GRIP SLEEVE FOR SPORTS GEAR

Inventor: Mao-Hsiu Wang, Taichung Hsien (TW)

Correspondence Address:
BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

Assignee: High Cedar Enterprise Co., Ltd., Taichung (TW)

Appl. No.: 11/754,795

Filed: May 29, 2007

Foreign Application Priority Data
Jan. 19, 2007 (TW) 96201125

Publication Classification
Int. Cl. A63B 53/14 (2006.01)
U.S. Cl. 16/421; 473/300

ABSTRACT
A grip sleeve includes a sleeve member for sleeving onto a shaft of a sports gear, and a flexible wrapping member wrapped about the sleeve member. The sleeve member has a head, a heel and a body between the head and the heel. The body of the sleeve member has a radially-recessed annular locating groove at least one of two distal ends thereof. The flexible wrapping member is wrapped about the body of the sleeve member in flush with the head and the heel for the grasp by hand comfortably. The flexible wrapping member has an end edge tightly engaged into the annular locating groove of the body of the sleeve member to prohibit axial displacement of the flexible wrapping member relative to the body of the sleeve member.
FIG. 1
PRIOR ART
GRIP SLEEVE FOR SPORTS GEAR

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention
[0002] The present invention relates generally to sports gears and more particularly, to a grip sleeve for fastened to the handle of a sports gear.
[0003] 2. Description of the Related Art
[0004] The handle of a sports gear, a golf club shaft for example, is generally mounted with a grip sleeve made out of a flexible material for the holding of the user’s hand so that the user can operate the sports gear comfortably without receiving a painful shock.
[0005] FIG. 1 illustrates a grip sleeve constructed according to US patent publication No. 2003/022893A1. According to this design, the grip sleeve 1 is comprised of a sleeve member 2 and a flexible sheet member 3. The sleeve 2 has a head 4 and a body portion 5, which has a diameter smaller than the head 4. The flexible sheet member 3 is wrapped about the body portion 5 of the sleeve member 2 and kept in flush with the head 4. For holding the flexible sheet member 3 positively in position, the head 4 of the sleeve member 2 is made to provide a longitudinally-recessed annular groove 6 at one end adjacent to the body portion 5 for receiving one end of the flexible sheet member 3 to stop the respective end of the flexible sheet member 3 in place. However, because the flexible sheet member 3 must be kept in flush with the outer diameter of the head 4 after it is wrapped about the body portion 5 of the sleeve member 2, the lip 7 of the head 6 around the annular groove 6 must be thinned. However, the thinned lip 7 of the head 4 tends to be opened or curved outwards by an external force or object, and the user’s hand that holds the grip sleeve will feel uncomfortable when this happened. Frequently opening the lip 7 or curving the lip 7 outwards may result in breaking of the head 6.
[0006] U.S. Pat. No. 6,709,346 discloses a golf club grip sleeve, which includes a sleeve member and an annular skirt member. The sleeve member has a body portion and an annular stopper. The body portion is provided with an opening at an end thereof. The stopper is located at an external periphery of the body portion and is extended for a predetermined length from an end beside the opening of the body portion towards the other end of the body portion. The skirt member is extended outwards from the end beside the opening of the body portion and is longer than the stopper so as to be turned back to cover the stopper. The main drawback of this design of golf club grip sleeve is that the end edge of the annular skirt member tends to be opened, curved outwards, and damaged.

SUMMARY OF THE INVENTION

[0007] The present invention has been accomplished under the circumstances in view. It is the main objective of the present invention to provide a grip sleeve, which keeps outer surface smooth for comfortable gripping by hand.
[0008] To achieve this objective of the present invention, the grip sleeve comprises a sleeve member for sleeving onto a shaft of a sports gear, and a flexible wrapping member wrapped about the sleeve member. The sleeve member has a head, a heel and a body between the head and the heel. The head and the heel each have an outer diameter greater than the outer diameter of the body. The body has a radially-recessed annular locating groove extending around the periphery at least one of two distal ends thereof. The flexible wrapping member has an inner surface bonded to the periphery of the body of the sleeve member, an outer surface opposite to the inner surface and an end edge engaged into the radially-recessed annular locating groove for prohibiting axial displacement of the flexible wrapping member relative to the body of the sleeve member when the outer surface of the wrapping member is grasped by hand.

