

Heartland
AG SYSTEMS
EQUIPMENT

6200

APPLICATOR

LIQUID FERTILIZER

OWNERS MANUAL
ASSEMBLY INSTRUCTIONS
AND PARTS LIST
OM-6200L

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

ISSUE
MARCH 2024

WARRANTY REGISTRATION

TO THE DEALER:

Inspect the implement thoroughly after assembly to be certain it is functioning properly before delivering it to the customer. Check off each item as it is found satisfactory or after proper adjust is made.

PRE-DELIVERY CHECKLIST

- _____ 1. All hardware properly tightened.
- _____ 2. Lubrication of grease fittings.
- _____ 3. All decals properly located and readable.
- _____ 4. Other adjustments, "level operation", "drawbar height", etc.
- _____ 5. Proper tongue weight after all options are mounted.
Adjustments made if required.
- _____ 6. Overall condition. Touch-up paint any scratches. Clean and polish
- _____ 7. Operator's manual.

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

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

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

| Customer Information | |
|----------------------|-------|
| Date delivered | _____ |
| Customer name | _____ |
| Customer address | _____ |
| Signature | _____ |
| Model number | _____ |
| Serial number | _____ |

PLEASE FILL OUT THIS SHEET AND RETURN TO HEARTLAND AG SYSTEMS

1180 State Highway 7 East Hutchinson, MN 55350

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

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TO THE OWNER

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

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

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

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

Heartland AG Systems reserves the right to make improvements and modifications on equipment without obligation to change previously built equipment. All prices are subject to change without notice.

Warranty Policies and Terms

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

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

Warranty Period

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

What's Covered

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

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

Exclusive Remedy

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

No Modification or Extension of Warranty

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

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

Limitations and Exclusions

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

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

Owner's Responsibility

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

What Is Not Covered

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

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

Base Warranty Coverage

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

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

Tires

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

Warranty Registration

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

Operator's Manual/Warranty Receipt Verification

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

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

Heartland AG Systems Responsibility

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

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

Dealer Responsibility

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

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

Owners Responsibility

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

These responsibilities include, but are not limited to:

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

Warranty Eligibility

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

Warranty Repairs Made by the Customer



Heartland Agriculture, LLC



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

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

Parts Shortages on Whole-Goods

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

Warranty Reimbursement Policies

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

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

Parts

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

Labor

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

Outside Charges

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

Freight

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

Travel

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

Repairing or Replacing Parts and Components

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

Filters and Lubricants

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

Claim Form Guidelines

Claims Must Have

1. Product identification number (PIN) or serial number. All characters of the PIN must be used on the warranty claim.
 - Claims for parts warranty must use the word "PARTS" for the PIN. An invoice that shows date of sale or date of installation must be supplied for all parts claims.
2. Model Number
3. Date of failure – Claims must be submitted within 30 days or repair.
4. Date of repair
5. Warranty start date. Date the unit warranty starts or date the parts were sold for parts warranty.
6. Description of the problem. Describe all problems pertinent to the claim.
Comments should be as precise as possible, attach a separate sheet if necessary, to describe the problem.
7. Description of the work performed. List each significant action of the repair.
8. Itemize labor. Provide a breakdown of labor for each significant repair action in the "Describe Work Performed" column.
9. Shop order numbers. The shop order number field is used for recording your shop work order number that is related to the claim. The shop order number field can also be used to record the parts invoice number when claiming a parts warranty.
10. Customer information. Customer information includes the customer name, city, state, county, and postal code. It must match the warranty registration.
11. Warranty claim total. The total of all reimbursement costs requested.
12. Dealer signature and date. All claims must be signed and dated by the distributor to be validated.

INTRODUCTION

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

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


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

WARRANTY does not cover the following.

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

WARNING: This message denotes a specific potential hazard.

CAUTION: This message denotes a reminder of safety practices.

 **NOTE:** Indicates a special point of information.

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

***** See complete WARRANTY for details

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

MODEL NUMBER _____

SERIAL NUMBER _____

DATE PURCHASED _____

SAFETY INFORMATION CONTINUED

FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs.

Learn how to operate the machine and how to use the controls properly. Do not let anyone operate without instructions.

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

PROTECT CHILDREN AND BYSTANDERS

Before you back, LOOK CAREFULLY behind for children

Clear area of children, pets, and bystanders

TRANSPORT SAFETY

-- Always use safety chains during road transportation.

-- Check wheel nuts daily

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

-- Maximum recommended road speed is 25 MPH

-- Clear machine of personnel and obstructions

PART NUMBER: 699102



PART NUMBER: 30481



PART NUMBER: 699104



PART NUMBER: USA



PART NUMBER: 699101



PART NUMBER: 699107



6200 TOOLBAR AND CADDY ASSEMBLY PROCEDURE with LIQUID TANK SKID

Your 6200 Toolbar and Caddy are shipped with the small parts and hardware packed in boxes marked for the different sections of the machine. If you find any items missing, contact Ag Systems, Inc. immediately.

- Step 1. Select a smooth level service for the assembly of your toolbar.
- Step 2. Refer to the illustration on Page 12. Place the caddy frame (Item 1) upon four steel saw horses, one at each corner of the frame.
- Step 3. Install the axle assembly (Item 4) left hand, and (Item 5) right hand, with the u-bolts (Item 6) and appropriate hardware, snug only. The hubs are pre-assembled to the axles.
- Step 4. Mount the wheels (Item 11) and tires (Item 13) on the hubs.
- Step 5. Position the wheels at the desired track width and securely tighten the hardware.
- Step 6. Place the toolbar center section (Item 26, Page 10) on two saw horses and attach it to the caddy frame with the pivot pins (Item 2, Page 12) and lynch pins (Item 3).
- Step 7. Assemble the poles (Item 1, Page 10) left hand, and (Item 2) right hand, with the hitch mount (Items 3) and assemble to the center section with the appropriate hardware.
- Step 8. Attach the "Perfect" hitch assembly (Items 7 to 11) and attach the jack (Item 14).
- Step 9. Position the hydraulic cylinder (Item 45) between the center section and the caddy frame with the body towards the center section and the shaft on the caddy. Use a standard cylinder pin at the body end.
- Step 10. Assemble the primary wings (Items 28 & 29 or 30 & 31) to the center section with the hinge pins (Item 32) and secure with the expansion pin (Item 33). Install the leveling screws (Item 37) with one nut (Item 38) on each side of the end plate on the center section.
- Step 11. If applicable to your machine, assemble the secondary wings (Item 58 & 59) to the primary wings with the large hinge pins (Item 60) and secure with the collar (Item 61) and appropriate hardware.
- Step 12. Position the main hydraulic cylinders (Item 39) to the center section and wings with the body on the center section and the shaft on the wings. Install the body end with the standard cylinder pin (Item 40). Install the shaft end with the clevis pin (Item 41), washers (Item 42), and cotter pin (Item 43).
- Step 13. When secondary wings (Item 58 & 59) are used, install the hydraulic cylinder (Item 65) with the standard cylinder pins (Item 66) with the shaft on the secondary wing and the body on the primary wing.

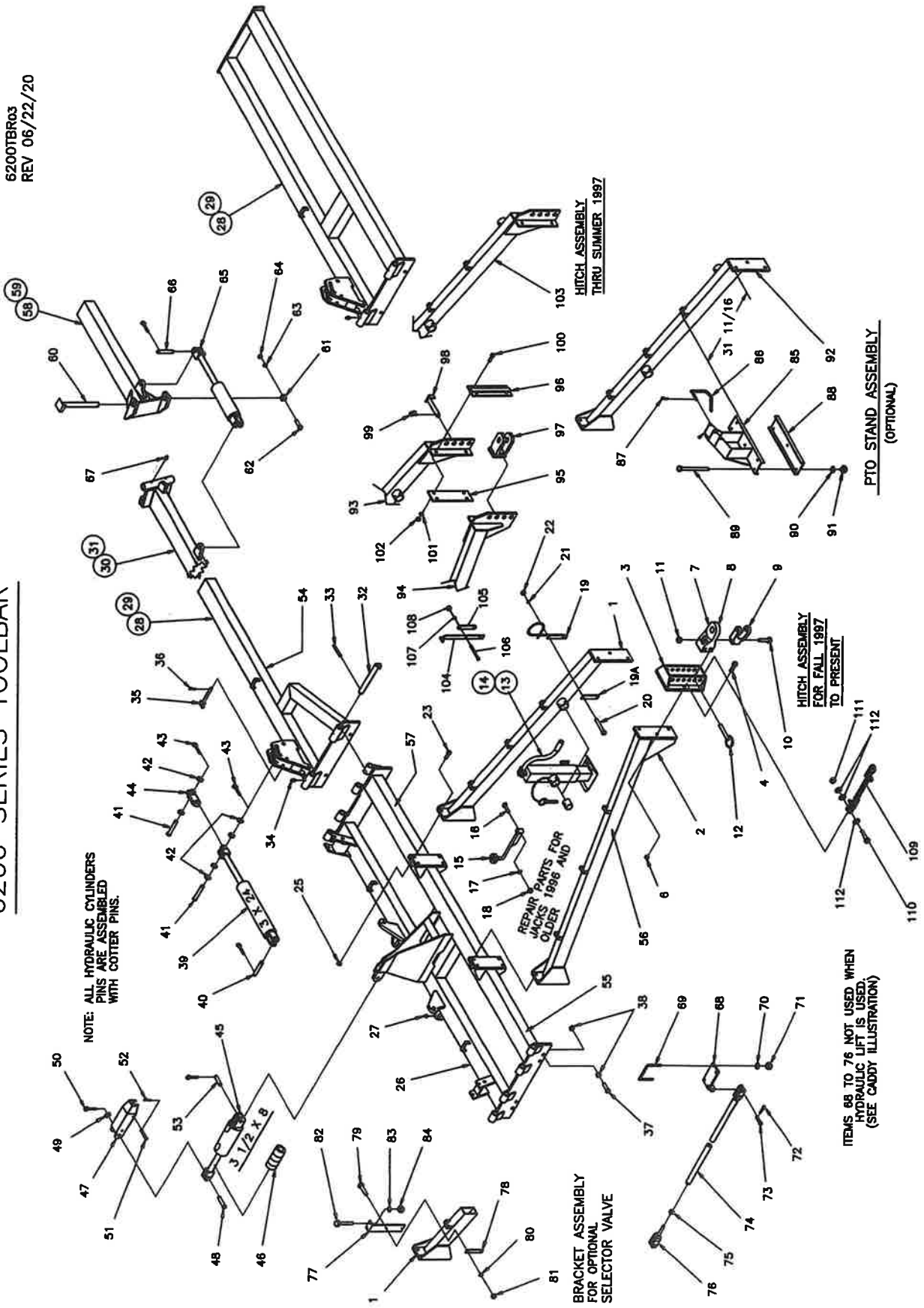
- Step 14. Assemble the pivot bracket base (Item 23, Page 12) to the center of the rear tube on the caddy frame with the u-bolts (Item 24) and appropriate hardware.
- Step 15. Assemble the pivot bracket (Item 27) and pivot link (Item 32) to the bracket base with the clevis pin (Item 29) and the hairpin (Item 30).
- Step 16. Assemble the hinge bracket (Item 14) to the left axle (Item 4) with the appropriate hardware.
- Step 17. Assemble the ground wheel control (Item 22) to the hinge bracket with the shaft (Item 18) and appropriate hardware.
- Step 18. Assemble the ground wheel control as follows:
- A. Assemble the bearings (Item 45, Page 12) to the inside of the ground wheel control with the appropriate hardware.
 - B. Assemble the shaft (Item 51) with the drive sprocket (Item 52), the hub (Item 56), and the square key (Item 53) and secure with the set screws in the hub and sprocket.
 - C. Install the shaft assembly in the bearings in the ground wheel control and secure with the set screws in the bearings.
 - D. Assemble the idler sprocket (Item 47) to the ground wheel control with the bolt (Item 46) and one washer (Item 48) on each side of the sprocket and fasten with the appropriate hardware.
 - E. Position the eye bolt (Item 36) thru the slotted hole in the ground wheel assembly and attach it to the hinge bracket (Item 14) with the clevis pin (Item 37) and the cotter pin (Item 38).
 - F. Position the transport lock pin (Item 33) thru the guide tube on the ground wheel control and install the expansion pin (Item 35) in the end hole on the lock pin. Insert the hairpin (Item 34) in the hole in the guide tube and thru the hole nearest the handle in the lock pin.
 - G. Assemble the spring (Item 39) and the spring cap (Item 40) to the eye bolt and secure with two nuts (Item 41). Turn the nuts onto the eye bolt to a point so that at least $\frac{3}{4}$ inch of thread is protruding from the nuts.
 - H. Mount the wheel (Item 57) on the hub (Item 56).
 - I. Mount the pump (Not Shown) and install the drive chain (Item 54) and link (Item 55). Adjust the idler and drive sprocket positions so that all three sprockets line up and the drive wheel (Item 57) is centered on the caddy wheel. To do this 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 19. Assemble the clamp plate (Item 28) to the pivot bracket (Item 27) with the appropriate hardware, firmly clamping in place the square tube on the ground wheel control.
- Step 20. Position a temporary shim (approximately $\frac{1}{4}$ " thick) at the end of the transport lock pin (Item 33). Assemble the pivot bracket (Item 68, Page 10) to the center of the rear tube of the toolbar center section with the u-bolt (Item 69) and appropriate hardware. Assemble the pivot control rod (Item 74) to the bracket with one clevis pin (Item 73) and one hairpin (Item 72). Extend the adjustable clevis (Item 76) on the pivot control rod far enough so that when assembled with the pivot link (Item 32, Page 12) all the 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. 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 on the adjustable clevis.

- Step 21. Assemble the tank skid (Items 84,94,101 or 109) to the caddy frame with the appropriate hardware.
- Step 22. Install the hydraulic fittings and hoses as indicated on the hydraulic schematic illustration on Page 21.
- Step 23. Purge the air from the hydraulic system.
A. Firmly anchor the pole to a heavy stationary object or attach it to a tractor.
B. Pressurize the hydraulic system. Fully extend all cylinders and circulate the oil for approximately one minute.
C. Partially lift the wings and stop. Observe if the wings will sag. This would indicate air in the system.
D. Repeat Step B and Step C until the system operates satisfactorily.
E. Secure the hydraulic hoses as needed.
- Step 24. Mount your chemical tank and install the plumbing to the pump.
- Step 25. Attach the knife shanks (and coulters) at the desired spacings.
- Step 26. Assemble the desired knives to the shanks.
- Step 27. Install the chemical application hoses and secure safely.
- Step 28. Fold the wings and raise the machine to full transport height. Secure the transport locks at the caddy cylinder and the ground wheel control. Release the hydraulic pressure so that all supported items are resting on their transport locks.
- Step 29. Check to see that all hoses are in a safe and secure position.

YOUR 6200 TOOLBAR IS NOW FULLY ASSEMBLED AND FIELD READY.

6200 SERIES TOOLBAR

6200TBR03
REV 06/22/20



6200 SERIES TOOLBAR PARTS LIST

6200LST03
RV 07/18/23

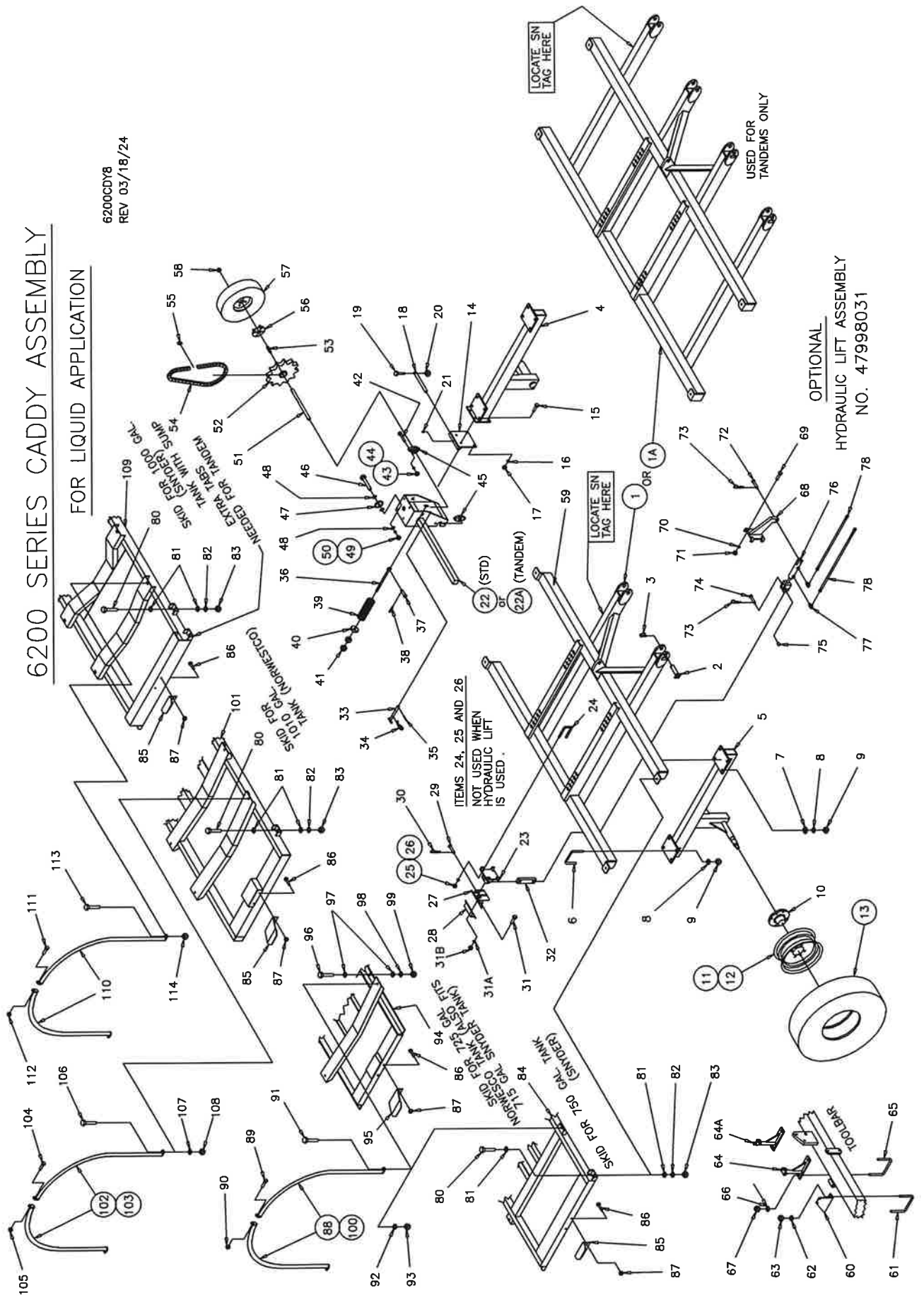
| ITEM | PART NO. | DESCRIPTION | QTY. |
|--|-----------------|--|------|
| 1 | 47008618 | POLE, LEFT HAND (STANDARD) ALSO SEE ITEM 92 - PTO OPTION | 1 |
| 2 | 47008619 | POLE, RIGHT HAND | 1 |
| 3 | 47008482 | HITCH MOUNT | 1 |
| 4 | 18098435 | BOLT, 3/4-10NC. X 2 1/2 GR.8 | 6 |
| 5 | --- | --- | --- |
| 6 | 18458452 | LOCKNUT, 3/4-10NC. | 6 |
| 7 | Pi-301V3C | PERFECT HITCH ASSEMBLY INCLUDES ITEMS, 8 TO 11 | 1 |
| 8 | PPi-301V3 | PERFECT HITCH, (1 1/2" DRAWPIN) | 1 |
| 9 | PPi-208VR | PERFECT HITCH CLEVIS, WITH 1 1/4 OBOURD HOLE | 1 |
| 10 | 18058442 | BOLT, 3/4-10NC. X 5 GR. 8 | 1 |
| 11 | 18458452 | LOCKNUT, 3/4-10NC. GR. 8 | 1 |
| 12 | 600182 | HITCH PIN, 1" X 6 | 2 |
| 13 | 70924 | JACK COMPLETE, (FINISH PAINTED) | 1 |
| ITEMS 15 TO 18 REPAIR PARTS ON UNITS 1996 & OLDER | | | |
| 15 | 47007114 | CRANK ASSEMBLY | 1 |
| 16 | 18056830 | BOLT, 3/8-16NC. X 2 | 1 |
| 17 | 18891200 | LOCKWASHER, 3/8 | 1 |
| 18 | 18436800 | HEX. NUT, 3/8-16NC. | 1 |
| 19 | 47010165 | HOSE BRACKET | 2 |
| 19A | 47008463 | MOUNTING STRAP | 2 |
| 20 | 18056850 | BOLT, 3/8 X 16NC. X 4 | 4 |
| 21 | 18891200 | LOCKWASHER, 3/8 | 4 |
| 22 | 18436800 | HEX. NUT, 3/8-16NC. | 4 |
| 23 | 18098435 | BOLT, 3/4-10NC. X 2 1/2 | 8 |
| 24 | --- | --- | --- |
| 25 | 18458452 | LOCKNUT, 3/4-10NC. | 8 |
| 26 | 47007769 | CENTER SECTION | 1 |
| 27 | 18901805 | GREASE ZERK, STRAIGHT | 2 |
| 28 | 47007784 | PRIMARY WING (SHORT) L.H. | OPT. |
| | 47007785 | PRIMARY WING (SHORT) R.H. | OPT. |
| 29 | 47007771 | PRIMARY WING (STD.) L.H. | 1 |
| | 47007772 | PRIMARY WING (STD.) R.H. | 1 |
| | 47019233 | PRIMARY WING, L.H. DOUBLE BAR | OPT. |
| | 47019234 | PRIMARY WING, R.H. DOUBLE BAR | OPT. |
| 30 | 47008437 | PRIMARY WING, LEFT HAND WITH TILTED HINGE, (FALL 1996 TO PRESENT) | OPT. |
| | 47007787 | PRIMARY WING, LEFT HAND WITH SQUARE HINGE, (PREVIOUS TO FALL 1996) | OPT. |
| 31 | 47008438 | PRIMARY WING, RIGHT HAND WITH TILTED HINGE, (FALL 1996 TO PRESENT) | OPT. |
| | 47007788 | PRIMARY WING, RIGHT HAND WITH SQUARE HINGE, (PREVIOUS TO FALL 1996) | OPT. |
| 32 | 47007627 | HINGE PIN | 4 |
| 33 | 18511034 | EXPANSION PIN, 1/4 X 2 1/2 | 4 |
| 34 | 18901805 | GREASE ZERK, STRAIGHT | 4 |
| 35 | 600178 | HITCH PIN, 3/4 X 6 (INCL. HAIRPIN) | 2 |
| 36 | 18590148 | HAIRPIN BRIDGE, .148 DIA. NO. 9 | 2 |
| 37 | 18058312 | BOLT, 7/8-11NC. X 2 1/2 (FULL THD) | 4 |
| 38 | 18417800 | HEX. NUT, 7/8-11NC. | 8 |
| 39 | 47300093 | HYDRAULIC CYLINDER (3 X 24) | 2 |
| 40 | 47003513 | CYLINDER PIN KIT (1 X 3 1/2) | 2 |
| 41 | 18549054 | CLEVIS PIN (1 X 5) | 4 |
| 42 | 18852200 | FLATWASHER, 1" | 12 |
| 43 | 18560826 | COTTER PIN, 3/16 X 1 1/2 | 4 |
| 44 | 47007759 | CYLINDER FLOAT BLOCK | 2 |
| DISCONTINUED FROM 2003 PRODUCTION | | | |
| 45 | 47300091 | HYDRAULIC CYLINDER (3 1/2 X 8) | 1 |
| 46 | 47005455 | SET, DEPTH CONTROLS | 1 |
| 47 | 47007229 | TRANSPORT LOCK | 1 |
| 48 | 18541651 | CLEVIS PIN, 1 X 4 1/2 | 1 |
| 49 | 18852200 | FLATWASHER, 1" | 1 |
| 50 | 18560826 | COTTER PIN, 3/16 X 1 1/2 | 1 |
| 51 | 18541254 | CLEVIS PIN (TRAVEL LOCK) | 1 |
| 52 | 18590916 | HAIRPIN BRIDGE (.125 DIA) | 1 |
| 53 | PART OF ITEM 40 | CYLINDER PIN 1 X 3 1/2 | - |

