

10 Documents

Publication numbers	Title	Current assignees
EP2282003 A2	Perforating gun assembly and method for controlling wellbore pressure regimes during perforating	HALLIBURTON ENERGY SERVICES
WO2016130162 A1	Mitigated dynamic underbalance	HALLIBURTON ENERGY SERVICES
WO2010141671 A2	Device for the dynamic under balance and dynamic over balance perforating in a borehole	SCHLUMBERGER TECHNOLOGIES
WO2017131659 A1	Autonomous annular pressure control assembly for perforation event	HALLIBURTON ENERGY SERVICES
WO200165060 A1	Improving reservoir communication with a wellbore	SCHLUMBERGER TECHNOLOGIES
WO201190636 A1	System and method of dynamic underbalanced perforating using an isolation fluid	SCHLUMBERGER TECHNOLOGIES
US20080105430 A1	Method and apparatus for perforating a casing and producing hydrocarbons	WEATHERFORD TECHNOLOGY HOLDINGS
WO200942479 A1	Providing dynamic transient pressure conditions to improve perforation characteristics	SCHLUMBERGER TECHNOLOGIES
WO201595155 A1	Methods for well completion	SCHLUMBERGER TECHNOLOGIES
US20130140023 A1	Assemblies and methods for minimizing pressure-wave damage	SCHLUMBERGER TECHNOLOGIES

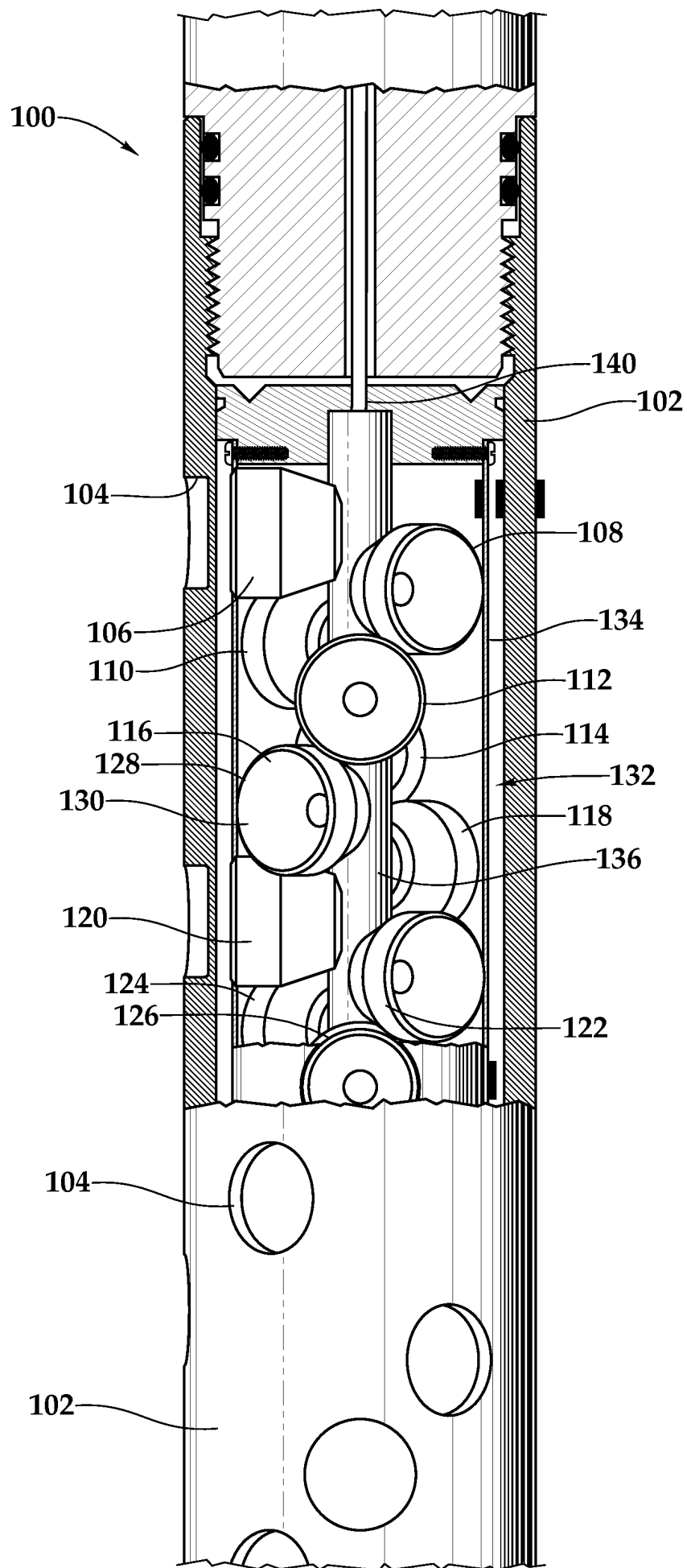
Family 1/10 - FAMPAT - ©Questel

Title

(EP2282003)

Perforating gun assembly and method for controlling **wellbore pressure** regimes during **perforating**

Images



Publication data including kind & date

EP2282003	B1	2017-08-02	EP2282003				
AU2010202512	B2	2015-09-10	AU2010202512				
MY153338	A	2015-01-29	MY-153338				
US8807003	B2	2014-08-19	US8807003				
US8739673	B2	2014-06-03	US8739673				
EP2282003	A3	2014-01-29	EP2282003				
US8555764	B2	2013-10-15	US8555764				
US20130008655	A1	2013-01-10	US20130008655				
US20130000979	A1	2013-01-03	US20130000979				
US8336437	B2	2012-12-25	US8336437				
WO2012/154180	A1	2012-11-15	WO2012154180				
BRPI1002493	A2	2012-03-13	BR201002493				
US20110209871	A1	2011-09-01	US20110209871				
EP2282003	A2	2011-02-09	EP2282003				
AU2010202512	A1	2011-01-20	AU2010202512				
US20110000669	A1	2011-01-06	US20110000669				

Abstract

(EP2282003)

A **perforating gun** assembly (100) for use in a **wellbore**. The **perforating gun** assembly includes a carrier **gun** body (102) and a charge holder (132) disposed within the carrier **gun** body (102). A plurality of shaped charges (106-126) are supported within the carrier **gun** body (102). A secondary **pressure** generator is operably associated with at least one of the shaped charges. The secondary **pressure** generator optimizes the **wellbore pressure** regime immediately after detonation of the shaped charges by controlling the **dynamic underbalance** created by the empty **gun** chambers to prevent excessive **dynamic underbalance** which may detrimentally effect the **perforating** operation.

