Heartland
AG SYSTEMS
Heartland Agriculture, LLC

6600
APPLICATOR

LIQUID FERTILIZER

OWNERS MANUAL
ASSEMBLY INSTRUCTIONS
AND PARTS LIST
OM-6600

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

ISSUE
JANUARY 2024

Heartland AG SYSTEMS
Heartland Agriculture, LLC

WARRANTY REGISTRATION

Heartland AG SYSTEMS EQUIPMENT

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

6600 liquid Applicator

CONTENTS

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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.

Heartland
AG SYSTEMS
Heartland Agriculture, LLC

Heartland
AG SYSTEMS
EQUIPMENT

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.

Heartland AG SYSTEMS
Heartland Agriculture, LLC

Heartland AG SYSTEMS EQUIPMENT

Claim Form Guidelines

Claims Must Have

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

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

INTRODUCTION

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

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

SAFETY INFORMATION

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

WARNING: This message denotes a specific potential hazard.

CAUTION: This message denotes a reminder of safety practices.

NOTE: Indicates a special point of information.

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

Warranty is provided for 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.

***** 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 _____

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 CHILDEREN AND BYSTANDERS

Before you back, LOOK CAREFULLY behind for children

Clear area of children, pets, and bystanders

TRANSPORT SAFETY

-- Always use safety chains during road transportation.

-- Check wheel nuts daily

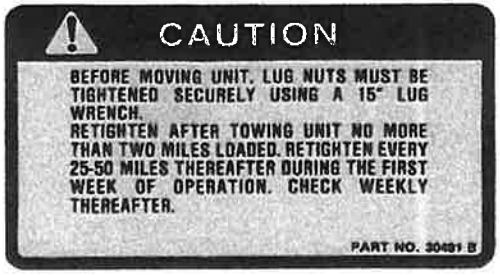
-- Use hydraulic cylinder transport lock-up during road transportation.

-- Maximum recommended road speed is 25 MPH

-- Clear machine of personnel and obstructions

PART NUMBER: 699102

PART NUMBER: 30481

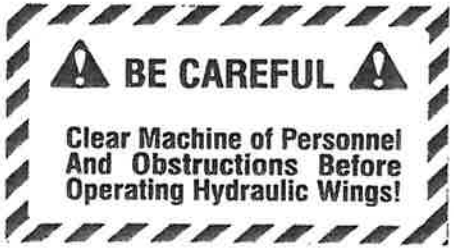


PART NUMBER: 699107

PART NUMBER: 699101

PART NUMBER: USA

PART NUMBER: 699104



6600 APPLICATOR ASSEMBLY PROCEDURE
WITH LIQUID PUMP DRIVE

Your 6600 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 (stands, overhead crane or a hyd lift is needed)

Step 1. Select a smooth level surface for the assembly of your equipment.

Step 2. Refer to the illustration on page 16 Place the caddy frame (item 1) upon four steel sawhorses. One at each corner of the frame.

Step 3. Install the axle assemblies (item 2 or 2A page 16). The hubs are pre-assembled to the axles. The left and right hand axles are identical. Position the axles at the track width preferred and secure with the bolts (item 8) and appropriate hardware. The narrow setting will give you a 120" track width, the med setting 132" and the wide setting 152" width, 160" wheeltrack maximum for the 2A axle only. Tighten all hardware securely.

Step 4. Mount the tires (item 6) page 16 on the rims (item 4) and mount the wheels on the hubs.

Step 5. Install the bottom linkage arms (item 29) in the bottom set of holes in the brackets at the front of the caddy. Mount the arms with the linkage pins (item 15) and secure with the bolts (item 16) and appropriate hardware. Be sure the pins are installed with the grease zerks facing out thru the holes in the frame so zerks can be easily accessible for greasing.

Step 6. Install the torque frame (item 28) in the top set of holes in the brackets at the front of the caddy. Mount the torque frame with the pivot pins (item 12) and secure with the bolts (item 13) and appropriate hardware. Install so zerks are facing out to be accessible for greasing. Next place the caddy saddle onto the caddy frame and bolt it down using items 9, 10, 11 & 12 (see saddle ass'y page18 of this manual. Assemble the saddle using page 18 as an assembly guide.

Step 7. Install the hydraulic cylinders (item 34 page 16) with the body on the caddy and the shaft on the torsion frame. Note, the butt end ports should be to the top or bottom of the cylinder and both the rod end ports should be on the sides facing out for hydraulic hose access. Use items 19 & 20 to secure.

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 29, page 16) to the bottom set of holes in the brackets on the tool bar. Mount with the linkage pins (item 15 page 16 and appropriate hardware. Attach the torsion frame to the top set of holes in the brackets on the toolbar with the larger dia pivot pins (item 12) and appropriate hardware.

Step 9. Assemble the hitch poles (item 2, page 11) left hand, and (item 3) right hand to the front of the tool bar with the bolts (items 5, 6 and 7. Assemble the hitch mount (item 8) to the front of the poles with the bolts (item 9) and appropriate hardware shown. Install the jack (item 18) using item 19, 20, and 21and lower it to the ground. You may now remove the supports from the tool bar and caddy. Then mount the function selector valve(item 36) to the mounting plate (item 35) using the appropriate hardware (items 37 & 38) and mount the bracket to the 7 x 7 tube near the forward center of the toolbar using u-bolts (item 39) and hardware items 40 & 41.

Step 10. Mount the Category 5 Perfect Hitch (item 17 page 11) to the poles and other attachments as supplied using appropriate hardware as indicated. Item 17 is for in field use but (item 13 is for road tow only.) Next mount other accessory items as shown on page 11 (item 22,and item 23.)

Step 11. **Continue assembling the caddy.**
Refer to the illustration on page 16. Mount the accessories brackets (item 25) on each end of the torsion frame cross member. Slip the depth control rings (item 24) and the transport locks (item 21) over the accessories bracket for storage.

Step 12. Position the ground wheel drive bracket (item 1 or 1A page19) on the left hand rear corner of the caddy frame. Assemble with the U-bolts (item 9 and 11) and appropriate hardware. The U-bolt item 9 would straddle the rear crossmember and item 11 would straddle the side tube. Mount the hinge bracket (item 24) on the tube of the GWD bracket (item 1) with the U-bolts (item 8) 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, approx 91.5" from center for the 160" wheeltrack.

Step 13. **ASSEMBLE THE GROUND WHEEL DRIVE (GWD.) (see page 19)**

A. Assemble the bearings (item 25) to the inside of the pump drive bracket (item 24 with appropriate hardware.

B. Assemble the shaft (item 54) with the sprocket (item 52) the square key (item 53) the hub (item 51) and the square key (item 53) and secure with the setscrews in the hub and the sprocket.

C: Assemble the idler sprocket (item 39) to the pump drive bracket with the bolt (item 40) and one washer (item 41) on each side of the sprocket and fasten with the lock washer (item 38) and the nut (item 37).

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 50) on the hub (item 51) Mount this assembly on the hinge bracket (item 2) with the shaft (item 5) and appropriate hardware.

A. Mount the pivot anchor (item 30) and 31on the tube of the GWD bracket (item 1) and attach it to the pump drive bracket (item 24 or 24A) with the clevis pin (item 29) and hairpin (item 28).

F. Position the eye bolt (item 36) thru the slotted hole in the pump drive bracket and attach it to the hinge bracket (item 2) with the clevis pin (item 46) and the cotter pin (item 45).

G. Position the transport lock pin (item 42) thru the guide tube on the pump mount bracket and install the expansion pin (item 44) in the end hole of the lock pin. Insert the hairpin (item 43) in the hole in the guide tube and thru the hole nearest the handle in the lock pin.

H. Assemble the spring (item 35) and the spring cap (item 34) to the eyebolt and secure with two nuts (item 33). 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 48) and the link (item 47). Adjust the idler and drive sprocket positions so that all three sprockets line up and the drive wheel (item 50) 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 12 thru 23) with one end on the torsion frame and the other end clamped to the square tube on the pump drive bracket (item 24).

Step 15. Adjust the push rod assembly. Position any temporary shim (approximately 1/4" thick) at the end of the transport lock pin (item 42). On the push rod assembly, extend the adjustable clevis (item 12) 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 43). 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 13) on the adjustable clevis.

ASSEMBLE THE WINGS OF THE TOOL BAR (support stands or sawhorses are needed)

Step 16. Refer to the illustrations on page 13A or 14A per your specific toolbar. Assemble the primary wings (items 1 & 2) to the center section. Place the primary wings on steel sawhorses and assemble to the center section with the hinge pins (item 11) and secure with items 12,13 and 30. Next assemble the 2nd wings items 3 and 4 to the primary wings using pins item 21 and secure with hardware items 12, 13 and 30.

Step 16A (57.75' and 62.75' toolbars only) Next assemble the 3rd wings (item 5 or 5A) onto the second wings (items 3 and 4) using hinge pins Item 11 and secure with items 12,13 and 30.

Step 17. **ASSEMBLE THE TOOLBAR LINKAGE**

Refer to the illustration on page 13A or 14A. Assemble the various linkage weldments to the toolbar always working from center toward the ends of the toolbar. Be sure to positon the linkages

correctly facing as shown on the illustration. Begin with linkage item 6, pin to center section with item 20 and secure with appropriate hardware, items 12, 13 and 30.
Pin linkage item 8 to Primary wings (items 1 and 2) using pins items 7 & 9 and hardware shown. Pin linkage item 18 from primary wings (items 1 and 2) to 2nd wings (items 3 & 4) using pins (item 20) on one end and pin linkage items 22 to the outer end and secure all pins with appropriate hardware. Check that hinging pins are installed and secured so that the wings will not come apart or fall during assembly.

Step 17A (57.5' AND 62.75' toolbars only)Pin the outer linkages (items 28 and 29) with pins items (20 and 25) and all other appropriate hardware. Install item 51 and making sure hose loops swivel freely as this will keep hoses from catching on the toolbar during folding. Be sure all hinging pins are installed and secured so that the wings cannot come apart or fall during continued assembly

Step 18 Assemble primary fold cylinders (item 31 page 11) to the center section butt ends only using pins item 31 and items 32 & 33. Leave rod ends unconnected for now..Be sure the cylinders are facing correctly with the hydraulic ports up. (Do not secure the rod ends until the hydraulic system has been purged of air.

Step 19 . Mount the primary wing hydraulic cylinders page 13A or 14A (item 19) size 3.5 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 16 and 17). Do not secure the shaft end until the hydraulic system has been purged of air. Next mount the outer wing cylinders item 31 or 31A (57.75' 62.75' toolbars only) and secure butt ends only with pins (item 26 & 27). Do not secure the rod ends until the hyd system has been purged of air. Install wing support locks item 32 page 13A using appropriate hardware as shown. Wing locks must swivel freely and lock for transport mode.

Step 20 Assemble the underside cylinder (item 33)and rod assembly as shown on page 13 undersideview. Begin by bolting on the gull wing side plates (item 37) with hardware 12,14A,14B provided. Next assemble the gull wing support rod (item 40) and spacers as shown (items 38, 39 and secure with items 42. Now install the gullwing roller assembly items 35,36,41 and secure with items 42.

Step 21 Mount the wing supports (item 15) to the primary wing approximately as shown using u-bolts and hardware Items 14,14A and 14B. Position per appropriate coulter layout pages 40 thru 43.

MOUNTING THE GAUGE WHEELS

Step 22 If your tool bar is equipped with mechanical gauge wheels refer to the illustration on page 21 and the coulter location illustration pages.The gauge wheel assembly should be located as far to end of the secondary wing as is practical, considering coulter locations and other obstructions. The pivot arm with the wheel hub should be located as indicated on these illustrations. To ensure the bar is running level, the gauge wheel height should be adjusted to coincide with the depth control segments used on the hydraulic cylinders on the center section and any hydraulic wheels.

Step 24 Refer to page 18. Mount the saddle and tank as indicated. The basic fitting and hose arrangement may be found on the liquid application plumbing page 27.

HYDRAULICS, PLUMBING & ELECTRICAL(see page 11, 12, 24 and 24A)

Step 25. Mount the selector valve item 36 page 11 to item 35 using items 37 and 38. Mount the selector valve bracket (item 35) on the center of the rear tube on the center section using the u-bolt (item 39) and hardware items 40 and 41. **Install ALL hydraulic fittings and hoses as indicated on a specific hydraulic schematic illustration on page 24 OR 24A of this manual**. (Use page 24 for 57.75 ft & 62.75 ft toolbars only.) OR (Use page 24A for 49 ft toolbars only.) Make sure fittings are correctly located and tightened properly. Make sure all mechanical linkages have been installed properly. Run the Hoses thru hose loops or wire-tie them as needed to avoid pinching during folding and unfolding. Mount the 3-switch control box in the tractor cab in a convenient location, route the harness from the switch panel to the 3 function selector valve, then connect the wire plugs exactly as shown on the wiring diagram on page 24 or 24A as required. Connect the switch to tractor power as per manufacturers instructions included with the switchbox-harness assembly.

Step 26. **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. Slowly 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 18 and 19. 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 satisfactory.
F. Secure the hydraulic hoses as needed using wire ties and hoseloops.

Step 27. Mount the coulter brackets and coulters at the desired spacing. And assemble the desired knives to the coulters. Use stagger brackets (page 15) as required to clear obstructions and obtain desired row spacings. Follow coulter layouts on pages 40 thru 43 in the rear of this manual. Slowly check that the machine folds and unfolds without obstruction or interferences. Slightly move coulters or use offset brackets as needed. Slowly retry fold and unfold until there are no interferences. Call your dealer or Ag Systems if you need advice or further assistance.

Step 28. Install the chemical application hoses and secure safely.

Step 29. 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 page 10A 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. Be sure no hoses are going to be binding or pinched during unfolding/folding. Check that all hardware in tightened securely. Install all the decals provided in the locations shown on all the illustrations in this manual. Touch up any scratched areas with the touchup paint provided.

Your new applicator is now ready to go to work. See the operating instructions section in this manual and your dealer for further operating instructions.

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.

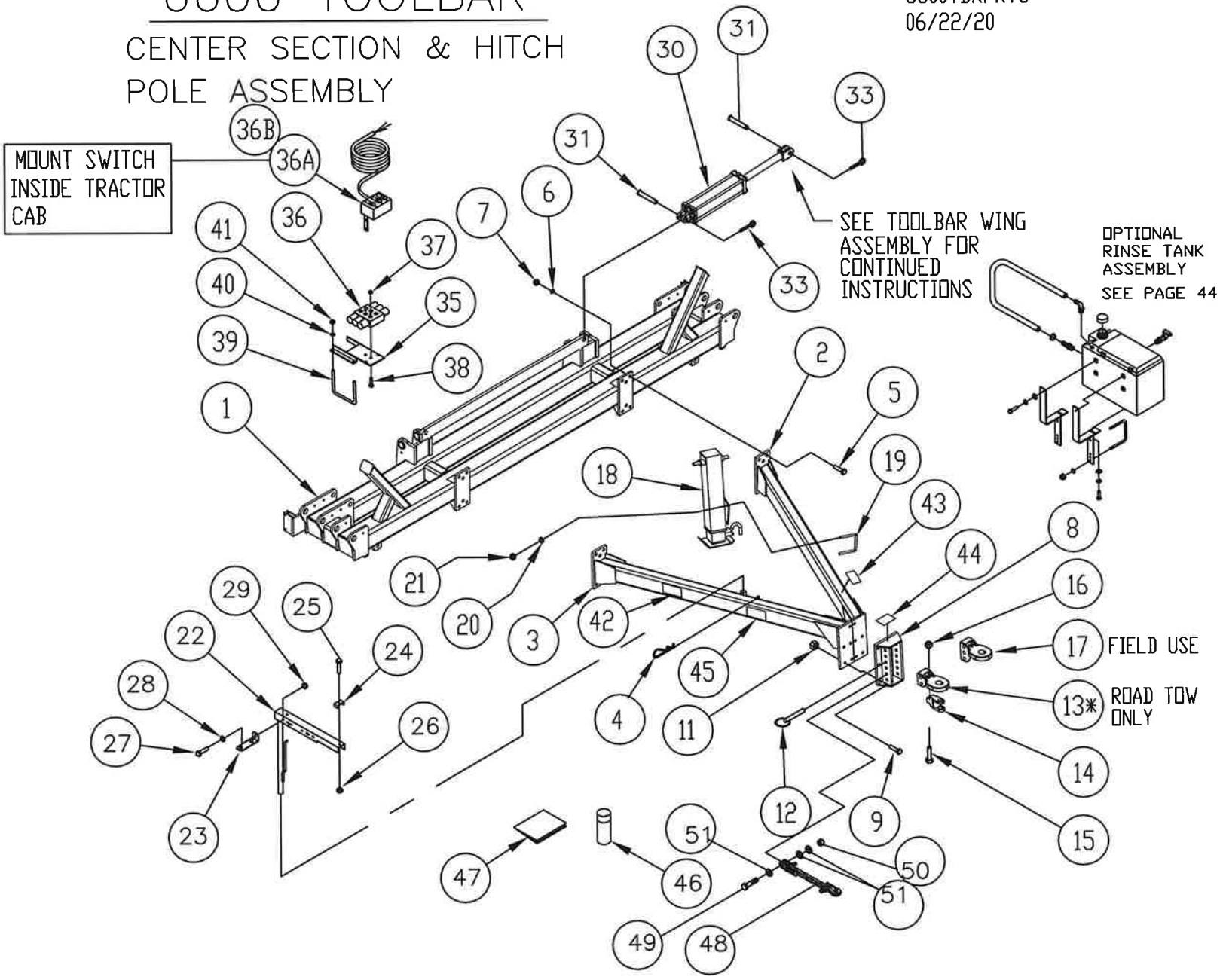
USE OF TRANSPORT LOCK

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.

6600 TOOLBAR

CENTER SECTION & HITCH POLE ASSEMBLY

6600TBRPRTS
06/22/20



6600 TOOLBAR

6600TBRPRTLST
REV 10/30/20

CENTER SECTION AND HITCH POLE

ITEM	PART NO.	DESCRIPTION	QTY.
1	800034	CENTER SECTION WELDMENT	1
2	800186LH	POLE, LEFT HAND	1
3	800186RH	POLE, RIGHT HAND	1
4	18590094	HAIRPIN BRIDGE, (#8) 3/16 DIA.	1
5	18058313	BOLT, 7/8 NC. X 2 1/2 GRADE 8	12
6	OMITTED		
7	18458454	TOP LOCKNUT 7/8-9 NC GRADE 8	12
8	47008355	HITCH MOUNT WELDMENT	1
9	18098435	BOLT, 3/4-10NC. X 2 1/2 GR8 ZC	10
10	--	--	-
11	18458452	LOCK NUT, 3/4-10NC. ZC	10
12	600182	HITCH PIN, 1 X 6 (WITH HAIRPIN) (3rd PIN NEEDED FOR CATAGORY 5)	3
	Pi-301V3C	PERFECT HITCH COMPLETE ASSEMBLY INCLUDES ITEMS 13 TO 16	1
13	PPi-301V3	PERFECT HITCH, (1 1/2" DRAWPIN) (ROAD TOW ONLY, NOT HEAVY ENOUGH FOR INFIELD USE)	1
14	PPi-208VR	PERFECT HITCH CLEVIS WITH 1 1/4" OBROUND HOLE 5400 LBS. VERTICAL CAPACITY	1
15	18058452	BOLT, 3/4-10NC. X 5 GR. 8 ZC	1
16	18458452	LOCKNUT, 3/4-10NC. GR. 8 ZC	1
17	PP53XLA	PERFECT HITCH, (CATAGORY 5)	1
18	71108	POLE JACK ASSY (FOR REPAIR PARTS SEE SEPARATE JACK ILLUSTRATION)	1

FOR OPTIONAL RINSE TANK INFORMATION SEE PAGE 44 OF THIS MANUAL

REF = ITEMS ARE INCLUDED WITH CYLINDERS OR IDENTIFIED ON PAGE 13 & 14

ITEM	PART NO.	DESCRIPTION	QTY.
19	-	-	-
20	-	-	-
21	-	-	-
22	47005087	PIVOTING HOSE BRACKET	1
23	47005092	GAUGE BRACKET	1
24	47005091	HYD HOSE CLAMP	4
25	18056832	BOLT, 3/8-16NC. X 2 1/4 GR5 ZC	2
26	18459200	LOCKNUT "NYLOK" 3/8-16NC. ZC	1
27	18056830	BOLT, 3/8-16NC. X 2 Gr5 ZC	2
28	18811200	FLAT WASHER, USS 3/8 ZC	1
29	18496800	FLANGE NUT, 3/8-16NC ZC	1
30	47005064	HYDRAULIC CYLINDER, 5 INCH	2
31	800297	CLEVIS PIN, 1.25 DIA X 4	REF
32		OMITTED WASHERS	
33	18560830	COTTER PIN, 3/16 DIA X 2	REF
34	47800297	CYLINDER PIN KIT (ITEMS 31-33)	2
35	47003852	SELECTOR VALVE MOUNTING PLATE	1
36	AG-SV-3	FORCE 3 FUNCTION SELECTOR	1
36A	CU233-AG	3 FUNCT, SWITCHBOX W HARNESS	1
36B	RB141D110-219	SWITCH ONLY	
37	18496800	FLANGE NUT, 3/8-16NC ZC	2
38	18096854	BOLT, 3/8-16NC. X 3 ZC	2
39	47302730	U-BOLT, 1/2-13	2
40	18891400	LOCK WASHER, 1/2 ZC	2
41	18417400	NUT, HEX 1/2-13 NC ZC	2
42		DECAL, 6600	2
43	699100	DECAL, WARNING CLEAR TONGUE	1
44	699104	DECAL, CAREFUL CLEAR MACHINE	1
45	699107L	DECAL, AG SYSTEMS	2
46	600222	AG-SYSTEMS BLUE TOUCH-UP PAINT	2
47	OM6600	OWNERS MANUAL FOR 6600 MODEL	1
48	PPSC4156BS	CHAIN, SAFETY 1/2" X 56" LG	1
49	18059061	BOLT HX CAP GR5 NC ZC 1 X 4	1
50	18459002	NUT NYLOCK 1 GR 5	1
51	18852200	WASHER FLAT 1" SAE ZC	3

(ITEMS 48-51 CAN BE ORDERED AS A KIT P/N:47990314)

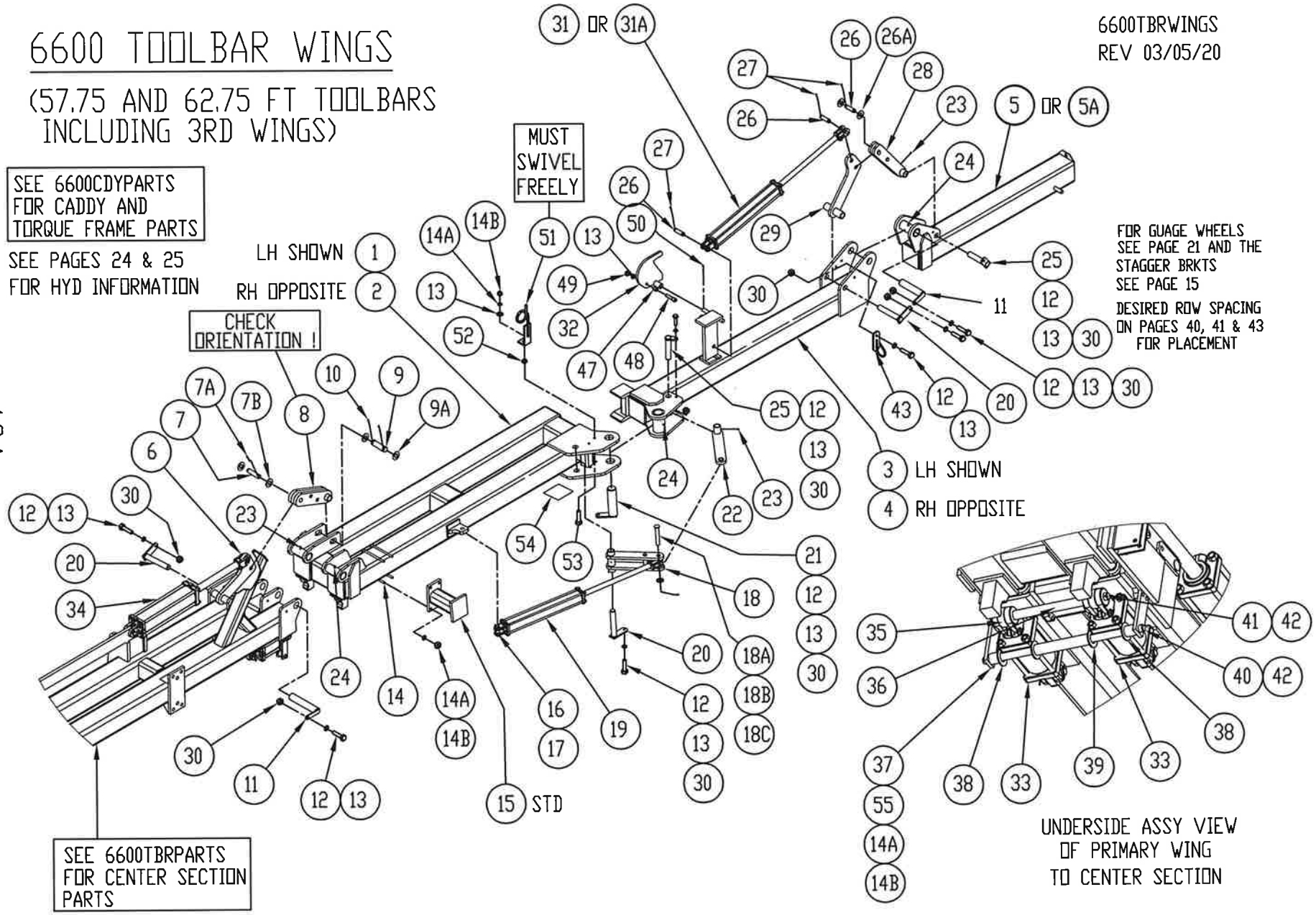
6600 TOOLBAR WINGS

(57.75 AND 62.75 FT TOOLBARS INCLUDING 3RD WINGS)

6600TBRWINGS
REV 03/05/20

SEE 6600CDYPARTS FOR CADDY AND TORQUE FRAME PARTS

SEE PAGES 24 & 25 FOR HYD INFORMATION



6600 TOOLBAR

6600TBRWINGSLST
REV 03/05/20

TOOLBAR WINGS SERVICE PARTS
(57.75 AND 62.75 FT TOOLBARS ONLY)

ITEM	PART NO.	DESCRIPTION	QTY.
1	800058	FIRST WING (PRIMARY) LH WELD"T	1
2	800091	FIRST WING (PRIMARY) RH WELD"T	1
3	800073	2ND WING, LH WELD"T	1
4	800092	2ND WING, RH WELD"T	1
5	800211	3RD WING WELDMENT (30" SPACING)	2
5A	800316	3RD WING WELDMENT (22" SPACING)	2
6	800027	CYLINDER LINK WELDMENT (CENTER)	2
7	800297	HARDENED CLEVIS PIN 1.25 X 4.50	2
7A	18561030	COTTER PIN, 1/4 x 2.00 ZC	4
7B	18852400	FLATWASHER, 1 1/4 SAE ZC	4
8	800014	CYLINDER LINK WELD'T (PRIMARY)	2
9	800311	PIN, 1.50 OD X 9.19 LONG	2
9A	18852600	WASHER, FLAT SAE 1.50 ZP	4
10	10560830	COTTER PIN, 3/16 X 2 ZP	4
11	800221	PIVOT PIN, 2.00 OD X 8.75 LONG	6
12	18057428	BOLT,HEX HD 1/2-13 X 1 3/4 ZC	14
13	18811400	FLATWASHER, 1/2 INCH ZC	26
14	47302730	U-BOLT, AG37 1/2 X 7W X 8.5	4
14A	18891400	LOCKWASHER, 1/2 ZC	22
14B	18417400	NUT, HEX 1/2-13 NC ZC	22
15	800107	WING SUPPORT, 1ST WING	2
16	190400001V	PIN, CYLINDER, PRINCE**	4**
17	18560830	COTTER PIN, 3/16 X 2**	4**
18	800023	CYLINDER LINK WELD'T (2ND WING)	2
18A	18549054	PIN, 1.00 DIA X 5.00 ZP	2
18B	18852200	WASHER, FLAT, 1.00 ZC	2
18C	18560826	COTTER PIN, 3/16 X 1 1/2	2
19	47005053	CYLINDER. PRIMARY FOLD, 4 x 24	2
20	800219	PIN, PIVOT 1.50 DIA X 8.75	6
21	800282	PIN, PIVOT 2.50 DIA X 9.19	2
22	800030	CYLINDER LINK WELD'T SINGLE	2
23	18901805	GREASE ZERK, STRAIGHT 1/4-28	12
24	18901807	GREASE ZERK, 45° 1/4-28	6
25	800224	PIN, SHORT 1.50 DIA X 7.25	4
26	190400001V	PIN, PRINCE HYDRAULICS**	6**
26A	18852200	WASHER, FLAT, 1.00 ZC	4

** INDICATES PARTS INCLUDED WITH HYD CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY.
27	18560826	COTTER PIN, 3/16 X 1 1/2**	8**
28	800018	DOUBLE LINKAGE, 3RD WING	2
29	800028	SINGLE LINKAGE, 3RD WING	2
30	18457650	LOCKNUT, 1/2-13 NC ZC	18
31	47300094	CYLINDER. OUTER WING (30"ROWS)	2
OR			
31A	47005053	CYLINDER. OUTER WING (22"ROWS)	2
32	800302	WING LOCK WELDMENT	2
33	47300096	CYLINDER. GULLWING LIFT (4 X 3.5)	4
34	47005064	CYLINDER. MAIN LIFT (5 X 20)	REF
35	800214	ROLLER, GULL WING	4
36	800241	SLEEVE, GULL WING	2
37	800152	GULL WING SIDE PLATE	4
38	800313	SPACER, GULL SHORT, 1.75 LONG	4
39	800314	SPACER, GULL LONG, 8.88 INCHES	2
40	800281	ROD, GULL SUPPORT 24.75 LONG	2
41	800243	GULL WING SHAFT, 18 INCH LONG	2
42	18560826	COTTER PIN, 3/16 X 1 1/2	8
43	47003843	HOSE GUIDE	2
44		OMITTED	
45		OMITTED	
46	699101	DECAL, FALLING WING	2
47	47003834	SWING STOP BUSHING	2
48	70692	SHCS, 1/2-13 X 2 LG	2
49	18567400	NYLOCK NUT 1/2-13 NC	2
50	18560826	COTTER PIN	2
51	800857	SWIVELING HOSE LOOP WELDMENT	2
52	800858	BUSHING, SWIVELING HOSE LOOP	2
53	18057438	BOLT, HEX HD 1/2 NC X 3.00 ZC	2
54	699101	DECAL, DANGER FALLING WINGS	2
55	18057430	BOLT, HEX 1/2 - 13 x 2.00" GR5	8

SEE PAGES 24 & 25 FOR HYDRAULIC PLUMBING INFORMATION, CYLINDERS, PARTS, HYD FITTINGS AND HYDRAULIC PLUMBING OF UNIT.

