

## Installation of the Short Discharge Door BP660, BP661 and BP965



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.



The installation of the Discharge Door consists of:

- removing the existing door (if present)
- installing the door
- installing the cylinder and locks
- installing the hydraulic fittings and hoses for either a 1 remote (Joystick) configuration, 2 remote or a 3 remote configuration.

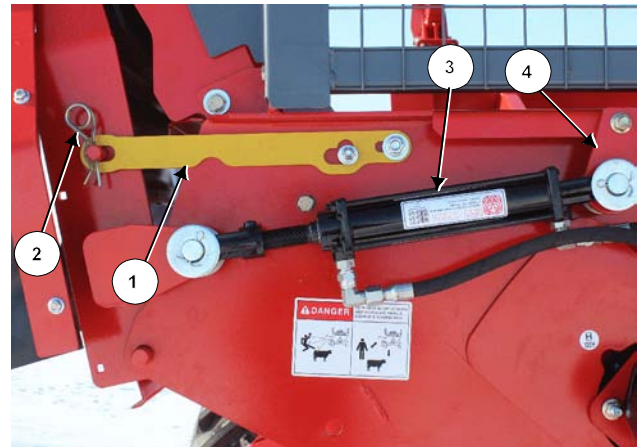
Note: The discharge door is heavy. Use caution when handling the door. Use an appropriate lifting device and straps.

- Door for BP660 and 661 weighs at least 360 lbs (163 kg).
- Door for the BP965 weighs at least 485 lbs (220 kg).

## Installation of the Short Discharge Door BP660, BP661 and BP965

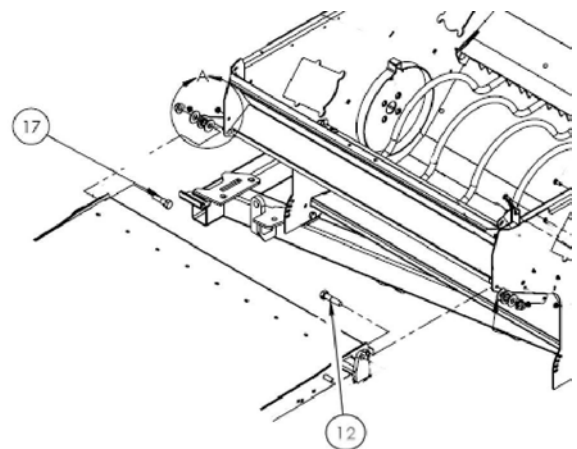
### Removing the Existing Discharge Door (if present)

1. Attach lifting straps capable of lifting the weight onto the discharge door to take the hold of the door and to move it from the machine.
2. Move the door in the upright position.
3. Lock the door in the upright position.
  - Lock with door lock strap (1).
4. Remove the hydraulic cylinder (3) by removing the cylinder pins.
  - Keep the cylinder and pins for re-use.
  - Leave the hydraulic hoses connected to the cylinder.
5. Leave the rubber skirts on the door.
6. Remove the door hinge bolts (12 & 17) and fasteners.
7. Remove the door lock spring pin (2).
8. Release the door lock strap (1).
9. Remove the door with the rubber skirts attached.
  - Discard the door.
  - Discard the rubber skirts.
10. Remove the cylinder mount (4) that is located on the tub wall.
  - Discard the mount and fasteners.



