Bale Stacker

FaStack 1800/1200

Operators Manual

Highline
MANUFACTURING LTD.

E16200V1_A

FaStack Bale Stacker 1800
FaStack Bale Stacker 1200 Flex

Operator's Manual

Highline Manufacturing Limited
HWY #27, P.O. Box 307
Vonda, SK S0K 4N0
Canada
Phone: 306.258.2233
Fax: 306.258.2010
Toll Free: 1.800.665.2010

E16200V1_A

Printed in Canada

Highline Team Message

*Congratulations on your purchase of the **FaStack Bale Stacker 1800/1200 Flex** manufactured by Highline Manufacturing Ltd.*

This Operator's Manual has been prepared to provide information necessary for the safe and efficient operation of your Bale Stacker. 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 Ltd. thanks and congratulates you for selecting a FaStack Bale Stacker 1800/1200 Flex as your machine of choice.

Highline Manufacturing Ltd.

Table of Contents

Section 1 - Safety

Section 2 - Transporting the Bale Stacker

Section 3 - Preparing the Bale Stacker

Section 4 - Operating the Bale Stacker

Section 5 - Maintaining the Bale Stacker

Section 6 - Storing the Bale Stacker

Section 7 - Troubleshooting

Specifications

This Page Left Blank

GENERAL DESCRIPTION OF FASTACK BALE STACKER 1800/1200 FLEX

The FaStack Bale Stacker 1800 and FaStack Bale Stacker 1200 Flex are designed to pick up square bales while driving in the field without the need to stop to pick up a bale.

The number of bales that can be loaded on the stacker is determined by the size of bale and the orientation of the bale. The FaStack can load the bales "On" or "Off" the strings. The bale clamp can be adjusted for different sizes of bales and for the conditions of the bales.

The bale lift arm is lowered and positioned by the tractor driver to clamp around the bale. The lift arm is raised for the bale to be placed on the front table. The lift arm can turn the bales 90 degrees from the field orientation when lifting onto the front table. The lift arm can also use a flipper to keep the bale in the same orientation that it is in the field. This allows either the "On Strings" or "Off Strings" loading to be chosen.

The front table lifts the bales onto the rear bale table. As the bales are loaded onto the rear table, the bales are moved back. The FaStack 1200 Flex has the option to rotate the bales before loading onto the rear table. Rotating the bales gives the 1200 Flex the ability to stack bales at the end of a stack. The user has more flexibility as to where the bales can be stacked whether it be in the field or in a shed.

For unloading bale stack, the rear table is lifted. Once the rear table is lifted, the FaStack is driven forward and the bale stack is unloaded. The 1200 Flex has push off cylinders to assist in the unloading of the stack.

The Bale Stacker utilizes electronic/electric controls to control the hydraulic functions. The hydraulic and electrical power is supplied by the tractor.

The operator of the Bale Stacker is located in the tractor cab where they drive the tractor, control the speed of driving and the operation of the bale lift arm and tables.

The Bale Stacker is transported with the bale arm lifted and locked in position and the tables lowered.

INTENDED USE OF THE FASTACK BALE STACKER

- The Bale Stacker is designed to pick up square bales that are in the field and move them to a storage location where they are unloaded.
- Pickup bales that have previously been made using a square baler.
- The Bale Stacker is intended for use in field farming applications.
- The Bale Stacker is intended for use in locations that are not near people or animals who could be harmed by the movement of the bale loading arm or the unloading of bales from the tables.

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

- Using the Bale Stacker in non-farming applications.
- Using the Bale Stacker around people or in public places.
- Moving materials other than square bales from fields.
- Using the bale lift arm to lift objects other than square bales.

Always use the Bale Stacker 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 Stacker operates safely and efficiently.

FaStack 1800

218067

FaStack 1200 Flex

218066

FaStack 1200 Flex with Optional Side Racks

218068

SAFETY SIGN-OFF FORM

Highline Manufacturing Ltd. follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Highline Bale Stacker 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

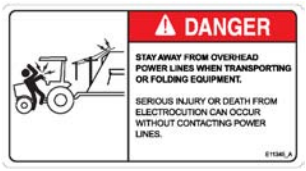
1. Ensure that anyone who is going to operate, maintain or work near the Bale Stacker is familiar with the recommended operating, maintenance procedures and safety information contained in this manual and follows all the safety precautions.

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 Stacker.

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

SAFETY DECALS

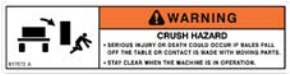
1. Keep decals and signs clean and legible at all times.
2. Replace decals and signs that are damaged, missing or have become illegible.
3. Replaced parts that displayed a decal should also display the current decal.
4. Decals are available from the Highline Parts Department.
5. Be familiar with the 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.

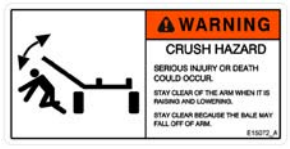
Contact with power lines will result in serious injury or death.



KEEP PEOPLE BACK WHEN LOADING BALES

Stay clear when loading bales which could fall.
Stay clear of machine when in operation.

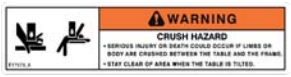
Crushing could cause serious injury or death.



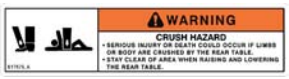
STAND CLEAR OF THE BALE LIFT ARM

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

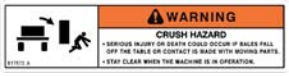
Crushing could cause serious injury or death.



STAY CLEAR OF REAR TABLE WHEN RAISING OR LOWERING



There is a crushing hazard if limbs or body is placed between the table and ground or surrounding objects when the table is raised or lowered.



Stay clear when unloading bales which could fall.

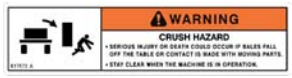
Stay clear of the table when it is lowering.

Crushing could cause serious injury or death.

STAY CLEAR OF FRONT TABLE WHEN IT IS TILTED

There is a crushing hazard if limbs or body is placed between the front and rear table.

Stay clear of area when the front table is tilted.

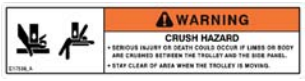


Stay clear when front table is lifted because bales could fall.

Stay clear of the table when it is lowering.

Crushing could cause serious injury or death.

STAY CLEAR OF AREA WHEN TROLLEY IS MOVING



There is a crushing hazard if limbs or body is placed between the trolley and side panels.

Crushing could cause serious injury or death.

STAND CLEAR OF ROTATING FRONT TABLE

(FaStack Flex 1200 Only)

Stand clear of front table when rotating. Front table can rotate rapidly.

Contact with rotating table could cause serious injury or death.

UPENDING HAZARD

The hitch can rise rapidly when there are bales are being unloaded for stacking.

Use the clevis that is attached to the machine.

Ensure implement is attached to machine before hydraulics are activated.

Contact with the hitch could cause serious injury or death.

DO NOT RIDE ON MACHINE

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

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.

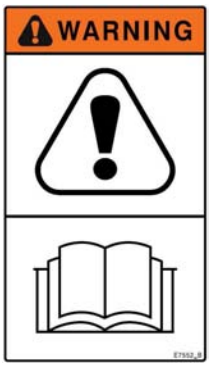
DO NOT CONTACT MOVING CHAIN

Contacting moving chain or parts on the rear table may cause serious injury or death.

Never attempt to manually remove bales while hydraulic cylinder is moving the trolley/chain.

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

READ, UNDERSTAND, AND FOLLOW SAFETY INSTRUCTIONS

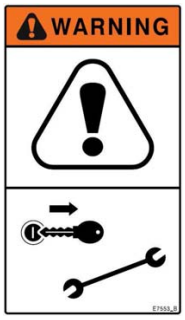


Read, understand and follow all instructions and safety messages included in this manual and on decals attached to the machine.

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

Turn off the control box if it is connected to tractor power that is always on.

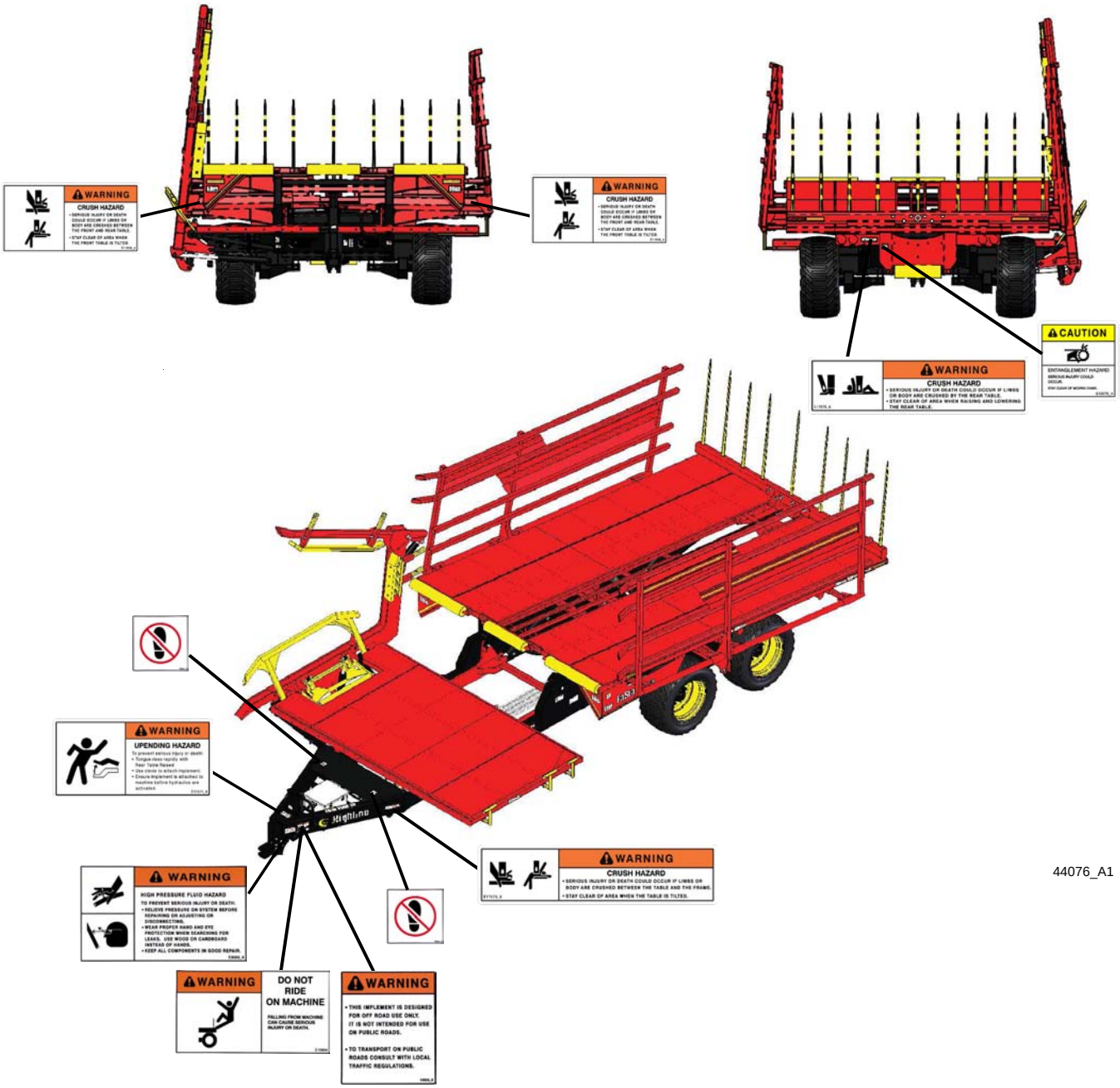
Failure to stop the tractor and wait for all moving parts to stop could result in serious injury or death.

ENSURE SLOW MOVING VEHICLE SIGN IS IN PLACE

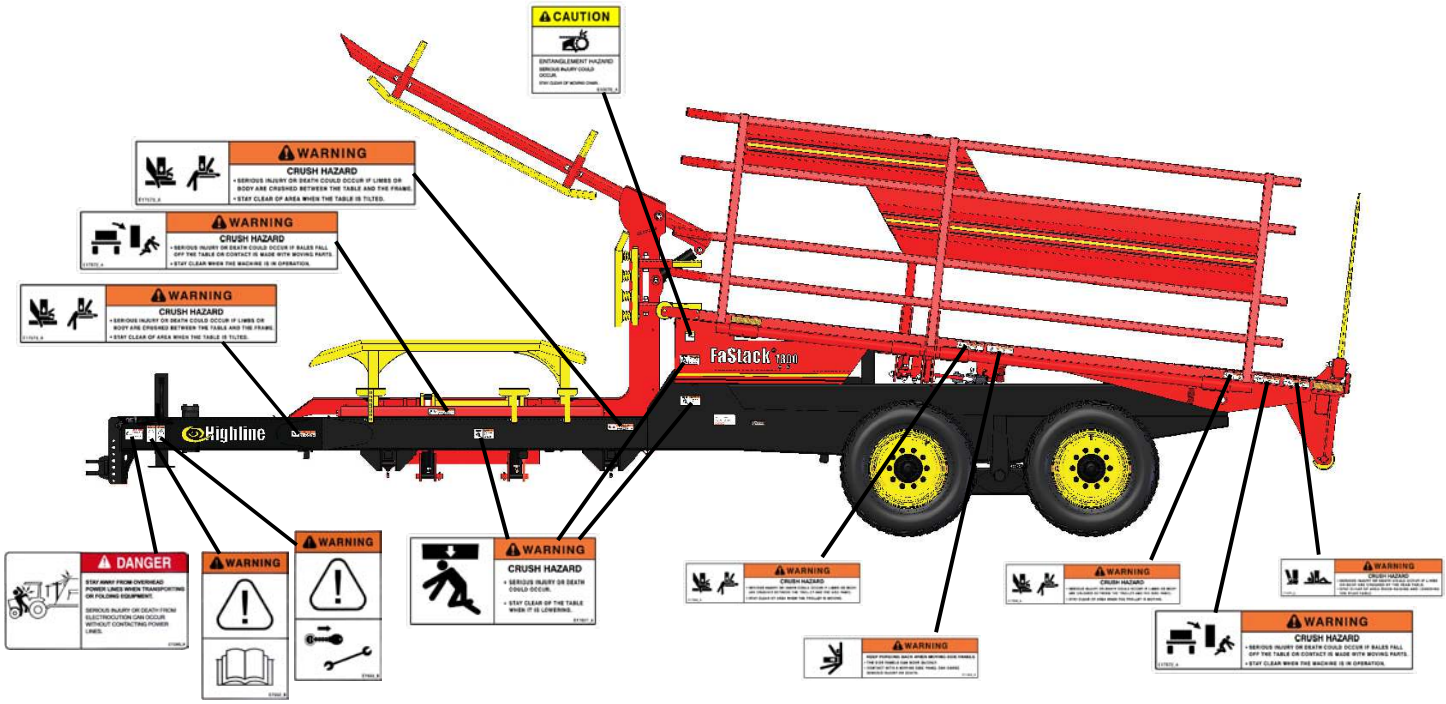
Ensure the Slow Moving Vehicle sign is in place, clean and easily visible.

