

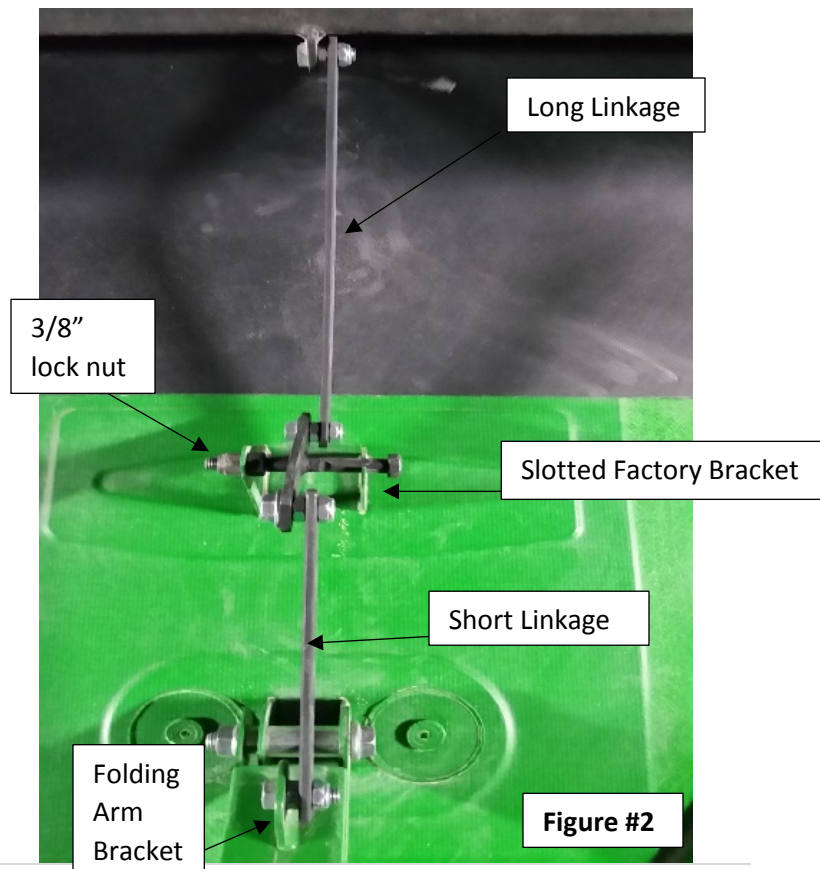
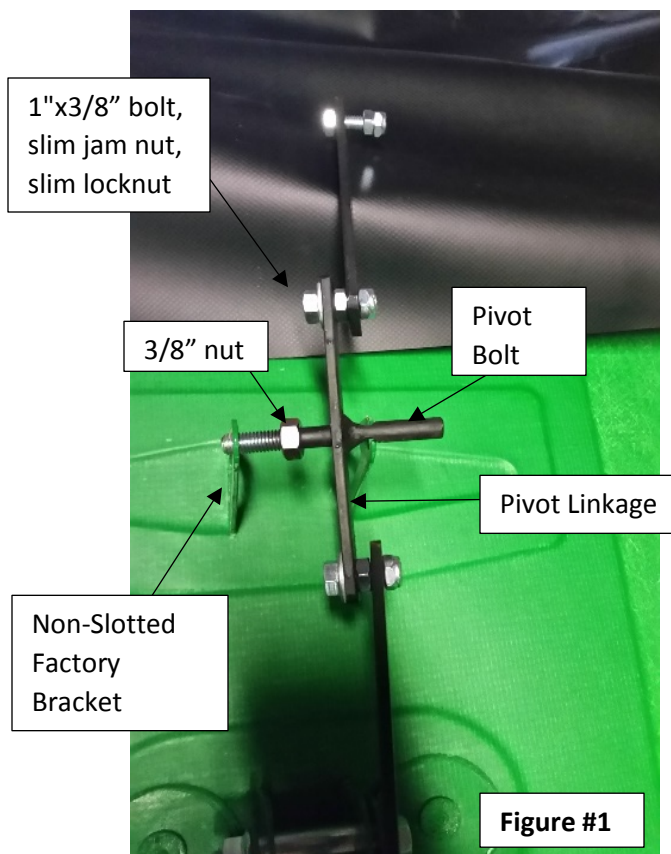
PHT X9-10 kit for JD X9 1000 Combines

