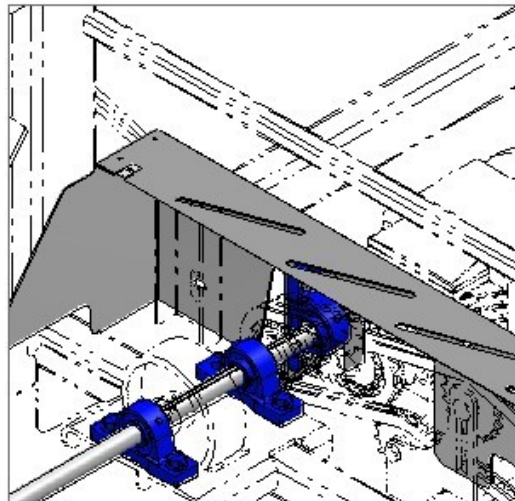
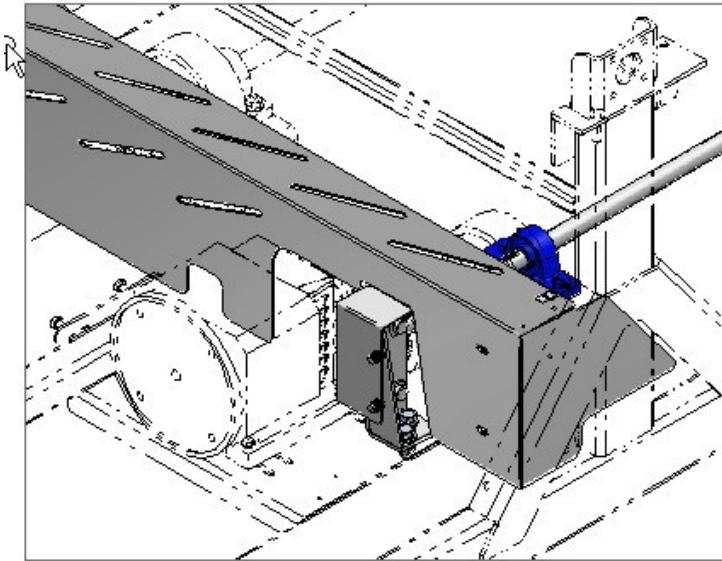




# LPV DRUM DRIVE BEARING ADD ON UPGRADE KIT

Kit Part Number: 13-05-0782



## Installation Manual

Document: TD-09-06-3048

Revision: A

## RECEIVING YOUR UPGRADE KIT

As soon as the kit is received, it should be carefully inspected to make certain that it has sustained no damage during shipment and that all items listed on the packing list are accounted for. If there is any damage to parts or quantity shortages, the purchaser must immediately notify USC, LLC. The purchaser is responsible for unloading and mounting all components of the equipment.

## TOOLS REQUIRED TO INSTALL KIT

- Sockets: 7/16" - 9/16" - 3/4".
- Wrenches: 7/16" - 9/16" - 3/4".
- SAE Allen Wrench Set.
- Flat Head Screwdrivers
- Vise Grips
- Hammer
- Punch
- Chisel
- Scribe
- Center punch
- Drill Motor
- Drill Bits (1/8" and 5/8")
- Emory Cloth
- Penetrating Oil
- Shop Towels
- 4" X 4" Blocks (2)
- Come Along or Forklift

## UPGRADE KIT COMPONENTS (13-05-0634)

Please verify that you have received the following parts in your kit. For more detail on how the parts are assembled, see the assembly on pages 11 - 13.

- 01-03-0060 = BRG PLW SEALED 1.00ID STSC (QTY = 6)
- 01-04-0007 = CHAIN OFFSET LINK 50P (QTY = 2)
- 05-03-1876 = WDMT BRG MNT BRKT LPV DRV (QTY = 1)
- 05-06-0155 = GRD BRG LPV DRV EXT (QTY = 1)
- 05-06-0156 = FRNT SHD, CHAIN GRD GALV EXT DRV (QTY = 1)
- 05-11-0560 = DRUM DRV SHAFT LPV 8 FT EXT (QTY = 1)
- 06-01-0025 = BOLT .500-13 X 1.50 ZP GR5 (QTY = 2)
- 06-01-0232 = BOLT FLG .500-13 X 1.250 ZP GR5 (QTY = 2)
- 06-01-0344 = BOLT FLG .250-20 X .625 ZP GR5 (QTY = 2)
- 06-03-0013 = NUT LOCK FLG .250-20 ZP GR5 (QTY = 2)
- 06-03-0015 = NUT LOCK FLG .500-13 ZP GR5 (QTY = 4)
- 06-05-0005 = WSHR FLAT .500 ZP (QTY = 2)

## INSTALLATION INSTRUCTIONS



Under no circumstance attempt to install this upgrade kit until power to the treater control panel has been disabled using the proper lockout tagout procedures.