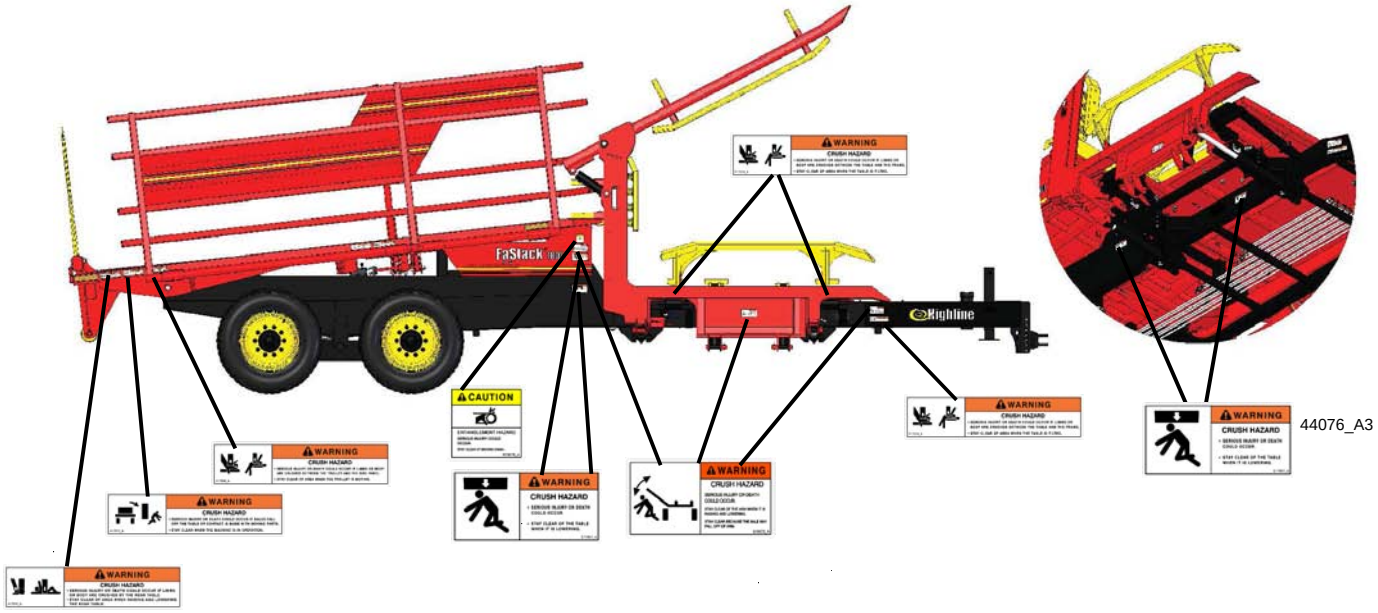
Ensure the reflectors are in place, clean and easily visible.

SAFETY DECAL LOCATIONS - FaStack 1800 - 1 of 2

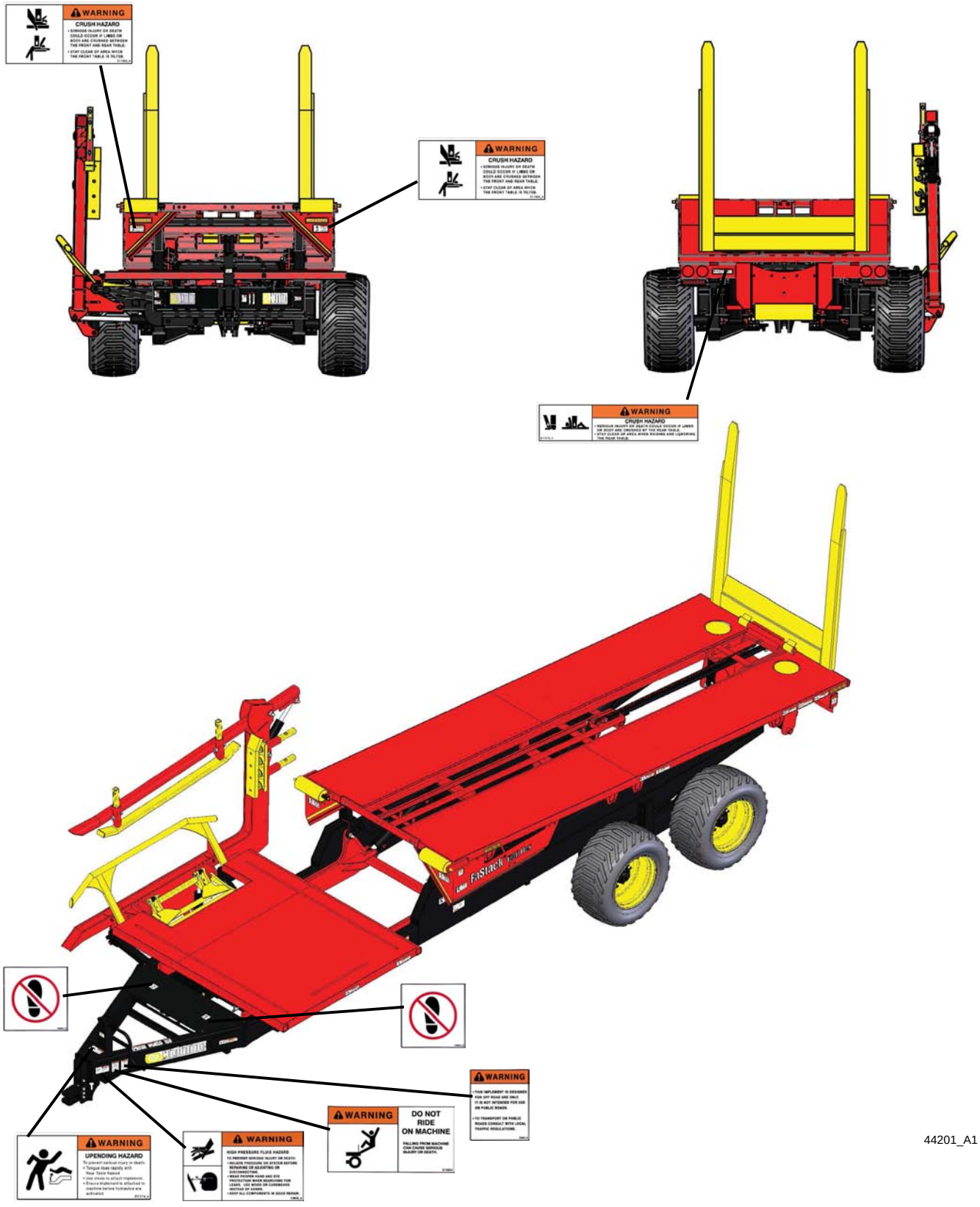


SAFETY DECAL LOCATIONS FaStack 1800 - 2 of 2

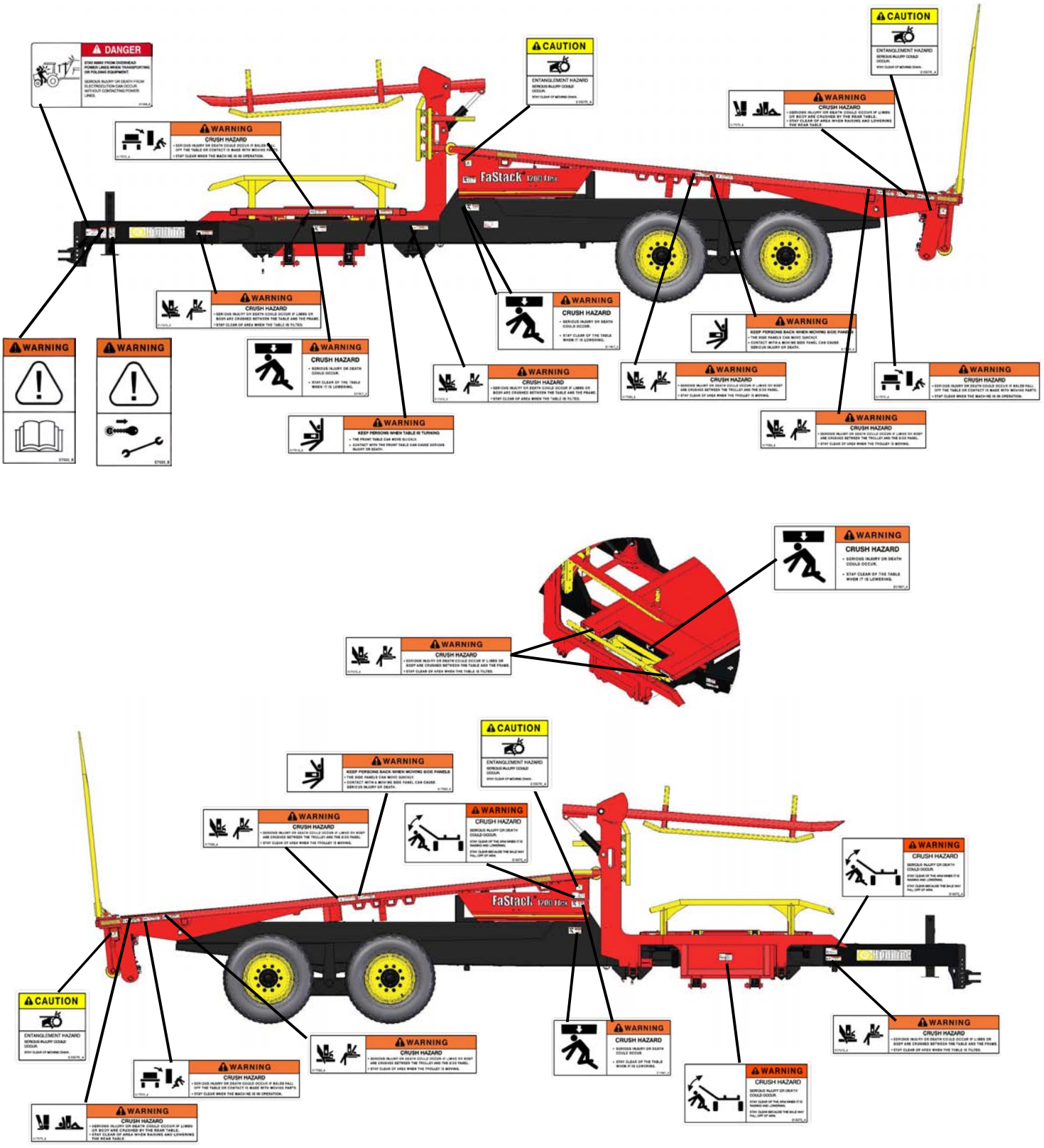




SAFETY DECAL LOCATIONS - FaStack 1200 Flex - 1 of 2



SAFETY DECAL LOCATIONS - FaStack 1200 Flex - 2 of 2



This Page Left Blank

2.0 Transporting the Bale Stacker

Only tow the Bale Stacker behind a properly sized and equipped tractor or vehicle which exceeds 2/3 (66%) of the loaded stacker weight.

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

Do not allow children or other people to ride on the tractor or bale stacker. Falling off can result in serious injury or death.

1. Tractor requirements.
   - Roll Over Protection System (ROPS)
   - Working seatbelts
   - 1 Spool Control Valve (SCV)
   - 12 volt power

   Note: See Section 4 for a chart indicating the category of tractor hitch required based on the weight of the bales being loaded.

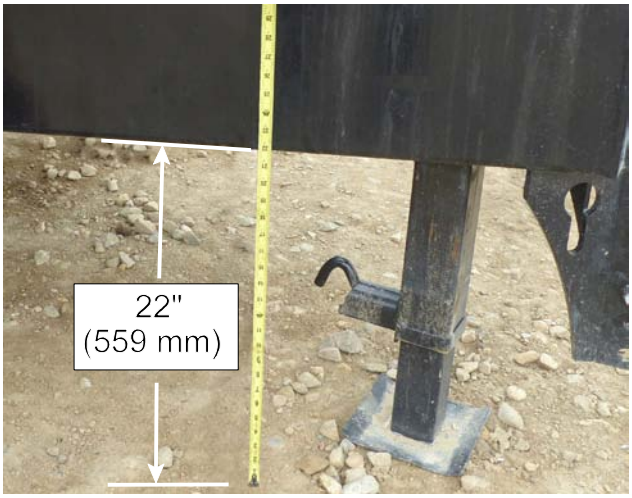
2. Lift the hitch.

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

   - Lift the hitch until the frame is 22" (559 mm) off the ground.

   Note: This frame height is important in order for the bale clamp to operate properly.
     - If the frame is too low, the bale clamp will come into contact with the ground and damage can occur.

Lift the Hitch 218069



Frame at 22" (559 mm) 217080C

3. Adjust the position of the hitch clevis.

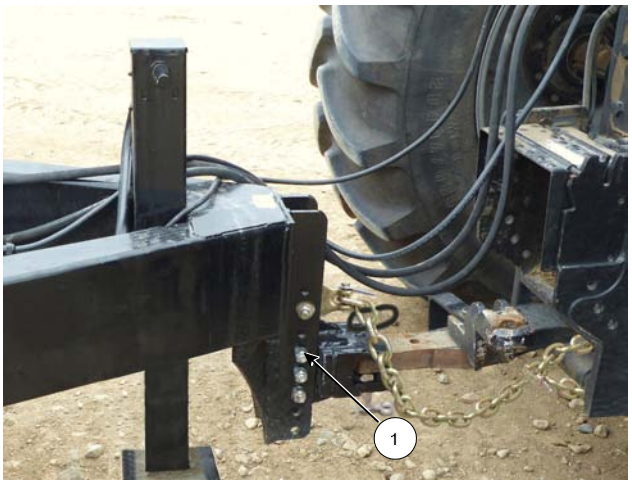
    - Remove the clevis bolts (1) and move the clevis so that the bale stacker can connect to the tractor drawbar while maintaining the bale stacker frame height of 22" (559 mm) off the ground.

    - Fasten in the clevis in place. Torque to 260 ft-lb (353 Nm) dry.

