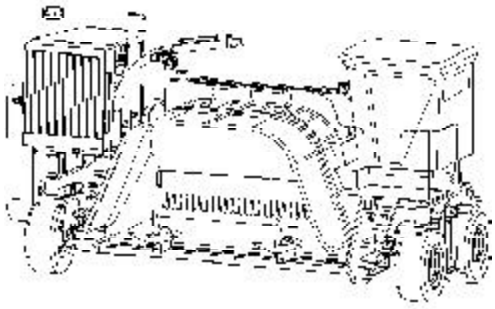
AG-BAG® INTERNATIONAL

MB7010 HyPac

OPERATOR'S MANUAL



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USING THE MANUAL.

This manual has been designed to be used with the G6000 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.

For ease of use this manual is divided into the following sections. Each section has its own Table of Contents and Index. ***To access each section simply click on the blue high lighted words or numbers. When in a particular section simply click on the blue page numbers to jump to that page. The Table of Contents and Index both have these high lighted numbers***

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 keep 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®.

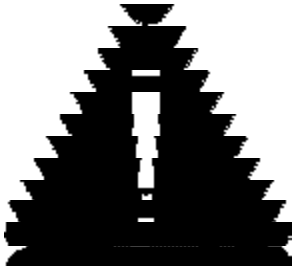
Appendix A: Parts. The parts manual for your Ag-Bagger® are contained in this section.

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®!

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.

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

Table of Contents

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 guard 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 use 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® 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.

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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 and 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 import 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 levelest 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® 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.

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.

- 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.

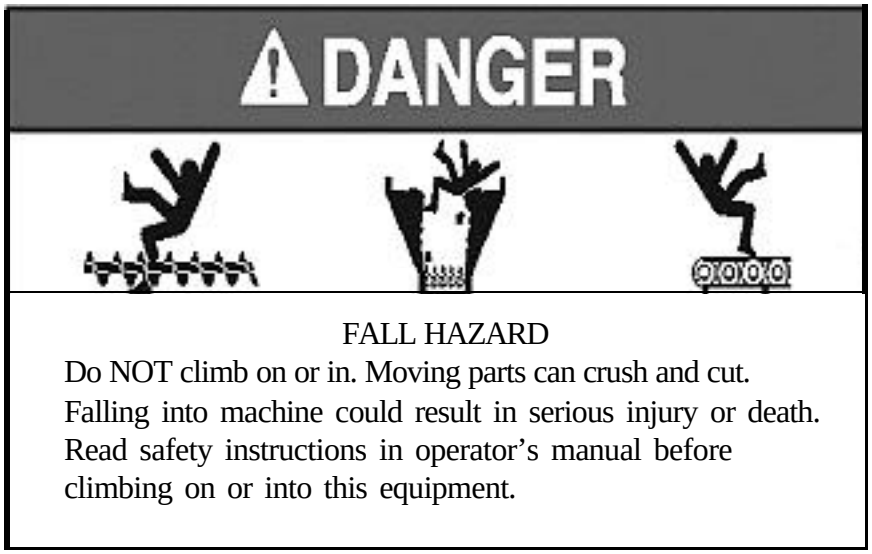
- If equipment has been altered in any way from original design, Ag-Bag International, Ltd. does not accept any liability for injury or warranty.

- 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.

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

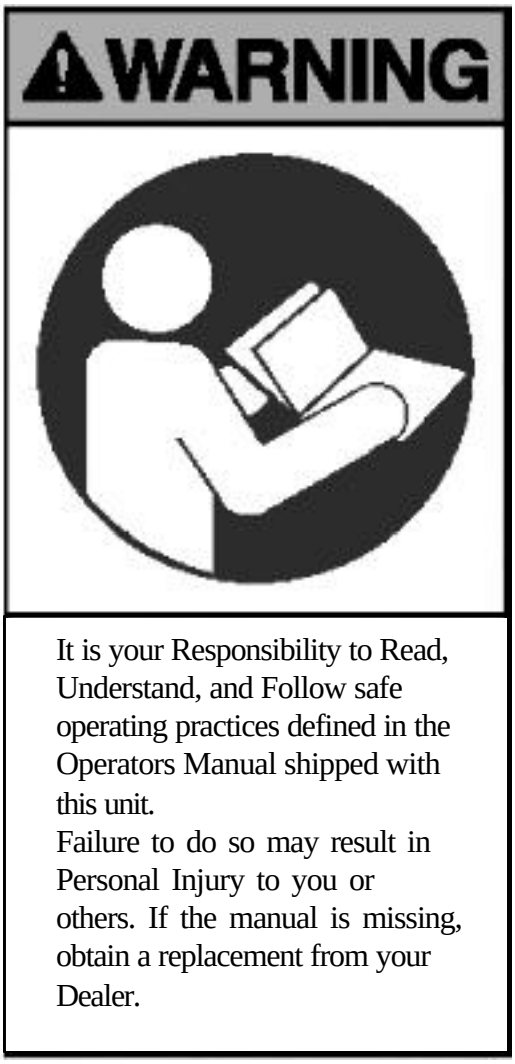
DANGER LABELS



FALL HAZARD. Never climb on or into the Ag-Bagger® unless the tractor has been completely shut down. If you are going in to 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 set on the Ag-Bagger® at anytime. Children should not be allowed near the Ag-Bagger® when it is in operation. To replace this decal reorder part number 1530015 from your Ag-Bag® Dealer.

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

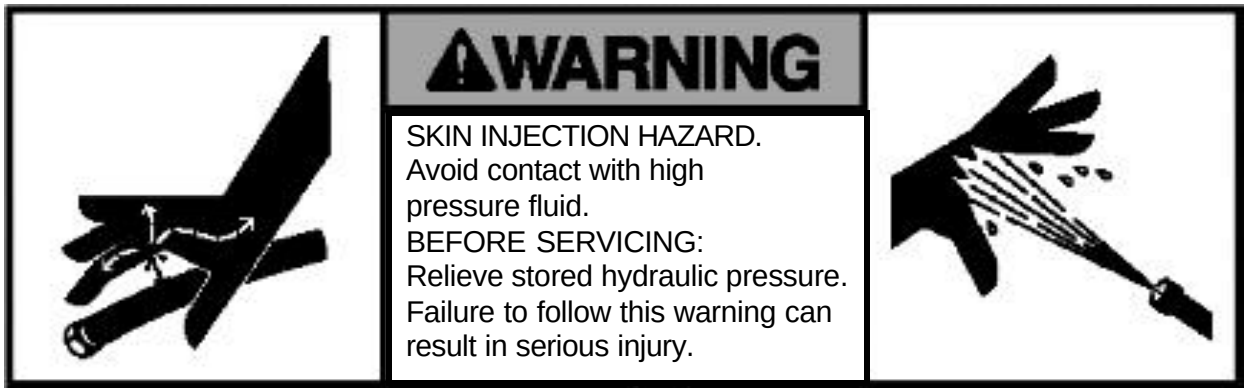
WARNING LABELS



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

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

WARNING LABELS (CONT.)

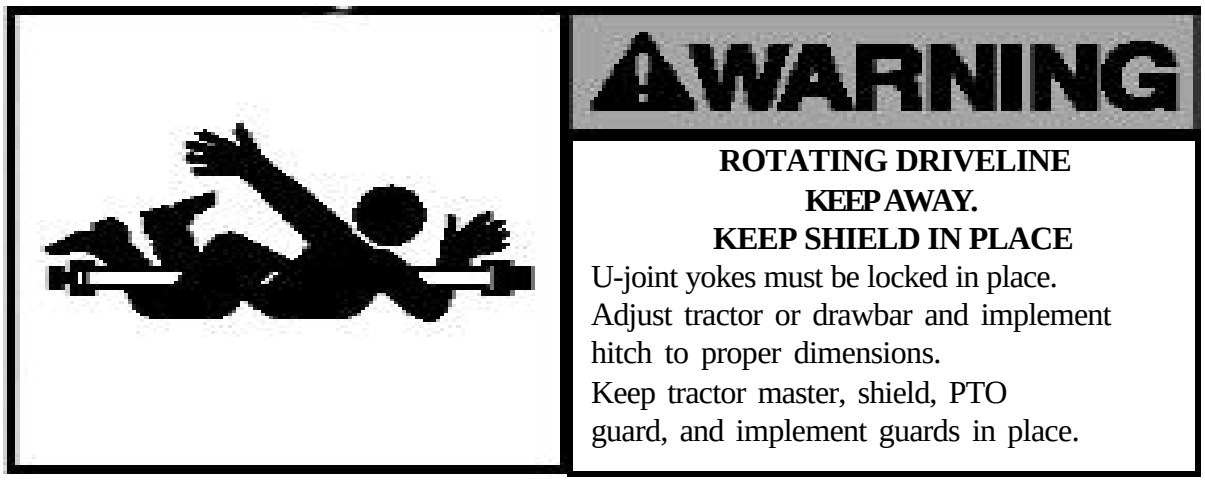


SKIN INJECTION HAZARD. Hydraulic oils and fluid under high pressure can be injected under the skin. The oil/fluid can cause serious illness. Always shut down the tractor and relieve all stored pressure on the hoses before servicing. Never run your hand over a hydraulic hose you suspect has a leak. To 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.

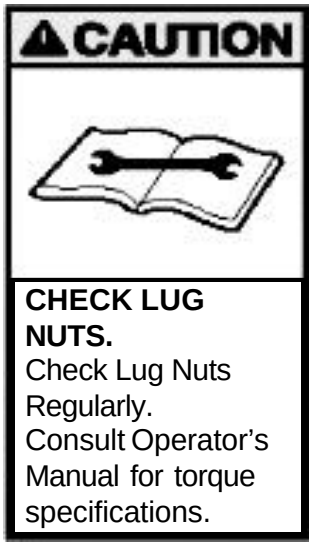
WARNING LABELS (CONT.)



ROTATING DRIVELINE. The PTO shaft is an important part in the operation of the Ag-Bagger® 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® Dealer.

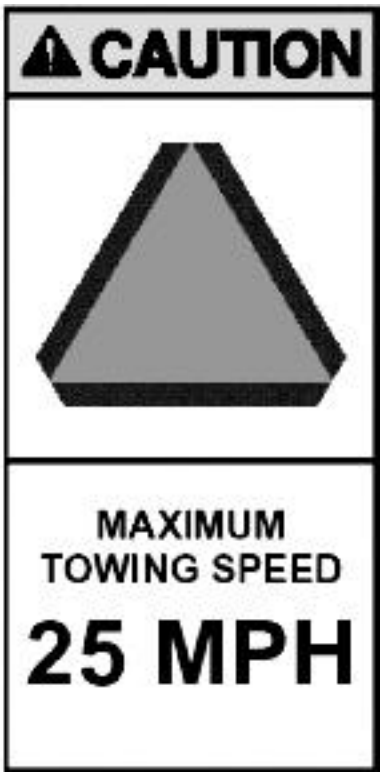
CAUTION LABELS

CHECK LUG NUTS. Because the Ag-Bagger® 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® Dealer.



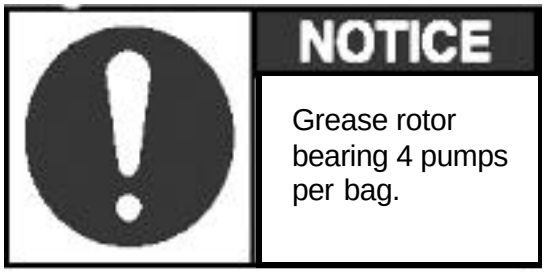
STOP MACHINE AND TURN OFF ENGINE TO ADJUST, LUBRICATE, OR SERVICE.

CAUTION LABELS (CONT.)



MAXIMUM TOWING SPEED. Although you can tow the Ag-Bagger on the open highway do not exceed 25 mile per hour. It should be remembered that the Ag-Bagger® does not have brakes, also 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® while the wheels are in the bagging position. Make sure you read and understand the section on preparing the Ag-Bagger 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 a lower speed. To replace this decal reorder part number 1530041 from your Ag-Bag® Dealer.

NOTICE LABELS



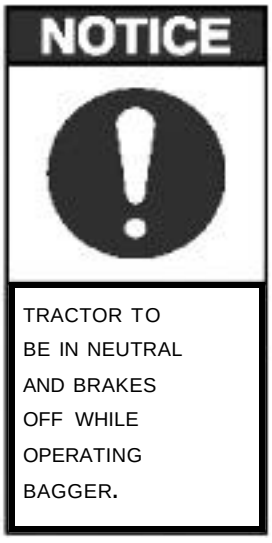
GREASE ROTOR BEARING. The Ag-Bagger® is equipped with two Rotor Bearing Grease Whips. The zerk fittings are located on the frame on either side of the tunnel. For the best results with your Ag-Bagger® use the type grease recommended in the Service and Maintenance portion of the Operator's Manual. To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

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®, 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® Dealer.



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

OTHER LABELS

OIL CHAIN

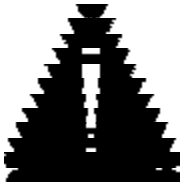
AT LEAST TWICE PER BAG

OIL CHAIN. The chain is behind a safety shield located on the left 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
PRECACION

1. DO NOT reach or place any part of your body inside the hopper.
NO TRATE de alcanzar o ponga ninguna parta 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.

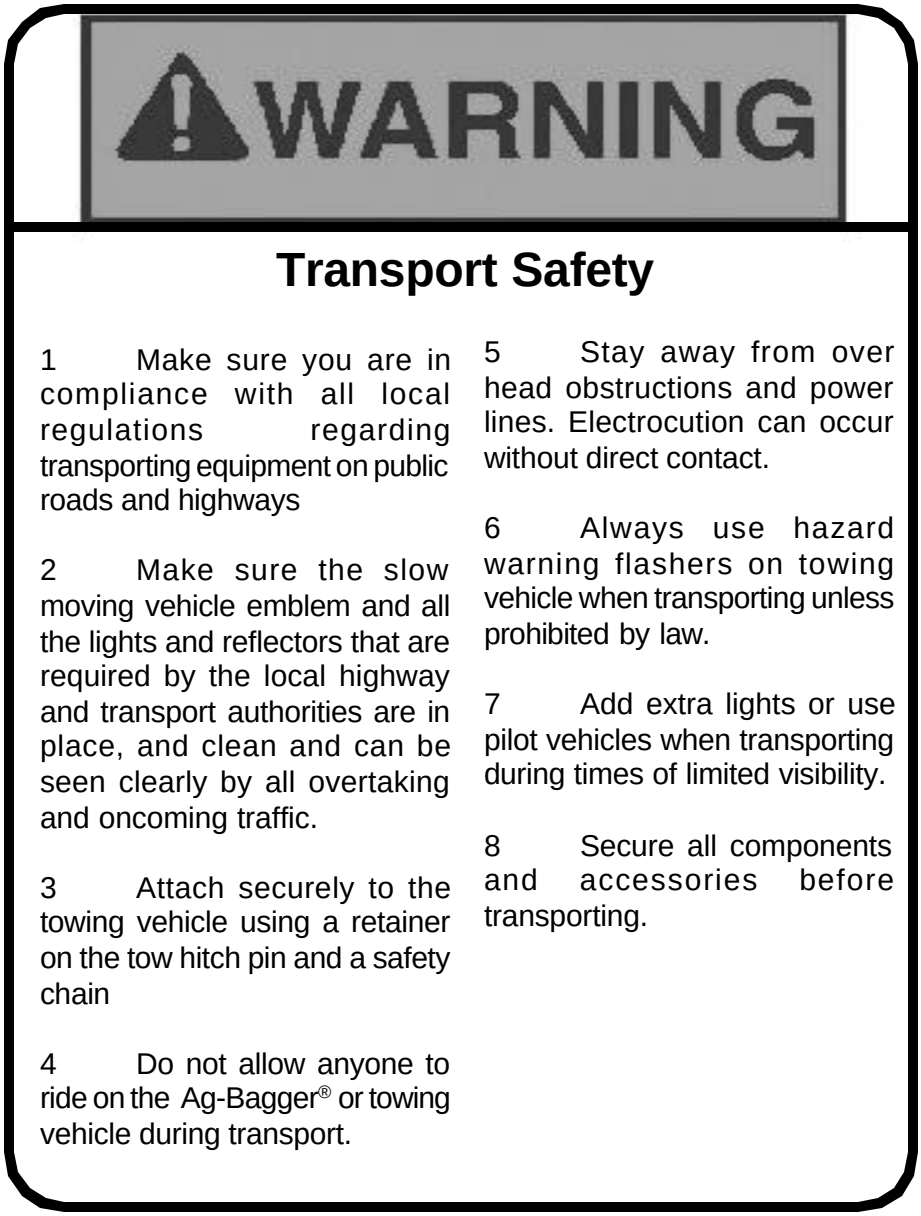
8. Keep HANDS, FEET AND CLOTHING AWAY FROM INTAKE AREA AND ALL OTHER MOVING PARTS OF MACHINE.
Mantenga las MANOS, PIES, Y ROPA FUERA DEL AREADE ADMISION.

9. Think SAFETY AND USE CAUTION in entire operation area.
SEA PRECAVIDOY 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®, but instead they are used as part of this manual in provide information of a safety nature.



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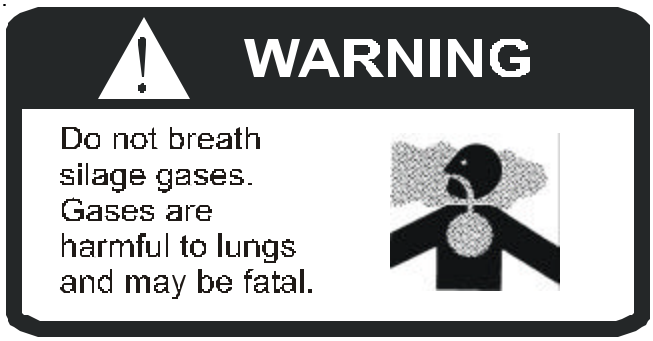
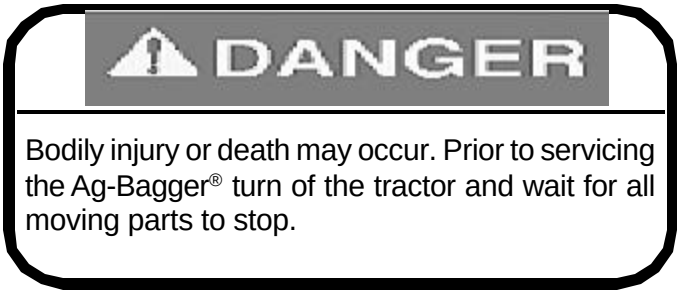
INFORMATION SIGNS (CONT.)



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.

INFORMATION SIGNS (CONT.)

NO SMOKING - Handle fuel with care while fueling. Fuel is extremely flammable and explosive.

BATTERY - Handle battery with caution. Sulfuric acid in the battery's electrolyte is strong enough to burn skin, cause blindness if splashed in eye's and damage clothing.

CABLES **- Always wear protective gloves when handling cables for any reason. Serious injuries can occur.**

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 else where in this manual for you convenience.

AG-BAGGER® MODEL MB7010 HyPac

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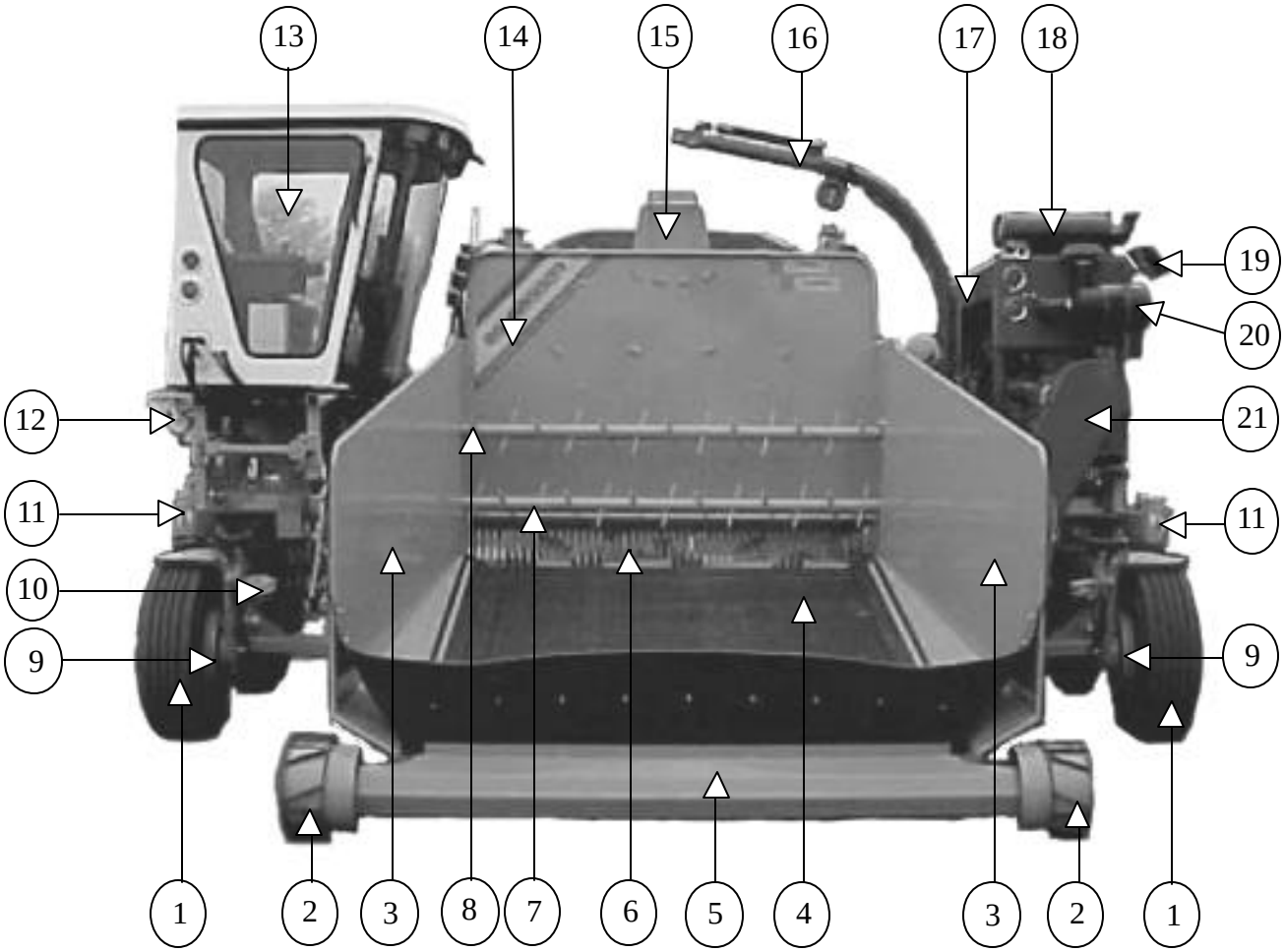
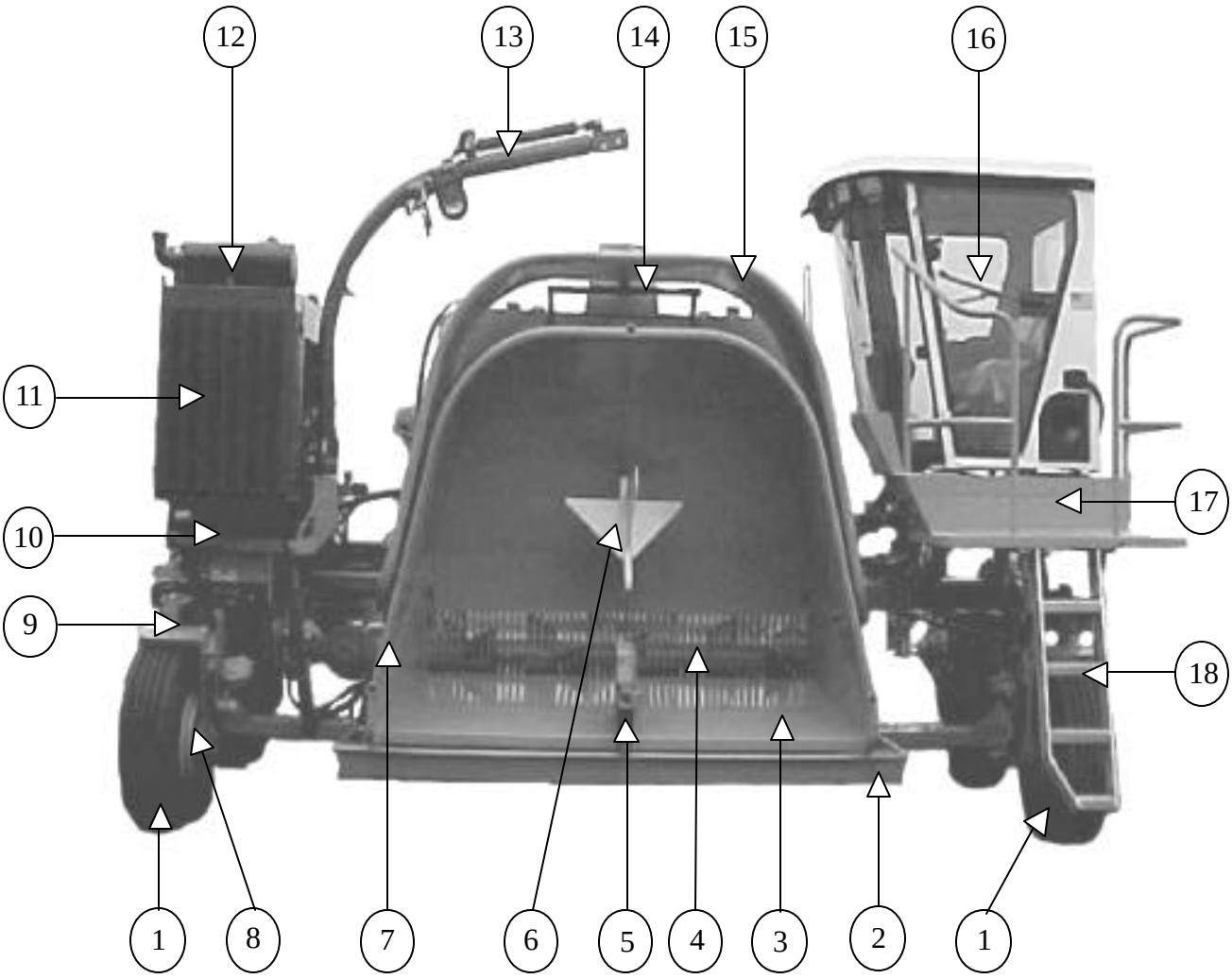


