

Assembly of Rockpicker NT from Shipping Container



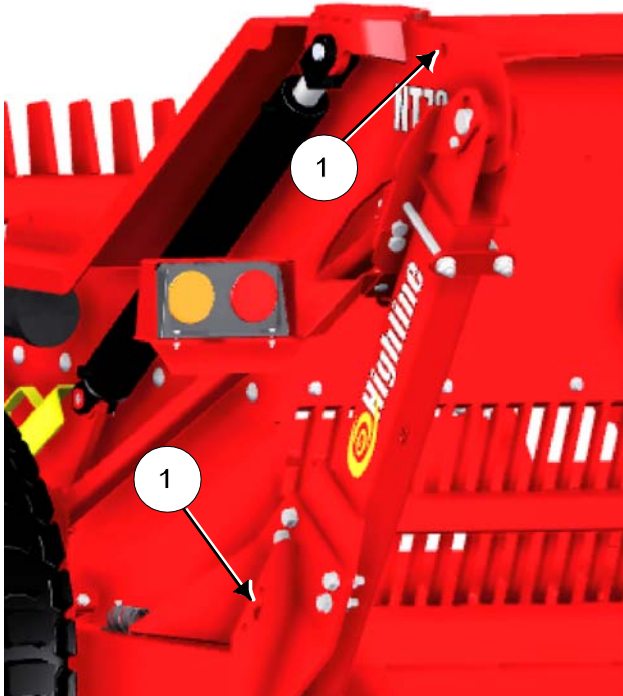
Use appropriate lifting straps, connection parts and machines that can lift the heavy equipment.

1. Remove the rockpicker from the shipping container.
 - Place the rockpicker on a firm flat surface.
 - Have the rockpicker standing on the shipping frame.
2. Attach lifting straps at the 3 lift points to lower the rockpicker.
 - Use clevis connectors at points 1.
 - Place straps through the clevis.
 - Place a strap through the welded loop near the hitch at point 2.



Remove From the Shipping Container

218173



Use Clevis Connectors at the Lifting Points

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Place a Strap Through the Loop Near the Hitch

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Assembly of Rockpicker NT from Shipping Container

- If a forklift is being used to lower the rockpicker, attach lifting straps from the attaching points to the fork lift.
3. Lower the rockpicker to be horizontal on a level firm surface.
- If lowering the rockpicker with a forklift then lower the forks while backing up the forklift.



Using a Forklift to Lower the Rockpicker

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4. Remove the shipping frame by removing the fasteners holding the frame to the rockpicker.



Remove the Shipping Frame
(Shown Resting on Dollies)

218176

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5. Lift the wheels (1) out of the bucket.

- The wheels are bolted together at the bolt plate.

6. Remove the tires from the hubs.

- The hub bolts will be re-used to mount the tires.

7. Lift the rockpicker and attach the axles (9).

- Bolt the axles (9) onto the bottom of the frame using 2 of 3/4" X 3" bolts (5), hardened washers (2) and locknuts (7).
- Bolt the axles (9) onto the top of the frame using 2 of 3/4" X 3-1/2" bolts (8), hardened washers (2) and locknuts (7).

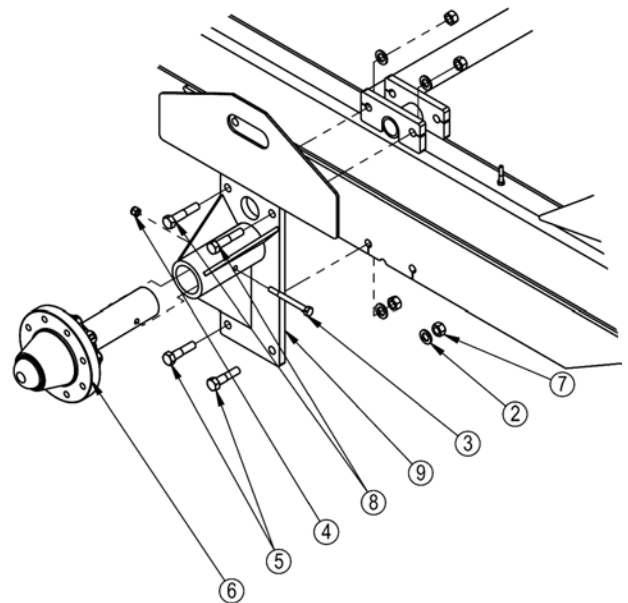
Note: If the left upright support is not mounted on the rockpicker, it will need to be positioned and fastened.

