



Park the BP 661 on level ground.

Lower the forks to the ground for additional stability.

Disconnect the drive shaft from the tractor before beginning any work.

Disconnect the BP 661 from the tractor hitch.



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.

Securely block the machine to avoid any movement while doing the work.



Do Not Enter Tub While Parts Are Rotating

Before entering the tub:

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

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

1. Ensure the BP 661 upper discharge door is locked in the upright position, see *Figure 1*.



Figure 1: Raise and Lock Upper Discharge Door²²¹⁴⁴⁶

2. Extend the left axle, see *Figure 2*.

- Jack up the left wheel.
 - Place the jack under the cylinder mount and support.
 - Do not jack on the fork frame.
- Loosen the left axle u-bolt.
- Slide the axle to be 10" (254 mm) from the frame to the axle plate.
- Tighten the u-bolt to 200 ft-lb (271 Nm).
- Lower the machine.

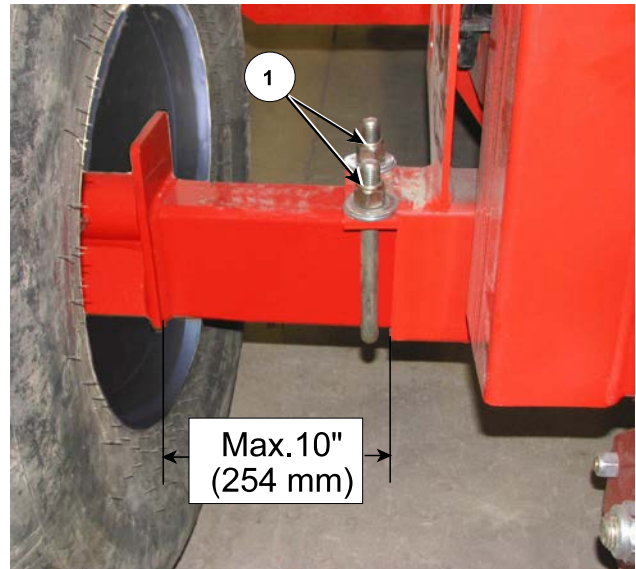


Figure 2: Extend the Left Axle

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3. If the BP 661 unit has a discharge pan (3) installed (see *Figure 3*):

- a. Remove the loft deflector (1) by removing the fasteners.
 - Re-install the fastener (2) that holds the tub wall to the front bracket.
 - Discard the other fasteners.
 - Discard the loft deflector.
- b. Remove the discharge pan (3) by removing the fasteners.
 - Discard the fasteners.
 - Discard the discharge pan.
- c. Remove the front and back cutout covers (4) by removing the fasteners.
 - Discard the fasteners.
 - Discard the covers.

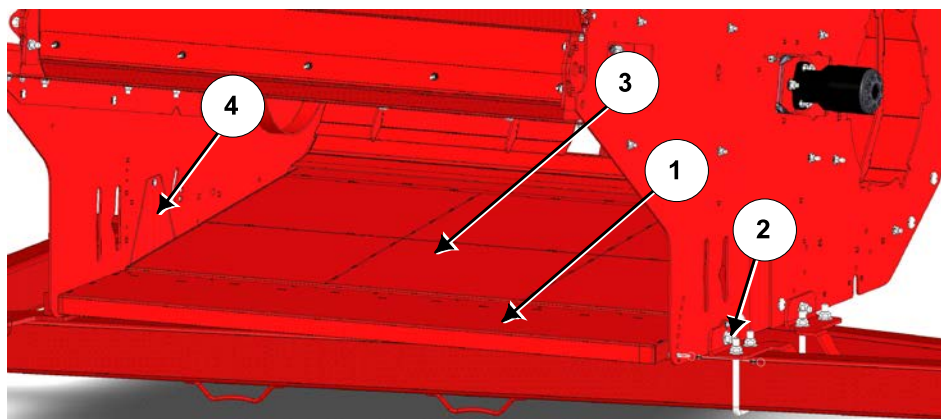


Figure 3: Remove Loft Deflector, Discharge Pan and Cutout Covers

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4. If the BP 661 unit does not have a discharge pan installed (see *Figure 4*):
 - a. Remove the loft deflector (1) by removing the fasteners.
 - Re-install the fastener (2) that holds the tub wall to the front bracket.
 - Discard the other fasteners.
 - Discard the loft deflector.
 - b. Remove the front and back cutout covers (3) by removing the fasteners.
 - Discard the fasteners.
 - Discard the covers.

