



Heartland
AG SYSTEMS

Heartland Agriculture, LLC

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

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.

Warranty is provided for cutomers 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.

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.

***** 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: 699107



PART NUMBER: 699101



PART NUMBER: USA



PART NUMBER: 699104



PART NUMBER: 699102



PART NUMBER: 30481



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 coulters 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**
- A. Firmly anchor the pole to a heavy stationary object or attach it to a tractor.
 - B. 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.
 - C. 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.
 - D. Partially lift the wings and stop. Observe if the wings will sag. This would indicate there is air in the system.
 - E. Repeat steps B and C until the system operates satisfactorily.
 - F. Secure the hydraulic hoses as needed.
- Step 24. Mount the coulters 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 in 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

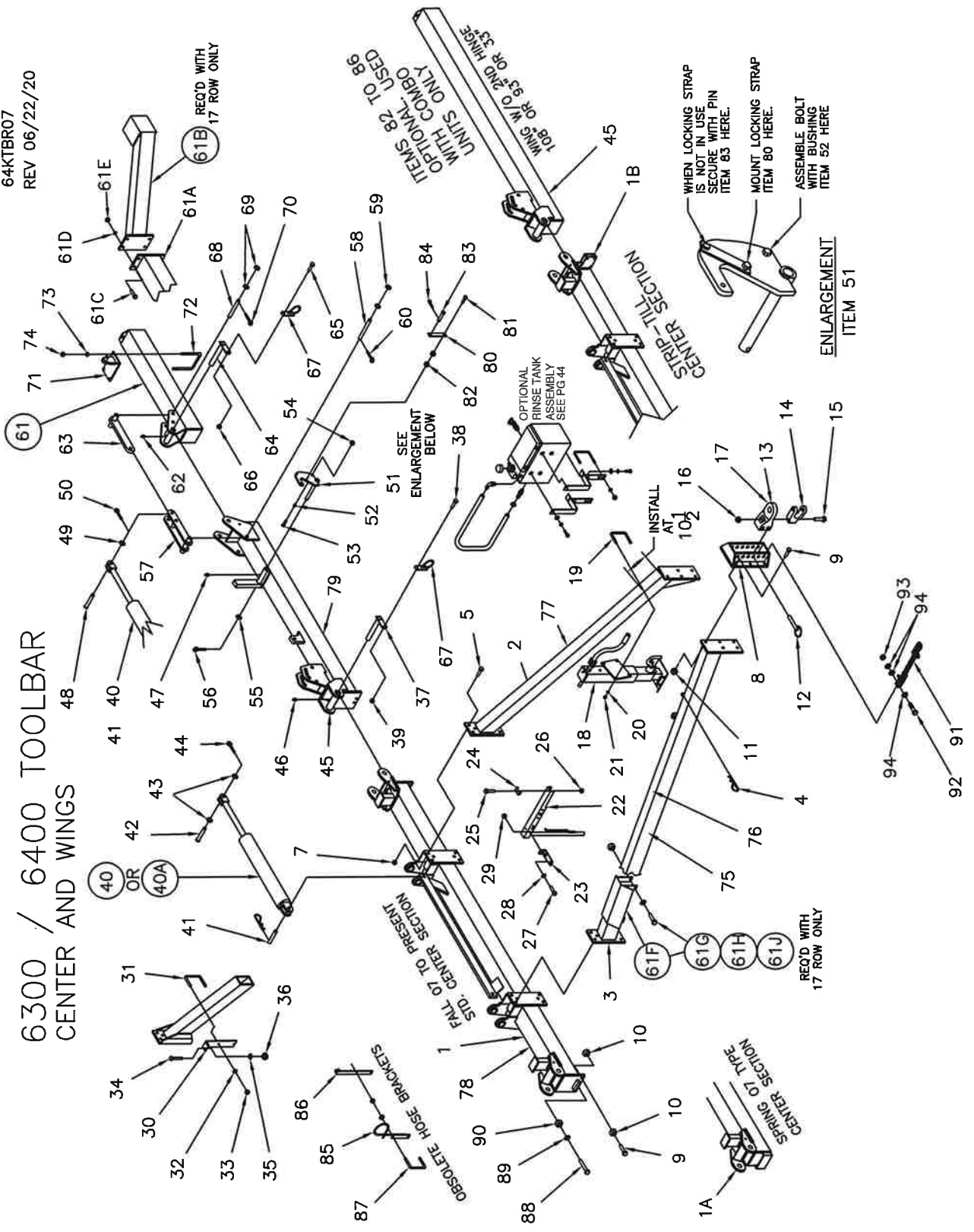
WARNING:

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.

10A

64KTR07
 REV 06/22/20

6300 / 6400 TOOLBAR
 CENTER AND WINGS



6300/6400 TOOLBAR

CENTER SECTION AND WINGS

64KTBRST07
07/18/23

LIQUID AND DRY APPLICATORS

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47003730	STD CTR SECTION, fall 07 to present	1	46	18901805	GREASE ZERK, STRAIGHT	2
1A	47003730*	STD CENTER SECTION, (to spring 07)	1	47	18901807	GREASE ZERK, 45 DEGREE	2
1B	47015023	CENTER SECTION, STRIP-TILL APLCTR.	1	48	18549054	CLEVIS PIN, (1 X 5)	2
2	47003749*	POLE, LEFT HAND(OBSOLETE SPRING 2007)	1	49	18852200	FLATWASHER, 1"	2
	47005128*	POLE, LEFT HAND(FALL 2006 TO PRESENT)	1	50	18560826	COTTER PIN, (3/16 X 1 1/2)	2
3	47003750*	POLE, RIGHT HAND(OBSOLETE SPRING 2007)	1	51	47003821	LATCH WELDMENT	2
	47015129*	POLE, RIGHT HAND(FALL 2006 TO PRESENT)	1	52	47003834	SWING STOP BUSHING	2
4	18590094	HAIRPIN BRIDGE, (#8) 3/16 DIA.	1	53	18051628	BOLT, 3/8-16NC. X 1 3/4	2
5	18098435	BOLT, 3/4-10NC. X 2 1/2 GR. 8	12	54	18496800	FLANGE NUT, 3/8-16NC.	2
6	---	---	---	55	18852200	FLATWASHER, 1"	2
7	18458452	LOCK NUT, 3/4-10NC.	12	56	18560826	COTTER PIN, (3/16 X 1 1/2)	2
8	47008355	HITCH MOUNT	1	57	47003787	CYLINDER LINK, PRIMARY WING	2
9	18098435	BOLT, 3/4-10NC. X 2 1/2 GR. 8	14	58	47003767	LINKAGE PIN, PRIMARY	2
10	---	---	---	59	18852200	1" FLATWASHER SAE	4
11	18458452	LOCK NUT, 3/4-10NC.	18	60	18560826	COTTER PIN, 3/16 X 1 1/2	4
12	600182	HITCH PIN, 1 X 6	2				
	Pi-301V3C	PERFECT HITCH ASSEMBLY	1	61	47003780	SECONDARY WING, (LIQ ONLY) 50.5"	2
		INCLUDES ITEMS 13 TO 16			47003927	SECONDARY WING, (LIQ ONLY) 28.5"	2
13	PPI-301V3	PERFECT HITCH, (1 1/2" DRAWPIN)	1	61A	47003933	2NDARY WING, 50.5" W BOLT-ON PLT 2	
14	PPI-208VR	PERFECT HITCH CLEVIS	1				
		WITH 1 1/4 OBROUND HOLE		61B	47003929	BOLT-ON FORWARD ANGLED OFFSET	2
		5400 LBS. VERTICAL CAPACITY		61C	18058434	BOLT, HX 3/4 NC X 2 1/2 GR5ZP	8
15	18058452	BOLT, 3/4-10NC. X 5 GR. 8	1	61D	18891800	LOCKWASHER, 3/4" ZP	8
16	18458452	LOCKNUT, 3/4-10NC. GR. 8	1	61E	18418400	NUT, HEX 3/4" NC ZP	8
17	PPI-421ADI	PERFECT HITCH, (2" DRAWPIN)	1	61F	47003939	COULTER REST WELDMENT	2
		8410 LBS. VERTICAL CAPACITY		61G	18057454	BOLT, HEX 1/2-13 NC X 5 GR5 ZC	4
18	70926	JACK,	1	61H	18891400	LOCKWASHER 1/2 ZC	4
				61J	18417400	NUT, HEX 1/2-13 NC ZC	4
	FOR REPAIR	PARTS SEE SEPARATE JACK ILLUSTRATION					
19	47010154	U-BOLT,	2	62	18901807	GREASE ZERK, 45 DEGREE	2
20	18911600	LOCK WASHER,	4	63	47003791	CYLINDER LINK, SECONDARY WING	2
21	18449100	HEX. NUT,	4	64	47003765	HINGE PIN, PRIMARY/SECONDARY	2
22	47005087	PIVOTING HOSE BRACKET	1	65	18057428	BOLT, 1/2-13NC. X 1 3/4	2
23	47005092	GAUGE BRACKET	1	66	18497400	FLANGED NUT, 1/2-13NC.	2
24	47005091	HYD HOSE CLAMP	2	67	47003843	HOSE GUIDE, WINGS	4
25	18056832	BOLT, 3/8-16NC. X 2 1/4	4	68	47003786	LINKAGE PIN, SECONDARY	2
26	18459200	LOCKNUT "NYLOK" 3/8-16NC.	1	69	18852200	1" FLATWASHER SAE	4
27	18056830	BOLT, 3/8-16NC. X 2	2	70	18560826	COTTER PIN, 3/16 X 1 1/2	4
28	18811200	FLAT WASHER, 3/8	1	71	47003829	HOOK BLOCK	2
29	18496800	FLANGE NUT, 3/8-16NC	1	72	47302730	U-BOLT, 1/2-13NC. (7 X 8 1/2)	4
		ITEMS 30 TO 36 ARE OPTIONAL		73	18891400	LOCKWASHER, 1/2 ZC	8
30	47010171	BRACKET, SELECTOR VALVE	1	74	18417400	HEX. NUT, 1/2-13NC. ZC	8
31	47001028	U-BOLT, 3/8-16NC.	1	75		DECAL, 6400 (MODEL NUMBER)	2
32	18891200	LOCKWASHER, 3/8	2	76	699100	DECAL, WARNING-CLEAR TONGUE	1
33	18436800	HEX. NUT, 3/8-16NC.	2	77	699104	DECAL, CAREFUL-CLEAR MACHINE	1
34	18056469	BOLT, 5/16-18NC. X 3 1/4	2	78	699107	DECAL, AG-SYSTEMS INC.	2
35	18811100	LOCKWASHER, 5/16	2	79	699101	DECAL, DANGER-FALLING WINGS	2
36	18406400	HEX. NUT, 5/16-18NC.	2				
					ITEM 80 TO 84	USED ON COMBO UNITS ONLY	
37	47003762	HINGE PIN, CENTER/PRIMARY	2	80	47009848	WING LOCK STRAP	2
38	18057428	BOLT, 1/2-13NC. X 1 3/4	2	81	18051628	BOLT, 3/8-16NC. X 1 3/4	2
39	18497400	FLANGED NUT, 1/2-13NC.	2	82	18436800	HEX. NUT, 3/8-16NC.	4
40	47300093	HYDRAULIC CYLINDER 3 X 24	4	83	18541655	CLEVIS PIN, 3/8 X 1 3/4	2
		OR FOR TRACTORS WITH LESS THAN 2500 PSI USE (2) 40 & (2) 40A		84	18590091	HAIRPIN BRIDGE, .091 X 2 3/8	2
		AND THE SAME FOR 17 ROW UNITS @ 30 INCH SPACINGS					
40A	47300094	HYDRAULIC CYLINDER 3 1/2 X 24	2	85	47010165	HOSE BRACKET (OBSOLETE 2007)	
				86	47010168	BRACKET, PRESS. GAUGE (OBS. 2007)	
41	47003514	CYLINDER PIN KIT (1 X 4) (2 PINS)	2	87	47001028	U-BOLT, 3/8-16NC. (OBSOLETE 2007)	
42	18549054	CLEVIS PIN, (1 X 5)	2	88	18058443	BOLT, 3/4-10 NC X 4 (OPTIONAL)	4
43	18852200	1" FLATWASHER SAE	4	89	18891800	LOCKWASHER, 3/4 ZC (OPTIONAL)	4
44	18560826	COTTER PIN, 3/16 X 1 1/2	2	90	18418400	HEXNUT, 3/4-10NC ZC (OPTIONAL)	4
45	47003753	PRIMARY WING, WITH 2ND HINGE	2				
	47015046	PRIMARY WING, NO-HINGE (33" WING)	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					
					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

LOCATE SERIAL TAG ON
REAR SIDE OF THIS
GUSSET PLATE

BOLT THRU
INNER AND OUTER
AXLE TUBES

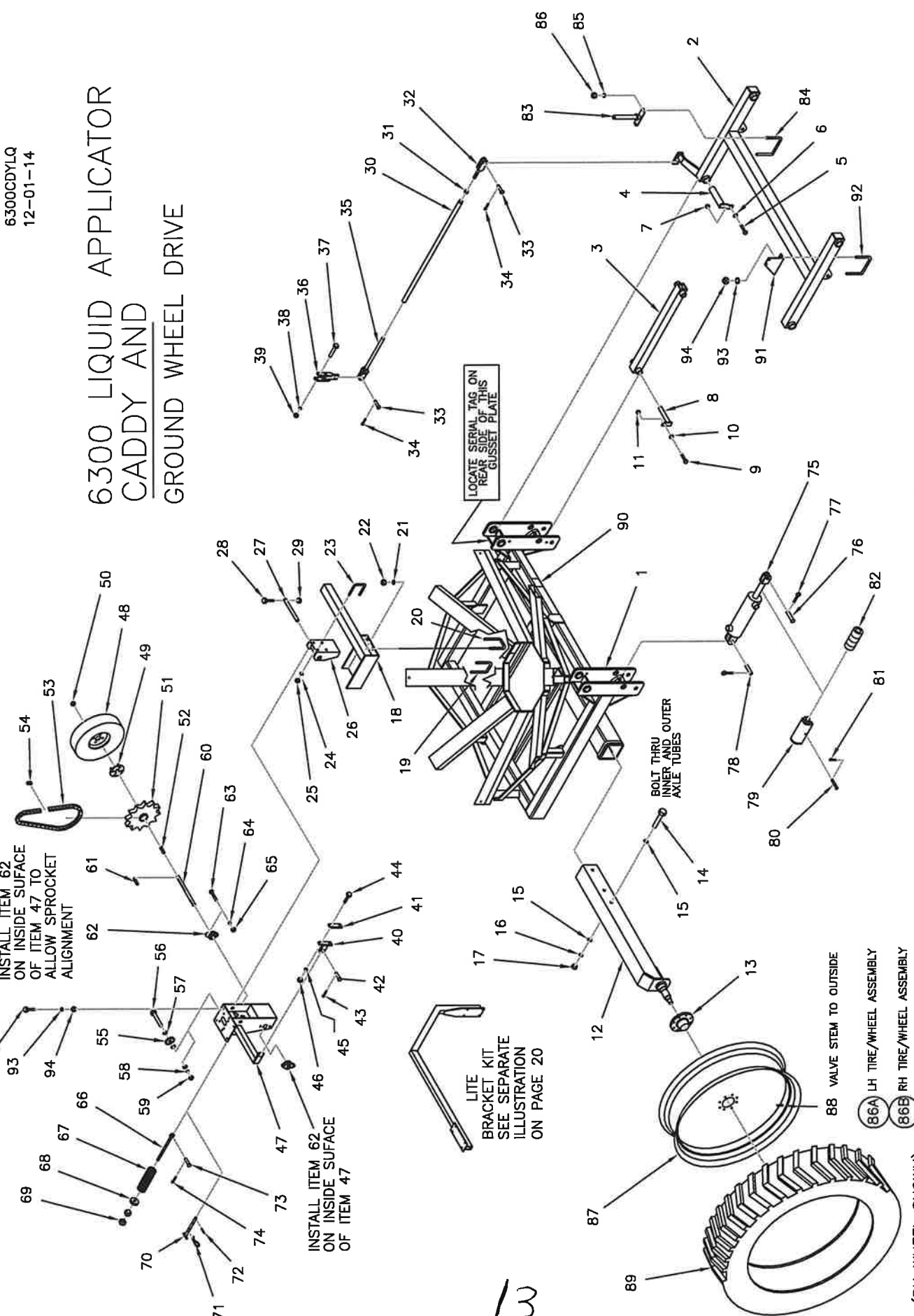
LITE
BRACKET KIT
SEE SEPARATE
ILLUSTRATION
ON PAGE 20

88 VALVE STEM TO OUTSIDE

(86A) LH TIRE/WHEEL ASSEMBLY

(86B) RH TIRE/WHEEL ASSEMBLY

(RH WHEEL SHOWN)



