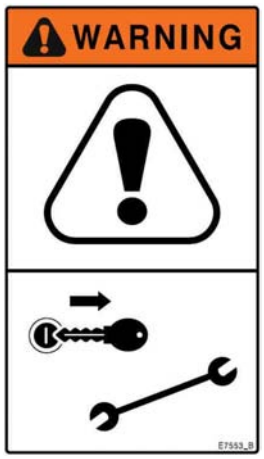
Park the CFR960 on level ground.

Lower the forks to the ground for additional stability.

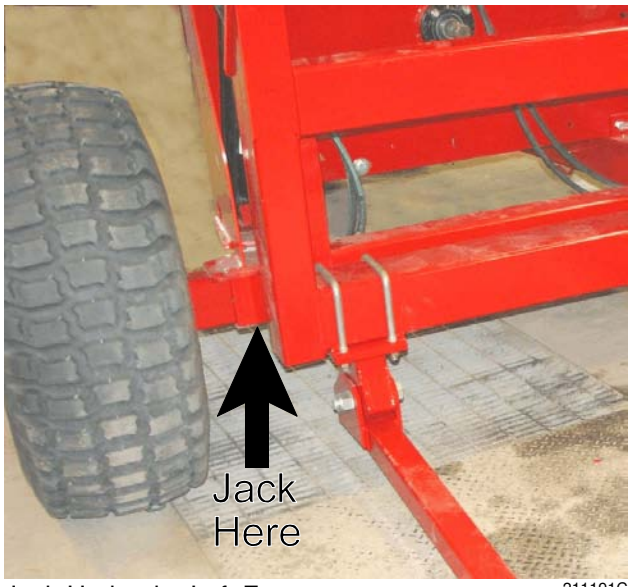
Ensure the CFR960 upper discharge door is locked in the upright position.

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

Block the machine to prevent any movement while assembling.



1. Jack up the CFR960 under the left rear frame to allow the left tire and axle to be able to removed.
   Note: Do not place the jack on the axle or the bale lift frame.



Jack Under the Left Frame 211191C

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.
   - Discard this axle. This axle will not be used again.

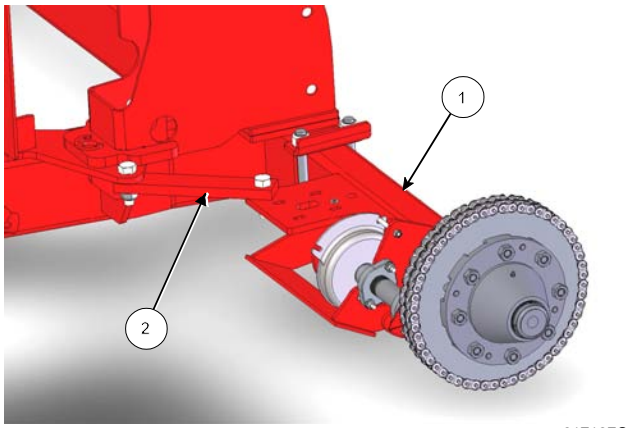
4. Install the new Grain Tank axle (1).

   - Slide the axle (1) into the frame member.

   - Position with the clutch towards the front of the machine.

