

# Bale Pro<sup>®</sup>

BP 965

Operator Manual



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 **Highline**  
MANUFACTURING  
A DIVISION OF BOURGAULT INDUSTRIES LTD.

E20354\_F

# **Bale Pro<sup>®</sup>**

## **BP 965**

### **Bale Processor**

# **Operator Manual**

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### **Highline Team Message**

*Congratulations on your purchase of the Bale Pro 965 manufactured by Highline Manufacturing.*

*This Operator Manual has been prepared to provide information necessary for the safe and efficient operation of your Bale Pro 965. In the manual you will find safety procedures, maintenance routines and detailed operational instructions.*

*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 Pro 965 as your machine of choice.*

*Highline Manufacturing*

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## **GENERAL DESCRIPTION OF THE BALE PRO® 965 (BP 965)**

The Bale Pro 965 (BP 965) is a machine to process square and round bales of hay or other animal feed materials. When the BP 965 is engaged, it uses power from the tractor PTO to rotate a flail drum. The flails strike the bale and process it into feed size materials or animal bedding sized materials.

The Bale Pro 965 has extendable forks on the rear of the machine that allows the Bale Pro 965 to pick up and load a square or round bale into the processing tub. The Bale Pro 965 has a twine sickle for cutting the twine before putting the bale into the tub. The twine sickle is for square bales that are picked up when the bale is sitting on the twine. (Note: The twine sickle does not retain the cut twine and does not keep the twine out of the processing tub). An additional bale may be carried on the forks while the bale in the tub is being processed.

The amount of processing and chopping of material in the processing tub is adjusted by setting the height of the guard rods. The height of the guard rods determine the level of aggression of the flails acting on the bale. The bale is rotated by feed rollers while the flail drum turns to process the material. The rotation of the bale assists in the bale being processed in an even manner.

The processed material is discharged from the BP 965 on the right side of the machine. The height and distance of discharge is adjusted by moving the discharge door. A top discharge deflector door allows the processed material to be placed into a feed bunk or spread to different distances.

The Bale Pro 965 has the option of adding a Feed Chopper for additional processing of the feed materials.

The operator of the Bale Pro 965 is located in the tractor cab to control the speed of driving and the speed of operation of the Bale Pro 965.

## **INTENDED USE OF THE BALE PRO 965 (BP 965)**

The BP 965 is designed to process animal feed and bedding materials from a square or round bale. The BP 965 is intended to process and blow land reclamation materials.

The BP 965 is intended for use in farming applications.

The BP 965 is intended for off road use only unless used in land reclamation use. (Get appropriate permits from local authorities for land reclamation applications.)

The BP 965 is intended for use in locations away from people who could be harmed by the discharged materials.

Any uses of the BP 965 other than the above stated Intended Uses shall be considered misuse of the BP 965. This misuse shall included (but not limited to):

- Using the BP 965 on public roads (except for land reclamation uses).
- Using the BP 965 around people or in public places
- Discharging materials other than for animal bedding, feed materials or land reclamation.

Always use the BP 965 according to the instructions contained in this Operator Manual and the safety and instruction decals on the machine.

Perform regular maintenance and repair to ensure that the BP 965 operates safely and efficiently.

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## **SERIAL NUMBER**

The serial number is found on the serial number plate attached to the Bale Pro 965 on the top left hand side of the front tub wall.



Serial Plate Location

221268C

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

**Serial Number**

---

**Owner**

---

**Model**

---

**Date of Purchase**

---



## Section 1 - Safety

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### SAFETY SIGN-OFF FORM

Highline Manufacturing Ltd. 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 machine 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 operators 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 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 Pro 965 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 dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of the machine.
3. The BP 965 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.

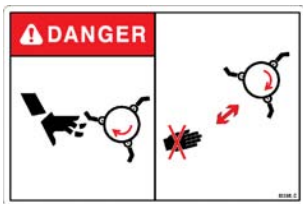


### DO NOT CONTACT ROTATING DRIVELINE

Contact with rotating driveline will cause serious injury or death.  
Keep all driveline guards in place.  
Securely attach drivelines at both ends.  
Check that the driveline guards turn freely on the driveline.

### DO NOT OPERATE WITH SHIELDS MISSING

Stop engine and ensure the PTO driveline is stopped before working on driveline



### DO NOT CONTACT ROTATING FLAILS

Contact with moving parts can cause serious injury or death.

Keep hands out of the cutting area and processor tub when the flail drum is rotating.

Always disengage tractor power takeoff, set park brake, lower loader forks to the ground, shut off tractor engine, remove key, and wait for PTO to stop turning before unplugging by hand or servicing.

Stay out of the processor tub when the PTO is connected to the tractor.

Keep guards in place and in good condition.



### DO NOT ENTER TUB WHILE PARTS ARE ROTATING

- With a bale in the tub
- Without a bale in the tub

Before entering the tub

- Turn off the tractor and remove the key.
- Wait for rotating parts to stop

The bale is unstable and may cause entrapment.  
Contact with the moving feed mechanism or rotating flail drum will cause serious injury or death.



### STAY AWAY FROM OVERHEAD POWER LINES

Stay away from overhead power lines when transporting equipment.

Serious injury or death from electrocution can occur without contacting power lines.



### STAY BACK FROM AN OPERATING MACHINE WHICH CAN DISCHARGE OBJECTS SEVERAL FEET

Stay clear from discharge side when PTO is engaged.

Thrown material or objects leaving the discharge area can cause serious injury or death.

Do not operate within 100 ft (30m) of any person.  
Keep all shields and guards in place.



### ENSURE SLOW MOVING VEHICLE SIGN IS IN PLACE

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

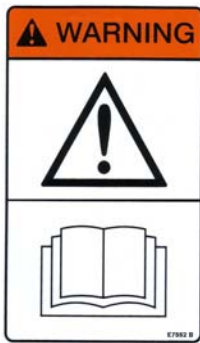
Ensure the reflectors are in place, clean and easily visible.



### 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.



### **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. These instructions and safety messages contain important information.

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



### **SHUT DOWN THE TRACTOR BEFORE DISMOUNTING TRACTOR**

Shut down the tractor and remove the key before repairing, servicing, lubricating or cleaning the machine.

Relieve all hydraulic pressure in the hoses before going near the machine. Leave the hydraulics in the "float" position.



### **INSTALL CYLINDER LOCK BEFORE GOING UNDER RAISED BALE FORKS**

Install and secure the cylinder lock before going under raised bale forks.

Install and secure cylinder lock before using the twine cutter.



### 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.



### THIS IMPLEMENT IS DESIGNED FOR OFF ROAD USE .

To transport on public roads consult local traffic regulations.



### DO NOT EXCEED PTO SPEED

Do not operate at excess speeds or damage to the machine may result.



### DO NOT EXCEED 80° TURNS IN OPERATION

Do not operate the Constant Velocity (CV) driveline at greater than 80° to prevent damage to the driveline.



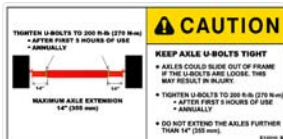
### SHUT DOWN TRACTOR BEFORE USING TWINE CUTTER

Use the shutdown procedure to ensure no movement of the flail drum will occur while cutting twine or netwrap.

### LOCK FORKS AND FLAIL DRUM BEFORE USING TWINE CUTTER

Lock forks in the upright position before going under the raised forks.

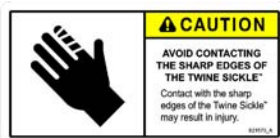
Lock the flail drum to ensure no movement of the flail drum will occur while cutting twine or netwrap.



### KEEP THE AXLE U-BOLTS TIGHT

Axles could slide out of the frame if the u-bolts are loose. Tighten u-bolts after first 5 hours of use and then annually.

Do not extend the axles further than 14".



### AVOID CONTACTING THE SHARP EDGES OF THE TWINE SICKLE

Contact with the sharp edges of the twine sickle may result in injury.

Do not contact the twine sickle when it is operating. Contact with the moving sickle may result in injury.



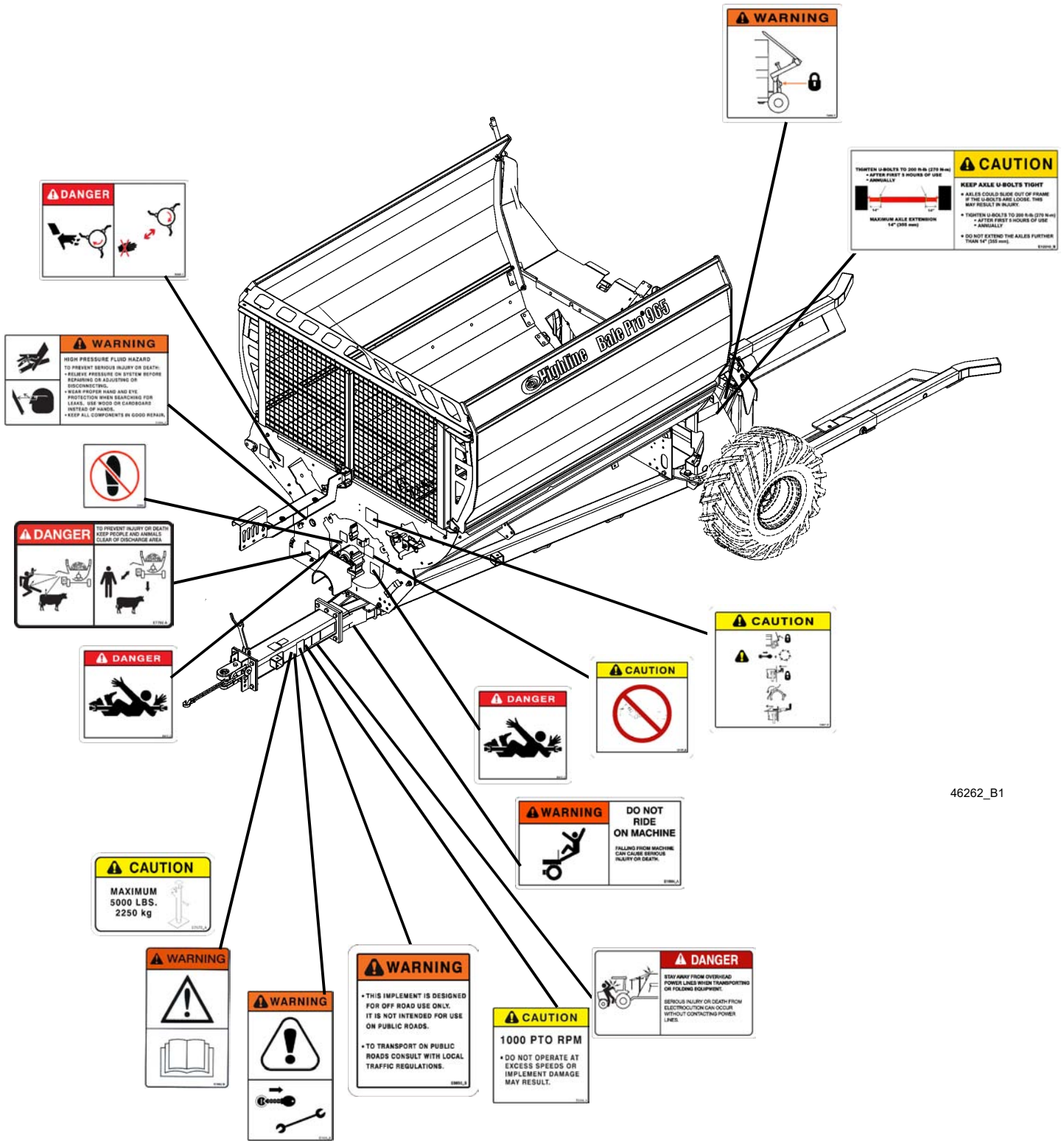
### SHUTDOWN PROCEDURE

For your safety and the safety of others, this shutdown procedure must be followed before dismounting from the tractor for inspecting, repairing, servicing, cleaning, or lubricating the machine.