Inventors

BARLOW DARREN ROSS

LE CAM VAN

BARKER JAMES MARSHALL

Latest standardized assignees - inventors removed

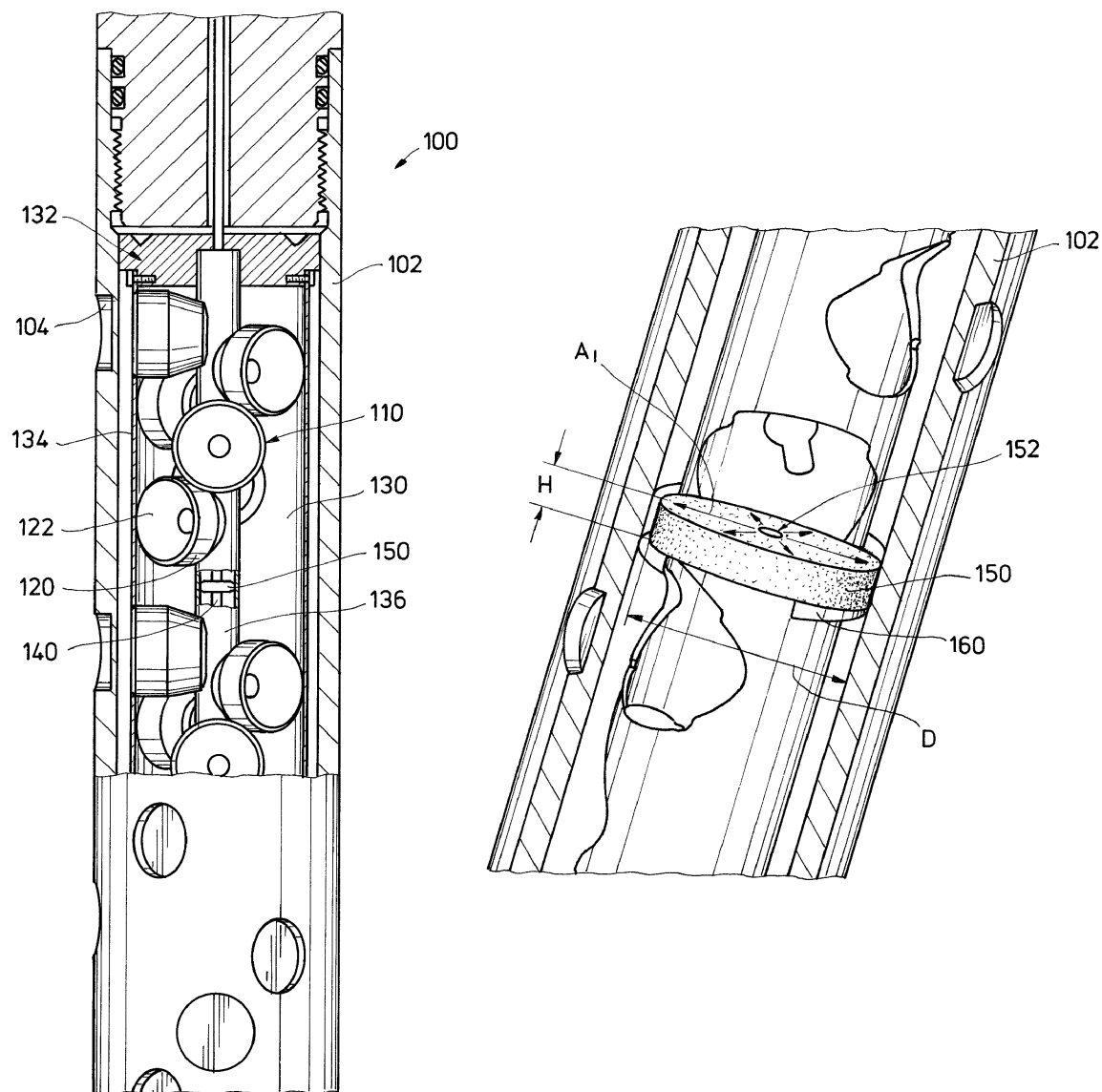
HALLIBURTON ENERGY SERVICES

Family 2/10 - FAMPAT - ©Questel

Title

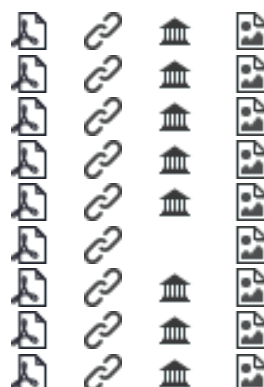
(WO2016130162)

Mitigated **dynamic underbalance****Images**



Publication data including kind & date

US10337301	B2	2019-07-02	US10337301
AU2015382359	B2	2018-08-09	AU2015382359
BR112017014190	A2	2018-03-06	BR112017014190
US20180016879	A1	2018-01-18	US20180016879
GB2552095	A	2018-01-10	GB2552095
GB201711081	D0	2017-08-23	GB201711081
BR112017014190	A1	2017-07-11	BR112017014190
AU2015382359	A1	2017-06-15	AU2015382359
WO2016/130162	A1	2016-08-18	WO2016130162



Abstract

(WO2016/130162)

A **perforating gun** assembly for use in a **wellbore** includes a carrier body and a charge holder disposed within the carrier body. One or more shaped charges are supported by the carrier body and are operably coupled to a detonator for igniting a highly explosive material within the each of the shaped charges. At least one solid propellant tablet is also disposed within the carrier body and is operably coupled to the detonator to ignite and burn immediately after detonation of the shaped charges. The solid propellant tablet burns or is consumed in such a manner to effectively mitigate or control the **dynamic underbalance** created by the free volume within the carrier body. Burning of the solid propellant tablet may increase the **pressure** within the carrier body to a level lower than a hydrostatic **pressure** around the carrier body in the **wellbore** such

that a **dynamic underbalance** is maintained.