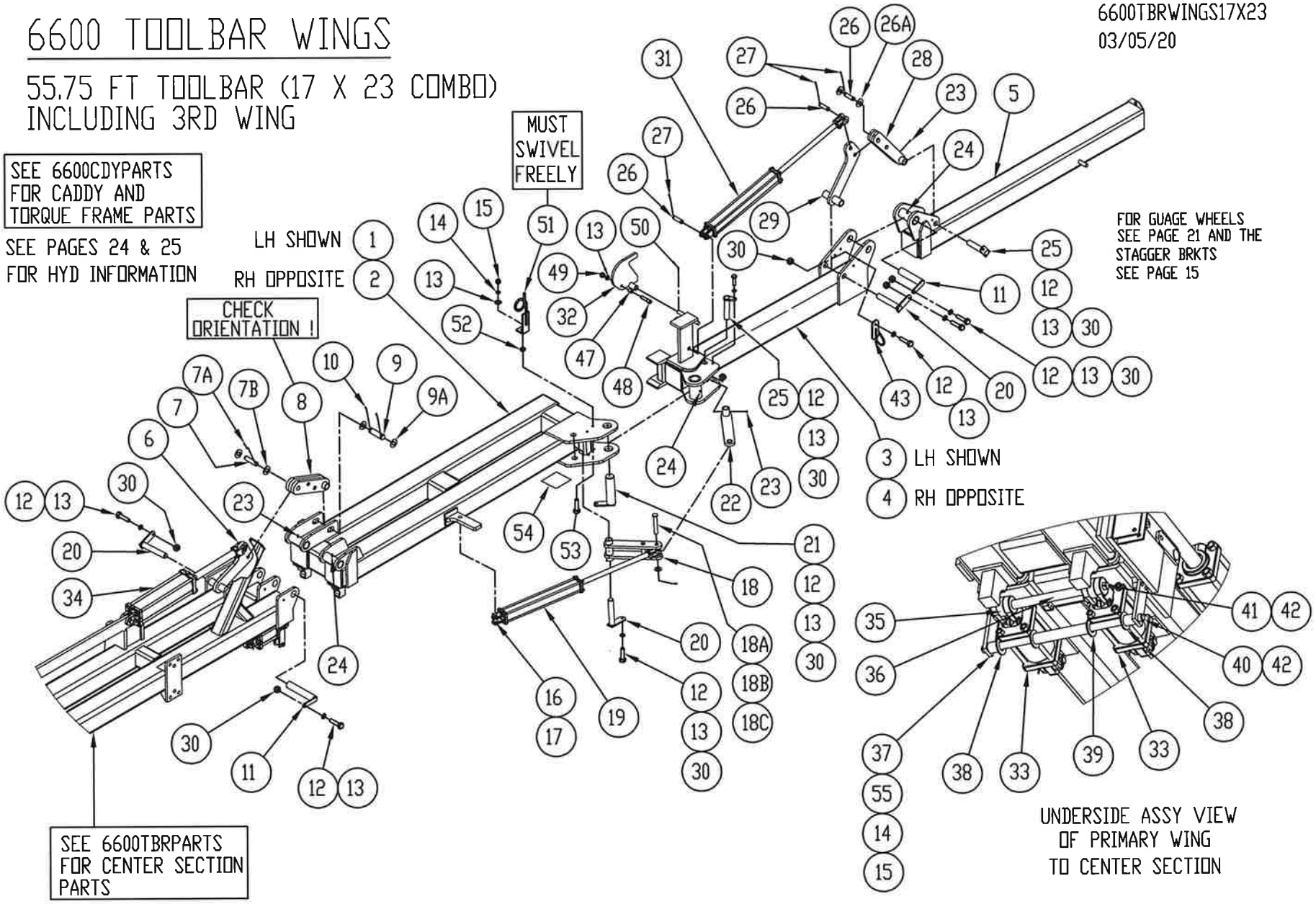
6600 TOOLBAR WINGS

55.75 FT TOOLBAR (17 X 23 COMBO) INCLUDING 3RD WING

6600TBRWINGS17X23
03/05/20

SEE 6600CDYPARTS FOR CADDY AND TORQUE FRAME PARTS

SEE PAGES 24 & 25 FOR HYD INFORMATION



6600 TOOLBAR

6600TBRWINGS17X23
RV 03/05/20

TOOLBAR WINGS SERVICE PARTS
55.75 FT TOOLBAR (17 X 23 COMBO)

ITEM	PART NO.	DESCRIPTION	QTY.
1	800058	FIRST WING (PRIMARY) LH WELD"T	1
2	800091	FIRST WING (PRIMARY) RH WELD"T	1
3	800093	2ND WING, LH WELD"T	1
4	800094	2ND WING, RH WELD"T	1
5	800871	3RD WING WELDMENT	2
6	800027	CYLINDER LINK WELDMENT (CENTER)	2
7	800297	HARDENED CLEVIS PIN 1.25 X 4.50	2
7A	18561030	COTTER PIN, 1/4 x 2.00 ZC	4
7B	18852400	FLATWASHER, 1 1/4 SAE ZC	4
8	800014	CYLINDER LINK WELD'T (PRIMARY)	2
9	800311	PIN, 1.50 OD X 9.19 LONG	2
9A	18852600	WASHER, FLAT SAE 1.50 ZP	4
10	10560830	COTTER PIN, 3/16 X 2 ZP	4
11	800221	PIVOT PIN, 2.00 OD X 8.75 LONG	6
12	18057428	BOLT,HEX HD 1/2-13 X 1 3/4 ZC	14
13	18811400	FLATWASHER, 1/2 INCH ZC	26
14	47302730	U-BOLT, AG37 1/2 X 7W X 8.5	4
14A	18891400	LOCKWASHER, 1/2 ZC	22
14B	18417400	NUT, HEX 1/2-13 NC ZC	22
15	800107	WING SUPPORT, 1ST WING	2
16	190400001V	PIN, CYLINDER, PRINCE**	4**
17	18560830	COTTER PIN, 3/16 X 2**	4**
18	800023	CYLINDER LINK WELD'T (2ND WING)	2
18A	18549054	PIN, 1.00 DIA X 5.00 ZP	2
18B	18852200	WASHER, FLAT, 1.00 ZC	2
18C	18560826	COTTER PIN, 3/16 X 1 1/2	2
19	47005053	CYLINDER. PRIMARY FOLD, 4 x 24	2
20	800219	PIN, PIVOT 1.50 DIA X 8.75	6
21	800282	PIN, PIVOT 2.50 DIA X 9.19	2
22	800030	CYLINDER LINK WELD'T SINGLE	2
23	18901805	GREASE ZERK, STRAIGHT 1/4-28	12
24	18901807	GREASE ZERK, 45° 1/4-28	6
25	800224	PIN, SHORT 1.50 DIA X 7.25	4
26	190400001V	PIN, PRINCE HYDRAULICS**	6**
26A	18852200	WASHER, FLAT, 1.00 ZC	4

** INDICATES PARTS INCLUDED WITH HYD CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY.
27	18560826	COTTER PIN, 3/16 X 1 1/2**	8**
28	800018	DOUBLE LINKAGE, 3RD WING	2
29	800028	SINGLE LINKAGE, 3RD WING	2
30	18457650	LOCKNUT, 1/2-13 NC ZC	18
31	47300094	CYLINDER. OUTER WING (30"ROWS)	2
OR			
31A	47005053	CYLINDER. OUTER WING (22"ROWS)	2
32	800302	WING LOCK WELDMENT	2
33	47300096	CYLINDER. GULLWING LIFT (4 X 3.5)	4
34	47005064	CYLINDER. MAIN LIFT (5 X 20)	REF
35	800214	ROLLER, GULL WING	4
36	800241	SLEEVE, GULL WING	2
37	800152	GULL WING SIDE PLATE	4
38	800313	SPACER, GULL SHORT, 1.75 LONG	4
39	800314	SPACER, GULL LONG, 8.88 INCHES	2
40	800281	ROD, GULL SUPPORT 24.75 LONG	2
41	800243	GULL WING SHAFT, 18 INCH LONG	2
42	18560826	COTTER PIN, 3/16 X 1 1/2	8
43	47003843	HOSE GUIDE	2
44		OMITTED	
45		OMITTED	
46	699101	DECAL, FALLING WING	2
47	47003834	SWING STOP BUSHING	2
48	70692	SHCS 1/2-13 X 2"LG	2
49	18567400	NYLOCK NUT 1/2-13	2
50	18560826	COTTER PIN	2
51	800857	SWIVELING HOSE LOOP WELDMENT	2
52	800858	BUSHING, SWIVELING HOSE LOOP	2
53	18057438	BOLT, HEX HD 1/2 NC X 3.00 ZC	2
54	699101	DECAL, DANGER FALLING WINGS	2
55	18057430	BOLT, HEX 1/2 - 13 x 2.00" GR5	8

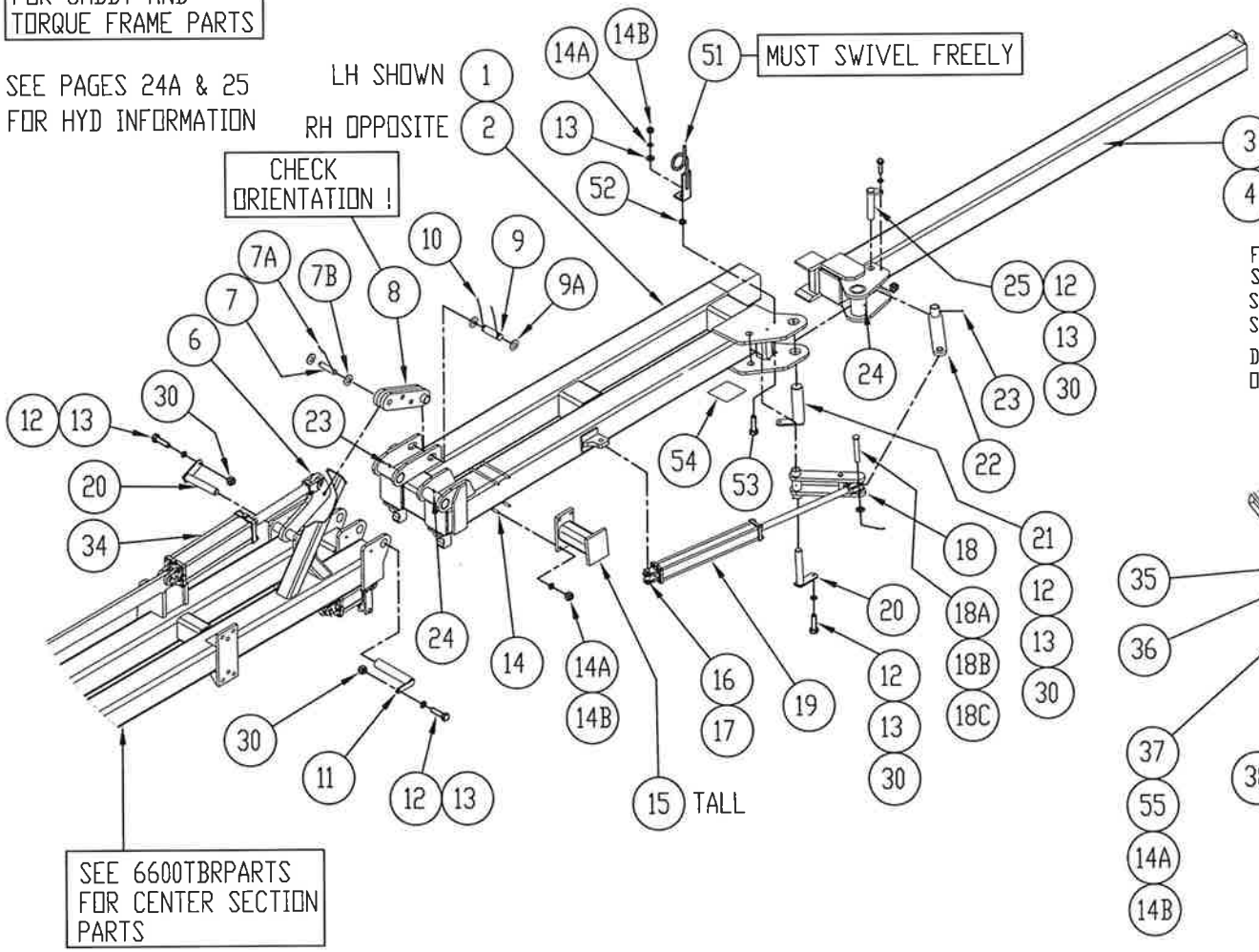
SEE PAGES 24 & 25 FOR HYDRAULIC PLUMBING INFORMATION, CYLINDERS, PARTS, HYD FITTINGS AND HYDRAULIC PLUMBING OF UNIT.

6600 TOOLBAR WINGS

49 FT TOOLBAR (40" SPACINGS)

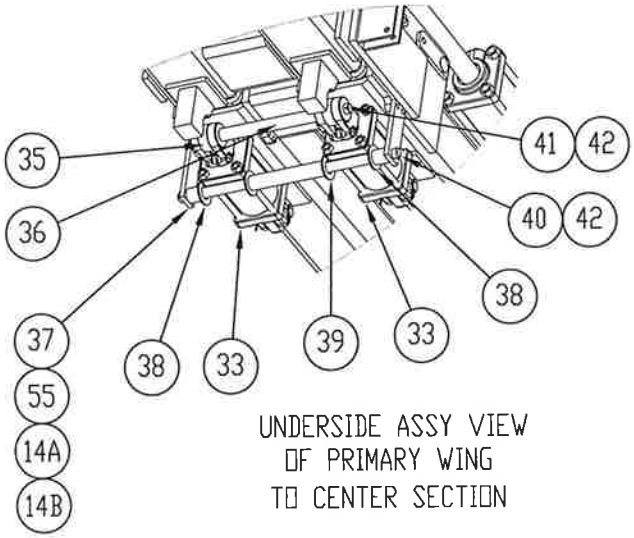
SEE 6600CDYPARTS FOR CADDY AND TORQUE FRAME PARTS

SEE PAGES 24A & 25 FOR HYD INFORMATION



FOR GUAGE WHEELS SEE PAGE 21 AND THE STAGGER BRKTS SEE PAGE 15

DESIRED ROW SPACINGS ON PAGE 42 FOR PLACEMENT



UNDERSIDE ASSY VIEW OF PRIMARY WING TO CENTER SECTION

6600 TOOLBAR

6600TBRWINGSLST40
05-07-13

49 FT TOOLBAR WINGS SERVICE PARTS
(COMMONLY USED WITH 40" ROW SPACINGS)

ITEM	PART NO.	DESCRIPTION	QTY.
1	800330	FIRST WING (PRIMARY) LH WELD"T	1
2	800331	FIRST WING (PRIMARY) RH WELD"T	1
3	800328	2ND WING, LH WELD"T	1
4	800329	2ND WING, RH WELD"T	1
5			
5A			
6	800027	CYLINDER LINK WELDMENT (CENTER)	2
7	800297	HARDENED CLEVIS PIN 1.25 X 4.50	2
7A	18561030	COTTER PIN, 1/4 x 2.00 ZC	4
7B	18852400	FLATWASHER, 1 1/4 SAE ZC	4
8	800014	CYLINDER LINK WELD'T (PRIMARY)	2
9	800311	PIN, 1.50 OD X 9.19 LONG	2
9A	18852600	WASHER, FLAT SAE 1.50 ZP	4
10	10560830	COTTER PIN, 3/16 X 2 ZP	4
11	800221	PIVOT PIN, 2.00 OD X 8.75 LONG	4
12	18057428	BOLT,HEX HD 1/2-13 X 1 3/4 ZC	8
13	18811400	FLATWASHER, 1/2 INCH ZC	18
14	47302730	U-BOLT, AG37 1/2 X 7W X 8.5	4
14A	18891400	LOCKWASHER, 1/2 ZC	22
14B	18417400	NUT, HEX 1/2-13 NC ZC	22
15	800333	TALL WING SUPPORT, 1ST WING	2
16	190400001V	PIN, CYLINDER, PRINCE**	4**
17	18560830	COTTER PIN, 3/16 X 2**	4**
18	800023	CYLINDER LINK WELD'T (2ND WING)	2
18A	18549054	PIN, 1.00 DIA X 5.00 ZP	2
18B	18852200	WASHER, FLAT, 1.00 ZC	2
18C	18560826	COTTER PIN, 3/16 X 1 1/2	2
19	47005053	CYLINDER. PRIMARY FOLD, 4 x 24	2
20	800219	PIN, PIVOT 1.50 DIA X 8.75	4
21	800282	PIN, PIVOT 2.50 DIA X 9.19	2
22	800030	CYLINDER LINK WELD'T SINGLE	2
23	18901805	GREASE ZERK, STRAIGHT 1/4-28	14
24	18901807	GREASE ZERK, 45° 1/4-28	4
25	800224	PIN, SHORT 1.50 DIA X 7.25	2
26			
26A			

ITEM	PART NO.	DESCRIPTION	QTY.
27			
28			
29			
30	18457650	LOCKNUT, 1/2-13 NC ZC	16
31			
31A			
32			
33	47300096	CYLINDER. GULLWING LIFT (4 X 3.5)	4
34	47005064	CYLINDER. MAIN LIFT (5 X 20)	REF
35	800214	ROLLER, GULL WING	4
36	800241	SLEEVE, GULL WING	2
37	800152	GULL WING SIDE PLATE	4
38	800313	SPACER, GULL SHORT, 1.75 LONG	4
39	800314	SPACER, GULL LONG, 8.88 INCHES	2
40	800281	ROD, GULL SUPPORT 24.75 LONG	2
41	800243	GULL WING SHAFT, 18 INCH LONG	2
42	18560826	COTTER PIN, 3/16 X 1 1/2	8
43	47003843	HOSE GUIDE	2
44		OMITTED	
45		OMITTED	
46	699101	DECAL, FALLING WING	2
47			
48			
49			
50			
51	800857	SWIVELING HOSE LOOP WELDMENT	2
52	800858	BUSHING, SWIVELING HOSE LOOP	2
53	18057438	BOLT, HEX HD 1/2 NC X 3.00 ZC	2
54	699101	DECAL, DANGER FALLING WINGS	2
55	18057430	BOLT, HEX 1/2-13 X 2.00" GR5	8

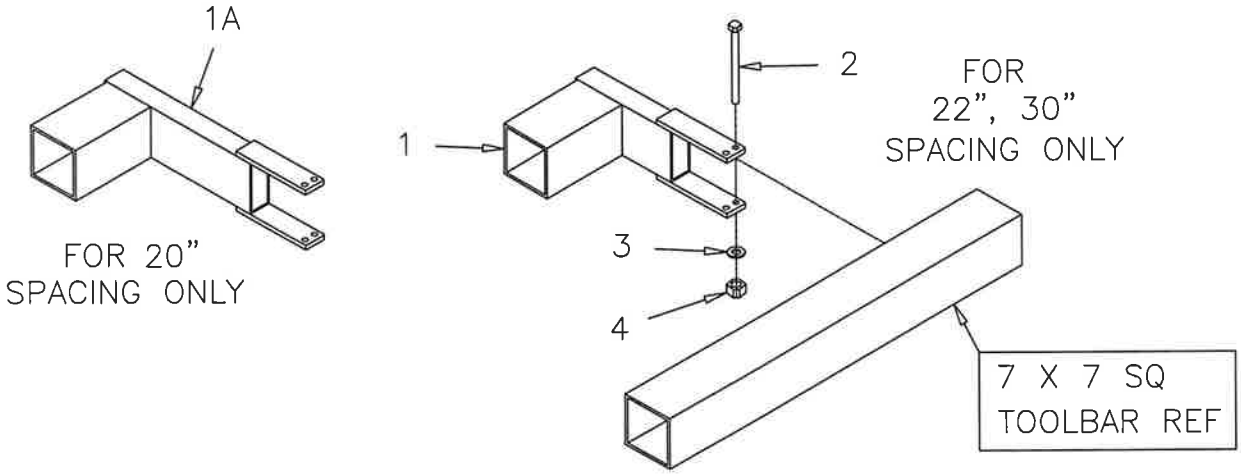
SEE PAGES 24 & 25 FOR HYDRAULIC PLUMBING INFORMATION, CYLINDERS, PARTS, HYD FITTINGS AND HYDRAULIC PLUMBING OF UNIT.