Remove the Cylinder. Remove the Lock Strap.  
Remove the Cylinder Mount

221225C3



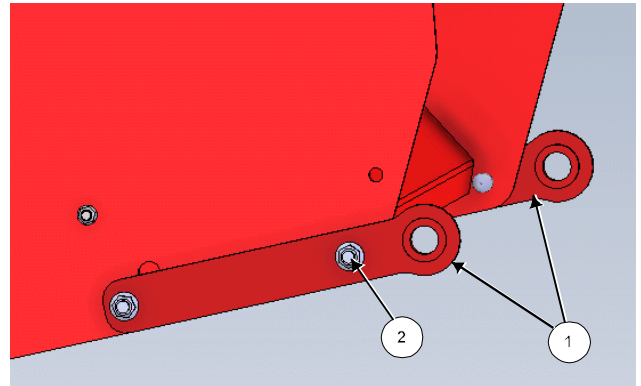
Remove the Door Hinge Bolts

224318C

## ***Installation of the Short Discharge Door BP660, BP661 and BP965***

### **Install the Short Discharge Door**

1. Attach the door mounts (1) to the outside of the tub wall using 2 of  $\frac{1}{2}$ " x 1-1/2" carriage bolts and flange locknuts (2).
- Attach mounts to the outside of the front and rear tub wall.



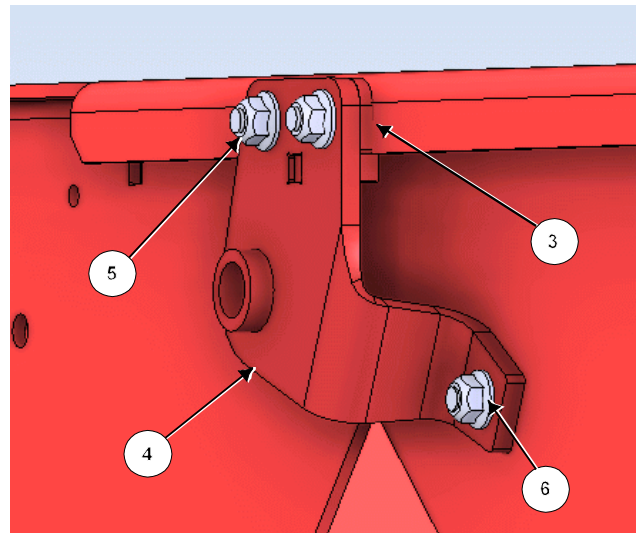
Attach the Door Mounts

224315C

2. Attach the door cylinder mount to the front tub wall.

For BP660 and BP965:

- Place the spacer (3) between the front tub wall lip and the mount (4).
- Connect the top of the mount to the front tub wall lip with 2 of  $\frac{1}{2}$ " x 1-1/2" carriage bolts and flange locknuts (5).
- Connect the bottom of the mount to the front tub wall with 1 of  $\frac{1}{2}$ " x 1-1/4" carriage bolt and flange locknut (6).

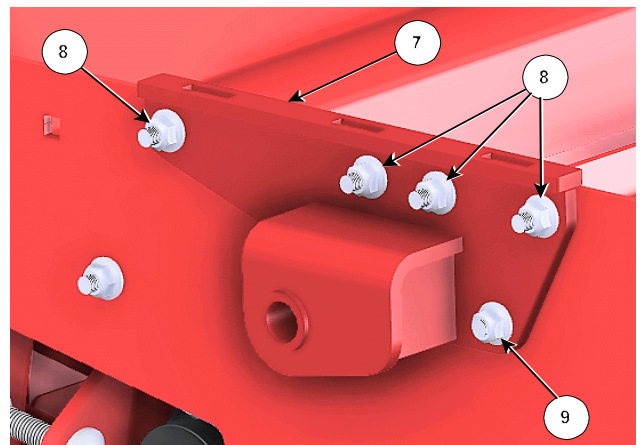


BP660 and BP965 Door Cylinder Mount

224316C

For BP661:

- Place the cylinder mount (7) against the front tub wall with the top tab on the top of the tub wall.
- Connect the mount to the tub wall with 4 of  $\frac{1}{2}$ " x 1-1/2" carriage bolts and flange locknuts (8).
- Connect the bottom of the mount to the front tub wall with a  $\frac{1}{2}$ " x 1-1/4" carriage bolt and flange locknut (9).



