RUNG REPLACEMENT

MATERIALS NEEDED:
1. Wood 2 X 4 wider than the inside width of the ladder
2. Replacement rung, bushings, and spacers
3. Hack saw
4. Two wrenches large enough to fit 3/4" nuts
5. Hammer
6. 3/4" threaded rod X 3'-0" long
7. Two 3/4" hex nuts (Grade B)
8. Two 3/4" flat washers
9. Motor oil (to be used as a lubricant)
10. Saw for cutting wood
11. Flat-bladed screwdriver

INSTRUCTIONS — this process requires two (2) people
1. Lay ladder section with damaged rung on two saw horses or other suitable support.
2. Clamp or secure ladder to support(s).
3. Cut out portion of damaged rung between ladder side rails. The cuts should be made about 1" from the side rails — see Illustration "1".
4. Insert hack saw blade through rung section that is still inside rail — see Illustration "2".
5. Carefully saw through bushing. Use caution to not saw through the rung into the side rail. Place the screwdriver against the inside end of the bushing and tap it out of the rung.
6. After removing the bushing, carefully saw almost through the rung, being careful to stop before cutting into the side rail. Tap the rung out of the side rail.
7. Repeat process on the other rung end.
8. Measure the length the 2 X 4 is to be cut — as shown in Illustration "3". Cut 2 X 4 to this length.
9. To cut rung to required length, measure through a good rung on the ladder section and add 1/4". After cutting rung to required length, file inside of rung.
11. Squirrel or brush oil in each end of the rung.
12. Assemble parts as shown in Illustration "4".
13. Make sure rung sticks out equally on each side of the ladder.
14. Push replacement bushings into the end of the rung by hand.
15. Insert steel spacers into bushings until shoulder is against bushing.
16. Hand tighten the nuts against the spacers.
17. Check to make sure the rung is still sticking out equally on each side.
18. Lubricate the bushings with oil. This must be done periodically throughout the tightening process.
19. Push the bushings into the rungs by tightening the nuts. Make sure the 2 X 4 is held in place and the rung sticks out equally on each side. Note: The bushings may not be pushed in at the same rate.
20. Continue tightening until bushings are fully pushed in and flush with the end of the rung.
21. Loosen the nut and completely remove it from the threaded rod.
22. Pull threaded rod through the ladder and remove the spacer from inside the bushings.
23. Remove 2 X 4.
24. Wipe off excess oil.
25. Replace other rungs if needed.
26. Ladder section is ready to be reassembled and put back into service.

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