DESIGN AND CALCULATION OF THE RESISTANCE CIRCLES FOR WOODEN BARRELS

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Abstract:
The aim of this paper is to present a design methodology for the circles of wooden barrels, using appropriate strength calculations, so as to provide tightness while maintaining the integrity of the wooden material embedded in the barrel structure, in the jacket and bottom staves, respectively.

Based on these calculations, the circle dimensions (length, width and thickness) can be defined, depending on the barrel type (for transport or storage) and their relation to the barrel bottoms.

Defining the dimensional characteristics of the circles is mandatory, as these are safety elements in the barrel operation.

Keywords: wooden barrel, resistance circles, staves, jacket.

Received: January 2011
Accepted: February 2011
Published: March 201