



Park the CFR 651 on level ground.

Lower the forks to the ground for additional stability.

Ensure the CFR 651 upper discharge door is locked in the upright position.

Disconnect the drive shaft and hydraulic lines from the tractor before beginning any work.

Disconnect the CFR 651 from the tractor hitch.

Block the machine to prevent any movement while assembling.



1. Jack up the CFR 651 under the left rear frame to allow the left axle to be able to be removed.

Note: Do not place the jack on the axle or the bale lift frame.

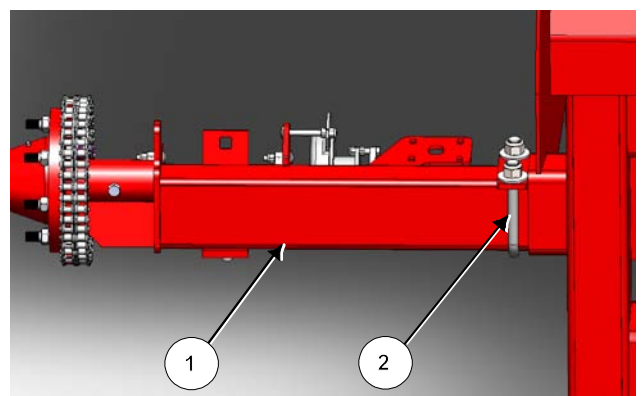
2. Remove the tire.
3. Remove the existing axle and hub.
 - Remove the u-bolt holding the axle. The u-bolt will be used again.
 - Slide the axle out.
 - This axle will not be used again.



Jack Under the Left Frame

211191C

4. Slide in the new Grain Tank axle (1).
 - Position with the clutch towards the front of the machine.
 - Slide in the axle until it comes against the stops on the axle.
 - Re-install the u-bolt (2) and locknuts.
 - Do not tighten at this time.



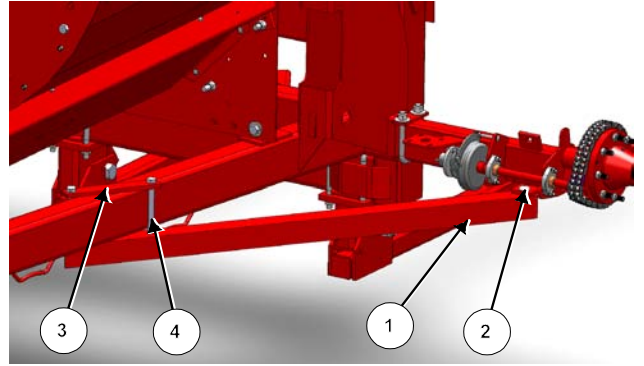
Slide in the New Axle

213042C

Assembling the Grain Tank onto the CFR 651 BalePro®

5. Install the axle brace.

- Fasten the brace (1) to the tab on the axle with a $\frac{3}{4}$ " x $2\frac{1}{2}$ " carriage bolt and locknut (2).
- Place the brace under the frame of the CFR 651.
- Connect to the CFR 651 frame with the bolt plate (3) and 2 of $\frac{3}{4}$ " x $8\frac{1}{2}$ " bolts and locknuts (4).
- Do not tighten at this time to allow for adjustment when the tank is installed.

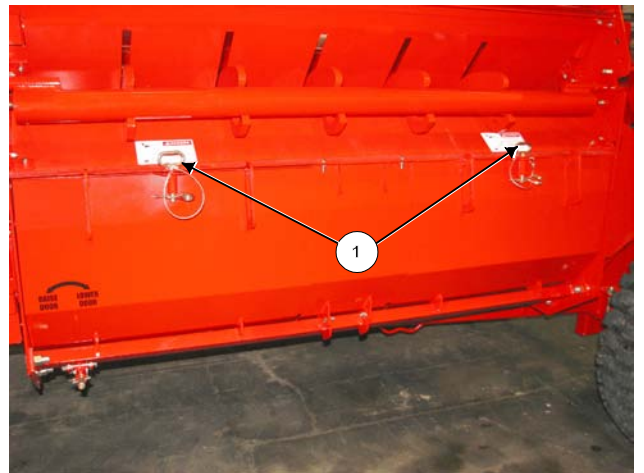


Install the Axle Brace

211193C

6. Remove the front and rear flail drum access panels.

- Remove the pins (1) holding the panels.
- Remove the panels.
These panels will be re-installed later.



