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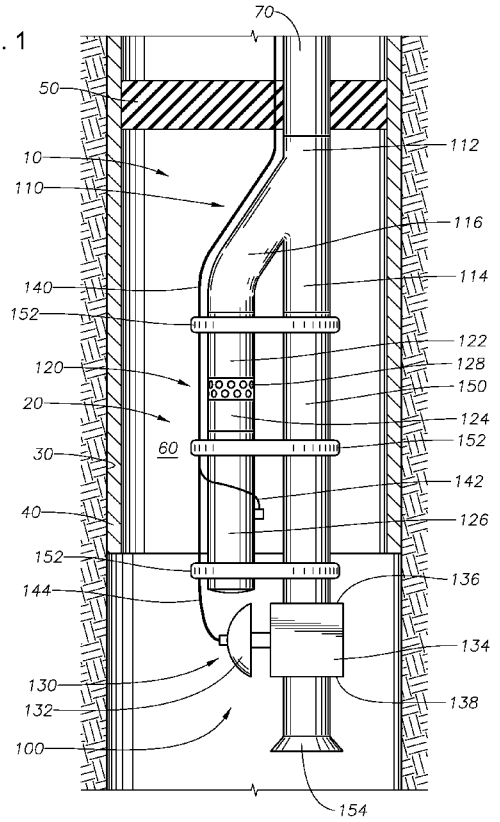
(54) Title: SUBMERSIBLE PUMP SYSTEMS AND METHODS

Fig. 1



(57) Abstract: A submersible pump system that is operable to permit selective access into a production zone of a well bore while a submersible pumping device is operating includes a Y-tool, a submersible pumping device, a control valve assembly and a power conduit. The control valve assembly is also operable to selectively permit access between the interior of the submersible pumping system and the exterior of the submersible pumping system. The valve is operable to form a dynamic seal. The power conduit is operable to convey both power and a pre-designated control signal simultaneously. A method for accessing the production zone of the well bore with a well bore tool uses the submersible pump system while the submersible pump system is producing production zone fluid. The submersible pumping device continues to operate without interruption after transmission of the predesignated pump control signal.

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ADD.

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B. FIELDS SEARCHED

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E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/231256 A1 (RIVAS OLEGARIO [US] ET AL) 19 October 2006 (2006-10-19) paragraphs [0012], [0013], [0018]; figure 2	1-19
A	GB 2 288 197 A (PHOENIX PETROLEUM SERVICES [GB]) 11 October 1995 (1995-10-11) page 11 - page 12; figures 1-2	1-19
A	WO 02/075111 A1 (VARCO INT [US]; NORRIS ROBERT M [GB]) 26 September 2002 (2002-09-26) paragraph [0017] - paragraph [0021]; figures 1-7	1-19

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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A	WO 2008/102170 A1 (ZENITH OILFIELD TECHNOLOGY LTD [GB]; SKINNER SANDY [GB]; MANNING MICHA) 28 August 2008 (2008-08-28) page 3, line 25 - page 4, line 13; figure 1	1-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

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