** INDICATES PARTS INCLUDED WITH HYD CYLINDER

MISC 6600 STAGGER BRACKETS

66KSTAGBRKT
REV 06-05-12

FOR 6600 TOOLBARS ONLY



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

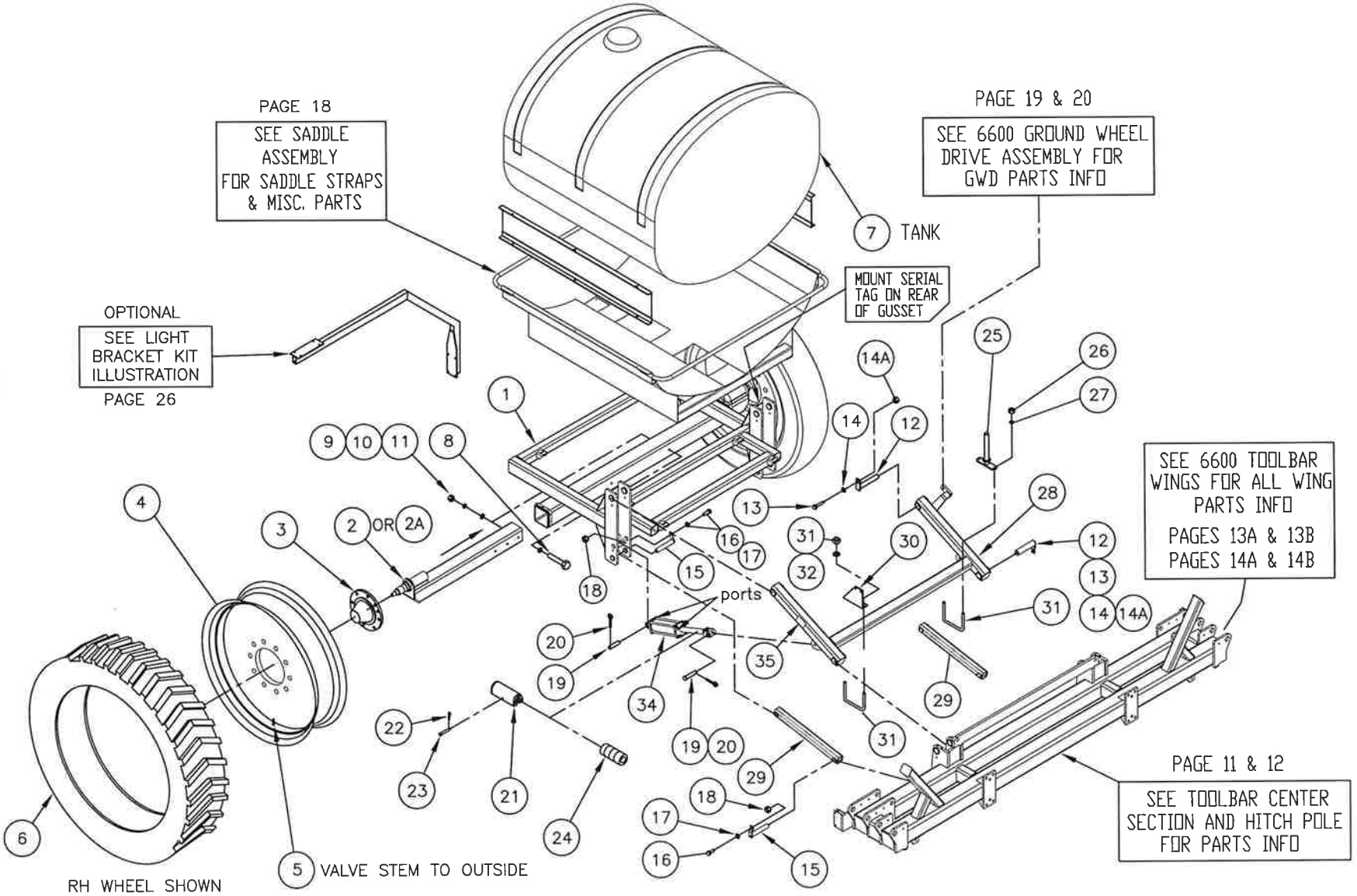
ITEM	PART NO.	DESCRIPTION (22" SPACING)	QTY
1	47015001	STD STAGGER BRACKET 6600 (22" SPACING)	4
2	18058479	BOLT, HEX 3/4-10 NC X 9.50 LG GR5 ZC	8
3	18891800	LOCKWASHER, 3/4 ZC	8
4	18418400	NUT, HEX 3/4-10 NC ZC	8

ITEM	PART NO.	DESCRIPTION (30" SPACING)	QTY
1	47015001	STD STAGGER BRACKET 6600 (30" SPACING)	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 (20" SPACING)	QTY
1A	800802	LONG STAGGER BRACKET 6600 (20" SPACING)	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

6600 LIQUID APPLICATOR
CADDY & TORQUE FRAME

6600TBRCDY
05-08-13



6600 TOOLBAR

CADDY AND TORQUE FRAME ASS'Y

ITEM	PART NO.	DESCRIPTION	QTY.	
1	800098	CADDY FRAME WELDMENT	1	
2	800205	AXLE WELDMENT 22"/30"/36" ROWS	2	
	47800205	AXLE W HUB ASSY 22"/30"/36" ROWS		
2A	800326	AXLE WELDMENT 36"/38"/40" ROWS	2	
	47800326	AXLE W HUB ASSY 36"/38"/40" ROWS		
3	HA1010-11	HUB ASSY 15000 LB (10 BOLT)	2	
4	47000200	RIM, 46 X W12A (10 HOLE)	2	
5	20120022	VALVE STEM	2	
6		TIRE ONLY, 420/80R46 (170A8B)	2	
6A	40038R	RH TIRE & WHEEL ASS'Y W STEM	1	
6B	40038	LH TIRE & WHEEL ASS'Y W STEM (35 PSI TIRE PRESSURE RECOMMENDED)	1	
7	700029	ELLIPTICAL TANK, 1700 GALLON	1	
8	18058476	BOLT, 3/4-10 NC X 8 1/2 ZP	2	
9	18811800	FLATWASHER, 3/4 ZC	4	
10	18891800	LOCKWASHER, 3/4 ZC	2	
11	18418400	HEXNUT, 3/4-10 NC ZC	2	
12	47003338	PIN, GREASEABLE 2" DIA X 8 3/4	4	
13	18057430	BOLT, 1/2-13 X 2.00" LONG ZC	8	
14	18851400	FLATWASHER, 1/2 INCH ZC	8	
14A	18457650	LOCKNUT, 1/2-13 NC ZC	8	
15	800257	PIN, GREASEABLE, 1 1/2 X 8 3/4	4	
16	18057428	BOLT, 1/2-13 X 1 3/4 ZC	8	
17	18851400	FLATWASHER, 1/2 INCH ZC	8	
18	18457650	LOCKNUT, 1/2-13 NC ZC	8	
19*	190600024	CYLINDER PIN, PRINCE 1.00 X 4	4*	
20*	220001504	COTTER PIN, PRINCE .19 X 2	4*	
21	800320	TRANSPORT LOCK WELDMENT, 6600	2	
22	18541254	CLEVIS PIN, TRANSPORT LOCK	2	
23	18590916	HAIRPIN BRIDGE, 1/8 DIA	2	
24	47005355	DEPTH CONTROL SET, LARGE	2	
25	47003331	ACCESSORIES BRACKET WELDT	2	
26	18436800	HEXNUT, 3/8-16 NC ZC	4	
27	18891200	LOCKWASHER, 3/8 ZC	4	
28	800102	TORQUE FRAME WELDMENT	1	
29	800123	BOTTOM LINKAGE ARM WELDMENT	2	
30	47008049	MANIFOLD BRACKET, OPTIONAL	1	
31	47001028	U-BOLT	2	STD, (3 OPT)
32	18891200	LOCKWASHER, 3/8 ZC	2	
33	18436800	HEXNUT, 3/8-16 NC ZC	2	
34	47300092	HYD CYLINDER, 4" X 8" stroke	2	
35	699119	DECAL, WARNING TRANSPORT LOCK	2	

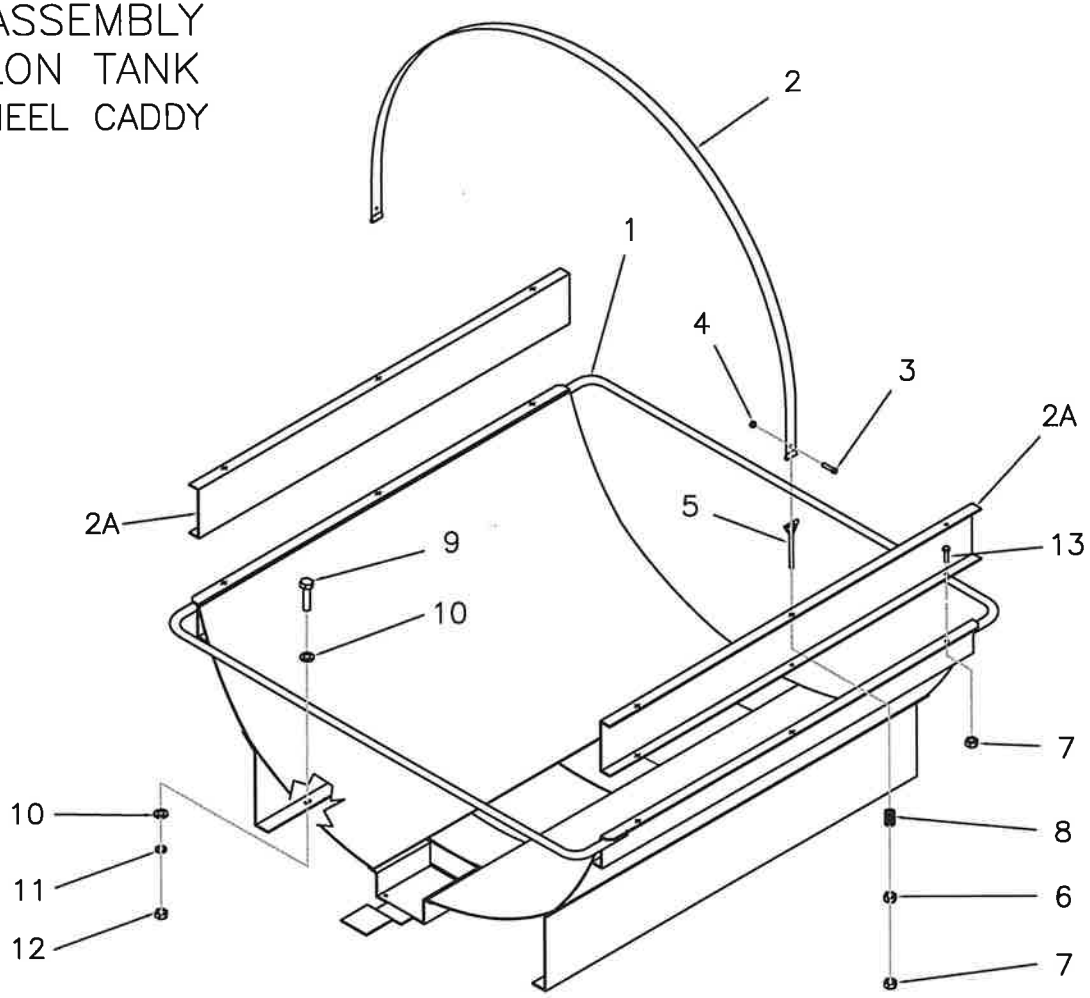
* CYL PINS ARE INCLUDED WITH ITEM 34

6600
SADDLE ASSEMBLY
1700 GALLON TANK
FOR TWO WHEEL CADDY

6600SADL
REV 05-26-15

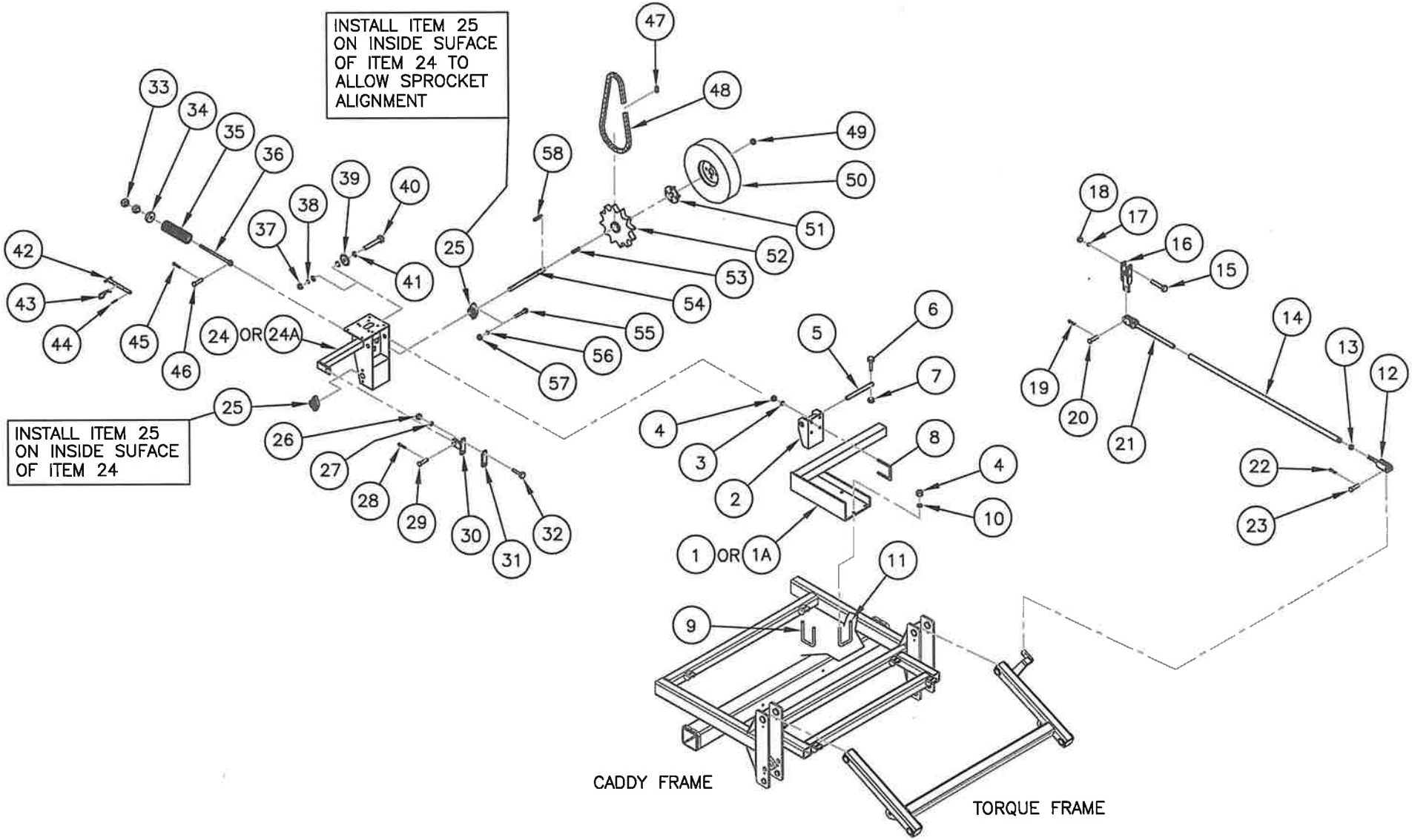
ASSEMBLY COMPLETE
P.N. 47996600

ITEM	PART NO.	DESCRIPTION	QTY.
1	800191	SADDLE WELDMENT, 6600 ONLY	1
2	47005744	STRAP, (FITS 1700 GALLON TANK)	3
	47419095	STRAP ASSEMBLY, EACH (INCLUDES ITEM 2 QTY 1 PLUS QTY 2 PCS OF ITEMS 3,4,5	
2A	47005740	TANK SADDLE EXTENSION	2
3	18706420	SCREW, PAN HD, 5/16-18NC X 1/2	6
4	18496400	FLANGE NUT, 5/16-18NC.	6
5	47409090	EYE BOLT, STRAP END	6
6	18496800	FLANGE NUT, 3/8-16NC.	12
7	18436800	HEX. NUT, 3/8-16NC.	12
8	47000550	SPRING, STRAP TENSION	3
9	18058430	BOLT, 3/4-10 NC. X 2 GR5 ZC	4
10	18851800	SAE FLATWASHER, 3/4	8
11	18891800	LOCKWASHER, 3/4	4
12	18418400	HEX. NUT, 3/4-10NC.	4
13	18056822	BOLT, 3/8-16NC. X 1 GR5 ZC	6



6600 LIQUID APPLICATOR
GROUND WHEEL DRIVE

6600GWD
06-18-15



6600 TOOLBAR

6600GWDLST
RV 11/24/20

GROUND WHEEL DRIVE ASSEMBLY

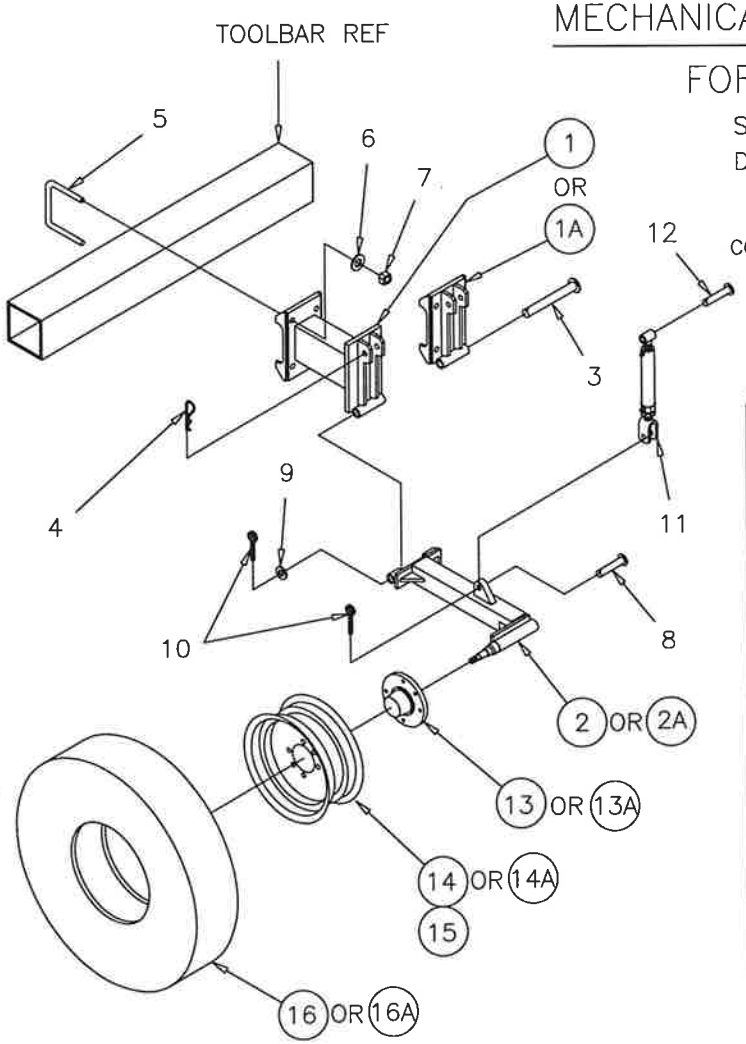
ITEM	PART NO.	DESCRIPTION	QTY.
1	800860	GWD BRKT. 22", 30", 36" SPACING	1
1A	800863	GWD BRKT. 38", 40" SPACING	1
2	47003266	HINGE BRACKET	1
3	18891600	LOCKWASHER, 5/8 ZC	4
4	18417900	HEXNUT, 5/8 ZC	8
5	47003344	PIVOT SHAFT, HINGE BRACKET	1
6	18056830	BOLT, HEX 3/8-16NC X 2	1
7	18457800	LOCKNUT, 3/8-16 NC	1
8	47306677	U-BOLT, 5/8-11NC (3 X 4 1/2)	2
9	44001616	U-BOLT, 5/8-11NC (4 X 5 1/2)	1
10	18891600	LOCKWASHER, 5/8 ZC	4
11	47006951	U-BOLT, 5/8-11NC (4 X 7 1/2)	1
12	47003320	CLEVIS END	1
13	18449003	HEX JAM NUT, 3/4-10 NC ZC	1
14	800335	PUSH ROD WELDMENT	1
15	18057442	BOLT, HEX 1/2-13 NC X 3 1/2	2
16	47003326	PIVOT ARM WELDMENT	1
17	18891400	LOCKWASHER, 1/2 ZC	2
18	18417400	HEXNUT, 1/2-13 NC ZC	2
19	18590148	HAIRPIN BRIDGE, #9 (.148 DIA)	1
20	18541835	CLEVIS PIN, 3/4 X 2 1/2	1
21	47003322	LINKAGE SWIVEL BAR	1
22	18590148	HAIRPIN BRIDGE, #9 (.148 DIA)	1
23	18541835	CLEVIS PIN, 3/4 X 2 1/2	1
24	47003260	PUMP BRKT. 22", 30" 36" ROWS	1
24A	800865	PUMP BRKT. 38", AND 40" ROWS	1
25	47008462	BEARING ASSY, 1 INCH	2
26	18417400	HEXNUT, 1/2-13 NC ZC	2
27	18891400	LOCKWASHER, 1/2 ZC	2

ITEM	PART NO.	DESCRIPTION	QTY.
28	18590148	HAIRPIN BRIDGE, #9 (.148 DIA)	1
29	18541830	CLEVIS PIN, 3/4 DIA X 2	1
30	47003385	PIVOT ANCHOR	1
31	47003386	CLAMP PLATE, PIVOT ANCHOR	1
32	18057454	BOLT, 1/2-13 X 5 ZC	2
33	18417900	HEXNUT, 5/8-11 NC ZC	2
34	47301530	SPRING CAP	1
35	47301524	COMPRESSION SPRING	1
36	47301547	EYE BOLT, 5/8 X 12 (1547)	1
37	18417900	HEXNUT, 5/8-11 NC ZC	1
38	18891600	LOCKWASHER, 5/8 ZC	1
39	34318	IDLER SPROCKET, #50 X 15T, 5/8	1
40	18057934	BOLT, 5/8-11 NC X 2 1/2 ZC	1
41	18811600	FLATWASHER, 5/8 USS ZC	3
42	47007197	TRANSPORT LOCK PIN WELDMENT	1
43	18590094	HAIRPIN BRIDGE, .177 DIA	1
44	18511033	EXPANSION PIN	1
45	18560722	COTTER PIN, 5/32 X 1	1
46	18541428	CLEVIS PIN, 1/2 X 1 3/4	1
47	31212	CONNECTING LINK	1
48	47005604	ROLLER CHAIN, #50 X 63 3/4"	1
49	47005011	WHEELNUT, 1/2-20 NF	4
50	44105519	DRIVE WHEEL ASSEMBLY (40 PSI)	1
51	47007068	HUB ASSY, PUMP WHEEL DRIVE & nuts	1
52	10342	DRIVE SPROCKET, (50B40) 40T X 1	1
53	47006519	SQ. DRIVE KEY, 1/4 SQ X 1 1/2	1
54	47003357	DRIVE SHAFT, GWD	1
55	18057426	BOLT, 1/2-13NC X 1 1/2 ZC	4
56	18891400	LOCKWASHER, 1/2 ZC	4
57	18417400	HEXNUT, 1/2-13 NC ZC	4
58	47006519	SQ. DRIVE KEY, 1/4 SQ X 1 1/2	1

MECHANICAL GAUGE WHEEL ASSEMBLY

FOR 6600 TOOLBAR ONLY

66KMCHGW
06-07-12
rev 12-16-13



SEE THE APPROPRIATE TOOLBAR LAYOUT FOR THE ROW SPACING DESIRED TO DETERMINE PROPER GA WHEEL MOUNTING LOCATIONS

"STD SET" 6600 GAUGE WHEEL ASSEMBLIES ORDER QTY 1 SET (47648001) 3RD WING
QTY 1 SET (47668001) 2ND WING
CONSISTS OF ITEMS 1 AND 1A PLUS ITEMS 2 THRU 16

"HD SET" OF (4) 6600 GAUGE WHEEL ASSEMBLIES ORDER QTY 1 ( )
CONSISTS OF ITEMS 1 AND 1A PLUS ITEMS 2A THRU 16A QTY 1 ( )

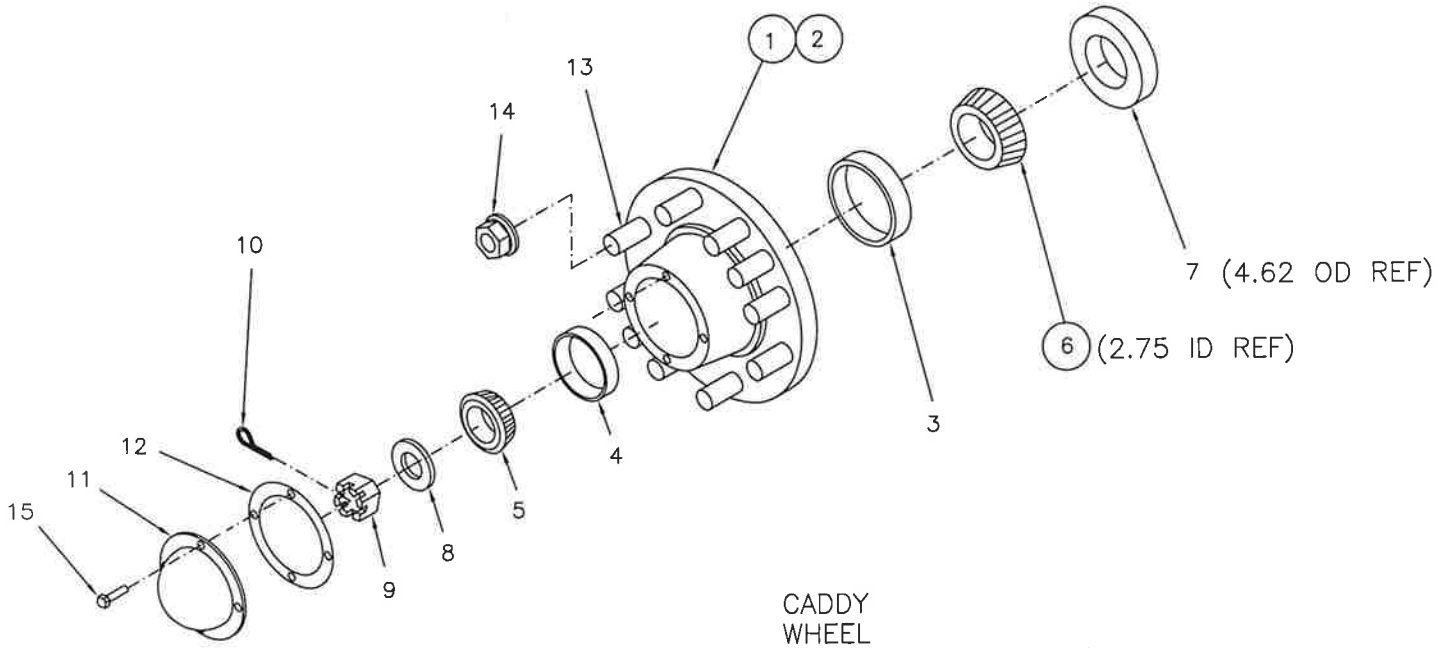
ITEM	PART NO.	DESCRIPTION	QTY
1	47005737	GA WHL BRKT REAR WELD'T 6600 ONLY	2
1A	47004742	GA WHL BRKT FRONT WELD'T, 6400/6600	2
	47000413	PIVOT ARM COMPLETE, (WITH 5 BOLT HUB) INCLUDES ITEMS 2 AND 13	4
	47999335	HD PIVOT ARM COMPLETE, (WITH 6 BOLT HUB) INCLUDES ITEMS 2A AND 13A	4
2	47010413	PIVOT ARM WELDMENT, STANDARD	4
2A	47019335	PIVOT ARM WELDMENT, HEAVY DUTY	4
3	47010425	PIVOT PIN	4
4	18560826	COTTER PIN, 3/16 X 1 1/2	4
5	47305002	U-BOLT, 5/8-11NC. (FOR 7 X 7 BAR)	8
6	18891600	LOCK WASHER, 5/8 ZC	16
7	18417900	HEX. NUT, 5/8-11NC. ZC	16
8	18541835	CLEVIS PIN, 3/4 X 2 1/2	4
9	18852200	FLATWASHER, 1" SAE ZC	4
10	18560726	COTTER PIN, 5/32 X 1 1/2	8
11	690063	JACK, TURNBUCKLE TYPE	4
12	18541566	CLEVIS PIN, 3/4 X 3 1/2	4
13	47005348	HUB ASSEMBLY COMPLETE, (5) BOLT	4
13A	47009611	HUB ASSEMBLY COMPLETE, (6) BOLT	4
	40015	TIRE & WHEEL ASSY, (INCL ITEMS 14-16)	
	40003	TIRE & WHEEL ASSY, (INCL ITEMS 14A-16A)	
14	47005590	WHEEL, 15" X 5 BOLT	4
14A	47005589	WHEEL, 15" X 6 BOLT	4
15	20120012	VALVE STEM	4
16	20067015	TIRE, 670 X 15 (4 PLY) 32 PSI	4
16A	40003	TIRE, 11L X 15 (8 PLY) 36 PSI	4