Remove Access Pins and Panels

213015C

7. Remove the center panel flail drum access panels.

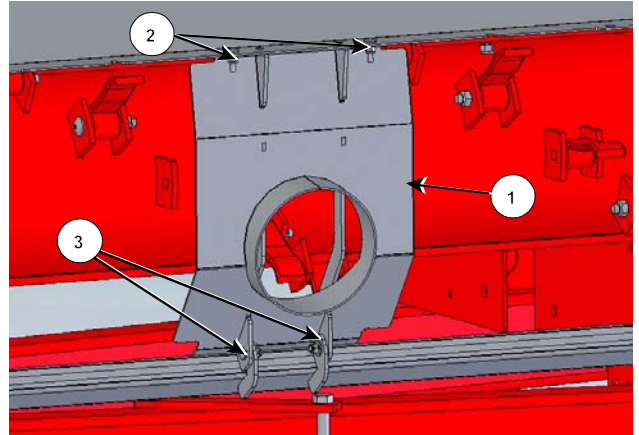
- Remove the bolts holding the panel.
- Discard the panel.



Remove the Center Panel

212043

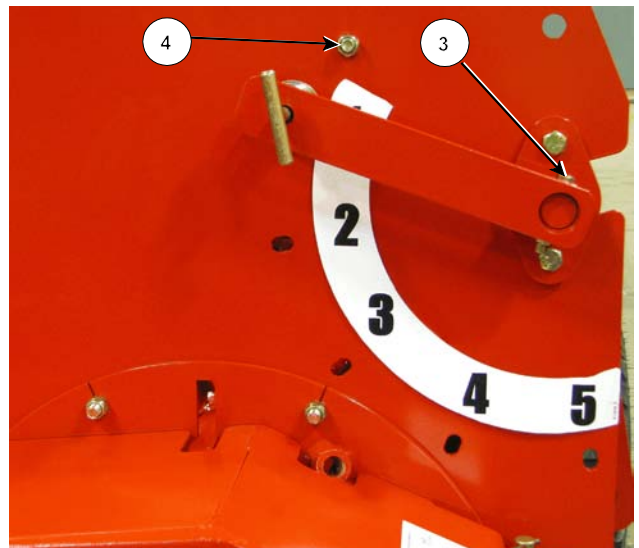
8. Mount the auger transition (1) in the center panel location.
 - Attach the top to the tub wall with 3/8" x 1 1/4" carriage bolts and locknuts (2).
 - Attach the lower brackets to the brackets on the lower tub wall using 3/8" x 1.25" carriage bolts, washers and locknuts (3).
 - Keep the bolts loose at this time to ease assembly.
 - They will be tightened at a later stage of assembly.



Install the Auger Transition Panel

213027C

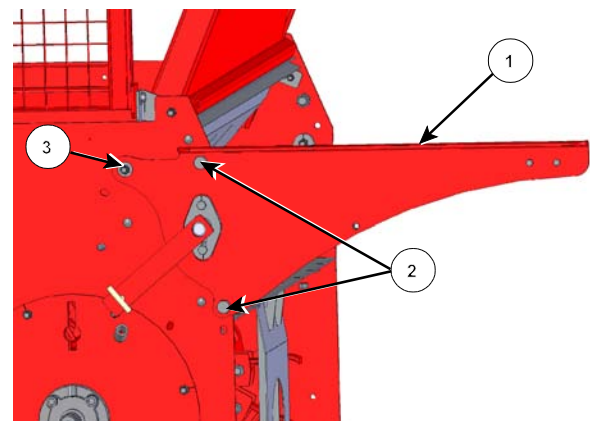
9. Remove the aggression adjustment handle.
 - Remove the locknut and bolt (3).
The fasteners will be used again.
 - Slide the handle from the shaft.
10. Remove the lower locknut and bolt (4) that holds the deflector side panel.



Remove the Aggression Adjustment Handle

213020C

11. Place the front tank mount bracket (1) onto the front tub wall.
 - Fasten with 2 of 3/4" x 2" bolts and locknuts (2).
 - Do not tighten at this time.
 - Place a 1/2" x 3 1/2" bolt, washer and locknut (3) through the deflector side panel, tub wall and tank mount bracket.
 - Place the head of the bolt inside the tub.
 - Do not tighten at this time.

