 3/8 ZC	2	66	100804	TUBING, BRADED EVA 1/2" X 1 FT	1*
34	18436800	NUT, HEX 3/8-16NC ZC	2	67	290430	2" FLANGED ELBOW, 90°	1
35	18721019	SCREW, SELF TAPPING, 1/4 X 1/2	2	68	290307	TOP TANK BUNG, 1 1/4"	1
36	230125	POLY CROSS, 1 1/4	1				
37	2125100	REDUCER BUSHING 1 1/4 X 1	1				
38	200294	HOSEBARB, 1/4 MPT X 1/2" HOSE	2				
39	290463	HOSECLAMP, MINI 6	1				
40	100804	TUBING, BRADED 1/2" X 13 FT LONG	1				
41	2100025	REDUCER BUSHING 1 X 1 1/4	1				
42	100859	HOSEBARB, 1/4 MPT X 1/2" SS	1				
43	100347	PRESSURE GAUGE, 0-160 PSI	1				

FOR TANK TO PUMP COMPONENTS

SEE PAGE 22 OF 6300 MANUAL FOR 6300
SEE PAGE 23 OF 6400 MANUAL FOR 6400
SEE PAGE 27 OF 6600 MANUAL FOR 6600

LIQUID PLUMBING

6300, 6400, 6600 SERIES APPLICATORS ONLY
NON-MANIFOLD PLUMBING
(2 VALVE 12-22 ROWS) HIGH PRESSURE (RAVEN) SYSTEM
USING TWIN VALVE BRANCH LINE METHOD



6300LQRAVENHYPRO2VTEE
1/17/25

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, SINGLE PISTON	OPT
2	NGP-9085	PUMP ASSEMBLY, TWIN PISTON	OPT
3	5010050	HYD HOSE, 1/2\" X 324\"	OPT
1A	5010050	HYD HOSE, 1/2\" X 324\"	OPT
4	604324	HYD HOSE W ENDS, 1/2\" X 324\"	OPT
5	605324	HYD HOSE W ENDS, 3/4\" X 324\"	OPT
6	HB125-90	HOSEBARB ELBOW, 1.25\" MPT X 1.25\" HS	1
7	HB150/125-90	HOSEBARB ELBOW, 1.50\" MPT-1.25\" HS	1
8	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	6
9	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	4
10	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	4
11	200235	SPRAYER HOSE, 1.25\" X 20 FT LONG	1
12	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
13	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
14	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
15	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
16	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
17	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
18	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
19	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
20	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
21	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
22	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
23	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
24	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
25	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
26	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
27	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
28	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
29	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
30	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
31	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
32	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
33	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
34	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
35	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
36	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
37	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
38	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
39	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
40	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
41	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
42	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
43	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
44	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
45	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
46	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
47	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
48	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
49	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
50	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
51	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
52	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
53	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
54	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1

ITEM	PART NO.	DESCRIPTION	QTY.
26	44525	CHART, SLIDERULE, (NOT SHOWN)	1
26A	250125	M PACKARD CONNECTOR (NOT SHOWN)	2
26B	12010578	FM PACKARD CONNECTOR (NOT SHOWN)	2
26C	12089678	CABLE SEAL (NOT SHOWN)	3
26D	12010300	MALE TERMINAL PIN (NOT SHOWN)	10
26E	12089040	SHORT WIRE TIE, 17.5\" (NOT SHOWN)	5
26F	609643	LONG WIRE TIE, 28\" (NOT SHOWN)	59
27	2125100	REDUCER BUSHING 1 1/4\" X 1	1
28	2002308	HOSEBARB, 1/2\" MPT X 1/2\" HOSE	2
29	200244	TUBING, BRAIDED 1/2\" X 13 FT LONG	1
30	100804	REDUCER BUSHING 1 1/2\" X 1	1
31	2100050	REDUCER BUSHING 1 1/2\" X 1	1
32	100859	HOSEBARB, 1/4\" MPT X 1/2\" SS	1
33	100347	HOSE, EPDM 1 1/4\" X VARIABLE	2
34	200235	TOP TANK BUNG, 1 1/4\"	1
35	261125	HOSEBARB, 1 1/4\" MPT X 3/4\" HOSE	2
36	HE125-075	HOSE CLAMP, 3/4\" - 1 3/4\"	4
37	200250	HOSE CLAMP 3/4\" X 1 3/4\"	1
38	200250	HOSE CLAMP 3/4\" X 1 3/4\"	1
39	200228	HOSEBARB TEE	1
40	200250	HOSEBARB TEE	1
41	HE1075-050	ELBOW 3/4\" NPT X 3/4\" HOSE	4
41A	200378	FEMALE HOSEBARB 3/4\" NPT X 1/2	4
41B	200449	omitted	4
42	200244	HOSEBARB, 7/16-1.00\"	4
43	200244	TUBING, BRAIDED EVA 1/2\" X 4 FT	1
44	100804	HOSEBARB 1/4\" NPT X 1/2\" SS	1
45	100859	NOZZLE BRACKET	1
46	47309038	NOZZLE BRACKET	1
47	504017	NOZZLE ASSY INCLUDES (1) EACH OF THE FOLLOWING PARTS LISTED BELOW	1
	500192	NOZZLE BODY	1
	504015	STREAM STABILIZER	1
	503127	ORIFICE (SELECT FROM ORIFICE CHART)	1
	503127	BOLT, HEX 1/2\" X 2 1/2\" OR 5\" ZC	2
48	18057434	LOCKWASHER, 1/2\" INCH ZC	2
49	18891400	NUT, HEX 1/2\" INCH ZC	2
50	18891400	NUT, HEX 1/2\" INCH ZC	2
51	18891400	NUT, HEX 1/2\" INCH ZC	2
52	47306661	SHIM, 1/16\"	1
53	47306661	SHIM, 1/16\"	1
54	115286-01	CHECKVALVE, POLY	1
	100804	TUBING, BRAIDED EVA 1/2\" X 1 FT	1

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, SINGLE PISTON	OPT
2	NGP-9085	PUMP ASSEMBLY, TWIN PISTON	OPT
3	5010050	HYD HOSE, 1/2\" X 324\"	OPT
4	604324	HYD HOSE W ENDS, 1/2\" X 324\"	OPT
5	605324	HYD HOSE W ENDS, 3/4\" X 324\"	OPT
6	HB125-90	HOSEBARB ELBOW, 1.25\" MPT X 1.25\" HS	1
7	HB150/125-90	HOSEBARB ELBOW, 1.50\" MPT-1.25\" HS	1
8	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	6
9	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	4
10	200254	HOSE CLAMP, 1 1/2\" - 2\" ID	4
11	200235	SPRAYER HOSE, 1.25\" X 20 FT LONG	1
12	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
13	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
14	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
15	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
16	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
17	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
18	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
19	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
20	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
21	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
22	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
23	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
24	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
25	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
26	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
27	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
28	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
29	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
30	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
31	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
32	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
33	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
34	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
35	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
36	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
37	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
38	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
39	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
40	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
41	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
42	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
43	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
44	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
45	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
46	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
47	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
48	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
49	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
50	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
51	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
52	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
53	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1
54	200235	SPRAYER HOSE, 1.25\" X 5 FT LONG	1

QUANTITIES MARKED * ARE FOR (EACH) ONE ROW ONLY. MULTIPLY X NUMBER OF ROWS FOR TOTAL QTY'S NEEDED.

REFER TO THE COULTER MOUNT ARRANGEMENTS TO DETERMINE ACTUAL QUANTITIES FOR YOUR TOOLBAR DEPENDING ON THE NUMBER OF ROWS.

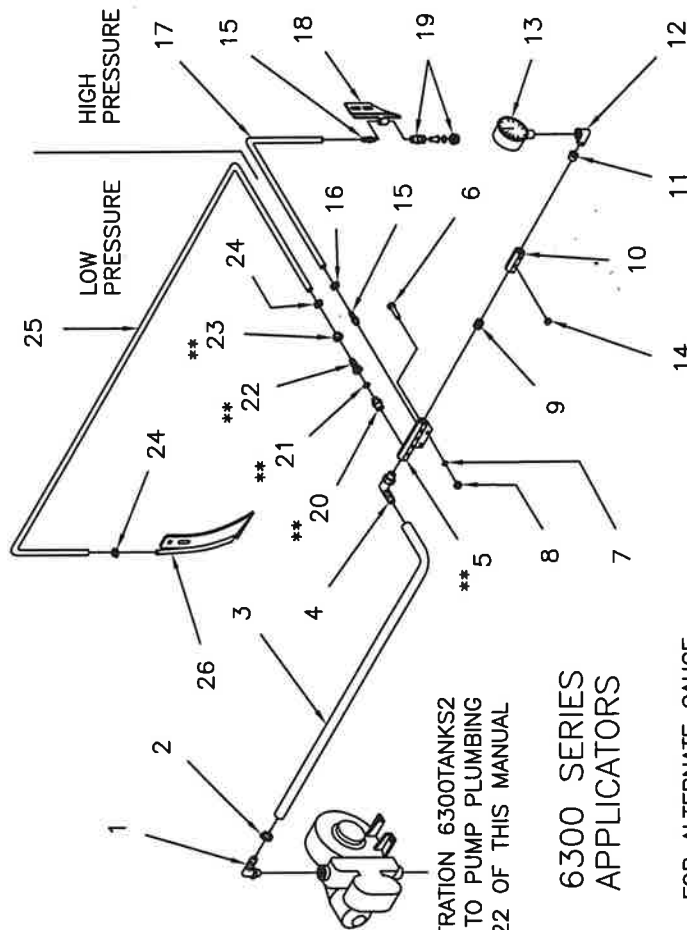
SEE THE TOOLBAR PLUMBING REFERENCE GUIDE TO PLUMB THE TOOLBAR, BEGINNING WITH CROSS (ITEM 26) ON THIS PAGE, PLUM EACH ROW* OUTWARD TO THE ENDS OF THE WINGS.

SEE 606200R FOR RAVEN CONTROLLER PKG

26D

LIQUID TOOLBAR PLUMBING FOR 6300 TWO WHEEL CADDY (SS MANIFOLD SYSTEMS) (CHOOSE LOW OR HIGH PRESSURE)

6300TBRPLBG
08-25-10



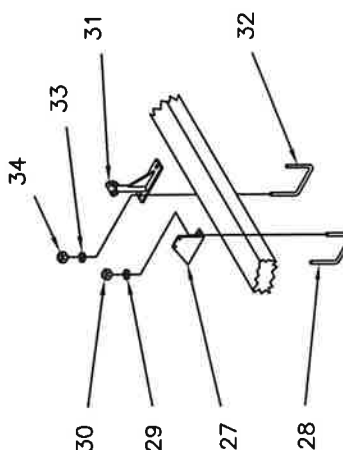
SEE ILLUSTRATION 6300TANKS2
FOR TANK TO PUMP PLUMBING
ON PAGE 22 OF THIS MANUAL

6300 SERIES APPLICATORS

FOR ALTERNATE GAUGE
MOUNTINGS, REFER TO THE
"MANIFOLD ASSEMBLY
ILLUSTRATIONS" ON PAGE 28

QUANTITIES MARKED *
ARE FOR ONE NOZZLE ONLY.
REFER TO THE "MANIFOLD"
ASSEMBLY ILLUSTRATIONS
TO DETERMINE ACTUAL
QUANTITIES FOR YOUR
TOOLBAR.

