



## 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

**Ordering information**

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

**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 kg
- Length: 170mm
- Width: 110mm
- Height: 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

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS