

Farm King

OPERATOR AND PARTS MANUAL

Bale Wrapper

Model 200



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Manufacturer’s Statement: For technical reasons, Farm King reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions, and other factors.

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WARRANTY REGISTRATION FORM

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Customer Name:

Dealer Name:

Customer Address:

Dealer Address:

City: Prov / State:

Postal / Zip Code: Phone:

City: Prov / State:

Postal / Zip Code: Phone:

Equipment Model:

Serial Number:

Delivery Date:

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

Dealer Inspection Report

- Inspect Bearing Seals
- Lubricate Machine
- Torque Wheel Bolts
- Tighten Fasteners
- Check Tire Pressure
- Check Hydraulic Hoses

Safety

- Decals Installed
- Guards And Shields Installed And Secure
- Review Operating And Safety Instructions
- Check Safety Chain

Date:

Dealer Rep. Signature:

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

Date:

Customer / Owner Signature:

Remove this Warranty Registration Form from the Operator And Parts Manual. Make two copies of the form. Send original Warranty Registration Form to Farm King. Give one copy to the customer and the dealer will keep one copy.

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INTRODUCTION

This Operator And Parts Manual was written to give the owner / operator instructions on the safe operation, maintenance and part identification of the Farm King equipment. READ AND UNDERSTAND THIS OPERATOR AND PARTS MANUAL BEFORE OPERATING YOUR FARM KING EQUIPMENT. If you have any questions, see your Farm King dealer. This manual may illustrate options and accessories not installed on your Farm King equipment.

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OWNER’S INFORMATION

Thank you for your decision to purchase a Farm King Bale Wrapper. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator And Parts Manual and follow all recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

All personnel shall read this manual and understand the proper operation, installation and maintenance procedures before being allowed to work with it.

Farm King is continually working to improve its products. Farm King reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

This publication has been professionally created ensuring its accuracy, Farm King makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Farm King assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual.

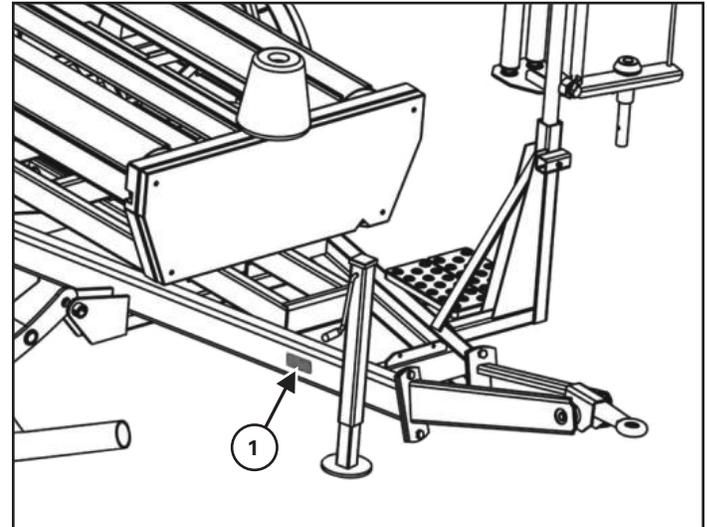
Visit our website at www.farm-king.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

Serial Number Location

Please enter the model and serial number in the space provided for easy reference.

Figure 1



Model Number: _____

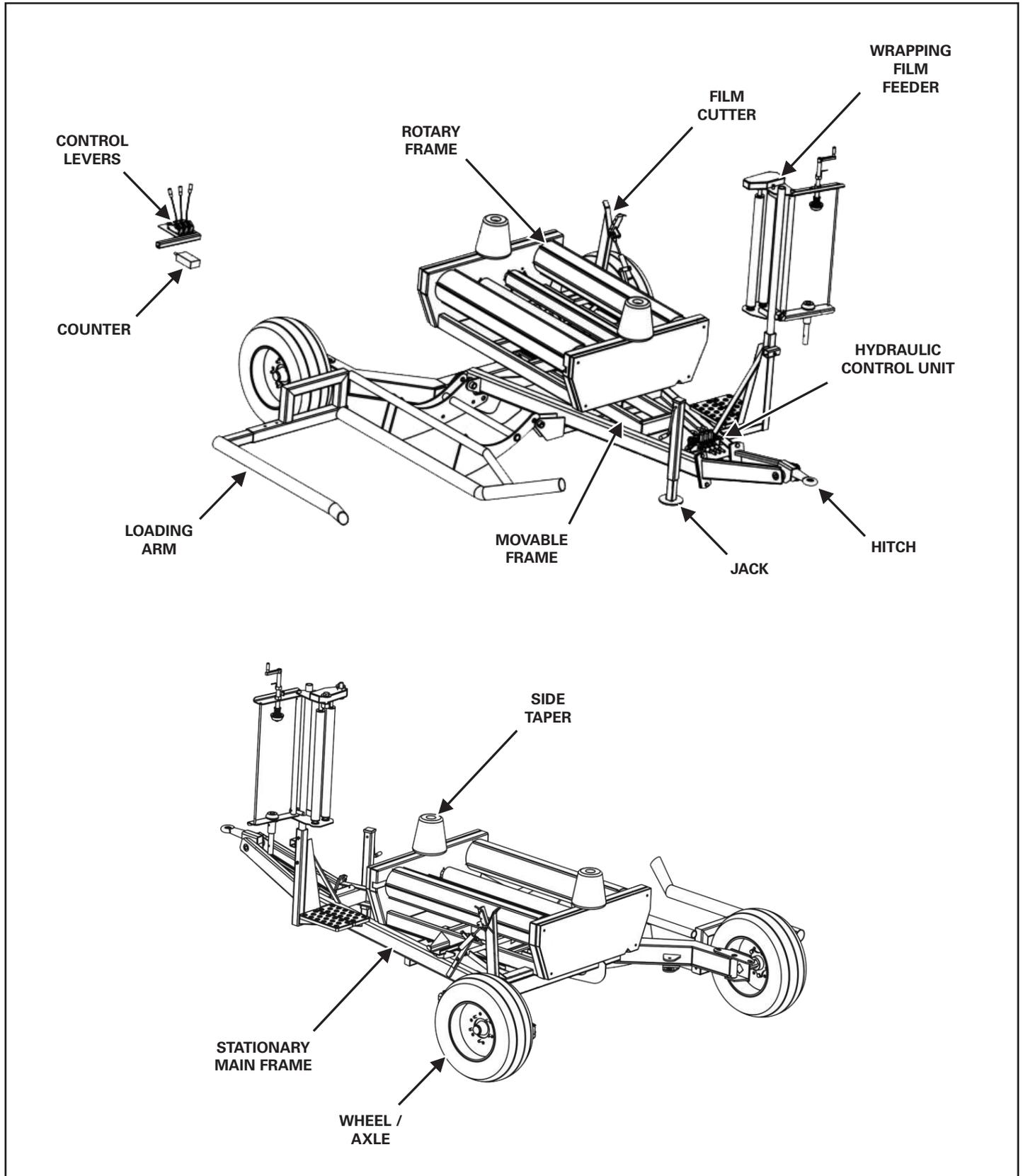
Serial Number: _____

The serial number plate (Item 1) is located on the hitch frame **[Figure 1]**.

Always use your serial number when requesting information or when ordering parts.

EQUIPMENT IDENTIFICATION

Figure 2



SAFETY

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SAFETY INSTRUCTIONS

Safety Alerts

	<h3>Safety Alert Symbol</h3>
<p>This symbol with a warning statement means: “Warning, be alert! Your safety is involved!” Carefully read the message that follows.</p>	



CAUTION

The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



DANGER

The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

Qualified Operator Rules

For an operator to be qualified, he or she must not use drugs or alcohol which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

Understand the written instructions, rules and regulations:

- The written instructions from Farm King include the Warranty Registration, Dealer Inspection Report, Operator And Parts Manual and decals.
- Check the rules and regulations at your location. The rules may include an employer’s work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

Have training with actual operation:

- Operator training must consist of a demonstration and verbal instruction. This training is given by the machine owner prior to operation.
- New operators must start in an area without bystanders and use all the controls until the machine can be safely operated under all work area conditions. Always fasten seat belt before operating.

Know the work conditions:

- Clear working area of all bystanders, especially small children and all obstacles that might be hooked or snagged, causing injury or damage.
- Know the location of any overhead or underground power lines. Call local utilities and have all underground power lines marked prior to operation.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service.

Safety Rules

- Read and follow instructions in this manual and the tractor's Operators Manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to children and persons unfamiliar with its operation. If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
- Stay clear of overhead power lines. Electrocutation can occur without direct contact.
- Check for overhead and / or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.
- Check that the equipment is securely fastened to the tractor / towing vehicle.
- Make sure all the machine controls are in the NEUTRAL position before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator And Parts Manual.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders, especially small children.
- DO NOT permit personnel within 1 meter (3 feet) of the work area when operating the equipment.
- The equipment must be used ONLY on approved tractors / transport vehicles.
- 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.

- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- Exercise extreme caution when working on an inclined terrain. Bales may roll down slopes.

Transport Safety

- It is forbidden to transport the wrapping machine with a bale loaded on it.
- Place the rotary frame in transport position, so that the drums are locked parallel to the wrapping machine axle.
- Disconnect and properly secure the hydraulic hoses.
- DO NOT exceed 9 mph (15 kph) on public roads. Reduce speed on rough roads and surfaces.
- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.
- Local laws should be checked for all highway lighting and marking requirements.
- Always install transport locks, pins or brackets before transporting.
- Always yield to oncoming traffic in all situations and move to the side of the road so any following traffic may pass.
- Always enter curves or drive up or down hills at a low speed and at a gradual steering angle.
- Never allow riders on either tractor or equipment.
- Keep tractor / towing vehicle in a lower gear at all times when traveling down steep grades.
- Maintain proper brake settings at all times (if equipped).
- Stay away from overhead power lines. Electrocutation can occur without direct contact.

Machine Requirements And Capabilities

- Stop the machine and engage the parking brake. Install blocks in front of and behind the rear tires of the machine. Install blocks underneath and support the equipment securely before working under raised equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Use increased caution on slopes and near banks and ditches to prevent overturn.
- Make certain that the Slow Moving Vehicle (SMV) emblem is installed so that it is visible and legible. When transporting the equipment, use the flashing warning lights (if equipped) and follow all local regulations.
- Before leaving the operator's position:
 1. Always park on a flat level surface.
 2. Place all controls in neutral.
 3. Engage the parking brake.
 4. Stop engine.
 5. Wait for all moving parts to stop.
- Carry passengers only in designated seating areas. Never allow riders on the machine or equipment. Falling off can result in serious injury or death.
- Start the equipment only when properly seated in the operator's seat.
- Operate the machine and equipment from the operator's position only.
- The parking brake must be engaged before leaving the operator's seat. Roll away can occur because the transmission may not prevent machine movement.

Electrical

- Check all electrical wiring and connections for damage.
- Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.

Hydraulic System

- Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks.
- Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps.
- Tighten or replace any parts that show leakage.
- Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

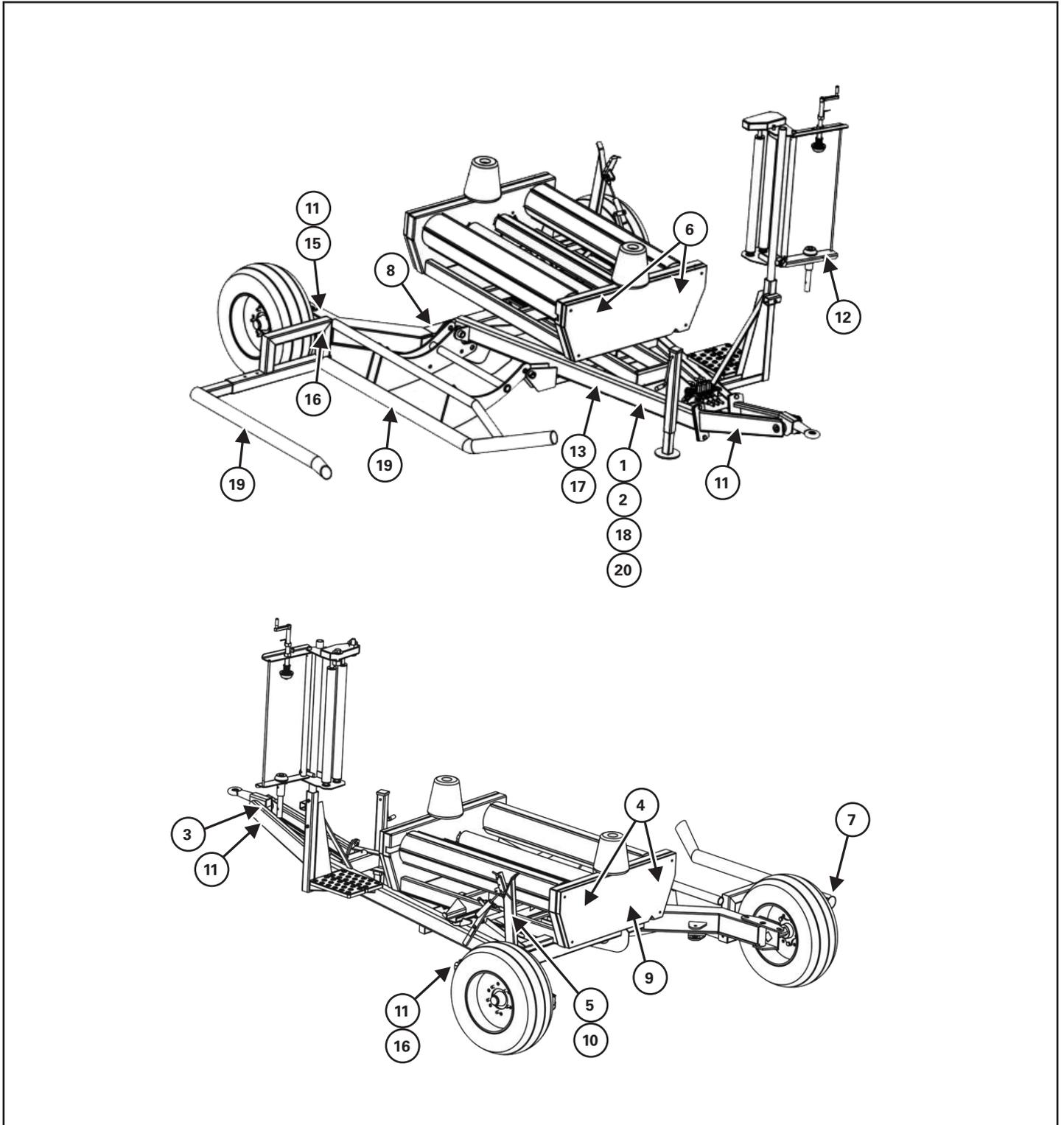
Fire Extinguishers

- Know where fire extinguishers and first aid kits are located and how to use them.
- Inspect the fire extinguisher and service the fire extinguisher regularly.
- Obey the recommendations on the instructions plate.

SAFETY AND EQUIPMENT DECALS

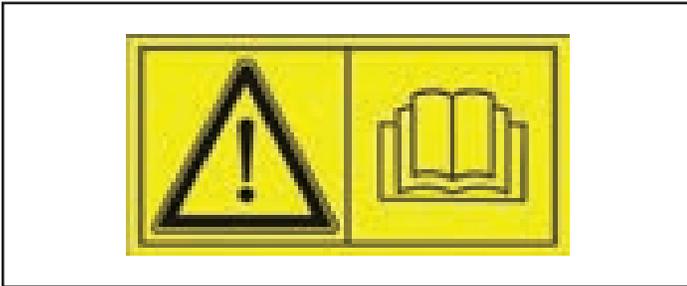
Follow the instructions on all the signs (decals) that are on the equipment. Replace any damaged signs (decals) and be sure they are in the correct locations. Equipment signs are available from your Farm King equipment dealer.

Figure 3



Decal Identification [Figure 3]

Operating Manual (Item 1) - Read operation and safety manual.



Ignition Safety (Item 2) - Switch off the engine and remove the ignition key before servicing.



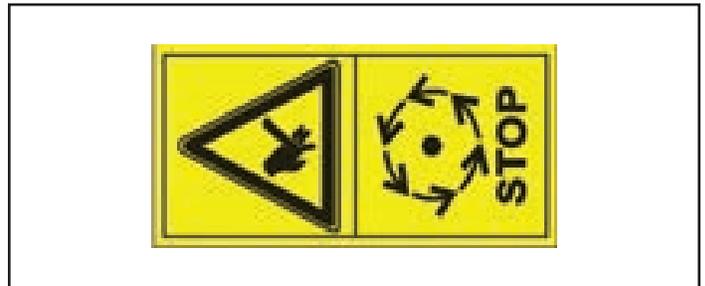
Keep Distance (Item 3) - Keep a safe distance from the machine during operation.



