

Vintage Deagan Xylophone Bar Suspension Retrofit J. B. Smith

The bars on older Deagan xylophones rest directly on felt and string affixed to the top of the rails, limiting the bars ability to freely vibrate. Modern designs for most keyboard instruments suspend the bars on posts using string running through each bar's nodal point. There are two ways to modify older instruments to improve the instruments resonance:

A. replace the screws that separate the bars with posts and widen the distance between the rails as the nodal points are in line with the outside edge of the rails (instead of the middle with suspension systems). Careful measurements and woodworking skills will be required to design and fabricate the 4 pieces. Often, this will also lead to discarding the structurally significant metal pieces that cover the rail ends.

B. replace the screws with custom designed aluminum posts that will account for the additional distance between the posts and nodal points. Simply unscrew the old screws, drill out holes to accommodate the width of the new posts and tap in the new parts with a rubber hammer. .dwg CAD drawings of the posts are available for download at:

http://www.public.asu.edu/~idjbs/Xylo_Post_Final.dwg

http://www.public.asu.edu/~idjbs/Xylo_EndPost_Final.dwg

Give the drawings to a commercial workshop that specializes in laser cutting and they will be able to fabricate the pieces for about \$1.00 each. The pieces should be cut from 1/4" thick aluminum stock.

Post insulators (to prevent the bars from buzzing against the posts) can be cut from latex tubing that can be found at any local home improvement store.