[0009] Further scope of applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The present invention will become more fully understood from the detailed description given hereinbelow and the accompanying drawings which are given by way of illustration only, and thus are not limiting of the present invention, and wherein:
[0011] FIG. 1 is a sectional view of a part of a grip sleeve according to the prior art;
[0012] FIG. 2 is an exploded view of a grip sleeve in accordance with a first preferred embodiment of the present invention;
[0013] FIG. 3 is an assembly view of the grip sleeve in accordance with the first preferred embodiment of the present invention;
[0014] FIG. 4 is a schematic sectional view in an enlarged scale of the grip sleeve in accordance with the first preferred embodiment of the present invention;
[0015] FIG. 5 is an exploded, partially cutaway view of a grip sleeve in accordance with a second preferred embodiment of the present invention; and
[0016] FIG. 6 is a schematic sectional view in an enlarged scale of the grip sleeve in accordance with the second preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] As shown in FIGS. 2-4, a grip sleeve 100 in accordance with a first preferred embodiment of the present invention comprises a sleeve member 10 and a flexible wrapping member 20.
[0018] The sleeve member 10 is molded from rubber, having a head 11, a body 12, and a heel 13. The body 12 is integrally connected between the head 11 and the heel 13. The head 11 and the heel 13 have an outer diameter greater than the outer diameter of the body 12 by about 1.6-2.0 mm, preferably 1.8 mm. The sleeve member 10 has an axial hole 14 extending through the head 11, the body 12 and the heel 13 for receiving a sports gear shaft (not shown). The body 12 has a radially-recessed annular locating groove 121 extending around the periphery and abutting with the heel 13. The annular locating groove 121 has a radial depth about 1.2-0.5 mm, and axial width about 0.6-1.0 mm, smaller than the thickness of the flexible wrapping member 20. According to this embodiment, the radial depth of the annular locating groove 121 is 1 mm, and the axial width of the annular locating groove 121 is 0.8 mm.
The flexible wrapping member 20 is a single-piece sheet member of polyurethane, ethylene vinyl acetate, genuine leather, or artificial leather, having a thickness about 1.2-1.8 mm. According to this embodiment, the thickness of the flexible wrapping member 20 is 1.8 mm. The flexible wrapping member 20 defines an inner surface 21 that is a big area surface extending axially along the length of the single-piece sheet member, an outer surface 22 opposite to the inner surface 21, a first side edge 23 that is a side edge extending axially along one lateral side of the single-piece sheet member in connection between the inner surface 21 and the outer surface 22, a second side edge 24 opposite to the first side edge 23, and a first end edge 25 that is an end edge in connection between the bottom side of the inner surface 21 and the bottom side of the outer surface 22 and extends along the short axis of the single-piece sheet member. The first end edge 25 slopes in one direction from the inner surface 21 toward the outer surface 22 such that the long-axis length of the inner surface 21 is shorter than the long-axis length of the outer surface 22 for enabling the first end edge 25 to be engaged into the annular locating groove 121.

After introduction of the component parts of the grip sleeve 100, the assembly process of the grip sleeve 100 is outlined hereinafter.

Referring to FIG. 4, the flexible wrapping member 20 is wrapped about the body 12 of the sleeve member 10 to have the inner surface 21 adhered to the periphery of the body 12 and the first side edge 23 and the second side edge 24 be joined together by a glue or stitches. Thereafter, the first end edge 25 of the flexible wrapping member 20 is forced into the annular locating groove 121 of the body 12 to prohibit axial displacement of the flexible wrapping member 20 relative to the sleeve member 10. Because the axial width of the annular locating groove 121 is smaller than the thickness of the flexible wrapping member 20, the annular locating groove 121 holds the first end edge 25 of the flexible wrapping member 20 in a tight manner.

By means of engaging the first end edge 25 of the flexible wrapping member 20 into the annular locating groove 121 of the body 12 tightly, the flexible wrapping member 20 is prohibited from axial displacement relative to the sleeve member 10. Further, because the annular locating groove 121 is recessed radially around the periphery of the body 12 and because no any fastening means for fastening the flexible wrapping member 20 is needed after the first end edge 25 of the flexible wrapping member 20 is tightly engaged into the annular locating groove 121 of the body 12, the first end edge 25 of the flexible wrapping member 20 will not be opened from the body 12 or curved outwards relative to the body 12 to cause discomfort for the user.