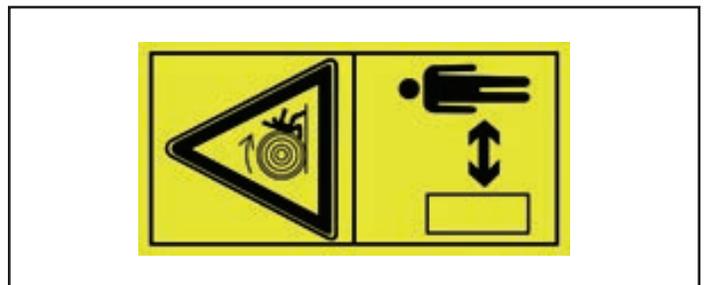
Safety Covers (Item 4) - Do not open or remove the safety covers during machine operation.



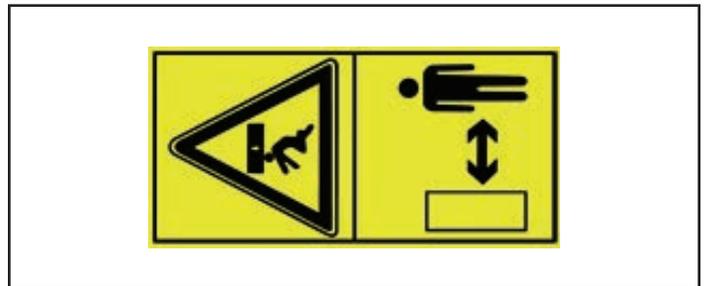
Rotation Hazard (Item 5) - Keep a safe distance from the machine during operation.



Crushing Hazard (Item 6) - Keep a safe distance from the machine during operation.



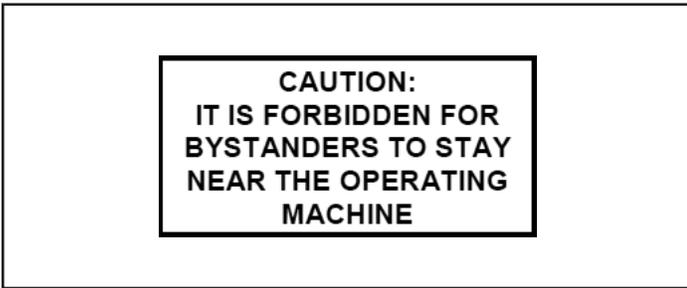
Loading Arm Hazard (Item 7) - Keep a safe distance from the machine during operation.



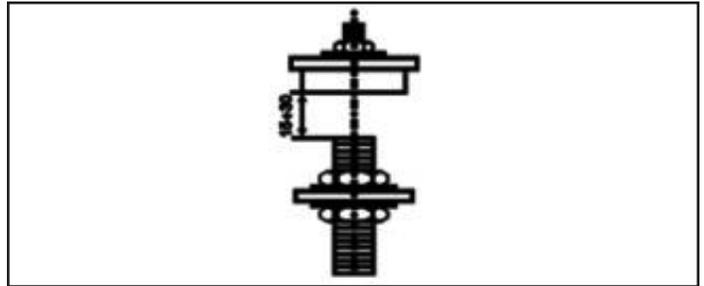
Support Hazard (Item 8) - Before operating install support jack.



Warning label (Item 9).



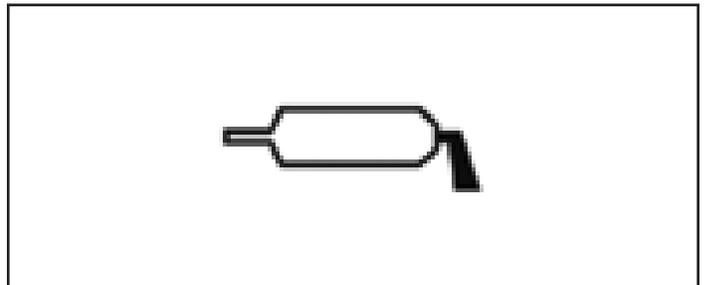
Proper location of bale counter sensor below magnet (Item 13).



Warning label (Item 10).



Lubrication point (Item 14).



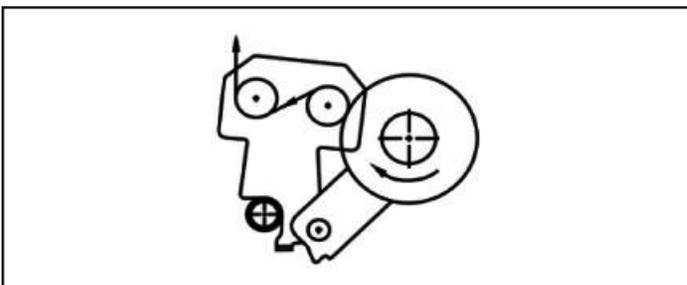
Transport attachment points for loading (Item 11).



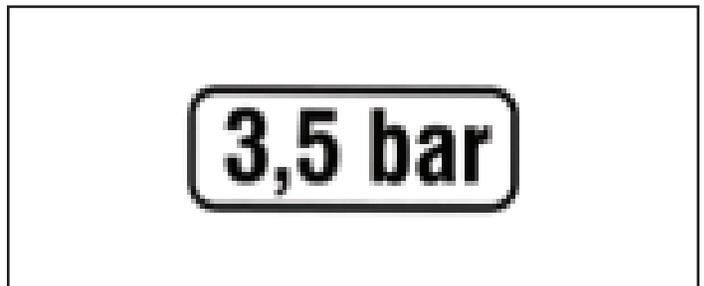
Pinch point hazard (Item 15) - Keep a safe distance from the machine during operation.



Film wrapping direction (Item 12).



Tire air pressure (Item 16).



Hydraulic Hazard (Item 17) - Avoid contact with liquids under pressure.



Use protective gloves (Item 18).



Warning panel (Item 19).

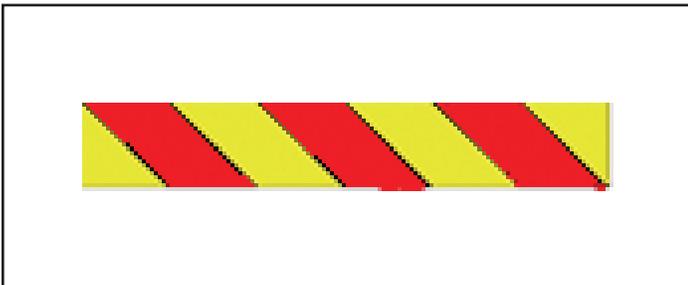
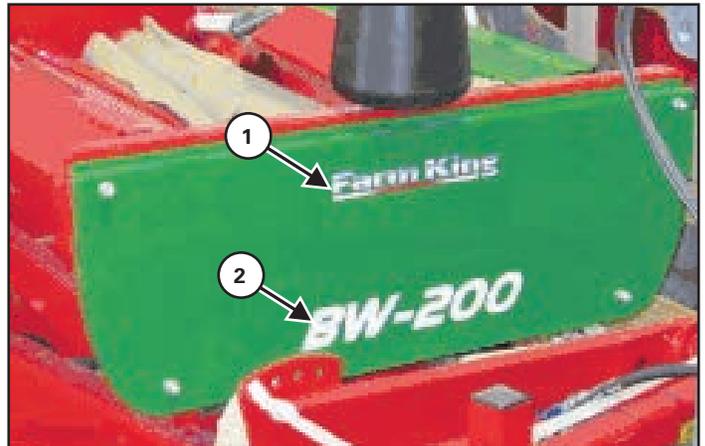


Figure 4



Model number equipment decal identification [Figure 4].

Farm King logo decal (Item 1).



BW200 logo decal (Item 2).



OPERATION

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GENERAL INFORMATION

Pre - Operation Checklist

Before operating the equipment for the first time and each time thereafter, check the following items:



AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

Keep hands, feet, hair and clothing away from moving parts.

Check the hitch for damaged, loose or missing parts. Repair as needed before operation.

1. Fully clean the equipment.
2. Inspect all safety reflective decals, slow moving vehicle decals and lights where applicable.
3. Verify that the equipment is properly connected to the tractor.
4. Check condition of all hydraulic components for leaks. Repair as required.

NOTE: Do not operate with hydraulic leaks.

5. Verify that the mobile chassis lock has been removed.
6. Verify that the Bale Wrapper is properly connected to the tractor with the safety chain.

Break - In Checklist

Check the following mechanical items after 1 hour of operation and again after 10 hours of operation:

1. Check condition of all hydraulic components for leaks. Tighten fittings to correct leaks or replace components. Do not operate with hydraulic leaks.
2. Check the upper and lower three point hitch mounts for damaged, loose or missing parts. Repair as needed before operation.
3. Check for loose fasteners and hardware. Tighten as required.



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

TRACTOR REQUIREMENTS

The Bale Wrapper will require a tractor with minimum 40 hp (30 kw), one pair of remote outlets, and electrical connection.

The wrapping machine shall be installed to the lower hitch or to the upper hitch allowing for the maximum vertical load of 4.7 kN.

 **WARNING**

Keep shields and all guards in place.

Keep away from moving parts.

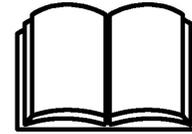
Keep bystanders away.

 **CAUTION**

Using a tractor with greater HP than the recommended range may cause severe damage to frame or components of implement and thereby void warranty.

ENTERING AND LEAVING THE OPERATOR'S POSITION

 **IMPORTANT**



Follow the instructions in your tractor's operation manual for the correct procedure.

Entering The Operator's Position

Move to the operator's position, start the engine and release the parking brake.

Leaving The Operator's Position

 **WARNING**

AVOID INJURY OR DEATH

Before you leave the operator's position:

- **Always park on a flat level surface.**
- **Place all controls in NEUTRAL.**
- **Engage the park brake.**
- **Stop the engine and remove the key.**

Park the tractor / equipment on a flat level surface.

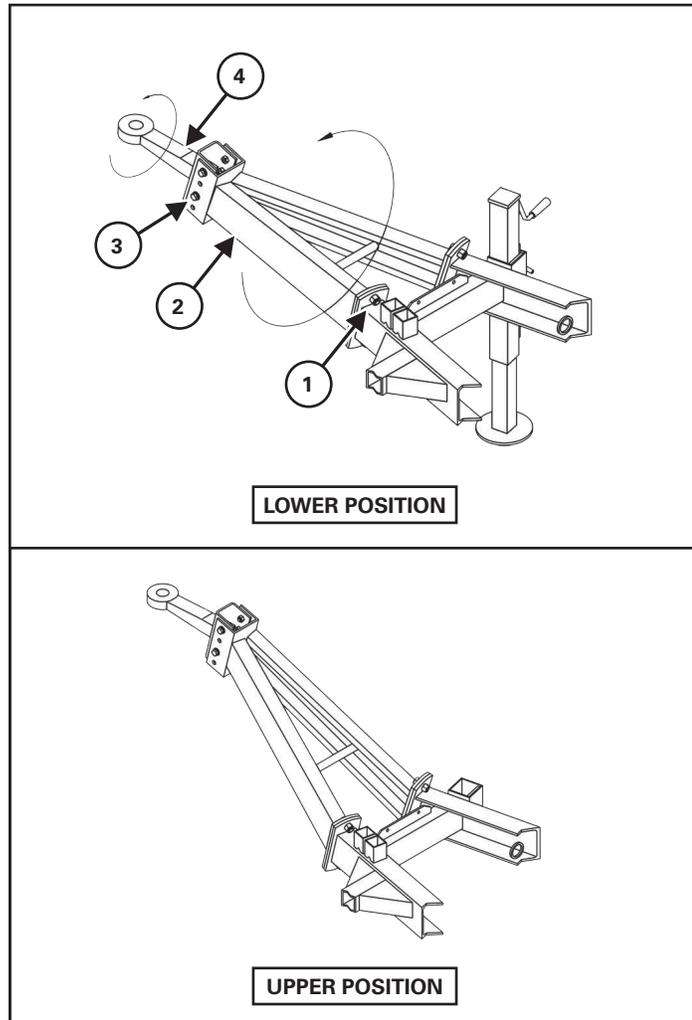
Place all controls in neutral, engage the park brake, stop the engine and wait for all moving parts to stop. Leave the operator's position.

CONNECTING TO TRACTOR

Always inspect the tractor's hitch and equipment hitch-ring before connecting (see the tractor's owner's manual).

Make sure equipment hitch is resting securely on the support stand. Change the hitch to the lower or upper position as required.

Figure 5



Remove the M16 bolts (Item 1) and nuts. Flip the hitch (Item 2) 180° to upper or lower position. Reinstall bolts and nuts [Figure 5].

Remove the M12 bolts (Item 3), washers, and nuts. Flip the hitch-ring (Item 4) 180° to upper or lower position. Reinstall bolts and nuts [Figure 5].



AVOID INJURY OR DEATH

Make sure that there are no bystanders, especially children, in the coupling area.

Before coupling the equipment, place the tractor axis and the machine axis on a hard, flat, level ground. Switch off the tractor engine, remove the ignition key and engage the tractor parking brake.

Level the wrapping machine by selecting the appropriate adjustment opening in the hitch.

Check whether the machine is properly connected and secured against accidental disconnection.

Make sure that the tractor auxiliary hydraulic system is without pressure. Move the relevant control lever in cabin to eliminate the residual pressure in the circuit.

Enter the operator's position.

Move the tractor into position in front of the equipment. Move the tractor backwards, aligning the tractor hitch and equipment hitch-ring.

Leave the operator's position.

Install the hitch pin and retaining pin to securely fasten the Backsaver Auger hitch to the tractor draw bar. Attach the safety chain around the draw bar.

NOTE: Always use a hitch pin of adequate size and strength and a retaining pin with a locking device.

Plug the electric power source. Check if the operating and signaling systems work properly.

Connect the hydraulic power source. Check if the hydraulic systems work properly, especially the lifting and blocking mechanisms responsible for controlling the working and transport positions.

Load the first bale and make sure that the vertical load on the tractor front axle is larger than 20% of the tractor weight. The tractor should remain fully steerable.

COMMISSION/PROGRAM THE COUNTER FOR FIRST TIME USE

The commissioning of a newly purchased bale wrapping machine should be performed under the supervision of an experienced operator or a dealer service representative.

Before commission, familiarize yourself with the following manual, paying special attention to the sections regarding the safety of the operator and bystanders.



It is only possible to enter the manufacturing year and serial number once.

After the information is confirmed, it cannot be corrected.

To stop the data entering procedure, disconnect the counter from its power source. The wrap counter data cannot be erased and no changes can be made.

The wrap counter shall be installed in the tractor cabin, connected to the revolution sensor and plugged to the electric power source by using the power cable.

The proper connection is signaled by a blinking red light on the counter display. Press and hold the button (activation symbol C).

Each activation of the counter is accompanied by the display test and power supply voltage test.

The display will show the indication 8888 and all decimal points and LEDs will light up. The sound signal will be activated.

The power source voltage will be displayed (Ex. U12.7, which denotes voltage of 12.7 V). Any other condition indicates that the counter is damaged.

The year of manufacture of the counter will be displayed (Ex. 2011) and a yellow LED will light up.

Use the F2 button to enter the manufacturing year of the wrapping machine (between 2000 and 2099).

Check if the entered data is correct by pressing the F1 button. It should display the manufacturing year and the wrapping machine serial number interchangeably.

If the entered data is correct, confirm using the on/C button by pressing and holding it for about 10 seconds.

