



**Heartland
AG SYSTEMS**

Heartland Agriculture, LLC

**NITROMASTER
TOOLBAR
7200 SERIES**

**OWNERS MANUAL
ASSEMBLY INSTRUCTIONS
AND PARTS LIST
OM-7200**

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

**ISSUE
JULY 2023**

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.

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	

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

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

CONTENTS

7200CNT08
11/10/20

Dealer Checklist (Fill out and return)	1	Coil Shank Standard Universal Mount	30
Table of Contents	2	Spring Bundle Assembly, Single Spring	31
To the Owner	W1–8	Spring Bundle Assembly, Dual Springs	32
Warranty	5	HI–TRIP Bundle Assembly (FLAT SHANK)	33
Introduction	6	2014 HI–TRIP Bundle Ass'y (EDGE–BENT SHANK)	33A
Safety	7	Disk Sealer Assembly 13 inch W/bolt–on–hub	34
Decals	8 to 11	Disk Sealer Assembly 18 inch W/bolt–on–hub	35
Assembly Procedure	12	Disk Sealer Assembly Instructions	36
Coulter & Disk Sealer mounting info (important)	11A	Disk Sealer with Floating Arms	37
Operating Instructions	13	Disk Sealer w floating arms Assy Instructions	38
Toolbar Illustration	14	AG36 Coulter, w/maintenance–free Hub	39 & 40
Toolbar Parts List	15	AG 38 Coulter Assembly, Generation Two	41 & 42
Secondary Wing Assembly	16	AG 38 Coulter Assembly, Generation Three	43 & 44
Secondary Wing, Single Bar	17	Coulter Service Procedure	45
Gauge Wheel – Hydraulic	18	NH3 Application Options	46
Gauge Wheel – Mechanical	19	NH3 Breakaway Coupling Installation & Maint.	47
Tandem Walking Wheel Illustration	20	NH3 Arm–Style Quick Coupler Stand Kit 2015	47A
Hubs Illustration Standard	21	NH3 Application Plumbing Illustration	47B
Field Hitch Assembly	22	Safety Light Kit	48
Self Leveling Field Hitch Assembly	23	Shank/Bundle Layouts	49 to 57
Stagger Bracket Assembly	24 to 28	Twin Ball Hitch, Montag Cart	58
Hydraulic Plumbing Schematics	29	—	59

TO THE OWNER

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

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

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

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

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



Warranty Policies and Terms

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

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

Warranty Period

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

What's Covered

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

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

Exclusive Remedy

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

No Modification or Extension of Warranty

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

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



Limitations and Exclusions

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

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

Owner's Responsibility

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

What Is Not Covered

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



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

Base Warranty Coverage

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

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



Tires

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

Warranty Registration

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

Operator's Manual/Warranty Receipt Verification

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

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

Heartland AG Systems Responsibility

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

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

Dealer Responsibility



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

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

Owners Responsibility

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

These responsibilities include, but are not limited to:

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

Warranty Eligibility

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

Warranty Repairs Made by the Customer



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

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

Parts Shortages on Whole-Goods

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

Warranty Reimbursement Policies

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

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

Parts

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

Labor

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

Outside Charges

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

Freight



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

Travel

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

Repairing or Replacing Parts and Components

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

Filters and Lubricants

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



Claim Form Guidelines

Claims Must Have

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

INTRO

INTRODUCTION

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

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

SAFETY INFORMATION

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

WARNING: This message denotes a specific potential hazard.

CAUTION: This message denotes a reminder of safety practices.

NOTE: Indicates a special point of information.



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

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

WARRANTY does not cover the following.
– 1. Cleaning, transporting, mailing and service call charges.

– 2. Depreciation or damage caused by normal wear, accidents, improper protection or improper use.

***** See complete WARRANTY for details

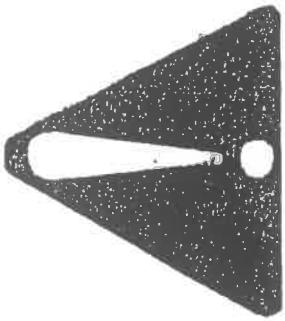
Record your machine model and serial number in the space provided. Your dealer needs this information to give you prompt, efficient service when you order parts.

MODEL NUMBER _____

SERIAL NUMBER _____
DATE PURCHASED _____

***** SAFETY INFORMATION CONTINUED *****

RECOGNIZE SAFETY INFORMATION



This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury. Follow recommended precautions and safe operating practices.

FOLLOW SAFETY INSTRUCTIONS

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

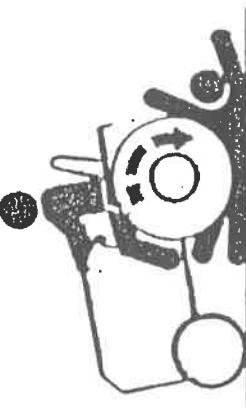
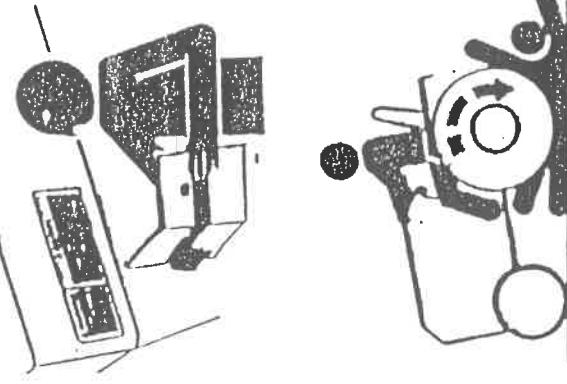
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instructions.

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

PROTECT CHILDREN AND BYSTANDERS

Before you back, LOOK CAREFULLY behind for children.

Clear area of children, pets and bystanders.



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.

DECALS

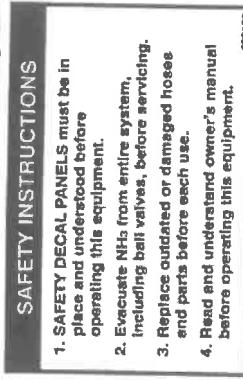
PART # 699107



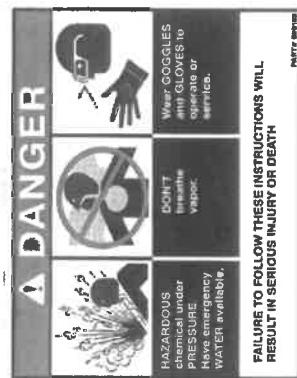
PART # 9744503



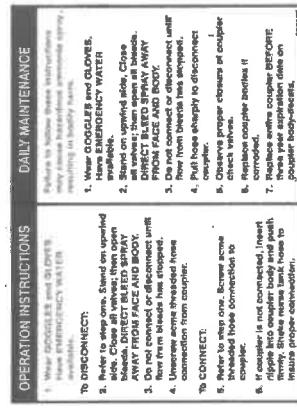
PART # 699105



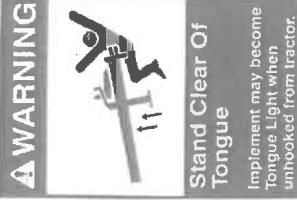
PART #699102



PART #699103



PART# 699100



PART #699101



PART #699104



PART # 699110

PART #7200

PART #7200

NITROMASTER SERIES



7200 NITROMASTER TOOLBAR ASSEMBLY PROCEDURE

Your 7200 Nitromaster Toolbar is shipped with small parts and hardware packed in boxes marked for the different sections of the Toolbar. If you find any items missing, please contact Ag Systems, Inc. immediately.

Note: "left hand" and "right hand" are determined by standing behind the toolbar looking in the direction of travel.

- Step 1 Select a smooth level surface for the assembly of your Nitromaster Toolbar.
- Step 2 Refer to the illustration on Page 13. Place the center section (item 1) upon (4) steel saw horses, one at each corner of the frame. Do not place the hinge plates on the saw horses.
- Step 3 If your toolbar is equipped with single hydraulic wheels on the center section, assemble per the illustration on page 13. Install the wheel mount brackets (item 54) on the rear tube of the center section. The cylinder lug should be pointing forward. For shanks mounted at 30 inch spacing and a 124 inch track width, position the brackets so that the cylinder lugs are spaced 141 1/2 inches apart, center to center (70 3/4 from the center of the tool bar). For other than 30 inch spacing, locate the brackets at any appropriate track width. Fasten each bracket with (2) u-bolts (item 55) and appropriate hardware.
- Step 3A If your toolbar is equipped with tandem walking wheels on the center section, assemble per the illustration on page 19 and steps 3A to 3E. Install the wheel mount bracket (item 1) on the rear tube of the center section. The cylinder lug should be pointing forward. Position the brackets so that the cylinder lugs are spaced 90 inches apart (45 inches from the center of the toolbar). Fasten each bracket with (2) u-bolts (item 10) and (4) bolts (item 7) and appropriate hardware. Refer to the illustrations on page 17 and note that a walking wheel assembly mounted on a center section is not identical to an assembly mounted on a primary wing.
- Step 3B Refer to the illustration on page 19. Assemble the pivot arm (item 30) to the wheel bracket (item 1) with the hinge pin (item 2) and secure the pin with the appropriate hardware.
- Step 3C Mount the bogie assembly (item 21) to the pivot arms with the pivot pins (item 22) and secure the pins with the appropriate hardware.
- Step 3D Mount the wheels with the tires (6-ply or 8-ply as supplied) to the hubs.
- Step 3E Position the hydraulic cylinders (item 31) to the brackets and pivot arms with the body at the bracket and the shaft on the pivot arm. Attach the body with the standard pins supplied. Leave the shaft end free until the system has been charged with oil. See step 35. The 4 x 12 cylinder would be mounted on the left and the 3 3/4 x 12 on the right of center.
- Step 4 Refer to the illustration on page 13. Assemble the wheel pivot arms (item 72) left hand and (item 73) right hand to the wheel brackets with the hinge pins (item 61) and secure the pins with appropriate hardware.
- Step 5 Mount the wheels with the tires (8-ply or 10-ply as supplied) to the hubs.
- Step 6 Position the wheel hydraulic cylinder (item 64) left wheel, size 4 x 12 and (item 65) right wheel, size 3 3/4 x 12 to the brackets and the pivot arms with the body at the bracket and the shaft on the pivot arm. Attach the body with the standard pins supplied. Leave the shaft end free until the system has been charged with oil. See step 35.
- Step 7 Install the poles (item 4) left hand and (item 5) right hand with the hitch mount (item 14) and appropriate hardware. Bolt the poles to the center section with the appropriate hardware.
- Step 8 Attach the hitch assembly (items 6 to 11) with the hitch pin (item 12).
- Step 9 Attach the jack (item 15) to the pole and assemble the miscellaneous items, depth control brackets (item 16), gauge bracket (item 20), hose brackets (item 21), and selector valve bracket (item 30), with the u-bolts (item 31) and appropriate hardware.

- Step 10 Place the primary wings (item 2) left hand and (item 3) right hand upon steel saw horses and assemble to the center section with the hinge pins (item 40) and appropriate hardware.

**MOUNT YOUR GAUGE WHEELS (MECHANICAL, HYDRAULIC OR TANDEM) PER STEPS 11 TO 25
THEN CONTINUE WITH STEP 26. IF YOUR TOOLBAR IS EQUIPPED WITH HYDRAULIC GAUGE
WHEELS INSTALL PER STEPS 11 TO 14.**

- Step 11 Refer to the illustration on page 17. Install the wheel mount bracket (item 2) on the rear tube of the primary wing. The cylinder lug should be pointing forward. For toolbars with shank spacing at 30 inches position the brackets so that the wheel track will be 179 inches from the center of the toolbar. Fasten each bracket with (2) u-bolts (item 21) and (2) bolts (item 20) and appropriate hardware. Note: If the shank spacing on your toolbar is something other than 30 inches locate the gauge wheel as far out to the end of the primary wing as is practical.
- Step 12 Assemble the wheel pivot arms (item 3) left hand and (item 4) right hand to the wheel brackets with the hinge pins (item 1) and secure the pins with the appropriate hardware.
- Step 13 Mount the wheels with the tires to the hubs.
- Step 14 Position the wheel hydraulic cylinder (item 11) left wheel, size 3 1/4 X 12 and (item 12) right wheel, size 3 1/2 X 12 to the brackets and pivot arms with the body at the brackets and the shaft on the pivot arms. Attach the body with the standard pins supplied. Leave the shaft end free until the system has been charged with oil. See step 35.

**IF YOUR TOOLBAR IS EQUIPPED WITH MECHANICAL GAUGE WHEELS INSTALL PER STEPS 15
TO 20. THE MECHANICAL GAUGE WHEEL ASSEMBLY SHOULD BE USED ON 11 OR 13 SHANK
TOOLBARS ONLY.**

- Step 15 Refer to the illustration on page 13. Position the wing block (item 80) between the center section and the primary wing.
- Step 16 Refer to the illustration on page 18. Position the mounting bracket (item 1) on the secondary wing front tubes and attach with (2) u-bolts (item 5) and appropriate hardware, snug only.
- Step 17 Assemble the pivot arm (item 2) to the mounting bracket with the pivot pins (item 3) and appropriate hardware.
- Step 18 Install the turnbuckle jack (item 11) with the clevis pins (item 8 and item 12) and the hairpin (item 4) and the cotter pin (item 10).
- Step 19 Mount the wheels with the tires to the hubs.
- Step 20 Adjust the position of the gauge wheels to the desired track width and securely tighten the u-bolts (Reference Step 16). Note: The gauge wheels should be located as far out to the end of the toolbar as is practical. To ensure the bar is running level, the gauge wheel height should be adjusted to coincide with the depth control segments used on the hydraulic cylinders on the center section and any hydraulic gauge wheels.

**IF YOU TOOLBAR IS EQUIPPED WITH TANDEM WALKING WHEELS ON THE WINGS INSTALL
PER STEPS 21 TO 25.**

- Step 21 Assemble the walking wheels per the illustration on page 19. Install the wheel mount bracket (item 1) on the rear tube of the primary wing. The cylinder lug should be pointing forward. Position the bracket so that the center of the cylinder lug is 163 inches from the center of the toolbar. Fasten each bracket with (2) u-bolts (item 10) and (2) bolts (item 7) and appropriate hardware.
- Step 22 Assemble the pivot arms (item 14) left hand and (item 15) right hand to the brackets with hinge

pins (item 2) and secure the pins with the appropriate hardware.

- Step 23 Mount the bogie assemblies (item 21) to the pivot arms with the pivot pins (item 22) and secure the pins with the appropriate hardware.
- Step 24 Mount the wheels with the tires to the hubs.
- Step 25 Position the hydraulic cylinders (item 13) to the bracket and pivot arms with the body at the bracket and the shaft on the pivot arms. Attach the body with the standard pins supplied. Leave the shaft end free until the system has been charged with oil. See step 35. The 3 1/2 x 12 cylinder would be on the right and the 3 1/4 x 12 cylinder would be on the left of center.
- Step 26 Refer to the illustration on page 13. Position the wing control cylinder (Item 44) size 3 1/2 x 30 or size 4 x 30 onto the center and primary wing sections. Attach the body with the standard pins supplied. Leave the shaft end free until the system has been charged with oil. See step 35. Then assemble with the hardware (item 45, item 46,47 and item 48.).
- Step 27 Generously grease the wing hinge and wheel pivot points.

IF YOUR TOOLBAR IS EQUIPPED WITH SECONDARY WINGS ASSEMBLE PER STEPS 28 TO 31

- Step 28 Refer to the illustration on page 15. Assemble the wing (item 1) to the primary wing with the clevis pins (item 3) and the cotter pins (item 4).
- Step 29 Mount the hydraulic cylinder (item 5) size 3 x 24 with the body on the primary wing. Assemble the link (item 9), the rollers (item 8), and the washers (item 7) to the cylinder with the clevis pin (item 3) and cotter pin (item 4). Do not attach the link to the secondary wing until the system has been charged with oil. See step 35.
- Step 30 Mount the wing hook assembly (item 15) and the hook retainer assembly (item 11) with the u-bolts (item 12) and appropriate hardware. Locate these items approximately 36 inches to each side of the pivot point . Adjust the locations after the hydraulics are operational.
- Step 31 Generously grease the hinge pins.
- Step 32 Assemble the field hitch (item 81, page 13) per illustration on page 21 Mount the field hitch centered on the rear tube of the center section.
- Step 33 Mount stagger brackets, knife shanks, coulters and disk covers per the illustration on pages 49 to 56. Starting at the center of the toolbar, mark the locations for your shank spacing. Install the stagger brackets located as shown on the above illustrations. The location of some shanks may have to be adjusted. Refer step 40.
- Step 34 Install the hydraulic fittings and hoses as shown on the hydraulic system schematic illustration on pages 24 and 25.
- Step 35 Purge the air from the hydraulic system. With the cylinders attached at the body only and the shaft ends free cycle all cylinders several times. This should remove most of the air from the system. Then attach the shaft ends with the pins supplied.
 - A. CAUTION: When hydraulic pressure is applied, the pole could lift up. Firmly anchor the pole to a heavy stationary object or attach it to a tractor.
 - B. Pressurize the hydraulic system. Fully extend the wheel cylinders and remove the assembly supports. Fully extend all cylinders and circulate the oil for approximately 2 minutes.
 - C. Partially retract the hydraulic system. All wheels should lift simultaneously. If any wheel cylinder sag, this would indicate air in the system.

- D. Fully extend all wheel cylinders, circulate the oil and repeat Step C.
 - E. Fully extend all wing cylinders. Partially lift the wings and stop. Observe if the wings will sag, this would indicate air in the system.
 - F. Fully extend all wing cylinders, circulate the oil and repeat Step E.
 - G. Repeat Steps D and F until the system operates satisfactorily.
- Step 36 Assemble the desired knives to the shanks.
- Step 37 NH3 APPLICATION. Refer to illustration on page 46. Mount the brackets supplied (See NH3 Box) in the positions shown with the appropriate hardware. Attach the hoses and components supplied for your application as shown on the NH3 plumbing schematic illustration on page 47. Install the break-away coupling device per manufacturers instructions. See page 47A of this manual for basic operation, maintainence and safety information.
- Step 38 Check all hydraulic and chemical hose connections. Secure all hoses in a safe manner. Check all nuts and bolts to insure they are securely tightened and that all pins and cotter pins are in place and secure.
- Step 39 Fold the wings & raise the machine to the full transport height. Place the transport locks pg13 (item 68) on the extended shafts of the center section wheel hydraulic cylinders and secure the transport locks with the pins (item 69 and 70). Release the hydraulic pressure and lower the machine to support it on the transport locks. "WARNING" READ OPERATING INSTRUCTIONS AND WARNINGS.
- Step 40 CAUTION : With the toolbar fully assembled and operational and the transport lock installed check to make sure there is sufficient tongue weight for safe storage and transport. If the tongue weight seems to be light at any time move some shank assemblies to the front tube of the toolbar. This may require some additional stagger brackets.
- Step 41 Your Nitromaster Toolbar is now fully assembled and ready to go to work

COULTER and DISK SEALER MOUNTING INFO

With the toolbar parked on hard level ground fold out the wings and lower the toolbar so that it is supported on the knives. The toolbar should be level. If necessary, unhitch the toolbar and adjust the jack as required.

SETTING THE COULTER DEPTH: Assuming a working depth for your knife of 8 inches (dim A), adjust one coulter blade to a distance of 4 inches (dim B) above the knife point. This will run the blade 4 inches in the ground. Measure the distance that the 1 x 3 bar extends above the mounting bracket (dim C). Adjust all coulters to this dimension.

SETTING THE DISK SEALER DEPTH:

When the working depth is 8 inches, position one disk sealer assembly on the shank so that the blades are 6 inches (dim D) above the knife point. Measure the distance from the spring bundle bracket to the disk sealer bracket (dim E). Adjust all disk sealers to this dimension. This will run the disk sealers 2 inches in the ground.

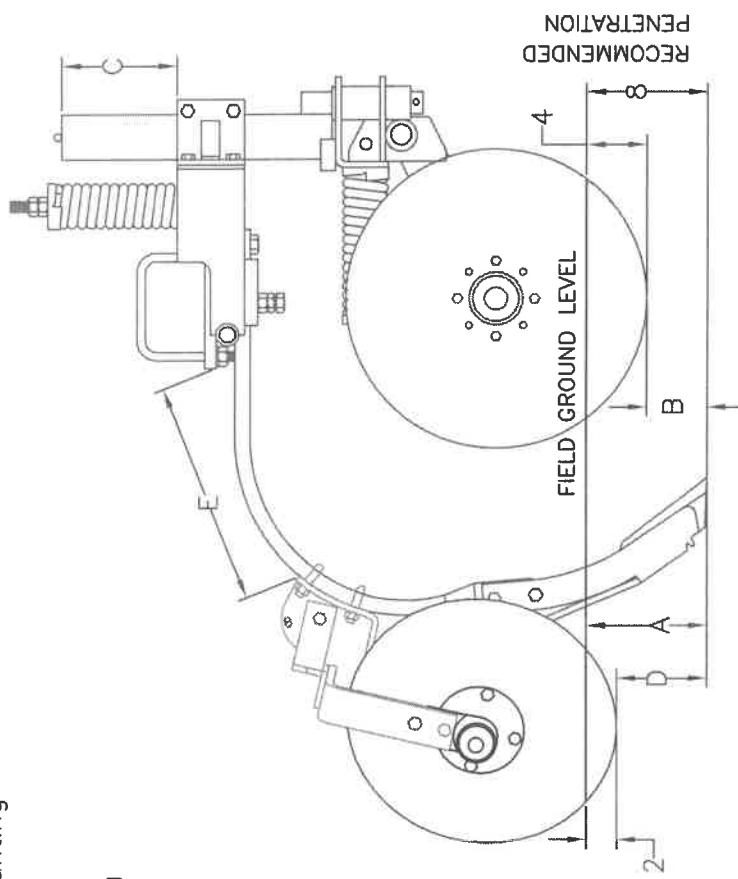
OTHER WORKING DEPTH:

modify these dimensions in relation to your working depth. If your knife is 10 inches in the ground (dim A), the dimension from the coulter blade to the knife point (dim B) would be 6 inches. The distance to the disk sealer (dim D) would be 8 inches. This "knife to blade" relationship would apply, regardless of what combination of "AgSystems" bracket, shank, knife, coulter and disk sealer is used.

NOTE:

It is important that the coulter and disk sealer blades are not set excessively deep. The coulter blades should be set just deep enough to cut the surface trash. Coulters set too deep will cause the toolbar to float on the coulters and not allow your gauge wheels to contact the ground. Intermittent contact with the ground will cause excessive wear on the hydraulic cylinder clevises and the mounting lugs. Coulters running too deep could also form a trench that will not seal properly and allow excessive NH₃ to escape into the atmosphere (smoking).

SPPGDBLSHK



AG SYSTEMS INC. DRAWN BY J.N.	HUTCHINSON MN. 55350 NAME COULTER/SEALER ADJUSTMENT
FIRST REV.	DATE 07/01/06
PART NUMBER SPGDBLSHK	

OPERATING INSTRUCTIONS

USE OF DEPTH CONTROL SPACERS

WARNING:

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

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

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

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

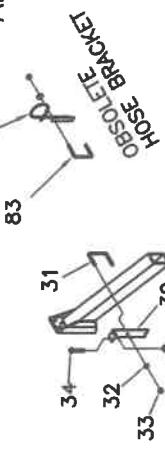
USE OF TRANSPORT LOCK

WARNING:

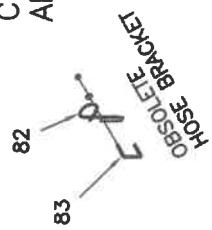
Failure to use the transport locks may result in equipment damage or personal injury. Equipment transport locks are provided for safety when transporting equipment over the road and should remain with the equipment. The transport locks also prevent the equipment from settling or dropping when the equipment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

7200 TOOLBAR
CENTER SECTION
AND PRIMARY WINGS

72KTB06
REV 06/22/20



OPTIONAL
BRACKET FOR
SELECTOR VALVE



OPTIONAL
HOSE
BRACKET
SEE SEPARATE ILLUSTRATION

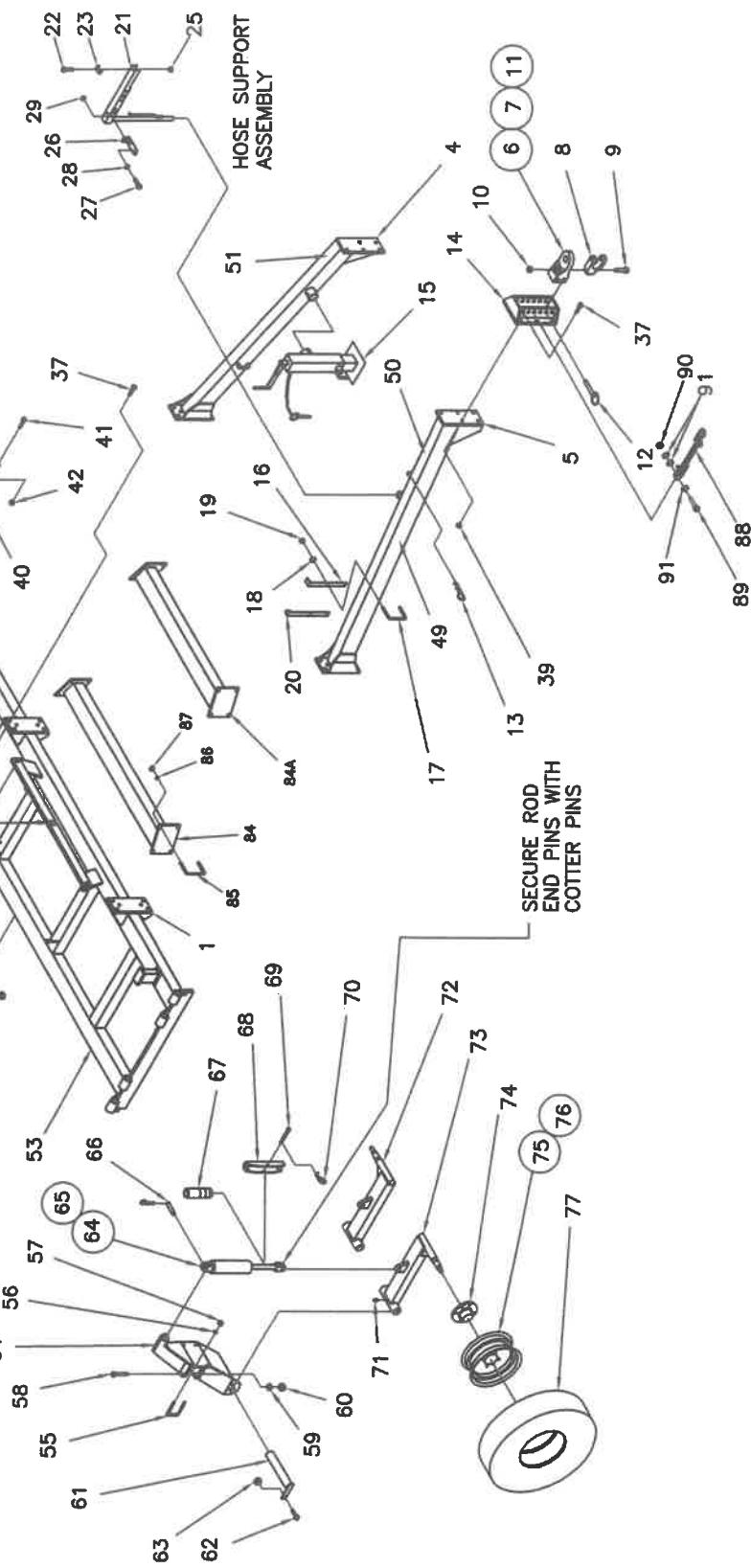
OPTIONAL
PRIMARY WINGS

78
79

2
3

LOCATE SERIAL
TAG HERE

FIELD HITCH ASSEMBLY
SEE SEPARATE ILLUSTRATION



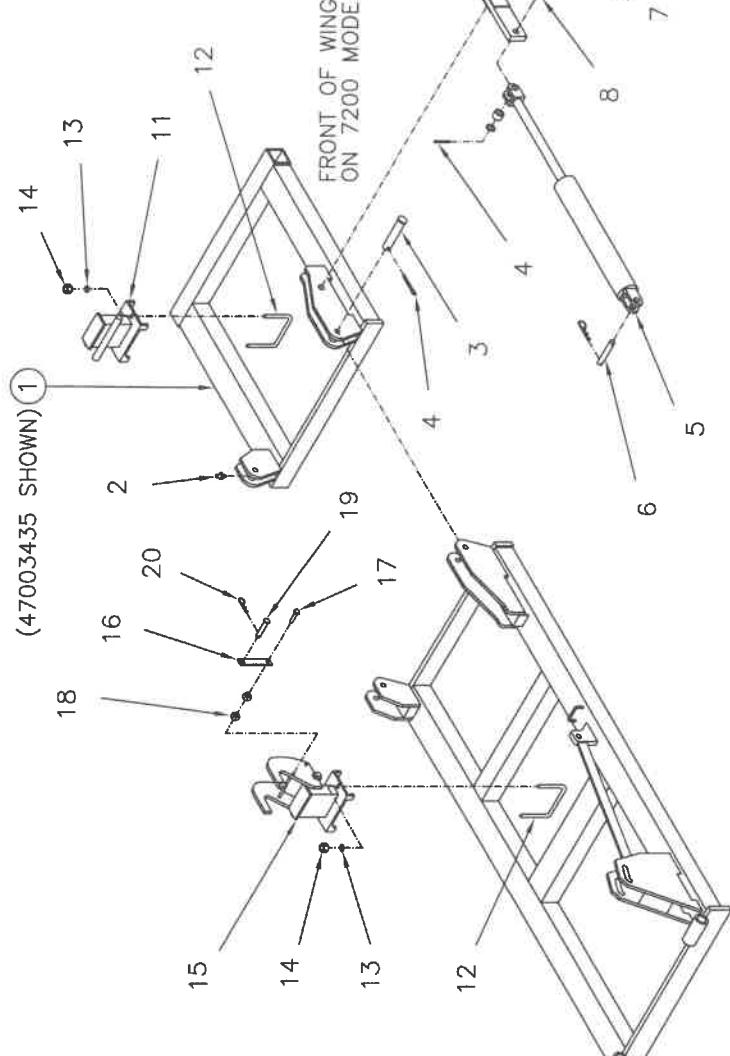
7200 TOOLBAR
CENTER SECTION AND PRIMARY WINGS

72KTBRLST06
 REV 07/18/23

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.	
1	47004498	CENTER SECTION, (COMMON)	1	52	699101	DECAL, DANGER-FALLING WINGS	2	
	FOR 12/16	COMBO AND 13/17 COMBO		53	699107	DECAL, AG-SYSTEMS INC.	2	
2	47003361	PRIMARY WING, LEFT	1	54	47010302	WHEEL MOUNT BRACKET	2	
3	47003360	PRIMARY WING, RIGHT (NOT SHOWN)	1	55	47006951	U-BOLT, 5/8-11NC.	4	
	FOR OTHER OPTIONS AND COMBINATIONS SEE ITEMS 78 & 79 AT THE END OF THIS LIST			56	18891600	LOCKWASHER, 5/8	8	
	FOR SECONDARY WINGS SEE SEPARATE ILLUSTRATION			57	18417900	HEX. NUT, 5/8-11NC.	8	
4	47004515	POLE, LEFT HAND	1	58	18058470	BOLT, 3/4-10NC. X 7	4	
5	47004516	POLE, RIGHT HAND	1	59	18891800	LOCKWASHER, 3/4	4	
6	Pi-301V3C	PERFECT HITCH ASSEMBLY	1	60	18418400	HEX. NUT, 3/4-10NC.	4	
	INCLUDES ITEMS 7 TO 10			61	47010313	HINGE PIN, WHEEL ARM	2	
7	PPi-301V3	PERFECT HITCH, (1 1/2" DRAWPIN)	1	62	18057426	BOLT, 1/2-13NC. X 1 1/2	2	
8	PPi-208VR	PERFECT HITCH CLEVIS	1	63	18497400	FLANGED NUT, 1/2-13NC.	2	
	WITH 1 1/4 OBOUND HOLE			64	47005459	HYDRAULIC CYLINDER (4 X 12) LEFT	1	
9	18058452	BOLT, 3/4-10NC. X 5 GR. 8	1	65	47005449	HYDRAULIC CYLINDER (3 3/4 X 12) RIGHT	1	
10	18458452	LOCKNUT, 3/4-10NC. GR. 8	1	66	47003514	CYLINDER PIN KIT (1 X 4) (4 PINS)	2	
11	PPi-421V3	PERFECT HITCH, (2" DRAWPIN)	1	67	47005455	SET, DEPTH CONTROLS	2	
12	600182	HITCH PIN, 1 X 6	2	68	47010150	TRANSPORT LOCK	2	
13	18590094	HAIRPIN BRIDGE, (#8) 3/16 DIA.	1	69	18541254	TRANSPORT LOCK PIN	2	
14	47008355	HITCH MOUNT	1	70	18590916	HAIRPIN BRIDGE	2	
15	70924	JACK COMPLETE, (FINISH PAINTED)	1	71	18901806	GREASE ZERK, 90 DEG.	2	
				72	47000303	WHEEL PIVOT ARM COMPLETE, LEFT	1	
					47000315	WHEEL PIVOT ARM COMPLETE, RIGHT	1	
16	47010170	BRACKET, DEPTH CONTROLS	2			INCLUDES ITEMS, 71, 72 & 74		
17	47001028	U-BOLT, 3/8-16NC.	2	73	47010315	WHEEL PIVOT ARM, RIGHT	1	
18	18891200	LOCKWASHER, 3/8	4	74	47009618	HUB ASSEMBLY, COMPLETE	2	
19	18436800	HEX. NUT, 3/8-16NC.	4	75	47005589	WHEEL RIM, 15 X 8	2	
FOR	2006 ITEM	20 REPLACED BY ITEMS 26 TO 29		76	20120012	VALVE STEM	2	
20	47010168	BRACKET, PRESSURE GAUGE		77	20111510	TIRE, 11L X 15 10 PLY FOR	2	
21	47005087	PIVOTING HOSE BRACKET	1			ANY TOOLBAR WITH 15 INCH SHANK SPACING		
22	47005091	HOSE CLAMP	4			AND ALL TOOLBARS WITH SECONDARY WINGS		
23	18056832	BOLT, 3/8-16NC. X 2 1/4	2	OR	10261	TIRE, 11L X 15, 8 PLY FOR	2	
24						TOOLBAR W/30 INCH SHANK SPCG. W/O 2NDRY WING		
25	18459200	LOCKNUT "NYLOK" 3/8-16NC.	2					
26	47005092	GAUGE BRACKET	1					
27	18056824	BOLT, 3/8-16NC. X 1 1/4	1					
28	18811200	FLAT WASHER, 3/8	1					
29	18496800	FLANGE NUT, 3/8-16NC.	1					
30	47010171	BRACKET, SELECTOR VALVE	OPT.					
31	47001028	U-BOLT, 3/8-16NC.	1					
32	18891200	LOCKWASHER, 3/8	2					
33	18436800	HEX. NUT, 3/8-16NC.	2					
34	18056469	BOLT, 5/16-18NC. X 3 1/4	2					
35	18811100	LOCKWASHER, 5/16	2					
36	18406400	HEX. NUT, 5/16-18NC.	2					
37	18098435	BOLT, 3/4-10NC. X 2 1/2 GR. 8	22					
38	--	--	-					
39	18458452	LOCK NUT, 3/4-10NC.GR.8	22					
40	47010132	HINGE PIN, PRIMARY WING	4					
41	18057424	BOLT, 1/2-13NC. X 1 1/4	4					
42	18497400	FLANGED NUT, 1/2-13NC.	4					
43	18901805	GREASE ZERK, STRAIGHT	4					
44	47005039	HYDRAULIC CYLINDER (3 1/2 X 30)	2		47999488	AUXILIARY TOOLBAR KIT ITEMS 84-87	1	
	FOR PRIMARY WINGS W/0 2NDRY WINGS				47995567	AUXILIARY TOOLBAR KIT ITEMS 84A-871		
					47019488	AUXILIARY TOOLBAR (COULTER MT)	1	
	47005057	HYDRAULIC CYLINDER (4 X 30)	2		84A	47005567	AUXILIARY TOOLBAR (SHANK MT)	1
	FOR PRIMARY WINGS WITH 2NDRY WINGS				85	47010154	U-BOLT 5/8-11 UNC	4
45	47003514	CYLINDER PIN KIT (1 X 4) (2 PINS)	1		86	18891600	LOCKWASHER, 5/8	8
46	18549054	CLEVIS PIN, (1 X 5)	2		87	18417900	NUT, HEX 5/8-11 UNC	8
47	18852200	1" FLATWASHER SAE	4		88	PPSC4156BS	CHAIN, SAFETY 1/2" X 56" LG	1
48	18560826	COTTER PIN, 3/16 X 1 1/2	2		89	18059061	BOLT HX CAP GR5 NC ZC 1 X 4	1
49	699110	DECAL, NITROMASTER	2		90	18459002	NUT NYLOCK 1 GR 5	1
50	699100	DECAL, WARNING-CLEAR TONGUE	1		91	18852200	WASHER FLAT 1" SAE ZC	3
51	699104	DECAL, CAREFUL-CLEAR MACHINE	1			(ITEMS 88-91 CAN BE ORDERED AS A KIT P/N:47090314)		

