(11) **EP 1 221 408 A2** 

(12)

# **EUROPEAN PATENT APPLICATION**

(43) Date of publication:

10.07.2002 Bulletin 2002/28

(21) Application number: 02000358.8

(22) Date of filing: 04.01.2002

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 09.01.2001 AU PR243501

(71) Applicant: RIP CURL INTERNATIONAL PTY. LTD. Torquay, VIC 3228 (AU)

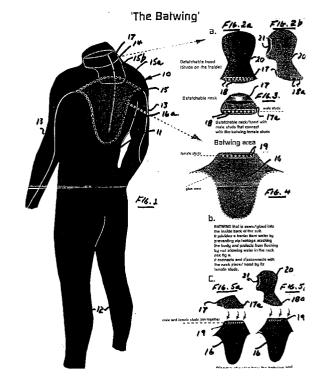
(51) Int CI.<sup>7</sup>: **B63C 11/04** 

(72) Inventor: Griffiths, David James Jan Juc, Victoria 3228 (AU)

(74) Representative: Grünecker, Kinkeldey, Stockmair & Schwanhäusser Anwaltssozietät Maximilianstrasse 58 80538 München (DE)

# (54) Wetsuit

(57)A wetsuit structure (10) having a zip (15) extending from a neck opening (14) of the wetsuit and down that portion of the wetsuit which, in use, will at least surround the upper part of the torso (11) of a wearer of the wetsuit. A barrier panel (16) of stretchable, substantially water proof, material is attached within the interior of the wetsuit adjacent to, and underlying, at least a major portion of the length of the zip. The wetsuit structure also has a detachable neck or collar (17) of stretchable, substantially water proof, material adapted, in use, to be pulled over the head of the wearer whilst stretching in the process, but then relaxing to fit relatively tightly into sealing engagement around the neck of the wearer, and a series of studs (18, 19) to detachably connect the neck or collar to the body of the wetsuit. The neck or collar (17) may be a simple neck or collar, or be formed as part of a hood which, in use, will fit around the head of the wetsuit wearer with an opening therethrough in the facial region of the wearer.



15

#### Description

### Technical Field

**[0001]** This invention relates to a wetsuit, more particularly, in one aspect of the invention, a wetsuit incorporating a zip which is openable to allow body access into and out of the interior of the wetsuit. The second aspect of the invention is applicable to a wetsuit having an improved manner of sealing the wetsuit around the neck thereof to prevent, or at least minimise, the ingress of water to the interior of the wetsuit.

#### **Background Art**

**[0002]** For wetsuits with zips with are openable to provide an opening large enough to allow body access into and out of the interior of the wetsuit, one problem encountered is how to prevent leakage (ingress) of water through the zip to the wearer's body when the zip is closed.

# Disclosure of the Invention

**[0003]** Therefore, it is an object of one aspect of the invention to provide a wetsuit structure which prevents water leakage through the closed zip from reaching the body of the wearer.

**[0004]** In accordance with the first aspect of the invention there is provided a wetsuit structure having a zip extending from a neck opening of the wetsuit and down that portion of the weteuit which, in use, will at least surround the upper part of the torso of a wearer of the wetsuit, wherein a barrier panel of stretchable, substantially water proof, material is attached within the interior of the wetsuit adjacent to, and underlying, at least a major portion of the length of the zip.

**[0005]** It is also a problem with many current wetsuit structures, whether having zips or even without zips (so called zipperless wetsuits) as to how to prevent ingress of water through the neck opening.

**[0006]** In accordance with a second aspect of the invention, there is provided a wetsuit structure having a detachable neck or collar of stretchable, substantially water proof, material adapted, in use, to be pulled over the head of the wearer whilst stretching in the process, but then relaxing to fit relatively tightly into sealing engagement around the neck of the wearer, and means to detachably connect the neck or collar to the body of the wetsuit.

**[0007]** In accordance with the second aspect of the invention the neck or collar may be a simple neck or collar, or may be formed as part of a hood which in use will fit around the head of the wetsuit wearer with an opening therethrough in the facial region of the wearer.

**[0008]** In one preferred embodiment of the invention the wetsuit structure incorporates the first and second aspects of the invention defined above, whilst preferably

the detachable neck or collar of the second aspect of the invention is attached to the barrier panel of the first aspect of the invention and within the interior of the wetsuit to, together with the barrier panel, cover the entire length of the zip.

#### Brief Description of the Drawings

**[0009]** One preferred embodiment, incorporating both the first and second aspects of the invention, will now be described with reference to the accompanying drawings;

Figure 1 is a perspective view from the rear of the wetsuit of this preferred embodiment,

Figures 2a and 2b are rear and side views of a detachable hood for the wetsuit.

