LAB ENGINEERING

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Product Name : Shear Legs	**Product Code :** ELABBFA0012

Description :

Shear Legs

Technical Specification :

Shear Legs

- Low cost, effective teaching
- Self-contained
- Bench mounted
- Direct measurement of strut and backstay forces by spring balance
- Three year warranty

Range of Experiments

1. Experimental determination of forces in shear legs
2. Comparison with theoretical prediction
3. To assess the effect of changing the shear leg geometry

Description

Shear legs are often used to make temporary cranes. In this experiment the ideas developed in experiments with several forces in one plane are extended to three dimensions. Clarity of thought is encouraged, since there are both compressive and tensile forces present.

The double shear legs are mounted on rollers which run on a round bar. Compression forces in the legs are measured with integral spring balances, and restraint is by an adjustable tie chain. The back stay is adjustable and is also fitted with a spring balance. Loading is by a weight hung from the apex.

The unit is free standing on a bench top.

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.