7200 SERIES TOOLBAR SECONDARY WING ASSEMBLY

72K2NDWNG
REV/01-14-14



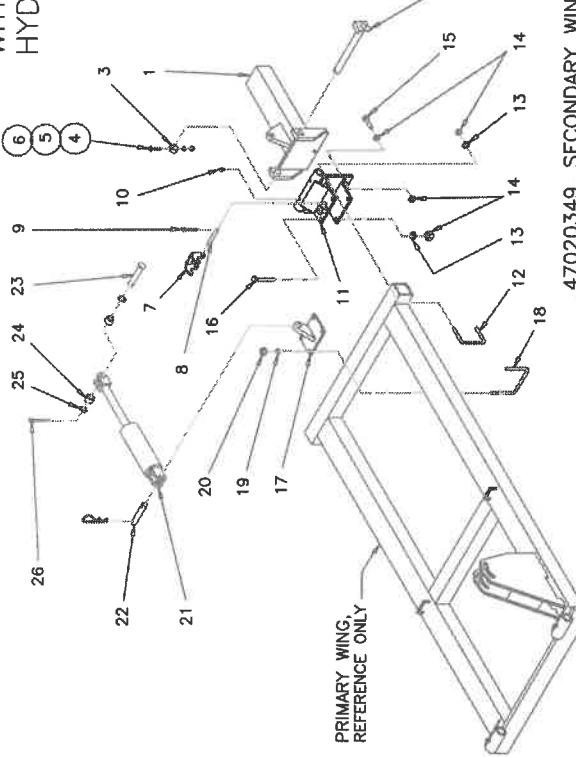
ITEM	PART NO.	DESCRIPTION
1	47003439	SECONDARY WING, L.H. (17 ROW)
	47003438	SECONDARY WING, R.H. (12/16 COMBO)
2	47010178	SECONDARY WING, L.H. (12/16 COMBO)
3	47010179	SECONDARY WING, R.H. (15 ROW)
4	47003434*	SECONDARY WING, RH (SHOWN)
5	47003435*	GREASE ZERK, STRAIGHT
6	18901805	CLEVIS PIN, (1 X 5)
7	18549054	COTTER PIN, (3/16 X 1 1/2)
8	18560826	HYDRAULIC CYLINDER, (3 X 24)
9	47300093	CYL. PIN KIT, (1 X 3 1/2) (2 PINS)
10	47003513	FLATWASHER, 1 INCH
11	18852200	ROLLER-CYL. LINK,
12	47010032	PIVOT LINK, HYD. CYL.
13	47010163	CYL. PIN KIT, (1 X 4) (2 PINS)
14	47003514	WING HOOK RETAINER

ITEM	PART NO.	DESCRIPTION
12	47010154	U-BOLT, 5/8-11NC.
13	18891600	LOCKWASHER, 5/8
14	18417900	HEX. NUT, 5/8-11NC.
15	47010149	WING HOOK ASSEMBLY
	ITEMS 16 TO 20 USED ON COMBO UNITS ONLY	
16	47009848	WING LOCK STRAP
17	18056828	BOLT, 3/8-16NC. X 1 3/4
18	18436800	HEX. NUT, 3/8-16NC
19	18541655	CLEVIS PIN, 3/8 X 1 3/4
20	18590091	HAIR PIN BRIDGE, .091 X 2
21	47003923	WINGLOCK MOUNT
22	47010234	STAGGER BRACKET, MEDIUM
23	47010182	STAGGER BRACKET, SHORT

ITEM	PART NO.	DESCRIPTION
1	47010154	U-BOLT, 5/8-11NC.
13	18891600	LOCKWASHER, 5/8
14	18417900	HEX. NUT, 5/8-11NC.
15	47010149	WING HOOK ASSEMBLY
	ITEMS 16 TO 20 USED ON COMBO UNITS ONLY	
16	47009848	WING LOCK STRAP
17	18056828	BOLT, 3/8-16NC. X 1 3/4
18	18436800	HEX. NUT, 3/8-16NC
19	18541655	CLEVIS PIN, 3/8 X 1 3/4
20	18590091	HAIR PIN BRIDGE, .091 X 2
21	47003923	WINGLOCK MOUNT
22	47010234	STAGGER BRACKET, MEDIUM
23	47010182	STAGGER BRACKET, SHORT

SECONDARY WING ASSEMBLY

WITH .045 ORIFICE
HYDRAULIC FITTINGS

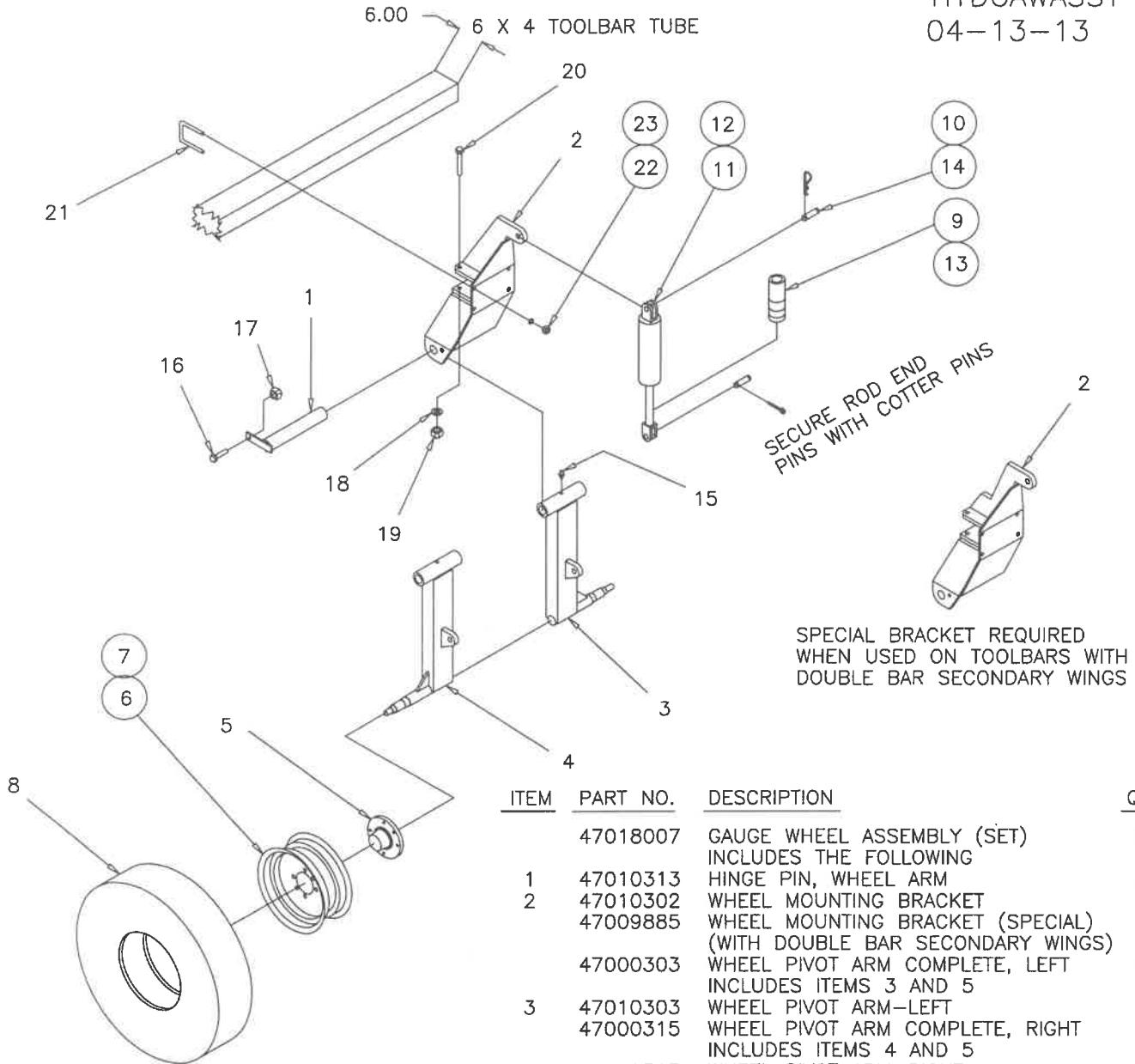


72K2NDNSNGL

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
47028166	(SET) 2NDRY. WING ASS'Y. COMPLETE (HYDRAULIC) INCL. ITEMS 1 TO 26	1	607112	NOT SHOWN —			
1	47008166	SECONDARY WING, (2 FOOT)	2	609126	HYDRAULIC HOSE PACKAGE, (INCLUDES)		
2	47009562	HINGE PIN	2	609138	HOSE, 3/8 X 126" — #6 JIC BOTH ENDS	2	
3	47006310	COLLAR	2	608211	HOSE, 3/8 X 138" — #6 JIC BOTH ENDS	2	
4	18056834	BOLT, 3/8-16NC. X 2 1/2	2	64400-6-8	HYDRAULIC FITTING PKG. (INCLUDES)		
5	18891200	LOCKWASHER, 3/8	2	64400-6-8R	CONNECTOR, #6 MFC X #8 O-RING	1	
6	18436800	HEX. NUT, 3/8-16NC.	2	64400-6-8R	CONNECTOR, #6 MFC X #8 O-RING	1	
7	47010351	PIVOT HOOK ASSEMBLY	2	6500-6	WITH .045 ORIFICE		
8	47010393	PIN, PIVOT HOOK	2	6600-6	ELBOW, #6 MJIC X #6 FUJC SWIVEL	1	
9	18560724	COTTER PIN, 5/32 X 1 1/4	4	6602-6	BRANCH TEE, #6 MJIC X #6 FUJC SWIVEL	2	
10	18901805	GREASE ZERK, STRAIGHT	4	6801-6-8	ADAPTER ELBOW, #6 MJIC X #8 O-RING	1	
11	47010356	WING PIVOT ASSEMBLY	2	6801-6-8R	ADAPTER ELBOW, #6 MJIC X #8 O-RING	1	
12	47006518	U-BOLT, 3/4-10 NC. (4 X 4 TUBE)	4		WITH .045 ORIFICE		
13	18891800	LOCKWASHER, 3/4	12		— OPTIONAL —		
14	18418400	HEX. NUT, 3/4-10NC.	20	47998166	(SET) 2NDRY. WING ASS'Y. (MANUAL FOLD)		
15	18098437	BOLT, 3/4-10NC. X 2 1/2 (FULL THREAD)	4	47008166	INCLUDES ITEM 2 TO 16 PLUS 27 TO 31		
16	18058460	BOLT, 3/4-10NC. X 6 1/2	4	18059062	SECONDARY WING, MANUAL FOLD	2	
17	47010352	CYLINDER ANCHOR ASSEMBLY	2	18852200	BOLT, 1-8NC. X 6	2	
18	47007083	U-BOLT, 5/8-11 NC. (6 X 4 TUBE)	4	47008162	FLATWASHER, 1" SAE	4	
19	18891600	LOCKWASHER, 5/8	8	18439000	SPACER BUSHING	4	
20	18417900	HEX. NUT, 5/8-11NC.	8		HEX. NUT, 1-8NC.	2	
21	47005491	HYDRAULIC CYLINDER (3 X 14")	2				
22	47003513	CYLINDER PIN KIT, (1 X 3 1/2)	1				
23	18549054	CLEVIS PIN, (1 X 5)	2				
24	47010380	SPACER, CYLINDER CLEVIS	4				
25	18852200	FLATWASHER, 1" SAE	4				
26	18560826	COTTER PIN, 3/16 X 1 1/2	2				

HYDRAULIC GAUGE WHEEL ASSEMBLY

HYDGAWASSY
04-13-13



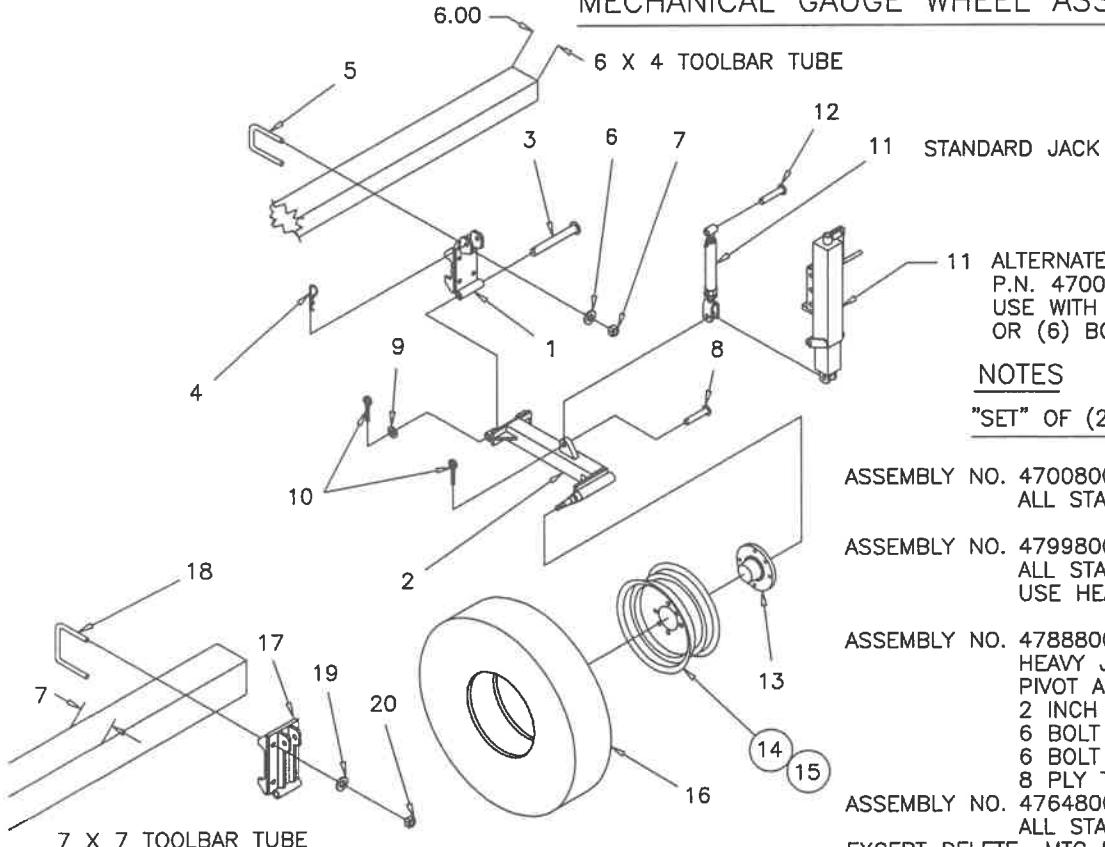
NOTE *
FOR 7000 SERIES 37 & 42 FT. TOOLBAR
WITH 15" TOOL SPACING
USE P.N. 20121115
TIRE, 11L X 12 PLY

ITEM	PART NO.	DESCRIPTION	QTY
	47018007	GAUGE WHEEL ASSEMBLY (SET) INCLUDES THE FOLLOWING	1
1	47010313	HINGE PIN, WHEEL ARM	2
2	47010302	WHEEL MOUNTING BRACKET	2
	47009885	WHEEL MOUNTING BRACKET (SPECIAL) (WITH DOUBLE BAR SECONDARY WINGS)	1
	47000303	WHEEL PIVOT ARM COMPLETE, LEFT INCLUDES ITEMS 3 AND 5	1
3	47010303	WHEEL PIVOT ARM-LEFT	1
	47000315	WHEEL PIVOT ARM COMPLETE, RIGHT INCLUDES ITEMS 4 AND 5	1
4	47010315	WHEEL PIVOT ARM-RIGHT	1
5	47009618	HUB ASSEMBLY	2
6	47005589	WHEEL RIM, 15 X 8	2
7	20120012	VALVE STEM	2
8	10261	TIRE, 11L x 8 PLY (SEE NOTE *)	2
9	47005455	SET, DEPTH CONTROL (3 1/4 CYL.)	1
10	47003513	CYLINDER PIN KIT (3 1/4 CYL.)	1
11	47005054	HYDRAULIC CYL.-LEFT, (3 1/4 X 12) SPECIFY LEFT OR RIGHT	1
12	47005056	HYDRAULIC CYL.-RIGHT, (3 1/2 X 12)	1
13	47005455	SET, DEPTH CONTROL (3 1/2 CYL.)	1
14	47003514	CYLINDER PIN KIT (3 1/2 CYL.)	1
15	18901805	GREASE ZERK, STRAIGHT	2
16	18057426	BOLT, 1/2-13NC. X 1 1/2	2
17	18497400	FLANGED NUT, 1/2-13NC.	2
18	18891800	LOCKWASHER, 3/4	4
19	18418400	HEX. NUT, 3/4-10NC.	4
20	18058470	BOLT, 3/4-10NC. X 7	4
21	47006951	U-BOLT, 5/8-11 NC.	4
22	18891600	LOCKWASHER, 5/8	8
23	18417900	HEX. NUT, 5/8-11NC.	8

MECHANICAL GAUGE WHEEL ASSEMBLY

MCHGAWHL
REV C

05-16-12



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

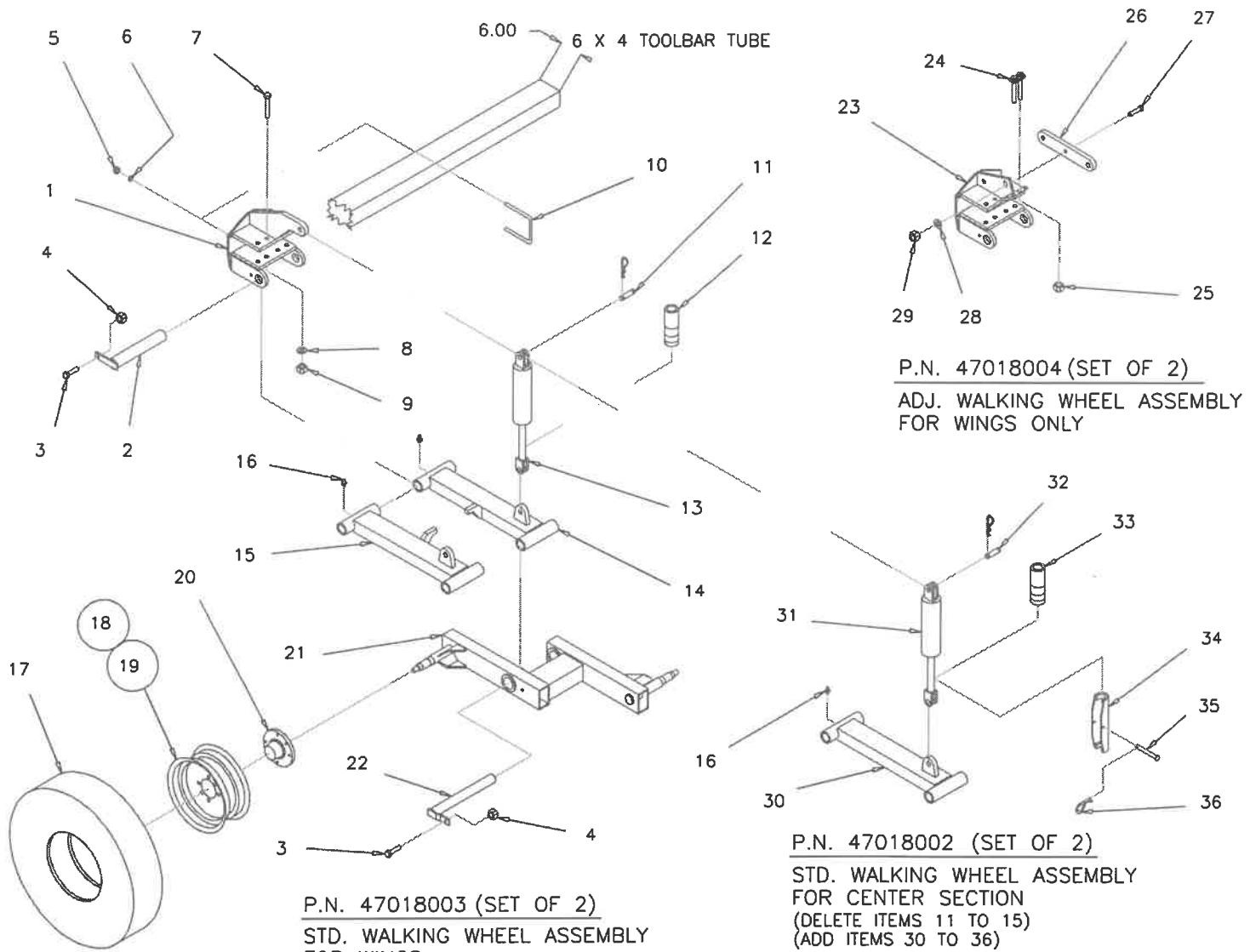
ASSEMBLY NO. 47888001 INCLUDES
HEAVY JACK P.N. 47008514
PIVOT ARM WITH
2 INCH SPINDLE P.N. 47019335
6 BOLT HUB P.N. 47009611
6 BOLT WHEEL P.N. 47005589
8 PLY TIRE P.N. 10261

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 ASSY. NO. 47008001	QTY FOR ASSY. NO. 47998001	QTY FOR ASSY. NO. 47888001	QTY FOR 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

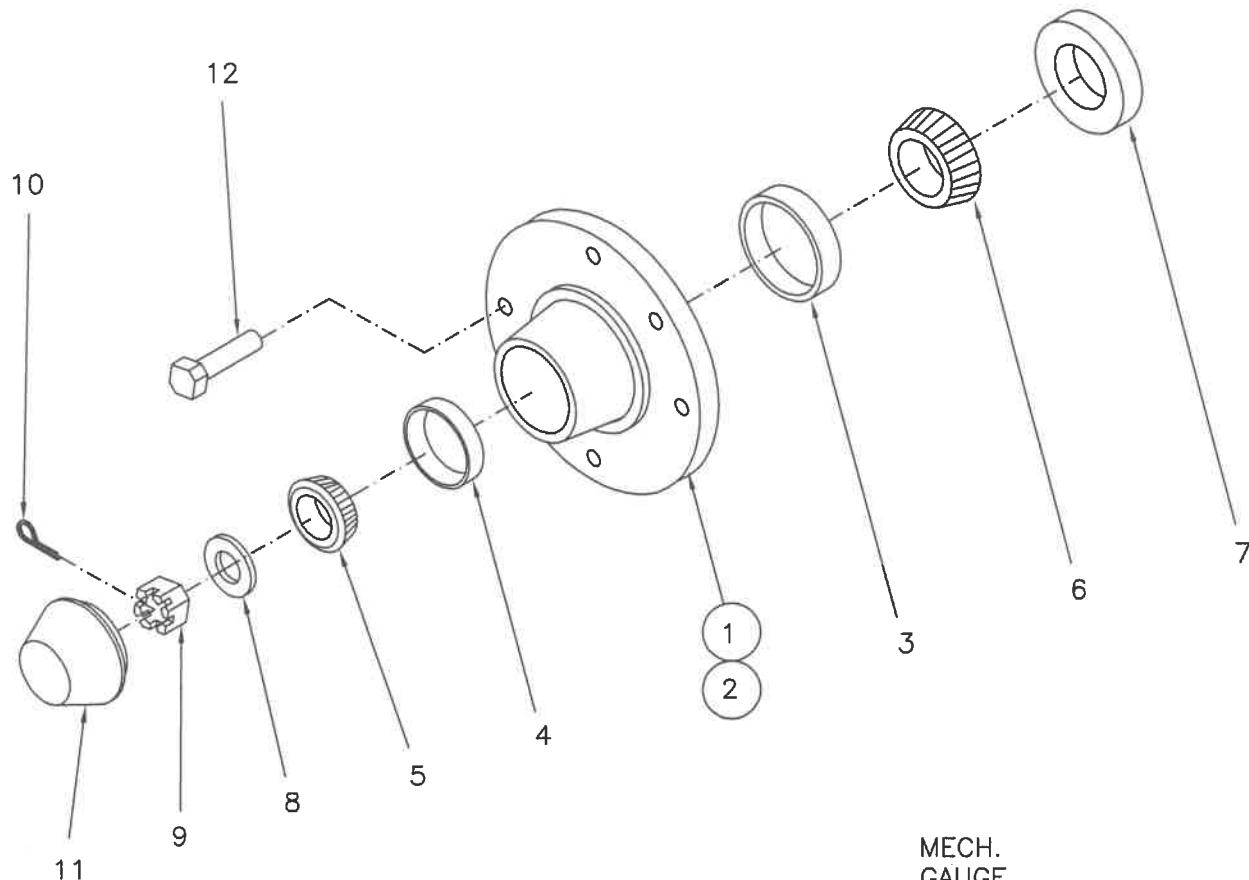
TANDEM "WALKING WHEEL" ASSEMBLY

7000TWWL



ITEM	PART NO.	DESCRIPTION	PER SET QTY	ITEM	PART NO.	DESCRIPTION	PER SET QTY
1	47007378	WHEEL MOUNT BRACKET (STD.)	2	20	47009618	HUB ASSEMBLY	4
2	47007394	ARM PIVOT PIN	2	21	47997388	BOGGIE ASSEMBLY COMPLETE INCLUDES ITEMS 20 AND 21	2
3	18057426	BOLT, 1/2-13NC. X 1 1/2	4	22	47007388	BOGGIE ASSEMBLY	2
4	18497400	FLANGED NUT, 1/2-13NC.	4		47007396	PIVOT PIN, BOGGIE	2
5	18417900	HEX. NUT, 5/8-11NC.	8			FOR ADJUSTABLE WALKING WHEEL ASSEMBLY DELETE ITEM 1, USE ALL ITEMS 2 TO 29	
6	18891600	LOCKWASHER, 5/8	8	23	47007429	WHEEL MOUNT BRACKET	2
7	18058470	BOLT, 5/8-11NC. X 7	8	24	47007433	BAR CLAMP	2
8	18891800	LOCKWASHER, 3/4	8	25	18458400	SELF-LOCKING NUT, 3/4-10NC.	4
9	18418400	HEX. NUT, 3/4-10NC.	8	26	47007445	CYLINDER MOUNT BAR	2
10	47006951	U-BOLT, 5/8-11 NC.	4	27	18058436	BOLT, 3/4-10NC. X 3	4
		ITEMS 11 TO 15 USED ON WINGS ONLY		28	18891800	LOCKWASHER, 3/4	4
11	47003514	CYLINDER PIN KIT (3 1/2" CYLINDER)	1	29	18418400	HEX. NUT, 3/4-10NC.	4
						FOR CENTER SECTION ONLY USE ITEMS 1 TO 10 & 16 TO 22 DELETE ITEMS 11 TO 15 ADD ITEMS 30 TO 36	
				30	47007384	PIVOT ARM	2
12	47005455	SET, DEPTH CONTROL (3 1/2 & 3 1/4 CYL)	2	31	47005459	MASTER CYLINDER (4" CYLINDER)	1
13	47005056	WING CYLINDER (3 1/2" CYLINDER)	1		47005449	SLAVE CYLINDER (3 3/4" CYL.)	1
	47005054	WING CYLINDER (3 1/4" CYLINDER)	1	32	47003514	CYLINDER PIN KIT (3 3/4 & 4" CYL.)	2
14	47009123	PIVOT ARM, LEFT HAND	1	33	47005455	SET, DEPTH CONTROL (3 3/4 & 4" CYL.)	2
15	47009124	PIVOT ARM, RIGHT HAND	1	34	47010150	TRANSPORT LOCK	2
16	18901806	GREASE ZERK, 90 DEG.	2	35	18541254	CLEVIS PIN, TRANSPORT LOCK	2
17	20121114	TIRE, 11L X 15, 6 PLY	4	36	18590916	HAIRPIN BRIDGE	2
	10261	TIRE, 11L X 15, 8 PLY	OPT.				
18	47005589	WHEEL RIM, 15 X 8	4				
19	20120012	VALVE STEM	4				

HUB ASSEMBLIES

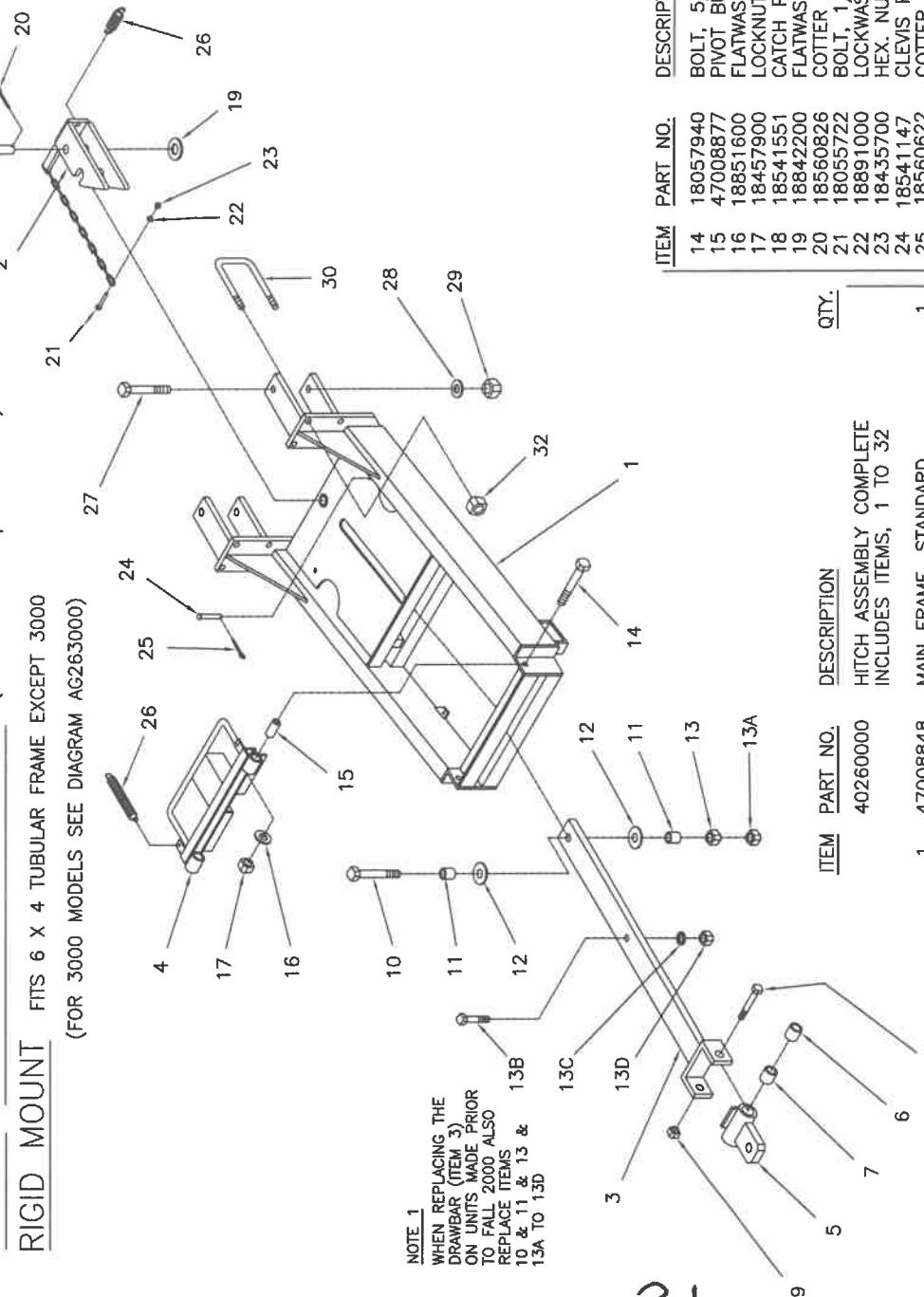


ITEM	DESCRIPTION	5 BOLT	6 BOLT	6 BOLT	QTY.
		HUB PART NO.	HUB PART NO.	HUB PART NO.	
1	HUB COMPLETE INCLUDES ITEMS 2 THRU 7 MFGR. PART NUMBER	47005348 HA511	47009618 H618	47009611 H611	1
2	HUB WITH RACES	47006348	47005618	47005511	1
3	INNER BEARING RACE	47005010	47005520	47005710	1
4	OUTER BEARING RACE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

AG26 FIELD HITCH ASSEMBLY (1998 to present)

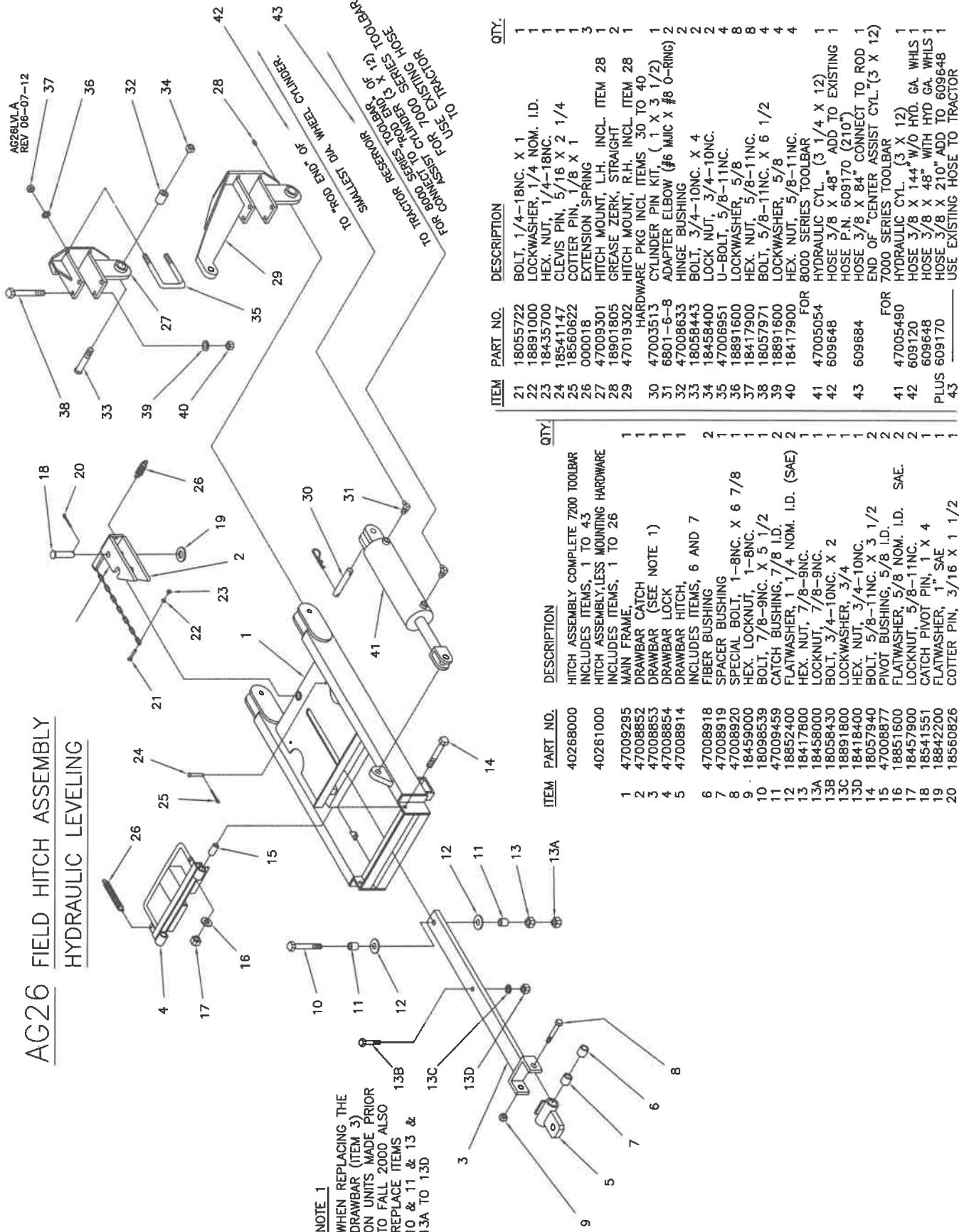
RIGID MOUNT FITS 6 X 4 TUBULAR FRAME EXCEPT 3000