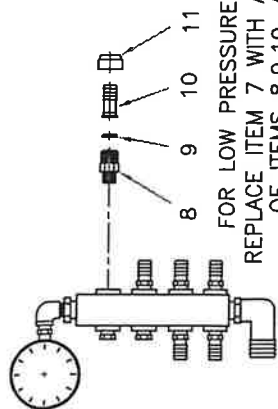
ITEM	PART NO.	DESCRIPTION	QTY.
1	HB125/100-90	HOSEBARB ELBOW, 1 1/4 MPT	1
2	200248	HOSE CLAMP, 11/16 TO 1 1/2	2
3	10040000	SPRAYER HOSE, 1" X	1
4	200367	HOSEBARB ELBOW, 1/2 NPT. X 1	1
5	47008033	MANIFOLD, (8) PORT, S.S.	1
6	18996832	3/8-16 NC. X 1 1/4 BOLT, S.S.	2
7	18881201	3/8 LOCKWASHER, S.S.	2
8	18476800	3/8-16 NC. HEX. NUT, S.S.	2
9	200714	CLOSE NIPPLE, 1/2 NPT. S.S.	OPT.
10	47008035	MANIFOLD, (4) PORT, S.S.	OPT.
11	200810	REDUCING BUSHING, 1/2 X 1/4 NPT.	1
12	200771	STREET ELBOW, 1/4 NPT. X 90	1
13	500160	PRESSURE GAUGE, 0 TO 160 PSI	1
14	200826	PLUG, 1/4 NPT. S.S.	AS REQ'D. *
ITEMS 15 TO 19 USE FOR HI-PRESS. APPLICATION ONLY			
15	100859	HOSEBARB, 1/4 NPT. X 1/2 S.S.	2 *
16	200244	HOSE CLAMP, 5/16 TO 7/8	2 *
17	100804	HOSE, BRAIDED 1/2 X	1
		HOSE, BRAIDED	FT. (12 ROW)
		HOSE, BRAIDED	FT. (8 ROW)
		HOSE, BRAIDED	FT. (16 ROW)
18	47309038	NOZZLE BRACKET	1 *
19	504017	NOZZLE BODY, INCLUDES (1) EACH OF	1 *
		STREAM STABILIZER	1 *
		SELECT FROM ORIFICE CHART	1 *
		CAP	1 *
USE FOR LO-PRESS. APPLICATION ONLY			
20	500192	NOZZLE BODY ADAPTER	1 *
21	ORIFICE	SELECT FROM ORIFICE CHART	1 *
22	500643	HOSEBARB INSERT	1 *
23	503127	CAP, HOSEBARB	1 *
24	200244	HOSE CLAMP, 5/16 TO 7/8	2 *
25	15017007	TUBING, 1/2 X	1
		TUBING, 1/2 X	FT. (8 ROW)
		TUBING, 1/2 X	FT. (12 ROW)
		TUBING, 1/2 X	FT. (16 ROW)
26	KNIFE	AS SPECIFIED	1 *
DISTRIBUTION MANIFOLD OPTIONS			
27	47008049	MANIFOLD BRACKET, FORMED STL.	1
28	47001028	U-BOLT, 3/8-16NC.	1
29	18891200	LOCKWASHER, 3/8	2
30	18436800	HEX. NUT, 3/8-16NC	2
31	47008060	MANIFOLD BRACKET, S.S. TEE	OR
32	47002631	MANIFOLD BRACKET, BLK STL TEE	OPT.
33	47006545	U-BOLT, 1/2-13NC.	1
34	18891400	LOCKWASHER, 1/2	2
		HEX. NUT, 1/2-13NC.	2



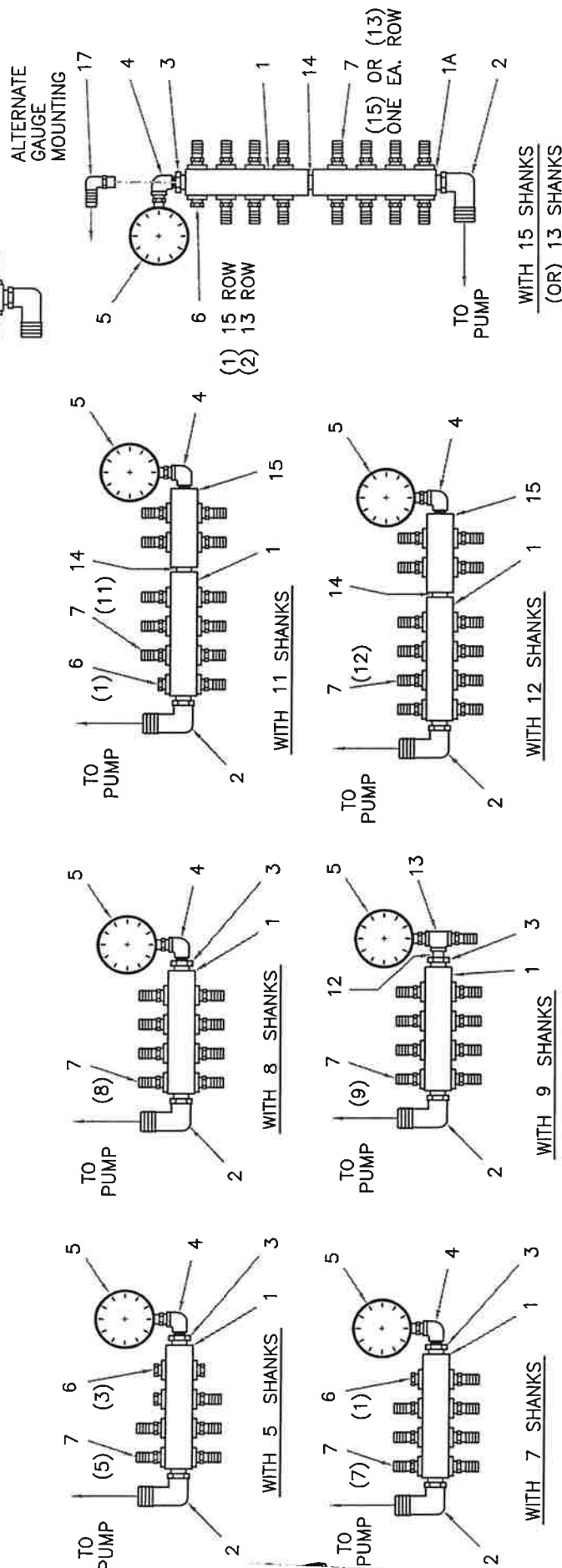
MANIFOLD STAND OPTIONS
U-BOLTS WILL FIT A 6 X 4 TUBE
(6 HORIZ. X 4 VERT.)

MNFDSTNLS
ISSUE JUNE/2008

MANIFOLD ASSEMBLY ILLUSTRATION WITH STAINLESS STEEL MANIFOLD



FOR LOW PRESSURE SYSTEM
REPLACE ITEM 7 WITH AN ASSEMBLY
OF ITEMS 8,9,10, AND 11



ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47008033	MANIFOLD, 8 OUTLET-W/ MTG. BRKT.	1	8	500192	ADAPTER, NOZZLE BODY	{ LO-PRESSURE }
1A	47007490	MANIFOLD, 8 OUTLET-W/O MTG. BRKT.	1	9	ORIFICE	REFER TO ORIFICE CHART	{ ONLY }
2	200367	HOSEBARB ELBOW, 1/2 NPT. X 1	1	10	500643	HOSEBARB INSERT, 1/2" { LO-PRESSURE }	{ ONLY }
3	200810	RED. BUSHING, 1/2 X 1/4 NPT.	*	11	503127	CAP, HOSEBARB INSERT	{ ONLY }
4	200771	STREET ELBOW, 1/4 NPT. X 90	*	12	200712	CLOSE NIPPLE, 1/4 NPT	1
5	500160	PRESSURE GAUGE, 0 TO 160	1	13	200786	TEE, 1/4 NPT.	1
6	200826	PLUG, 1/4 NPT.	*	14	200714	CLOSE NIPPLE, 1/2 NPT.	1
7	100859	HOSEBARB, 1/4 NPT. X 1/2	*	15	47008035	MANIFOLD, (4) PORT	1
				16	200810	RED. BUSHING, 1/2 X 1/4 NPT.	1
				17	200348	HOSEBARB ELBOW, 1/4 NPT. X 1/2 (POLY)	1

FOR QUANTITIES ON ITEMS MARKED *
REFER TO THE ILLUSTRATION THAT
SHOWS YOUR MANIFOLD ARRANGEMENT

Application Information Using 4916 Orifice Plates
 (Table based on spraying 28% Nitrogen on 22 inch spacings)
 **see conversion tables below for other weight solutions

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 22 inch spacing			
			3	4	5	6
4916-37	60	0.18	16.6	12.5	10.0	8.3
	80	0.21	18.9	14.2	11.3	9.5
	90	0.23	21	15.5	12.4	10.4
	100	0.24	22	16.2	13.0	10.8
4916-40	120	0.26	23	17.6	14.0	11.7
	60	0.22	19.8	14.9	11.9	9.9
	80	0.25	23	16.9	13.5	11.3
	90	0.27	24	18.2	14.6	12.2
4916-43	100	0.28	25	18.9	15.1	12.6
	120	0.31	28	21	16.7	14.0
	60	0.25	22	16.8	13.4	11.2
	80	0.29	26	20	15.7	13.1
4916-47	90	0.30	27	20	16.2	13.5
	100	0.32	29	22	17.3	14.4
	120	0.35	32	24	18.9	15.8
	60	0.30	27	20	16.0	13.3
4916-49	80	0.34	31	23	18.4	15.3
	90	0.36	32	24	19.4	16.2
	100	0.38	34	26	21	17.1
	120	0.42	38	28	23	18.9
4916-52	60	0.32	29	21	17.2	14.3
	80	0.37	33	25	20	16.7
	90	0.39	35	26	21	17.6
	100	0.41	37	28	22	18.5
4916-55	120	0.45	41	30	24	20
	60	0.36	32	24	19.5	16.2
	80	0.42	38	28	23	18.9
	90	0.44	40	30	24	20
4916-56	100	0.47	42	32	25	21
	120	0.51	46	34	28	23
	60	0.41	37	27	22	18.3
	80	0.47	42	32	25	21
4916-59	90	0.50	45	34	27	23
	100	0.52	47	35	28	23
	120	0.57	51	38	31	26
	60	0.43	39	29	23	19.4
4916-61	80	0.50	45	34	27	23
	90	0.53	48	36	29	24
	100	0.56	50	38	30	25
	120	0.61	55	41	33	27
4916-61	60	0.47	42	31	25	21
	80	0.54	49	36	29	24
	90	0.57	51	38	31	26
	100	0.60	54	41	32	27
4916-61	120	0.66	59	45	36	30
	60	0.50	45	34	27	23
	80	0.58	52	39	31	26
	90	0.61	55	41	33	27
4916-61	100	0.65	59	44	35	29
	120	0.71	64	48	38	32

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 22 inch spacing			
			3	4	5	6
4916-103	60	1.63	147	110	88	73
	80	1.72	155	116	93	77
	90	1.82	164	123	98	82
	100	1.99	179	134	107	90
4916-107	120	2.04	184	138	110	92
	60	1.58	143	107	86	71
	80	1.83	165	124	99	82
	90	1.94	175	131	105	87
4916-110	100	2.04	184	138	110	92
	120	2.24	202	151	121	101
	60	1.32	119	89	71	59
	80	1.52	137	103	82	68
4916-115	90	1.62	146	109	87	73
	100	1.70	153	115	92	77
	120	1.87	168	126	101	84
	60	1.85	166	125	100	83
4916-125	80	2.13	192	144	115	96
	90	2.26	203	153	122	102
	100	2.39	215	161	129	108
	120	2.61	235	176	141	117
4916-132	60	2.11	190	143	114	95
	80	2.44	220	165	132	110
	90	2.59	223	175	140	117
	100	2.73	246	184	147	123
4916-140	120	2.99	269	202	161	135
	60	2.36	212	159	127	106
	80	2.72	245	184	147	122
	90	2.89	260	195	156	130
4916-147	100	3.04	274	205	164	137
	120	3.34	301	225	180	150
	60	2.73	246	184	147	123
	80	3.15	284	213	170	142
4916-156	90	3.34	301	225	180	150
	100	3.52	317	238	190	158
	120	3.86	347	261	208	174
	60	2.97	268	201	161	134
4916-166	80	3.43	309	232	185	154
	90	3.64	328	246	197	164
	100	3.84	346	259	207	173
	120	4.21	379	284	227	189
4916-166	60	3.34	301	226	181	150
	80	3.86	347	261	208	174
	90	4.10	369	277	221	185
	100	4.32	389	292	233	194
4916-166	120	4.73	426	319	255	213
	60	3.70	333	249	200	166
	80	4.27	384	288	231	192
	90	4.53	408	306	245	204
4916-166	100	4.77	429	322	258	215
	120	5.23	471	353	282	235

