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Product Name :
Dynamic Behaviour Of Multi Stage Planetary Gears

Product Code :
LBNY-0005-10100046



Description :

The planet gears are mounted on a planet carrier and engage positively in an internally toothed ring gear. Torque and power are distributed among several planet gears. The planetary gear is a special type of gear drive, in which the multiple planet gears revolve around a centrally arranged sun gear. Sun gear, planet carrier and ring gear may either be driving, driven or fixed. The trainer consists of two planet gear sets, each with three planet gears. The ring gear of the first stage is coupled to the planet carrier of the second stage. By fixing individual gears, it is possible to configure a total of four different transmission ratios. Planetary gears are used in automotive construction and shipbuilding, as well as for stationary use in turbines and general mechanical engineering. Unit allows the investigation of the dynamic behaviour of a two-stage planetary gear. The gear is accelerated via a cable drum and a variable set of weights. The set of weights is raised via a crank.

Technical Specification :

Investigation of the dynamic behaviour of a 2-stage planetary gear
Gear is accelerated via cable drum and variable set of weights
Weight raised by hand crank; ratchet prevents accidental release
Three planet gears per stage
Shock absorber for weight
Transparent protective cover
Four different transmission ratios possible
Clamping roller freewheel enables free further rotation after the weight has been released.

Technical Data:

Drive

Set of weights: 5...50kg
Max. Potential energy: 245,3Nm
2-stage planetary gear
Module: 2mm
Sun gears: 24-tooth, d-pitch circle: 48mm
Ring gears: 72-tooth, d-pitch circle: 144mm
Planet gears: 24-tooth, d-pitch circle: 48mm
Measuring range
Speed range: 0...2.000min⁻¹
Load at standstill:
Weight forces: 5...70N
Dimensions and Weight of Dynamic Behaviour of Multi-Stage Planetary Gears
LxWxH: 940x590x1.680mm
Weight: approx. 163kga.



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