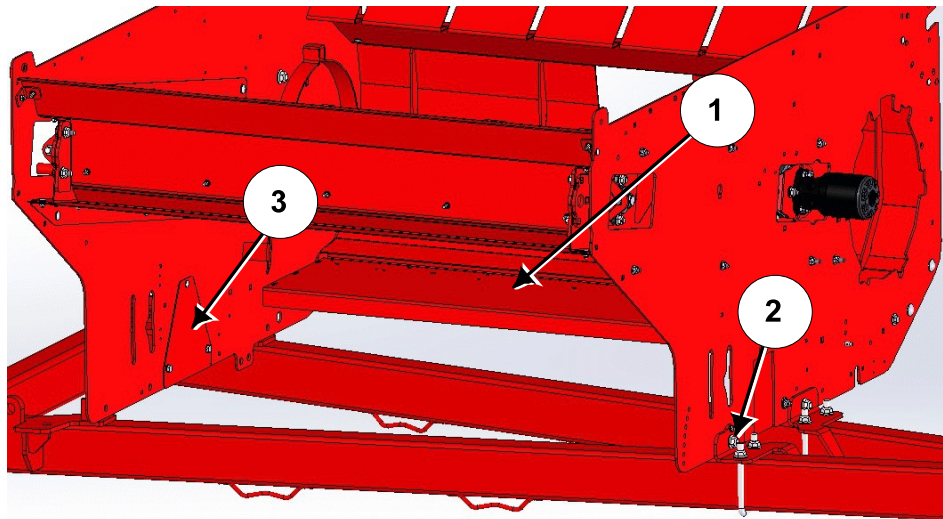


Figure 4: Remove Loft Deflector and Cutout Covers

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5. Support the feed chopper housing on a lifting jack, see *Figure 5*.

- The chopper housing will need to be moved under the processor frame and lifted up.

6. Lift the feed chopper housing.

Note: There is a remote grease line attached to the front bearing.

- Slide the housing under the frame and between the tub walls of the BP 661.
- Align the mounting holes of the chopper housing with the mount holes in the tub wall.
- Fasten both ends with 2 of 3/4" x 2" carriage bolts and flange lock nuts (1), see *Figure 6*.
 - Place the heads of the bolts in the chopper chamber.



Figure 5: Support The Chopper Housing

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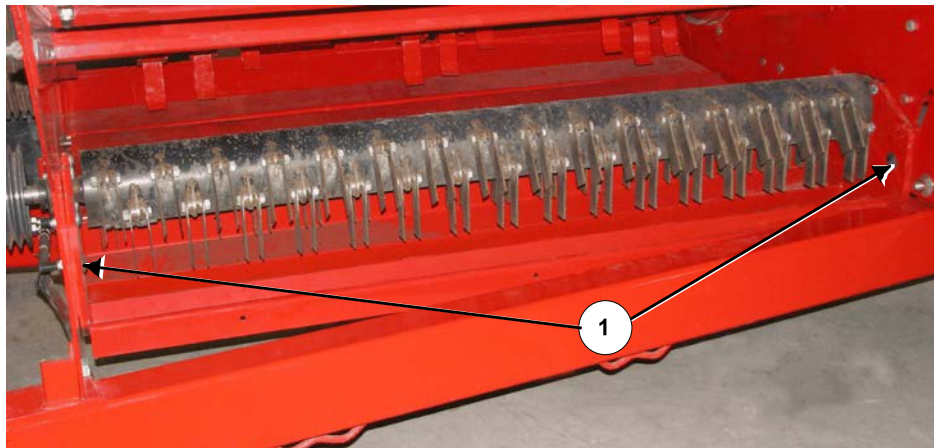


Figure 6: Slide the Housing Between the Tub Walls

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7. Install the filler panel (5) between the tub walls, see *Figure 7*.
 - Install between the feed chopper and the flail drum.
 - Fasten in place with 4 of 3/8" x 1-1/4" carriage bolts and flange locknuts (4).

Note: The upper front wall bolt will have the remote grease line tab on it. See the next step.

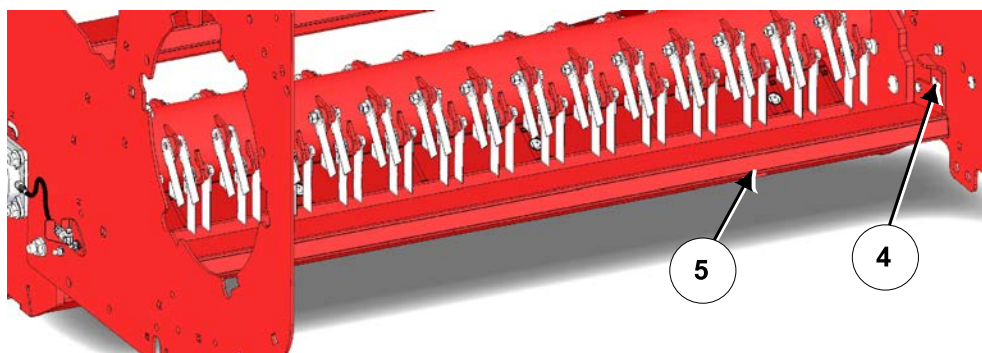


Figure 7: Install the Filler Panel near the Feed Chopper (Flail Drum not shown for Clarity)

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8. Install the remote grease line, see *Figure 8*.
 - Install the bracket (1) onto the upper bolt holding the filler panel.
 - Fasten with a 3/8" flange locknut.
 - Attach the grease line (3) to the bracket (1)