(FOR 3000 MODELS SEE DIAGRAM AG263000)



ITEM	PART NO.	DESCRIPTION	QTY.
14	18057940	BOLT, 5/8-11NC. X 3 1/2	2
15	47008877	PIVOT BUSHING, 5/8 I.D.	2
16	18851600	FLATWASHER, 5/8 NOM. I.D. SAE.	2
17	18457900	LOCKNUT, 5/8-11NC.	2
18	18541551	CATCH PIVOT PIN, 1 X 4	1
19	18842200	FLATWASHER, 1" SAE	1
20	18560826	COTTER PIN, 3/16 X 1 1/2	1
21	18055722	BOLT, 1/4-18NC. X 1	1
22	18891000	LOCKWASHER, 1/4 NOM. I.D.	1
23	18435700	HEX. NUT, 1/4-18NC.	1
24	18541147	CLEVIS PIN, 5/16 X 2 1/4	1
25	18560622	COTTER PIN, 1/8 X 1	1
26	000018	EXTENSION SPRING	3
3	47992600	BOLT PKG. INCL. ITEMS, 27 TO 32	1
4	47008854	BOLT, 3/4-10NC. X 6 1/2	2
5	47008914	LOCKWASHER, 3/4 NOM. I.D.	2
6	47008918	HEX. NUT, 3/4-10NC.	2
7	47008919	U-BOLT, 5/8-11NC.	4
8	47008920	NUT, CENTER LOCK 5/8	8
9	18459000	SPECIAL BOLT, 1-8NC. X 6 7/8	1
10	18098539	HEX. LOCKNUT, 1-8NC.	1
11	47009459	BOLT, 7/8-9NC. X 5 1/2	1
12	18852400	CATCH BUSHING, 7/8 I.D.	2
13	18417800	FLATWASHER, 1 1/4 NOM. I.D. (SAE)	2
13A	18458000	HEX. NUT, 7/8-9NC.	1
13B	18058430	LOCKNUT, 7/8-9NC.	1
13C	18891800	BOLT, 3/4-10 NC. X 2	1
13D	18418400	LOCKWASHER, 3/4	1
		HEX. NUT, 3/4-10NC.	1

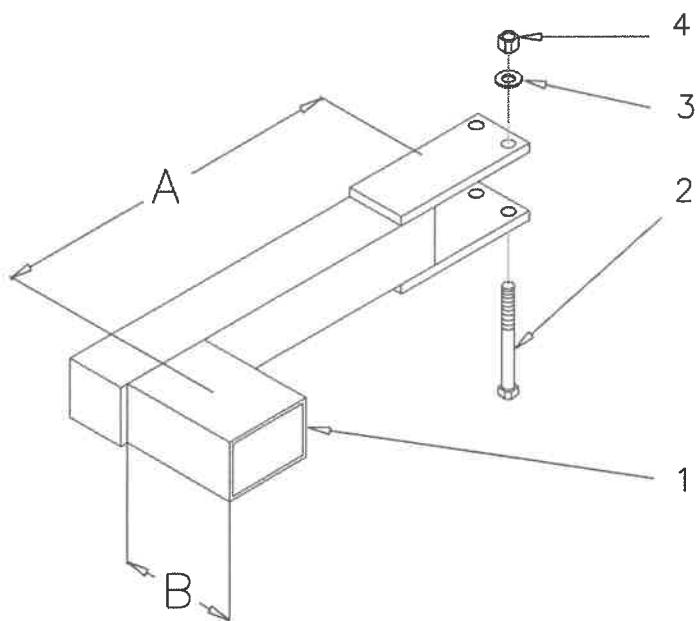
AG26 FIELD HITCH ASSEMBLY
HYDRAULIC LEVELING



22

STGBKISO

STAGGER BRACKET ASSEMBLY



ITEM	PART NO.	DESCRIPTION	DIM. A	DIM. B	QTY.
1	47010182	STAGGER BRACKET - SHORT	18	12	1
	47010234	STAGGER BRACKET - MEDIUM	24	12	1
	47010181	STAGGER BRACKET - LONG	30	8	1
	47010434	STAGGER BRACKET - XT. LONG	36	8	1
	47009431	STAGGER BRACKET - 2-XT. LONG	40	8	1
	47010235	STAGGER BRACKET - SPECIAL	24	15	1
2	18058460	BOLT, 3/4-10NC. X 6 1/2	---	---	2
3	18891800	LOCKWASHER, 3/4	---	---	2
4	18418400	HEX. NUT, 3/4-10NC.	---	---	2

HYDRAULIC PLUMBING SCHEMATIC

7200 SERIES TOOLBAR WITH, SECONDARY WINGS
AND HYDRAULIC GAUGE WHEELS

72KPMBC

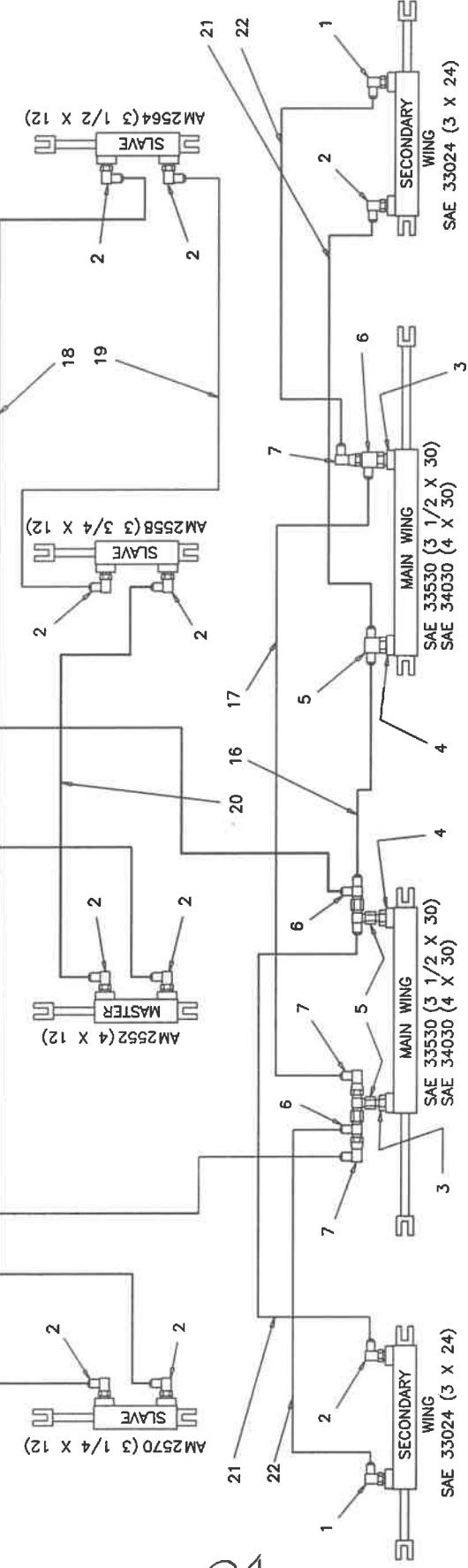
AB/06/24/03
REV 02-10-09

NOTE: ROUTE HOSES TO TRACTOR ALONG LH
HITCH POLE, THEN ACROSS TO PIVOT BRACKET.

TO TRACTOR
13

14
TO TRACTOR
11

12
TO TRACTOR



HOSE LIST CONSISTS OF
P.N. 607002 (CMPLT PKG) AND P.N. 650002 (WING PKG)

ITEM PART NO.	DESCRIPTION	QTY
11 609317	HOSE, 3/8 X 317"	- 1/2 MPT X #6 JICFS
12 609236	HOSE, 3/8 X 236"	- 1/2 MPT X #6 JICFS
13 609432	HOSE, 3/8 X 432"	- 1/2 MPT X #6 JICFS
14 609248	HOSE, 3/8 X 248"	- 1/2 MPT X #6 JICFS
16 609600	HOSE, 3/8 X 61"	- #6 JICFS BOTH ENDS
17 609126	HOSE, 3/8 X 126"	- #6 JICFS BOTH ENDS
18 609330	HOSE, 3/8 X 396"	- #6 JICFS BOTH ENDS
19 601310	HOSE, 3/8 X 166"	- #6 JICFS BOTH ENDS
20 609120	HOSE, 3/8 X 144"	- #6 JICFS BOTH ENDS
21 609114	HOSE, 3/8 X 114"	- #6 JICFS BOTH ENDS
22 608108	HOSE, 3/8 X 108"	- #6 JICFS BOTH ENDS
609220	HOSE, 1/4 X 264"	- 1/2 MPT X 1/4 MPT

ITEM PART NO.	DESCRIPTION	QTY
1 6801-6-8R	ADAPTER ELBOW #6 MJIC X #8 M O-RING (BLACK FINISH)	2
2 6801-6-8	ADAPTER ELBOW #6 MJIC X #8 M O-RING	10
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

FITTING PACKAGE NO. 607203

ITEM PART NO.	DESCRIPTION	QTY
1 6801-6-8R	ADAPTER ELBOW #6 MJIC X #8 M O-RING (BLACK FINISH)	2
2 6801-6-8	ADAPTER ELBOW #6 MJIC X #8 M O-RING	10
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

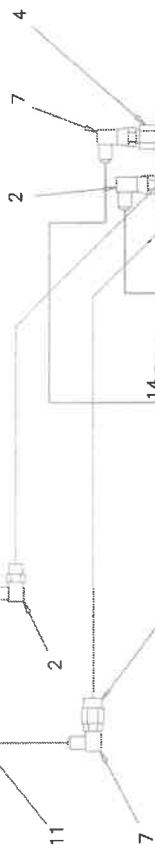
24

HYDRAULIC PLUMBING SCHEMATIC

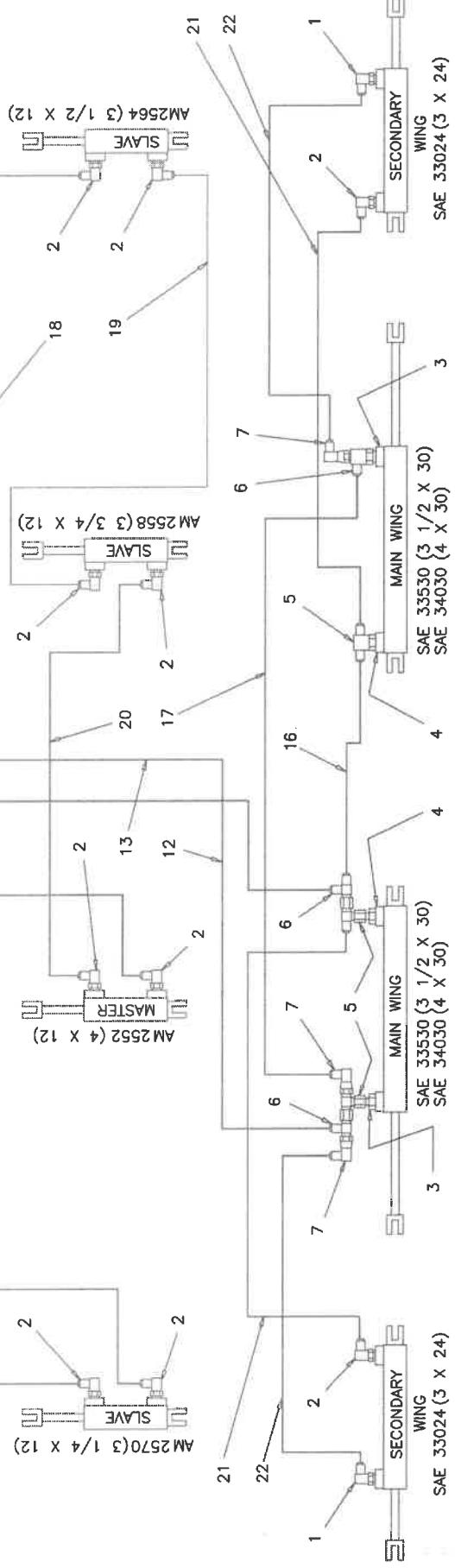
WITH SELECTOR VALVE

7200 SERIES TOOLBAR WITH HYDRAULIC GAUGE
AND SECONDARY WINGS

72KPMBF
PRO/06/27/03
REV 9-27-07



NOTE: ROUTE HOSES TO TRACTOR ALONG LH
HITCH POLE, THEN ACROSS TO PIVOT BRACKET



HOSE PACKAGE NO. 607005

CONSISTS OF HOSE PACKAGE NO. 607000 AND

FITTING PACKAGE NO. 6072035V

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	12
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 FJC SWIVEL	3
6	6602-6	RUN TEE, #6 MJIC X #6 FJC SWIVEL	3
7	6500-6	ELBOW, #6 MJIC X #6 FJC SWIVEL	5
8	100902	SELECTOR VALVE ASSEMBLY	1
11	609212	HOSE, 3/8 X 212" - 1/2 MPT X #6 JICFS	2
12	609030	HOSE, 3/8 X 36" - #6 JICFS BOTH ENDS	1
13	609040	HOSE, 3/8 X 48" - #6 JICFS BOTH ENDS	1
14	609090	HOSE, 3/8 X 90" - #6 JICFS BOTH ENDS	1
15	609184	HOSE, 3/8 X 220" - #6 JICFS BOTH ENDS	1
16	609600	HOSE, 3/8 X 61" - #6 JICFS BOTH ENDS	1
17	609126	HOSE, 3/8 X 126" - #6 JICFS BOTH ENDS	1
18	609330	HOSE, 3/8 X 396" - #6 JICFS BOTH ENDS	1
19	601310	HOSE, 3/8 X 166" - #6 JICFS BOTH ENDS	1
20	609120	HOSE, 3/8 X 144" - #6 JICFS BOTH ENDS	1
21	609114	HOSE, 3/8 X 114" - #6 JICFS BOTH ENDS	2
22	608126	HOSE, 3/8 X 126" - #6 JICFS BOTH ENDS	2
609220		HOSE, 1/4 X 264" - 1/2 MPT X 1/4 MPT NOT SHOWN	2

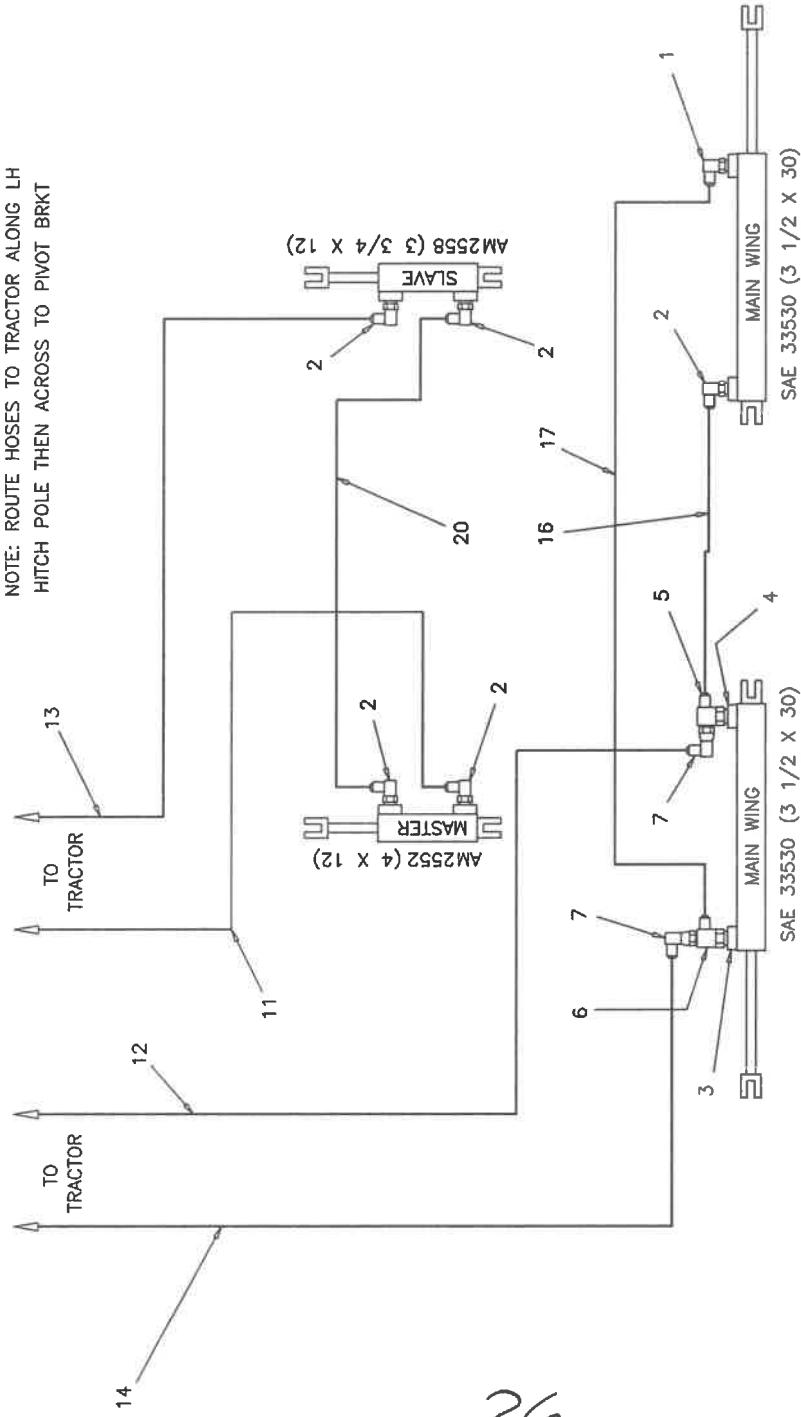
25

70FMB97A
REV 02-10-09

HYDRAULIC PLUMBING SCHEMATIC

7000 SERIES 32 FT. TOOLBAR WITH MANUAL GAUGE WHEELS

NOTE: ROUTE HOSES TO TRACTOR ALONG LH
HITCH POLE THEN ACROSS TO PIVOT BRKT



26

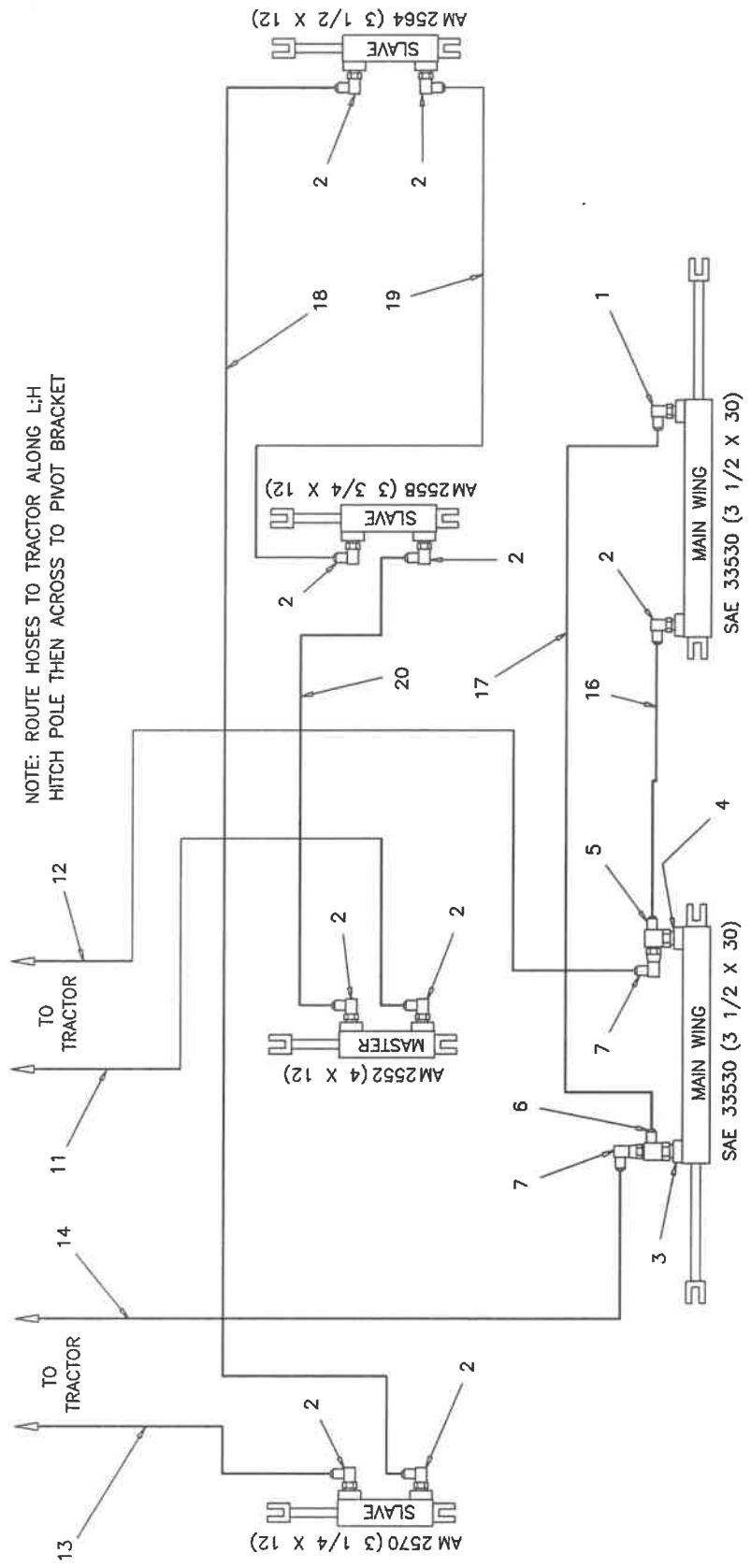
ITEM	PART NO.	HOSE PACKAGE NO.	PACKAGE NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
11	609317	HOSE, 3/8 X 317"	607001	#6 MPT X #6 JICFS	1	1	6801-6-8R	ADAPTER ELBOW, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)	1
12	609236	HOSE, 3/8 X 236"		#6 MPT X #6 JICFS		2	6801-6-8	ADAPTER ELBOW, #6 MJIC X #8 M O-RING	5
13	609380	HOSE, 3/8 X 380"		#6 MPT X #6 JICFS		3	6400-6-8R	CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)	1
14	609248	HOSE, 3/8 X 248"		#6 MPT X #6 JICFS		4	6400-6-8	CONNECTOR, #6 MJIC X #8 M O-RING	1
16	609600	HOSE, 3/8 X 61"		#6 JICFS BOTH ENDS	1	5	6600-6	BRANCH TEE, #6 MJIC X #6 FJIC SWIVEL	1
17	609126	HOSE, 3/8 X 126"		#6 JICFS BOTH ENDS	1	6	6602-6	RUN TEE, #6 MJIC X #6 FJIC SWIVEL	1
20	609120	HOSE, 1/4 X 144"		#6 JICFS BOTH ENDS	1	7	6500-6	ELBOW #6 MJIC X #6 FJIC SWIVEL	2
609220		HOSE, 1/4 X 264"		- 1/2 MPT X 1/4 MPT	2			NOT SHOWN	

HYDRAULIC PLUMBING SCHEMATIC

7000 SERIES 32 FT. TOOLBAR WITH 2 HYDRAULIC GAUGE WHEELS

70PMB97B
REV 02-10-09

NOTE: ROUTE HOSES TO TRACTOR ALONG LH HITCH POLE THEN ACROSS TO PIVOT BRACKET



27

HOSE PACKAGE NO. 607002

QTY

FITTING PACKAGE NO. 607202

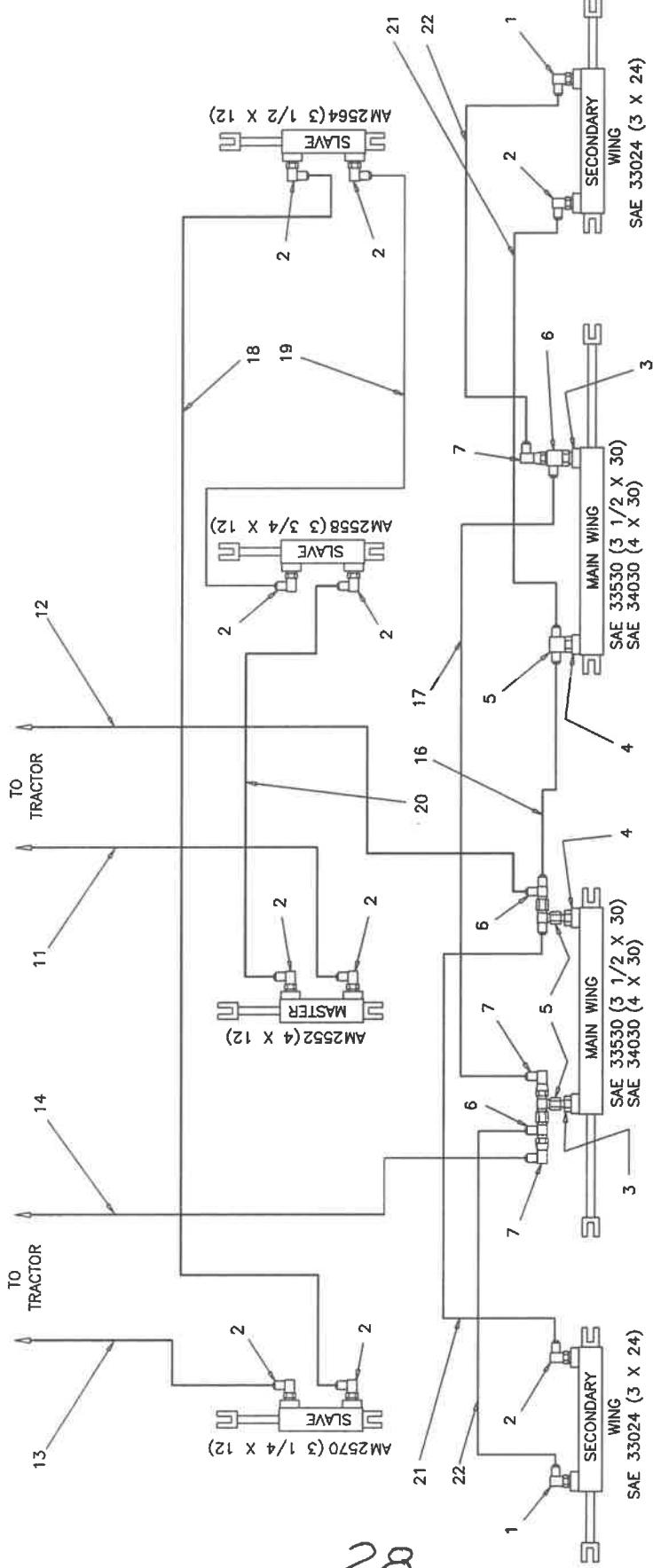
ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
11	609317	HOSE, 3/8 X 317"	1	6801-6-BR	ADAPTER ELBOW, #6 MJIC X #8 M O-RING
12	609236	HOSE, 3/8 X 236"	2	6801-6-BR	ADAPTER ELBOW, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)
13	609432	HOSE, 3/8 X 432"	3	6400-6-BR	CONNECTOR, #6 MJIC X #8 M O-RING
14	609248	HOSE, 3/8 X 248"	4	6400-6-B	CONNECTOR, #6 MJIC X #8 M O-RING WITH .045 ORIFICE (BLACK FINISH)
16	609600	HOSE, 3/8 X 61"	5	6600-6	BRANCH TEE, #6 MJIC X #6 FJIC SWIVEL
17	609126	HOSE, 3/8 X 126"	6	6602-6	RUN TEE, #6 MJIC X #6 FJIC SWIVEL
18	609330	HOSE, 3/8 X 396"	7	6500-6	ELBOW #6 MJIC X #6 FJIC SWIVEL
19	609130	HOSE, 3/8 X 166"			
20	609120	HOSE, 3/8 X 144"			
609220	HOSE, 1/4 X 264"	- 1/2 MPT X 1/4 MPT	2	NOT SHOWN	

HYDRAULIC PLUMBING SCHEMATIC

7200 SERIES TOOLBAR WITH, SECONDARY WINGS
AND HYDRAULIC GAUGE WHEELS

72KPMBC
AB/06/24/03
REV 02-10-09

NOTE: ROUTE HOSES TO TRACTOR ALONG LH
HITCH POLE, THEN ACROSS TO PIVOT BRACKET.



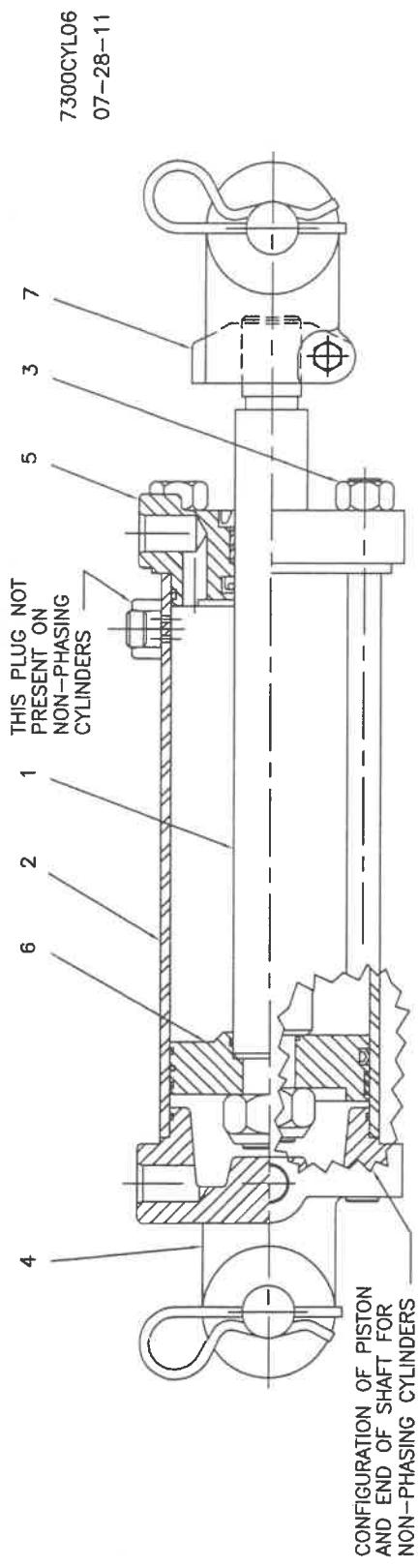
P.N. 607002 (CMPLT PKG) AND P.N. 650002 (WING PKG)

ITEM PART NO.	DESCRIPTION	QTY
11 609317	HOSE, 3/8 X 317" - 1/2 MPT X #6 JICFS	1
12 609236	HOSE, 3/8 X 317" - 1/2 MPT X #6 JICFS	1
13 609432	HOSE, 3/8 X 432" - 1/2 MPT X #6 JICFS	1
14 609248	HOSE, 3/8 X 248" - 1/2 MPT X #6 JICFS	1
16 609600	HOSE, 3/8 X 61" - #6 JICFS BOTH ENDS	1
17 609126	HOSE, 3/8 X 126" - #6 JICFS BOTH ENDS	1
18 609330	HOSE, 3/8 X 396" - #6 JICFS BOTH ENDS	1
19 601310	HOSE, 3/8 X 166" - #6 JICFS BOTH ENDS	1
20 609120	HOSE, 3/8 X 144" - #6 JICFS BOTH ENDS	1
21 609114	HOSE, 3/8 X 114" - #6 JICFS BOTH ENDS	2
22 608108	HOSE, 3/8 X 108" - #6 JICFS BOTH ENDS	2
209220	HOSE, 1/4 X 264" - 1/2 MPT X 1/4 MPT	2
NOT SHOWN		2

P.N. 607003

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	10
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

P.N. 607203



ITEM NO.	DESCRIPTION	WING CYL. 3 1/2 X 30 47005039 B350300BAAA0070	WING CYL. 4 X 30 47005057 B400300BBGAGA07A	2ndry WING CYL. 3 X 14 47005491 B300240BBAAA07A	2ndry WING CYL. 3 X 24 47300093 B300240BBAAA07F	WHEEL CYL. 4 X 12 47005459 PMS-AM-2552A	WHEEL CYL. 3 3/4 X 12 47005449 PMS-AM-2558A	WHEEL CYL. 3 1/2 X 12 47005056 PMS-AM-2564	WHEEL CYL. 3 1/4 X 12 47005054 PMS-AM-2570	QTY. REQ'D.
1	SHAFT	010735750B 051732063A 170201343 1417005SF 0819BBNSF 071700174 071900260	0110354-3BA 051932563A 170301354 1415005SF 0815BBGSF 071500244 071900423	010719750A 051516083A 170201182 1415005SF 0819BBGSF 071500244 071900423	010729750A 051526063A 170201282 1415005SF 0819BBGSF 071500244 071900423	010700698 061900598 170301173 14190009 081900374 071900273 071800021	010600379 061800022 170301173 141700023 081900222 071700269 071600025	010600379 061600028 170201163 141600002 081600038 071700208 071600025	010600379 061700366 170301173 141700023 081900222 071800021 071700208 071600025	1
2	TUBE									
3	TIE ROD ASSM.									
4	BUTT									
5	GLAND ASSM.									
6	PISTON									
7	CLEVIS ASSM.									
	REPAIR KIT	100000577 47033500	100000326 47033000	100000423 47033000	100000577 47002552	100000577 47032558	100000423 47002564	100000423 47002570	100000423 47002570	1
	Repair kit items not available individually.									

TIE ROD DISASSEMBLY / -ASSEMBLY PROCEDURE.

