

TorkWrench™ 10-100 Iron Roughneck

The patented Weatherford TorkWrench 10-100 iron rougheck is the performance-leading, hydraulic iron roughneck in its class, providing up to 100,000 ft-lb (135.56 kN•m) of torque for the toughest makeup and breakout operations. The TorkWrench 10-100 iron roughneck has a compact design with fewer moving parts that increase overall reliability and provide outstanding high-speed makeup and breakout performance.

The TorkWrench 10-100 can be used for most oilfield connections, including drillstring components, tools, packers, couplings, and valves.

Ancillary features, including the patented¹ PowerFrame® and patented² PowerScope® tong-positioning systems and PowerArm positioning device, can greatly increase productivity by providing the means to make up and break out drill bits and bottomhole assemblies offline, clear of the rotary table and out of the critical path.



Applications

- Running drillpipe, tripping standard- or premium-connection drillpipe, offline stand building, and bit breaking
- Bottomhole assembly makeup and installation

Features, Advantages, and Benefits

- High-torque wrenching and spinning units combine to provide faster makeup and breakout operations.
- Three-jaw gripping system enables equal load distribution and easy jaw and die exchange, eliminating shear forces on tool joints.
- Pneumatic intelligent control box can be disconnected from tong unit and relocated into safe area.

1

• Free-floating spinning system follows the movement of pipe, protecting the tool joint and minimizing drillpipe damage caused by conventional systems.

¹U.S. Patent No. 7114235 ²U.S. Patent No. 6412553





TorkWrench[™] 10-100 Iron Roughneck

Specifications

Approximate weight (ton)	3.5
Applicable rig-floor size	Small to large
Maximum pressure (psi, bar)	3,050 <i>210</i>
Maximum oil flow (gal/min, L/min)	55 210
Wrenching cylinders	2
Clamping range (in., mm)	2-7/8 to 10 73 to 254
Maximum makeup/breakout torque* (ft-lb, <i>kN</i> • <i>m</i>)	100,000 <i>135.56</i>
Wrenching angle per stroke	40°
Power supply	Open/close center
Controls	Onboard or various remote
Maximum spin-in/spin-out torque (ft-lb, <i>kN•m</i>)	3,212 <i>4</i> ,354.89

^{*}Optional torque of 145,000 ft-lb (196.56 kN•m) is possible.

Additional Information

sales-germany@weatherford.com

Options

- PowerFrame® tong-positioning system
- PowerScope® tong-positioning system
- · PowerArm positioning device
- HiPer[™] remote-control system (for mechanized operation)
- · Hydraulic power units
- Stabbing guide and tool joint finder (for remote-controlled, all-in-one version)
- Automated thread cleaning and doping (for remote-controlled, all-in-one version)
- Automated mud bucket (for remote-controlled, all-in-one version)
- Mechanized remote-control system