Bale Mover

BM1400

Operator's Manual

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Highline MANUFACTURING

A DIVISION OF BOURGAULT INDUSTRIES LTD.

E11553V1_D

Bale Mover 1400

Operator's Manual

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Highline Team Message

*Congratulations on your purchase of the **Bale Mover 1400** manufactured by Highline Manufacturing.*

This Operator's Manual has been prepared to provide information necessary for the safe and efficient operation of your Bale Mover 1400. In the manual you will find safety procedures, maintenance routines and detailed operational instructions. We urge you to read through this publication carefully and refer to it as needed. This will help assure you safe and trouble-free operation of your Bale Mover 1400.

If you find that you require information not covered in this manual, please feel free to consult your local dealer. Your dealer is always able to contact Highline for this technical information.

Highline Manufacturing thanks and congratulates you for selecting a Bale Mover 1400 as your machine of choice.

Highline Manufacturing - a Division of Bourgault Industries Ltd.

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GENERAL DESCRIPTION OF THE BALE MOVER 1400 (BM1400)

The Bale Mover 1400 is designed to pick up round bales while driving in the field without the need to stop to pick up a bale.

The bale pickup fork is lowered and positioned by the tractor driver to slide around the lower portion of the bale. The pickup fork is raised for the bale to be placed on the bale rail. The chains on the rail moves the bale back to give room for another bale to be loaded. Seven round bales can be loaded on both the left and right side of the machine. This gives the bale mover the capacity of loading and moving 14 round bales.

The Bale Mover has 90 degree turn bale forks to automatically turn bales for non-stop loading from virtually any angle. Bales can be picked up from the left side and the right side of the machine without having to reposition the machine. The forks can be adjusted for different sizes of round bales.

For unloading bales, the back end of the bed of the bale mover is lowered. As the Bale Mover is driven forward, the bale chains are rotated to assist in the easy unloading of the row of bales.

A row of bales can also be loaded onto the Bale Mover by lowering the back end of the bed, rotating the bale chains to move bales onto the bed while backing the Bale Mover into the row of bales.

When the Bale Mover is engaged it uses hydraulic power from the tractor to lower and raise the bale fork. The hydraulics are also used to operate the bale chains to move the bales. The bed is raised or lowered using the tractor hydraulics.

The operator of the Bale Mover is located in the tractor cab where they drive the tractor, control the speed of driving and the operation of the bale forks and the bale chains.

The Bale Mover is transported with the bale forks lifted and locked in position. The Bale Mover is transported on the wheels of the Bale Mover.

INTENDED USE OF THE BALE MOVER 1400

The Bale Mover is designed to pick up round bales that are in the field and move them to a storage location where they are placed in rows.

The Bale Mover is designed to pick up round bales that have been previously placed in a row and move them to another location.

- The bales have previously been baled using a round baler.

The Bale Mover is intended for use in field farming applications.

The Bale Mover is intended for use in locations that are not near people or animals who could be harmed by the movement of the bale loading forks or the unloading of bales from the bed.

Any uses of the Bale Mover other than the above stated ‘Intended Uses’ shall be considered misuse of the Bale Mover. This misuse shall included (but not limited to):

- Using the Bale Mover in non-farming applications
- Using the Bale Mover around people or in public places
- Moving materials other than round bales from fields.

Always use the Bale Mover according to the instructions contained in this Operator's Manual and the safety and instruction decals on the machine.

Perform regular maintenance and repair to ensure that the Bale Mover operates safely and efficiently.

Capabilities of the Bale Mover 1400

The Bale Mover has the ability to pickup round bales from the left and right. It can carry 7 bales in 2 rows. It easily unloads the bales by tilting the bed, driving ahead while the bale chains move the bales off the bed.

The Bale Mover can also reload rows of bales to be moved to another location. To reload, tilt the bed and backup while the bale chains move the bales onto the bed.

Bale Mover 1400 Carrying Bales 211010

Unloading or Reloading Bales 211011

SERIAL NUMBER

Your serial number is found on the serial number plate (1) located on the left frame rail behind the left bale lift arm.

Serial Number Plate Location 218008C1

It is important to record the serial number for proof of ownership and for any service or maintenance assistance.

Model Number _____

Serial Number _____

Owner _____

Date of Purchase _____

SAFETY SIGN-OFF FORM

Highline Manufacturing follows the general Safety Standards specified by the American Society of Agricultural and Biological Engineers (ASABE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Highline Bale Mover should read and clearly understand all Safety, Operating and Maintenance information presented in this manual.

Do not operate or allow someone to operate this equipment until this information has been reviewed. This information should be reviewed by all operator's before the season start-up.

This sign-off sheet is provided for record keeping to indicate that the person working with the equipment has read and understood the information in the Operator's Manual and has been instructed in the safe operation of the equipment.

Date	Employee's Signature	Employer's Signature

SAFETY ALERT SYMBOL

The Safety Alert Symbol means:

ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

The Safety Alert Symbol combined with a Signal Word alert to the presence of a hazard and the degree of possible injury.

Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR SERIOUS INJURY. The color is Red with White lettering.

Indicates a potentially hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY, and includes hazards that are exposed when guards are removed or unsafe practices. The color is Orange with Black lettering.

Indicates a potentially hazardous situation that, if not avoided, MAY result in MINOR INJURY. The color is Yellow with Black lettering.

GENERAL SAFETY

1. Ensure that anyone who is going to operate, maintain or work near the Bale Mover is familiar with the recommended operating, maintenance procedures and safety information contained in this manual and follows all the safety precautions.

2. In addition to the design and configuration of the equipment, hazard control and accident prevention are dependant upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of the Bale Mover.

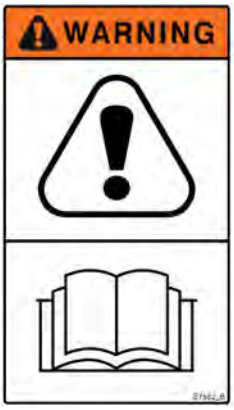
3. The Bale Mover shall not be operated without all the guards in place.

SAFETY DECALS

1. Keep decals and signs clean and legible at all times.
2. Replace decals and signs that are damaged, missing or have become illegible.
3. Replaced parts that displayed a decal should also display the current decal.
4. Decals are available from the Highline Parts Department.
5. Be familiar with the decals, the type of warning and the area or function(s) related to the area(s) that requires your awareness.

STAY AWAY FROM OVERHEAD POWER LINES

Stay away from power lines when transporting or folding equipment.
Electrocution can occur without contacting power lines.



READ, UNDERSTAND, AND FOLLOW SAFETY INSTRUCTIONS

Read, understand and follow all instructions and safety messages included in this manual and on decals attached to the machine.

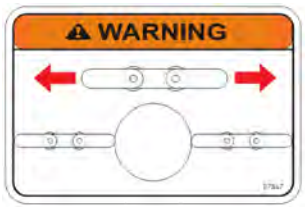
Allow only responsible, properly instructed individuals to operate and service the machine.

Failure to follow the instructions and safety messages in this manual and on the decals attached to the machine could result in serious injury or death.

Keep all safety and instruction decals in good condition. Replace any missing or damaged decals.

