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A training harness

Field of the Invention

[1] The present invention relates to training equipment and in particular, but not necessarily entirely, to a training harness.

[2] The invention has been developed primarily for use in leg resistance training and will be described hereinafter with reference to this application. However, it will be appreciated that the invention is not limited to this particular field of use.

Summary of the Disclosure
[3] According to one aspect, there is provided a training harness for resistance training, the harness comprising: a waist strap for fastening around the waist of a user in use; a pair of shoulder straps, the shoulder straps each connected at respective distal ends at correspondingly anterior and posterior locations of the waist strap so as to reach over the shoulders of the user in use and wherein: the training harness further comprises a pair of traveling waist anchor attachment points for selective attachment of a corresponding pair of waist anchor leashes in use and wherein the waist anchor attachment points are each engaged by the waist strap so as to be able to travel between respective first and second waist locations such that, in use, as the user changes rotational orientation with respect to the pair of waist anchor leashes each waist anchor attachment point independently travels correspondingly between the first and second locations; and the training harness further comprises a pair of travelling shoulder anchor attachment points for selective attachment of a corresponding pair of shoulder anchor leashes in use and wherein the shoulder anchor attachment points are each engaged by a respective one of the pair of shoulder straps so as to be able to travel between respective first and second shoulder locations such that, in use, as the user changes inclination with respect to the pair of shoulder anchor leashes each shoulder anchor attachment point independently travels correspondingly between the first and second shoulder locations.

[4] The respective first and second waist locations may be positioned such that each waist anchor attachment point may be configured to travel through the user's rotational transitioning through approximately 90°.

[5] The respective first waist locations may be positioned laterally.

[6] The respective second waist locations may be positioned posteriorly.

[7] The second waist locations may be spaced apart.

[8] The waist strap may comprise outer and inner strap portions between which each respective waist anchor attachment point travels.
The respective first and second waist locations may be defined by cross stitching the outer and inner strap portions together.

The respective first and second shoulder locations may be positioned such that each shoulder anchor attachment point may be configured to travel through the user’s inclination transitioning through approximately 180°.

The respective first shoulder locations may be positioned anteriorly.

The respective second shoulder locations may be positioned posteriorly.

The shoulder straps each may comprise outer and inner strap portions between which each respective shoulder anchor attachment point travels.

The respective first and second shoulder locations may be defined by cross stitching the outer and inner strap portions together.

The training harness may further comprise legging straps configured for extending between the legs of the user in use so as to substantially hold the harness in position as superiorly orientated tension may be applied to the shoulder anchor attachment points.

The legging straps may be connected to the waist strap by way of webbing.

The training harness may further comprise connection straps connected to the legging straps, the connection straps configured for extending between the legs of the user and comprising distal mechanical fasteners configured for fastening to anterior fasteners.

The connection straps may be length adjustable.

The training harness may further comprise chest straps configured to extend across the chest of the user in use.

The chest straps comprise an upper chest strap extending across the upper chest and a lower chest strap extending across the lower chest.

The upper and lower chest straps and the waist straps may be selectively disengageable by way of mechanical fastener.

The upper and lower chest straps and the waist straps may be length adjustable.

The training harness may further comprise lateral strapping extended laterally around the lateral edges of the torso of the user in use and fastened to respective posterior and anterior shoulder strap locations.

The lateral strapping may be elasticised so as to allow for chest expansion.

The training harness may further comprise backplating.

The backplating may be fastened between posterior portions of the shoulder straps.

The backplate in may comprise a first backplate and a second smaller and separate second backplate located beneath the first backplate.
[28] Other aspects of the invention are also disclosed.

Brief Description of the Drawings
[29] Notwithstanding any other forms which may fall within the scope of the present invention, a preferred embodiments of the disclosure will now be described, by way of example only, with reference to the accompanying drawings in which:

[30] Figure 1 shows a front view of a training harness in accordance with a preferred embodiment of the present disclosure;

[31] Figure 2 shows a rear view of the training harness of Figure 1 in accordance with a preferred embodiment of the present disclosure; and

[32] Figure 3 shows an rear view of the training harness of Figure 1 in accordance with a preferred embodiment of the present disclosure.

Description of Embodiments
[33] For the purposes of promoting an understanding of the principles in accordance with the disclosure, reference will now be made to the embodiments illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the disclosure is thereby intended. Any alterations and further modifications of the inventive features illustrated herein, and any additional applications of the principles of the disclosure as illustrated herein, which would normally occur to one skilled in the relevant art and having possession of this disclosure, are to be considered within the scope of the disclosure.