Further, according to this embodiment, the head 11 and the heel 13 have an outer diameter greater than the outer diameter of the body 12 by 1.8 mm, and the thickness of the flexible wrapping member 20 is 1.8 mm, therefore the flexible wrapping member 20 is kept in flush with the head 11 and the heel 13 for comfortable grasping by the user after it is wrapped about the body 12.

Further, a glue may be applied to the annular locating groove 121 before engaging the first end edge 25 of the flexible wrapping member 20 into the annular locating groove 121 of the body 12 so that the first end edge 25 of the flexible wrapping member 20 is firmly secured to the annular locating groove 121 of the body 12 after its insertion.

FIGS. 5 and 6 show a grip sleeve 200 in accordance with a second preferred embodiment of the present invention. According to this embodiment, the grip sleeve 200 comprises a sleeve member 30 and a flexible wrapping member 40.

The body 32 of the sleeve member 30 has a first radially-recessed annular locating groove 321 and a second radially-recessed annular locating groove 322 respectively extending around the periphery of the two distal ends and respectively abutted with the heel 33 and the head 31. According to this embodiment, the second annular locating groove 322 has a radial depth 0.5 mm, and an axial width 0.8 mm.

The flexible wrapping member 40 is a narrow strip spirally wrapped about the body 32 of the sleeve member 30, having a first end edge 45 at one end and a second end edge 46 at the opposite end. The first end edge 45 is engaged into the first annular locating groove 321 and abutted with the heel 31. The second end edge 46 is engaged into the second annular locating groove 322 and abutted with the head 32. After engagement of the first end edge 45 and second end edge 46 of the flexible wrapping member 40 into the first annular locating groove 321 and the second annular locating groove 322, the flexible wrapping member 40 is positively secured to the body 32 and prohibited from axial displacement relative to the body 32.

According to this second embodiment, the body of the sleeve member has two annular locating grooves extending around the periphery and respectively abutted with the heel and the head for receiving the two end edges of the flexible wrapping member to prohibit axial displacement of the flexible wrapping member relative to the body of the sleeve member. In actual practical, one single annular locating groove around one end of the body of the sleeve member for receiving the corresponding end edge of the flexible wrapping member is sufficient to prohibit axial displacement of the flexible wrapping member relative to the body of the sleeve member.

The invention being thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.

What is claimed is:

1. A grip sleeve comprising:
   a sleeve member for gripping onto a sports gear shaft, the sleeve member having a head, a heel and a body between the head and the heel, the head and the heel each having an outer diameter greater than the outer diameter of the body, the body having a radially-recessed annular locating groove at least one of two distal ends thereof; and a flexible wrapping member having an inner surface bonded to the body of the sleeve member, an outer surface opposite to the inner surface and an end edge engaged into the radially-recessed annular locating groove.

2. The grip sleeve as claimed in claim 1, wherein the annular locating groove of the body of the sleeve member is abutted with the head.

3. The grip sleeve as claimed in claim 1, wherein the annular locating groove of the body of the sleeve member is abutted with the heel.

4. The grip sleeve as claimed in claim 1, wherein the annular locating groove has an axial width smaller than the thickness of the flexible wrapping member.
5. The grip sleeve as claimed in claim 1, wherein the flexible wrapping member is a single-piece sheet member having a first side edge and a second side edge joined with the first side edge to hold the flexible wrapping member wrapped about the body of the sleeve member.

6. The grip sleeve as claimed in claim 1, wherein the flexible wrapping member is a long strip member spirally wrapped about the body of the sleeve member.

7. The grip sleeve as claimed in claim 1, wherein the end edge slopes from the inner surface toward the outer surface.

8. A sleeve member for a grip sleeve for sleeving onto a sports gear shaft, the sleeve member comprising:

   a head;
   a heel; and
   a body between the head and the heel, the body having an outer diameter smaller than the outer diameter of each of the head and the heel, the body having a radially-recessed annular locating groove at least one of two distal ends thereof.

9. The sleeve member as claimed in claim 8, wherein the annular locating groove of the body is abutted with the heel.

10. The sleeve member as claimed in claim 8, wherein the annular locating groove of the body is abutted with the head.

   * * * * *