| ITEM | PART NO. | DESCRIPTION | QTY. |
|---|------------|---|------|
| 54 | 699101 | DECAL, DANGER FALLING WINGS | 2 |
| 55 | 699107 | DECAL, AG SYSTEMS | 2 |
| 56 | 699113 | DECAL, 6200 SERIES | 2 |
| 57 | 699102 | DECAL, DANGER-VAPORS | 1 |
| 58 | 47008441 | SECONDARY WING, L.H. WITH TILTED HINGE, (FALL 1996 TO PRESENT) | 1 |
| 59 | 47008448 | SECONDARY WING, R.H. WITH TILTED HINGE, (FALL 1996 TO PRESENT) | 1 |
| | 47007775 | SECONDARY WING (SQUARE HINGE) (PREVIOUS TO FALL 1996) | 2 |
| 60 | 47009562 | HINGE PIN | 2 |
| 61 | 47006310 | COLLAR, HINGE PIN | 2 |
| 62 | 18056834 | BOLT, 3/8-16NC. X 2 1/2 | 2 |
| 63 | 18891200 | LOCKWASHER, 3/8 | 2 |
| 64 | 18436800 | HEX. NUT, 3/8-16NC. | 2 |
| 65 | 47005491 | HYDRAULIC CYLINDER (3 X 14) | 2 |
| 66 | 47003513 | CYLINDER PIN KIT (1 X 3 1/2) | 2 |
| 67 | 18901805 | GREASE ZERK, STRAIGHT | 4 |
| 68 | 47007400 | BRACKET, PIVOT CONTROL | 1 |
| 69 | 47006545 | U-BOLT, 1/2-13NC | 2 |
| 70 | 18891400 | LOCKWASHER, 1/2 | 4 |
| 71 | 18417400 | HEX. NUT, 1/2-13NC. | 4 |
| 72 | 18590148 | HAIRPIN BRIDGE, .148 DIA. NO. 9 | 2 |
| 73 | 18541835 | CLEVIS PIN, 3/4 X 2 1/2 | 2 |
| | 47997219 | PIVOT CONTROL ROD COMPLETE INCLUDES ITEMS 74, 75, AND 76 | 1 |
| 74 | 47007219 | PIVOT CONTROL ROD | 1 |
| 75 | 18449003 | HEX. JAM NUT, 3/4-10NC. | 1 |
| 76 | 47007220 | CLEVIS, PIVOT ROD | 1 |
| WITH SELECTOR VALVE OPTION | | | |
| 77 | 47010171 | SELECTOR VALVE BRACKET | 1 |
| 78 | 47008463 | MOUNTING STRAP | 1 |
| 79 | 18056850 | BOLT, 3/8-16NC. X 4 | 2 |
| 80 | 18891200 | LOCKWASHER, 3/8 | 2 |
| 81 | 18436800 | HEX. NUT, 3/8-16NC. | 2 |
| 82 | 18056469 | BOLT, 5/16-18NC. X 3 1/4 | 2 |
| 83 | 18811100 | LOCKWASHER, 5/16 | 2 |
| 84 | 18406400 | HEX. NUT, 5/16-18NC. | 2 |
| WITH PTO OPTION | | | |
| 85 | 47008245 | PTO STAND | 1 |
| 86 | 47006797 | PIN AND CHAIN ASSEMBLY | 1 |
| 87 | 18890091 | HAIRPIN BRIDGE (.091 DIA.) | 1 |
| 88 | 47008239 | CLAMP PLATE | 1 |
| 89 | 18057475 | BOLT, 1/2-13NC. X 9 | 4 |
| 90 | 18891400 | LOCKWASHER, 1/2 | 4 |
| 91 | 18417400 | HEX NUT, 1/2-13NC. | 4 |
| 92 | 47008622 | POLE, LEFT HAND, WITH PTO ONLY | 1 |
| POLE/HITCH AS USED THRU SUMMER 1997 | | | |
| 93 | 47007777 | POLE, LEFT HAND | 1 |
| 94 | 47007778 | POLE, RIGHT HAND | 1 |
| 95 | 47007616 | POLE PLATE | 1 |
| 96 | 47007618 | POLE WEAR PLATE | 1 |
| 97 | 47007622 | HITCH CLEVIS | 1 |
| 98 | 47007611 | CLEVIS PIN | 1 |
| 99 | 600190 | LYNCH PIN, 7/16 X 1 3/8 | 1 |
| 100 | 18058434 | BOLT, 3/4-10NC. X 2 1/2 | 4 |
| 101 | 18891800 | LOCKWASHER, 3/4 | 4 |
| 102 | 18418400 | HEX. NUT, 3/4-10NC. | 4 |
| 103 | 47008557 | POLE, LEFT HAND, WITH PTO ONLY | 1 |
| 104 | 47010168 | GUAGE BRACKET WELDMENT | 1 |
| 105 | 47008463 | MOUNTING STRAP | 1 |
| 106 | 18056850 | BOLT, 3/8 X 16NC. X 4 | 2 |
| 107 | 18891200 | LOCKWASHER, 3/8 | 2 |
| 108 | 18436800 | HEX. NUT, 3/8-16NC. | 2 |
| 109 | PPSC4156BS | CHAIN, SAFETY 1/2" X 56" LG | 1 |
| 110 | 18059061 | BOLT HX CAP GR5 NC ZC 1 X 4 | 1 |
| 111 | 18459002 | NUT NYLOCK 1 GR 5 | 1 |
| 112 | 18852200 | WASHER FLAT 1" SAE ZC | 3 |
| (ITEMS 109-12 CAN BE ORDERED AS A KIT P/N:47090314) | | | |

6200 SERIES CADDY ASSEMBLY

FOR LIQUID APPLICATION

6200CDY8
REV 03/18/24



6200 SERIES
CADDY ASSEMBLY PARTS LIST
FOR LIQUID APPLICATION

ALL HARDWARE IS
ZINC PLATED UNLESS
OTHERWISE SPECIFIED.

| ITEM | PART NO. | DESCRIPTION | QTY. | ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------------|--|------|----------|---|-----------------------------------|------|
| 1 | 47008649 | CADDY FRAME (STANDARD) | 1 | 62 | 18891200 | LOCKWASHER, 3/8 | 2 |
| 1A | 47005769 | CADDY FRAME (TANDEM) SEE PAGE 45 OF THIS MANUAL FOR PARTS INFO | OR 1 | 63 | 18436800 | HEX. NUT, 3/8-16NC. | 2 |
| 2 | 47007254 | PIVOT PIN, CADDY | 2 | 64 | 47002631 | MANIFOLD STAND, (STD. TEE) | OPT. |
| 3 | 600190 | LYNCH PIN | 2 | 64A | 8060WJB | MANIFOLD STAND (SS 90 ELBOW) | OPT. |
| 4 | 47997190 | AXLE COMPLETE W/HUB L.H. (STD) | 1 | 47008060 | MANIFOLD STAND, (S.S. TEE) | OPT. | |
| | 47007190 | AXLE, LEFT HAND | 1 | | (USE 1/2-13NC. HARDWARE) | | |
| | 47009246 | AXLE COMPLETE W/HUB L.H. (7500#) | OPT. | 65 | 47006545 | U-BOLT, 1/2-13NC. | 1 |
| | 47008246 | AXLE, LEFT HAND (W/7500# SPINDLE) | OPT. | 66 | 18891400 | LOCKWASHER, 1/2 | 2 |
| 5 | 47998190 | AXLE COMPLETE W/HUB R.H. (STD) | 1 | 67 | 18417400 | HEX. NUT, 1/2-13NC. | 2 |
| | 47008190 | AXLE, RIGHT HAND | 1 | 47988031 | HYDRAULIC LIFT ASSEMBLY | 1 | |
| | 47009247 | AXLE COMPLETE W/HUB R.H. (7500#) | OPT. | | INCLUDES ITEMS 68 TO 78 | | |
| | 47008247 | AXLE, RIGHT HAND (W/7500# SPINDLE) | OPT. | 68 | 47008031 | CYLINDER BRACKET | 1 |
| 6 | 47006518 | U-BOLT, 3/4-10NC. (ZP) | 8 | 69 | 18997456 | BOLT, 1/2-13NC. X 5 1/2 (S.S.) | 4 |
| 7 | 18981800 | FLATWASHER, 3/4 (GALV) | 8 | 70 | 18991400 | LOCKWASHER, 1/2 (S.S.) | 4 |
| 8 | 18991800 | LOCKWASHER, 3/4 (GALV) | 16 | 71 | 18997400 | HEX. NUT, 1/2-13NC. (S.S.) | 4 |
| 9 | 18998400 | HEX. NUT, 3/4-10NC. (GALV) | 16 | 72 | 18541642 | CLEVIS PIN, 5/8 X 2 1/2 | 1 |
| 10 | 47008712 | HUB ASSEMBLY | 2 | 73 | 18560722 | COTTER PIN, 5/32 X 1 | 2 |
| | 47009115 | HUB ASSEMBLY 7500# CAP. | OPT. | 74 | 18541644 | CLEVIS PIN, 5/8 X 3 | 1 |
| 11 | 47005816 | RIM, 11 X 16.1 8 ON 8 | 2 | 75 | 47008016 | LINK BUSHING | 1 |
| 12 | 20120012 | VALVE STEM | 2 | 76 | 47005437 | HYDRAULIC CYLINDER (1 1/2 X 4) | 1 |
| 13 | 32297 | TIRE, 16.5L X 16.1 10PLY (36 psi) | 2 | 77 | 2501-6-6 | ELBOW, 90 DEG. 3/8MPT. X #6 MJIC | 2 |
| | 40013 | WHEEL ASSY includes 11, 12, 13 | 2 | 78 | 609258 | HOSE, 1/4 X 258 | 2 |
| | | | | | #6 JICFS X 1/2 MPT ENDS | | |
| | ALSO AVAILABLE | | | 79 | OMITTED | | |
| | 40039 | USED 385/65R225 ON 22.5 X 11.25 (8 ON 8) RIM | 2 | 80 | 18057926 | BOLT, 5/8-11NC. X 1 1/2 | 4 |
| | 40042 | MTD 385/65R22.5 ON HD 11.75 X 22.5 | 2 | 81 | 18811600 | FLATWASHER, 5/8 | 8 |
| 14 | 47007193 | HINGE BRACKET | 1 | 82 | 18891600 | LOCKWASHER, 5/8 | 4 |
| 15 | 18057426 | BOLT, 1/2-13NC. X 1 1/2 | 4 | 83 | 18417900 | HEX. NUT, 5/8-11NC. | 4 |
| 16 | 18891400 | LOCKWASHER, 1/2 | 4 | 84 | 47008070 | SKID (750 GAL TANK) (SNYDER) | OPT. |
| 17 | 18417400 | HEX. NUT, 1/2-13NC. | 4 | | MOUNT WITH HARDWARE ITEMS 80 TO 83 | | |
| 18 | 47007200 | PIVOT SHAFT | 1 | 85 | 47008465 | VALVE SUPPORT BRACKET | 1 |
| 19 | 18056830 | BOLT, 3/8-16NC. X 2 | 1 | 86 | 18056822 | BOLT, 3/8-16NC. X 1 | 2 |
| 20 | 18457800 | SELF-LOCKING NUT, 3/8-16NC. | 1 | 87 | 18496800 | FLANGE NUT, 3/8-16NC. | 2 |
| 21 | 18901807 | GREASE ZERK, 45 DEG. | 1 | 47028889 | HOOP ASSEMBLY FOR SKID | 3 | |
| 22 | 47007201 | GROUND WHEEL CONTROL (STD) | 1 | | ITEM 84 (750 GAL. TANK) | | |
| 22A | 47005783 | GROUND WHEEL CONTROL (TANDEM) | 1 | 88 | 47008889 | HOOP (HALF) | 6 |
| 23 | 47007247 | PIVOT BRACKET MOUNT | 1 | 89 | 18057430 | BOLT, 1/2-13NC. X 2 | 3 |
| 24 | 47996487 | U-BOLT, 1/2-13NC. (GALV) | 2 | 90 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 3 |
| 25 | 18991500 | LOCKWASHER, 1/2 (GALV) | 4 | 91 | 18057428 | BOLT, 1/2-13NC. X 1 3/4 | 6 |
| 26 | 18997500 | HEX. NUT, 1/2-13NC. (GALV) | 4 | 92 | 18811400 | FLATWASHER, 1/2 | 6 |
| 27 | 47007250 | PIVOT BRACKET | 1 | 93 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 6 |
| 28 | 47007251 | CLAMP PLATE | 1 | 94 | 47008018 | SKID (725 GAL. NORWESCO TANK) | OPT. |
| 29 | 18541566 | CLEVIS PIN, 3/4 X 3 1/2 | 1 | | (ALSO FITS 715 GAL. SNYDER TANK) | | |
| 30 | 18590148 | HAIRPIN BRIDGE (.148 DIA.) | 1 | 95 | 47008464 | VALVE SUPPORT BRACKET | 1 |
| 31 | 18027417 | BOLT, 1/2-13NC. X 2 (S.S.) | 4 | | MOUNT WITH HARDWARE ITEMS 86 AND 87 | | |
| 31A | 18991400 | LOCKWASHER, 1/2 (S.S.) | 4 | 96 | 18058430 | BOLT, 3/4-10NC. X 2 | 4 |
| 31B | 18997400 | HEX. NUT, 1/2-13NC. (S.S.) | 4 | 97 | 18811800 | FLATWASHER, 3/4 | 8 |
| 32 | 47007227 | PIVOT LINK | 1 | 98 | 18891800 | LOCKWASHER, 3/4 | 4 |
| 33 | 47007197 | TRANSPORT LOCK PIN | 1 | 99 | 18418400 | HEX. NUT, 3/4-10NC. | 4 |
| 34 | 18590094 | HAIRPIN BRIDGE (.177 DIA.) | 1 | 47028012 | HOOP ASSEMBLY FOR SKID | 3 | |
| 35 | 18511033 | EXPANSION PIN 1/4 X 1 1/2 | 1 | | ITEM 94 (725 GAL. TANK) | | |
| 36 | 47301547 | EYE BOLT | 1 | 100 | 47008012 | HOOP (HALF) MOUNT WITH | 6 |
| 37 | 18541428 | CLEVIS PIN, 1/2 X 1 3/4 | 1 | | HARDWARE ITEMS 89 TO 93 | | |
| 38 | 18560722 | COTTER PIN, 5/32 X 1 | 1 | 101 | 47008485 | SKID (1010 GAL. TANK) (NORWESTCO) | 1 |
| 39 | 47301524 | COMPRESSION SPRING | 1 | | (UP TO 1/21/97) | | |
| 40 | 47301530 | SPRING CAP | 1 | | MOUNT WITH HARDWARE ITEMS 80 TO 83 | | |
| 41 | 18417900 | HEX. NUT, 5/8-11NC. | 2 | 47028664 | HOOP ASSEMBLY, CENTER | 2 | |
| 42 | 18057426 | BOLT, 1/2-13NC. X 1 1/2 | 4 | 47008664 | HOOP (HALF) CENTER | 4 | |
| 43 | 18891400 | LOCKWASHER, 1/2 | 8 | 47028893 | HOOP ASSEMBLY, END | 2 | |
| 44 | 18417400 | HEX. NUT, 1/2-13NC. | 8 | 47008893 | HOOP (HALF) END | 4 | |
| 45 | 47008462 | BEARING ASSEMBLY, 1" | 2 | | MOUNT WITH HARDWARE ITEMS 104 TO 108 | | |
| 46 | 18057934 | BOLT, 5/8-11NC. X 2 1/2 | 1 | 104 | 18057430 | BOLT, 1/2-13NC. X 2 | 4 |
| 47 | 34318 | IDLER SPROCKET | 1 | 105 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 4 |
| 48 | 18811600 | FLATWASHER, 5/8 | 3 | 106 | 18057428 | BOLT, 1/2-13NC. X 1 3/4 | 8 |
| 49 | 18891600 | LOCKWASHER, 5/8 | 1 | 107 | 18811400 | FLATWASHER, 1/2 | 8 |
| 50 | 18417900 | HEX. NUT, 5/8-11NC. | 1 | 108 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 8 |
| 51 | 47007266 | DRIVE SHAFT | 1 | 109 | 47008929 | SKID, (SNYDER TANK) | 1 |
| 52 | 10342 | DRIVE SPROCKET | 1 | | (7/31/98 TO PRESENT) | | |
| 53 | 47006519 | DRIVE KEY, 1/4 X 1/4 X 1 1/2 | 2 | | 1000 GAL. TANK W/SUMP, SEE NOTE | | |
| 54 | 47007268 | CHAIN, #50 X 96 LINKS (61.25") | 1 | | NOTE: (EXTRA BOLTING TABS AND HARDWARE IS REQ'D | | |
| 55 | 31212 | CONNECTING LINK | 1 | | IF USING WITH A TANDEM CADDY FRAME) | | |
| 56 | 47007068 | HUB, PUMP DRIVE WHEEL | 1 | | MOUNT WITH HARDWARE ITEMS 80 TO 83 | | |
| 57 | 44105518 | DRIVE WHEEL ASSEMBLY (40 PSI) | 1 | USE | 47008465 | VALVE SUPPORT BRKT. (ITEM 85) | 1 |
| 58 | 47005011 | WHEEL NUT, 1/2-20NF. | 4 | | MOUNT WITH HARDWARE ITEMS 86 AND 87 | | |
| 59 | 30481 | DECAL, CAUTION (TIGHTEN LUG NUTS) | 1 | 47918891 | HOOP ASSEMBLY FOR SKID | 4 | |
| 60 | 47008049 | MANIFOLD BRACKET (USE 3/8 HDWR) | OPT. | | ITEM 109 (1000 GAL. TANK) | | |
| 61 | 47001028 | U-BOLT, 3/8-16NC. | 1 | 110 | 47008891 | HOOP (HALF) | 8 |
| | | | | 111 | 18057430 | BOLT, 1/2-13NC. X 2 | 4 |
| | | | | 112 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 4 |
| | | | | 113 | 18057430 | BOLT, 1/2-13NC. X 2 | 8 |
| | | | | 114 | 18457650 | SELF-LOCKING NUT, 1/2-13NC. | 8 |

6000/6200 SERIES LIQUID APPLICATION PLUMBING (MANIFOLD METHOD)

6000LQ02
10-17-12
REV 06-23-15

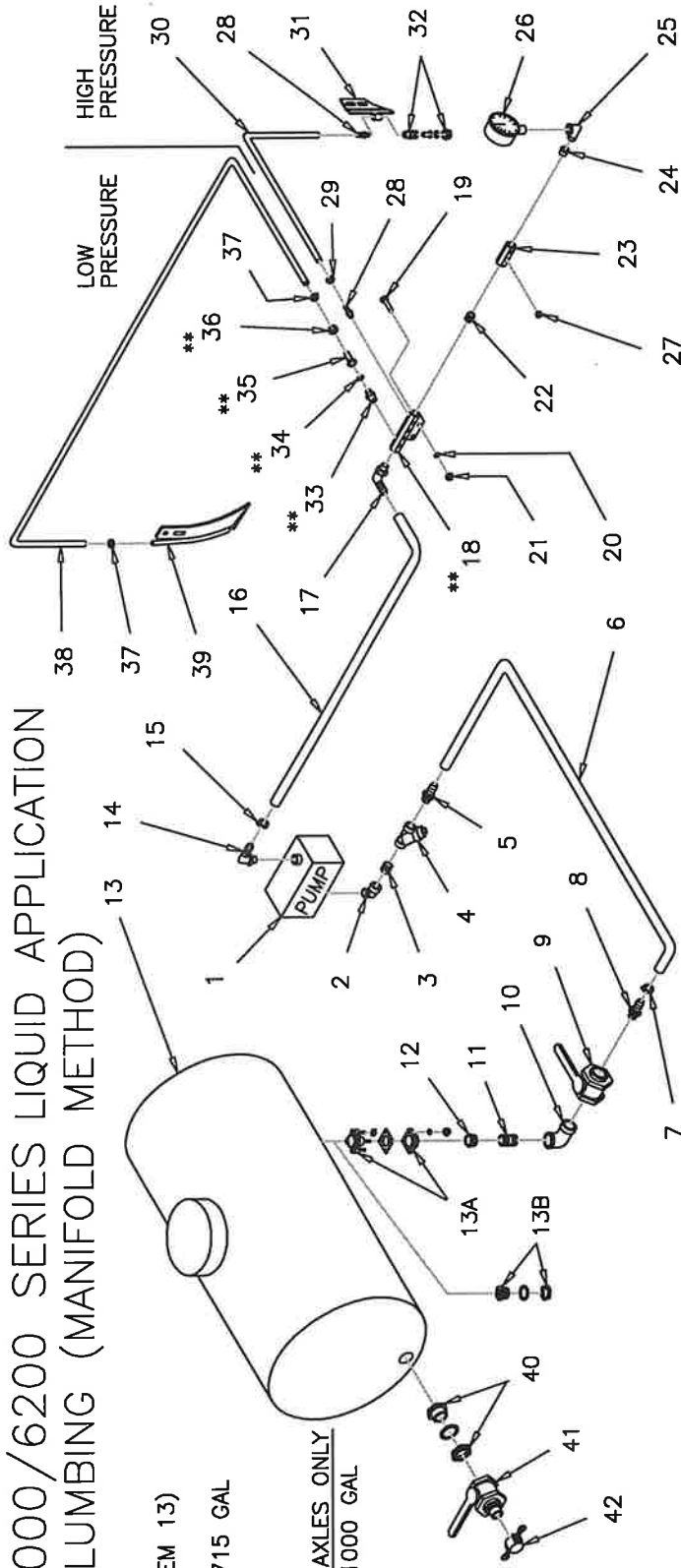
AVAILABLE TANKS (ITEM 13)

1004337 LEG TANK, 715 GAL (SNYDER)

FOR 6200 CADDY

W 7500 LB CAPACITY AXLES ONLY

7541137 LEG TANK, 1000 GAL (SNYDER)



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------------|--|------|
| 1 | NGP-7055 | PUMP ASSEMBLY, SINGLE PISTON | 1 |
| 2 | NGP-9055 | PUMP ASSEMBLY, TWIN PISTON | OPT. |
| 3 | 200888 | STREET ELBOW, 1 1/2 NPT X 90 | 1 |
| 4 | 200556 | CLOSE NIPPLE, 1 1/2 NPT. | 1 |
| 5 | 200056 | LINE STRAINER, 1 1/2 X 1 1/2 NPT. | 1 |
| 6 | 200334 | HOSEBARB, 1 1/2 X 1 1/2 | 1 |
| 7 | 12012705 | SOLUTION HOSE, 1 1/2 X 72" | 1 |
| 8 | 200256 | HOSE CLAMP, 1 5/16 TO 2 1/4 | 2 |
| 9 | 200334 | HOSEBARB, 1 1/2 X 1 1/2 | 1 |
| 10 | 201150 | BALL VALVE, 1 1/2 NPT | 1 |
| 11 | 215090 | STREET ELBOW, 1 1/2 NPT | 1 |
| 12 | 200556 | CLOSE NIPPLE, 1 1/2 NPT | 1 |
| 13 | 200422 | REDUCING BUSHING, 2 X 1 1/2 NPT | 1 |
| 13A | 290387 | AS SPECIFIED, SEE LIST ABOVE | 1 |
| 13B | 290387 | BOLT-IN FLANGE ASSEMBLY, 2 NPT. SUPPLIED WITH TANK | 1 |
| 13B | 501591 | BULKHEAD ASSEMBLY, 1 1/2 NPT | 1 |
| 14 | OBSOLETE | SHOWN FOR REPAIR PART ONLY | 1 |
| 15 | 200248 | HOSEBARB ELBOW, 1 X 1 | 2 |
| 16 | 10040000 | HOSE CLAMP, 1 1/16 TO 1 1/2 | 1 |
| 17 | 200367 | SPRAYER HOSE, 1 X 156" | 1 |
| 18 | 47008033 | HOSEBARB ELBOW, 1/2 NPT. X 1 MANIFOLD, (8) PORT, S.S. | * 1 |
| 19 | 18026824 | BOLT, 3/8-16NC. X 1 1/4 S.S. | 2 |
| 20 | 18881201 | 3/8 LOCKWASHER, S.S. | 2 |
| 21 | 18476800 | HEX. NUT, 3/8-16NC. S.S. | 2 |
| 22 | 200714 | CLOSE NIPPLE, 1/2 NPT. S.S. | OPT. |
| 23 | 47008035 | MANIFOLD, (4) PORT, S.S. | OPT. |
| 24 | 200810 | REDUCING BUSHING, 1/2 X 1/4 NPT. | 1 |
| 25 | 200771 | STREET ELBOW, 1/4 NPT. X 90 | 1 |
| 26 | 100347 | PRESSURE GAUGE, 0 TO 160 PSI | 1 |
| 27 | 200826 | PLUG, 1/4 NPT. S.S. AS REQ'D. | * 1 |
| 28 | ITEMS 28 TO 32 | USE FOR HI-PRESS. APPLICATION ONLY* | 2 |
| 28 | 100859 | HOSEBARB, 1/4 NPT. X 1/2 S.S. | 1 |
| 29 | 200244 | HOSE CLAMP, 5/16 TO 7/8 | 1 |
| 30 | 100804 | HOSE, BRAIDED 1/2 X 85 FT (8 ROW) 1/2 X 135 FT. (11 ROW) 1/2 X 150 FT (12 ROW) | 1 |
| 31 | 47309038 | NOZZLE BRACKET | 1 |
| 32 | 504017 | NOZZLE BODY, INCLUDES (1) EACH OF NOZZLE BODY ADAPTER | 1 |
| 33 | 500192 | NOZZLE BODY ADAPTER | 1 |
| 34 | 504015 | STREAM STABILIZER | 1 |
| 35 | 503127 | ORIFICE | 1 |
| 36 | 503127 | CAP | 1 |
| 37 | 200244 | HOSE CLAMP, 5/16 TO 7/8 | 1 |
| 38 | 15017007 | TUBING, 1/2 X 150 FT. (12 ROW) | 1 |
| 39 | KNIFE | AS SPECIFIED | 1 |
| 39 | 212600 | FORCE-FILL PACKAGE | OPT. |
| 40 | 20020019 | INCL. ITEMS, 40 TO 42 | 1 |
| 41 | 200037 | TANK BUNG, 2" | 1 |
| 42 | 200172 | BALL VALVE, 2 NPT CAP, 2 NPT. | 1 |

FOR ALTERNATE GAUGE MOUNTINGS, REFER TO THE "MANIFOLD ASSEMBLY ILLUSTRATIONS".