4. Connect the hitch to the tractor drawbar.

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

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



Adjust Clevis. Connect Hitch and Safety Chain[217081-1C]

6. Place the hitch jack in the storage position.

    - Remove all weight from the jack.

    - Raise the jack foot by pulling on the lock pin and raising the foot to the highest position.

        - Fasten the foot in place with the lock pin.


Place Jack in the Storage Position 217081

7. Tractor tire 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 connection.

    - The rear hose (2) on the hydraulic block must plug into the pressure side of the hydraulic system.

        - The front hose (3) of the hydraulic block goes to the return side of the hydraulic system.

    - Firmly push the hoses into the tractor receptacle.

    - Route the hoses so they do not interfere with moving parts.

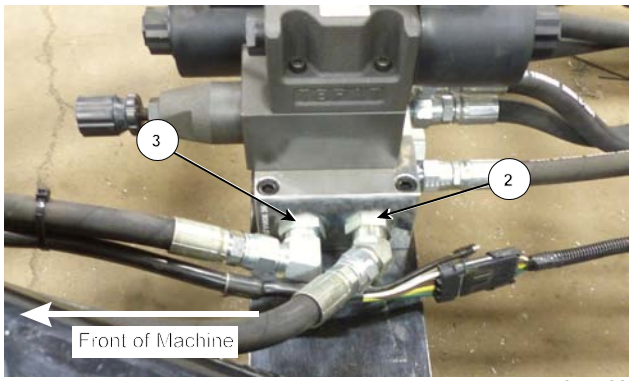
9. Connect the lighting cable to the electrical connection on the tractor.

10. Route the electric control cable from the hitch into the tractor cab and connect to the control box on the stacker.

    - Ensure the cable does not interfere with or contact moving parts.

11. Place the joystick and control panel in the tractor cab.

Attach Hydraulics



Hoses on the Valve Block 217143C

1200 Flex Joystick 217084

Control Panel (1800 Shown) 217144

12. Connect the power cord into the key controlled 12V DC power supply of the tractor with a 10 amp rating.

    Note: If the power is connected to a non-key controlled supply then the control panel power switch must be turned off each time when shutting down to avoid draining the tractor battery.

    - The red wire of the power cord goes to the positive terminal.
    - The black wire of the power cord goes to the negative terminal.

13. Set For Open or Closed Center Tractor

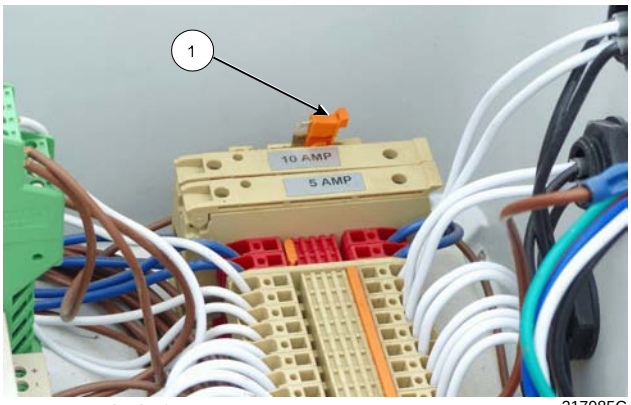
    - There is a switch (1) located in the control box on the hitch for choosing the type of tractor hydraulic circuit.

    For Open Center Hydraulic Tractors:
    Open the switch (1) near the fuses.

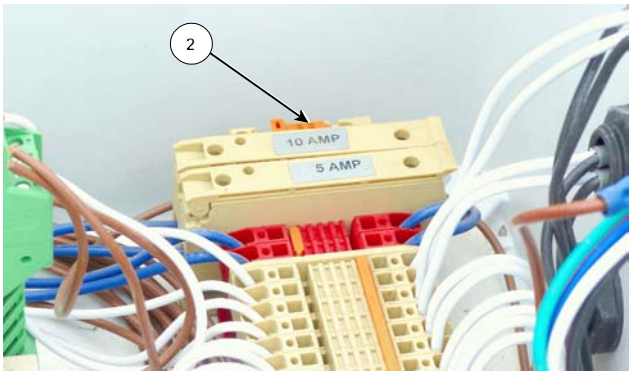
    For Closed Center Hydraulic Tractors:
    Close the switch (2) near the fuses.

    Note: If changing between open and closed center tractors then some of the hydraulic flow valves will need to be adjusted because of the way the different hydraulic systems operate. See Section 3 for valve adjustment details.

    Note: The open center setting may be used on closed center tractors, however some of the auxiliary functions may not work while the stacker is activated.



Open Switch for Open Center Tractor 217085C



Close Switch for Closed Center Tractor 217086C

14. Turn the power on at the control box in the tractor.

    - The green light on the control box should come on to indicate the system is active.

15. Move the switch to Load mode.

16. Activate the hydraulics and lock the control valve to the open position.

    - The hydraulic functions of the stacker will be controlled with the joystick and control panel.

17. If the clamp cylinder locks are installed:

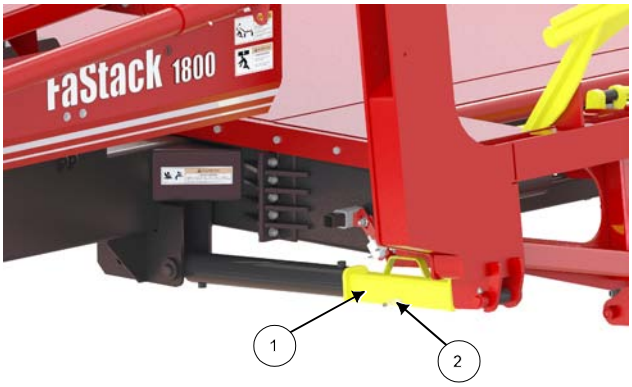
    - Switch to Load mode on the control panel.

    - Raise the clamp arm using the joystick buttons.

    - Remove the cylinder locks and place in the storage positions.

Turn ON Power Switch, Move Switch to Load Mode 217144

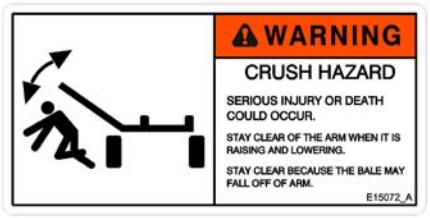
Remove the Front Lift Arm Transport Lock 218040C



Remove the Rear Lift Arm Transport Lock 218041C

18. Fully lower the lift clamp arm to allow the rear and front tables to be lowered.

    - Use the joystick button to control the cylinders to lower the lift arm.



Lower the Clamp 217145

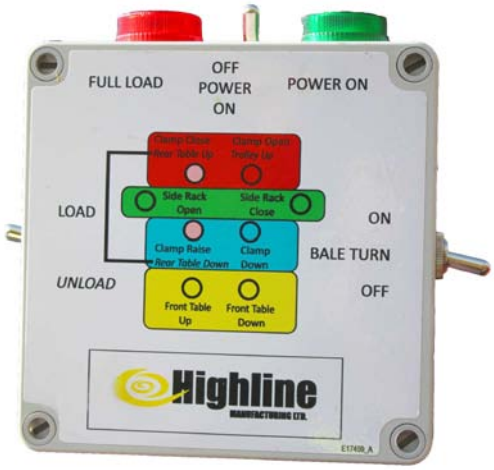
Stand Clear of the Bale Clamp arm.

A moving lift arm can cause serious injury or death.
Never stand under the lift arm when lowering or raising.
Do not allow people near the lift arm when being moved.

19. Lower the front table.

Lower the Front Table 217146

20. Toggle the switch on the side of the control box to the "Unload" mode to allow the rear table to be lowered.

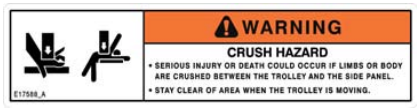


Move Switch to Unload, Lower Tables 217144

21. Lower the rear table.

Stay clear when raising or lowering the bale table.

Serious injury or death could occur from crushing or pinching by the table.



- Use the joystick to control the cylinders for rear table movement.


Lower the Front and Rear Table 217146

22. Check the condition of all the tires.

- Fill the tires to 40 psi (276 Kpa).


Check Condition of All the Tires 217147

- Ensure that the flat portion of the wheel stud washer is against the wheel rim.

- Torque the lug nuts to 170 lb-ft (230 Nm).


Flat of Washer Against Rim, Torque the Nuts 217100

23. Toggle the switch on the control panel to the Load mode.

24. Close the clamp arm.

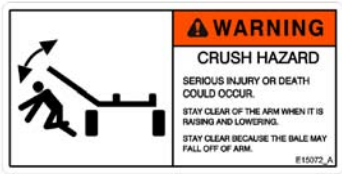
Close the Clamp Arm 217145

25. Raise the bale clamp arm.

Stand Clear of the Bale Clamp arm.

A moving lift arm can cause serious injury or death.
Never stand under the lift arm when lowering or raising.
Do not allow people near the lift arm when being moved.

- Use the joystick to control the cylinders to lift the bale lift arm.



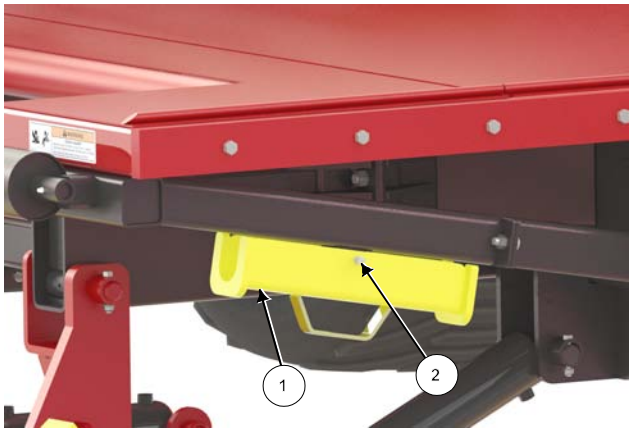
Raise the Bale Clamp Arm 217148

26. Turn off the hydraulics. Turn off the tractor. Set the park brake on the tractor before getting out of the tractor.

27. Remove the front lift arm transport lock (1) from the storage position.

- Remove the clip pin (2) from the storage tab.

Do not walk under the raised lift arm until the front and rear locks are secured in place.



Remove Front Lift Arm Lock from Storage 218070C

28. Install the front lift arm transport lock (1) onto the front cylinder.

    - Fasten in place with the clip pin (2).

Install the Front Lift Arm Transport Lock 218040C

29. Remove the rear lift arm transport lock (1) from the storage position.

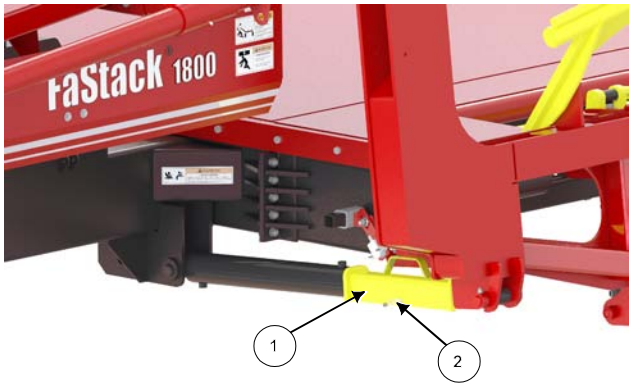
    - Remove the clip pin (2) from the storage tab.

⚠ Do not walk under the raised lift arm until the front and rear locks are secured in place.

Remove Rear Lift Arm Lock from Storage 218071C

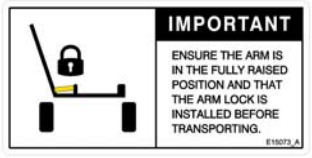
30. Install the rear lift arm transport lock (1) onto the front cylinder.

    - Fasten in place with the clip pin (2).



Install the Rear Lift Arm Transport Lock 218041C

⚠ Always use the fork transport lock when transporting the Bale Stacker on public roads. The fork may descend rapidly if hydraulic pressure is lost to the lift cylinders.



31. Move the bale trolley to the front of the table.

    - Move the switch on the control panel to Unload Mode.

    - Use the joystick button to move the trolley forward.

Move Trolley to the Front of the Rear Table. 217149

32. Ensure that the Slow Moving Vehicle (SMV) sign and signal lights are clean and visible.

33. Ensure the lights are working.

Ensure SMV is Visible and Lights Are Working 217149

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

34. Transport Speed

    - Do not exceed 20 mph (32 km/h) when empty or 6 mph (10 km/h) when fully loaded.

    Note: Transport speed will need to be lower when heavier bales are loaded on the stacker.

35. If traveling on roadways:

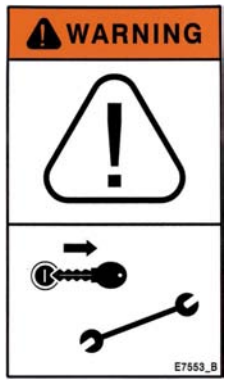
    - Turn off the power switch on the Control Panel.
    - Disengage the hydraulic control lever.

    - Consult the local road regulations regarding securing the load and road travel. Follow all the applicable regulations.

Travel On Roadways 217150

3.0 Preparing the Bale Stacker

1. Park the tractor and bale stacker on level ground. Engage the tractor parking brake.



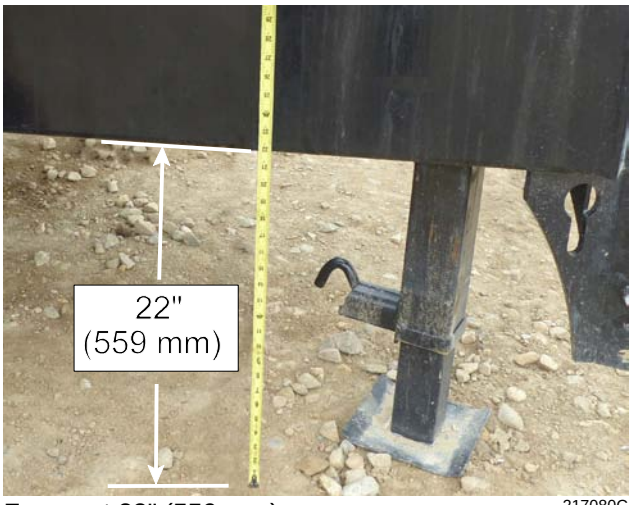
Shut down the tractor and remove the key before repairing, servicing, lubricating or cleaning the machine.
Relieve all hydraulic pressure in the hoses. Disconnect the hydraulic hoses from the tractor before going near the machine.

2. Ensure all decals are clean and in place.

3. Check that the frame is 22" (559 mm) off the ground.

Note: This frame height is important in order for the bale clamp to operate properly. If the frame is too low, the bale clamp will come into contact with the ground and damage can occur.

