

D-Jar

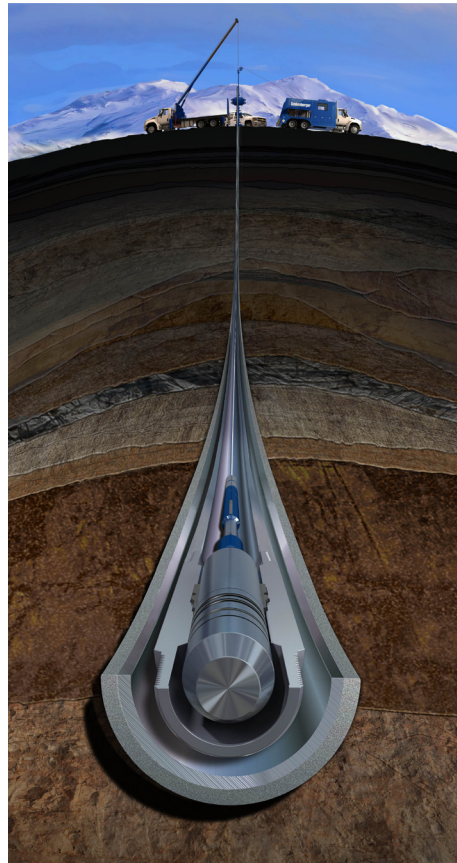
Digital downhole adjustable jar

APPLICATIONS

- Standard slickline mechanical intervention requiring upstroke jar

ADVANTAGES

- Repeatable, controlled jarring action
- Reduced wear on wire; all jarring action is achieved through controlled application of overpull which is monitored by downhole tension sensor; no rapid winch movement required
- No loss of energy to hydraulics; jarring energy is unaffected by repeated firing
- Recalibrate the jar without pulling to surface, simply by changing overpull
- Record jarring action through real-time monitor of downhole shock and tension



D-Jar.

The D-Jar* digital downhole adjustable jar is a surface-controlled, mechanical upstroke jar run as part of the LIVE Act* digital slickline mechanical services. All jarring action is commanded and monitored directly by the operator. The D-Jar adjustable jar is closed and locked with real-time surface indication of tool status.

Jarring energy is stored by applying over-pull, which is monitored real-time via a downhole head tension sensor. When the operator is satisfied that the desired force is applied, the operator can command the D-Jar adjustable jar to fire, releasing the tool to stroke. As the D-Jar adjustable jar is a mechanical jar, all of the energy stored in the cable is applied to the D-Jar adjustable jar—none is lost to hydraulics.

Jarring effect is measured directly downhole via an integrated accelerometer. The D-Jar adjustable jar may be reset and fired repeatedly with two unique features: (1) The jarring force can be recalibrated in situ simply by applying the desired overpull tension with no need to pull to surface, and (2) As the D-Jar adjustable jar is mechanical, there is no loss in jarring efficiency after repeated firing.

Technical Specification

Temperature rating	302 degF [150 degC]
Pressure rating	15,000 psi [103.4 MPa]
Length locked	55.5 in [1,410 mm]
Length activated	67.5 in [1,715 mm]
Stroke length	12 in [305 mm]
Outside diameter	1 ¹¹ / ₁₆ in [43 mm]
Weight	26.5 lb [12.0 kg]
Service	H ₂ S service
Top thread	1 ³³ / ₆₄ in 12 Stub ACME (BEST) female
Bottom thread	1 ³³ / ₆₄ in 12 Stub ACME (BEST) male