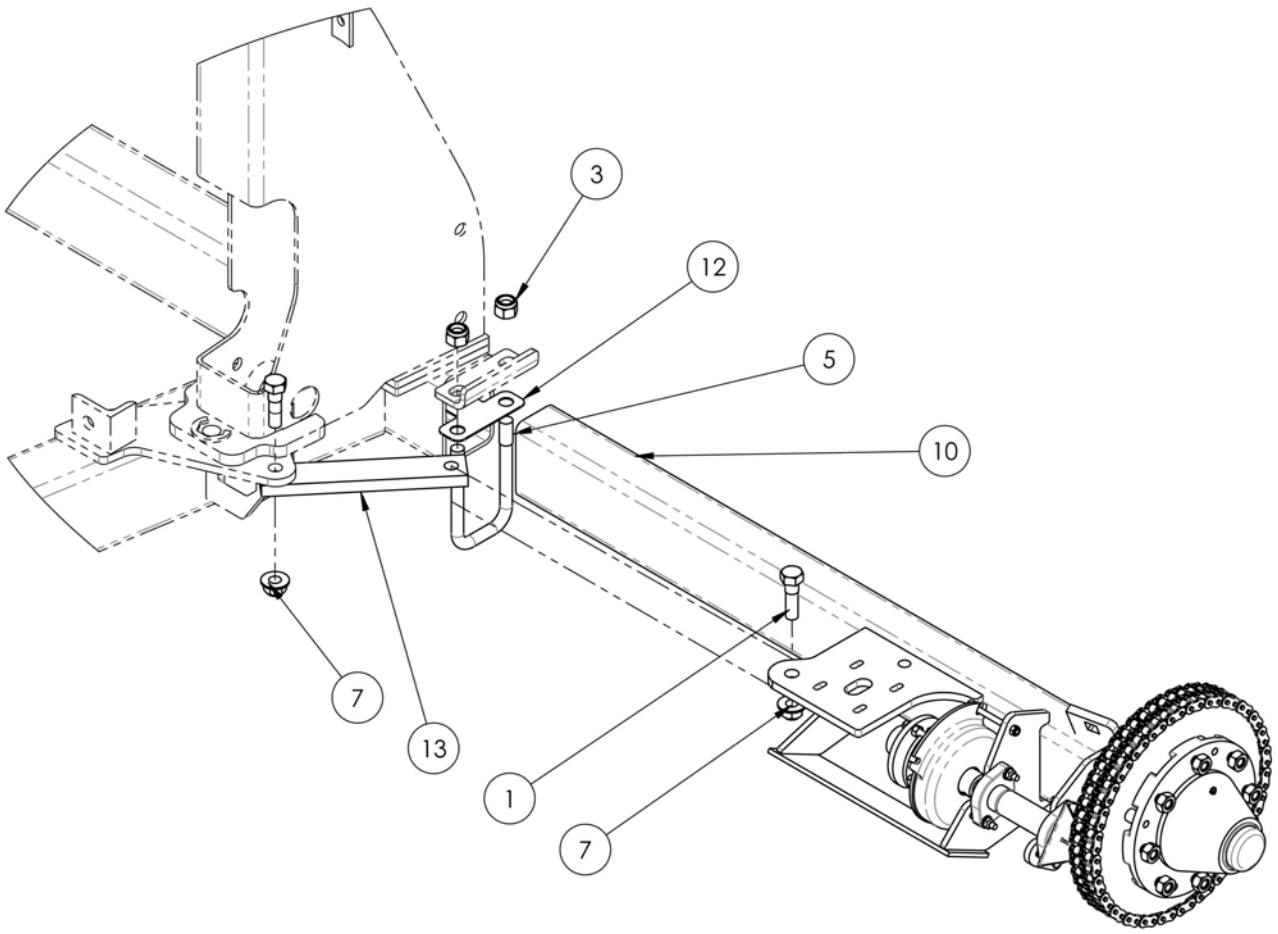
   - Attach the forward brace (2) with the fasteners as shown below.

   - Re-install the u-bolt and locknuts.



Install the New Grain Tank Axle 217137C

ITEM	DESCRIPTION
1	BOLT,HEX,3/4X2-1/2,UNC,GR5,ZP 2
3	NUT,NYLOCK,3/4,UNC,ZP
5	BOLT,U,SQ,3/4,3-1/8X6-1/2,1-1/2
7	NUT,FLG,LOCK,3/4,UNC,GR5,ZP
10	ASSY,AXLE,GT
12	PC,SHIM,AXLE,GT
13	BRACE,FORWARD,AXLE,GT



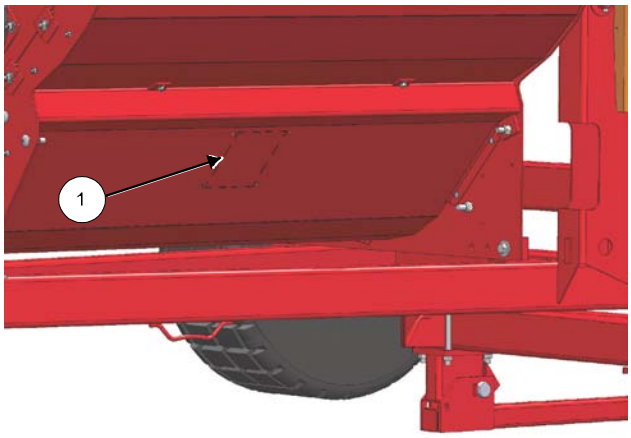
Grain Tank Axle Fasteners

43822_A2

5. Leave the tire off for now.
   - It is easier to install the other components with the tire removed.

6. Cut out the auger discharge opening in the left side of the processor tub wall.

   - Follow the perforations (1) to cut into the tub wall.



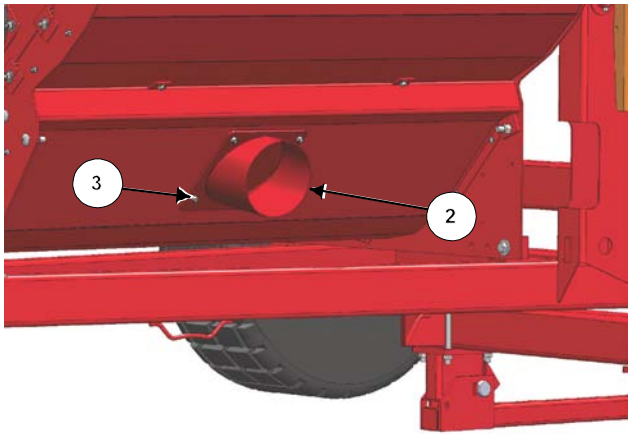
Cut Out the Auger Discharge Opening 216134C

7. Mount the auger transition (2) to the outside of the tub wall using 4 of 3/8" x 1" carriage bolts (3) and locknuts.

   - Position the transition with the longest portion of the tube to the bottom.

   - Place the heads of the carriage bolts inside the processor tub.

