

12 **EUROPEAN PATENT APPLICATION**

21 Application number: **81106280.1**

51 Int. Cl.<sup>3</sup>: **F 04 B 15/02**

22 Date of filing: **12.08.81**

30 Priority: **03.09.80 IT 2442880**

71 Applicant: **Libra, S.A., I-47031 Galazzano (SM)**

43 Date of publication of application: **10.03.82**  
**Bulletin 82/10**

72 Inventor: **Brandi, Alfredo, Via Consolare, 47031 Dogana (SM)**

84 Designated Contracting States: **AT BE CH DE FR GB LI LU NL SE**

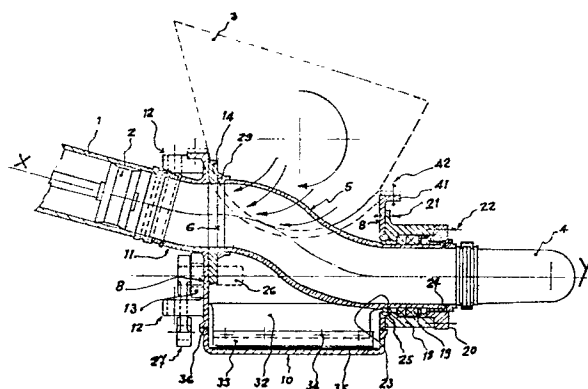
74 Representative: **Vatti, Paolo, Dr. Ing. et al, Fumero - Studio Consulenza Brevetti Widenmayerstrasse 4/I, D-8000 München 22 (DE)**

54 **Concrete pumping device.**

57 Pumping device for pasty materials, particularly concrete, of the type comprising two cylinders which, by way of an S-shaped valve, are connected alternatively to a delivery pipe and to a hopper placed above said valve.

In said device, the housing or tank (7) of the valve is formed by two flat parallel headwalls (8), one of which holds a first support (13) for the control shaft of the S-shaped valve (5), telescopic cylinder ends (11) connecting said valve with the pumping cylinders (1), and ribs ending into four ears (12) which make it possible to rotate the tank about vertical axes, while the other wall holds a second valve support (18) and a flange (20) of connection to the delivery pipe (4); by two partially inclined sidewalls (9) which are radiused to the bottom; and by a bottom cover formed by a cylindrical wall, the axis of which coincides with the valve rotation axis.

Moreover, in the device described, the axis of the pumping cylinders is positioned higher than the valve rotation axis and the delivery pipe.





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. <sup>3</sup> )
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<u>US - A - 3 663 129</u> (ANTOSH)  * column 3, line 70 to column 4, line 9; figures 1-6 * ---	1,13	F 04 B 15/02
	<u>US - A - 3 989 420</u> (TAYLOR)  * column 2, lines 23-27, 49-52; column 3, lines 1-37; figures 1-3 * ---	1-3,6 7	
	<u>FR - A - 2 158 963</u> (STETTER)  * page 5, lines 9-10; figures 2,4 * ---	5	TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
	<u>FR - A - 2 247 628</u> (ACCIAIO)  * page 6, lines 10-13; figure 3 * ---	5	F 04 B
	<u>DE - A - 2 814 845</u> (RIKER)  * page 14, lines 4-8, 9-12, 20-27; page 15, line 17 to page 18, line 1 * ---	1-5, 7-12, 14	
	<u>DE - B - 1 285 319</u> (SCHWING)  * column 2, lines 56-68 * ---	8,9	CATEGORY OF CITED DOCUMENTS
	<u>FR - A - 2 359 290</u> (SCHWING)  * page 5, lines 15-25; page 6, lines 8-19 * ---	2,5,6	X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
	<u>US - A - 3 298 322</u> (SHERROD)  -----		&: member of the same patent family, corresponding document
	X The present search report has been drawn up for all claims		
	Place of search  The Hague	Date of completion of the search  08.12.1981	Examiner  BAATH