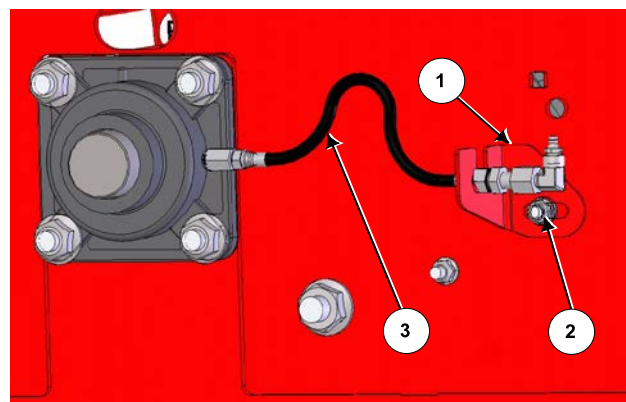


Figure 8: Install the Remote Grease Line

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9. Install the chopper bottom door follower (1), see *Figure 9*.
- Place the pipe of the follower into the hole in rear tub wall (2).
 - Position the follower arms facing toward the chopper.
- Slide the pipe up the slot in the front tub wall.
- Fasten with 2 of 3/8" x 1" carriage bolts and stover nuts (3).

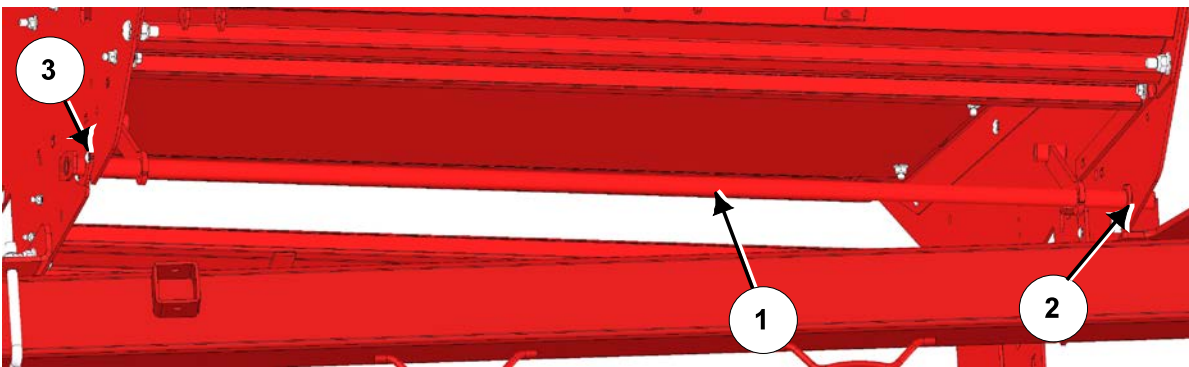


Figure 9: Install the Chopper Door Follower

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10. Install the door latch mount (4) onto the front tub wall, see *Figure 10*.
- Place the pin (5) of the mount into the hole in the tub wall.
 - Place a 1/2" x 1-1/4" carriage bolt (6) through the tub wall and the latch mount.
 - Place a 1/2" flat washer and stover nut (6) on the outside of the latch mount.
 - Do not tighten at this time. It will be used later to adjust the bottom door and chopper cover to be flush.

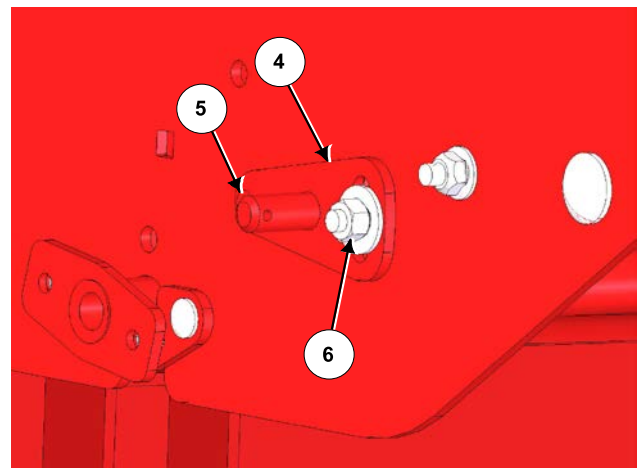


Figure 10: Install the Door Latch Mount

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11. Install the door latch handle, see *Figure 11*.
- Place the handle (1) onto the pin of the latch mount.
 - Place a 3/4" hardened washer (2) onto the pin.
 - Place a cotter pin (3) into the pin to fasten the handle (1).