STOP TRACTOR BEFORE GOING NEAR MACHINE

Always disengage power take off, shut off tractor, remove key, set the park brake and wait for all parts to stop turning before servicing.



CHECK THE TENSION OF ALL CHAINS

Refer to Section 5 - ‘Chain Adjustment Procedure’.

USE PAPER OR CARDBOARD TO CHECK FOR HYDRAULIC LEAKS

To prevent serious injury or death:

- Relieve pressure on hydraulic system before repairing, 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.

Fluid injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

STAND CLEAR OF BALE LIFT ARMS

Moving lift arms can cause serious injury or death.
Never stand under lift arms when lowering or raising.
Do not allow people near the lift arms when the being moved.
Lift arms must be fully retracted and locked in place before servicing.

Install arm lock chains before transporting the bale mover.

KEEP PEOPLE BACK WHEN LOADING OR UNLOADING BALES

Falling bales can cause serious injury or death.
Stand clear of Bale Mover when PTO is engaged.
Do not operate within 100 ft (30 m) of any person.

DO NOT RIDE ON MACHINE

Falling from the moving machine can cause serious injury or death.
Falling from the operating machine can cause being entangled under the machine or being injured by the machine.

DO NOT OPERATE ON A SIDE HILL

Tractor or bale mover roll over can cause serious injury or death.
Tractor must be equipped with Roll Over Protection System (ROPS).
Always wear seat belts when operating tractor.

DO NOT OPERATE WITH SHIELDS MISSING

Close and secure guards and shields before starting machine.

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

Contact with moving chains or parts could cause serious injury or death.

DO NOT CONTACT MOVING CHAIN

Contacting moving chain or parts could cause serious injury or death.

Never attempt to manually remove bales from rails while hydraulic motors are moving the chain.

Disconnect chain drive hydraulic motors before cleaning the Bale Mover.

Always disengage power take off, shut off tractor, remove key, set park brake and wait for all parts to stop turning before servicing.

DO NOT EXCEED 7000 LB (3175 KG)

Do not exceed maximum load capacity of 7000 lbs on the jack.

Do not attempt to lift the hitch without using the jack.

DO NOT EXCEED MAXIMUM TIRE PRESSURE

Do not exceed 90 psi (620 kPa).

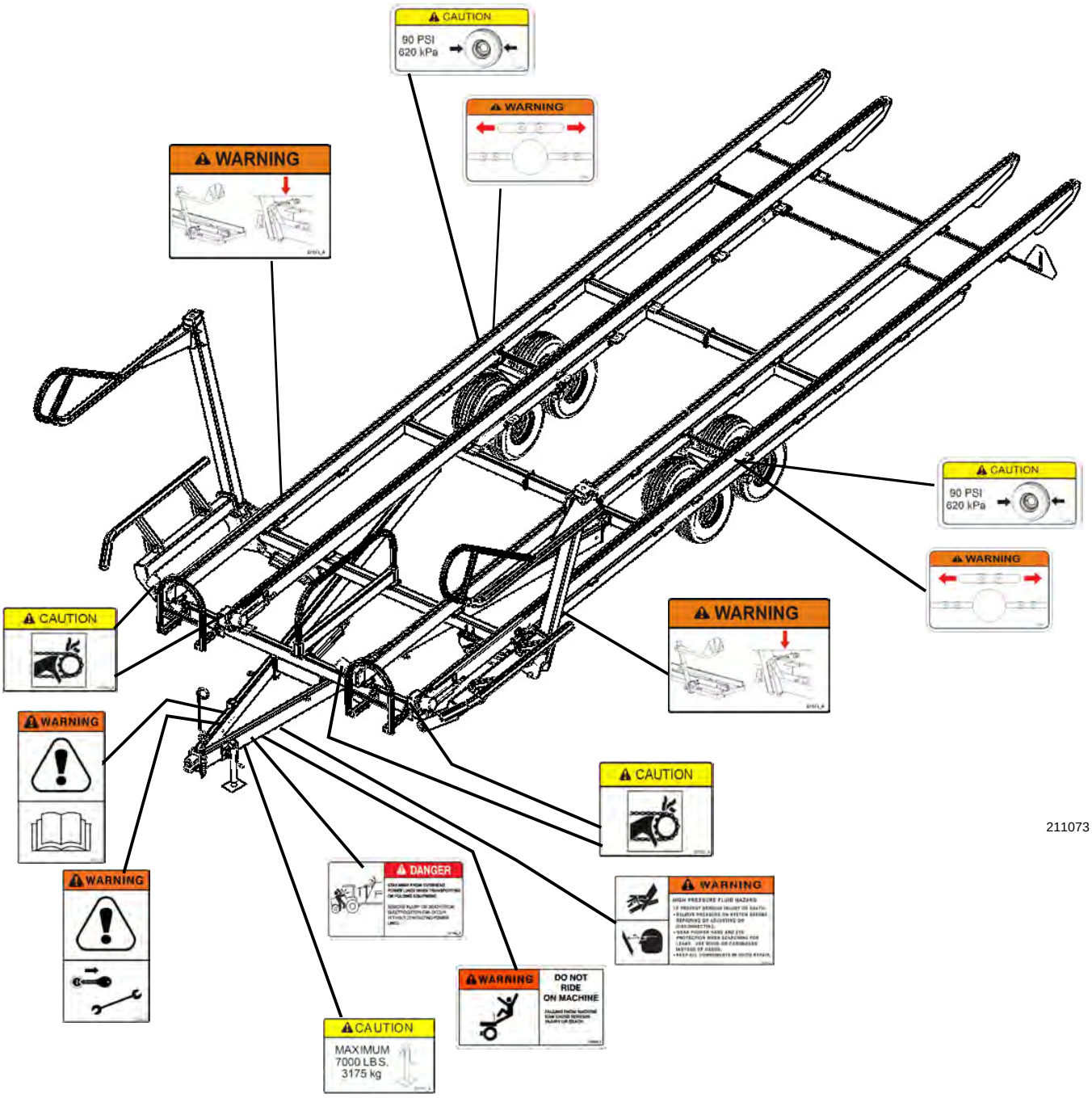
This CAUTION decal is ONLY used UP TO S.N. BM4534207.

ENSURE SLOW MOVING VEHICLE SIGN IS IN PLACE

Ensure the Slow Moving Vehicle sign is in place, clean and easily visible.

Ensure the reflectors are in place, clean and easily visible.

SAFETY DECAL LOCATIONS



Note: This CAUTION decal is ONLY used UP TO S.N. BM4534207.

TRANSPORTING THE BALE MOVER

Only tow the unloaded Bale Mover on public roads behind a properly sized and equipped tractor or vehicle which has a weight of 14,490 lbs (6,573 kg) or more. Do not exceed 20 mph (30 km/h).

Shut off the tractor engine before attaching the bale mover or hydraulics.

Do not allow people to ride on the tractor or Bale Mover. Falling off can result in serious injury or death.

1. Tractor requirements:
   - Roll Over Protection System (ROPS)
   - Working seatbelts
   - 2 Spool Control Valves (SCV)
   - Tractor weight of 14,490 lbs (6,573 kg) or more for transport of empty bale mover on public roads.

