

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SHELL OIL COMPANY	05/30/2013
RECEIVING PARTY DATA	
Name:	ENVENTURE GLOBAL TECHNOLOGY, LLC
Street Address:	15995 North Barkers Landing, Suite 350
City:	Houston
State/Country:	TEXAS
Postal Code:	77079
PROPERTY NUMBERS Total: 3	
Property Type	Number
Application Number:	12869523
Application Number:	13392586
Application Number:	13392645
CORRESPONDENCE DATA	
Fax Number:	7132266215
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
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Address Line 4:	Houston, TEXAS 77521
ATTORNEY DOCKET NUMBER:	012433-2800, 4200, 4300
NAME OF SUBMITTER:	Derek V. Forinash
Signature:	/Derek V. Forinash/

CH \$120.00 12869523

Date:

05/31/2013

Total Attachments: 12

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ASSIGNMENT

This **ASSIGNMENT** is made between **SHELL OIL COMPANY**, a Delaware corporation having an office at 910 Louisiana Street, Houston, Texas 77002 ("Assignor"); and **ENVENTURE GLOBAL TECHNOLOGY, L.L.C.**, a limited liability company established under the laws of the State of Delaware whose principal place of business is 15995 N. Barkers Landing, Suite 350, Houston, Texas 77079 ("Assignee").

WHEREAS, in an Assignment dated January 25, 2011, Assignor assigned certain patents including those listed on Schedule 1 attached hereto (the "Patents") to Assignee (the "1-25-11 Assignment") and agreed to execute all papers and perform such other acts requested by Assignee as might be reasonably necessary to give Assignee, its successors and assigns, the full benefit of that Assignment; and

WHEREAS, Assignee subsequently recorded documents that were inconsistent with that commitment;

NOW THEREFORE, Assignor, in exchange for Assignee's obligations as set forth in the 1-25-11 Assignment, does hereby confirm the 1-25-11 Assignment assigning, selling, and conveying to Assignee, its successors and assigns, its entire right, title and interest of the Assignor (except as limited by the terms of the Restated License Agreement) throughout the world in and to:

1. the Patents and all inventions described therein;
2. all substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, reexaminations, extensions and the like of the Patents and all like grants, including, without limitation, those obtained or permissible under past, present, and future laws and statutes governing intellectual property;
3. all rights of action on the account of past, present, and future unauthorized use of said inventions and for infringement of the Patents and like protection;
4. all international rights of priority associated with the Patents and the inventions described therein.

Assignor covenants that Assignor, its successor, assigns, agents, and legal representatives, will, at the expense of Assignee, execute all papers and perform such other acts requested by Assignee as may be reasonably necessary to give Assignee, its successors and assigns, the full benefit of this Assignment.

[signature page to follow]

EXECUTED, in multiple originals, on date indicated below, opposite our signatures.

ASSIGNOR

By: Richard F. Lemuth

Name: RICHARD F. LEMUTH

Title: VICE PRESIDENT, INTELLECTUAL PROPERTY

Date: MAY 30, 2013

Place: 910 LOUISIANA ST.

THE STATE OF TEXAS §

COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared RICHARD LEMUTH, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 30th day of MAY, 2013.

Elizabeth Devries
Notary Public in and for
the State of TEXAS

My Commission Expires:

6/6/2015



SCHEDULE 1

Shell Ref. No.	App. No.	Title	Priority App. No.	EGT Ref. No.	PH Ref. No.
TS6935	13/509,679	Method and System for Lining a Section of a Wellbore with an Expandable Tubular Element	EPC 09176047.0	P109-0572	012433-5608
TS6979	12/869,523	System and Method for Anchoring an Expandable Tubular to a Borehole Wall	US 61/237,843	P109-0574	012433-2901
TS6984	13/392,586	System and Method for Anchoring an Expandable Tubular to a Borehole Wall	US 61/237,834	P109-0575	012433-4200
TS6985	13/386,222	System and Method for Anchoring an Expandable Tubular to a Borehole Wall	US 61/237,839	P109-0576	012433-2901
TS6986	13/392,645	System and Method for Anchoring an Expandable Tubular to a Borehole Wall	US 61/237,839	P109-0577	012433-4300