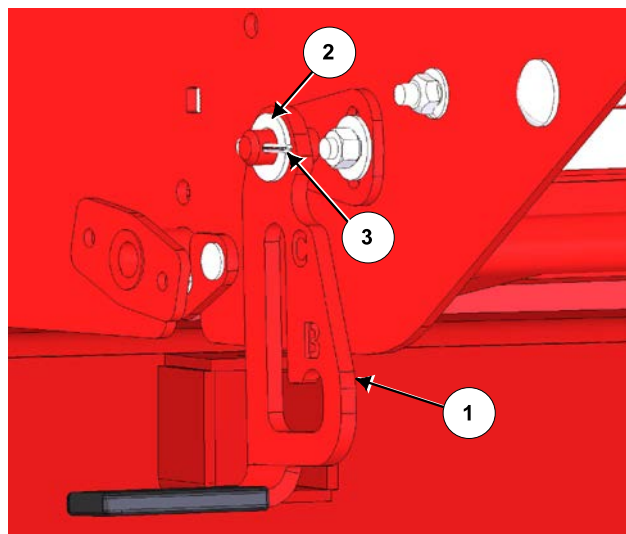


Figure 11: Install the Door Latch Handle

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12. Install the door handle (4), see *Figure 12*.
- Place a 3/4" hardened washer onto the pin (5) located on the back of the handle.
 - Push the pin into the slot of the latch (1), see *Figure 11*.
 - Fasten the handle to the door follower with 2 of hex 3/8" x 1" bolts and stover nuts (6), see *Figure 12*.
 - Place a 3/4" hardened washer (7) onto the pin (5) against the backside of the slot on the latch. Fasten with a 3/16" x 1-1/2" cotter pin (8), see *Figures 12 and 13*.

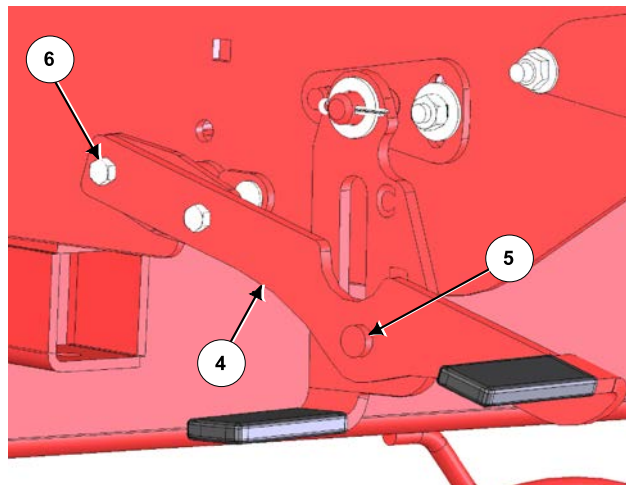


Figure 12: Install the Door Handle

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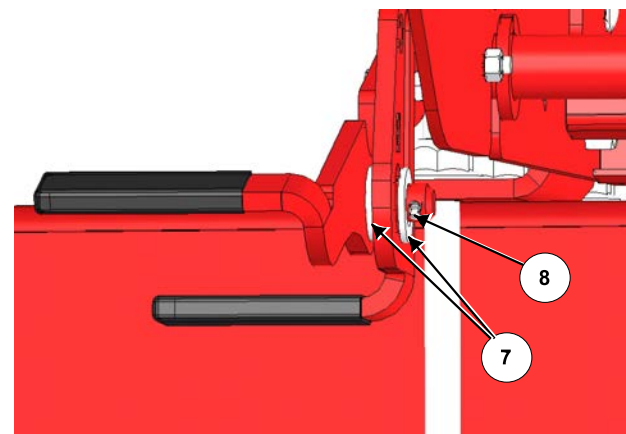


Figure 13: Fasten the Pin of the Door Handle

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Assembly Instructions for the Feed Chopper on the BP 661

13. Lay the chopper door on top of the rotor, see *Figure 14*.



Figure 14: Door On Top of Rotor

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14. Install the chopper door front handle to the door and tub wall according to the chart and diagrams, see *Figures 15 and 16*.

ITEM	DESCRIPTION
2	BOLT,HEX,5/8X3-1/2,UNC,GR5,ZP
3	NUT,FLG,LOCK,1/2,UNC,GR5,ZP
4	NUT,FLG,LOCK,5/8,UNC,GR5,ZP
5	BOLT,HEX,5/8X3,UNC,GR5,ZP
6	BOLT,CR,1/2X2-3/4,UNC,G5,FT,ZP
8	ASSY,HANDLE,FRONT,DOOR,FC
10	BUSHING,1X.180X13/16L
11	BUSHING,1X1.80X1-9/16L
12	HANGER,FCDOOR,FRONT
13	WASHER,UHMW,1"X1/8"

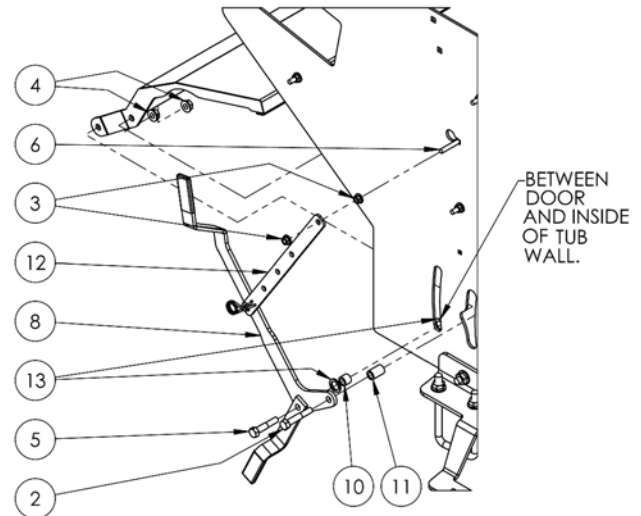


Figure 15: Install Door Front Handle

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Figure 16: Installed Door Front Handle

215204

Assembly Instructions for the Feed Chopper on the BP 661

15. Install the chopper door rear handle to the door and tub wall according to the chart and diagrams, see *Figures 17-19*.