[34] Before the structures, systems and associated methods relating to the training harness are disclosed and described, it is to be understood that this disclosure is not limited to the particular configurations, process steps, and materials disclosed herein as such may vary somewhat. It is also to be understood that the terminology employed herein is used for the purpose of describing particular embodiments only and is not intended to be limiting since the scope of the disclosure will be limited only by the claims and equivalents thereof.

[35] In describing and claiming the subject matter of the disclosure, the following terminology will be used in accordance with the definitions set out below.

[36] It must be noted that, as used in this specification and the appended claims, the singular forms "a," "an," and "the" include plural referents unless the context clearly dictates otherwise.

[37] As used herein, the terms "comprising," "including," "containing," "characterised by," and grammatical equivalents thereof are inclusive or open-ended terms that do not exclude additional, unrecited elements or method steps.
It should be noted in the following description that like or the same reference numerals in different embodiments denote the same or similar features.

In the accompanying figures, there is shown a training harness for resistance training. As will be appreciated from the ensuing description, the training harness is configured for the attachment of anchors thereto, such as by way of anchor leashes to provide resistance, especially for leg resistance training.

For example, the user may drag on object such as a car tyre or other object fastened to the harness by leashes including a pair of leashes. Alternatively, the user may attach the harness to a fixed point, such as a post including by way of elasticised leash(es).

In a preferred embodiment, the harness comprises travelling anchor attachment points such that, in use, as the user changes rotational orientation and/or inclination with respect to the anchor, the anchor points travel so as to follow the force vectors of the tensioned leashes.

The components of the harness as provided in the accompanying figures are provided in the following table:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>O-ring</td>
</tr>
<tr>
<td>2</td>
<td>Shoulder strap 38mm</td>
</tr>
<tr>
<td>3</td>
<td>Shoulder strap 50mm</td>
</tr>
<tr>
<td>4</td>
<td>Leg strap</td>
</tr>
<tr>
<td>5</td>
<td>Left chest strap</td>
</tr>
<tr>
<td>6</td>
<td>Waist strap 50mm</td>
</tr>
<tr>
<td>7</td>
<td>Webbing 38mm</td>
</tr>
<tr>
<td>8</td>
<td>Buckle 1”</td>
</tr>
<tr>
<td>9</td>
<td>Webbing 50mm</td>
</tr>
<tr>
<td>10</td>
<td>Webbing 50mm</td>
</tr>
<tr>
<td>11</td>
<td>Webbing 25mm</td>
</tr>
<tr>
<td>12</td>
<td>Webbing 50mm</td>
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<tr>
<td>13</td>
<td>Webbing 50mm</td>
</tr>
<tr>
<td>14</td>
<td>Webbing 38mm</td>
</tr>
<tr>
<td>15</td>
<td>Elastic strap 50mm</td>
</tr>
<tr>
<td>16</td>
<td>Elastic strap 50mm</td>
</tr>
<tr>
<td>17</td>
<td>Webbing 38mm</td>
</tr>
<tr>
<td>18</td>
<td>Shoulder sandwich</td>
</tr>
<tr>
<td>19</td>
<td>MESH</td>
</tr>
<tr>
<td>20</td>
<td>Waist sandwich</td>
</tr>
<tr>
<td>21</td>
<td>Buckle 1.5”</td>
</tr>
<tr>
<td>22</td>
<td>Buckle 2”</td>
</tr>
<tr>
<td>23</td>
<td>Plastic plate big</td>
</tr>
<tr>
<td>24</td>
<td>Plastic plate small</td>
</tr>
<tr>
<td>25</td>
<td>Right chest strap</td>
</tr>
<tr>
<td>26</td>
<td>Webbing 25mm</td>
</tr>
</tbody>
</table>
Now, turning to figure 1, there is shown a front view of the harness wherein, as can be seen, the harness comprises a waist strap 6 for fastening around the waist of the user in use.

The harness further comprises a pair of shoulder straps 2, 3 wherein the shoulder straps 2 are connected at respective distal ends at correspondingly anterior and posterior locations of the waist strap 6 so as to reach of the shoulders of the user in use.