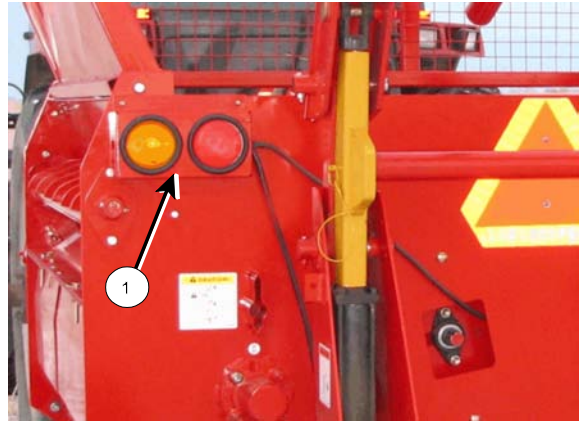


Install the Front Tank Mount

213028C

12. Remove the rear left tail light assembly (1).

- Disconnect it from the wiring harness.
- The tail light assembly will be installed at a later time.



Remove Left Tail Light

213029C

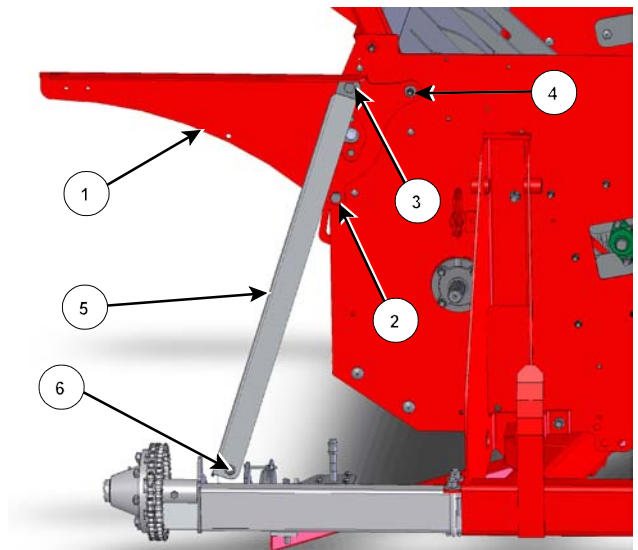
13. Remove the lower locknut and bolt (4) that holds the deflector side panel.

14. Place the rear tank mount bracket (1) on the rear tub wall.

- Connect the lower portion of the bracket with a 3/4" x 2" bolt and locknut (2).
- Tighten all fasteners.

15. Place a 1/2" x 3 1/2" bolt, washer and locknut (4) through the deflector side panel, tub wall and tank mount bracket.

- Place the head of the bolt inside the tub.
- Tighten all fasteners.



Install Rear Tank Mount and Brace

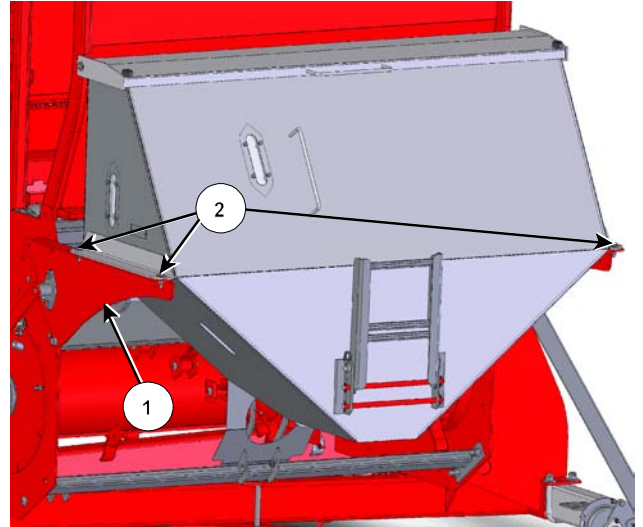
213030C

16. Place the tank support brace (5) on the upper hole of the tank bracket (3).
- Connect with 3/4" x 2" bolt and locknut (3). Tighten fasteners.

17. Place the tank support brace (5) on the axle tab.

- Connect with 3/4" x 2 1/2" carriage bolt and locknut (6).
- Tighten fasteners.