- Adjust the hitch clevis for the frame to be 22" (559 mm) off the ground when connected to the tractor drawbar.



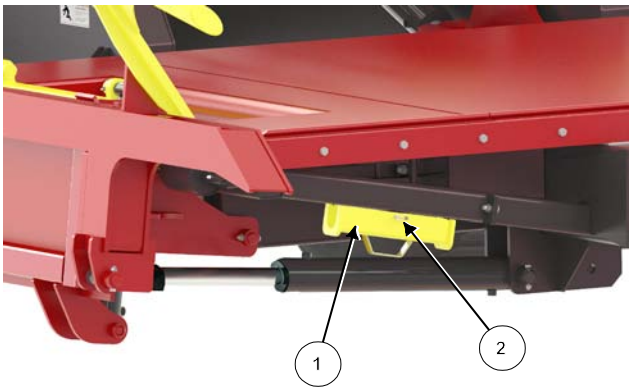
Frame at 22" (559 mm) 217080C

4. Remove the front transport lock (1) from the bale lift arm cylinder.

- The lift arm may need to be raised slightly to remove any pressure that is on the transport lock.
  - Move control panel switch to Load and joystick button to raise the arm.

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

- Place the lock in the storage position.
  - Fasten with the clip pin (2).



Remove Front Lock, Place In Storage 218042-1C

5. Remove the rear transport lock (1) from the bale lift arm cylinder.

   - Place the lock in the storage position.
     - Fasten with the clip pin (2).

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

Remove Rear Lock, Place In Storage 218043C

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

7. Attach the hydraulic hoses.

   - Clean the end of the hoses and the connection.

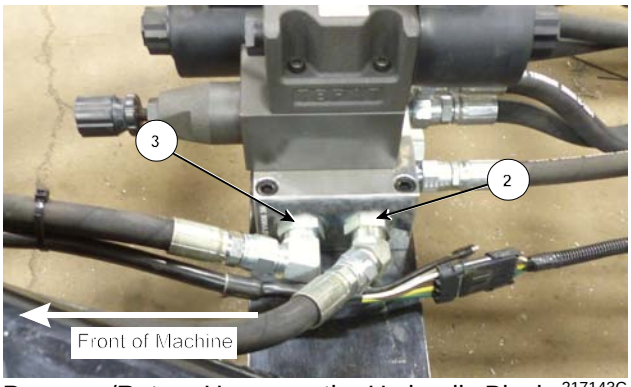
   - The rear hose (2) on the hydraulic block must plug into the pressure side of the hydraulic system.

   - The front hose (3) of the hydraulic block goes to the return side of the hydraulic system.

   - Firmly push the hoses into the tractor receptacle.

   - Route the hoses so they do not interfere with moving parts.

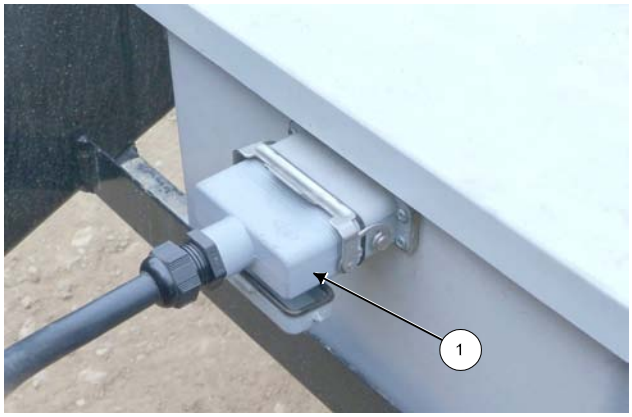
Attach Hydraulics and Lighting Cable 108008-1



Pressure/Return Hoses on the Hydraulic Block 217143C

8. Connect the control cable (1) to the control box on the hitch.

   - Release the connector cover and attach the control cable (1) to the connection on the control box.



Connect Control Cable to Control Box 217106C

9. Route the electric control cable from the hitch into the tractor cab.

   - Ensure the cable does not interfere with or contact moving parts.

10. Place the joystick and control panel in the tractor cab.

11. Connect the power cord into the key controlled 12V DC power supply of the tractor with a 10 amp rating.

    Note: If the power is connected to a non-key controlled supply then the control panel power switch must be turned off each time when shutting down to avoid draining the tractor battery.

    - The red wire of the power cord goes to the positive terminal.

    - The black wire of the power cord goes to the negative terminal.

217084

Joystick and Control Panel 217144

12. Settings For Open or Closed Center Tractor
    - The electronics will need a switch moved for the type of tractor hydraulic system.
    - Two hydraulic valves will need to be adjusted to compensate for flow and pressure differences between the two systems.

<u>To adjust electronics in the control box :</u>

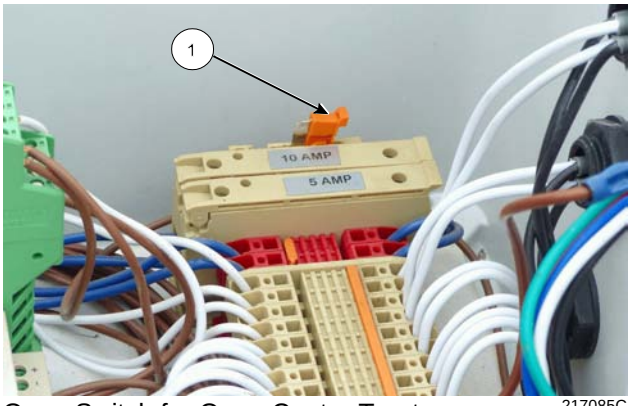
- Turn off the power on the control panel.
- For Open Center tractors open the switch (1) near the fuses.
- For Closed Center tractors close the switch (2) near the fuses.

<u>To adjust the 2 hydraulic valves</u>:

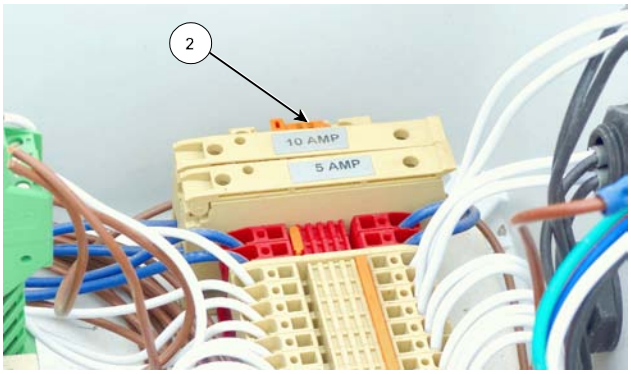
- Set the tractor engine to the speed for operating the hydraulics.

- Adjust boost cylinder bleed valve (3).
    - Close the valve completely.
    - Engage the tractor hydraulics.
    - Turn the control panel power switch to the ON position.
    - Open the valve just enough so the boost cylinder does not raise the rear table.

- Adjust the trolley pressure valve (4).
    - Move the trolley to the front of the rear table.
    - Close the trolley valve adjustment knob.
    - Completely raise the rear table.
    - Open the trolley adjustment knob just enough so the trolley begins to creep down the table. (This is an initial setting and may need to be adjusted depending on how well the bales are loading onto the rear table.)
    - Secure the valve adjustment knob in place.

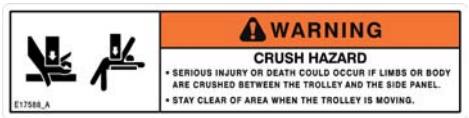


Open Switch for Open Center Tractor 217085C



Close Switch for Closed Center Tractor 217086C

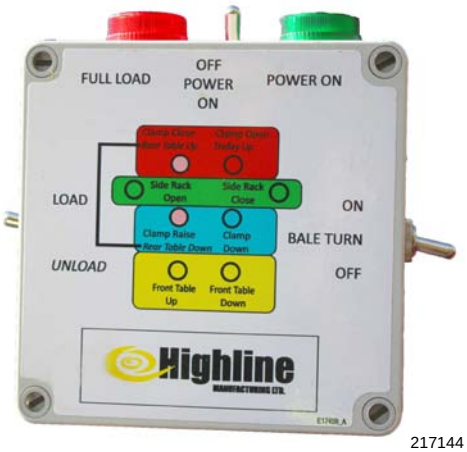
Adjust Boost Bleed Valve and Trolley Valve 217151C



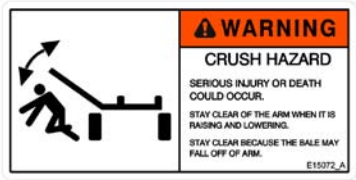
13. Move the power switch on the control panel in the cab to the "On" position

14. Move the switch on the control panel in the cab to the "Load" position.

15. Use the joystick button to fully lower the clamp.



217144



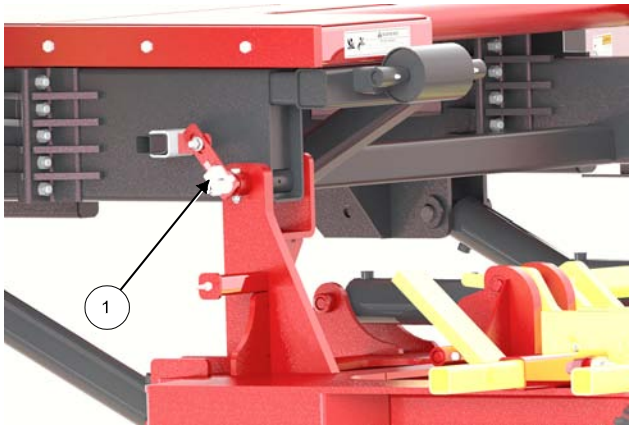
Stand Clear of the Bale Clamp arm.
A moving lift arm can cause serious injury or death.
Never stand under the lift arm when lowering or raising.
Do not allow people near the lift arm when being moved.

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


Lower the Clamp
217145

16. Check the condition of the rotation sensor (1) mounted on the rear of the lift arm.

- Check that the sensor (1) is in good condition.
- Check that the area around the sensor is free from debris.
- Check that the electrical connector is tight.



Check the Condition of the Rotation Sensor
218045C

17. Adjust the lift clamp for the size of the bales.

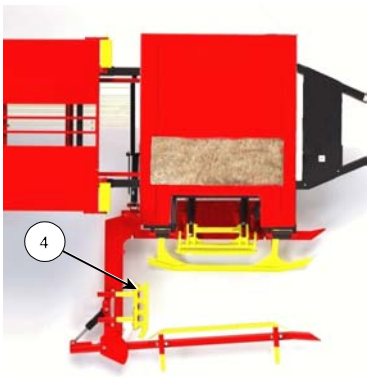
- Remove the bolts from the adjustable holder (1) on the moving arm of the clamp.
  - For 3 foot (0.9 m) bales, move the adjustable holder (1) towards the front table. Place the bolts in the tube holes (2).
  - For 4 foot (1.2 m) bales, move the adjustable holder (1) away from the front table. Place the bolts in the tube holes (3).
  - Fasten in place with the bolts.

Adjust Clamp for 3 Foot (0.9 m) Bales 217152C

Adjust Clamp for 4 Foot (1.2 m) Bales 217145C

18. On the FaStack 1200 Flex adjust the spring loaded bar (4) on the lift arm for the length of the bales.

- It is important to adjust this bar so the bale will be centered on the front table in the front to back position.
- After the front table is rotated the bale will be centered on the rear table.



Adjust the Spring Bar to Center Bale on the Front Table 217180-1C


Bale Centered on Rear Table 217180-2

- To adjust the spring loaded bar:
  - Remove the bolts in the adjustment tubes (2).
  - Slide the bar to the desired location for the size of bale being loaded.
  - Fasten in place with the bolts (2).

19. Use the joystick buttons to check that the bale lift arm operates freely.

    - It is normal operation if the lift arm quickly moves downward during its cycle.

Stand Clear of the Bale Lift Arm

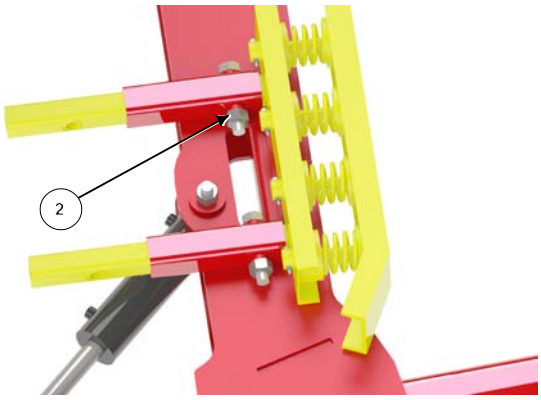
- A moving lift arm can cause serious injury or death.
- Never stand under the lift arm when lowering or raising.
- Do not allow people near the lift arm when the being moved.

20. On the FaStack 1200 Flex check that the front table rotates freely.

Stay clear of the table when turning. The front table can move quickly. Contact with the front table can cause serious injury or death.

- Fully lower the lift clamp arm.
- Raise the front table about 8" to allow the table to rotate.
- Use the joystick buttons to rotate the front table all the way and back.

Note: A sensor will not allow the table to rotate if the table is not lifted 8" or more.



Adjust Spring Loaded Bar for Length of Bale 218044C

Check that Lift Arm Operates Freely 217153

Check the Front Table Rotates (1200 Flex) 217201

21. Check that the front table raises and lowers freely.

Stay clear when raising or lowering the tables. Serious injury or death could occur from contact with the moving table.

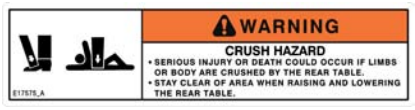
- Fully lower the clamp arm.
- Use the joystick buttons to raise and lower the front table.

Check The Front Table Raises and Lowers 217202

22. Check that the rear table raises and lowers freely.

Stay clear when raising or lowering the table. Serious injury or death could occur from contact with the moving table.

- Fully lower the clamp arm.
- Fully lower the front table.
- Use the joystick buttons to raise and lower the rear table.



Check The Rear Table Raises and Lowers 217155

23. FaStack 1200 Flex - Check that the push off cylinders fully extend and retract.

    - Move the control panel switch to the "Unload" position.

    - Push joystick buttons to extend and retract the push off cylinders.

    Note: Do not fully raise the rear table to avoid pushing the cylinders into the ground. Pushing the cylinders into the ground will cause them to bend.

