

DiamondBack FR Reamer Shoe

Navigates casing and liner past obstructions to total depth in highly deviated wellbore sections

Applications

- Hard formations
- Horizontal or high-angle wellbores
- Sidetrack and re-entry wells in which the downhole orientation may be unknown
- Heavy casing strings on rigs that limit the ability to free stuck casing
- Wells that limit the ability to rotate casing or liner

Features and Benefits

- The full-coverage tungsten carbide blade cutting structures facilitate rotating, reciprocating, and backreaming applications.
- The unique nose design enables the shoe to change orientation as casing or liners encounter an obstruction when running in the hole.
- The nose enables fast drillout with polycrystalline-diamond-compact (PDC) or tricone bits.
- The all-plastic composite nose design reduces drag as the guide shoe pushes past obstructions.
- The shoe has drillout slots and chip breakers to expedite drillout.
- The shoe achieves predetermined running depths in applications that impede most normal guide or float shoes.
- Compatibility with all casing and liner hanger assemblies enables the shoe to provide effective protection against unexpected casing- and liner-running problems.

Tool Description

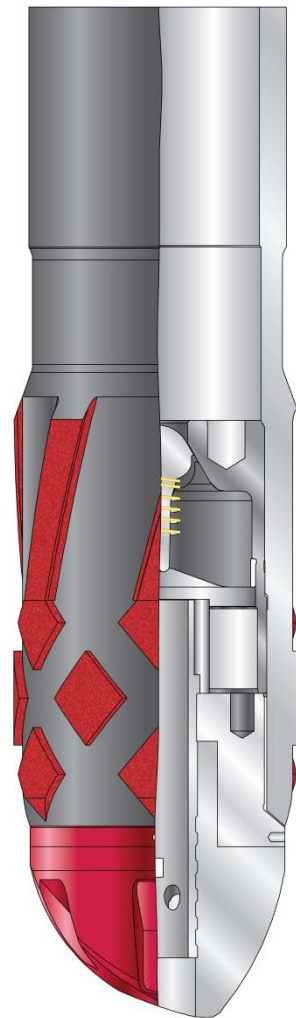
The DiamondBack free-rotating (FR) reamer shoe integrates a premium Weatherford reamer shoe with a Weatherford free-rotating eccentric guide (FREG) nose. The unique nose self-orientates to the path of least resistance without rotating the entire casing or liner. The carbide cutting structures on the reamer body cut through obstructions and pass tight spots.

The nose assembly is available in elastomer composite or aluminum. Float valve configurations include single-valve and dual-valve options—rated to the API RP 10F IIIC standard—and a no-valve option. Customized materials and connections are available upon request.

Specifications

Standard casing and liner sizes		5, 7, and 9.625 in.*
Backpressure ratings		Up to 5,000 psi (34.5 MPa)
Minimum flow area		4.91 in. ² (31.68 cm ²)
Nose temperature ratings	elastomer composite	257°F (125°C)
	aluminum	400°F (204°C)

* Larger casing and liner sizes can be accommodated upon request.



The Weatherford DiamondBack FR reamer shoe has a self-aligning eccentric nose to increase reaming efficiency in highly deviated wellbores.

