Claims

1. A method for mounting a rear edge ridge onto a rotor blade having a fitted rear edge, wherein:
   - the fitted rear edge is formed as a profile having
   - a fastening section, with which such rear edge is applied to the rotor blade in the area of a trailing edge;
   - an end section that faces away from such fastening section and towards which the profile flattens out, and
   - an intermediate section that is arranged between the fastening section and the end section, having a cavity between one suction side and one pressure side of the rear edge;
   - the rear edge ridge is formed as a flat component having
     - a spike section with several spikes, and
     - a base section, via which the spikes are connected to each other,

   comprising the steps of:
   - cutting open the fitted rear edge lengthwise in the area of its intermediate section such as to open the cavity, and
   - inserting the base section of the rear edge ridge into the thus opened cavity between suction side and pressure side.

2. A method according to Claim 1,
   characterized in that
   the fitted rear edge is cut open lengthwise such as to cut off the end section and/or an end strip with predefined width in the area of the end section.

3. A method according to Claim 1 or 2,
   characterized in that
   the fitted rear edge is chamfered or cut off such in the area, where the rear edge ridge is inserted, that it is chamfered in such area.

4. A method according to one of the Claims 1 through 3,
   characterized in that

an adhesive is placed in the cavity before the rear edge ridge is inserted, and/or the cavity is chamfered, in particular in V-shape from the inside, towards its opening to allow for insertion of the rear edge ridge.

5. A rotor blade of a wind turbine having a fitted rear edge ridge mounted according to any one of Claims 1-4, wherein

- the rotor blade features a pressure side and a suction side,
- the rotor blade features a trailing edge that is essentially opposite to the rotor blade's intended direction of movement.
- the rotor blade modified in a tongue section in the area of the trailing edge through cutting open the fitted rear edge lengthwise in the area of its intermediate section such as to open a cavity, and
- the rear edge ridge is mounted onto the tongue section

the fitted rear edge comprises

- a fastening section, with which such rear edge is applied to the rotor blade in the area of the trailing edge;
- an end section that faces away from such fastening section and towards which the profile flattens out, and
- the intermediate section that is arranged between the fastening section and the end section, having the cavity between one suction side and one pressure side of the rear edge;
- the rear edge ridge is formed as a flat component having
  - a spike section with several spikes, and
  - a base section, via which the spikes are connected to each other,

.

6. A rotor blade according to Claim 5,
characterized in that
the rear edge ridge is glued tight to the tongue section, in particular by means of an adhesive resin, and/or that there is an echelon between one surface of the rotor blade and one side of the tongue section, and the rear edge ridge is mounted onto the tongue such as to be flush with the surface at the echelon.

7. A rotor blade according to Claim 5 or 6,
characterized in that

the rear edge ridge is made of fiber-reinforced material, in particular of fiberglass-reinforced plastic material and in particular of the same material as the rotor blade.

8. A rotor blade according to one of the Claims 5 through 7,
characterized in that
it has a rear edge ridge that has been affixed by a method pursuant to one of the Claims 1 through 4.

9. A rear edge ridge, prepared to be used with a rotor blade according to one of the Claims 5 through 7 and/or prepared to be affixed to a rotor blade according to one of the Claims 1 through 4 comprising a spike section with several spikes, and a base section, via which the spikes are connected to each other.

10. A rear edge ridge according to Claim 9,
characterized in that
a spike length is about 3 to 5 times, in particular 4 times the size of the distance between two adjacent spikes.

11. Wind turbine having at least one rotor blade according to one of the Claims 5 through 8 and/or having at least one rotor blade with a rear edge ridge according to one of the Claim 9 or 10.

Claims

1. A method for mounting a rear edge ridge onto a rotor blade of a wind turbine, wherein the rotor blade has a pressure and a suction side and an essentially straight trailing edge, comprising the steps of:
   - providing a tongue section projecting to the rear at the trailing edge of the rotor blade to form one echelon each to the pressure side and to the suction side in the area of the tongue section;
   - fitting the rear edge ridge or part thereof onto the tongue section, so that it is flush with the suction side or pressure side, respectively, in the area of the echelon.

2. A method according to Claim 1,
   characterized in that
   the tongue section projecting to the rear is provided by removing one material strip each from the suction side and from the pressure side in the area of the straight trailing edge, in particular by means of milling with a router, or by a form for production of the rotor blade providing for a complementary echelon that is adapted to the echelon, in particular by providing an insertion element with such complementary echelon form.