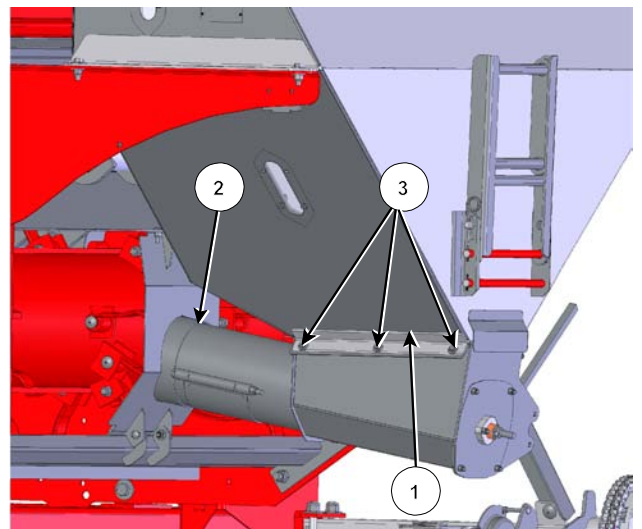
18. Lift the tank with lifting straps.
 - Lower the tank until the side brackets contact the tank mount brackets (1).
 - Keep the weight of the tank on the lifting straps.
 - Align the tank mount holes and fasten with $\frac{1}{2}$ " x 2" bolts, 2 flatwashers and locknuts (2) at the 4 connection points.
 - Tighten all fasteners.
 - Remove the lifting straps.



Lower The Tank Onto The Brackets

213031C

19. Place the supplied foam tape around the surface of the auger assembly that will connect to the bottom of the tank (1).
 - This foam tape will ensure a good seal to the tank.
20. Place the foam tape around the end of the auger tube (2) that will slide into the auger transition panel.
21. Slide the end of the auger into the auger transition.
22. Mount the auger to the bottom of the tank using 8 of $\frac{3}{8}$ " x 1" bolts, flatwashers and locknuts (3).
 - Fully tighten these fasteners.



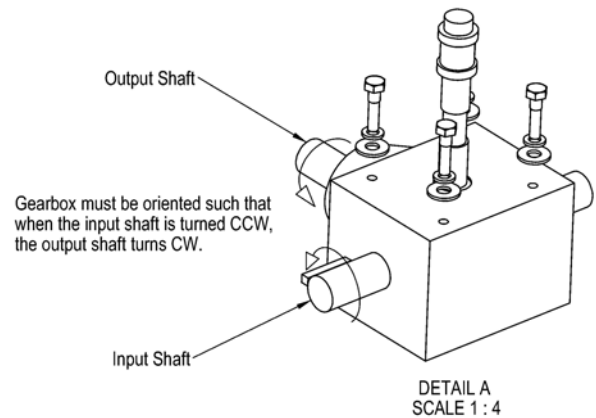
Mount the Auger to the Tank

213032C

Identifying the Lower Drive Box

(See the diagram to the right):

- the input shaft turns CCW
- the output shaft turns CW
- Remove the top plug from the drive box.
- Install the vent/tube into the top plug.

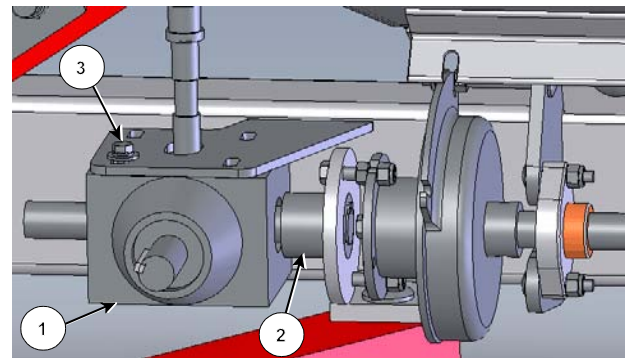


Identifying the Lower Drive Box

41194_C Det A

23. Place the rear drive box (1) onto the mount tab located on the axle.

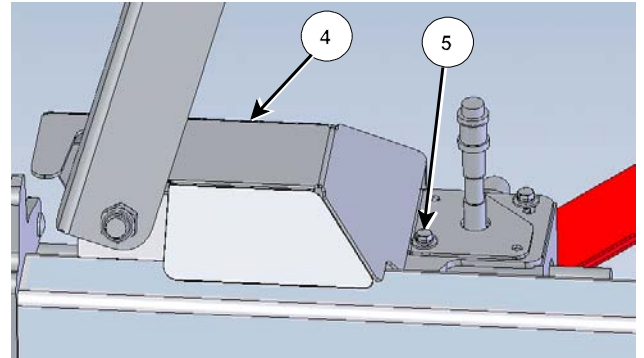
- Place the vent up through the hole in the mount tab.
- Insert the drive shaft and key into the clutch (2).
- Fasten the drive box to the axle tab with one 5/16" x 1 1/4" bolt, lockwasher and flat washer (3) in the front right corner.
- Other fasteners will be added later.