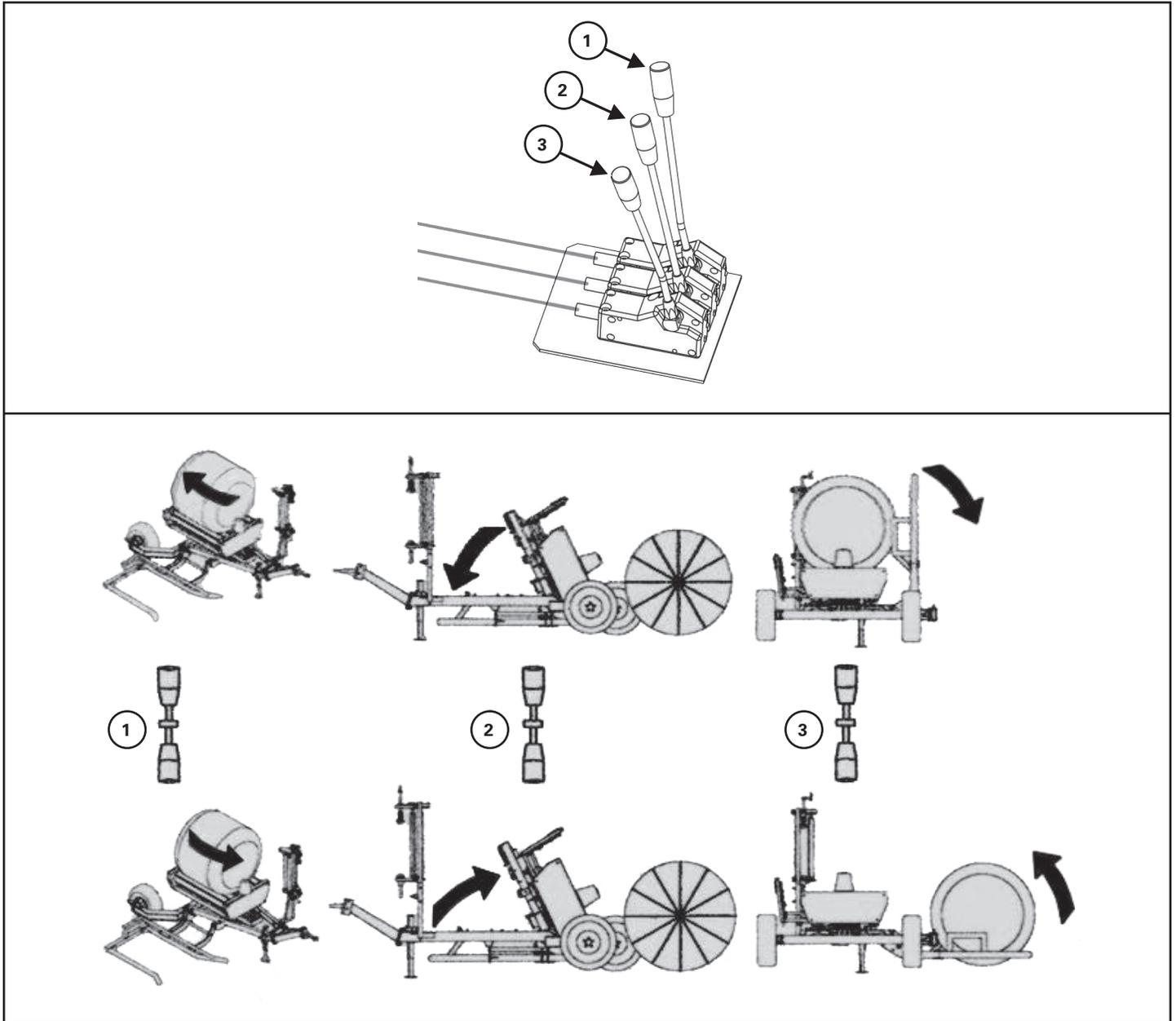
The confirmation of the entered data will be signaled by a blinking red LED and intermittent sound signal.

SETUP

Bale Wrapper Controls

The control levers are installed in the tractor cabin.

Figure 6

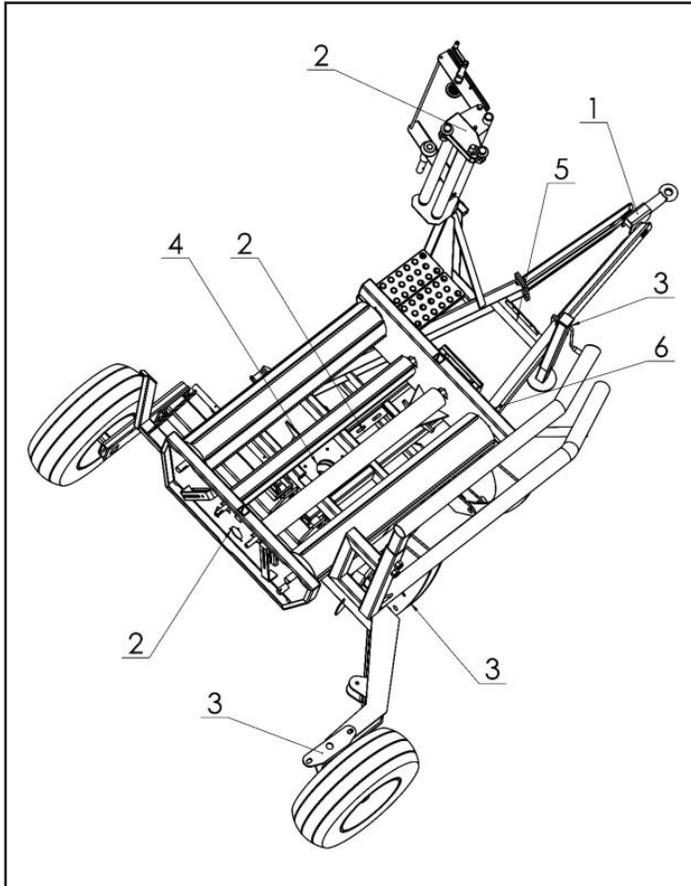


Use the controls (Item 1, 2, 3) to perform the following functions [Figure 6]:

- Rotate the table / movable frame (Item 1)
- Raise and lower the table / movable frame (Item 2)
- Raise and lower the loading arm (Item 3)

Adjustment Points

Figure 7

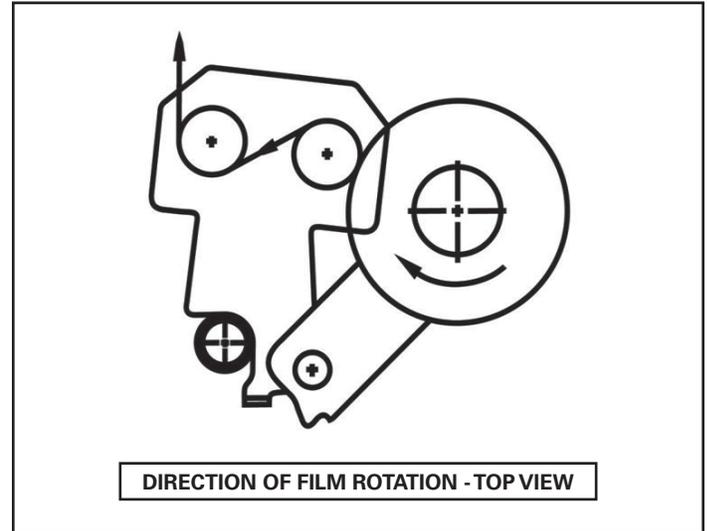


Locations of adjustment points **[Figure 7]:**

- Tractor coupling leveling (Item 1)
- Chain tightening (Item 2)
- Lubricating points (marked with a symbol located on the machine) (Item 3)
- Intersecting axis gear (Item 4)
- Hydraulic control unit (Item 5)
- Revolutions sensor (marked with a symbol located on the machine) (Item 6)

Wrapping Film Installation

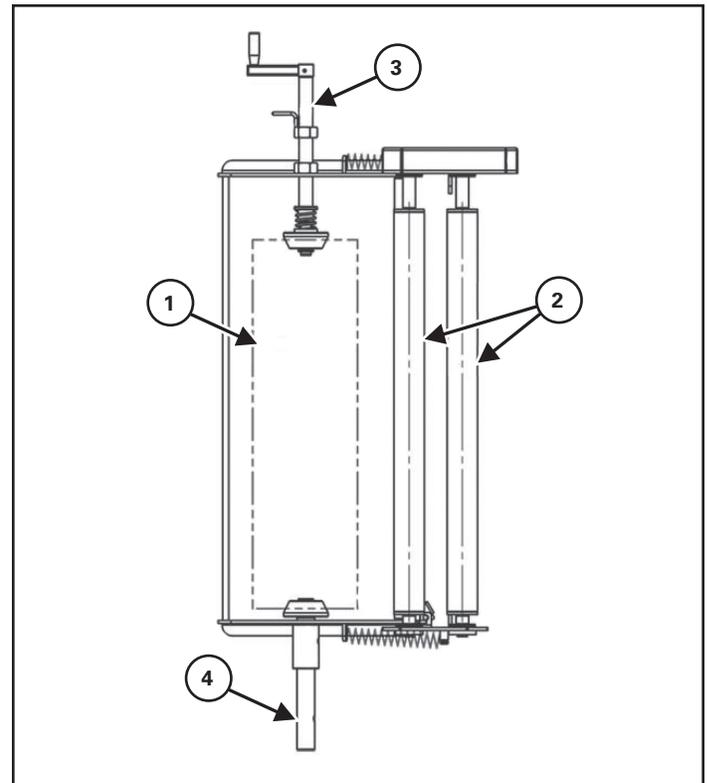
Figure 8



As the rotating frame turns, the bale and film rotate by a certain angle around the horizontal axis. This allows consecutive layers of film to be wrapped tightly around the bale.

Direction of the wrapping feeder assembly is shown **[Figure 8]**.

Figure 9



Install a new roll of film (Item 1) to the feeder assembly as follows [Figure 9]:

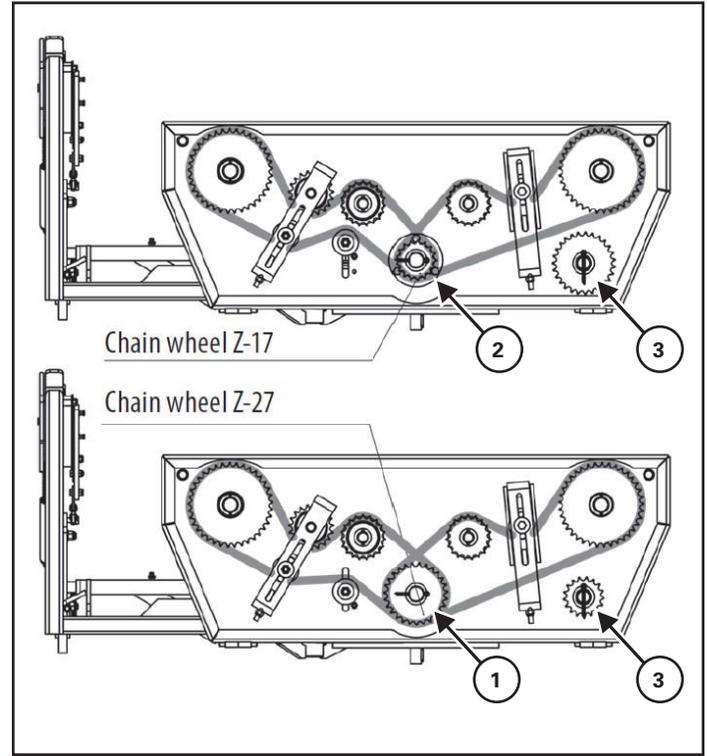
- Move the metal rollers (Item 2) out of the way and secure using the hook attached to the wrapping assembly.
- Turn the crank (Item 3) to loosen the upper pin.
- Set the height of the lower pin (Item 4) in position appropriate for the film roll width (500 mm or 750 mm).
- Place the film roll (Item 1) on the cone of the lower pin. Make sure the internal sticky side of the film faces the bale axis.
- Turn the crank (Item 3) to tighten the upper pin onto the roll.
- Tighten the nut on the crank screw to secure the roll.
- Move the metal rollers (Item 2) back into position.

Pull the film through the rollers as indicated on the pictogram placed on the gear cover [Figure 8].

Pull out the end of the film so that it may be easily handled in the machine.

Wrapping Film Size

Figure 10



The wrapping machine is pre-set to use 750 mm film. The chain wheel (Item 1, 2) must be replaced to use 500 mm film [Figure 10].

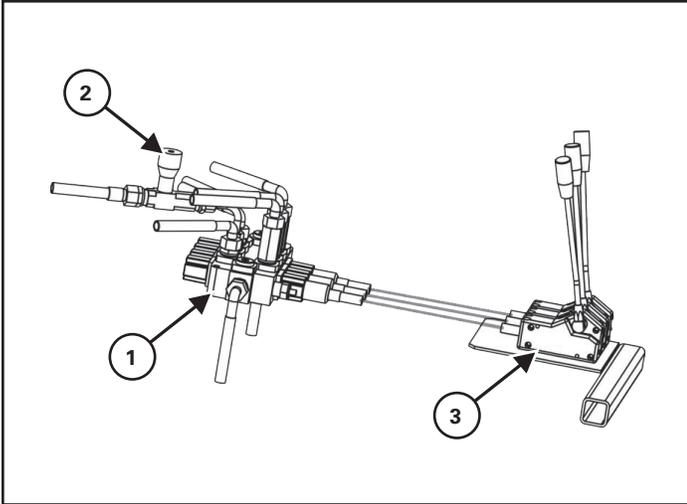
Replace the chain wheel as follows:

- Remove the washers and nuts from the side cover. Remove the side cover to expose the chain transmission.
- Loosen the M12 screw on the chain tightening mechanism.
- Remove the chain from the Z27 chain wheel (Item 1) installed on the main shaft and remove the split pin securing the wheel.
- Remove the Z27 chain wheel from the shaft (by using an appropriate tool).
- Replace with the Z17 chain wheel (Item 2).
- Secure the Z17 chain wheel repeating the above procedure in the reverse order.
- Store the unused chain wheel on the storage shaft (Item 3).

Hydraulic System

The wrapping machine hydraulic system is powered from the tractor hydraulic system. To attach the machine to the tractor hydraulic system, the attachment cables are connected to the hydraulic controls and further to the wrapping machine hydraulic motor.

Figure 11



Through the chain transmission, the hydraulic motor rotates the drums with the loaded silage bales. By means of the three-section hydraulic control unit (Item 1), the hydraulic engine powers five double-acting cylinders responsible for **[Figure 11]**:

- Tilting the rotary table and the unloading unit to the vertical and horizontal position
- Lifting and lowering of the loading arm
- Rotation of the rotary table

The control over the engine and hydraulic cylinders is ensured by using the control levers (Item 3) located in the tractor cabin during operation **[Figure 11]**.

These levers are connected to the three-section control unit by using Bowden cables. The symbols on the control unit support inform about the functions fulfilled by each lever **[Figure 11]**.

The three section control unit (Item 1) is protected against high pressure from the hydraulic system by means of a safety valve **[Figure 11]**.

The valve (Item 2) is located in the rotating chassis section and operates only in the table rotation system rotating clockwise, which is opposite to the wrapping direction. The purpose of the valve is to smoothly stop the rotating chassis **[Figure 11]**.

Delayed blocking of the rotary table indicates that the valve must be adjusted properly.



IMPORTANT

Do not adjust the valve behind the control unit. It is pre-adjusted by the Manufacturer.

Before operating the wrapping machine, check the operation of the hydraulic system by testing the following elements without a bale loaded:

- Table rotation
- Lifting and lowering of the rotary table
- Lifting and lowering of the loading arm

Wrap Counter

Figure 12



The wrap counter (Item 1) is an electronic device used for counting the wraps on a bale and may be used on all types of wrapping machines. The wrap counter should be installed in the tractor cabin in a place where it is visible and accessible to the operator [Figure 12].

Protect the counter against humidity, excessive vibration and hitting the cabin elements, and especially against falling on a hard surface. The counter can be fixed by using its back surface catch.



WARNING

Protect the meter from water, chemical agents, direct atmospheric precipitation, frost, high temperature in excess of 50°C and direct exposure to sunlight.

The counter kit comprises of:

- Pre-programmed counter in a plastic casing
- Revolution sensor
- Bundle of wires
- Multi-contact connection

The revolution sensor attached to an unmoving part of the wrapping machine operates in conjunction with a magnet attached to the rotary chassis which passes impulses to the revolution counter. Each rotation of the bale is counted and displayed on the revolution counter display. When the programmed number of revolutions is performed, the counter signals the completion of the wrapping process with a blinking light and sound signal. The counter may be programmed to a required number of revolutions between ten and forty-nine.

Connect the revolution sensor installed in the cabin to the power source (12V) and revolution sensor by using the specially prepared bundle of wires.



IMPORTANT

Protect the wires connecting the sensor with the revolution counter against accidental mechanical damage.

Protect the connections of the wires with the revolution counter against accidental uncoupling.

Switching the System ON and OFF

The blinking red signaling light indicates that the revolution counter system has been configured properly. Press and hold the ON button marked with the letter C. Each activation of the counter is accompanied by the display test and the power supply voltage test.

A positive test result indicates the unit is ready to work with the settings entered during the previous use. Press and hold the C button until a red blinking light appears on the display (for about 3 seconds). After this signal, the counter unit may be disconnected.

Working with the Counter in Counting Mode

Setting the wrap number:

Press the F1 and F2 buttons at the same time. The last settings shall be displayed. The setting mode is signaled by the activation of two LEDs, red - warning and green - wrapping [Figure 14].

Change the number of wraps using the F2 button (within the scope of 10 to 49 wraps). Confirm using the C button. The counter is ready to work with its new settings [Figure 14].

Field selection:

Change the field number by using the F1 button (1, 2, 3). Change the stored bale indication for a given field by using the F2 - set the number of wraps and the number of bales. Additionally, the F2 button can display the average efficiency of the wrapping machine during a working hour [Figure 14].