3. A method according to Claim 1 or 2,
   characterized in that
   the rear edge ridge is formed as a profile with
   - a groove section, with which the rear edge ridge is mounted onto the tongue section of the rotor blade, and
   - an end section facing away from the groove section, towards which the rear edge ridge flattens out in a spike-shaped manner.

4. A method according to one of the above claims,
   characterized in that
   the rear edge ridge is split into several sections along the trailing edge of the rotor blade, and the sections are affixed to the rotor blade one after another.

5. A method according to one of the above claims,
   characterized in that

~~an adhesive, in particular an adhesive resin, is applied on the tongue section and/or in the groove section before mounting the rear edge ridge onto the tongue section.~~

~~6~~1. A method for mounting a rear edge ridge onto a rotor blade having a fitted rear edge, wherein:

- the fitted rear edge is formed as a profile having
- a fastening section, with which such rear edge is applied to the rotor blade in the area of a trailing edge;
- an end section that faces away from such fastening section and towards which the profile flattens out, and
- an intermediate section that is arranged between the fastening section and the end section, having a cavity between one suction side and one pressure side of the rear edge;
- the rear edge ridge is formed as a flat component having
  - a spike section with several spikes, and
  - a base section, via which the spikes are connected to each other,

comprising the steps of:

- cutting open the fitted rear edge lengthwise in the area of its intermediate section such as to open the cavity, and
- inserting the base section of the rear edge ridge into the thus opened cavity between suction side and pressure side.

~~7~~2. A method according to Claim ~~6~~1,
characterized in that
the fitted rear edge is cut open lengthwise such as to cut off the end section and/or an end strip with predefined width in the area of the end section.

~~8~~3. A method according to Claim ~~6~~ 1 or ~~7~~2,
characterized in that
the fitted rear edge is chamfered or cut off such in the area, where the rear edge ridge is inserted, that it is chamfered in such area.

~~9~~4. A method according to one of the Claims ~~6~~ 1 through ~~8~~3,
characterized in that

an adhesive is placed in the cavity before the rear edge ridge is inserted, and/or the cavity is chamfered, in particular in V-shape from the inside, towards its opening to allow for insertion of the rear edge ridge.

~~10~~5. A rotor blade of a wind turbine having a fitted rear edge ridge mounted according to any one of Claims 1-4, wherein

- the rotor blade features a pressure side and a suction side,
- the rotor blade features a trailing edge that is essentially opposite to the rotor blade's intended direction of movement.
- the rotor blade modified in a tongue section in the area of the trailing edge through cutting open the fitted rear edge lengthwise in the area of its intermediate section such as to open a cavity~~material removal~~, and
- the rear edge ridge is mounted onto the tongue section

the fitted rear edge comprises

- a fastening section, with which such rear edge is applied to the rotor blade in the area of the trailing edge;
- an end section that faces away from such fastening section and towards which the profile flattens out, and
- the intermediate section that is arranged between the fastening section and the end section, having the cavity between one suction side and one pressure side of the rear edge;
- the rear edge ridge is formed as a flat component having
  - a spike section with several spikes, and
  - a base section, via which the spikes are connected to each other,

.

~~11~~6. A rotor blade according to Claim ~~10~~5,
characterized in that
the rear edge ridge is glued tight to the tongue section, in particular by means of an adhesive resin, and/or that there is an echelon between one surface of the rotor blade and one side of the tongue section, and the rear edge ridge is mounted onto the tongue such as to be flush with the surface at the echelon.

~~12~~7. A rotor blade according to Claim ~~10~~5 or ~~11~~6,
characterized in that

the rear edge ridge is made of fiber-reinforced material, in particular of fiberglass-reinforced plastic material and in particular of the same material as the rotor blade.

~~13~~8. A rotor blade according to one of the Claims ~~10~~ 5 through ~~12~~7, characterized in that it has a rear edge ridge that has been affixed by a method pursuant to one of the Claims 1 through ~~9~~4.

~~14~~9. A rear edge ridge, prepared to be used with a rotor blade according to one of the Claims ~~10~~ 5 through ~~12~~ 7 and/or prepared to be affixed to a rotor blade according to one of the Claims ~~5~~ 1 through ~~9~~4 comprising a spike section with several spikes, and a base section, via which the spikes are connected to each other.

~~15~~10. A rear edge ridge according to Claim ~~14~~9, characterized in that a spike length is about 3 to 5 times, in particular 4 times the size of the distance between two adjacent spikes.

~~16~~11. Wind turbine having at least one rotor blade according to one of the Claims ~~10~~ 5 through ~~13~~ 8 and/or having at least one rotor blade with a rear edge ridge according to one of the Claim~~s~~ ~~14~~ 9 or ~~15~~10.