Now, as alluded to above, the training harness further comprises a pair of travelling waist anchor attachment points for selective attachment to a corresponding pair of waist anchor leashes in use. The waist anchor attachment points are each engaged by the waist strap 6 so as to be able to travel between respective first and second waist locations such that, in use, as the user changes rotational orientation with respect to the pair of waist anchor leashes, each waist anchor attachment point independent travels correspondingly between the first and second locations.

Specifically, in the embodiment shown at least in figure 1, the waist anchor attachment points comprise metal D rings engaged by the waist strap 6. As can be appreciated, the pair of waist anchor attachment points may be used simultaneously or individually.

For example, during training, the user may drag a car tyre for leg resistance training. In this regard, in one example, the user may attach a pair of leashes from the car tyre to each waist anchor attachment point simultaneously. Alternatively, the user may connect one of the waist anchor attachment points to a leash connected to the car tire.

Now, as can be appreciated, as the user drags the car tire, the user may change the orientational rotation of the user’s torso with respect to the leashes such that the waist anchor points travel correspondingly between the first and second locations.

As can be seen from figure 1, the first waist locations are positioned approximately laterally. Furthermore, turning to figure 2, there is shown a rear view of the harness 2. As can be seen from this representation, the respective second waist locations are positioned posteriorly.

As such, and for example, while the user is dragging the car tire behind the user, the travelling waist anchor attachment points may be located substantially at the posterior second waist locations. However, as the user changes the rotational orientation of the user’s torso with respect to the car tire, such as wherein the user runs sideways “crab style” with respect to the car tire, one of the travelling waist anchor attachment points may remain substantially at the posterior second waist location and the other waist anchor attachment point may travel substantially to the lateral first waist anchor location.

In this manner, and again for example, as a user drags the tire, the user may alternate between running styles comprising a leftward sideways run, forwards run and rightwards sideways run.
In embodiments, the leash may be looped through the car tire such that the tension on each loop portion is substantially equal.

As can be seen, the first and second waist locations may be defined by cross stitching to limit the travel of the waist anchor attachment points. In this regard, each waist strap may comprise inner and outer strap portions between which the waist anchor attachment points travel and wherein the extent of the travel of the waist anchor attachment points is limited by the cross stitching of the inner and outer strap portions together as a substantially shown in the accompanying representations.

The extent of travel of the waist anchor attachment points by the waist strap 6 may be such so as to allow each waist anchor attachment point to travel as the user transitions in rotational orientation through substantially 90°. For example, considering the right waist anchor attachment point as substantially shown in figure 1, were the waist anchor attachment leash to be laterally orientated with respect to the training harness, the waist anchor attachment point would be located at the lateral first location. However, as the waist anchor attachment leash transitions substantially through 90° towards the posterior of the training harness, the waist anchor attachment point travels correspondingly through the 90° transition. In a similar manner, the left waist anchor attachment point is able to travel as the corresponding waist anchor attachment leash transitions substantially through 90° from a lateral to posterior orientation.

Now, in a further preferred embodiment, the training harness further comprises a pair of travelling shoulder anchor attachment points for selective attachment of a corresponding pair of shoulder anchor attachment leashes in use. Similarly, the shoulder anchor attachment points are each engaged by a respective one of the pair of shoulder straps 2 so as to be able to travel between respective first and second shoulder locations. In this manner, in use, as a user changes inclination with respect to the pair of shoulder anchor leashes, each shoulder anchor attachment point independently travels correspondingly between the first and second shoulder locations.

As such, in use, as the user changes inclination with respect to the pair of shoulder anchor attachment leashes, each shoulder anchor attachment point independently travels correspondingly between the first and second shoulder locations.

Now, the respective first and second shoulder locations opposition such that each shoulder anchor attachment point is configured to travel through the user’s inclination transitioning through approximately 180°. Specifically, referring to the front view of the training harness as substantially shown in figure 1, the respective first shoulder locations are positioned anteriorly substantially at the upper chest or pectoral region of the user. Similarly, turning to figure 2, showing the rear view of the training harness, the respective second shoulder locations are positioned posteriorly which, in the
embodiment shown in figure 2 is located approximately at the upper back, shoulder blade location or even trapezoid region of the user.

[58] Now, and again using the example of the user dragging a car tire, the user may engage a pair of anchor leashes from the car tyre to each of the shoulder anchor attachment points. As such, when dragging the car tyre behind the user, the shoulder anchor attachment points may be located at the posterior second locations. However, during training, the user may be required to, on hands and knees, back away from the car tyre while facing the car tire. As such, in this embodiment, the shoulder anchor attachment points would locate substantially at the apex of each shoulder strap as substantially shown in figure 1.

