



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





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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 48.53
Flow rate (gal/min, m ³ /min)	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 1,112