

Flying Safely

Training and annual inspections are essential elements of rigging safety

BY DANA TAYLOR

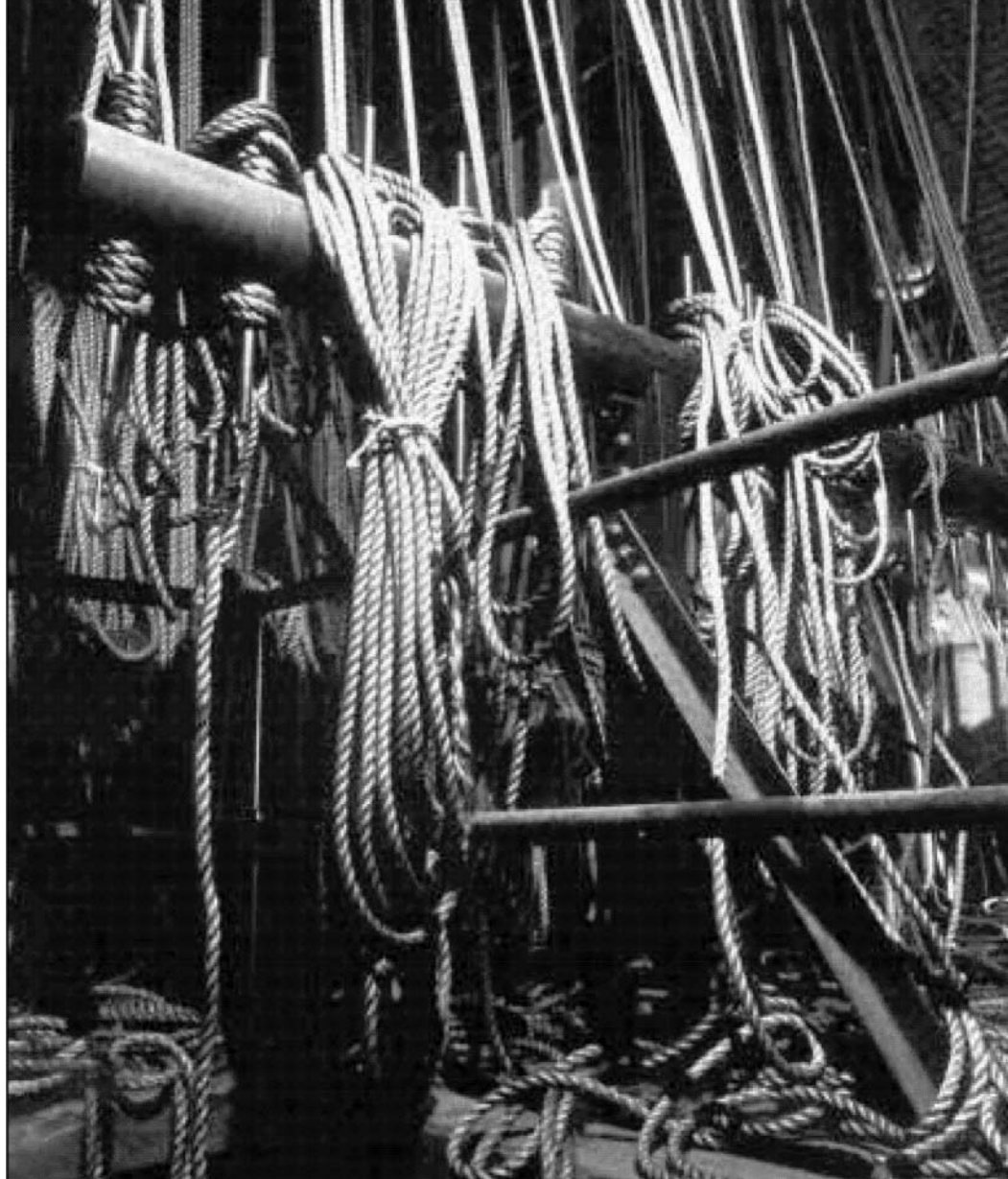
I recently saw a college technical theatre student wearing a T-shirt that declared, "Sleep is for the weak."

My immediate thought was of the long hours we spend in the theatre and the lengths we will go in our effort to get things done. My second thought was, "that's just dumb." It's astonishing that so many smart people behave so foolishly in the theatre. We will ignore our most basic physical needs and even common sense in the pursuit of a completed project.

Working through brain-numbing fatigue is just one of the ways we take dumb risks. For most of us it is easy to foresee the potential for trouble in a student using a table saw without benefit of safety glasses, or watching someone walk onto a dark stage. We fear what we know or can readily understand, but ignorance can be even more dangerous.

A counterweight rigging system is very likely to be one of those unknowns. We know it's there, we know that it is potentially dangerous. But really, when did you last hear about a rigging accident in a school?

Actually, the last time I heard about one was just a few weeks ago. A "self-employed theatre worker" was killed while working in the loading gallery ten feet above the stage floor of a high school in Afton, New York,



when, according to the Associated Press, he "neglected to take the weights from a pulley system and was catapulted twenty feet into the air."