****Conversion Factors for Spraying Solutions other than 28% Nitrogen for use only with the Above GPA tables**

Weight of Solution	Conversion Factor
7.0 lbs./gal.	0.81
8.0 lbs./gal.	0.87
8.34 lbs./gal. - Water	0.88
9.0 lbs./gal.	0.92
10.0 lbs./gal.	0.97

Weight of Solution	Conversion Factor
10.65 lbs./gal. - 28% N	1.00
11.00 lbs./gal.	1.01
12.0 lbs./gal.	1.06
14.0 lbs./gal.	1.14

Application Information Using 4916 Orifice Plates
(Table based on spraying 28% Nitrogen on 30 inch spacings)
**see conversion tables below for other weight solutions

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 30 inch spacing				Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 30 inch spacing			
			3	4	5	6				3	4	5	6
4916-37	60	0.18	12.2	9.1	7.3	6.1	4916-65	60	0.56	37	28	22	19
	80	0.21	13.9	10.4	8.3	6.9		80	0.65	43	32	26	21
	90	0.23	15.2	11.4	9.1	7.6		90	0.69	46	34	27	23
	100	0.24	15.8	11.9	9.5	7.9		100	0.73	48	36	29	24
4916-40	120	0.26	17.2	12.9	10.3	8.6	4916-68	120	0.80	53	40	32	26
	60	0.22	14.5	10.9	8.7	7.3		60	0.62	41	30	24	20
	80	0.25	16.5	12.4	8.9	8.3		80	0.71	47	35	28	23
	90	0.27	17.8	13.4	10.7	8.9		90	0.75	50	37	30	25
4916-43	100	0.28	18.5	13.9	11.1	9.2	4916-70	100	0.80	53	40	32	26
	120	0.31	20	15.3	12.3	10.2		120	0.87	57	43	34	29
	60	0.25	16.4	12.3	9.8	8.2		60	0.66	44	33	26	22
	80	0.29	19.1	14.4	11.5	9.6		80	0.76	50	38	30	25
4916-47	90	0.30	20	14.9	11.9	9.9	4916-75	90	0.81	53	40	32	27
	100	0.32	21	15.8	12.7	10.6		100	0.85	56	42	34	28
	120	0.35	23	17.3	13.9	11.6		120	0.93	61	46	37	31
	60	0.30	20	14.6	11.7	9.8		60	0.75	49	37	30	25
4916-49	80	0.34	22	16.8	13.5	11.2	4916-80	80	0.86	57	43	34	28
	90	0.36	24	17.8	14.3	11.9		90	0.92	61	46	36	30
	100	0.38	25	18.8	15.0	12.5		100	0.97	64	48	38	32
	120	0.42	28	21	16.6	13.9		120	1.06	70	52	42	35
4916-52	60	0.32	21	15.7	12.6	10.5	4916-83	60	0.85	56	42	34	28
	80	0.37	24	18.3	14.7	12.2		80	0.99	65	49	39	33
	90	0.39	26	19.3	15.4	12.9		90	1.05	69	52	42	35
	100	0.41	27	20	16.2	13.5		100	1.10	73	54	44	36
4916-55	120	0.45	30	22	17.8	14.9	4916-89	120	1.21	80	60	48	40
	60	0.36	24	17.9	14.3	11.9		60	0.97	64	48	38	32
	80	0.42	28	21	16.6	13.9		80	1.12	74	55	44	37
	90	0.44	29	22	17.4	14.5		90	1.19	79	59	47	39
4916-56	100	0.47	31	23	18.6	15.5	4916-93	100	1.25	83	62	50	41
	120	0.51	34	25	20	16.8		120	1.37	90	68	54	45
	60	0.41	27	20	16.1	13.4		60	1.06	70	52	42	35
	80	0.47	31	23	18.6	15.5		80	1.22	81	60	48	40
4916-59	90	0.50	33	25	20	16.5	4916-95	90	1.29	85	64	51	43
	100	0.52	34	26	21	17.2		100	1.36	90	67	54	45
	120	0.57	38	28	23	18.8		120	1.49	98	74	59	49
	60	0.43	28	21	17.1	14.2		60	1.18	78	58	47	39
4916-61	80	0.50	33	25	20	16.5	4916-98	80	1.36	90	67	54	45
	90	0.53	35	26	21	17.5		90	1.44	95	71	57	48
	100	0.56	37	28	22	18.5		100	1.52	100	75	60	50
	120	0.61	40	30	24	20		120	1.67	110	83	66	55
4916-66	60	0.47	31	23	18.5	15.4	4916-103	60	1.23	81	61	49	41
	80	0.54	36	27	21	17.8		80	1.42	94	70	56	47
	90	0.57	38	28	23	18.8		90	1.51	100	75	60	50
	100	0.60	40	30	24	20		100	1.59	105	79	63	52
4916-74	120	0.66	44	33	26	22	4916-107	120	1.74	115	86	69	57
	60	0.502	33	25	20	16.6		60	1.35	89	67	53	44
	80	0.58	38	29	23	19.1		80	1.55	102	77	61	51
	90	0.61	40	30	24	20		90	1.65	109	82	65	54
4916-75	100	0.65	43	32	26	21	4916-110	100	1.74	115	86	69	57
	120	0.71	47	35	28	23		120	1.90	125	94	75	63
	60	0.60	42	31	25	20	4916-115	60	1.85	122	91	73	61
	80	0.68	47	35	27	22		80	2.13	141	105	84	70
4916-77	90	0.72	49	37	29	23		90	2.26	149	112	89	75
	100	0.76	51	39	30	24		100	2.36	158	118	95	79
4916-81	120	0.82	55	41	32	25	4916-125	120	2.61	172	129	103	86
	60	0.70	48	36	30	24		60	2.11	139	105	84	70
	80	0.78	52	39	32	26		80	2.44	161	121	97	81
	90	0.82	54	41	33	27		90	2.59	171	128	103	85
4916-83	100	0.86	56	42	34	28	4916-132	100	2.73	180	135	108	90
	120	0.91	59	44	35	29		120	2.99	197	148	118	99
	60	0.80	50	38	30	25		60	2.36	156	117	93	78
	80	0.88	54	40	32	27		80	2.72	180	135	108	90
4916-85	90	0.92	56	41	33	28	4916-140	90	2.89	191	144	114	95
	100	0.96	58	42	34	29		100	3.04	201	150	120	100
	120	1.01	61	44	35	30		120	3.34	220	165	132	110
	60	0.85	51	39	31	26	4916-147	60	2.73	180	135	106	90
	80	0.93	55	41	33	28		80	3.15	208	156	125	104
	90	0.97	57	42	34	29		90	3.34	220	165	132	110
	100	1.01	59	43	35	30		100	3.52	232	174	139	116
4916-87	120	1.06	62	44	36	31	4916-156	120	3.86	255	191	153	127
	60	0.90	53	40	32	27		60	2.97	196	147	118	98
	80	0.98	57	42	34	29		80	3.43	226	170	136	113
	90	1.02	59	43	35	30		90	3.64	240	180	144	120
4916-89	100	1.06	61	44	36	32	4916-166	100	3.84	253	190	152	127
	120	1.11	64	46	37	33		120	4.21	278	208	167	139
	60	0.95	54	41	33	28		60	3.34	221	166	132	110
	80	1.03	58	42	34	29		80	3.86	255	191	153	127
4916-91	90	1.07	60	43	35	31	4916-173	90	4.10	271	203	162	135
	100	1.11	62	44	36	32		100	4.32	285	214	171	143
	120	1.16	65	46	37	33		120	4.73	312	234	187	156
	60	1.00	56	42	34	28		60	3.70	244	183	146	122
4916-93	80	1.08	58	43	35	30	4916-177	80	4.27	282	211	169	141
	90	1.12	60	44	36	31		90	4.53	299	224	179	149
	100	1.16	62	45	37	32		100	4.77	315	236	189	157
	120	1.21	65	47	38	33		120	5.23	345	259	207	173

**Conversion Factors for Spraying Solutions other than 28% Nitrogen for use only with the Above GPA tables

Weight of Solution		Conversion Factor	
7.0 lbs./gal.		0.91	
8.0 lbs./gal.		0.87	
8.34 lbs./gal. - Water		0.88	
9.0 lbs./gal.		0.92	
10.0 lbs./gal.		0.97	

Weight of Solution		Conversion Factor	
10.65 lbs./gal. - 28% N		1.00	
11.00 lbs./gal.		1.01	
12.0 lbs./gal.		1.06	
14.0 lbs./gal.		1.14	

Application Information Using 4916 Orifice Plates
(Table based on spraying 28% Nitrogen on 38 inch spacings)
**see conversion tables below for other weight solutions

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 38 inch spacing			
			3	4	5	6
4916-37	60	0.18	9.6	7.2	5.8	4.8
	80	0.21	10.9	8.2	5.6	5.5
	90	0.23	12.0	9.0	7.2	8.0
	100	0.24	12.5	9.4	7.5	6.3
4916-40	120	0.26	13.5	10.2	8.1	6.8
	60	0.22	11.5	8.6	6.9	5.7
	80	0.25	13.0	9.8	7.8	6.5
	90	0.27	14.1	10.6	8.4	7.0
4916-43	100	0.28	14.6	10.9	8.8	7.3
	120	0.31	16.2	12.1	9.7	8.1
	60	0.25	12.9	9.7	7.8	6.5
	80	0.29	15.1	11.3	9.1	7.6
4916-47	90	0.30	15.6	11.7	9.4	7.8
	100	0.32	16.7	12.5	10.0	8.3
	120	0.35	18.2	13.7	10.9	9.1
	60	0.30	16.4	11.6	9.2	7.7
4916-49	80	0.34	17.7	13.3	10.6	8.9
	90	0.36	18.8	14.1	11.3	9.4
	100	0.38	20	14.9	11.9	9.9
	120	0.42	22	16.4	13.1	10.9
4916-52	60	0.32	16.8	12.4	9.9	8.3
	80	0.37	19.3	14.5	11.6	9.6
	90	0.39	20	15.2	12.2	10.2
	100	0.41	21	16.0	12.8	10.7
4916-55	120	0.45	23	17.6	14.1	11.7
	60	0.36	18.8	14.1	11.3	9.4
	80	0.42	22	16.4	13.1	10.9
	90	0.44	23	17.2	13.8	11.5
4916-56	100	0.47	24	18.4	14.7	12.2
	120	0.51	27	20	15.9	13.3
	60	0.41	21	15.9	12.7	10.6
	80	0.47	24	18.4	14.7	12.2
4916-59	90	0.50	28	20	15.6	13.0
	100	0.52	27	20	16.3	13.5
	120	0.57	30	22	17.8	14.9
	60	0.43	22	16.9	13.5	11.2
4916-61	80	0.50	26	20	15.6	13.0
	90	0.53	28	21	16.6	13.8
	100	0.58	29	22	17.5	14.6
	120	0.61	32	24	19.1	15.9
4916-61	60	0.47	24	18.2	14.6	12.2
	80	0.54	28	21	16.9	14.1
	90	0.57	30	22	17.8	14.9
	100	0.60	31	23	18.8	15.6
4916-61	120	0.66	34	26	21	17.2
	60	0.50	26	20	15.7	13.1
	80	0.58	30	23	18.1	15.1
	90	0.61	32	24	19.1	15.9
4916-61	100	0.65	34	25	20	16.9
	120	0.71	37	28	22	18.5