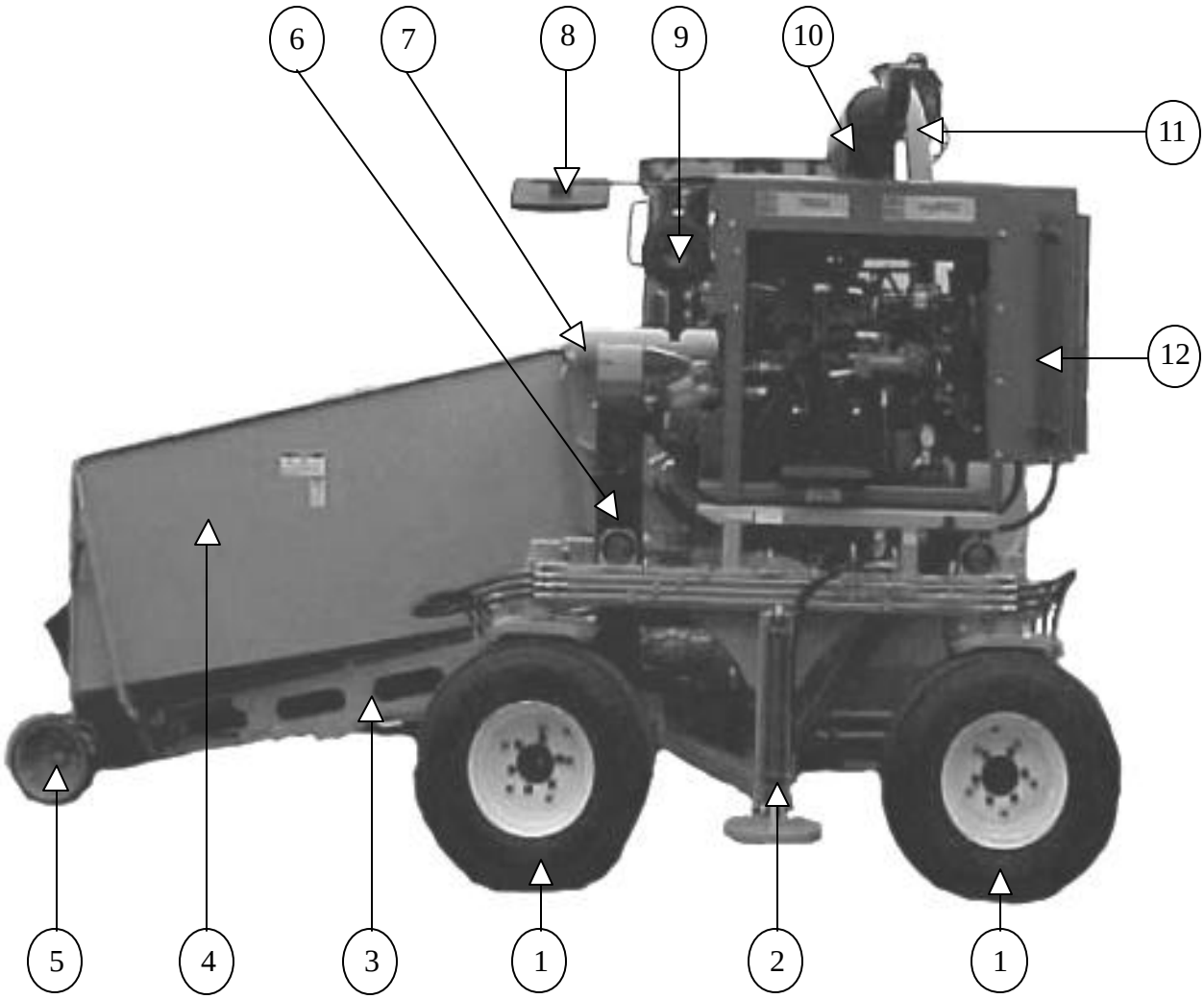
FRONT VIEW

1. 385/65R 19.5 TIRE
2. FEED TABLE WHEEL
3. FEED TABLE WING
4. FEED TABLE BELT - ENDLESS
5. FEED TABLE
6. ROTOR & STRIPPER BAR
7. BEATER BAR - LOWER
8. BEATER BAR - UPPER
9. WHEEL DRIVE
10. AIR BRAKE CANNISTER
11. WHEEL COLUMN
12. AIR CONDITIONER UNIT
13. SOUND GARD® CAB
14. FUEL & HYDRAULIC TANKS
15. INOCULANT APPLICATOR MOUNT
16. BAG BOOM
17. ENGINE COWLING
18. EXHAUST SYSTEM
19. SAFETY MIRROR
20. ENGINE AIR CLEANER
21. BELT DRIVE



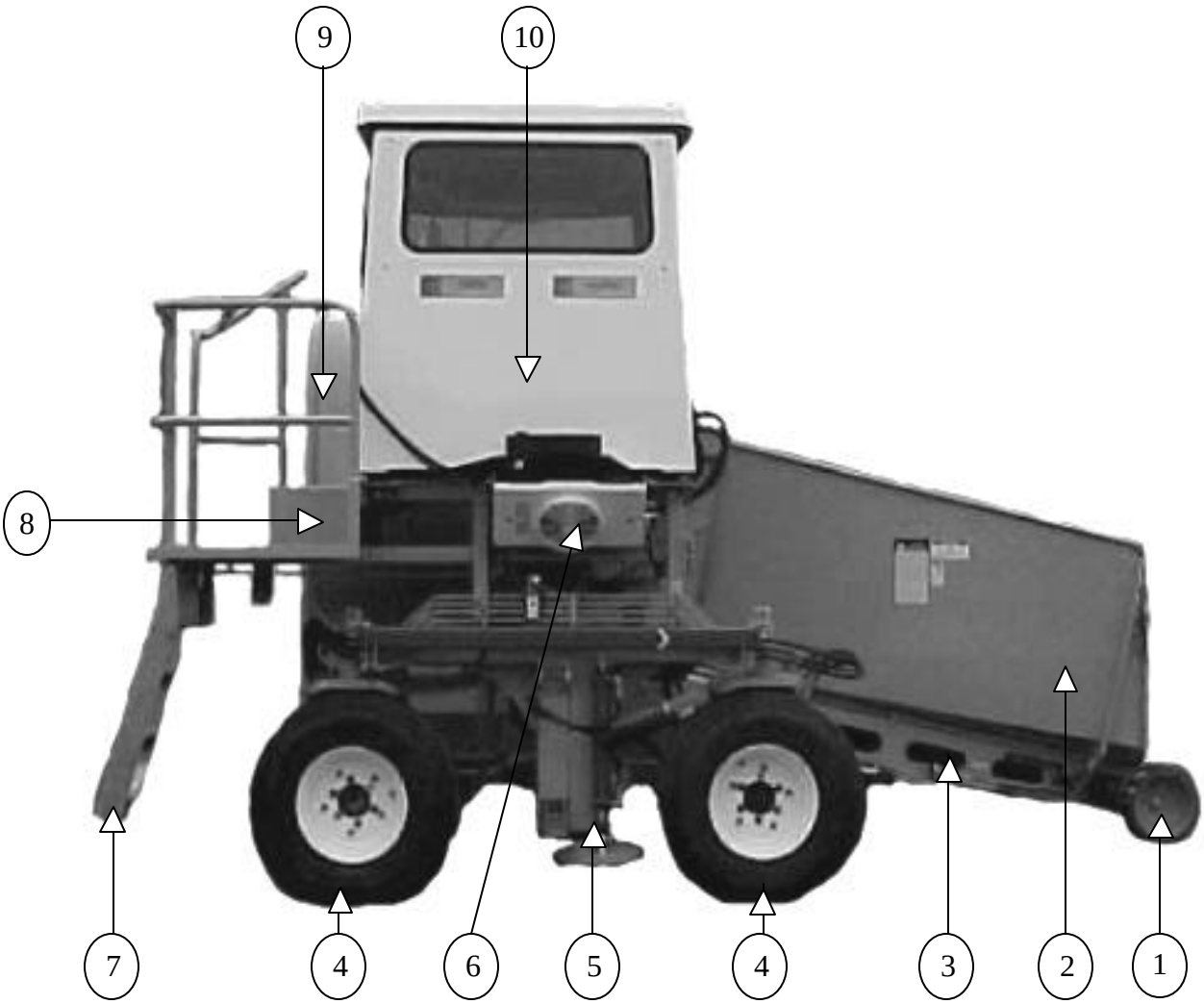
REAR VIEW

1. 385/65R 19.5 TIRE
2. BAG PAN
3. TUNNEL FLOOR
4. ROTOR & STRIPPER BAR
5. ANCHOR SUPPORT
6. ANCHOR
7. 10' TUNNEL
8. WHEEL DRIVE
9. WHEEL COLUMN
10. ENGINE MOUNTING FRAME
11. RADIATOR SCREEN
12. ENGINE EXHAUST
13. BAG BOOM
14. BAG CRADLE
15. 10' TUNNEL EXTENSION
16. SOUND GARD® CAB
17. OPERATOR'S PLATFORM
18. ACCESS LADDER



RIGHT SIDE VIEW

1. 385/65R 19.5 TIRE
2. HYDRAULIC LIFT JACK
3. FEED TABLE
4. FEED TABLE WING
5. FEED TABLE WHEEL
6. BELT DRIVE
7. AIR CHAMBER
8. SAFETY MIRROR
9. ENGINE AIR CLEANER
10. ENGINE EXHAUST
11. BAG BOOM
12. RADIATOR SCREEN



LEFT SIDE VIEW

1. FEED TABLE WHEEL
2. FEED TABLE WING
3. FEED TABLE
4. 385/65R 19.5 TIRE
5. HYDRAULIC LIFT JACK
6. AIR CONDITIONER UNIT
7. ACCESS LADDER
8. OPERATOR'S PLATFORM
9. 10' TUNNEL
10. SOUND GARD® CAB

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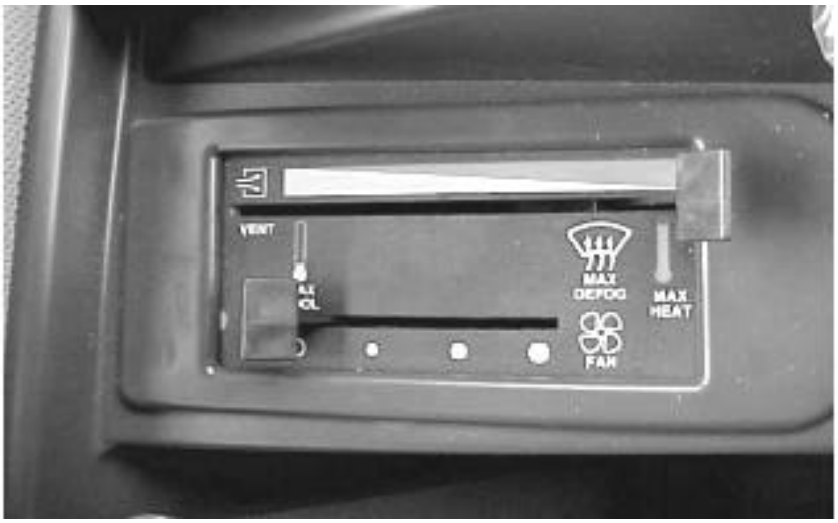
AG-BAGGER® MODEL
MB7010 HyPac

SOUND-GARD® CAB

Your Ag-Bagger® comes with the Sound-Gard® Cab. The below list is just a few of the features of this cab.

- Quiet
- High Visibility Day or Night
- Tinted Safety Glass
- Climate controlled cab
- Adjustable Operators Seat
- Standard Passenger Seat
- Multifunction Power Ports
- Air Conditioning & Heat
- Pressurized Interior w/air filtration system
- Easy Access Entry Platform
- Dual Speed Windshield Wiper w/washer
- Available w/AM/FM cassette
- Reduces Operator Fatigue
- Signal Lights, Air Horn and CB



Cab Heating - A/C Controls

For your comfort while operating the Ag-Bagger® the Sound-Gard® cab can be ordered with heating and air conditioning

Heating **Standard** on Sound-Gard® Cab

Air Conditioning **Optional** on Sound-Gard® Cab

Cab Lights and Wiper Controls

Located within easy reach of the operator's chair the Sound-Gard Cab's® controls make operations easier.

Standard on all Sound-Gard® Cabs

Cab Stereo System

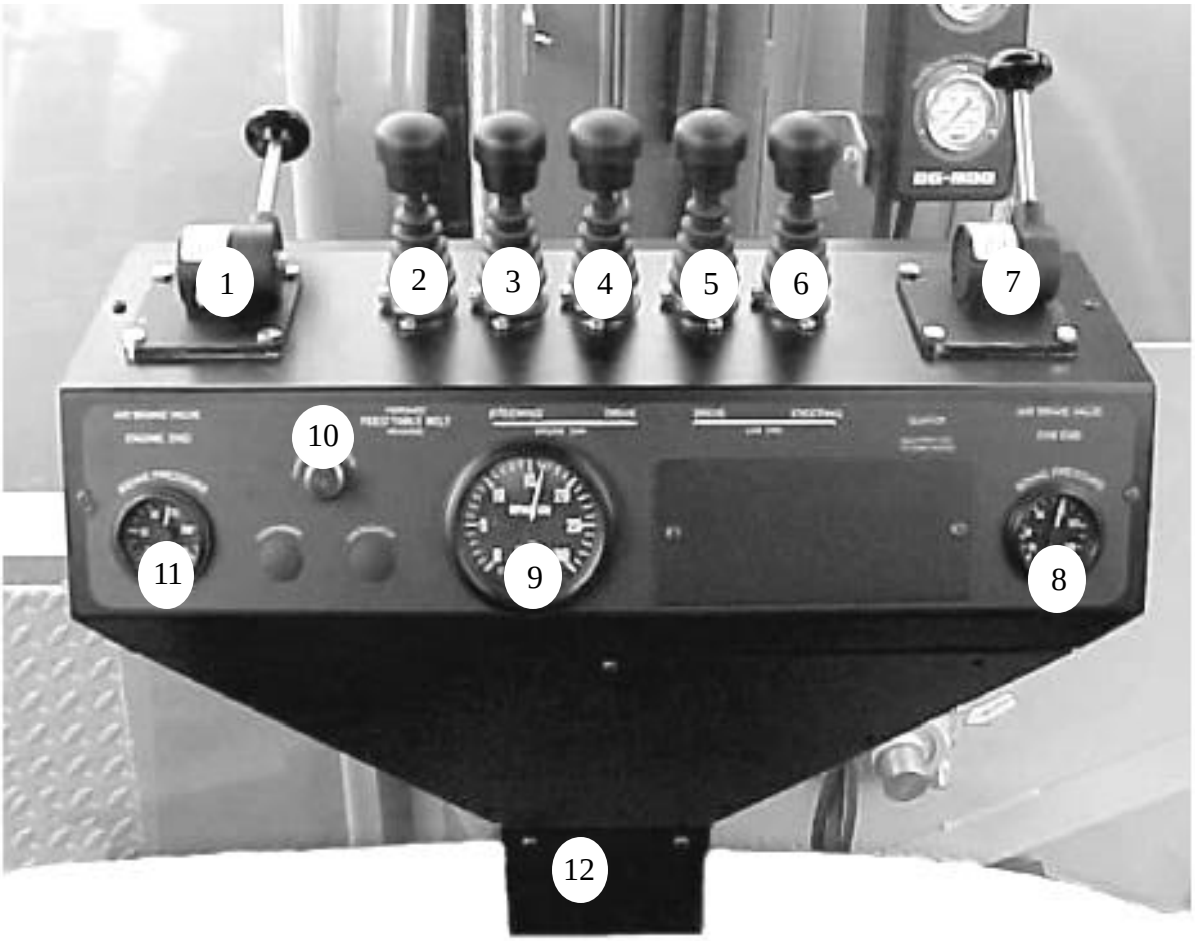
A stereo AM/FM receiver with Tape Player is installed in your Sound-Gard® Cab.

Standard

ARM REST CONTROLS

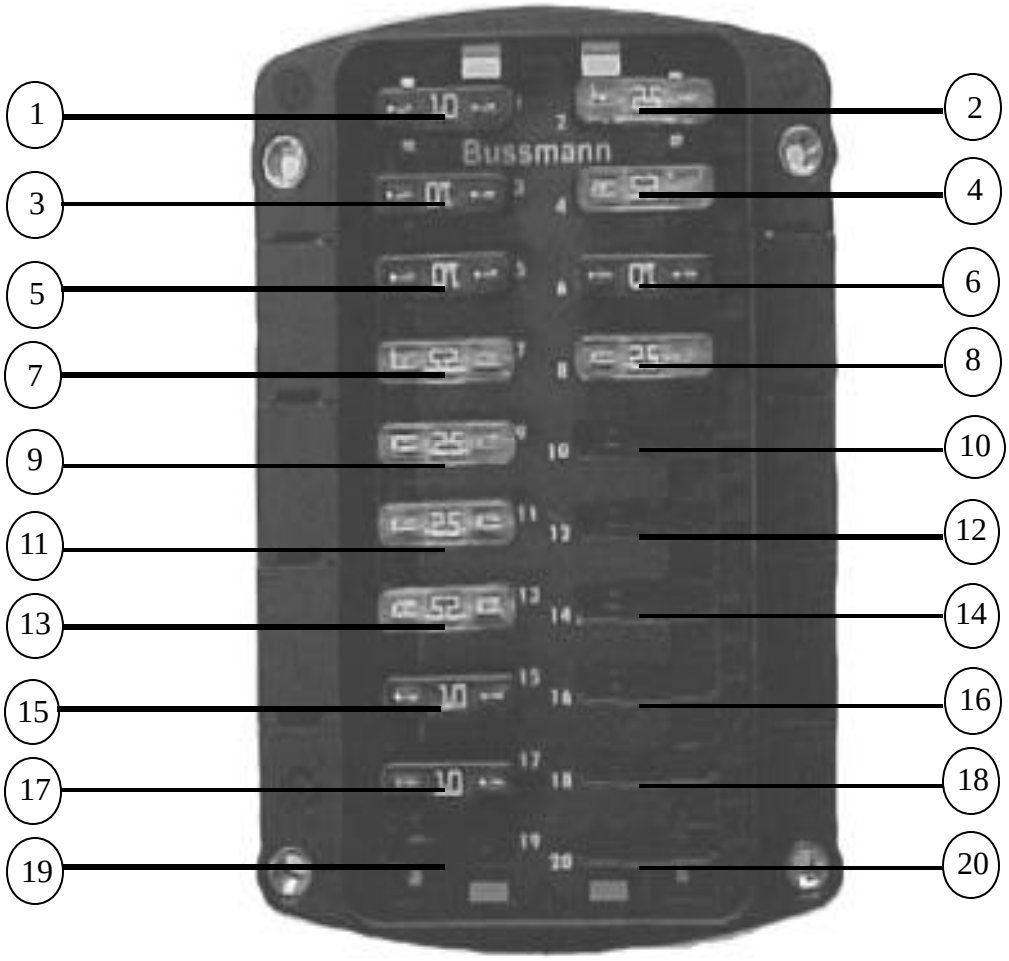
The Arm Rest console keeps the bagging operation of your Ag-Bagger® at your finger tips. The electric over hydraulics keep the hydraulics out of the cab.

1. Signal Lights
2. Horn
3. Rotor Control
4. Beater Bar Direction
5. Diagnostics Gauge
6. Ignition Switch
7. Idle Speed
8. Mode Switch
9. Anchor Float
10. Anchor In/Out
11. Feed Table Lift/Lower
12. Tunnel Clean Out
13. Sprayer
14. Hyd Lift Jack Engine End
15. Hyd Lift Jack Cab End
16. Accessory Plug-In



CENTER CONSOLE CONTROLS

1. Air Brake Control - Engine End
2. Feed Table Speed Control
3. Steering - Engine End
4. Wheel Drive - Engine End
5. Wheel Drive - Cab End
6. Steering - Cab End
7. Air Brake Control - Cab End
8. Air Brake Gauge - Cab End
9. Tachometer
10. Tunnel Clean Out Open Light
11. Air Brake Gauge - Engine End
12. Fuse Panel (not visible)



Fuse Panel: Located on the left side of the Center Control Console the fuse panel allows easy access to the electrical control fuses on the Ag-Bagger®

1. DVC 10
2. Arm Rest Power
3. Open
4. Boom Light
5. Console Power
6. Right Pillar
7. Road Lights
8. Air Conditioning
9. Field Lamps
10. Open
11. Wiper Power
12. Open
13. Cab Power Outlet
14. Open

Constant Power

15. Open
16. Open
17. Radio Memory / Dome
18. Open
19. Open
20. Open

Liquid Inoculant Sprayer

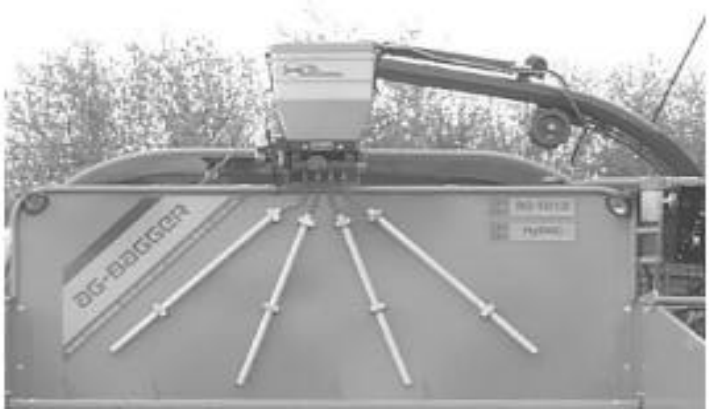
Your Ag-Bagger® may be equipped with an inoculant applicator. Pictured here is a 55 gallon liquid applicator which is designed for wet inoculant.

Optional

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



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.

Sweeping Hydraulic Tunnel Clean Out - Rear View

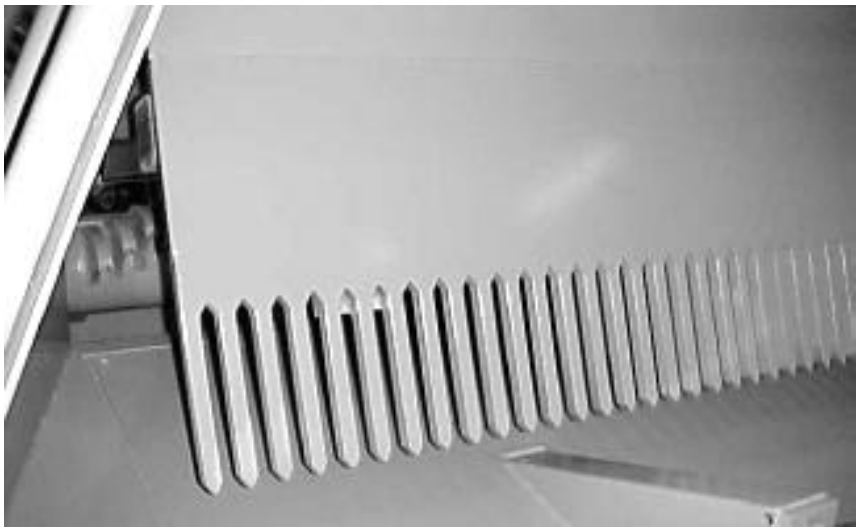
Viewed from the back of the tunnel these hydraulic rams push the tunnel back towards the bag for ease in cleaning product from inside the tunnel.

Standard

Sweeping Hydraulic Tunnel Clean Out - Front View

Viewed from the front, you can see how the tunnel back moves away from the rotor and will push the product into the bag.

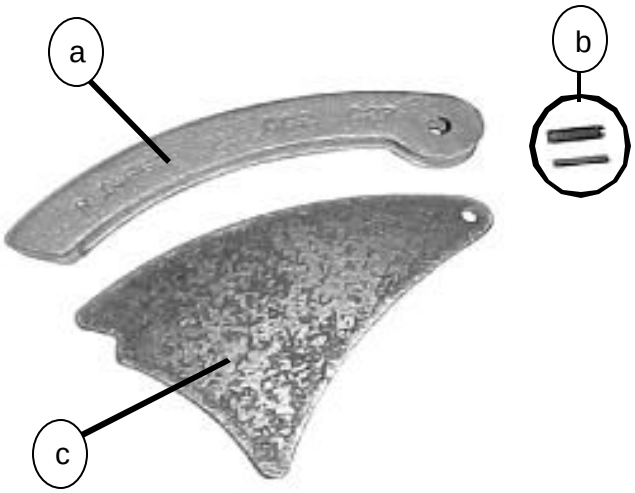
Standard



Rotor

Annealed and line bored the rotor has a 1 inch thick wall of the seamless constructed tube.