ITEM	DESCRIPTION
1	BOLT, HEX, 1/2X1-1/2, UNC, GR5, ZP
2	BOLT, HEX, 5/8X3-1/2, UNC, GR5, ZP
3	NUT, FLG, LOCK, 1/2, UNC, GR5, ZP
4	NUT, FLG, LOCK, 5/8, UNC, GR5, ZP
5	BOLT, HEX, 5/8X3, UNC, GR5, ZP
6	BOLT, CR, 1/2X2-3/4, UNC, G5, FT, ZP
7	DOOR, FEEDCHOPPER
8	ASSY, HANDLE, FRONT, DOOR, FC
9	ASSY, HANDLE, REAR, DOOR, FC
10	BUSHING, 1X.180X13/16L
11	BUSHING, 1X1.80X1-9/16L
12	HANGER, FCDOOR, FRONT
13	WASHER, UHMW, 1"X1/8"
14	HANGER, FCDOOR, REAR

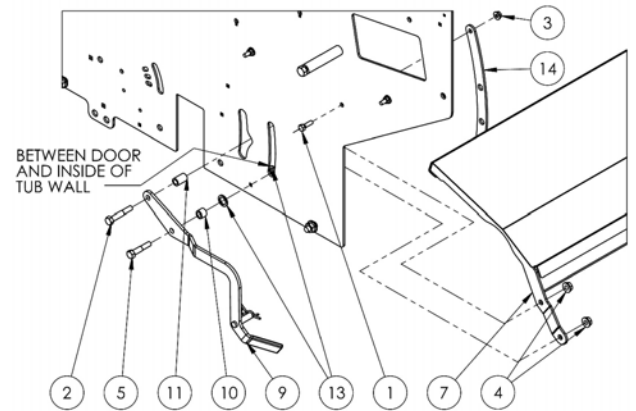


Figure 17: Install Door Rear Handle

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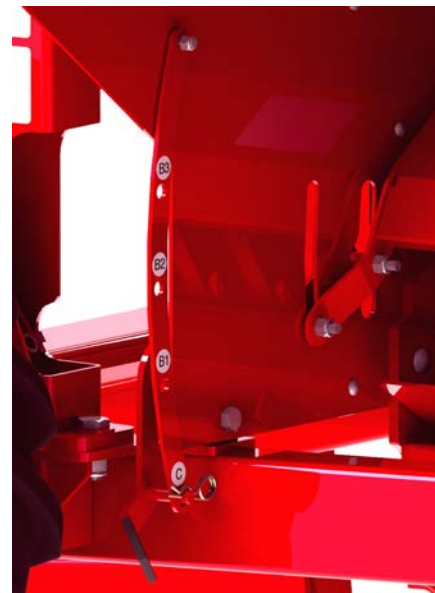


Figure 18: Rear Handle Inside Wall

215206



Figure 19: Rear Handle Outside Wall

215205

16. Adjust the chopper door to lay flat on the chopper filler panel (see step 8) when in the bypass mode “B”, see *Figure 20*.
- Place the door hangers to the “B3” position.
 - Move the door adjustment handle to the “B” position.
 - Ensure the bolt (7) over the mount slot is not tightened.
 - Adjust the door to lay flat by moving the mount.
 - Tighten the carriage bolt (7) on the adjustment mount.

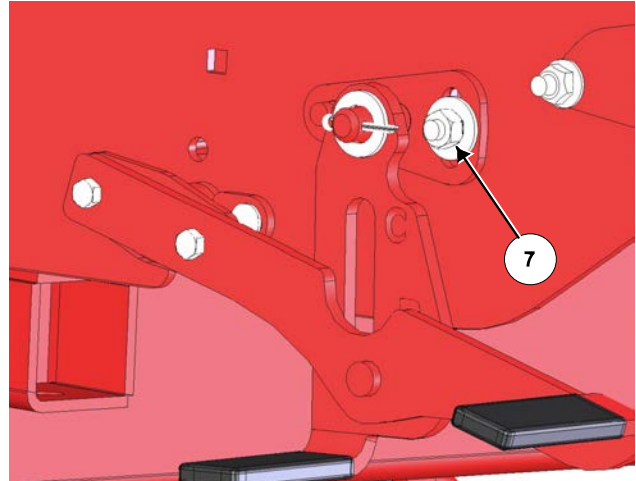


Figure 20: Adjust the Door Latch Mount for the Door to Lay Flat

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17. At the front tub wall, lock the flail drum, see *Figure 21*.
- Place the flail drum lock pin (1) into the tube on the front tub wall.
 - Move the flail drum and allow the lock pin to slide into the processing chamber.

