



Your problem is our challenge!

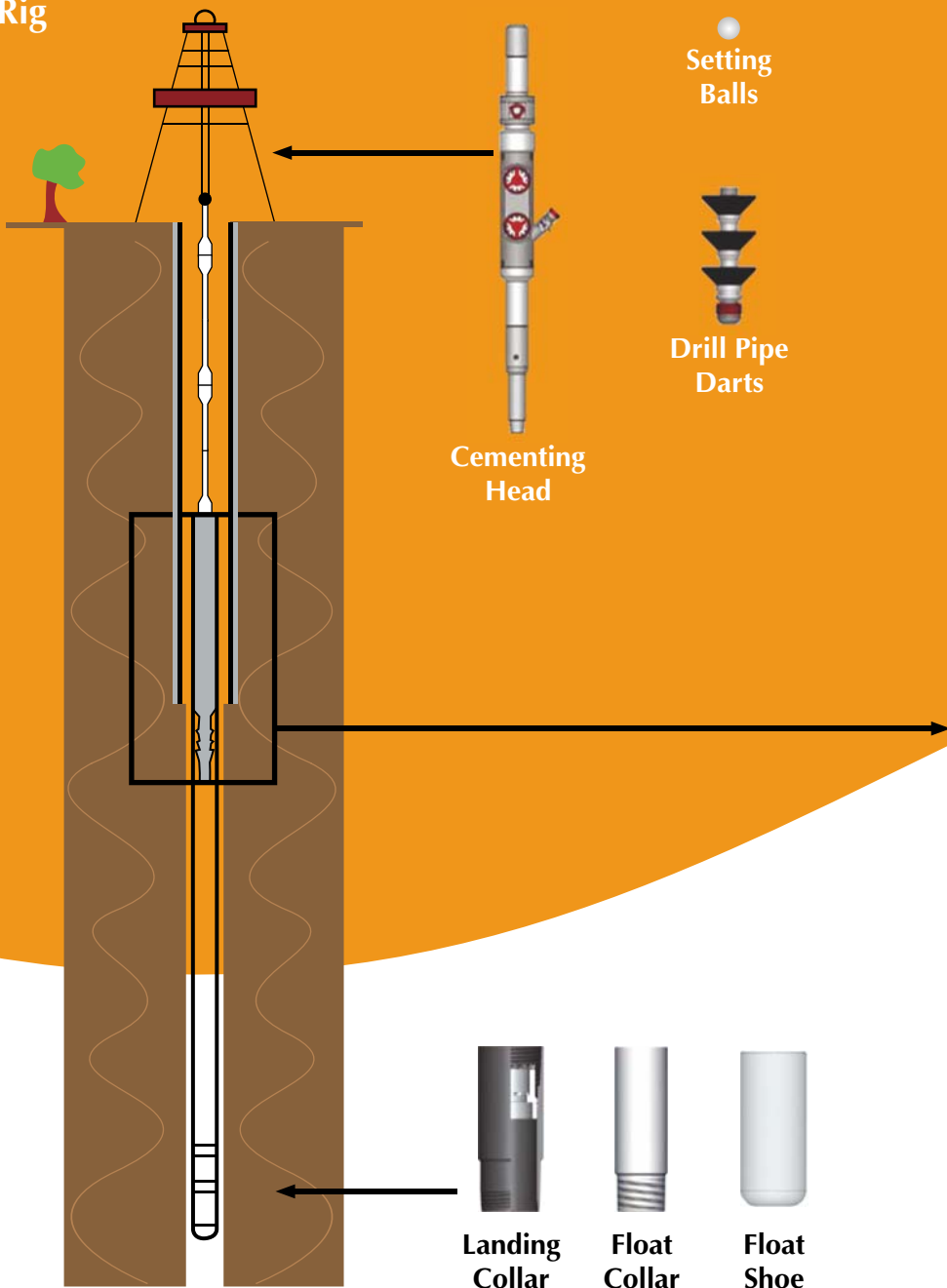


GERMAN OIL TOOLS

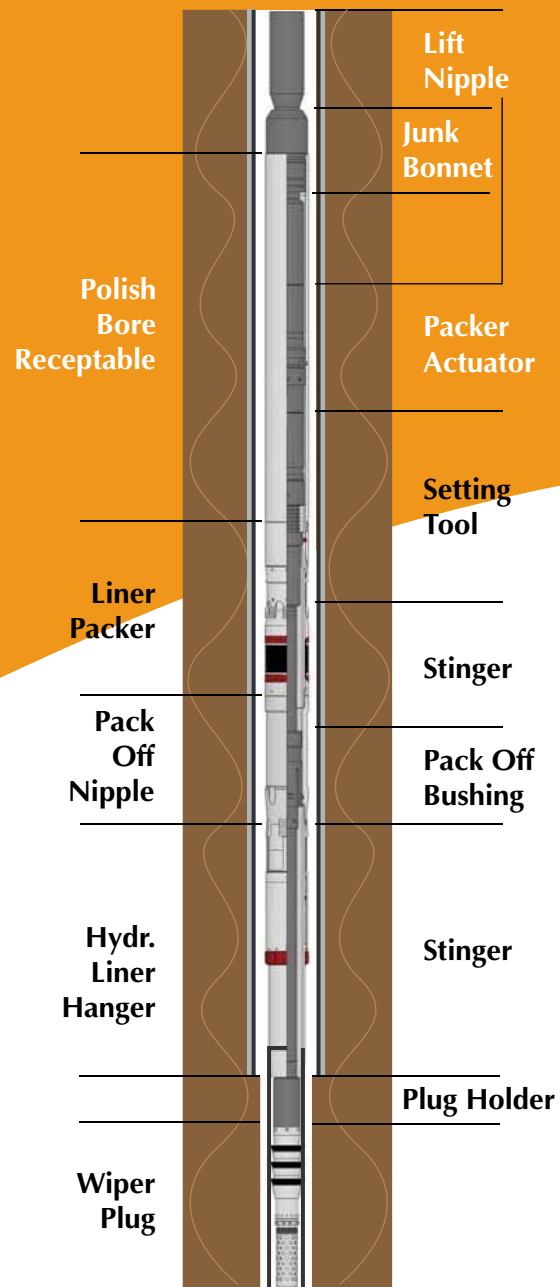
LINER HANGER SYSTEMS

www.kazduco.com

Oil Rig



Liner Hanger System



Development



Workshop



CNC lathe

Single/Multi Cone rotating/non rotating Liner Hanger with inner Slips



Features / Benefits:

- Non – weld design, one piece body with premium threads
- Slips are locked and protected from premature setting during running
- Slips and cone are designed to minimize casing stress
- All hydraulic seals remain stationary during rotation of the liner
- Improved seal stack in the hydraulic cylinder
- Capable of hanging long, heavy liners without distortion of the cone or body
- Large annular flow area in set position ensures minimum pressure drop during cementing

Materials:

- L 80, P 110 other materials on request

The “**Inner Slip**” type Liner Hanger is set by hydraulic pressure applied to the running string.

The Liner Hanger could be rotated, pushed down and pulled up prior to setting the hanger. The Liner Hanger could be rotated during circulating and cementing of the liner. The Liner Hangers feature improved slip protection by installing the slips into recesses in the slip housing. The Liner Hanger slip and cone design provides maximum bypass area, while the large slip contact area minimizes the load in the supporting casing.

Single/Multi Cone rotating/non rotating Liner Hanger with outer Slips

Features / Benefits:

- Non – weld design, one piece body with premium threads
- All hydraulic seals remain stationary during rotation of the liner
- Improved seal stack in the hydraulic cylinder
- Capable of hanging liners of short and middle length without distortion of the cone or body
- Large annular flow area in set position ensures minimum pressure drop during cementing

Materials:

- L 80, P 110 other materials on request

The “**Outer Slip**” type Liner Hanger is set by hydraulic pressure applied to the running string. The Liner Hanger could be rotated, pushed down and pulled up prior to setting the hanger. The Liner Hanger could be rotated during circulating and cementing of the liner. The Liner Hanger slip and cone design provides maximum bypass area.