[59] Thereafter, should the user then be required to stand and run backwards while facing the car tire, the shoulder anchor attachment points may travel to the anterior first shoulder locations.

[60] As was similarly described with reference to the above waist strap, the shoulder straps may similarly comprise outer and inner strap portions between which the shoulder anchor attachment points slide between the first and second locations. Similarly, the first and second locations of each respective shoulder strap may be defined by cross stitching the first and second strap portions together.

[61] Now, in a preferred embodiment, the harness further comprises legging straps 4 configured for extending between the legs of the user in use so as to substantially hold the harness in position as superiorly orientated tension is applied to the shoulder anchor attachment points. Specifically, for the above described in use example wherein the user is required to back away from the car tyre while on all fours, so as to prevent the superiorly orientated tension from dislodging the harness upwardly, the legging straps 4 may hold the harness in place.

[62] As can be seen, the legging straps 4 may be connected to the waist strap 6 by way of intermediate webbing. Furthermore, the legging straps 4 may comprise length adjustable connection straps selectively disengageable by distantly located corresponding mechanical fasteners such as the buckles as substantially shown in figure 1. As such, in use, to engage the legging straps 4, the user would feed the connection straps between the user’s legs, engage the buckles and then subsequently adjust the length of the connection straps. In the embodiment shown, the harness comprises a pair of connection straps for fastening the legging straps 4.

[63] In a preferred embodiment, the harness further comprises chest straps 5 configured to extend across the chest of the user in use. In the embodiment shown at least in figure 1, the harness comprises an upper chest strap extending across the upper chest and a lower chest strap extending across the lower chest of the user. In this manner, the upper and lower chest straps and the waist straps extend across the torso of the user at three positions.
In a preferred embodiment as are substantially shown in figure 1, the horizontally extending chest and waist straps are selectively disengagable by way of mechanical fastener such as the buckle as is shown or other suitable fastening arrangement. Furthermore, the straps may be length adjustable.

As such, when donning the harness, the user would unbuckle both of the chest straps and the waist strap and place the harness over the shoulders of the user. Thereafter, the user would buckle each of the chest straps and waist straps and adjust the tension accordingly. Thereafter, as alluded to above, the user may engage the legging straps 4.

In embodiments, the harness may further comprise lateral strapping 15, 16 as is best seen in figure 2. As can be seen, such lateral strapping 15, 16 extends laterally around the torso of the user in use between posterior and anterior shoulder strap locations. In a preferred embodiment the strapping is elasticised so as to provide tolerance for chest expansion such as when breathing.

As can also be seen from figure 2, the harness may further comprise various intermediate straps extending between the shoulder straps. Certain of these intermediate straps may be horizontally located and certain others may be crossed so as to maintain the offsets of the shoulder straps both horizontally and vertically.

Furthermore, backplating may be provided between the shoulder straps for further maintaining the form of the harness in use. Specifically, the harness may comprise a large plastic backplate located between the shoulder straps 2 substantially at the location of the cross brace intermediate strapping 11. Furthermore, the harness may further comprise a smaller plastic backplate located beneath the large plastic plate similarly between the shoulder straps.

In embodiments, the backplates may be manufactured from any suitable material comprising the requisite rigidity properties. In embodiments, the backplate may be manufactured from plastic. Furthermore, in embodiments, the backplate may be removable.

Turning now to figure 3, there is shown an inner view of the training harness. In embodiments, the inner surface of the training harness may comprise mesh 19. The mesh 19 provides advantages in maintaining the structure of the training harness, providing comfort for the user, providing breathability and the like.

Furthermore, the horizontal and vertical strapping of the training harness may comprise a sandwich structure comprising layers of material comprising and interfacing ergonomic layer so as to protect the user from abrasion from the strapping.