- See information below.



Remove the Wheels from the Bucket

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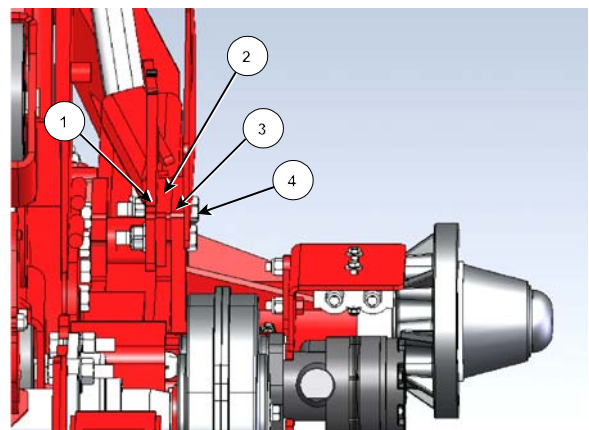


Bolt on the Axles

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Lower End of Left Upright Support

- Place the lower end of the upright support (1) on the inside of the axle mount tab (3) located on the frame.
- Place the axle plate (2) on the outside of the mount tab (3).
- Place 2 of 3/4" x 3-1/2" bolts (4) through the axle plate, mount tab and upright support. Fasten with 2 of 3/4" hardened washers and 3/4" locknuts.



Install Lower End Upright Support to Axle Plate

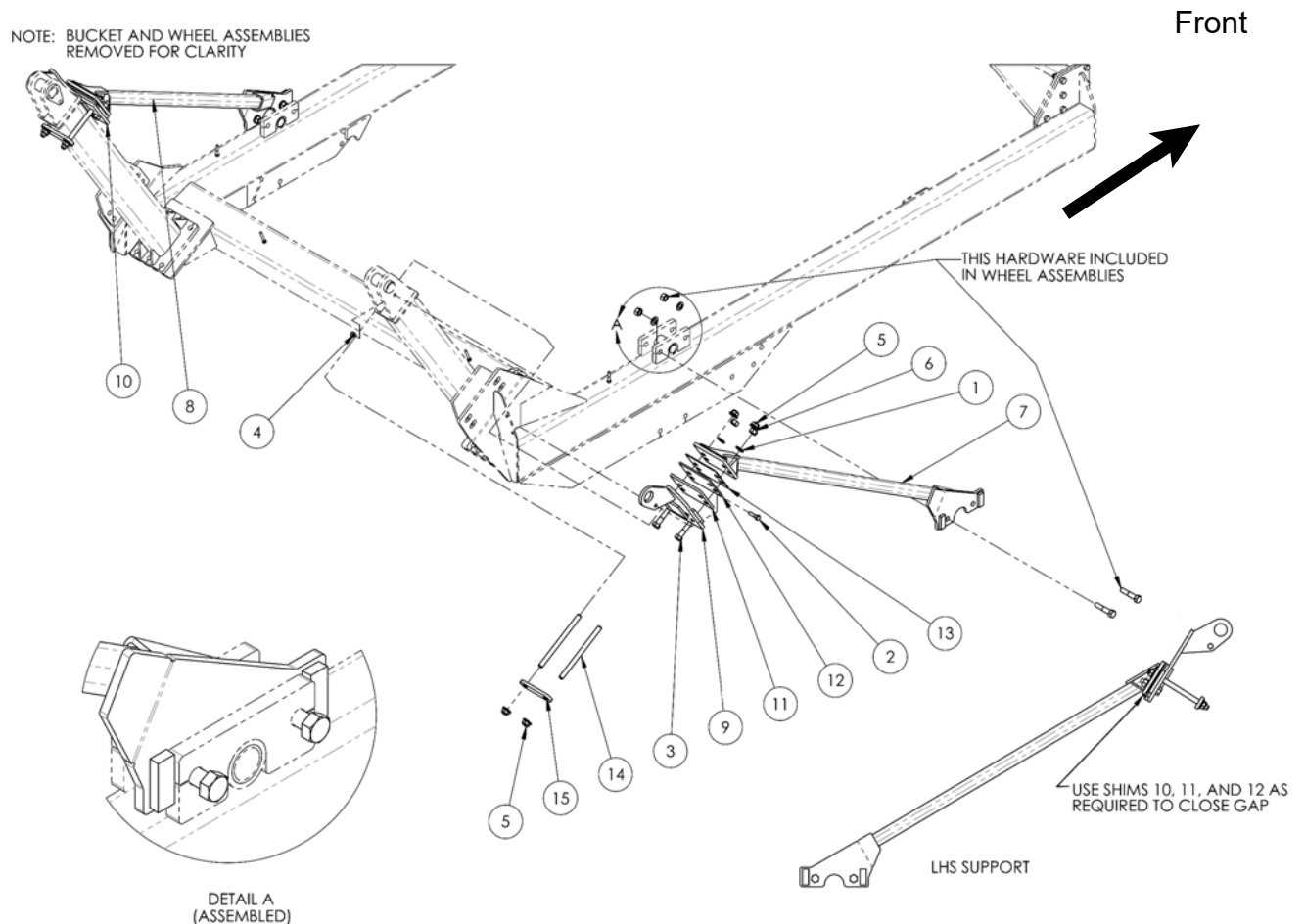
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Upper End of the Upright Support