Standard



Cast Alloy Tine Cap

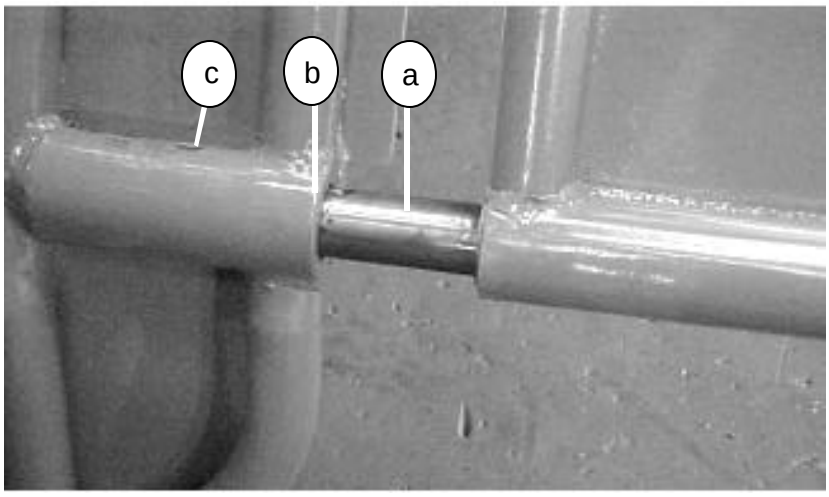
Design for durability and ease of replacement. The Tine Cap (a), spring clips (b) and rotor tooth (c) are shown here.

Standard

S Cam Air Brake

The S Cam Air Brake is used for ease of servicing and adjustment. As an industry standard Ag-Bag® feels it is the best choice.

Standard



Tunnel Extension Pins

For quick installation and removal the tunnel extensions are fitted with pins (a) that slip into receivers (b) on the tunnel, they are then pinned (c) into place.

Standard

Hydraulic Lift Jack

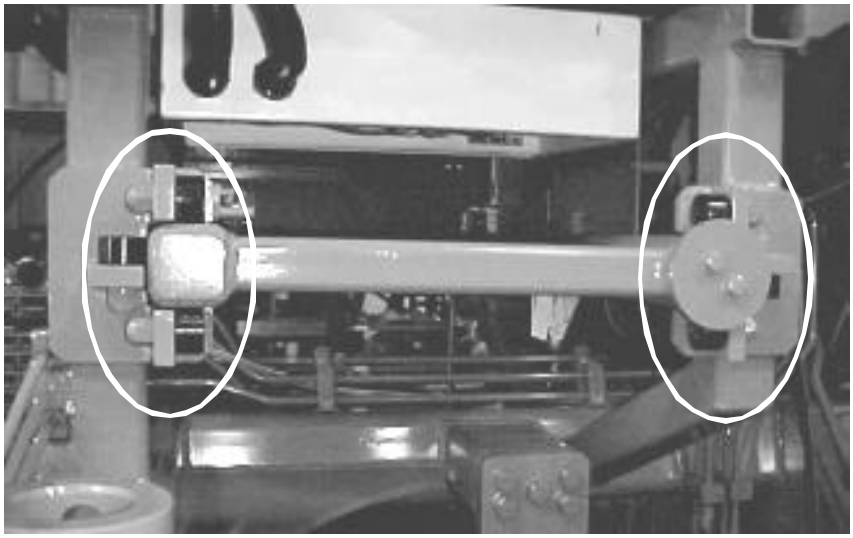
Positioned at either end of the Ag-Bagger® the Hydraulic Lift Jacks are used to assist in the service of your machine.

Standard

Platform Roller Cams

Located below the Sound-Gard® cab and operators access platform these roller cams assist in the movement of the platform for service requirements.

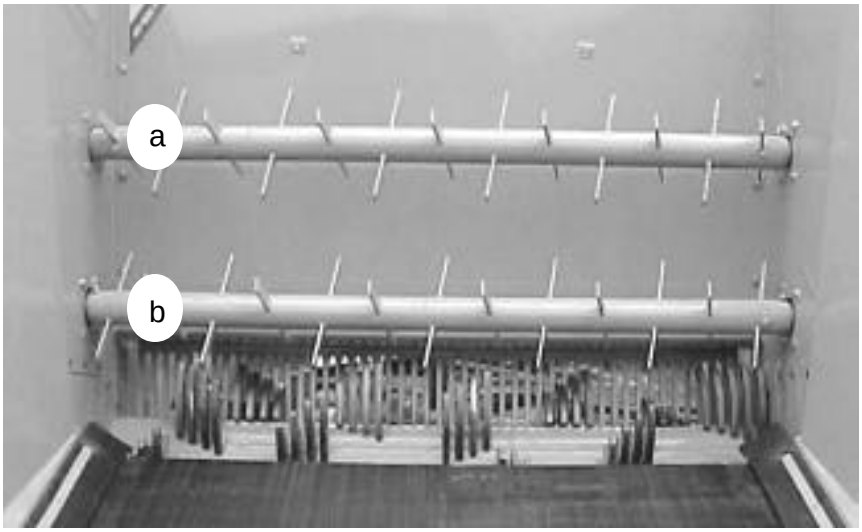
Standard



Motor Platform Adjustment

Located at each corner of the engine platform these adjusting bolts are used to adjust the tension of the belt drive.

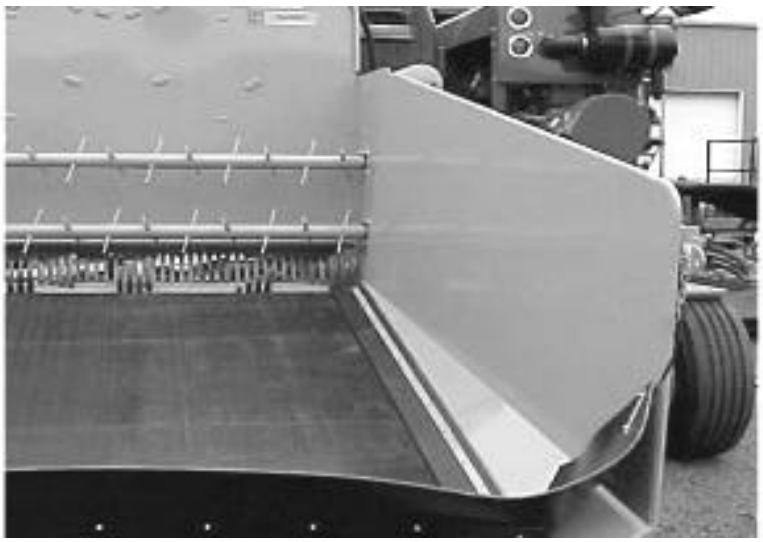
Standard



Double Beater Bars

The Ag-Bagger® uses two beater bars. The upper bar (a) is independently operated with it's own hydraulic motor and is reversible, while the lower bar (b) is chain driven in tandem with the rotor. The beater bars move the product evenly to the rotor.

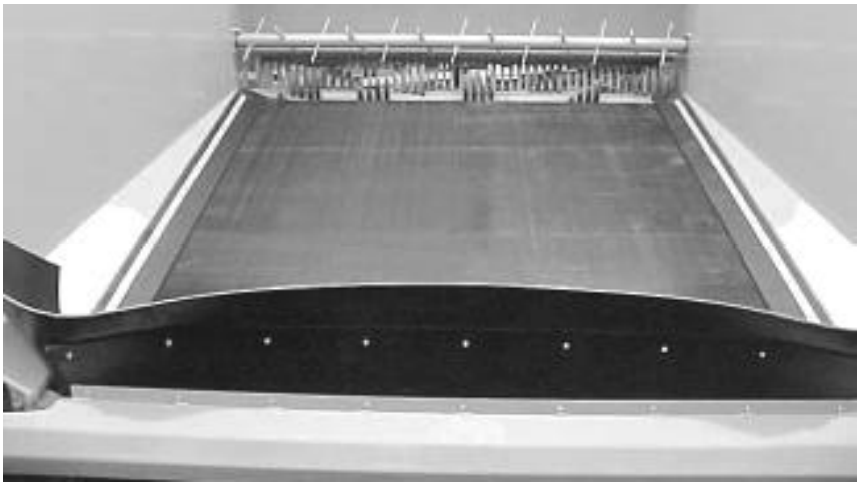
Standard



Feed Table Wing

The feed table wing allows the product to be unloaded into the feed table. An optional extension is available.

Standard



Feed Table Belt

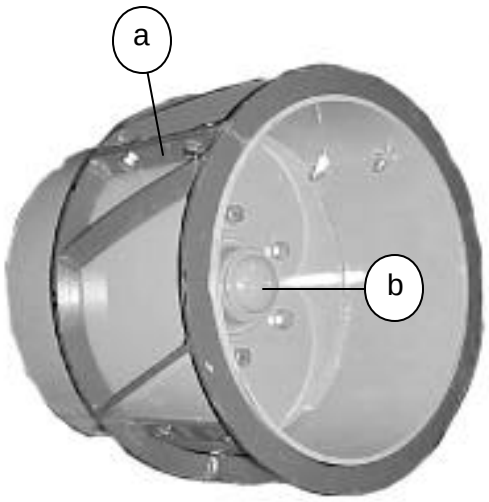
The feed table belt is a multilayered vulcanized seamless belt. It is designed to maintain it's track on the feed table for durability and ease in servicing.

Standard

Feed Table Wheel

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

Standard



Hydraulic Lift Jack Controls - External

Located on either end of the Ag-Bagger® these controls operate the lift jacks. Switches 14 & 15 on the Arm Rest Console operate the jacks from inside the cab.

Standard

Engine End Control

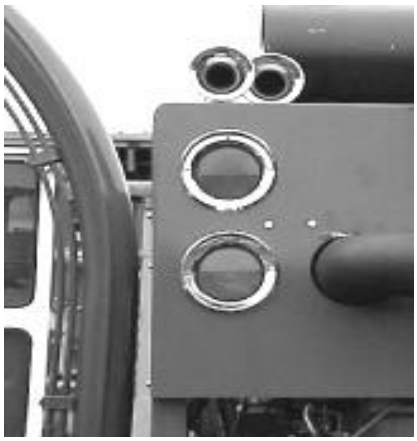
Cab End Control

Warning Devices

Located on the cab and engine cowling are two lights which are red over green, also on the engine cowling are air horns. These devices are used to help in the bagging operation as warning and start and stop notifications.

Standard

Cab End

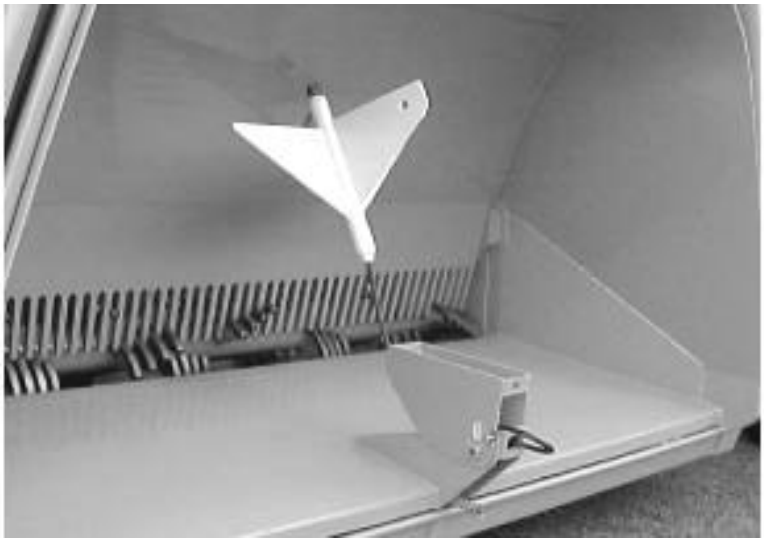


Engine End

Feed Table Adjuster

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

Standard



Cable Anchor

Used to aid in the compaction of product in the bagging operations, the cable anchor (shown in the transport position) is controlled by hydraulics.

Standard

Hydraulic Bag Pan

For ease of operation hydraulics are used to extend and retract the bag pan for ease of putting on bag. Bag Pan is shown partially open.

Standard

RA3500 Planetary

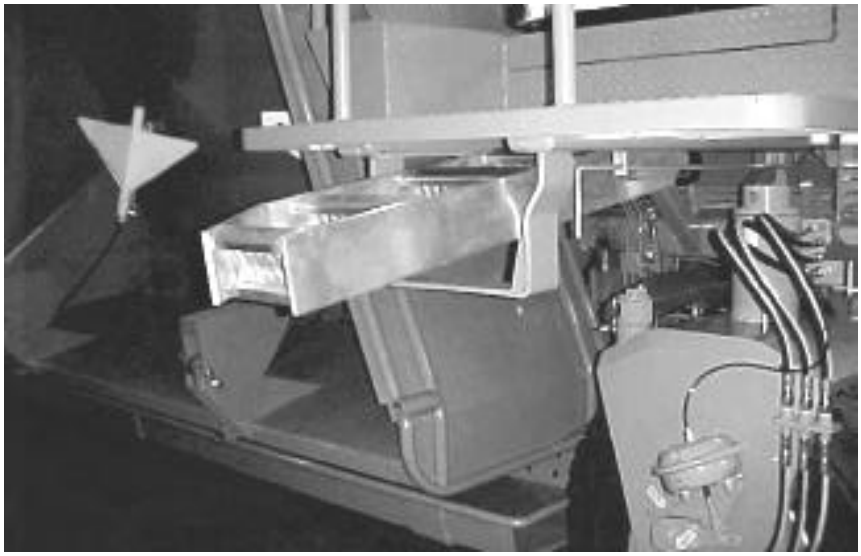
Ag-Bag uses the RR3500 planetary for rugged durability.

Standard

Access Ladder

Made of aluminum the operator's access ladder easily slides under the operator's cab when not in use, and makes for legal transport.

Standard



Air Outlet

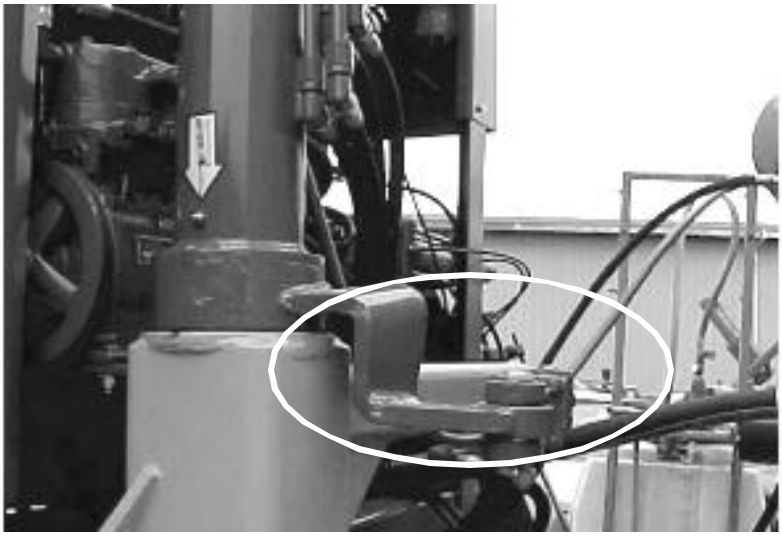
Added for your convenience, the air outlet can be used for servicing you Ag-Bagger, in the field, without having a portable compressor. This outlet is located under the engine platform.

Standard

Bag Boom

Operated by hydraulics the bag boom swings forward and back and also extends. The bag boom can be used for installing tunnel extensions as well as installing the Ag-Bag® Bag.

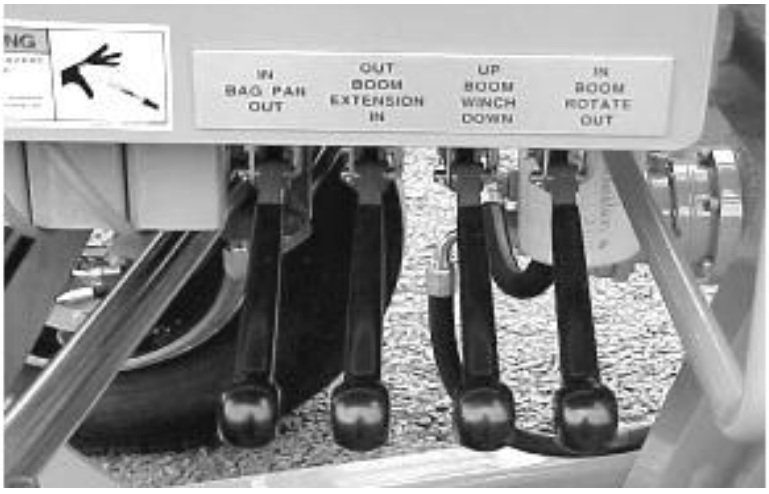
Standard



Bag Boom Swing

For ease of operating the bag boom, a hydraulic ram has been added to swing the boom back and forth.

Standard



Bag Boom and Pan Controls

Located below the engine platform on the rear of the Ag-Bagger® these controls are used to lift and lower the bag pan. Rotate, extend, lift and lower the bag boom.

Standard

Pintle Hitch

The Pintle Hitch, when properly installed allows for the towing of the Ag-Bagger®. Before towing your Ag-Bagger® make sure you know and understand all laws in your area.

Standard

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 with out first locking the feed table.

Standard

Feed Table Wing Lock

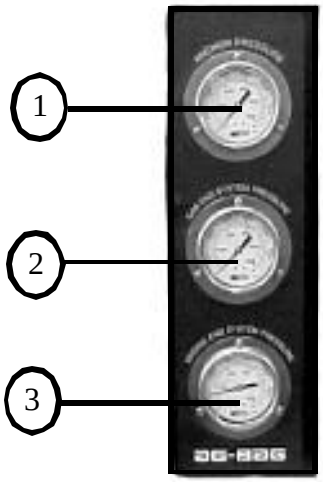
This locking device should be used anytime the feed table is raised into the up position, it will keep you from damaging the feed table wings.

Standard

Hydraulic Wheel Drive

Your Ag-Bagger® is equipped with four wheel drive. Each wheel is driven by separate wheel drive units.

Standard

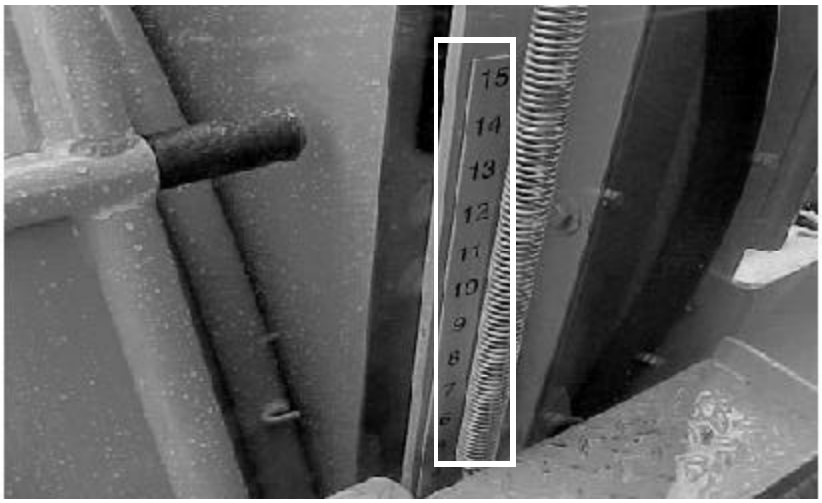


Hydraulic Pressure Gauges

Located to the left of the operator's counsel, outside the cab, these gauges are used to monitor hydraulic pressure as follows

1. Anchor Pressure
2. System Pressure - Cab End
3. System Pressure - Engine End

Standards



Cable Feed Out Guide

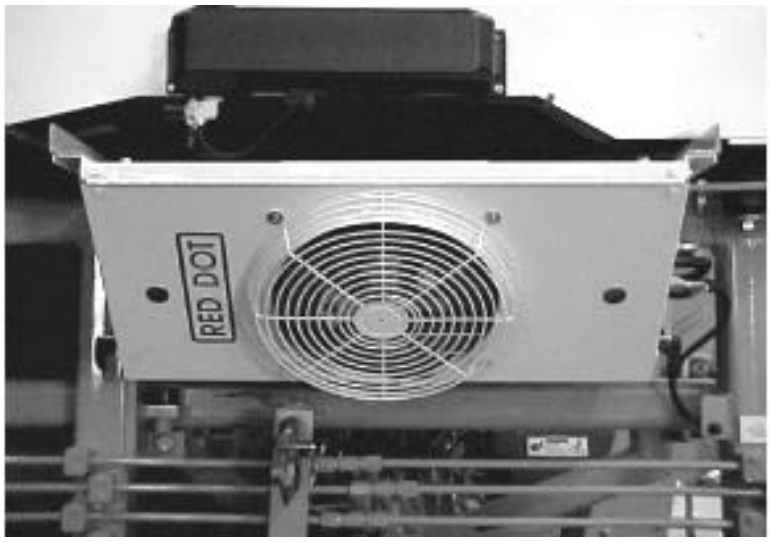
Located to the left of the Hydraulic Pressure Gauges this indicated the total feet of cable that has been fed out while bagging. The indicator is in feet.

Standard

Air Conditioner

Installed as an option the Red Dot air conditioner will keep you cool in the warmest of weather.

Optional



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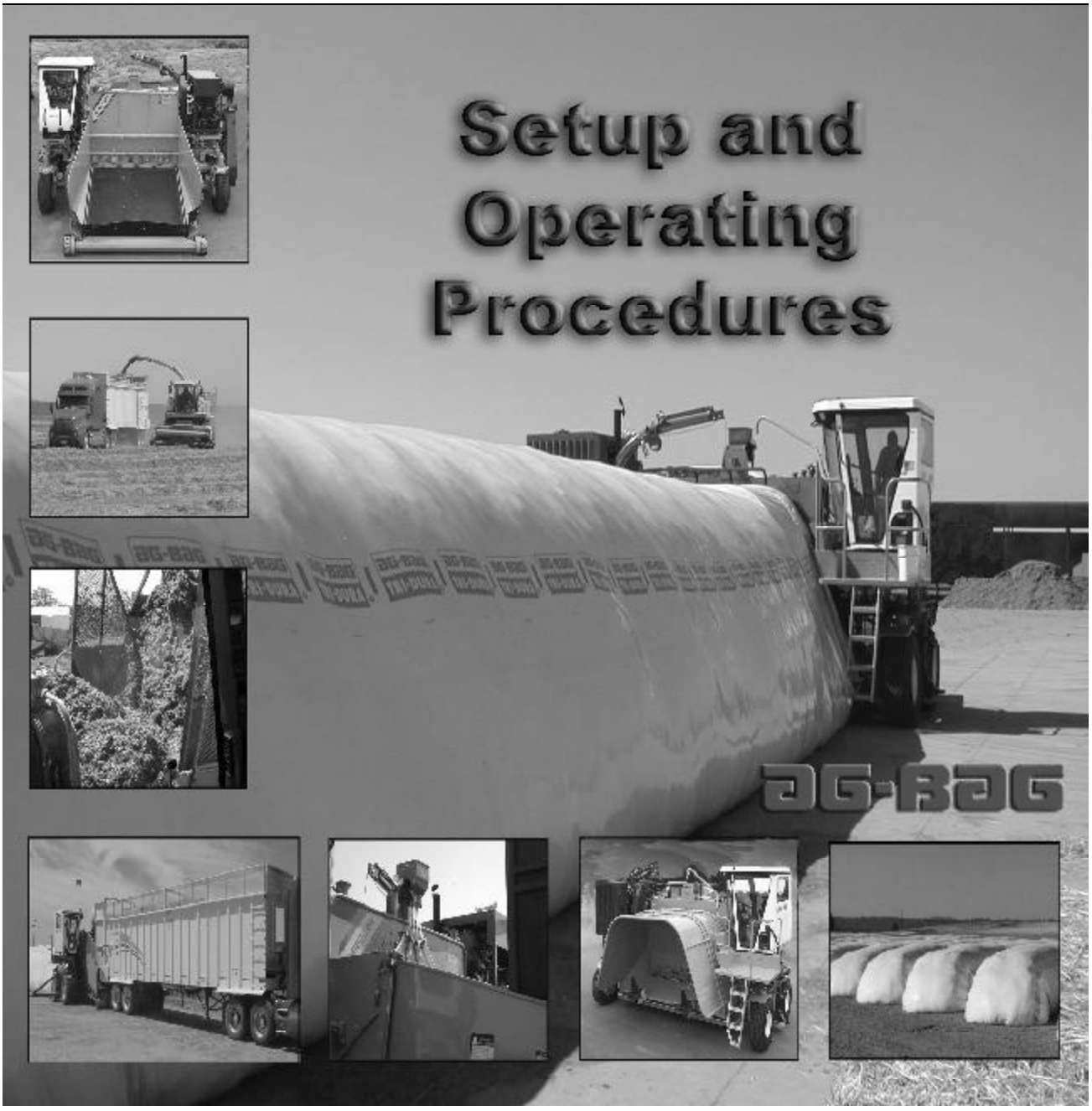

To obtain the best performance from your Ag-Bagger® it is important that you read and understand the setup and operating procedures contained in this manual. You should also assure that all personal who will be operating the Ag-Bagger® read and understand this material. Special attention should be paid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

AG-BAGGER® MODEL MB7010 HyPac

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PRE-OPERATION CHECK LIST

Prior to operating your Ag-Bagger® it is important that you preform the following checks.

_____ Review Service Manual to make sure all scheduled maintenance has been preformed.

_____ Check the following fluid levels. Levels should not exceed manufactures recommendations. Check all Operators Manuals to assure proper levels are maintained:

- ____ Engine Fuel
- ____ Engine Oil
- ____ Hydraulic Oil Tank
- ____ Engine Water Level
- ____ Planetary Oil

Start Engine - Follow engine manufactures recommended procedures for starting the engine.

_____ Check system hydraulic pressure

_____ Check system air pressure

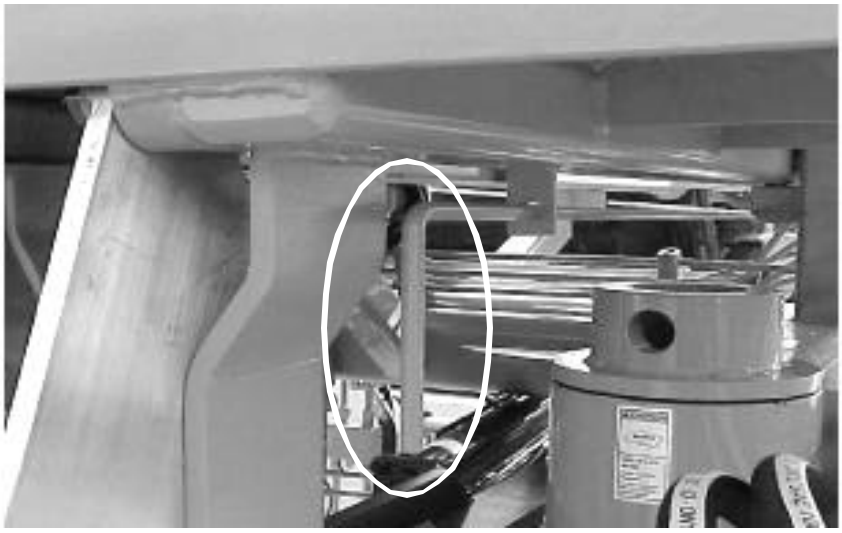
_____ Check system brake system

It is important that all safety procedures be followed while preforming these checks.

