



Heartland
AG SYSTEMS

Heartland Agriculture, LLC

ANHYDROUS AMMONIA WAGONS

**OWNERS MANUAL
SAFETY AND
MAINTENANCE INSTRUCTIONS
OM-NH3**

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

ISSUE
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WARRANTY REGISTRATION

TO THE DEALER:

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

PRE -DELIVERY CHECKLIST

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

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.

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

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

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TO THE OWNER

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

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

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

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

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

Warranty Policies and Terms

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

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

Warranty Period

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

What's Covered

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

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

Exclusive Remedy

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

No Modification or Extension of Warranty

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

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

Limitations and Exclusions

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

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

Owner's Responsibility

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

What Is Not Covered

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

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

Base Warranty Coverage

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

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

Tires

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

Warranty Registration

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

Operator's Manual/Warranty Receipt Verification

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

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

Heartland AG Systems Responsibility

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

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

Dealer Responsibility



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

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

Owners Responsibility

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

These responsibilities include, but are not limited to:

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

Warranty Eligibility

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

Warranty Repairs Made by the Customer

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

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

Parts Shortages on Whole-Goods

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

Warranty Reimbursement Policies

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

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

Parts

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

Labor

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

Outside Charges

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

Freight



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

Travel

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

Repairing or Replacing Parts and Components

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

Filters and Lubricants

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

Claim Form Guidelines

Claims Must Have

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

SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS
ATTENTION
BECOME ALERT
YOUR SAFETY IS INVOLVED!

SIGNAL WORDS

Note use following signal words **DANGER**, **WARNING**, and **CAUTION** with safety messages. Appropriate signal word for each has been selected using following guidelines:

DANGER:

Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death. This signal word is to be limited to most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING:

Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION:

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



EQUIPMENT SAFETY GUIDELINES

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You the operator, can avoid many accidents by observing and following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of alcohol or drugs.

Review safety instructions with all users.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed limits of a piece of machinery. If its ability to do a job, or to do so safely is in question-**DON'T TRY IT.**



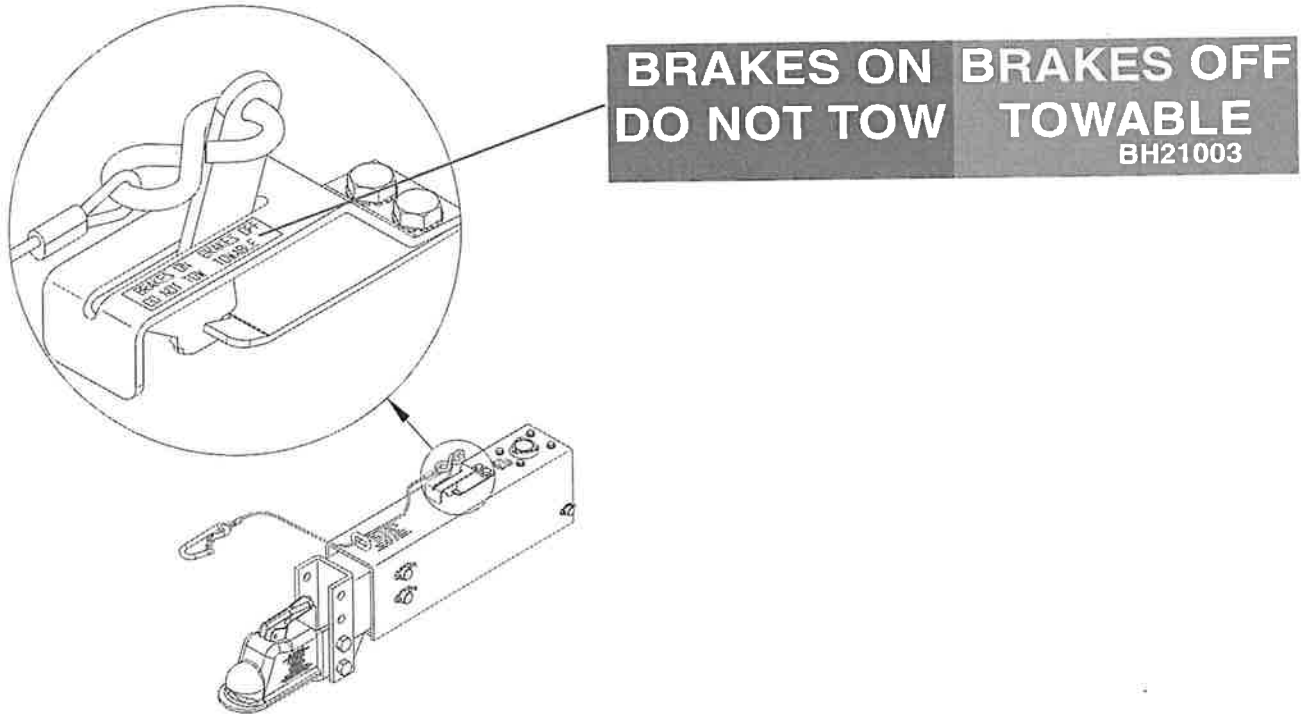
REMEMBER

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or manufacturer.



SAFETY SIGN LOCATIONS

Types of safety sign and locations on equipment are shown in illustration below. Good safety requires that you familiarize yourself with various safety signs, type of warning, and area or particular function related to that area, that requires your SAFETY AWARENESS.



SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replacement parts that displayed a safety sign should also display safety sign.
- Safety signs are available from your distributor, dealer parts department, or factory.

How to install safety signs:

- Be sure that installation area is clean and dry.
- Decide on exact position before you remove backing paper.
- Remove smallest portion of split backing paper.
- Align decal over specified area and carefully press small portion with exposed sticky backing in place.
- Slowly peel back remaining paper and carefully smooth remaining portion of decal into place.
- Small air pockets can be pierced with a pin and smoothed out using piece of decal backing paper.



BEFORE OPERATION:

- Carefully study and understand this manual.
- Always wear protective clothing and substantial shoes.
- Give equipment a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in equipment.
- Do not use equipment until you are sure that area is clear, especially around children and animals.
- Don't hurry learning process or take equipment for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Make sure that brakes are evenly adjusted.
- Make sure tow rating on vehicle is high enough for what it is towing.
- Do not allow anyone to stand between tongue or hitch and towing vehicle when backing up to equipment.
- Securely attach to towing vehicle. Use appropriately sized hitch ball and/or hitch pin with a mechanical retainer and attach safety chains.
- Criss cross chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.



DURING OPERATION

- **SAFETY CHAINS** If equipment is going to be transported on a public highway, safety chains should be obtained and installed. Always follow state and local regulations regarding safety chains and auxiliary lighting when towing equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only safety chains (not an elastic or nylon/plastic tow straps) should be used to retain connection between towing and towed equipment in event of separation of primary attaching system.
- Install safety chains by criss crossing chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.
- **When attaching the emergency cable** Allow adequate slack to keep from activating brakes due to interference from parts of the coupler or other attachments on the towing vehicle. Each vehicle tongue configuration is different and therefore each should be handled individually to keep the routing free from entanglements and securely attached to perform as designed in case of emergency disconnection from the towing vehicle.
- Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure it is safe to start engine of towing vehicle or move equipment. This is particularly important with higher noise levels, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED-** Do not carry passengers anywhere on or in equipment.
- Do not clean, lubricate, or adjust your equipment while it is moving.
- When halting operation, even periodically, set towing vehicles parking brake, shut off engine, and **remove the ignition key.**
- Be extra careful when using on inclines.
- **MANEUVER TOWING UNIT AT SAFE SPEEDS.**
- Avoid loose gravel, rocks, and holes, they can be dangerous for equipment operation or movement.
- Allow for overall length when making turns.
- Keep all bystanders and pets clear of work area.
- Operate towing vehicle from operators seat only.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck hardware on equipment following every 100 hours or 50 miles. Correct all problems. Follow maintenance safety procedures.



FOLLOWING OPERATION

- Following operation, or when unhitching, stop towing vehicle, set brakes, shut off the engine and **remove ignition key**.
- Store unit in an area away from human activity.
- Do not permit children to play on or around stored unit.
- Make sure all parked units are on a hard, level surface and engage all safety devices.
- Wheel chocks may be needed to prevent unit from rolling.



HIGHWAY AND TRANSPORT OPERATIONS

- Adopt safe driving practices:
 - Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop.
 - Reduce speed prior to turns to avoid risk of overturning.
 - Always keep towing vehicle in gear to provide engine braking when going downhill. Do not coast.
 - Do not drink and drive!
- Comply with state and local laws governing highway safety on public roads.
- Use approved accessory lighting, flags and necessary warning devices to protect operators of other vehicles on highway during transport. Various safety lights and devices are available from your dealer.
- Local laws should be checked for all highway lighting and marking requirements.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Watch for obstructions overhead and side to side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of equipment when making turns and/or stopping.



PERFORMING MAINTENANCE

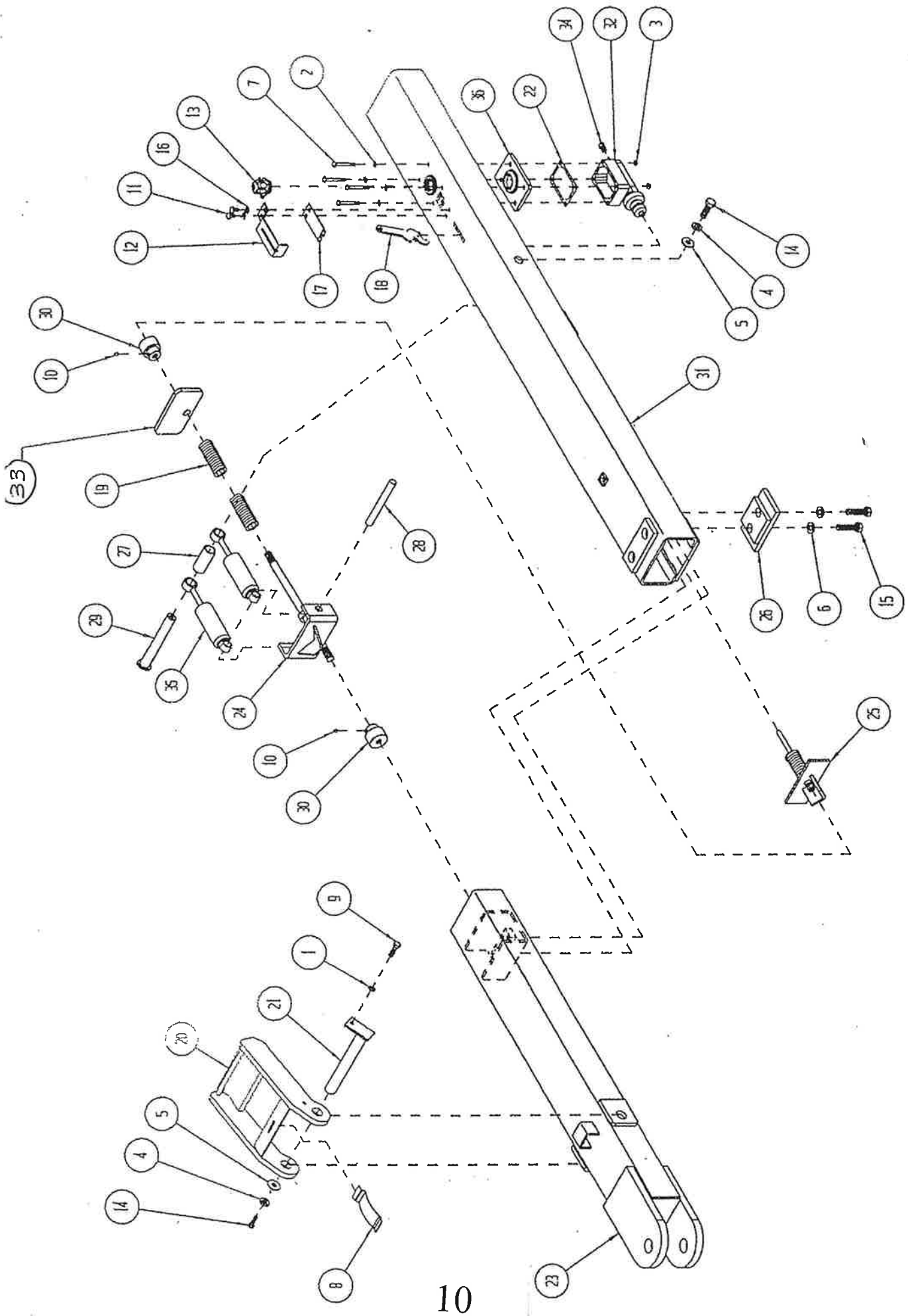
- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate engine of towing vehicle in a closed building. Exhaust fumes may cause asphyxiation.
- Before working on this unit, stop towing vehicle, set parking brakes, shut off engine and **remove ignition key**.
- Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.
- Always use safety supports and block wheels. Never use a jack to support unit.

- Always use proper tools or equipment for job at hand.
- Use extreme caution when making adjustments.
- Follow torque chart in this manual when tightening bolts and nuts.
- Openings in skin and minor cuts are susceptible to infection from brake fluid.
Without immediate medical treatment, serious infection and reactions can occur.
- Replace **all shields** and **guards** after servicing and before moving.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on the actuator.
- When replacing bolts, refer to owners manual.
- Refer to bolt torque chart for head identification marking.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. Manufacturer will not claim responsibility for use of unapproved parts or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, manufacturer does not accept any liability for injury or warranty.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment



Torque Specifications

See pages 36 and 37 of this manual for proper tightening requirements and methods of tightening wheel bolts.



10

(with Brakes)

(with Brakes)

Parts Breakdown On Demco 5597 Tongue

ITEM #	Part #	Description	Qty.
1	00036	5/16" Lock Washer	1
2	00057	1/4" Lock Washer	4
3	00062	1/4" UNC Hex Nut	4
4	00084	1/2" Lock Washer	2
5	00085	1/2" Flat Washer	2
6	00254	3/4" Lock Washer	2
7	00618	1/4" x 2 UNC Hex Bolt - Grade 5	4
8	01158-95	Gear Hitch Spring - Plated	1
9	01263	5/16" x 3/4" UNC Hex Bolt - Grade 5	1
10	01923	1/4" x 1/4" UNC Set Screw	2
11	02196	5/16" x 3/4" Self Tapping Bolt	2
12	03866-95	Emergency Lever Guide	1
13	03876	Fill Cap	1
14	04795	1/2" x 1" Hex Bolt - Grade 5	2
15	05047	3/4" x 2-1/2" UNC Hex Bolt - Grade 5	2
16	05424	5/16" Ext Tooth Lock Washer	2
17	05693-95	Safety Lever Spring	1
18	05951	Emergency Lever	1
19	05952	Pushrod Spring	1
20	07517-30	Tongue Latch - Black	1
21	07521-95	Latch Pin	1
22	09153	M/C Fill Plate Gasket	1
23	09293	Male Tongue	1
24	09305	Push Off Assembly	1
25	09307	Push Plate Assembly	1
26	09308-30	Stop Block - Black	1
27	09323	Rear Shock Pin Spacer	1
28	09324	Front Shock Pin	1
29	09325	Rear Shock Pin	1
30	09337	Adjustment Spud	1
31	10050	Female Tongue	1
32	10616	Master Cylinder - Composite	1
33	BH21003	Decal	1
34	95679	Fitting	1
35	SB12426	Dampener Shock	2
36	12557	Master Cylinder Cap	1



BRAKE TONGUE MAINTENANCE AND ADJUSTMENT

WARNING: Review all of the following instructions before installation and use of the hydraulic brake tongue. Dealers or Distributors must review these instructions with the ultimate user. Failure to follow these instructions, or failure to properly maintain the braking system after installation, can result in loss of braking action which could cause severe property damage, personal injury and/or death.

DISASSEMBLY AND ASSEMBLY

1. The brake tongue is assembled and adjusted at the factory:



CAUTION Do Not Disassemble or Attempt to Adjust The Tongue Push-Rod Assembly (#25)

To disassemble the tongue: (refer to illustration)

- A. Remove 3/4"bolts (#15) , remove stop block (#26), and pull male tongue (#23) out of female tongue (#31).
- B. Remove 1/2"bolt (#14), pin (#29), and spacer (#27)
- C. Remove set screw (#10) from adjustment spud (#30), unthread and remove adjustment spud (#30).
- D. Remove push-off assembly (#24), pin (#28), two shocks (#35), and two springs (#19).
- E. To remove tongue push-rod assembly (#25), master cylinder (#32), emergency lever (#18), pin, spring (#17), and guide (#12), refer to section a&b of "Servicing the Emergency Lever" on this page.

To reassemble the tongue: (refer to illustration)

- A. Replace 2 shocks (#35) into yoke (#24), with pin (#28).
- B. Place 2 springs (#19), onto shaft of push-off assembly (#24), and insert shaft into female tongue (#31), through hole in plate (shown in exploded view).
- C. Thread adjustment spud (#30) onto rear threaded portion of push-rod assembly (#25), until the 2 springs (#19) compress to a length of 6-1/2". Install and tighten set screw (#10), using Locktite, into one of the threaded holes of the spud (#30).
- D. Insert pin (#29) into hole in tongue, through 1 shock (#35), through the spacer (#27), and through the other shock (#35) and tongue. Install and tighten 1/2" bolt, lockwasher, and washer (# 4,5,14).
- E. Install master cylinder (#32), (refer to c-f of "Servicing Emergency Lever" section on this page).
- F. Thread adjust spud (#30) onto front threaded portion of push-rod assembly (#25). Insert male tongue (#23), (with latch installed as shown), into female tongue (#31). Install stop block (#26), using 3/4" bolts and lockwashers (#6, #15). Pull male tongue (#23) forward to latched position and adjust spud (#30) until there is a 3/16" gap between spud (#30) and rear stop surface of male tongue (#23) see arrow.
- G. Tighten set screw (#10),using Locktite, into hole in spud (#30).

2. Connect and tighten all brake lines.
3. Fill the Master Cylinder (#32) with DOT 3 or 4 brake fluid.
4. Bleed the brake system using a pressure-type brake bleeder or manually, as follows:
 - a. Remove the two Self-Tapping Screws (#11) and LockWashers (#16) that hold the Lever Guide (#12) and the flat Emergency Lever Spring (#17). Remove the Lever Guide and the Emergency Lever Spring. Using short strokes, pull forward on the Emergency Lever (#18), pumping the Master Cylinder until the brake fluid within the Master Cylinder stops bubbling.
 - b. Attach a bleeder hose to the bleeder valve on one of

the wheels (always begin with wheel farthest from the master cylinder and move toward it). Immerse the other end of the hose into a clean, transparent container partially filled with brake fluid. Loosen the bleeder valve one turn and, watching the hose in the transparent container, use the Emergency Lever to pump the Master Cylinder as long as air bubbles continue to leave the hose. When the bubbles stop, close the bleeder valve, move to the next wheel, and repeat the process until all the brakes have been bled. (Note: Check the fluid level in the Master Cylinder frequently while bleeding the brakes (every 4 or 5 strokes). Refill as necessary to keep the level above half full.)

5. Once bleeding is completed, refill the Master Cylinder and attach the Cap (#13) securely. Replace Emergency Lever Spring, Lever Guide, with Lock Washers and Self-Tapping Screws.
6. Test the brakes by pulling the Emergency Lever (#18) forward until it locks into its first detent position. (The lever should be approximately straight up.) Attempt to rotate the wheels in a forward direction. If any of the wheels rotate, the brakes must be adjusted on that wheel. To adjust the brakes, release the Emergency Lever from its locked position and set the wheel brake adjustment up 2 or 3 notches (refer to instructions on page 18). Repeat the test procedure as necessary.

MAINTENANCE

1. Frequently check the brake fluid level. (Fluid must be approved, clean and uncontaminated.)
2. Inspect the brake tongue and brakes and replace bent, worn or damaged parts.
3. Be constantly aware of the system's braking quality and make periodic checks. Consult a certified brake specialist to make the necessary adjustments and/or repairs. Failure to do so could result in loss of braking.

SERVICING THE EMERGENCY LEVER

If the Emergency Lever (#18) of the tongue is applied, it can be disengaged by using a screwdriver to lift upward on the front of the flat Emergency Lever Spring (#17) while pulling the lever forward until it releases. A thorough inspection of the Emergency Lever, Emergency Lever Spring, and the Chain with S-Hooks is required and all damaged parts must be replaced as follows:

- a. Remove the Master Cylinder (#32) and the Push Plate Assembly (#25). Be careful not to get dirt into the Master Cylinder. (A new Master Cylinder Gasket (#22) should be used when reinstalling.)
- b. Remove the Safety Chain from the Emergency Lever (#18), Emergency Lever Guide (#12), and flat Emergency Lever Spring (#17), then pull the lever out of the tongue (#31) from the bottom.
- c. Install the new Emergency Lever from the bottom of, and up through the slot in, the tongue. Attach the new Emergency Lever Spring, and the Emergency Lever Guide.
- d. Install a new Master Cylinder Gasket to the Master Cylinder and put the Push Plate Assembly and Master Cylinder back into the inside of the tongue.
- e. Squeeze shut the S-Hook of the Emergency Chain onto the Emergency Lever (#18).
- f. Add adequate brake fluid to the Master Cylinder and bleed the brake system per instructions 4-6 in the disassembly and reassembly section.

Loosen the bleeder valve one turn and pump the master cylinder until the air bubbles stop coming out of the hose in the glass container, then close the bleeder valve and repeat the process on the other wheels. (Watch the fluid level in the master cylinder and refill so level does not fall below 1/2 full). Refill master cylinder every 4 or 5 strokes. Dispose of contaminated brake fluid according to local regulations.

4. After bleeding is completed, refill the master cylinder and put the filler cap on securely. Replace the flat spring behind the emergency lever.

To test the brakes use a wrench or vise grip and clamp onto the top of the emergency lever to lengthen it. Pull lever forward until lever locks on the second click. The lever should be approximately straight up and down. Now try to rotate each of the four wheels in a forward rotation. You should not be able to rotate the wheels forward. If you can, then release the emergency lever by wedging a screwdriver under the flat spring behind the lever and set each wheel brake adjustment up 2 or 3 notches. Then repeat the test procedure.

Hitching The Wagon

5. Be sure Pin and hitch rating is equal to or greater than the wagon GVWR.
6. Connect the emergency chain hook to towing vehicle.
7. If the emergency brake lever is accidentally applied while unhitching, release the lever by pulling it forward and with a screwdriver lift up the front of the flat spring until it releases the lever. Many times these parts are damaged when this happens. An inspection of the lever, flat spring, and chain with S-hooks is required and any damaged parts must be replaced.

Replacing The Emergency Lever

Step one: Remove the lever guide and flat spring. Take the S-hook off the lever, take the lever out from the inside.

Step two: Install the new lever from the inside and up through the slot. Replace the new flat spring and the lever guide. Replace the push rod and master cylinder and new gasket.

Step three: Take the new chain and fasten the S-hook to the lever by squeezing the hook shut with a pliers. Check the master cylinder and fill with DOT 3 or 4 brake fluid.

Step four: Re-bleed brake system.

MAINTENANCE

1. Before towing check to be sure master cylinder is full of brake fluid and check lines for leaks. Inspect the actuator for bent or worn parts. Replace parts if necessary. Make sure the actuator mounting bolts are tight.
2. Periodically check braking quality, as described above. Failure to do so can result in loss of braking.
3. If units are used in corrosive conditions the actuator and wheels should be washed out with high pressure water. When actuator parts are dry, oil all moving parts.

BRAKE CLUSTER SETUP, ADJUSTMENT, & BLEEDING

Your brake cluster was centered to the spindled drum before it was tightened to ensure proper operation. When replacing or installing new brake clusters, first finger tighten the bolts mounting the brake flange cluster so it can still float, then install the hub and drum assembly and adjust the brake shoes tight to the drum to center the cluster to the drum. Then, tighten the nuts to hold the cluster in place. Now remove the drum to allow access to the boltheads to hold and torque the nuts to 75 ft pounds. Then reinstall the hub.

WARNING

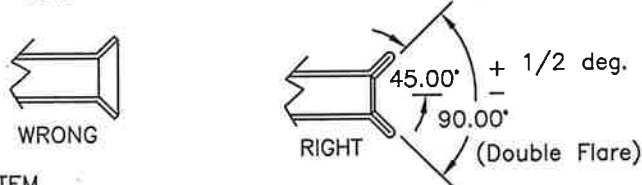
Saltwater, granular fertilizer and other corrosive materials are destructive to metal. To prolong the life of a braking system used under corrosive conditions we recommend that the actuator be flushed periodically with a high pressure water hose. Be sure to regrease bearings and oil all moving parts after the unit has dried. For "end of season" storage remove the brake drums and clean inside the brakes. Pack the wheel bearings before the drums are reinstalled.

1 INITIAL BRAKE CLUSTER SETUP & ADJUSTMENT

The brake adjustment nut is located through the slot at the bottom of the backing plate. Insert brake tool or screw driver into slotted hole with the handle up and a bit against the adjusting nut, pull down on handle and rotate the wheel tightening the nut. ALWAYS ROTATE WHEEL IN DIRECTION OF FORWARD ROTATION ONLY! When you can no longer rotate wheel, back off the tightener 33 clicks to obtain a desired gap of .030 inches between the brake shoe and the brake drum. AT ALL TIMES during the setup and adjustment the drum needs to be rotated in the forward direction of travel because Ag Systems uses free-backing type brake clusters. Check that the brakes function properly when applied and that when released, the brakes do not drag. ONLY A CERTIFIED PROFESSIONAL MECHANIC SHOULD INSTALL BRAKE CLUSTERS.

2 BRAKE LINES

Use care in forming tubing to avoid sharp bends or kinks. Use double flare steel tubing to assure leakproof connections. THIS MUST BE DONE BY A CERTIFIED BRAKE SHOP!



3 BLEEDING THE SYSTEM

The first requirement for safe, sure hydraulic braking is the use of quality brake fluid. Use only DOT-3 or DOT-4 brake fluid from a sealed container. If pressure bleeding equipment is available, follow the manufacturer's instructions for bleeding the system. IF SYSTEM MUST BE BLED MANUALLY, PROCEED AS FOLLOWS.

Fill master cylinder with fluid. Install the bleeder hose on the first wheel cylinder to be bled. (If tandem axle trailer, bleed rear axle first.) Have the loose end of the hose submerged in brake fluid in a glass container to observe bubbling.

By loosening the bleeder screw located in the wheel cylinder one turn, the system is open to the atmosphere through the passage drilled in the screw.

Pump the actuator with long steady strokes. The bleeding operation is completed when bubbles no longer rise to the surface of the fluid.

BE SURE TO CLOSE THE BLEEDER SCREW SECURELY.

Repeat bleeding operation at each wheel cylinder. During bleeding process, replenish the brake fluid so the level does not fall below the half full level in the master cylinder reservoir. After bleeding is completed, make sure the master cylinder reservoir is filled and the filler cap is securely in place. After the bleeding operation is completed, apply pressure to the system and check the entire brake system for leaks.

4 ADJUSTING THE BRAKES (AFTER BLEEDING BRAKES)

On new spreaders or tandems with brakes, trip the emergency brake and check and adjust shoes accordingly to be free and that they hold properly when activated.

(See initial brake cluster & adjustment section above for setup information.)

Check that brakes function properly when applied and that when released, the brakes are releasing properly and do not significantly drag.

WARNING !

FAILURE TO FOLLOW THESE INSTRUCTIONS, OR FAILURE TO PROPERLY MAINTAIN BRAKES AFTER INSTALLATION CAN RESULT IN LOSS OF BRAKING ACTION WHICH CAN CAUSE PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE. ONLY A CERTIFIED PROFESSIONAL MECHANIC SHOULD INSTALL BRAKE CLUSTERS. HAVE YOUR BRAKES INSPECTED BY A CERTIFIED PROFESSIONAL MECHANIC AND ANNUALLY AFTER INSTALLATION.



WARNING DEMCO MODEL DA20 BRAKE ACTUATOR To Prevent Serious Injury Or Death:

- Review all of the following instructions before installation and use of hydraulic brake actuator.
- Dealers or Distributors must review these instructions with ultimate user.
- Failure to follow these instructions, or failure to properly maintain braking system after installation, can result in loss of braking action which could cause severe property damage, personal injury or death.



WARNING

To avoid personal injury or death, do not exceed lowest of (1) the rated capacity of Model DA20 actuator, or (2) rated capacity of ball and hitch being used, or (3) trailer's Gross Vehicle Weight Rating (GVWR).

Model DA20 brake actuator has a maximum load rating of 20,000 lbs. GVWR and 2000 lbs. tongue load.



CAUTION Do not weld on the outer case without disassembling actuator, damage to inner slider tube will occur.

INSTALLATION

Model DA20 is completely assembled and ready to bolt into place.

1. DA20 actuator comes with various mounting channels available.
2. Connect and tighten all brake lines.
3. Fill master cylinder (#18) with DOT 3 or 4 brake fluid.
4. Bleed brake system using a pressure-type brake bleeder or manually, as follows:
 - a. Remove two 5/16" hex head bolts (#13) and lock washers (#12) that hold lever guide (#23) and flat emergency lever spring (#11). Remove lever guide and emergency lever spring. Using short strokes, pull forward on emergency lever (#16), pumping master cylinder until brake fluid within master cylinder stops bubbling.
 - b. Attach a bleeder hose to bleeder valve on one of the wheels and submerge other end of hose into a transparent container partially filled with brake fluid. Loosen bleeder valve one turn and, watching hose in transparent container, use emergency lever to pump master cylinder as long as air bubbles continue to leave the hose. When bubbles stop, close bleeder valve, move to next wheel, and repeat process until all brakes have been bled. (Note: Check fluid level in master cylinder frequently while bleeding brakes (every 4 or 5 strokes). Refill as necessary to keep level above half full.)

5. Once bleeding is completed, refill master cylinder and attach cap (#21) securely. Replace emergency lever spring, lever guide, lock washers and 5/16" hex head bolts.
6. Test brakes by pulling emergency lever (#16) forward until it locks into its second notch position. (Lever should be approximately straight up.) Attempt to rotate wheels in a forward direction. If any wheels rotate, brakes must be adjusted. To adjust brakes, release emergency lever from locked position, set each wheels brake adjustment up 2 or 3 notches (per instructions in appropriate brake cluster manual). Repeat test procedure as necessary.

MAINTENANCE

1. Frequently check brake fluid level. (Fluid must be approved, clean and uncontaminated.)
2. Make sure actuator mounting bolts are secure.
3. Inspect actuator, replace bent, worn or damaged parts.
4. Be constantly aware of systems braking quality, make periodic checks as described in brakes owners manual. Consult certified brake specialist to make necessary adjustments or repairs. Failure to do so could result in loss of braking.

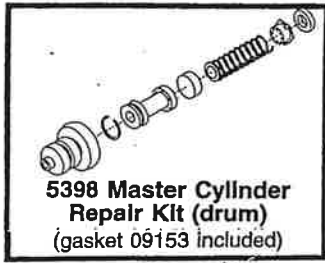
SERVICING THE EMERGENCY LEVER

If emergency lever (#16) of actuator is applied, it can be disengaged by using a screwdriver to lift upward on front of flat emergency lever spring (#11) while pulling lever forward until released. A thorough inspection of emergency lever, emergency lever spring, and cable with S-hooks is required. Damaged parts must be replaced as follows:

- a. Remove Cable S-hook (#22) from emergency lever (#16), emergency lever guide (#23) and flat emergency lever spring (#11), then pull lever out of actuator outer case (#7) through cross-slot in top.
- b. Install new emergency lever through cross-slot in top of outer case. Attach new emergency lever spring and emergency lever guide.
- c. Insert S-hook on emergency cable (#22) into hole in emergency lever (#16) and squeeze shut.
- d. Add adequate brake fluid to master cylinder and bleed brake system per instructions 4-6 in installation section.

DEMCO MODEL DA20 ACTUATOR PARTS BREAKDOWN

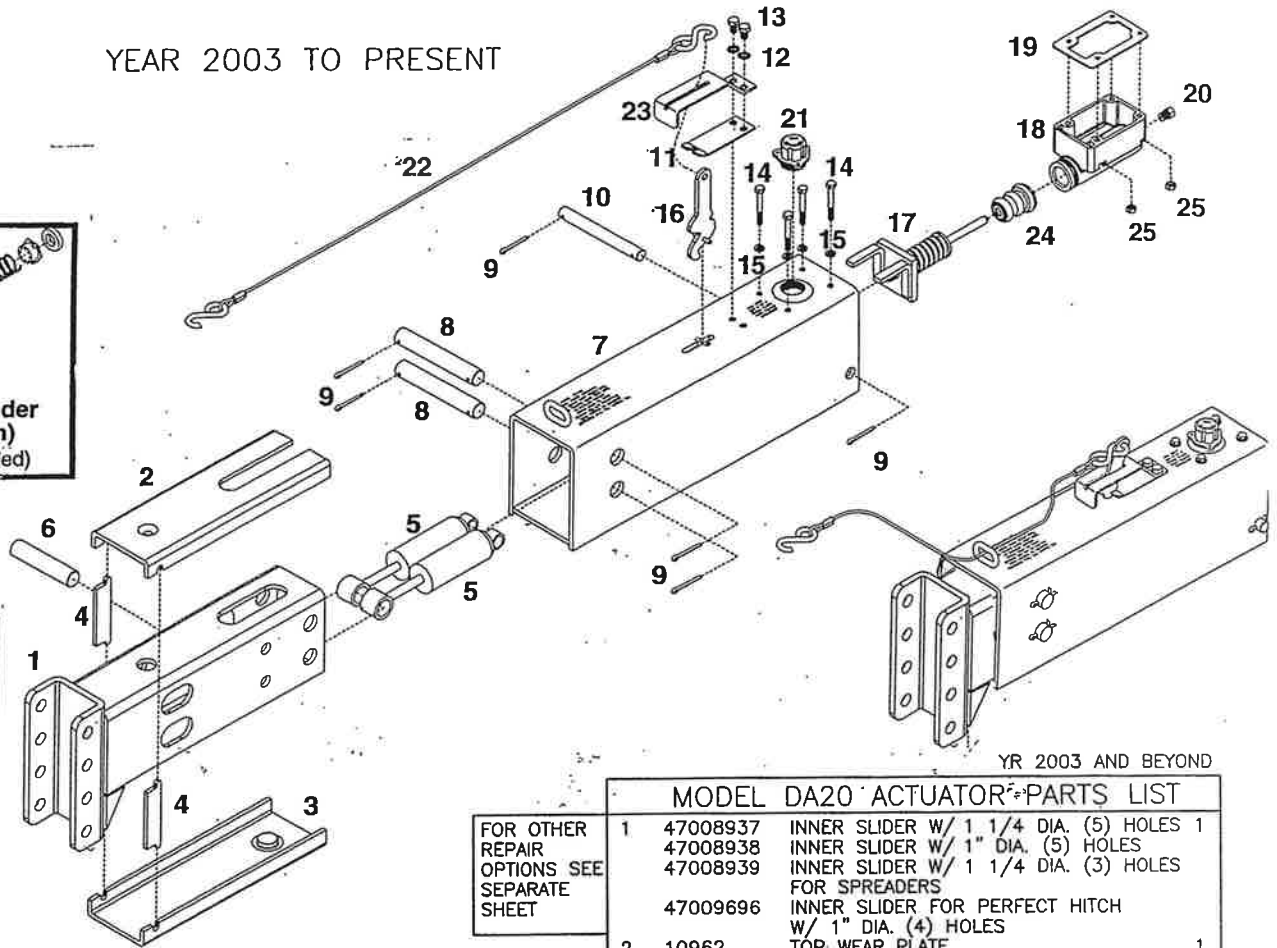
YEAR 2003 TO PRESENT



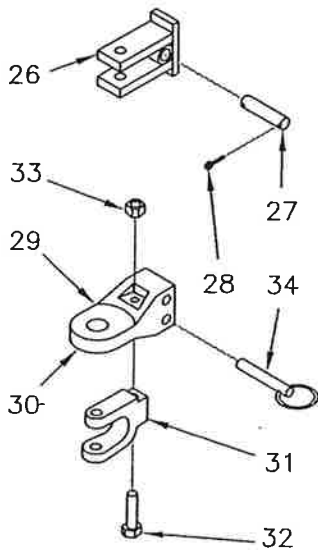
5398 Master Cylinder Repair Kit (drum)
(gasket 09153 included)



5650 Master Cyl. Replacement Kit (drum)
(gasket 09153 and fasteners included)



YR 2003 AND BEYOND



MODEL DA20 ACTUATOR PARTS LIST				
FOR OTHER REPAIR OPTIONS SEE SEPARATE SHEET	1	47008937	INNER SLIDER W/ 1 1/4 DIA. (5) HOLES	1
		47008938	INNER SLIDER W/ 1" DIA. (5) HOLES	1
		47008939	INNER SLIDER W/ 1 1/4 DIA. (3) HOLES FOR SPREADERS	1
		47009696	INNER SLIDER FOR PERFECT HITCH W/ 1" DIA. (4) HOLES	1
	2	10962	TOP WEAR PLATE	1
	3	10963	BOTTOM WEAR PLATE	1
ABOVE PARTS ARE NOT INTERCHANGABLE W/PRE-2003 UNITS				
	4	10964	SPACER BLOCK	2
	5	SB12426	DAMPER SHOCK	2
	6	03409	FRONT SHOCK PIN	1
	7	03412-97	OUTER CASE	1
	8	03411	CONNECTION PIN	2
	9	18560724	COTTER PIN, 5/32 X 1 1/4	6
	10	03410	REAR SHOCK PIN	1
	11	05693	EMERGENCY LEVER SPRING	1
	12		EXTERNAL TOOTH L'WASHER, 5/16	2
	13	18056416	BOLT, HEX. HD. 5/16-18UNC. X 5/8	2
	14	18055730	BOLT, HEX. HD. 1/4-20UNC. X 2	4
	15	18891000	LOCKWASHER, 1/4	4
	16	05951	EMERGENCY LEVER	1
	17	03534	PUSH ROD ASSEMBLY	1
	18	10616	MASTER CYLINDER, (COMPOSITE MATERIAL)	1
	19	09153	GASKET, (MASTER CYLINDER)	1
	20	SB12098	INVERTED FLARE FTG., 1/8 PIPE THD	1
	21	03876	MASTER CYLINDER CAP W/ O-RING	1
		05849	O-RING, (REPLACEMENT)	1
	22	05408	CABLE WITH HOOKS	1
		SB10555	"S" HOOK, (REPLACEMENT)	1
	23	03866	LEVER GUIDE	1
	24	05687	PROTECTIVE BOOT, MASTER CYLINDER	1
	25	18435700	HEX. NUT, 1/4-20UNC.	4
REPAIR KITS AVAILABLE				
	5401		LEVER KIT, INCL. ITEMS 11,16, & 22	1
	5650		MASTER CYL. REPLACEMENT KIT	1
			INCLUDES ITEMS 14 & 25	1
	5398		MASTER CYLINDER REPAIR KIT W/GASKET	1
			INCLUDES ITEMS 19 & 24	1
	26	47009285	HITCH ASSEMBLY, FOR 1" PIN	OR
		47009523	HITCH ASSEMBLY, FOR 1 1/4" PIN	OR
	27	47001319	HITCH PIN, 1" X 5 5/8	1
		47001676	HITCH PIN, 1 1/4 X 5 1/4	OR
		18561026	COTTER PIN, 1/4 X 1 1/2	2
		18561030	COTTER PIN, 1/4 X 2	OR
	29	Pi-301V3C	PERFECT HITCH ASSEMBLY	1
			INCLUDES ITEMS 29 TO 33	1
	30	PPi-301V3	PERFECT HITCH	1
	31	PPi-206VR	PERFECT CLEVIS, 1" ROUND HOLE	1
		PPi-208VR	PERFECT CLEVIS, 1 1/4 OBOUND HOLE OPT.	1
	32	18058452	BOLT, 3/4-10NC. X 5, GR. 8	1
	33	18458452	LOCKNUT, 3/4-10NC. GR. 8	1
	34	600182	HITCH PIN, 1 X 6	2

ACTUATRLSTC

SERVICING THE EMERGENCY LEVER

If emergency lever (#15) of actuator is applied, it can be disengaged by using a screwdriver to lift upward on front of flat emergency lever spring (#14) while pulling lever forward until released. A thorough inspection of emergency lever, emergency lever spring, and cable with S-hooks is required. Damaged parts must be replaced as follows:

- A. Remove Cable S-hook (#11) from emergency lever (#15), emergency lever guide (#9) and flat emergency lever spring (#14), then pull lever out of actuator outer case (#7) through cross-slot in top.
- B. Install new emergency lever through cross-slot in top of outer case. Attach new emergency lever spring and emergency lever guide.
- C. Insert S-hook on emergency cable (#11) into hole in emergency lever (#15) and squeeze shut.
- D. Add adequate brake fluid to master cylinder and bleed brake system per instructions 4-6 in installation section.

Actuator Trouble Shooting Guide

Symptoms

Possible Solutions

Brakes Locking Up

Emergency lever partially pulled

Debris in master cylinder orifice
Debris/rust in master cylinder
Pinched brake line or hose
Brake cluster hanging up

Debris wedged in slide tube.

Release emergency lever.
(Lever must be in green zone).
(Emergency cable must have slack)
Clean/flush or replace orifice
Clean/flush or replace master cylinder
Replace brake line or hose.
Inspect wheel cylinder for rust and proper function
Check for broken springs
Check shoe adjustment (too tight)
Cluster mounting bracket bent
Check/clean slide tube area.

Master Cylinder Not Priming

Master cylinder lever will not pump fluid

Master cylinder orifice plugged
Brake fluid does not come out of orifice
Brake fluid does not come out of brake line
Air in brake lines

Slide tube must be completely extended
Check fluid level.
Clean/flush or replace master cylinder
Clean/flush or replace orifice
Inspect line/hoses for blockages.
Check all line connections for air leaks
Check fluid level and bleed brakes

Leaking Master Cylinder

Brake fluid leaking out of pushrod area
Brake fluid leaks out of gasket area

Brake fluid leaks out of gasket area

Brake fluid leaks around orifice

Repair or replace master cylinder.
Damaged gasket. Replace gasket.
Tighten master cylinder bolts in an alternating sequence.
Master cylinder tightened unevenly.
Replace gasket and tighten bolts alternating sequence.
Do not overfill master cylinder
Tighten orifice (do not over tighten)
When attaching brake line use 2 wrenches

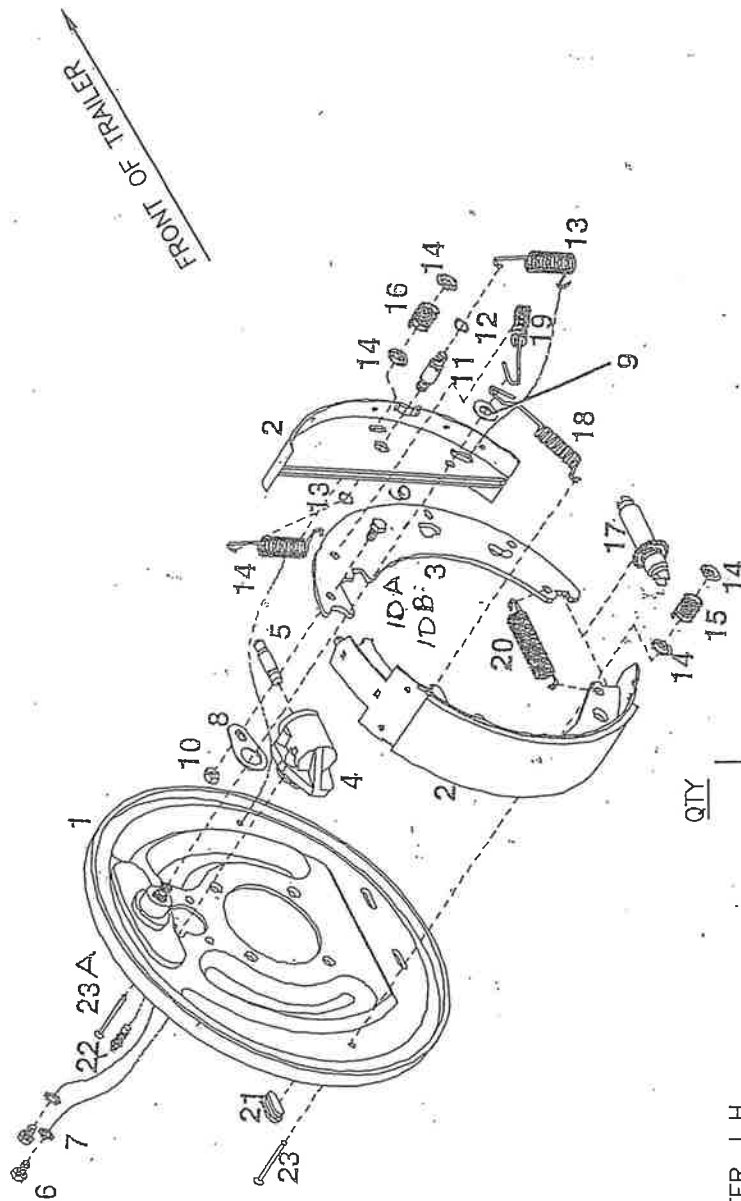
Brake Testing

Jack trailer wheels up off ground.
Spin wheel/wheels. Wheels should spin freely.
Pull emergency lever to first notch. Lever in first notch, wheels should drag. Lever in 2nd notch, should not turn wheels by hand. Release emergency lever.
Wheels should spin forward without resistance.