Schedule 1 to Assignment of patents to Enventure GT
 Shell Patents and Applications offered to STV Fund 1 BV and Accepted by STV Fund 1 BV

TH2655

Title: Expander For Expanding A Tubular Element

Derwent Abstract

NOVELTY - A duplex expansion apparatus for expanding wellbore tubular to two different diameters from initial diameter, comprises first diameter expansion cone (203); second diameter expansion cone that is, in relaxed state, of diameter less than internal diameter; and assembly mandrel that is capable of transferring both the diameter expansion cones into their expanded states. - DETAILED DESCRIPTION - A duplex expansion apparatus for expanding a wellbore tubular to two different diameters from initial diameter, comprises: - (1) a first diameter expansion cone that is, in relaxed state, of diameter less than internal diameter and in an expanded state of diameter greater than internal diameter; - (2) a second diameter expansion cone that is, in a relaxed state, of diameter less than internal diameter and in expanded state of diameter greater than diameter of first diameter expansion cone in expanded state; and - (3) an

Country Convention

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	31-Aug-06	PI0508301-0				
CAN	P	7-Sep-06	2559012				
CHN	P	8-Sep-06	200580007578.9	14-Mar-2007	CN1930368A		
GBR	P	16-Aug-06	0616335.6	27-Dec-06	GB2427424	9-Apr-08	GB2427424
GCC		08-Mar-2005	GCC/P/2005/4387				
USA		08-Mar-2004	10/795894	8-Sep-05	194128	28-Nov-06	7140428

TH2656

Title: Expander For Expanding A Tubular Element

Derwent Abstract

NOVELTY - An expandable mandrel for plastic deformation of a tubular from an initial inside diameter to an expanded inside diameter, comprises deformable segments extending from a base, where each of the plastically deformable segments are deformable to the expanded inside diameter, and when deformed to the expanded inside diameter together form an expansion surface having gaps. - DETAILED DESCRIPTION - An expandable mandrel for plastic deformation of a tubular from an initial inside diameter to an expanded inside diameter, comprises a base having an outside diameter smaller than the initial inside diameter; and deformable segments extending from the base, where each of the plastically deformable segments are deformable to the expanded inside diameter, and when deformed to the expanded inside diameter together form an expansion surface having gaps between the deformed

Country Convention

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
GCC		08-Mar-2005	GCC/P/2005/4391				

TH2657

Title: Expander For Expanding A Tubular Element

Derwent Abstract

NOVELTY - An expander for expanding a casing, comprises expansion cone having expanded state and collapsed state and the expansion cone is deformable to expanded state and is relaxed in collapsed state; seal bushing capable of sealing annulus between drill string and expandable casing; and downward expansion flow path where fluid communication is provided between inside of drill string and annulus between drill string and casing. - DETAILED DESCRIPTION - An expander for expanding a casing, comprises: - (1) a drill string extending to within the drill string; - (2) an expansion cone suspended from the drill string, and having an expanded state and a collapsed state and the expansion cone is deformable to the expanded state and is relaxed in the collapsed state; - (3) a seal bushing capable of sealing an annulus between the drill string and the expandable casing; - (4) a downward expansion flow path where fluid

Country Convention

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	31-Aug-06	PI0508340-0				

CAN	P	7-Sep-06	2559006				
CHN	P	8-Sep-06	200580007579.3	14-Mar-2007	CN1930369A	05-Mar-2008	GB2428061
GBR	P	16-Aug-06	0616334.9	17-Jan-07	GB2428061		
GCC		08-Mar-2005	GCC/P/2005/4389				
USA		08-Mar-2004	10/795951	8-Sep-05	194129	10-Oct-2006	7117940

