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Mechanics of Materials

Topic 7 – Shearing Stresses in Beams and Thin-walled Members

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A reinforced concrete deck will be attached to each of the steel sections shown to form a composite box girder bridge. In this chapter the shearing stresses will be determined in various types of beams and girders.



Source: <http://www.geograph.org.uk/photo/4582607>



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This timber beam is prone to longitudinal shear failure if not properly designed.



Source: https://commons.wikimedia.org/wiki/File:Post_and_Beam_Barn_Kitchen.jpg



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Wide-flanged beams.



Source: <https://pxhere.com/en/photo/459266>



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Box beams and tubes.



Source: <https://pixabay.com/en/tube-steel-metal-stainless-steel-898660/>



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