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(54) Title: JUMPER SUPPORT ARRANGEMENTS FOR HYBRID RISER TOWERS

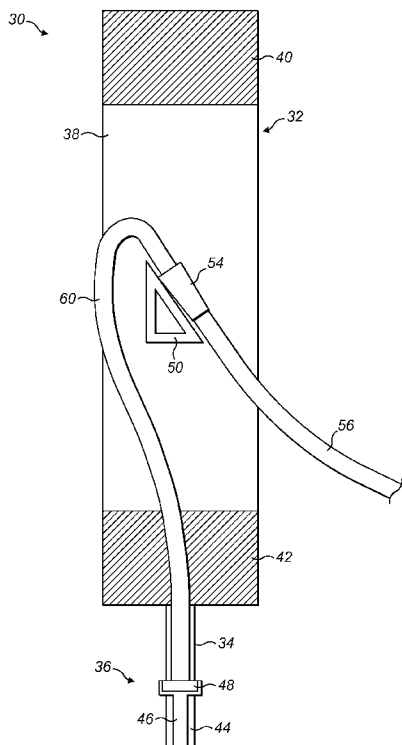


FIG. 3

(57) Abstract: A hybrid riser tower comprises a rigid riser column (36) and a buoyancy tank (32) positioned to apply tension to the riser column by buoyant upthrust when the tower is in an upright orientation for use. At least one jumper support structure (50) is attached to a side of the buoyancy tank between upper and lower ends of the buoyancy tank when the tower is oriented for use. At least one riser connection (60) extends outside the buoyancy tank from a riser pipe of the riser column to the jumper support structure, where it connects to a flexible end fitting (54) carried by the jumper support structure. The riser connection splays laterally moving from the riser pipe toward the jumper support structure.





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E21B B63B

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EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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X	US 4 490 073 A (LAWSON) 25 December 1984 (1984-12-25) column 3, line 59 - column 5, line 2 ----- -/--	1

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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Rampelmann, Klaus
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	paragraph [0027]; figure 3 -----	2,10
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A	US 2011/226484 A1 (LAVAGNA) 22 September 2011 (2011-09-22) the whole document -----	5

INTERNATIONAL SEARCH REPORT

Information on patent family members

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