FREE BACKING BRAKE CLUSTER

BRKLT12

12 INCH DIAMETER (R.H. SHOWN)

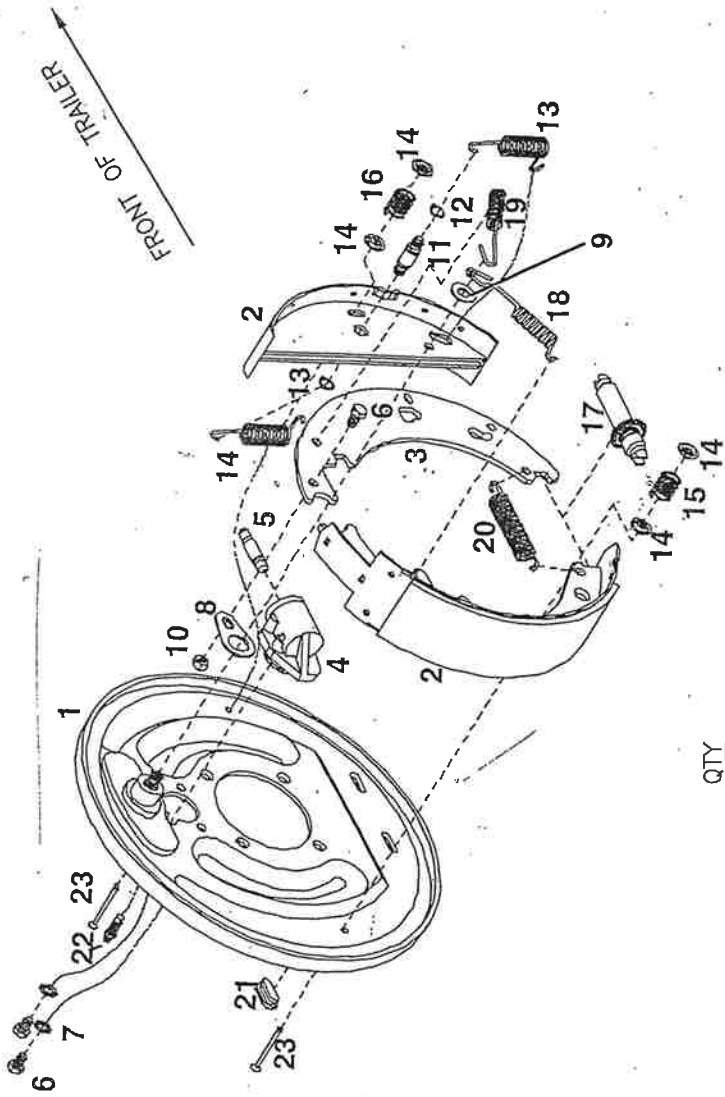


ITEM	PART NO.	DESCRIPTION	QTY
1	47005758	BRAKE CLUSTER, L.H.	1
2	47005757	BRAKE CLUSTER, R.H.	1
3	47005759	BRAKE DRUM (NOT SHOWN)	1
4	SB18496	BACK PLATE ASSEMBLY (W/PIVOT POST) SOLD AS COMPLETE CLUSTER ONLY	1
5	SB18498	BRAKE SHOE KIT, (2 FRONT & 2 REAR)	3
6	SB18502	SHOE LEVER	2
7	30582	WHEEL CYLINDER ASSEMBLY, L.H.	1
8	30581	WHEEL CYLINDER ASSEMBLY, R.H.	1
9	30587	PUSH ROD	1
10	18056416	BOLT, HEX. HD. 5/16-18UNC. X 5/8	3
11	18056416	EXTERNAL TOOTH WASHER, 5/16	2
12	SB17917	TRAVEL LINK	1
13	18811400	FLATWASHER, 1/2 USS, ZC.	1
14	18457600	LOCKNUT, 5/16-18UNC.	1
15	18055718	BOLT, HEX. HD. 1/4-20UNC. X 3/4	1
16	18055718	LOCKNUT, 1/4-20UNC.	1
17	30588	PIN, SPRING ANCHOR	1
18	30421	RETAINING RING	2
19	30420	SPRING, SHOE RETURN	2
20	30590	CUP, SHOE HOLD DOWN	4
21	30601	SPRING, SHOE HOLD DOWN - BLUE	1
22	30591	SPRING, SHOE HOLD DOWN - MAROON	1
23	SB42159	ADJUSTING SCREW ASSEMBLY	1
23A	30595	SPRING, SHOE	1
24	30596	SPRING LEVER	1
25	30597	SPRING, ADJUSTING SCREW	1
26	SB9254	COVER GROMMET, ADJUSTING HOLE	2
27	30580	BLEEDER	1
28	SB18505	PIN, SHOE HOLD DOWN - # 4	1
29	03562	PIN, SHOE HOLD DOWN - # 1	1
30	94005	WHEEL CYLINDER REPAIR KIT	1
31		INCLUDES (1 EACH) SPRING, CUP AND BOOT	2

FREE BACKING BRAKE CLUSTER

BRK13

13 INCH DIAMETER (R.H. SHOWN)

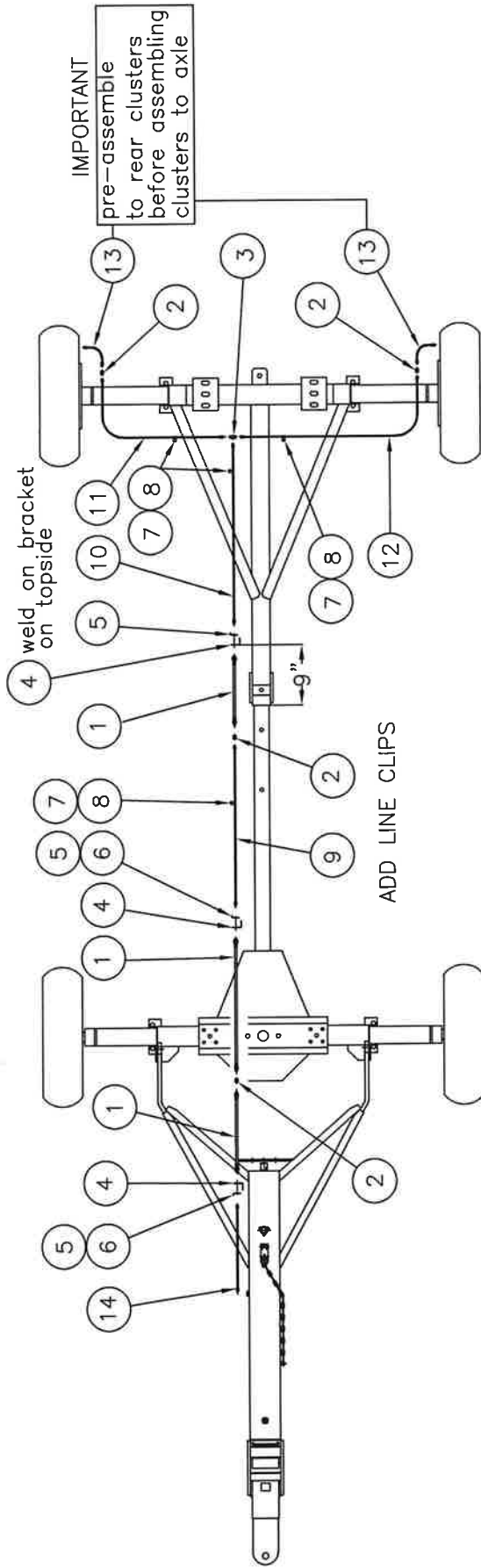


ITEM	PART NO.	DESCRIPTION	QTY
1	47005652	BRAKE CLUSTER, L.H.	1
	47005651	BRAKE CLUSTER, R.H.	1
	47005650	BRAKE DRUM (NOT SHOWN)	1
	30578	BACK PLATE ASSEMBLY (W/PIVOT POST) SOLD AS COMPLETE CLUSTER ONLY	1
2	03184	BRAKE SHOE, (BACK)	1
2A	03183	BRAKE SHOE, (FRONT)	1
3	30594	SHOE LEVER	1
4	30582	WHEEL CYLINDER ASSEMBLY, L.H.	1
	30581	WHEEL CYLINDER ASSEMBLY, R.H.	1
5	30587	PUSH ROD	1
6	18056416	BOLT, HEX. HD. 5/16-18UNC. X 5/8	3
7		EXTERNAL TOOTH WASHER, 5/16	2
8	30593	TRAVEL LINK	1
9	18811400	FLATWASHER, 1/2 USS, ZC.	1
10	18457600	LOCKNUT, 5/16-18UNC.	1
11	30588	PIN, SPRING ANCHOR	1
12	30421	RETAINING RING	1
13	30420	SPRING, SHOE RETURN	2
14	30590	CUP, SHOE HOLD DOWN	4

ITEM	PART NO.	DESCRIPTION	QTY
15	30601	SPRING, SHOE HOLD DOWN - BLUE	1
16	30591	SPRING, SHOE HOLD DOWN - MAROON	1
17	30598	ADJUSTING SCREW BOLT	1
18	30599	ADJUSTING SCREW NUT	1
19	30595	SPRING, SHOE	1
20	30596	SPRING LEVER	1
21	30597	SPRING, ADJUSTING SCREW	1
22	92455	COVER GROMMET, ADJUSTING HOLE	2
23	30580	BLEEDER	1
	30589	PIN, SHOE HOLD DOWN - # 6	2
	94005	WHEEL CYLINDER REPAIR KIT	1
		INCLUDES (1 EACH) SPRING, CUP AND BOOT	2

AG82 & AG103 WAGON 2-WHEEL BRAKES

BRAKE LINE SCHEMATIC ILLUSTRATION

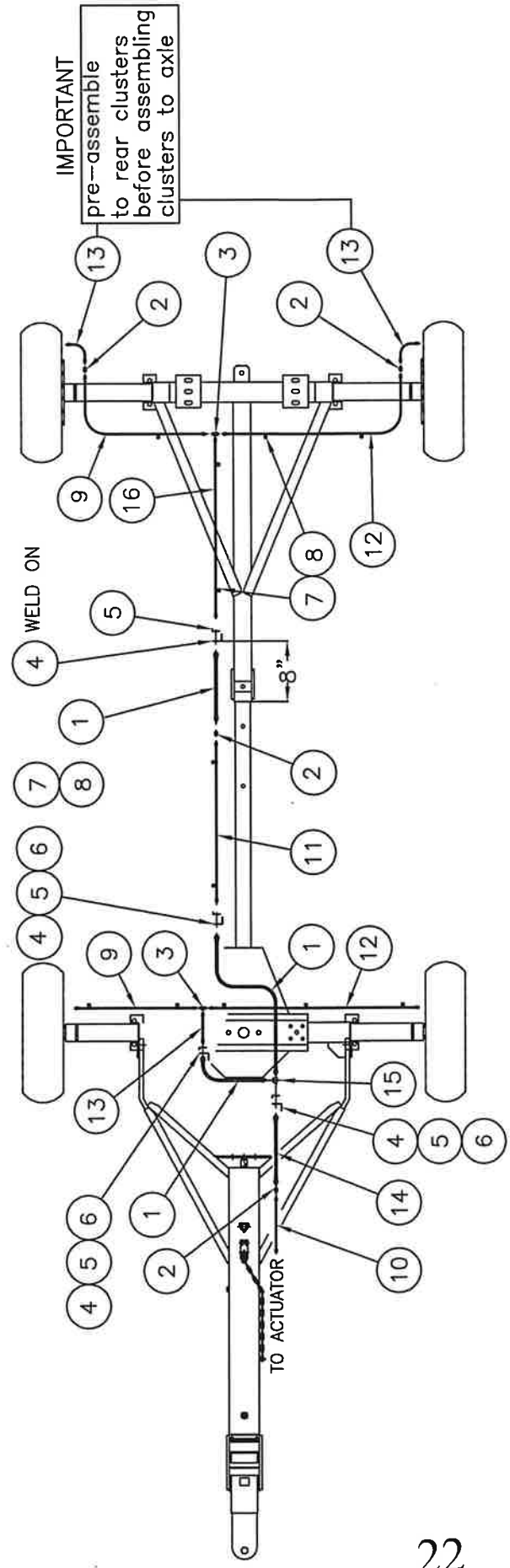


P/N: 47005801A ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)

ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1	COMPLETE 2 WHL BRAKE PKG	3	9	TUBE, BRAKE LINE, (60")	1
2	BRAKE HOSE, 18 INCH	4	10	TUBE, BRAKE LINE, (51")	1
3	UNION	1	11	TUBE, BRAKE LINE, (30")	1
4	UNION TEE	3	12	TUBE, BRAKE LINE, (40")	2
5	HOSE BRACKET	3	13	TUBE, BRAKE LINE, (4")	1
6	HOSE CLIP	2	14	TUBE, BRAKE LINE, (12")	1
7	SCREW, 1/4 X 3/4 SELF-TAP	6	FOR SHIPPING ADD THE FOLLOWING HARDWARE		
8	LINE CLIP	6	BOLT, 5/8-11NC. X 1 1/2 4		
	SCREW, #10 X 3/4 SELF-TAP	6	LOCKWASHER, 5/8 4		
			HEX. NUT, 5/8-11NC. 4		
			HITCH PIN, 3/4 X 4 1/4 1		

AG82 & AG103 WAGON 4-WHEEL BRAKES

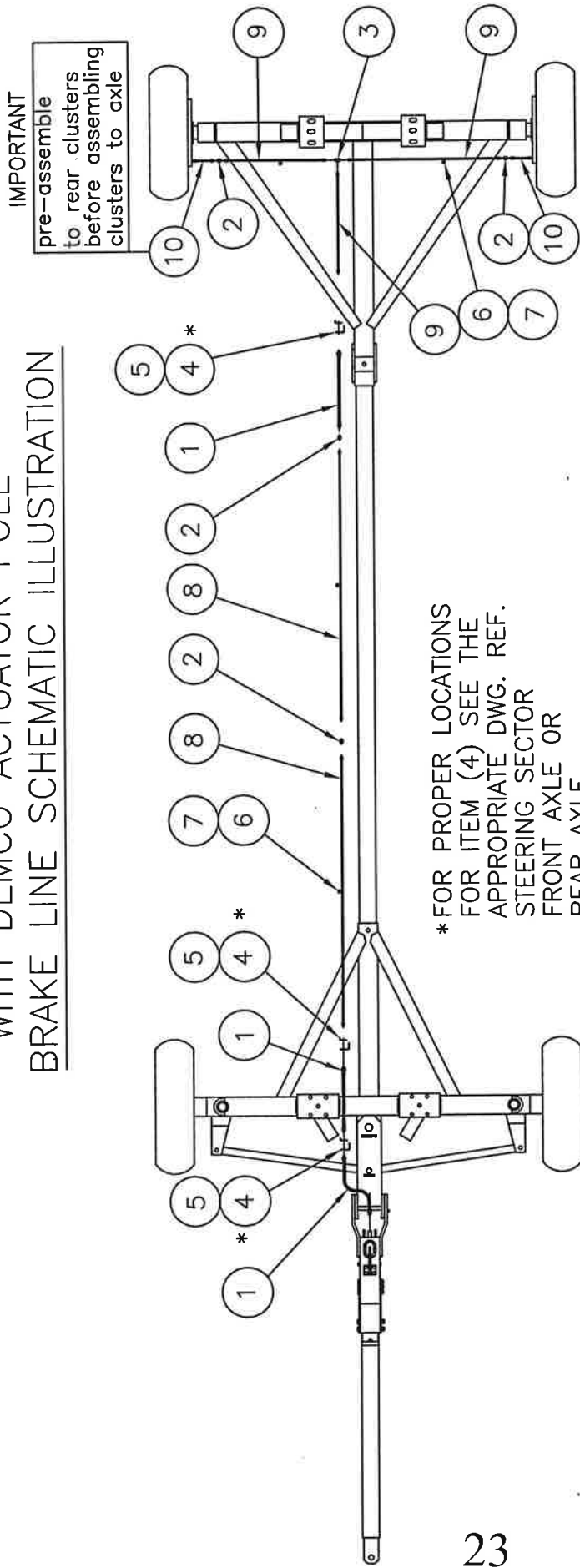
BRAKE LINE SCHEMATIC ILLUSTRATION



ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1	COMPLETE 4 WHL BRAKE PACKAGE	3	9	TUBE, BRAKE LINE, (30")	2
2	BRAKE HOSE, 18 INCH	4	10	TUBE, BRAKE LINE, (12")	1
3	UNION	2	11	TUBE, BRAKE LINE, (60")	1
4	UNION TEE	4	12	TUBE, BRAKE LINE, (40")	2
5	HOSE BRACKET	4	13	TUBE, BRAKE LINE, (4")	3
6	HOSE CLIP	4	14	BRAKE HOSE, 25 INCH	1
7	SCREW, 1/4 X 3/4 SELF-TAP	3	15	TEE, FM X FM X MALE	1
8	LINE CLIP	12	16	TUBE, BRAKE LINE, (51")	1
	SCREW, #10 X 3/4 SELF-TAP	12			

FOR SHIPPING ADD THE FOLLOWING HARDWARE
 BOLT, 5/8-11NC. X 1 1/2 4
 LOCKWASHER, 5/8 4
 HEX. NUT, 5/8-11NC. 4
 HITCH PIN, 3/4 X 4 1/4 1

AG104 WAGON 2-WHEEL BRAKES
WITH DEMCO ACTUATOR POLE
BRAKE LINE SCHEMATIC ILLUSTRATION

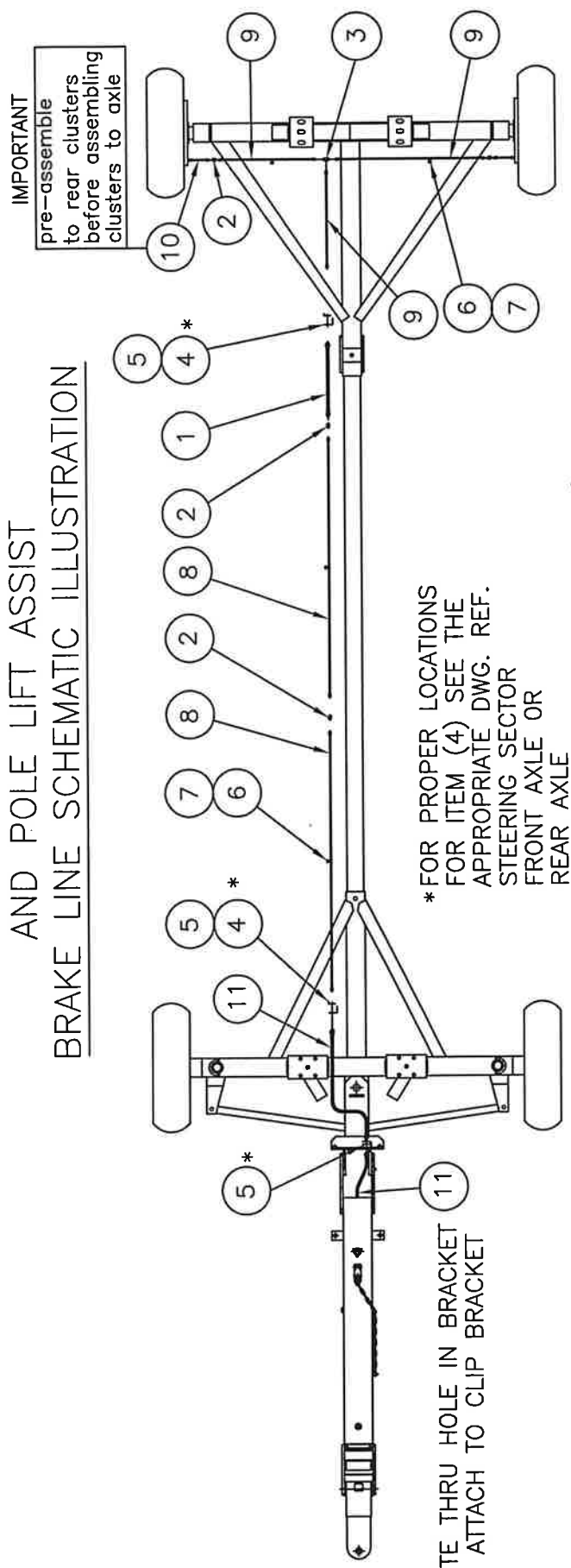


* FOR PROPER LOCATIONS
FOR ITEM (4) SEE THE
APPROPRIATE DWG. REF.
STEERING SECTOR
FRONT AXLE OR
REAR AXLE

IMPORTANT
pre-assemble
to rear clusters
before assembling
clusters to axle

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47999179	COMPLETE BRAKE PKG (ITEMS 1-10)	3	6	47005666	LINE CLIP	4
2	47005665	BRAKE HOSE, 18 INCH	4	7	18721018	SCREW, #10 X 3/4 SELF-TAP	4
3	47005660	UNION	1	8	47005695	TUBE, BRAKE LINE, (51")	2
4	47005685	UNION TEE	3	9	47005694	TUBE, BRAKE LINE, (40")	3
5	47005664	HOSE BRACKET (ITEM 4 IS WELDED TO FRAME)	3	10	47005682	TUBE, BRAKE LINE (4")	2

AG104 WAGON 2-WHEEL BRAKES
WITH DEMCO TELESCOPING ACTUATOR POLE
AND POLE LIFT ASSIST
BRAKE LINE SCHEMATIC ILLUSTRATION

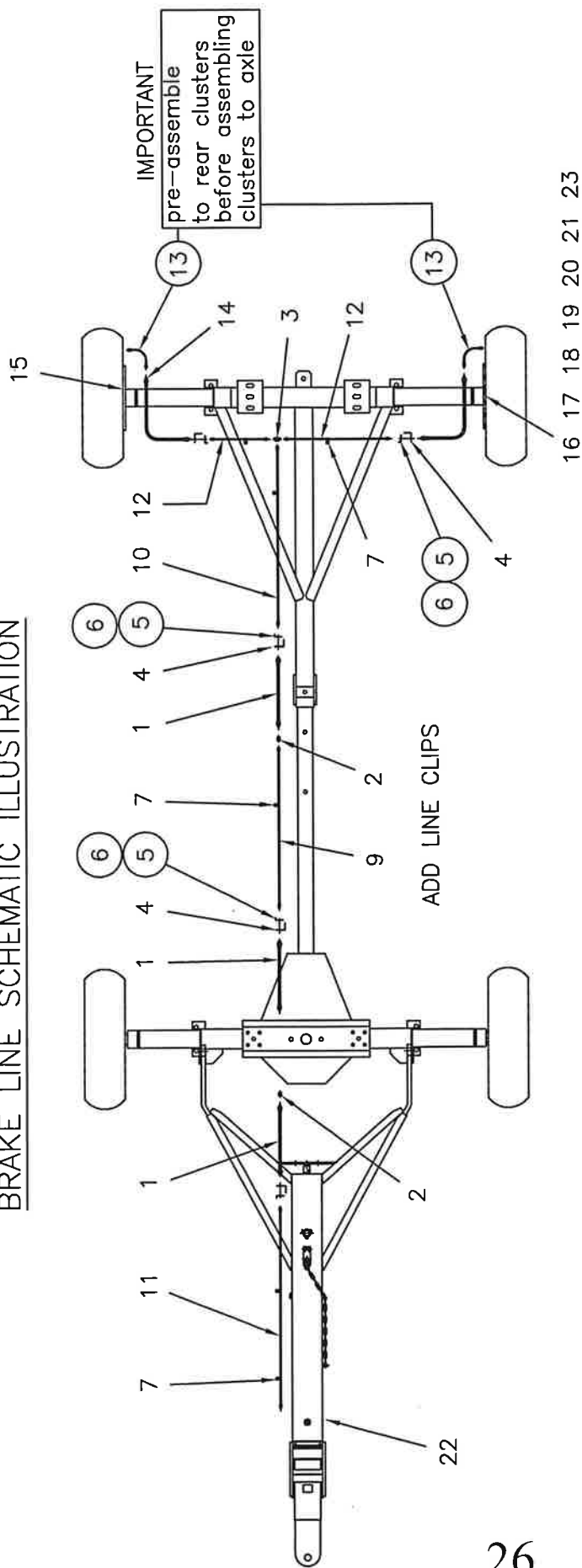


*FOR PROPER LOCATIONS
FOR ITEM (4) SEE THE
APPROPRIATE DWG. REF.
STEERING SECTOR
FRONT AXLE OR
REAR AXLE

ROUTE THRU HOLE IN BRACKET
AND ATTACH TO CLIP BRACKET

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	47999913	COMPLETE BRAKE PKG (ITEMS 1 - 11)	1	6	47005666	LINE CLIP	4
2	47005665	BRAKE HOSE, 18 INCH	1	7	18721018	SCREW, #10 X 3/4 SELF-TAP	4
3	47005660	UNION	4	8	47005695	TUBE, BRAKE LINE, (51")	2
4	47005685	UNION TEE	1	9	47005694	TUBE, BRAKE LINE, (40")	3
	47005663	HOSE BRACKET (ITEM 4 IS WELDED TO FRAME)	2	10	47005682	TUBE, BRAKE LINE, (4")	2
5	47005664	HOSE CLIP	3	11	47005667	BRAKE HOSE (25")	2

AG106 ADD-ON 2 WHEEL BRAKES KIT
(TO ADD BRAKES TO UNITS WITHOUT BRAKE FLANGES)
BRAKE LINE SCHEMATIC ILLUSTRATION



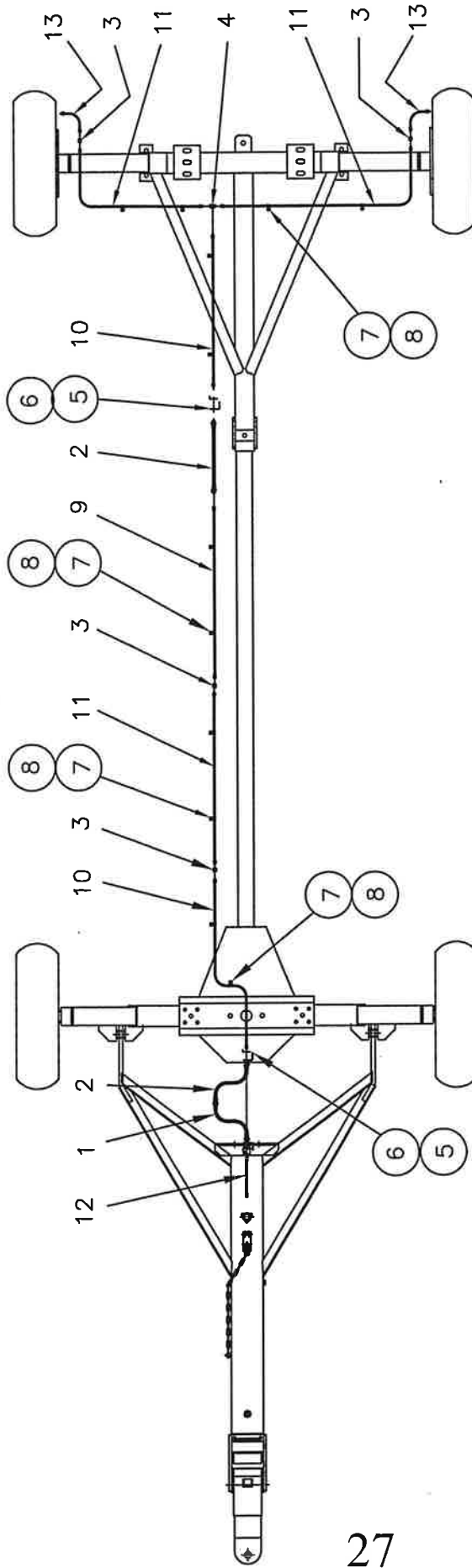
ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1	47005804 RETRO BRAKE PACKAGE COMPLETE	3	12	47005691 TUBE, BRAKE LINE, (16")	1
2	47005665 BRAKE HOSE, 18 INCH	4	13	47005682 TUBE, BRAKE LINE, (4")	2
3	47005660 UNION TEE	1	14	47005667 BRAKE HOSE, 25 INCH	2
4	47005685 HOSE BRACKET	5	15	47005757 BRAKE CLUSTER (12") RH	1
5	47005663 HOSE CLIP	5	16	47005758 BRAKE CLUSTER (12") LH	1
6	18715718 SCREW, 1/4 X 3/4 SELF-TAP	5	17	47005759 BRAKE DRUM (12")	2
7	47005666 LINE CLIP	6	18	47009632 WHEEL HUB (FOR BRAKES)	2
8	18721018 SCREW, #10 X 3/4 SELF-TAP	6	19	18056820 BOLT, 3/8-24 NF X 1 ZC	10
9	47005688 TUBE, BRAKE LINE, (60")	1	20	18811200 LOCKWASHER, 3/8 ZC	10
10	47005695 TUBE, BRAKE LINE, (51")	1	21	18436700 HEXNUT, 3/8-24 NF ZC	10
11	47005690 TUBE, BRAKE LINE, (12")	1	22	40300004 POLE, SURGE (TELESCOPING ACTUATOR)	1
			23	47001336 BRAKE FLANGE	2

AG204 WAGON 2-WHEEL BRAKES
 BRAKE LINE SCHEMATIC ILLUSTRATION

AG204BK03SGL
 03-30-11

FOR SINGLE TANK WAGONS
 WITH TELESCOPING POLE

USE (2) LINE CLIPS
 FOR EACH TUBE



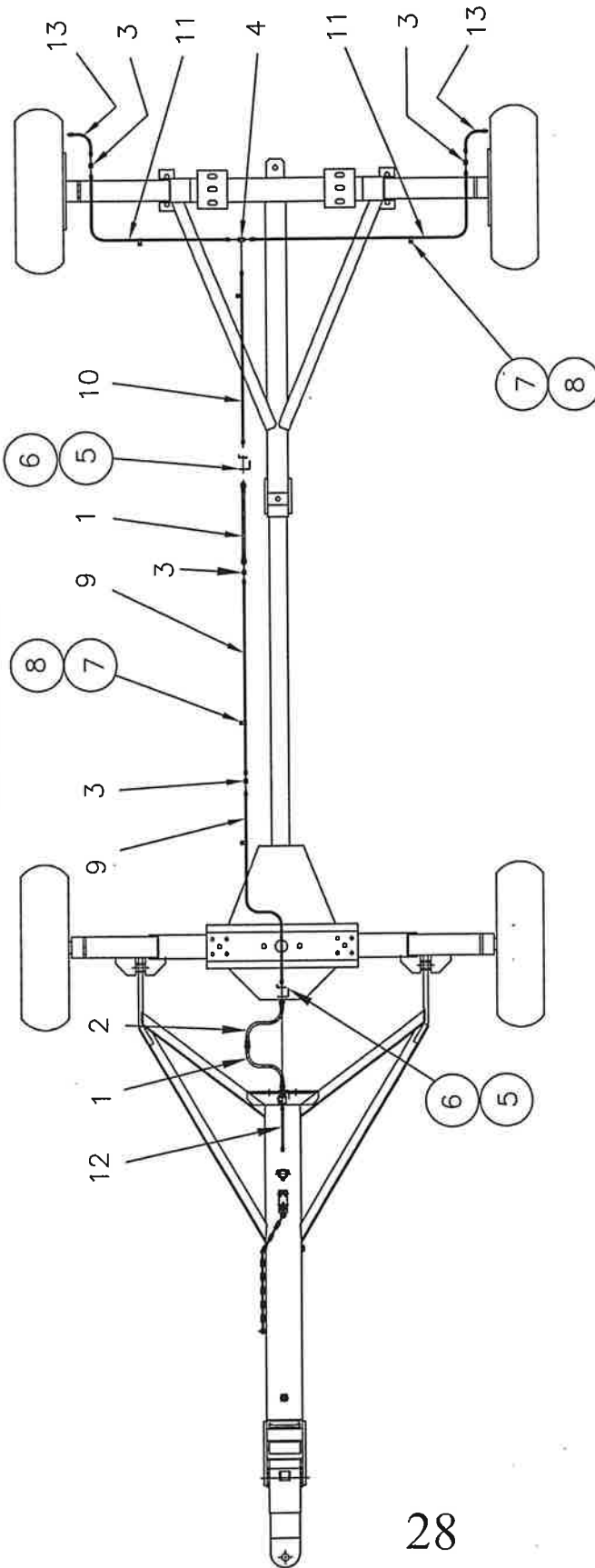
ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1	47005665	1	8	18721018	12
2	47005668	2	9	47005688	1
3	47005660	4	10	47005695	2
4	47005685	1	11	47005694	3
5	47005663	1	12	47005690	1
6	47005664	3	13	47005682	2
7	47005666	12			

AG204 WAGON 2-WHEEL BRAKES
BRAKE LINE SCHEMATIC ILLUSTRATION

AG204BK03DUL
 08-23-12

FOR DUAL TANK WAGONS
 WITH TELESCOPING POLE

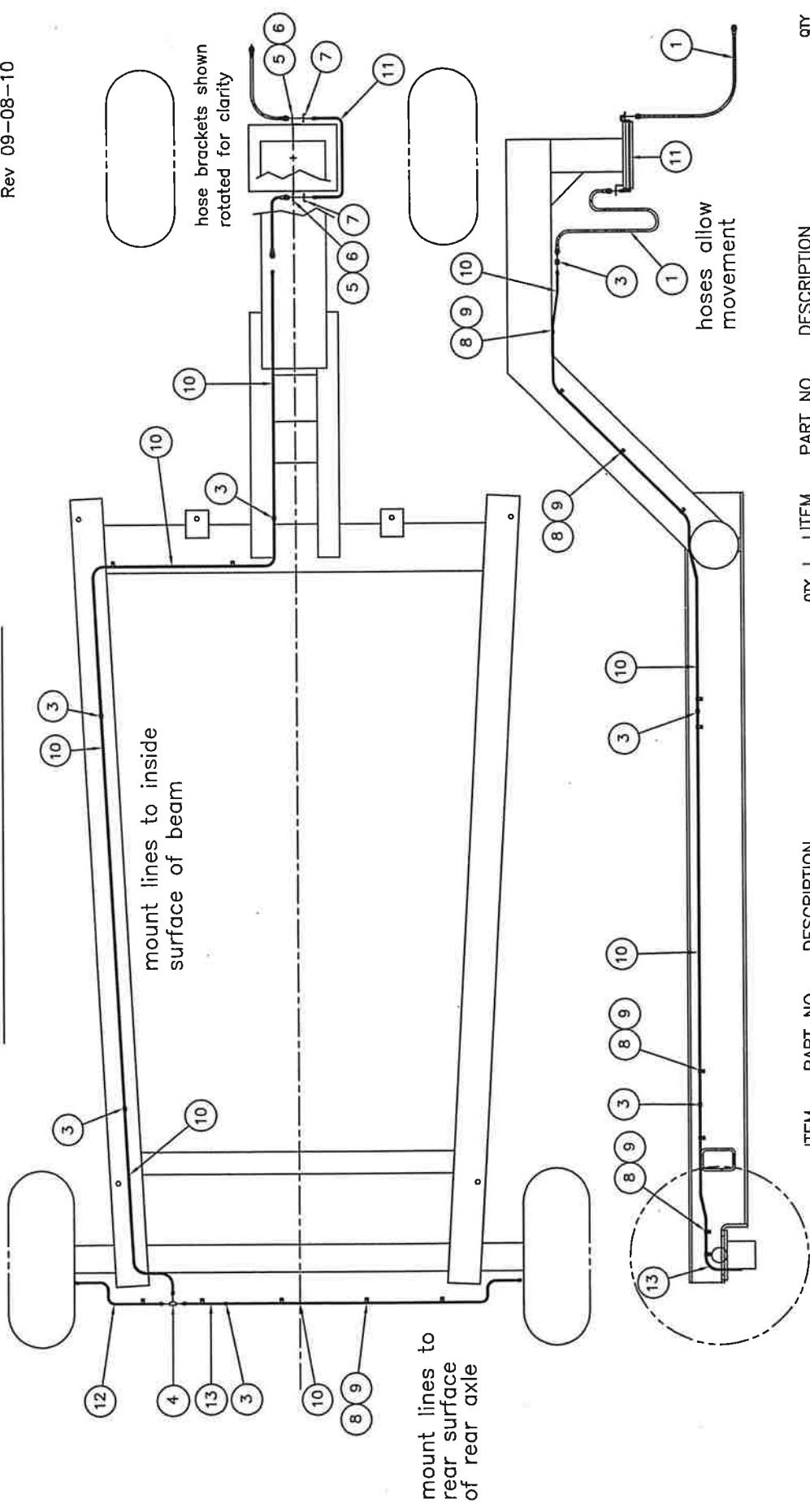
USE (2) LINE CLIPS
 FOR EACH TUBE



ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1	47005665		8	18721018	SCREW, #10 X 3/4 SELF-TAP
2	47005668	2	9	47005688	TUBE, BRAKE LINE, (60")
3	47005660	1	10	47005695	TUBE, BRAKE LINE, (51")
4	47005685	4	11	47005694	TUBE, BRAKE LINE, (40")
5	47005663	1	12	47005690	TUBE, BRAKE LINE, (12")
6	47005664	3	13	47005682	TUBE, BRAKE LINE, (4")
7	47005666	5		(ASSEMBLED ONTO REAR AXLE)	2

AG206 AMMONIA WAGON 2-WHEEL SURGE BRAKES
 BRAKE LINE SCHEMATIC ILLUSTRATION

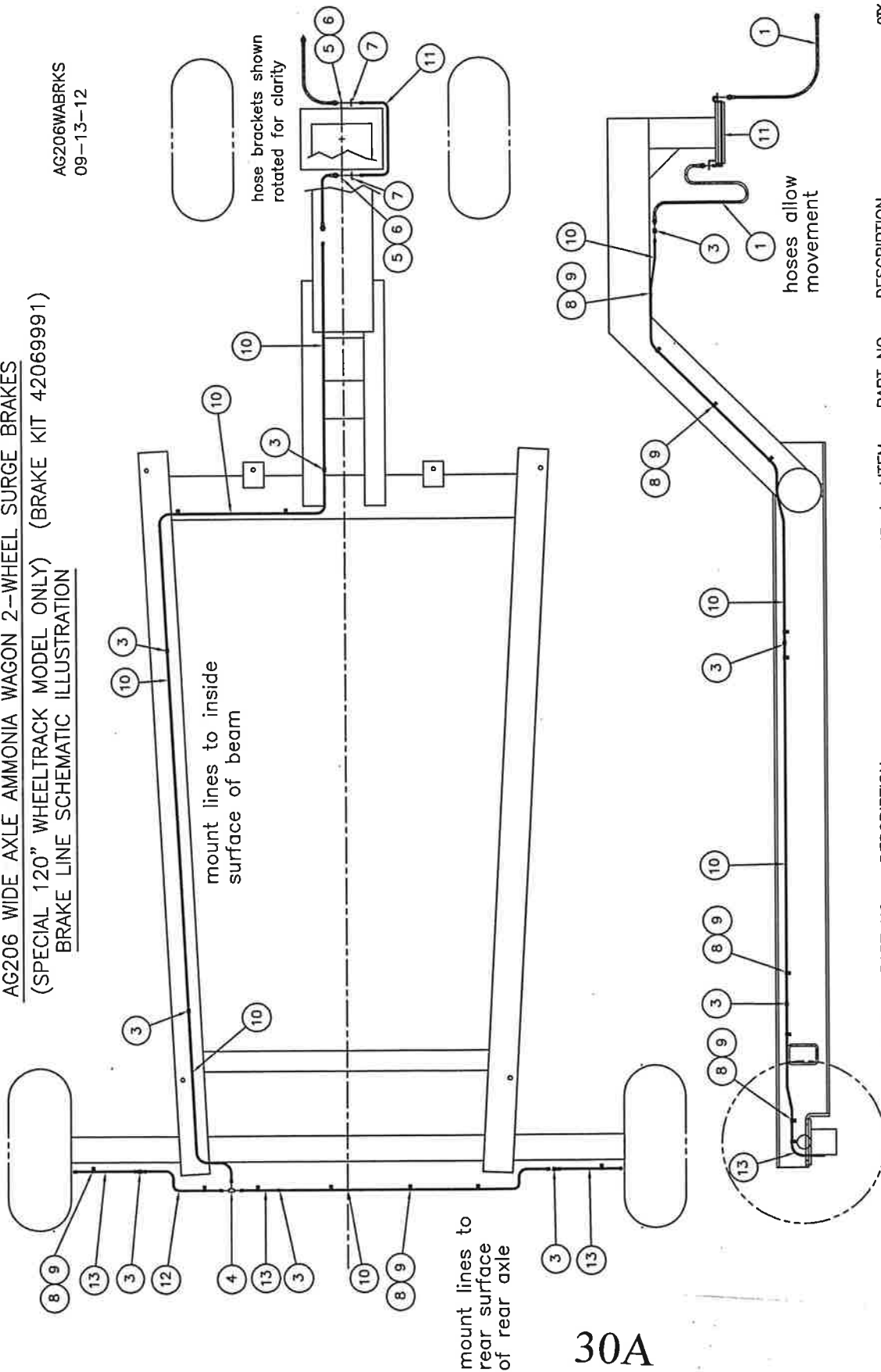
AG206BRKS
 Rev 09-08-10



ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	42068990	COMPLETE BRAKE LINE PACKAGE	2	10	47005688	TUBE, BRAKE LINE, (60")	5
2	47005667	BRAKE HOSE, 25 INCH	2	11	47005687	TUBE, BRAKE LINE, (30")	1
3	47005660	UNION	5	12	47005692	TUBE, BRAKE LINE, (20")	1
4	47005685	UNION TEE (3 PORT FEMALE)	1	13	47005690	TUBE, BRAKE LINE, (12")	1
5	47005663	HOSE BRACKET	2				
6							
7	47005664	HOSE CLIP (DEMCO)	2				
8	47005666	BRAKE LINE CLIP	17				
9	18721018	SCREW, #10 X 3/4, SELF-TAP USE 11/64 DRILL TO DRILL HOLES	17				

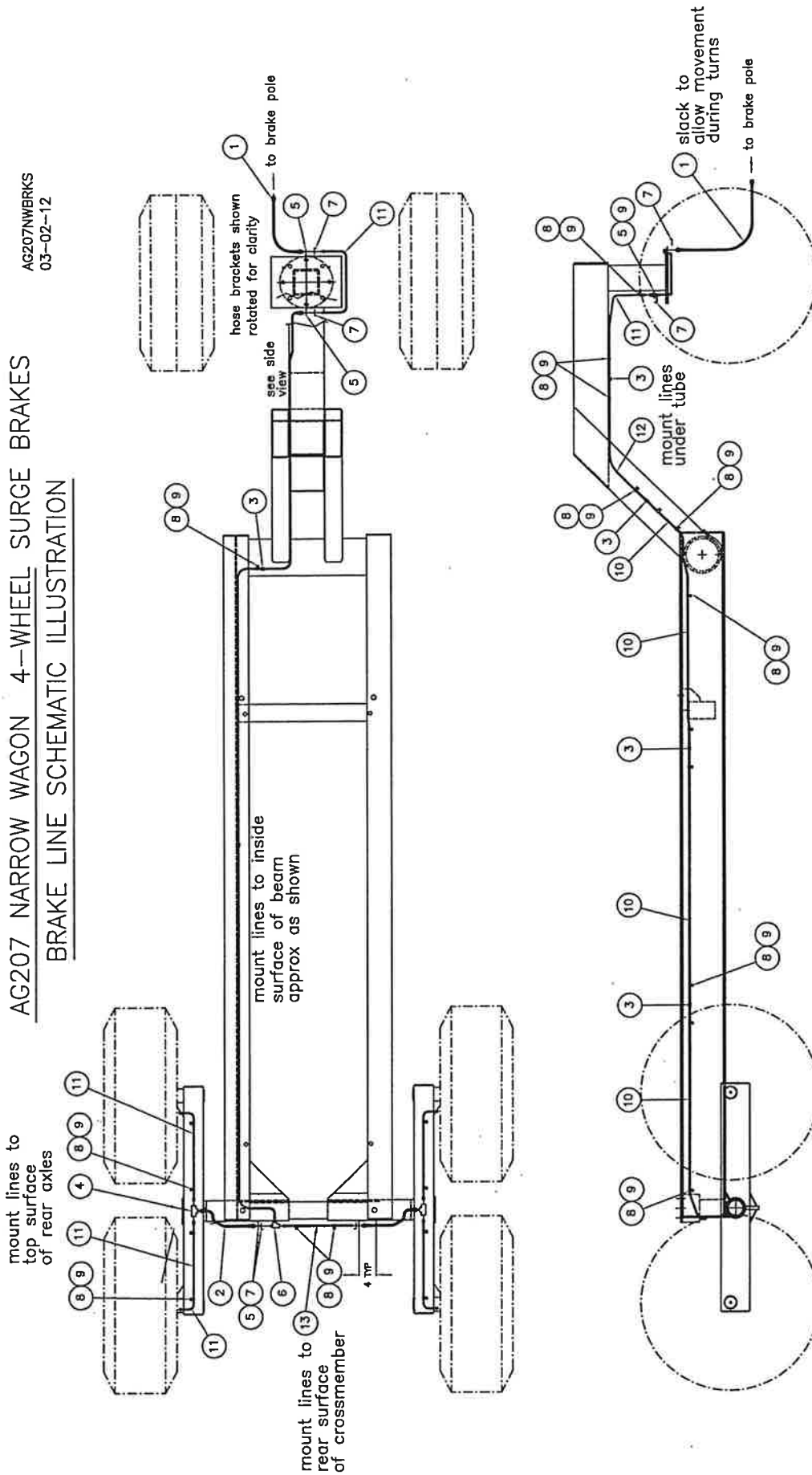
AG206 WIDE AXLE AMMONIA WAGON 2-WHEEL SURGE BRAKES
 (SPECIAL 120" WHEELTRACK MODEL ONLY) (BRAKE KIT 42069991)
 BRAKE LINE SCHEMATIC ILLUSTRATION

AG206WABRKS
 09-13-12



ITEM	QTY	PART NO.	DESCRIPTION	QTY
1	2	42069990	COMPLETE BRAKE LINE PACKAGE	5
2	7	47005667	BRAKE HOSE, 25 INCH	1
3	1	47005660	UNION	1
4	2	47005685	UNION TEE (3 PORT FEMALE)	1
5	2	47005663	HOSE BRACKET	3
6	2	47005664	HOSE CLIP (DEMCO)	
7	19	47005666	BRAKE LINE CLIP	
8	19	18721018	SCREW, #10 X 3/4 SELF-TAP	
9			USE 11/64 DRILL TO DRILL HOLES	
10		47005688	TUBE, BRAKE LINE, (60")	
11		47005687	TUBE, BRAKE LINE, (30")	
12		47005692	TUBE, BRAKE LINE, (20")	
13		47005690	TUBE, BRAKE LINE, (12")	

AG207 NARROW WAGON 4-WHEEL SURGE BRAKES
BRAKE LINE SCHEMATIC ILLUSTRATION



ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1	42079999A	COMPLETE BRAKE LINE PACKAGE (NARROW FRAME)	2	10	47005688	TUBE, BRAKE LINE, (60")	4
2	47005667	BRAKE HOSE, 25 INCH	2	11	47005687	TUBE, BRAKE LINE, (30")	5
3	47005665	BRAKE HOSE, 18 INCH	2	12	47005694	TUBE, BRAKE LINE, (40")	1
4	47005660	UNION, 3/16	5	13	47005692	TUBE, BRAKE LINE, (20")	1
5	47005685	UNION TEE (3 FEMALE PORTS)	2				
6	47005663	HOSE BRACKET	3				
7	47005680	TEE (1 PORT MALE & 2 PORTS FEMALE)	1				
8	47005664	HOSE CLIP (DEMCO)	4				
9	47005666	BRAKE LINE CLIP	22				
	18721018	SCREW, #10 X 3/4 SELF-TAP USE 11/64 DRILL TO DRILL HOLES	22				

47005671 (includes items 1 thru 4)
 OPTIONAL POLE LIFT ASSIST KIT

FOR AG WAGONS

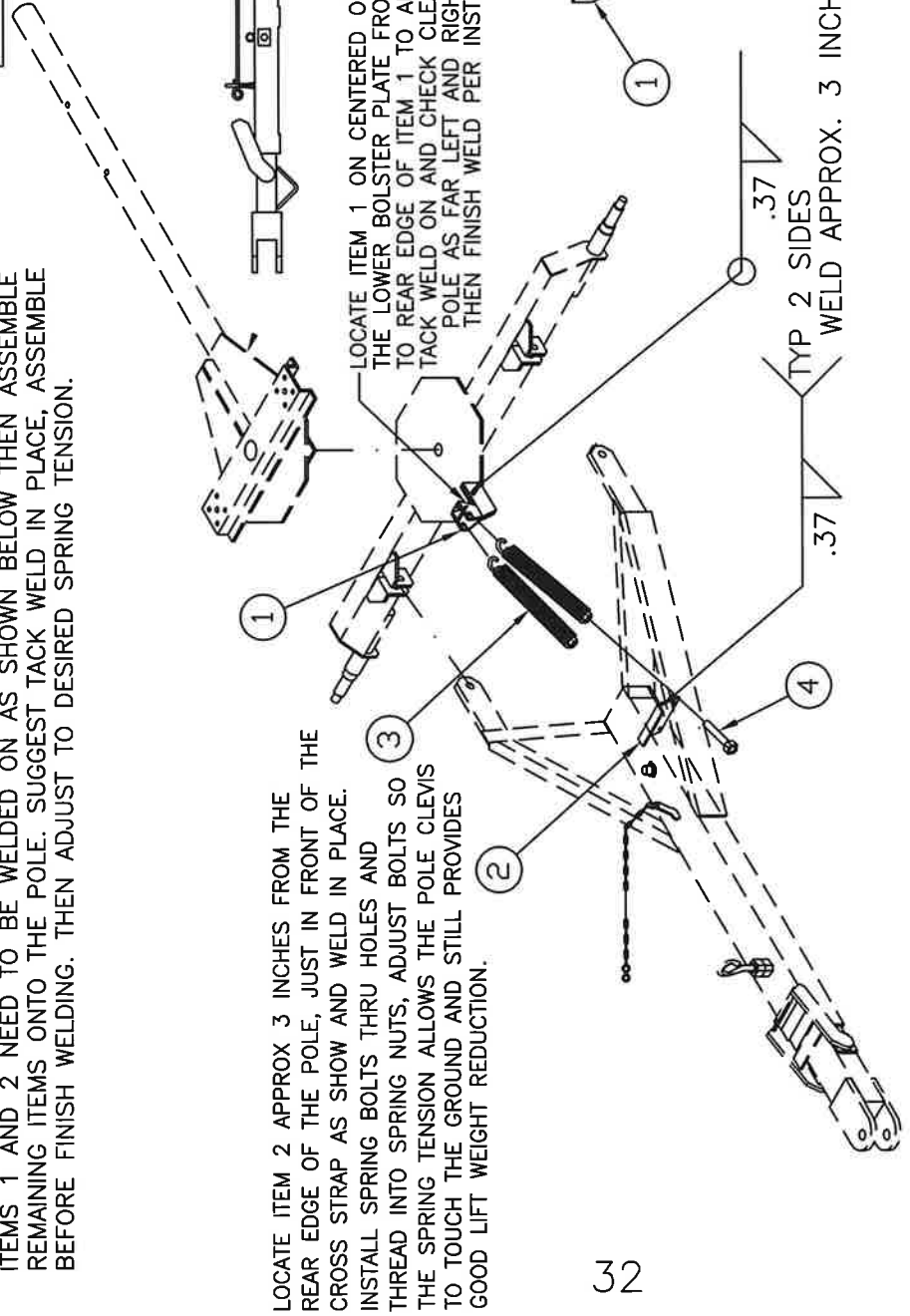
USED ON MODELS AG62, AG82, AG83, AG86 AG103

ITEMS 1 AND 2 NEED TO BE WELDED ON AS SHOWN BELOW THEN ASSEMBLE REMAINING ITEMS ONTO THE POLE. SUGGEST TACK WELD IN PLACE, ASSEMBLE BEFORE FINISH WELDING. THEN ADJUST TO DESIRED SPRING TENSION.

ITEM	QTY	PARTNUMBER	DESCRIPTION
1	1	47005670	LIFT ASSIST BRKT WELDT
2	1	47005669	SPRING ANCHOR PLT
3	2	00306-30	LIFT SPRING ASSY
4	2	47009910	SPRING BOLT

*
*

ITEMS 1 & 2 ARE PREASSEMBLED
 ONTO FRAMES AS OF FALL 2022



LOCATE ITEM 2 APPROX 3 INCHES FROM THE REAR EDGE OF THE POLE, JUST IN FRONT OF THE CROSS STRAP AS SHOWN AND WELD IN PLACE. INSTALL SPRING BOLTS THRU HOLES AND THREAD INTO SPRING NUTS, ADJUST BOLTS SO THE SPRING TENSION ALLOWS THE POLE CLEVIS TO TOUCH THE GROUND AND STILL PROVIDES GOOD LIFT WEIGHT REDUCTION.

LOCATE ITEM 1 ON CENTERED ON THE UNDERSIDE OF THE LOWER BOLSTER FRONT EDGE AND 1.25 INCHES FORWARD TO REAR EDGE OF ITEM 1 TO ALLOW TURNING CLEARANCE TACK WELD ON AND CHECK CLEARANCE BY TURNING THE POLE AS FAR LEFT AND RIGHT AS POSSIBLE. THEN FINISH WELD PER INSTRUCTIONS AND DIAGRAM BELOW

TYP 2 SIDES
 WELD APPROX. 3 INCHES AHEAD OF BACK END OF POLE

GENERAL WAGON ASSEMBLY

WGNASY
ISSUE AUG 2010
rev 05-09-2012

OPERATION AND MAINTENANCE SUMMARY

1. Assemble your wagon per the appropriate parts illustration (line drawing). Make sure all hardware is securely tightened. Generously grease all the pivot points indicated on the assembled wagon illustrations.
2. Bolts securely tightened at assembly may loosen under loaded operation. Within the first hour of loaded operation check the wheel bolts for tightness. Retighten with a torque wrench as required. See bolt Torque Data on pages 36 and 37 of this manual for specific torque requirements. Then check the tire pressure with an air gauge. Inflate tires as required to the recommended level.
3. After every 50 hours of operation, check the bolts that secure the reach pipe to the front and rear axle.
4. After every 100 hours of operation, check all assembly and mounting bolts for tightness. Grease the fifth wheel pivot point. It is recommended that this be done when the tank is empty so that you can move the wagon tongue left and right to distribute the grease between the pivot plates. Grease all pivot points shown on the assembled wagon illustrations. If your wagon is equipped with brakes, check the brake fluid level and check the brake lines for leaks.
5. Visually inspect tire pressure daily. After every 100 hours check the pressure with an air gauge. See page 38 of this manual for the specific air pressure required for your specific tire size and load. Check the wheel bolts with a torque wrench. See pages 36 & 37 of this manual for specifications.
6. **TOWING ON PUBLIC ROADS.** Do not connect two wagons together. Do not exceed 20 MPH. It is recommended that a 3/4 ton truck or larger be used when towing wagons up to 16,000# G.V.W.R. A one ton or larger truck should be used when towing wagons of greater than 16,000# G.V.W.R.
7. **Front Wheel Toe-in.** The toe-in and camber of the wheels is permanently set at the factory, except for the model AG104 auto-steer wagon. To adjust the toe-in, turn the front wheels straight ahead. Loosen the hex. nut that locks the tie rod ends. Remove the bolts at the end of the tie rods at each wheel. Measure the distance across the front of the tires and at the back of the tires. The distance across the front of the tires should be 3/16 to 1/4 inch less than across the back. Adjust the tie rod ends as required. Reassemble the bolts at the end of the tie rods and tighten the hex. nut on the tie rod to lock this position.

For Winter Storage.
Thoroughly wash the unit using a pressure washer. Grease the fifth wheel pivot point. Apply oil to the pull collar and reach pipe at the rear axle. Inspect the wheel bearings and repack with grease as required. If your wagon is equipped with brakes, check for brake shoe wear and brake fluid leaks. Make sure the brake fluid reservoir is full. Touch up all paint knicks and scratches.

SPECIFICATIONS FOR LUBRICATING AND ASSEMBLING HUBS FOR FARM IMPLEMENTS

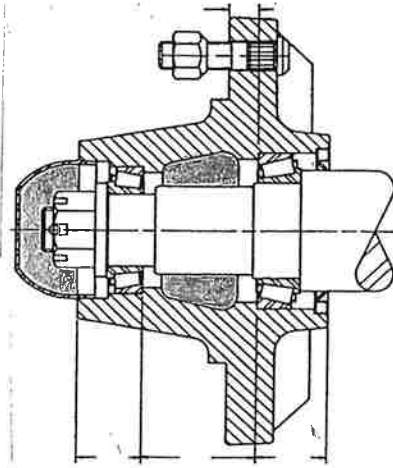
Type of grease.

Lithium base
ASTM Worked penetration of 284
Drop point 368 degrees F

Examples:Shell Alvinia EP2
Mobilux EP2

Hub and Spindle Assembly Procedure

- Inspect the hub/cup assembly to assure the cups are seated against shoulders on the hubs.
- Grease the inner cone and place it into the cup. **MAKE SURE IT IS STRAIGHT.**
- Install the grease seal. Use a plug to place pressure evenly against the seal, **SO THAT YOU DON'T** bend the case during installation.
- Pump grease into the hub cavity as indicated above. **DO NOT OVERFILL.** Too much grease can cause the seal to fail or the dust cap to pop loose.
- Use grease to lubricate the seal lip and place the hub onto the spindle. Rotate the hub while installing to the spindle so the seal doesn't "roll under". As the spindle goes into the inner cone, try to feel that the cone is not cocked and is properly seated on the spindle.
- Grease the outer cone and place it over the spindle and into the cup.
- Assemble the washer and nut to the spindle. Using an air wrench to bring the nut down to the cone is not recommended. The washer **MUST NOT CONTACT THE CONE** under power. A torque wrench must be used to make first contact to a torque reading of 15 ft. lbs. **ROTATE THE HUB WHILE TIGHTENING THE NUT.** Then back off the nut until it just becomes loose.
- While rotating the hub, retighten the nut to finger tight. Line up the cotter pin hole in the spindle with the slot in the nut. Insert the cotter pin and bend it.
- Fill the hub cap with grease and install.
- Check the seal for a "turned under" lip. Check the hub for excessive end play. Check the hub for free rotation and any indication of roughness which may indicate misalignment. If any roughness is noted, disassemble the hub and check the inner cup for any small nicks. If a nick is found, place hub aside for rework.