   - Keep the bolts loose at this time to ease assembly.
     - They will be tightened at a later stage of assembly.



Mount the Auger Transition to the Tub Wall 216135C

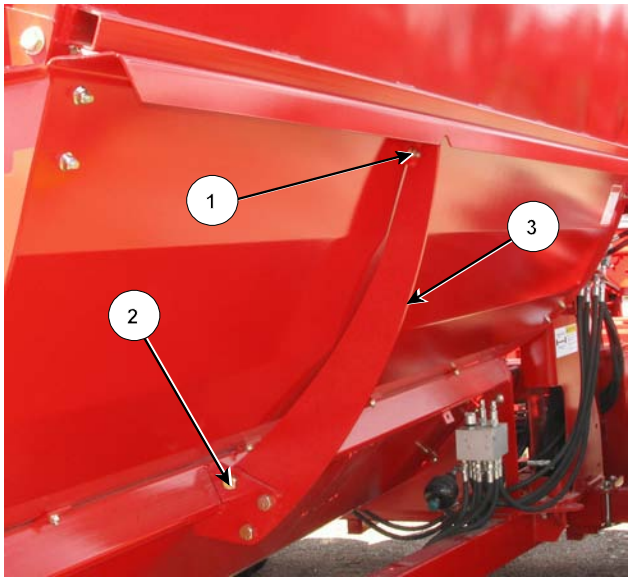
8. Remove the left tub wall support (3).

   - Remove the upper fasteners (1) from the support.

     - Discard the fasteners.

   - Remove the lower fasteners (2) from the support and bracket.
     - Keep the fasteners to be re-used.

   - Discard the tub wall support (3).



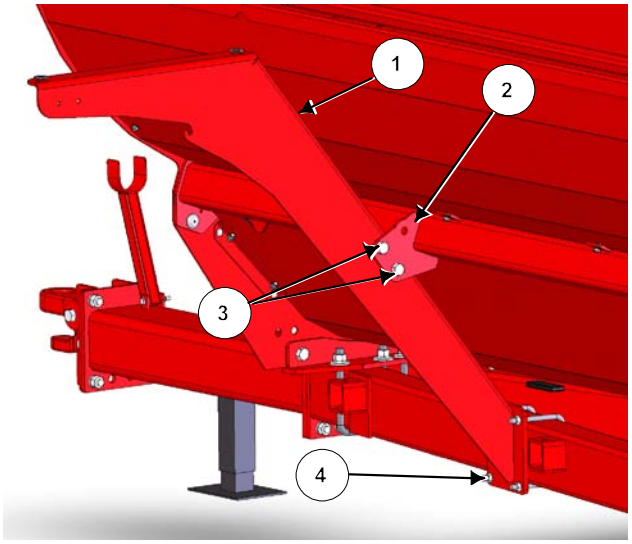
Remove Tub Wall Support 216158C

9. Mount the front tank support.

    - Place the tank support (1) against the side of the bracket (2) facing the front of the machine.

        - Fasten with 2 of 3/4" x 1 3/4" (3) bolts and flange locknuts.

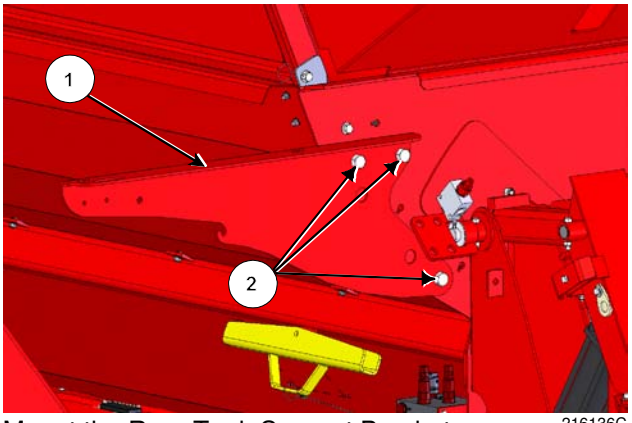
10. Attach the bottom of the front tank support to the machine frame with 2 of ½" x 6" x 5 ½" ubolts and locknuts (4).



Mount the Front Tank Support 216137C

11. Mount the rear tank support bracket (1) onto the rear tub wall with 3 of 3/4" x 1 3/4" (2) bolts and flange locknuts.

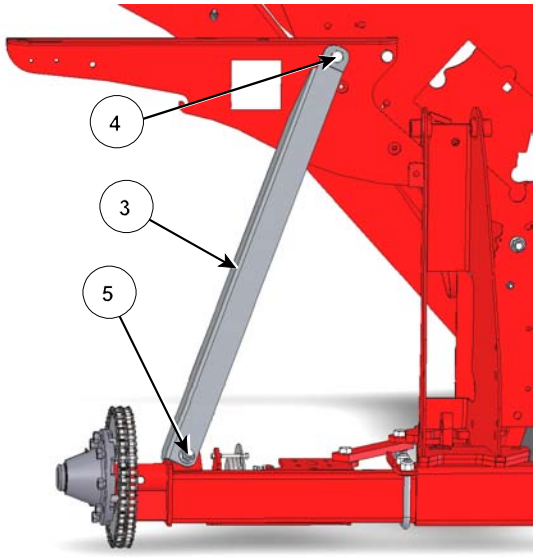
    - Do not fully tighten the bolts at this time to allow for adjustment.