6300 LIQUID APPLICATOR

6300CDYLQLS
12-01-14

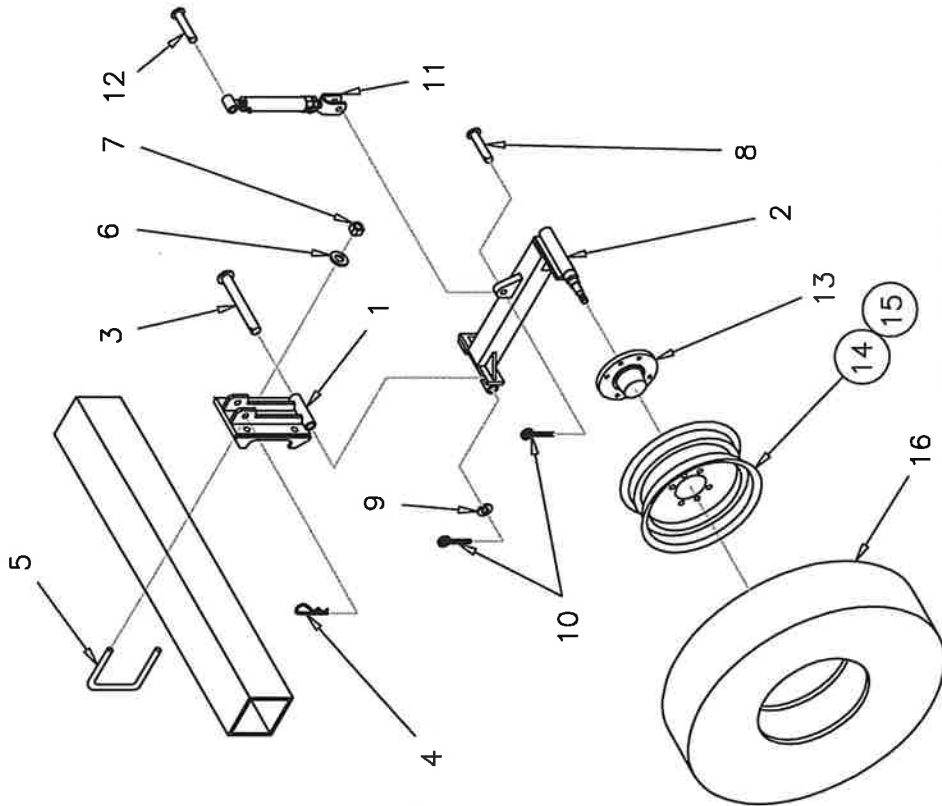
CADDY AND
GROUND WHEEL DRIVE

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	INCLUDES ITEMS 12 AND 13	4	57	18811600	FLATWASHER, 5/8	3
12	47005636	AXLE WELDMENT ONLY	2	58	18891600	LOCKWASHER, 5/8	1
13	47009115	HUB COMPLETE (8 BOLT 7500#)	2	59	18417900	HEX. NUT, 5/8-11NC.	1
14	18058476	BOLT, 3/4-10NC. X 8 1/2	2	60	47003357	SHAFT, GROUND WHEEL DRIVE	1
15	18811800	FLATWASHER, 3/4	4	61	47006519	SQUARE DRIVE KEY, 1/4 X 1 1/2	1
16	18891800	LOCKWASHER, 3/4	2	62	47008462	BEARING ASSEMBLY, 1 INCH	2
17	18418400	HEX. NUT, 3/4-10NC.	2	63	18057426	BOLT, 1/2-13NC. X 1 1/2	4
				64	18891400	LOCKWASHER, 1/2	4
18	47005633	GROUND WHEEL DRIVE BRACKET	1	65	18417400	HEX. NUT, 1/2-13NC.	4
19	44001616	U-BOLT, 5/8-11NC. (4 X 5 1/2)	1	66	47301547	EYE BOLT	1
20	47006951	U-BOLT, 5/8-11NC. (4 X 7 1/4)	1	67	47301524	COMPRESSION SPRING	1
21	18891600	LOCKWASHER, 5/8	4	68	47301530	SPRING CAP	1
22	18417900	HEX. NUT, 5/8-11NC.	4	69	18417900	HEX. NUT, 5/8-11NC.	2
23	47306677	U-BOLT, 5/8-11NC. (3 X 4 1/2)	2	70	47007197	TRANSPORT LOCK PIN	1
24	18891600	LOCKWASHER, 5/8	4	71	18590094	HAIRPIN BRIDGE, (.177 DIA.)	1
25	18417900	HEX. NUT, 5/8-11NC.	4	72	18511033	EXPANSION PIN, 1/4 X 1 1/2	1
26	47003266	HINGE BRACKET	1	73	18541428	CLEVIS PIN, 1/2 X 1 3/4	1
27	47003344	PIVOT SHAFT, HINGE BRACKET	1	74	18560722	COTTER PIN, 5/32 X 1	1
28	18056830	BOLT, 3/8-16NC. X 2	5	75	47300091	HYDRAULIC CYLINDER, 3 1/2 X 8	2
29	18457800	LOCKNUT, 3/8-16NC	1	76	18541651	CLEVIS PIN, 1 X 4 1/2	2
30	47015659	PUSH ROD WELDT. (6300 ONLY)	1	77	18560826	COTTER PIN, 3/16 X 1 1/2	2
30A	47995659	PUSH ROD ASSEMBLY (6300 ONLY) INCLUDES ITEMS 30, 31 AND 32	1	78	47003514	CYL. PIN KIT (1 X 4) (2 PINS)	1
31	18449003	HEX. JAM NUT, 3/4-10NC.	1	79	47003314	TRANSPORT LOCK	2
32	47003320	CLEVIS END	1	80	18541254	CLEVIS PIN, TRANSPORT LOCK	2
33	18541835	CLEVIS PIN, 3/4 X 2 1/2	2	81	18590916	HAIRPIN BRIDGE, (1/8 DIA.)	2
34	18590148	HAIRPIN BRIDGE, NO 9, .148 DIA.)	2	82	47005455	"SET" DEPTH CONTROLS	2
35	47003322	LINKAGE, SWIVEL BAR	1	83	47003331	ACCESSORIES BRACKET	2
36	47003326	PIVOT ARM	1	84	47001028	U-BOLT,	2
37	18057442	BOLT, 1/2-13NC. X 3 1/2	2	85	47001028	LOCKWASHER,	4
38	18891400	LOCKWASHER, 1/2	2	86	18436800	HEX. NUT,	4
39	18417400	HEX. NUT, 1/2-13NC.	2	86A	40014	TIRE AND RIM ASSEMBLED, L.H.	1
40	47003385	PIVOT ANCHOR	2	86B	40014R	TIRE AND RIM ASSEMBLED, R.H.	1
41	47003386	CLAMP PLATE, PIVOT ANCHOR	1			INCLUDES ITEMS 87, 88, AND 89	
42	18541830	CLEVIS PIN, 3/4 X 2	1	87	47002600HD	(TIRE PRESSURE 52 PSI)	2
43	18590148	HAIRPIN BRIDGE, NO 9, .148 DIA.)	1	88	20120022	RIM, 38 X W10 (8 HOLE)	2
44	18057454	BOLT, 1/2-13NC. X 5	2	89	4T0545	VALVE STEM	2
45	18891400	LOCKWASHER, 1/2	2	90	30481	TIRE, 320/85 R38 (52 PSI)	2
				91	47008049	DECAL, TIGHTEN LUG NUTS	1
				92	47001028	MANIFOLD BRACKET	1
				93	18891200	U-BOLT, 3/8-16NC.	1
				94	18436800	LOCK WASHER, 3/8	6
						HEX. NUT, 3/8-16NC.	6

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

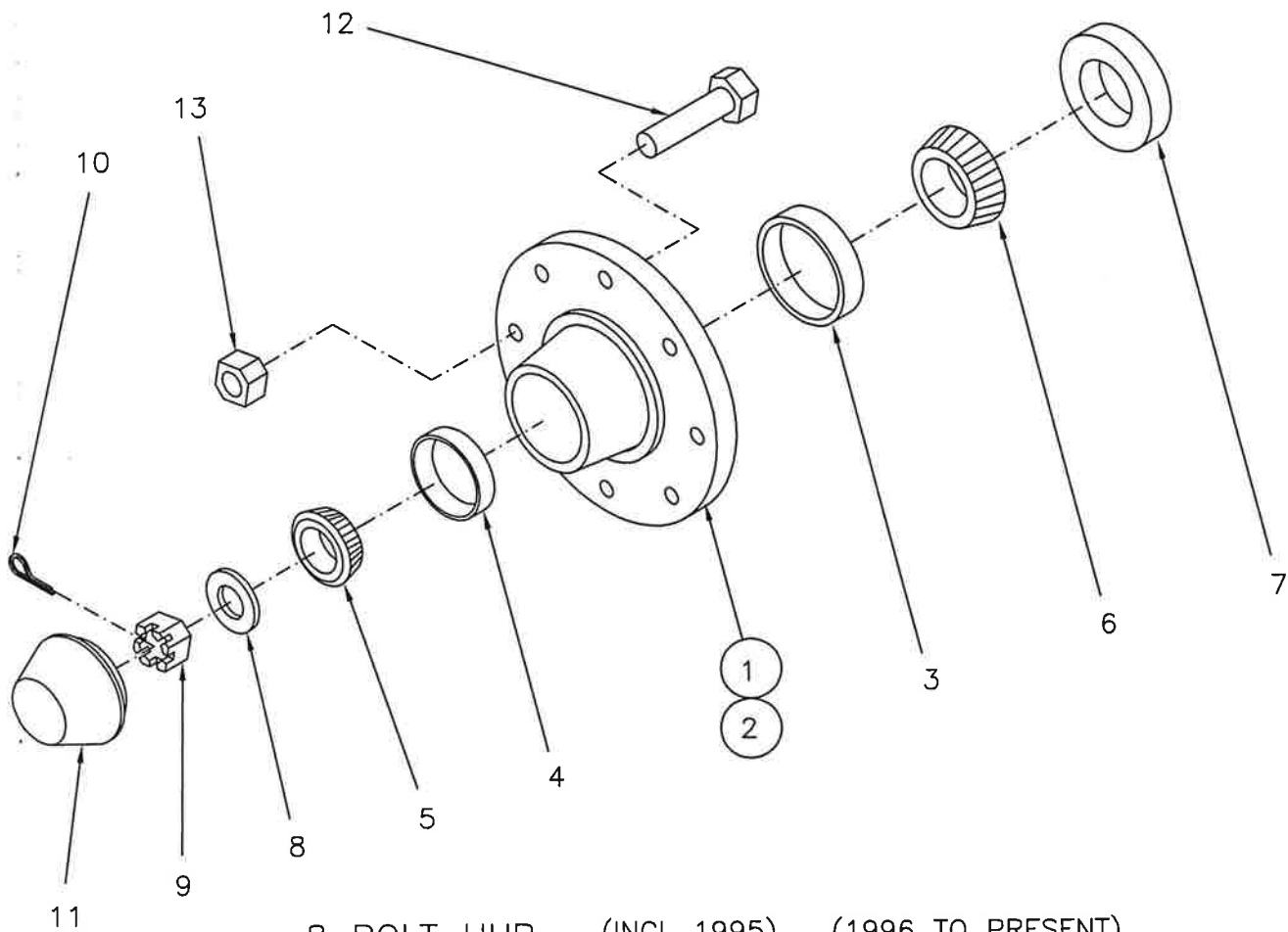
ITEM	PART NO.	DESCRIPTION	QTY
1	47004742	MOUNTING BRACKET	2
	47000413	PIVOT ARM COMPLETE, INCLUDES ITEMS 2 AND 13	2
2	47010413	PIVOT ARM	2
3	47010425	PIVOT PIN	2
4	18560866	COTTER PIN, 3/16 X 1 1/2	2
5	47305002	U-BOLT, 5/8-11NC. (FOR 7 X 7 BAR)	4
6	18891600	LOCK WASHER, 5/8	8
7	18417900	HEX. NUT, 5/8-11NC.	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

5

(32 PSI TIRE PRESSURE)

HUB ASSEMBLIES

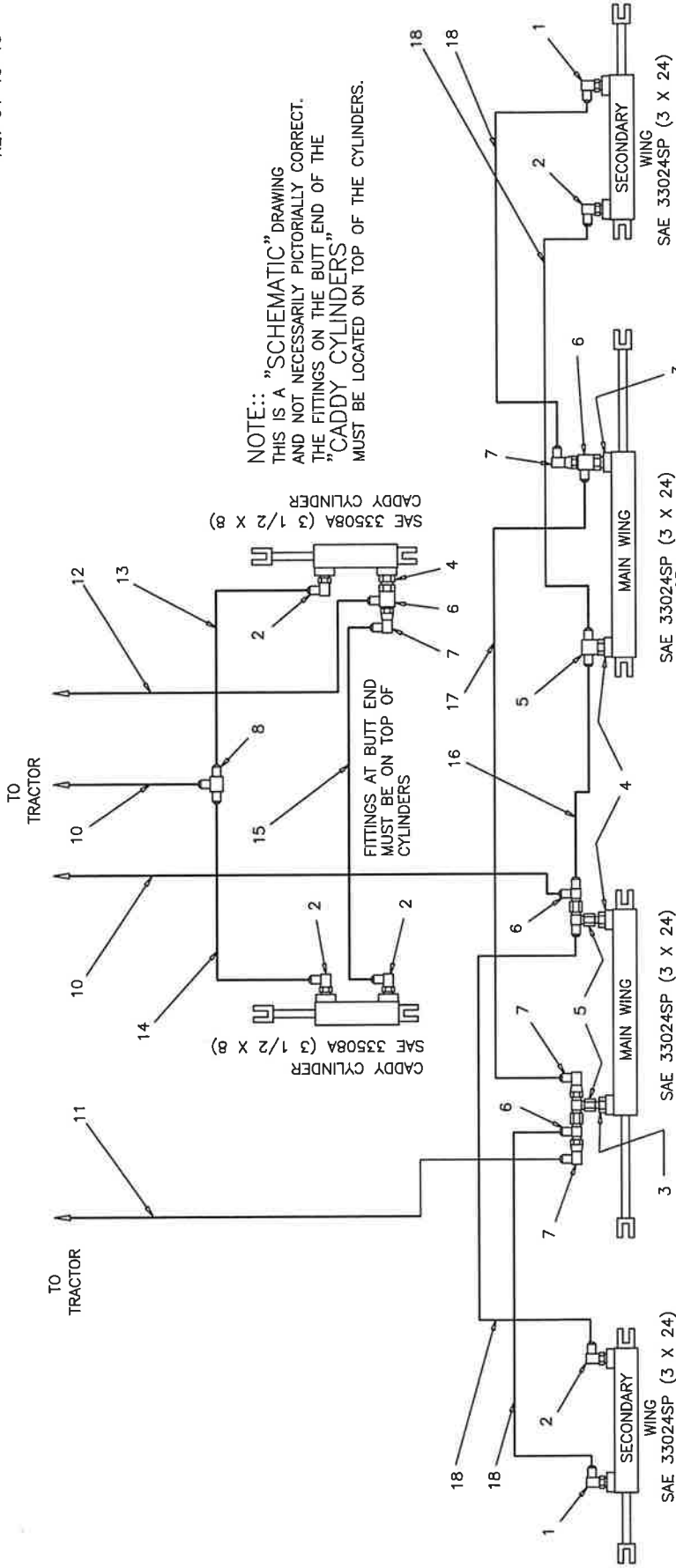
6200HUB
09-19-12



ITEM	DESCRIPTION	8 BOLT HUB (INCL 1995)		(1996 TO PRESENT)		QTY.
		6000 lb. CAPACITY	6000 lb. CAPACITY	7500 lb. CAPACITY	7500 lb. CAPACITY	
		PART NO.	PART NO.	PART NO.	PART NO.	
1	HUB COMPLETE MFGR. PART NUMBER INCLUDES ITEMS 2 THRU 7 AND 11 THRU 13 ONLY	47009712 HD812-5	47008712 HD812-1	47009115 H817		1
2	HUB WITH RACES	47005712	47004712	47005115		1
3	INNER BEARING RACE	47005372	47005372	47005328		1
4	OUTER BEARING RACE	47005272	47005272	47005131		1
5	OUTER BEARING CONE	47005279	47005279	47005349		1
6	INNER BEARING CONE	47005378	47005378	47005387		1
7	GREASE SEAL	47005017	47005017	47005776		1
8	SPINDLE WASHER	18000017	18000017	18000023		1
9	SPINDLE NUT	18489100	18489100	18000038		1
10	COTTER PIN	18560830	18560830	18560830		1
11	DUST CAP	47005917	47005917	47005212		1
12	LUG BOLT	47005041	47005041	47005735		8
13	LUG NUT	47005040	47005040	47005736		8

HYDRAULIC PLUMBING SCHEMATIC 6300/6400 SERIES APPLICATOR (WITH MECHANICAL GAUGE WHEELS)

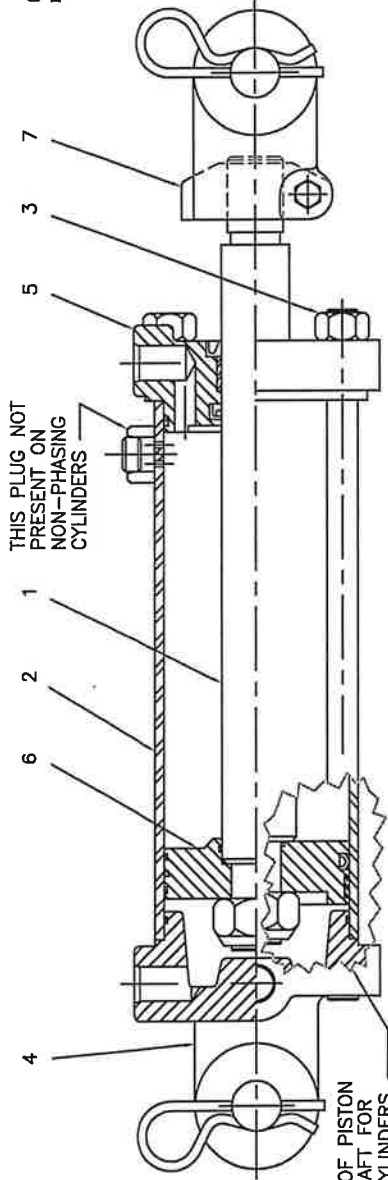
64KTRPLG
REV 04-15-13



NOTE: "SCHEMATIC" DRAWING
THIS IS A AND NOT NECESSARILY PICTORIALY CORRECT.
THE FITTINGS ON THE BUTT END OF THE
"CADDY CYLINDERS"
MUST BE LOCATED ON TOP OF THE CYLINDERS.

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

6000CYL06
rev 05/16/18



CONFIGURATION OF PISTON AND END OF SHAFT FOR NON-PHASING CYLINDERS

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	010300124	010700682	011015438A	010729750A	010719750A	1
2	TUBE	060800136	051710063A	051910563A	051526063A	051526063A	1
3	TIE ROD ASSEMBLY		170201123	170301134	170201282	170201282	4
4	BUTT		1417005SF	1419005SF	1415005SF	1415005SF	1
5	GLAND ASSEMBLY		080800083	0819BNSF	0815BBSF	0815BBSF	1
6	PISTON		070800071	071700174	071900260	071500244	1
7	CLEVIS ASSEMBLY		100000444	110000326	100000423	100000423	1
	REPAIR KIT		470AK284 (PRE 2018) (CAST CLEVIS) 20214 (POST 2018) (WELDED CLEVIS)	470333500	470333000	470333000	1

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)

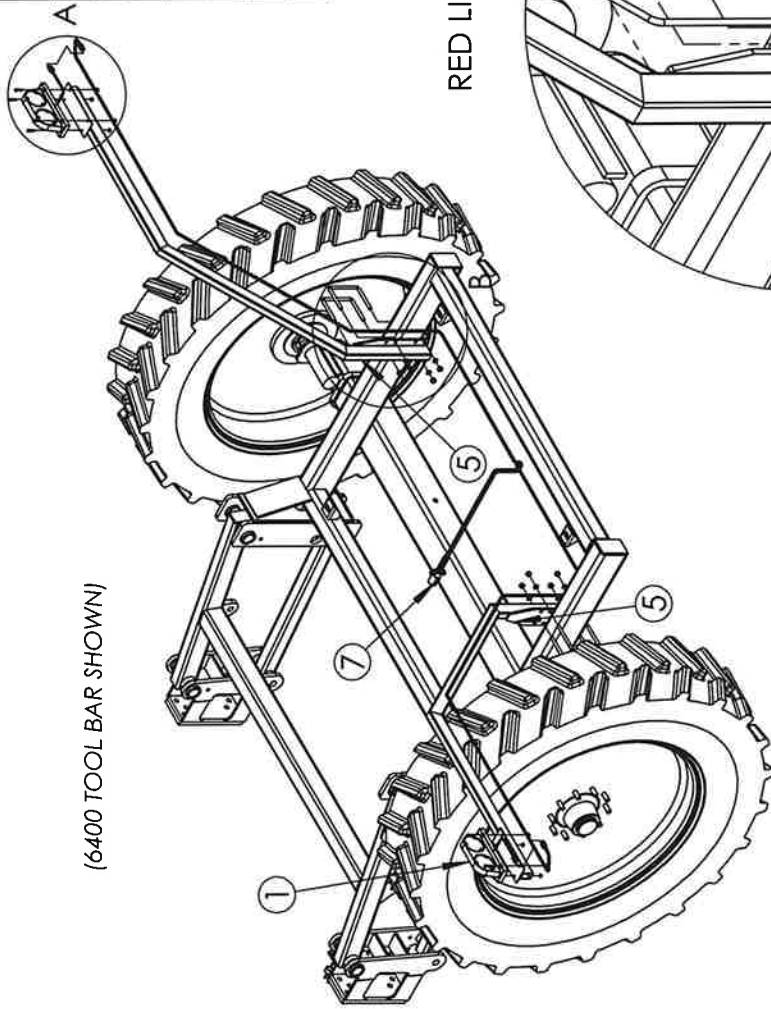
REASSEMBLY.

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 shoulder. Take care not to pinch the o-ring between the piston and the shoulder. 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.
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

