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(54) **Earth moving machine**

(57) An earth moving machine (10) having:

- a drive unit (11);
- a dump body (13); and

- a bucket (29) for loading the body (13);

the earth moving machine (10) having a lifting device (12) for lifting the body (13) fitted with the bucket (29).

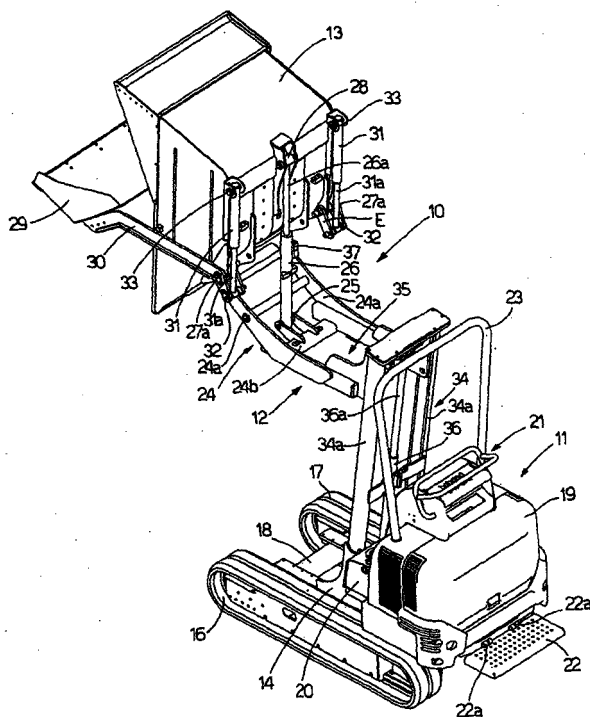


Fig.1

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EUROPEAN SEARCH REPORT

Application Number
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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 (Int.Cl.7)
Y	DE 198 30 881 A (MEINL BAUMASCHINEN GMBH) 20 January 2000 (2000-01-20)	1	E02F3/348 E02F3/352
A	* figures 1,4 * * column 2, line 59 - column 3, line 25 * * column 3, line 36 - line 41 * * column 5, line 47 - line 64 *	4	
Y	DE 27 02 755 A (WURMBACH BERTHOLD) 27 July 1978 (1978-07-27)	1	
A	* figures * * description *	2,3	
A	DE 12 43 099 B (JOY MFG CO) 22 June 1967 (1967-06-22) * figures 1-3,8-11 *	1	
A	GB 1 357 762 A (ATLAS COPCO AB) 26 June 1974 (1974-06-26) * figures 3-6 *	1	
A	WO 91 14050 A (ROUGHNECK EXCAVATORS LIMITED) 19 September 1991 (1991-09-19) * figures 1-3 *	1-3	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
A	WO 98 28221 A (TEKNIKKUSTEN AB) 2 July 1998 (1998-07-02) * figures *	1-3	E02F B66F B60P
A	EP 0 798 162 A (HS PENTA SRL) 1 October 1997 (1997-10-01)		
A	FR 2 759 998 A (COEURET BERNARD RENE CHARLES) 28 August 1998 (1998-08-28)		
A	FR 2 465 034 A (ATLAS SA) 20 March 1981 (1981-03-20)		
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		14 January 2004	Guthmuller, J
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			

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

EP 03 00 9308

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
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14-01-2004

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 19830881	A	20-01-2000	DE 19830881 A1	20-01-2000
DE 2702755	A	27-07-1978	DE 2702755 A1	27-07-1978
DE 1243099	B	22-06-1967	NONE	
GB 1357762	A	26-06-1974	NONE	
WO 9114050	A	19-09-1991	AU 7222691 A WO 9114050 A1	10-10-1991 19-09-1991
WO 9828221	A	02-07-1998	SE 511656 C2 DE 69721839 D1 EP 1007465 A1 SE 9604713 A WO 9828221 A1	01-11-1999 12-06-2003 14-06-2000 21-06-1998 02-07-1998
EP 0798162	A	01-10-1997	IT B0960177 A1 AT 209124 T DE 69708361 D1 DE 69708361 T2 EP 0798162 A2 ES 2168597 T3 PT 798162 T	29-09-1997 15-12-2001 03-01-2002 07-11-2002 01-10-1997 16-06-2002 31-05-2002
FR 2759998	A	28-08-1998	FR 2759997 A1 FR 2759998 A1	28-08-1998 28-08-1998
FR 2465034	A	20-03-1981	FR 2446897 A1 FR 2465034 A2	14-08-1980 20-03-1981

EPO FORM P0459

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