



Premium Hydraulic Nonrotating Liner Hanger

The Weatherford premium hydraulic nonrotating (PHNR) liner hanger is well suited for use in deep, highly deviated wells that do not require liner rotation after the hanger is set. The PHNR hanger is particularly useful in multilateral wells in which premilled windows are run as part of the liner string. To ensure success of the future multilateral leg, the premilled windows cannot be moved once they have been oriented.

Differential hydraulic pressure across the hydraulic cylinder activates the PHNR hanger. Setting down weight on the PHNR hanger then sets it and forces the slips to bite into the host casing. A castellation on the cone and casing coupling prevents the hanger from rotating after it has been set.

Applications

- Multilateral wells
- Liners that do not require rotation after the liner is set
- Liners in deep and/or highly deviated wells
- Extended-reach liners
- Liners at any necessary depth
- Drill-down liners
- Liners that must be reamed down

Features, Advantages, and Benefits

- Hydraulic activation removes the need for drillstring manipulation. This makes it possible to set the PHNR liner hanger in deep and/or highly deviated wells.
- The large slip contact area minimizes stress in the host casing, which enables the PHNR hanger to support extreme loads.



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Features, Advantages, and Benefits (continued)

- The mechanical locking mechanism minimizes the risk of prematurely setting the hanger before it is hydraulically activated. This reduces the potential for nonproductive time.
- Key screws rotationally lock the hydraulic cylinder to the mandrel. This feature prevents seal damage during rotation, which ensures that the hanger cylinder does not become a possible leak path in later well life.
- Heat-treated slips ensure that the liner hanger can be set in the hardest grades of host casing.
- Nontortuous bypass channels allow for high circulation rates past the hanger assembly. This aids debris removal during well cleaning and improves the quality of cement displacement.
- Premium aluminum shear screws ensure accurate predetermined setting pressures. With this advantage, hydraulic events can be planned with enhanced accuracy and safety.

Specifications

Contact an authorized Weatherford representative.