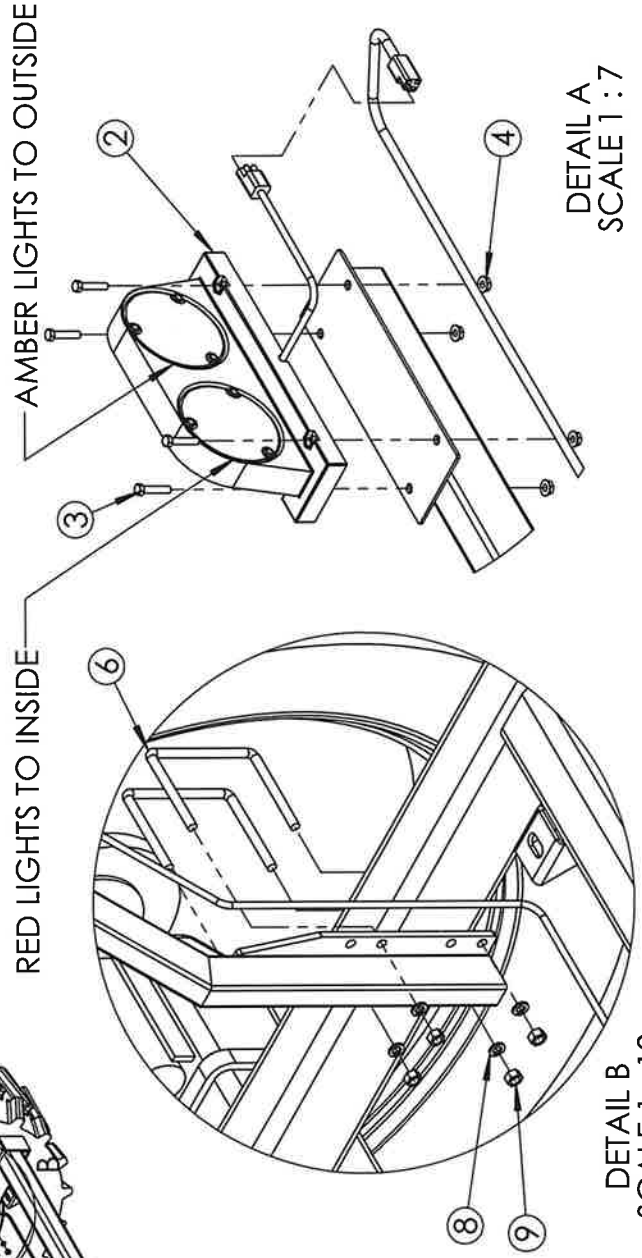
P/N: 47999697

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

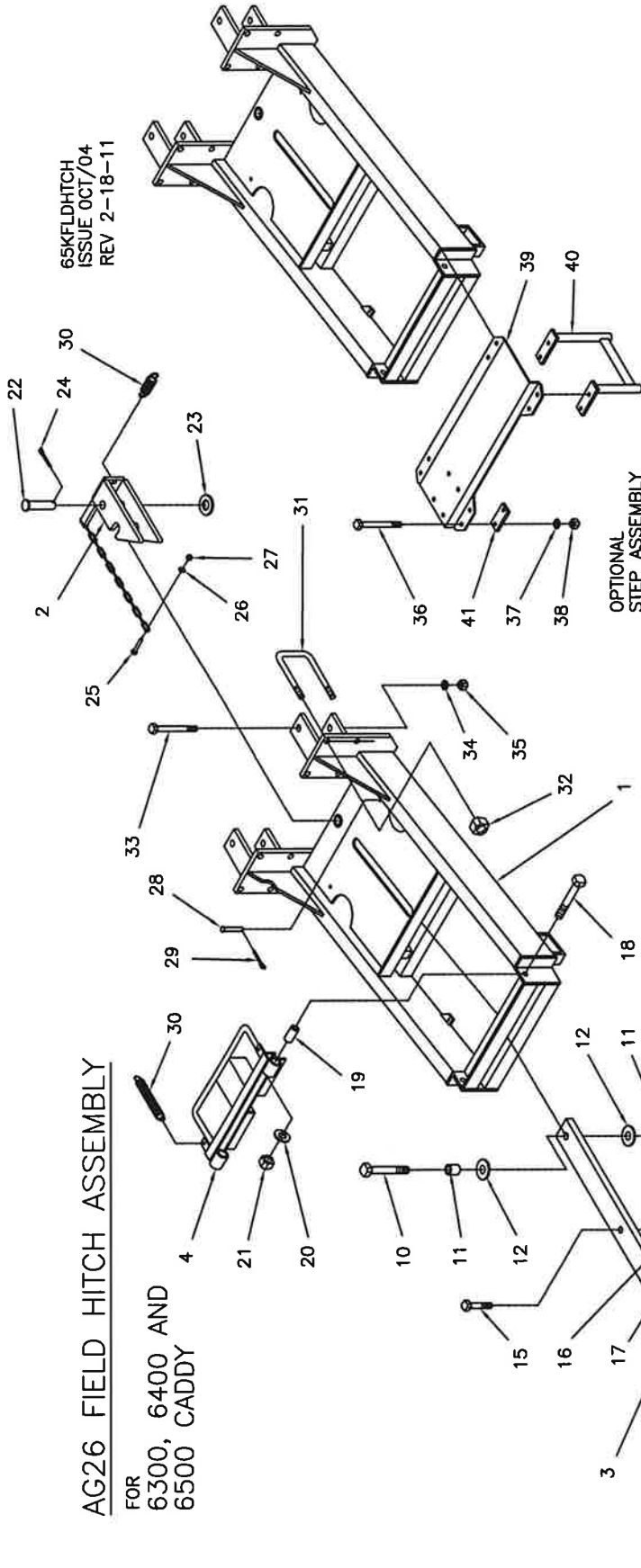


AMBER REPLACEMENT LENS PN 802650
RED REPLACEMENT LENS PN 802651

AG26 FIELD HITCH ASSEMBLY

FOR
6300, 6400 AND
6500 CADDY

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



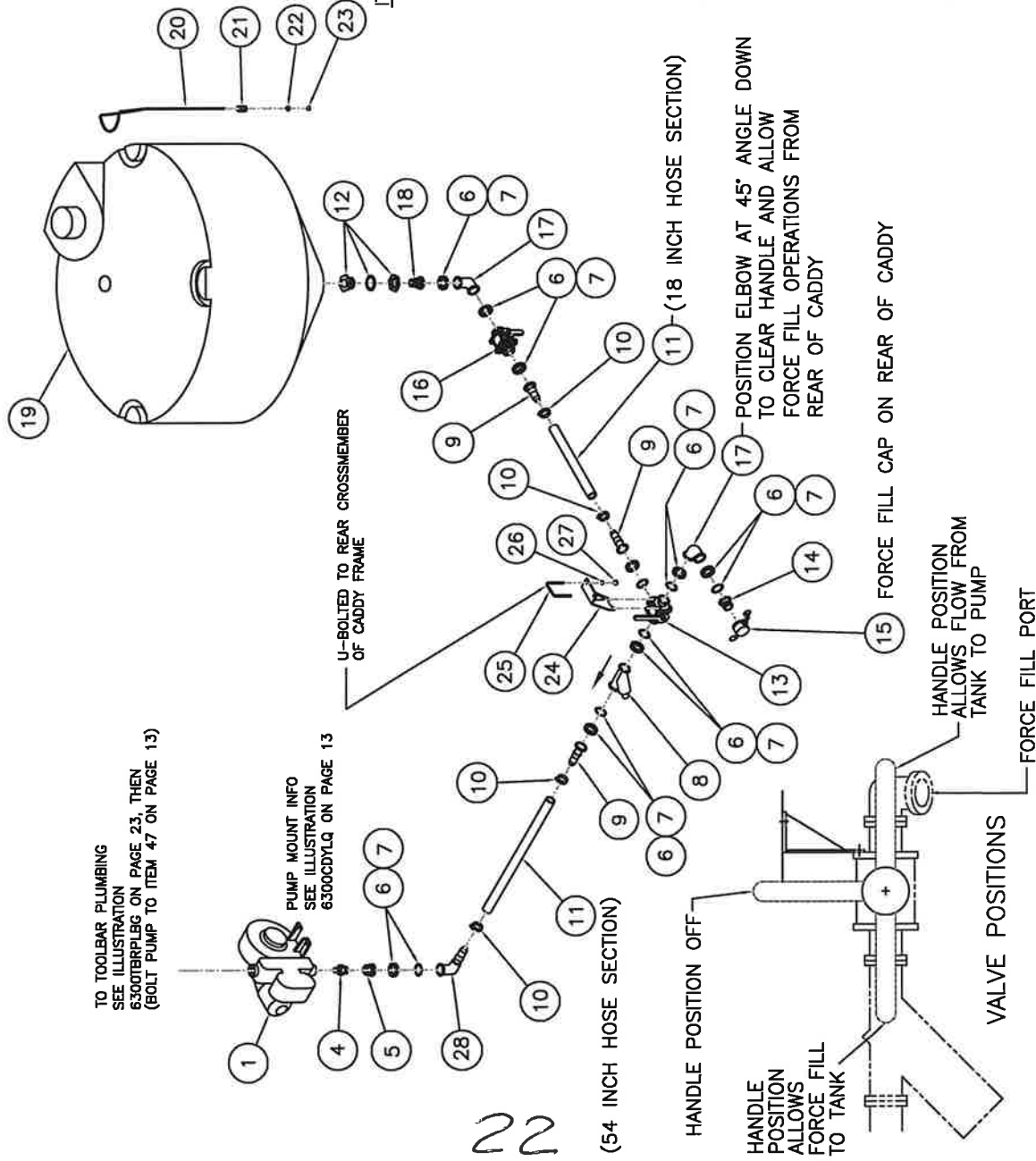
OPTIONAL
STEP ASSEMBLY
(AND SUPER SHOOTER MOUNT)

ITEM	PART NO.	DESCRIPTION	QTY.
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 LOCK	1
8	47008856	DRAWBAR HITCH,	1
9	47008857	INCLUDES ITEMS, 6 AND 7	1
10	47008858	FIBER BUSHING	2
11	47008859	SPACER BUSHING	1
12	47008860	SPECIAL BOLT, 1-8NC. X 6 7/8	1
13	18459000	HEX. LOCKNUT, 1-8NC.	1
14	18098539	BOLT, 7/8-9NC. X 5 1/2	1
15	47009459	CATCH BUSHING, 7/8 I.D.	2
16	18852400	FLATWASHER, 1 1/4 NOM. I.D. (SAE)	2
17	18417800	HEX. NUT, 7/8-9NC.	1
18	18458000	LOCKNUT, 7/8-9NC.	1
19	18058430	BOLT, 3/4-10 NC. X 2	1
20	18891800	LOCKWASHER, 3/4	1
21	18418400	HEX. NUT, 3/4-10NC.	1
22	18057940	BOLT, 5/8-11NC. X 3 1/2	2
23	47008877	PIVOT BUSHING, 5/8 I.D.	2
24	18851600	FLATWASHER, 5/8 NOM. I.D. SAE.	2
25	18457900	LOCKNUT, 5/8-11NC.	2
26	18541551	CATCH PIVOT PIN, 1 X 4	1
27	18842200	FLATWASHER, 1" SAE	1
28	18560826	COTTER PIN, 3/16 X 1 1/2	1
29	18055722	BOLT, 1/4-18NC. X 1	1
30	18891000	LOCKWASHER, 1/4 NOM. I.D.	1
31	18435700	HEX. NUT, 1/4-18NC.	1
32	18541147	CLEVIS PIN, 5/16 X 2 1/4	1
33	18560622	COTTER PIN, 1/8 X 1	1
34	000018	EXTENSION SPRING	3
35	44001616	U-BOLT, 5/8-11NC.	4
36	18457900	LOCK NUT, 5/8-11NC.	8
37	18058460	BOLT, 3/4-10NC. X 6 1/2	2
38	18891800	LOCK WASHER, 3/4	2
39	18418400	HEX. NUT, 3/4-10NC.	2
40	47999865	OPTIONAL STEP ASSEMBLY	8
41	18056863	INCLUDES ITEMS, 36 TO 41	8
42	18891200	BOLT, 3/8-16NC. X 6 1/2	8
43	18436800	LOCKWASHER, 3/8	8
44	47009865	HEX. NUT, 3/8-16NC.	1
45	47009874	SUPER SHOOTER MOUNT	1
46	47019875	STEP WELDMENT	1
47	47019875	MOUNTING PAD	2

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

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

ILLUSTRATION

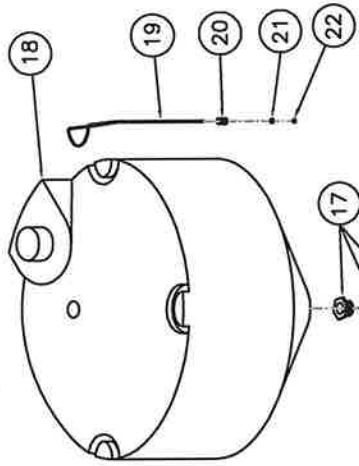


ITEM	PART NO.	DESCRIPTION	QTY.
1	20024455	PUMP ASSEMBLY, HI-PRESSURE	1
2	20024405	PUMP ASSEMBLY, LO-PRESSURE	OPT.
		ITEMS 2 AND 3 WERE OBSOLETE AND OMITTED	
4	21200150	REDUCER NIPPLE 1 1/2 TO 2"	1
5	M220FPT	POLY 2" FLANGE X 2" FM NPT	1
6	200230	GASKET, 2" FLANGE	10
7	FC220	FLANGE CLAMP 2"	10
8	MLS220-50	LINE STRAINER, 2" FLANGED	1
9	M220BRB	HOSEBARB 2" FLANGE X 2" HOSE	3
10	200258	HOSE CLAMP, 1 9/16 TO 2 1/2	4
11	12012710	SOLUTION HOSE, 2 INCH X 72 INCH TOTAL	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	1
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)

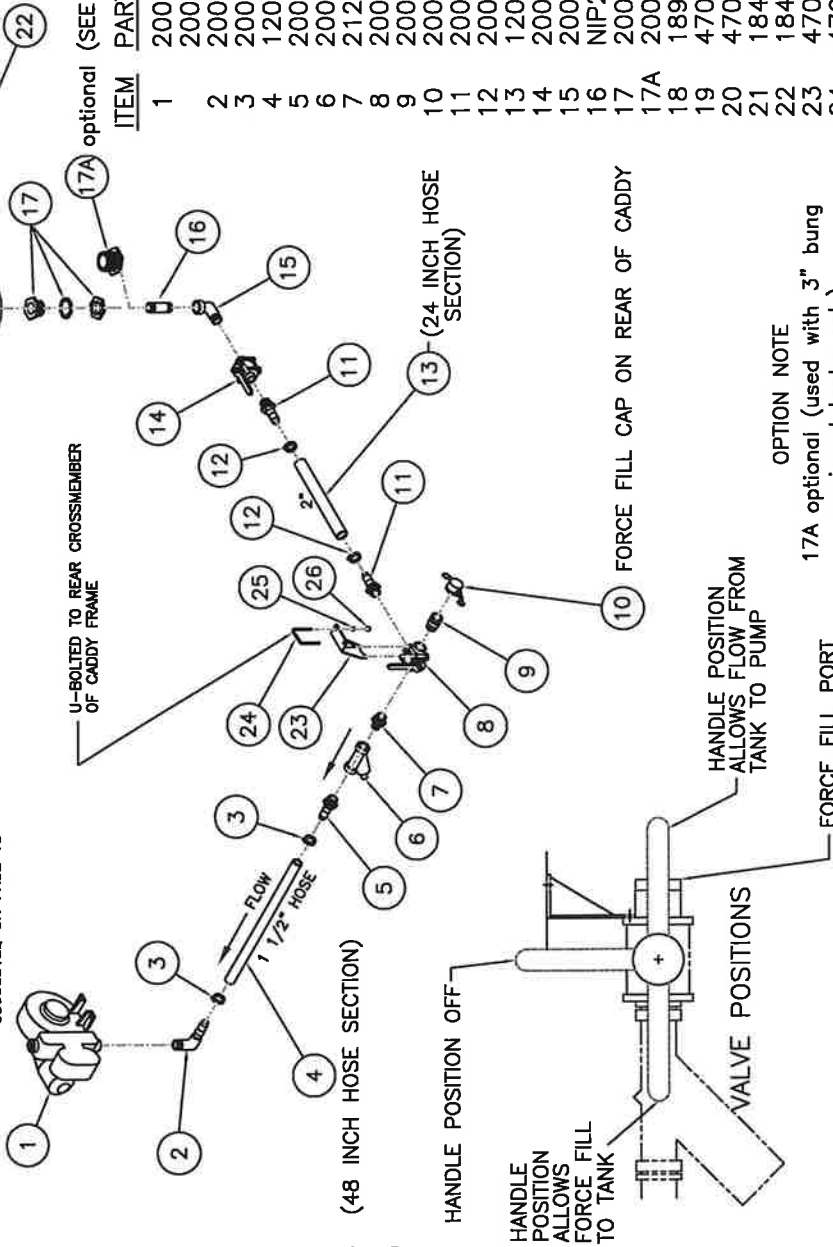
1000 GALLON CONE TANK
FOR 6300 TWO WHEEL CADDY
(TANK TO PUMP PARTS)

ILLUSTRATION
(SEE NOTE BELOW)



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

PUMP MOUNT INFO
SEE ILLUSTRATION
6300CDYLO ON PAGE 13



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
18	20020019	TANK BUNG ASSEMBLY, 2" NPT.	1
19	200914	REDUCER BUSHING 3" NPT TO 2" NPT	OPT
20	18937	CONE TANK, 1000 GALLON	1
21	47005657	TANK HOLD DOWN	1
22	47000550	SPRING, STRAP TENSION	4
23	18496800	FLANGE NUT, 3/8-16 NC ZC	4
24	18436800	HEX NUT, 3/8-16 NC SS	4
25	47015673	PLUMBING SUPPORT BRKT WELDMENT	1
26	47006487	U-BOLT 1/2-13 FITS 4 X 4 TUBE	1
17A	18891400	LOCKWASHER, 1/2 ZP	2
26	18417400	NUT, HEX, 1/2-13NC ZC	2

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

NNA

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)

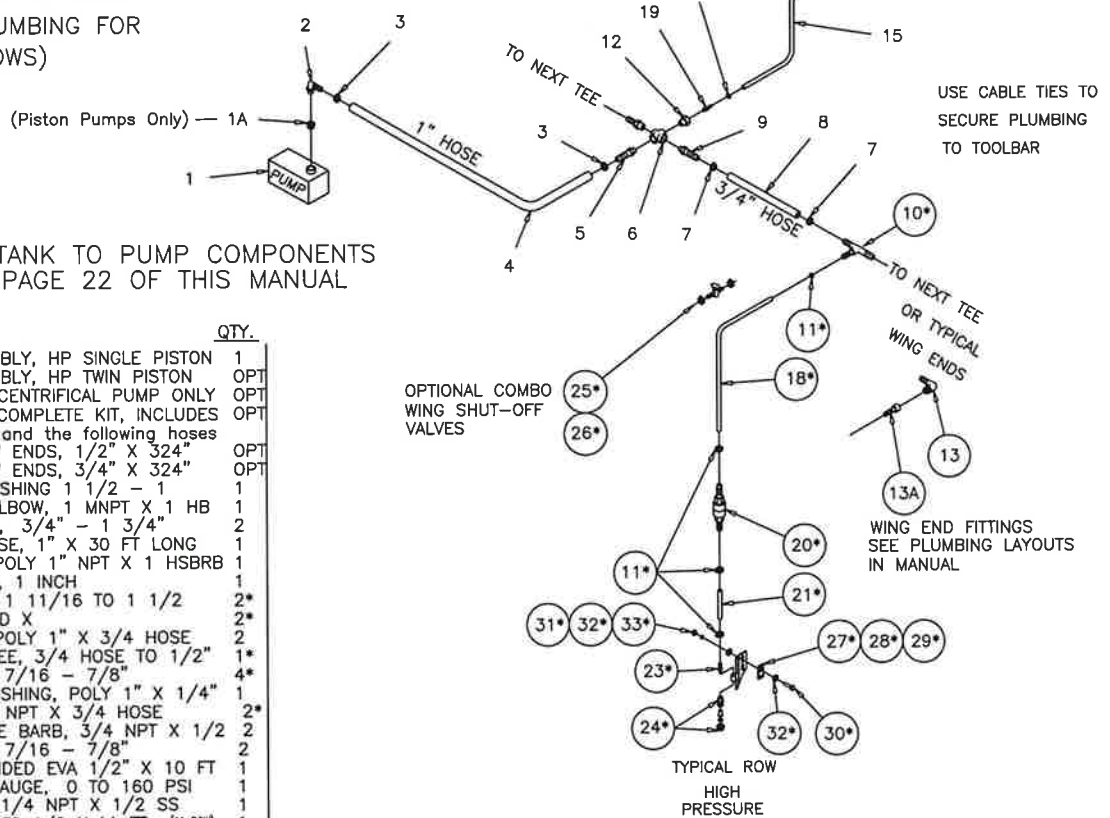
APPLICATION RATE
THIS METHOD IS USED FOR
UP TO MAX 30 GAL/ ACRE

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.

