



GRAIN BAG ROLLER

OPERATOR'S MANUAL AND PARTS BOOK

HBR2550 MODEL



Read and understand the manual. This manual provides information and procedures to safely operate and maintain the HBR2550 Grain Bag Roller.

DUO LIFT MANUFACTURING CO., INC.
GRAIN BAG ROLLER

WARRANTY REGISTRATION FORM & INSPECTION REPORT

WARRANTY REGISTRATION (please print)

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery. WITHOUT THIS WARRANTY REGISTRATION FORM ON FILE WITH DUO LIFT MANUFACTURING, WARRANTY CLAIMS WILL BE DENIED.

Customer's Name _____	Dealer Name _____
Address _____	Address _____
City, State, Zip Code _____	City, State, Zip Code _____
Phone Number (____) _____	Phone Number (____) _____
Grain Bag Roller Model # _____	Check One:
Serial Number _____	Farm Use <input type="checkbox"/>
Delivery Date _____	Commercial Use <input type="checkbox"/>

SAFETY

_____ All Safety Signs Installed
_____ Reflectors, Lights and SMV Clean
_____ Guards and Shields Installed
_____ Review Operating and Safety Instructions
_____ Review Entire Owners Manual

I have thoroughly instructed the buyer on the above-described equipment. This review included the Operator's Manual content, equipment care, adjustments, safe operation, and applicable warranty policy.

Date _____ Dealer's Rep. Signature _____

The above equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation, and applicable warranty policy.

Date _____ Owner's Signature _____

DUO LIFT MFG.	DEALER	CUSTOMER

(MAKE COPIES AND CHECK APPROPRIATE BOX)

Send signed copy of warranty registration to one of the options below:

Address: Duo Lift Manufacturing Co. Inc, 2018 38 ST Columbus, NE 68601

Email: warranty@duolift.com **Fax:** (402) 564-5385

DUO LIFT[®] Manufacturing Company, Inc.

Warranty

This is to certify that we warrant to the original purchaser equipment manufactured by Duo Lift Manufacturing Company, Inc., identified and recorded by serial number, to be free of defects in material and workmanship under normal use and service to replace, free of cost, to the original purchaser any part or parts of said equipment that in our judgement shows evidence of such defects; and provide further that the said part or parts shall be returned to the factory, freight prepaid, within five years of shipping date. Manufacturer agrees to replace or repair during this period of no charge any defective part or parts returned to the factory, and deemed defective by authorized factory inspection. Should it become impractical to return said parts to the factory, the manufacturer shall not be liable for any labor costs, or any other costs encountered, in repairing or replacing any part or parts involved, but will be obligated to supply only the necessary repair and/or replacement items.

Duo Lift Manufacturing Company, Inc., as the manufacturer shall not be liable for any other damage, whether direct or consequential.

No representative or other person is authorized or permitted to make any other warranty or assume for his company any liability not strictly in accordance with the foregoing. This limited warranty is in lieu of all warranties expressed or implied and of all other obligations on the part of the factory.

This limited warranty shall not apply to any item which shall have been operated in a manner not recommended by the Company nor which shall have been repaired, altered, neglected or used in any way which in the Company's opinion adversely affects its performance and results.

This limited warranty shall not apply to any equipment which has been tampered with in any way or which has been subject to misuse, neglect or accident, or which has the serial number altered, defaced, or removed.

This limited warranty does not apply to exterior finishes, tire, bearings, springs, jacks, couplers or any such items not directly manufactured by Duo Lift Manufacturing Company, Inc., except to the extent of their individual manufacturer's guarantee.

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1. Introduction

1.1 Welcome Statement

Congratulations on your choice of a Duo Lift Mfg. Co., Inc. Grain Bag Roller to complement your harvest operation. This equipment has been designed and manufactured to meet the needs of a discerning agricultural industry.

Safe, efficient and trouble free operation of your Grain Bag Roller requires that you and anyone else who will be using or maintaining the Grain Bag Roller, read and understand the Safety, Operation, Maintenance and Trouble Shooting information contained within this Operator's Manual. By following these instructions, in conjunction with a good maintenance program, your trailer will provide many years of trouble-free service.

This grain bag roller is adaptable to several different power units. Read and understand the power unit owners manual before operating your Duo Lift Mfg. Co., Inc. Grain Bag Roller.



FIGURE 1

Keep this manual with the Grain Bag Roller at all times for frequent reference and to pass on to new operators or owners. Call your Duo Lift dealer or distributor if you need assistance, information or additional copies of the manuals.

1.2 Operator Orientation

The directions left, right, front, and rear, as mentioned throughout this manual, are as seen from the vehicle driver's seat and facing in the direction of travel. Use this manual for frequent reference and to pass on to new users or owners.

Follow power unit and loader operation manual precautions for safe transport of loader and loader setup.

WARNING



Read And Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The Grain Bag Roller, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow loading, towing, maintaining, adjusting, or cleaning of this grain bag roller until the user has read this manual and has developed a thorough understanding of the safety precautions and functions of the equipment.

This grain bag roller was designed for a specific application; rolling grain bags. **DO NOT** modify or use this grain bag roller for any application other than that for which it was designed.

Grain bag rollers loaded or used improperly or by untrained personnel can be dangerous; exposing the user(s) and/or bystanders to possible serious injury or death.

2. Safety

2.1 General Safety

Safety of the operator and bystanders 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 the equipment.

Most work related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you assemble, load, tow, use, or maintain the grain bag roller (unit), you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly or maintenance procedures.

Improper operation and maintenance of this unit could result in a dangerous situation that could cause injury or death.

If you have any questions not answered in this manual, require additional copies, or the manual is damaged, please contact your dealer or Duo Lift Mfg. Co., Inc., 2810 38th Street, Columbus, Nebraska 68601, Phone: (402) 564-8023, Fax: (402) 564-5385, Toll Free: 1-800-243-2583.

WARNING



Do not use the unit until you read and understand the information contained in this manual.



Safety precautions and warnings are provided in this manual and on the unit. If these hazard warnings are not followed, bodily injury or death could occur to you or other persons.

Duo Lift Manufacturing Company, Inc. cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the unit are, therefore, not all-inclusive. If a method of loading or towing not specifically recommended in this manual is used, you must satisfy yourself that it is safe for you and for bystanders. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time without notice.

2.2 Safety Alert Symbols



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers' attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure.

2.3 General Safety Instructions

You are responsible for the SAFE operation and maintenance of your Duo Lift Grain Bag Roller. YOU must ensure that you and anyone else who is going to operate, maintain or work around the Grain Bag Roller be familiar with the operating and maintenance procedures and related SAFETY information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the Grain Bag Roller.

