



The assembly process will involve lifting heavy equipment. Use properly rated lifting straps and equipment able to handle the loads. Take necessary precautions for personal safety.

Note: Do not lift the rockpicker using forks under the apron assembly. The apron will move and cause damage to the shields.

1. Slide the front rockpicker with the shipping frame out of the container.

Note: The sides of the rockpicker are very close to the sides of the container. Use caution while slowly backing the rockpicker out of the container.

- Leave the shipping skids bolted on the machine at this point.

2. Remove the other rockpickers out of the container.

Note: The sides of the rockpicker are very close to the sides of the container. Use caution while slowly backing the rockpicker out of the container.

- Connect onto the hitch tongue of the rockpicker with a pin on a forklift.
- Slide it out of the container.

Assembly of the Rockpicker NT60E - 3 In Container

3. Remove the strapping holding the wheel assemblies to the bucket.
4. Remove the wheel assemblies from the bucket.
 - The left and right wheel assemblies are bolted together.
5. Remove the hitch hose holder from the bucket.
6. Remove the crate from the bucket.

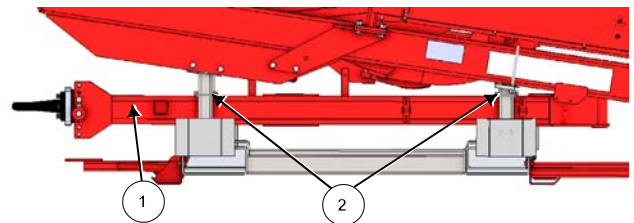


Remove the Wheel Assemblies

218016

Assembly of the Hitch onto the Rockpicker Without the Hitch

1. Find the crate that has the hitch swing members and hitch hydraulic cylinder in it.
 - Components from the crate will be needed.
2. Remove the hitch (1) from the shipping stands by removing the u-bolts (2).
3. Attach the hitch to the rockpicker.
 - Use the following diagram as a guide.



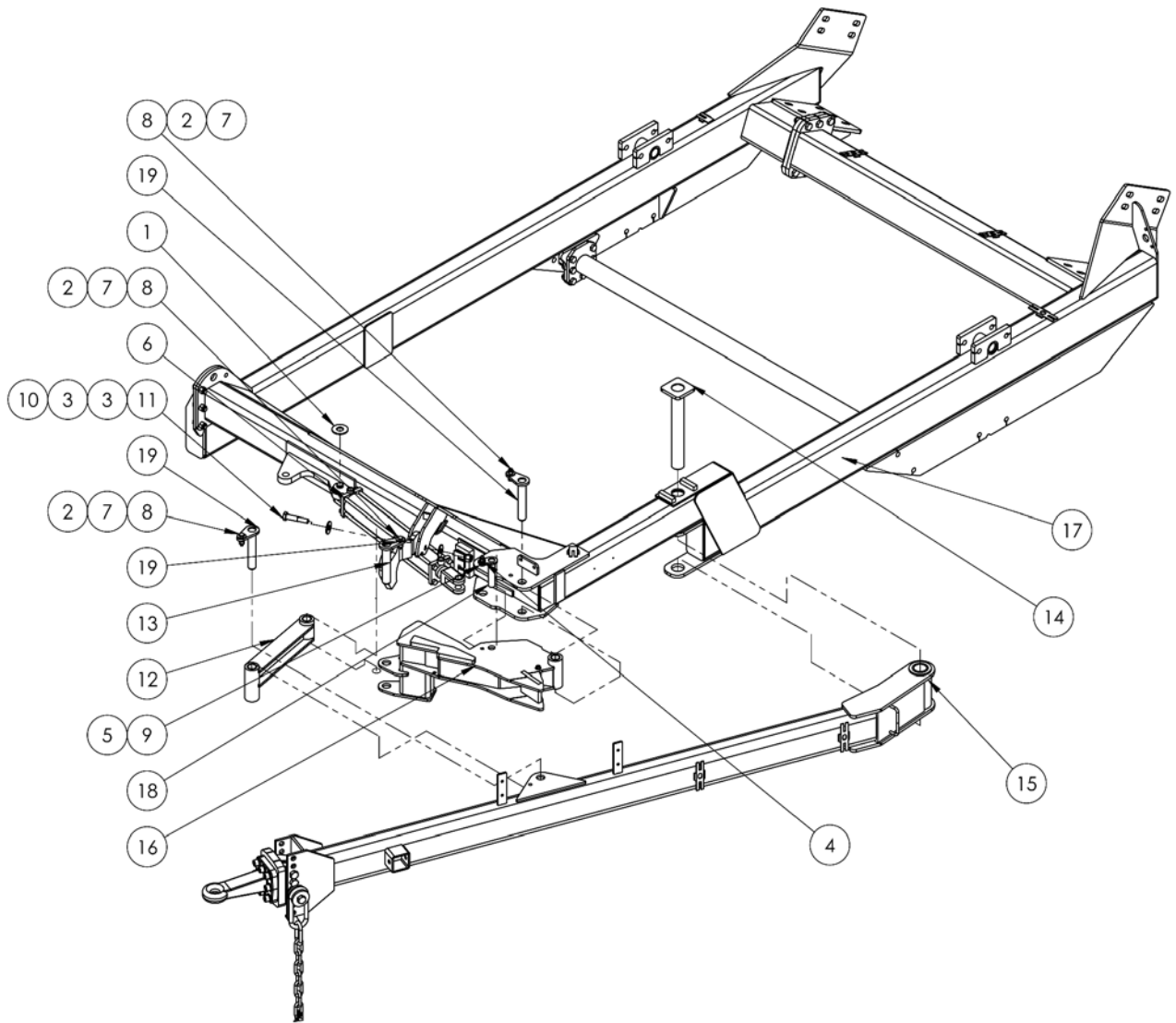
Remove Hitch from Shipping Stand

223293C

ITEM	DESCRIPTION
1	WASHER,FLAT,1,ZP
2	WASHER,FLAT,1/2,ZP
3	WASHER,FLAT,3/4,ZP
4	WASHER,FLAT,3/8,ZP
5	NUT,NYLOCK,M10X1.5,C8,PLTD
6	HYD,CYL,3X20,TIE ROD,IN LINE
7	NUT,NYLOCK,M12X1.75,C8,PLTD
8	BOLT,HEX,M12X45,GR8.8,ZP
9	BOLT,CARR,M10X40,GR8.8,ZP
10	NUT,NYLOCK,M18X2.5,C8,PLTD