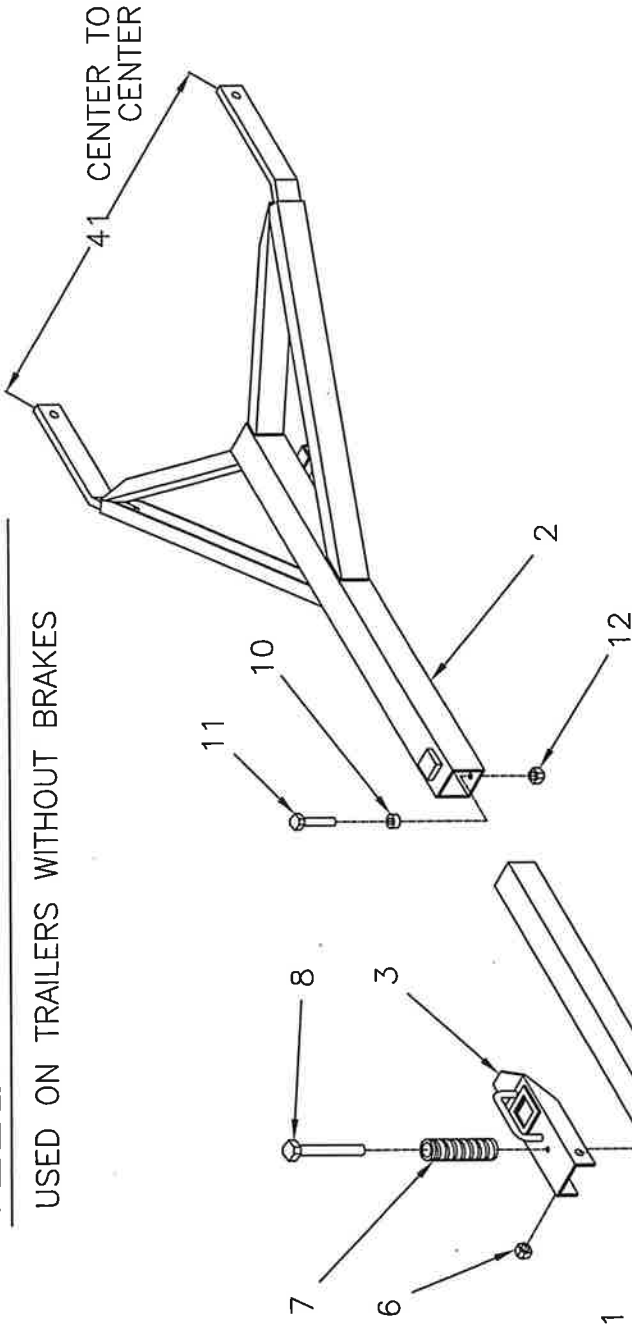


TELESCOPING TONGUE

USED ON TRAILERS WITHOUT BRAKES

IS071

REV 09-18-12



ITEM	PART NO.	DESCRIPTION	QTY.
	40300003	TELESCOPING TONGUE COMPLETE	
1	47008470	INNER POLE (TONGUE)	1
2	47008483	OUTER POLE	1
3	47008477	LATCH ASSEMBLY	1
4	47008473	INNER BUSHING	1
5	18058454	BOLT, 3/4-10NC. X 5	1
6	18458400	LOCKNUT, 3/4-10NC.	1
7	47000550	COMPRESSION SPRING	1
8	18056863	BOLT, 3/8-16NC. X 6 1/2	1
9	18457800	LOCKNUT, 3/8-16NC.	1
10	47008472	TUBE STOP BUSHING	1
11	18092024	BOLT, 1/2-13NC. X 1 1/4, GR. 8	1
12	18497400	FLANGE NUT, 1/2-13NC.	1
13	47000314	OPTIONAL SAFETY CHAIN ASSEMBLY	1
13A	47005479	SAFETY (2-CHAIN) KIT (OPTIONAL)	1

BOLT TORQUE

TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

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

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



Torque Specifications

Bolt Torque for Standard bolts *

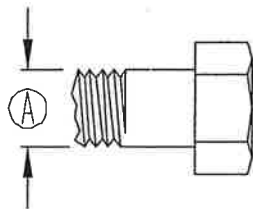
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290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

Bolt Torque for Metric bolts *

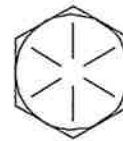
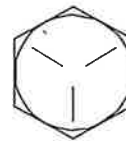
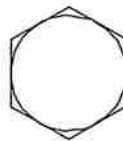
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)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

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

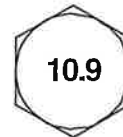
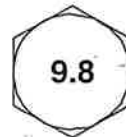
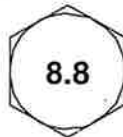
* GRADE or CLASS value for bolts and capscrews are identified by their head markings.



GRADE-2 GRADE-5 GRADE-8



CLASS 8.8 CLASS 9.8 CLASS 10.9



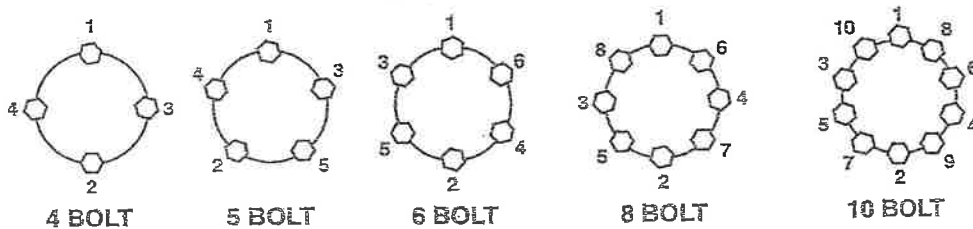
Torque Requirements

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

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

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

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



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

Wheel & Rim Torque Requirements

Description	Application (Steel wheels)	Minimum Torque ft lbs	Maximum Torque ft lbs
1/2" Cone nut	12"-13" Wheel	50	75
1/2" Cone nut	14"-16" Wheel	90	120
9/16" Cone nut	16" Wheel	135	175
5/8" Cone nut	Flat disc Wheel	175	225
5/8" Cone nut	Clamp Ring	190	210
3/4" Hex nut	Demountable	210	260
3/4" Spherical nut	Single Wheel	450	500
3/4" Spherical nut	Inner Dual	450	500
1 1/8" Spherical nut	Outer Dual	450	500
5/8" Flange nut	Wheels	275	325

WARNING ! Check Lug Nuts For Tightness and Tire Pressure Daily

TIRE/RIM MOUNTED	WAGON & MISC TIRE CHART		WHEEL OFFSET	TIRE PRESS/ MAX SPEED		LOAD CAPACITY	TIRE PN	RIM PN	STEM P#
	TIRE SIZE & BOLT PATTERN	WAGON & MISC TIRE CHART		TIRE PRESS/ MAX SPEED	TIRE PRESS/ MAX SPEED				
40000	11L X 15 (6 PLY) on 15 X 8 (6 ON 6)	11L X 15 (6 PLY) on 15 X 8 (6 ON 6)	1 1/8+	28 PSI / 30MPH	28 PSI / 30MPH	2100 LBS	20121114	47005589	20120012
40001	11L X 15 RIB IMP (10 PLY) on 15 X 8 (6 ON 6)	11L X 15 RIB IMP (10 PLY) on 15 X 8 (6 ON 6)	1 1/8+	44 PSI / 30MPH	44 PSI / 30MPH	2910 LBS	20111510	47005589	20120012
40002	11L X 15 BJ (12 PLY) on 15 X 8 (6 ON 6)	11L X 15 BJ (12 PLY) on 15 X 8 (6 ON 6)	1 1/8+	52 PSI / 30 MPH	52 PSI / 30 MPH	3200 LBS	20121115	47005589	20120012
40003	11L X 15 (8 PLY) on 15 X 8 (6 ON 6)	11L X 15 (8 PLY) on 15 X 8 (6 ON 6)	1 1/8+	36 PSI / 30MPH	36 PSI / 30MPH	2540 LBS	10261	47005589	20120012
40004	12.5L X 15 (10 PLY) on 10 X 15 (6 ON 6)	12.5L X 15 (10 PLY) on 10 X 15 (6 ON 6)	1 1/8+	44 PSI / 30MPH	44 PSI / 30MPH	3420 LBS	20121215	47005809	20120012
40005	12.5L X 15 (12 PLY) on 10 X 15 (6 ON 6)	12.5L X 15 (12 PLY) on 10 X 15 (6 ON 6)	1 1/8+	52 PSI / 30 MPH	52 PSI / 30 MPH	3860 LBS	20121212	47005809	20120012
40006	12.5L X 15 (8 PLY) on 10 X 15 (6 ON 6)	12.5L X 15 (8 PLY) on 10 X 15 (6 ON 6)	1 1/8+	36 PSI / 30MPH	36 PSI / 30MPH	3000 LBS	30530	47005809	20120012
40007	12.5L X 16 (12 PLY) on 10 X 16 (8 ON 8)	12.5L X 16 (12 PLY) on 10 X 16 (8 ON 8)	1 1/2-	52 PSI / 30 MPH	52 PSI / 30 MPH	3860 LBS	339490	47001016	20120012
40008	14L X 16.1 (8 PLY) on 11C X 16.1 (6 ON 6)	14L X 16.1 (8 PLY) on 11C X 16.1 (6 ON 6)	1 1/8+	32 PSI / 30MPH	32 PSI / 30MPH	3820 LBS	20121416	47005819	20120012
40009	14L X 16.1 (8 PLY) on 11C X 16.1 (8 ON 8)	14L X 16.1 (8 PLY) on 11C X 16.1 (8 ON 8)	1 1/2-	32 PSI / 30MPH	32 PSI / 30MPH	3820 LBS	20121416	47005816	20120012
40010	16.5 X 16.1 (8 PLY) on 11C X 16.1 (6 ON 6)	16.5 X 16.1 (8 PLY) on 11C X 16.1 (6 ON 6)	1 1/8+	28 PSI / 30MPH	28 PSI / 30MPH	4400 LBS	30459	47005819	20120012
40010A	16.5 X 16.1 (10 PLY) on 11C X 16.1 (6 ON 6)	16.5 X 16.1 (10 PLY) on 11C X 16.1 (6 ON 6)	1 1/8+	36 PSI / 30MPH	36 PSI / 30MPH	5200 LBS	32297	47005819	20120012
40011	16.5 X 16.1 (8 PLY) on 11C X 16.1 (8 ON 8)	16.5 X 16.1 (8 PLY) on 11C X 16.1 (8 ON 8)	1 1/2-	28 PSI / 30MPH	28 PSI / 30MPH	4400 LBS	30459	47005816	20120012
40012	16.5L X 16.1 (10 PLY) on 11C X 16.1 (8 ON 8)	16.5L X 16.1 (10 PLY) on 11C X 16.1 (8 ON 8)	1 1/2-	36 PSI / 30MPH	36 PSI / 30MPH	5200 LBS	32297	47005816	20120012
40013	16.5L X 16.1 (10 PLY) on 14C X 16.1 (8 ON 8)	16.5L X 16.1 (10 PLY) on 14C X 16.1 (8 ON 8)	1 1/2-	36 PSI / 30MPH	36 PSI / 30MPH	5200 LBS	32297	47009814	20120012
40019	12 X 16.5 HWY (12 PLY) on 16.5 X 9.75 (6 ON 6)	12 X 16.5 HWY (12 PLY) on 16.5 X 9.75 (6 ON 6)	1 1/8+	80 PSI / 65MPH	80 PSI / 65MPH	4045 LBS	20121216	47005919	20120022
40020	12 X 16.5 HWY (12 PLY) on 16.5 X 9.75 (8 ON 8)	12 X 16.5 HWY (12 PLY) on 16.5 X 9.75 (8 ON 8)	1 1/8+	80 PSI	80 PSI	4045 LBS	20121216	47005929	20120022
40028	11 X 22.5 NYLON TRANSPORT on 22.5 X 8.25 (8 ON 8)	11 X 22.5 NYLON TRANSPORT on 22.5 X 8.25 (8 ON 8)	1 1/2-	90 PSI @ 30MPH	90 PSI @ 30MPH	6175 LBS	179906	47006023	20120022
40030	19L X 16.1 (10 PLY) ON 14C X 16.1 (8 ON 8)	19L X 16.1 (10 PLY) ON 14C X 16.1 (8 ON 8)	1 1/2-	32 PSI @ 30 MPH	32 PSI @ 30 MPH	6000 LBS	20121617	47009814	20120022
40033	11 x 22.5 Nylon Trans on 22.5 X 8.25 (8 on 8) Hwy 8000#	11 x 22.5 Nylon Trans on 22.5 X 8.25 (8 on 8) Hwy 8000#	1 1/2-	89 PSI @ 30MPH	89 PSI @ 30MPH	6175 LBS	179906	47006026	20120022
40034	12.5L X 15 HWY ON 10 X 15 (6 on 6)	12.5L X 15 HWY ON 10 X 15 (6 on 6)	1 1/8+	60 PSI @ 30MPH	60 PSI @ 30MPH	4480 LBS	364806	47005809	20120022
<p>PROPER TIRE PRESSURE FOR AG206 & AG207 WAGON</p>									
40039	USED 385/65R x 22.5J on 11.25 x 22.5 (8 on 8)	USED 385/65R x 22.5J on 11.25 x 22.5 (8 on 8)	1 1/2-	45 PSI @ 30MPH	45 PSI @ 30MPH	4100 LBS	38565225U	47009385	20120022
	Front Tires 45 PSI / 30 MPH	Front Tires 45 PSI / 30 MPH	1 1/2-	55 PSI @ 30MPH	55 PSI @ 30MPH	5013 LBS	38565225U	47009385	20120022
	Rear Tires 55 psi / 30 MPH	Rear Tires 55 psi / 30 MPH	1 1/2-	65 PSI @ 30MPH	65 PSI @ 30MPH	5925 LBS	38565225U	47009385	20120022
			1 1/2-	70 PSI @ 30MPH	70 PSI @ 30MPH	6380 LBS	38565225U	47009385	20120022
			1 1/2-	90 PSI @ 30MPH	90 PSI @ 30MPH	7650 LBS	38565225U	47009385	20120022
40037	USED 425/65R X on 11.25 x 22.5 L (8 ON 8)	USED 425/65R X on 11.25 x 22.5 L (8 ON 8)	1 1/2-	45 PSI @ 30MPH	45 PSI @ 30MPH	4880 LBS	42565225U	47009385	20120022
	AVAILABLE ON AG207 WAGON ONLY!	AVAILABLE ON AG207 WAGON ONLY!	1 1/2-	55 PSI @ 30MPH	55 PSI @ 30MPH	5965 LBS	42565225U	47009385	20120022
	Front Tires 45 PSI / 30MPH	Front Tires 45 PSI / 30MPH	1 1/2-	70 PSI @ 30MPH	70 PSI @ 30MPH	7590 LBS	42565225U	47009385	20120022
	Rear Tires 55 psi / 30 MOH	Rear Tires 55 psi / 30 MOH	1 1/2-	90 PSI @ 30MPH	90 PSI @ 30MPH	9100 LBS	42565225U	47009385	20120022

IMPROPER TIRE PRESSURES MAY LEAD TO PREMATURE TIRE FAILURE AND WAGON FATIGUE!

TROUBLE SHOOTING:

READ THROUGH THIS TROUBLE SHOOTING PAGE.

If you have a problem that is difficult to solve, please call your local AgSystems dealer or distributor. Before you call, please have this Operator's Manual ready.

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
Wagon doesn't track through field.	Poor wheel spacing. Bent reach pole. Loose wheel strut clamp	Set wheels in center of crop row. Replace. Replace. Realign wheel and tighten.
Wagon sways on road.	Fifth wheel worn. Dry 5th wheel assembly. Tire pressure too low. Traveling too fast. Bent axle or spindle. Loose wheel bolts. Loose or worn wheel bearings Bent reach pole. Pulling more than one unit	Replace. Lubricate. Inflate to proper pressure. Slow down to 20 mph. Replace. Tighten to specified torque. Tighten or replace. Replace. Pull only one unit.
Wagon pulls to one side.	Uneven tire pressure. One brake is dragging.	Inflate to proper pressure. Adjust brakes. Replace shoes if worn.
Tire wobbles.	Bent wheel. Loose wheel bolts. Loose or worn wheel bearings. Loose spindle nut.	Replace. Tighten to specified torque. Tighten or replace. Snug appropriately and replace cotter pin.
Excessive bearing wear.	Lack of lubrication. Spindle nut too loose or too tight. Bent spindle. Dirt inside hub. Moisture inside hub.	Lubricate. Snug appropriately and replace cotter pin. Replace. Replace seal and inspect dust cap. Use lithium based grease.
Trouble stopping.	Traveling too fast. Pulling vehicle too light. Brake not working	Slow down to 20 mph. Use one ton truck or larger Adjust or replace.
Bad tire wear.	Axle bent or out of line. Bent spindle. Bent wheel. Traveling too fast.	Replace or repair. Replace. Replace. Slow down to 20 mph.



1180 STATE HWY. 7 EAST

HUTCHINSON, MINNESOTA 55350

ITEM	FUNCTION REQUIRED	WEEKLY	EVERY 3 MONTHS OR 3,000 MILES	6 MONTHS OR 6,000 MILES	12 MONTHS OR 12,000 MILES
Wheel Torque	Check at 50 miles		●		
Brakes	Test that they are operational	At Every Use			
Brake Adjustment	Adjust to proper operating clearance		●		●
Brake Magnets	Inspect for wear and current draw			●	
Brake Linings	Inspect for wear or contamination				●
Brake Controller	Check for correct amperage & modulation			●	
Brake Cylinders	Check for leaks, sticking				●
Brake Lines	Inspect for cracks, leaks, kinks.				●
Trailer Brake Wiring	Inspect wiring for bare spots, fray, etc.				●
Breakaway System	Check battery charge and switch operation	After Every Use			
Hub/Drum	Inspect for abdominal wear or scoring.				●
Wheel Bearing & Cups	Inspect for corrosion or wear. Clean & repack.				●
Seals	Inspect for leakage. Replace if removed.				●
Springs	Inspect for wear, loss of arch				●
Suspension Parts	Inspect for bending, loose fasteners, wear.			●	
Hangers	Inspect welds				●
Wheel Nuts and Bolts	Tighten to specified torque values.		●		
Wheels	Inspect for cracks, dents or distortion.			●	
Tire Inflation Pressure	Inflate tires to mfg.'s specifications.	●			
Tire Condition	Inspect for cuts, wear, bulging, etc.		●		

SERVICE RECORD

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

ACTION CODE: L LUBRICATE CL CLEAN R REPACK

MAINTENANCE	HOURS													
	SERVICED BY													
Weekly or 40 Hours														
L 5th Wheel Pivot (3)														
BI-Annually														
R Wheel Bearings														
CL Entire Unit														

It is recommended that a separate service record be kept for each unit in your fleet.

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

ACTION CODE: L LUBRICATE CL CLEAN R REPACK

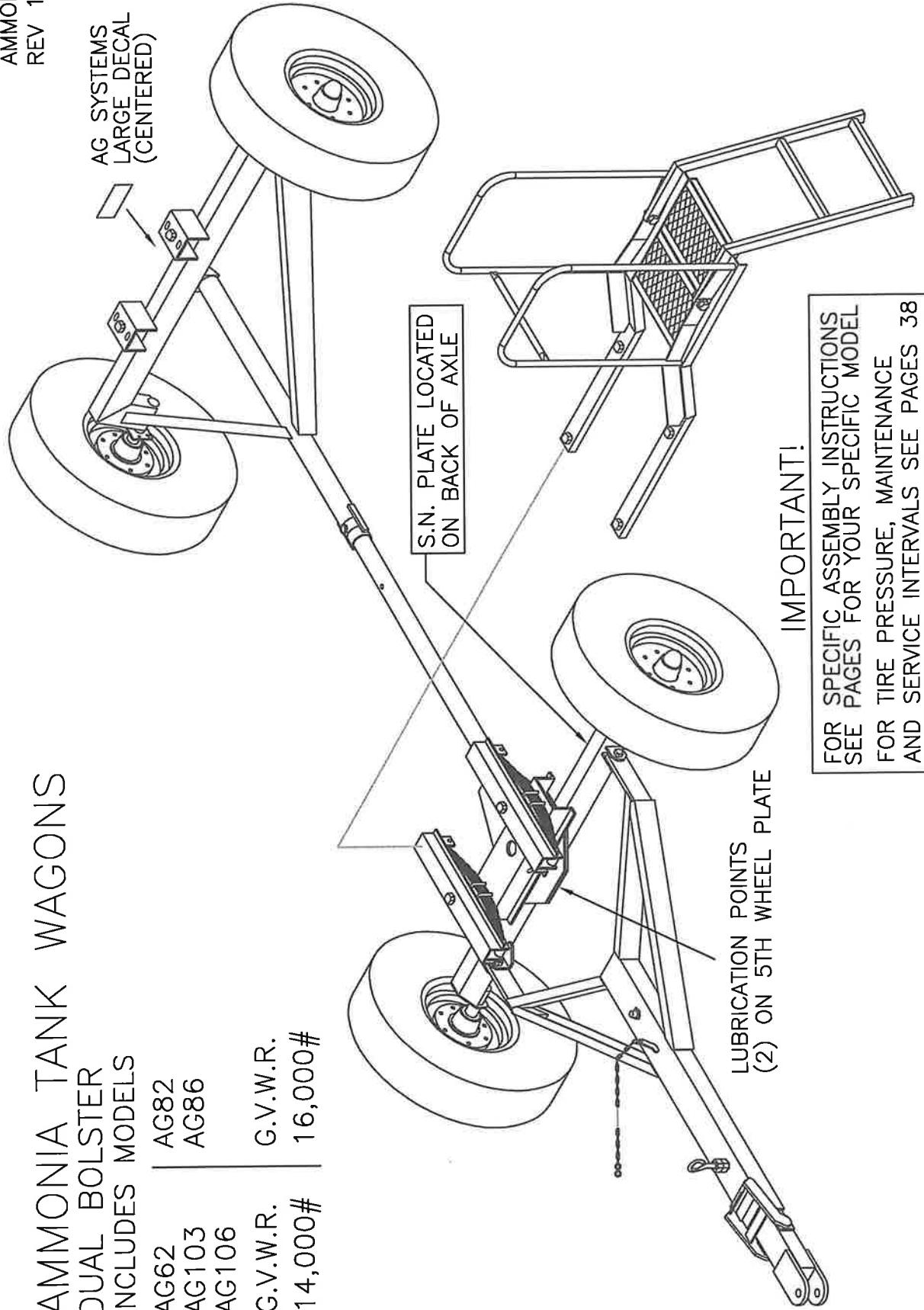
MAINTENANCE	HOURS													
	SERVICED BY													
Weekly or 40 Hours														
L 5th Wheel Pivot (3)														
BI-Annually														
R Wheel Bearings														
CL Entire Unit														

It is recommended that a separate service record be kept for each unit in your fleet.

AMMONIA TANK WAGONS DUAL BOLSTER INCLUDES MODELS

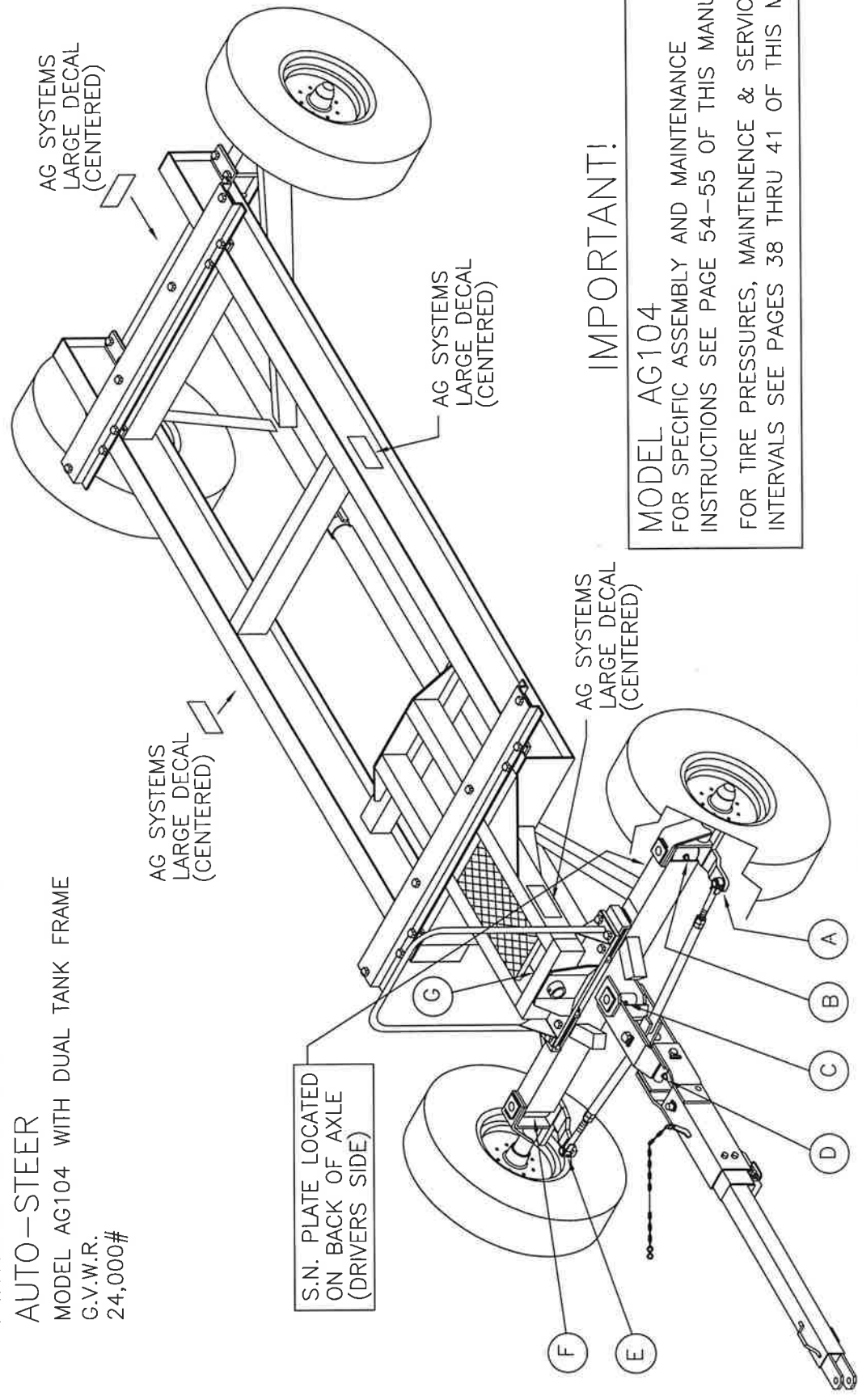
AG62 | AG82
AG103 | AG86
AG106

G.V.W.R. | G.V.W.R.
14,000# | 16,000#



AMMONWGN104
REV 03-20-13

AMMONIA TANK WAGON
AUTO-STEER
MODEL AG104 WITH DUAL TANK FRAME
G.V.W.R.
24,000#



IMPORTANT!

MODEL AG104
FOR SPECIFIC ASSEMBLY AND MAINTENANCE
INSTRUCTIONS SEE PAGE 54-55 OF THIS MANUAL
FOR TIRE PRESSURES, MAINTENANCE & SERVICE
INTERVALS SEE PAGES 38 THRU 41 OF THIS MANUAL

S.N. PLATE LOCATED
ON BACK OF AXLE
(DRIVERS SIDE)

AG SYSTEMS
LARGE DECAL
(CENTERED)

AG SYSTEMS
LARGE DECAL
(CENTERED)

AG SYSTEMS
LARGE DECAL
(CENTERED)

FOR "TOE-IN" INFORMATION
REFER TO THE "PARTS" ILLUSTRATION
FOR THE MODEL AG104 WAGON

LUBRICATE AT
POINTS "A TO G"

AMMONIA TANK WAGON

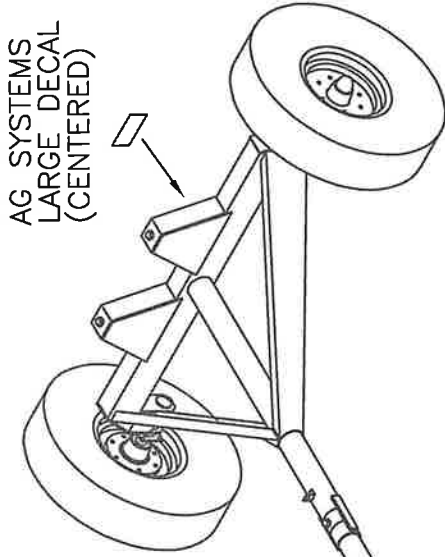
MODEL AG204

G.V.W.R.
24,000#

AMMONWGN204
11/11/15

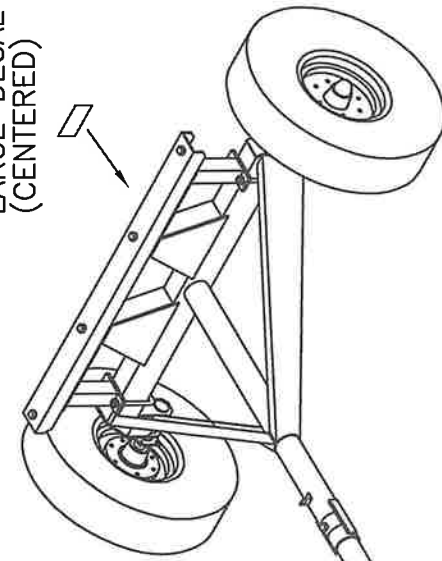
IMPORTANT!

FOR PROPER TIRE PRESSURES, MAINTENANCE, AND SERVICE INTERVALS SEE PAGES 38 THRU 41 OF THIS MANUAL.



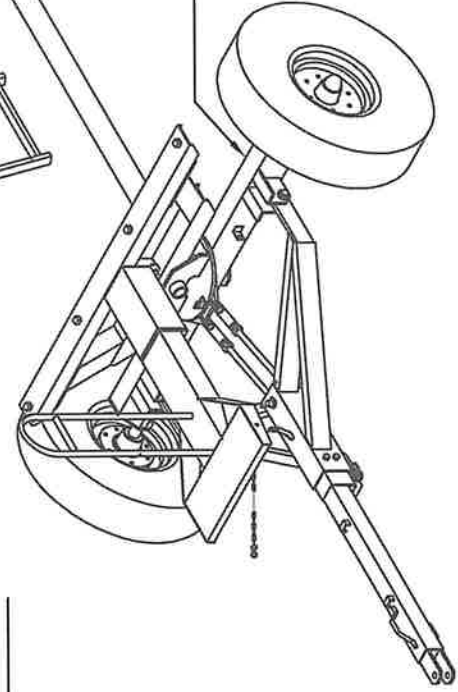
LOCATE SERIAL TAG ON BACK OF AXLE

AG SYSTEMS LARGE DECAL (CENTERED)



DUAL TANK ASSEMBLY

LOCATE SERIAL TAG ON BACK OF AXLE

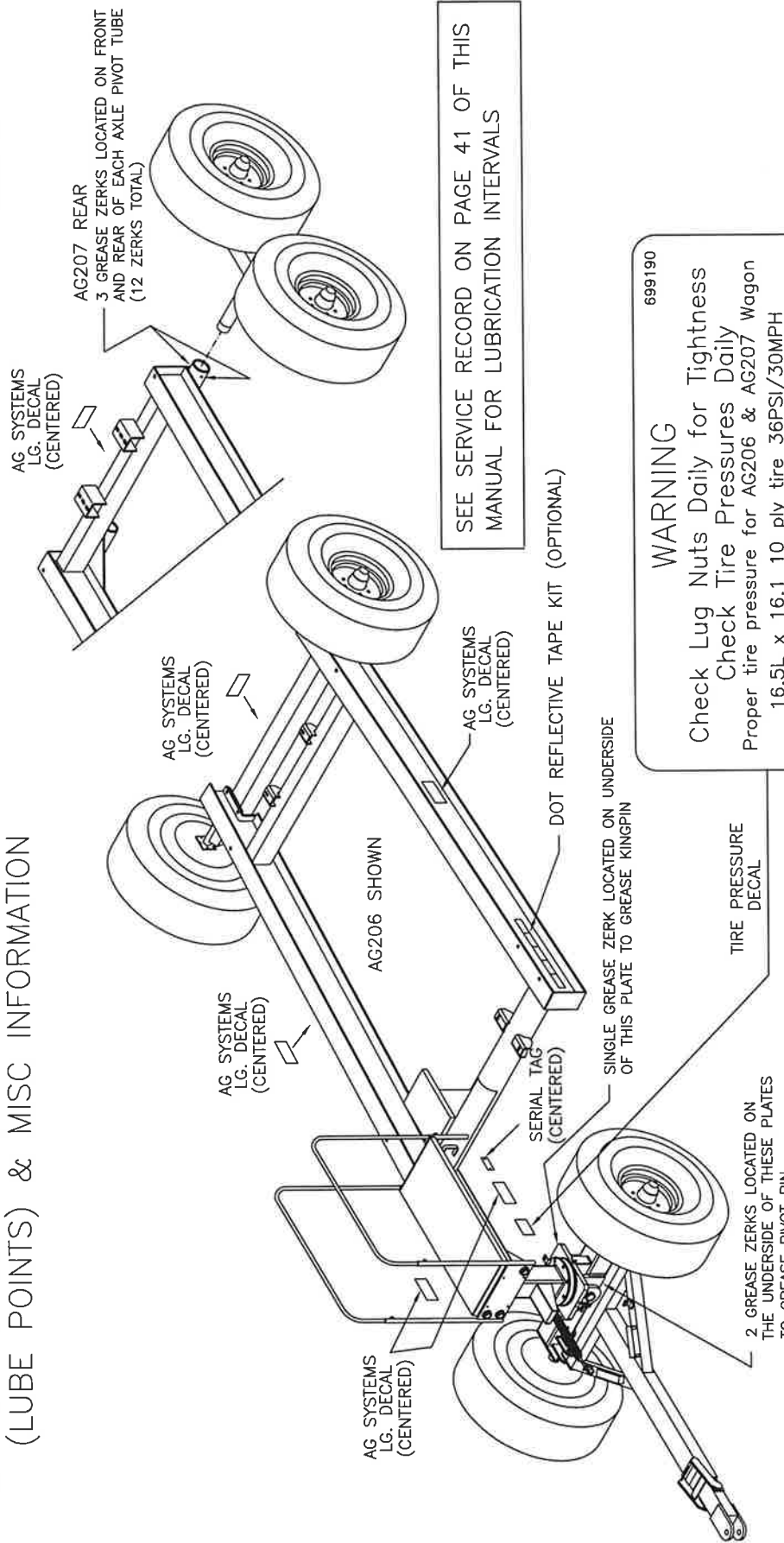


SINGLE TANK ASSEMBLY

LUBRICATION POINTS
(2) ON 5TH WHEEL PLATE
(1) ON VERTICAL PIVOT PIN

AG206ISOLUBE
04-22-13
05-07-14

AG206 AND AG207 DOUBLE TANK NH3 WAGON (LUBE POINTS) & MISC INFORMATION



SEE SERVICE RECORD ON PAGE 41 OF THIS MANUAL FOR LUBRICATION INTERVALS

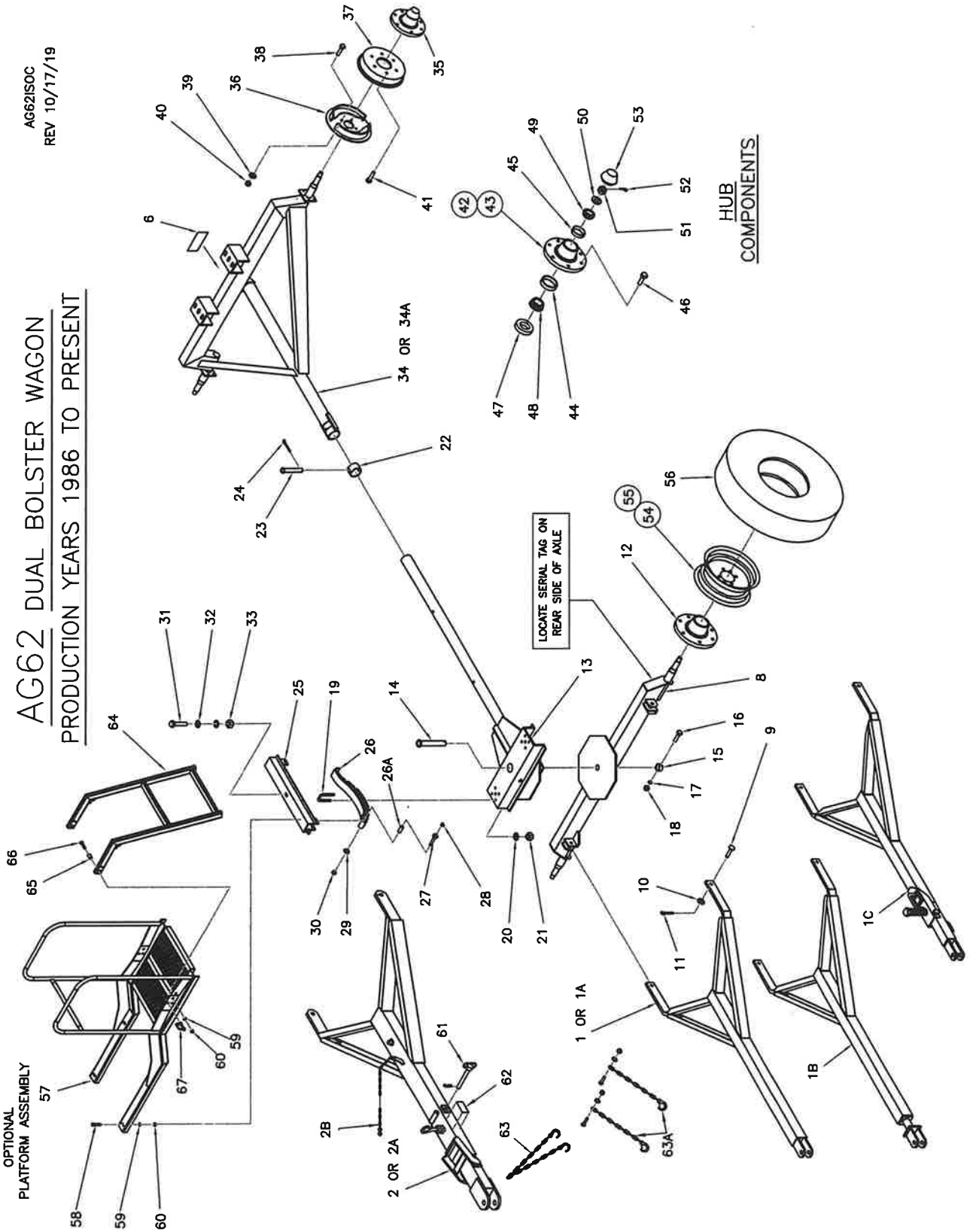
699190

WARNING

Check Lug Nuts Daily for Tightness
Check Tire Pressures Daily
Proper tire pressure for AG206 & AG207 Wagon
16.5L x 16.1 10 ply tire 36PSI/30MPH
385/65R Tire/Rim
Front Tires 45 PSI/30 MPH
Rear Tires 55 PSI/30 MPH
425/65R Tire/Rim (Avail. on AG207 only)
Front Tires 45 PSI/30 MPH
Rear Tires 55 PSI/30 MPH
Improper tire pressures may lead to premature tire failure and wagon fatigue

AG62ISOC
REV 10/17/19

AG62 DUAL BOLSTER WAGON
PRODUCTION YEARS 1986 TO PRESENT



AG62 DUAL BOLSTER WAGON

PARTS LIST 1986 TO PRESENT

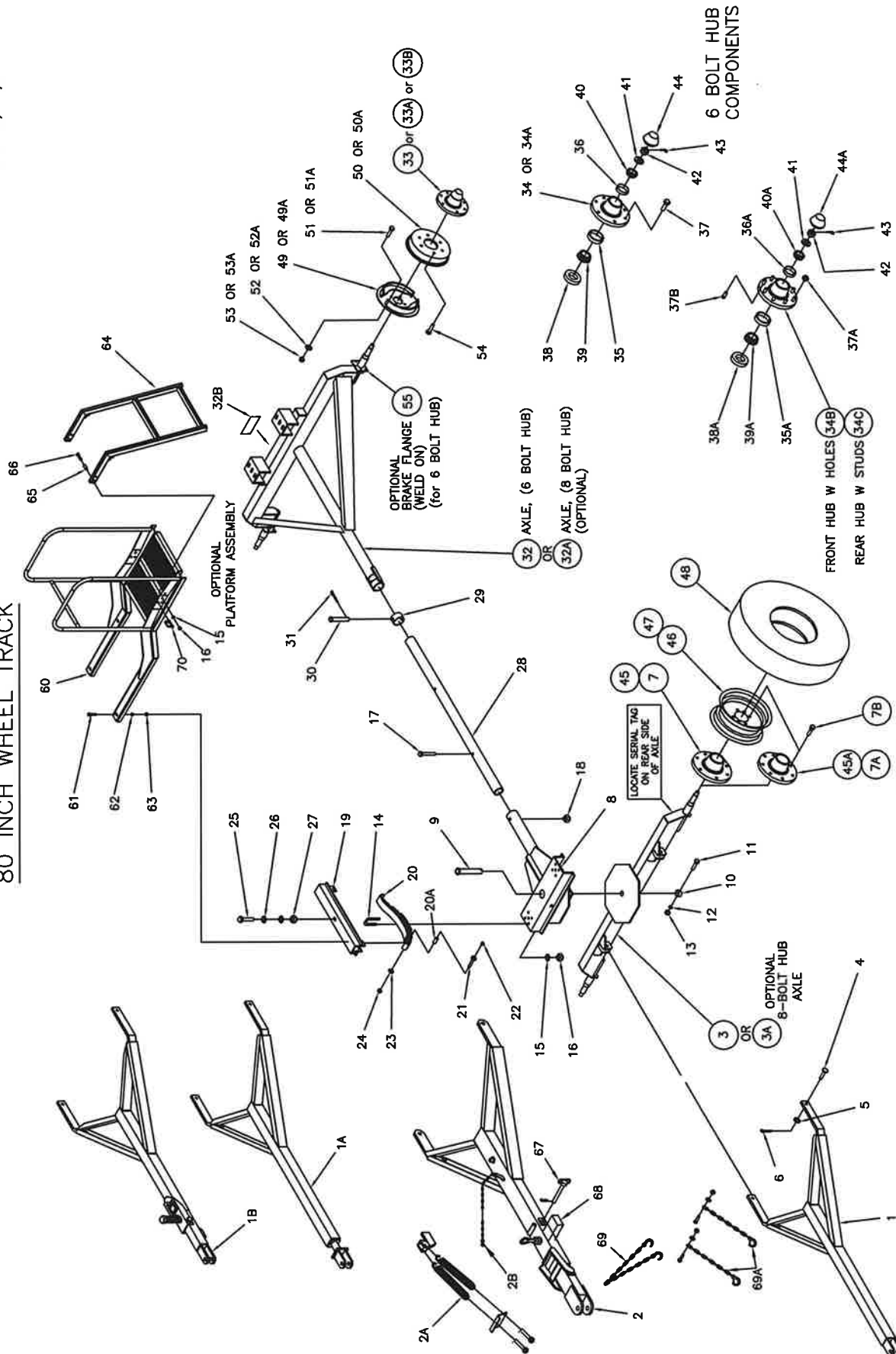
AG62LSTC
REV 08/03/21

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	40300006	POLE, SOLID (41" ARM CENTERS)	1	47009480	REAR AXLE, W STD HITCH COMPLETE	1	
1A	47009579	POLE, SOLID (36" ARM CENTERS)	OPT		INCLUDES ITEMS 34 AND 35		
1B	40300002	POLE, SPRING (41" ARM CENTERS)	OPT	47009271	REAR AXLE W HD HITCH, COMPLETE	1	
1C	40300003	POLE, TELESCOPING (W/O BRAKES)	OPT		INCLUDES ITEMS 34A AND 35		
2	40300004	POLE, SURGE (TELESCOPING/ACTUATOR)	OPT.	34	47004180	REAR AXLE with STD REAR HITCH	1
2A	OBSOLETE	POLE, SURGE (36" ARM CENTERS) (ENDING SERIAL NUMBER 1668)	OPT.	34A	47005271	REAR AXLE with HD REAR HITCH	1
2B	13988	CABLE ASSY, 72 INCH BREAKAWAY	1	35	47009611	REAR HUB, COMPLETE	2
3	DICO MODEL	12 ACTUATOR AND			WITHOUT BRAKES, SAME AS FRONT HUB		
4	MOUNTING HARDWARE	3-7 IS OBSOLETE 10/07/05			INCLUDES ITEMS 42 & 44 THRU 49, AND ITEM 53		
5				47009632	REAR HUB COMPLETE (FOR BRAKES)		
6	699107L	HEARTLAND AG SYSTEMS DECAL	1		INCLUDES ITEMS 43 THRU 49, AND ITEM 53		
7				36	47005758	BRAKE CLUSTER (12") L.H.	1
	47009032	FRONT AXLE, COMPLETE (36" C/C)	1		47005757	BRAKE CLUSTER (12") R.H.	1
	47109814	FRONT AXLE, COMPLETE		37	47005759	BRAKE DRUM (12")	2
	(41" PULL CENTERS) STARTING S. N. 1669			38	18056820	BOLT, 3/8-24NF. X 1	10
	INCLUDES ITEMS 8 TO 12			39	18881200	LOCKWASHER, 3/8	10
8	47009432	FRONT AXLE (36" PULL CENTERS)	1	40	18436700	HEX. NUT, 3/8-24NF.	10
	47019814	FRONT AXLE (41" PULL CENTERS)	1	41	18057522	BOLT, 1/2-20NF. X 1	12
9	18541834	CLEVIS PIN, 3/4 X 2 1/2	2	42	47005511	FRONT HUB (WITH CUPS ITEMS 44 & 45) (WITH BRAKES USE 2) (WITHOUT BRAKES USE 4)	
10	18841800	FLATWASHER, 3/4 SAE	2	43	47005632	REAR HUB (WITH CUPS ITEMS 44 & 45)	2
11	18560724	COTTER PIN 5/32 X 1 1/4	2	44	47005710	BEARING CUP, INNER	4
12	47009611	FRONT HUB, COMPLETE INCLUDES ITEMS 42 THRU 49, AND ITEM 53	2	45	47005010	BEARING CUP, OUTER	4
				46	47005014	WHEEL BOLT, 1/2-20NF.	24
	47009024	REACH ASSEMBLY, COMPLETE	1	47	47005013	GREASE SEAL	4
	INCLUDES ITEMS 13 TO 24			48	47005749	BEARING CONE, INNER	4
13	47009421	REACH	1	49	47005048	BEARING CONE, OUTER	4
14	47009167	PIVOT PIN	1	50	18000017	SPINDLE WASHER, 1 X .187	4
15	47001168	RETAINING COLLAR	1	51	18489100	SLOTTED NUT, 1-14NF.	4
16	18056834	BOLT, 3/8-16NC. X 2 1/2	1	52	18560828	COTTER PIN, 3/16 X 1 3/4	4
17	18891200	LOCKWASHER, 3/8	1	53	47005513	DUST CAP	4
18	18436800	HEX. NUT, 3/8-16NC.	1	54	47005589	RIM, 8 X 15 (STANDARD)	4
19	47001366	U-BOLT, 1/2-13NC.	4		47005809	RIM, 10 X 15	OPT.
20	18891400	LOCKWASHER, 1/2	8	55	20120012	VALVE STEM	4
21	18417400	HEX. NUT, 1/2-13NC.	8	56	10261	TIRE, 11L X 15 8 PLY	OPT.
22	47003155	PULL COLLAR	1		30530	TIRE, 12.5L X 15 8 PLY	OPT.
23	18541646	CLEVIS PIN, 5/8 X 4	1		FOR REPAIR PARTS ONLY (NOT SHOWN)		
24	18560726	COTTER PIN, 5/32 X 1 1/2	1	47001482	SPINDLE ONLY -FRONT		
				47979541	PLATFORM ASSEMBLY COMPLETE	OPT.	
	47009202	BOLSTER ASSEMBLY, COMPLETE	2		INCLUDES ITEMS 57-60 AND 64-67		
	INCLUDES ITEMS 25 TO 33			57	47007960	PLATFORM	1
25	47009302	BOLSTER	2	58	18057426	BOLT, 1/2-13NC. X 2 1/2	4
26	47002093	LEAF SPRING, 6 LEAF	2	59	18891400	LOCKWASHER, 1/2	6
26A	BLN107	NYLON BUSHING, (PART OF SPRING)		60	18417400	HEX. NUT, 1/2-13NC.	6
27	47001365	SPRING BOLT, 9/16-12NC. X 3 1/2	2	61	600183	BRAKE LOCKOUT PIN ASSEMBLY	1
28	18901805	GREASE ZERK, STRAIGHT	2	62	699109	BRAKE LOCKOUT PIN WARNING DECAL	2
29	18891500	LOCKWASHER, 9/16	2	63*	47000314	OPTIONAL SAFETY CHAIN ASSEMBLY	1
30	18417600	HEX. NUT, 9/16-12NC.	2	63A*	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
31	18058430	BOLT, 3/4-10NC. X 2	4	64	47009550	LADDER	1
32	18811800	FLATWASHER, 3/4	8	65	47009557	BUSHING	2
33	18458400	HEX. NUT, 3/4-10NC. SELF-LOCK	4	66	18057432	BOLT, 1/2-13NC. X 2 1/4	2
				67	98416A018	PIN, LOCK CLEVIS Ø3/8 X 1 7/8	1

ITEM 63A IS INCLUDED WITH ALL POLES, ITEM 63 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