Figure 3 is a rear view of a simple detachable collar for the wetsuit,

Figure 4 is a view of the panel to be attached within the wetsuit adjacent and underlying the zip of the wetsuit, and

Figures 5a and 5b show how the hood or simple collar of the second aspect of the invention is associated with the barrier panel in accordance with the first aspect of the invention.

## Best Mode for Carrying Out the Invention

**[0010]** Turning to Figure 1 of the drawings, the wetsuit structure of this preferred embodiment of the invention, and generally indicated as 10, has a torso portion 11, a pair of legs 12, a pair of arms 13, and neck opening 14. The wetsuit structure can be manufactured from any conventional material for wetsuits, or any other materials which may become available.

**[0011]** The wetsuit has a zip 15 extending from the neck opening 14 and down that portion of the wetsuit which, in use, will at least surround the upper part of the torso portion 11.

[0012] In accordance with the first aspect of the invention a suitably shaped barrier panel 16 of stretchable, substantially water proof, material is attached, such as by sewing or gluing along lines 16a, within the interior of the wetsuit adjacent to, and underlying, a major portion 15a of the length of the zip. The stretchability of the barrier panel 16 allows body access to the interior of the wetsuit when the zip is opened and the barrier panel stretched whereby the wearer can enter through the neck opening 14 and the opening provided by the opened zip, and whereafter, when the zip is subsequently closed, the barrier panel relaxes and acts as a barrier to any water leakage through the portion of the length of the zip which it underlies.

50

[0013] In accordance with this preferred embodiment of the invention, and with reference to Figures 3 and 5a of the drawings, where both the first and second aspects of the invention are combined, the remaining portion 15b of the length of the zip is closed by a neck or collar 17 of stretchable, substantially water proof, material, and adapted, in use, to be pulled over the head of the wearer whilst stretching in the process, but then relaxing into relatively tight sealing engagement around the neck of the wearer. The neck or collar 17 has a downwardly extending flap portion 17a which underlies the remaining portion 15b of the length of the zip, and is attached to the upper portion of the barrier panel 16. In this preferred embodiment the attachment is by means of a series of press studs, the male studs 18 of which are spaced apart along either the inside or the outside of the flap portion 17a of the neck or collar 17, and the associated females studs 19 of which are spaced apart along, depending on the positioning of the male studs, the outside or the inside of the upper part of the barrier panel 16. [0014] With reference to Figures 2a and 5b of the drawings, a variation of the second aspect of the invention which, in this embodiment, is also incorporated with the first aspect of the invention, the neck or collar 17 forms part of a hood 20 which in use will fit around the head of the wetauit wearer and has an opening 21 therethrough which will be in the facial region of the wearer.

**4.** A wetsuit structure as claimed in Claim 2 or 3, wherein the neck or collar is a simple neck or collar.

5. A wetsuit structure as claimed in Claim 2 or 3, wherein the neck or collar is formed as part of a hood which, in use, will fit around the head of the wetsuit wearer with an opening therethrough in the facial region of the wearer.

- 6. A wetsuit structure as claimed in any one of Claims 2 to 5, wherein the neck or collar has a downwardly extending flap portion which is detachably connected to the body of the wetsuit.
- 7. A wetsuit structure as claimed in Claim 6, wherein the downwardly extending flap portion is detachably connected to an upper portion of the barrier panel.
  - **8.** A wetsuit structure as claimed in any one of Claims 2 to 7, wherein the means to detachably connect the neck or collar to the body of the wetsuit are a series of press studs.
  - A wetsuit structure, substantially as hereinbefore described with reference to the accompanying drawings.

**Claims** 

1. A wetsuit structure having a zip extending from a neck opening of the wetsuit and down that portion of the wetsuit which, in use, will at least surround the upper part of the torso of a wearer of the wetsuit, wherein a barrier panel of stretchable, substantially water proof, material is attached within the interior of the wetsuit adjacent to, and underlying, at least a major portion of the length of the zip.

2. A wetsuit structure having a detachable neck or collar of stretchable, substantially water proof, material adapted, in use, to be pulled over the head of the wearer whilst stretching in the process, but then relaxing to fit relatively tightly into sealing engagement around the neck of the wearer, and means to detachably connect the neck or collar to the body of the wetsuit.

3. A wetsuit structure as claimed in Claim 1, wherein there is also provided a detachable neck or collar of stretchable, substantially water proof, material adapted, in use, to be pulled over the head of the wearer whilst stretching in the process, but then relaxing to fit relatively tightly into sealing engagement around the neck of the wearer, and means to detachably connect the neck or collar to the body of the wetsuit.

40

20

30

45