OPERATOR'S PLATFORM POSITIONING

Operator's Platform Release Rod.

This rod is used when moving the Operator's Platform from transport to operating positions. By pulling the rod the platform is released and will move in and out to the desired position.



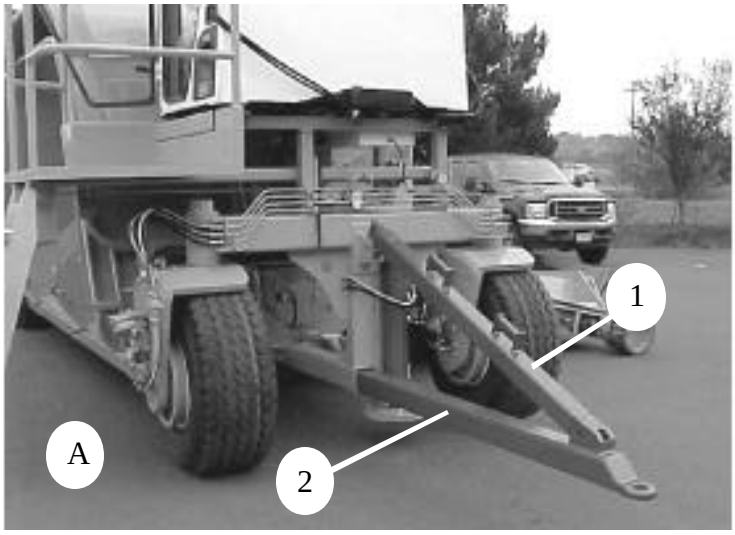
Operator's Platform - Transport Position

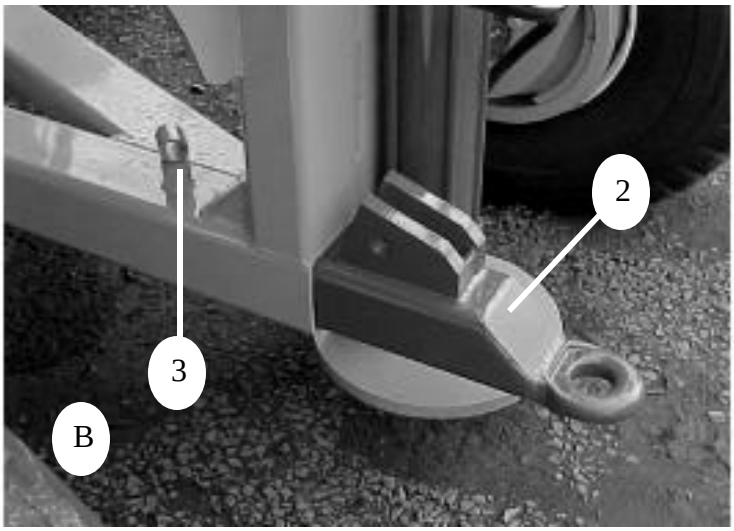
This illustration shows the Operator's Platform in the transport/storage position, also note that the access ladder is placed under the platform in it's storage area.

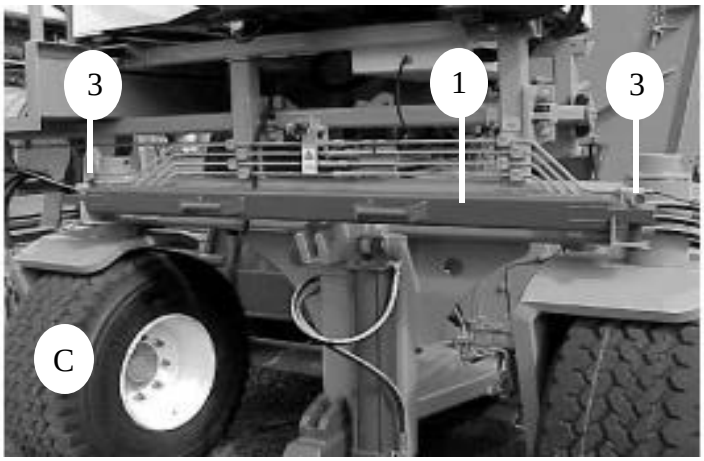
Operator's Platform - Bagging Position

This illustration shows the Operator's Platform pulled out into the bagging position. The access ladder has also been pulled out of the storage area.

PINTLE HITCH







The Pintle Hitch is designed for towing the Ag-Bagger® on the open road. It is recommended that you know and follow all local laws dealing with moving farm equipment in your area. **Remember the Maximum Towing Speed on your Ag-Bagger® is 25MPH.**

There are three main pieces to the hitch, (1) brace, (2) hitch, and (3) lock pin with hair pin.

To install (ref B) remove pin 3 and pull out hitch 2. After moving the hitch a short distance place the pin back into the hole, as you pull out the hitch it will drop into a second hole allowing you to lock it into place.

Remove the brace (ref C) by pulling the pins (3) from each end and remove from holders on the Ag-Bagger®. Using the handle on the brace position it into the notches on the frame and hitch. Complete the installation by inserting the pins (3), removed from the brace storage area, into the holes provided making sure to use the hair pins to lock it into place.

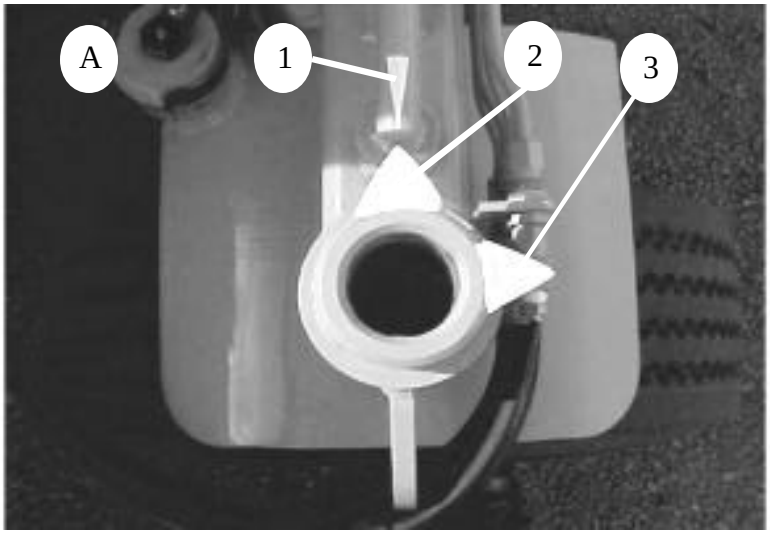
WHEEL POSITION

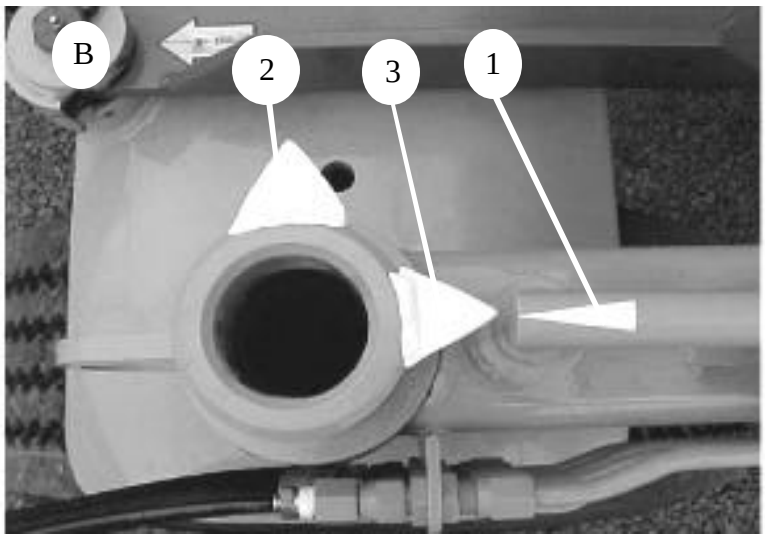
Setting the wheel position is very important in the operation of your Ag-Bagger®. Using controls 3 and 6 on the Center Console pictured in this manual. Picture (A) depicts the wheel controlled by control 3 and picture (B) is controlled by control 6.

Picture (A) shows the positioning of arrows 1,2, and 3 when the wheel drive is in the towing or moving position. Arrows 1 and 2 should be pointing towards each other. Normally the wheel lock pin will be in the position depicted in picture (D) which is locked.

Picture (B) shows the position of arrows 1, 2, and 3 when the wheel drive is in the bagging position. Note that arrows 1 and 3 are pointing towards each other. Normally the wheel lock pin will be in the position depicted in picture (C) which is unlocked.

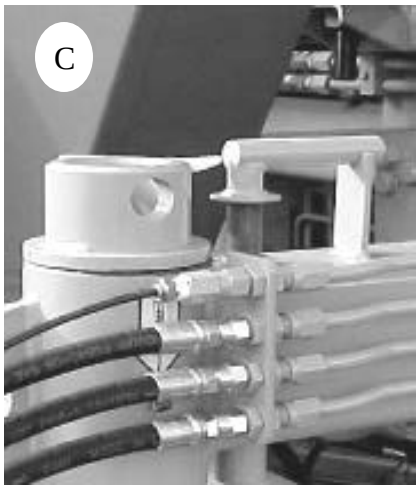
These indicators are located on the wheel column located on the rear of the machine on the engine end. There is only one column that locks and it should be locked any time you are towing. Steering control of the Ag-Bagger® is done with the wheel on the Cab end of the bagger.



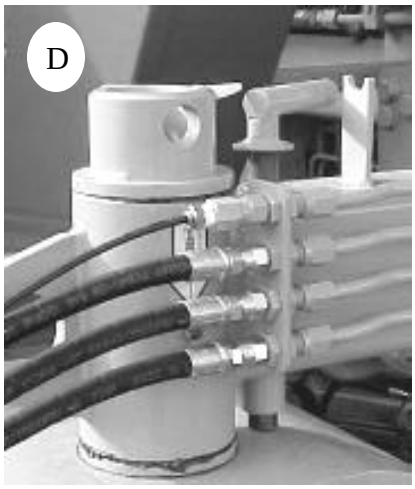


⚠CAUTION

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



Locking Pin in unlocked position.



Locking Pin in locked position

ARM REST CONTROLS

The Arm Rest console keeps the bagging operation of your Ag-Bagger® at your finger tips. The electric over hydraulics keep the hydraulics out of the cab.

1. **Signal Lights Switch**: Press the top of the switch to illuminate the green light. Press the bottom of the switch to illuminate the red light.

2. **Horn Switch**: Press and hold top to sound horn.

3. **Rotor Control**: Press top of switch to start rotor and lower beater bar. Press bottom of switch to stop them.

4. **Beater Bar Switch**: Press top of switch for counterclockwise rotation. Press bottom of switch for clockwise rotation. Center position of switch will stop rotation. *Controls upper beater bar only*.

5. **Diagnostic Gauge**: Allows the operator to view many readouts of engine functions and trouble codes. Refer to the your engine operator's manual for explanation of these codes.

6. **Ignition Switch**: The four position key switch controls the electrical system. Use this switch to start and stop engine.

7. **Idle Control Switch**: Turn knob clockwise to increase idle and counter clockwise to decrease. Use bottom knob to lock idle at desired speed.

ARM REST CONTROLS (CONT.)

8. **Mode Switch**: Press switch to access the pre-programed speed of 1800 RPM. This is the best speed for hay.

9. **Anchor Float Switch**: Turn OFF during the bagging operation. Turn ON to allow the anchors to float out.

10. **Anchor In/Out Switch**: Press the top of the switch (IN) to power anchors into the tunnel. Press the bottom of the switch (OUT) to power anchors away from the tunnel. Watch the anchor scale for position of the anchors.

11. **Feed Table Switch**: Press top of the switch to raise the feed table. Press the bottom of the switch to lower the feed table. Make sure you watch the feed table during this operation to make sure it is not moving up or down to quickly, damage can be done if the table hits to hard.

12. **Tunnel Clean Out Switch**: The top of the switch operates the out/open position. The Bottom of the switch is the in/closed position.

WARNING

Machine Damage

Stop Rotor before activating the Tunnel Clean Out. The red warning light on the front console will go off when the tunnel clean out is completely closed. Never activate the rotor with the Tunnel Clean Out

ARM REST CONTROLS (CONT.)

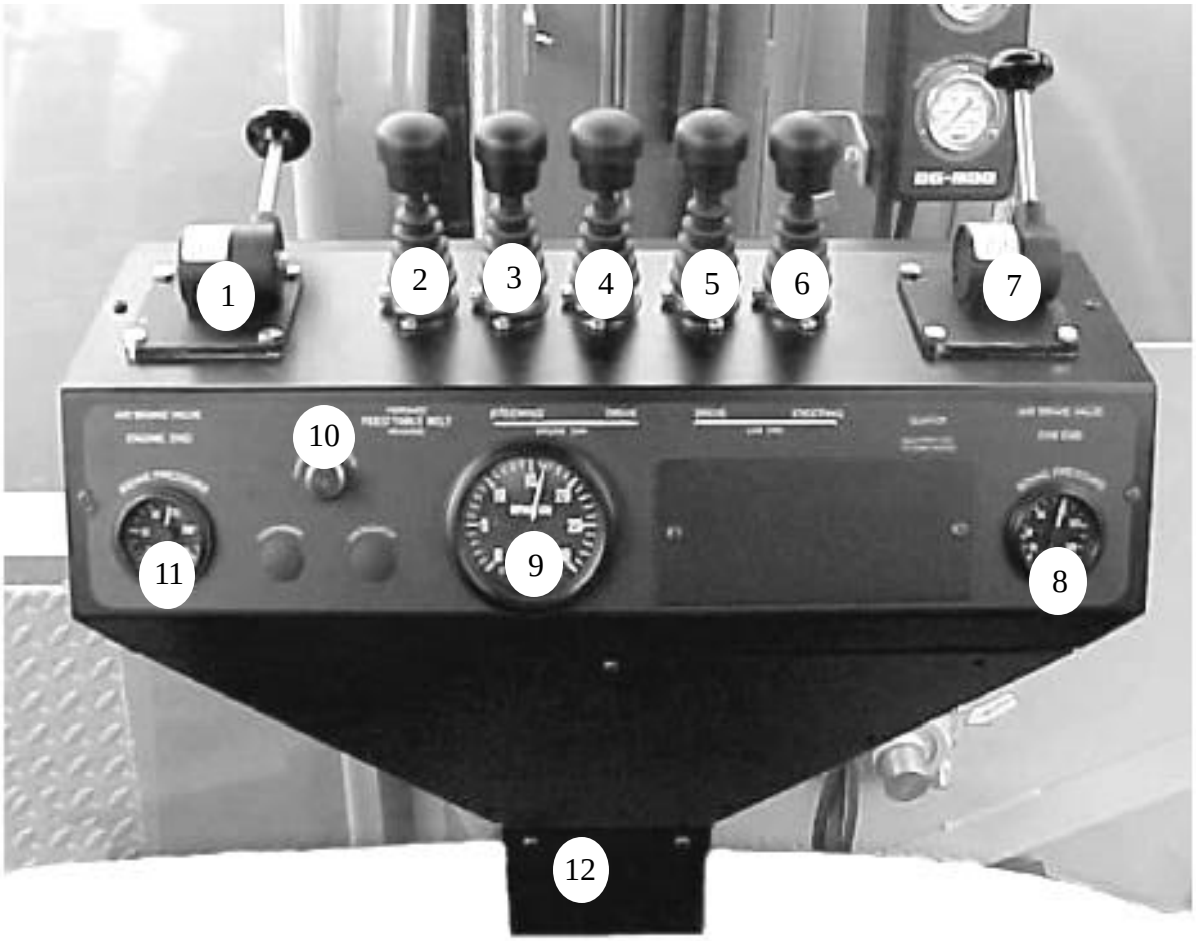
13. **Sprayer Switch**: Press the top of the switch to turn ON the inoculant applicator. Press the bottom of the switch to turn OFF the inoculant applicator.

14. **Lift Jack Switch - Engine End**: Press and hold the top of the switch to LIFT the engine end of the Ag-Bagger® off the ground. Press and hold the bottom of the switch to LOWER the engine end to the ground.

15. **Lift Jack Switch - Cab End**: Press and hold top of the switch to LIFT the cab end of the Ag-Bagger® off the ground. Press and hold the bottom of the switch to LOWER the engine end to the ground.

16. **Accessory Plug-In**: A 12v power outlet is provided for use with cell phones, computers or any other device requiring this type of power.

CENTER CONSOLE CONTROLS



1. **Air Brake Control - Engine End**: Regulates the brake pressure on the cab end of the Ag-Bagger®.

2. **Feed Table Speed Control**: Forward moves the belt/feed towards the rotor. Back moves the belt/feed away from the rotor.

3. **Steering - Engine End**: Move the handle to turn the wheel position. Use the mirror to observe white arrows for wheel position.

4. **Wheel Drive - Engine End**: Controls the speed and rotation of the wheels on the engine end of the Ag-Bagger®.

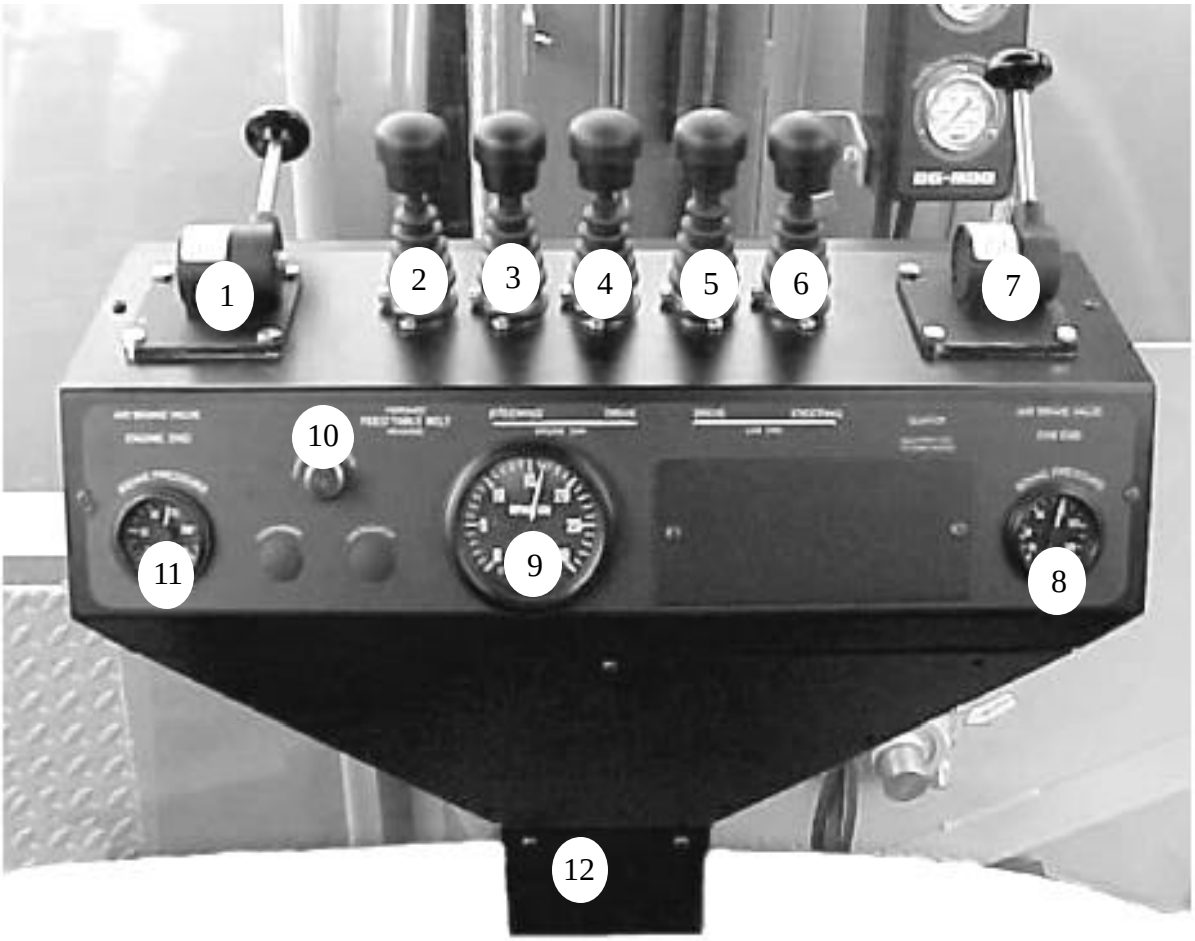
5. **Wheel Drive - Cab End**: Controls the speed and rotation of the wheel on the cab end of the Ag-Bagger®,

6. **Steering - Cab End**: Move the handle to turn the wheel position. Observe the wheel position out side of cab.

7. **Air Brake Control - Cab End**: Regulates the brake pressure on the cab end of the Ag-Bagger®.

8. **Air Brake Gauge - Cab End**: The white indicator needle is the cab end operating pressure.

CENTER CONSOLE CONTROLS (CONT.)



9. **Tachometer**: Indicates engine RPM.

10. **Tunnel Clean Out Open Light**: When lit this light indicates that the tunnel clean out sweep is open.

WARNING

Do not operated Rotor when this light is lit.

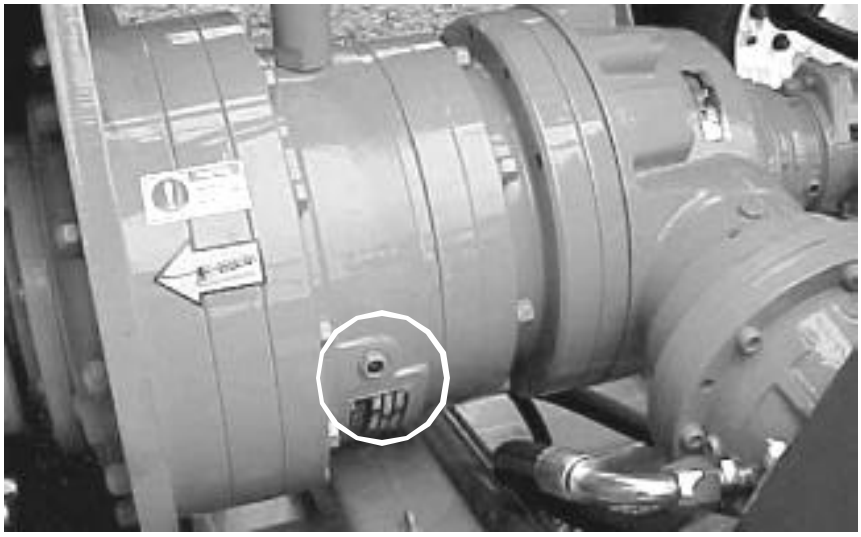
11. **Brake Pressure Gauge - Engine End**: the red indicator needle is the system pressure. The white needle is the engine end operating pressure.

12. **Fuse Panel** (not shown)

SIGHT GAUGE LOCATIONS

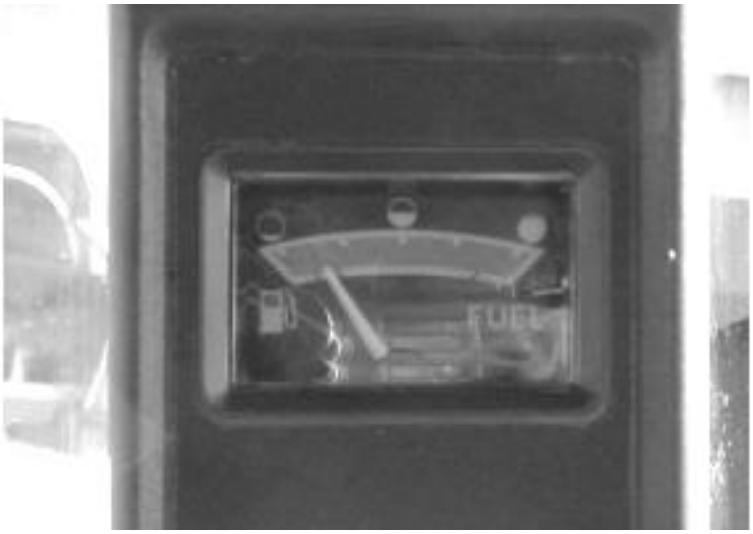
Planetary Sight Gauge

Located on the front side of the Ag-Bagger® below the engine compartment. This gauge indicates the level of fluid in the planetary. Use only liquid recommended in the Service and Maintenance section of this manual.



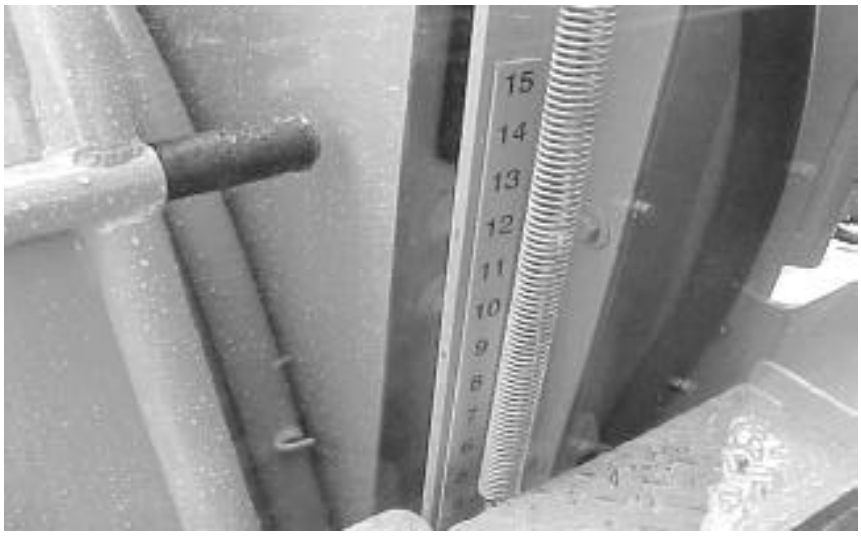
Fuel Gauge

Located inside the operator's cab, on the right hand cab frame, the gauge indicates fuel tank level. Refer to the Service and Maintenance section of this manual for specifications.