Hydr. Double Anchor Liner Hanger with outer Slips



Features / Benefits:

- Non-weld design, one-piece body with premium threads
- Capable of hanging liners of short and middle length without distortion of the cone or body
- Large annular flow area in set position ensures minimum pressure drop during cementing
- Suitable for short Liners in high deviated wells

Materials:

- L 80, P 110 other materials on request

Double Anchor “**outer slip type**” Liner Hanger is set in both directions by hydraulic pressure applied to the running string. The Liner Hanger is anchored in both directions suitable for short cemented and slotted liner applications. The Liner Hanger slip and cone design provides maximum bypass area.

Single/Double Cone Liner Hanger with outer Slips

Features / Benefits:

- Non-weld design, one-piece body with premium threads.
- Large annular flow area in set position ensures minimum pressure drop during cementing.
- Suitable for short and long Liners

Internal threads:

- Standard Vam Top or on customer`s request

Materials:

- L 80, P 110 other materials on request

The outer slips mech. Liner Hanger is right or left hand set. The Single Cone Liner Hanger is suitable for short Liners, the Double Cone Liner Hanger for long/heavy Liners.



Junk Bonnet

Features/Benefits:

- Attached to the top of PBR extension by Shear Pins
- To reduce the risk of debris falling into the PBR Extension

The Liner Top Junk Bonnet is designed to reduce, the risk of debris falling into the PBR-extension which could possibly settle out and stick the liner setting tool. The Screen Junk Bonnet is designed to eliminate this risk. Both are kept in position by shear pins to avoid unwanted movement during the manipulation of the running tool after the liner hanger has been set and during cementing of the liner.



Standard



Screen Version

TXP Packer



Specified:

- High differential pressure rating from below and above
- Full bore offers - no restrictions for subsequent tool runs
- Hardened slip teeth – hold down
- Internal body lock ring positively locks in applied setting force
- Can be run with Hydraulic Set or Mechanical Set Liner Hanger

Internal threads:

- standard New Vam or on customer’s request

Materials:

- L 80, P 110 other materials on request

The TXP Liner Top Packer is designed to be a high performance liner top isolation packer. The packer has one piece seal element with metal back-ups supporting the sealing element after the Liner Packer is set. The TXP Packer is weight set with a packer actuator sub accessory in the liner hanger setting tool.

Liner Hanger Size	Casing Size	Liner Weight Range	Casing Weight Range	Packer OD (max.) Inch	Packer OD (max.) mm
4-1/2"	6-5/8"	11.6-16.9#	20-28#	5.57"	141.5 mm
4-1/2"	7"	11.6-16.9#	32-35#	5.78"	147.0 mm
5"	7"	15-18#	26-35#	5.77"	146.5 mm
5-1/2"	7-5/8"	17#	29.7-33.7#	6.58"	167.2 mm
6-5/8"	8-5/8"	47.1#	44#	7.44"	189.0 mm
7"	9-5/8"	23-32#	40-53.5#	8.29"	210.5 mm
7"	10-3/4"	26-32#	55.5-65.7#	9.25"	235.0 mm
7-5/8"	9-5/8"	29.7#	40-47#	8.52"	216.3 mm
7-5/8"	10-3/4"	33.7-39#	55.5-65.7#	9.25"	235.0 mm
9-5/8"	13-3/8"	40-58.4#	54.5-72#	11.89"	302.0 mm
10-3/4"	13-3/8"	55.5-68.7#	68-72#	12.02"	305.3 mm

ILR Packer



Specifications:

- Medium Duty compression set liner top packer
- Full bore offers - no restrictions for subsequent tool runs
- Internal body lock ring positively locks in applied setting force
- Can be run with Hydraulic Set or Mechanical Set Liner Hanger

Internal threads:

- standard New Vam or on customer’s request

Materials:

- L 80, P 110 other materials on request

The ILR Liner Top Packer is designed to be a medium performance liner top isolation packer. The packer has got a one piece seal element with internal back - ups.

