

Theory of Machines (HTM)



WHEEL and AXLE HTM1



Year 1 study

Features

- Wall mounted apparatus
- Can be mounted to HST1, HST100, HAC10, HAC14, HVT12f frames
- Introduction to mechanics of Wheel and Axle
- · 'Effort' and 'Efficiency' investigated
- One assembly; two wheels; two diameters.
- Full set of weights and hangers supplied

Description

The dual diameter wheel has an axle supported on simple pivots in a sturdy wall mounting bracket. Each wheel has a cord wrapped around its periphery. The cords can be wrapped in either direction around each wheel. A Load hanger is added to each cord allowing loading of the wheels using the calibrated weights set provided.

Related Laws/Applications

- · Velocity Ratio
- Mechanical Advantage
- Effort
- · Effort of Friction
- Efficiency
- Simple Machines

Learning capabilities

- Experimental determination of velocity ratio and comparison with calculated value
- · Determination of variation with load of effort
- Determination of variation with load of efficiency

Technical Specification

- Large wheel diameter: Ø150mm
- Small Wheel diameter: Ø75mm
- Maximum recommended load: 200N
- Weights set: 1 x 0.1N, 2 x 0.2N, 1 x 0.5N, 1 x 1N, 2 x 2N, 2 x 5N, 2 x 10N, 2 x 20N



Essential Ancillaries

- HAC14
- HAC10
- HST1
- HST100
- HVT12f

What's in the Box?

- 1 x HTM1 assembled
- 1 x Load hanger
- 1 x 0.1N, 2 x 0.2N, 1 x 0.5N, 1 x 1N weights
- 2 x 2N, 2 x 5N, 2 x 10N, 2 x 20N weights
- 1 x Tape measure
- · Spare Cord
- · Instruction manual
- · Packing list
- · Test sheet

You might also like

- HTM2
- HTM21

Weights & Dimensions

Weight: 2.5 kgLength: 170mmWidth: 110mmHeight: 150mm

Essential Services

• Recommended Suspension height not to exceed 1.5metres

Operational Conditions

- Storage temperature: -10°C to +70°C
- Operating temperature range: +10°C to +50°C
- Operating relative humidity range: 0 to 95%, non condensing

Ordering information

To order this product, please call PA Hilton quoting the following code: HTM1

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