One thing you can do to keep the rigging in your school theatre safe is to make certain everybody who operates the system knows what they're doing. Another is to contract for an annual inspection by a qualified rigging expert.

Liability

Beyond student safety, the most important reason to pursue training and engage in routine inspections is the potential of serious legal problems for you and your school if an accident happens in your facility.

In all likelihood an accident that causes physical injury will lead to legal action. Protecting yourself in

the event of such an outcome may come down to your ability to provide proof that you were not negligent in terms of upkeep and operation of the system and that you have communicated fully any and all concerns to the appropriate administrator.

Any of the following might be construed as negligence on your part:

1. Teaching a class that you lack proper training to teach.
2. Failing to warn your students of the hazards in your classroom or those involved in an activity.
3. Using equipment that you know to be broken or in need of repair.
4. Being absent during an activity or failing to pay attention to the students.
5. Making students perform dangerous acts.

6. Failing to provide appropriate safety equipment.

For theatre educators, the problems most likely to arise will probably be related to their own training. Although there are no national standards with respect to qualifications for operating a counterweight rigging system, there is a reasonable expectation that you will know the difference between safe and unsafe practices and that you will be able to instruct your students in them.

Several rigging seminars are offered each year throughout the United States. If you are unable to attend a seminar, a presenter can be hired to do one in your facility. The seminars do not lead to certification, but participating in one shows that you understand that ongoing training is essential. Ignorance of appropriate system operational procedures and equipment problems is not a legally defensible position.

Educating the administration

Administrators cannot be subject matter experts in all of the fields taught in their schools and will depend on you to identify hazards and potential problems.

An annual rigging inspection is always an easier sell to your administration if you can identify a problem. So, what are some potential problems? Although a rigging system is complex, there are several elements that any of us should be able to observe. Here are some things to look for.

1. *Noise*. Counterweight systems are not silent, but they should not produce excessive noise. Clangs, pops, scraping, and squeaks are evidence that something is amiss.

2. *Handlines*. In addition to inspecting handlines for wear, check them for slack, which is an indication of aging or an out-of-balance lineset.

3. *Rope locks*. Rope locks should be reasonably easy to close and open and when closed, the handline should not slip if the lineset is slightly out of balance.

4. *Pipe battens*. The metal pipes on the lineset should not bend under

the weight of lighting fixtures, scenery or drapes.

5. *Wire rope*. The fraying or flattening of wire rope, the metal cable which is used for the lift lines, is cause for great concern.

6. *Arbor*: The counterweight arbor should be outfitted with spreader plates and stop collars and the spreader plates should be spaced at no more than thirty inches apart. The stop collars should have thumbscrews that can be easily tightened and untightened.

Individuals who lack adequate training in appropriate procedures or who are inadequately supervised can wreak havoc on your system. The damage can be sudden and catastrophic, such as a runaway lineset, or slower and more insidious, as in continually allowing the arbors to hit the top or bottom stops.

Evidence of problems with any of the items on this list should provide you with enough information to make a case to your administration that an inspection is overdue. If you identify or even suspect a serious problem or one that is beyond your understanding, the responsible thing to do is to shut the system down until it can be inspected and repaired.

Recordkeeping

Careful recordkeeping is an invaluable tool in your ongoing pursuit of a safe working environment, and an important way to protect yourself legally in the event of an accident due to equipment failure.

A log book serves as a permanent record of problems and repairs associated with your rigging system. The log should include maintenance records, pictures of equipment causing concern, and a record of all communications concerning your system.

The inspection

An inspection of a high school theatre should take about a day. You should contact several companies and ask for a quote, an explanation of their services, and references.

The written report should include an appraisal of the current condition

of the system, images of any faulty equipment, and a list of recommended remedies. You should share copies of the report with appropriate administrators and staff.

If the inspection report identifies specific problems that will need attention, the next step should be a conference call that includes you, the inspector, and the administrators who have the authority to authorize spending the money it will take to correct the problems. The call should start with questions and answers — everybody will have questions — and move toward a discussion of a timely repair/replacement schedule.

Repairs can be costly, and it would be smart to begin preparing administrators for the potential costs sooner rather than later. As Eric Viker, technical director for Susquehanna University notes, rigging systems are machinery, not architecture, and machinery requires maintenance. Ideally the school administration should budget for periodic maintenance and repair of the rigging system in the same way it sets aside capital funds to keep the building's heating and air conditioning in good running order.

Regardless of the complexity of your system, the frequency of its use, and your own expertise, regular rigging inspections are a necessity. Obviously, student safety is the most important reason for regular inspections, but there is also the reality of simply being able to use the system for your productions. No less important is your own safety. Your administration has a responsibility to protect staff as well as students. If you run the theatre, it is your responsibility to tell them how to do it effectively.

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This is a condensed version of an article that appeared in the Summer 25 (Vol. 16, No. 43) issue of the "Teaching Theatre" magazine.

"Teaching Theatre" is published by the Educational Theatre Association. For more information, visit www.edta.org.