Title: SYSTEMS AND METHODS FOR MAKING PIPE, AND METHOD OF INSTALLING THE PIPE IN A PIPELINE

Abstract: A method for restoring a degraded pipeline, the method comprising: removing a degraded part of an inner flow pipe of a pipeline leaving a space between two spaced-apart sections of the inner flow pipe; positioning a new pipe in the space; connecting the new pipe to the two spaced-apart sections of the inner flow pipe thereby re-establishing a flow channel through the inner flow pipe; the new pipe having a core pipe with a first strengthening wrap thereon, a second strengthening wrap around the first strengthening wrap, and a protective outer wrap on the second strengthening wrap.
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER

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<th>INV.</th>
<th>F16L55/18</th>
<th>B29C53/66</th>
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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)

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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 practical, search terms used)

| EPO-Internal |

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<th>Category</th>
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<td>X</td>
<td>US 5 225 021 A (LONA NORBERT [CH]) 6 July 1993 (1993-07-06) abstract</td>
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<td>Y</td>
<td>WO 98/09797 A1 (UNITED UTILITIES PLC [GB]; GRACE JOHN [GB]) 12 March 1998 (1998-03-12) claim 1</td>
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<td>X</td>
<td>EP 0 231 154 A2 (COLBACHINI SPA [IT]) 5 August 1987 (1987-08-05) claim 1; figures 1, 2</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

- **A**: document defining the general state of the art which is not considered to be of particular relevance
- **E**: earlier document but published on or after the international filing date
- **L**: 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)
- **O**: document referring to an oral disclosure, use, exhibition or other means
- **P**: document published prior to the international filing date but later than the priority date claimed

- **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
- **X**: document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- **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
- **&**: document member of the same patent family

Date of the actual completion of the international search: 25 May 2011

Date of mailing of the international search report: 07/06/2011

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:
Dauvergne, Bertrand

Form PCT/ISA/210 (second sheet) (April 2005)
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<td>A</td>
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# INTERNATIONAL SEARCH REPORT

## Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant’s protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant’s protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claim: 1

A method for restoring a degraded pipeline, the method comprising:
removing a degraded part of an inner flow pipe of a pipeline
leaving a space between two spaced-apart sections of the inner flow pipe;
positioning a new pipe in the space;
connecting the new pipe to the two spaced-apart sections of the inner flow pipe thereby re-establishing a flow channel through the inner flow pipe;
the new pipe having a core pipe with a first strengthening wrap thereon, a second strengthening wrap around the first strengthening wrap, and a protective outer wrap on the second strengthening wrap.

2. claims: 2-23

A system for making a pipe suitable for installation into a degraded pipeline, the system comprising:
a frame;
a roll of wrapping material, the roll pivotably mounted to the frame; and
movement apparatus on the frame for moving the frame with respect to a core pipe to be wrapped to form the pipe to be installed in a degraded pipeline.
Related method.
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<td>US 5225021</td>
<td>06-07-1993</td>
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<td>US 6098665 A</td>
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<td>EP 0231154</td>
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<td>IT 1188303 B</td>
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