(11) **EP 2 778 570 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 17.08.2016 Bulletin 2016/33

(51) Int Cl.: **F25C** 1/04^(2006.01)

(43) Date of publication A2: 17.09.2014 Bulletin 2014/38

(21) Application number: 14159225.3

(22) Date of filing: 12.03.2014

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated Extension States:

BA ME

(30) Priority: 15.03.2013 US 201361793912 P

(71) Applicant: Manitowoc Foodservice Companies,

LLC

Manitowoc, WI 54220 (US)

(72) Inventors:

Daryl Erbs
Sheboygan, Wisconsin, 53083 (US)

 Zhang Lei Hangzhou, Zhejiang 310052 (CN)

(74) Representative: dompatent von Kreisler Selting Werner -

werner -

Partnerschaft von Patent- und Rechtsanwälten mbB

iliud Dalahasan

Deichmannhaus am Dom Bahnhofsvorplatz 1

50667 Köln (DE)

(54) A method and system for controlling the initiation of a freeze cycle pre-set time in an ice maker

(57) A novel control logic for an individual cube spray type ice machine. The duration of the freeze cycle is able to adapt to changes in inlet water temperature, changes in ambient air temperature, and the impact of warm temperatures of internal ice making parts within the ice machine due to off cycle periods. This is accomplished through a combination of starting a freeze time period only after the water temperature for the volume of water circulating over the evaporator has reached approximately 32°F, and a freeze time period value that is a function of the refrigerant temperature leaving the condenser at the time where the water reaches approximately 32°F.

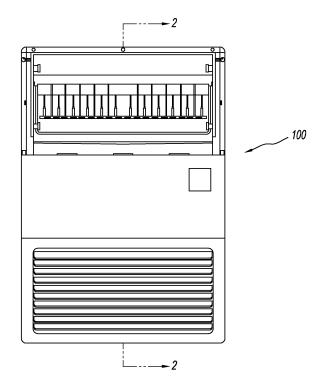


FIG. 1

EP 2 778 570 A3

DOCUMENTS CONSIDERED TO BE RELEVANT



EUROPEAN SEARCH REPORT

Application Number

EP 14 15 9225

10	
15	

Category	Citation of document with inc of relevant passa		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Х	JP 2 854078 B2 (SAN 3 February 1999 (199 * the whole document	99-02-03)	1,3,5,6, 8-10	INV. F25C1/04
Υ	US 5 653 114 A (NEWN 5 August 1997 (1997 * the whole document		1-10	
Υ	JP 3 071073 B2 (SAN) 31 July 2000 (2000-0 * the whole document	97-31)	1-10	
				TECHNICAL FIELDS SEARCHED (IPC) F25C F25D
	The present search report has b	een drawn up for all claims		
Place of search		Date of completion of the search	·	
	The Hague	8 July 2016	y 2016 Bidet, Sébastien	
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone cularly relevant if combined with anothment of the same category nological background written disclosure mediate document	E : earlier patent o after the filing d er D : document citec L : document citec	l in the application for other reasons	shed on, or

EP 2 778 570 A3

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

EP 14 15 9225

5

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.

08-07-2016

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	JP 2854078	32 03-02-1999	JP 2854078 B2 JP H03260571 A	03-02-1999 20-11-1991
15	US 5653114	A 05-08-1997	US 5653114 A US 6125639 A	05-08-1997 03-10-2000
	JP 3071073	32 31-07-2000	JP 3071073 B2 JP H0735448 A	31-07-2000 07-02-1995
20				
25				
30				
35				
40				
45				
50				
50				
55 SS				

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82