RUNNING TOOL FOR EXPANDABLE LINER HANGER AND ASSOCIATED METHODS

ABSTRACT

A running tool includes subassemblies which release the running tool from the liner hanger in response to application of alternating tensile and compressive forces after application of left-hand torque. A running tool includes subassemblies which set the liner hanger in response to left-hand torque followed by increased pressure, and in response to increased pressure without prior left- hand torque being applied. A running tool includes threaded connections, without torque transmitted through the running tool being transmitted by the threaded connections. A method of setting a liner hanger includes applying a compressive force to the running tool; then applying left- hand torque to the running tool; and then applying a tensile force to the running tool. A method of releasing a liner hanger includes applying left-hand torque to the running tool; and then releasing the running tool from the liner hanger by applying a tensile force to the running tool.

Figure 2B