TH3271

Title: Method And Apparatus For Altering Stress State Of Borehole

Derwent Abstract

AN - 2009-E96262 [14] NOVELTY: A borehole (100) is drilled in the subterranean formation (101). A tubular element (105) is installed in the borehole. The tubular element is anchored to the subterranean formation at two points along the length. The tubular element is extended to induce compression between the points. - DESCRIPTION: An INDEPENDENT CLAIM is included for wellbore. - USE: Method for altering stress state of subterranean formation in oil and gas reservoir. - ADVANTAGE: The tensile stress is accumulated between the anchor points. The

Country Convention

CAN	P
CHN	P
GBR	P
GCC	P
OMA	P
USA	P

TH3514

Title: Hydraulic Expansion Jack

Derwent Abstract

Country Convention

CAN	P
CHN	P
GBR	P
GCC	P
OMA	P
USA	P

TH3515

Title: Managing Expansion Forces By Adding Compression

Derwent Abstract

Country Convention

CAN	P
CHN	P
GBR	P
GCC	P
OMA	P
USA	P

TH3701

Title: Method For Expanding A Tubular

Derwent Abstract

Country Convention

CAN	P
CHN	P
GBR	P
GCC	P
OMA	P
USA	P

TH3897

Title: System And Method For Anchoring An Expandable Tubular To A Borehole Wall

Derwent Abstract

Country Convention

CAN	P
CHN	P
GBR	P
GCC	P
OMA	P
USA	P

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
29-Jan-10					
27-Jan-10					
2-Feb-10		7-Jul-10	CN101772617A		
22-Jan-10	1001039.5	14-Apr-10	2464233		
27-Jan-10	OM/P/2010/00009				

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
16-Nov-09	PCT/US2009/064500				
18-Nov-08	61/115779				

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
16-Nov-09	PCT/US2009/064501				
18-Nov-08	61/115787				

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
31-Mar-2009	61/165128				

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
28-Aug-09	61/237846				

TS6269

Title: Expander provided with pressure seal of front end

Derwent Abstract

NOVELTY - Expander for radially expanding tubular element (1) by axial movement of the expander through the element has an expander member with a fluid supply unit (24) to supply pressurized fluid to the inner surface of the tubular element at a location opposite the intermediate part (16) of expander member when it is arranged in the tubular element. - DETAILED DESCRIPTION - Expander for radially expanding tubular element by axial movement of the expander through the element comprises an expander member having a front part (14) of a first cross-sectional size, a rear part (18) of a second cross-sectional size larger than the first, and an intermediate part arranged between the front and rear parts and having a cross-sectional size varying between the first and second cross-sectional sizes. The expander is provided with a fluid supply unit to supply pressurized fluid to the inner surface of the tubular

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
CAN	P	11-Sep-03	2440742				
GBR	EP	2-Sep-03	02730008.6			31-May-2006	EP1368554
GCC		11-Mar-2002	GCC/P/2002/1904				
USA	P	12-Sep-03	10/471778	20-May-2004	94312	26-Sep-06	7111679

TS6275

Title: Improved expandable cone for ET technology

Derwent Abstract

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	19-Jan-04	PI0211295-7				
CAN	P	14-Jan-04	2454070				
CHN	P	20-Jan-04	02814738.3	06-Oct-2004	1535347A	16-Mar-2007	02814738.3
GBR	P	13-Jan-04	0400680.5	23-Jun-04	2396322	26-Jan-05	2396322
GCC		20-Jul-02	GCC/P/2002/2141			31-Mar-2008	GC0000529
USA	P	20-Jan-04	10/484288	16-Sep-04	177953	28-Nov-06	7140430

