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(54) Flush tank drain valve assembly

(57) In a flush tank drain valve assembly (1), in particular a dual-flush drain valve assembly, a supporting structure (2), extending along an axis (A) and including a vessel (6), houses a valve body (3) which slides along the axis (A) and has a shutter (26) cooperating with a fluidtight seat (10); the vessel (6) houses a top float (41) and a bottom float (42), which are located at different heights along the axis (A), and cooperate with the valve body (3); the floats (41, 42) are movable independently of each other with respect to the valve body (3) alongside variations in the water level inside the vessel (6), so as to selectively and independently engage the valve body (3) at different heights along the axis (A).

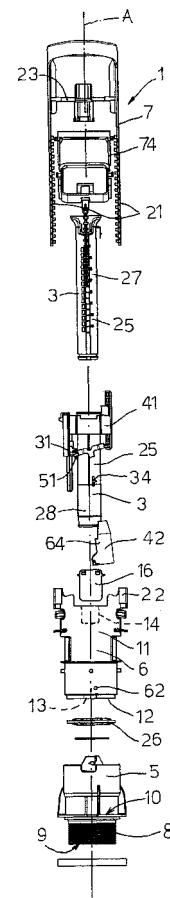


Fig. 2



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	FR 2 819 835 A (SANITAIRE ACCESSOIRES SERVICES [FR]) 26 July 2002 (2002-07-26) * page 5, line 18 - page 11, line 37; figures *	1-15	INV. E03D1/14
X	EP 1 310 603 A (IDROLS SA [ES]) 14 May 2003 (2003-05-14) * column 2, line 12 - column 3, line 32; figures *	1-7	
A		13-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			E03D
The present search report has been drawn up for all claims			
4	Place of search	Date of completion of the search	Examiner
	The Hague	6 November 2007	Van Bost, Sonia
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		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	

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

EP 06 12 5651

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.

06-11-2007

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 2819835	A	26-07-2002	AT 329094 T CA 2436945 A1 CN 1524148 A DE 60212070 T2 EP 1354100 A1 ES 2266442 T3 WO 02059431 A1 GB 2390617 A MX PA03006019 A PT 1354100 T US 2004083542 A1	15-06-2006 01-08-2002 25-08-2004 11-01-2007 22-10-2003 01-03-2007 01-08-2002 14-01-2004 14-02-2005 31-10-2006 06-05-2004
EP 1310603	A	14-05-2003	AR 031258 A1 AU 7256701 A WO 0212645 A1	17-09-2003 18-02-2002 14-02-2002