- Step 1: Reduce the engine speed to idle.
- Step 2: Disengage tractor power takeoff.
- Step 3: Set tractor park brake.
- Step 4: Lower bale loader forks to the ground.
- Step 5: Shut off tractor engine and remove key.
- Step 6: Cycle tractor controls to relieve any residual circuit pressure.
- Step 7: Wait for drum to stop turning.

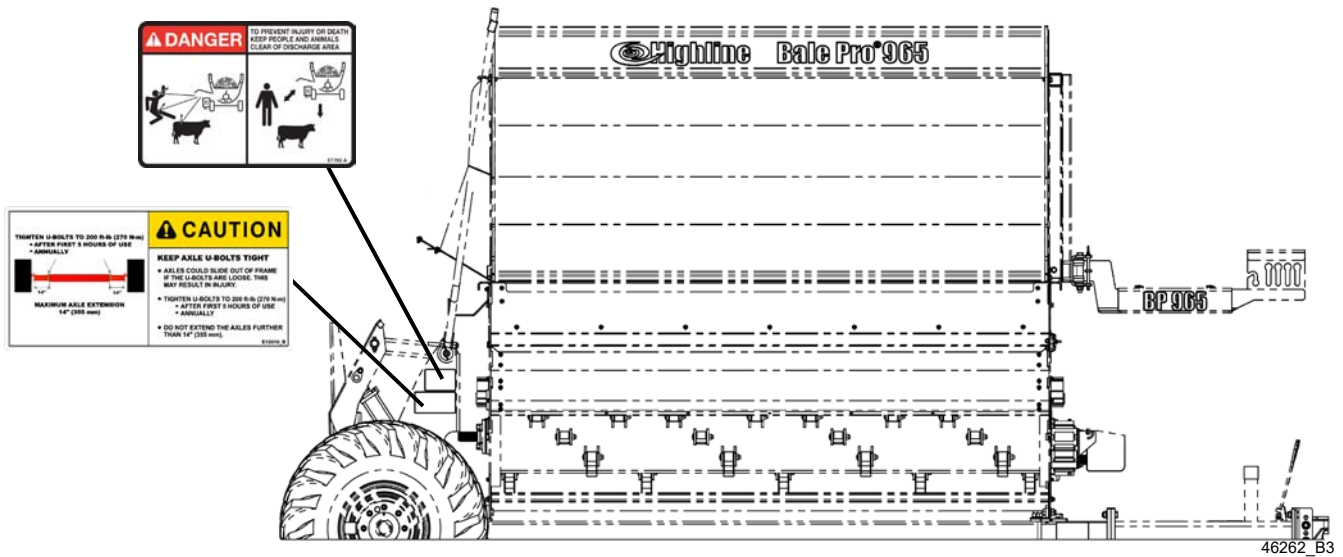
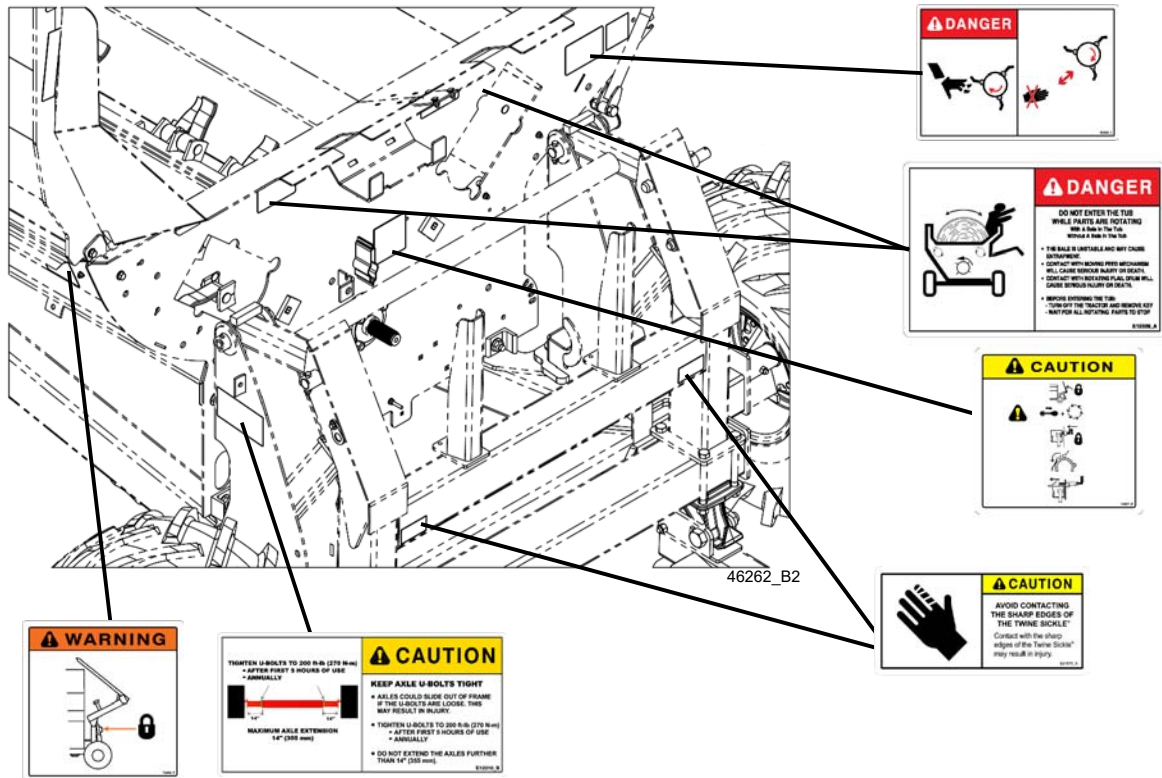


## SAFETY DECAL LOCATIONS



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## Section 1 - Safety



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### TRANSPORTING THE BP 965



Only tow a loaded BP 965 on public roads behind a properly sized and equipped tractor that has a weight of 67% or more than the loaded weight of the processor. (See table of weights below.)

Do not tow behind a truck or other type of vehicle.

Check with local traffic regulations to transport on public roads.



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

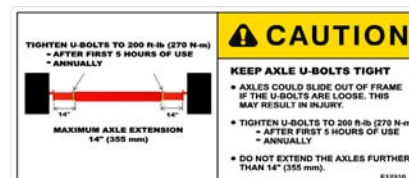


Do not allow any person to ride on the tractor or BP 965. Falling off can result in serious injury or death.



Keep the Axle U-Bolts Tight. Injury could result if axles come out.

Torque the axle u-bolts to 200 lb-ft (270 Nm) to ensure the axles do not slide out of the frame. Maximum axle extension is 14" (355 mm).



## Section 2 - Transporting the BP 965

### 1. Tractor Requirements

- Roll Over Protection System (ROPS)
- Working seatbelts
- 1 3/8" 21 spline PTO
- PTO requirement
  - refer to the "Specifications" Section for the PTO requirements.
- 3 Spool Control Valves (SCV)
- To transport a loaded BP 965 on public roads at 40 km/h (25 mph) use a properly sized and equipped tractor with a weight at least that shown in the table.

Note: If bales are heavier or the material in the grain tank is other than barley, adjust the loaded BP weight and the tractor weight accordingly.

	Tractor Weight at 67% greater than the BP 965 loaded weight
Base BP 965 - 2 square bales of 1800 lbs (544 kg)	18,328 lbs (8314 kg)
BP 965 With Feed Chopper - 2 square bales of 1800 lbs (544 kg)	20,023 lbs (9082 kg)
BP 965 With Grain Tank -2 square bales of 1800 lbs (544 kg) - Tank filled with barley (48 lbs/bushel)	23,781 lbs (10,787 kg)
BP 965 With Feed Chopper and Grain Tank -2 square bales of 1800 lbs (544 kg) - Tank filled with barley (48 lbs/bushel)	25,476 lbs (11,556 kg)

Tractor Weight for Transport at 40 km/h (25 mph)

## Section 2 - Transporting the BP 965

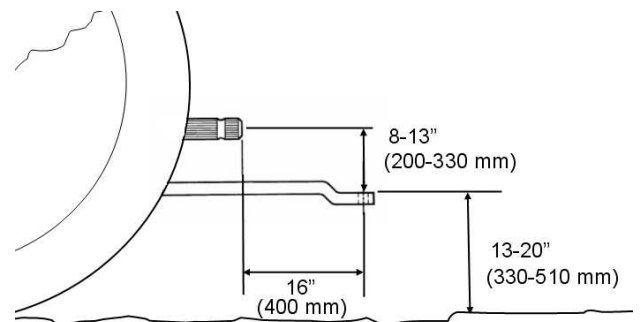
2. Ensure the correct PTO speed.
  - Ensure that the tractor PTO speed matches the BP 965's gearbox speed of 1000 rpm.
  - Do not attempt to operate the BP 965 at a different PTO speed.

**Note:** Do not use PTO adapters. PTO adapters will cause a driveline failure and possible tractor damage. Your BP 965 warranty will also be invalid.



3. Adjust the tractor drawbar length.
  - Set the drawbar length to 16" (406 mm) for a 1 3/8" 21 spline PTO.
  - This length is measured from the tip of the PTO shaft end to the center of the drawbar hole. (Refer to your tractor's operator manual for drawbar adjustment procedures.)

**Note:** To prevent damage to the tractor drawbar, avoid traveling at high speeds and over rough terrain.



Tractor Drawbar Adjustment

PTO Dimensions

4. Lift the hitch.
  - Lift the hitch with the jack (1)
    - The hitch is heavy. Do not attempt to lift it without using the jack.