TS6276

Title: Use of adhesives for ET connections

Derwent Abstract

NOVELTY - A connector interconnecting a first tube to a second tube and having a pin that extends into a box, is radially expanded by supporting the pin to prevent a radially inward movement of an end portion of the pin relative to the box. The pin and the box have cooperating supports arranged to support the pin to prevent the inward movement of the pin's end portion relative to the box. - USE - For radially expanding a connector for interconnecting a first tube

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
CAN	P	20-Nov-03	2448085				
CHN	P	21-Nov-03	02810373.4	7-Jul-04	1511218A	8-Jun-07	02810373.4
EPC	P	2-Dec-03	02754576.3	18-Feb-04	1389260	02-Mar-2005	1389260
GBR	EP	2-Dec-03	02754576.3			02-Mar-2005	1389260
USA	P	21-Nov-03	10/478564	5-Aug-04	148758	09-May-2006	7040018

TS6278

Title: Two stage expansion cone

Derwent Abstract

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	12-Jan-04	PI0211114-4				
CAN	P	8-Jan-04	2453400				
CHN	P	12-Jan-04	02814024.9	27-Apr-05	1610788A	27-Apr-07	02814024.9

GBR P 12-Jan-04 040554.2 2-Jun-04 2395734 31-Aug-05 2395734
GCC 13-Jul-02 GCC/P/2002/2124 30-Sep-07 GC0000457
USA 12-Jan-04 10/483657 9-Sep-04 173361 07-Mar-2006 7007760

TS6287

Title: Drill string provided with expandable tubular

Derwent Abstract

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
AUS	P	19-Apr-04	2002338913			6-Dec-07	2002338913
BRA	P	20-Apr-04	PI0213468-3				
CAN	P	16-Apr-04	2463953				
CHN	P	22-Apr-04	02820989.3	2-Feb-05	CN1575372A	29-Sep-06	02820989.3
GBR	EP	31-Mar-2004	02777327.4			4-Jan-06	1438483
USA	P	23-Apr-04	10/493708	2-Nov-06	US2006024345	6-Feb-07	7172025

TS6299

Title: Hybrid expansion system for constructing a MOD Bell

Derwent Abstract

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	25-May-2004	PI0214432-8				
CAN	P	17-May-2004	2467465				
CHN	P	27-May-2004	02823629.7	16-Mar-2005	CN1596331A	3-Nov-06	02823629.7
GBR	P	13-May-2004	0410703.3	8-Sep-04	GB2399116	8-Jun-05	GB2399116
OMA	P	11-May-2004	36/2004				
USA	P	29-Sep-04	10/496889	24-Feb-05	39910	3-Jun-08	7380593

TS6402

Title: Near burst expansion of tubular elements

Derwent Abstract

AN - 2006-480374 [49] NOVELLY - The method involves arranging an expander (32) into a tubular component (26). The tubular component is radially expanded by pressurizing the interior of the tubular component, while operating the expander independently to exert a radial force to the inner surface of the tubular component. - USE - For tubular component in wellbore in earth formation. - ADVANTAGE - Facilitates execution of pressurization of tubular component and application of radial force to inner surface of tubular component in an independent manner.

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
GCC		4-Jan-06	GCC/P/2006/5656				

TS6402/02

Title: Near burst expansion of tubular elements

Derwent Abstract

AN - 2007-534595 [54] NOVELLY - The method involves arranging an expander (8) in an expandable casing (4) e.g. wellbore casing. A radial force is exerted to an inner surface of the expandable casing by the expander. The casing is radially expanded by pressurizing an interior of the casing and simultaneously operating the expander to exert the radial force to the inner surface of the casing. Fluid e.g. hydrocarbon fluid, is pumped into the casing at an upper end of the casing. The expander is moved through the casing. The expander is operated independently from pressurizing the interior of the expandable casing. - USE: Used for radially expanding a casing e.g. wellbore casing and a wellbore liner, that is utilized for providing stability to a wellbore wall and for providing zonal isolation between earth formation layers, extending into a wellbore formed in an earth formation (claimed) that is utilized for production of hydrocarbon