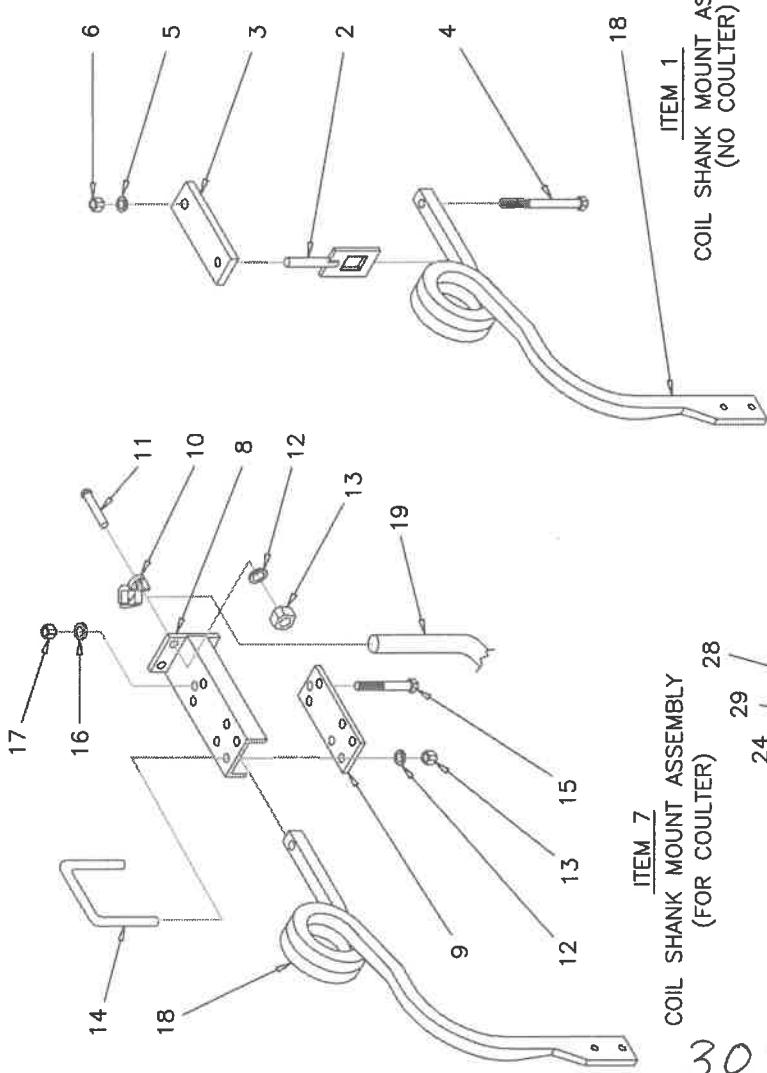
With the cylinder removed from the machine, cleaned, drained of oil and fully retracted, proceed as follows.
DISASSEMBLY

- Secure the cylinder in a vice or other method to prevent rotation. Clean the immediate area so the parts can be laid out.
- Remove the tie rod nuts. Pull the shaft assembly from the cylinder. Remove the tube item (2).
- Loosen the clevis nut and remove the clevis item (7) from the shaft assembly.
- Place the shaft assembly in a vice with brass or copper jaws so as not to damage the shaft.
- 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

- 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).
- For non-phasing cylinders, place the small o-ring seal for the piston over the shaft turndown. Apply a light coat of grease to the seal. Slip the piston item (6) onto the turndown with the o-ring counterbore towards the shaft shoulder. Take care not to pinch the o-ring between the piston and the shoulder.
- Replace the shaft end nut and secure.
- 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.
- 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.
- Test the reassembled cylinder for leaks and install in your machine. If you have any problems please contact Prince Engineering (712-277-4061)

STANDARD UNIVERSAL MOUNT

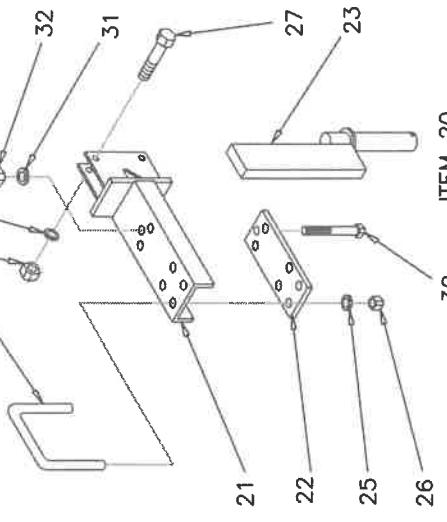


ITEM 7
COIL SHANK MOUNT ASSEMBLY
(FOR COULTER)

ITEM	PART NO.	DESCRIPTION	QTY
1	40511000	SHANK CLAMP SET, {6 X 4 BAR} SHANK CLAMP SET, {4 X 4 BAR}	1
2	44009306 602083	LOLLIPOP, FOR SQUARE SHANK LOLLIPOP, FOR 1 X 2 SHANK WITH LOCKWASHER & NUT	1 OPT.
3	44006685	TOP PLATE, {6 X 4 BAR}	1
4	44006685	TOP PLATE, {4 X 4 BAR}	1
5	18058470	BOLT, 3/4-10NC. X 7	1
6	18891800	LOCKWASHER, 3/4	2
7	18418400	HEX. NUT, 3/4-10NC.	2
8	47309184	SHANK MOUNT ASS'Y. (SQUARE SHANK) INCLUDES ITEMS 8 TO 14	1
9	47309177	SHANK MOUNT ASS'Y. (1 X 2 SHANK) ON 6 X 4 BAR	1
10	47308184	SHANK MOUNT ASS'Y. (1 X 2 SHANK) ON 4 X 4 BAR	1
11	47309406	SHANK HOLDER, (SQUARE SHANK)	1
12	47302890	SHANK HOLDER, (1 X 2 SHANK)	1
13	47306005	CLAMP PLATE, (SQUARE SHANK)	1
14	47006832	CLAMP PLATE, (1 X 2 SHANK)	1
15	47301538	CLAMP, COULTER SHANK	2
16	18057940	BOLT, 5/8-11INC. X 3 1/2	4
17	18891600	LOCKWASHER, 5/8	8
18	18417900	HEX. NUT, 5/8-11INC.	8
19	47006950	U-BOLT, 5/8-11INC. (6 X 4 BAR) U-BOLT, 5/8-11INC. (4 X 4 BAR)	2
20	47006951	U-BOLT, 5/8-11INC. (4 X 4 BAR) OPT.	2
21	18057938	BOLT, 5/8-11INC. X 3	1
22	18891600	LOCKWASHER, 5/8	1
23	18417900	HEX. NUT, 5/8-11INC.	1
24	4036000	COIL SHANK (OR AS SPECIFIED) W/STRAIGHT OR BENT COULTER SHANK AS SPEC'FD.	1
25	47999370	SHANK MOUNT ASSEMBLY COMPLETE INCLUDES ITEMS 21 TO 29	1
26	47309370	SHANK HOLDER, (1 X 2 SHANK)	1
27	47006832	CLAMP PLATE, (1 X 2 SHANK)	1
28	47303811	FLAT BAR COULTER SHANK, 18"	1
29	47309811	FLAT BAR COULTER SHANK, 12"	1
30	47006950	U-BOLT, 5/8-11INC. (6 X 4 BAR) U-BOLT, 5/8-11INC. (4 X 4 BAR)	2
31	18891600	LOCKWASHER, 5/8	4
32	18417900	HEX. NUT, 5/8-11INC.	4
33	18057938	BOLT, 5/8-11INC. X 3	1
34	18891600	LOCKWASHER, 5/8	1
35	18417900	HEX. NUT, 5/8-11INC.	1

30

ITEM 1
COIL SHANK MOUNT ASSEMBLY
(NO COULTER)



ITEM 20
COIL SHANK MOUNT ASSEMBLY
(FOR COULTER)

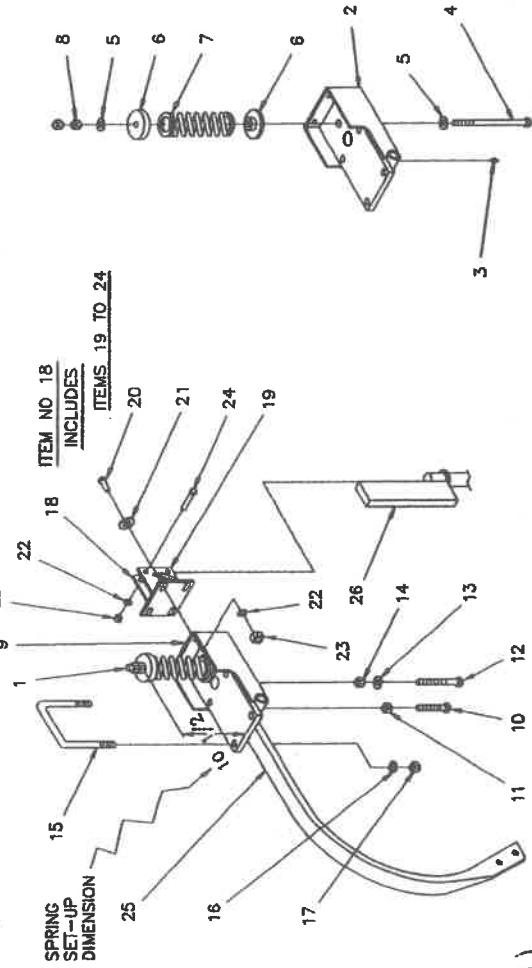
SHANK MOUNT ASSEMBLY for 1 X 2 FLAT KNIFE SHANK
AND COULTER MOUNTED WITH 1 X 3 FLAT BAR COULTER SHANK

ISO14B

SPRING BUNDLE ASSEMBLY

FOR 6 X 4 BAR YEAR 2000 TO PRESENT

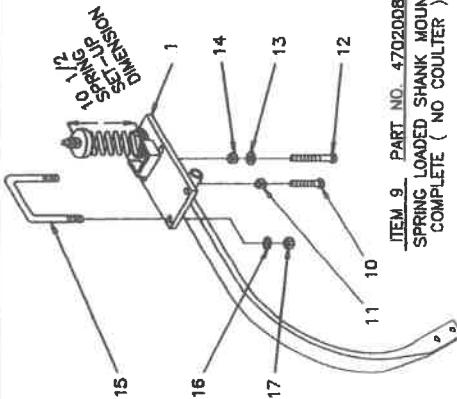
SPECIFY U-BOLT SIZE (ITEM 15)



ITEM NO. 1
INCLUDES ITEMS 2 TO 8

ITEM NO. 9
INCLUDES ITEM
AND 10 TO 17

ITEM	PART NO.	DESCRIPTION	QTY
1	47010082	SPRING SHANK MOUNT ASSEMBLY COMPLETE (NO COULTER) INCLUDES ITEMS 1 AND 10 TO 17 (SHIPPING INFO) HARDWARE PACKAGE	1
2	47010189	SHANK MOUNTING BASE	1
3	18801805	GREASE ZERK	1
4	47007766	BOLT, 3/4-10NC, X 15	2
5	18851800	FLATWASHER, 3/4	2
6	47007085	END COLLAR	1
7	47007565	COMPRESSION SPRING	1
8	18446890	HEX. NUT, 3/4-10NC, GR. 5	2
9	47029413	SPRING LOADED SHANK MOUNT COMPLETE (NO COULTER) INCLUDES ITEMS 1 AND 10 TO 17	1
10	18058429	BOLT, 3/4-10NC, X 1 3/4	1
11	18449003	HEX. JAW 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 LOCKWASHER, 5/8	4
17	18417900	HEX. NUT, 5/8-11NC.	4
18	47029417	COULTER MOUNTING BRACKET ASSEMBLY INCLUDES ITEM 19 TO 24	1
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 REFER TO COULTER ILLUSTRATIONS (AG36 OR AG38) FOR ITEM PART NUMBERS AND SPECIFY BLADE ASSEMBLY NUMBER AND SWIVEL BAR NUMBER.	1

SPRING LOADED SHANK MOUNTING

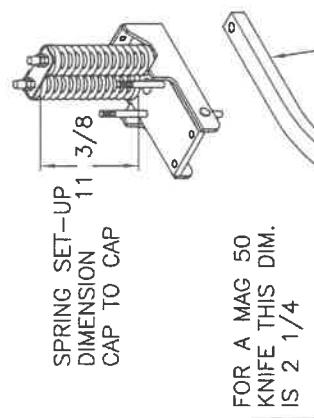
ITEM NO. 9
INCLUDES ITEM
AND 10 TO 17

ITEM NO. 1
INCLUDES ITEMS 2 TO 8

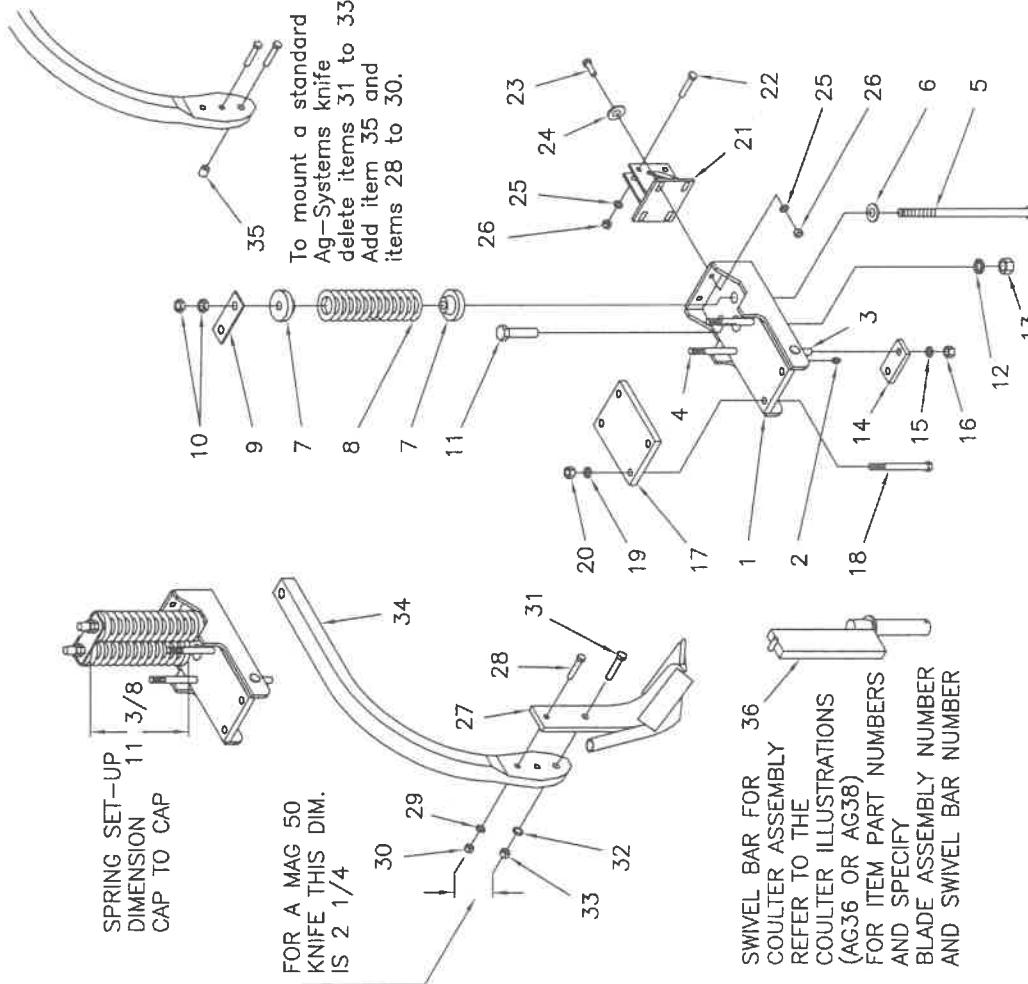
ITEM NO. 1
INCLUDES ITEMS 1 (REPAIR PARTS)
SPRING SHANK MOUNT ASSEMBLY
INCLUDES ITEMS 2 TO 8

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

**SPRING BUNDLE ASSEMBLY
WITH DUAL SPRINGS
AND HEAVY SHANK**



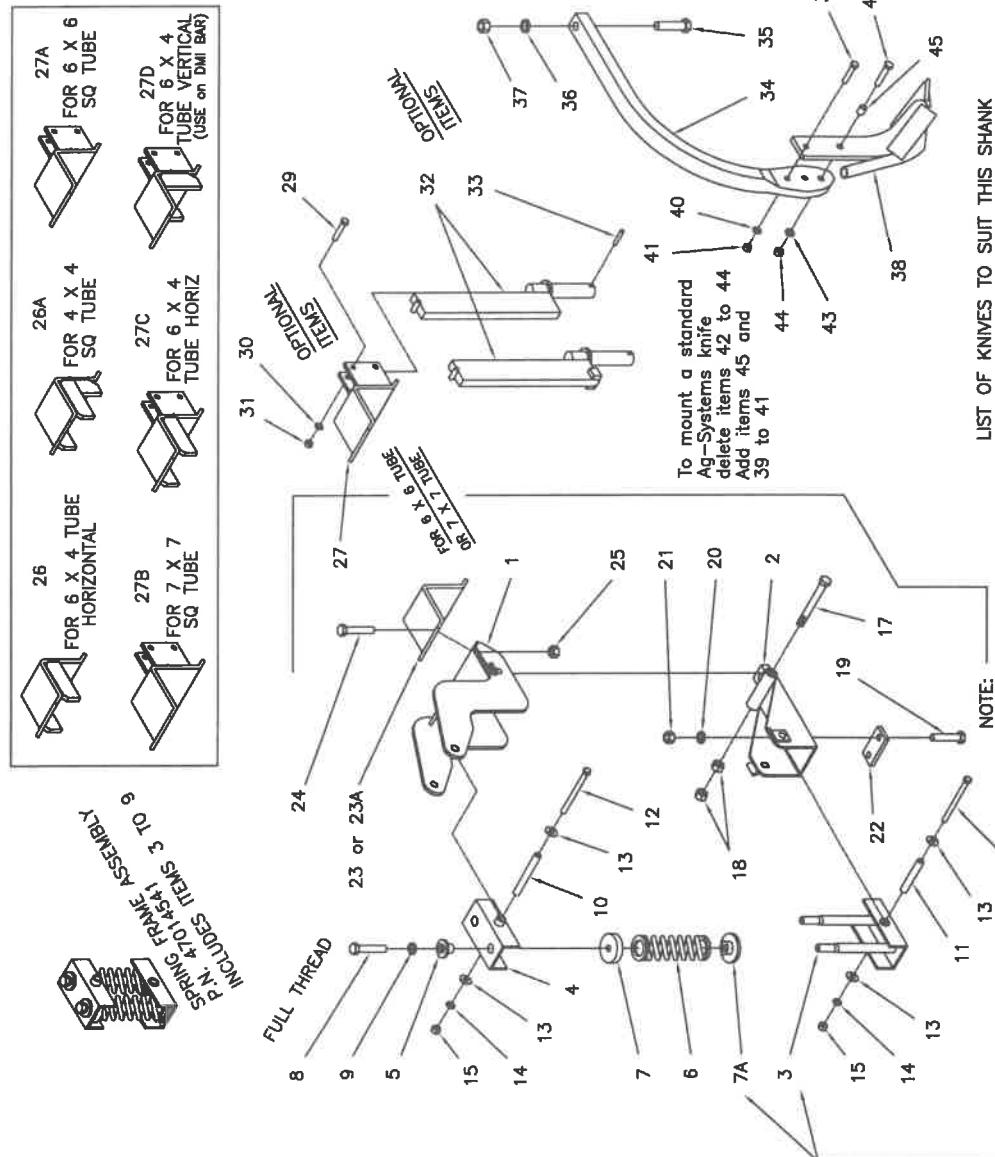
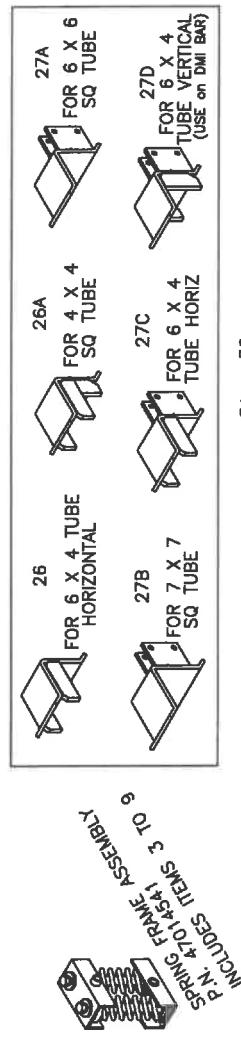
FOR A MAG 50
KNIFE THIS DIM.
IS 2 1/4



ITEM	PART NO.	DESCRIPTION	QTY
	47009661	SPRING BUNDLE COMPLETE	1
		INCLUDES ITEMS 1 TO 20 PREASSEMBLED	
1	47019661	SPRING BUNDLE BRACKET	1
2	18901805	GREASE ZERK, 1/4-28NF	2
		ITEMS 3 AND 4 ARE CAPTURED IN THE ASSEMBLY	
		WHEN THE SPRINGS ARE INSTALLED.	
3	18057942	BOLT, 5/8-11NC. X 3 3/4	2
4	18057971	BOLT, 5/8-11NC. X 6 1/2	2
6 X 6 TUBE	18057976	BOLT, 5/8-11NC. X 8 1/2	OPT
5	47007766	SPRING BOLT, 3/4-10NC. X 15 1/2	2
6	18811800	FLAT WASHER, 3/4	2
7	47007085	SPRING CAP	4
8	47007565	COMPRESSION SPRING, 5/8 WIRE	2
9	47019672	TOP WASHER PLATE	1
10	18446890	HEX. NUT, 3/4-10NC	4
11	18058501	BOLT, 7/8-9NC. X 3 3/4	1
12	18892000	LOCK WASHER, 7/8	1
13	18417800	HEX. NUT, 7/8-9NC.	1
14	47009671	CLAMP PLATE-SHANK	1
15	18891600	LOCK WASHER, 5/8	2
16	18417900	HEX. NUT, 5/8-11NC.	2
17	47009678	CLAMP PLATE-TOOLBAR	1
18	18057971	BOLT, 5/8-11NC. X 6 1/2	2
6 X 6 TUBE	18057976	BOLT, 5/8-11NC. X 8 1/2	OPT
19	18891600	LOCK WASHER, 5/8	4
20	18417900	HEX. NUT, 5/8-11NC.	4
47029417		COULTER MOUNTING BRACKET	
		INCLUDES ITEMS 21 TO 26	
21	47019417	COULTER MOUNTING BRACKET	1
22	18057434	BOLT, 1/2-13NC. X 2 1/2	2
23	18057426	BOLT, 1/2-13NC. X 1 1/2	4
24	18811400	FLATWASHER, 1/2	4
25	18891400	LOCKWASHER, 1/2	6
26	18417400	HEX. NUT, 1/2-13NC.	6
27	201996	KNIFE, MAG 50 W/3/8 NH3 TUBE	
28	201997	KNIFE, GOPHER W/1/2 LIQ. TUBE	
29	201998	KNIFE, GOPHER W/1 1/4 DRY TUBE	
30	201999	KNIFE, GOPHER for DUAL SHOOT	
31	202999	1/2 NH3 TUBE & 1 1/4 DRY TUBE	
32	203998	KNIFE, GOPHER for DUAL SHOOT	
33	47309997	3/8 NH3 TUBE & 1 1/4 DRY TUBE	
34	18037433	KNIFE, MAG 50 W/ 1" DRY TUBE	
35	18891400	BOLT, 1/2-13NC. X 2 1/2 GR2	1
36	18417400	LOCK WASHER, 1/2	1
37	18057934	HEX. NUT, 1/2-13NC.	1
38	18891600	BOLT, 5/8-11NC. X 2 1/2	1
39	18417900	LOCK WASHER, 5/8	1
40	200999	HEX. NUT, 5/8-11NC.	1
41	201000	KNIFE SHANK 1 1/4 THK (TO SPRING 2007)	1
42	47009960	KNIFE MOUNT BUSHING	1
43		COULTER SWIVEL BAR, (SEE NOTE)	OPT.

SPRING BUNDLE ASSEMBLY (PRE 2014)

HI-TRIP SHANK ASSEMBLY (HTS ASSEMBLY)
(COMPLETE W/ SHANK & KNIFE P.N. 4703650H)



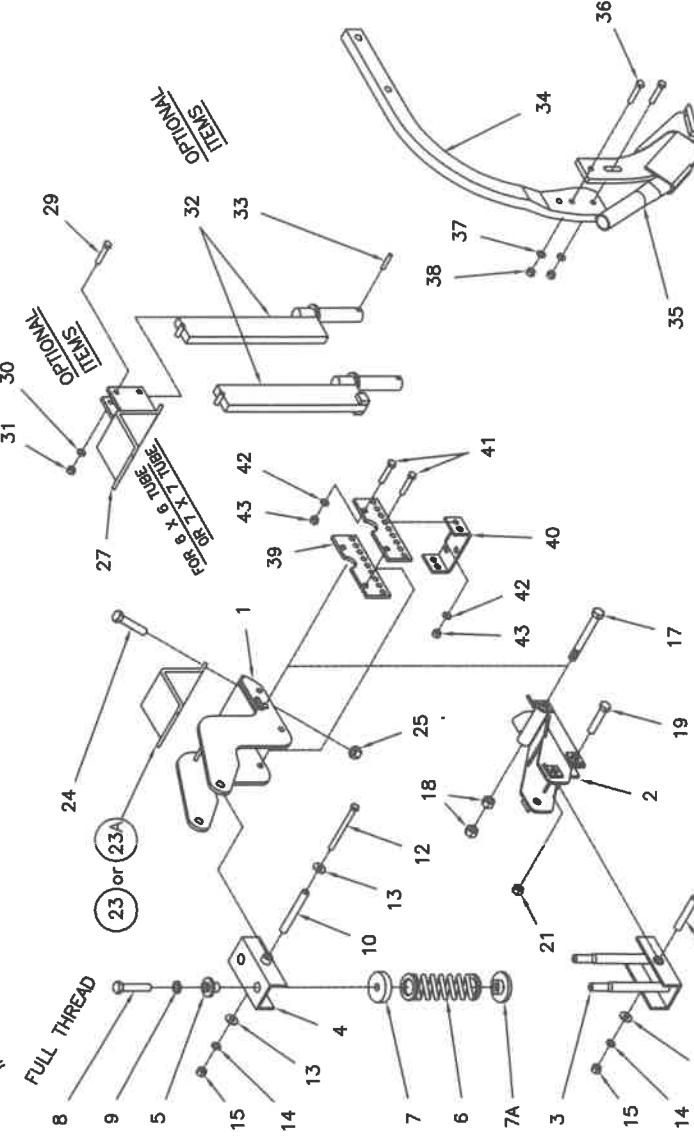
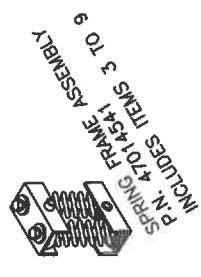
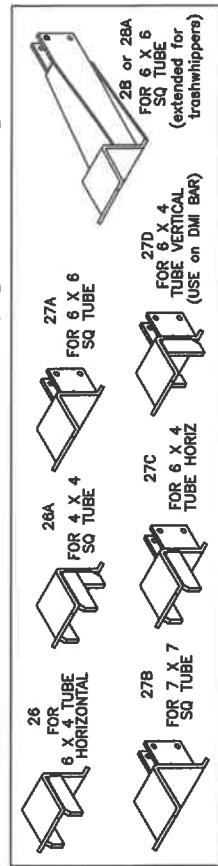
ITEM PART NO. QTY SPNDLHTS REV 01/28/22

ITEM PART NO.	DESCRIPTION	QTY
1 47004530	SPRING BUNDLE COMPLETE INCLUDES ITEMS 1 TO 19 (PREASSEMBLED)	1
1 47015003	MAIN BRACKET, (STANDARD)	1
2 47004533	SHANK PIVOT BRACKET	1
3 47004541	SPRING FRAME ASSEMBLY INCLUDES ITEMS 3 TO 9	1
4 47004538	SPRING FRAME, TOP	1
5 47004544	SPRING RETAINER	2
6 47007565	COMPRESSION SPRING, 5/8" WIRE	2
7 47004549	SPRING CAP, TOP	2
8 47004530	SPRING CAP, BOTTOM	2
9 18891600	SEE NOTE RE ITEM 7A (ON ILLUSTRATION)	1
10 47004551	BOLT, 5/8-11NC, X 3 3/4 (SPECIAL)	2
11 47004550	LOCK WASHER, 5/8	2
12 18057464	INNER BUSHING, (TOP), 5 13/16	1
13 18811400	INNER BUSHING, (BOTTOM), 5 1/2	1
14 18891400	FLAT WASHER, 1/2	4
15 1847400	LOCK WASHER, 1/2	2
16 18057462	HEX. NUT, 1/2-13NC	2
17 18056422	BOLT, 3/4-10NC, X 7	1
18 1848400	HEX. NUT, 3/4-10NC	2
19 18057946	BOLT, 5/8-11NC, X 4	2
20 18891600	LOCK WASHER, 5/8	2
21 1847900	HEX. NUT, 5/8-11NC	2
22 47009671	SHANK CLAMP PLATE	1
23 47004532	SPRING BUNDLE CLAMP (6X6 BAR)	1
24 47004504	SPRING BUNDLE CLAMP (7X7 BAR)	1
25 18458451	OR COUPLER BAR (INCL ITEM 33)	1
26 47004552	COUPLER PIN, 1/4 X 2 1/4 (STD)	1
27A 47004553	COUPLER BAR WITH RESTRICTED SWING	1
27B 47015005	10 DEG. AND 15 DEG. AVAILABLE.	1
27C 47004557	CALL AG SYSTEMS FOR INFO.	1
27D 47004557D	COUPLER BAR (SPECIAL)	1
29 18057434	COUPLER BAR (SPECIAL)	1
30 18891400	COUPLER BAR (SPECIAL)	1
31 1847400	COUPLER BAR (SPECIAL)	1
32 47304522	COUPLER SWIVEL BAR (SPECIAL)	1
33 18511032	COUPLER SWIVEL BAR (SPECIAL)	1
34 201000	KNIFE SHANK, 1 1/4 THK (TO SPRING 2007)	1
35 18058501	KNIFE SHANK, 1 1/2 THK (FALL 07 TO PRESENT)	1
36 18892000	LOCK WASHER, 1/2	1
37 1847800	LOCK WASHER, 1/2	1
38 SEE LIST OF KNIVES AT LEFT	LOCK WASHER, 1/2	1
39 18037432	THESE ARE HEAVY KNIVES WITH 9/16 X 3 BODY	1
40 18891400	BOLT, 1/2-13NC, X 2 1/4 GR2	1
41 18471740	LOCK WASHER, 1/2	1
42 18057934	HEX. NUT, 1/2-13NC	1
43 18891600	BOLT, 5/8-11NC, X 2	1
44 1847900	LOCK WASHER, 5/8	1
45 47009660	HEX. NUT, 5/8-11NC	1

SPRING BUNDLE ASSEMBLY (FOR EDGE-BENT SHANK) 2014 & NEWER

HIGHTRIP2014
REV 01/28/22

HI-TRIP	EDGE	BENT	SHANK	ASSEMBLY
{ COMPLETE W/ SHANK P.N. 47953973	4"	X 6"	MOUNTING BRKT	[NO COULTER]
{ COMPLETE W/ SHANK P.N. 47983973	6"	X 6"	MOUNTING BRKT	[NO COULTER]

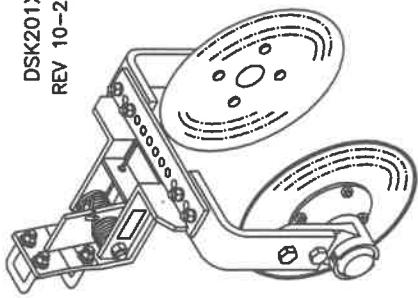


LIST OF KNIVES TO SUIT THIS SHANK

- 47005564 KNIFE, GOPHER W 1.5" DRY TUBE
47005565 KNIFE, GOPHER DUAL-SHOOT WITH 3/8" OPEN TUBE AND 1.50" DRY TUBE
47005857 KNIFE, MAG 50 DUAL-SHOOT WITH 3/8" OPEN TUBE AND 1.50" DRY TUBE

34 47003977 KNIFE SHANK, 1 1/4 THK EDGE-BENT 1
(2014 AND NEWER)

- 35 KNIFE, SEE LIST OF KNIVES LISTED ON LEFT
36 18057434 PLATE, TRASHWHIPPER MOUNTING 2
37 18891400 MOUNT CHANNEL, TRASHWHIPPER 1
38 18417400 BOLT, 1/2 -13NC X 2 1/2 GR5 2
41 18057147 LOCK WASHER, 1/2 1/2 GR5 ZC 8
42 18891300 NUT, HEX 7/16NC ZC 8
43 18437100 (with optional coulters order option item 28)



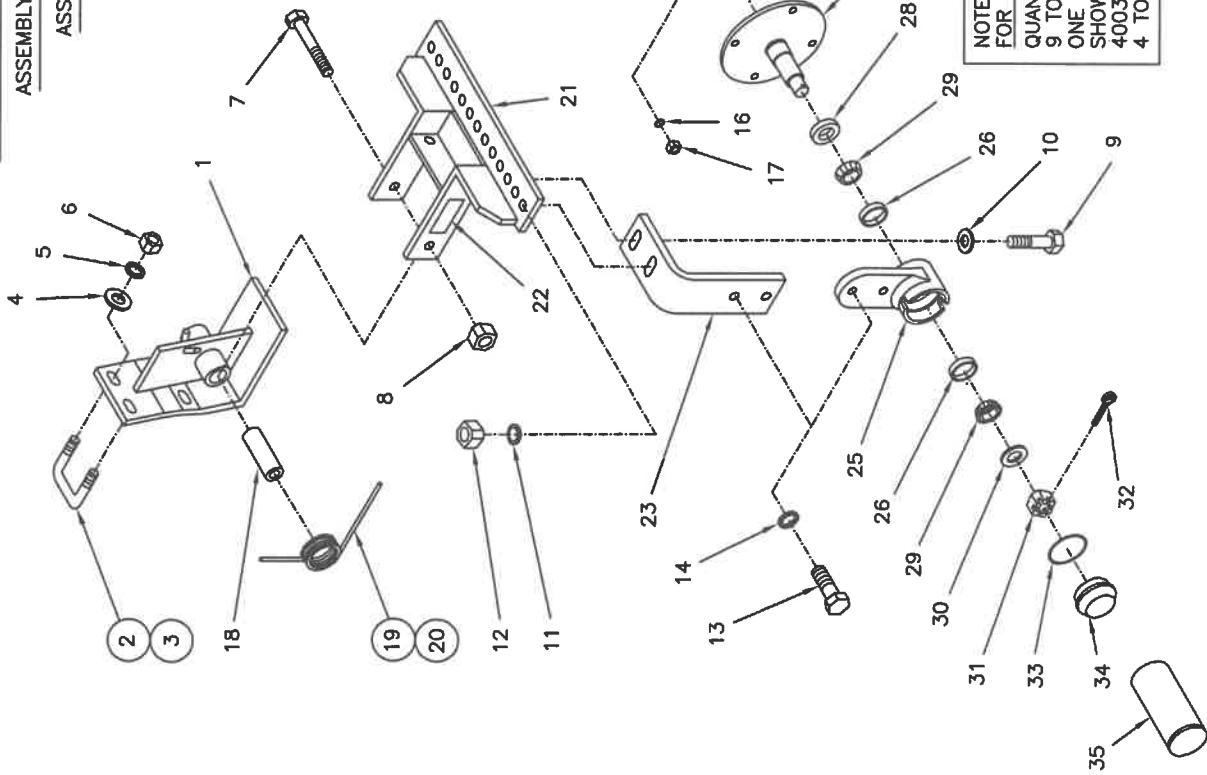
DISC COVER SEALER SPRING LOADED

ASSEMBLY P.N. 40034002 SMOOTH 13" DISC DOUBLE DISC

ASSEMBLY P.N. 40034004 SMOOTH 13" DISC SINGLE DISC

WITH BOLT-ON HUB

YEARS 2001 TO PRESENT



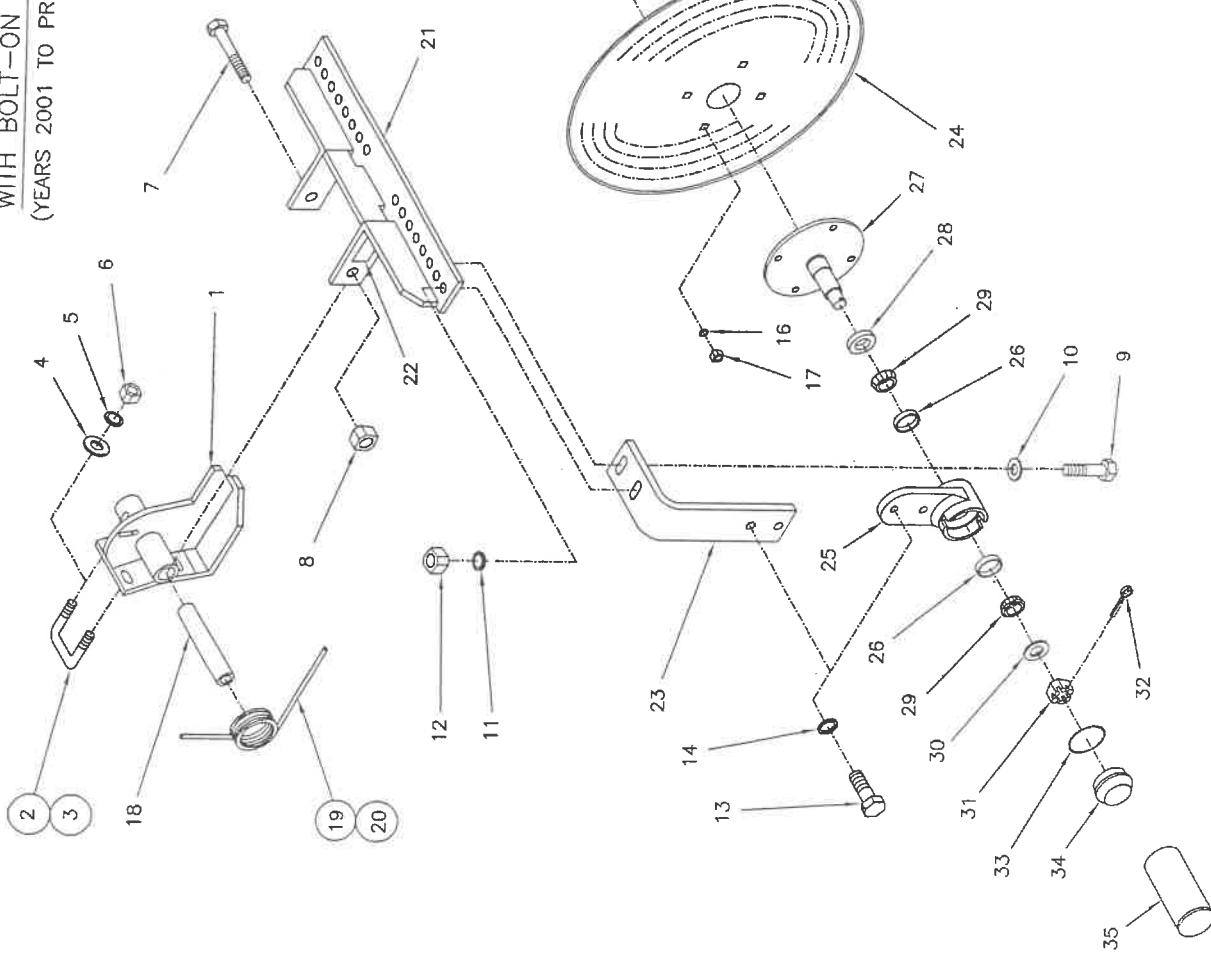
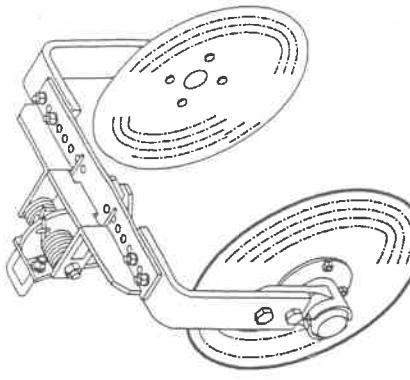
ITEM PART NO.	DESCRIPTION	QTY.
1 47008367	MOUNTING BRACKET	1
2 47008396	U-BOLT, 1/2-13NC. 2 in. SHANK	2
3 47008397	U-BOLT, 1/2-13NC. 1 1/4 in. SHANK	2
4 18811400	FLATWASHER, 1/2	4
5 18891400	LOCKWASHER, 1/2	4
6 18417400	HEX. NUT, 1/2-13NC.	4
7 18057956	BOLT, 5/8-11NC. X 5 1/2	1
8 18457900	HEX. LOCKNUT, 5/8-11NC.	1
9 18057430	BOLT, 1/2-13NC. X 2	4
10 18811400	FLATWASHER, 1/2	4
11 18891400	LOCKWASHER, 1/2	4
12 18417400	HEX. NUT, 1/2-13NC.	4
13 18057523	BOLT, 1/2-20NF. X 1 1/4	4
14 18891400	LOCKWASHER, 1/2	4
15 18176450	CARRIAGE BOLT, 3/8-16NC. X 1	8
16 18891200	LOCKWASHER, 3/8	8
17 18436800	INNER BUSHING	8
18 47009340	TORSION SPRING, L.H.	1
19 47008375	TORSION SPRING, R.H.	1
20 47008376	DISC ARM FRAME	1
21 47019309	DECAL, "AG SYSTEMS" SMALL	1
22 97445302	DISC ARM	2
23 47019620	DISC BLADE, 13 INCH DIA.	2
24 44501310	HUB ASSEMBLY COMPLETE	2
25 47009558	INCLUDES ITEMS 13 & 14 & 25 TO 34	2
26 10658	HUB WITH CUPS ITEM 26	2
27 47009328	BEARING CUP	4
28 40030325	SPINDLE WITH FLANGE	2
29 10659	GREASE SEAL	2
30 1884-800	BEARING CONE	4
31 18488600	FLATWASHER, 3/4 SAE (1 1/2 O.D.)	2
32 18560722	SLOTTED NUT, 3/4-16NF.	2
33 47999558	COTTER PIN, 5/32 X 1	2
34 47005911	O-RING DUST SEAL	2
35 4003999	DUST CAP	2
	BOLT PACKAGE INCLUDES ITEMS -	1
	4 TO 6, 8 TO 12, AND 15 TO 17	2
	DUST CAP INSTALLATION TOOL (OPTIONAL)	1

