Claims

1. A connection assembly comprising:

a nut which has a threaded hole and which has a first-snap-fit-engagement-arrangement at an axial end surface of the nut;

a first body comprising a first lug which has a through-hole extending through the first lug from a first engagement surface to a second engagement surface and which has a second-snap-fit-engagement-arrangement at the first engagement surface, wherein the nut is coupled to the first lug, with the axial end surface of the nut directed to the first engagement surface of the first lug and the through-hole of the first lug aligned to the threaded hole of the nut, in a manner so as to engage the first-snap-fit-engagement-arrangement of the nut with the second-snap-fit-engagement-arrangement of the first lug such that the nut is non-movable relative to the first lug;

a second body comprising a second lug which has a through-hole extending through the second lug from a first engagement surface to a second engagement surface, wherein the second lug is placed over the first lug with the first engagement surface of the second lug in contact with the second engagement surface of the first lug and the through-hole of the second lug in alignment with the through-hole of the first lug; and

a bolt inserted through the through-holes of the first and second lug, and threaded through the threaded hole of the nut,

wherein the bolt comprises an enlarged head at one end, wherein the enlarged head is in contact with the second engagement surface of the second lug so as to serve as a mechanical stop against the second lug,

wherein a bottom surface of the enlarged head has at least one raised portion;

wherein the second engagement surface of the second lug of the second body has at least one recessed portion that correspond with the at least one raised portion of the enlarged head; and

wherein, the at least one raised portion of the enlarged head engages the at least one recessed portion of the second lug to prevent the bolt from loosening.

2. The connection assembly as claimed in claim 1,

wherein the first-snap-fit-engagement-arrangement of the nut comprises at least two cantilever protrusions extending from the axial end surface of the nut in a direction

parallel to an axis of the threaded hole, each cantilever protrusions having a catch at respective free end, and

wherein the second-snap-fit-engagement-arrangement of the first lug comprises at least two grooves extending along an inner wall of the through-hole of the first lug in an axial direction of the through-hole and from the first engagement surface, each groove shaped to correspond with a respective cantilever protrusion so as to form a snap-fit joint with the respective cantilever protrusion.

3. The connection assembly as claimed in claim 2,

wherein the catch of each cantilever protrusion of the nut is directed radially outwards.

4. The connection assembly as claimed in claim 2 or claim 3,

wherein the at least two cantilever protrusions are on two opposite sides of the threaded hole of the nut.

5. The connection assembly as claimed in any one of claims 2 to 5,

wherein the first-snap-fit-engagement-arrangement of the nut comprises four cantilever protrusions equally distributed around the threaded hole of the nut, and the second-snap-fit-engagement-arrangement of the first lug comprises four grooves correspondingly distributed along the inner wall of the through-hole of the first lug.

6. The connection assembly as claimed in claim 1,

wherein the first-snap-fit-engagement-arrangement of the nut comprises at least two cantilever protrusions extending from the axial end surface of the nut in a direction parallel to an axis of the threaded hole, each cantilever protrusions having a catch at respective free end;

wherein the catch of each cantilever protrusion is directed radially inwards; and

wherein the second-snap-fit-engagement-arrangement of the first lug comprises at least two corresponding interlocking elements, each interlocking element configured to engage with a respective cantilever protrusion so as to form a snap-fit joint with the respective cantilever protrusion.

7. The connection assembly as claimed in any one of claims 1 to 6,

wherein the enlarged head comprises a plurality of radially arranged raised ridges protruding axially from a top surface of the enlarged head.

8. The connection assembly as claimed in any one of claims 1 to 7, wherein the at least one raised portion of the enlarged head has a first inclined surface facing a clockwise direction when looking from a top surface of the bolt and a second perpendicular surface facing an anti-clockwise direction when looking from the top surface of the bolt.

9. The connection assembly as claimed in any one of claims 1 to 8, wherein an engagement of the at least one raised portion of the enlarged head and the at least one recessed portion of the second lug comprises a pair of raised portions of the enlarged head gripping a divider portion of the second lug, wherein the divider portion of the second lug separates adjacent recessed portions of the second lug.