

## CB-01b: Rebuild Clutch (Torque Limiter)

### SAFETY FIRST

- Follow all Caterpillar facility safety standards when performing this task.
- Use caution when changing a clutch on machines. Moving equipment and rotating machinery can be hazardous.
- Verify lockout/tagout before working on machines.

### EQUIPMENT

- basic Maintenance Mechanic hand tools

### RESOURCES

- manufacturer's specifications

### Rebuild Clutch (Torque Limiter)

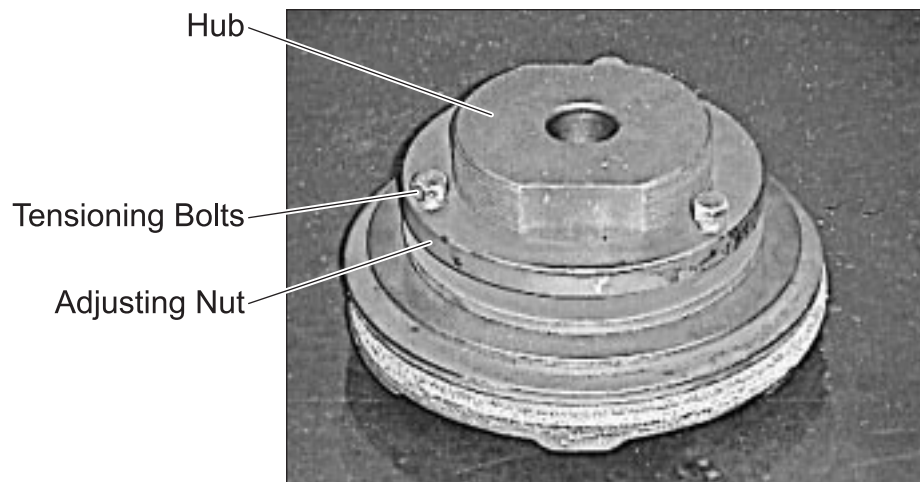
#### 1. Obtain the replacement parts.

- Locate the part in the crib or order the part as needed.
- Note the clutch code on the hub face.

#### 2. Lockout/tagout the machine.

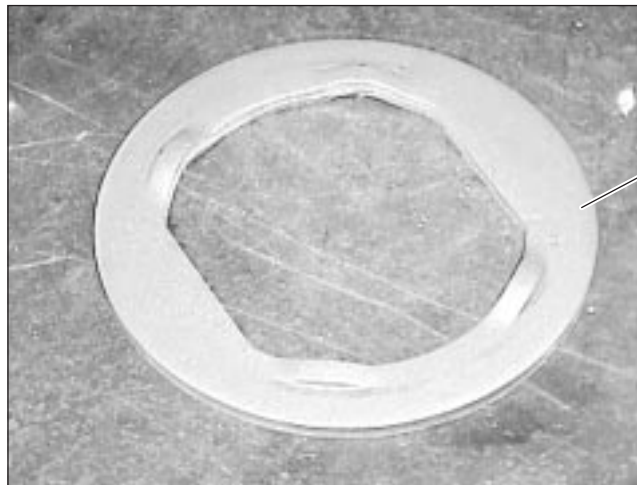
#### 3. Disassemble the clutch.

- Release the tension off the three tensioning bolts.



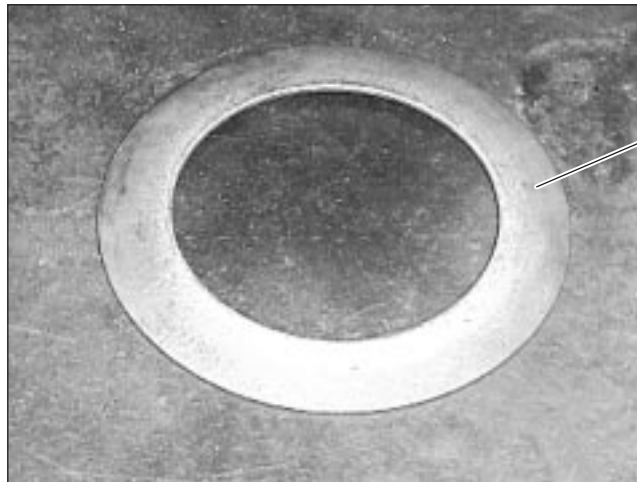
**Clutch (Torque Limiter) Assembly**

- Unscrew the adjusting nut.
- Slide off the spacer.



Spacer

- Remove the Belleville washer.



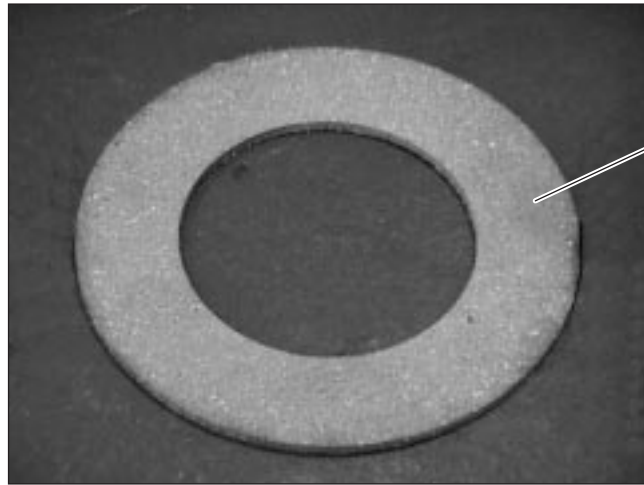
Belleville Washer

- Remove the compression plate.