Lift Hitch with the Jack

221351C



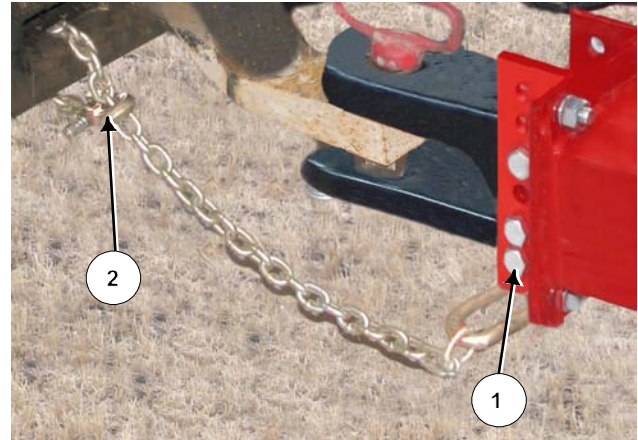
## Section 2 - Transporting the BP 965

5. Connect the hitch to the tractor drawbar.

- Use a 1" (25 mm) pin.
- Secure with a hitch pin clip.

6. Connect the safety chain.

- Ensure the safety chain rating is equal or greater than the gross weight of the BP 965.
- Route the safety chain around the lower safety chain bolt (1).
- Attach the chain to a secure location on the tractor.
- Fasten the chain hook with the hook lock (2).



Connect Safety Chain

221219-2C

7. Attach the driveline to the PTO.



Shut off the tractor engine before attaching PTO driveline. Entanglement in the rotating driveline can cause serious injury or death.



The BP 965 shall not be operated without the driveline shields in place.

- Shut off the tractor engine and remove the key.
- Check that the driveline telescopes easily and that the shields are in good condition and rotate freely.
- Lift the tractor PTO shield.



## Section 2 - Transporting the BP 965

- Support the driveline, pull back on the yoke collar, align the splines by rotating the BP 965 driveline and push the driveline into the tractor PTO shaft until the collar snaps into place.
- Push and pull the yoke several times to ensure the driveline is locked. Do not pull on the collar as this will release the lock.
- Lower the tractor & hitch PTO shields into place.
- Connect the chains on the driveline guards to the driveline shield and the tractor.
- Fold down the PTO support holder (1).
  - Failure to fold down the support may result in damage to the driveline.

### 8. Attach the hydraulics.

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

### 9. Connect the lights.

- Connect the light plug into the appropriate tractor receptacle.
- Ensure the light cable does not interfere with or contact moving parts.



Connect Driveline to PTO

221296C



Connect Driveline Cover Chains

222232



Attach Hydraulics and Electrical

108008



## Section 2 - Transporting the BP 965

10. Place the hitch jack in the storage location.

11. Adjust the wheel stance settings.

- Increase the rear wheel stance to maintain stability when working on hilly terrain or rough ground.

Note: Ensure the bale processing tub is empty before adjusting wheel stance.

- Raise the main axle under the cylinder mount and support.
- Loosen the u-bolts (1) that hold the axle tubes in place.
- Slide the axle to achieve the desired wheel stance setting.

Note: Maximum axle extension is 14" (355 mm). Axles may bend if extended beyond this amount.

- Tighten the u-bolts (1) that hold the axle tubes in place to 200 lb-ft (270 Nm).

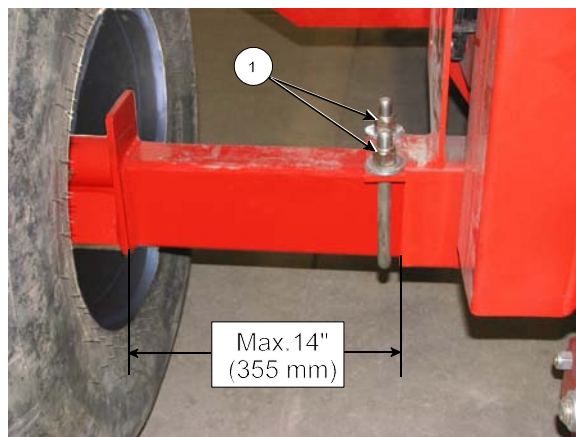
12. Check the condition of the tires.

- Ensure that the lug nuts have the cone side of the lug nut against the wheel rim.
- Torque the lug nuts to 85-92 lbft (115 - 124 Nm).
- To determine the tire pressure, check the tire sidewalls for the number of tire plys :
  - Fill 6 ply tires to 24 psi (165 kPa).
  - Fill 10 ply tires to 36 psi (248 kPa).



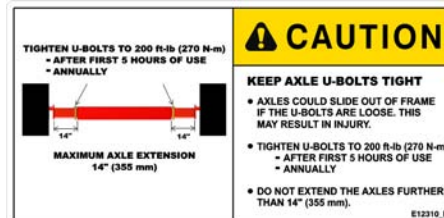
Hitch Jack in Storage Location

221272



Wheel Tread Width

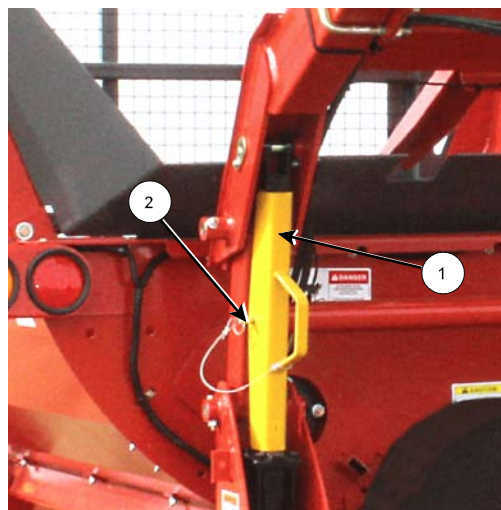
221129C



Check the Tires

221128

13. Raise the bale loading forks to the highest position.
14. Install the cylinder lock (1) on the cylinder of the bale loading forks.
  - Fasten the cylinder lock in place with the pin (2).



Fork Cylinder Locked

221298C

15. Raise the discharge deflector door to the transport position.
  - Flip the rubber deflector onto the top of the door before raising the door. This will secure the rubber between the tub wall and the door.
  - The discharge door is operated by a hydraulic cylinder.

Note: If the 2 remote option is installed, the door cylinder will be linked to the bale lift hydraulic circuit through an electric solenoid

- Move the electric selector valve so the hydraulic flow goes to the door cylinder.



Discharge Door Raised - Rubber Secured

221299

16. Ensure the side curtains are rolled up and secured with the rubber fasteners



Side Curtains in Storage

223202

## Section 2 - Transporting the BP 965

17. Install the discharge deflector door transport lock.

- Rotate the lock (1) toward the door.
- Place the lock onto the pin on the door.
- Secure with the clip pin (2).



Deflector Door Lock

222077C

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



Ensure SMV is Visible

221360

19. Transport



Do not tow behind a truck or other type of vehicle.

Check with local traffic regulations to transport on public roads.

20. Loaded transport speed

- Do not exceed 25 mph (40 km/h).
- See the chart of required tractor weight at the beginning of this section.



### BP 965 PREPARATION

Check these items each time before using the machine.

1. Park the tractor and BP 965 on level ground.
  - Engage the tractor parking brake and shut down the tractor.
2. Ensure that all decals are clean and in place.
3. Ensure that the Slow Moving Vehicle (SMV) sign is clean and visible.



Park on Level Ground

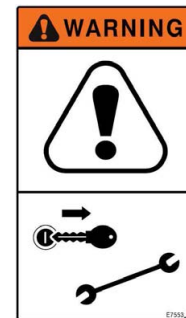
222194

4. Check the condition of the flail drum.

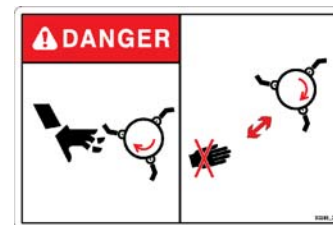


Shut down the tractor completely and set the parking brake.

Disconnect the PTO from the tractor before doing any work near the flail drum.



Do not place hands in the BP 965 when it is rotating. Contact with exposed rotating flails will cause serious injury or death.



5. Clean debris and material buildup from the flail drum area and the processor tub.
  - Do not use the twine/wrap cutter tool to dislodge jammed material.
- Check the condition of the drum.



Check and Clean Flail Drum Area

214081

#### 6. Check the condition of the flails.

- Inspect the flails daily.

Spin the drum by hand to check all the flails.

- Check that the flails swing freely.
- Check if they are broken or worn to the point that they would not properly process the material.
- See the Section 5 - "Maintaining the BP 965" for flail replacement information.
  - Replace the flails in pairs.
    - Replace on opposite sides of the drum to maintain drum balance.
- Check the condition of the flail mounting bolts. Ensure the mounting bolts are tight.



Check Flails

214082

#### 7. Remove twine or other materials that is wrapped around the flail drum or drum bearings.

Note: Remove the twine/wrap from the flail drum every 25 bales. Premature bearing failure can occur if twine/wrap or other materials is allowed to build up on the flail drum.



Remove Twine/Wrap

214083

See "Twine/Wrap Removal Procedure" at the end of this Section.

### Section 3 - BP 965 Preparation

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#### 8. Adjust the height of the hitch tongue.

Note: Do this procedure on level ground.

- Level the frame of the BP 965 to ensure the bale forks can lower for loading a bale.
- Adjust the hitch tongue height to connect with the tractor drawbar while keeping the frame level.
- Fasten the tongue in place and torque the bolts to 210 ft-lbs (285 Nm).



Adjust the Height of Hitch Tongue

221296

#### 9. Set the level of the lower discharge deflector.

- To adjust the bottom deflector, stand in front of the machine, pull the lower handle and raise or lower the door as required.
- To increase the height of discharge, raise the door to the one of the upper slots.
- To lessen the height discharge, position the door to one of the lower slots.

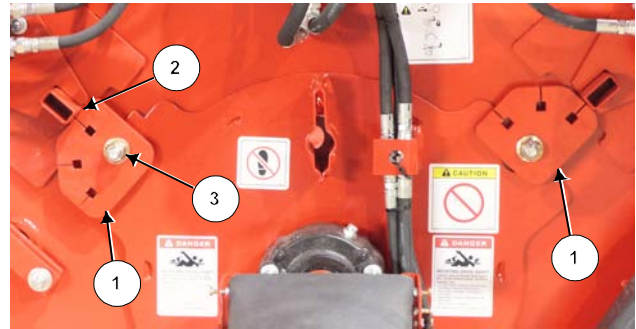


Set the Level of Lower Discharge Deflector

214084-2

10. Check that the feed rollers are resting on the adjustment plates (1).

- The feed roller is to be resting on a side of the adjustment plate (2) that has a line to a cutout.
- Note: The front and back plate of a roller need to be at the same setting.
- The default positions for the plates are for the left roller (non-discharge side) to be higher than the right roller (discharge side).
  - These default positions are for improved material flow from the machine.
  - Adjustment from these positions is possible.
- Check that all the adjustment plate fasteners (3) are tight.



Check that the Feed Rollers are Resting on the Adjustment Plates

222135C

11. Adjust the bale loader forks for the width of bale being processed.

#### For Round Bales -

- For all diameters of round bales, move the forks to the farthest position outward.
- Place the u-bolts around the lift upright.