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	P	21-Jul-08	PI0621041-4				
CAN	P	8-Jul-08	2636496				

CHN P
GBR P
USA P

22-Jul-08
2-Jul-08
21-Jul-08

200680051566.0
0812133.7
12/161618

4-Feb-09
10-Sep-08
2-Apr-09

CN101360883A
GB2447389
US20090084540

03-Mar-2010
GB2447389

TS6404

Title: Zonal isolation of a well with expandable tubulars

Derwent Abstract

NOVELTY - An expansive tubular assembly is installed in a wellbore (4) formed in an earth formation (6), by radially expanding an end part of a second tubular component (2) against an end part of a first tubular component, such that the end part of the first tubular component becomes radially expanded and a deformable body becomes radially deformed. - DETAILED DESCRIPTION - Installation of an expandable tubular assembly in a wellbore formed in an earth formation, the tubular assembly including expandable tubular components, comprises installing a first tubular component in the wellbore; installing a second tubular component in the wellbore, such that an end part of the second tubular component extends into an end part of the first tubular component, thus forming an overlap portion (16) of the tubular assembly, the overlap portion being positioned in the wellbore such that a radially deformable body is arranged around

Country Convention

BRA P
CAN P
CHN P
GBR P
OMA P
USA P

Filed
24-May-2005
24-May-2005
26-May-2005
05-May-2005
03-May-2005
24-May-2005

Appl. No.
PT0316340-0
2507413
200380104158.3
0509239.0
44/2005
10/536207

Published
4-Jan-06
3-Aug-05
22-Dec-05

Publ. No.
CN1717530A
GB2410520
279509

Granted
10-Apr-09
21-Jun-06
3-Jun-08

Patent No.
200380104158.3
GB2410520
7380594

TS6405

Title: Expander with oppositely arranged anchoring devices

Derwent Abstract

An expander for radially expanding a tubular wellbore element, comprising an expander body of larger diameter than the inner diameter of the tubular element before expansion thereof, and first and second anchoring devices for anchoring the expander in the tubular element, said first and second anchoring devices being arranged at axially opposite sides of expander body.

Country Convention

BRA P
CAN P
CHN P
GBR P
GCC P
USA P

Filed
31-Oct-2005
2-Nov-05
4-Nov-05
17-Oct-2005
03-May-2004
3-Nov-05

Appl. No.
PT0409897-8
2524506
200480012166.X
0521088.5
GCC/P/2004/3433
10/555476

Published
7-Jun-06

Publ. No.
1784534A

Granted
11-Jan-08
24-Jan-07

Patent No.
200480012166.X
2417746
7597140

TS6409

Title: Method of casing drilling and casing expansion

Derwent Abstract

NOVELTY - Creating a borehole (1) in an earth formation (2) comprises drilling a borehole section and lowering an expandable tubular mechanism into the borehole to allow the tubular mechanism lower portion to extend into the drilled borehole section, radially expanding the tubular mechanism lower portion to form a casing in the drilled borehole section, and separating the tubular mechanism upper portion from the lower portion to allow the separated upper portion to be moved relative to the lower portion. - USE - Used for creating a borehole in an earth formation used in production of hydrocarbon fluid. - ADVANTAGE - The process does not require the installation of casing sections of lengths at positions in the borehole. It eliminates

Country Convention

AUS P
BRA P

Filed
18-Oct-2005
21-Oct-2005

Appl. No.
2004234548
PT0409619-3

Published
13-Sep-07

Publ. No.
2004234548

Granted
Patent No.