AG82 HEAVY-DUTY WAGON 80 INCH WHEEL TRACK

AG82ISOC
REV 03/18/22



AG82 HEAVY-DUTY WAGON

PARTS LIST 1978 TO PRESENT

AG82LSTC
RV 11/28/23

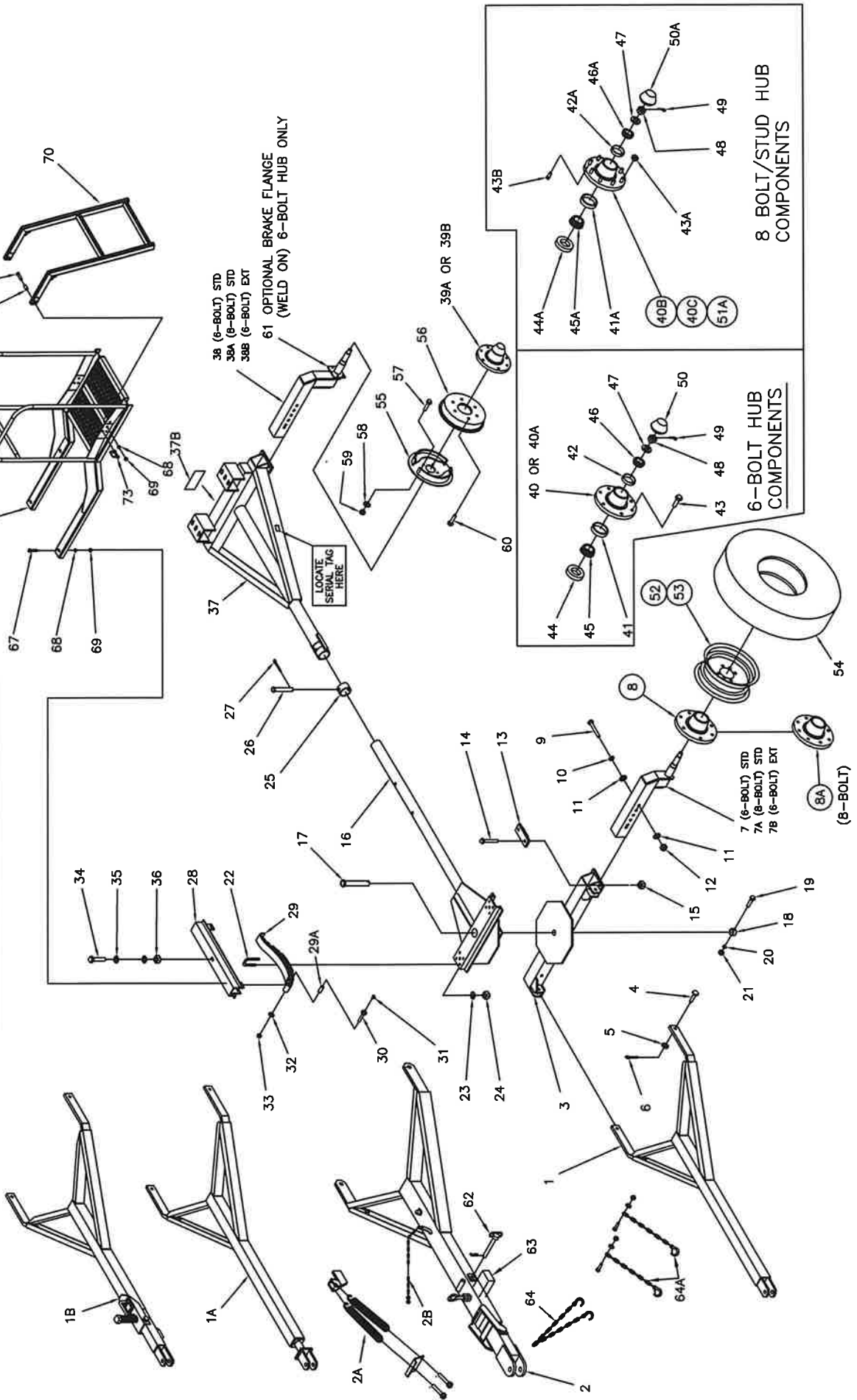
ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	40300006	POLE, SOLID (W/O BRAKES)	1	38	47005030	GREASE SEAL (1988 TO PRESENT)	4
1A	40300002	POLE, SPRING (W/O BRAKES)	OPT.		47005030A	GREASE SEAL (1978 TO 1987)	
1B	40300003	POLE, TELESCOPING (W/O BRAKES)	OPT.			NOTE: OLDER SEALS ARE .050 UNDERSIZE	
2	40300004	POLE, SURGE (TELESCOPING/ACTUATOR)	OPT.	38A	47006016	GREASE SEAL (FOR 8 BOLT HUB)	4
2A	47005671	POLE LIFT ASSIST KIT OPTION	OPT.	39	47005580	BEARING CONE, INNER	4
2B	13988	CABLE ASSY 72 INCH BREAKAWAY	1	39A	25590	BEARING CONE, INNER (8BOLT HUB) OPT	4
	47009009	STD FRONT AXLE, COMPLETE	1	40	47005548	BEARING CONE, OUTER	4
		INCLUDES ITEMS 3 TO 7		40A	25877	BEARING CONE, OUTER (8BOLT HUB) OPT	4
	47015514	OPTIONAL FRONT AXLE, COMPLETE	OPT.	41	18000017	SPINDLE WASHER, 1 X .187	4
		INCLUDES ITEMS 3A, 4 TO 6 & 7A		42	18489100	SLOTTED NUT, 1-14NF.	4
3	47009209	FRONT AXLE (FOR 6 BOLT HUBS)	1	43	18560828	COTTER PIN, 3/16 X 1 3/4	4
3A	47005514	8-BOLT FRONT HUB (FOR 8 BOLT HUBS)	OPT	44	47005515	DUST CAP (6 BOLT HUB)	4
4	18541834	CLEVIS PIN, 3/4 X 2 1/2	2	44A	47005917	DUST CAP (8 BOLT HUB)	OPT.
5	18841800	FLATWASHER, 3/4 SAE	2	45	47005618	6-BOLT FRONT HUB W CUPS	2
6	18560724	COTTER PIN 5/32 X 1 1/4	2			ITEMS 35 & 36 (REF. ITEM 7)	
7	47009618	FRONT HUB, 6 BOLT, COMPLETE	2	45A	47008811A	8-BOLT FRONT HUB (WITH CUPS)	OPT
		INCLUDES ITEMS 35 THRU 40 AND 44 & 45				(INCLUDES ITEMS 35A & 36A)	
7A	47008811	8-BOLT FRONT HUB, COMPLETE	OPT	46	47005819	RIM, 11 X 16.1 (STANDARD)	4
		INCLUDES ITEMS 35A,36A,37B,38A,39A,40A, AND 44A			47005809	RIM, 10 X 15 OPTIONAL	OPT.
7B	47005112	WHEEL BOLT, 9/16 NF X 1 1/4	16		47009385	RIM, 11.25X 22.5 OPTIONAL	OPT.
	47009021	REACH ASSEMBLY, COMPLETE	1	47	20120012	VALVE STEM	4
		INCLUDES ITEMS 8 TO 18		48	20121416	TIRE, 14L X 16.1, 8 PLY	OPT.
8	47009321	REACH WELDMENT	1		30459	TIRE, 16.5 X 16.1, 8 PLY	OPT.
9	47009167	PIVOT PIN	1		20121215	TIRE, 12.5 X 15, 10 PLY	OPT.
10	47001168	RETAINING COLLAR	1		40300013	STD. BRAKE PACKAGE, COMPLETE	1
11	18056834	BOLT, 3/8-16NC. X 2 1/2	1			(FALL 2007 TO PRESENT) INCLUDES ITEMS 2, 33,	
12	18891200	LOCKWASHER, 3/8	1			49-55 AND BRAKE LINE ITEMS (LISTED BELOW)	
13	18436800	HEX. NUT, 3/8-16NC.	1		40300013A	OPTIONAL BRAKE PACKAGE, COMPLETE 2	
14	47001364	U-BOLT, 1/2-13NC.	4			(8 BOLT HUBS) INCLUDES ITEMS 2,33,49A,50A,	
15	18891400	LOCKWASHER, 1/2	8			51A,52A,53A,55A,& BRAKE LINE ITEMS (LISTED BELOW)	
16	18417400	HEX. NUT, 1/2-13NC.	8		47005801	ADD ON. BRAKE PKG, COMPLETE	1
17	18057950	BOLT, 5/8-11NC. X 4 1/2	1			(1983 TO SPRING 2007) INCLUDES ITEMS 2,	
18	18457900	HEX. NUT, 5/8-11NC. SELF-LOCK	1			49-54 AND BRAKE LINE ITEMS (LISTED BELOW)	
	47009102	BOLSTER ASSEMBLY, COMPLETE	2	49	47005758	BRAKE CLUSTER (12") L.H.	1
		INCLUDES ITEMS 19 TO 27			47005757	BRAKE CLUSTER (12") R.H.	1
19	47009290	BOLSTER	2	49A	47005652	OPTIONAL BRAKE CLUSTER (13")LH	1
20	47002117	SPRING, 9 LEAF	2		47005651	OPTIONAL BRAKE CLUSTER (13")RH	1
20A	BLN107	NYLON BUSHING, PART OF SPRING		50	47005759	BRAKE DRUM (12")	2
21	47001365	SPRING BOLT, 9/16-12NC. X 3 1/2	2	50A	47005650	OPTIONAL BRAKE DRUM (13")	2
22	18901805	GREASE ZERK, STRAIGHT	2	51	18056820	BOLT, 3/8-24NF. X 1	10
23	18891500	LOCKWASHER, 9/16	2	51A	18057522	BOLT, 1/2-20 NF X 1 ZINC PLT	8
24	18417600	HEX. NUT, 9/16-12NC.	2	52	18881200	LOCKWASHER, 3/8 ZINC PLT	10
25	18058430	BOLT, 3/4-10NC. X 2	4	52A	18891400	LOCKWASHER, 1/2 ZINC PLT	8
26	18811800	FLATWASHER, 3/4	8	53	18436700	NUT, HEX 3/8-24NF.	10
27	18458400	HEX. NUT, 3/4-10NC. SELF-LOCK	4	53A	18437500	NUT, HEX 1/2-20 NF ZINC PLT	8
	47009022	REACH PIPE ASSEMBLY, COMPLETE	1	54	18057522	BOLT, 1/2-20NF. X 1	12
		INCLUDES ITEMS 28 TO 31		55	2-1336	BRAKE FLANGE 12"(WELD ON)	2
28	47002190A	REACH PIPE	1			BRAKE LINE ITEMS (NOT SHOWN)	
29	47003155	PULL COLLAR	1		47005663	BRAKE HOSE BRACKET	3
30	18541646	CLEVIS PIN, 5/8 X 4	1		47005664	BRAKE HOSE CLIP	3
31	18560726	COTTER PIN, 5/32 X 1 1/2	1		47005666	BRAKE LINE CLIP	6
	47009057	STANDARD REAR AXLE COMPLETE	1		47005685	UNION TEE	1
		INCLUDES ITEMS 32 AND 33			47005660	UNION	5
	47015508	OPTIONAL REAR AXLE COMPLETE	OPT		18721018	SCREW, SELF-TAP, #10 X 3/4	6
		INCLUDES ITEMS 32A & 33B			18715718	SCREW, 1/4 X 3/4	3
32	47009008	STD. REAR AXLE (SPECIFY W OR W/O BRAKES)	1		47005665	HOSE, BRAKE LINE- 18"	3
32A	47005508	OPTIONAL REAR AXLE (FOR 8 BOLT HUB)	OPT		47005682	TUBE, BRAKE LINE- 60"	2
32B	699107L	DECAL, HEARTLAND AG SYSTEMS	1		47005694	TUBE, BRAKE LINE- 40"	3
33	47009635	REAR HUB, COMPLETE 6 BOLT (BRAKE READY)	2		47005695	TUBE, BRAKE LINE- 51"	1
		(1983 TO SPRING 2007) INCLUDES ITEMS 34 THRU 40 AND 44			47005688	TUBE, BRAKE LINE- 4"	1
33A	47009618	REAR HUB, COMPLETE, 6 BOLT (NO BRAKES)	2	47979541	PLATFORM ASSEMBLY COMPLETE	OPT.	
		(FALL 2007 TO PRESENT) INCLUDES ITEMS 34A THRU 40 AND 44				INCLUDES ITEMS 60-66 & 70	
33B	47009811	8 BOLT REAR HUB, COMPLETE (BRAKE READY)	OPT	60	47007960	PLATFORM WELDMENT	1
		INCLUDES ITEMS 34C, 35A, 36A, 37A, 38A, 39A, 40A, AND 44A		61	18057426	BOLT, 1/2-13NC. X 2 1/2	4
34	47005635	REAR HUB (FOR BRAKES) W CUPS	OPT	62	18891400	LOCKWASHER, 1/2	4
34A	47005618	REAR HUB (NO BRAKES) W CUPS	2	63	18417400	HEX. NUT, 1/2-13NC.	4
34B	47008811A	FRONT HUB (8 BOLT W CUPS& HOLES)	OPT	64	47009550	LADDER WELDMENT	1
34C	47009811A	REAR HUB (8 BOLT W CUPS & STUDS)	OPT	65	47009557	BUSHING	2
35	47005520	BEARING CUP, INNER (6 BOLT HUB)	4	66	18057432	BOLT,1/2-13 NC X 2 1/4 ZC	
35A	25520	BEARING CUP, INNER (8 BOLT HUB) OPT		67	600183	LOCKOUT PIN ASSEMBLY	1
36	47005510	BEARING CUP, OUTER (6 BOLT HUB)	4	68	699109	LOCKOUT PIN WARNING DECAL	2
36A	25821	BEARING CUP, OUTER (8 BOLT HUB) OPT		69*	47000314	OPTIONAL SAFETY CHAIN ASSEMBLY	1
37	47005012	WHEEL BOLT, 9/16-18NF X 1.25	24	69A*	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
37A	47005040	WHEEL NUT, 9/16-18NF. (OPTIONAL)	16	70	98416A018	PIN, LOCK CLEVIS #3/8 X 1 7/8	1
37B	47005041	WHEEL STUD, 9/16-18NF (OPT)	16				
						FOR REPAIR PARTS ONLY (NOT SHOWN)	
						6 BOLT HUB	
					47005018	STD. SPINDLE WITHOUT BRAKE FLANGE	
					47002315	STD. SPINDLE WITH BRAKE FLANGE	
						8 BOLT HUB	
					47005811	STD. SPINDLE WITHOUT BRAKE FLANGE	
					47005507	STD. SPINDLE WITH BRAKE FLANGE	

ITEM 69A IS INCLUDED WITH ALL POLES, ITEM 69 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

AG86 HEAVY-DUTY WAGON ADJUSTABLE WHEEL TRACK

AG86ISOC
rev 05/09/22

OPTIONAL
PLATFORM ASSEMBLY



AG86 HEAVY-DUTY WAGON PARTS LIST 1983 TO PRESENT

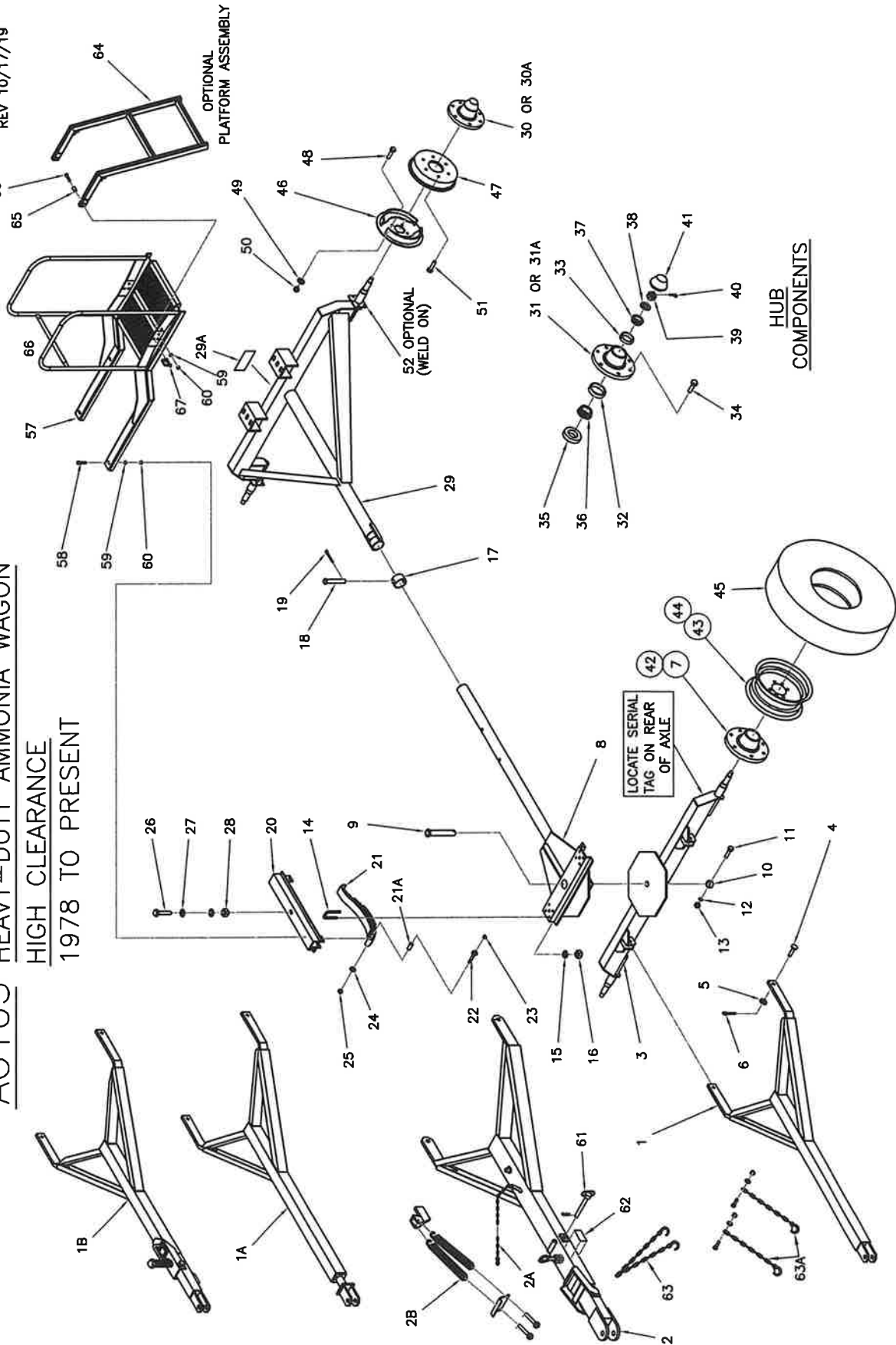
AG86LSTC
rev 06/10/23

ITEM PART NO.	DESCRIPTION	QTY.
1	40300008 POLE, SOLID (W/O BRAKES)	1
1A	40300002 POLE, SPRING (W/O BRAKES)	OPT.
1B	40300003 POLE, TELESCOPING (W/O BRAKES)	OPT.
2	40300004 POLE, SURGE (TELESCOPING/ACTUATOR)	OPT.
2A	47005671 POLE LIFT ASSIST KIT OPTIONAL	OPT.
2B	13988 CABLE ASSY, 72 INCH BREAKAWAY	1
3	**FOR FRONT AXLE OPTIONS SEE TABLE**	
3	47004325 FRONT AXLE (STD TRACK) 60"-78"	1
4	18541834 CLEVIS PIN, 3/4 X 2 1/2	2
5	18841800 FLATWASHER, 5/4 SAE	2
6	18560724 COTTER PIN 5/32 X 1 1/4	2
7	47009562 FRONT STUB AXLE, STD (FOR 6 BOLT)	2
7A	47005768 FRONT STUB AXLE, STD (FOR 8 BOLT)	2
7B	47007583 FRONT STUB AXLE, EXT (FOR 6 BOLT)	2
8	47009618 FRONT HUB, COMPLETE (6 BOLT) INCLUDES ITEMS 40A, 41, 42, 43, 44, 45, 46, AND 50	2
8A	47009811 FRONT HUB, COMPLETE (8-BOLT) INCLUDES ITEMS 40B, 41A, 42A, 43A, 44A, 45A, 46A, 47, 48, 49, AND 50A	2
9	18057954 BOLT, 5/8-11NC, X 5	4
10	18891600 LOCKWASHER, 5/8	4
11	18811600 HEX. NUT, 5/8	4
12	18417900 HEX. NUT, 5/8-11NC.	4
13	47009404 AXLE CLAMP	4
14	18098482 BOLT, 3/4-10NC, X 6	4
15	18458400 HEX. NUT, 3/4-10NC, SELF-LOCK	4
16	47009025 REAR ASSEMBLY, COMPLETE INCLUDES ITEMS 16 TO 27	1
17	47009421 REAR PIN	1
18	47009167 PIVOT PIN	1
19	47001188 RETAINING COLLAR	1
20	18056834 BOLT, 3/8-16NC, X 2 1/2	1
21	18891200 LOCKWASHER, 3/8	1
22	18436800 HEX. NUT, 3/8-16NC.	1
23	47001384 U-BOLT, 1/2-13NC.	4
24	18891400 LOCKWASHER, 1/2	4
25	18417400 HEX. NUT, 1/2-13NC.	8
26	47003155 PULL COLLAR	1
27	18541846 CLEVIS PIN, 5/8 X 4	1
28	18560726 COTTER PIN, 5/32 X 1 1/2	1
29	47009102 BOLSTER ASSEMBLY, COMPLETE INCLUDES ITEMS 28 TO 36	2
29A	47002117 BOLSTER	2
30	BLN107 SPRING, 9 LEAF	2
31	18901365 SPRING BOLT, 9/16-12NC, X 3 1/2	2
32	18901805 GREASE ZERK, STRAIGHT	2
33	18417600 LOCKWASHER, 9/16	2
34	18417500 HEX. NUT, 9/16-12NC.	2
35	18058430 BOLT, 3/4-10NC, X 2	4
36	18811800 FLATWASHER, 3/4	8
37	18458400 HEX. NUT, 3/4-10NC, SELF-LOCK	4
37	**FOR REAR AXLE OPTIONS SEE TABLE**	
37B	47009243 REAR AXLE, ADJUSTABLE	1
37B	699107L DECAL, HEARTLAND AG SYSTEMS	1
38	47009553 REAR STUB AXLE ONLY STD (8-BOLT) SPECIFY WITH OR WITHOUT BRAKE FLANGE	2
38A	47005705 REAR STUB AXLE ONLY STD (8-BOLT) SPECIFY WITH OR WITHOUT BRAKE FLANGE	2
38B	47007582 REAR STUB AXLE ONLY EXT (8-BOLT) SPECIFY WITH OR WITHOUT BRAKE FLANGE	2
39	47009635 REAR HUB COMPLETE 6-BOLT (BRAKE READY) 1983 TO SPRING 2007 INCLUDES ITEMS 40, 41, 42, 43, 44, 45, 46, AND 50	2
39A	47009618 REAR HUB COMPLETE 6-BOLT (NO BRAKES) (FALL 2007 TO PRESENT) INCLUDES ITEMS 40A, 41, 42, 43, 44, 45, 46, AND 50	2
39B	47009811 REAR HUB COMPLETE (8-BOLT) INCLUDES ITEMS 40C, 41A, 42A, 43A, 44A, 45A, 46A, 50A	2
40	47005635 REAR HUB, 6-BOLT (FOR BRAKES) W CLIPS	2
40A	47005618 REAR HUB, 6-BOLT (NO BRAKES) W CLIPS	2
40B	47009811A FRONT HUB (8-BOLT) W CLIPS & HOLES	OPT.
40C	47009811A REAR HUB (8-BOLT) W CLIPS & STUDS	OPT.
41	47005620 BEARING CUP, INNER (8-BOLT HUB)	4
41A	25520 BEARING CUP, INNER (6-BOLT HUB)	4
42	47005510 BEARING CUP, OUTER (8-BOLT HUB)	4
42A	28577 BEARING CUP, OUTER (6-BOLT HUB)	4
43	47005012 WHEEL BOLT, 9/16-18NF. (8B HUB)	24
43A	47005040 WHEEL NUT, 9/16-18NF. (8B HUB)	16
43B	47005041 WHEEL STUD, 9/16-18NF. (8B HUB)	16
44	47005030 GREASE SEAL (8-BOLT HUB) (1988- PRESENT)	4
44A	47005030A GREASE SEAL (6-BOLT HUB)	4
45	47006016 GREASE SEAL (8-BOLT HUB)	OPT.
45A	25590 BEARING CONE, INNER (6-BOLT HUB)	4
46	47005548 BEARING CONE, INNER (8-BOLT HUB)	OPT.
46A	25877 BEARING CONE, OUTER (6-BOLT HUB)	4
47	18000017 SPINDLE WASHER, 1 X .187	4
48	18489100 SLOTTED NUT, 1-14NF.	4
49	18560828 COTTER PIN, 3/16 X 1 3/4	4
50	47005515 DUST CAP, FOR 6 BOLT HUB	4
50A	47005917 DUST CAP, FOR 8 BOLT HUB	4
51	--	OPT.
52	47005819 RIM, STANDARD (1993- PRESENT)	4
47005809	11 X 16.1 WITH 1 1/8 OFFSET	OPT.
47005816	RIM 10 X 15 (1983- PRESENT)	OPT.
(ARLSTROM W3163)	RIM, 16.1 X W11C (8 BOLT) 1 1/2- (20 TO PRESENT)	OPT.
47005935	10 X 16 (1989-1992)	OPT.
20120012	VALVE STEM WITH 5/8" OFFSET (1983-1989)	OPT.
20121416	TIRE, 14L X 16.1, 8 PLY	OPT.
30459	TIRE, 16.5 X 16.1, 8 PLY	OPT.
20121215	TIRE, 12.5 X 15, 10 PLY	OPT.
40300015	BRAKE PACKAGE, COMPLETE (8-BOLT HUB) FALL 2007 TO PRESENT (INCLUDES ITEMS 39, 61 & 47005803)	1
47005803	ADD ON BRAKE PKG. COMPLETE (8-BOLT HUB) 1983 THRU SPRING 2007 (INCLUDES ITEMS 2, AND 55 THRU 60	
AND BRAKE LINE ITEMS (SEE BRK LINE ITEMS LIST)		
47005758	BRAKE CLUSTER (12") L.H.	1
47005759	BRAKE CLUSTER (12") R.H.	1
18056820	BOLT, 3/8-24NF, X 1	10
18981200	LOCKWASHER, 3/8	10
18436700	HEX. NUT, 3/8-24NF, X 1	10
18057522	BOLT, 1/2-20NF, X 1	12
2-1336	BRAKE FLANGE (WELD ON)	1
600183	BRAKE LOCKOUT PIN ASSEMBLY	1
699109	LOCKOUT PIN WARNING DECAL	2
64*	47000314 OPTIONAL SAFETY CHAIN ASSEMBLY	1
64A*	47005479 SAFETY (2-CHAIN) KIT (INCLUDED)	1
47005663	BRAKE LINE ITEMS LIST (NOT SHOWN)	5
47005664	BRAKE HOSE BRACKET	5
47005666	BRAKE HOSE CLIP	6
47005685	UNION TEE	1
18211018	SCREW, SELF-TAP #10 X 3/4	4
18715718	SCREW, 1/4 X 3/4	5
47005685	HOSE, BRAKE LINE- 18"	3
47005687	HOSE, BRAKE LINE- 25"	2
47005680	TUBE, BRAKE LINE- 4"	2
47005690	TUBE, BRAKE LINE- 12"	1
47005691	TUBE, BRAKE LINE- 16"	2
47005695	TUBE, BRAKE LINE- 51"	1
47005688	TUBE, BRAKE LINE- 60"	1
47979541	PLATFORM ASSEMBLY COMPLETE INCLUDES ITEMS 66 TO 73	1
47007960	PLATFORM	6
18057434	BOLT, 1/2-13NC, X 2 1/2	6
18891400	LOCKWASHER, 1/2	6
18417400	HEX. NUT, 1/2-13NC.	4
47009550	LADDER	1
47009557	BUSHING	2
18057432	BOLT, 1/2-13NC, X 2, 1/4	2
984164018	PIN, LOCK CLEVIS #3/8 X 1 7/8	1
47005218	FOR REPAIR PARTS ONLY (NOT SHOWN) SPINDLE ONLY, FRONT (FOR 6-BOLT HUB)	
47115811	SPINDLE ONLY, FRONT (FOR 8-BOLT HUB)	
47009205	FRONT AXLE COMPLETE 6 BOLT STD. INCLUDES ITEMS 3 THRU 6, 7, 8 QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47009652	STUB AXLE & HUB ONLY 6 BOLT STD (FRONT) INCLUDES ITEMS 7 & 8	
47999205	FRONT AXLE COMPLETE 6 BOLT STD. INCLUDES ITEMS 3 THRU 6, 7A, 8A QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47995706	STUB AXLE & HUB ONLY 6 BOLT STD (FRONT) INCLUDES ITEMS 7A & 8A	
47008488	FRONT AXLE COMPLETE 6 BOLT EXT. INCLUDES ITEMS 3 THRU 6, 7B, 8 QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47009583	STUB AXLE & HUB ONLY 6 BOLT EXT (FRONT) INCLUDES ITEMS 7B & 8	
47009343	REAR AXLE COMPLETE 6 BOLT STD. INCLUDES ITEMS 37, 37B, 38A, & 39A QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47009652	STUB AXLE & HUB ONLY 6 BOLT STD (REAR) INCLUDES ITEMS 38 & 39A	
47999343	REAR AXLE COMPLETE 8 BOLT STD. INCLUDES ITEMS 37, 37B, 38A, & 39B QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47999705	STUB AXLE & HUB ONLY 8 BOLT STD (REAR) INCLUDES ITEMS 38A & 39B	
47009488	REAR AXLE COMPLETE 6 BOLT EXT. INCLUDES ITEMS 37, 37B, 38B, & 39A QTY 2 OF ITEMS 9, 10, 12, & 13 QTY 4 OF ITEMS 11, 14 & 15	
47009582	STUB AXLE & HUB ONLY 6 BOLT EXT (REAR) INCLUDES ITEMS 38B & 39A	

ITEM 64A IS INCLUDED WITH ALL POLES, ITEM 64 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

AG103 HEAVY-DUTY AMMONIA WAGON
HIGH CLEARANCE
1978 TO PRESENT

AG103ISOB
 REV 10/17/19



AG103 HEAVY-DUTY AMMONIA WAGON

AG103LSTB
REV 08/03/21

PARTS LIST 1978 TO PRESENT

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.	
1	40300006	POLE, SOLID (W/O BRAKES)	1	34	47005014	WHEEL BOLT, 1/2-20NF	24	
1A	40300002	POLE, SPRING (W/O BRAKES)	OPT.	35	47005013	GREASE SEAL	4	
1B	40300003	POLE, TELESCOPING (W/O BRAKES)	OPT.	36	47005749	BEARING CONE, INNER	4	
2	40300004	POLE, SURGE (TELESCOPING/ACTUATOR)	OPT.	37	47005048	BEARING CONE, OUTER	4	
2A	13988	CABLE ASSY, 72 INCH BREAKAWAY	1	38	18000017	SPINDLE WASHER, 1 X .187	4	
2B	47005671	POLE LIFT ASSIST KIT OPTION	OPT.	39	18489100	SLOTTED NUT, 1-14NF.	4	
	47009056	STD FRONT AXLE, COMPLETE (72" WHEELTRACK)	1	40	18560828	COTTER PIN, 3/16 X 1 3/4	4	
		INCLUDES ITEMS 3 TO 7		41	47005515	DUST CAP	4	
	47995266	OPT FRONT AXLE, COMPLETE (80" WHEELTRACK)	1	42	47005511	FRONT HUB WITH CUPS ITEMS 32 & 33)	2	
		INCLUDES ITEMS 3 TO 7		43	47005809	RIM, 10 X 15 (STANDARD)	4	
3	47009256	STD FRONT AXLE (72" TRACK)	1		47005819	RIM, 11 X 16.1	OPT.	
	47005266	OPT FRONT AXLE (80" TRACK)	1	44	20120012	VALVE STEM	4	
4	18541834	CLEVIS PIN, 3/4 X 2 1/2	2	45	20121416	TIRE, 14L X 16.1, 8 PLY	4	
5	18841800	FLATWASHER, 3/4 SAE	2		30459	TIRE, 16.5 X 16.1, 8 PLY	OPT.	
6	18560724	COTTER PIN 5/32 X 1 1/4	2		20121215	TIRE, 12.5 X 15, 10 PLY	OPT.	
7	47009611	FRONT HUB, COMPLETE	2		40300014	BRAKE PACKAGE, (1996 TO PRESENT)	1	
		INCLUDES ITEMS 32 TO 42				INCLUDES ITEMS 2, 30A, 46 THRU 52		
	47009024	REACH ASSEMBLY, COMPLETE	1			PLUS BRAKE LINE ITEMS (NOT SHOWN)		
		INCLUDES ITEMS 8 TO 19			47005802	ADD ON BRAKE PKG (1995 OR OLDER)	1	
8	47009421	REACH	1			INCLUDES ITEMS 2, AND 46 THRU 51		
9	47009167	PIVOT PIN	1			PLUS BRAKE LINE ITEMS (NOT SHOWN)		
10	47001168	RETAINING COLLAR	1	46	47005758	BRAKE CLUSTER (12" L.H.)	1	
11	18056834	BOLT, 3/8-16NC. X 2 1/2	1		47005757	BRAKE CLUSTER (12" R.H.)	1	
12	18891200	LOCKWASHER, 3/8	1	47	47005759	BRAKE DRUM (12")	2	
13	18436800	HEX. NUT, 3/8-16NC.	1	48	18056820	BOLT, 3/8-24NF. X 1	10	
14	47001366	U-BOLT, 1/2-13NC.	4	49	18881200	LOCKWASHER, 3/8	10	
15	18891400	LOCKWASHER, 1/2	8	50	18436700	HEX. NUT, 3/8-24NF.	10	
16	18417400	HEX. NUT, 1/2-13NC.	8	51	18057522	BOLT, 1/2-20NF. X 1	12	
17	47003155	PULL COLLAR	1	52	2-1336	BRAKE FLANGE (WELD ON)	2	
18	18541646	CLEVIS PIN, 5/8 X 4	1			BRAKE LINE ITEMS (NOT SHOWN)		
19	18560726	COTTER PIN, 5/32 X 1 1/2	1		47005663	BRAKE HOSE BRACKET	3	
	47009202	BOLSTER ASSEMBLY, COMPLETE	2		47005664	BRAKE HOSE CLIP	3	
		INCLUDES ITEMS 20 TO 28			47005666	BRAKE LINE CLIP	6	
20	47009302	BOLSTER	2		47005685	UNION TEE	1	
21	47002093	LEAF SPRING, 6 LEAF	2		47005660	UNION	5	
21A	BLN107	NYLON BUSHING, PART OF SPRING			18721018	SCREW, SELF-TAP, #10 X 3/4	6	
22	47001365	SPRING BOLT, 9/16-12NC. X 3 1/2	2		18715718	SCREW, 1/4 X 3/4	3	
23	18901805	GREASE ZERK, STRAIGHT	2		47005665	HOSE, BRAKELINE- 18"	3	
24	18891500	LOCKWASHER, 9/16	2		47005682	TUBE, BRAKE LINE- 4"	2	
25	18417600	HEX. NUT, 9/16-12NC.	2		47005690	TUBE, BRAKE LINE- 12"	1	
26	18058430	BOLT, 3/4-10NC. X 2	4		47005694	TUBE, BRAKE LINE- 40"	3	
27	18811800	FLATWASHER, 3/4	8		47005695	TUBE, BRAKE LINE- 51"	1	
28	18458400	HEX. NUT, 3/4-10NC. SELF-LOCK	4		47005688	TUBE, BRAKE LINE- 60"	1	
	47009051	STD REAR AXLE, COMPLETE (72" TRACK)	1		47979541	PLATFORM ASSEMBLY COMPLETE	OPT.	
		INCLUDES ITEMS 29 AND 30				INCLUDES ITEMS 57-60 AND 64-67		
	47995268	OPT REAR AXLE, COMPLETE (80" TRACK)	1	57	47007960	PLATFORM	1	
		INCLUDES ITEMS 29 AND 30		58	18057434	BOLT, 1/2-13NC. X 2 1/2	4	
29	47009357	REAR AXLE, STD 72" TRACK	1	59	18891400	LOCKWASHER, 1/2	6	
	47005268	REAR AXLE, OPTIONAL 80" TRACK	1	60	18417400	HEX. NUT, 1/2-13NC.	6	
29A	699107L	DECAL, HEARTLAND AG SYSTEMS	1		61	600183	BRAKE LOCKOUT PIN ASSEMBLY	1
30	47009611	REAR HUB, COMPLETE (NO BRAKES)	2		62	699109	LOCKOUT PIN WARNING DECAL	2
		INCLUDES ITEMS 31 THRU 37 AND ITEM 41			63*	47000314	OPTIONAL SAFETY CHAIN ASSEMBLY	1
30A	47009632	REAR HUB, COMPLETE(BRAKE READY)	2		63A*	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
		INCLUDES ITEMS 31A THRU 37 AND ITEM 41			64	47009550	LADDER	1
31	47005511	REAR HUB (NO BRAKES) W CUPS	2		65	47009557	BUSHING	2
31A	47005632	REAR HUB (BRAKE READY) WITH CUPS	2		66	18057432	BOLT, 1/2-13NC. X 2 1/4	2
32	47005710	BEARING CUP, INNER	4		67	98416A018	PIN, LOCK CLEVIS #3/8 X 1 7/8	1
33	47005010	BEARING CUP, OUTER	4					

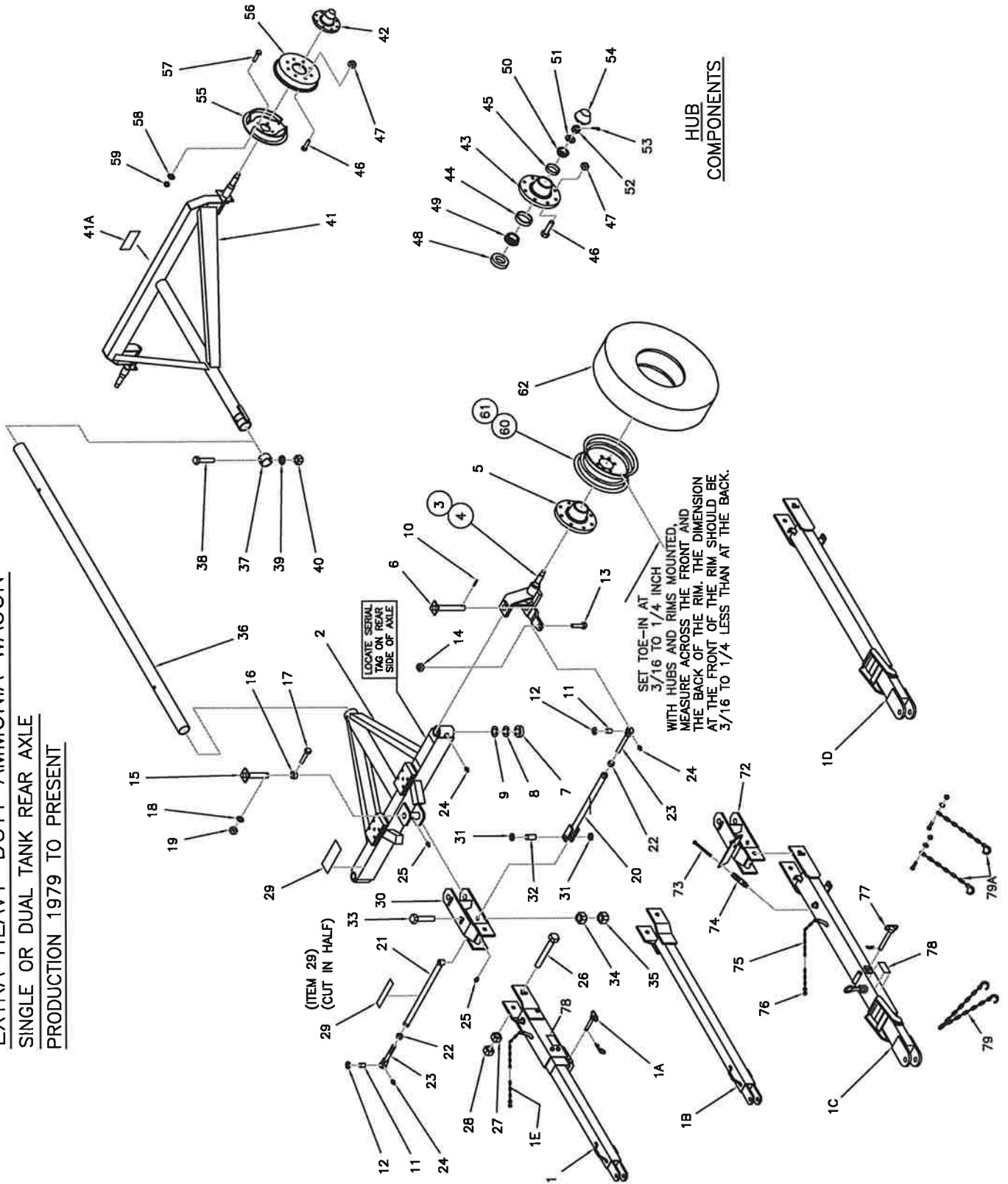
FOR REPAIR PARTS ONLY (NOT SHOWN)
47001482 (NOT SHOWN) SPINDLE ONLY -FRONT

ITEM 63A IS INCLUDED WITH ALL POLES, ITEM 63 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

AG104

EXTRA HEAVY-DUTY AMMONIA WAGON SINGLE OR DUAL TANK REAR AXLE PRODUCTION 1979 TO PRESENT

AG104ISO
REV 07-14-15



AG104 EXTRA HEAVY-DUTY
AMMONIA WAGON FOR DUAL TANK FRAME
 1979 TO PRESENT

AG104LST
 REV 12/7/23

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47009179	POLE, WITH ACTUATOR WITH "DICO" ACTUATOR ASSEMBLY UP TO 1997 PROD ENDING S.N. 1182 WITH "DEMCO" ACTUATOR ASSEMBLY FROM 1998 PROD. STARTING S.N. 1183	1	47009783		REAR AXLE COMPLETE, INCLUDES ITEMS, 41 TO 59	1
		INCLUDES CHAIN AND (2) "S" HOOKS AND ITEM 1A	1A	41	47009883	REAR AXLE ASSEMBLY	1
1A	18571000	HITCH PIN W/COTTER PIN	1	41A	699107L	DECAL, AG SYSTEMS (LARGE)	1
1B	47009526	SOLID POLE ASSEMBLY	OPT.	42	47009712	REAR HUB COMPLETE	2
		REPLACES ALL OF THE ABOVE (ITEMS 1 & 1A)				INCLUDES ITEMS, 43 THRU 50 AND ITEM 54	54
1C	47009913	POLE, W/ACTUATOR, TELESCOPING	OPT	43	47005712	HUB WITH CUPS ITEMS, 44 & 45	4
		REPLACES ALL OF THE ABOVE (ITEMS 1,1A & 1B)		44	47005372	BEARING CUP, INNER	4
1D	47009913S	TELESCOPING POLE, W/O BRKS	1	45	47005272	BEARING CUP, OUTER	4
1E	13988	CABLE, 72 INCH BREAKAWAY	1	46	47005041	WHEEL BOLT, 9/16-18NF.	32
	47009016	FRONT AXLE, COMPLETE ASSEMBLY	1	47	47005040	WHEEL NUT, 9/16-18NF.	32
		INCLUDES ITEMS, 2 TO 35		48	(SEE NOTE)	GREASE SEAL	4
2	47009116	FRONT AXLE WELDMENT	1	49	47005378	BEARING CONE, INNER	4
3	47009198	FRONT SPINDLE ASSEMBLY, L.H.	1	50	47005279	BEARING CONE, OUTER	4
4	47009197	FRONT SPINDLE ASSEMBLY, R.H.	1	51	18000017	SPINDLE WASHER, 1 X .187	4
5	47009712	FRONT HUB COMPLETE	2	52	18489100	SLOTTED NUT, 1-14NF.	4
		INCLUDES ITEMS, 43 THRU 50 AND ITEM 54		53	18560830	COTTER PIN,	4
6	47009131	KING PIN	2	54	47005917	DUST CAP	4
7	47005176	THRUST BEARING, (TIMKEN T176)	2	55	47005652	BRAKE CLUSTER (13") L.H.	1
8	18300324	MACHINERY WASHER, (1 3/4 X 14 GA.)	4		47005651	BRAKE CLUSTER (13") R.H.	1
9	18300325	MACHINERY WASHER, (1 3/4 X 18 GA.)	2	56	47005650	BRAKE DRUM	2
10	18561132	SPRING PIN, 5/16 X 2 1/4	2	57	18057522	BOLT, 1/2-20NF. X 1	8
11	47001446	INNER BUSHING, TIE ROD	2	58	18891400	LOCKWASHER, 1/2	8
12	18811800	FLATWASHER, 3/4	2	59	18437500	HEX. NUT, 1/2-20NF.	8
13	18058442	BOLT, 3/4-10NC. X 3 1/2 GR. 8	2	60	47009814	RIM, W14C X 16 1	4
14	18458452	HEX. LOCKNUT, 3/4-10NC. GR. 8	2	61	20120012	VALVE STEM	4
15	47009132	AXLE PIN	1	62	30459	TIRE, 16.5 X 16.1, 8 PLY	4
16	47001168	COLLAR, AXLE PIN	1			<u>BRAKE AND ASSEMBLY HARDWARE PACKAGE</u>	
17	18056834	BOLT, 3/8-16NC. X 2 1/2	1	41040104		INCLUDES ITEMS 1A AND 26 TO 28, AND 37 TO 40 PLUS ALL HARDWARE TO MOUNT THE DUAL TANK FRAME. ON A SEPARATE ILLUSTRATION SEE ITEMS 3 TO 7, 9 TO 11, 13 TO 15 17 TO 20, 24 TO 26 AND THE FOLLOWING ITEMS 63 THRU 71.	
18	18891200	LOCKWASHER, 3/8	1	63	47005663	BRAKE HOSE BRACKET	3
19	18436800	HEX. NUT, 3/8-16NC.	1			NOTE: (ITEM 63 IS WELDED TO FRAME)	
20	47009119	STEERING ROD, LEFT	1	64	47005664	BRAKE HOSE CLIP	3
21	47009219	STEERING ROD, RIGHT	1	65	47005666	BRAKE LINE CLIP	4
22	18439000	HEX NUT, 1-8NC.	2	66	47005685	UNION TEE	1
23	47006826	TIE ROD END	2	67	47005660	UNION	2
24	18901805	GREASE ZERK, STRAIGHT	4	68	18721018	SCREW, SELF-TAP #10 X 3/4	4
25	18901806	GREASE ZERK, 90 DEG.	2	69	47005665	HOSE, BRAKE LINE- 18"	3
26	18099051	BOLT, 1-8NC X 9 1/2 GR. 8	1	70	47005694	TUBE, BRAKE LINE- 40"	3
27	18499000	HEX NUT, 1-8NC. GR. 8	1	71	47005695	TUBE, BRAKE LINE- 51"	2
28	18489000	JAM NUT, 1-8NC. GR. 8	1	72	47005119	OPT. STEERING SECTOR, SPRING LIFT	1
29	47109999	SAFETY GRIP PAD	3	73	47009910	SPRING BOLT WELDMENT	2
	47009014	STD STEERING SECTOR COMPLETE	1	74	00306-30	SPRING LIFT WITH INSERT	2
		INCLUDES ITEMS, 30 TO 35		75	18973001	ACTUATOR CHAIN #2 ZP X 90"	1
30	47009214	STEERING SECTOR ASSEMBLY	1	76	18006775	"S" HOOK NO 526 (79526)	2
31	18812200	FLATWASHER, 1 INCH	1	77	600183	LOCKOUT PIN ASSEMBLY	1
32	47001447	SPACER BUSHING	1	78	699109	LOCKOUT PIN WARNING DECAL	2
33	18059074	BOLT, 1-8NC. X 8 GR. 8	1	79*	47000314	OPTIONAL SAFETY CHAIN ASSEMBLY	1
34	18439000	HEX NUT, 1-8NC. GR. 8	1	79A*	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
35	18449000	JAM NUT, 1-8NC. GR. 8	1				
36	47002223A	REACH PIPE,	1				
37	47001778	PULL COLLAR	1				
38	18058456	BOLT, 3/4-10NC. X 5 1/2	2				
39	18891800	LOCKWASHER, 3/4	2				
40	18418400	HEX. NUT, 3/4-10NC.	2				

NOTE:
 IF YOUR HUB IS SMOOTH W/ A GREASE ZERK, ORDER GREASE SEAL P/N: 906481
 IF YOUR HUB HAS RIBS AND NO GREASE ZERK, ORDER GREASE SEAL P/N:47005017

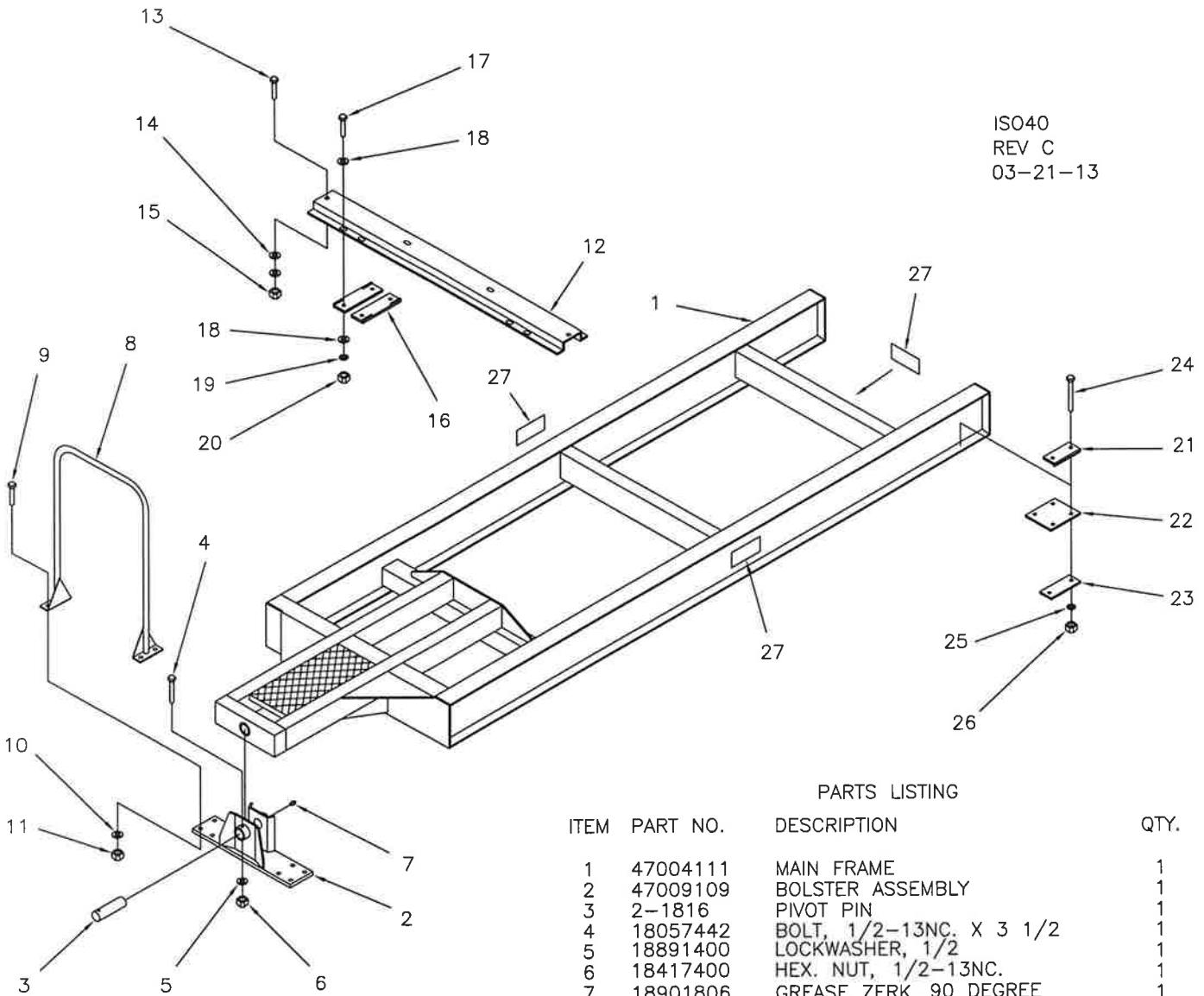
P/N: 47009783 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)

ITEM 79A IS INCLUDED WITH ALL POLES, ITEM 79 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

DUAL TANK FRAME

FOR AG104 WAGON

ISO40
REV C
03-21-13



PARTS LISTING

ITEM	PART NO.	DESCRIPTION	QTY.
1	47004111	MAIN FRAME	1
2	47009109	BOLSTER ASSEMBLY	1
3	2-1816	PIVOT PIN	1
4	18057442	BOLT, 1/2-13NC. X 3 1/2	1
5	18891400	LOCKWASHER, 1/2	1
6	18417400	HEX. NUT, 1/2-13NC.	1
7	18901806	GREASE ZERK, 90 DEGREE	1
8	47009346	HANDRAIL	1
9	18057934	BOLT, 5/8-11NC. X 2 1/2	8
10	18891600	LOCKWASHER, 5/8	8
11	18417900	HEX. NUT, 5/8-11NC.	8
12	47004112	TANK MOUNT BASE	2
13	18058430	BOLT, 3/4-10NC. X 2	8
14	18811800	FLATWASHER, 3/4	16
15	18458400	LOCKNUT, 3/4-10NC.	8
16	47006081	BASE MOUNT CLAMP	8
17	18057430	BOLT, 1/2-13NC. X 2	16
18	18811400	FLATWASHER, 1/2	32
19	18891400	LOCKWASHER, 1/2	16
20	18417400	HEX. NUT, 1/2-13NC.	16
21	47001839	AXLE CLAMP PLATE	4
22	2-1836	AXLE MOUNT PLATE	2
23	47001837	BOTTOM CLAMP PLATE	4
24	18057976	BOLT, 5/8-11NC. X 8 1/2	8
25	18891600	LOCKWASHER, 5/8	8
26	18417900	HEX. NUT, 5/8-11NC.	8
27	699107L	AG SYSTEMS DECAL, (LARGE)	3

AG104 WAGON ASSEMBLY and MAINTENANCE INSTRUCTIONS

Your AG104 wagon front axle is partially pre-assembled at the factory. The toe-in for the front wheels is properly set as indicated on the parts illustration (line drawing). Assemble the rest of the wagon per the parts illustration. Make sure all the hardware is securely tightened.

1. Bolts securely tightened at assembly may loosen under loaded operation. Within the first hour of loaded operation check the wheel bolts for tightness. Retighten with a torque wrench as required. For a 9/16 wheel bolt torque to 115 lb. ft..

2. After every 50 hours of operation, check the bolts that secure the reach pipe to the front and rear axle.

3. After every 100 hours of operation, check all assembly and mounting bolts for tightness. Grease the steering rod ends and the front spindle assembly king pins. It is recommended that this be done when the tank is empty so that you can move the wagon tongue left and right to distribute the grease around the king pins. If you are having difficulty greasing the pin areas, use appropriate lifting equipment to raise the axle off the ground lifting it by the tank subframe. This will relieve pin pressures and make it easier to turn the axle back and forth or rotate and take on grease.

4. Visually inspect the tire pressure daily. After every 100 hours of operation check the tire pressure with an air gauge. Check the wheel bolts with a torque wrench. See step 1 for specifications. Check the front wheels for proper toe-in. Carefully measure the center to center distance across the front of the tires and across the back of the tires. The distance across the back should be 1/2 inch to 3/4 inch greater than across the front. If required, adjust the toe-in by removing the 3/4 inch diameter bolt in the steering rod ends and adjust the length as required. Make sure the tire centers are at an equal distance from the wagon center line. Replace the 3/4 inch locknut with a new locknut.

5. If your wagon is equipped with a dual tank frame, check the mounting bolts regularly. Grease the 2 inch diameter pivot pin after every 100 hours of operation.

FOR WINTER STORAGE.

Thoroughly wash the unit with a pressure washer. Grease the steering rod ends and king pins. Apply oil to the pull collar and reach pipe at the rear axle. Apply oil to the steering sector pivot points. Inspect the wheel bearings and repack with grease as required. Check for brake shoe wear and brake fluid leaks. Make sure the brake fluid reservoir is full.