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

FOR NYLON MANIFOLD INFO ITEM 18 MARKED * AND ITEMS 33,34,35, & 36 MARKED * REFER TO THE "NYLON" MANIFOLD ASSEMBLY ILLUSTRATION.

**LIQUID PLUMBING
6200 SERIES APPLICATORS
NON-MANIFOLD PLUMBING
(SPRAY-BOOM STYLE)
HIGH PRESSURE SYSTEM**

6200LQAPP2
10-16-12
REV 06-23-15

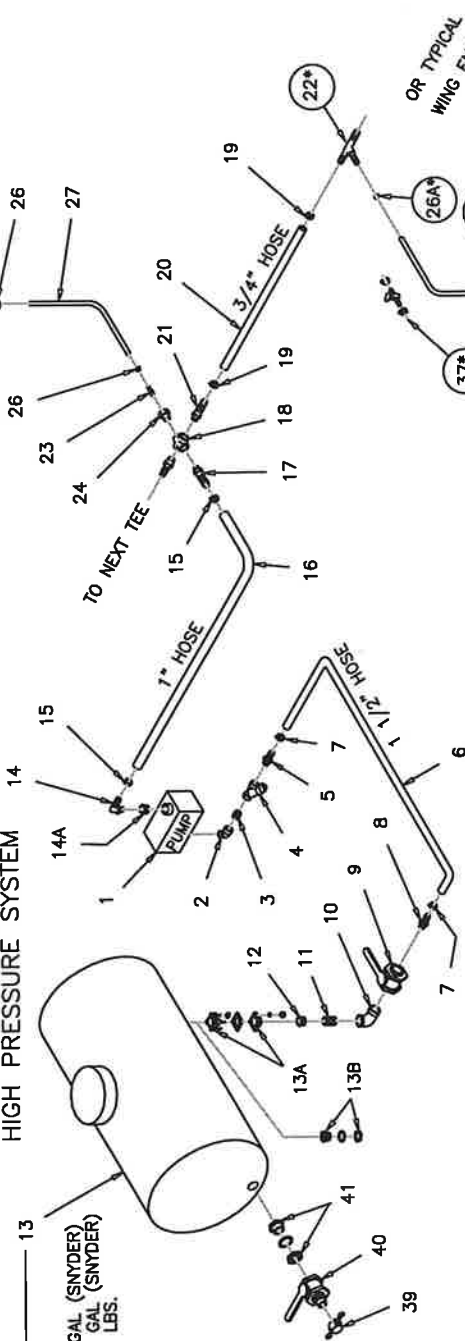
TANK REFERENCE CHART
AVAILABLE TANKS (ITEM 13)

1004337 DRAINABLE TANK, 715 GAL (SNYDER)
1004337 DRAINABLE TANK, 1000 GAL (SNYDER)
7541137 FOR CADDY WITH 7500 LBS.
CAPACITY AXLES ONLY

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

QUANTITIES MARKED *
ARE FOR ONE ROW ONLY.

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



| ITEM | PART NO. | DESCRIPTION | QTY. |
|--------|---|---|------|
| 1 | NGP-7055 | PUMP ASSY, HI-PRESS. SGL PISTON | 1 |
| | NGP-9055 | PUMP ASSY, HI-PRESS. DBL PISTON | OPT |
| 606200 | | TANK TO PUMP PLUMBING PACKAGE INCLUDES ITEMS 2 THRU 12 | |
| 2 | 215090 | STREET ELBOW, 1 1/2" NPT X 90 | 1 |
| 3 | 200556 | CLOSE NIPPLE, 1 1/2" NPT. | 1 |
| 4 | 200556 | 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 6 FT LONG | 2 |
| 7 | 200256 | HOSE CLAMP, 1 5/16 TO 2 1/4" | 1 |
| 8 | 200334 | HOSEBARB, 1 1/2" X 1 1/2" | 1 |
| 9 | 201150 | BALL VALVE, 1 1/2" NPT | 1 |
| 10 | 215090 | STREET ELBOW, 1 1/2" NPT | 1 |
| 11 | 200556 | CLOSE NIPPLE, 1 1/2" NPT | 1 |
| 12 | 200422 | REDUCER BUSHING 2" X 1 1/2" NPT | 1 |
| 13 | TANK | (SEE AVAILABLE TANKS CHART) | 1 |
| 13A | 290387 | BOLT-IN FLANGE ASSEMBLY, 2" NPT | 1 |
| 13B | 501591 | BULKHEAD ASSEMBLY, 1 1/2" NPT | 1 |
| | | OBsolete, SHOWN HERE FOR REPAIR PARTS ONLY | |
| 14 | 200380 | HOSEBARB ELBOW, 1" X 1" | 1 |
| 14A | 2150100 | REDUCER BUSHING, 1 1/2" - 1" | 1 |
| 15 | 200250 | HOSE CLAMP, 3/4" - 1 3/4" | 2 |
| 16 | 10040000 | SPRAYER HOSE, 1" X VARIES W ROWS | 1 |
| 17 | 200328 | HOSEBARB, POLY 1" MPT X 1" HB | 1 |
| 18 | 250100 | POLY CROSS, 1 INCH | 1 |
| 19 | 200250 | HOSECLAMP, 3/4 TO 1 3/4" | 2* |
| 20 | 200228 | HOSE, 3/4" ID X 17 FT. (9 ROW) | |
| | | HOSE, 3/4" ID X 19 FT. (11 ROW) | |
| | | HOSE, 3/4" ID X 23 FT. (12 ROW) | |
| | | HOSE, 3/4" ID X 25 FT. (13 ROW) | |
| | | HOSE, 3/4" ID X 27 FT. (14 ROW) | |
| | | HOSE, 3/4" ID X 30 FT. (15 ROW) | |
| | | HOSE, 3/4" ID X 36 FT. (17 ROW) | |
| | | HOSE, 3/4" ID X 38 FT. (18 ROW) | |
| 21 | HB100-075 | HOSEBARB, POLY 1" X 3/4" HOSE | 2 |
| 22 | HB1075-050 | HOSEBARB TEE | 1* |
| 23 | HB025-050 | HOSEBARB, POLY 1/4" MPT X 1/2" | 1 |
| 606200 | TANK TO PUMP PKG (includes items 2 thru 12) | | |
| | AVAILABLE PUMP PACKAGE | | |
| | NGP-7055 HI-PRESS. JBLUW SGL PISTON | | |
| | NGP-9055 HI-PRESS. JBLUW TWN PISTON | | |
| 24 | 2100025 | REDUCER BUSHING, POLY 1" X 1/4" | 1 |
| 25 | 200376 | FEMALE HOSEBARB, 3/4" NPT X 3/4" | 2 |
| 25A | 200449 | HOSEBARB, 3/4" NPT X 1/2" | 2 |
| 26 | 200244 | HOSE CLAMP, 7/16 - 1" | 4* |
| 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 |
| 30 | 100804 | HOSE, BRAIDED 1/2" X 36 FT. (9 ROW) | 1 |
| | | HOSE, BRAIDED 1/2" X 40 FT. (10 ROW) | |
| | | HOSE, BRAIDED 1/2" X 44 FT. (12 ROW) | |
| | | HOSE, BRAIDED 1/2" X 52 FT. (13 ROW) | |
| | | HOSE, BRAIDED 1/2" X 56 FT. (14 ROW) | |
| | | HOSE, BRAIDED 1/2" X 60 FT. (15 ROW) | |
| | | HOSE, BRAIDED 1/2" X 68 FT. (17 ROW) | |
| 31 | 47309038 | NOZZLE BRACKET | 1 |
| 32 | 504017 | NOZZLE ASST, INCLUDES (1) EACH OF | 1 |
| | 500192 | NOZZLE BODY | 1 |
| | 504015 | STREAM STABILIZER | 1 |
| | | ORIFICE | 1 |
| | 503127 | CAP | 1 |
| 33 | 115286-01 | CHECKVALVE, POLY | 1 |
| 34 | 100804 | TUBING, BRAIDED EVA 1/2" X 1 FT | 1 |
| 35 | 47306661 | HOSEBARB, 1/4" NPT X 1/2" HB SS | 1 |
| 36 | 47306662 | SHIM, 1/4" X 2" X 4 1/2" | 1 |
| | 47306663 | SHIM, 1/8" X 2" X 4 1/2" | 1 |
| 37 | 500553 | COMBO WING SHUTOFF VALVE (per row) | OPT |
| 38 | 200244 | HOSE CLAMP, 7/16 - 1" (per row) | OPT |
| 39 | 200172 | FORCE-FILL OPTION includes items 39-41 | OPT |
| 40 | 200037 | CAP | 1 |
| 41 | 20020019 | BALL VALVE, 2" NPT | 1 |
| | | TANK BUNG ASSEMBLY, 2 NPT. | |
| 42 | 18057434 | BOLT, HX HD 1/2" X 2 1/2" GR 5 | 2* |
| 43 | 18417400 | NUT, HEX, 1/2" X 2 1/2" ZC | 2* |
| 44 | 18811400 | FLATWASHER, USS ZC 1/2" | 4* |
| 45 | 18881400 | WASHER, LOCK, 1/2" ZC | 2* |
| 46 | 609643 | CABLE TIES 28" | 2* |
| 212600 | FORCEFILL PKG INCLUDES ITEMS 39 THRU 41 | | |
| | AVAILABLE PUMP PLUMBING PACKAGE | | |
| | 20026000 JBLUW PUMP PLUMBING PKG | | |

AVAILABLE HIGH PRESSURE PLUMBING KITS

- 9 ROW KIT NUMBER 601506
- 10 ROW KIT NUMBER 601509
- 11 ROW KIT NUMBER 601512
- 12 ROW KIT NUMBER 601518
- 13 ROW KIT NUMBER 601521
- 14 ROW KIT NUMBER 601527
- 15 ROW KIT NUMBER 601530
- 17 ROW KIT NUMBER 601539

SEE PAGE 16 FOR GENERAL TOOLBAR PLUMBING REFERENCE

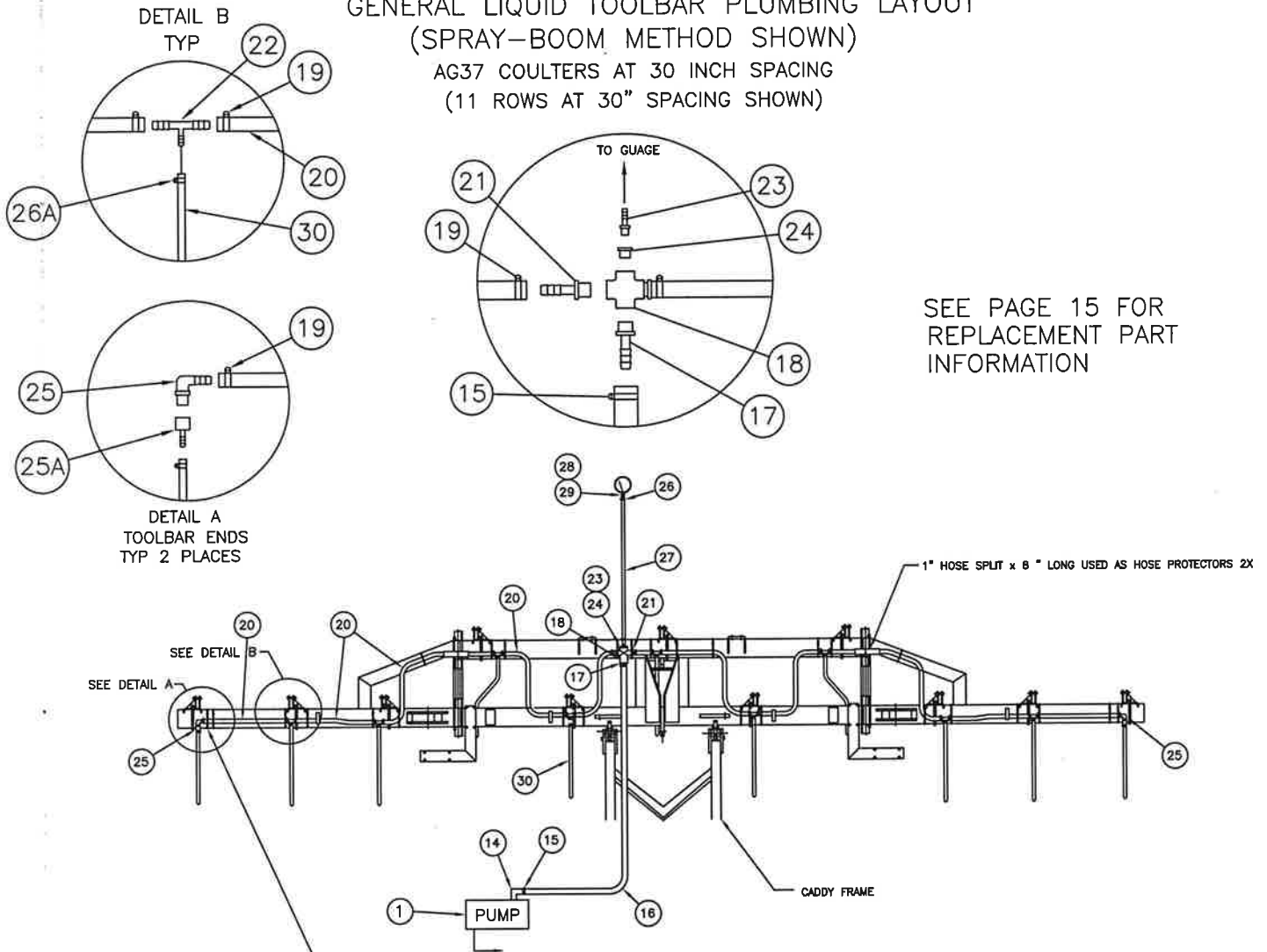
6200 TOOLBAR

6200HPPLBG
12-20-10

NON-MANIFOLD HIGH PRESSURE METHOD GENERAL LIQUID TOOLBAR PLUMBING LAYOUT (SPRAY-BOOM METHOD SHOWN)

AG37 COULTERS AT 30 INCH SPACING
(11 ROWS AT 30" SPACING SHOWN)

SEE PAGE 15 FOR
REPLACEMENT PART
INFORMATION



SECURE PLUMBING TO TOOLBAR USING 32" ZIP TIES APPROX AS SHOWN

NOTE: MAKE SURE HOSES DON'T RUB ON FRAME WHEN FOLDING OR PREMATURE WEAR-THRU MAY OCCUR.
HOSES NEAR HINGED AREAS SHOULD BE SLIGHTLY LONGER TO ALLOW FOR FOLDING
BE SURE HOSES CLEAR PROPERLY AND DO NOT KINK OR HANG UP WHEN FOLDING.

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

| Orifice Plate No. | Pressure (psi) | Capacity Spraying 28% Nitrogen (GPM) | GPA Spraying 28% Nitrogen on 22 inch spacing | | | |
|-------------------|----------------|--------------------------------------|--|-------|-------|-------|
| | | | 3 mph | 4 mph | 5 mph | 6 mph |
| 4916-37 | 60 | 0.18 | 16.6 | 12.5 | 10.0 | 8.3 |
| | 80 | 0.21 | 18.9 | 14.2 | 11.3 | 9.5 |
| | 90 | 0.23 | 21 | 15.5 | 12.4 | 10.4 |
| | 100 | 0.24 | 22 | 16.2 | 13.0 | 10.8 |
| | 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 | |
| 4916-103 | 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 | |

| 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 | |
| 4916-65 | 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 | |

| 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 | |

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

| Weight of Solution | Conversion Factor | Weight of Solution | Conversion Factor |
|------------------------|-------------------|-------------------------|-------------------|
| 7.0 lbs./gal. | 0.81 | 10.65 lbs./gal. - 28% N | 1.00 |
| 8.0 lbs./gal. | 0.87 | 11.00 lbs./gal. | 1.01 |
| 8.34 lbs./gal. - Water | 0.88 | 12.0 lbs./gal. | 1.06 |
| 9.0 lbs./gal. | 0.92 | 14.0 lbs./gal. | 1.14 |
| 10.0 lbs./gal. | 0.97 | | |

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

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

| Orifice Plate No. | Pressure (psi) | Capacity Spraying 28% Nitrogen (GPM) | GPA Spraying 28% Nitrogen on 38 inch spacing | | | |
|-------------------|----------------|--------------------------------------|--|-------|-------|-------|
| | | | 3 mph | 4 mph | 5 mph | 6 mph |
| 4916-103 | 60 | 1.41 | 75 | 56 | 44 | 37 |
| | 80 | 1.63 | 85 | 64 | 51 | 42 |
| | 90 | 1.72 | 90 | 67 | 54 | 45 |
| | 100 | 1.82 | 95 | 71 | 57 | 47 |
| | 120 | 1.99 | 104 | 78 | 62 | 52 |
| 4916-107 | 60 | 1.68 | 83 | 62 | 50 | 41 |
| | 80 | 1.83 | 95 | 72 | 57 | 48 |
| | 90 | 1.94 | 101 | 76 | 61 | 51 |
| | 100 | 2.04 | 105 | 80 | 64 | 53 |
| | 120 | 2.24 | 117 | 88 | 70 | 58 |
| 4916-110 | 60 | 1.32 | 69 | 52 | 41 | 34 |
| | 80 | 1.62 | 79 | 59 | 48 | 40 |
| | 90 | 1.62 | 84 | 63 | 51 | 42 |
| | 100 | 1.70 | 89 | 66 | 53 | 44 |
| | 120 | 1.87 | 97 | 75 | 68 | 49 |
| 4916-115 | 60 | 1.85 | 96 | 72 | 58 | 48 |
| | 80 | 2.13 | 111 | 83 | 67 | 55 |
| | 90 | 2.28 | 118 | 88 | 71 | 59 |
| | 100 | 2.39 | 125 | 93 | 75 | 62 |
| | 120 | 2.51 | 136 | 102 | 82 | 68 |
| 4916-125 | 60 | 2.11 | 110 | 83 | 68 | 55 |
| | 80 | 2.44 | 127 | 95 | 76 | 64 |
| | 90 | 2.59 | 135 | 101 | 81 | 67 |
| | 100 | 2.73 | 142 | 107 | 85 | 71 |
| | 120 | 2.99 | 156 | 117 | 93 | 78 |
| 4916-132 | 60 | 2.36 | 123 | 92 | 74 | 61 |
| | 80 | 2.72 | 142 | 106 | 85 | 71 |
| | 90 | 2.89 | 151 | 113 | 90 | 75 |
| | 100 | 3.04 | 158 | 119 | 95 | 79 |
| | 120 | 3.34 | 174 | 131 | 104 | 87 |
| 4916-140 | 60 | 2.73 | 142 | 107 | 85 | 71 |
| | 80 | 3.15 | 164 | 123 | 98 | 82 |
| | 90 | 3.34 | 174 | 131 | 104 | 87 |
| | 100 | 3.52 | 183 | 138 | 110 | 92 |
| | 120 | 3.86 | 201 | 151 | 121 | 101 |
| 4916-147 | 60 | 2.97 | 155 | 116 | 93 | 77 |
| | 80 | 3.43 | 179 | 134 | 107 | 89 |
| | 90 | 3.64 | 190 | 142 | 114 | 85 |
| | 100 | 3.84 | 200 | 150 | 120 | 100 |
| | 120 | 4.21 | 219 | 165 | 132 | 110 |
| 4916-156 | 60 | 3.34 | 174 | 131 | 105 | 87 |
| | 80 | 3.86 | 201 | 151 | 121 | 101 |
| | 90 | 4.10 | 214 | 160 | 128 | 107 |
| | 100 | 4.32 | 225 | 169 | 135 | 113 |
| | 120 | 4.73 | 248 | 185 | 148 | 123 |
| 4916-166 | 60 | 3.70 | 193 | 144 | 116 | 96 |
| | 80 | 4.27 | 222 | 167 | 133 | 111 |
| | 90 | 4.63 | 236 | 177 | 142 | 118 |
| | 100 | 4.77 | 249 | 186 | 149 | 124 |
| | 120 | 5.23 | 273 | 204 | 164 | 136 |

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

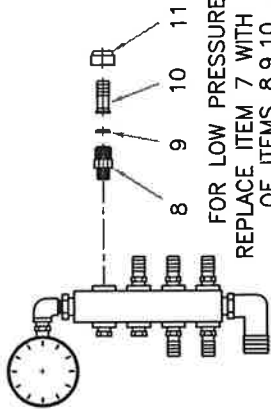
| Weight of Solution | Conversion Factor |
|------------------------|-------------------|
| 7.0 lbs./gal. | 0.81 |
| 8.0 lbs./gal. | 0.87 |
| 8.34 lbs./gal. - Water | 0.88 |
| 9.0 lbs./gal. | 0.92 |
| 10.0 lbs./gal. | 0.97 |

| 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 |

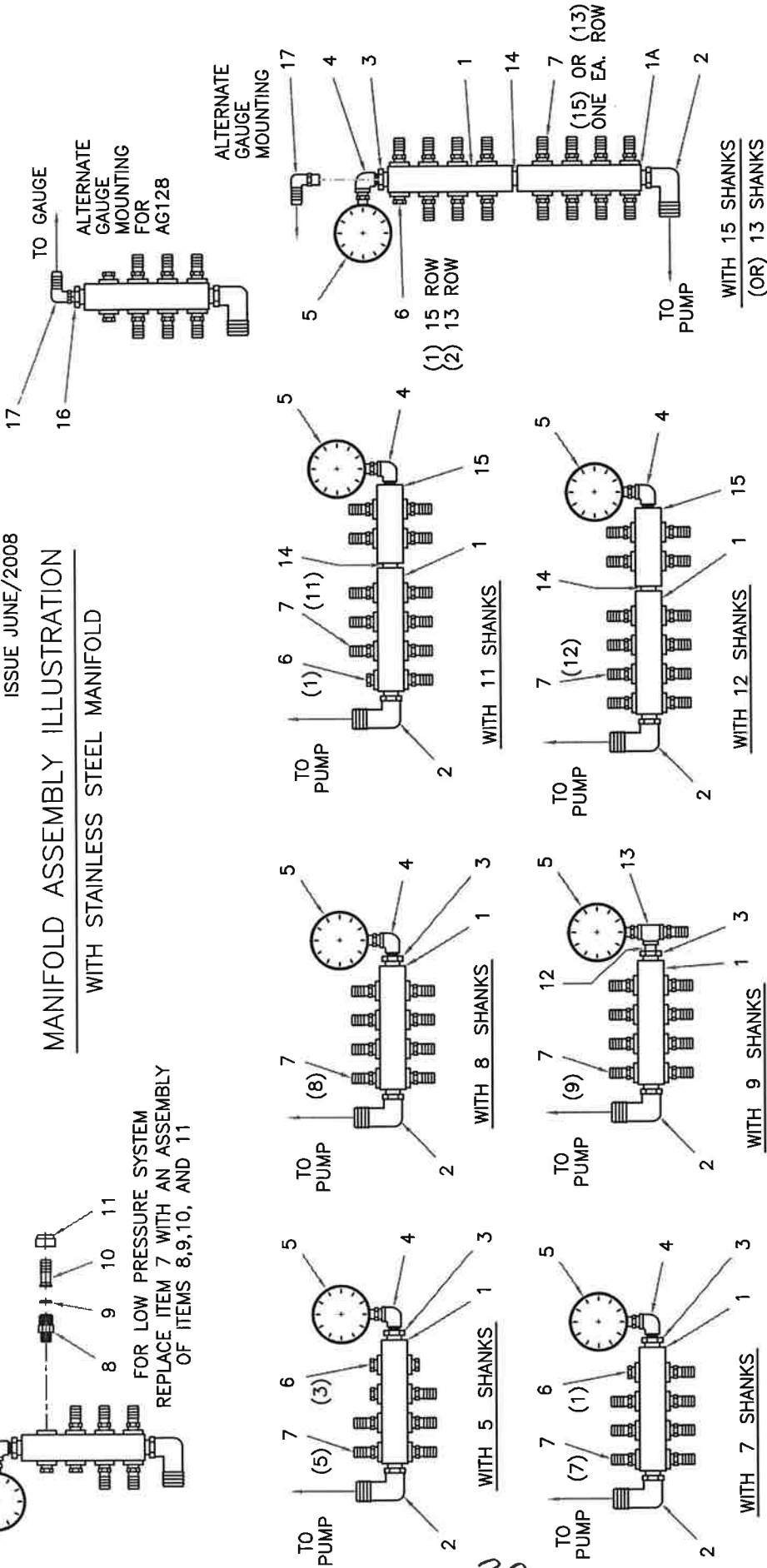
MNFDSTNLS
ISSUE JUNE/2008

MANIFOLD ASSEMBLY ILLUSTRATION

WITH STAINLESS STEEL MANIFOLD

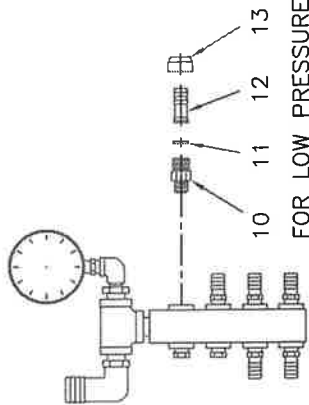


FOR LOW PRESSURE SYSTEM
REPLACE ITEM 7 WITH AN ASSEMBLY
OF ITEMS 8,9,10, AND 11



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

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

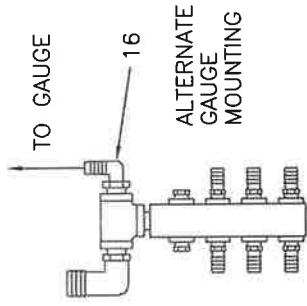


FOR LOW PRESSURE SYSTEM
 REPLACE ITEM 9 WITH AN ASSEMBLY
 OF ITEMS 10,11,12 AND 13

MANIFOLD ASSEMBLY ILLUSTRATION

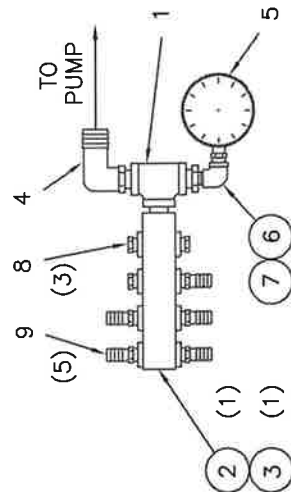
WITH NYLON MANIFOLD
 USED ON 6000 AND 6200
 SERIES APPLICATORS