Forks Moved Out for Round Bales

223122-2

#### For Square Bales -

- Measure the bale width when the twines are in the vertical position.
- The twines need to be vertical when loaded on the forks for the twine sickle to cut the twine.



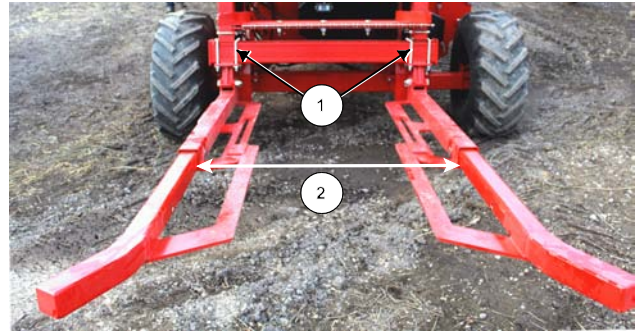
Measure Width of the Square Bale When Twines are Vertical

223120



### Section 3 - BP 965 Preparation

- Move the bale lift forks so the measurement between the inside of the forks (2) is the measurement taken of the square bale.
- The bale is to sit between the inside of the forks.
- Loosen the u-bolts (1) that hold the forks to the bale lift.
- Center the forks on the bale lift using the measured width of bale.



Adjust Fork Width to Bales Being Loaded  
Center Forks on the Bale Lift

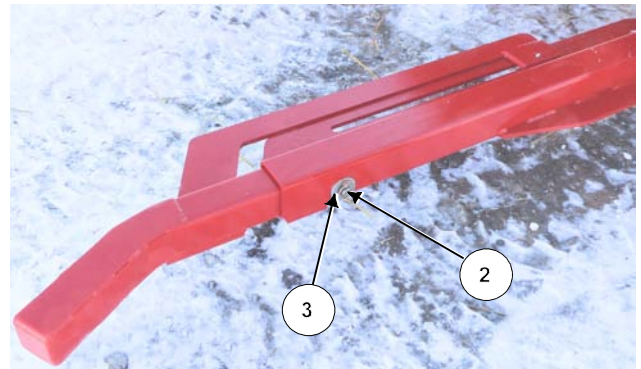
221232C

#### 12. Adjust the length of the forks.

- The forks are adjustable in length for round or square bales.

For round bales move both forks inward:

- Remove the spring pin (2) from the fork pin (3).
- Remove the washer.
- Remove the fork pin.
- Slide the forks in and align the hole.
- Install the fork pin (3).
- Install the washer.
- Install the spring pin into the fork pin.

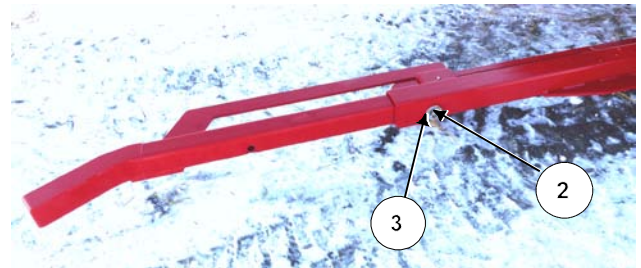


Adjust Fork Length for Round Bales

221233C

For square bales move both forks outward:

- Remove the spring pin (2) from the fork pin (3).
- Remove the washer.
- Remove the fork pin.
- Slide the forks out and align the hole.
- Install the fork pin (3).
- Install the washer.
- Install the spring pin into the fork pin.



Adjust Fork Length for Square Bales

221234C

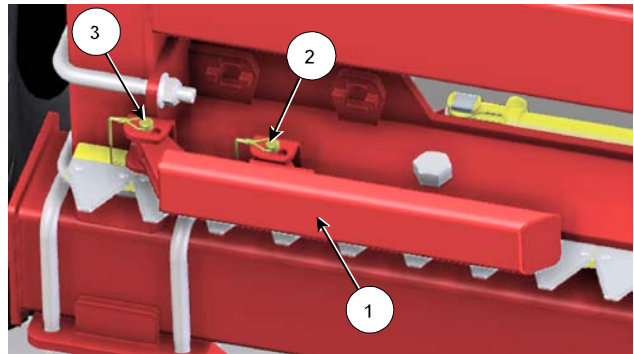


### 13. Adjust the twine sickle bale guides.

#### For Round Bales

Adjust both the left and right bale guide:

- Move the bale guides (1) so they are folded in parallel to the sickle blade.
- Fasten the bale guides with the link pins at the inner connection (2) and the outer connection (3).
- Use the outermost hole at each connection point (2,3).



Bale Guides Folded in for Round Bales  
(Left Bale Guide Shown)

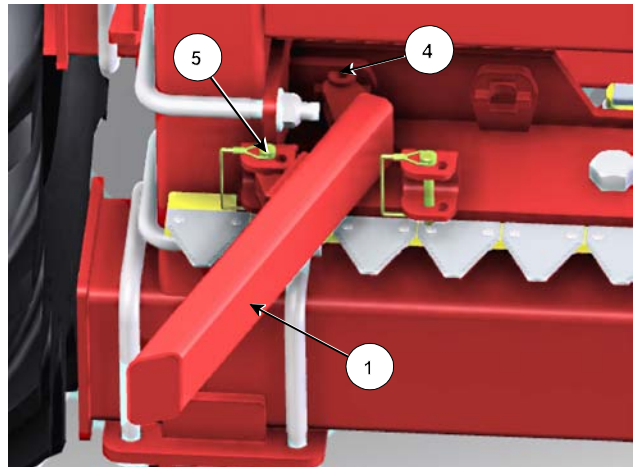
222106-1C

#### For 4 Foot Square Bales

Adjust both the left and right bale guide:

- Move the back pivot of the bale guide (1) into the outer bale guide receivers (4).
- Fasten the bale guide middle support with the link pins to the outer middle guide mount (5).

Note: There are 2 holes in the middle guide mount. These holes allow for additional adjustment of the bale guide. Pin the guide into the hole that gives the most control on the bale.



Bale Guides Mounted Out for 4 Foot Bales  
(Left Bale Guide Shown)

222107-1C

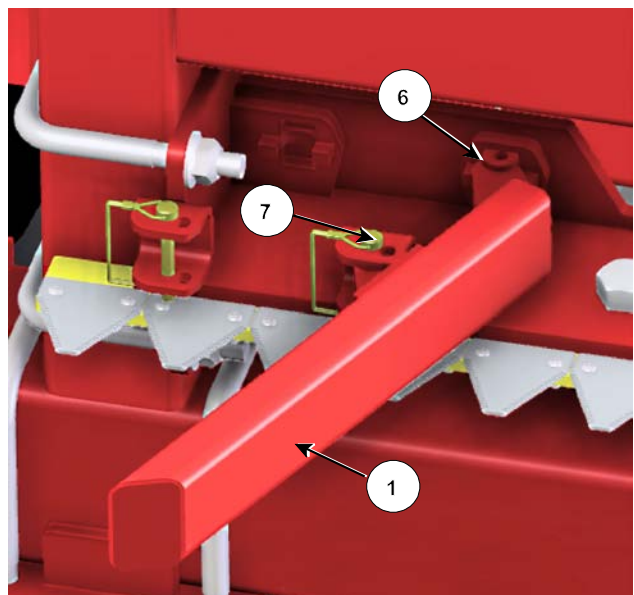
#### For 3 Foot Square Bales

Adjust both the left and right bale guide:

- Move the back pivot of the bale guides (1) into the inner bale guide receivers (6).
- Fasten the bale guides middle support with the link pins to the inner middle guide mount (7).

Note: There are 2 holes in the middle guide mount. These holes allow for additional adjustment of the bale guide.

Pin the guide into the hole that gives the most control on the bale.



Bale Guides Mounted Out for 3 Foot Bales  
(Left Bale Guide Shown)

222108-1C

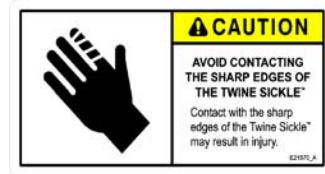
14. Check that the twine sickle moves back and forth by using the tractor control lever.

- Check that the sickle moves through the entire stroke.
  - If the stroke is limited, remove any material that is built up at the end of the sickle blade that is limiting the movement.



Do Not Contact the Twine Sickle. Contact with the sharp edges of the twine sickle may result in injury.

Do not contact the twine sickle when it is operating. Contact with the moving sickle may result in injury.



Check the Twine Sickle Moves

222111

15. 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 the hydraulic system before repairing, adjusting or disconnecting.

- Visually inspect all the hydraulic hoses and fittings.
  - See Section 5 "Maintaining the BP 965" for conditions indicating that replacement is needed.



Check All the Hydraulics

222195

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

### Section 3 - BP 965 Preparation

16. Inspect the wheels and tires for damage or foreign objects. Repair or replace as necessary.

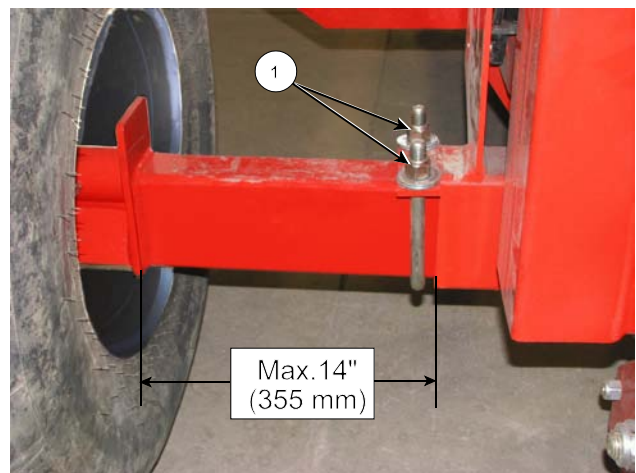
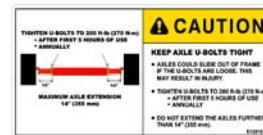


Check the Wheels and Tires

221128

17. Check that the axle u-bolts (1) are tight.

- Torque the axle u-bolts (1) to 200 lb-ft (270 Nm) to ensure the axles do not slide out of the frame.
- Maximum axle extension is 14" (355 mm) from the main tube edge to the inside face of the spindle plate.



Check That Axle U-bolts Are Tight

221129C



### Section 3 - BP 965 Preparation

18. Remove any twine/wrap that is built up around the axle spindle and hub.

- Be careful to not damage the bearing grease seal while removing twine/wrap.



Remove Twine/Wrap from Spindle and Hub

221130

19. Ensure the driveline shields are lowered into place and are in good repair to prevent injuries.



The BP 965 shall not be operated without the driveline shields in place.



Ensure Driveline Shield is in Place

221374

20. Unlock the flail drum.

- Disengage the drum clutch pin from the flail drum drive plate.
- Pull the spring loaded pin (1) out of the processing chamber.
- Rotate the pin so that the roll pin (2) is in the lock out slot.
- Failure to unlock the flail drum will result in damage to the machine during start up.