Mount Rear Drive Box & Connect to Clutch

213033C

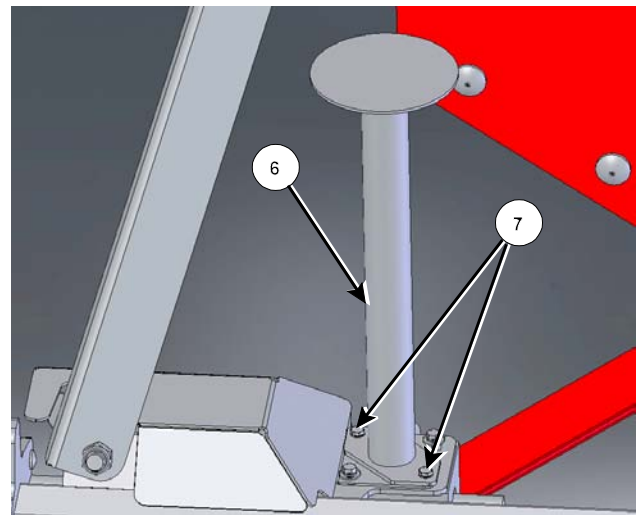
24. Place the clutch shield (4) on top of the axle mount tab.
- Fasten to the drive box at the rear left corner with 5/16" x 1 1/4" bolt, lockwasher and flatwasher (5).
 - Tighten in place.



Install Clutch Shield & Bucket Holder

213034C

25. Place the calibration bucket holder (6) on top of the shield.
26. Thread 5/16" x 1-1/4" bolts, flatwashers and lockwashers (7) through the calibration bucket holder, clutch shield and into the housing of the drive box.
- Tighten in place.



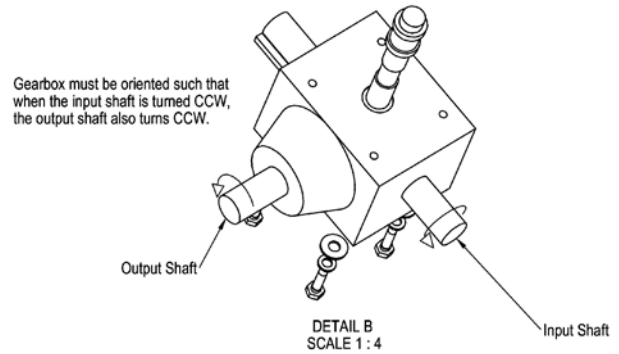
Install Calibration Bucket Holder

213035C

Identifying the Upper Drive Box

(See the diagram to the right):

- the input shaft turns CCW
- the output shaft turns CCW
- Remove the top plug from the drive box.
- Install the vent/tube into the top plug.

