



The long and short of it

In response to a letter from a reader, the Editor suggested an article about rope length. Ringing with the wrong rope length is a leading cause of difficulty for many ringers, so it is worth making the effort to understand the effects of rope length, and how to spot and correct the associated problems.

To state the obvious - the rope is the only connection between you and the bell. The rope lets you feel what the bell is doing, and it lets you control the bell by varying the strength and timing of the force you apply to the rope. Having the wrong rope length makes it harder to do both things properly.

What do we mean by rope length?

Like many ringing terms, the words don't mean what a layman would expect - we don't mean the length on the order for new ropes.

When you are ringing, only the rope above where you grip it is active - it is the length from there that matters. If someone says 'shorten your rope' it means 'move your hands up the rope' not 'chop a bit off'. 'Length' is measured from your hands, but where is it measured to? The boundary between short and long is not a fixed height from the floor, but based on your ideal reach when ringing the bell. So is rope length just a matter of personal preference? Personal yes, but more to do with performance than preference, as we shall see below.

Rope length and feeling

Ideally you would like to know what the bell is doing all the time, so you would have no surprises, but in fact you can't. When the rope is taut you can feel what is happening at the other end of it, but the rope is slack for about half the time - while the bell swings through about three quarters of a revolution. Through these gaps, you can only predict, based on what the bell was doing when you last felt it.

If you can't feel what the bell is doing, you won't know whether you need to make any adjustments to strike it where you intended. If it rises faster than you expected, you need to check it slightly but if it rises more slowly than expected, you must check it as little as possible. If it rises a earlier or later than expected, then you need to lengthen or shorten your stroke accordingly. In all cases, you must make the judgement soon enough to give your arm muscles time to respond and make corrections, so it is in your interests to keep the rope taut for as long as possible. The rope length determines how long you have between when it first tightens, normally with your hands about chest height, and when it reaches the top of the stroke. The higher your arms go, the longer this period. The right length takes your arms comfortably to full reach. Note the word comfortably. If you are not very flexible, it will be a bit lower than it would for someone more supple.

If the rope is too long, it will go taut later, and your hands will not rise as far, giving you less time to feel what is going on. If the rope is too short, your arms will be over stretched at every back stroke, possibly lifting you onto your toes. Having your arms jerked like this is uncomfortable, and makes it very hard to feel what the bell is doing.

All rules have exceptions, and so does the one about rope length. If you are ringing a very light bell, it needs a correspondingly light touch, which can be difficult if you force yourself to move your arms further than necessary, especially since a small wheel limits the natural movement of the rope anyway.



Rope length and control

The second use of the rope is to exert control over what the bell does, not just making minor corrections as mentioned above, but moving it around in response to the demands of the method - hunting up, hunting down, dodging, and so on. On most bells, that needs power, that you must accurately control. Rope length affects both the power you can deliver, and the accuracy with which you can control it.

For a given force, the longer the pull, the more effect it has. If the rope is too long, it shortens the pull. Also, your arms pull most effectively when reaching up. They become less effective when they are bent, which is what happens if the rope is too long.

Ringing with too short a rope creates a different problem. The jerk as your arms reach the limit of their travel applies a considerable check to the bell. If you are trying to make the bell rise, that check wastes the energy you have just put in, so you must pull even harder to achieve any useful effect. You might of course be intending to check the bell - yanking your arms will certainly do that, but it won't be very controlled. It might be too much or too little, and you will be unable to do much about it.

Getting it right

The best length depends on the bell, the speed of ringing, your build, and how you are feeling. Looking at where your hands are before you start won't tell you this. The only reliable way is to do it by feel, so expect to adjust your rope a little as you settle into rounds. If your shoulders are pulled out of their sockets, then the rope is too short. If everything feels floppy and your hands never go very high, then it is too long. Fine tune it to find the length that makes you feel most in control, and most able to handle any unforeseen

disturbances. It's worth getting it just right, since you will need less effort to strike accurately.

The best length to control the bell when hunting up and down (or dodging over or under) is different from the correct rope length for rounds. So when ringing a method, be prepared to adjust the rope length slightly every time you change speed, ie as you 'go round the corners of the blue line'. How much change you need depends on the bell, perhaps a foot for a very heavy bell, or a couple of inches for a small one. Remember too to coordinate changing the rope length with what the bell is doing, by pulling it more or less on the previous stroke.

Adjusting the length

Always shorten the rope while it is slack, as your upper hand moves to the tail end on the way down from the handstroke. Get hold further along the rope (away from the end) than normal and then move the other hand up next to it. Do this quickly before the rope moves up towards the backstroke and becomes taut.

Lengthening the rope is slightly different. Make sure you have pulled it enough to make it rise, and then relax your grip slightly as your arms move to full reach at backstroke, letting a little rope slip through your hands. How much will depend on how hard you pulled it the previous stroke. Don't artificially pay out rope without first ensuring that the bell will rise enough to take up the slack. Obviously you must grasp the rope firmly again to pull down.

Practise until adjusting the rope length becomes second nature. Ringing Minimus can create the need for large speed changes, which is good practice, or you could ring a single bell with extreme speed changes and dodging.

When you can adjust the rope effortlessly as needed, you no longer need to cling on tightly for fear that your hands will slip down the rope. Relax your hands when not actually pulling - it is much less tiring. The rope will slip the odd inch from time to time, but it won't matter because you will automatically adjust it as soon as you feel the need, possibly without being aware of doing so.

Length of ropes in general

There is another related sense in which we talk of ropes being long or short. If a typical ringer would have too much spare rope flapping below the hands when ringing with the correct rope length, then the rope is long. Similarly, if a typical ringer's hands would be off the tail end trying to ring with the correct rope length then the rope is too short.

Of course these definitions beg the question of what the typical ringer is like. Looking at the ropes in some towers, you might think the local ringers were all midgets, but in most cases they are not. This seems to be much more common than short ropes, which are fairly rare.

People who keep their ropes long say that short ringers must be able to reach the rope, whereas a tall ringer can always make do if it is too long. This view condemns tall ringers to ring with rope flapping in their faces or with the rope too long to have proper control. A more enlightened view is that short ringers can always stand on boxes to get the right rope length, whereas there are no holes for tall ringers to stand in. Heavy-bell ringers regularly stand on boxes, and even take pride in doing so.

What if your tower has no boxes? Perhaps it is time that you acquired some.

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