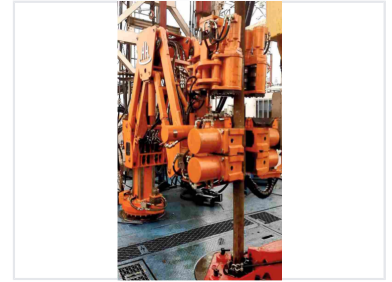
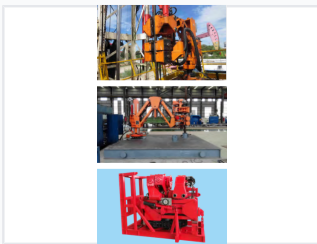


Hydraulic Iron Roughneck for Drilling Rigs

This hydraulic iron roughneck provides high accuracy positioning and smooth operation using a fuzzy control algorithm. The system dynamically adjusts the clamping force to reduce damage to tubular tools.



ADDITIONAL IMAGES



Overview

Automated Pipe Handling Solution

This hydraulic iron roughneck is designed for high-accuracy positioning and smooth operation on drilling rigs, utilizing a fuzzy control algorithm for precision. The system features a streamlined, multi-axis linkage design that enables one-key positioning and efficient make-up and break-out operations. With modular construction and remote operation capabilities, it enhances safety by keeping personnel away from hazardous zones while minimizing tool damage through dynamic clamping force adjustments.

Key Features

Operational Capabilities

One-key positioning, One-key make-up & break-out, Dynamic clamping force adjustment, Parameter recording, Remote operation, Wireless remote control, Unmanned centralizing, Interlock protection

Technical Specifications

Technical Parameters

Model	Unit	TP20	TP100	TP120
Tubular Connection OD Range	in	1-7/8-6	2-7/8-10	3-1/2-10
Max. Make-up Torque	N-m	20,000	135,000	135,000
	ft-lb	14,700	100,000	100,000
Max. Brake-out Torque	N-m	30,000	162,000	162,000
	ft-lb	22,000	120,000	120,000
Spin Torque	N-m	2,000	4,067	4,067
	ft-lb	1,470	3,000	3,000
Spin Speed (Nominal On 5" DF)	RPM	80	80	80
Max. Working Radius	mm	1,750	3,400	3,600
	in	68	133 7/8	142
Hydraulic System Pressure	MPa	14	21	21
	psi	2,000	3,000	3,000
Hydraulic System Flowrate	LPM	120	160	160
	GPM	32	42.3	42.3
Weight	kg	2,800	4,500	5,500
	lb	6,180	9,920	12,100

Detailed technical specifications for the iron roughneck series, covering torque, pressure, and flowrate requirements.

Technical Parameters by Model

Parameter	TP20	TP100	TP120
Tubular Connection OD Range (in)	1-7/8-6	2-7/8-10	3-1/2-10
Max. Make-up Torque (N-m)	20,000	135,000	135,000
Max. Brake-out Torque (N-m)	30,000	162,000	162,000
Spin Torque (N-m)	2,000	4,067	4,067
Spin Speed (RPM)	80	80	80
Max. Working Radius (mm)	1,750	3,400	3,600
Hydraulic Pressure (MPa)	14	21	21
Hydraulic Flowrate (LPM)	120	160	160
Weight (kg)	2,800	4,500	5,500

Performance Metrics

Efficiency Highlights

60 degrees

Torque Wrench Rotation

1 time

Make-up & Break-out Cycle