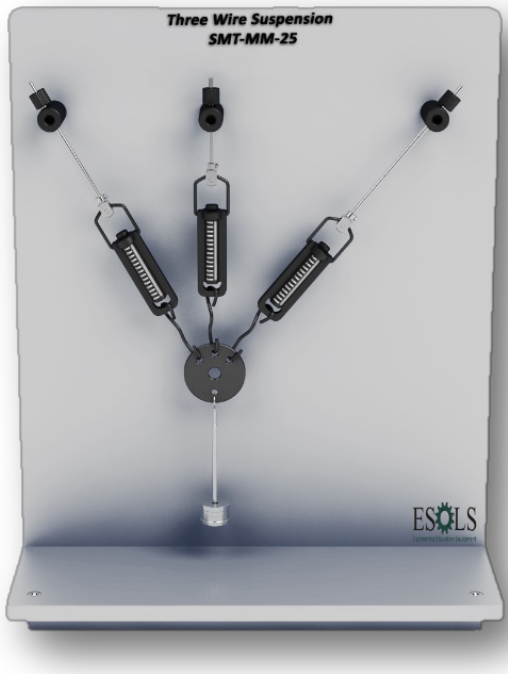
Three Wire Suspension Apparatus (SMT-MM-25)

A free standing backboard provides supports for three tensile suspenders that meet at a ring carrying a load hanger. Spring balances measure the tension in each of the suspenders which are at about 30 and 45 degrees to the central vertical one. The lengths of each suspender can be adjusted by a threaded rod attached to the spring balance. A set of calibrated weights is supplied to apply loading to the wires. An instruction manual is supplied.

TECHNICAL SPECIFICATIONS

Specification:

- Verification of equilibrium where sums of horizontal and vertical forces are zero; investigate redundancy of vertical tie in a three wire suspension system.



Technical Data:

- The apparatus consists of a bench mounted free standing backboard with 3 wires attached at approx. 45 degrees, 60 degree and 90 degree to the horizontal and all meeting at a common ring.
- Load hanger attached to the common ring to load the system.
- Each wire incorporates a direct reading, linear spring balance to measure its tension.
- An instruction manual for student and lecturer provided.
- Set of weights.

Experiments:

- To study the vertical equilibrium of a two and three wire suspension system.
- To examine the action of the central vertical redundant force.

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