NOTES:
ITEM 1 IS USED WHEN MOUNTING ON REAR OF TOOLBAR ONLY
ITEM 1A IS USED WHEN MOUNTING ON FRONT OF TOOLBAR

6600 HUB ASSEMBLY

10 BOLT HUB
15,000 lb rating

6600HUB
11-28-12

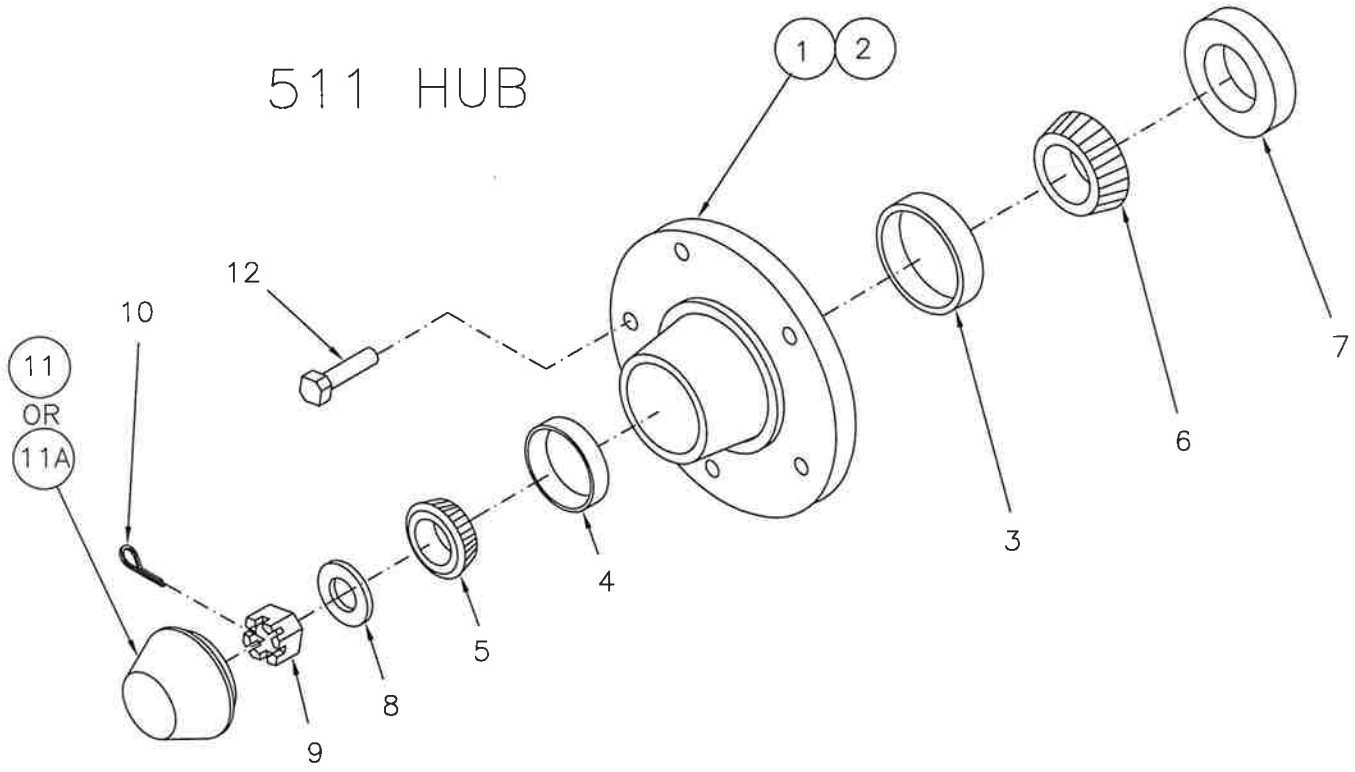


CADDY
WHEEL
10 BOLT (15,000 LB)

ITEM	DESCRIPTION	AG SYST PART NO.
1	HUB COMPLETE, (15,000 LB)	H1010-11
HUB COMPLETE INCLUDES ITEMS 2 THRU 7 AND 11 THRU 15 ONLY		
	MFGR. PART NUMBER	H1010-11
2	HUB WITH RACES	47003010
3	INNER BEARING CUP	47033462
4	OUTER BEARING CUP	47000453
5	OUTER BEARING CONE	47000460
6	INNER BEARING CONE (2.75 ID REF)	47033275
7	GREASE SEAL, SE67 (4.62 OD REF)	47000067
8	SPINDLE WASHER, 1.25	47000023
9	SPINDLE NUT, 1.25-12	47000038
10	COTTER PIN	18560828
11	DUST CAP	47000027
12	GASKET, DUST CAP	47000049
13	WHEEL STUD (PRESSED IN)	4700WB51
14	WHEEL NUT, FLANGED	4700WB52
15	CAP BOLT	47000053

HUB ASSEMBLY
5-BOLT (GA WHEEL)

511HUBASSY
09-19-12



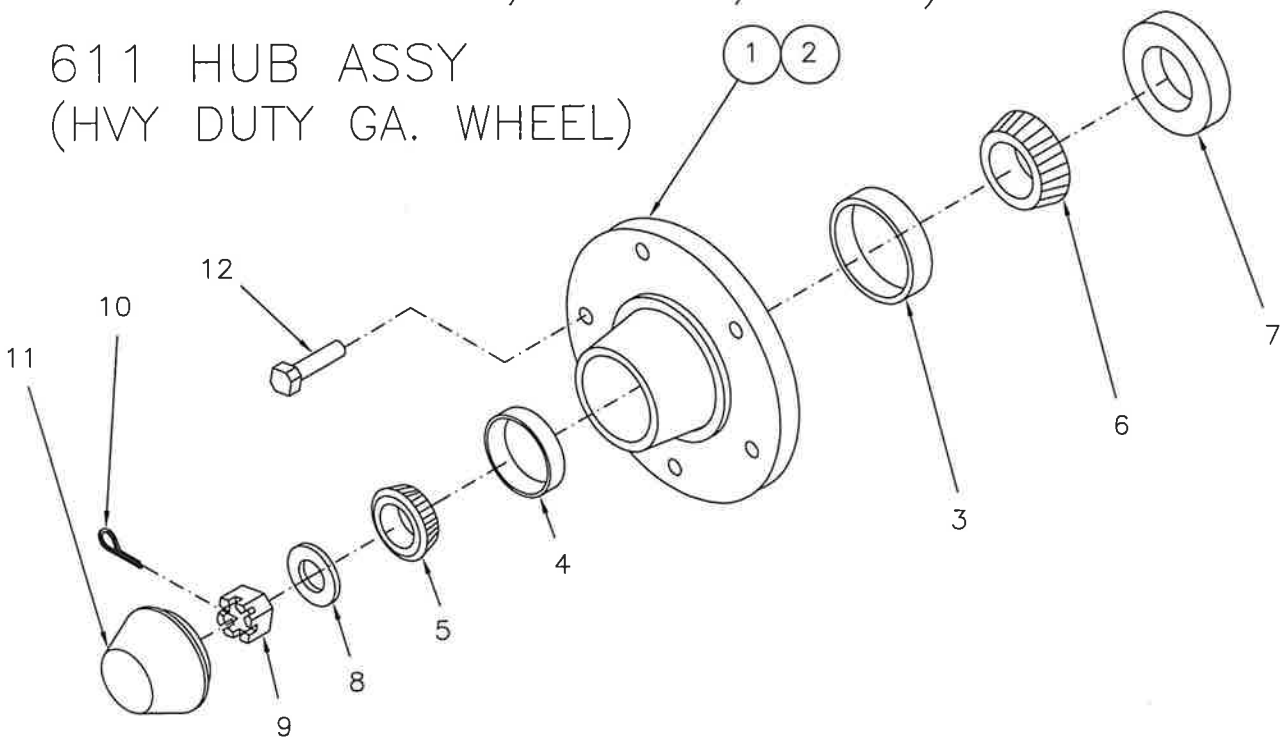
ITEM	DESCRIPTION	AG SYST PART NO.
1	HUB COMPLETE	47005348
	HUB COMPLETE INCLUDES ITEMS 2 THRU 7 AND 11 THRU 12	
2	HUB WITH RACES	47006348
3	INNER BEARING CUP	47005010
4	OUTER BEARING CUP	44501910
5	OUTER BEARING CONE	44501949
6	INNER BEARING CONE	47005048
7	GREASE SEAL	47006011
8	SPINDLE WASHER	18851800
9	SPINDLE NUT	18488600
10	COTTER PIN	18560826
11	DUST CAP CTD (SHORT)	47005297
11A	DUST CAP NORTHF (LONG)	47005297
12	LUG BOLT	47005014

HUB ASSEMBLY

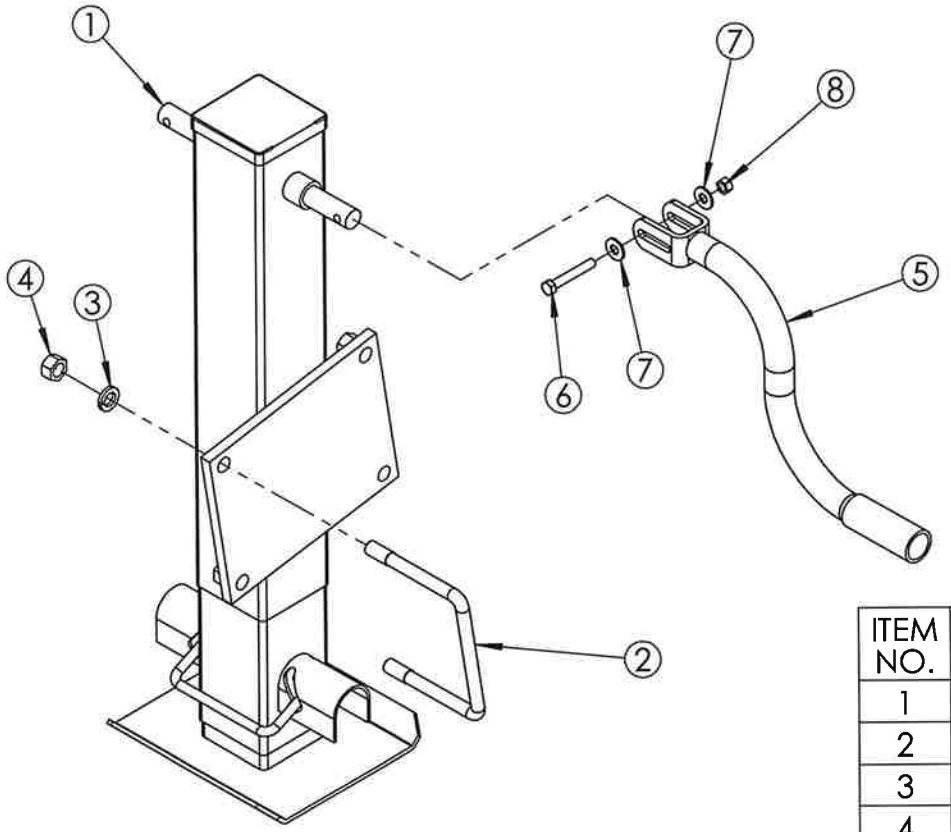
6–BOLT (AG62, AG1000, AG103, AG106, AG107, AG32)

611 HUB ASSY
(HVY DUTY GA. WHEEL)

611HUBASSY
10–03–12
rev 11–27–13



ITEM	DESCRIPTION	AG SYST PART NO.
1	HUB COMPLETE ASSY HUB COMPLETE INCLUDES ITEMS 2 THRU 7 AND ITEMS 11 THRU 12 ONLY	47009611
2	HUB WITH CUPS ONLY	47005511
3	INNER BEARING CUP	47005010
4	OUTER BEARING CUP	47005710
5	OUTER BEARING CONE	47005048
6	INNER BEARING CONE	47005749
7	GREASE SEAL	47005013
8	SPINDLE WASHER, 1.00"	18000017
9	SPINDLE NUT, 1.00–14UNF	18489100
10	COTTER PIN, .19 X 1.75	18560828
11	DUST CAP	47005513
12	LUG BOLT. 1/2–20 X 1.25	47005014



HEAVY DUTY
HEARTLAND AG SYSTEMS JACK

20,000 LB. CAPACITY
(6600 MODELS ONLY)
PART NUMBER : 71108

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71095	25k BULLDOG JACK WITH MOUNT	1
2	47010154	U-BOLT, 5/8-11	2
3	18911600	LOCK WASHER 5/8	4
4	18449100	HEX NUT, 5/8-11 UNC	4
5	015181	BULLDOG SIDE WIND HANDLE	1
6	18056834	BOLT, HEX 3/8-16 X 2 1/2 NC ZC	1
7	18811200	WASHER FLAT USS ZC 3/8	2
8	18459200	NUT 3/8 NYLOCK	1

JACK CAN BE ORDERED PRIMED ONLY WITH NO MOUNTING PLATE OR STUB USING PART NUMBER #71094

REV	REVISION DESCRIPTION	DATE	INIT.
0	NEW RELEASE	10-20-11	LGJ
01	REVISED HOSES & ROUTINGS	11-09-11	LGJ
02	ADDED CHECK VALVES BACK AND REVISED FITTINGS	11-17-11	LGJ
03	REVISED AND REDRAWN TO USE FORCE 3-FUNCT. SELECTR	12-22-11	LGJ
04	REVISED PER KEVIN JAKES	01-06-12	LGJ
05	ITEM J, 6600-6 WAS 6500-6 ITEM K, 6500-6 WAS 6602-6	02-20-12	LGJ
06	47005053 WAS 47305053	04-13-12	LGJ
07	ITEM C QTY 2 WAS 3, ITEM E WAS COMBINED WITH B TO 12 PCS ITEM B 609047 WAS 609036 ITEMS L & M ADDED .031 R DESCR.	05-10-12	LGJ
08	ADDED WIRING DIAGRAM	06-08-12	LGJ
09	REVISED P, ITEMS L&M	06-25-12	LGJ
10	ITEM G WAS CU176/ADD ITEM "N"	06/16/16	DWR

FITTINGS / VALVES

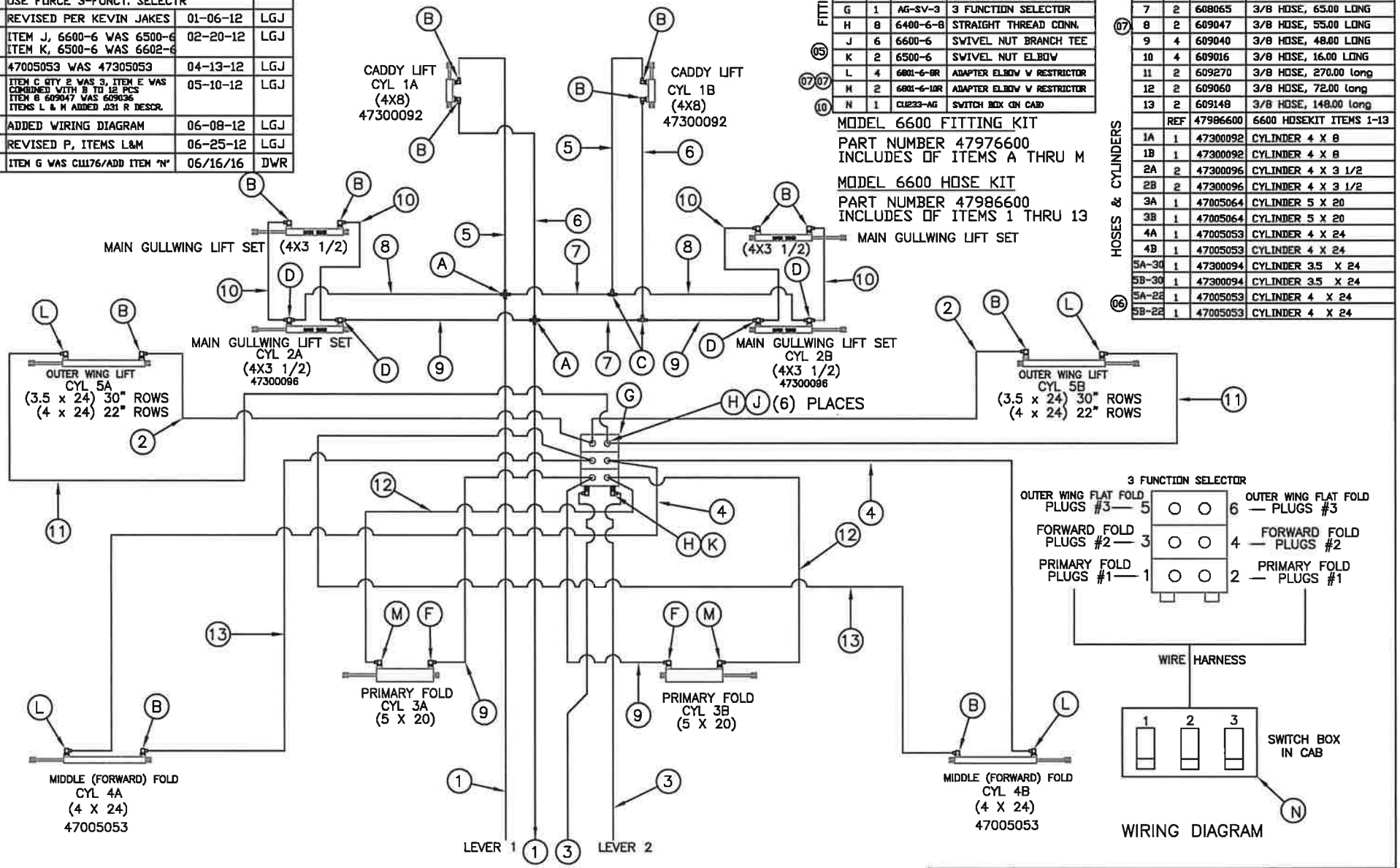
ITEM	QTY	PART #	FITTINGS/VALVE DESCR.
A	2	2650-6	CROSS, #6
B	12	6801-6-8	ELBOW, #6 X #8
C	2	2603-6	UNION TEE, #6
D	4	6803-6-8	BRANCH TEE, #6 TO #8 D
OMITTED E			COMBINED 4 PCS WITH ITEM B
F	2	6801-6-10	ADAPTER ELBOW, #6 - #10
G	1	AG-SV-3	3 FUNCTION SELECTOR
H	8	6400-6-8	STRAIGHT THREAD CONN.
J	6	6600-6	SWIVEL NUT BRANCH TEE
05 K	2	6500-6	SWIVEL NUT ELBOW
L	4	6801-6-8R	ADAPTER ELBOW W RESTRICTOR
07 07 M	2	6801-6-10R	ADAPTER ELBOW W RESTRICTOR
10 N	1	CU233-AG	SWITCH BOX CIN CAB

MODEL 6600 FITTING KIT
PART NUMBER 47976600
INCLUDES QF ITEMS A THRU M

MODEL 6600 HOSE KIT
PART NUMBER 47986600
INCLUDES QF ITEMS 1 THRU 13

HOSES & CYLINDERS

ITEM	QTY	PART #	HOSE DESCRIPTION
1	2	608168	3/8 HOSE, 168.00 LONG
2	2	609239	3/8 HOSE, 239.00 long
3	2	609171	3/8 HOSE, 204.00 LONG
4	2	609178	3/8 HOSE, 178.00 long
5	2	609032	3/8 HOSE, 32.00 LONG
6	2	609310	3/8 HOSE, 46.00 LONG
7	2	608065	3/8 HOSE, 65.00 LONG
07 8	2	609047	3/8 HOSE, 55.00 LONG
9	4	609040	3/8 HOSE, 48.00 LONG
10	4	609016	3/8 HOSE, 16.00 LONG
11	2	609270	3/8 HOSE, 270.00 long
12	2	609060	3/8 HOSE, 72.00 long
13	2	609148	3/8 HOSE, 148.00 long
	REF	47986600	6600 HOSEKIT ITEMS 1-13
1A	1	47300092	CYLINDER 4 X 8
1B	1	47300092	CYLINDER 4 X 8
2A	2	47300096	CYLINDER 4 X 3 1/2
2B	2	47300096	CYLINDER 4 X 3 1/2
3A	1	47005064	CYLINDER 5 X 20
3B	1	47005064	CYLINDER 5 X 20
4A	1	47005053	CYLINDER 4 X 24
4B	1	47005053	CYLINDER 4 X 24
5A-30	1	47300094	CYLINDER 3.5 X 24
5B-30	1	47300094	CYLINDER 3.5 X 24
5A-22	1	47005053	CYLINDER 4 X 24
06 5B-22	1	47005053	CYLINDER 4 X 24



TOLERANCE UNLESS OTHERWISE SPECIFIED: Frac ±1/32, .X ±.06, .XX ±.03, .XXX ±.015, ANGULAR ±1°	AG SYSTEMS INC. HUTCHINSON MN. 55350		
FINISH	QTY. REQ'D. 1	NAME	HYDRAULIC PLUMBING SCHEMATIC
DRAWN BY LGJ		FIRST USED 6600	DATE 05-05-11
ECR NO.		REV. 10	DATE 06-16-16
		PART NUMBER	6600HYDLAYOUT

REV	REVISION DESCRIPTION	DATE	INIT.
0	NEW RELEASE	06-08-12	LGJ
01	REVISED PN ON L & M	06-25-12	LGJ
02	ADDED KIT PART NUMBERS	01-08-13	LGJ
03	FIXED CALLOUTS ITEMS 8&9	05/08/17	DWR

FITTINGS / VALVES

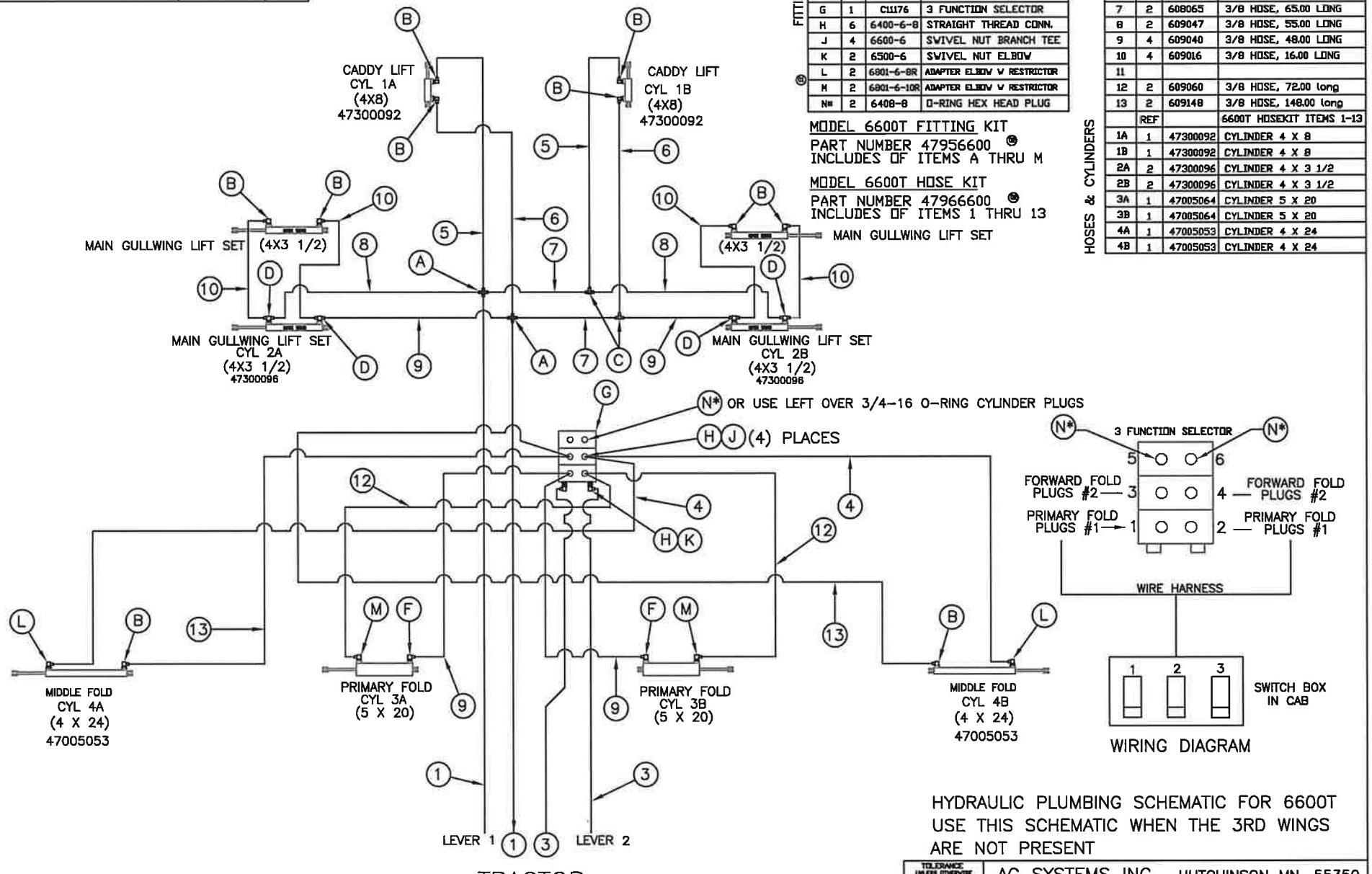
ITEM	QTY	PART #	FITTINGS/VALVE DESCR.
A	2	2650-6	CROSS, #6
B	10	6801-6-8	ELBOW, #6 X #8
C	2	2603-6	UNION TEE, #6
D	4	6803-6-8	BRANCH TEE, #6 TO #8 O
OMITTED E			COMBINED 4 PCS WITH ITEM B
F	2	6801-6-10	ADAPTER ELBOW, #6 - #10
G	1	C11176	3 FUNCTION SELECTOR
H	6	6400-6-8	STRAIGHT THREAD CONN.
J	4	6600-6	SWIVEL NUT BRANCH TEE
K	2	6500-6	SWIVEL NUT ELBOW
L	2	6801-6-8R	ADAPTER ELBOW W RESTRICTOR
M	2	6801-6-10R	ADAPTER ELBOW W RESTRICTOR
N*	2	6408-8	O-RING HEX HEAD PLUG

MODEL 6600T FITTING KIT
PART NUMBER 47956600 (15)
INCLUDES OF ITEMS A THRU M

MODEL 6600T HOSE KIT
PART NUMBER 47966600 (15)
INCLUDES OF ITEMS 1 THRU 13

HOSES & CYLINDERS

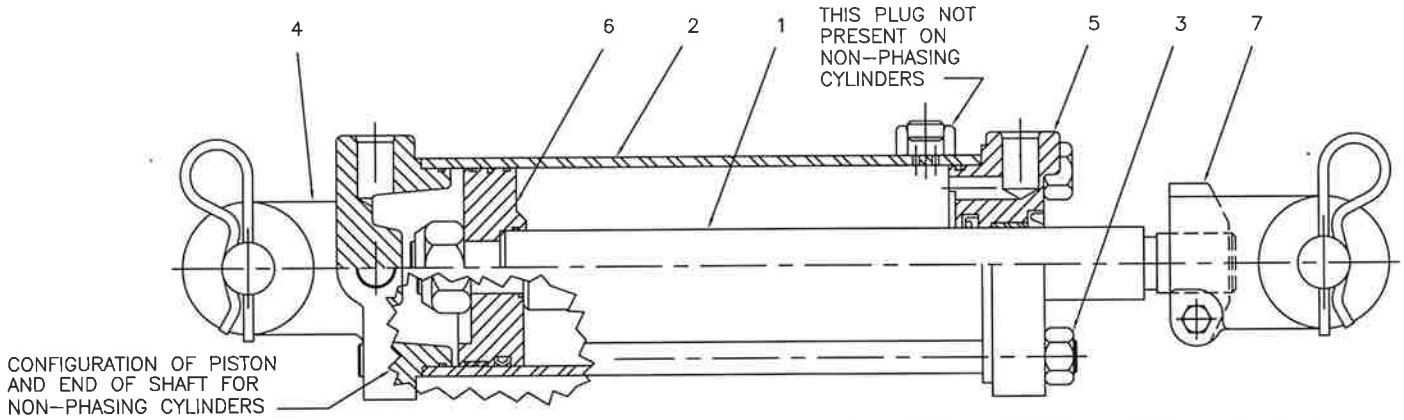
ITEM	QTY	PART #	HOSE DESCRIPTION
1	2	608168	3/8 HOSE, 168.00 LONG
2			
3	2	609171	3/8 HOSE, 204.00 LONG
4	2	609178	3/8 HOSE, 178.00 long
5	2	609032	3/8 HOSE, 32.00 LONG
6	2	609310	3/8 HOSE, 46.00 LONG
7	2	608065	3/8 HOSE, 65.00 LONG
8	2	609047	3/8 HOSE, 55.00 LONG
9	4	609040	3/8 HOSE, 48.00 LONG
10	4	609016	3/8 HOSE, 16.00 LONG
11			
12	2	609060	3/8 HOSE, 72.00 long
13	2	609148	3/8 HOSE, 148.00 long
	REF		6600T HOSEKIT ITEMS 1-13
1A	1	47300092	CYLINDER 4 X 8
1B	1	47300092	CYLINDER 4 X 8
2A	2	47300096	CYLINDER 4 X 3 1/2
2B	2	47300096	CYLINDER 4 X 3 1/2
3A	1	47005064	CYLINDER 5 X 20
3B	1	47005064	CYLINDER 5 X 20
4A	1	47005053	CYLINDER 4 X 24
4B	1	47005053	CYLINDER 4 X 24