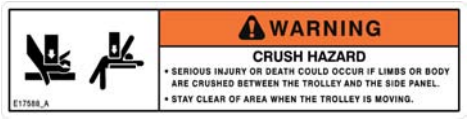
Check the Push off Cylinders Extend/Retract (1200 Flex) 217203

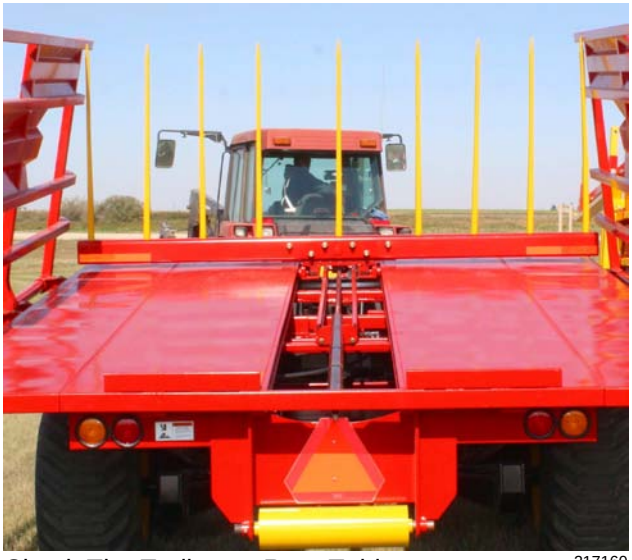
24. Check that the bale trolley on the rear table operates freely.

    Keep clear of machine when moving the trolley.
    Contact with the moving trolley or the moving chain could cause serious injury or death.

    - Move the switch on the control panel to "Unload".

    - Push the joystick button to move the trolley towards the front of the table.





Check The Trolley on Rear Table 217160

25. Check that the side panels open and close.

Keep persons back when moving the side panels. The side panels can move quickly. Contact with a moving side panel can cause serious injury or death.

- Use the joystick buttons to open and close the side panels.


Check that the Side Panels Open and Close 217161

- On the FaStack 1200 Flex the side panels are an option.
  - Use the trigger on the joystick to check the opening and closing of the side racks (if equipped).


Side Panels Controlled with Trigger (1200 Flex) 217084

26. Check the condition of the tires.

    - Fill to an air pressure of 40 psi (276 kPa).
    - Torque the lug nuts to 170 lb-ft (230 Nm).
    - Inspect the wheels and tires for damage or foreign objects. Repair or replace as necessary.

Check the Condition of the Tires 217147

27. Inspect all the hydraulic cylinders and hoses.

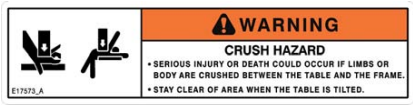
Use a piece of cardboard or heavy paper to check for leaks. Do not use your hand. Wear proper hand and eye protection when searching for leaks.
Relieve pressure on hydraulic system before repairing, adjusting or disconnecting.

Note: 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.

Check All Hydraulic Connections 217073

Do not go under a raised table. Serious injury or death could occur from the table lowering.



- See Section 5 "Maintaining the Bale Stacker" for conditions indicating that hose replacement is needed.
- Ensure the proper size cylinder pins are in place and secured.

28. Lubricate all grease fittings. (See Section 5)

This Page Left Blank

4.0 Operating the Bale Stacker

Do not allow anyone to ride on the bale stacker.
- Falling from the machine can cause injury.

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

Tractor Hitch Category Requirement

The category of tractor hitch that is required will be determined by the weight of the bales being loaded. The weight of the bales influence the vertical hitch load.

See the chart for the category of tractor hitch required for the listed bale sizes and weights.

FaStack 1800				
Hitch Category	Maximum Bale Weight			
4	4x4: 1400 lbs (635 kg)	3x4 Off String: 1100 lbs (499 kg)	3x4 On String: 1400 lbs (635 kg)	3x3: 1000 lbs (454 kg)
	Vertical Hitch Load: 7150 lbs (3243 kg)	Vertical Hitch Load: 7340 lbs (3329 kg)	Vertical Hitch Load: 7300 lbs (3311 kg)	Vertical Hitch Load: 7410 lbs (3361 kg)

FaStack 1200		
Hitch Category	Maximum Bale Weight	
3	4x4 or 3x4 Off String: 1200 lbs (544 kg)	3x4 On String or 3x3: 1000 lbs (454 kg)
	Vertical Hitch Load: 5940 lbs (2694 kg)	Vertical Hitch Load: 5840 lbs (2649 kg)
4	4x4 or 3x4 Off Strings: 1800 lbs (816 kg)	3x4 On String or 3x3: 1600 lbs (726 kg)
	Vertical Hitch Load: 7250 lbs (3289 kg)	Vertical Hitch Load: 7360 lbs (3338 kg)

Number Of Bales Capacity

The number of bales that can be stacked is determined by the size of bale and the orientation of the bale.

The FaStack can stack the bales "On Strings" (strings down) or "Off Strings" (strings on the side).

FaStack 1800

- 24 bales of 3' x 3' bales
- 18 bales of 3' x 4' bales on strings
- 16 bales of 3' x 4' bales off stings
- 12 bales on 4' x 4' bale on or off strings

FaStack 1800 Bale Capacity

24 Bales of 3'x3' 217163
On of Off Strings

18 Bales of 4'x3' 217164
On Strings

16 Bales 4'x3' 217165
Off Strings

12 Bales of 4'x4' 217166
On or Off Strings

FaStack 1200 Flex

Fastack Flex indicates the ability to stack bales from the end of the stack giving the user more flexibility as to where the bales can be stacked whether it be in the field or in a shed. The rotating front table allows stacking along the long side of the bale.

- 12 bales of 3' x 4' on strings
- 8 bales of 4' x 4' on or off strings
- 8 bales of 3' x 4' off stings

FaStack 1200 Flex Bale Capacity

12 Bales 3'x4'
On Strings 217167

8 Bales 4'x4' 217168
On or Off Strings

8 Bales 3'x4'
Off Strings 217169

"On Strings" or "Off Strings" Stacking

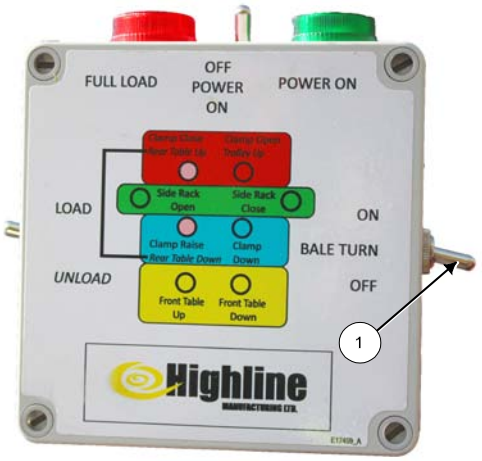
The position of the bale strings when loaded on the front table will be the same position of the strings in the unloaded stack.

The unloaded stacking of "On Strings" (strings down) or "Off Strings" (strings on the side) is determined by 2 factors while loading:

1. The position of the bale strings when the bale is on the ground.

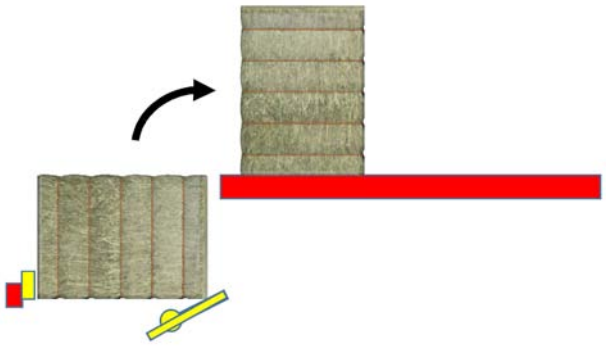
2. Whether or not the bale is turned when loading onto the front table.

    - Before picking up a bale move the Bale Turn switch (1) on the control panel.



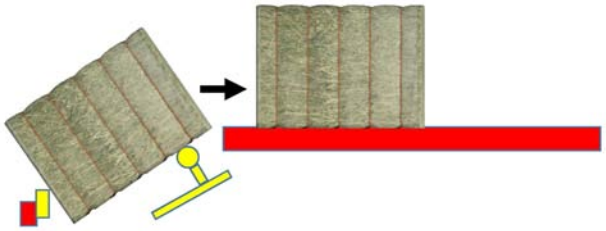
Move Bale Turn Switch 217144C2

- Bale Turn On = Bale is rotated (turned) 90° from field position when loading.



Bale Turn On 217172-2

- Bale Turn Off = Bale is loaded in the same orientation as field position.



Bale Turn Off 217172-1

LOADING BALES IN THE FIELD

1. Drive the bale stacker into the field area.

2. Park on level ground.

3. Turn on the power switch located on the control panel.

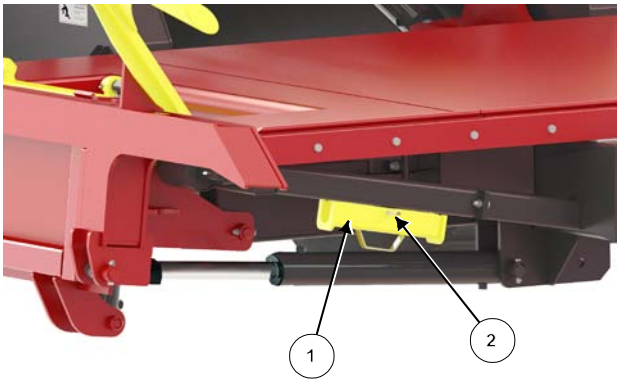
4. Engage the hydraulic lever and lock it in the open position.

5. Remove the front transport lock (1) from the bale lift arm cylinder.

    - The lift arm may need to be raised slightly to remove any pressure that is on the transport lock.
        - Move control panel switch to Load and joystick button to raise the arm.

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

    - Place the lock in the storage position.
        - Fasten with the clip pin (2).



Remove Front Lock, Place In Storage 218042-1C

6. Remove the rear transport lock (1) from the bale lift arm cylinder.

    - Place the lock in the storage position.
        - Fasten with the clip pin (2).

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

Remove Rear Lock, Place In Storage 218043C

7. On the control panel, move the switch to the "Load" setting (2) so the joystick buttons operate the functions required to pick up the bales.

   Note: Refer to control panel decal for the function of the joystick buttons.

8. Push the joystick button to ensure front the table is completely down.

   - This will allow the lift arm clamp to lift.

9. Push the joystick button to lower the lift clamp.

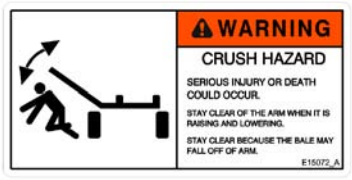
   Stay clear when lowering the lift clamp to avoid serious injury or death.

   - The lift clamp should be a few inches above the ground to avoid contacting the ground.

   Note: If the clamp is contacting the ground, adjust the frame height and hitch clevis. See Section 3 for information.

10. Push the joystick button to open the clamp arm.

Bale Turn Switch, Load Switch 217144C



Lower Lift Clamp, Open Clamp Arm 217171

11. Drive up to the bale and position the lift clamp until it is around the bale.

    - Drive forward until the bale is fully against the spring bar at the back of the lift clamp.

    - The bale stacker may be operated at field speeds of 3 - 4 mph (4 - 6 km/h).

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

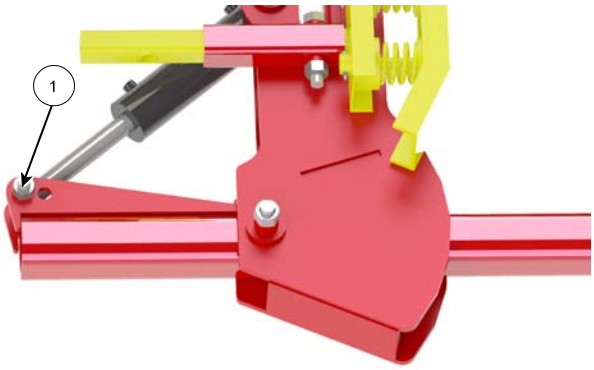
Drive Up to the Bale Until Clamp is Around Bale 217173

12. Push the joystick button to close the lift clamp.

Close the Lift Clamp 217174

Note: If the clamp arm pushes the bales to far up onto the arm causing the bale to wedge against the front table, adjust the clamp arm cylinder position.

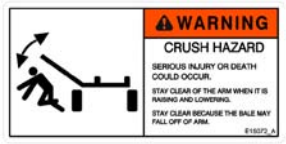
- Move the cylinder bolt (1) to the next hole on the clamp arm.



Move Cylinder to Reduce Bale Wedging 218058C

13. Push the joystick button to raise the lift clamp and place the bale on the front table.

Stay clear when lowering the lift clamp to avoid serious injury or death.



Stay clear when lifting bales. If a bale falls off it can cause serious injury or death.

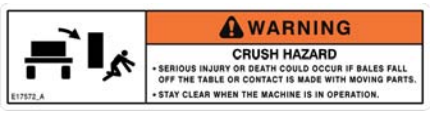
Raise the Clamp to Place Bale on the Table 217175

14. When the front table is full use the joystick button to lower the clamp before lifting the front table.

- As the front table is being raised, the side racks will open to allow the bales to move onto the rear table.

Lower Clamp Before Lifting Front Table 217176

15. On the FaStack 1800 use the joystick button to raise the front table up to move the bales onto the rear table.



Stay clear when raising or lowering the tables. Serious injury or death could occur from contact with the moving table.

Stay clear when front table is lifted because bales could fall.

- Pause while lifting the front table to allow the bales to move so they are resting on the rollers of the rear table.

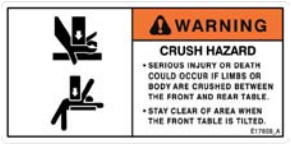
Lift Front Table - 1800 Shown 217177

The 1200 Flex has 2 options for loading bales onto the rear table:

- Load bales onto the rear table without rotating them.

- Rotate the bales before loading them onto the rear table.

The factors for choosing to rotate the bales depend on the final stacking location and the choice of "On Strings" or "Off Strings" stacking.



Stay clear when raising or lowering the tables. Serious injury or death could occur from contact with the moving table.

Stay clear when front table is lifted because bales could fall.

- To rotate the bales on the <u>1200 Flex</u> before loading follow these steps:

Stay clear of the table when turning. The front table can move quickly. Contact with the front table can cause serious injury or death.

- Raise the front table 8" by using the joystick buttons.
  Note: If the table is not raised above 8" a sensor prevents the table from rotating.

- Rotate the front table before fully lifting the table using the joystick button.

- Pause while lifting the front table to allow the bales to move so they are resting on the rollers of the rear table.

