

Folded Horn Acoustic Guitar Patent # 10,177,172

Overlays

All SPL Predicted SPL Phase Predicted Phase Distortion Impulse ETC Step GD RT60 Clarity



This blue output is the high E string on the acoustic guitar only, no horns. I love this string on an electric guitar, it rocks, but I hate this string on an acoustic guitar, sounds so damn tinny. It seems that the horns mellow out this sound. I hear it, and am not sure how else to say it, good news!

I recorded each string played by itself. Six strings with acoustic guitar only, and six strings with acoustic guitar folded horn. I purposely kept the volume lower with the folded horns, to get frequency output from each, that could be compared with REW overlays. Very consistent.

| | | | | | | | | | | | |
|--|--|---------|---|--|---------|---|--|---------|---|--|---------|
| <input checked="" type="checkbox"/> 1: Oct 22 23:00:15 |  1/24 | 28.2 dB | <input checked="" type="checkbox"/> 2: Oct 22 23:00:50 |  1/24 | 25.0 dB | <input checked="" type="checkbox"/> 3: Oct 22 23:01:15 |  1/24 | 31.2 dB | <input checked="" type="checkbox"/> 4: Oct 22 23:01:37 |  1/24 | 20.6 dB |
| <input checked="" type="checkbox"/> 5: Oct 22 23:01:57 |  1/24 | 28.8 dB | <input checked="" type="checkbox"/> 6: Oct 22 23:02:11 |  1/24 | 28.4 dB | <input checked="" type="checkbox"/> 7: Oct 22 23:02:33 |  1/24 | 30.6 dB | <input checked="" type="checkbox"/> 8: Oct 22 23:02:44 |  1/24 | 31.0 dB |
| <input checked="" type="checkbox"/> 9: Oct 22 23:02:55 |  1/24 | 29.9 dB | <input checked="" type="checkbox"/> 10: Oct 22 23:03:07 |  1/24 | 33.0 dB | <input checked="" type="checkbox"/> 11: Oct 22 23:03:18 |  1/24 | 32.5 dB | <input checked="" type="checkbox"/> 12: Oct 22 23:03:25 |  1/24 | 27.6 dB |