Exemplary dimensions are provided in the accompanying figures. However, it should be appreciated that dimensional variations may be made within the purposive scope of the embodiments described herein.
Furthermore, whereas the harness has been described with reference to a preferred embodiment comprising both the waist and shoulder travelling anchor attachment points, it should be appreciated that in embodiments variations, modifications and additions may be made to the harness within the purposive scope of the embodiments described herein. For example, the harness may be provided with one of the waist and shoulder anchor attachment points in accordance with less preferred embodiments of the present disclosure. Furthermore, the locations of the respective first and second waist and shoulder locations may be adjusted so as to, for example, allow the waist anchor attachment points to transition through 180° for example. Furthermore, as opposed to having two waist anchor attachment points, the harness may comprise a single waist anchor attachment point configured to travel through 180° to respective lateral first and second locations.
Interpretation

Embodiments:
[74] Reference throughout this specification to "one embodiment" or "an embodiment" means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, appearances of the phrases "in one embodiment" or "in an embodiment" in various places throughout this specification are not necessarily all referring to the same embodiment, but may. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the art from this disclosure, in one or more embodiments.

[75] Similarly it should be appreciated that in the above description of example embodiments of the invention, various features of the invention are sometimes grouped together in a single embodiment, figure, or description thereof for the purpose of streamlining the disclosure and aiding in the understanding of one or more of the various inventive aspects. This method of disclosure, however, is not to be interpreted as reflecting an intention that the claimed invention requires more features than are expressly recited in each claim. Rather, as the following claims reflect, inventive aspects lie in less than all features of a single foregoing disclosed embodiment. Thus, the claims following the Detailed Description of Specific Embodiments are hereby expressly incorporated into this Detailed Description of Specific Embodiments, with each claim standing on its own as a separate embodiment of this invention.

[76] Furthermore, while some embodiments described herein include some but not other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination.

Different Instances of Objects
[77] As used herein, unless otherwise specified the use of the ordinal adjectives "first", "second", "third", etc., to describe a common object, merely indicate that different instances of like objects are being referred to, and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

Specific Details
[78] In the description provided herein, numerous specific details are set forth. However, it is understood that embodiments of the invention may be practiced without these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.
Term inology
[79] In describing the preferred embodiment of the invention illustrated in the drawings, specific terminology will be resorted to for the sake of clarity. However, the invention is not intended to be limited to the specific terms so selected, and it is to be understood that each specific term includes all technical equivalents which operate in a similar manner to accomplish a similar technical purpose. Terms such as "forward", "rearward", "radially", "peripherally", "upwardly", "downwardly", and the like are used as words of convenience to provide reference points and are not to be construed as limiting terms.

Comprising and Including
[80] In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" are used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

[81] Any one of the terms: including or which includes or that includes as used herein is also an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, including is synonymous with and means comprising.

Scope of Invention
[82] Thus, while there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the spirit of the invention, and it is intended to claim all such changes and modifications as fall within the scope of the invention. For example, any formulas given above are merely representative of procedures that may be used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional blocks. Steps may be added or deleted to methods described within the scope of the present invention.

[83] Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.
Claims

1. A training harness for resistance training, the harness comprising:
   a waist strap for fastening around the waist of a user in use;
   a pair of shoulder straps, the shoulder straps each connected at respective distal ends at correspondingly anterior and posterior locations of the waist strap so as to reach over the shoulders of the user in use and wherein:

   the training harness further comprises a pair of traveling waist anchor attachment points for selective attachment of a corresponding pair of waist anchor leashes in use and wherein the waist anchor attachment points are each engaged by the waist strap so as to be able to travel between respective first and second waist locations such that, in use, as the user changes rotational orientation with respect to the pair of waist anchor leashes, each waist anchor attachment point independently travels correspondingly between the respective first and second locations; and

   the training harness further comprises a pair of travelling shoulder anchor attachment points for selective attachment of a corresponding pair of shoulder anchor leashes in use and wherein the shoulder anchor attachment points are each engaged by a respective one of the pair of shoulder straps to as to be able to travel between respective first and second shoulder locations such that, in use, as the user changes inclination with respect to the pair of shoulder anchor leashes, each shoulder anchor attachment point independently travels correspondingly between the respective first and second shoulder locations.

2. A training harness as claimed in claim 1, wherein the respective first and second waist locations are positioned such that each waist anchor attachment point is configured to travel through the user's rotational transitioning through approximately 90°.

3. A training harness as claimed in claim 2, wherein the first waist locations are positioned at opposing lateral sides of the harness.

4. A training harness as claimed in claim 3, wherein the second waist locations are positioned posteriorly.

5. A training harness as claimed in claim 4, wherein the second waist locations are spaced apart.

6. A training harness as claimed in claim 5, wherein the waist strap comprises outer and inner strap portions between which each respective waist anchor attachment point travels.