NOTE:
FOR SINGLE DISK COVER
QUANTITIES REQUIRED FOR ITEMS
9 TO 17 AND 23 TO 34 ARE
ONE HALF OF THE QUANTITIES
SHOWN, BOLT PACKAGE P.N.
4003997 INCLUDES ITEMS
4 TO 12 AND 15 TO 17

34

DOUBLE DISC COVER SEALER "SPRING LOADED"

ASSEMBLY P.N. 40034000 SMOOTH 18" DISC
 40034001 NOTCHED 18" DISC
 WITH BOLT-ON HUB
 (YEARS 2001 TO PRESENT)



ITEM PART NO.	DESCRIPTION	QTY.
1 47019325	MOUNTING BRACKET	1
2 47008396	U-BOLT, 1/2"-13NC.	2
3 47008397	U-BOLT, 1/2"-13NC.	2
4 18811400	FLATWASHER, 1/2"	4
5 18891400	LOCKWASHER, 1/2"	4
6 18417400	HEX. NUT, 1/2"-13NC.	4
7 18057972	BOLT, 5/8"-11NC. X 7 1/2	1
8 18457900	HEX. LOCKNUT, 5/8"-11NC.	1
9 18057430	BOLT, 1/2"-13NC. X 2	4
10 18811400	FLATWASHER, 1/2"	4
11 18891400	LOCKWASHER, 1/2"	4
12 18417400	HEX. NUT, 1/2"-13NC.	4
13 18057523	BOLT, 1/2"-20NF. X 1 1/4	4
14 18891400	LOCKWASHER, 1/2"	4
15 18176450	CARRIAGE BOLT, 3/8"-16NC. X 1	8
16 18891200	LOCKWASHER, 3/8".	8
17 18436800	HEX. NUT, 3/8"-16NC.	8
18 47009320	INNER, BUSHING	1
19 47009326	TORSION SPRING, L.H.	1
20 47009327	TORSION SPRING, R.H.	1
21 47009317	DISC ARM FRAME	1
22 97445302	DECAL, "AG SYSTEMS" SMALL	1
23 47009621	DISC ARM	2
24 44501810	DISC BLADE, SMOOTH EDGE	2
OR 44501811	DISC BLADE, NOTCHED EDGE	2
47009558	HUB ASSEMBLY COMPLETE	OPT.
25 47009558	HUB WITH CUPS ITEM 26	2
26 10658	BEARING CUP	4
27 47009328	SPINDLE WITH FLANGE	2
28 40030325	GREASE SEAL	2
29 10659	BEARING CONE	4
30 18841800	FLATWASHER, 3/4" SAE (1 1/2 O.D.)	2
31 18488600	SLOTTED NUT, 3/4"-16NF.	2
32 18560722	COTTER PIN, 5/32" X 1	2
33 47599558	O-RING DUST SEAL	2
34 47005911	DUST CAP	2
40039999	BOLT PACKAGE INCLUDES ITEMS -	1
4 TO 6, 8 TO 12, AND 15 TO 17		1
35 47005502	DUST CAP INSTALLATION TOOL (OPTIONAL)	1

SEE COULTER & DISK SEALER
MOUNTING INFO #SPGBDLSHK
DETAILED DIAGRAM TO MOUNT
DISC SEALER TO SHANK

DSKCVRMT1318
11-28-07

ASSEMBLY INSTRUCTIONS

DISC COVER SEALER

13 inch and 18 inch (WITH BOLT-ON-HUB)

13 INCH (REFER TO DIAGRAM DSK201X13)

18 INCH (REFER TO DIAGRAM DSK201X18)

Your disc cover sealer assembly is partially assembled at the factory. The spindle (item 27) and all hub components are pre-assembled and greased for life.

1. Secure the mounting bracket (item 1) in a vise or assemble to the tool shank or some temporary assembly fixture.
2. Insert the bushing (item 18) into the mounting bracket (item 1). Position the torsion springs (item 19) left hand and (item 20) right hand over the pivot tube on the mounting bracket (item 1). The short legs of the springs should be next to the center gusset on the mounting bracket.
3. Position the disc arm frame (item 21) to the mounting bracket (item 1). Insert the long legs of the torsion spring into the holes in the crossbar on the disc arm frame. Assemble all with the bolt (item 7) and the locknut (item 8). Securely tighten the locknut and bolt so that the inner bushing (item 18) and the disc arm frame rotate as one unit.
4. Increase the tension on the torsion springs by hooking the short leg of the spring behind the retaining lugs welded to the gusset on the mounting bracket. A short length of $3/8$ or $1/2$ inch pipe will be helpful to bend the spring leg into position behind the lug.
5. Assemble the disc arm (item 23) to the hub assembly with the bolts (item 13) and lock washers (item 14). Secure the disc arm assembly in a vice and assemble the disc (item 24) to the spindle flange with the hardware (items 15, 16 and 17). The disc may be mounted concave to the row or convex (reverse) to the row. There is no difference between left hand or right hand assemblies or single or double disc assemblies.
6. Mount the disc arm assembly to the disc arm frame (item 21) with the bolts (item 9) and the hardware (items 10, 11 and 12) as illustrated with the nut on top of the disc arm frame. The suggested start-up position for a double disc assembly would be to mount the disc arm in the holes in the frame that are farthest to the outside. For a single disc cover or a reversed disc cover, holes farther to the center would be more appropriate. The slotted holes in the disc arm provide the angular adjustment for the disc. Position the disc(s) at the angle desired and securely tighten the hardware.
7. Your disc cover assembly is shipped with (2) U-bolts for a $1\frac{1}{4}$ square shank and (2) U-bolts for a 2 inch wide shank. Select the appropriate U-bolts and mount the disc cover assembly to the shank at the desired operating depth. Securely tighten the hardware.

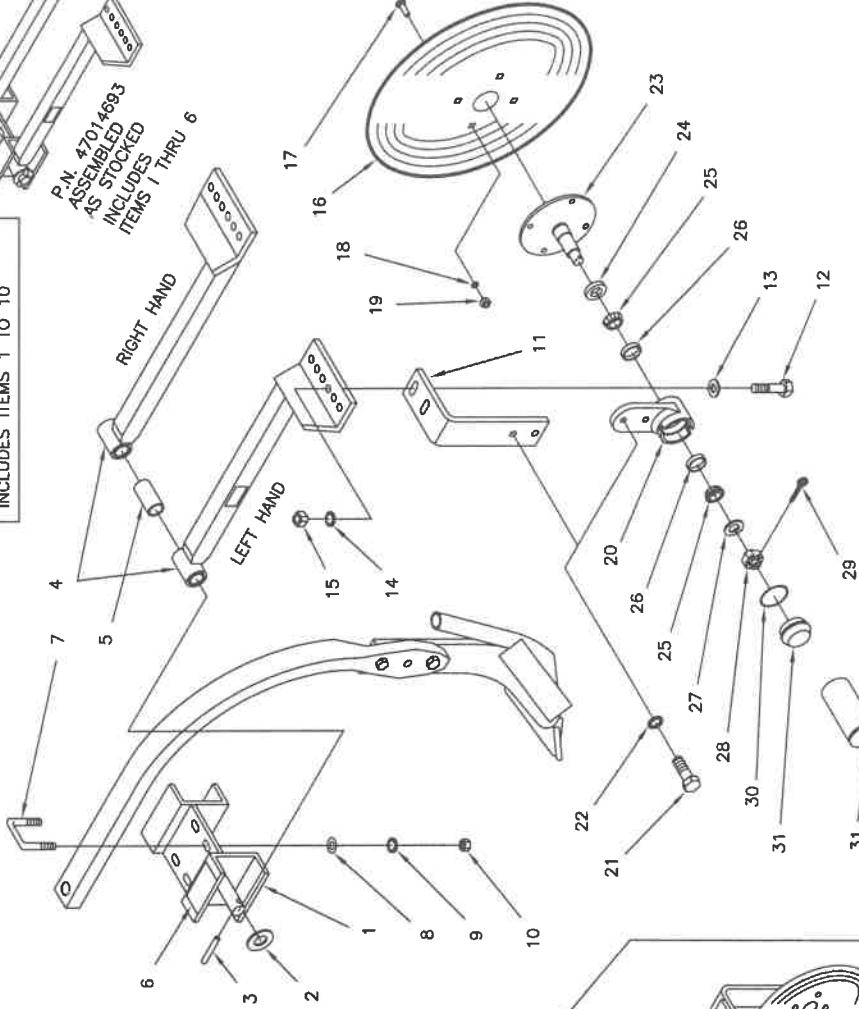
W6

DOUBLE DISK SEALER ASSEMBLY WITH FLOATING ARMS

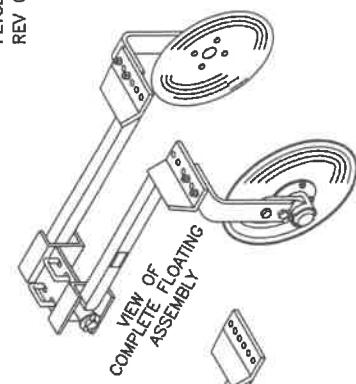
ASSEMBLY P.N. 40034010 SMOOTH 18" DISK
40034011 NOTCHED 18" DISK

KIT TO CONVERT
EXISTING 18 INCH DISK SEALER
TO FLOATING ARM STYLE
P.N. 47014693
INCLUDES ITEMS 1 THRU 6

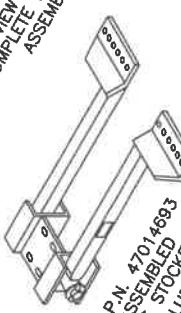
CASE/DMI
SHANK
OPTION



40039996 BOLT PACKAGE INCLUDES ITEMS
2 & 3, 8 TO 10, 12 TO 15, AND 17 TO 19

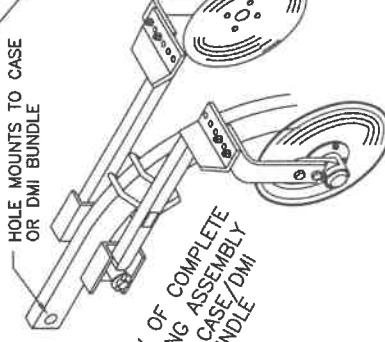


VIEW OF
COMPLETE FLOATING
ASSEMBLY



P.N. 47014693
ASSEMBLED
AS STOCKED
ITEMS 1 THRU 6

ITEM PART NO.	DESCRIPTION	QTY
1 47004693	MOUNTING BRACKET (W/DECAL)	1
2 18852200	FLAT WASHER, 1/4 SAE, ZC.	2
3 18511036	EXPANSION PIN, 3/8 X 2 1/4	2
4 47004697	PIVOT ARM, L.H. (INCL. ITEM 5)	1
5 47004698	PIVOT ARM, R.H. (INCL. ITEM 5)	2
6 97445303	FIBER BUSHING, (1" IDX2 1/2")	1
7 47009952	DECAL, "AG SYSTEMS" SMALL	1
8 47008396	U-BOLT, 1/2-13NC. (2" SHANK)	2
9 18891400	FLAT WASHER, 1/2	4
10 18891400	LOCK WASHER, 1/2	4
11 47009621	HEX. NUT, 1/2-13NC.	4
12 18057430	DISK ARM	4
13 18891400	BOLT, 1/2-13NC. X 2	4
14 18891400	FLAT WASHER, 1/2	4
15 18417400	LOCK WASHER, 1/2	4
16 44501811	HEX. NUT, 1/2-13NC.	4
17 18891200	DISK BLADE, SMOOTH EDGE	2
18 18891200	CARRIAGE BOLT, 3/8-16NC. X 1	8
19 18436800	LOCK WASHER, 3/8	8
20 47109558	DISK BLADE, NOTCHED EDGE	OPT.
21 18057523	DISK CONE	2
22 18891400	HUB ASSEMBLY COMPLETE	1
23 47009328	INCLUDES ITEMS 20 TO 31	1
24 40030325	HUB WITH CUPS, ITEM 26	2
25 10659	BOLT, 1/2-20NF, X 1 1/4	4
26 10658	FLAT WASHER, 3/4 SAE (1 1/2 O.D.)	4
27 18841800	SLOTTED NUT 3/4-16NF	2
28 18488600	COTTER PIN 5/32 X 1	2
29 18560722	O-RING DUST SEAL	2
30 47998558	DUST CAP	2
31 47005911	DUST CAP INSTALLATION TOOL (OPTIONAL)	1
32 47005794	FLOATING ARM BRKT CASE/DIMI SHANK	1
33 47008397	U-BOLT-AG 3 1/2 X 1 5/16 W	2
34 18057428	BOLT, HEX HD GR5ZC 1/2 X 1 3/4	4
35 18891400	LOCK WASHER, 1/2	4
36 18417400	HEX. NUT, 1/2-13NC.	4



VIEW OF COMPLETE
FLOATING ASSEMBLY
WITH CASE/DMI
BUNDLE

ASSEMBLY INSTRUCTIONS

DISK COVER SEALER

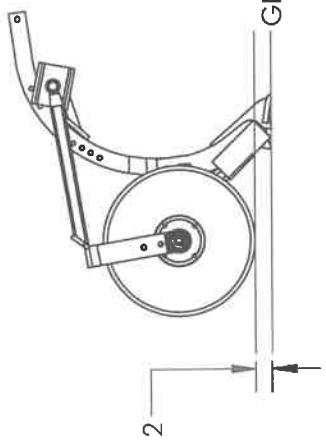
18 INCH WITH FLOATING ARMS

Your disc cover sealer assembly is partially assembled at the factory. The spindle (item 23) and all hub components are pre-assembled and greased for life.

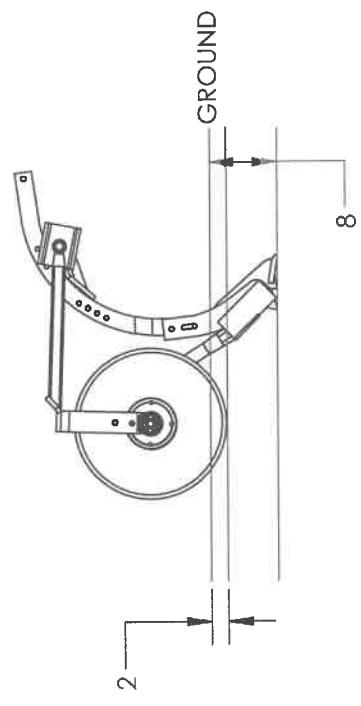
1. Due to the weight of a complete disk sealer assembly, it is recommended that the disk sealer be assembled to a shank already mounted on a toolbar. Position the mounting bracket (item 1) on the bottom side of the shank (as illustrated) and the u-bolt straddling the top of the shank. The mounting bracket should be located on the flat part of the shank. When using the disk sealer with a "Hi-Trip" spring bundle, position the mounting bracket as far forward on the shank as the spring bundle bracket will allow. Securely tighten the hardware.
2. Position the pivot arm (item 4) left hand and right hand, to the mounting bracket (item 1) and assemble with the washers (item 2) and the expansion pins (item 3).
3. Secure the disk arm (item 11) in a vice and assemble the hub assembly to the arm with the bolts (item 21) and lock washers (item 22). Assemble the disk (item 16) to the spindle flange with the bolts (item 17) and hardware items (18 and 19). There is no difference between the left hand and right hand assemblies.
4. Mount the disk arm assemblies to the pivot arms with the bolts (item 12) and hardware (items 13, 14 and 15) as illustrated with the nut on top of the pivot arm plate. The suggested start-up position would be to mount the disk arm in the holes in the pivot arm plate that are farthest to the outside. The slotted holes in the disk arm provide the angular adjustment for the disk. Position the disks at the desired angle and tighten the hardware securely.
*W
D*

DOUBLE DISK SEALER W/ FLOATING ARMS LAYOUT

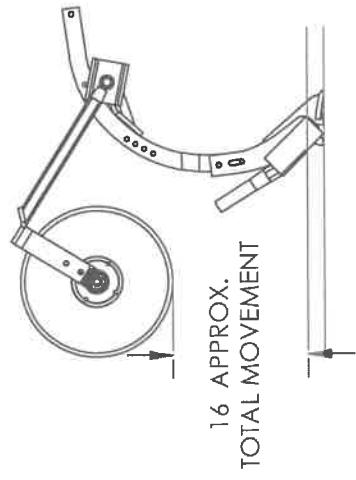
CASE/DMI SHANK
(ASSEMBLY DIAGRAM)



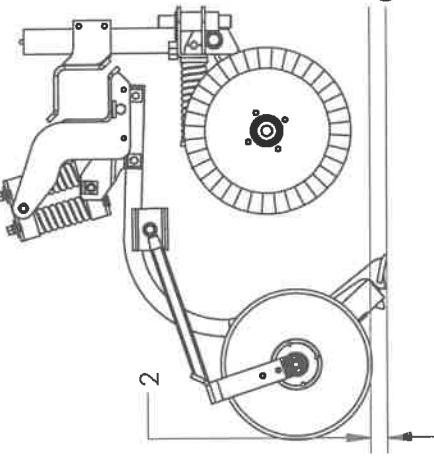
CASE/DMI SHANK
(RECOMMENDED PENETRATION DIAGRAM)



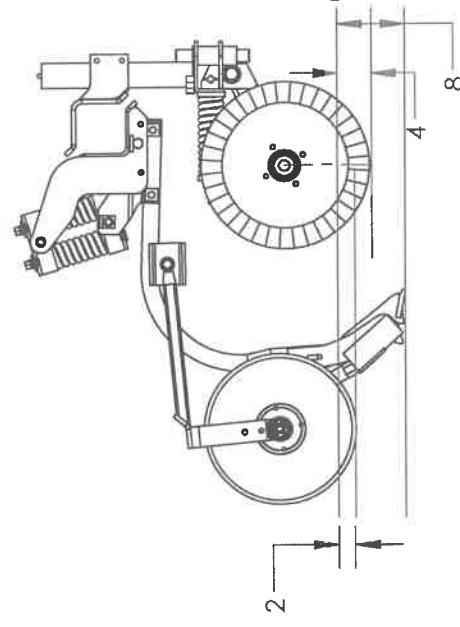
CASE/DMI SHANK
(TRANSPORT DIAGRAM)



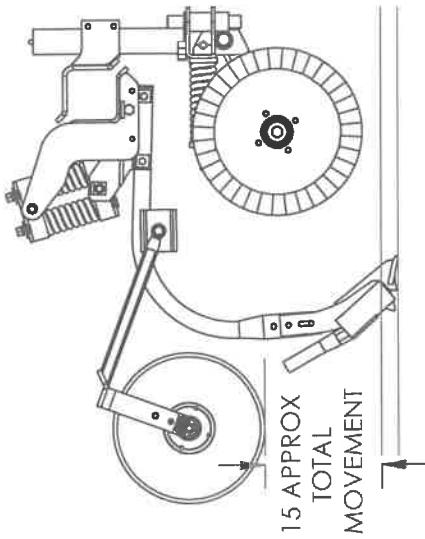
AG SYSTEMS HIGH TRIP EDGE BENT SHANK
(ASSEMBLY DIAGRAM)



AG SYSTEMS HIGH TRIP EDGE BENT SHANK
(RECOMMENDED PENETRATION DIAGRAM)

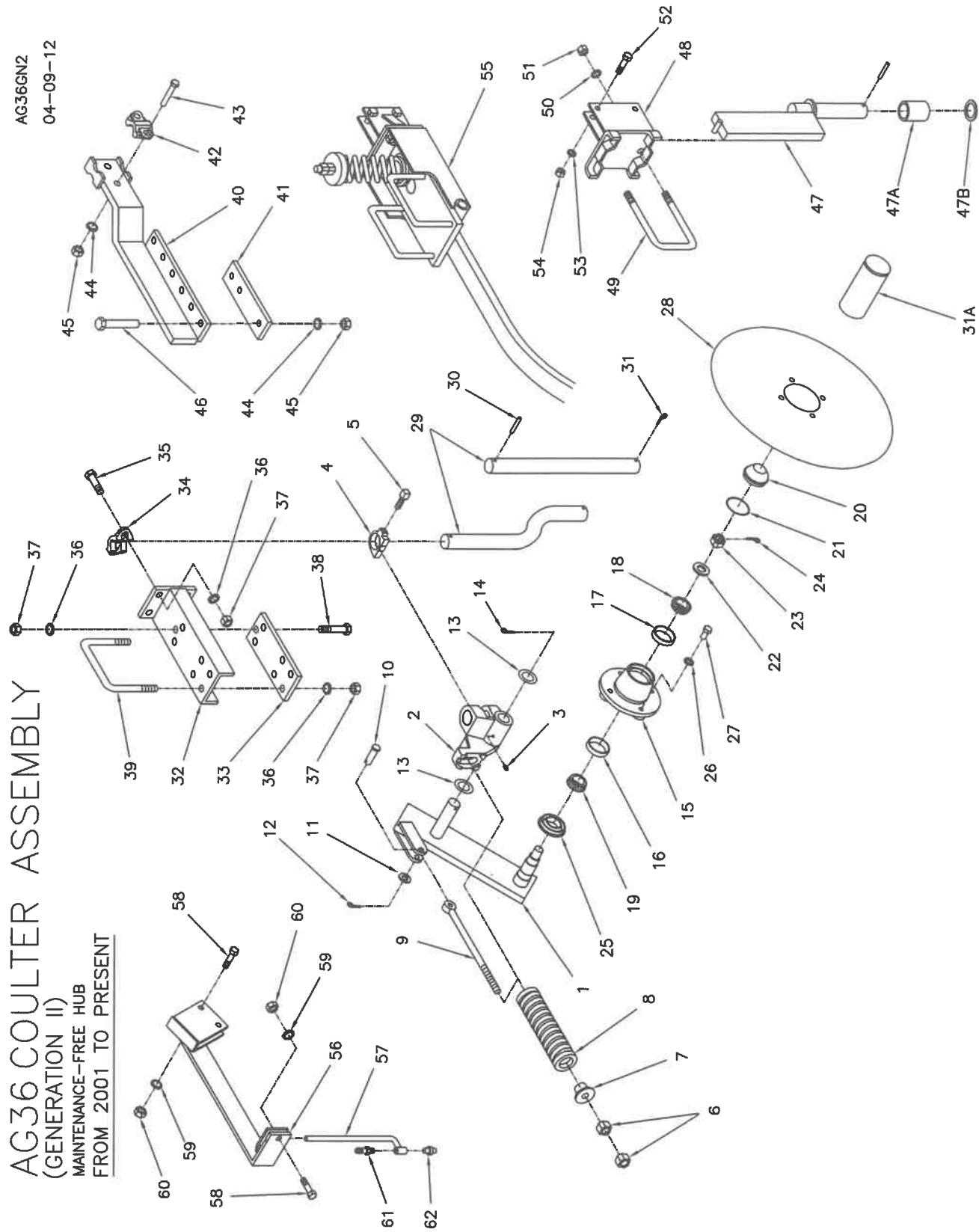


AG SYSTEMS HIGH TRIP EDGE BENT SHANK
(TRANSPORT DIAGRAM)



AG36 COULTER ASSEMBLY
(GENERATION II)
MAINTENANCE-FREE HUB
FROM 2001 TO PRESENT

AG36GN2
04-09-12



AG36 COULTER ASSEMBLY (GENERATION II)
MAINTENANCE-FREE HUB
MOUNTING INSTRUCTIONS AND PARTS LIST

AG36GN2LS
 01/28/22

1. Your AG36 main bracket and hub are pre-assembled at the factory, and the trip spring is pre-loaded to provide 250 pounds blade pressure. This should be adequate for normal field conditions. The coulter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring, tighten the spring tension until rigid operation is achieved.
2. Assemble the blade (item 28) to the hub.
3. Round Type Coulter mount: Insert the shank (item 29) into the castings (item 2) and (item 4) simultaneously and insert cotter pin (item 31) Positions the shank so not rub on the casting and securely tighten the set screw.
4. Position the coulter mounting brackets at the desired spacing and fasten securely. NOTE: There are a number of types and styles of brackets shown.
5. Assemble the coulter shank to the mounting bracket. Adjust the blade to the desired depth and tighten the hardware. Make sure all hardware is securely tightened.
6. Install the upper roll pin on round shank types (item 30) Grease the bracket casting (item 2). During field operation grease this casting weekly. And grease for end-of-season storage.
7. The coulter hub is greased-for-life and should need no regular maintenance. Check for damage to the dust cap and grease seal daily.

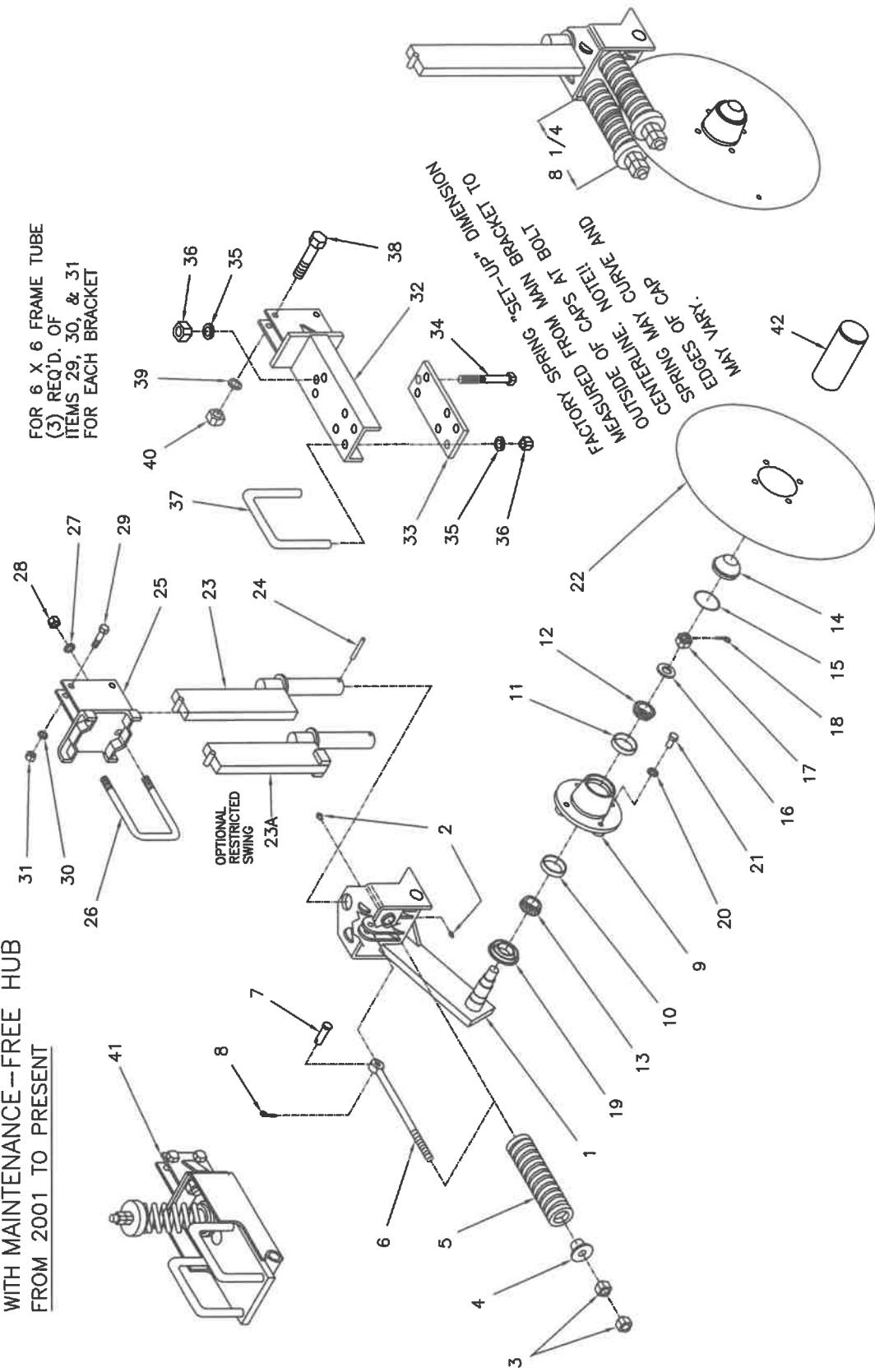
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
	47309189	BLADE AND ARM ASSEMBLY INCLUDES ITEMS 1 TO 28	1			STANDARD UNIVERSAL MOUNT COMPLETE FOR SQUARE KNIFE SHANK AND ROUND COULTER BAR	1			OTHER BRACKETS COMPLETE (FOR RND. COULTER BAR)	
	47109189	ARM AND HUB ASSEMBLY (W/O BLADE) INCLUDES ITEMS 1 TO 27	1		47309184	ON 4 X 6 TOOLBAR FOR 1 1/4 SHANK INCLUDES ITEMS 32 TO 39	1		NOT SHOWN 47309185	47309182 BRACKET, TOP MOUNT 47309185 BRACKET, CENTER FRONT MOUNT	
1	47309567	ARM ASSEMBLY	1		47308184	ON 4 X 4 TOOLBAR WITH 1 1/4 SHANK ALL ITEMS IDENTICAL EXCEPT ITEM 39	1	47	47303811	FLAT BAR COULTER SHANK, 18" FLAT BAR COULTER SHANK, 12"	OPT. OPT.
2	47305037	BRACKET, DUCTILE CASTING GREASE ZERK, STRAIGHT	1		47309405	SHANK HOLDER, 1 1/4 SQUARE SHANK CLAMP PLATE, CLAMP, COULTER SHANK	1	47A	47005287	CASTING SPACER BUSHING RETAINING WASHER 1 1/2" ID	OPT. OPT.
3	18901805	COUTLER STOP CASTING	1		47306005	CLAMP PLATE, CLAMP, COULTER SHANK	2	47B	18300323		
4	47301531	SCREW, SQ. HEAD, 1/2-13NC. X 1 1/4	1		34	18057940 BOLT, 5/8-11NC. X 3 1/2	4				
5	18763242	SET SCREW, 5/8-11NC.	2		35	18057940 BOLT, 5/8-11NC. X 3 1/2	4				
6	18407800	HEX. NUT, 5/8-11NC.	2		36	18051600 LOCKWASHER, 5/8	9				
7	47301530	SPRING CAP	1		37	18417900 HEX. NUT, 5/8-11INC.	9				
B	47301524	COMPRESSION SPRING	1		38	18057938 BOLT, 5/8-11NC. X 3	1				
9	47301547	EYE BOLT, SPRING RETAINER	1		39	47006950 U-BOLT, 5/8-11NC.	2				
10	18541428	CLEVIS PIN 1/2 X 3 3/4	1		47006951	(4 X 6 BAR) U-BOLT, 5/8-11NC.	2				
11	18841600	FLATWASHER, SAE 1/2	1			(4 X 4 BAR)	OPT.				
12	18550722	COTTER PIN, 5/32 X 1	1								
13	18302403	MACHINERY BUSHING, (NARROW) 1 1/4	2								
14	18561026	COTTER PIN, 1/4 X 1 1/2	1								
	47300350	HUB COMPLETE, (W/O SEAL & BOLTS) INCLUDES ITEMS 15 TO 21	1								
15	47300351	HUB WITH CUPS, ITEMS 16 & 17	1		47308177	STD. UNRVL. MNT. ON 4 X 4 TOOLBAR INCLUDES ITEMS 32 TO 39	1	48	47006951	MOUNTING BRKT. ONLY, (6" VERT. TUBE)	1
16	47005510	BEARING CUP, INNER	1			ALL ITEMS IDENTICAL EXCEPT ITEM 39					
17	47005010	BEARING CUP, OUTER	1		32	47302890 SHANK HOLDER, (1 X 2 KNIFE SHANK)	1	50	18891600	LOCKWASHER, 5/8	2
18	47005048	BEARING CONE, OUTER	1		33	47006832 CLAMP PLATE, CLAMP, COULTER SHANK	1	51	18417900	HEX. NUT, 5/8-11NC.	2
19	47005548	BEARING CONE, INNER	1		34	18057940 BOLT, 5/8-11NC. X 3 1/2	4	52	18057454	BOLT, 1/2-13NC. X 2 1/2	2
20	47005513	DUST CAP	1		35	18057940 BOLT, 5/8-11NC. X 3 1/2	4	53	18891400	LOCKWASHER, 1/2	2
21	47980351	O-RING DUST SEAL	1		36	18051600 LOCKWASHER, 5/8	9	54	18417900	HEX. NUT, 1/2-13NC.	2
22	47300352	SPINDLE WASHER	1		37	18417900 BOLT, 5/8-11INC.	9				
23	47300353	SLOTTED NUT, 7/8-14UNF	1		38	18057938 BOLT, 5/8-11NC. X 3	1				
24	18560724	COTTER PIN, 5/32 X 1 1/4	1		39	47006950 U-BOLT, 5/8-11NC.	2				
25	40300326	GREASE SEAL	1		47006951	(4 X 4 BAR)	OPT.				
26	18891400	LOCKWASHER, 1/2	4								
27	18057522	WHEEL BOLT, 1/2-20INF. X 1	4								
28	47305027	COULTER BLADE, 20 RIPPLED	1		47309180	BRACKET, UNIVERSAL SIDE MOUNT INCLUDES ITEMS 40 TO 46	1	55	47039417	SPRING BUNDLE COMPLETE	OPT.
29	47301904	SHANK, 1 1/2" DIA. STRAIGHT STD. 1	1								
	47304131	SHANK, 1 1/2" DIA. BENT (" OFFSET) OPT.	1		47309239	MONITORING BRACKET, L.H. SHOWN	1				
	47304248	SHANK, 1 1/2" DIA. BENT (' OFFSET) OPT.	1		40	SPECIFY IF L.H. OR R.H. MNTG. BRKT. DESIRED	-				
30	18511032	ROLL PIN, 1/4 X 2 1/4	4		41	47301576 CLAMP PLATE	1				
31	18561030	COTTER PIN, 1/4 X 2	1		42	47301538 DUCTILE CLAMP COULTER BAR	1				
					43	18057940 BOLT, 5/8-11NC. X 3 1/2	2				
31A	47005500	DUSTCAP INSTALLATION TOOL (OPTIONAL)	1		44	18891600 LOCKWASHER, 5/8	4	60	18417400	HEX. NUT, 1/2-13NC.	3
					45	18417900 HEX. NUT, 5/8-11NC.	4	61	1000859	HOSEBAR, 1/4P X 1/2T	1
					46	18057962 BOLT, 5/8-11NC. X 6	2	62	504017	NOZZLE BODY ASSEMBLY SEE AG37 ILLUSTRATION (ORIFACE DISK VARIES)	

