

**AG-BAG<sup>®</sup> INTERNATIONAL**

**G7000-A**

**G7000-B**

**G7000-C**

**A900016**

# **OPERATOR'S MANUAL**



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## USING THE MANUAL.

This manual has been designed to be used with the G7000 Ag-Bagger®. READ THIS MANUAL carefully to learn how to operate and service your Ag-Bagger® correctly. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your Ag-Bagger® and should remain with the machine when you sell or trade it. Additional copies of the manual can be ordered using part number A900016.

For ease of use this manual is divided into the following sections. Each section has its own Table of Contents and Index:

**Section 0:** This section contains information general in nature. Ag-Bag® policy, Warranty and whom to contact.

**Section 1: Safety.** This section presents safety information for use with the Ag-Bagger®. General information as well as specific safety guidelines is detailed here. Labels used on the Ag-Bagger® and general safety warnings are also shown.

**Section 2: Machine Overview.** The machine overview section shows and identifies the location of many of the commonly used features of the Ag-Bagger®.

**Section 3: Features and Controls.** Pictures depicting the many features and controls with a short description of what each does are shown in this section.

**Section 4: Set-up and Operating Procedures.** This section gives you and your employee's general information on the setup and operation of your Ag-Bagger®.

**Section 5: Bagging and the Terrain.** This section deals with placing the bag and preparing the site for best result. Also covered is maintaining the correct tension on the cables for best compactions.

**Section 6: Trouble Shooting.** This section is not intended to address all the possible problems that might arise during bagging. It is intended to review some of the common problems that might arise during the bagging operation.

**Section 7: Service and Maintenance.** The information provided in this section is given for general information only. It is to help you to service and maintain the Ag-Bagger®.

**Appendix A: Parts.** The parts manual for your Ag-Bagger® are contained in this section.

**Appendix B: The 3M's of Silage.** A more technical look at bagging is presented in this section.

**Appendix C: Bagging Instructions.** A more detailed look and discussion of the bagging operation.

**IT IS YOUR RESPONSIBILITY TO READ ALL SECTIONS OF THIS MANUAL BEFORE  
OPERATING YOUR AG-BAGGER®!**

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**Machine Serial Number:** \_\_\_\_\_

**Date Of Purchase:** \_\_\_\_\_

**Dealership Name:** \_\_\_\_\_

**Dealership Phone Nr:** \_\_\_\_\_

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OPERATING YOUR AG-BAGGER®!**

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## TO THE OWNER:

This manual contains information concerning the operation, adjustment and maintenance of the G7000 Ag-BAGGER®. You have purchased a dependable machine, but only by proper care and operation can you expect to receive the performance and long service built into this Ag-BAGGER®. Please have all operators read this manual carefully, and keep it available for ready reference.

These machines were designed to be towed by an agricultural tractor and powered by the tractor's power take-off. They are intended to bag a variety of forage crops, high moisture grains, commodities, by-products, brewers grains, etc.

Your Ag-Bag® Dealer will instruct you in the general operation of your Ag-BAGGER®. Your Dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your Ag-BAGGER®.

Your Ag-Bag® Dealer carries a complete line of genuine Ag-Bag® parts. These parts are manufactured and carefully inspected in the same factories that built the Ag-BAGGER® to ensure high quality and accurate fitting of any necessary replacement parts.



**CAUTION: THIS SYMBOL IS USED THROUGHOUT THIS BOOK WHENEVER PERSONAL SAFETY IS INVOLVED. TAKE TIME TO READ AND FOLLOW THE INSTRUCTIONS. BE CAREFUL!**

**CAUTION: PICTURES IN THIS MANUAL MAY SHOW PROTECTIVE SHIELDING OPEN OR REMOVED TO BETTER ILLUSTRATE A PARTICULAR FEATURE OR ADJUSTMENT.**

**BE CERTAIN, HOWEVER, TO CLOSE OR REPLACE ALL SHIELDING BEFORE OPERATING THE MACHINE.**

## IMPROVEMENTS

Ag-Bag International, Ltd. is continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes, or additions to the equipment sold previously.

**IT IS YOUR RESPONSIBILITY TO READ ALL SECTIONS OF THIS MANUAL BEFORE OPERATING YOUR AG-BAGGER®!**

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## OWNER ASSISTANCE

We at Ag-Bag® and your Ag-Bag® Dealer want you to be completely satisfied with your investment. Normally any problems with your equipment will be handled by your Dealer's Service Department. If your problem has not been handled to your satisfaction, we suggest the following.

1. Contact the owner or General Manager of the Dealership, explain the problem, and request assistance.
2. If you are still not satisfied contact our corporate office and provide them with:
  - Your name, address, and telephone number
  - Machine model and serial number
  - Dealership name and address
  - Machine purchase date and amount of use
  - Nature of problem

### Corporate Office:

Ag-Bag International, Ltd.  
Attn: Manager, Customer Service  
2320 S.E. Ag-Bag Lane  
Warrenton, OR 97146  
Telephone: (800)334-7432  
Email: [customerservice@ag-bag.com](mailto:customerservice@ag-bag.com)

**Please Note:** When contacting the corporate office, your problem will likely be resolved at the Dealership using the Dealer's facilities, equipment, and personnel. It is important that your initial contact be with the Dealer.

## IDENTIFYING YOUR AG-BAGGER®.

The serial number plate for your Ag-Bagger® is located on the right side of the machine near the Bag Boom. It contains the Model and Serial of the machine. When calling for parts or other information about your Ag-Bagger®, be sure you have this number available.



1. Model
2. Serial Number
3. Year Built

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**IT IS YOUR RESPONSIBILITY TO READ ALL SECTIONS OF THIS MANUAL BEFORE  
OPERATING YOUR AG-BAGGER®!**

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## MACHINE WARRANTY

### TERMS:

Ag-Bag International Ltd., hereinafter referred to as the Company, warrants new company equipment and/or attachments at the time of delivery to the original purchaser to be free from defects in materials and workmanship if properly set up and operated according to the recommendation set forth in Company's Operator's Manual.

Company's liability for any defect with respect to accepted goods shall be limited to repairing the goods at an authorized Company Dealer or other designated locations, or replacing them, as Company shall elect. Company's obligations shall terminate six (6) months from effective machine warranty date of goods delivered to original purchaser.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the Company factory or authorized Company Dealership or in any way so as in Company's judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident, nor any machine or attachment, which shall not have been operated in accordance with Company's printed instructions or beyond the Company recommended machine rated capacity.

This warranty shall not be applicable to items which are subject to the warranties of their respective manufacturers. Such items would include but would not be limited to engines, clutches, universal joints, hydraulic components, bearings, tires, belts and other trade accessories.

### Bags:

All recommendations or suggestions of use are made without guarantee, since conditions of use are beyond our control. Ag-Bag International Ltd. maintains no obligation or liabilities for consequential damages arising out of or in connection with use of this product, including, but not limited to inconveniences, loss of profit, commercial loss, feed loss of any type, or costs of removal, installation or reinstallation.

### EXCLUSION OF WARRANTIES

Except as otherwise expressly stated herein, Company makes no representation or warranty of any kind express or implied, and makes no warranty of merchantability in respect to its machinery, bags, and/or attachments and makes no warranty that its machinery, bags and/or attachments are fit for any particular purpose. Company shall not be liable for incidental or consequential damages for any breach of warranty, including but not limited to inconveniences, rental, or replacement equipment, loss of profit, commercial loss, or feed loss of any type. Company shall not be liable for, and the buyer assumes all liability for, all personal injury and property damage resulting from the handling, possession and use of the goods by the buyer.

NO AGENT, EMPLOYEE OR REPRESENTATIVE OF THE COMPANY HAS ANY AUTHORITY TO BIND THE COMPANY TO ANY AFFIRMATION, REPRESENTATION, OR WARRANTY CONCERNING ITS MACHINERY AND/OR ATTACHMENTS EXCEPT AS SPECIFICALLY SET FORTH HEREIN. THIS WARRANTY IS EFFECTIVE ONLY WHEN SIGNED ON REVERSE SIDE, DATED, AND ORIGINAL RECEIVED BY SALES OFFICE WITHIN TEN (10) DAYS OF COMPLETION.

**IT IS YOUR RESPONSIBILITY TO READ ALL SECTIONS OF THIS MANUAL BEFORE OPERATING YOUR AG-BAGGER®!**

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## BAG GUARANTEE

The Company can offer this unequalled guarantee because of our commitment to quality, years of experience as the leading manufacturer of silage bags, and use of the latest plastic technology. We recognize that the quality and reliability of the bagging system is dependent on a team effort between the Company and you, the customer. Its part of the teamwork is to provide you with a top quality silage bag.

### COMPANY'S PART

The Company guarantees its 'Tri-Dura®' silage bags to be free of defects in workmanship and materials. If a properly packed bag should fail from a defect during normal useful life, Company will replace the bag without charge. If the feed in the damaged bag requires rebagging Company will replace the bag with the initial replacement bag discussed above plus one more bag, for a total of two bags.

### THE CUSTOMER PART

Most of the factors that control the quality and reliability of the bagging system are in the customer's hands. These include choice of forage crops, harvesting, bagging location, moisture, packing, bagging machine operations, and maintenance and surveillance of bags.

The Company will provide instruction, recommendations and suggestions about these factors but cannot and does not guarantee the outcome. It is the responsibility of the customer to seek out the best information and to make his own decisions. The customer will be responsible for the profits or loss that results from the use of these products. See the 3M's of Silage for recommendation of how to bag silage for proper techniques and guidelines.

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## SAFETY ALERT WORDS

### PERSONAL SAFETY

Throughout this manual, and on machine decals, you will find safety alert words ("CAUTION", "WARNING", and "DANGER") followed by specific instructions. These words are intended for the personal safety of you and those working with you. Please take the time to read them.




**CAUTION**

**CAUTION:** THE WORD "CAUTION" INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO BE USED TO ALERT AGAINST "UNSAFE PRACTICES." IT IS IDENTIFIED BY A YELLOW BACKGROUND AND BLACK LETTERING.



**WARNING**

**WARNING:** THE WORD "WARNING" INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. IT IS IDENTIFIED BY AN ORANGE BACKGROUND AND BLACK LETTERING.



**DANGER**

**DANGER:** THE WORD "DANGER" INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS SIGNAL WORD IS LIMITED TO THE MOST EXTREME SITUATIONS. IT IS IDENTIFIED BY A RED BACKGROUND AND WHITE LETTERING.



**NOTICE**

**NOTICE:** THE WORD "NOTICE" IS USED TO WARN THE OPERATOR OF POTENTIAL MACHINE DAMAGE IF A CERTAIN PROCEDURE IS NOT FOLLOWED. IT IS IDENTIFIED BY A BLUE BACKGROUND AND WHITE LETTERING.

**IT IS YOUR RESPONSIBILITY TO READ ALL SECTIONS OF THIS MANUAL BEFORE  
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## BE A SAFE OPERATOR



By thinking before acting and reading your operators manual you will be a **SAFE OPERATOR**.

**Avoid Accidents**, most accidents, whether they occur in industry, on the farm, at home, or on the highway, are caused by the failure of some individual to follow simple and fundamental safety rules or precautions. For this reason most accidents can be prevented by recognizing the real cause and doing something about it before the accident occurs.

Regardless of the care used in the design and construction of any type of equipment, there are many conditions that cannot be completely safeguarded against without interfering with reasonable accessibility and efficient operation. A careful operator is the best insurance against an accident.

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**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

**TAKE NOTE!** THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE 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 the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each has been selected using the following guidelines:



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



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



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.

If you have questions not answered in this manual, or require additional copies, or the manual is damaged, please contact your Ag-Bag® Dealer or Ag-Bag® International Ltd., 2320 S.E. Ag-Bag Lane, Warrenton, OR, 97146. (Telephone) 800-334-7432. (FAX) 503-861-1648.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**



### EQUIPMENT SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, 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 the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you or for you follow them.

In order to provide a better view, certain photographs or 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 the shield prior to use.

Replace any CAUTION, WARNING, DANGER or NOTICE label that is not readable or is missing.

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

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operation. **Do not allow persons to operate or assemble this unit until they have read this manual and have developed a through understanding of the safety precautions and how it works.**

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

Never exceed the 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.**



### LIGHTING AND MARKING

It is the responsibility of the operator to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**



### **SAFETY SIGN CARE:**

Keep safety signs clean and legible at all times.

- Replace safety signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your authorized Ag-Bag® Dealer or Ag-Bag International, Ltd.



### **HOW TO INSTALL SAFETY SIGNS:**

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



### **TIRE SAFETY:**

- Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated weight to be placed on the equipment.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**



### **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 Ag-Bag<sup>®</sup> Dealer or Ag-Bag International, Ltd.**



### **BEFORE OPERATION:**

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- It is recommended that suitable protective hearing and (eye protection) sight protectors be worn.
- Keep wheel lug nuts or bolts tightened to specified torque.
- Assure that agricultural implement tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially children and animals.
- Don't hurry the learning process or take the unit 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.
- Move tractor to the widest recommended settings to increase stability.
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**





### **DURING OPERATION:**

- **SAFETY CHAIN** - if equipment is going to be transported on a public highway, a safety chain should be obtained and installed. Always follow state and local regulations regarding a safety chain and auxiliary lighting when towing farm equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machine in the event of separation of the primary attaching system.
- Install the safety chain by crossing the chains under the tongue and secure to the draw bar cage or hitch or bumper frame.
- Beware of bystanders, **particularly children!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people.
- **NO PASSENGERS ALLOWED** - Do not carry passengers anywhere on, or in, the tractor or equipment, except as required for operations.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate or adjust your equipment while it is operating.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine and **remove the ignition key.**
- Pick the levellest possible route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Maneuver the tractor or towing vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Allow for unit length when making turns.
- Do not walk or work under raised components or attachments unless securely positioned and blocked.
- Keep all bystanders, pets and livestock clear of the work area.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**



### FOLLOWING OPERATION:

- Following operation, or when unhitching, stop the tractor, set the brakes, disengage the PTO and all power drives, shut off the engine and **remove the ignition keys.**
- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored unit.
- Make sure all parked machines 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:
- Keep the brake pedal latched together at all times. **NEVER USE INDEPENDENT BRAKING WITH MACHINE IN TOW AS LOSS OF CONTROL AND/OR UPSET OF UNIT CAN RESULT.**
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor 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 and movement of farm machinery on public roads.
- Use approved accessory lighting, flags, and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety light and devices are available from you Ag-Bag<sup>®</sup> Dealer.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

- The use of a flashing amber light is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving the tractor and equipment on the road or highway at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
- 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 to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.



### **PERFORMING MAINTENANCE:**

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, stop the towing vehicle, set the brakes, disengage the PTO and all power drivers, shut off the engine and **remove the ignition keys**.
- Be certain all moving parts on the machine have come to a complete stop before attempting to perform maintenance.
- **Always** use a safety support and block the wheels. Never use a jack to support the machine.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Follow the torque chart in this manual when tightening bolts and nuts.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## SAFETY

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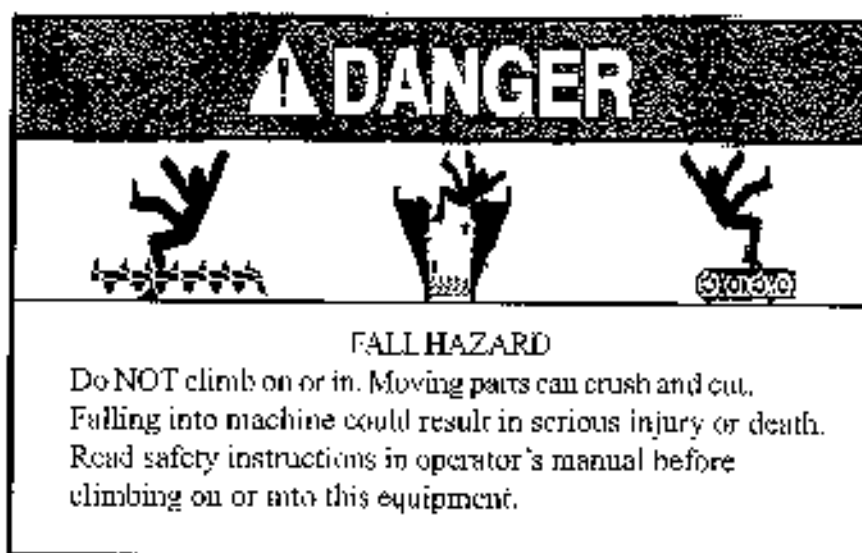
- Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin.
- When disconnecting hydraulic lines. Shut off hydraulic supply and relieve all hydraulic pressure.
- Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. **If Injured by escaping hydraulic fluid, see a doctor at once. Gangrene can result. 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 any step or platform.
- Never replace hex bolts with less than grade five bolts unless otherwise specified. 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. Ag-Bag International will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, Ag-Bag International, Ltd. 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.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## SAFETY

This section of the manual presents the Labels used on the Ag-Bagger<sup>®</sup>. Also presented are other information that you should know in order to operate the Ag-Bagger<sup>®</sup> in a safe manner. Unless otherwise noted the decals shown are the actual decals used on the machine.

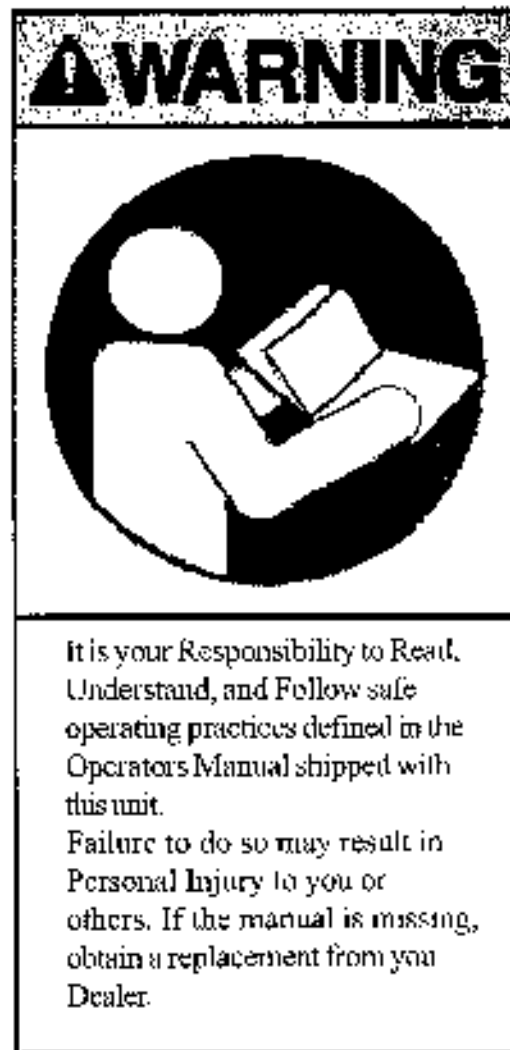
### DANGER LABELS



**FALL HAZARD.** Never climb on or into the Ag-Bagger<sup>®</sup> unless the tractor has been completely shut down. If you are going into the hopper area, to prevent any possibility of injury the PTO shaft should be disconnected from the tractor. Climbing onto the conveyor should never be done. Any item needing to be cleared from this area can be done from the outside. Never allow anyone to ride or sit on the Ag-Bagger<sup>®</sup> at anytime. Children should not be allowed near the Ag-Bagger<sup>®</sup> when it is in operation. To replace this decal reorder part number 1530015 from your Ag-Bag<sup>®</sup> Dealer.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

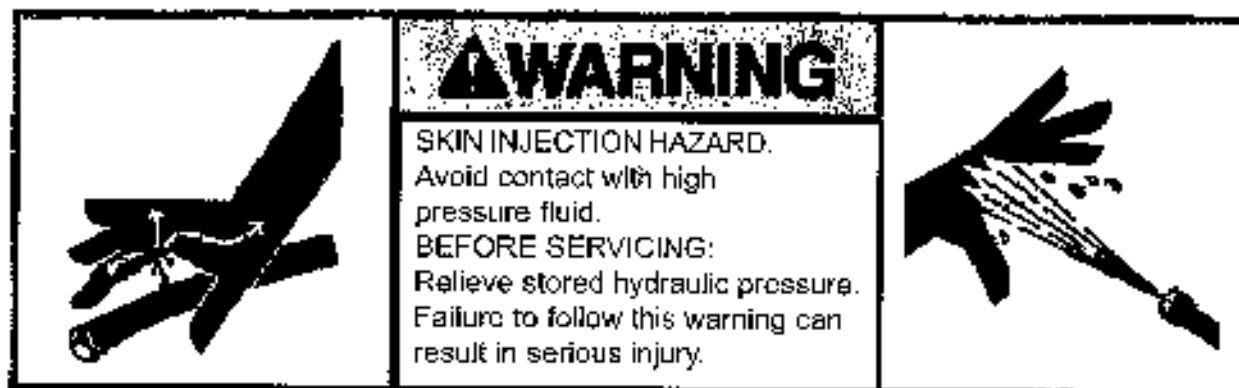
WARNING LABELS



**YOUR RESPONSIBILITY.** As indicated on the label It is the responsibility of the operator for the safe operation of the Ag-Bagger<sup>®</sup>. Make sure that anyone who will operate or work around the Ag-Bagger<sup>®</sup> has read and understand the information that is provided in this Operator's Manual. To replace this decal reorder part number 1530069 from your Ag-Bag<sup>®</sup> Dealer.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## WARNING LABELS (CONT.)




**SKIN INJECTION HAZARD.** Hydraulic oils and fluid under high pressure can be injected under the skin. The oil/fluid can cause serious illness. Always shut down the tractor and relieve all stored pressure on the hoses before servicing. Never run your hand over a hydraulic hose you suspect has a leak. To replace this decal reorder part number 1530127 from your Ag-Bag® Dealer.



**KEEP SHIELDS IN PLACE.** There are numerous shields located on the Ag-Bagger®. They are placed to keep the operator safe from serious injury. Never remove a shield while the Ag-Bagger® is in operation. Make sure the tractor has been shut off before removing any shield, and that the shield has been replaced before operation resumes. To replace this decal reorder part number 1530038 from your Ag-Bag® Dealer.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**


WARNING LABELS (CONT.)

	<p><b>▲ WARNING</b></p> <p><b>ROTATING DRIVELINE KEEP AWAY. KEEP SHIELD IN PLACE</b></p> <p>U-joint yokes must be locked in place. Adjust tractor or drawbar and implement hitch to proper dimensions. Keep tractor master shield, PTO guard, and implement guards in place.</p>
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**ROTATING DRIVELINE.** The PTO shaft is an important part in the operation of the Ag-Bagger<sup>®</sup>. It turns at a high rate of speed and the manufacturer has affixed a Danger Decal on it warning of the possibility of serious injury or death. The reason for this Warning Decal is to let you know that you should make sure that all shields are in place anytime the PTO shaft is in operation. If you are going to remove a PTO shield make sure the tractor power is off. It is important to maintain the PTO shaft on a regular basis. See the Service and Maintenance portion of the Operator's Manual for instructions. To replace this decal reorder part number 1530059 from your Ag-Bag<sup>®</sup> Dealer.

CAUTION LABELS

**CHECK LUG NUTS.** Because the Ag-Bagger<sup>®</sup> may be towed on a public highway, you should check the lug nuts on a regular basis. Check the Service and Maintenance portion of the Operator's Manual for torque details. To replace this decal reorder part number 1530011 from your Ag-Bag<sup>®</sup> Dealer.

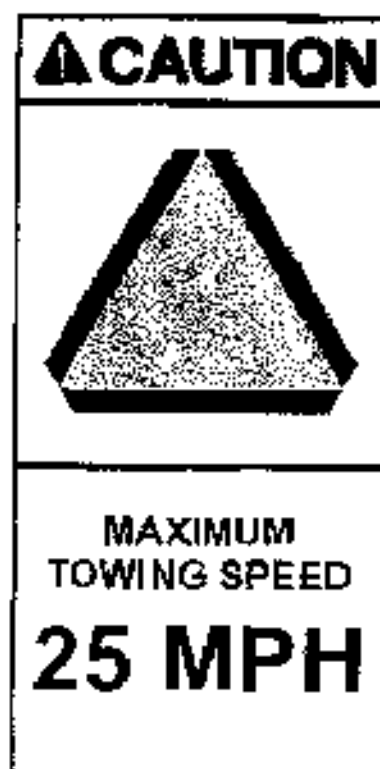
<p><b>▲ CAUTION</b></p>

<p><b>CHECK LUG NUTS.</b></p> <p>Check Lug Nuts Regularly Consult Operator's Manual for torque specifications.</p>

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

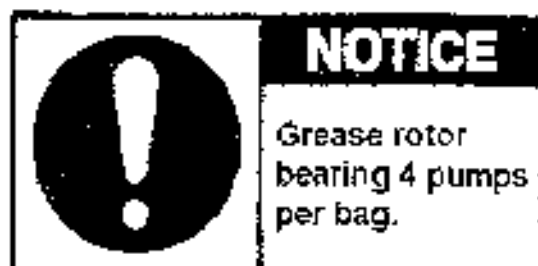


## CAUTION LABELS (CONT.)

**MAXIMUM TOWING SPEED.** Although you can tow the Ag-Bagger<sup>®</sup> on the open highway do not exceed 25 mile per hour. It should be remembered that the Ag-Bagger<sup>®</sup> does not have brakes, and that the wheels and axles are not bolted to the frame but are held in place by a pin and hair pin. Under no circumstances should you tow the Ag-Bagger<sup>®</sup> while the wheels are in the bagging position. Make sure you read and understand the section on preparing the Ag-Bagger<sup>®</sup> for transit in the Operator's Manual. The PB6000 has its wheels fixed in place. This requires that it be towed in the bagging position and should be towed at a lower speed. To replace this decal reorder part number 1530041 from your Ag-Bag<sup>®</sup> Dealer.



## NOTICE LABELS



**GREASE ROTOR BEARING.** The Ag-Bagger<sup>®</sup> is equipped with two Rotor Bearing Grease Whips. The zerk fittings are located on the frame on either side of the tunnel. For the best results with your Ag-Bagger<sup>®</sup> use the type grease recommended in the Service and Maintenance portion of the Operator's Manual. To replace this decal reorder part number 1530096 from your Ag-Bag<sup>®</sup> Dealer.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

NOTICE LABELS (CONT.)

**HYDRAULIC OIL ONLY.** The Operator's Manual makes recommendations for the correct viscosity of hydraulic oil to be used in your Ag-Bagger<sup>®</sup> hydraulic system. To keep your warranty valid use only the viscosity listed in the Service and Maintenance section of the Operator's Manual. To replace this decal reorder part number 1530028 from your Ag-Bag<sup>®</sup> Dealer.

**NOTICE**



**HYDRAULIC OIL ONLY.**

Use only hydraulic oil with viscosity recommended in the Operator's Manual for this machine

**TRACTOR TO BE IN NEUTRAL.** During the process of bagging the tractor is pushed forward as the bag fills. In order to minimize damage to the Ag-Bagger<sup>®</sup>, your tractor, and the correct compaction of the product being bagged, it is important the tractor be in neutral and all brakes be released before starting to bag. To replace this decal reorder part number 1530065 from your Ag-Bag<sup>®</sup> Dealer.

**NOTICE**



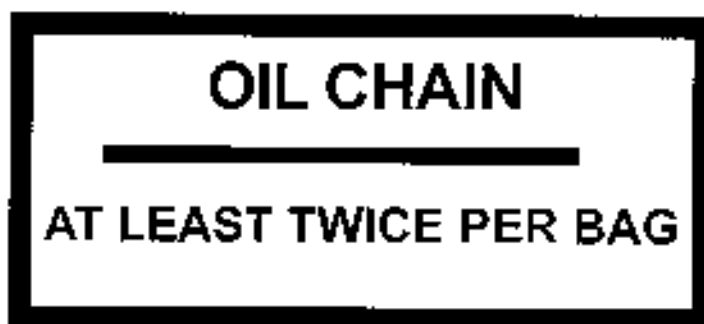
TRACTOR TO BE IN NEUTRAL AND BRAKES OFF WHILE OPERATING BAGGER.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## SAFETY

---

### OTHER LABELS



**OIL CHAIN.** The double 120 chain is behind a safety shield located on the right side of the front of the Ag-Bagger®. Follow all safety procedures for removing the shield. To prevent excessive wear oil the chain twice per bag. To replace this decal reorder part number 1530054 from your Ag-Bag® Dealer.

---

**ENGLISH/SPANISH.** The final decal currently in use on the Ag-Bagger® is an old style Warning Decal. It has both English and Spanish instructions. The decal is used mainly as a reminder. A simulation of the Decal is on the following page.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

**OTHER LABELS (CONT.)**




**WARNING  
PRECAUCION**

1. **DO NOT** reach or place any part of your body inside the hopper.  
NO TRATE de alcanzar o ponga ninguna parte del cuerpo adentro de la mezcladora.
2. **DO NOT** attempt to service, remove or unclog any material while machine is in operation.  
NO TRATE de reparar, remover, o destapar material cuando la maquina esta en operacion.
3. **DO NOT** climb or ride on machine during operation or transport.  
NO TREPE o monte la maquina cuando esta en operacion or transportando.
4. Make sure everyone is clear of machine **BEFORE STARTING ENGINE OR ENGAGING POWER. KEEP CHILDREN AWAY AT ALL TIMES.**  
Haga seguro que nadie este en o **ALREDEDOR DE LA MAQUINA ANTES QUE EL MOTOR ARRANQUE, MANTEGA NINOS LEJOS DE LA MAQUINA.**
5. **DO NOT** stand behind backstop net or near cables under tension.  
NO se pare detras de la malla o cerca de cables en tension.
6. **STAY CLEAR** of hoses under pressure.  
MANTENGASE LEJOS de las mangas a presion.
7. Keep all **SHIELDS IN PLACE.**  
Mantenga los **ESCUDOS EN SU PROPIO LUGAR.**
8. Keep **HANDS, FEET AND CLOTHING AWAY FROM INTAKE AREA AND ALL OTHER MOVING PARTS OF MACHINE.**  
Mantenga las **MANOS, PIES, Y ROPA FUERA DEL AREA DE ADMISION.**
9. Think **SAFETY AND USE CAUTION** in entire operation area.  
**SEA PRECAVIDO Y SEA CUIDADOSO** en la area de operacion.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

**INFORMATION SIGNS**

**TRANSPORT SAFETY.** These signs are provided for information purposes only. They do not appear on the Ag-Bagger<sup>®</sup>, but instead they are used as part of this manual in providing information of a safety nature.

WARNING

### Transport Safety

1 Make sure you are in compliance with all local regulations regarding transporting equipment on public roads and highways

2 Make sure the slow moving vehicle emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, and clean and can be seen clearly by all overtaking and oncoming traffic.

3 Attach securely to the towing vehicle using a retainer on the tow hitch pin and a safety chain

4 Do not allow anyone to ride on the Ag-Bagger<sup>®</sup> or towing vehicle during transport.

5 Stay away from overhead obstructions and power lines. Electrocution can occur without direct contact.

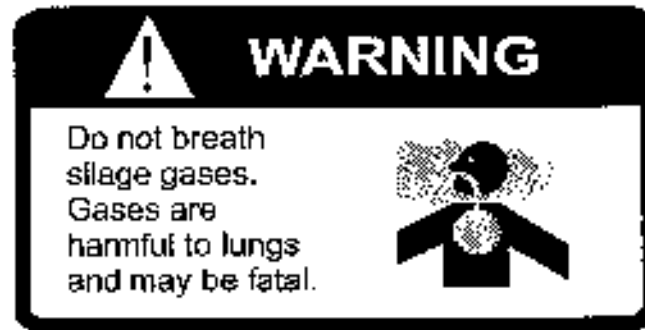
6 Always use hazard warning flashers on towing vehicle when transporting unless prohibited by law.

7 Add extra lights or use pilot vehicles when transporting during times of limited visibility.

8 Secure all components and accessories before transporting.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

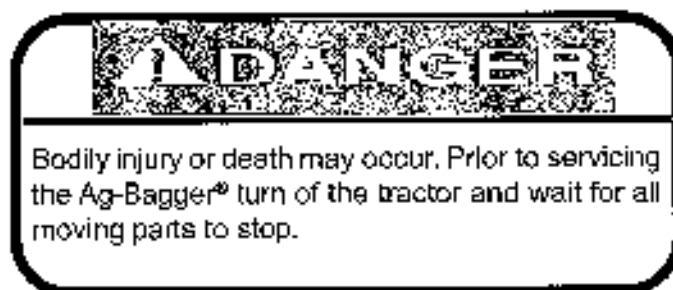
**INFORMATION SIGNS (CONT.)**



**SILAGE GASES** - The ensiling process inside the bag may produce gases. Do not breath gases expelled from the bag. These gases may contain various forms of nitric fumes that can be harmful to your lungs. If enough fumes are inhaled they can be fatal.



**NOISE** - Long-term exposure to loud noise can impair and cause loss of hearing. Use hearing protection.



**SERVICING THE AG-BAGGER®** - Do not attempt to perform service or maintenance to the Ag-Bagger® or PTO shaft unless the tractor has been turned off and all moving parts have stopped.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

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**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**







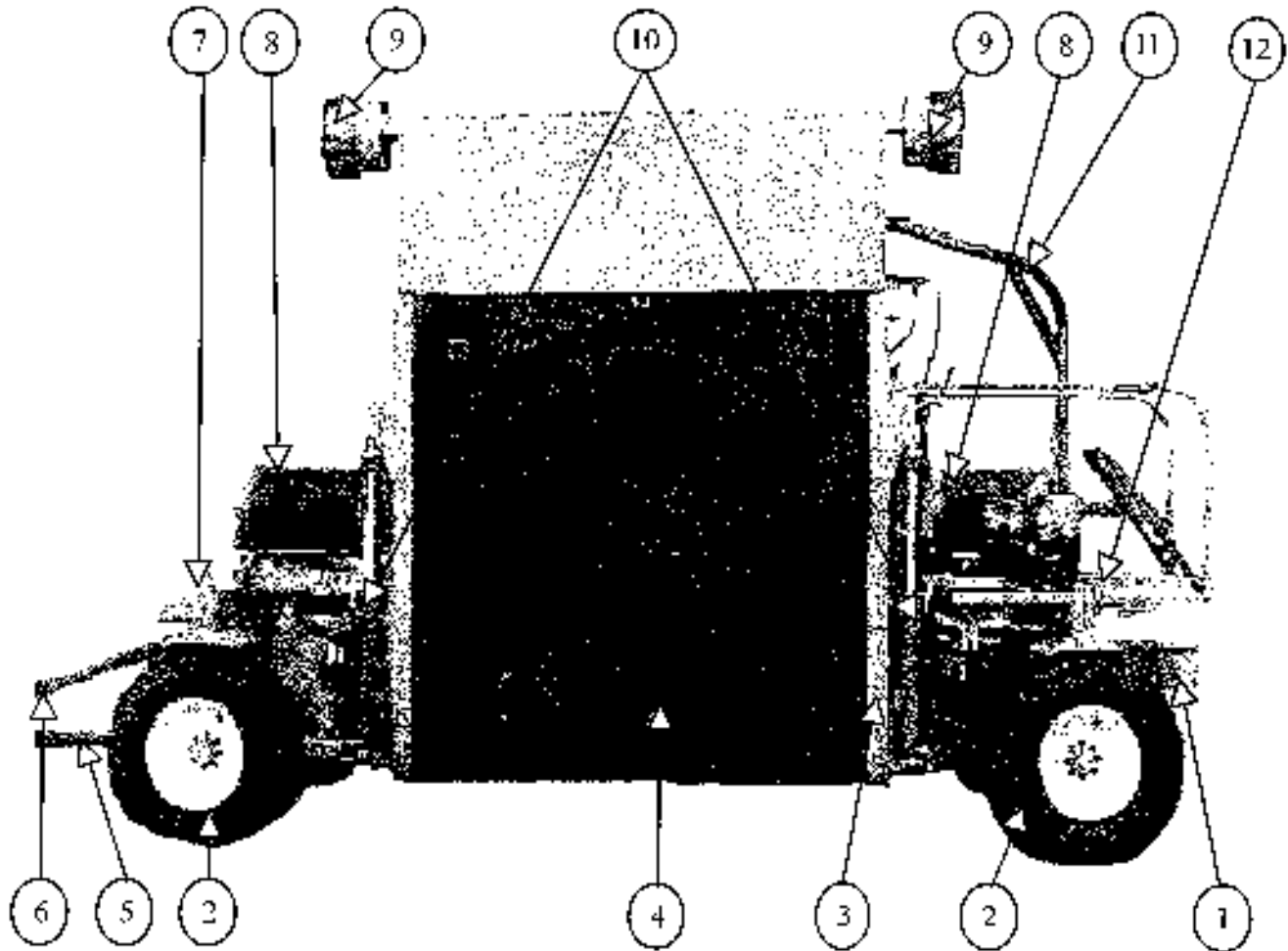
The machine overview section shows and identifies the location of many of the commonly used features of the Ag-Bagger®. The pictures should be used as a reference to quickly locate the different options and features of your Ag-Bagger®. Also, the terms Front, Rear, Right-Side, and Left-Side are used elsewhere in this manual for your convenience.

## G7000

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## MACHINE OVERVIEW

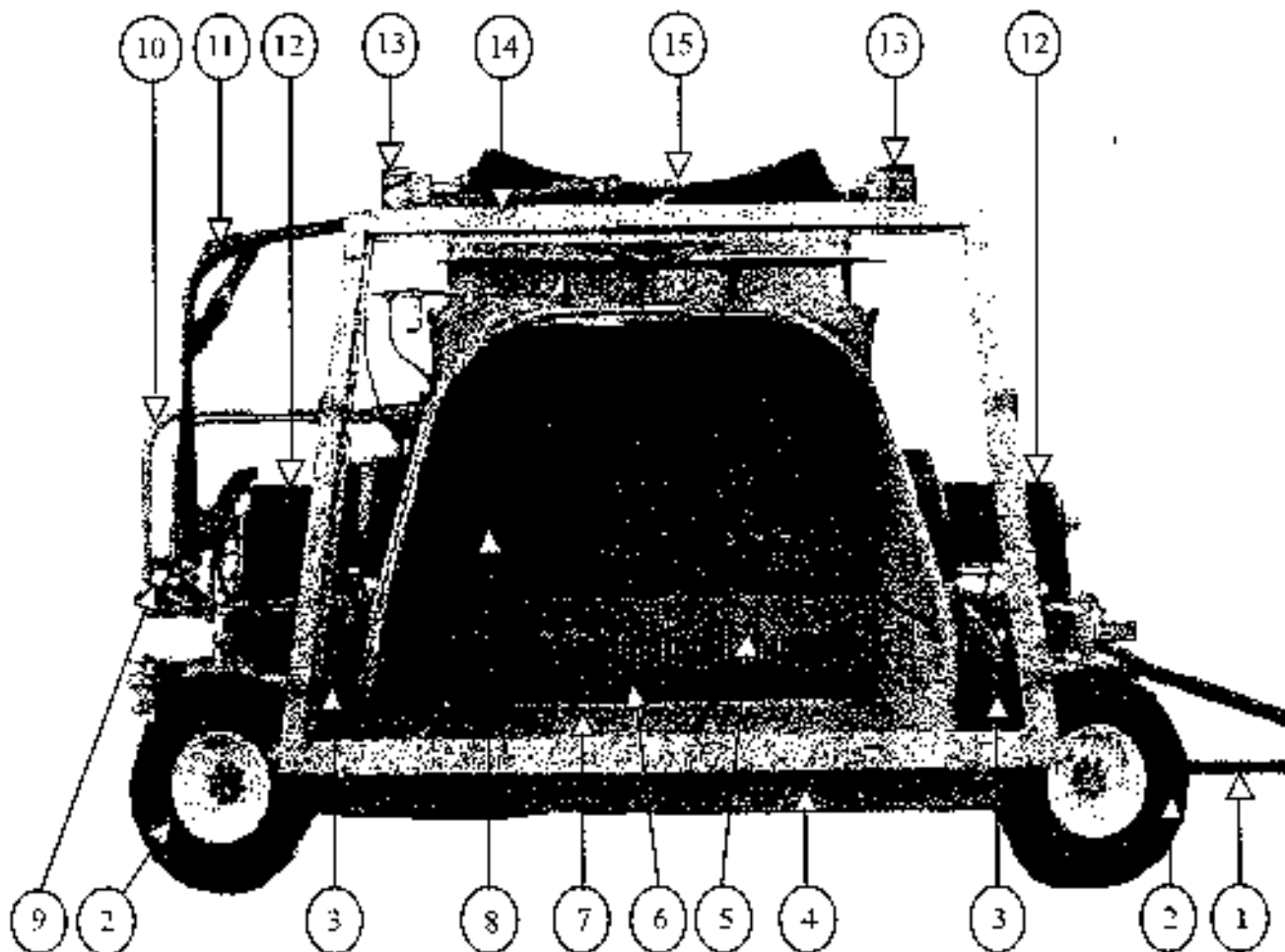


**MACHINE - FRONT**

- |                            |                 |                               |
|----------------------------|-----------------|-------------------------------|
| 1. GEAR BOX                | 5. PINTLE HITCH | 9. FEED TABLE WHEEL           |
| 2. 385/65R19 TIRE          | 6. PINTLE BRACE | 10. HYDRAULIC FEED TABLE LIFT |
| 3. FEED TABLE              | 7. WHEEL COLUMN | 11. BAG BOOM                  |
| 4. ENDLESS FEED TABLE BELT | 8. CABLE DRUM   | 12. OPERATOR'S PLATFORM       |

*Feed Table Shown In Transport Position*

## MACHINE OVERVIEW

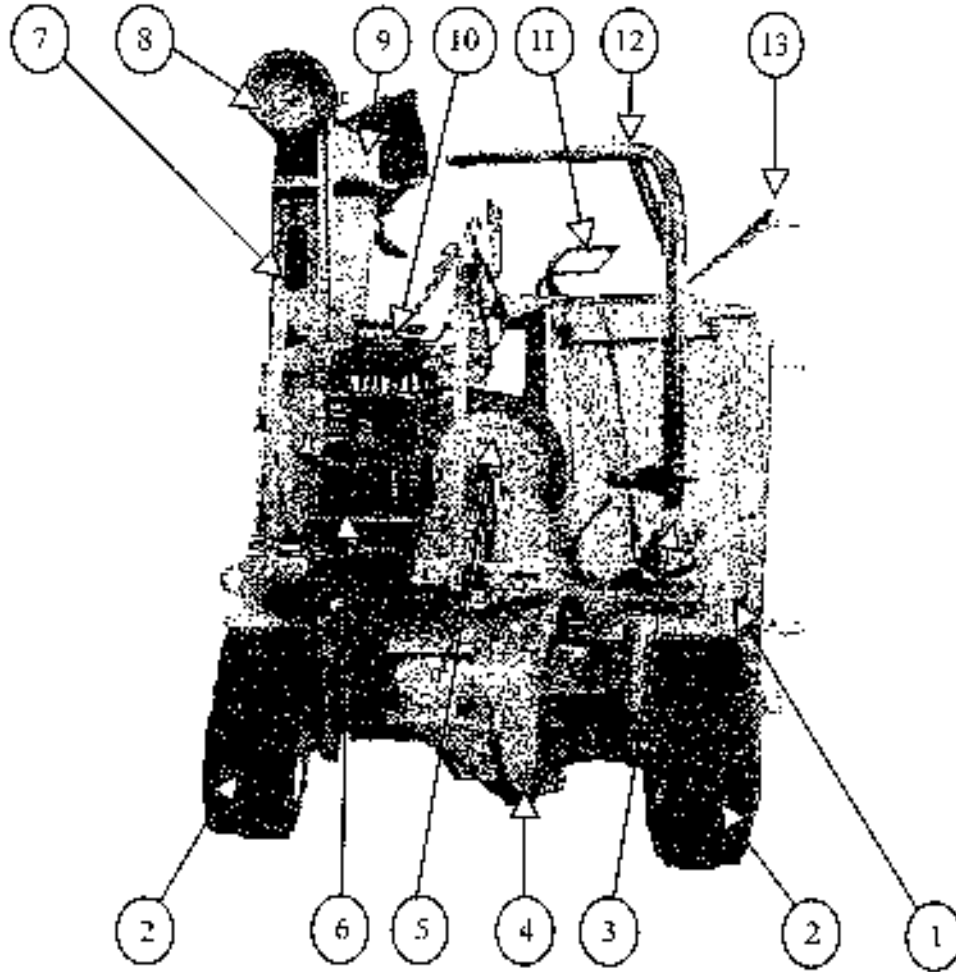


MACHINE - REAR

- |                   |                               |                      |
|-------------------|-------------------------------|----------------------|
| 1. PIRTLE HITCH   | 7. TUNNEL FLOOR               | 11. BAG BOOM         |
| 2. 385/65R19 TIRE | 7. HYCHAULIC TUNNEL CLEAN OUT | 12. CABLE DRUM       |
| 3. BAG PAN LATCH  | 8. TUNNEL                     | 13. FEED TABLE WHEEL |
| 4. BAG BAN        | 9. OPERATOR'S PLATFORM        | 14. BACKSTOP FRAME   |
| 5. STRIPPER BAR   | 10. SAFETY RAIL               | 15. FEED TABLE       |
| 6. ROTOR          |                               |                      |

## MACHINE OVERVIEW

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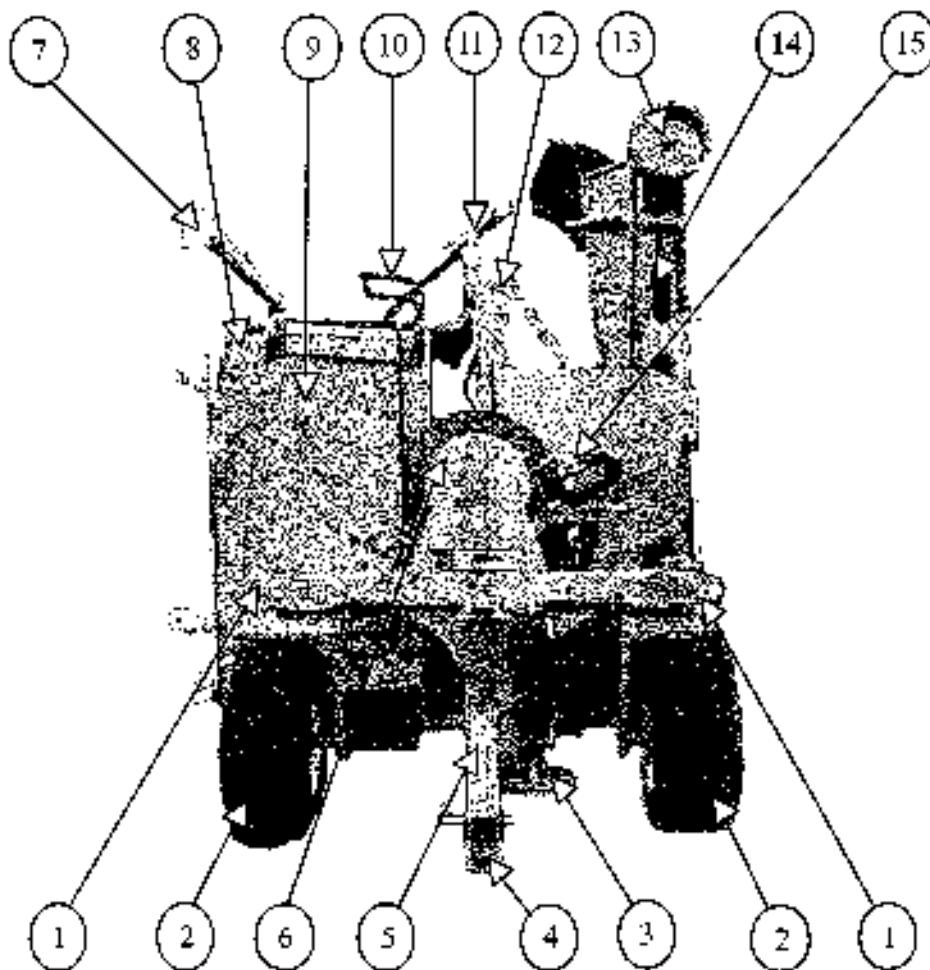


**MACHINE - RIGHT SIDE**

- |                        |                        |                        |
|------------------------|------------------------|------------------------|
| 1. WHEEL COLUMN        | 6. OPERATOR'S PLATFORM | 10. HYDRAULIC CONTROLS |
| 2. 385/65R19 TIRE      | 7. FEED TABLE          | 11. BAG CRADLE         |
| 3. BAG BOOM MOUNT      | 8. FEED TABLE WHEEL    | 12. BAG BOOM           |
| 4. HYDRAULIC LIFT JACK | 9. FEED TABLE WING     | 13. BACKSTOP FRAME     |
| 5. CABLE DRUM          |                        |                        |

## MACHINE OVERVIEW

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**MACHINE - LEFT SIDE**

---

1. WHEEL COLUMN  
2. 385/65R19 TIRE  
3. HYDRAULIC LIFT JACK  
4. PINTLE HITCH  
5. PINTLE HITCH BRACE

6. CABLE DRUM  
7. BACKSTOP FRAME  
8. TUNNEL  
9. TUNNEL EXTENSION  
10. BAG CRADLE

11. BAG BOOM  
12. HYDRAULIC TANK  
13. FEED TABLE WHEEL  
14. FEED TABLE  
15. UPPER BEATER BAR MOTOR

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# **AG-BAGGER® MODELS**

## **G7000-A G7000-B G7000-C**

## Features and Controls

---

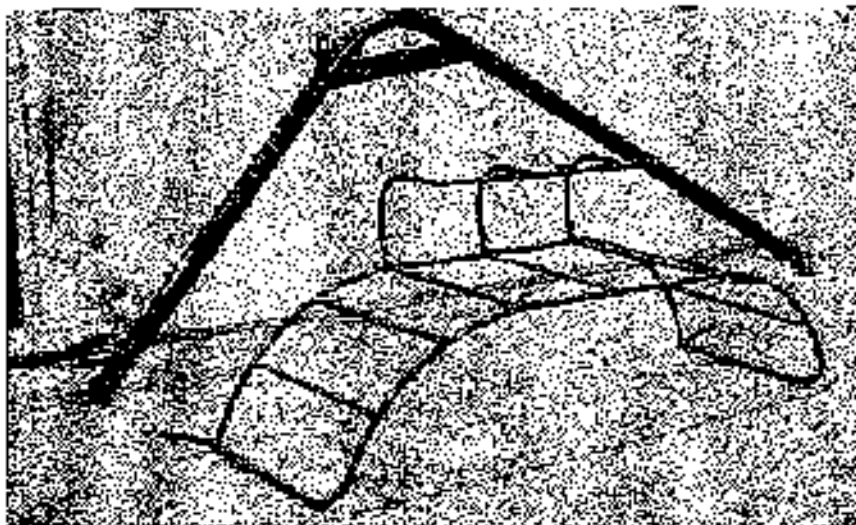
### Bag Boom & Cradle

Use the bag boom and cradle for easy bag installation. The maximum lift capacity of the bag boom is 500 pounds.

