

Title (en)

REMOVABLE MIDSOLE STRUCTURES AND CHAMBERS WITH CONTROLLED VARIABLE PRESSURE

Title (de)

ABNEHMBARER MITTELSOHLENAUFBAU UND KAMMERN MIT GESTEUERTEM VERÄNDERLICHEN DRUCK

Title (fr)

STRUCTURES DE SEMELLE INTERCALAIRE AMOVIBLES ET COMPARTIMENTS A PRESSION VARIABLE REGULEE

Publication

**EP 1278435 A2 20030129 (EN)**

Application

**EP 01928783 A 20010424**

Priority

- US 0113096 W 20010424
- US 19982900 P 20000426
- US 22186800 P 20000728
- US 22537700 P 20000814
- US 23195700 P 20000912
- US 23671800 P 20001002

Abstract (en)

[origin: WO0180678A2] This invention relates generally to footwear such as a shoe, including an athletic shoe, with a shoe sole, including at least one removable midsole insert formed by a midsole portion, wherein the removable midsole insert is non-orthotic. The removable midsole insert is inserted within the shoe upper, the sides of which hold it in position. The shoe sole includes a concavely rounded side or underneath portion that may be formed in part by the removable midsole insert. The removable midsole insert may extend the length of the shoe sole or may form only a part of the shoe sole and can incorporate cushioning or structural compartments or components. The removable midsole insert provides the capability to permit replacement of midsole material that has degraded or has worn out in order to maintain optimal characteristics of the shoe sole. The shoe sole can, in another embodiment, include at least one compartment containing a fluid, a flow regulator, a pressure sensor to monitor the compartment pressure, and a control system such as a computer processor capable of automatically adjusting the pressure in the compartment(s) in response to the impact of the shoe sole with the ground surface.

IPC 1-7

**A43B 13/20**

IPC 8 full level

**A43B 13/12** (2006.01); **A43B 13/18** (2006.01); **A43B 13/20** (2006.01); **A43D 1/02** (2006.01)

CPC (source: EP)

**A43B 7/142** (2013.01); **A43B 7/1425** (2013.01); **A43B 7/1435** (2013.01); **A43B 7/144** (2013.01); **A43B 7/1464** (2022.01); **A43B 7/148** (2013.01); **A43B 13/12** (2013.01); **A43B 13/186** (2013.01); **A43B 13/189** (2013.01); **A43B 13/203** (2013.01); **A43B 13/206** (2013.01); **A43D 1/025** (2013.01)

Citation (search report)

See references of WO 0180678A2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**WO 0180678 A2 20011101**; **WO 0180678 A3 20020704**; AU 5560101 A 20011107; EP 1278435 A2 20030129

DOCDB simple family (application)

**US 0113096 W 20010424**; AU 5560101 A 20010424; EP 01928783 A 20010424