REF 47300300 SPINDLE ONLY

40

AG38 COULTER ASSEMBLY
GENERATION II
WITH MAINTENANCE-FREE HUB
FROM 2001 TO PRESENT

AG38GN2
REV 10-22-09



AG38 COULTER ASSEMBLY (GENERATION II)
With MAINTENANCE-FREE HUB
MOUNTING INSTRUCTIONS AND PARTS LIST

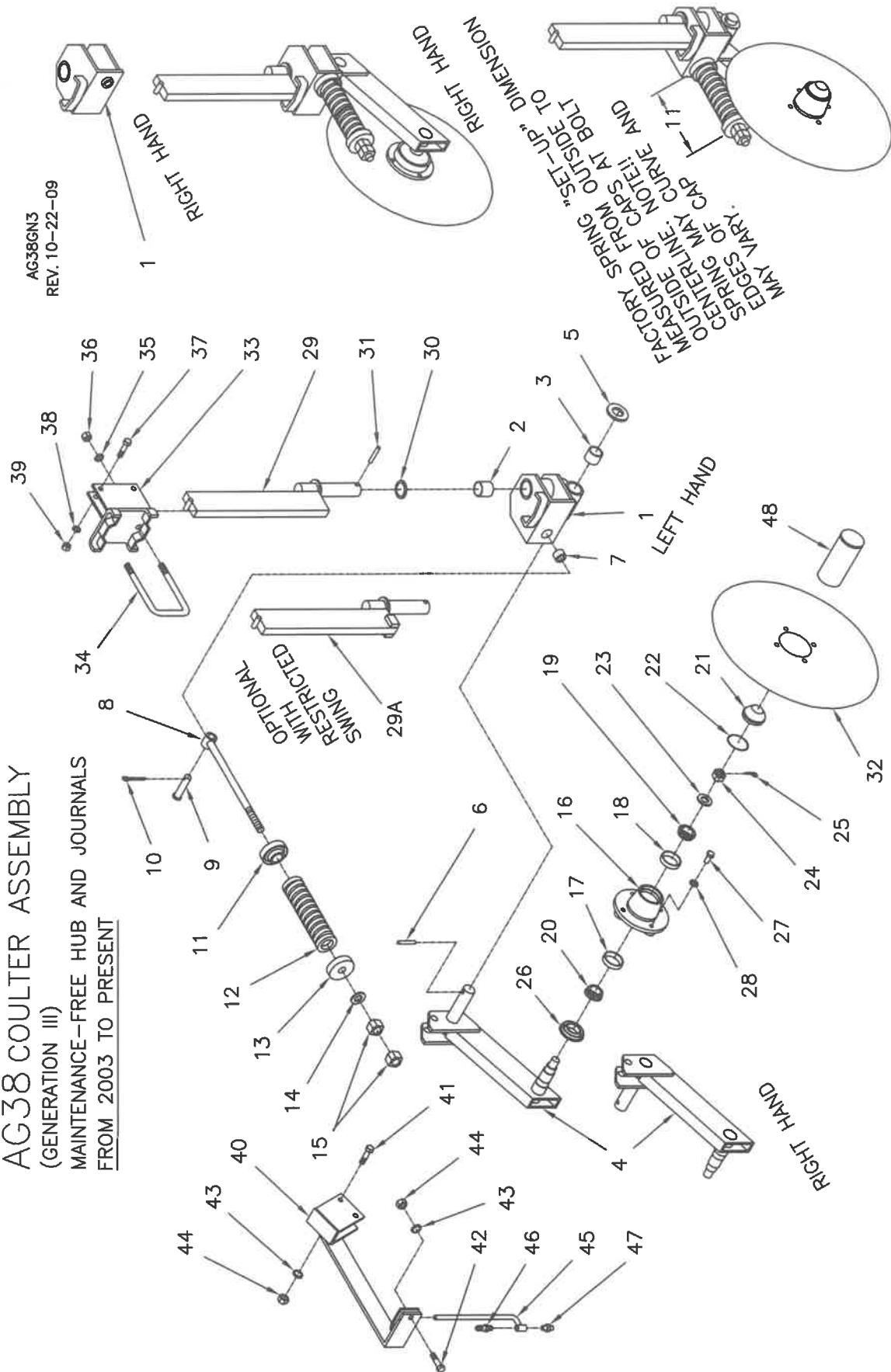
AG-38GN2LS
REV.01/28/22

1. Your AG38 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 coulter arm should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring tighten the spring tension till rigid operation is achieved.
2. Assemble the blade (item 22) to the hub.
3. Assemble the swivel bar (item 23) to the main bracket (item 1). Make sure that the 1" x 3" flat bar is positioned between the half moon stops on top of the main bracket. Install the roll pin (item 24).
4. Position the mounting brackets (item 25) at the desired spacing and fasten with the u-bolts (item 26) and hardware (item 27 and item 28).
5. Install the coulter assemblies to the mounting brackets (item 25) and fasten with the bolts (item 29) and hardware (item 30 and item 31). Assemble the hardware snug only.
6. Adjust the coulter blade to the desired depth and tighten the hardware securely.
7. Make sure "all" hardware is tightened securely.
8. During field operation grease the swivel bar journals weekly. And grease for end-of-season storage. The coulter hub is greased-for-life and should need no regular maintenance. Check for damage to the dust cap and grease seal daily.

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
47308805		MAIN BRAKTT. & BLADE ASSEMBLY	1	470051471	18" BAR	LH RESTRICTED SWING	1	31	18417400	HEX. NUT, 1/2"-13NC.	2
47108572		INCLUDES ITEMS 1 TO 22 MAIN BRAKT. W/HUB ASSEMBLY	1	470051472	18" BAR	10" RH RESTRICTED SWING	1	4799370	UNIV MT BRKT FOR 1 X 2 COMP. OPTION		
		INCLUDES ITEMS 1 TO 21 (W/O BLADE)	1	47005149	18" BAR	15" RESTR. SWING (BOTH WAYS)	1		UNIV 4 X 6 OR 4 X 4 TOOLBARS.		
1	47309572	MAIN BRACKET	1	470051491	18" BAR	15" LH RESTRICTED SWING	1	47994604	UNIV MT BRKT FOR 1 1/4 COMP. OPTION		
2	18901805	GREASE ZERK, STRAIGHT	2	47005149R	18" BAR	15" RH RESTRICTED SWING	1		ON 4 X 6 OR 4 X 4 TOOLBARS.		
3	18401900	HEX. NUT, 5/8-11NC.	4	47309573	CALL AG SYSTEMS FOR INFO.				ALL ITEMS IDENTICAL EXCEPT ITEM 37		
4	47301530	SPRING CAP	2	24	1851032	ROLL PIN, 1/4" X 2" 1/4"	1		INCLUDE ITEMS 32 TO 40		
5	47301524	COMPRESSION SPRING	2	25	47309893	MOUNTING BRACKET (4" VERTICAL)	1	32	47309370	SHANK HOLDER, (1 X 2 KNIFE SHANK)	1
6	47301547	EYE BOLT, SPRINGS RETAINER	2	26	47006951	U-BOLT, 5/8-11NC. (4"V X 6" H BAR)	1	33	47006832	CLAMP PLATE	1
7	18541428	CLEVIS PIN, 1/2" X 3 1/4	2	26	47006951	U-BOLT, 5/8-11NC. (4"V X 4" H BAR)	1	34	18057938	BOLT, 5/8-11NC. X 3	1
8	18560722	COTTER PIN, 5/32" X 1	2	26	44001616	OTHER MOUNTING BRACKET OPTIONS	1	35	18057938	LOCKWASHER, 5/8	5
	47300350	HUB COMPLETE (W/O SEAL & BOLTS)	1	25	47009887	MOUNTING BRACKET (2 1/2" VERTICAL)	1	36	18417900	HEX. NUT, 5/8-11NC.	5
		INCLUDES ITEMS 9 TO 15	1	26	47006659	U-BOLT, 5/8-11NC. (2 1/2" X 2 1/2" BAR)	1	37	47009850	U-BOLT, 5/8-11NC. (6 X 4 TUBE)	2
9	47300351	HUB WITH CUPS, ITEMS 10 & 11	1	25	47309732	MOUNTING BRACKET (3" VERTICAL) STD.	1	47006851	U-BOLT, 5/8-11NC. (6 X 6 TUBE)	OPT.	
10	47005110	BEARING CUP, INNER	1	25	47309907	MOUNTING BRKT. (3" VERT. EXT.)	1	47009847	U-BOLT, 5/8-11NC. (6 X 6 TUBE)	OPT.	
11	47005110	BEARING CUP, OUTER	1	26	47306671	U-BOLT, 5/8-11NC. (3"V X 3 1/2" BAR)	1	38	18057434	BOLT, 1/2-13NC. X 2 1/2	2
12	47005048	BEARING CONE, OUTER	1	26	47309888	MOUNTING BRACKET (6" VERTICAL)	1	39	18891400	LOCKWASHER, 1/2	2
13	47005348	BEARING CONE, INNER	1	26	47010154	U-BOLT, 5/8-11NC. (6"V X 4" H BAR)	1	40	18417400	HEX. NUT, 1/2-13NC.	2
14	47005113	DUST CAP	1	26	47009847	U-BOLT, 5/8-11NC. (6"V X 6" H BAR)	1		SEE SEPARATE ILLUSTRATION FOR SPRING BUNDLE PARTS		
15	47990351	O-RING DUST SEAL	1	25	47309736	MOUNTING BRACKET (7" VERTICAL)	1	41	47039413	SPRING BUNDLE COMPLETE (1 SPRING)	OPT.
16	47300352	SPINDLE WASHER	1	26	47302730	U-BOLT, 1/2-13NC. (7"V X 7" H BAR)	1	OR	47009861	SPRING BUNDLE COMPLETE (2 SPRINGS)	
17	47300353	SLOTTED NUT, 7/8-14UNF.	1			NOTE for 7" U-BOLT USE 1/2-13NC. HEX. NUTS	2	WITH	47029417	COULTER MOUNTING BRKT. COMPLETE	
18	18560724	COTTER PIN, 5/32" X 1 1/4	1			18891600 LOCKWASHER, 5/8	2				
19	40030326	GREASE SEAL	1			18417900 HEX. NUT, 5/8-11NC.	2				
20	18891400	LOCKWASHER, 1/2	4			18057522 WHEEL BOLT, 1/2-20NF. X 1	4				
21	18057522	WHEEL BOLT, 1/2-20NF. X 1	4			18891400 LOCKWASHER, 1/2-13NC. X 2 1/2	2				
22	47305027	COULTER BLADE, 20° RIPPLED	1			18891400 LOCKWASHER, 1/2-13NC. X 2 1/2	2				
23	47303811	COULTER SWIVEL BAR, 18" (INCL ITEM 24)	1								
	47303811	COULTER SWIVEL BAR, 12" (INCL ITEM 24) OPTIONAL	1								
47005147		18" BAR 10" RESTR. SWING (BOTH WAYS)									

REF 47300300 SPINDLE ONLY

AG38 COULTER ASSEMBLY
 (GENERATION III)
MAINTENANCE-FREE HUB AND JOURNALS
FROM 2003 TO PRESENT



AG38 COULTER ASSEMBLY (GENERATION III)
with MAINTENANCE-FREE HUB
MOUNTING INSTRUCTIONS AND PARTS LIST

AG38GN3LS
REV. 01/2B/22

1. Your AG38 main bracket and hub are pre-assembled at the factory, and the trip springs are pre-loaded to provide 600 pounds blade pressure. This should be adequate for normal field conditions. The coulter arms should trip up only when hitting a solid obstruction. During your field operation check to make sure the coulter arm is staying rigid most of the time. Excessive flexing will cause premature spring failure. If repeated tripping is occurring tighten the spring tension till rigid operation is achieved.
2. Assemble the blade (item 32) to the hub.
3. Assemble the swivel bar (item 29) to the main bracket (item 1). Make sure that the 1×3 flat bar is positioned between the u-bracket stop on top of the main bracket. Install the washer (item 30) and roll pin (item 31).
4. Position the mounting brackets (item 33) at the desired spacing and fasten with the u-bolts (item 34).
5. Install the coulter assemblies to the mounting brackets (item 33) and fasten with the bolts (item 37) and hardware (item 38 and item 39). Assemble the hardware snug only.
6. Adjust the coulter blade to the desired depth and tighten the hardware securely.
7. Make sure "all" hardware is tightened securely.
8. No field operation lubrication is required. The hubs are sealed and greased for life. The swivel journals are assembled with grease-less bushings. For repair procedure, see separate sheet titled PROCEDURE TO SERVICE A COULTER HUB.

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
40350001	MAIN BRKT. & BLADE, L.H. (STANDARD)	1	21	47005513	DUST CAP	1	37	18057434	BOLT, 1/2"-13NC. X 2 1/2	2	
40351011	MAIN BRKT. & BLADE, R.H. (STANDARD)	1	22	4790351	O-RING DUST SEAL	1	38	18894400	LOCKWASHER, 1/2" HEX. NUT, 1/2"-13NC.	2	
47304508	MAIN BRKT. W/HUB, L.H. (STANDARD)	1	23	4730352	SPINDEL WASHER	1	39	18417400	HEX. NUT, 1/2"-13NC. (3) REQ'D. WITH (6" BAR, VERT.)	2	
47314508	MAIN BRKT. W/HUB, R.H. (STANDARD)	1	24	4730353	SLOTTED NUT, 7/8"-14UNF.	1	ITEMS 37, 38, & 39.				
1	INCLUDES ITEMS 1 TO 32	OPT	25	18560726	COTTER PIN, 5/32" X 1 1/2	1					
1	INCLUDES ITEMS 1 TO 31 (W/O BLADE)	OPT	26	4005326	GREASE SEAL	1					
1	47004500 HOUSING W/BUSHINGS, L.H. (STD.)	1	27	18057522	WHEEL BOLT, 1/2"-20NF. X 1	4	47995062	HI-PRESSURE NOZZLE BRKT. COMPLETE	1		
1	47014500 HOUSING W/BUSHINGS, R.H. (STD.)	1	28	18894400	LOCK WASHER, 1/2"	4	ITEMS 40 TO 45	INCLUDES ITEMS 40 TO 45 MOUNTING BRACKET	1		
2	47009953 SWIVEL BUSHING, 1 1/2" I.D.	2	29	47304522	COULTER SWIVEL BAR, 18"	4	40	18057430	BOLT, 1/2"-13NC. X 2 1/2	2	
3	47009954 PIVOT BUSHING, 1 3/8" I.D.	2	29A	OPTIONAL COULTER BARS W/RESTRICTED SWING			41	18057434	BOLT, 1/2"-13NC. X 2 1/2	2	
4	47004508 PIVOT ARM, L.H. (STANDARD)	1	30	47005144	"BAR 10 RESTR. SWING LH ONLY	4	42	18057430	LOCK WASHER, 1/2"	2	
4	47004508 PIVOT ARM, R.H. (STANDARD)	1	31	47005144	"BAR 10 RESTR. SWING RH ONLY	4	43	18891400	LOCK WASHER, 1/2"-13NC.	3	
5	18303236 RETAINING WASHER, 1 3/8" I.D.	1	32	47005144	"BAR 10 RESTR. SWING RH ONLY	4	44	18417400	HEX. NUT, 1/2"-13NC.	3	
6	18511035 EXPANSION PIN, 3/8" X 2	1	33	47005145	"BAR 15 RESTR. SWING BOTH WAYS	4	45	47008501	NOZZLE BAR HOSEBARB, 1/4P X 1/2T	1	
7	2-6688 EYE BOLT GUIDE	1	34	47005145L	"BAR 15 RESTR. SWING LH ONLY	4	46	100859	HOSEBARB, 1/4P X 1/2T	1	
8	47004518 EYE BOLT SPRING RETAINER	1	35	47005145R	"BAR 15 RESTR. SWING RH ONLY	4	47	504017	NOZZLE BODY ASSEMBLY, (ORIFICE DISK VARIES) SEE AG 37 ILLUSTRATION	1	
9	18541835 CLEVIS PIN, 3/4" X 2 1/2	1	36	47005145	"BAR 15 RESTR. SWING RH ONLY	4					
10	18560726 COTTER PIN, 5/32" X 1 1/2	1	37	18300323	RETAINING WASHER, 1 1/2" I.D.	1	48	47005500	DUST CAP INSTALLATION TOOL (OPTIONAL)	1	
12	47007565 COMPRESSION SPRING	1	38	18511036	EXPANSION PIN, 3/8" X 2 1/4	1					
13	47007080 SPRING CAP, STANDARD CASTING	1	39	47305027	COULTER BLADE, 20° RIPPLED	1					
14	18851800 FLAT WASHER, 3/4"	1	40	47309893	MOUNTING BRACKET, (4" VERTICAL) STD.	1					
15	18446890 HEX. NUT, 3/4"-10NC.	2	41	47008951	U-BOLT, 5/8"-11NC. 4"V X 6"-HORIZ BAR	1					
11	47004521 HUB COMPLETE (W/O SEAL & BOLTS)	1	42	44016116	U-BOLT, 5/8"-11NC. 4"V X 4"-HORIZ BAR	1					
11	47300350 INCLUDES ITEMS 16 TO 22		43	47309888	MOUNTING BRACKET, (6" VERTICAL)	1					
16	47300351 HUB WITH CUPS, ITEMS 17 & 18	1	44	47101054	U-BOLT, 5/8"-11NC. 6"V X 4"-HORIZ BAR	1					
17	47005510 BEARING CUP, INNER	1	45	47008847	U-BOLT, 5/8"-11NC. (6"V X 6"-HORIZ BAR)	1					
18	47005010 BEARING CUP, OUTER	1	46	18891600	LOCKWASHER, 5/8"	2					
19	47005048 BEARING CONE, OUTER	1	47	18417900	HEX. NUT, 5/8"-11INC.	2					
20	47005548 BEARING CONE, INNER	1									

44

REF 47300300 SPINDLE ONLY

PROCEDURE TO SERVICE A COULTER HUB “MAINTENANCE-FREE” HUB

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

ASSEMBLE THE COULTER HUB AS FOLLOWS.

- 1: Pre-pack the inner bearing cone with grease and insert it into the back of the hub.
- 2: Add grease to cover the back of the bearing and cup. CAUTION – CAUTION : Do not “fill” the back of the hub with grease. Do not get any grease on the sealing seat for the grease seal. The seal is treated with a sealing agent and grease or oil on the sealing surface will destroy the effectiveness of the seal. If there is any grease on the sealing surface in the hub wipe it with a degreasing agent.
- 3: Carefully insert the grease seal. Do not get any grease on the outer sealing surface of the seal. Tap or press the seal in place. Make sure the seal is entering and seating squarely.
- 4: Turn the hub over and fill the center cavity with grease. Pre-pack the outer bearing with grease and insert it into the hub.
- 5: Position the hub on the spindle and install the spindle washer and the slotted nut.
- 6: Rotate the hub by hand while tightening the slotted nut until the hub locks-up. This will align and seat the bearing rollers. Back off the nut until you can freely rotate the hub by hand and install the cotter pin. Bend the ends of the cotter pin “down” only. Not one half up and one half down.
- 7: Completely fill the front cavity of the hub with grease.
- 8: Inspect the hub to make sure it is properly assembled and then install the dust cap.
CAUTION: Once the dust cap is installed it cannot be removed 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 coulter blade. During field operation check the coulter blade periodically for wobble. This could be a result of hitting rocks and/or normal wear. Re-adjust the bearing tension (see step 6). Wobble in the hub could damage the seal and cause bearing failure. Note that you will need to install a new dust cap after a bearing adjustment. REVIEW step 8.

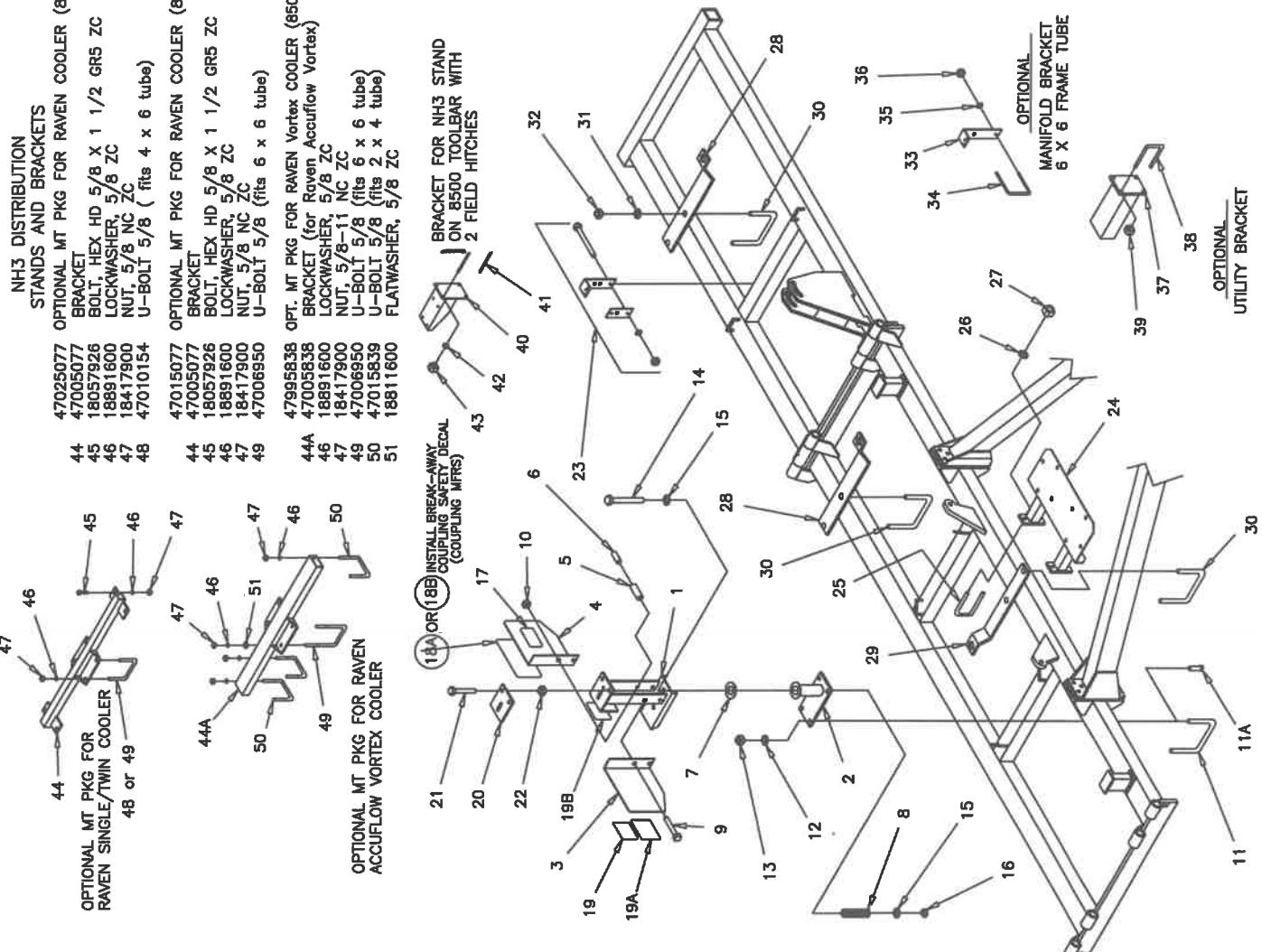
SRVCLTRHUB

NH3 DISTRIBUTION

NH3STD
REV 07-22-14

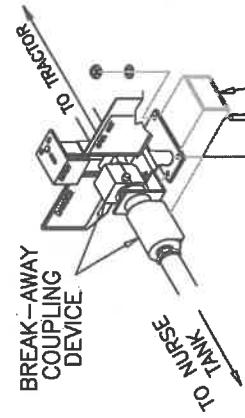
ITEM NO.	PART NO.	DESCRIPTION	NH3 APPLICATION PARTS LIST
44	47026077	OPTIONAL MT PKG FOR RAVEN COOLER (8000)	
45	47005077	BRACKET BOLT, HEX HD 5/8 X 1 1/2 GR5 ZC	2
46	18057926	LOCKWASHER, 5/8 ZC	8
47	18891600	NUT, 5/8 NC ZC	16
48	47010154	U-BOLT 5/8 (fits 4 x 6 tube)	16
47	47	OPTIONAL MT PKG FOR RAVEN COOLER (8500)	
45	47005077	BRACKET BOLT, HEX HD 5/8 X 1 1/2 GR5 ZC	2
46	18057926	LOCKWASHER, 5/8 ZC	8
47	18891600	NUT, 5/8 NC ZC	16
48	47010154	U-BOLT 5/8 (fits 6 x 6 tube)	16
49	47005078	OPT. MT PKG FOR RAVEN Vortex COOLER (8500)	
46	47995838	BRACKET (for Raven Accuflow Vortex)	1
47	18891600	LOCKWASHER, 5/8 ZC	10
48	18417900	NUT, 5/8-11 NC ZC	10
49	47005078	U-BOLT 5/8 (fits 6 x 6 tube)	10
50	47010154	U-BOLT 5/8 (fits 2 x 4 tube)	10
51	18811600	FLATWASHER, 5/8	4
44A	47005077	OPTIONAL MT PKG FOR RAVEN ACCUFLOW VORTEX COOLER	
46	47005077	BRACKET BOLT, HEX HD 5/8 X 1 1/2 GR5 ZC	2
47	18057926	LOCKWASHER, 5/8 ZC	8
48	18891600	NUT, 5/8 NC ZC	16
49	47010154	U-BOLT 5/8 (fits 2 x 4 tube)	16
50	47010154	U-BOLT 5/8 (fits 6 x 6 tube)	16
51	18811600	FLATWASHER, 5/8	4

ITEM NO.	PART NO.	DESCRIPTION	NH3 APPLICATION PARTS LIST
44	47026077	OPTIONAL MT PKG FOR RAVEN COOLER (8000)	
45	47005077	BRACKET BOLT, HEX HD 5/8 X 1 1/2 GR5 ZC	2
46	18057926	LOCKWASHER, 5/8 ZC	8
47	18891600	NUT, 5/8 NC ZC	16
48	47010154	U-BOLT 5/8 (fits 4 x 6 tube)	16
47	47	OPTIONAL MT PKG FOR RAVEN COOLER (8500)	
45	47005077	BRACKET BOLT, HEX HD 5/8 X 1 1/2 GR5 ZC	2
46	18057926	LOCKWASHER, 5/8 ZC	8
47	18891600	NUT, 5/8 NC ZC	16
48	47010154	U-BOLT 5/8 (fits 6 x 6 tube)	16
49	47005078	OPT. MT PKG FOR RAVEN Vortex COOLER (8500)	
46	47995838	BRACKET (for Raven Accuflow Vortex)	1
47	18891600	LOCKWASHER, 5/8 ZC	10
48	18417900	NUT, 5/8-11 NC ZC	10
49	47005078	U-BOLT 5/8 (fits 6 x 6 tube)	10
50	47010154	U-BOLT 5/8 (fits 2 x 4 tube)	10
51	18811600	FLATWASHER, 5/8	4



NH3 DISTRIBUTION STAND AND BREAK-AWAY COUPLING DEVICE INSTALLATION, OPERATION AND MAINTAINENCE INSTRUCTIONS

NH3STNDK12
REV 08-29-12



BREAK-AWAY COUPLING DEVICE & NH3 STAND

THE PURPOSE OF THE BREAK-AWAY COUPLING DEVICE IS THAT IN THE EVENT OF A TRAILING NURSE TANK WAGON BECOMING INADVERTENTLY UNHITCHED AND DISCONNECTED FROM THE TOOLBAR, THE BREAK-AWAY COUPLING IS INSTALLED TO PROVIDE AN AUTOMATIC VALVE CLOSURE TO REDUCE THE AMOUNT OF NH3 THAT IS RELEASED INTO THE AIR AND REDUCE THE HAZARD TO THE TOOLBAR OPERATOR AND OTHERS.

THE NH3 STAND MOUNTS THE BREAK-AWAY COUPLING DEVICE TO THE TOOLBAR SECURELY BUT ALLOWS THE COUPLING DEVICE TO SWIVEL FREELY AND ALLOWS IT TO SAFELY DISCONNECT DURING AN INCIDENT WITHOUT CAUSING DAMAGE TO THE BREAK-AWAY COUPLING DEVICE. THE HOSE OR FITTINGS ATTACHED TO THE COUPLER AT THE SWIVEL BRACKET MUST NOT CATCH ON ANYTHING THAT WOULD PREVENT THE REQUIRED MOVEMENT DURING A PULL-AWAY EVENT.

NH3 STAND/ BREAK AWAY COUPLER INSTALLATION PROCEDURE

1. BOLT THE PRE-ASSEMBLED NH3 STAND ASSEMBLY TO THE REAR OF THE TOOLBAR CENTERED OVER THE FIELD HITCH USING U-BOLTS OR SUPPLIED BRACKETS. SEE YOUR SPECIFIC TOOLBAR MODEL OWNERS MANUAL AND NH3 STAND ILLUSTRATION FOR PARTS REQUIRED. (REF DETAIL A) MAKE SURE THE NH3 STAND DECALS CAN BE EASILY READ FACING THE REAR OF THE TOOLBAR. IMPORTANT! INSTALL THE BREAK-AWAY COUPLING MANUFACTURERS WARNING DECAL ON THE TOOLBAR CENTERED OVER THE FIELD HITCH WHERE IT CAN BE EASILY READ.
2. MOUNT THE BREAK-AWAY COUPLER PER THE INSTRUCTIONS INCLUDED BY THE SPECIFIC COUPLERS MANUFACTURER. THE MOUNTED COUPLER MUST BE ABLE TO FREELY SWIVEL APPROXIMATELY 80 DEGREES TO EACH SIDE AND ABOUT 30 DEGREES UP AND DOWN. (REFERENCE DETAILS B AND C) BE SURE TO READ AND FOLLOW ALL MANUFACTURERS SAFETY PRECAUTIONS. THIS MUST BE DONE SO THE COUPLER WILL BE PRESENTED WITH A STRAIGHT PULL BY THE HOSE IN THE EVENT OF A SITUATION WHERE THE NURSE TANK COMES FREE OF ITS ATTACHMENT TO THE TOOLBAR.

IF THE COUPLER CANNOT SWIVEL PROPERLY, THE HOSE MAY PULL AT AN ANGLE WHICH CAUSES THE SEPARATION FORCE TO INCREASE GREATLY AND MAY BIND THE COUPLER PREVENTING SEPARATION. SINCE PULL AWAY EVENTS OFTEN OCCUR DURING A TURN, THE ABILITY OF THE COUPLER TO SWIVEL IS DESCRIBED AS CRITICAL TO THE OPERATION OF THE BREAK-AWAY COUPLING DEVICE.

ALL PIPING AND VALVES IN THE SYSTEM SHOULD BE ABLE TO WITHSTAND A PULL FORCE GREATER THAN 450 POUNDS. READ ALL MANUFACTURERS OPERATING INSTRUCTIONS AND DECALS BEFORE WORKING WITH ANY CONNECTIONS. READ AND FOLLOW THE BREAK-AWAY DEVICE MANUAL FOR CONNECTION AND DISCONNECTION PROCEDURES AND SAFETY PRECAUTIONS.

SAFETY

WHEN WORKING WITH NH3 CONNECTIONS, WEAR PROTECTIVE CLOTHING, GOGGLES AND GLOVES AND HAVE EMERGENCY WATER AVAILABLE FOR WASHING. ALWAYS STAND ON THE UPWIND SIDE AND AVOID BREATHING IN ANY CHEMICAL VAPORS.

MAINTENANCE

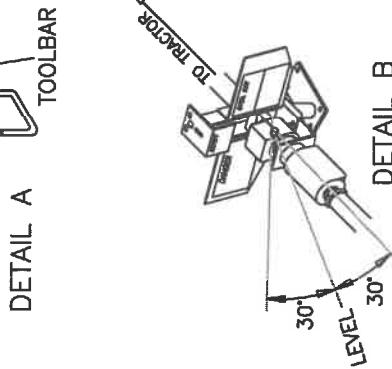
BEFORE EACH USE, VISUALLY INSPECT THE BREAK-AWAY COUPLING FOR LEAKS, DAMAGED OR BROKEN COMPONENTS. ALSO CHECK THAT THE NH3 STAND OPERATES PROPERLY, THAT THE VERTICAL SPRING IS NOT BROKEN, AND ALLOWS FREE SWIVEL MOVEMENT AS SHOWN IN DETAILS B & C AND SPRINGS BACK INTO THE NORMAL OPERATING POSITION AS SHOWN IN DETAIL A. CHECK AND TIGHTEN ALL HARDWARE AS NEEDED. THE BREAK AWAY COUPLING DEVICE SHOULD BE FULLY INSPECTED AT LEAST ONCE A YEAR OR REPLACED OR REPAIRED AS REQUIRED. REPLACE ENTIRE COUPLER BASED ON EXPIRATION DATES ON COUPLER DECALS.