Remember, YOU are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that EVERYONE operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk serious injury or death by ignoring good safety practices.

Grain Bag Roller owners must give operating instructions to operators or employees before allowing them to operate the Grain Bag Roller.

The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.

A person who has not read and understood all operating and safety instructions is not qualified to use the equipment. An untrained operator exposes himself and bystanders to possible serious injury or death.

Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

Duo Lift Manufacturing Company Inc., follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE) and the Occupational Safety and Health Administration (OSHA).

Anyone who will be operating and/or maintaining the Grain Bag Roller must read and clearly understand ALL Safety, Operating and Maintenance information presented in this manual.

WARNING

Failure to comply with the following safety instructions could result in serious injury and possibly even death.



Read And Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The Grain Bag Roller, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow loading, towing, maintaining, adjusting, or cleaning of this unit until the users have read this manual and have developed a thorough understanding of the safety precautions and functions of the grain bag roller.

This grain bag roller was designed for a specific application; rolling grain bags. DO NOT modify or use this grain bag roller for any application other than which it was designed.

Grain bag rollers loaded or used improperly or by untrained personnel can be dangerous; exposing the user(s) and/or bystanders to possible serious injury or death.

WARNING



Provide User with Literature

Grain Bag Roller owners must provide operating instructions to anyone who will be using the trailer.



Stay Clear

Under no circumstances should young children be allowed to work with or around the Grain Bag Roller.



Impaired User Hazard

Do not attempt to load, tow, or use this unit under the influence of drugs or alcohol. Consult your doctor before using this trailer while taking prescription medications.

CAUTION

The following safety instructions are provided to help prevent potential injury. Not following these instructions may lead to injury.

Personal Protection Equipment

When using this grain bag roller, wear appropriate personal protective equipment. This list may include, but is not limited to:



- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles or glasses
- Protective clothing and gloves



Hearing Loss

Prolonged Exposure To Loud Noise May Cause Permanent Hearing Loss!

Working environments with noise-producing equipment can cause partial to permanent hearing loss. We recommend using hearing protection any time noise levels exceed 80db. Noise levels over 85db, on a long-term basis, can cause severe hearing loss. Noise levels over 90db over a period of time can cause permanent and even total hearing loss.

Hearing loss from loud noise is cumulative over a lifetime without hope of natural recovery.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.



First Aid Kit Have a first aid kit available should the need arise.



Fire Extinguisher

Have a fire extinguisher available for use should the need arise and know how to use it.

Additional Safety Instructions:

- Install and secure all guards before starting.
- Do not allow riders
- Place all controls in neutral, stop engine, set park brakes, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.
- Clear the area of people, especially small children before moving the unit.

Review safety related items with all personnel who will be operating or maintaining the Grain Bag Roller.

2.4 Operating Safety

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or servicing.
2. Place all controls in neutral, stop engine, set park brake and, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.
3. Do not allow riders on the Grain Bag Roller unit.
4. Install and properly secure all guards and shields before operating.
5. Make sure you are in compliance with all local regulations regarding transporting equipment on public roads and highways.
6. Keep hands, feet, hair and clothing away from all moving parts.
7. Clear the area of bystanders, especially small children, before moving or operating.
8. All operators must first learn how to operate this machine and its controls.
9. Review safety instructions with all users annually.
10. Avoid contact with power lines by checking clearance heights.
11. Follow good shop practices:
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for the job at hand.

3. Safety Signs And Instructional Labels

3.1 General Information (Safety Signs)

The types of safety signs (hazard labels) and instructional labels are shown in the following illustrations. Good safety practices require that you familiarize yourself with the various safety signs, the type of warning, and the area or particular operation related to that area requiring your SAFETY AWARENESS.



Think SAFETY!

Work SAFELY!

Pay close attention to the safety and instructional signs attached to the Grain Bag Roller. Duplicate safety signs, which are attached to the grain bag roller, can also be found in this section. If the unit is missing a sign or one is unreadable, replace the sign before using the grain bag roller.

SAFETY INSTRUCTIONS



Safety and Instructional Signs

1. Keep safety or instructional signs clean and legible at all times.
2. Replace any missing or hard-to-read safety or instructional signs.
3. Use care when washing or cleaning the grain bag roller not to remove or damage the safety signs.
4. Locations for the signs and replacement part numbers are shown in this section.
5. Replacement parts must have safety signs attached during installation and/or before the grain bag roller is used.
6. Safety signs are available from your authorized dealer or from Duo Lift at no charge.

SAFETY INSTRUCTIONS




How to Install Safety Signs

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

3.2 Safety Sign Types

The types of signs and locations of signs are shown in the illustration below and on Page 11. Good safety requires that you familiarize yourself with the various Safety Signs, the type of warning and the area or particular function related to that area, that requires your SAFETY AWARENESS. Think safety! Work safely!

1. DANGER - POWER UNIT INSTRUCTIONS

 **DANGER**

To avoid personal injury or property damage, observe the following:

- SET POWER UNIT TO IDLE POSITION
- Hydraulic control levers are to be used in HOLD TO OPERATE position only.

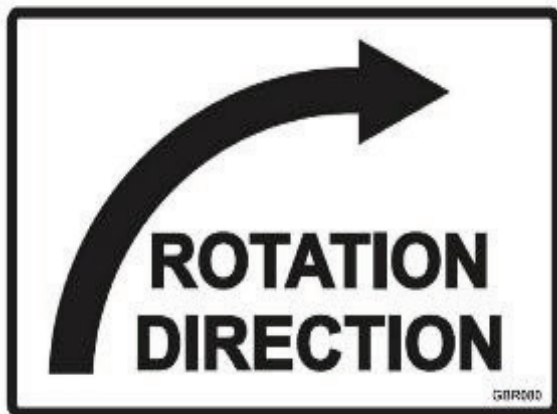
GBR081

2. DANGER - DO NOT OPERATE

 **DANGER**

**SHIELD MISSING
DO NOT OPERATE**

3. ROTATION DIRECTION



4. MOVING PART HAZARD

 **WARNING**



MOVING PART HAZARD
To prevent serious injury or death from moving parts:


- Close and secure guards and shields before starting.
- Keep hand, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.