After the field number is selected, erase the counter indication by simultaneously pressing the F2 and C buttons. When the device is ready to enter changes, the red LED will light up and a sound signal will be emitted. Hold both buttons pressed until the sound signal is heard. The indications for the given field have been erased [Figure 14].

Operation of the counter in counting mode:

Start work after selecting the field and setting the number of wraps. The counter indicates wrapping as soon as it receives impulses from the wrapping machine sensor. After a set number of wraps is reached, the red LED and the counter display begin to blink. A complete wrap is also signaled by an intermittent sound signal.

Erase the wrapping end signal by pressing and holding the C button. Hold the button until the display indicates the number of wrapped bales and the red LED turns off. The counter is ready for counting wraps on another bale. Example of the L02 wrap counter indications are shown [Figure 13].

Figure 13

Graphic symbol	Indication	Example indication	Meaning
	Bale number	16	On a given field 12 bales were wrapped.
	Time	3.25	Run time On a given field this was 3 hours 25 minutes.
	Production efficiency	3.5	On a given field 3.5 bales are wrapped per 1 hour.
	Wrapping	24.15	Wrap counter set to 24 wraps. In a given moment the number of wraps is 15.
	Warnings Alarms	Blinking and Err 1 signal displayed	Error no. 1

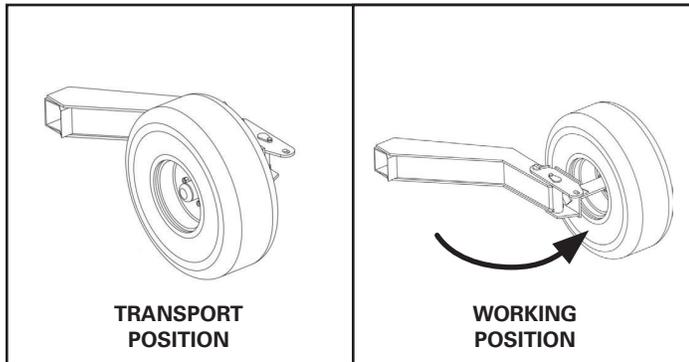
Figure 14



FIELD OPERATION

Working Configuration

Figure 15



To prepare the machine for work, the side wheel needs to be configured into working position as shown [Figure 15].

To change the position of the side wheel perform the following:

- Place the coupled wrapping machine so that the machine draw bar is parallel to the tractor axis
- Remove the pin securing the side wheel and place it in the tractor cabin
- Move the tractor and the wrapping machine slightly forward
- Manually turn the side wheel beyond its dead spot
- Slowly move the tractor and the wrapping machine backwards until the side wheel position is stable
- Correct the placement of the side wheel if necessary so that it is possible to insert the locking pin
- Lock the side wheel by using the locking pin
- Secure the pin with a safety pin



WARNING



AVOID INJURY OR DEATH

Keep fingers and hands out of pinch points when configuring the equipment.

Pre-operation Checklist

Before commencing work, check the following:

- Wrapping machine draw bar is properly connected to the tractor hitch
- Hydraulic lines are properly connected
- Revolution counter system is properly connected
- Loading arm raises and lowers properly
- Rotary table can be moved into the vertical and horizontal position properly
- Rotary frame and drums move smoothly (the rotary frame should rotate counterclockwise)
- Wrapping machine side wheels pins are tight and secure

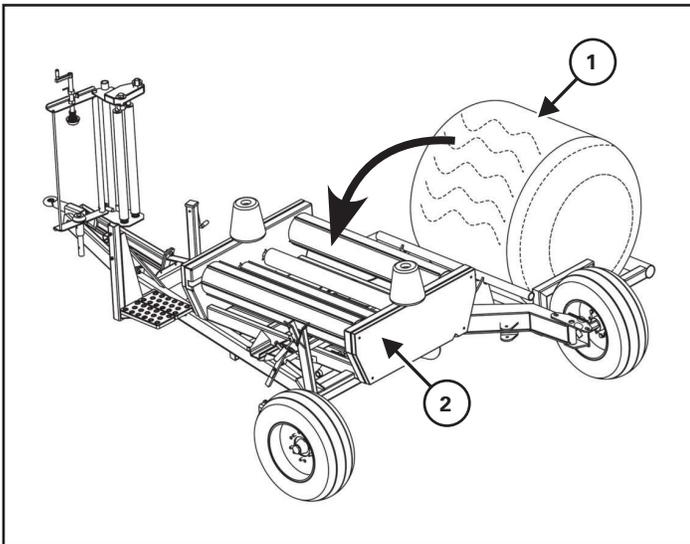
Bale Loading

Lower the loading arm to its maximum lower position (horizontal position when it is approx. 10 cm above ground in its maximum deflection).

Place the rotary frame parallel to the driving direction so that the film cutter is in front of the machine.

Stop the rotary table about 25° beyond the axis parallel to the main frame axis and move the table back by using the control switch lever to a position parallel to the machine axis until the rotary table is locked.

Figure 16



Drive towards the bale (Item 1). The tractor approaching the bale should drive parallel to the bale axis so that the axis of the loading arm faces the axis of the bale being loaded [Figure 16].

Stop the tractor when the bale rests against the stop plate of the lateral loading arm.

Lift the loading arm until the bale rolls freely onto the wrapping machine rotary table (Item 2).

Lower the loading arm. The bale now sits on the rotary table.

Bale Wrapping

Mark two vertical lines on the film 10 cm apart before tensioning.

After tensioning, a distance of 17 cm between the vertical lines represents 70% film tension.

The width of the film measured at the end of the bale may not be lower than 400 mm when using 500 mm film and not lower than 600 mm when using 750 mm film.



IMPORTANT

Pay particular attention to the initial tensioning of the film (ideally 65–80%). A worn or non-lubricated tensioning mechanism may cause the film to be wrapped too tightly. The film tensioning level must not exceed 70%.

Pull the film at the first bale as far as possible from the feeder and attach it using the string binding the bale.

Using the control lever, turn on the hydraulic motor of the wrapping machine. While placed on the rotary table, the bale is rotated by a certain angle around its horizontal axis with every revolution around its vertical axis, which causes the overlapping of consecutive layers of film resulting in a tight wrap around the bale. Maintain the tractor engine revolutions at 1500 rpm while wrapping.

Wrap at least four layers of film so that each of them is overlapped in 50%. Finish the wrapping after about twenty-four revolutions of the rotary frame while using 500 mm film or sixteen revolutions while using 750 mm film.

Secure the end of the film after wrapping. A properly wrapped bale has four layers of the wrapping film around it.

If the bale is wrapped too tightly, halt the wrapping process. Establish the cause of excessive film tension. Set the proper film tension and resume the wrapping process.



IMPORTANT

Use the bales within twelve months from their wrapping date.

Keep the film rolls in good condition, especially the edges, to minimize the risk of the film breaking while wrapping.

Do not wrap during precipitation.

Wrap bales in above-freezing temperatures.

Wrap bales on a field or in their storage area.

Avoid unnecessary transport of wrapped bales to minimize the chance of damaging the film.



WARNING

AVOID INJURY OR DEATH

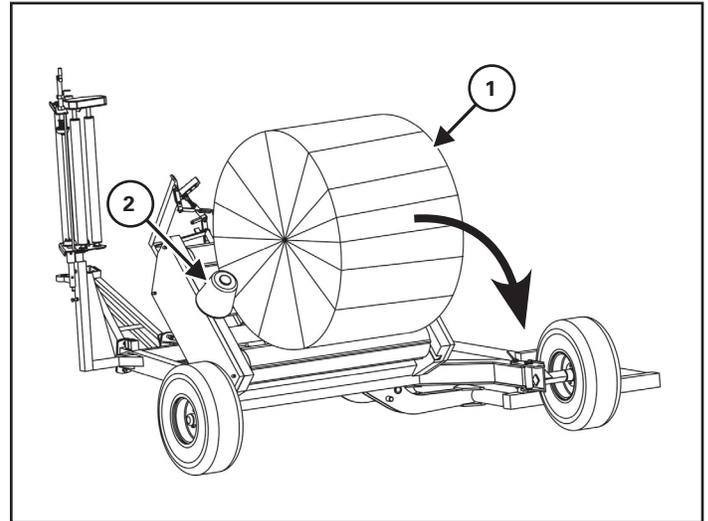
If any hazards involving the bale wrapper are present:

- Lower the control lever on the hydraulic control unit
- Switch off the tractor engine, remove the ignition key and engage the parking brake
- Locate the hazard and remove

Be sure to lock the rotary table during loading and unloading of the bale.

Bale Unloading

Figure 17

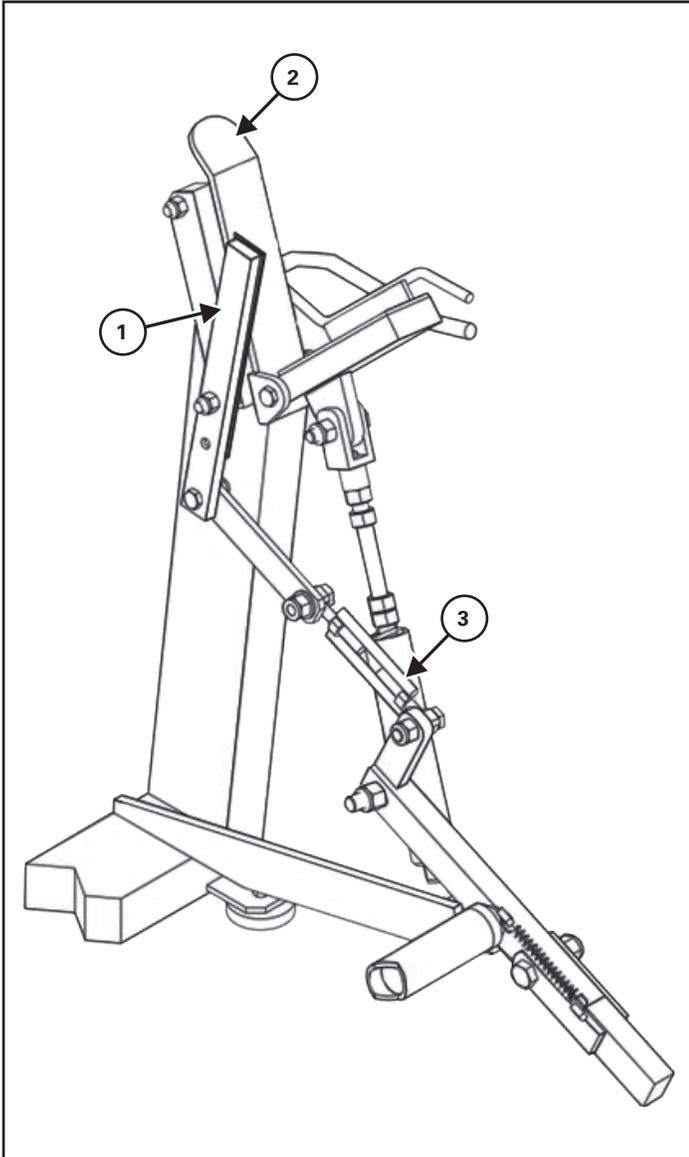


To unload the bale (Item 1), stop the rotary table about 25° beyond the axis parallel to the wrapping machine axis and move the table back by using the control switch lever to a position parallel to the machine axis until the rotary table is locked [Figure 17].

The conical rolls (Item 2) located on the sides of the rotary frame prevent the film from falling off the drums while wrapping [Figure 17].

The film cutting system should be located in front of the wrapping machine. The unloading of the bale is completed by lifting the rotary table with the bale as shown [Figure 17].

During the unloading process, the cutter cuts away the film. After unloading the bale, all working components should return to their initial position. Another bale may now be loaded.

Film Cutting**Figure 18**

If the film cutter fails to operate correctly, stop the wrapping machine, switch off the tractor engine, remove the ignition key and engage the tractor parking brake.

Adjust the cutter (Item 1) cutting angle in relation to the film in the clamp (Item 2). The adjustment is made by using the tightening screw (Item 3). When this screw is turned clockwise, the cutter angle in relation to the film is decreased. Turning the screw counter-clockwise will increase the angle [Figure 18].

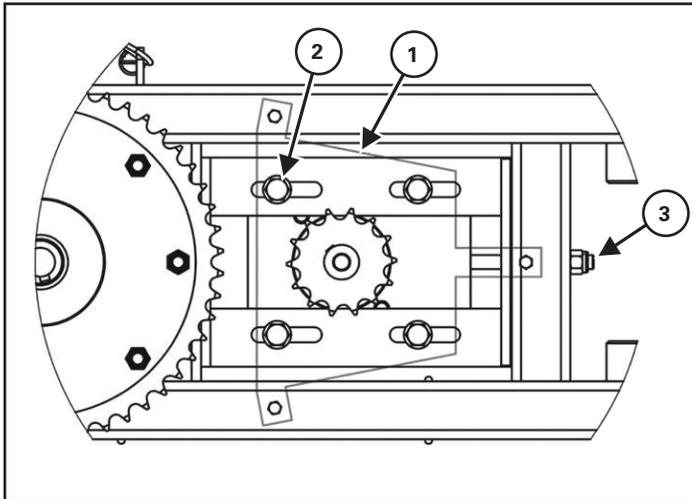
A properly set cutter cuts the film when the unloaded bale touches the ground. When the angle is too steep, the film is not cut even though the bale is unloaded to the ground.

**WARNING****AVOID INJURY OR DEATH**

Take extra caution when adjusting the cutter. The cutter is sharp. Use hand protection.

Drive Chain Adjustment

Figure 19



Two chain transmissions are used in this bale wrapping machine. After wrapping the first ten bales, the tensioning of the drive chains needs to be adjusted.

Remove the chain cover (Item 1). Loosen the four M12 nuts (Item 2). Turn the M12 screw in the chain tightening mechanism (Item 3) so that the chain has a 20 mm slack after tightening [Figure 19].

Tighten the four M12 screws (Item 2). Install the chain cover [Figure 19].

IMPORTANT

Check the tightening and the chain condition periodically after wrapping every 120 bales.

FINISHING WORK

After the work is complete, disconnect the revolution counter and secure the revolution sensor against humidity.

Before storing the wrapping machine for a longer period, place the impulse sensor in a dry storage room.

Make sure that there are no bystanders, especially children, in the coupling area.

Place the wrapping machine for storage on a hard, flat and level ground.

Switch off the tractor engine, remove the ignition key and engage the tractor parking brake.

Unplug the electrical power supply.

Disconnect the hydraulic system.

Lower the main chassis support. Disconnect the hitch-ring from the transport hitch. Make sure that the machine will not move accidentally.

Support the draw bar by using the support stand.

Disconnect the machine draw bar from the tractor hitch.

WARNING

It is forbidden to disconnect the wrapping machine from the tractor when there is a bale on the rotary table.

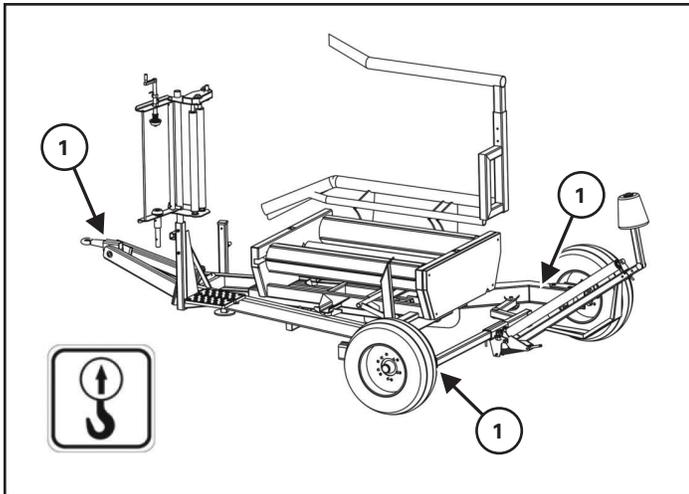
Clean the machine and inspect its condition paying special attention to the quality of the paint coat. Touch up paint as required.

Protect the rubber elements, such as hydraulic lines, against direct sunlight.

TRANSPORTING

Loading To Carrier

Figure 20



IMPORTANT

The wrapping machine is suitable for road and rail transport by using carriers with appropriate load bearing capacity.



WARNING

For loading on a means of road transport, use lifting devices with lifting capacity appropriate for the machine weight including a loaded roll of film. Use the frame elements marked on the machine as attachment points (Item 1) [Figure 20].

The lifting device should be operated by experienced operators with appropriate qualifications.

It is forbidden to transport the wrapping machine with a bale of silage or swath loaded on it. The transported wrapping machine must be securely fastened to the carrier vehicle.

The lifting sling attachment points (Item 1) are shown [Figure 20].

Public Road Transport

The wrapping machine may be used on public roads as a machine attached to a tractor transport hitch. The dimensions of the machine prepared for transport are shown in paragraph A5.