Mount the Rear Tank Support Bracket 216136C

12. Mount the axle forward brace (3) to the tank mount with the bolt (4).

    - Fasten the lower end of the brace to the tab on the axle with a 3/4" x 2" carriage bolt (5) and flange locknut.



Mount the Rear Axle Forward Brace 217138C

13. Lift the tank with straps and lower until the tank side brackets rest on the tank mount brackets.

    - The strapping points are inside the tank.
      - Lift the lid and place the straps through the internal tank braces.

14. Fasten the tank to the front support bracket with 2 of ½" x 1 ½ " bolts and flange nuts. Fully tighten the fasteners.

Lower the Tank and Attach to Support Brackets[216152C]

15. Adjust the rear tank mount bracket until the grain tank lid is level with the tank front panel.

    - Tighten the rear tank support bracket to the rear tub wall while keeping the tank lid level with the tank front.

16. Fasten the tank to the rear support bracket with 2 of ½" x 1 ½ " bolts and flange nuts.

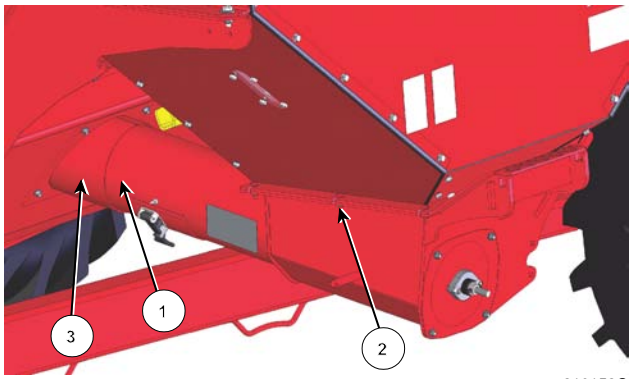
17. Attach the auger assembly to the tank.

    - Place a bead of silicon on the auger flange that will connect to the tank to make a good seal between the tank and the auger.

    - Slide the tube of the auger (1) into the auger transition (3) mounted on the processor tub wall.

    - Fasten the auger to the bottom of the tank using 6 of 3/8" x 1 1/4" flange bolts and flange nuts (2).

18. Tighten the nuts of the auger transition (3) to the tub wall.



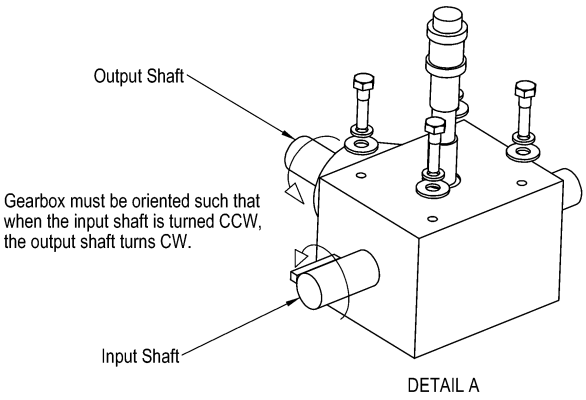
Attach Auger Assembly to the Tank 216153C

Identify 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.

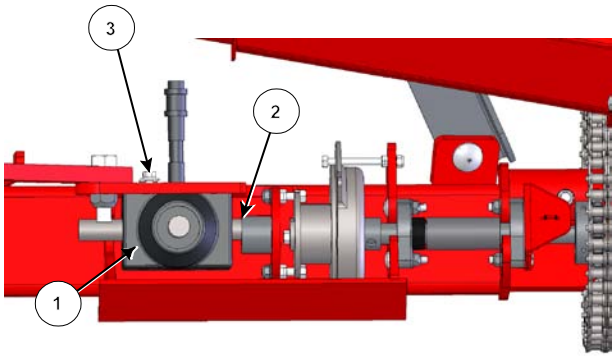


Identify the Lower Drive Box 41194_C Det A

19. Place the lower drive box (1) under 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 gearbox with 2 of 5/16" x 1 1/4" bolts, flat washers and lockwashers (3) in the slots closest to the processor tub.

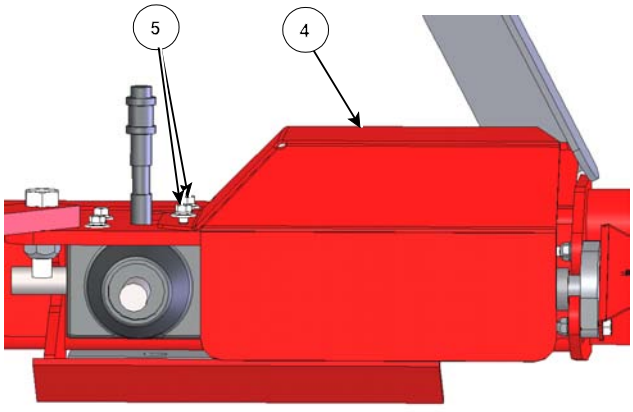
    Note: The other 2 bolts will put into the gearbox in the next step.



