



(11) **EP 2 241 677 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
29.12.2010 Bulletin 2010/52

(51) Int Cl.:
E02D 3/08 (2006.01)

(43) Date of publication A2:
20.10.2010 Bulletin 2010/42

(21) Application number: **10159117.0**

(22) Date of filing: **06.04.2010**

(84) Designated Contracting States:
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:
AL BA ME RS

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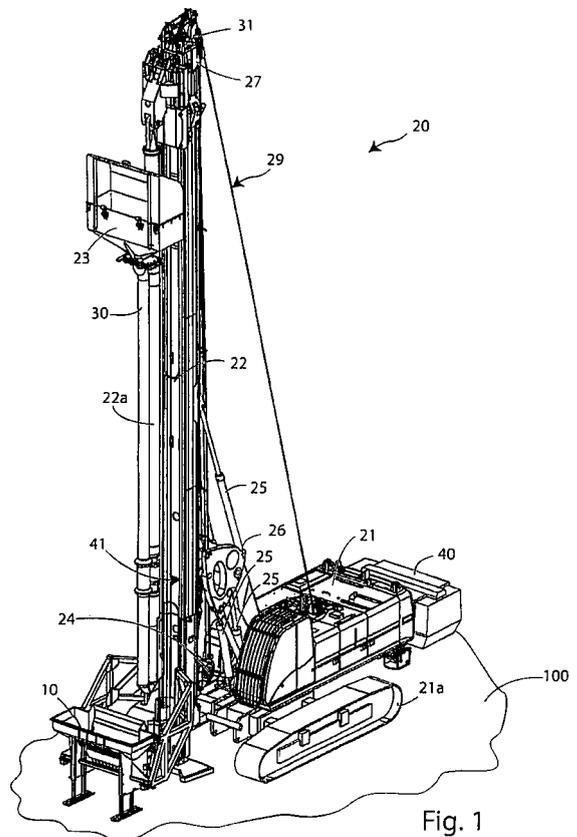
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(30) Priority: **10.04.2009 IT TO20090282**

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(54) **A device for ground compaction**

(57) A device (10) for the supply of inert materials to vibrating systems of ground compaction, installed on a compacting equipment (20) of the ground (100) having: a self-propelled operating machine (21) provided with a tower (22) or arm (50) for supporting a drill battery (22a) comprising a vibrating tool for the compaction for the ground; and a caisson (23)(23') for conveying inert materials to be fed to said drill battery (22a) in a hole on the ground (100); the device (10) presents a substantially hopper shape and slides between a first lower height near the ground (100) and a second height, higher than the first, where the caisson lies (23)(23'); the device (10) is provided with an openable discharging door (11) of inert materials; the opening takes place by means of activation of mechanical means associated to the hopper (10) and to the caisson (23)(23').



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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 367 180 A (VIBROFLOTATION B V [NL]) 3 December 2003 (2003-12-03) * paragraph [0041]; claims 2-5; figure 1 * -----	1,2	INV. E02D3/08
X	DE 297 16 935 U1 (KELLER GRUNDBAU GMBH [DE]) 12 February 1998 (1998-02-12) * page 3 - page 4; figures 1,2 * -----	1,2	
X	EP 1 688 543 A (KELLER GRUNDBAU GMBH [DE]) 9 August 2006 (2006-08-09) * paragraph [0008] - paragraph [0030]; claims 5,6 * -----	1,2	
-----			TECHNICAL FIELDS SEARCHED (IPC)
-----			E02D

The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		19 May 2010	Geiger, Harald
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention	
X : particularly relevant if taken alone		E : earlier patent document, but published on, or	
Y : particularly relevant if combined with another document of the same category		after the filing date	
A : technological background		D : document cited in the application	
O : non-written disclosure		L : document cited for other reasons	
P : intermediate document		
		& : member of the same patent family, corresponding document	

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- 1, 2
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 2

A device for the supply of inert materials to vibrating systems for ground compaction, said device being installed on a compacting equipment of the ground comprises a self-propelled operating machine provided with a tower or arm for supporting a drill battery comprising a vibrating tool for the compaction of the ground and a caisson for conveying inert materials to be fed, by means of a canalization, to said drill battery in a hole in the ground, the device presenting a substantially hopper shape and sliding between a first lower height near the ground and a second height, higher than the first one, where the caisson lies, the device is provided with a discharging door of said inert materials contained into it, movable between a first closed position and a second open position, the opening being of temporary type and taking place by means of activation of mechanical means associated to a hopper and to the caisson further it comprises guide means for guiding it along the tower.

2. claims: 3, 4

Device of claim 1 further describing discharging door.

3. claim: 5

Device of claim 1 further describing its mechanical means.

4. claims: 6, 7

Device of claim 1 further describing the door and the mode of its operation.

5. claim: 8

Device of claim 1 further comprising a camera.

6. claim: 9

Device of claim 1 further describing the transfer of inert material from a hopper to the caisson.



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

7. claim: 10

The device of claim 1 describing an inclinable arm

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

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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.

19-05-2010

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1367180	A	03-12-2003	NONE	
DE 29716935	U1	12-02-1998	AT 243285 T EP 0903441 A2	15-07-2003 24-03-1999
EP 1688543	A	09-08-2006	DE 102005001227 A1	20-07-2006

EPC FORM P 0459

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