Inventors

HARIVE KEVIN SCOTT

Latest standardized assignees - inventors removed

HALLIBURTON ENERGY SERVICES

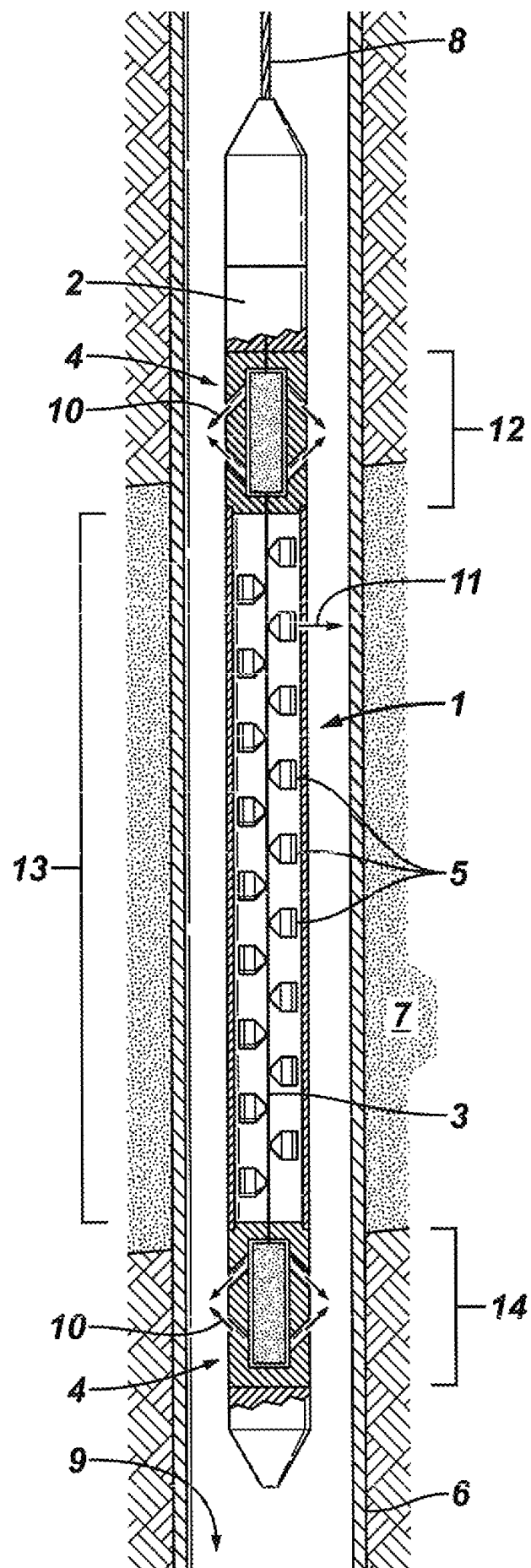
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Title

(WO2010141671)

Device for the **dynamic** under balance and **dynamic** over balance **perforating** in a borehole

Images



Publication data including kind & date

US9080430	B2	2015-07-14	US9080430
WO2010/141671	A3	2011-01-27	WO2010141671
US20110011587	A1	2011-01-20	US20110011587
WO2010/141671	A2	2010-12-09	WO2010141671

**Abstract**

(WO2010/141671)

According to a preferred embodiment, a **dynamic underbalance** device has a longitudinally extending tool string including an **underbalance** part. A first overbalance part is above the **underbalance** part and a second overbalance part below the **underbalance** part. Upon application of **underbalance** from the **underbalance** part and overbalance from the overbalance part, the overbalance and **underbalance** interact to isolate the **underbalance**.

Inventors

AL BUSAIDY ADIL MAHALLAB

Latest standardized assignees - inventors removed

SCHLUMBERGER TECHNOLOGIES

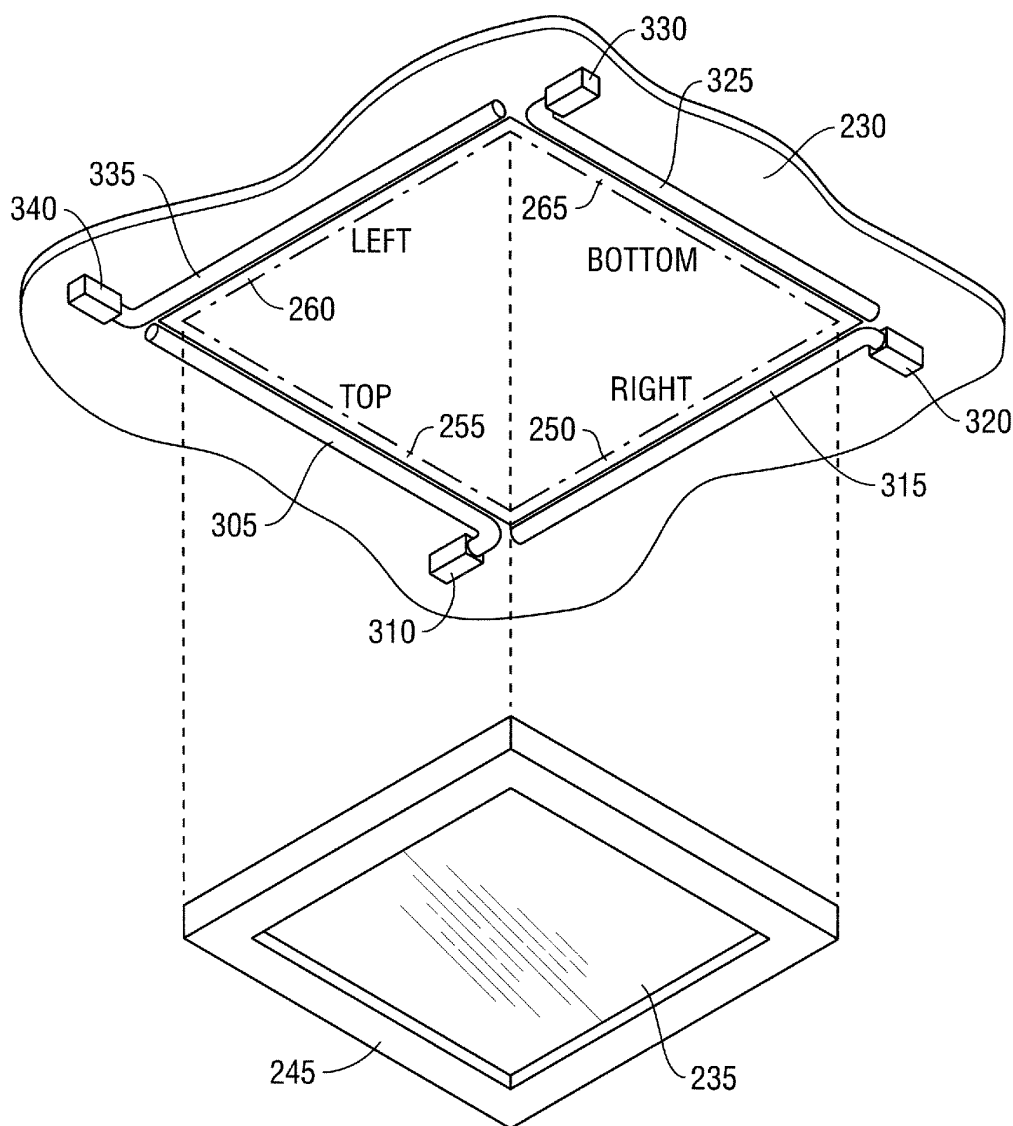
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Title

