LEONARDO

PATENT BROCHURE

CALIBRATED CLAMPING DEVICE

Main Technological Area ⟶ Mechanics

Keyword ⟶ Calibrated Clamping| joint | assembly | spring | mounting thickness

Clamping device capable of clamping together two or more components by applying a precise and repetitive clamping force, thus avoiding the occurrence of unwanted deformation or tension on the coupled components.

TECHNICAL FEATURES

The operating principle of the device is based on the elastic behavior of a compression spring, i.e. on the ability to compress the spring against the coupled parts of a known quantity $\delta\chi$ to transmit on them a force F of known value ($F = K \times \delta\chi$).
By calibrating the spring crushing on a graduated scale, it is therefore possible to apply, with rapidity, repeatability and precision, the exact value of the clamping force prescribed by the project.

INNOVATION/BENEFITS

a) assembly without any undesired deformation or stress in the joint;
b) exact and repetitive application of the clamping load in specific locations;
c) wide 'range' of applicable forces;
d) can also be used in areas with poor accessibility;
e) possibility of identifying the forces required to recover deformation;
f) adaptable to all thicknesses and diameters of hole.

AREAS OF USE

a) Precise assembly of complex components;
b) temporary couplings with punctual and calibrated clamping forces;
c) systems for measuring the forces required to deform or move components.

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PATENT INFORMATION

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