

# LINER HANGER SYSTEMS

*Customized system designed to meet the specific customer requirements.*

## 14" x 18 5/8" System

Liner Hanger Packer Integral System.

One trip system.

Mechanical set, as per original customer requirements.



latch



packer



hanger

COMPLETE VO CERTIFIED LINER HANGER & PACKER SYSTEM

## 7" x 9 5/8" System

Available as a two trip system, as per original customer requirements.

Full System available, including: Darts, Plugs, Floats, Landing Collars & Tie Back.



collet indicator



seal stem



cementing plug system

# LINER HANGER SYSTEMS

*Patented packer sealing technology has been key to track record.*



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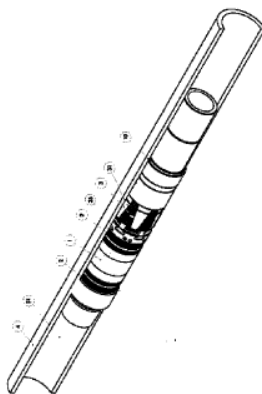
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(54)	Benevnelse	<b>Brønnplugg med ekspanderende elastomerpakning samt en ekspansjonsring.</b>		
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Den foreliggende oppfinnelsen vedrører en brønnplugg med en ekspanderbar elastomerpakning (1) med to ender, forløpende rundt en hoveddel (25). Brønnpluggen er til bruk for tetning i borehull og rørledninger (4). Minst én ekspansjonsring (13) tilstøter minst én av elastomerpakningens (1) to ender og minst én støttering (15) påfører en aksialkraft (16) i en lengderetning av brønnpluggen. Minst én av elastomerpakningens (1) to ender er utført med en konisk flate. Den minst ene ekspansjonsringen (13) er utført med en konisk flate utført slik at påføring av aksialkraften (16) i en lengderetning av brønnpluggen fører samtidig til ekspansjon av elastomerpakningen (1) og den minst ene ekspansjonsringen (13).



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# 7" X 9 5/8" LINER HANGER SYSTEM SPECIFICATIONS

*Liner Hanger System ISO 14310 V0 Tested and Qualified to 7,500psi and 121°C.*

RATINGS	
Casing	9 5/8" 47#/ft
Liner	7" 29#/ft*
V0 Rated	7,500 PSI & 121°C

\* Can be used for 26#/ft and 32#/ft due to thread selection



# LINER HANGER SYSTEMS

## Track Record

Description	Owner	Well	Date used	Job no.
7" Liner Hanger Assy	Dana	SPD 15-08	27.08.2011	1
7" Liner Hanger Assy	Dana	SPD 16-08	05.04.2011	2
7" Liner Hanger Assy	Dana	SPD 16-02	26.05.2011	3
7" Liner Hanger Assy	Dana	SPD 16-07	22.03.2012	4
7" Liner Hanger Assy	Dana	SPD 15-02	16.07.2011	5
7" Liner Hanger Assy	Dana	SPD 15-11	08.08.2011	6
7" Liner Hanger Assy	Dana	SPD 15-06	28.05.2010	7
7" Liner Hanger Assy	Dana	SPD 15-09	17.09.2011	8
7" Liner Hanger Assy	Dana	SPD 15-04	21.12.2011	9
7" Liner Hanger Assy	Dana	SPD 15-07	14.01.2012	10
7" Liner Hanger Assy	Dana	SPD 16-10	09.04.2012	11
7" Liner Hanger Assy	Dana	SPD 16-12	13.05.2012	12
7" Liner Hanger Assy	Dana	SPD 16-03	06.07.2012	13
7" Liner Hanger Assy	POGC	SPD 16-06	29.07.2012	14
7" Liner Hanger Assy	POGC	SPD 16-04	19.08.2012	15
7" Liner Hanger Assy	POGC	SPD 16-09	09.09.2012	16
7" Liner Hanger Assy	POGC	SPD 16-11	01.01.2012	17
7" Liner Hanger Assy	POGC	SPD 16-01	15.10.2012	18
2 each 14" Liner Hanger Assy *	Aramco	KARN-61	In Progress	In Progress

\* Shipped to customer 4.8.13

# LINER HANGER SYSTEMS TRACK RECORD

*100% Success rate of Liner Hanger, Packer and Tie Back.*

**18 Systems, sized 7" x 9 5/8", have been successfully installed**, since the introduction of the system in 2010.

Well Innovation assisted in the installation of all systems, in cooperation with local Service Company.

ALL EXTERNAL AND INTERNAL INCIDENTS on Liner Operations  
(WI, Operators, and other Service Companies):

- One issue with cement formula being mixed incorrectly by cementing company, resulting in the drill string being cemented in place.
- One issue with an item being dropped down hole, creating an obstruction for the dart. The Liner Hanger, Packer & Tie Back all functioned correctly.
- One WI plug release failure, that was a QA/QC issue with manufacturing. The plug was redesigned to add a contingency release mechanism. 100% success rate after modification.

**Two 14" x 18 5/8" Systems have been delivered.**

Impressive Reliability



- No WI or Operator Issues
- WI Plug Failure - Manufacturing
- Dart Failure - Item Dropped Down Hole
- Cement Preset - Cement Service Company