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Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
30 May 2014

(54) Title: CONTAINER FINISH AND COMBINATION OF A CONTAINER FINISH AND A CLOSURE CAP

(57) Abstract: This invention concerns a container finish (1) having an essentially cylindrical outside surface (2) with one single thread (3), said thread being arranged on the outside surface (2) so as to extend over an angle of less than 550 DEG and more than 360 DEG. The container finish (1) comprises at least one venting recess (4), said venting recess (4) interrupting the thread (3), wherein the thread (3) has a pitch (6) of less than 3mm.

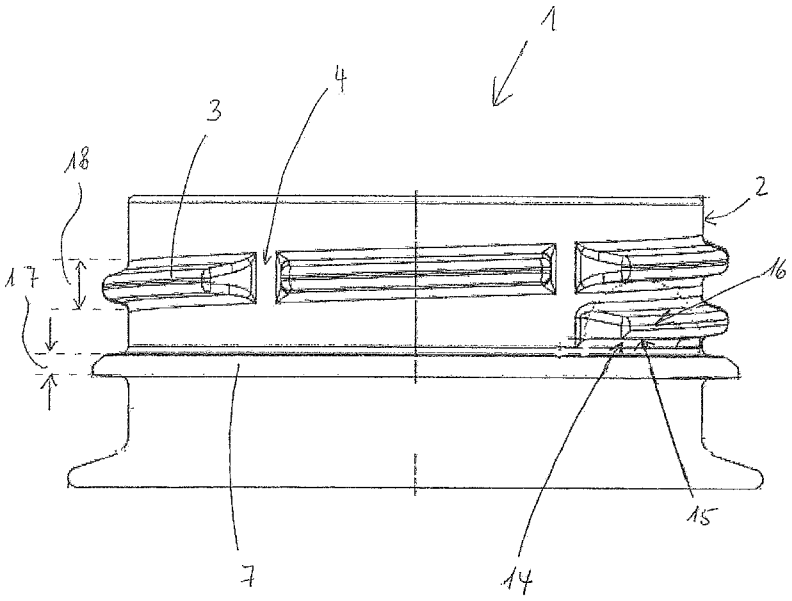


Fig. 2

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2013/064948

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D1/02 B65D51/16
ADD.

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)
B65D

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)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2009/045158 A1 (SURIOL JORDI LLUCH [ES]) 19 February 2009 (2009-02-19) the whole document -----	1,25,26 9,10
Y	EP 2 316 630 A1 (MITSUI DU PONT POLYCHEMICAL [JP]) 4 May 2011 (2011-05-04) paragraphs [0041] - [0044], [0068], [0092] - paragraph [0004]; figures -----	9,10
X	GB 2 105 693 A (UG CLOSURES AND PLASTICS LIMIT [GB]) 30 March 1983 (1983-03-30) page 2, line 24 - line 26; figures -----	29-31
A	WO 97/28057 A1 (CROWN CORK AG [CH]; DREYER LINO [FR]; JAUSLIN RICHARD [CH]) 7 August 1997 (1997-08-07) cited in the application the whole document -----	1-28
	-/--	

[X] Further documents are listed in the continuation of Box C.

[X] 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

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
20 March 2014	04/04/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Gino, Christophe

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Form PCT/ISA/210 (second sheet) (April 2005)

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International application No
PCT/EP2013/064948

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 007 848 A (SNYDER WILLIAM JOSEPH) 15 February 1977 (1977-02-15) abstract; figure 3	1-28
A	US 2005/150856 A1 (OZAWA TOMOYUKI [JP] ET AL) 14 July 2005 (2005-07-14) paragraph [0054]; figures	1-25
A	EP 0 009 854 A1 (METAL CLOSURES LTD [GB]) 16 April 1980 (1980-04-16) the whole document	1-28
A	US 4 643 330 A (KENNEDY LEO J [US]) 17 February 1987 (1987-02-17) abstract; figures	1-28

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2013/064948

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☒ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-28

   A container finish comprising a single thread, at least one venting recess, the thread having a pitch of less than 3mm, a container with said container finish and a combination of said container finish and a closure cap.

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2. claims: 29-31

   A closure cap having a truncated thread start.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2013/064948

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009045158 A1	19-02-2009	AU 2008287506 A1	19-02-2009
		CA 2695987 A1	19-02-2009
		CN 101801805 A	11-08-2010
		EP 2197758 A1	23-06-2010
		JP 2010536665 A	02-12-2010
		RU 2010109399 A	20-09-2011
		US 2009045158 A1	19-02-2009
		WO 2009023102 A1	19-02-2009
EP 2316630 A1	04-05-2011	CN 102083602 A	01-06-2011
		EP 2316630 A1	04-05-2011
		JP 4437833 B2	24-03-2010
		JP 2010023431 A	04-02-2010
		KR 20110009719 A	28-01-2011
		US 2011114653 A1	19-05-2011
		WO 2010010682 A1	28-01-2010
GB 2105693 A	30-03-1983	NONE	
WO 9728057 A1	07-08-1997	AT 185533 T	15-10-1999
		AU 707771 B2	22-07-1999
		AU 1188197 A	22-08-1997
		BR 9707479 A	06-04-1999
		CN 1209784 A	03-03-1999
		CO 4650213 A1	03-09-1998
		DE 59700552 D1	18-11-1999
		EP 0879182 A1	25-11-1998
		ES 2139433 T3	01-02-2000
		GR 3031613 T3	31-01-2000
		HU 9902061 A2	29-11-1999
		IL 125238 A	21-11-2000
		JP 2000503944 A	04-04-2000
		PL 328084 A1	04-01-1999
		TR 9801442 T2	21-10-1998
		US 6006930 A	28-12-1999
		WO 9728057 A1	07-08-1997
US 4007848 A	15-02-1977	NONE	
US 2005150856 A1	14-07-2005	AU 2003254923 A1	25-02-2004
		CN 1578745 A	09-02-2005
		EP 1528000 A1	04-05-2005
		KR 20050026910 A	16-03-2005
		TW I268895 B	21-12-2006
		US 2005150856 A1	14-07-2005
		WO 2004014744 A1	19-02-2004
EP 0009854 A1	16-04-1980	AR 217891 A1	30-04-1980
		AT 366337 B	13-04-1982
		AU 4204978 A	20-03-1980
		BE 872555 A1	30-03-1979
		BR 7808246 A	20-05-1980
		CA 1147294 A1	31-05-1983
		CH 632461 A5	15-10-1982
		DE 2967597 D1	03-07-1986
		DE 7836739 U1	15-03-1979
		DK 556678 A	16-03-1980
		EP 0009854 A1	16-04-1980

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2013/064948

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		ES 240022 U	16-01-1979
		FI 783788 A	16-03-1980
		GR 70242 A1	01-09-1982
		IE 47964 B1	08-08-1984
		IL 56160 A	29-06-1981
		IT 1100615 B	28-09-1985
		JP S5548055 A	05-04-1980
		JP S5752259 B2	06-11-1982
		JP S60150938 U	07-10-1985
		NO 784149 A	18-03-1980
		NZ 189079 A	13-07-1981
		PT 68913 A	01-01-1979
		ZA 7806771 A	31-10-1979
US 4643330 A	17-02-1987	NONE	