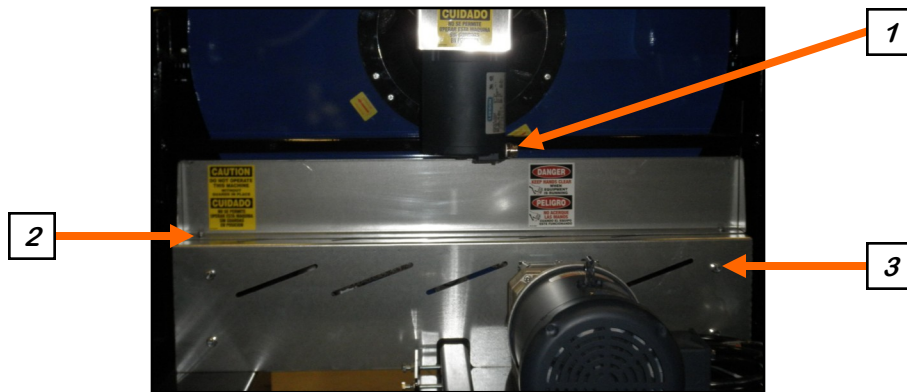


Do not discard any of the fasteners that are removed from the treater while installing this kit. They will all be reused.

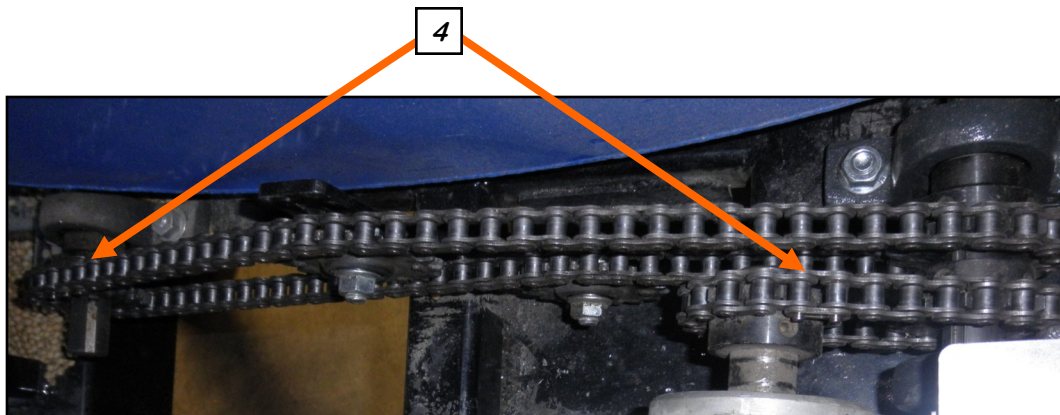
**STEP 1:** Disconnect Atomizer motor cable and set aside.

**STEP 2:** Use a 7/16" socket to remove the top drum drive assembly guard.

**STEP 3:** Use a 9/16" socket to remove the bottom drum drive assembly guard. After everything is reassembled you will be replacing it with a new guard (05-06-0156).