MNFELDNYL
 OBSOLETE
 FOR 2004

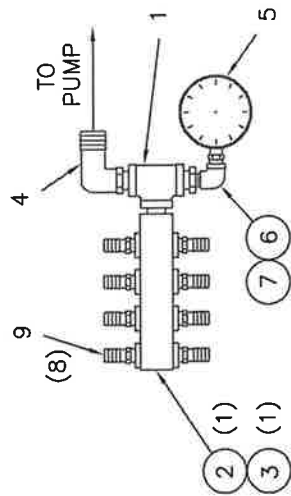


ALTERNATE
 GAUGE
 MOUNTING

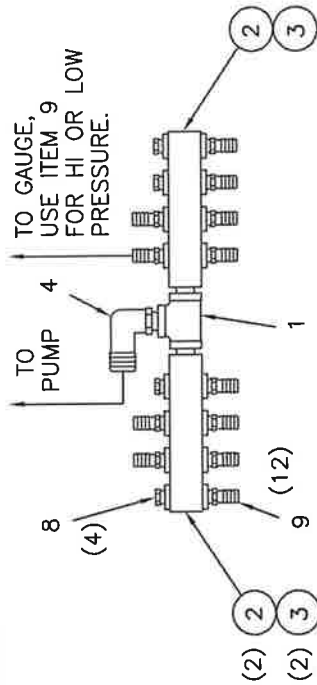
FOR QUANTITIES ON ITEMS MARKED *
 REFER TO THE ILLUSTRATION THAT
 SHOWS YOUR MANIFOLD ARRANGEMENT



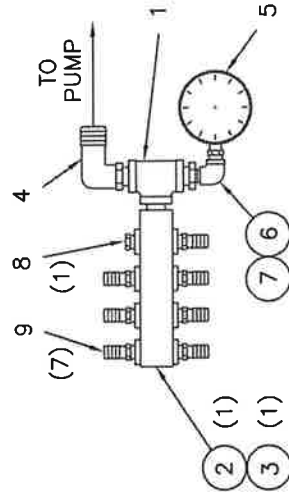
WITH 5 SHANKS



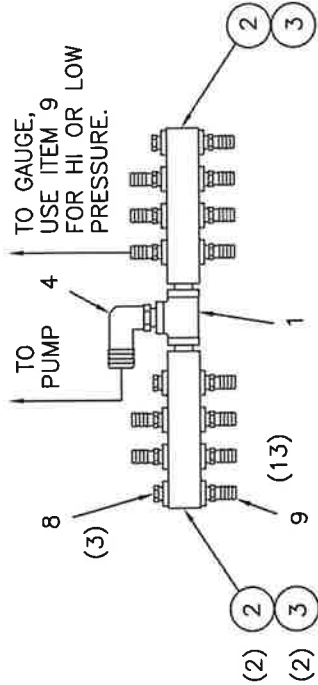
WITH 8 SHANKS



WITH 11 SHANKS



WITH 7 SHANKS



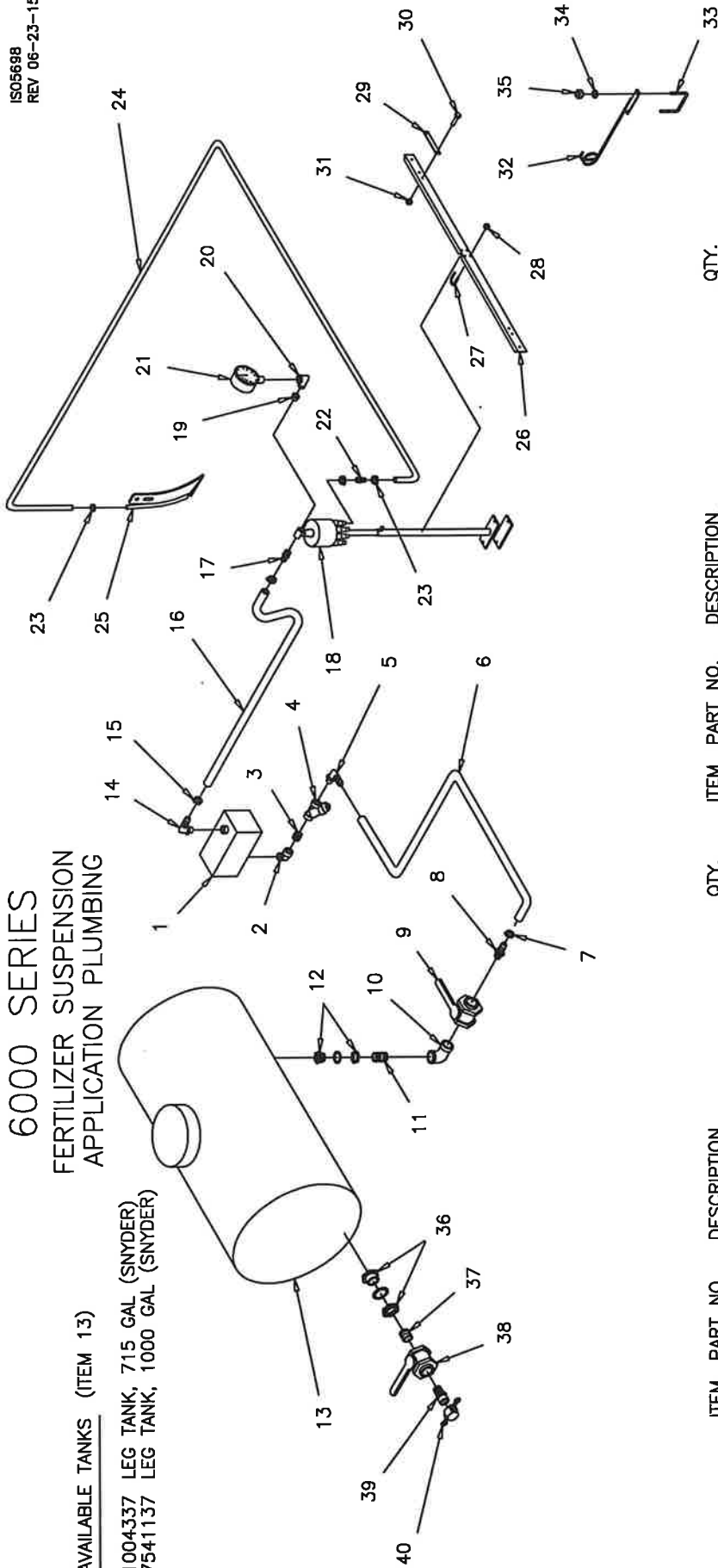
WITH 12 SHANKS

| ITEM | PART NO. | DESCRIPTION | QTY | PART NO. | DESCRIPTION | QTY |
|------|----------|-------------------------------|------|----------|---------------------------------|-----|
| 1 | 47002631 | MANIFOLD STAND, STANDARD | 1 | 9 | HOSEBARB, 1/4 NPT. X 1/2 | * |
| 2 | 47008060 | MANIFOLD STAND, WITH S.S. TEE | OPT. | 10 | ADAPTER, NOZZLE BODY | * |
| 3 | 200458 | MANIFOLD, 8 OUTLET | * | 11 | ORIFICE | * |
| 4 | 200714 | CLOSE NIPPLE, 1/2 NPT. S.S. | 1 | 12 | HOSEBARB INSERT, 1/2" | * |
| 5 | 200367 | HOSEBARB ELBOW, 1/2 NPT. X 1 | 1 | 13 | CAP, HOSEBARB INSERT | * |
| 6 | 100347 | PRESSURE GAUGE, 0 TO 160 | 1 | 14 | REDUCING NIPPLE, 1/2 X 1/4 NPT. | 1 |
| 7 | 200540 | STREET ELBOW, 1/4 NPT. X 90 | 1 | 15 | TEE, 1/4 NPT. | 1 |
| 8 | 2050025 | RED. BUSHING, 1/2 X 1/4 NPT. | * | 16 | HOSEBARB ELBOW, 1/2 NPT. X 1/2 | 1 |
| | 200480 | PLUG, 1/4 NPT. | * | | | 1 |

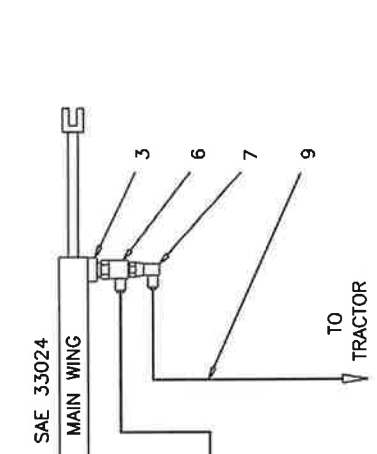
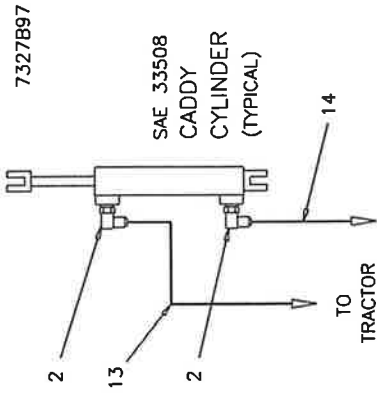
6000 SERIES FERTILIZER SUSPENSION APPLICATION PLUMBING

AVAILABLE TANKS (ITEM 13)

- 1004337 LEG TANK, 715 GAL (SNYDER)
- 7541137 LEG TANK, 1000 GAL (SNYDER)



| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|---------------|---------------------------------------|------|
| 1 | 20024405 | PUMP ASSEMBLY, LO-PRESSURE | 1 |
| 2 | 200888 | STREET 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 | 200386 | HOSEBARB ELBOW, 1 1/2 X 1 1/2 | 1 |
| 6 | 12012705 | SOLUTION HOSE, 1 1/2 X 72" | 1 |
| 7 | 200256 | HOSE CLAMP, 1 5/16 TO 2 1/4 | 2 |
| 8 | 200334 | HOSEBARB, 1 1/2 X 1 1/2 | 1 |
| 9 | 201150 | BALL VALVE, 1 1/2 NPT. | 1 |
| 10 | 200888 | STREET ELBOW, 1 1/2 NPT. | 1 |
| 11 | 200556 | CLOSE NIPPLE, 1 1/2 NPT. | 1 |
| 12 | 501591 | TANK BUNG ASSEMBLY, 1 1/2 NPT. | 1 |
| 13 | TANK | AS SPECIFIED, SEE LIST ABOVE | 1 |
| 14 | 200380 | HOSEBARB ELBOW, 1 X 1 | 1 |
| 15 | 200248 | HOSE CLAMP, 1 1/16 TO 1 1/2 | 2 |
| 16 | 10040000 | SUCTION HOSE, 1 1/4 X 18 FT. | 1 |
| 17 | 200325 | HOSEBARB, 3/4 NPT. X 1 | 1 |
| 18 | 504018 | DISTRIBUTION POT, 8 OUTLET | 1 |
| | 504025 | DISTRIBUTION POT, 5 OUTLET | OPT. |
| | 504016 | DISTRIBUTION POT, 6 OUTLET | OPT. |
| | 504037 | DISTRIBUTION POT, 7 OUTLET | OPT. |
| | 504019 | DISTRIBUTION POT, 9 OUTLET | OPT. |
| 19 | 275025 | REDUCING BUSHING, 3/4 X 1/4 NPT S.S.) | 1 |
| 20 | 200771 | STREET ELBOW, 1/4 NPT. X 90 | 1 |
| 21 | 500160 | PRESSURE GAUGE, 0 TO 160 PSI | 1 |
| 22 | 200504 | HOSEBARB JOINER, 3/4 X 3/4 | 8 |
| 23 | NOTE: QTY. 24 | REQ'D. EQUALS 1 X NO. OF OUTLETS | |
| 24 | 200244 | HOSE CLAMP, 5/16 TO 7/8 | 24 |
| 25 | NOTE: QTY. 1 | REQ'D. EQUALS 3 X NO. OF OUTLETS | |
| 26 | 100806 | HOSE, BRAIDED EVA, (3/4" X 100 FT.) | 1 |
| 27 | AS SPECIFIED | AS SPECIFIED | |
| 28 | 47008063 | SUPPORT BAR, (HOSES) | 1 |
| 29 | 47008065 | U-BOLT, 5/16-18NC. | 2 |
| 30 | 18496400 | 5/16-18NC. FLANGE-NUT | 4 |
| 31 | 47008064 | CLAMP STRAP | 4 |
| 32 | 18056430 | 5/16-18NC. X 2 BOLT | 4 |
| 33 | 18457500 | 5/16-18NC. SELF-LOCKING NUT | 4 |
| 34 | 47008066 | HOSE SUPPORT PIGTAIL | 2 |
| 35 | 47001028 | U-BOLT, 3/8-16NC. | 2 |
| 36 | 18891200 | 3/8 LOCKWASHER | 4 |
| 37 | 18436800 | 3/8-16NC. HEX. NUT | 4 |
| 38 | 21280 | FORCE-FILL PACKAGE (ITEMS 36 TO 40) | OPT. |
| 39 | 20020019 | TANK BUNG, 2" | 1 |
| 40 | 200557 | CLOSE NIPPLE, 2 NPT. | 1 |
| | 200014 | BALL VALVE, 2 NPT. | 1 |
| | 200170 | MALE ADAPTER, 2 NPT. | 1 |
| | 200172 | CAP, 2 NPT. | 1 |



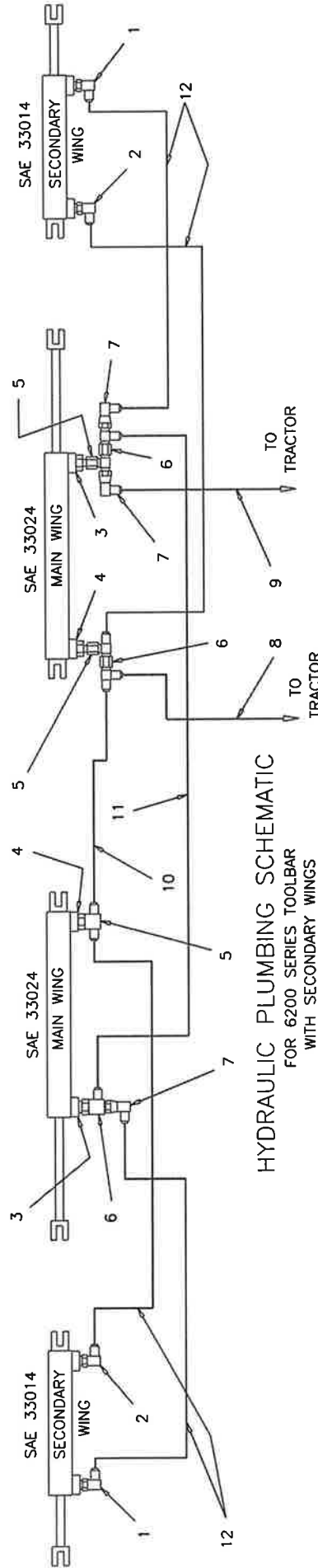
HYDRAULIC PLUMBING SCHEMATIC
FOR 6200 SERIES TOOLBAR

FITTING PACKAGE NO. 620232

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | 6801-6-8R | ADAPTER ELBOW #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 1 |
| 2 | 6801-6-8 | ADAPTER ELBOW #6 MJIC X #8 M O-RING | 3 |
| 3 | 6400-6-8R | CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 1 |
| 4 | 6400-6-8 | CONNECTOR, #6 MJIC X #8 M O-RING | 1 |
| 5 | | | |
| 6 | 6602-6 | RUN TEE, #6 MJIC X #6 FJIC SWIVEL | 2 |
| 7 | 6500-6 | ELBOW #6 MJIC X #6 FJIC SWIVEL | 1 |

HOSE PACKAGE NO. 6200X12

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| 8 | 608168 | HOSE, 3/8 X 168 - 1/2 MPT X # 6 JICFS | 1 |
| 9 | 609161 | HOSE, 3/8 X 213 - 1/2 MPT X # 6 JICFS | 1 |
| 10 | 609040 | HOSE, 3/8 X 48 - #6 JICFS BOTH ENDS | 1 |
| 11 | 608108 | HOSE, 3/8 X 108 - #6 JICFS BOTH ENDS | 1 |
| 13 | 609161 | HOSE, 3/8 X 213 - 1/2 MPT X # 6 JICFS (CADDY CYL) | 1 |
| 14 | 608182 | HOSE, 3/8 X 182 - 1/2 MPT X # 6 JICFS (CADDY CYL) | 1 |



HYDRAULIC PLUMBING SCHEMATIC
FOR 6200 SERIES TOOLBAR
WITH SECONDARY WINGS

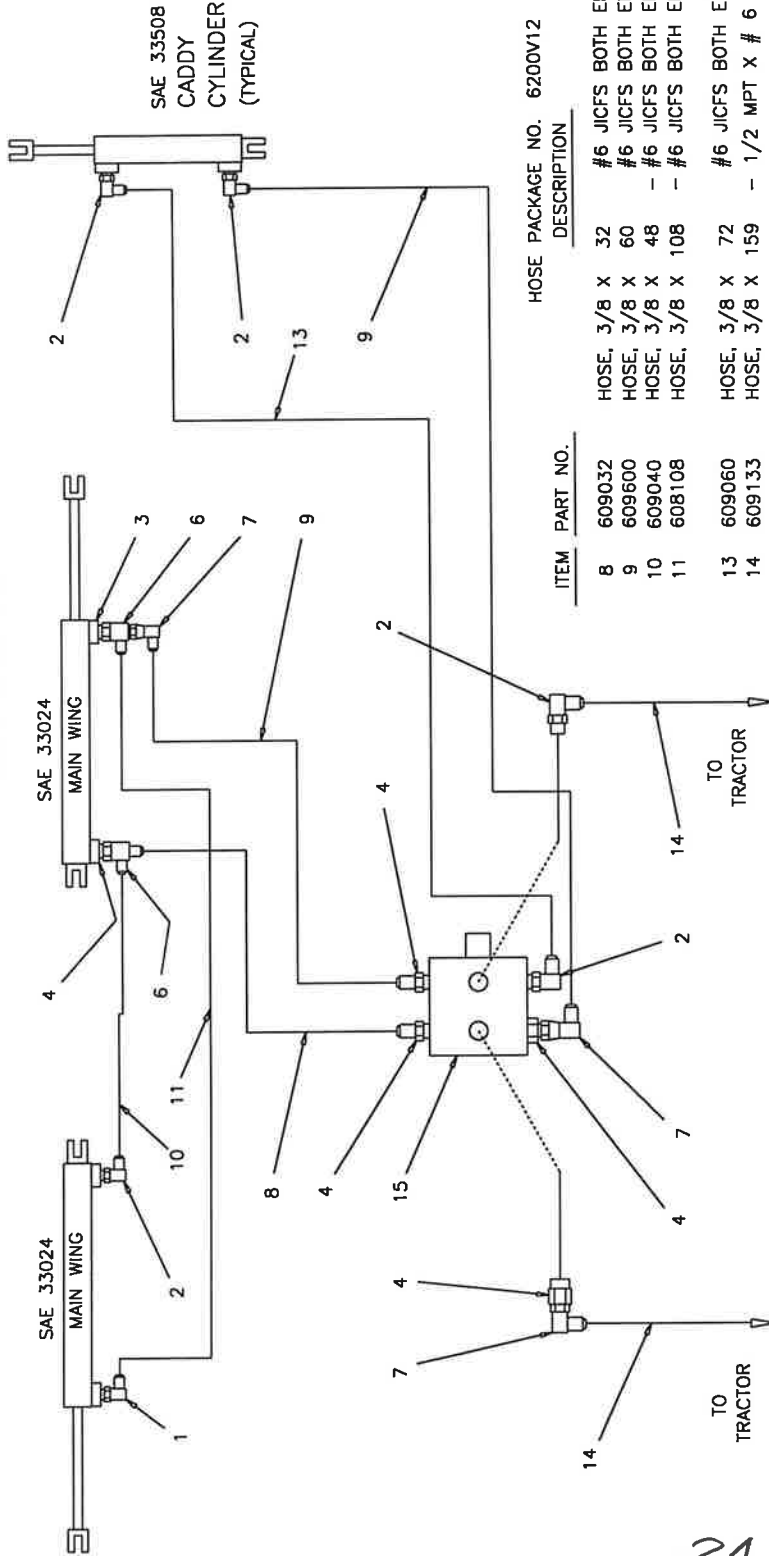
FITTING PACKAGE NO. 620242

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | 6801-6-8R | ADAPTER ELBOW #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 2 |
| 2 | 6801-6-8 | ADAPTER ELBOW #6 MJIC X #8 M O-RING | 4 |
| 3 | 6400-6-8R | CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 2 |
| 4 | 6400-6-8 | CONNECTOR, #6 MJIC X #8 M O-RING | 2 |
| 5 | 6600-6 | BRANCH TEE, #6 MJIC X #6 FJIC SWIVEL | 3 |
| 6 | 6602-6 | RUN TEE, #6 MJIC X #6 FJIC SWIVEL | 3 |
| 7 | 6500-6 | ELBOW #6 MJIC X #6 FJIC SWIVEL | 3 |

HOSE PACKAGE NO. 6202X12

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|-----|
| 8 | 608168 | HOSE, 3/8 X 168 - 1/2 MPT X # 6 JICFS | 1 |
| 9 | 609161 | HOSE, 3/8 X 213 - 1/2 MPT X # 6 JICFS | 1 |
| 10 | 609040 | HOSE, 3/8 X 48 - #6 JICFS BOTH ENDS | 1 |
| 11 | 608108 | HOSE, 3/8 X 108 - #6 JICFS BOTH ENDS | 1 |
| 12 | 608094 | HOSE, 3/8 X 112 - #6 JICFS BOTH ENDS | 4 |
| 13 | 609161 | HOSE, 3/8 X 213 - 1/2 MPT X # 6 JICFS (CADDY CYL) | 1 |
| 14 | 608182 | HOSE, 3/8 X 182 - 1/2 MPT X # 6 JICFS (CADDY CYL) | 1 |