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1.50"
radius

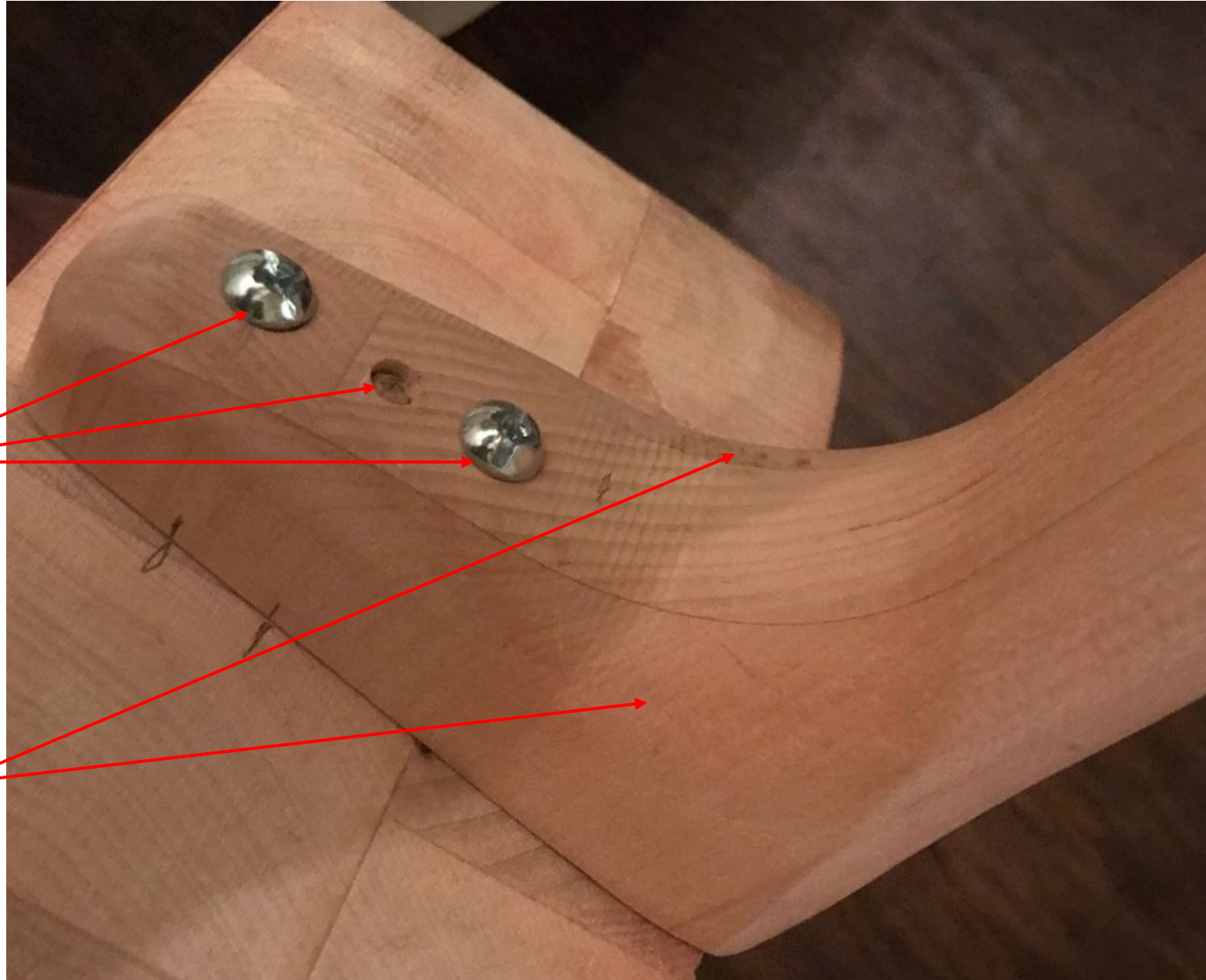


Large 1.50" radius provides great strength to neck. Tested with 50 lbs. tied to neck head, bounced like crazy. Moved easily .25" up and down , will not crack, very ductile. Truss rod in neck will help with adjustment if needed.

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Two screws
with double
nuts and
wood dowel.

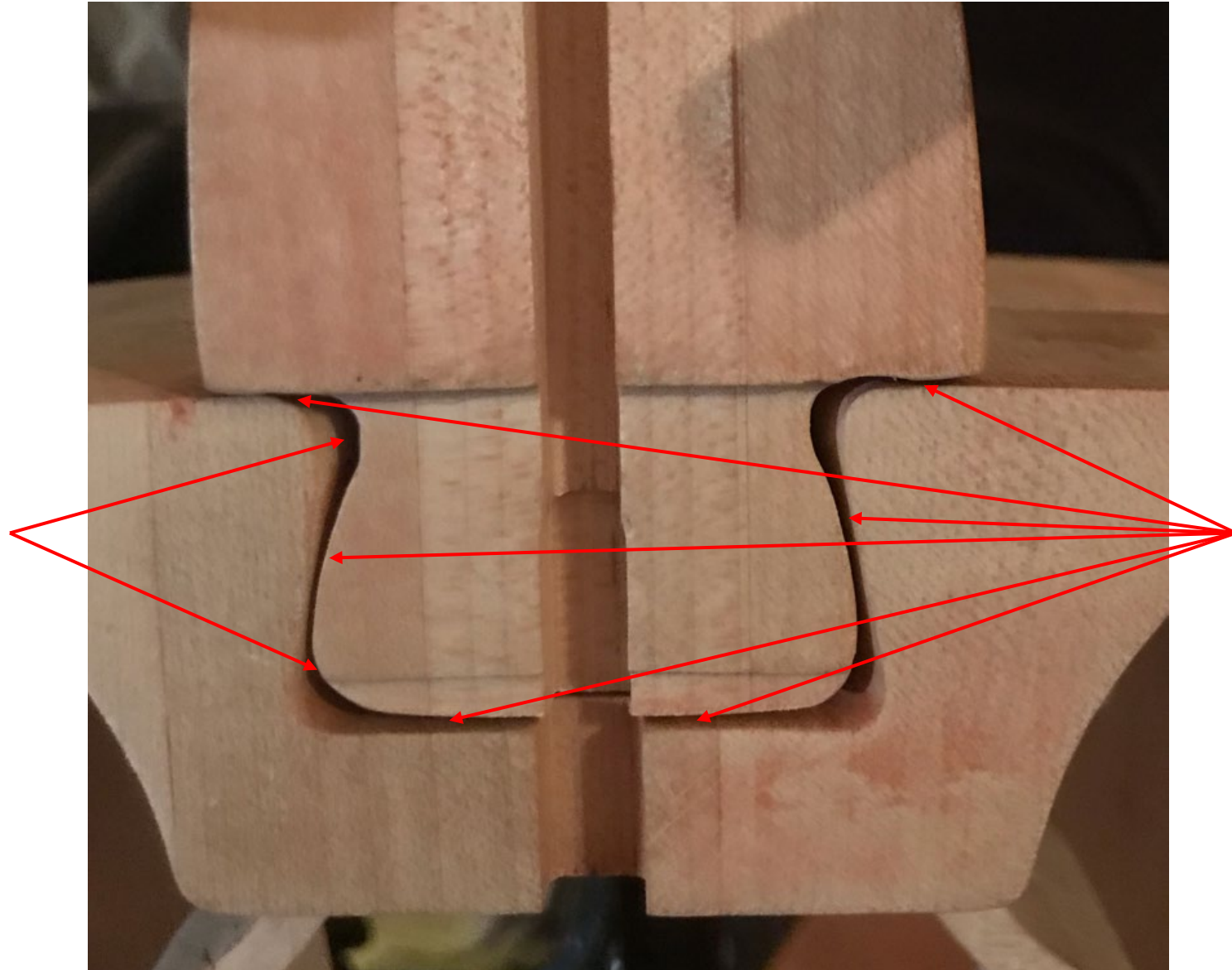
Radii on sides also,
no sharp corners
for strength, and
also for guitar
players hand.



