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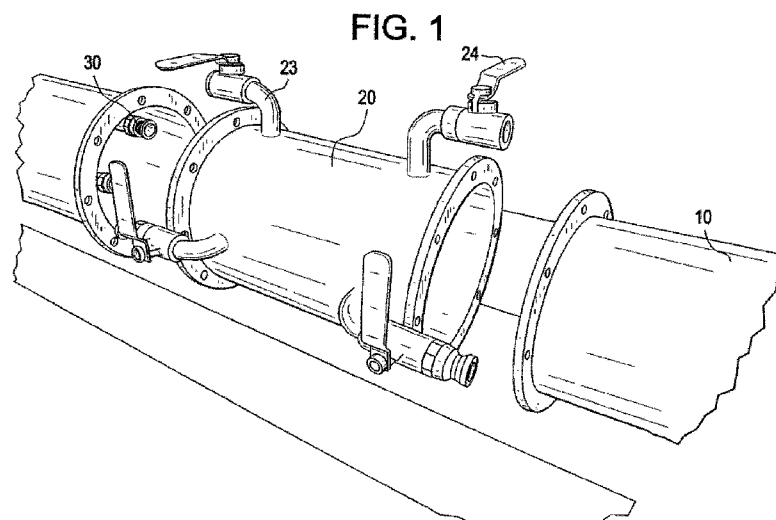
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(54) Title: PIPELINE HEATER



(57) Abstract: A system for heating fluid lines to prevent freezing and ice build up. A heated fluid line is utilized within the pipeline to achieve improved thermal transfer.



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International application No.

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A. CLASSIFICATION OF SUBJECT MATTER IPC: F16L 53/00 (2006.01), E03B 7/14 (2006.01), F17D 1/18 (2006.01), F24H 1/14 (2006.01), F28D 7/10 (2006.01)		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC: F16L 53/00, F17D 1/all, E03B 7/14, E03B 7/12, F24H 1/18, F24H 1/14		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) ORBIT Keywords: pipeline, insert, section, heating fluid, heating line, exchange, flange, access, port, valve, etc.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 3532979 A1 (TOLLKOETTER, G. et al.) 16 April 1987 (16-04-1987) - Abstract; Figure -	
X	CN 2413145 Y (GUOGONG, G.) 03 January 2001 (03-01-2001) - Abstract; Figures 4 and 5 -	
A	US 4425936 A (GOSS, D.C.) 17 January 1984 (17-01-1984) - The Whole Document -	
A	US 4679598 A (JEE, T.P.) 14 July 1987 (14-07-1987) - The Whole Document -	
A	US 4137938 A (LOGAN, R.E.A.) 06 February 1979 (06-02-1979) - The Whole Document -	
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* "A" "E" "L" "O" "P"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	"T" "X" "Y" "&"
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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
DE3532979A1	16 April 1987 (16-04-1987)	DE3532979A1 DE3532979C2	16 April 1987 (16-04-1987) 30 March 1989 (30-03-1989)
CN2413145Y	03 January 2001 (03-01-2001)	None	
US4425936A	17 January 1984 (17-01-1984)	US4425936A CA1191508A1 EP0116040A1 WO8400596A1	17 January 1984 (17-01-1984) 06 August 1985 (06-08-1985) 22 August 1984 (22-08-1984) 16 February 1984 (16-02-1984)
US4679598A	14 July 1987 (14-07-1987)	US4679598A GB8606757D0 GB2172683A GB2172683B GB8507192D0 NO861038A	14 July 1987 (14-07-1987) 23 April 1986 (23-04-1986) 24 September 1986 (24-09-1986) 11 January 1989 (11-01-1989) 24 April 1985 (24-04-1985) 22 September 1986 (22-09-1986)
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