2. Adjust position of the tongue.

   - Position the tongue so that the bale mover is level when connected to the tractor drawbar.

   - Remove the bolts and move the tongue. Fasten in place.

Adjust Position of the Tongue 223013

3. Lift the hitch.

    - Lift the hitch with the jack.
        - Do not attempt to lift the hitch without using the jack.

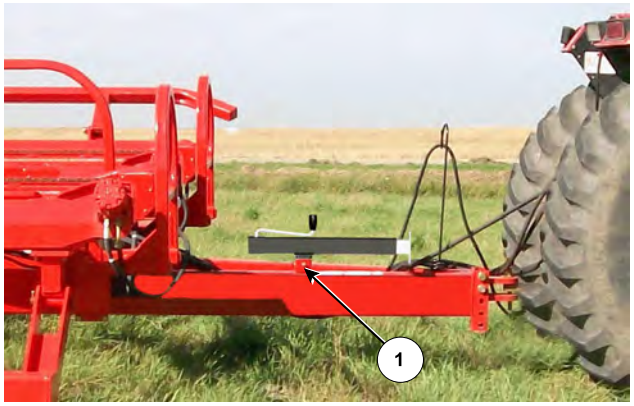
Lift Hitch with the Jack 223013

4. Connect the hitch to the tractor drawbar.

    - Use at least a 1 1/4" (31.75 mm) pin.

5. Remove the hitch jack and place the hitch jack in the storage location on the top of the hitch arm.

    - Remove all weight from the jack.
    - Remove the locking pin holding the jack onto the hitch.
    - Place the jack to the storage position (1).
    - Fasten the jack in place with the lock pin.



Connect the Hitch
Place the Jack in the Storage Location 211072-2C

6. Connect the safety chain to the tractor and fasten securely.

Connect the Safety Chain 215032

7. Tractor wheel tread width settings.
    - When working on inclines or rough ground, use the largest tractor wheel width possible to maintain tractor stability.

8. Attach the hydraulic hoses.

    - Clean the end of the hoses and the connections.
    - Firmly push the hoses into the tractor receptacle according to user preference.
    - Route the hoses so they do not interfere with moving parts.

Attach Hydraulics and Lighting 108008

9. Connect the lighting cable to the electrical connection on the tractor.

10. Route the electric control cable.

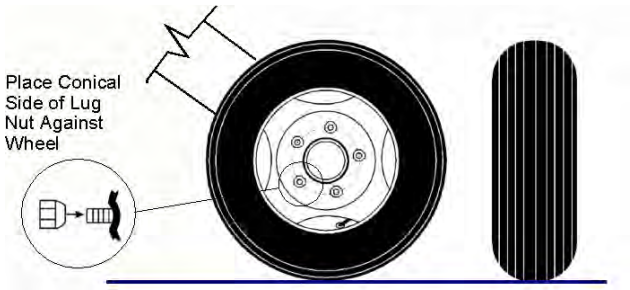
    - Route the electric control cable into the tractor cab.
    - Ensure the cable does not interfere with or contact moving parts.

11. Lower the Bale Mover bed.

Lower the Bed 211034

12. Check the condition of all the tires.

- Ensure that the lug nuts have the cone side of the lug nut against the wheel rim.
- Ensure to follow the manufacturer's recommended torque and air pressure specifications. Check the tire sidewalls.
- Torque the lug nuts to 85-93 ft-lb (115 - 125 Nm).
- For bias tires (11L-15FI):
  - Fill the tires to 90 psi (620 kPa).
- For radial tires (IF280/70R15):
  - Fill the tires to 60 psi (414 kPa).
    - Note: Do not fill above a maximum of 70 psi (483 kPa.)



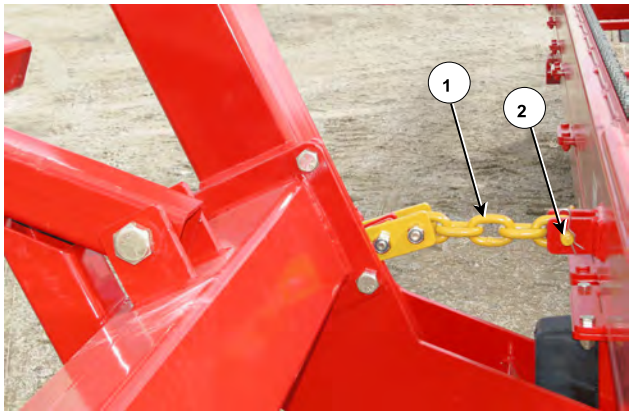
Tires 107094CC

13. Raise both bale lift arms.

- Use the hydraulic levers to lift the arms.

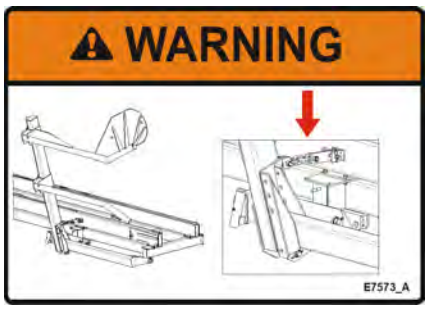
14. Install the lift arms transport lock chains (1) on both arms.

- Install the chain pins (2) and clip into place with the spring pins.



Install Transport Lock Chains 211036C

Always use fork transport chains when transporting the Bale Mover on public road ways. Forks may descend rapidly if hydraulic pressure is lost to a lift cylinder.



Stay away from overhead power lines. Electrocution can occur without contacting power lines

15. Swing both light brackets out into the transport position.

    - Fasten in place with the pin.

16. Ensure that the Slow Moving Vehicle (SMV) sign is clean and visible.

17. Ensure the lights are working.

SMV/Light Bracket in Transport Position
Ensure SMV is Clean and Visible
Ensure the Lights are Working

223050

18. Transport on public roads.

Do not tow behind a truck or other type of vehicle.
Check with local traffic regulations to transport on public roads.

- Transport with the Bale Mover empty.

- Transport with a tractor which has a weight of 14,490 lbs (6,573 kg) or more.

- Do not exceed 20 mph (32 km/h).

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BALE MOVER PREPARATION

1. Park the tractor and Bale Mover on level ground.

   - Engage the tractor parking brake.

2. Ensure that all decals are clean and in place.

3. Ensure that the Slow Moving Vehicle (SMV) sign is clean and visible.

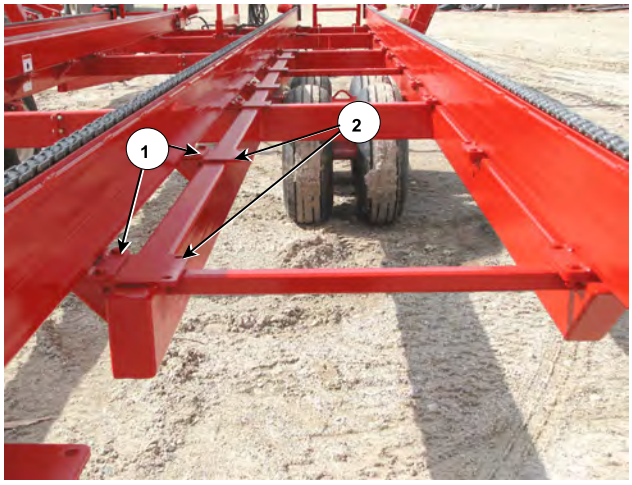
4. Adjust the bed chain rails for the size of bale.

