Tektonic Wellbore Conditioning Tool

Streamlined design and reduced torque delivers high-quality wellbores and greater operational efficiency

With more than 3,000 successful runs globally, our Tektonic™ wellbore conditioning tool has a proven history of helping operators reduce costs and increase efficiency. The next generation of this tool offers increased gauge area and torque-reduction features to ensure improved borehole quality, which not only improves drilling efficiency but also results in reduced trip times. Our unique, in-house developed Multifunctional Advanced Placement Software (MAPS™) ensures optimal placement in the drillstring, guaranteeing maximum tool efficiency. The tool can be fitted with any of ReedHycalog's industry-leading grades of polycrystalline diamond compact (PDC) cutters, allowing for customization to meet your specific application's requirements.

Features

One-piece construction
The Tektonic wellbore conditioning tool is manufactured from a single piece of steel containing material properties that optimally match the connection tool requirements. The one-piece construction ensures a strong, robust design that is properly paired with the adjacent drillstring components.

Dual-height, dual-function blade design
By utilizing active blades set higher than the passive blades, the tool both conditions and slightly enlarges the wellbore to significantly improve the efficiency of the tool. This enlargement ensures that the bit will be able to pass through the wellbore without the need for backreaming and that casing or completions can be landed quickly and successfully.

Multifunctional Advanced Placement Software (MAPS)
MAPS, which is our exclusive in-house-developed software, enables Tektonic wellbore conditioning tool placement in the bottomhole assembly, where it is most beneficial from a borehole conditioning perspective. Accurate placement also ensures there are no negative effects on the bending stresses or contact forces at any point in the interval through which the tool will be run.

Low-torque cutting structure
We designed the tool to generate less than 5% of the reactive torque generated by the bit with which it is used. In most applications, this results in reduced surface torque when compared to similar offset runs that do not include the Tektonic wellbore conditioning tool in the string.

Bi-directional cutting structures
Enhanced cutting structures ensure that the tool is actively improving the wellbore when drilling ahead, as well as when the string is rotating and moving in either direction.

Maximized tool internal diameter
This intentional design helps to minimize pressure loss through the tool; it also allows fishing of most retrievable measurement-while-drilling components.

Re-engineered blade layout
Our tool's blade layout offers maximum protection to the cutting structure during drillout and increases the blades' efficiency when agitating cuttings on the low side of the wellbore in high-angle directional applications. The rounded, continuous blades have been designed to afford greater gauge protection in highly abrasive applications while improving sliding efficiency in high-angle positive displacement motor applications.

Large selection of premium PDC cutters
Cutter type and geometry can be optimized to suit the demands of each specific application.