All other features are similar to the TXP Packer

Liner Hanger Size	Casing Size	Liner Weight Range	Casing Weight Range	Packer OD (max.) Inch	Packer OD (max.) mm
4-1/2"	6-5/8"	11.6-16.9#	20-28#	5.57"	141.5 mm
4-1/2"	7"	11.6-16.9#	32-35#	5.78"	147.0 mm
5"	7"	15-18#	26-35#	5.77"	146.5 mm
5-1/2"	7-5/8"	17#	29.7-33.7#	6.58"	167.2 mm
6-5/8"	8-5/8"	47.1#	44#	7.44"	189.0 mm
7"	9-5/8"	23-32#	40-53.5#	8.29"	210.5 mm
7"	10-3/4"	26-32#	55.5-65.7#	9.25"	235.0 mm
7-5/8"	9-5/8"	29.7#	40-47#	8.52"	216.3 mm
7-5/8"	10-3/4"	33.7-39#	55.5-65.7#	9.25"	235.0 mm
9-5/8"	13-3/8"	40-58.4#	54.5-72#	11.89"	302.0 mm
10-3/4"	13-3/8"	55.5-68.7#	68-72#	12.02"	305.3 mm
11-3/4"	14"	47-71#	65-112.6#	12.17"	325.0 mm
14"	16"	82.5-112.6#	65-109#	14.48"	368.0 mm
16"	20"	65-128#	94-133#	18.50"	470.0 mm

BST Packer

Features / Benefits:

- An anti-trip safety lock ring prevents premature setting
- Maintains element setting with mandrel lock ring
- Hold down slips prevent upward movement of packer
- HP HT seal stacks

Materials:

- L 80, P 110 other materials on request.

The Bottom Set Packer (BST Packer) is run on a second trip to isolate leaks at the liner top. The BST Packer is used after the liner has been run, cemented and the liner polish bore receptacle seal bore cleaned out. The BST Packer seals the existing liner tieback receptacle and is set with compression, sealing the annular area between the liner and casing. It also provides a new polish bore receptacle for future operations.



Cementing Head

Features / Benefits:

- Unobstructed bore after plug or ball is dropped
- Large flow area accommodates high displacement rates
- Anti-rotation tie-off integral to swivel housing
- The Drill Pipe Darts and Setting Ball are completely separated from the bypass
- Top Drive or Non Top Drive system available

The Top Drive Cementing Head eliminates cement contamination of top drive components. It creates a flow path for cement and displacing fluids without passing through the rigs top drive assembly, making it ideal for cementing liners with a top drive system on the rig. The Top Drive Cementing Head consists of a swivel and an internal bypass with ball drop and plug drop assemblies. The one-piece swivel housing eliminates threads, flanges or welds while increasing strength and reducing bending loads imposed on the inlets. The Top Drive Cementing Head can be configured for Single Plug, Duo Plug or Double Plug is suitable for running and cementing all types of liner systems, including rotating liner systems.



Top Drive Cementing Head



Non-Top Drive Cementing Head

About Manufacturer



GERMAN OIL TOOLS

Many field - one site

Research, design, production, assembling and testing: everything takes place at German head office in Vechta.

As a result of this proximity it is possible to work closer with clients and to react flexible to their special needs. Products, services and suppliers are certified to the latest industrial standards.



VAM-Thread-License



ISO-Certificate



SCC-Certificate

If you have any questions please contact us

Office 304, Kurmangazy St. 48a
Almaty, Kazakhstan
Tel./fax: +7 (727) 261 38 58
info@kazduco.com