   - The inside rails can be moved for the size of bale being handled.

   - Remove the bolts (1) from the rail mounts plates along the length of the rail.

   - Slide the rail to the alternate mount position (2) to suit the size of bale being handled.

   - Fasten the mount plates with the bolts and nuts.



Adjust the Rails for the Size of Bale 211020

5. Check the condition of the bale chains.

   - Clean debris and material buildup from the chain area and the chain channels.

   - Check that no wire or other materials are wrapped in the chain.

   - Check that the chain is secure around the end roller.

Check Condition of the Bale Chains 223051

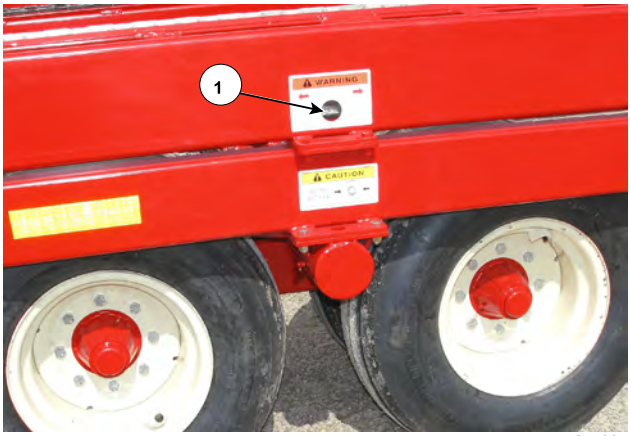

Check That The Chain Is On The End Roller 211038

6. Check the tension on all the bale chains.

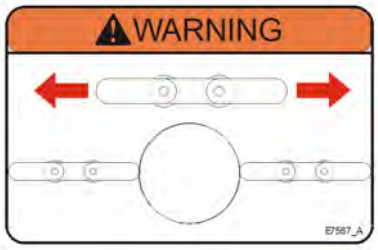
   - The chain can be seen in the sight hole (1) that is in the side of the rail.

   - The chain should be in line with the image of the chain that is on the decal at the sight hole.

   - Adjust as necessary. Refer to Section 5 - ‘Chain Adjustment Procedure’.



Check the Tension of All the Chains 211061



Chain Tension E7567_A

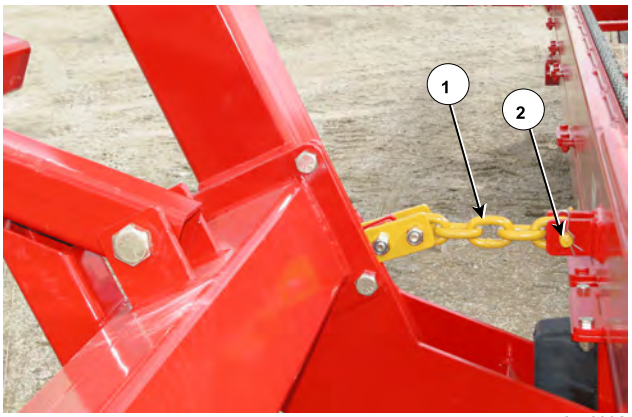
7. Remove the lift arm transport chains on both arms.

   - Raise the arms to remove tension on the transport chain.

   Note: Do not lower the forks when transport chains are in position or damage to the machine will occur.

   - Remove the clip pin (2) and remove the chain pin (1).

   - Place the chain pin (1) back into the tabs and lock in place with the clip pin (2).



Remove Transport Lock Chains 211036C

8. Lower the bale lift arms.

Stand Clear of Bale Lift Arms.
- Moving lift arms can cause serious injury or death.
- Never stand under lift arms when lowering or raising.
- Do not allow people near the lift arms when the being moved.


Lower the Bale Lift Arms 211041

Note: Do not lower the forks when transport chains are in position or damage to the machine will occur.

9. Set the width of the bale lift arms.

   - Loosen the bolts on the arm clamp (1).

   - Slide the arm to the suit the size of the bale.

   - Tighten the bolts on the holding clamp to fasten the lift arm.

Slide Clamp for Bale Width 211041C

10. Check that the bale lift arms operate freely when lifting.

Stand Clear of Bale Lift Arms.
- Moving lift arms can cause serious injury or death.
- Never stand under lift arms when lowering or raising.
- Do not allow people near the lift arms when the being moved.

Check that Lift Arm Operates Freely 211044

11. Check that the chain guards on the hydraulic motors are in place and in good condition.

The Bale Mover shall not be operated without all the chain guards in place and in good condition.

- Replace missing or broken guards immediately.

Ensure Motor Chain Guards Are In Place 211046

12. Engage the bale chains motors to ensure the chains operate smoothly.

Contacting moving chain or parts could cause serious injury or death.

Check that Bale Chains Operate Smoothly 223051

13. Check the condition of the tires.

- Inspect the wheels and tires for damage or foreign objects. Repair or replace as necessary.
- Ensure to follow the manufacturer's recommended torque and air pressure specifications. Check the tire sidewalls.
- Torque the lug nuts to 85-93 ft-lb (115 - 125 Nm).
- For bias tires (11L-15FI):
  - Fill the tires to 90 psi (620 kPa).
- For radial tires (IF280/70R15):
  - Fill the tires to 60 psi (414 kPa).
    - Note: Do not fill above a maximum of 70 psi (483 kPa.)

Check the Condition of the Tires 211043

14. Inspect all the hydraulic motors, cylinders and hoses.

Use a piece of cardboard or heavy paper to check for leaks. Do not use your hand. Wear proper hand and eye protection when searching for leaks.

Relieve pressure on hydraulic system before repairing, adjusting or disconnecting.

If fluid is injected under the skin, it must be removed immediately by a surgeon familiar with this type of injury.

- Visually inspect all the hydraulic hoses and fittings.
  - See Section 5 - "Maintaining the Bale Mover" for conditions indicating that replacement is needed.


Check All Hydraulic Connections 211045

- Ensure the proper size cylinder pins are in place and secured.

- Check the condition of the hydraulic motors and the connections.


Check the Motor and Connections 211070

15. Rotate both light brackets against the bale rails.

    - Fasten in place with the pin.

Rotate the Light Brackets Against the Bale Rail 223050

16. Lubricate all grease fittings. Refer to Section 5 - “Maintaining the Bale Mover”.

17. Ensure all fasteners are tightened.

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OPERATING THE BALE MOVER

Do not allow anyone to ride on the Bale Mover.
Falling from the machine can cause injury.