FOR TANK TO PUMP COMPONENTS
SEE PAGE 22 OF THIS MANUAL

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



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 HSRB	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	HBT075-050	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

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

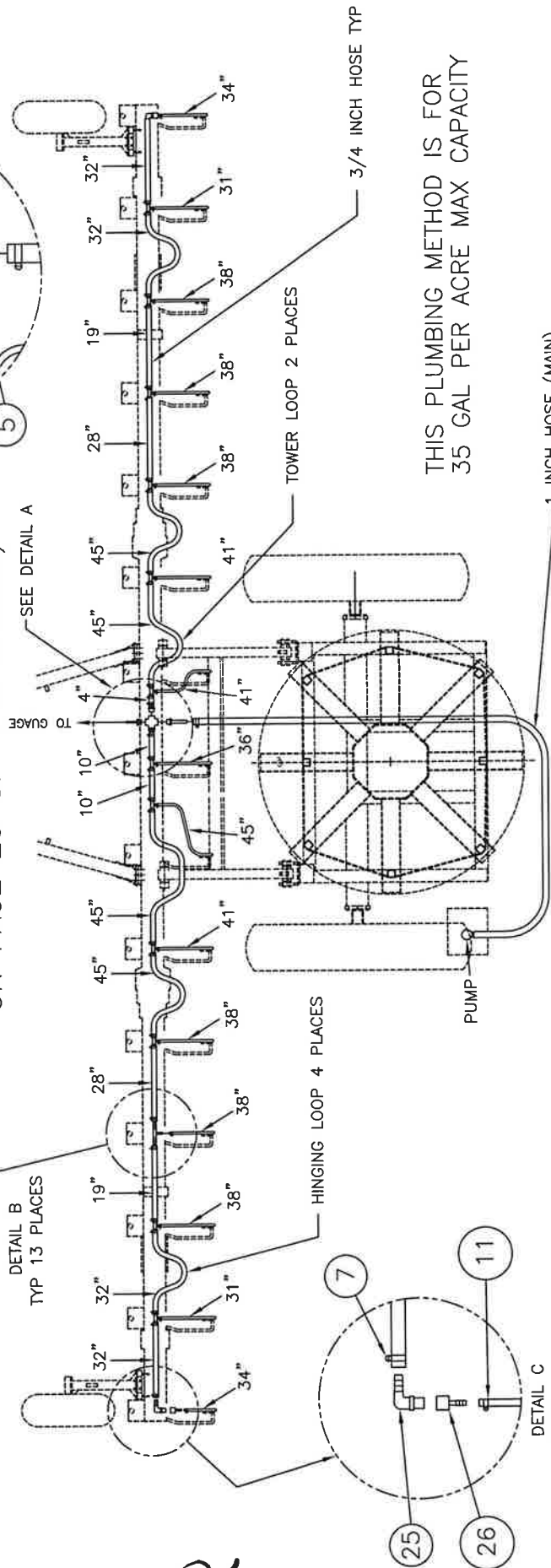
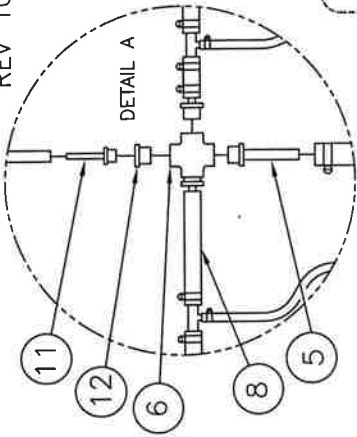
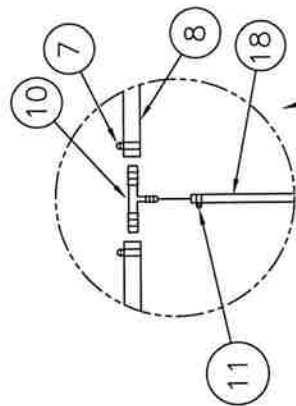
SEE PAGE 24 FOR PLUMBING REFERENCE GUIDE

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*

63KSPRABOOMP
 10-09-12
 REV 10-23-13

6300 SERIES TOOLBAR

WITH COULTERS FOR
 LIQUID APPLICATION
 (NON MANIFOLD)
 STANDARD PRESSURE
 PLUMBING REFERENCE GUIDE
 (SEE 6300LQAPP FOR PARTS
 ON PAGE 23 OF THIS MANUAL)



THIS PLUMBING METHOD IS FOR
 35 GAL PER ACRE MAX CAPACITY

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

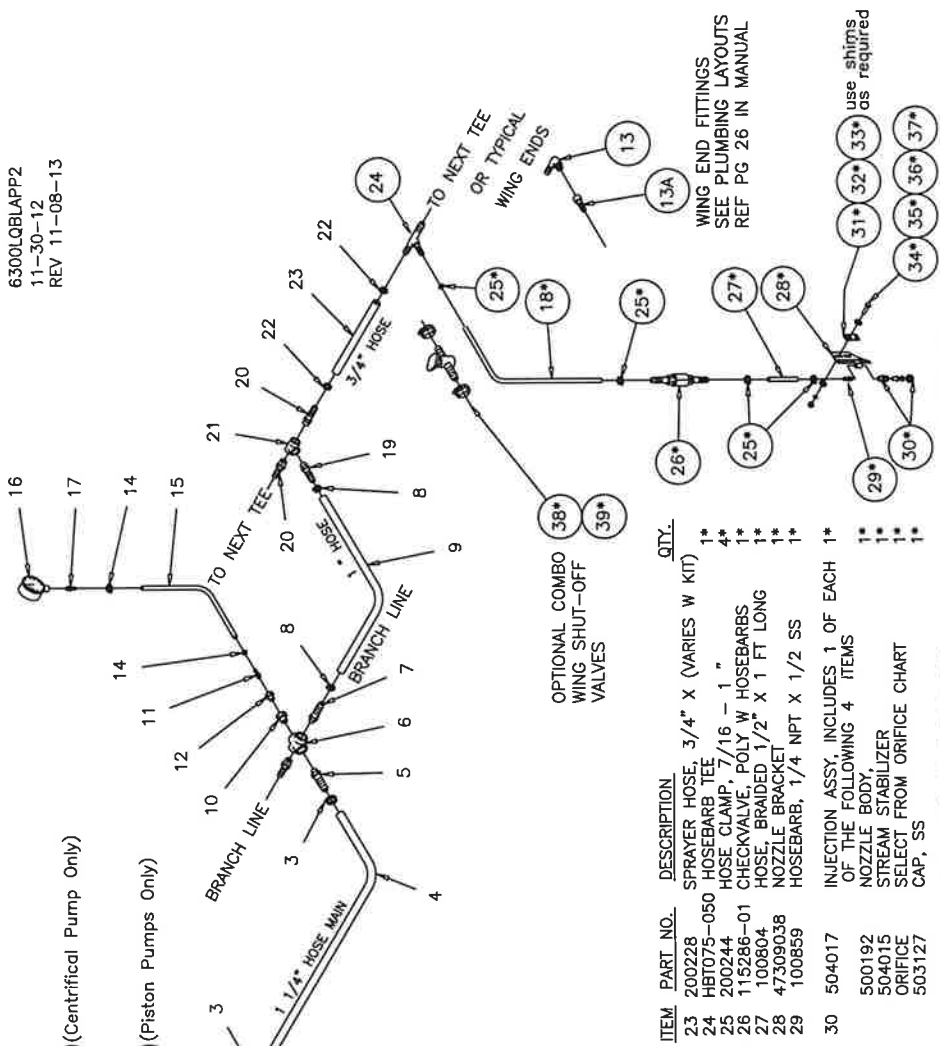
APPLICATION RATE
THIS METHOD IS USED FOR
UP TO MAX 70 GAL/ ACRE
WITH RAVEN SYSTEM
20 GAL @ 40 PSI
40 GAL @ 60 PSI

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 OPT
	NGP-9055	PUMP ASSEMBLY, TWIN PISTON	1 OPT
	501603	9303C HYD CENTRIFUGAL PUMP ONLY	1 OPT
1A	501603OPEN	HYD COMPLETE PUMP PKG INCLUDES HOSES PUMP, AND THE FOLLOWING HOSES	1 OPT
	604324	HYD HOSE W ENDS 1/2" X 324"	1 OPT
	605324	HYD HOSE W ENDS 3/4" X 324"	1 OPT
2	HB125-90	HOSEBARB ELBOW, 1.25" NPT X 1.25" HB	1
2A	HB155/100-90	HBRB ELBOW, 1.50" NPT X 1.25" HB	1

SEE PLUMBING PAGE
FOR PUMP TO TANK



ITEM	PART NO.	DESCRIPTION	QTY.
23	200228	SPRAYER HOSE, 3/4" X (VARIES W KIT)	1*
24	HBT0275-050	HOSEBARB TEE	4*
25	200244	HOSE CLAMP, 7/16 - 1"	1*
26	115286-01	CHECKVALVE, POLY W HOSEBARBS	1*
27	100804	HOSE, BRAIDED 1/2" X 1 FT LONG	1*
28	47309038	NOZZLE BRACKET	1*
29	100859	HOSEBARB, 1/4 NPT X 1/2 SS	1*
30	504017	INJECTION ASSY, INCLUDES 1 OF EACH OF THE FOLLOWING 4 ITEMS	1*
	500192	NOZZLE BODY	1*
	504015	STREAM STABILIZER	1*
	503127	SELECT FROM ORIFICE CHART CAP, SS	1*
31	47306661	SHIM, 1/4 X 2 X 4 1/2	1*
32	47306662	SHIM, 1/8 X 2 X 4 1/2	1*
33	47306663	SHIM, 1/4 X 2 X 4 1/2	1*
34	18057434	BOLT, HEX 1/2 X 2 1/2 GR 5	2*
35	18417400	NUT, HEX 1/2 ZC	1*
36	18811400	FLATWASHER, USS ZC 1/2	2*
37	18891400	WASHER, LOCK 1/2 ZC	1*
	4485	CHART, SLIDERULE INJECTION (not shown)	1*
	609643	CABLE TIES, 28 INCH (not shown)	2*
38	500553	COMBO WING SHUTOFF VALVE (per row)	OPT
39	200244	HOSE CLAMP, 7/16 - 1"	OPT

TYPICAL ROW
HIGH
PRESSURE

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

AVAILABLE PUMP PACKAGE

- NGP-7055 HI-PRESS. JBLUE SGL PISTON
- NGP-9055 HI-PRESS. JBLUE TWN 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 (PLUMBING SEE PAGE 26A)
- 20026002 CENTRIFUGAL PUMP PKG TWO BALL VALVE (PLUMBING SEE PAGE 26B)

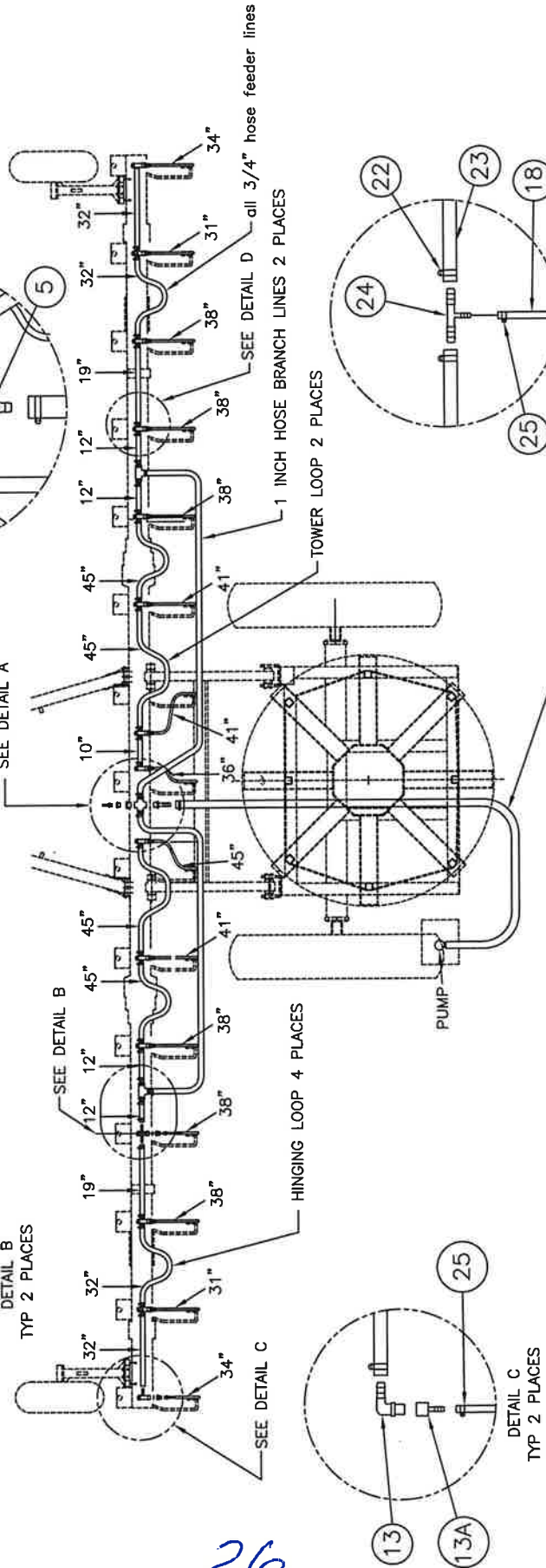
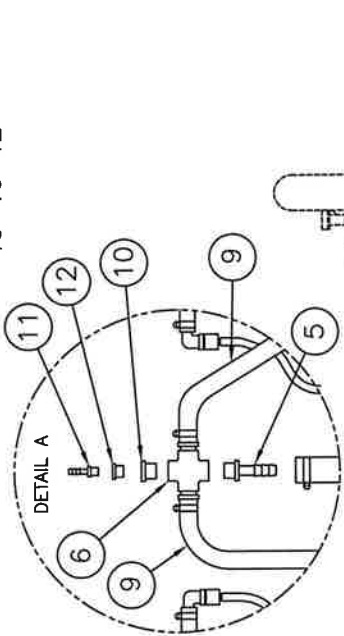
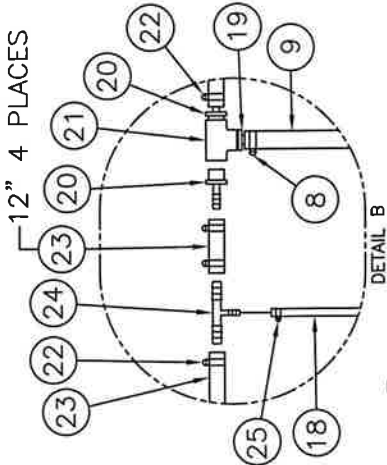
AVAILABLE HIGH PRESSURE PLUMBING KITS

- 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

6300 SERIES TOOLBAR

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

63KBLSPRABOOMPLBG
10-10-12



EXAMPLE SHOWN:
AG37 COULTERS
15 ROWS
AT 30 INCH SPACING

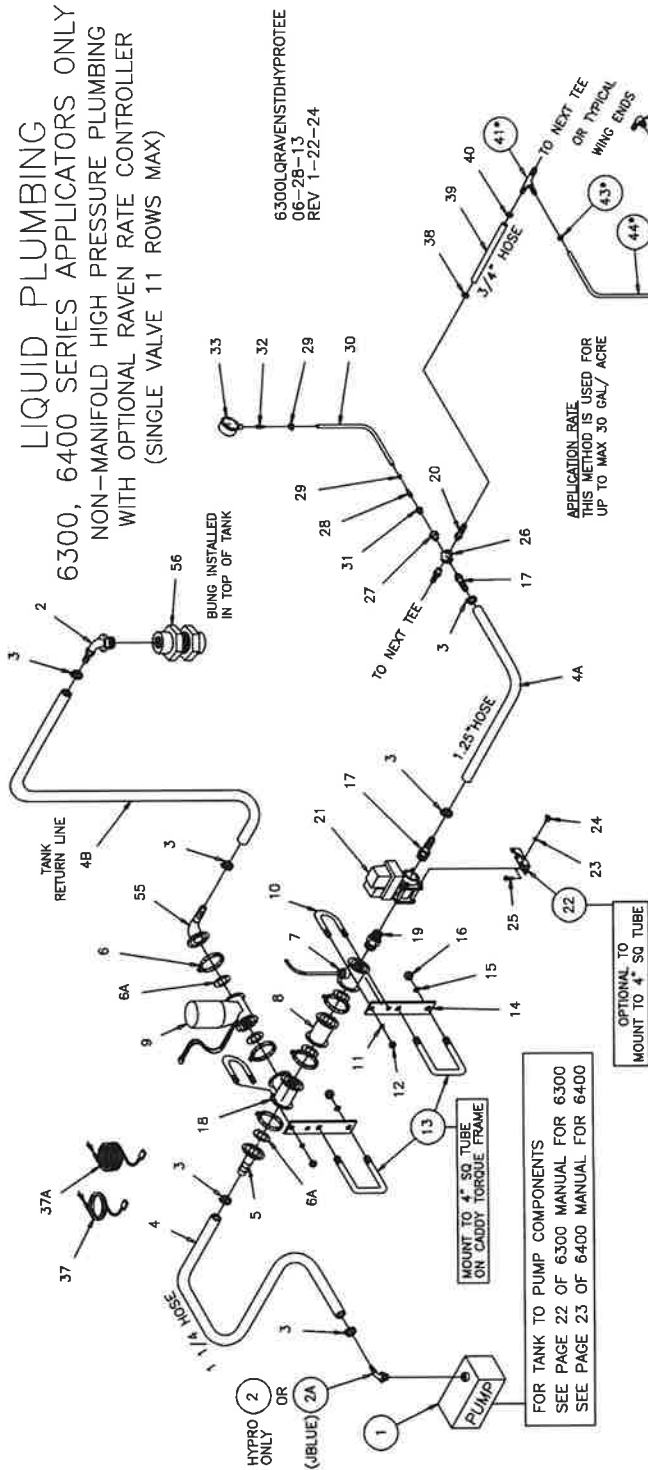
65-70 gal per acre
with Raven system
20 gal @ 40 psi
40 gal @ 80 psi

LIQUID PLUMBING

6300, 6400 SERIES APPLICATORS ONLY

NON-MANIFOLD HIGH PRESSURE PLUMBING WITH OPTIONAL RAVEN RATE CONTROLLER (SINGLE VALVE 11 ROWS MAX)

6300QRAVENSTDHYPROTEE
06-28-13
REV 1-22-24



ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7085	PUMP ASSEMBLY, SINGLE PISTON	1
2	NGP-9085	PUMP ASSEMBLY, TWIN PISTON	1
3	50160300	FOR MANIFOLD CENTRIFUGAL PUMP ONLY OPT	
5	50160300	HYPONUM PUMP COMPLETE KIT (NOT SHOWN)	1
6	604324	HYD HOSE W ENDS, 1/2" X 324"	OPT
7	605324	HYD HOSE W ENDS, 3/4" X 324"	OPT
1A	4455	CHART, SLIDE RULE (NOT SHOWN)	1
2	HB125-80	HOSEBARB ELBOW, 1.25MT X 1.25 HS	1
2A	HB150/125-90	HB RB ELBOW, 1.50 MPT X 1.25HS	1
3	200256	HOSE CLAMP, 1 1/2" - 2" ID	6
4	200235	SPRAYER HOSE, 1.25" X 20 FT LONG	1
4A	200235	SPRAYER HOSE, 1.25" X 5 FT LONG	1
4B	200235	SPRAYER HOSE, 1.25" X 7 FT LONG	1
5	280417	HOSEBARB, 1.25" HOSE X 2 FLANGE	1
6	303199	HOSECLAMP, 2" FLANGE EPDM	5
6A	200229	GASKET, 2" FLANGE EPDM	5
7	1-0635-0171-793	FLOWMETER, RAVEN	1
8	290411	COUPLING, FLANGE 2" X 2"	1
9	1-0635-0171-791	FLOWMETER, RAVEN	1
10	1-0635-0171-791	FLOWMETER, RAVEN	1
11	1841700	LOCKWASHER, 3/8" ZC	2
12	18436800	NUT, HEX, 3/8-16 ZC	4
13	47006487	U-BOLT, 1/2" NC	2
14	47003911	BRACKET, RAVEN HYPRO KIT	2
15	18891400	WASHER, LOCK 1/2" NC ZC	4
16	18417400	NUT, HEX 1/2"-13 NC ZC	4
17	HB125	HOSEBARB 1 1/4" MPT X 1 1/4" HOSE	2
18	303196	TEE, 2" FLANGED, POLY	1
19	21150125	REDUCER COUPLING 2" TO 1 1/4"	1
20	HB125-075	HOSEBARB 1 1/4" MPT X 3/4" HOSE	2
21	VE125	VALVE, ELECTRIC, ON/OFF	1
22	210271	VALVE BRACKET	1
23	18891200	LOCKWASHER, 3/8" ZC	2
24	18436600	NUT, HEX 3/8-16NC ZC	2
25	18721019	SCREW, SELF TAPPING, 1/4" X 1/2	2
26	250125	POLY CROSS, 1 1/4"	1
27	2125100	REDUCER BUSHING 1 1/2" X 1 1/4" HOSE	1
28	290463	HOSEBARB, 1 1/4" MPT X 1 1/2" HOSE	2
29	108025	TUBING, BRAIDED 1/2" X 13 FT LONG	1
30	108025	REDUCER BUSHING 1 1/4" X 1 1/4"	1
31	108856	HOSEBARB 1 1/4" MPT X 1 1/2" SS	1
32	100347	PRESSURE GAUGE, 0-160 PSI	1
33	100347	PRESSURE GAUGE, 0-160 PSI	1
34	609639	SHORT WIRE TIE, 17.5" (NOT SHOWN)	5
35	609643	LONG WIRE TIE, 28" (NOT SHOWN)	59
36	1201579	FM PACKARD CONNECTOR (NOT SHOWN)	1
37A	12010717	M PACKARD CONNECTOR (NOT SHOWN)	2
38	15324985	REPLACED BY 12089679 (NOT SHOWN)	3
39	12010300	CAVITY PLUG (NOT SHOWN)	9
40	12089040	MALE TERMINAL PIN (NOT SHOWN)	1
41	115-0171-085	CONSOLE CABLE	1
42	200228	HOSE CLAMP, 3/4" - 1 3/4"	1
43	200250	HOSE CLAMP, 3/4" - 1 3/4"	8
44	HB1075-050	HOSEBARB TEE	1
45	200376	ELBOW, 3/4" MPT X 3/4" HOSE	4
46	200449	FEMALE HOSEBARB 3/4" NPT X 1/2"	4
47	200228	HOSECLAMP, 7/16-1.00"	4*
48	100604	TUBING, BRAIDED EVA 1/2" X 4 FT	1*
49	100859	HOSEBARB 1/4" NPT X 1/2" SS	1*
50	47309038	NOZZLE BRACKET	1*
51	504017	NOZZLE ASSY INCLUDES (1) EACH OF THE FOLLOWING PARTS LISTED BELOW	1*
52	500192	NOZZLE BODY	1*
53	504015	STREAM STABILIZER	1*
54	503127	ORIFICE (SELECT FROM ORIFICE CHART)	1*
55	18057434	NOZZLE, HEX 1/2"NC X 2 1/2" GR5 ZC	2*
56	18811400	FLATWASHER, 1/2" INCH ZC	3*
57	1881400	LOCKWASHER, 1/2" INCH ZC	2*
58	18817400	NUT, HEX 1/2" NC ZC	2*
59	47306662	SHIM, 1/8"	1*
60	47306663	SHIM, 1/16"	1*
61	115286-01	CHECKVALVE, POLY W HOSEBARBS	1*
62	100804	TUBING, BRAIDED EVA 1/2" X 1 FT	1*
63	290430	2" FLANGED ELBOW, 90°	1
64	290307	TOP TANK BUNG, 1 1/4"	1