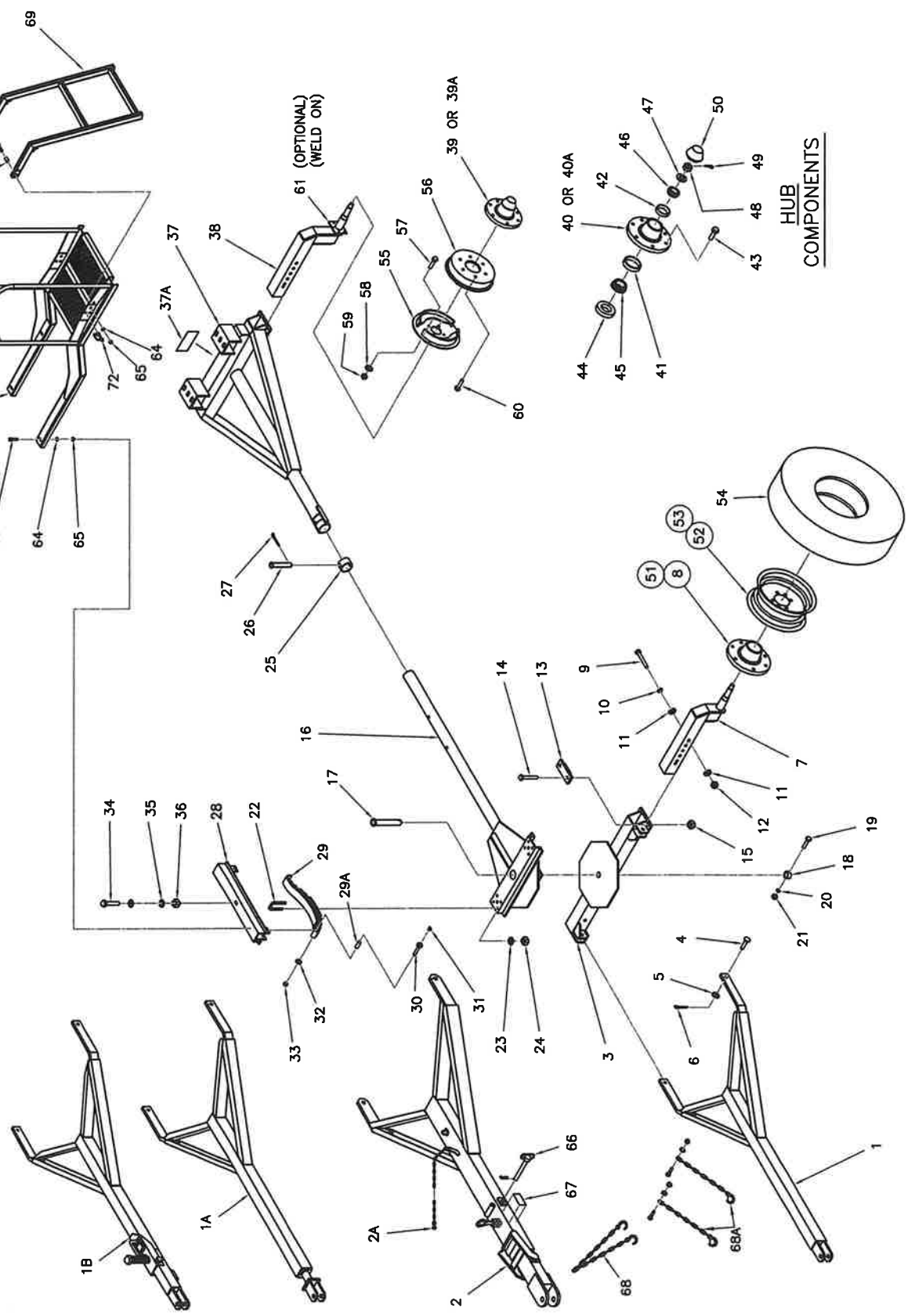
If your wagon is equipped with a dual tank frame, grease the 2 inch diameter pivot pin.

AG106 ADJUSTABLE TRACK WAGON

1978 to PRESENT

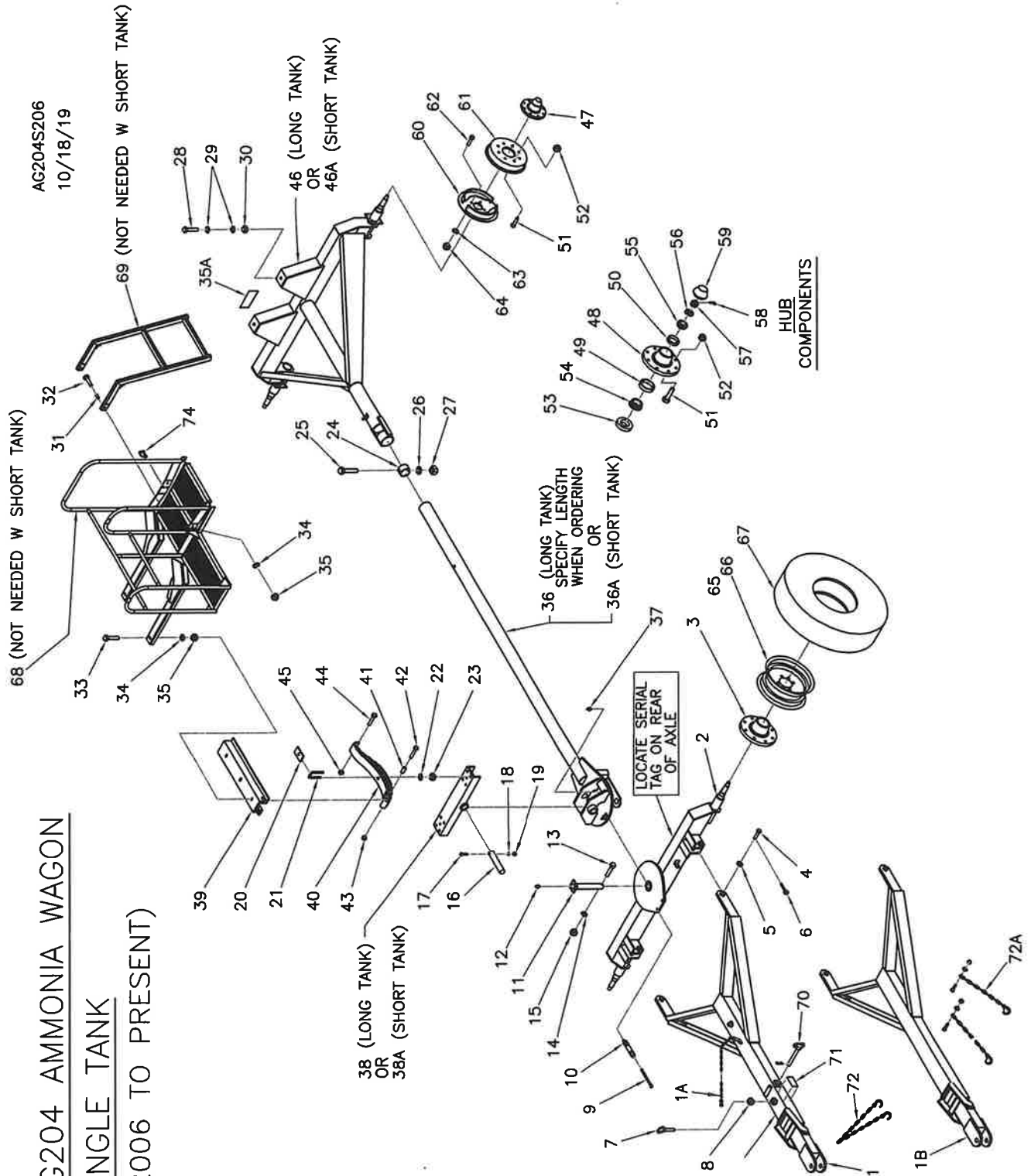
AG106ISB
RV 10/17/19

OPTIONAL
PLATFORM ASSEMBLY 62



AG204 AMMONIA WAGON
SINGLE TANK
 (2006 TO PRESENT)

AG204S206
 10/18/19



AG204 AMMONIA WAGON

FOR SINGLE TANK

PARTS LIST (2006 TO PRESENT)

AG204LS206
REV 03/11/14

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47009905	TELESCOPING POLE W/ACTUATOR INCLUDES CABLE ASSY W/ (2) "S" HOOKS	1	39	47009390	BOLSTER	
		FOR REPAIR PARTS SEE SEPARATE POLE ILLUSTRATION		40	47004202	LEAF SPRING	2
1A	13988	CABLE ASSY, 72 INCH BREAKAWAY	1	41		BRONZE BUSHING (PART OF SPRING)	2
1B	47005006	TELESCOPING POLE ONLY, NO BRKS	1	42	18058570	BOLT, 7/8-9NC. X 7	2
				43	18417800	HEX. NUT, 7/8-9NC.	4
47007666		POLE, WITH DEMCO ACTUATOR	OBSOLETE	44	18057954	BOLT, 5/8-11NC. X 5	2
AND (1) P.N. 18571000		HITCH PIN	FOR 2006	45	18457900	HEX. NUT, CENTERLOCK, 5/8-11NC.	2
47004226		EXTENSION SPRING	OBSOLETE		47109384	REAR AXLE COMPLETE	1
						INCLUDES ITEMS 46 TO 64	
47107721		FRONT AXLE COMPLETE, INCLUDES ITEMS, 2 TO 6	1	46	47009384	REAR AXLE WELDMENT (LONG TANK)	1
2	47007721	FRONT AXLE ASSEMBLY	1	46A	47005787	REAR AXLE WELDMENT (SHORT TANK)	1
3	47009712	FRONT HUB COMPLETE	2	47	47009712	REAR HUB COMPLETE	2
		INCLUDES ITEMS 48, 51 THRU 55 AND ITEM 59				INCLUDES ITEMS 48, 51 THRU 55 AND ITEM 59	
4	18541551	CLEVIS PIN, 1 X 4	2	48	47005712	HUB WITH CUPS ITEMS 49 & 50	4
5	18812200	FLATWASHER, 1 INCH	2	49	47005372	BEARING CUP, INNER	4
6	18560826	COTTER PIN, 3/16 X 1	2	50	47005272	BEARING CUP, OUTER	4
7	18007500	EYE BOLT, 1/2-13NC. X 2" SHANK	1	51	47005041	WHEEL BOLT,	32
8	17417400	HEX. NUT, 1/2-13NC.	1	52	47005040	WHEEL NUT,	32
9	47009910	ANCHOR BOLT	3	53	(SEE NOTE)	GREASE SEAL	4
10	00306-30	SPRING ASSEMBLY, POLE LIFT	3	54	47005378	BEARING CONE, INNER	4
				55	47005279	BEARING CONE, OUTER	4
	47000204	ITEMS 11 TO 35 INCLUDED IN BRAKES AND HARDWARE PKG.		56	18000017	SPINDLE WASHER, 1 X .187	4
11	47019376	AXLE PIVOT PIN (INCL GREASE ZERK)	1	57	18489100	SLOTTED NUT,	4
12	18901806	GREASE ZERK, 90 DEG.	1	58	18560830	COTTER PIN,	4
13	18057442	BOLT, 1/2-13NC. X 3 1/2	1	59	47005917	DUST CAP	4
14	18891400	LOCKWASHER, 1/2	1	60	47005652	BRAKE CLUSTER (13") L.H.	1
15	18417400	HEX. NUT, 1/2-13NC.	1		47005651	BRAKE CLUSTER (13") R.H.	1
16	47019379	BOLSTER PIVOT PIN,	1	61	47005650	BRAKE DRUM	2
17	18057442	BOLT, 1/2-13NC. X 3 1/2	1	62	18057522	BOLT, 1/2-20NF. X 1	8
18	18891400	LOCKWASHER, 1/2	1	63	18891400	LOCKWASHER, 1/2	8
19	18417400	HEX. NUT, 1/2-13NC.	1	64	18437500	HEX. NUT, 1/2-20NF.	8
20	47009397	SPACER, U-BOLT	2	65	47009814	RIM, W14C X 16 1	4
21	47306677	U-BOLT, 5/8-11NC.	4	66	20120012	VALVE STEM	4
22	18891600	LOCKWASHER, 5/8	8	67	30459	TIRE, 16.5 X 16.1, 8 PLY	4
23	18417900	HEX. NUT, 5/8-11NC.	8	68	47009541	PLATFORM	1
24	47007726	PULL COLLAR	1	69	47009550	LADDER	1
25	18058458	BOLT, 3/4-10NC. X 6	1	70	600183	LOCKOUT PIN ASSEMBLY	1
26	18891800	LOCKWASHER, 3/4	1	71	699109	LOCKOUT PIN WARNING DECAL	2
27	18418400	HEX. NUT, 3/4-10NC.	1	72*	47000314	SAFETY CHAIN ASSY (OPTIONAL)	1
28	18098433	BOLT, 3/4-10NC. X 2 GRADE 8	4	72A*	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
29	18811800	FLATWASHER, 3/4	8	74	98416A018	PIN, LOCK CLEVIS Ø3/8 X 1 7/8	1
30	18458400	LOCKNUT, 3/4-10NC.	4				
31	47009557	BUSHING,	2			BRAKE AND ASSEMBLY HARDWARE PACKAGE	
32	18057432	BOLT, 1/2-13NC. X 2 1/4	2	47000204		INCLUDES ITEMS 7 TO 35 AND THE FOLLOWING	
33	18057434	BOLT, 1/2-13NC. X 2 1/2	4	47005664		BRAKE HOSE CLIP	3
34	18891400	LOCKWASHER, 1/2	6	47005666		BRAKE LINE CLIP	12
35	18417400	HEX. NUT, 1/2-13NC.	6	18721018		SCREW, SELF-TAP #10 X 3/4	12
35A	699107L	DECAL, HEARTLAND AG SYSTEMS	1	47005685		UNION TEE	1
				47005660		UNION	4
36	47019380	REACH WELDMENT (LONG) W ZERKS (CUSTOMER MUST SPECIFY LENGTH WHEN ORDERING)	1	47005665		HOSE, BRAKE LINE- 18"	1
36A	47007710	REACH WELDMENT (SHORT) W ZERKS	1	47005668		HOSE, BRAKE LINE- 13"	2
37	18901806	GREASE ZERK, 90 DEGREE	2	47005688		TUBE, BRAKE LINE- 60"	1
				47005695		TUBE, BRAKE LINE- 51"	2
38	47009387	BOLSTER PIVOT (LONG TANK)	1	47005694		TUBE, BRAKE LINE- 40"	3
38A	47005788	BOLSTER PIVOT (SHORT TANK)	1	47005690		TUBE, BRAKE LINE- 12"	1
						47005682 TUBE, BRAKE LINE- 4"	2
				73		(ASSEMBLED ONTO THE REAR AXLE AT AG SYSTEMS)	

NOTE:
IF YOUR HUB IS SMOOTH W/ A GREASE ZERK, ORDER GREASE SEAL P/N: 906481
IF YOUR HUB HAS RIBS AND NO GREASE ZERK, ORDER GREASE SEAL P/N: 47005017

ITEM 72A IS INCLUDED WITH ALL POLES, ITEM 72 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

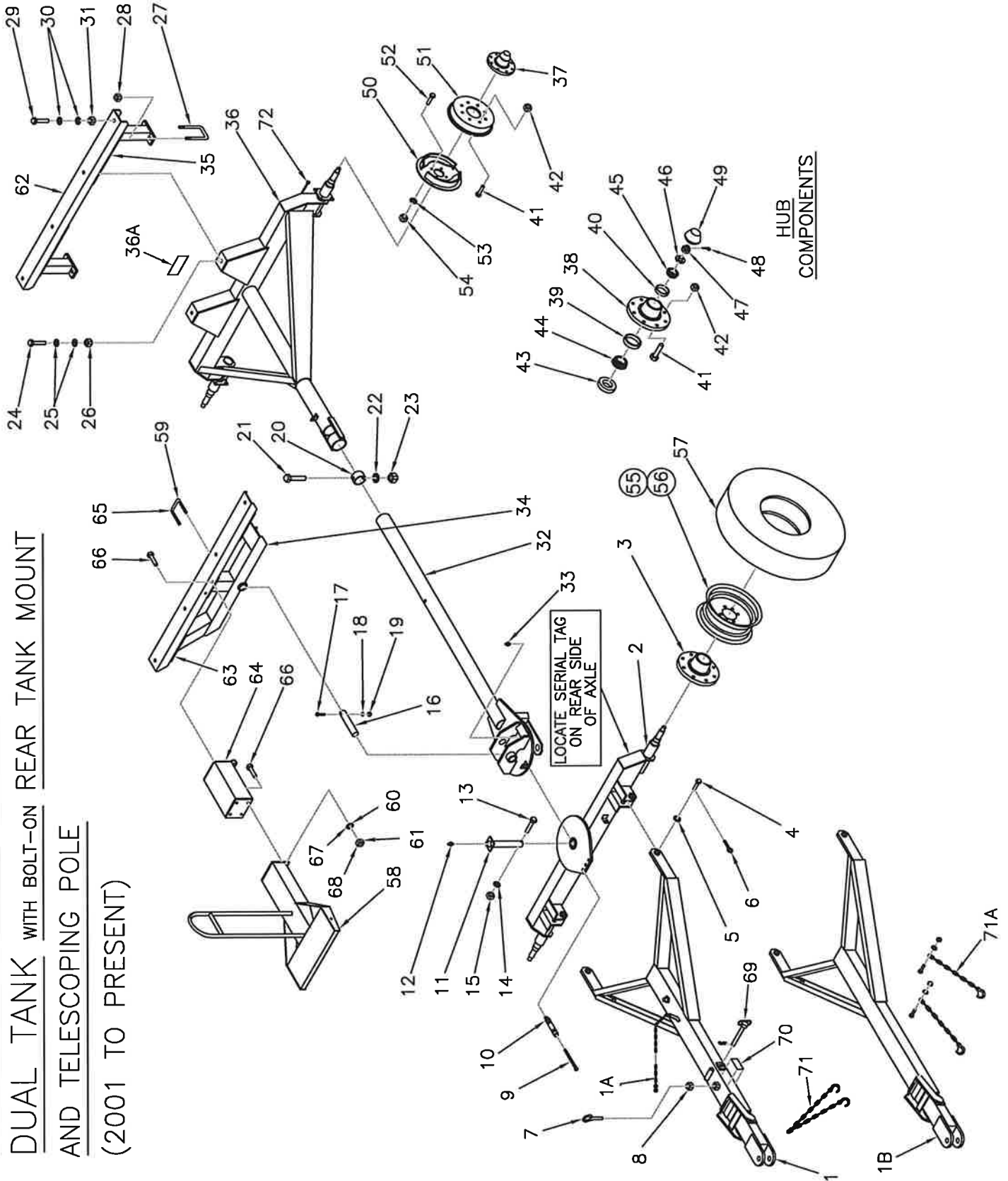
AG204 AMMONIA WAGON

DUAL TANK WITH BOLT-ON REAR TANK MOUNT

AND TELESCOPING POLE

(2001 TO PRESENT)

AG204D203
06-24-14



AG204 AMMONIA WAGON

AG204DLS203
12/7/23

FOR DUAL TANKS AND TELESCOPING POLE

PARTS LIST (2001 TO PRESENT)

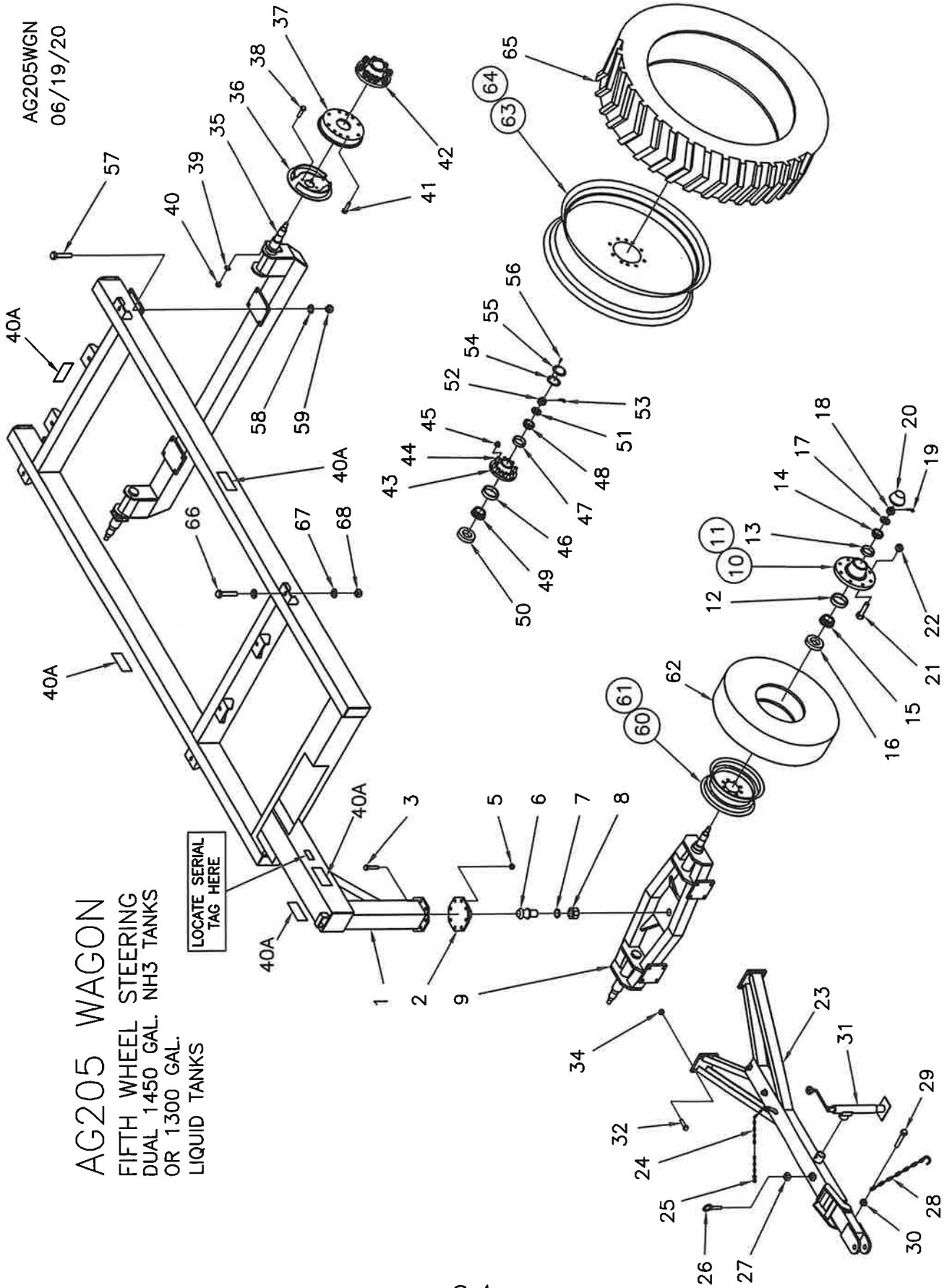
ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47009905	TELESCOPING POLE W/ACTUATOR INCLUDES CABLE ASSY W/ (2) "S" HOOKS (FOR REPAIR PARTS SEE SEPARATE POLE ILLUSTRATION)	1	37	47009712	REAR HUB COMPLETE INCLUDES ITEMS 38, 41 THRU 45 AND 49	2
	47007666	POLE, WITH DEMCO ACTUATOR OBSOLETE FOR 2006 (LAST S.N. 1525) REPAIR PART FOR POLE, HITCH PIN P.N. 18571000 REPAIR PARTS FOR ACTUATOR SEE SEPARATE ACTUATOR ILLUSTRATION	1	38	47005712	HUB WITH CUPS ITEMS 39 & 40	4
1A	13988	CABLE, 72 INCH BREAKAWAY	1	39	47005372	BEARING CUP, INNER	4
1B	47005006	TELESCOPING POLE (NO BRAKES)	1	40	47005272	BEARING CUP, OUTER	4
	47107721	FRONT AXLE COMPLETE, INCLUDES ITEMS, 2 TO 6	1	41	47005041	WHEEL BOLT,	32
2	47007721	FRONT AXLE ASSEMBLY	1	42	47005040	WHEEL NUT,	32
3	47009712	FRONT HUB COMPLETE INCLUDES ITEMS, 38, 41 THRU 45 AND 49	2	43	(SEE NOTE)	GREASE SEAL	4
4	18541551	CLEVIS PIN, 1 X 4	2	44	47005378	BEARING CONE, INNER	4
5	18812200	FLATWASHER, 1 INCH	2	45	47005279	BEARING CONE, OUTER	4
6	18560826	COTTER PIN, 3/16 X 1	2	46	18000017	SPINDLE WASHER, 1 X .187	4
7	18007500	EYE BOLT, 1/2-13NC. X 2" SHANK	1	47	18489100	SLOTTED NUT,	4
8	18417400	HEX. NUT, 1/2-13NC.	1	48	18560830	COTTER PIN,	4
9	47009910	ANCHOR BOLT	3	49	47005917	DUST CAP	4
10	00306-30	SPRING ASSEMBLY (POLE LIFT)	3	50	47005652	BRAKE CLUSTER (13") L.H.	1
		ITEMS 11 TO 31 INCLUDED IN BRAKE AND HARDWARE PKG. 47990204			47005651	BRAKE CLUSTER (13") R.H.	1
11	47019376	AXLE PIVOT PIN (INCL GREASE ZERK)	1	51	47005650	BRAKE DRUM	2
12	18901806	GREASE ZERK, 90 DEG.	1	52	18057522	BOLT, 1/2-20NF. X 1	8
13	18057442	BOLT, 1/2-13NC. X 3 1/2	1	53	18891400	LOCKWASHER, 1/2	8
14	18891400	LOCKWASHER, 1/2	1	54	18437500	HEX. NUT, 1/2-20NF.	8
15	18417400	HEX. NUT, 1/2-13NC.	1	55	47009814	RIM, W14C X 16 1	4
16	47019379	PIVOT PIN,	1	56	20120012	VALVE STEM	4
17	18057442	BOLT, 1/2-13NC. X 3 1/2	1	57	30459	TIRE, 16.5 X 16.1, 8 PLY	4
18	18891400	LOCKWASHER, 1/2	1	58	47009531	SERVICE PLATFORM WELDMENT ITEMS 59 TO 61 INCLUDED IN BRAKE AND HARDWARE PKG. 47990204	1
19	18417400	HEX. NUT, 1/2-13NC.	1	59	47006487	U-BOLT, 1/2-13NC. 1000 GAL.	2
20	47007726	PULL COLLAR	1	60	18891400	LOCKWASHER, 1/2	4
21	18058458	BOLT, 3/4-10NC. X 6	1	61	18417400	HEX. NUT, 1/2-13NC.	4
22	18891800	LOCKWASHER, 3/4	1			ITEMS 62 TO 68 USED TO MOUNT THE 1415 GAL TANKS	
23	18418400	HEX. NUT, 3/4-10NC.	1	62	47009710	REAR TANK MOUNT	1
24	18098433	BOLT, 3/4-10NC. X 2 GR. 8	2	63	47009705	BOLSTER	1
25	18811800	FLATWASHER, 3/4	2	64	47009745	PLATFORM SPACER	1
26	18458400	LOCKNUT, 3/4-10NC.	4	65	47006487	U-BOLT 1/2-13NC	1
27	47006951	U-BOLT, 5/8-11NC.	2	66	18057426	BOLT, 1/2-13NC. X 1 1/2	1
28	18457900	LOCKNUT, 5/8-11NC.	4	67	18891400	LOCKWASHER, 1/2	8
29	18058430	BOLT, 3/4-10NC. X 2	8	68	18417400	HEX. NUT, 1/2-13NC.	8
30	18811800	FLATWASHER, 3/4	16	69	600183	LOCKOUT PIN ASSEMBLY	1
31	18458400	LOCKNUT, 3/4-10NC.	8	70	699109	LOCKOUT PIN WARNING DECAL	2
32	47007710	REACH WELDMENT	1	*71	47000314	SAFETY CHAIN ASSY (OPTIONAL)	1
33	18901806	GREASE ZERK, 90 DEG.	2	*71A	47005479	SAFETY (2-CHAIN) KIT (INCLUDED)	1
34	47007674	BOLSTER, 1000 GAL. TANK BOLSTER, 1415 GAL. TANK SEE ITEM 63	1			BRAKE AND ASSEMBLY HARDWARE PACKAGE 47990204 INCLUDES ITEMS 7 TO 31 AND 59 TO 61 PLUS ADD THE FOLLOWING PARTS	
35	47009451	REAR TANK MNT., 1000 GAL. REAR TANK MNT., 1415 GAL TANK SEE ITEM 62	1	47005664	BRAKE HOSE CLIP	3	
	47109384	REAR AXLE COMPLETE INCLUDES ITEMS 36 TO 54	1	47005666	BRAKE LINE CLIP	5	
36	47009384	REAR AXLE WELDMENT	1	18721018	SCREW, SELF-TAP #10 X 3/4	5	
36A	699107L	DECAL, AG-SYSTEMS (LARGE)	1	47005685	UNION TEE	1	
				47005660	UNION	3	
				47005665	HOSE, BRAKE LINE- 18"	2	
				47005668	HOSE, BRAKE LINE- 13"	1	
				47005688	TUBE, BRAKE LINE- 60"	1	
				47005695	TUBE, BRAKE LINE- 51"	1	
				47005694	TUBE, BRAKE LINE- 40"	2	
				47005690	TUBE, BRAKE LINE- 12"	1	
				72	47005682	TUBE, BRAKE LINE- 4" (ASSEMBLED ONTO THE REAR AXLE AT AG SYSTEMS)	2

NOTE:
IF YOUR HUB IS SMOOTH W/ A GREASE ZERK, ORDER GREASE SEAL P/N: 906481
IF YOUR HUB HAS RIBS AND NO GREASE ZERK, ORDER GREASE SEAL P/N:47005017

P/N: 47109384 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)

ITEM 71A IS INCLUDED WITH ALL POLES, ITEM 71 IS ONLY AVAILABLE FOR REPLACEMENT PARTS ON UNITS PRIOR TO 2021.

AG205WGN
06/19/20



AG205 WAGON
FIFTH WHEEL STEERING
DUAL 1450 GAL. NH3 TANKS
OR 1300 GAL.
LIQUID TANKS

LOCATE SERIAL-TAG HERE

AG205 WAGON

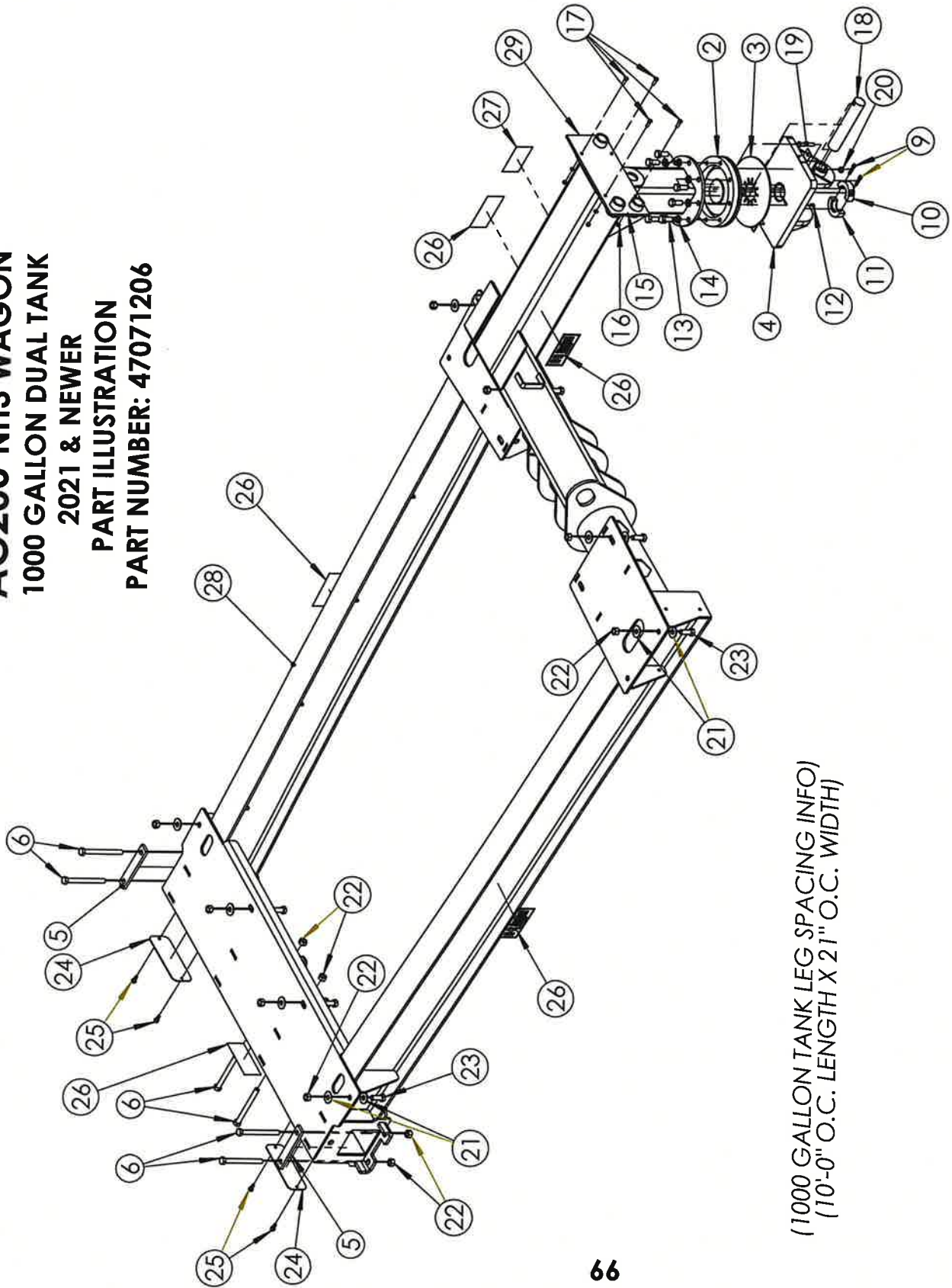
AG205LST
06/19/20

FIFTH WHEEL STEERING

for DUAL TANKS

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47004630	TRAILER FRAME	1	41		BOLT,	
2	47004654	BALL CAP ASSEMBLY	1	42	47001010	REAR HUB COMPLETE	2
3	18098430	BOLT, 3/4-10NC. X 2	8			INCLUDES ITEMS 43 THRU 45, 48 THRU 50 & 54 THRU 56	
4	--	--	--	43	47002010	HUB WITH CUPS ITEMS 46 & 47	
5	18458452	LOCK NUT, 3/4-10NC	8	44	4700WB51	WHEEL STUD (PRESSED IN)	20
6	47003000	COUPLER BALL, (3" DIA.) 2" THD.	1	45	4700WB52	WHEEL NUT, FLANGED	20
7		LOCK WASHER, 2" (INCLUDED)		46	47039520	BEARING CUP, INNER	2
8		HEX. NUT, 2" (INCLUDED)		47	47000453	BEARING CUP, OUTER	2
		FRONT AXLE COMPLETE	1	48	47000460	BEARING CONE, OUTER	2
		INCLUDES ITEMS, 9 THRU 22		49	47039585	BEARING CUP, INNER	2
9	47004660	FRONT AXLE ASSY, (60" wheeltrack)	1	50	47000048	GREASE SEAL	2
10	47008712	FRONT HUB COMPLETE	2	51	47000023	SPINDLE WASHER	2
		INCLUDES ITEMS, 11, 13 THRU 16 & 20 THRU 22		52	47000038	SLOTTED NUT,	2
11	47005712	HUB WITH CUPS ITEMS 12 & 13	2	53	18560828	COTTER PIN,	2
12	47005372	BEARING CUP, INNER	2	54	47000049	GASKET, DUST CAP	2
13	47005272	BEARING CUP, OUTER	2	55	47000027	DUST CAP	2
14	47005279	BEARING CONE, OUTER	2	56	47000053	CAP BOLT,	8
15	47005378	BEARING CONE, INNER	2	57	18098437	BOLT, 3/4-10NC. X 2 1/2	8
16	47005017	GREASE SEAL	2	58	18891800	LOCK WASHER, 3/4	8
17	18000017	SPINDLE WASHER, 1 X .187	2	59	18418400	HEX. NUT, 3/4-10NC	8
18	18489100	SLOTTED NUT,	2	60	47006023	RIM, 22.5 X 8.25	2
19	18560830	COTTER PIN,	2	61	20120012	VALVE STEM	2
20	47005917	DUST CAP	2	62	179906	TIRE, 11R X 22.5 TRANSPORT	2
21	47005041	WHEEL BOLT,	16	63	47000200	RIM, 46 X W12A, 10 HOLE	2
22	47005040	WHEEL NUT,	16	64	20120022	VALVE STEM	2
23	47004656	TELESCOPING POLE W/ACTUATOR	1	65	20100380	TIRE, 380/90R46	2
		INCLUDES ITEMS 24 TO 27		66	18098433	BOLT, 3/4-10NC. X 2, GR. 8	8
		FOR REPAIR PARTS SEE SEPARATE POLE ILLUSTRATION		67	18811800	FLAT WASHER, 3/4	16
24	18973001	BULK CHAIN, NO.2 X 90 INCHES	1	68	18458400	HEX. LOCKNUT, 3/4-10NC	8
25	18006775	"S" HOOK, NO. 526	1			<u>BRAKE AND ASSEMBLY HARDWARE PACKAGE</u>	
26	18007500	EYE BOLT, 1/2-13NC. X 2" SHANK	1			INCLUDES ITEMS	
27	18417400	HEX. NUT, 1/2-13NC.	1			AND THE FOLLOWING	
28	47000316	SAFETY CHAIN, W/HOOK (1/2" HI-TEST)	2	47005664		BRAKE HOSE CLIP	
29	18058452	BOLT, 3/4-10NC. X 3 1/2	2	47005666		BRAKE LINE CLIP	
30	18458400	NUT, SELF-LOCK, 3/4-10NC.	2	18721018		SCREW, SELF-TAP #10 X 3/4	
31	600378	JACK COMPLETE	1	47005685		UNION TEE	
32	18098435	BOLT, 3/4-10NC. X 2 1/2	8	47005660		UNION	
33	--	--	--	47005665		HOSE, BRAKE LINE- 18"	
34	18458452	LOCK NUT, 3/4-10NC	8	47005668		HOSE, BRAKE LINE- 13"	
		REAR AXLE COMPLETE	1	47005688		TUBE, BRAKE LINE- 60"	
		INCLUDES ITEMS		47005695		TUBE, BRAKE LINE- 51"	
35	47004667	REAR AXLE WELDT, (120" wheeltrack)	1	47005694		TUBE, BRAKE LINE- 40"	
36	47005652	BRAKE CLUSTER (13") L.H.	1	47005687		TUBE, BRAKE LINE- 30"	
	47005651	BRAKE CLUSTER (13") R.H.	1	47005692		TUBE, BRAKE LINE- 20"	
37	07324	BRAKE DRUM	2	47005682		TUBE, BRAKE LINE- 4"	
38	18057522	BOLT, 1/2-20NF. X 1	8				
39	18891400	LOCKWASHER, 1/2	8				
40	18437500	HEX. NUT, 1/2-20NF.	8				
40A	699107L	DECAL, AG-SYSTEMS (LARGE)	5				

**AG206 NH3 WAGON
 1000 GALLON DUAL TANK
 2021 & NEWER
 PART ILLUSTRATION
 PART NUMBER: 47071206**



(1000 GALLON TANK LEG SPACING INFO)
 (10'-0" O.C. LENGTH X 21" O.C. WIDTH)

AG206 DUAL 1000 GALLON TANK NH3 WAGON 2021 & NEWER

PART LISTING / PART NUMBER: 47071206

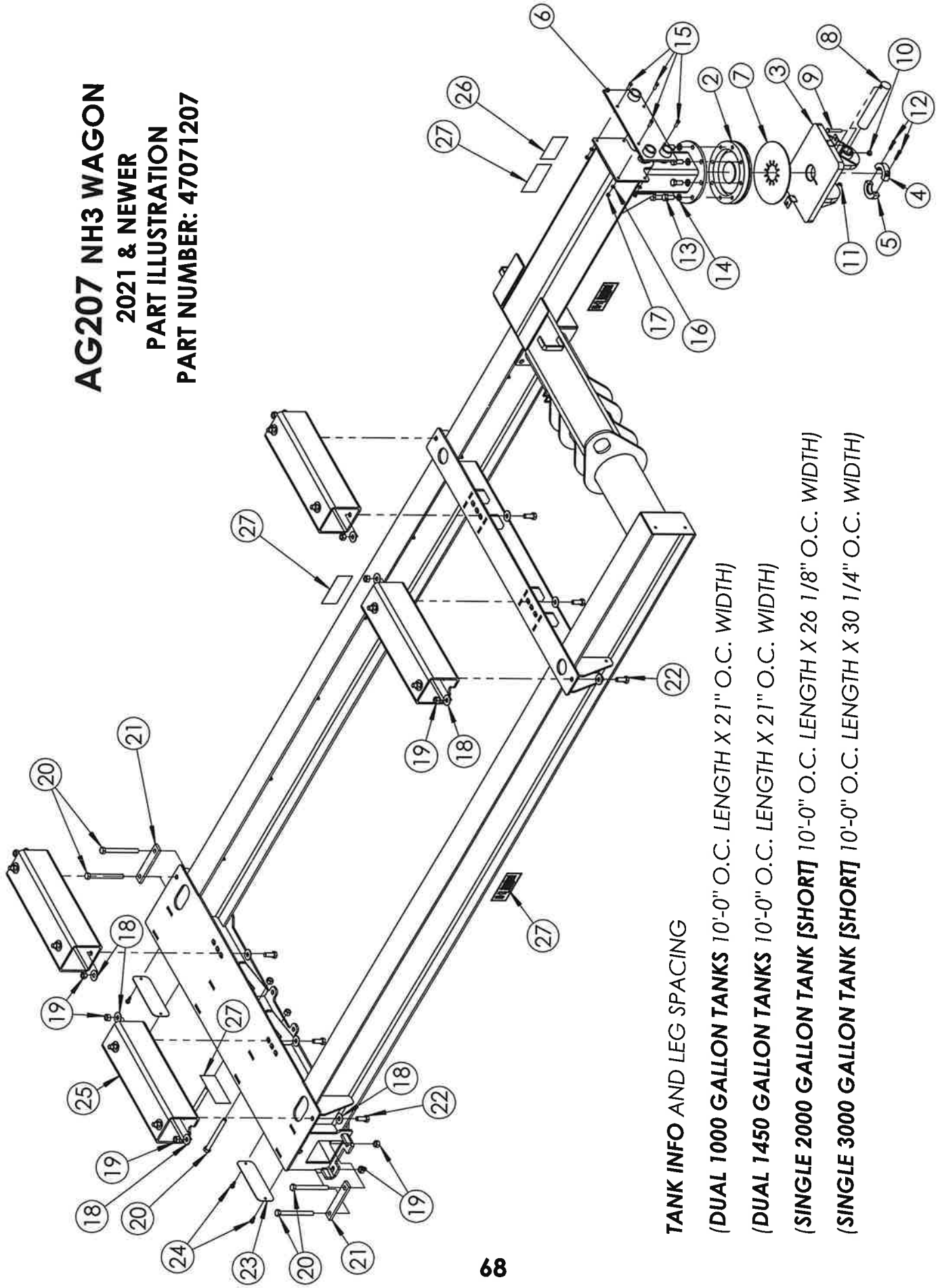
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	70972	AG206 FRAME WELDMENT	1
2	47015348	UPPER KING PIN WELDMENT	1
3	47005393	REESE 12" LUBE PLATE (83001)	1
4	47005352	SKID BASE PLATE WELDMENT	1
5	70980	AXLE TOP CLAMP	2
6	18058480	BOLT HX 3/4 X 8 GR 5 NC ZC	6
7	18178450	BOLT, SOCKET HEAD 3/8-16 X 1 3/4 LG ZC	2
8	47005360	KING PIN CLAMP FRONT	1
9	47005361	KINGPIN CLAMP, REAR	1
10	18901806	GREASE ZERK 90 DEG	1
11	18058429	BOLT HX 3/4 X 1 3/4 GR 5 NC ZC	8
12	18891800	WASHER LOCK 3/4 ZC	8
13	18891200	LOCKWASHER, 3/8 ZC	4
14	18436800	NUT 3/8 NCZC	4
15	18056824	BOLT HX ZC 3/8 X 1 1/4	4
16	47005358	CLEVIS PIN SHANK	1
17	18057438	BOLT, 1/2-13 X 3 GR5 ZP	1
18	18457650	NUT CTR LOCK 1/2 ZP ZC	1
19	18811800	FLAT WASHER 3/4" USS	16
20	18458452	LOCKNUT, 3/4 GR 8 ZC	14
21	18058430	BOLT HX 3/4 X 2 GR 5 NC ZC	8
22	71200	TAIL LIGHT COVER	2
23	1700400	3/8 HEX HEAD SELF THREAD SCREW	4
24	699107L	HEARTLAND AG SYSTEMS DECAL (MEDIUM)	5
25	699190	DECAL CHECK LUG NUTS	1
26	47003859	VALVE BULKHEAD WELDMENT	1

ALSO INCLUDED BUT NOT SHOWN:
 DUAL SAFETY CHAIN KIT P/N 47005479
 DOT REFLECTIVE TAPE PACKAGE P/N 32-4

OPTIONS LIST		QTY
PART NUMBER	DESCRIPTION	
FRONT AXLE PACKAGE		
47071294	FIXED FRONT AXLE, 60" WHEEL TRACK	1
47070989	TORSION FRONT AXLE	1
REAR AXLE PACKAGE (INCLUDES TELESCOPING POLE WITH SPRING LIFT ASSIST)		
47071292	96" - 120" ADJUSTABLE SINGLE REAR AXLES, 2 WHEEL SURGE BRAKES	1
47071293	96" - 120" ADJUSTABLE SINGLE REAR AXLES, NO BRAKES	1
47071295	102" -115" ADJUSTABLE WALKING TANDEM AXLES, 4 WHEEL SURGE BRAKES	1
47071296	102"-115" ADJUSTABLE WALKING TANDEM AXLES, NO BRAKES	1
MISC. OPTIONS		
47071290	STEP KIT (2 STEPS)	1
47071300	LED LIGHT KIT	1
47071289	FRONT TONGUE HOSE HOLDER (NOT LEGAL IN ALL STATES)	1
47071324	TANK SPRING MOUNTING PACKAGE (NOT LEGAL IN ALL STATES)	1
47071322	22.5 X 11.25 RIM, 8 ON 8 FOR 385/65R22.5 TIRE, 8K CAPACITY	
40039A	USED 385/65R22.5 TRUCK TIRE ON 47071322 RIM	
47009814	14X16.1 RIM, 8 ON 8	
47009385	22.5 X 11.25 RIM, 8 ON 8 FOR 385/65R22.5 TIRE, 6K CAPACITY	
40013	16.5X16.1 10 PLY TIRE/RIM	

ITEMS 2-4 & 7-10 ARE INCLUDED IN SKID PLATE ASSEMBLY P/N: 47015352
 ITEMS 5-6 & 11-25 ARE INCLUDED IN BOLT KIT P/N: 71335

AG207 NH3 WAGON
2021 & NEWER
PART ILLUSTRATION
PART NUMBER: 47071207



TANK INFO AND LEG SPACING

(DUAL 1000 GALLON TANKS 10'-0" O.C. LENGTH X 21" O.C. WIDTH)

(DUAL 1450 GALLON TANKS 10'-0" O.C. LENGTH X 21" O.C. WIDTH)

(SINGLE 2000 GALLON TANK [SHORT] 10'-0" O.C. LENGTH X 26 1/8" O.C. WIDTH)

(SINGLE 3000 GALLON TANK [SHORT] 10'-0" O.C. LENGTH X 30 1/4" O.C. WIDTH)

AG207 NH3 WAGON 2021 & NEWER

PART LISTING / PART NUMBER: 47071207

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	OPTIONS LIST	
1	70977	AG207 MAIN FRAME WELDMENT	1	PART NUMBER	DESCRIPTION
2	47015348	UPPER KING PIN WELDMENT	1		
3	47005352	SKID BASE PLATE WELDMENT	1		
4	47005360	KING PIN CLAMP FRONT	1		FRONT AXLE PACKAGE
5	47005361	KINGPIN CLAMP, REAR	1	47071294	FIXED FRONT AXLE 60" WHEEL TRACK
6	47003859	VALVE BULKHEAD WELDMENT	1	47070989	TORSION AXLE
7	47005393	REESE 12" LUBE PLATE (83001)	1		
8	47005358	CLEVIS PIN SHANK	1		
9	18057438	BOLT, 1/2-13 X 3 GR5 ZP	1		
10	18457650	NUT CTR LOCK 1/2 ZP ZC	1		
11	18901806	GREASE ZERK 90 DEG	1		
12	18178450	BOLT, SOCKET HEAD 3/8-16 X 1 3/4 LG ZC	2		
13	18058429	BOLT HX 3/4 X 1 3/4 GR 5 NC ZC	8		
14	18891800	WASHER LOCK 3/4 ZC	8		
15	18056824	BOLT HX ZC 3/8 X 1 1/4	4		
16	18891200	LOCKWASHER, 3/8 ZC	4		
17	18436800	NUT 3/8 NCZC	4		
18	18811800	FLAT WASHER 3/4" USS	16		
19	18458452	LOCKNUT, 3/4 GR 8 ZC	14		
20	18058480	BOLT HX 3/4 X 8 GR 5 NC ZC	6		
21	70980	AXLE TOP CLAMP	2		
22	18058430	BOLT HX 3/4 X 2 GR 5 NC ZC	8		
23	71200	TAIL LIGHT COVER	2		
24	1700400	3/8 HEX HEAD SELF THREAD SCREW	4		
25	71422	AG 207 TANK RISER KIT	1		
26	699190	DECAL CHECK LUG NUTS	1		
27	699107L	HEARTLAND AG SYSTEMS DECAL (MEDIUM)	5		
				REAR AXLE PACKAGE (INCLUDES TELESCOPING POLE W/ SPRING LIFT ASSIST)	
	47071292	96" - 120" ADJUSTABLE SINGLE REAR AXLES, 2 WHEEL SURGE BRAKES	1		
	47071293	96" - 120" ADJUSTABLE SINGLE REAR AXLES, NO BRAKES	1		
	47071295	102" - 115" ADJUSTABLE WALKING TANDEM AXLES, 4 WHEEL SURGE BRAKES	1		
	47071296	102" - 115" ADJUSTABLE WALKING TANDEM AXLES, NO BRAKES	1		
				MISC. OPTIONS	
	47071300	LED LIGHT KIT	1		
	47071289	FRONT TONGUE HOSE HOLDER (NOT LEGAL IN ALL STATES)	1		
	47071324	TANK SPRING MOUNTING PACKAGE (NOT LEGAL IN ALL STATES)	1		
	40039A	USED 385/65R22.5 TRUCK TIRE ON 47071322 RIM			
	47071322	22.5 X 11.25 RIM, 8 ON 8 FOR 385/65R22.5 TIRE, 8K CAPACITY			
	47009814	14 X 16.1 RIM, 8 ON 8			
	40013	16.5 X 16.1 10 PLY TIRE/RIM			
	40037	USED 425/65R22.5 ON 22.5 RIM			
	47000314	SAFETY CHAIN			
	32-4	DOT REFLECTIVE TAPE PKG			

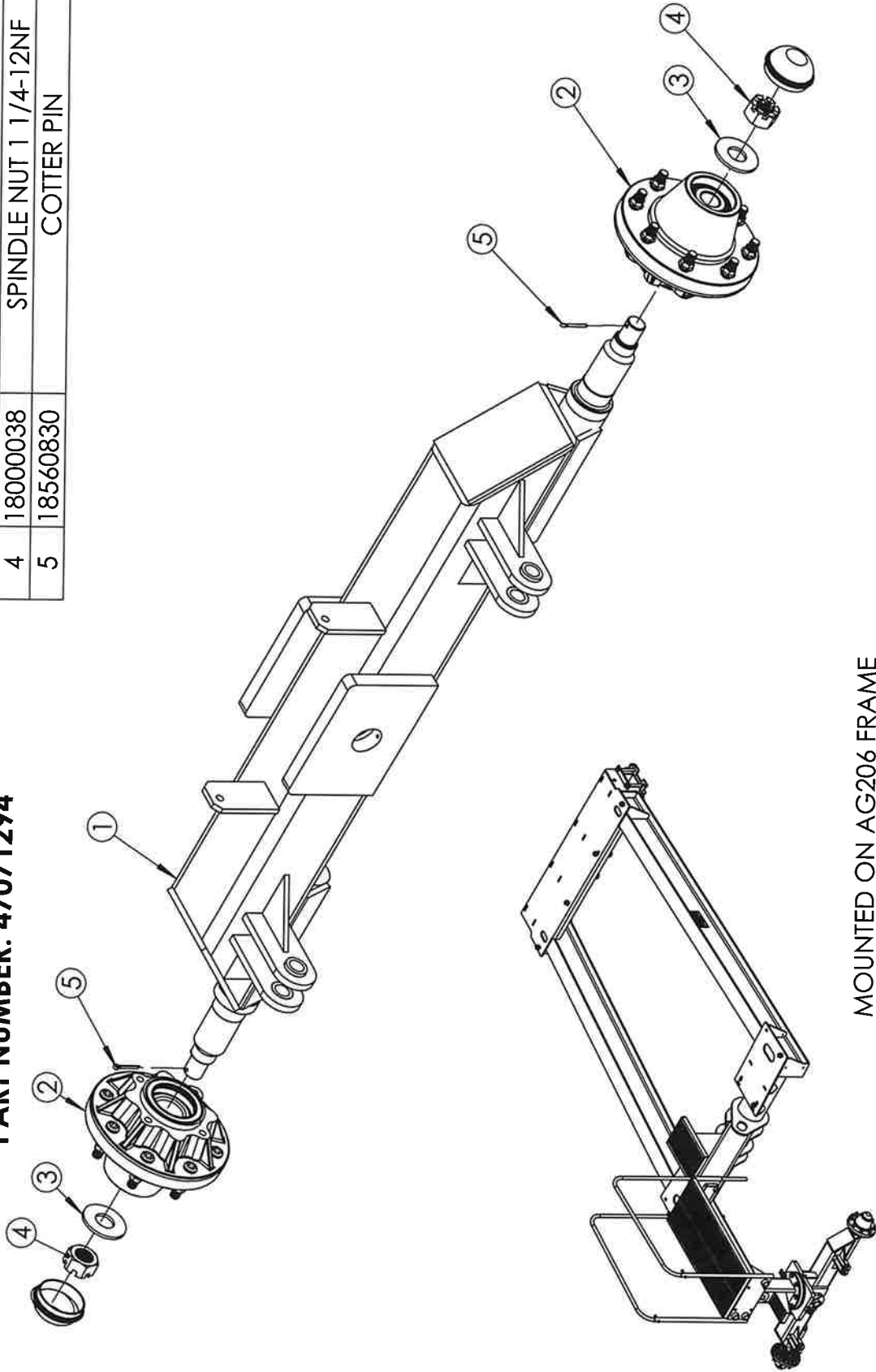
ALSO INCLUDED BUT NOT SHOWN DUAL SAFETY CHAIN KIT P/N: 71450 & 4701323 SAFETY STEP