WIRING DIAGRAM

HYDRAULIC PLUMBING SCHEMATIC FOR 6600T
USE THIS SCHEMATIC WHEN THE 3RD WINGS
ARE NOT PRESENT

TOLERANCE UNLESS OTHERWISE SPECIFIED: Frac ±1/32, .X ±.06, .XX ±.03, .XXX ±.015, ANGULAR ±1°	AG SYSTEMS INC. HUTCHINSON MN. 55350		
	FINISH	QTY. REQ'D. 1	NAME HYDRAULIC PLUMBING SCHEMATIC
	DRAWN BY LGJ		FIRST USED 6600 TEXAS
	ECR NO.		REV. 03
			DATE 06-08-12
			DATE 05/08/17
			PART NUMBER 6600HYDWO3RDWG



6600CYL2011
REV 05–22–14

ITEM NO.	DESCRIPTION	PRIMARY FOLD CYLINDER 5 X 20 47005064 B500200BCDDA07A	MIDDLE FOLD CYLINDER 4 X 24 47305053 B400240BBAGA07A	OUTER WING CYL. 3 1/2 X 24 47300094 B350240BBAAA07A	MAIN GULL–WING LIFT CYL 4 X 3 1/2 47300096 B400034BBACA07A	CADDY LIFT CYLINDER 4 X 8 47300092 X	QTY. REQ'D.
1	SHAFT	011126875B	011029438A	010729750B	01108938A	011015438A	1
2	TUBE	052122875A	051926563A	051526063A	051906063A	051910563A	1
3	TIE ROD ASSM.	170401257	170301294	170201283	170301090	170301134	4
4	BUTT	1421007SG	1419005SF	1417005SF	1419005SF	1419005SF	1
5	GLAND ASSM.	0821BCASG	0819BBNSF	0815BBGSF	0819BBNSF	0819BBNSF	1
6	PISTON	072100243	071900260	071700174	071900260	071900260	1
7	CLEVIS ASSM.	100000362	100000326	100000577	100000326	110000326	1
	SEAL KIT	PMCK–B500000	47034000	47033500	PMCK–B40000	47034000	
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,

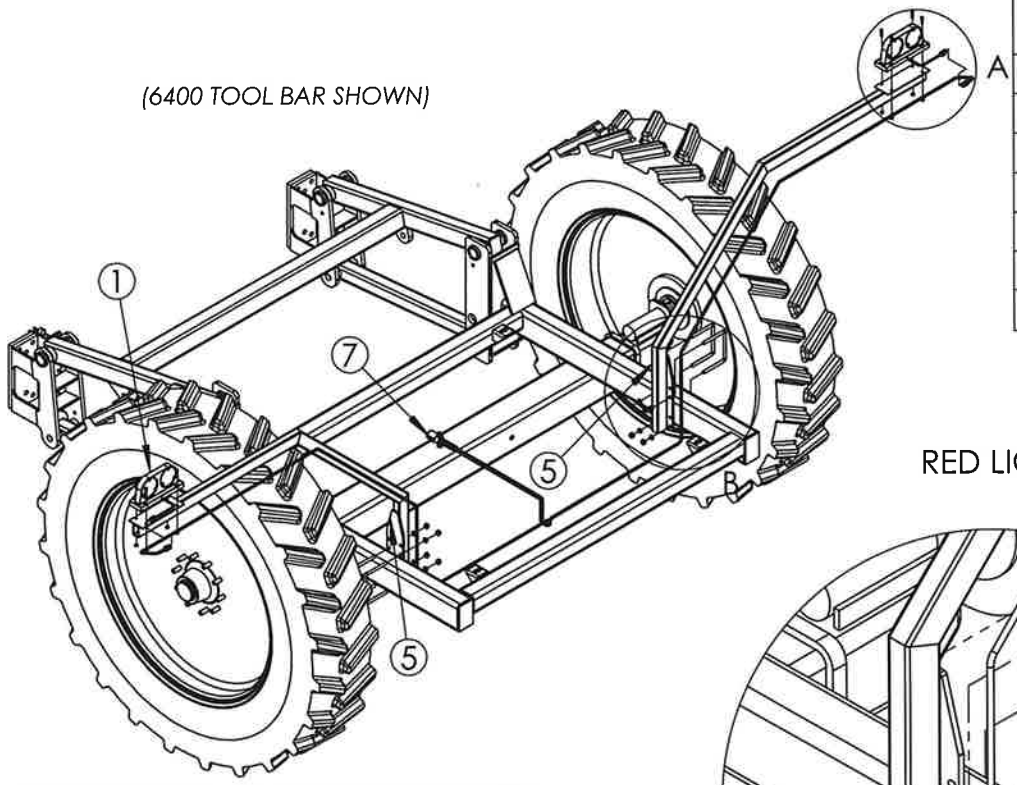
1. Replace all the seals on items (4), (5), and (6) except, for non–phasing cylinders do not replace the small o–ring on the ID of the piston item (6) until you are ready to attach the shaft item (1).
2. For non–phasing cylinders, place the small o–ring seal for the piston over the shaft turndown. Apply a light coat of grease to the seal. Slip the piston item (6) onto the turndown with the o–ring counterbore towards the shaft shoulder. Take care not to pinch the o–ring between the piston and the shoulder.
3. Replace the shaft end nut and secure.
4. Apply a light coat of grease to the seals on the gland item (5) and slip the gland over the shaft end. Be very carefull not to damage the seals. 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.
5. Take the entire assembly from step 4 and slip the tube over the OD seal on the butt item (4). Align the ports in the butt and the gland and assemble the nuts to the tie rods and torque uniformly.
6. Torque shaft locknut to 265 +/– 10 ft/lbs.. Torque tie rods to 60 +/– ft/lbs.. Set retract and torque clevis bolt to 28 +/– 2 ft/lbs..
7. 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

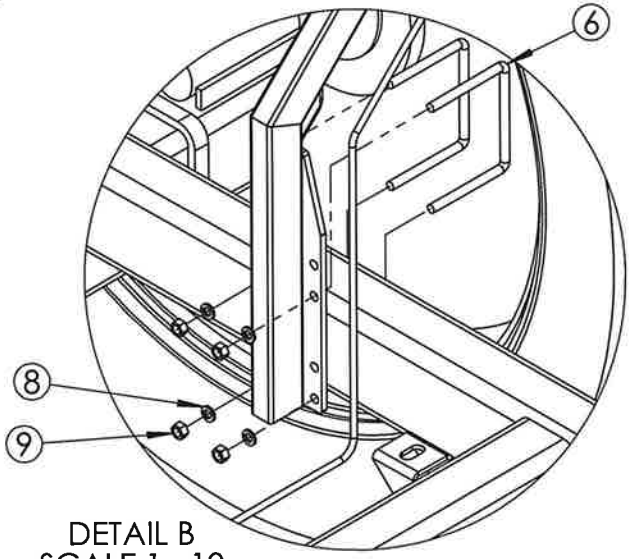
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	54209-008	DUAL LAMP ASSY, LH	1
2	54209-022	DUAL LAMP ASSY, RH	1
3	18055724	BOLT HX CAP G5 NCZC 1/4 X 1 1/4	8
4	18495700	NUT HX SER FLG 1/4 NC ZC	8
5	47009697	LITE KIT BRACKET	2
6	47006545	U-BOLT, 1/2-13 UNC.	4
7	71675	35' HD CABLE WITH 7 PIN PLUG	1
8	18891400	WASHER, 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 HARNESSS THROUGH TUBE OF ITEM#5 ON BOTH SIDES

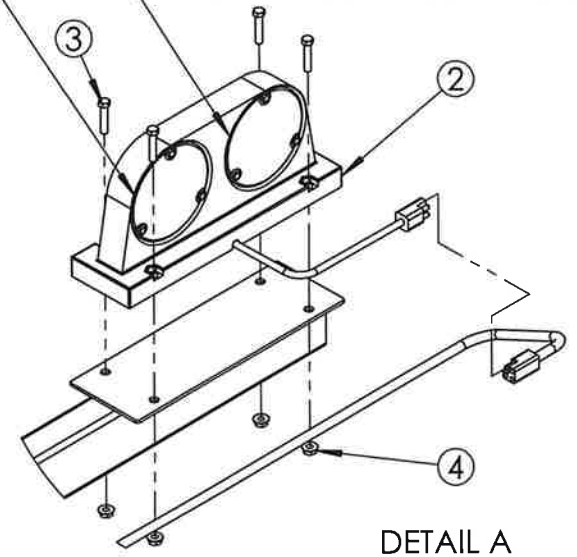
AMBER REPLACEMENT LENS PN 802650
RED REPLACEMENT LENS PN 802651



DETAIL B
SCALE 1 : 10

RED LIGHTS TO INSIDE

AMBER LIGHTS TO OUTSIDE



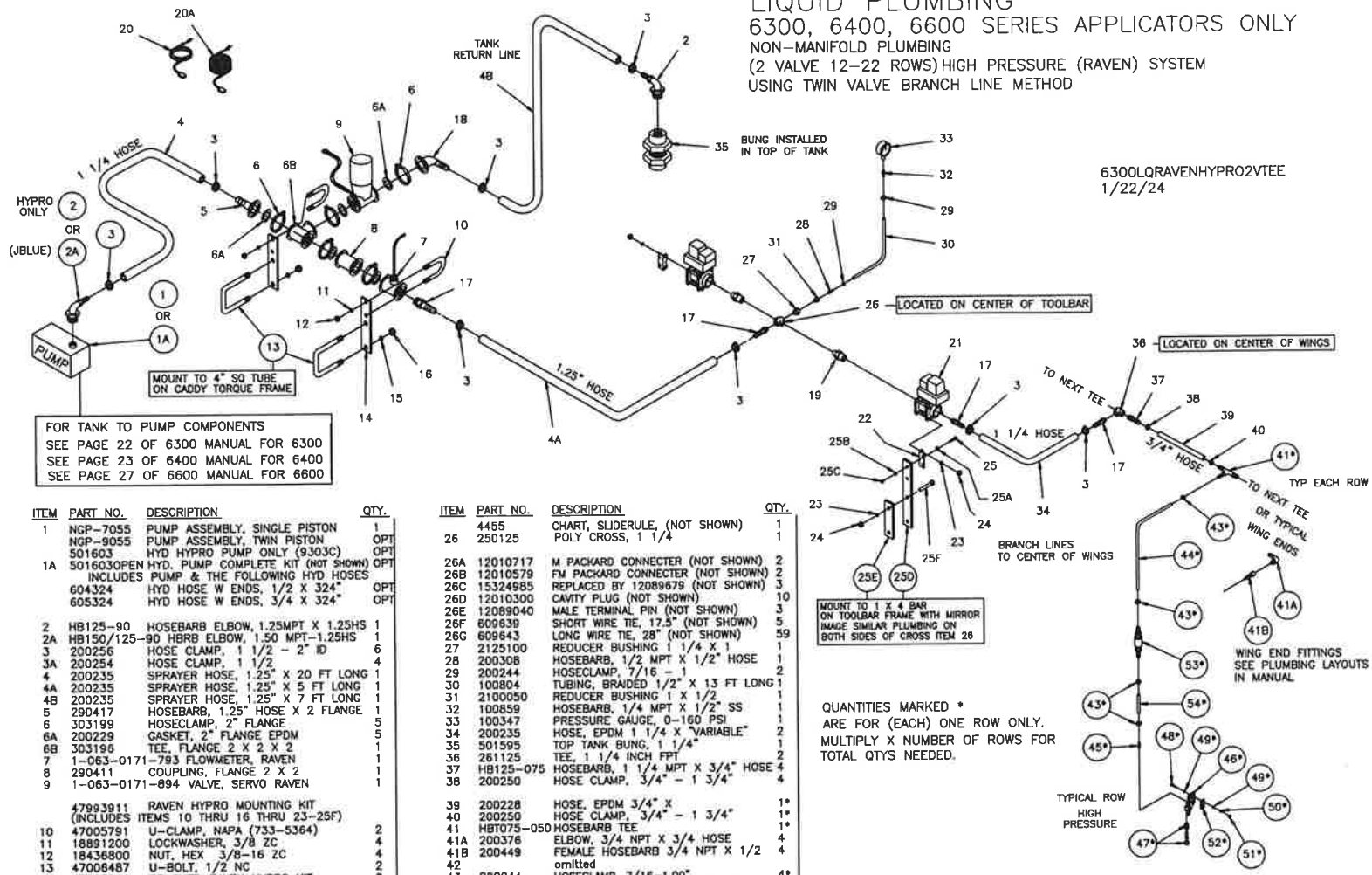
DETAIL A
SCALE 1 : 7

LIQUID PLUMBING

6300, 6400, 6600 SERIES APPLICATORS ONLY

NON-MANIFOLD PLUMBING
(2 VALVE 12-22 ROWS) HIGH PRESSURE (RAVEN) SYSTEM
USING TWIN VALVE BRANCH LINE METHOD

6300LQRAVENHYPRO2VTEE
1/22/24



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
	NGP-9055	PUMP ASSEMBLY, TWIN PISTON	OPT
	501603	HYD HYPRO PUMP ONLY (9303C)	OPT
1A	5016030PEN	HYD. PUMP COMPLETE KIT (NOT SHOWN) INCLUDES PUMP & THE FOLLOWING HYD HOSES	OPT
	604324	HYD HOSE W ENDS, 1/2 X 324"	OPT
	605324	HYD HOSE W ENDS, 3/4 X 324"	OPT
2	HB125-90	HOSEBARB ELBOW, 1.25MPT X 1.25HS	1
2A	HB150/125-90	HBRB ELBOW, 1.50 MPT-1.25HS	1
3	200256	HOSE CLAMP, 1 1/2 - 2" ID	6
3A	200254	HOSE CLAMP, 1 1/2	4
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	290417	HOSEBARB, 1.25" HOSE X 2 FLANGE	1
6	303199	HOSECLAMP, 2" FLANGE	5
6A	200229	GASKET, 2" FLANGE EPDM	5
6B	303196	TEE, FLANGE 2 X 2 X 2	1
7	1-063-0171-793	FLOWMETER, RAVEN	1
8	290411	COUPLING, FLANGE 2 X 2	1
9	1-063-0171-894	VALVE, SERVO RAVEN	1
	47993911	RAVEN HYPRO MOUNTING KIT (INCLUDES ITEMS 10 THRU 16 THRU 23-25F)	
10	47005791	U-CLAMP, NAPA (733-5364)	2
11	18891200	LOCKWASHER, 3/8 ZC	4
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" ZC	4
16	18417400	NUT, HEX 1/2-13 NC ZC	4
17	HB125	HOSEBARB 1 1/4 MPT X 1 1/4 HOSE	6
18	290430	2" FLANGED ELBOW 90° (1.25 HOSEB)	1
19	200555	CLOSENIPPLE, POLY 1 1/4 X 1 1/4	2
20	115-0171-085	CONSOLE CABLE	1
20A	115-0171-055	12 FT CONTROL CABLE	1
20B	63-0171-183	440 CONSOLE (NOT SHOWN)	1
21	VE125	VALVE, ELECTRIC, ON/OFF	2
22	210271	VALVE BRACKET, CHROME	2
23	18891200	LOCKWASHER, 3/8 ZC	8
24	18436800	NUT, HEX 3/8-16NC ZC	8
25	18055722	BOLT, HEX 1/4-20 X 1 ZC	4
25A	18811000	FLATWASHER, 1/4 ZC	4
25B	18891000	LOCKWASHER, 1/4 ZC	4
25C	18435700	HEXNUT, 1/4-20 ZC	4
25D	47003940	BRACKET, ELEC. VALVE MOUNT	2
25E	47003941	CLAMP BRACKET, ELEC. VALVE MNT	2
25F	18056830	BOLT, HEX HEAD 3/8-16 X 2 ZC	4

ITEM	PART NO.	DESCRIPTION	QTY.
	4455	CHART, SLIDERULE, (NOT SHOWN)	1
26	250125	POLY CROSS, 1 1/4	1
26A	12010717	M PACKARD CONNECTER (NOT SHOWN)	2
26B	12010579	FM PACKARD CONNECTER (NOT SHOWN)	2
26C	15324985	REPLACED BY 12089679 (NOT SHOWN)	3
26D	12010300	CAVITY PLUG (NOT SHOWN)	10
26E	12089040	MALE TERMINAL PIN (NOT SHOWN)	3
26F	609639	SHORT WIRE TIE, 17.5" (NOT SHOWN)	5
26G	609643	LONG WIRE TIE, 28" (NOT SHOWN)	59
27	2125100	REDUCER BUSHING 1 1/4 X 1	1
28	200308	HOSEBARB, 1/2 MPT X 1/2" HOSE	1
29	200244	HOSECLAMP, 7/16 - 1	2
30	100804	TUBING, BRAIDED 1/2" X 13 FT LONG	1
31	2100050	REDUCER BUSHING 1 X 1/2	1
32	100859	HOSEBARB, 1/4 MPT X 1/2" SS	1
33	100347	PRESSURE GAUGE, 0-160 PSI	1
34	200235	HOSE, EPDM 1 1/4 X "VARIABLE"	2
35	501595	TOP TANK BUNG, 1 1/4"	1
36	261125	TEE, 1 1/4 INCH FPT	2
37	HB125-075	HOSEBARB, 1 1/4 MPT X 3/4" HOSE	4
38	200250	HOSE CLAMP, 3/4" - 1 3/4"	4
39	200228	HOSE, EPDM 3/4" X	1*
40	200250	HOSE CLAMP, 3/4" - 1 3/4"	1*
41	HBT075-050	HOSEBARB TEE	1*
41A	200376	ELBOW, 3/4 NPT X 3/4 HOSE	4
41B	200449	FEMALE HOSEBARB 3/4 NPT X 1/2	4
42		omitted	
43	200244	HOSECLAMP, 7/16-1.00"	4*
44	100804	TUBING, BRAIDED EVA 1/2" X 4 FT	1*
45	100859	HOSEBARB 1/4 NPT X 1/2" SS	1*
46	47309038	NOZZLE BRACKET	1*
47	504017	NOZZLE ASSY INCLUDES (1) EACH OF THE FOLLOWING PARTS LISTED BELOW	1*
	500192	NOZZLE BODY	1*
	504015	STREAM STABILIZER	1*
	ORIFICE	(SELECT FROM ORIFICE CHART)	1*
	503127	NOZZLE CAP, STD STAINLESS	1*
48	18057434	BOLT, HEX 1/2NC X 2 1/2 GR5 ZC	2*
49	18811400	FLATWASHER, 1/2 INCH ZC	3*
50	18891400	LOCKWASHER, 1/2 INCH ZC	2*
51	18817400	NUT, HEX 1/2 NC ZC	2*
52	47306661	SHIM, 1/4"	1*
	47306662	SHIM, 1/8"	1*
	47306663	SHIM, 1/16"	1*
53	115288-01	CHECKVALVE, POLY	1*
54	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 QTYS NEEDED.

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

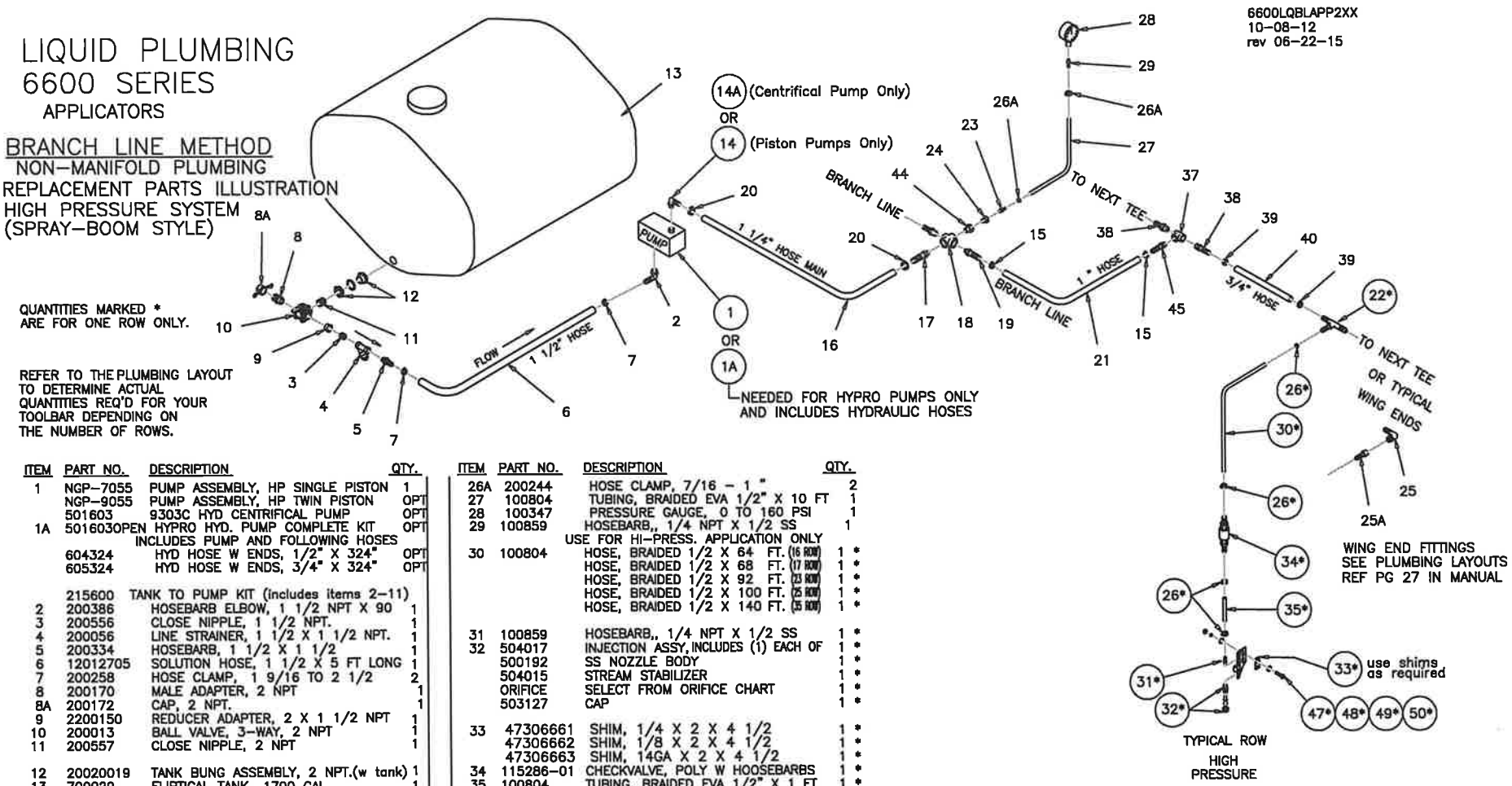
SEE THE TOOLBAR PLUMBING REFERENCE GUIDE TO PLUMB THE TOOLBAR, BEGINNING WITH CROSS (ITEM 26) ON THIS PAGE, PLUM EACH ROW* OUTWARD TO THE ENDS OF THE WINGS.

