Tektonic Drill Bit Platform

Individually crafted, customized bit design proven to increase drilling efficiency by maximizing ROP, durability, steerability, and stability.

Our ReedHycalog™ Tektonic™ drill bit platform fuses cutting-edge bit body geometry, enhanced cutter layout coupled with superior hydraulic design methods, and the next generation of PDC cutter technology to boost drilling efficiency in your most challenging drilling environments. Offering unparalleled localized engineering support, our Regional Design Engineers (RDE) are equipped to design these bits more efficiently and provide bits specifically tailored for your application needs.

ION cutter technology

Core components

- Next-generation cutter technology, ION™ PDC cutters, improves drilling proficiency with improved thermal and impact resistance which enables the bit to drill faster and further
- Incremented cut profile along the blade creates a more efficient path for cuttings removal, and reduces the amount of energy required to fail the rock
- Optimized blade spiral reduces localized confinement pressures at the cutter rock interaction; spirals are kept to a minimum to avoid the reduced hydraulics efficiency seen on many spiral designs
- Cutter loading, work rates, and wear characteristics are optimized using our proprietary dynamic rotation bit modeling software, which accurately models eccentric bit motion conditions downhole
- Advancements in fluid flow modeling quantify and improve hydraulic cleaning and cooling performance for all new designs, by examining cutter face fluid shear stress, cross-flow mitigation, and cuttings volume

Platform applications

- Directional
- Harsh rock
- Hard rock
- Horizontal
- Low angle
- Shale
- Vertical
- Unconventional

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