ITEMS 2-5, 7, & 11-12 ARE INCLUDED IN SKID PLATE ASSEMBLY P/N: 47015352
 ITEMS 8-10, 13-24, & 26-27 ARE INCLUDED IN BOLT KIT P/N: 71336

P/N: 71422 IS ONLY NECESSARY WHEN USING 1450 DUAL TANKS

AG206 & AG207
FIXED FRONT AXLE, 60" WHEEL TRACK
2021 & NEWER
PART NUMBER: 47071294

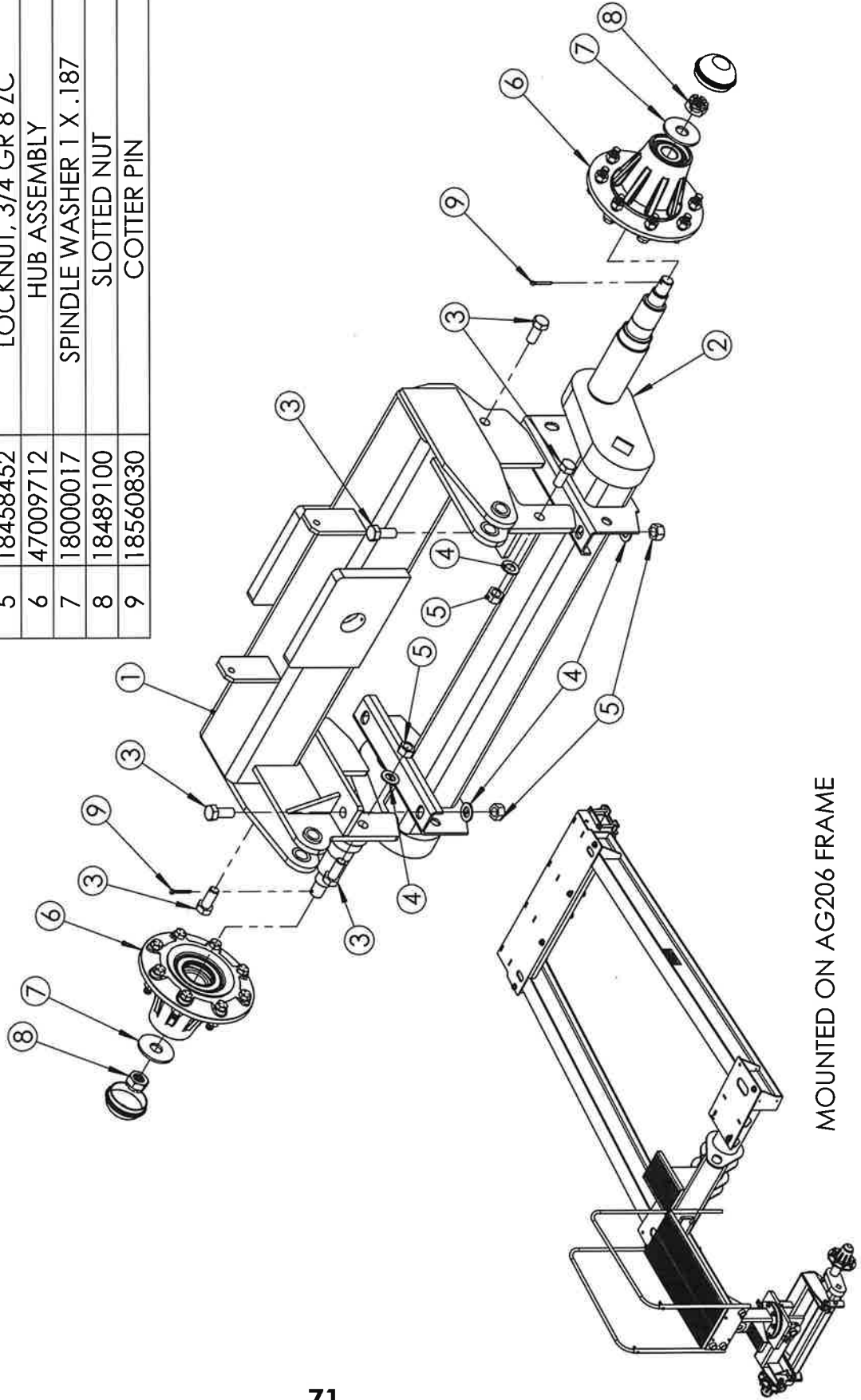
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70985	FRONT AXLE WELDMENT	1
2	47009115	HUB ASSEMBLY	2
3	18000023	SPINDLE WASHER 1.25 X .187	2
4	18000038	SPINDLE NUT 1 1/4-12NF	2
5	18560830	COTTER PIN	2



MOUNTED ON AG206 FRAME

AG206 & AG207
FRONT TORSION AXLE
2021 & NEWER
PART NUMBER: 47070989

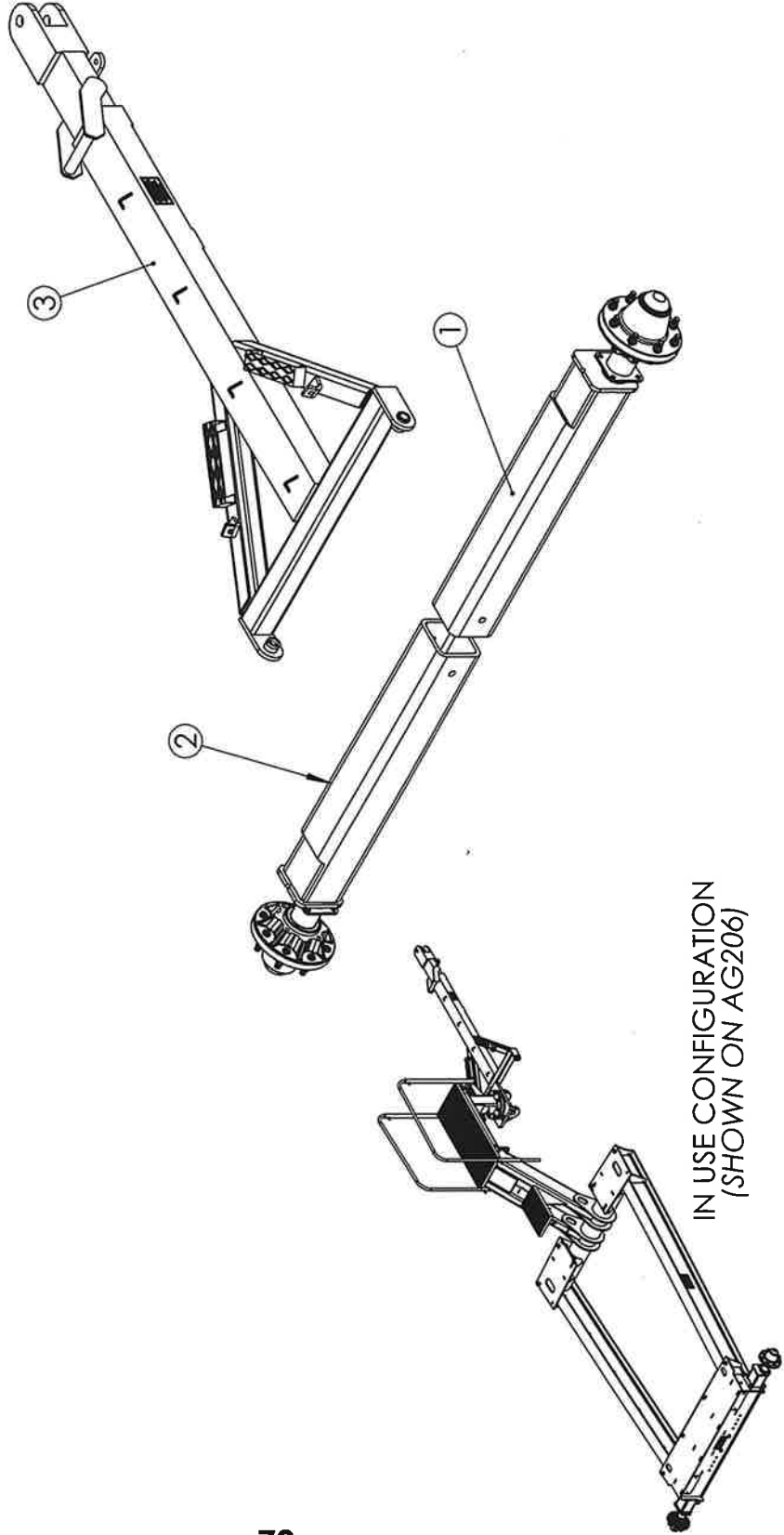
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70990	FRONT TORSION AXLE WELDT	1
2	47005645	TORSION AXLE ASSEMBLY	1
3	18098500	BOLT, HX 3/4 X 1-3/4 NC GR 8	6
4	18851800	WASHER, FLAT 3/4 SAE ZC	6
5	18458452	LOCKNUT, 3/4 GR 8 ZC	6
6	47009712	HUB ASSEMBLY	2
7	18000017	SPINDLE WASHER 1 X .187	2
8	18489100	SLOTTED NUT	2
9	18560830	COTTER PIN	2



MOUNTED ON AG206 FRAME

AG206 & AG207
ADJUSTABLE SINGLE REAR AXLES 2021 & NEWER
NO BRAKES (96" - 120" WHEEL TRACK)
PART NUMBER: 47071293

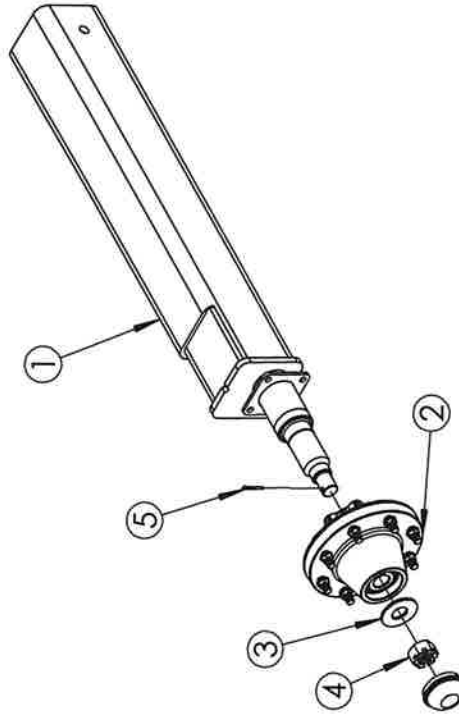
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71571	AXLE ASSY RIGHT	1
2	71570	AXLE ASSY LEFT	1
3	71291	TELES-POLE WELD'T W/O BRAKES	1



AXLE ASSEMBLY (LEFT)

P/N: 71570

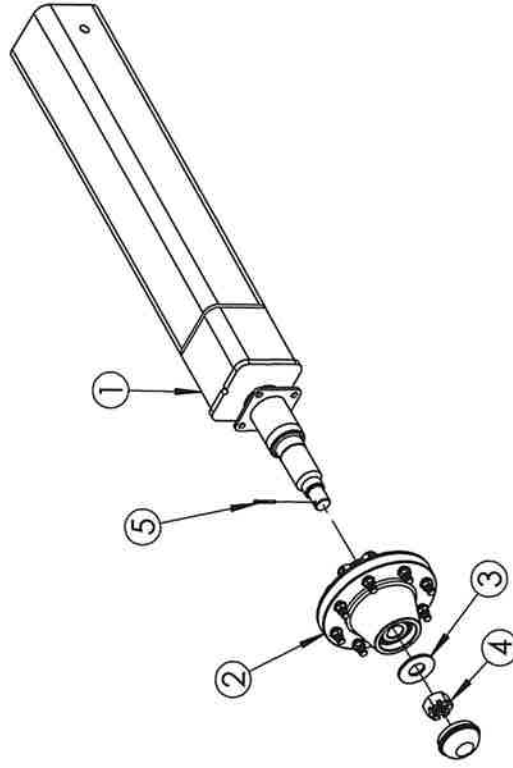
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70973	INNER AXLE TUBE WELDMT LEFT	1
2	47009115	HUB ASSEMBLY	1
3	18000023	SPINDLE WASHER 1.25 X .187	1
4	18000038	SPINDLE NUT 1 1/4-12NF	1
5	18560830	COTTER PIN	1



AXLE ASSEMBLY (RIGHT)

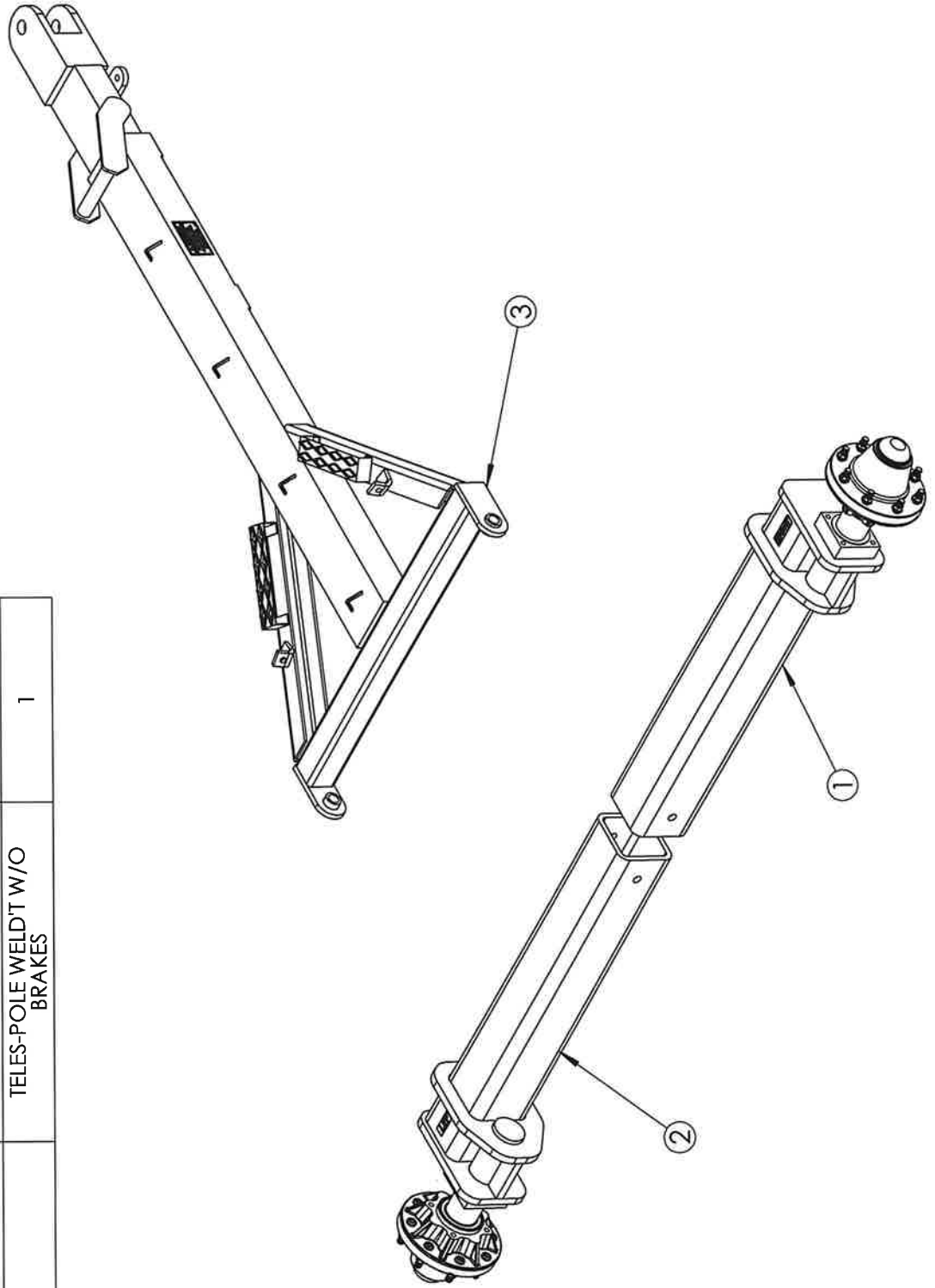
P/N: 71571

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70974	INNER AXLE TUBE WELD RIGHT	1
2	47009115	HUB ASSEMBLY	1
3	18000023	SPINDLE WASHER 1.25 X .187	1
4	18000038	SPINDLE NUT 1 1/4-12NF	1
5	18560830	COTTER PIN	1



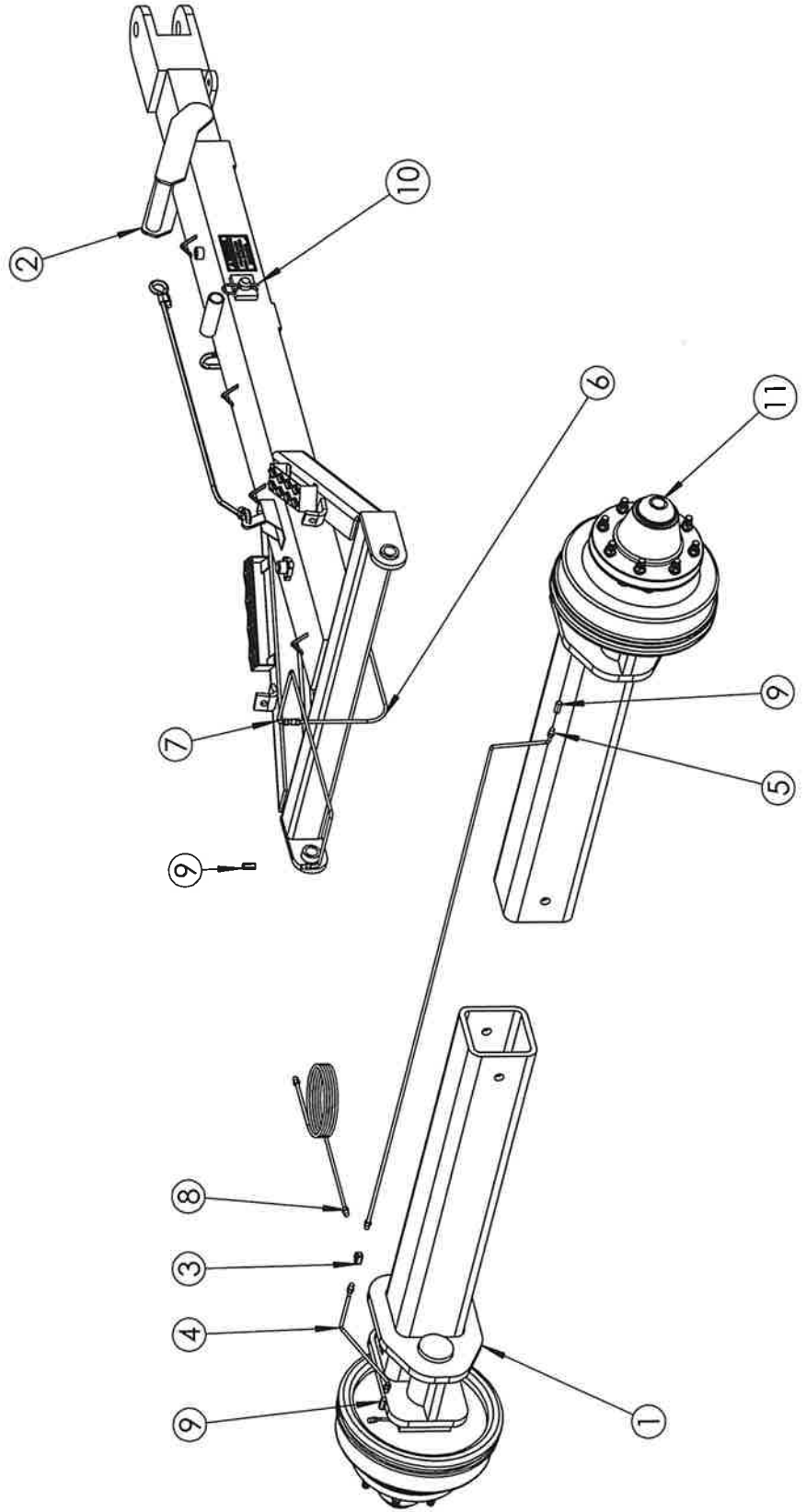
AG206 & AG207
 ADJUSTABLE HD SINGLE REAR AXLES 2021 & NEWER
 NO BRAKES (96"-120" WHEEL TRACK)
 PART NUMBER: 47071895

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71855	REAR STUB AXLE ASM, RIGHT	1
2	71856	REAR STUB AXLE, LEFT	1
3	71291	TELES-POLE WELD'T W/O BRAKES	1



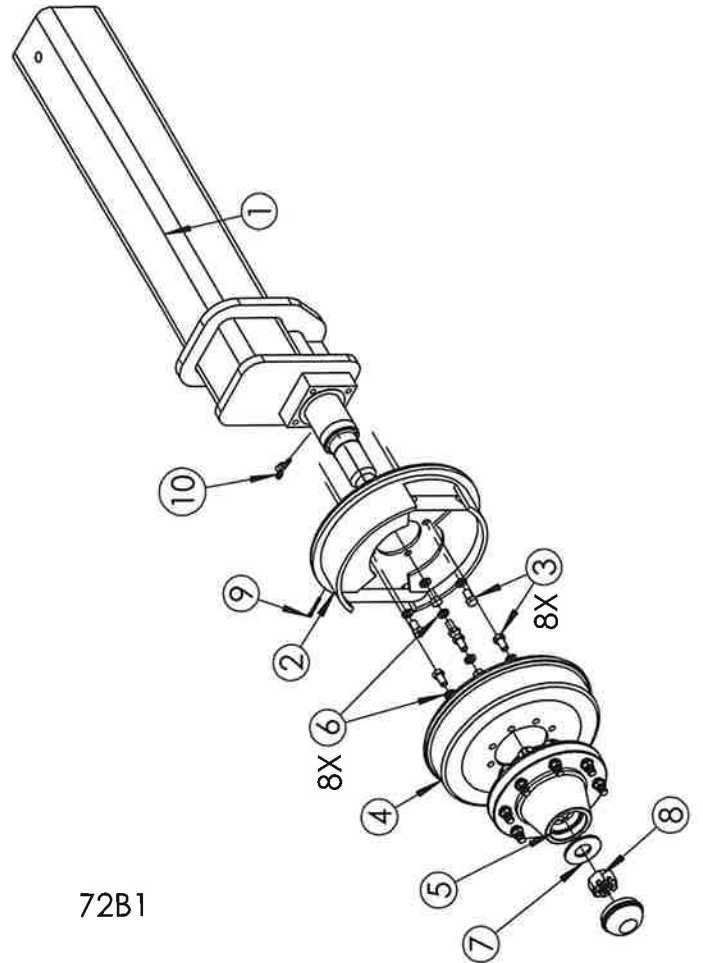
AG206 & AG207
ADJUSTABLE HD SINGLE REAR AXLES 2021 & NEWER
2 WHEEL SURGE BRAKES (96" - 120" WHEEL TRACK)
PART LISTING
PART NUMBER: 47071896

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71858	REAR STUB AXLE ASM WITH BRAKES, LEFT	1
2	71004	BRAKE LOCKOUT TELES-POLE WELDT	1
3	47005680	TEE TRAILER BRAKE	1
4	71298	BRAKE HOSE (36")	1
5	71299	BRAKE HOSE (7FT)	1
6	47005667	BRAKE HOSE 25"	1
7	47005687	TUBE, BRAKE LINE (30")	1
8	71297	BRAKE HOSE (24FT)	1
9	47005660	UNION, 3/16	3
10	600183	LOCKOUT PIN ASSEMBLY	1
11	71857	REAR STUB AXLE ASM WITH BRAKES, RIGHT	1



HD AXLE ASSEMBLY WITH BRAKES (RIGHT) P/N: 71857

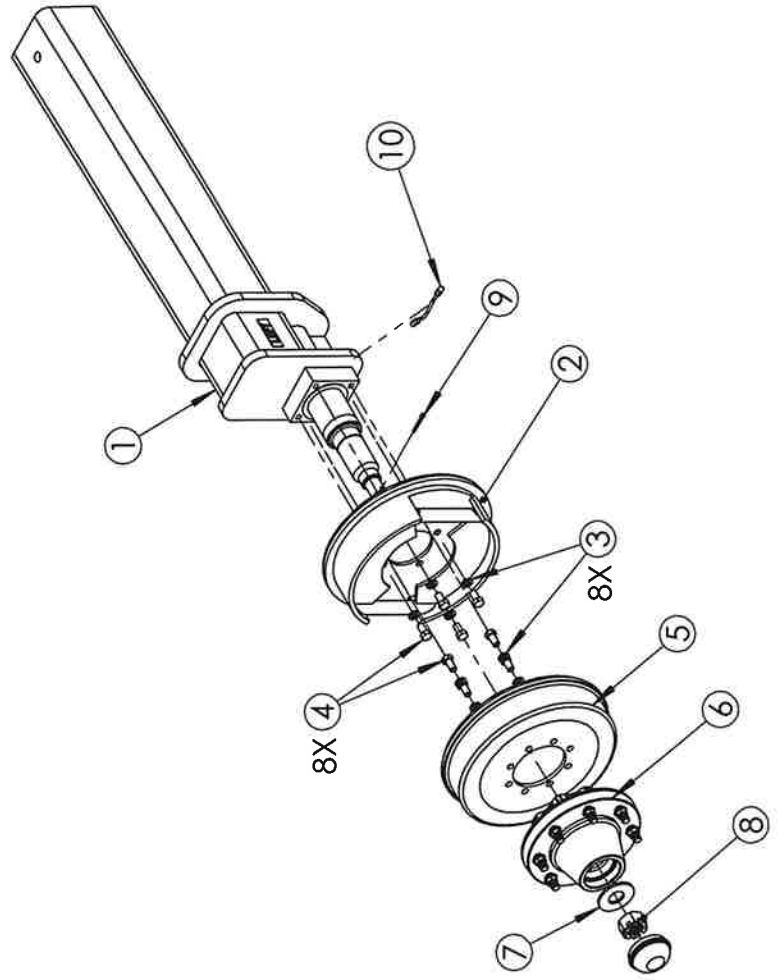
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71847	REAR STUB AXLE, RIGHT	1
2	47005651	BRAKE CLUSTER (13") RH	1
3	18057522	BOLT 1/2-20 X 1 ZC	8
4	47005602	BRAKE DRUM	1
5	47009114	HUB ASSEMBLY MACHINED FOR BRAKES	1
6	18891400	WASHER, 1/2 LOCK ZC	8
7	18000023	SPINDLE WASHER 1.25 X .187	1
8	18000038	SPINDLE NUT 1 1/4-12NF	1
9	18560830	COTTER PIN	1
10	47005682	BRAKE LINE 1/4" X 4 1/2"	1



72B1

HD AXLE ASSEMBLY WITH BRAKES (LEFT) P/N: 71858

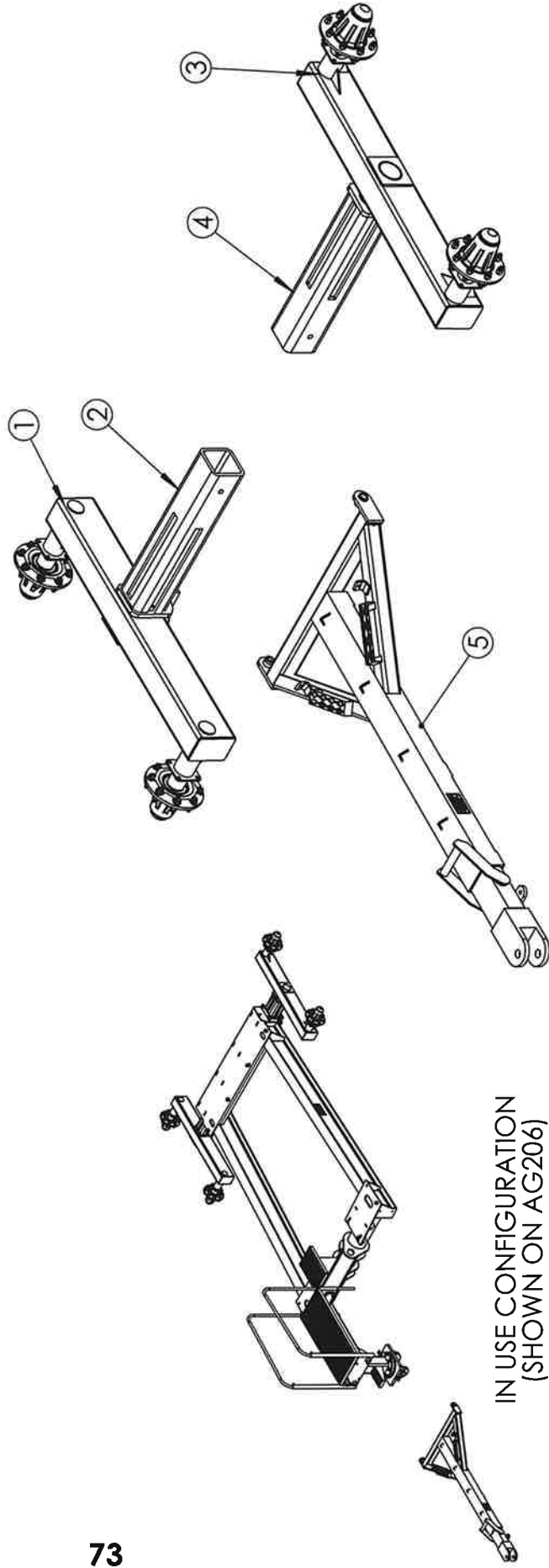
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71848	REAR STUB AXLE, LEFT	1
2	47005652	BRAKE CLUSTER (13") LH	1
3	18891400	WASHER, 1/2 LOCK ZC	8
4	18057522	BOLT 1/2-20 X 1 ZC	8
5	47005602	BRAKE DRUM	1
6	47009114	HUB ASSEMBLY MACHINED FOR BRAKES	1
7	18000023	SPINDLE WASHER 1.25 X .187	1
8	18000038	SPINDLE NUT 1 1/4-12NF	1
9	18560830	COTTER PIN	1
10	47005682	BRAKE LINE 1/4" X 4 1/2"	1



AG206 & AG207
2021 & NEWER
ADJUSTABLE WALKING TANDEM AXLE
NO BRAKES (102" - 115" WHEEL TRACK)

PART LISTING
PART NUMBER: 47071296

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71579	TANDEM AXLE ASSY RIGHT	1
2	71010R	REAR TANDEM AXLE TUBE WELDMENT RIGHT	1
3	71578	TANDEM AXLE ASSY LEFT	1
4	71010	REAR TANDEM AXLE TUBE WELDMENT	1
5	71291	TELES-POLE WELD'T W/O BRAKES	1

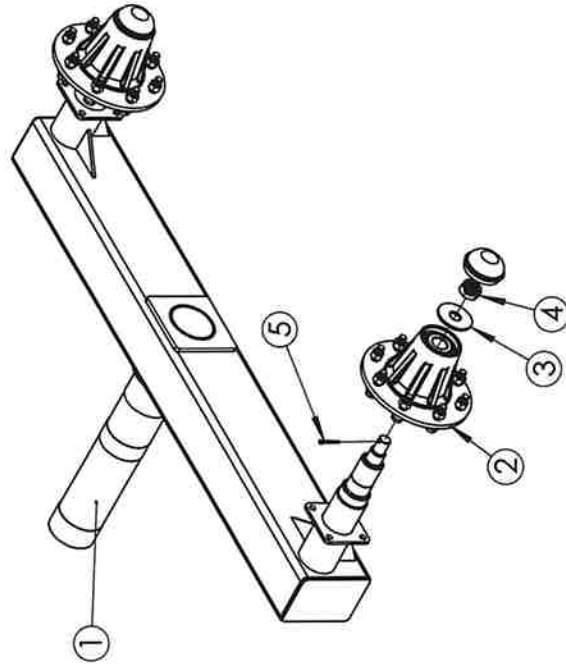


IN USE CONFIGURATION
 (SHOWN ON AG206)

TANDEM AXLE ASSEMBLY (LEFT)

P/N: 71578

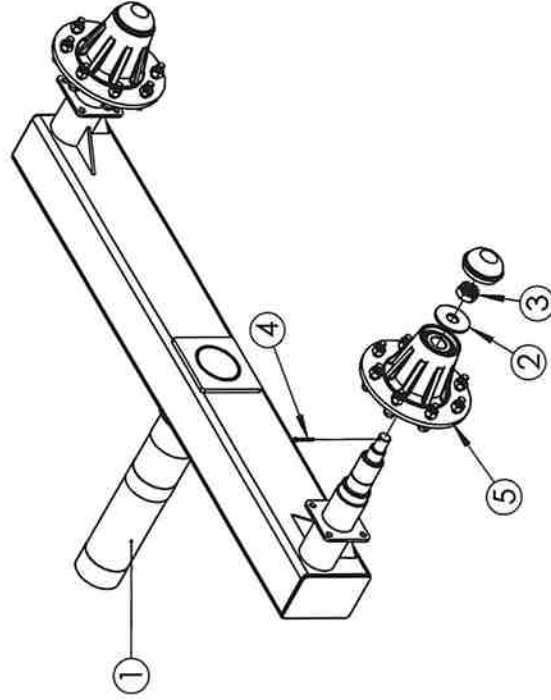
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71245	TANDEM AXLE LEFT	1
2	47009712	HUB ASSEMBLY	2
3	18000017	SPINDLE WASHER 1 X .187	2
4	18489100	SLOTTED NUT	2
5	18560830	COTTER PIN	2



TANDEM AXLE ASSEMBLY (RIGHT)

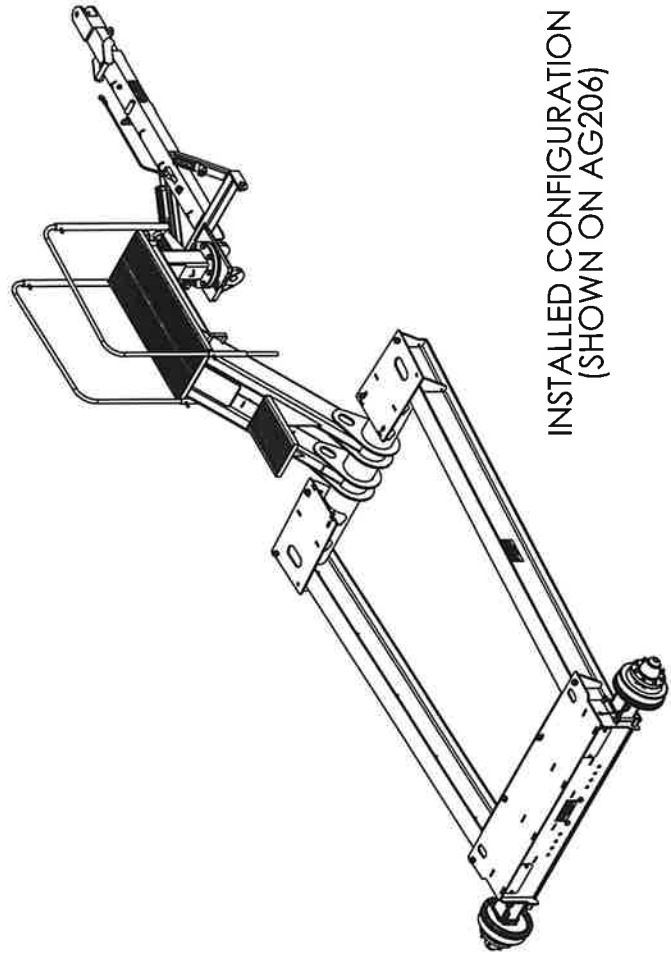
P/N: 71579

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71243	TANDEM AXLE RIGHT	1
2	18000017	SPINDLE WASHER 1 X .187	2
3	18489100	SLOTTED NUT	2
4	18560830	COTTER PIN	2
5	47009712	HUB ASSEMBLY	2



AG206 & AG207
ADJUSTABLE SINGLE REAR AXLES 2021 & NEWER
2 WHEEL SURGE BRAKES (96" - 120" WHEEL TRACK)
PART LISTING
PART NUMBER: 47071292

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71572	AXLE ASSY WITH BRAKES LEFT	1
2	71004	BRAKE LOCKOUT TELES-POLE WELD'T	1
3	47005680	TEE TRAILER BRAKE	1
4	71298	BRAKE HOSE (36")	1
5	71299	BRAKE HOSE (7FT)	1
6	47005667	BRAKE HOSE 25"	1
7	47005687	TUBE, BRAKE LINE (30")	1
8	71297	BRAKE HOSE (24FT)	1
9	47005660	UNION, 3/16	3
10	600183	LOCKOUT PIN ASSEMBLY	1
11	71573	AXLE ASSY WITH BRAKES RIGHT	1

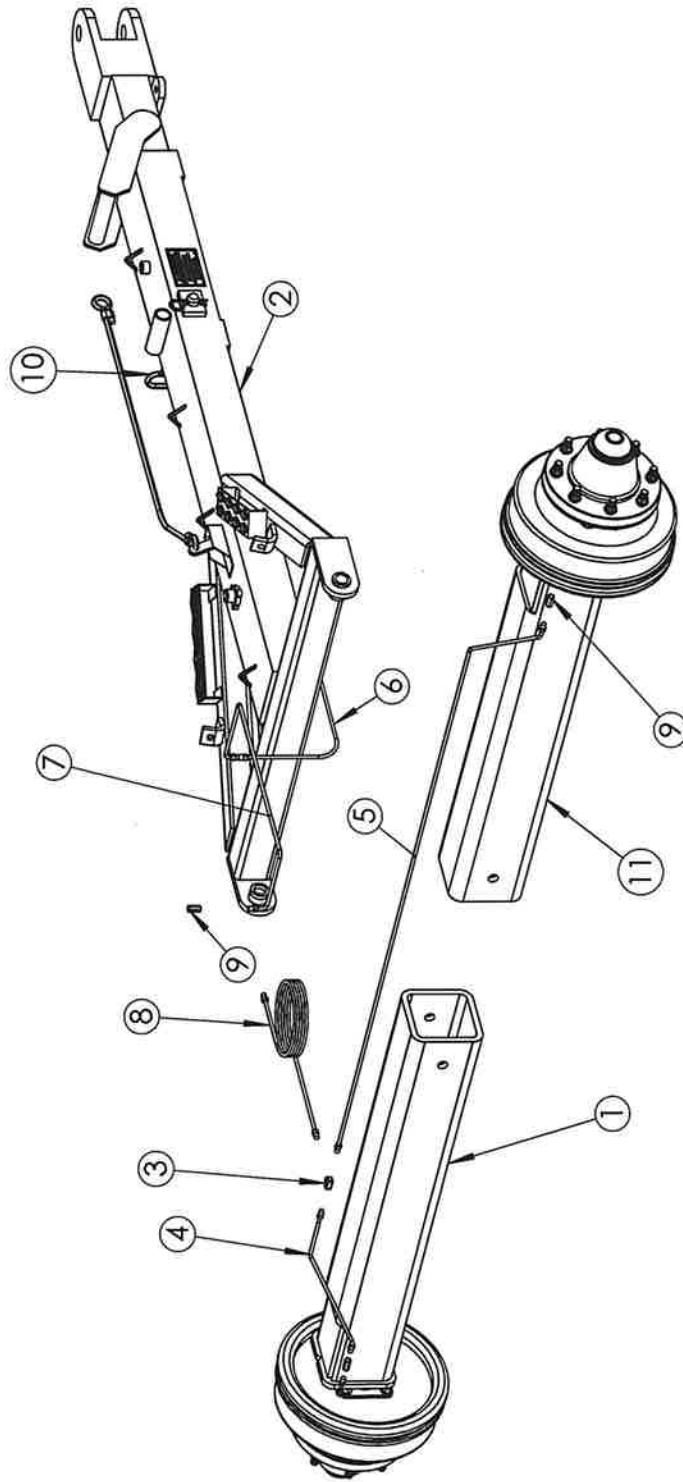


INSTALLED CONFIGURATION
(SHOWN ON AG206)

AG206 & AG207
ADJUSTABLE SINGLE REAR AXLES 2021 & NEWER
2 WHEEL SURGE BRAKES (96" - 120" WHEEL TRACK)

PART ILLUSTRATION

PART NUMBER: 47071292



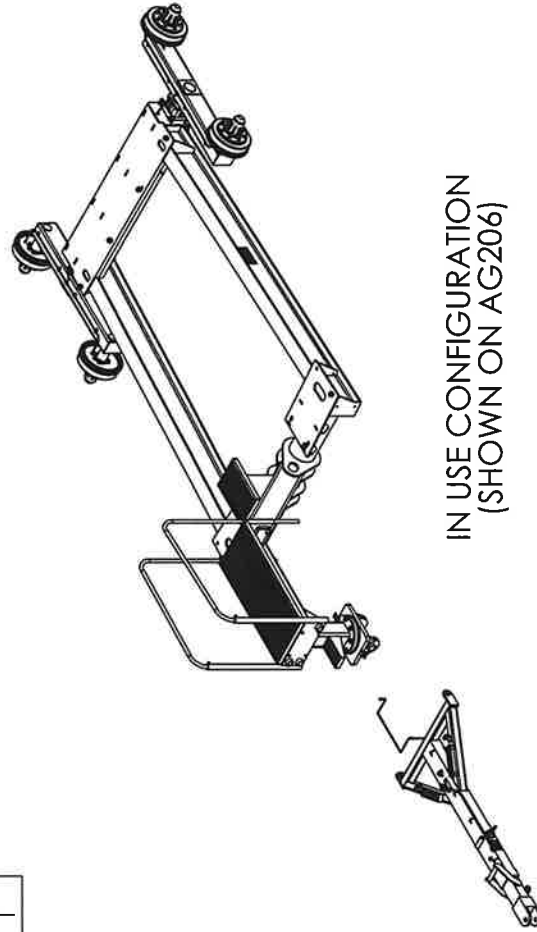
AG206 & AG207

ADJUSTABLE WALKING TANDEM AXLES 2021 & NEWER 4 WHEEL SURGE BRAKES (105" - 115" WHEEL TRACK)

PART LISTING

PART NUMBER: 47071295

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71581	TANDEM AXLE ASSY W/ BRAKES RIGHT	1
2	71010R	REAR TANDEM AXLE TUBE WELDMENT RIGHT	1
3	71580	TANDEM AXLE ASSY W/ BRAKES LEFT	1
4	71010	REAR TANDEM AXLE TUBE WELDMENT	1
5	71004	BRAKE LOCKOUT TELES-POLE WELD'T	1
6	47005680	TEE TRAILER BRAKE	3
7	47005687	TUBE, BRAKE LINE (30")	5
8	71298	BRAKE HOSE (36")	1
9	71299	BRAKE HOSE (7FT)	1
10	71297	BRAKE HOSE (24FT)	1
11	47005667	BRAKE HOSE 25"	1
12	47005660	UNION, 3/16	1
13	47005666	BRAKE LINE CLIP	8
14	18721018	SCREW, #10 X 3/4 SELF TAP	8
15	600183	LOCKOUT PIN ASSEMBLY	1



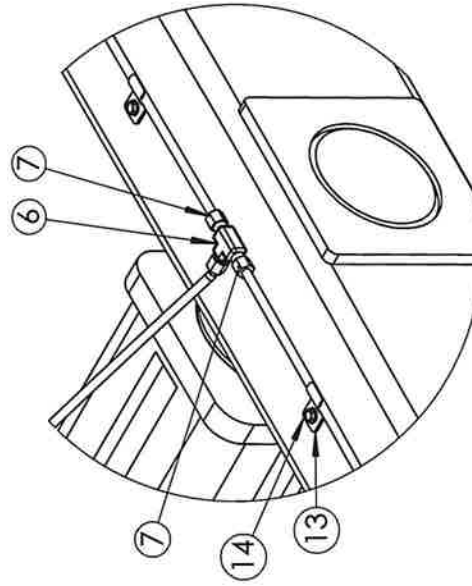
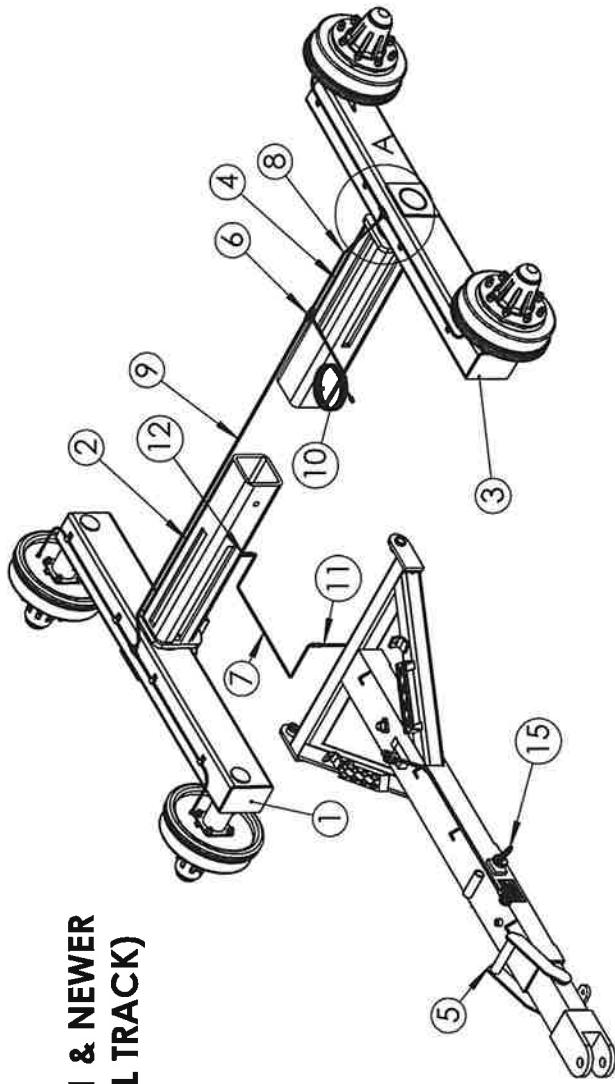
IN USE CONFIGURATION
(SHOWN ON AG206)

AG206 & AG207

ADJUSTABLE WALKING TANDEM AXLES 2021 & NEWER
4 WHEEL SURGE BRAKES (102" - 115" WHEEL TRACK)

PART ILLUSTRATION

PART NUMBER: 47071295

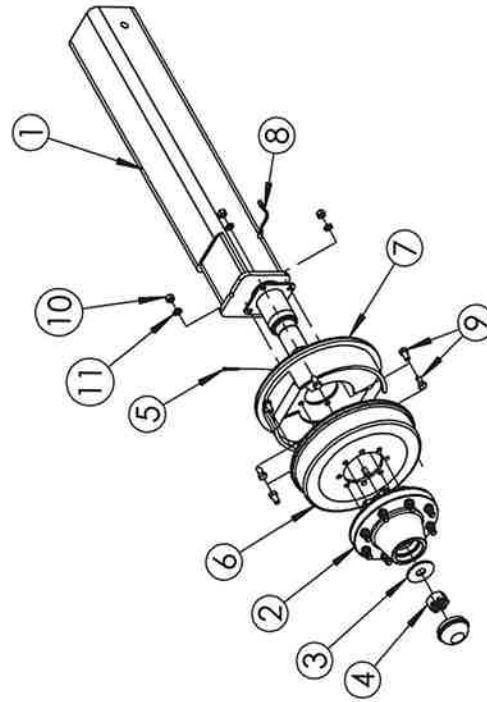


DETAIL A
SCALE 1 : 5

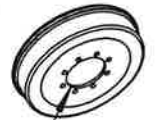
AXLE ASSEMBLY WITH BRAKES (LEFT)

P/N: 71572

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70973	INNER AXLE TUBE WELDMT LEFT	1
2	47009114	HUB ASSEMBLY MACHINED FOR BRAKES	1
3	18000017	SPINDLE WASHER 1 X .187	1
4	18000038	SPINDLE NUT 1 1/4-12NF	1
5	18560830	COTTER PIN	1
6	SEE NOTE	BRAKE DRUM	1
7	47005652	BRAKE CLUSTER (13") LH	1
8	47005682	BRAKE LINE 1/4" X 4 1/2"	1
9	18057522	BOLT 1/2-20 X 1 ZC	8
10	18437500	NUT, HEX 1/2-20	4
11	18891400	WASHER, 1/2 LOCK ZC	4



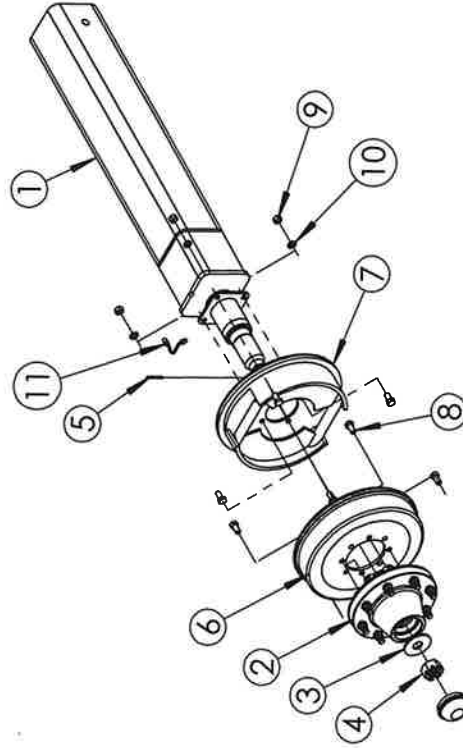
PILOT HOLE



AXLE ASSEMBLY WITH BRAKES (RIGHT)

P/N: 71573

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70974	INNER AXLE TUBE WELD RIGHT	1
2	47009114	HUB ASSEMBLY MACHINED FOR BRAKES	1
3	18000017	SPINDLE WASHER 1 X .187	1
4	18000038	SPINDLE NUT 1 1/4-12NF	1
5	18560830	COTTER PIN	1
6	SEE NOTE	BRAKE DRUM	1
7	47005651	BRAKE CLUSTER (13") RH	1
8	18057522	BOLT 1/2-20 X 1 ZC	8
9	18437500	NUT, HEX 1/2-20	4
10	18891400	WASHER, 1/2 LOCK ZC	4
11	47005682	BRAKE LINE 1/4" X 4 1/2"	1

