EP 2 298 689 A3 (11)

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 28.08.2013 Bulletin 2013/35 (51) Int Cl.: **B66C 23/90** (2006.01) **B66C 23/78** (2006.01)

B66C 23/68 (2006.01)

(43) Date of publication A2: 23.03.2011 Bulletin 2011/12

(21) Application number: 10177616.9

(22) Date of filing: 20.09.2010

(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: 22.09.2009 SE 0901212

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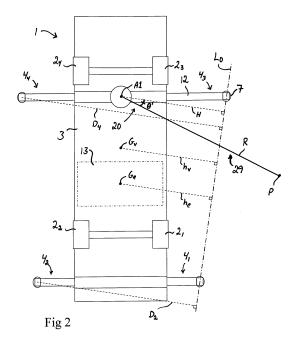
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(54)Method and device for limiting lifting moment of a loading crane

(57)The invention relates to a lorry provided with a hydraulic crane (20) and support legs (41-44), the respective support leg being manoeuvrable by means of a force member (6) to an active support position. An electronic regulating device (30) checks whether one or more stability conditions are fulfilled with a lifting moment of the crane corresponding to a maximum allowed value for the lifting moment of the crane and establishes a reduced

value for the maximum allowed lifting moment if said stability conditions are not fulfilled, taking into account the horizontal extension length of the respective support leg that is in the active support position, the slewing angle of the column (21) of the crane in relation to the chassis (3) of the lorry, and the force exerted by the force member of the respective support leg that is in the active support position and is not included in the prevailing tipping line of the lorry.





EUROPEAN SEARCH REPORT

Application Number EP 10 17 7616

	DOCUMENTS CONSIDE	RED TO BE RELEVANT	•	
ategory	Citation of document with inc of relevant passa		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
\checkmark	JP 2008 074561 A (T/ 3 April 2008 (2008-0 * abstract; figures	04-03)	1,2,6-8, 12	B66C23/90 B66C23/68
\	JP 2007 314257 A (T/ 6 December 2007 (200 * abstract * * figures *	 ADANO LTD) 07-12-06)	1,7	B66C23/78
	US 2007/090612 A1 (0 26 April 2007 (2007) * abstract * * figure 7 *		1,7	
1	JP H11 79695 A (SHI 23 March 1999 (1999 * abstract *	N MEIWA IND CO LTD) -03-23)	1,7	
				TECHNICAL FIELDS SEARCHED (IPC)
				B66C
	The property of the second of	and discussion for all allations	_	
	The present search report has b	Date of completion of the search		Examiner
The Hague		17 July 2013	"	
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with anoth- ment of the same category nological background	E : earlier patent after the filing er D : document cit L : document cit	ed in the application ed for other reasons	shed on, or
	-written disclosure mediate document	& : member of th document	e same patent family	r, corresponding

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.

17-07-2013

AT 389569 T 15-04-20 CN 1871153 A 29-11-20 CN 101318500 A 10-12-20 DE 10349234 A1 19-05-20 EP 1675760 A1 05-07-20 EP 1772333 A1 11-04-20 ES 2290771 T3 16-02-20 ES 2302289 T3 01-07-20 JP 4486968 B2 23-06-20 JP 2007508989 A 12-04-20 KR 20060093335 A 24-08-20 US 2007090612 A1 26-04-20	Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2007090612 A1 26-04-2007 AT 366685 T 15-08-20 AT 389569 T 15-04-20 CN 1871153 A 29-11-20 CN 101318500 A 10-12-20 DE 10349234 A1 19-05-20 EP 1675760 A1 05-07-20 EP 1772333 A1 11-04-20 ES 2290771 T3 16-02-20 ES 2302289 T3 01-07-20 JP 4486968 B2 23-06-20 JP 2007508989 A 12-04-20 KR 20060093335 A 24-08-20 US 2007090612 A1 26-04-20	JP 2008074561	A	03-04-2008	NON	E	
AT 389569 T 15-04-20 CN 1871153 A 29-11-20 CN 101318500 A 10-12-20 DE 10349234 A1 19-05-20 EP 1675760 A1 05-07-20 EP 1772333 A1 11-04-20 ES 2290771 T3 16-02-20 ES 2302289 T3 01-07-20 JP 4486968 B2 23-06-20 JP 2007508989 A 12-04-20 KR 20060093335 A 24-08-20 US 2007090612 A1 26-04-20	JP 2007314257	Α	06-12-2007	NON	E	
	US 2007090612	A1	26-04-2007	AT CN CN DE EP ES ES JP KR US	389569 T 1871153 A 101318500 A 10349234 A1 1675760 A1 1772333 A1 2290771 T3 2302289 T3 4486968 B2 2007508989 A 20060093335 A 2007090612 A1	15-08-20 15-04-20 29-11-20 10-12-20 19-05-20 05-07-20 11-04-20 16-02-20 01-07-20 23-06-20 12-04-20 24-08-20 26-04-20 12-05-20
	JP H1179695	Α	23-03-1999			28-06-20 23-03-19

 $\stackrel{\mathrm{O}}{\boxplus}$ For more details about this annex : see Official Journal of the European Patent Office, No. 12/82