



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets



(11)

EP 3 495 289 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
31.07.2019 Bulletin 2019/31

(51) Int Cl.:
B65D 88/30 (2006.01) *B65D 90/58* (2006.01)
B61B 1/00 (2006.01) *B61D 3/20* (2006.01)

(43) Date of publication A2:
12.06.2019 Bulletin 2019/24

(21) Application number: 19155269.4

(22) Date of filing: 12.06.2015

(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 RS SE SI SK SM TR

(30) Priority: 13.06.2014 US 201462012165 P
13.06.2014 US 201462012153 P
27.03.2015 US 201562139323 P

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
15806869.2 / 3 154 876

(71) Applicant: Oren Technologies, LLC
Houston, Texas 77073 (US)

(72) Inventors:
• OREN, John
Houston, TX 77073 (US)
• OREN, Joshua
Houston, TX 77073 (US)

(74) Representative: LKGlobaL UK Ltd.
23 Skylines Village
London E14 9TS (GB)

(54) PROPPANT DELIVERY SYSTEM AND RAILCAR

(57) A proppant delivery system has a container-hauling trolley configured to move along a track, a proppant supply station, a proppant discharge station, a container transport pathway and a crane. The proppant supply station is positioned adjacent a first portion of the track. The container-hauling trolley is configured to move along the track to a location adjacent the proppant supply station. The proppant discharge station is positioned adjacent to a second portion of the track. The contain-

er-hauling trolley is further configured to move along the track to a location adjacent the proppant discharge station. The container transport pathway extends in spaced relation to the track. The crane has a first crane portion adjacent the proppant discharge station and a second crane portion adjacent the container transport pathway. The crane is configured to transfer a proppant container from the proppant discharge station toward the container transport pathway.

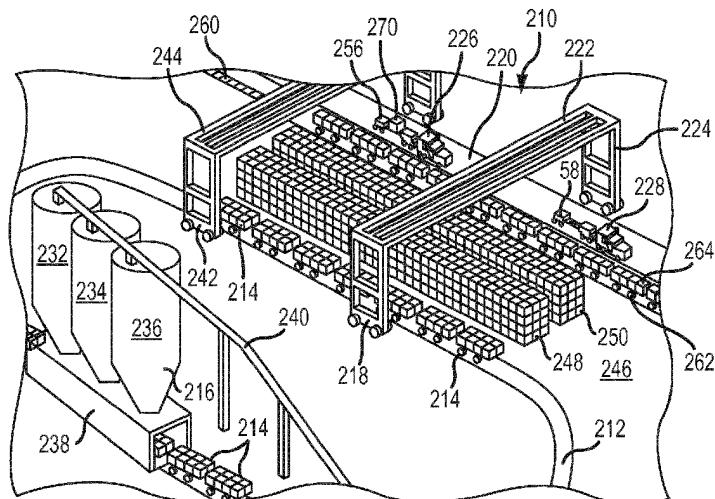


FIG. 22



EUROPEAN SEARCH REPORT

Application Number

EP 19 15 5269

5

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	US 2014/083554 A1 (HARRIS ROBERT A [US]) 27 March 2014 (2014-03-27) * page 1, paragraph 4 * * page 3, paragraph 37 * * page 4, paragraph 46 - page 5, paragraph 46 * * page 5, paragraph 48-49 * * figures 1A, 4-7 * -----	1-5	INV. B65D88/30 B65D90/58 B61B1/00 B61D3/20
X	US 2013/206415 A1 (SHEESLEY JOHN M [US]) 15 August 2013 (2013-08-15) * page 4, paragraphs 78, 80, 82 * * figure 2 *	1-5	
A	US 2011/017693 A1 (THOMAS PATRICK [US] ET AL) 27 January 2011 (2011-01-27) * abstract; figure 1A *	1-3	
A	US 8 622 251 B2 (OREN JOHN [US]) 7 January 2014 (2014-01-07) * abstract; figure 3 *	1	TECHNICAL FIELDS SEARCHED (IPC)
			B65D B61D B61B
3	The present search report has been drawn up for all claims		
50	Place of search Munich	Date of completion of the search 26 February 2019	Examiner Piolat, Olivier
55	EPO FORM 1503 03-82 (P04C01) 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		



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

Application Number

EP 19 15 5269

5

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:

1-5

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

Application Number
EP 19 15 5269

5

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:

10

1. claims: 1-5

Proppant delivery system

15

2. claim: 6

Railcar

20

25

30

35

40

45

50

55

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

EP 19 15 5269

5 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.

26-02-2019

10	Patent document cited in search report	Publication date	Patent family member(s)		Publication date
15	US 2014083554 A1	27-03-2014	US	D847489 S	07-05-2019
			US	2014083554 A1	27-03-2014
			US	2016332809 A1	17-11-2016
			US	2016332811 A1	17-11-2016
20	US 2013206415 A1	15-08-2013	CA	2805469 A1	10-08-2013
			US	2013206415 A1	15-08-2013
			US	2016083180 A1	24-03-2016
			US	2016083181 A1	24-03-2016
			US	2016159567 A1	09-06-2016
			US	2018208395 A1	26-07-2018
25	US 2011017693 A1	27-01-2011	NONE		
	US 8622251 B2	07-01-2014	US	2013164112 A1	27-06-2013
			US	2014299225 A1	09-10-2014
			US	2014308109 A1	16-10-2014
			US	2015368037 A1	24-12-2015
			US	2016001989 A1	07-01-2016
			US	2016244278 A1	25-08-2016
			US	2016264352 A1	15-09-2016
			US	2016368704 A1	22-12-2016
			US	2017129696 A1	11-05-2017
			US	2017240363 A1	24-08-2017
			US	2018105374 A1	19-04-2018
			US	2018148278 A1	31-05-2018
30					
35					
40					
45					
50					
55					