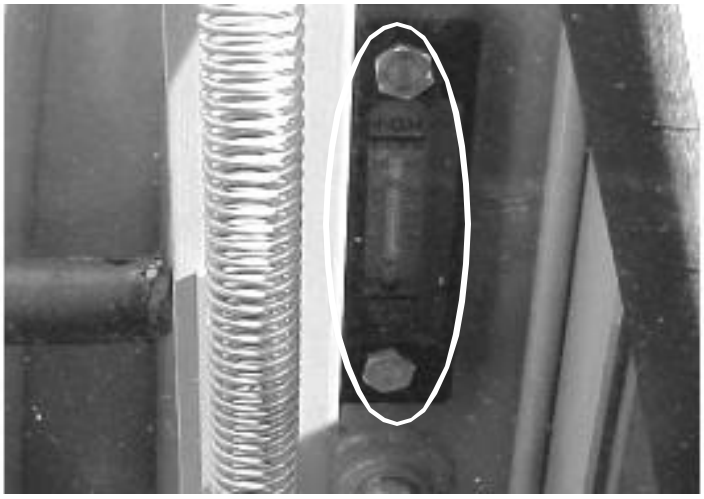


Anchor Cable Gauge

Viewable only from inside the operator's cab the gauge is located to the left of the Hydraulic Tank Sight Gauge. The gauge measures in feet the amount of anchor cable that has been released into the bag.



SIGHT GAUGE LOCATIONS (CONT.)



Hydraulic Tank Sight Gauge

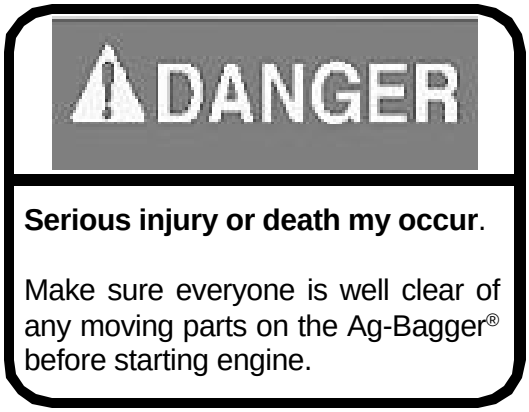
Viewable only from inside the operator's cab the gauge is located between the fuel and hydraulic tanks. The gauge indicates hydraulic tank level as well as temperature. See the Service and Maintenance section of this manual for specifications.

CHECK FOR HYDRAULIC LEAKS

Checking for Hydraulic Leaks

Before starting engine and charging the hydraulic system do a slow walk around the Ag-Bagger®. Inspect all hydraulic connections for any indications of fluid seepage. Using a clean dry rag wipe area where there might be an indication of leakage. Remember to never place your hand over any hydraulic hose, fitting or pipe while the engine is running and the hydraulic system is charged. Refer to the Service and Maintenance section of this manual for the correct fluid to use in the hydraulic system.

STARTING THE ENGINE



Starting the engine.

Before starting the engine make sure everyone is away from any moving parts of the Ag-Bagger®. Review the correct starting procedures as outlined in the Owner's manual of the engine on this machine. The manual was supplied with the Ag-Bagger® when purchased.

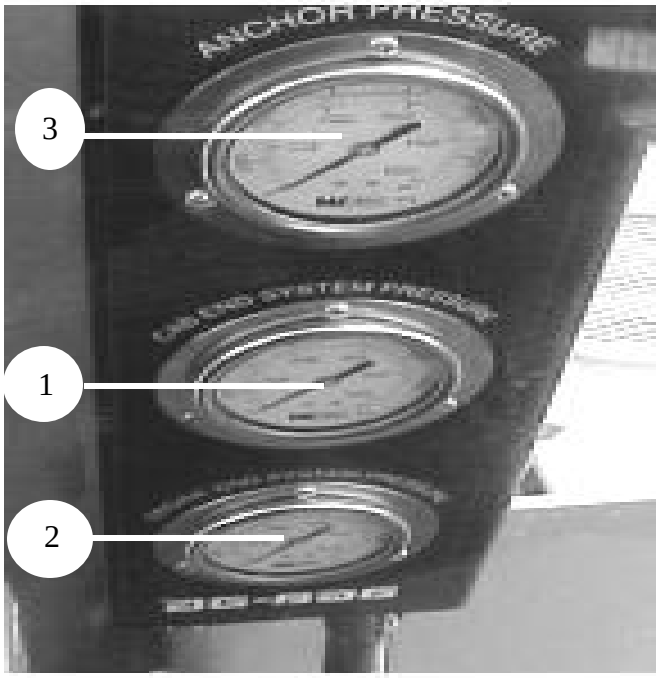
CHECK FOR AIR LEAKS

Check for air leaks.

After starting engine do a slow walk around of the Ag-Bagger®, using your ears, listen for an air leak hissing sound. If you think there is a leak use a solution of water and soap from a squeeze bottle to check. If you see bubbles a leak exists. Shut down the engine and tighten the fitting, after tightening is complete start engine and check fitting again. Remember do not use you hand of finger to check for air leaks.

CHECK SYSTEM PRESSURE

Before you can check the system pressures you need to let the engine run for several minutes.



SYSTEM HYDRAULIC PRESSURE

Check System Hydraulic Pressure.

Because the Ag-Bagger® has a split hydraulic system, two gauges are required in order to check the system. The systems are grouped as (1) Cab End Pressure and (2) Engine End Pressure. The recommend pressure should be 3000 psi on both gauges.

Anchor Pressure Gauge

(3) Indicates the pressure placed on the anchor cables during the bagging operation

SYSTEM AIR PRESSURE

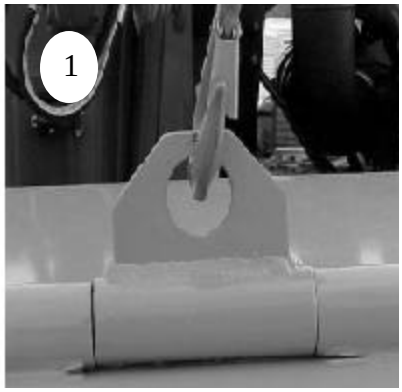
Check the system Air Pressure.

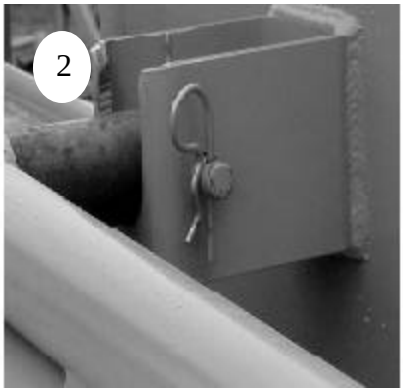
The gauge used for checking the System Air Pressure is located on the Center Control Console and is item #11. There are two needles on this gauge, (1) a red needle which indicates the system pressure and should read between 100 - 120 psi as the correct operating pressure, and (2) a white needle which is the engine end air brake pressure indicator.

TUNNEL EXTENSION - INSTALL

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

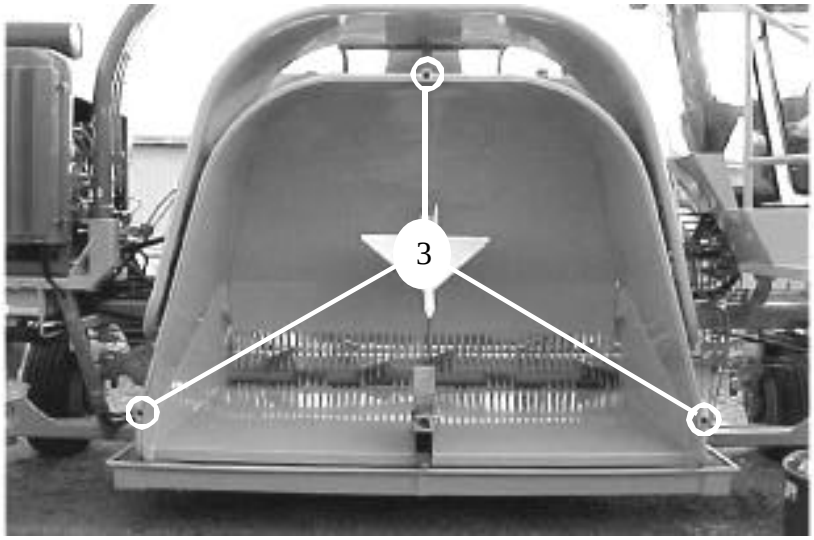
a. Attach the bag boom hitch to the eye located on the center of the tunnel extension. Fig 1.



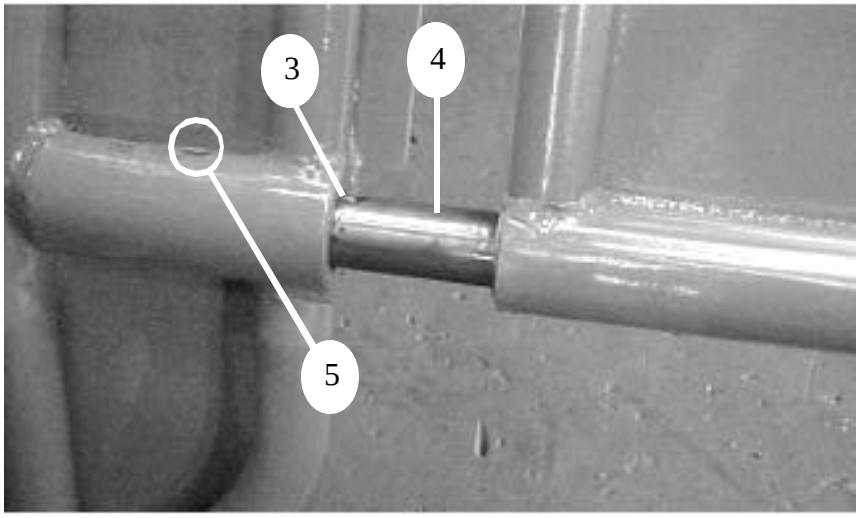


b. Remove the hair pin and locking pin from the tunnel extension located on the center of the extension and the back of the inoculant applicator plate. Fig 2. This pin should be reinstalled any time the Ag-Bagger is transported.

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 pins on the extension (Fig 4.) line up with the receiver holes (Fig. 3).

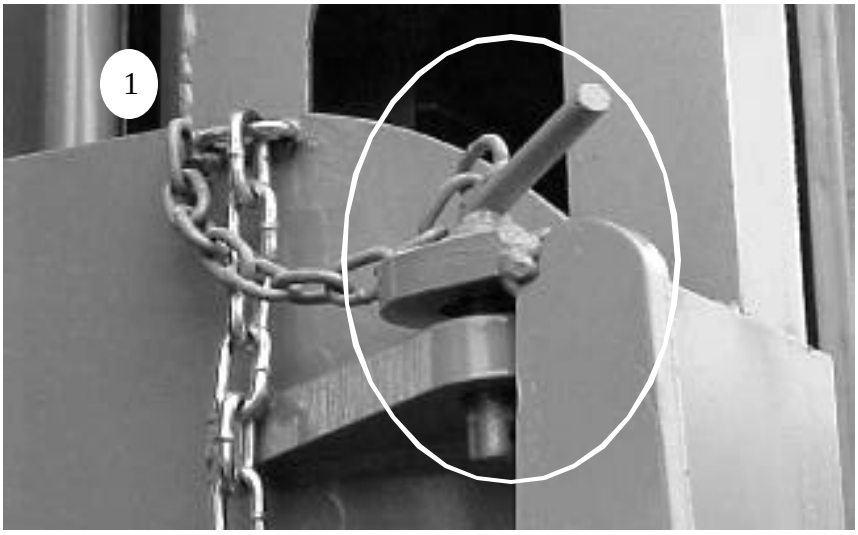


d. Use the three pins supplied with your Ag-Bagger® and place them in the holes indicated by Fig. 5. These pins are located in the cab of your Ag-Bagger®



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

FEED TABLE PREPARATION



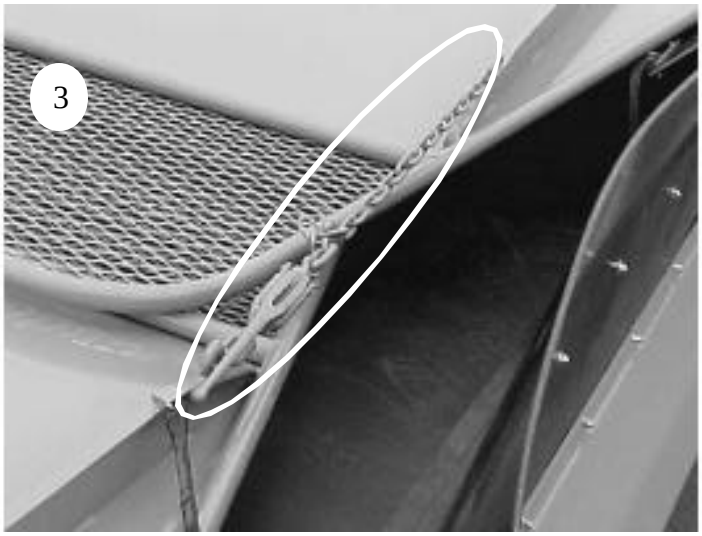
DANGER

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.

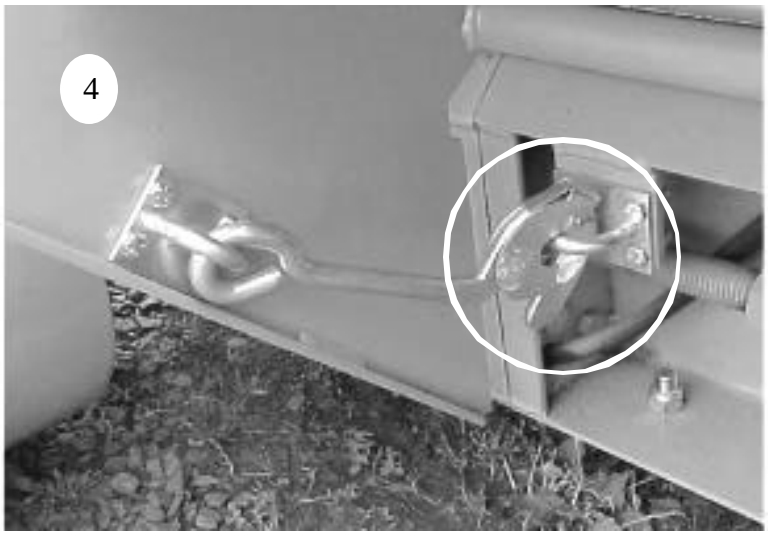
1. Unhook the feed table locking pins.

2 Lower the feed table to the ground. (See page 8 item #11)
a. Press bottom of switch to lower the feed table.
b. Immediately release the switch to stop feed table.



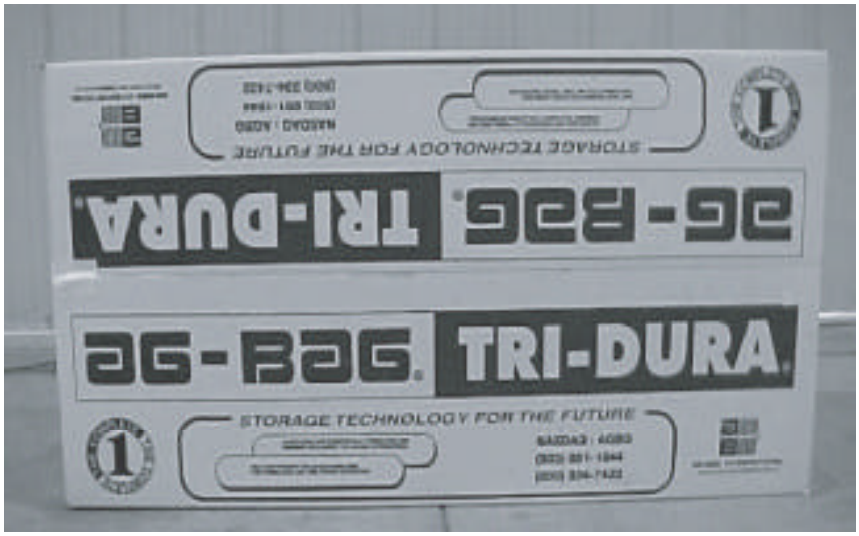
3. Loosen the load binder to unlock the feed table wings. Open the wings by lifting outwards.

4. Secure the feed table wings with the locking hook.



IDENTIFYING YOUR AG-BAG® BAG

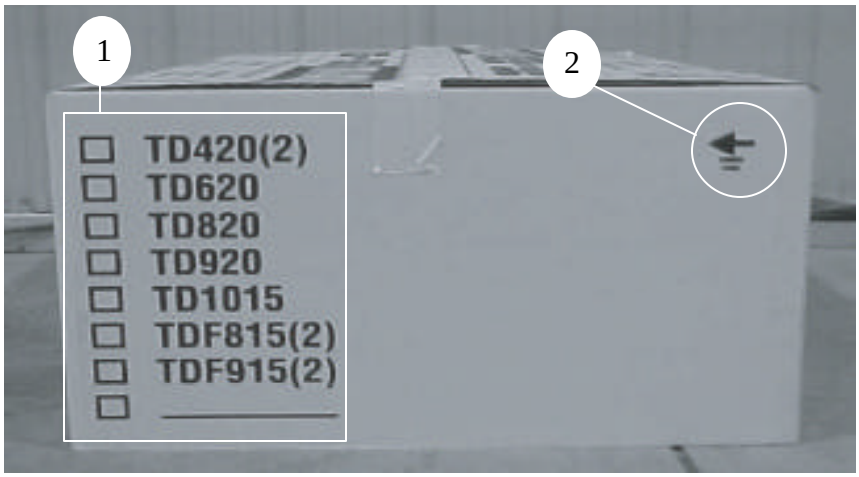
Remember to use only Ag-Bag® bags. They are designed to fit and function properly. They are identified by the TRI-DURA® name on the box.



The box end contains the following information:

1. The size of bag that is in the box.

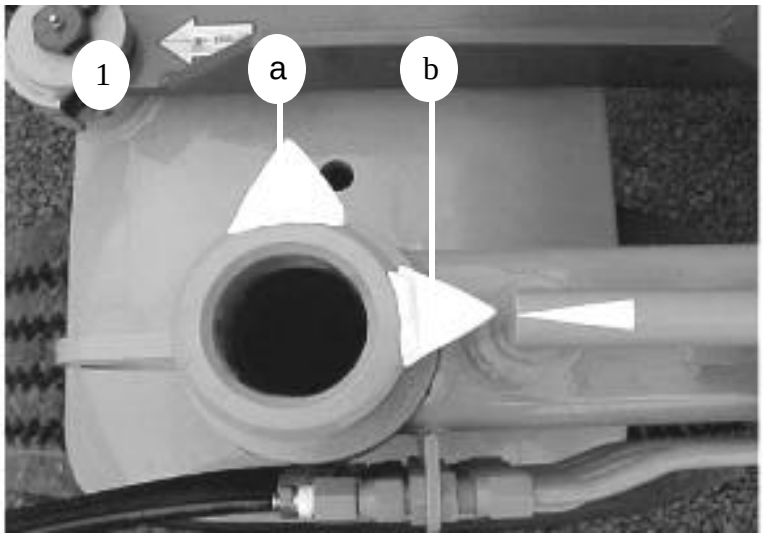
2. The arrow on the side of the box should be pointing towards the Ag-Bagger®



WHAT SIZE AG-BAG® BAG CAN I USE?

MB7010 HyPac
10 Foot Tunnel
TD1015
TD1020
TD1025
TD1030

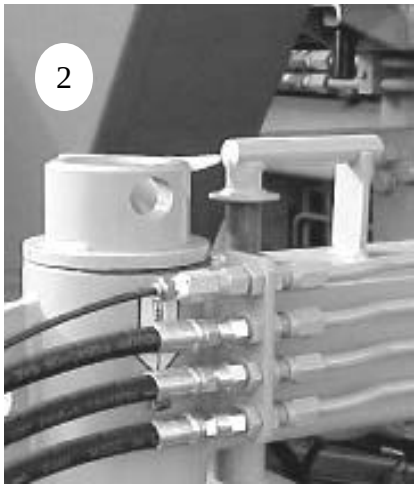
INSTALLING THE AG-BAG® BAG



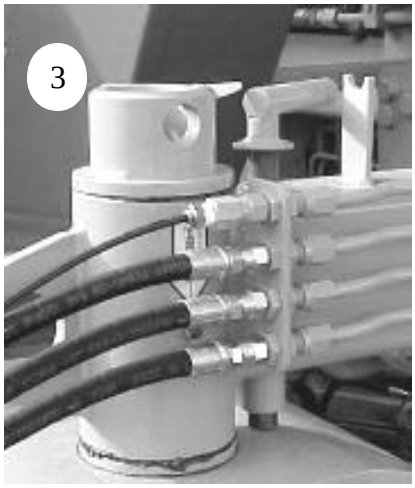
1. Move the Ag-Bagger® to the position where you want the bag to begin. Make sure you have about 10' of clear area behind the tunnel.

2. Using the steering controls on the center console move the wheels into bagging position, make sure that arrows (1a) and (1b) align.

3. After moving the wheel make sure the locking pin located behind arrow (1b) is not in the locked position as shown in fig.2.



Locking Pin in unlocked position.

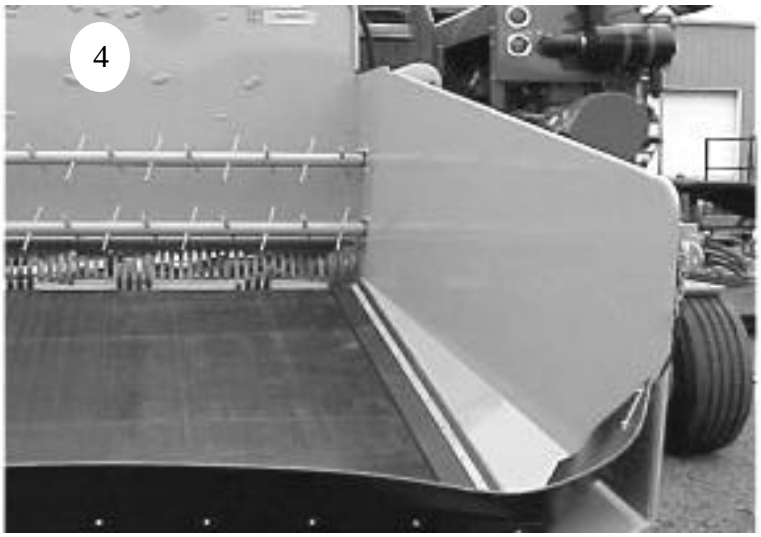


Locking Pin in locked position

⚠CAUTION

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

4. Using the controls on the arm rest console, lower feed table, unlock and lift feed table wings locking them into position.

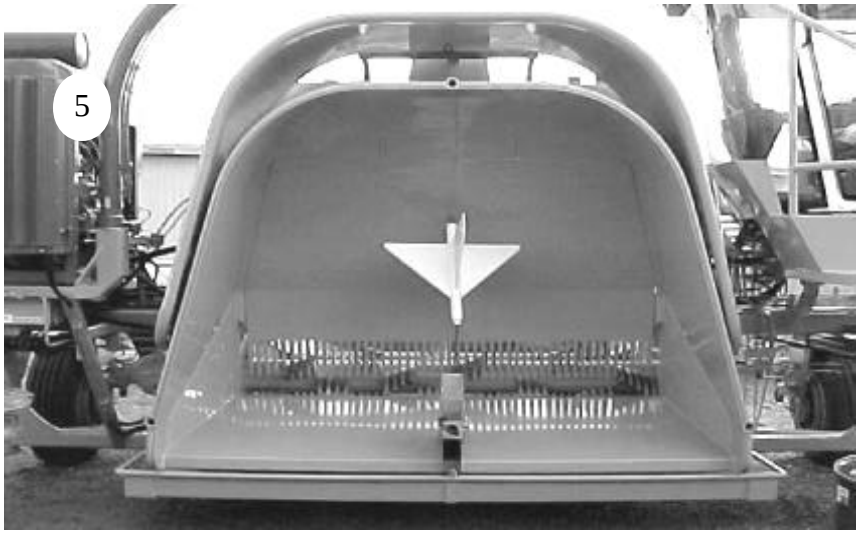


⚠DANGER

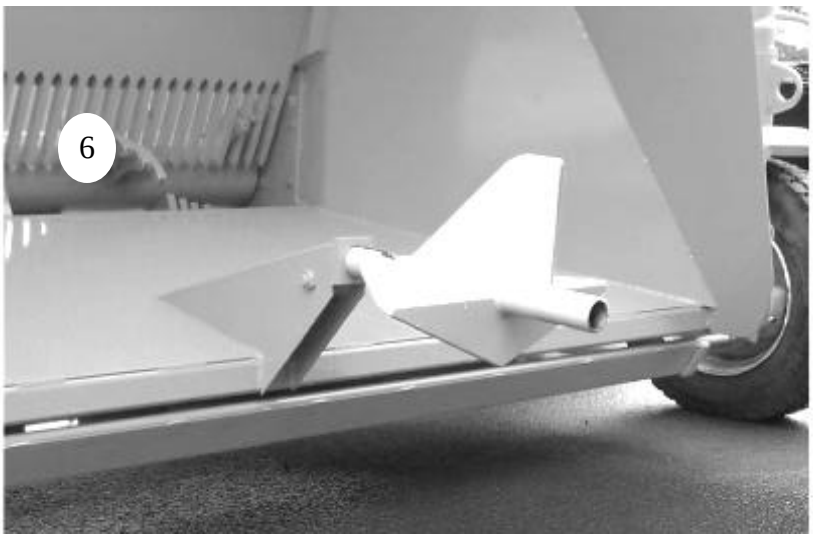
Crush Hazard Exists
Make sure area under feed table is clear before lowering the Feed Table.