16. Fully raise the table to move the bales onto the rear table.

- The side racks will open as the front table is lifted.

- As the bales are pushed onto to the rear table the bales already on the table are pushed back.

- When the bales are pushed back the trolley will also be pushed back.

Note: If the bales are hitting against the side racks when being lifted, adjust the bale stops (1) on the front table.

- Loosen the bolts holding the stops (1) and move the stops as needed.

Rotate 1200 Flex Front Table 218073

Fully Raise the Front Table, Close Side Racks 217178

Adjust Front Table Stops 218072C

17. Lower the front table with the joystick button.

Stay clear as the table is being lowered. There is a crushing hazard if limbs or body is placed between the hitch and table when the table deck is lowered.

The deck could be lowered or come down causing serious injury or death.

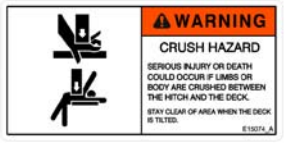
Lower the Front Table 217179

18. On the FaStack 1200 Flex, rotate the front table when lowered about ½ way.

- Completely rotate the table before lowering onto the frame.
  - A sensor prevents the table from being rotated when the table is resting on the frame.

Rotate Table When Lowered Half Way 218074

Stay clear of the table when rotating. The front table can move quickly. Contact with the front table can cause serious injury or death.



Stay clear as the table is being lowered. There is a crushing hazard if limbs or body is placed between the hitch and table when the table deck is lowered.

19. Load more bales onto the rear table.

    - A red light "Full Load" on the control panel will indicate when the rear table of the stacker is full.

Full Load Indicated by Red Light 217144

UNLOADING BALES

1. Drive to the stacking storage site.

    - Fully raise the front table.
        - The front table against the bales gives added stability while traveling to the stacking site.

    - Fully raise the lift clamp.

    - Ensure the side racks are closed.

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

Drive to the Stacking Site 217181

2. If traveling on roadways:

    - Ensure the bales are secure in the stacker.

    - Ensure the clearance lights and SMV are visible.

    - Ensure the lights are operating.

    - Consult the local road regulations regarding securing the load and road travel. Follow all the applicable regulations.

Do not exceed 6 mph (10 km/h) when fully loaded.

Note: Transport speed will need to be lower when heavier bales are loaded on the stacker.

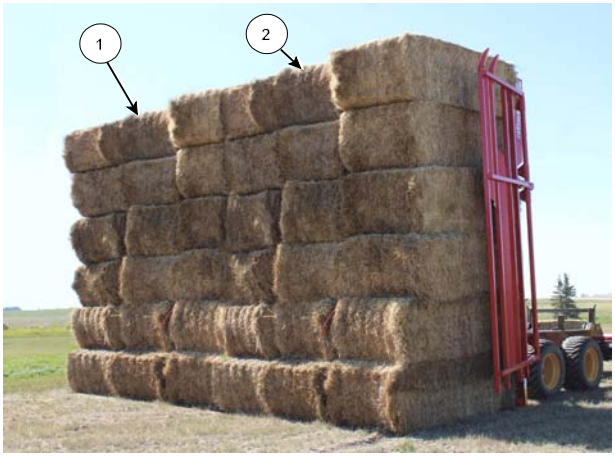
Recommended Procedures for Starting A Bale Stack

1800

For starting a stack, place the first load of bales (1) in a level area.

- Place the second load of bales (2) beside the first stack.
- Additional loads of bales can be placed beside or up against the stack.

Starting the stack this way will give stability to the stack and aid in the unloading of more bales.



1800 Stacking - Unload Beside First Stack 218077C

1200 Flex - Bales Rotated With Front Table

For starting a stack of bales that have been rotated with the front table, use a "staircase" method of stacking to create stability for additional bale loads and to aid in the unloading of more bales.

- Place the first stack of less than a full load (1) in a level area.
- Place the second load of bales (2) with a few more bales up against the end of the first stack.
- Place the third load of bales (3) that has a few more bales up against the end of the second stack (2).
- Full loads of bales can be placed up against the end of the stack.

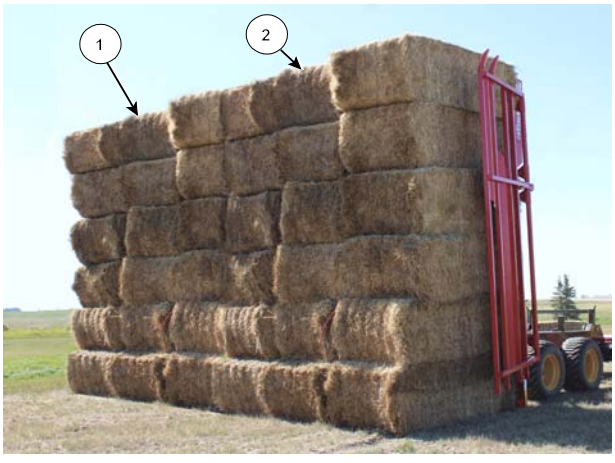
1200 Flex Rotated Bales - Create Staircase for Stability 218076C

1200 Flex - Bales Not Rotated With Front Table

For starting a stack place the first load of bales (1) in a level area.

- Place the second load of bales (2) beside the first stack.
- Additional loads of bales can be placed beside or up against the stack.

Starting the stack this way will give stability to the stack and aid in the unloading of more bales.



1200 Flex Non Rotated Bales - Unload Beside First Stack 218077C

3. Lower the lift clamp slightly to be clear of the front table.

4. Fully lower the front table.
   - On 1200 Flex, rotate the front table before lowering onto the frame.

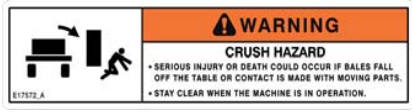
5. Position the stacker for unloading.
   - Flat and level ground for the bale stack gives the best unloading and stacking results.

6. Move the switch (2) on the control panel to the unload position.
   - This setting will cause the joystick buttons operate with a second function as shown on the control panel decal.

7. Open the side racks a small amount.
   - Use the joystick buttons on the 1800.
   - On the 1200 Flex with the optional side racks use the joystick trigger.

8. Use the joystick button to begin to raise the rear table.

Switch to Unload Position 217144C



Do not disconnect the hitch when the rear table is lifted. There is an upending hazard at the hitch when the rear table is lifted.

Ensure the are is clear of people or animals before unloading. The bales may fall and could result in death or serious injury.

Stay clear of rear table when raising. There is a crushing hazard if limbs or body is placed between the table and ground or surrounding objects when the table is raised.

Begin to Raise the Rear Table 217183

9. Stop raising the table when the bales start to slide.

    - Often the trolley is not entirely at the back of the table and the load will move further back on the table as it rises.

    - Open the side racks slightly to allow the bales to settle to the bottom of the table.

    - Tighten the side racks.

Raise Table, Let Bales Slide, Open Side Rails 217182

10. Continue raising the table again with pauses while raising.

    Note: As the rear table approaches the upright position quite a bit of momentum can develop. The momentum can cause the top of the stack to pick up speed.

    - If there is no pausing to allow the bales to settle it is possible for the stack to continue to go over and fall.

    - Pausing while raising will allow the bales to settle and also reduces the momentum.

    - Pausing while raising also ensures that the bales will all be stacked together.

- Running the tractor at low engine speed and low pump flow helps to control the speed of the table rising and pausing.

Use Pauses While Lifting the Table 217184

11. */Lift the rear table to the fully raised position.

    Note: On the 1200 Flex do not fully raise the rear table to avoid having the push off cylinders go into the ground. Pushing the cylinders into the ground will cause them to bend.

12. Open the side racks when the table is fully raised.

    - If unloading beside a stack only open the racks a small amount.

Fully Raise Table, Open Side Racks 217069

13. Slowly drive forward as the bales are unloading.

    - On the FaStack 1200 Flex activate the push off cylinders on the rear table to help to push the bales off the forks.

      - Push the joystick button to extend the cylinders.

Activate the Push off Cylinders to Unload Bales (1200 Flex) 217203

14. When the bales are unloaded and clear of the machine, use the joystick button to lower the table completely.

    Stay clear when raising or lowering the rear table.

    Serious injury or death could occur from crushing or pinching by the table.

Lower The Table 217185

- On the FaStack 1200 Flex lower the table a bit and then retract the cylinders.

    - The table can be fully lowered when the push off cylinders are fully retracted.

    Note: A light at the top of the control panel indicates if the push off cylinders are extended.

FaStack 1200 Retract Push Off Cylinders 217186

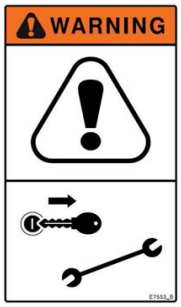
15. Use the joystick button to close the side rails.

16. Push the joystick button to bring the trolley forward in preparation for loading more bales.

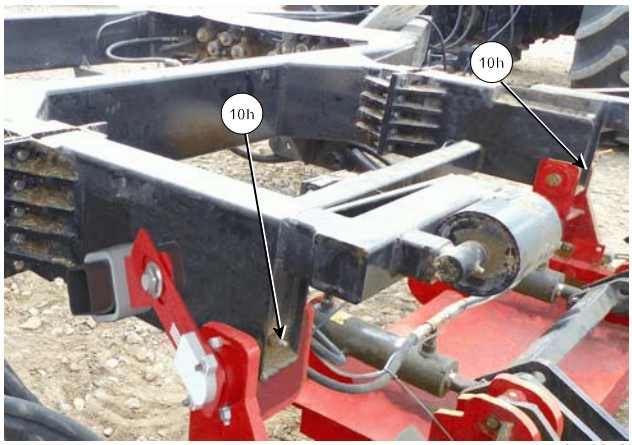
5.0 Maintaining the Bale Stacker

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 stacker.



Step 1: Reduce the engine speed to idle.
Step 2: Fully lower bale lift arm.
Step 3: Disengage hydraulic lever.
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.



Grease Lift Arm Main Pivots 217087C

Lubrication

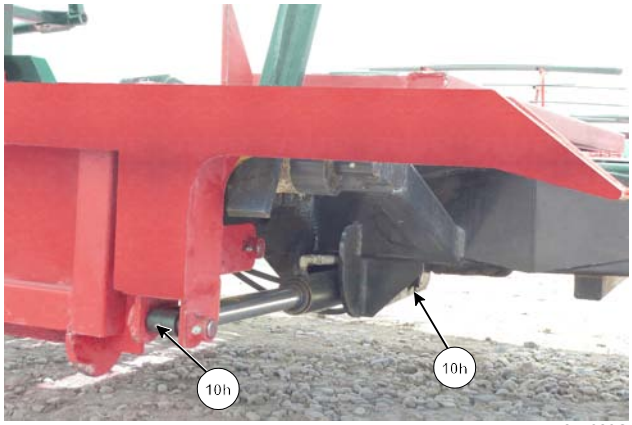
Lubricate all grease fittings with a quality lithium complex, extreme pressure NLGI Grade 2 grease.

Grease the Lift Arm Every 10 Hours

Install the transport lock when the lift arm is raised. A raised lift arm could lower which could result in death or serious injury.

- Lift Arm Main Pivots
  - 2 points.

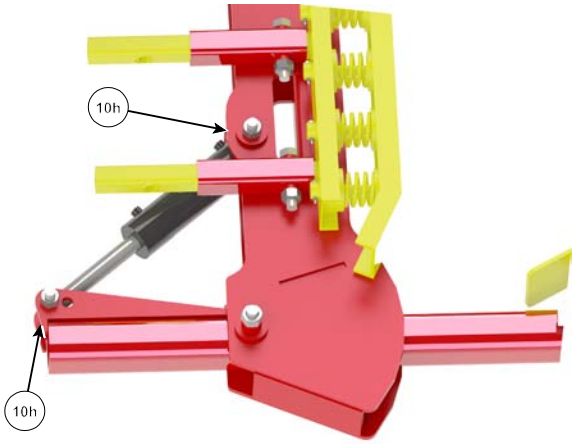
- Main Lift Arm Cylinders
  - 2 cylinders with 2 points each.



Grease Both Main Lift Arm Cylinders 217089C

- Lift Clamp Arm and Cylinder

  - 2 points on the cylinder.
  - 1 point on the arm pivot.



Grease Lift Clamp Arm and Cylinder 218059C

- Grease the bale turn pivot points

  - 2 points on the pivot arms.

Grease The Bale Turn Pivot Points 217189-2C

- Grease the bale turn cylinders

  - 2 cylinders with 2 points each.

Grease the Bale Turn Cylinders 217189-2C2

- Grease the bale support arm pivots

  - 2 points on the arm.

Grease the Bale Support Arm Pivots 217189C

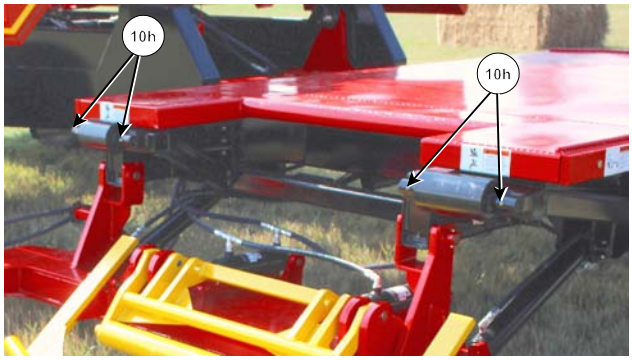
- Grease the bale turn roller

  - 2 points on the roller frame.

Grease the Bale Turn Roller 217189-3C

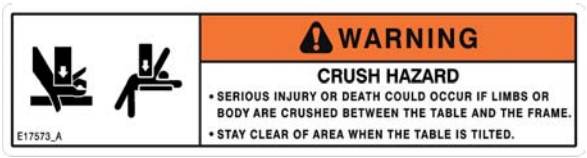
- Grease the rollers at the front table

  - 2 rollers with 2 points each.



Grease Rollers Under Front Table 217190C

Grease Every 200 Hours



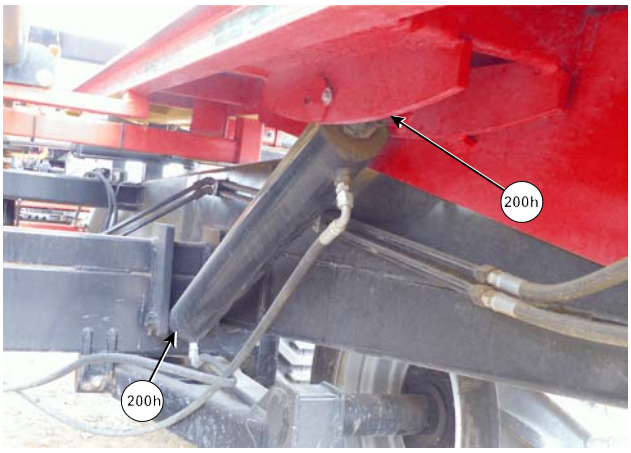
Do not raise the tables to do the greasing. A raised table could lower which could result in death or serious injury.