For transporting the machine on public roads, tractors with a rated power not lower than 30kW and traction class not lower than 0.9 equipped with a transport hitch may be used.

Before entering a public road:

- Place the hitch in its transport position
- Place the rotary frame into transport position so that the drums are locked parallel to the wrapping machine axle
- Lift the loading arm to its maximum position and lock it to protect against unauthorized lowering using a locking device
- Disconnect and properly secure the hydraulic lines
- The levers of the control unit should remain in the tractor cabin
- Apply the signaling devices required by the Highway Code of the Country where the machine is operating

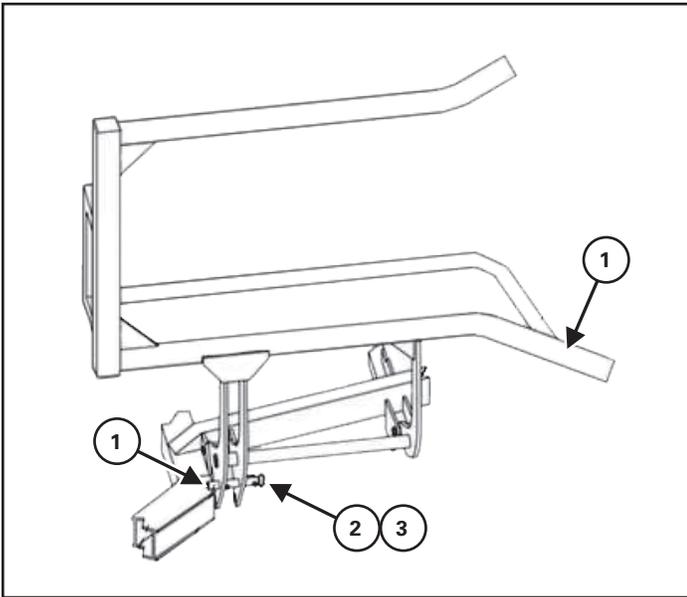


IMPORTANT

Every time before entering public roads, check if the wrapping machine is correctly connected to the tractor. It is forbidden to carry persons or bales of silage on the rotary table.

When driving on public roads, the speed should be adjusted to the existing conditions and not exceeding 15 km/h.

Figure 21



Ensure the loading arm (Item 1) is locked upright in the transport position. Secure the loading arm using the locking pin (Item 2), M8x50 bolt, and M8 nut (Item 3) [Figure 21].

Comply with federal, state, local and provincial laws regarding the transport of farm equipment on public roadways.

Verify that the tractor is approved for transporting the equipment and that the equipment is securely attached to the tractor.

Verify that the SMV (Slow Moving Vehicle) emblem, all lights and reflectors are clean and visible.

WARNING

AVOID SERIOUS INJURY OR DEATH

Use of an unapproved hitch or tractor can result in loss of control, leading to serious injury or death.

Tractor and hitch must have the rated capacity to tow equipment.

WARNING

AVOID SERIOUS INJURY OR DEATH

Excess weight will greatly increase tractor stopping distance and may cause the operator to lose control of the tractor.

Follow the rules of Highway Code and the Manufacturer recommendations when transporting the wrapping machine on public roads.

If an emergency requires the driver to stop the tractor with the wrapping machine in tow on a public road, the tractor driver should:

- Stop the vehicle without causing any danger to the road users
- Stop the vehicle as close to the road edge as possible and parallel to the road axis
- Switch off the engine, remove the ignition key, engage the parking brake and place wedges under the wrapping machine wheels
- Place the warning triangle behind the vehicle to 30—50 meters and activate the emergency lights
- In the event of a breakdown, take the required precautions to ensure safety in the area

Farm King



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TROUBLESHOOTING



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

NOTE: If a problem is encountered that is difficult to solve, even after having read through this troubleshooting section, please call your local Farm King dealer. Before you call, please have this Operator And Parts Manual and the serial number of your machine at hand.

PROBLEM	CAUSE	CORRECTION
Wrapping machine hydraulic actuators work slowly or do not work at all.	Not enough oil in the tractor hydraulic system. Pressure in the tractor hydraulic system too low. Wrong diameter setting of the external diameter lever. Damaged actuator.	Check the oil level in the tractor. Top up oil. Check the tractor hydraulic system pressure. Turn on the pump drive. Replace the actuator
The wrapping machine works too slowly.	Not enough oil in the tractor hydraulic system.	Check the oil level in the tractor. Top up oil.
Oil leaks from the control unit.	Worn seal rings.	Replace the seal rings on the hydraulic control unit.
Too wide or too narrow overlapping of film edges during wrapping.	Improper installation of the chain wheel.	Replace with a proper chain wheel.
The cut film is not held in the cutter unit.	The rubber clamp holding the cut film is not adjusted properly.	Adjust the film pressure element.
Problems with bale unloading.	Rotary table lock does not operate.	Lock the table..

LUBRICATION

Always use a good quality multi-purpose / lithium base grease when lubricating the equipment.

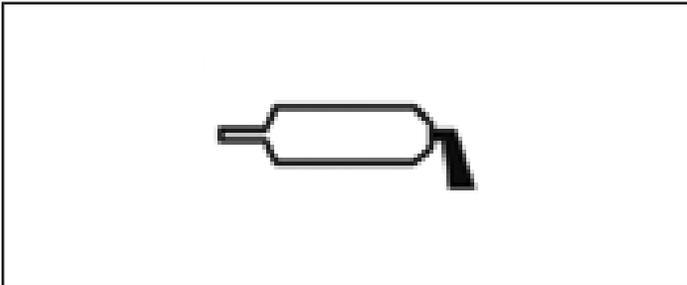
- Always use a hand-held grease gun.
- Clean fitting before greasing, to avoid injecting dirt and grit.
- Replace and repair broken fittings immediately.
- If fittings will not take grease, remove and clean thoroughly. Replace fitting if necessary.



IMPORTANT

Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

Figure 22



Lubrication point symbol is shown [Figure 22].

REGULAR INSPECTION

After every use of the wrapping machine, check:

- Condition and legibility of the data plate and symbols
- Condition of the draw bar
- Hydraulic system leaks
- Drive chain of the rotary frame
- Drive chains of the rotary drums

The nameplate must only be replaced at an authorized repair shop. Replace any unintelligible symbols with new ones.

After the working season is over, grease the drive chain of the rotary frame and the drive chains of the rotary drums using the LT-43 grease.



IMPORTANT

Send the counter to an authorized service if the casing is damaged. Any attempt to repair the damaged counter will result in the warranty becoming null and void.

Replace the oil of the intersecting axis gear every two years as follows:

- Place the machine on a level surface
- Place a leak proof tank below the drain plug
- Remove the drain plug, the filler plug and the overflow plug
- After the oil is drained, close the drain plug
- Pour fresh 80W90 hydraulic gear oil to the filler plug level
- Close the filler plug and overflow plug



WARNING

During oil replacement, it is required to wear impermeable protective clothing suitable for contact with oil-based products.

Replace the hydraulic lines every five years. Before every working season, check (without a silage bale loaded) the operation of the transmission system by turning on the rotary table, raising and lowering the rotary table and raising and lowering the loading arm.

If the counter is fouled, clean it using a damp cloth with a mild detergent. Do not use organic solvents for cleaning (acetone, gasoline, nitro solvent, etc.) as the counter casing may be damaged.

SERVICE CHECKS

Periodical service checks shall be performed after every two working seasons of machine use.

It is advised to use original replacement parts which will help maintain the wrapping machine in good technical condition for a long time.

SAFETY SIGN (DECAL) INSTALLATION

Remove all portions of the damaged safety sign (decal).

Thoroughly clean the area with cleaning product.

Removing all adhesive residue.

Allow the area to dry completely before installing the new safety sign (decal).

Position the safety sign (decal) in the correct location.

Remove a small portion of the backing paper on the safety sign (decal).

Press on the safety sign (decal) where the backing paper has been removed.

Slowly remove the remaining backing paper, pressing on the safety sign (decal) as the backing paper is removed.

Using the backing paper, pressing firmly, move the backing paper over the entire safety sign (decal) area.

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



IMPORTANT

When replacing safety signs (decals), the temperature must be above 10° C (50° F).

STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store the equipment for an extended period of time. Below is a list of items to perform before storage.

Thoroughly clean the equipment.

Inspect the hitch and all welds on the equipment for wear and damage. Check for loose hardware, missing guards, or damaged parts.

Check for damaged or missing safety signs (decals). Replace if necessary.

Replace worn or damaged parts. Touch up all paint nicks and scratches to prevent rusting.

Place the equipment in a dry protected shelter.

NOTE: If a dry protected shelter is not available, cover with a waterproof tarp and tie down securely.

Place the equipment flat on the ground. Place planks under support stand if required.

Return To Service

After the equipment has been in storage, it is necessary to follow a list of items to return the equipment to service.

Be sure all shields and guards are in place.

Connect to a tractor and operate equipment, verify all functions operate correctly.



IMPORTANT

DO NOT permit children to play on or around the stored machine.

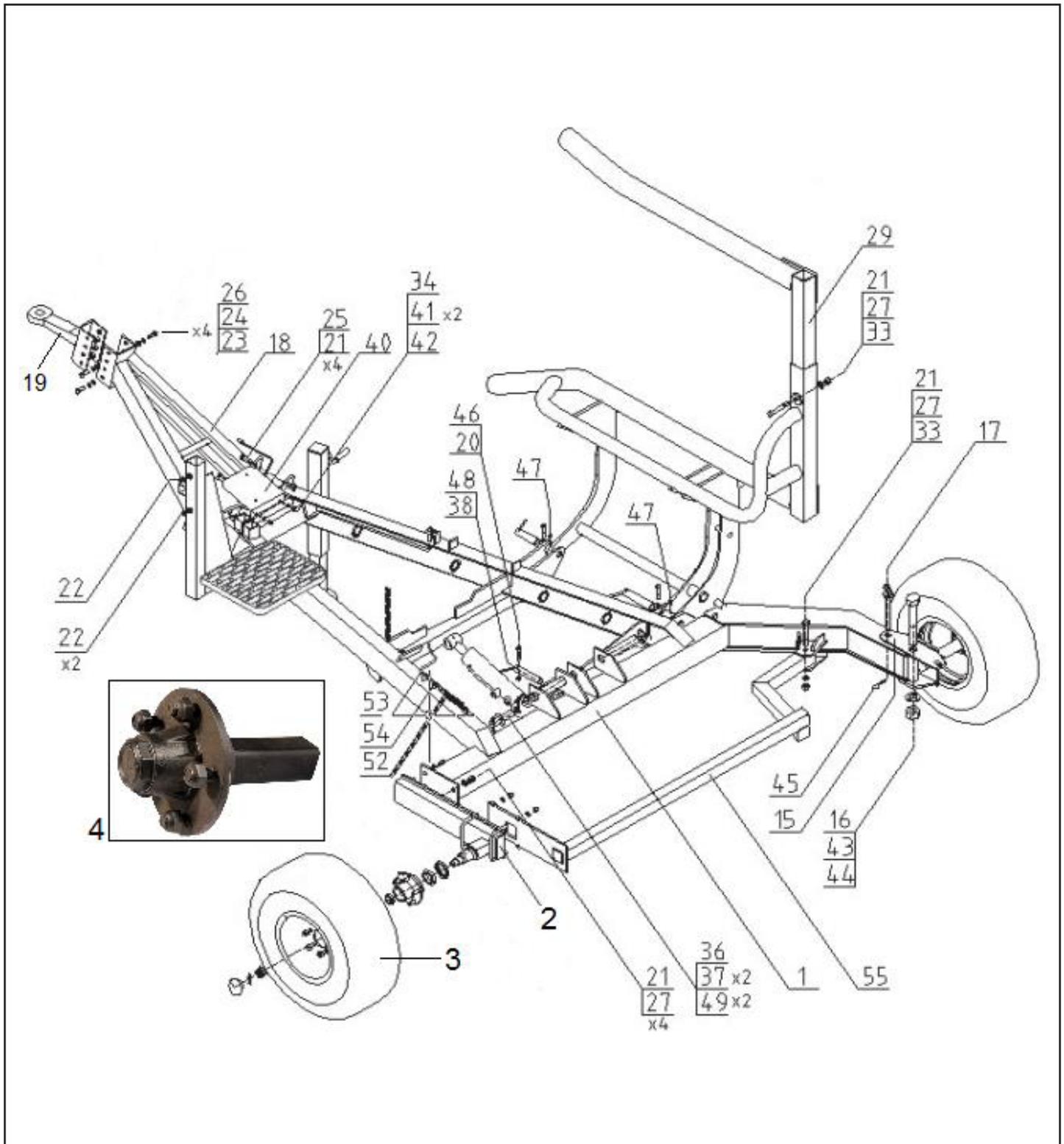
PARTS IDENTIFICATION

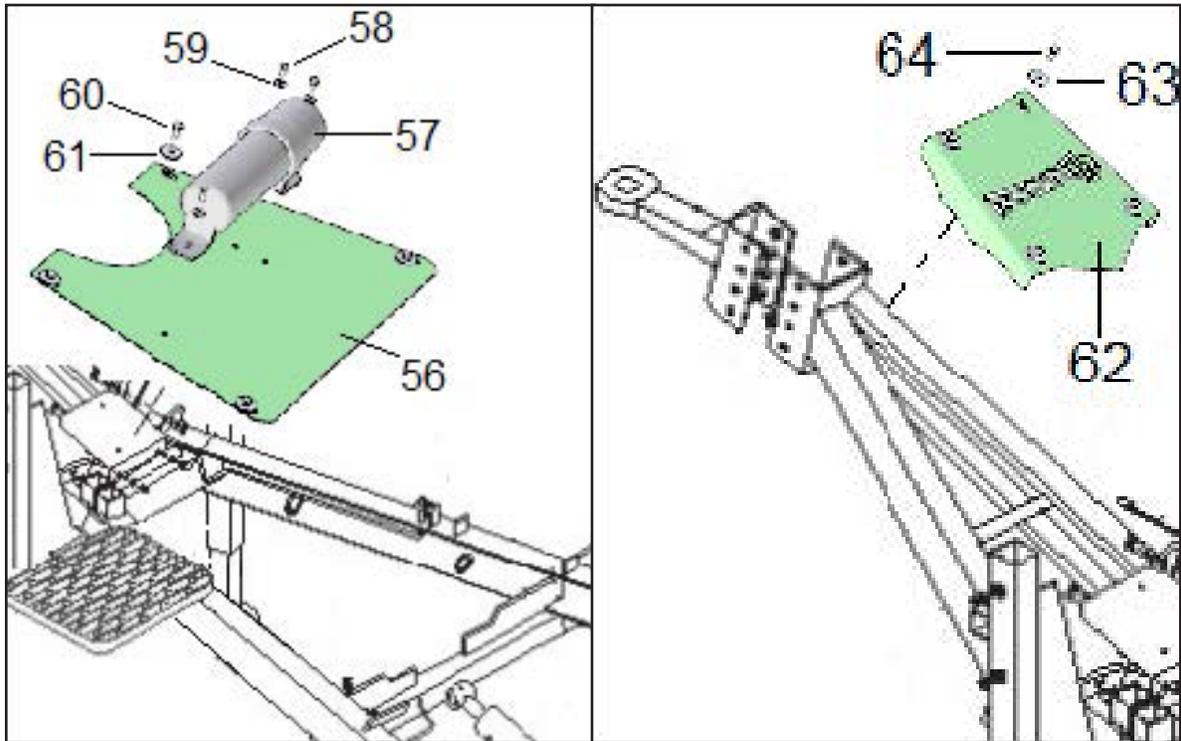
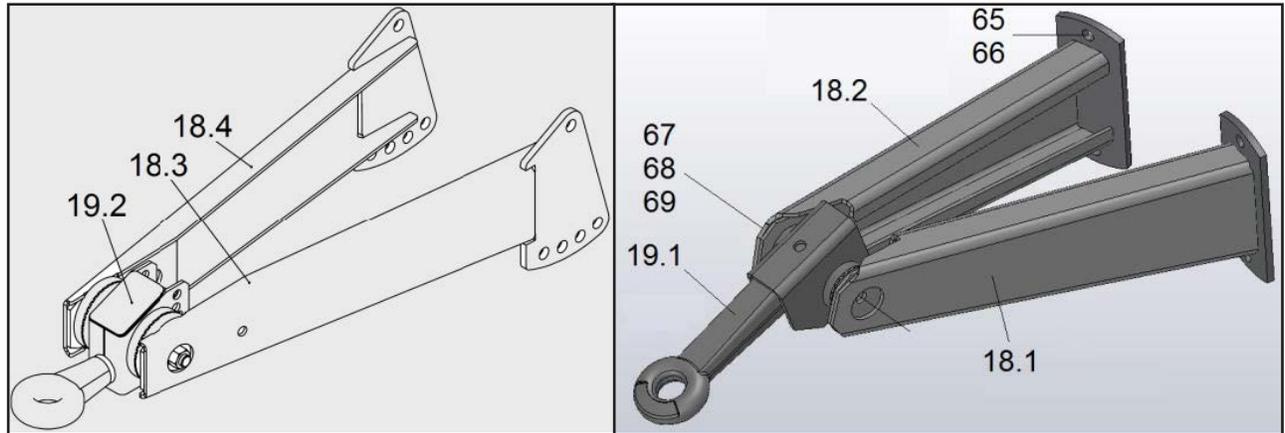
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GENERAL PARTS INFORMATION