**Standard:** G7000-B and G7000-C

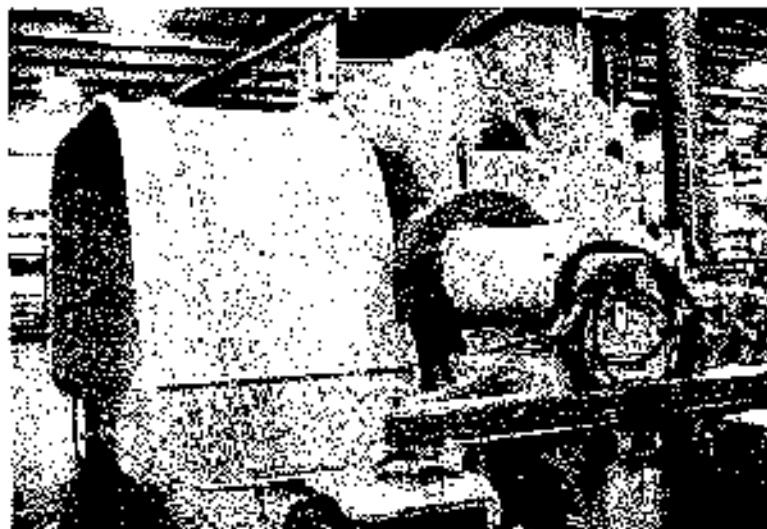
**Not Available:** G7000-A

The Bag Boom comes in Manual or Electric models



### Tunnel

A choice of either a 9' or 10' tunnel is offered on all G7000 models.



### Tunnel Extension

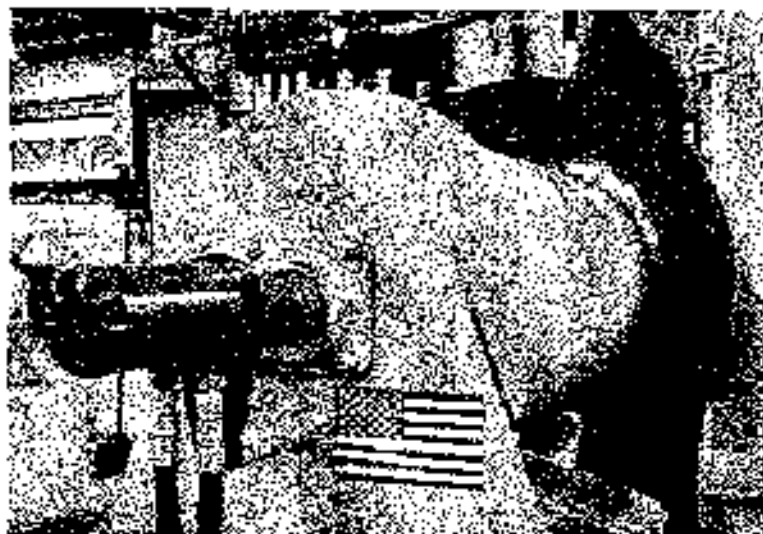
The 24 inch extension is used to assure better compaction and a smoother bag.

**Optional:** G7000-A, G7000-B, and G7000-C



## Features and Controls

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### Cable Drum and Cables

The Cables are used in the bagging operation and maintain constant pressure to enable correct compaction and a straight bag. The Cable Drum holds the cable (not shown) and allows brake pressure to be applied.

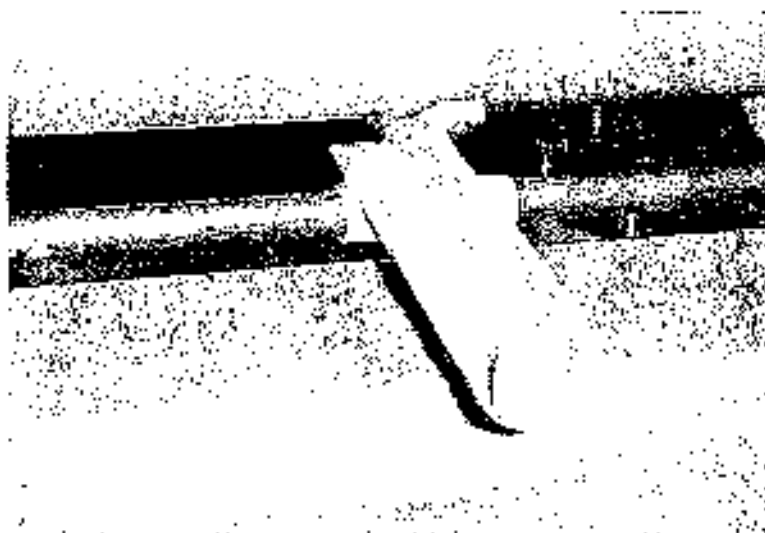
**250 feet:** All Models



### Dual Disc Brakes

Using the highest quality components the Disc Brakes are used to control compaction making sure your feed is of the highest quality.

**Standard:** All models



### Cable Rewind Guides

The cable rewind guides help wrap the cables correctly onto the drums. Do not place the cables in the rewind guides while the backstop is connected during the bagging operation. See setup section of this manual for more information.

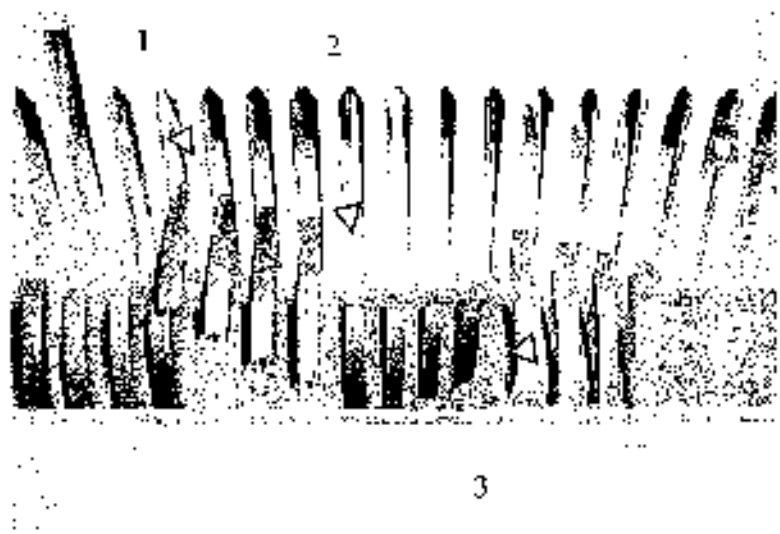
**Standard:** All Models.

## Features and Controls

### Rotor and Stripper Bar

At the heart of the Ag-Bag<sup>®</sup> bagging system are the patented rotor and stripper bar.

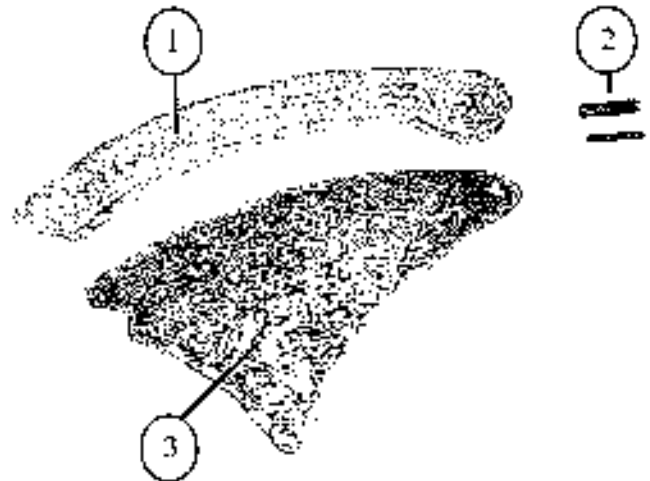
1. Stripper Bar
2. Rotor
3. Cast Alloy Tine Cap



### Cast Alloy Tine Cap

Design for durability and ease of replacement. The Tine Cap (1), spring clips (2), and rotor tooth (3) are shown here.

#### Standard



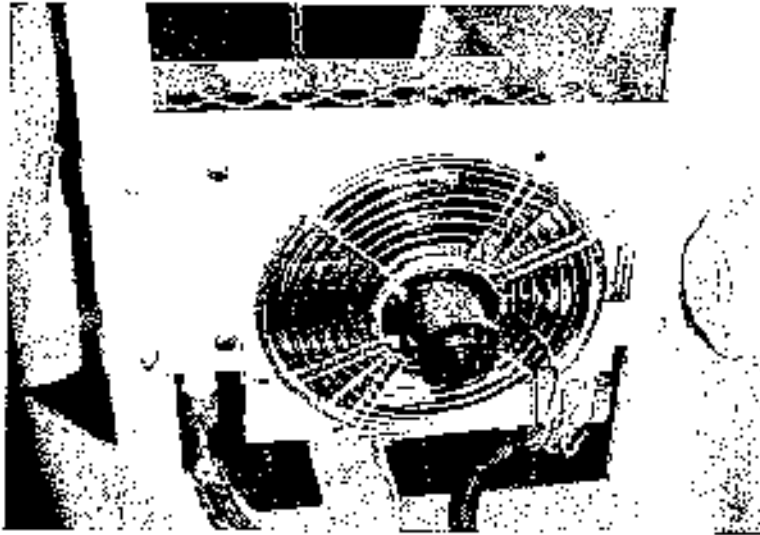
### RA3500 Planetary

Your Ag-Bagger<sup>®</sup> is equipped with the RA3500 planetary for dependable service.

#### Standard: All Models



## Features and Controls



### Hydraulic Oil Cooler

To maintain the proper oil temperature a hydraulic oil cooler is installed on the left end of the Ag-Bagger®.

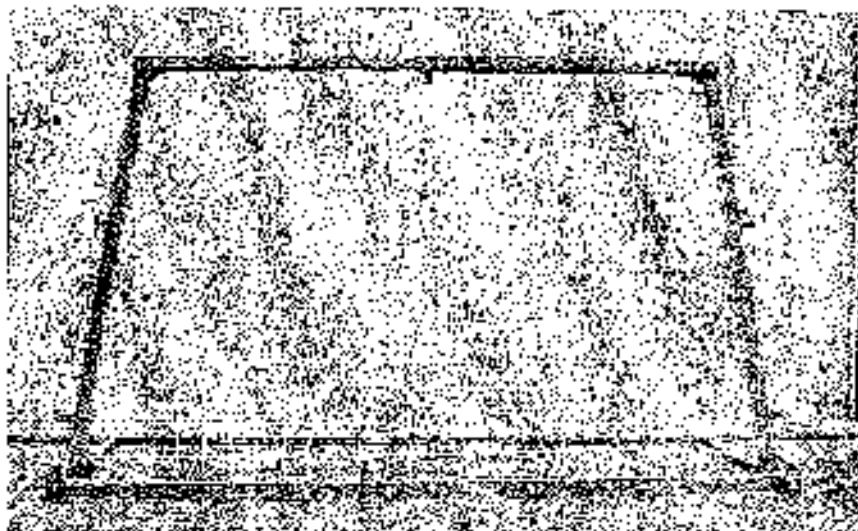
**Standard**



### Tires

Designed for the rigors of bagging and transporting the Ag-Bagger®, 385/65R19 tires are used on the bagger.

**Standard**



### Backstop

Designed and constructed for rugged use the backstop is available in steel as well as aluminum. Steel is the standard issue for all models, while aluminum can be ordered as an option. All rope is provided with purchase.

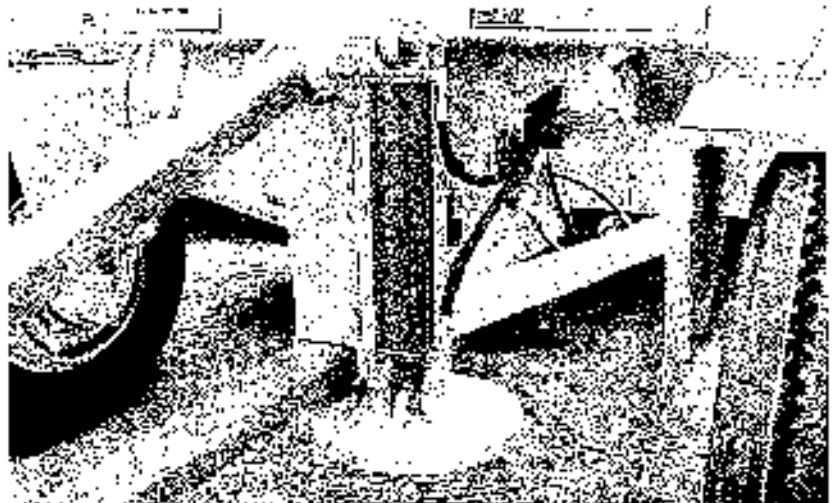
**Steel Backstop:** Standard All Models

**Aluminum Backstop:** Optional All Models

### Hydraulic Lift Jack

Used for ease of turning wheels and connecting Ag-Bagger® for towing, the hydraulic lift jacks are located at each end of the bagger. The jacks are powered by the tractor's hydraulic system.

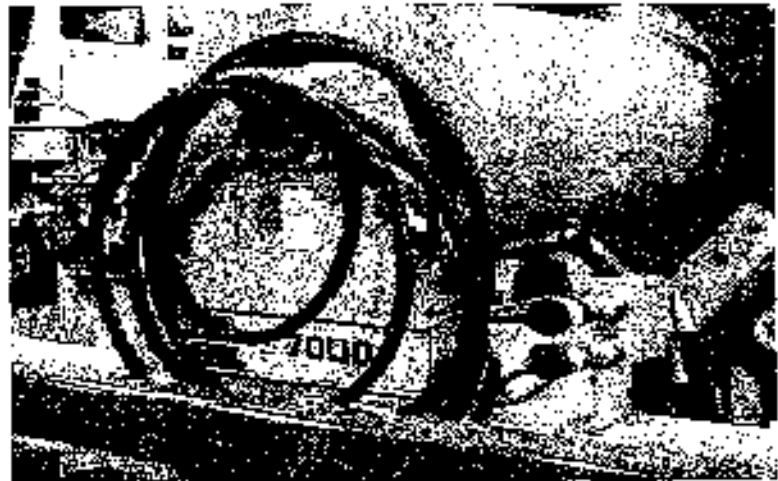
**Optional:** All Models



### Hydraulic Lift Jack Connections

Installed when purchasing the Hydraulic Lift Jack above, these connectors are located at either end of your Ag-Bagger®. Tractor connection hoses are supplied.

**Optional:** All Models

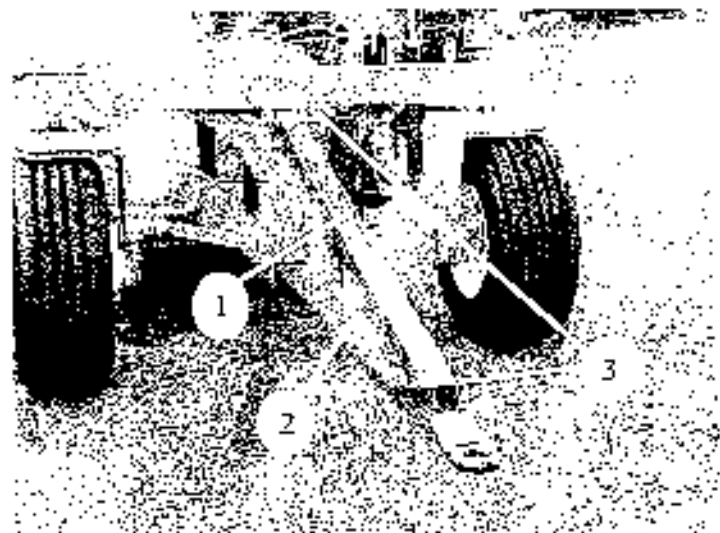


### Pintle Hitch and Brace

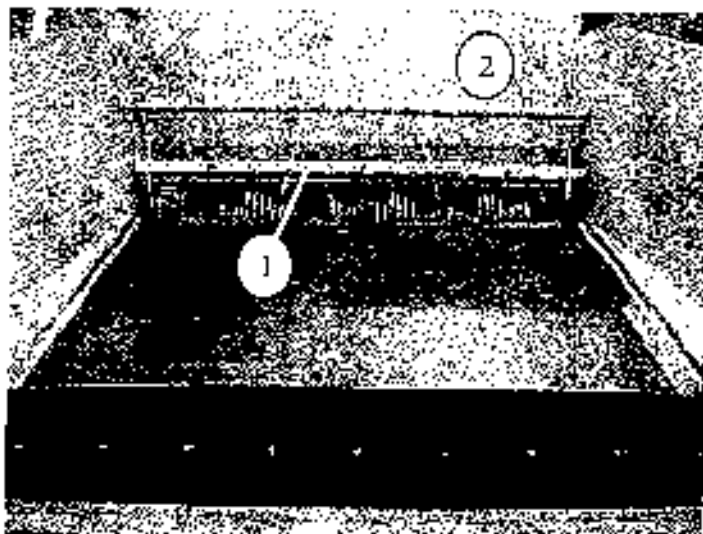
The pintle hitch should be used for transporting the Ag-Bagger®. Do not transport the bagger unless the hitch is properly installed.

1. Pintle Brace
2. Pintle Hitch
3. Hitch Pins

**Optional:** All Models



## Features and Controls



### Beater Bars

Used to control the even flow of product into the rotor, the G7000 Ag-Bagger comes standard with a chain driven lower beater bar. The upper beater bar is operated independently with its own hydraulic motor.

1. Lower Beater Bar
2. Upper Beater Bar



### Beater Bar Chain Tensioner

To maintain the proper chain tension on the lower beater bar an automatic chain tensioner has been fitted to the Ag-Bagger<sup>®</sup>

**Standard:** All Models



### Beater Bar Motor

Hydraulically operated the upper beater bar runs independently of the lower beater bar.

**Optional:** All Models

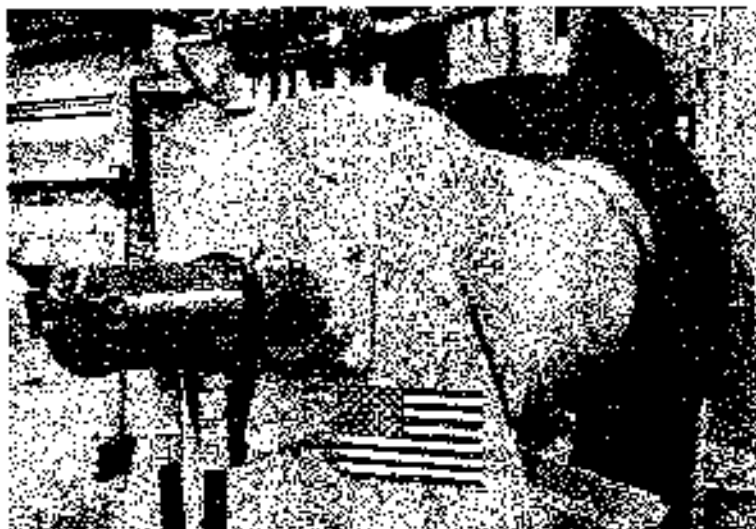


### Hydraulic Cable Rewind

The valve located at the operators station. Push the valve handle forward to engage the cable rewind. Move the valve handle back to neutral to stop the cable rewind.

**Standard:** G7000C

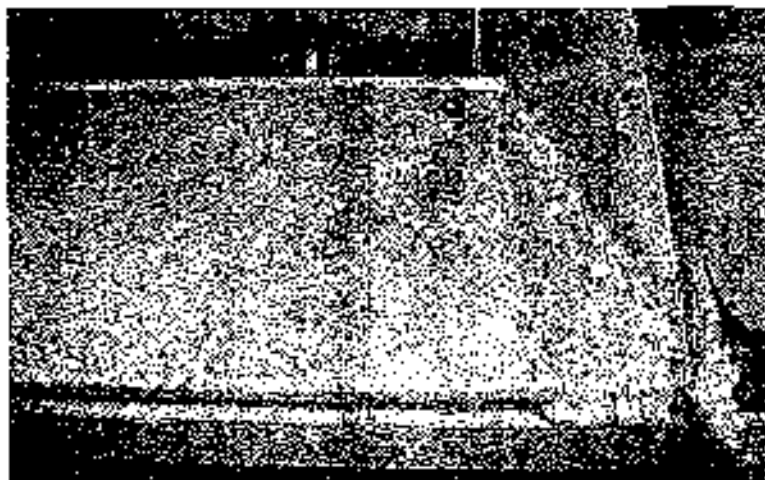
**Optional:** G7000A and G7000B



### Hydraulic Tunnel Clean Out

Using Hydraulics the tunnel floor raises and move the product from the tunnel into the bag.

**Optional:** All Models.



### Wheel Lock

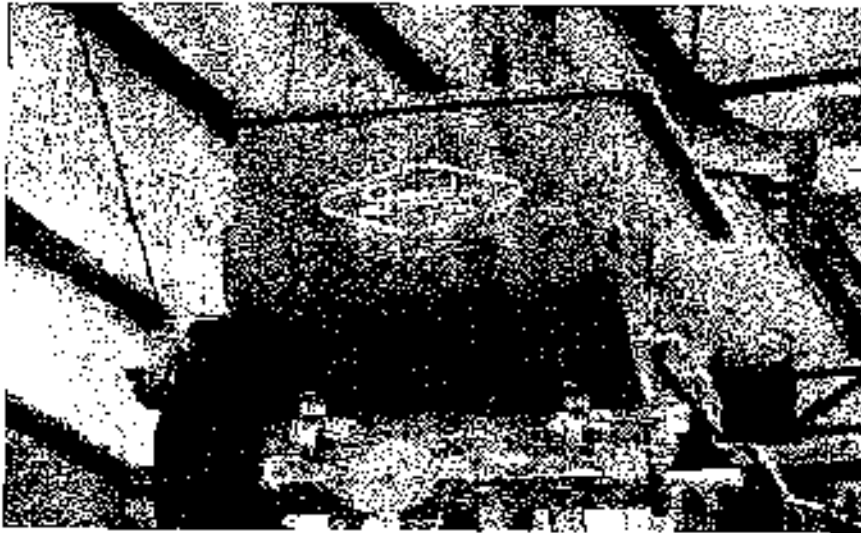
Used to lock the wheel into either bagging or transport position, the wheel locks are located on each wheel.

**Standard:** All Models





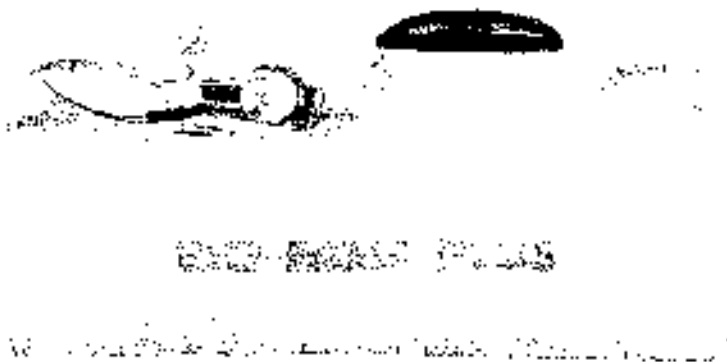
## Features and Controls



### Dry Inoculant Applicator

Your Ag-Bagger® may be equipped with an inoculant applicator. Pictured here is a dry inoculant applicator which is designed for dry inoculant.

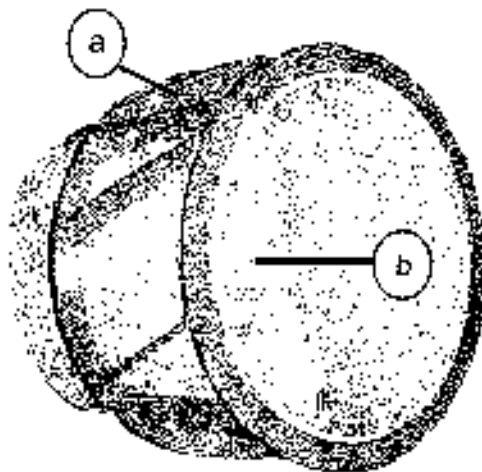
**Optional:** All Models.



### Jumbo Inoculant Applicator

Your Ag-Bagger® may be equipped with an inoculant applicator. Pictured here is a jumbo applicator which is designed for dry inoculant.

**Optional:** All Models.



### Feed Table Wheel

Fitted with removable cleats (a) and packable wheel bearings (b), the feed table wheel is designed to roll across hard or soft ground.

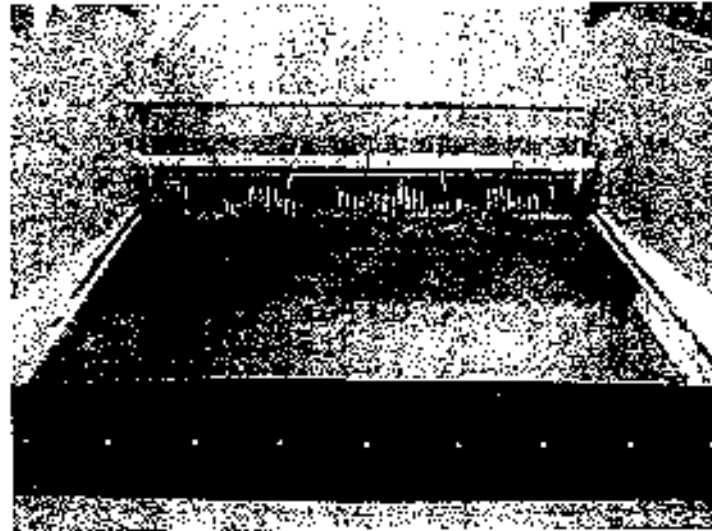
**Standard**

## Features and Controls

### Endless Feed Table Belt

The feed table belt is a multilayered vulcanized seamless belt. It is designed to maintain its track on the feed table for durability and ease in servicing.

**Standard**

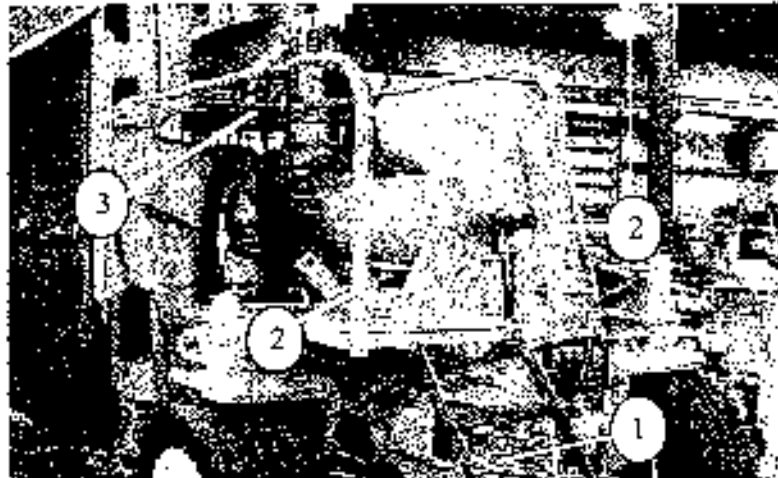


### Operator's Platform

This platform allows you to oversee the bagging operation and use most controls from one place.

1. Access Ladder
2. Hand Rails
3. Hydraulic Control Center

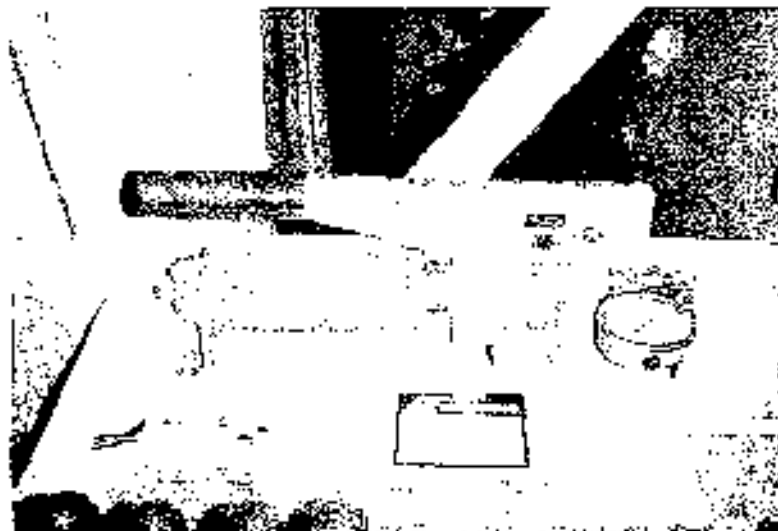
**Standard:** All Models



### Hydraulic Hand Pump

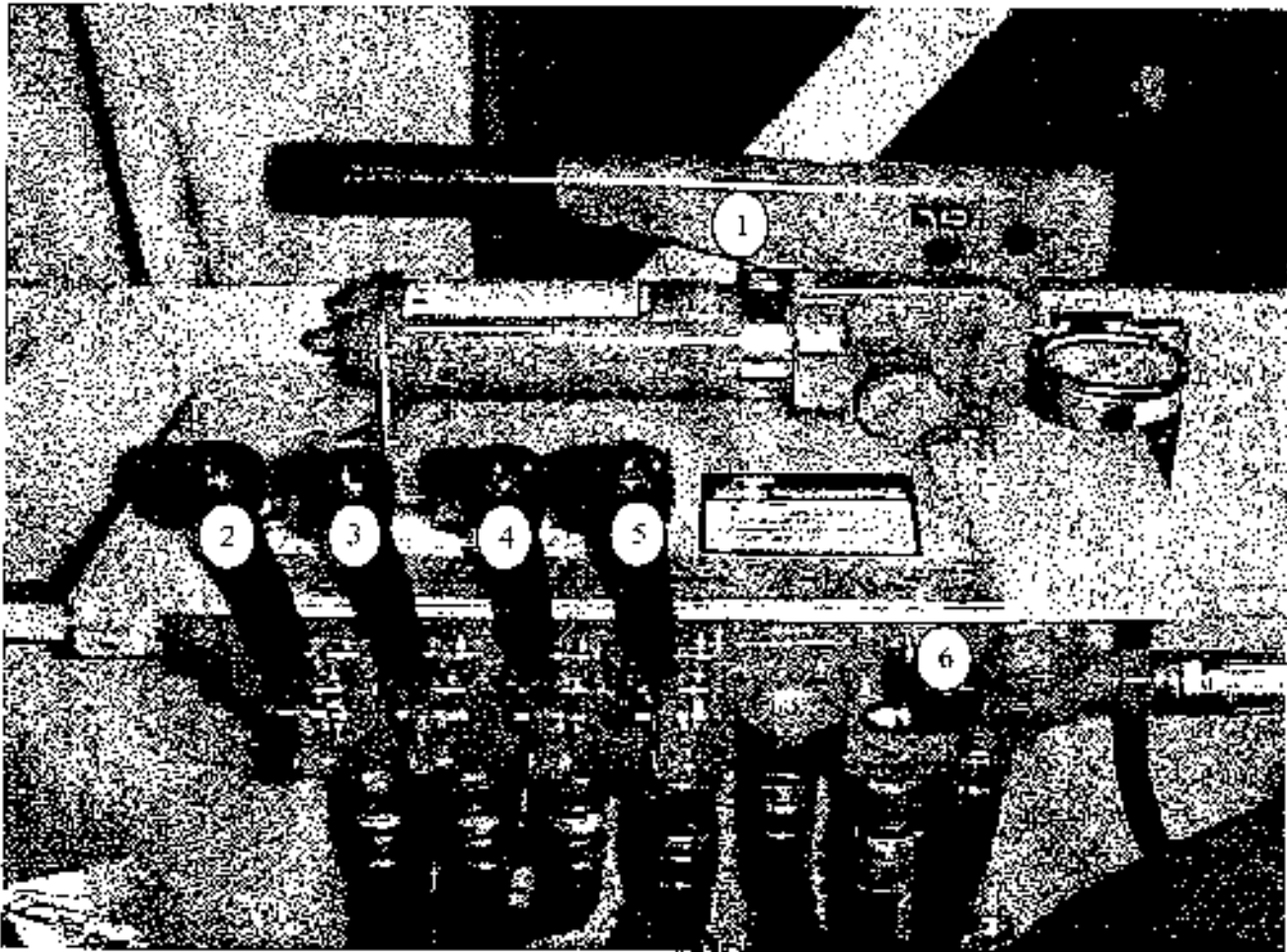
The hand pump applies hydraulic pressure to the cable drum brake to maintain cable tension as the bag fills. The hand pump is located above the jack stand.

**Standard:** All Models



## Features and Controls

### Hydraulic Control Center



Located on the Operator's Platform this control center controls all hydraulics on your Ag-Bagger<sup>®</sup>, with the exception of the Lift Jack control when this option is purchased.

1. Hydraulic Hand Pump

2. Tunnel Clean Out Control

3. Cable Rewind Control

4. Feed Table Lift Control

5. Upper Beater Bar Control

6. Feed Table Direction Control

### Feed Table Lock

The Feed Table Lock is used to lock the feed table in the up position for transport. It is strongly recommended that you do not move your Ag-Bagger\* from one bagging location to another without first locking the feed table.

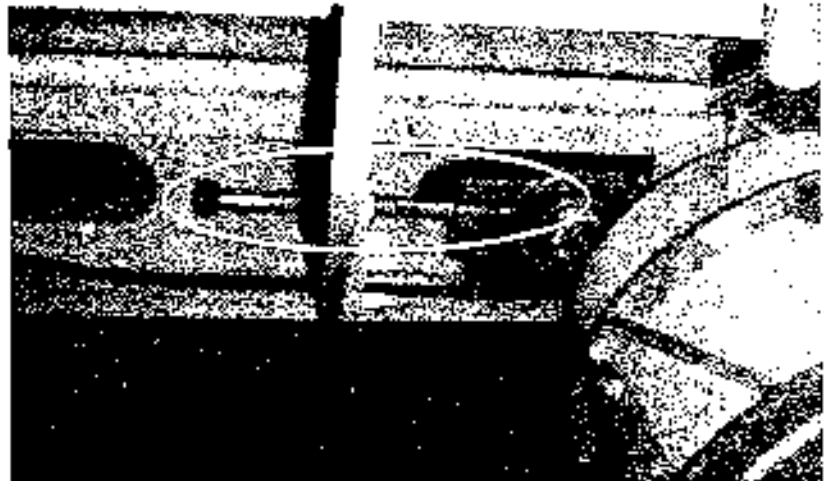
**Standard**



### Feed Table Adjuster

This adjuster is for maintaining the proper alignment on the feed table belt. There is an adjuster on either side of the feed table.

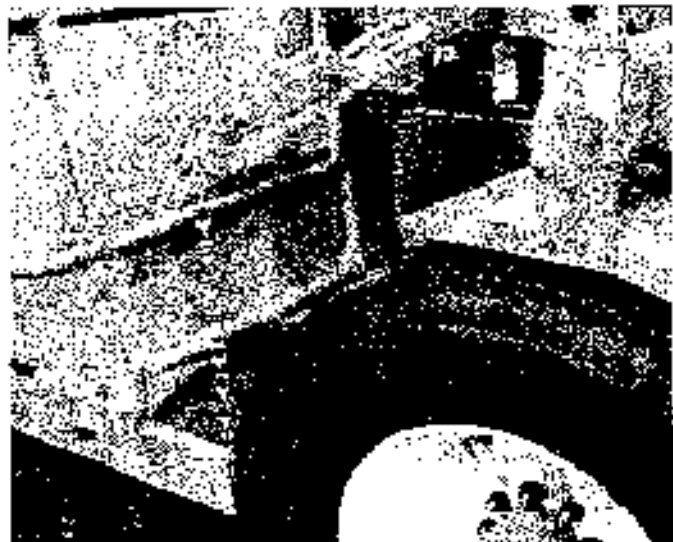
**Standard**



### Bag Pan Lock

Used to lower and raise the bag pan this will also lock the bag into place after it has been installed.

**Standard**



## Features and Controls

---



### **PTO Shaft - 1000 RPM**

Use of the 1000 RPM PTO shaft allows for the use of tractors with horsepower from 160 - 200.

**Standard:** All Models



### **Bag Boom Winch**

A manual 1800 lb winch is used with the bag cradle during the installation of your Ag-Bag® bag. An electrically operated winch is offered as an option.

**Standard:** G7000-C

**Optional:** G7000-A and G7000-B

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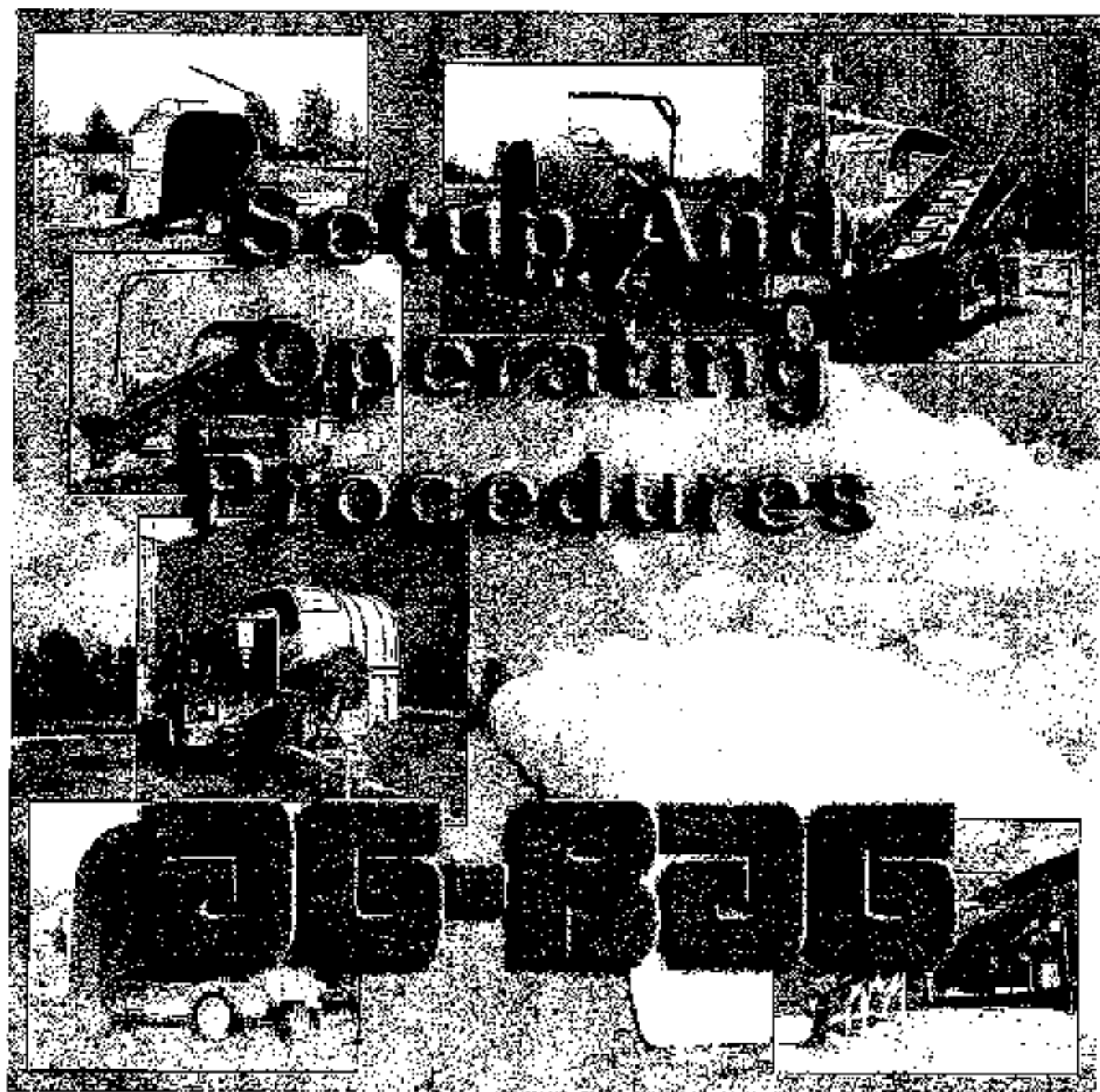
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To obtain the best performance from your Ag-Bagger<sup>®</sup> it is important that you read and understand the setup and operating procedures contained in this manual. You should also assure that all personnel who will be operating the Ag-Bagger<sup>®</sup> read and understand this material. Special attention should be paid to the warnings contained in the manual. Remember Safety is First in operating this equipment. Your Ag-Bag<sup>®</sup> Dealer will assist you in the initial setup of your Ag-Bagger<sup>®</sup> and provide you with assistance in obtaining the best results.

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### PRE-OPERATION CHECK LIST

The pre-operation check list is provided for both personal safety and maintaining the mechanical condition of the Ag-Bagger<sup>®</sup>. Make sure each item in the list is completed, each time, prior to operating the Ag-Bagger<sup>®</sup>.

- o The tractor is adequate to operate the Ag-Bagger<sup>®</sup>. Check the Service and Maintenance Section to ensure you do not exceed the maximum horse power for this equipment.
- o Lubricate, grease and check fluid levels. See the Service and Maintenance Section.
- o Check all hydraulic lines, hoses and fittings for leaks and tightness. Wipe any dirt from the hose couplers with a clean cloth before connecting to the hydraulic system of the tractor.
- o Tractor is properly attached to the Ag-Bagger<sup>®</sup>. Make sure the alignment bars are properly attached and the tractor is parallel to the Ag-Bagger<sup>®</sup>.
- o The PTO shaft is secured to the Ag-bagger<sup>®</sup> and the tractor shaft guards are in place.
- o Safety shields and guards are closed and secured in place.
- o Check the rotor, feed table, and hopper to make sure no foreign object(s) are present.
- o If the tunnel extension is being used, it is properly installed.

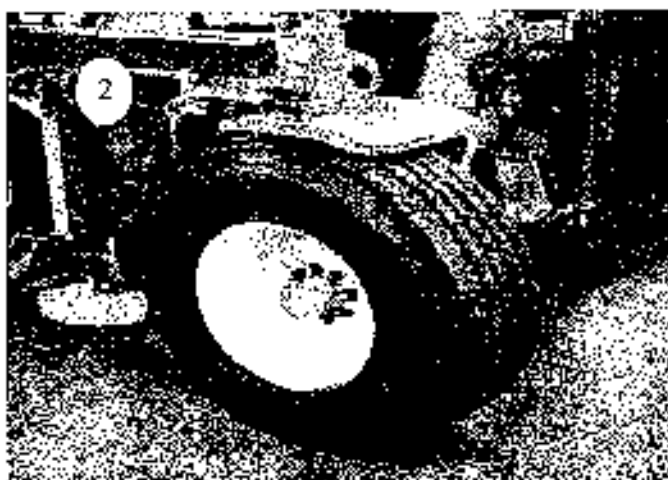
## CHANGING THE WHEELS TO BAGGING POSITION



### NOTICE

The Ag-Bagger<sup>®</sup> should be moved to the bagging site before proceeding.

Position the wheels with out Lift Jack Option



1. Find the turning bar (1c) supplied with your Ag-Bagger<sup>®</sup>, place it in the receiver on top of the wheel column (1b). Lift the wheel lock (1a).

2. Using the turning bar (1c) start moving the wheel. Allow the wheel lock (1a) to slide back into the hole. Continue moving the wheel until it is aligned as show in items 2 and 3. Make sure the wheel lock (1a) has re-seated in the wheel column locking whole.



### NOTICE

Ensure all four wheels are locked after they have been moved into bagging position.

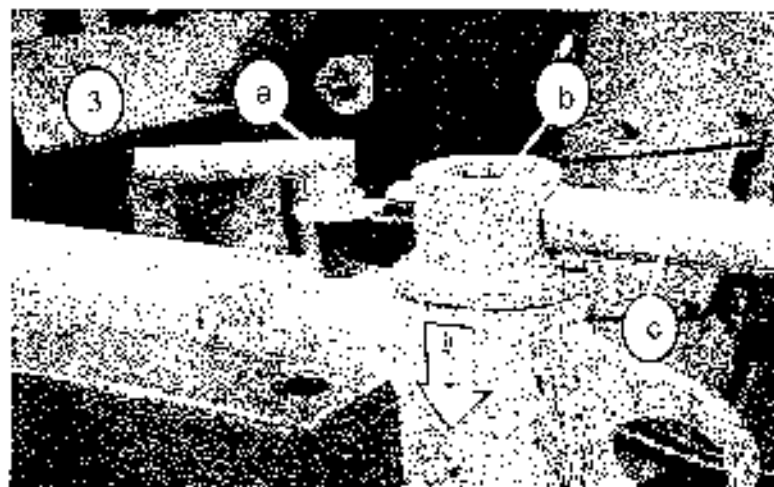
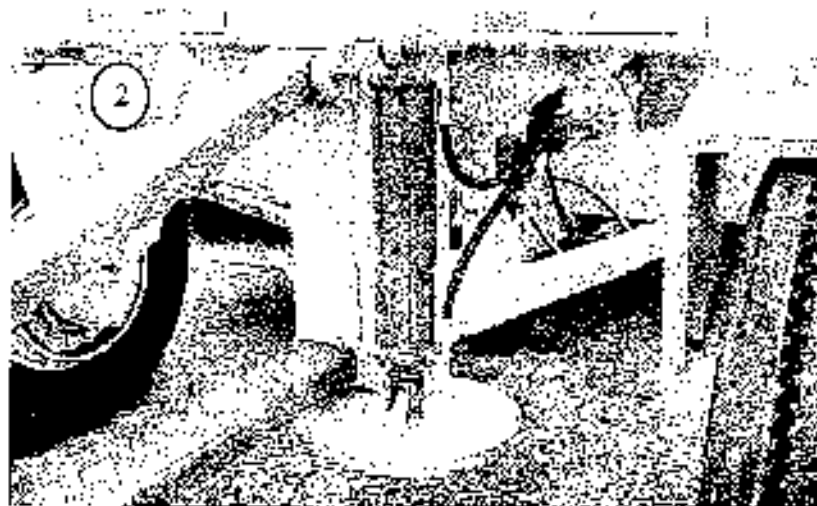
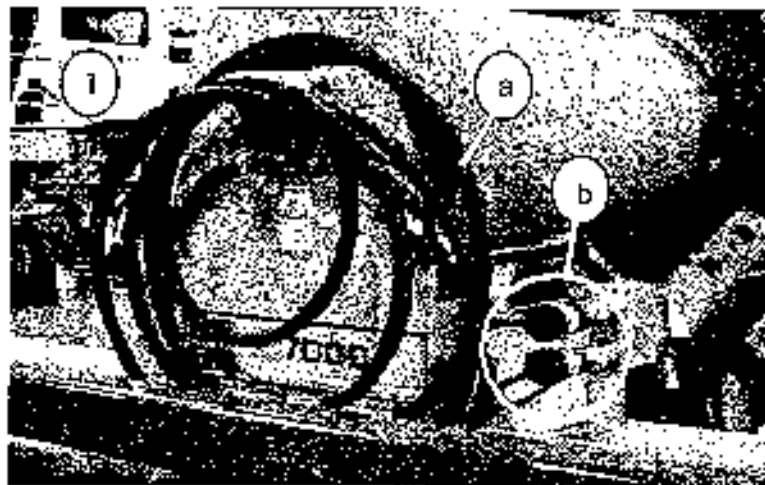
CHANGING THE WHEELS TO BAGGING POSITION (CONT.)