7. A training harness as claimed in claim 6, wherein the respective first and second waist locations are defined by cross stitching the outer and inner strap portions together.
8. A training harness as claimed in claim 1, wherein the respective first and second shoulder locations are positioned such that each shoulder anchor attachment point is configured to travel through the user's inclination transitioning through approximately 180°.
9. A training harness as claimed in claim 8, wherein the respective first shoulder locations are positioned anteriorly.
10. A training harness as claimed in claim 9, wherein the respective second shoulder locations are positioned posteriorly.
11. A training harness as claimed in claim 10, wherein the shoulder straps each comprises outer and inner strap portions between which each respective shoulder anchor attachment point travels.
12. A training harness as claimed in claim 11, wherein the respective first and second shoulder locations are defined by cross stitching the outer and inner strap portions together.
13. A training harness as claimed in claim 8, further comprising legging straps configured for extending between the legs of the user in use so as to substantially hold the harness in position as superiorly orientated tension is applied to the shoulder anchor attachment points.
14. A training harness as claimed in claim 13, wherein the legging straps are connected to the waist strap by way of webbing.
15. A training harness as claimed in claim 13, further comprising connection straps connected to the legging straps, the connection straps configured for extending between the legs of the user and comprising distal mechanical fasteners configured for fastening to anterior fasteners.
16. A training harness as claimed in claim 15, wherein the connection straps are length adjustable.
17. A training harness as claimed in claim 1, further comprising chest straps configured to extend across the chest of the user in use.
18. A training harness as claimed in claim 17, wherein the chest straps comprise an upper chest strap extending across the upper chest and a lower chest strap extending across the lower chest.
19. A training harness as claimed in claim 17, wherein the upper and lower chest straps and the waist straps are selectively disengageable by way of mechanical fastener.
20. A training harness as claimed in claim 19, wherein the upper and lower chest straps and the waist straps are length adjustable.
21. A training harness as claimed in claim 1, further comprising lateral strapping extended laterally around the lateral edges of the torso of the user in use and fastened to respective posterior and anterior shoulder strap locations.
22. A training harness as claimed in claim 21, wherein the lateral strapping is elasticised so as to allow for chest expansion.
23. A training harness as claimed in claim 1, further comprising backplating.

24. A training harness as claimed in claim 23, wherein the backplating is fastened between posterior portions of the shoulder straps.

25. A training harness as claimed in claim 24, wherein the backplate comprises a first backplate and a second smaller and separate second backplate located beneath the first backplate.
Back

Figure 2
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
A63B 21/00 (2006.01)  A63B 21/02 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Databases: WPIAP, EPDOC, as well as SPATEN (all English language full-text databases): IPC/CPC's: A63B21/00; Keywords include: abdomen, anchor, attachment, band, belt, chest, clip, d ring, drag, elastic, fitness, harness, haul, hip, horizontal, jacket, lateral, leash, pelvis, pivot, pull, resistance, ring, rope, rotate, shoulder, sideways, slide, spin, strap, thorax, upper body, torso, training, travel, turn, vertical, vest, waist, and like terms.

Espacenet, Google, Google Images, Google Patents, Google Scholar, ADDS, Youtube: Keywords include: attachment, drag, harness, lateral, metal, resistance, ring, rotate, shoulder, sliding, straps, tire, training, tyre, waist, and like terms, and applicant/inventor names. Also searched internal IP Australia databases, The Lens and AusPat for applicant/inventor names.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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</table>

Documents are listed in the continuation of Box C

[ ] Further documents are listed in the continuation of Box C  [ ] See patent family annex

- Special categories of cited documents:
  - "A" document defining the general state of the art which is not considered to be of particular relevance
  - "E" earlier application or patent but published on or after the international filing date
  - "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  - "O" document referring to an oral disclosure, use, exhibition or other means
  - "P" document published prior to the international filing date but later than the priority date claimed
  - "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  - "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  - "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  - "S" document member of the same patent family

Date of the actual completion of the international search: 27 April 2016
Date of mailing of the international search report: 27 April 2016

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Form PCT/ISA/210 (fifth sheet) (July 2009)
<table>
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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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<td>Reactive Stretch Cord. KBands Training. [retrieved from internet on 11 April 2016]</td>
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<td>US 7874970 B2 (GLISAN) 25 January 2011</td>
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