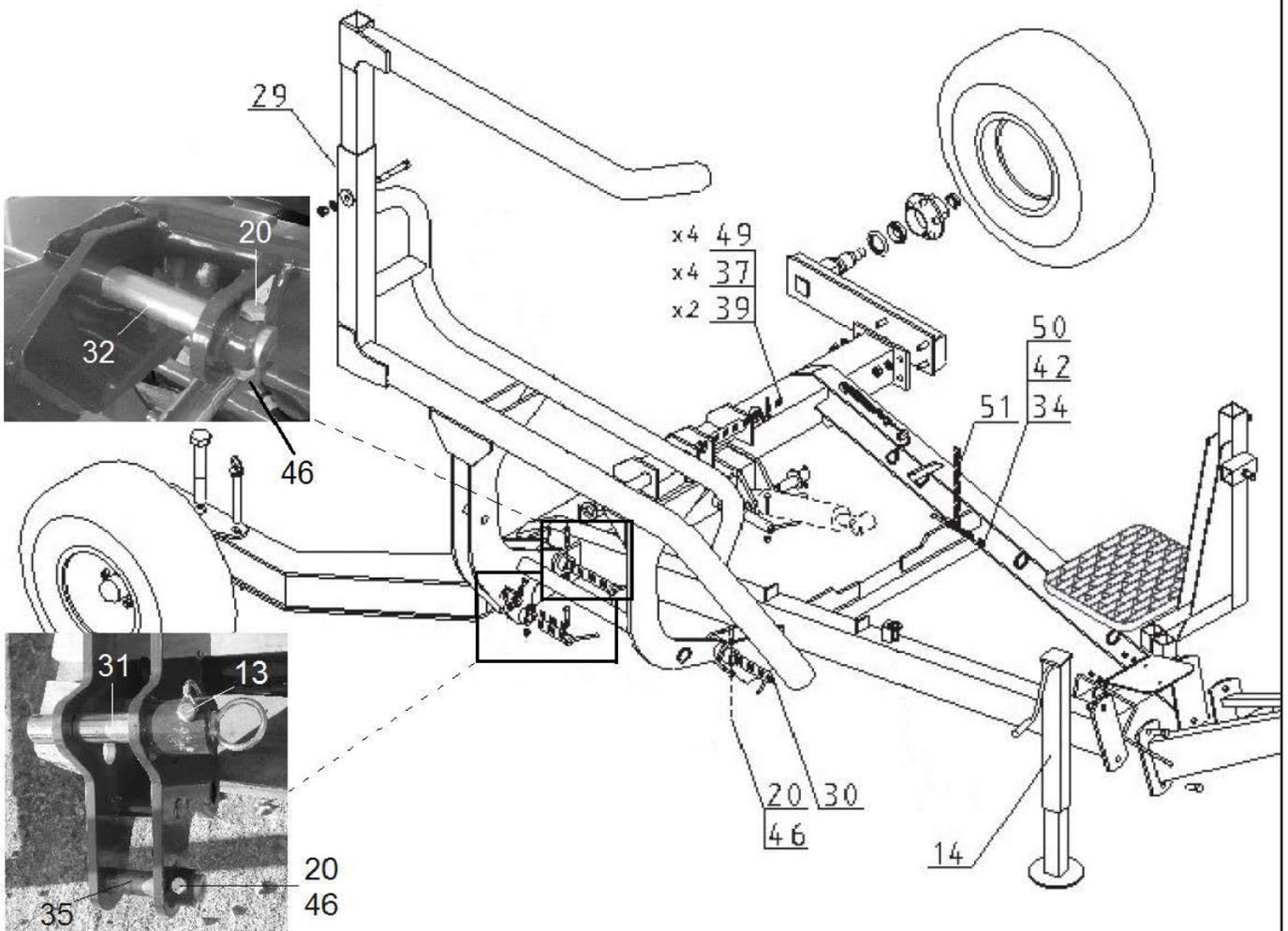
The parts identification section lists descriptions and part numbers for all North American Base Model 200 Bale Wrappers. Contact your Farm King dealer for additional parts information.

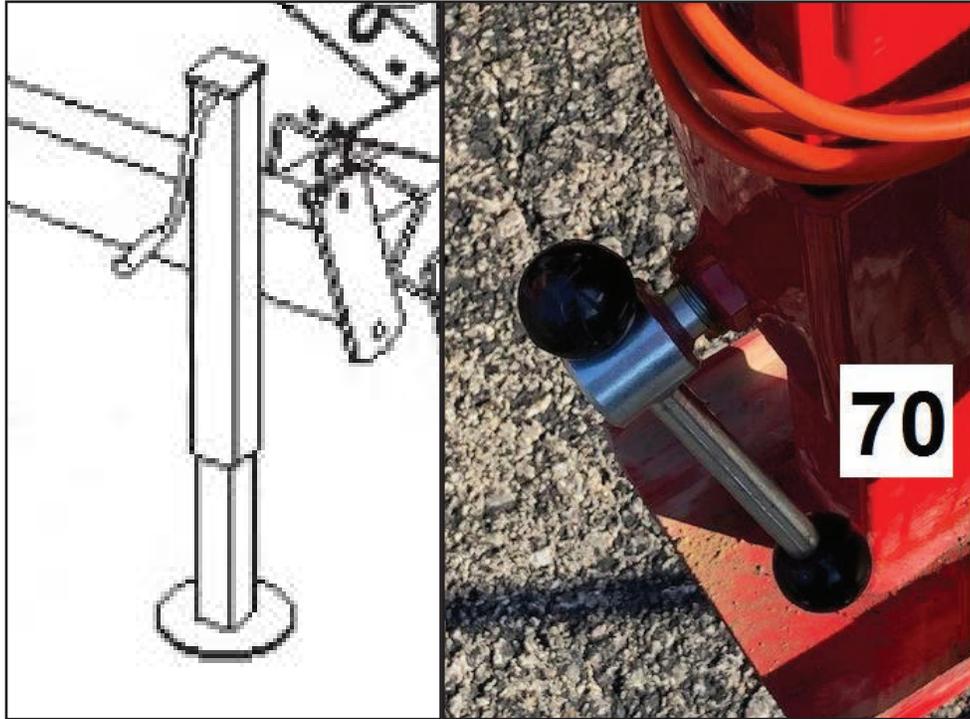
LOWER FRAME





Lower Frame Cont.



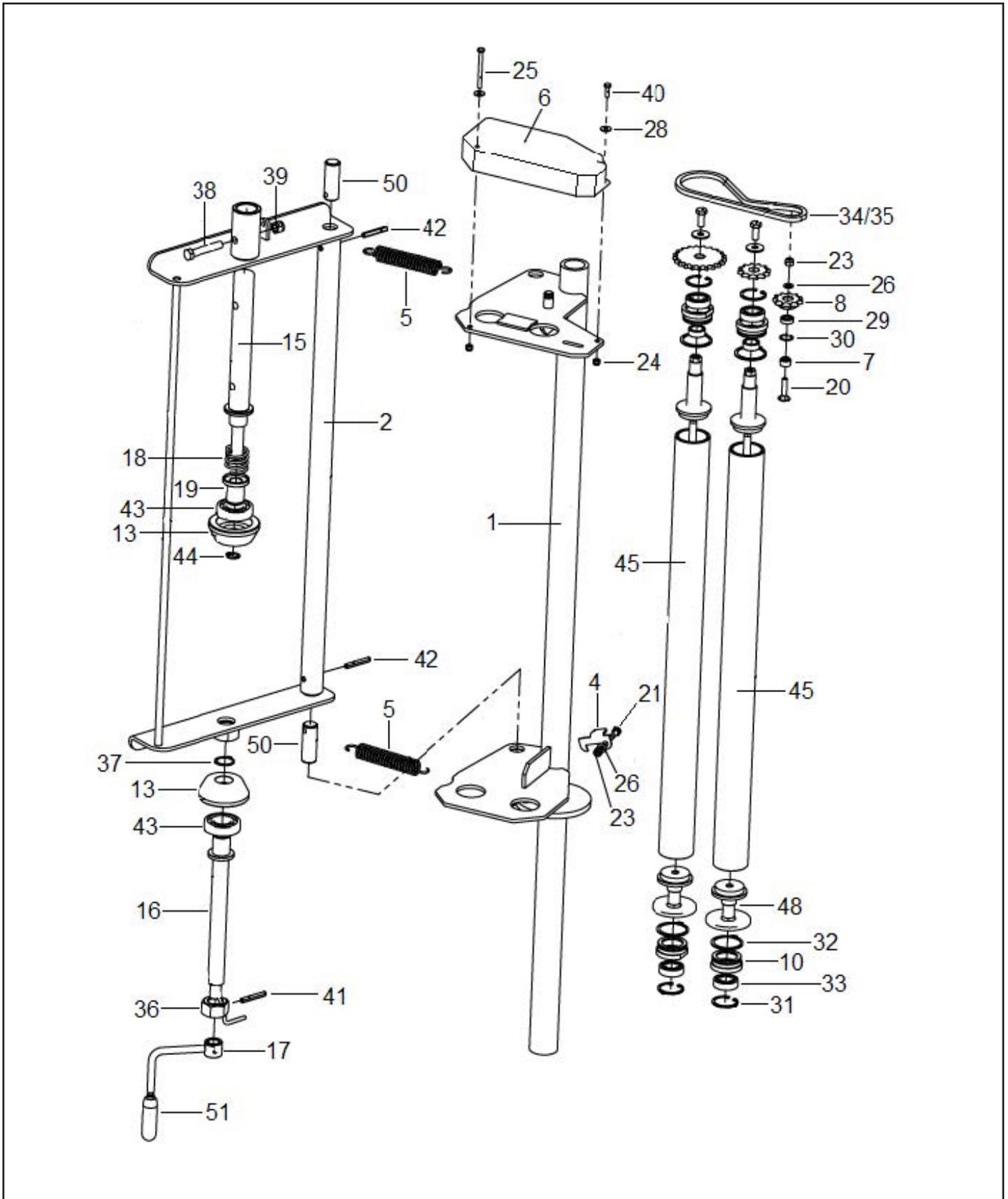


Lower Frame Parts

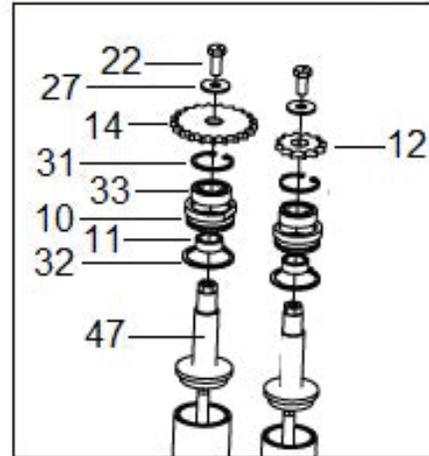
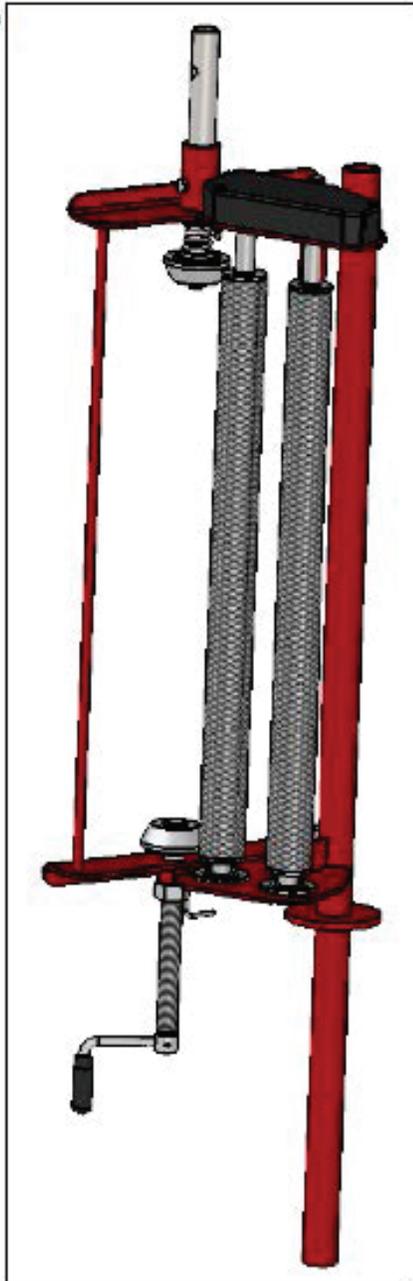
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	R58000124	MAIN FRAME	-
2	R58000030	WHEEL BRACKET SET	-
3	R58000027	COMPLETE WHEEL	-
4	R58000029	COMPLETE AXLE SHAFT	-
13	-	SAFETY PIN	-
14	R58000028	COMPLETE ADJUSTABLE FOOT	-
15	R58000624	ROTATION AXLE SHAFT	-
16	R58000625	BOLT M36X220 8.8-B	-
17	R58000626	LAND WHEEL LOCK PIN	-
18	R58000627	FRONT HITCH	-
18.1	R58016179	HITCH LEFT ARM	-
18.2	R58016180	HITCH RIGHT ARM	-
18.3	R58016181	HITCH LEFT ARM	-
18.4	R58016182	HITCH RIGHT ARM	-
19	R58000041	COMPLETE HITCH EYE	-
19.1	R58016183	COMPLETE HITCH EYE (WELDED)	-
19.2	R58016184	COMPLETE HITCH EYE (TURNING)	-
20	R3011238	BOLT M10X60 5.8-B	-
21	R3020201	NUT M16 8-B	-
22	R3011241	BOLT M12X30 5.8-B	-
23	R3030162	PLAIN WASHER Ø13	-
24	R3030315	SPRING WASHER Ø12.2	-
25	R3011279	BOLT M16X40 8.8-B	-
26	R3011216	BOLT M12X35 8.8-B	-
27	R3030175	PLAIN WASHER Ø17	-
28	R58000005	COMPLETE IMPULSE COUNTER WITH A SENSOR	-
29	R58000628	COMPLETE LOADING ARM	-
30	R58000623	LOADING ARM PIN II	-
31	R58000184	LOADING ARM LOCK PIN	-
32	R58000614	LOADING ARM PIN I	-
33	R3010408	BOLT M16X110 8.8-B	-
34	R3020209	NUT M8 5-B	-
35	R58000629	ACTUATOR MOUNTING PIN IV	-
36	R58000630	ACTUATOR MOUNTING PIN II	-
37	R58000675	COTTER PIN 6.3X63 S-ZN	-
38	R58000632	ACTUATOR MOUNTING PIN III	-
39	R58000633	MOVABLE FRAME MOUNTING PIN	-
40	R58000634	DIRECTIONAL CONTROL VALVE SUPPORT	-
41	R3011242	BOLT M8X25 5.8-B	-
42	R3030156	PLAIN WASHER Ø8.4	-

ITEM	PART NUMBER	DESCRIPTION	QTY.
43	R3030194	PLAIN WASHER Ø37	-
44	R3020269	NUT M36 8-B	-
45	R3040112	SPRING COTTER PIN Ø4	-
46	R3020201	NUT M10 5-B	-
47	R3090112	GREASE NIPPLE M6X1	-
48	R58000636	SPACING BUSHING	-
49	R3030165	PLAIN WASHER Ø31	-
50	R3011252	BOLT M8X35 5.8-B	-
51	R58000552	FARMING CHAIN Ø4	-
52	R58000638	WIRE ROPE Ø4	-
53	R58000637	SPRING	-
54	R58000639	ROPE CLAMP Ø5	-
55	R58000640	BALE VERTICAL POSITIONING	-
56	R18035827	PLATE	-
57	R9080022	MANUAL HOLDER	-
58	R3011672	BOLT M6X16	-
59	R3030160	PLAIN WASHER M6	-
60	R3011251	BOLT M8X20	-
61	R3030154	PLAIN WASHER M8xØ32 EXL	-
62	R18035826	PLATE	-
63	R3030154	PLAIN WASHER M8xØ32 EXL	-
64	R3011251	HH SCREW M8X20	-
65	R3011302	HH SCREW M16X70	-
66	R3020204	SELF-LOCKING NUT M16	-
67	R3011700	HH SCREW M20X200	-
68	R3030168	PLAIN WASHER 16	-
69	R3020216	SELF-LOCKING NUT M20	-
70	R58016199	FOOT FIXING LEVER	-
71	R58000002	CABLE + SENSOR	-

