

FIG. 5 is a flowchart of a meter verification method for a vibratory flowmeter according to an embodiment of the invention.

FIG. 6 is a flowchart of a meter verification method for a vibratory flowmeter according to an embodiment of the invention.

5 FIG. 7 is a flowchart of a meter verification method for a vibratory flowmeter according to an embodiment of the invention.

FIG. 8 shows a graphical representation of meter verification according to an embodiment of the invention.

10 FIG. 9 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 10 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 11 shows a graphical representation of meter verification according to an embodiment of the invention.

15 FIG. 12 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 13 shows a graphical representation of meter verification according to an embodiment of the invention.

20 FIG. 14 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 15 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 16 shows a graphical representation of meter verification according to an embodiment of the invention.

25 FIG. 17 shows a graphical representation of meter verification according to an embodiment of the invention.

FIG. 18 shows a graphical representation of meter verification according to an embodiment of the invention.

Detailed Description of the Invention

30 FIGS. 1-18 and the following description depict specific examples to teach those skilled in the art how to make and use the best mode of the invention. For the purpose of teaching inventive principles, some conventional aspects have been simplified or

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FIG. 8 shows a diagnostic according to an example embodiment.

FIG. 9 shows a diagnostic according to an example embodiment, utilizing the difference between the left pick off (LPO) and the right pick off (RPO) stiffness data as
10 a parameter.

FIG. 10 shows separate example model cases for locations of meter damage by corrosion or erosion.

FIG. 11 shows a graph representing the flow error due to tube wall erosion and/or corrosion.

15 FIG. 12 shows a graph representing the meter verification stiffness change due to tube all erosion/corrosion.

FIG. 13 shows a graph representing the change in residual flexibility (RF) versus the change in FCF.

FIG. 14 shows a diagnostic applying the difference between the residual
20 flexibilities of the first and second pickoff sensors 170L and 170R.

FIG. 15 shows an example smart meter verification plot representing the percentage change in mass deviation of the left pickoff (LPO) and right pickoff (RPO) sensors is shown.

FIG. 16 shows a diagnostic according to an example embodiment, utilizing the
25 difference between the left pick off (LPO) and the right pickoff (RPO) mass deviation data as a parameter.

FIG. 17 shows an example smart meter verification plot representing density for various runs.

FIG. 18 shows an example smart meter verification plot representing density for
30 various runs.

Detailed Description of the Invention

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