Installation Instructions

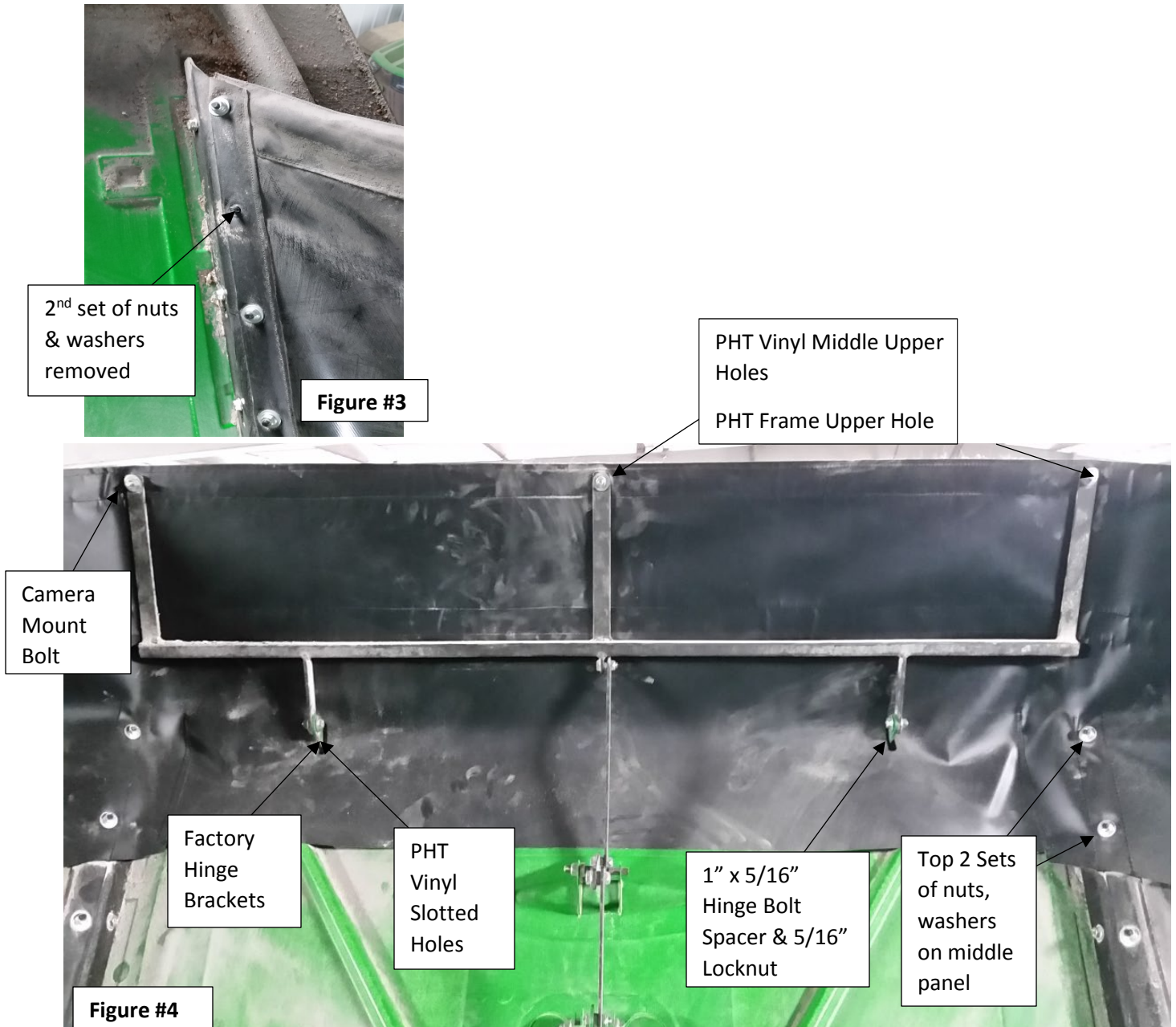
Tools Needed: Ratchet, 13 mm & 15 mm sockets, 13 mm & 15 mm wrench, cordless drill, 5/16" drill bit, sharpie marker, & silicone sealer

*Also helpful, magnetic tray to hold hardware, light duty cordless impact, flashlight, extendable magnet to fish dropped hardware from auger trough.

