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(56) Documents Cited:

WO 2011/031164 A1 WO 2003/101656 A1 US 4346761 A US 4149594 A

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(54) Title of the Invention: Multi-position mechanical spear for multiple tension cuts with releasable locking feature

Abstract Title: Multi-position mechanical spear for multiple tension cuts with releasable locking feature

(57) A cut-and-pull spear is configured to obtain multiple grips in a tubular to be cut in tension. A lock feature holds the set position of the slips and seal. The lock can be defeated with an axial force that retracts a spring- loaded dog, and the lock can be reset to the run-in position, with the slips and seal retracted, so that the assembly can be repositioned in the same trip for another cut. A cam surface prevents setting the slips and seal until the spear is relocated to the next desired cut location or removed from the wellbore. The lock can be defeated with picking up or with a pressuring up on a dropped ball for an emergency release. A surface signal of the release is provided by a stack of disc springs that have to be compressed to release the lock.

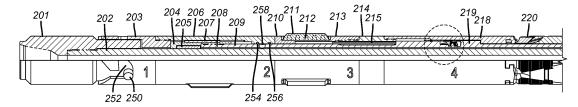


FIG. 5a