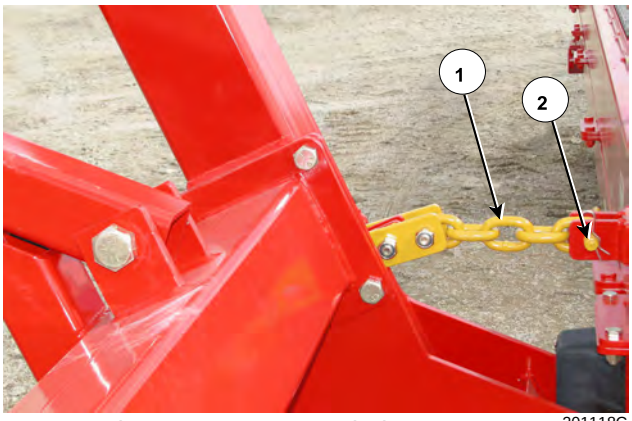
Stay clear of overhead power lines. Electrocution can occur without contacting the power lines.

1. Park on level ground .

2. Remove the lift arm transport chains on both arms.

   Note: Do not lower the lift arm when transport chains are in position or damage to the machine will occur.

   - Raise lift arms to remove tension on the transport chain.
   - Remove the clip pin (2) and remove the chain pin (1).
   - Place the chain pin (1) back into the tabs and lock in place with the clip pin (2).



Remove the Arm Transport Chains 201118C

3. Drive the Bale Mover into the field area.

4. The Bale Mover should be operated at field speeds of 3 - 4 mph (4 - 6 km/h).

   - It is not required to stop to pick up a bale.

5. Load the Bale Mover on both the left and right sides as evenly as possible.

   - This will ensure maximum stability for the machine when operating and on uneven terrain.

Load the Bale Mover 211010

LOADING BALES IN THE FIELD

Tractor Cab Controller

1. In the loading modes, the Control Switch in the tractor cab enables the hydraulic remotes to control the bale lift arms and the bale roller chains.

   - Hang the switch in a convenient location in the tractor cab. Use the top hook to secure it.

2. Loading bales on the <u>right side</u>.

   - Move the rocker switch to the right position.
     - One tractor remote will be used to lift the bales into position onto the right side of the deck.
     - The other tractor remote will be used to push the bale back on the right deck once it is in position.

Right Side Loading 211052

3. Loading bales on the left side.

    - Move the rocker switch to the left position.
        - One tractor remote will be used to lift the bales into position onto the left side of the deck.
        - The other tractor remote will be used to push the bale back on the left deck once it is in position.

Left Side Loading 211053

4. Drive up to the bale and position the lift arm forks so that it can lift the bale.

    - It is not required to stop to pick up a bale.

    - Continue driving forward.

Drive Up to Bale with Arm Lowered 211013

5. The lift arm can rotate a bale somewhat to align it into the lift arm.

Bale Can Be Rotated Some by the Lift Arm 211016

6. Drive forward until the lift arm forks are fully under the bale.

Drive Forward Until Fork Under Bale 211029

7. Activate the hydraulic remote to lift the arm and place the bale onto the bale chains.

Lift Bale Onto the Bale 211014

8. Activate the bale chain to move the bales back.

   - This will allow room for another bale to be loaded.

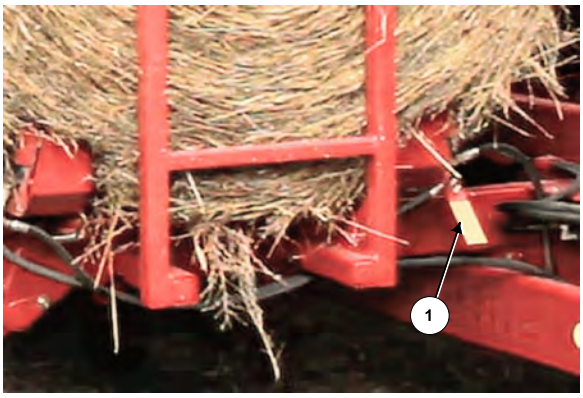
Move Bales Back On Chain Rails 211032

9. Bales can be loaded on both the right and left sides of the Bale Mover.

Load Bales onto Right and Left 211010

10. When the bales are moved back and there is room for just 1 more bale on the rail, the full load indicator (1) will rise.

    Note: Maximum number of bales on the 2 rails:
    16 of 4 foot bales
    14 of 5 foot bales



Full Load Indicator

11. Drive to the bale storage site.

    - Adjust ground speed to suit the terrain to maintain stability of the load.

Drive To The Bale Storage Site 211033

UNLOADING BALES

1. The Control Switch in the tractor cab enables the hydraulic remotes to control the bed tilt and the bale roller chains.

    - Center the electric rocker switch.
        - Use one tractor remote to tilt the bed to the unload position.
        - Use the other tractor remote to operate the roller chains to push the bales back and slide them off of the deck.

Bed Tilt & Unload 211054

2. Position the Bale Mover to unload the bales in the storage location.

Position in the Storage Location 211055

3. Tilt the bed to the fully raised position.

Tilt Bed to Fully Raised Position 211050

4. Engage the bale roller chains to move the bales toward the back of the Bale Mover and off the bed.

5. Slowly drive forward as bales are unloading.

Engage Chains and Drive Ahead 211056

6. When bales are unloaded and clear, lower the bed completely into the operating position.

Lower the Bed 211058

RELOADING BALES

Bales can be reloaded from the bale row onto the Bale Mover.

1. The control switch in the tractor cab enables the hydraulic remotes to control the bed tilt and the bale roller chains.

    - Center the electric rocker switch.
        - Use one tractor remote to tilt the bed to the reload position.
        - Use the other tractor remote to operate the roller chains to push the bales forward onto the deck.

Tilt and Reload Position 211054

2. Position the Bale Mover to reload the bales from the storage location.

Position to Reload Bales 211058

3. Tilt the bed to the fully raised position.

Tilt Bed to Fully Raised Position 211059

4. Engage the bale roller chains to move the bales forward and onto the Bale Mover bed.

5. Slowly back up towards the bales as they are reloading.

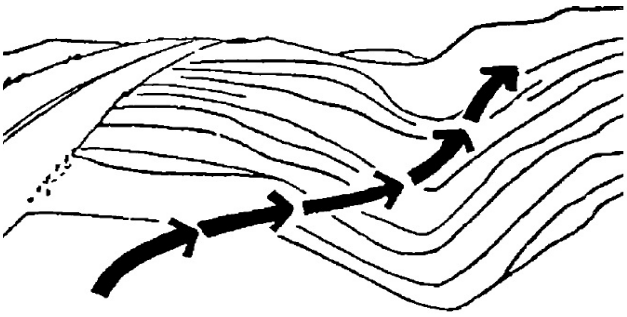
Engage Chains and Back Up 211056

6. When bales are reloaded, lower the bed completely into the operating position.

Lower Bed When Done Reloading 211060

7. Crossing Ditches and Steep Inclines

   - Cross ditches or inclines at about a 30° approach angle.



Cross Ditch at 30° Angle 107072

MAINTAINING THE BALE MOVER

Shutdown Procedure
For your safety and the safety of others, this procedure must be followed before dismounting from the tractor for repairing, servicing, cleaning, or lubricating the Bale Mover.

Step 1: Reduce the engine speed to idle.
Step 2: Fully lower left & right fork lifts.
Step 3: Disengage hydraulic motors.
Step 4: Set the tractor park brake.
Step 5: Shut off tractor engine and remove the key.
Step 6: Relieve hydraulic pressure and disconnect hydraulic hoses.

