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HydraFiber[®] Processing Unit Technical Bulletin: Post Break-In Shaft Adjustment

Document Description: TSB- Post break-in shaft adjustment

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Product: AgriNomix HydraFiber® Processing Unit

RE: Bearing collar set-screw working loose on shredder and mixer shafts

Solution: Establish proper shredder and mixer shaft axial placement. Secure set screws

Parts Required: Thread lock Compound

As a result of minor vibrations and harmonics associated with high rotational speeds and internal preloading of both the shredder and mixer shafts, the HydraFiber® Processing Unit may experience loosening of the shaft bearing collar set-screws. Consequently, AgriNomix has issued a procedure to eliminate the likelihood of any related issues. This procedure is considered a critical preventative measure. All bearings which are part of the high-speed shredder/mixer subassembly should be addressed. This procedure should be completed upon 40 hours of machine run time. Failure to do so could cause bearing and shaft damage. This technical service bulletin contains all steps necessary for ensuring proper shaft position and securing set-screws. **Please read entire document before initiating procedure. All maintenance must be performed by qualified personnel. Ensure power is off and proper electrical lockout/tagout procedures are observed before initiating any maintenance.**

1. To gain access, open right-front upper and lower doors. Open left-front upper and lower doors. **Note:** A bungee cord may be utilized on upper doors to retain them. **See Figure 1.**

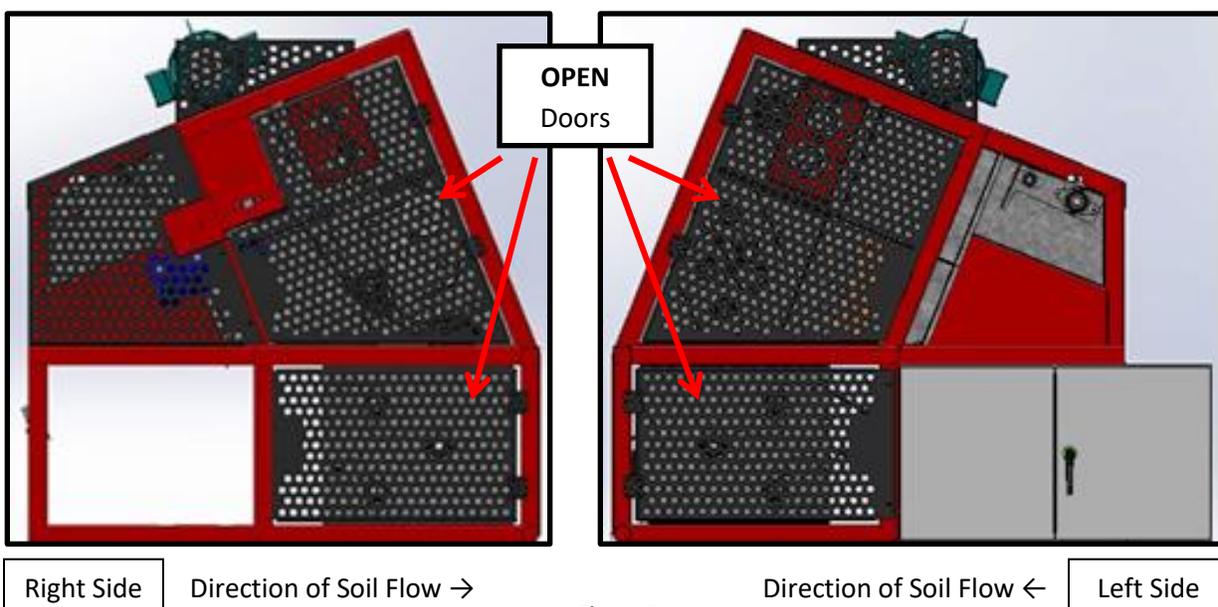


Figure 1

- Concerning each shaft, “critical side” refers to pulley side. “Bearing side” refers to the opposite end of shaft, which **does not** utilize a pulley and is bearing only. These references will aid in locating components. **See Figure 2.**