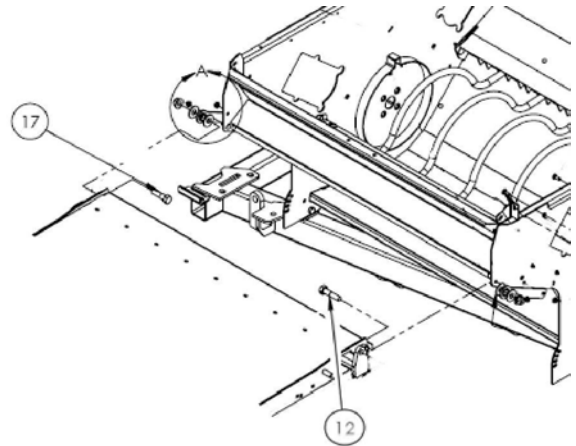
BP661 Door Cylinder Mount

224317C

## **Installation of the Short Discharge Door BP660, BP661 and BP965**

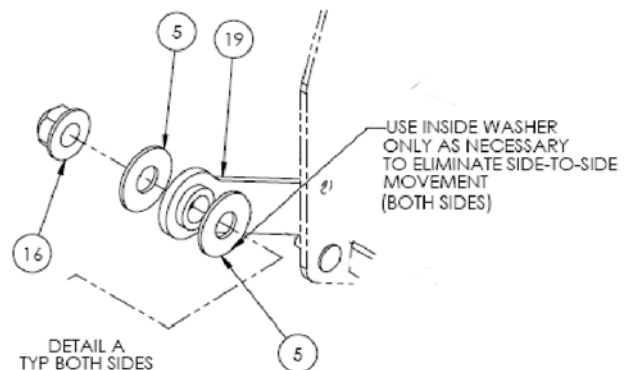
### **3. Install the discharge door.**

- Lift the door in place between the door mounts.
  - Use lifting straps to lift the door.
- The BP660 and BP661 door is 6 feet wide and weighs at least 360 lbs (163 kg).
- The BP965 door is 9 feet wide and weighs at least 485 lbs (220 kg).
- Use a 1" x 3-1/2" hex bolt (17) on the rear tub connection to the mount.
- Use a 1" x 4" hex bolt (12) on the front tub connection to the mount.
- See Detail A for the connection fastener information.
  - Information is the same for the front and back connections:
  - Place the washers (5) on the sides of the mount (19).
    - Use inside washer only as necessary to eliminate side-to-side movement.
  - Place the 1" hinge bolts through washers and mount.
    - 1" x 3-1/2" hex bolt (17) on the rear tub connection.
    - 1" x 4" hex bolt (12) on the front tub connection.
  - Fasten with a 1" flange locknut on both bolts.
    - Tighten but allow for movement of the door.