SEE 606200R FOR RAVEN CONTROLLER PKG

LIQUID PLUMBING
6600 SERIES
APPLICATORS

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

6600LQBLAPP2XX
10-08-12
rev 06-22-15



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 CENTRIFICAL PUMP	OPT
1A	5016030PEN	HYPRO HYD. PUMP COMPLETE KIT INCLUDES PUMP AND FOLLOWING HOSES	OPT
	604324	HYD HOSE W ENDS, 1/2" X 324"	OPT
	605324	HYD HOSE W ENDS, 3/4" X 324"	OPT
	215600	TANK TO PUMP KIT (includes items 2-11)	
2	200386	HOSEBARB ELBOW, 1 1/2 NPT X 90	1
3	200556	CLOSE NIPPLE, 1 1/2 NPT.	1
4	200056	LINE STRAINER, 1 1/2 X 1 1/2 NPT.	1
5	200334	HOSEBARB, 1 1/2 X 1 1/2	1
6	12012705	SOLUTION HOSE, 1 1/2 X 5 FT LONG	1
7	200258	HOSE CLAMP, 1 9/16 TO 2 1/2	2
8	200170	MALE ADAPTER, 2 NPT	1
8A	200172	CAP, 2 NPT.	1
9	2200150	REDUCER ADAPTER, 2 X 1 1/2 NPT	1
10	200013	BALL VALVE, 3-WAY, 2 NPT	1
11	200557	CLOSE NIPPLE, 2 NPT	1
12	20020019	TANK BUNG ASSEMBLY, 2 NPT.(w tank)	1
13	700029	ELIPTICAL TANK, 1700 GAL.	1
OR	700028	ELIPTICAL TANK, 1300 GAL.	OPT
14	HB150/125-90	HOSEB ELBOW, 1.50"MPTX1.25 HS	1
14A	HB125-90	HOSEB ELBOW, 1.25"MPTX1.25 HOSE	1
15	200250	HOSE CLAMP, 3/4" - 1 3/4"	4
16	200235	SPRAYER HOSE, 1 1/4 x 12 FT	1
17	200330	HOSEB, POLY 1 1/4MPT x 1 1/4HS	1
18	250125	POLY CROSS, 1 1/4 INCH	1
19	200327	HOSEBARB, POLY 1 1/4" X 1" HOSE	2
20	200256	HOSE CLAMP, 1 5/16 TO 2 1/4	2
21	10040000	SPRAYER HOSE 1 INCH X VARIES	2
22	HBT075-050	HOSEBARB TEE	1*
23	200294	HOSEBARB, POLY .25 X .5	1
24	2100025	REDUCER BUSHING, POLY 1" X 1/4"	1
25	200376	ELBOW, 3/4 NPT X 3/4 HOSE	2
25A	200449	FEMALE HOSE BARB 3/4 NPT X 1/2	2
26	200244	HOSE CLAMP, 7/16 - 1 "	4*

ITEM	PART NO.	DESCRIPTION	QTY.
26A	200244	HOSE CLAMP, 7/16 - 1 "	2
27	100804	TUBING, BRAIDED EVA 1/2" X 10 FT	1
28	100347	PRESSURE GAUGE, 0 TO 160 PSI	1
29	100859	HOSEBARB,, 1/4 NPT X 1/2 SS	1
		USE FOR HI-PRESS. APPLICATION ONLY	
30	100804	HOSE, BRAIDED 1/2 X 64 FT. (16 ROW)	1 *
		HOSE, BRAIDED 1/2 X 68 FT. (17 ROW)	1 *
		HOSE, BRAIDED 1/2 X 92 FT. (23 ROW)	1 *
		HOSE, BRAIDED 1/2 X 100 FT. (25 ROW)	1 *
		HOSE, BRAIDED 1/2 X 140 FT. (35 ROW)	1 *
31	100859	HOSEBARB,, 1/4 NPT X 1/2 SS	1 *
32	504017	INJECTION ASSY, INCLUDES (1) EACH OF	1 *
	500192	SS NOZZLE BODY	1 *
	504015	STREAM STABILIZER	1 *
	ORIFICE	SELECT FROM ORIFICE CHART	1 *
	503127	CAP	1 *
33	47306661	SHIM, 1/4 X 2 X 4 1/2	1 *
	47306662	SHIM, 1/8 X 2 X 4 1/2	1 *
	47306663	SHIM, 14GA X 2 X 4 1/2	1 *
34	115286-01	CHECKVALVE, POLY W HOOSEBARBS	1 *
35	100804	TUBING, BRAIDED EVA 1/2" X 1 FT	1 *
36	47309038	NOZZLE BRACKET	1 *
37	261100	TEE, POLY 1 INCH FPT	2
38	HB100-075	HOSEBARB, POLY 1" MPT X 3/4 HOSE	4
39	200250	HOSECLAMP, 3/4" - 1 3/4"	2*
40	200228	SPRAYER HOSE, 3/4 X (VARIES/ROWS)	2
42	609643	CABLE TIES	2*
43	4455	CHART, SLIDE RULE INJECTION	1
44	2125100	REDUCER BUSHING 1 1/4 X 1	1
45	HB100	HOSEBARB POLY 1" MPT x 1" HOSE	1
47	18057434	BOLT, HX HD 1/2 X 2 1/2 GR 5	2*
48	18417400	NUT, HEX, 1/2NC ZC	1*
49	18811400	FLATWASHER, USS ZC 1/2	2*
50	18891400	WASHER, LOCK 1/2 ZC	1*

AVAILABLE PUMP PACKAGE

NGP-7055 HI-PRESS. JBLUE SGL PISTON
NGP-9055 HI-PRESS. JBLUE TWN PISTON
501603 PUMP ASSY, 9303C CENTRIFICAL

5016030PEN 9303C HYD CNT PUMP PKG
WHICH INCLUDES HYD HOSES AND FITTINGS

AVAILABLE TANK TO PLUMBING PACKAGE

215600 TANK TO PUMP PLUMBING PKG
INCLUDES 2" FORCE FILL

AVAILABLE PUMP PLUMBING PACKAGE

20026001 JBLUE PUMP PLUMBING PKG
20026003 CENTRIFICAL PUMP SGL BALL VALVE
20026002 CENTRIFICAL PUMP TWO BALL VALVES

SEE 66KTOOLBARPLBG2 ON PAGE 28
FOR EXAMPLE PLUMBING LAYOUT
OF BRANCH-LINE METHOD

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

AVAILABLE HIGH PRESSURE PLUMBING KITS

16 ROW X 40" SP KIT NUMBER 601536
17 ROW X 30" SP KIT NUMBER 601545
23 ROW X 30" SP KIT NUMBER 601551
25 ROW X 22 OR 30" SP KIT NUMBER 601557
35 ROW X 22" SP KIT NUMBER 601560

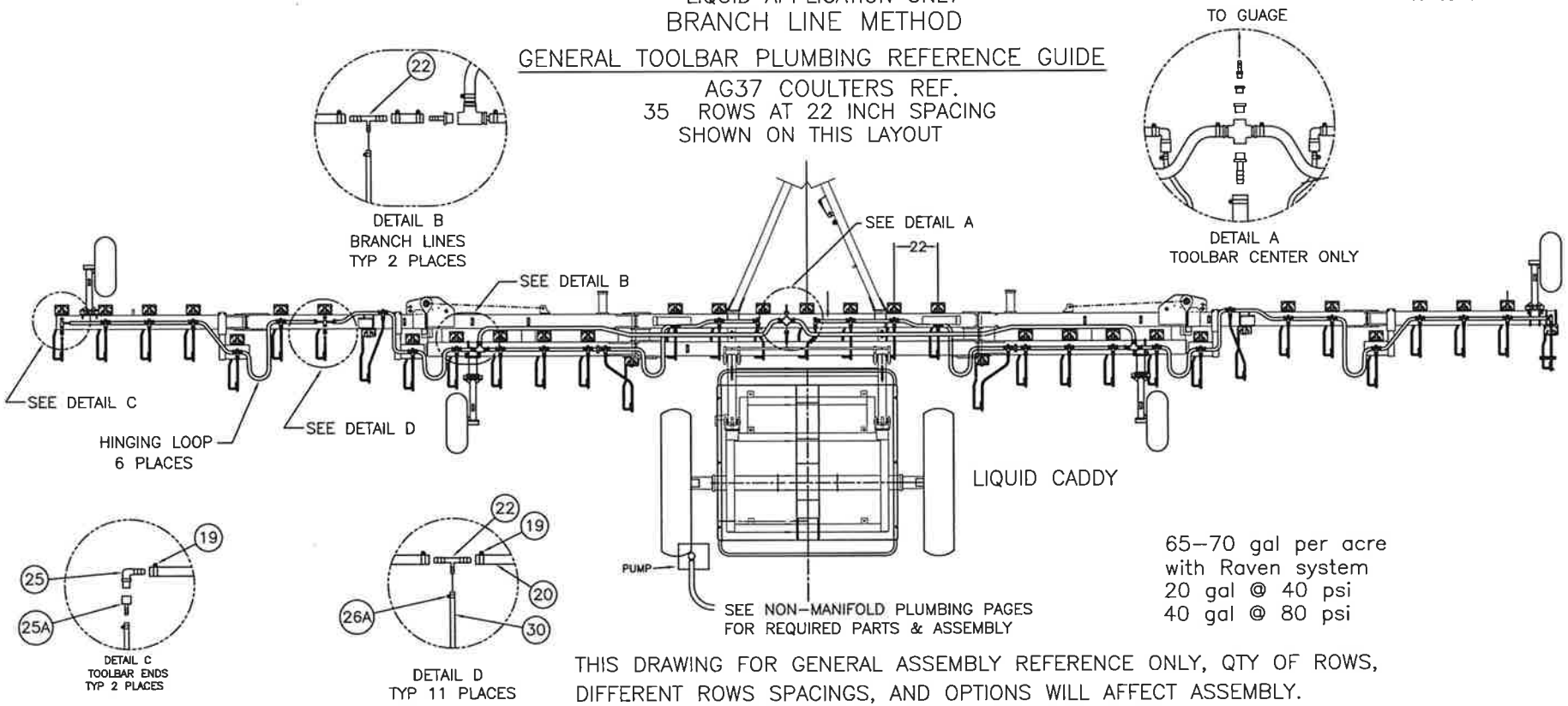
6600 SERIES TOOLBAR

62.75 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
BRANCH LINE METHOD

66KTOOLBARPLBG2
10-08-12

GENERAL TOOLBAR PLUMBING REFERENCE GUIDE

AG37 COULTERS REF.
35 ROWS AT 22 INCH SPACING
SHOWN ON THIS LAYOUT



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

THIS DRAWING FOR GENERAL ASSEMBLY REFERENCE ONLY, QTY OF ROWS, DIFFERENT ROWS SPACINGS, AND OPTIONS WILL AFFECT ASSEMBLY.

(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
	120	0.26	23	17.6	14.0	11.7
4916-40	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
	100	0.28	25	18.9	15.1	12.6
	120	0.31	28	21	16.7	14.0
4916-43	60	0.25	22	16.8	13.4	11.2
	80	0.29	26	20	15.7	13.1
	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
4916-47	60	0.30	27	20	16.0	13.3
	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
4916-49	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
	120	0.45	41	30	24	20
4916-52	60	0.36	32	24	19.5	16.2
	80	0.42	38	28	23	18.9
	90	0.44	40	30	24	20
	100	0.47	42	32	25	21
	120	0.51	46	34	28	23
4916-55	60	0.41	37	27	22	18.3
	80	0.47	42	32	25	21
	90	0.50	45	34	27	23
	100	0.52	47	35	28	23
	120	0.57	51	38	31	26
4916-56	60	0.43	39	29	23	19.4
	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
4916-59	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
	120	0.66	59	45	36	30
4916-61	60	0.50	45	34	27	23
	80	0.58	52	39	31	26
	90	0.61	55	41	33	27
	100	0.65	59	44	35	29
	120	0.71	64	48	38	32

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 22 inch spacing			
			3 mph	4 mph	5 mph	6 mph
4916-65	60	0.56	51	38	30	25
	80	0.65	59	44	35	29
	90	0.69	62	47	37	31
	100	0.73	66	49	39	33
	120	0.80	72	54	43	36
4916-68	60	0.62	55	42	33	28
	80	0.71	64	48	38	32
	90	0.75	68	51	41	34
	100	0.80	72	54	43	36
	120	0.87	78	59	47	39
4916-70	60	0.66	59	44	36	30
	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
4916-75	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
	120	1.06	95	72	57	48
4916-80	60	0.85	77	58	46	38
	80	0.99	89	67	53	45
	90	1.05	95	71	57	47
	100	1.10	99	74	59	50
	120	1.21	109	82	65	54
4916-83	60	0.97	87	65	52	44
	80	1.12	101	76	60	50
	90	1.19	107	80	64	54
	100	1.25	113	84	68	56
	120	1.37	123	92	74	62
4916-89	60	1.06	95	71	57	48
	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
4916-93	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
	120	1.67	150	113	90	75
4916-95	60	1.23	111	83	67	55
	80	1.42	128	96	77	64
	90	1.51	136	102	82	68
	100	1.59	143	107	86	72
	120	1.74	157	117	94	78
4916-98	60	1.35	121	91	73	61
	80	1.55	140	105	84	70
	90	1.65	149	111	89	74
	100	1.74	157	117	94	78
	120	1.90	171	128	103	86

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
4916-103	60	1.41	127	95	76	63
	80	1.63	147	110	88	73
	90	1.72	155	116	93	77
	100	1.82	164	123	98	82
	120	1.99	179	134	107	90
4916-107	60	1.58	143	107	86	71
	80	1.83	165	124	99	82
	90	1.94	175	131	105	87
	100	2.04	184	138	110	92
	120	2.24	202	151	121	101
4916-110	60	1.32	119	89	71	59
	80	1.52	137	103	82	68
	90	1.62	146	109	87	73
	100	1.70	153	115	92	77
	120	1.87	168	126	101	84
4916-115	60	1.85	166	125	100	83
	80	2.13	192	144	115	96
	90	2.26	203	153	122	102
	100	2.39	215	161	129	108
	120	2.61	235	176	141	117
4916-125	60	2.11	190	143	114	95
	80	2.44	220	165	132	110
	90	2.59	223	175	140	117
	100	2.73	246	184	147	123
	120	2.99	269	202	161	135
4916-132	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
	120	3.34	301	225	180	150
4916-140	60	2.73	246	184	147	123
	80	3.15	284	213	170	142
	90	3.34	301	225	180	150
	100	3.52	317	238	190	158
	120	3.86	347	261	208	174
4916-147	60	2.97	268	201	161	134
	80	3.43	309	232	185	154
	90	3.64	328	246	197	164
	100	3.84	346	259	207	173
	120	4.21	379	284	227	189
4916-156	60	3.34	301	226	181	150
	80	3.86	347	261	208	174
	90	4.10	369	277	221	185
	100	4.32	389	292	233	194
	120	4.73	426	319	255	213
4916-166	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
	120	5.23	471	353	282	235

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

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

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

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

Orifice Plate No.	Pressure (psi)	Capacity Spraying 28% Nitrogen (GPM)	GPA Spraying 28% Nitrogen on 30 inch spacing			
			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
	120	0.26	17.2	12.9	10.3	8.6
4916-40	60	0.22	14.5	10.9	8.7	7.3
	80	0.25	16.5	12.4	8.9	8.3
	90	0.27	17.8	13.4	10.7	8.9
	100	0.28	18.5	13.9	11.1	9.2
	120	0.31	20	15.3	12.3	10.2
4916-43	60	0.25	16.4	12.3	9.8	8.2
	80	0.29	19.1	14.4	11.5	9.6
	90	0.30	20	14.9	11.9	9.9
	100	0.32	21	15.8	12.7	10.6
	120	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
	120	0.42	28	21	16.6	13.9
4916-49	60	0.32	21	15.7	12.6	10.5
	80	0.37	24	18.3	14.7	12.2
	90	0.39	26	19.3	15.4	12.9
	100	0.41	27	20	16.2	13.5
	120	0.45	30	22	17.8	14.9
4916-52	60	0.36	24	17.9	14.3	11.9
	80	0.42	28	21	16.6	13.9
	90	0.44	29	22	17.4	14.5
	100	0.47	31	23	18.6	15.5
	120	0.51	34	25	20	16.8
4916-55	60	0.41	27	20	16.1	13.4
	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
	120	0.57	38	28	23	18.8
4916-56	60	0.43	28	21	17.1	14.2
	80	0.50	33	25	20	16.5
	90	0.53	35	26	21	17.5
	100	0.56	37	28	22	18.5
	120	0.61	40	30	24	20
4916-59	60	0.47	31	23	18.5	15.4
	80	0.54	36	27	21	17.8
	90	0.57	38	28	23	18.8
	100	0.60	40	30	24	20
	120	0.66	44	33	26	22
4916-61	60	0.502	33	25	20	16.6
	80	0.58	38	29	23	19.1
	90	0.61	40	30	24	20
	100	0.65	43	32	26	21
	120	0.71	47	35	28	23
4916-65	60	0.56	37	28	22	19
	80	0.65	43	32	26	21
	90	0.69	46	34	27	23
	100	0.73	48	36	29	24
	120	0.80	53	40	32	26
4916-68	60	0.62	41	30	24	20
	80	0.71	47	35	28	23
	90	0.75	50	37	30	25
	100	0.80	53	40	32	26
	120	0.87	57	43	34	29
4916-70	60	0.66	44	33	26	22
	80	0.76	50	38	30	25
	90	0.81	53	40	32	27
	100	0.85	56	42	34	28
	120	0.93	61	46	37	31
4916-75	60	0.75	49	37	30	25
	80	0.86	57	43	34	28
	90	0.92	61	46	36	30
	100	0.97	64	48	38	32
	120	1.06	70	52	42	35
4916-80	60	0.85	56	42	34	28
	80	0.99	65	49	39	33
	90	1.05	69	52	42	35
	100	1.10	73	54	44	36
	120	1.21	80	60	48	40
4916-83	60	0.97	64	48	38	32
	80	1.12	74	55	44	37
	90	1.19	79	59	47	39
	100	1.25	83	62	50	41
	120	1.37	90	68	54	45
4916-89	60	1.06	70	52	42	35
	80	1.22	81	60	48	40
	90	1.29	85	64	51	43
	100	1.36	90	67	54	45
	120	1.49	98	74	59	49
4916-93	60	1.18	78	58	47	39
	80	1.36	90	67	54	45
	90	1.44	95	71	57	48
	100	1.52	100	75	60	50
	120	1.67	110	83	66	55
4916-95	60	1.23	81	61	49	41
	80	1.42	94	70	56	47
	90	1.51	100	75	60	50
	100	1.59	105	79	63	52
	120	1.74	115	86	69	57
4916-98	60	1.35	89	67	53	44
	80	1.55	102	77	61	51
	90	1.65	109	82	65	54
	100	1.74	115	86	69	57
	120	1.90	125	94	75	63
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
	120	1.99	131	99	79	66
4916-107	60	1.58	105	78	63	52
	80	1.83	121	91	72	60
	90	1.94	128	96	77	64
	100	2.04	135	101	81	67
	120	2.24	148	111	89	74
4916-110	60	1.32	87	65	52	44
	80	1.52	100	75	60	50
	90	1.62	107	80	64	53
	100	1.70	112	84	67	56
	120	1.87	123	93	74	62
4916-115	60	1.85	122	91	73	61
	80	2.13	141	105	84	70
	90	2.26	149	112	89	75
	100	2.36	158	118	95	79
	120	2.61	172	129	103	86
4916-125	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
	120	2.99	197	148	118	99
4916-132	60	2.36	156	117	93	78
	80	2.72	180	135	108	90
	90	2.89	191	143	114	95
	100	3.04	201	150	120	100
	120	3.34	220	165	132	110
4916-140	60	2.73	180	135	106	90
	80	3.15	208	156	125	104
	90	3.34	220	165	132	110
	100	3.52	232	174	139	116
	120	3.86	255	191	153	127
4916-147	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
	120	4.21	278	208	167	139
4916-156	60	3.34	221	166	132	110
	80	3.86	255	191	153	127
	90	4.10	271	203	162	135
	100	4.32	285	214	171	143
	120	4.73	312	234	187	156
4916-166	60	3.70	244	183	146	122
	80	4.27	282	211	169	141
	90	4.53	299	224	179	149
	100	4.77	315	236	189	157
	120	5.23	345	259	207	173

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

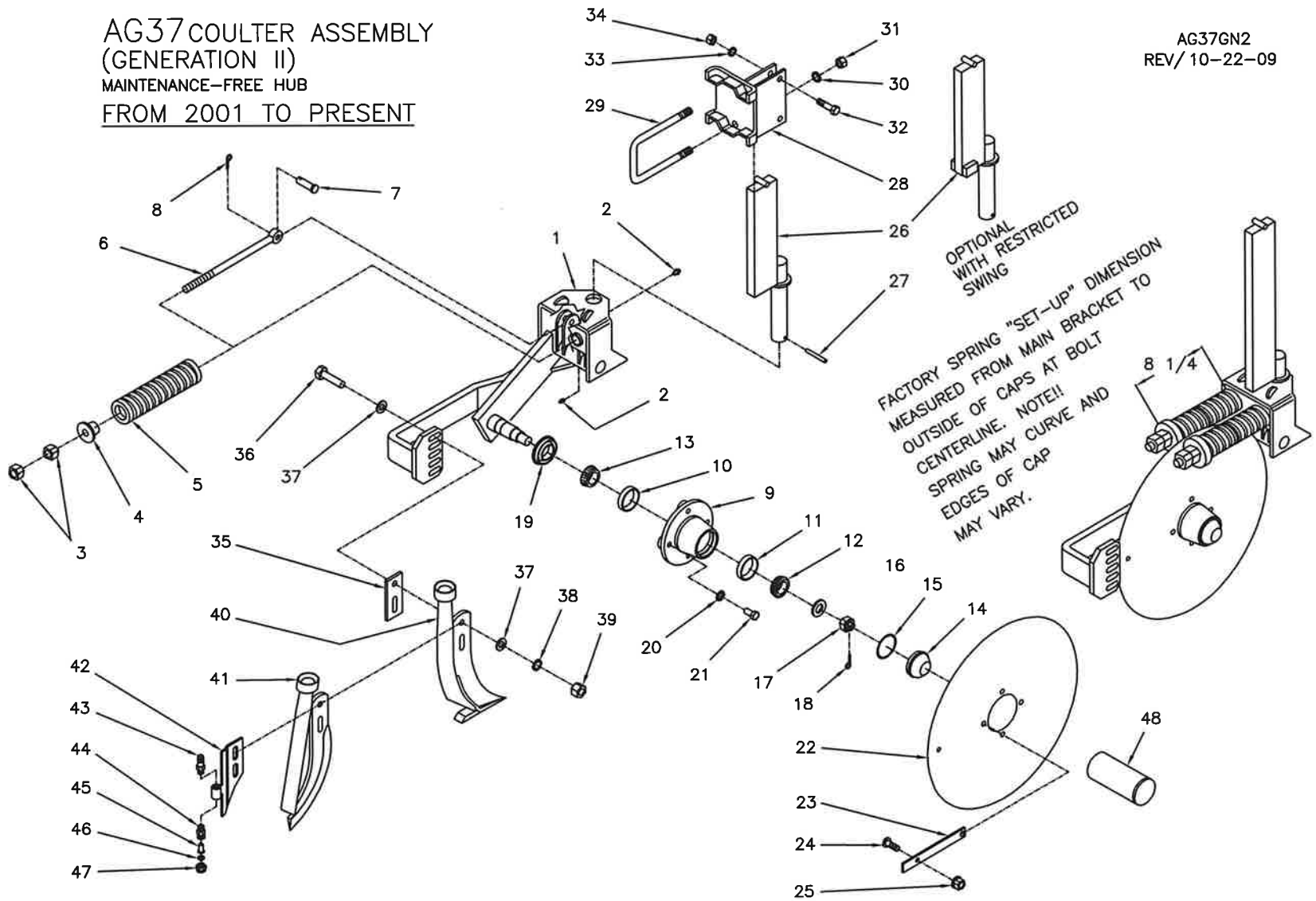
Weight of Solution	Conversion Factor
7.0 lbs./gal.	0.81
8.0 lbs./gal.	0.87
8.34 lbs./gal. – Water	0.88
9.0 lbs./gal.	0.92
10.0 lbs./gal.	0.97

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

AG37 COULTER ASSEMBLY
(GENERATION II)
MAINTENANCE–FREE HUB

FROM 2001 TO PRESENT

AG37GN2
REV/ 10–22–09



AG37 COULTER ASSEMBLY (GENERATION II)

with MAINTENANCE–FREE HUB

MOUNTING INSTRUCTIONS AND PARTS LIST

AG37GN2LS
REV. 01/28/22

1. Your AG37 main bracket and hub are pre–assemble 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 coulter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is ocurring, 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 coulter assemblies to the mounting brackets (item 28) and fasten with the bolts (item 32) and hardware (items 33 and 34). Assemble the hardware snug only.

6. Adjust the coulter blade to the desired depth and tighten the hardware securely.

7. Assemble the knife (item 40 or 41) to the coulter 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 coulter 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 coulter blade and knife clearance daily. Adjust per step 8 if required. The coulter 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
	47309905	MAIN BRKT. & BLADE ASSEMBLY, L.H.	1
	47307705	MAIN BRKT. & BLADE ASSEMBLY, R.H.	OPT.
		INCLUDES ITEMS 1 TO 22	
	47109570	MAIN BRKT W/HUB ASSEMBLY, L.H.	
	47109568	MAIN BRKT W/HUB ASSEMBLY, R.H.	OPT.
		INCLUDES ITEMS 1 TO 21 (W/O BLADE)	
1	47309570	MAIN BRACKET, L.H. (W/O HUB OR BLADE)	1
	47309568	MAIN BRACKET, R.H. (W/O HUB OR BLADE)	OPT.
2	18901805	GREASE ZERK, STRAIGHT	2
3	18407900	HEX. NUT, 5/8–11NC.	4
4	47301530	SPRING CAP	2
5	47301524	COMPRESSION SPRING	2
6	47301547	EYE BOLT, SPRING RETAINER	2
7	18541428	CLEVIS PIN, 1/2 X 1 3/4	2
8	18560722	COTTER PIN, 5/32 X 1	2
	47300350	HUB COMPLETE (W/O SEAL & BOLTS)	
		INCLUDES ITEMS 9 TO 15	
9	47300351	HUB WITH CUPS ITEMS 10 & 11	1
10	47005510	BEARING CUP, INNER	1
11	47005010	BEARING CUP, OUTER	1
12	47005048	BEARING CONE, OUTER	1
13	47005548	BEARING CONE, INNER	1
14	47005513	DUST CAP	1
15	47990351	O–RING DUST SEAL	1
16	47300352	SPINDLE WASHER	1
17	47300353	SLOTTED NUT, 7/8–14UNF	1
18	18560726	COTTER PIN, 5/32 X 1 1/2	1
19	40030326	GREASE SEAL	1
20	18891400	LOCK WASHER, 1/2 I.D.	4
21	18057522	WHEEL BOLT, 1/2–20NF X 1	4
22	47305027	COULTER BLADE, 20" RIPPLED	1

ITEM	PART NO.	DESCRIPTION	QTY
23	47306921	SCRAPER	1
24	18033810	BOLT, 3/8–16NC. X 1, TRUSS HEAD	1
25	18496800	HEX. NUT, 3/8–16NC. FLANGED	1
26	47303811	COULTER SWIVEL BAR, 18" (INCL. ITEM 27)	1
	47309811	COULTER SWIVEL BAR, 12" (INCL. ITEM 27)	OPT.
	OPTIONAL	COULTER BAR W/RESTRICTED SWING	
		10 DEG. AND 15 DEG. AVAILABLE	
	47005147	18" BAR 10° RESTR. SWING (BOTH WAYS)	
	47005147L	18" BAR 10° RESTR. SWING (LH ONLY)	
	47005147R	18" BAR 10° RESTR. SWING (RH ONLY)	
	47005149	18" BAR 15° RESTR. SWING (BOTH WAYS)	
	47005149L	18" BAR 15° RESTR. SWING (LH ONLY)	
	47005149R	18" BAR 15° RESTR. SWING (RH ONLY)	
		CALL AG SYSTEMS FOR INFO.	
27	18511032	ROLL PIN, 1/4 X 2 1/4	1
28	47309893	MOUNTING BRACKET, (4" VERTICAL) STD.	1
29	47006951	U–BOLT, 5/8–11NC. (4"V X 6"H BAR)	1
	44001616	U–BOLT, 5/8–11NC. (4"V X 4"H BAR)	
		OTHER MOUNTING BRACKET OPTIONS	
28	47309887	MOUNTING BRKT., (2 1/2" VERTICAL)	
29	47006659	U–BOLT, 5/8–11NC. (2 1/2"V x 2 1/2"H BAR)	
28	47309732	MOUNTING BRACKET, (3" VERTICAL)	
	47309907	MOUNTING BRKT., (3" VERT., EXT.)	
29	47306677	U–BOLT, 5/8–11NC. (3"V X 3"H BAR)	
28	47309888	MOUNTING BRKT., (6" VERTICAL)	
29	47010154	U–BOLT, 5/8–11NC. (6"V X 4"H BAR)	
	47009847	U–BOLT, 5/8–11NC. (6"V X 6"H BAR)	
28	47309736	MOUNTING BRKT., (7" VERTICAL)	
29	47302730	U–BOLT, 1/2–13NC. (7"V X 7"H BAR)	
		NOTE for 7" U–BOLT USE 1/2–13NC. HEX. NUTS	