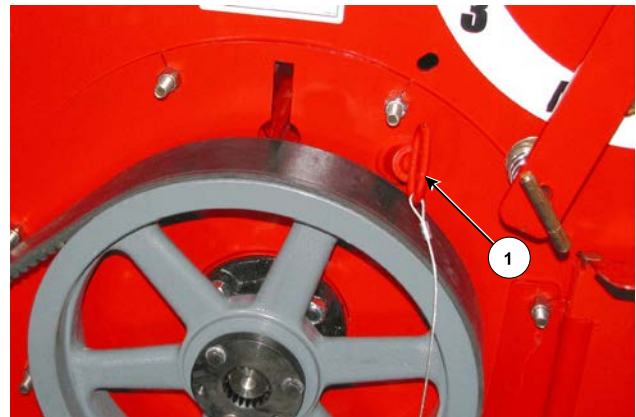


Figure 21: Lock Flail Drum With Pin

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18. At the rear tub wall remove the rear flail drum shaft cover located on the back tub wall, see *Figure 22*.
- Remove the nuts (2) holding the cover tabs onto the bearing bolts.
 - Replace the nuts onto the bearing bolts.



Figure 22: Remove Rear Flail Shaft Cover

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Assembly Instructions for the Feed Chopper on the BP 661

19. Install the chopper drive sheave and clutch onto the rear flail drum shaft according to the chart and drawing, see *Figure 23*.

ITEM	DESCRIPTION
1	ASSY,FC,DRIVE
2	ASSY,HANDLE,CLUTCH
4	SPACER,651 FC DRIVE
8	BOLT,HEX,1/2X4,UNC,GR5,ZP
9	WASHER,LOCK,1/2,ZP

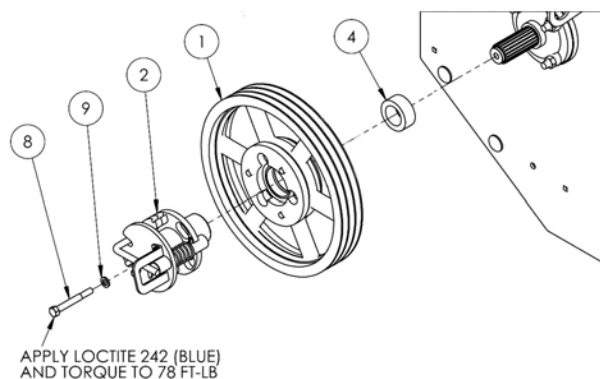


Figure 23: Install Chopper Sheave & Clutch on Rear Flail Shaft

44433_B

20. Install the belt tensioner onto the rear tub wall according to the chart and diagram, see *Figure 24*.

ITEM	DESCRIPTION
3	ASSY,TENSIONER,SPRING,FC
6	BOLT,CARR,1/2X1-1/2,UNC,GR5,Z
7	BOLT,HEX,1/2X1-1/2,UNC,GR5,ZP
10	NUT,FLG,LOCK,1/2,UNC,GR5,ZP

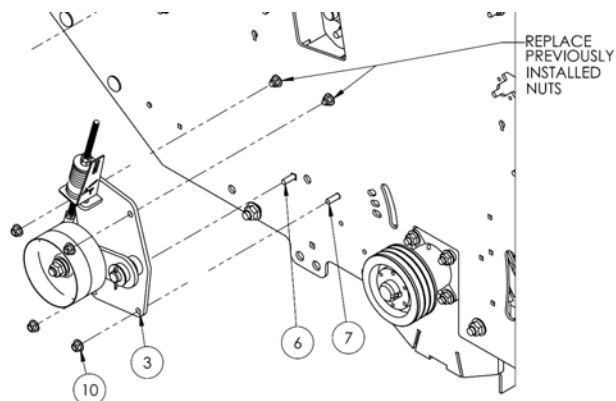


Figure 24: Install the Belt Tensioner

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21. On the large sheave, measure the distance from the tub wall to the side to the sheave, see *Figure 25*.
- This distance will be used to set the small sheave in place.



Figure 25: Measure the Sheave Distance

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22. Position the small sheave the same distance from the tub wall as the large sheave, see *Figure 26*.

- Fasten the sheave in place by tightening the sheave bolts.

