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(54) Benevnelse **ARTICLE OF SPORTS CLOTHING**

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EP-A2- 1 673 991
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US-A1- 2010 299 799

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Description

The invention relates to an article of sports clothing for wearing next to the skin having the characterizing features of the preamble to Claim 1.

Such an article of sports clothing is familiar from EP 1 125 512. It possesses compression zones, although these are of identical configuration on both body halves and for this reason do not take account of stresses that are unilateral or are different for each side of the body, of the kind which occur in certain types of sports.

An article of sports clothing having compression zones, which exhibit ridge-shaped structures, is familiar PCT/WO2010/046130. It promotes blood circulation and stabilization of the muscles. Partial compression is a type of compression, which, in comparison with planar compression, exerts pressure on the skin via ridges. The ridges are formed by areas of the textile fabric which exhibit a greater thickness than the base fabric or are reinforced by other supplements to the base fabric and which accordingly rise higher. The edges of the ridges are pressed onto the surface of the skin due to the elasticity of the base fabric, whereas the interjacent areas of skin are not compressed and at all events there is very loose contact of the base fabric with the skin. Ideally, the base fabric is tensioned between the ridges and is raised from the skin. Better cooling of the body can thus be assured, since the perspiration is able to evaporate directly on the skin in the areas between the ridges.

The familiar article of sports clothing has proven to be effective for general and all-round muscular strain, although because of the high external pre-tensioning of all the muscles that are covered by the article of clothing by the compression zones, it is not equally suitable for all types of loading and types of sports.

The object of the present invention is to propose a further development of the

already familiar article of sports clothing, in order to offer optimal support in particular in the event of typically asymmetrical movement sequences.

The solution is provided by an article of sports clothing having the characterizing features of Claim 1.

The object of the invention is an article of clothing which at the same time exhibits a variety of compression types, in particular planar and partial, strong and weak. The structures in the zones can also be ribbed to different degrees, that is to say they can have ribs that are arranged more or less closely to one another. The intermediate spaces between the individual ribs can likewise have different widths. The material between the ribs can be thinner in specific zones, in order further to improve the dissipation of body heat or the evaporation of perspiration.

The different types of compression are reproduced on the body via various zones. The zones are disposed asymmetrically, above all in the region of the arm. This is important in types of sports which produce an asymmetrical loading on the body, such as golf.

When playing golf, for example, there is a guiding arm and a striking arm. In order to be able to execute an optimal golf swing, the movement sequence must be extremely uniform and precise. The asymmetrically disposed compression zones, above all in the arms, are a help in executing the swing in an optimal fashion, in the sense that they support, warm or cool the muscles depending on the strain on the group of muscles covered by the zone in the article of sports clothing.

It is proposed according to the invention in this case generally to compress more strongly those muscle groups which serve for guiding and giving direction, since the muscle vibration is also reduced by the one zone or the several zones with stronger compression. The more heavily loaded muscle groups, on the other hand, are compressed less strongly according to the invention. In the case of the latter,

in fact, the emphasis is on the issue of the facilitated and accelerated discharge of heat and moisture from the skin to the environment.

Taking the game of golf as an example, this means that the article of sports clothing, in particular designed as a long-sleeved shirt and adapted for a right-handed player, possesses zones with stronger compression on the shoulder and the upper arm in the left body half, that is to say in the area of the so-called guide arm. Zones in which the muscles are less strongly stressed by the compression means are provided, on the other hand, on the striking arm side, normally being the right side in the case of a right-handed player.

These functions can naturally be adapted to the most diverse requirements, depending on the type of sport with asymmetrical loading, such as tennis, ice hockey, bowling, baseball, hand ball, billiards, etc.

The invention is explained in more detail below with reference to the drawing. In the individual figures:

Fig. 1 depicts a shirt designed according to the invention in a view from the front, and

Fig. 2 depicts the shirt in a view from the rear.

Figure 1 depicts an article of sports clothing 10 designed as a shirt with long sleeves from the front. The trunk is designated here with 20, the arms with 21, 22, and the shoulders with 23, 24.

The zones 1, 2, 3, 4, 5 are distributed on the article of sports clothing. Fundamental to the invention is the asymmetrical design of the zones 1, 2, 5, 6 in particular. The design of the respective zones is as follows:

Zone 1 in the area of the right shoulder 23 and of the right upper arm 21:

- Partial compression with fine-knit on the upper arm 21 and the shoulder 23.
- Ridges with a larger spacing and fine-knit in the intermediate spaces.
- Function: produces a partial compression over the ridges. Perspiration on the skin is able to evaporate in the intermediate spaces. Heat can be dissipated via the fine-knit structure.

Zone 2 in the area of the left shoulder 24 and the left upper arm 26:

- Description: partial compression on the shoulder 24.
- Nature: ridges with a smaller spacing.
- Function: produces a partial compression over the ridges. Perspiration on the skin is able to evaporate in the intermediate spaces.

