



## RIGGING – DESIGN & IMPLEMENTATION

### WHAT THIS SHEET APPLIES TO

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Anyone operating or designing a system intended to fly or otherwise move objects or people on stage during performances.

### RISKS INCLUDE

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Falling objects, muscle & ligament injuries, and overexertion.

### GUIDELINES, RULES, & PROCEDURES

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- All rigging should stay within the limits of equipment capacity and safe working loads. Calculations should factor in reductions from the use of hardware, knots, splices, and stress from usage demands. **Never guess – always know!**
- Components should only be used for the function specifically recommended by the manufacturer.
- Always use the correct quantity, size, spacing, and attachment method, for any termination hardware (e.g. nicopress sleeve or cable clips). Use a thimble whenever forming a loop in the end of a cable. (Rigger's cliché – “never saddle a dead horse”). All hardware should be installed as per manufacturer specification.
- When working with rope, use the right knot for the application. Anyone rigging with rope should know “two half-hitches”, “clove hitch”, and a “bowline”.
- The load on any batten should be evenly distributed whenever possible.
- Critical instructions (particularly known unsafe conditions) must be mounted at the operating station and should be brief and easy to understand.
- Operators should never exceed a system's rated speed limits. Operators should always remain in constant visual contact with the object or person they are moving. Preferably, this should always be a direct line of sight. A spotter or video system can be acceptable alternatives in extenuating circumstances.
- Rigging construction should be done in quiet situations and when there is no chance of unnecessary people being put at risk.
- Make every attempt to insure no harm will come to a performer. For instance, when flying performers, incorporate a fall-arrest system if at all possible.
- Hydraulic or electrically driven systems require an emergency stop switch/button.
- **Never operate a rig if there are any doubts.**
- See also the *Safety Information Sheet* “Rigging – Responsibility”.

### FOR FURTHER UNDERSTANDING

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Glerum, Jay O., Stage Rigging Handbook, 3<sup>rd</sup> ed., Carbondale: Southern Illinois Press, 2007.