QUANTITIES MARKED * ARE FOR ONE ROW ONLY. MULTIPLY X NUMBER OF ROWS

REFER TO THE COUNTER 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

LIQUID PLUMBING

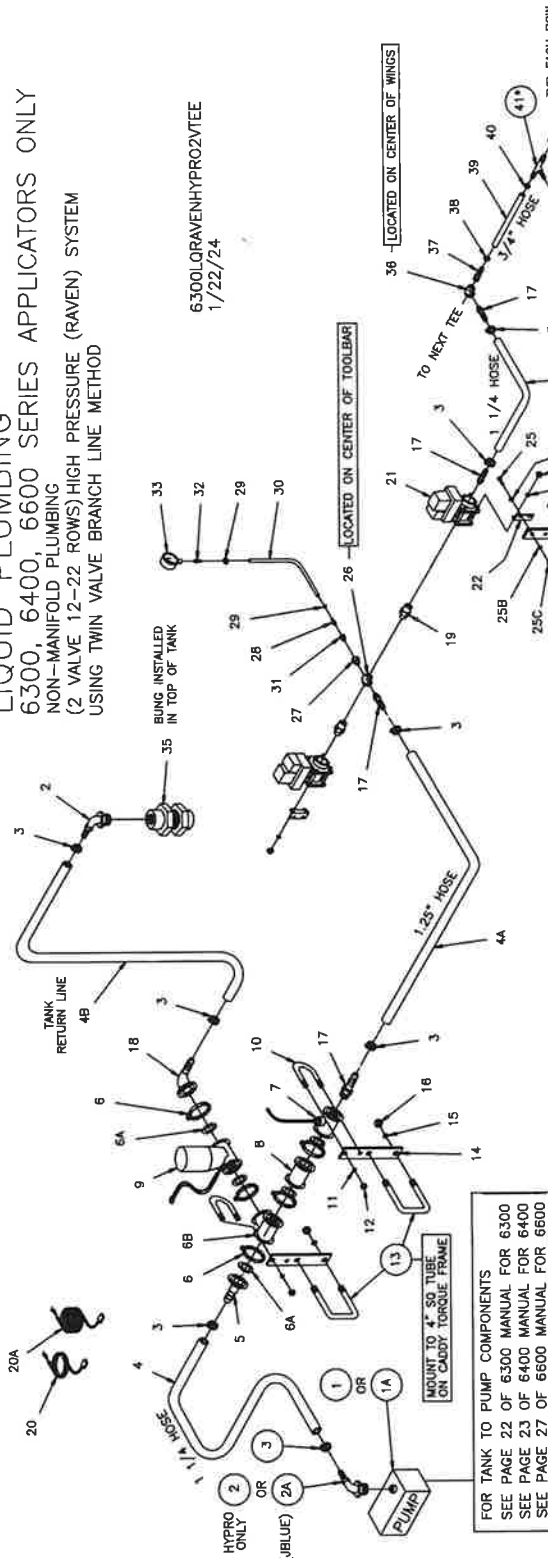
6300, 6400, 6600 SERIES APPLICATORS ONLY

NON-MANIFOLD PLUMBING

(2 VALVE 12-22 ROWS) HIGH PRESSURE (RAVEN) SYSTEM

USING TWIN VALVE BRANCH LINE METHOD

6300LORAVENHYPRO2VTEE
1/22/24



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

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSEMBLY, SINGLE PISTON	1 OPT
2	NGP-9055	PUMP ASSEMBLY, TWIN PISTON	1 OPT
3	501603	OPEN HYD. PUMP COMPLETE KIT (NOT SHOWN)	1 OPT
4	604324	HYD HOSE W ENDS, 1/2" X 3/4"	1 OPT
5	605324	HYD HOSE W ENDS, 3/4" X 3/4"	1 OPT
6	HB150/125-90	HOSEBARB ELBOW, 1.25" MPT X 1.25" HS	1
7	200256	HOSE CLAMP, 1 1/2" - 2" ID	6
8	200254	SPRAYER HOSE, 1.25" X 20 FT LONG	1
9	200235	SPRAYER HOSE, 1.25" X 5 FT LONG	1
10	200235	SPRAYER HOSE, 1.25" X 7 FT LONG	1
11	290417	HOSEBARB, 1.25" HOSE X 2 FLANGE	5
12	303199	HOSECLAMP, 2" FLANGE	1
13	303198	HOSECLAMP, 1.5" FLANGE	2
14	1-063-0171	783 FLOWMETER, RAVEN	1
15	290411	COUPLING, FLANGE 2 X 2	1
16	1-063-0171	884 VALVE, SERVO RAVEN	1
17	47819811	RAVEN HYDRO MOUNTING KIT	1
18	47005791	TEAS 10 THRU 16 THRU (23-25F)	2
19	47005791	U-CLAMP, NAPA (733-5364)	4
20	18891200	LOCKWASHER, 3/8" ZC	4
21	18436800	NUT, HEX 3/8-16 ZC	4
22	47003911	U-BOLT, 1/2" NC	2
23	47003911	BRACKET, RAVEN HYPRO KIT	2
24	18891400	WASHER, LOCK 1/2" ZC	4
25	18417400	NUT, HEX 1/2-13 NC ZC	4
26	HB125	HOSEBARB 1/4" MPT X 1/4" HOSE	6
27	290430	2" FLANGED ELBOW 90° (1.25 HOSEB)	1
28	200555	CLOSENIPPLE, POLY 1 1/4" X 1 1/4"	2
29	115-0171-085	CONSOLE CABLE	1
30	115-0171-055	12 FT CONTROL CABLE	1
31	63-0171-183	440 CONSOLE (NOT SHOWN)	1
32	VE125	VALVE, ELECTRIC, OPT	2
33	210271	VALVE, BRACKET, CHROME	2
34	18891200	LOCKWASHER, 3/8" ZC	8
35	18436800	NUT, HEX 3/8-16NC ZC	8
36	18055722	BOLT, HEX 1/4-20 X 1 ZC	4
37	18811000	FLATWASHER, 1/4" ZC	4
38	18891200	LOCKWASHER, 1/4" ZC	4
39	18891200	HEX NUT, 1/4-20 ZC	4
40	47003940	BRACKET, ELEC. VALVE MOUNT	2
41	47003941	CLAMP BRACKET, ELEC. VALVE	2
42	255	BOLT, HEX HEAD 3/8-16 X 2 ZC	2
43	18056830		2

ITEM	PART NO.	DESCRIPTION	QTY.
26	445525	SHAKY ELDERULE, (NOT SHOWN)	1
27	200125	POLY CROSS, 1 1/4"	1
28	26A	M PACKARD CONNECTER (NOT SHOWN)	2
29	26B	FM PACKARD CONNECTER (NOT SHOWN)	2
30	26C	15324985 CAVITY PLUG (NOT SHOWN)	3
31	26E	12010300 MALE TERMINAL PIN (NOT SHOWN)	10
32	26F	609639 SHORT WIRE, TE, 5 (NOT SHOWN)	5
33	26G	609639 SHORT WIRE, TE, 28 (NOT SHOWN)	59
34	2125100	REDUCER BUSHING 1 1/4" X 1"	1
35	200308	HOSEBARB, 1/2" MPT X 1/2" HOSE	2
36	200244	HOSECLAMP, 7/16" - 1" X 13 FT LONG	1
37	2100050	TUBING, BRAIDED 1/2" X 1/2" SS	1
38	100859	REDUCER BUSHING 1" X 1/2"	1
39	100859	HOSEBARB, 1" X 1/2" SS	1
40	200235	HOSE, EPDM 1 1/4" X VARIABLE*	2
41	501595	TOP TANK BUNG, 1 1/4"	1
42	261125	TEE, 1 1/4" INCH FPT	2
43	HB125-075	HOSEBARB, 1 1/4" MPT X 3/4" HOSE	4
44	200250	HOSE CLAMP, 3/4" - 1 3/4"	1
45	200250	HOSE CLAMP, 3/4" - 1 3/4"	1
46	HB075-050	HOSEBARB TEE	1
47	41A	ELBOW, 3/4" NPT X 3/4" HOSE	1
48	41B	FEMALE HOSEBARB 3/4" NPT X 1/2"	4
49	200244	omitted	4
50	200244	HOSECLAMP, 7/16-1.00"	4
51	43	HOSEBARB, 1/4" MPT X 1/2" SS	1
52	45	HOSEBARB 1/4" MPT X 1/2" SS	1
53	47309038	NOZZLE BRACKET	1
54	504017	NOZZLE ASSEMBLY INCLUDES (1) EACH OF THE FOLLOWING PARTS LISTED BELOW	1
55	500192	NOZZLE BODY	1
56	504015	STREAM STABILIZER	1
57	503125	NOZZLE CAP, STD STAINLESS	1
58	18057434	BOLT, HEX 1/2NC X 2 1/2 GR5 ZC	3*
59	18811400	FLATWASHER, 1/2" INCH ZC	2*
60	51	NUT, HEX 3/2" INCH ZC	2*
61	52	NUT, HEX 3/2" INCH ZC	2*
62	47309065	SHIM, 1/8"	1
63	47309065	SHIM, 1/8"	1
64	115266-01	CHECKVALVE, POLY	1
65	100804	TUBING, BRAIDED EVA 1/2" X 1 FT	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, PLUMB EACH ROW* OUTWARD TO THE ENDS OF THE WINGS.

SEE 606200R FOR RAVEN CONTROLLER PKG

LIQUID PLUMBING

6300 SERIES ONLY

APPLICATORS with WILGER

"FLOW VIEW" MODULAR BALL

MONITORING SYSTEM

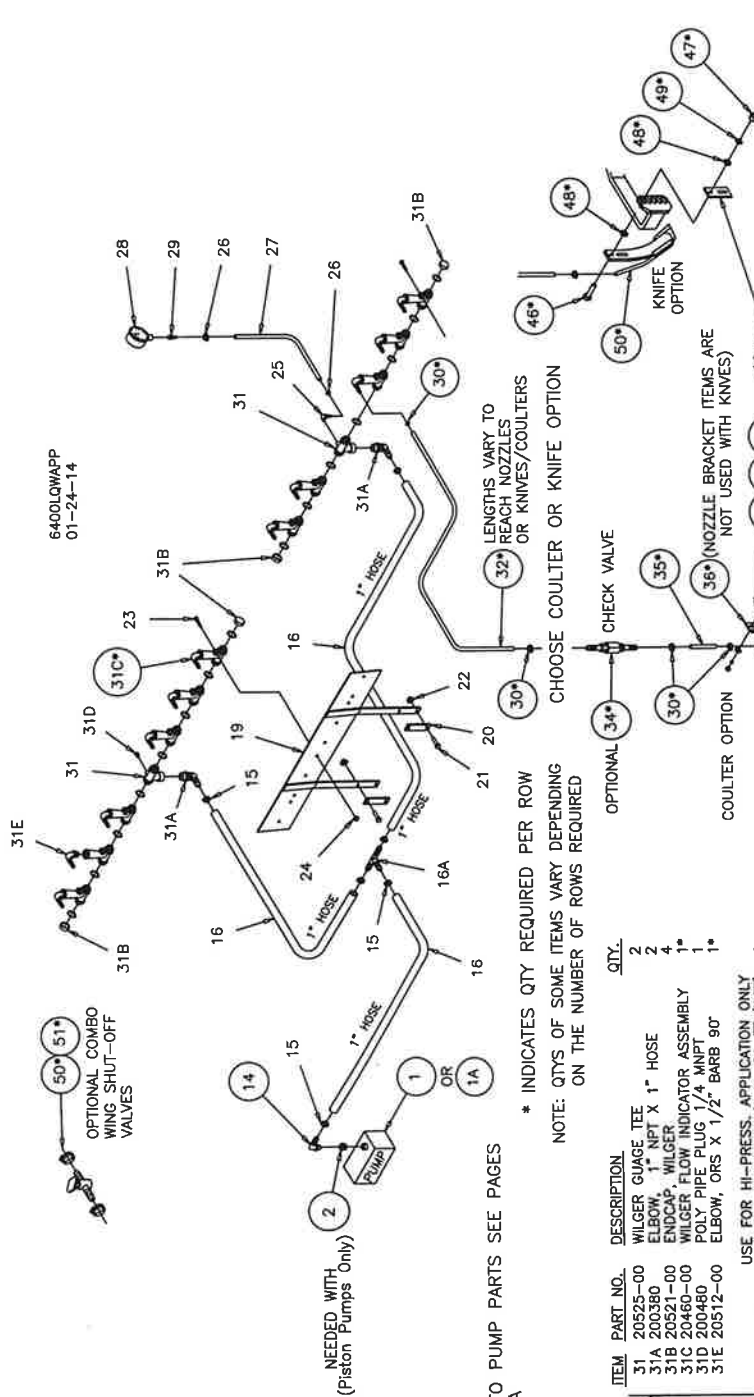
(11 TO 23 ROWS)

THIS DIAGRAM IS INTENDED FOR REPLACEMENT PARTS AND GENERAL ASSEMBLY. OTHER SPECIFICATIONS MAY NOT BE SHOWN.

QUANTITIES MARKED * ARE FOR EACH ROW ONLY.

REFER TO THE COULTER/SHANK MOUNT ILLUSTRATIONS TO DETERMINE THE ASSEMBLY LAYOUT REQUIRED FOR YOUR SPECIFIC TOOLBAR DEPENDING ON THE NUMBER OF ROWS.

FOR TANK TO PUMP PARTS SEE PAGES 22 AND 22A



NEEDED WITH (Piston Pumps Only)

OPTIONAL COMBO WING SHUT-OFF VALVES (50*, 51*)

OPTIONAL KNIFE PACKAGES FOR KNIFE OPTIONS SEE PARTS OR SALES FOR INFO

NGP-7055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

NGP-9055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

213600 TANK TO PIMP KIT includes items 2 thru 7, 9 thru 11, 17, 18,

6400LWAPP 01-24-14

31E

28, 29, 26, 27, 26, 31, 31B, 30*, 31A, 31D, 31C*, 23, 16, 15, 19, 24, 21, 20, 16A, 15, 16, 14, 1, OR 1A, 2, 31B, 31, 31A, 16, 15, 22, 30*, 32*, 30*, 35*, 36*, 37*, 38*, 46*, 48*, 49*, 50*, 48*, 47*, 46*, 45*, 44*, 43*

LENGTHS VARY TO REACH NOZZLES OR KNIVES/COULTERS

CHOOSE COULTER OR KNIFE OPTION

COULTER OPTION

CHECK VALVE

OPTIONAL KNIFE PACKAGES FOR KNIFE OPTIONS SEE PARTS OR SALES FOR INFO

NGP-7055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

NGP-9055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

213600 TANK TO PIMP KIT includes items 2 thru 7, 9 thru 11, 17, 18,

QUANTITIES MARKED * ARE FOR EACH ROW ONLY.

ITEM	PART NO.	DESCRIPTION	QTY.
50	500553	COMBO WING SHUTOFF VALVE (per row) 1*	1*
51	200244	HOSE CLAMP, 7/16 - 1" (per row) 2*	2*

20026001 NGP-9055 HI-PRES.PLBG PKG

WILGER FLOW INDICATOR PACKAGES

11 ROW KIT NUMBER 601514

12 ROW KIT NUMBER 601517

13 ROW KIT NUMBER 601523

15 ROW KIT NUMBER 601532

17 ROW KIT NUMBER 601541

* INDICATES QTY REQUIRED PER ROW

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

CHOOSE COULTER OR KNIFE OPTION

COULTER OPTION

CHECK VALVE

OPTIONAL KNIFE PACKAGES FOR KNIFE OPTIONS SEE PARTS OR SALES FOR INFO

NGP-7055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

NGP-9055 PLMBG PKG for WILGER MONITORS contains items 8, 14-16, 25-29, and 4455

213600 TANK TO PIMP KIT includes items 2 thru 7, 9 thru 11, 17, 18,

ITEM	PART NO.	DESCRIPTION	QTY.
1	NGP-7055	PUMP ASSY, HP SINGLE PISTON	1
1A	NGP-9055	HP TWIN PISTON	OPT
	501603	9303 HYD CENTRIFUGAL PUMP	OPT
	501603OPEN	9303 HYD COMPLETE PUMP KIT	OPT
	604624	INCLUDES PUMP AND THE FOLLOWING 2 HOSES	OPT
	605624	HYD HOSE W ENDS 1/2" X 324"	OPT
2	2150100	REDUCER BUSHING, 1.50" TO 1.00"	1
14	200380	HOSEBARB ELBOW, 1" NPT X 1" HOSE	1
15	200250	HOSE CLAMP, 3/4" - 1 3/4"	6
16	10040000	SPRAYER HOSE, 1" X (varies with rows)	1
16A	200452	HOSEBARB TEE, 1.00"	1
17	200170	MALE ADAPTER, 2" NPT	1
18	200172	CAP, 2" NPT	1
19	47003909	BALL FLOWMETER MOUNT ASSEMBLY (CONSISTS OF ITEMS 19, 20, 21, 22)	1
20	47003907	BALL FLOWMETER MOUNT WELDMENT	2
21	18056830	BOLT, HEX 3/8-16 X 2 1/2	4
22	18496900	FLANGHEX, 1/8-20 X 2 1/2	4
23	18055730	FLANGHEX, 1/8-20 X 2 1/2	10
24	18496900	FLANGHEX, 1/8-20 X 2 1/2	10
25	200244	HOSE CLAMP, 7/16 - 1"	2
26	200244	HOSE CLAMP, 7/16 - 1"	2
27	100604	PRESSURE GAUGE, 0 TO 160 PSI	1
28	100347	HOSEBARB, 1/4 NPT X 1/2 SS	1
29	100659	HOSE CLAMP, 7/16 - 1"	1
30	200244	HOSE CLAMP, 7/16 - 1"	4*

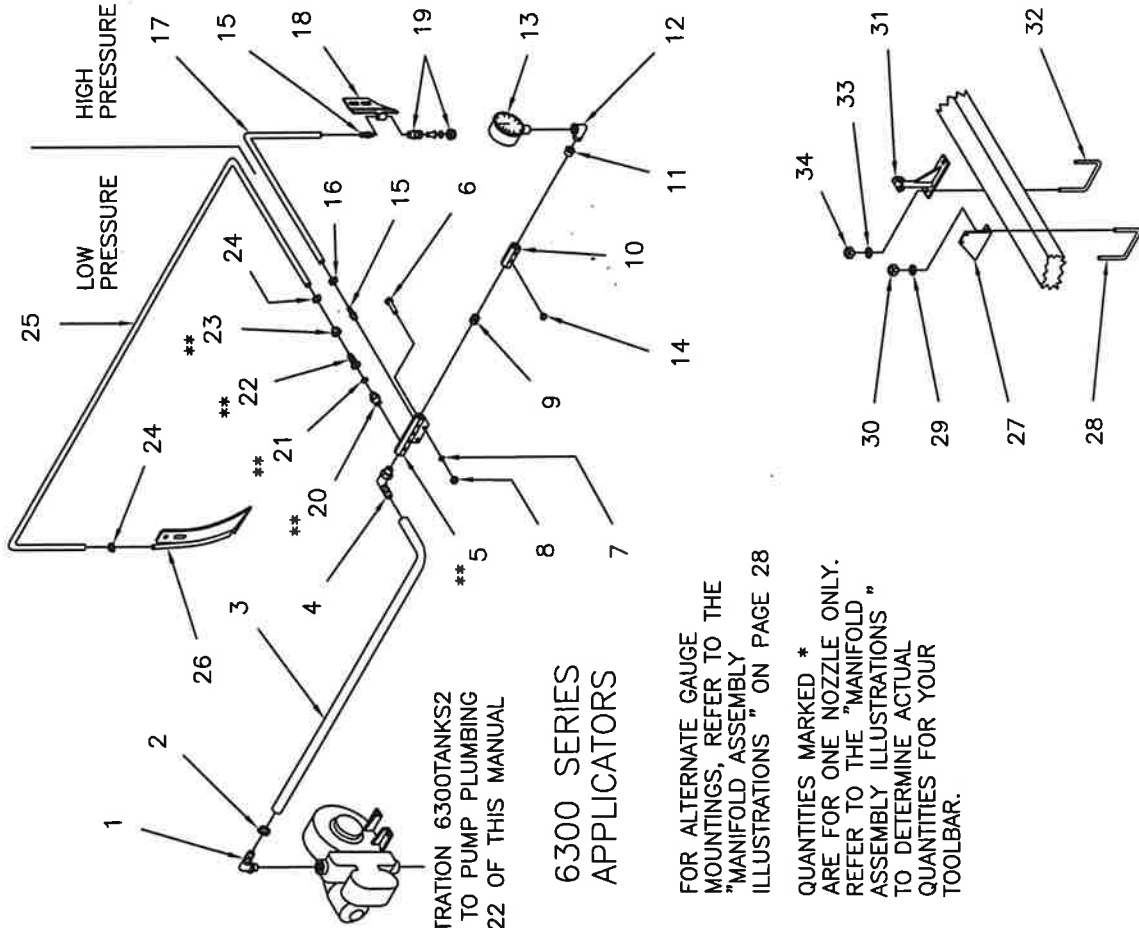
ITEM	PART NO.	DESCRIPTION	QTY.
31	20525-00	WILGER GAUGE TEE	2
31A	200380	ELBOW, 1" NPT X 1" HOSE	2
31B	20521-00	ENDCAP, WILGER	4
31C	20460-00	WILGER FLOW INDICATOR ASSEMBLY	1*
31D	200480	POLY PIPE PLUG 1/4 MNPT	1
31E	20512-00	ELBOW, ORS X 1/2" BARB 90°	1*
32	100804	USE FOR HI-PRES. APPLICATION ONLY	1
		HOSE, BRAIDED 1/2 X 91 FT. (100')	1
		HOSE, BRAIDED 1/2 X 92 FT. (100')	1
		HOSE, BRAIDED 1/2 X 108 FT. (120')	1
		HOSE, BRAIDED 1/2 X 120 FT. (130')	1
		HOSE, BRAIDED 1/2 X 135 FT. (150')	1
		HOSE, BRAIDED 1/2 X 203 FT. (230')	1
		TIE STRAP, 28" (NOT SHOWN)	15
34	115286-01	CHECKVALVE, POLY	1*
35	100804	HOSE, BRAIDED 1/2" X 12"	1*
36	47309038	NOZZLE BRACKET	1*
37	504017	NOZZLE BODY ASSY, INCLUDES 38-42 HOSEBARB, 1/4 MPT SS X 1/2" HOSE	1*
38	100659	HOSEBARB, 1/4 MPT SS X 1/2" HOSE	1*
39	500192	NOZZLE BODY	1*
40	504015	NOZZLE SATURILIZER	1*
41	ORIFICE	SELECT FROM ORIFICE CHART	1*
42	503127	CAP, SS	1*
43	47306661	SHIM, 1/4 X 2 X 4 1/2	1*
44	47306662	SHIM, 1/8 X 2 X 4 1/2	1*
45	47306663	SHIM, 1/4 X 2 X 4 1/2	1*
4455	CHART, SLIDE RULE INJECTION (not shown)		1
46	18057434	BOLT, HX HD 1/2 X 2 1/2 GR5	2*
47	18417400	NUT, HEX, 1/2X2 IN	2
48	18811400	FLATWASHER, USS ZC 1/2	4*
49	18891400	WASHER, LOCK 1/2 ZC	2*
50	KNIFE	SEE SALES FOR KNIFE OPTIONS	1*

26C

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

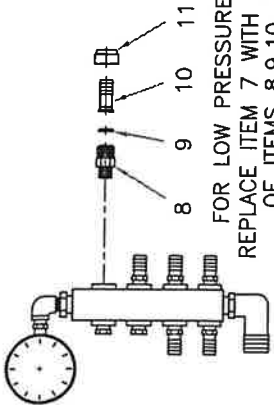
QUANTITIES MARKED *
ARE FOR ONE NOZZLE ONLY.
REFER TO THE "MANIFOLD"
ASSEMBLY ILLUSTRATIONS
TO DETERMINE ACTUAL
QUANTITIES FOR YOUR
TOOLBAR.

