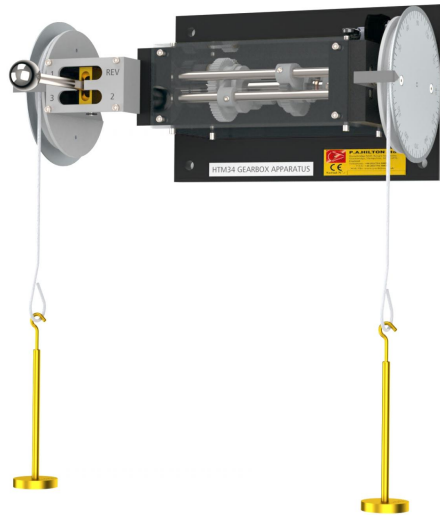




GEARBOX APPARATUS

HTM34



Features

- Represents a typical arrangement of a simple 3 forward ratio and reverse sliding mesh box
- Enables velocity and torque ratios to be determined
- Performance and efficiency can be calculated
- Suitable for frame, or wall mounting
- Of sturdy construction

Description

This apparatus comprises a sliding mesh gearbox, with clear visible gears, to aid students understanding of the mechanical principles involved. A sturdy casing houses all the gears, shafts, bearings and levers. The mechanism is constructed using industrial standard gears, finished to a high quality and that will mesh in different ratios within the casing. Gears can be slid across one another with the use of a lever with ball knob, and the whole gear box can be rotated by hand via the input pulley. A set of masses and hangers is supplied to allow the shafts to be driven. Comprehensive instruction manual are supplied with this unit. The unit is ideal for classroom demonstrations and use by students in the laboratory. The housing in which the gears are mounted is robust and durable, and can be mounted onto a wall or other suitable vertical flat surface in place of the vertical stand.

Learning capabilities

- Measure of the angular displacement at the input and output of the gear box and comparison with the calculated values.
- Calculation of the efficiency and velocity ratio for different ratios according to the torque at entry.
- Understanding of sliding mesh gear box operation.

Technical Specification

- Represents a typical arrangement of a simple 3 forward ratio and reverse sliding mesh box.
- Enables velocity and torque ratios to be determined.
- Transparent protective cover to safely view gear mechanism in operation.
- Suitable for frame or wall mounting.
- Input and Output shaft can be reversed.
- The gearbox consists of 2 x 52 toothed Gears, 2 x 39 toothed Gears, 2 x 26 toothed Gears, 2 x 20 toothed Gears
- Two hangers of 100g each
- Set of slotted weights comprising: 1 x 5N, 4 x 2N, 4 x 1N, 5 x 0.2N & 4 x 0.1N.

Recommended Ancillaries

- HAC14 - Vertical Stand, or
- HST1 - Frame

What's in the Box?

- 1 x HTM34 Unit
- 1 x weight set: 1 x 5N, 4 x 2N, 4 x 1N, 5 x 0.2N, 4 x 0.1N
- 2 x Weight hanger (100g each)
- 1 x Tape measure
- 1 x 1.5m cord

Weights & Dimensions

- Weight: approx 12kg (including weights)
- Dimensions: approx' 320mm x 150mm x 270mm

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:
HTM34 - Gearbox Apparatus

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