Place Lower Drive Box & Connect to Clutch 217139C

20. Place the clutch guard (4) over the clutch and fasten with 2 of 5/16" x 1 1/4" bolts, flat washers and lockwashers (5) through the shield and mount tab into the gearbox.

    - Tighten in place.

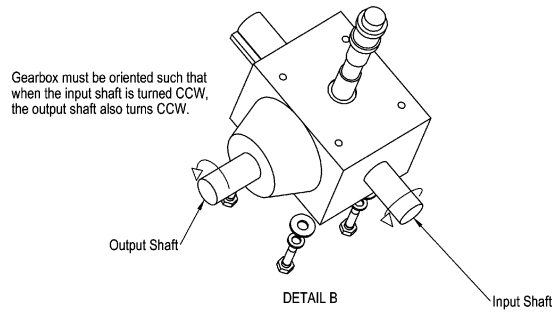


Put Clutch Shield in Place 217140C

Identify the Upper Drive Box
(See the diagram to the right):

- the input shaft turns CCW
- the output shaft turns CCW

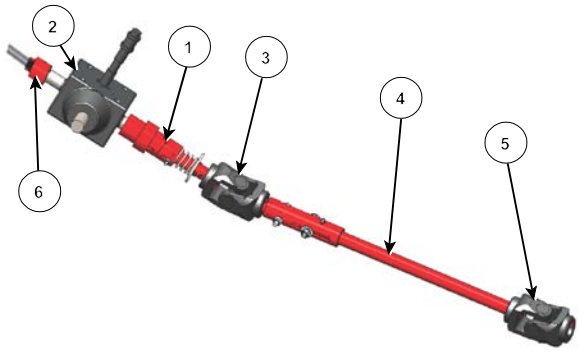
- Remove the top plug from the drive box.
- Install the vent/tube into the top plug.



Identify the Upper Drive Box 41194_C Det B

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

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

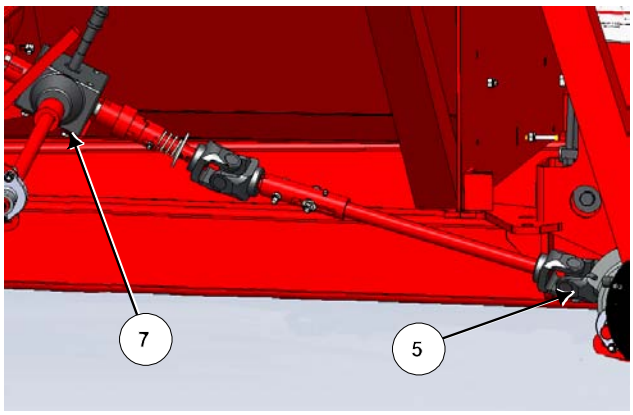


Assemble Drive Components 216159C

22. Feed the flexible drive up over the auger toward the front of the machine.

23. Slide the drive lower knuckle (5) onto the lower drive box shaft.
    - Place a key in the keyway. Tighten with the set screw.

24. Place the upper gear box on top of the auger mount plate (7).
    - Mount with the vent tube upwards.
    - Insert 4 of 5/16" x 1 1/4" bolts, lockwashers and flatwashers.
        - Do not tighten bolts at this time.



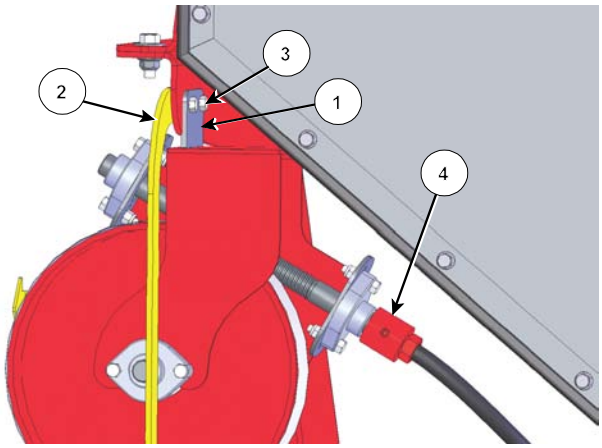
Connect Auger Drive 216156C

25. Mount the distance indicator

    - Attach the distance indicator bracket (1) to the back side of the front tank support bracket.

    - Attach the width indicator (2) to the front of the front tank support bracket.

    - Fasten both with 2 of 3/8" x 1 1/4" bolts (3) and flange locknuts.



Mount the Distance and Width Indicators 216157C

26. Install the distance indicator flexible drive (4).

    - Slide the drive coupler (4) over the end of the threaded shaft.
        - Align for the set screw to go into the groove of the shaft.

    - Tighten the set screw.

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

    - Place the threaded end of the auger drive shaft (1) through the bearing (2) that will go onto auger end plate.

    - Place the pipe spacer (3) onto the threaded end of the shaft.