- Attach the upper end of the support to the bucket pivot pin.
- Attach the support with the fasteners as shown below.

ITEM	DESCRIPTION
1	WSHR,3/4,HDN,.13TK,180KSI,PLD
2	BOLT,HEX,1/2X1-3/4,UNC,GR5,ZP
3	BOLT,HEX,3/4X3,UNC,GR8,ZP
4	NUT,STOVER,1/2,UNC,ZP
5	NUT,FLG,LOCK,3/4,UNC,GR5,ZP
6	NUT,STOVER,3/4,UNC,GR8,ZP
7	SUPPORT,UPRIGHT,RHS
8	SUPPORT,UPRIGHT,LHS
9	CONNECT,UPPER,RHS
10	CONNECT,UPPER,LHS
11	SHIM,SUPPORT,UPPER
12	SHIM,SUPPORT,UPPER
13	SHIM,SUPPORT,UPPER
14	ROD,THREADED,3/4,UNC
15	PLATE,BOLT,UPRIGHT



Install Upper End of Upright Support (Right Hand Shown for Clarity)

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8. Mount the tires onto the hubs.
9. Unstrap the hitch jack.
 - Lift the hitch with the jack.
10. Lower the rockpicker onto the tires and the hitch jack.
11. Remove the reel spacer from the left side of the reel.
 - Use lifting straps near the left side of the reel to take the weight of the reel.
 - Remove the bolts holding the reel spacer to the reel (1) and the apron side (2).
 - The reel spacer can be discarded.
 - The fasteners can also be discarded.
12. Mount the bearing and shaft to the reel and the side of the apron.

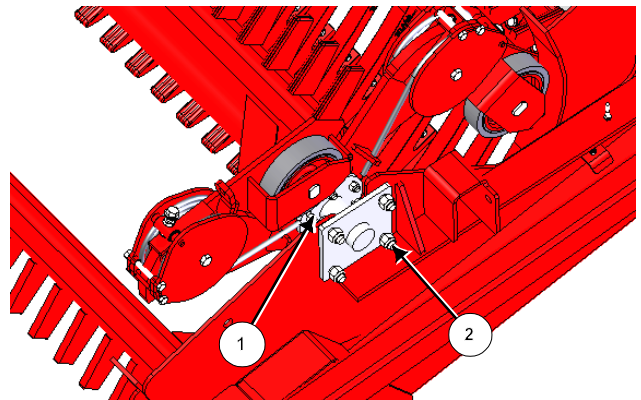
Note: The gearbox may have to be removed from the shaft. Remove the gearbox by taking out the shaft bolt, washers, spacer and shaft key.