**NOTICE**

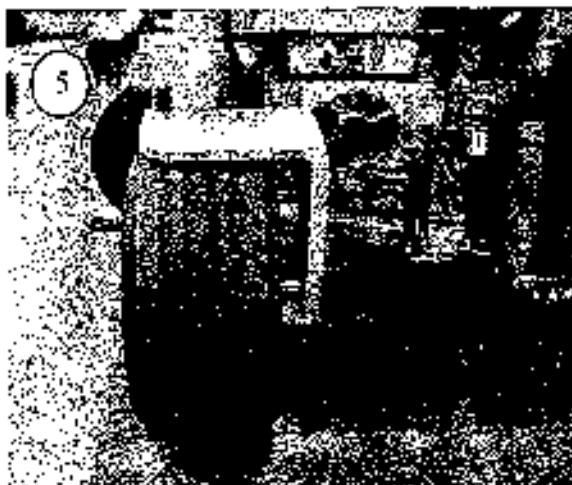
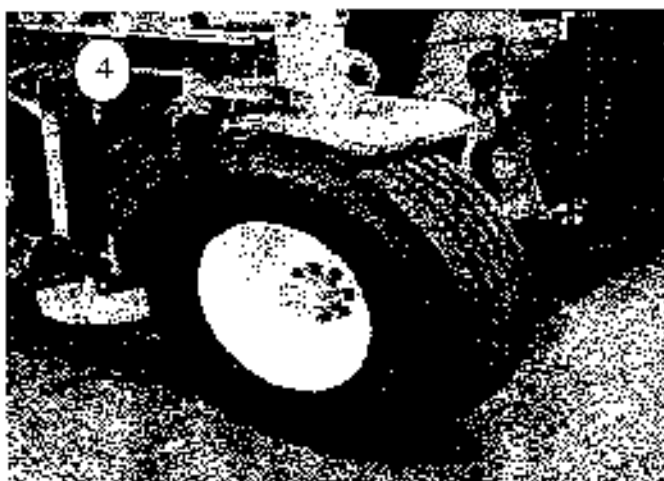
The Ag-Bagger® should be moved to the bagging site before proceeding.

**Position the wheels with the Lift Jack Option**

1. Move the tractor into a position where you can connect the tractor hydraulics to the hydraulic leads (1a) and then connect them to (1b) on the Ag-Bagger®.
2. Using the tractor hydraulic controls lower the lift jack (2) until it lifts the Ag-Bagger® and the wheel lift off the ground.
3. Using the turning bar (3c) start moving the wheel. Allow the wheel lock (3a) to slide back into the hole. Continue moving the wheel until it is aligned as show in items 4 and 5. Make sure the wheel lock (3a) has re-seated in the wheel column locking whole.



**CHANGING THE WHEELS TO BAGGING POSITION (CONT.)**



**NOTICE**

Ensure all four wheels are locked after they have been moved into bagging position.

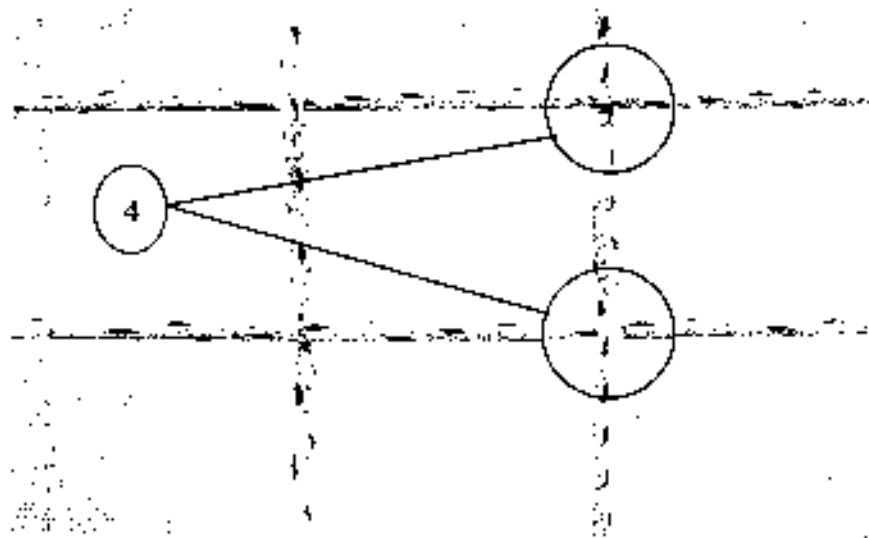
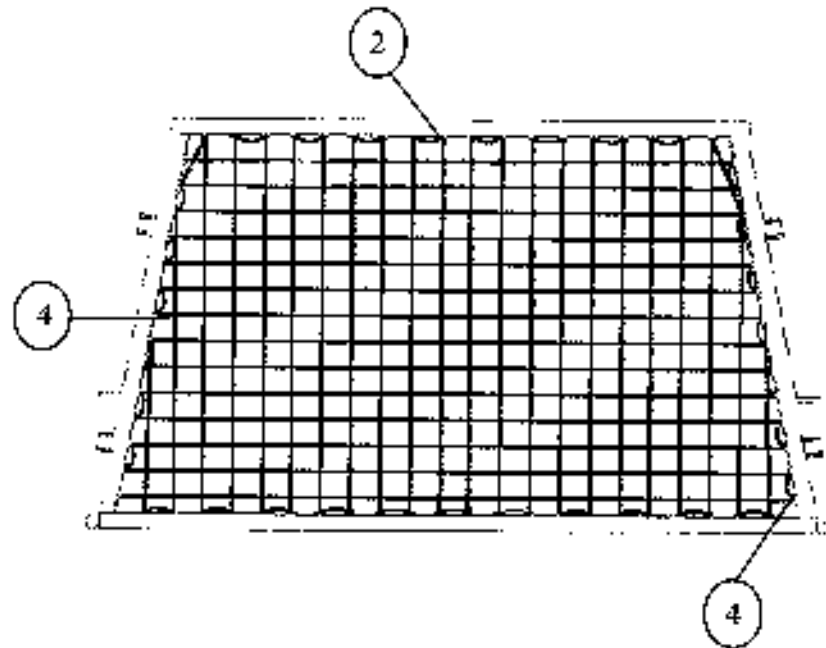
## PREPARE THE BACKSTOP

### THE BACKSTOP NET

For ease in completing this operation stand the backstop and support with backstop feet.

### Lace the Backstop

1. Use the rope supplied with the Ag-Bagger®
2. Start in the middle of the backstop on the top of the frame. Make sure you find the middle of the rope, do not cut the rope.
3. Lace the rope through the vertical rope eyelets going from the top to the bottom and from the center to the outside.
4. Weave the horizontal rope through the vertical rope. Start at the right hand side and go until all rope is gone, then move to the left and start again where the other rope ended. Tie the ropes to the backstop frame. Make sure you can untie the knot so you can tighten the ropes as required. See the pattern at left for correct lacing.
5. Stretch the rope tight and tie it off. Start by pulling the vertical facing then do the horizontal lacing.
6. Tighten the ropes after a few bags. This keeps the bag from sitting down on the backstop frame.



### Inspection

Inspect the backstop rope occasionally, tighten and replace as needed.

## PREPARE THE BACKSTOP (CONT.)

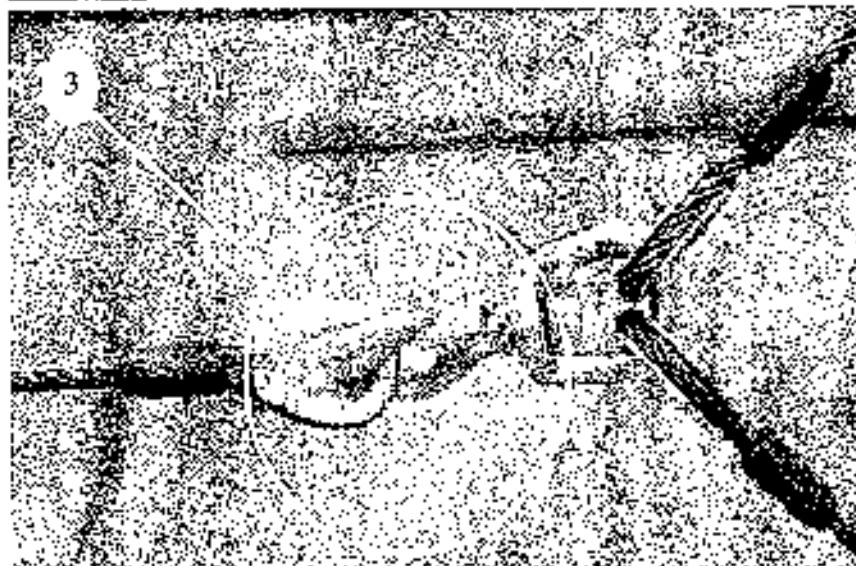
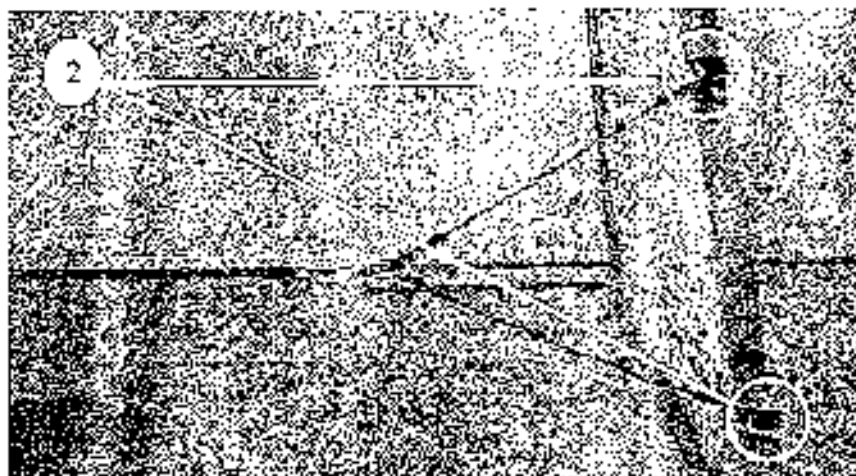
1. The backstop may need to be laced. See Section 4 page 6.

2. Fasten the backstop slings to the backstop making sure you connect both sides.

3. Connect the slings to the cable making sure you connect both sides.

4. Place the backstop in the transport supports.

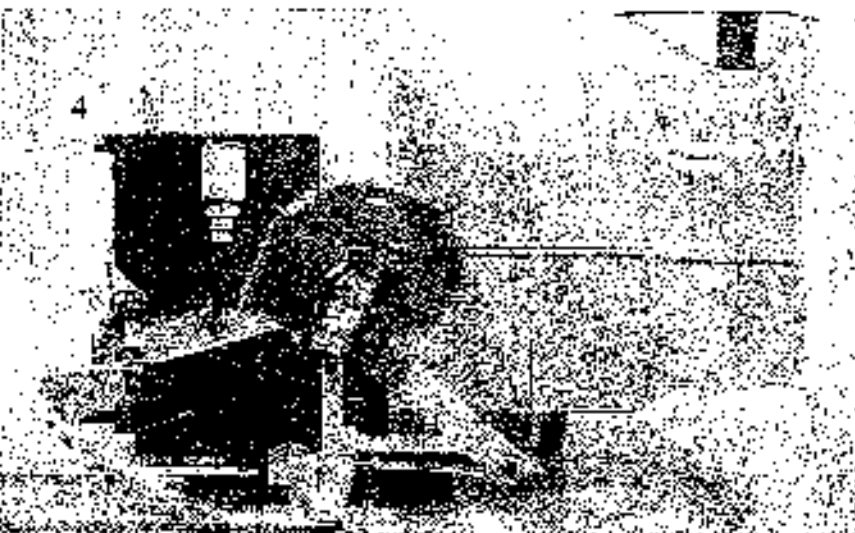
5. Use the hand crank to tighten the cables. On Baggers with Hydraulic Cable Rewind, the hand crank can be attached on the left hand cable drum. Using the hydraulic hand pump to apply the cable drum brake.



*Note: Item #5 is used for illustration only it is not a true depiction of the G7000.*



## INSTALLING THE TUNNEL EXTENSION



The tunnel extension is stored on the top of the tunnel. Use the following procedure to install the extension on your Ag-Bagger®. (This procedure is best accomplished by two people)

a. Attach the bag boom hitch to the eye located on the center of the tunnel extension. Fig 1.

b. Remove the hair pin and locking pin from the tunnel extension located on the center of the extension and the back of the inoculant applicator plate. Fig 2. This pin should be reinstalled any time the Ag-Bagger® is transported. (Make sure to replace this pin into the holder for future use.)

c. Using the bag boom swing the tunnel extension out and lower to a position in front of the tunnel. Position the extension where the holes on the extension line up with the holes on the tunnel (Fig. 3).

d. Use the nuts and bolts supplied with your Ag-Bagger® and place them in the holes indicated in Fig. 3.

e. Fold the eye (Fig. 1) back onto the tunnel

**Note: The machine used in items 3 and 4 on this page are not of a G7000 but are used only for illustration.**



## CONNECTING THE AG-BAGGER® AND TRACTOR



Three connecting hitches are shipped with the Ag-Bagger®. These hitches are used to connect the tractor to the bagger. These hitches maintain the distance between the bagger and also allows you to steer the bagger during the bagging operation.

(a) This hitch is located on the right end of the Ag-Bagger® under the planetary and should connect to the rear of the tractor



(b) This hitch is located on the right end of the Ag-Bagger® on the frame below the Feed Table and should be connect near the connection of (a) and at a right angle.



(c) This hitch is located on the right front of the Feed Table and should be connect to the forward portion of the tractor.

### **WARNING**

It is important that after these connections have been made the tractor is parallel with the Ag-Bagger®. If the tractor is at a slight angle to the Ag-Bagger® damage will occur to the connections points.



### CONNECTING THE HYDRAULIC LINES



See your tractor manual for hydraulic port locations.

1. Clean the hose couplers and tractor ports.
2. Remove the caps from the hose couplers.
3. Connect the hose couplers to the correct tractor ports.

*Note:* This procedure is only required for machines without the Hydraulic Package.



### CONNECTING THE INOCULANT APPLICATOR

Connect the inoculant applicator electronics to the tractor's connectors. Consult your Ag-Bag® Dealer and tractor operator's manual for specific instructions.



## HOOKE UP THE PTO SHAFT



### **WARNING**

**ROTATING DRIVE LINE.  
KEEP AWAY.  
KEEP SHIELD IN PLACE.**

U-Joint yokes must be locked in place.  
Adjust tractor drawbar and implement  
hub to proper dimensions.  
Keep tractor master shield, PTO  
gears, and implement guards in place.

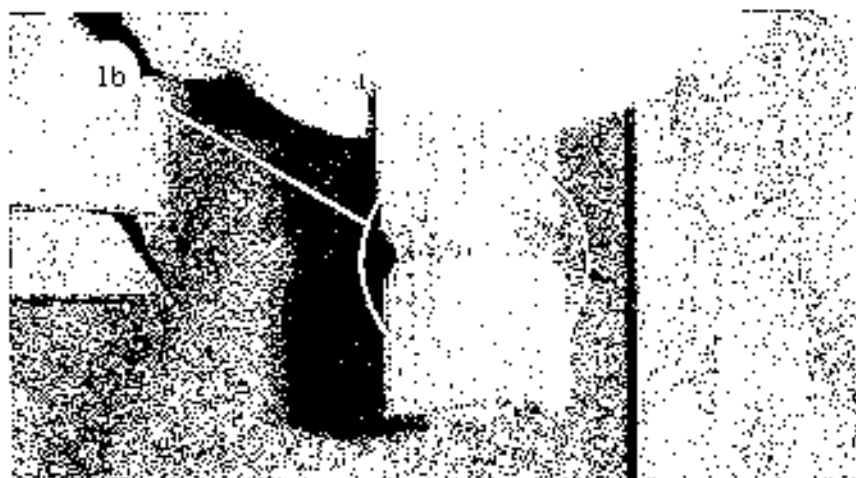
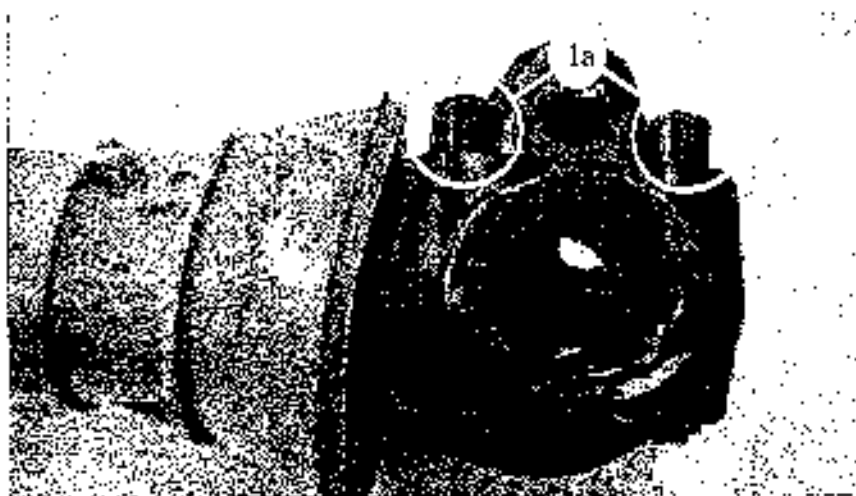
1. Connecting the PTO shaft to the Ag-Bagger<sup>®</sup>. (a) depress the PTO shaft locking pins, (b) slide the yoke over the Ag-Bagger<sup>®</sup> gearbox shaft until the locking pins snap into place, (c) pull on the PTO shaft, it should not come loose from the Ag-Bagger<sup>®</sup>. (d) check that the PTO shaft telescopes easily and that the shield rotates freely.



*Bagger End*



*Tractor End*



## HOOK UP THE PTO SHAFT (CONT.)



2. Connecting the PTO shaft to the tractor. (a) back the tractor into place and shut off power. (b) lower the PTO shaft down to the back of the tractor. (c) rotate the u-joint yoke collar located on the tractor end of the PTO shaft, (d) slide the u-joint onto the tractor PTO and release the collar to lock the yoke, (e) pull on the PTO shaft, it should not come loose.

3. Secure the PTO shaft. (a) turn the shield, it must rotate freely on the PTO shaft, (b) attach the safety chain, allow adequate slack for turns.

## OPERATOR'S PLATFORM ACCESS



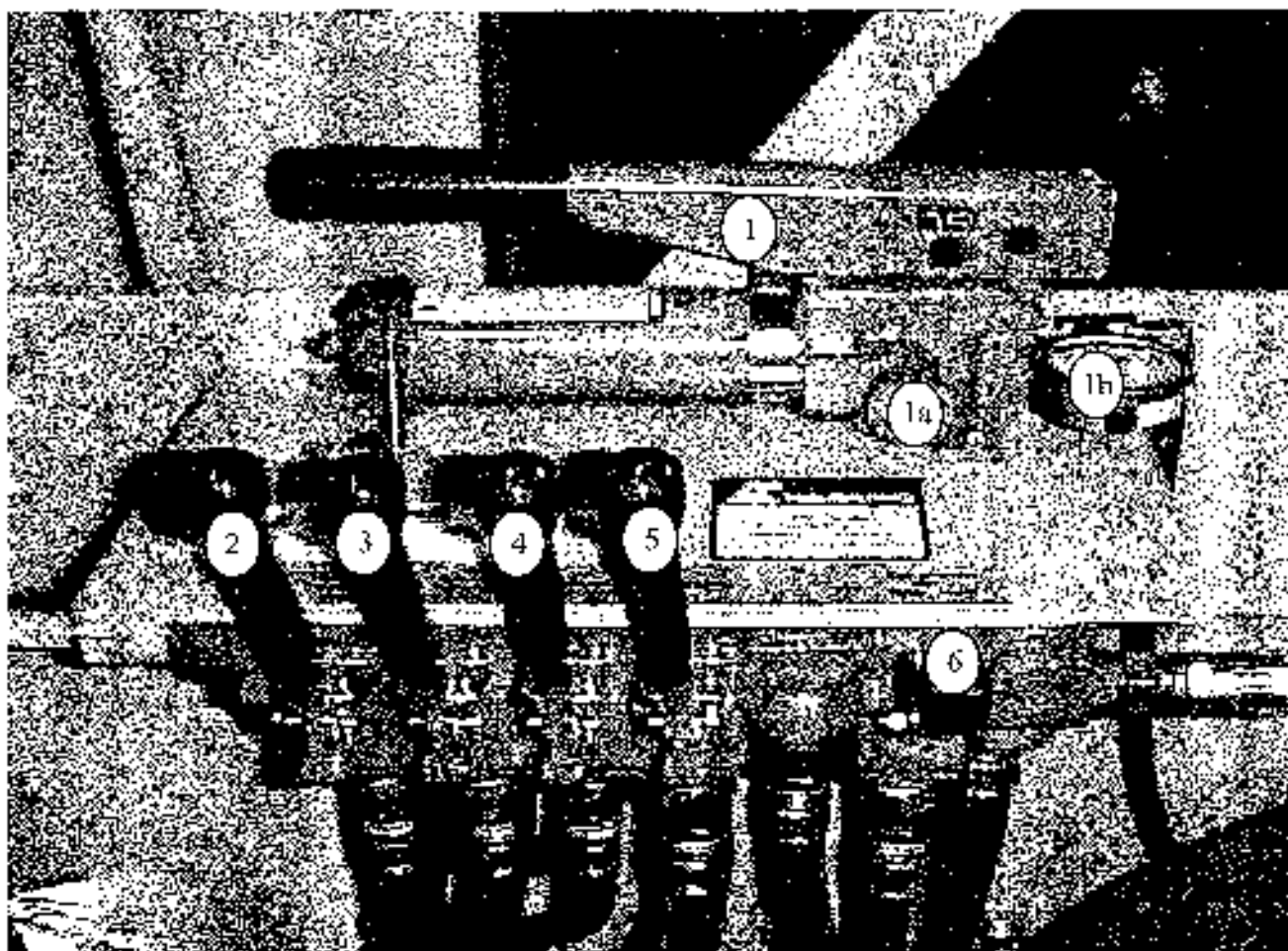
### Access Ladder

Figure 1 shows the ladder in the up or transport position. Figure 2 shows the ladder in the down position.

**CAUTION**

Caution should be used in moving the ladder from the up to the down position. There is no lock and the weight of the ladder could cause a physical strain.

## HYDRAULIC CONTROL CENTER



**1. Hydraulic Hand Pump.** Used to control brake pressure on the cable drums. (1a) pressure control knob, (1b) pressure gauge.

**2. Tunnel Clean-Out Control.** Push forward to open clean-out. Pull back to close clean-out. Center position is neutral

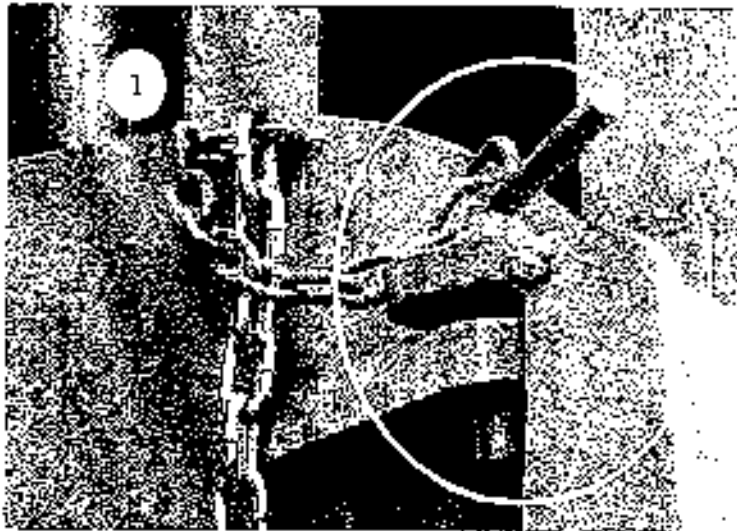
**3. Cable Rewind Control.** Push forward rewinds cables on drum. Pull back to allow cables to be pulled out. Center position is neutral

**4. Feed Table Lift Control.** Push forward to raise table. Pull back to lower table. Center position is neutral.

**5. Beater Bar Control.** Used to operate upper Beater Bar only. Push forward turns the Beater Bar in a clock wise direction. Pull back turns the Beater Bar in a counter clockwise direction. Center is stop.

**6. Feed Table Direction Control.** Controls the direction of the Feed Table Belt and lower Beater Bar during the bagging operation. Right moves the belt and product towards the rotor. Left moves the belt and product away from the rotor. Center stops the belt.

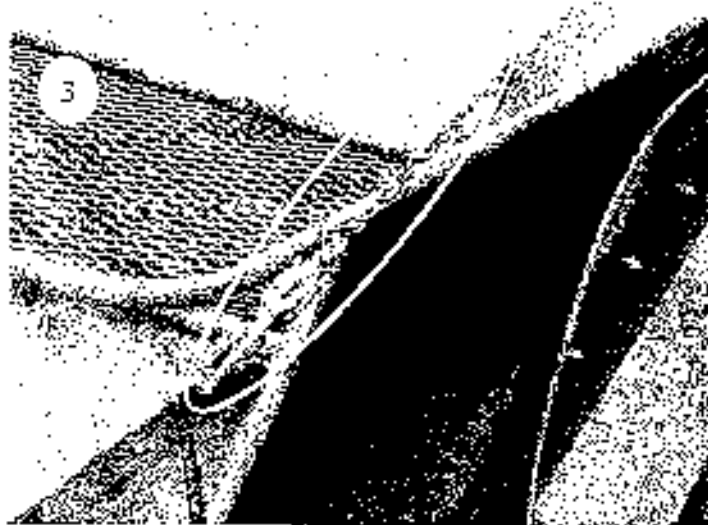
## FEED TABLE PREPARATION



**DANGER**

**Crush Hazard Exists**  
Make sure area under feed table is clear before lowering the Feed Table.

Check for clearance in front of the feed table. A minimum of 20-ft clearance should be maintained.



1. Unhook the feed table pins.

2 Lower the feed table to the ground. (See page 14 item #4)

a. Pull the lever back to lower the feed table.

b. Move the lever to the center to stop feed table.

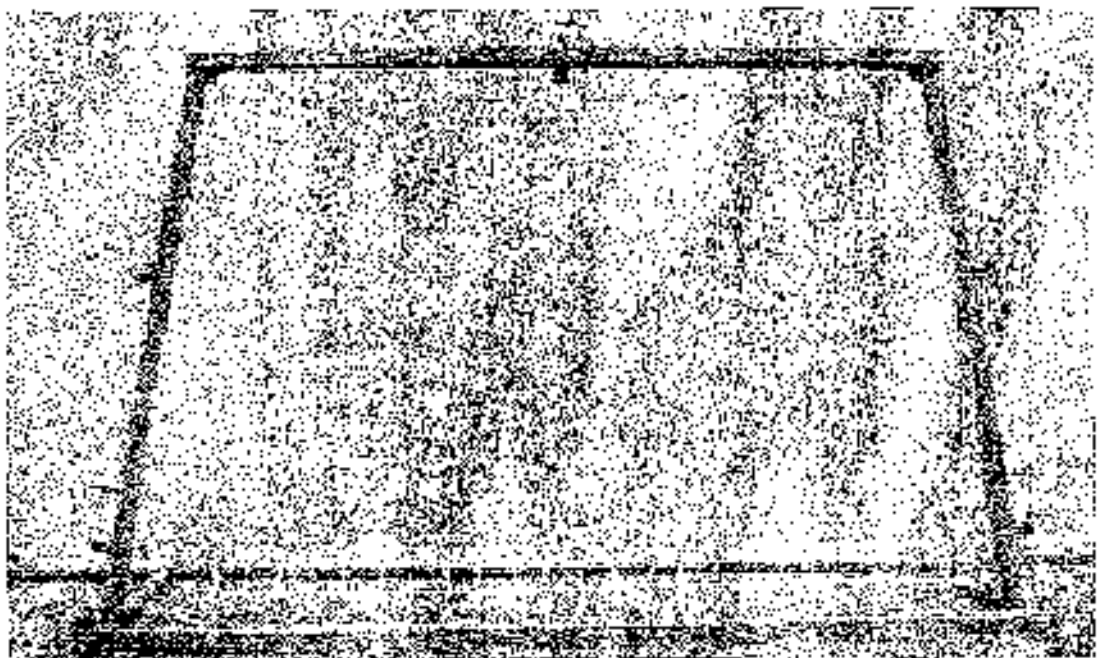
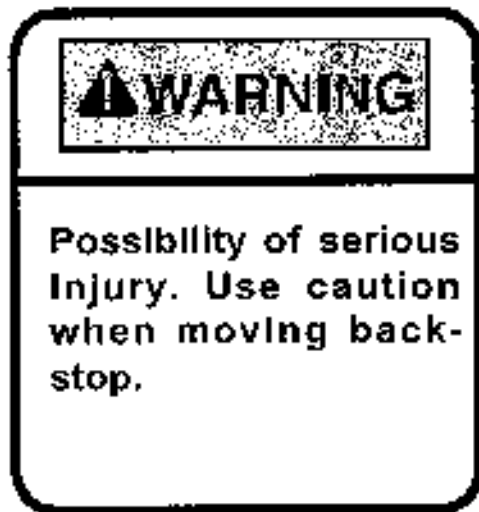
c. Push the lever forward to raise the feed table, until you hear the feed table bump against the hopper.

3. Loosen the load binder to unlock the feed table wings. Open the wings by lifting outwards.



4. Secure the feed table wings with the locking pins. Pictured at left are two type of locking devices currently in use on these Ag-Baggers®

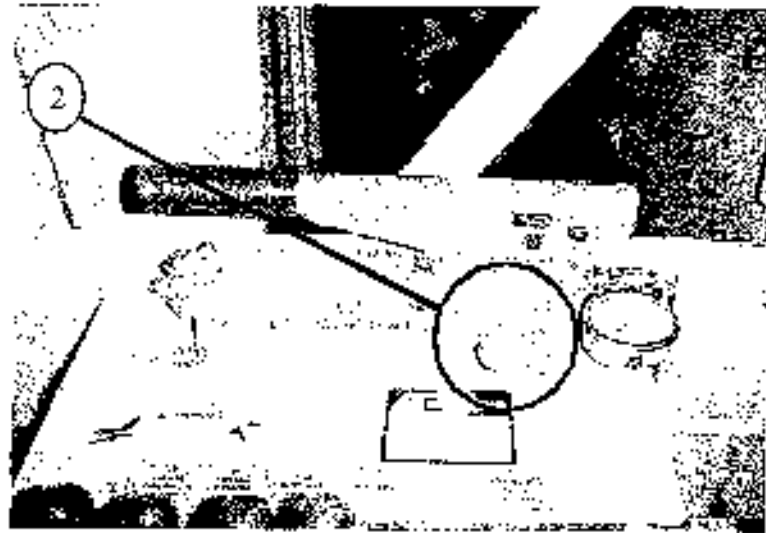
SET THE BACKSTOP AND PREPARED FOR BAG INSTALLATION



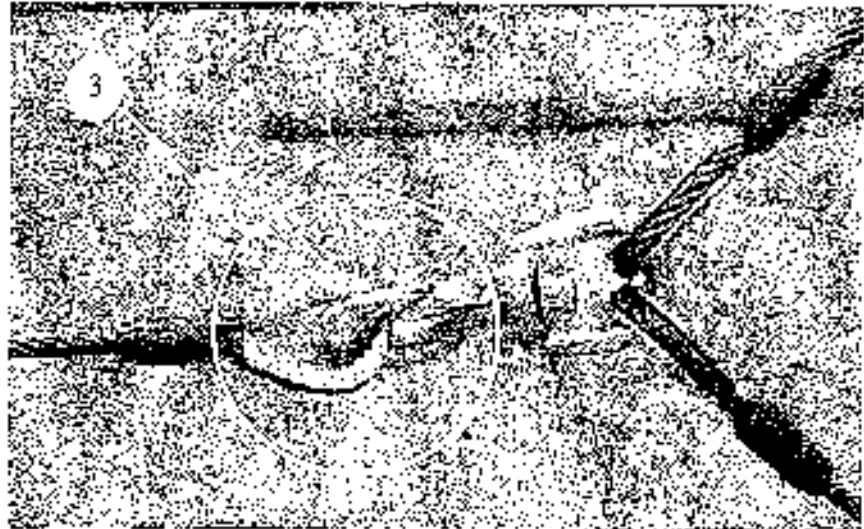
SET THE BACKSTOP AND PREPARED FOR BAG INSTALLATION (CONT.)

1. Place the Ag-Bagger<sup>®</sup> where the bag will begin.

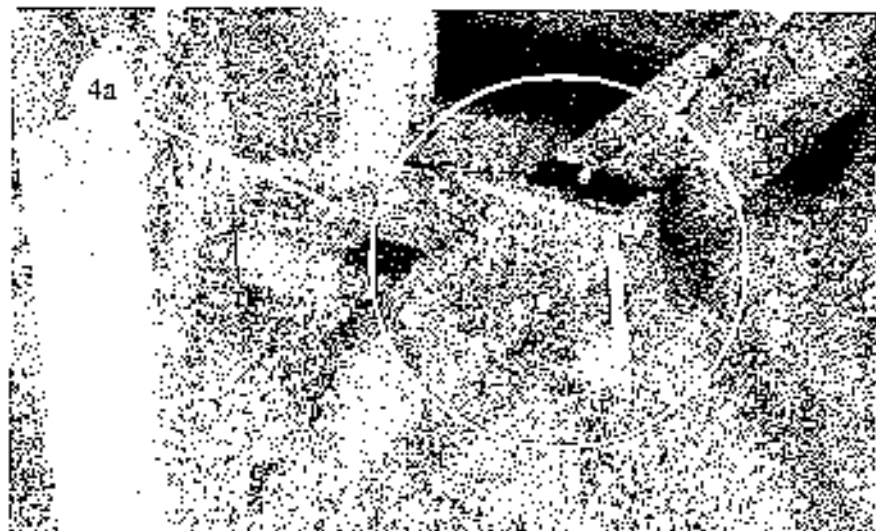
2. Using the valve on the Hand Pump release the cable brake pressure.



3. Unhook the backstop slings from the cables.

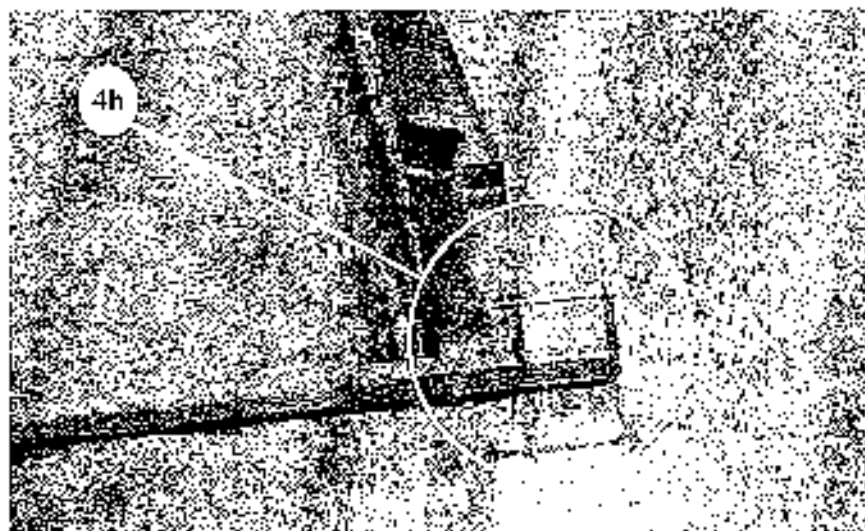


4. (a) Lift the backstop off of the support feet.





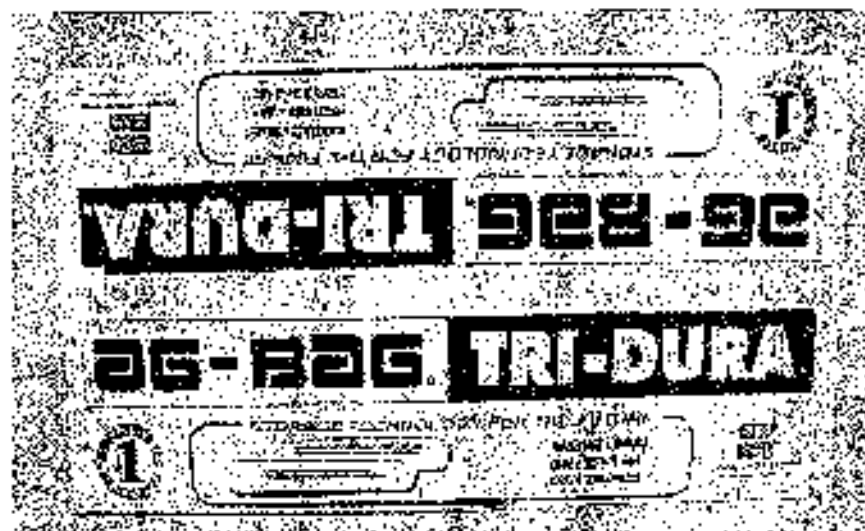
SET THE BACKSTOP AND PREPARED FOR BAG INSTALLATION (CONT.)



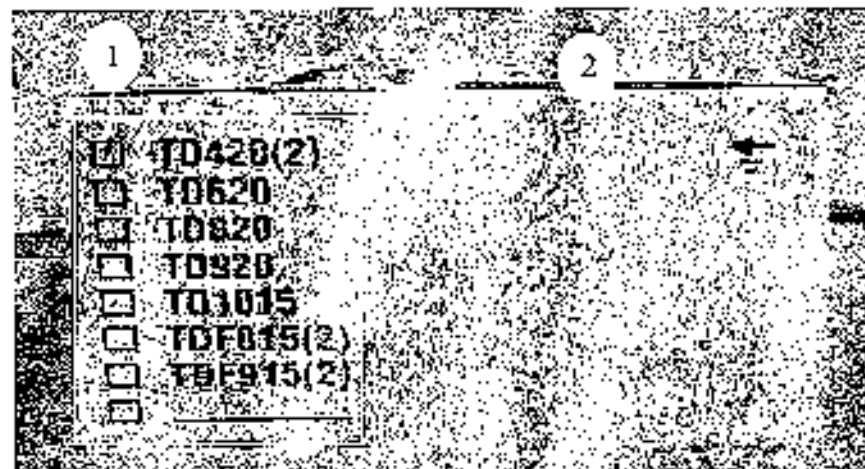
4. (b) Remove the feet from the Ag-Bagger® and insert them into the backstop. They help hold the backstop in the upright position.

5. Pull the Ag-Bagger® forward. Make plenty of room for bag installation.

IDENTIFYING YOUR AG-BAG® BAG



Remember to use only Ag-Bag® bags. They are designed to fit and function properly. They are identified by the TRI-DURA® name on the box. Other brands may fail or cause product loss.



The box end contains two pieces of information:

1. The size of bag that is in the box.
2. The arrow on the side of the box should be pointing towards the Ag-Bagger®



## WHAT SIZE AG-BAG® BAG CAN I USE?

**G7009 - G7010**

**9 Foot Tunnel**

TD913  
TD915  
TD920  
TD925

**10 Foot Tunnel**

TD1015  
TD1020  
TD1025

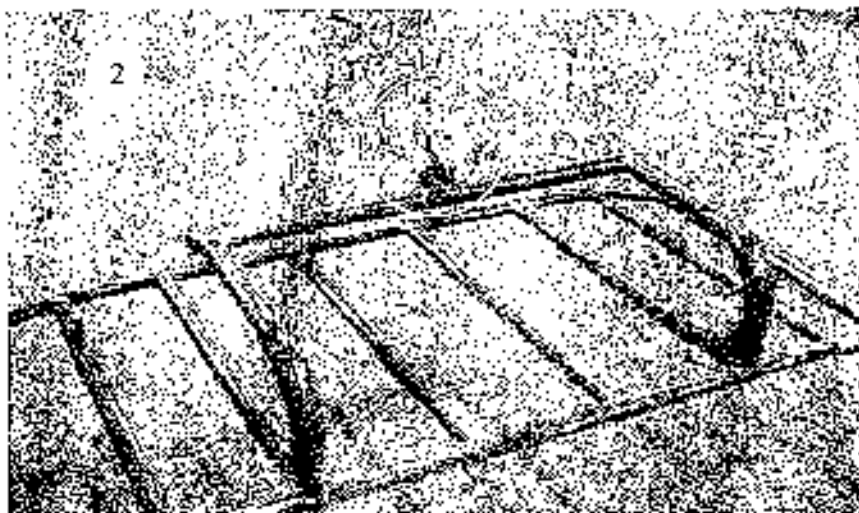
INSTALLING THE AG-BAG® BAG

**NOTICE**

Remember to use only Ag-Bag® bags. They are designed for use with this equipment. See size chart for the proper size for your machine.

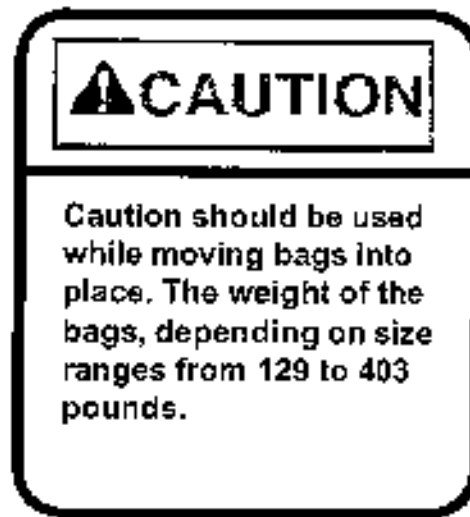


1. Lower the bag pan using the Bag Pan Lock. Connections are located at each end of the bag pan, be sure to unlock both ends.

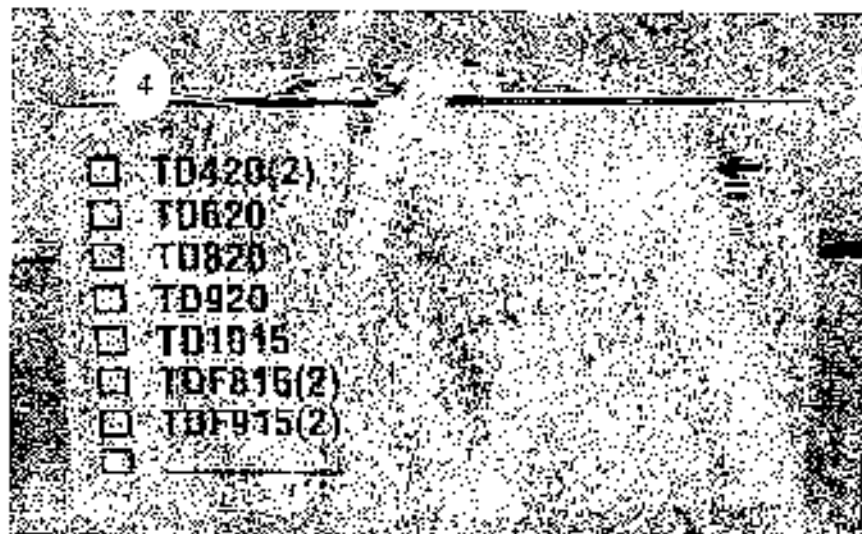


2. Latch the bag boom cable hook to the bag cradle lifting lug.
3. Lift the cradle from the tunnel and lower it to the ground, setting it to the rear of the machine centered in the tunnel opening. Between the tunnel and the bag box.

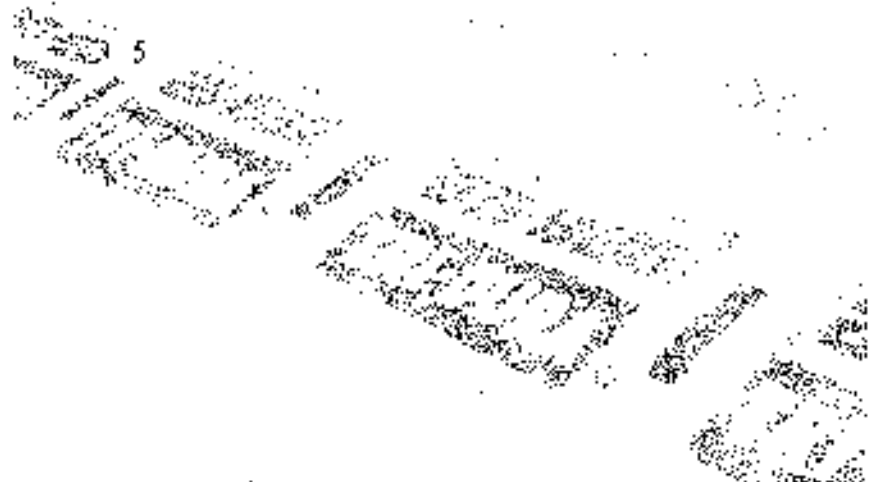
INSTALLING THE AG-BAG® BAG (CONT.)



4. Line the box up with the back of the tunnel, making sure the arrow on the box end is pointing towards the tunnel, cut the plastic bands and remove the outer lid. Do not remove tape or rope until bag is on the tunnel. Remove the inner shell and the box will flatten.



5. Unfold the bag and lift the top half of the bag and place it on the bag cradle. Using the bag boom raise the bag and then rotate the bag so the Ag-Bag® stretch measure mark is between 1 and 3 o'clock.



INSTALLING THE AG-BAG<sup>®</sup> BAG (CONT.)

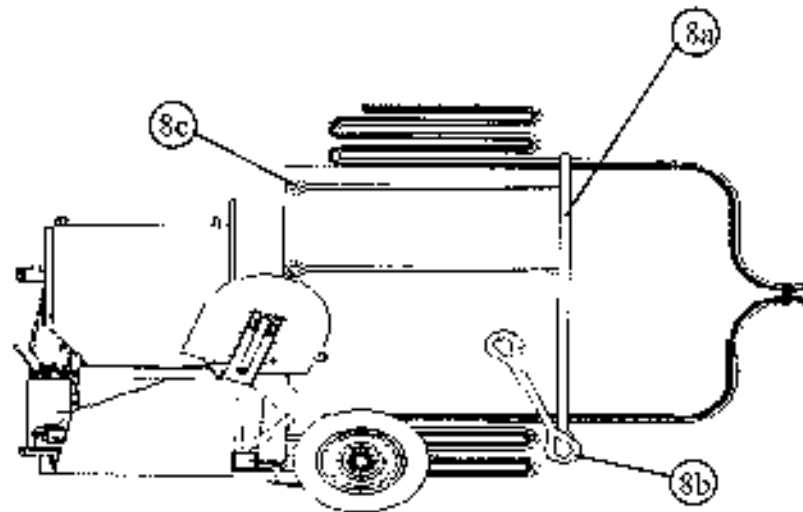
**NOTICE**

Possibility of bag damage.  
Do not roll the bag, place  
it on the tunnel keeping  
the folds flat.



