

Renegade Friction-Reduction Tool

Weatherford's Renegade tool provides friction reduction and reduces the helical buckling of the coiled tubing in the wellbore. The Renegade tool provides oscillation to the running string and bottomhole assembly, significantly improving weight transfer, which then lengthens the boundaries of the well intervention.

The Renegade depth-achieving solution operates on the same fluid or gas flow being used to operate the downhole motor and clean the wellbore. The tool has been designed to achieve an optimal balance between frequency and pressure amplitude while ensuring the overall system pressure has minimal increase. The Renegade tool's frequency and amplitude pulses cause an axial movement in the coiled-tubing string that helps to eliminate the helical buckling and excessive drag encountered in horizontal wellbores. The Renegade tool has been designed specifically for use with the Weatherford CTD[®] motor line.

Applications

- Extending coiled-tubing reach
 - Acid treatments
 - Well cleanouts
 - Sliding-sleeve manipulation
 - Logging
- Drilling
 - Coiled-tubing drilling (CTD)
 - Thru-tubing rotary drilling (TTRD)

- Fishing
 - Plugs
 - Sand screens
- Milling
 - Composite plugs
 - Window milling
 - Scale



Renegade Friction-Reduction Tool

Features, Advantages and Benefits

- Both lateral and axial pulsation is provided via the building and release of pressure, enabling the tool to operate more efficiently.
- The tool improves weight transfer to the bit, which reduces stick-slip in all modes of drilling, improving overall efficiency.

Specifications

Tool OD (in./mm)	2-7/8 73.02
Shoulder length (in./mm)	82.035 2,083.69
Top box connection (in.)	2-3/8 PAC
Bottom box connection (in.)	2-3/8 PAC
Weight (lb/kg)	107 <i>48.53</i>
Flow rate (gal/min, <i>m³/min</i>)	80 to 120 0.30 to 0.45
Fluid types	Water- and oil-based mud
Maximum temperature (°F/°C)	350 176
Pulse rates	Low: 7 Hz Medium: 14 Hz High: 21 Hz
Pressure drops (psi/KPa)	800 to 1,400 5,515 to 9,652
Maximum overpull (lb/Kn)	250,000 <i>1,112</i>

Weatherford products and services are subject to the Company's standard terms and conditions, available on request or at weatherford.com. For more information contact an authorized Weatherford representative. Unless noted otherwise, trademarks and service marks herein are the property of Weatherford and may be registered in the United States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the client.