WRAPPING FILM FEEDER



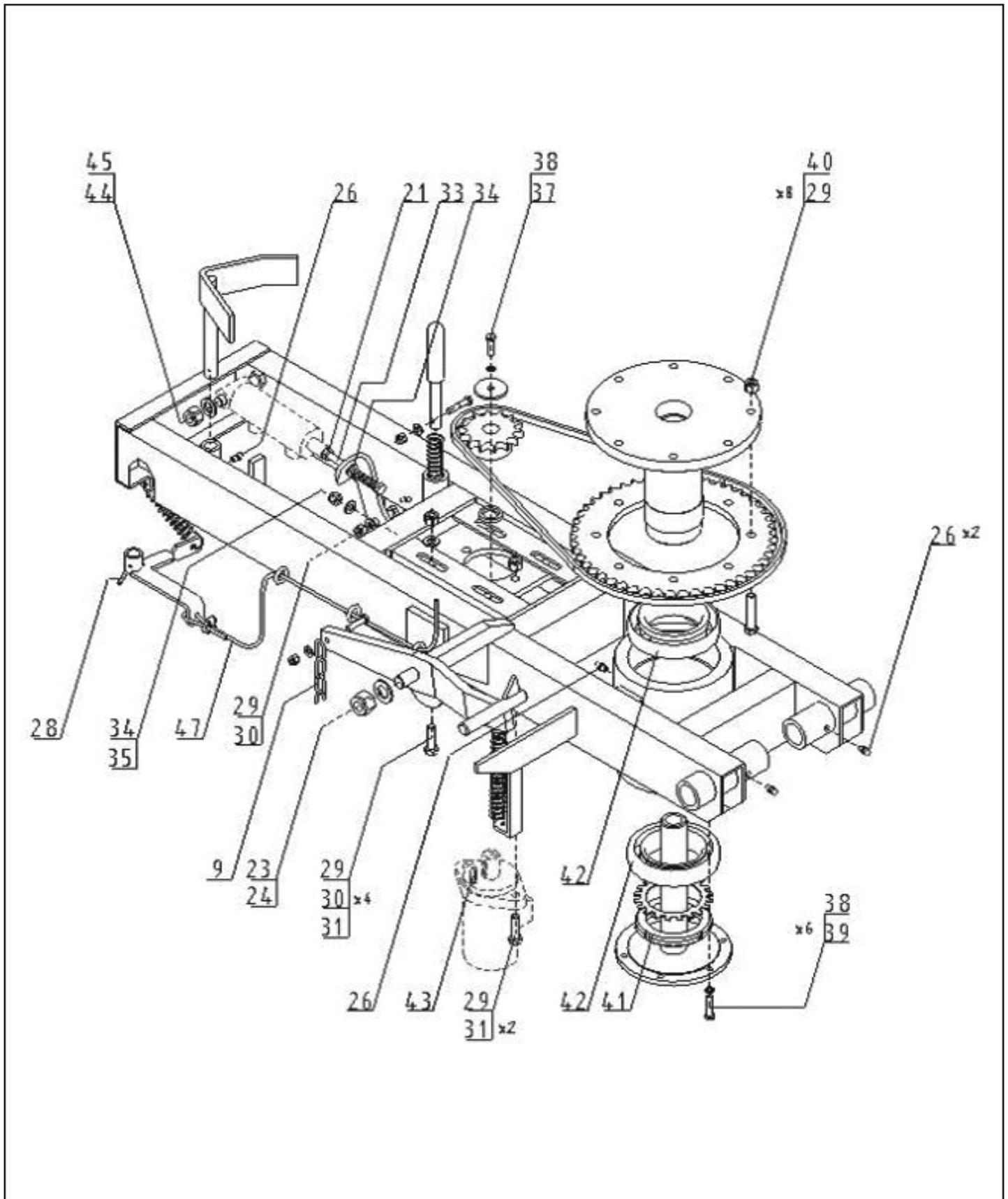
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Wrapping Film Feeder Parts

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	R58000642	MOUNTING BRACKET	-
2	R58000644 (20.. - 2019)	WRAPPING FILM BRACKET	-
	R58000589 (2019 - 20..)	WRAPPING FILM BRACKET	-
4	R58000778	LOCK	-
5	R58000873	SPRING I	-
6	R58000780	COVER	-
7	R58000781	SPACING BUSHING II	-
8	R58000782	CHAIN WHEEL Z-11	-
9	R58000783	COMPLETE STRETCHER ROLL	-
10	R58000784	ROLL SUPPORT	-
11	R58000785	SPACING BUSHING III	-
12	R58000786	CHAIN WHEEL Z-12	-
13	R58000787	FILM GUIDE	-
14	R58000788	CHAIN WHEEL Z-21	-
15	R58016202	FILM GUIDE SUPPORT	-
16	R58016201	ADJUSTING SCREW	-
17	R58000791	HANDLE	-
18	R58000792	SPRING II	-
19	R58000793	BUSHING	-
20	R3010127	TTQST SCREW M8X40	-
21	R3011242	HH SCREW M8X25 ZN	-
22	R3011211	HH SCREW M10X25 ZN	-
23	R3020209	SELF-LOCKING NUT M8	-
24	R3020213	SELF-LOCKING NUT M6	-
25	R3011687	HH SCREW M6X60 ZN	-
26	R3030156	PLAIN WASHER M8	-
27	R3030159	PLAIN WASHER M10	-
28	R3030158	PLAIN WASHER M6	-
29	R58000801	BEARING 608 2RS	-
30	R58000802	SEEGER W22	-
31	R3120117	SEEGER Ø142	-
32	R3120114	SEEGER Z50	-
33	R12240125	BEARING 6004 RS	-
34	R58000805	ROLLER CHAIN 08B 1/2"	-
35	R58000806	FASTENING LINK 08B	-
36	R58000807	LOCKNUT M27	-
37	R3120101	SPRING RING Z30	-
38	R3010407	HH SCREW M12X70 ZN	-

ITEM	PART NUMBER	DESCRIPTION	QTY.
39	R3020202	SELF-LOCKING NUT M12	-
40	R3011617	HH SCREW M6X20 ZN	-
41	R3080109	SPRING PIN 6X30	-
42	R3080105	SPRING PIN 8X50	-
43	R12240108	BEARING 6206 2RS	-
44	R3120107	SEEGER E20	-
45	R58000015 (20.. - 2019)	STRETCHERTUBE	-
	R58000783 (2019 - 20..)	STRETCHERTUBE	-
46	R58000810	CONNECTING ROD	-
47	R58000811	HOLDER I	-
48	R58000812	HOLDER II	-
49	R58000999	FILM EXTENSION UNIT	-
50	R58016203	ROTATING PIN	-
51	R58000932	PLASTIC KNOB	-

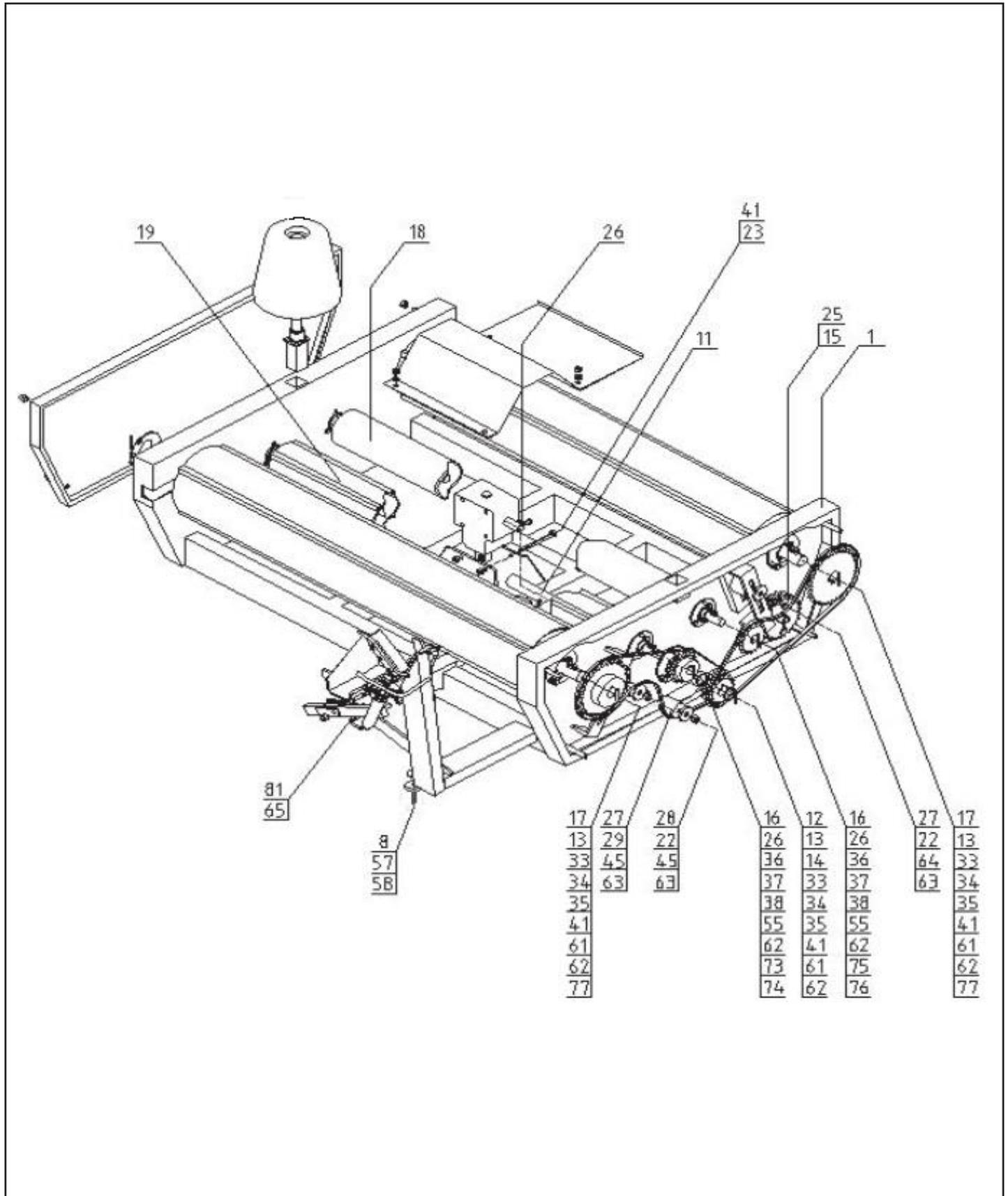


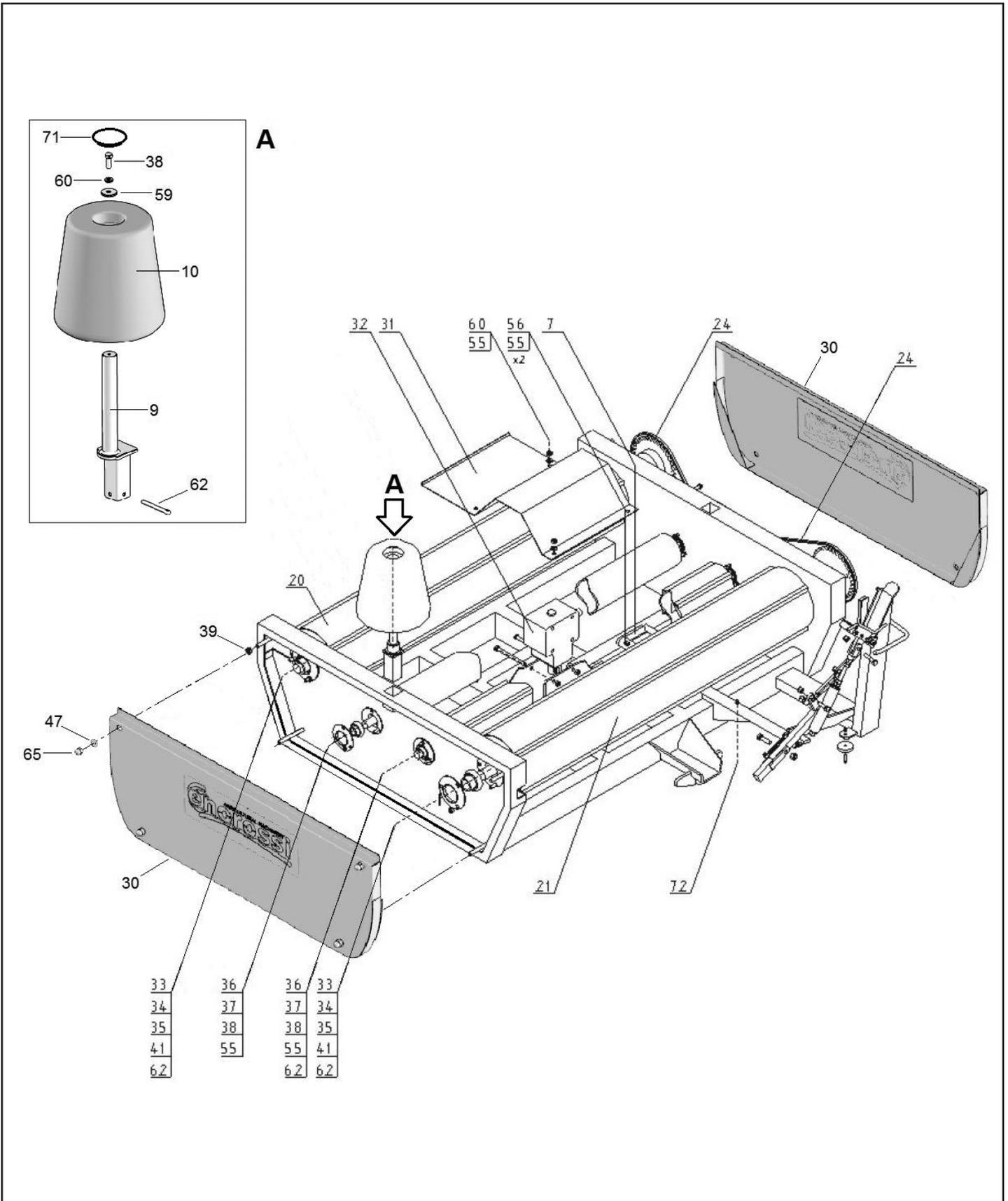
Moving Frame Parts

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	R58000661	MOVABLE FRAME	-
2	R58000662	LEVER I	-
3	R58000663	LEVER II	-
4	R58000664	SPRING	-
5	R58000023	COMPLETE LEVER	-
6	R58000033	SPRING	-
7	R58000665	ENGINE SUPPORT	-
8	R58000666	LEVER III	-
9	R58000468	GALVANISED TECHNICAL CHAIN 6.0X20.4X1.3 DIN766	-
10	R58000668	SPRING II	-
11	R58000007	LOCK PIN	-
12	R58000021	SPRING III	-
13	R58000669	ACTUATOR MOUNTING PIN II	-
14	R3030156	PLAIN WASHER Ø8.4	-
15	R58000670	SPACING WASHER	-
16	R58000526	CHAIN WHEEL Z-14 3/4"	-
17	R58000671	SPECIAL WASHER	-
18	R58000672	SLEEVE AXLE	-
19	R58000673	CHAIN WHEEL Z-50 3/4"	-
20	R58000239	SLEEVE PIN	-
21	R3020201	NUT M10 5-B	-
22	R58000392	CHAIN 12B 3/4"	-
23	R3030168	PLAIN WASHER Ø21	-
24	R3020216	NUT M20 5-B	-
25	R58000675	COTTER PIN 6.3X63 S ZN	-
26	R58014020	GREASE NIPPLE M10X1	-
27	R3030165	PLAIN WASHER Ø31	-
28	R3080132	SPRING PIN 5X40	-
29	R3020202	NUT M12 5-B	-
30	R3030162	PLAIN WASHER Ø13	-
31	R3011215	BOLT M12X40 8.8-B	-
32	R3020209	NUT M8 5-B	-
33	R3011219	BOLT M10X130 5.8-B	-
34	R3030159	PLAIN WASHER Ø10.5	-
35	R3020201	NUT M10 5-B	-
36	R3010323	BOLT M8X40 5.8-B	-
37	R3010780	BOLT M8X30 5.8-B	-
38	R3030156	SPRING WASHER Ø8.2	-
39	R3011252	BOLT M8X35 5.8-B	-
40	R3011644	BOLT M12X60 8.8-B	-

