

Title (en)  
SELF-CONTAINED FLUID PRESSURE FOOT SUPPORT DEVICE.

Title (de)  
FUSSSTÜTZE MITTELS FLÜSSIGKEITSDRUCK.

Title (fr)  
DISPOSITIF AUTONOME DE SUPPORT DE PIED A PRESSION EXERCEE PAR UN FLUIDE.

Publication  
**EP 0007948 A1 19800220 (EN)**

Application  
**EP 78900163 A 19790425**

Priority  
• US 84225077 A 19771014  
• US 92842578 A 19780727

Abstract (en)  
[origin: WO7900210A1] A device which supports and cushions the human foot by means of fluid pressure is disclosed. The device is non-elastic and self-supporting. Two superimposed plies of a fluid impervious woven fabric material are sealed to each other around the periphery (24) and, according to predetermined design, at selected areas (20) within the periphery. The result is a series of foot supporting pneumatic cushions interspersed and separated with void regions (20a) which do not touch the underside of the foot. The fluid containing chambers (21) which form the pneumatic cushions are in communication with each other through fluid passageways (23) located around the periphery of the device. The device permits fluid to flow from one internal chamber to another when compressed, but with a back pressure build up sufficient to prevent sudden surges of fluid from one chamber to another. This provides additional pressure which resists and cushions the impact of the forces applied to the device.

Abstract (fr)  
Dispositif de support et d'amortissement du pied humain au moyen d'une pression exercee par un fluide. Le dispositif est non elastique et se supporte lui-meme. Deux plis superposes d'un materiau textile tisse impermeable a un fluide sont fixes de maniere etanche l'un a l'autre sur la peripherie (24) et, d'apres une construction preetablie, en des zones choisies (20) a l'interieur de la peripherie. Il en resulte une serie de coussins pneumatiques de support de pied entremeles et separees par des zones vides (20a) qui ne touchent pas la plante du pied. Les chambres contenant le fluide (21) et formant les coussins pneumatiques communiquent entre elles par l'intermediaire de passages du fluide (23) situees a la peripherie du dispositif. Le dispositif permet au fluide de passer d'une chambre a une autre lorsqu'il y a compression, mais avec une pression inverse suffisante pour empecher les a-coups brusques de pression du fluide d'une chambre a une autre. Ceci fournit une pression supplementaire qui resiste et amortit l'impact des forces appliquees sur le dispositif.

IPC 1-7  
**A43B 13/20**; **A43B 13/38**

IPC 8 full level  
**A43B 13/00** (2006.01); **A43B 13/20** (2006.01); **A43B 13/38** (2006.01); **A43B 7/14** (2006.01)

CPC (source: EP)  
**A43B 7/1464** (2022.01); **A43B 13/203** (2013.01); **A43B 13/38** (2013.01); **A41D 13/0153** (2013.01)

Cited by  
CN108348041A; US11627778B2; US11622600B2; US11744321B2; US10674788B2; US11096444B2; US11229260B2; US11304475B2; US11317675B2; US11324281B2; US11490681B2

Designated contracting state (EPC)  
FR

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DOCDB simple family (application)  
**US 7800105 W 19781011**; CA 313413 A 19781013; DK 457678 A 19781013; EP 78900163 A 19790425; ES 474178 A 19781013; FR 8019178 A 19800903; GB 7917458 A 19781011; IT 6937078 A 19781016; JP 50005678 A 19781011; NL 7810294 A 19781013