CAN	P	24-Oct-2005	2523348	31-May-2006	CN1780971A	14-Mar-2008	200480011226.6
CHN	P	25-Oct-2005	200480011226.6			7-Nov-07	EP1618279
GBR	EP	7-Nov-05	04741463.6				
GCC		24-Apr-04	GCC/P/2004/3405				
USA	P	21-Oct-2005	10/554066	15-Feb-07	US20070034401	16-Jun-09	7546886

TS6409/02

Title: Method of casing drilling and casing expansion

Derwent Abstract

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
CHN	P	13-Jun-07	200710110386.1	12-Dec-07	CN101086198A		

TS6425
Title: Method to form an axially flexible casing downhole

Derwent Abstract

NOVELTY - Adapting a tubular element extending into a wellbore formed in an earth formation involves reducing the axial stiffness of at least one section of the tubular element, and allowing each tubular element section of reduced axial stiffness to be axially compressed by the action of axially compressive forces thus accommodating compaction of the earth formation surrounding the tubular element. - DETAILED DESCRIPTION - Each tubular element section is radially deformed to form a rim-shaped tubular element section extending radially outward from a remainder portion of the tubular element. - USE - Used for adapting a tubular element extending into a wellbore formed in an earth formation, the tubular element being susceptible of damage due to axially compressive forces acting on the tubular element due to compaction of the earth formation surrounding the tubular element (claimed). - ADVANTAGE - Adapting a casing reduces

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
GBR	EP	10-May-2007	05817222.2			08-Oct-2008	EP1819897
GCC		10-Dec-05	GCC/P/2005/5490				
NET	EP	10-May-2007	05817222.2			08-Oct-2008	EP1819897
USA	P	7-Jun-07	11/792574	08-May-2008	US20080105431		

TS6437

Title: Method of expanding a bell of a Mono-Diameter Well

Derwent Abstract

NOVELTY - Expanding a tubular element, having a first portion to be expanded to a first inner diameter and a second portion to be expanded to a larger second inner diameter, includes arranging an expandable sleeve in the second portion, positioning an expander in the tubular element, operating the expander to expand the first portion and the sleeve, and retrieving the sleeve from the tubular element. - DETAILED DESCRIPTION - Expanding a tubular element (32), having a first portion (41) to be expanded to a first inner diameter and a second portion (38) to be expanded to a larger second inner diameter, includes arranging an expandable sleeve (36) of selected wall thickness in the second portion, positioning an expander (1) in the tubular element, operating the expander to expand the first portion to the first diameter and operating the expander to expand the sleeve to an inner diameter equal to the second diameter minus the

Country	Convention	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
AUS	P	4-Jan-06	2004256232			18-Oct-2007	2004256232
BRA	P	5-Jan-06	PI0412339-5				
CAN	P	5-Jan-06	2532165				
CHN	P	6-Jan-06	200480019304.7	11-Oct-2006	CN1846041A	13-Mar-2009	200480019304.7
GBR	EP	2-Feb-06	04741963.5			11-Oct-2006	1649137
GCC		7-Jul-04	GCC/P/2004/3618			31-Dec-08	GCC0000710
USA	P	5-Jan-06	10/563505	27-Jul-06	US20060162931	18-Nov-08	7451811

TS6443

Title: Expandable bit with hydraulic activation

Derwent Abstract

NOVELTY - A drill bit comprises at least one cutting arm with a set of cutters, and is coupled to the bit body via hinges (10) supported by lips (6) allowing the cutting arm to pivot between a radially retracted and expanded position. The drill bit also has an annular lock-ring (12) for supporting the cutting arm in the radially expanded position. - DETAILED DESCRIPTION - The drill bit has a central longitudinal axis comprising a bit body with a central shank (2) for connecting the drill bit to a drilling system. The lock-ring transmits at least a portion of the rotational torque generated by drilling, from the cutting arm to the bit body. - USE - For drilling a borehole in earth formations (claimed). - ADVANTAGE - The novel drill bit is more relatively switchable between its retracted and expanded positions. The annular lock-ring relieves the

