

Pacesetter - Ball Bearing

Introducing Pacesetter by Black Diamond - the revolutionary drilling optimization tool designed to transform the efficiency of modern drilling operations.

Current drilling practices such as Motor Assisted RSS [MARS] operations or drilling with PDC bits in unconsolidated formations can introduce highly-damaging drilling dysfunction and High Frequency Torque Oscillations [HFTO] incurring unacceptable costs. HFTO occur at much higher frequencies (150 Hz) than stick-slip vibration and cannot be overcome with bit design and/ or parameter control. HFTO cycles reduce the predictability of drilling operations and are the primary cause of expensive RSS failures.

Pacesetter is a vibration reduction powerhouse, tackling stick-slip dynamics head-on while removing the damaging effects of HFTO, and mitigating axial shock and vibration. Pacesetter's ingenuity is its ability to maintain drilling efficiency by continuously controlling the weight on the bit when the tool is exposed to adverse conditions. This dynamic control not only prevents cutters from sticking, especially in the face of changing formations, but also strikes an optimal balance between efficient cutting and minimizing losses to friction.

The **Ball Bearing Option** results in less operational friction allowing a more controlled management of torque loads. Recirculating balls are used to transfer applied torque into axial load, where it can then be used to manage stick-slip events. The resultant torque management prevents downhole tool back-off which is not uncommon with competition offerings.

Features and Benefits

Increased ROP: By maintaining optimal bit to formation contact and effectively managing the transferral of drilling torque ROP is maximized.

RSS & MWD Electronics Damage Prevention: By limiting the violent effects of torsional vibrations and axial shocks failures, and expensive billable damages are avoided.

Reduced BHA Damage: Mitigation of the most damaging torsional and axial shock and vibrations reduces bit wear ensuring longer and faster drilling operations.

Enhanced Directional Control: Balanced bit loading and reduced stick-slip ensures maximal toolface control even in mixed lithologies or unconsolidated formations.

Unconstrained Drilling Parameters: No limitations on standard drilling practices means the drilling process is configured for maximum efficiency.

Industry Leading Stroke Length: Limits impacts of mixed lithology prior to bottoming out.

Advanced Proprietary Internal Connections: Pacesetter features internal connections meticulously designed for durability and dependability, eliminating the risk of back-offs.

Motor Assisted Rotary Steerable [MARS]: A critical component in MARS operations Pacesetter protects RSS electronic from shock and vibration, ensuring longer and more cost effective runs.

Specifications	
OD (in.)	6.75
Length (ft)	21.5
ID (in.)	2.02
Weight (lbs)	2,000
Max. Flow (gpm)	800
Max Temp (°F/ °C)	400/ 204
Tensile Yield (lbs)	657,300
Torsional Yield (lbs)	79,020
Stroke Length (in.)	8.25





LOCATIONS



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