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 38 inch spacing			
			3	4	5	6
4916-65	60	0.56	29	22	17.6	14.6
	80	0.65	34	25	20	16.9
	90	0.69	36	27	22	18.0
	100	0.73	38	29	23	19.0
4916-68	120	0.80	42	31	25	21
	60	0.62	32	24	19.3	16.0
	80	0.71	37	28	22	18.5
	90	0.75	39	29	23	19.5
4916-70	100	0.80	42	31	25	21
	120	0.87	45	34	27	23
	60	0.66	34	26	21	17.2
	80	0.76	40	30	24	19.8
4916-75	90	0.81	42	32	25	21
	100	0.85	44	33	27	22
	120	0.93	48	36	29	24
	60	0.75	39	29	23	19.5
4916-80	80	0.86	45	34	27	22
	90	0.92	48	36	29	24
	100	0.97	51	38	30	25
	120	1.06	55	41	33	28
4916-83	60	0.85	44	33	27	22
	80	0.99	52	39	31	26
	90	1.05	55	41	33	27
	100	1.10	57	43	34	29
4916-89	120	1.21	63	47	38	32
	60	0.97	50	38	30	25
	80	1.12	58	44	35	29
	90	1.19	62	47	37	31
4916-93	100	1.25	65	49	39	33
	120	1.37	71	54	43	36
	60	1.06	55	41	33	28
	80	1.22	64	48	38	32
4916-95	90	1.29	67	50	40	34
	100	1.36	71	53	43	35
	120	1.49	78	58	47	39
	60	1.18	61	46	37	31
4916-98	80	1.38	71	53	43	35
	90	1.44	75	55	45	38
	100	1.52	79	59	48	40
	120	1.67	87	65	52	44
4916-98	60	1.23	64	48	39	32
	80	1.42	74	55	44	37
	90	1.51	79	59	47	39
	100	1.59	83	62	50	41
4916-98	120	1.74	91	68	54	45
	60	1.35	70	53	42	35
	80	1.55	81	61	48	40
	90	1.65	86	64	52	43
4916-98	100	1.74	91	68	54	45
	120	1.90	99	74	59	50

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 38 inch spacing			
			3	4	5	6
4916-103	60	1.41	75	56	44	37
	80	1.63	85	64	51	42
	90	1.72	90	67	54	45
	100	1.82	95	71	57	47
4916-107	120	1.99	104	78	62	52
	60	1.68	83	62	50	41
	80	1.83	95	72	57	48
	90	1.94	101	76	61	51
4916-110	100	2.04	105	80	64	53
	120	2.24	117	88	70	58
	60	1.32	69	52	41	34
	80	1.62	79	59	48	40
4916-115	90	1.62	84	63	51	42
	100	1.70	89	66	53	44
	120	1.87	97	75	68	49
	60	1.85	96	72	58	48
4916-125	80	2.13	111	83	87	55
	90	2.28	118	88	71	59
	100	2.39	125	93	75	62
	120	2.51	136	102	82	68
4916-132	60	2.11	110	83	88	55
	80	2.44	127	95	76	64
	90	2.59	135	101	81	67
	100	2.73	142	107	85	71
4916-140	120	2.99	156	117	93	78
	60	2.36	123	92	74	61
	80	2.72	142	106	85	71
	90	2.89	151	113	90	75
4916-147	100	3.04	158	119	95	79
	120	3.34	174	131	104	87
	60	2.73	142	107	85	71
	80	3.15	184	123	98	82
4916-156	90	3.34	174	131	104	87
	100	3.52	183	138	110	92
	120	3.86	201	151	121	101
	60	2.97	155	116	93	77
4916-166	80	3.43	179	134	107	89
	90	3.64	190	142	114	85
	100	3.84	200	150	120	100
	120	4.21	219	165	132	110
4916-166	60	3.34	174	131	105	87
	80	3.86	201	151	121	101
	90	4.10	216	160	128	107
	100	4.32	225	169	135	113
4916-166	120	4.73	248	185	148	123
	60	3.70	193	144	116	96
	80	4.27	222	167	133	111
	90	4.63	236	177	142	118
4916-166	100	4.77	249	186	149	124
	120	5.23	273	204	164	136

**Conversion Factors for Spraying Solutions other than 28% Nitrogen for use only with the Above GPA tables

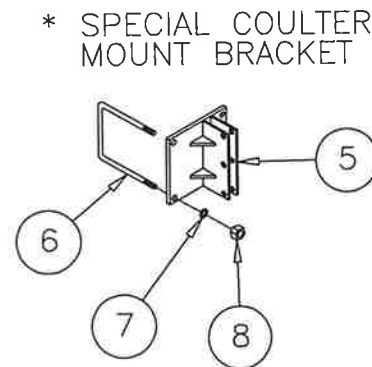
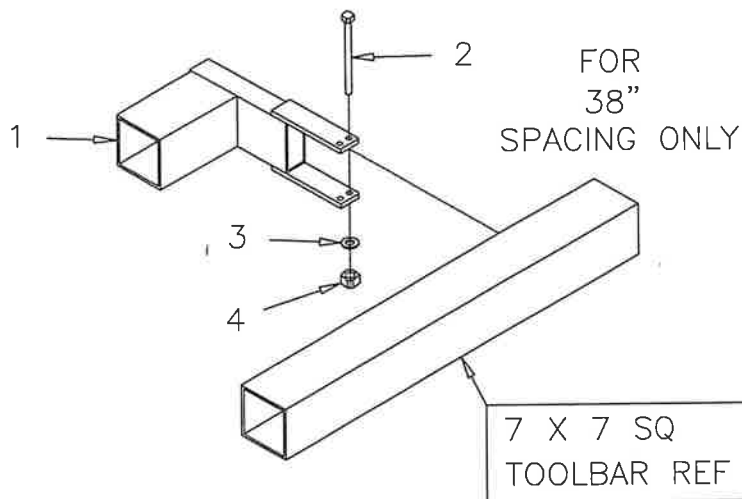
Weight of Solution	Conversion Factor
7.0 lbs./gal.	0.81
8.0 lbs./gal.	0.87
8.34 lbs./gal. - Water	0.88
9.0 lbs./gal.	0.92
10.0 lbs./gal.	0.97

Weight of Solution	Conversion Factor
10.65 lbs./gal. - 28% N	1.00
11.00 lbs./gal.	1.01
12.0 lbs./gal.	1.06
14.0 lbs./gal.	1.14

MISC STAGGER BRACKETS

FOR 6300 & 6400 TOOLBARS ONLY

63KSTAGBRKT
REV 06-08-12



SEE THE APPROPRIATE TOOLBAR LAYOUT FOR THE ROW SPACING
DESIRED TO DETERMINE PROPER LOCATION OF BRACKETS

ITEM	PART NO.	DESCRIPTION (12 ROW 30" SP)	QTY
------	----------	-----------------------------	-----

1	47015001	STD STAGGER BRACKET	2
2	18058479	BOLT, HEX 3/4-10 NC X 9.50 LG GR5 ZC	4
3	18891800	LOCKWASHER, 3/4 ZC	4
4	18418400	NUT, HEX 3/4-10 NC ZC	4

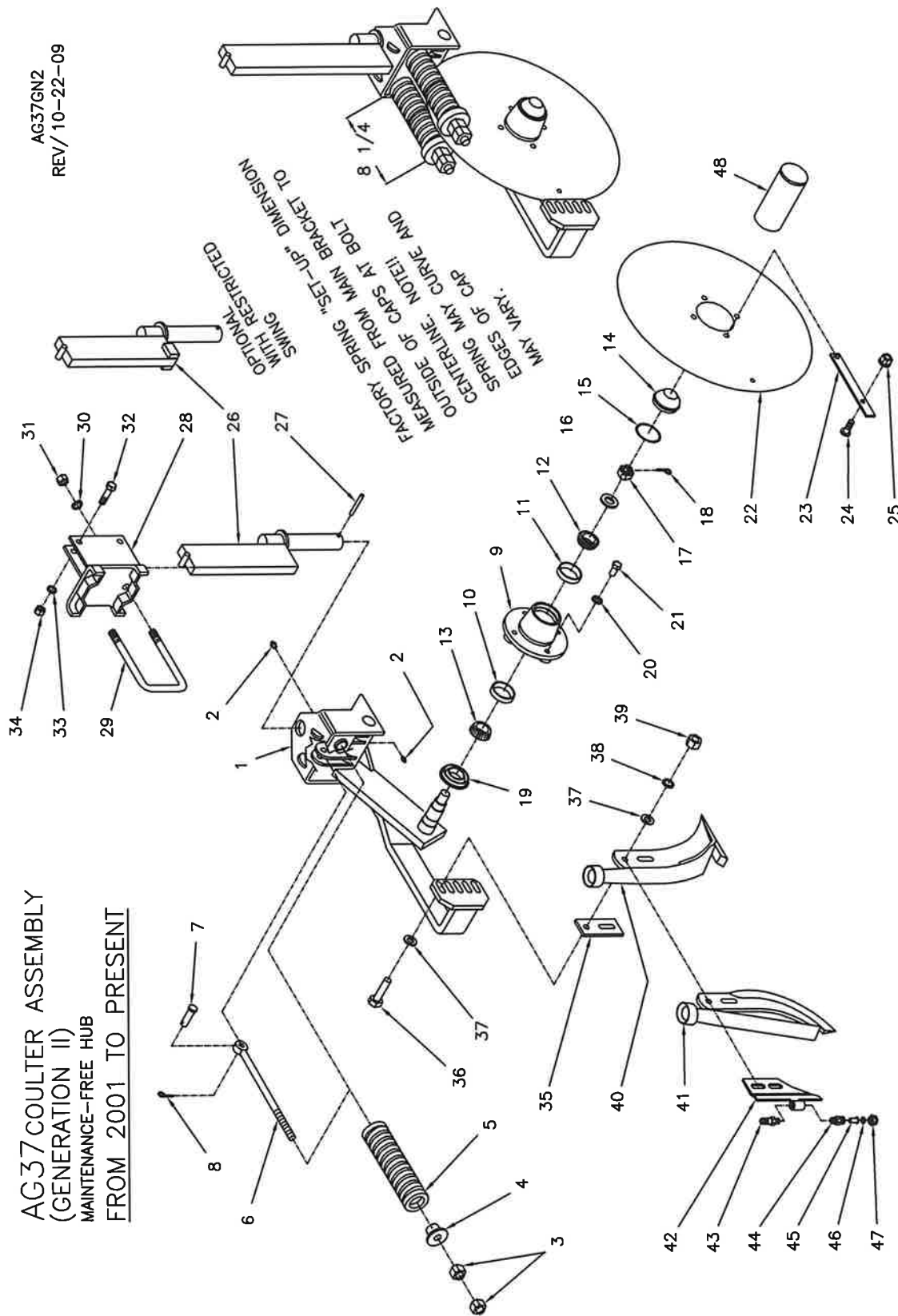
ITEM	PART NO.	DESCRIPTION (12 ROW 38" SP)	QTY
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1	47015001	STD STAGGER BRACKET	2
2	18058479	BOLT, HEX 3/4-10 NC X 9.50 LG GR5 ZC	4
3	18891800	LOCKWASHER, 3/4 ZC	4
4	18418400	NUT, HEX 3/4-10 NC ZC	4
5*	47305140	SPECIAL COULTTER MOUNT BRACKET	2
6	47302730	U-BOLT, 1/2-13	4
7	18891400	LOCKWASHER, 1/2 ZC	8
8	18417400	NUT, HEX 1/2-13 ZC	8

* SEE SHANK LAYOUTS FOR AN EXAMPLE HOW 47305140
(SPECIAL COULTTER MOUNT BRACKET) IS USED NEAR HINGE
IN THE SHANK LAYOUT SECTION OF THIS MANUAL.