ITEM	DESCRIPTION
11	BOLT,HEX,M18X90,GR8.8,ZP
12	ASSY,HITCH,SWA1
13	NT,HITCH,TL
14	HITCH,PIN,CE
15	ASSY,HITCH,MAIN,LONG,CE
16	ASSY,HITCH,SWA2,2POS,CE
17	ASSY,NT60,FRAME
18	PIN,1X4-3/4,CRM
19	PIN,1-1/4X6-3/4EL,CRM

Assembly of the Rockpicker NT60E - 3 In Container



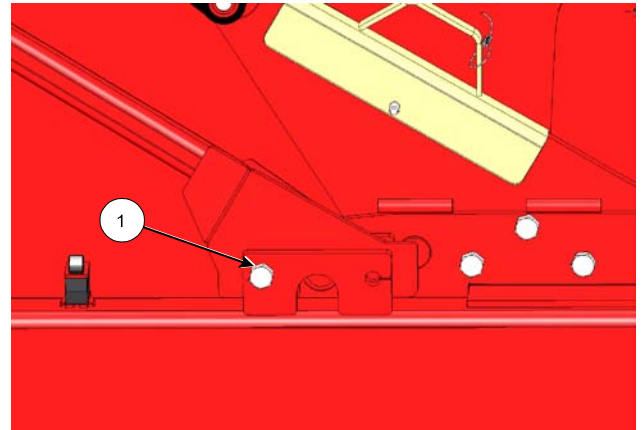
Hitch Assembly

43365_D

Note: The following assembly instructions will apply to all the rockpickers.

Removing the Left Shipping Stand - Installing the Left Wheel Assembly

1. Remove the tires from the wheel assemblies.
2. Remove the fastener (1) that is holding the bucket upright in place.
 - Keep the fastener to be used on the bottom of the wheel flange.

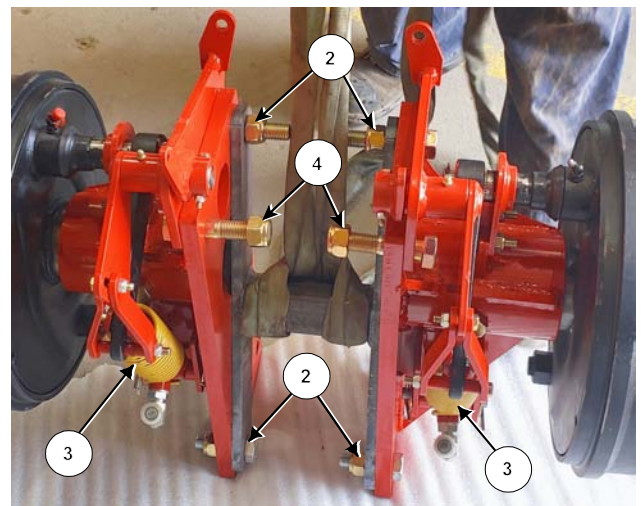


Remove Fasteners Holding the Bucket Upright 220080C

3. Remove the fasteners (2) holding the wheel shipping bracket.
4. Remove the nuts (4) from the other top bolts.
 - Do not remove the bolts.
5. Determine which is the right and left wheel assemblies.

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

- The brake cylinder (3) must be toward the front of the machine. The brake lever must be at the top.
6. Place a lifting strap on the left side of the rockpicker to take the weight when removing the shipping stand and installing the wheel assembly

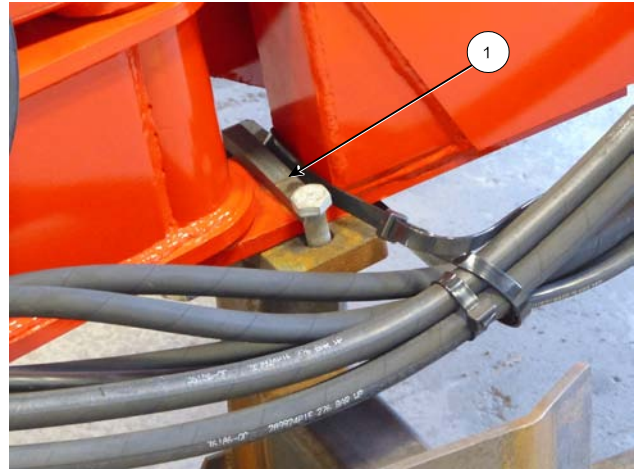


Remove the Axle Shipping Bracket

220079C

Assembly of the Rockpicker NT60E - 3 In Container

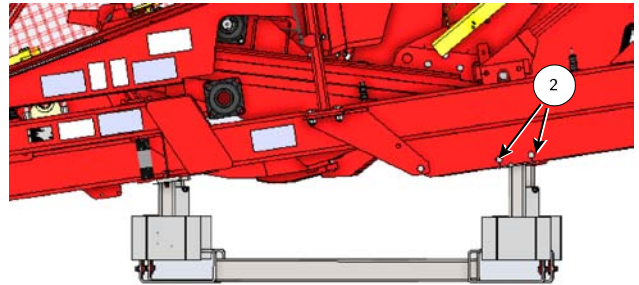
7. Remove the nut from the front support clamp (1) of the shipping stand and remove the clamp.