MANUALLY DISCONNECT OR RECONNECT INSTRUCTIONS

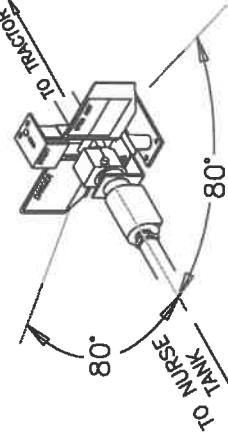
DANGER! DO NOT DISCONNECT OR RECONNECT UNDER PRESSURE

READ AND UNDERSTAND THE BREAK-AWAY COUPLING DEVICE MANUFACTURERS INSTRUCTIONS, WARNINGS AND SPECIFICATIONS BEFORE ATTEMPTING TO MANUALLY DISCONNECT OR RECONNECT THE COUPLING. FOLLOW THE BREAK-AWAY COUPLING DEVICE MANUFACTURERS BLEEDING THE SYSTEM PROCEDURES LISTED IN THEIR OWNERS MANUAL OR ON THEIR DANGER DECAL. ALWAYS WEAR PROTECTIVE GOGGLES, GLOVES, CLOTHING AND HAVE EMERGENCY WATER AVAILABLE FOR WASHING WHEN WORKING WITH NH3. ALWAYS DIRECT BLEEDS AWAY FROM YOUR FACE OR BODY.

WARNING
FAILURE TO READ AND UNDERSTAND THE INSTRUCTIONS CONTAINED IN THESE INSTALLATION, OPERATION, AND MAINTENENCE INSTRUCTIONS COULD LEAD TO PROPERTY DAMAGE, SERIOUS INJURY OR DEATH! READ AND UNDERSTAND THE BREAK-AWAY COUPLING AND NH3 STAND MANUFACTURERS MANUALS COMPLETELY.



MUST SWIVEL A MINIMUM OF
30° UP AND 30° DOWN
(VERTICAL MOVEMENT)
(SHOWN 30° DOWN)

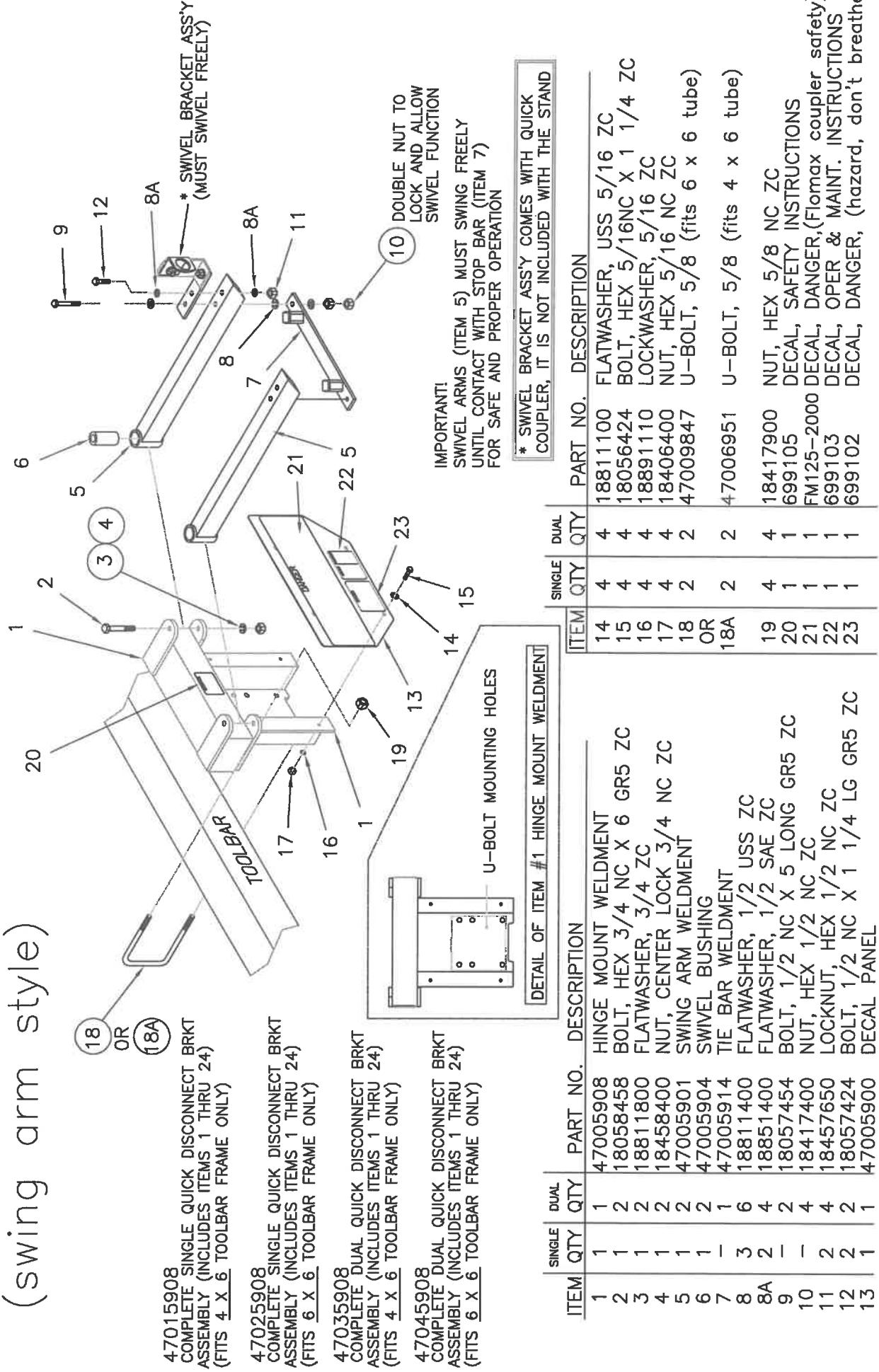


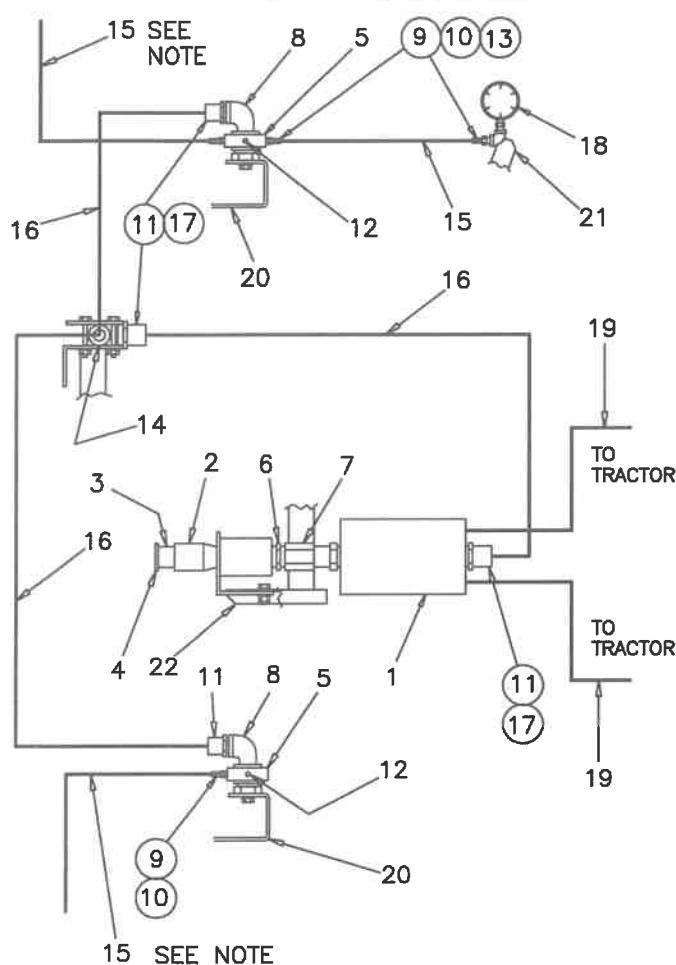
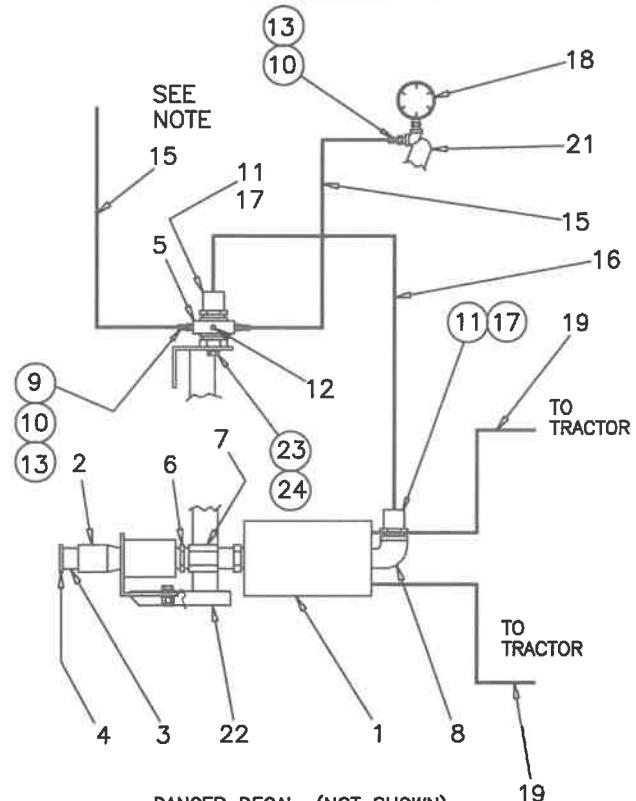
MUST SWIVEL A MINIMUM OF
80 DEGREES RIGHT AND 80° LEFT
(HORIZONTAL MOVEMENT)

NH3 QUICK COUPLER STAND KIT (2015)

for NH3 TOOLBARS (Swing arm style)

NH3STND2014
1/6/16



NH3 APPLICATION SCHEMATIC
WITH 2 MANIFOLDSNH3 APPLICATION SCHEMATIC
WITH ONE MANIFOLD

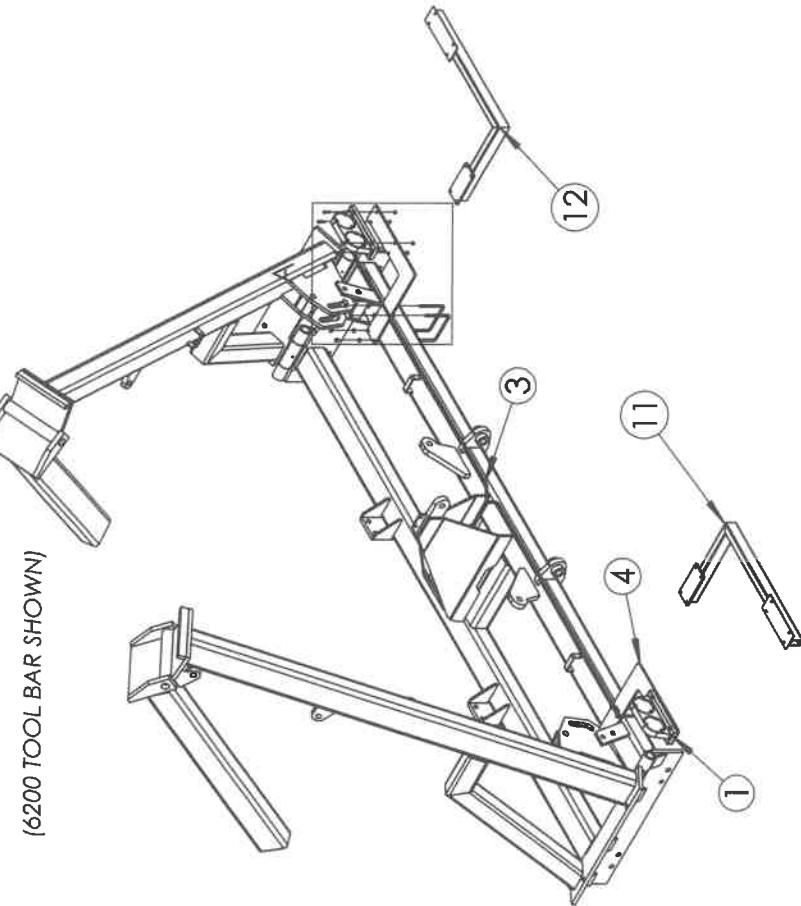
DANGER DECAL, (NOT SHOWN)
WHICH IS SUPPLIED WITH
ITEM 2, (QUICK COUPLER)
ATTACH TO FIELD HITCH

NOTE: FOR ITEM 15
CUT IDENTICAL LENGTHS OF TUBING
FOR EACH KNIFE.

ITEM	PART NO.	DESCRIPTION	34 FT. TOOLBAR SHANK SPACING				42 FT. TOOLBAR SHANK SPACING				52 FT. TOOLBAR SHANK SPACING			
			15"	18"	30"	36"	15"	18"	30"	36"	15"	18"	30"	36"
1	100186	B-9500 METER	1	—	—	—	—	—	—	—	—	—	—	—
2	100399	QUICK COUPLER	1	—	—	—	—	—	—	—	—	—	—	—
3	111430	ACME ADAPTER	1	—	—	—	—	—	—	—	—	—	—	—
4	111585	DUST CAP W/CHAIN	1	—	—	—	—	—	—	—	—	—	—	—
5	111259	MANIFOLD, 1/4 X 16 PORT	X	X	1	1	—	—	—	—	—	—	—	—
5	100147	MANIFOLD, 1/8 X 18 PORT	2	X	X	X	2	2	1	1	X	2	2	2
5	100170	MANIFOLD, 1/8 X 24 PORT	X	1	1	X	X	X	X	X	2	X	X	X
6	5404-20	HEX. PIPE NIPPLE, 1 1/4"	1	—	—	—	—	—	—	—	—	—	—	—
7	5000-20-HEX	HEX. COUPLING, 1 1/4"	1	—	—	—	—	—	—	—	—	—	—	—
8	72306	STREET ELBOW, 1" NPT	2	1	1	1	2	2	1	1	2	2	2	2
9	100172	HOSE BARB, 1/8 X 3/8 HOSE	28	24	X	X	36	29	18	16	42	35	22	18
10	111510	HOSE BARB, 1/4 X 3/8 HOSE	1	1	15	13	1	1	1	1	1	1	1	1
11	200277	HOSE BARB, 1 X 1 HOSE	3	2	2	2	3	3	2	2	3	3	3	3
12	72025	PIPE PLUG, 1/8 NPT	8	X	X	X	7	X	2	6	1	14	18	18
12	72019	PIPE PLUG, 1/4 NPT	X	X	3	5	X	X	X	X	X	X	X	X
13	602305	HOSE CLAMP, (SCREW TYPE)	56	48	28	24	72	58	36	32	85	70	44	36
14	72292	TEE, 1" NPT	1	X	X	X	1	1	X	X	1	1	1	1
15	15017005	TUBING 3/8" (FT.=)	325	440	280	240	545	450	440	390	840	700	440	360
16	15018576	TUBING 1" (FT.=)	31	3	3	31	31	3	3	31	31	31	31	31
17	200252	HOSE CLAMP, (SCREW TYPE)	6	2	2	6	6	6	2	6	6	6	6	6
18	100352	GAUGE, (0-60)	1	—	—	—	—	—	—	—	—	—	—	—
19	609220	HYD. HOSE, 1/4 X 22 FT.	2	—	—	—	—	—	—	—	—	—	—	—
20	70245	MANIFOLD STAND	2	X	X	X	2	2	X	X	2	2	2	2
21	47010168	GAUGE BRACKET	1	—	—	—	—	—	—	—	—	—	—	—
22	47010175	NH3 STAND ASSEMBLY	1	—	—	—	—	—	—	—	—	—	—	—
23	18056822	3/8-16 NC X 1" BOLT	X	X	2	2	X	X	X	X	—	—	—	—
24	18406800	3/8 LOCKWASHER	X	X	2	2	X	X	X	X	—	—	—	—

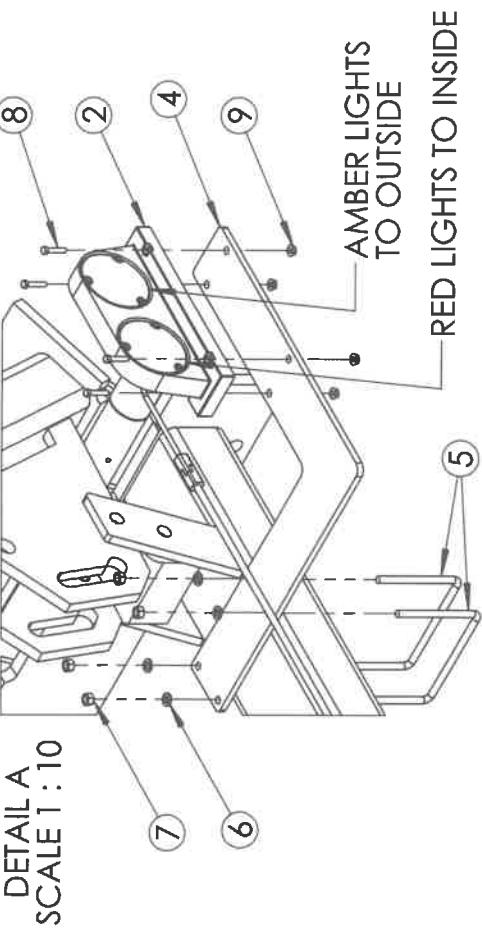
SAFETY LIGHT KIT FOR TOOLBARS

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



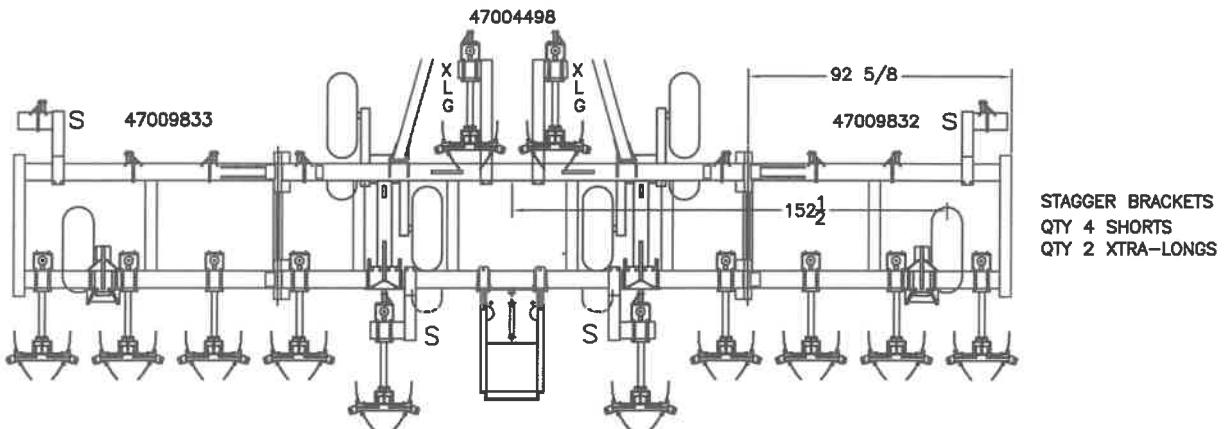
AMBER LIGHTS TO OUTSIDE
RED LIGHTS TO INSIDE
AMBER REPLACEMENT LENS PN 802650
RED REPLACEMENT LENS PN 802651

7200 SERIES TOOLBAR

12/16 SHANK COMBINATION

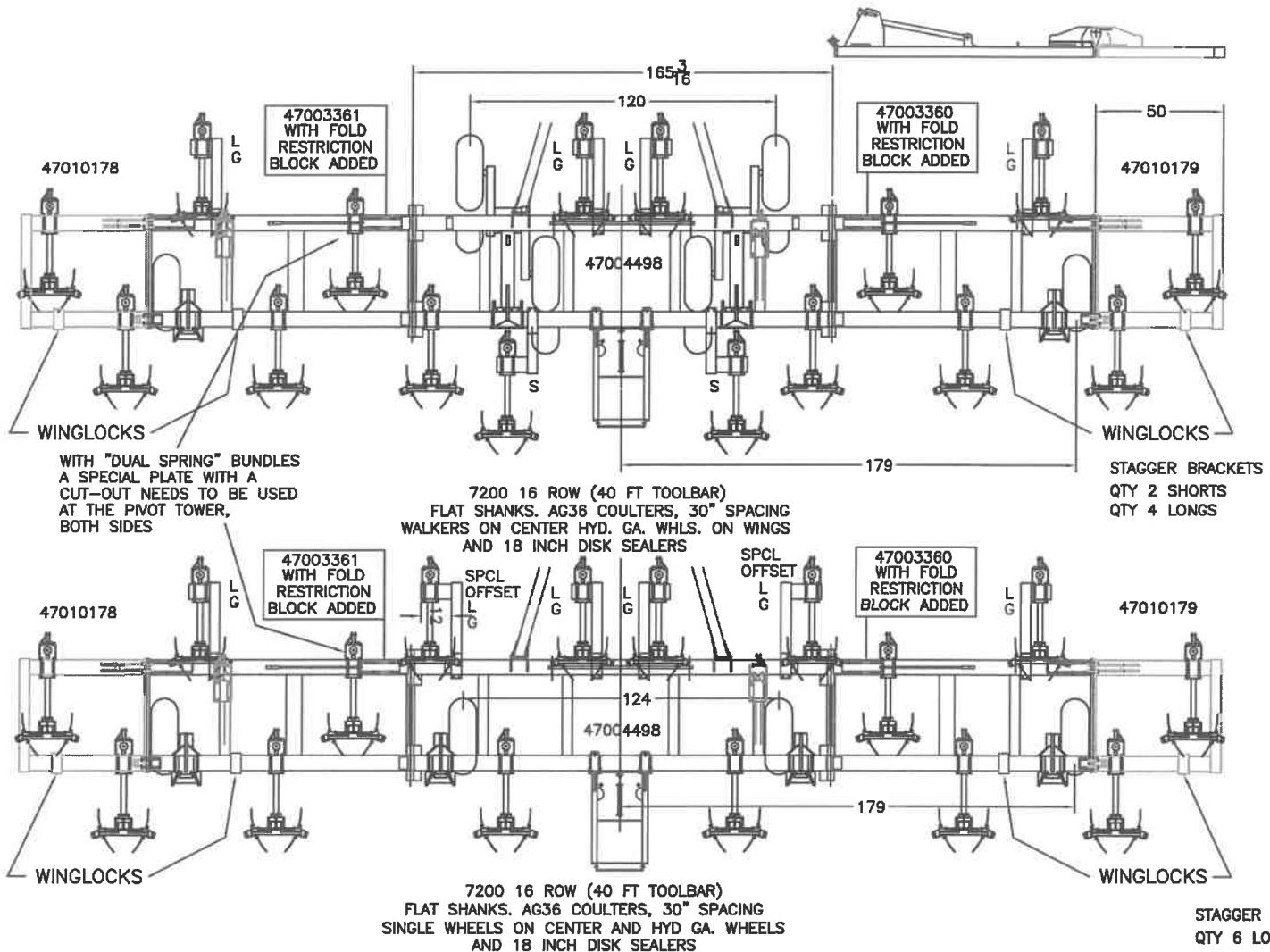
IN MANUAL

72K1216STD
PROPOSED 07/22/03
REVISED 09-10-13



7200 12 ROW STRIP-TILL (29 1/2 FT TOOLBAR)

30" SPACINGS WITH COULTERS AND SHANKS SEPARATED
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS
AND 18 INCH DISK SEALERS

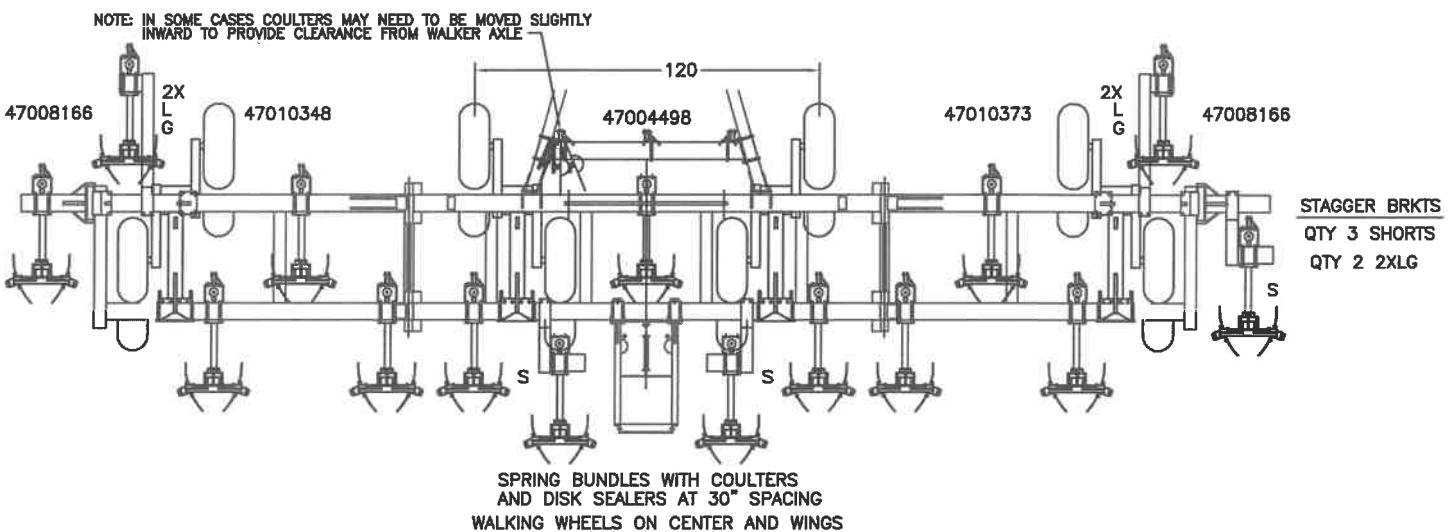
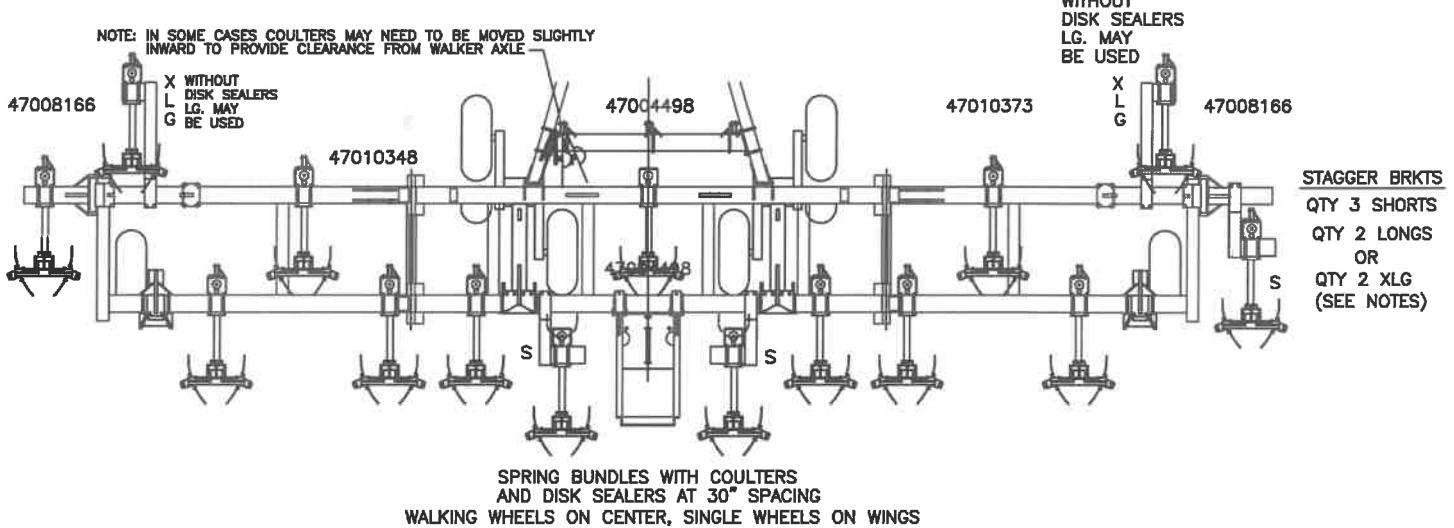
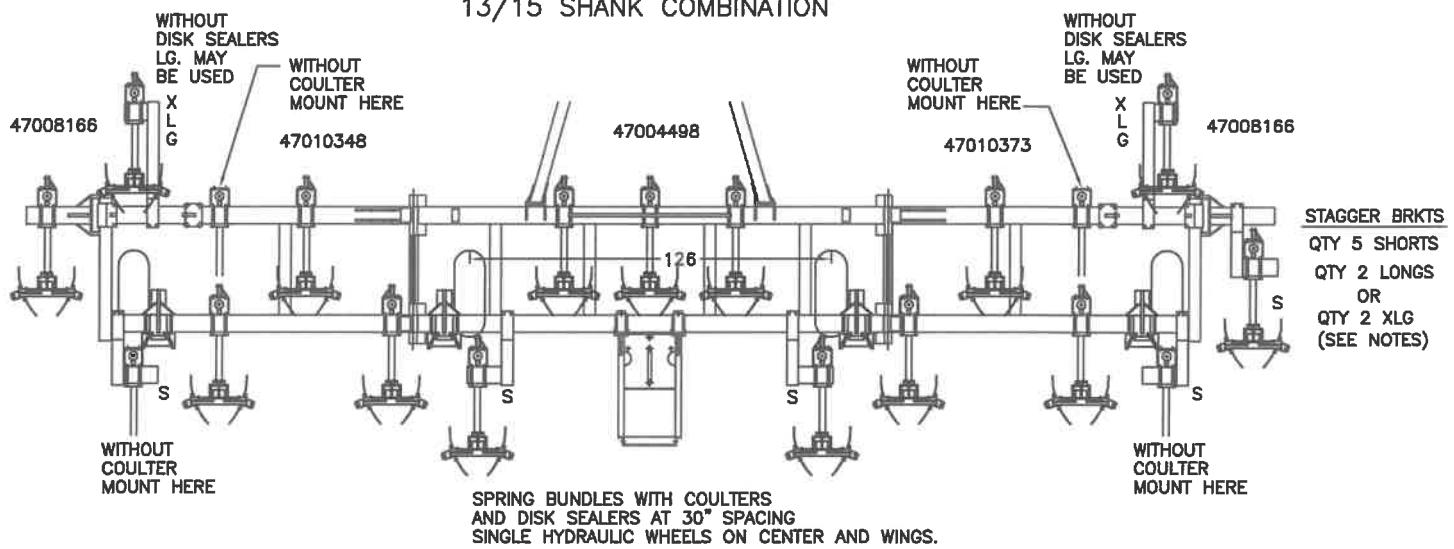


7200 SERIES TOOLBAR

13/15 SHANK COMBINATION

72K1315STD
REV/12/20/06
ASBLT 04/13/06

IN MANUAL

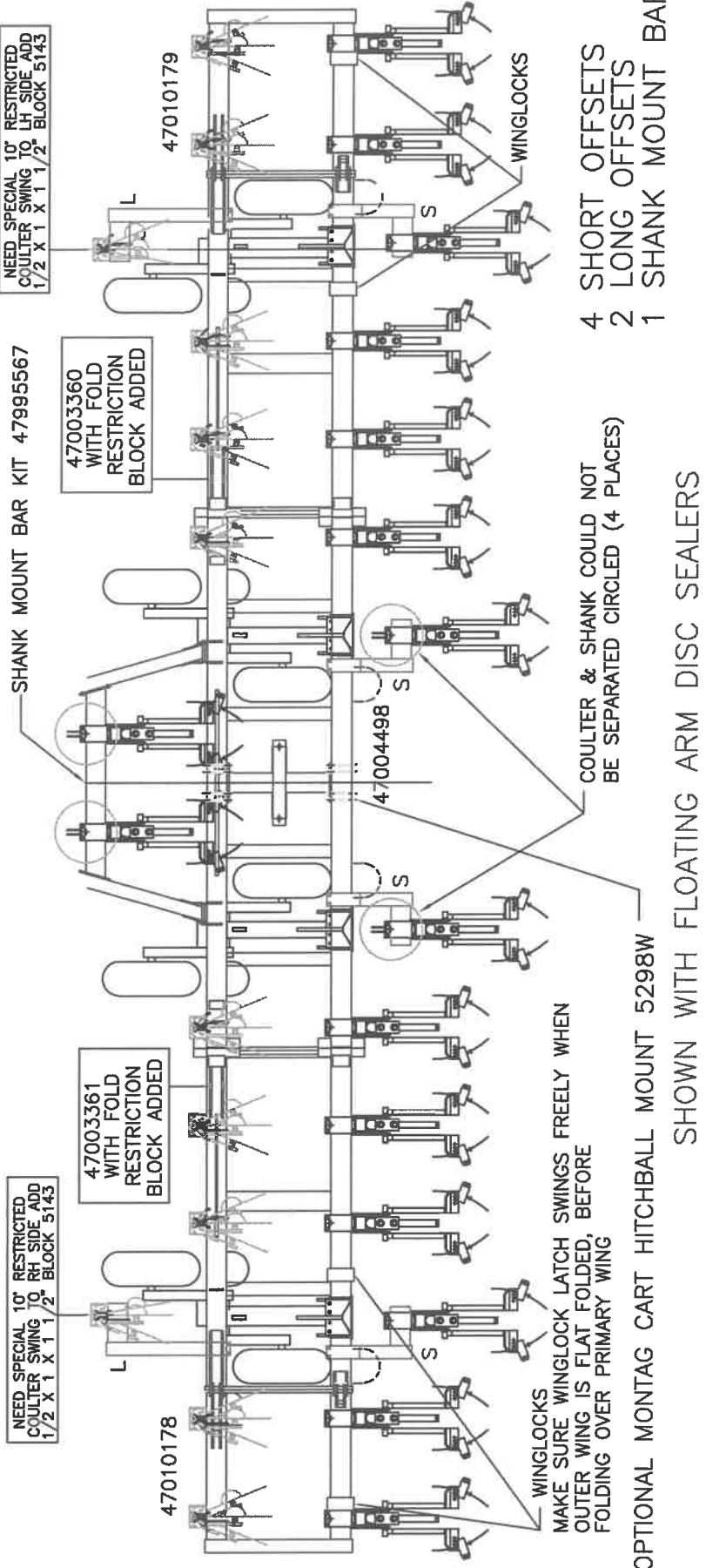


7200 SERIES TOOLBAR

40 FT TOOLBAR
 16 ROWS @ 30" APART
 HIGHTRIPS WITH SHANKS AND COULTERS SEPARATED
 WALKING WHEELS THROUGHOUT
 AND OPTIONAL MONTAG HITCH