HYDRAULIC PLUMBING SCHEMATIC FOR 6200 SERIES TOOLBAR WITH SELECTOR VALVE



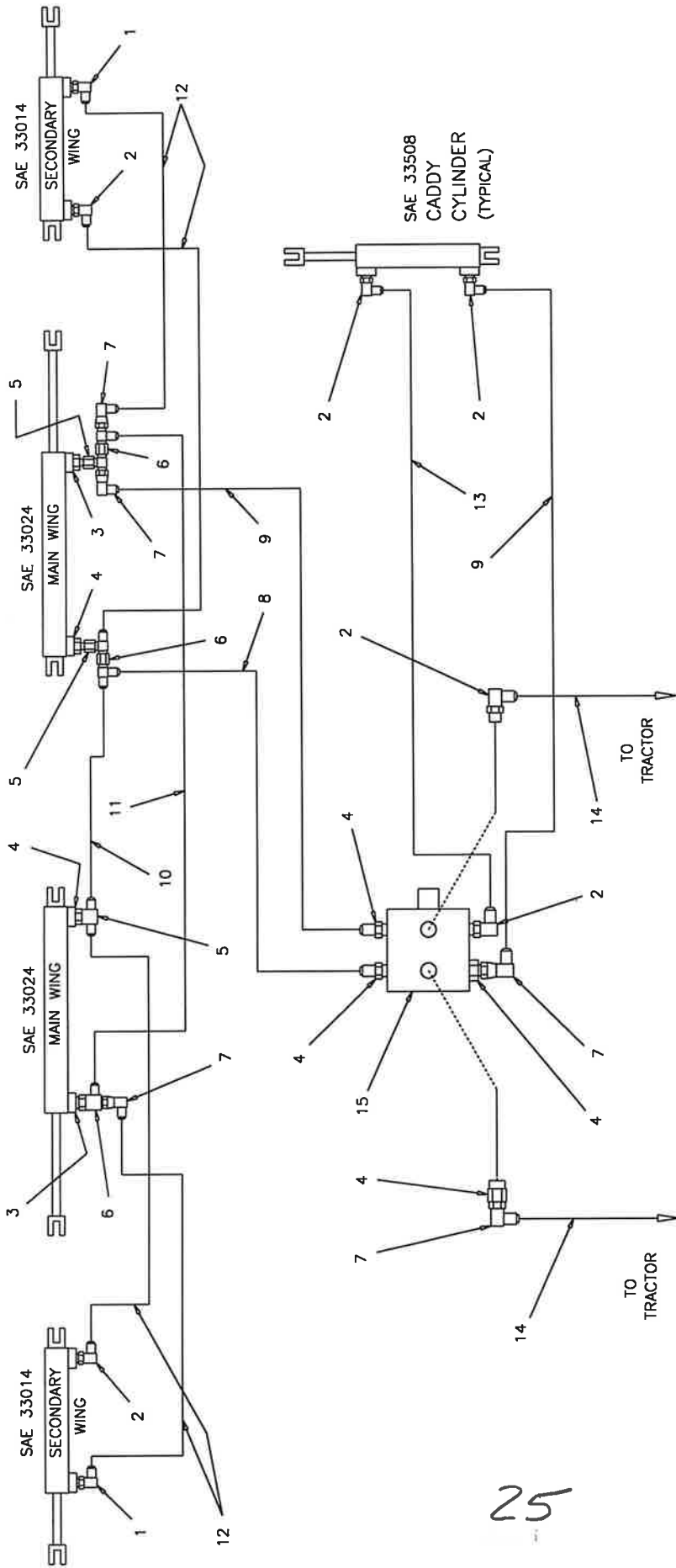
HOSE PACKAGE NO. 6200V12

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|------------------------------------|-----|
| 8 | 609032 | HOSE, 3/8 X 32 #6 JICFS BOTH ENDS | 1 |
| 9 | 609600 | HOSE, 3/8 X 60 #6 JICFS BOTH ENDS | 2 |
| 10 | 609040 | HOSE, 3/8 X 48 #6 JICFS BOTH ENDS | 1 |
| 11 | 608108 | HOSE, 3/8 X 108 #6 JICFS BOTH ENDS | 1 |
| 13 | 609060 | HOSE, 3/8 X 72 #6 JICFS BOTH ENDS | 1 |
| 14 | 609133 | HOSE, 3/8 X 159 #6 JICFS BOTH ENDS | 2 |

FITTING PACKAGE NO. 620V32

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | 6801-6-8R | ADAPTER ELBOW #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 1 |
| 2 | 6801-6-8 | ADAPTER ELBOW #6 MJIC X #8 M O-RING | 5 |
| 3 | 6400-6-8R | CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 1 |
| 4 | 6400-6-8 | CONNECTOR, #6 MJIC X #8 M O-RING | 5 |
| 6 | 6602-6 | RUN TEE, #6 MJIC X #6 FJIC SWIVEL | 2 |
| 7 | 6500-6 | ELBOW #6 MJIC X #6 FJIC SWIVEL | 3 |
| 15 | 100902 | SELECTOR VALVE ASSEMBLY | 1 |

HYDRAULIC PLUMBING SCHEMATIC FOR 6200 SERIES TOOLBAR WITH SECONDARY WINGS WITH SELECTOR VALVE



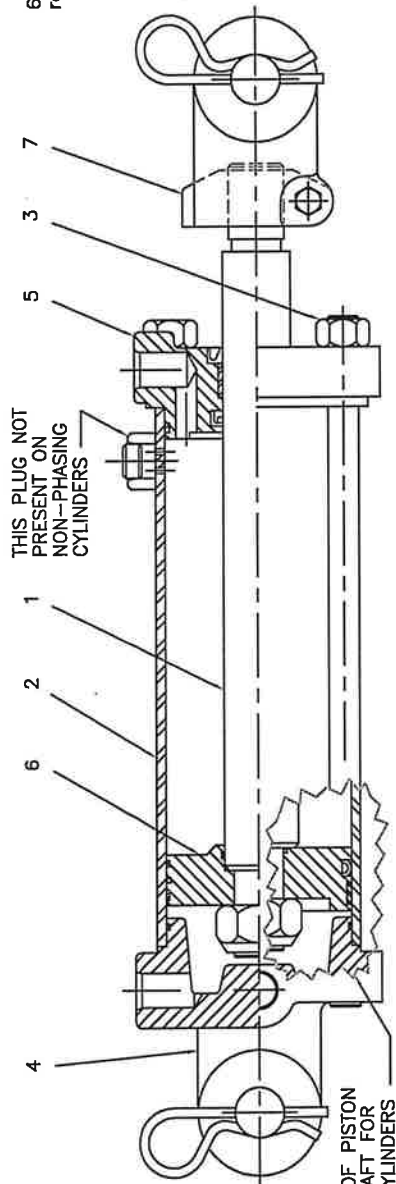
FITTING PACKAGE NO. 620V42

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|-----------|--|-----|
| 1 | 6801-6-8R | ADAPTER ELBOW #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 2 |
| 2 | 6801-6-8 | ADAPTER ELBOW #6 MJIC X #8 M O-RING | 6 |
| 3 | 6400-6-8R | CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH) | 2 |
| 4 | 6400-6-8 | CONNECTOR, #6 MJIC X #8 M O-RING | 6 |
| 5 | 6600-6 | BRANCH TEE, #6 MJIC X #6 FJIC SWIVEL | 3 |
| 6 | 5602-6 | RUN TEE, #6 MJIC X #6 FJIC SWIVEL | 3 |
| 7 | 6500-6 | ELBOW #6 MJIC X #6 FJIC SWIVEL | 5 |
| 15 | 100902 | SELECTOR VALVE ASSEMBLY | 1 |

HOSE PACKAGE NO. 6202V12

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---------------------------------------|-----|
| 8 | 609032 | HOSE, 3/8 X 32 - #6 JICFS BOTH ENDS | 1 |
| 9 | 609600 | HOSE, 3/8 X 60 - #6 JICFS BOTH ENDS | 2 |
| 10 | 609040 | HOSE, 3/8 X 48 - #6 JICFS BOTH ENDS | 1 |
| 11 | 608108 | HOSE, 3/8 X 108 - #6 JICFS BOTH ENDS | 1 |
| 12 | 608094 | HOSE, 3/8 X 112 - #6 JICFS BOTH ENDS | 4 |
| 13 | 609060 | HOSE, 3/8 X 72 - #6 JICFS BOTH ENDS | 1 |
| 14 | 609133 | HOSE, 3/8 X 159 - 1/2 MPT X # 6 JICFS | 2 |

6000CYL06
rev 05/16/18



CAUTION
FOR CYLINDER SIZE
3 1/2 X 8
CHECK THE "PRINCE" P.N.
ON THE TUBE. THE PART
NUMBER FOR THE NEWER
CYLINDER (AFTER 1998)
ENDS WITH AN "A"

| ITEM NO. | REPAIR PART DESCRIPTION | CYL. 1 1/2 X 4 (AK-284) | CYL. 3 1/2 X 8 A350080BBA07A | CYLINDER 4 X 8 47300092 A400080BBA07A | CYLINDER 3 X 24 47300093 E300240BBA07F | CYLINDER 3 X 14 47005491 E300140BBA070A | QTY. REQ'D. |
|----------|-------------------------|--|---------------------------------|---|--|---|----------------|
| 1 | PISTON ROD | 010300124 | 010700882 | 011015438A | 010729750A | 010719750A | 1 |
| 2 | TUBE | 060800136 | 051710063A | 051910563A | 051526063A | 051526063A | 1 |
| 3 | TIE ROD ASSEMBLY | | 170201123 | 170301134 | 170201282 | 170201282 | 4 |
| 4 | GLAND ASSEMBLY | 080800083 | 14170055F | 14190055F | 14150055F | 14150055F | 1 |
| 5 | PISTON | 070800071 | 081788GSF | 0819BNSF | 0815BBGSF | 0815BBGSF | 1 |
| 6 | CLEVIS ASSEMBLY | 100000444 | 071700174 | 071900260 | 071500244 | 071500244 | 1 |
| 7 | REPAIR KIT | 470AK284 (PRE 2018) (CAST CLEVIS) 20214 (POST 2018) (WELDED CLEVIS) | 100000577 | 110000326 | 100000423 | 100000423 | 1 |
| | | | 47033500 | 47034000 | 47033500 | 47033500 | 1 |

Repair kit items not available individually.

TIE ROD DISASSEMBLY--ASSEMBLY PROCEDURE.

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

DISASSEMBLY.

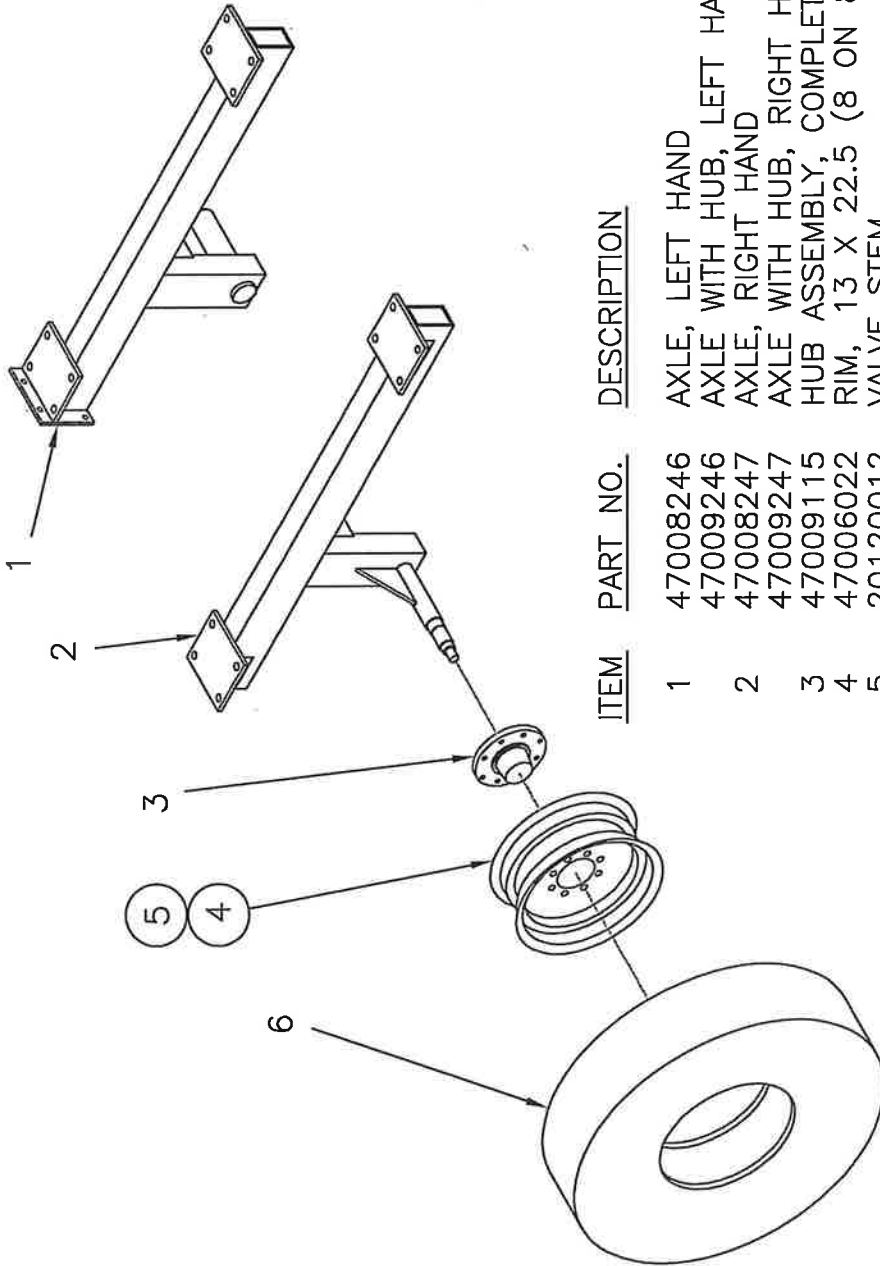
1. Secure the cylinder in a vice or other method to prevent rotation. Clean the immediate area so the parts can be laid out.
2. Remove the tie rod nuts. Pull the shaft assembly from the cylinder. Remove the tube item (2).
3. Loosen the clevis nut and remove the clevis item (7) from the shaft assembly.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

REASSEMBLY.

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

AXLE ASSEMBLY 7500 lb. CAPACITY
 (15000 lb. CADDY CAP.)

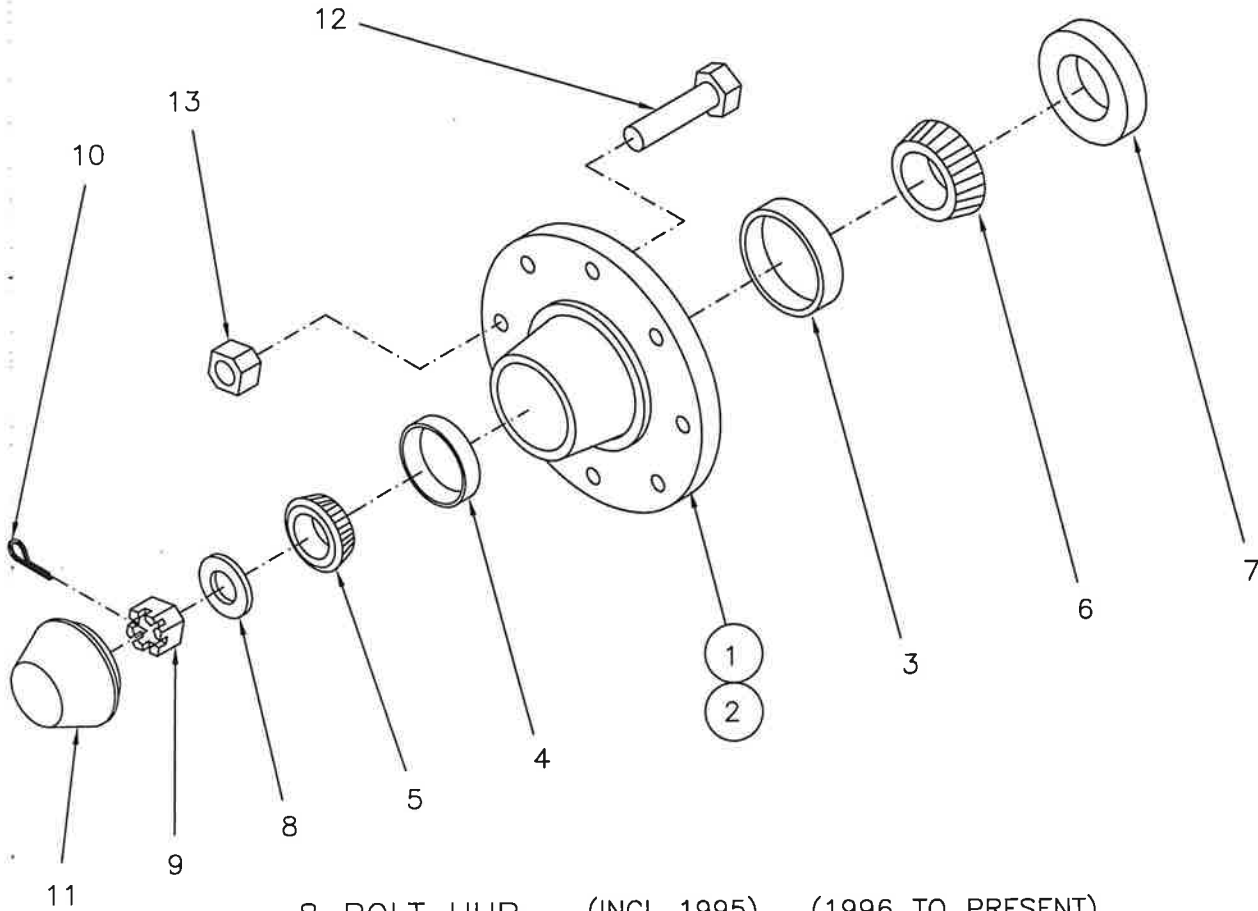
15060



| <u>ITEM</u> | <u>PART NO.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|-------------|-----------------|----------------------------------|-------------|
| 1 | 47008246 | AXLE, LEFT HAND | 1 |
| | 47009246 | AXLE WITH HUB, LEFT HAND | 1 |
| 2 | 47008247 | AXLE, RIGHT HAND | 1 |
| | 47009247 | AXLE WITH HUB, RIGHT HAND | 2 |
| 3 | 47009115 | HUB ASSEMBLY, COMPLETE | 2 |
| 4 | 47006022 | RIM, 13 X 22.5 (8 ON 8) | 2 |
| 5 | 20120012 | VALVE STEM | 2 |
| 6 | 20100021 | TIRE, 385-65R X 22.5 (8000 lb.) | 2 |
| | 40021 | TIRE, MOUNTED (INC. ITEMS 4,5,6) | 2 |

HUB ASSEMBLIES

6200HUB
09-19-12

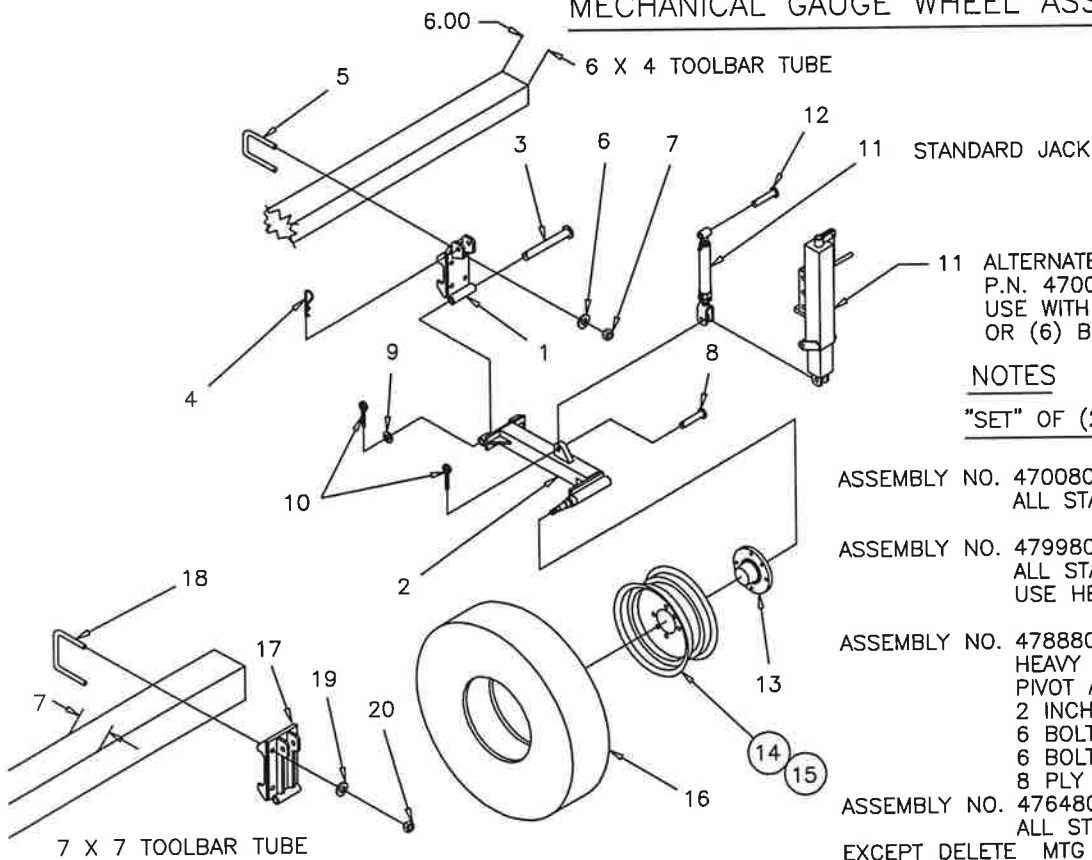


| ITEM | DESCRIPTION | 8 BOLT HUB (INCL 1995) | | | QTY. |
|------|---|------------------------|---------------------------------------|---------------------|------|
| | | (6000 lb. CAPACITY) | (1996 TO PRESENT) (6000 lb. CAPACITY) | (7500 lb. CAPACITY) | |
| | | PART NO. | PART NO. | PART NO. | |
|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

MECHANICAL GAUGE WHEEL ASSEMBLY

MCHGAWHL
REV C

05-16-12



11 STANDARD JACK
11 ALTERNATE JACK
P.N. 47008514
USE WITH IN-LINE TOWBAR
OR (6) BOLT HUB

NOTES

"SET" OF (2) GAUGE WHEEL ASSEMBLIES

ASSEMBLY NO. 47008001 INCLUDES
ALL STANDARD COMPONENTS

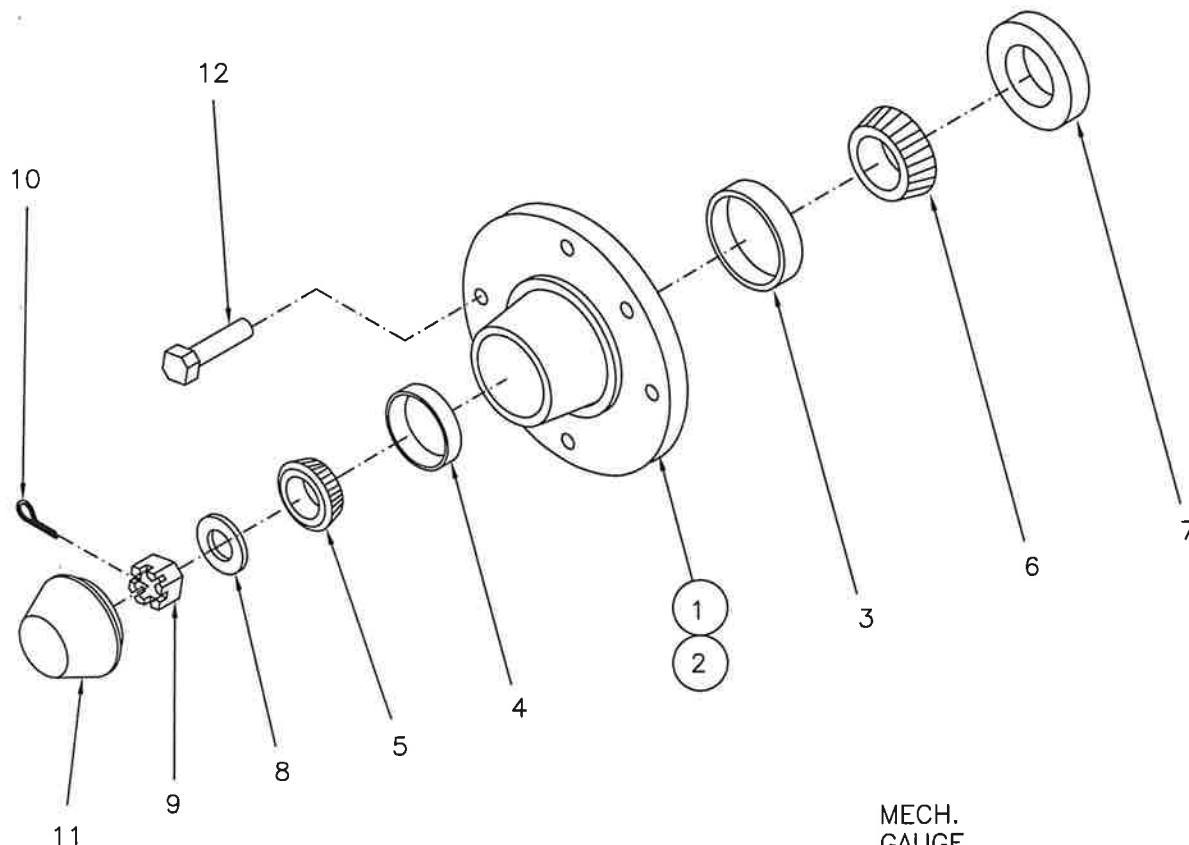
ASSEMBLY NO. 47998001 INCLUDES
ALL STANDARD COMPONENTS EXCEPT
USE HEAVY JACK. P.N. 47008514