404

5. ADDITIONAL HAZARDS

 **CAUTION**


1. Read Operator's Manual before using machine.
2. One person operation only.
3. Install and secure all guards before starting.
4. Keep hands, feet, hair and clothing away from moving parts.
5. Keep all hydraulic lines, fittings and couplers tight and free of leaks before using.
6. Do not allow riders.
7. Clean reflectors, SMV and lights before transporting.
8. Install safety locks before transporting or working beneath components.
9. Use hazard flashers in tractor when transporting.
10. Keep away from overhead electrical lines. Electrocutation can occur without direct contact.
11. Review safety Instructions with all operators annually.

 **DANGER**



FRAME PINCH POINT HAZARD
To prevent serious injury or death from pinch point area:


- Stay away from pinch point area when operating.
- Clear area of all bystanders.
- One person operation only.



 **DANGER**



CRUSHING / ROLLOVER HAZARD
To prevent serious injury or death from crushing or rollover:


- Stand clear while GBR300 is in raised position.
- Do Not walk or perform service under raised loader.
- Insure loader locking pins are fully engaged before operation.
- Refer to power unit owners manual for required ballast to prevent rollover.

 **WARNING**



HIGH-PRESSURE FLUID HAZARD
To prevent serious injury or death:

- Relieve pressure on system before repairing or adjusting or disconnecting.
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
- Keep all components in good repair.

 **DANGER**



ROTATING PICKUP REEL HAZARD
To prevent serious injury or death from entanglement:

- Keep hands, feet, hair and clothing away from rotating parts.
- Operate GBR300 at idle speed.
- Hydraulic control levers are to be used in HOLD TO OPERATE position.

GBR079

REMEMBER

If safety signs have been damaged, removed, become illegal or parts replaced without signs, new signs must be applied. New signs are available from your authorized Distributor or from Duo Lift at no cost.

3.3 Safety Sign Locations

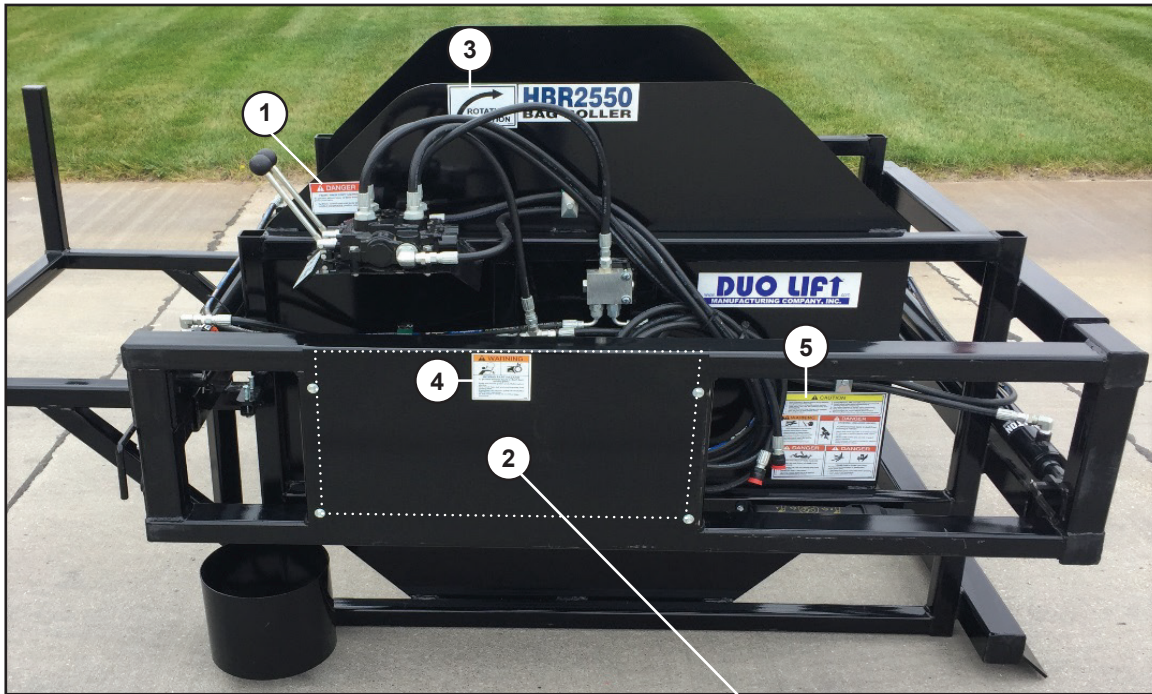


FIGURE 4

Item	Part Number	Description	Qty.
1	GBR081	Danger - Power Unit Instructions	1
2		Danger - Do not operate	2
3	GBR000	Rotation Direction	1
4	404	Warning - Moving Part Hazard	5
5	GBR079	Caution - General Operating Instructions Danger - Pinch Point Hazard Danger - Crushing/Rollover Hazard Warning - High Pressure Fluid Hazard Danger - Rotating Pickup Reel Hazard	1

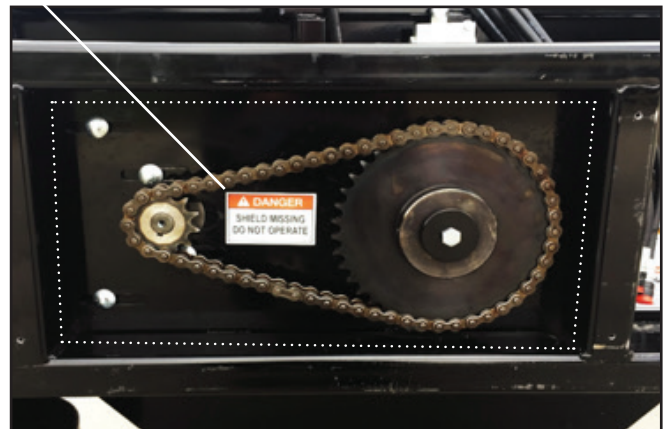


FIGURE 5

3.4 How to Install Replacement Safety Signs

1. Clean and dry the installation area.

Note: Do not install the safety signs if the temperature is below 50°F (10°C).

2. Determine the exact position before you remove the backing paper.
3. Remove the backing paper.
4. Align the sign over the specified area and carefully press the sign to the part/frame.

Note: Small air pockets can be pierced with a pin and smoothed out using the piece of backing paper.

4. Set Up and Operation

4.1 User Safety Training

WARNING

Failure to comply with the following safety instructions could result in serious injury and possibly even death.



Read And Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The Grain Bag Roller, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow loading, towing, maintaining, adjusting, or cleaning of this unit until the users have read this manual and have developed a thorough understanding of the safety precautions and functions of the grain bag roller.

This grain bag roller was designed for a specific application; rolling grain bags. **DO NOT** modify or use this grain bag roller for any application other than which it was designed.