Install the Door Hinge Bolts

224318C



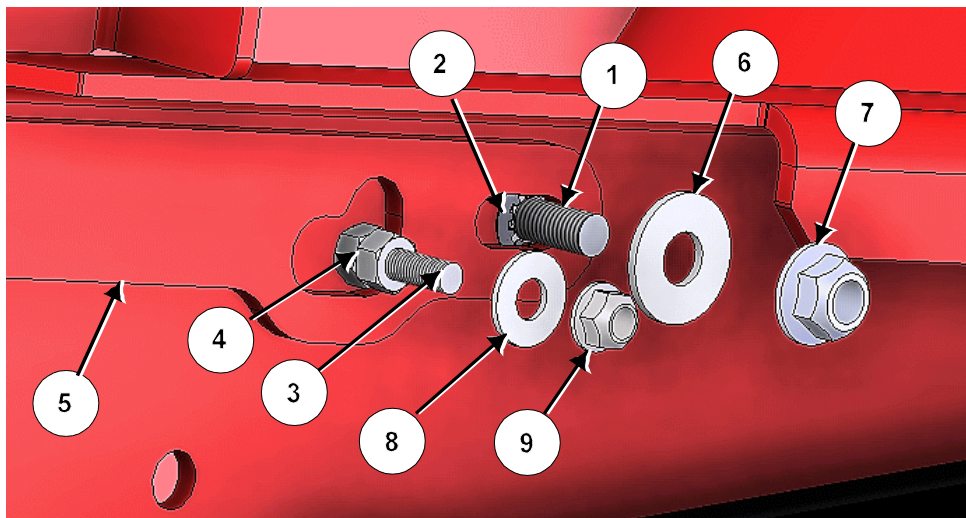
Detail A - Door Connections

224319

**Installation of the Short Discharge Door  
BP660, BP661 and BP965**

4. Attach the door lock to the front tub wall.
- Place the 1/2" x 1-1/4" carriage bolt (1) through the front tub wall.
    - Fasten in place with the 1/2" bolt retainer (2).
  - Place the 3/8" x 1-3/4" hex bolt (3) through the front tub wall.
    - Fasten in place with 2 of 3/8" hex nut (4).
  - Place the lock (5) over the bolts (1 & 3).
- Place the 1/2" flat washer over the carriage bolt (1).
- Place the 1/2" flange locknut onto the bolt.
  - Tighten but allow for movement of the lock around the bolt.
- Place the 3/8" flat washer over the hex bolt (3).
- Place the 3/8" flange locknut (9) onto the bolt.
  - Tighten but allow for movement of the lock around the bolt.

|   |                             |
|---|-----------------------------|
| 1 | 1/2" X 1-1/4" Carriage Bolt |
| 2 | 1/2" Bolt Retainer          |
| 3 | 3/8" X 1-3/4" Hex Bolt      |
| 4 | 3/8" Hex Nut                |
| 5 | Discharge Door Lock         |
| 6 | 1/2" Flat Washer            |
| 7 | 1/2" Flange Locknut         |
| 8 | 3/8" Flat Washer            |
| 9 | 3/8" Flange Locknut         |



Attach the Door Lock

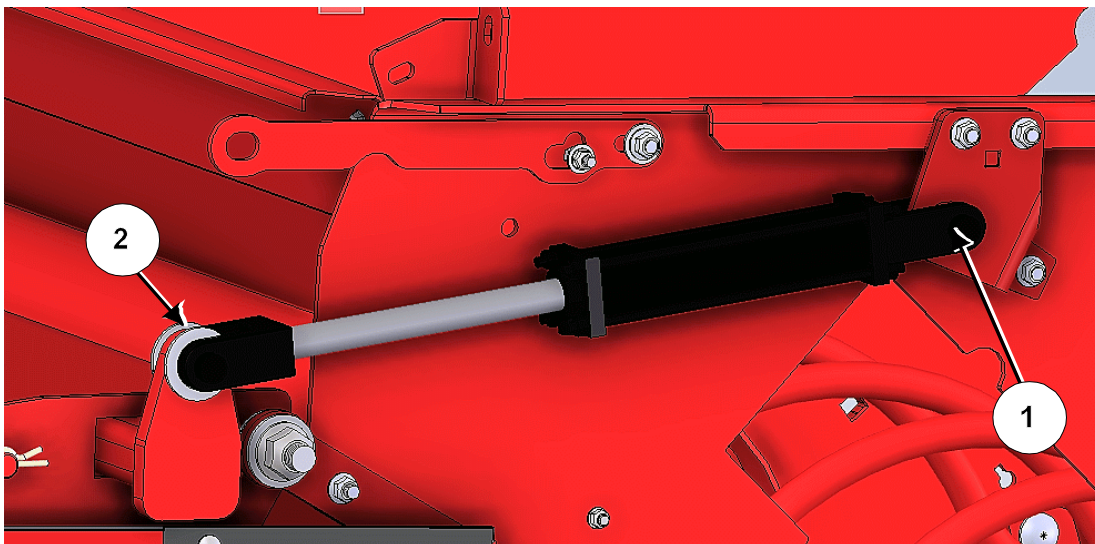
224321C



## ***Installation of the Short Discharge Door BP660, BP661 and BP965***

---

5. Place the base end (1) of the hydraulic cylinder onto the cylinder mount.
  - Place the cylinder with the hydraulic connections and hoses facing downward.
  - Use the cylinder pin to fasten in place.
6. Place the rod end (2) of the cylinder on the door connection.
  - Place 1" flat washers (2) between the door connection and the cylinder clevis.
  - Use the cylinder pin to fasten in place.
7. Connect the hydraulic hoses to the cylinder if they are not connected.



