



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) EP 1 531 124 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
04.04.2007 Bulletin 2007/14

(51) Int Cl.:
B63C 11/22 (2006.01)

(43) Date of publication A2:
18.05.2005 Bulletin 2005/20

(21) Application number: 04016074.9

(22) Date of filing: 08.07.2004

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL HR LT LV MK

(30) Priority: 14.11.2003 IT GE20030092

(71) Applicant: MARES S.p.A.
16035 Rapallo GE (IT)

(72) Inventor: Pietrelli, Nino
16030 Sori (IT)

(74) Representative: Porsia, Attilio et al
c/o Succ. Ing. Fischetti & Weber
Via Caffaro 3/2
16124 Genova (IT)

(54) Pressure regulator for the regulator first stage of a two-stage aqualung

(57) Pressure regulator for the regulator first stage of a two-stage aqualung, comprising a reduction chamber (501; 901) which communicates, via a delivery valve (401), with an admission channel (101) for admitting the high-pressure mixture of breathable gases, and with at least one outlet (701) connected, via suitable connection means, to a regulator second stage, there being a flexing chamber (801) for an elastically deformable diaphragm (2) connected to a rod-shaped control member (431) of the delivery valve (401), and there being an annular choke (621; 921) allowing axial sliding of the said member (431) and obstructing the direct flow of gas between the said reduction chamber (501; 901) and the said flexing chamber (801), characterized in that the regulator is provided with a channel (811) which connects the said reduction chamber (501; 901) with the said flexing chamber (801), flow adjustment means (821) being provided in the said channel.

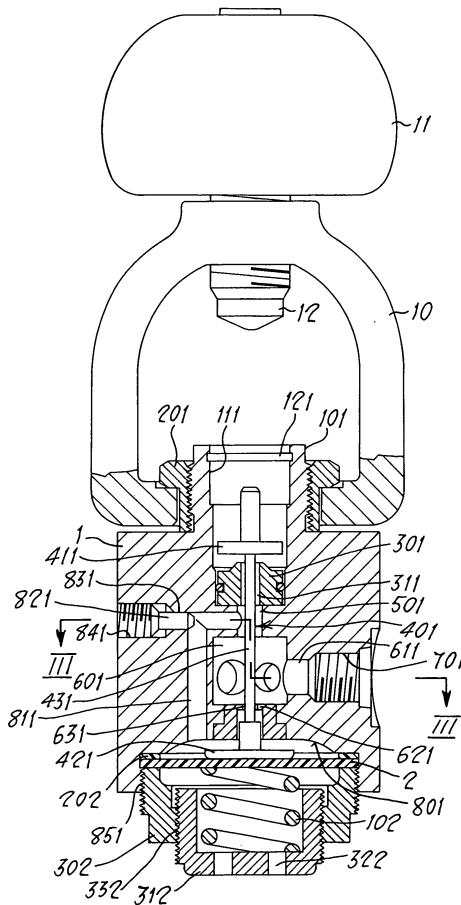


Fig. 1



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	EP 0 807 571 A1 (HTM SPORT SPA [IT]) 19 November 1997 (1997-11-19) * column 4, line 4 - line 32; figure 1 * -----	1-6	INV. B63C11/22
			TECHNICAL FIELDS SEARCHED (IPC)
			B63C
1	The present search report has been drawn up for all claims		
	Place of search	Date of completion of the search	Examiner
	The Hague	22 February 2007	DE SENA HERNANDORENA
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
EPO FORM 1503 03 82 (P04C01)			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 04 01 6074

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-02-2007

Patent document cited in search report	Publication date		Patent family member(s)		Publication date
EP 0807571	A1	19-11-1997	DE	69707052 D1	08-11-2001
			DE	69707052 T2	20-06-2002
			IT	GE960043 A1	17-11-1997
			JP	10063344 A	06-03-1998
			US	5810041 A	22-09-1998