ITEM	PART NO.	DESCRIPTION	QTY
30	18891600	LOCKWASHER, 5/8	2
31	18417900	HEX. NUT, 5/8–11NC.	2
32	18057434	BOLT, 1/2–13NC. X 2 1/2	2
33	18891400	LOCKWASHER, 1/2	2
34	18417400	HEX. NUT, 1/2–13NC.	2
35	47306661	SHIM, 1/4	1
	47306662	SHIM, 1/8	1
	47306663	SHIM, 1/16	1
36	18057432	BOLT, 1/2–13NC. X 2 1/4	2
37	18811400	FLATWASHER, 1/2	2
38	18891400	LOCKWASHER, 1/2	2
39	18417400	HEX. NUT, 1/2–13NC	2
40	47309735	DRY KNIFE. W/BUSHING, (FORWARD)	1
	47309734	DRY KNIFE, W/O BUSHING, (FORWARD)	OPT.
	47309742	LIQUID KNIFE, (FORWARD)	OPT.
	47007468	LIQUID KNIFE, (FORWARD) S.S. TUBE	OPT.
41	47309748	DRY KNIFE, W/BUSHING, (BACKSWEPT)	OPT.
	47309759	DRY KNIFE, W/O BUSHING, (BACKSWEPT)	OPT.
	47309750	LIQUID KNIFE, (BACKSWEPT)	OPT.
42	47309038	NOZZLE BRACKET	1
43	100859	HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE	1
44	500192	ADAPTER	1
45	504015	STREAM STABALIZER	1
46	ORIFICE	SELECT FROM ORIFICE CHART	1
47	503127	CAP	1
48	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1

REF 47300300 SPINDLE ONLY

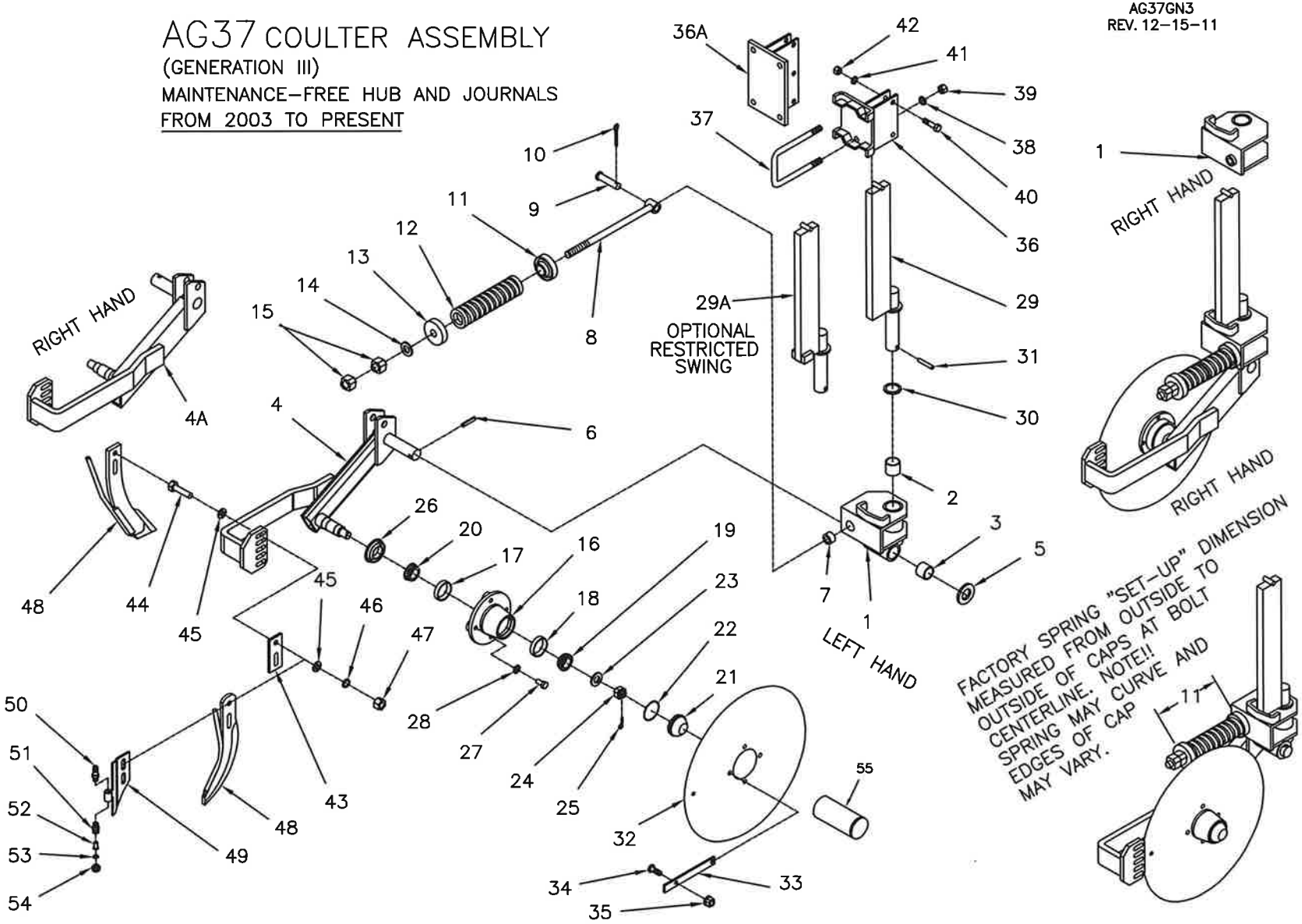
AG37 COULTER ASSEMBLY

(GENERATION III)

MAINTENANCE–FREE HUB AND JOURNALS

FROM 2003 TO PRESENT

AG37GN3
REV. 12–15–11



AG37 COULTER ASSEMBLY (GENERATION III)

AG37GN3LS
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 coulter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is ocurring, 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 coulter 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 coulter blade to the desired depth and tighten the hardware securely.
7. Assemble the knife (item 48) to the coulter 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 backsweep. 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 coulter 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.

REF 47300300 SPINDLE ONLY

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.

ITEM	PART NO.	DESCRIPTION	QTY
	40350000	MAIN BRKT. & BLADE, L.H. (STANDARD)	1
	40351000	MAIN BRKT. & BLADE, RIGHT HAND	OPT.
		INCLUDES ITEMS 1 TO 32	
	47304500	MAIN BRKT. W/HUB, L.H. (STANDARD)	1
	47314500	MAIN BRKT. W/HUB, RIGHT HAND	OPT.
		INCLUDES ITEMS 1 TO 31 (W/O BLADE)	
1	47004500	HOUSING W/BUSHINGS, L.H. (STD)	1
	47014500	HOUSING W/BUSHINGS, RIGHT HAND	OPT.
2	47009954	SWIVEL BUSHING, 1 1/2 I.D.	2
3	47009953	PIVOT BUSHING, 1 3/8 I.D.	2
4	47004507	PIVOT ARM, L.H. FRONT SWEPT KNIFE	1
4A	47014507	PIVOT ARM, R.H. FRONT SWEPT KNIFE	OPT.
5	18300326	RETAINING WASHER, 1 3/8 I.D.	1
6	18511035	EXPANSION PIN, 3/8 X 2	1
7	2–6668	EYE BOLT GUIDE	1
8	47004518	EYE BOLT, SPRING RETAINER	1
9	18541835	CLEVIS PIN, 3/4 X 2 1/2	1
10	18560726	COTTER PIN, 5/32 X 1 1/2	1
11	47004521	SPRING CAP, WITH COUNTER–BORE	1
12	47007565	COMPRESSION SPRING	1
13	47007085	SPRING CAP, STANDARD CASTING	1
14	18851800	FLAT WASHER, 3/4	1
15	18446890	HEX. NUT, 3/4–10NC	2
	47300350	HUB COMPLETE (W/O SEAL & BOLTS)	
		INCLUDES ITEMS 16 TO 22	
16	47300351	HUB WITH CUPS ITEMS 17 & 18	1
17	47005510	BEARING CUP, INNER	1
18	47005010	BEARING CUP, OUTER	1
19	47005048	BEARING CONE, OUTER	1

ITEM	PART NO.	DESCRIPTION	QTY
20	47005548	BEARING CONE, INNER	1
21	47005513	DUST CAP	1
22	47990351	O–RING DUST SEAL	1
23	47300352	SPINDLE WASHER	1
24	47300353	SLOTTED NUT, 7/8–14UNF	1
25	18560726	COTTER PIN, 5/32 X 1 1/2	1
26	40030326	GREASE SEAL	1
27	18057522	WHEEL BOLT, 1/2–20NF X 1	4
28	18891400	LOCK WASHER, 1/2 I.D.	4
29	47304522	COULTER SWIVEL BAR, 18" STANDARD	1
	OPTIONAL	COULTER BAR W/RESTRICTED SWING	
		10 DEG. AND 15 DEG. AVAILABLE	
29A	47005144	18" BAR 10° RESTR. SWING (BOTH WAYS)	
	47005144L	18" BAR 10° RESTR. SWING LH ONLY	
	47005144R	18" BAR 10° RESTR. SWING RH ONLY	
	47005145	18" BAR 15° RESTR. SWING (BOTH WAYS)	
	47005145L	18" BAR 15° RESTR. SWING LH ONLY	
	47005145R	18" BAR 15° RESTR. SWING RH ONLY	
		CALL AG SYSTEMS FOR INFO.	
30	18300323	RETAINING WASHER, 1 1/2 I.D.	1
31	18511036	EXPANSION PIN, 3/8 X 2 1/4	1
32	47305027	COULTER BLADE, 20" RIPPLED	1
ITEMS	33 TO 35	OPT. USE W/FRONT SWEPT KNIFE ONLY	
33	47306921	SCRAPER	1
34	18033810	BOLT, 3/8–16NC. X 1, TRUSS HEAD	1
35	18496800	HEX. NUT, 3/8–16NC. FLANGED	1
36	47309893	MOUNTING BRACKET, (4" VERTICAL) STD.	1
37	47006951	U–BOLT, 5/8–11NC. (4"V X 6"H BAR)	1
	44001616	U–BOLT, 5/8–11NC. (4"V X 4"H BAR)	
36	47309888	MOUNTING BRACKET, (6" VERTICAL)	OPT.

ITEM	PART NO.	DESCRIPTION	QTY
37	47010154	U–BOLT, 5/8–11NC. (6"V X 4"H BAR)	
	47009847	U–BOLT, 5/8–11NC. (6"V X 6"H BAR)	
36A	47309736	MOUNTING BRACKET, (7" VERTICAL)	1
37	47302730	U–BOLT, 1/2–13NC. (7"V X 7"H BAR)	2
38	18891400	LOCKWASHER, 1/2	4
39	18417400	HEX. NUT, 1/2–13NC	4
38	18891600	LOCKWASHER, 5/8	2
39	18417900	HEX. NUT, 5/8–11NC.	2
40	18057434	BOLT, 1/2–13NC. X 2 1/2	2
41	18891400	LOCKWASHER, 1/2	2
42	18417400	HEX. NUT, 1/2–13NC.	2
ITEMS	40, 41 &	42 (3) REQ'D. W 6 X 6 OR 7 X 7 TUBE	
43	47306661	SHIM, 1/4	1
	47306662	SHIM, 1/8	1
	47306663	SHIM, 1/16	1
44	18057432	BOLT, 1/2–13NC. X 2 1/4	2
45	18811400	FLATWASHER, 1/2	2
46	18891400	LOCKWASHER, 1/2	2
47	18417400	HEX. NUT, 1/2–13NC	2
48	47309756	LIQUID KNIFE, (BACKSWEPT)	OPT.
	47309742	LIQUID KNIFE, (FRONTSWEPT)	OPT.
	47307468	LIQUID KNIFE, (FRONTSWEPT) S.S. TUBE	OPT.
49	47309038	NOZZLE BRACKET (L.H) (STANDARD)	OPT.
49A	47997038	NOZZLE BRACKET (R.H.)	OPT.
50	100859	HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE	1
51	500192	ADAPTER	1
52	504015	STREAM STABALIZER	1
53	ORIFICE	SELECT FROM ORIFICE CHART	1
54	503127	CAP	1
55	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1

SRVCLTHBMF

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

The factory procedure to assemble the coulter 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 coulter hub. If possible, obtain an illustration of the coulter 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 coulter blade. During field operation check the coulter 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.

BOLT TORQUE
TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Torque Specifications

Bolt Torque for Standard bolts *

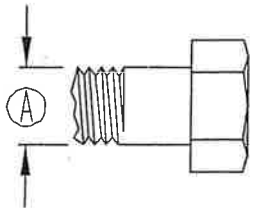
"A"	GRADE 2 lb-ft	GRADE 2 (N.m)	GRADE 5 lb-ft	GRADE 5 (N.m)	GRADE 8 lb-ft	GRADE 8 (N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

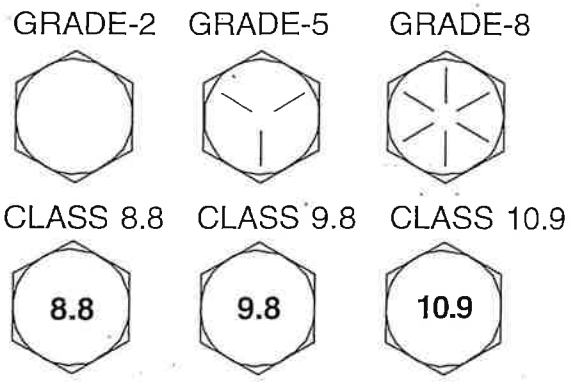
Bolt Torque for Metric bolts *

"A"	CLASS 8.8 lb-ft	CLASS 8.8 (N.m)	CLASS 9.8 lb-ft	CLASS 9.8 (N.m)	CLASS 10.9 lb-ft	CLASS 10.9 (N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and capscrews are identified by their head markings.





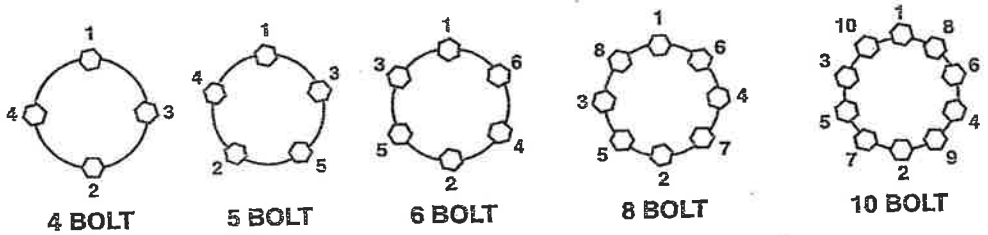
Torque Requirements

It is extremely important to apply and maintain proper wheel mounting torque on your trailer axle. Torque is a measure of the amount of tightening applied to a fastener (nut or bolt) and is expressed as length times force. For example, a force of 90 pounds applied at the end of a wrench one foot long will yield 90 lbs./ft of torque. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

> ***Note: Wheel nuts or bolts must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle.***

Be sure to use only the fasteners matched to the cone angle of your wheel (usually 60° or 90°.) The proper procedure for attaching your wheels is as follows:

1. Start all bolts or nuts by hand to prevent cross threading.
2. Tighten bolts or nuts in the following sequence.
3. The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements diagram:

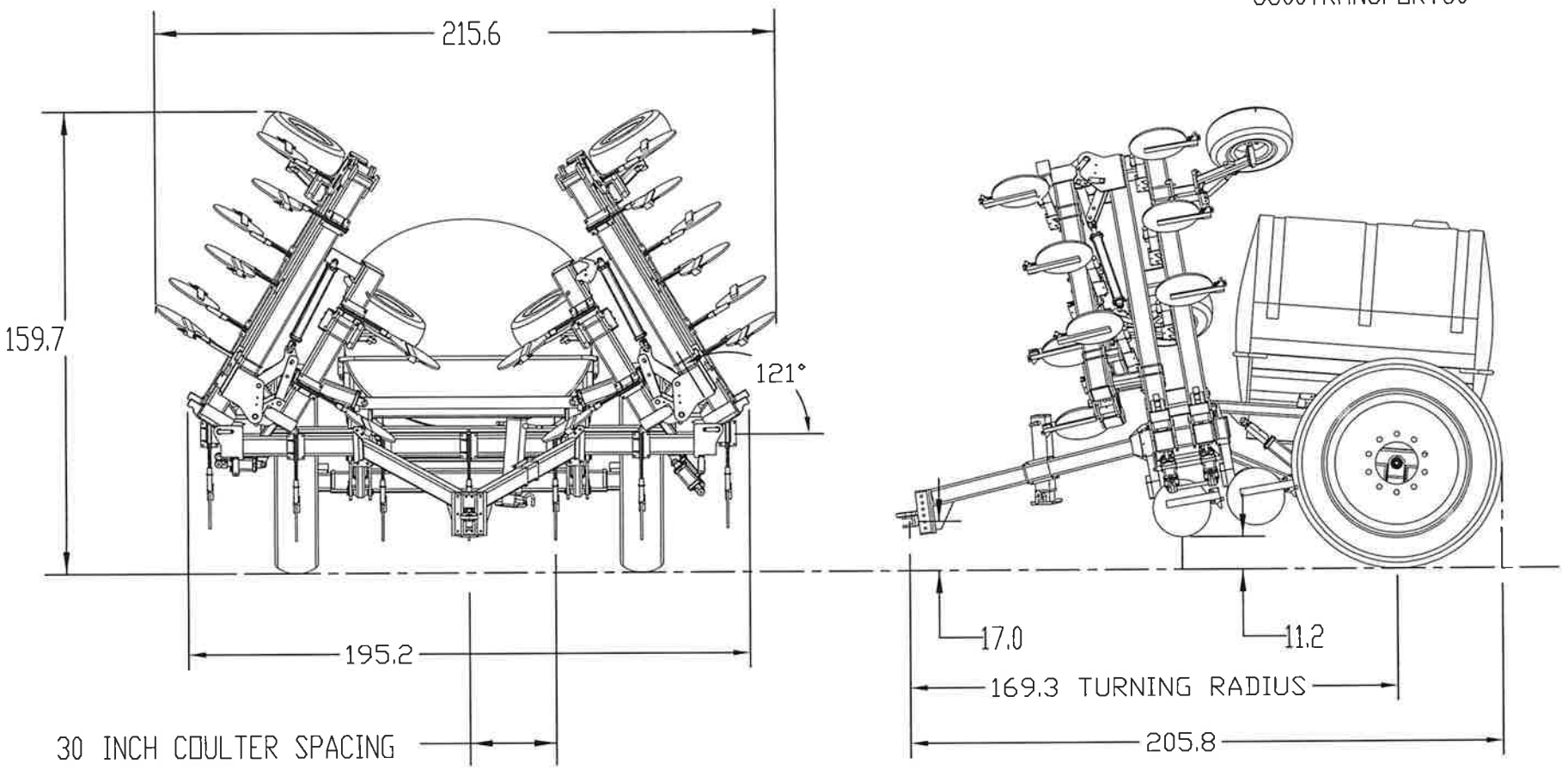


4. Wheel nuts/bolts should be torqued before first road use and after each wheel removal. Check and re-torque after the first 50 miles and again at 100 miles. Check periodically there after.

Wheel & Rim Torque Requirements

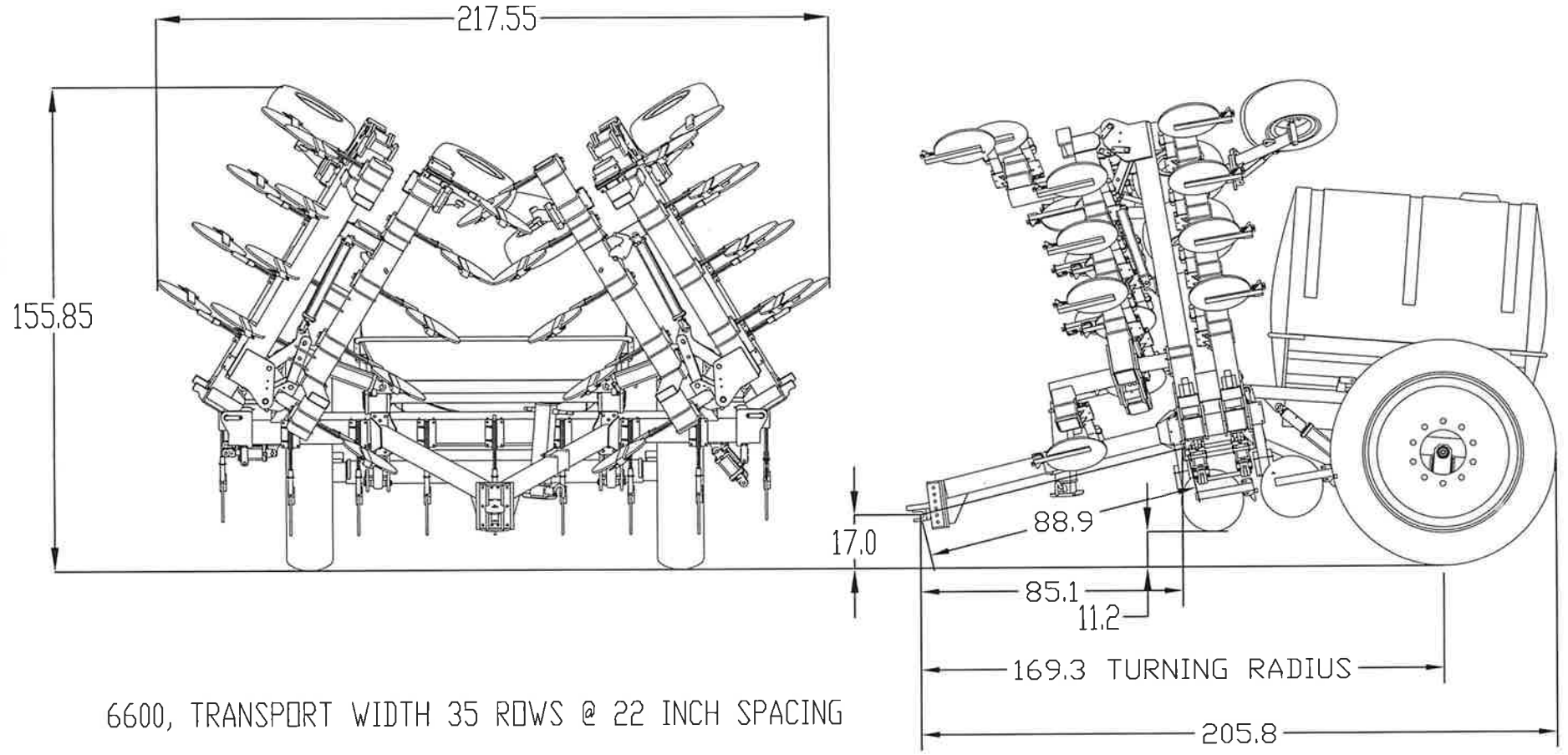
Description	Application	Minimum Torque (ft-lbs.)	Maximum Torque (ft-lbs.)
½ " Cone nut	12" - 13" Wheel	50	75
	14" - 16" Wheel	90	120
⅝" Cone nut	Flat disc wheel	175	225
⅝ " Cone nut	Clamp ring	190	210
¾ " Hex nut	Demountable Ring Clamp	210	260
¾ " Spherical nut	Sgl. wheel	450	500
	Inner dual	450	500
1-⅛ " Spherical nut	Outer dual	450	500
⅝ " Flange nut	Wheels	275	325

6600TRANSPORT30



6600, TRANSPORT WIDTH, 23 ROWS AT 30 INCH ROW SPACING

6600TRANSPORT22

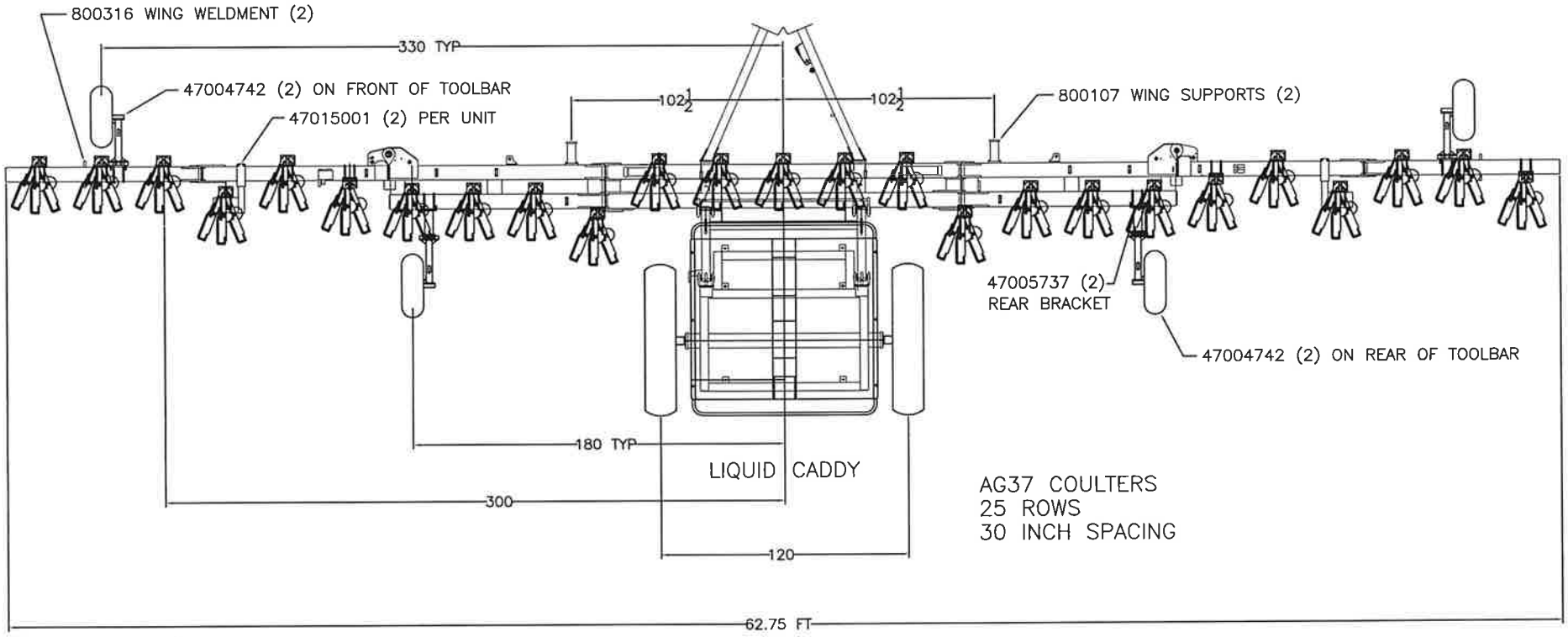


6600, TRANSPORT WIDTH 35 ROWS @ 22 INCH SPACING

6600 SERIES TOOLBAR

62.75 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
30 INCH SPACING (ODD NUMBER OF ROWS)
25 ROWS AT 30 INCH SPACING