Zone 5 on the right forearm:

- Description: partial compression with fine-knit on the forearm.
- Nature: ridges a larger spacing and fine-knit in the intermediate spaces.
- Function: produces a partial compression over the ridges. Perspiration on the skin is able to evaporate in the intermediate spaces. Heat can be dissipated via the fine-knit structure.

Zone 6 on the left forearm:

- Nature: only base fabric, no compression.

The compression of muscle groups, albeit symmetrical, is also assisted by zone 4 in the chest region and zone 11 in the back region.

Zone 4:

- Description: partial compression with fine-knit in the chest region.

- Nature: ridges with a larger spacing and fine-knit in the intermediate spaces.
- Function: produces a partial compression over the ridges. Perspiration on the skin is able to evaporate in the intermediate spaces. Heat can be dissipated via the fine-knit structure.

Zone 11:

- Description: partial compression with fine-knit on the shoulder blade.
- Nature: ridges with a larger spacing and fine-knit in the intermediate spaces.
- Function: produces a partial compression over the ridges. Perspiration on the skin is able to evaporate in the intermediate spaces. Heat can be dissipated via the fine-knit structure.

There are also the following additional functional zones:

Zone 3 on the right elbow joint:

- Description: X-cross bandage.
- Nature: X-shaped bandage around the elbow joint.
- Function: stabilizes the joint and supports the ligaments and tendons in the joint.

Zones 8, 9 on the elbow joints:

- Description: expansion ribs.
- Nature: rib-shaped structure.
- Function: expanding ribs maintain insulating intermediate spaces including in flexion.

Patentkrav

1. Sportsklesplagg (10) for å bæres på huden, omfattende minst én basisstoffsone av elastisk tøyelig, vevd tekstilstoff og kompresjonssoner (1, 2, 4, 5, 6, 11) som har middel for kompresjon som er dannet av ribber som er tilveiebrakt på den siden av det vevde tekstilstoffet som vender mot huden, der kompresjonssonene (1, 2, 4, 5, 6, 11) er anordnet fordelt på asymmetrisk vis i forhold til kroppshalvdelene, i sonene til sportsklesplagget (10) som er tiltenkt torsoen (20) og/eller over- og/eller underekstremitetene (21, 22, 23, 24), **karakterisert ved at** sportsklesplagget er utformet som langermet trøye og at en første kompresjonssone (1) strekker seg på en arm (21) og/eller en skulder (23) i en første kroppshalvdel og har tykkere utformede ribber og en høyere elastisitetsmodul enn en andre kompresjonssone (2) som strekker seg på en arm (22) eller en skulder (24) i den til enhver tid andre kroppshalvdelen.

2. Sportsklesplagg (10) ifølge krav 1, **karakterisert ved at** dette er utformet som langermet trøye for idrettsgrener som utøves med racket eller kølle, hvortil det på siden med føringsarmen er utformet soner med sterk kompresjon på skulderen eller overarmen, og på siden med slagarmen er det tilveiebrakt soner hvor muskulaturen påvirkes mindre sterkt av kompresjonsmidlene.

3. Sportsklesplagg (10) ifølge krav 1 eller 2, **karakterisert ved at** ribbene er frembrakt ved en økning av materialtykkelsen.

4. Sportsklesplagg (10) ifølge minst ett av de foregående kravene, **karakterisert ved at** ribbene har en tilnærmet trekantet form.

5. Sportsklesplagg (10) ifølge ett eller flere av de foregående kravene, **karakterisert ved at** ribbene er utstyrt med et belegg.

6. Sportsklesplagg (10) ifølge ett eller flere av de foregående kravene, **karakterisert ved at** ribbene er dannet av, eller belagt med, komprimerbart og forsinket ekspanderende materiale.

7. Sportsklesplagg (10) ifølge minst ett av de foregående kravene, **karakterisert ved at** ribbene har avbrudd langs sin lengdeutstrekning.

8. Sportsklesplagg (10) ifølge ett eller flere av de foregående kravene, **karakterisert ved at** det i albueleddets område er anordnet en X-formet bandasje av bandasjebånd som krysser hverandre.