Remove Nut from Front Support Clamp

217030C

8. Remove the fasteners (2) from the rear shipping stand support.
9. Lift the rockpicker and remove the left shipping stand.



Remove Fasteners From Rear Shipping Stand
Remove the Left Shipping Stand

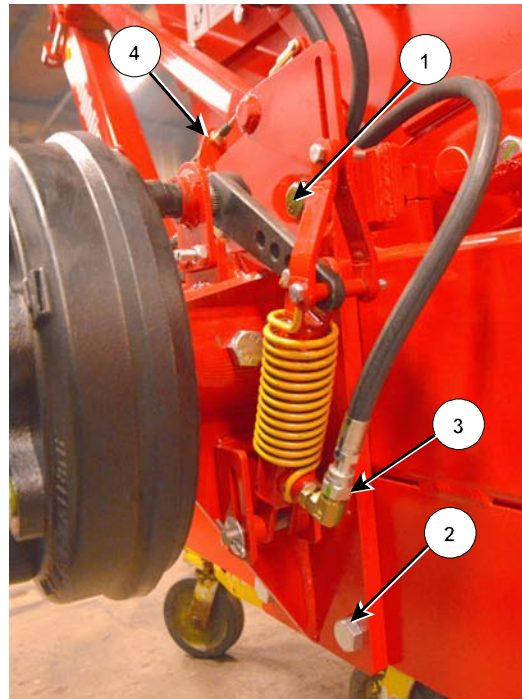
223294C

10. Attach the left wheel assembly:

- Position the wheel assembly onto the frame with the park brake bracket (4) to the rear of the machine.
- Insert the top bolt that was left in the wheel flange into the frame.
 - Place the bolt through the 3 pieces of steel.
 - Place a locknut onto the bolt that was removed earlier.
- Insert the M20x90 bolt (1) and locknut (removed earlier) into the flange.
 - Place the bolt through the 3 pieces of steel.
- Guide the bolt that was left in the wheel flange into the 3 pieces of steel.
 - Place the locknut (removed earlier) onto the bolt.
- Place a M20x65 bolt (2) and locknut (removed from the shipping bracket) into the bottom of the flange.
- Place a M20x65 bolt (2) and locknut (removed from holding the bucket upright) into the bottom of the flange.
- Torque all the fasteners to 400 Nm.

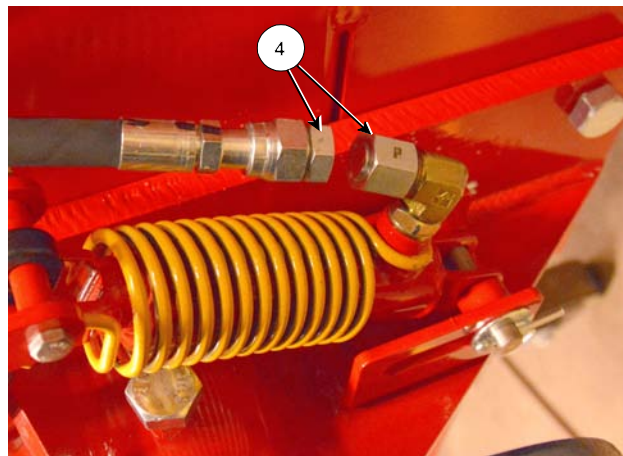
11. Connect the brake line (3) onto the brake cylinder.

- Remove the brake line cap (4) and the cylinder cap to make the connection.



Attach Wheel Assemblies
(Note: Right Wheel Assembly Shown)

218017C



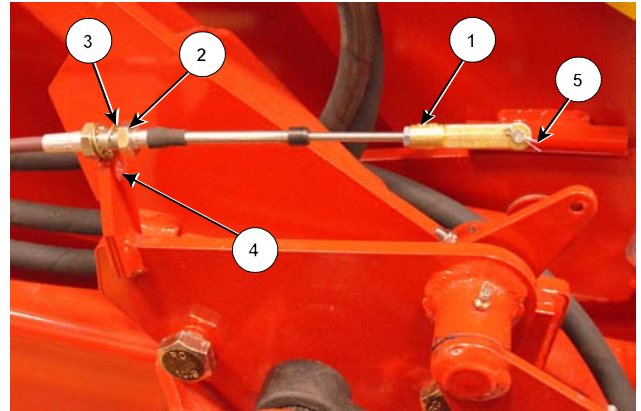
Connect the Brake Line to Brake Cylinder

218018C

12. Attach the parking brake cables to the lever arms.

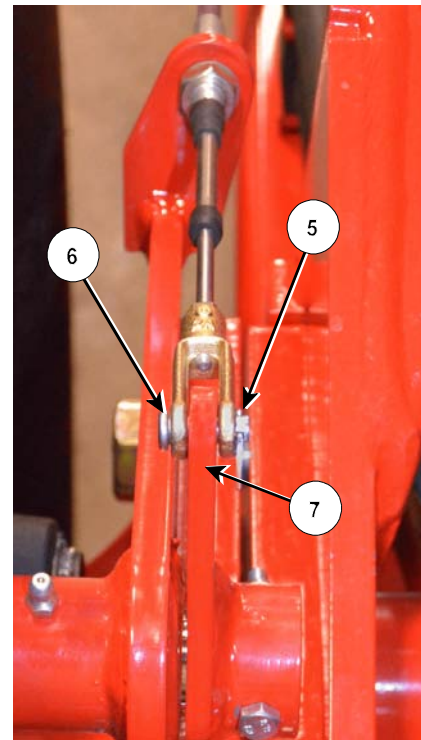
- Remove the clevis (1) by unthreading it from the cable.
- Remove the nut (2).
- Remove the lock washer (3).
- Place the cable through the hole (4) with the other lock washer and nut on the rear of the cable plate.
- Place the lock washer (3) onto the cable.
- Tighten the cable in place with the nut (2).
- Thread the clevis (1) onto the end of the cable.
- Remove the cotter pin (5) from the pin (6) in the end of the clevis,
- Place the pin through the brake actuator arm (7).
- Fasten the pin (6) with the cotter pin (5).

