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gate 2, 0125 Oslo (NO).
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BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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**Published:**

— with international search report (Art. 21(3))

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23 February 2017

(54) Title: A WINCH SYSTEM

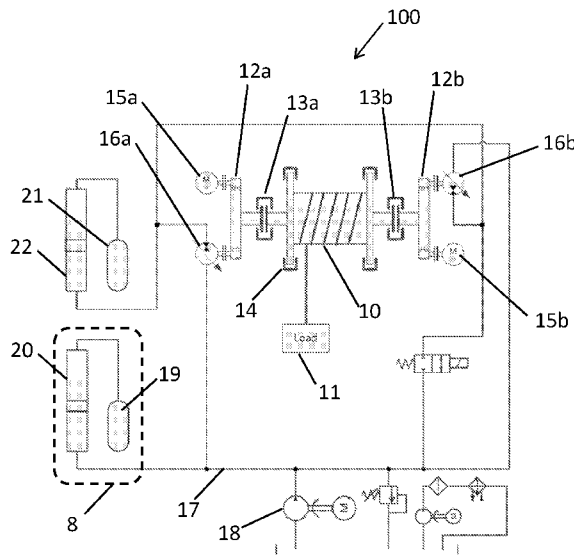


Fig. 2

(57) Abstract: A winch system driving an output comprising an electrical and hydraulic motor operable to transfer energy via a common gearing system. The winch system further comprising an energy storage means to optimize energy consumption and regeneration.



INTERNATIONAL SEARCH REPORT

International application No  
PCT/N02016/050146

A. CLASSIFICATION OF SUBJECT MATTER  
INV. B66D1/18 B66D1/14  
ADD.  
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED  
Minimum documentation searched (classification system followed by classification symbols)  
B66D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2013/147613 A1 (I P HUSE AS [NO]) 3 October 2013 (2013-10-03)	1,7,8,10
Y	the whole document	9
A		2-6,18, 19
Y	----- US 2005/179021 A1 (SELCER TOBY [US] ET AL) 18 August 2005 (2005-08-18)	9
A	abstract paragraph [0036]; figure 1	1,18
A	----- CN 101 395 084 A (HYDRALIFT AMCLYDE INC [US]) 25 March 2009 (2009-03-25) the whole document -----	1,18

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  20 October 2016	Date of mailing of the international search report  12/01/2017
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  Verheul, Omiros
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/N02016/050146

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-10, 18, 19

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10, 18, 19

A winch system driving an output and method therefore

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2. claims: 11-17

A drum motor for a winch system

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/N02016/050146

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013147613	A1	03-10-2013	
		EP 2830985 A1	04-02-2015
		NO 334469 B1	10-03-2014
		SG 11201406085T A	30-10-2014
		US 2015083985 A1	26-03-2015
		WO 2013147613 A1	03-10-2013
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US 2005179021	A1	18-08-2005	NONE
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CN 101395084	A	25-03-2009	NONE
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