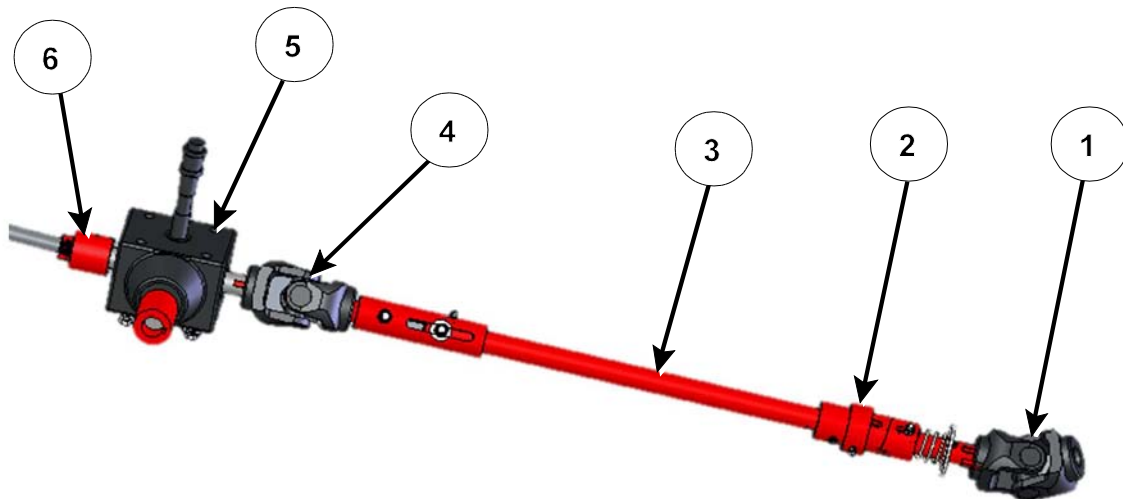


Identifying the Upper Drive Box

41194_C Det B

27. On a bench, loosely assemble the following drive components:

- One way clutch (2) to the lower knuckle (1).
 - Place a key in the keyway.
- Shaft (3) to the one way clutch.
- Upper knuckle (4) to the shaft (3).
 - Place a key in the keyway.
- Upper knuckle (4) to the upper drive box (5).
 - Place a key in the keyway.
- Flexible drive (6) to the drive box.



Assemble Drive Components

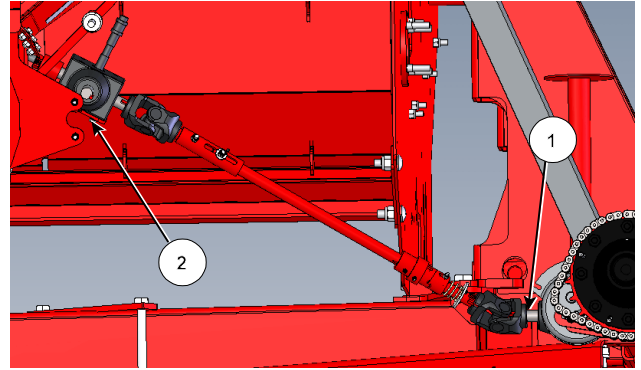
214127C

Assembling the Grain Tank onto the CFR 651 BalePro®

28. Slide the lower knuckle (1) onto the lower drive box.
- Place a key in the keyway.
 - Tighten with the set screw.

29. Place the upper drive box onto the auger mount plate (2).
- Mount with the vent tube upwards.
 - Fasten with 5/16" x 1" bolts and lockwashers.

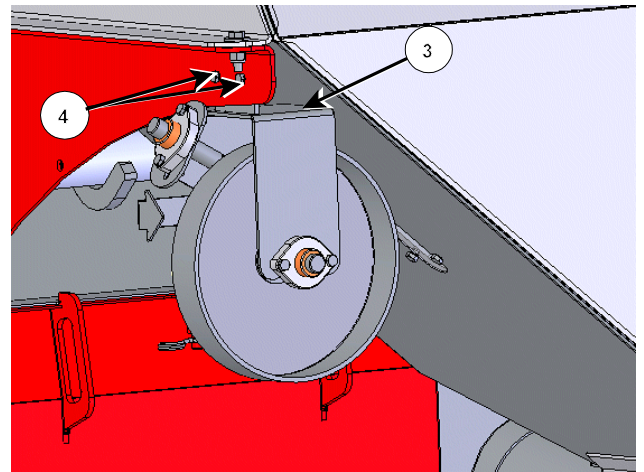
30. Adjust all the drive components and tighten.



Connect Drive

214128C

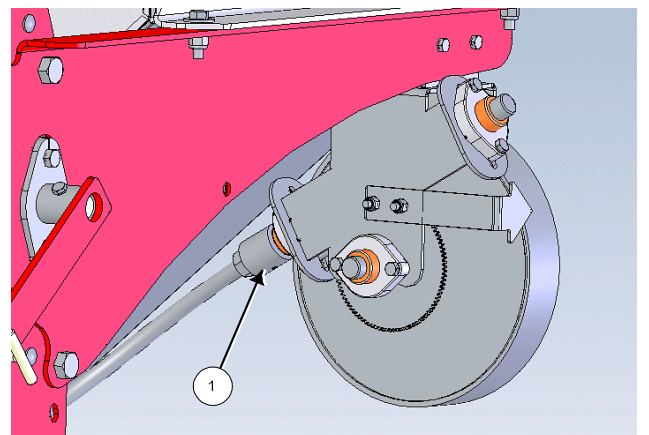
31. Mount the distance indicator.
- Attach the support bracket (3) to the front tank mount with 2 of 3/8" x 1" carriage bolts (4) and locknuts.



Mount the Distance Indicator

213038C

32. Connect the flexible drive (1) to the distance counter.
- Place a key into the coupler.
 - Slide the coupler over the counter shaft.
 - Tighten with the setscrew.