- Position the spacers.
 - If there are tube spacers on the shaft, place them to be against the inside of the apron wall.
 - If there is a u-shaped spacer in the bolt bag, place the u-shaped spacer between the bearing and the outside of the apron wall.



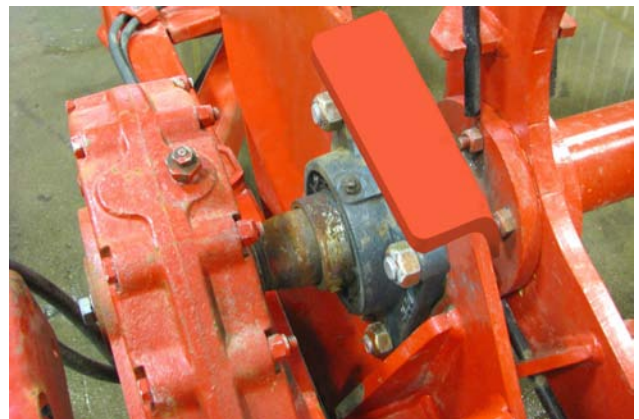
Mount the Tires

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Remove the Reel Spacer

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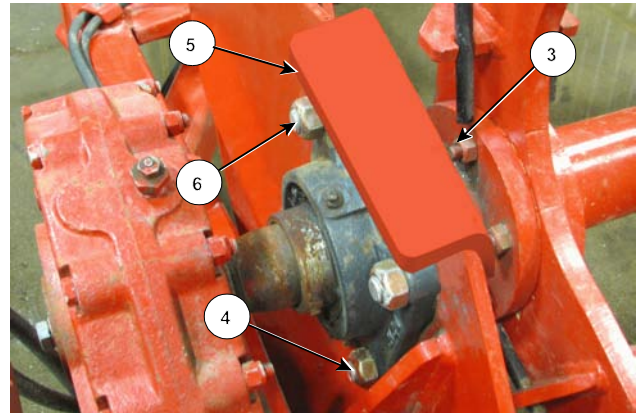


Mount Shaft to Reel and Apron

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- Fasten the shaft to the reel with $\frac{1}{2}$ " x 3" grade 8 bolts and locknuts (3).
 - Torque to 110 lbf.
- Fasten the lower portion of the bearing to the apron wall with $\frac{3}{4}$ " x 2- $\frac{3}{4}$ " bolts and locknuts (4).
 - Fasten with the u-spacers if they are supplied.
- Place the stiffener bracket (5) on the inside of the apron wall.
- Fasten the upper portion of the bearing to the apron wall and the stiffener bracket with $\frac{3}{4}$ " x 3" bolts and locknuts (6).
- Torque all 4 bolts to 265 lbf.