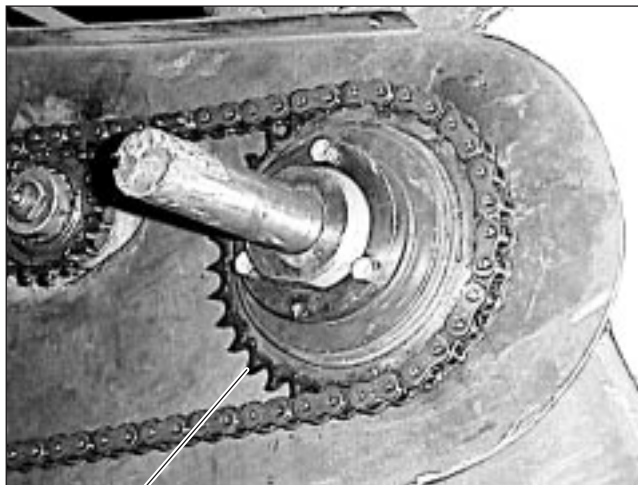
Compression Plate

- Remove the first fiber wear disk.



Fiber Wear Disc

- Remove the sprocket. The figure below is used to show a sprocket. The clutch assembly you are working with is already removed from the machine.

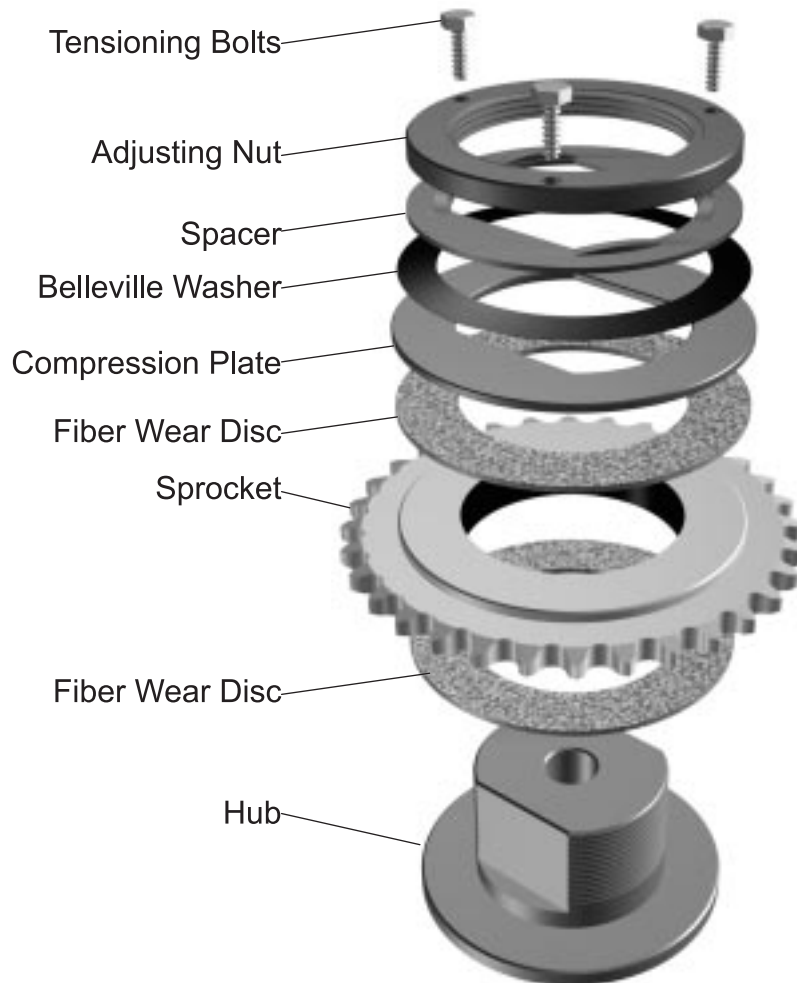


Sprocket

#### **Torque Limiter Sprocket Attached to the Machine**

- Remove the second fiber wear disk.
- 4. Replace any worn or damaged component(s).**
  - 5. Reassemble the clutch.**

- Slide one fiber wear plate onto the hub.
- Slide the sprocket onto the shaft.
- Slide the other fiber wear plate onto the hub.
- Install the compression plate.
- Install the Belleville washer with the groove side up.
- Slide on the spacer.
- Screw on the adjusting nut, being careful not to cross the threads.



## 6. Tension the clutch.

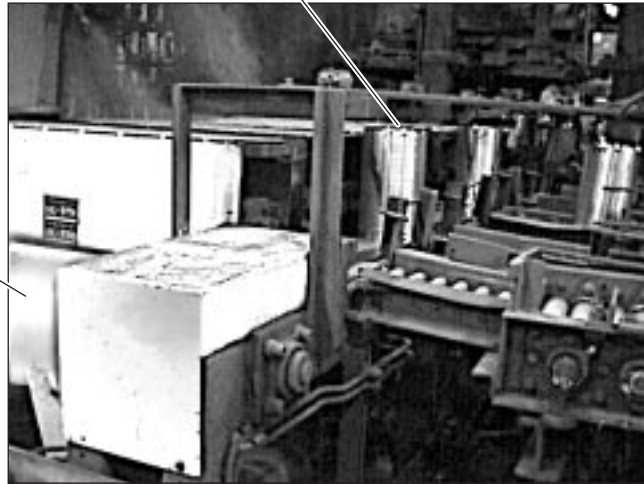
- Tighten the adjusting nut according to the manufacturer's specifications.

**7. Remove lockout/tagout.****8. Test the clutch.**

- Ask the Operator to cycle the machine.
- Apply the required load to the conveyor (i.e., run the product down the line).



Normal Machine Load

Torque  
Limiter Guard**Testing the Torque Limiter**

- Ask the Operator to observe the clutch with you, and verify the tension limiting during the cycle.
- Adjust the clutch tension as needed.

**9. Clean up the work area.**