    - Place the roll pin collar (4) onto the shaft.

        - Insert the 1/4" x 1 ½" roll pin with an equal amount of pin exposed on each side.

28. Place the shaft hub (5) and key onto the output shaft of the gear box.
    - Slide shaft until the roll pin is against the pipe spacer.

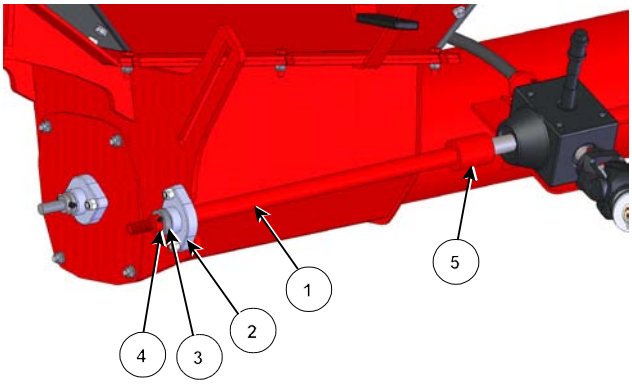
29. Mount the shaft to the auger housing.

    - Fasten the bearing (2) onto the auger end plate with 3/8" x 1 ½" carriage bolts and locknuts.

30. Adjust all the drive components.

    - Tighten the drive boxes in place.

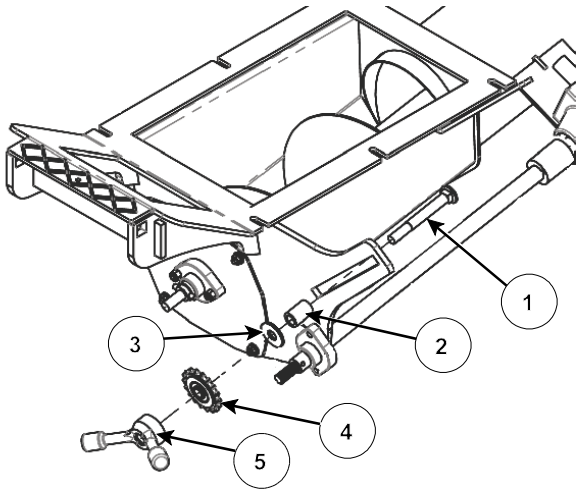
    - Tighten the other drive components in place.



Install the Auger Driveshaft 211210C

31. Install the chain tightener.

- Place the 5/8" x 5" carriage bolt (1) into the adjustment slot.
- Place the spacer tube (2) and 5/8" flatwasher (3) over the bolt.
- Slide the 18 tooth sprocket (4) onto the bolt.
- Fasten with the quick turn handle (5).

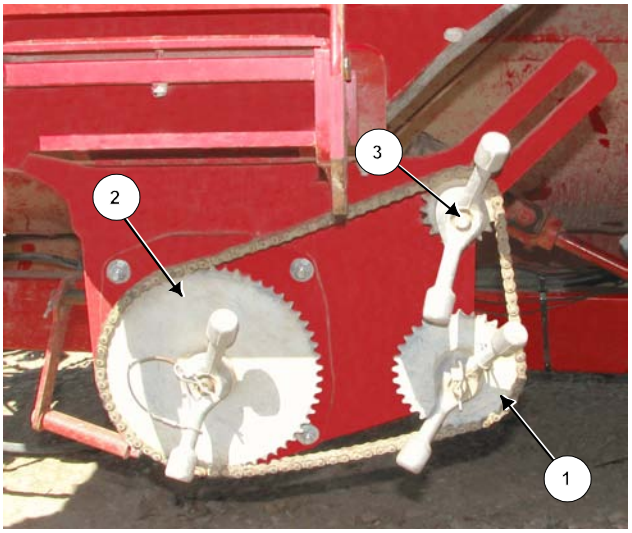


Install the Chain Tightener 42700_A2C

32. Mount a driving (1) and an auger sprocket (2).
    - Tighten in place with a quick turn handle.

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

34. Slide the tightener (3) up the slot and fasten with the quick turn handle.



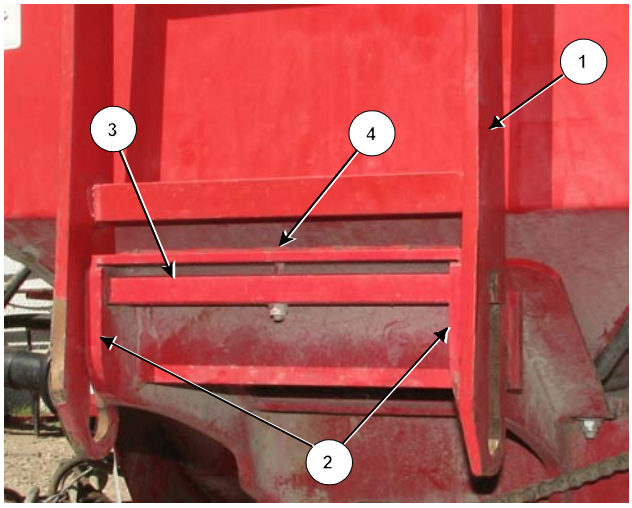
Mount Sprockets, Chain and Tensioner 215177C2