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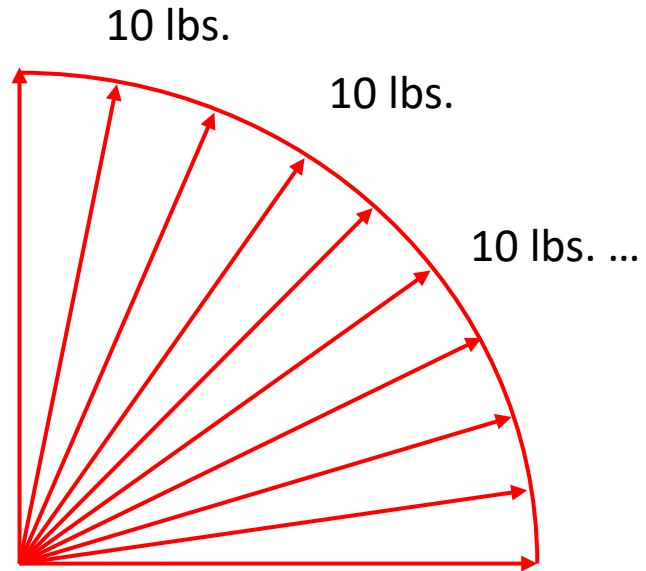
Radii for strength, cleared on total length of dovetail for ease of fit. Most guitars have sharp corners here, due to not using CNC equipment. That is OK, hand built is great, but not as strong

A radius is literally ten times stronger than a sharp corner, due to forces applied to “ten” different areas, so to speak.

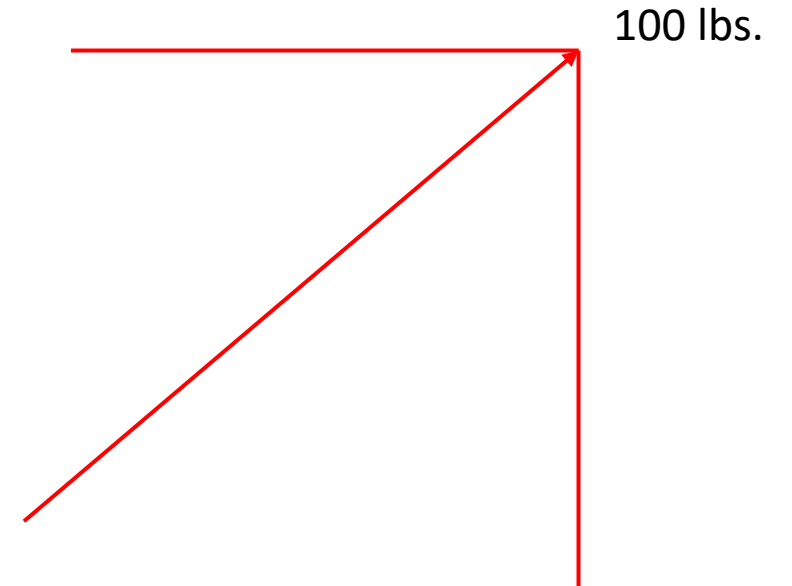


Dovetail is fit all the way down here. It looks like it is cleared, but that is just at the very top and very bottom of dovetail for fit clearance (do not over fit).

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Force vectors showing
magnitude and direction.



Force vector showing
magnitude and direction.

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New Big Leaf Maple for possible archtop soundboard. Fits on the same folded horn body, but does need a new neck that is angled down to match archtop.