(WO2017131659)

Autonomous annular **pressure** control assembly for **perforation** event

Images



Publication data including kind & date

BR112018015423	A2	2018-12-18	BR112018015423
BR112018011837	A2	2018-11-27	BR112018011837
GB2561786	A	2018-10-24	GB2561786
DE112016006317	T5	2018-10-18	DE112016006317
CO2018005812	A2	2018-09-20	CO2018005812
GB201812164	D0	2018-09-12	GB201812164
MX2018009215	A	2018-08-28	MX2018009215
AU2016389046	A1	2018-08-09	AU2016389046
BR112018015423	A1	2018-08-07	BR112018015423
BR112018011837	A1	2018-06-19	BR112018011837
FR3059701	A1	2018-06-08	FR3059701
AU2016389004	A1	2018-06-07	AU2016389004
US20180148995	A1	2018-05-31	US20180148995
WO2017/131659	A1	2017-08-03	WO2017131659
WO2017/131856	A1	2017-08-03	WO2017131856
CA3012627	A1	2017-08-03	CA3012627
US9400907	B2	2016-07-26	US9400907



US20150060552

A1 2015-03-05 US20150060552

Abstract

(WO2017/131659)

A system and method of controlling a **dynamic** time-**pressure** profile associated with a **perforation** event that includes extending a **perforation** assembly within a casing string; firing a **perforation gun** of the **perforation** assembly; measuring, using a sensor of the **perforation** assembly, **pressure** within the casing string, wherein the measured **pressure** forms the **dynamic** time-**pressure** profile; identifying a first measured **pressure** within the **dynamic** time-**pressure** profile; identifying, using a controller of the **perforation** assembly, a first difference between the first measured **pressure** and a first reference **pressure**; and adjusting, using a first **pressure** generator of the **perforation** assembly, the **pressure** in response to the first difference to control the **dynamic** time-**pressure** profile; wherein the sensor, the controller, and the first **pressure** generator provide a feedback control loop.

Inventors

ROBEY RICHARD ELLIS

BARKER JAMES MARSHALL

CHEN KUO-CHIANG

Latest standardized assignees - inventors removed

HALLIBURTON ENERGY SERVICES

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Title

(WO200165060)

Improving reservoir communication with a **wellbore****Images**

CA2486091	C	2008-04-29	CA2486091				
RU2310067	C2	2007-11-10	RU2310067				
US7284612	B2	2007-10-23	US7284612				
NO323681	B1	2007-06-25	NO-323681				
RU2300626	C2	2007-06-10	RU2300626				
RU2299976	C2	2007-05-27	RU2299976				
CA2401184	C	2007-05-22	CA2401184				
GB2416358	B	2007-04-25	GB2416358				
US7182138	B2	2007-02-27	US7182138				
US20070034369	A1	2007-02-15	US20070034369				
RU2005123138	A	2007-02-10	RU2005123138				
GB2408057	B	2006-09-20	GB2408057				
GB2406114	B	2006-08-23	GB2406114				
US7036594	B2	2006-05-02	US7036594				
RU2004132125	A	2006-04-10	RU2004132125				
SG119206	A1	2006-02-28	SG-119206				
RU2004127899	A	2006-02-27	RU2004127899				
GB2416358	A	2006-01-25	GB2416358				
NO20053552	L	2006-01-23	NO20053552				
CA2671521	A1	2006-01-21	CA2671521				
CA2512480	A1	2006-01-21	CA2512480				
CA2671282	A1	2006-01-21	CA2671282				
CA2671374	A1	2006-01-21	CA2671374				
CA2671526	A1	2006-01-21	CA2671526				
GB2396175	B	2005-12-14	GB2396175				
US6966377	B2	2005-11-22	US6966377				
GB0514720	D0	2005-08-24	GB200514720				
NO20053552	D0	2005-07-20	NO200503552				
MXPA04008972	A	2005-06-17	MX2004PA008972				
MXPA04010637	A	2005-06-17	MX2004PA010637				
SG111272	A1	2005-05-30	SG-111272				
RU2003136025	A	2005-05-20	RU2003136025				
GB2408057	A	2005-05-18	GB2408057				
NO20044677	L	2005-05-06	NO20044677				
CA2486091	A1	2005-05-04	CA2486091				
SG110213	A1	2005-04-28	SG-110213				
MXPA03011421	A	2005-04-19	MX2003PA011421				
US6874579	B2	2005-04-05	US6874579				
GB2406114	A	2005-03-23	GB2406114				
NO20043897	L	2005-03-21	NO20043897				
CA2654384	A1	2005-03-19	CA2654384				
CA2654524	A1	2005-03-19	CA2654524				
CA2481639	A1	2005-03-19	CA2481639				
US20040231840	A1	2004-11-25	US20040231840				
GB0423695	D0	2004-11-24	GB200423695				
GB0420072	D0	2004-10-13	GB200420072				
GB2377465	B	2004-09-22	GB2377465				
US20040159432	A1	2004-08-19	US20040159432				

US20040159434	A1	2004-08-19	US20040159434				
GB2396175	A	2004-06-16	GB2396175				
NO20035491	L	2004-06-14	NO20035491				
US20040099418	A1	2004-05-27	US20040099418				
US20040089449	A1	2004-05-13	US20040089449				
US6732798	B2	2004-05-11	US6732798				
GB0328361	D0	2004-01-14	GB200328361				
NO20035491	D0	2003-12-10	NO200305491				
US6598682	B2	2003-07-29	US6598682				
US20030089498	A1	2003-05-15	US20030089498				
GB2377465	A	2003-01-15	GB2377465				
NO20024156	A	2002-10-28	NO200204156				
NO20024156	L	2002-10-28	NO20024156				
GB0218972	D0	2002-09-25	GB200218972				
NO20024156	D0	2002-08-30	NO200204156				
US20020020535	A1	2002-02-21	US20020020535				
AU4728401	A	2001-09-12	AU200147284				
WO01/65060	A1	2001-09-07	WO200165060				
CA2401184	A1	2001-09-07	CA2401184				

