

Grow Better Margins and Better Plants



HydraFiber[®] Processing Unit: Coarse Shredder Roller Replacement

Coarse Shredder Roller Replacement

It is recommended:

- that minimally three(3) hours are allocated to complete this task
- that two men are assigned to complete this task
- to use leather gloves when working with shredder rollers
- to use two ladders or a forklift to elevate workers
- to retain shipping crate for roller storage and rewire program
- to install new set-screws

To remove rollers:

- 1) Open upper left and right front doors completely. Retain doors in open position.
- 2) Remove upper-front guard (large black grille at front of machine).
- 3) Remove the top and front hatch covers (or the large top panel which mount the hatch covers).
- 4) Remove upper shredder belts.
- 5) Measure and record length of each shaft protruding from the end of the pulley (taper-lock bushing/sheave).
- 6) Loosen and remove bushing and sheave from each shaft.
- 7) Remove keys.
- 8) Lubricate shafts with penetrating oil, both right and left side.
- 9) Loosen all bearing set-screws, both right and left side.
- 10) Remove nuts and washers fastening bearing housing to side plates, both right and left side.
- 11) Remove bearings from roller shafts, both right and left side. Rollers will now be sitting between the side plates, on one another.
- 12) Thread nuts back onto hardware to retain carriage bolts when the rollers are removed.
- 13) On left side, remove 3/8" nuts and washers retaining rectangular plate; there are a total of 12 studs.
- 14) Carefully slide plate over studs and completely remove plate.
- 15) If tensioner interferes with plate removal, mark tensioner arm position with paint pen and remove.
- 16) Place one man on top of machine and one on left side.
- 17) Utilizing leather gloves reach through the hatches and slowly work upper roller out left panel.
- 18) Work roller out and rest right end shaft on lower roller, while man on ladder holds other end, awaiting assistance.
- 19) Man on top of machine must descend to assist other man in completely removing roller.
- 20) Walk roller down ladder and set aside.
- 21) Remove lower roller in similar manner.

To install rollers:

- 1) Utilizing leather gloves, insert short end of shaft first into left panel.
- 2) One man must go on top of machine to assist in fully inserting the lower roller into machine.
- 3) Slide right shaft through lower hole on right panel. Allow roller to rest on rollers below.
- 4) Install the upper in like manner.
- 5) Work left plate over shafts and eventually working the plate over the studs.
- 6) Install hardware to retain plate and fully tighten.
- 7) One by one, remove nuts retaining carriage bolts to plate. Carriage bolts should be trapped between roller and plate.
- 8) One by one, slide **bearing shim plate** and bearing over shaft and work them over carriage bolts.
- 9) Install and lightly tighten hardware.
- 10) When all four bearings have been installed, fully tighten lower roller bearings to side plates.
- 11) To set gap between rollers, slide a piece of sheet metal between rollers. 20-gauge sheet metal is sufficient, as a 0.035" gap is ideal.
- 12) Fully tighten upper roller bearings to side plates.
- 13) Remove sheet metal.
- 14) Looking through hatch, adjust rollers side-to-side until centered.
- 15) Apply thread lock to set-screws, install, and fully tighten.
- 16) Referring to measurement of shaft protrusion in removal step (5), install and adjust pulleys. Taper locks should be torqued sequentially; first step to 54 in. lbs., second to 108 in. lbs.
- 17) Install tensioner if removed in earlier step.
- 18) Confirm pulley alignment and install belts. Adjust if necessary.
- 19) Install top and front hatch covers (or the large top panel which mount the hatch covers).
- 20) Install upper-front guard.
- 21) Close and secure upper left and right front doors.