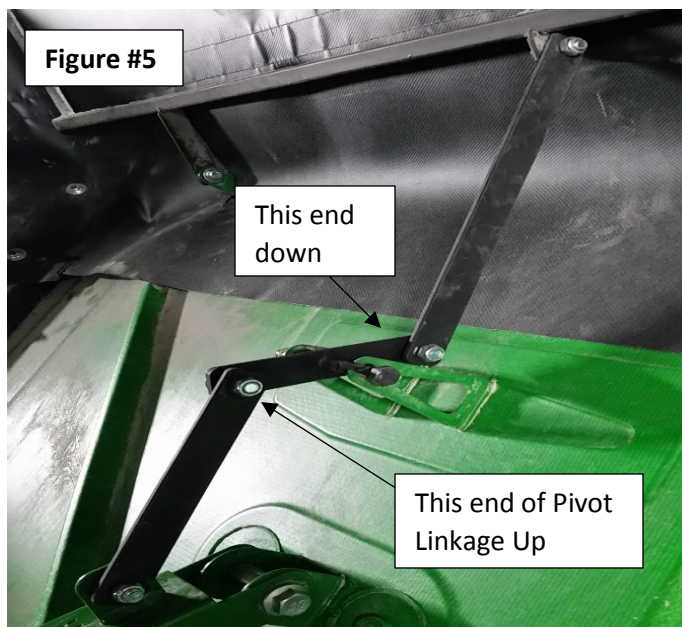
1. Observe normal closed position of combine hopper covers to see if there are any gaps between covers and grain tank because combines often come from the factory with some gaps. This is done to confirm if a gap is observed after kit is installed, whether it is the normal closed position or the result of the kit installation.
2. Open combine hopper covers, and access hopper from engine compartment. Front and rear extensions are identical using the same hardware and installation process.
3. Assemble folding mechanism as shown in figures #1 & #2. It can be partially pre-assembled by installing 3/8" regular nut to pivot bolt and tightening on the thread. Install 1" x 3/8" bolts to both pivot linkage holes using slim jam nuts and tighten. Install short and long linkages on pivot linkage bolts using 3/8" slim locknuts. Install pivot linkage on factory pivot brackets, by aligning notches in the pivot bolt to slotted factory bracket and sliding the threaded end of pivot bolt into non-slotted factory bracket, start regular 3/8" locknut on pivot bolt. (leave nut loose until all linkages are connected) Connect short linkage to factory folding arm bracket using 1" x 3/8" bolt, 3/8" slim jam nut and 3/8" slim lock nut. When long linkage is connected to PHT frame in step 5, locknuts on folding mechanism can be adjusted by first tightening then back off a 1/8" of a turn.



4. Remove the top two sets of nuts and washers (figure #4) from each side of middle panel where vinyl mounts to middle panel. Remove 2nd set of nuts and washers (figure #3) where factory vinyl mounts to sides.

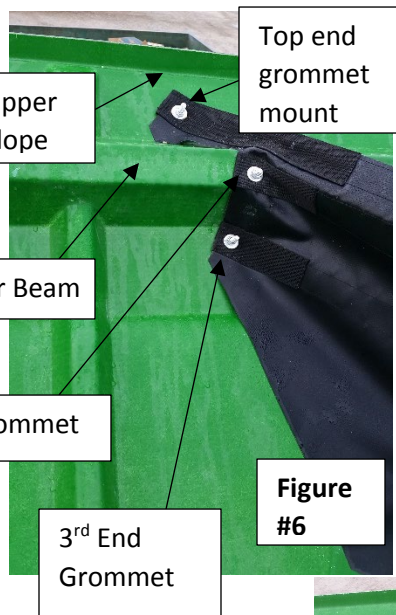


5. Locate the slotted holes in the mid-section of the PHT vinyl (horizontal strapping on outside) and put them over the factory hinge brackets. (figure #4) Mount the PHT frame (vertical brackets flush with outside of frame tubing) on factory hinge brackets, using 1"x5/16 bolt, spacer in factory hinge bracket and 5/16 lock nut. Attach upper/long linkage of the folding mechanism to the PHT frame using 1" x 3/8" bolt, 3/8" slim jam nut, and 3/8" slim locknut. If the metal frame is leaning out some at this stage, that is normal. Match the lower middle grommets to the factory bolts where nuts and washers were removed. Reinstall nuts and washers. Match the upper middle grommets to the PHT frame upper holes, and mount using 1" x 5/16" bolts with washers inside and outside, along with nuts. **UPDATE, INSTALL CENTER UPPER FRAME BOLT WITH THREADS ON THE OUTSIDE OR CUT OFF EXCESS THREADS ON THE INSIDE, MORE INFO ON LAST PAGE.** Reinstall grain tank camera to top left of front PHT frame bolt and adjust camera for best position.
6. **Make sure folding mechanism is positioned as shown in figure #5, with pivot linkage end connected to upper long linkage positioned down, closest to fiberglass panel, and pivot linkage end connected to lower short linkage positioned up and away from fiberglass panel.**