ASSEMBLY NO. 47888001 INCLUDES
HEAVY JACK P.N. 47008514
PIVOT ARM WITH
2 INCH SPINDLE P.N. 47019335
6 BOLT HUB P.N. 47009611
6 BOLT WHEEL P.N. 47005589
8 PLY TIRE P.N. 10261

ASSEMBLY NO. 47648001
ALL STANDARD COMPONENTS
EXCEPT DELETE MTG BRACKET 47010412 AND
HARDWARE ITEMS 5, 6, AND 7
REPLACE WITH MTG BRACKET 47004742 AND
HARDWARE ITEMS 18, 19 AND 20

| ITEM | PART NO. | DESCRIPTION | QTY FOR | QTY FOR | QTY FOR | QTY FOR |
|-------|----------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | ASSY. NO. 47008001 | ASSY. NO. 47998001 | ASSY. NO. 47888001 | ASSY. NO. 47648001 |
| 1 | 47010412 | MOUNTING BRACKET | 2 | 2 | 2 | - |
| | 47000413 | PIVOT ARM COMPLETE, STANDARD | 2 | 2 | - | 2 |
| | 47999335 | PIVOT ARM COMPLETE, HEAVY DUTY INCLUDES ITEMS 2 AND 13 | - | - | 2 | - |
| 2 | 47010413 | PIVOT ARM, STANDARD | 2 | 2 | - | 2 |
| | 47019335 | PIVOT ARM, HEAVY DUTY (2" SPINDLE) | - | - | 2 | - |
| 3 | 47010425 | PIVOT PIN | 2 | 2 | 2 | 2 |
| 4 | 18560826 | COTTER PIN, 3/16 X 1 1/2 | 2 | 2 | 2 | 2 |
| 5 | 47007286 | U-BOLT, 3/4-10NC. | 4 | 4 | 4 | - |
| 6 | 18891800 | LOCKWASHER, 3/4 | 8 | 8 | 8 | - |
| 7 | 18418400 | HEX. NUT, 3/4-10NC. | 8 | 8 | 8 | - |
| 8 | 18541835 | CLEVIS PIN, 3/4 X 2 1/2 | 2 | 2 | 2 | 2 |
| 9 | 18852200 | FLATWASHER, 1" SAE ZC | 2 | 2 | 2 | 2 |
| 10 | 18560726 | COTTER PIN, 5/32 X 1 1/2 | 4 | 4 | 4 | 4 |
| 11 | 690063 | JACK, TURNBUCKLE TYPE (STANDARD) | 2 | - | - | 2 |
| (ALT) | 47008514 | JACK COMPLETE, SQUARE BODY USE WITH HEAVY DUTY PIVOT ARM, OR WITH IN-LINE TOW BAR OPTION | - | 2 | 2 | - |
| 12 | 18541566 | CLEVIS PIN, 3/4 X 3 1/2 | 2 | 2 | 2 | 2 |
| 13 | 47005348 | HUB ASSEMBLY COMPLETE, (5) BOLT | 2 | 2 | - | 2 |
| | 47009611 | HUB ASSEMBLY COMPLETE, (6) BOLT | - | - | 2 | - |
| 14 | 47005590 | WHEEL, 15" X 5 BOLT (STANDARD) | 2 | 2 | - | 2 |
| | 47005589 | WHEEL, 15" X 6 BOLT | - | - | 2 | - |
| 15 | 20120012 | VALVE STEM | 2 | 2 | 2 | 2 |
| 16 | 20067015 | TIRE, 670 X 15 (STANDARD) | 2 | 2 | - | 2 |
| | 10261 | TIRE, 11L X 15, 8-PLY | - | - | 2 | - |
| 17 | 47004742 | MOUNTING BRACKET (7 X 7 TUBE ONLY) | - | - | - | 2 |
| 18 | 47005002 | U-BOLT, 5/8-11NC. (FOR 7 X 7 BAR) | - | - | - | 4 |
| 19 | 18891600 | LOCK WASHER, 5/8 ZC | - | - | - | 8 |
| 20 | 18417900 | HEX. NUT, 5/8-NNC. ZC | - | - | - | 8 |

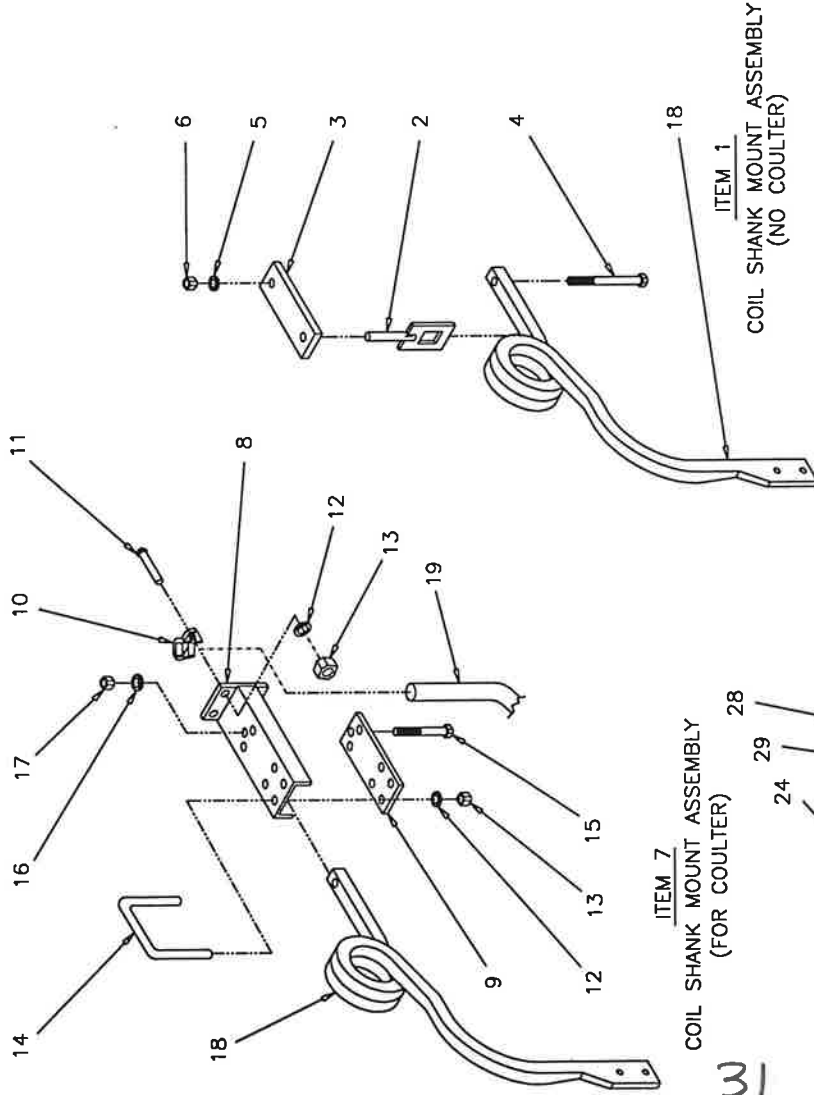
HUB ASSEMBLIES



| ITEM | DESCRIPTION | MECH. GAUGE WHEEL ONLY | | | QTY. |
|------|--|------------------------|---------------------|---------------------|------|
| | | 5 BOLT HUB PART NO. | 6 BOLT HUB PART NO. | 6 BOLT HUB PART NO. | |
| 1 | HUB COMPLETE INCLUDES ITEMS 2 THRU 7 AND 11 THRU 12 ONLY MFR. PART NUMBER | 47005348 | 47009618 | 47009611 | 1 |
| 2 | HUB WITH RACES | HA511 | H618 | H611 | 1 |
| 3 | INNER BEARING RACE | 47006348 | 47005618 | 47005511 | 1 |
| 4 | OUTER BEARING RACE | 47005010 | 47005520 | 47005710 | 1 |
| 5 | OUTER BEARING CONE | 44501910 | 47005510 | 47005010 | 1 |
| 6 | INNER BEARING CONE | 44501949 | 47005548 | 47005048 | 1 |
| 7 | GREASE SEAL | 47005048 | 47005580 | 47005749 | 1 |
| 8 | SPINDLE WASHER | 47006011 | 47005030 | 47005013 | 1 |
| 9 | SPINDLE NUT | 18000017 | 18000017 | 18000017 | 1 |
| 10 | COTTER PIN | 18488600 | 18489100 | 18489100 | 1 |
| 11 | DUST CAP | 18560826 | 18560828 | 18560828 | 1 |
| 12 | LUG BOLT | 47005297 | 47005515 | 47005513 | 1 |
| 12 | LUG BOLT | 47005014 | 47005012 | 47005014 | 6 |
| | | | | | 5 |

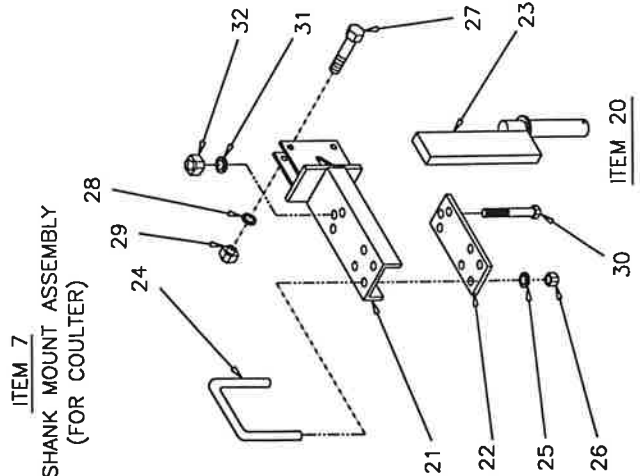
STANDARD UNIVERSAL MOUNT

| ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---|------|
| 1 | 40511000 | SHANK CLAMP SET, (6 X 4 BAR) | 1 |
| | 40512000 | SHANK CLAMP SET, (4 X 4 BAR) | OPT. |
| | | INCLUDES ITEMS 2 TO 6 | |
| 2 | 44009306 | LOLLIPOP, FOR SQUARE SHANK | 1 |
| | 602083 | LOLLIPOP, FOR 1 X 2 SHANK | OPT. |
| | | WITH LOCKWASHER & NUT | |
| 3 | 44006685 | TOP PLATE, (6 X 4 BAR) | 1 |
| | 44006685 | TOP PLATE, (4 X 4 BAR) | OPT. |
| 4 | 18058470 | BOLT, 3/4-10NC. X 7 | 1 |
| 5 | 18891800 | LOCKWASHER, 3/4 | 2 |
| 6 | 18418400 | HEX. NUT, 3/4-10NC. | 2 |
| 7 | 47309184 | SHANK MOUNT ASS'Y. (SQUARE SHANK) | 1 |
| | | INCLUDES ITEMS 8 TO 14 | |
| | 47309177 | SHANK MOUNT ASS'Y. (1 X 2 SHANK) | OPT. |
| | | ON 6 X 4 BAR | |
| | 47308184 | SHANK MOUNT ASS'Y. (1 X 2 SHANK) | OPT. |
| | | ON 4 X 4 BAR | |
| | | INCLUDES ITEMS 8 TO 14 | |
| 8 | 47309406 | SHANK HOLDER, (SQUARE SHANK) | 1 |
| | 47302890 | SHANK HOLDER, (1 X 2 SHANK) | OPT. |
| 9 | 47306005 | CLAMP PLATE, (SQUARE SHANK) | 1 |
| | 47006832 | CLAMP PLATE, (1 X 2 SHANK) | OPT. |
| 10 | 47301538 | CLAMP, COULTER SHANK | 2 |
| 11 | 18057940 | BOLT, 5/8-11NC. X 3 1/2 | 4 |
| 12 | 18891600 | LOCKWASHER, 5/8 | 8 |
| 13 | 18417900 | HEX. NUT, 5/8-11NC. | 8 |
| 14 | 47006950 | U-BOLT, 5/8-11NC. (6 X 4 BAR) | 2 |
| | 47006951 | U-BOLT, 5/8-11NC. (4 X 4 BAR) | OPT. |
| 15 | 18058436 | BOLT, 3/4-10NC. X 3 | 1 |
| 16 | 18891800 | LOCKWASHER, 3/4 | 1 |
| 17 | 18418400 | HEX. NUT, 3/4-10NC. | 1 |
| 18 | 80310 | COIL SHANK (OR AS SPECIFIED) | 1 |
| 19 | 4036000 | COULTER ASSEMBLY, AG36 | 1 |
| | | WITH STRAIGHT OR BENT COULTER SHANK AS SPECIFIED. | |
| 20 | 47999370 | SHANK MOUNT ASSEMBLY COMPLETE | 1 |
| | | INCLUDES ITEMS 21 TO 29 | |
| 21 | 47309370 | SHANK HOLDER, (1 X 2 SHANK) | 1 |
| 22 | 47006832 | CLAMP PLATE, (1 X 2 SHANK) | 1 |
| 23 | 47303811 | FLAT BAR COULTER SHANK, 18" | 1 |
| | 47309811 | FLAT BAR COULTER SHANK, 12" | OPT. |
| 24 | 47006950 | U-BOLT, 5/8-11NC. (6 X 4 BAR) | 2 |
| | 47006951 | U-BOLT, 5/8-11NC. (4 X 4 BAR) | OPT. |
| 25 | 18891600 | LOCKWASHER, 5/8 | 4 |
| 26 | 18417900 | HEX. NUT, 5/8-11NC. | 4 |
| 27 | 18057434 | BOLT, 1/2-13NC. X 2 1/2 | 2 |
| 28 | 18891400 | LOCKWASHER, 1/2 | 2 |
| 29 | 18417400 | HEX. NUT, 1/2-13NC. | 2 |
| 30 | 18058436 | BOLT, 3/4-10NC. X 3 | 1 |
| 31 | 18891800 | LOCKWASHER, 3/4 | 1 |
| 32 | 18418400 | HEX. NUT, 3/4-10NC. | 1 |



ITEM 7
COIL SHANK MOUNT ASSEMBLY
(FOR COULTER)

ITEM 18
COIL SHANK MOUNT ASSEMBLY
(NO COULTER)



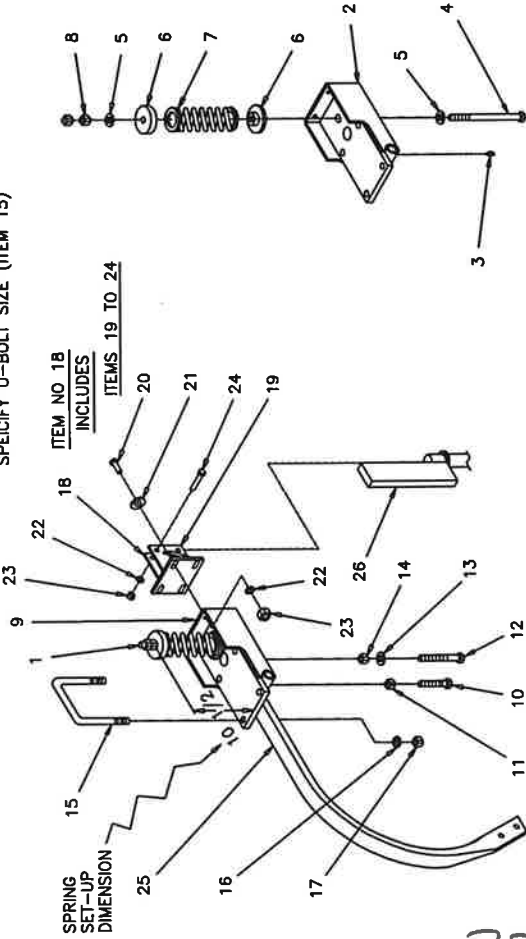
ITEM 20

SHANK MOUNT ASSEMBLY for 1 X 2 FLAT KNIFE SHANK
AND COULTER MOUNTED WITH 1 X 3 FLAT BAR COULTER SHANK

SPRING BUNDLE ASSEMBLY

FOR 6 X 4 BAR YEAR 2000 TO PRESENT
AND 6 X 6 BAR

SPECIFY U-BOLT SIZE (ITEM 15)



ITEM NO. 1
INCLUDES ITEMS 2 TO 8

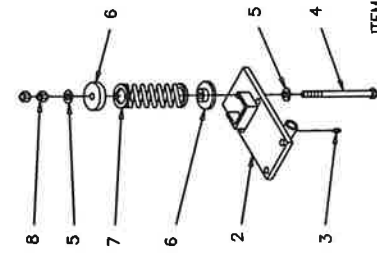
ITEM NO. 9
INCLUDES ITEM 1
AND 10 TO 17

| ITEM PART NO. | DESCRIPTION | QTY |
|---------------|--|-----|
| 1 | 47010082 SPRING SHANK MOUNT ASSEMBLY | 1 |
| 2 | 18010189 INCLUDES ITEMS 2 TO 8 | 1 |
| 3 | 18901805 SHANK MOUNTING BASE | 1 |
| 4 | 47007766 GREASE ZERK | 2 |
| 5 | 18851800 BOLT, 3/4-10NC. X 1 3/4 | 1 |
| 6 | 47007085 FLATWASHER, 3/4 | 2 |
| 7 | 47007565 END COLLAR | 1 |
| 8 | 18446890 COMPRESSION SPRING | 2 |
| | HEX. NUT, 3/4-10NC. GR. 5 | |
| 9 | 47020082 SPRING LOADED SHANK MOUNT COMPLETE (NO COULTER) | 1 |
| | INCLUDES ITEMS 1 AND 10 TO 17 | |
| | (SHIPPING INFO) HARDWARE PACKAGE | |
| | INCLUDES ITEMS 10 TO 17 | |
| 10 | 18058429 BOLT, 3/4-10NC. X 1 3/4 | 1 |
| 11 | 18449003 HEX. JAM NUT, 3/4-10NC. | 1 |
| 12 | 18058436 BOLT, 3/4-10NC. X 3 | 1 |
| 13 | 18891800 LOCKWASHER, 3/4 | 1 |
| 14 | 18418400 HEX. NUT, 3/4-10NC. | 1 |
| 15 | 47007083 U-BOLT, 5/8-11NC. (4 X 6 BAR) | 2 |
| 16 | 47009847 U-BOLT, 5/8-11NC. (6 X 6 BAR) | OR |
| 17 | 18891800 LOCKWASHER, 5/8 | 4 |
| | HEX. NUT, 5/8-11NC. | 4 |

P.N. 47039417

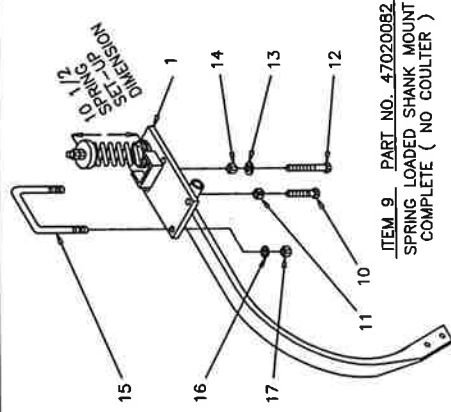
SPRING BUNDLE ASSEMBLY COMPLETE
INCLUDES AT ITEMS (1 TO 25)
DOES NOT INCLUDE THE SHANK OR COULTER

| ITEM PART NO. | DESCRIPTION | QTY |
|---------------|--|-----|
| 1 | 47029413 SPRING SHANK MOUNT ASSEMBLY | 1 |
| 2 | 18010189 INCLUDES ITEMS 2 TO 8 | 1 |
| 3 | 47019413 SHANK MOUNTING BASE | 2 |
| 4 | 18901805 GREASE ZERK | 1 |
| 5 | 47007766 BOLT, 3/4-10NC. X 1 3/4 | 2 |
| 6 | 18811800 FLATWASHER, 3/4 | 2 |
| 7 | 47007085 END COLLAR | 2 |
| 8 | 47007565 COMPRESSION SPRING | 1 |
| | HEX. NUT, 3/4-10NC. GR. 5 | 2 |
| 9 | 47039413 SPRING LOADED SHANK MOUNT COMPLETE (NO COULTER) | 1 |
| | INCLUDES ITEMS 1 AND 10 TO 17 | |
| 10 | 18058429 BOLT, 3/4-10NC. X 1 3/4 | 1 |
| 11 | 18449003 HEX. JAM NUT, 3/4-10NC. | 1 |
| 12 | 18058436 BOLT, 3/4-10NC. X 3 | 1 |
| 13 | 18891800 LOCKWASHER, 3/4 | 1 |
| 14 | 18418400 HEX. NUT, 3/4-10NC. | 1 |
| 15 | 47007083 U-BOLT, 5/8-11NC. (4 X 6 BAR) | 2 |
| 16 | 47009847 U-BOLT, 5/8-11NC. (6 X 6 BAR) | OR |
| 17 | 18891800 LOCKWASHER, 5/8 | 4 |
| | HEX. NUT, 5/8-11NC. | 4 |
| 18 | 47029417 COULTER MOUNTING BRACKET ASSEMBLY | 1 |
| | INCLUDES ITEM 19 TO 24 | |
| 19 | 47019417 COULTER MOUNTING BRACKET | 1 |
| 20 | 18057426 BOLT, 1/2-13NC. X 1 1/2 | 4 |
| 21 | 18811400 FLATWASHER, 1/2 | 4 |
| 22 | 18891400 LOCKWASHER, 1/2 | 6 |
| 23 | 18417400 HEX. NUT, 1/2-13NC. | 6 |
| 24 | 18057434 BOLT, 1/2-13NC. X 2 1/2 | 2 |
| 25 | 103471 SPRING SHANK (OR AS SPECIFIED) | 1 |
| 26 | COULTER ASSEMBLY COMPLETE | 1 |
| | REFER TO PART NUMBERS AND SPECIFY BLADE ASSEMBLY NUMBER AND SWIVEL BAR NUMBER. | |



ITEM 1 (REPAIR PARTS)
SPRING SHANK MOUNT ASSEMBLY
INCLUDES ITEMS 2 TO 8

SPRING LOADED SHANK MOUNTING



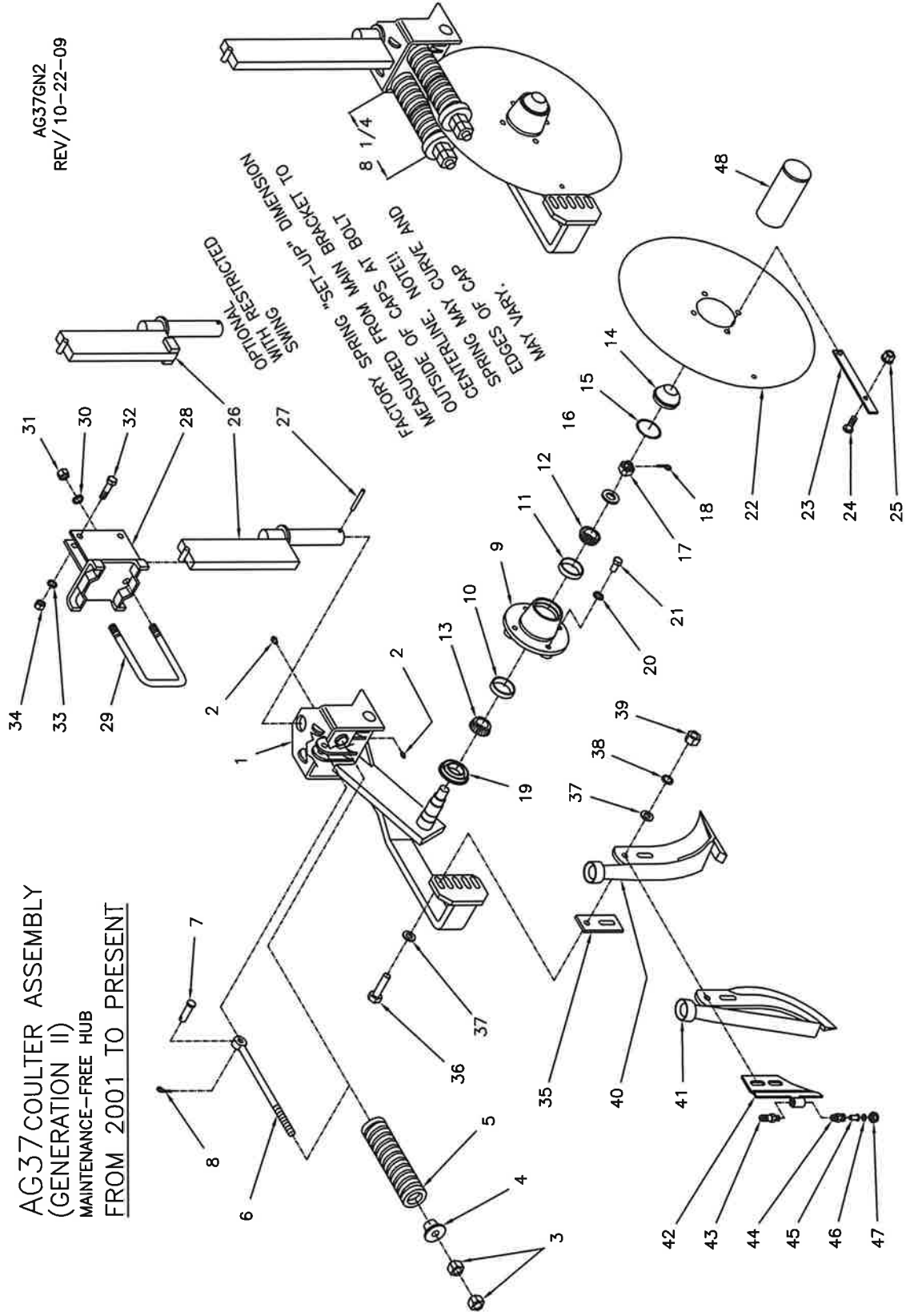
ITEM 9 PART NO. 47020082
SPRING LOADED SHANK MOUNT
COMPLETE (NO COULTER)