6. Crank the bag boom winch up until the cradle is above the tunnel, swing the boom and cradle toward the tunnel. Work the bag around the tunnel making sure the bag maintains its flat look.
7. Lower the cradle until it is resting on top of the tunnel. Make sure the cradle is on the tunnel and not the optional tunnel extension. The cradle should rest between the two pipes on the tunnel. Remove all the tape or ropes that hold the bag folds together.

INSTALLING THE AG-BAG® BAG (CONT.)



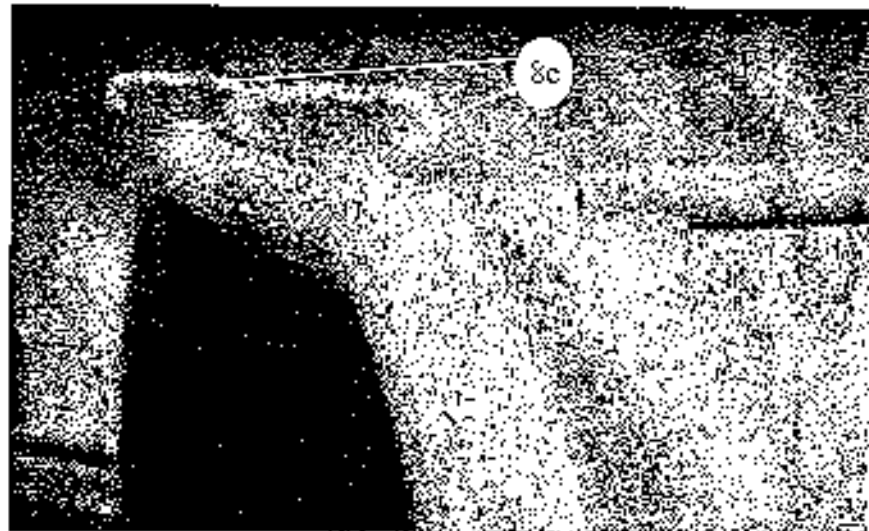
8. Installing the bungee cords.  
(The bungee cords are shipped with the machine)

a. Lay the bag bungee cord over the tunnel.

b. Connect the bag bungee cord to the bag pan hooks.

c. Tie the cords to the bag bungee and the 4 tunnel eyes making sure that the bag bungee is evenly spaced around the tunnel. Keep these cords.

d. Lift the bag pan up and fasten the bag pan bungee cords on both sides. Maintain a 3/4 inch gap between the tunnel and bag pan.

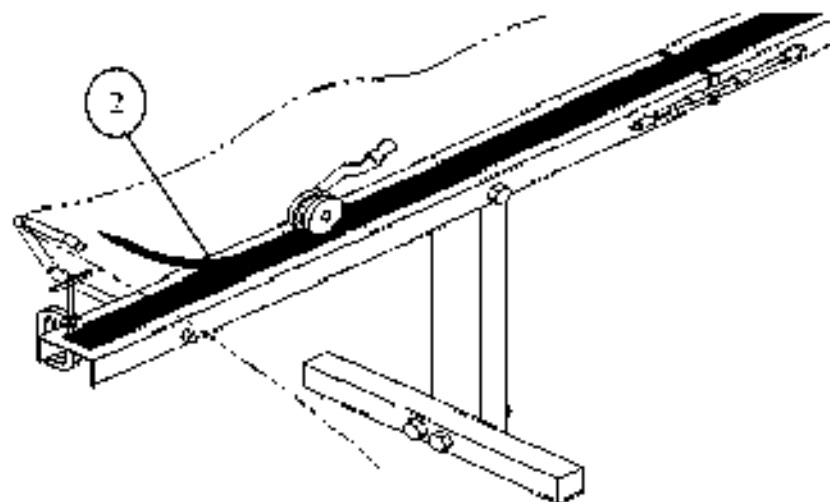


**NOTICE**

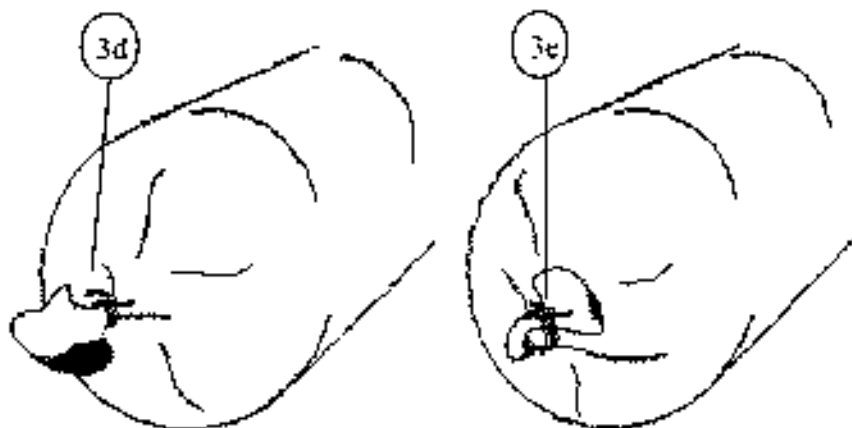
Possibility of bag damage.  
A minimum 3/4 Inch gap  
must remain between the  
tunnel and bag pan.

## INSTALLING THE AG-BAG® BAG (CONT.)

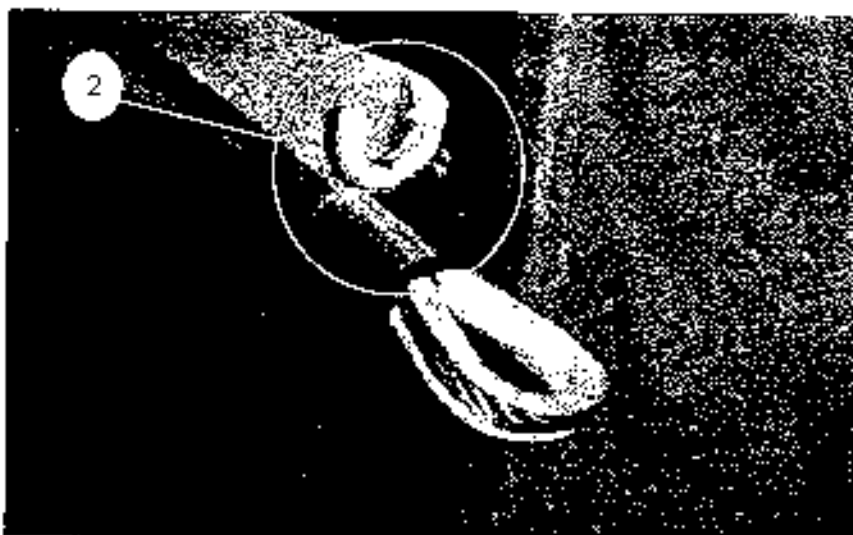
### Seal the Beginning End of the Bag



1. Pull off enough bag to apply the seal. Pull from the inside folds, not the outside folds (white on the outside, black on the inside). Make sure you pull the bag under the bag bungee cord.
2. Seal the end of the bag using either Master Seal®. Follow the instructions included with the Master Seal®, Master Seal®, tool, and sealing board are available from your Ag-Bag® Dealer.
3. **OR**, use a Double Knot Tie.  
(a) find the end of the bag;  
(b) gather the bag to the center;  
(c) twist the bag tight;  
(d) tie the bag tight. Leave enough bag to fold over and  
(e) tie a second time giving the bag an airtight seal.
4. Slide excess bag back onto the tunnel and bag pan. Position the knot knee high.



## HOOKING UP THE BACKSTOP



1. Make sure the Backstop is where you intend to start your bag then back the Ag-Bagger® up next to the backstop. The backstop should be aligned with the tunnel opening.

2. Release the brake pressure on the cable drum; using the cable rewind hand crank release some cable. Remove the backstop cables from the guides and attach the slings to the cables. Do not leave cable in guide during bagging operation.

3. Using the cable rewind hand crank, wind the cable slack back onto the cable drums.

4. Remove the backstop feet from the backstop. Do not use the backstop feet when bagging.

5. Set cable drum brake.

### NOTICE

Possibility of bag damage. Avoid leaning the backstop against the tunnel or place cardboard between the bag and backstop.

### NOTICE

Possibility of equipment damage. Remove the cables from the cable rewind guides prior to bagging.

### NOTICE




Foreign object(s) can damage stripper bar grill. Remove all objects from the hopper and conveyor before bagging.

### NOTICE

Possibility of equipment damage. Do not leave backstop feet in the backstop during bagging.


BEGIN BAGGING

**! DANGER**

**FALL HAZARD.**

Do **NOT** climb on or in. Moving parts can crush and cut. Falling into machine could result in serious injury or death. Read safety instructions in operator's manual before climbing on or into this equipment.



**! WARNING**

**ROTATING DRIVE LINE.  
KEEP AWAY.  
KEEP SHIELD IN PLACE.**

U-Joint yokes must be locked in place. Adjust tractor drawbar and implement hitch to proper dimensions. Keep tractor master shield, PTO guards, and implement guards in place.

1. Instruct all unloading personnel how to communicate with the Ag-Bagger® operator.

2. Using the Hydraulic Hand Pump, set the cable drum brake pressure. Starting pressure may vary depending on type of product and moisture levels. The average starting brake pressure setting is between 800 - 1000 psi.

3. Engage the tractor PTO. Refer to the tractor operator manual.

4. Start the Feed Table. Engage the tractor hydraulic controls or use the valve handle.

5. Place the tractor in neutral and release the tractor brakes.

6. Start unloading product onto the Feed Table.

7. Turn the inoculant applicator "on" to begin inoculating. Contact your Ag-Bag® Dealer for proper inoculant settings.

**NOTICE**



**TRACTOR TO BE IN NEUTRAL AND BRAKES OFF WHILE OPERATING BAGGER.**



### BEGIN BAGGING (CONT.)

8. Check the cable drum brake pressure.

- The stretch bars on the side of the bag must not exceed 5 ½ inches.

- Never let the bag touch the cables.

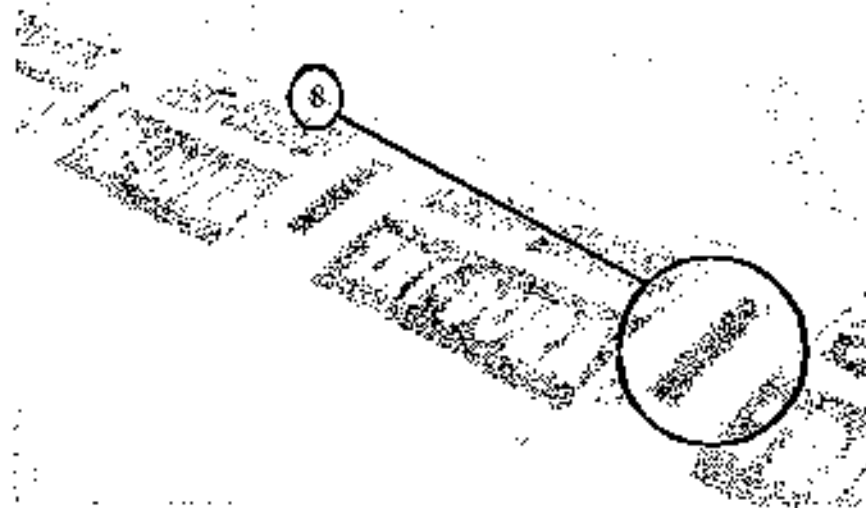
9. Stop feeding the Feed Table when:

Two or three wraps of cable remain on the cable drum

Or

- The bag is full and 10 to 12 feet of the bag is left on the tunnel, approximately 4 folds in most cases.

10. Turn "off" the inoculant applicator.



#### **NOTICE**

**Possibility of bag damage. Place cardboard between the bag and cables if contact will or has occurred.**

### TUNNEL CLEAN-OUT PREPARATION

1. Using the release valve on the Hydraulic Hand Pump slightly release the cable pressure and move the Ag-Bagger<sup>®</sup> forward about two feet. Do not allow the bag to settle on the backstop.
2. Send more product through the hopper to help loosen the packed tunnel, or use the Hydraulic Tunnel Clean Out to move the product into the bag. Open and close the Tunnel Clean Out several times to make sure all product has been moved into the bag.

### REMOVE THE BACKSTOP



1. Place at least one Backstop foot in place to stabilize the backstop before proceeding.
2. Using the release valve on the Hydraulic Hand Pump, release the cable pressure. The Ag-Bagger<sup>®</sup> may move forward after the pressure is released. Do not allow the bag to settle on the backstop.
3. Unhook the cables from the backstop and move the backstop away from the bag.
4. Place the cables into the cable rewind guides.
5. Rewind the cables. Use the hand crank or the hydraulic cable rewind. Stop the cable end a few inches from the rewind guides.

### REMOVE THE AG-BAGGER<sup>®</sup> FROM THE BAG

1. Pull the Ag-Bagger<sup>®</sup> forward. The bag will slide off the tunnel. Grab each side of the bag on the end. Walk the bag over itself pulling the product together. Bring the bag end back forward.
2. Seal the end of the bag with either MasterSeal<sup>®</sup> or double knot tie.

***"No matter what method is used when sealing the end of the bag, loose plastic should be weighted down."*** See the Bagging and the Terrain Section. (Section 5)

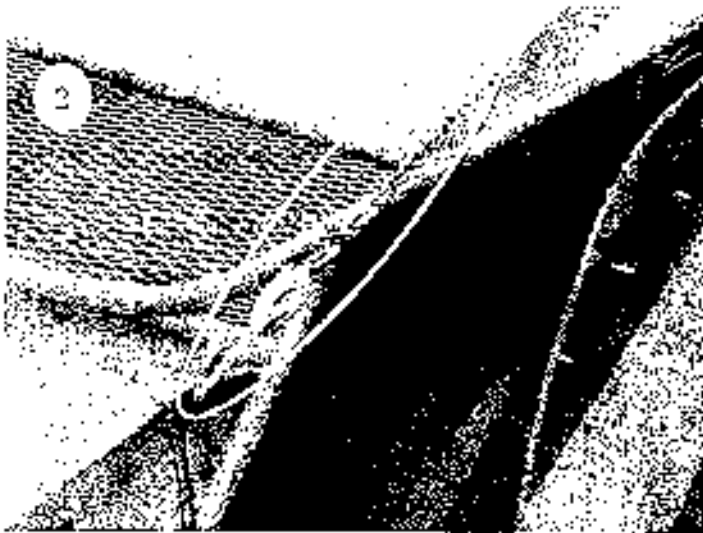
## SETUP AND OPERATING PROCEDURES

### PREPARE THE AG-BAGGER® FOR TRANSPORT



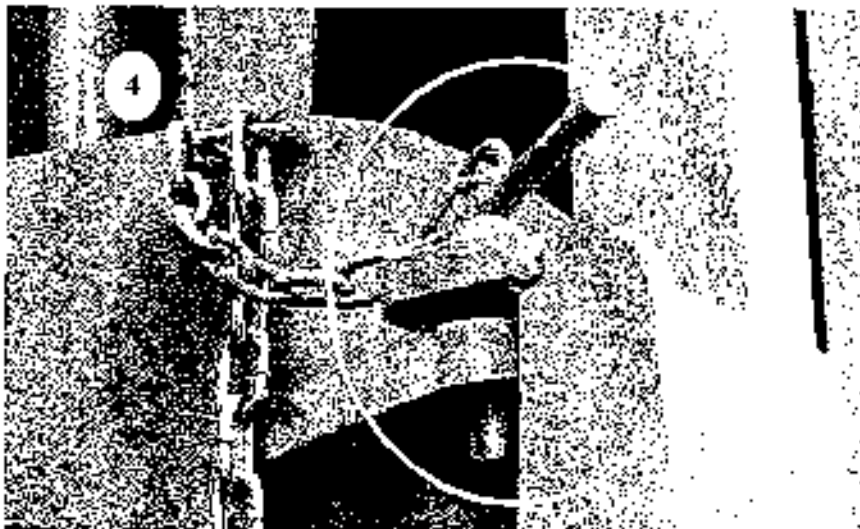
#### Feed Table Transport

1. Unlock the wings. You may find either of the locks at right.



2. Fold the wings flat onto the Feed Table then lock the wings together with the load binder.

3. Lift the Feed Table (See page 8 switch #3)



4. Lock Feed Table in the upright position.

**PREPARE THE AG-BAGGER® FOR TRANSPORT (CONT.)**

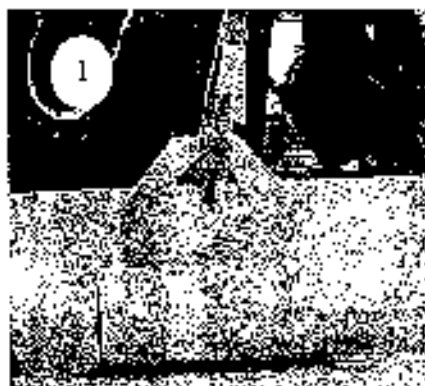
**Wheel Transport**

1. Unlock the wheels.
2. Use the procedure outlined on page # 4 to position into the transport position.
3. Lock the wheels.



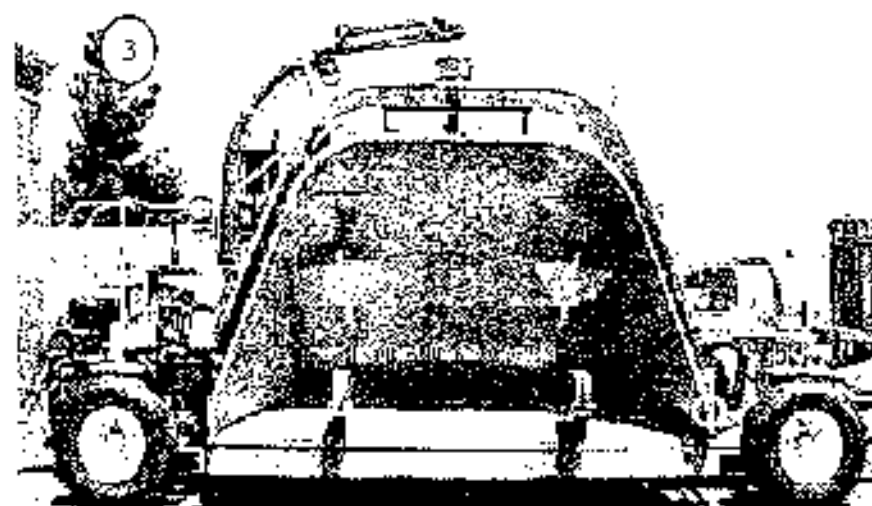
**CAUTION**

Caution - Machine damage may occur. Never attempt to turn wheel while wheel lock pin is in the locked position as indicated in picture 3.



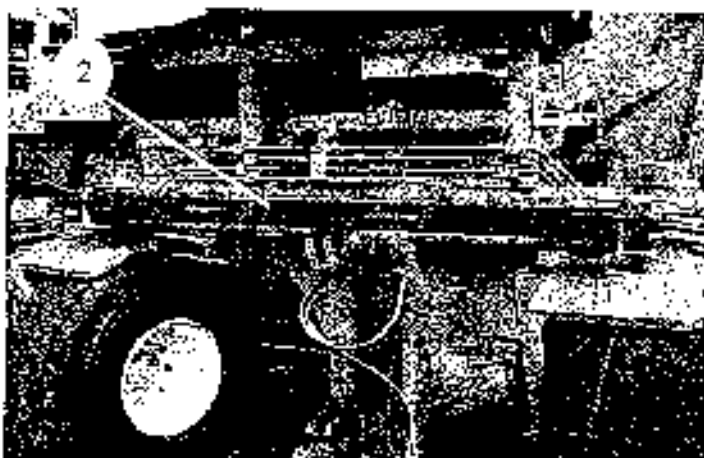
**Tunnel Extension Transport**

1. Latch bag boom hook to lifting lug at top of tunnel extension.
2. Remove the nuts and bolts, and pull extension away from tunnel.
3. Using the bag boom lift the tunnel extension and set it on top of the tunnel.
4. Insert pin into transport receiver.



**Note:** Fig. 3 is not a G7000 but is used for illustration purpose only.

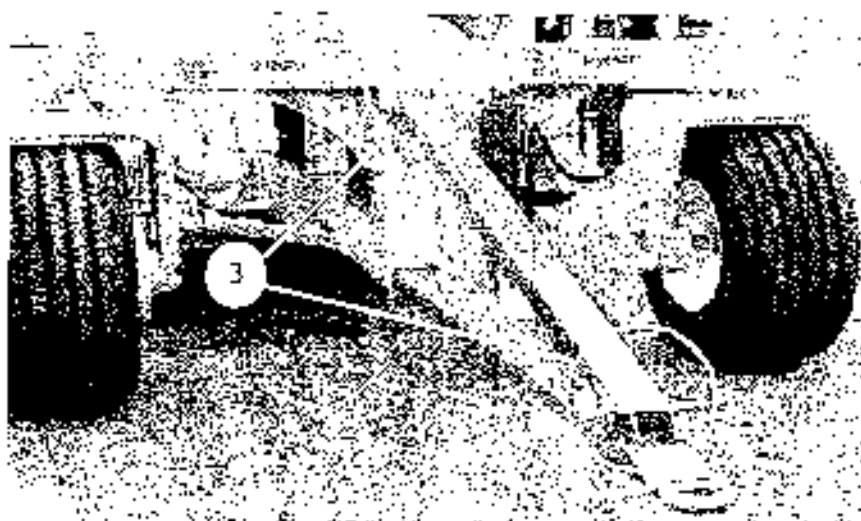
PREPARE THE AG-BAGGER® FOR TRANSPORT (CONT.)



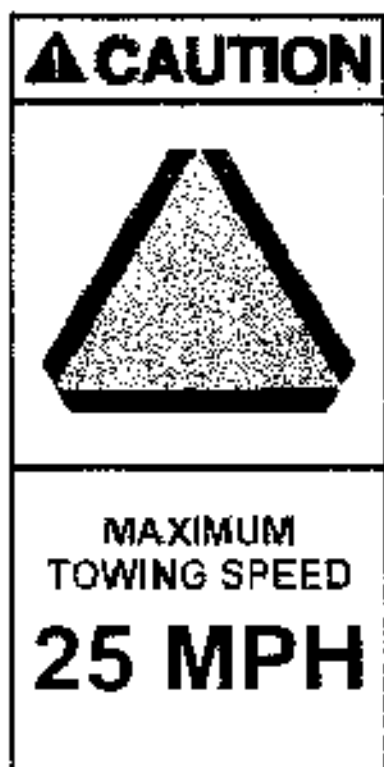
**Pintle Hitch Transport**

Use only the pintle hitch provided for towing the Ag-Bagger®

1. Remove the pin and hair pin and slide the hitch out.
2. Remove the hitch stabilizer from its storage position.
3. Place hitch stabilizer into the receiver on the hitch and insert pins to lock into position.



## TOWING THE AG-BAGGER



1. Using the lift jack raise the Ag-Bagger<sup>®</sup>
2. Lineup the towing vehicle with the pintle hitch. Make sure you use a vehicle rated to tow your Ag-Bagger.
3. Using the lift jack lower the Ag-Bagger<sup>®</sup> onto the pintle hitch.
4. It is your responsibility to know and follow all state and local laws dealing with the movement of agricultural equipment on highways.

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This section deals with placing the bag and preparing the site for best results. Also covered is keeping the correct tension on the cables for best compactions. The information contained here will help you to protect your investment in the feed you bag. It is important you familiarize yourself with the information contained here as well as the information presented in the attached Appendixes.

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### BAG GUARANTEE

We, at Ag-Bag<sup>®</sup>, can offer this unequalled guarantee because of our commitment to quality, years of experience as the leading manufacturer of silage bags, and use of the latest plastic technology. We recognize that the quality and reliability of the bagging system is dependent on a team effort between Ag-Bag<sup>®</sup> and you, the customer. Our part of the teamwork is to provide you with a top quality silage bag.

#### **AG-BAG<sup>®</sup>'S PART**

Ag-Bag<sup>®</sup> guarantees our 'Tri-Dura<sup>®</sup>' silage bags to be free of defects in workmanship and materials. If a properly packed bag should fail from a defect during normal useful life, Ag-Bag<sup>®</sup> will replace the bag without charge. If the feed in the damaged bag requires rebagging Ag-Bag<sup>®</sup> will replace the bag with the initial replacement bag discussed above plus one more bag, for a total of two bags.

#### **THE CUSTOMER PART**

Most of the factors that control the quality and reliability of the bagging system are in the customer's hands. These include choice of forage crops, harvesting, bagging location, moisture, packing, bagging machine operations, and maintenance and surveillance of bags.

Ag-Bag<sup>®</sup> will provide instruction, recommendations and suggestions about these factors but cannot and does not guarantee the outcome. It is the responsibility of the customer to seek out the best information and to make his own decisions. The customer will be responsible for the profits or loss that results from the use of these products. See Ag-Bag<sup>®</sup>' 3M's of Silage for recommendation of how to bag silage for proper techniques and guidelines.

### BAGGING SURFACE

#### **WARNING**

**Do not bag on a hillside. Tip-over or bag roll may result.**

Bag uphill rather than downhill. Avoid bagging on a hillside. The Ag-Bagger<sup>®</sup> can drift and bags may roll.

Surface conditions may affect bagging quality and ability. Soft ground conditions will act as a brake and may cause the Ag-Bagger<sup>®</sup> to sink. A hard clean and level surface is best to bag on. By clearing the area rodent problems can be eliminated.

#### **NOTICE**

**Remember, place bags in a locations that feed out can be done when you need the feed.**

### BAD WEATHER BAGS

Consider the surface conditions during the seasons when product will be removed from the bags. If you expect a lot of mud, you may want to put some bags on a solid surface. Have enough accessible bags to last until good weather conditions can be expected.

#### **NOTICE**

**Leaving loose plastic blowing in the wind may cause product loss. Secure both ends of the bag after sealing. Protect your investment.**

### PROTECT AGAINST THE WIND

Winds blowing against the plastic can cause plastic fatigue. This may create holes and allow oxygen into the bags. To prevent wind damage secure the loose ends of the bag.

- Pile old tires on the finished end of the bag after sealing.
- Do not use abrasive materials or forage products. rodents like this type of cover

### BAG SHAPE

Keep the bag away from the cables. If it appears that the cables will contact the bag, insert a piece of cardboard between the bag and the cable.

Follow the instruction included in your Ag-Bag® bag box for bag stretch guidelines.

### NOTICE

**Overstretching the bag does void the bag warranty. Follow the guidelines for bag stretch included inside the Ag-Bag® box.**

### FILLING THE BAG

Haylage and Corn silage – Apply enough cable pressure to fill bag within 2-inches of the top of the tunnel. Keep the bags stretch bars under 5-1/2 inches.

Grains – grains tend not to fill the bag to the top of the tunnel, regardless of cable pressure. Regulate cable pressure by measuring your stretch bars 30-feet back from the Ag-Bagger. Keep the stretch bars under the 5-1/2 stretch limit.

### CORRECTING BAG STRETCH

Tie heavy hex nuts to one end of a string and one hex nut to the opposite end of the string. Distance between nuts need to be:

- 19 feet 3 inches for 8 foot bags.
- 20 feet 3 inches for 9 foot bags.

The distances between nuts vary for wheatlage, rylage, and oatlage (small greens). Less cable drum brake pressure is required for those products:

- 19 feet for 8 foot bags
- 20 feet for 9 foot bags

Straddle the string over the bag 15 feet away from the Ag-Bagger.

While bagging, when the single nut touches the ground increase the cable drum brake pressure. If the nut comes off the ground more than 3 inches, reduce the cable drum pressure.

Use this procedure only as a visual aid. Remember, measuring the stretch bars on the bag and maintaining appropriate stretch dimensions is more important. Keep bag within stretch guideline mark of 5-1/2 inches.

### PRODUCT MOISTURE

Refer to the "3M's of Silage" for information on product moisture level. Moisture levels play an important part of product quality.

#### Dry Product

Dry product makes a lumpy bag. Long dry chop is hard on the Ag-Bagger<sup>®</sup>. Remember when trying to make good haylage, dry feeds have more resistance. They will pack higher in the bag, and less brake pressure is required.

#### Wet Product

Moisture levels above 70% may create excessive liquid in the hopper. This excessive liquid is "OK" unless the bag is outside the recommended shape. Slowly release brake pressure until the bag is within the recommended shape. Let the product wilt longer if liquid does not dissipate. Wet product does not rise very high in the bag. The result is a wide bag.

#### **NOTICE**

**Over stretching the bag does void the bag warranty. Follow the guidelines for bag stretch included inside the Ag-Bag<sup>®</sup> box.**

#### **NOTICE**

**Possibility of bag damage. Place cardboard between the bag and cables if contact will or has occurred.**

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This section is not intended to address all the problems that might arise during bagging. It is intended to review some of the common problems that might arise during the bagging operation. If a problem arises that is not covered here please contact your Ag-Bag<sup>®</sup> Dealer for help.

***It is important to remember to follow all safety procedures while performing any problem corrections outlined in Troubleshooting section.***

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
ROTOR STOPS ROTATING, THE PTO SHAFT CONTINUES TO OPERATE	1. Shear bolt on the PTO shaft broke.	1a. Shut off the tractor. Replace the shear bolt  1b. Check for an obstruction in the hopper causing the shear bolt to break. Disconnect the PTO shaft and remove the object from the Ag-Bagger®. Check for further damage.
BAG DAMAGE	1. Abrasive objects are contacting the bag.	1a. Adjust operation or product condition to produce a better bag shape. Consult the "3M's of Silage" for more details.  1b. Place cardboard between the object and the bag.  1c. Check tunnel and tunnel extension for sharp areas.
FEED TABLE BELT WON'T PULL FEED TO ROTOR.	1. Feed too wet and heavy.  2. Chain Binding  3. Too much buildup on belt rollers.	1. Remove some feed from belt to reduce weight.  2. Check for binding and realign sprockets  3. Clean belt roller of build up
FEED TABLE BELT NOT MOVING	1. Feed Table Belt too Loose	1. Tighten both Feed Table belt adjusters to get belt moving and then follow up with tracking adjustment.
FEED TABLE BELT NOT MOVING - BELT IS TIGHT	1. Feed is too wet and heavy and Feed Table motor is going over relief.	1. Back off wheel brakes to help move the feed to the rotor.

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
FEED TABLE BELT IS MOVING FORWARD BUT WILL NOT MOVE FEED TO ROTOR.	1. Feed too wet or too dry to move and is slipping on belt.	1. Back off wheel brakes to help move the feed to the rotor
PRODUCT BUILDS UP IN THE HOPPER	1. The hopper was filled too fast  2. Poor product condition.  3. Product not feeding into bag.	1. Slow down the amount of product to the hopper.  2. See instructions in "3M's of Silage".  3a. Check for wear on line caps.  3b. Check cable drum break pressure. Adjust as needed.
MULTIPLE POINTS OF THE BAG ARE SLIDING OUT TUNNEL	1. Bag pan does not have proper tension.  2. Tunnel bungee cord not properly installed.	1. Tie knots in the bungee cords until proper spacing is obtained (about 3/4-inch) between bag pan and tunnel floor.  2. Check bungee installation. Make sure bungee is still hooked at both ends and that all tie strings are still in place.
CABLE DRUM BRAKE(S) JUMPING	1. Water condensation or other contaminant on the disc brake(s).	1. Check the disc and caliper for any water, rust, or other contaminants. Clean contaminants from system and resume operation.

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
DISC BRAKE PRESSURE LOSS	<ol style="list-style-type: none"><li>1. Brake adjustment incorrect.</li><li>2. Brake lines leaking or blocked.</li><li>3. Brake Pads are worn.</li></ol>	<ol style="list-style-type: none"><li>1. Adjust brake pressure.</li><li>2. Replace the brake line.</li><li>3. Replace the brake pads.</li></ol>
BRAKES NOT HOLDING	Air in the brake system	Bleed off air by opening the 3/8-inch nut, on the top of the brake caliper, slightly pump one of the handles, then close to maintain pressure
BACKSTOP CLIMBS UP ON THE BAG	<ol style="list-style-type: none"><li>1. Backstop not in placed in proper position.</li><li>2. Product placement in bag.</li></ol>	<ol style="list-style-type: none"><li>1. tighten the brakos slightly. Do not loosen will make problem worse.</li><li>2. Chain a piece of heavy equipment to the frame and hold down until the bag is finished.</li></ol>
FEED TABLE BELT NOT TRACKING CORRECTLY OR HITTING THE SIDES.	<ol style="list-style-type: none"><li>1. Bagging on uneven ground, frame can twist</li><li>2. Belt tensioner adjustment off. Belt has worn over time.</li></ol>	<ol style="list-style-type: none"><li>1. None. Remember to follow recommendations in the 3M's and Bagging Instructions in this manual.</li><li>2. Adjust belt, or replace.</li></ol>
BAG SACS OUT TO CABLES AND/OR TEARS	<ol style="list-style-type: none"><li>1. Too much feed in the bag.</li><li>2. Bag rubbing against cable.</li></ol>	<ol style="list-style-type: none"><li>1. Put recommended amount of proud in the bag. See Bagging Instructions in this manual.</li><li>2. Place cardboard between cable and bag.</li></ol>



The information provided in this section of the Operator's Manual is given for general information only. It is to help you to service and maintain the Ag-Bagger®. If more information is required contact your Ag-Bagger® Dealer. By following these instructions the life of your investment will be lengthened.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

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---

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

---

**NOTICE**

It is your responsibility to read and understand not only this manual but any manuals provided with your Ag-Bagger<sup>®</sup>.

**Machine Specifications**

<b>G7009</b>	<b>G7010</b>
Width - Towing ..... 8'6"	Width - Towing ..... 8'6"
Width - Bagging ..... 16'6"	Width - Bagging ..... 16'6"
Length - Towing ..... 18'8"	Length - Towing ..... 18'8"
Feed Table Width ..... 9'10"	Feed Table Width ..... 9'10"
Feed Table Length ..... 9'8"	Feed Table Length ..... 9'8"
Max Height ..... 10'2"	Max Height ..... 10'2"
Weight ..... 9500#	Weight ..... 9700#
Rotor Length ..... 8'5"	Rotor Length ..... 8'5"
Rotor Teeth ..... 100	Rotor Teeth ..... 100
Max Bag Length ..... 250'	Max Bag Length ..... 250'
Min HP ..... 80	Min HP ..... 80
Max HP ..... 100 - 150	Max HP ..... 100 - 150
Cable Length ..... 250'	Cable Length ..... 250'

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

---

### **Lubricant Specifications**

Parts	Lubricants
Gearbox	EP 80/90 gear oil
Bearings, Shafts Slides	Grade #2 lithium complex EP grease
Hydraulic System	Grade 46 ISO
Hand Pump	Hydraulic Jack Oil
Planetary	SHC 85 140
Chain	See oil chart

### **Chain Oil Specifications**

Apply the proper weight oil according to surrounding temperature.

Temperature Degree F	Recommended Lubricants
-20 - +20	SAE 10
20 - 40	SAE 20
40 - 100	SAE 30
100 - 120	SAE 40
120 - 140	SAE 50

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**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

---



## Bolt Specifications



Not Graded



Grade 5



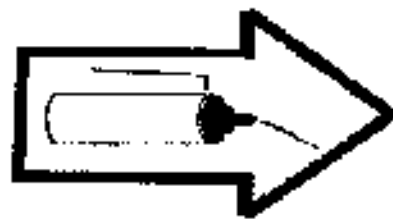
Grade 8

Bolt Grade	Use - Torque
Not Graded	Used for shields and covers. Self tapping. No Torque Specs
Grade 5	Used for most applications. No Torque Specs
Grade 8	Used on brake calipers only. No Torque Specs

## Tire Specifications

Tire Size	Pressure - Torque
385/65 R 19	Pressure Cold: 110 lbs Torque: 90 - 100 ft lbs

## Grease Gun Decal



This decal is placed at most lube fittings showing their location.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## General Maintenance Schedule

<b>Group / Feature</b>	<b>Intervals</b>	<b>Luba Type</b>	<b>Points</b>
<b>Wheels</b>			
Wheel Column Post	Weekly	See Chart	8
Wheel Lock Pin	Weekly	See Chart	1
Lug Nuts	Daily 100 ft lb	n/a	32
<b>Rotor</b>			
Idle Bearing	Daily	See Chart	1
Top Beater Bar Drive Bearing	Daily	See Chart	1
Top Beater Bar Idle Bearing	Daily	See Chart	1
Bottom Beater Bar Idle Bearing	Daily	See Chart	1
Beater Bar Chain Oil	Daily	See Chart	1
Planetary Fluid Level	Daily	See Chart	1
<b>Bag Boom</b>			
Base Bearings (spindle)	Annually	See Chart	3
<b>Feed Table</b>			
Wheel Hub	Daily	See Chart	2
Drive Roller Bearing - Drive Side	Daily	See Chart	1
Drive Roller Bearing - Idle Side	Daily	See Chart	1
Idle Roller Bearings	Daily	See Chart	2
Drive Chain	Daily	See Chart	1
Mounting Shafts	Weekly	See Chart	2
<b>Hydraulics</b>			
Hydraulic Oil Level	Daily	See Chart	1
Hose and Fitting Leaks	Daily	n/a	ref
Change Hydraulic Oil - Clean Tank	Annually	See Chart	1
Replace Return Filter	After 2 Weeks Then Every 3 Months	n/a	1
<b>Operator Platform</b>			
Ladder	Annually	See Chart	2
Deck	Annually	See Chart	12

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Cable Drum Disc Brake(s)

### NOTICE

Worn brakes can damage the cable drums. Replace worn brake pads

Keep the shields in place at all times. Keep the brake(s) clean and dry for correct operations.

1 Remove the shield and inspect the brake disc and pads. Replace brake pads if only a 1/8" remains. Brake pads may wear out over time.

2 Remove any contaminants from the brake disc contact surface

3 Replace all shields prior to operating the Ag-Bagger®.

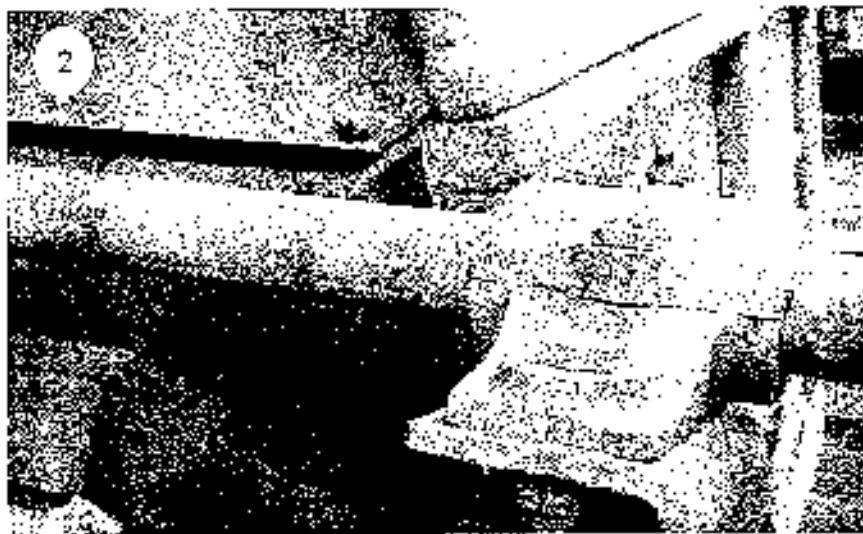


**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Cable Drum Shaft Bearing Lubrication



Four bearings are located along the cable drum shaft. One bearing is located on each side of the cable drum (1) is located on the outside of the drum at both ends, and (2) is located on the inside of the drum.

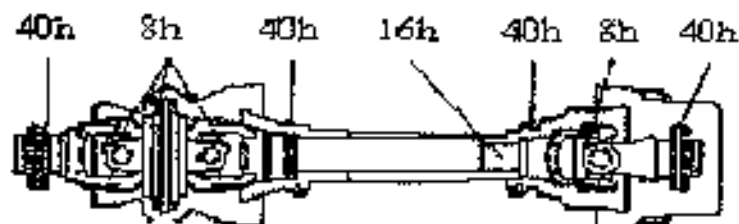


Using the recommended grease from the lubricant table grease each bearing every three bags.

Be sure to wipe away excess grease when completed

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## PTO Shaft Service

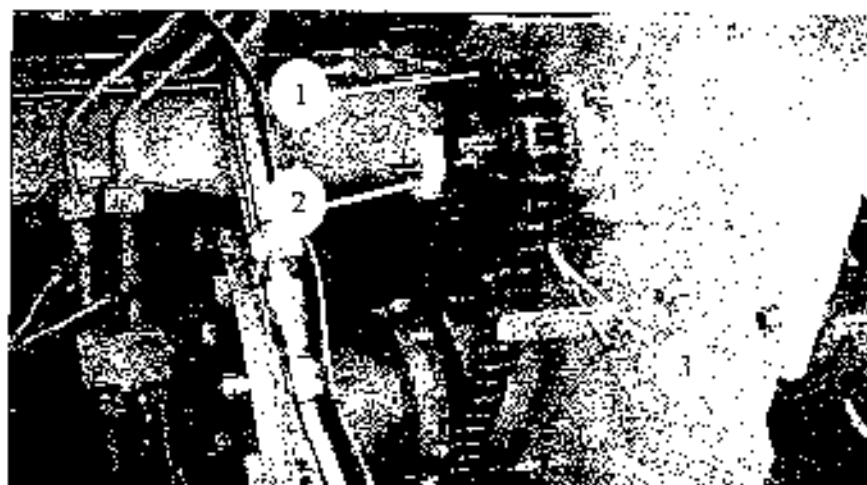


Safety shields will have to be removed before this service can be performed. See the illustration for lubrication schedule. Example 8h = every 8 hours. Turn the tractor off and remove the key before performing maintenance or contacting the PTO shaft.

Refer to the PTO shaft book supplied with the PTO shaft.

Remember to replace all shields before restarting the operation.

## Beater Bar Chain Tension



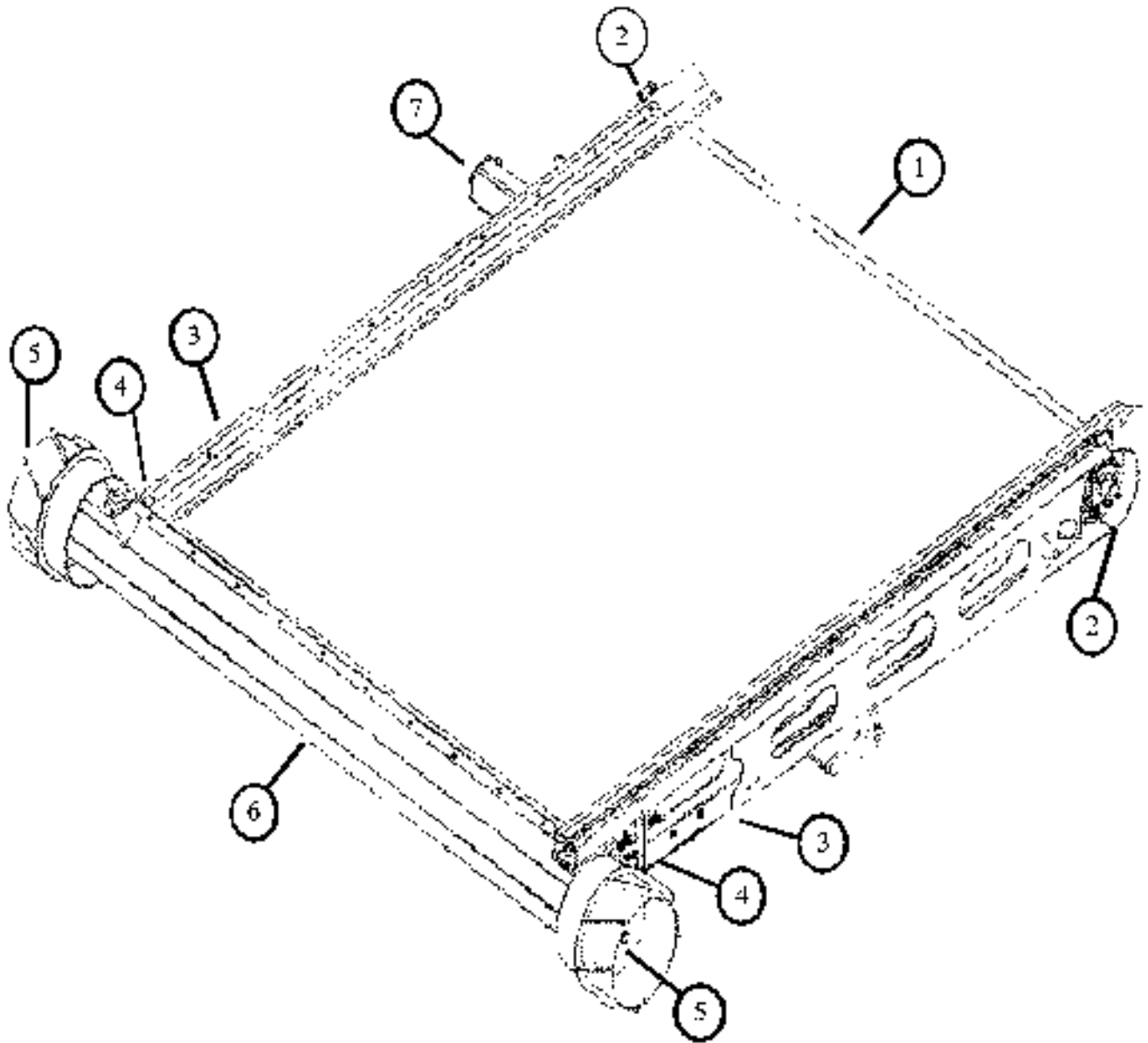
### Beater Bar Chain Tension

1. Beater Bar Chain
2. Chain Tensioner
3. Chain Tensioner Spring

There is no adjustment needed for this chain, the tensioning spring maintains a constant pressure on the chain. Lubricate the chain according to the schedule in this manual.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

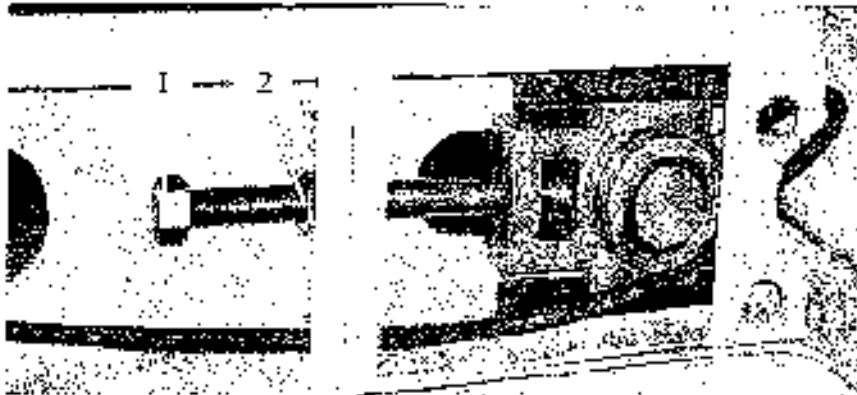
## Feed Table Adjustment



1. Head Roller
2. Head Roller Adjustment - Dealer Only
3. Grease Points
4. Belt Adjuster Points
5. Feed Table Wheel Bearings
6. Tail Roller
7. Feed Table Motor

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Feed Table Adjustment (cont.)