Grain bag rollers loaded or used improperly or by untrained personnel can be dangerous; exposing the user(s) and/or bystanders to possible serious injury or death.

SAFETY INSTRUCTIONS

The following safety instructions are provided to help prevent injury or limit equipment damage.

1. Read and understand . Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or servicing.
2. Place all controls in neutral, stop engine, set park brake, remove ignition key before servicing, adjusting, repairing or maintaining.
3. Do not allow riders on the Grain Bag Roller or towing unit.
4. Install and properly secure all guards and shields before operating.
5. Make sure you are in compliance with all local regulations regarding transporting equipment on public roads and highways.
6. Keep hands, feet, hair and clothing away from all moving parts.

7. Clear the area of bystanders, especially small children, before moving.
8. All operators must first learn how to operate this machine and its controls.
9. Avoid contact with power lines by checking clearance heights.
10. Do not attempt to operate this equipment under the influence of drugs and/or alcohol.
11. Review safety instructions with all users annually.
12. Follow good shop practices:
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are Properly grounded.
 - Use adequate light for the job at hand.
13. Set Power Unit to Idle Position.
14. Hydraulic control levers are to be used in HOLD TO OPERATE position only.
15. The Duo Lift Grain Bag Roller is designed for mounting to the appropriate power unit. **DO NOT MODIFY.** Contact Duo Lift for different mounting options.

4.2 Unfamiliar Users

Owner's Responsibility:

It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the Grain Bag Roller. Follow all safety Instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Untrained operators are not qualified to use the equipment.

Many features incorporated into this Grain Bag Roller are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the Grain Bag Roller safely and how to set it to provide maximum efficiency. By following the operating instruction in conjunction with a good maintenance program, your Duo Lift Grain Bag Roller will provide many years of trouble-free service.

SAFETY INSTRUCTIONS



Train Unfamiliar Users

It is the grain bag roller owner's responsibility to make sure any person using the trailer, especially if it is loaned or rented, has been thoroughly trained on its proper and safe use.

Review instructions frequently with existing users.

Be certain only physically able persons use the trailer.

Users who have not read and understood this material are not qualified to use the trailer. Untrained users expose themselves and bystanders to possible serious injury or death.

If the elderly are assisting with the work, their physical limitations need to be recognized and accommodated.



Stay Clear

Under no circumstances should young children be allowed to work with or around the Grain Bag Roller.

4.3 Pre-Operation Checklist

Efficient and safe use of the Grain Bag Roller requires that every user read and understand all the related safety instructions outlined in this manual.

This pre-usage checklist is provided for the user/owner. It is important for both personal safety and to maintain the mechanical condition of the grain bag roller that this checklist be followed.

Before operating the Grain Bag Roller, and each time thereafter, the following areas should be checked off:

Initial Set Up Checklist (prior to using for the first time)	
Item	Task
	Lubricate the grain bag roller as needed.
	Your HBR2550 is shipped from the factory without fluids to ensure no contamination of your Power Unit.
	Your HBR2550 will use fluid from your Power Unit, therefore be sure to check fluid levels on your Power Unit after charging your HBR2550.
	On initial start up, perform at least 10' Dry Run' cycles before installing the first bag.
	Be sure that all lights, reflectors and SMV emblem required by the local highway authorities are installed, clean and in good working condition.

⚠ CAUTION

Always refer to the Power Unit owner's manual to determine the vehicle's capacity to ensure compatibility and maximum safety.

4.4 Equipment Matching

Efficient and safe operation of the Grain Bag Roller requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. (See 4.2) It is important for both the personal safety and maintaining the good mechanical condition of the Grain Bag Roller that this checklist is followed.

Before operating the Grain Bag Roller and each time thereafter, the following areas should be checked off:

Usage Set Up Checklist (prior to using for the first time AND each time thereafter)	
Item	Task
	Lubricate the grain bag roller as needed.
	Perform a complete 'Dry Run' cycle before loading the 1st bag. Allow 10 revolutions of the gear to complete dry run cycle.
	Be sure that all lights, reflectors and SMV emblem required by the local highway authorities are installed, clean and in good working order.

CAUTION

Always refer to the Power Unit owner's manual to determine the vehicle's capacity to ensure compatibility and maximum safety.

4.5 Attaching/Detaching

4.5.1 Attaching Bag Roller to Power Unit

1. Clear area of all bystanders.
2. With the power unit off, position latch handles into the unlatched position on the bag roller attaching bracket.
3. Start engine and raise loader off ground.
4. Extend bucket cylinders to tilt carrier forward slightly.
5. Align power unit loader with bag roller and slowly drive forward. Raise loader, until carrier plates are positioned under lip on the bag roller carrier bracket. Retract loader attachment (bucket) tilt cylinders until bag roller attachment rests against carrier plates.
6. Lift bag roller a short distance off the ground. Shut off engine.
7. Position latch handles to engage latching pins into bag roller.
8. Start engine. Lower bag roller completely to the ground.
9. Rotate bag roller forward (extend bucket cylinders),

Applying pressure against ground to verify that latches are securely engaged.

10. If bag roller is not securely attached to the carrier bracket, repeat steps.

CAUTION

To avoid personal injury, make sure bucket/attachment is properly secured.

11. Lower loader to the ground, place transmission in PARK, shut off engine.
12. Remove wrap-control hoses from storage location and position along loader frame to hydraulic coupler. Fasten hoses to loader ensuring hoses do not rub, bind or pinch at pivot points and edges.
13. Insert the bag roller hoses into the couplers.
14. Place Power Unit hydraulic control lever in the continuous flow (detent) position.

CAUTION

Avoid severe injury or death; set power unit hydraulic flow rate to slow.

Set power unit to idle position. Bag wrap spindle must turn clock-wise when the operator pulls outward on spindle wrap control lever. If functions on the Bag Roller are reversed, switch hoses on the tractor.

4.5.2 Detaching Bag Roller

1. Clear area of all bystanders.
2. With power unit engine in the off position disconnect bag roller hydraulic hoses from hydraulic outlet. Unfasten hoses from securement locations along tractor and loader frame. Store and secure hoses.
3. Start engine and position power unit on flat level ground with bag roller raised a short distance off the ground. Place transmission in PARK, shut off engine.
4. Release latches by moving handles to the unlatched position.



IMPORTANT! Make sure both latch handles have released and lock pins are fully retracted.

