STRESSES DEVELOPED IN I-SECTION GIRDERS-A REVIEW

S. J. MANDVE ^a AND S. R. LANJEWAR ^b

^a Department of Mechanical Engineering, GHRCE Nagpur, India ^b Associate Professor, Department of Mechanical Engineering, GHRCE Nagpur, India

Abstract

This paper presents brief review information about the development of stresses in girders used as a beam member in various cranes, monorails and bridges subjected to various loads. Generally, girders are prone to axial load, bending moment, fatigue failure, shear failure, travelling patch loading, etc. The development of these stresses in the girder may cause its failure in operational use. For the accurate verification of stresses, computerize analysis in various programs and experimental tests must be carried out. Hence to avoid failure of girders, it is necessary to study the details of stresses acting on the girders. In this way, the present paper summarizes the various types of stresses acting on girders in their functional use.

Keywords: Girders, fatigue, patch loading.