

Uncle Bill Talks About... Rope

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Well, here we are, troops. Almost into the 21st century and I am going to try to drag all of you - kicking and screaming, I'm sure, into the 20th century.

The subject is rope.

When I say "rope" most people think manila or hemp. Hell, we still call theatres that don't have counterweight rigging "hemp houses". Well, it's time to wake up and feel the splinters. Like it or knot (sorry) synthetic ropes are here to stay. So settle down and learn a little about these new fangled inventions called "rope".

For theatrical purposes there are three types of synthetic rope on the market today. They all have the same basic characteristics because they are all made from the same base fibers, namely POLYESTER. None of the are affected by atmospheric changes; you can dump a pot of water on them, release the deluge curtain, or even forget to turn on the air conditioner. They all feel good on bare hands. (Compared to manila, they feel GREAT on bare hands.) They all knot well and hold up, in terms of abrasion, nearly forever. The differences between these ropes lie in their construction. (Keep in mind that these ropes were not designed for the theatre business. Practically NOTHING is designed specifically for the theatre business - we have to steal what we need from other industries.)

First is the single braid. No, this does not mean that it can stay out all night and party, or leave dirty socks on the floor for three weeks. It means that the rope is constructed of (generally) twelve strands of rope that are braided together. There is no core or other type of construction that the braid encases. It's just the braid. We use these ropes almost exclusively for purchase lines in counterweight systems, both single and double purchase types.

Why? I'm glad you asked. There are several reasons:

1. They are the strongest ropes used in the industry. The Safe Working Load (SWL) - not to be confused with Breaking Strength - is a whopping 4,800 pounds. Yes folks, with this rope, if you were so inclined, you could pick up your boss in his/her Mercedes/Lexus and dump them in the river. Wouldn't hurt the rope a bit. (Your paycheck might suffer, however.)
2. It's easy to stab a trim mark into the braid, just like in the Dark (manila) Ages. This means (for those of you without a clue of what I'm talking about), you can request the same cue, get to the same spot with the scenery, night after night after night, without the use of a \$10,000 computerized winch system. Pretty slick, huh?

3. And last, but certainly not least, because the rope does not have a separate core, it will not slide or "milk" (as they say in the rope industry). It just sits there and does what you tell it to. Talk about your computer-type memory!

Now let's discuss 3-strand composite ropes. These babies have a polyolefin (see if you can say THAT three times, real fast) core and look like old-fashioned manila. They are, as their name implies, three strands of rope twisted around a core, so that it looks and feels like manila. But, look Ma! No splinters! We also use these ropes in counterweight rigging, but a bit more selectively. Here's why:

1. As with the single braid, it's very easy to stab a trim mark into these ropes. And, because they are twisted around the core, they will not "milk". (I love that image.)

2. And, unlike the single braid, it will not cost a year's salary to purchase this rope. Only six month's pay would be needed.

BUT!

(You knew this was coming, didn't you?)

There is one drawback. The SWL of 3/4" diameter rope of this type construction is 1,350 pounds. Probably good enough for most applications. The operative word here is "probably".

Finally, we have the double braid. (Not to be confused with young Scandinavian girls with funny looking hair.)

This is really two ropes in one - a single braid core is covered with a braided sleeve. Double braid construction makes for a great, almost all-purpose, flexible, blue collar kind of rope. Sort of the Chevy of the rope world. We use this rope as a general rigging work line: for lifting that barge and toting that bale. It's also good for hauling a chain motor to the grid, as well as the tackle portion of block and tackles, and also in rope (used to known as "hemp") houses.

We NEVER use this rope in a counterweight system. Because this rope is a double braid, it cannot be spike marked and it will milk, or slide over the core. Therefore its use as a counterweight purchase line is a definite no-no.

Here's what we do use it for: Since this rope is extremely flexible and very strong (the SWL of 3/4" diameter is 2,650 pounds) you can drag it around the floor for a while, drive your pick up truck over it, generally beat it up, and STILL use it to haul gear into the air.

The double braid comes in many colors. Think about that for a minute. In a rope (formerly called "hemp") house with a 5-line set, you had to fight your way through the bundle trying to find the short center line so that you could trim the damn thing up. Meanwhile, the short and the long, long lines took a walk to Vegas, got married,

and the whole set is out of whack. The road carpenter is none too happy with you either. Now imagine, instead of all those machinations, all you have to do is yank on the "blue" line for a perfectly trimmed set. You're happy; the roadie is happy, and the short line and the long, long line have avoided a relationship that would most likely have ended in divorce anyway.

In summary: for a counterweight set use either a single braid or a 3-strand rope, depending upon your strength requirements and the depth of your pockets. For all your other rope needs (and the mind boggles at the possibilities), use the double braid.

And remember, the rabbit comes out of the hole, goes around the tree 7 or 8 times, then gives up and goes to McHales for a beer!

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