5. Start engine and place transmission in NEUTRAL. Level bag roller and lower completely to the ground.
6. Slowly tilt carrier forward (extend bucket cylinders) until bag roller carrier clears bottom latches. Lower loader slightly as needed.
7. Slowly back away from Grain Bag Roller attachment.
8. Lower loader to the ground, place transmission in PARK, shut off engine and remove key.

⚠ WARNING

Do not allow anyone to stand between the Grain Bag Roller and the Power Unit when approaching.

4.6 Ballasting

Refer to your power unit Operator's Manual to determine required ballast to be added to rear of power unit. Add ballast as needed.

⚠ CAUTION

To help prevent bodily injury or death from power unit/loader rollover, add required amount of ballast to power unit.

4.7 Field Operation

4.7.1 Attaching the bag to the roller



IMPORTANT! Clear area of all bystanders before operating equipment.



FIGURE 6

4.7.2 Grain Bag Roller Preparation and placement

9. See 5.3 and 5.4

10. Align bag roller approximately 10' - 15' feet behind and parallel to grain unloader or if bag is stretched out on the ground, roll back bag end 10' - 15' feet, then align roller with bag line to meet the overlap area.



FOLD BAG TO OVERLAP

11. NOTICE: Maximum Bag Length is 300'

12. Lower bag roller to ground and level.

13. Check wrap spindle hydraulic operation. Make sure area is clear of all bystanders and keep away from

Roller Chamber.

14. Push Roller hydraulic control valve lever in forward position.
15. Verify that the spindle rotates in a clockwise (forward) direction for bag wrapping. See FIGURE 6. If spindle refuses to rotate, move tractor lever in opposite direction, or switch hydraulic hoses in SVC ports.
16. Pull inner hydraulic control valve lever outward toward operator, to "OUT" position.
17. Verify that the spindle moves out of the bag wrap chamber for unloading rolled and wrapped grain bag. Stand to the front of the machine as the slide assembly will move to the left. Reverse the lever to put spear back in chamber.
18. Install twine spool in chamber and feed through alignment tension guide and dispenser loop guide and tie off temporarily.
19. Prepare Grain Bag Extractor
20. Shut off power unit and disengage pickup roller. Refer to extractor/unloader manual to properly disengage the roller clutch to neutral position. Manually pull the grain bag under the rear bottom cross auger far enough to reach the pick-up spindle on the bag roller. See figure 7.

21.



FIGURE 7

22. Unroll bag and position leading edge at front of bag roller.
23. Fold outer edges of bag to width of wrap spindled between guide posts.
24. Route the bag between the uprights over the top of the first cross member, under the twine disbursement bar (second cross member) and to the top of the pick-up spindle. See section 5.7.4.

4.7.3 Positioning Grain Bag For Wrapping



IMPORTANT! Set power unit to idle position

1. Operate spindle unload lever to position wrap spindle in fully closed position.
2. Move spindle lever to "in" position to thread bag over front cross member, under twine wrap cross member and over wrap spindle.
3. Pull leading edge of grain bag 10" - 15" past the wrap spindle and slide under starting tab as shown below. See FIGURE 8

4.7.4 Wrapping Grain Bag on Spindle



IMPORTANT! LUBRICATING THE SPINDLE BEFORE WRAPPING THE GRAIN BAG WILL AID IN SPINDLE EXTRACTION.



FIGURE 8



IMPORTANT! Set power unit to idle position

1. Push and hold roller control lever to initiate clockwise spindle rotation. Roller lever must be in "forward" position.
2. Stop wrap process when bundle size reaches outer edge of wrap chamber. Refer to section 5.7.5 for proper bag tie off and section 5.7.6 for proper bag unload.
3. Cut off excess bag and start a new roll if all of the bag does not fit in the roller chamber.

CAUTION

Avoid serious injury or death from entanglement. The hydraulic control lever is designed to be used in the "Hold to Operate" position. Do Not over-ride (HOLD to OPERATE) hydraulic wrap control lever.



IMPORTANT! Set power unit to idle position

4.7.5 Bundle Tie Off

1. Position Rolled bag so the end of the bag is forward near bag tie off. Disengage Power Unit Hydraulics.
2. Puncture hole in wrapped bag near exposed twine end.
3. Tie twine to grain bag through puncture hole.
4. Engage Power Unit Hydraulics. Rotate spindle clockwise while operating twine wrap tool to place twine across face of bundle.
5. Move twine wrap tool from right to left to ensure entire bag is tied off. Disengage Power Unit Hydraulics.
6. With twine wrap tool in starting location cut twine and tie off through puncture hole.

4.7.6 Bundle Unload

1. Raise bag roller to transport position and move power unit to unload location.
2. Position bag roller on the unload surface and level. Engage Power Unit Hydraulics.
3. Retract spindle to unload position by pulling on the "spindle" hydraulic lever while intermittently pulling on "roller" hydraulic control lever to rotate spindle counter clockwise.
4. If the bale remains lodged in chamber once the spindle has fully retracted tilt the bag roller forward and tap the leading edge on the unload surface.

CAUTION

Avoid serious injury or death. Do not stand under bag roller to dislodge bundle.

5. Return the wrap spindle to the bag load position.
6. Reposition the power unit and bag roller to wrap location.

4.8 Grain Bag Roller Operating Tips

1. Lubricate the Spindle before wrapping each Grain Bag to aid in Spindle Extraction.
2. Have 10' - 15' of the leading edge of the Grain Bag loose when starting to wrap the Grain Bag on the Spindle.
3. Roll Grain Bags on a level surface or pull Grain Bag down a slight incline to reduce load on Spindle.
4. Do Not try to roll up Grain Bags when frozen to the ground or buried in snow.
5. Make a lengthwise cut in the Grain Bag ahead of the Grain Bag Roller when necessary to allow Water and loose Grain to fall out when wrapping.
6. If the load on the Grain Bag Roller appears too great during the Bag Rolling Operation, reposition the Power Unit forward as necessary and as often to reduce the load from the Grain Bag.
7. Whenever possible have Grain Bag Roller lowered to the ground when unloading the rolled Grain Bag. This will reduce the load on the Spindle to aid in Spindle Extraction.
8. If the bag stops rolling it is likely there is too much tension on the bag and it may be lodged or caught. Stop immediately. If operation continues the spear may not come out of the bag. Ensure the bag can freely flow into the chamber. If operation occurs machine damage may occur.

5. Transporting

Follow power unit and loader operator manual procedures for safe transport of loader and loader attachments.

Remove grain bag bales from wrap chamber before transporting bag roller on roadways.

6. Service

Inspect wear points and lubricate as needed.