INSTALLING THE AG-BAG® BAG (CONT.)

The next steps are preformed using the hydraulic control levers shown in fig.8. (8a) is for opening and closing the bag pan. (8b) moves the bag boom extension in and out. (8c) lowers and raises the bag boom cable. (8d) rotates the bag boom in and out. It is important that you have enough slack in cable to extend boom.

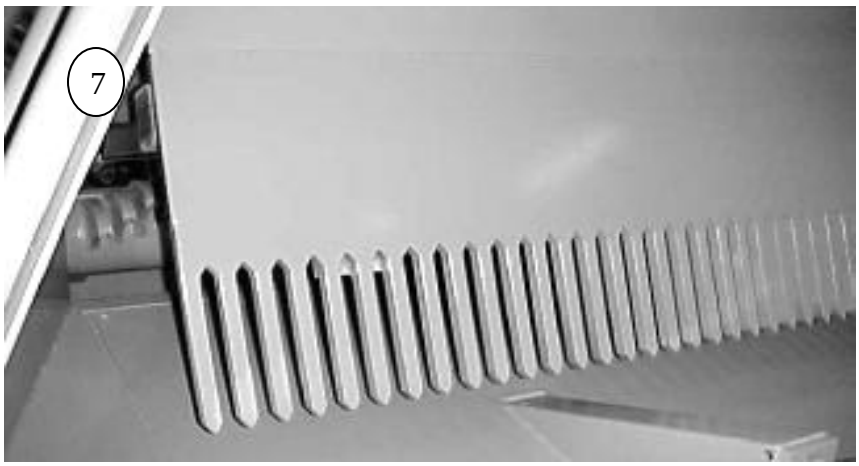


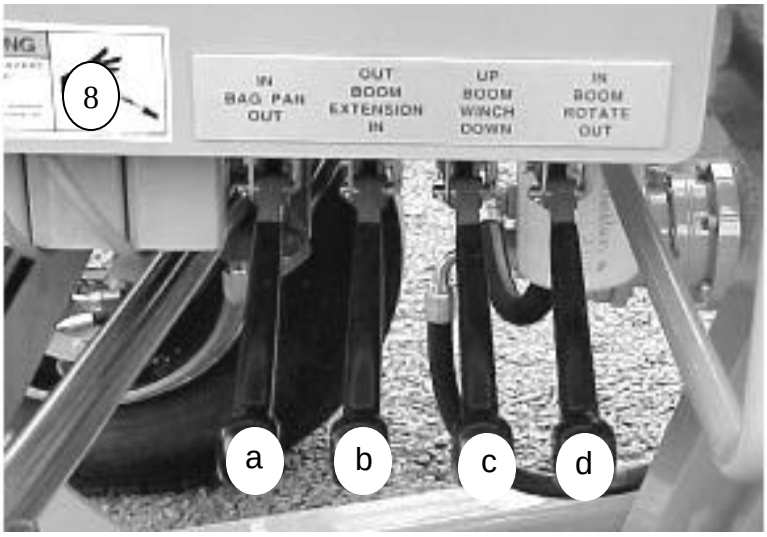
8. Feed out enough cable using control (8c) so the hook on the cable can be attached to the bag cradle. Raise the cradle and rotate it using (8d) and (8b) until you can set the cradle on the ground near the tunnel opening, it should be close to the center of the tunnel. Do not disconnect cable. Using (8a) fully open the bag pan.



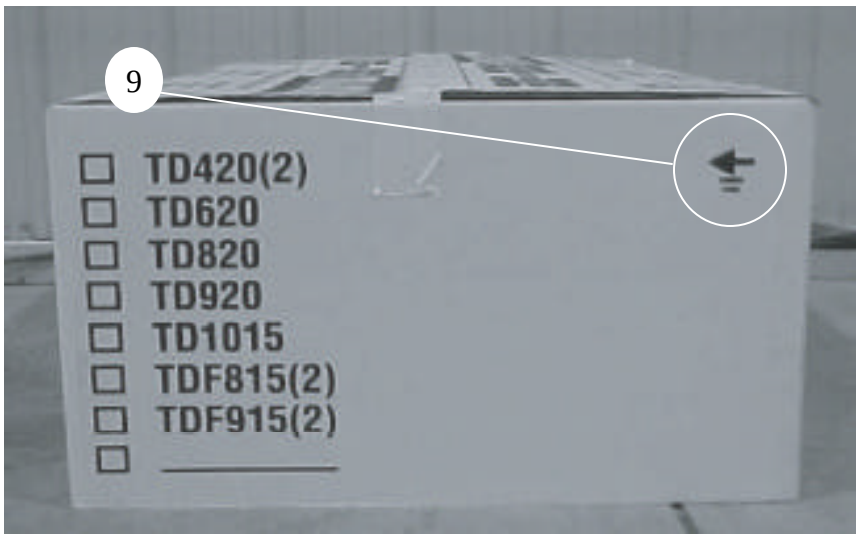
9. Line the bag box up with the bag cradle, making sure the arrow on the box end is pointing towards the tunnel. Cut the plastic bands and remove the outer lid. Remove the inner shell and plastic inserts and the box will lay flat. Do not remove tape or rope until bag is on the tunnel.

10. 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 on the cradle until (10a) is located in between the 1 and 3 o'clock (10b)





5. Remove the anchor from the transport hook located on the sweeping tunnel clean-out. Set it on the ground behind the anchor support.



6. Using the Anchor In/Out control on the Arm Rest Counsel move the cables in until the anchor is pulled snugly into the socket support. Make sure the Anchor Float switch is in the OFF position.

10a

10b

7. Using the Tunnel Clean Out switch on the Arm Rest Console open and then close the Sweeping Tunnel Clean Out making sure the warning light on the Center Console is working properly and that the Sweeping Tunnel Clean Out is completely closed.

INSTALLING THE AG-BAG® BAG (CONT.)

11. Continue to raise the bag and rotate it toward the tunnel pulling the sides of the bag out to fit around the tunnel extension. Pick up the lower part of the bag and place it into the bag pan making sure it is laying flat in the bag pan. When this is done move the bag back and set the cradle down onto the tunnel. Do not rest the bag on the extension.

Remove all the tape or ropes that hold the bag folds together.

12. Recheck and make sure all tape and ropes have been removed from the bag. Using the control 8a close the bag pan until there is approximately 3/4 clearance between the bag pan and tunnel.

Using the bungee cord supplied with the Ag-Bagger® stretch it across the top of the tunnel and place the hooks into the holes drilled in the bag pan.

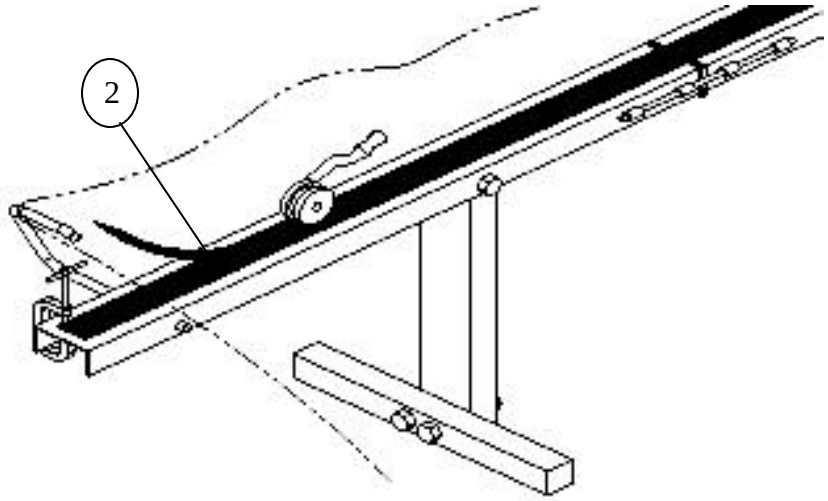
Locate the three hooks located at the back of the tunnel and tie strings to the bungee cord and attach it to these hooks. This keeps the bungee from moving.

Note: The Ag-Bagger® used for these photos is not the MB7010 but the procedures are the same.

NOTICE

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

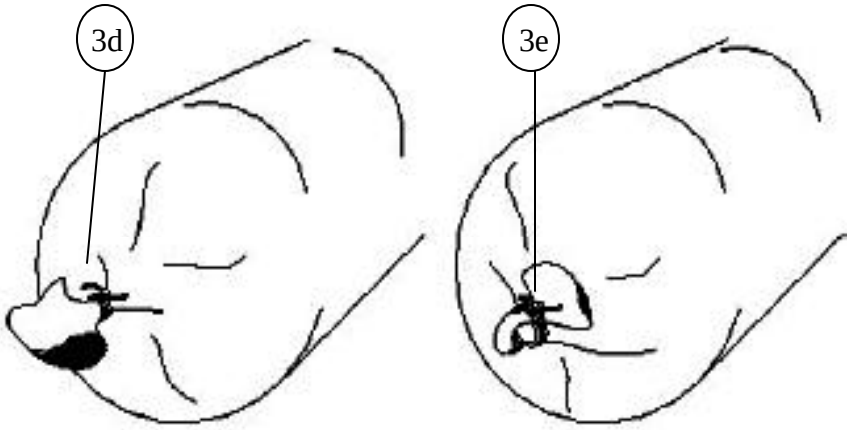
INSTALLING THE AG-BAG® BAG (CONT.)



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 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.

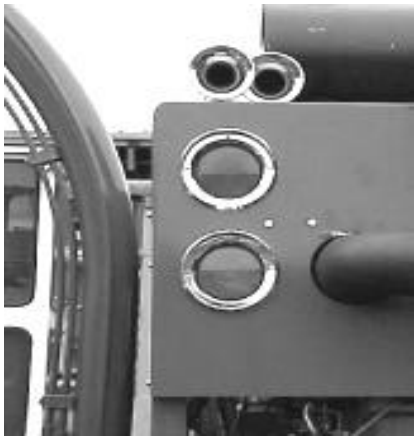
This illustration shows a bag installed and ready for use. The double knot was used to seal the end of the bag.

BAGGING PROCEDURE

THINK SAFETY AT ALL TIMES

It is important that you set up a communications system between the operator of the Ag-Bagger® and all other persons involved in the bagging process. By using a combination of the Communications lights located on the cab and engine cowling and the horn. These communications devices are controlled by buttons located on the Arm Rest Console. Once this system is setup, to eliminate confusion, it should not be changed.

Cab End



Engine End

Before proceeding it is important that all personal that will be involved in the bagging operation read and understand the Safety section of this manual.

1. Make sure that no one is allowed on the Ag-Bagger® when it is in operation. If you need to make any adjustments stop the Ag-Bagger® and then proceed. Make sure the operator is aware of the location of any worker in the area.

2. Prior to starting the Ag-Bagger® make a trip around the entire machine and make sure that all shields are in place and secured.

BAGGING PROCEDURE (CONT.)

START-UP PROCEDURE

1. Using the warning procedure setup as part of your communications discussed on the prior page warn all people to move away from the Ag-Bagger® After giving them enough time to clear the area, use the safety mirrors and visually make sure the area is clear.

2. Start the Engine. Using switch #6 shown on page 7, follow the procedures outlined in the Operator's Manual for the engine installed on your Ag-Bagger®. Check all warning lights, and diagnostics prior to proceeding.

3. Start the rotor. Using the Rotor Switch on the Arm Rest Console.

4. Start the Feed Table. Refer to page 10 of this manual, using control #2 to start the feed table.

5. Start Upper Beater Bar. Refer to page 7 of this manual, using control #4 start the beater bar. This controls only the upper beater bar.

NOTICE

BEFORE STARTING TO BAG IT IS IMPORTANT THAT YOU READ AND UNDERSTAND OTHER SECTIONS OF THIS MANUAL. BAGGING AND THE TERRAIN, 3M'S OF SILAGE AND BAGGING INSTRUCTIONS.

FILLING THE AG-BAG® BAG

1. Using the brake control and gauges (page 10, controls items #1 and #7 and gauges items #8 and #15) set the brake pressure on all wheels to approximately 40psi.

2. Check Anchor Float switch (page 8 item #9) to make sure it is in the OFF position.

3. Using the established communications procedure start the product moving into the bag.

4. If the Ag-Bagger® has an Inoculant applicator start it now.

5. Monitor the loads placed into the bags. When you have bagged between 20 - 30 tons of product turn the Anchor Float switch ON (page 8 item #9) and lower wheel brake pressure to 20 psi. Watch the Anchor Float Gauge (page 14) when the gauge reaches 6 - 10 feet (this setting depends on the condition of crop, the wetter the crop the less amount of cable should be out) turn the Anchor Float switch OFF. Reduce wheel brake pressure to 10 psi after turning switch off.

6. Anchor pressure readings. After turning the Anchor Float off maintain the Anchor pressure at 500-1000 psi for Corn and 1200-1600 for all other crops. Use the gauge on page 4.16 item #3 to monitor this pressure. The amount of pressure is controlled by feeding out more cable to increase the amount of drag/pressure and pulling in cable to lower the drag/pressure. These pressure readings will vary depending on the moisture in the product being bagged. It is very important that you continually monitor the pressure to make sure they remain in the range specified.

BAGGING PROCEDURE (CONT.)

REMOVING THE AG-BAG® BAG

It is important that you monitor the length of the bag and the number of folds remaining on the tunnel. Start the following procedure when there is 6 - 7 folds of bag remaining on the tunnel.

1. Prior to the last load pull anchor in. Increase the brake pressure, and using switch #10 on page 8 pull the anchors in. When the final load is in the bag there should be approximately 5 folds left on the tunnel.

2. Release the brake pressure.

3. Using Sweeping Tunnel Sweep switch (see item #12 page 8) to open and close the sweep. Repeat this procedure several times. Make sure when you have finished the Sweep warning light on the center console is out (See item #10 page 10).

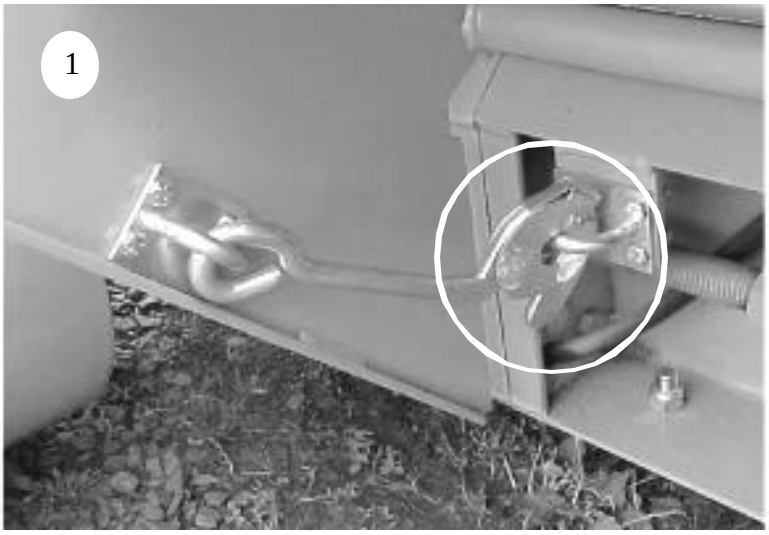
4. If you are going to start a new bag at the end of this bag pull the Ag-Bagger® forward until the bag has been pulled from the tunnel. If you are going to move to a new location and will be turning the Ag-Bagger lift the feed table, remembering to close the feed table wings prior to lifting the feed table.

5. When the bagger has been moved away pull the plastic flat and prepare to seal the end of the bag. Grab each side of the bag on the end. Walk the bag over itself pulling the product together. Bring the bag end back forward. Seal the end of the bag with either MasterSeal® 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)**

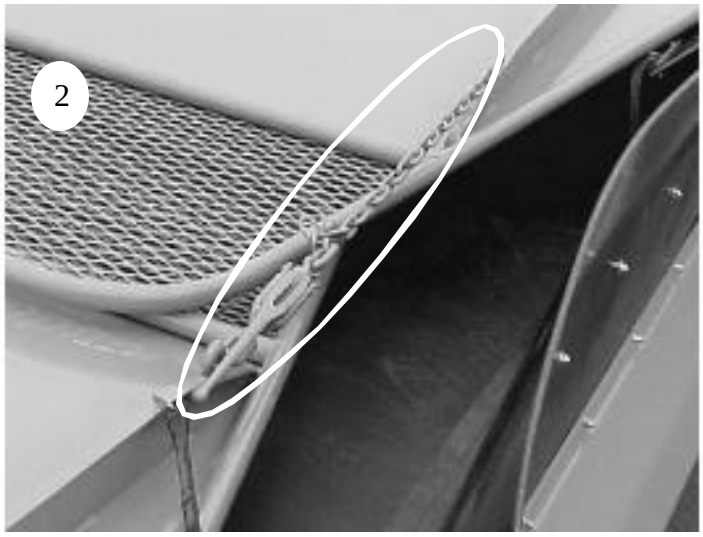
6. Install Vent Valves. Place the vent valve 10-ft from the end of the bag and approximately 3/4 up the height of the bag.

PREPARE THE AG-BAGGER® FOR TRANSPORT



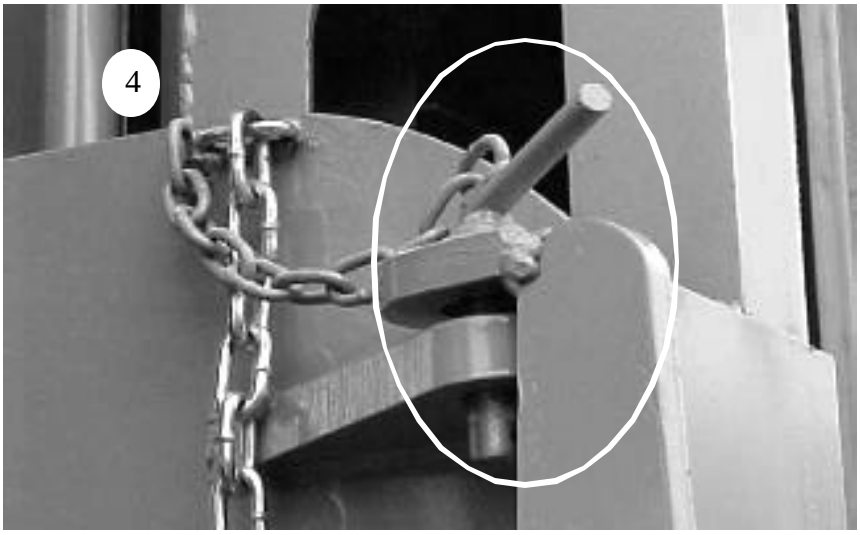
Feed Table Transport

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 #11)



4. Lock Feed Table in the upright position.

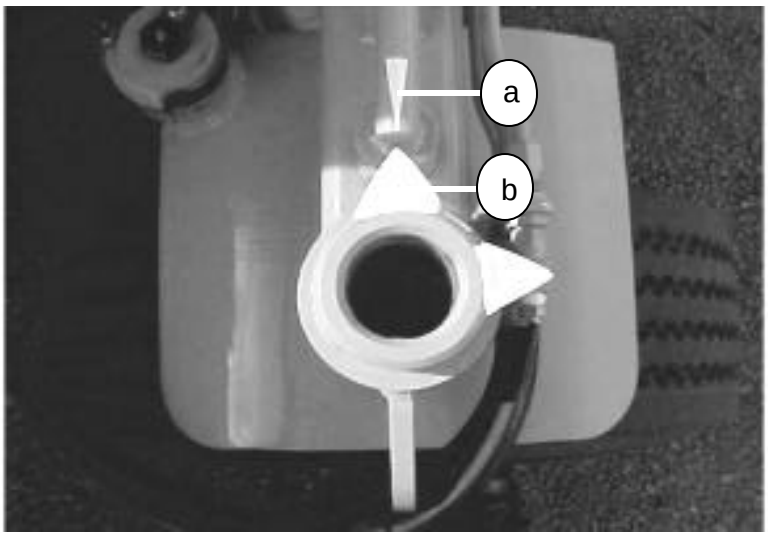
PREPARE THE AG-BAGGER® FOR TRANSPORT

Wheel Transport

1. Using the steering controls on the center console move the wheels into transport position.

2. Align the arrows on the wheel column. Maker sure arrows (a) and (b) align.

3. Lock the wheels.



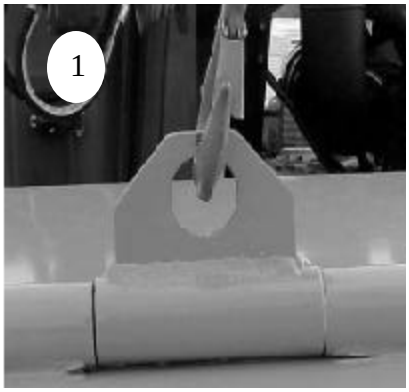
Tunnel Extension Transport

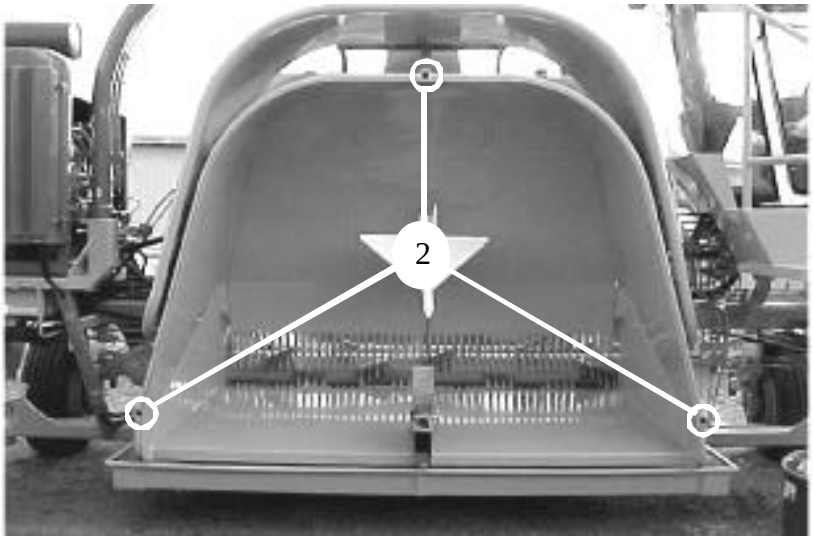
1. Latch bag boom hook to lifting lug at top of tunnel extension.

2. Remove pins from all sockets, 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.





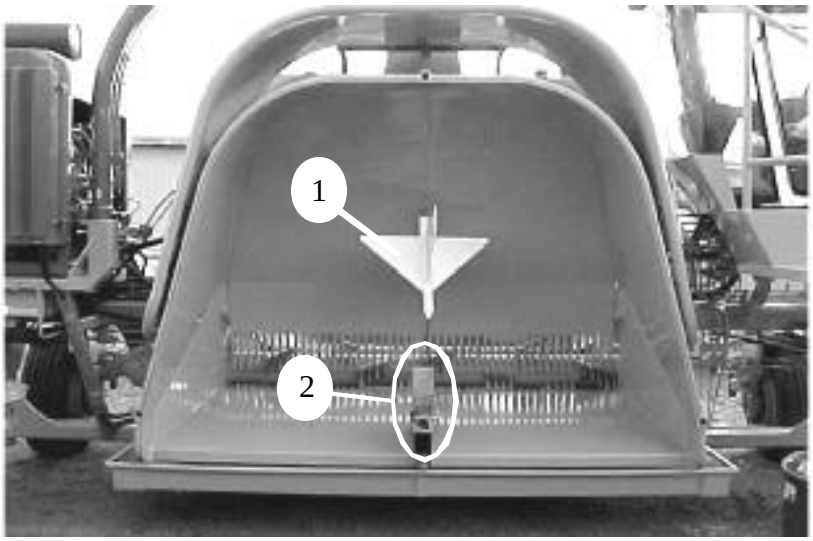
PREPARE THE AG-BAGGER® FOR TRANSPORT

Anchor Transport

1. After removing anchor from the bag during bagging operation move anchor to hook located in the tunnel and hang it there.

2. Fold anchor support socket back into tunnel.

3. Using the controls on the Arm Rest Console take the slack out of the cable.



⚠CAUTION

Caution should be used to leave some slack in the cables. Pulling to tight will cause cable to kink.

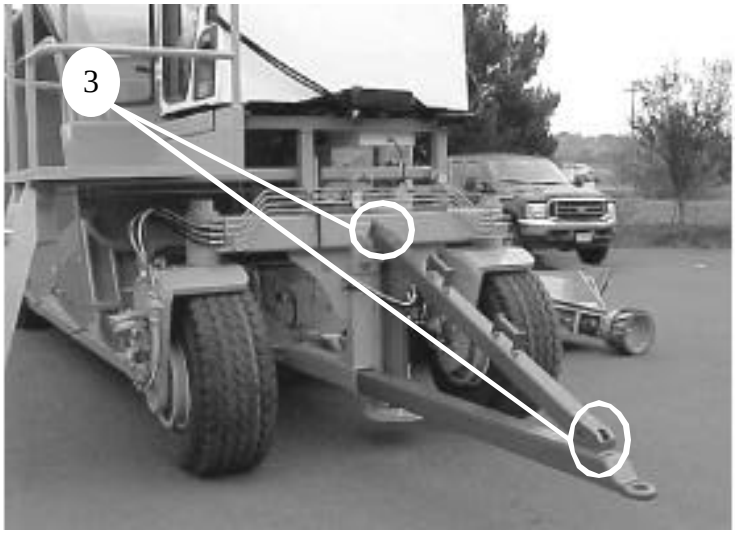
Pintle Hitch Transport

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

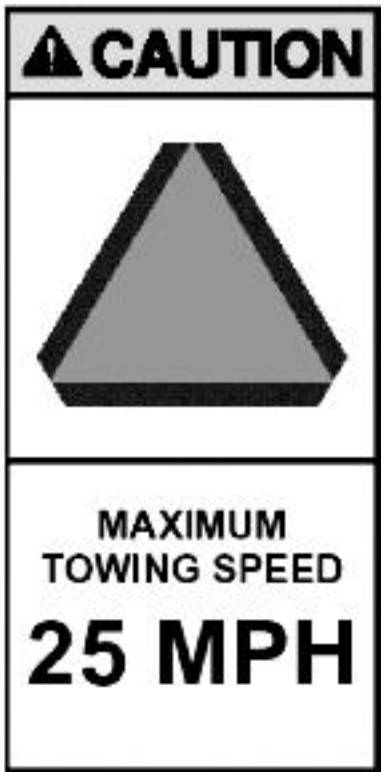
1. Remove the pin and hair pin and slide the hitch out.