Note: The parking brake adjustment procedure will be explained later in this document.



Attach the Parking Brake Cable

218019C



Connect Parking Brake Cable

218020C

Assembly of the Rockpicker NT60E - 3 In Container

13. Mount the left tire.

- There are left and right tires.
- Mount the tire so that the tread is as shown in the picture.
- Torque the wheel bolts to 270 -290 Nm dry.



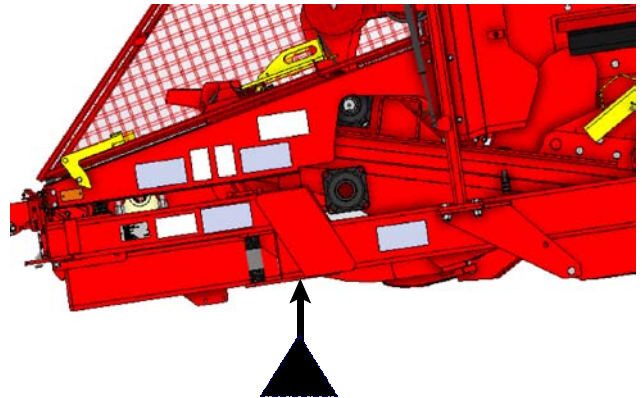
Install the Tire

(Note: Right Tire Shown - Left Tread Direction the Same)

218021

14. Place a jackstand under the rockpicker frame near the front to hold the weight of the rockpicker when lifted for the wheel mounting.

Note: Do not place the jackstand under the hitch or the connections for the hitch.

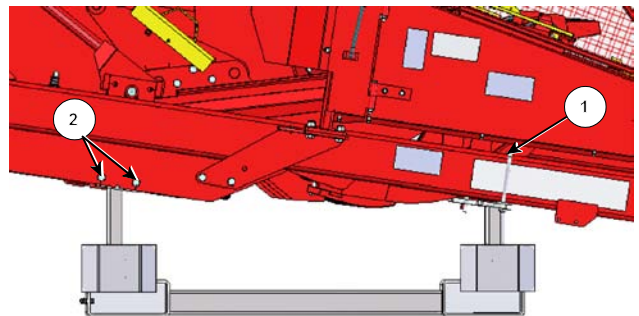


Place Jackstand Under Frame

223295C

Removing the Right Shipping Stand - Installing the Right Wheel Assembly

15. Place a lifting strap on the right side of the rockpicker for taking the weight when removing the shipping support and installing the wheel assembly.
16. Remove the u-bolt from the front support post (1).
17. Remove the fasteners (2) from the rear shipping stand support.
18. Lift the rockpicker and remove the right shipping stand.



Remove the Right Shipping Stand

223296C

19. Install the right wheel assembly, assemble the brake connections and mount the wheel.
 - Use steps 10 - 13 listed above for directions on the installation process.
20. Install the hitch jack onto the hitch.
 - Use the jack to make the hitch level.

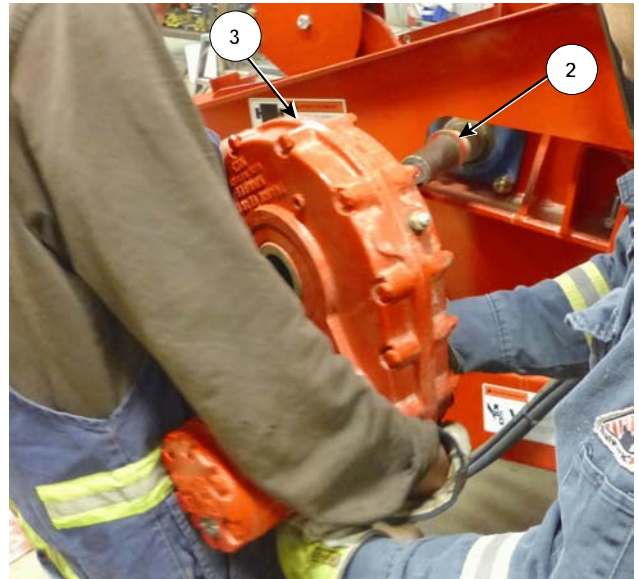


Install the Right Tire

218021

Install the Motor/Gearbox Assembly

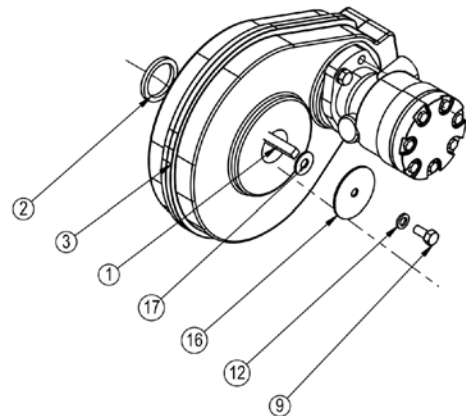
1. Mount the hydraulic motor/gearbox assembly.
 - Slide the gearbox (3) onto the reel shaft.
 - Align the gearbox to allow the shaft key (1) to be inserted.