Inspect hydraulic hoses for damage from wear, rubbing, pinching and weathering. Replace as necessary.

CAUTION

Avoid High-pressure fluids. Escaping fluid under pressure can penetrate the skin causing serious injury. (See safety section).

7. Troubleshooting and Maintenance

7.1 Troubleshooting

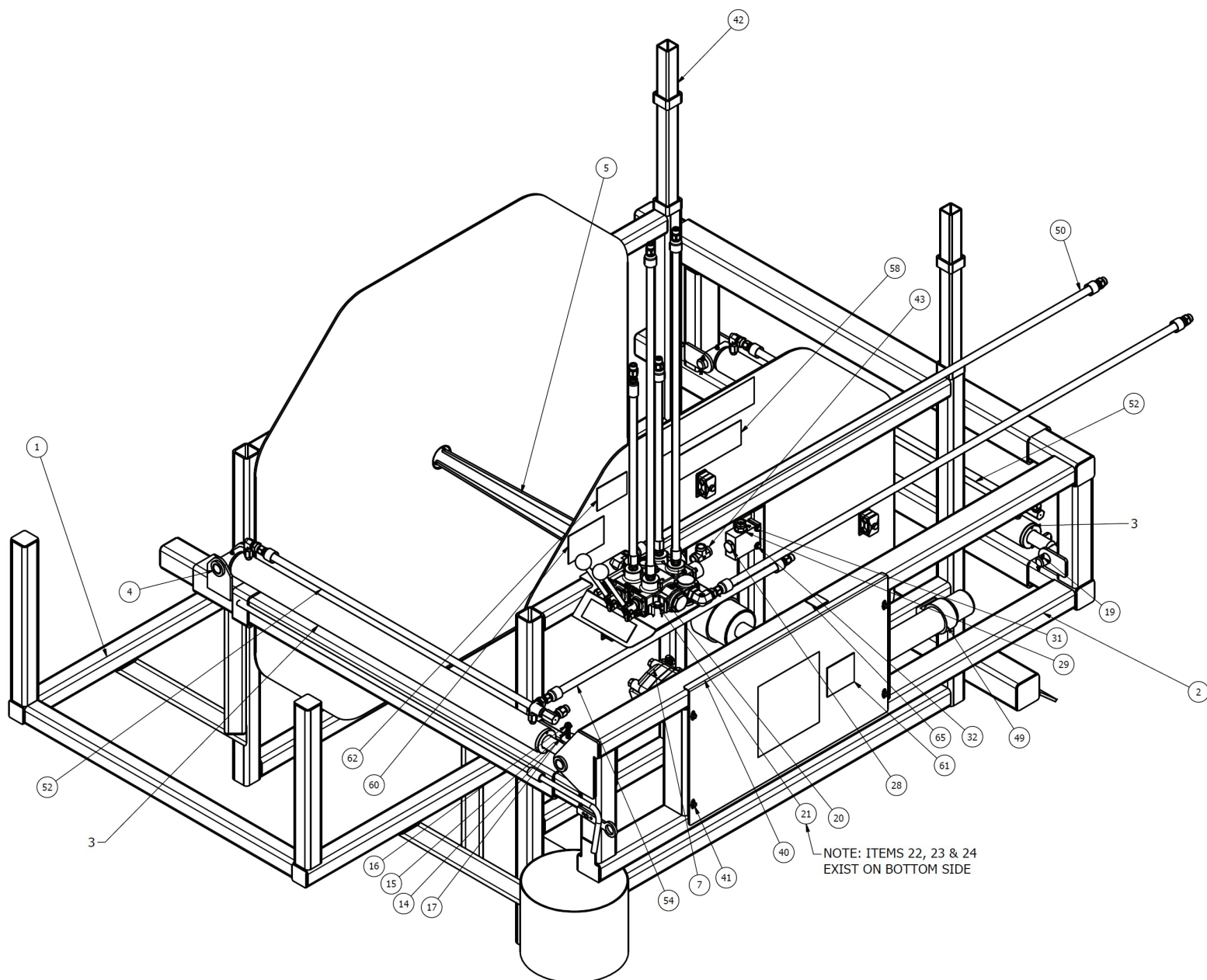
PROBLEM	CAUSE	ACTION
Bag stops moving	Bag is caught on corners of tension guide.	Release bag where caught. Bag must flow freely into roller chamber.
	Too much grain in bag causing tension on spear.	Cut the bag to allow grain to fall out.
	Bag frozen or stuck to ground.	Wait to thaw or un-stick from ground.
	Too much tension on bag.	Lay bag out on a flat surface be sure is uniform and not tangled up.
Entire bag doesn't fit in roller	Too cold outside	Wait for temperatures to rise.
	Too much grain or ice rolled up into bag.	Cut off and restart. Refer to figure 4.8.
Spear won't come out	Too much tension on the bag when it was rolled up.	Be sure bag flows freely into roller.
	Not enough tension on the bag when it was rolled up.	Tilt (bucket) cylinders to increase tension. Note: too much tension will not allow spear to come out.
	No hydraulic power.	Turn on power unit to hydraulics
Machine doesn't operate	Hydraulics are off	Turn on power unit to hydraulics
	Hydraulic flow is too low.	Turn up hydraulic flow.
	Bad connector tips	Change hydraulic tips.
	Faulty power unit couplers.	See power unit manual.
	Hydraulic leak	Repair leak.
	Air in system	Remove air from system.
	Low oil on power unit	See power unit manual.
Machine operates in reverse	Lever in tractor is pushed the wrong way or hoses are switched.	Detent power unit in the opposite direction or switch hoses
Hydraulic function is wrong	Machine is incorrectly plumbed.	Switch hoses on two spool valves for the function that is working in reverse.