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®

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® onto the pintle hitch.

4. Shut off Ag-Bagger® engine.

5. Connect the Ag-Bagger® lights to the tow vehicle. The connector should have been installed to the four wire harness.

6. Attach air brake hose to the Ag-Bagger® The connector is located above the pintle hitch stabilizer.

7. It is your responsibility to know follow all state and local laws dealing with the movement of agricultural equipment on highways.

Index

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 you 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.

AG-BAGGER® MODEL MB7010 HyPac

Table of Contents

BAG GUARANTEE

We, at Ag-Bag®, can offer this unequaled guarantee because of our commitment to quality, years of experience as the leading manufacture 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® and you, the customer. Our part of the teamwork is to provide you with a top quality silage bag.

AG-BAG®'S PART

Ag-Bag® guarantees our "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, Ag-Bag® will replace the bag without charge. If the feed in the damaged bag requires rebagging Ag-Bag® will replace the bag discussed above plus one move 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® 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® 3M's of Silage for recommendation of how to bag silage for proper techniques and guidelines.

BAGGING SURFACE

⚠WARNING

Do not bag on a side hill. Tip-over or bag roll may result.

Bag uphill rather than downhill. Avoid bagging on a side hill. The Ag-Bagger® 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® to sink. A hard clean and level surface is best to bag on. By clearing the area rodent problems can be eliminated.

BAD WEATHER BAGS

NOTICE

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

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.

PROTECT AGAINST THE WIND

NOTICE

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

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 no use abrasive materials or forage products, rodents like this type of cover

FILLING THE BAG

NOTICE

Over stretching the bag does void the bag warranty. Follow the guidelines for bag stretch included inside your box of Ag-Bag® bags.

Haylage and Corn silage – Apply enough anchor 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 anchor pressure. Regulate anchor pressure by measuring your stretch bars 30-feet back from the Ag-Bagger. Keep the stretch bars under the 5-1/2 stretch limit.

CONTROLLING BAG STRETCH

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 1a and 1b)

(Diagram 1a)

(Diagram 1b)

It is important to remember to keep the bag stretch mark between the 5 and 5-1/2 inches shown above. If you go under the 5 inch mark you will not get the proper use of you bag. If you go over the 5-1/2 inch stretch you risk causing damage to the bag.

You control the stretch in the bag by either letting out the anchor cable or pulling it in.

Anchor Out. The further out the anchor cable is the more pressure will be exerted, meaning the bag will have a higher compaction. Watch the anchor gauge so you will know how much cable is out. This will cause the stretch mark to lengthen. You can let out more cable by using the Anchor float switch on the Arm Rest Console. Do not use the Anchor Cable In/Out switch to let anchor cable out while bagging.

Anchor In. By pulling the anchors back towards the tunnel you will lessen the amount of pressure and cause the stretch mark to become smaller. Use the Anchor Cable In Switch to pull the anchors in. Watch the Anchor pressure gauge and keep it with in the correct range.

PRODUCT MOISTURE

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

NOTICE

Over stretching the bag does void the bag warranty. Follow the guidelines for bag stretch included inside your box of Ag-Bag® bags.

Dry Product

Dry product makes a lumpy bag. Long dry chop is hard on the Ag-Bagger®. 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.

Index

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 problems arise that are not covered here please contact you Ag-Bag® Dealer for help.

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

PROBLEM	CAUSE	CORRECTION
ROTOR DRIVE BELT SLIPPING	1. To much belt deflection.	1. Adjust Belt Tension. See the Service and Maintenance Section.
	2. Rotor plugged.	2. Slow down Feed Table belt.
	3. Product binding lower beater bar.	3. Adjust chop or monitor moisture.
ROTOR NOT TURNING	1. Rotor not engaged	1. Use Rotor switch to engage rotor.
	2. Tachometer not operating correctly.	2. Replace tachometer sensor.
	3. Drive belts improperly adjusted.	3. Adjust belt tension.
	4. Foreign object in rotor	4. Remove foreign from rotor
	5. RPM to high.	5. Lower RPM.
ENGINE END STEERING WON'T TURN	1. Lock pin locked	1. Remove pin from locked position.
	2. Other functions running on engine end.	2. Turn off other functions running on engine end.
FEED TABLE BELT WON'T PULL FEED TO ROTOR.	1. Feed to wet and heavy.	1. Remove some feed from belt to reduce weight.
	2. Chain Binding	2. Check for binding and realign sprockets
	3. Too much buildup on belt rollers.	3. Clean belt roller of build up

PROBLEM	CAUSE	CORRECTION
ANCHORS WILL NOT RETRACT	1. Anchor float switch on. 2. Anchors out to far. To much pressure.	1. Turn anchor float off. 2. Pull machine ahead and retract anchors.
FEED TABLE BELT NOT MOVING	1. Feed Table Belt to Loose	1. Tighten both Feed Table belt adjustors to get belt moving and then follow up with tracking adjustment.
FEED TABLE BELT NOT MOVING - BELT IS TIGHT	1. Feed is to wet and heavy and Feed Table motor is going over relief.	1. Back off wheel brakes and power in the PAC anchor to help move the feed to the rotor.
FEED TABLE BELT IS MOVING FORWARD BUT WILL NOT MOVE FEED TO ROTOR.	1. Feed to wet or to dry to move and is slipping on belt.	1. Back off wheel brakes and power in the PAC anchor to help move the feed to the rotor
FEED TABLE BELL NOT MOVING FORWARD BUT WILL MOVE IN REVERSE	1. High speed RPM is out of adjustment.	1. Adjust high speed to operate Automatic Feed Table Control (AFC). The high speed RPM needs to be above 2200 or below 1100.

PROBLEM	CAUSE	CORRECTION
FEED TABLE BELT NOT MOVING FORWARD BUT WILL MOVE IN REVERSE.	1. AFC control may need reprogramming	1. Contact your authorized Ag-Bag® Dealer.
ARM REST SWITCHES NOT WORKING	1. Fuse blown	1. Check/Change fuse #2 in fuse block
CENTER CONSOLE SWITCHES NOT WORKING	1. Fuse blown	1. Check/Changes fuse #5 in fuse block
EXTERIOR LIGHTS DON'T WORK	1. Fuse blown	1. Check/Change fuses #4 Boom Light #7 Road Lights #9 Field Lights

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 you Ag-Bag® Dealer. By following these instructions the life of your investment will be lengthened.

AG-BAGGER® MODEL MB7010 HyPac

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

Table of Contents

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

Service Manuals

NOTICE

It is your responsibility to read and understand not only this manual but all other manuals provided with your Ag-Bagger®. Currently Ag-Bag® ships manuals for the following:

1. Diesel Engine

Limited service or operation information will be provided for these items in this manual.

Machine Specifications

MB7010 HyPac	
Width - Towing	8'6"
Length - Towing	18'10"
Height	11'
Weight	24,500 lbs
Width - Bagging	16'6"
Unloading Truck Width	9'9.5"
Feed Table Length	9'8"
Rotor Packing Length	8'5"
Tunnel	10'
Bag Length	Up to 300'

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

Lubricant Specifications

Parts	Lubricants
Clutch	See Clutch Manual
Bearings, Shafts, Slides & Splines	Extreme Pressure Moly Grease
Hydraulic System	Grade 46 ISO Hydraulic Oil
Planetary	GL 80-140 Gear Oil synthetic
Chain	See Oil Chart

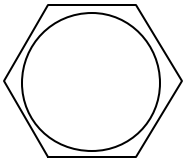
Chain Oil Specifications

Apply the proper weight oil according to surrounding temperature. The chart below gives recommended ranges.

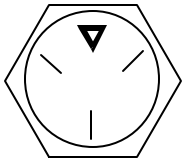
Temperature Degree F	Recommended Lubricants
-20 - +20	SAE 10
20 - 40	SAE 20
40 - 100	SAE 30
100 - 120	SAE 40
120 - 140	SAE 50

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

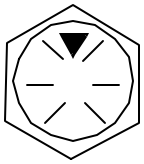
Bolt Specifications



Not Graded



Grade 5



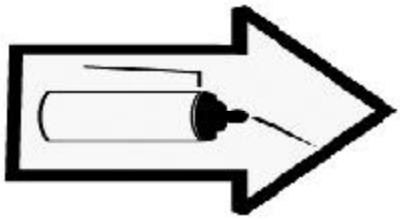
Grade 8

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

Tire Specifications

Tire Size	Pressure - Torque
385/65R19.5	Pressure Cold: 110 lbs Torque: 270 ft lbs

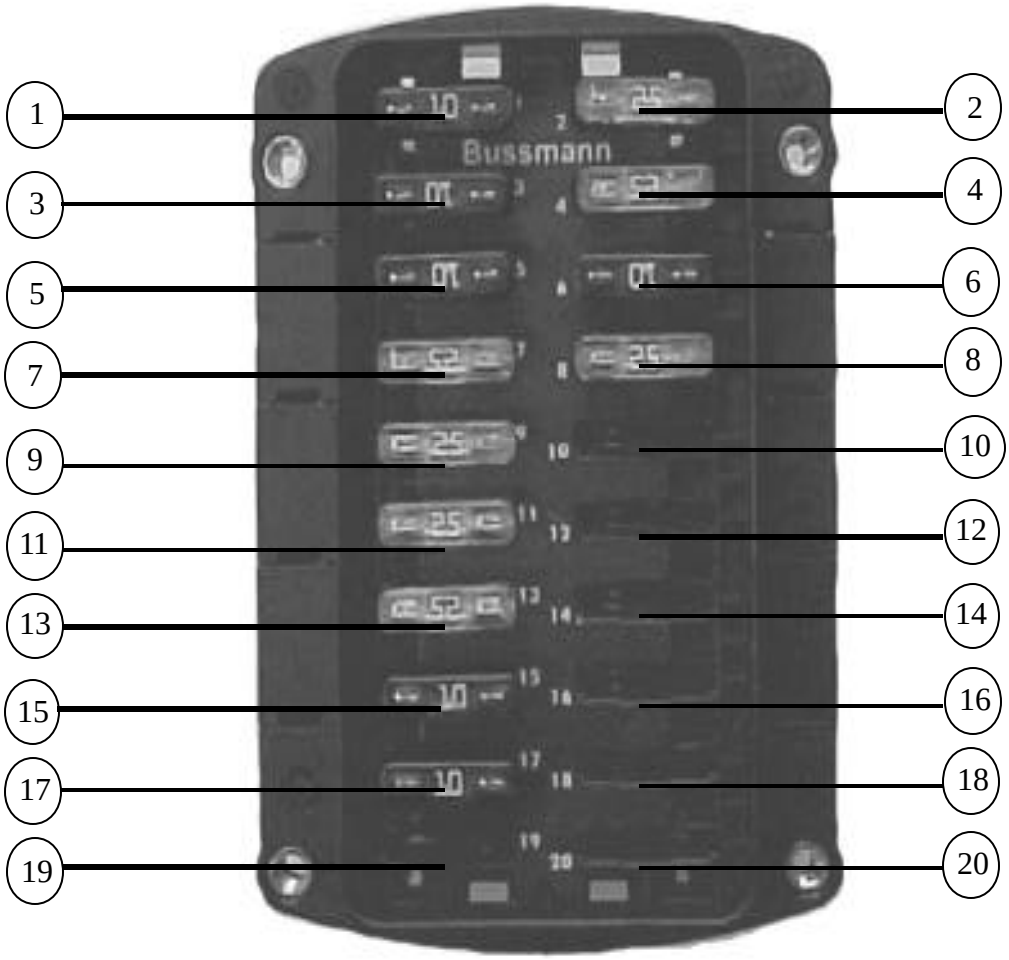
Grease Gun Decal



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

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

Electrical Fuse Box Specifications



1. 10amp - DVC10
2. 25amp - Arm Rest Power
3. Open
4. 25amp - Boom Light
5. 10amp - Console Power
6. 10amp - Right Pillar
7. 25amp - Road Lamps
8. 25amp - Air Conditioning
9. 25amp - Field Lamps
10. Open
11. 25amp - Wiper Power
12. Open
13. 25amp - Cab Power Outlet
14. Open

Constant Power

15. Open
16. Open
17. 10amp - Radio Memory/Dome
18. Open
19. Open
20. Open

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

General Maintenance Schedule

Group / Feature	Intervals	Lube Type	Points
Wheels			
Wheel Column Post	Weekly	See Chart	8
Wheel Lock Pin	Weekly	See Chart	1
Wheel Brake Shaft	Weekly	See Chart	4
Wheel Brake Slack Adjuster Arm	Weekly	See Chart	4
Lug Nuts	Daily 270 ft lbs	n/a	32
Rotor			
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
HyPAC Cylinder			
Cylinder Pins	Daily	See Chart	2
Sheaves	Daily	See Chart	2
Lead Sheaves	Daily	See Chart	2
Bag Boom			
Extension Sleeve	Every 4 Bags	See Chart	1
Base Bearings (spindle)	Annually	See Chart	3
Engine / Clutch			
Engine	Refer to Engine Service Manual		
Feed Table			
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
Hydraulics			
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
Operator Platform			
Ladder	Annually	See Chart	2
Deck	Annually	See Chart	12

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

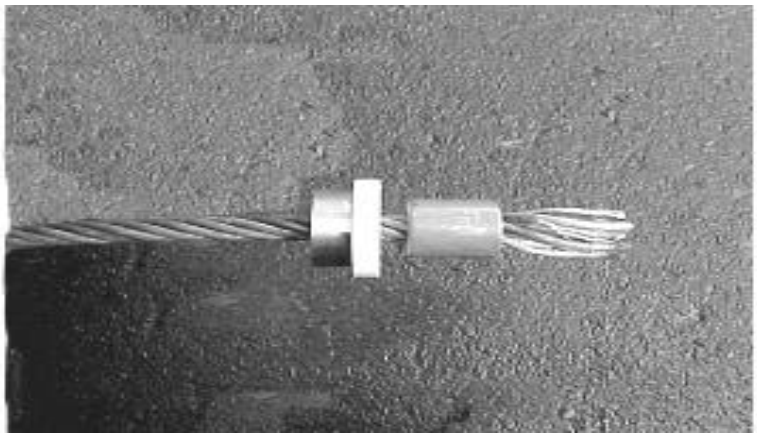
Install the Anchor

⚠WARNING

Serious injury may occur. Always wear protective gloves while handling wire rope cable.

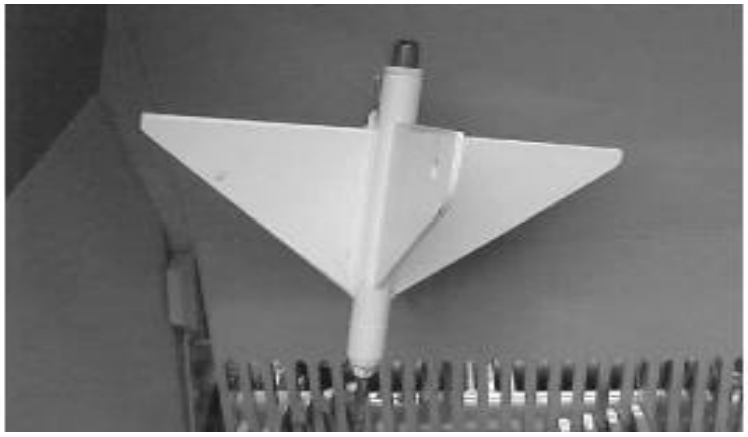
Install The Anchor

When you receive your Ag-Bagger® the anchor and cable will already be installed. This procedure should be used if it becomes necessary to install new anchor cables.



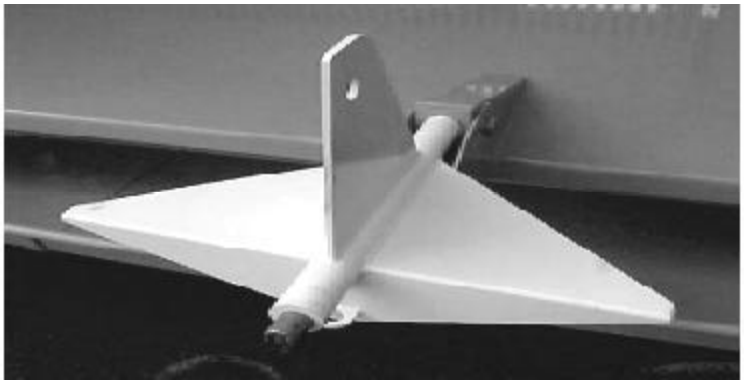
1. Assure the Anchor Float Switch is in the OFF position. (Switch #9 on the Arm Rest Controls in this manual).

2. Press the bottom of switch #10 on the Arm Rest Controls and with help from another person pull enough cable out to allow for the attachment of the anchor to the cable.



3. Slide cable end through anchor, anchor plug, and quick knob inserting the brass wire separators into the cable.

4. Pull anchor back onto the quick knob until secure.



5. Press the top of switch #10 to retract the cable and pull the anchor tight against the anchor socket and is resting on the anchor support. The anchors should be in this position prior to installing the Ag-Bag® bag.

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

Anchor Cable Adjustment & Installation

Anchor Cable Adjustment

Most of the cable stretch will occur during the first bag, so adjustment needs to happen prior to the second bag. Also check each time the anchor are fully retracted. The anchor must be tight in the socket. To adjust follow step 1 and then proceed to step 4.

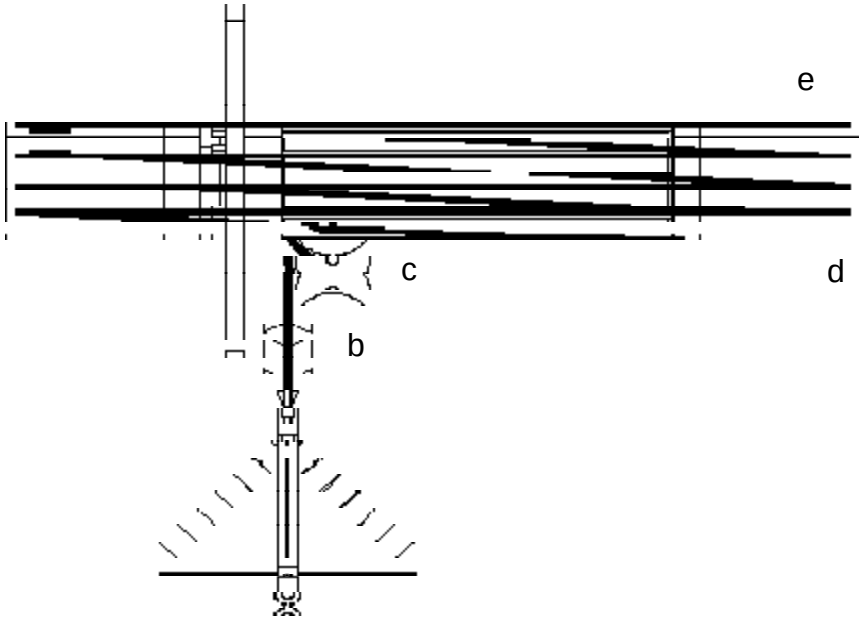
NOTICE

Failure to maintain proper anchor adjustment may result in cable damage, which may not be covered by your warranty.

Anchor Cable Installation

1. Position the cylinder. Fully extend the cylinder, then retract 1 inch. Shut off the tractor when measuring.

2. Thread the cable through the pulley system. Follow the letter sequence in the illustration.
   b. Over the fairlead.
   c. Around the pulleys
   d. Through the hole in the plate
   e. Under the pulley.



WARNING

Serious injury may occur. Always wear protective gloves while handling wire rope cables

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

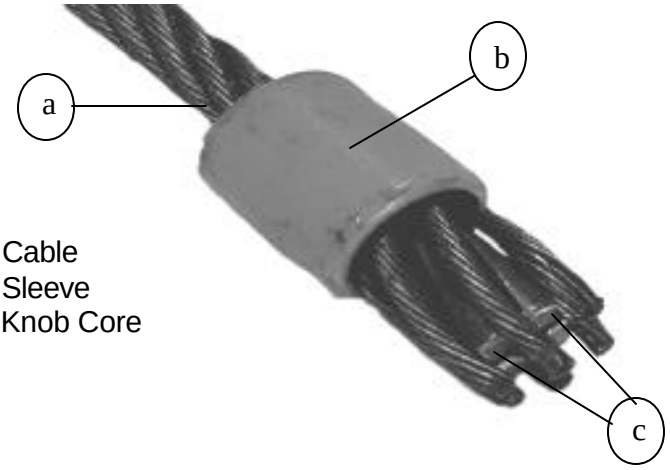
Anchor Cable Adjustment & Installation (cont.)

3. Install the cable stop on the cylinder end.

- Slide the cable (a) through the sleeve (b).

- Unravel the cable (a) and wrap around the knob core (c). Keep the knob core halves flush.

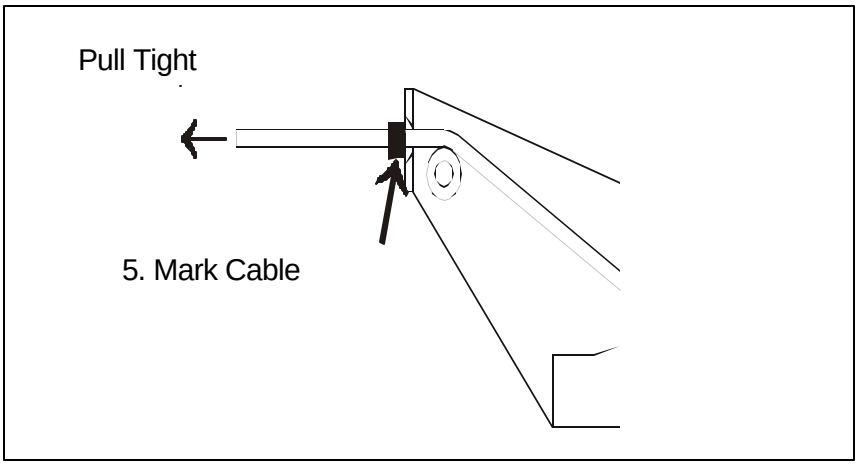
- Tap the sleeve (b) down on to the knob core (c) and cable (a) with a hammer until secure.



a. Cable
b. Sleeve
c. Knob Core

4. Manually pull the cable tight from the outside.

5. Mark both the cables in the same spot as close to the fair lead as possible.



6 Using the anchor cable out switch on the arm console extend the cable 4 feet. Pull on the cables while extending.

7. Cut the cable at the marks.

8. Slide the cable through center of each anchor. Be sure to put the anchor on nose first..

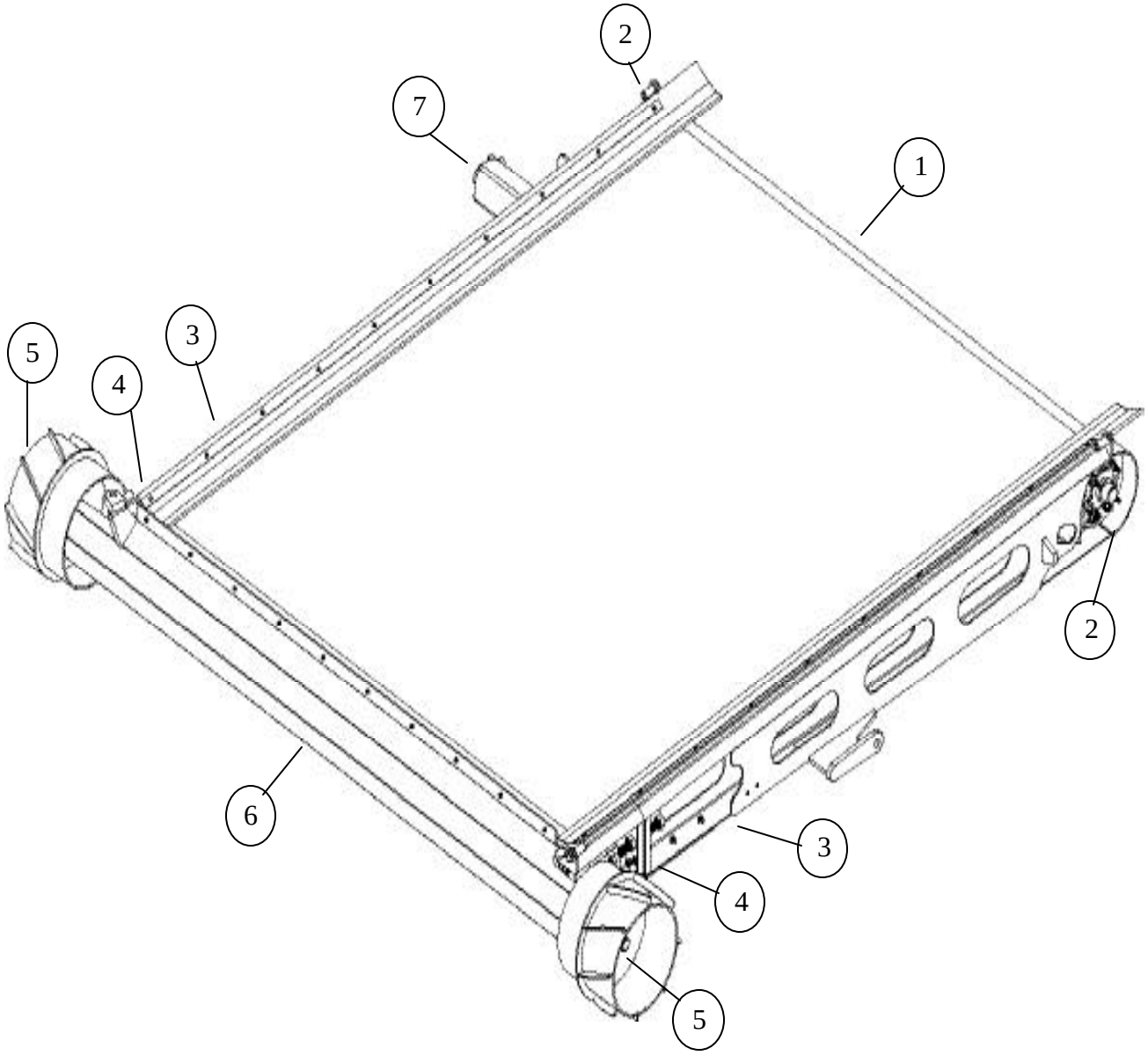
9. Install the cable stop as describe in item 3 above.