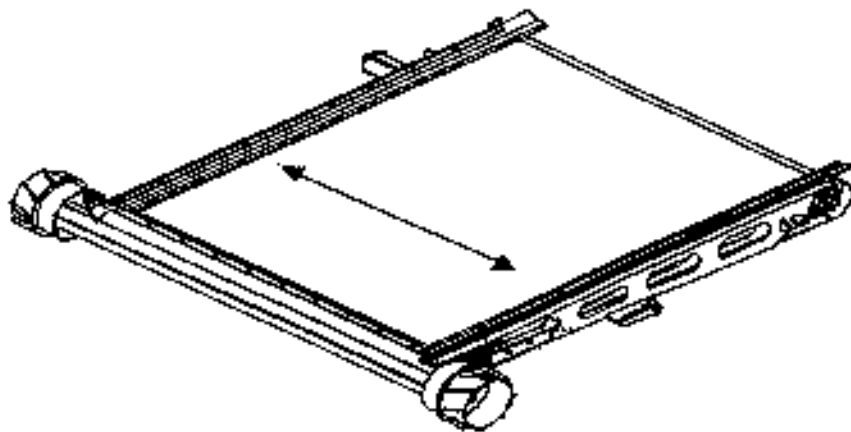
### Adjust Feed Table Belt

1. Adjustment Bolt
2. Adjustment Lock Nut

To adjust belt:

- Tighten adjustment bolt to push belt away for the side you have tightened.

- Loosen the bolt to bring belt to the side you have loosened.

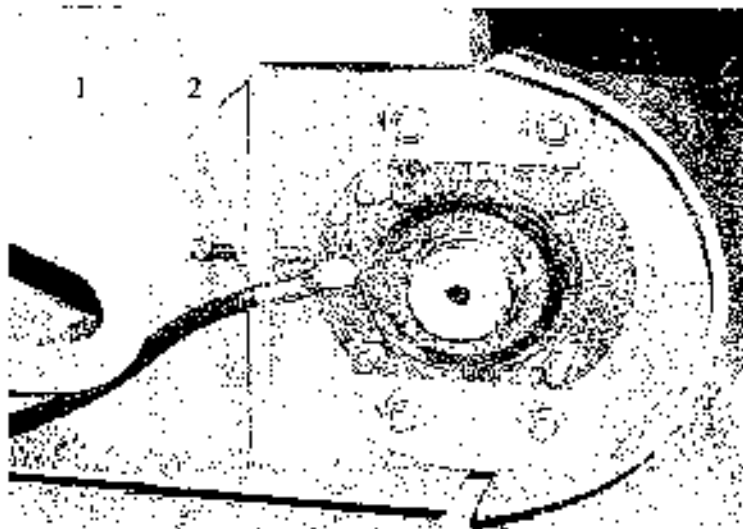


### CAUTION

Do not over tighten belt, this may result in premature wear of bearings.

### Feed Table Head Roller

1. Head Roller Adjustment Bolt
2. Head Roller Adjustment Lock nut

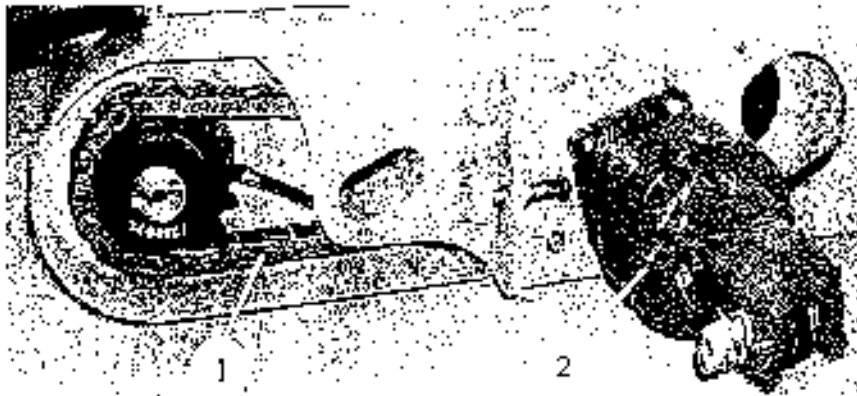


### NOTICE

Only trained Dealer should make this adjustment. Head Roller should never need adjusting.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

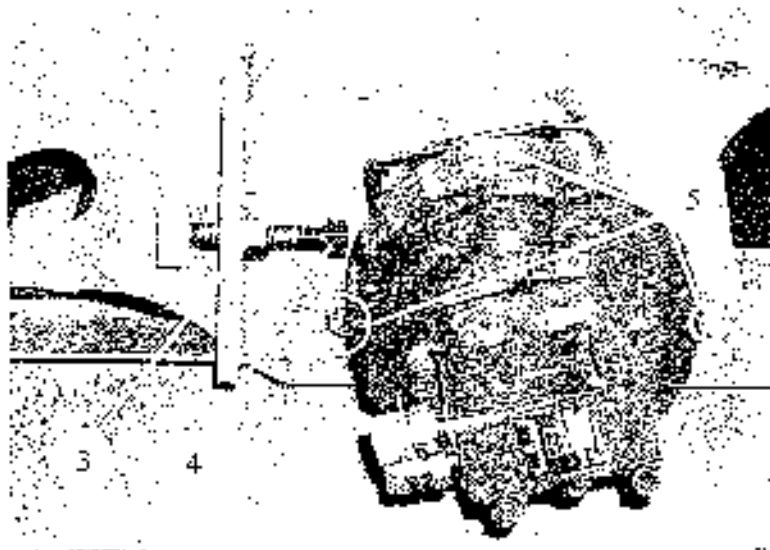
## Feed Table Adjustment (cont.)



### Drive Chain Adjustment

1. Drive Chain
  2. Feed Table Drive Motor
- Motor
3. Adjustment Lock Nut
  4. Adjustment Bolt
  5. Mounting Plate Bolts

Lubricate Chain Daily.  
See Oil Specification in this manual.



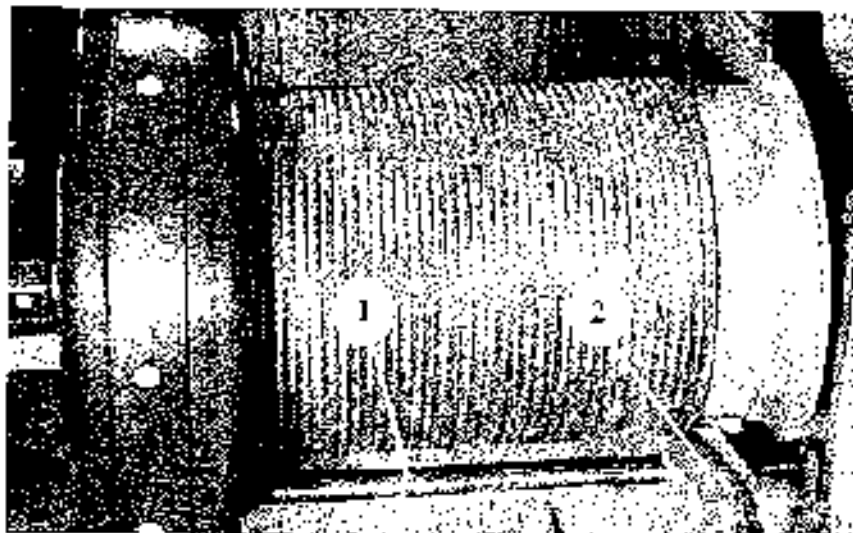
To adjust chain loosen the four mounting plate bolts (5) holding the mounting plate. Loosen the adjustment lock nut (3). Using the adjustment bolt (4) tighten or loosen the chain. There should be NO deflection in this chain. When you have finished adjusting chain tighten the adjustment lock nut (3) and then the four mounting plate bolts (5).

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**



### Cable Rewind Guide Shaft

Used to allow the Cable Rewind Guide to move freely back and forth during the rewinding of the cable, this shaft should be evenly greased, as needed, to allow the guide to move smoothly. Parts involved are (1) Cable Rewind Shaft and (2) Cable Rewind Guide.



### Cables

The 7000 series Ag-Bagger<sup>®</sup> is outfitted with 7/16" cables. The cables on your bagger are 250'. The cables are single wrapped on the drum for added safety and increased life. Although cables do not require much servicing they should be checked regularly for the following:

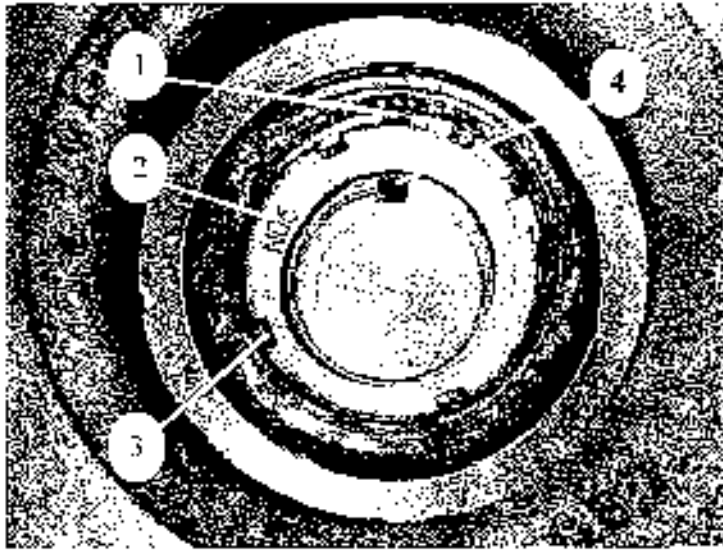
- Jiggers
- Kinks
- Cable has not begun to pull out of sleeve.

Replace damaged and weak cables prior to bagging. Apply a thin coat of grease or oil to cables prior to storage.

Remember, the cables should be removed from the cable guides during bagging, and placed back into the cable guides before starting to rewind the cables when finished bagging. Always wear protective gloves when handling the cables.

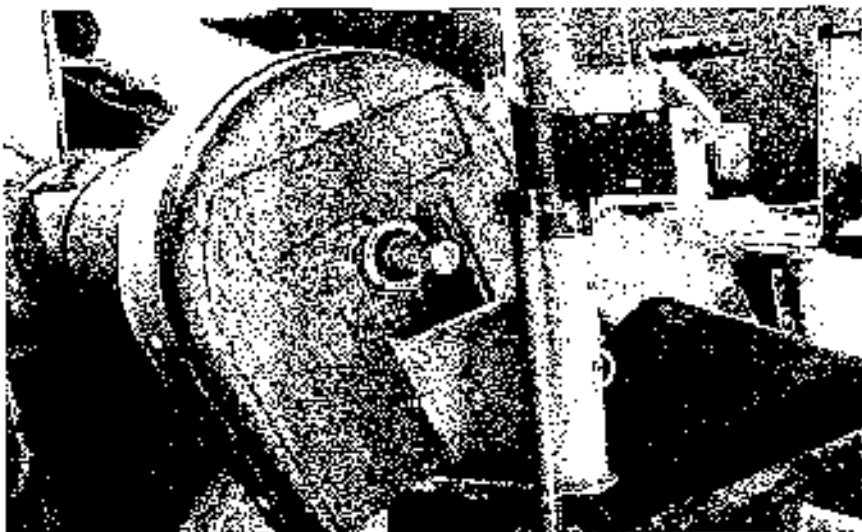
**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Wheel Bearings



The Ag-Bagger<sup>®</sup> is equipped with roller bearings both inner and outer. Assure that when you pack the bearings, that you pack both bearings. Also inspect the inner and outer seals to make sure they are in good condition. Replace any and all parts as needed. This procedure should be done annually or more often if you are doing a large amount of highway travel. The bearing is held in place by a star lock washer (1) and a spindle lock nut (2). Make sure the cog on the lock washer is in the keyway when it is replaced, also insure that at least one of the stars (3) has been bent in to the slots (4) provided on the lock nut.

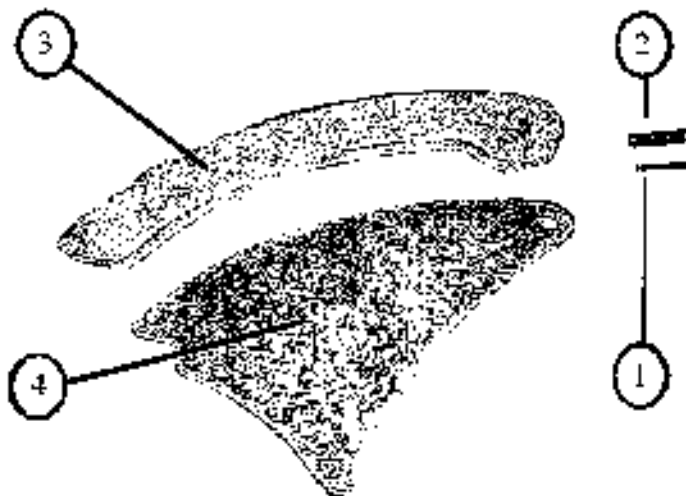
## Bag Boom Lubrication



In order to insure the ease of operation you should grease the zerks located on the bag boom socket 2 to 3 times per season.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Tine Cap Replacement



1. 3/16 x 1 Spring Pin  
2. 5/16 x 1 Spring Pin

3. Tine Cap  
4. Rotor Tooth

### Tine Cap Replacement

The tine cap can be replaced on the rotor while in the machine.

A. Remove spring pins (1) and (2) from the cap (3) and tooth (4).

B. Slide the tine cap (3) from the tooth (4).

C. Slide the new tine cap (3) onto the tooth (4).

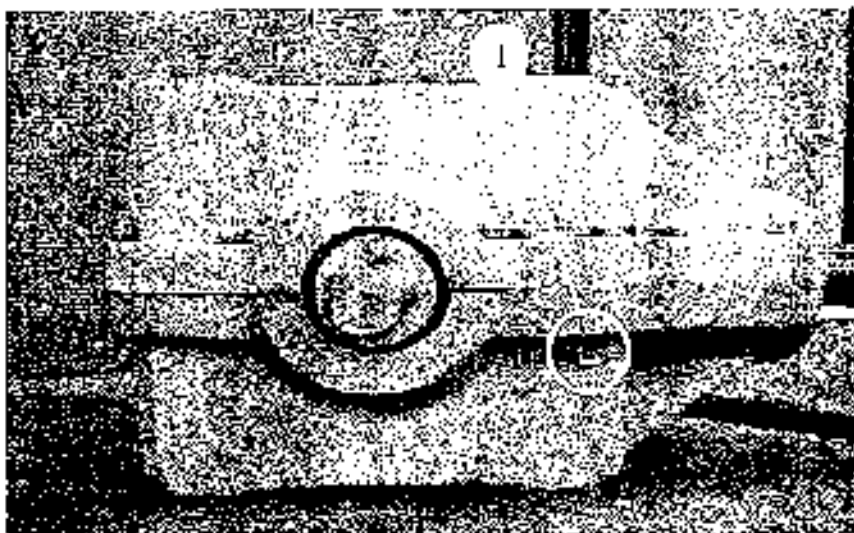
D. Install the spring pin (2) through the hole in the tine (3) and tooth (4).

E. Install the spring pin (1) into spring pin (2).

F. Check the ends of the spring pins to make sure they are flush with the tine.

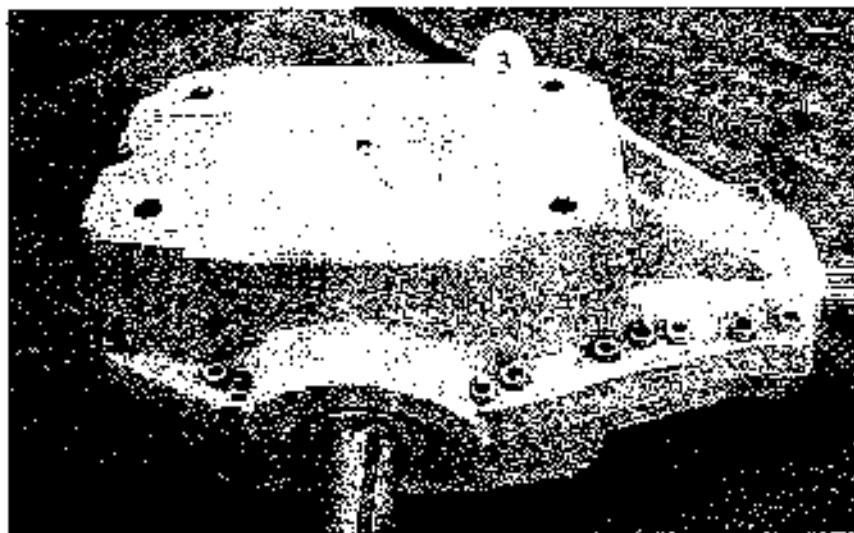
**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Gearbox



Use only lubricant recommended in the Lubricants Type table in this manual.

1 Check the oil level in the gearbox. Remove the star plug located on the lower left side of the gearbox. If oil is needed use only oil recommended in the Lubricant Types table, fill until oil starts to seep out of the plug hole. Replace the star plug and tighten until snug.



2 Change the gearbox oil at least once every twelve months or 1,000 hours. Remove the star plug located on the bottom of the gearbox, when finished replace plug and tighten until snug. Make sure to change the oil after each season to remove moisture and corrosive contaminants.

3 Your Ag-Bagger® will come with a pressure relief plug on top of the gearbox, make sure the plug and the area surrounding it are kept clear and free of debris. Slight over flow may occur as heat develops during operation.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

## Prepare the Ag-Bagger® for Storage

- Remove any product or acidic juices which will cause corrosion
- Clean out the inoculant applicator.
- Immediately after washing and prior to storage, grease and lubricate all moving parts on the Ag-Bagger®. Use only oils and lubricants recommended in the Lubricant Types table in this manual.
- Remove the rotor chain guard and take the rotor chain off the sprocket. Soak the chain in diesel to clean it. When clean soak in oil to lubricate the rollers. Check the sprockets for signs of wear.
- Drain the gearbox and refill with new oil. Use only oil recommended in the Lubricant Types table in this manual.
- Check for wear on the rotor tooth tine caps. Replace if worn down and pointy, also replace if there is more than 1/8" spacing between the tine caps and the stripper bars.
- Remove all bungee cords and store them out of the weather. Secure the bag pan with a rope or wire.
- Place the hand pump lever in a position to keep the shaft from rusting.

**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

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**STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.**

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# Parts Manual



The parts manual is organized into groups, it is designed to make the locating of parts easier. The exploded drawings also show assembly paths. All parts listed are available from your authorized Ag-Bag® Dealer.

## G7000

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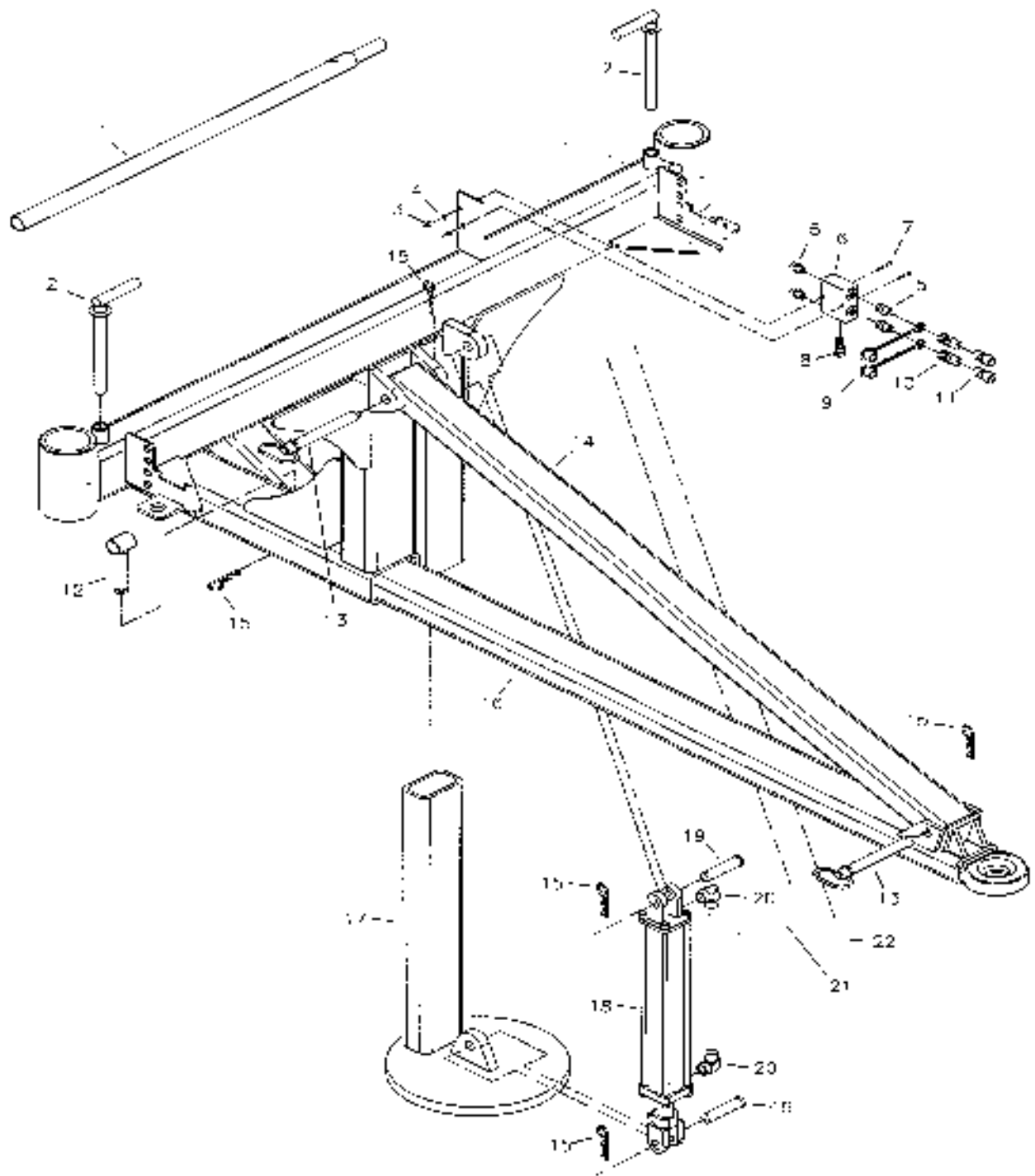


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# PARTS MANUAL

## Towing System

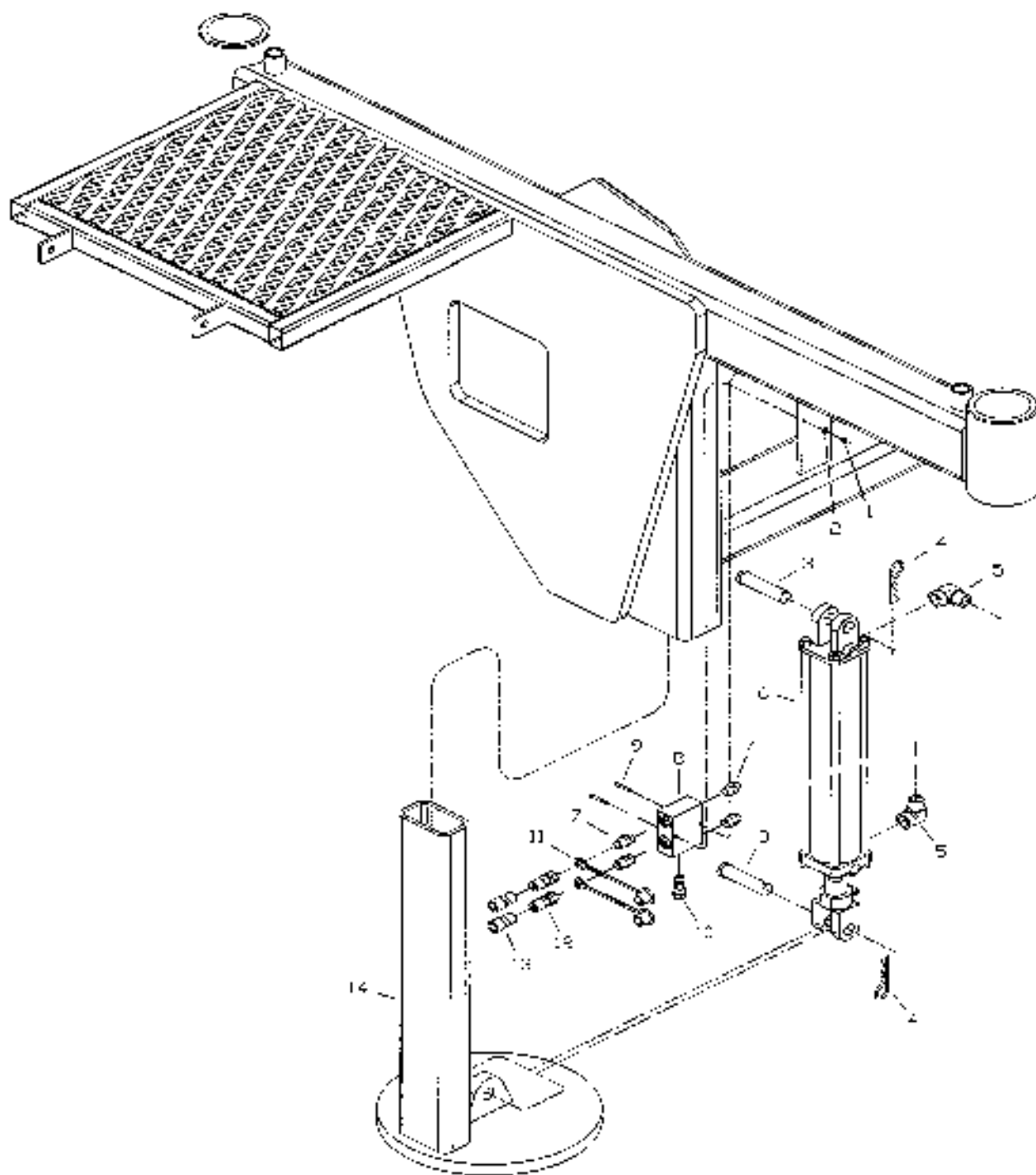


## PARTS MANUAL

### Towing System - Parts List

Item#	Part#	Description	Qty.	Remarks
1	1120011	Bar, Wheel Turn	1	
2	1010035	Lock, Manual Steering Wheel	2	
3	Ref.	Nut, Hex	2	1/4-20
4	Ref.	Washer, Flat	2	1/4
5	Ref.	Coupler, Hydraulic	4	
6	1212008	Manifold, Cylinder Check Valve		
7	Ref.	Capscrew, Hex	2	1/4-20nc x 2-1/2
8	1541795	Valve, PO Check	1	
9	1501094	Cap, Plastic Female Pioneer	2	
10	1540369	Cylinder, Hydraulic	2	3 x 18
11	1540115	Coupler, quick Female	2	1/2 NPTF
12	1120046	Pin, Pintle Hitch	1	1-1/4 x 5-1/4
13	1550170	Pin, Hitch	2	1 x 8
14	Ref.	Brace, Pintle Hitch	1	
15	Ref.	Pin, Hair	5	
16	Ref.	Hitch Pintle	1	
17	Ref.	Jack Base, Two End	1	
18	1541342	Cylinder, Hydraulic	1	3 x 18
19	Ref.	Pin, Clevis	2	
20	1100081	Fitting, Assembly C5405 x 8 x 8 - 7238 x 6.055	2	
21	Ref.	Hose Assembly, Jack Long	1	
22	Ref.	Hose Assembly, Jack Short	1	

Lift Jack Cab End

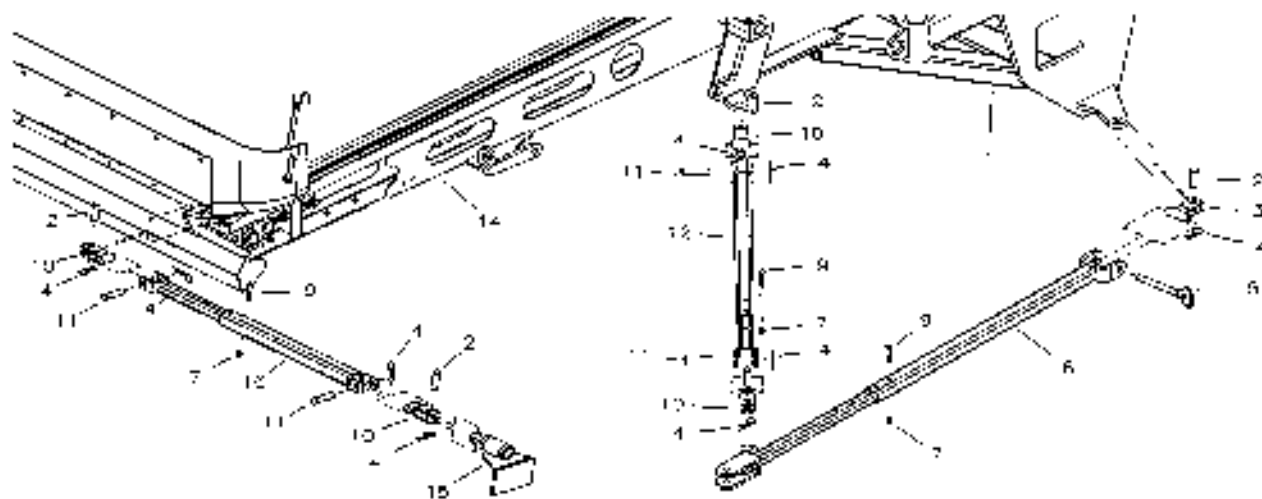


## PARTS MANUAL

### Lift Jack Cab End - Parts List

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Nut, Hex	2	1/4-20
2	Ref.	Washer, Flat	2	1/4
3	Ref.	Pin, Clevis	2	
4	Ref.	Pin, Hair	5	
5	1100081	Fitting Assembly C5405 x 8 x 8 - 7238 x 6.055	2	
6	1541342	Cylinder, Hydraulic	1	3 x 18
7	Ref.	Coupler, Hydraulic	4	
8	1212008	Manifold, Cylinder Check Valve	1	
9	Ref.	Capscrew, Hex	2	1/4-20nc x 2-1/2
10	1541795	Valve, PO Check	1	
11	1501094	Cap, Plastic Female Pioneer	2	
12	1540369	Fitting, Hydraulic	2	9100 x 8 x 8
13	1540115	Coupler, quick Female	2	1/2 NPTF
14	1212016	Jack Base, Hydraulic	1	Platform End

Bagging Hitch

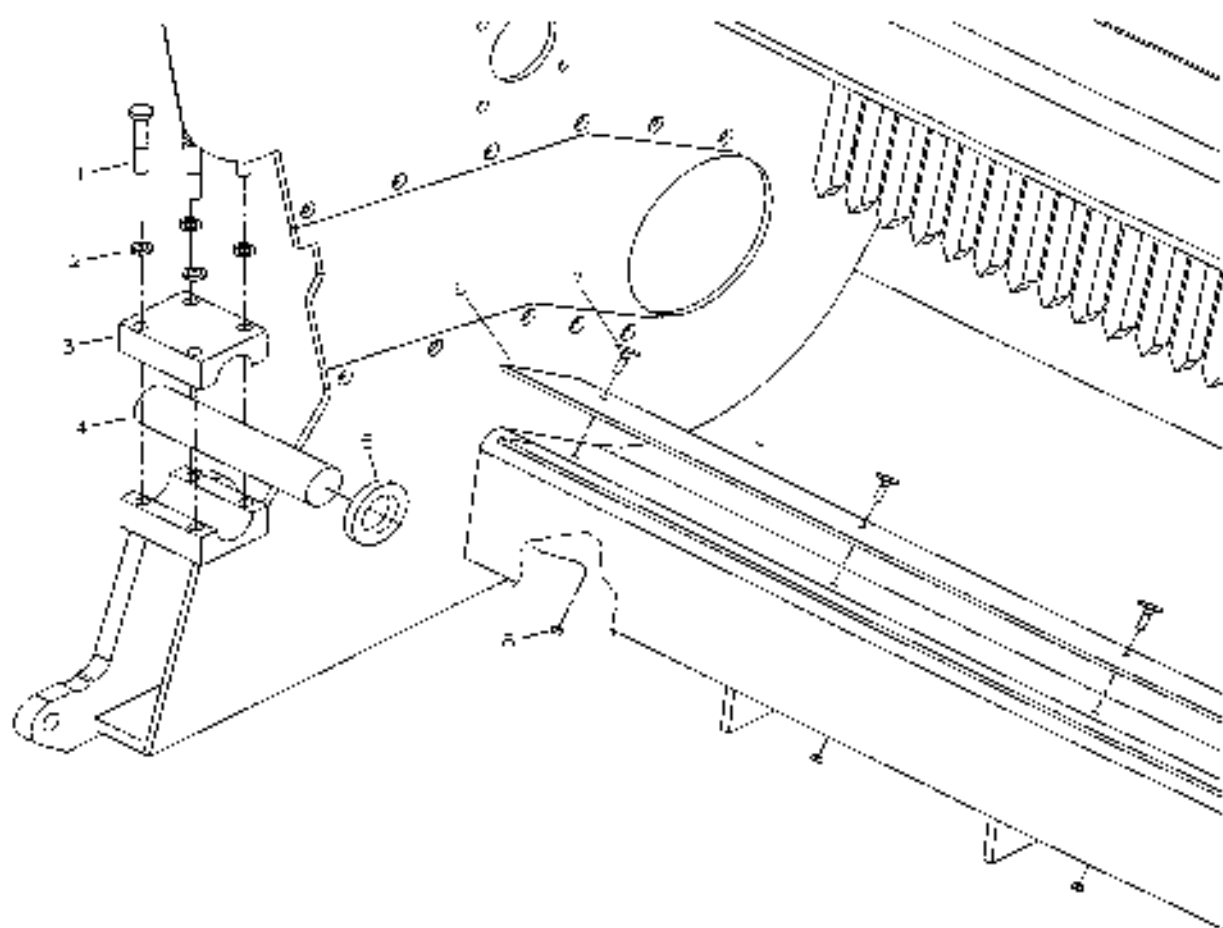


## PARTS MANUAL

### Bagging Hitch - Parts List

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Frame	1	
2	1550156	Pin, Clevis	5	1 x 3-1/4
3	1110001	Clevis, Tow Hitch	1	
4	1550168	Pin, Hair	9	
5	1550170	Pin, Hitch	2	
6	1110004	Hitch, tow	1	
7	1550126	Nut, Hex	3	1/2-13nc Lock
8	N/A			
9	1550022	Capscrew, Hex	3	1/2-13nc x 3
10	1110002	Clevis, Side Hitch	1	
11	1550158	Pin, Clevis	4	1 x 4
12	7011002	Hitch, Side	1	
14	Ref.	Feed Table	1	
15	1080005	Bracket, Feed Table Tractor Mount	1	
16	7011000	Hitch, Feed Table Side	1	

Hopper - Feed Table Mount



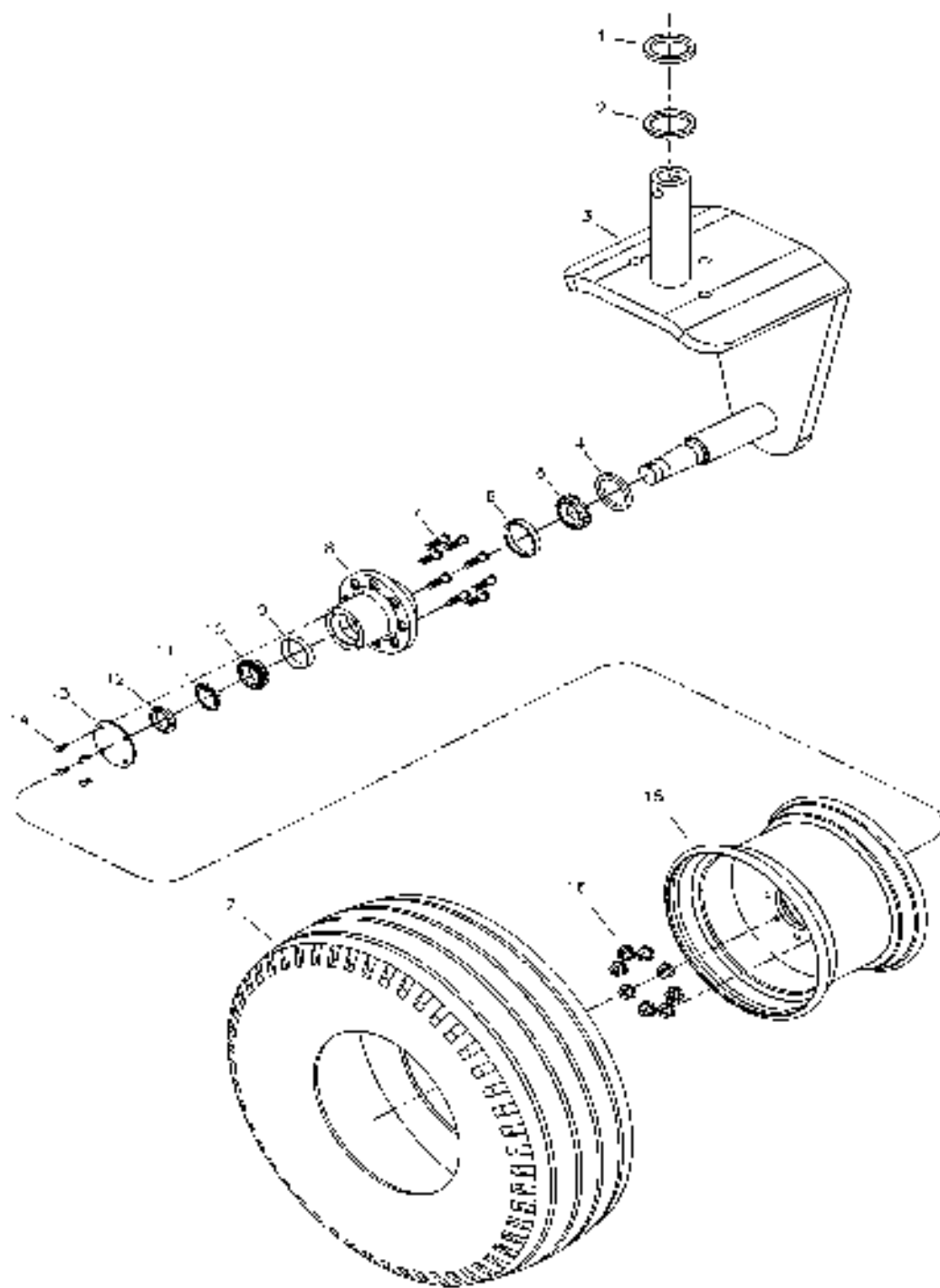


## PARTS MANUAL

### *Hopper Feed Table Mount - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	ref.	Capscrew, Hex	8	5/8-11nc x 3
2	ref.	Washer, Lock	8	5/8
3	ref.	Anchor Block, Feed Table mounting shaft	2	
4	1080048	Shaft, Feed Table mounting	2	
5	1120449	Spacer, Feed Table	2	
6	ref.	Liner, UHMW	1	
7	ref.	Capscrew, counter sunk elevator	8	5/16-18nc x 1-1/4 flat
8	ref.	Nut, Hex	11	5/16-18nc lock

Wheel

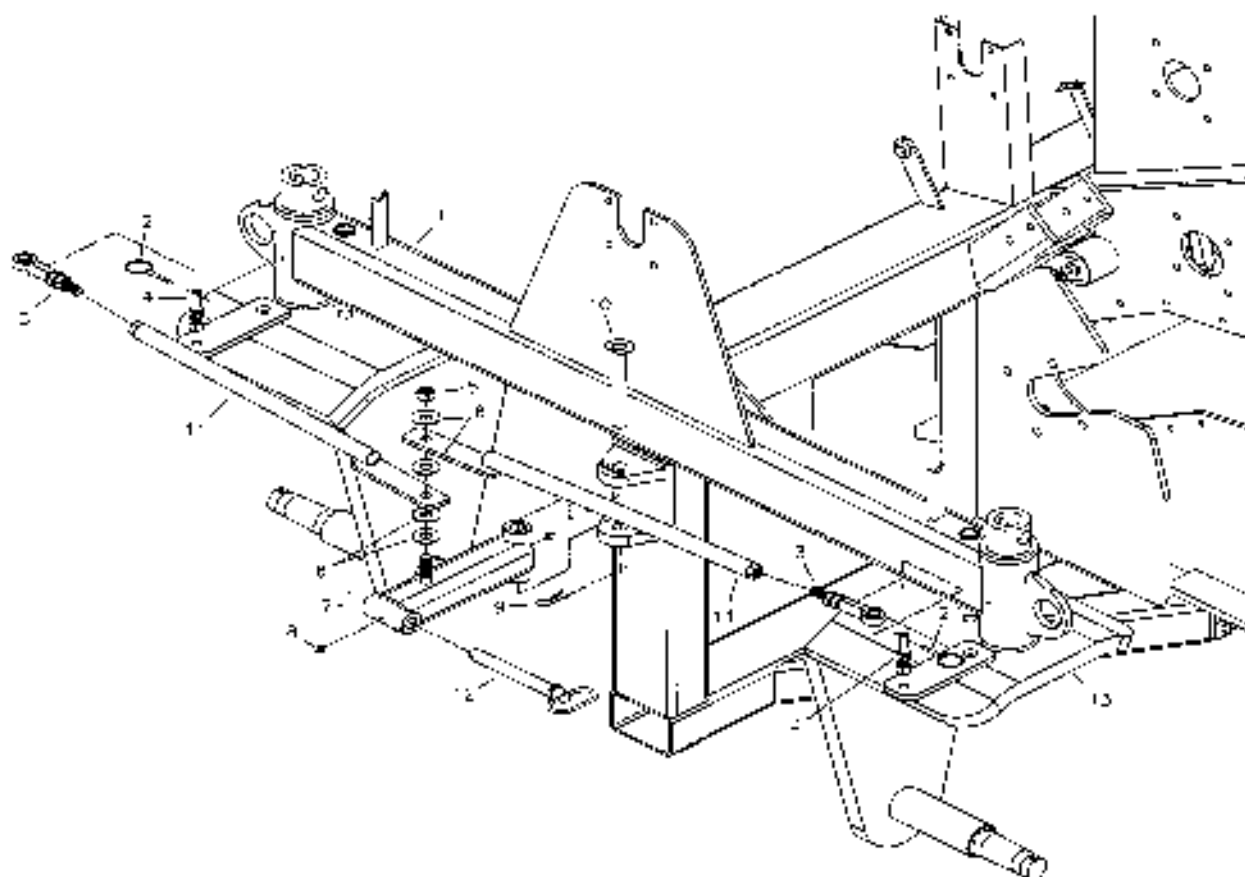


## PARTS MANUAL

### Wheel - Parts List

Item#	Part#	Description	Qty.	Remarks
1	1010049	Ring, Wheel Column Retaining	1	4
2	1010050	Spacer, Wheel Column Bronze	1	4 ID
3	7001022	Wheel Column Weldment	1	20-1/2 Drive
4	1500367	Seal, Oil	1	417159
5	1510087	Bearing, Roller Cone	1	
6	1510131	Bearing, Roller Cup	1	
7	1550295	Stud, 9/16 x 2 15/16	8	NAPA 641-3223
8	1010076	Hub, Wheel 8000 Welded	1	
9	1510225	Bearing, Roller Cup	1	
10	1510092	Bearing, Roller Cone	1	
11	1550230	Washer, Lock	1	External Tooth W10
12	1550138	Nut, Lock	1	W10
13	1010012	Cover, Wheel Hub	1	
14	1550064	Cable Drum, Inboard Brake	1	250-foot
15	1501494	Rim, 19.5 x 12.25 Idle	1	8-hole
16	1550142	Nut, Lug	8	9/16
17	1501493	Tire, 385/65 R19.5	1	
Ref.	1501528	Stem, Valve	1	502
Ref.	1501526	Tire, W/Rim 385/65R 19.5	1	
Ref.	1010035	Lock, Manual Steering Wheel	1	
Ref.	1120011	Bar, Wheel Turn	1	

Steering

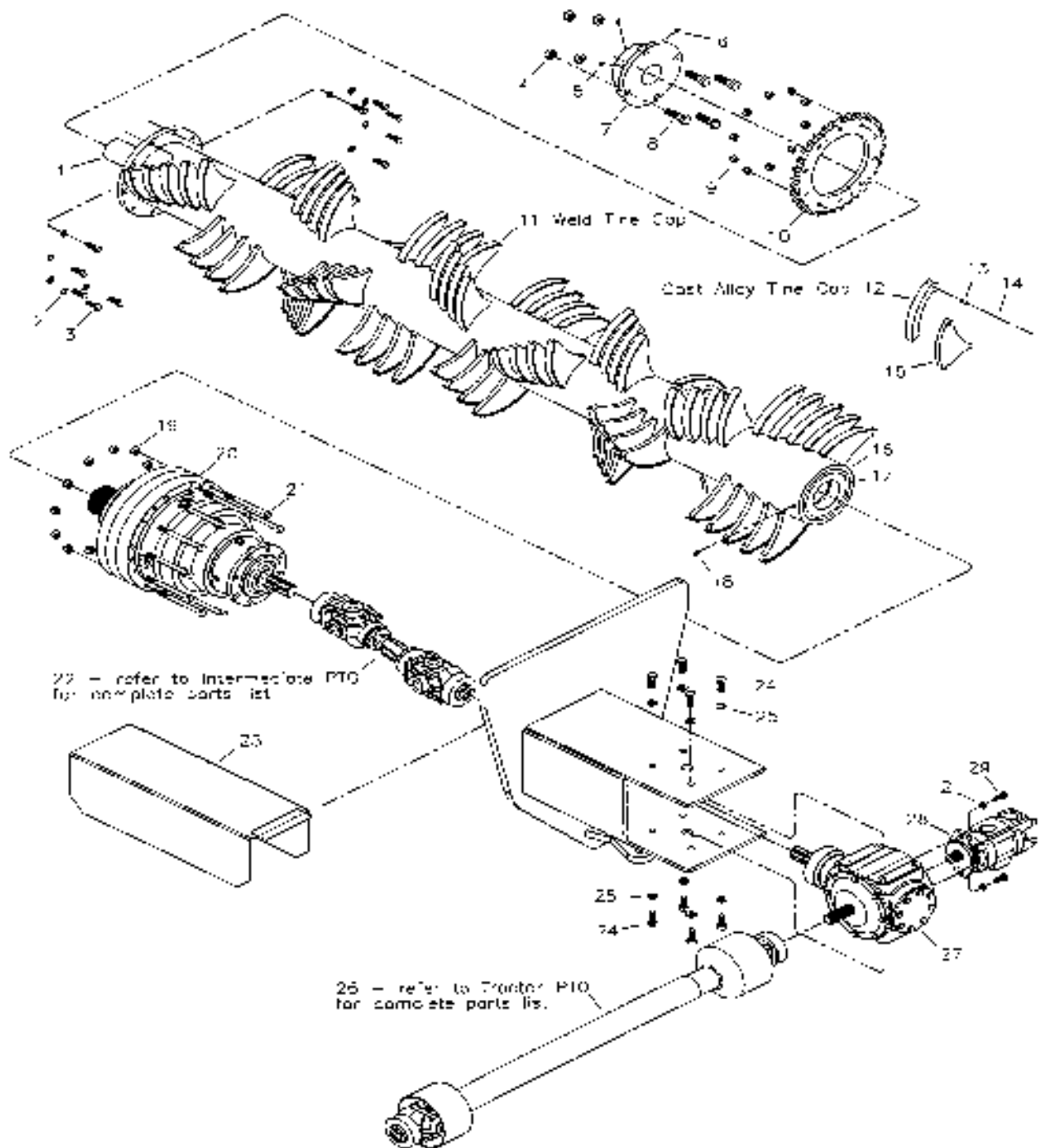


## PARTS MANUAL

### Steering - Parts List

Item#	Part#	Description	Qty.	Remarks
1	Ref	Frame	1	
2	1550184	Pin, Snap	2	
3	1010024	Rod, End	2	
4	1550186	Pin, Lift Arm Adjustable	2	5/8
5	Ref.	Nut, Hex	1	3/4-10nc lock
6	Ref.	Washer	ref	flat
ref	1120059	Spacer, Steering	ref	
7	1110005	Pivot Arm, Steering Hitch Mount	1	
8	Ref.	Fitting, Grease Zerk	1	1/4-28nf
9	1550169	Pin, Hair	1	5/32 x 2-15/16
10	1120047	Pin, Steering Hitch	1	1 x 8
11	1110000	Arm, Steering	2	
12	1550170	Pin, Hitch	1	1 x 8
13	7001021	Wheel Column Weldment	ref	
ref	1120011	Bar, Wheel Turning	1	
ref	1010036	Lock, Manual Steering Wheel	ref	

