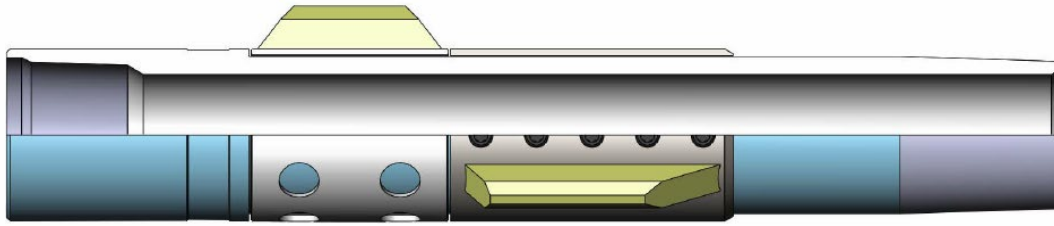


No Turn Tool



The No Turn Tool (NTT) is usually run in conjunction with down hole tools that require rotation to set or unset, like mechanical packers or hangers. The NTT is installed within a tubular string, to only allow rotation of the tubular string that is installed above the placement of the NTT. During string rotation, movement of the tubular string located below the placement of the NTT in the string will remain stationary. To engage the NTT, rotation of the tubular string must be applied. If the tubular string is reciprocated, while rotating, the NTT will not engage. All rotational, compressive, and tensile strengths of the NTT are designed to API standards.

To operate and set the NTT, place it within the wellbore at the desired depth. Either left hand rotation or right-hand rotation will engage the blocks of the NTT to come in contact with the casing (or open hole) wall it resides in. The NTT is designed with 2 blocks. One block is fixed to the NTT mandrel, while the other block can rotate or float on the NTT mandrel. When the 2 blocks are aligned with each other, their outside diameter will equal the drift diameter of the casing it resides in or will be engaging to (or custom designed diameter). When the tubular string is rotated, the NTT fixed block (fixed to the NTT mandrel) will rotate with the string. This fixed mandrel block will rotate relatively close to the drift diameter of the casing wall to be engaged to. As the fixed mandrel block rotates, and moves away from the other floating block, creating a larger gap between them. The block drift diameter of the NTT will slowly get larger, until both blocks come in contact with the adjacent casing wall. Further rotation will tighten the blocks to the wall with friction. The torque applied to the NTT can be monitored from the rig floor. Attention to the torque should not exceed the recommended maximum torque of the tubular connections. This is especially important if left hand rotation is used to set the NTT. To release the NTT, simply apply a compression or tensile load to the NTT. This releases the block friction load to the casing wall. The blocks simply slip and move closer together, making their outside diameters to move from nominal casing diameter to the casing drift diameter.

APPLICATION

- To isolate partial movement of a tubular string down-hole, from rotating.
- To set mechanical hanger or packer tools down-hole that require rotation, while tubular or tooling below, must stay stationary.

FEATURES

- Can be activated or engaged using right hand or left-hand rotation
- Can be released using either a compressive or tensile load applied to the tubular string.
- Can hold torque for setting tools in either direction.
- Thermal expansion or contraction will disengage the NTT if it is left engaged down-hole from tool setting and will not restrict any thermal pipe movements.
- Manufactured with high grade materials to API specifications.
- Can be set and used in either a vertical or horizontal position.
- Functioning and torque monitoring of the tool is read from surface.
- Tripping in and out of the hole is not affected by the NTT in the string.
- Manufactured with same inside diameters and connections as the tubular string.

BENEFITS

- Allows specific rotation of a tubular string to allow mechanically set tools to be used when other options are not available.



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