32

32A

AG37 COULTER ASSEMBLY
 (GENERATION II)
 MAINTENANCE-FREE HUB
 FROM 2001 TO PRESENT

AG37GN2
 REV/ 10-22-09



AG37 COULTER ASSEMBLY (GENERATION II)

AG37GN2LS
REV. 01/28/22

with MAINTENANCE-FREE HUB MOUNTING INSTRUCTIONS AND PARTS LIST

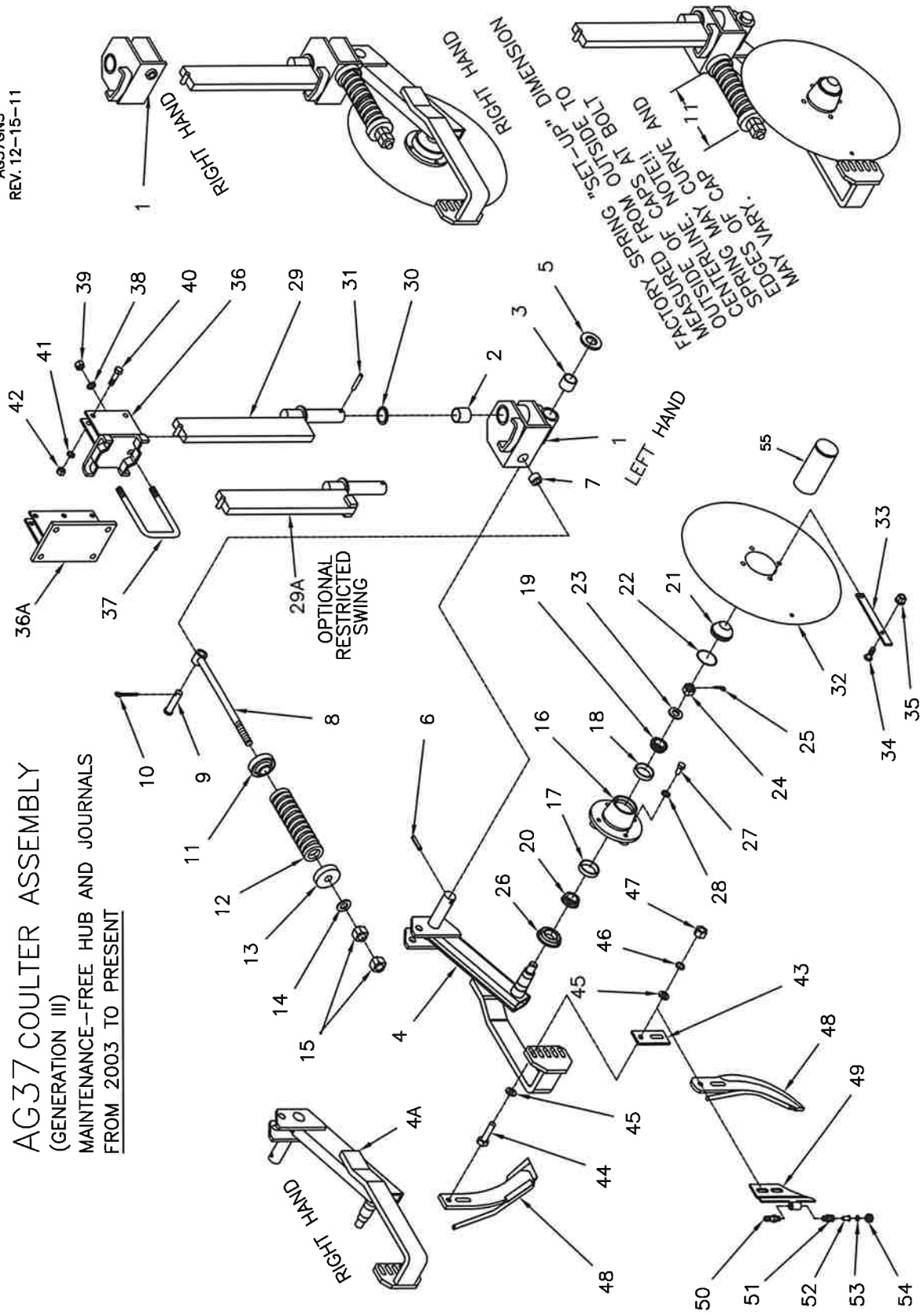
1. Your AG37 main bracket and hub are pre-assembled at the factory and the trip springs are pre-loaded to provide 525 pounds blade pressure. This should be adequate for normal field conditions. The coultter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coultter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring, tighten the spring tension till rigid normal operation is achieved.
2. Assemble the blade (item 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 coultter 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 coultter blade to the desired depth and tighten the hardware securely.
7. Assemble the knife (item 40 or 41) to the coultter 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 for 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 coultter 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 coultter blade and knife clearance daily. Adjust per step 8 if required. The coultter hub is greased-for-life and should need no regular maintenance. Check for damage to the dust cap and grease seal daily.

| ITEM | PART NO. | DESCRIPTION | QTY | ITEM | PART NO. | DESCRIPTION | QTY | ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|---------------------------------------|-----|------|-----------|--|-----|------|----------|-------------------------|-----|
| 1 | 47309905 | MAIN BRKT. & BLADE ASSEMBLY, L.H. | 1 | 23 | 47306921 | SCRAPER | 1 | 30 | 18891600 | LOCKWASHER, 5/8 | 2 |
| 2 | 47307705 | INCLUDES ITEMS 1 TO 22 | 1 | 24 | 18033810 | BOLT, 3/8-16NC, X 1, TRUSS HEAD | 1 | 31 | 18417900 | HEX. NUT, 5/8-11NC. | 2 |
| 3 | 47108570 | MAIN BRKT W/HUB ASSEMBLY, L.H. | 1 | 25 | 18496800 | COULTER SWIVEL BAR, 18" (INCL. ITEM 27) | 1 | 32 | 18057434 | BOLT, 1/2-13NC, X 2 1/2 | 2 |
| 4 | 47108568 | MAIN BRKT W/HUB ASSEMBLY, R.H. OPT. | 1 | 26 | 47303811 | COULTER SWIVEL BAR, 12" (INCL. ITEM 27) OPT. | 1 | 33 | 18891400 | LOCKWASHER, 1/2 | 2 |
| 5 | 47309570 | INCLUDES ITEMS 1 TO 21 (W/O BLADE) | 1 | | OPTIONAL | | | 34 | 18417400 | HEX. NUT, 1/2-13NC. | 2 |
| 6 | 18901805 | MAIN BRACKET, L.H. (W/O HUB OR BLADE) | 1 | | 47005147 | 18" BAR 10" RESTR. SWING (BOTH WAYS) | 1 | 35 | 47306661 | SHIM, 1/4 | 1 |
| 7 | 18407900 | GREASE ZERK, STRAIGHT | 2 | | 47005147R | 18" BAR 10" RESTR. SWING (LH ONLY) | 1 | | 47306662 | SHIM, 1/8 | 1 |
| 8 | 47301530 | HEX NUT 5/8-11NC. | 4 | | 47005149 | 18" BAR 10" RESTR. SWING (RH ONLY) | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 9 | 47301524 | SPRING CAP | 2 | | 47005149L | 18" BAR 15" RESTR. SWING (LH ONLY) | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 10 | 47301547 | COMPRESSION SPRING | 2 | | 47005149R | 18" BAR 15" RESTR. SWING (RH ONLY) | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 11 | 18560722 | EYE BOLT, SPRING RETAINER | 2 | | | CALL AG SYSTEMS FOR INFO. | | | 47306662 | SHIM, 1/16 | 1 |
| 12 | 18560722 | CLEVIS PIN, 1/2 X 1 3/4 | 2 | | | | | | 47306662 | SHIM, 1/16 | 1 |
| 13 | 47300350 | HUB COMPLETE (W/O SEAL & BOLTS) | 2 | | | | | | 47306662 | SHIM, 1/16 | 1 |
| 14 | 47300351 | INCLUDES ITEMS 9 TO 15 | 2 | 27 | 18511032 | ROLL PIN, 1/4 X 2 1/4 | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 15 | 47005510 | HUB WITH CUPS ITEMS 10 & 11 | 1 | 28 | 47309893 | MOUNTING BRACKET, (4" VERTICAL) STD. | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 16 | 47005010 | BEARING CUP, INNER | 1 | 29 | 47006951 | U-BOLT, 5/8-11NC. (4" V X 6" BAR) | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 17 | 47005048 | BEARING CUP, OUTER | 1 | | 44001616 | U-BOLT, 5/8-11NC. (4" V X 4" BAR) | 1 | | 47306662 | SHIM, 1/16 | 1 |
| 18 | 47005548 | BEARING CONE, OUTER | 1 | 28 | 47309887 | OTHER MOUNTING BRACKET OPTIONS | | | 47306662 | SHIM, 1/16 | 1 |
| 19 | 47005513 | BEARING CONE, INNER | 1 | 29 | 47309887 | MOUNTING BRKT., (2 1/2" VERTICAL) | | | 47306662 | SHIM, 1/16 | 1 |
| 20 | 47990351 | DUST CAP | 1 | 28 | 47309887 | MOUNTING BRKT., (3" VERTICAL) | | | 47306662 | SHIM, 1/16 | 1 |
| 21 | 47990352 | O-RING DUST SEAL | 1 | 29 | 47309877 | MOUNTING BRKT., (3" VERT. EXT.) | | | 47306662 | SHIM, 1/16 | 1 |
| 22 | 47300352 | SPINDLE WASHER | 1 | 28 | 47309868 | MOUNTING BRKT., (6" VERTICAL) | | | 47306662 | SHIM, 1/16 | 1 |
| 23 | 47300353 | SLOTTED NUT, 7/8-14UNF | 1 | 29 | 47010154 | U-BOLT, 5/8-11NC. (6" V X 4" BAR) | | | 47306662 | SHIM, 1/16 | 1 |
| 24 | 18560726 | COTTER PIN, 5/32 X 1 1/2 | 1 | 28 | 47009847 | U-BOLT, 5/8-11NC. (6" V X 6" BAR) | | | 47306662 | SHIM, 1/16 | 1 |
| 25 | 40030326 | GREASE SEAL | 4 | 29 | 47302730 | U-BOLT, 1/2-13NC. (7" V X 7" BAR) | | | 47306662 | SHIM, 1/16 | 1 |
| 26 | 18891400 | LOCK WASHER, 1/2 I.D. | 4 | 28 | | NOTE for 7" U-BOLT USE 1/2-13NC. HEX. NUTS | | | 47306662 | SHIM, 1/16 | 1 |
| 27 | 18057522 | WHEEL BOLT, 1/2-20NF X 1 | 4 | 29 | | | | | 47306662 | SHIM, 1/16 | 1 |
| 28 | 47305027 | COULTER BLADE, 20" RIPPLED | 1 | | | | | | 47306662 | SHIM, 1/16 | 1 |

REF. 47300300 SPINDLE ONLY

AG37GN3
REV. 12-15-11

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



AG37 COULTER ASSEMBLY (GENERATION III)

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 coultter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coultter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring, tighten the spring tension till rigid normal operation is achieved.
2. Assemble the blade (item 32) to the hub, and (if used) the scraper (item 33) to the blade with the hardware (items 34 & 35).
3. Assemble the swivel bar (item 29) to the bracket assembly. Be sure the swivel bar is positioned between the swivel control lugs on top of the main bracket. Install the washer (item 30) and pin (item 31).
4. Position the mounting bracket (item 36) at the desired spacing and fasten with the u-bolt (item 37) and hardware (items 38 and 39).
5. Install the coultter assemblies in the mounting brackets (item 36) and fasten with the bolts (item 40) and hardware (items 41 and 42). Assemble the hardware snug only.
6. Adjust the coultter blade to the desired depth and tighten the hardware securely.
7. Assemble the knife (item 48) to the coultter assembly with the shims (item 43) bolts (item 44) and hardware (items 45, 46 and 47). Select and install the shims in a manner so that as you rotate the blade, a complete revolution you see that the point of the knife and the lower area of the knife is behind the blade at all times. The backsept knife should be positioned to obtain maximum backswep. Locate the upper bolt to the front of the slot and the lower bolt to the back of the slot. Note, the bolt head should be located next to the bracket (see illustration) and any shims not needed should be placed between the back side of the bracket and the flat washer next to the head of the bolt.
8. The front sweat knife should be positioned as close to the blade edge as possible. Zero clearance. This will maintain the blade's trash cutting ability. Rotate the coultter blade to determine the point of maximum eccentric runout of the circumference and adjust the knife to zero clearance at this point. The top of the knife should be away from the blade far enough so that the scraper can pass the top, thick part, of the knife without rubbing the knife. NOTE: The knife position should be inspected frequently and re-adjusted regularly.
9. Make sure all hardware is tightened securely.
10. No field operation lubricating is required. The hubs are sealed and greased for life. The swivel journals are assembled with grease-less bushings. For repair procedures, see separate sheet titled PROCEDURE TO SERVICE A COULTER HUB.

REF 47300300 SPINDLE ONLY

36

| ITEM | PART NO. | DESCRIPTION | QTY | ITEM | PART NO. | DESCRIPTION | QTY | ITEM | PART NO. | DESCRIPTION | QTY |
|------|----------|-------------------------------------|------|------|----------------|--------------------------------------|------|------|----------|---------------------------------------|------|
| 1 | 40350000 | MAIN BRKT. & BLADE, L.H. (STANDARD) | 1 | 20 | 47005548 | BEARING CONE, INNER | 1 | 37 | 47010154 | U-BOLT, 5/8-11NC. (6" X 4" H BAR) | 1 |
| 2 | 40351000 | MAIN BRKT. & BLADE, RIGHT HAND | OPT. | 21 | 47005513 | DUST CAP | 1 | 40 | 47009847 | U-BOLT, 5/8-11NC. (6" X 6" H BAR) | 1 |
| 3 | 47304500 | INCLUDES ITEMS 1 TO 32 | 1 | 22 | 47980351 | O-RING DUST SEAL | 1 | 36A | 47309736 | MOUNTING BRACKET, (7" VERTICAL) | 1 |
| 4 | 47314500 | MAIN BRKT. W/HUB, L.H. (STANDARD) | OPT. | 23 | 47300352 | SPINDLE WASHER | 1 | 37 | 47302730 | U-BOLT, 1/2-13NC. (7" X 7" H BAR) | 2 |
| 5 | 47004500 | MAIN BRKT. W/HUB, RIGHT HAND | 1 | 24 | 47300353 | SLOTTED NUT, 7/8-14UNF | 1 | 38 | 18891400 | LOCKWASHER, 1/2" | 4 |
| 6 | 47014500 | INCLUDES ITEMS 1 TO 31 (W/O BLADE) | 1 | 25 | 18560726 | COTTER PIN, 5/32 X 1 1/2 | 1 | 39 | 18417400 | HEX. NUT, 1/2-13NC | 4 |
| 7 | 47009954 | HOUSING W/BUSHINGS, L.H. (STD) | 1 | 26 | 40030326 | GREASE SEAL | 1 | 38 | 18891600 | LOCKWASHER, 5/8" | 2 |
| 8 | 47009953 | HOUSING W/BUSHINGS, RIGHT HAND | OPT. | 27 | 18057522 | WHEEL BOLT, 1/2-20NF X 1 | 4 | 39 | 18417900 | HEX. NUT, 5/8-11NC. | 2 |
| 9 | 47004507 | PIVOT BUSHING, 1 3/8 I.D. | 2 | 28 | 18891400 | LOCK WASHER, 1/2 I.D. | 4 | 40 | 18057434 | BOLT 1/2-13NC. X 2 1/2 | 2 |
| 10 | 47014507 | PIVOT ARM, L.H. FRONT SWEPT KNIFE | 1 | 29 | 47304522 | COULTER SWIVEL BAR, 18" STANDARD | 1 | 41 | 18891400 | LOCKWASHER, 1/2" | 2 |
| 11 | | PIVOT ARM, R.H. FRONT SWEPT KNIFE | OPT. | 30 | OPTIONAL | COULTER BAR W/RESTRICTED SWING | 1 | 42 | 18417400 | HEX. NUT, 1/2-13NC. | 2 |
| 12 | 18300326 | RETAINING WASHER, 1 3/8 I.D. | 1 | 31 | 47005144 | 18" BAR 10" RESTR. SWING (BOTH WAYS) | 1 | 43 | 47306662 | SHIM, 1/4" | 1 |
| 13 | 18511035 | EXPANSION PIN, 3/8 X 2 | 1 | 32 | 47005144R | 18" BAR 10" RESTR. SWING LH ONLY | 1 | 44 | 47306663 | SHIM, 1/16" | 1 |
| 14 | 2-6668 | EYE BOLT GUIDE | 1 | 33 | 47005145 | 18" BAR 15" RESTR. SWING (BOTH WAYS) | 1 | 45 | 18057432 | BOLT 1/2-13NC. X 2 1/4 | 2 |
| 15 | 47004518 | EYE BOLT, SPRING RETAINER | 1 | 34 | 47005145L | 18" BAR 15" RESTR. SWING LH ONLY | 1 | 46 | 18811400 | FLATWASHER, 1/2" | 2 |
| 16 | 18541835 | CLEVIS PIN, 3/4 X 2 1/2 | 1 | 35 | 47005145R | 18" BAR 15" RESTR. SWING RH ONLY | 1 | 47 | 18811400 | FLATWASHER, 1/2" | 2 |
| 17 | 18560726 | COTTER PIN, 5/32 X 1 1/2 | 1 | 36 | 47005145R | CALL AG SYSTEMS FOR INFO. | 1 | 48 | 18417400 | HEX. NUT, 1/2-13NC | 2 |
| 18 | 47004521 | SPRING CAP, WITH COUNTER-BORE | 1 | 37 | 47005145R | CALL AG SYSTEMS FOR INFO. | 1 | 49 | 47309742 | LIQUID KNIFE, (FRONTSWEPT) | OPT. |
| 19 | 47007565 | COMPRESSION SPRING | 1 | 38 | 47005145R | CALL AG SYSTEMS FOR INFO. | 1 | 49A | 47309746 | LIQUID KNIFE, (FRONTSWEPT) | OPT. |
| 20 | 47007085 | SPRING CAP, STANDARD CASTING | 1 | 39 | 18300323 | RETAINING WASHER, 1 1/2 I.D. | 1 | 50 | 47309738 | NOZZLE BRACKET (L.H.) (STANDARD) | OPT. |
| 21 | 18851800 | FLAT WASHER, 3/4" | 1 | 40 | 18511036 | EXPANSION PIN, 3/8 X 2 1/4 | 1 | 51 | 500199 | HOSEBARB, S.S. 1/4 NPT. X 1/2 TUBE | 1 |
| 22 | 18446890 | HEX. NUT, 3/4-10NC | 1 | 41 | 47305027 | COULTER BLADE, 20" RIPPLED | 1 | 52 | 504015 | STREAM STABILIZER | 1 |
| 23 | 47300350 | HUB COMPLETE (W/O SEAL & BOLTS) | 1 | 42 | ITEMS 35 TO 35 | OPT. USE W/FRONT SWEPT KNIFE ONLY | 1 | 53 | 504015 | SELECT FROM ORIFICE CHART | 1 |
| 24 | 47300351 | HUB WITH CUPS ITEMS 17 & 18 | 1 | 43 | 473098921 | SCRAPER | 1 | 54 | 503127 | CAP | 1 |
| 25 | 47005510 | BEARING CUP, INNER | 1 | 44 | 18033810 | BOLT, 3/8-16NC. X 1, TRUSS HEAD | 1 | 55 | 47005500 | DUST CAP INSTALLATION TOOL (OPTIONAL) | 1 |
| 26 | 47005010 | BEARING CUP, OUTER | 1 | 45 | 18496800 | HEX. NUT, 3/8-16NC. (FLANGED) | 1 | | | | |
| 27 | 47005048 | BEARING CONE, OUTER | 1 | 46 | 47309893 | MOUNTING BRACKET, (4" VERTICAL) STD. | 1 | | | | |
| | | | | 47 | 47006951 | U-BOLT, 5/8-11NC. (4" V X 4" H BAR) | 1 | | | | |
| | | | | 48 | 47001816 | U-BOLT, 5/8-11NC. (4" V X 4" H BAR) | 1 | | | | |
| | | | | 49 | 47309888 | MOUNTING BRACKET, (6" VERTICAL) | OPT. | | | | |

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

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

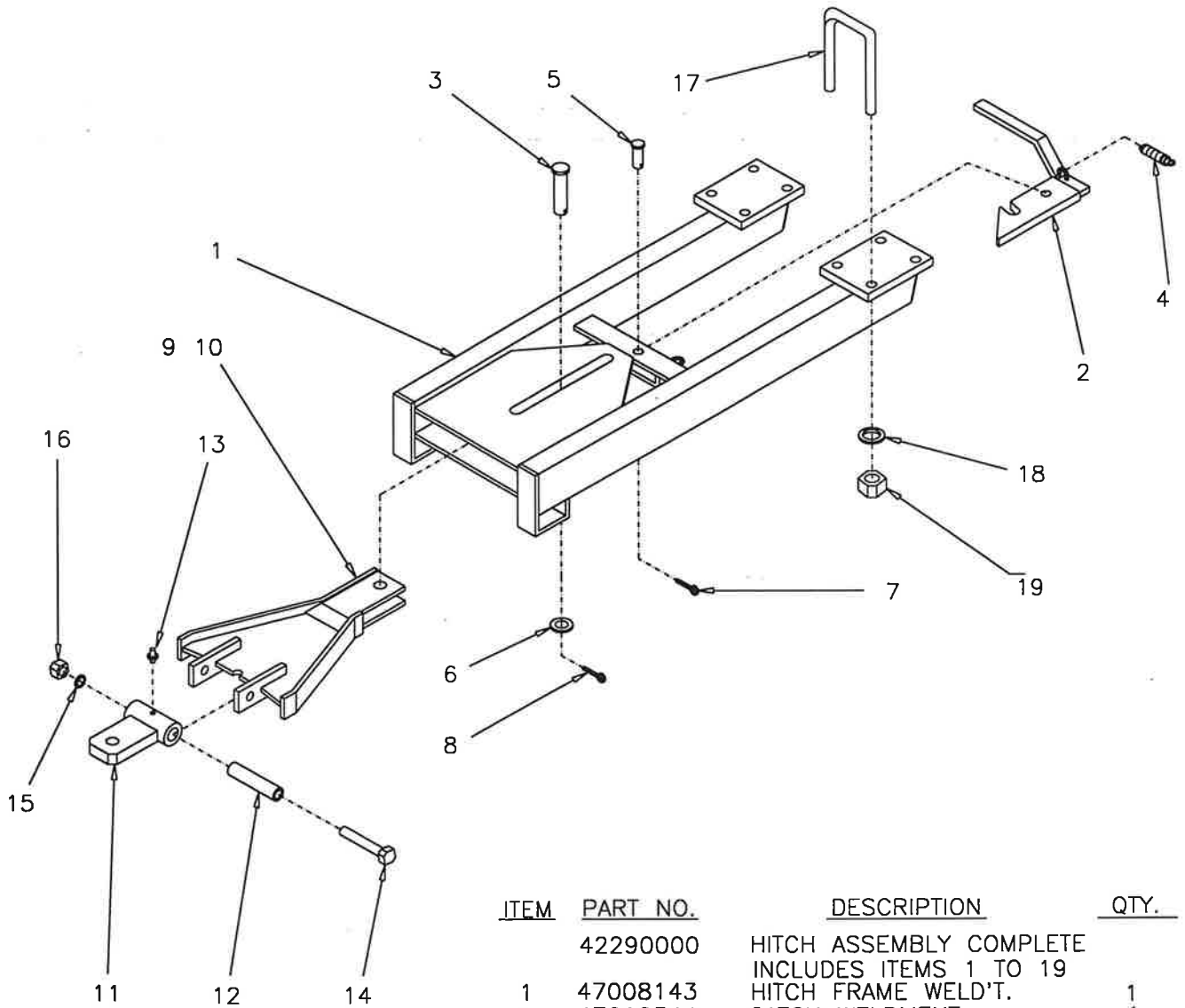
ASSEMBLE THE COULTER HUB AS FOLLOWS.