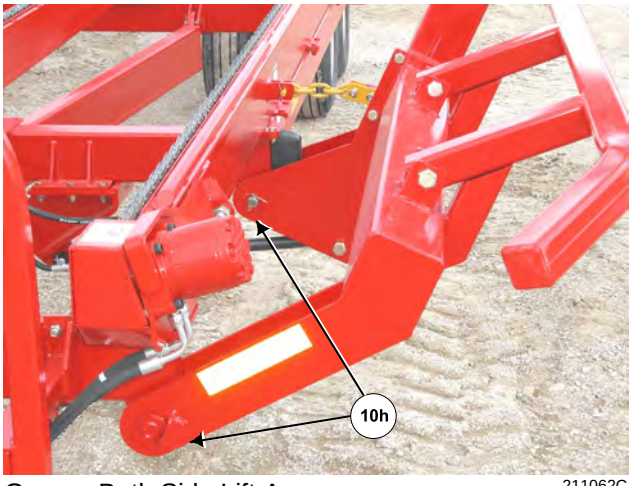
Lubrication

Lubricate all grease fittings with a quality lithium complex, extreme pressure NLGI Grade 2 grease.

Every 10 Hours

- Side Lift Arms - Lubricate 2 points on each side lift arm every 10 hours.

  - 1 point at the front pivot.
  - 1 point at the rear pivot.

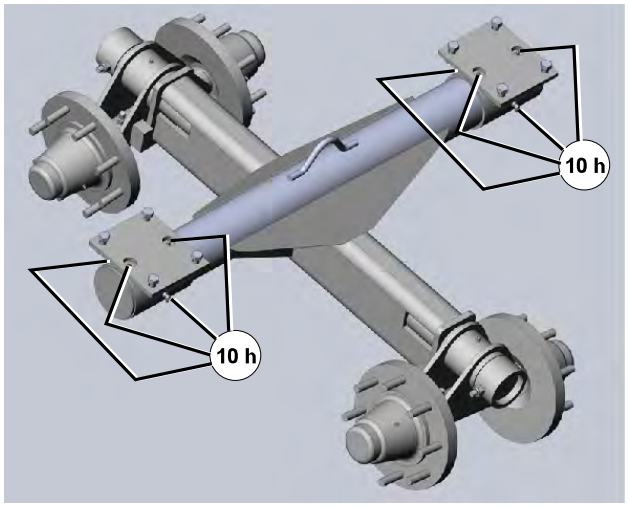


Grease Both Side Lift Arms 211062C

- Lubricate 8 points on each axle shaft

  - Lubricate 4 points on each end of the axle pivot shafts.
    - 2 points through the holes in the rail mount plate.
    - 2 points on the front and back of the shaft ring.

  - Lubricate left and right side pivot shafts.

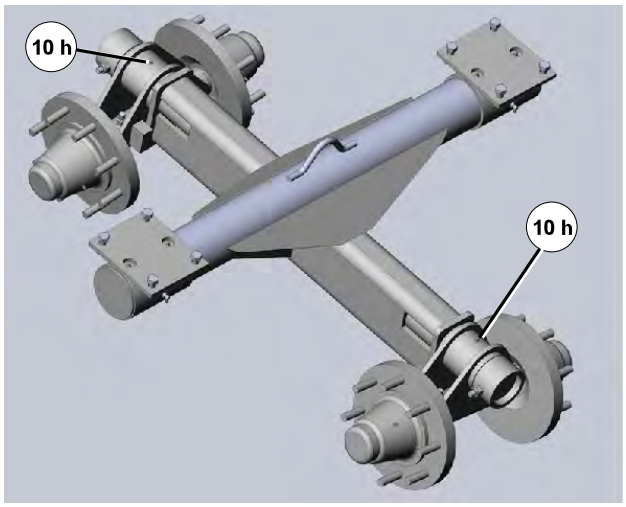


Grease Each End of the Axle Pivot Shaft 211068C

- Lubricate 2 points on the tandem axle pivots

  - 1 point on each tandem pivot.

  - Lubricate left and right side tandems.



Grease Each Tandem Axle Pivot 211068C2

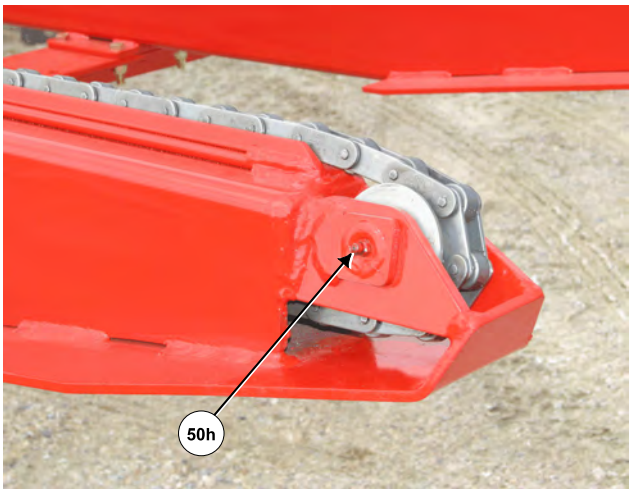
- Lubricate the chains with a quality chain oil.

Lubricate the Bale Chains 211037

Every 50 Hours

- Lubricate 1 point on each rear chain roller.

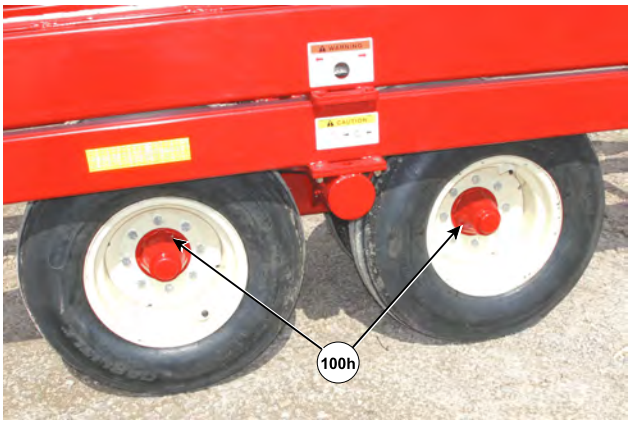
  - Lubricate the 4 chain roller.



Grease Rear Chain Roller 211065C

Every 100 Hours

- Lubricate all the hubs on the spindles.



Grease Hubs on all Spindles 211064C

Visually Inspect Hydraulic Hoses/Fittings

Shut down the machine and replace the hydraulic hose assembly if any of the following conditions exist:

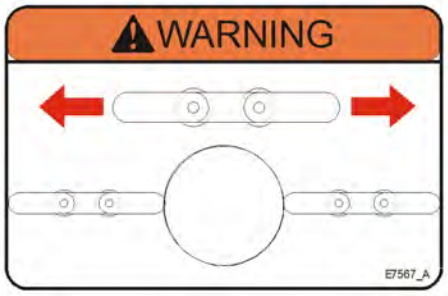
- Fitting slippage on hose.
- Damaged, cracked, cut or abraded cover (any reinforcement exposed).
- Hard, stiff, heat cracked or charred hose.
- Cracked, damaged or badly corroded fittings.
- Leaks at fitting or in hose.
- Kinked, crushed, flattened or twisted hose.
- Blistered, soft, degraded or loose cover.

