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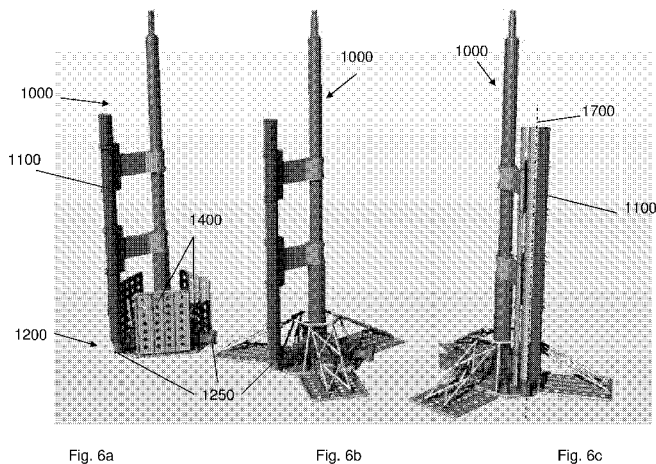
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(57) Abstract: The invention relates to structures, such as offshore structures, associated apparatus and methods. For example, the invention can relate to wind turbine structures, such as piles for offshore wind turbines, and associated apparatus and methods. In some examples, the invention relates to guide apparatus for offshore piles having a guide portion configured to provide an acoustic barrier between a pile and a surrounding body of water during deployment of a pile at a body of water. The apparatus may comprise a dampening structure, such as inflatable bladders, or the like, configured to provide the acoustic barrier. In some example, the guide apparatus comprises a piling template, configured to be positioned on a water floor, so that the guide portion can locate, and be positioned with, the template to allow for guiding of a pile to a water floor.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
E02D

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.
X A	WO 2007/150028 A2 (GUNDERBOOM INC [US]) 27 December 2007 (2007-12-27) abstract paragraphs [0025], [0026], [0048], [0049]; figures 1-3 -----	1-8, 12-14, 17,18,20 9-11,16, 19
X A	EP 2 402 511 A1 (IHC HOLLAND IE BV [NL]) 4 January 2012 (2012-01-04) abstract paragraph [0010]; figures 1-3 -----	1-3,5, 9-12, 15-17,19 4,6-8, 18,20
A	WO 2009/121336 A2 (ELMER KARL-HEINZ [DE]) 8 October 2009 (2009-10-08) abstract page 8, line 1 - line 5 page 12, line 17 - line 33; figures 4,5 -----	1-20

Further documents are listed in the continuation of Box C.

See patent family annex.

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007150028	A2	27-12-2007	CA 2656011 A1
			US 2008006478 A1
			WO 2007150028 A2

EP 2402511	A1	04-01-2012	CN 102312435 A
			EP 2402511 A1
			JP 2012012930 A
			US 2012014753 A1

WO 2009121336	A2	08-10-2009	AU 2009231037 A1
			CA 2719344 A1
			DE 102008017418 A1
			EP 2276892 A2
			US 2011031062 A1
			WO 2009121336 A2