Mount Gearbox Assembly to the Shaft

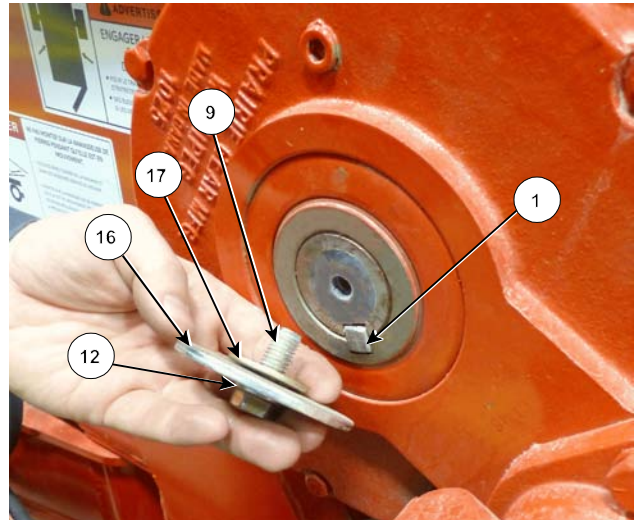
217024C

2. Attach the gearbox to the reel shaft using:
 - spacer (2)
 - shaft key (1)
 - 1/2" flat washer (17)
 - 3 1/8" X 1/2" flat washer (16)
 - 1/2" lock washer (12)
 - Apply a thread locking liquid to the threads of the M12 x 25 bolt (9).



Attach Gearbox to the Reel Shaft

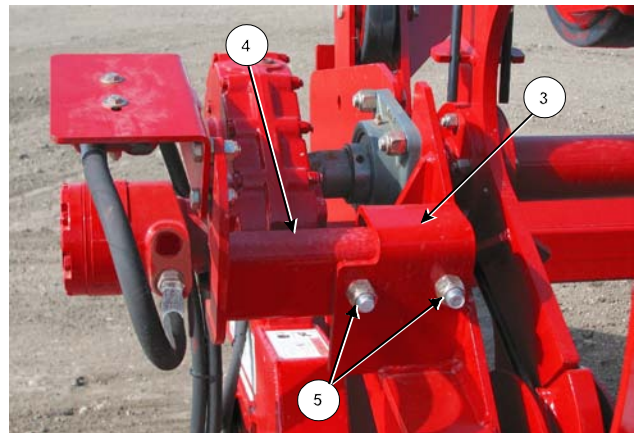
215194



Fasteners for Gearbox Attaching

217025C

3. Rotate the gearbox/reel.
4. Insert the bump stop bracket (4) into the support tube.
5. Attach the bump stop bracket (4) to the mount tube (3) using 2 of M20X50 hex bolts and locknuts (5).
 - Do not tighten at this time.

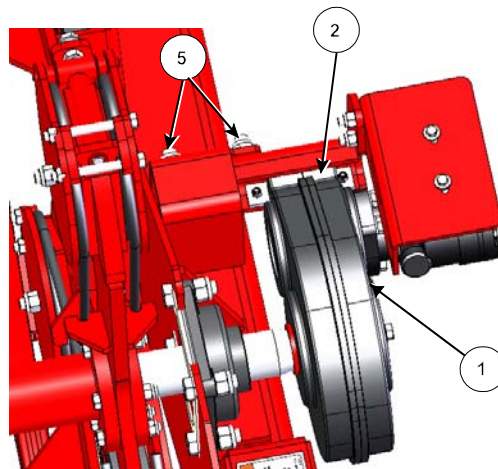


Attach to the Mount Tube

217014C

Assembly of the Rockpicker NT60E - 3 In Container

- Slide the bump stop bracket so that the gearbox (1) is centered on the white bump stop strip (2) and centered between the bolts holding the bump stop strip.
 - The slots in the bracket allow the mount to be moved.
- Tighten the hex bolts and locknuts (5).



Center Bump Stop to Gearbox

215202C

6. Mount the motor/gearbox shield.

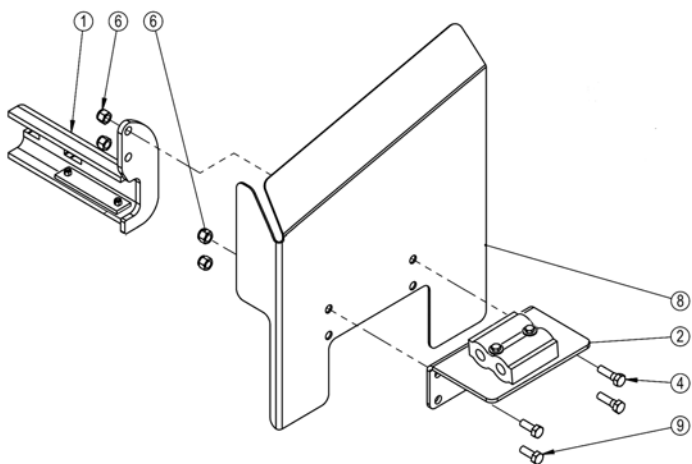
- Slide the shield between the bump stop and the cushion valve mount.
- Place 2 of M12X40 bolts (4) into the valve support bracket (2), through the shield (8) and into the bump stop bracket (1).
 - Fasten with M12X1.75 locking nuts (6).
- Place 2 of M12X30 bolts (9) through the valve support bracket (2) into the shield (8).
 - Fasten with M12X1.75 locking nuts (6).