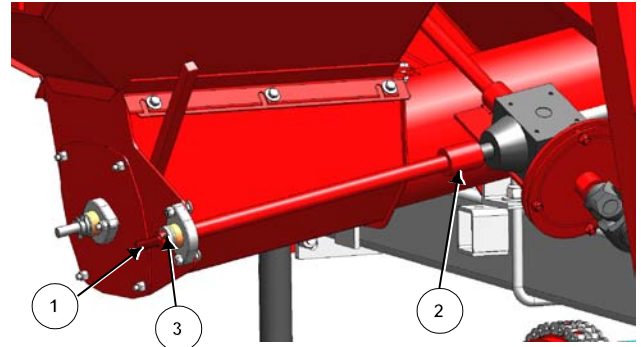


Install the Flexible Drive to the Counter

213040C

33. On a bench, loosely assemble the following drive components:

- Place the threaded end of the auger drive shaft (1) through the bearing that will mount onto the auger end plate.
- Place the locking collar on the shaft. Do not tighten at this time.
- Place the pipe spacer onto the threaded end of the shaft.
- Insert the 1/4" x 1 1/2" roll pin (3) with an equal amount exposed on each side.
- Place the shaft hub (2) and key onto the output shaft of the gear box.



Install the Auger Driveshaft

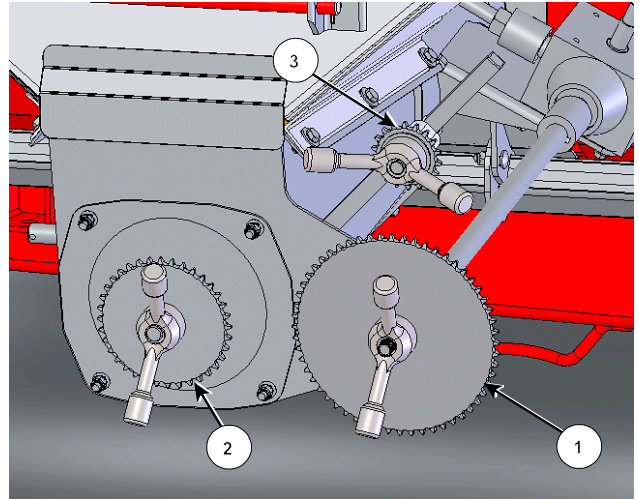
211210C

34. Fasten the bearing onto the auger end plate with 3/8" x 1 1/2" carriage bolts and locknuts.

- Tighten the bearing locking collar.

Assembling the Grain Tank onto the CFR 651 BalePro®

35. Use the Quick Reference Chart (located on the side of the tank) to determine the sprockets needed for the intended feed rate.
36. Mount a driving (1) sprocket and an auger (2) sprocket.
 - Tighten in place with the quick turn handles.
37. Place the chain tightener (3) and quick turn handle over the post.



Mount Sprockets, Chain and Tightener

213039C

38. Place the chain onto the driving sprocket, auger sprocket and tightener sprocket.



Place The Chain on The Sprockets

211167

39. Slide the tightener up the post and fasten with the quick turn handle.



Tighten Chain

211166

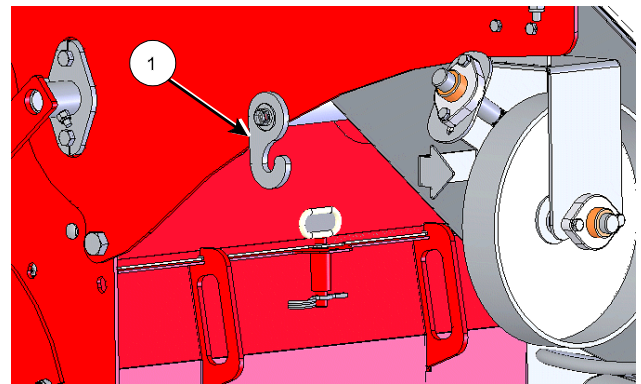
40. Place the remaining sprockets and the auger crank handle onto the storage pin on the side of the auger housing.
- Fasten in place with the spring pin.



Store the Sprockets and Crank Handle

211212

41. Place the calibration bucket hook (1) on the front tank support bracket.
- Fasten with 3/4" x 2" bolt and locknut.



Mount the Calibration Bucket Hook

213041C

42. Install the rear tail light assembly.
- Place the tail light assembly on the rear tank support bracket.
 - Fasten the light assembly to the tank with #14 x 1" screws (1).
 - Connect the lights to the wiring harness.