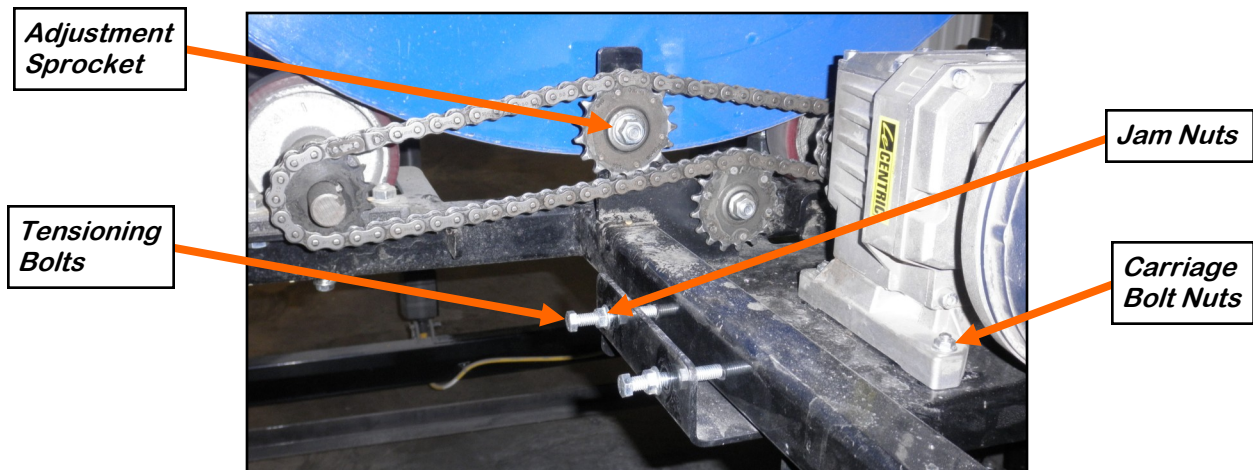
**STEP 4:** Rotate the drum manually until the master links for both drive chains are visible on top.



## INSTALLATION INSTRUCTIONS

**STEP 5:** Use a 3/4" wrench to loosen the tension adjustment sprocket on the chain between the two drive shafts. Slide it down to provide some slack. Remove the master link and set the chain aside.

**STEP 6:** Use a 1/2" wrench to loosen the four carriage bolt nuts on the motor gearbox. Back off the two jam nuts on the motor tensioning plate, then tensioning bolts to provide slack in the chain and slide the motor to the right. Remove the master link and set the chain aside.



**STEP 7:** Use a 9/16" socket to remove the treater drum guard from the drive side of the treater. Get a good coat of penetrating oil on all joints of the bearings, collars and drive shaft. This will give it a little time to work on any rust and corrosion making disassembly easier.

**STEP 8:** Using a piece of wood or steel as a lever, raise the drum and place one 4" X 4" block under the center (Bottom, Left) and one under the discharge end between the drum and the frame (Bottom, Right). Allow the drum to rest on the blocks.



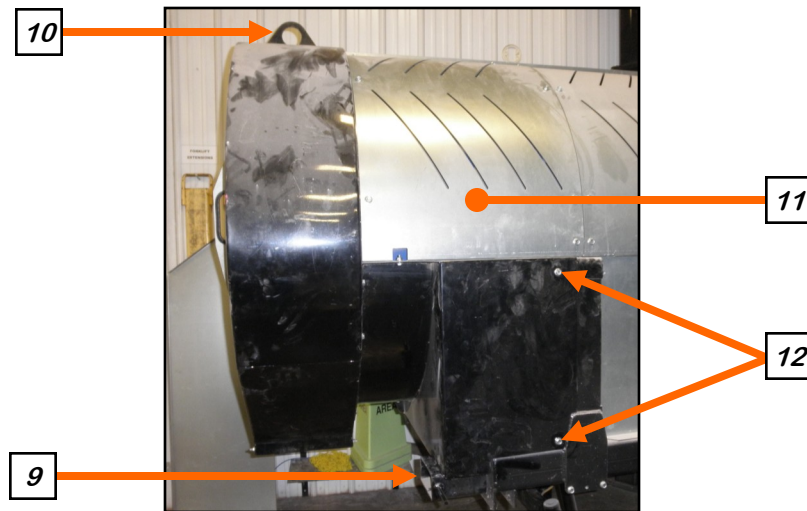
## INSTALLATION INSTRUCTIONS

**STEP 9:** Slide the forklift extensions out approximately three feet.

**STEP 10:** Attach a chain to the end cap and support it with a fork lift or come along.

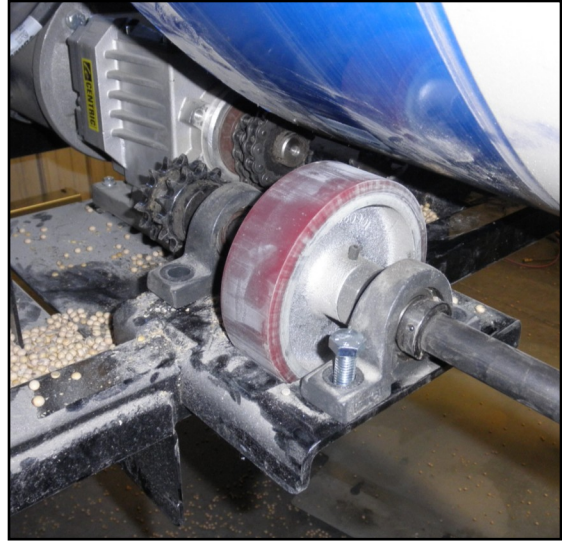
**STEP 11:** Leaving the two halves connected to each other, use a 9/16" socket and wrench to remove the sixteen bolts holding on the top drum guards next to the end cap and remove them.