Abstract

(WO01/65060)

A method and apparatus for improving reservoir communication includes, in one arrangement, use of one or more chambers (114, 124) to create an **underbalance condition** or fluid surge in the **wellbore**. In other arrangements the **underbalance** conditions are created through the use of a packer (310), circulating valve (307), and atmospheric chamber (304); a subsea blowout preventer (402), a choke line (412), and a kill line (414); through the use of a **perforating gun** (402); and through the use of an arrangement including a tool string, closure member, chamber (10), and ports (16), with a tool (30) adapted to perform in a low **pressure condition** in the tool string.

Inventors

JOHNSON ASHLEY B

BROOKS JAMES E

BEHRMANN LAWRENCE A

VENKITARAMAN ADINATHAN

WALTON IAN

VOVERS ANTHONY P

VAYNSHTEYN VLADIMIR

PATEL DINESH R

FRUGE MICHAEL W

Latest standardized assignees - inventors removed

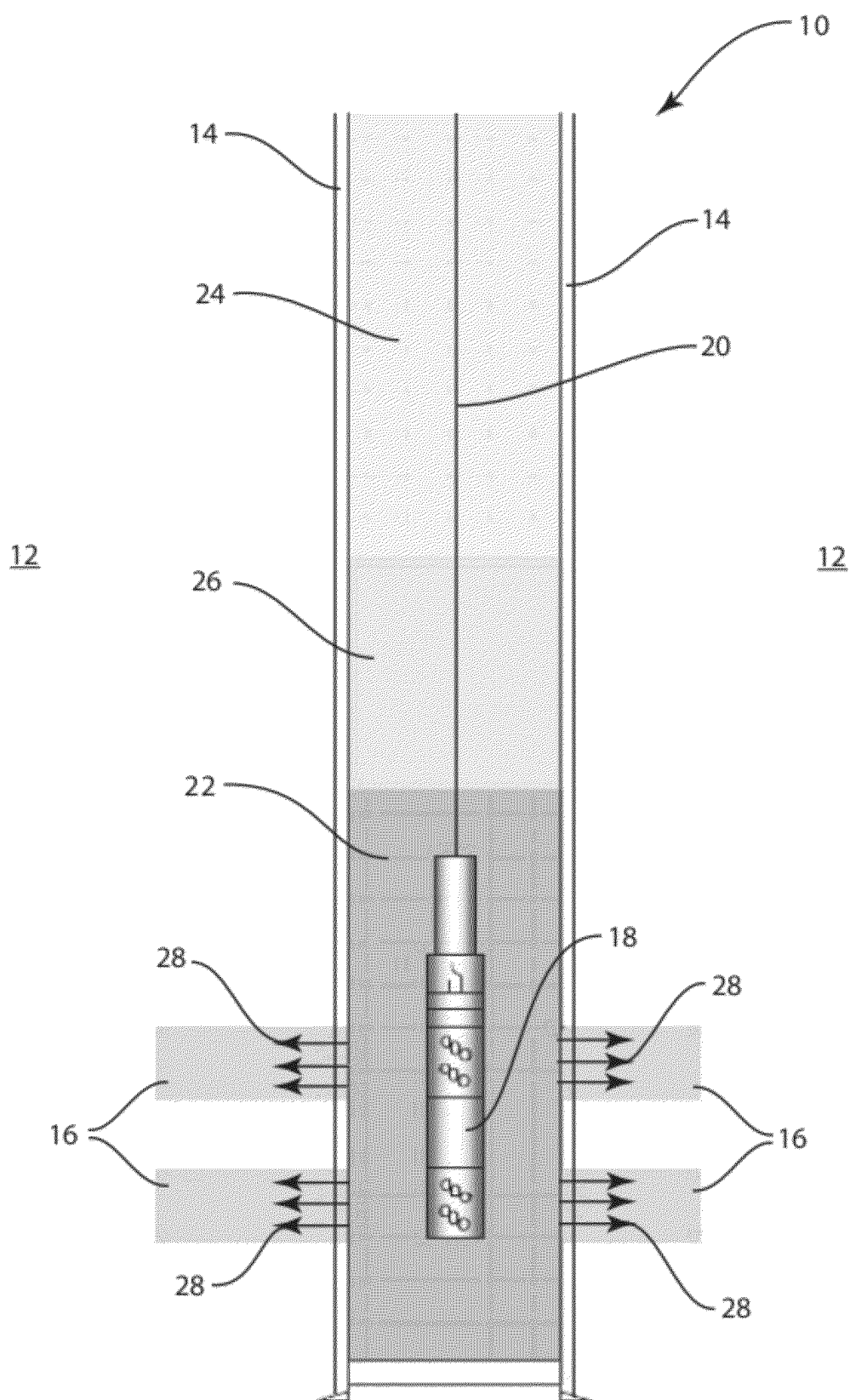
SCHLUMBERGER TECHNOLOGIES

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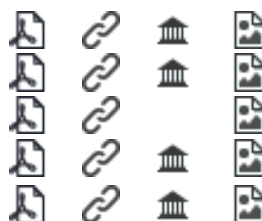
Title

(WO201190636)

System and method of **dynamic** underbalanced **perforating** using an isolation fluid**Images**


Publication data including kind & date

BR112012018341	A1	2013-12-31	BR112012018341
GB2489351	A	2012-09-26	GB2489351
GB201210981	D0	2012-08-01	GB201210981
NO20120814	A1	2012-07-27	NO20120814
US8215397	B2	2012-07-10	US8215397



[WO2011/090636](#)

A1 2011-07-28 WO201190636

[US20110155375](#)

A1 2011-06-30 US20110155375

Abstract

(WO2011/090636)

A system for **dynamic** underbalanced **perforation** of a hydrocarbon well includes a **perforation** fluid located within the hydrocarbon well. A **perforation gun** is suspended within the **perforation** fluid and a completion fluid is located within the hydrocarbon uphole of the **perforation** fluid. An isolation fluid is located within the hydrocarbon well uphole of the **perforation** fluid and **downhole** of the completion fluid. A method of **perforating** a hydrocarbon well includes a **perforation** fluid placed in the hydrocarbon well. A **perforation gun** is placed within the **perforation** fluid. A completion fluid is placed in the hydrocarbon well. An isolation fluid is placed in the hydrocarbon well. A local **dynamic underbalance condition** is created in the hydrocarbon well. A flow of the completion fluid **downhole** is inhibited.