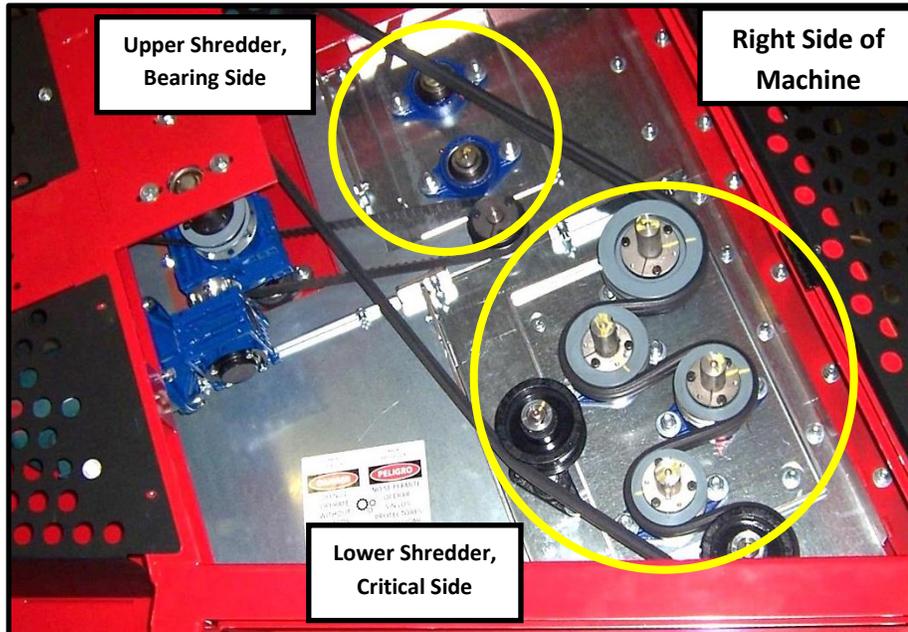


Figure 2

- Begin procedure on the right side of machine. Locate upper shredder roller shafts, bearing side. There are two (2) shafts. **See Figure 2.**
- Loosen the two (2) set screws in each bearing collar.
- Strike each bearing housing with a hammer. This should free-up any preload within shaft.

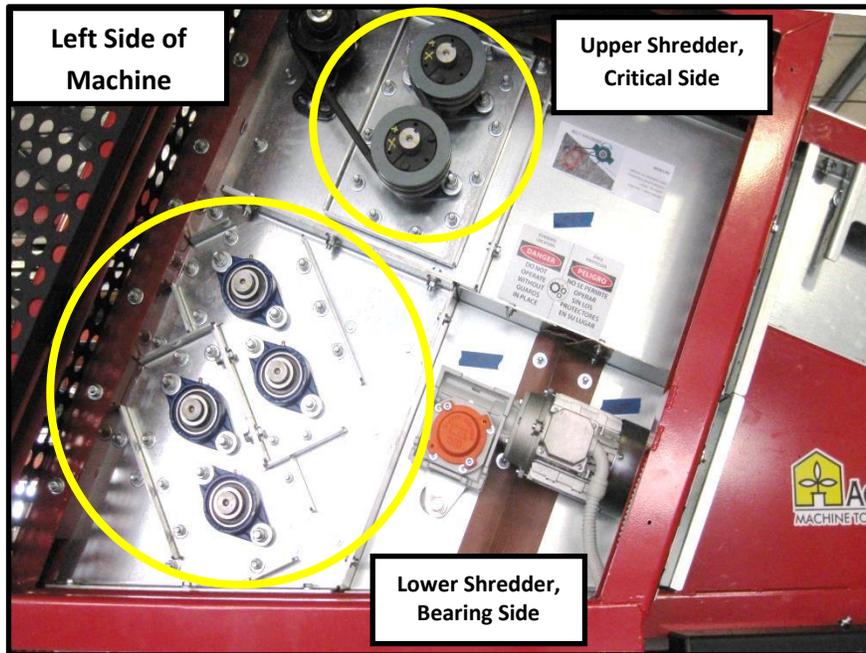


Figure 3

6. Proceed to the left side of machine. Locate lower shredder roller shafts, bearing side. These are the four (4) shafts near the middle of the machine. **See Figure 3.**
7. Loosen the two (2) set screws in each bearing collar.
8. Strike each bearing housing with a hammer.