**STEP 12:** Leaving the two corner guards attached to the end cap, remove the four corner guard bolts and slide the end cap and guards out to the end of the forklift extensions. The discharge end of the treater should look like the bottom image.



## INSTALLATION INSTRUCTIONS

**STEP 13:** From the drive side, use a 3/4” socket to remove the bolts from all of the pillow block bearings for the drive shaft assembly. Remove the entire assembly as one piece and take it to a flat workspace.



**STEP 14:** Set the new longer shaft on the bench next to it with the right side of both shafts even. Slide three of the new bearings (01-03-0060) onto the new shaft and locate them in approximately the same location as the three bearings inside of the drive wheels on the old shaft assembly.

**STEP 15:** On the left side, remove the drive sprockets, outside bearing, shaft collars, drive wheel and shaft key. On the right side, remove the outside bearing, shaft collars, drive wheel and shaft key. Discard the shaft and all of the old bearings. Thoroughly clean all dirt, grease and rust from the old components you will be reusing.

**STEP 16:** Starting on the right side of the new shaft, assemble the old shaft key, shaft collars and drive wheel. Slide one of the new bearings on the end and position the locking collar 1/8” from the end of the shaft. Torque the locking collar down. Once the assembly is reinstalled, all adjustments will be made right to left.

**STEP 17:** On the left side, assemble the old shaft key, shaft collars and drive wheel. Then the other shaft key and both sprockets.

**STEP 18:** Set the assembly back on the treater frame. Get the two bearings bolts started on all five bearings and run them down hand tight so the bearings can still move.



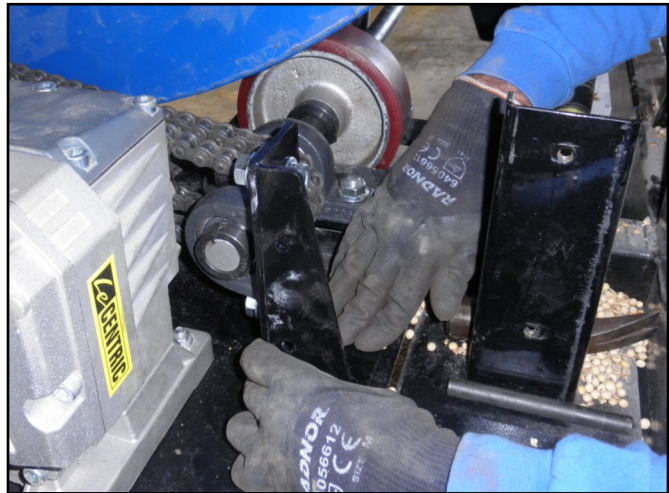
## INSTALLATION INSTRUCTIONS

**STEP 19:** Torque the far right bearing down completely. Working your way to the left, do the same with the other four bearings. Locate both drive wheels and set all of the shaft collars and torque them down.

**STEP 20:** Align the two sprockets and snug the set screws.

**STEP 21:** Slide the new bearing (01-03-0060) over the end of the shaft. Rotate it 90 degrees so that the mounting surface is vertical and assemble the new bracket (05-03-1876) to the bearing using two 1/2" bolts (06-01-0025) and lock nuts (06-03-0015). Leave hand tight.

**STEP 22:** Set the bottom of the bracket on the frame. Use a scribe to mark the diameter of the two offset mounting holes on the frame. Disassemble bracket from the bearing.