Inventors

GRIFFITH MARTIN

Latest standardized assignees - inventors removed

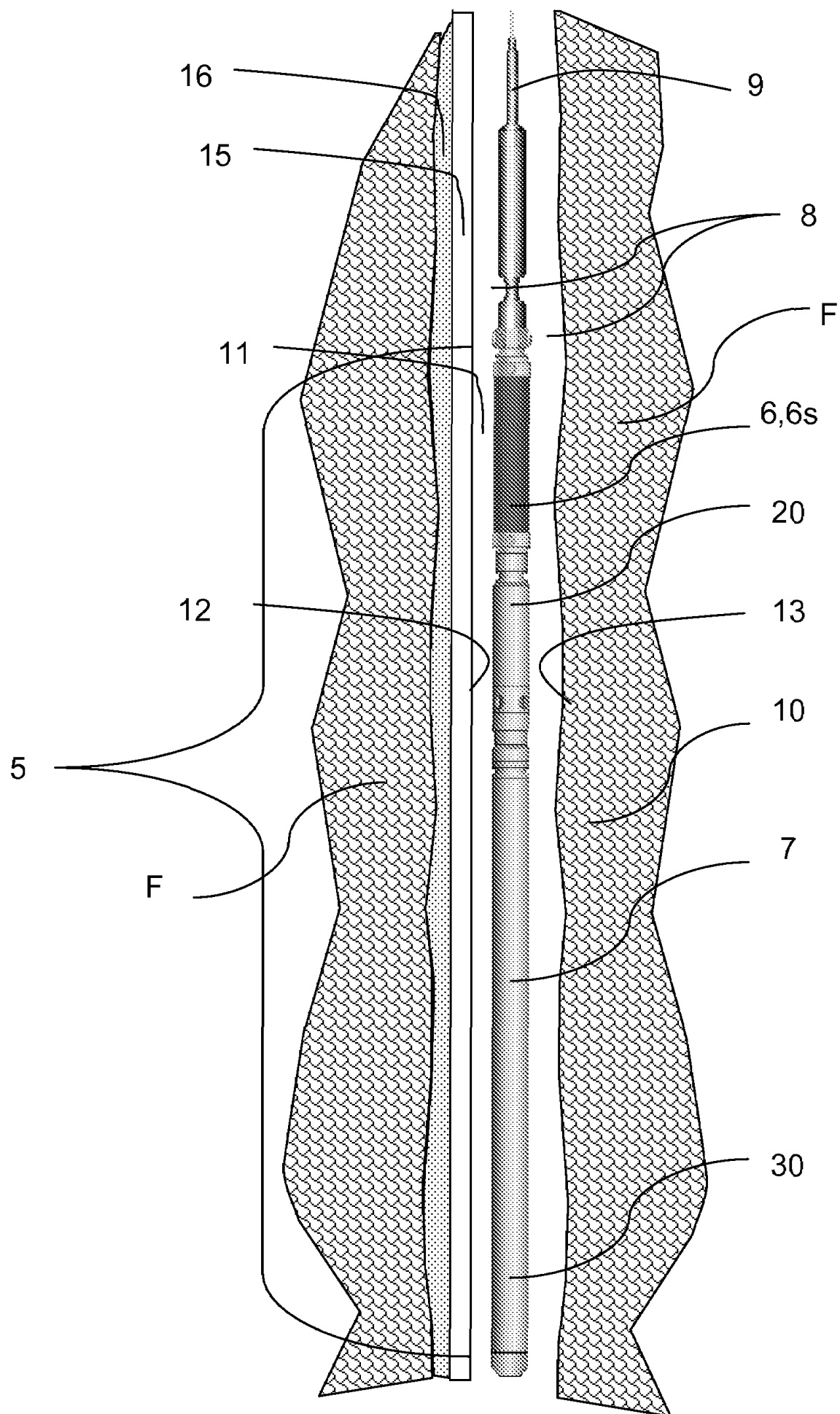
SCHLUMBERGER TECHNOLOGIES

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Title

(US7571768)

Method and apparatus for **perforating** a casing and producing hydrocarbons**Images**



Publication data including kind & date

CA2586369	C	2013-08-13	CA2586369				
US7905285	B2	2011-03-15	US7905285				
US20090272527	A1	2009-11-05	US20090272527				
US7571768	B2	2009-08-11	US7571768				
US20080105430	A1	2008-05-08	US20080105430				
CA2544818	A1	2007-10-25	CA2544818				
CA2586369	A1	2007-10-25	CA2586369				

Abstract

(US20080105430)

A **perforating gun** and one or more volume-receiving surge canisters can be actuated at a time delay after **perforation** for creating a **dynamic underbalance condition** to aid in directing debris out of the **perforations** and fractures and into the **wellbore**. A timer and triggering device actuate one or more canisters in parallel or series after a pre-determined time delay or delays which can be related to **wellbore** conditions following **perforation**. Use of propellant-type **perforating gun** further benefits from favorable propellant burn conditions for forming **perforations** and followed thereafter by a **perforation-cleaning underbalance pressure** conditions characterized by one or more of an increased rate of change depression of the **pressure** in the adjacent annulus, a greater magnitude of **pressure** depression and a longer duration of **underbalance**.