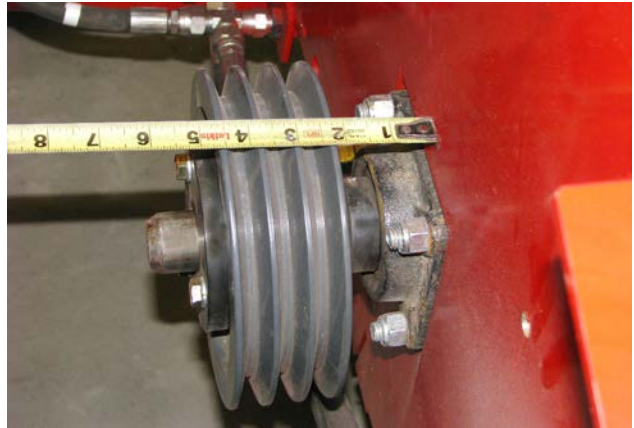


Figure 26: Position the Small Sheave

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23. Install the drive belt around the large sheave, over the tensioner and around the chopper sheave, see *Figure 27*.

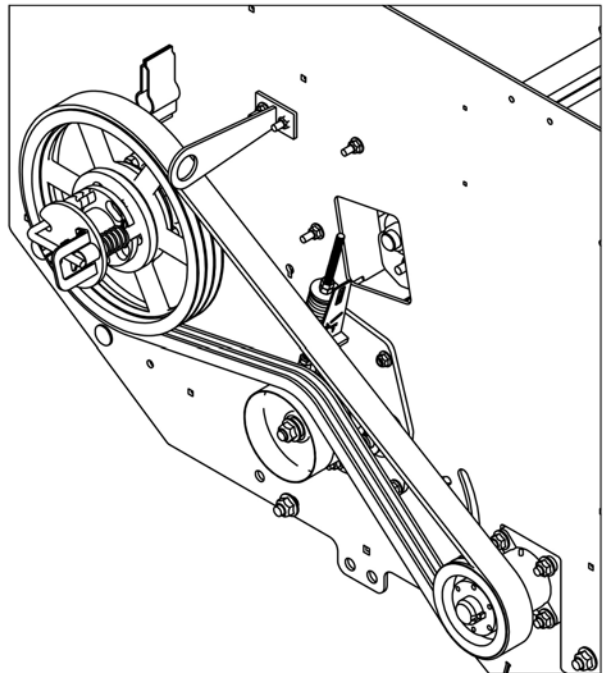


Figure 27: Install the Drive Belt

44433_B3

24. Adjust the belt tension, see *Figure 28*:

- Adequate belt tension is achieved when the spring washer (1) is showing in the cut out window (2).
- Turn the nut (4) next to the spring washer to adjust the spring so it shows in the cut out window (2).
- Tighten the jam nut (3).

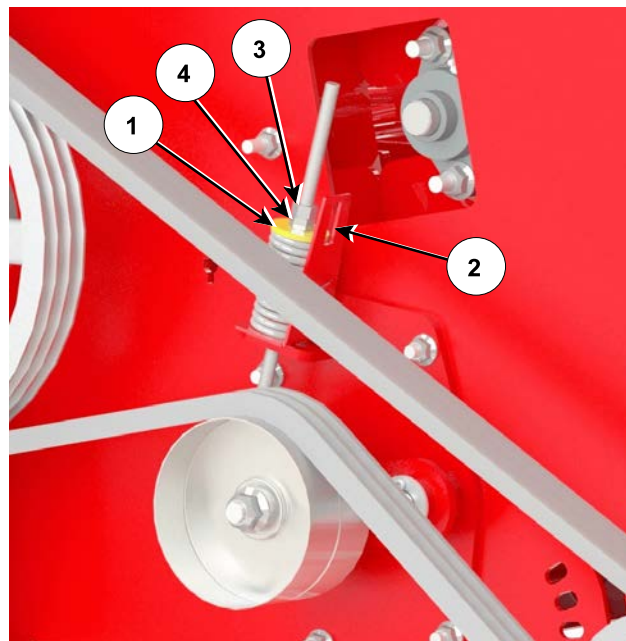


Figure 28: Belt Tension Adjustment

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25. Install the discharge pan over the BP 661 frame member, see *Figures 29 and 30*.

- Place the discharge supports on the frame.
- Connect the discharge pan (6) to the chopper with 4 of $\frac{1}{2}$ " x 2-1/2" carriage bolts (1) and flange locknuts (3).

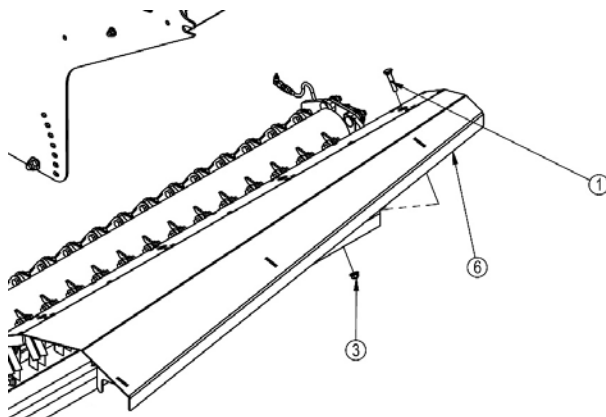


Figure 29: Install the Discharge Pan Over the Frame

43178_F



Figure 30: Installed Discharge Pan

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26. Install the left rear shield, see *Figure 31*.

