GEAR ASSEMBLY UNIT COMBINED DRIVES

HTM73



Year 1
study

Features

- Floor or Bench top apparatus
- Fully customer configurable using components supplied
- Manual driving of system
- Quick and easy setup of arrangements
- Belts, chains, sprockets, tensioner, bevel gear, spur gear, worm/wheel, rack/pinion
- Smooth, quality frame
- Storage container for component parts

Description

A wide variety of drive arrangements can be mounted inside this apparatus. Based around a rigid, sturdy frame each drive arrangement can easily be interchanged and fixed into position. Bearing blocks ensure excellent and repeatable alignment of the drives as well as smooth running. The base frame allows for accurate meshing of the drives. The drive arrangements available include dual belt drive, chain drive with tensioner and spur gear train, dual spur gear, compound bevel gear and spur gear, compound worm / wheel gear and bevel gear, rack and pinion with a spur gear drive. Each of the drives is made from durable, long life materials, and conforms to industry standards giving the student a practical knowledge of the arrangement they may use in industry. A cranked handle operates the drives giving more control and feel for each drive arrangement. The cranked handle is away from the main working area of the drives thus ensuring safety during drive rotation. The layout of the drives gives an excellent visual indication of motion, direction, velocity, and mechanical action.

Related Laws/Applications

- Automotive
- Assembly of different drive mechanisms, layout and meshing
- Industry standard drives

Learning capabilities

- Introduction to gear trains, transmissions, ratios, velocities
- Variety of drive arrangements
- Introduces spur gears, drive belts, pulleys, chains, tensioners, worm and wheel, bevel gears, rack and pinions, compound drives
- Drive construction
- Gearing up
- Gearing down
- The motion, direction, ratios of different arrangements

Technical Specification

- 2 ‘V’ belt cogged (toothed) belt, SPAX section
- 4 ‘V’ belt pulleys (approximately 4.5” diameter and 2.5” diameter)
- Chain drive with tensioner and sprockets (toothed sprockets of 24 and 60 teeth)
- 4 spur gears: 2 x 28 teeth, 1 x 56 teeth, 1 x 70 teeth
- Bevel gear pair, 90° between axes
- Shaft blocks: Single height (6 off); double height (2 off)
- 4 shafts: 650mm long (3 off); 610mm long (1 off)

What’s in the Box?

- 1 x Frame assembly
- 2 x ‘V’ belt cogged (toothed) belt, SPAX section
- 4 x ‘V’ belt pulleys
- Chain drive with tensioner and sprockets (24 and 60 teeth)
- 4 spur gears: 2 x 28 teeth, 1 x 56 teeth, 1 x 70 teeth
- 1 x Bevel gear pair, 90° between axes
- 1 x Compound bevel and spur gear pair
- 1 x Compound worm / wheel with bevel gear pair
- 1 x Rack and pinion drive with spur gear
- 1 x Hand operated crank handle
- Shaft blocks: Single height (6 off); double height (2 off)
- 4 shafts: 650mm long (3 off); 610mm long (1 off)
- 1 x Component case
- Instruction manual
- Packing list
- Test sheet

You might also like

- HFN8
- HFN9
- HTM7
- HTM25

Weights & Dimensions

- Weight: 30 kg
- Length: 1000mm
- Width: 500mm
- Height: 500mm

Essential Services

- Sturdy Bench top

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: HTM73

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