**STEP 23:** Use the center punch to locate the center of both holes. Drill a 1/8" pilot hole in both locations, then drill the final 5/8" holes. Remove any burrs and debris



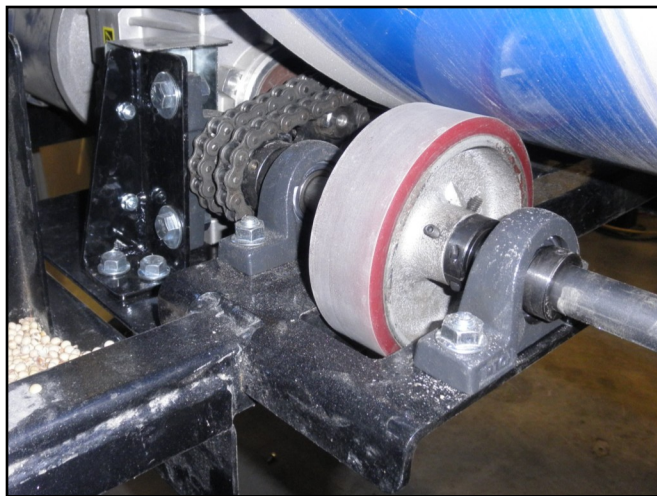


## INSTALLATION INSTRUCTIONS

**STEP 24:** Reassemble the bracket to the bearing, then attach the bracket to the frame using two 1/2" bolts (06-01-0232) and lock nuts (06-03-0015). Leave hand tight

**STEP 25:** Both the bearing and the bracket will be able to move slightly. Make sure that the bearing lockdown collar is at least flush with the end of the shaft. Torque down the bearing collar, bearing and bracket mounting hardware.

**STEP 26:** Assemble both chains back on using the two half links (01-04-0007) provided with the kit if necessary. Verify alignment and torque down the set screws on the sprockets. Set the chain tension.



**STEP 27:** remove 4" X 4" blocks from under the drum.

**STEP 28:** Make sure all tools have been removed from the treater. Reverse the lockout / tagout procedure to restore power.



**When running the treater without the safety guards, keep a safe distance from the machine. Do not touch anything or get close enough for loose clothing to get caught in the moving parts.**

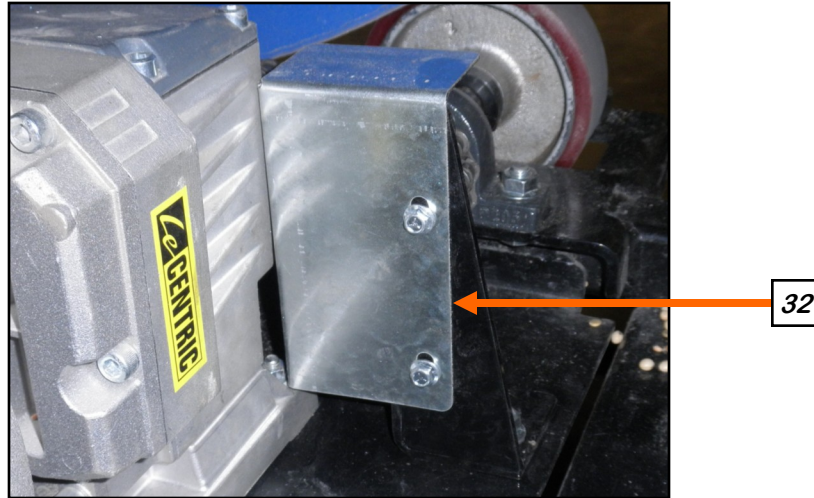
**STEP 29:** Run the drum at the minimum speed of 50% for a couple of minutes. Look at the chain drive from the side of the treater to verify proper alignment. Listen for any unusual sounds or anything that does not appear to be rotating smoothly. If everything appears normal, stop the machine and lubricate the drive chains before replacing the safety guards..