7.2 Ongoing Maintenance Checklist

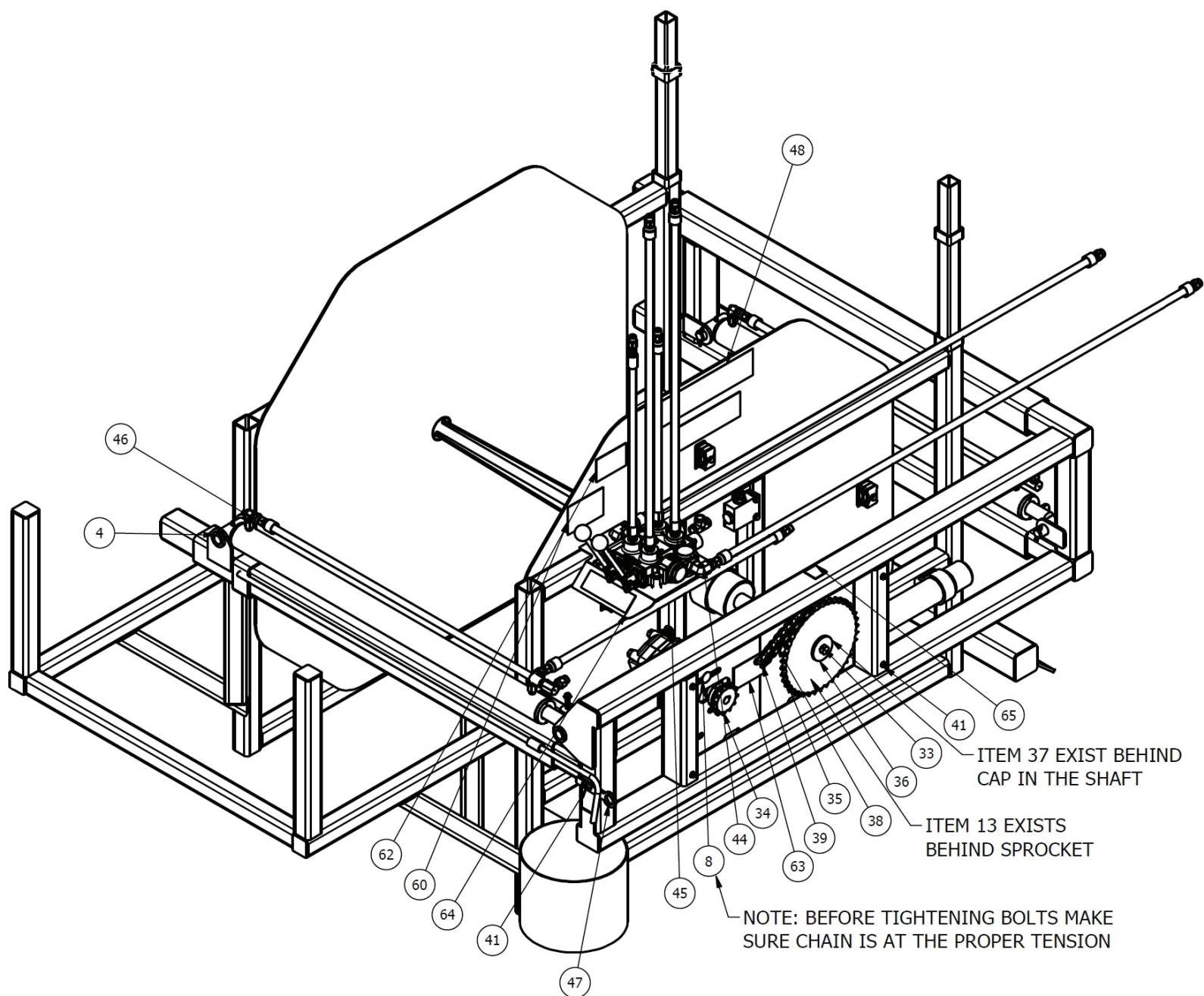
Complete	Task
	Grease zerks
	Chain tension
	Inspect for leaks