AG37COULTER ASSEMBLY
(GENERATION II)
MAINTENANCE-FREE HUB
FROM 2001 TO PRESENT

AG37GN2
REV/ 10-22-09



AG37 COULTER ASSEMBLY (GENERATION II)

AG37GN2LS
REV. 01/28/22

with MAINTENANCE-FREE HUB MOUNTING INSTRUCTIONS AND PARTS LIST

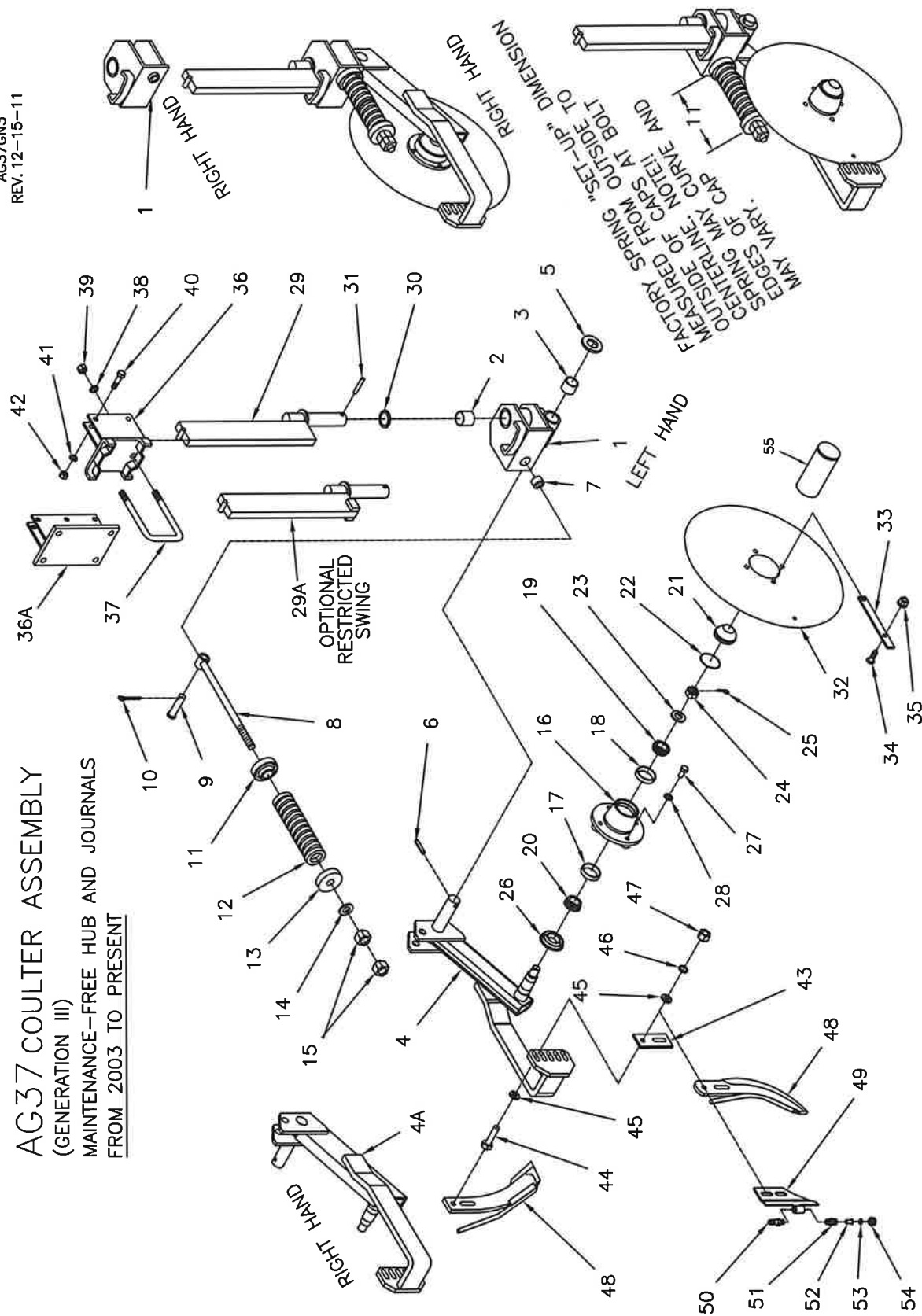
- Your AG37 main bracket and hub are pre-assembled at the factory and the trip springs are pre-loaded to provide 525 pounds blade pressure. This should be adequate for normal field conditions. The coulters arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulters arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring, tighten the spring tension till rigid normal operation is achieved.
- Assemble the blade (item 22) to the hub, and (if used) the scraper (item 23) to the blade with the hardware (item 24 and item 25).
- Assemble the swivel bar (item 26) to the main bracket (item 1). Be sure the 1 x 3 bar is positioned between the half moon stops on top of the main bracket. Install the roll pin (item 27).
- Position the mounting brackets (item 28) at the desired spacing and fasten with the U-bolts (item 29) and hardware (items 30 and 31).
- Install the coulters assemblies to the mounting brackets (item 28) and fasten with the bolts (item 32) and hardware (items 33 and 34).
- Assemble the hardware snug only.
- Adjust the coulters blade to the desired depth and tighten the hardware securely.
- Assemble the knife (item 40 or 41) to the coulters assembly with the shims (item 35), bolts (item 36) and hardware (items 37, 38 and 39). Select and install the shims in a manner so that as you rotate the blade a complete revolution you observe that the point of the knife and the lower area of the knife is behind the blade at all times. The knife should also be set at zero clearance (see step 7). This will maintain the blade's trash cutting ability. The top of the knife should be away from the blade far enough so that the scraper can pass the top, thick part of the knife without rubbing the knife. NOTE: The bolt head should be located next to the bracket (see illustration) and any shims not needed should be placed between the backside of the bracket and the flatwasher next to the head of the bolt.
- Adjust the knife position relative to the blade edge. The backswept knife (item 41) should be positioned to obtain maximum backsweep. Locate the upper bolt to the front of the slot and the lower bolt to the back of the slot. The forward swept knife (item 40) should be positioned as close to the blade edge as possible. Rotate the coulters blade to determine the point of maximum eccentric runout of the circumference and adjust the knife to zero clearance at this point. NOTE: The knife will have to be re-adjusted regularly.
- Make sure all hardware is tightened securely.
- During field operation grease the swivel bar journals weekly. And grease for end-of-season storage. Inspect the coulters blade and knife clearance daily. Adjust per step 8 if required. The coulters hub is greased-for-life and should need no regular maintenance. Check for damage to the dust cap and grease seal daily.

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47309570	MAIN BRKT. & BLADE ASSEMBLY, L.H. (W/O HUB OR BLADE)	1	23	47306921	SCRAPER	1	30	18991600	LOCKWASHER, 5/8	2
2	47309588	MAIN BRKT. & BLADE ASSEMBLY, R.H. (W/O HUB OR BLADE)	1	24	18033810	BOLT, 3/8-16NC. X 1, TRUSS HEAD	1	31	18417900	HEX. NUT, 5/8-11NC.	2
3	18901805	INCLUDES ITEMS 1 TO 22	1	25	18496800	HEX. NUT, 3/8-16NC. FLANGED	1	32	18057434	BOLT, 1/2-13NC. X 2 1/2	2
4	18407900	MAIN BRKT W/HUB ASSEMBLY, L.H. OPT.	1	26	47303811	COULTER SWIVEL BAR, 12" (INCL. ITEM 27)	1	33	18991400	LOCKWASHER, 1/2	2
5	47301530	MAIN BRKT W/HUB ASSEMBLY, R.H. OPT.	1	27	47309811	COULTER SWIVEL BAR, 12" (INCL. ITEM 27)	1	34	18417400	HEX. NUT, 1/2-13NC.	2
6	47301524	INCLUDES ITEMS 1 TO 21 (W/O BLADE)	1	28	OPTIONAL	COULTER BAR W/RESTRICTED SWING	1	35	47306681	SHIM, 1/4	1
7	47301547	MAIN BRACKET, L.H. (W/O HUB OR BLADE)	1	29	47005147	10 DEG. AND 15 DEG. AVAILABLE	1	36	47306682	SHIM, 1/8	1
8	18541428	MAIN BRACKET, R.H. (W/O HUB OR BLADE)	1	30	47005147L	18" BAR 10" RESTR. SWING (BOTH WAYS)	1	37	18057432	BOLT, 1/2-13NC. X 2 1/4	2
9	18560722	GREASE ZERK, STRAIGHT	2	31	47005147R	18" BAR 10" RESTR. SWING (LH ONLY)	1	38	18811400	LOCKWASHER, 1/2	2
10	47300350	HEX. NUT, 5/8-11NC.	4	32	47005149	18" BAR 10" RESTR. SWING (RH ONLY)	1	39	18811400	LOCKWASHER, 1/2	2
11	47301524	SPRING CAP	2	33	47005149L	18" BAR 15" RESTR. SWING (BOTH WAYS)	1	40	47309735	HEX. NUT, 1/2-13NC.	2
12	47301547	COMPRESSION SPRING	2	34	47005149R	18" BAR 15" RESTR. SWING (LH ONLY)	1	41	47309734	HEX. NUT, 1/2-13NC.	2
13	18541428	EYE BOLT, SPRING RETAINER	2	35	47005149R	18" BAR 15" RESTR. SWING (RH ONLY)	1	42	47309742	DRY KNIFE, W/O BUSHING, (FORWARD)	1
14	18560722	CLEVIS PIN, 1/2 X 1 3/4	2	36	18511032	ROLL PIN, 1/4 X 2 1/4	1	43	47007468	LIQUID KNIFE, (FORWARD)	1
15	47300350	COTTER PIN, 5/32 X 1	2	37	18511032	ROLL PIN, 1/4 X 2 1/4	1	44	47309748	LIQUID KNIFE, (FORWARD)	1
16	47300351	HUB COMPLETE (W/O SEAL & BOLTS)	2	38	47309851	MOUNTING BRACKET, (4" VERTICAL) STD.	1	45	47309759	DRY KNIFE, W/O BUSHING, (BACKSWEEP)	1
17	47300351	INCLUDES ITEMS 9 TO 15	1	39	47006951	U-BOLT, 5/8-11NC. (4" V X 6" H BAR)	1	46	47309750	DRY KNIFE, W/O BUSHING, (BACKSWEEP)	1
18	47300351	HUB WITH CUPS, INNER	1	40	44001616	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1	47	47309038	NOZZLE BRACKET	1
19	47005010	BEARING CUP, INNER	1	41	47309887	OTHER MOUNTING BRACKET OPTIONS	1	48	47309038	HOSEBAR, S.S. 1/4 NPT. X 1/2 TUBE	1
20	47005010	BEARING CUP, OUTER	1	42	47309887	MOUNTING BRKT., (2 1/2" VERTICAL)	1	49	100859	ADAPTER	1
21	47005048	BEARING CONE, OUTER	1	43	47006659	U-BOLT, 5/8-11NC. (2 1/2" V X 2 1/2" H BAR)	1	50	500192	STREAM STABILIZER	1
22	47005513	BEARING CONE, INNER	1	44	47309732	MOUNTING BRACKET, (3" VERTICAL)	1	51	504015	SELECT FROM ORIFICE CHART	1
23	47005513	DUST CAP	1	45	47309907	MOUNTING BRKT., (3" VERT. EXT.)	1	52	503127	CAP	1
24	47990351	O-RING DUST SEAL	1	46	47306677	U-BOLT, 5/8-11NC. (3" V X 3" H BAR)	1	53	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1
25	47300352	SPINDLE WASHER	1	47	47309888	MOUNTING BRKT., (6" VERTICAL)	1				
26	47300352	SLOTTED NUT, 7/8-14UNF	1	48	47309888	MOUNTING BRKT., (6" VERTICAL)	1				
27	47300353	COTTER PIN, 5/32 X 1 1/2	1	49	47010154	U-BOLT, 5/8-11NC. (6" V X 4" H BAR)	1				
28	47300353	GREASE SEAL	1	50	47009847	U-BOLT, 5/8-11NC. (6" V X 6" H BAR)	1				
29	40030326	LOCK WASHER, 1/2 I.D.	4	51	47309736	MOUNTING BRKT., (7" VERTICAL)	1				
30	18991400	WHEEL BOLT, 1/2-20NF X 1	4	52	47302730	U-BOLT, 1/2-13NC. (7" V X 7" H BAR)	1				
31	18057522	COULTER BLADE, 20" RIPPLED	1	53	NOTE FOR 7" U-BOLT USE 1/2-13NC. HEX. NUTS						