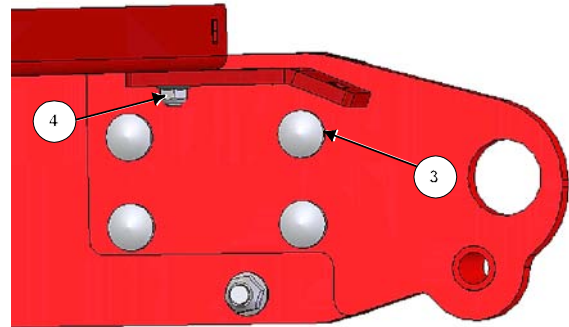
Connect the Hydraulic Cylinder to the Mount and the Door

224320C

## ***Installation of the Short Discharge Door BP660, BP661 and BP965***

8. Attach the front belting hinge mount onto the door.

- Fasten with 4 of 3/8" x 1-1/4" carriage bolts and flange locknuts (3).
- Attach the hinge mount to the top skin with a 1/4" x 3/4" carriage bolt and flange locknut (4).



Attach the Front Belting Hinge

224307C

9. Slide the hinge tube (5) into the mount hole on the front mount.

10. Slide the hinge tube (5) into the rear mount.

11. Attach the rear mount to the door with 4 of 3/8" x 1-1/4" carriage bolts and flange locknuts (6).

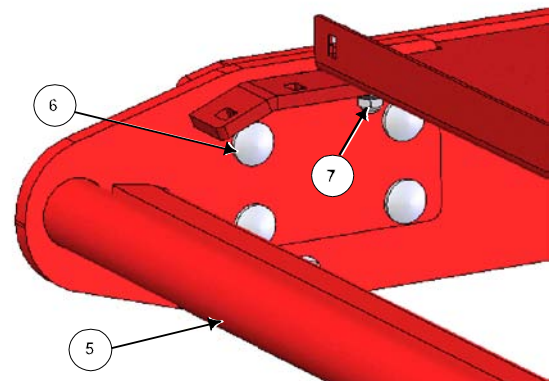
12. Attach the hinge mount to the door skin with a 1/4" x 3/4" carriage bolt and flange locknut (7).

13. Attach the front top skin (1) over the hinge tube.

- Fasten to the tube mounts with 4 of 1/4" x 3/4" carriage bolts (2) and flange locknuts.

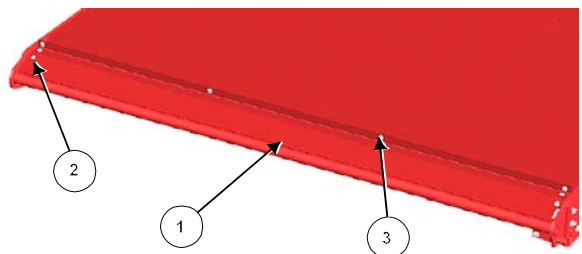
- Fasten to the top door skin with 1/4" x 3/4" carriage bolts and flange locknuts (3).

14. Place the lock pin (7) onto the hinge tube to hold it in place for ease of attaching the door skirts.



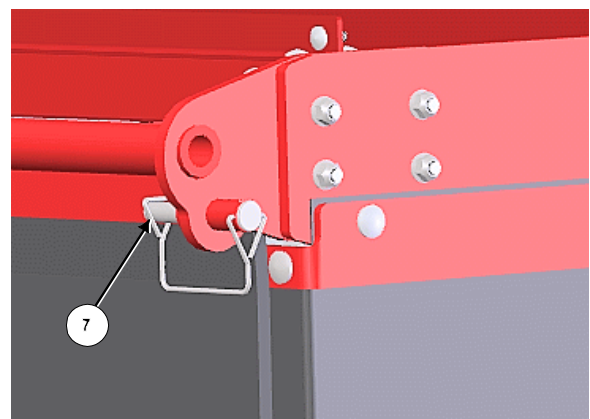
Place Hinge Tube into Hinge Mount  
Attach Hinge Mount to the Door and Skin