## INSTALLATION INSTRUCTIONS

**STEP 30:** Re-install the end cap and corner brackets. Detach the chain support and slide the fork pockets back in.

**STEP 31:** Re-install the drive side drum guard.

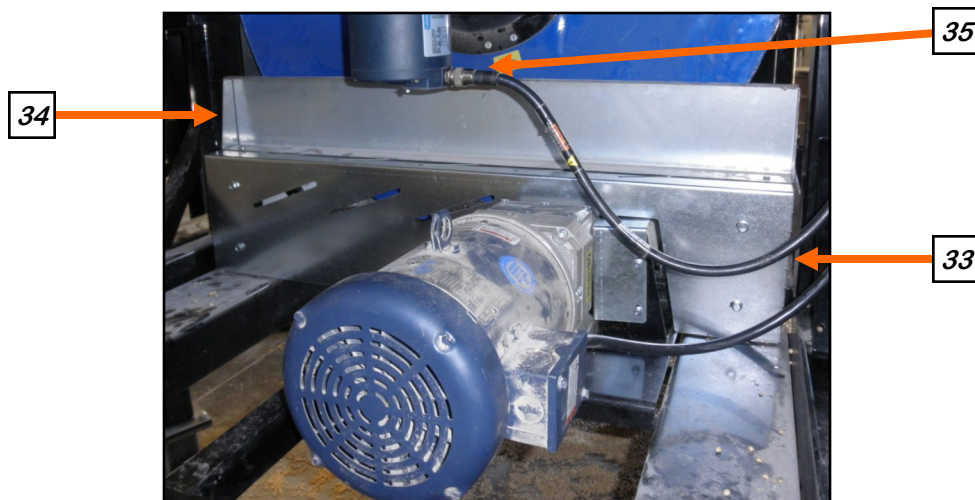
**STEP 32:** Assemble the small guard (05-06-0155) on the new bracket using two 1/4" bolts (06-01-0344) and lock nuts (06-03-0013).



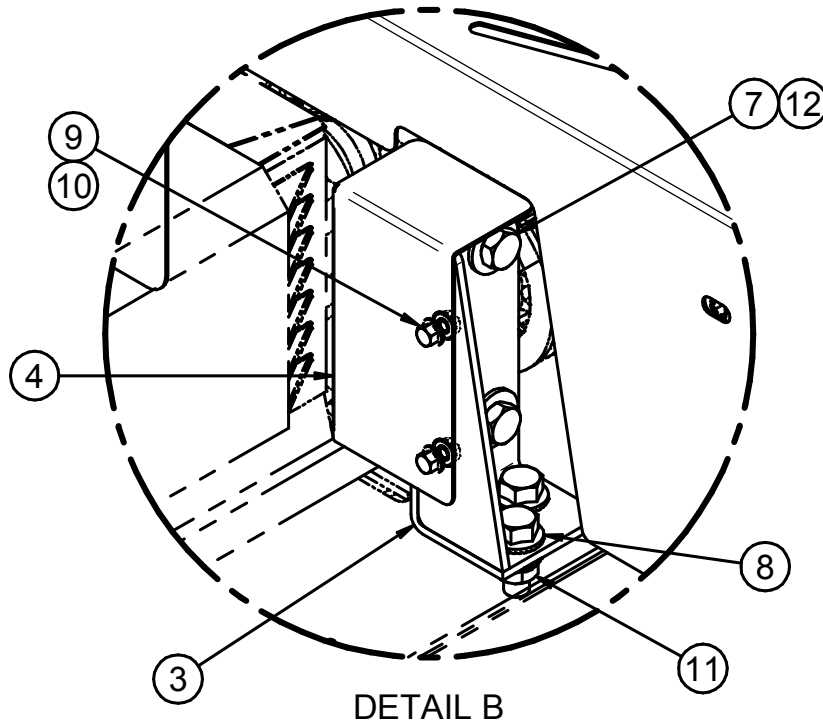
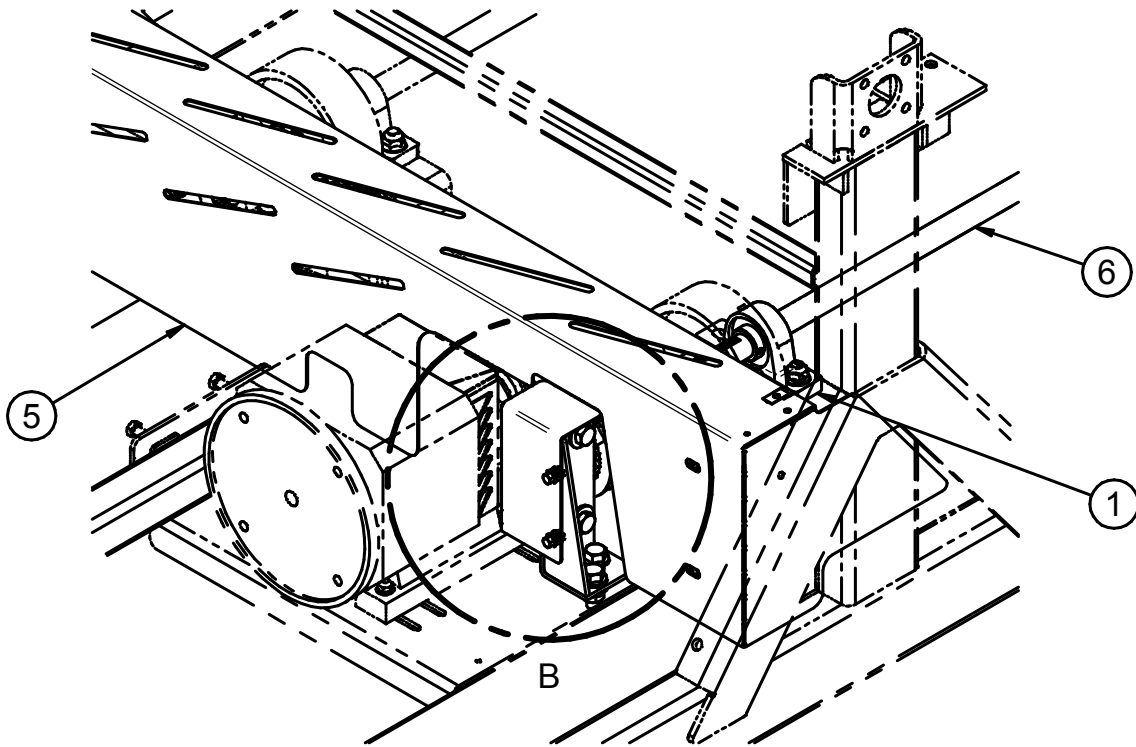
**STEP 33:** Assemble the new bottom drive assembly guard (05-06-0156) in place of the old one.