8. Parts Illustrations

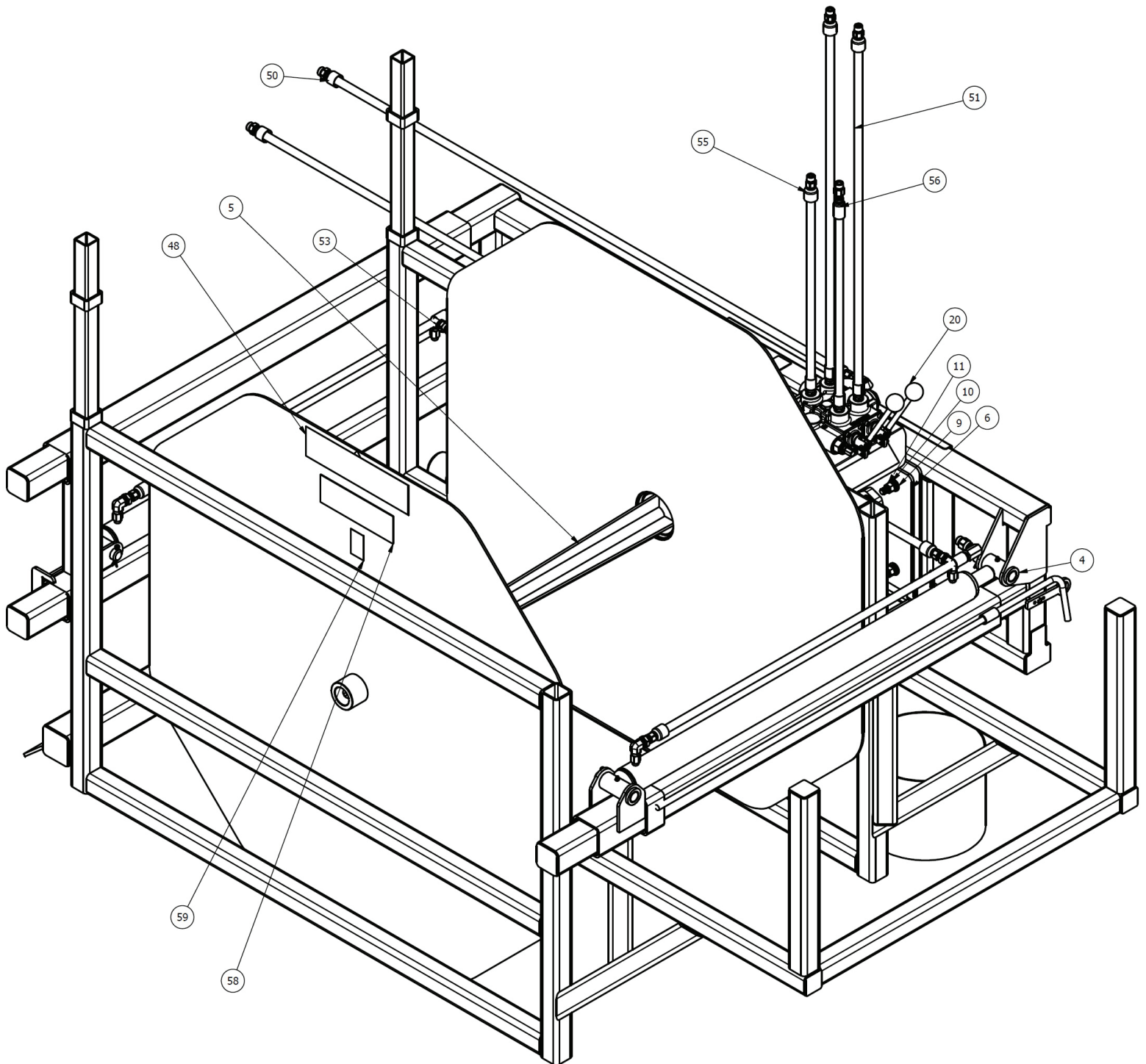
8.1 Left-side Parts Illustration



8.2 Left-side Parts Illustration with shield removed



8.3 Right-side Parts Illustration



9. Parts List

ITEM	QTY	PART NUMBER	HBR2250 GRAIN BAG ROLLER PARTS LIST
1	1	78000820	MAIN FRAME WELD ASSEMBLY
2	1	801337	LEFT HAND SLIDE FRAME
3	2	HYD000264	HYDRAULIC CYLINDER, 2" X 36", DOUBLE ACTING
4	4	78000644	CYLINDER PIN
5	1	78000817	GRAIN BAG SPINDLE WELD ASSEMBLY
6	1	70005192	PLATE, HYDRAULIC MOTOR MOUNT
7	1	HY000263	HYDRAULIC MOTOR, 240 RPM MAX, 1/2 NPTF PORTS
8	4	BT000258	BOLT, CARRIAGE, 1/2-13X2", GR5 ZP
9	6	WA000003	WASHER, FLAT, 1/2" ZP
10	8	WA000004	LOCK WASHER, 1/2" ZINC FINISH MEDIUM SPLIT
11	8	NT000003	NUT, 1/2"-13 ZINC FINISH GRADE 5 FINISHED HEX
12	1	BG000037	BEARING AND 4-BOLT FLANGE ASSEMBLY
13	1	70005188	SPACER/STOP COLLAR CENTER DRIVE SHAFT 2"OD
14	1	70005191	TWINE TENSIONER TOP PLATE
15	2	SG000096	TWINE TENSION SPRING
16	2	BT000228	BOLT, 1/4-20 UNC - 2.5 Z GR5
17	6	WA000005	WASHER, FLAT, 1/4 ZP
18	2	NT000081	NUT, NYLOCK, 1/4"-20, GR 2 ZP
19	4	SL000014	COTTER PIN, 3/16 X 1 1/2"
20	1	HY000265	CONTROL VALVE, Z-SPOOL MONO-BLOCK VALVE
21	3	BT000039	BOLT, 3/8-16 X 2" GR 5 ZINC FINISH HEX CAP SCREW
22	3	WA000008	FLAT WASHER, 3/8" ZP
23	3	WA000009	WASHER LOCK, 3/8 ZP
24	3	NT000015	NUT, 3/8-16 ZP
25	4	BT000290	BOLT, 1/2-13 X 3 1/2", FULL THREAD, GR 5 ZP
26	1	70005195	BEARING FLANGE REINFORCING PLATE
27	4	NT000005	NUT, NYLOCK, 1/2-13 ZP
28	1	HY000284	FLOW DIVIDER SPOOL
29	1	HY000285	FLOW DIVIDER ALUMINUM BODY
30	1	HY000286	ADAPTER PLUG WITH O-RING, FF2138-085
31	1	HY000238	HYDRAULIC ADAPTER FITTING, 8MB-6FPX6900-8-6 STR
32	2	BT000021	HEX BOLT, 1/4-20 X 1 1/2", GR 5 ZP
33	1	BT000004	HEX BOLT, 1/2-13 X 1", GR 5 ZP
34	1	MI000269	SPROCKET, 12 TEETH
35	1	MI000268	SPROCKET, 40 TEETH
36	1	70005198	PLATE, END CAP FOR SPINDLE SHAFT
37	1	70005268	KEY, 3/8 X 3/8 X 1.22"
38	1	70005278	CHAIN, #60 ROLLER X 60 LINKS (45")
39	1	CH000072	CHAIN, #60 CONNECTOR LINK W/ SPRING CLIP
40	1	70005194	SPROCKET AND CHAIN SHIELD
41	7	BT000191	SCREW, SELF DRILLING, 1/4"-14 X 3/4", HEX HEAD
42	AR	78000826	STACKING LEG - USED FOR SHIPMENT OF STACKED UNITS
43	1	HY000254	HYDRAULIC TEE FITTING, 3/8 NPT, 5600-F-06-06-06
44	2	HY000270	HYDRAULIC 90 DEGREE FITTING, Y 6901-F-12-06-NWO
45	2	HY000268	HYDRAULIC ADAPTER FITTING, Y 6900-10-06-0
46	4	HY000219	HYDRAULIC 90 DEGREE FITTING, Y-1501-F-06-06 6MP-6
47	1	MI000248	HANDLE SECURING STRAP
48	2	DE000056	DECAL, DUO LIFT MFG 3" X 12"

10. Parts List, continued

ITEM	QTY	PART NUMBER	HBR2250 GRAIN BAG ROLLER PARTS LIST
49	1	DE000053	MANUAL CANISTER
50	2	GB000002	HOSE, 3/8" 100R17 124" LG W/ 1/2" & 3/8" MALE ENDS
51	2	GB000001	HOSE, 3/8" 100R17 87" LG 3/8 MALE X 1 1/16
52	2	GB000003	HOSE, 3/8" 100R17 64" LG 3/4-16 MORB SW 90 X 3/8 M
53	1	GB000004	HOSE, 3/8" 100R17 38" LG MALE ENDS
54	1	GB000005	HOSE, 3/8" 100R17 26" LG 3/8 MALE ENDS
55	1	GB000006	HOSE, 3/8" 100R17 28" LG 3/8 M X 1 1/16 -12 MORB
56	1	GB000007	HOSE, 3/8" 100R17 28" LG 3/8 MALE SW X 1 1/16 MORB
58	2	DE000084	DECAL, HBR 2550 BAG ROLLER
59	1	DE000025	DECAL, SMALL FEMA STICKER
60	1	DE000080	DECAL, ROTATION
61	1	DE000054	DECAL, MOVING PART HAZARD
62	1	DE000081	DECAL, OPERATION
63	1	DE000085	DECAL, DANGER SHIELD MISSING
64	1	DE000083	DECAL, SPEAR OUT, FORWARD AND REVERSE
65	1	DE000086	DECAL, GREASE EVERY 50 HOURS

GRAIN BAG ROLLER

OPERATOR'S MANUAL AND PARTS BOOK

HBR2550 MODEL

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