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Artikel: Mechanische Belastbarkeit natürlicher Schilfbestände durch Wellen, Wind und Treibzeug = Mechanical impacts on natural reed stands by wind, waves and drift

Autor: Binz-Reist, Hans-Rudolf

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C Coriolis force
Z_x, Z_z driving force
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R friction
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····· stems are run over by drift-wood

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The graph remains qualitatively unchanged if the bending moment M or the (maximum) stress σ of a cross section is plotted on the vertical axis instead of the force F, also, if the deflection δ on the horizontal axis is replaced by the strain ε.
Between point 0 and 1 load and deformation are directly proportional to each other; loading and unloading follow the same line (elastic region, no remaining deformation). If the load exceeds point 1 (e.g. at point 2), unloading follows the dashed line, i.e. a certain deformation remains, even if the load is zero (plastic deformation). If the force exceeds the breaking strength (point 3), the further part of the curve depends on the experimental layout: the dash-point line represents the case of a stem loaded by a given increasing deformation, the unbroken line holds if the load is interconnected with displacements (e.g. load by a spring balance).

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F = force
D = diameter defined as representative for the tested piece

M_E = $h_F \cdot F$ = fixed end moment due to the force F
α_E = inclination of the stem foot
δ_F = displacement due to the force F
δ_α = displacement due to the inclination of the stem foot

Section IV