Remove the Flail Drum Lock

221363C

### Section 3 - BP 965 Preparation

21. Remove the fork lock from the hydraulic cylinder.
  - Store the lock on the storage tab on the side of the machine.

Note: The forks may need to be raised with the hydraulics to remove the weight from the lock.



Store the Fork Lock

218153

22. Remove the discharge deflector door transport lock.
  - Remove the clip pin (2).
  - Rotate the lock (1) away from the door.



Deflector Door Lock

222077C

23. Lower the discharge deflector door.

Note: If the 2 remote option is installed, the door cylinder will be linked to the bale lift hydraulic circuit through an electric solenoid

- Move the electric selector valve so the hydraulic flow goes to the door cylinder.

24. Position the rubber deflector.
  - For bedding have the rubber laying on the top of the door.



Rubber On Top of Door for Bedding

223205

### Section 3 - BP 965 Preparation

- For bunk or windrow feeding have the rubber hanging down.
- Pin (3) the rubber in place.
- There are 3 possible pin positions to give adjustment to feed distribution.



Rubber Down, Link Curtain Retainers for Bunk/Windrow Feeding

222079C

#### 25. Position the side curtains.

- If bunk feeding or windrowing, loosen the rubber straps holding the side curtains so the curtains hang down.
- Link the side curtains to the front rubber with the curtain magnets.



Side Curtains Loosened for Bunk or Windrow

223201

- If bedding or an operation not requiring the side curtains, roll up the side curtains and fasten with the rubber holding straps.

#### 26. Lubricate all grease fittings and check the fluid level in the gear box.

- See the Maintenance Section for information.

#### 27. Ensure all fasteners are tightened.



Side Curtains Fastened

223202



### Twine/Wrap Removal Procedure

Remove twine/wrap that is around the flail drum.

Note: Remove the twine/wrap from the flail drum and feed rollers every 25 bales. Premature bearing failure can occur if twine/wrap is allowed to build up.



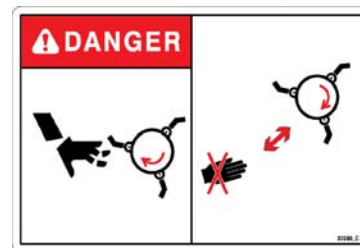
Shutdown the tractor completely and set the parking brake.

Disconnect the PTO from the tractor before doing any work near the flail drum.



Do not place hands in the BP 965 when it is rotating. Contact with exposed rotating flails will cause serious injury or death.

1. Raise the forks to the fully raised position.



Raise Forks and Lock

221360

2. Install the cylinder locks onto the fork cylinders.



Install and secure the cylinder locks before going under raised bale forks.



### Section 3 - BP 965 Preparation

3. Move the flail guard rod adjustment lever to a number between 1 and 4.

Note: Having the lever at position 5 will result in damage to the twine/wrap cutter blade.



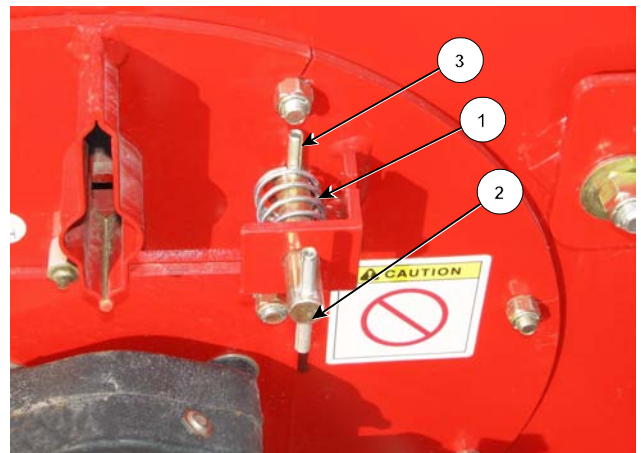
Move Flail Guard Rod Lever (to less than 5)

214087-2

4. Align the flail drum knife path with the tub opening on the rear wall.

5. Engage the flail drum lock.

- Turn the lock pin (2) to release the roll pin (3) from the slot.
- Allow the spring (1) to push the lock pin into the processing chamber.
- Manually rotate the driveline until the lock pin snaps into place locking the flail drum.



Engage Flail Drum Lock

221364C

6. Move flails blocking the knife path.

- Failure to do so will result in damage to the twine/wrap cutter blade.



Move Flails Blocking the Knife Path

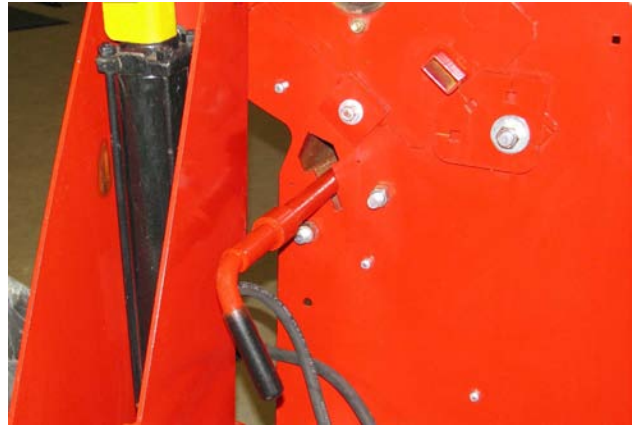
215135



### Section 3 - BP 965 Preparation

7. Remove the twine/wrap cutter from the storage position.

- The twine/wrap cutter is located on the non-discharge side of the rear bale tub wall.



Remove Twine/Wrap Cutter from Storage

201231

8. Insert the twine/wrap cutter with the blade up.

- Insert the twine/wrap cutter into the guide at the back of the processor tub.

Note: On machines with a Feed Chopper installed, release the Feed Chopper door latch. Swing open the door to access the twine cutter opening.



Insert Twine/Wrap Cutter with Blade Up

215163

9. Cut through the twine/wrap.

- Use a “saw” like action along the entire length of the drum.

10. Place the twine/wrap cutter back into the storage position.

- Ensure the handle is facing down and is locked into the key hole slot.



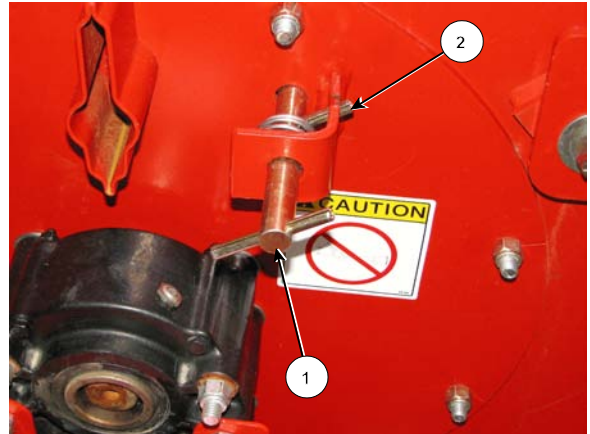
Replace Twine Cutter Into Storage Position

201231

### Section 3 - BP 965 Preparation

11. Unlock the flail drum.

- Disengage the drum clutch pin from the flail drum drive plate.
- Pull the spring loaded pin (1) out of the processing chamber.
- Rotate the pin so that the roll pin (2) is in the lock out slot.
- Failure to unlock the flail drum will result in damage to the machine during start up.



Remove the Flail Drum Lock

221363C

12. Remove the cut twine/wrap from the flail drum.



Remove Wrap & Twine

214083

13. Remove the fork lock from the hydraulic cylinder and place in the storage location.



Fork Lock in Storage Location

218153

14. Remove any twine/wrap from around the feed rollers.

- Cut the twine from the rollers.
- Do not score the paint on the rollers while cutting. Scoring the paint may result in rusting.



Remove Wrap/Twine from Feed Rollers

222080

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### OPERATING THE BP 965



Do not allow anyone to ride on the BP 965.

- Falling from the machine can cause injury.



Do Not Enter the Tub While Parts Are Rotating.

- With Bale in Tub
- Without Bale in Tub

The Bale is unstable and may cause entrapment.

Contact with the moving feed mechanism will cause serious injury or death.

Contact with the rotating flail drum will cause serious injury or death.



Note: Use caution if entering the tub with a bale in it - even after all rotation has stopped. The bale is unstable.



Stay back from an operating machine which can discharge objects several feet.

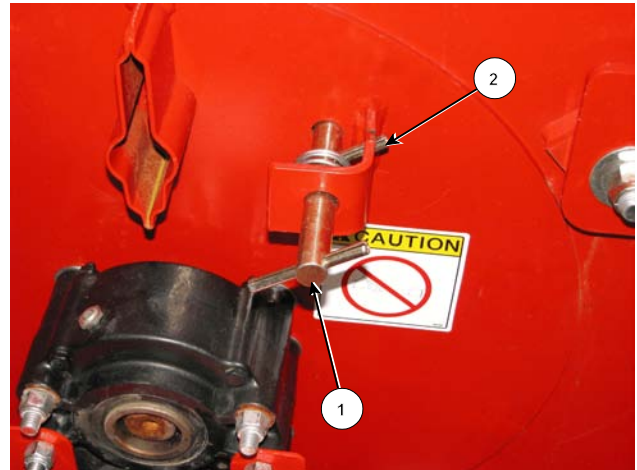
Thrown material or objects leaving the discharge area can cause serious injury or death.

Do not operate within 100 ft (30m) of any person.



### 1. Unlock the flail drum (1).

- Disengage the drum clutch pin from the flail drum drive plate.
- Pull the spring loaded pin (1) out of the processing chamber.
- Rotate the pin so that the roll pin (2) is in the lock out slot.
- Failure to unlock the flail drum will result in damage to the machine during start up.



Unlock the Flail Drum

215159C

### Discharge Rate Settings

There are 2 settings that determine the rate at which material is discharged:

- The aggression level of the flails acting on the bale.
- The speed of the feed rollers which feed the bale into the flail drum.

### 1. Set the aggression level of the flails.

Adjusting the aggression level is done with the guard rod adjustment handle.

The bale rests on the guard rods. The amount of contact between the bale and the flails is determined by the guard rod setting.

There are five guard rod settings.

- Pull the upper handle out of the handle lock.
- Raise or lower the handle to the desired discharge setting.
- Lock the handle in the notch.

To Increase the discharge rate:

- Raise the handle to a higher number.

To Decrease the discharge rate:

- Lower the handle to a lower number.



Set the Aggression Level of the Flails

214084-2



## Section 4 - Operating the BP 965

If the Hydraulic Aggression Control Option is installed:

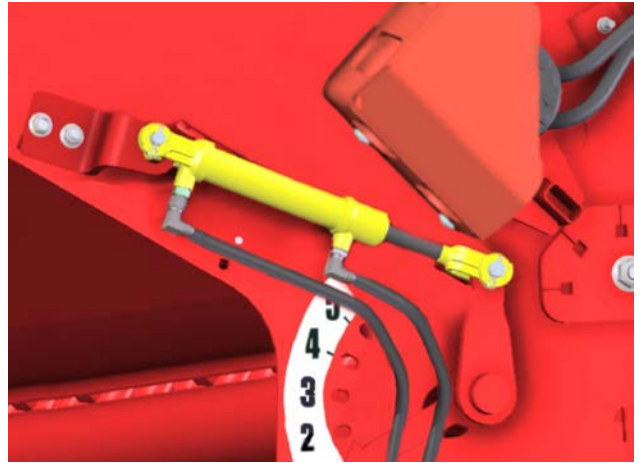
- Activate the hydraulic cylinder to change the position of the guard rods.