Inventors

CUTHILL DAVID A

Latest standardized assignees - inventors removed

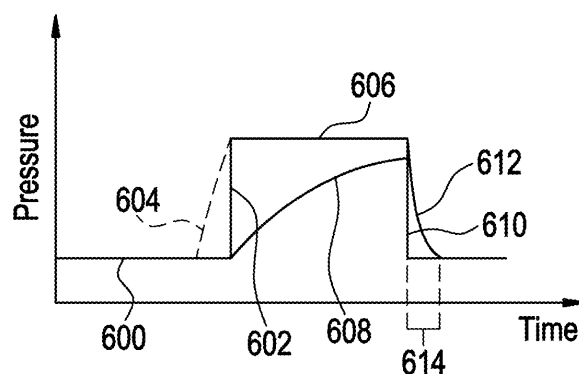
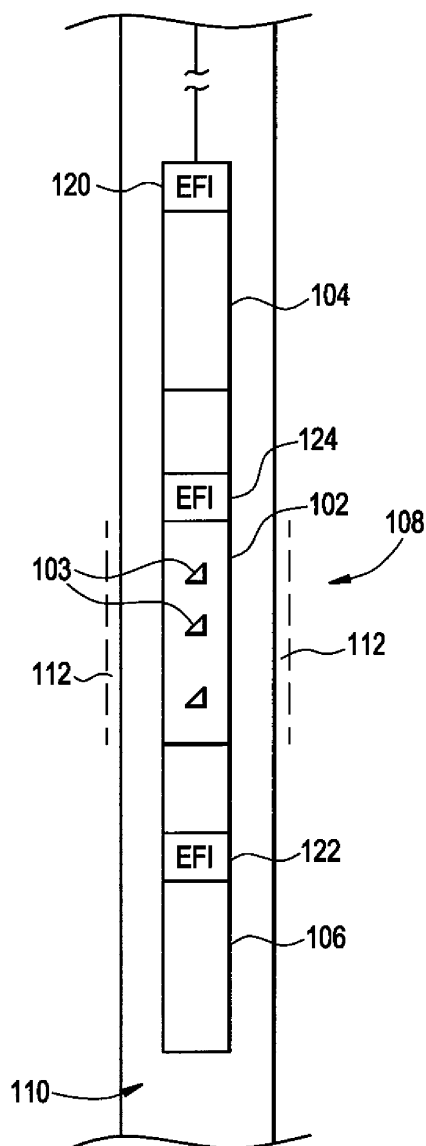
WEATHERFORD TECHNOLOGY HOLDINGS

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Title

(WO200942479)

Providing **dynamic** transient **pressure** conditions to improve **perforation** characteristics**Images**



Publication data including kind & date

GB2466143	B	2012-07-11	GB2466143
CO6270273	A2	2011-04-20	CO6270273
US7896077	B2	2011-03-01	US7896077
GB2466143	A	2010-06-16	GB2466143
GB201004493	D0	2010-05-05	GB201004493
ECSP10010049	A	2010-04-30	EC201010049
NO20100523	L	2010-04-26	NO20100523
WO2009/042479	A1	2009-04-02	WO200942479
US20090084552	A1	2009-04-02	US20090084552
CN101397899	A	2009-04-01	CN101397899



Abstract

(WO2009/042479)

A transient overbalance **condition** is created in a **wellbore** interval such that a **pressure** of the **wellbore** interval is greater than a reservoir **pressure** in surrounding formation. Creating the transient overbalance **condition** causes a near-**wellbore** region of the formation to increase in **pressure**. The **pressure** in the **wellbore** interval is reduced at a rate that produces a relative **underbalance condition** in which the **pressure** in the **wellbore** interval is less than the **pressure** of the near-**wellbore** region of the formation, but the **pressure** in the **wellbore** interval is greater than the reservoir **pressure**.

Inventors

BEHRMANN LAWRENCE A

GROVE BRENDEN M

TIBBLES RAYMOND J

HARVEY JEREMY

Latest standardized assignees - inventors removed

SCHLUMBERGER TECHNOLOGIES

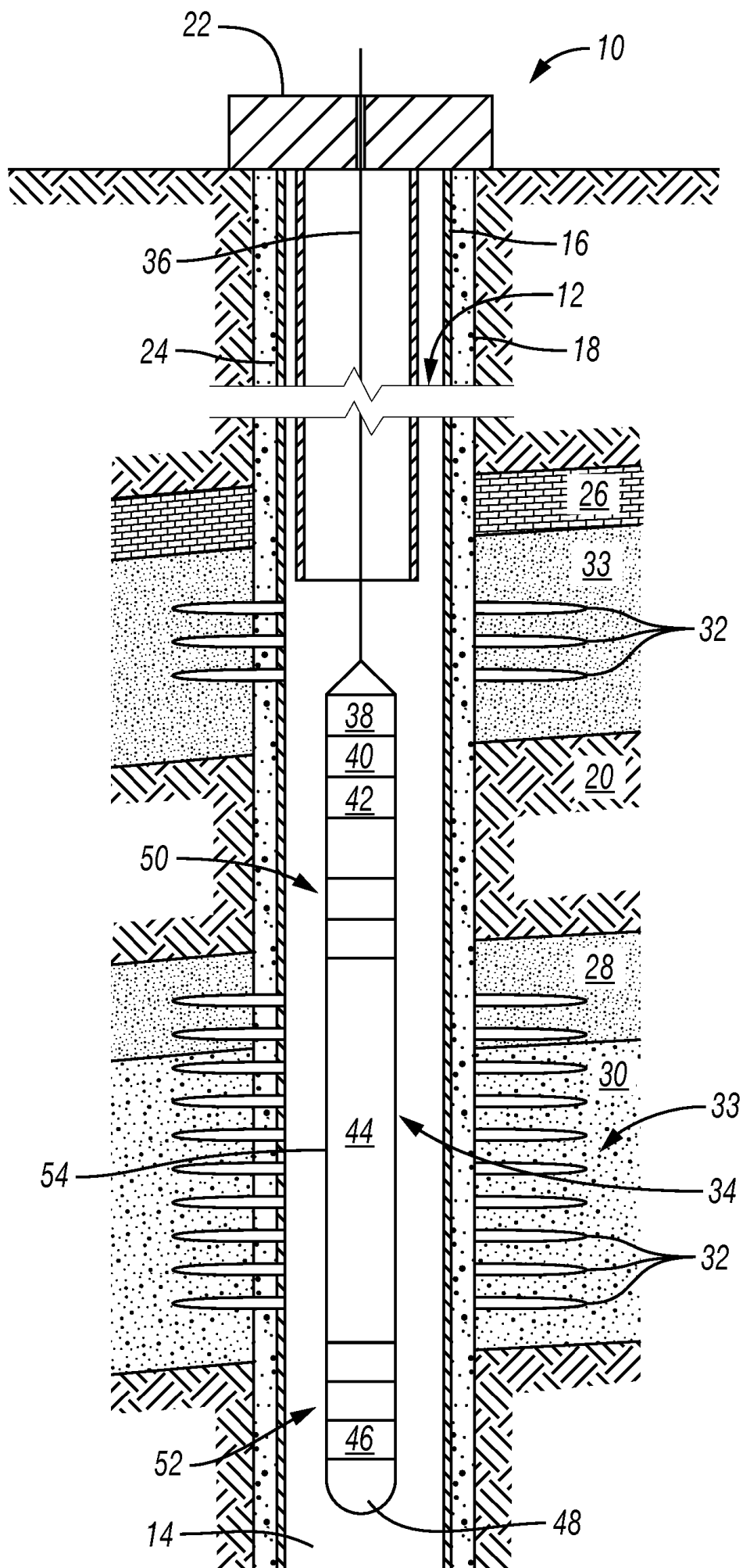
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Title