10. Pull on the anchor to secure the cable stop in the nose of the anchor.

11. Using the Anchor In/Out switch on the arm rest console retract the anchor. The anchors should be tight in the sockets.

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.

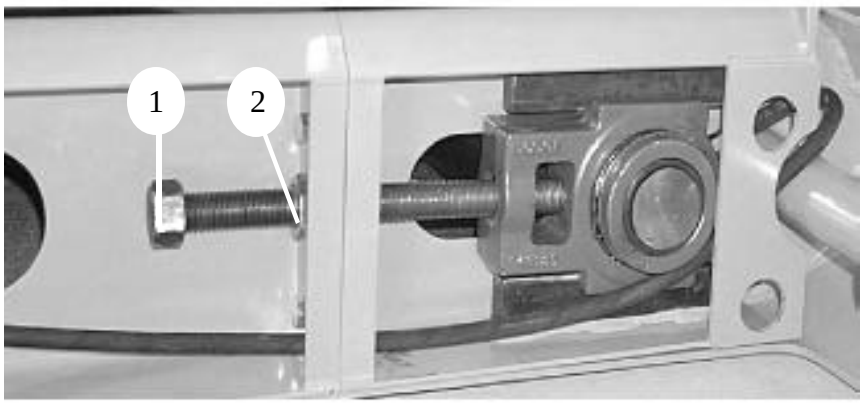
Feed Table Adjustment (cont.)

Adjust Feed Table Belt

1. Adjustment Bolt
2. Adjustment Lock Nut

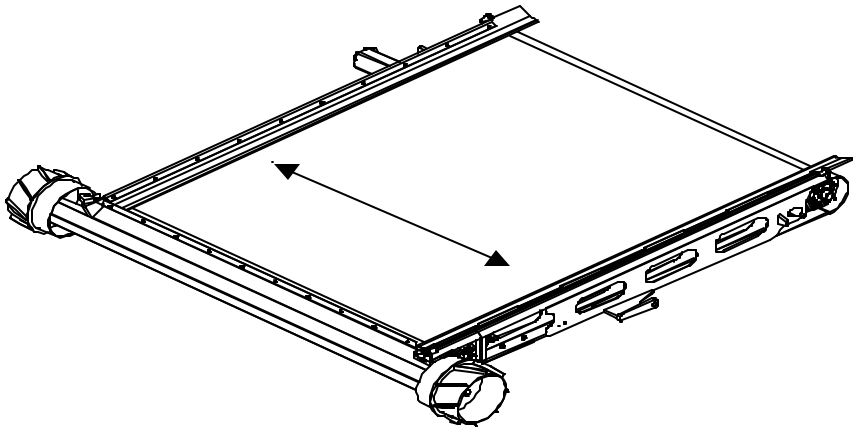
To adjust belt:
- Tighten adjustment bolt to push belt away for the side you have tightened.

- 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.

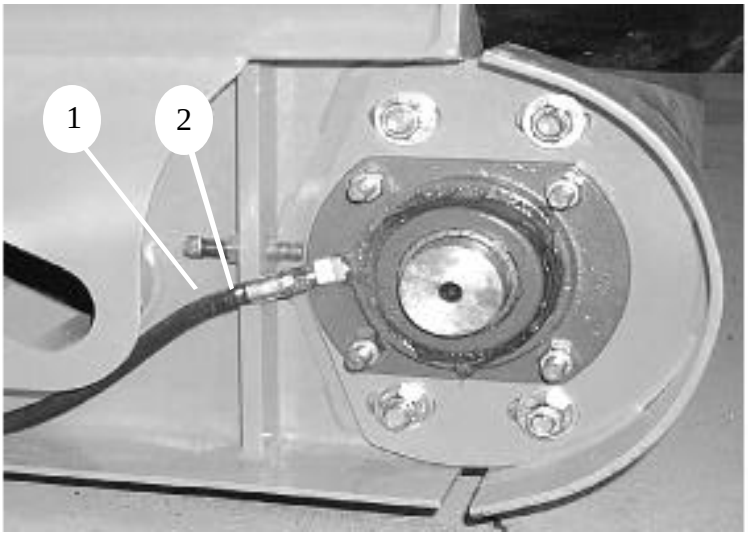


Feed Table Head Roller

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

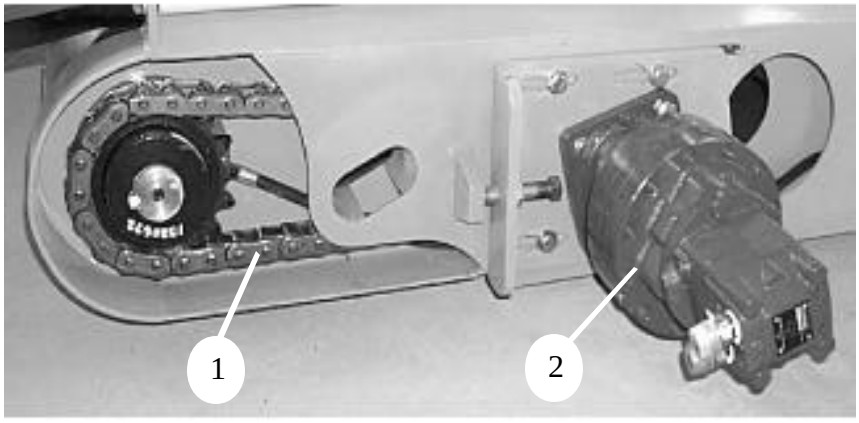
NOTICE

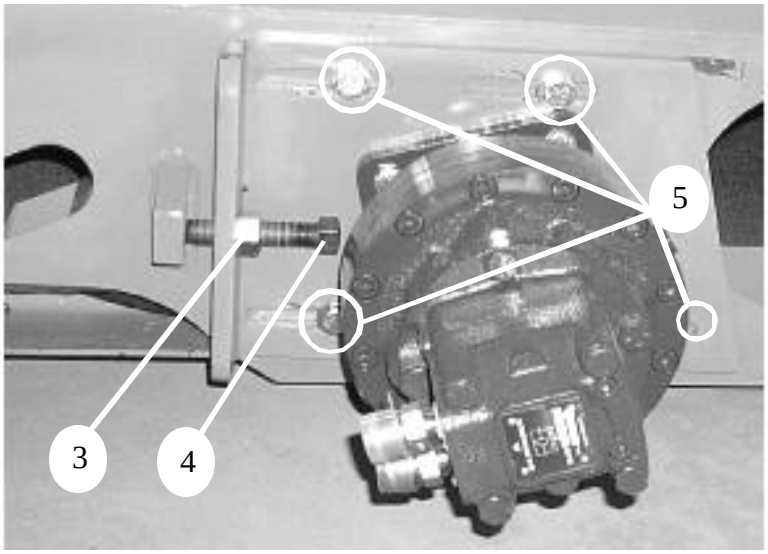
Only trained Dealer should make this adjustment. Head Roller should never need adjusting.



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
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.

Belt Drive Adjustment

2. Loosen nut (B) at each corner of the engine frame.

3. Turn nut (A) equal number of turns at each corner of the engine frame in the same direction. This will help keep the engine skid level. Actual adjustment may only take 1/8 to 1/4 turn.

After the first adjustment, the drive belts should not require more adjusting. Follow these tension standards.

- Ideal tension is the lowest tension at which the belt will not slip under peak load conditions.

- Check tension frequently during the first 24-48 hours of running the Ag-Bagger®. Make sure the belt is not slipping.

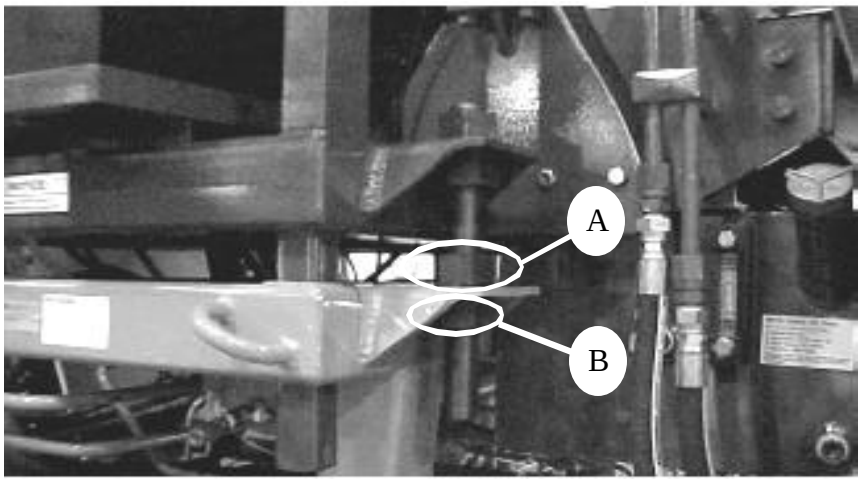
- Over tensioning shortens belt and bearing life.

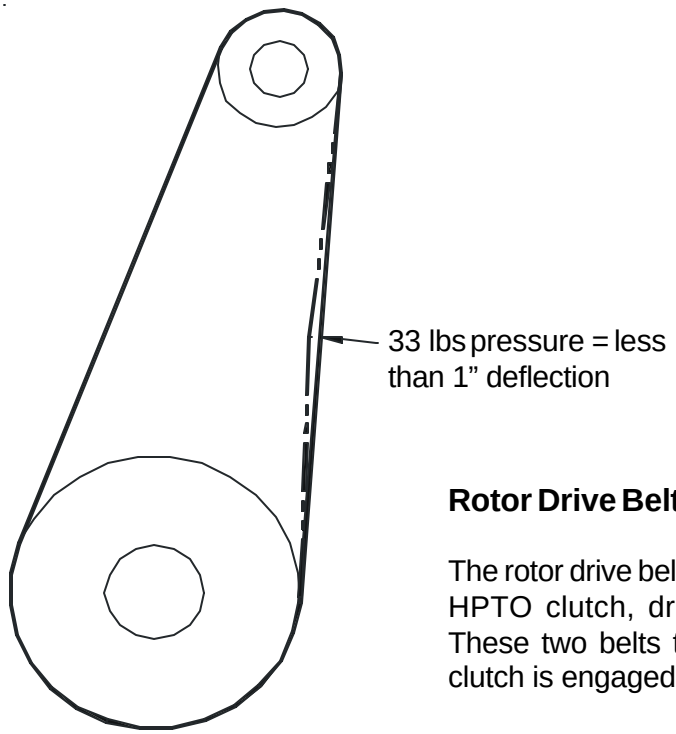
- Keep belts free from foreign materials, which may cause slipping.

- Make belt inspection on a periodic basis and tighten when slipping.

- Never apply belt dressing, as this will damage the belt and cause early failure.

- For this application, the drive belt should have a deflection of less than 1 inch when @ 33 lbs of pressure are applied at the middle of the span.





Rotor Drive Belt Adjustment

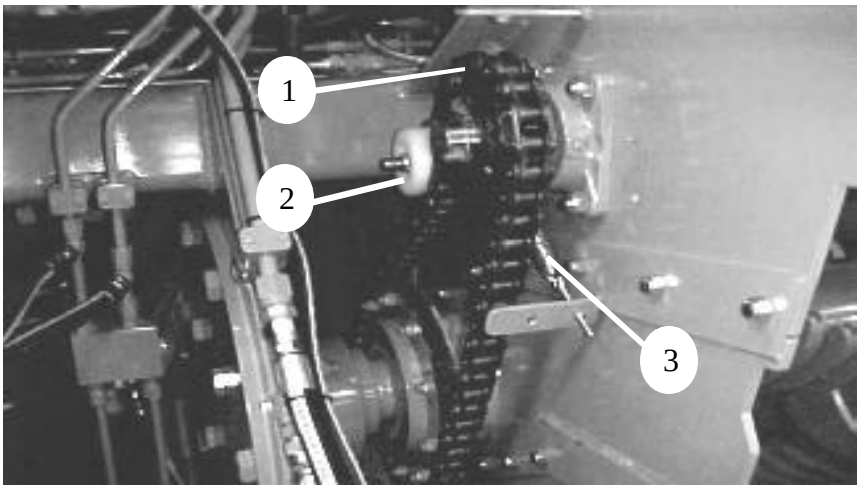
The rotor drive belts, drive by the HPTO clutch, drive the rotor. These two belts turn when the clutch is engaged.

The belts tend to stretch after the first or second bag. Adjustment may be required. Test deflection first (see below). Adjust the engine skid to tighten the belts.

1. Mark the nuts to track the number of turns. A large wrench is supplied with your Ag-Bagger® for doing this adjustment.

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

Beater Bar Chain Tension

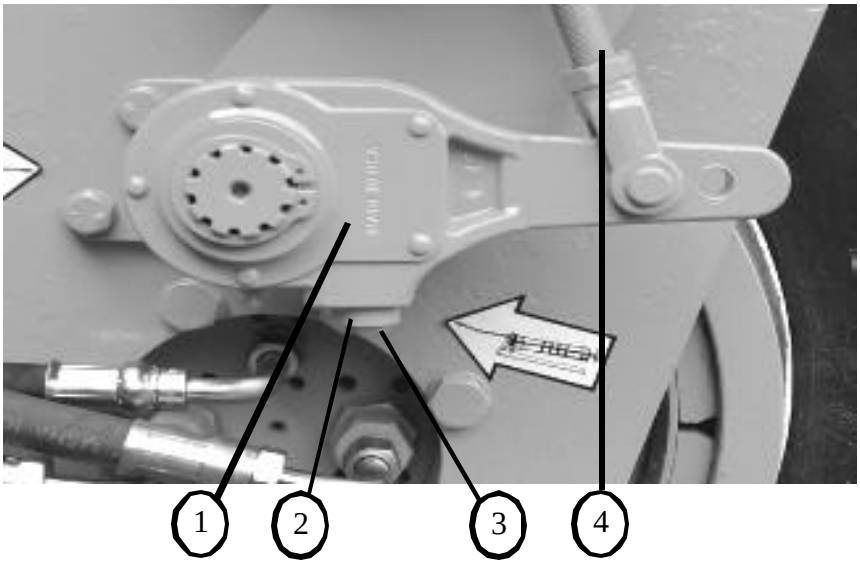


Beater Bar Chain Tension

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.

Air Brakes Adjusting



1. Slack Adjuster
2. Slack Adjuster Nut Slip Sleeve
3. Slack Adjuster Nut
4. Brake Rod.

Air Brake Adjusting

1. Release the brake pressure.

2. Slide the slack adjuster sleeve (2) up. Use a 9/16" wrench on the slack adjusting nut (3).

3. Tighten the slack adjusting nut (3) until snug by turning the wrench counter-clockwise looking from the top.

4. When the nut is snug, loosen if 1/4 turn clockwise.

5. Make sure the nut locking sleeve (2) slides down over the nut.

6. Slack adjuster (1) will now move so the rod (4) moves up and down about 1/4".

⚠ WARNING

Rolling Hazard

Block all wheels prior to releasing brake pressure.

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

Tine Cap Replacement

Tine Cap Replacement

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

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

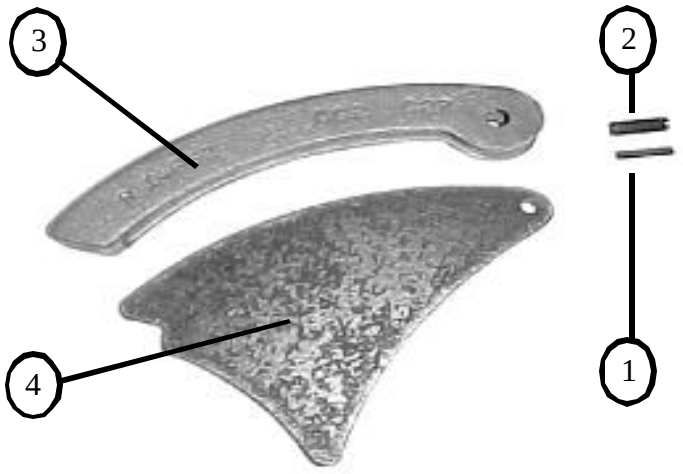
B. Slide the tine cap (3) from the tooth (4).

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

D. Install the spring pin (2) through the whole 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.



1. 1/4 Spring Pin
2. 3/8 Spring Pin
3. Tine Cap
4. Rotor Tooth

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

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.

AG-BAGGER® MODEL MB7010 HyPac

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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, is should not be stretched more than 2 inches above the tunnel.

B LESS brake press 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 packet 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®

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® 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® 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® mending tape as soon as they are discovered.

8. NORMAL USAGE LIFE OF AG-BAG® BAGS

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

A Ag-Bag® 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® 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® bags located 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® Dealer or Ag-Bag® International direct.

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

	Winter Rates Oct. - April		Summer Rates May - Sept.	
Bag Size	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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The 3M’s of Silage

MANAGEMENT

MATURITY

Moisture

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3M's of AG-BAG® SILAGE

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 on 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

3M #1 – MANAGEMENT

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 bacterias – 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. Photolytic 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 it's 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 yeast (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.

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: homofermenative and heterofermenative. The homofermenative produce only lactic acid. The heterofermenative 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 microencapsulated. 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 3/4" 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, agri 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 (3/4") 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.

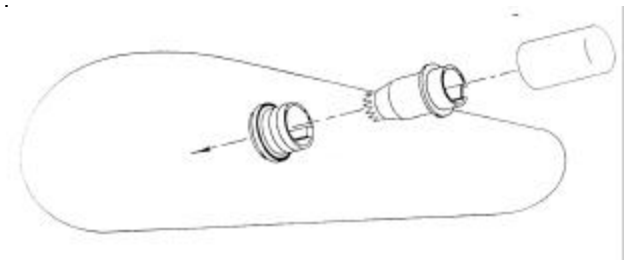
SEALING THE BAG

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.

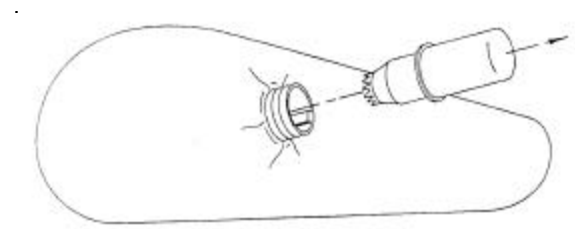
VENTING THE BAG

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.

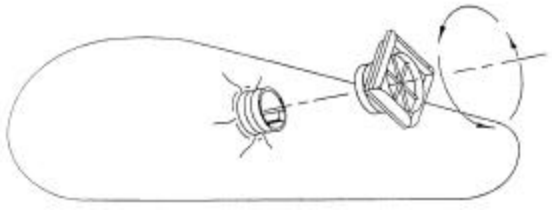
Instructions for using the Ag-Bag® vent valve:
Take the cover off the vent tool. Insert the tool, with prongs up, into the cover by lining up the notches. Taking the threaded side of the valve, line up the notches and slide it over the top of the pronged end of the tool. (See illustration below.)



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-dayfermentation 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 S THE VALUE OF CORN SILAGE?

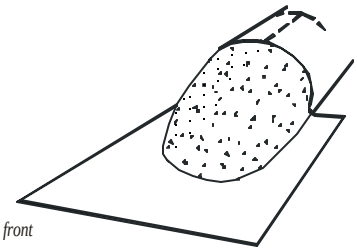
Some universities and research centers say that corn harvested as mature corn silage is the king of all crops as far as producing the most pounds of TDN per acre. A 20-ton-per-acre crop of corn silage, which would be near an equivalent of a 120 bushel an acre grain crop, would produce about 6 tons of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

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.

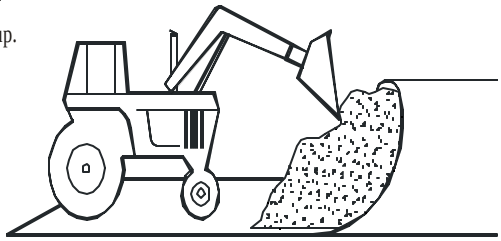
Proper Bag Feed Out Technique For Large Operations

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



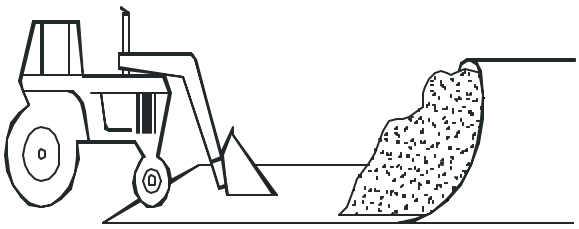
Prevent the plastic from hanging up in the loader bucket, drive the front wheels onto the plastic.

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

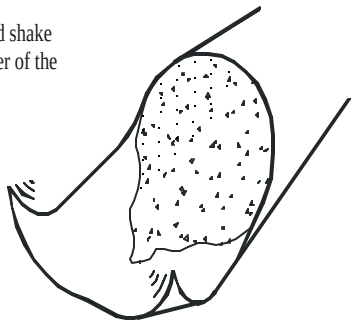


Lower the bucket 1 inch above the plastic.

- Skim doze directly from the front.



- Lift the plastic edges and shake product back to the center of the bag.



Suggested Daily Feed Out Rates

Winter Rates - October - April		
Bag Size	**Feet/Day**	**Tons/Day**
8'	1'	1
9'	1'	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
Corn Silage	Tassel	10.7	64.4
	Milk	8.0	69.0
	Glaze or Early Dent	8.0	71.0
	Full Dent	8.0	68.9
Alfalfa Silage	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
Oat Silage	Boot Stage	15.3	65.8
	Late Milk to Early Dough	8.5	65.0
	Late Dough	8.3	63.5
Grass Silage	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
Wheat Silage	Immature	24.0	63.5
	Flower	16.0	63.0
	Late Flower	6.7	51.3
Notice when cut at the right stage of maturity, the TDN values are all above 60-70% in feed value.			

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.

THE BEST BAG TO USE

Ag-Bag®'s bag is engineered to be the most scientifically prepared to deal with all the elements. The bag is made from polyethylene resins with ultraviolet inhibitors and special whiteners.

Tri-extruded, or bonded, together in 3 layers, the bag's white outer layer is extreme white to reflect the heat of the sun. In this layer are special ultraviolet inhibitors to give long life against the sun's rays. The clear inner layer is added for strength and elasticity.

Insist on using genuine Ag-Bag® bags for the best feed quality results.

It is critical to maintain an oxygen-free environment in the bag. To repair a tear or puncture in the bag, use the repair tape from Ag-Bag®. If a large tear happens, use spray adhesive around the tear area, apply a piece of used bag over the hole, and seal the patch with repair tape. Careful, periodic bag examinations will prevent spoiled feed. Bag management is a must to maximize your profits.

.

Bag Code	Bag Size	Bags Per Box	Bags Per Pallet	Inoculant Index* Based on 100 Ton)	Range of Tons/Bag 65% M. Alfalfa	Range of Tons/Bag 35% M. Earlage	Range of Tons/Bag 28-30% M. Shelled Corn	Approx. 56# Bushels per Bag
TD810	8' x 100'	1	16	1.0	80-90	70-80	80-90	
TD815	8' x 150'	1	12	1.4	120-140	120-130	130-140	3,825
TD820	8' x 200'	1	10	1.9	170-190	164-180	180-200	5,294
TD913	9' x 135'	1	12	1.6	140-160	134-150	150	4,411
TD915	9' x 150'	1	12	1.8	160-180	162	175	6,125
TD920	9' x 200'	1	10	2.2	200-225	205	230	6,765
TD1015	10' x 150'	1	10	2.2	200-220	180	202	5,940
TD1020	10' x 200'	1	8	3.0	270-300	247	278	8,175
TD1025	10' x 250'	1	6	3.6	340-360	324	350	12,250
TD1125	11' x 250'	1	6	4.2	390-420	350	410	14,350
TD1225	12' x 250'	1	6	5.2	450-500	420-480	450	16,071
TD1230	12' x 300'	1	4	5.7	550-600	500-550	500	17,238
TD1250	12' x 500	1	2	6.2	980-1000	840-900	900	32,000

- *Multiply the number of bags by the inoculant index to determine the number of buckets or pouches of inoculant needed. Example - 20 TD815 x 1.4 = 28 buckets.*

Note: Tons per bag are approximate. Weights may vary slightly depending on moisture level and crop types. High moisture shelled corn totals are figured from bagging with a standard 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 trucks or wagons.

DAIRY TERMS TO KNOW

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 soilage.

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, eter, chloroform, and other fat solvents, and have a greasy feel. They are rich sources of dietary energy.

Nonprotein nitrogen (NPN): Used by rumen 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 as estimate of NFC percent in feeds. (NFC%=100 n [%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) compounded, urea, contains approximately 45 percent nitrogen and has a protein equivalent of 281 percent (6.25 x 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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