Install Rear Light on Tank

213043C

Test the Drive Mechanism

1. Rotate the drive wheel counter-clockwise (direction of machine travel).
2. Confirm that the auger flighting is turning counter-clockwise (when facing the Grain Tank from outside the processor).
3. Confirm that the distance indicator is counting up.

If the auger and distance indicator do not turn as indicated, then find the situation listed in the chart below and apply the solution.

Situation	Solution
If the auger turns counter clockwise & the distance indicator does not count up.	Flip the axle drive box over and flip the auger drive box over. Move the vents to the top.
If the auger turns clockwise & the distance indicator counts up.	Flip the auger drive box over. Move the vent to the top.
If the auger turns clockwise & the distance indicator does not count up.	Flip the axle drive box over. Move the vent to the top.

Finish the Assembly

1. Mount the tire onto the hub.
2. Lower the CFR 651 and remove the jack.
3. Place the calibration pail onto the holding post.
4. Place the weigh scale in the manual tube on the side of the Grain Tank.
5. If the drive wheel chain has been removed for long or high speed transport, give the end user the bag containing the drive wheel chain and the instructions on how to install the chain and adjust the clutch drive.

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End User - Install the Drive Wheel Chain

If the drive wheel chain has been removed to enable long distance or high speed transport, follow these instructions to install the chain and adjust the clutch drive.

The auger will not work unless the wheel chain is installed on the drive wheel and the clutch sprocket is fully engaged into the wheel chain.



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Lower the forks to the ground for additional stability.

Ensure the CFR 651 upper discharge door is locked in the upright position.

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Disconnect the CFR 651 from the tractor hitch.

Block the machine to prevent any movement while assembling.

1. Jack up the CFR 651 under the left rear frame to allow the left axle to be able to removed.

Note: Do not place the jack on the bale lift frame.

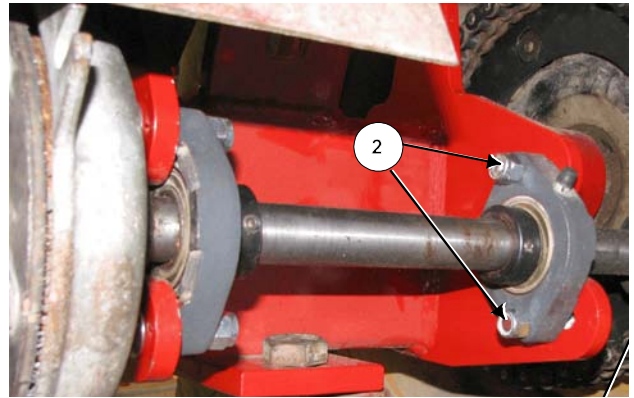
2. Remove the tire.



Jack Under the Left Frame

211191C

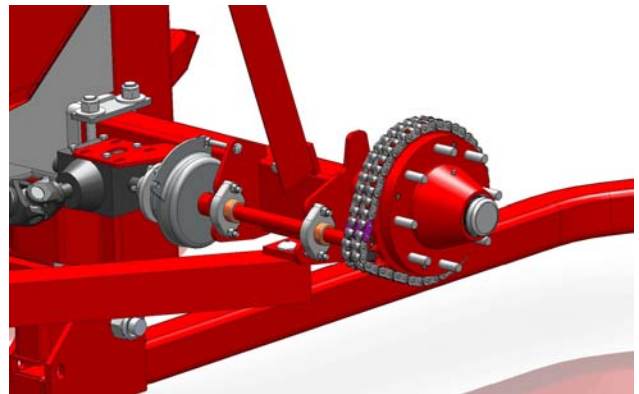
3. Rotate the clutch sprocket out of the way to ease installation of the chain.
 - Loosen the bolts (2) on the outer bearing mounts.
 - The bolts on the inner bearing do not have to be loosened as the bearing is self aligning.
 - Rotate the outer drive shaft bearing around the upper bolt. (The bottom bolt is in a slot.)



Rotate the Clutch Sprocket

211185C

4. Place the double row chain around the sprocket mounted on the wheel.
5. Connect the chain with the double row chain connector.
6. Rotate the clutch sprocket bearing to fully engage the clutch sprocket into the inner row of the drive chain.
7. Tighten the bolts on the outer bearing.



Double Row Drive Chain

211211

8. Replace the tire.
9. Lower the CFR 651.