To Increase the discharge rate:

- Raise the pointer to a higher number.

To Decrease the discharge rate:

- Lower the pointer to a lower number.



Hydraulic Aggression Control Option

46463\_C

### 2. Set the speed of the feed rollers.

Adjust the feed roller speed to a maximum of 40 rpm.

- Adjust using the tractor flow control settings.
- Faster feed roller speeds will result in a faster discharge of material.
- Slower feed roller speeds will result in a slower discharge of material.



Set Feed Roller Speed

221303

3. Set the discharge deflector door.
  - Raise or lower the upper deflector door to adjust the amount of spreading of material.
  - Use the hydraulic cylinder to adjust the door.

Note: If the 2 remote option is installed, the door cylinder will be linked to the bale lift hydraulic circuit through an electric solenoid.

- Move the electric selector so the flow goes to door cylinder.

Door Lowered - the material will be left in a windrow or directed into a feed bunk.

- Allow the rubber deflector to hang down.
- Adjust the rubber to one of the three settings.

Door Midway - deflector door will control the height and distance of discharge.

- Place the rubber deflector onto the top of the door.

Door Raised - Bedding material will be spread out over a wide area

- Place the rubber deflector onto the top of the door.

4. Position the side curtains.

- If bunk feeding or windrowing, loosen the rubber holding straps so the curtains hang down.
- Link the side curtains to the front rubber with the curtain magnets.



Set the Upper Deflector Door  
(Windrowing Shown)

223204



Rubber On Top of Door for Bedding

223205



Side Curtains Loosened for Bunk or Windrow

223201

## Section 4 - Operating the BP 965

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- If bedding or an operation not requiring the side curtains, roll up the side curtains and fasten with the rubber holding straps.



Side Curtains Fastened

223202

### 5. Set the lower deflector door.

- Raise or lower the lower deflector door to adjust the discharge height and distance of material travel.
- To increase discharge height and distance, move the door up.
- To decrease discharge height and distance, move the door down.



Set the Lower Deflector Door

214087-2



### 6. Load the bale into the processor tub.

- The dump fork indicator rod (1) gives a visual indication if the forks are raised or lowered to the ground.
- Lower the forks completely.



Ensure people are not near the machine when lowering the forks and backing up to bales.

- Have the bale guides set for the type and size of bale. (See Section 3 for more information.)
- If it is desired to keep one or two strings on the square bale, remove sickle knives from the bar for those string locations.
- Slowly back up to the bale until the forks are completely under the bale.

Note: Load square bales "on string" (twine on the ground). This will enable the sickle to cut the twine.

- Raise the forks enough to lift the bale off the ground.

Note: If a bale is frozen to the ground, dislodge it by rocking the machine to impact the bale and loosen it.

Note: Ensure flail drum and feed rollers are not turning while loading a bale.



Dump Fork Indicator Rod

221144C



Back Up to the Bale

222196



Raise the Bale

222197

7. On square bales operate the twine sickle with the tractor remote to cut the twine.

Note: The twine sickle does not retain the cut twine and does not keep the twine out of the processing tub.

8. Raise the lift forks until the bale falls into the processor.

Note: For Square or Round bales:  
If livestock is being fed, it is the operator's responsibility to ensure that the materials in the processed feed mix are suitable. Some of the wrapping material (twine, net wrap or other materials) may be discharged with the feed if the wrapping materials are not removed prior to processing.



Operate Twine Sickle On Square Bales

222197

9. Load a second bale on the forks (optional) while a bale is in the processor tub.



Ensure people are not near the machine when lowering the forks and backing up to bales.

Note: Load square bales "on string" (twine on the ground). This will enable the sickle to cut the twine.

- If a second bale is loaded onto the forks, raise the forks as high as possible.
- Make sure the bale on the forks does not interfere with the bale already in the tub.
- Raising the forks will reduce the pressure on the hydraulic lift assembly.



Second Bale Loaded on Forks

222198

### Processing the Bale

1. Start the PTO to engage the flail drum.



Stay clear from discharge side when PTO is engaged.  
Do not operate within 100 ft (30m) of any person.  
Discharged material or objects leaving the discharge area can cause serious injury or death.



The BP 965 shall not be operated without the guards in place or in good condition.

- Engage the tractor PTO at an idle.
- Increase the tractor RPM until 1000 PTO speed is reached.

Note: Ensure that the second bale carried on the forks does not interfere with the bale in the tub.



2. Begin processing material.

Note: For Square or Round bales:

If livestock is being fed, it is the operator's responsibility to ensure that the materials in the processed feed mix are suitable. Some of the wrapping material (twine, net wrap or other materials) may be discharged with the feed if the wrapping materials are not removed prior to processing.

- Slowly start rotating the bale with the feed rollers.
  - Bring the feed rollers up to a speed where the material is being fully processed.



Begin Processing the Bale

221304



Note: If the processor vibrates excessively, immediately disengage PTO and stop the tractor.



Wait for all flail drum rotation to stop before approaching the processor.

Inspect for blockages, missing flails or other causes of the vibration.

### 3. Adjust the direction of bale rotation.

- Rotate the bale with the feed rollers so that the top of the bale moves toward the discharge side of the processor.
- If material begins to bunch up near the top of the bale, reverse the direction of bale rotation.
- If the bale stops rotating, reverse the direction of the feed rollers.

### 4. Re-adjust the discharge rate lever (if needed).

- If a different rate of material discharge is desired:
  - Stop the tractor and remove the key.
  - Wait until all flail drum rotation has stopped.
  - Move the discharge rate lever
    - Higher Number = more material discharged
    - Lower Number = less material discharged

### 5. Re-adjust the lower discharge deflector (if needed).

- To increase the discharge height, raise the door to the one of the upper slots.
  - Pull the lower handle and raise or lower the door as required.



Adjust Direction of Bale Rotation

221303



Re-Adjust Discharge Rate Lever (If needed)

214084-2



Re-Adjust Lower Deflector (If needed)

216061

6. Stop the feed rollers before loading another bale into the processor.

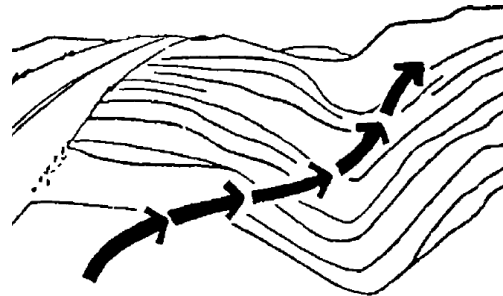
- For square bales operate the twine sickle before the bale is loaded into the tub.

Note: The twine sickle does not retain the cut twine and does not keep the twine out of the processing tub.

Note: For Square or Round bales:  
If livestock is being fed, it is the operator's responsibility to ensure that the materials in the processed feed mix are suitable. Some of the wrapping material (twine, net wrap or other materials) may be discharged with the feed if the wrapping materials are not removed prior to processing.



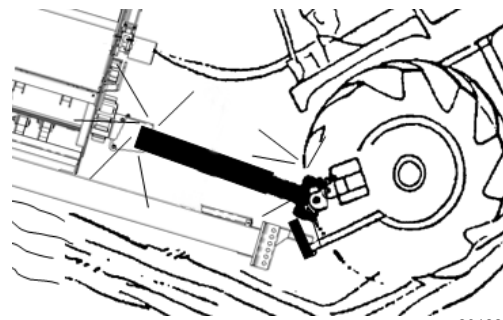
Stop the Feed Rollers Before Loading Bale  
Operate the Twine Sickle (Square Bales) 222197



Cross Ditch at 30° Angle 107072

7. Crossing Ditches and Steep Inclines

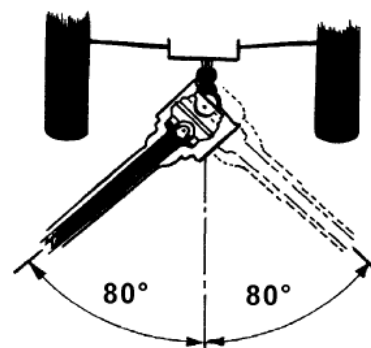
- Cross ditches or inclines at about a 30° approach angle.
- Do not approach a ditch or steep incline straight on as this may collapse the driveline to its shortest length, causing damage by pushing the PTO into the tractor or into the drivebox or downward onto the PTO shaft, breaking it off.



Driveline Collapsed in Steep Ditch 201221

8. Making Turns

- Do not make turns sharper than 80°.
- Angles greater than 80° can result in damage to the constant velocity joint and other driveline components.
- Ensure that the tractor tire does not contact the BP 965 deck or tongue.



Turn Less Than 80° 109040

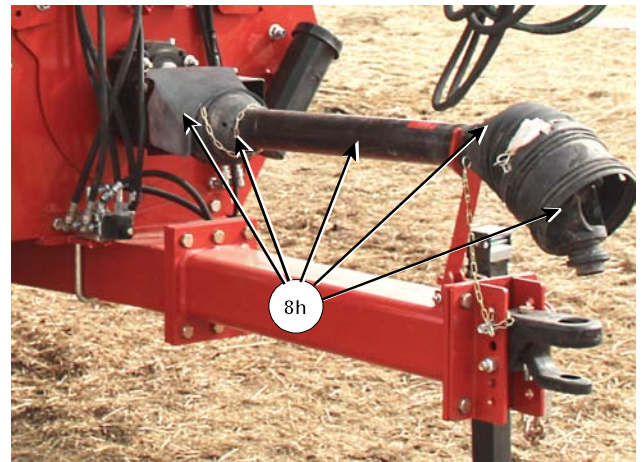
### MAINTAINING THE BP 965

#### Lubrication

Lubricate all grease fittings with a quality lithium soap compatible E.P. grease meeting the N.L.G.I. #2 specifications and containing no more than 1% molybdenum disulfide.

#### Every 8 Hours

- PTO - Lubricate 5 points on the PTO every 8 hours.
  - 1 point each constant velocity joint.
  - \*Continued angled operation will require lubrication every 4 hours.
  - 1 point on each joint collar
  - 1 point at the telescoping section



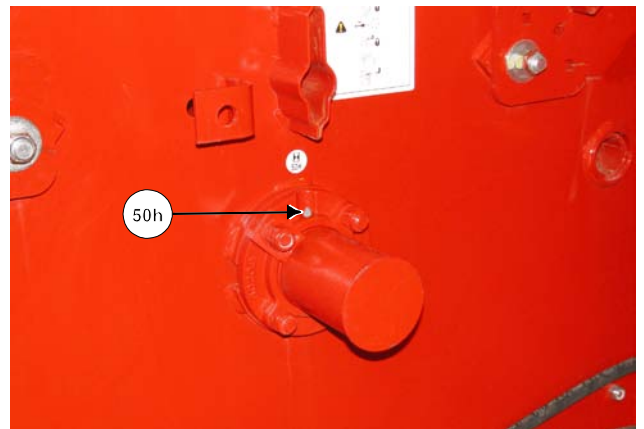
Grease Points on PTO

221305C

#### Every 50 Hours

- Lubricate 1 point on the rear flail drum bearing at the back of the machine.