35. 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

36. Attach the ladder to the auger mount.

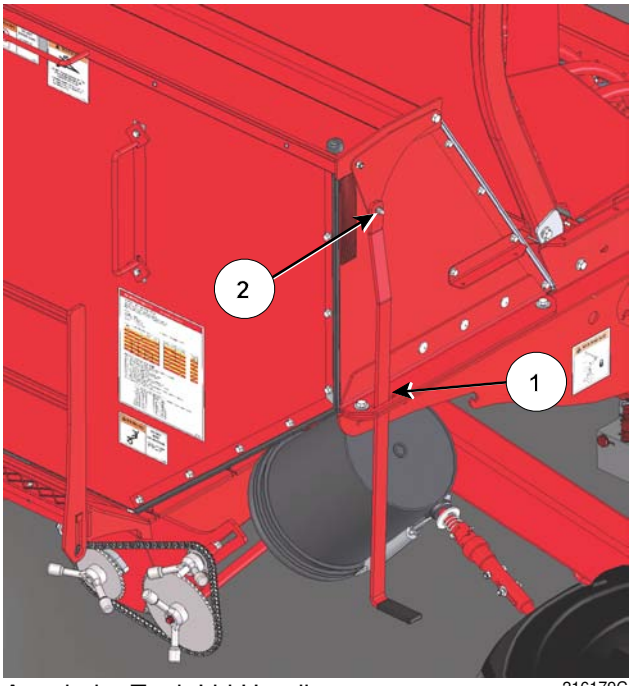
- Place the ladder (1) over the mounts (2) on the auger housing.
- Slide the ladder hinge bar (3) through the ladder and the auger mounts.
- Fasten the hinge bar with a 1/4" x 1 3/4" bolt (4) and flange lock nut through the auger step and the hinge bar.



Attach Ladder to Auger Housing 216178C

37. Attach the tank lid handle.

- Feed the handle up through the slot (1) in the rear tank support.
- Attach the handle to the lid with a 3/8" x 1 1/4" bolt and flange locknut (2).



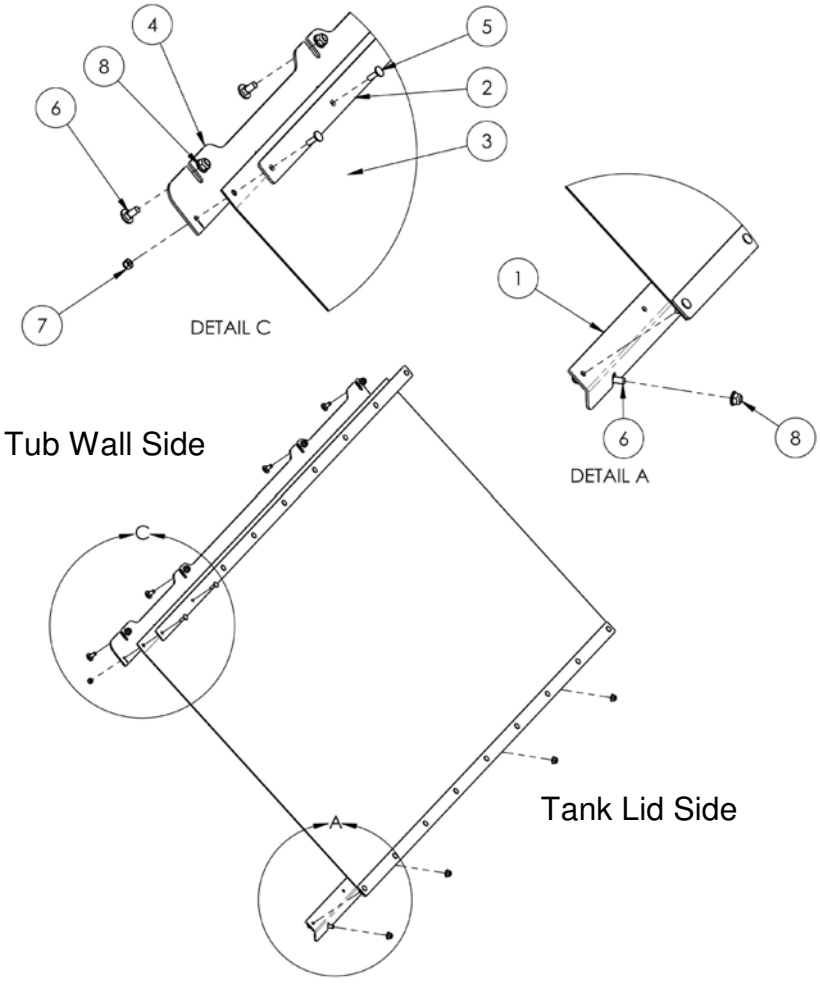
Attach the Tank Lid Handle 216179C

38. Attach the rubber grain tank cover to the tank lid and the upper tub deflector.

    - Use the parts and fasteners shown below.