Mount Motor/Gearbox Shield

217027

ITEM	DESCRIPTION
1	BUMPER,GEARBOX
2	ANCHOR,VALVE,CUSHION,HYDRAULIC
4	BOLT,HEX,M12X40,GR8.8,ZP
6	NUT,NYLOCK,M12X1.75,C8,PLTD
8	SHIELD,REEL DRIVE
9	BOLT,HEX,M12X30,GR8.8,ZP



Install Gearbox Shield

43676_A

Assembly of the Rockpicker NT60E - 3 In Container

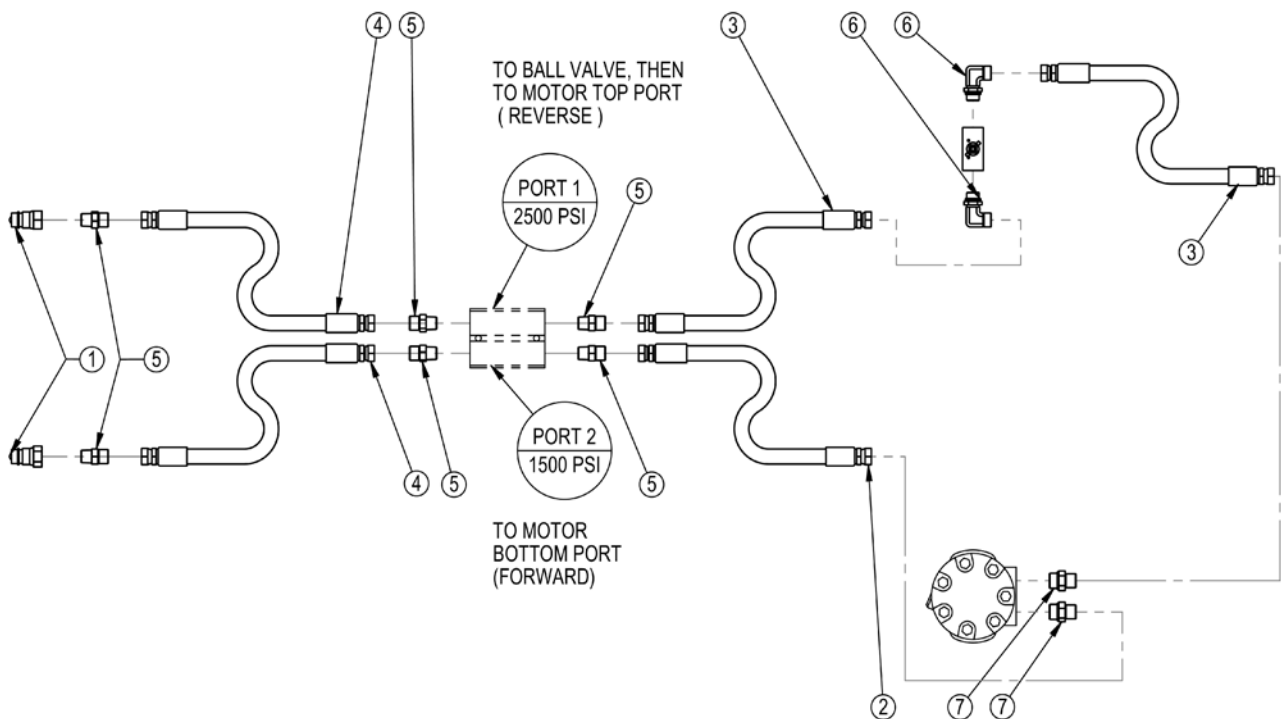
7. Connect the hydraulic hoses to the motor.
- Use the follow diagram for the connections.

ITEM	DESCRIPTION	QTY.
1	HYD,FIT,PIONEER,MALE,8FP	2
2	HYD,HOSE,1/2X20,8FFS-8FFS,2W	1
3	HYD,HOSE,1/2X58,8FFS-8FFS,2W	2
4	HYD,HOSE,1/2X222,8FFS-8FFS,2W	2
5	HYD,FIT,ADAPTER,8MORFS-8MP	6
6	HYD,FIT,ELBOW,8MORFS-8MB	2
7	HYD,FIT,ADAPTER,8MORFS-10MB	2



Installed Gearbox Shield

217028

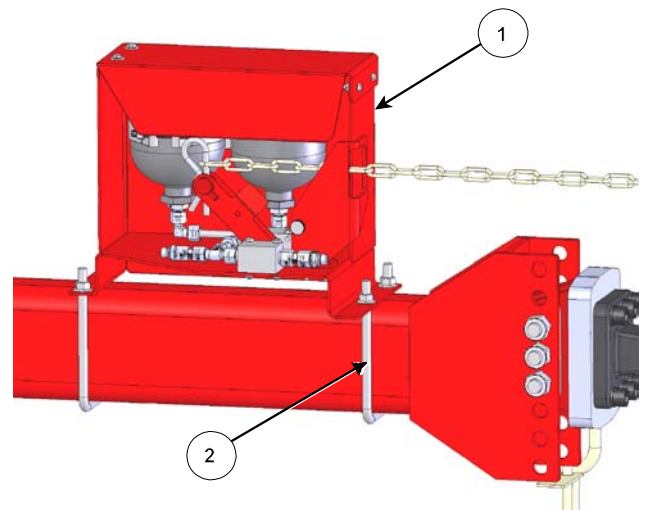


Motor Hydraulic Connections

43696_A

Install the Emergency Brake Break Away Assembly

1. Find the break away system and hoses in the crate.
2. Mount the break away box onto the hitch.
 - Fasten to the frame using the M12 x 103 x 185 square u-bolt and M12 x 1.75 flange locknuts.
3. Attach the hydraulic hoses to the break away connections.
 - The tractor hose is 3/8" X 106".

