

# **Top-Drive Stand Compensator**

Weatherford's top-drive stand compensator is used to build and run tubular stands that have square-shouldered connections. Running tubulars in multijoint stands enhances operational efficiency by reducing the number of power-tong trips to well center.

The top-drive stand compensator offsets the stand weight to prevent thread makeup loss, which ensures string integrity. During makeup and breakout operations, the tool supports the weight of the stand and ensures that the proper torque is applied while reducing friction on and damage to the threads.

Casing flaps close around the pipe OD and enable the tool to bear the load of the stand. Air cylinders raise and lower the stand while decreasing the forces acting on the threads to prevent damage to them. The top-drive stand compensator effectively reduces any weight on the threads to zero as the connection rotates.

Mounted on the top drive, the versatile top-drive compensator is compatible with multiple rig types. Additionally, it can accommodate a wide range of pipe sizes. The tool comes with a driller's indicator box, a dedicated control panel, and a transport frame.



## **Applications**

- Preventing damage to the threads during the building and running of tubular stands with square-shouldered connections
- Preventing stand weight from being applied to the connection, thereby ensuring that the proper torque is applied



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#### Features, Advantages, and Benefits

- Air cylinders calibrate to the weight of the stand as it is built. This ensures string integrity by reducing forces on and preventing damage to the threads.
- Compensating cylinders are available in two sizes, which expands the range of pipe sizes and weights that the tool can support.
- A changeable top-drive connection sub makes the tool compatible with different top-drive connections and therefore different rig types.
- A load-bearing swivel allows the casing flap system to rotate with the pipe during makeup and breakout. This prevents the entire compensator from rotating. It also prevents loosening of the the top-drive connection and related dropped-object incidents.
- Shear pins incorporated into the casing flap system reduce the potential for tool damage. The pins break if the driller inadvertently attempts to pick up the weight of the string with the compensator.

| Total weight (lb, <i>kg</i> )  | 2,200<br>998                |
|--|-----------------------------|
| Total weight with transport frame (lb, kg)                                 | 3,500<br><i>1,588</i>       |
| Load rating (tons, metric tons)  | 10<br>9                     |
| Shear-pins breaking load (tons, metric tons)                               | 13.0<br>11.8                |
| Pipe OD range (in.)  | 2-7/8 to 7-5/8              |
| Compensation stroke (in., mm)  | 36<br>914.4                 |
| Recommended air pressure range (psi, bar)                                  | 116 to 130<br><i>8 to 9</i> |
| Nominal air flow (gal/min, <i>L/min</i> )                                  | 10.6<br><i>40</i>           |
| Maximum compensation weight for 6-in. (152-mm) bore cylinders (lb, $kg$ )  | 4,775<br>2,166              |
| Maximum compensation weight for 10-in. (254-mm) bore cylinders (lb, $kg$ ) | 14,326<br><i>6,4</i> 98     |

#### **Specifications**



# **Top-Drive Stand Compensator**

## Specifications (continued)



## **Options**

• An adaptor is available to install the tool with 500- and 1,000-ton hooks on rigs without top drives.

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