Ghost Reamer® Drilling Tool

Combines superior reaming, drilling, and hole-cleaning capabilities

Applications

- Proactive, smooth-bore well construction
- Casing and liner deployments
- Openhole completions
- Mobile, fractured, and faulted formations
- Reactive and unconsolidated formations
- Key seats, ledges, and micro doglegs
- Swelling shale and salt formations
- Heavy back reaming
- Hole cleaning

Features and Benefits

- Balanced and optimized cutting and reaming structure provides ideal efficiency
- Optimized flow slots for enhanced hole cleaning
- Blade-wrap angle engineered for maximum stabilization and reduced vibration
- Concentric blades designed to optimize weight transfer and prevent cuttings from balling up—eliminating appreciable torque/drag for smoother, cleaner drilling performance in challenging formations
- PDC inserts on leading edges (upper and lower) for reaming and back-reaming capabilities

Tool Description

The Weatherford Ghost Reamer drilling tool increases efficiency by combining reaming, drilling, and hole-cleaning functionality—all in one convenient tool. Its keyseat-wiper and tapered-blade design address unstable formations, swabbing, and hole-cleaning issues simultaneously, while also optimizing trip time and reducing vibration issues. When placed in the drilling BHA, Ghost Reamer improves hole shape, smoothness, and quality—significantly reducing risk of borehole instability. Also, unlike typical reaming-and-stabilization tools, the sophisticated, yet robust design of Ghost Reamer eliminates the need for unnecessary moving parts, thus avoiding potentially related failures, costly repairs, and associated delays.

The Weatherford Ghost Reamer efficiently reams swelling shales and clays, removes excess wall cake, and stirs up cutting beds that can cause swabbing and packoff conditions.

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Specifications

Hole Size	6.000 in. (152.40 mm)	6.125 in. (155.58 mm)	8.500 in. (215.90 mm)	12.250 in. (311.15 mm)
Blade OD	5.875 in. (149.22 mm)	6.000 in. (152.40 mm)	8.375 in. (212.73 mm)	12.125 in. (307.98 mm)
Body OD	4.750 in. (120.65 mm)		6.750 in. (171.45 mm)	8.250 in. (209.55 mm)
ID	2.250 in. (57.15 mm)		2.750 in. (69.85 mm)	3.000 in. (76.20 mm)
Tool Joint Size (API)	NC38		NC50	6-5/8 REG
Approx. Length	69.000 in. (1,752.60 mm)		74.200 in. (1,884.68 mm)	88.000 in. (2,235.20 mm)
Weight	277 lbs (125.65 kg)		651 lbs (295.29 kg)	1,280 lbs (580.60 kg)
Blade Quantity	4			
Blade Length	15.000 in. (381.00 mm)		19.760 in. (501.90 mm)	27.000 in. (685.80 mm)
Blade Width	1.500 in. (38.10 mm)		2.560 in. (65.02 mm)	3.250 in. (82.55 mm)
Blade Contact Length	12.000 in. (304.80 mm)		15.500 in. (393.70 mm)	17.430 in. (442.72 mm)
Blade Contact Area	18.000 $in.^2$ (11,612.88 mm^2)		39.000 $in.^2$ (25,161.24 mm^2)	55.000 $in.^2$ (35,483.80 mm^2)
Blade Taper Ramp Angles	20° Uphole, 30° Downhole			
Coverage	360°		350°	
Gauge Protection	Tungsten Carbide Inserts (TCI)			
Concentric vs. Eccentric	Concentric			
Helix Direction	Right			
Total Flow-By Area	7.420 $in.^2$ (4,787.09 mm^2) 25%	7.980 $in.^2$ (5,148.38 mm^2) 27%	14.310 $in.^2$ (9,232.24 mm^2) 25%	32.000 $in.^2$ (20,645.12 mm^2) 40%
Make-Up Torque	10,550 ft-lbs (14,303.88 Nm)		35,000 ft-lbs (47,453.63 Nm)	53,000 ft-lbs (71,858.35 Nm)
Bi-Directional	Yes			

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