Rotor Group

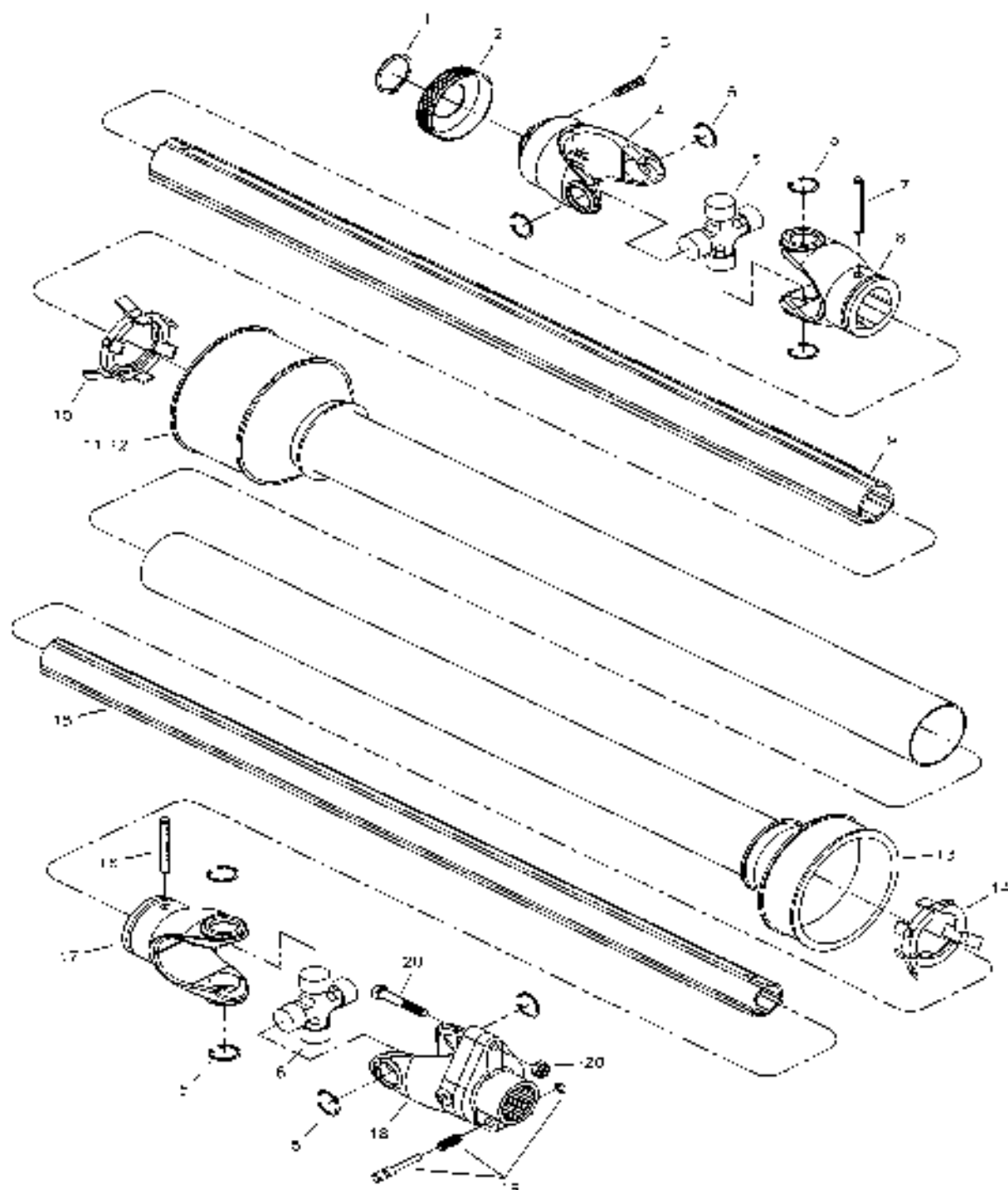


## PARTS MANUAL

### Rotor Group - Parts List

Item#	Part#	Description	Qty.	Remarks
1	6002008	Stub Shaft, Rotor Idie	1	2-15/16 x 15
2	ref.	Washer, Split Lock	ref	1/2
3	ref.	Capscrew, Hex	10	1/2-13nc x 1-1/2
4	ref.	Nut, Hex	4	1/2-13nc lock
5	1541638	Fitting, Grease 1610-BL	1	
6	1550335	Screw, Set	2	
7	1510025	Bearing, 4-Bolt Flange Spherical	1	
8	ref.	Capscrew, Hex	4	3/4-10nc x 2-1/2
9	ref.	Nut, Hex	10	1/2-13nc lock
10	1120495	Sprocket, Beater Bar Drive	1	Rotor 100A35
11	1020001	Cap, Tine	100	1 x 3/16 x 8-13/17
12	1020021	Cap, Tine Removable Cast	100	
13	ref.	Pin, Slotted Spring	100	3/8 x 1
14	ref.	Pin, Slotted Spring	100	5/16 x 1
15	1020049	Tooth, Rotor 9/16 Drilled	100	
16	7002018	Rotor Sub Weldment, Planetary Drive	1	106-Inch
17	7002001	Billet, Planetray 3000	1	7-1/2 SCH 120
ref.	1020048	Burn, Billet Grease Cap R3000	1	
18	Ref.	Lubricator	1	
19	Ref.	Nut, Hex	12	9/16-12nc lock
20	1520693	Planetary, RR3500 26:1	1	
21	Ref.	Capscrew, Hex	12	9/16-12nc 12nc x 7
22	1502252	Shaft, PTO #10	1	1-3/4 6T x 1-3/4 6T 3°
23	Ref.	Guard, PTO Intermediate	1	
24	Ref.	Capscrew, Hex	8	m16 x 40
25	Ref.	Washer, Split Lock	8	5/8
26	1502237	PTO Shaft, Tractor to Gearbox	1	
27	1520390	Gearbox, R150	1	
28	1541698	Pump, Hydraulic Tyrone	1	
29	Ref.	Capscrew, Hex	2	m12 x 30

PTO Tractor



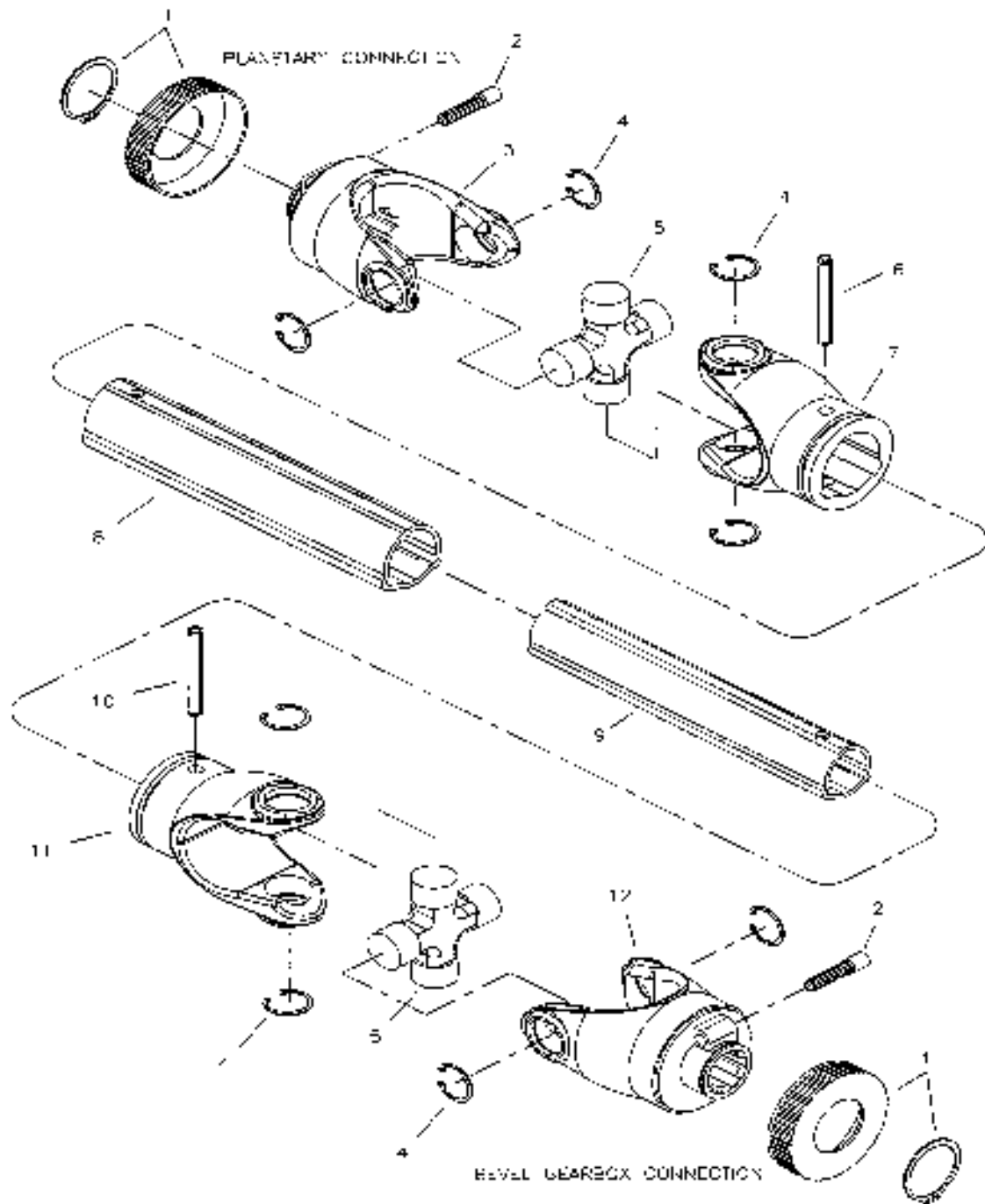


## PARTS MANUAL

### PTO Tractor - Parts List

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Ring, Retaining - Quick Disconnect Collar	1	
2	Ref.	Collar, Quick Disconnect - w/Retaining Ring	1	
3	Ref.	Pin, Quick Disconnect - w/Spring	1	
4	Ref.	Yoke, Tractor End - w/Collar & Pin	1	
	Ref.	Ring, Retaining - Bearing	8	
6	1501790	U-Joint	2	
7	Ref.	Pin, Spring - Tractor End	1	
8	Ref.	Yoke, Outer Tube	1	
9	Ref.	Tube, Outer	1	
10	1501722	Bearing, Shield Outer	1	255080005R02
11	Ref.	Shield, Complete	1	
12	Ref.	Shield, Outer Half - w/Bearing	1	
13	Ref.	Shield, Inner Half - w/Bearing	1	
14	1501723	Bearing, Shield Inner	1	255080006R02
15	Ref.	Tube, Inner	1	
16	Ref.	Pin, Spring - Implement End	1	341045000R10
17	Ref.	Yoke, Inner Tube	1	
18	Ref.	Yoke, Implement End	1	
19	Ref.	Pin, Taper Lock	1	
20	Ref.	Pin, Shear - w/pin	1	

PTO Intermediate

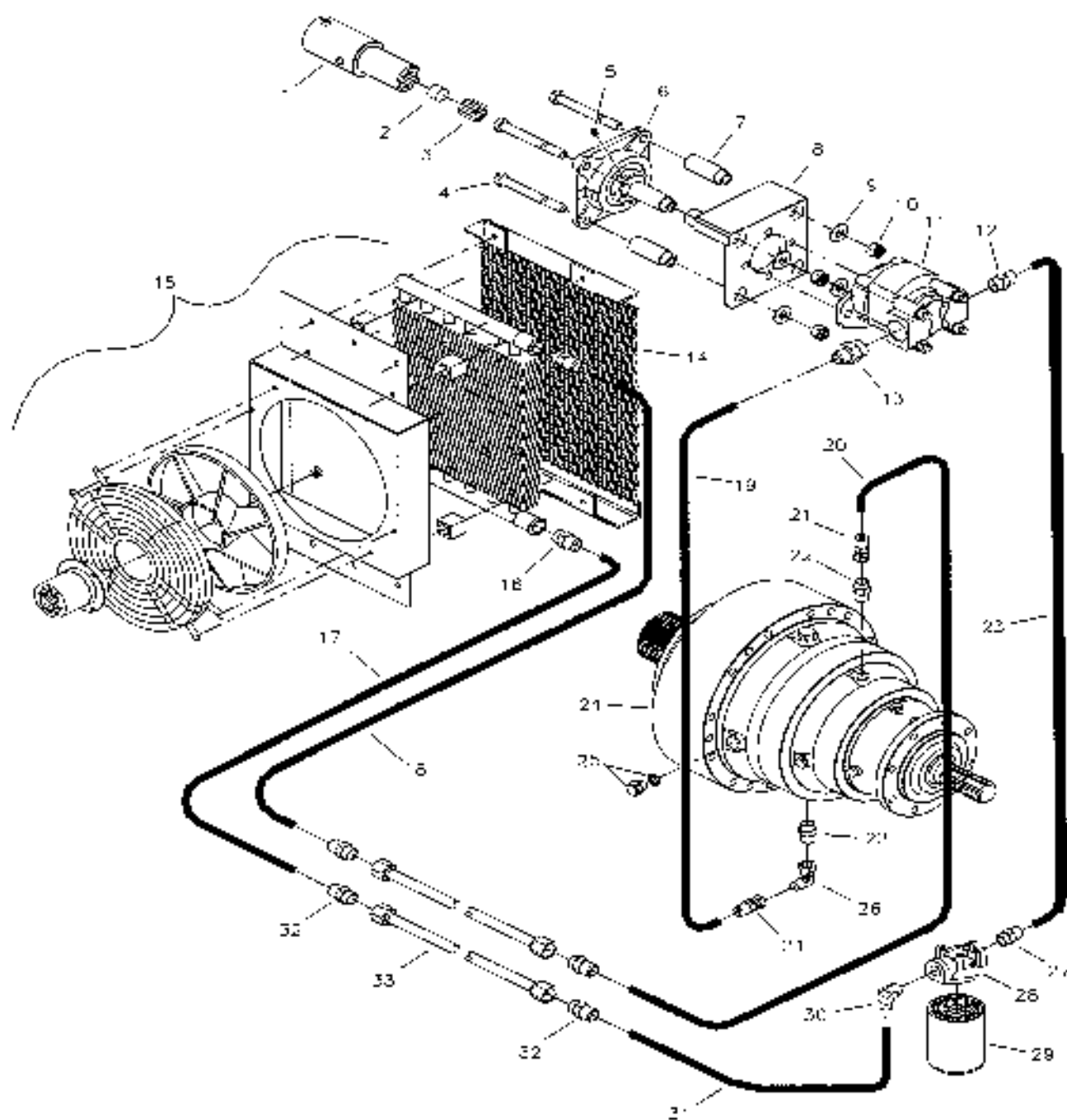


## PARTS MANUAL

### *PTO Intermediate - Parts List*

Item#	Part#	Description	Qty.	Remarks
Ref	1501999	Shaft, PTO - Intermediate	1	
1	Ref.	Kit, Collar	2	240003552
2	Ref.	Pin, Release	2	403000012R10
3	Ref.	Yoke, Outer - Includes Collar	1	572100461
4	Ref.	Ring, Retaining - Bearing	8	338027000
5	1501754	Bearing, U-Joint	2	41210
Ref	Ref.	Grease Fitting (not shown)	2	348004000
6	Ref.	Pin, Roll	1	341045000R10
7	Ref.	Yoke, Inner - Includes Roll Pin	1	204106852
8	Ref.	Tube, Outer	1	12514
9	Ref.	Tube, Inner	1	12515
10	Ref.	Pin, Roll	1	341044000R10
11	Ref.	Yoke, Inner - Includes Roll Pin	1	204106851
12	Ref.	Yoke, Outer, Includes Collar	1	572100461

## Planetary Cooling System



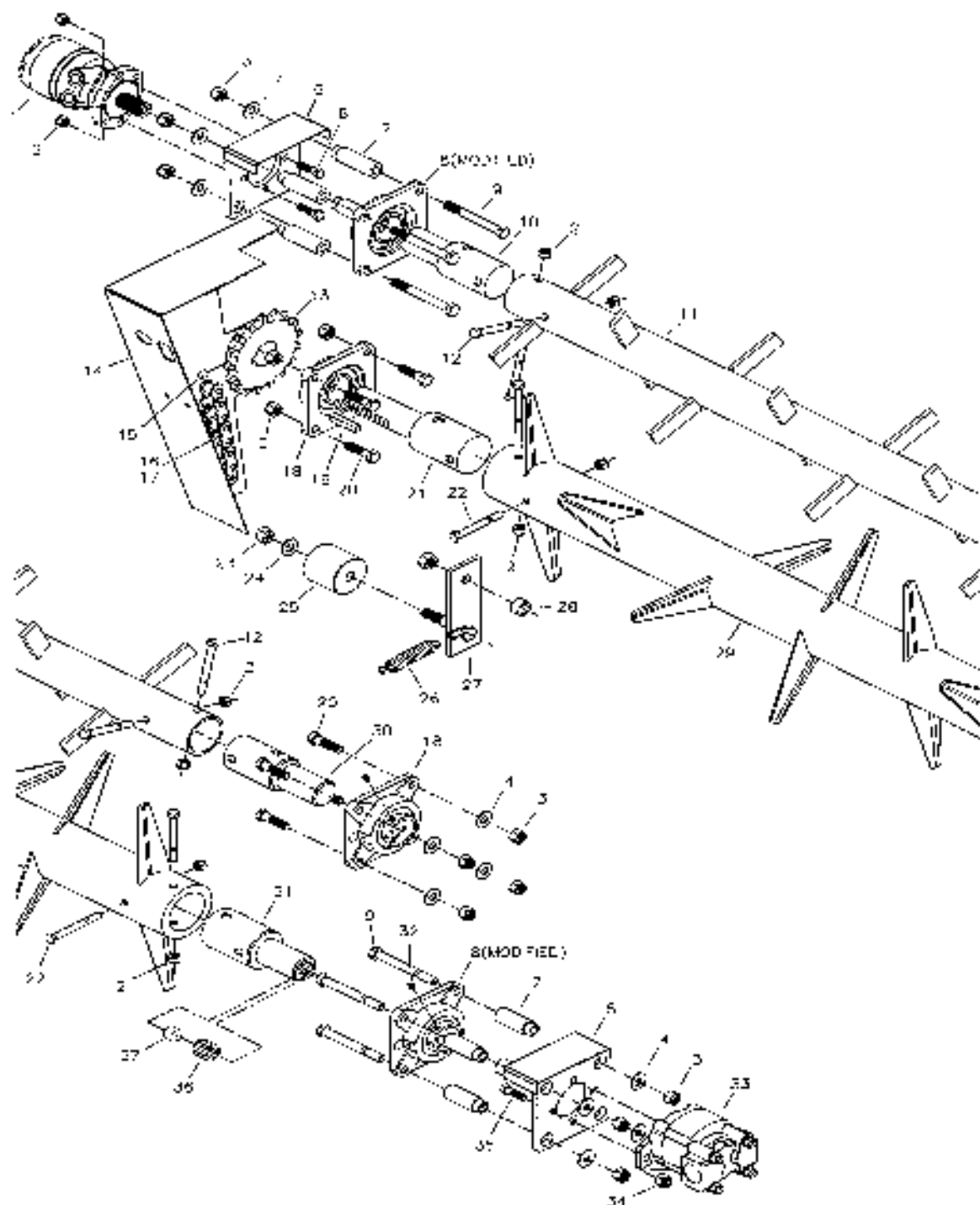
# PARTS MANUAL

## *Planetary Cooling System - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	1020011	Shaft, Beater Bar Stub	1	3 x 8-9/16 Drive
2	1100093	Spacer, Pump Coupling - Beater Driven	1	
3	1520766	Adaptor, Splined 1.25 14T to 7/8 13T	1	
4	ref.	Capscrew, Hex	4	5/8-11nc x 5-1/2
5	ref.	Lubricator	1	
6	1020035	Bearing, 4-Bolt Flange Shaved	1	2-3/16
7	1120058	Spacer, Beater Bar Motor Mount	4	
8	1020009	Mount, Beater Bar Hydraulic Motor	1	
9	ref.	Washer, Flat	4	5/8
10	ref.	Nut, Hex	4	5/8-11nc Lock
11	1541860	Pump, Hydraulic Tyrone 180cc	1	A PAD CW ROT
12	ref.	Coupler, Pump Pressure	1	
13	ref.	Coupler, Pump Suction	1	
14	ref.	Screen Chaff	1	
15	1502039	Cooler, Oil Hayden	1	
16	ref.	Coupler, Oil Cooler	2	
17	ref.	Hose Assembly, Pressure - Oil Cooler	1	
18	ref.	Hose Assembly, Return - Oil Cooler	1	
19	ref.	Hose Assembly, Suction - Pump	1	
20	ref.	Hose Assembly, Pressure - Planetary	1	
21	ref.	Coupler, Planetary Inlet	2	
22	ref.	Reducer, Planetary Ports	2	
23	ref.	Hose Assembly, Pressure - Pump	1	
24	1520693	Planetary, RR3500 26:1	1	
25	1501997	Gauge, Sight	1	3/8
26	ref.	Coupler, Planetary Outlet	1	
27	ref.	Coupler, Filter Inlet	1	
28	1540166	Base, Filter	1	
29	1540167	Filter, Hydraulic	1	
30	ref.	Coupler, Filter Outlet	1	
31	ref.	Hose Assembly, Filter Outlet	1	
32	ref.	Coupler, Hardline	4	
33	ref.	Hardline Assembly	2	

PER MIKE D - 3.7 gpm cooler flow

Beater Bar Group

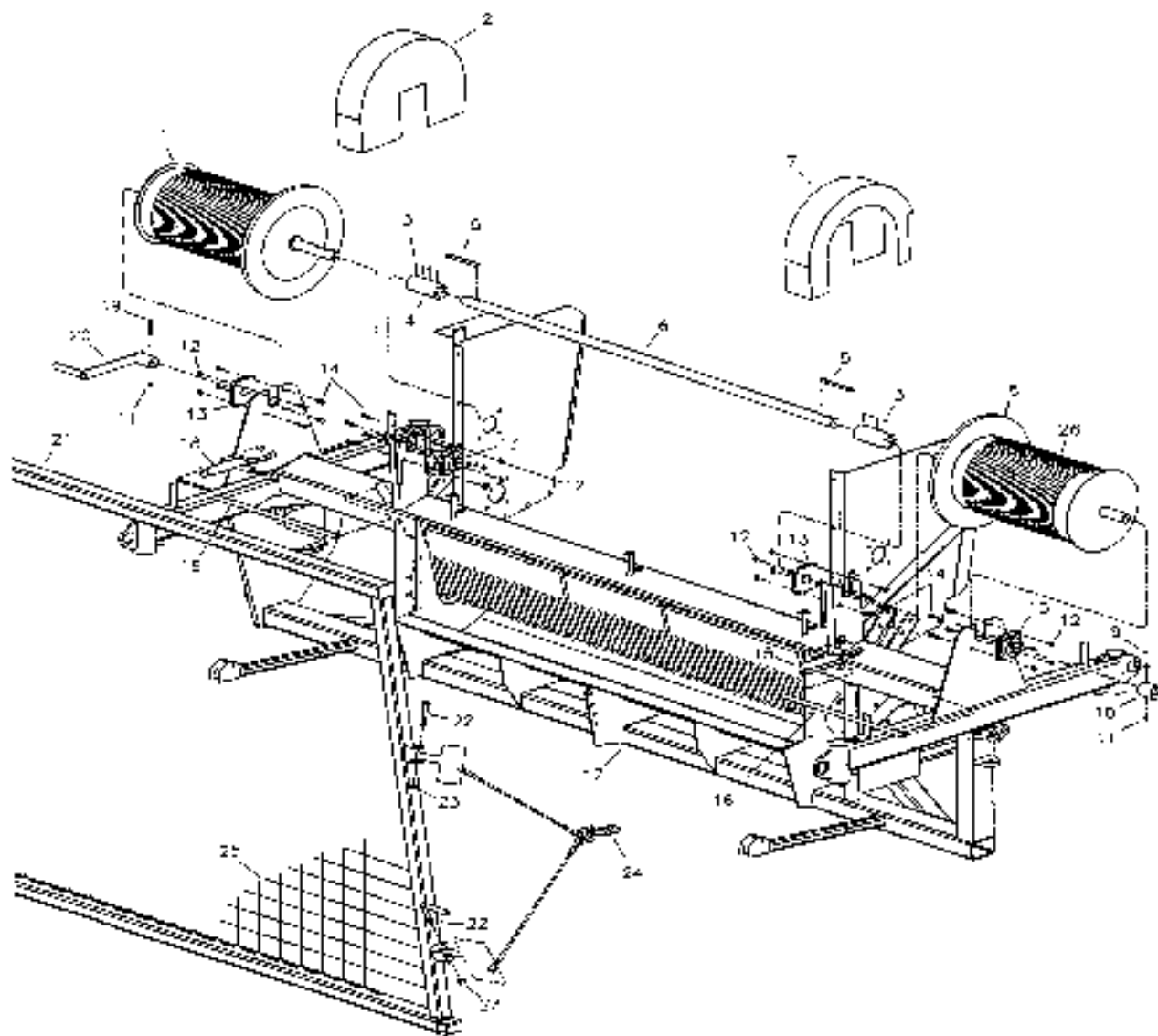


## PARTS MANUAL

### Beater Bar Group - Parts List

Item#	Part#	Description	Qty.	Remarks
1	1540935	Motor, Hydraulic White Splined	1	
2	ref.	Nut, Hex	8	1/2-13nc lock
3	ref.	Nut, Hex	16	5/8-11nc lock
4	ref.	Washer, Flat	16	5/8
5	1020009	Mount, Beater Bar Hydraulic Motor	2	
6	ref.	Capscrew, Hex	2	1/2-13nc x 1-3/4
7	1120059	Spacer, Beater Bar Motor Mount	8	
8	1020035	Bearing, 4-Bolt Flange Shaved	2	2-3/16
9	ref.	Capscrew, Hex	8	5/8-11nc x 5-1/2
10	1020011	Shaft, Beater Bar Stub Drive	1	3 x 8-9/16
11	7002000	Beater, Upper	1	99-1/2
12	ref.	Capscrew, Hex	4	1/2-13nc x 4-1/2
13	1520672	Sprocket, 100B17	1	2-3/16 Bore 1/2-KW
14	1020057	Guard, Beater Bar Chain Rotor Driven	1	
15	ref.	Screw, Set	1	1/2 x 5/8
16	1520341	Chain, Roller 100H Super Rivet	1	
17	1520342	Link, Conn 100H	1	
18	1510037	Bearing, 4-Bolt Flange F4B-SC-203	1	2-3/16
19	1120074	Key	1	1/2 x 1/2 x 3 long
20	ref.	Capscrew, Hex	8	5/8-11nc x 2-1/2
21	8502001	Shaft, Beater Stub Drive	1	3 x 10-1/8
22	ref.	Capscrew, Hex	4	1/2-13nc x 4-1/2
23	ref.	Nut, Hex	1	3/4-10nc lock
24	ref.	Washer, Flat	1	3/4
25	1020064	Tensioner, Beater Chain UHMW	1	3-1/4 x 3
26	ref.	Spring	1	
27	1020075	Bracket Weldment, Tensioner Spring	1	
28	1020072	Spacer, Beater Chain Tensioner	1	
29	7002000	Shaft, Beater Bar	1	99-1/2
30	1020012	Shaft, Beater Bar Stub Idle	1	3 x 8-9/16
31	1020011	Shaft, Beater Bar Stub	1	3 x 8-9/16
32	ref.	Lubricator	1	
33	1541860	Pump, Hydraulic Tyrone 180CC	1	A PAD CW ROT
34	ref.	Nut, Hex	2	7/16-14nc lock
35	ref.	Capscrew, Hex	4	7/16-14nc x 1-1/2
36	1520766	Adaptor, Splined 1.25 14T to 7/8 13T	1	
37	1100093	Spacer, Pump Coupling - Beater Driven	1	

Cable Drum & Backstop



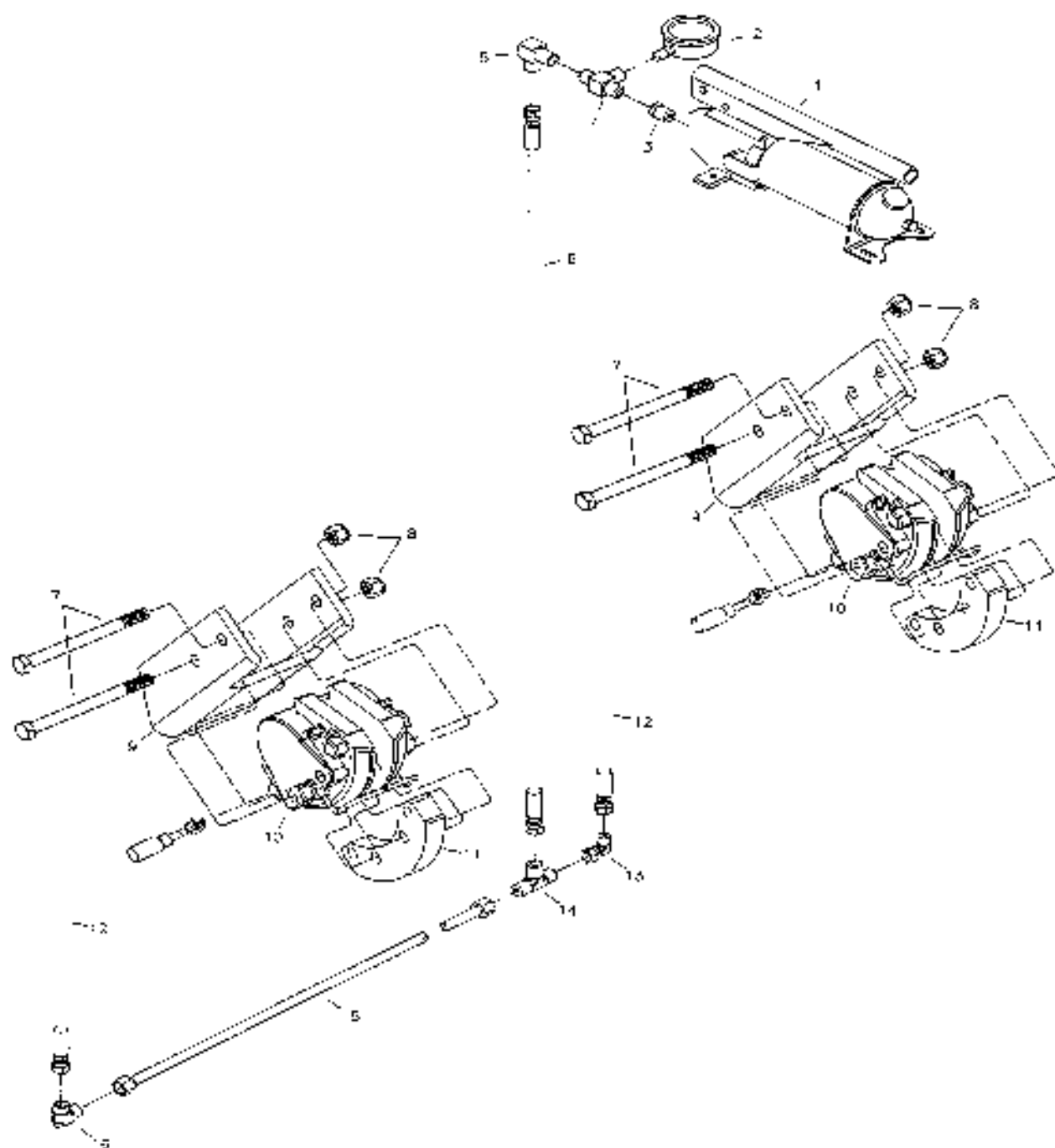


## PARTS MANUAL

### Cable Drum & Backstop - Parts List

Item#	Part#	Description	Qty.	Remarks
1	1030084	Cable Drum, Inboard Brake	1	250-Feet Right
2	6703000	Guard, Cable Drum Brake	1	
3	1550335	Screw, Set	8	3/8 x 1/2
4	1030015	Coupler, Cable Drum Shaft	2	2 x 3-1/4 x 7-1/2
5	1030024	Key	2	1/2 x 1/2 x 8
6	1030065	Shaft, Cable Drum Intermediate	1	2 x 98
7	7003010	Guard, Cable Drum Brake	1	W/ Beater Access
8	1030084	Cable Drum, Inboard Brake	1	250-Feet Left
9	Ref.	Cap Screw, Hex Head	1	3/8-16nc x 3-1/2 G5
10	1030014	Coupling, Cable rewind	1	
11	Ref.	Nut, Hex	1	3/8-16nc lock
12	Ref.	Nut, Hex	16	1/2-13 nc lock
13	1510044	Bearing, 4-Bolt Flange	4	F48-SCM-200
14	Ref.	Cap Screw, Hex Head	16	1/2-13 x 1-1/2
15	7003005	Shoe, Cable Rewind	1	Left
16	1030033	Rod, Cable Rewind	2	1 x 31-1/2
17	Ref.	Frame Weldment	1	
18	7003006	Shoe, Cable Rewind	1	Right
19	Ref.	Cap Screw, Hex Head	1	3/8-17nc x 3 G5
20	1030017	Crank, Cable Rowind	1	
21	1090008	Backstop Frame, Steel	1	154B x 124T x 98H
	1090031	Backstop Frame, Aluminum		
22	Ref.	Cap Screw, Hex Head	4	3/4-10nc x 4-1/2 G5
23	1550128	Nut, Hex	1	3/4-10nc Lock
24	1500412	Sling, Backstop Cable	2	7/16 x 35
25	1560006	Rope, Backstop	1	3/8 x 400
26	1590006	Cable	1	7/16 x 240
ref	7009000	Bracket, Backstop Shipping	1	

## Brake &amp; Cable Drum

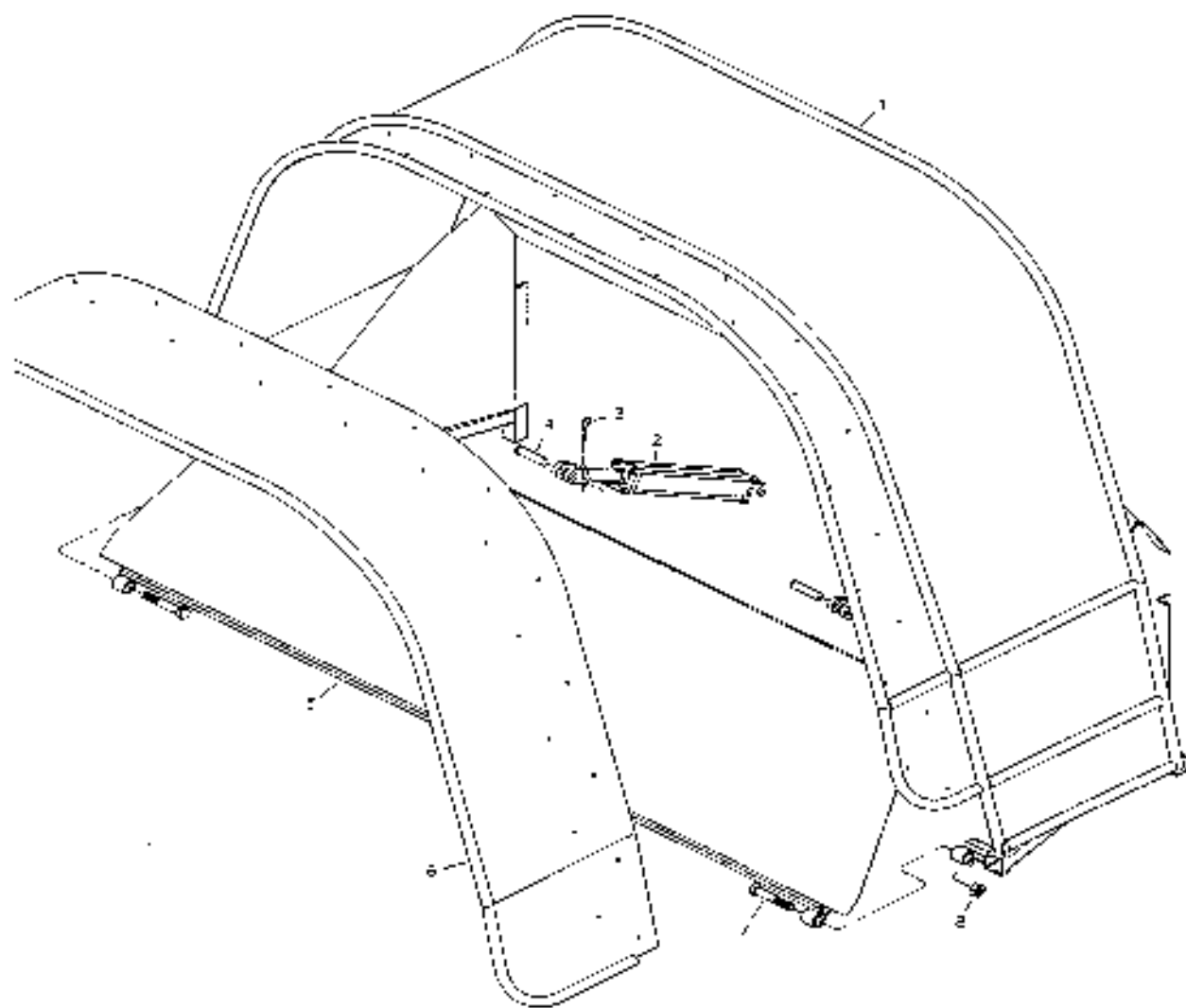


## PARTS MANUAL

### *Brake & Cable Drum - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	1541427	Pump, Hand P23 Preset	1	
2	1500142	Gauge, Liquid Sill 2000 PSI	1	side mount
3	Ref.	Fitting Bushing	1	
4	1540482	Fitting, Hydraulic	1	C3759 x6
5	Ref.	Fitting, 90 Degree	1	male elbow
6	Ref.	Hose Assembly	1	1/4 x 20
7	Ref.	Capscrew, Hex Head	2	5/8-11NC x 7-1/2
8	Ref.	Nut, Hex	2	5/8-11NC Lock
9	6003001	Mount, Cable Drum Floating	2	brake formed
10	1501348	Brake, Mico	2	
11	1501347	Spacer, Brake Caliper	2	Mico
12	Ref.	Hose Assembly	2	1/4 x 34
13	1540683	Fitting, Hydraulic	1	C5506 x4
14	1540719	Fitting, Hydraulic	1	C5705 x4
15	Ref.	Hardline Assembly	1	
16	1540677	Fitting, Hydraulic	1	C5505 x4

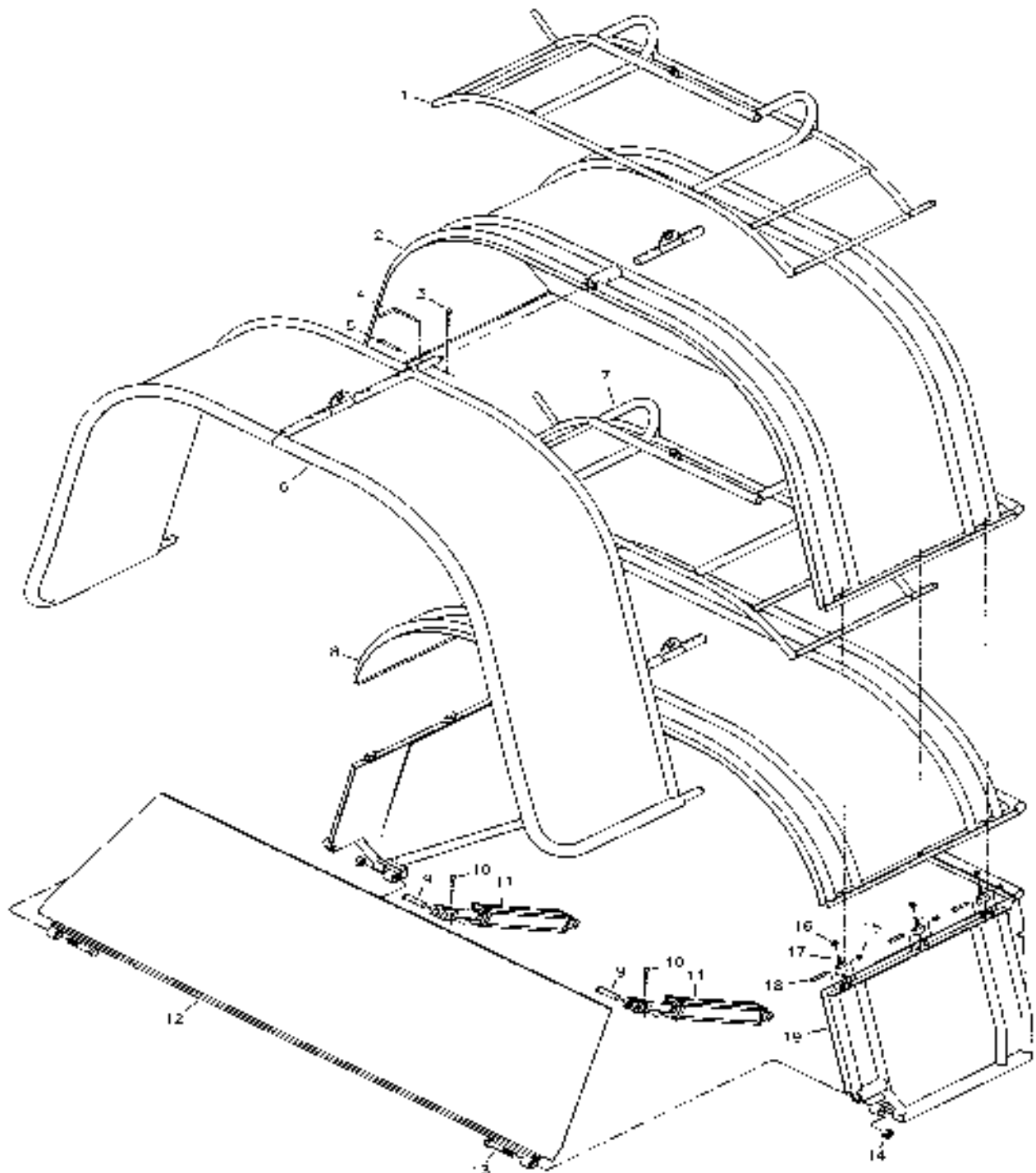
*Tunnel, Extension & Clean Out*



**PARTS MANUAL**

***Tunnel, Extension & Clean Out - Parts List***

<b>Item#</b>	<b>Part#</b>	<b>Description</b>	<b>Qty.</b>	<b>Remarks</b>
1	7006009	Tunnel, 10 Foot	1	
	7006010	Tunnel, 9 Foot	1	
2	1540097	Cylinder, Hydraulic	2	DB2510
3	Ref.	Pin, Hair Cotter	4	
4	Ref.	Pin, Clevis	4	
5	Ref.	Floor, Tunnel Clean Out	1	
ref	7006004	Floor, Tunnel Frame	ref	10-foot TCO
ref	7006006	Floor, Sheet	ref	9 & 10 foot TCO
ref	1060050	Hinge Tube, TCO Frame	ref	
ref	7006001	Floor, Tunnel Frame 10-foot	ref	fixed
ref	7006003	Floor, Tunnel Frame 9-foot	ref	fixed
ref	7006002	Floor, Sheet 9' & 10'	ref	fixed
6	1060018	Extension, Tunnel	1	30 bolt
	Ref.	Bolt Kit, Tunnel Extension	1	
7	1060051	Cap Screw, Hex	2	1-8nc x 5-1/2 G5
8	1550300	Nut, Hex HD	2	1-8nc Nylock

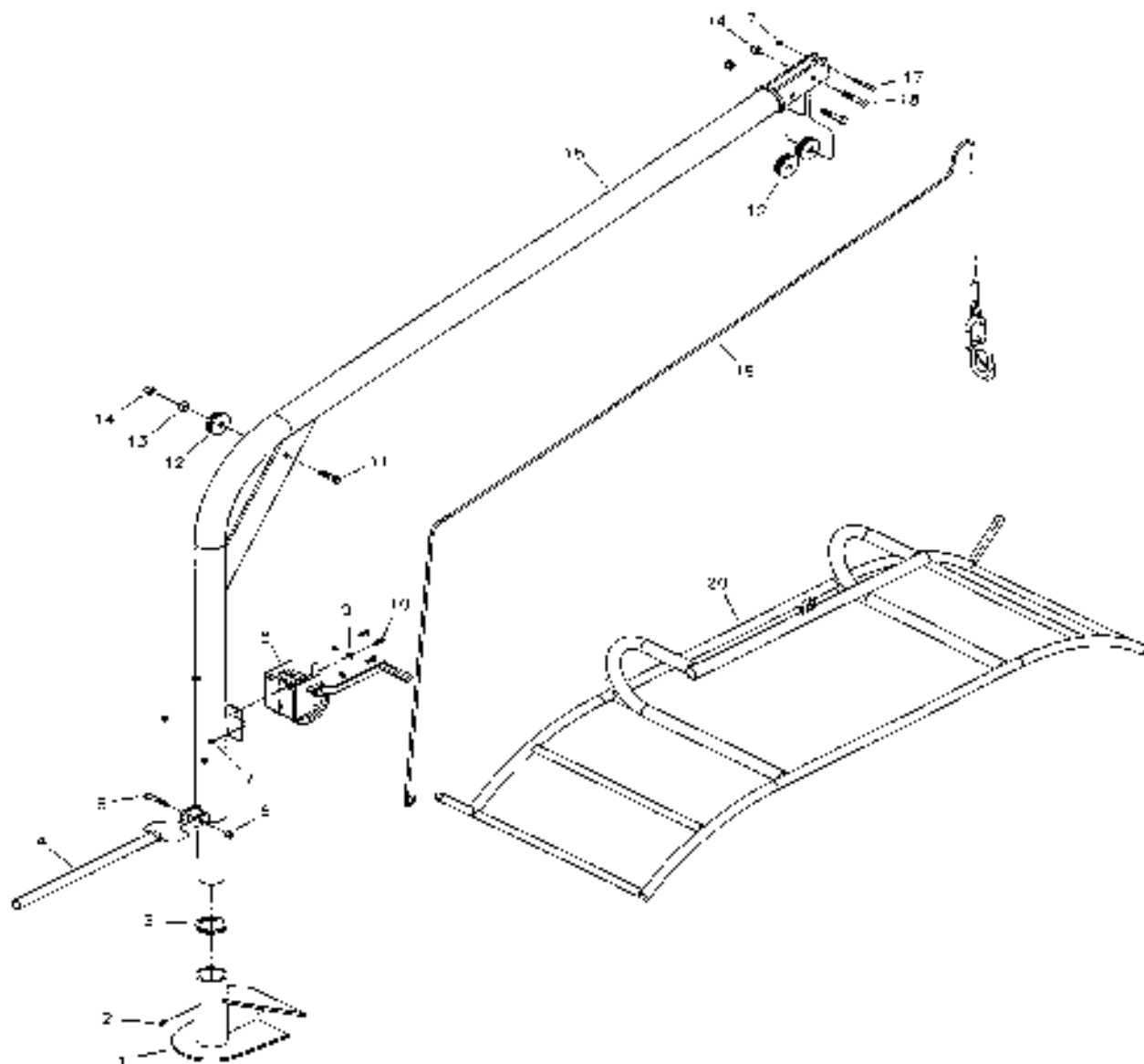
*Convertible Tunnel, Extension & Clean Out*

## PARTS MANUAL

### *Convertible Tunnel, Extension & Clean Out - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Cradle, Bag	1	10"
2	7006037	Tunnel Top	1	10'
3	Ref.	Pin, Hair	1	
4	Ref.	Pin, Transport Lock	1	
5	1550301	Pin, Self Locking	3	1/2 x 2-1/2
6	7006039	Extension, tunnel	1	10'
7	Ref.	Cradle, Bag	1	9'
8	7006036	Tunnel Top	1	9'
9	Ref.	Pin, Clevis	4	
10	Ref.	Pin, Hair	4	
11	1540097	Cylinder, Tie Rod	2	2-1/2 x 10
12	Ref.	Floor, Tunnel Cleanout	1	
13	1060051	Capscrew, Hex	2	1-8NC x 5-1/2
14	1550300	Nut, Hex Lock	2	1-8NC
15	1550126	Nut, Hex Lock	6	1/2-13NC
16	Ref.	Nut, Hex Flat Mount	6	1/2-13NC
17	Ref.	Lock, tunnel Top	6	
18	Ref.	Capscrew, Socket	6	1/2-13NC x 3
19	7006035	Tunnel Base	1	