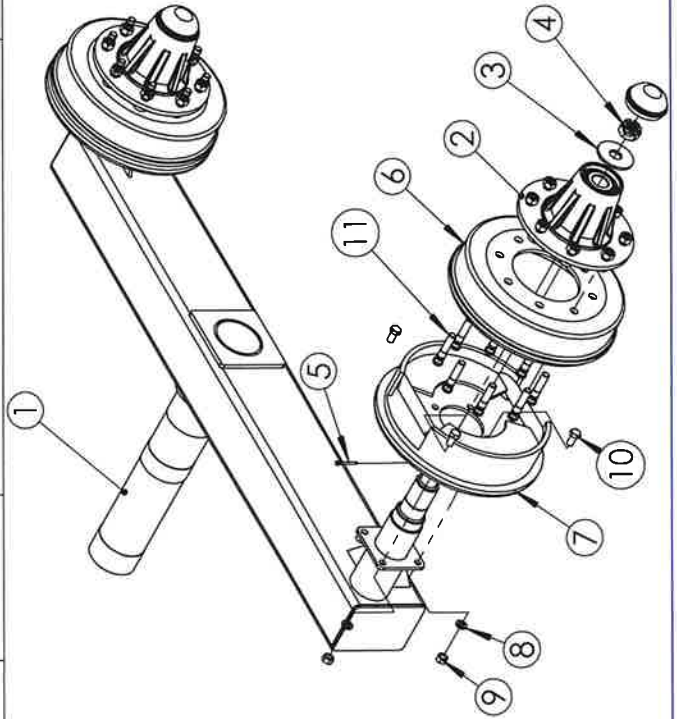


ITEM 6 NOTE (FOR REPLACEMENT PARTS ONLY)
 - PILOT HOLE ϕ 4.375 USE P/N: 47005602 (DEMCO 03532)
 - PILOT HOLE ϕ 4.500 USE P/N: 03941 (DEMCO 03941)

TANDEM AXLE ASSEMBLY W/ BRAKES (LEFT)

P/N: 71580

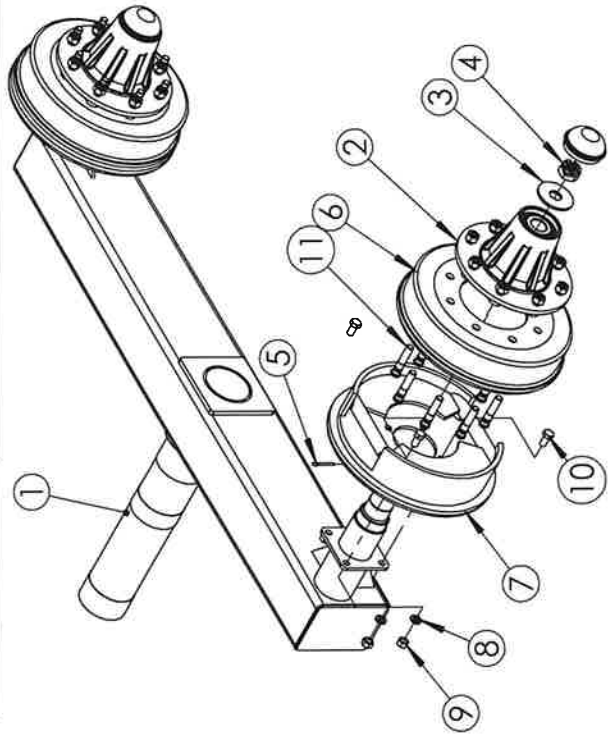
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71245	TANDEM AXLE LEFT	1
2	47009712	HUB ASSEMBLY	2
3	18000017	SPINDLE WASHER 1 X .187	2
4	18489100	SLOTTED NUT	2
5	18560830	COTTER PIN	2
6	47005650	BRAKE DRUM	2
7	47005652	BRAKE CLUSTER (13") LH	2
8	18891400	WASHER, 1/2 LOCK ZC	8
9	18437500	NUT, HEX 1/2-20	8
10	18057522	BOLT 1/2-20 X 1 ZC	8
11	71954	WHEEL STUD LONG	16



TANDEM AXLE ASSEMBLY W/ BRAKES (RIGHT)

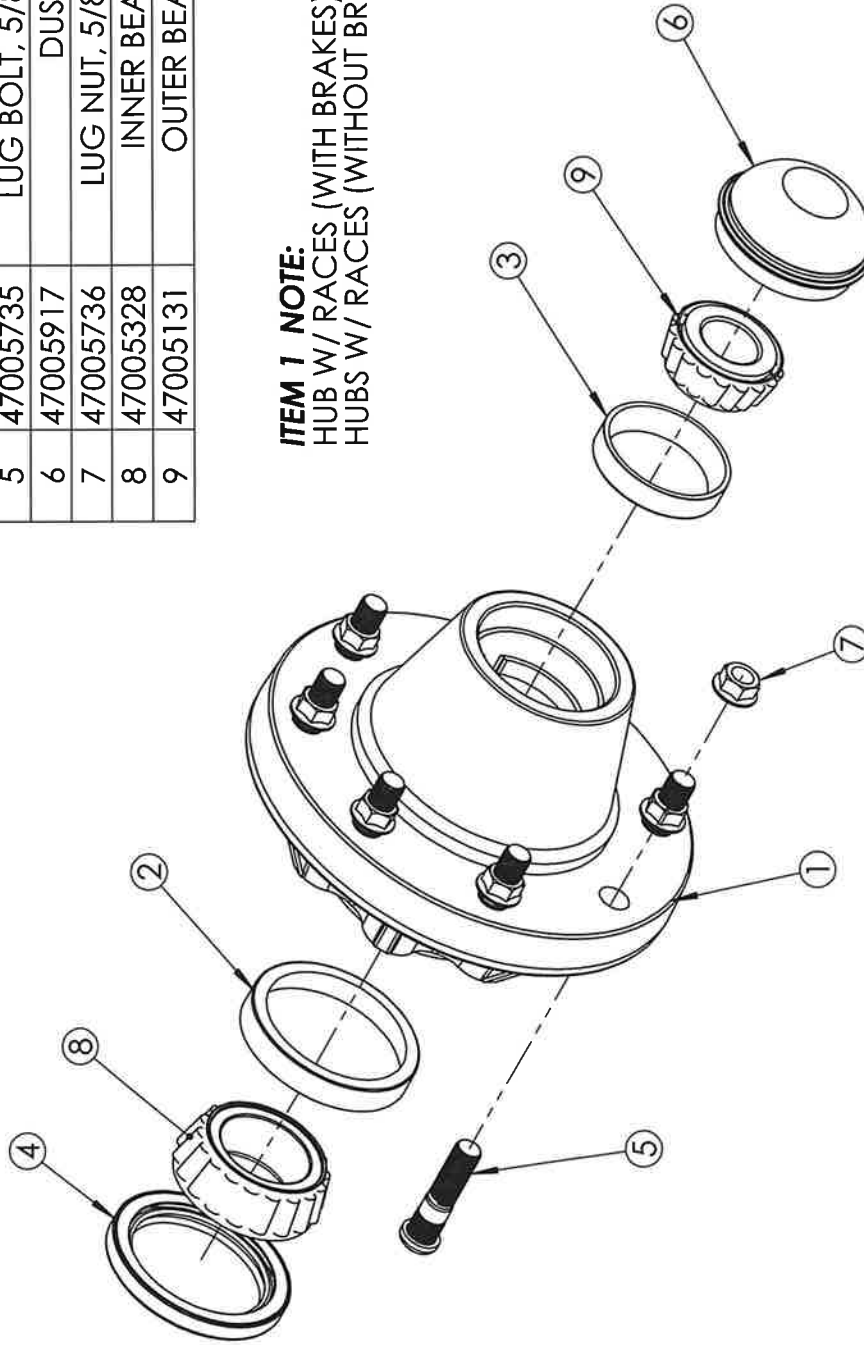
P/N: 71581

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71243	TANDEM AXLE RIGHT	1
2	47009712	HUB ASSEMBLY	2
3	18000017	SPINDLE WASHER 1 X .187	2
4	18489100	SLOTTED NUT	2
5	18560830	COTTER PIN	2
6	47005650	BRAKE DRUM	2
7	47005651	BRAKE CLUSTER (13") RH	2
8	18891400	WASHER, 1/2 LOCK ZC	8
9	18437500	NUT, HEX 1/2-20	8
10	18057522	BOLT 1/2-20 X 1 ZC	8
11	71954	WHEEL STUD LONG	16



HUB ASSEMBLY
COMPLETE W/ BRAKES P/N: 47009114
COMPLETE W/O BRAKES P/N: 47009115

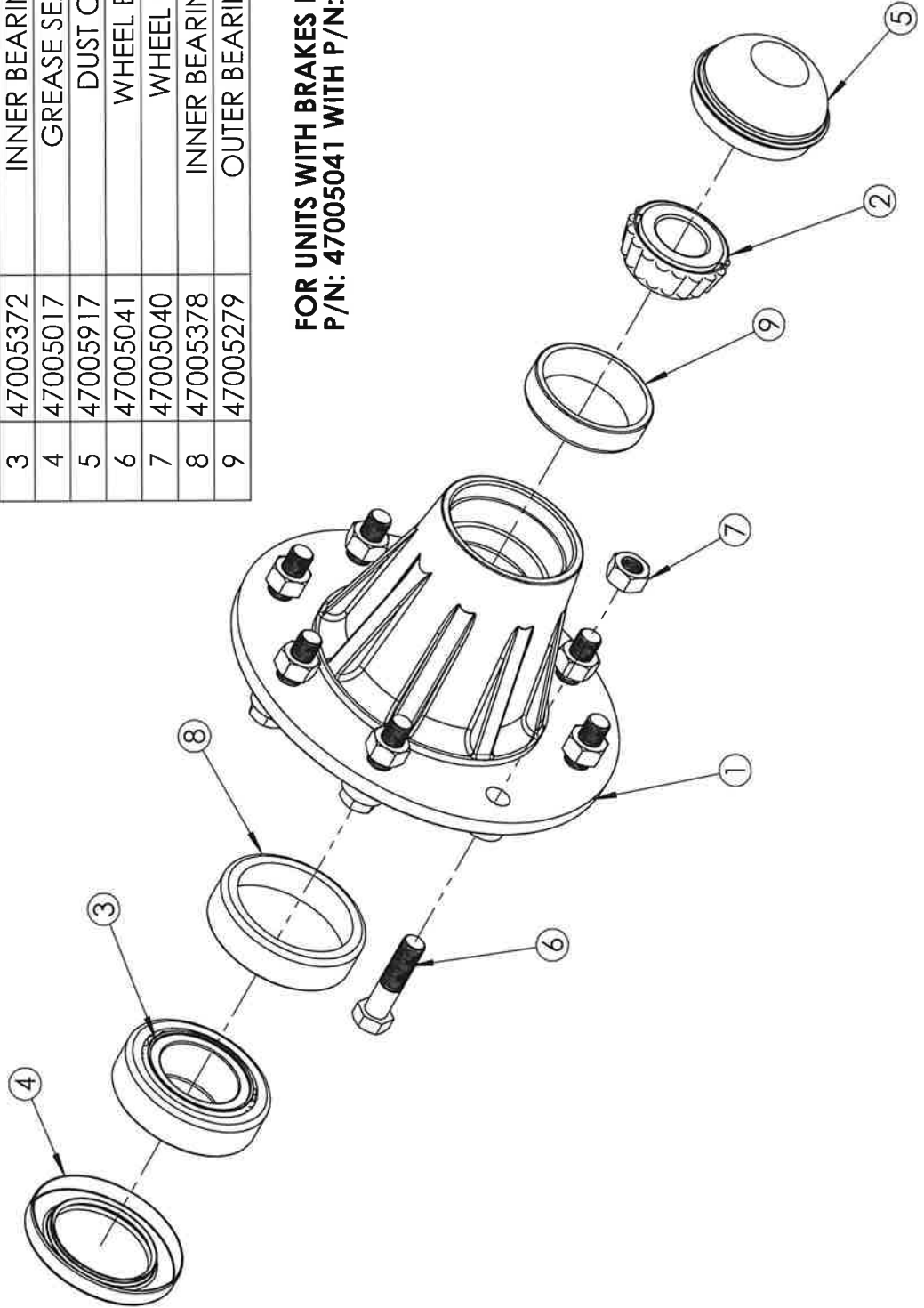
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	SEE NOTE	HUB WITH RACES	1
2	47005387	INNER BEARING CONE	1
3	47005349	OUTER BEARING CONE	1
4	47005776	GREASE SEAL SE-42	1
5	47005735	LUG BOLT, 5/8 X 2 1/2" WB46	8
6	47005917	DUST CAP	1
7	47005736	LUG NUT, 5/8-18 UNF WB18	8
8	47005328	INNER BEARING RACE	1
9	47005131	OUTER BEARING RACE	1



ITEM 1 NOTE:
HUB W/ RACES (WITH BRAKES) P/N: 47005114
HUBS W/ RACES (WITHOUT BRAKES) P/N: 47005115

**HUB ASSEMBLY
COMPLETE P/N: 47009712**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	47005712	HUB W/ RACES	1
2	47005272	OUTER BEARING RACE	1
3	47005372	INNER BEARING RACE	1
4	47005017	GREASE SEAL SE17	1
5	47005917	DUST CAP	1
6	47005041	WHEEL BOLT	8
7	47005040	WHEEL NUT	8
8	47005378	INNER BEARING CONE	1
9	47005279	OUTER BEARING CONE	1



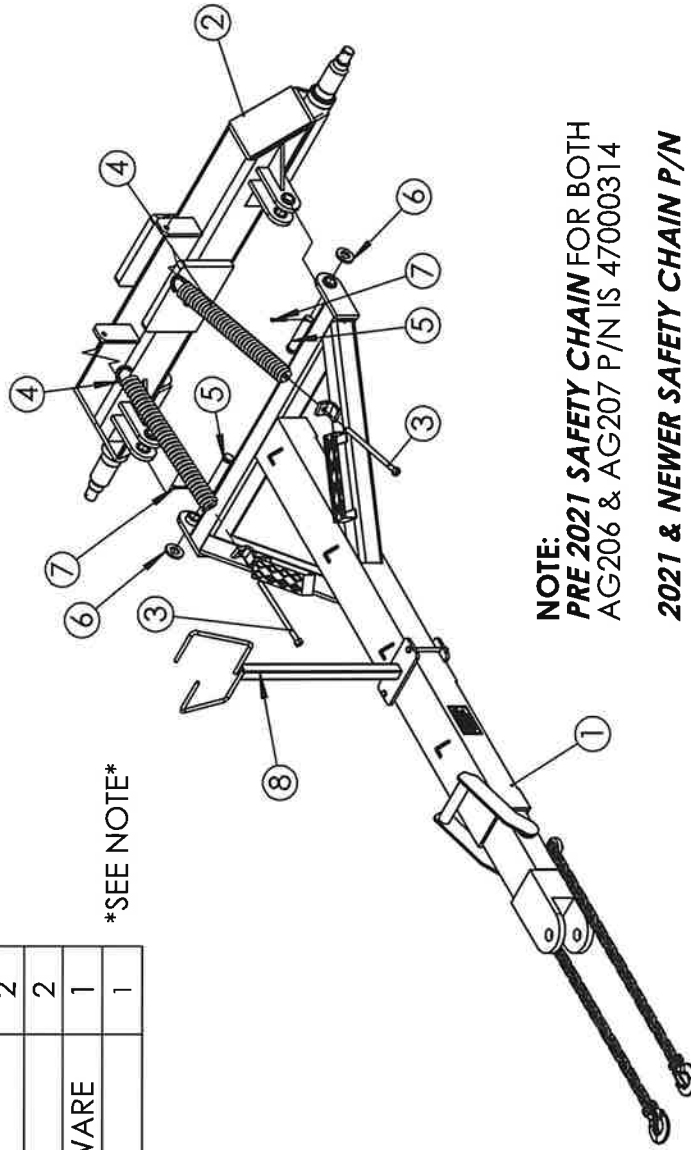
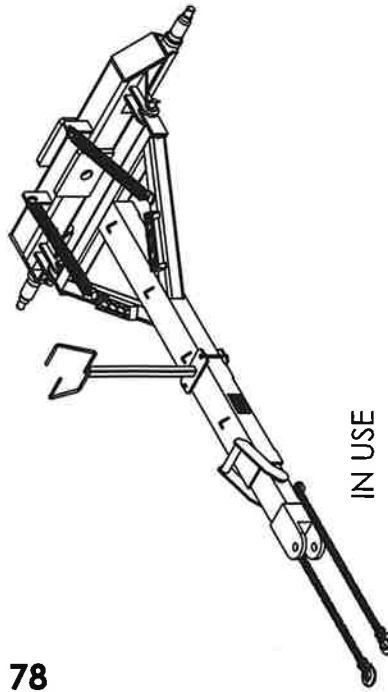
**FOR UNITS WITH BRAKES REPLACE
P/N: 47005041 WITH P/N: 71954**

AG206 & AG207 FRONT END DETAIL 2021 & NEWER

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71291	TELES-POLE WELD'T W/O BRAKES	1
2	70985	FRONT AXLE WELDMENT	1
3	47009910	SPRING BOLT	2
4	00306-30	LIFT SPRING W/ INSERT	2
5	18541551	TONGUE CLEVIS PIN, 1.00 DIA X 4.0 LG	2
6	18852200	WASHER, FLAT 1" SAE	2
7	18560826	COTTER PIN 3/16 X 1 1/2	2
8	71289	HOSE HOLDER ASSY W/HARDWARE	1
9	47005479	SAFETY CHAIN SET (GR 70)	1

ITEMS 1 & 2 ARE SHOWN FOR REFERENCE ONLY
ITEMS 3 - 7 ARE INCLUDED IN BOLT KIT 71335

SEE NOTE



NOTE:
PRE 2021 SAFETY CHAIN FOR BOTH
AG206 & AG207 P/N IS 47000314

2021 & NEWER SAFETY CHAIN P/N

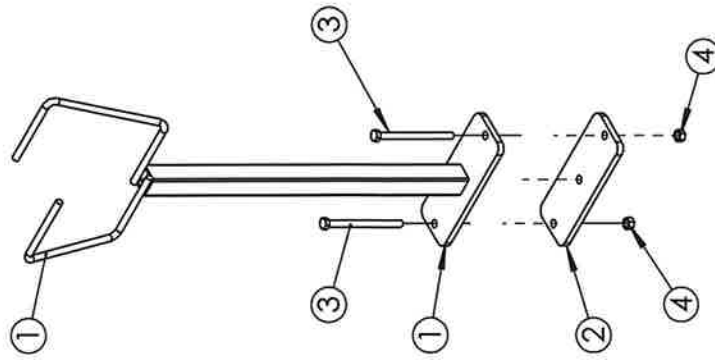
47005479 - AG 206 3/8 (10MM)

71450 - AG207 1/2 (13MM)

(SAFETY CHAINS INCLUDED W/ FRAMES)

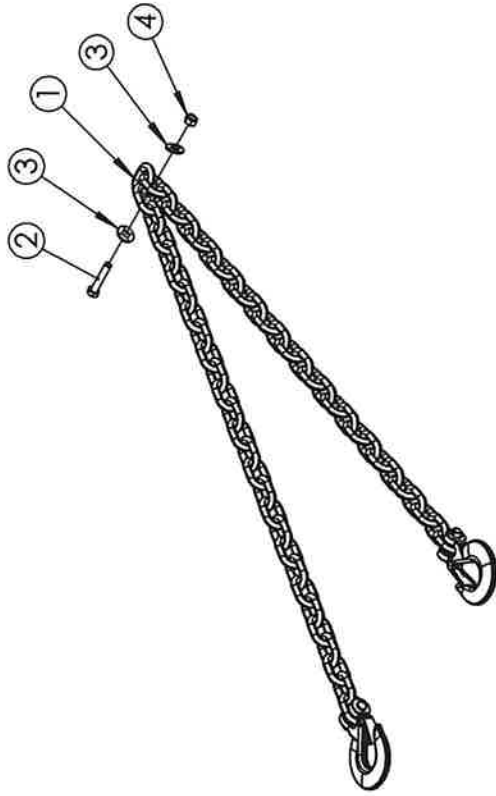
AG206 & AG207 2021 & NEWER
FRONT TONGUE HOSE HOLDER
PART NUMBER: 47071289

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71374	HOSE HOLDER WELDMENT	1
2	71008	HOSE HOLDER MOUNTING PLATE	1
3	18056854	BOLT HX CAP G5 NC ZC 3/8 X 5	2
4	18457800	NUT CENTER LOCK 3/8-16 ZC	2



(NOT LEGAL IN ALL STATES)

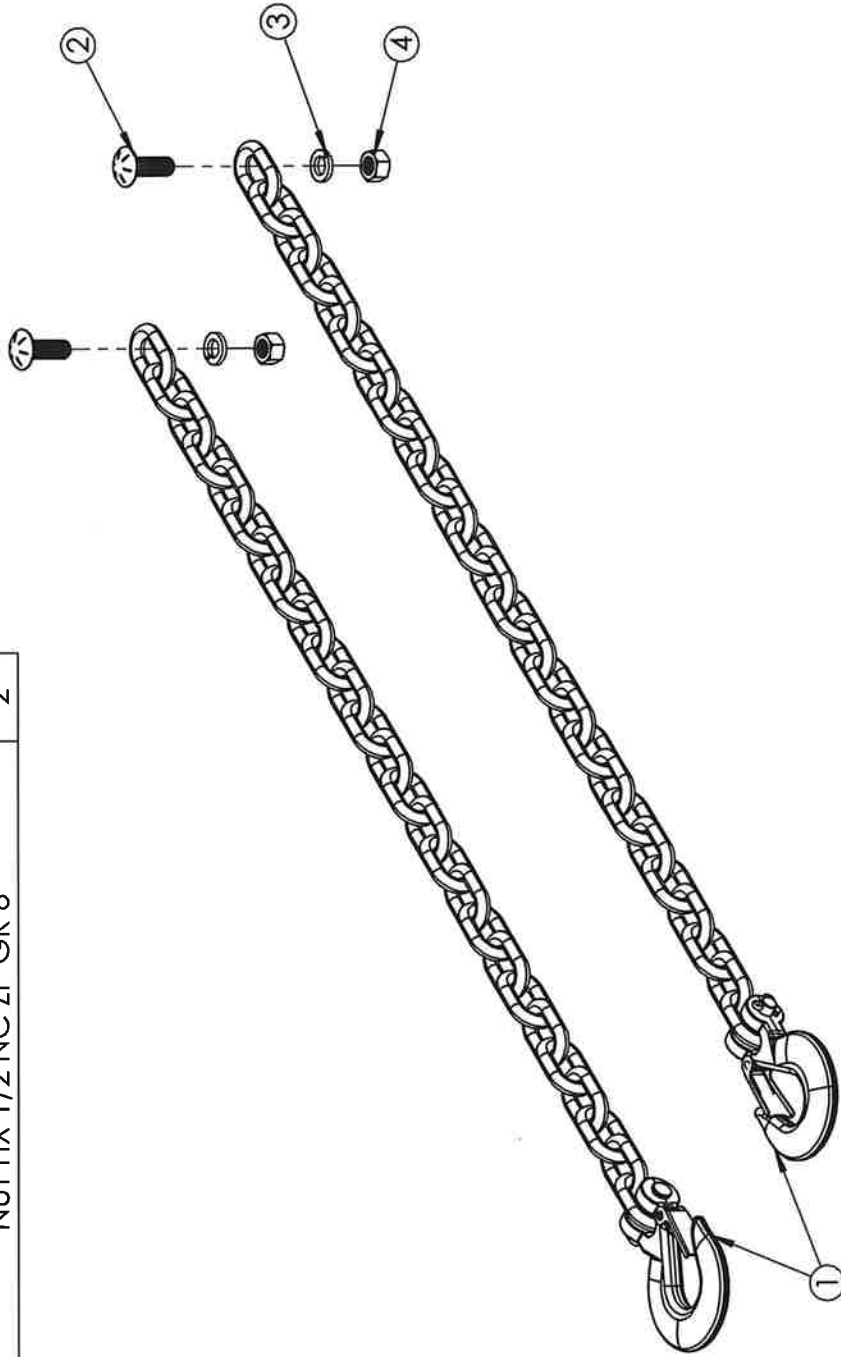
SAFETY CHAIN
PART NUMBER: 47000314
PRE 2021 AG206 & AG207



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	47010314	SAFETY CHAIN W/ HOOKS 3/8 GR.70	1
2	18056830	BOLT, HEX HD 3/8-16 NC X 2, GR. 5 ZP.	1
3	18811200	WASHER FLAT USS ZC 3/8	2
4	18457800	NUT CENTER LOCK 3/8-16 ZC	1

**3/8 DUAL SAFETY CHAIN
AG206 2021 & NEWER
P/N: 47005479**

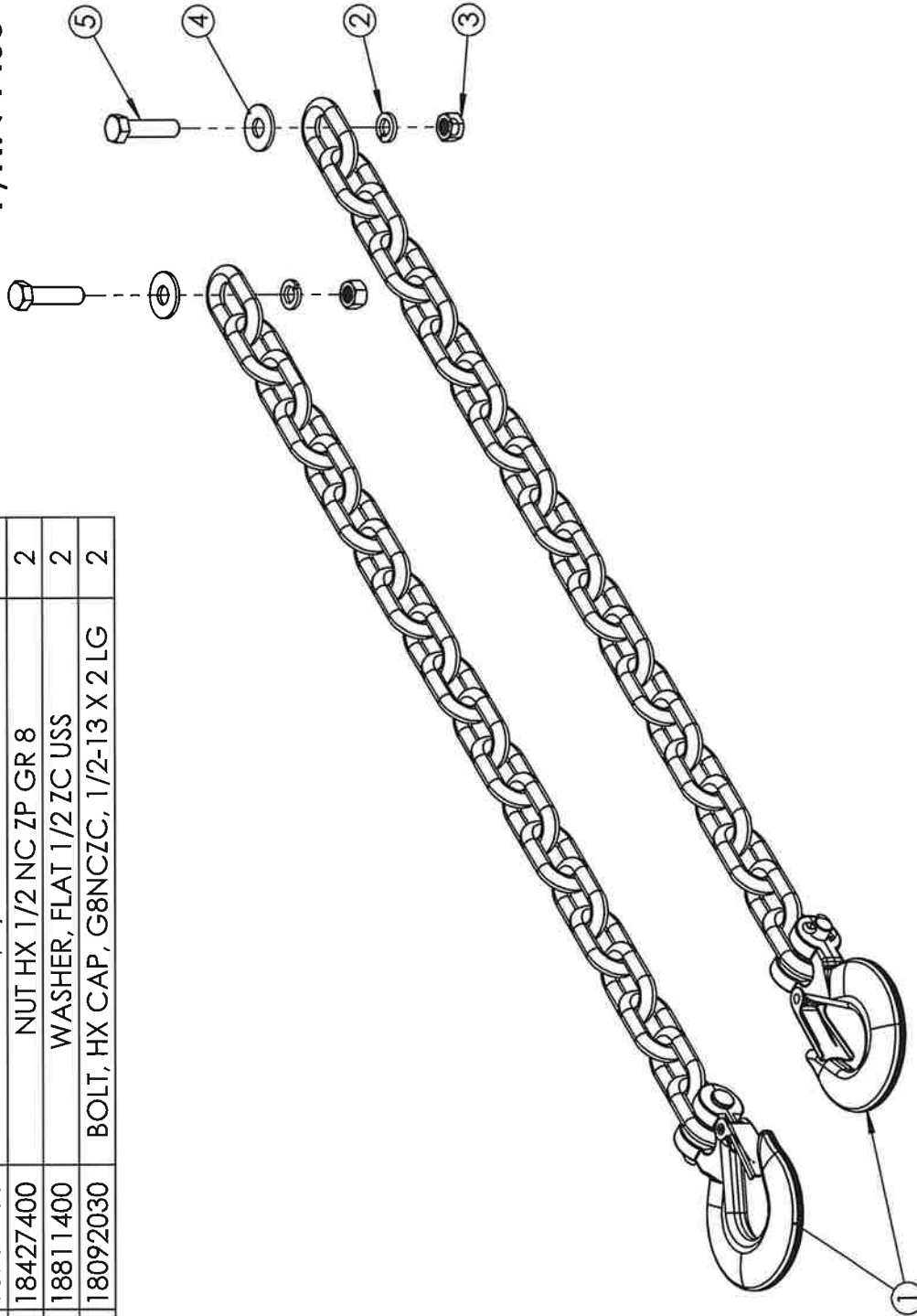
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	47005480	SAFETY CHAIN ASSEMBLY	2
2	18177150	BOLT CARRIAGE G8NCZP 1/2 X 1 1/2	2
3	18901400	WASHER, 1/2 LOCK ZC GR 8	2
4	18427400	NUT HX 1/2 NC ZP GR 8	2



1/2 DUAL SAFETY CHAIN

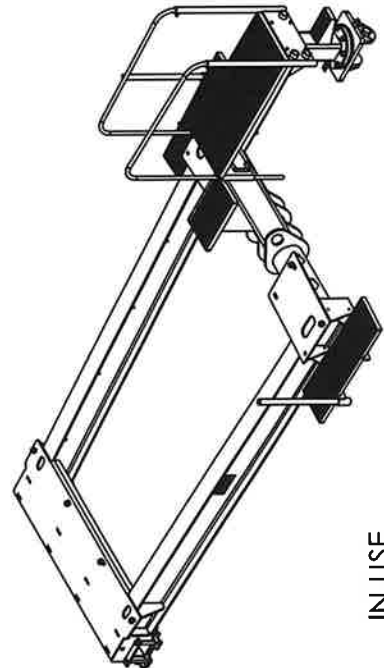
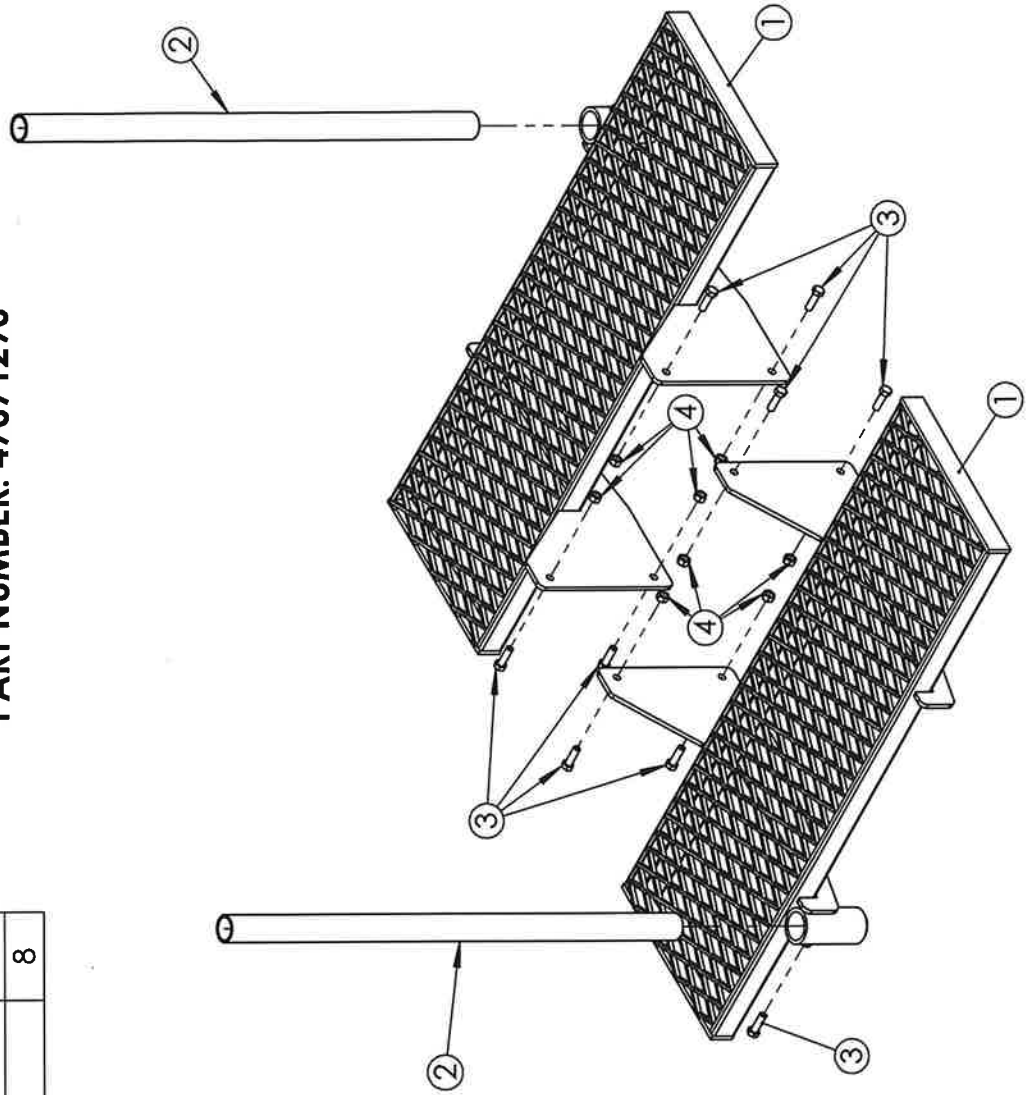
AG207 2021 & NEWER
P/N: 71450

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71452	CHAIN SAFETY ASSY (13MM)	2
2	18901400	WASHER, 1/2 LOCK ZC GR 8	2
3	18427400	NUT HX 1/2 NC ZP GR 8	2
4	18811400	WASHER, FLAT 1/2 ZC USS	2
5	18092030	BOLT, HX CAP, G8NCZC, 1/2-13 X 2 LG	2



AG206
2021 & NEWER
STEP KIT (2 STEPS)
PART NUMBER: 47071290

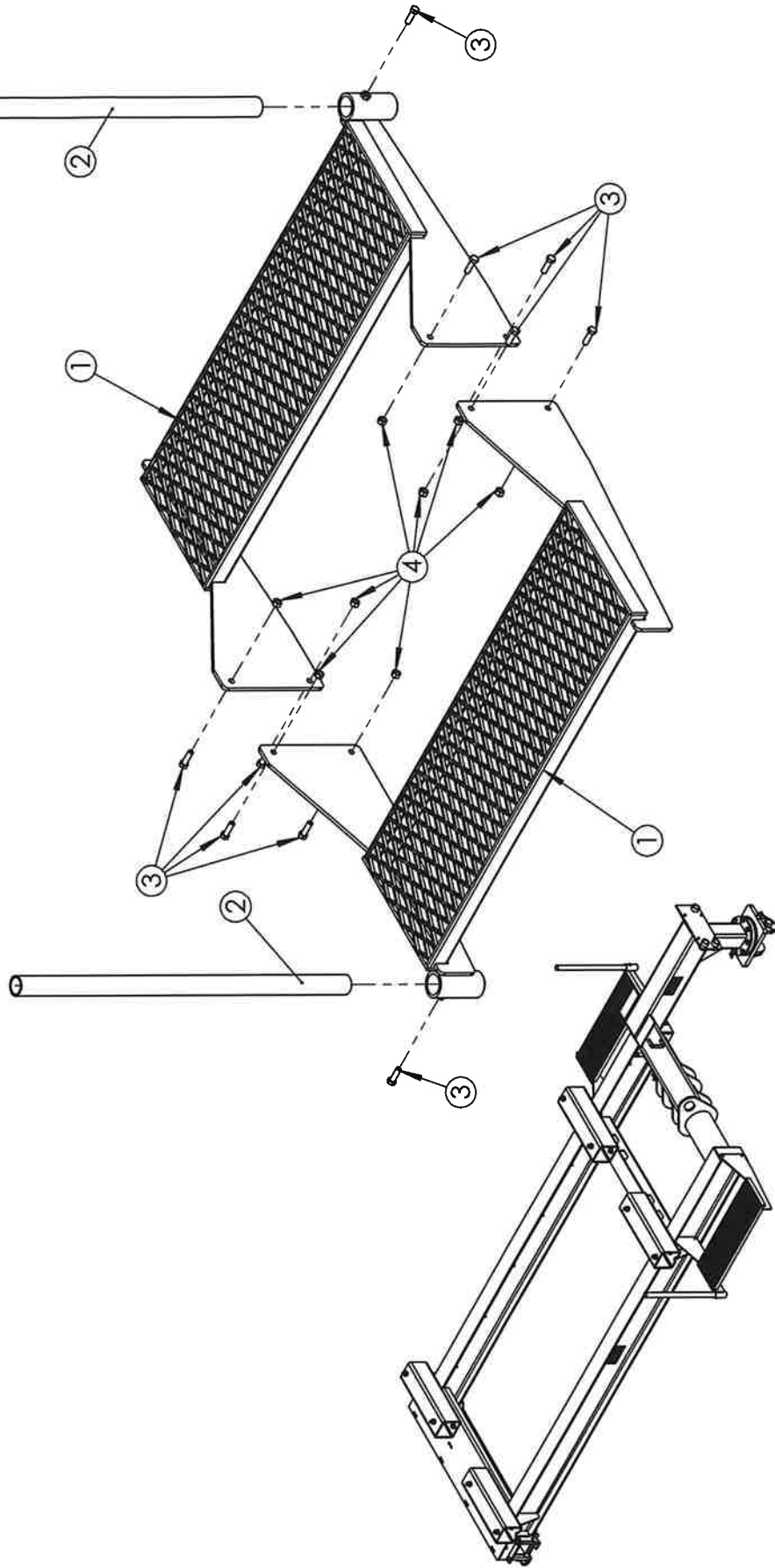
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	70981	STEP WELDMENT	2
2	70987	STEP RAIL	2
3	18056824	BOLT HX ZC 3/8 X 1 1/4	10
4	18459200	NUT 3/8 NYLOCK	8



IN USE
 CONFIGURATION

AG207 STEP KIT (2 STEPS)
2021 & NEWER
PART NUMBER: 47071323

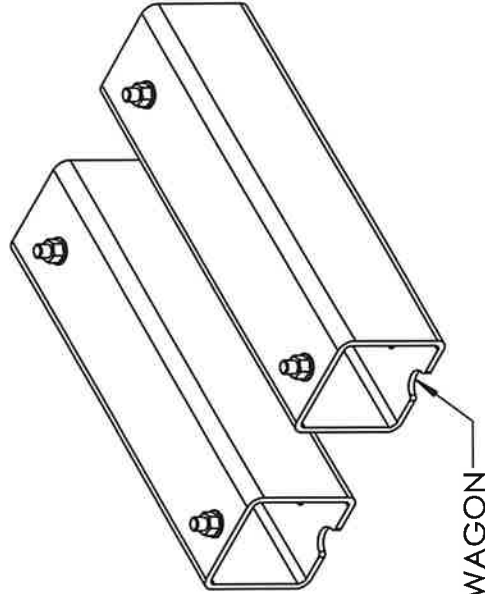
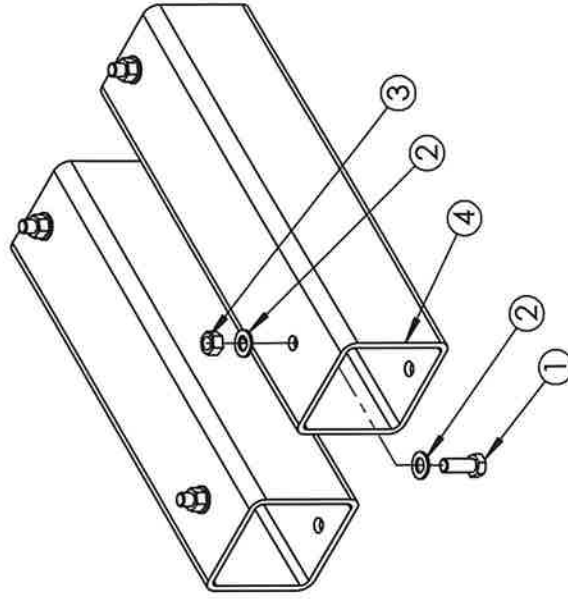
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	71317	STEP WELDMENT 207	2
2	70987	STEP RAIL	2
3	18056824	BOLT HX ZC 3/8 X 1 1/4	10
4	18459200	NUT 3/8 NYLOCK	8



IN USE CONFIGURATION

AG207 TANK RISER KIT
2021 & NEWER
PART NUMBER: 71422

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	18058430	BOLT HX 3/4 X 2 GR 5 NC ZC	8
2	18811800	FLATWASHER, 3/4 ZP	16
3	18458452	LOCKNUT, 3/4 GR 8 ZC	8
4	71405	7 IN TANK SPACER TUBE	4



WHEN INSTALLING:
 NOTCH IN TUBE MUST BE ORIENTED
 DOWN AND TO THE OUTSIDE OF THE WAGON

AG206 & AG207

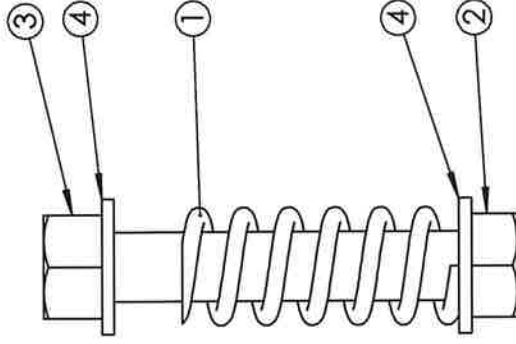
2021 & NEWER

TANK SPRING MOUNTING PACKAGE

(NOT LEGAL IN ALL STATES)

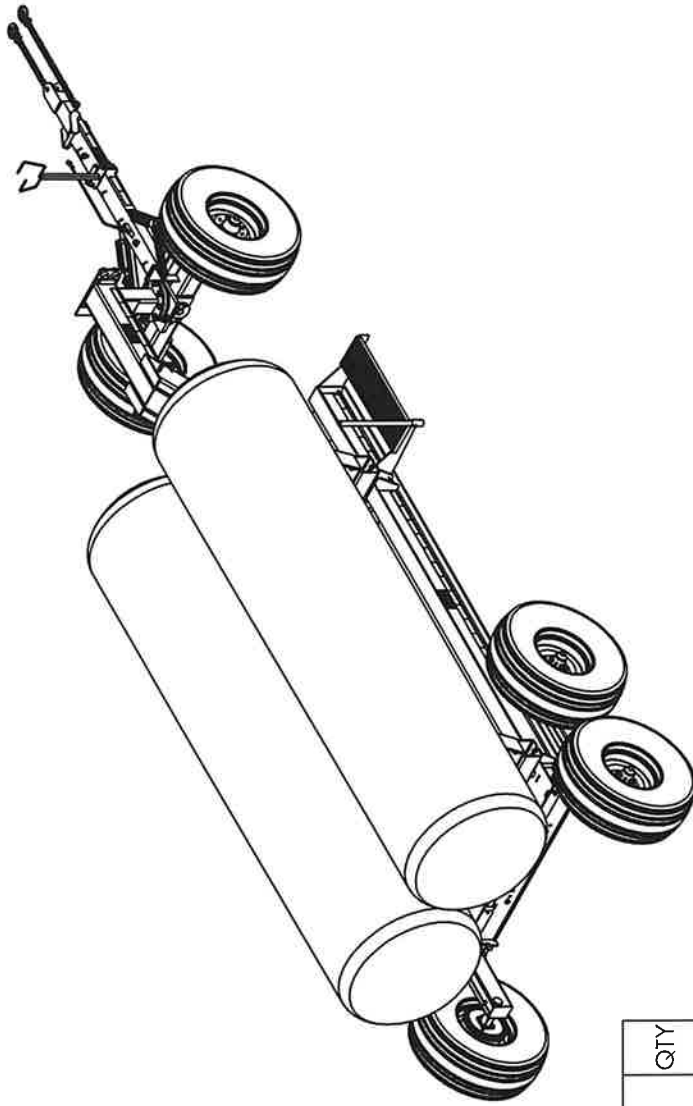
PART NUMBER: 47071324

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	18387	DIE SPRING	4
2	18098501	BOLT HX 3/4 X 4 1/2 GR 8 ZC	4
3	18458452	LOCKNUT, 3/4 GR 8 ZC	4
4	18811800	FLATWASHER, 3/4 ZP	8

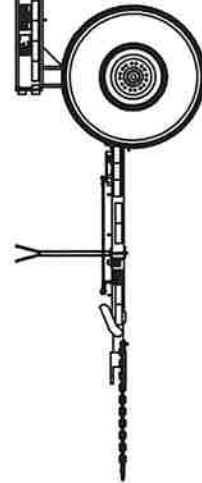
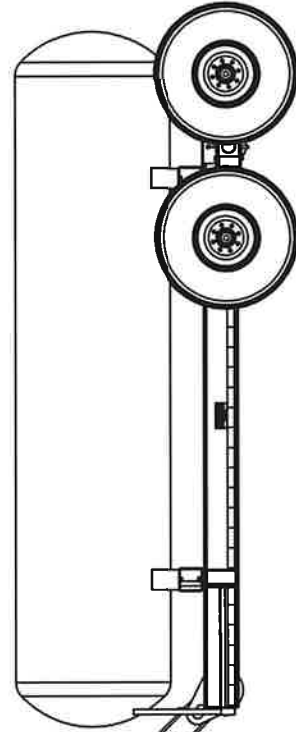
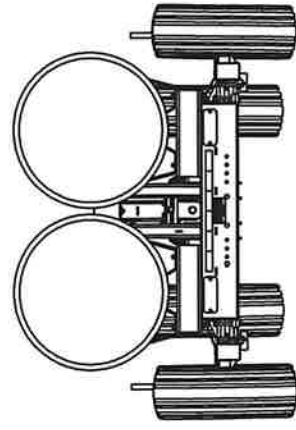


RECOMMENDED COMPRESSION:
TIGHTEN NUT UNIL SPRING LENGTH IS 2 1/2"-2 3/4"
ADJUST AS NEEDED

AG206 & AG207
D.O.T. REFLECTIVE TAPE KIT
2021 & NEWER
PART NUMBER 32-4
(SHOWN ON AG207)



PART NUMBER	DESCRIPTION	QTY
980-3262	TAPE REFLECTIVE RED/WHITE 2" K/C	35'



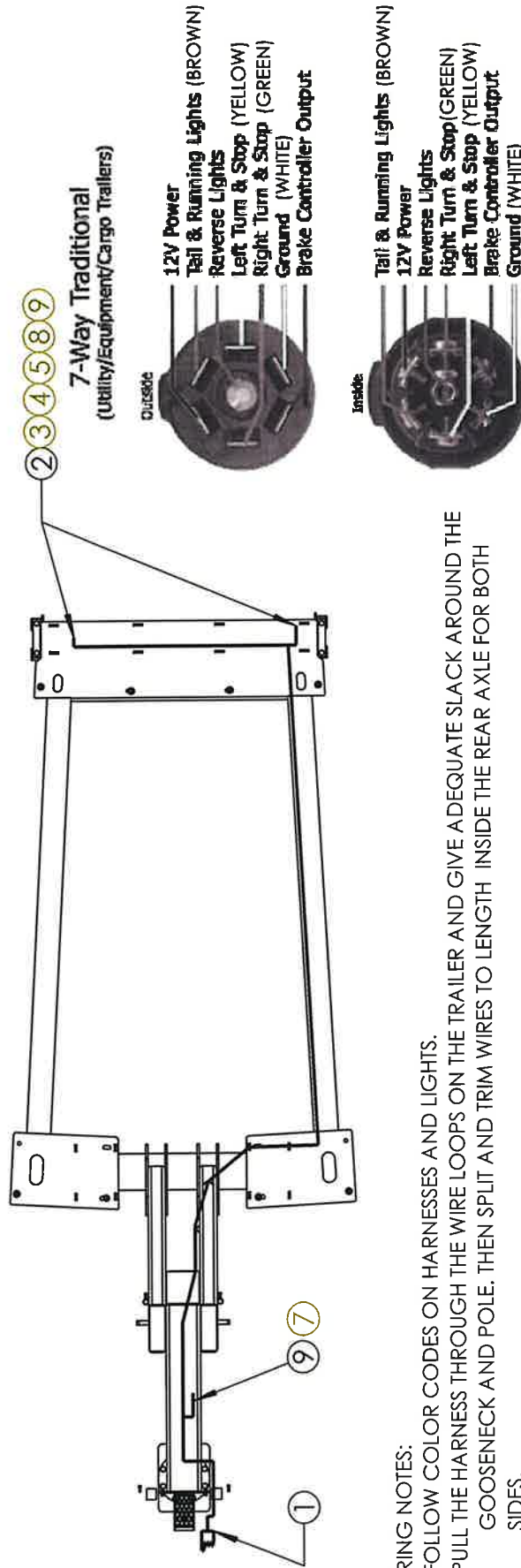
AG206 & AG207 UNIVERSAL LIGHT KIT

2021 & NEWER

PART NUMBER: 47071300

(SHOWN ON AG206)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	71382	4 WAY TRAILER HARNESS-40'	1
2	71383	SURFACE MOUNT LIGHTS RED	2
3	71199	TAIL LIGHT PLATE	2
4	18704215	SCREW MACHINE RD #10-24 X 3/4	4
5	18997800	NUT SER FLANGE 10-24 NCZP	4
6	70676	SPLIT LOOM, 1/4" ID.	40FT
7	18721018	#10 X 3/4 SELF TAPPING SCREW	1
8	70886	SPLICE CONNECTOR 16-14 GA, HEAT SHRINK	6
9	70656	RING TERMINAL, HEAT SHRINK, 16-14 GA	3
10	70659	CABLE TIE, 7-1/2" LONG, OUTDOOR	10
11	71632	7-WAY BLADE STYLE RV PLUG	1



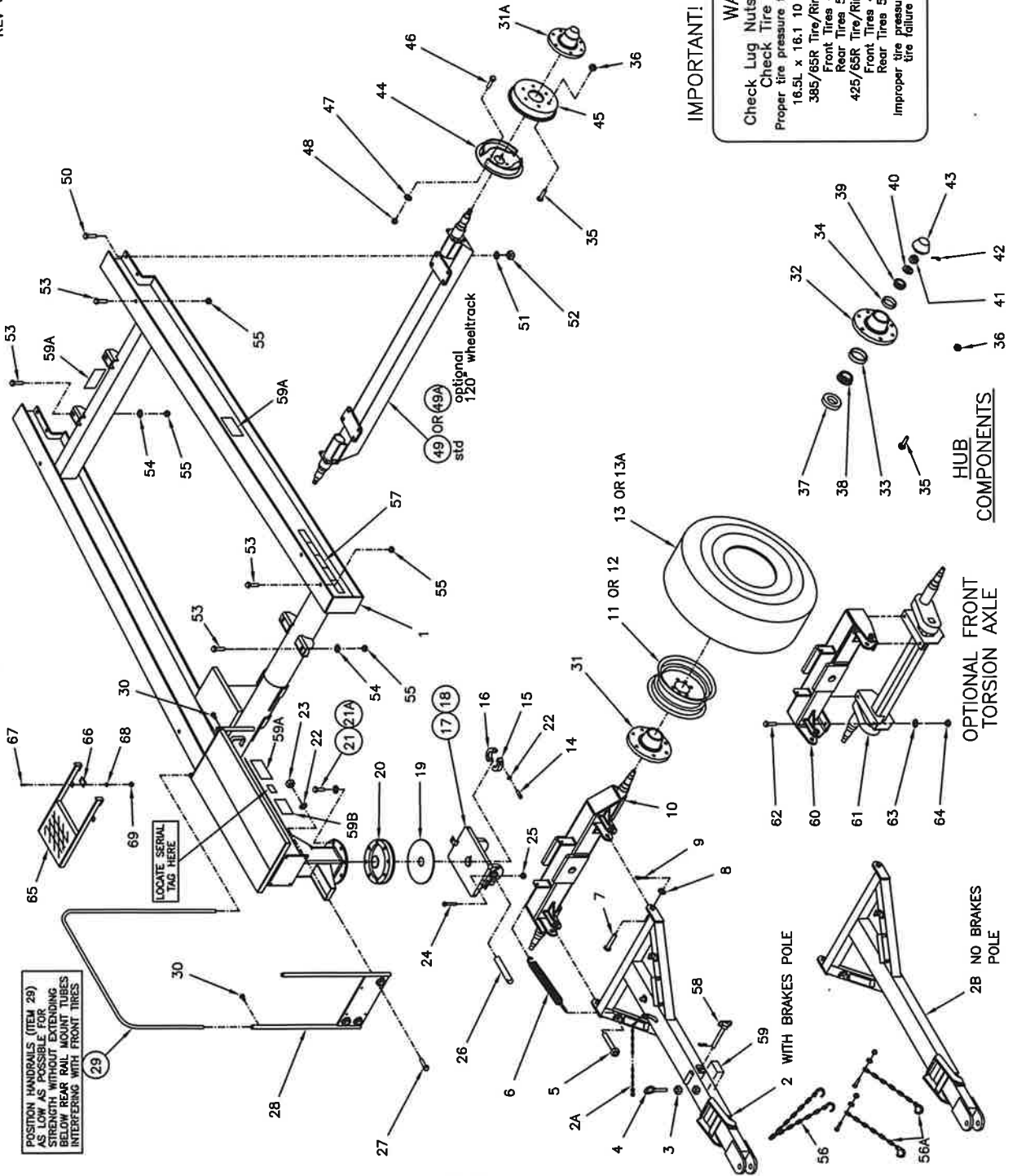
WIRING NOTES:

- 1: FOLLOW COLOR CODES ON HARNESSES AND LIGHTS.
- 2: PULL THE HARNESS THROUGH THE WIRE LOOPS ON THE TRAILER AND GIVE ADEQUATE SLACK AROUND THE GOOSENECK AND POLE. THEN SPLIT AND TRIM WIRES TO LENGTH INSIDE THE REAR AXLE FOR BOTH SIDES.
- 3: INSTALL HEAT SHRINK CONNECTORS BETWEEN HARNESS AND LIGHTS.
- 4: SECURE WIRES WITH CABLE TIES AS NEEDED.
- 5: COVER WIRES OF TRAILER END CONNECTOR WITH SPLIT LOOM AND SECURE WITH ELECTRICAL TAPE.
- 6: GROUND TO TRAILER USING SELF TAPPING SCREW, RING TERMINALS, AND THE GROUND WIRE ON THE HARNESS. GROUND LIGHTS TO INSIDE OF TAIL LIGHT PLATE USING MOUNTING SCREWS AND RING TERMINALS.
- 7: IF 7-WAY PLUG IS DESIRED, REMOVE 4 WAY END AND INSTALL 7-WAY PLUG AS SHOWN ON PAGE 2.