(WO201595155)

Methods for well completion

Images



Publication data including kind & date

US20160319651	A1	2016-11-03	US20160319651
WO2015/095155	A1	2015-06-25	WO201595155

**Abstract**

(WO2015/095155)

A **downhole** tool assembly for completing or cleaning a **wellbore** may include a **perforation gun** sub, and a laser assembly sub.

Inventors

WILLIAMS HARVEY
HARVEY JEREMY P
MARTIN ANDREW J
COOPER IAIN
BROWN J ERNEST

Latest standardized assignees - inventors removed

SCHLUMBERGER TECHNOLOGIES

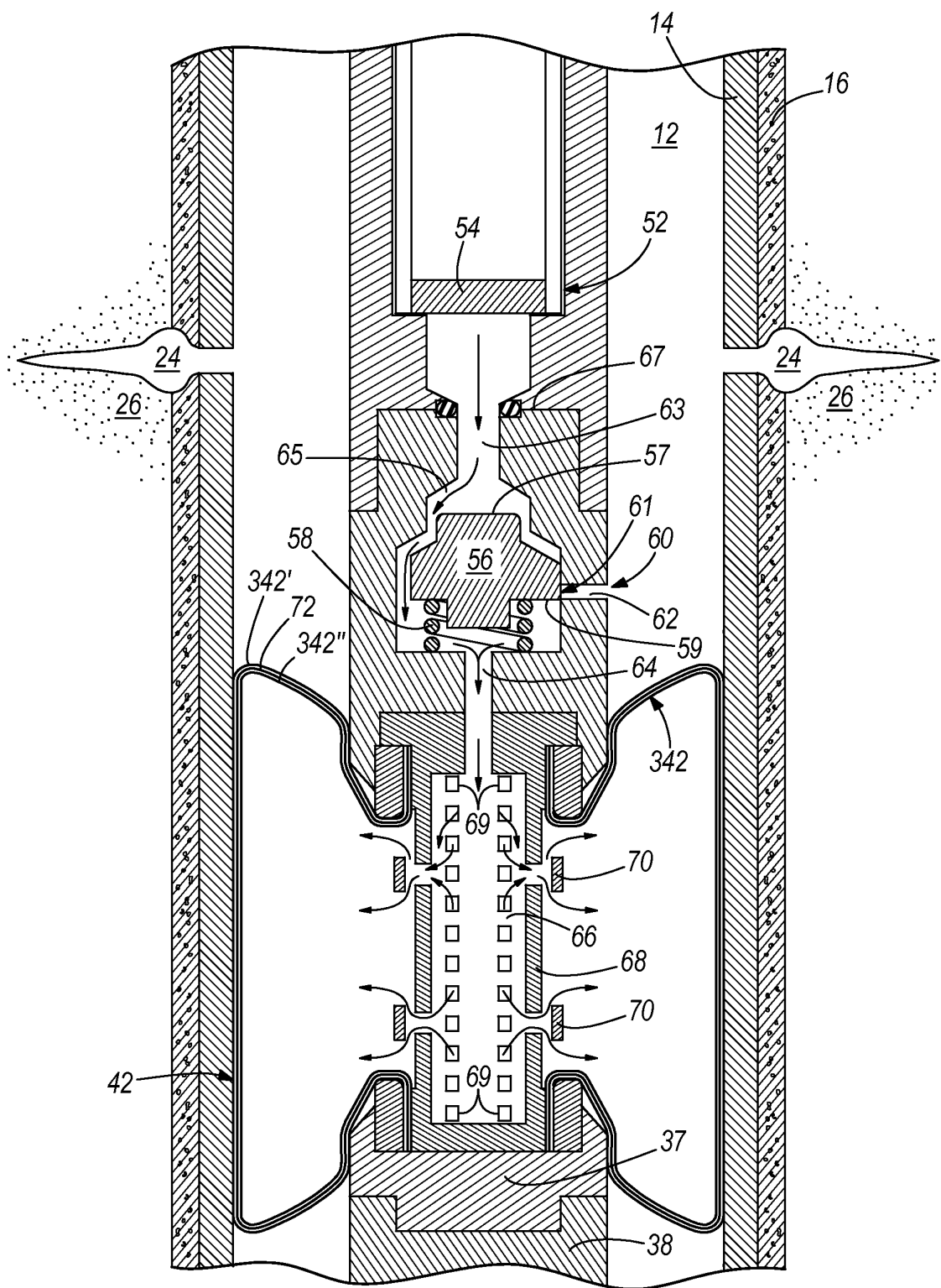
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Title

(US8950487)

Assemblies and methods for minimizing **pressure**-wave damage

Images



Publication data including kind & date

US8950487

B2 2015-02-10

US8950487

US20130140023

A1 2013-06-06

US20130140023



Abstract

(US20130140023)

An assembly for minimizing damaging effects of **pressure** waves on devices in a **wellbore**. The assembly comprises a **dynamic** device disposed in the **wellbore** and generating **pressure** waves during actuation; a barrier device disposed in the **wellbore** and presenting an obstacle to the **pressure** waves generated by the **dynamic** device; and an occlusion disposed in the **wellbore** between the **dynamic** device and the barrier device which reduces the damaging effects of the **pressure** waves on the barrier device.

Inventors

BAUMANN CARLOS ERIK

WILLIAMS HARVEY

BEHRMANN LAWRENCE A

GOODMAN KENNETH R

BUS AidY ADIL AL

SAYED KARIM AL

DOOMBOSCH FOKKO HARM CORNELIS

MARTIN ANDREW J

Latest standardized assignees - inventors removed

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