224308C



Attach the Front Top Skin Over the Mount

224309C



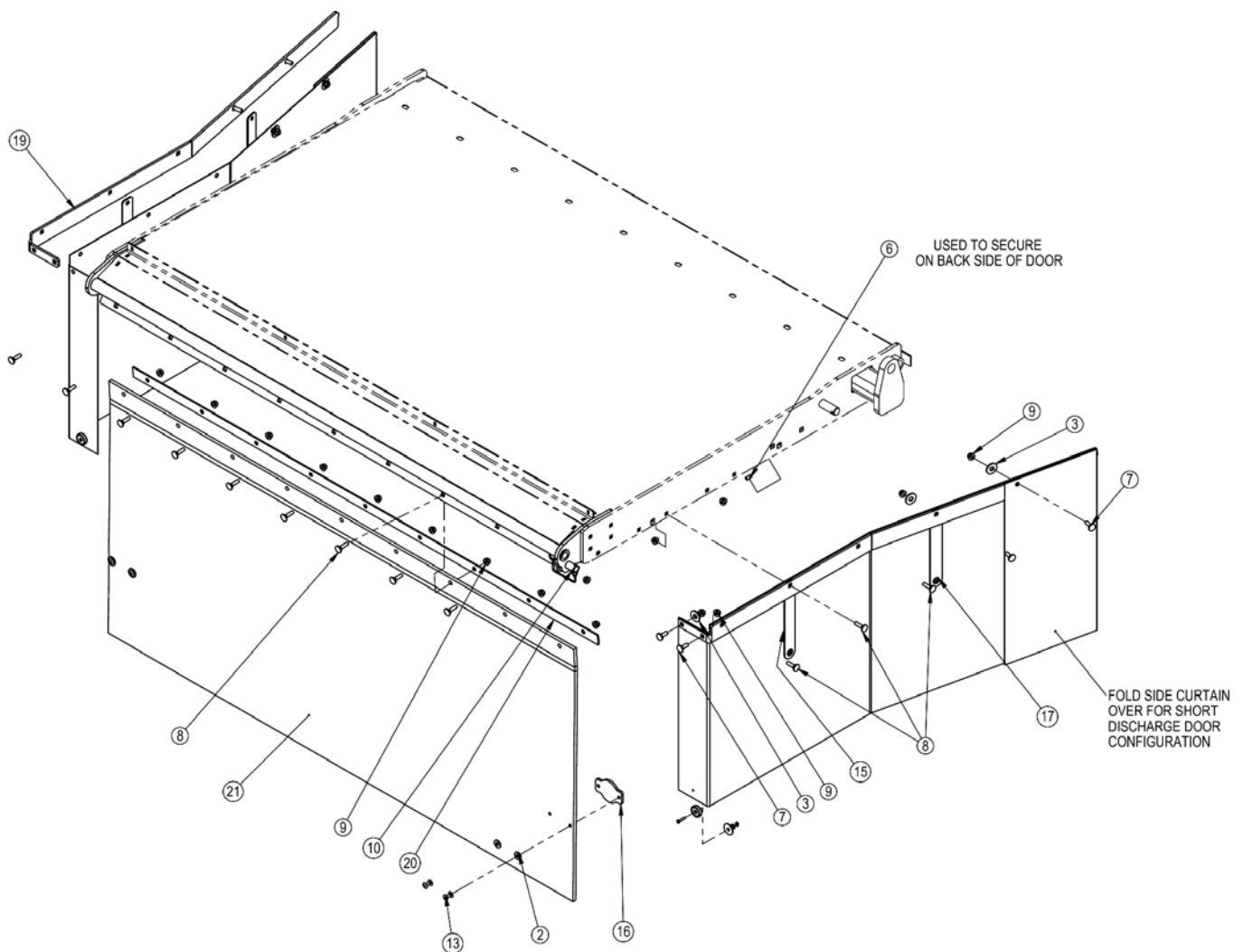
Place Lock Pin into the Hinge Tube

224310C

## Installation of the Short Discharge Door BP660, BP661 and BP965

15. Attach the rubber skirts to the front and side of the discharge door.
- Use the diagram and chart below as a guide for attaching the BP660 and BP661 skirts.
  - See below for the BP965 skirts.