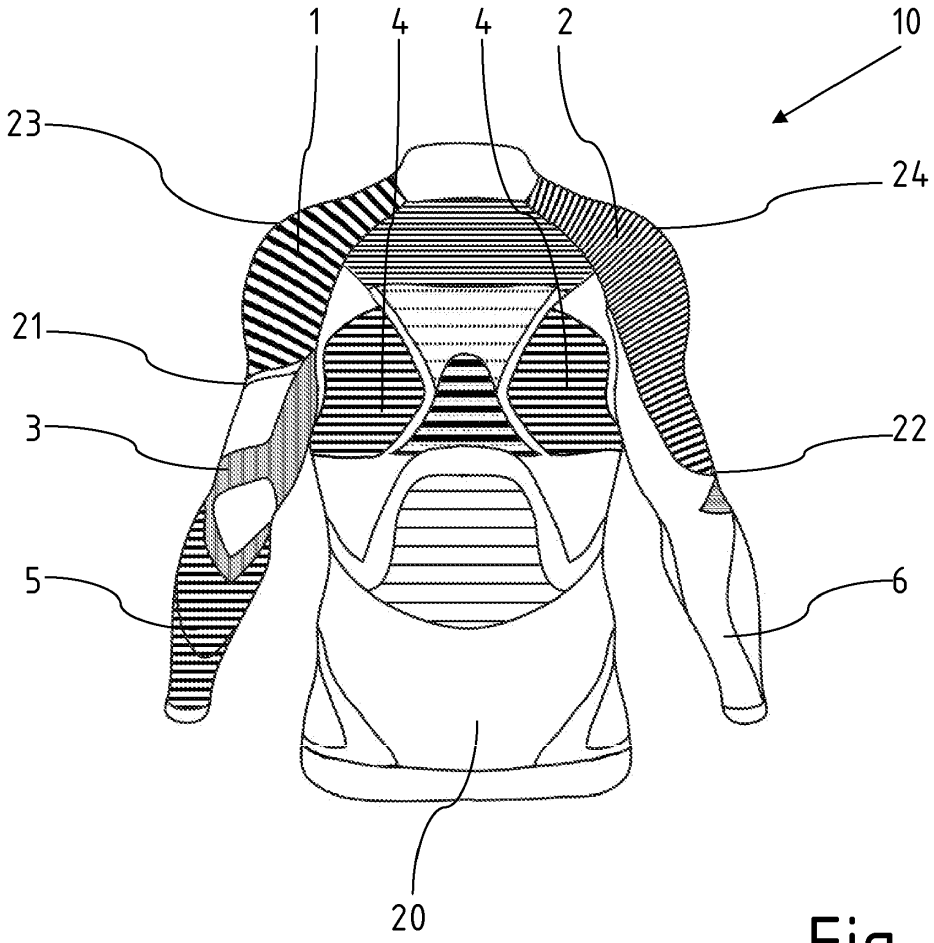

Fig. 1

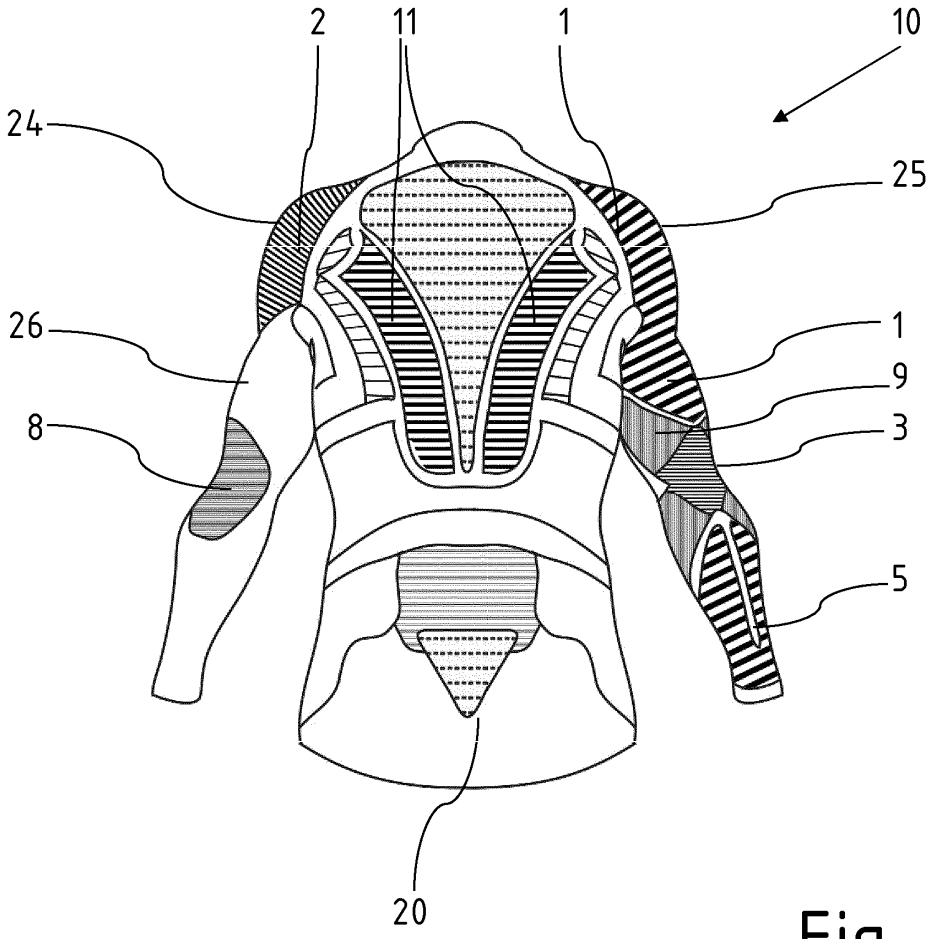

Fig. 2