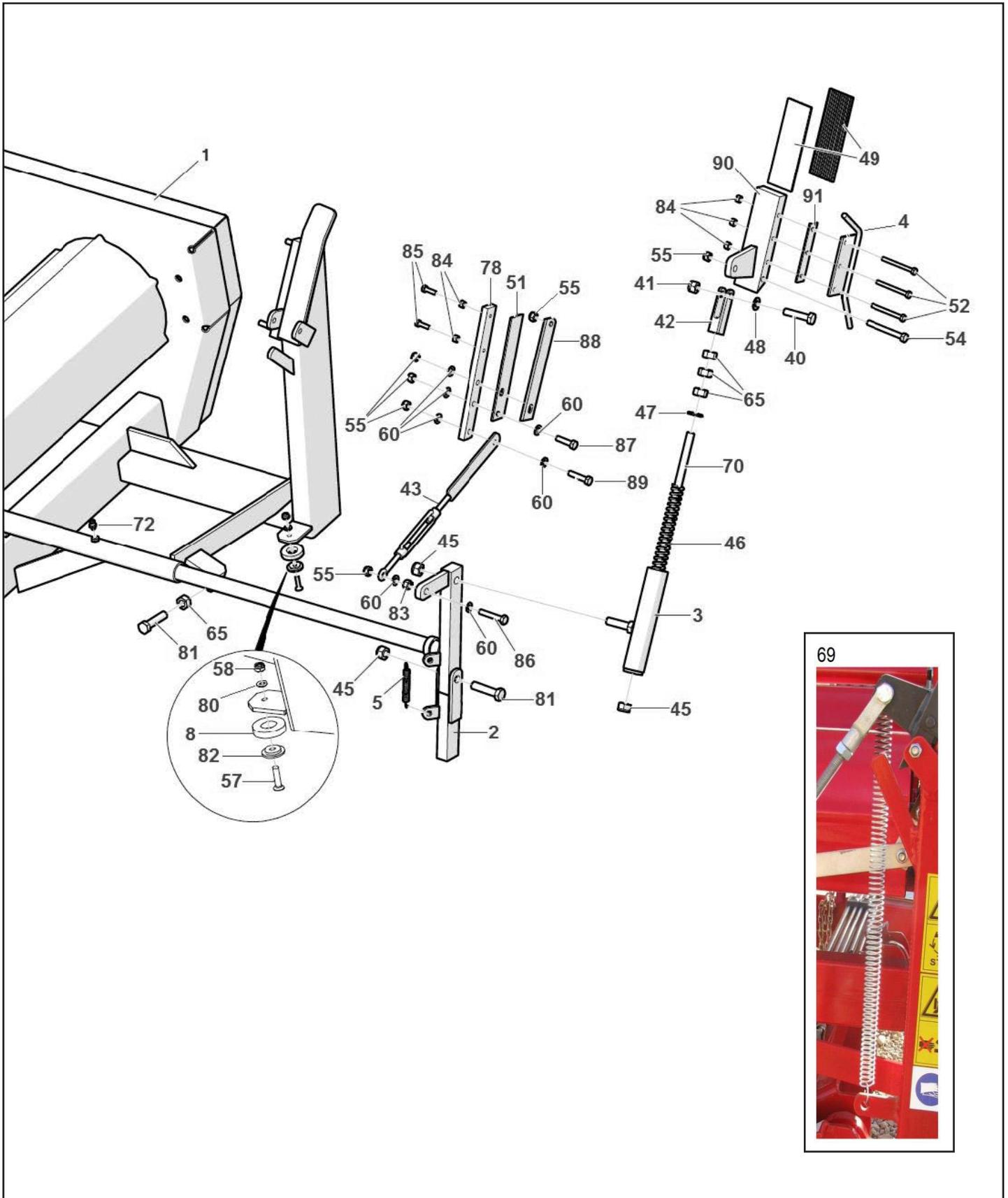
ITEM	PART NUMBER	DESCRIPTION	QTY.
41	R58000677	BEARING NUT KM17	-
42	R58000678	BEARING 32018XA	-
43	R3110001	PARALLEL KEY A8X7X25	-
44	R3020204	NUT M16 5-B	-
45	R3030175	PLAIN WASHER Ø17	-
46	R58000528	TOOTH WASHER MB17	-
47	R58000638	WIRE ROPE Ø4	-
48	R3170115	ROPE CLAMP Ø5	-

ROTARY FRAME





Rotary Frame Cont.



Rotary Frame Parts

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	R58000042	WELDED FRAME	-
2	R58000680	LATCH	-
3	R58000681	COMPLETE RODTUBE	-
4	R58000043	INITIAL PRESSURE ELEMENT	-
5	R58000683	SPRING	-
6	R58000684	CUTTER LEVER AXLE	-
7	R58000685	CUTTER LEVEL	-
8	R58000081	REVOLUTION MAGNETIC COUNTER	-
9	R18036175	WHEEL CONSOLE	-
10	R9090011	BEVEL GEAR	-
11	R58000537	WHEEL DRIVE SHAFT Z-17	-
12	R58000530	WHEEL Z-17	-
13	R58000687	SPACING BUSHING	-
14	R58000688	WASHER I	-
15	R58000531	WHEEL Z-27	-
16	R58000689	WHEEL Z-19	-
17	R58000532	WHEEL Z-37	-
18	R58000690	THIN SHAFT I	-
19	R58000691	THIN SHAFT II	-
20	R58000692	THICK SHAFT I	-
21	R58000693	THICK SHAFT II	-
22	R3011724	HH SCREW M12X90 ZN	-
23	R3011247	HH SCREW M12X120 ZN	-
24	R58000534	CHAIN 10-B	-
25	R58000675	COTTER PIN 6,3X63 S-ZN	-
26	R3110001	PARALLEL KEY A8X7X25	-
27	R58000535	CHAINTENSIONER II	-
28	R58000536	CHAINTENSIONER II	-
29	R3011214	HH SCREW M12X100 ZN	-
30	R18036143	SIDE GUARD	-
31	R58000631	GEARBOX GUARD	-
32	R58000019	BEVEL GEAR	-
33	R58000694	BEARING UC 207 RS	-
34	R58000696	FLANGED HOLDER P-207	-
35	R3011211	HH SCREW M10X25 ZN	-
36	R58000159	BEARING - FD205	-
37	R58000697	FLANGED HOLDER P-205	-
38	R3011242	BOLT M8X25 5.8-B	-
40	R3011281	HH SCREW M10X45 ZN	-
41	R3020201	SELF-LOCKING NUT M10 5-B	-

Rotary Frame Parts Cont.

ITEM	PART NUMBER	DESCRIPTION	QTY.
42	R58000698	ROD EYE	-
43	R58000009	ROD SET	-
44	R3020332	NUT M14 5-B	-
45	R3020202	SELF-LOCKING NUT M12 5-B	-
46	R58000700	SPRING	-
47	R3030162	PLAIN WASHER Ø13	-
48	R3030159	PLAIN WASHER Ø10.5	-
49	R58000564	RUBBER PLATE	-
51	R58000518	MOVABLE CUTTER	-
52	R3011687	BOLT M6X60 5.8-B	-
53	R3030317	SPRING WASHER Ø6.1	-
54	R3011612	BOLT M8X70 5.8-B	-
55	R3020209	SELF-LOCKING NUT M8 5-B	-
56	R3011306	HH SCREW M8X45 ZN	-
57	R3010954	TPSEI SCREW M6X25 ZN	-
58	R3020213	SELF-LOCKING NUT M6 5-B	-
59	R3030154	PLAIN WASHER M8xØ32 EXL	-
60	R3030156	PLAIN WASHER M8	-
61	R3110010	PARALLEL KEY A10X8X35	-
62	R3040106	SPRING PIN 6X60	-
63	R3030179	PLAIN WASHER M12x36 EXL	-
64	R58000702	THREADED BLOCK M12	-
65	R3020333	NUT 12MA ZN	-
66	R58000008	BEVEL GEAR HUB	-
67	R3030802	SPRING WASHER Ø8.2	-
68	R3020215	SELF-LOCKING NUT M14 5-B	-
69	R58000902	FILM LOCKING SPRING	-
70	R58000703	SPECIAL BOLT M14	-
71	R9190026	PROTECTIVE CAP	-
72	R3090102	GREASE NIPPLE M6X1	-
73	R58000704	WASHER II	-
74	R58000705	WASHER III	-
75	R58000706	WASHER IV	-
76	R58000707	WASHER V	-
77	R58000708	WASHER VI	-
78	R58000646	MOVABLE CUTTER	-
79	R3011683	HH SCREW M8X12 ZN	-
80	R3030158	PLAIN WASHER M6	-
81	R3011310	HH SCREW M12X50 ZN	-
82	R58016207	MAGNETIC WASHER	-

ITEM	PART NUMBER	DESCRIPTION	QTY.
83	R3020329	NUT M8 5-B	-
84	R3020308	NUT M6 5-B	-
85	R3011617	HH SCREW M6X20 ZN	-
86	R3011258	HH SCREW M8X45 ZN	-
87	R3010780	HH SCREW M8X30 ZN	-
88	R58016206	FIXED CUTTER	-
89	R3011252	HH SCREW M8X35 ZN	-
90	R58016204	PRESSURE SUPPORT	-
91	R58016205	SPACER PLATE	-

Hydraulic System Parts

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	R58000022	HYDRAULIC CONTROL UNIT 3 M16X1.5	-
2	R58000712	CONTRO BRACKET	-
3	R58000713	CONTROL BRACKET HANDLE	-
4	R3011692	BOLT M8X50 5.8-B	-
5	R3020209	NUT M8 5-B	-
6	R3011687	BOLT M6X60 5.8-B	-
7	R3020213	NUT M6 5-B	-
8	R3030158	PLAIN WASHER Ø6.4	-
9	R58000714	VALVE-PLUG M22X1,5	-
10	R58000523	HYDRAULIC PIPING SET	-
18	R58000718	T-CONNECTION M16X1.5	-
19	R58014124	STUD BODY M16X1.5/M18X1.5	-
20	R58000720	STUD BODY M16X1.5/M16X1.5	-
21	R58000720	STUD BODY M16X1.5/M16X1.5	-
22	R58000881	TUBE ELBOW M16X1,5/M18X1.5	-
23	R58000722	STUD BODY M18X1.5 3/8"	-
24	R58000723	STUD BODY M16X1.5 3/8"	-
25	R58000031	TROTTLE CHECK VALVE	-
26	R58000006	HYDRAULIC MOTOR	-
27	R58000038	HYDRAULIC PISON CYLINDER	-
28	R58000543	HYDRAULIC PISON CYLINDER	-
29	R58000545	HYDRAULIC PISON CYLINDER	-
30	R58000725	STEERING CABLE MOUNTING KIT	-
31	R58000004	STEERING CABLE	-
33	R58000001	COMPLETE CONTROL LEVER	-
34	R3011734	HYDRAULIC SYSTEM BOLT M18X1.5	-
35	R58000150	PLAIN WASHER Ø18 CU	-

Farm King



SPECIFICATIONS AND SHIPPING KIT NUMBERS

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Farm King



SPECIFICATIONS

Model	BW200
Tractor Coupling	Hitched
Undercarriage type	Mono-axial
Working Phase Dimensions	Length: 4350 mm (14.3 ft) Width: 2700–3760 mm (8.9–12.3 ft) Height: 2380 mm (7.8 ft)
Transport Phase Dimensions	Length: 4350 mm (14.3 ft) Width: 2450 mm (8 ft) Height: 2380 mm (7.8 ft)
Machine Weight	950 kg (2094 lbs)
Maximum Bale Weight	800 kg (1764 lbs)
Wrapped Bale Length	1200 mm (3.1 ft)
Wrapped Bale Diameter	1000–1200 mm (3.2–3.9 ft)
Maximum Operating Speed	10 km/h (6.2 mph)
Maximum Transport Speed	15 km/h (9.3 mph)
Tractor Class	0.9
Minimum Tractor Power Output	30 kW (40 hp)
Required Tractor Hydraulic Pressure	14 mpa
Recommended Tractor Pump Output	22 l/min
Tractor Hitch Load	4.7 kn
Wheel Track (Working Phase)	2950 mm (9.7 ft)
Wheel Track (Transport Phase)	2030 mm (6.7 ft)
Tires	10.0/80–12 10 PR
Tire Pressure	3.5 bar (50.8 psi)
Draw bar Hitch-ring Diameter	40 mm (1.6 in)
Wrapping Machine Drive	Use tractor hydraulic system.
Rotary Frame Drive	Hydraulic Motor
Rotary Frame Maximum Rotation Speed	35 Rpm
Bale Loading Method	Automatic (Loading Arm)

Model	BW200
Bale Unloading Method	Automatic (Tilting Frame)
Film Cutting	Automatic (Film Cutter)
Film Width	500, 750 mm
Rotary Frame Revolutions (500 mm Film)	24 Revs
Rotary frame revolutions (750 mm film)	16 Revs
Bale Wrapping Time	~ 2 min
Number of Operators	1 (tractor driver)
Wrap Counter	Electronic, Type L-02
Electrical Lighting System Voltage	12 V
Machine Lighting (Optional)	Following the requirements of the road code.

SHIPPING KIT NUMBERS

The following is a list of Kit Numbers for this product and the Bundle Numbers, Descriptions, and Quantities for each Kit.

Qty.	Bundle	Description
1	RBW200FK	200 Bale Wrapper - Pull Type

HARDWARE TORQUE VALUES

Metric Chart

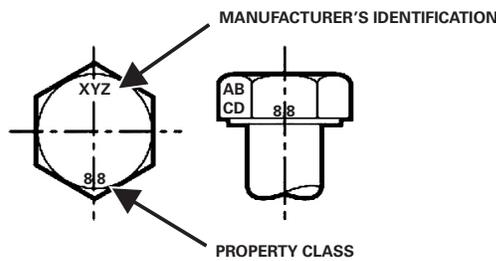
NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

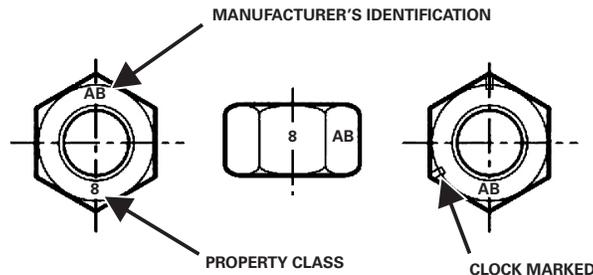
Nominal Size	Class 5.8		Class 8.8		Class 10.9		Lock nuts
	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 W/ CL. 8.8 Bolt
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)

NOTE: Torque values shown with * are inch pounds.

Identification of Hex Cap Screws and Carriage Bolts - Classes 5 and up



Identification of Hex Nuts and Lock Nuts - Classes 5 and up



HARDWARE TORQUE VALUES (CONT'D)

Imperial Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. **Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.**

Nominal Size	SAE Grade 5		SAE Grade 8		LOCK NUTS			
	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Grade W / Gr. 5 Bolt	Grade W / Gr. 8 Bolt
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	12.6 (112*)	13.6 (121*)	17.7 (157*)	6.9 (61*)	9.8 (86*)
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)

NOTE: Torque values shown with * are inch pounds.

Identification of Hex Cap Screws and Carriage Bolts



GRADE 2 SAE BOLT



GRADE 5 SAE BOLTS



GRADE 8 SAE BOLTS



GRADE 2 SAE NUTS

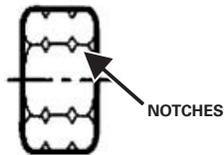


GRADE 5 SAE HEX NUTS

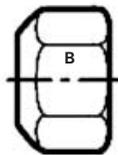


GRADE 8 SAE HEX NUTS

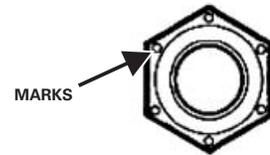
Identification of Hex Nuts and Lock Nuts



GRADE IDENTIFICATION
GRADE A: NO NOTCHES
GRADE B: ONE CIRCUMFERENTIAL NOTCH
GRADE C: TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION
GRADE A: NO MARK
GRADE B: LETTER B
GRADE C: LETTER C



GRADE IDENTIFICATION
GRADE A: NO MARKS
GRADE B: THREE MARKS
GRADE C: SIX MARKS
MARKS NEED NOT BE LOCATED AT CORNERS

WARRANTY

WARRANTY.....77

Farm King



WARRANTY

Farm King

Base Limited Warranty

Farm King provides this warranty only to original retail purchasers of its products. Farm King warrants to such purchasers that all Farm King manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of one (1) year. This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Farm King. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance.

Repair Parts Limited Warranty

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to the Farm King factory at the purchaser's expense.

What Is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Farm King; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Farm King.

Authorized Dealer And Labor Costs

Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Farm King determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements

To be covered by warranty, each new product must be registered with Farm King within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Farm King will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not to be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Exclusive Effect Of Warranty And Limitation Of Liability

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