BRAKE DRUM FRICTION APPARATUS

HFN11



Year 2
study

Features

- Compact bench top apparatus
- Simulation of Real braking system
- Industry available brake shoes
- Leading and Trailing configuration easily arranged
- Full set of weights and hangers supplied

Description

An aluminium brake drum is secured to one end of a sturdy bench top mounted base. The drum has an external cord grooved and its inside face is machined to plain aluminium. A cord is wrapped around the perimeter of the brake drum and the free end of the cord runs over a pulley at the other end of the base and terminates with a Load hanger. Torque is applied to the brake drum by using the calibrated weights set provided and the Load hanger. Mounted inside the brake drum is a single brake shoe with its own pivot. A second cord connects to the brake shoe and again runs over a pulley and terminates at the Load hanger. As the load is applied to the brake shoe so that friction force increases. The student must then add load to the torque hanger to try and rotate the brake drum at near constant speed. The sense of rotation of the torque determines whether the single brake shoe acts as a leading or trailing shoe. Direct comparison of tangential force and braking load is obtained and the coefficient of friction determined.

Related Laws/Applications

- Automotive
- Friction
- Machines
- Wear
- Slip
- Torque
- Brakes
- Leading/Trailing

Learning capabilities

- To determine experimentally the variation of tangential force with braking load
- To obtain the coefficient of friction between the aluminium drum and the brake shoe
- To compare leading and trailing shoes

Technical Specification

- Aluminium brake drum
- Industry standard brake shoes

What's in the Box?

- 1 x HFN11
- 2 x load hanger
- 1 x 5m Spare cord
- 1 x 1N; 2 x 2N; 1 x 5N; 2 x 10N; 4 x 20N; 2 x 50N
- Instruction manual
- Packing list
- Test sheet

You might also like

- HFN3
- HTM21

Weights & Dimensions

- Weight: 30kg
- Length: 400mm
- Width: 200mm
- Height: 200mm

Essential Services

- Sturdy Bench Top

Ordering information

To order this product, please call PA Hilton quoting the following code: HFN11

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