FluidHammer Performance Drilling Tool



The Challenge

- · Poor Rate of Penetration (ROP) performance with roller cone and PDC drill bits
- · Need solution for hard rock drilling outside of turbine or diamond impregnated bit
- Weight transfer to bit, toolface control
- Performance drilling without the extra cost of Rotary Steerable Systems
- · Non-invasive system compatible with all drilling environments

The Solution

EDS Downhole's FluidHammer performance drilling tool is the next step in drilling improvement with industry-leading performance-driven technology. This new technology utilizes the latest generation of performance elastomers in combination with a new energy distribution system to enhance the rock failing properties of the drill bit. This is accomplished through combined simultaneous axial and torsional loading of the drill bit.

The FluidHammer performance drilling tool increases ROP by combining the torque and rotation speed of a mud motor power section with a high frequency axial oscillation, which lifts the entire BHA with each pulse. This axial pulse is configurable to drill bit cutting styles (roller cone or PDC) to allow for application specific designs. Combining axial movement with the rotational drilling torque/speed increases the cutting efficiency of the bit by creating additional forces to overcome the rock's compressive strength.

Features and Benefits

- Proven to increase ROP in both roller cone and PDC bits
- · Reduces stick-slip
- Aids in weight transfer
- Tool activated by Weight on Bit (WOB) and disengages when off-bottom
- Oil sealed with 100% of mud flow going through the bit
- Compatible with most common power section configurations

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Application Considerations

- Use in directional applications to reduce stick-slip, facilitate weight transfer, improve directional control and increase ROP
- Use in hard rock drilling with both PDC and roller cone drill bits to increase ROP through increased drilling efficiency
- Use in extended reach applications to aid in weight transfer, significantly increasing ROP and toolface control

FluidHammer Configurations

Tool Size	Hole Size
11¼"*	14¾" to 26"
95%"	12¼" to 14¾"
8″*	9%" to 12¼"
6¾"	8½" to 9%"
6½"*	7%" to 9%"
5″	6" to 634"

^{*} Denotes future availability