Bag Boom & Cradle



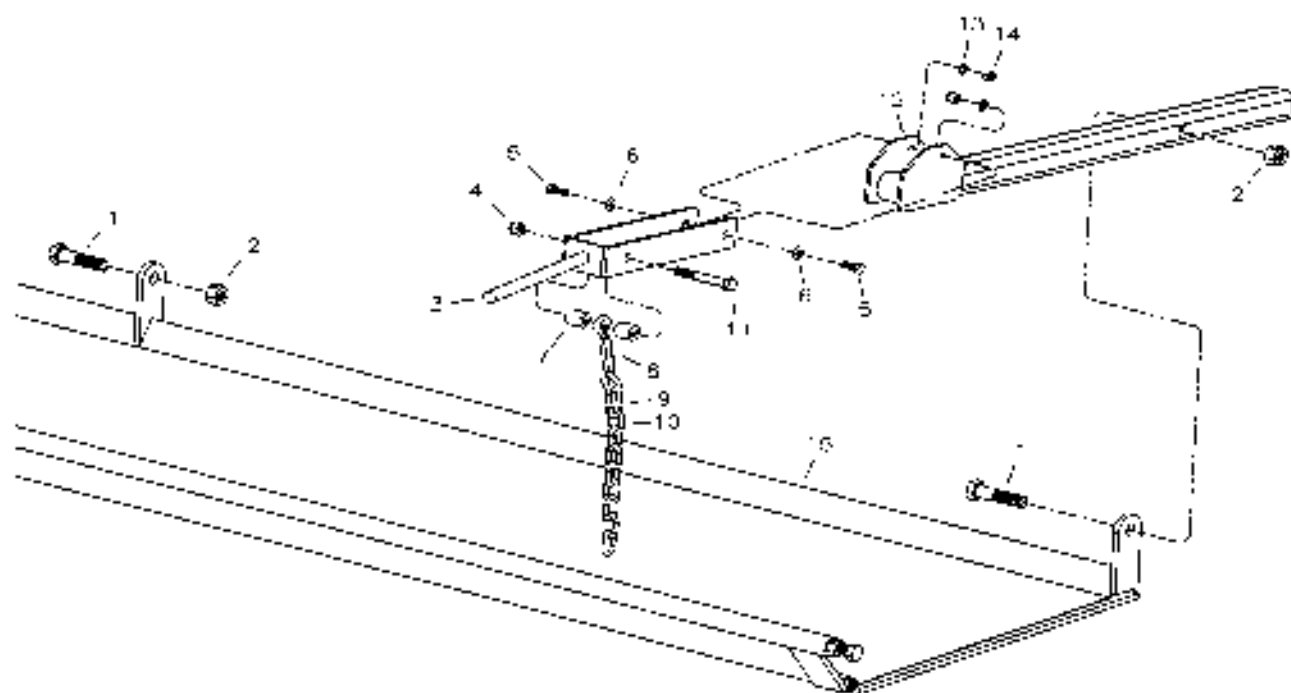


## PARTS MANUAL

### *Bag Boom & Cradle - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	7006008	Socket, Bag Boom	1	
2	Ref.	Fitting, Grease Zerk	1	1/4-28nf
3	1060039	Spacer, Bag Boom Bronze	1	2-15/16 id
4	1060085	Turn Bar	1	
5	Ref.	Cap Screw, Hex Head	1	1/2-13nc x 3
6	Ref.	Nut, Hex	1	1/2-13nc
7	1550147	Nut, Hex	4	3/8-16nc lock
8	1500602	Winch, Manual	1	DL1802
9	1550206	Washer, Flat	3	3/8
10	1550057	Cap Screw, Hex Head	3	3/8-16nc x 1
11	Ref.	Cap Screw, Hex Head	1	5/8-11nc x 2-1/2
12	1501737	Sheave, Steel	3	3
13	1550209	Washer, Flat	1	5/8
14	1550148	Nut, Hex	3	5/8-11nc lock
15	7006000	Bag Boom Frame	1	
16				
17	1550062	Cap Screw, Hex Head	1	3/8-16nc x 3
18	Ref.	Cap Screw, Hex Head	2	5/8-11nc x 3
19	1501691	Cable With Hook	1	1/4 x 30
20	1060007	Cradle, Bag - Standard	1	10'
	Ref.	Cradle, Bag - Convertible Tunnel	1	9'
	Ref.	Cradle, Bag - Convertible Tunnel	1	10'

Bag Pan System

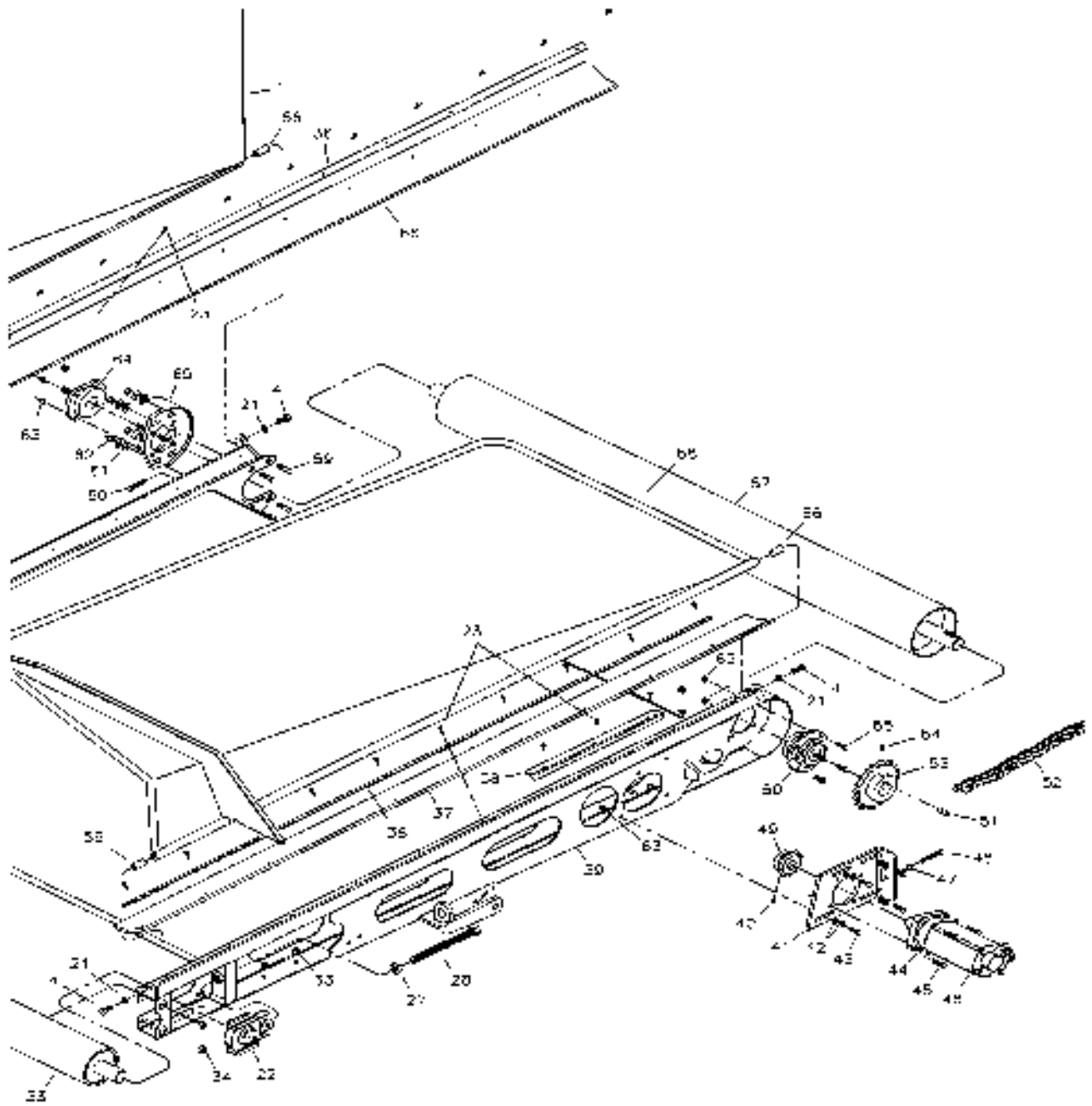


## PARTS MANUAL

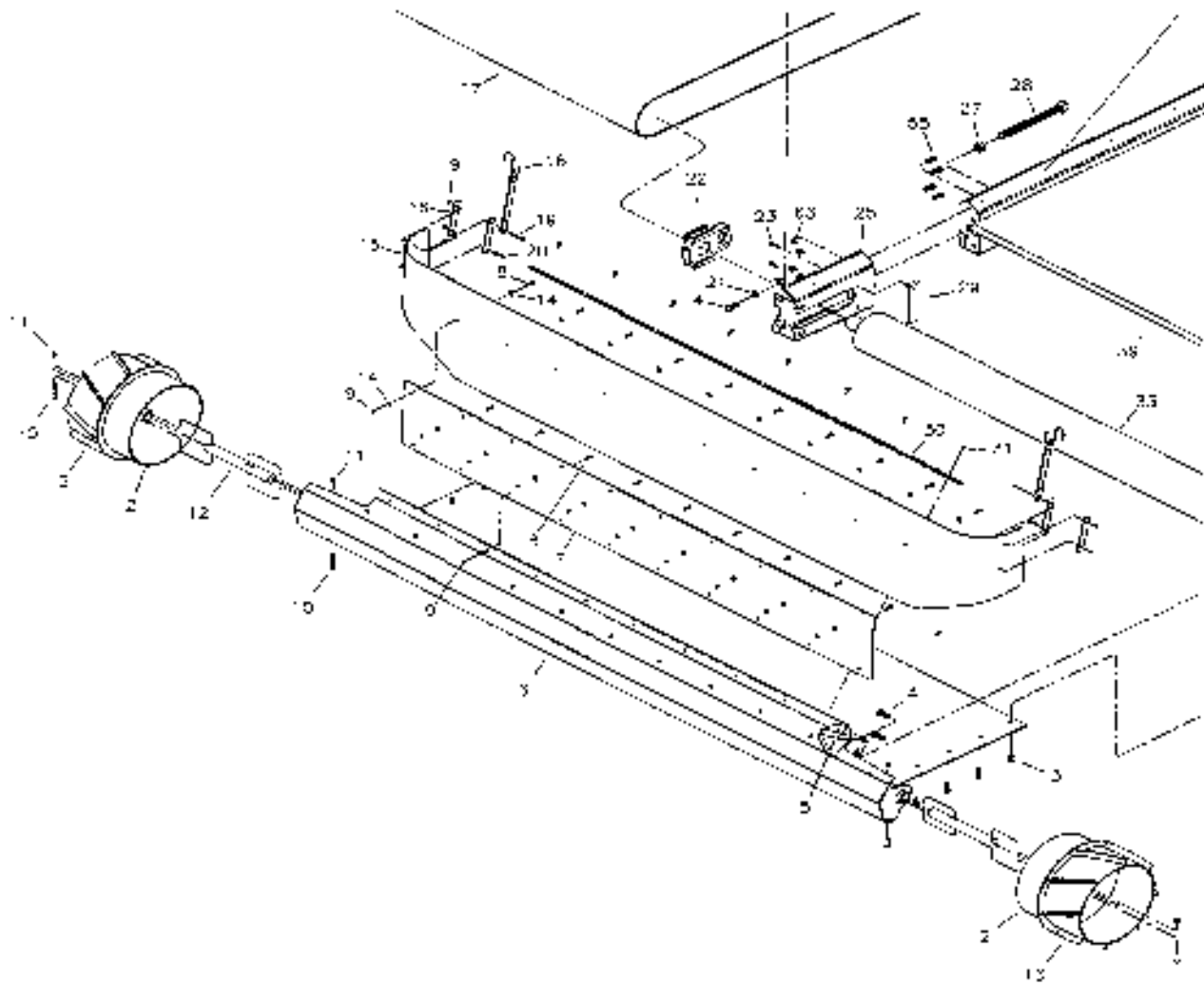
### Bag Pan System - Parts List

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Capscrew, Hex	3	3/4-10nc x 3
2	Ref.	Nut, Hex	3	3/4-10nc lock
3	Ref.	Lever, Crank, Bag Pan Lift	2	
4	Ref.	Nut, Hex	2	1/2-13nc lock
5	Ref.	Capscrew, Hex	4	3/8-16nc x 1
6	Ref.	Washer, Flat	4	3/8
7	Ref.	Spacer, Bag Pan Crank	4	
8	1500577	Turnbuckle, Eye to Eye	2	5/16 x 4-1/2
9	1501509	Link, Quick	1	1/4
10	1520702	Chain	2	7-links
11	Ref.	Capscrew, Hex	2	1/2-13nc x 3-1/2
12	1060029	Lever, Bag Pan Lift	2	
13	Ref.	Washer, Split Lock	4	
14	Ref.	Nut, Hex	4	3/8nc lock
15	7006007	Bag Pan	1	

Feed Table - Drive End



Feed Table - Idle End



## PARTS MANUAL

### Feet Table Drive and Idle End - Part List

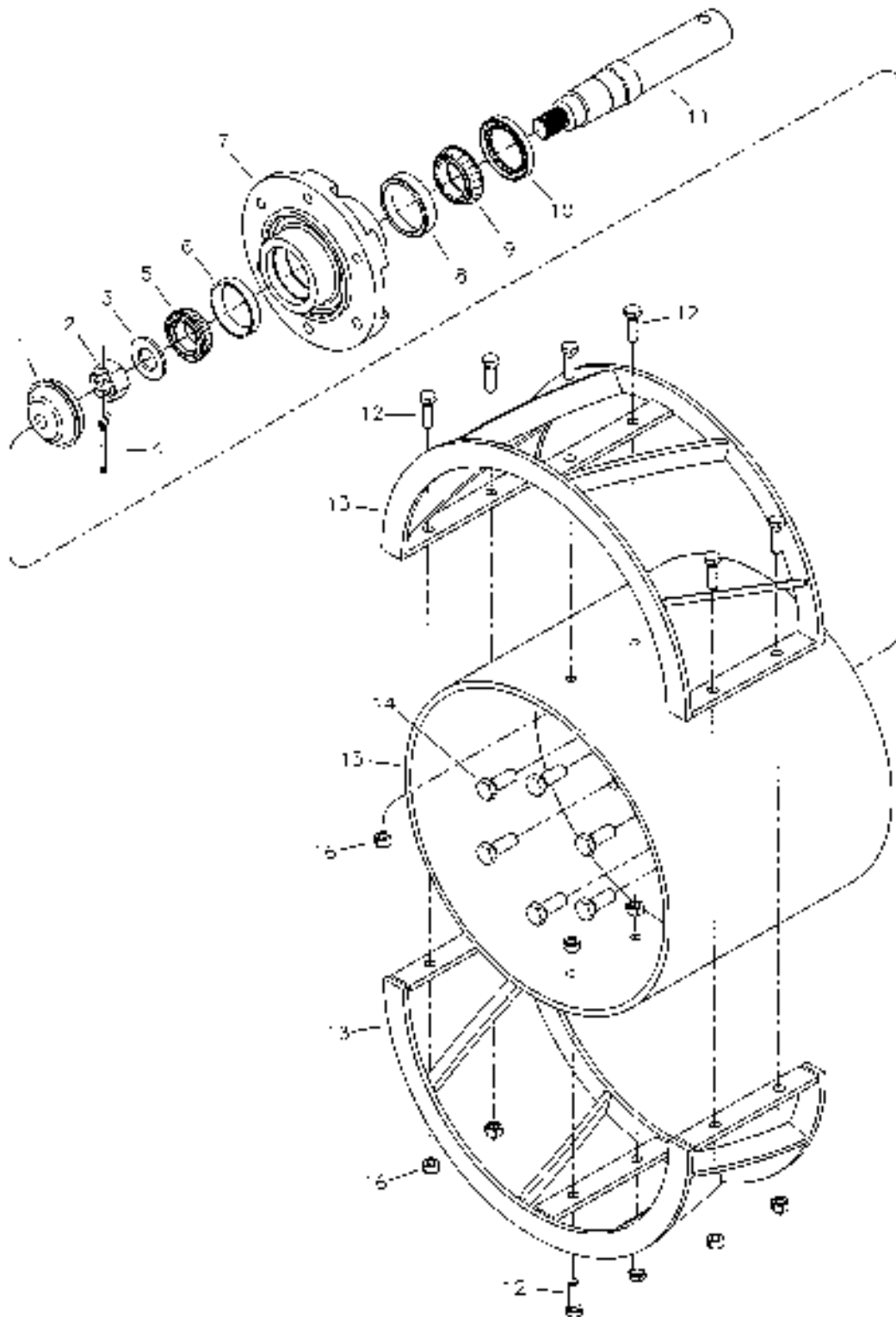
Item#	Part#	Description	Qty.	Remarks
1	1080066	Wing, Feed Table Standard	1	Left
ref	1080204	Wing, Feed Table Extended	1	Left
2	1080182	Wheel, Feed Table 14	2	without cleats
3	Ref.	Cap Screw, Hex Head	8	1/2-13 x 1
4	Ref.	Cap Screw, Hex Head	8	5/8-11nc x 1-1/2 G5
5	1080031	Mount, Feed Table Side Hitch	1	
6	1120518	Bumper, Feed Table	1	
7	1120282	UHMW, Black	1	1/4 x 12 x 90
8	Ref.	Cap Screw, Hex Head	18	1/4-20nc x 1
9	Ref.	Nut, Hex	18	1/4-20nc lock
10	Ref.	Cap Screw, Hex Head	4	3/8-16nc x 2-1/2
11	Ref.	Nut, Hex	4	3/8-16nc
12	1010006	Axle, Feed Table Wheel	2	
13	1080207	Cleat Assembly, Feed Table Wheel	2	
14	Ref.	Washer, Flat	16	1/4 wide
15	Ref.	Skirting, Front	1	8' feed table
16	1080004	Bracket, Skirting Small	2	
17	1500027	Belt, Continuous	1	
18	1320007	Bungee	2	10' rubber
19	Ref.	Cap Screw, Hex Head	2	1/4-20nc x 2
20	Ref.	Cap Screw, Hex Head	2	1/4-20nc x 1-1/2
21	Ref.	Washer	4	5/8 split lock
22	1510251	Bearing, Take-up	2	2-3/16
23	Ref.	Screw, Hex Head	8	1/4 x 3/4 self tapping
25	1080180	Section, Feed Table Frame	1	
27	Ref.	Nut, Hex	2	1-8nc jam
28	1080000	Adjuster, Feed Table Roller	2	
29	1080023	Guide, Feed Table Belt	1	
30	1080055	Strip, Feed Table Skirting Front	1	
31	Ref.	Screw, Hex Head	20	1/4 x 3/4 self tapping
33	1080158	Roller, Feed Table Idle	1	
34	Ref.	Nut, Hex	4	5/8-11nc lock
36	1080054	Strip, Feed Table Skirting Side	2	
37	Ref.	Skirting, Side	1	right
38	1080024	Guide, Feed Table Belt	2	
39	1080021	Frame, Feed Table	1	8-foot
40	1550335	Screw, Set	1	3/8 x 1/2
41	1080032	Mount, Feed Table Hydraulic Motor	1	

## PARTS MANUAL

### Feed Table Drive and Idle End - Part List

Item#	Part#	Description	Qty.	Remarks
42	Ref.	Washer	8	1/2 flat
43	Ref.	Cap Screw, Hex Head	4	1/2-13 x 1-1/2
44	Ref.	Washer	4	1/2 split lock
45	Ref.	Cap Screw, soc hd	4	1/2-13nc x 1-3/4
46	1540916	Motor, Hydraulic	1	
47	Ref.	Nut, Hex	1	3/4-10nc
48	1550404	Cap Screw	1	3/4-10nc x 3-1/2 square
49	1520340	Sprocket	1	
50	1510031	Bearing	1	
51	1080082	Key	1	1/2 sq x 2
52	1520341	Chain, Roller	5.5	feet
	1520342	Link, Roller Chain	1	100h connecting
	1520084	Link, Roller Chain	1	100 offset
53	1520104	Sprocket	1	
54	Ref.	Set Screw	1	5/8 x 5/8
55	Ref.	Cap Screw, Hex Head	8	1/2-13nc x 1-1/4 G5
56	1080050	Bushing, Feed Table Wing	4	
57	1080155	Roller, Feed Table Drive	1	
58	1080116	Wing, Feed Table Standard	1	right
	1080203	Wing, Feed Table Extended	1	right
59	Ref.	Stud	4	9/16-12nc x 1-3/4
60	Ref.	Cap Screw	1	1/2-13nc x 2-1/2 square
61	Ref.	Washer	8	5/8 flat
63	Ref.	Nut, Hex	24	1/2-13nc lock
64	1080182	Bearing, Type E	1	
65	1080084	Mount, Feed Table Bearing	1	
66	Ref.	Skirting, Feed Table	1	left
67	1120519	Section, Feed Table Frame	1	right
ref	1501760	Serial Number Plate	1	
ref	1500598	Whip, Grease	2	13/16 x 52
ref	1500940	Whip, Grease	2	13/16 x 77
ref	1080051	Spacer, Feed Table	2	2-1/4 bronze
ref	1080029	Latch, Feed Table Wing	1	left
ref	1080097	Latch, Feed Table Wing	1	right
ref	1120045	Pin Assembly, Feed Table	2	lock
ref	1080048	Shaft, Feed Table Mounting	2	
ref	1540102	Cylinder, Hydraulic	2	
ref	1080013	Feed Table Complete	1	8-foot

Feed Table Wheel



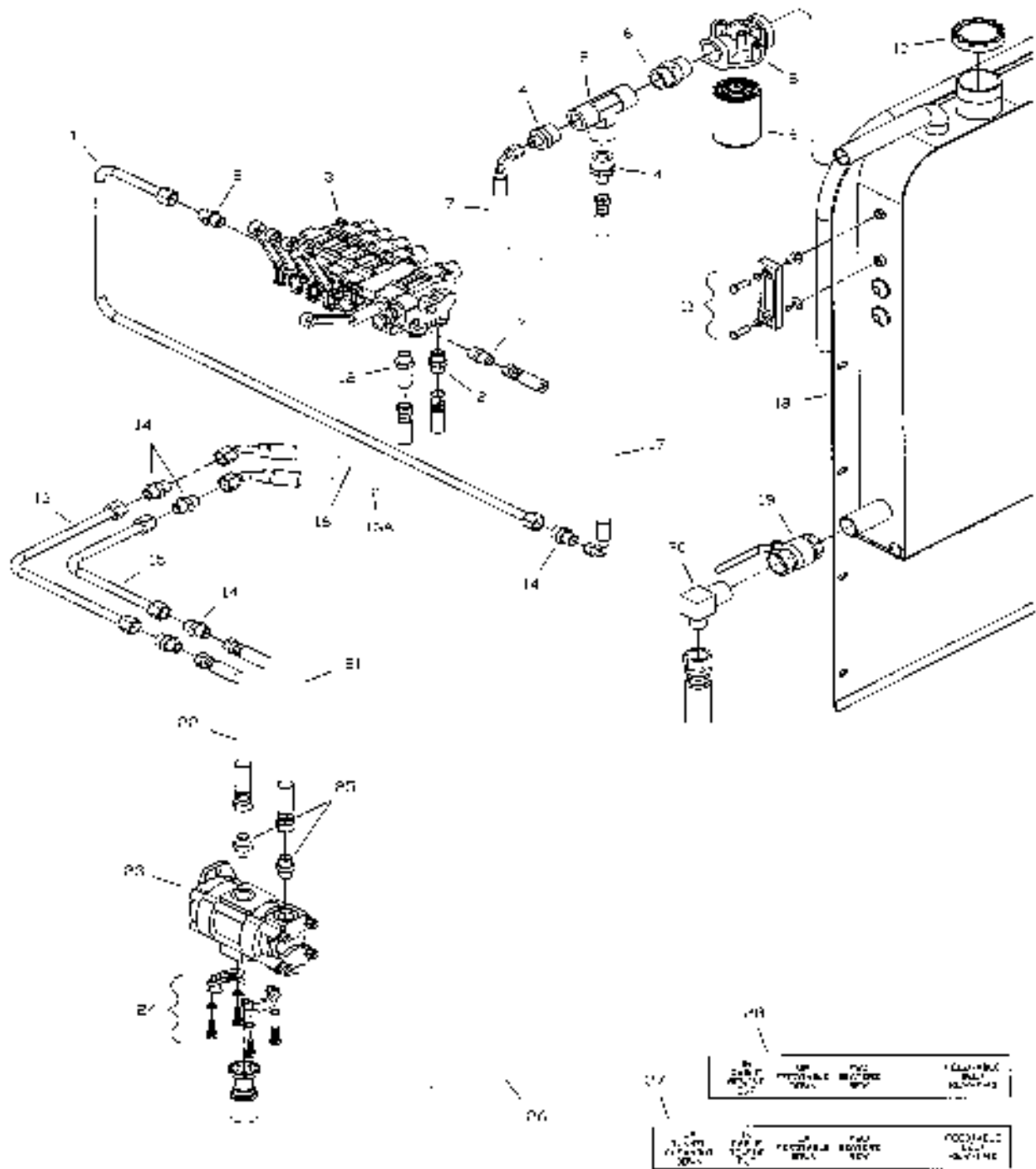


## PARTS MANUAL

### *Feed Table Wheel - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	1500070	Cap, Dust	1	
2	ref.	Nut	1	
3	1550211	Washer, Flat	1	
4	ref.	Hair Pin	1	
5	1510113	Bearing, Roller Cone	1	
6	1510093	Bearing, Roller Cup	1	
7	1501875	Hub, Wheel W888 Tapped Holes	1	Includes items 6 and 8
8	1510073	Bearing, Roller Cup	1	
9	1510183	Bearing, Roller Cone	1	
10	ref.	Grease Seal	1	
11	1080210	Axle, Feed Table Wheel	1	
12	1550059	Cap Screw, Hex	8	
13	1080207	Cleat Assembly, Feed Table Wheel	1	
14	1550257	Bolt, Hub	6	
15	1080208	Wheel, Feed Table	1	
16	1550129	Nut, Hex	8	
ref.	1080169	Feed Table Wheel Complete		
ref.	1010087	Kit, Hub Repair W888		Includes 1,2,3,4,5,9,10

Hydraulics - Primary System

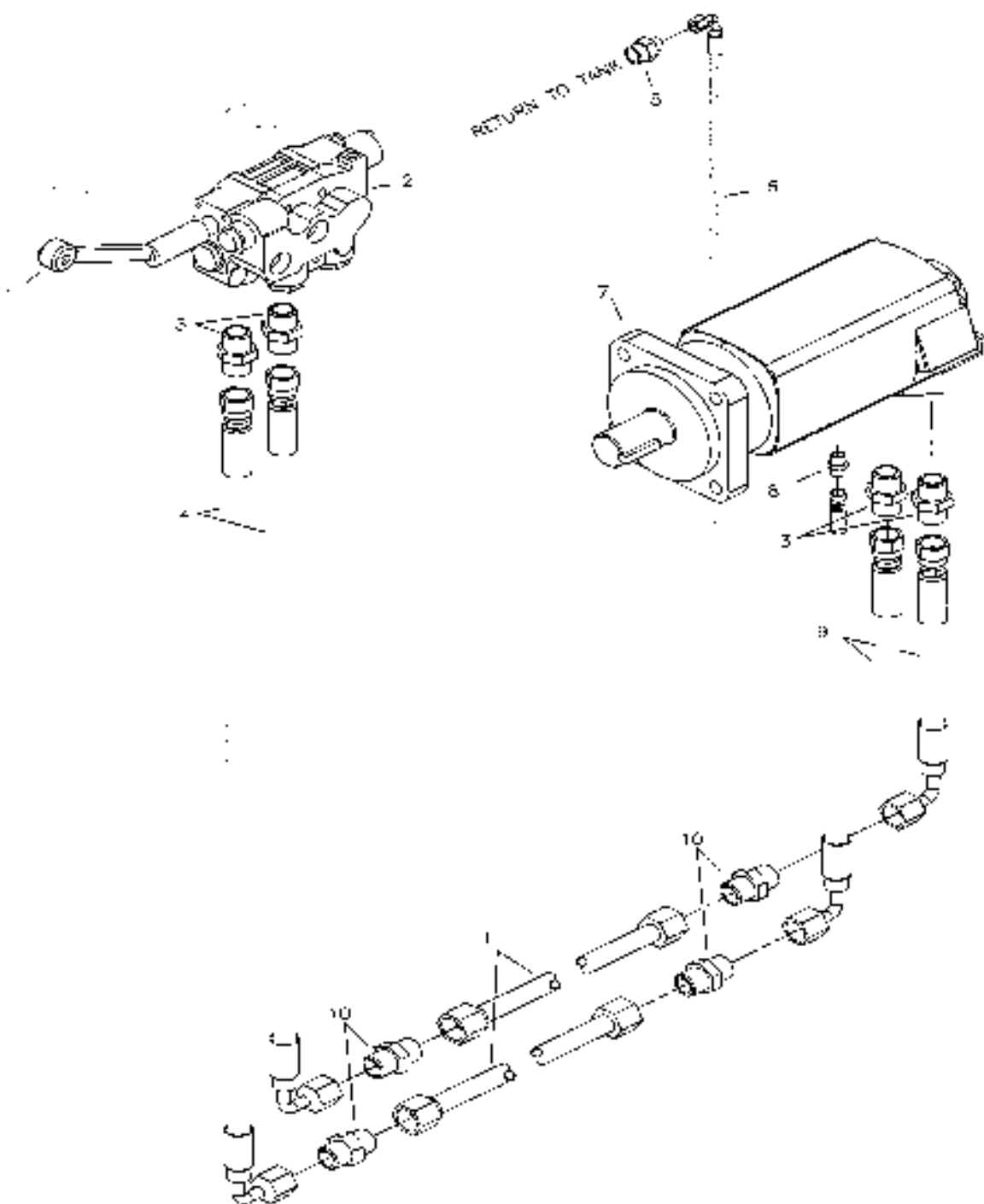


## PARTS MANUAL

### *Hydraulics - Primary System - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Hardline Assembly, Return	1	
2	1540553	Fitting, Hydraulic	3	C5315 x12
3	1541080	Valve, Hydraulic	1	5-bank
	1541698	Valve, Hydraulic	1	4-bank
4	1541909	Fitting, Hydraulic	2	C5205 x12 x20
5	1540470	Fitting, Hydraulic	1	C3709 x12
6	1540377	Fitting, Hydraulic	1	C3069 x20
7	Ref.	Hose Assembly FC639-12-1AA-12FJ-12FJ-53HL	1	
8	1540157	Base, Filter	1	
9	1540181	Filter	1	
10	1500058	Cap, Hydraulic	1	
11	1500158	Gauge, Sight	1	
12	1540577	Fitting, Hydraulic	1	C5316 x12
13	Ref.	Hardline Assembly, Pressure	1	feed table
14	1540537	Fitting, Hydraulic	3	C5305 x12
15	Ref.	Hardline Assembly, Pressure	1	mid inlet
16	Ref.	Hose Assembly FC639-12-1AA-12FJA-12FJ-43HL	1	
17	Ref.	Hose Assembly FC639-12-1AA-12FJ-12FJB-33HL	1	
18	7005002	Tank, Hydraulic	1	
19	1541824	Valve, Ball	1	
20	1541599	Fitting, Hydraulic	1	2501-20-24
21	Ref.	Hose Assembly FC639-12-1AA-12FJB-12FJ-27HL	1	
22	Ref.	Hose Assembly FC639-12-1AA-12FJB-12FJ-26HL	1	
23	1541698	Pump, Hydraulic	1	
24	1540805	Flange, Split	1	SKF-24
25	1540555	Fitting, Hydraulic	2	C5315 x12 x16
26	Ref.	Hose Assembly FC619-20-1B-20FJ-24FL-120HL	1	
27	7001027	Decal	1	5-bank
28	7001028	Decal	1	4-bank

Hydraulics - Feed Table Belt

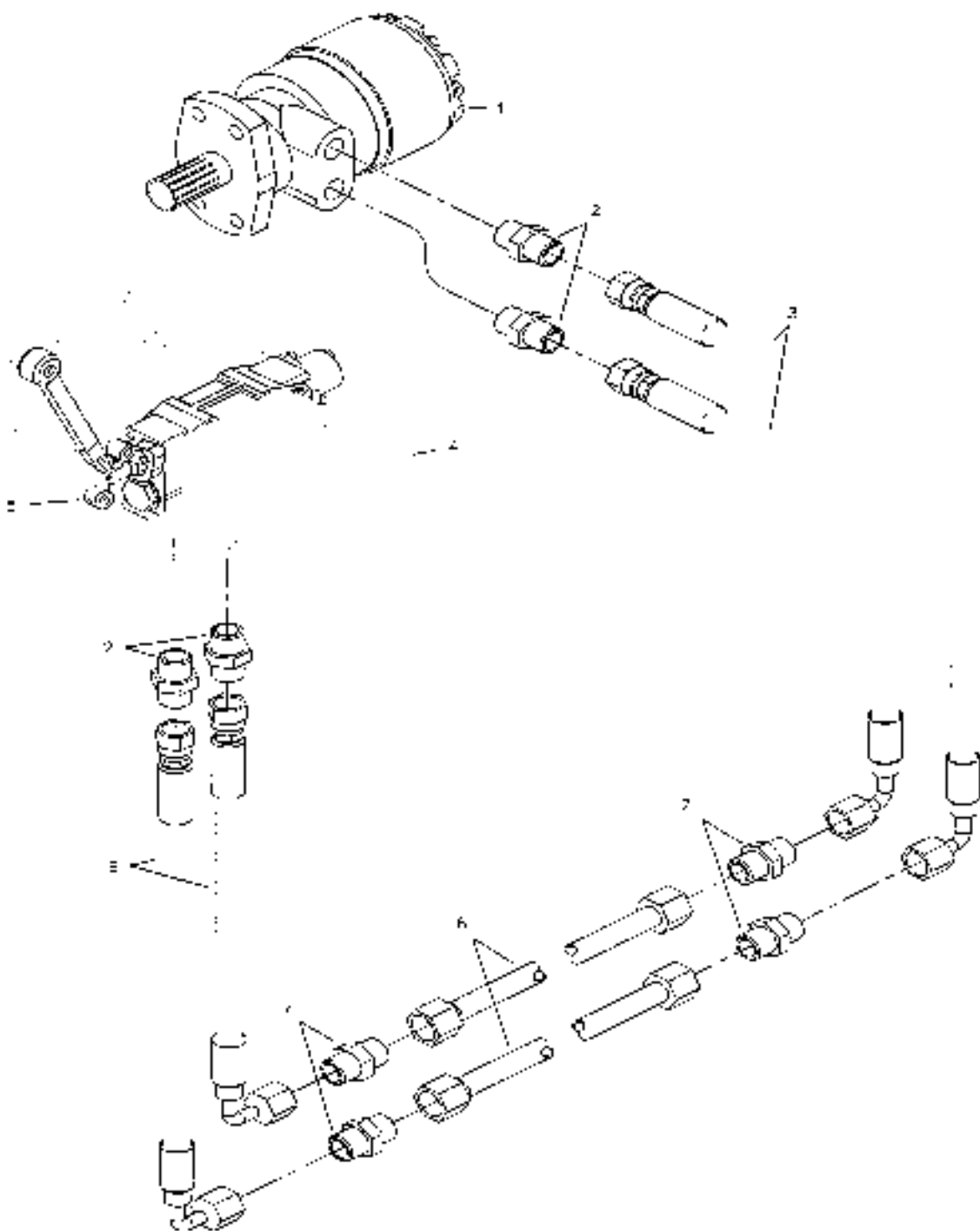


## PARTS MANUAL

### *Hydraulics - Feed Table Belt - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Handle, Valve - Rotary Spool	1	
2	1541080	Valve, Hydraulic	1	5-bank
Ref	1541698	Pump, Hydraulic	ref	
3	1540554	Fitting, Hydraulic	4	C5315 x12 x10
4	Ref.	Hose Assembly FC639-12-1AA-12FJ-12FJB-72HL	2	
5	1540509	Fitting, Hydraulic	1	C5205 x4 x8
6	Ref.	Hose Assembly	1	
7	1540916	Motor, Hydraulic	1	
8	1540568	Fitting, Hydraulic	1	C5315 x4
9	Ref.	Hose Assembly FC639-12-1AA-12FJ-12FJB-44HL	2	
10	1540537	Fitting, Hydraulic	4	C5305 x12
11	Ref.	Hardline Assembly	2	

Hydraulics - Upper Beater Bar

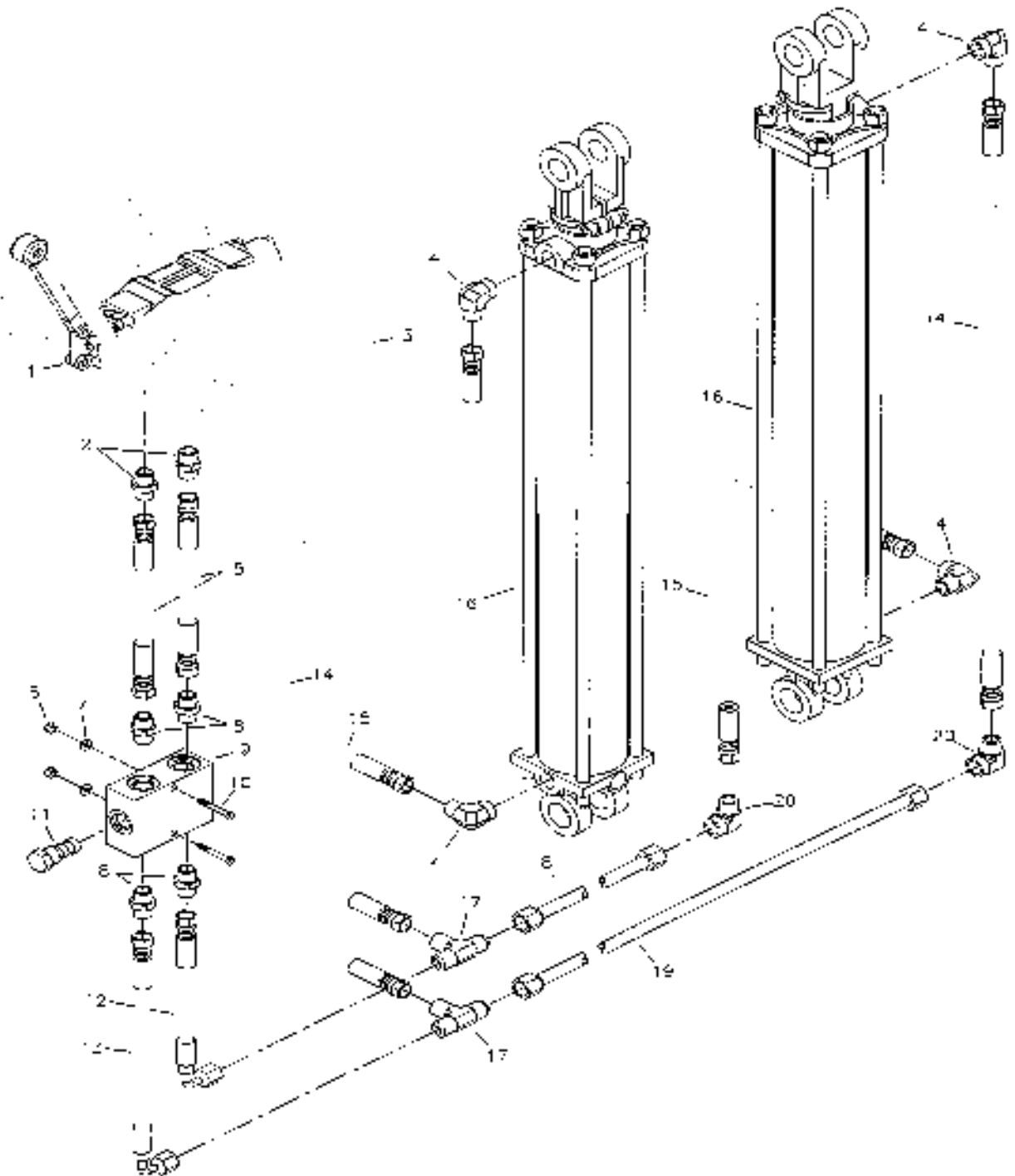


## PARTS MANUAL

### *Hydraulics - Upper Beater Bar - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	1540935	Motor, Hydraulic Splined	1	
2	1540554	Fitting, Hydraulic	4	C5315 x12 x10
3	Ref.	Hose Assembly FC639-12-1AA-12FJB-12FJ-26HL	2	
4	Ref.	Valve	1	
5	1500167	Handle, Hydraulic Valve	1	
6	Ref.	Hose Assembly FC639-12-1AA-12FJ-12FJB-32HL	2	
7	1540537	Fitting, Hydraulic	4	C5305 x12
8	Ref.	Hardline Assembly	2	

Hydraulics - Feed Table Lift



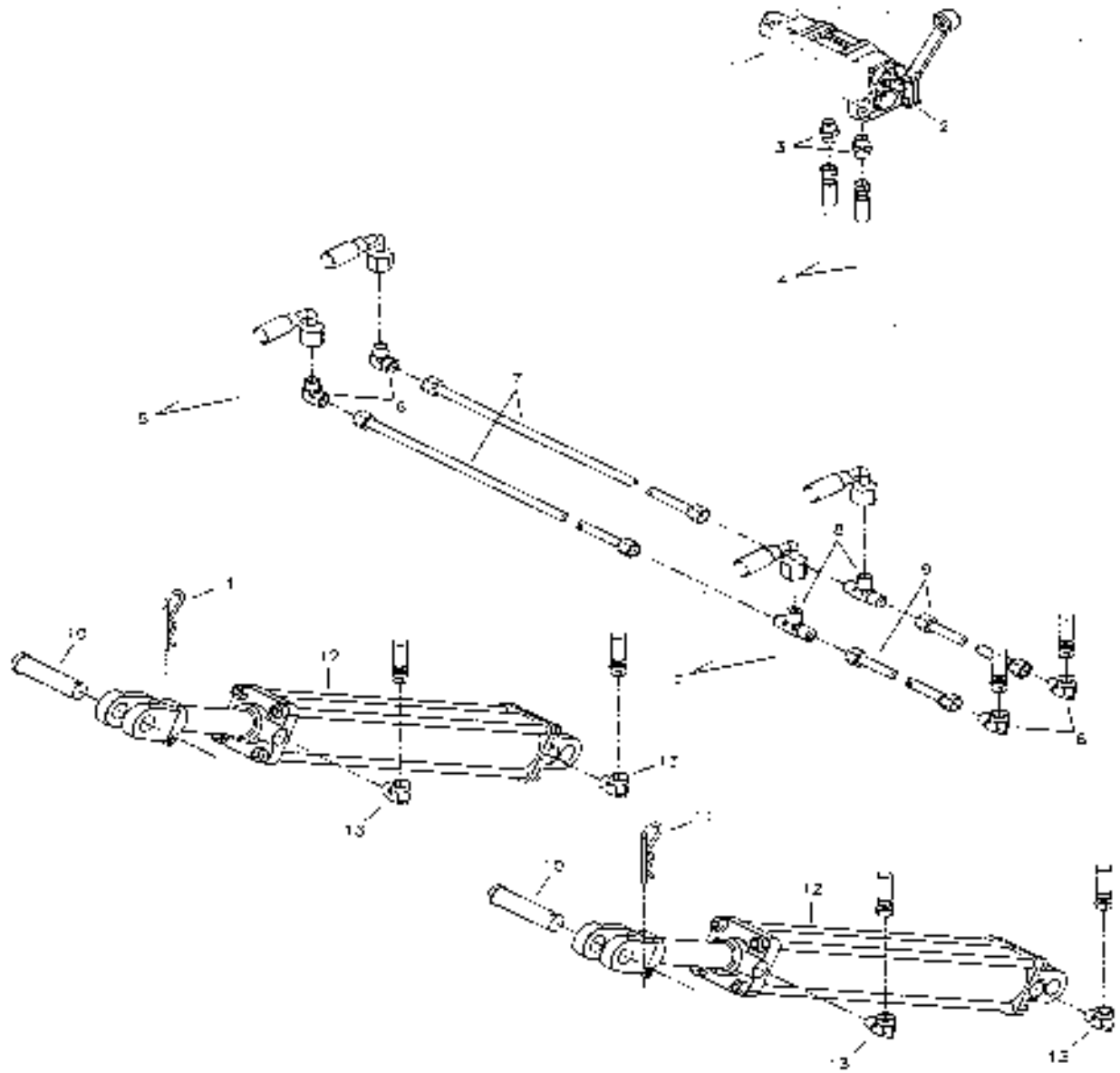


## PARTS MANUAL

### Hydraulics - Feed Table Lift - Parts List

Item#	Part#	Description	Qty.	Remarks
1	1500167	Handle, Hydraulic Valve	1	
2	1540573	Fitting, Hydraulic	2	C5315 x8 x10
3	Ref.	Valve, Hydraulic	1	
4	1100081	Fitting, Assembly	4	C5405 x8 x8-7238 x6
5	Ref.	Hose Assembly FC640-8-1AA8FJ-8FJ-8FJ-17HL	2	
6	Ref.	Nut, Hex	2	1/4-20NC
7	Ref.	Washer, Flat	2	1/4
8	1540572	Fitting, Hydraulic	4	C5315 x8
9	1212008	Manifold, Cylinder Check Valve	1	
10	Ref.	Capscrew, Hex	2	1/4-20NC x 2-1/2
11	1541795	Valve, PO Check	1	
12	Ref.	Hose Assembly FC640-8-1AA-8FJ-8FJB-41HL	1	
13	Ref.	Hose Assembly FC640-8-1AA-8FJ-8FJB-42HL	1	
14	Ref.	Hose Assembly FC640-8-1AA-8FJ-8FJ-88HL	2	
15	Ref.	Hose Assembly FC640-8-1AA-8FJ-8FJ-40HL	2	
16	1540102	Cylinder, Hydraulic	2	DB324 w/1-1/2 Shaft
17	1540721	Fitting, Hydraulic	2	C5705 x8
18	Ref.	Hardline Assembly, Upper	1	
19	Ref.	Hardline Assembly, Lower	1	
20	1540680	Fitting, Hydraulic	2	C5505 x8

