

Internal Lift Tool

Internally grips tubulars and compensates for tubular weight during offline makeup and pipe transferring operations

Applications

- Offline makeup of casing on deepwater drilling rigs
- Automated makeup of casing with Weatherford Stabberless® and mechanized systems

Features

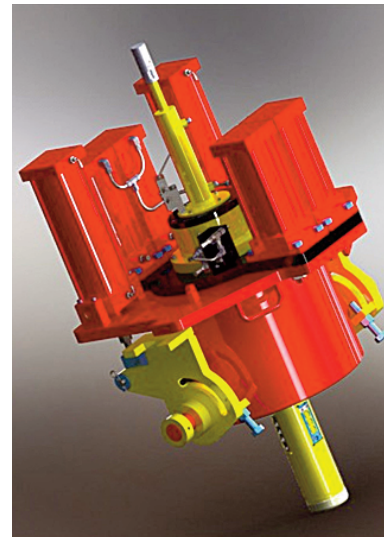
- 10-ton (9,072-kg) capacity
- Six-jaw system and polymer guides for internal gripping of pipe
- 7- to 14-in. OD with three size changes
- Central axis in tool body to transfer pipe from a horizontal to a vertical position
- Integrated thread compensation for a range of pipe weights
- Floor-mounted console for remote operation

Benefits

- Reduces costs by racking back stands of pipe to shorten casing running times
- Bears pipe weight to save wear on other rig handling equipment
- Safely grips pipe stands and lowers risk associated with tubular handling over the offline rotary
- Internally grips pipe, which negates the need for collars or nubbins
- Hangs on bails or in elevators to create a sturdy assembly for handing off stands to the pipe racking system on the rig
- Remote operation keeps rig-floor personnel out of hazardous areas.
- Prevents pipe from being accidentally dropped by interlocking with the spider by means of the Weatherford integrated safety interlock system
- Enables the elevator on the rig to remain rigged up when used with lifting subs

Tool Description

The internal lift tool grips tubulars for offline makeup and then transfers stands to the pipe rack. The hydraulically powered clamping circuit uses a proven inverse wedge profile to hold the tubulars. When they are closed, onboard control valves lock the tool to guard against inadvertent opening. Pneumatically powered compensation cylinders provide the lifting power to raise the pipe and place it in a neutral condition, which protects threads from damage during set-in and makeup. The internal lift tool will hold the casing while the weight of the casing is suspended from the tool, even in the event of the loss of hydraulic actuating pressure. Accidental release cannot occur as long as the weight of the suspended casing string is greater than the releasing (retraction) force of the hydraulic actuating cylinder.



The Weatherford internal lift tool firmly grips tubulars during offline makeup and then transfers stands to the pipe rack.



Internal Lift Tool

Specifications

Tool size	7 to 13-5/8 in.
Weight range	4,686 to 4,915 lb (1,749 to 1,834 kg)
Load capacity (axial)	10 short tons (9.07 metric tons)
Maximum hydraulic pressure	1,200 psi (82.7 bar)
Maximum pneumatic pressure	120 psi (8.3 bar)
Operating temperature range	0 to 185°F (–18 to 85°C)
Hydraulic fluid	Petroleum-based fluids compatible with Buna-N seal materials
Maximum system pressure	3,000 psi (207 bar)
Fail-safe retraction pressure	See fail-safe operations pressure for casing weights