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

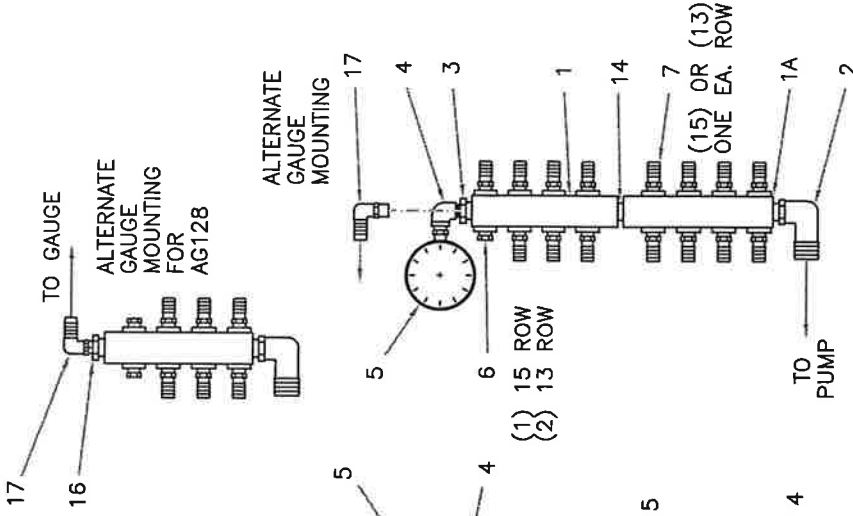
ITEM	PART NO.	DESCRIPTION	QTY.
1	HB125/100-90	HOSEBARB ELBOW, 1 1/4 MPT	1
2	200248	HOSE CLAMP, 1 1/16 TO 1 1/2	2
3	10040000	SPRAYER HOSE, 1" X	1
4	200367	HOSEBARB ELBOW, 1/2 NPT. X 1	1
5	47008033	MANIFOLD, (8) PORT, S.S.	1
6	18996832	3/8-16 NC. X 1 1/4 BOLT, S.S.	2
7	18881201	3/8 LOCKWASHER, S.S.	2
8	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. *	1
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 FT. (12 ROW)	1
		HOSE, BRAIDED FT. (8 ROW)	
		HOSE, BRAIDED FT. (16 ROW)	
18	47309038	NOZZLE BRACKET	1 *
19	504017	NOZZLE BODY, INCLUDES (1) EACH OF	1 *
	504015	STREAM STABILIZER	1 *
	ORIFICE	SELECT FROM ORIFICE CHART	1 *
	503127	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 FT. (8 ROW)	1
		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
	47002631	MANIFOLD BRACKET, BLK STL TEE	OPT.
32	47006545	U-BOLT, 1/2-13NC.	1
33	18891400	LOCKWASHER, 1/2	2
34	18417400	HEX. NUT, 1/2-13NC.	2

MNFDSTNLS
 ISSUE JUNE/2008

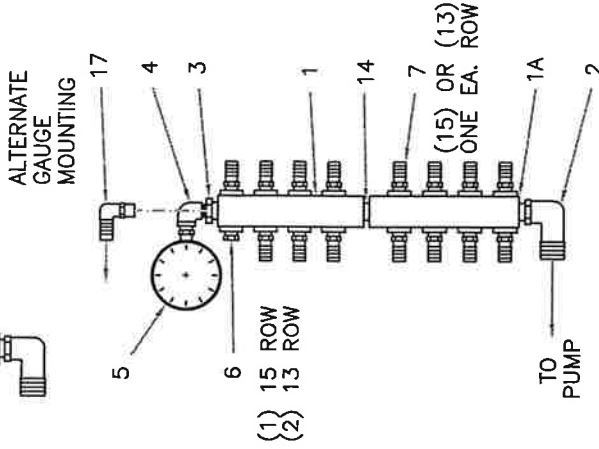
MANIFOLD ASSEMBLY ILLUSTRATION WITH STAINLESS STEEL MANIFOLD



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

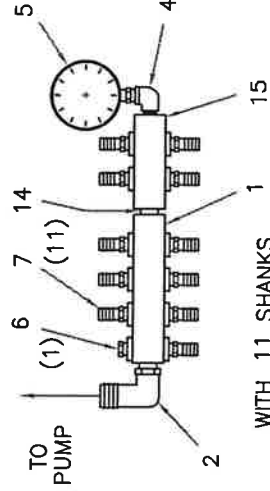


TO GAUGE
 ALTERNATE
 GAUGE
 MOUNTING
 FOR
 AG128

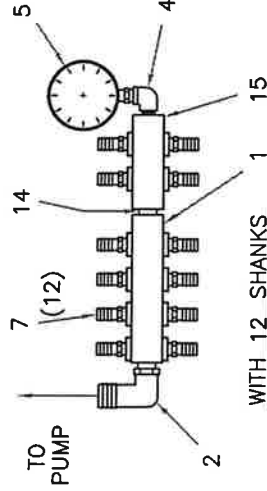


(1) 15 ROW
 (2) 13 ROW

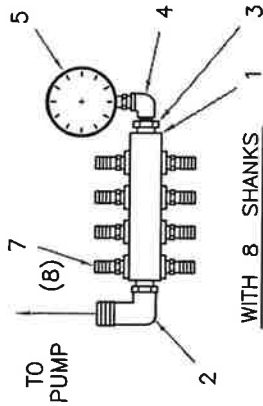
WITH 15 SHANKS
 (OR) 13 SHANKS



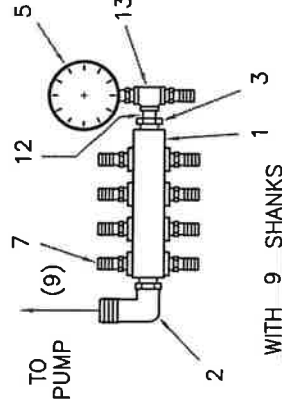
WITH 11 SHANKS



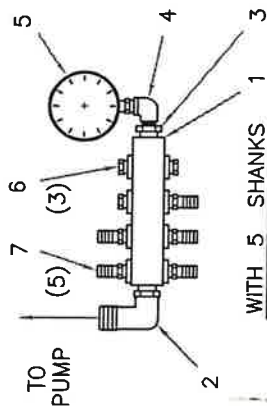
WITH 12 SHANKS



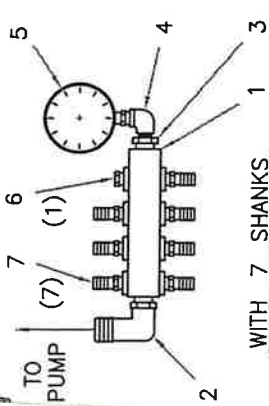
WITH 8 SHANKS



WITH 9 SHANKS



WITH 5 SHANKS



WITH 7 SHANKS

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47008033	MANIFOLD, 8 OUTLET-W/ MTG. BRKT.	1	8	500192	ADAPTER, NOZZLE BODY	1
1A	47007490	MANIFOLD, 8 OUTLET-W/O MTG. BRKT.	1	9	ORIFICE	REFER TO ORIFICE CHART	1
2	200367	HOSEBARB ELBOW, 1/2 NPT. X 1	1	10	500643	HOSEBARB INSERT, 1/2" LO-PRESSURE	1
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 mph	4 mph	5 mph	6 mph
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
4916-66	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
4916-70	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
4916-75	100	0.65	59	44	35	29
	120	0.71	64	48	38	32
	60	0.56	48	36	29	24
	80	0.63	56	42	34	28
4916-80	90	0.68	61	46	37	31
	100	0.72	65	50	40	34
	120	0.78	71	55	44	37
	60	0.66	59	44	36	30
4916-83	80	0.76	68	51	41	34
	90	0.81	73	55	44	36
	100	0.85	77	57	46	38
	120	0.93	84	63	50	42
4916-88	60	0.75	67	50	40	34
	80	0.86	77	58	46	39
	90	0.92	83	62	50	41
	100	0.97	87	65	52	44
4916-93	120	1.06	95	72	57	48
	60	0.85	77	58	46	38
	80	0.99	89	67	53	45
	90	1.05	95	71	57	47
4916-98	100	1.10	99	74	59	50
	120	1.21	109	82	65	54
	60	0.97	87	65	52	44
	80	1.12	101	76	60	50
4916-103	90	1.19	107	80	64	54
	100	1.25	113	84	68	56
	120	1.37	123	92	74	62
	60	1.06	95	71	57	48
4916-107	80	1.22	110	82	66	55
	90	1.29	116	87	70	58
	100	1.36	122	92	73	61
	120	1.49	134	101	80	67
4916-110	60	1.18	106	80	64	53
	80	1.36	122	92	73	61
	90	1.44	130	97	78	65
	100	1.52	137	103	82	68
4916-115	120	1.67	150	113	90	75
	60	1.23	111	83	67	55
	80	1.42	128	96	77	64
	90	1.51	136	102	82	68
4916-125	100	1.59	143	107	86	72
	120	1.74	157	117	94	78
	60	1.35	121	91	73	61
	80	1.55	140	105	84	70
4916-132	90	1.65	149	111	89	74
	100	1.74	157	117	94	78
	120	1.90	171	128	103	86
	60	1.42	128	96	77	64
4916-140	80	1.65	149	111	89	74
	90	1.74	157	117	94	78
	100	1.90	171	128	103	86
	120	2.11	190	143	114	95
4916-147	60	2.44	220	165	132	110
	80	2.59	223	175	140	117
	90	2.73	246	184	147	123
	100	2.99	269	202	161	135
4916-156	60	2.36	212	159	127	106
	80	2.72	245	184	147	122
	90	2.89	260	195	156	130
	100	3.04	274	205	164	137
4916-166	120	3.34	301	225	180	150
	60	2.73	246	184	147	123
	80	3.15	284	213	170	142
	90	3.34	301	225	180	150
4916-173	100	3.52	317	238	190	158
	120	3.86	347	261	208	174
	60	2.97	268	201	161	134
	80	3.43	309	232	185	154
4916-189	90	3.64	328	246	197	164
	100	3.84	346	259	207	173
	120	4.21	379	284	227	189
	60	3.34	301	226	181	150
4916-213	80	3.86	347	261	208	174
	90	4.10	369	277	221	185
	100	4.32	389	292	233	194
	120	4.73	426	319	255	213
4916-233	60	3.70	333	249	200	166
	80	4.27	384	288	231	192
	90	4.53	408	306	245	204
	100	4.77	429	322	258	215
4916-253	120	5.23	471	353	282	235
	60	4.21	379	284	227	189
	80	4.73	426	319	255	213
	90	5.00	453	346	277	228

****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			
			3 mph	4 mph	5 mph	6 mph
4916-37	60	0.18	12.2	9.1	7.3	6.1
	80	0.21	13.9	10.4	8.3	6.9
	90	0.23	15.2	11.4	9.1	7.6
	100	0.24	15.8	11.9	9.5	7.9
4916-40	60	0.26	17.2	12.9	10.3	8.6
	80	0.22	14.5	10.9	8.7	7.3
	90	0.25	16.5	12.4	9.9	8.3
	100	0.27	17.8	13.4	10.7	8.9
4916-43	60	0.28	18.5	13.9	11.1	9.2
	80	0.31	20	15.3	12.3	10.2
	90	0.32	21	15.8	12.7	10.6
	100	0.35	23	17.3	13.9	11.6
4916-47	60	0.30	20	14.6	11.7	9.8
	80	0.34	22	16.8	13.5	11.2
	90	0.36	24	17.8	14.3	11.9
	100	0.38	25	18.8	15.0	12.5
4916-49	60	0.42	28	21	16.6	13.9
	80	0.32	21	15.7	12.6	10.5
	90	0.37	24	18.3	14.7	12.2
	100	0.41	27	20	16.2	13.5
4916-52	60	0.45	30	22	17.8	14.9
	80	0.36	24	17.9	14.3	11.9
	90	0.42	28	21	16.6	13.9
	100	0.44	29	22	17.4	14.5
4916-55	60	0.47	31	23	18.6	15.5
	80	0.47	31	23	18.6	15.5
	90	0.50	33	25	20	16.5
	100	0.52	34	26	21	17.2
4916-56	60	0.57	38	28	23	18.8
	80	0.43	28	21	17.1	14.2
	90	0.50	33	25	20	16.5
	100	0.56	37	28	22	18.5
4916-59	60	0.61	40	30	24	20
	80	0.47	31	23	18.5	15.4
	90	0.54	36	27	21	17.8
	100	0.57	38	28	23	18.8
4916-61	60	0.60	40	30	24	20
	80	0.66	44	33	26	22
	90	0.60	40	30	24	20
	100	0.66	44	33	26	22

****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

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 30 inch spacing			
			3 mph	4 mph	5 mph	6 mph
4916-103	60	1.41	93	70	56	46
	80	1.63	108	81	65	54
	90	1.72	114	85	68	57
	100	1.82	120	90	72	60
4916-107	60	1.99	131	99	79	66
	80	1.58	105	78	63	52
	90	1.83	121	91	72	60
	100	1.94	128	96	77	64
4916-110	60	2.04	135	101	81	67
	80	2.24	148	111	89	74
	90	1.32	87	65	52	44
	100	1.52	100	75	60	50
4916-115	60	1.62	107	80	64	53
	80	1.70	112	84	67	56
	90	1.87	123	93	74	62
	100	1.85	122	91	73	61
4916-125	60	2.13	141	105	84	70
	80	2.26	149	112	89	75
	90	2.36	158	118	95	79
	100	2.61	172	129	103	86
4916-132	60	2.11	139	105	84	70
	80	2.44	161	121	97	81
	90	2.59	171	128	103	85
	100	2.73	180	135	108	90
4916-140	60	2.99	197	148	118	99
	80	2.36	156	117	93	78
	90	2.72	180	135	108	90
	100	2.89	191	143	114	95
4916-147	60	3.04	201	150	120	100
	80	3.34	220	165	132	110
	90	3.52	232	174	139	116
	100	3.86	255	191	153	127
4916-156	60	2.97	196	147	118	98
	80	3.43	226	170	136	113
	90	3.64	240	180	144	120
	100	3.84	253	190	152	127
4916-166	60	4.21	278	208	167	139
	80	3.34	221	166	132	110
	90	3.86	255	191	153	127
	100	4.10	271	203	162	135

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 mph	4 mph	5 mph	6 mph
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
	120	0.26	13.5	10.2	8.1	6.8
4916-40	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
	100	0.28	14.6	10.9	8.8	7.3
	120	0.31	16.2	12.1	9.7	8.1
4916-43	60	0.25	12.9	9.7	7.8	6.5
	80	0.29	15.1	11.3	9.1	7.6
	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
4916-47	60	0.30	16.4	11.6	9.2	7.7
	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
4916-49	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
	120	0.45	23	17.6	14.1	11.7
4916-52	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
	100	0.47	24	18.4	14.7	12.2
	120	0.51	27	20	15.9	13.3
4916-55	60	0.41	21	15.9	12.7	10.6
	80	0.47	24	18.4	14.7	12.2
	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
4916-56	60	0.43	22	16.9	13.5	11.2
	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
4916-59	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
	120	0.66	34	26	21	17.2
4916-61	60	0.502	26	20	15.7	13.1
	80	0.58	30	23	18.1	15.1
	90	0.61	32	24	19.1	15.9
	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 mph	4 mph	5 mph	6 mph
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
	120	0.80	42	31	25	21
4916-68	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
	100	0.80	42	31	25	21
	120	0.87	45	34	27	23
4916-70	60	0.66	34	26	21	17.2
	80	0.76	40	30	24	19.8
	90	0.81	42	32	25	21
	100	0.85	44	33	27	22
	120	0.93	48	36	29	24
4916-75	60	0.75	39	29	23	19.5
	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
4916-80	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
	120	1.21	63	47	38	32
4916-83	60	0.97	50	38	30	25
	80	1.12	58	44	35	29
	90	1.19	62	47	37	31
	100	1.25	65	49	39	33
	120	1.37	71	54	43	36
4916-89	60	1.06	55	41	33	28
	80	1.22	64	48	38	32
	90	1.29	67	50	40	34
	100	1.36	71	53	43	35
	120	1.49	78	58	47	39
4916-93	60	1.18	61	46	37	31
	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
4916-95	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
	120	1.74	91	68	54	45
4916-98	60	1.35	70	53	42	35
	80	1.55	81	61	48	40
	90	1.65	86	64	52	43
	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 mph	4 mph	5 mph	6 mph		
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		
	120	1.99	104	78	62	52		
4916-107	60	1.68	83	62	50	41		
	80	1.83	95	72	57	48		
	90	1.94	101	76	61	51		
	100	2.04	105	80	64	53		
	120	2.24	117	88	70	58		
4916-110	60	1.32	69	52	41	34		
	80	1.62	79	59	48	40		
	90	1.62	84	63	51	42		
	100	1.70	89	66	53	44		
	120	1.87	97	75	68	49		
4916-115	60	1.85	96	72	58	48		
	80	2.13	111	83	67	55		
	90	2.28	118	88	71	59		
	100	2.39	125	93	75	62		
	120	2.51	136	102	82	68		
4916-125	60	2.11	110	83	68	55		
	80	2.44	127	95	76	64		
	90	2.59	135	101	81	67		
	100	2.73	142	107	85	71		
	120	2.99	156	117	93	78		
4916-132	60	2.36	123	92	74	61		
	80	2.72	142	106	85	71		
	90	2.89	151	113	90	75		
	100	3.04	158	119	95	79		
	120	3.34	174	131	104	87		
4916-140	60	2.73	142	107	85	71		
	80	3.15	164	123	98	82		
	90	3.34	174	131	104	87		
	100	3.52	183	138	110	92		
	120	3.86	201	151	121	101		
4916-147	60	2.97	155	116	93	77		
	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		
4916-156	60	3.34	174	131	105	87		
	80	3.86	201	151	121	101		
	90	4.10	214	160	128	107		
	100	4.32	225	169	135	113		
	120	4.73	248	185	148	123		
4916-166	60	3.70	193	144	116	96		
	80	4.27	222	167	133	111		
	90	4.63	236	177	142	118		
	100	4.77	249	186	149	124		
	120	5.23	273	204	164	136		

