



PLANETARY-GEAR EDUCATIONAL TRAINER

A2

Product number

AE410790M

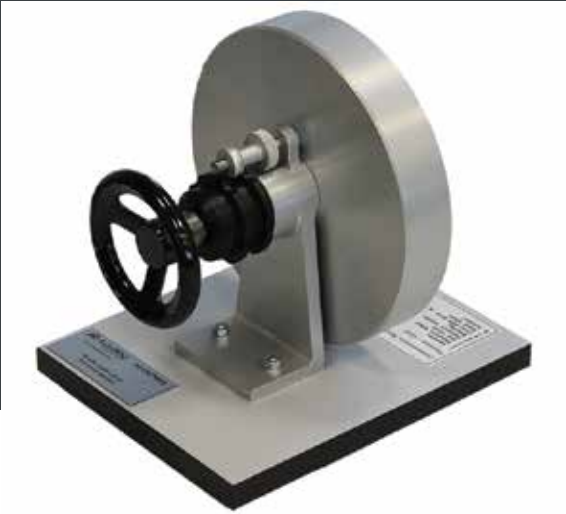


Specialized instructional tool designed to illustrate the operation of planetary gear systems used in automatic transmissions. Featuring a detailed model with spur-type and bevel-type wheels on movable axes, this trainer allows users to explore the interaction between the planetary gear, crown gear, and planet gears. It demonstrates key principles such as rotational and revolution motion, showcasing how these components contribute to the functionality of differential systems and gear shifting mechanisms. This compact trainer provides an essential hands-on learning experience for understanding the dynamics of automatic transmission gear sets.



Features

- Demonstrates the operation of a complete planetary gear system with visible components.
- Allows students to explore gear-shift possibilities by locking and unlocking elements such as the crown and planetary gears.
- Spur-type and bevel-type wheels with movable axes are shown in detail to illustrate their function in automatic transmissions.
- Components include a planetary or sun gear, crown gear, and planet gears with a central spider element.
- Offers a detailed view of 2 degrees of freedom, allowing for diverse gearing scenarios to be studied.





Value for Students

- Experience with planetary gear operation, learning the dynamics of gear shifting in automatic transmissions.
- Understand how spur-type or bevel-type wheels rotate and interact with movable axes, as opposed to fixed-axis gears in traditional gearing systems.
- Explore the different components: planetary gear, crown gear, and planet gears, and how their interaction dictates transmission output.
- Study how planetary gear systems enable two degrees of freedom, offering a deeper technical understanding of automotive differential systems.



Value for Instructors

- Provides a clear, instructive demonstration of planetary gear systems, which are foundational to automatic motorcar transmissions.
- Enables students to physically manipulate components such as the planetary gear, crown gear, and planet gears, enhancing their practical understanding of automotive mechanics.
- Aids in teaching complex gear behavior, including the rotational and revolution motion of planet gears, through a simplified model.
- The compact and lightweight design makes it easy to integrate into classroom environments for practical demonstrations.
- Helps instructors explain the relevance of planetary gears in real-world applications, such as differentials and automatic gearboxes.



Specifications

- Dimensions: 250 x 250 x 300 mm
- Weight: 5 kg (11 lb)
- Product number: AE410790M