Note: If the Feed Chopper is installed unlatch the rear shield and open it to access the rear flail drum grease point.



Grease Rear Flail Drum Bearing

215167C

#### Every 100 Hours

- Lubricate 1 point at the front of each feed roller.



Grease Front Feed Roller Bearings  
(Motor Guards Not Shown for Clarity)

221306C



## Section 5 - Maintaining the BP 965

- Lubricate 1 point at the rear of each feed roller.



Grease Rear Feed Roller Bearings

221360C

- Hubs on spindles - Lubricate the hubs every 100 hours.

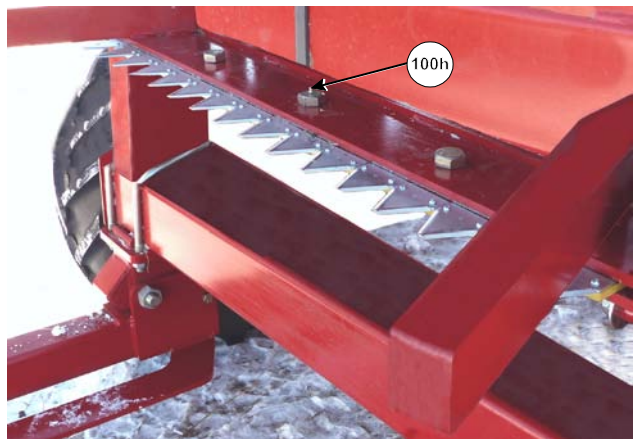


Grease Hubs on Spindles

221151C

### Twine Sickle Blade

- Remove any material that has built up at the ends of the sickle blade.
  - This material build up will prevent the full stroke of the sickle blade.
- Grease the twine sickle every 100 hours.
  - Grease one point on the top of the sickle.



Grease the Twine Sickle

221243C

### Visually Inspect Hydraulic Hoses/Fittings

Shut down the machine. Relieve the pressure on the hydraulic hoses and disconnect them.

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.

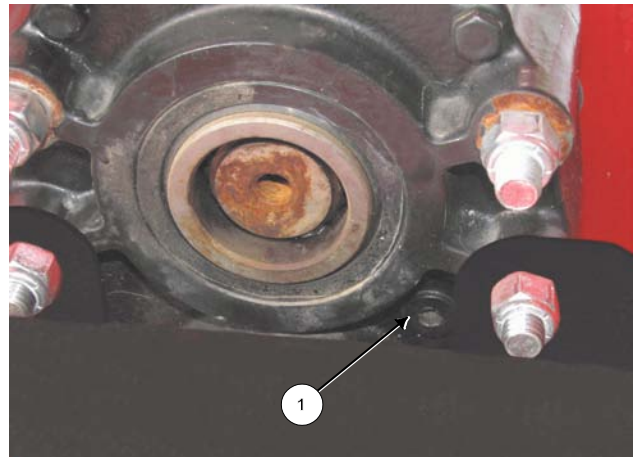


Inspect Hydraulic Hoses

108008-1

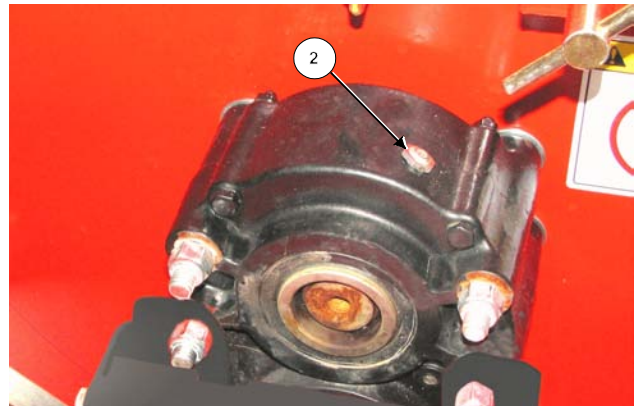
### Check the Fluid Level in the Gearbox

- Check the oil fluid level by removing the oil level plug (1) in the center of the gearbox.
- The oil should be at the level of the plug.
- If oil needs to be added, add through the plug (2) on the top of the gearbox.
  - Use gear oil Grade 80W90 that meets or exceeds API service classification GL-4.
- Annually change the oil in the gearbox. (See Gearbox Oil Changing Procedures)



Check Gearbox Oil Level

221289C



Add Oil at Top of Gearbox

221290C



### Gearbox Oil Changing Procedures

Change the oil annually and before storing the BP 965 for the season.



Before beginning, make sure the tractor is off and the PTO is disengaged. Disconnect the driveline from the tractor before doing any work.

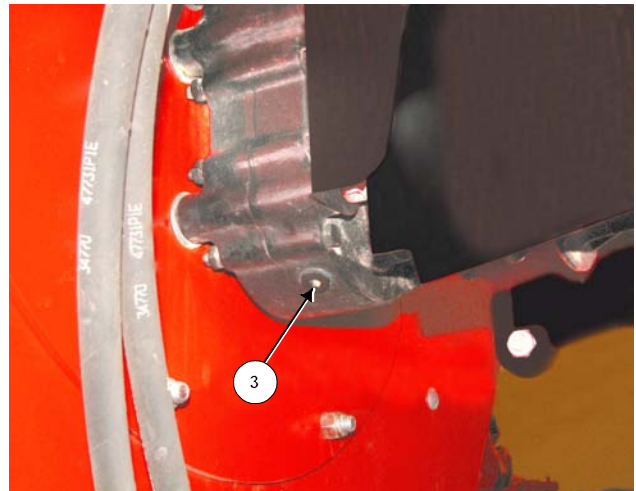


Securely block the BP 965 before any work is done to prevent the BP 965 from moving during servicing.



#### 1. Drain the oil from the gearbox.

- Remove the drain plug (3) on the bottom of the gearbox.
- Allow the oil to drain completely from the gearbox.
- Catch the oil in a container.



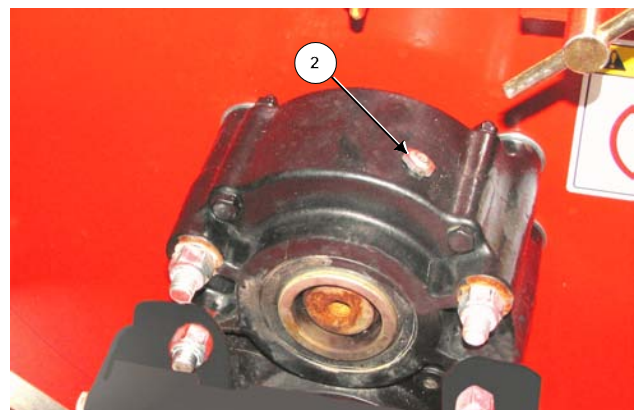
Drain Oil From Gearbox

221291C

#### 2. Replace the drain plug and tighten.

#### 3. Fill the gearbox.

- Remove the top fill plug (2).
- Fill with 300 ml of 80W90 gear oil that meets or exceeds API service classification GL-4.

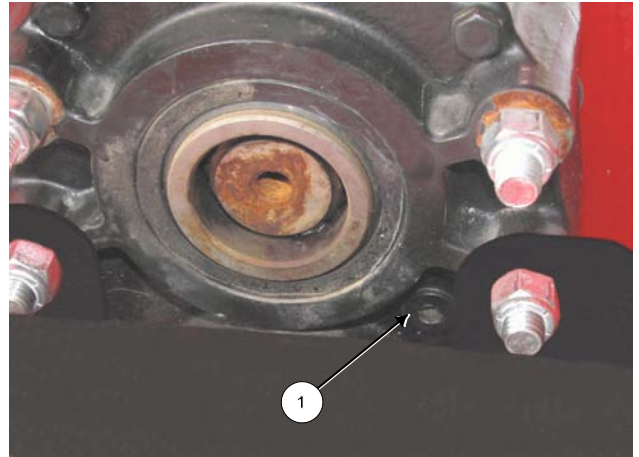


Add Oil at Top of Gearbox

221290C

4. Check the oil level in the gearbox.

- Removing the oil level plug (1) in the center of the gearbox.
- The oil should be at the level of the plug.
- If oil needs to be added, add through the plug on the top of the gearbox.



Check Gearbox Oil Level

221289C

### Flail Replacement Procedure

Replace flails that are broken or worn to the point that they will not process material properly.



Before beginning, make sure the tractor is off and the PTO is disengaged. Disconnect the driveline from the tractor before doing any work.



Securely block the BP 965 before any work is done to prevent the BP 965 from moving during servicing.

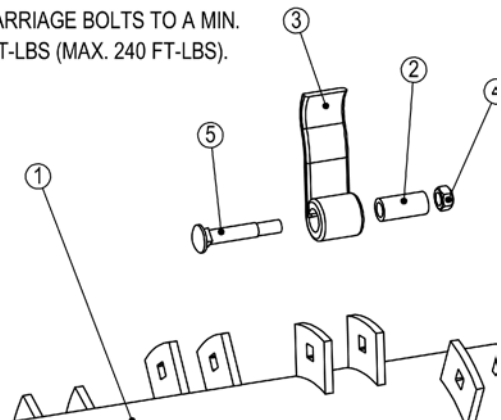


1. Remove the flail to be replaced.
  - Remove the nut (4) and bolt (5) that holds the flail (3) to the drum (1).
2. Remove the pipe (2) inside the flail.
  - This pipe will be used again.
3. Remove the flail that is on the opposite side of the flail drum.

Note: To maintain rotary balance, the flail on the opposite side of the drum must be replaced at the same time.

4. Install the 2 new flails with the pipe, bolt and nut between the tabs on the drum.
  - Ensure that the bent portion of the flail leads into the rotation of the drum.
5. Torque the nuts to minimum of 180 ft-lb (244 Nm) - maximum of 240 ft-lb (325 Nm).
6. Check that the flail freely moves between the tabs on the drum.

TORQUE CARRIAGE BOLTS TO A MIN. OF 180 FT-LBS (MAX. 240 FT-LBS).



Flail Replacement

40524\_B

### Tires

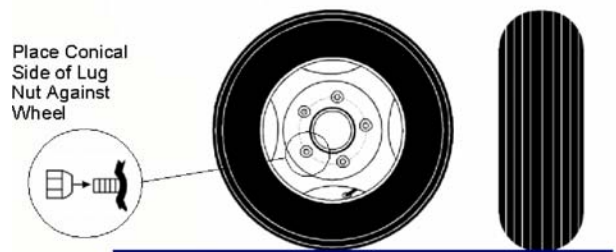
Note: It is recommended to have the tires mounted by a tire technician.

