

**Product Name :**  
Wheel and Differential Axle Apparatus**Product Code :**  
ELABHTOOLSUK430001**Description :**

Wheel and Differential Axle Apparatus

**Technical Specification :**

This trainer experimental unit illustrates the equilibrium conditions on a differential pulley block. The relation between pulley diameter, lifting force and torque is demonstrated. Three pulleys with different diameters are mounted on a shaft, which is itself mounted on ball bearings. Weights can be hung on the cables.

The forces act on the one hand directly on the periphery of the pulley with the largest diameter and another force acts on the pulley with the smaller diameter via a loose roller.

Using weights, it is possible to vary these forces until equilibrium is reached. The experimental unit is designed to be fixed to a wall.

Experiment on the equilibrium of forces and moments on a differential pulley block

Pulleys made of anodised aluminium

Set of weights

Ball bearing mounted steel shaft

Support made of anodised aluminium

Intended for wall mounting

**Accessories:**

Vertical Stand for Mechanical Demonstration Units

Diameter of wheel: 170mm

Diameter of major axle: 100mm

Diameter of minor axle: 67mm

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Velocity Ratio: 10.5 : 1

Maximum recommended Load: 50N

Weights set: 4 x 0.1N, 3 x 0.2N, 1 x 1N, 2 x 2N, 2 x 5N, 1 x 10N, 2 x 20N".

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