### Bale Pro 660 and Bale Pro 661 - Door Skirts



BP660 and BP661 Door Skirts

47762\_A



**Installation of the Short Discharge Door  
BP660, BP661 and BP965**

---

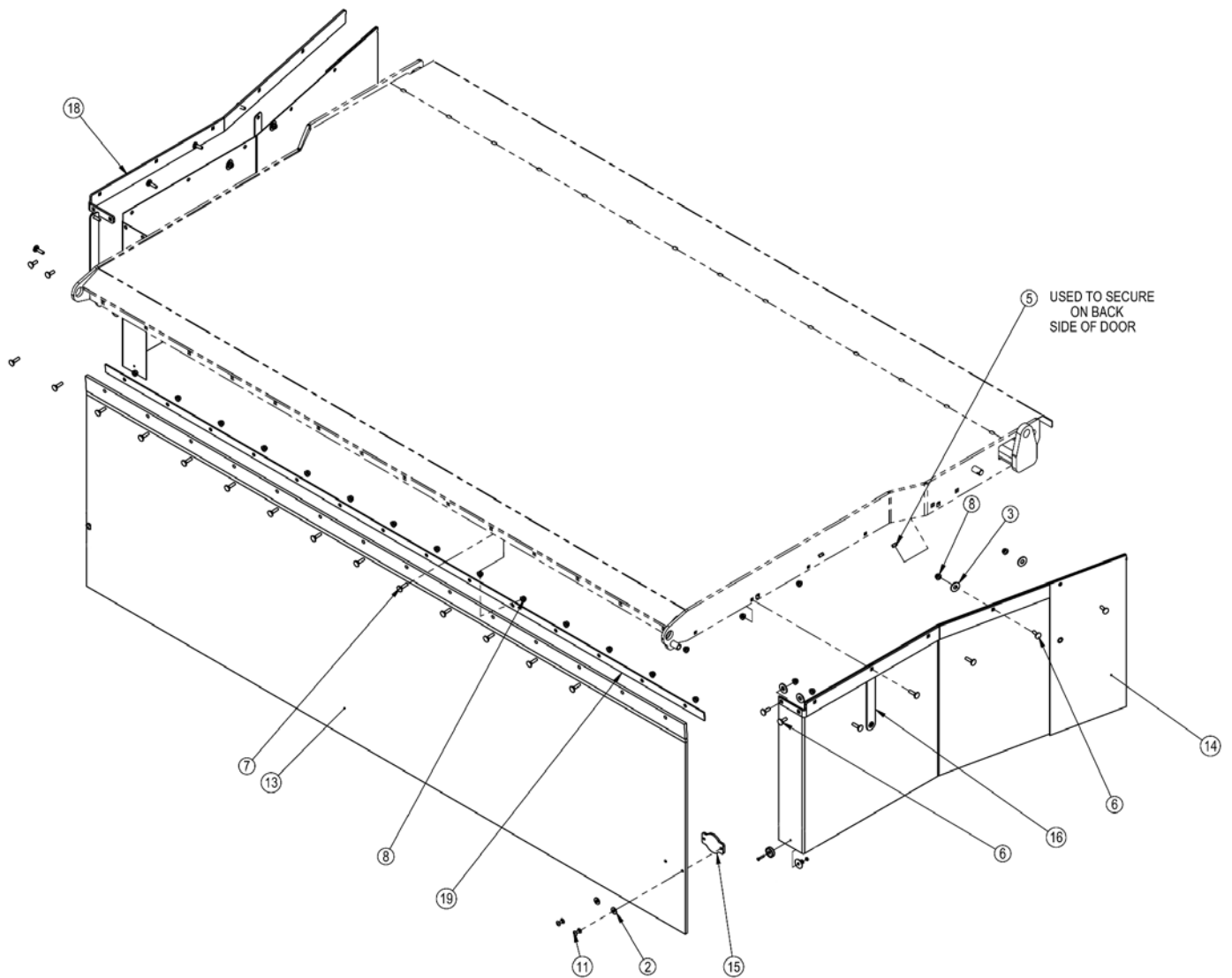
**Bale Pro 660 and Bale Pro 661 - Door Skirts**

