

TorkWrench® 10-145 Iron Roughneck

Supports high-speed makeup and breakout operations

Applications

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

Features and Benefits

- High-torque wrenching and spinning units combine to provide faster makeup and breakout operations.
- The three-jaw gripping system enables equal load distribution to facilitate jaw and die exchange and eliminate shear forces on the tool joints.
- The pneumatic intelligent control box can be disconnected from the tong unit and relocated into a safe area.
- The free-floating spinning system follows the movement of pipe to protect the tool joints and minimize drillpipe damage caused by conventional systems.

Tool Description

The patented Weatherford TorkWrench 10-145 iron roughneck provides up to 145,000 ft-lb (196.59 kN-m) of torque for tough makeup and breakout operations. It has a compact design with fewer moving parts for increased overall reliability and outstanding high-speed makeup and breakout performance.

With a compact and powerful design, the TorkWrench 10-145 is one of the performance-leading hydraulic roughnecks in its class.

The TorkWrench 10-145 can be used for most oilfield connections, including drillstring components, tools, packers, couplings, and valves.

Ancillary features—including the patented¹ PowerFrame®, patented² PowerScope®, and PowerArm® tong-positioning devices—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.



¹ U.S. Patent No. 7114235

² U.S. Patent No. 6412553



TorkWrench[®] 10-145 Iron Roughneck

Specifications

Approximate weight, with spinner	7,716 lb (3,500 kg)
Applicable rig floor size	Small to large
Maximum pressure	3,050 psi (210 bar)
Maximum oil flow	55 gal/min (210 L/min)
Wrenching cylinders	2
Clamping range	2-1/2 to 10 in. (63.5 to 254 mm)
Maximum makeup and breakout torque	145,000 ft-lb (196.59 kN·m)
Wrenching angle per stroke	40°
Power supply	Open/close center
Controls	Onboard or various remote
Maximum spin-in and spin-out torque	3,212 ft-lb (4.35 kN·m)

Options

- PowerFrame tong-positioning system
- PowerScope tong-positioning system
- PowerArm positioning devices
- 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)

Additional Information

sales-germany@weatherford.com



The photo at the left shows the TorkWrench 10-145 iron roughneck with the PowerArm 2.1 tong-positioning device.