Hydraulics - Tunnel Clean Out

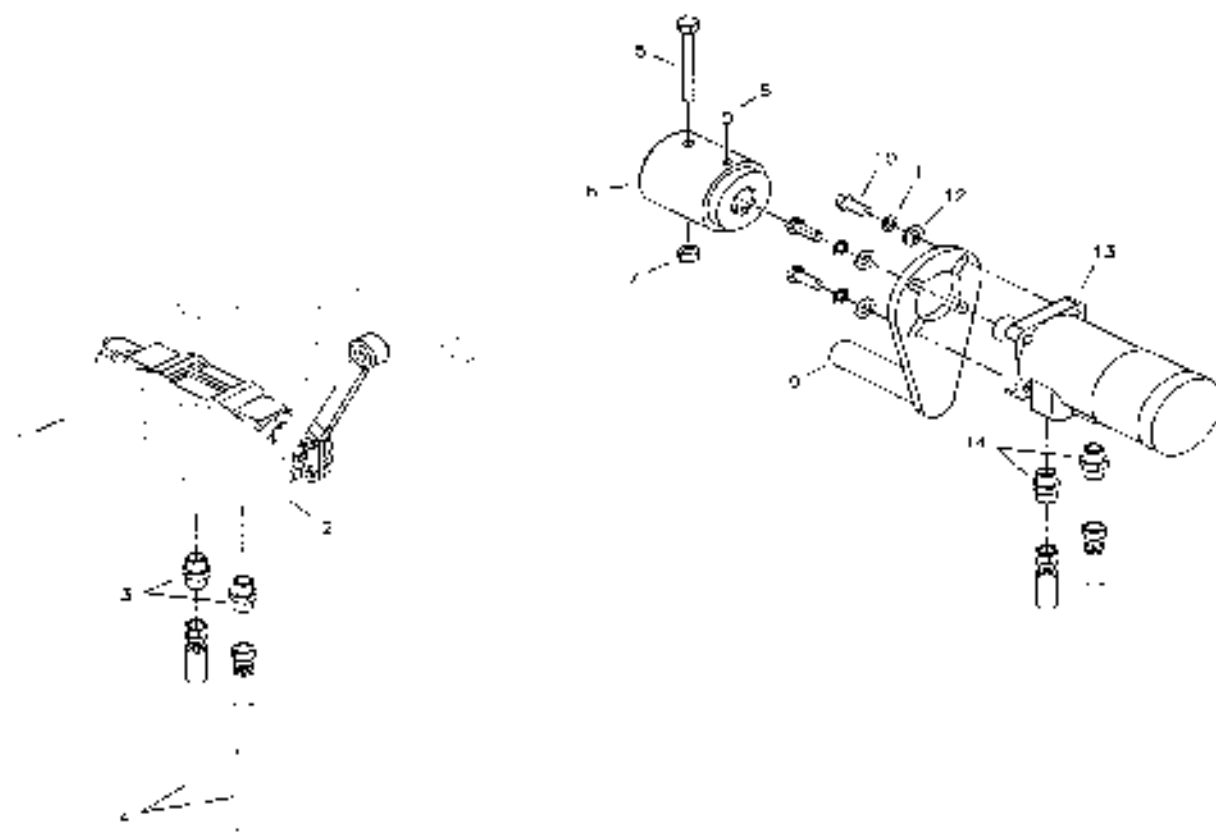


## PARTS MANUAL

### *Hydraulics - Tunnel Clean Out - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Valve	1	
2	1500167	Handle, Hydraulic Valve	1	
3	1540573	Fitting, Hydraulic	2	C5315 x8 x10
4	Ref.	Hose Assembly	2	1/2 x 64
5	Ref.	Hose Assembly	4	1/2 x 24
6	1540680	Fitting, Hydraulic Coupler	4	C5505 x8
7	Ref.	Hardline Assembly, Intermediate	2	
8	1540721	Fitting, Hydraulic	2	C5705 x8
9	Ref.	Hardline Assembly, Primary	2	
10	Ref.	Pin, Clevis	4	
11	Ref.	Pin, Hair	4	
12	1540097	Cylinder, Hydraulic	2	DB2510
13	Ref.	Fitting, Hydraulic Coupler	4	

Hydraulics - Cable Rewind

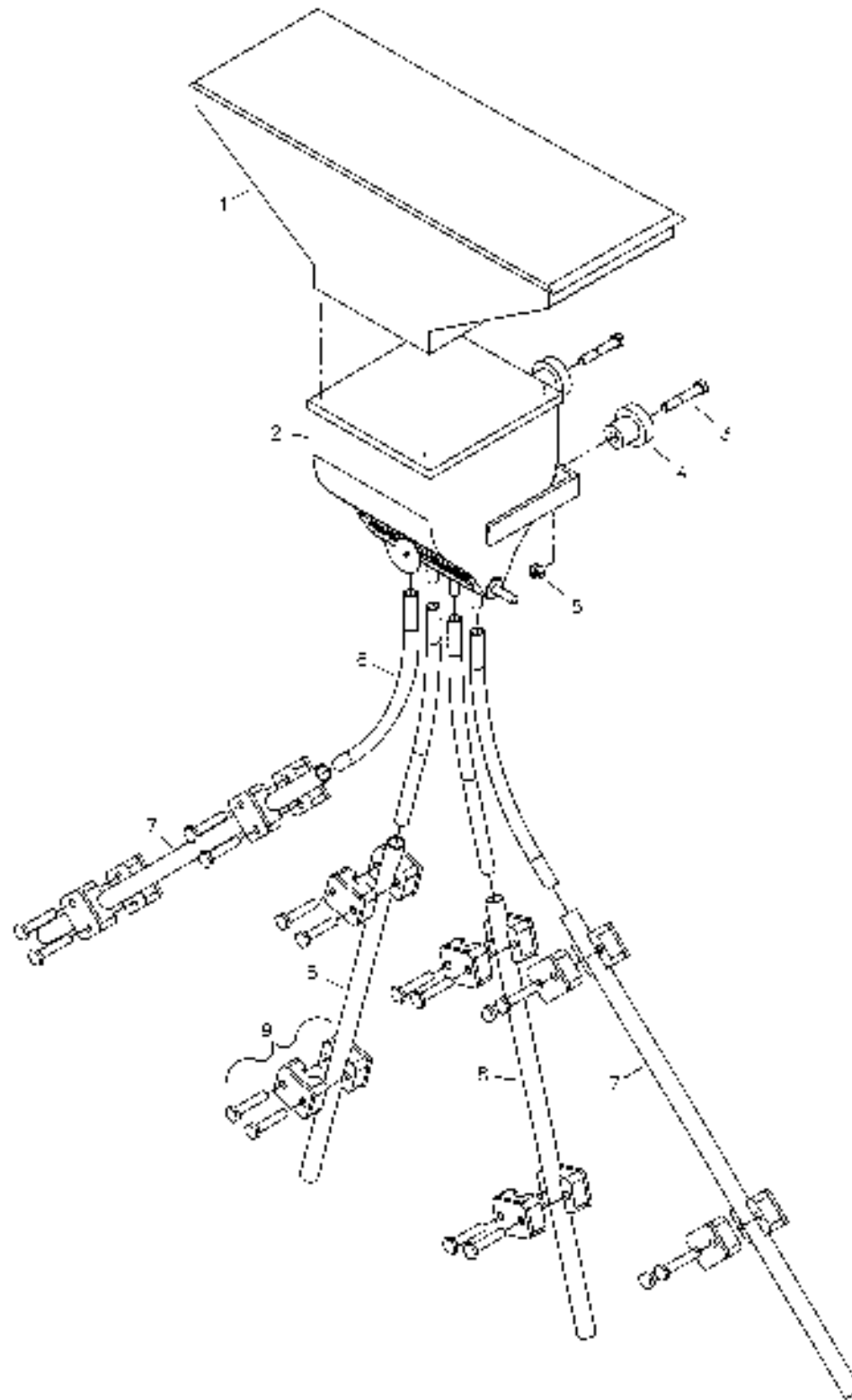


## PARTS MANUAL

### *Hydraulics- Cable Rewind - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	Ref.	Valve	1	
2	1500167	Handle, Hydraulic Valve	1	
3	1540573	Fitting, Hydraulic	2	C5315 x8 x10
4	Ref.	Hose Assembly	2	1/2 x 120
5	Ref.	Capscrew, Hex	1	3/8-16NC x 3-1/2
6	1030014	Crank, Cable Rewind	1	
7	Ref.	Nut, Hex	1	3/8-16NC
8	Ref.	Scrow, Set	1	3/8-16NC x 1/2
9	6006011	Mount, Hydraulic Motor	1	
10	Ref.	Capscrew, Hex	4	3/8-16NC x 1
11	Ref.	Washer, Flat	4	3/8
12	1541054	Motor, Hydraulic	1	
13	1541605	Fitting, Hydraulic	2	2404-8-8

*Gandy Applicator*



## PARTS MANUAL

### *Gandy Applicator - Parts List*

Item#	Part#	Description	Qty.	Remarks
1	1206087	Extension, Hopper	1	14 - Gallon
2	1500005	Applicator, 4 hole	1	
3	ref.	Cap Screw, Hex	2	5/8-11NC x 3-1/2
4	1500281	Isolator	2	
5	ref.	Nut, Hex lock	2	5/8-11NC
6	ref.	Tube, Clear vinyl	4	1 x 23
7	ref.	Pipe, PVC	2	1 sch 40 x 40
8	ref.	Pipe, PVC	2	1 sch 40 x 35
9	1541249	Clamp,	8	1-1/4 single T
ref.	1120564	Kit, PVC pipes	ref	





# The 3M's of Silage



**MANAGEMENT**

**MATURITY**

**Moisture**

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## 3M's of AG-BAG® SILAGE

## 3M #1 – MANAGEMENT

The "3M's of Ag-Bag® Silage" represent documented methods and technology of good silage making. Ensiling has proven to be the most efficient method of storing and preserving the nutrient value of your crops. We invite you to benefit from proven methods and profit-making concepts. Read on, it can change your future.

### THE ART OF MAKING EXCELLENT SILAGE

1. Silage making is a science, that incorporates good management practices. Although many factors affect the profitability of a farming operation, forage quality is definitely one of the most important.
2. It's an accepted fact that rapidly fermented, high moisture feed retains a higher nutrient value than any other method of harvesting and storing crops.
3. By understanding the basics of the fermentation process and using good management practices, you can aid nature in achieving a rapid, efficient fermentation, which preserves more of the valuable nutrients in your forage crops.
4. By learning how to consistently make excellent silage, (The silage referred to in this publication is fermentable feed compacted and stored in an airtight Ag-Bag® bag) It can lead to a greater production of meat and milk.
5. A good anaerobic fermentation improves the palatability of feed. The fermentation process using the Ag-Bag® system is very similar to the digestion process in the first stomach of cattle. Well fermented silages are a natural feed for cattle. It's very much like putting your animals on green pasture year round.

The quality of silage is largely determined by three things:

***Dedication***

***Preparation***

***Execution***

### THE SOIL

The soil should be fertile and pH balanced to insure good germination. Good soil management always produces the highest quality crops.

### THE SEEDS

High quality seed designed to produce well in your area, for length of season and weather considerations are a must. You can't produce crops any better than the seeds you plant.

### THE ENSILING PROCESS

Silage is a feedstuff resulting from the preservation of green forage crops by acidification. Acidification is the result of the fermentation of the forage in the absence of oxygen. Research has proven conclusively that the process of ensiling green crops is the most efficient method of storing and preserving the nutritional value of crops for feeding to ruminant animals. The breaking down of the cellulose and lignin of the plant cells by fermentation helps make the forages more digestible, thus producing more value. In some cases, the forages are more digestible than green feeding or pasturing. All types of forages can be fermented and successfully bagged.

### FERMENTATION

The miracle of fermentation starts with the bacteria – enzymes – sugars – proteins and an oxygen-free environment.

1. **Respiration** – When a forage plant is harvested and placed in an Ag-Bag® bag it is alive and therefore, respiring actively. Even though the forages are packed extremely tight some air is unavoidably trapped in the mass. The oxygen is utilized by the aerobic bacteria existing in the crop, and by the breakdown of sugar in the plant cells.

2. **Aerobic Fermentation** – This phase of the ensiling process is called *aerobic respiration*. End products of this phase of the process are *carbon dioxide* and *heat*. These reactions are not complete and other end products are produced

such as acetic and butyric acids later used by lactobacilli and streptococci to produce lactic acid. Phytolytic enzymes from the plant are also active in this phase, and they break down some of the plant proteins into amino acids. This phase of respiration is complete when the oxygen in the mass is completely depleted, and the action of the *anaerobic microorganisms* begin. Aerobic respiration lasts from 5 to 10 hours under good storage conditions.

### THE FERMENTATION STARTS

**Phase 1** – This is a relatively short phase characterized by the beginning of anaerobic microorganism activity. The cell contents diffuse out of the cell due to the chopping of the plant, and are used by bacteria clinging to the plant when placed in the bag. The formation of acetic and butyric acids are characteristic of this phase. The life of organisms producing these acids is short due to the drop in pH produced by their own activity.

**Phase 2** – This phase is the initiation of the lactic acid fermentation. This activity is well underway at the end of three days and the establishment of this activity completes Phase 2.

**Phase 3** – Lactic acid production is continued in this phase and reaches its peak which should be 3.0 - 13.0 percent of the dry matter and a pH that is constant at about 4.0. No further changes occur, and the silage is fermented if the pH remains between 4.0 and 4.2 for corn silage, and 4.0 and 5.0 for other crops, and no air is allowed to enter the mass.

**Phase 4** – This is a stage of quiescence or inactivity. The material has a pH of 4.0 - 4.5 and if water and oxygen remain excluded, no further chemical changes occur and the material will remain in this preserved state almost indefinitely.

**Phase 5** – This is an undesirable phase. If the pH does not drop below approximately 4.2, or if air is allowed to enter the silage, butyric acid production is initiated, converting the soluble carbohydrates and lactic previously formed to butyric acid which is characteristic of spoiled silage. Also, proteins are broken down to amino acids and these are further degraded to other nitrogenous compounds, which may lead to a reduction in a level of digestible protein.

### FERMENTATION AND INOCULANTS

The general knowledge of the biochemistry and microbiology of silage fermentation has increased tremendously in the last 25 years. Silage is a product of anaerobic fermentation. It involves the conversion of water soluble carbohydrates (sugars) to lactic acid, which drops the pH to a level sufficient to inhibit any further biological activity (change) in the ensiled material when maintained under anaerobic conditions.

In most circumstances, good silage is achieved by encouraging the dominance of lactic acid bacteria (the good guys), and discouraging the activity of clostridia and yeasts (the bad guys). In the initial stages of ensiling, plant respiratory enzymes (bad ones) oxidize soluble carbohydrates, resulting in heat production and decreased amount of sugars available for fermentation.

### PRINCIPLES OF ENSILING

**Aerobic phase.** As crops are put into the bags, two things start to happen: respiration and proteolysis (enzyme action), which are attributed to the activities of plant enzymes. Respiration is the complete breakdown of a substance to carbon dioxide and water, using oxygen. Harvesting of the forage crushes and chops the plant, damaging the cells and releasing many plant enzymes. Some of the enzymes, amylase and hemicellulase, break down starches, increasing the level of sugars in the plant. Of these processes, respiration is most detrimental to silage quality because:

1. Respiration causes a loss of dry matter.
2. The plant uses up existing plant sugars during respiration. The loss of sugar is crucial at this point as it affects preservation and nutritional value. Sugars are the principal food for the lactic acid bacteria that ferment the crop and a loss of sugar also reduces the energy values.
3. Prolonged aerobic conditions allow yeasts and molds to grow to high levels. Large populations of these microorganisms can predispose the silage to heating when the bag is opened for feed-out.

## THE 3M'S OF SILAGE

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**Fermentation phase.** Once anaerobic conditions are attained, several processes begin to happen. The plant cells start to breakdown. In wet forages this takes place in several hours. In dry forages, it can extend over a day or more. This process provides sugars to feed the naturally occurring lactic acid producing bacteria. It also releases a variety of plant enzymes, providing extra sugars. Many of the LAB (lactic acid bacteria) and enterobacteriaceae can grow in the presence of oxygen; however, they grow much faster under anaerobic conditions and are very efficient at producing acids that start to lower the pH. The most important bacteria for ensiling is the LAB (lactic acid producing bacteria), which converts sugars to lactic acid. There are primarily two kinds of bacteria: homofermentative and heterofermentative. The homofermentative produce only lactic acid. The heterofermentative produce ethanol or acetic acid plus carbon dioxide. In addition to lactic acid, with a natural fermentation, competition between the two bacteria determines the kind of fermentation. As lactic acid is stronger than acetic, it is more desirable. The use of bacterial inoculants helps assure a dominance of lactic acid bacteria.

**Stable phase.** The period of active fermentation lasts between two weeks and two months. For forages ensiled in normal moisture ranges (50-65%), active fermentation is over in three weeks. (The use of a bacterial inoculant will speed this up). Once the pH is reduced to about 4.0 the bacteria quit growing and the silage is stable as long as it's oxygen-free.

Many factors effect fermentation, among them moisture, maturity, weather conditions, fertilizer, bacterial count and water soluble carbohydrates (sugars). We cannot control the weather or the bacterial counts, but with proper management and the use of Ag-Bag® Plus! we can help cope with the other factors.

Fermentation is an exact science. There are many fermented products in the world today, such as pickles, beer, yogurt, wine, cheese, sauerkraut and silage. Silage is the largest fermented product by volume in the world, and is the most inconsistent in quality. The reason other products consistently have a good fermentation is because of two things.

**One**, a controlled environment and **two**, they use bacteria to aid in the fermentation. The Ag-Bag® system is the controlled environment, Ag-Bag® Plus! inoculant is the necessary bacteria and enzymes to control the fermentation.

**Why use Ag-Bag® Plus!?** There are good and bad bacteria naturally found on your plants. University research indicates that for every one lactic acid producing bacteria (good guys) there are ten spoilage causing bacteria (bad guys). This 10 to 1 ratio is not very comforting when you are trying to harvest the best possible silage.

By adding Ag-Bag® Plus! inoculant, you are overwhelming the crop with fast growing, aggressive lactic acid producing bacteria. This creates an environment where the yeast, molds and clostridia are inhibited. If the sugars in the plants are low, they will not feed the natural bacteria on the crop.

Ag-Bag® Plus!, the unique inoculant where each bacteria is micro-encapsulated. Each bacteria is coated with a sugar and an enzyme for an immediate source of energy to feed the bacteria for even faster growth. This has proven to be a more efficient way to increase lactic acid production rather than adding the sugar separately. As a rule, 1 pound of lactic acid is equal to 2 pounds of shelled corn in energy.

There are many different strains of bacteria used in inoculants today. The most important thing to look for is a bacteria that is viable (alive). Ag-Bag® Plus! silage inoculant contains the most aggressive and technologically advanced bacteria on the market today, and Ag-Bag® is constantly improving the quality of bacteria and enhancing the product as new technology becomes available.

The strains of bacteria that are used in Ag-Bag® Plus! inoculant have special qualities to enhance silage. First, there are four strains of bacteria and two enzymes. The *Streptococcus faecium* works in both an aerobic and anaerobic environment and grows well during the initial stage of fermentation while oxygen is still present. The *Pediococcus* bacteria grow well at low temperatures, like we have in bagged feed. The *Lactobacillus plantarum* and *Lactobacillus casei* are the finishers and are chosen for their fast production of lactic acid and their stability. The two enzymes, amylase and

cellulase, were chosen because they break down the plant cell structure, making the feed more digestible and releasing more natural plant sugars. The results are a much faster fermentation and more preserved nutrients. It normally takes 21 days for feed to complete the fermentation process, but with the use of our silage inoculant the fermentation process is usually completed in 5 - 7 days. Because of the decreased fermentation time, the faster pH, and temperature reduction, not as many nutrients are used up during the fermentation process. The results are more preserved dry matter, lower pH, lower temperature, higher lactic acid production, longer bunk life and an increased feed conversion efficiency.

Ag-Bag® Plus! can be applied as a granular or a liquid. Ag-Bag® Plus! granular comes in a 50# bucket to treat 100 tons. It is applied at ½ lb. per ton of forage. Ag-Bag® Plus! soluble is available in a foil pouch to treat 50 or 100 tons. It is mixed with water and applied as a liquid. Instructions are on the labels.

### LENGTH OF CUT

The length of cut on legumes and grasses, as a good rule of thumb, is ¾" long. This allows plenty of roughage in the diet of the animals to take care of rumen activity. Corn silage should be ½" cut to keep oversize to a minimum.

Unless using a kernel processor. See manufacturer's recommendations.

### ADJUSTING THE CHOPPER

It's very important that the shear bar have a good sharp edge and adjusted up according to the owner's manual. Round edges cost feed quality and dollars.

The knives should be sharpened often to insure a good clean cut of the forage. Tearing the material apart causes extensive cell damage to the plant. Extra long forages do not feed well and are left in the bunk. A set shear bar, will in most cases allow you to go through the field one gear higher and cut your fuel consumption considerably. There are a lot of benefits to consider by proper machine adjustment. Remember – *Dedication, Preparation, and Execution.*

### BAG PLACEMENT

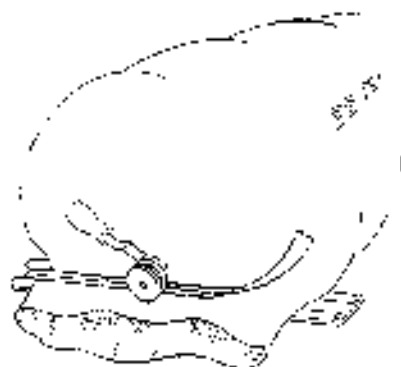
As with all feed storage systems, it is very important to have an appropriate base. The base for a bag feed storage system should be well-drained with a smooth surface. Suggested base materials include – sand, cement, 4-5" of ag lime, geoweb system, soil cement, agrt fabric with 4-5' of crushed stone, road re-grind, 50% crushed rock and 50% rock dust, dry cement spread with a hand spreader and watered down.

### PACKING THE BAG

The mechanical packing by the bagger has given a lot more freedom in making good silage. The bagger can exert as much as 15,000# pressure as the feed is being compacted. This compaction allows the silage to have a slightly longer chop (¾") than could be used in pit silage. The oxygen is literally extruded out of the feed. This insures a good pack on the forages every time, it's not left to chance. The denser the packing in the bag, the less oxygen is available to cause heating, the faster the fermentation will occur resulting in higher feed quality.

### SEALING THE BAG

As soon as you are done filling the Ag-Bag® bag and have moved the bagger, seal the bag immediately so the anaerobic bacteria can begin to work. Ag-Bag® recommends MasterSeal® plastic strip. Lay the bag end out flat and seal according to instructions. This is an effluent and gas tight seal, and more effective than traditional methods using baling twine or 2' x 4's.



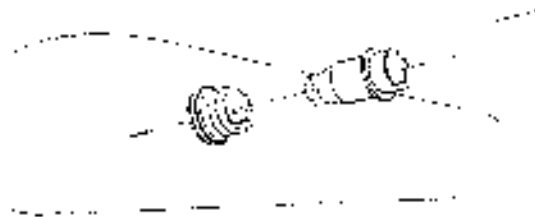
## THE 3M'S OF SILAGE

### VENTING THE BAG

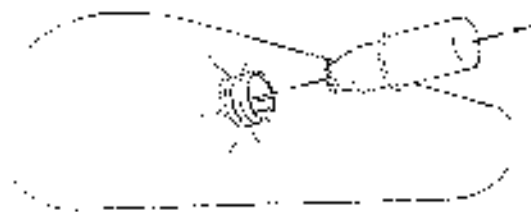
Some feeds produce a large amount of nitrogenous oxide. This creates a gas from the respiration of the plants in the bag. It's a perfectly normal process. In order for the gases to escape under *controlled* conditions, venting is a very important step in bagging. For that purpose, Ag-Bag® recommends and sells reusable vent valves instead of cutting exhaust ports that you must later tape shut.

Instructions for using the Ag-Bag® vent valve:

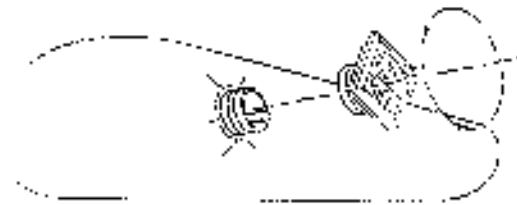
Take the cover off the vent tool. Insert the tool, with prongs up, into the cover by lining up the notches. Taking the threaded side of the valve, line up the notches and slide it over the top of the pronged end of the tool. (See illustration below.)



After you have located the spot where you want the vent to be installed, press the prongs of the tool into the plastic to create a hole. Push the tool through the hole and pull out leaving the threaded end sticking out. (See illustration below.)



Turning the valve lid to the left, screw on tightly. (See illustration below.)



Slide the lid open enough to allow the gases to escape. Within 1-2 days, close lid and leave valve in until that end of the bag is fed out. NOTE: If exceptional gassing up occurs, you may leave the vent open for an additional day. Or, if you notice the bag puffing up again after shutting the valve, open up again until the gases recede, then close.

### BANK YOUR BAGS

To avoid wind damage, use old rubber tires or other weighted material at the ends of the bag to keep loose plastic from flapping in the wind. The wind can cause plastic fatigue leaving small holes to allow oxygen to enter the feed. A little extra care at the start can make a difference in the feed quality - hold that loose plastic down.

#### DO'S AND DON'TS

1. **DON'T** get dirt in the feed going into the bag.
  2. **DON'T** allow holes or damage to the bags to remain open.
  3. **DON'T** place bags in a poorly drained area.
  4. **DON'T** allow dogs, cats and other animals to get on the bags.
  5. **DON'T** put feed up too dry or too mature.
  6. **DON'T** put excessively wet forage in the bag.
  7. **DON'T** allow the bagging machine to remain hooked up to the bag for long periods of time with feed still left in the hopper or tunnel.
- 
1. **DO** protect the storage area from livestock.
  2. **DO** inspect on a regular basis and mend holes with Ag-Bag® tape.
  3. **DO** place bags on a well-drained, hard, level surface.
  4. **DO** have your feed tested - to be able to mix and balance your ration.
  5. **DO** ensile your crop at proper moisture and maturity.

6. DO number and date bags for ease of testing and recall of material ensiled.
7. DO place bags in accessible area for easy feed removal.
8. DO place bags side-by-side for blending of feeds.
9. DO remove more than 1' of feed per day from the face of the bag to prevent aerobic instability and heating problems.

### 3M #2 – MATURITY

#### HEAD CHOP GRAINS

A new process to harvest grains pioneered by Ag-Bag® International and their satisfied users is "head chopping" small grains using a "direct cut" head on a forage harvester and cutting off the top 4" of the plant. This allows the grower to make a high energy and a high moisture feed. At the time of harvest the grain is in the heavy dough stage and is still green.

Set the chopper on finest chop available and if possible use a recut screen and/or kernel processor to further (mill) the grain. This head chop grain feed will be within ½% of full protein of dry grain, it will have TDN from 64%-72% and will add about 12% fiber to your feeding rations. (An excellent way to harvest grain without the use of a combine.) It is recommended to use Ag-Bag® Plus on this feed. The moisture level is low and requires the added bacteria to give a longer shelf life upon opening and feeding.

#### SNAPPED EARLAGE

This method of harvest allows you to snap the ears of the corn plant, cob and all. It's then run through the chopper with a recutter screen and/or kernel processor to process the feed to be put directly into the Ag-Bag® bag and should be fermented without further grinding of the grain.

The moisture level will be between 30-45% and may require the application of Ag-Bag® Plus inoculant to speed up the fermentation of the snapped earlage. This helps slow down aerobic deterioration after opening the bag. It's then ready to feed to your animals after the 21-day fermentation cycle. If Ag-Bag Plus is used, the grain will be ready

to feed in a shorter time of 7-10 days.

#### FEEDING OUT OF THE BAG

Because of a higher residual sugar content in bagged feed, aerobic deterioration will occur if the bag is left open. It happens with all silage as it is exposed to oxygen. The small face of the bag gives you better feed out control.

Cut the Ag-Bag® bag open down the top center of the bag and lay it out flat on the ground. Moving the loader to one end of the plastic, drive loader tires onto the plastic using it as a base. With the loader bucket, loosen the silage starting at the top of the bag. As it loosens and falls on the plastic, use the loader bucket to scoop it up. Keeping the loader bucket as close to the ground as you can while not disturbing the plastic on the ground. The plastic will work to keep the silage from spilling. As you continue to remove the feed from the bag, shake the remaining feed to the center of the plastic. Operators can easily be trained in the proper feed-out techniques recommended by Ag-Bag® and minimize blowing plastic and feedout loss. (See diagram on pg.12)

The bag should be sized to fit your operation. Minimum daily face removal should be at least 1 foot back into the bag each day after opening. This will prevent heating of the feed from oxygen breakdown. For specific feeding rates, please view the chart below to estimate the tons of feed you need to use each day.

Harvesting at the right stage of maturity, harvest to get optimum total digestive nutrients (TDN), and harvest crops that average between 60-70% TDN is ideal to get maximum milk or meat production per acre.

#### WHAT IS THE VALUE OF CORN SILAGE?

Some universities and research centers say that corn harvested as mature corn silage is the king of all crops as far as producing the most pounds of TDN per acre. A 20-ton-per-acre crop of corn silage, which would be near an equivalent of a 120 bushel an acre grain crop, would produce about 6 tons of dry matter per acre.

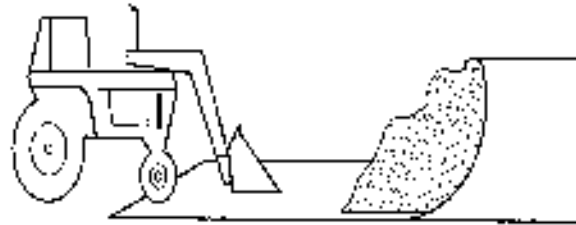


## THE 3M'S OF SILAGE

### AT WHAT MATURITY DO WE CUT ALFALFA?

Cut when the plant still is over 20 percent protein. This is no later than the late bud stage (before any flowers appear). Go to the field and grab that flowering point. You can tell when the bud is getting very hard. In fact, at the very late stage you actually can see that small, little will become the flower. Start as early as midbud if you have a lot of hay to put in, especially with first crop. Once blossoms show, quality drops off very rapidly. Don't wait until the perfect time...it never seems to come. If it isn't raining and the weather looks acceptable, go ahead and cut.

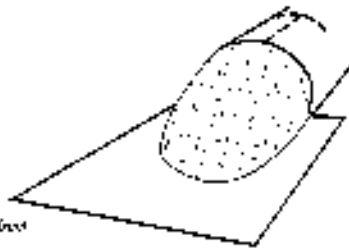
- Skim close directly from the front.



### Proper Bag Feed Out Technique For Large Operations

- Cut the Ag Bag bag open down the top center of the bag, and lay it out flat on the ground.

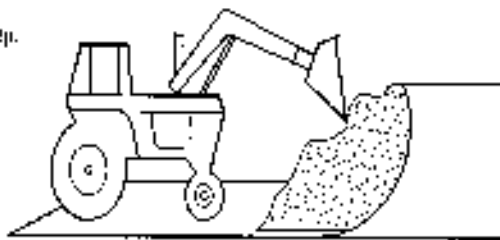
Press the plants into baggy  
near the center bucket. Also the best  
way to use the plants.



- Lift the plastic edges and shove residue back to the center of the bag.



- Tip the top of pile  
This will  
loosen it up.



Make the top of the pile loose all plastic.

## Suggested Daily Feed Out Rates

Winter Rates - October - April		
Bag Size	Feet/Day	Tons/Day
8'	1'	1
9'	1-1/4'	1-1/4
10'	2'	3
11'	2-1/4'	4
12'	2-1/2'	5-1/2

Summer Rates - May - September		
Bag Size	Feet/Day	Tons/Day
8'	2'	2
9'	2-1/4'	2-3/4
10'	2-1/2'	4
11'	2-3/4'	5
12'	3'	6-1/2

## Bag Capacity Per Running Foot

Bag Size	Tons
8'	1
9'	1-1/4
10'	1-1/2
11'	1-3/4
12'	2-1/4

**Cut Crop at the Proper Stage of Maturity**

		% Crude Protein	% TDN
<b>Corn Silage</b>	Tassel	10.7	64.4
	Milk	8.0	69.0
	Glaze or Early Dent	8.0	71.0
	Full Dent	8.0	68.9
<b>Alfalfa Silage</b>	Bud Stage	22.1	61.7
	1/10 to 1/3 Bloom	20.4	63.4
	1/2 to 3/4 Bloom	18.2	58.9
	Past Bloom	12.3	49.8
<b>Oat Silage</b>	Boot Stage	15.3	65.8
	Late Milk to Early Dough	8.5	65.0
	Late Dough	8.3	63.5
<b>Grass Silage</b>	Pre-Bloom	20.4	73.2
	Spike	14.0	67.6
	Milk	12.1	65.0
	Dough	10.6	60.0
	Mature	5.3	52.7
<b>Wheat Silage</b>	Immature	24.0	63.5
	Flower	16.0	63.0
	Late Flower	6.7	51.3
<i>Notice when cut at the right stage of maturity, the TDN values are all above 60-70% in feed value.</i>			

## THE 3M'S OF SILAGE

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### The Influence of State of Maturity on Corn Yield

Silking	1 Day	12 Days	25 Days	49 Days
Silage Weight (lbs. per acre)	16,000	25,000	34,000	40,000
Dry Matter (lbs. per acre)	5,400	8,300	11,700	13,600
Stalks and Leaves	93%	72%	53%	37%
Ears and Husks	7%	28%	47%	63%

### How Harvesting Alfalfa Affects Digestibility, Consumption, Milk Production and Grain Requirements

Cutting Date	Dry Matter Digestibility	Daily Digestible Forage Consumption in lbs. per 1000-lb. Cow	Milk Production - Fat Corrected Lbs.	Amount of Grain Required - Lbs. Daily
Early Bud	66.8	23.0	42.5	3.0
	65.0	21.6	39.2	5.7
	63.1	20.2	34.0	8.4
	61.3	18.8	31.4	10.9
	59.4	17.4	26.5	13.5
	57.5	16.0	23.4	15.7
Full Bloom	55.8	14.7	19.5	18.2

### 3M #3 – MOISTURE

Ag-Bag® International recommends that forages be harvested at moisture levels ranging from 55-68%. This insures best fermentation and digestibility of TDNs. Wilting of most forages will be necessary to attain the desired moisture.

Note: For round or square bale silage, we recommend 45-55% moisture. Head chop grain should be harvested in the 30-40% moisture range. Snapped Earlage should be in the 30-45% moisture range. High moisture shelled corn should be in the 28-30% moisture range. One (1) ton of dry hay will equal three (3) tons of baglage (Rule of Thumb).

#### MOISTURE AND QUALITY

In addition to stage of maturity at the time of harvest, moisture (either too much or too little) is one of the most important factors that determines the quality of the final product of the ensiling process. *Other things being equal, losses with wilted silage are much lower than when the forages are ensiled as direct cut material at high moisture levels.* Silage cut above 70% moisture tends to increase the amount of clostridia in the forages. The clostridia starts to use up the proteins and soluble sugars, lessening the quality of the feed. This higher moisture feed can cause some acidosis in the cattle - since ensiling bacteria are more active in wetter feeds as the moisture wilt. Try to start bagging at 70% moisture (as soon as it doesn't make water) and balance your swathing with speed of bagging and hauling.

#### MOISTURE TESTING

There are lots of moisture testers on the market today. Some are electronic, others have probes, some cook the moisture out of the feed and leave the residue to weigh for accurate dry matter. Contact Ag-Bag® International for ordering a moisture tester. Another method used by some experienced Ag-Bag® users is the *Squeeze Ball Test*. To do this, grab a handful of chopped material and form a ball. Squeeze the material hard for 30 seconds. If you squeeze water out of the feed, it is above 75% moisture. If no water comes out when

pressed and the material holds a tight ball and some moisture remains on your hand, it is from 65-70% moisture. If the ball comes apart slowly, it is close to 60% moisture. Under 50% moisture, the ball springs apart and does not stay together. Below this level (50-55%), the moisture is getting marginal for good fermentation.

#### DIRECT CUT

Some forages can be cut directly off the stump. **EXAMPLE:** a) An alfalfa crop that is very grassy or past 10-20% bloom. b) Most crops that are mature rather than very lush and young. c) Most grain crops in the dough stage can be direct cut. If you are going to use whole plant or make Head Chop. For best results and better control of your moisture level in the various forage crops, it is best to swath and wilt. The ideal moisture level is 65-68% in forages and in corn silage. In colder climates it is advisable to lower the moisture level to 55-60% for those bags to be fed in extremely cold weather.

#### PLANNING YOUR MOISTURE

It requires some experience to maintain swather distance ahead of the chopper. There are many variables, i.e., First Cut, wet ground, doesn't dry out as rapidly, rainy conditions. Second Cut, hot and dry, may only require 2-3 hours wilt. Try to start bagging at 70% moisture (as soon as it doesn't make water) and balance your swathing with speed of bagging and hauling.



### DAIRY TERMS TO KNOW

maximize your profits.

**Acid detergent fiber (ADF):** Fiber measurement extracted with acidic detergent in a technique employed to help appraise the quality of forages. Includes cellulose, lignin, ADIN, and acid-insoluble ash. ADF is highly correlated with cell wall digestibility. The higher the ADF, the lower the digestibility or available energy.

**Acid detergent insoluble nitrogen (ADIN):** Protein or nitrogen that has become chemically linked to carbohydrates to form an indigestible compound. Also referred to as an insoluble crude protein.

**Adjusted crude protein (ACP):** Protein content adjusted for the amount of heat-damaged protein. Used in place of CP when ADIN makes up more than 10% of the CP content of a feed.

**Amino acids:** Building blocks of proteins. Used extensively for milk and muscle protein synthesis, as well as glucose synthesis in the liver.

**Ammonia:** A colorless nitrogen compound produced as protein and nonprotein nitrogen degrades or breaks down in the rumen. It can be used to synthesize bacterial protein.

**Anion:** A negatively charged ion or particle, such as chloride or sulfate. Anionic salts are nutritionally important in dry cow rations to aid in the prevention of milk fever.

**Ash:** The mineral matter present in feed. It is measured by burning the sample at 500°C until all organic matter is burned and removed.

**Cation:** A positively charged ion or particle.

**Cellulose:** The principle carbohydrate constituent of plant cell membranes. It is made available to ruminants through the action of cellulolytic bacteria in the rumen.

**Carbohydrates (CHO):** Includes the sugars, starch, cellulose, gums, and related substances. Carbohydrates are the largest component in the dairy cow diet and contribute 60 to 70 percent of the net energy used for milk production. Their abbreviation, CHO, indicates that they contain carbon, hydrogen, and oxygen.

**Concentrate:** A broad classification of feedstuffs that are high in energy and low in crude fiber (less than 18 percent). Included are cereal grains, soybean oil meal, cottonseed meal, and by-products of the milling industry such as corn gluten and wheat bran. A concentrate may be low or rich in protein.

**Crude fiber (CF):** That portion of feedstuffs composed of polysaccharides such as cellulose, hemicellulose, and lignin. These serve as structural and protective parts of plants (high in forages and low in grains). CF is no longer considered a viable measurement.

**Crude protein (CP):** Total protein in a feed. To calculate the protein percentage, a feed is first chemically analyzed for nitrogen content. Since proteins average approximately 16 percent nitrogen, the percentage of nitrogen in the analysis is multiplied by 6.25 to give the percent CP.

**Degradable intake protein (DIP):** Protein or nitrogen that is degraded in the rumen by microorganisms and incorporated into microbial protein or freed as ammonia.

**Dry matter (DM):** That part of feed which is not water.

**Ensilage:** Forage preserved by fermentation in a bag, silo, pit, bunker or stack, usually in chopped form. Also called silage.

**Fiber:** The cellulose portion of roughages (forages) that is low in TDN and hard to digest by monogastric animals.

### DAIRY TERMS TO KNOW

**Forage:** The vegetative portion of plants in a fresh, dried, or ensiled state which is fed to livestock. Grasses and legumes cut at the proper stage of maturity and stored to preserve quality.

**Green chop (fresh forage):** Forages harvested (cut and chopped) in the field and fed directly to livestock. Also called zero grazing or sillage.

**Hay:** Dried forage (grasses, alfalfa, clovers) used for feeding farm animals.

**High-moisture silage:** Silage containing 70 percent or more moisture.

**Legume:** Clovers, alfalfa, and similar crops that can absorb nitrogen directly from the atmosphere through action of bacteria that live in their roots and use it as a nutrient for growth.

**Lignin:** A compound which, with cellulose, forms the cell walls of plants. It is practically indigestible.

**Lipid:** Any one of a group of organic substances that are insoluble in water though soluble in alcohol, ether, chloroform, and other fat solvents, and have a greasy feel. They are rich sources of dietary energy.

**Nonprotein nitrogen (NPN):** Used by ruminant microorganisms to synthesize protein.

**Neutral detergent fiber (NDF):** A measurement of fiber after digesting in a nonacidic, nonalkaline detergent as an aid in determining quality of forages. Contains the fibers in ADF, plus hemicellulose.

**Nitrogen balance:** Nitrogen in the food consumed minus nitrogen in feces and nitrogen in urine (nitrogen retention).

**Nitrogen-free extract (NFE):** Consisting of carbohydrates, sugars, starches, and a major portion of materials classed as hemicellulose in feeds. When crude protein, fat, water, ash, and fiber are added and the sum is subtracted from 100, the difference is NFE.

**Nonfiber carbohydrates:** The highly digestible carbohydrate fraction of feeds consisting of starch, sugar, and pectin. Subtracting percent (DM basis) NDF, CP, ether extract (fat) and ash from 100 provides an estimate of NFC percent in feeds.  $(NFC\% = 100 - [\%NDF + \%CP + \%fat + \%ash])$

**Protein equivalent:** A term indicating the total nitrogen content of a substance in comparison with the nitrogen content of protein (usually plant). For example, the nonprotein nitrogen (NPN) compound, urea, contains approximately 45 percent nitrogen and has a protein equivalent of 281 percent ( $6.25 \times 45$  percent).

**Ration:** The amount of feed supplied to an animal for a definitive period, usually 24 hours.

**Relative feed value (RFV):** Developed primarily for use with legume or legume/grass forages, RFV combines digestibility and intake estimates into one number for an easy and effective way to identify and market quality hay. RFV is expressed as a percent compared to full bloom alfalfa at 100 percent RFV.

**Roughage:** Consists of pasture, silage, hay, or other dry fodder. It may be of high or low quality. Roughages are usually high in crude fiber (more than 18 percent) and relatively lower in NFE (approximately 40 percent).

**Saturated fatty acids:** A completely hydrogenated fat, each carbon atom is associated with the maximum number of hydrogen; there are not double bonds. Saturated fatty acids are solid at room temperature. Tallow is an example of a saturated fat, although approximately 50 percent of the fatty acids are unsaturated. Saturated fats tend to have less detrimental effects on rumen fermentation than unsaturated fats.

**Silage:** Green forage, such as grass or clover, or fodder, such as field corn or sorghum, that is chopped and compacted into a feed storage bag, silo, or bunker to create an anaerobic or air-free environment and undergoes an acid fermentation (lactic and acetic acids) that retards spoilage.



### DAIRY TERMS TO KNOW

**Total mixed ration (TMR):** A blend of all feedstuffs (forages and grains) in one feed. A complete ration that fits well into mechanized feeding and the use of computers to formulate least-cost rations.

**Unsaturated fat:** A fat having one or more double bonds, not completely hydrogenated.

**Urea:** A nonprotein organic nitrogenous compound. It is made synthetically by combining ammonia and carbon dioxide.

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# Bagging Instructions



Appendix C discusses the bagging operation in greater detail than other sections of this manual. It is recommended that you review this section prior to starting to bag.

# BAGGING INSTRUCTIONS

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## BAGGING INSTRUCTIONS

### BAGGING INSTRUCTIONS

In order to get the benefits without the risk of VOIDING the WARRANTY, the customer must:

- Prior to bagging read the Operator's Manual and the 3M's OF Silage (appendix B)
- Notify Ag-Bag® within 24 hours of the discovery of a bag failure. Ag-Bag® will provide for an onsite review of the situation.

#### 1. THE CROP

- A Maturity (Pre-bloom)
- B Moisture Level (65 percent target)
- C Crop Length (3/4' target) (See Appendix B)

#### 2. BAG LOCATION – Pick an area using these recommendations:

- A Blade the area to remove rocks and sticks.
- B Good drainage site is important.
- C Concrete, asphalt, gravel, or packet limestone, works well under bags.
- D Pick a site away from rodents.
- E Protect your site from livestock with fencing.

#### 3. BAG INSTALLATION

Enclosed in each box of Ag-Bag® Bags, is an instruction sheet with pictures to help you properly install the bag on your Ag-Bagger®. Please take the time to understand the best method of bag installation. The Bag logo should be placed on the machine so the logo is between 12 and 3 o'clock. (See Diagram 1)



(Diagram 1)

The bag is overfilled when – the 5" vertical bar located between Ag-Bag® logos on the bag is stretched to over 5-1/2" (See Diagrams 2a and 2b)



(Diagram 2a)



(Diagram 2b)

### 4. BAGGING PRESSURE

- A When filling the bag, it should not be stretched more than 2 inches above the tunnel nor should the bag push against the cables.
- B LESS brake pressure is required when:
- 1 Bagging up hill
  - 2 Bagging with a large tractor or pushing a large truck
  - 3 Bagging in muddy or soft sandy soils
  - 4 Bagging extremely wet feed (above 75% moisture)
  - 5 Bagging dry grains (makes a flatter bag). the bag will not always reach to top of tunnel.
  - 6 Bagging oats and winter forages (NOTE: These should only be packed to the top of the tunnel because of swelling during storage.)
- C MORE brake pressure is required when:
- 1 Bagging on hard surfaces, concrete, asphalt, etc.
  - 2 Bagging with motorized Ag-Bagger<sup>®</sup>
  - 3 Bagging down hill

### 5. SEALING AND VENTING – Very Important!!

As soon as the bag is filled, seal the finished end. As outlined in the instruction sheet. The faster oxygen is eliminated, the quicker the fermentation process can begin, it is very important to vent the bag. (See Appendix B)

### 6. PROTECTION FROM WIND DAMAGE

Wind damage can be caused by wind whipping the loose ends of the Ag-Bag<sup>®</sup> Bag. To prevent damage, the loose bag end needs to be secured with MasterSeal or by placing tires or other soft material on the end of the bag. Wind damage can cause small cracks and eventually wear a hole that allows air to penetrate, causing feed damage. A tightly secured bag will add to the life of the bag.

### 7. AG-BAG<sup>®</sup> BAG MANAGEMENT AND INSPECTION

Periodic inspection of the bag is essential to maintain an oxygen free environment in the bag. It is recommended that repairs be made with Ag-Bag<sup>®</sup> mending tape as soon as they are discovered.

### 8. NORMAL USAGE LIFE OF AG-BAG<sup>®</sup> BAGS

Rotate stored crops – unpack in same order as packing. Use the oldest feed first.

- A Ag-Bag<sup>®</sup> bags located in the U.S.A. along the Canadian border, in all of Canada, Northern Europe, and in similar climates should be fed within 24 months.
- B Ag-Bag<sup>®</sup> bags located in the Central U.S., but more the 500 miles north of the Mexican border and the Gulf coast, should be fed within 24 months.
- C Ag-Bag<sup>®</sup> bags locate in extremely hot and sunny regions of the world, such as the southern most areas of the U.S. and in Mexico, the Caribbean, Middle East, etc.. should fed within 12-18 months. For more specific recommendations contact you Ag-Bag<sup>®</sup> Dealer or Ag-Bag<sup>®</sup> International direct.



## BAGGING INSTRUCTIONS

### BAG INFORMATION

Bag Code	Bag Size	Inoculant Index	Tons/Bag 65% Earlage	Tons/Bag 35% Shelled Corn	Tons/Bag 28-30% Per Bag	Approx. Bushels Per Bag (Based on 56# bushel)
TD810	8' x 100'	1.0	80-90	70	80	
TD815	8' x 150'	1.4	120-140	120	130	3,825
TD820	8' x 200'	1.9	170-190	164	180	5,294
TD913	9' x 135'	1.6	140-160	134	150	4,411
TD915	9' x 150'	1.8	160-180	162	175	6,125
TD920	9' x 200'	2.2	200-225	205	230	6,765
TD1015	10' x 150'	2.2	200-220	180	202	5,940
TD1020	10' x 200'	3.0	270-300	247	278	8,175
TD1025	10' x 250'	3.6	340-360	324	350	12,250
TD1125	11' x 250'	4.2	390-420	350	410	14,350
TD1225	12' x 250'	5.2	490-520			
TD1230	12' x 300'	5.7				
TD1250	12' x 500'	10				
TD1450	14' x 500'	12				

NOTE: The tons per bag are approximate and will vary based on moisture and length of chop and crop types. High moisture shelled corn totals are figured from bagging with a regular Ag-Bag machine. If using an Ag-Bag Grain Bagger, totals will be approximately 20% less, due to density. Also, when using the MasterSeal sealing strip you can get approximately 2-4 more loads in the bag, depending on the size of your bag.

#### SUGGESTED FEED OUT RATES PER DAY

Bag Size	Winter Rates		Summer Rates	
	Oct. - April		May - Sept.	
	Feet/Day	Tons/Day	Feet/Day	Tons/Day
8'	1'	1	2'	2
9'	1'	1	2 1/4'	2 3/4
10'	2'	3	2 1/2'	4
11'	2 1/4'	4	2 3/4'	5
12'	2 1/2'	5 1/2	3'	6 1/2

#### CAPACITY OF TONS PER RUNNING FOOT OF BAG

8'	1 ton
9'	1 1/4 tons
10'	1 1/2 tons
11'	1 3/4 tons
12'	2 1/4 tons

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