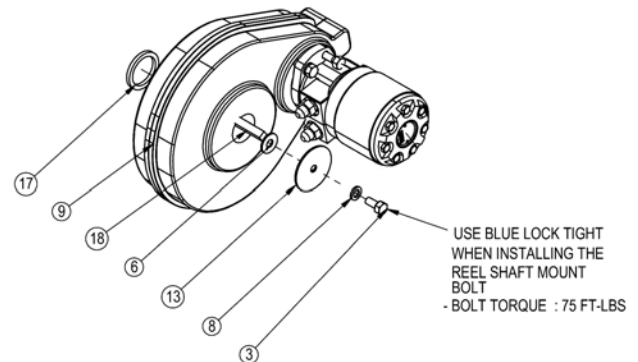


Mount Shaft to Reel and Apron

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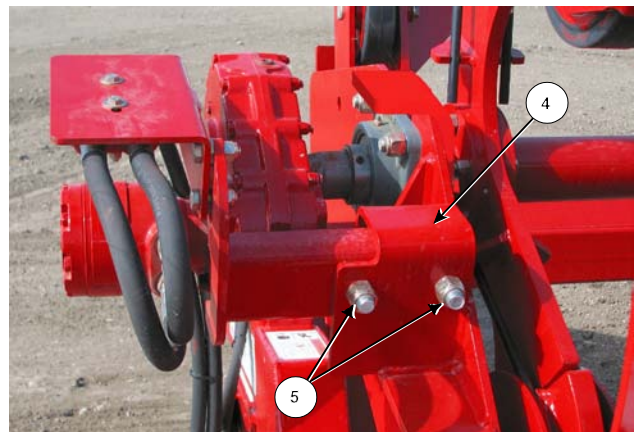
13. Mount the hydraulic motor/gearbox assembly.

- Slide the gearbox (9) onto the reel shaft.
- Slide the valve mount into the mount tube (4).
- Attach the gearbox to the shaft using
 - pipe spacer (17)
 - shaft key (18)
 - $\frac{1}{2}$ " flat washer (6)
 - 3 $\frac{1}{8}$ " X $\frac{1}{2}$ " flat washer (13)
 - $\frac{1}{2}$ " lock washer (8)
 - $\frac{1}{2}$ " x 1" bolt (3)
- Use blue thread locker on the reel shaft mount bolt.
 - Torque to 75 lbft.
- Attach the valve mount to the mount tube (4) using $\frac{3}{4}$ " x 2" flat top carriage bolts and locknuts (5).
 - Do not tighten at this point.



Gearbox onto the Shaft

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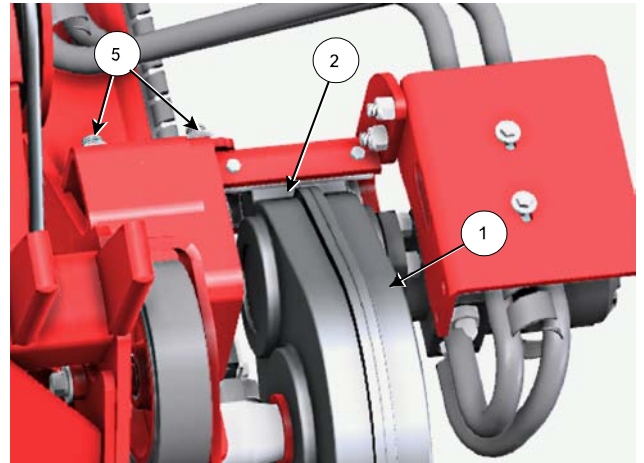


Attach to the Valve Mount Tube

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- Slide the valve mount so that the gearbox (1) is centered on the bump stop (2) and centered between the bolts holding the bump stop.
- The slots in the valve mount tube allow the mount to be moved.- Tighten the flat top carriage bolts and locknuts (5).