66K30INSPLWLQ
as built
REV 06-05-12

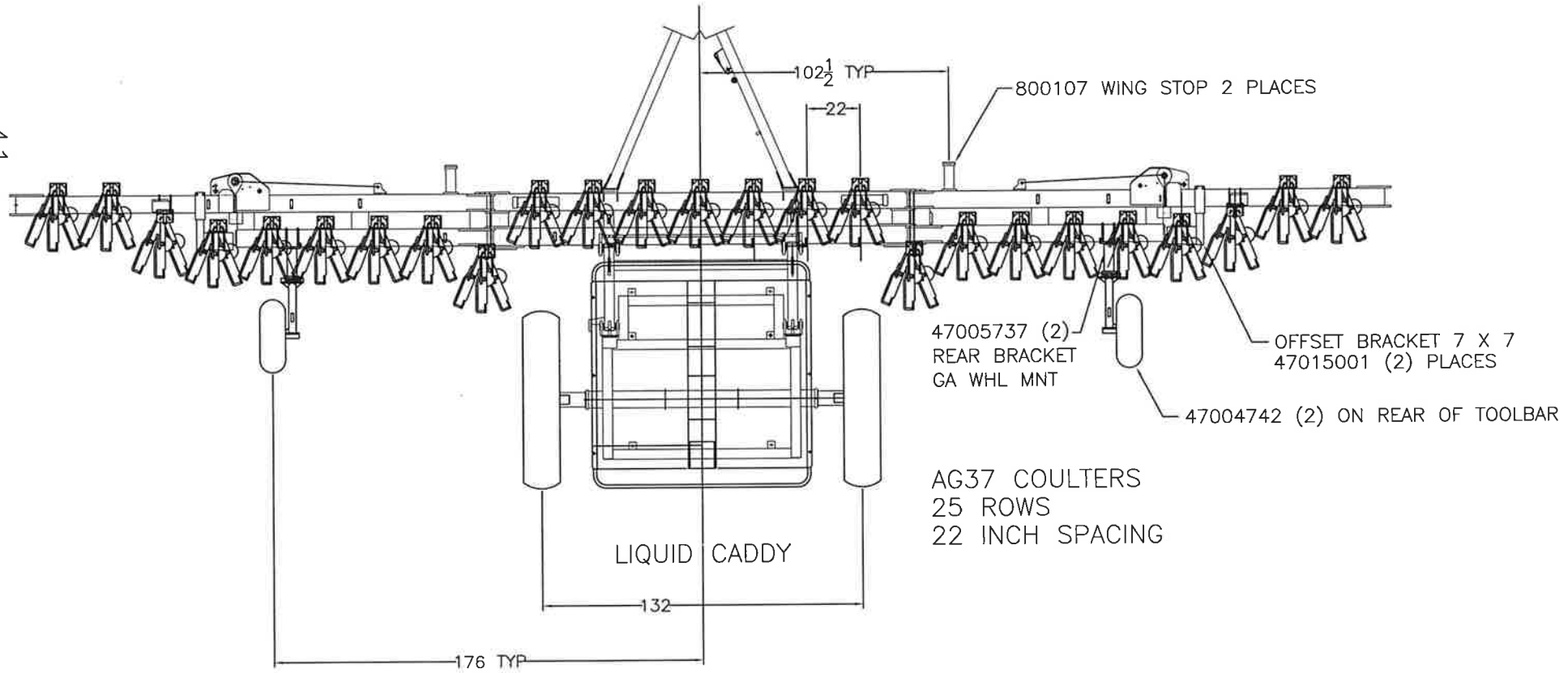


in manual

66K25X22INSPLQ
PROPOSED
01-17-13

6600 SERIES TOOLBAR

62.75 FT TOOLBAR WITH AG37 COULTERS FOR LIQUID APPLICATION ONLY
25 ROWS AT 22 INCH SPACING

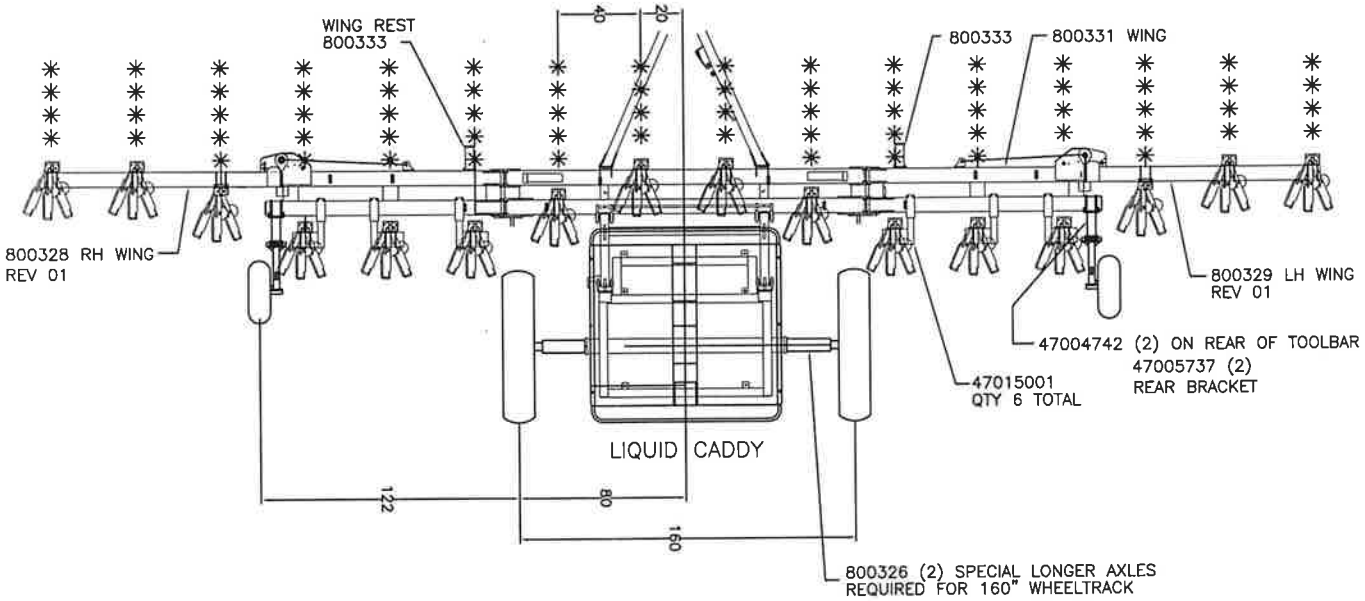


6600 SERIES TOOLBAR

66K40COORLQ
PRO 08-06-12

50.5 FT TOOLBAR WITH AG37 COULTERS FOR
ON ROW LIQUID APPLICATION ONLY
40 INCH SPACING (EVEN NUMBER OF ROWS)

IN MANUAL

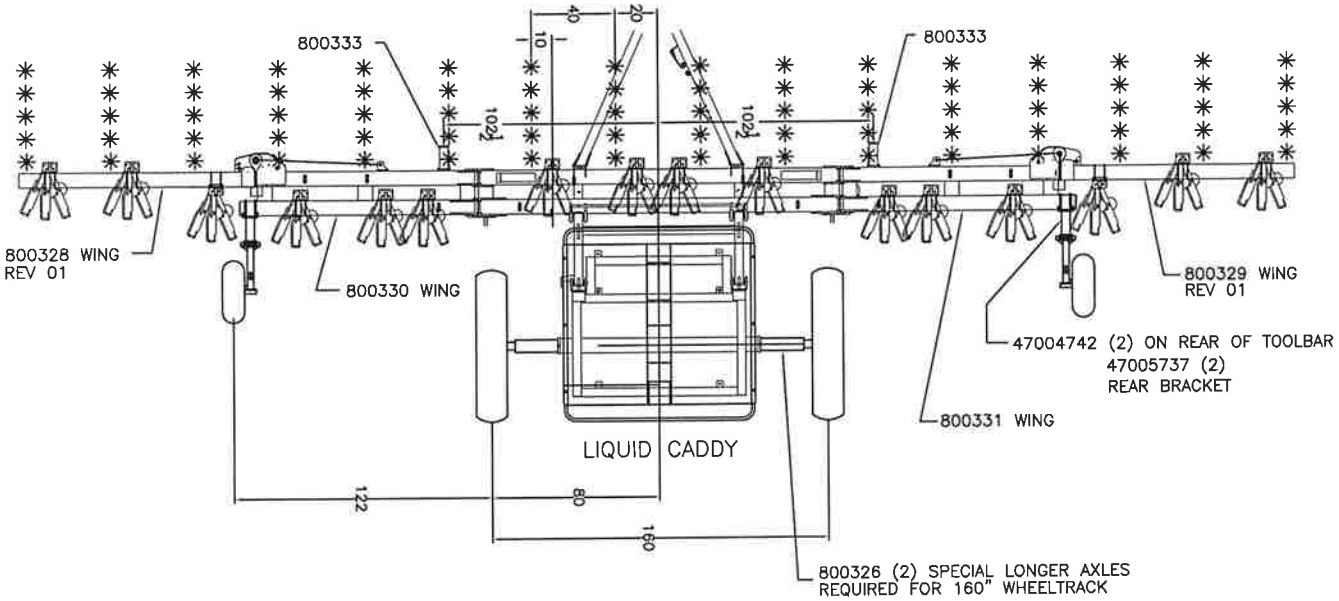


AG37 COULTERS
16 ROWS AT
40 INCH SPACING

6600 SERIES TOOLBAR

66K40COTNLQ
PRO 06-08-12
REV 08-06-12

50.5 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
40 INCH SPACING (EVEN NUMBER OF ROWS)
16 ROWS AT 40 INCH SPACING FEEDING 10" OFF EACH ROW



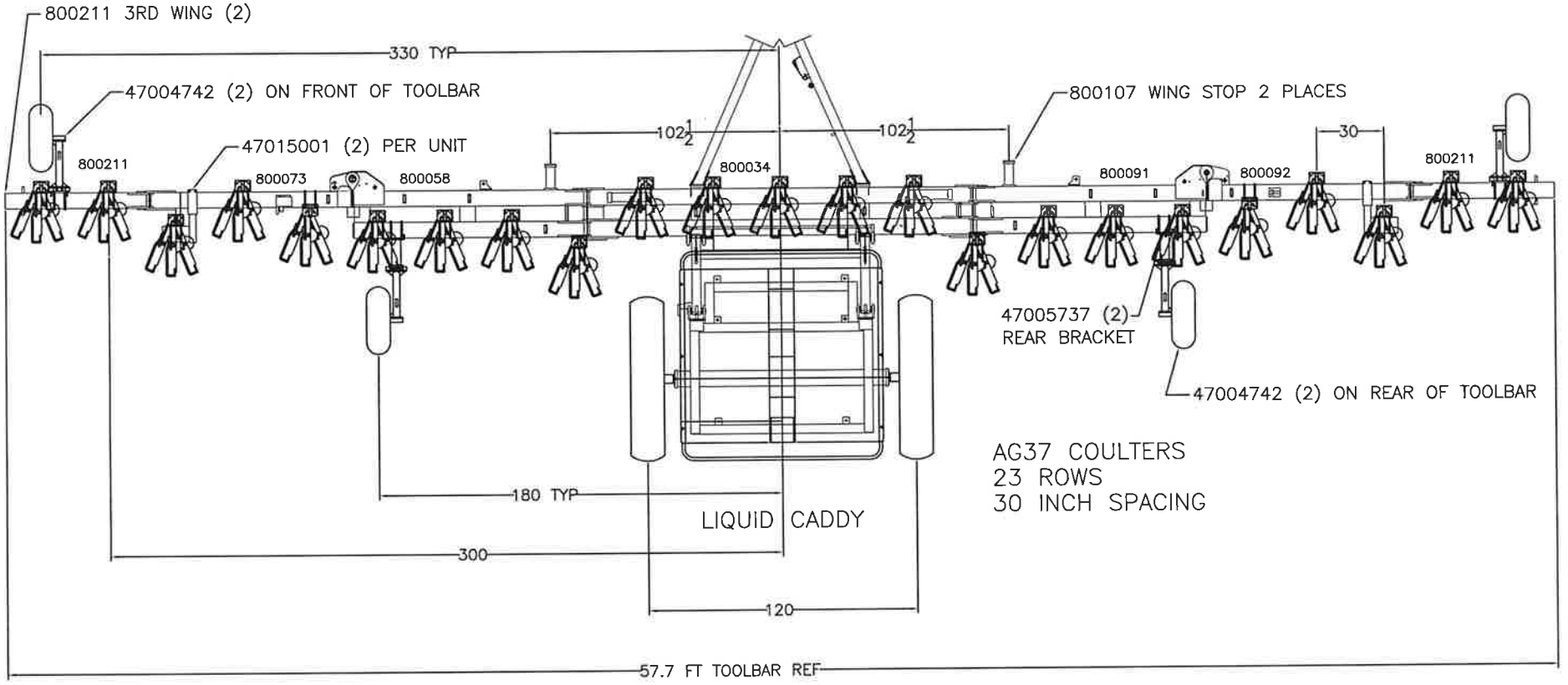
AG37 COULTERS
16 ROWS AT
40 INCH SPACING

6600 SERIES TOOLBAR

IN MANUAL

66K30INSPLQ
PROPOSED
03-26-12
REV 06-08-12

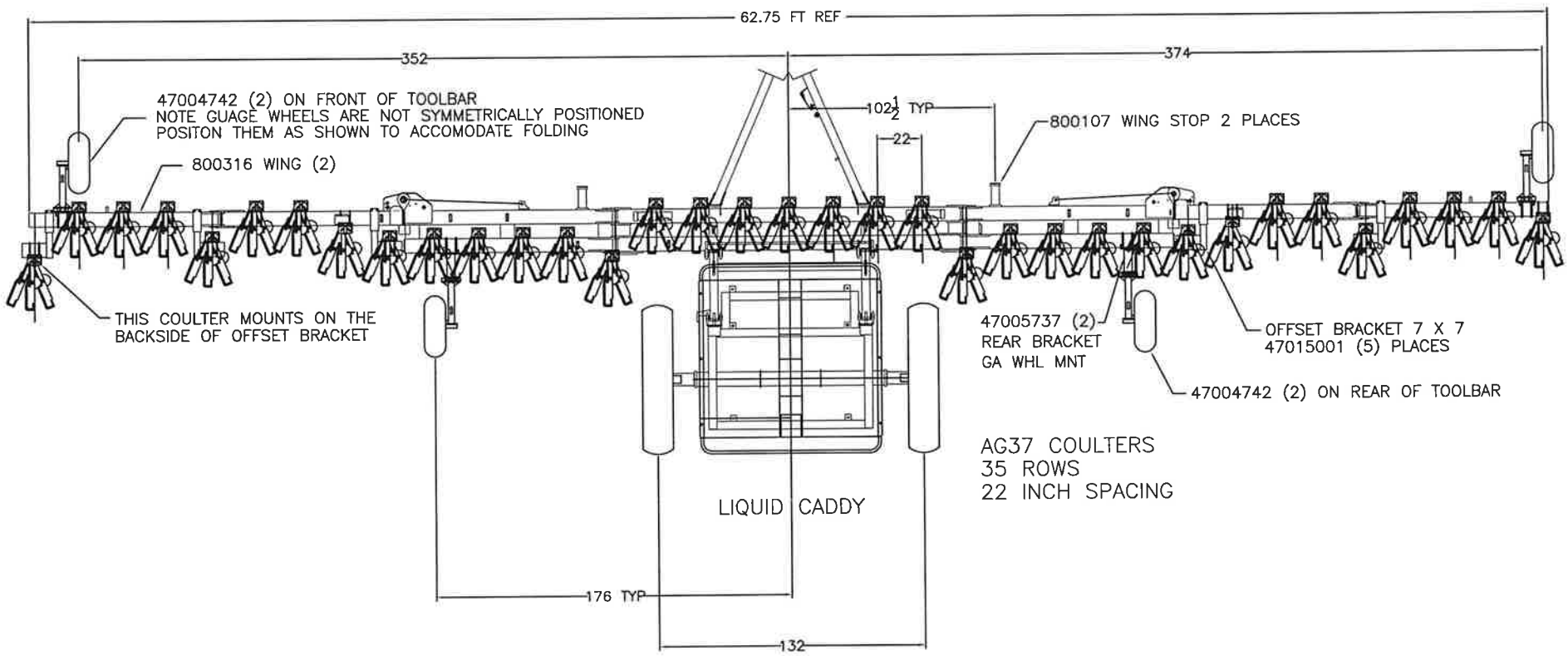
57.75 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
30 INCH SPACING (ODD NUMBER OF ROWS)
23 ROWS AT 30 INCH SPACING



6600 SERIES TOOLBAR

62.75 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
22 INCH SPACING (ODD NUMBER OF ROWS)
35 ROWS AT 22 INCH SPACING

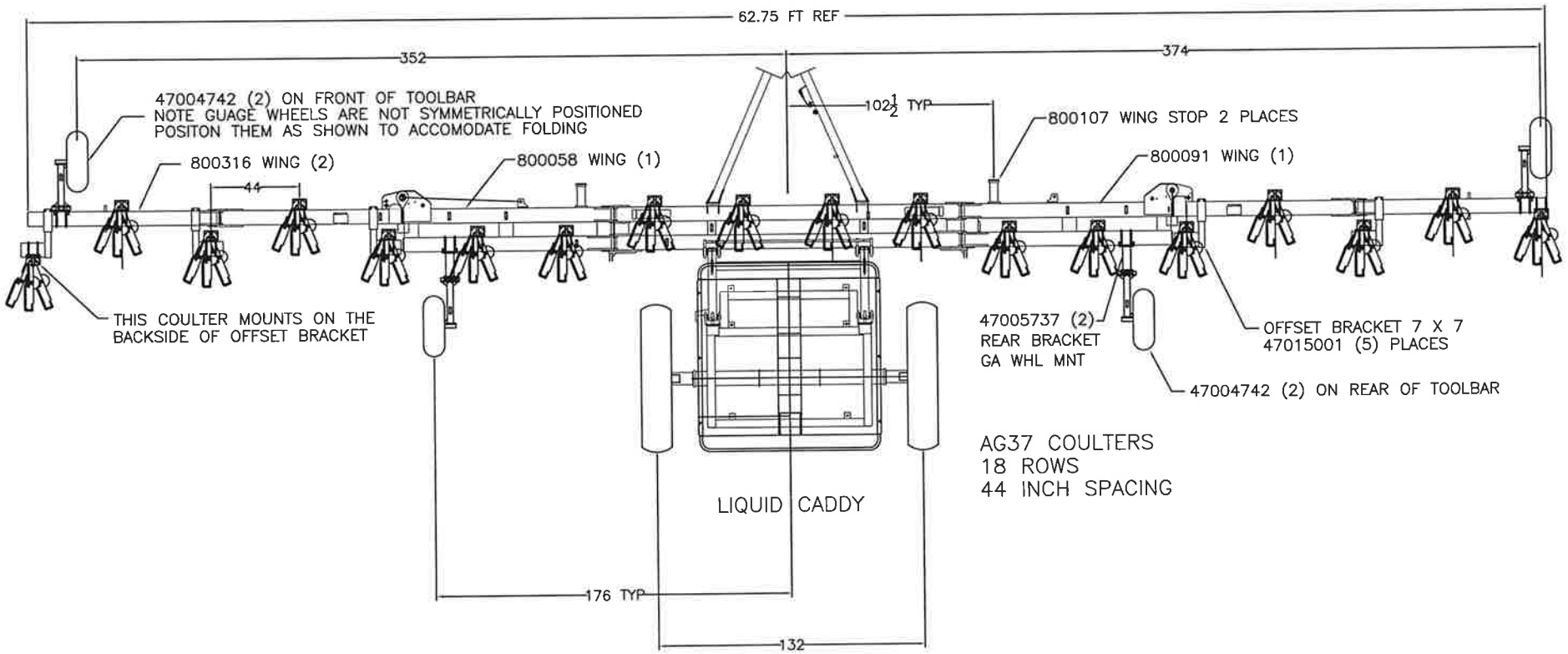
66K22INSPLQ
PROPOSED
03-28-12
REV 06-14-13



6600 SERIES TOOLBAR

62.75 FT TOOLBAR WITH AG37 COULTERS FOR
LIQUID APPLICATION ONLY
44 INCH SPACING (ODD NUMBER OF ROWS)
18 ROWS AT 44 INCH SPACING

66K44INSPLQ
PROPOSED
09-21-12
REV 06-14-13

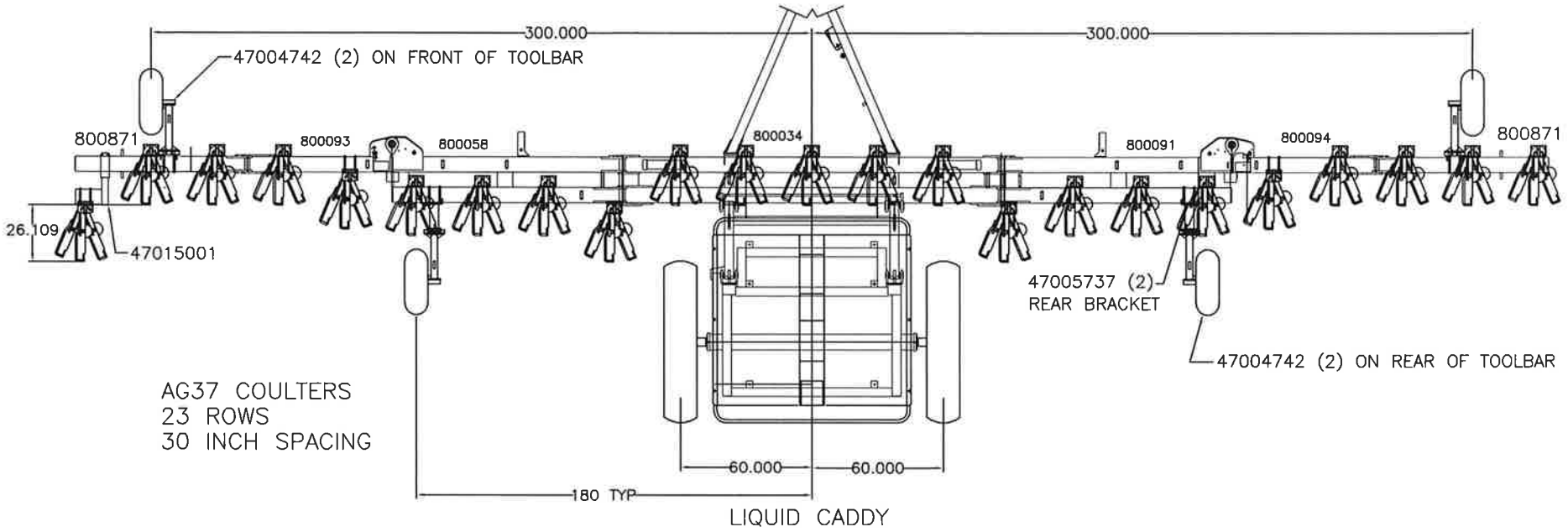


AG37 COULTERS
18 ROWS
44 INCH SPACING

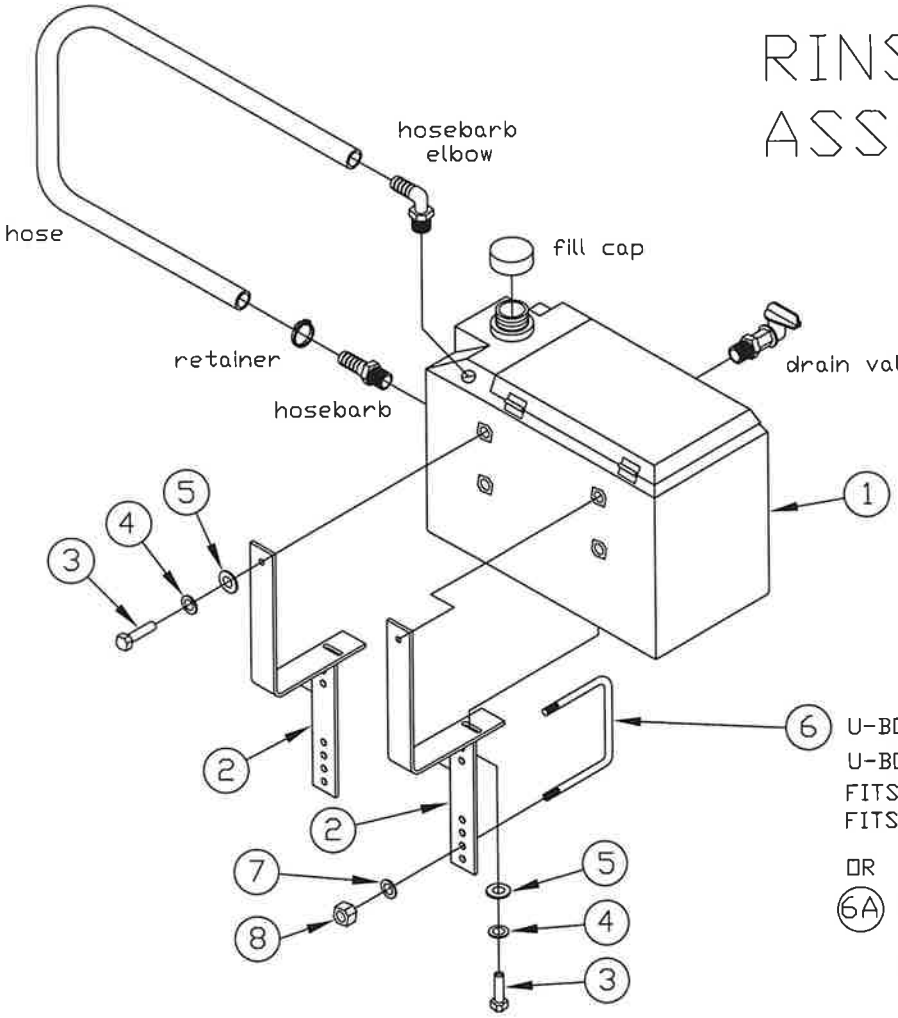
6600 SERIES TOOLBAR

17 X 23 COMBO
LIQUID APPLICATION ONLY
30 INCH SPACING (ODD NUMBER OF ROWS)
17 OR 23 ROWS AT 30 INCH SPACING

66K17X23COMBO
PROPOSED
03/15/16



RINSE TANK ASSEMBLY



6 U-BOLT, FITS 4 X 6 TUBE
U-BOLT (4 X 6 TUBE)
FITS 6000, 6300, 6400, 6500, 6600
FITS 7000, 7200, 7300, 8000, 8500

OR

6A U-BOLT, FITS 3 X 5 TUBE
U-BOLT (3 X 5 TUBE)
FITS 6200 ONLY

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

MOUNTING INSTRUCTIONS

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

5781-MANUAL
12-03-12

Heartland AG SYSTEMS
Heartland Agriculture, LLC

WARRANTY CLAIM FORM

Heartland AG SYSTEMS EQUIPMENT

Dist. Acct. No.	Shop Order No.		Part Number	Qty	Description	Distributor Total	Approved Total
Customer Name							
City	State						
Country	Postal Code						
Model No.	P.I.N.						
Warranty Start Date	Failure Date	Date of Repair					
Describe Problem(s)							
			Outside Expenses		Invoice No		
Describe Work Performed	Itemize Labor						
			Total Parts Cost Including Outside Expenses:				
			Labor	HRS	X Hourly Rate		
						Warranty Claim Total:	
			Distributer Signature				
			Authorized Signature		Status	Date	

November 4, 2020

Warranty claims must be submitted within 30 days of repair | Remit to address: 1180 Hwy 7 W Hutchinson MN 55350

Heartland Agriculture LLC, dba Heartland AG Systems