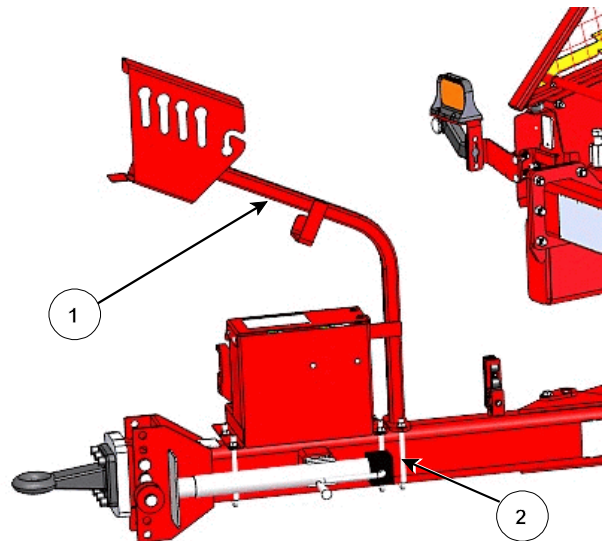


Mount Break Away Box onto the Hitch

43193C

Install the Hitch Hose Holder

1. Place the hose holder (1) onto the hitch behind the brake emergency break away box.
2. Fasten the hose holder in place with the u-bolt (2).



Install Hose Holder Onto Hitch

220043C

Route the Hydraulic Hoses

1. Route the hydraulic hoses through the hose clamps along the side of the frame.
 - Run the hoses to the front portion of the hitch.
2. Route the electrical cables along the frame and attach with the wire clip holders.



Route Hydraulic Hoses Through Hose Clamps

220044

3. Route the hydraulic hoses and electrical up through the hitch hose holder.

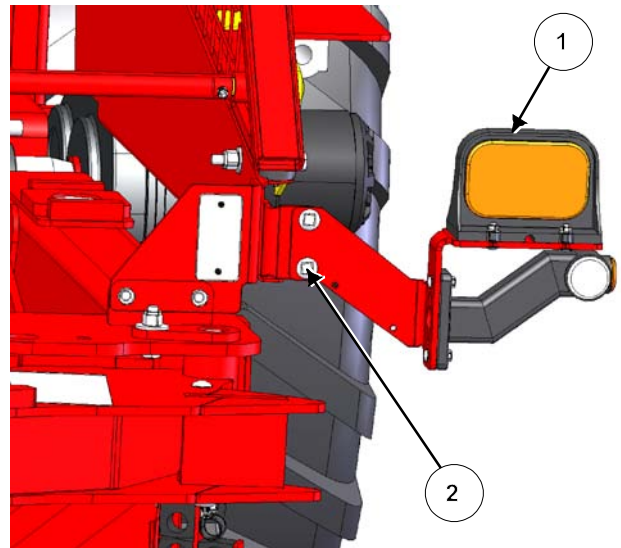


Route the Hoses in the Hitch Holder

220040

Place the Front Lighting into Position

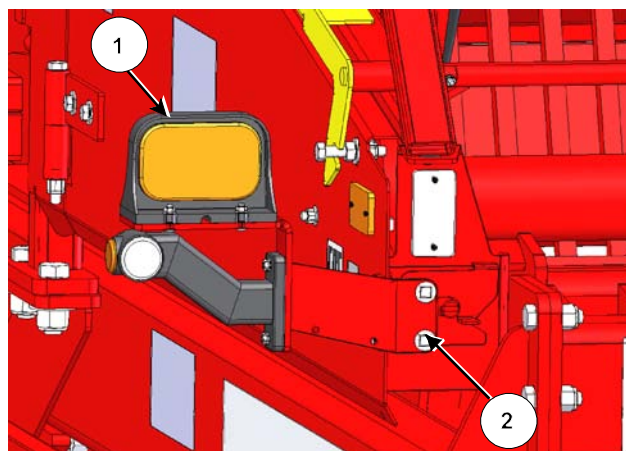
1. Move the left front clearance light (1) into the horizontal position.
 - Loosen the fasteners (2) to rotate the light bracket.
 - Fasten in place with the 2 fasteners.
 - Ensure the amber lens of the light is facing forward.



Left Front Clearance Light - Amber Forward

220045C

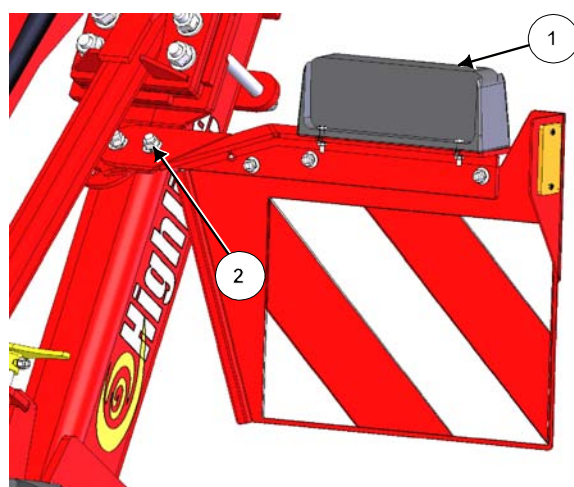
2. Move the right front clearance light (1) into the horizontal position.
 - Loosen the fasteners (2) to rotate the light bracket.
 - Fasten in place with the 2 fasteners.
 - Ensure the amber lens of the light is facing forward.



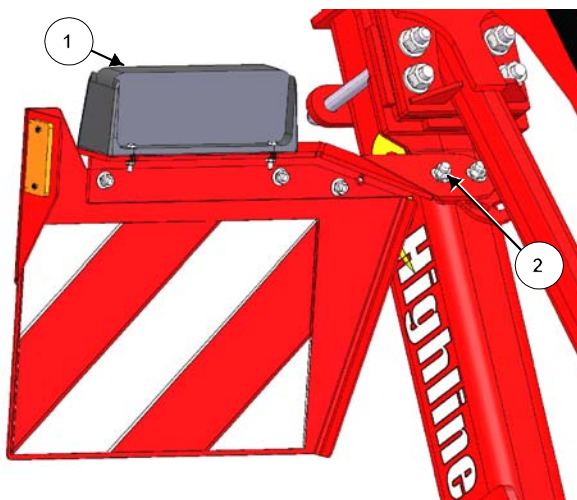
Right Front Clearance Light - Amber Forward 220046C

Place the Rear Lighting and Relectors Into Position

1. Move the left rear clearance light/signal flag bracket (1) into the horizontal position.
 - Loosen the fasteners (2) to rotate the bracket.
 - Fasten in place with the 2 fasteners.
 - Ensure the amber/red lens of the light is facing to the rear.
2. Move the right rear clearance light/signal flag bracket (1) into the horizontal position.
 - Loosen the fasteners (2) to rotate the bracket.
 - Fasten in place with the 2 fasteners.
 - Ensure the amber/red lens of the light is facing to the rear.



