How to Change Arbor Bearings

INSTRUCTIONS FOR REPLACING THE 54-20 ARBOR BEARINGS

ON THE WILLIAMS & HUSSEY ORIGINAL MOLDER

Fixed feed rate machine

1. DISCONNECT POWER

2. Remove chip deflector (54-3).

3. Raise head (54-2) 4" to 5".

4. Remove two pressure screws 54-25, guides 54-26 and springs 54-24 REV A from infeed swing arm, P-100.

5. Drive out one or two (older models had two) 3/16" dowel pins. (These pins join the chain guard to the head). Newer machines do not have this pin.

6. Remove the 54-16 rest pin from under infeed swing arm. A long screwdriver works best. Allow swing arm to swing down to its lowest position. Remove four hex bolts holding power unit to the machine. Newer machines have three bolts.

7. Pivot feed unit assembly down on infeed end of the machine, remove short chain, then pull power unit out approximately 1" to free primary shaft from end of arbor. Push feed unit toward outfeed end of machine to allow slack in long chain. Remove long chain from outfeed roller sprocket. Feed unit is now free from machine. At this time, check the condition of fiber drive coupling (P-117) in the slot in the end of the arbor.

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8. Remove 2-1/2" (54-28) pulley from arbor.

9. Loosen the two set screws in each bearing collar 2 or 3 turns.

10. Clean and deburr long end of arbor so bearing will slide off shaft. Coat shaft with WD-40.

11. Tap long end of arbor with a soft hammer or block of wood and a hammer until arbor pushes the gear box side arbor bearing out of its hole. If you have an arbor press, press the bearing off the arbor, otherwise, tap the bearing off by going around and around the outer race.

12. Now, to get the remaining bearing out of the machine, put a block of wood between the head and base of the machine.

13. Loosen the elevating screw collar 54-7 (#CL-10-F) and crank the elevating screw up far enough to clear the bearing.

14. Remove head locking handle and bolt, 54-22 and 54-21.

15. Tap out 54-20 arbor bearing from the inside of the head.

16. Wipe out the head bearing holes. Clean and spray arbor shanks with WD40.

17. CAUTION: A tool that presses only on the outer race of the bearing should be used to install the new bearings. Hard tapping on inner race, against the outer race can destroy a bearing before it ever gets a chance to be used.

18. Clean ID of new bearing and install on pulley end of head.

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19. Tap bearing in until it is not quite flush with head casting. The casting has a tapered vertical surface and if the bearing is driven tight against the head casting, the bearing will cock slightly out of position.

20. Slide the long end of the arbor shank into the bearing just installed in the head.

21. Position the second bearing onto the short arbor end and into its hole. Tap into place. This bearing can be driven until ring touches the machine head.

22. Centralize the knife mounting area on arbor to the inside walls of the head casting, not the wall immediately adjacent to the bearing but the wall that the swing arm attaching holes are tapped into.

23. Lock down two set screws in each bearing collar using medium strength thread locker.

24. Re-install 2-1/2" (54-28) pulley. It needs to be directly in line with the motor pulley. Use medium strength thread locker on this set screw.

25. Screw down elevating screw (54-11) to operating position. Put a couple of drops of oil under crank handle.

26. Reposition elevating screw locking collar 54-7.

27. Re-install head locking bolt (54-22), washer (54-48) and locking handle (54-21).

28. Re-install the power unit