Chain Adjustment Procedure

Check the tension on all 4 chains.

- The chain can be seen in the sight hole (1) that is in the side of each rail.
- The chain should be in line with the image of the chain that is on the decal.

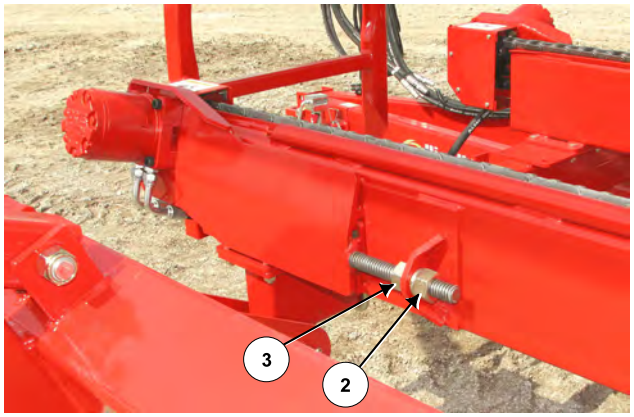
Check Tension of All the Chains 211061



Chain Tension E7567_A

To adjust the chain tension:

- Loosen the nut (2) at the end of the threaded rod on the motor mount.
- Adjust the chain tension by turning the inside nut (3) until the bottom of the chain is just off the bottom of the rail.
- Tighten the nut (2) at the end of the threaded rod to secure the tension setting.



Adjust the Chain Tension 211066C

Tire Changing Procedures

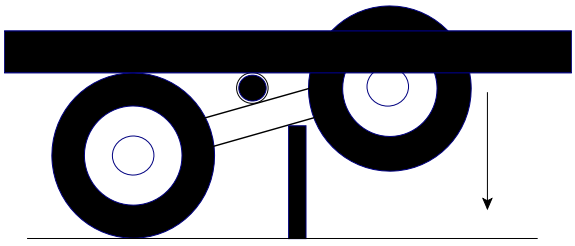
Before beginning, make sure the tractor is turned off and the parking brake is set.

Securely block the Bale Mover before any work is done around or under the machine.

Relieve hydraulic pressure and disconnect the hydraulic hoses.

1. Hitch the Bale Mover to the tractor.
2. Block the Bale Mover tires on the opposite side to prevent movement of the Bale Mover.
3. Use two jacks under the main frame of the Bale Mover (at the positions shown by the arrows).
   - Raise the side of the Bale Mover high enough to be able to rotate the axle so the tire can be removed.
4. Block the Bale Mover frame in this raised position.
5. With the tires off the ground, rotate the axle so the tire is below the frame.
   - Block up the axle so that it cannot rotate when the tire is removed. The weight of the remaining tires will want to rotate the axle.
6. Change the tire.

Jack on Frame to Change Tire 211067C



Block to Prevent Rotation When Tire Removed 211069

Tire Specifications

Keep tires properly inflated. Tire damage may occur if tires are under inflated.

Ensure to follow the manufacturer's recommended torque and air pressure specifications. Check the tire sidewalls.

- Torque the lug nuts to 85-93 ft-lb (115 - 125 Nm).

- For bias tires (11L-15FI):
  - Fill the tires to 90 psi (620 kPa).
- For radial (CEAT) tires (IF280/70R15):
  - Fill the tires to 60 psi (414 kPa).
    - Note: Do not fill above a maximum of 70 psi (483 kPa.)

STORING THE BALE MOVER

1. Clean all the debris off the Bale Mover.

2. Lubricate all Bale Mover grease points (See Section 5 - “Maintaining the Bale Mover”).

3. Tighten all bolts to the recommended torque.

4. Check the Bale Mover for worn and damaged parts. Replace as needed.

5. Touch-up the paint to prevent rusting.

6. Park the Bale Mover on level ground.

Park on Level Ground 223054

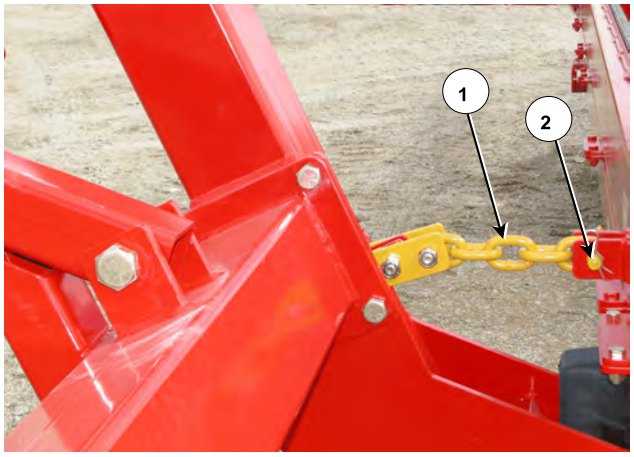
7. Lower the Bale Mover bed to be fully resting on the frame.

Lower the Bed onto the Frame 223053

8. Raise both lift arms to the full upright position.

9. Fasten both lift arm transport chains (1) in place to lock the arms.

   - Fasten the chains with the pin (2) and lock in place.



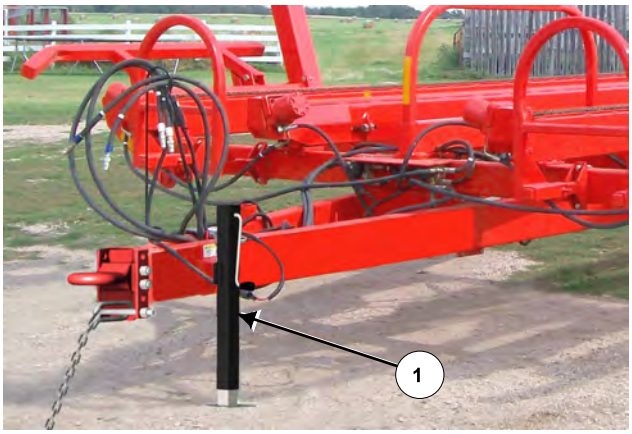
Fasten the Lift Arm with the Transport Chain 211036C

10. Remove the jack from the storage position and place it onto the hitch.

    - Pin the jack in place (1).

    - Raise the hitch until the weight is supported by the jack.

    - Ensure that the jack is resting on solid level ground or resting on a wood block.



Raise the Hitch with the Jack 223052C

11. Disconnect the hitch from the tractor.

    - Remove the hitch pin.

12. Oil the bale chains with a rust inhibiting oil or coating to prevent weathering.

Oil the Chains to Prevent Weathering 211038

13. Relieve the pressure on the hydraulic hoses and disconnect them.

14. Disconnect the electrical connection.

15. Remove the switch and cable from the tractor cab. Store in a dry place.

Disconnect Hydraulics and Lighting 108008-1

16. Secure the hydraulic hoses and electrical connectors to the hose holder (1) on the hitch to keep them off the ground and clean.