REF 47300300 SPINDLE ONLY

AG37GN3
REV. 12-15-11

AG37 COULTER ASSEMBLY (GENERATION III) MAINTENANCE-FREE HUB AND JOURNALS FROM 2003 TO PRESENT



AG37 COULTER ASSEMBLY (GENERATION III)

AG37GN3LS
REV. 01/28/22

MAINTENANCE-FREE HUB AND JOURNALS MOUNTING INSTRUCTIONS AND PARTS LIST

- Your AG37 Gen III main bracket and hub are pre-assembled at the factory and the trip spring is preloaded to provide 600 pounds blade pressure. This should be adequate for normal field conditions. The coulters should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulters are staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring, tighten the spring tension till rigid normal operation is achieved.
- Assemble the blade (item 32) to the hub, and (if used) the scraper (item 33) to the blade with the hardware (items 34 & 35).
- Assemble the swivel bar (item 29) to the bracket assembly. Be sure the swivel bar is positioned between the swivel control lugs on top of the main bracket. Install the washer (item 30) and pin (item 31).
- Position the mounting bracket (item 36) at the desired spacing and fasten with the u-bolt (item 37) and hardware (items 38 and 39).
- Install the coulters assemblies in the mounting brackets (item 36) and fasten with the bolts (item 40) and hardware (items 41 and 42). Assemble the hardware snug only.
- Adjust the coulters blade to the desired depth and tighten the hardware securely.
- Assemble the knife (item 48) to the coulters assembly with the shims (item 43), bolts (item 44) and hardware (items 45, 46 and 47). Select and install the shims in a manner so that as you rotate the blade a complete revolution you see that the point of the knife and the lower area of the knife is behind the blade at all times. The backstop knife should be positioned to obtain maximum backstop. Locate the upper bolt to the front of the slot and the lower bolt to the back of the slot. Note, the bolt head should be located next to the bracket (see illustration) and any shims not needed should be placed between the back side of the bracket and the flat washer next to the head of the bolt.
- The front swept knife should be positioned as close to the blade edge as possible. Zero clearance. This will maintain the blade's trash cutting ability. Rotate the coulters blade to determine the point of maximum eccentric runout of the circumference and adjust the knife to zero clearance at this point. The top of the knife should be away from the blade far enough so that the scraper can pass the top, thick part, of the knife without rubbing the knife. NOTE: The knife position should be inspected frequently and re-adjusted regularly.
- Make sure all hardware is tightened securely.

- No field operation lubricating is required. The hubs are sealed and greased for life. The swivel journals are assembled with grease-less bushings. For repair procedure, see separate sheet titled PROCEDURE TO SERVICE A COULTER HUB.

REF 47300300 SPINDLE ONLY

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47004500	MAIN BRKT. & BLADE, L.H. (STANDARD)	1	20	47005548	BEARING CONE, INNER	1	37	47010154	U-BOLT, 5/8-11NC. (6" X 4" H BAR)	1
2	47009954	MAIN BRKT. & BLADE, RIGHT HAND	OPT.	21	47005513	DUST CAP	1	38	47009847	U-BOLT, 5/8-11NC. (6" X 6" H BAR)	1
3	47009953	INCLUDES ITEMS 1 TO 32	1	22	479030351	O-RING DUST SEAL	1	39	47309736	MOUNTING BRACKET, (7" VERTICAL)	1
4	47004507	MAIN BRKT. W/HUB, L.H. (STANDARD)	1	23	47300352	SPINDLE WASHER	1	40	47302230	U-BOLT, 1/2-13NC. (7" X 7" H BAR)	1
4A	47014507	MAIN BRKT. W/HUB, RIGHT HAND	OPT.	24	47300353	SLOTTED NUT, 7/8-14UNF	1	41	18891400	LOCKWASHER, 1/2	4
		INCLUDES ITEMS 1 TO 31 (W/O BLADE)	1	25	18560726	COTTER PIN, 5/32 X 1 1/2	1	42	18417400	HEX. NUT, 1/2-13NC	4
		INCLUDES ITEMS 1 TO 31 (W/O BLADE)	1	26	40030326	GREASE SEAL	1	43	18891600	LOCKWASHER, 5/8	2
		HOUSING W/BUSHINGS, L.H. (STD)	1	27	18057522	WHEEL BOLT, 1/2-20NF X 1	4	44	18417900	HEX. NUT, 5/8-11NC.	2
		HOUSING W/BUSHINGS, RIGHT HAND	OPT.	28	18891400	LOCK WASHER, 1/2 I.D.	4	45	18057434	BOLT, 1/2-13NC. X 2 1/2	2
		SWIVEL BUSHING, 1 1/2 I.D.	2	29	47304522	COULTER SWIVEL BAR, 18" STANDARD	1	46	18891400	LOCKWASHER, 1/2	2
		PIVOT ARM, L.H. FRONT SWEPT KNIFE	2		OPTIONAL	10 DEG. AND 15 DEG. AVAILABLE	1	47	47306662	SHIM, 1/16	2
		PIVOT ARM, R.H. FRONT SWEPT KNIFE	OPT.	29A	47005144	18" BAR 10" RESTR. SWING (BOTH WAYS)	1	48	47309756	LIQUID KNIFE, (FRONTSWEPT)	2
					47005144R	18" BAR 10" RESTR. SWING LH ONLY	1	49	47307468	LIQUID KNIFE, (FRONTSWEPT)	2
					47005145	18" BAR 15" RESTR. SWING (BOTH WAYS)	1	50	47309738	NOZZLE BRACKET (L.H.) (STANDARD)	1
					47005145R	18" BAR 15" RESTR. SWING RH ONLY	1	51	47309738	NOZZLE BRACKET (R.H.)	1
						CALL AS SYSTEMS FOR INFO.		52	47309738	HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE	1
								53	47309738	ADAPTER	1
								54	47309738	STREAM STABILIZER	1
								55	47309738	ORIFICE	1
										DUST CAP INSTALLATION TOOL (OPTIONAL)	1
5	18300326	RETAINING WASHER, 1 3/8 I.D.	1	30	18300323	RETAINING WASHER, 1 1/2 I.D.	1				
6	18511035	EXPANSION PIN, 3/8 X 2	1	31	18511036	EXPANSION PIN, 3/8 X 2 1/4	1				
7	2-6668	EYE BOLT GUIDE	1	32	47305027	COULTER BLADE, 20" RIPPLED	1				
8	47004518	EYE BOLT, SPRING RETAINER	1	33	47305027	OPT. USE W/FRONT SWEPT KNIFE ONLY	1				
9	18541835	CLEVIS PIN, 3/4 X 2 1/2	1	34	47306921	SCRAPER	1				
10	18560726	COTTER PIN, 5/32 X 1 1/2	1	35	47303810	BOLT, 3/8-16NC. X 1, TRUSS HEAD	1				
11	47004521	SPRING CAP, WITH COUNTER-BORE	1	36	18033810	HEX. NUT, 3/8-16NC. FLANGED	1				
12	47007085	COMPRESSION SPRING	1	37	18496800	HEX. NUT, 3/8-16NC. (4" VERTICAL) STD.	1				
13	47007085	SPRING CAP, STANDARD CASTING	1	38	47309893	MOUNTING BRACKET, (4" VERTICAL)	1				
14	18851800	FLAT WASHER, 3/4	1	39	47309893	HEX. NUT, 5/8-11NC. (4" VERTICAL)	1				
15	18448890	HEX. NUT, 3/4-10NC	2	40	47006951	U-BOLT, 5/8-11NC. (4" V X 6" H BAR)	1				
		HUB COMPLETE (W/O SEAL & BOLTS)	1	41	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				
		INCLUDES ITEMS 16 TO 22	1	42	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				
16	47300351	HUB WITH CUPS ITEMS 17 & 18	1	43	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				
17	47005510	BEARING CUP, INNER	1	44	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				
18	47005010	BEARING CUP, OUTER	1	45	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				
19	47005048	BEARING CONE, OUTER	1	46	47006951	U-BOLT, 5/8-11NC. (4" V X 4" H BAR)	1				

