Fixedblade[®] Stabilizer

ED-PROJECTS

The Fixedblade[®] was designed to address the known shortcomings of the conventional spiral blade stabilizer. This simple, yet innovative solution enhances drilling performance, prevents downhole failures and makes tripping easier.



Design Features

- Dome-shaped, low friction blades
- 6 points of contact with the 5-3/4" and 14-1/2" hole sizes
- 8 points of contact with the 16-1/2" and 26" hole sizes
- Flow profile with optimized hydrodynamics

Benefits

- Reduced torque and drag
- Improved weight transfer and tool face control when slide drilling
- BHA vibration dampening, low pad pressure
- Increased stability for BHA components and concentric hole openers
- Resistance to balling-up and packing-off
- Reduced risk of swab and surge and reducing ECD while drilling
- Minimized damage to mud cake while drilling and tripping

Hole Size	Length (m/inch)	ID	Fishing Neck Dia.	Surface Area (in²)	Conn.	TFA %
5-3/4"-6-1/4"	2.00 / 78	2″	4-3/4"	100	NC38	25%
8-1/2"	2.20 / 86	2-1/4"	6-3/4"	220	4-1/2 IF	25%
10-5/8″	2.40 / 94	2-13/16"	8-1/4"	240	6-5/8 Reg	29%
12-1/4"	2.40 / 94	2-13/16"	8-1/4"	240	6-5/8 Reg	20%
12-1/4"	2.40 / 94	3"	9-1/2"	222	7-5/8 Reg	23%
14-1/2"	2.40 / 94	3″	9-1/2"	376	7-5/8 Reg	26%
16-1/2"	2.50 / 98	3″	9-1/2"	416	7-5/8 Reg	31%
17-1/2"	2.60 / 102	3″	9-1/2"	340	7-5/8 Reg	33%
18-1/8"	2.60 / 102	3"	9-1/2"	352	7-5/8 Reg	39%
26"	3.30 / 120	3″	9-1/2"	400	7-5/8 Reg	38%

Specification

- Tungsten Carbide hardfacing, optionally thermally stable polycrystalline (TSP) inserts also available.
- Other gauge sizes, neck diameters, and/or connectors are available upon request.

Strength. Innovation. Performance.

Fixedblade® Stabilizer



Design Differentiators

Crown Length Comparisons vs. 3 Blade Conventional Stabilizers

Hole Size	AT Crown Length	FBS Effective Crown Length
18-1/8	Approx. 9"	16.9"
16-1/2"	Approx. 8"	17.2"
14-1/2"	Approx. 7"	18.4"
12-1/4"	Approx. 6"	20.2"
10-5/8"	Approx. 5"	14.9"
8-1/2"	Approx. 4"	14.2"
6-3/4"	Approx. 3"	14.0"

CFD Comparisons vs. 3 Blade Conventional Stabilizers

Reduced annular pressure drop across blade section = lower ECD



Fixedblade Stabilizer



Conventional Stabilizer

Pad Pressure Comparisons vs. 3 Blade Conventional Stabilizers

Pad Area contact is larger and significantly reduces pad pressure vs.conventional stabilizers. Reduces torque created from blade engagement with the wellbore.





Drilling Tools International, Inc. is a leading provider of downhole tools to the land and offshore drilling markets. For 40 years our company has been guided by the principles of Strength, Innovation and Performance. Our world-class employees consistently deliver unsurpassed customer service while providing quality products that meet the demanding drilling applications of today's market.



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