

Product Name :
Toggle Joint Apparatus**Product Code :**
ELABBFA0011**Description :**

Toggle Joint Apparatus

Technical Specification :

Toggle Joint Apparatus Features Low cost, effective teaching. Self-contained. Bench mounted. Direct measurement of horizontal reaction. Angle of toggle variable. Demonstrates application of. velocity diagrams. Three year warranty. Range of Experiments To determine the experimental horizontal reaction due to loading. To compare with theoretical predictions, such as the velocity diagram technique. To assess the effect of the toggle angle. Description This apparatus is designed to evaluate forces within a toggle mechanism. Load is applied to the two pairs of links by a hanger suspended from their connecting pivot. One end of the links is pivoted to a base, and the other end is able to move sideways on low friction ball bearing wheels. The moving links are restrained by a horizontal spring balance, which measures the horizontal reaction directly. The angle of the toggle can be varied. Adjustment is provided for returning the geometry of the loaded toggle to its original unloaded state before taking measurements. The supporting blocks are not supplied. There are many ways in which the forces can be determined theoretically. The instruction sheet provided with the apparatus takes the opportunity to introduce the use of velocity diagrams to solve essentially static problems by considering virtual motion. However, other techniques can be used if desired. 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

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