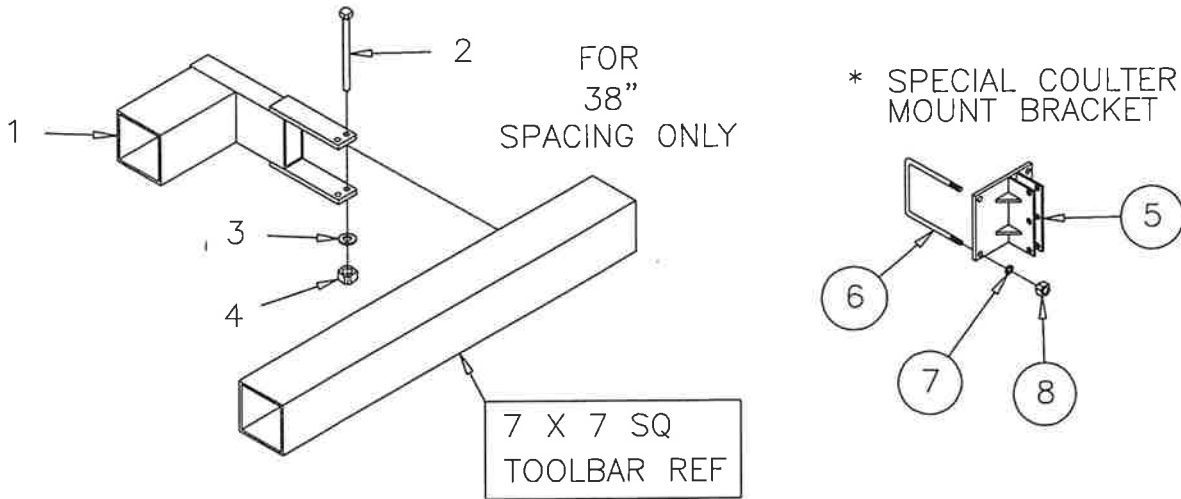
****Conversion Factors for Spraying Solutions other than 28% Nitrogen for use only with the Above GPA tables**

Weight of Solution	Conversion Factor
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

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

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

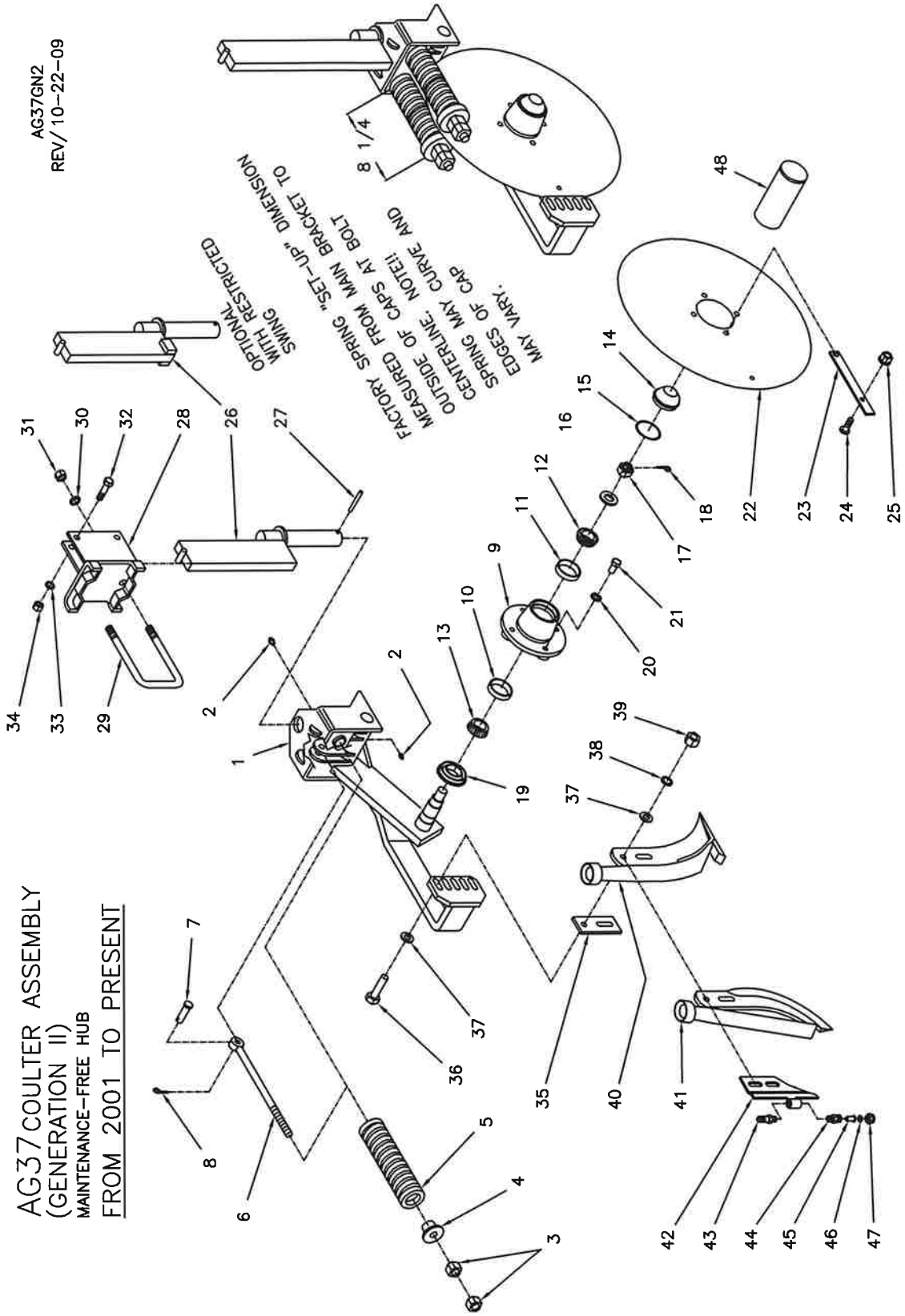
ITEM	PART NO.	DESCRIPTION (12 ROW 30" SP)	QTY
1	47015001	STD STAGGER BRACKET	2
2	18058479	BOLT, HEX 3/4-10 NC X 9.50 LG GR5 ZC	4
3	18891800	LOCKWASHER, 3/4 ZC	4
4	18418400	NUT, HEX 3/4-10 NC ZC	4

ITEM	PART NO.	DESCRIPTION (12 ROW 38" SP)	QTY
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 COULTER 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 COULTER MOUNT BRACKET) IS USED NEAR HINGE IN THE SHANK LAYOUT SECTION OF THIS MANUAL.

AG37 COULTER 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

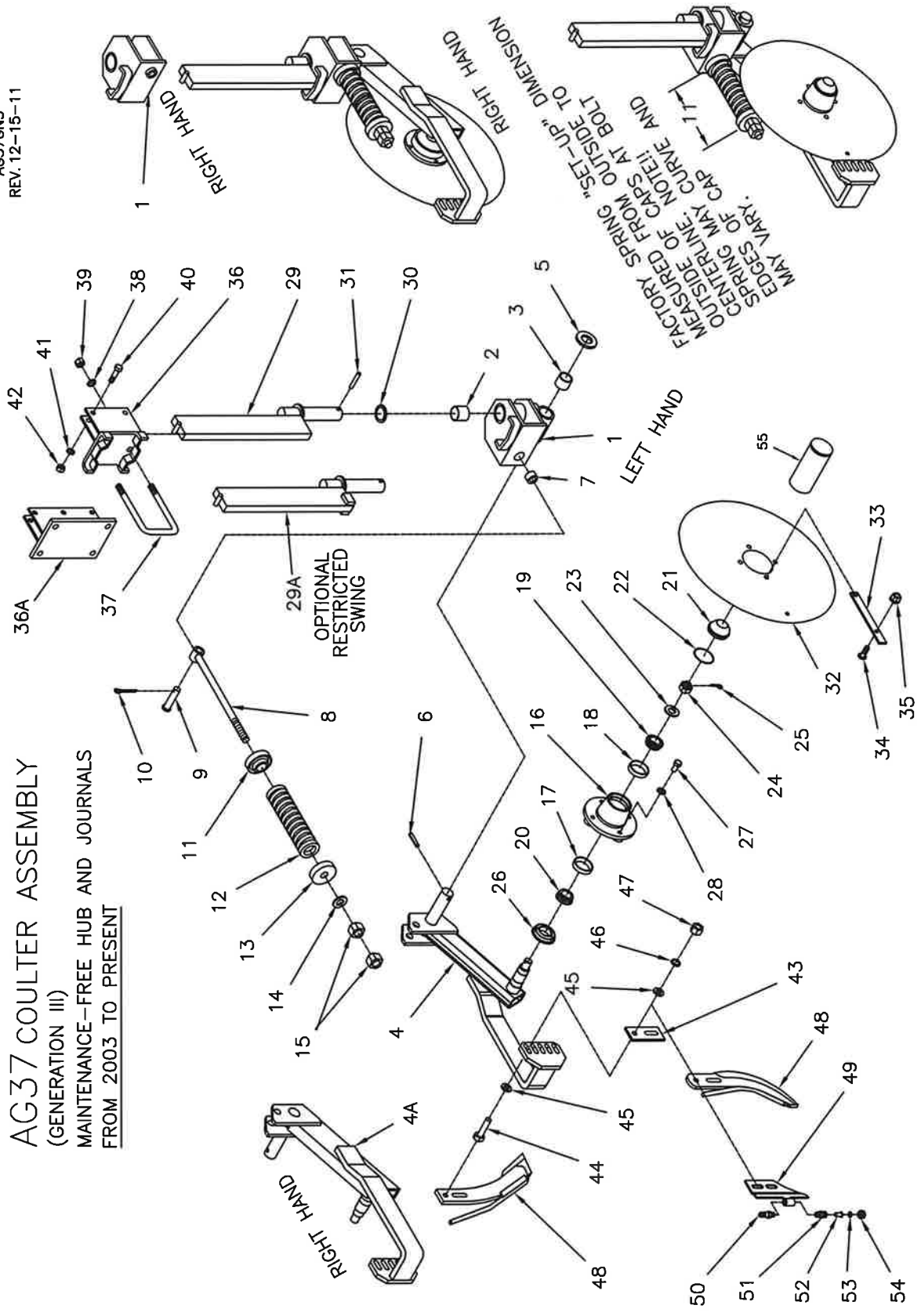
1. Your AG37 main bracket and hub are pre-assembled at the factory and the trip springs are pre-loaded to provide 525 pounds blade pressure. This should be adequate for normal field conditions. The coulters should trip up only when hitting a solid obstruction. During your field operation check to make 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.
2. 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).
3. 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).
4. Position the mounting brackets (item 28) at the desired spacing and fasten with the U-bolts (item 29) and hardware (items 30 and 31).
5. Install the coulters assemblies to the mounting brackets (item 28) and fasten with the bolts (item 32) and hardware (items 33 and 34).
6. Assemble the hardware snug only.
7. 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.
8. 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.
9. Make sure all hardware is tightened securely.
10. 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
1	47309570	MAIN BRKT. & BLADE ASSEMBLY, L.H.	1	30	18891600	LOCKWASHER, 5/8	2
2	47307705	MAIN BRKT. & BLADE ASSEMBLY, R.H. OPT.	1	31	18417900	HEX. NUT, 5/8-11NC.	2
3	47109570	INCLUDES ITEMS 1 TO 22	1	32	18057434	BOLT, 1/2-13NC. X 2 1/2	2
4	47109568	MAIN BRKT W/HUB ASSEMBLY, L.H.	1	33	18891400	LOCKWASHER, 1/2	2
5	47309570	MAIN BRKT W/HUB ASSEMBLY, R.H. OPT.	1	34	18417400	HEX. NUT, 1/2-13NC.	2
6	47301524	INCLUDES ITEMS 1 TO 21 (W/O BLADE)	1	35	47306661	SHIM, 1/4	1
7	18541428	MAIN BRACKET, L.H. (W/O HUB OR BLADE)	1	36	47306662	SHIM, 1/8	1
8	18560722	MAIN BRACKET, R.H. (W/O HUB OR BLADE) OPT.	1	37	18057432	SHIM, 1/16	1
9	47300351	GREASE ZERK, STRAIGHT	4	38	18891400	FLATWASHER, 1/2	2
10	47301524	HEX NUT, 5/8-11NC.	4	39	18417400	LOCKWASHER, 1/2	2
11	47301524	SPRING CAP	2	40	47309735	HEX NUT, 1/2-13NC. (FORWARD)	1
12	47301524	COMPRESSION SPRING	2	41	47309734	DRY KNIFE, W/BUSHING, (FORWARD)	1
13	47301524	EYE BOLT, SPRING RETAINER	2	42	47309742	LIQUID KNIFE, (FORWARD)	1
14	18541428	CLEVIS PIN, 1/2 X 1 3/4	2	43	47309746	LIQUID KNIFE, (FORWARD)	1
15	18560722	COTTER PIN, 5/32 X 1	2	44	47309759	DRY KNIFE, W/BUSHING, (BACKSWEPT)	1
16	47300350	HUB COMPLETE (W/O SEAL & BOLTS)	2	45	47309750	LIQUID KNIFE, (BACKSWEPT)	1
17	47300351	INCLUDES ITEMS 9 TO 15	1	46	47309038	NOZZLE BRACKET	1
18	47005510	HUB WITH CUPS, ITEMS 10 & 11	1	47	47309038	HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE	1
19	47005048	BEARING CUP, INNER	1	48	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1
20	47005048	BEARING CUP, OUTER	1				
21	47005548	BEARING CONE, OUTER	1				
22	47005513	BEARING CONE, INNER	1				
23	47300351	DUST CAP	1				
24	47300352	O-RING DUST SEAL	1				
25	47300353	SPINDLE WASHER	1				
26	18560726	COTTER PIN, 7/8-14UNF	1				
27	40030326	GREASE SEAL	1				
28	18891400	LOCK WASHER, 1/2 I.D.	4				
29	18057522	WHEEL BOLT, 1/2-20NF X 1	4				
30	47305027	COULTER BLADE, 20" RIPPLED	1				
31	47306921	SCRAPER	1				
32	18033810	BOLT, 3/8-16NC. X 1, TRUSS HEAD	1				
33	18496800	HEX. NUT, 3/8-16NC. FLANGED	1				
34	47303811	COULTER SWIVEL BAR, 18" (INCL ITEM 27)	1				
35	47309811	COULTER SWIVEL BAR, 12" (INCL ITEM 27) OPT.	1				
36	OPTIONAL	COULTER BAR W/RESTRICTED SWING	1				
37	47005147	10 DEG. AND 15 DEG. AVAILABLE	1				
38	47005147	18" BAR 10' RESTR. SWING (BOTH WAYS)	1				
39	47005147	18" BAR 10' RESTR. SWING (LH ONLY)	1				
40	47005149	18" BAR 15' RESTR. SWING (BOTH WAYS)	1				
41	47005149	18" BAR 15' RESTR. SWING (RH ONLY)	1				
42	47005149	18" BAR 15' RESTR. SWING (LH ONLY)	1				
43	47005149	18" BAR 15' RESTR. SWING (RH ONLY)	1				
44	18511032	ROLL PIN, 1/4 X 2 1/4	1				
45	47309893	MOUNTING BRACKET, (4" VERTICAL) STD.	1				
46	47008951	U-BOLT, 5/8-11NC. (4" V X 6" BAR)	1				
47	44001616	U-BOLT, 5/8-11NC. (4" V X 4" BAR)	1				
48	OTHER MOUNTING BRACKET OPTIONS						
49	47309887	MOUNTING BRKT., (2 1/2" VERTICAL)	1				
50	47006659	U-BOLT, 5/8-11NC. (2 1/2" V X 2 1/2" BAR)	1				
51	47309732	MOUNTING BRACKET, (3" VERTICAL)	1				
52	47309907	MOUNTING BRKT., (3" VERT., EXT.)	1				
53	47308677	U-BOLT, 5/8-11NC. (3" V X 3" BAR)	1				
54	47309888	MOUNTING BRKT., (6" VERTICAL)	1				
55	47010154	U-BOLT, 5/8-11NC. (6" V X 4" BAR)	1				
56	47009847	U-BOLT, 5/8-11NC. (6" V X 6" BAR)	1				
57	47309736	MOUNTING BRKT., (7" VERTICAL)	1				
58	47302730	U-BOLT, 1/2-13NC. (7" V X 7" BAR)	1				
59	NOTE for 7"	U-BOLT USE 1/2-13NC. HEX. NUTS	1				

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)

AG37GN3JLS
REV. 01/28/22

MAINTENANCE-FREE HUB AND JOURNALS MOUNTING INSTRUCTIONS AND PARTS LIST

1. 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 coultter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coultter 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.
2. Assemble the blade (item 32) to the hub, and (if used) the scraper (item 33) to the blade with the hardware (items 34 & 35).
3. 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).
4. Position the mounting bracket (item 36) at the desired spacing and fasten with the u-bolt (item 37) and hardware (items 38 and 39).
5. Install the coultter 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.
6. Adjust the coultter blade to the desired depth and tighten the hardware securely.
7. Assemble the knife (item 48) to the coultter 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 backsept knife should be positioned to obtain maximum backswep. 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.
8. 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 coultter 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.
9. Make sure all hardware is tightened securely.
10. 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

35

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47304500	MAIN BRKT. W/HUB, R.H. (STANDARD)	1	20	47005548	BEARING CONE, INNER	1	37	47010154	U-BOLT, 5/8-11NC. (6" X 4" H BAR)	1
2	47009954	SWIVEL BUSHING, 1 1/2 I.D.	2	21	47005513	DUST CAP	1	47009847	U-BOLT, 5/8-11NC. (6" X 4" H BAR)	1	
3	47009953	PIVOT BUSHING, 1 3/8 I.D.	2	22	47990351	O-RING DUST SEAL	1	36A	47309736	MOUNTING BRACKET, (7" VERTICAL)	1
4	47004507	PIVOT ARM, R.H. FRONT SWEPT KNIFE	1	23	47300352	SPINDLE WASHER	1	37	47302730	U-BOLT, 1/2-13NC. (7" X 7" H BAR)	2
5	18300328	RETAINING WASHER, 1 3/8 I.D.	1	24	47300353	SLOTTED NUT, 7/8-14UNF	1	38	18891400	LOCKWASHER, 1/2	4
6	18511035	EXPANSION PIN, 3/8 X 2	1	25	18560726	COTTER PIN, 5/32 X 1 1/2	1	39	18417400	HEX. NUT, 1/2-13NC	4
7	47004518	EYE BOLT, SPRING RETAINER	1	26	40030326	GREASE SEAL	1	38	18891600	LOCKWASHER, 5/8	2
8	18541835	GLEVIS PIN, 3/4 X 2 1/2	1	27	18057522	WHEEL BOLT, 1/2-20NF X 1	4	39	18417900	HEX. NUT, 5/8-11NC.	2
9	18560726	COTTER PIN, 5/32 X 1 1/2	1	28	18891400	LOCK WASHER, 1/2 I.D.	4	40	18057434	BOLT 1/2-13NC. X 2 1/2	2
10	47004521	SPRING CAP, WITH COUNTER-BORE	1	29	47304522	COULTER BAR W/RESTRICTED SWING	1	41	18891400	LOCKWASHER, 1/2	2
11	47007565	COMPRESSION SPRING	1	29A	OPTIONAL	10 DEG. AND 15 DEG. AVAILABLE	1	42	18417400	HEX. NUT, 1/2-13NC.	2
12	47007085	SPRING CAP, STANDARD CASTING	1	47005144	47005144	18" BAR 10" RESTR. SWING (BOTH WAYS)	1	43	47306661	HEX. NUT, 1/2-13NC.	2
13	18851800	FLAT WASHER, 3/4	2	47005144R	47005144R	18" BAR 10" RESTR. SWING LH ONLY	1	44	47306662	SHIM, 1/8	1
14	18446890	HUB COMPLETE (W/O SEAL & BOLTS)	1	47005145	47005145	18" BAR 15" RESTR. SWING (BOTH WAYS)	1	45	18811400	FLATWASHER, 1/2	2
15	47300350	HUB WITH CUPS ITEMS 17 & 18	1	47005145R	47005145R	18" BAR 15" RESTR. SWING RH ONLY	1	46	18891400	LOCKWASHER, 1/2	2
16	47300351	BEARING CUP, INNER	1	18300323	18300323	RETAINING WASHER, 1 1/2 I.D.	1	47	18417400	HEX. NUT, 1/2-13NC	2
17	47005510	BEARING CUP, OUTER	1	18511036	18511036	EXPANSION PIN, 3/8 X 2 1/4	1	48	47309756	LIQUID KNIFE, (FRONTSWEPT)	OPT.
18	47005010	BEARING CONE, OUTER	1	47305027	47305027	COULTER BLADE, 20" RIPPLED	1	49	47307468	LIQUID KNIFE, (FRONTSWEPT)	OPT.
19	47005048	BEARING CONE, OUTER	1	ITEMS 33 TO 35	ITEMS 33 TO 35	OPT USE W/FRONT SWEPT KNIFE ONLY	1	49A	47997038	NOZZLE BRACKET (L.H.) (STANDARD)	OPT.
				33	47308921	SCRAPER	1	50	100859	HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE	1
				34	18033810	BOLT, 3/8-16NC. X 1, TRUSS HEAD	1	51	500192	ADAPTER	1
				35	18496800	HEX. NUT, 3/8-16NC. FLANGED	1	52	504015	STREAM STABILIZER	1
				36	47309893	MOUNTING BRACKET, (4" VERTICAL) STD.	1	53	ORIFICE	SELECT FROM ORIFICE CHART	1
				37	44001616	U-BOLT, 5/8-11NC. (4" X 6" H BAR)	1	54	503127	CAP	1
				38	47309888	MOUNTING BRACKET, (6" VERTICAL)	1	55	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1