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

SRVCLTRHUB

AG229 FIELD HITCH ASSEMBLY

IS057



SECURILEY TIGHTEN THE NUT (ITEM 16) SO THAT THE INNER BUSHING (ITEM 12) IS CLAMPED BETWEEN THE MOUNTING EARS ON THE DRAWBAR (ITEM 10) CHECK PERIODICALLY TO INSURE THAT THE BUSHING REMAINS SECURE.

| ITEM | PART NO. | DESCRIPTION | QTY. |
|------|----------|---|------|
| | 42290000 | HITCH ASSEMBLY COMPLETE INCLUDES ITEMS 1 TO 19 | |
| 1 | 47008143 | HITCH FRAME WELD'T. | 1 |
| 2 | 47010344 | CATCH WELDMENT | 1 |
| 3 | 47109009 | PIN 1" X 4" | 1 |
| 4 | 47101013 | EXTENSION SPRING | 1 |
| 5 | 18541830 | CLEVIS PIN 3/4 X 2 | 1 |
| 6 | 18842200 | WASHER 1" SAE | 1 |
| 7 | 18560726 | COTTER PIN 5/32 X 1 1/2 | 1 |
| 8 | 18561026 | COTTER PIN 1/4 X 1 1/2 | 1 |
| 9 | 47007272 | DRAWBAR ASSEMBLY INCLUDES ITEMS 10 TO 16. | 1 |
| 10 | 47007276 | DRAWBAR WELDMENT | 1 |
| 11 | 47007277 | CLEVIS WELDMENT | 1 |
| 12 | 47007285 | INNER BUSHING | 1 |
| 13 | 18901805 | GREASE ZERK, STRAIGHT | 1 |
| 14 | 18058460 | 3/4-10NC. X 6 1/2 BOLT | 1 |
| 15 | 18891800 | 3/4 LOCK WASHER | 1 |
| 16 | 18418400 | 3/4-10NC. HEX. NUT | 1 |
| 17 | 47006518 | 3/4-10NC. U-BOLT | 4 |
| 18 | 18891800 | 3/4 LOCK WASHER | 8 |
| 19 | 18418400 | 3/4-10NC. HEX. NUT | 8 |

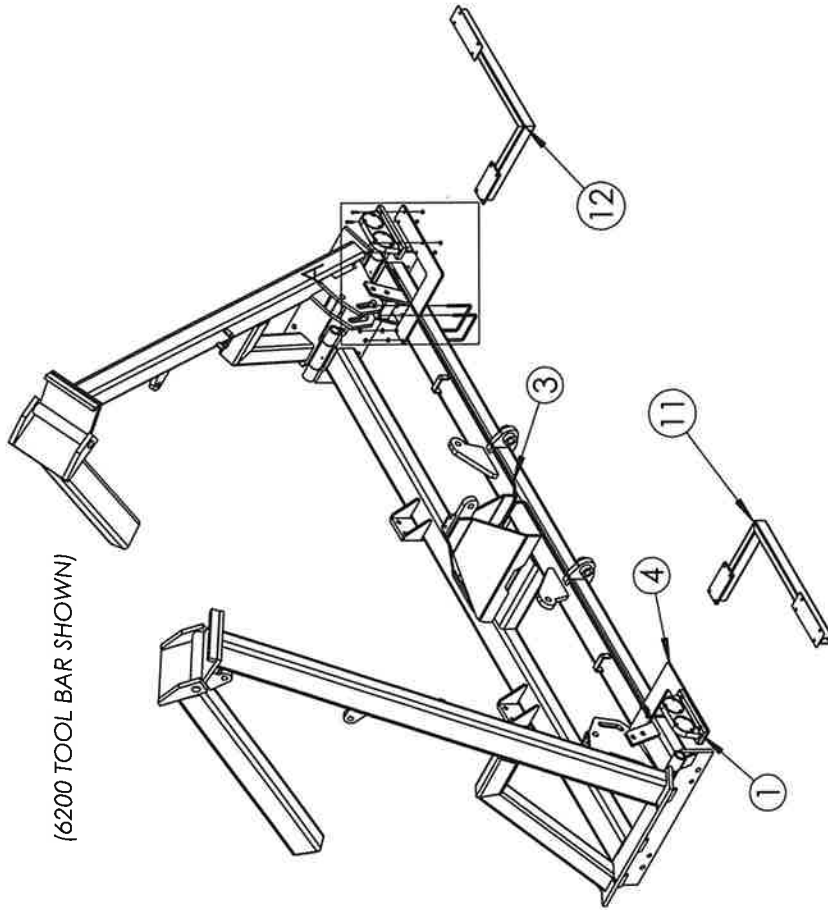
OTHER OPTIONS

Tank, Skids and Saddles

- 770750 750 Gallon Crown/Snyder Drainable Poly Leg Tank
- 47018070 Skid and Band Pkg with Hardware
for 750 Gallon Crown/Snyder Tank
- 47018018 Skid and Hoop Pkg with Hardware
for 725 Gallon Norwesco Tank
- 7541137 1000 Gallon Snyder Drainable Poly Leg Tank
- 47018929 1000 Gallon Skid with tank bands and hardware pkg

SAFETY LIGHT KIT FOR TOOLBARS

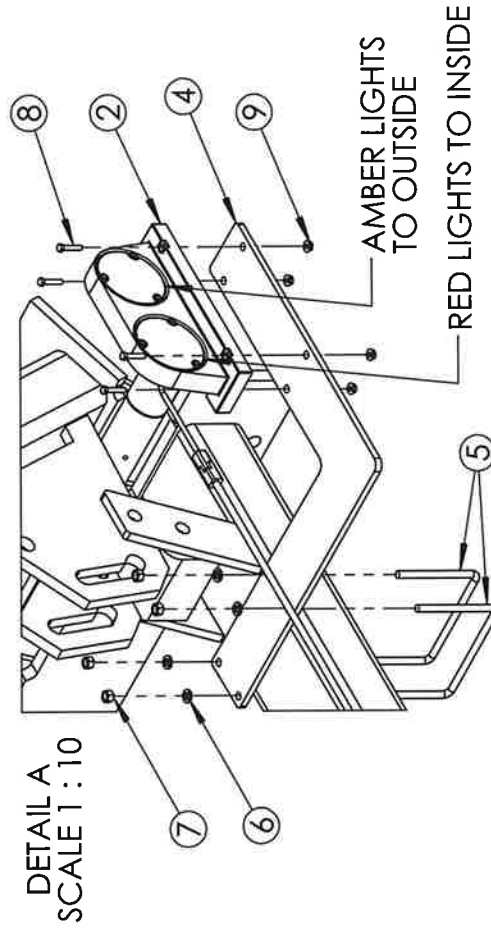
P/N: 47999316



ITEMS 11 AND 12 ARE OPTIONAL

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|------------------|------|
| 11 | 47009789 | LITE BRACKET, LH | 1 |
| 12 | 47009790 | LITE BRACKET, RH | 1 |

| ITEM NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|---------------------------------|------|
| 1 | 54209-008 | DUAL LAMP ASSY, LH | 1 |
| 2 | 54209-022 | DUAL LAMP ASSY, RH | 1 |
| 3 | 71675 | 35' HD CABLE WITH 7 PIN PLUG | 1 |
| 4 | 47009316 | LIGHT MOUNTING BRACKET | 2 |
| 5 | 47001028 | U-BOLT, 3/8-16NC. | 4 |
| 6 | 18891200 | LOCKWASHER, 3/8 ZC | 8 |
| 7 | 18436800 | NUT 3/8 NCZC | 8 |
| 8 | 18055724 | BOLT HX CAP G5 NCZC 1/4 X 1 1/4 | 8 |
| 9 | 18495700 | NUT HX SER FLG 1/4 NC ZC | 8 |
| 10 | 504560 | NYLON TIE STRAP | 5 |



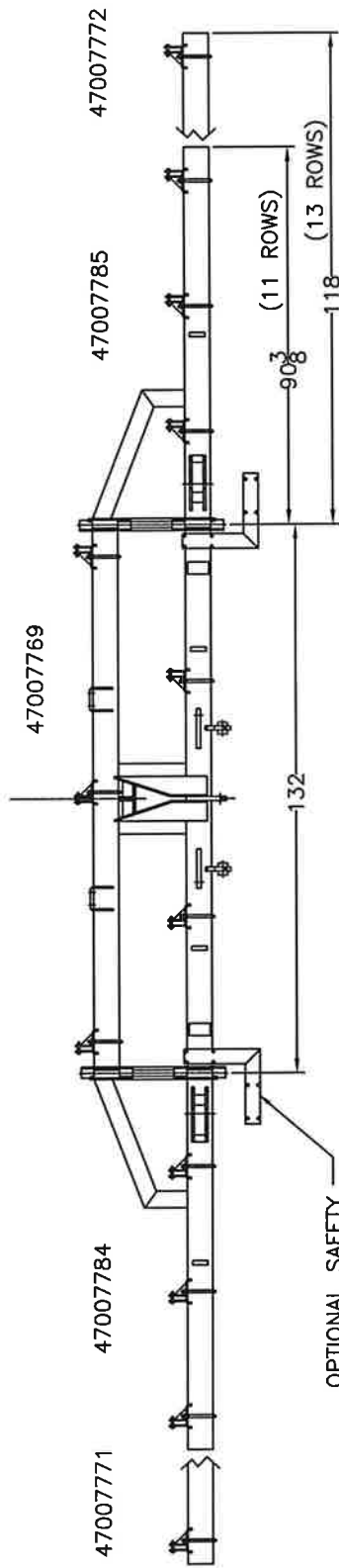
DETAIL A
SCALE 1 : 10

AMBER REPLACEMENT LENS PN 802650
RED REPLACEMENT LENS PN 802651

6200 TOOLBAR

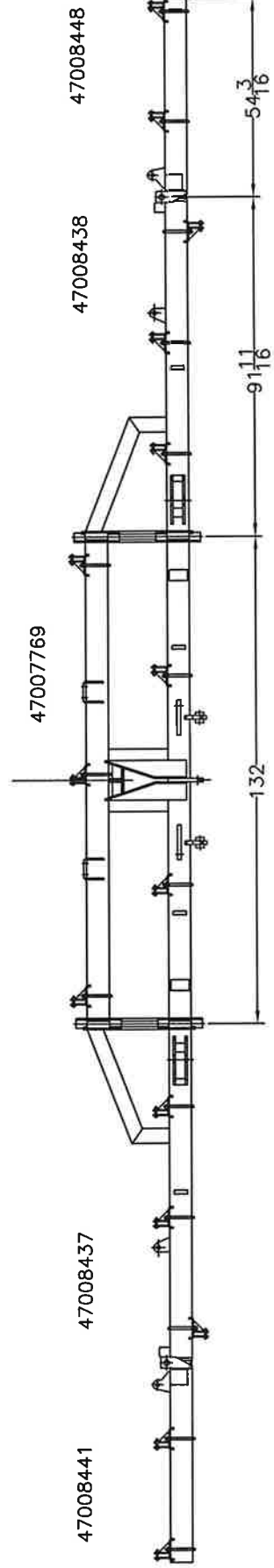
STANDARD ARRANGEMENTS (ODD NUMBER OF ROWS)

62K30STD
REV 4-30-09



OPTIONAL SAFETY
LIGHT BRACKETS
MOUNT HERE TYP

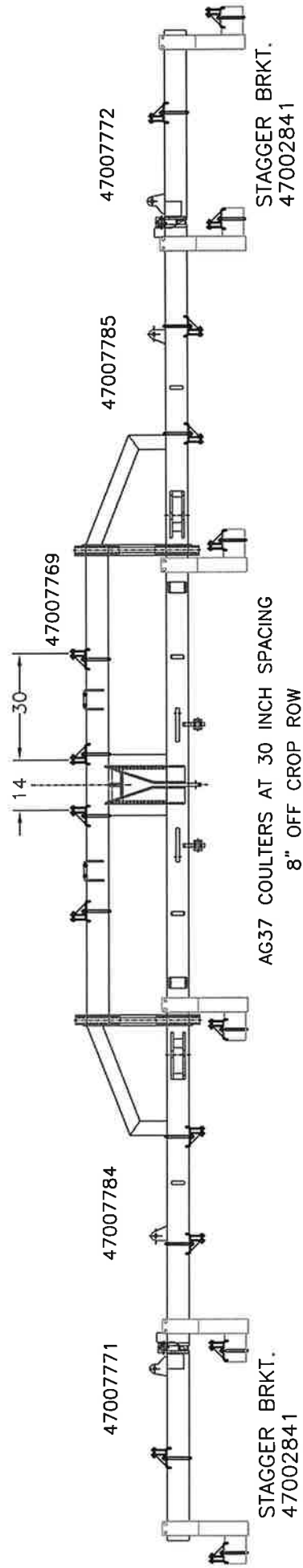
AG37 COULTERS AT 30 INCH SPACING
11 ROWS OR 13 ROWS



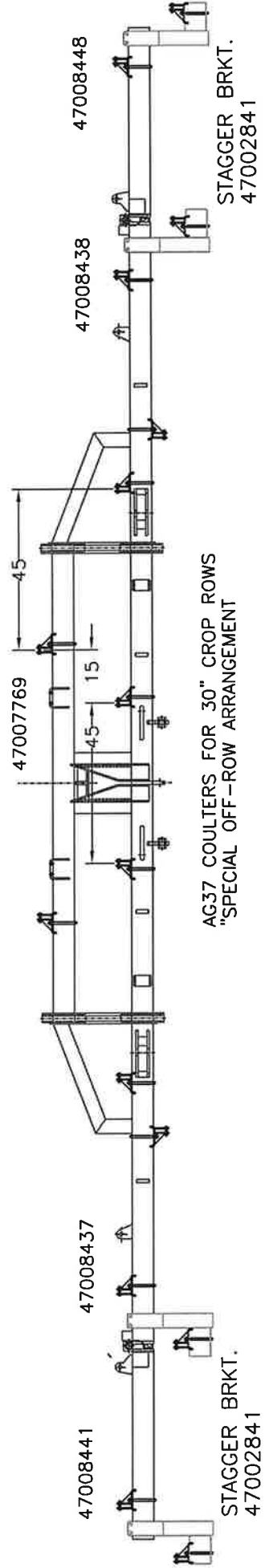
AG37 COULTERS AT 30 INCH SPACING
15 ROWS

6200 TOOLBAR
 SPECIAL ARRANGEMENTS
 16 ROWS

62KEVEN .



43

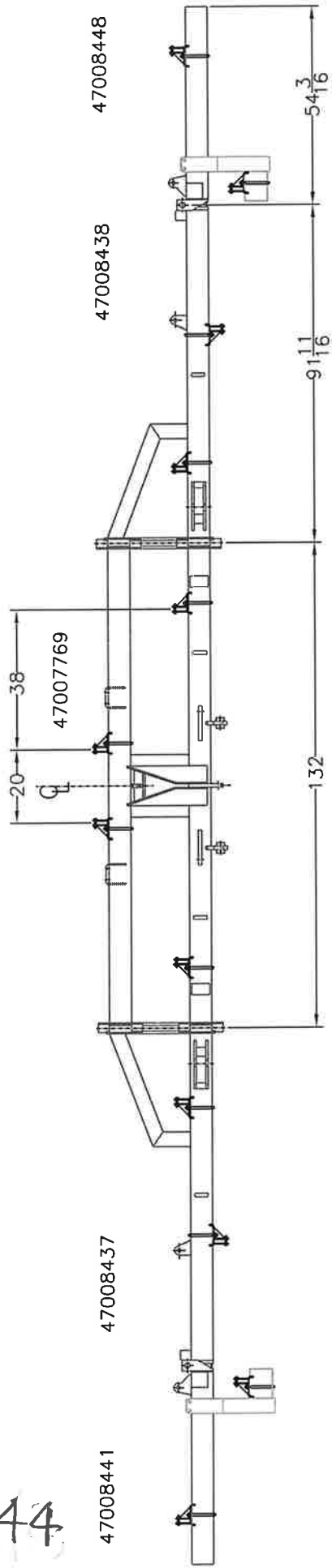


6200 TOOLBAR

62K38SD
06/13/06

AG37 COULTERS FOR SIDE-DRESS
12 ROWS AT 38 INCH SPACING

44

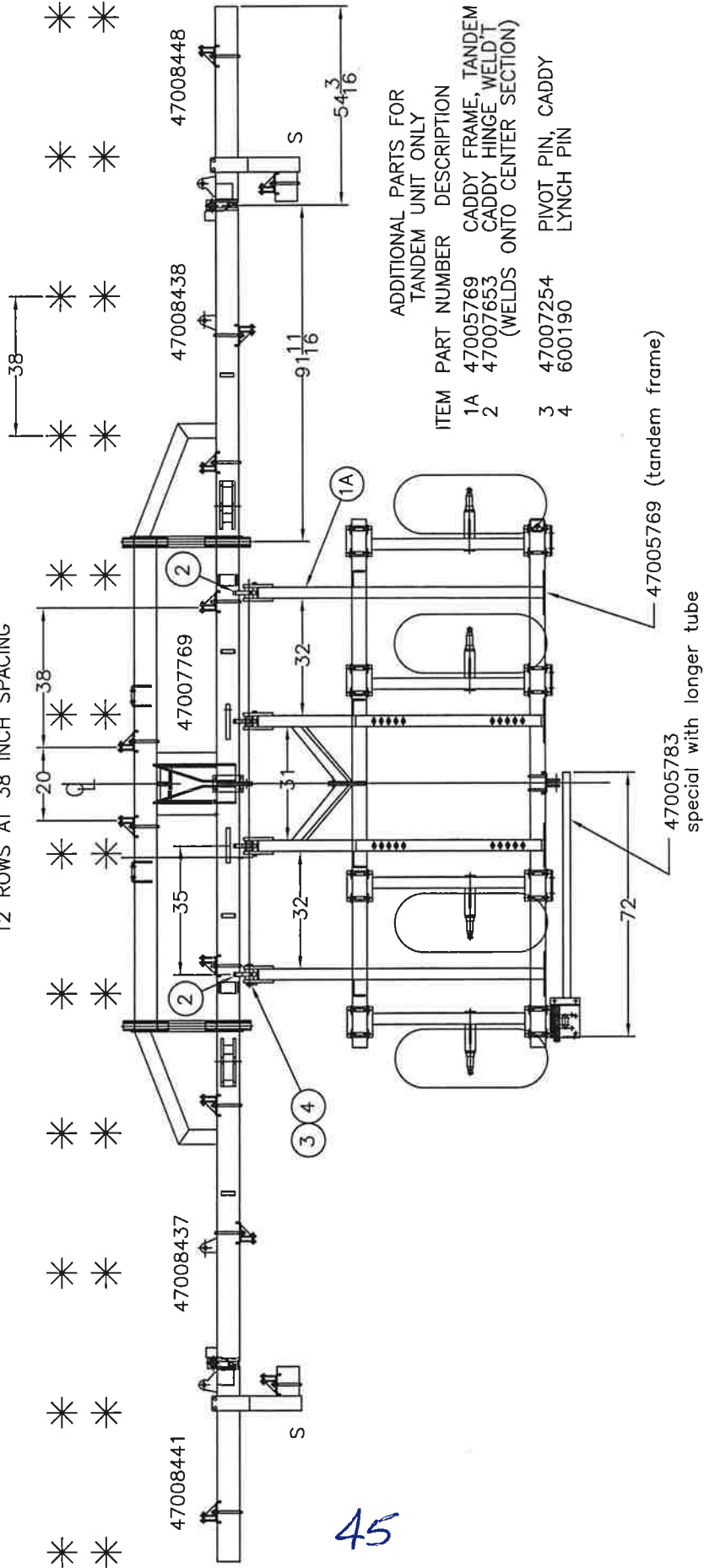


6200 TOOLBAR (35 FT)

WITH TANDEM WHEELS OPTION

62K38SDTANDEM
12-05-12

AG37 COULTERS FOR SIDE-DRESS
12 ROWS AT 38 INCH SPACING

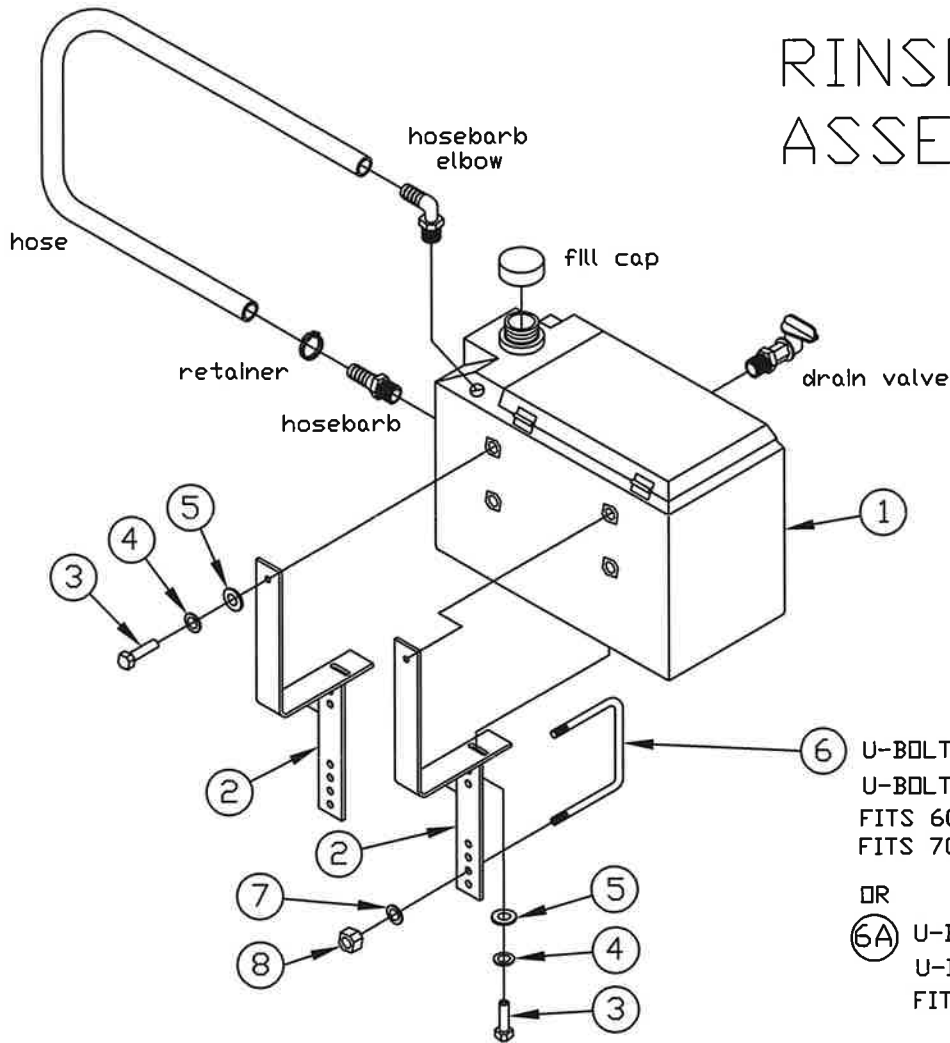


ADDITIONAL PARTS FOR TANDEM UNIT ONLY

| ITEM | PART NUMBER | DESCRIPTION | QTY |
|------|-------------|---|-----|
| 1A | 47005769 | CADDY FRAME, TANDEM | 1 |
| 2 | 47007653 | CADDY HINGE, WELD T (WELDS ONTO CENTER SECTION) | 2 |
| 3 | 47007254 | PIVOT PIN, CADDY | 2 |
| 4 | 600190 | LYNCH PIN | 2 |

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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.

