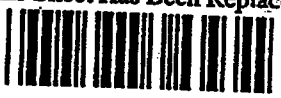
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ABSTRACT

SHIFTING TOOL FOR SLIDING SLEEVE VALVES

A shifting tool (10) for a sliding sleeve valve used in oil or gas wells, has locating dogs (40) for selectively locating and engaging a shoulder inside the valve; primary keys (28) for engaging and selectively shifting the sliding sleeve to the equalizing position, and for preventing premature shifting of the sliding sleeve to the fully open position; means for selectively overriding the preventing means following equalization of pressure across the port; secondary keys (30) leading the primary keys (28) in the shift direction for engaging and selectively shifting the sliding sleeve to the fully open detent position; and means for selectively disengaging the shifting tool (10) from the sliding sleeve valve for withdrawal of the shifting tool from the well. A method for selectively and sequentially shifting the sliding sleeve of a sliding sleeve valve from the closed to equalizing position, and then from the equalizing to fully open position, is also described.

Fig. 1