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

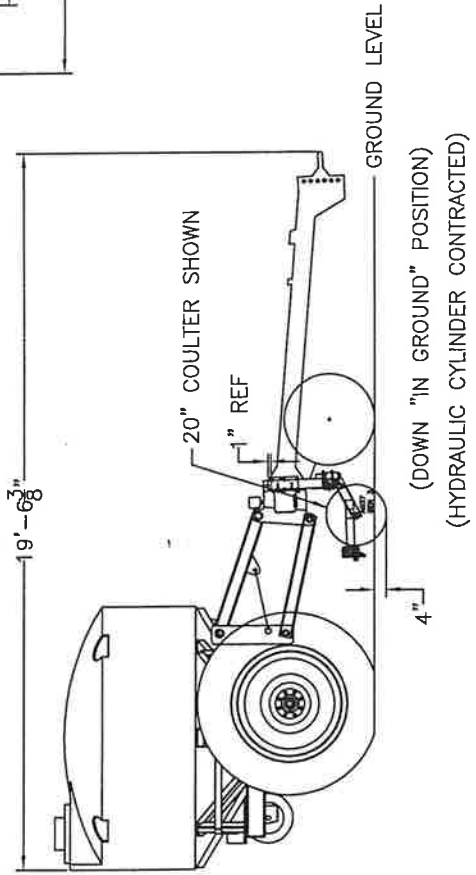
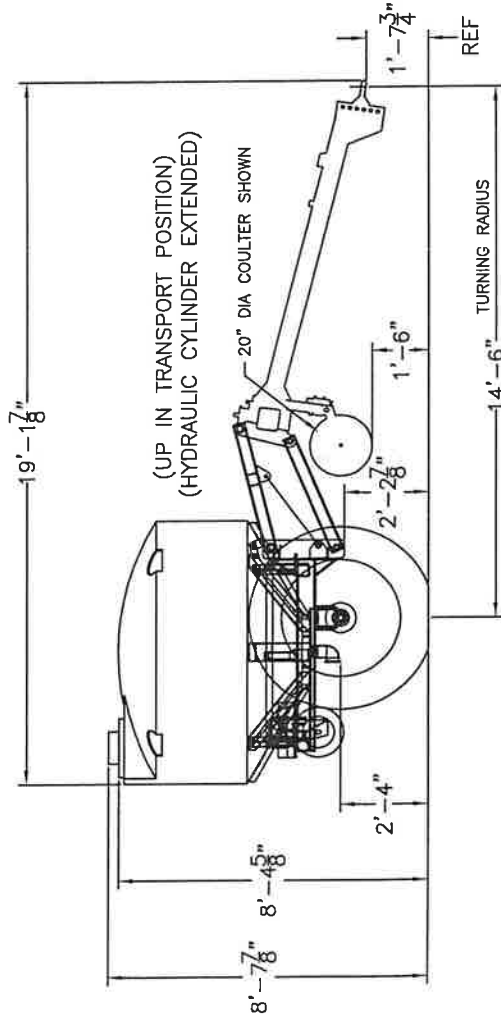
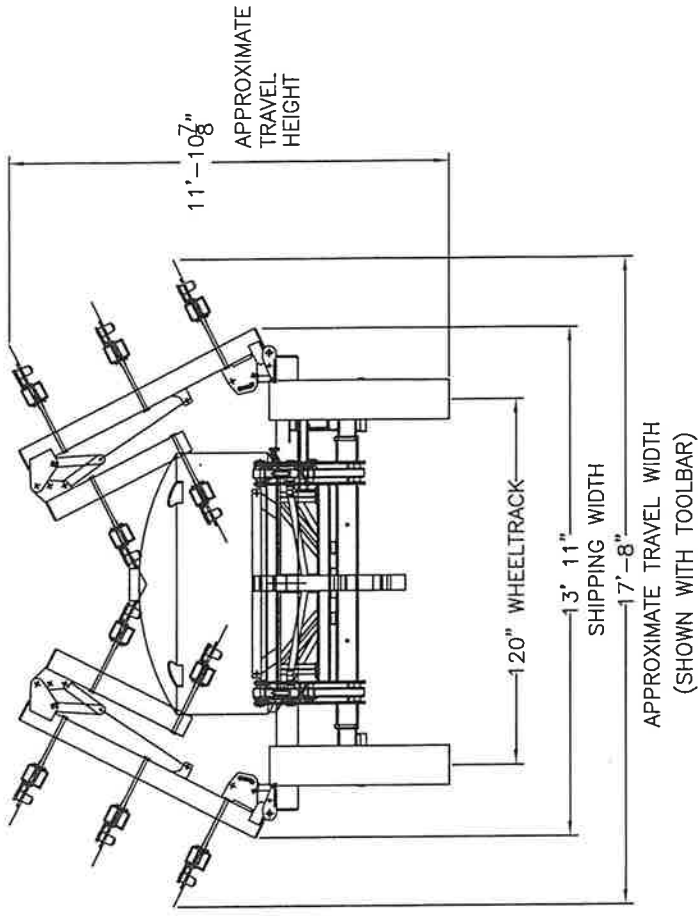
The factory procedure to assemble the coultter hub has been developed to obtain maximum life and to eliminate damage to the components. IT IS IMPORTANT to understand and follow this procedure when servicing the coultter hub. If possible, obtain an illustration of the coultter before proceeding.

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 with out 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

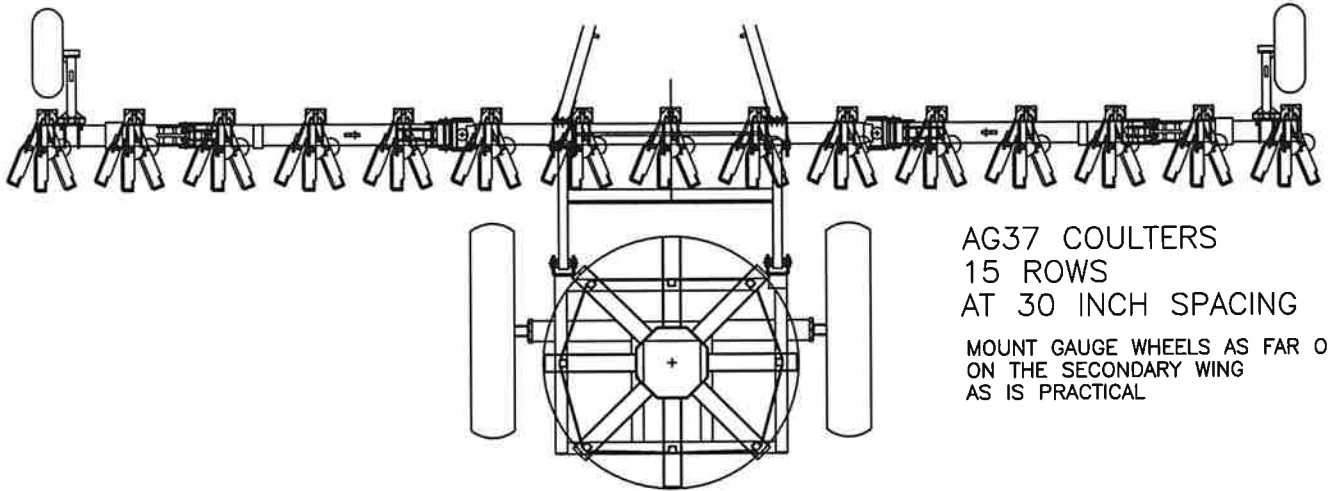
63KSPECSLQ10
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6300 SERIES TOOLBAR

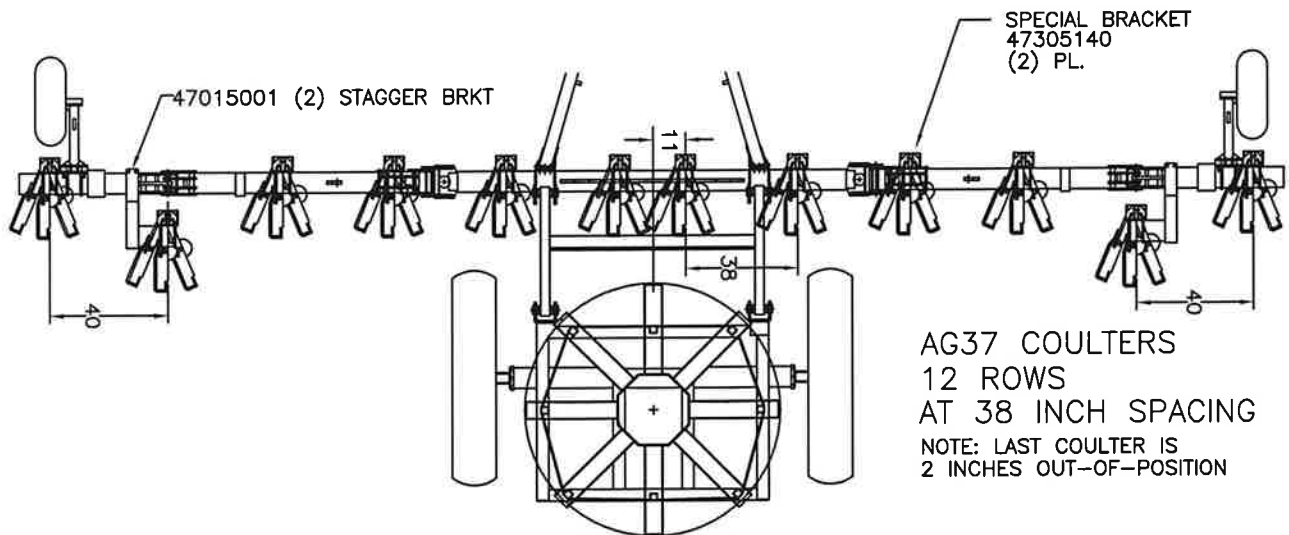
WITH COULTERS FOR
LIQUID APPLICATION

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



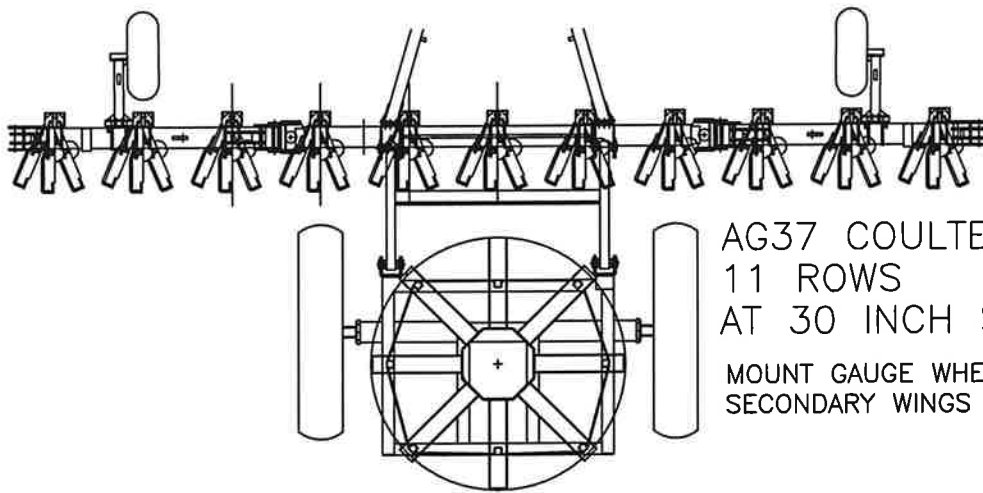
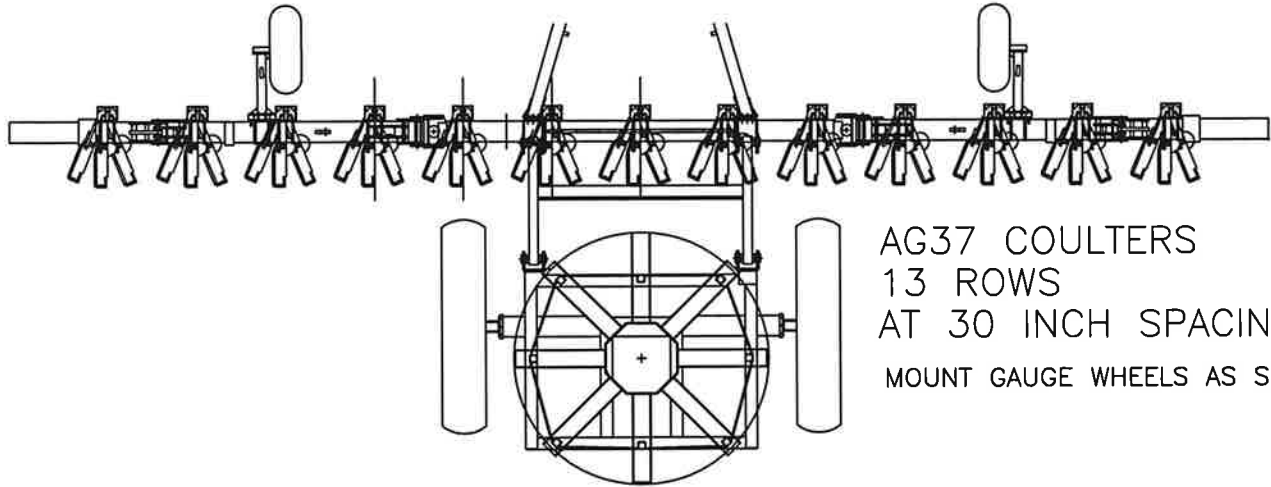
AG37 COULTERS
12 ROWS
AT 38 INCH SPACING

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

6300 SERIES TOOLBAR

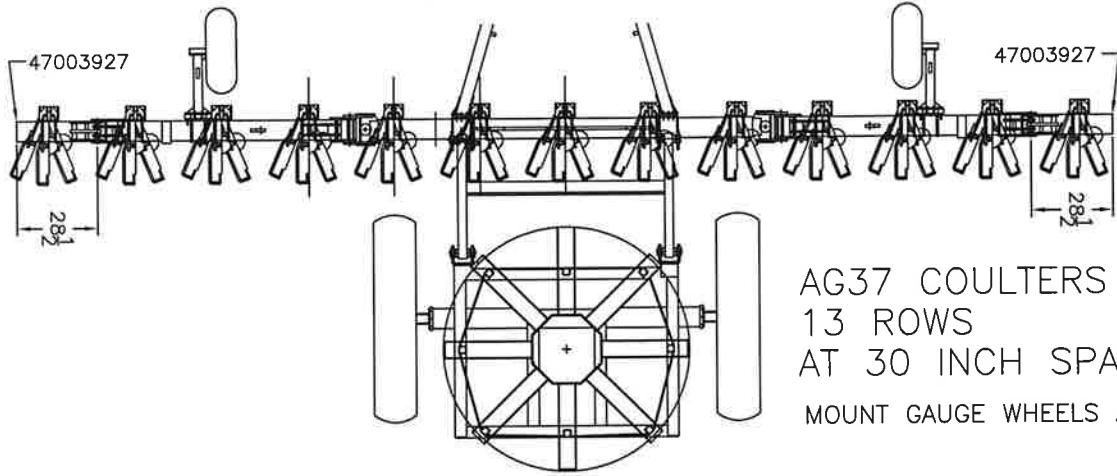
WITH COULTERS FOR
LIQUID APPLICATION

63K13ROWARR
pro 11-16-10



6300 SERIES TOOLBAR

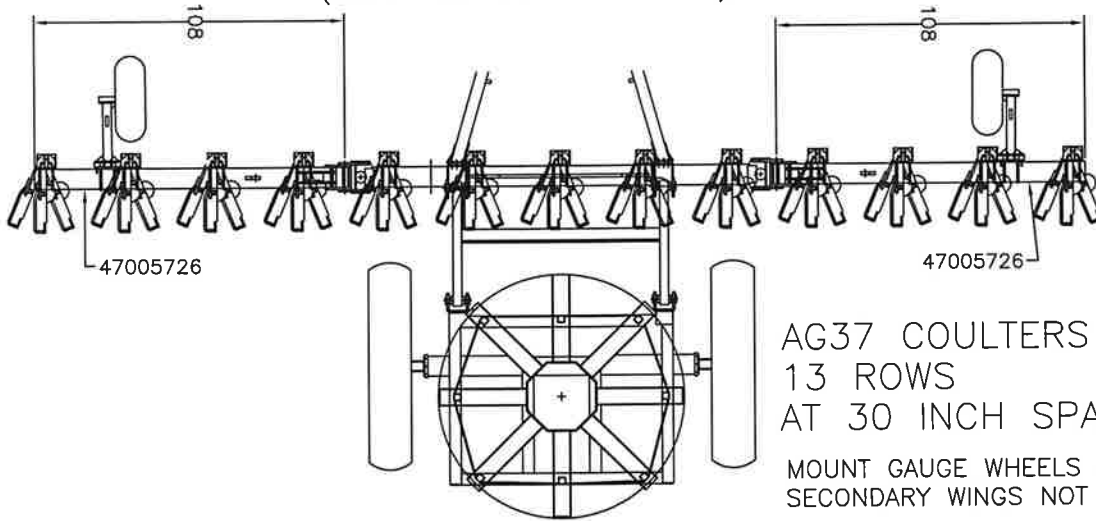
WITH COULTERS FOR
LIQUID APPLICATION
(with 2nd wings)



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

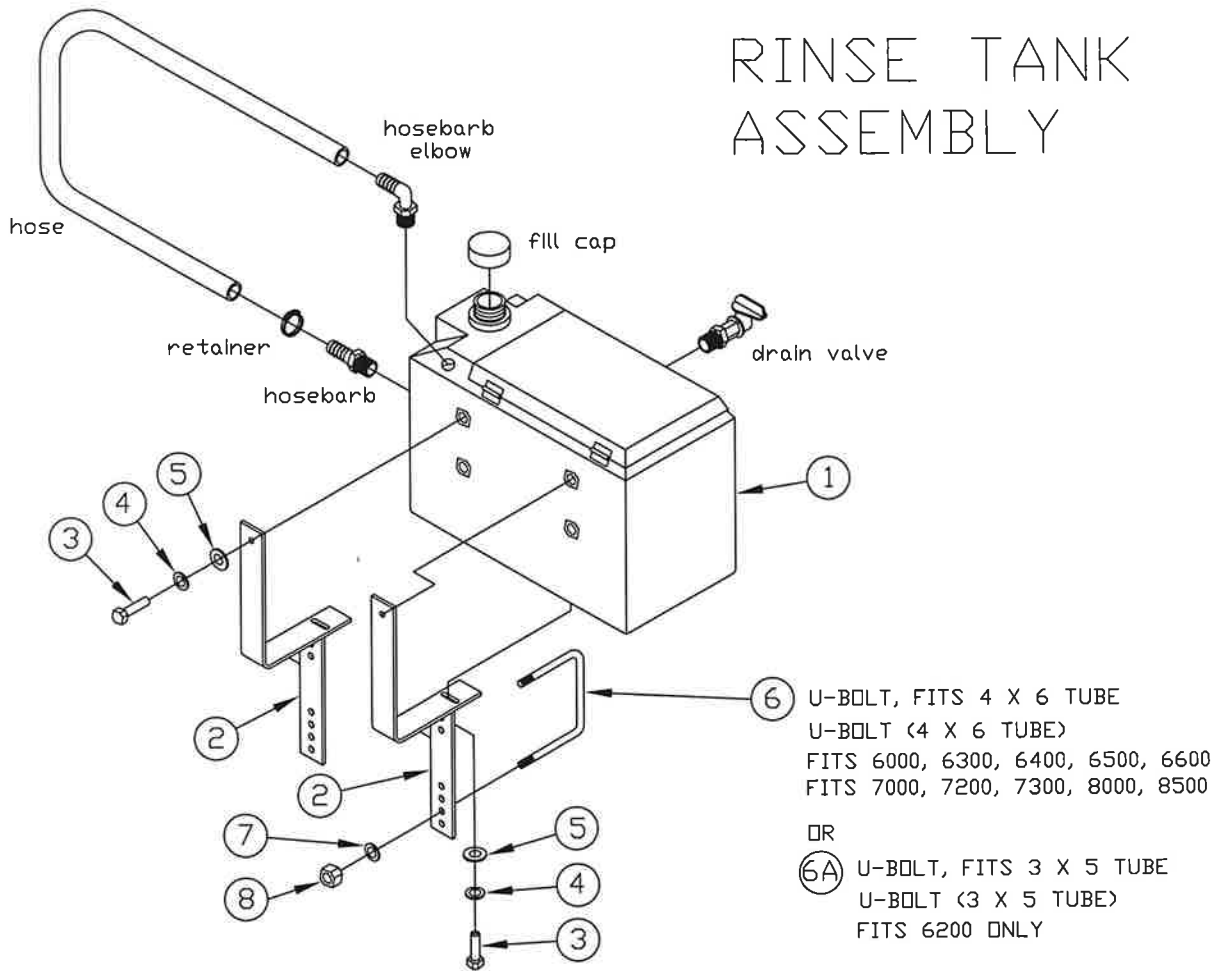
6300 SERIES TOOLBAR

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



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

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