PROCEDURE TO SERVICE A COULTER HUB "MAINTENANCE-FREE" HUB

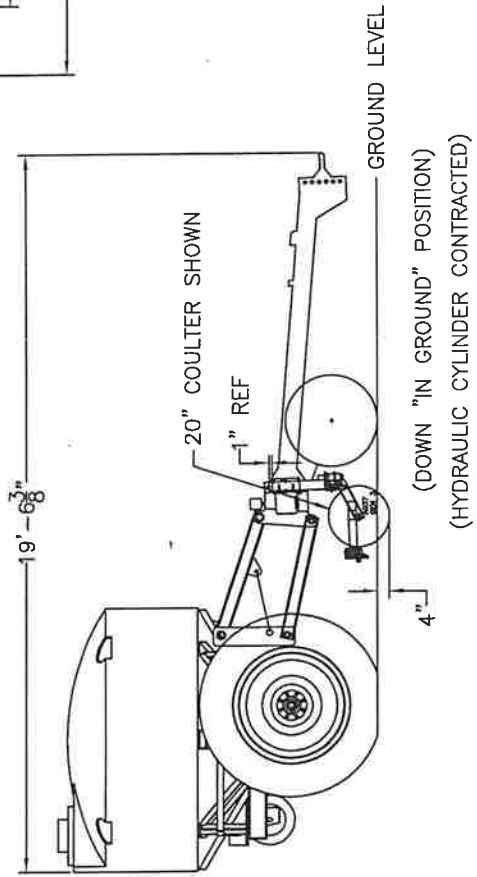
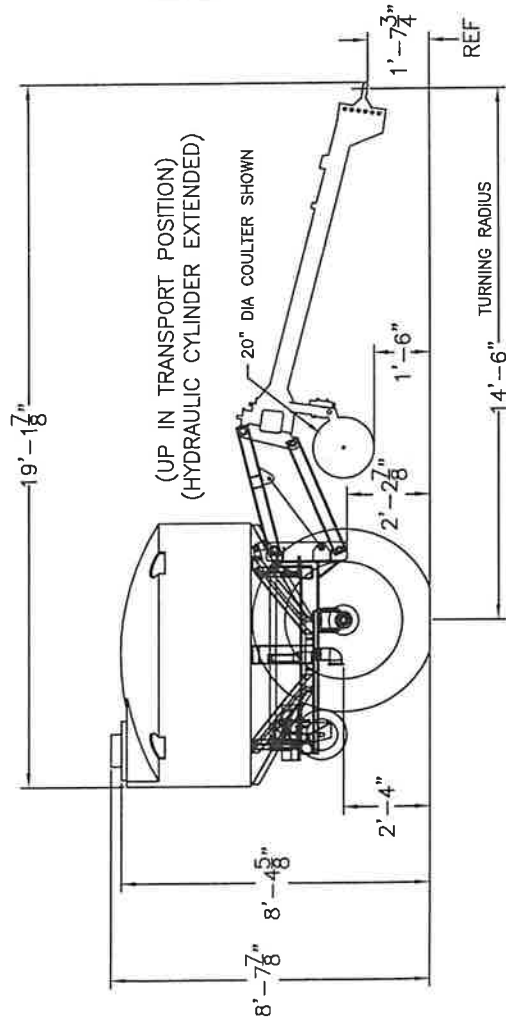
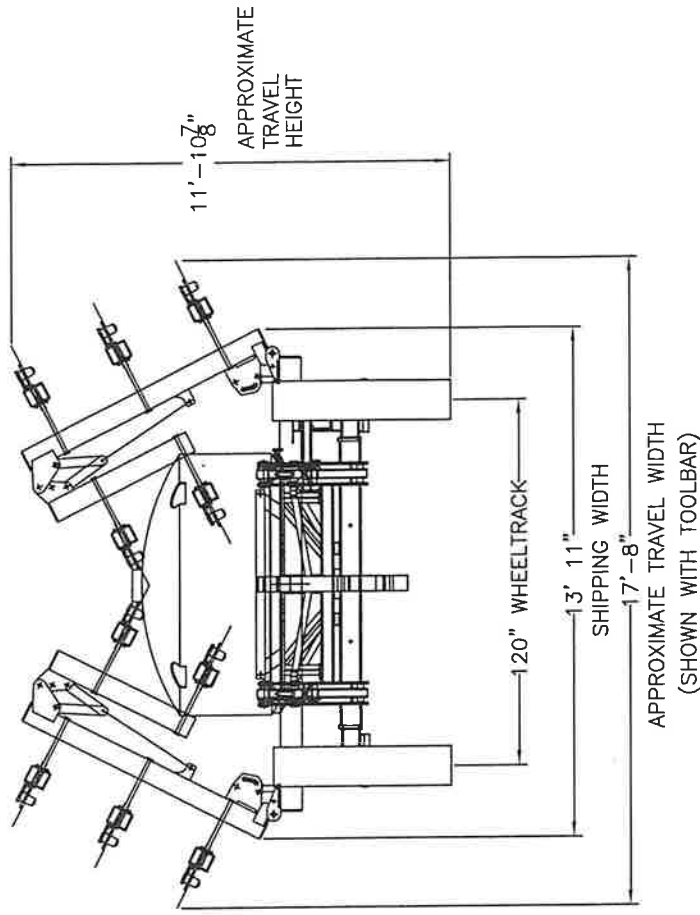
The factory procedure to assemble the coultter hub has been developed to obtain maximum life and to eliminate damage to the components. IT IS IMPORTANT to understand and follow this procedure when servicing the coultter hub. If possible, obtain an illustration of the coultter before proceeding.

ASSEMBLE THE COULTER HUB AS FOLLOWS.

- 1: Pre-pack the inner bearing cone with grease and insert it into the back of the hub.
- 2: Add grease to cover the back of the bearing and cup. CAUTION – CAUTION : Do not "fill" the back of the hub with grease. Do not get any grease on the sealing seat for the grease seal. The seal is treated with a sealing agent and grease or oil on the sealing surface will destroy the effectiveness of the seal. If there is any grease on the sealing surface in the hub wipe it with a degreasing agent.
- 3: Carefully insert the grease seal. Do not get any grease on the outer sealing surface of the seal. Tap or press the seal in place. Make sure the seal is entering and seating squarely.
- 4: Turn the hub over and fill the center cavity with grease. Pre-pack the outer bearing with grease and insert it into the hub.
- 5: Position the hub on the spindle and install the spindle washer and the slotted nut.
- 6: Rotate the hub by hand while tightening the slotted nut until the hub locks-up. This will align and seat the bearing rollers. Back off the nut until you can freely rotate the hub by hand and install the cotter pin. Bend the ends of the cotter pin "down" only. Not one half up and one half down.
- 7: Completely fill the front cavity of the hub with grease.
- 8: Inspect the hub to make sure it is properly assembled and then install the dust cap.
CAUTION: Once the dust cap is installed it cannot be removed without destroying it. Take care to be sure the dust cap is square to the bore when starting and seating it. An old dust cap or a piece of tubing with the right I. D. and O. D. may be helpful.
- 9: You may now assemble the coultter blade. During field operation check the coultter blade periodically for wobble. This could be a result of hitting rocks and/or normal wear. Re-adjust the bearing tension (see step 6). Wobble in the hub could damage the seal and cause bearing failure. Note that you will need to install a new dust cap after a bearing adjustment. REVIEW step 8.

6300 SERIES TOOLBAR AND 6300 CADDY SPECIFICATIONS 2010

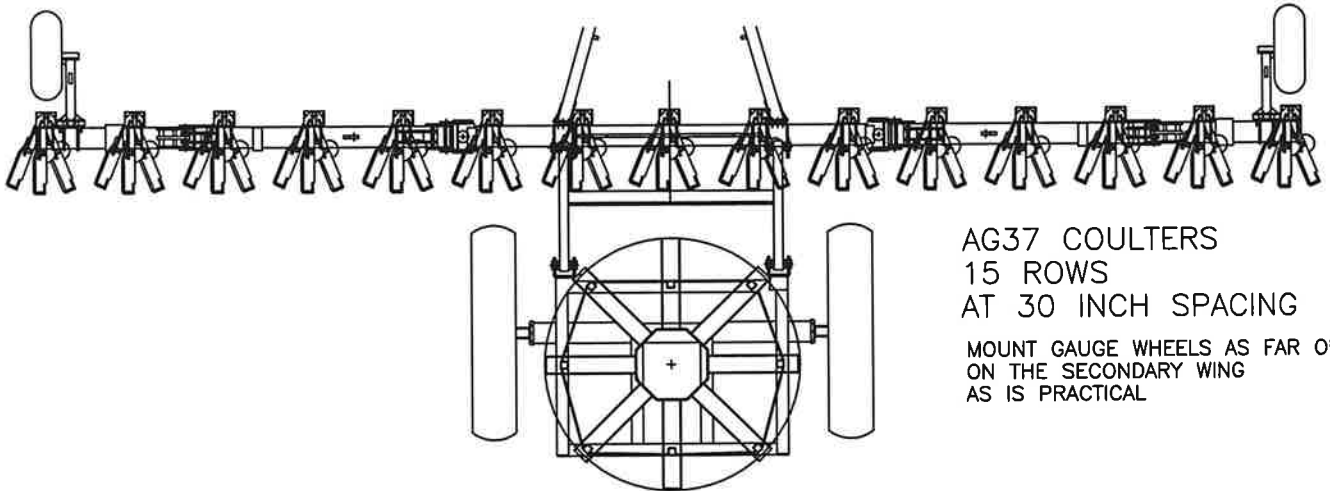
63KSPEC SLQ10
11-16-10



6300 SERIES TOOLBAR

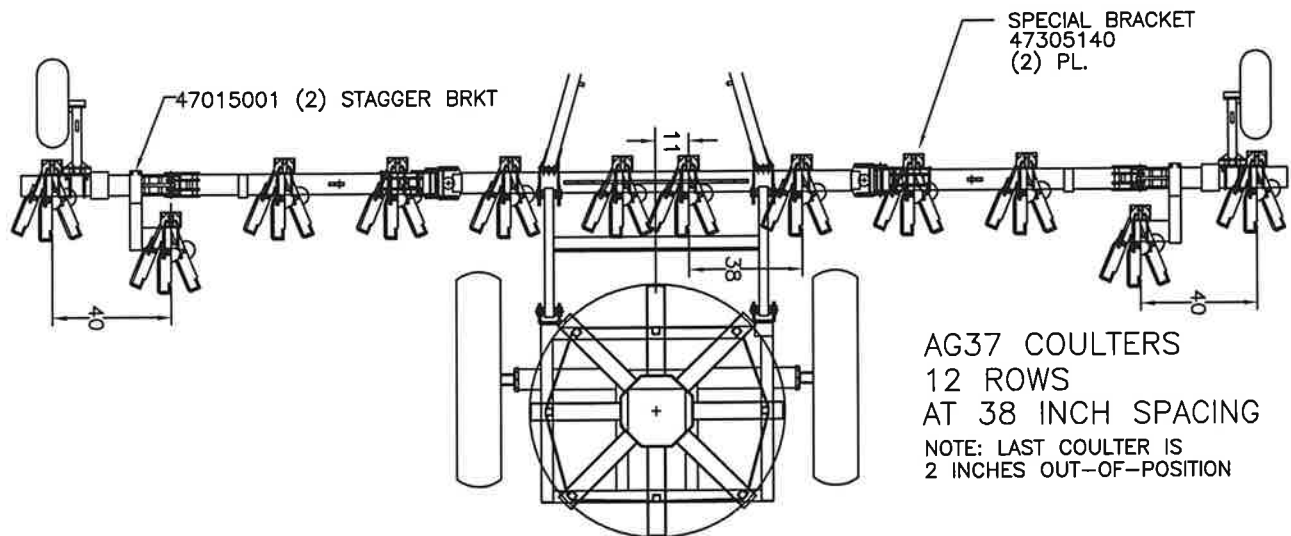
WITH COULTERS FOR
LIQUID APPLICATION

63KSHNKLQ
pro 11-23-10



AG37 COULTERS
15 ROWS
AT 30 INCH SPACING

MOUNT GAUGE WHEELS AS FAR OUT
ON THE SECONDARY WING
AS IS PRACTICAL



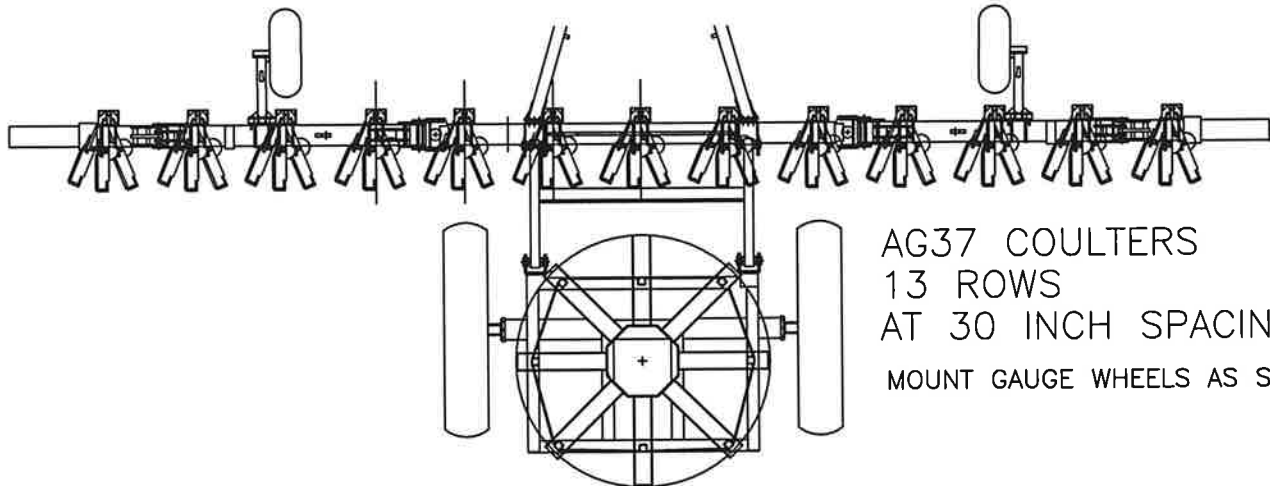
AG37 COULTERS
12 ROWS
AT 38 INCH SPACING