Grain Tank Cover 216174

ITEM	DESCRIPTION
1	GT COVER,MOUNT,LID
2	GT COVER,BOLT PLT
3	TANK COVER BELTING
4	GT COVER, MOUNT,DEFLECTOR
5	BOLT,CARR,1/4X3/4,UNC,GR5,ZP
6	BOLT,CARR,3/8X3/4,UNC,GR5,ZP
7	NUT,NYLOCK,1/4,UNC,ZP
8	NUT,FLG,LOCK,3/8,UNC,GR5,ZP



Grain Tank Cover 42711_A

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

Finish the Assembly

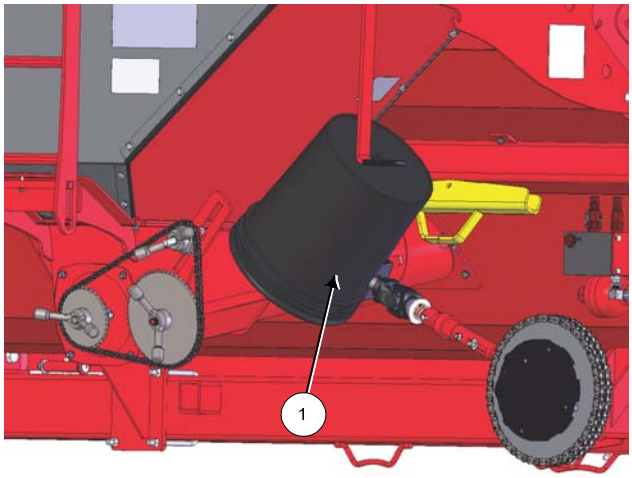
1. Mount the tire onto the hub.

2. Lower the CFR960 and remove the jack.

3. Place the calibration pail onto the holding bracket on the tank.

4. Place the weigh scale in the manual tube on the side of the Grain Tank.

5. If the drive wheel sprocket has been disengaged for long or high speed transport, give the end user the instructions on how to engage the sprocket into the chain and adjust the clutch drive.



Calibration Pail In Storage Position 216175C

End User - Engage the Clutch Sprocket Into The Drive Wheel Chain

If the clutch sprocket at the tire hub has been disengaged to enable long distance or high speed transport, follow these instructions to engage the sprocket.

The auger will not work unless the clutch sprocket is fully engaged into the double row chain at the wheel hub.

Park the CFR960 on level ground.

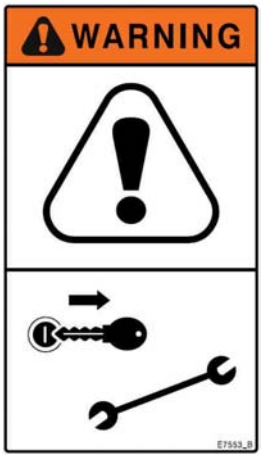
Lower the forks to the ground for additional stability.

Ensure the CFR960 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 CFR960 from the tractor hitch.

Block the machine to prevent any movement while assembling.



1. Jack up the CFR960 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.

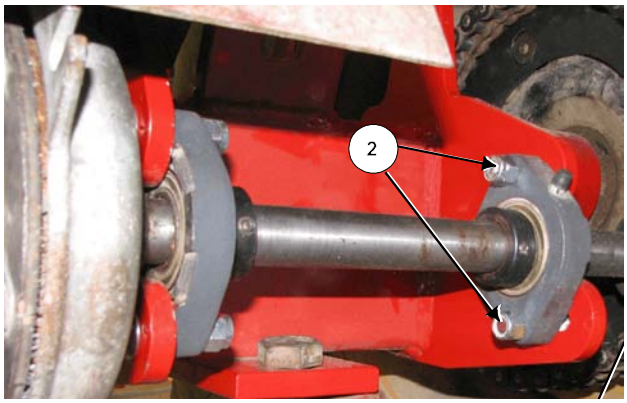
2. Remove the tire.

Jack Under the Left Frame 211191C

3. Rotate the outer clutch sprocket bearing to fully engage the clutch sprocket into the inner row of the drive 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.)

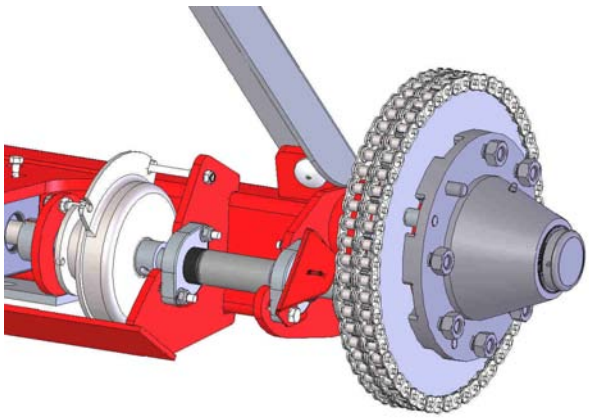


Rotate the Clutch Sprocket 211185C

4. Tighten the bolts on the outer bearing.

5. Replace the tire.

6. Lower the CFR960.



Double Row Drive Chain 217141