- Check the condition of the tires.
- Mount the rim so that the air valve will be facing outward when mounted on the BP 965.
- Place the cone side of the lug nut against the wheel rim.
- Torque the lug nuts to 85-92 lbft (115 - 124 Nm).
- To determine the tire pressure, check the tire sidewalls for the number of tire plies :
  - Fill 6 ply tires to 24 psi (165 kPa).
  - Fill 10 ply tires to 36 psi (248 kPa).
- Transport speed should not exceed 25 mph (40 kmh).
- When replacing the tires, refer to the Specification Section for the size and type of tires.



Tires

215126



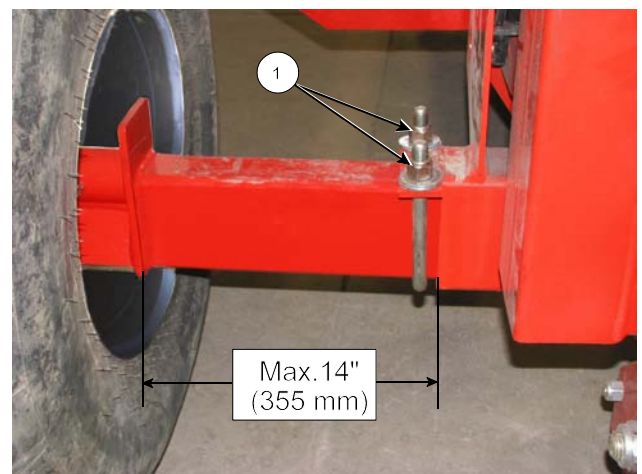
Tire Mounting

223213

### Axles

Check that the axle u-bolts are tight.

- Torque the axle u-bolts (1) to 200 lb-ft (270 Nm) to ensure the axles do not slide out of the frame.
- Maximum axle extension is 14" (355 mm) from the main tube edge to the inside face of the spindle plate.



Check That Axle U-bolts Are Tight

221129C

Remove any twine/wrap that is built up around the axle spindle and hub.

- Be careful to not damage the grease seal on the bearing while removing twine/wrap.



Remove Twine From the Spindle and Hub

221130



### STORING THE BP 965

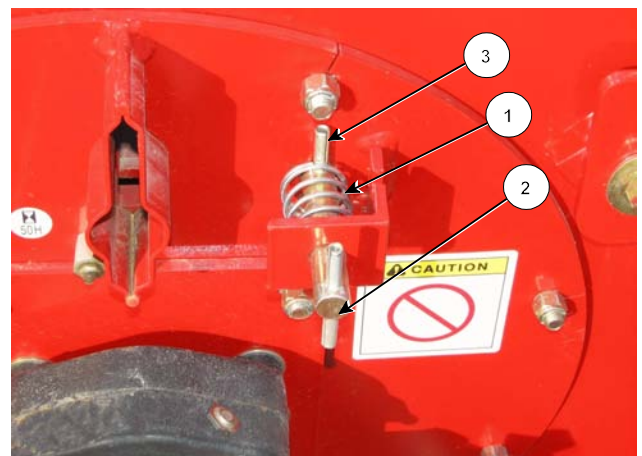
1. Clean all the debris from the tub area and off the BP 965.
2. Park the BP 965 on level ground.
3. Lubricate all BP 965 grease points (See Section 5).
4. Tighten all bolts to the recommended torque.
5. Check the BP 965 for worn and damaged parts. Replace as needed.



Clean Debris from the BP 965

222176

6. Lock the BP 965 flail drum.
  - Engage the flail drum lock.
  - Turn the lock pin (2) to release the roll pin (3) from the slot.
  - Allow the spring (1) to push the lock pin into the processing chamber.
  - Manually rotate the driveline until the lock pin snaps into place locking the flail drum.



Lock the Flail Drum

221364C

## Section 6 - Storing the BP 965

7. Lower the forks to the ground.

8. Remove debris built up around the forks.

9. Raise the discharge deflector door to the transport position.

- The discharge deflector door is operated by a hydraulic cylinder.

Note: If the 2 remote option is installed, the door cylinder will be linked to the bale lift hydraulic circuit through an electric solenoid

- Move the electric selector valve so the hydraulic flow goes to the door cylinder.
- Flip the rubber deflector onto the top of the door before raising the door. This will secure the rubber between the tub wall and the door.

10. Roll up the side curtains and secure them with the rubber fasteners.



Lower the Forks to the Ground

221349



Raise Deflector Door to Transport Position

221299



Side Curtains Fastened

223202

## Section 6 - Storing the BP 965

11. Install the discharge deflector door transport lock.

- Rotate the lock (1) toward the door.
- Place the lock onto the pin on the door.
- Secure with the clip pin (2).



Deflector Door Lock

222077C

12. Place the jack onto the hitch.

- Remove the jack from the storage position.
- Pin the jack in place on the hitch.
- Ensure that the jack is resting on solid level ground or resting on a wood block.
- Raise the hitch until the weight is supported by the jack.



Lift Hitch with the Jack

221351C

13. Disconnect the safety chain from the tractor.

14. Disconnect the hitch from the tractor.

- Remove the hitch pin.



Disconnect Safety Chain and Hitch Pin

221219-2



## Section 6 - Storing the BP 965

15. Remove the driveline from the tractor PTO shaft.
  - Disconnect the chain on the driveline guard from the tractor.
16. Place the driveline in the driveline holder.



Place the Driveline in the Holder

221305

17. Relieve the pressure on the hydraulic hoses and disconnect them.
18. Disconnect the electrical connection.



Disconnect Hydraulic Hoses & Electrical

108008-1

19. Secure the hydraulic hoses and electrical connector to the hose holder to keep them off the ground and clean.
20. Change the oil in the gearbox. See the Maintenance Section for procedures.
  - Fill the gearbox to the oil level as outlined in the Maintenance Section.
21. Check the BP 965 for worn and damaged parts. Replace as needed.
22. Touch-up the paint to prevent rusting.



Hoses and Driveline in Supports

222177

## **TROUBLESHOOTING**

### **General**

<b>Symptom</b>	<b>Problem</b>	<b>Solution</b>
Bale lifting problems	Forks do not raise	Check hydraulic connections and lines
	Bale tips off back of forks	Narrow forks for a better lift on bale
		Extend the forks
	Bale hung up on forks - not going into the tub	Cycle feed rollers left to right to pull bale into tub
Plugging in discharge area	Snow and ice on bales causes blockage in tub	Have flail drum rotating while loading bale to clear out discharge area
	Trying to "lift" thrown material too much	Reduce the lower discharge door height
Material builds up on one side of bale in tub	Bale unwrapping in tub	Reverse direction of feed rollers to consume material buildup
Difficult to rotate bale in tub	Feed rollers not fully engaging bale	Increase aggression of flails to help rotate bale
		Roll bale into the direction of the discharge area
	Bale on forks contacting bale in tub	Lower the forks
	Twine buildup on rollers	Remove twine from rollers
Bale Not Rotating	Feed rollers not engaged	Slowly engage the feed rollers to get the bale rotating



## Section 7 - Troubleshooting

PTO and flail drum not turning	Flail drum lock engaged	Disengage drum lock
	Driveline shear bolt	Replace driveline shear bolt

Feed rollers not turning	SCV not supplying enough hydraulic flow	Increase the flow rate at the SCV
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Not able to get sufficient throw distance	Discharge door at bottom is not raised	Raise the lower discharge door
		Throw with the wind
	Upper deflector door preventing "lift" of material	Raise upper deflector door
	Rubber not on top of door	Flip the rubber onto the top of the door

Upper deflector door not operating	Hydraulic cylinder	Check hydraulic connections
		Check the electrical connection to the solenoid
	Discharge door transport lock	Remove door transport lock

Twine sickle not operating	Hydraulic	Check the hydraulic connections
		Move the SCV in the tractor back and forth
	Sliding mechanism	Check the sickle can slide easily. Remove any build of material in the sickle carrier. Grease the sickle.

## Section 8 - Specifications

### BP 965 SPECIFICATIONS

#### Width

Base BP 965 (left wheel in)	112 (2.84 m)
BP 965 With Feed Chopper	112" (2.84 m)
BP 965 With Grain Tank	141 ½" (3.59 m)
BP 965 With Feed Chopper & Grain Tank	141 ½" (3.59 m)

#### Length & Height

Length (To end of tires)	210" (5.33 m)
To End of Forks Down (Extended)	302" (7.67 m)
To End of Forks Down (Retracted)	275" (6.99 m)
Transport Height (Forks Down)	117" (2.97 m)
Forks Up and Retracted	136" (3.45 m)
Working Maximum Height	
Forks Extended	189 ½" (4.81 m)
Forks Retracted	166" (4.22 m)

#### Weight

Base BP 965	7375 lb (3345 kg)
Tongue weight (Unloaded)	2400 lb (1089 kg)
BP 965 With Feed Chopper	8390 lb (3806 kg)
Tongue weight (Unloaded)	2760 lb (1252 kg)
BP 965 With Grain Tank	8480 lb (3846 kg)
Tongue weight (Unloaded)	2715 lb (1232 kg)
BP 965 With Feed Chopper & Grain Tank	9495 lb (4307 kg)
Tongue weight (Unloaded)	3070 lb (1393 kg)

#### PTO

Category 8	1000 rpm - 1 3/8" 21 spline
Constant Velocity Turning Range	Maximum 80 degrees

## Section 8 - Specifications

	PTO HP	
	Minimum	Recommended
Base BP 965	100 (75 kW)	115 (86 kW)
BP 965 With Feed Chopper	140 (105 kW)	165 (124 kW)
BP 965 With Grain Tank	100 (75k W)	125 (94 kW)
BP 965 With Feed Chopper & Grain Tank	140 (105 kW)	165 (124 kW)

Gearbox rating	180 hp rating (134 kilowatt)
Gearbox Oil Capacity	300 ml

### Bale Size

Maximum Size of Round Bale	6 feet (1.8 m) diameter
Maximum Size of Square Bale	4' x 4' x 9' (1.2 x 1.2 x 2.7 m)

Tires	16.5 X 16.1
Air Pressure for 6 ply tires (as shown on tire sidewall)	24 psi (165 kPa)
Air Pressure for 10 ply tires (as shown on tire sidewall)	36 psi (248 kPa)
Wheel Nut Torque	85-92 lbft (115 - 124 Nm).

Note: Right/left hand is determined by sitting in the tractor looking forward

# Highline New Equipment Limited Warranty Policy

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

Highline Mfg. (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 labour, 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 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 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 thirty (30) 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 items which are listed by product group below:

#### **COMMON WEAR ITEMS**

Roller chain, sprockets, clutches, shear bolts, clutch components, chains, gearbox housings bolts/torqued parts, flails, feed roller belting, coupler chain, DRV couplers, bogie wheels, apron tines and hoses, blades and blade pans, blade bolts and nuts, skid shoes, chain guards, clutches and clutch 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.