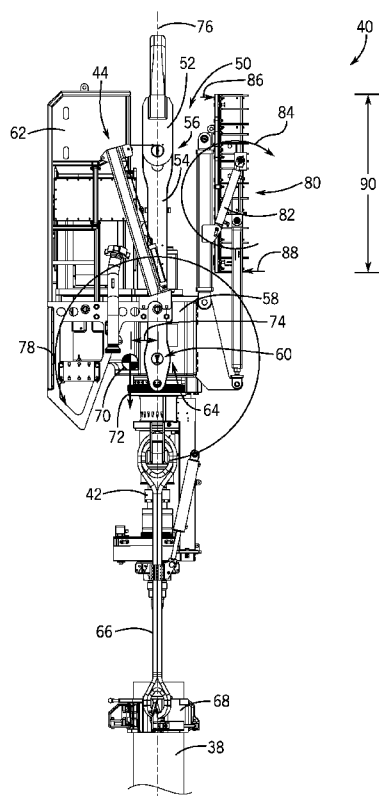




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[Continued on next page]

(54) Title: TOP DRIVE COUNTER MOMENT SYSTEM



(57) Abstract: Present embodiments are directed to a top drive system 40 comprising a hoisting assembly 50 having an upper link 52, a lower link 54, and a first joint 56 coupling the upper link 52 and the lower link 54. The top drive system 40 also includes a main body 58 coupled to the hoisting assembly 50 by a second joint 60, wherein the hoisting assembly 50 is configured to support the main body 58, and the main body 58 is configured to support a tubular 38. Further, the top drive system 40 includes a frame 62 coupled to the main body 58 and a counter moment system 44 configured to apply a force on the first joint 56 to create a bending moment about the second joint 60.



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A. CLASSIFICATION OF SUBJECT MATTER

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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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2005/269104 A1 (FOLK ROBERT A [CA] ET AL FOLK ROBERT ALDEN [CA] ET AL) 8 December 2005 (2005-12-08) figures 1C,1D -----	1-7, 16-20
A	US 2010/065336 A1 (WELLS LAWRENCE E [US] ET AL) 18 March 2010 (2010-03-18) figure 2B -----	1-20
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A	US 2012/160517 A1 (BOULIGNY VERNON J [US] ET AL) 28 June 2012 (2012-06-28) figure 1 -----	1,8,16



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See patent family annex.

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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