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(11)

EP 2 287 550 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
16.04.2014 Bulletin 2014/16

(51) Int Cl.:  
F28D 19/04 (2006.01)  
F28G 15/00 (2006.01)

F28G 1/16 (2006.01)  
F28G 9/00 (2006.01)

(43) Date of publication A2:  
23.02.2011 Bulletin 2011/08

(21) Application number: 10007034.1

(22) Date of filing: 07.07.2010

(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 SE SI SK SM TR

Designated Extension States:  
BA ME RS

(30) Priority: 08.07.2009 US 499314

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### (54) Method for online cleaning of air preheaters

(57) A method of cleaning air preheaters of the type having a rotor (14) which passes through a stream of flue gas and a stream of intake combustion air is disclosed. A soot blower (13,15) is operated in step-wise fashion to blow a soot blowing medium through passageways (22) in the rotor (14). The passageways (22) are arranged in concentric rings and move at a tangential velocity which

depends on the speed of the rotor (14) and the location of the passageway (22) relative to the center of the rotor (14). In the present method the speed of the rotor (14) is adjusted in accordance with the position of the soot blower (13,15) so that every passageway (22) moves over the soot blower (13,15) at the same or substantially the same tangential velocity.

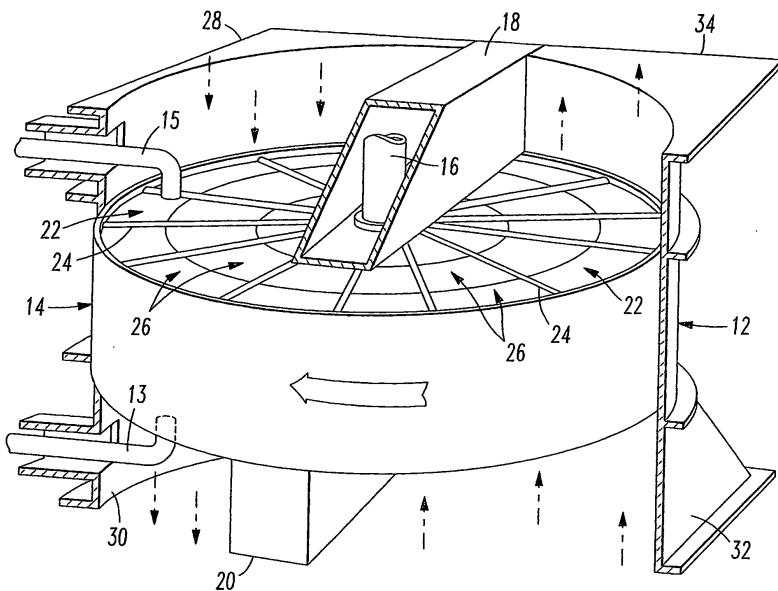


FIG. 1



## EUROPEAN SEARCH REPORT

Application Number

EP 10 00 7034

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 4 850 423 A (ALLEN JOHN T [US] ET AL) 25 July 1989 (1989-07-25) * column 2, line 43 - column 4, line 3 * * column 11, line 35 - column 14, line 21; claim 1; figure 1 * -----	1-7	INV. F28D19/04 F28G1/16 F28G15/00 F28G9/00
X	EP 0 025 634 A2 (DOW CHEMICAL CO [US]) 25 March 1981 (1981-03-25) * page 14, line 4 - page 15, line 13; figure 1 * -----	1-7	
X	US 2 761 653 A (GRAMES LLOYD D ET AL) 4 September 1956 (1956-09-04) * column 1, line 39 - column 3, line 43; figure 1 * -----	1-7	
A	US 2003/015151 A1 (HIPPLE JAMES H [US]) 23 January 2003 (2003-01-23) * the whole document * -----	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			F28G
The present search report has been drawn up for all claims			
1	Place of search	Date of completion of the search	Examiner
	Munich	5 March 2014	Axters, Michael
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	
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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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05-03-2014

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4850423	A	25-07-1989	NONE			
EP 0025634	A2	25-03-1981	CA EP US	1122201 A1 0025634 A2 4256511 A	20-04-1982 25-03-1981 17-03-1981	
US 2761653	A	04-09-1956	NONE			
US 2003015151	A1	23-01-2003	NONE			