- Grease the rear table pivots at the back of the machine

  - 1 point on each side of table

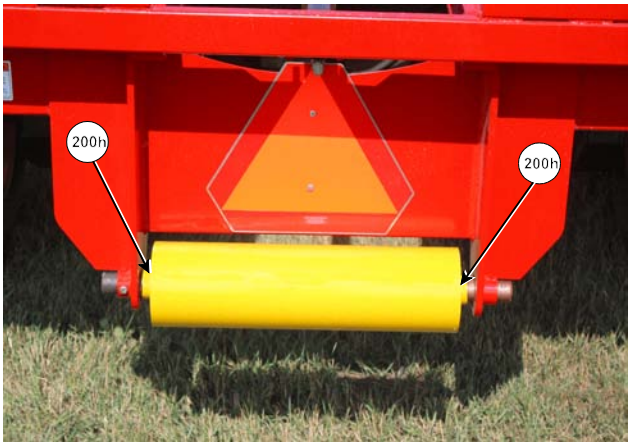
Grease Rear Table Pivots (Right Side Shown) 217122C

- Grease the rear table cylinders
  - 2 cylinders with 2 points each



Grease Rear Table Cylinders 217123C

- Grease the rear table roller
  - 1 roller with 2 points



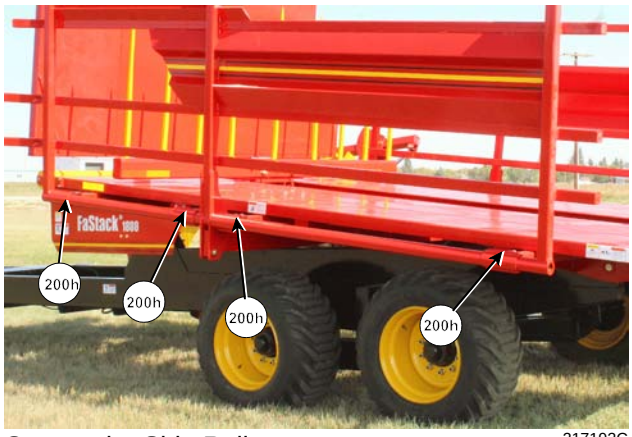
Grease Rear Table Rear Roller 217191C

- Grease the axle walking beams
  - 2 axles with 1 point each

Grease the Axle Walking Beams 217125C

- Grease the side rails on each side of the machine

  - 4 points on each side rail



Grease the Side Rails 217192C

- Grease the side rail linkage on each side of the machine

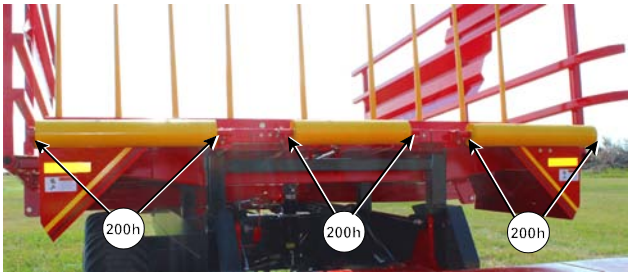
  - 1 point on linkage on each side

Grease the Side Rail Linkage 217192C2

- Grease the front rollers on the rear table

  - 2 points on each roller

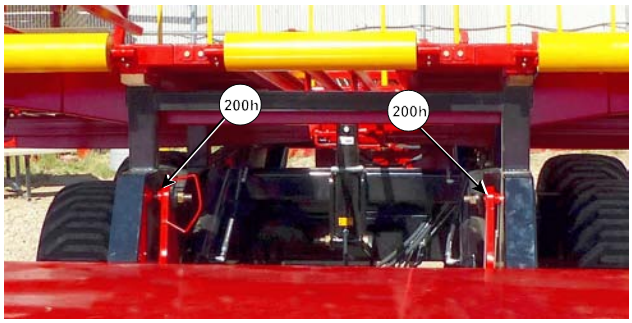
    - 3 rollers on FaStack 1800
    - 2 rollers on FaStack 1200



Grease Front Rollers on Rear Table 217193C

- Grease the front table pivots

  - 1 point on each pivot



Grease Front Table Pivots 217194C

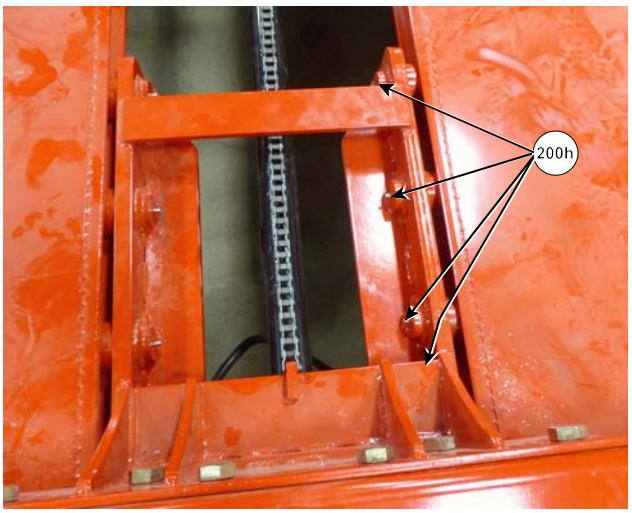
- Grease the front table cylinders
  - 2 cylinders.
    - 2 points on each cylinder.

Grease Front Table Cylinders 217195C

- Grease the rear table boost cylinder
  - 1 point.

Grease the Rear Table Boost Cylinder 217196C

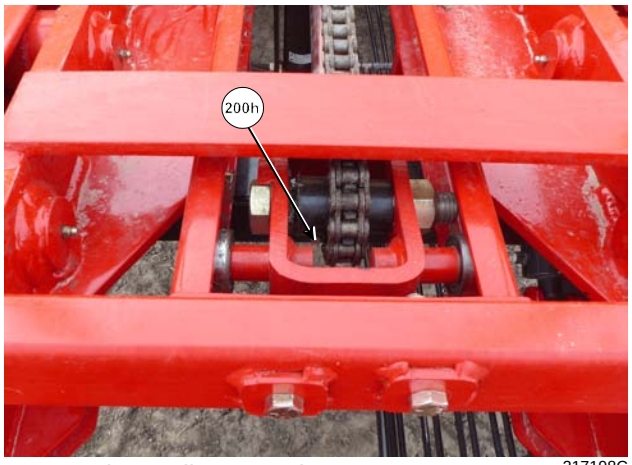
- Grease the trolley carriage
  - 8 points on the carriage
    - 4 points on each side of the carriage



Grease the Trolley Carriage 217197C

- Grease the trolley sprocket

  - 1 point.



Grease the Trolley Sprocket 217198C

- Grease the hitch jack

  - 2 points.

Grease the Hitch Jack 217132C

- Lubricate the trolley chain with a quality chain oil.

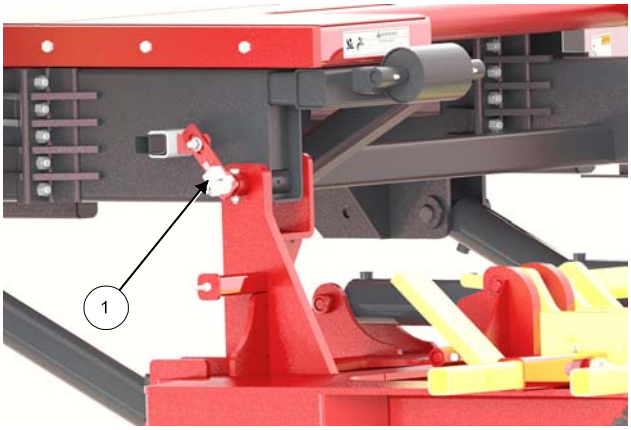
Lubricate the Trolley Chain 217199C

Check the Rotation Sensor

- Visually inspect rotation sensor (1) mounted on the rear of the lift arm.

- Check that the sensor (1) is in good condition.
  - Check that the area around the sensor is free from debris.

- Check that the electrical connector is tight.



Check the Condition of the Rotation Sensor 218045C

Check the Limit Switches

- Visually inspect all the limit switches on the machine.

Location of switches on the 1800:
- Front table.
- Trolley on rear table.

Location of switches on the 1200 Flex:
- Front table.
- Trolley on rear table.
- One switch on each of the push off cylinders on the rear table.

- Check the switches can move freely and the switch arm is tight.

- Remove any debris that may have built up around the switch.

- Check that the switch wiring is in good condition.

Check All the Limit Switches 217133

Check the Condition of the Proximity Switches

Location of the switches:
- Front table - 1200 Flex
- Flipper on the clamp arm

- Check that they are free of debris and the wiring is in good condition.

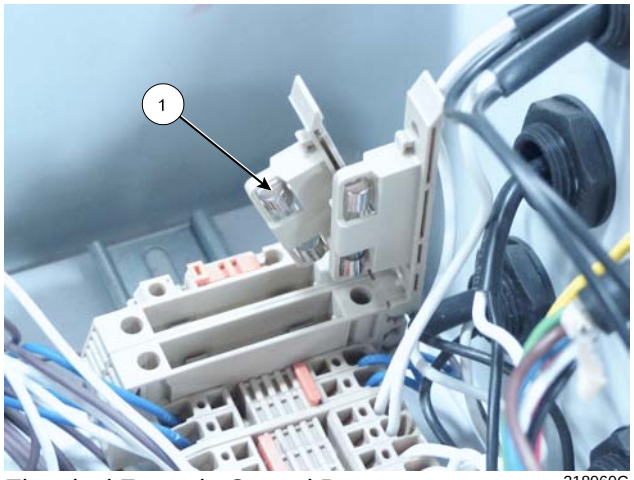
Replacing An Electrical Fuse

There are 2 electrical fuses (1) located in the control box on the machine hitch.
The fuses are the glass tube type.

The required amperage is shown on the fuse holder.

To change the fuse:

- Disconnect the machine from the tractor power.
- Lift the fuse holder.
- Remove and replace the fuse.
  - Close the fuse holder.



Electrical Fuses in Control Box 218060C

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.

Avoid Machine Damage If Welding

Disconnect the machine from all electrical connections before welding on the machine. Attach the ground cable of the welder as close as possible to the part being welded.

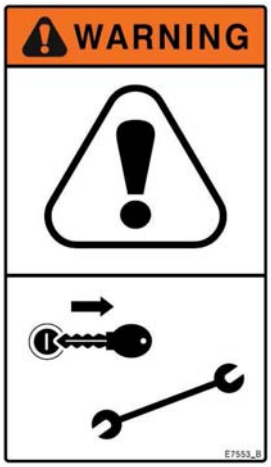
Protect hoses during welding as weld splatter may burn a hole or weaken the hose allowing the loss of oil.

Tire Changing Procedure

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

Securely block the bale stacker before any work is done around or under the machine.

Relieve hydraulic pressure and disconnect the hydraulic hoses.



Note: Before beginning to change a tire, lower the lift arm, lower the front table and lower the rear table.

1. Hitch the bale stacker to the tractor.
2. Block the bale stacker tires on the opposite side to prevent movement of the bale stacker.
3. Place a jack under the spindle tube of the tire to be changed.
4. Lift the machine for sufficient clearance to remove the tire
5. Put the new tire in place.
   - Ensure that the flat portion of the wheel stud washer is against the wheel rim.
6. Fasten the tire with the lug nuts.
   - Torque the lug nuts to 170 lb-ft (230 Nm).

Jack Under Spindle Tube to Change Tire 217200

Flat of Washer Against Rim, Torque the Nuts 217100

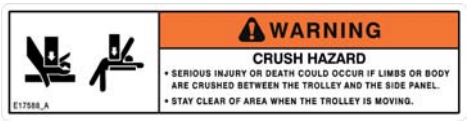
Tire Pressure

Keep tires inflated to 40 psi (276 kPa). Tire damage may occur if under inflated.

6.0 STORING THE BALE STACKER

1. Clean all the debris off the bale stacker.
2. Lubricate all bale stacker grease points (See Section 5).
3. Lubricate the bale trolley chain to keep it from weather exposure.
4. Tighten all bolts to the recommended torque.
5. Check the bale stacker for worn and damaged parts. Replace as needed.
6. Touch-up the paint to prevent rusting.
7. Park the bale stacker on level ground.
8. Raise the rear table so that the trolley will fully drop.
    - This will retract the cylinder so it is not exposed to the weather.

Park on Level Ground 217148



There is a crushing hazard if limbs or body are placed between the deck and ground or surrounding objects when the deck is raised.

There is a crushing hazard if limbs or body is placed between the trolley and side panels.

Raise Rear Table To Drop Trolley 218075

9. Lower the rear table to be fully resting on the frame.

Stay clear of the table when raising or lowering.

There is a crushing hazard if limbs or body is placed between the deck and ground or surrounding objects when the deck is raised or lowered.

Lower Rear Table onto the Frame 217146

10. Lower the front table to be fully resting on the frame.

Stay clear of the table when raising or lowering.

- On the 1200 Flex, rotate the table before lowering it to be resting on the frame.

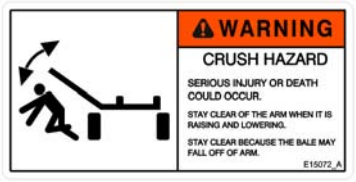
Stay clear of the table when turning.

- The tables should be lowered during long periods of storage so the cylinders in the retracted position. The retracted position prevents the rod from being exposed to the weather.

Lower Front Table onto the Frame 217146

11. Fully lower the bale clamp lift arm.

Stand clear of the bale lift arm.
The moving lift arm can cause serious injury or death.
Never stand under lift arms when lowering or raising.
Do not allow people near the lift arms when being moved.



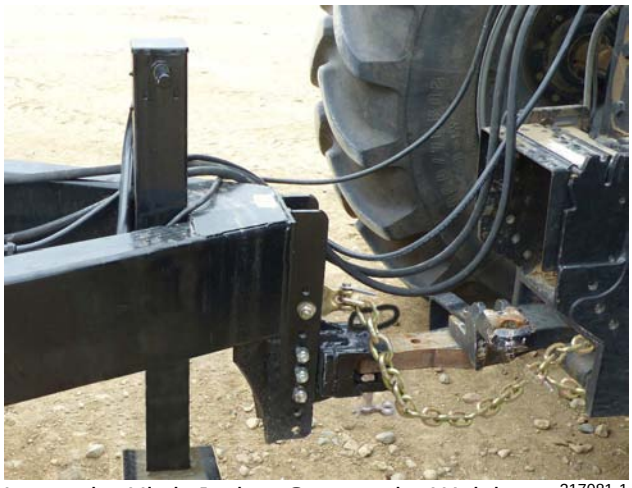
- The lift arm should be lowered during long periods of storage so that the cylinders are in the retracted position. The retracted position will prevent the rod from being exposed to the weather.


