Experimental Investigation on Concrete – Filled Steel Tubular Beam

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ABSTRACT

This research focuses on behavior of concrete – filled tubular beams. This approach is based on unified theory, confinement factor also used to describe the composite action of concrete filled steel tubular beam. In this analysis four numbers of simply supported concrete – filled square beams of size 92 × 92 mm, thickness 3 mm beam specimen of 1100 mm long steel hollow sections filled with various grade of concrete with same sizes of hollow sections were investigated. The detailed measurement on this material properties, displacement and strain were performed. Academic study was carried out for ultimate moment carrying capacity of the beam. The final results from experimental investigation shows that filling material having more moment carrying capacity of tubular beams. This research is also extending the detail of, if the grade of concrete is more in tubular beams gives more flexural strength in the given specimen.

Keywords: *concrete filled beams, two-point load, grade of concrete, peak moment capacity.*