



# *WTSP4R1 Liner-Top Packer with R Running Tool Profile*

*9-5/8 x 11-3/4 in. and 11-3/4 x 13-3/8 in.*

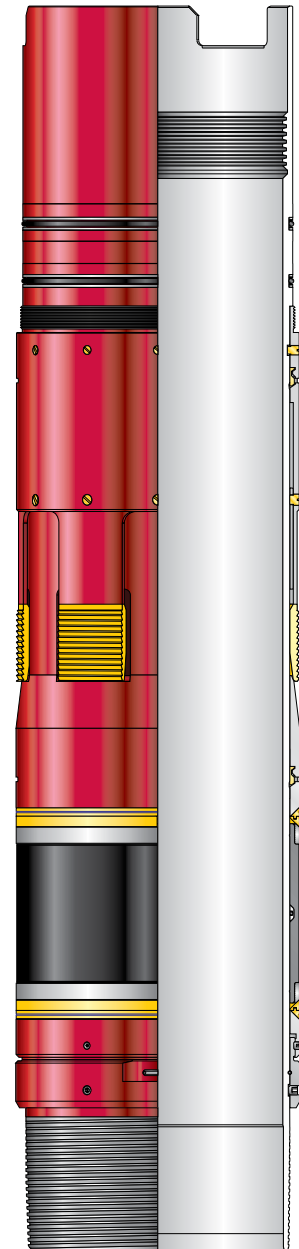
Weatherford's WTSP4R1 liner-top packer with R running tool profile is run as an integral part of the liner hanger assembly to provide a reliable, high-integrity seal that isolates the gap between the liner OD and the host casing ID. This particular size of the WTSP4R1 liner-top packer was specifically developed for deepwater applications, such as the Gulf of Mexico, where tight clearance between the liner and the host casing is typical.

This reliable liner-top packer isolates the cement, preventing gas migration or flow while the cement sets. The WTSP4R1 packer also incorporates the profile for the running tool and is the means by which the running tool connects to the liner.

The packer is normally set by setting down weight with the packer actuator on the tie-back polished-bore receptacle (PBR) after the running tool is released. The weight is transferred to the WTSP4R1 liner-top packer, setting the element and the holddown slips.

## *Applications*

- Any cemented liners
- Uncemented liners for which a seal between the liner OD and the host casing ID is necessary or advantageous
- Second run seal assemblies (seal stem, packer, and PBR) that stings into a liner top PBR that is already installed



US Patent 6691766



## ***WTSP4R1 Liner-Top Packer with R Running Tool Profile 9-5/8 x 11-3/4 in. and 11-3/4 x 13-3/8 in.***

### ***Features, Advantages and Benefits***

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- The hydrogenated nitrile rubber (HNBR) packing element creates a reliable seal that prevents gas migration in the cement in most well conditions, saving the cost of a liner-top squeeze.
- The one-piece packing element is resistant to swabbing to enable high circulation rates past the liner-top packer assembly, aiding removal of debris during well cleaning and improving the quality of cement displacement.
- XYLAN<sup>®</sup>-coated backup rings reduce the setting force required for energizing the packing element. This advantage is particularly useful in applications (such as extended-reach wells) that present the challenge of getting enough weight down to set the liner-top packer.
- The WTSP4R1 packer has an integral gauge ring and adjusting ring so that no special crossovers are required to run below the WTSP4R1 packer to complete the packer assembly.
- The design of the liner-top packer optimizes functionality of Weatherford's proven WTSP4R1 technology for use with tight tolerance liners where little clearance exists between the liner and the host casing.
- The holddown slips and internal body lock-ring ratchet system positively lock in the applied setting forces to ensure that the packer does not become unset.

### ***Specifications***

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- Standard metallurgy is P-110/140 ksi (965 MPa), OCTG.
- Connections are Hydril<sup>®</sup> 561.

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