**STEP 34:** Assemble the old top drive assembly guard.

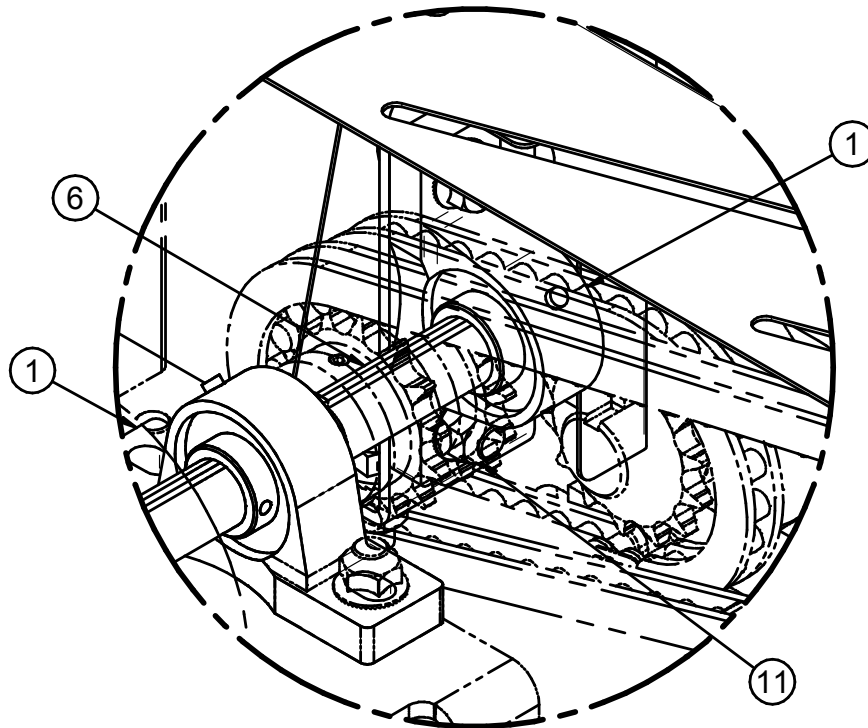
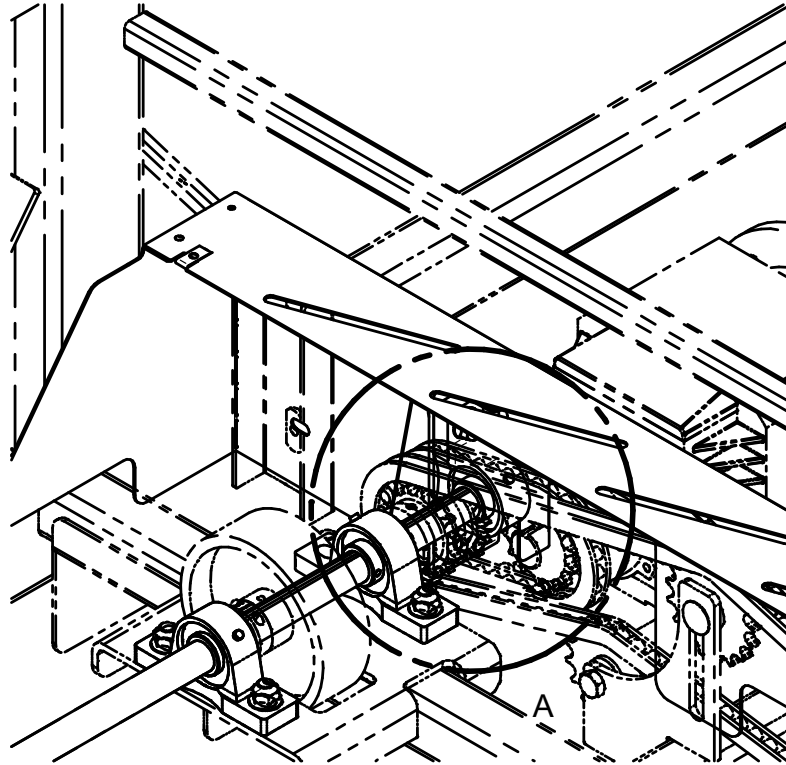
**STEP 35:** Re-connect the Atomizer motor cable.



