

GL 300.04

Cutaway model: two-stage spur gear



Learning objectives/experiments

- principle of operation and design of a two-stage spur gear

Specification

- [1] hand-operated cutaway model for demonstrating the function of a two-stage spur gear
- [2] industrial original component, fully functional cutaway model
- [3] solid metal base plate, handles

Technical data

Spur gear

- drive pinion (helical): $z_1=22$
- Intermediate gear (helical): $z_2=51$
- pinion shaft (helical): $z_3=15$
- output gear (helical): $z_4=76$
- total transmission: 11,74:1
- permitted speed: 2800min^{-1}
- permitted torque: 296Nm

LxWxH: 350x300x280mm

Weight: approx. 20kg

Scope of delivery

- 1 cutaway model
- 1 description
- 1 sectional view

Description

■ demonstration of complex machine elements and demonstration of their principle of operation

Using cutaway models it is possible to clearly demonstrate the operational principles of complex machine elements such as a multi-disc clutch, various gear units or a pedestal bearing. The GL 300.01 to GL 300.12 cutaway models form a meaningful addition to the assembly kits, models and model kits for the engineering drawing discipline.

In order to be able to use the cutaway models in engineering teaching, each model comes with a standards-compliant and practical drawing and a technical description.

Problems of engineering drawing, fasteners and machine parts or production and testing technology can be studied in a clear and practical manner using the cutaway models.

The cutaway models represent original components in which the active parts are clearly visible to the user while fully maintaining their mechanical functionality. Each of the cutaway models is securely mounted on a base plate, which also has handles to allow them to be carried. They are powered by hand.