



# REAR AXLE HEAVY TRUCK WITHOUT LOCKING DIFFERENTIAL CUTAWAY

A3

Product number  
AE411199M



Cutaway model provides view of a heavy truck's rear axle system. It features a complete section including bevel gears, differential, axle shafts, reducer, planetary hub, drum brakes and a double air brake element. This model is mounted on a stable stand with wheels for ease of use and visibility.



## Features

- Complete rear axle section Includes bevel gear, differential, axle shafts, reducer, planetary hub, and drum brakes.
- Differential mechanism allows for controlled power distribution and differential speed adjustment between the drive wheels.
- Equipped with visible brake jaws and a double air brake element for manual operation.
- Provides an internal view of the axle components, enhancing educational visibility.
- Includes manual operation of brake elements for practical demonstrations.





## Value for Students

- Gain practical insights into the operation and construction of a heavy truck's rear axle system, including bevel gears, differential mechanisms and braking systems.
- Learn the interplay between the differential, axle shafts and braking systems, including the manual operation of the double air brake element.
- Study the differential's function, which allows for differential speed between the wheels while maintaining power distribution, crucial for effective turning and traction.
- Learn about bevel gear setups, including single and double gear systems, and their role in torque transmission. Understand the differences between hypoid gears and other bevel gears, focusing on torque, stability, and lubrication requirements.
- Analyze the drum brake system with visible jaws and the functionality of the double air brake element, including manual operation.
- The cutaway design and mounted stand provide clear, hands-on access to the internal components for a detailed examination.



## Value for Instructors

- The cutaway model enables clear demonstration of complex rear axle systems, making it easier to convey the principles of torque transmission, differential operation, and braking systems.
- Facilitates hands-on learning with a functional model that illustrates real-world mechanical systems, enhancing student engagement and comprehension.
- Ideal for technical and vocational training environments, offering a practical teaching aid that supports various instructional methods.
- The model's robust construction ensures long-term durability, while the stand and mounted wheels allow for stable and safe operation during demonstrations.
- Mobile and space saving in the classroom, allows concurrent use by multiple students.



## Specifications

- Dimensions: 2350 x 950 x 1050 mm (92.52 x 37.40 x 41.34 in)
- Weight: approx. 700 kg (1543 lb)
- Components: bevel gear (pinion – crown), differential (satellite and planetary), axle shafts, reducer, planetary hub, drum brakes, double air brake element
- Stand: mounted on a stable stand with wheels for ease of movement and demonstration
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