Patent claims

1. A lens mount, wherein the lens mount has the following features:

an outer ring;

an inner ring, which is designed to accommodate a lens; and

at least one connecting web, via which the outer ring and the inner ring are connected to one another, wherein the connecting web forms a first portion having a first length, a second portion having a second length and an intermediate portion having an intermediate length, wherein the intermediate portion is arranged between the first portion and the second portion, wherein the first portion is connected to the inner ring and wherein the second portion is connected to the outer ring, wherein a shape of a cross section of the intermediate portion in an intermediate sectional plane differs from a shape of a first cross section of the first portion in a first sectional plane and from a shape of a second cross section of the second portion in a second sectional plane.

2. The lens mount as claimed in claim 1, wherein the lens mount is formed monolithically and wherein the lens mount has an annular body which is subdivided by material recesses into the outer ring, the inner ring and the at least one connecting web.

3. The lens mount as claimed in one of the preceding claims, wherein the lens mount has at least three, in particular precisely three, connecting webs, which are each arranged offset by an offset angle with respect to one another and via which the inner ring is connected to the outer ring.

4. The lens mount as claimed in one of the preceding claims, wherein, in a radial direction with respect to an axis of the lens mount, the cross section of the intermediate portion has the same extent as the first cross section of the first portion, and/or wherein the cross section of the intermediate portion has a taper relative to the first cross section of the first portion in an axial direction with respect to the axis of the lens mount.

5. The lens mount as claimed in one of the preceding claims, wherein the first cross section of the first portion has a greater axial than radial extent with respect to the axis of the lens mount, and/or wherein the cross section of the intermediate portion has a smaller axial than radial extent with respect to the axis of the lens mount, and/or wherein the cross section of the intermediate portion has a smaller cross-sectional area than the first cross section of the first portion and/or than the second cross section of the second portion.

6. The lens mount as claimed in one of the preceding claims, wherein the first cross section and the second cross section are formed in such a way as to be the same, and/or wherein the first length and the second length are the same, and/or wherein the intermediate portion is shorter than the first portion and/or shorter than the second portion.

7. The lens mount as claimed in one of the preceding claims, wherein the first portion and/or the intermediate portion and/or the second portion are formed tangentially in a manner free from a radial component.

8. The lens mount as claimed in one of the preceding claims, wherein, at least in the region of the

intermediate sectional plane, the intermediate portion has at least one, in particular precisely one or precisely two, cutout(s), in particular wherein the cutout is formed as a drill hole, milled hole or eroded hole, in particular as a blind hole.

9. The lens mount as claimed in one of the preceding claims, wherein, in the region of the intermediate sectional plane, the connecting web has a taper, which influences a bending stiffness of the connecting web.

10. The lens mount as claimed in one of the preceding claims, wherein a first side of the intermediate portion has at least one first cutout, and/or a second side of the intermediate portion has at least one second cutout, wherein the first cutout and the second cutout are arranged opposite or offset with respect to one another and/or have a different size.

11. The lens mount as claimed in one of the preceding claims, wherein the connecting web is formed as a bending beam which, apart from at least one cutout, has a flat surface.

12. A laser device for emitting a laser beam, wherein the laser device has a lens mount as claimed in one of the preceding claims and a lens, accommodated by the lens mount, for directing the laser beam.

13. A method for producing a monolithic lens mount, comprising:

supply of a blank having an inner receiving portion for an optical element, in particular for a lens, and an outer mount portion, wherein the blank has an axis;

production of a plurality of recesses, at least three recesses, arranged symmetrically with respect to the axis and so as to run toward one another on one side or both sides;

tangential slotting of the blank with a slot subdivided into a plurality of sectors on an outer radius; and

tangential slotting of the blank with a slot subdivided into the plurality of sectors on an inner radius, wherein the recesses are arranged between the inner and the outer radius within the sectors, in particular wherein the step of producing the recesses takes place before the step of tangential slotting and before the step of further tangential slotting.

14. A method for producing a lens mount as claimed in one of claims 1 to 13, wherein the method has the following steps:

supply of a monolithic blank;

forming at least one cutout in a surface of the blank; and

slotting the blank in order to form the outer ring, the inner ring and the at least one connecting web, wherein the cutout is arranged in the region of the intermediate portion of the connecting web.

15. Use of at least three connecting webs for mechanically decoupling an optical lens mounted in an inner ring from deformation of an outer ring on account of radial and/or axial force distribution acting on the outer ring, in particular nonuniform radial and/or axial force distribution, wherein the outer ring and the inner ring are connected to one

another via the connecting webs, wherein the connecting webs each form a first portion having a first length, a second portion having a second length and an intermediate portion having an intermediate length, wherein the intermediate portion is arranged between the first portion and the second portion, wherein the first portion is connected to the inner ring and wherein the second portion is connected to the outer ring, wherein a shape of a cross section of the intermediate portion in an intermediate sectional plane differs from a shape of a first cross section of the first portion in a first sectional plane and from a shape of a second cross section of the second portion in a second sectional plane.