Convention

Country	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
BRA	18-Nov-05	PI0410484-1				
CAN	9-Nov-05	2526881				
CHN	21-Nov-05	200480013967.8	21-Jun-06	CN1791733A	08-May-2009	200480013967.8
GBR	15-Nov-05	04741603.7			21-Mar-2007	1625276
USA	18-Nov-05	10/557525	22-Feb-07	US20070039761	10-Jun-08	7383900

TS6498

Title: Compliant cone

Derwent Abstract

AN - 2007-207092, 1211 NOVELTY: A pipe expander has an axially forward direction and is provided with a mandrel (2) for exerting a thrust force to the expander to move the expander in axially forward direction through a tubular element. The expander comprises an adjustable rear cone (10) having an expander surface tapering radially inward in the axially forward direction, and an adjusting mechanism for moving the adjustable cone from the collapsed mode to the expanded mode by the action of the thrust force exerted to the mandrel. The cone is movable between a radially expanded mode and a radially collapsed mode. - USE: For radially expanding a tubular element, e.g. pipe used in the production of oil and gas from an earth formation. - ADVANTAGE: The expander is capable of expanding a tubular element in a manner where the expander complies with irregularities or obstructions present in the tubular element or the

Convention

Country	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
AUS	5-Feb-08	2006278055				
BRA	31-Jan-08	PI0614207-9				
CAN	5-Feb-08	2618056				
CHN	3-Feb-08	200680028777.2	6-Aug-08	CN101238273A		
GBR	29-Jan-08	0801610.7	16-Apr-08	2442903		
OMA	22-Jan-08	Nov-08				
USA	4-Feb-08	11/997857	18-Sep-08	US20080223561	23-Mar-2010	7681636

TS6843

Title: Expanding a tube using cone and elastomer sleeve

Derwent Abstract

AN - 2008-249732, 1211 NOVELTY: The method involves installing an elastomer sleeve (4) in a tubular element (1), and installing an expander (4) in the tubular element. The expander is suitable to radially expand the sleeve to an outer diameter larger than the first inner diameter (D1) of the tubular element by moving the expander in axial direction through the sleeve. The expander is moved in axial direction through the sleeve to radially expand the tubular element from the first inner diameter to a second inner diameter. - USE: Expanding method for tubular element used in e.g. subterranean applications. Uses include but not limited to steel tubular casings and liners, retrieval of tubular elements from well bore, creating tubular elements, creating casing or liner portions with enlarged diameters, creating liner hangers, and pipeline repair applications. - ADVANTAGE: Expands the tubular element without direct contact between

Convention

Country	Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
AUS	16-Feb-09	2007296271				

BRA	P	27-Feb-09	PI0715228-0			
CAN	P	27-Feb-09	2662100			
CHN	P	13-Mar-2009	200780034178.6	26-Aug-09	CN101517195A	
GBR	P	6-Feb-09	0902043.9	06-May-2009	GB2454390	
OMA	P	31-Jan-09	18/2009			
UAE	P	15-Mar-2009	220/2009			
USA	P	12-Mar-2009	12/440938	17-Dec-09	US20090308594	

TS6935

Title: Expandable Liner Drilling

Derwent Abstract

An assembly for drilling and lining a wellbore, the assembly comprising a drill string provided with a drill bit, an expandable tubular element extending around the drill string, and an expansion cone arranged at a lower end of the tubular element, the expansion cone being arranged to be pulled by the drill string through the tubular element so as to radially expand the tubular element, wherein the tubular element is at the lower end thereof provided with

Country Convention

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
16-Nov-09	09176047.0				

TS6967

Title: Piston activated Breathing Cone II

Derwent Abstract

Country Convention

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
22-Dec-09	PCT/EP2009/067732				

