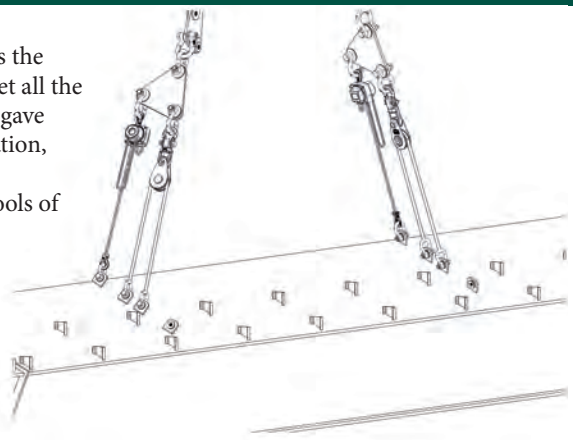
Three sides

In rigging applications, it's often the triangle shape that is the most useful. **Chad Fox** reports exclusively for ***ACT***.

A triangle can be used to cascade rigging systems with multiple slings and avoid over-crowding in a hook, preventing sling overlap or bunching.

Historically, the circle is the shape that seems to get all the attention. After all, it gave rise to technologies in transportation, agriculture and industry – and it certainly exists in construction tools of the trade.

In rigging applications, however, it's the triangle that has a viable claim as the most useful shape. In the purest description, the triangle provides a medium for load equalization for multiple slings, offering a myriad of different uses. Design, construction and load testing of these triangular tools is a relatively inexpensive, simple endeavor, whether the user is ordering from a supplier or creating one from scratch.



Triangles allow for attachment of a third adjustable line, which can be used to rotate lifted objects with critical alignment requirements.

Some of the triangle's most useful applications include:

LOAD HANDOFFS: This application involves transferring loads between two crane hooks, whether mobile to mobile, or mobile to monorail/overhead. This may be especially useful when installing or removing equipment from a structure with a permanent or temporary monorail system that extends outside of the boundaries of the structure, or applications where setting down of the lifted object is not feasible prior to transfer.

RIGGING SYSTEM WITH SHIFTING CENTER OF GRAVITY: In this case a triangle allows for use of systems such as cantilever beams with an adjustable line where the center of gravity is shifted throughout the lifting process.

ROTATION OF A LIFTED OBJECT: This application allows a lifted object to be rotated by attaching two lines to the triangle plate, one of which lengthens or shortens to rotate the object. This may be of particular value during uprighting and/or tilting procedures from a single hook.

SHORT CANTILEVER REACHES: In this case the triangle allows for the use of a counterweight to access areas where a hook cannot reach directly overhead due to access limitations.

THIRD LEG ALIGNMENT ADJUSTMENT: This application allows attachment of an adjustable third line to allow for rotational variation of the lifted object. The triangle can be helpful to achieve high accuracy alignment for certain installation or erection procedures.

CASCADING SYSTEM OF SLINGS: A triangle can be used to cascade rigging systems with multiple slings and avoid over-crowding in a hook. This can help to prevent sling overlap or bunching. Through minor rotation of the triangles this cascading system also allows for engagement of numerous slings to a lifted object, thus allowing for better load distribution throughout the system.

LOAD EQUALIZATION BETWEEN TWO HOOKS: In instances where multiple hooks must be utilized due to capacity limitations of the lifting equipment selected, the triangle provides an efficient way to distribute the lifted loads relatively equally to the two hooks, thus helping to avoid unintended overload caused by differences in relative

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At the Hard Rock Stadium in Miami Gardens, FL, triangular rigging provided an efficient way to distribute the lifted loads relatively equally to the two hooks, helping to avoid unintended overload caused by differences in relative hook elevations.

THE AUTHOR

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