- MATCH THE COLOR OF WIRES FROM THE HARNESS TO THE TABS AS SHOWN
- BOTH BROWN WIRES WILL NEED TO BE CONNECTED TO THE "TAIL & RUNNING LIGHT" TERMINAL
- PUSH WIRE LOOM INSIDE OF PLUG BEFORE REINSTALLING THE WIRE CLAMP ON THE PLUG

AG206 DOUBLE TANK NH3 WAGON (2009 TO 2021)

AG206ISO
08-16-13
REV 6/1/21



POSITION HANDRAILS (ITEM 29)
AS LOW AS POSSIBLE FOR
STRENGTH WITHOUT EXTENDING
BELOW REAR RAIL MOUNT TUBES
INTERFERING WITH FRONT TIRES

LOCATE SERIAL
TAG HERE

IMPORTANT! (ITEM 59B)

WARNING
Check Lug Nuts Daily for Tightness
Check Tire Pressures Daily
Proper tire pressure for AG206 & AG207 Wagon
16.5L x 16.1 10 ply tire 36PSI/30MPH
385/65R Tire/Rim
Front Tires 45 PSI/30 MPH
Rear Tires 55 PSI/30 MPH
425/65R Tire/Rim (Avail. on AG207 only)
Front Tires 45 PSI/30 MPH
Rear Tires 55 PSI/30 MPH
Improper tire pressures may lead to premature
tire failure and wagon fatigue

HUB COMPONENTS

OPTIONAL FRONT TORSION AXLE

2B NO BRAKES POLE

2 WITH BRAKES POLE



AG206 AMMONIA WAGON

FOR DUAL TANKS AND TELESCOPING POLE

PARTS LIST (2009 TO 2021)

AG206ISOLST
rev 12/7/23

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	47005364	MAINFRAME WELDMNT	1	46	18057522	BOLT, 1/2-20NF. X 1	8
2	47005344	TELESCOPING POLE W/ACTUATOR	1	47	18891400	LOCKWASHER, 1/2	8
FOR BRAKES INCLUDES CABLE ASSY W/ "S" HOOKS.				48	18437500	HEX. NUT, 1/2-20NF.	8
REPAIR PARTS, SEE SEPARATE POLE ILLUSTRATION							
AND SEE SEPARATE ACTUATOR ILLUSTRATION.							
2A	13988	CABLE ASSY, 72 INCH BREAKAWAY	1				
2B	47005382	TELESCOPING POLE (NO BRAKES)	1	47015385	REAR AXLE COMPLETE (FOR BRAKES)		
ALSO ITEMS 2, 44, 45 AND BRK LINE ASSY PARTS				47015767	REAR AXLE COMPLETE 120"WT (BRAKES)		
ARE NOT NEEDED FOR UNITS W/O BRAKES.				INCLUDES ITEMS 31A, & 44 THRU 49A)			
3	18417400	HEX. NUT, 1/2-13NC.	1	47995385	REAR AXLE COMPLETE (NO BRAKES)		
4	18007500	EYE BOLT, 1/2-13NC. X 2" SHANK	1	(INCLUDES ITEMS 31A AND 49)			
5	47009910	SPRING BOLT	2	47995767	REAR AXLE COMPLETE 120"WT (NO BRAKES)		
6	00306-30	DEMCO LIFT SPRING WITH INSERT	2	(INCLUDES ITEMS 31A AND 49A)			
7	18541551	TONGUE CLEVIS PIN, 1.00 DIA X 4	2				
8	18852200	FLATWASHER, 1.00"	2	49	47005385	REAR AXLE WELDMNT STANDARD	1
9	18560826	COTTER PIN, 3/16 X 1 1/2	2	49A	47005767	REAR AXLE WELD'T 120" WHLTRACK	1
10	47005333	FRONT AXLE WELDMNT	1	50	18098437	BOLT, HEX 3/4-10 X 2 1/2 ZP	8
	47015333	FRONT AXLE COMPLETE WITH HUBS	1	51	18891800	LOCKWASHER, 3/4 ZP	8
(INCLUDES ITEMS 10 AND 31)				52	18418400	HEX. NUT, 3/4-10 NC	8
11	47009814	WHEEL RIM, 14 X 16.1 (OPTIONAL)	4	53	18058430	BOLT, HEX 3/4-10 X 2 GR5 ZC	8
12	47009385	WHEEL RIM, 22.5 X 11.25 (OPTION)	4	54	18811800	FLATWASHER, 3/4 ZC	4
13	40013	16.5 X 16.1 10PLY TIRE/RIM OPTION	4	55	18458400	LOCKNUT, 3/4-10 ZC	8
13A	20120012	VALVE STEM	4	****	47003950	SPINDLE WELDMNT ONLY (OPTIONAL) ****	
	47015352	SKID PLATE ASSEMBLY COMPLETE		56	47000314	SAFETY CHAIN KIT (OPTIONAL)	1
(INCLUDES ITEMS 14 THRU 20)				56A	47005479	SAFETY (2-CHAIN) KIT (OPTIONAL)	1
14	18178450	BOLT, ALLEN HD 3/8-16X1 3/4 ZP	2	57	32-4	DOT REFLECTIVE TAPE KIT (OPTIONAL)	1
15	47005360	KINGPIN CLAMP, FRONT	1	21001000	1000 gal NH3 TANK (OPTIONAL)		2
16	47005361	KINGPIN CLAMP, BACK (THREADED)	1	(NOT SHOWN)			
17	47005352	SKID PLATE BASE WELDMNT	1	58	600183	LOCKOUT PIN ASSEMBLY	1
18	18901806	GREASE ZERK, 90 DEG.	1	59	699109	WARNING DECAL, LOCKOUT PIN	2
19	47005393	REESE 12" LUBE PLATE (83001)	1	59A	699107L	AG SYSTEMS DECAL	5
20	47015348	UPPER KINGPIN WELDMNT	1	59B	699190	TIRE PRESSURE DECAL	1
21	18058429	BOLT HX 3/4-10 X 1 3/4 GR5 ZP	8	*	42069999	ASSEMBLY BOLT PACKAGE (INCLUDES	
21A	18891800	LOCKWASHER, 3/4 ZP	8	ITEMS 5 THRU 9, 21 THRU 27, 30, 50 THRU 55)			
22	18891200	LOCKWASHER, 3/8 ZP	6	OPTIONAL FRONT TORSION AXLE KIT			
23	18436800	HEXNUT, 3/8-16 ZP	4	(INCLUDES ITEMS 60 THRU 64)			
24	18057438	BOLT, 1/2-13 X 3 GR5 ZP	1	60	47005648	TA FRONT AXLE WELDMNT	1
25	18457650	LOCKNUT, 1/2-13 NC ZP	1	61	47005645	TORSION AXLE ASSEMBLY	1
26	47005358	CLEVIS PIN SHANK	1	62	18098437	BOLT, HEX 3/4-10 X 2 1/2 ZC	4
27	18056824	BOLT, 3/8 -16 X 1 1/4 ZP	4	63	18811800	FLATWASHER, 3/4 ZP	4
28	47015467	VALVE BULKHEAD WELDMNT	1	64	18458400	LOCKNUT, 3/4 ZP	4
29	47005362	RAILING, PLATFORM	2				
30	18056824	BOLT, 3/8 -16 X 1 1/4 ZP	4	47995765	STEP KIT (INCLUDES ITEMS 65 THR 69)	OPT	
31	47009712	HUB ASSEMBLY, FRONT (COMPLETE)	2	47005765	STEP WELDMNT FOR AG 206		2
INCLUDES ITEMS 32, 35 THRU 39, AND ITEM 43				66	207-17	STEP CLAMP BAR	4
31A	47009712	HUB ASSEMBLY, REAR (COMPLETE)	2	67	18056826	BOLT, HEX 3/8-16 X 1 1/2 ZC	8
INCLUDES ITEMS 32, 35 THRU 39, AND ITEM 43				68	18891200	LOCKWASHER, 3/8 ZP	8
32	47005712	HUB WITH CUPS ITEMS 33 & 34	4	69	18436800	HEXNUT, 3/8-16 ZP	8
33	47005372	BEARING CUP, INNER	4	42069990	BRAKE LINE KIT PARTS (NOT SHOWN)		
34	47005272	BEARING CUP, OUTER	4	INCLUDES ALL ITEMS LISTED BELOW			
35	47005041	WHEEL BOLT,	32	(SEE STD BRAKE SCHEMATIC ILLUSTRATION AG206BRKS)			
36	47005040	WHEEL NUT,	32	47005667	BRAKE HOSE (25 INCH)		2
37	(SEE NOTE)	GREASE SEAL	4	47005660	UNION		5
38	47005378	BEARING CONE, INNER	4	47005685	UNION TEE		1
39	47005279	BEARING CONE, OUTER	4	47005663	HOSE BRACKET		2
40	18000017	SPINDLE WASHER, 1 X .187	4	47005664	HOSE CLIP, (DEMCO)		2
41	18489100	SLOTTED NUT,	4	47005666	BRAKE LINE CLIP		17
42	18560830	COTTER PIN,	4	18721018	SCREW, SELF-TAP #10 X 3/4		17
43	47005917	DUST CAP	4	47005688	TUBE, BRAKE LINE- 60"		5
44	47005652	BRAKE CLUSTER (13") L.H.	1	47005687	TUBE, BRAKE LINE- 30"		1
	47005651	BRAKE CLUSTER (13") R.H.	1	47005692	TUBE, BRAKE LINE- 12"		1
45	47005650	BRAKE DRUM	2	47005690	TUBE, BRAKE LINE- 20"		1

ORDER 42069991 FOR 120" WHEELTRACK BRAKE KIT

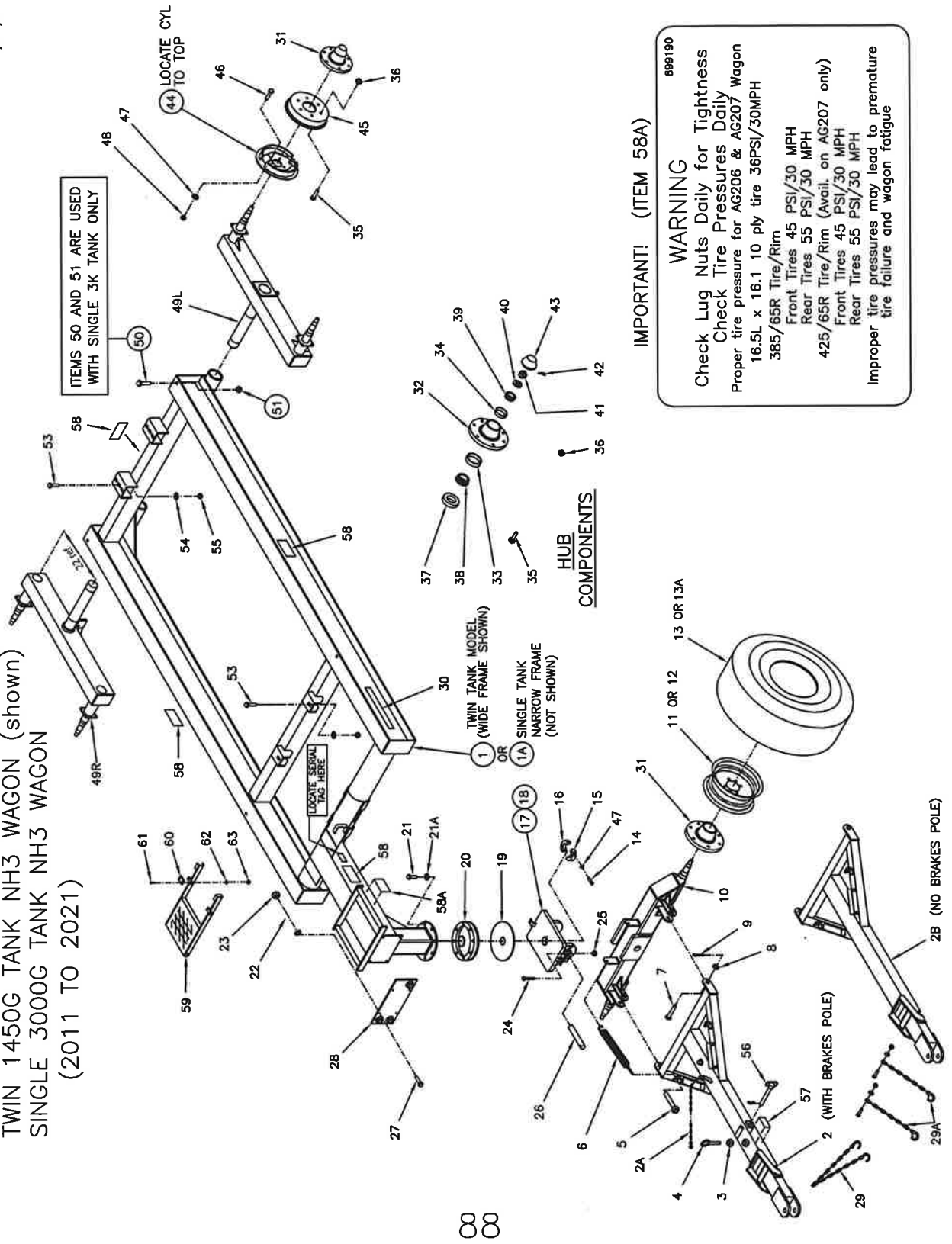
NOTE:
IF YOUR HUB IS SMOOTH W/ A GREASE ZERK, ORDER GREASE SEAL P/N: 906481
IF YOUR HUB HAS RIBS AND NO GREASE ZERK, ORDER GREASE SEAL P/N: 47005017

P/N: 47015385 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)
P/N: 47015767 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)

AG207 NH3 WAGON

TWIN 1450G TANK NH3 WAGON (shown)
 SINGLE 3000G TANK NH3 WAGON
 (2011 TO 2021)

AG207ISO
 08-16-13
 REV 06/01/21



IMPORTANT! (ITEM 58A)

WARNING
 Check Lug Nuts Daily for Tightness
 Check Tire Pressures Daily
 Proper tire pressure for AG206 & AG207 Wagon
 16.5L x 16.1 10 ply tire 36PSI/30MPH
 385/65R Tire/Rim
 Front Tires 45 PSI/30 MPH
 Rear Tires 55 PSI/30 MPH
 425/65R Tire/Rim (Avail. on AG207 only)
 Front Tires 45 PSI/30 MPH
 Rear Tires 55 PSI/30 MPH
 Improper tire pressures may lead to premature tire failure and wagon fatigue

OO
 OO

AG207 AMMONIA WAGON

SINGLE OR DUAL TANK MODELS

AG207ISOLST
REV 12/21/21

PARTS LIST (2011 TO 2021)

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1*	47003854	MAINFRAME WELD'T (TWIN TANKS) OR	1	44	47005652	BRAKE CLUSTER (13") L.H.	2
1A**	47003894	MAINFRAME WELD'T (SINGLE 3K TANK)	1	44A	47005651	BRAKE CLUSTER (13") R.H.	2
1B**	47003895	MAINFRAME WELD'T (MT10 COMO)	1	45	47005650	BRAKE DRUM	4
2	47005344	TELESCOPING POLE W/ACTUATOR	1	46	18057522	BOLT, 1/2-20 NF. X 1	16
		FOR BRAKES INCLUDES CABLE ASSY W/ (2) "S" HOOKS. FOR REPAIR PARTS, SEE SEPARATE POLE ILLUSTRATION AND SEE SEPARATE ACTUATOR ILLUSTRATION.		47	18891400	LOCKWASHER, 1/2	16
2A	13988	CABLE ASSY, 72 INCH BREAKAWAY	1	48	18437500	HEX. NUT, 1/2-20NF.	16
2B	47005382	TELESCOPING POLE (NO BRAKES)	1				
		ALSO ITEMS 2, 44, 44A, 45 AND BRK LINE KIT PARTS ARE NOT NEEDED FOR UNITS W/O BRAKES.		42079997	REAR AXLE ASSY, LH (FOR BRAKES) INCLUDES HUB, DRUM, AND CLUSTER ASSYS		
3	18417400	HEX. NUT, 1/2-13NC.	1	42079996	REAR AXLE ASSY, RH (FOR BRAKES) INCLUDES HUB, DRUM AND CLUSTER ASSYS		
4	18007500	EYE BOLT, 1/2-13NC. X 2" SHANK	1	42079995	REAR AXLE ASSY, LH (NO BRAKES) INCLUDES HUB ASSY'S		
5	47009910	SPRING BOLT	2	42079994	REAR AXLE ASSY, RH (NO BRAKES) INCLUDES HUB ASSY'S		
6	00306-30	DEMCO LIFT SPRING WITH INSERT	2				
7	18541551	TONGUE CLEVIS PIN, 1.00 DIA X 4	2	49L	47003896	REAR AXLE WELDMNT, LH	1
8	18852200	FLATWASHER, 1.00"	2	49R	47003897	REAR AXLE WELDMNT, RH	1
9	18560826	COTTER PIN, 3/16 X 1 1/2	2				
10	47005333	FRONT AXLE WELDMNT	1	50**	18098540	BOLT, HEX 1-8 NC X 3 GR8 ZC	4
	47015333	FRONT AXLE COMPLETE WITH HUBS (INCLUDES ITEMS 10 AND 31)		51**	18459000	CTR LOCKNUT, 1-8 NC GR8 ZC	4
11	47009814	WHEEL RIM, 14 X 16.1 (OPTIONAL)	6	52		OMITTED	
12	47009385	WHEEL RIM, 22.5 X 11.25 (OPTION)	6	53	18058430	BOLT, HEX 3/4-10 X 2 GR5 ZC	8
13	40013	16.5 X 16.1 10PLY TIRE/RIM OPTION	6	54	18811800	FLATWASHER, 3/4 ZC	4
13A	20120012	VALVE STEM	6	55	18458400	LOCKNUT, 3/4-10 ZC	8
				56	600183	LOCKOUT PIN ASSEMBLY	1
	47015352	SKID PLATE ASSEMBLY COMPLETE (INCLUDES ITEMS 14 THRU 20)		57	699109	WARNING DECAL, LOCKOUT PIN	2
14	18178450	BOLT, ALLEN HD 3/8-16X1 3/4 ZP 2	2	58	699107L	AG-SYSTEMS DECAL, (LARGE)	5
15	47005360	KINGPIN CLAMP, FRONT	1	58A	699190	TIRE PRESSURE DECAL	1
16	47005361	KINGPIN CLAMP, BACK (THREADED)	1				
17	47005352	SKID PLATE BASE WELDMNT	1	47985765	STEP KIT (INCLUDES ITEMS 59 - 63)		
18	18901806	GREASE ZERK, 90 DEG.	1	59	47003866	STEP WELDMNT	2
19	47005393	REESE 12" LUBE PLATE (83001)	1	60	47003865	STEP CLAMP BAR	4
20	47015348	UPPER KINGPIN WELDMNT	1	61	18056826	BOLT, 3/8 -16 X 1 1/2 ZP	8
21	18058429	BOLT HX 3/4-10 X 1 3/4 GR5 ZP 8	8	62	18891200	LOCKWASHER, 3/8 ZP	8
21A	18891800	LOCKWASHER, 3/4 ZP	8	63	18436800	HEXNUT, 3/8 ZP	8
22	18891200	LOCKWASHER, 3/8 ZP	4				
23	18436800	HEXNUT, 3/8-16 ZP	4	*	21001451	1450 gal NH3 TANK (OPTIONAL) (NOT SHOWN)	2
24	18057438	BOLT, 1/2-13 X 3 GR5 ZP	4	42079998	ASSEMBLY BOLT PACKAGE (INCLUDES ITEMS 5 THRU 9, 21 THRU 27, 51 THRU 55)		
25	18457650	LOCKNUT, 1/2-13 NC ZP	1	**	42079999A	BRAKE LINE KIT PARTS (narrow frame)	
26	47005358	CLEVIS PIN SHANK	1	*	42079999B	BRAKE LINE KIT PARTS (wide frame)	
27	18056824	BOLT, 3/8 -16 X 1 1/4 ZP	4				
28	47003859	VALVE BULKHEAD WELDMNT	1	(not shown)		INCLUDES ALL ITEMS LISTED BELOW (SEE BRAKE SCHEMATIC ILLUSTRATION AG207BRKS)	
29	47000314	SAFETY CHAIN KIT (OPTIONAL)	1	47005667	BRAKE HOSE, 25 INCH	2	
29A	47005479	SAFETY (2-CHAIN) KIT (OPTIONAL)	1	47005665	BRAKE HOSE, 18 INCH		
30	32-4	DOT REFLECTIVE TAPE KIT (OPTIONAL)	1	47005660	UNION, 3/16	4	
31	47009712	HUB ASSEMBLY, (COMPLETE)	6	47005685	UNION TEE, (3 FEMALE PORTS)	2	
		INCLUDES ITEMS 32, 35 THRU 39, AND ITEM 43		47005663	HOSE BRACKET	2	
32	47005712	HUB WITH CUPS ITEMS 33 & 34	6	47005680	TEE, (1 M PORT AND 2 FM PORTS)	1	
33	47005372	BEARING CUP, INNER	6	47005664	HOSE CLIP, DEMCO	4	
34	47005272	BEARING CUP, OUTER	6	47005666	BRAKE LINE CLIP	21	
35	47005041	WHEEL BOLT	48	18721018	SCREW, #10 X 3/4 SELF TAP	21	
36	47005040	WHEEL NUT	48	47005688	TUBE, BRAKE LINE, (60")	3	
37	(SEE NOTE)	GREASE SEAL	6	47005687	TUBE, BRAKE LINE, (30")	5	
38	47005378	BEARING CONE, INNER	6	47005694	TUBE, BRAKE LINE, (40")	1	
39	47005279	BEARING CONE, OUTER	6	*	47005690	TUBE, BRAKE LINE, (51")	1
40	18000017	SPINDLE WASHER, 1 X .187	6				
41	18489100	SLOTTED NUT,	6	**	47005692	TUBE, BRAKE LINE, (20")	1
42	18560830	COTTER PIN,	6				
43	47005917	DUST CAP	6				

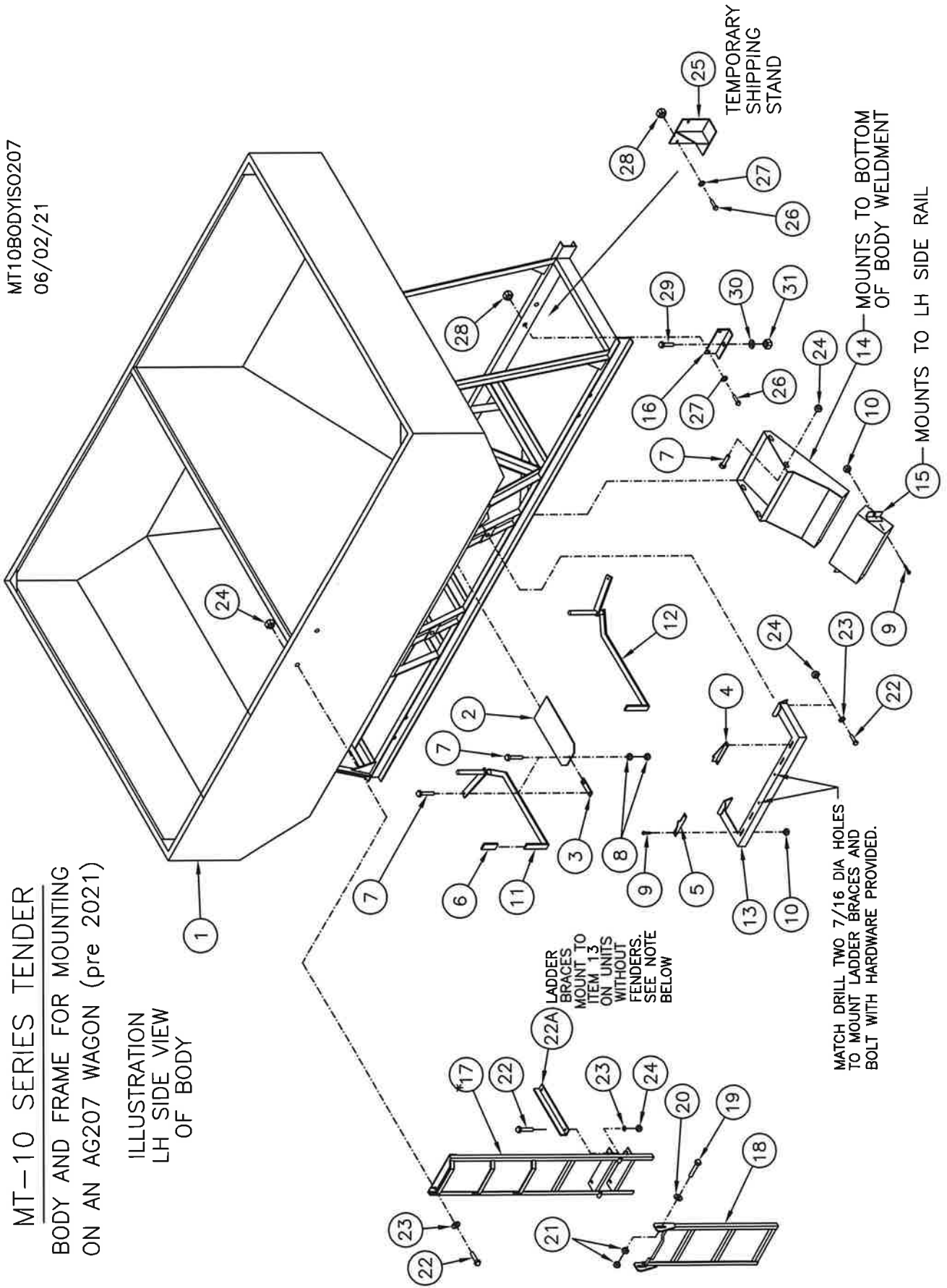
NOTE:

IF YOUR HUB IS SMOOTH W/ A GREASE ZERK, ORDER GREASE SEAL P/N: 906481
IF YOUR HUB HAS RIBS AND NO GREASE ZERK, ORDER GREASE SEAL P/N:47005017

P/N: 42079996 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)
P/N: 42079997 ALSO CONTAINS P/N: 71954 WHEEL STUDS QTY 16 (NOT SHOWN)

MT-10 SERIES TENDER
BODY AND FRAME FOR MOUNTING
ON AN AG207 WAGON (pre 2021)

ILLUSTRATION
LH SIDE VIEW
OF BODY



MT-10 SERIES TENDER
BODY AND FRAME ILLUSTRATION
PARTS LIST FOR MOUNTING
ONTO AN AG207 WAGON (pre 2021)

MT10BODYIS0207LST
 06/02/21

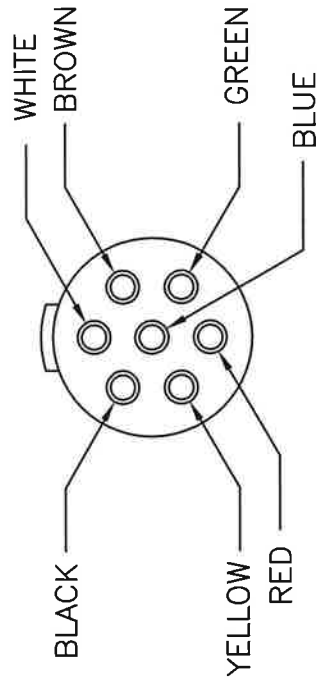
ITEM PART NO.	DESCRIPTION	QTY	ITEM PART NO.	DESCRIPTION	QTY
1 39296-207	BODY & FRAME WELDMENT	1	13 28612	GATE ARM MOUNT WELDMENT	1
2 18889A	GATE PLATE	2	14 47003916	CHUTE WELDMENT	1
3 28111A	LINKAGE	2	15 47003920	CHUTE EXTENSION WELDMENT	1
4 28109	ARM STOP, REAR	1	16 47003875	TENDER MOUNTING BRACKET	4
5 28109	ARM STOP, FRONT	1	17 28124A	UPPER LADDER WELDMENT	1
6 54143A	VINYL HANDLE GRIP	2	18 28125	LOWER LADDER WELDMENT	1
7 18026826	BOLT, 3/8-16NC. X 1 1/2 SS	12	19 18027438	BOLT, 1/2-13NC. X 3	SS
8 18476800	HEX. NUT, 3/8-16NC	8	20 18824800	FLAT WASHER, 1/2	SS
9 18026424	BOLT, 5/16-18NC. X 1 1/4 SS	6	21 18997400	HEX. NUT, 1/2-13NC.	SS
10 18987700	FLANGE NUT, 5/16-18NC	6	22 18026822	BOLT, 3/8-16NC. X 1	SS
11 ———	HANDLE, LEFT HAND	1	22A 47003943	LADDER BRACE	2
12 ———	HANDLE, RIGHT HAND	1	23 18991200	FLATWASHER, 3/8" SS	SS
ITEMS 11 & 12	ARE WELDED IN PLACE AT ASSY		24 18987900	FLANGE NUT, 3/8-16NC.	SS
	FOR REPAIR PARTS ORDER-		25 22197	SHIPPING STAND	4
28112	SHAFT, 1" DIA. X 10 1/2	2	26 18027438	BOLT, 1/2-13NC. X 1 1/4	ZC
28113	COMMON ARM	2	27 18851400	FLAT WASHER, 1/2	ZC
28114A	HANDLE, LEFT HAND	1	28 18457600	LOCK NUT, 1/2-13NC.	ZC
28115A	HANDLE, RIGHT HAND	1	29 18058434	BOLT, 3/4 NC X 2 1/2	GR5 ZC
			30 18891800	LOCKWASHER, 3/4 ZC	ZC
			31 18418400	NUT, HEX 3/4 NC ZC	ZC

ITEMS 25 TO 28 ARE USED FOR STORAGE AND
 TRANSPORT ONLY. MAY BE RETURNED FOR CREDIT.

LIGHT SYSTEM PLUGS

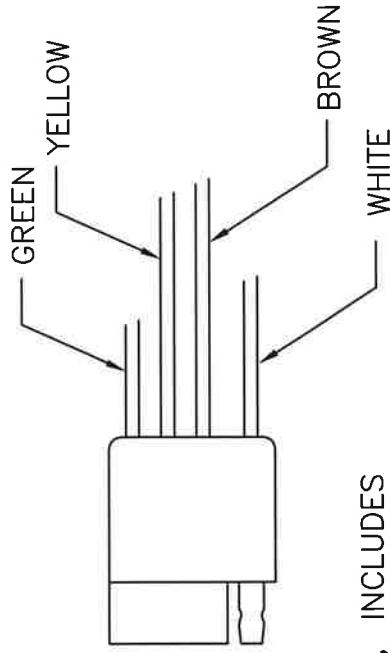
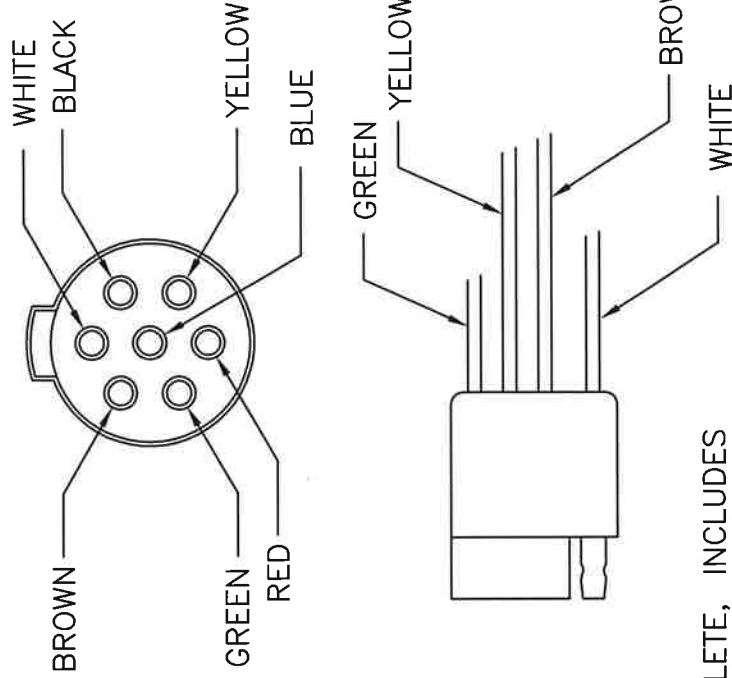
LITEPLUGS

TRAILER



GREEN---RIGHT TURN
 YELLOW--LEFT TURN
 BROWN--TAIL LIGHTS
 WHITE---GROUND

TOW VEHICLE



- 55551 ELECTRICAL KIT COMPLETE, INCLUDES WIRING HARNESS AND FRONT AND REAR LIGHTS FOR REPAIR PARTS ORDER
- 55552 TAIL LITE COMPLETE, (SPECIFY) L.H. OR R.H
- 99074 TAIL LITE LENS, ROUND, RED
- 99047 TAIL LITE LENS, SQUARE, RED
- 55553 SIDE MARKER LITE COMPLETE
- 99045 SIDE MARKER LENS, AMBER
- 30740 REAR CLEARANCE LITE BAR COMPLETE

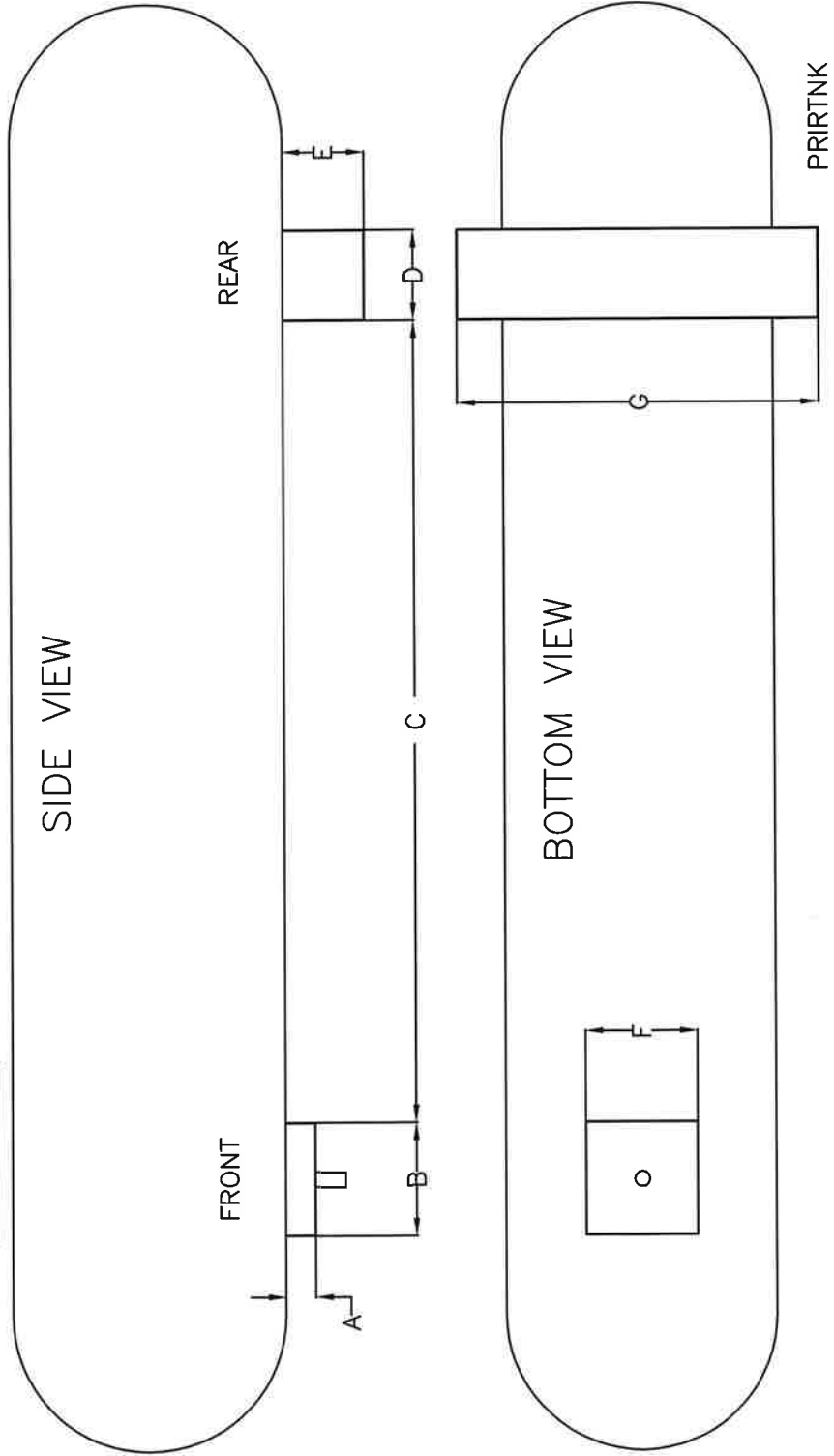
CAPACITY OF TANK IS _____

MEASURE AND RECORD
DIMENSIONS

- A _____
- B _____
- C _____
- D _____
- E _____
- F _____
- G _____

INFORMATION REQUIRED
TO ORDER A "PRIOR TANK"
CONVERSION TRAILER

REACH PIPE LENGTH EQUALS "X" PLUS 67
"X" EQUALS $\frac{(B + D + C) - 120}{2}$

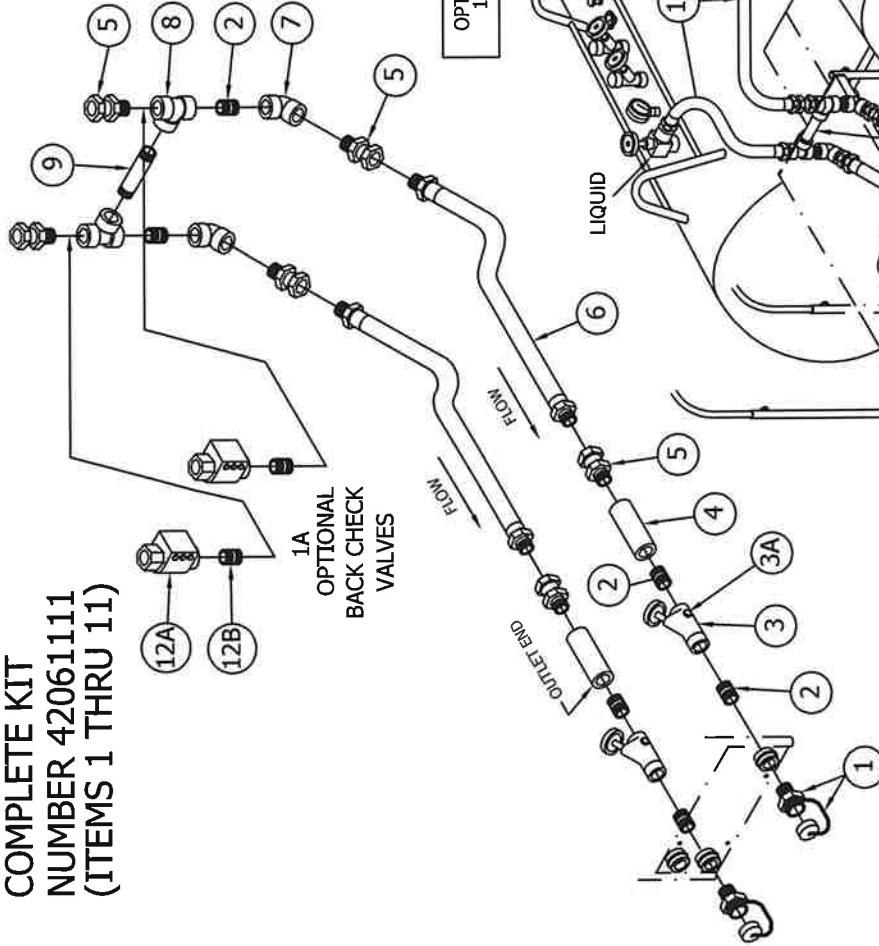


AG206 AND AG207 DUAL TANK PLUMBING PACKAGE (TANKS COUPLED TOGETHER WITH 2 HOSE END VALVES)

**COMPLETE KIT
NUMBER 42061111
(ITEMS 1 THRU 11)**

ITEM	QTY	PARTNUMBER	DESCRIPTION
		42061111	NH3 TANK MOUNTING KIT, TWIN HOSES TO FRONT BULKHEAD INCLUDES ITEMS 1 THRU 11
1	2	111430	ACME ADAPTER 1 1/4"
	2	111585	DUSTCAP WITH CHAIN
2	6	100532	CLOSE NIPPLE, 1 1/4"
3	2	100814	VALVE ASSEMBLY
3A	2	111410	BLEEDER VALVE
4	2	A-EFV-45	EXCESS FLOW VALVE
5	6	230157	SWIVEL COUPLER 1 1/4"
6	2	98108337	HOSE, 1 1/4" X 7 FT
7	2	FS2T4H	ELBOW, 45° 1 1/4" SCH80
8	2	100650	TEE, FEMALE 1 1/4" SCH80
9	1	100892	NIPPLE, 1 1/4" X 6
10	2	100361	HOSE, 1 1/4" X 3 FT
11	3	200256	HOSECLAMP, 1 1/2 - 2
12A	2	A-14BC	OPT. BACK CHECK VALVES
12B	2	100532	CLOSE NIPPLE, 1 1/4"

OPTION 1A



AG206DUALTANKPLUMB3D
06-21-13
REV 09-12-13

MOUNTING INSTRUCTIONS
SUBASSEMBLE AS MANY FITTINGS AS POSSIBLE ON A WORKBENCH, THEN COMPLETE ASSEMBLY AS SHOWN

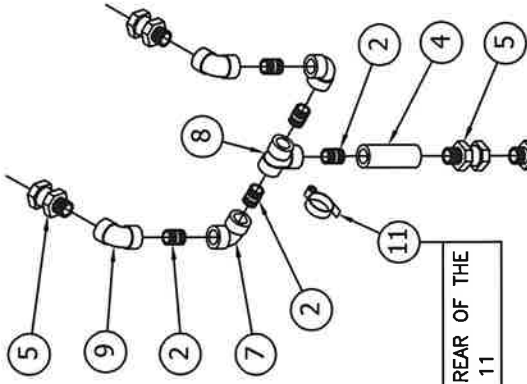
FOLLOW ALL STANDARD NH3 PLUMBING SAFETY PROCEDURES, THEN THOROUGHLY INSPECT AND REPAIR ALL LEAKS.

MOUNT CROSSOVER ASSEMBLY TO REAR OF WALKWAY USING 3 HOSECLAMPS (ITEM 11)

AG206 AND AG207 DUAL TANK PLUMBING PACKAGE (TANKS COUPLED TOGETHER WITH 1 HOSE END VALVE)

COMPLETE KIT NUMBER 42061112 (ITEMS 1 THRU 11)

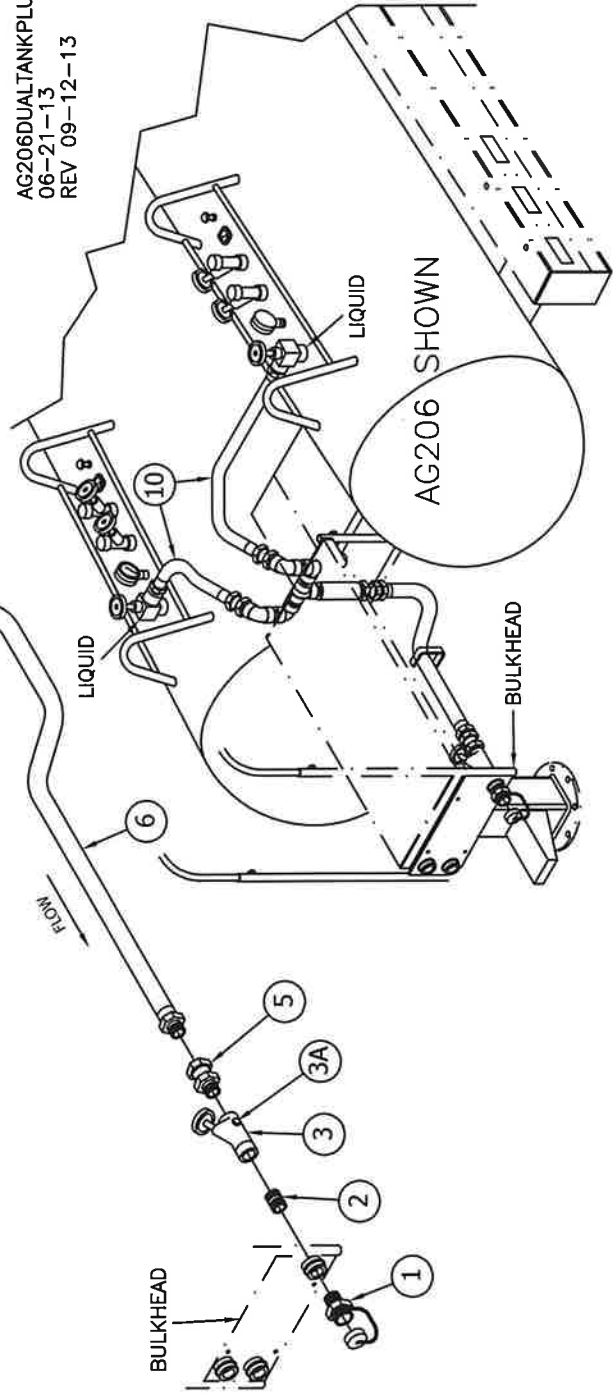
MOUNTING INSTRUCTIONS
SUBASSEMBLE AS MANY FITTINGS AS POSSIBLE ON A WORKBENCH. THEN COMPLETE ASSEMBLY AS SHOWN. FOLLOW ALL STANDARD NH3 PLUMBING SAFETY PROCEDURES, THEN THOROUGHLY INSPECT AND REPAIR ALL LEAKS.



MOUNT TEE SUBASSEMBLY TO THE REAR OF THE WALKWAY USING HOSECLAMPS ITEM 11

ITEM	QTY	PARTNUMBER	DESCRIPTION
		42061112	NH3 TANK MOUNTING KIT, SINGLE HOSE TO FRONT BULKHEAD INCLUDES ITEMS 1 THRU 11
1	1	111430	ACME ADAPTER 1 1/4"
2	1	111585	DUSTCAP WITH CHAIN
3	6	100532	CLOSE NIPPLE, 1 1/4"
3A	1	100814	VALVE ASSEMBLY
4	1	111410	BLEEDER VALVE
4	1	A-EFV-45	EXCESS FLOW VALVE
5	4	230157	SWIVEL COUPLER 1 1/4"
6	1	98108337	HOSE, 1 1/4" X 7 FT
7	2	100610	ELBOW, 90° 1 1/4" SCH80
8	1	100650	TEE, FEMALE 1 1/4" SCH80
9	2	FS2T4H	ELBOW, 45° 1 1/4" SCH80
10	2	100361	HOSE, 1 1/4" X 3 FT
11	2	200256	HOSECLAMP, 1 1/2 - 2

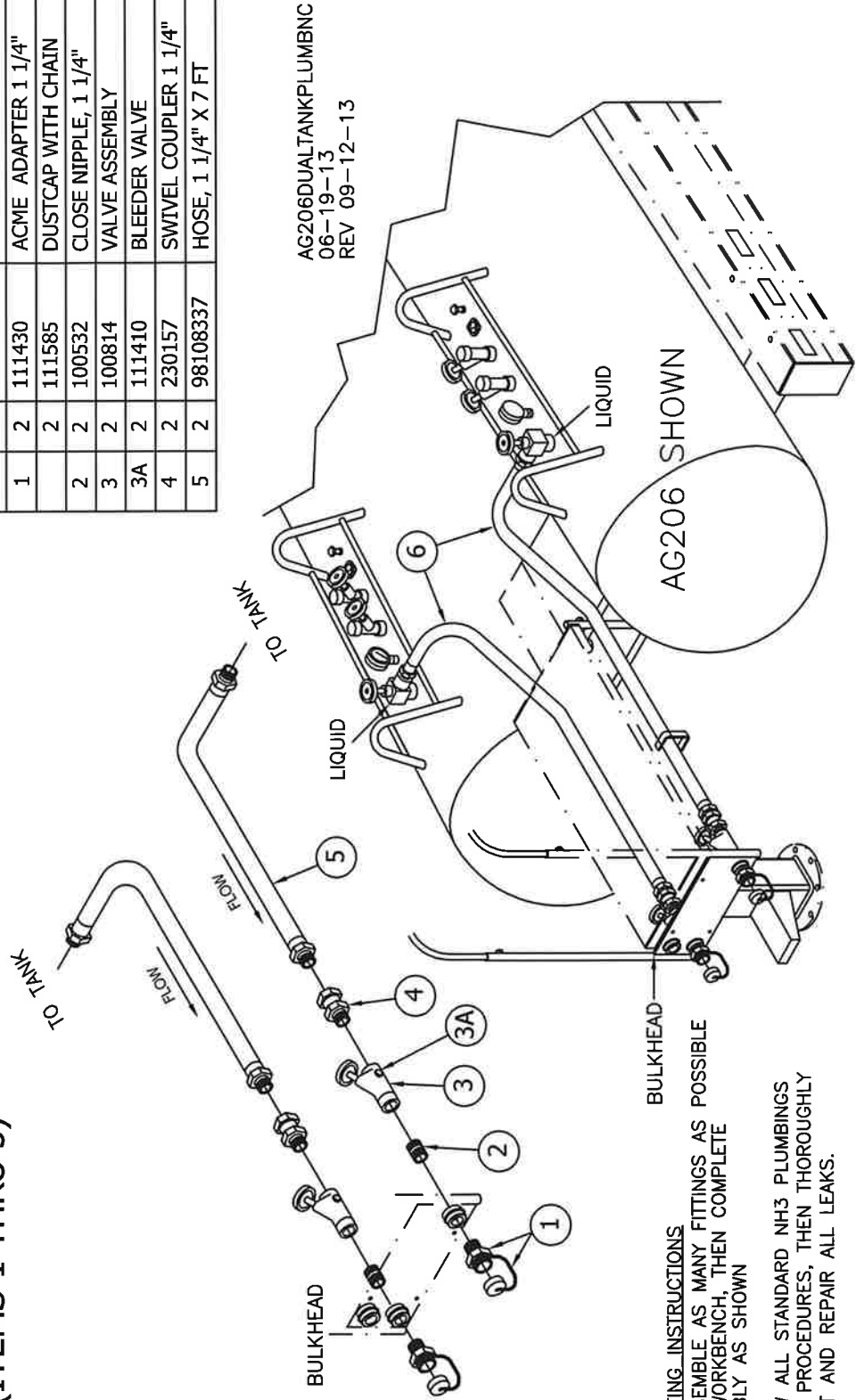
AG206DUALTANKPLUMB1V
06-21-13
REV 09-12-13



AG206 AND AG207 DUAL TANK PLUMBING PACKAGE (TANKS NOT COUPLED TOGETHER WITH 2 HOSE END VALVES)

COMPLETE KIT
NUMBER 42061113
(ITEMS 1 THRU 5)

ITEM	QTY	PARTNUMBER	DESCRIPTION
		42061113	NH3 TANK MOUNTING KIT, TWIN HOSES TO FRONT BULKHEAD INCLUDES ITEMS 1 THRU 6
1	2	111430	ACME ADAPTER 1 1/4"
	2	111585	DUSTCAP WITH CHAIN
2	2	100532	CLOSE NIPPLE, 1 1/4"
3	2	100814	VALVE ASSEMBLY
3A	2	111410	BLEEDER VALVE
4	2	230157	SWIVEL COUPLER 1 1/4"
5	2	98108337	HOSE, 1 1/4" X 7 FT



MOUNTING INSTRUCTIONS
SUBASSEMBLE AS MANY FITTINGS AS POSSIBLE ON A WORKBENCH, THEN COMPLETE ASSEMBLY AS SHOWN

FOLLOW ALL STANDARD NH3 PLUMBINGS SAFETY PROCEDURES, THEN THOROUGHLY INSPECT AND REPAIR ALL LEAKS.