NOTE: LAST COULTER IS
2 INCHES OUT-OF-POSITION

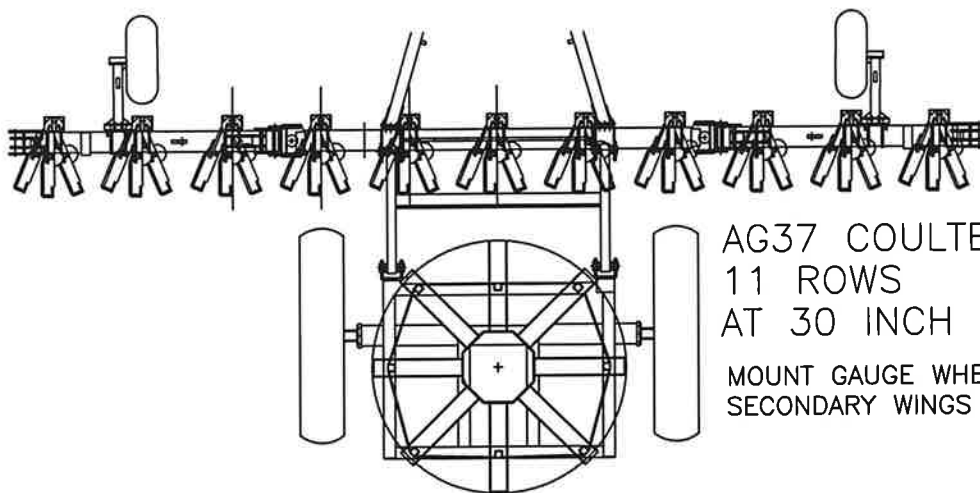
6300 SERIES TOOLBAR

WITH COULTERS FOR
LIQUID APPLICATION

63K13ROWARR
pro 11-16-10



AG37 COULTERS
13 ROWS
AT 30 INCH SPACING
MOUNT GAUGE WHEELS AS SHOWN

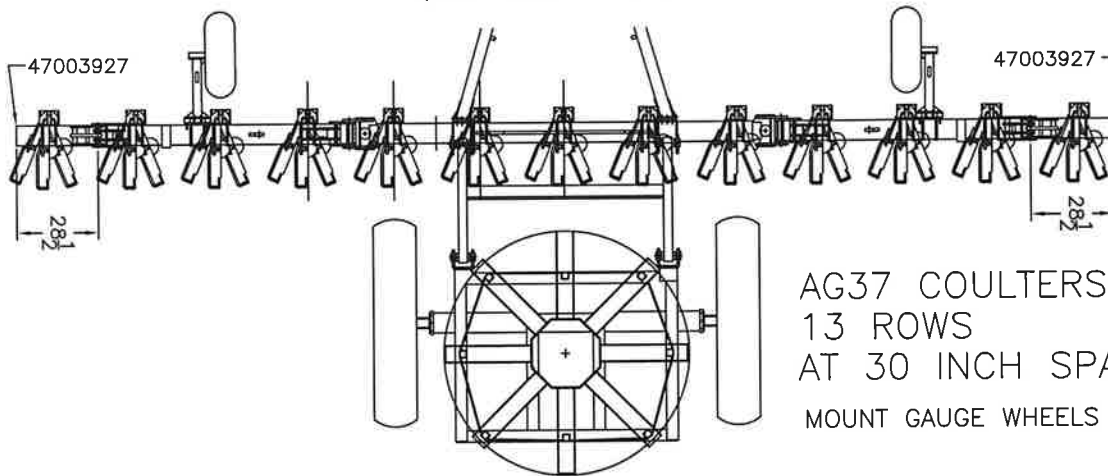


AG37 COULTERS
11 ROWS
AT 30 INCH SPACING
MOUNT GAUGE WHEELS AS SHOWN
SECONDARY WINGS NOT REQUIRED

6300 SERIES TOOLBAR

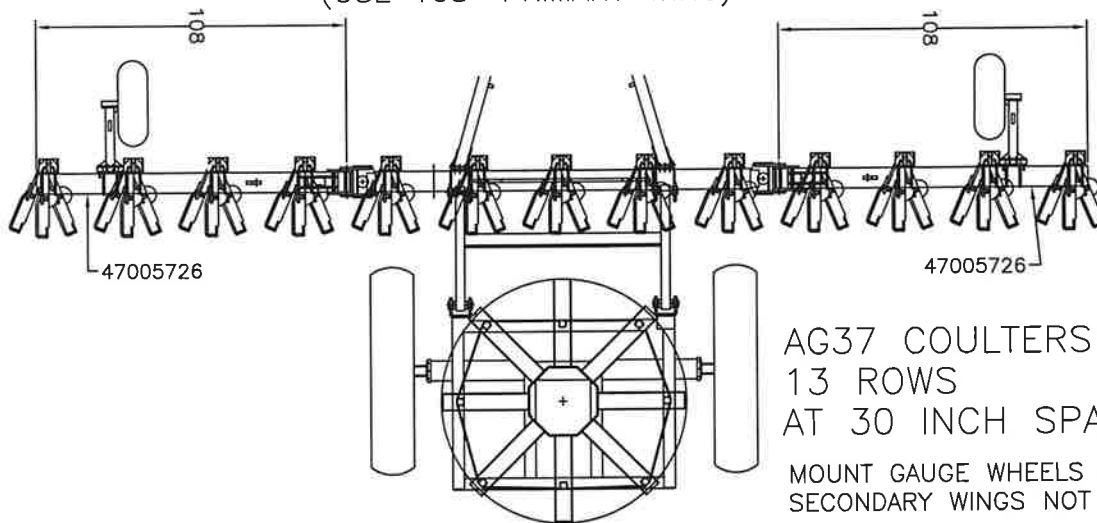
63K13-30
REV 05-15-13

WITH COULTERS FOR
LIQUID APPLICATION
(with 2nd wings)

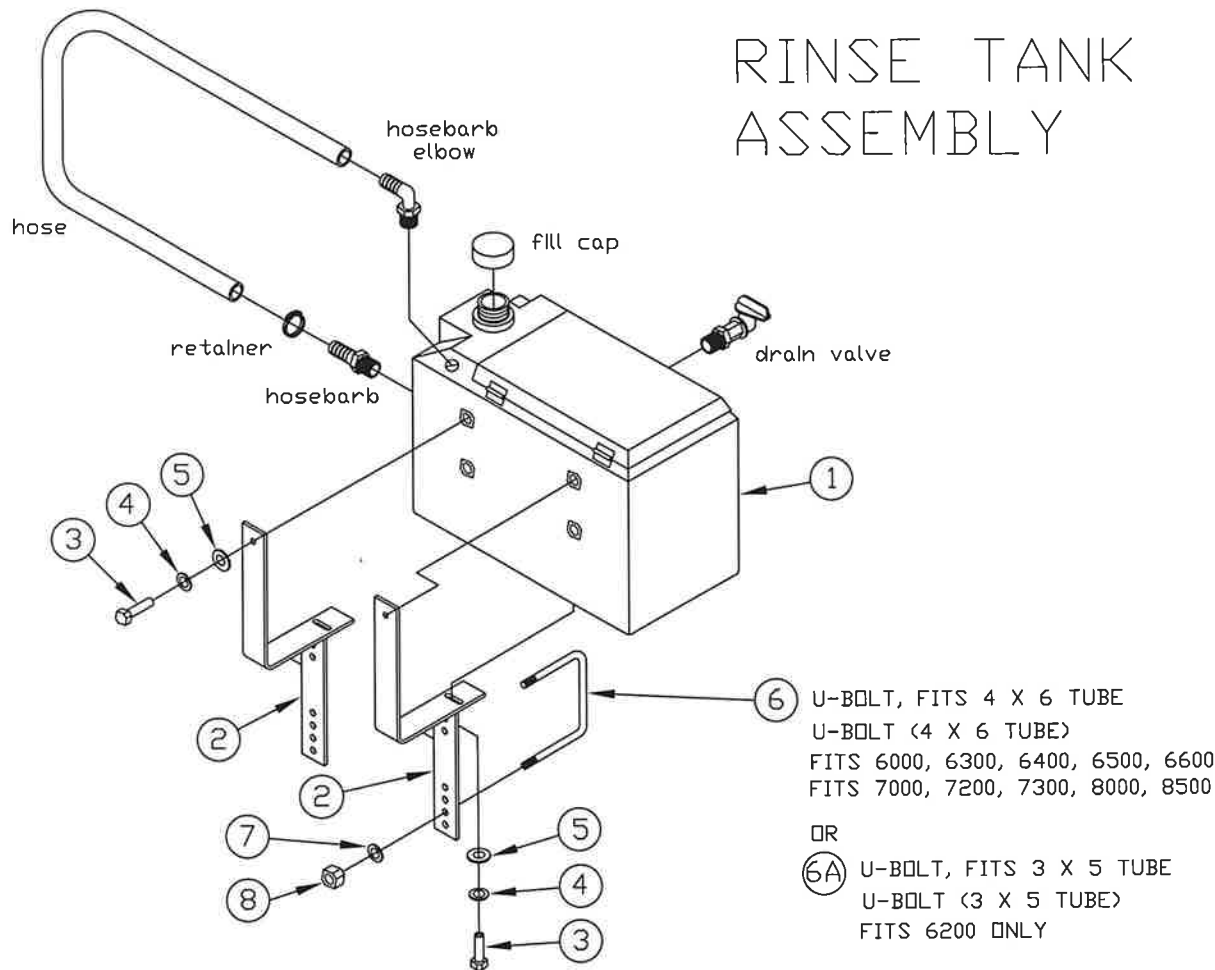


6300 SERIES TOOLBAR

WITH COULTERS FOR
LIQUID APPLICATION
(with NO 2nd wing)
(USE 108" PRIMARY WING)



RINSE TANK ASSEMBLY



ITEM	QTY	PARTNUMBER	DESCRIPTION
		601547	COMPLETE RINSE TANK KIT KIT INCLUDES ALL ITEMS 1 THRU 8
		47005781	RINSE TANK MOUNTING KIT INCLUDES ITEMS 2 THRU 8 ONLY
1	1	CRM6000-30	RINSE TANK ASSEMBLY INCLUDES HOSE, VALVE, CAP, AND FITTINGS
2	2	47005780	RINSE TANK BRACKET
3	4	18026422	BOLT, HEX 5/16 X 1/2SS
4	4	18991110	LOCKWASHER, 5/16 SS
5	4	18991100	FLATWASHER, 5/16 SS
6	2	47006545	U-BOLT (4 X 6 TUBE)
6A	2		U-BOLT (4 X 5 TUBE)
7	4	18891400	LOCKWASHER, 1/2 ZP
8	4	18417400	NUT, HEX, 1/2-13 ZP

MOUNTING INSTRUCTIONS
MOUNT TO THE LH HITCH POLE
WITH BRACKETS ON THE INSIDE
OF THE HITCH POLE. DRAIN
VALVE ON TANK TO THE
OUTSIDE. MOUNT FOR MAXIMUM
DRAINAGE THRU SPIGOT USING
ADJUSTMENT HOLES.

5781-MANUAL
12-03-12

Heartland
AG SYSTEMS
EQUIPMENT

[illegible]