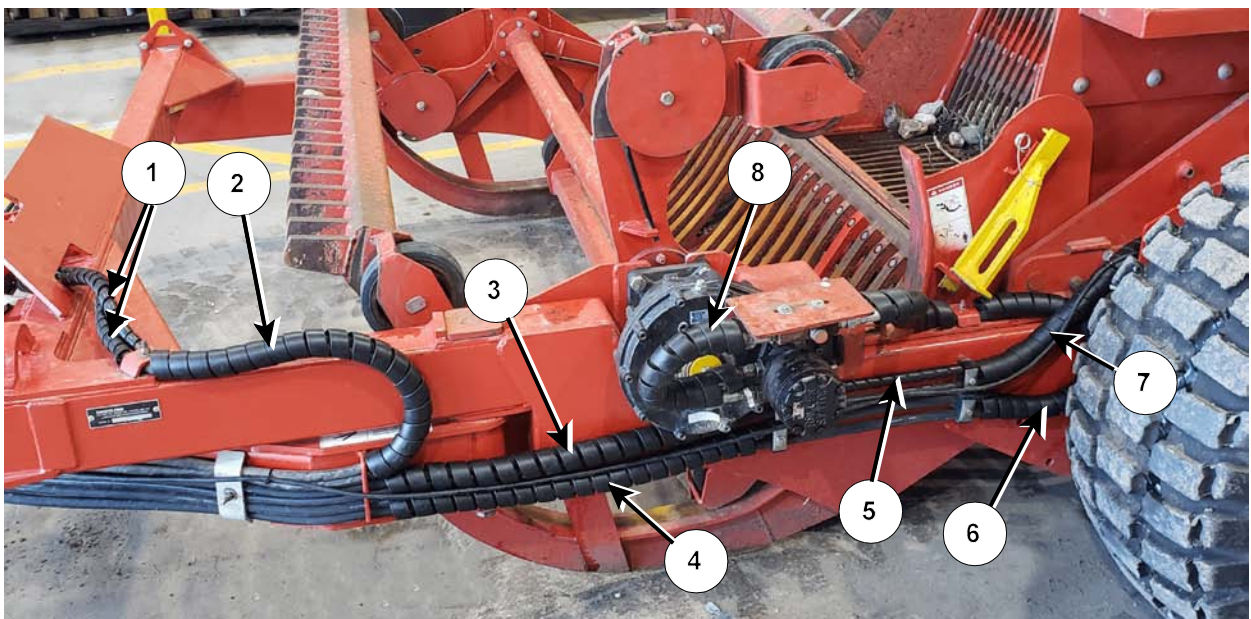


Center Bump Stop to Gearbox

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14. Place the spiral hose wraps on the hydraulic hoses according to the chart and picture.

1	Hose wrap, 1" diameter, 28" long
2	Hose wrap, 2" diameter, 27" long
3	Hose wrap, 2" diameter, 32" long
4	Hose wrap, 2" diameter, 32" long
5	Hose wrap, 1" diameter, 17" long
6	Hose wrap, 2" diameter, 24" long
7	Hose wrap, 2" diameter, 24" long
8	Hose wrap, 2" diameter, 20" long

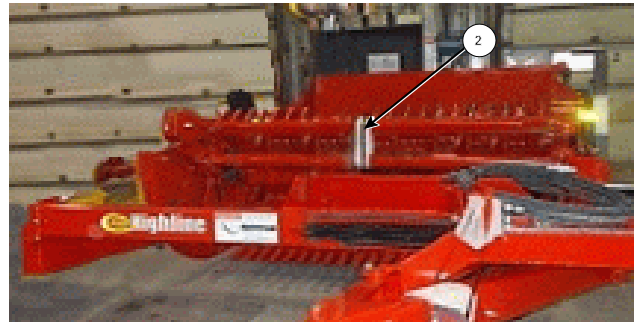


Place Spiral Wrap on Hoses. Fasten Hoses to Frame

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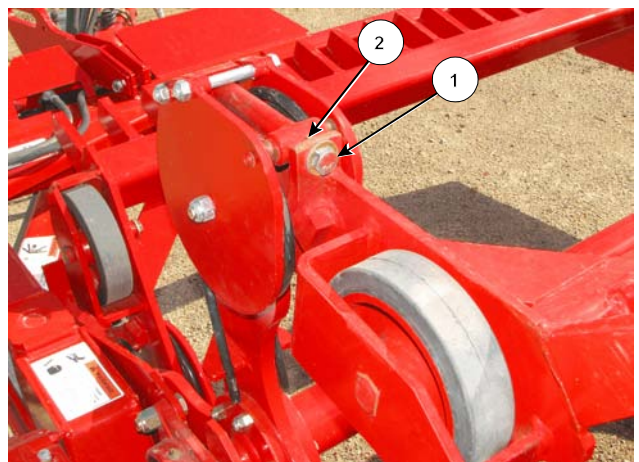
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15. Fasten all the hoses to the frame with the hydraulic hose holders.
16. Remove the strapping (2) that is holding the reel bat to the center tube.
 - There is no spring pressure on this bat.
 - Swing the bat out of the way.
17. Tighten the reel bat springs on both sides of the reel.
 - Turn the bolt (1) on the spring mechanism.
 - Leave 1/8" thread to the underside of the jam nut when it is tightened.
 - Use the jam nut (2) to lock the bolt in place.