Hydraulic Hoses and Electrical in Holder 223052C2

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TROUBLESHOOTING

Lift Arm

Symptom	Problem	Solution
Lift Arm Not Lifting	Control Switch	Place the control switch to the “right” or “left” position.
		Check the wiring to the electric valves for power to the solenoids.
	Hydraulics	Check the hydraulic connections to the electric valves and the lift cylinder.
	Solenoid on Electric Valves	Check for power to the solenoids on the electric valves.

Chains

Symptom	Problem	Solution
Chains Do Not Move	Control Switch	Place the control switch to the "left" or “left” position.
		Check the wiring to the electric valves for power to the solenoids.
	Hydraulics	Check the hydraulic connections to the electric valves and the motors.
Chain Comes off the Roller	Chain Tension	Adjust the chain tension so the chain is in line with the image of the chain that is on the decal at the sight hole. Refer to Section 5 - ‘Chain Adjustment Procedure’.

Deck Lift

Symptom	Problem	Solution
Deck Not Lifting	Too much weight at the front of the deck rails	Move bales on the rails toward the rear of the machine.
	Control Switch	Place the control switch to the "center" position.
		Check the wiring to the electric valves for power to the solenoids.
	Solenoid on Electric Valves	Check for power to the solenoids on the electric valves.
	Hydraulics	Check the hydraulic connections to the electric valves and the lift cylinder.

BALE MOVER SPECIFICATIONS

Shipping Weight	9,660 lbs (4,386 kg)	
Hitch Weight (empty)	1,740 lbs (790 kg)	
Hitch Weight (Loaded)	3,423 lbs (1,554 kg)	
GVW	38,000 lbs (17,252 kg)	
Total Length	43’ 9¼” (13.34 m)	
Bed Length	37’ (11.28 m)	
Total Width (Loaded)	16’ 8" (5.08 m)	
Total Width (Unloaded)	15' 1½" (4.61 m)	
Total Height (Max)	12’ 3¼” (3.74 m)	
Maximum Capacity - Bales	16 of 4' long bales 14 of 5' long bales Total bale weight - 23,720 lbs (10,759 kg)	
Tires	11L-15FI, F Ply	IF280/70R15, 137/D
Tire Pressure	90 psi (620 kPa)	60 psi (414 kPa)
Wheel Nut Torque	85-93 lb-ft (115 - 125 Nm)	
Horsepower Required	100 hp (75 kW)	
Hydraulic Outlets	2	
Hydraulic Flow and Pressure	15 gpm @ 3,000 psi (60l pm @ 207 bar)	

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Highline New Equipment Limited Warranty Policy

One (1) Year / 12 Months - Parts and Labour

Highline Manufacturing (hereinafter "Highline") warrants this new product of Highline's manufacturer to be free from defects in material and workmanship, under normal use and service for one (1) full year after initial purchase/retail sale. Highline will warrant its product for one (1) year parts and labor, if performed by a qualified Dealer. This Limited Warranty shall apply only to complete machines of Highline's manufacture. Parts are covered by a separate Limited Warranty.

EQUIPMENT AND ACCESSORIES NOT OF HIGHLINE'S MANUFACTURE ARE WARRANTED ONLY TO THE EXTENT OF THE ORIGINAL MANUFACTURER'S WARRANTY AND SUBJECT TO THEIR ALLOWANCE TO HIGHLINE ONLY IF FOUND DEFECTIVE BY SUCH MANUFACTURER.

During the Limited Warranty period specified above, any defect in material or workmanship in any warranted item of Highline Equipment not excluded below shall be repaired or replaced at Highline's option without charge by any authorized independent Highline Dealer. An authorized Dealer must make the warranty repair or replacement. Labour is paid in accordance with Highline's Labour reimbursement policy. Highline reserves the right to supply remanufactured replacement parts as it deems appropriate.

RETAIL PURCHASER RESPONSIBILITY
This Limited Warranty requires proper maintenance and periodic inspections of the Equipment as indicated in the Operator's Manual furnished with each piece of new Equipment. The cost of routine or required maintenance and services is the responsibility of the retail purchaser. The retail purchaser is required to keep documented evidence that these services were performed. This Highline New Equipment Limited Warranty may be subject to cancellation if the above requirements are not performed.

EXCLUSIONS AND LIMITATIONS
The warranties contained herein shall NOT APPLY TO:

1. Any defect which was caused (in Highline's sole judgement) by other than normal use and service of the Equipment, or by any of the following:
    a. accident
    b. misuse or negligence
    c. overloading
    d. of reasonable and proper maintenance
    e. improper repair or installation
    f. unsuitable storage
    g. non-Highline approved alteration or modification
    h. natural calamities
    I. vandalism
    j. parts or accessories installed on Equipment which were not manufactured or installed by Highline authorized Dealers
    k. the elements
    l. collision or other accident.

2. Any Equipment whose identification numbers or marks have been altered or removed.

3. Any Equipment which any of the required or recommended periodic inspection or services have been performed using parts not manufactured or supplied by Highline or meeting Highline Specifications including, but without limitation, lubricants (oil, grease), belt lacings, and hydraulic fluids.

4. Any Equipment used in demonstrations not performed by a Highline Dealer. Warranty will be at the discretion of Highline for all other demonstration warranty.
5. New Equipment delivered to the retail purchaser in which the warranty registration has not been completed and returned to Highline within ten (10) days from the date of purchase.

6. Any defect that was caused (in Highline's sole judgement) by operation of the Equipment not abiding by standard operating procedures outlined in the Operator's Manual.

7. Tire Limited Warranties and support are the responsibility of the respective product's manufacturer.

8. Transportation costs, if any, of transporting to the Highline Dealer.

9. In no event shall Highline's liability exceed the purchase price of the product.

10. Highline shall not be liable to any person under any circumstances for any incidental or consequential damages (including but not limited to, loss of profits, out of service time and damage to equipment which this equipment may be attached) occurring for any reason at any time.

11. Diagnostic and overtime Labour premiums are not covered under this Limited Warranty Policy.

12. Depreciation damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, and/or lack of proper protection during storage.

13. Accessory systems and electronics not of Highline's manufacture are warranted only to the extent of such manufacturer's respective Limited Warranty if any.

14. Wear components.

PARTS WARRANTY
Parts replaced in the warranty period will receive the balance of the one year New Equipment Limited Warranty.
Replacement parts after the original machine warranty are warranted to be free from defects of material for ninety (90) days or the part will be repaired or replaced, without Labour coverage for removal and reinstallation.

EXCLUSION OF WARRANTIES
UNLESS OTHERWISE REQUIRED BY LAW, AND EXCEPT FOR THE WARRANTIES EXPRESSLY AND SPECIFICALLY MADE HEREIN, HIGHLINE MAKES NO OTHER WARRANTIES, AND ANY POSSIBLE LIABILITY OF HIGHLINE HEREIN UNDER IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE. HIGHLINE RESERVES THE RIGHT TO MODIFY, ALTER AND IMPROVE ANY PRODUCT WITHOUT INCURRING ANY OBLIGATION TO REPLACE ANY PRODUCT PREVIOUSLY SOLD WITH SUCH MODIFICATION. NO PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY, OR TO ASSUME ANY ADDITIONAL OBLIGATION ON HIGHLINE'S BEHALF.