| ITEM | DESCRIPTION                   |
|------|-------------------------------|
| 1    | NUT,HEX,#10-24,GR             |
| 2    | WASHER,FLAT,5/16,ZP           |
| 3    | WASHER,FLAT,7/16,ZP           |
| 4    | WASHER,FLAT,3/8,ZP            |
| 5    | WASHER,FLAT,1/4X1-1/4,ZP      |
| 6    | NUT,HEX,3/8,UNC,GR5,ZP        |
| 7    | BOLT,CARR,3/8X1,UNC,GR5,ZP    |
| 8    | BOLT,CARR,3/8X1-1/4,GR5,ZP    |
| 9    | NUT,FLG,LOCK,3/8,UNC,GR5,ZP   |
| 10   | PIN,LOCK,WIRE,1/2X3X1-3/8IH   |
| 11   | WASHER,FLAT,#10,ZP            |
| 12   | BOLT,FHSCS,#10X1,UNC,ZP       |
| 13   | RIVET,AL,1/4X.625-.75,.625_HD |
| 14   | RETAINER,CURTAIN,MAGNET       |
| 15   | BELTING,DISCHARGE,SIDE        |
| 16   | RETAINER,CURTAIN,RIVET        |
| 17   | STRAP,HOLD DOWN,SIDE CURTAIN  |
| 18   | BELTING SUPPORT,FRONT         |
| 19   | BELTING SUPPORT,REAR          |
| 20   | BACKING,DISCHARGE             |
| 21   | BELTING,DISCHARGE,60 SERIES   |

## ***Installation of the Short Discharge Door BP660, BP661 and BP965***

- Use the diagram and chart below as a guide for attaching the BP 965 skirts.

### **Bale Pro 965 - Door Skirts**



BP965 Door Skirts

48595\_A

**Installation of the Short Discharge Door  
BP660, BP661 and BP965**

---

**Bale Pro 965 - Door Skirts**

| ITEM | DESCRIPTION                   |
|------|-------------------------------|
| 1    | NUT,HEX,#10-24,GR 5,ZP        |
| 2    | WASHER,FLAT,5/16,ZP           |
| 3    | WASHER,FLAT,7/16,ZP           |
| 4    | WASHER,FLAT,1/4X1-1/4,ZP      |
| 5    | NUT,HEX,3/8,UNC,GR5,ZP        |
| 6    | BOLT,CARR,3/8X1,UNC,GR5,ZP    |
| 7    | BOLT,CARR,3/8X1-1/4,GR5,ZP    |
| 8    | NUT,FLG,LOCK,3/8,UNC,GR5,ZP   |
| 9    | WASHER,FLAT,#10,ZP            |
| 10   | BOLT,FHSCS,#10X1,UNC,ZP       |
| 11   | RIVET,AL,1/4X.625-.75,.625_HD |
| 12   | RETAINER,CURTAIN,MAGNET       |
| 13   | BELTING,DISCHARGE,9'          |
| 14   | BELTING,DISCHARGE,SIDE        |
| 15   | RETAINER,CURTAIN,RIVET        |
| 16   | STRAP,HOLD DOWN,SIDE CURTAIN  |
| 17   | BELTING SUPPORT,FRONT         |
| 18   | BELTING SUPPORT,REAR          |
| 19   | BACKING,DISCHARGE             |