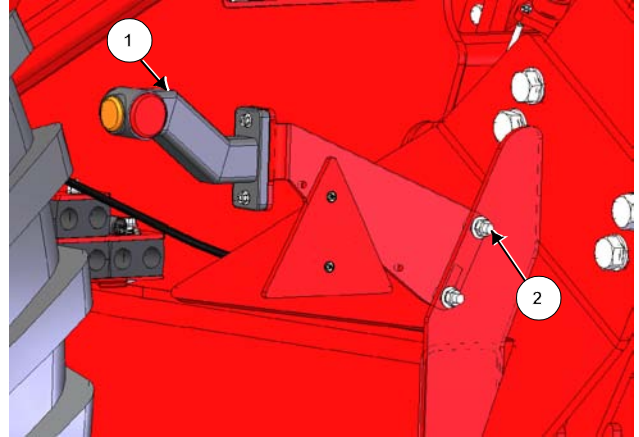
Left Rear Light/Signal Bracket in Position 220047C



Right Rear Light/Signal Bracket in Position 220048C

3. Move the left rear reflector bracket (1) into the horizontal position.

- Loosen the fasteners (2) to rotate the bracket.
- Fasten in place with the 2 fasteners.
- Ensure the red lens reflector is facing to the rear.

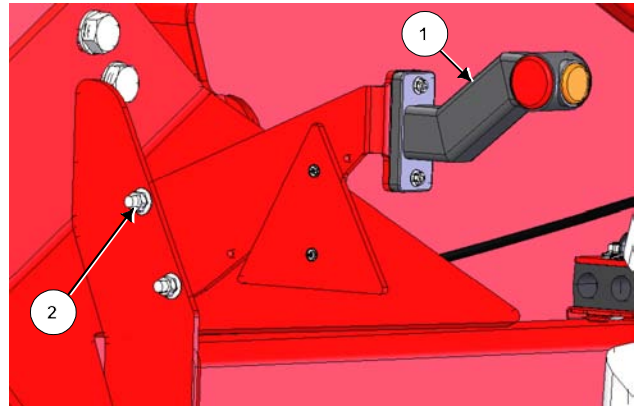


Left Rear Reflector Bracket in Position

220049C

4. Move the right rear reflector bracket (1) into the horizontal position.

- Loosen the fasteners (2) to rotate the bracket.
- Fasten in place with the 2 fasteners.
- Ensure the red lens reflector is facing to the rear.



Right Rear Reflector Bracket in Position

220050C

Install the Lower Reel Shields

1. Attach the left lower reel shield.
 - Remove the upper bolt and washer (2) near the rear tire.
 - Position the shield under the hitch pin (1).
 - Attach the rear of the shield with the bolt and the washer (2) on the outside of the shield. Do not tighten at this time.
 - At the front of the shield, place the large washer (3) between the hitch pin and the hole in the shield.
 - Fasten to the hitch pin with a lock washer (4) and M24 x 50 bolt (5). Tighten in place.
 - Tighten the rear bolt (2).



Attach the Left Lower Reel Shield

217031C



Fasten the Front of the Shield to the Hitch Pin

217031C

2. Attach the right lower reel shield.
 - Remove the upper bolt and washer (1) near the rear tire.
 - Attach the rear of the shield with the bolt and the washer (1) on the outside of the shield. Do not tighten at this time.
 - Attach the front of the shield to the bracket with 2 of M10 x 40 carriage head bolts (2), flat washers and locknuts.
 - Tighten the rear bolt (1).

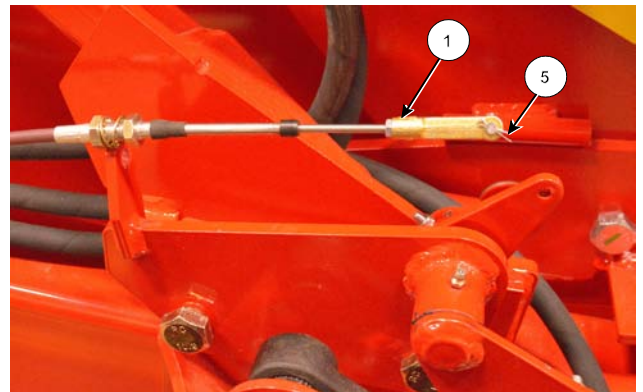


Attach the Right Lower Reel Shield

217034C

Parking Brake Adjustment Procedure

1. Connect the machine to the tractor equipped with machine brakes.
2. Fully disengage the parking brake by turning the parking brake handle.
3. Apply the hydraulic brakes.
 - Ensure there is no binding in the brake cable.
4. With the hydraulic brakes disengaged, fully tighten the parking brakes using the parking brake handle.
 - Ensure both wheels are fully locked.
5. To adjust the parking brake engagement:
 - Loosen the parking brake handle.
 - Remove the cotter pin (1) and pin (5) from the clevis.
 - Rotate the clevis for more or less brake engagement.
 - Re-install the clevis pin (5) and cotter pin (1).
 - Tighten the brake handle and check brake engagement.



Adjust Parking Brake Engagement

218019C2