72K1630WWSEPNFH
 PRO/08-01-13
 REV 09-06-13

IN MANUAL



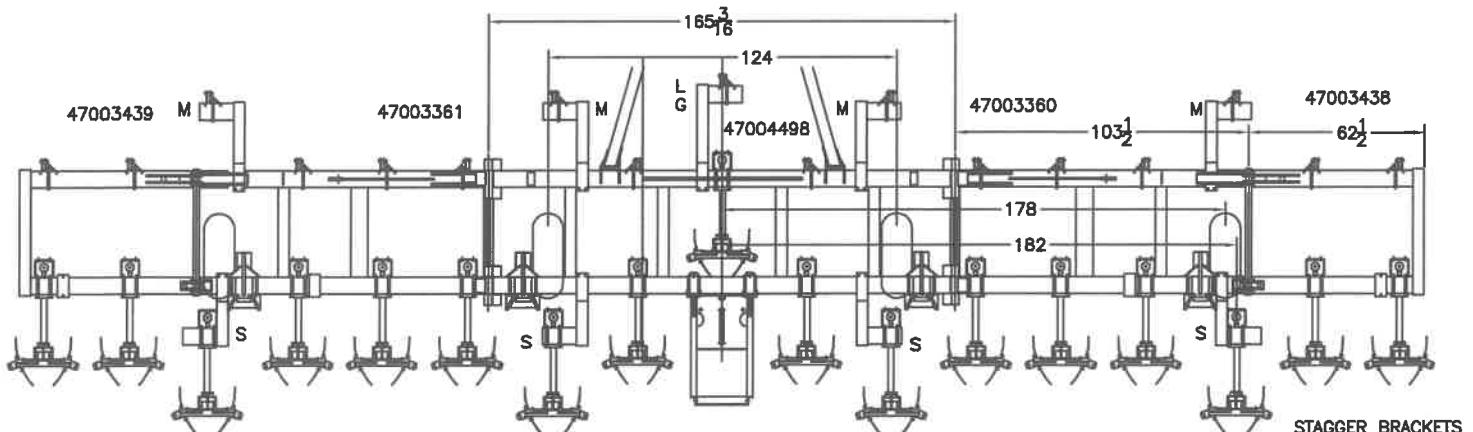
7200 SERIES (42 FT) TOOLBAR

72K1317IA
PRO/07/22/05

IN MANUAL

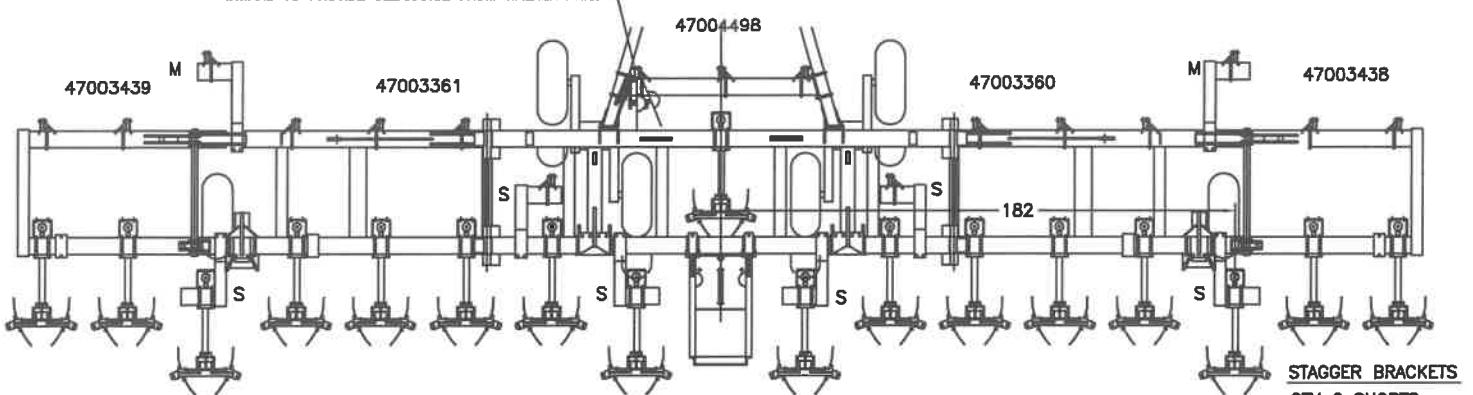
13/17 SHANK COMBINATION WITH COULTERS AND SHANKS SEPARATED

IN MANUAL



STAGGER BRACKETS
QTY 4 SHORTS
QTY 4 MEDIUMS
QTY 1 LONG

NOTE: IN SOME CASES COULTERS MAY NEED TO BE MOVED SLIGHTLY
INWARD TO PROVIDE CLEARANCE FROM WALKER AXLE

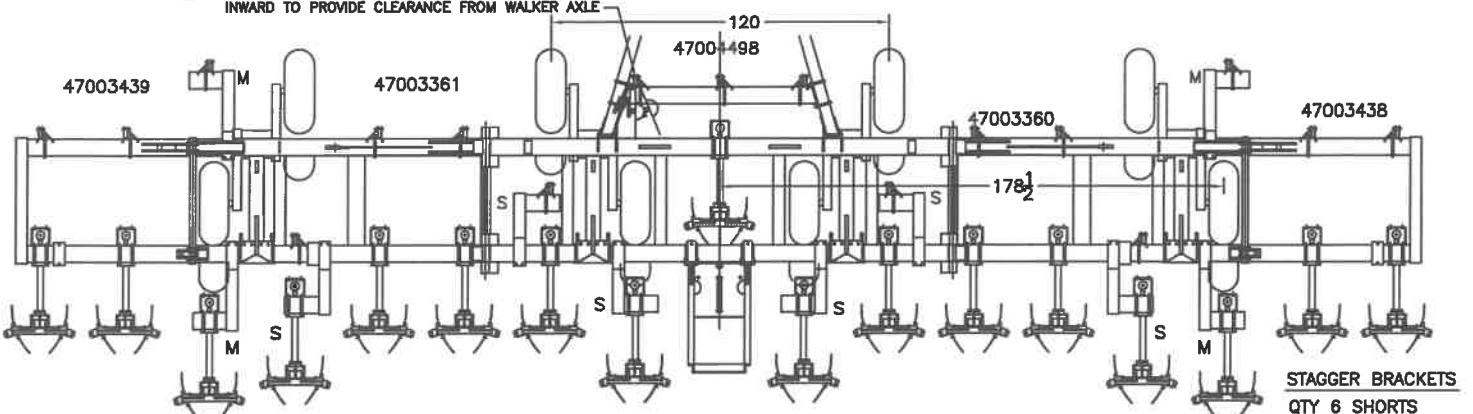


STAGGER BRACKETS
QTY 6 SHORTS
QTY 2 MEDIUMS

SPRING SHANKS AT 30" SPACING WITH COULTERS
AND 18 INCH DISK SEALERS
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS

REV. 07/22/05

NOTE: IN SOME CASES COULTERS MAY NEED TO BE MOVED SLIGHTLY
INWARD TO PROVIDE CLEARANCE FROM WALKER AXLE



STAGGER BRACKETS
QTY 6 SHORTS
QTY 4 MEDIUMS

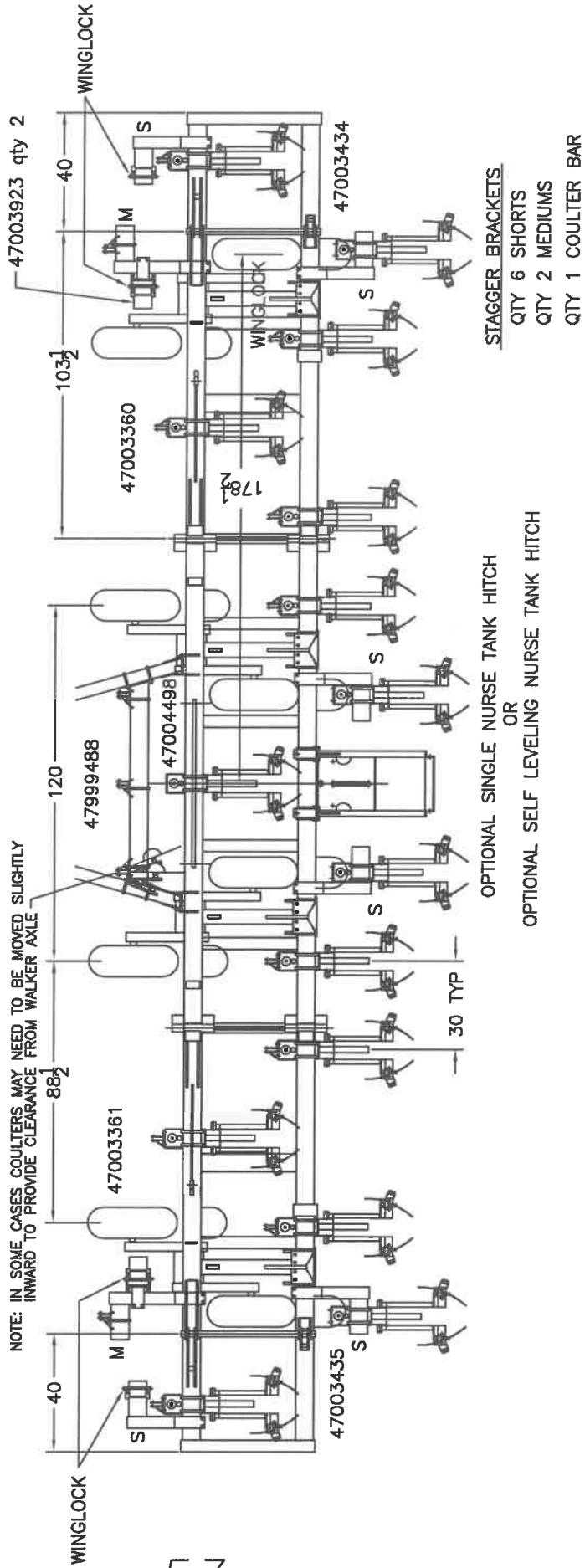
SPRING SHANKS AT 30" SPACING WITH COULTERS
AND 18 INCH DISK SEALERS
WALKING WHEELS ON CENTER AND ON WINGS

REV.07/22/05

7200 SERIES TOOLBAR (37.5 FT)

15 ROWS AT 30" SPACING W FLAT FOLD WINGS
AND OPTIONAL AUXILIARY TOOLBAR
SPRING BUNDLES WITH COULTERS AT 30" SPACING
SECONDARY BAR, FLAT SHANKS W/18" FLOATING ARM DISK SEALERS
WITH WALKERS THROUGHOUT AND SINGLE NURSE TANK HITCH

NOTE: IN SOME CASES COULTERS MAY NEED TO BE MOVED SLIGHTLY
INWARD TO PROVIDE CLEARANCE FROM WALKER AXLE

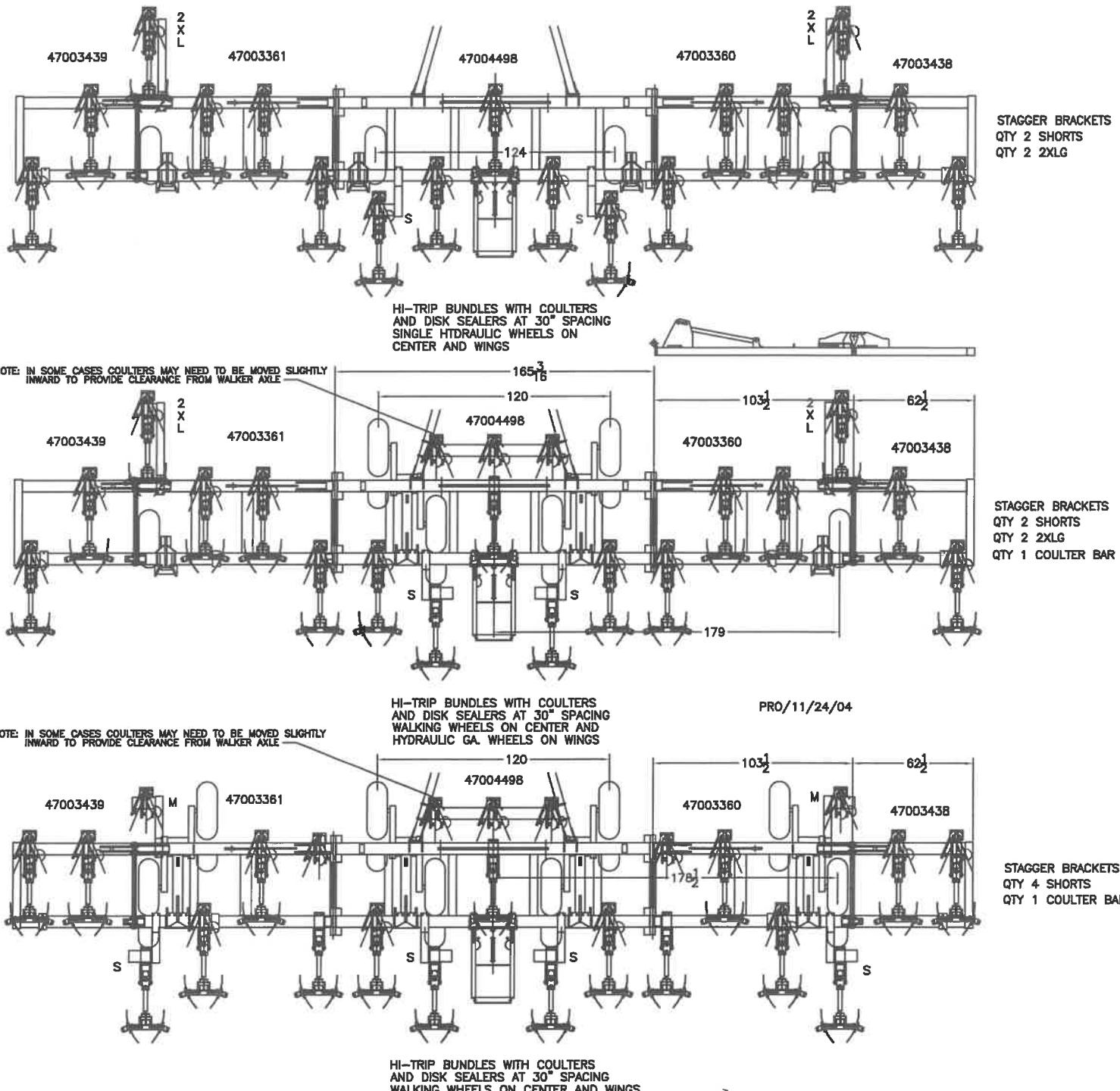


7200 SERIES (42 FT TOOLBAR)

13/17 SHANK COMBINATION
W/HI-TRIP SPRING BUNDLES

IN MANUAL

72K17HTRP
PRO/11/11/04



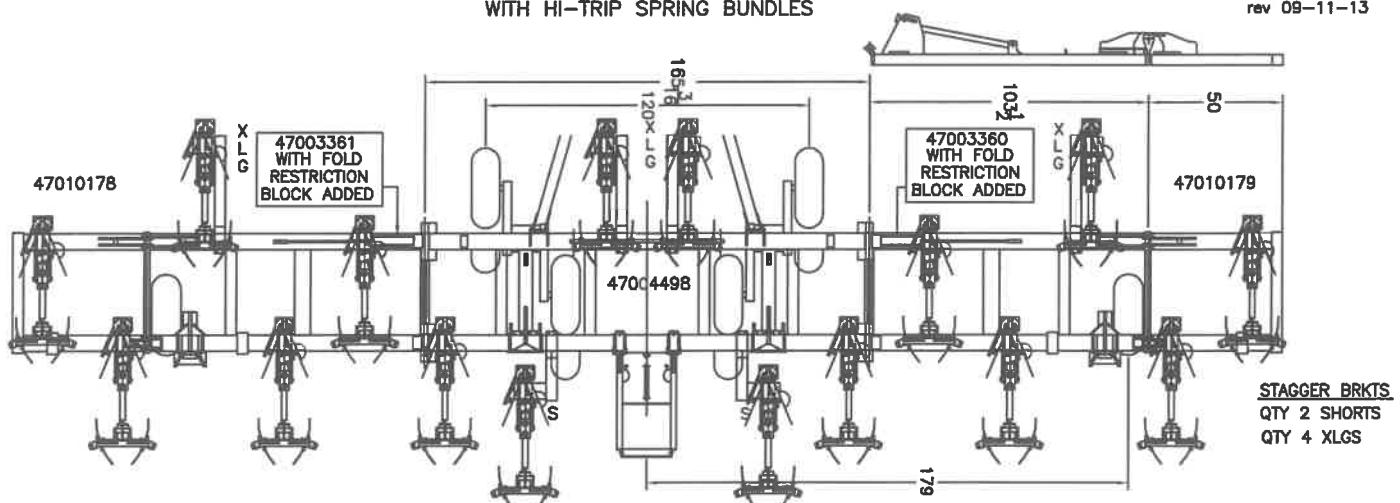
7200 SERIES (40 FT) TOOLBAR

IN MANUAL

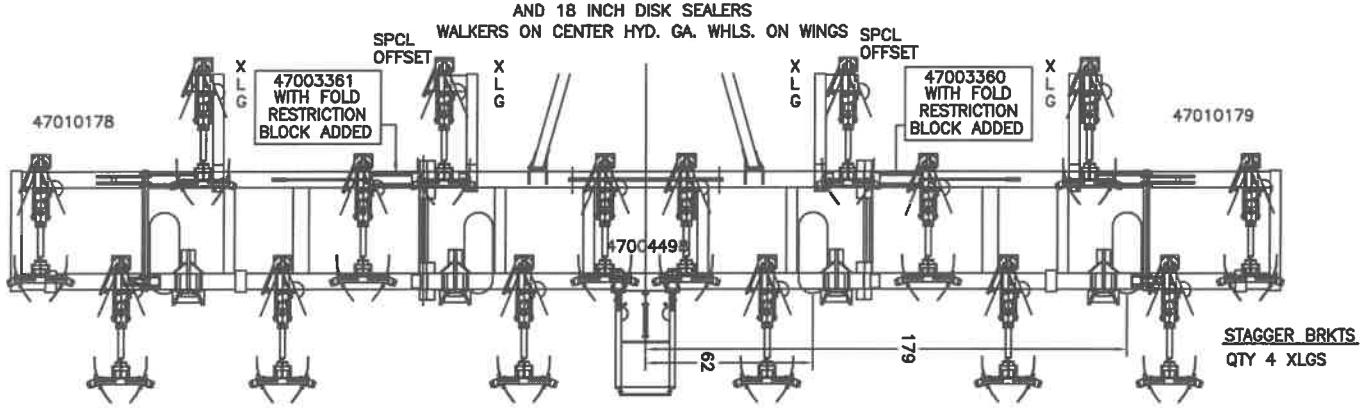
12/16 SHANK COMBINATION
WITH HI-TRIP SPRING BUNDLES

PRO/

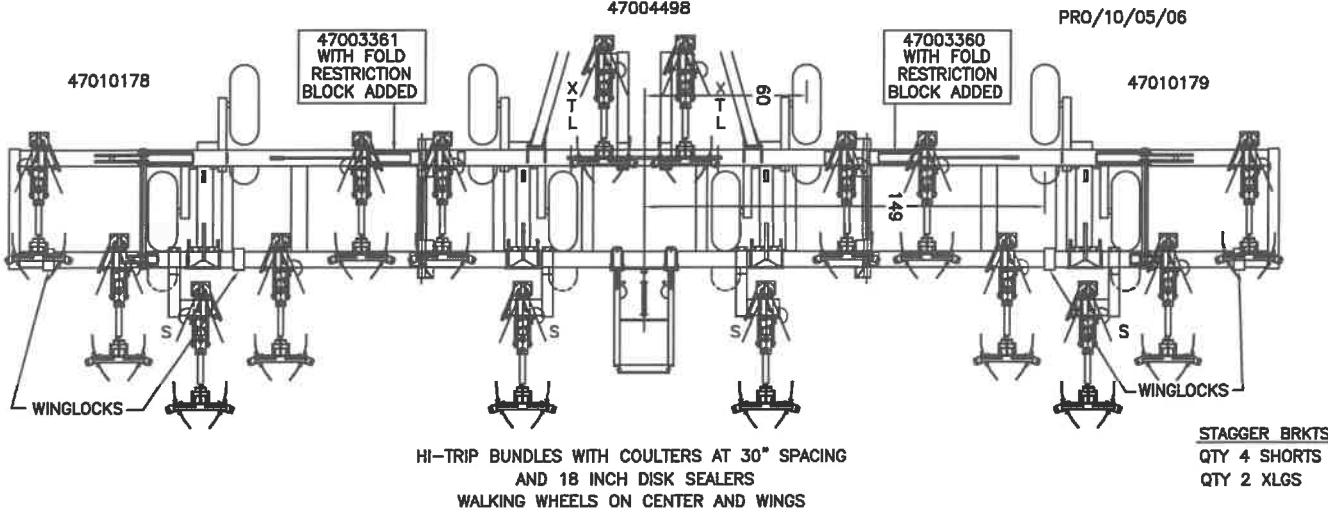
72K1216HTRP
11/12/04
rev 09-11-13



STAGGER BRKTS
QTY 2 SHORTS
QTY 4 XLGS



STAGGER BRKTS
QTY 4 XLGS



PRO/10/05/06

STAGGER BRKTS
QTY 4 SHORTS
QTY 2 XLGS

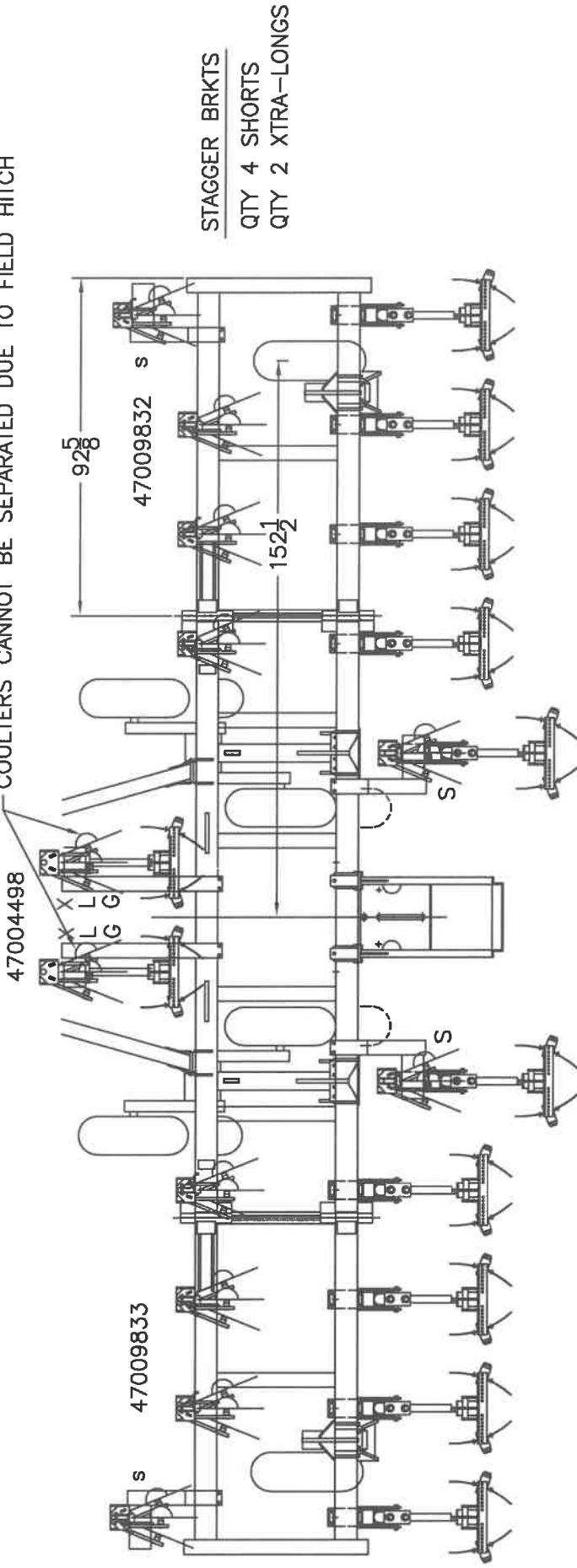
7200 SERIES (29.5 FT) TOOLBAR

12 ROW STRIP-TILL (30 INCH SPACING)
WITH HI-TRIP SPRING BUNDLES

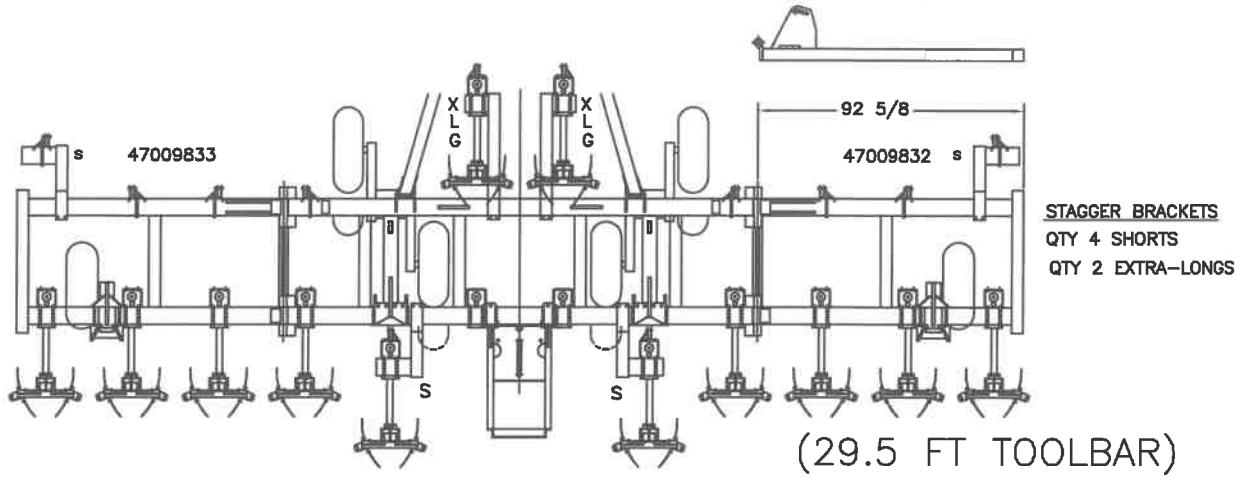
IN MANUAL

72K12HTRP
PRO/06-08-07
REV 10-26-07

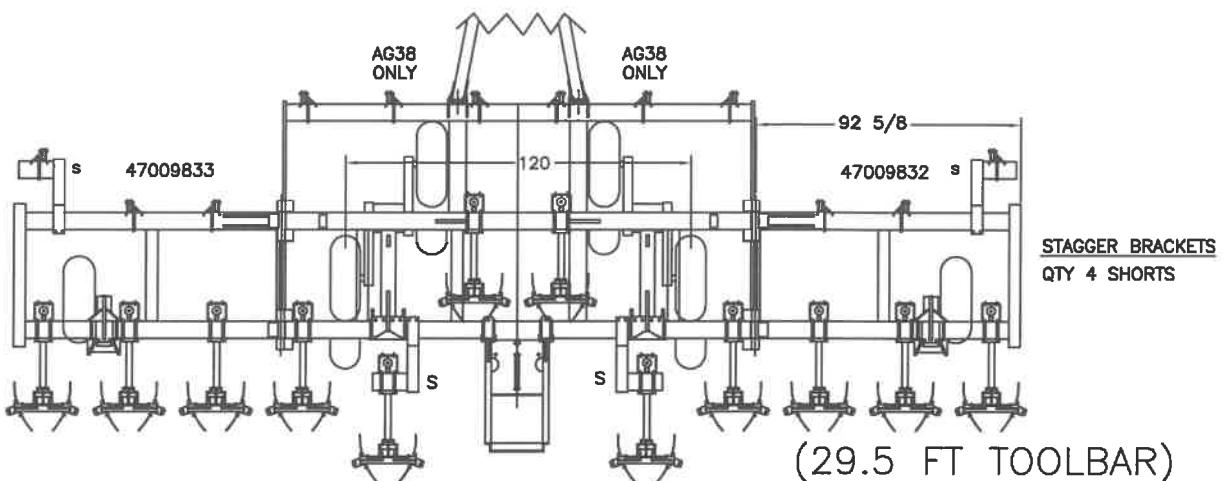
COULTERS CANNOT BE SEPARATED DUE TO FIELD HITCH



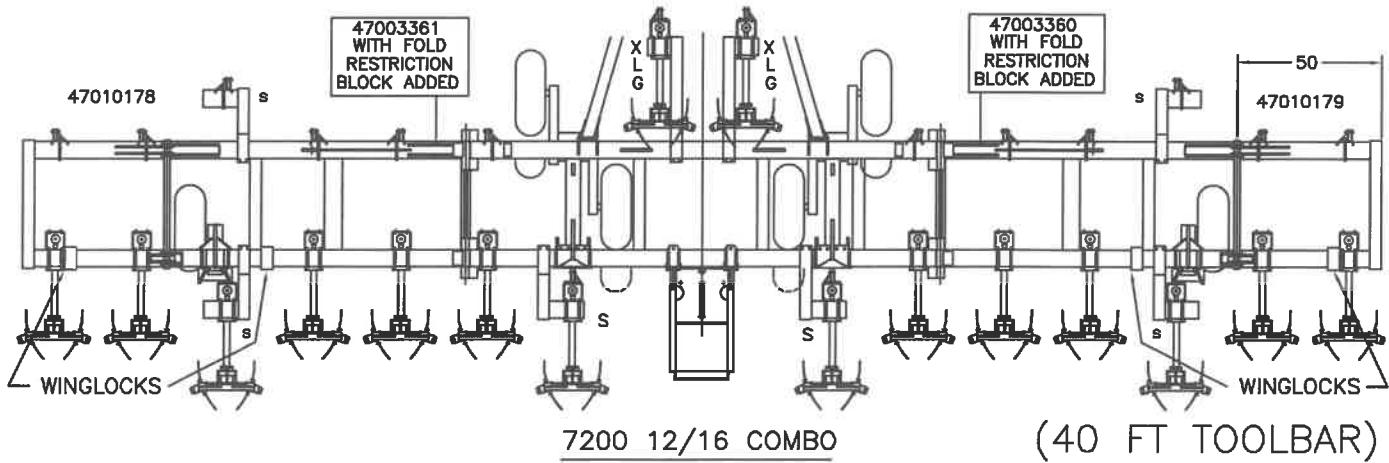
WITH COULTERS AND SHANKS SEPARATED AS MUCH AS POSSIBLE
AND 18 INCH DISK SEALERS
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS



7200 12 ROW STRIP-TILL
COULTERS SEPARATED FROM SHANK
WITH 18 INCH DISK COVERS
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS



7300 12 ROW STRIP-TILL
COULTERS SEPARATED FROM SHANK
WITH 18 INCH DISK COVERS
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS

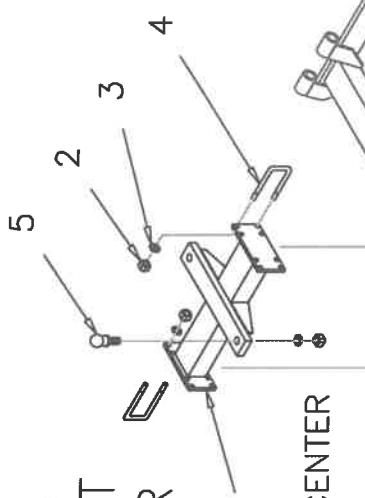


7200 12/16 COMBO
COULTERS SEPARATED FROM SHANK (CTRS CANT BE DUE TO HITCH)
WITH 18 INCH DISK COVERS
WALKING WHEELS ON CENTER, HYD. GA. WHEEL ON WINGS

STAGGER BRACKETS
QTY 6 SHORTS
QTY 2 EXTRA-LONGS

TWIN BALL HITCH MOUNT

FOR MONTAG STEERABLE CART
ON A 7200 OR 8000 TOOLBAR



1 MOUNTS TO CENTER
OF TOOLBAR

6 AG26 MONTAG CART FIELD HITCH
MOUNTS TO REAR OF MONTAG
STEER CART ONLY



FOR MONTAG CART FIELD HITCH
SERVICE PARTS SEE SEPARATE
ILLUSTRATION "AG26 MONTAG"

7200 TOOLBAR SHOWN
FOR ASSY REFERENCE ONLY

ITEM	PART NO.	DESCRIPTION	QTY
	47995298	32" BALL HITCH ASSY (INCLUDES ITEMS 1 TO 4)	1
1	47005298	32" BALL HITCH WELDT (FITS AG SYSTEMS 7200/8000)	1
2	18417900	HEXNUT, 5/8	16
3	18891600	LOCKWASHER, 5/8	16
4	47007083	U-BOLT, 5/8 (7200)	8
5	47002516	HITCH BALL W HARDWARE (included with Montag Autosteer cart)	2
6		FIELD HITCH (separate item)	

BREAK-AWAY COUPLING DEVICE (BACD) SWING ARM ASSEMBLY FOR NH3 TOOLBARS

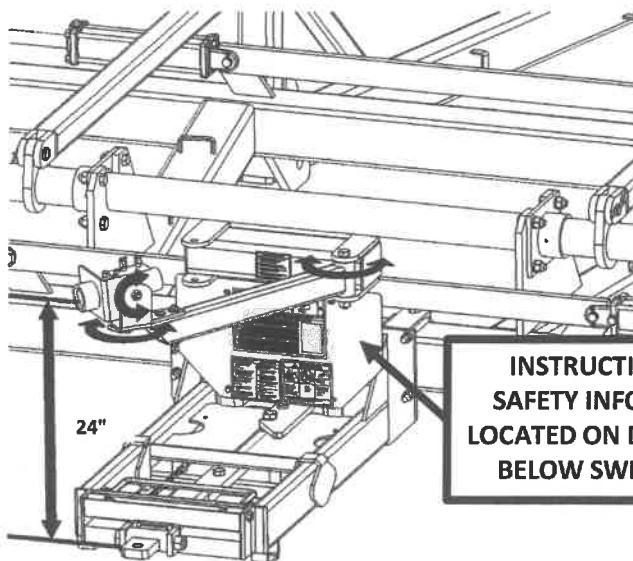


Figure 1: Single Swing Arm

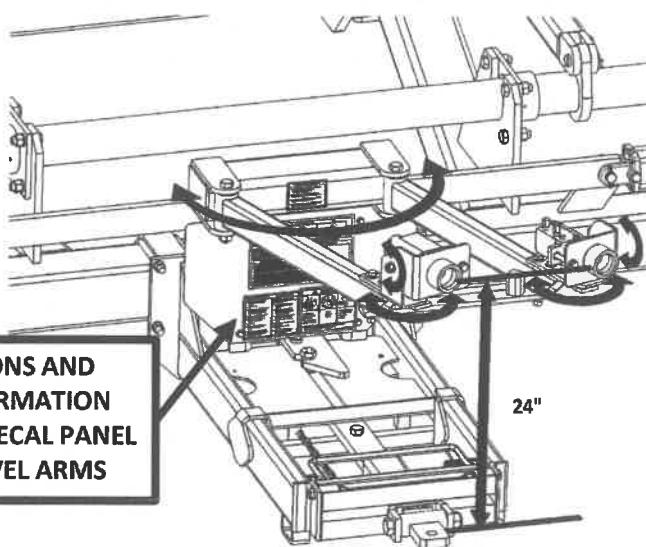


Figure 2: Dual Swing Arms

The purpose of the break-away coupling device (BACD) is to provide an automatic valve closure to limit the potential hazard of NH3 released to the atmosphere in the event of a trailing nurse tank becoming inadvertently unhitched and disconnected from the toolbar.

The Heartland Ag Systems Equipment swing arm style NH3 stand securely mounts the BACD to the toolbar while allowing it to freely swivel over 80° left to right (horizontally) and 30° up and down (vertically) in each direction as well as positions the coupler 24" above the nurse tank hitch connection point as shown above in figures 1 and 2. "Super Shooter" style NH3 stands were discontinued in 2015 and should be updated to the swing arm style NH3 stands.

Follow the BACD manufacturer's installation, maintenance, and operation recommendations. Refer to your specific toolbar model owners manual for NH3 stand assembly detail and parts requirements. Before each use visually inspect the BACD for leaks, damage, or loose components. Also check that the NH3 stand operates properly and all decals are in place and can be easily read. Be sure to follow all manufacturer's safety precautions - **FAILURE TO READ AND UNDERSTAND THE SAFETY INSTRUCTIONS COULD LEAD TO PROPERTY DAMAGE, SERIOUS INJURY, OR DEATH.** The BACD must be fully inspected annually and repaired or replaced as required.

When working with NH3 connections wear protective clothing, goggles, and gloves and have emergency water available. Always stand on the upwind side and avoid breathing in chemical vapors. **DO NOT DISCONNECT OR RECONNECT UNDER PRESSURE.**

The links and QR Codes below direct you to the MN Department of Agriculture BACD parts and installation videos.

NH3 Break-Away Coupling Device Installation
(<https://www.youtube.com/watch?v=0EPNeNZwvCE>)



NH3 Break-Away Coupling Device Parts
(<https://www.youtube.com/watch?v=Rn1Ro8jWh3M>)



The links and QR codes below direct you to the Continental and Squibb Taylor BACD operating/installation instructions.

Continental B-SWV-125 & B-SWV-150-G Couplers
(<http://www.continentalnh3.com/pdfs/B-SWV-125%20150%20G.pdf>)



Squibb Taylor Flo-Max Couplers
([http://www.squibbtaylor.com/uploaded/FM1.25-1000%20\(2008\).pdf](http://www.squibbtaylor.com/uploaded/FM1.25-1000%20(2008).pdf))





WARRANTY CLAIM FORM



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