# BEARING ADD ON KIT ASSEMBLY (13-05-0782)



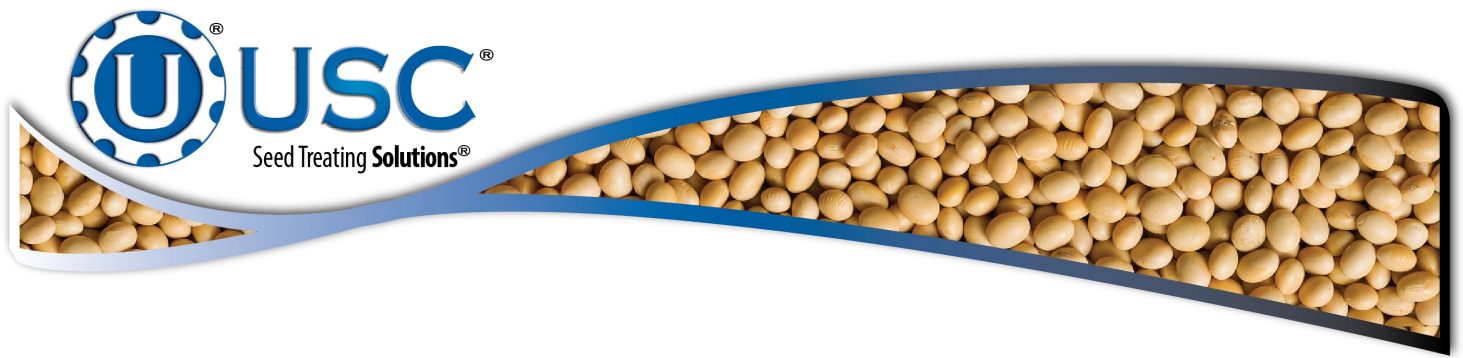
# BEARING ADD ON KIT ASSEMBLY (13-05-0782)



DETAIL A

## BEARING ADD ON KIT ASSEMBLY (13-05-0782)

Item #	Part #	Description	Qty
1	01-03-0060	BRG PLW SEALED 1.00ID STSC	6
2	01-04-0007	#50 OFFSET LINK	2
3	05-03-1876	WDMT BRG MNT BRKT LPV DRV	1
4	05-06-0155	GRD BRG LPV DRV EXT	1
5	05-06-0156	FRNT SHD, CHAIN GRD GALV EXT DRV	1
6	05-11-0560	DRUM DRV SHAFT LPV 8 FT EXT	1
7	06-01-0025	BOLT .500-13 X 1.50 ZP GR5	2
8	06-01-0232	BOLT FLG .500-13 X 1.250 ZP GR5	2
9	06-01-0344	BOLT FLG .250-20 X .625 ZP GR5	2
10	06-03-0013	NUT,LOCK, FLG .250-20 ZP SERRATTED	2
11	06-03-0015	NUT LOCK FLG .500-13 ZP GR5	4
12	06-05-0005	WSHR FLAT .500 ZP	2



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