TS6979

Title: Open hole liner anchor

Derwent Abstract

Country Convention

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
28-Aug-09	61/237843				

TS6984

Title: Open hole liner anchor

Derwent Abstract

expandable liner is provided with anchors around the circumference thereof, which are activated due to the shortening of the liner during expansion. The anchor comprises a first member, having one end that is fixed (welded) to the exterior of the liner, and an opposite end that is provided with a ramp. The anchor also comprises a second part, having ends consisting of metal bars. An end of the second part that is remote from the ramp is fixed (welded) to the liner, whereas the metal bars can slide relative to the liner and towards the ramp. The ends of the metal bars will slide onto the ramp and extend away from the liner when the liner is expanded. When the expander continues and reaches the first member, the free end of the first member will slide along the length of the liner in the direction of the second part. The first member will push the second part further outwards in the direction of the formation. Unless the formation is

Country Convention

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
28-Aug-09	61/237834				

TS6985

Title: Open hole liner anchor

Derwent Abstract

Country Convention

Filed	Appl. No.	Published	Publ. No.	Granted	Patent No.
28-Aug-09	61/237839				

TS6986

Title: Open hole line anchor

Derwent Abstract**Country** USA

USA

Convention**TS9229****Title:** Drill string provided with expandable sleeve**Derwent Abstract**

NOVELTY - A drilling system includes drill string having lower section with sleeve that is radially expandable from retracted mode to expanded mode. In retracted mode, the sleeve extends around the lower drill string section. In expanded mode, the sleeve is released from the lower drill string section. The sleeve is expanded against the borehole wall. - **DETAILED DESCRIPTION** - A drilling system comprises drill string having lower section with sleeve (7) that is radially expandable from retracted mode to expanded mode. In retracted mode, the sleeve extends around the lower drill string section. In expanded mode, the sleeve is released from the lower drill string section. The sleeve is expanded against the borehole wall. The drilling system further comprises control members for selectively releasing the sleeve from the lower drill string section and expanding the sleeve against the borehole wall. - **USE** - The inventive drilling system is for

Country

AUS

Convention

P

BRU

CAN

FRA

GBR

GER

NET

USA

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P

TS9295**Title:** Skin protected expandable**Derwent Abstract**

NOVELTY - A tube (10) is passed through a well bore closing unit (3) such that a portion of tube wall (11) passes into closing unit along axial direction. The tube wall is expanded in such a way that it is impermeable in radial direction so as to prevent the flow of pressurized fluid. Finally the tube wall is expanded so that it is permeable in radial direction to allow the expansion of pressurized fluid. - **DETAILED DESCRIPTION** - The pressure difference corresponding to final initial expansion of tube wall is larger than the pressure difference corresponding to final expansion of tube wall. The tube is coaxially inserted within a casing using a transport tube. The expansion of tube is performed, when the tube wall is located in an uncased production zone of well bore. A pressurized drilling fluid is axially fed through the tube. A portion of well bore including the tube, is drilled by a drill string. The well bore closing unit has a cemented casing

Country

GBR

USA

Convention

EP

P

TS9572**Title:** Downhole apparatus and method for expanding a tubing**Derwent Abstract****Country**

GBR

USA

Convention

EP

P

Filed
28-Aug-09**Appl. No.**
61/237819**Published****Publ. No.****Granted****Patent No.****Filed**
20-Oct-2003**Appl. No.**
2002314030**Published****Publ. No.****Granted**
04-Oct-2007**Patent No.**
2002314030

20-Oct-2003

2444776

26-Sep-03

02740555.4

26-Sep-03

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26-Sep-03

02740555.4

27-Oct-2003

10/475920

29-Jul-04

144568

9-Jan-07

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EP1381750

EP1381750

P60230974.3-08

EP1381750

Filed
25-Sep-00
23-Aug-00**Appl. No.**
98962704.7
09/622958**Published****Publ. No.****Granted**
22-Sep-04
25-Feb-03**Patent No.**
EP1058769
6523611**Filed**
25-Nov-96
25-Nov-96**Appl. No.**
96939217.4
09/077116**Published****Publ. No.****Granted**
13-Jun-01
11-Jan-00**Patent No.**
EP0862681
6012523