Lower Lift Arm, Open Clamp Arm 217171

12. Fully open the clamp arm so the cylinder is in the retracted position to prevent the rod being exposed to the weather.

13. Lower the hitch jack until the weight of the hitch is supported by the jack.

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


Lower the Hitch Jack to Support the Weight 217081-1

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

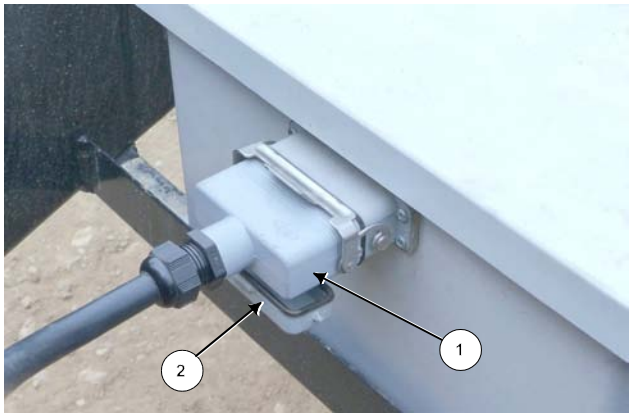
15. Disconnect the electrical connections.


Disconnect Hydraulics and Lighting Cable 217082

16. Disconnect the joystick cable (1) from the control box on the hitch.

    - Fasten the connection cover (2) in place to provide a weather seal.

17. Remove the joystick and control box and cable from the tractor cab. Store in a dry place.



Disconnect Control Cable, Seal with Cover 217106C

18. Close the cover of the control box located on the hitch.

    - Ensure the lid is tightly closed with the lid clamps (1).

        - Turn the clamp handles (1) to tighten the lid to give a weather seal to the electronics in the box.

Close Box Lid, Tighten with Clamps 218063C

19. Secure the hydraulic hoses and electrical connector on the hitch to keep them off the ground and clean.

20. Disconnect the hitch from the tractor.

21. Disconnect the safety chain.

Disconnect Hitch and Safety Chain 217081-1

7.0 TROUBLESHOOTING

Lift Arm

Symptom	Problem	Solution
Lift Arm Not Lifting	Front Table is Up	Lower the front table
	Hydraulics not turned on	Move the lever in the tractor
	Hydraulic Flow	Lever in the tractor wrong way for hydraulic flow
	Hydraulics	Check the hydraulic connections to the hydraulic block and the lift cylinder
	Control Box	Move the switch to the "Load" position
		Check the wiring to the control panel and to the hydraulic block for power to the solenoid
		Check the fuses are supplying power to the control modules
	Relay	Check that the relay in the control box is working properly
		Check the wiring to the hydraulic block for power to the solenoid
	Solenoid on Hydraulic Block	Check for power to the solenoid on the hydraulic block while the button is pressed

Symptom	Problem	Solution
Bale Clamp Not Opening/Closing	Hydraulics	Check the hydraulic connections to the hydraulic block and the clamp cylinder
	Control Panel	Move the switch to the "Load" position
		Check the wiring to the control box and to the hydraulic block for power to the solenoid
		Check the fuses are supplying power to the control modules
	Solenoid on Hydraulic Block	Check for power to the solenoid on the hydraulic block.
	Relay	Check that the relay in the control box is working properly
		Check the wiring to the hydraulic block for power to the solenoid
"On/Off" Strings Not Working (Flipper)	Hydraulics	Check the hydraulic connections to the hydraulic block and the bale turn cylinder
	Control Panel	Move the switch to the desired bale orientation of "On" or "Off" strings
		Check the wiring to the control box and to the hydraulic block for power to the solenoid
	Control Box	Check the fuses are supplying power to the control panels

Symptom	Problem	Solution
	Relay	Check that the relay in the control box is working properly
		Check the wiring to the hydraulic block for power to the solenoid
	Solenoid on Hydraulic Block	Check for power to the solenoid on the hydraulic block
Flipper does not stop at bale lift position while lifting	Proximity Switch	Check the proximity switch located on the flipper arm. A light will be on when the switch senses metal near. The switch will send a signal to the control box. A piece of scrap metal (not aluminum) brought near the switch may be used to check if the switch light turns on indicating it is operating

Front Table

Symptom	Problem	Solution
Front Table Will Not Go Up or Down	Lift Arm is raised	Lower the lift arm
	Hydraulics not turned on	Move the lever in the tractor
	Hydraulic Flow	Lever in the tractor wrong way for hydraulic flow
	Hydraulics	Check the hydraulic connections to the hydraulic block and the lift cylinders

Symptom	Problem	Solution
	Control Panel	Move the switch to the "Load" position
		Check the wiring to the control box and to the hydraulic block for power to the solenoid
	Control Box	Check the fuses are supplying power to the control modules
	Relay	Check that the relay in the control box is working properly
		Check the wiring to the hydraulic block for power to the solenoid

Rear Table

Symptom	Problem	Solution
Rear Table Will Not Go Up or Down	Hydraulics not turned on	Move the lever in the tractor
	Hydraulic Flow	Lever in the tractor wrong way for hydraulic flow
	Hydraulics	Check the hydraulic connections to the hydraulic block and the lift cylinders
	Boost Cylinder not lifting	Close the boost cylinder bleed valve a small amount. See Section 3.
	Control Panel	Move the switch to the "Unload" position
		Check the wiring to the control box and to the hydraulic block for power to the solenoid

Symptom	Problem	Solution
	Front Table Limit Switch	Lower the front table to release the limit switch. Check that the limit switch is not stuck
	Control Box	Check the fuses are supplying power to the control panels
		Check the wiring to the hydraulic block for power to the solenoid
	Relay	Check that the relay in the control box is working properly
		Check the wiring to the hydraulic block for power to the solenoid
Rear Table Creeps Up	Boost Cylinder	Open the boost cylinder bleed valve so the table does not go up. See Section 3.

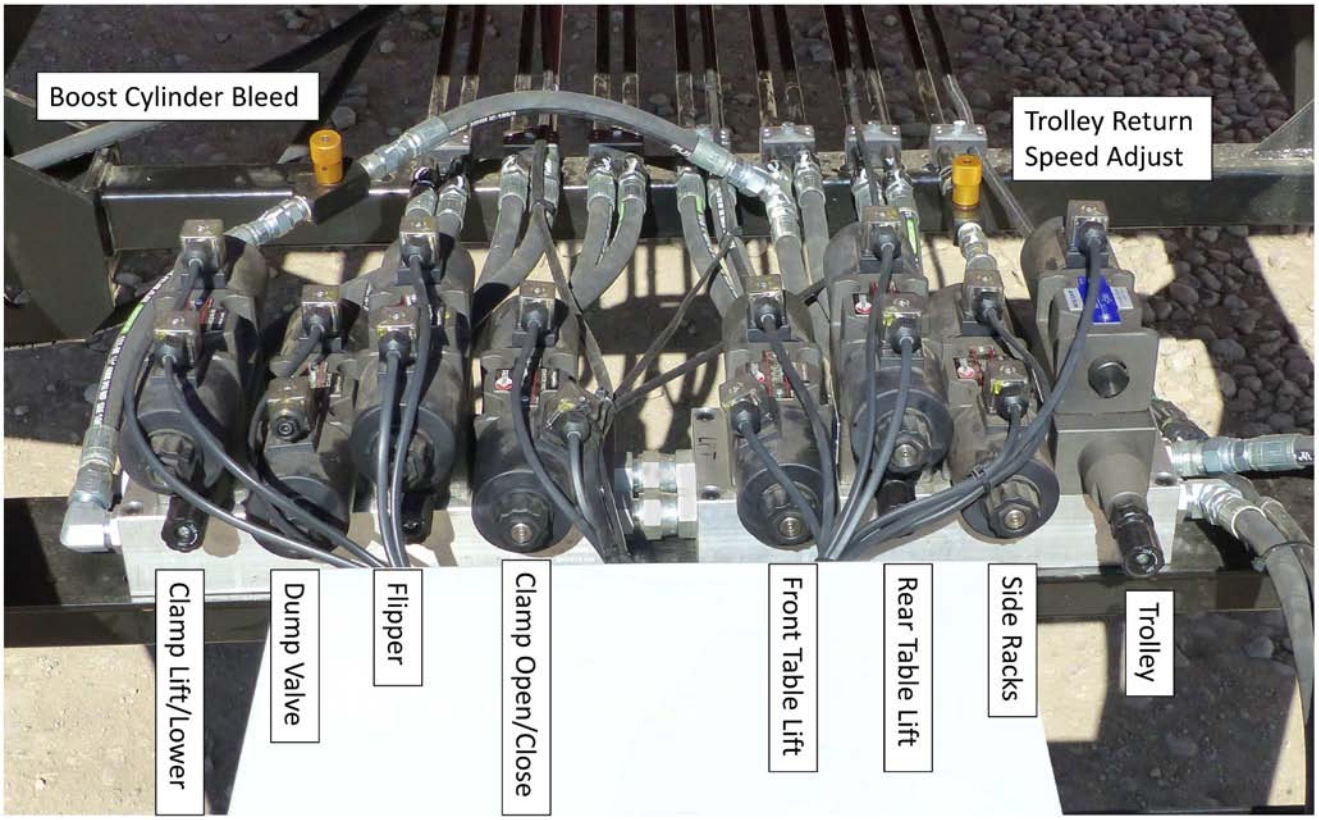
Rear Table Trolley

Symptom	Problem	Solution
Trolley does not move back when bales are loaded	Trolley Pressure	Adjust the trolley pressure on the trolley control valve. See Section 3
Trolley moves back too easily	Trolley Pressure	Adjust the trolley pressure on the trolley control valve. See Section 3
Trolley return speed too fast/slow	Trolley Return Speed Adjust	Turn the trolley return adjust valve for the desired return speed. See below for valve location

Side Rails

Symptom	Problem	Solution
Side Rails Will Not Open or Close	Hydraulics not turned on	Move the lever in the tractor
	Hydraulic Flow	Lever in the tractor wrong way for hydraulic flow
	Hydraulics	Check the hydraulic connections to the hydraulic block and the cylinder
	Control Panel	Check the wiring to the control box and to the hydraulic block for power to the solenoid
	Control Box	Check the wiring to the hydraulic block for power to the solenoid
		Check the fuses are supplying power to the control panels
	Relay	Check that the relay in the control panel is working properly
		Check the wiring to the hydraulic block for power to the solenoid
	Hydraulics	Check the hydraulic connections to the rail cylinder
	Connection to Cylinder	Check that the links to the rail cylinder are connected
		Check that the rails move freely
Bales Hitting Side Racks When Loading	Front Table Bale Stops	Adjust the front table bale stops so the bales do not hit the side rack

Hydraulic Block and Valves



Hydraulic Block and Valves 217142C

- An LED light on the solenoid connection indicates there is current to the solenoid.

This Page Left Blank

FASTACK SPECIFICATIONS

	1800		1200 Flex	
Weight (Unloaded)	16460 lb (7473 kg)		14820 lb (6728 kg)	
Tongue Weight (unloaded)	3360 lb (1525 kg)		3315 lb (1505 kg)	
Maximum Load Capacity	25200 lb (11441 kg)		19200 lb (11441 kg)	
Maximum Number of Bales	4' x 4' 3'x4' Off String 3'x4' On String 3'x3'	12 16 18 24	4'x4' 3'x4' Off String 3'x4' On String 3'x3'	8 8 12 12
Maximum Length of Bales	8' (2.44 m)		8' (2.44 m)	
GVW	41660 lb (18914 kg)		34020 lb (15445 kg)	

Tractor Hitch Category Required

FaStack 1800				
Hitch Category	Maximum Bale Weight			
4	4x4: 1400 lbs (635 kg)	3x4 Off String: 1100 lbs (499 kg)	3x4 On String: 1400 lbs (635 kg)	3x3: 1000 lbs (454 kg)
	Vertical Hitch Load: 7150 lbs (3243 kg)	Vertical Hitch Load: 7340 lbs (3329 kg)	Vertical Hitch Load: 7300 lbs (3311 kg)	Vertical Hitch Load: 7410 lbs (3361 kg)

FaStack 1200		
Hitch Category	Maximum Bale Weight	
3	4x4 or 3x4 Off String: 1200 lbs (544 kg)	3x4 On String or 3x3: 1000 lbs (454 kg)
	Vertical Hitch Load: 5940 lbs (2694 kg)	Vertical Hitch Load: 5840 lbs (2649 kg)
4	4x4 or 3x4 Off Strings: 1800 lbs (816 kg)	3x4 On String or 3x3: 1600 lbs (726 kg)
	Vertical Hitch Load: 7250 lbs (3289 kg)	Vertical Hitch Load: 7360 lbs (3338 kg)

	1800	**1200 Flex**
Overall Length (Tables Lowered)	31" 11 1/8" (9.73 m)	33' 11 ½:" (10.35 m)
Overall Length Rear Table Raised	35" 1" (10.69 m)	37' 11 ½" (11.57 m)
Transport Width With Side Racks	13" 7" (4.14 m)	11' 2 3/4" (3.42 m)
Transport Width Without Side Racks	N/A	9' 11" (3.02 m)
Width Arm Lowered (Clamp Closed) With Side Racks	18' 2" (5.54 m)	15' 6" (4.70 m)
Width Arm Lowered (Clamp Closed) Without Side Racks	N/A	14' 5/8" (4.44 m)
Transport Height (Max)	10" 8 3/4" (3.27 m)	10' 11 3/4" (3.35 m)
Height with Rear Table Raised	17" 8 3/4" (5.40 m)	19' 5 ½" (5.93 m)
Minimum Shed Height	N/A	23' (7.01 m)
Tires	500x 45 x 22.5 Floatation Tires	
Horsepower Recommended	180 hp (134 kW)	
Hydraulic Outlets	1	
Hydraulic Flow	25 gpm @ 2300 psi	
Electronics	12 volt required - Electric Over Hydraulics with Joystick	

Highline New Equipment Limited Warranty Policy

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

Highline Mfg. Ltd. (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.