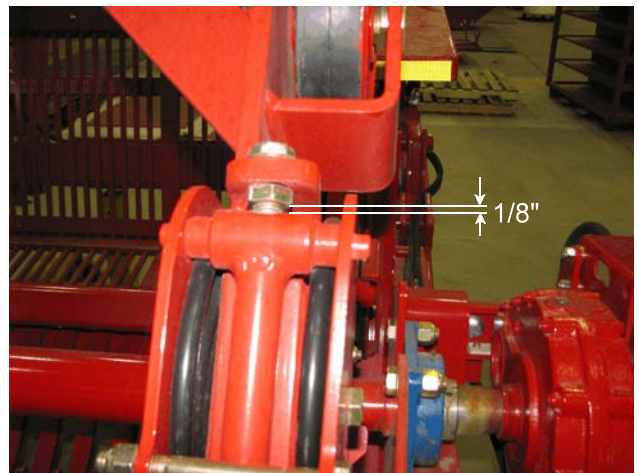
Remove Strapping from the Bat

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Tighten Both Reel Springs

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1/8" Gap Between Jam Nut and Tube

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18. After the spring is tensioned, fill the tube around the threads with grease through the flush grease zerk (1).
 - Use a flush type grease coupler (or a needle nozzle) to fill the tube with grease.
 - Fill until the grease comes out near the locking nut (6) or no more grease can be injected through the zerk.
19. Install the hose holder onto the hitch.
 - Place the hose holder onto the hitch behind the hitch jack.
 - Fasten in place with a $\frac{1}{2}$ " x 7-1/2" square u-bolt and flange locknuts.
 - Torque to maximum of 75 lbf.
20. Route the hydraulic hoses up the hose holder.
 - Tie wrap them in place.



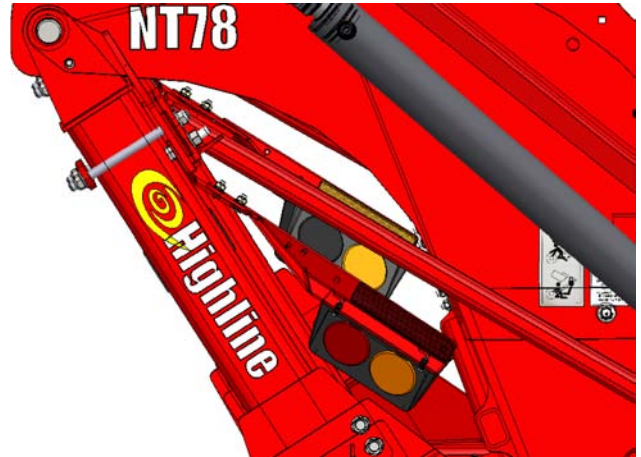
Install Hose Holder on Hitch, Route Hoses

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Apply Decals

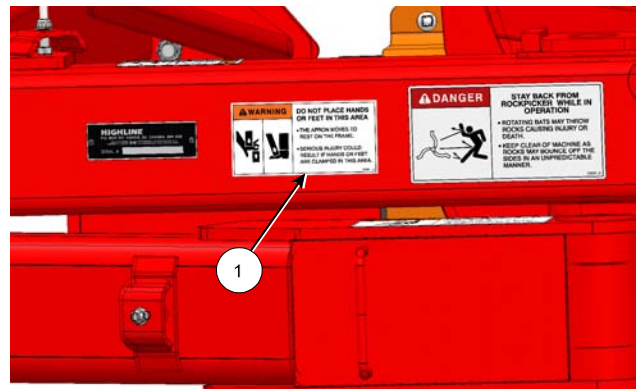
1. Apply the branding decal "Highline" to the right rear upright.



Apply Branding Decal to Right Rear Upright
(Light Bracket Shown Not Installed)

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2. Apply the Warning decal (1) next to the serial number plate located near the front hitch.



Apply the Patent Decal near the Serial Number Plate

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3. Apply the branding decal "Highline" to the right front frame member.



Apply Branding Decal to Right Front Frame

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