- Fasten in 3 locations:
 - Top of the shield
 - Lower left side of the shield
 - Bottom underside of the shield
- Fasten with 3 of 3/8" x 1" carriage bolts and flange locknuts (3).

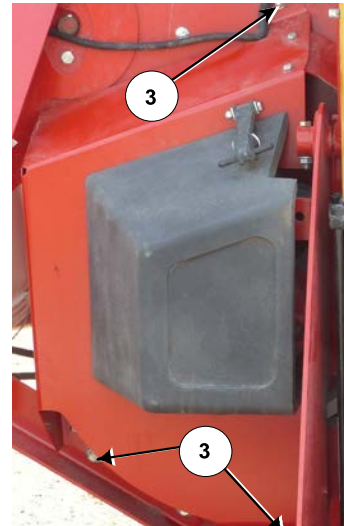


Figure 31: Install the Left Shield
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27. Install the upper right shield support, see *Figure 32*.

- Place the shield support (2) onto the rear tub wall and under the left shield.
- Fasten to the tub wall with 2 of 3/8" x 1" carriage bolts (3) and flange locknuts.
- Fasten to the left shield with 2 of 3/8" x 3/4" hex bolts, washers and flange locknuts (4).

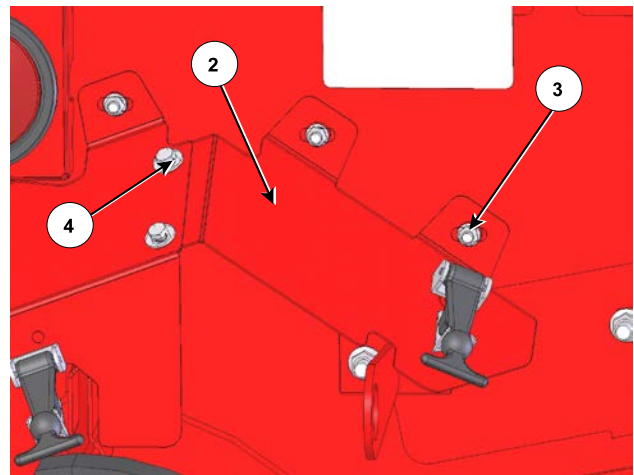


Figure 32: Install Upper Right Shield Support
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28. Install the rubber latch (5) for the main rear guard door, see *Figure 33*.

- Fasten the rubber latch to the tub wall with 5/16" x 3/4" hex bolt and flange locknut.

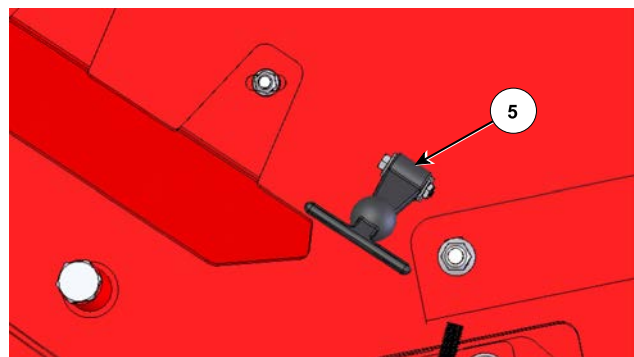


Figure 33: Install the Rubber Latch for the Main Rear Door
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29. Install the right rear door, see *Figure 34*.

- Fasten the door with 4 of 1/4" x 1" flat head socket cap screws (1) and flange locknuts.

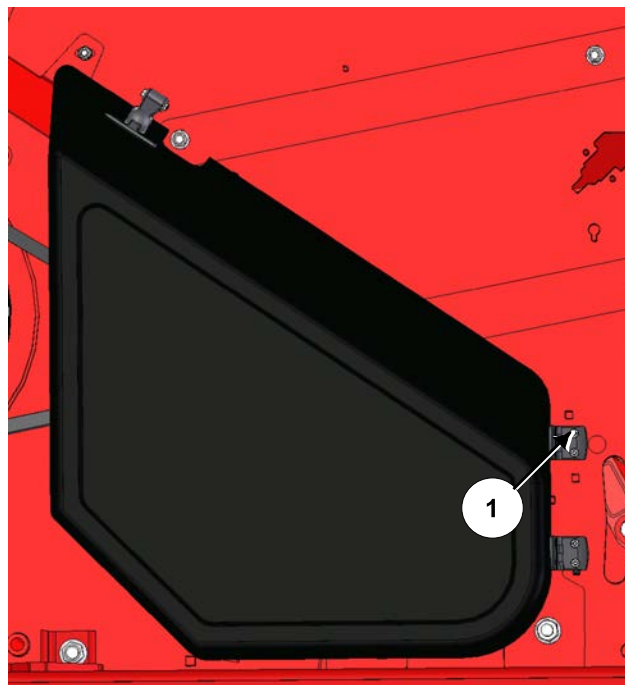


Figure 34: Install the Right Rear Door

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