



Features

- Low cost, effective teaching Self-contained Bench-mounted Combined bending and tension Three eccentricities unit.
- Range of Experiments to measure the vertical bending deflection of the bar and to compare with theoretical predictions.
- To assess the effect of eccentricity of loading.

Tesca Eccentrically Loaded Tie Apparatus

Sometimes in the design of a structure, a tension member has to be offset from the line of action of the force. The member then has to carry combined tension and bending loads, the latter increasing with the eccentricity of the load. The eccentricity is exaggerated to make visual appreciation of the phenomenon possible. When the load line is outside the middle third of a square tie bar, as in this experiment, the bending moment predominates and the bending deflection may be considerable. The apparatus enables both the load and eccentricity to be varied. A 9mm square section by 800mm long specimen is provided, together with dial gauge and load hanger. Different shaped specimens can be manufactured in the college workshop as required. This equipment is part of a range designed to both demonstrate and experimentally confirm basic engineering principles. Great care has been given to each item so as to provide wide experimental scope without unduly complicating or compromising the design. Each piece of apparatus is self-contained and compact. Setting up time is minimal, and all measurements are made with the simplest possible instrumentation, so that the student involvement is purely with the engineering principles being taught. A complete instruction manual is provided describing the apparatus, its application, experimental procedure and typical test results.

Manuals

- This unit is supplied with the following manuals: Required Services, Assembly and Installation, Starting-up, Safety, Maintenance & Practices Manual.

Note: Specifications are subject to change.

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