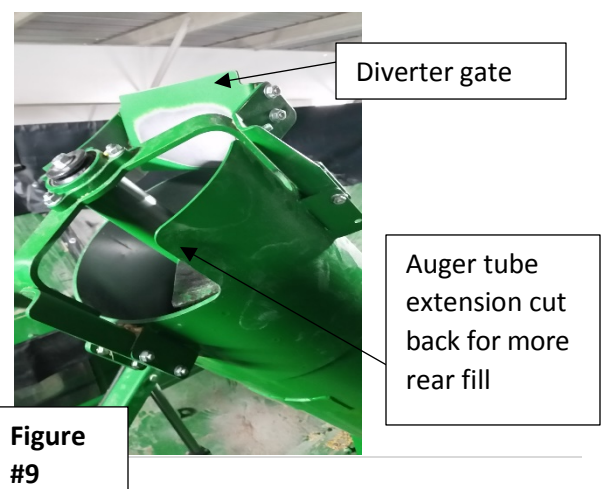
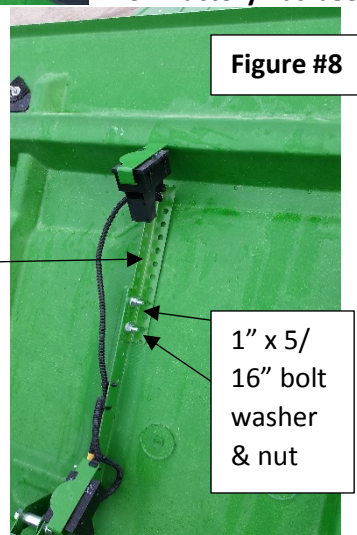
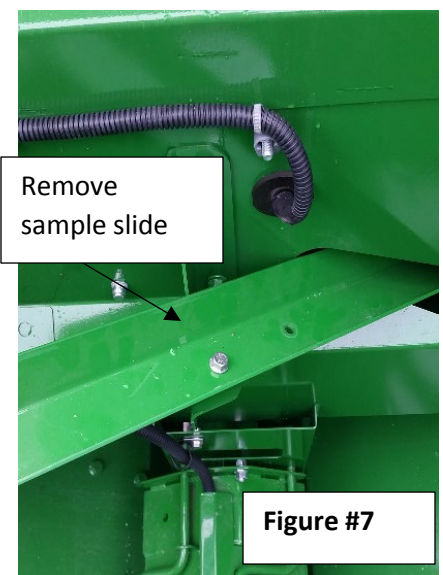


7. Match the 1 lower-end grommets to the side cover factory bolt, where nut and washer were removed in figure #3, then reinstall washer and nut. **All end mounting bolts are installed with threaded ends on the inside, washers with silicone on the outside, washers, and nuts inside.** (figure #6) Mount top end grommet to upper slope of the side covers by pulling the vinyl tight and holding it to the sides at the grommet, then pull backward if installing front vinyl (forward if rear vinyl) until there is a finger thickness gap between grommet and side, and mark grommet location with sharpie marker or drill bit through grommet. Then drill 5/16" hole through side and mount using 1 1/2" x 5/16" bolt, washers, and nut then tighten. Mount the 2nd end grommet to the middle of stiffener beam. Drill 5/16" hole through stiffener beam to the outside. (run drill in and out to clear debris from hole) Install 4" x 5/16" bolt,

washers, and nut then tighten, but do not overtighten because the stiffener beam fiberglass is thin. Mount the 3rd end grommet to side just below the 2nd end grommet location by drilling hole through side, installing 1 1/2" x 5/16" bolt with washers, and nut then tighten. Repeat step #7 for the other end of the vinyl panel.



8. Remove sample slide from grain tank. Figure #7
9. Figure #8, remove grain tank full sensor and mount extension bracket to the top end of the factory bracket using 2) 1" x 5/16" bolts, washers, and nuts. Relocate grain tank full sensor to the extension bracket and use zip ties to secure wiring. (Not done yet in picture)
10. **Double-check all kit hardware locations for tightness. If new combine installation, check factory-folding arms for hardware tightness also..Hardware from factory has been found lose.**



Tips:

1. Procedure for first time folding grain tank after kit installation. The grain tank close button both starts and stops the closing process. As you are closing grain tank, stop and start a few times to get feel for button responsiveness, then stop when about 2/3-3/4 closed. Either have somebody standing on engine compartment watching or be looking through the cab window into grain tank, to see if there is clearance between the left rear PHT frame/vinyl and the left rear grain tank folding arms (unloading auger side of grain tank), it will be a close fit. If clearance looks good, continue to carefully “start-stop” the closing process, looking and/or listening to see if grain tank is closing smoothly, nothing catching.
2. One prototype operator reported that the grain tank filled heavy to the front and to the left side. In that case, the diverter gate, figure #9, was tilted almost parallel with the auger tube. Adjust gate so it is more vertical, this should allow more right side and rear fill. If more rear filling is desired, cutting back the extension on the augers backside, figure #9, may help.

For more installation help, call Gilles at 765-348-9201

2022 update

It has come to my attention that the center top frame bolt threads can catch on the factory folding arm when folded down. To resolve this issue, install the center bolt with the excess threads on the outside or cut off excess threads on the inside as shown in picture below.

