

Ackermann Steering Mechanism Apparatus (EDC-TM-109)

EXPERIMENTAL DATA:

- Demonstration of Ackermann steering mechanism
- Determination of steering angles
- Steering error as a function of the steering angle with varying steering geometry
- To determine the effect of rod length



DESCRIPTION:

The apparatus consists of arrangement mounted on base plate and is designed to explain the special features of the Ackermann steering mechanism. The lead angle of a steering quadrilateral is determined as are the disadvantages of incorrect adjustment of track rods.

The unit consists of two levers, an intermediate steering rod, two track rods and two track rod arms. The indicators attached to these rotate with the arms and indicate the steering angle on scales. It is possible to adjust the pointers independent of the levers. The length of track rods can be changed by turning an adjustment nut.

The unit can be supplied either for wall mounting or as a benchtop model.

TECHNICAL SPECIFICATIONS:

- Benchtop or wall mounted experiment
- King pin spacing 465mm
- Steering lock angle $\pm 25^\circ$, scale graduations 1°
- Split track rod, length can be individual adjusted



RELATED LAWS:

- Mechanisms
- Automotive
- Steering
- Dynamics

WEIGHT AND DIMENSIONS:

- L x W x H (mm): 650 x 300 x 100
- Weight (approx): 6 kg

SCOPE OF DELIVERY:

- 1 x EDC-TM-109 Assembly
- Instruction manual