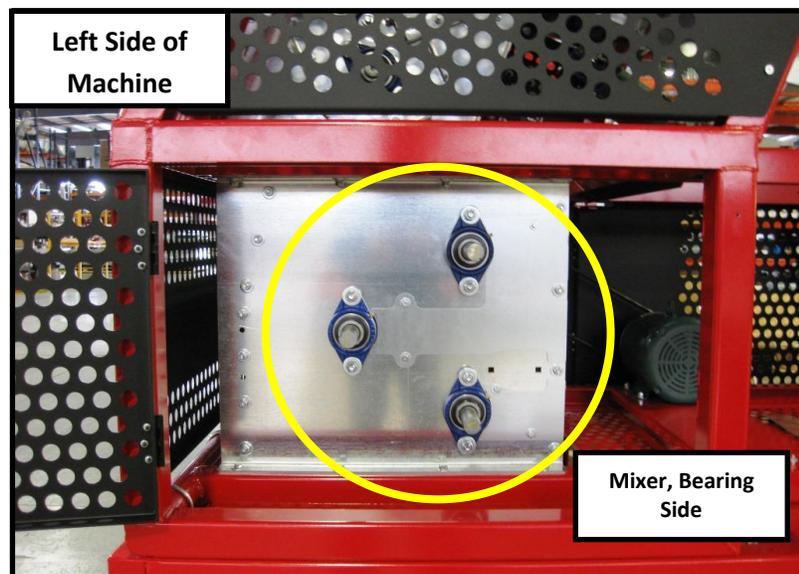


Figure 4

9. Locate mixer roller shafts, bearing side. These are the three (3) lower-most shafts. **See Figure 4.**
Note: Bearing side will be located on the same side as the control panel.
10. Loosen the two (2) set screws in each bearing collar.
11. Strike each bearing housing with a hammer.
12. Close and secure all doors.

13. Note settings on control panel. Set “SYSTEM” TO “MAN”; set “HOPPER” to “OFF”; set “FIBER” to “OFF”; set “WATER” TO “OFF”. **See Figure 5.**
14. Switch main power on. Depress “START/RESET” button.
 - This will allow machine to run in manual mode. The shredder and mixer motors will begin to run.
 - It is necessary that both shredder and mixer motors are running.

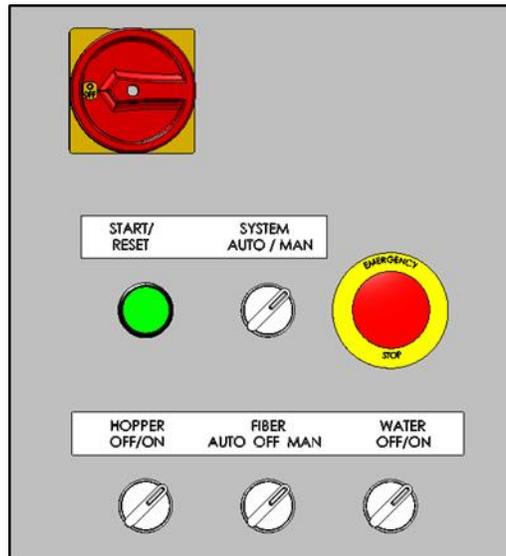


Figure 5

15. Allow machine to run, idle, for 10-15 minutes.
16. When idle period is complete, depress “EMERGENCY STOP” button and switch main power off.
17. Perform proper electrical lockout/tagout procedures before continuing.
18. Re-open and retain right-front upper/lower doors and left-front upper/lower doors.
19. Starting from top of machine, on either right or left side, locate bearing housings of set-screws which were loosened. Strike uppermost bearing housing with a hammer.
20. Work from top to bottom until each bearing which contains loosened set-screws, has been addressed.
21. Proceed to opposite side, repeating the same process.
22. Working from top to bottom, remove each set-screw individually, apply thread lock compound, reinstall screw, and tighten to ~70 in/lbs. **Note:** There are two (2) set-screws per bearing. Utilizing a paint pen or Sharpie®, mark each collar when tight (this is a service indicator).
23. Proceed to opposite side, repeating the same process.
24. On the critical side (pulley side) of each shaft, working from top to bottom, loosen and remove the two (2) set screws in each bearing collar.
25. Apply thread lock compound, reinstall, and tighten to ~70 in/lbs. Utilizing a paint pen or Sharpie®, mark each collar when tight (this is a service indicator).
26. Follow this for all bearing collar set-screws on the critical side of each shaft until all have been addressed and fully tightened.
27. Close and secure all doors.
28. Return switches to proper/previous settings.
29. Switch main power on and depress “START/RESET” button.
 - The machine is now activated and ready to process soil.