

Torsion of Thick-Walled Open Concrete Sections

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Abstract

This paper describes a method of estimating the torsional interia J of typical thick-walled open concrete sections. It is based on the Ward-Devine (1990) approach. Besides simplicity, a major advantage of the proposed procedure is that it can be applied to non-rectilinear sections like bridge beams. The validity of the method has been established by carrying out several comparisons with the results of accurate analyses and other refined approximate methods for a wide range of cross-sections including AASHTO I-beams and MoT (UK) Y-beams.