Claims

1. An apparatus mounted around an elongated tube-like object for inspecting said elongated tube-like object, the apparatus comprising:

- a body (1, 2) for moving along the elongated tube-like object while clamping an outer surface of the tube-like object;

- a sensor frame (15, 15b, 15c) supporting one or more sensors (20) for measuring a state indication property, wherein the sensor frame (15, 15b, 15c) comprises two or more engaging elements at different positions on the sensor frame, wherein the engaging elements are configured to engage the elongated tube-like object at different locations, wherein the engaging elements comprise a one or more biasing elements (23c) for exerting force onto the surface of the elongated tube-like object and position the sensor frame with respect to the elongated tube-like object; and

- one or more body-to-sensor-frame connections (39, 40, 43, 72b, 72c) for connecting the sensor frame (15, 15b, 15c) to the body (1,2),

wherein the body-to- sensor-frame connections (39, 40, 43, 72b, 72c) are arranged to allow an adjustable relative position between the sensor frame and the body and arranged to allow maintaining a position of the one or more sensors (20) with respect to the tube-like object.

2. The apparatus of claim 1, wherein the apparatus comprises means for maintaining a predetermined distance between the one or more sensors (20) and the tube-like object, wherein the distance is measured in a radial direction from the tube-like object.

3. The apparatus of claim 1 or claim 2, wherein the sensor frame comprises a positioning unit that allows positioning the sensor frame with respect to the tube.

4. The apparatus of any of preceding claims, wherein the body that clamps the tube is arranged to position the body along a non-linear tube in a first direction, and wherein the body-to-sensor-frame connections are arranged to position the sensor frame at a position in that first direction, preferably a position ahead or behind the body.

5. The apparatus of any of preceding claims, wherein the body-to-sensor-frame connections are arranged to hold the sensor frame rotationally fixed with respect to the body and/or the tube.

6. The apparatus of any of the preceding claims, wherein one or more sensor units (3), each comprising the sensor (20), are mounted on the sensor frame (15), wherein the sensor unit (3) comprises an elongated tube-like object engaging element, such as a wheel, that

preferably also comprises a biasing element such as a spring, that are arranged to position the sensor at a predetermined distance from the surface of the elongated tube-like object.

7. The apparatus of any of preceding claims, wherein the body comprises:

- a first part (1) comprising a first set of tube-like object clamping means, such as wheels (5);

- a second part (2) comprising a second set of tube-like object clamping means, such as wheels (27,28);

- a connection arm (36) for connecting the first part and the second part at a distance adapted to the size of the tube.

8. The apparatus of claim 7, wherein the first part (1) comprises:

- a first wheel frame (4) comprising a first subset of wheels (5);

- a second wheel frame (7) comprising a second subset of wheels (8),

wherein the first and second wheel frames are pivotably connected to each other or to the connection arm (36), and/or wherein the first wheel frame (4) and/or the second wheel frame (7) preferably comprises a pushing element (10) for asserting a biasing force against the second wheel frame, the first wheel frame and/or the first part

9. The apparatus of any of claims 8, wherein the first part (1) comprises:

- a first wheel frame (4) comprising a first subset of wheels (5);

- a second wheel frame (7) comprising a second subset wheels (8);

- a motor (6) for driving the first subset of wheel; and

- a transmission (9), such as a belt or a gear and shaft, for transferring power from the first subset of wheels to the second subset of wheels, wherein preferably the transmission (9) is arranged on the same shaft as the first subset of wheels.

10. The apparatus of any of the preceding claims, wherein a magnet element (23) is mounted on the sensor frame (15, 15b, 15c) for generating a magnetic field and the one or more sensors (20) are arranged to measure a change in the magnetic field.

11. A method for inspecting an elongated tube-like object, the method comprising:

- inspecting the elongated tube-like object using an apparatus according to any of claims 1-10 that is clamped onto the tube-like object;

- driving the apparatus along the elongated tube-like object;

- positioning one or more sensors (20) to inspect the elongated tube-like object by connecting the sensor to the driven apparatus for following the driving along the elongated tube-like object and engaging the elongated tube-like object to maintain a distance between the sensor and the elongated tube-like object.

12. The method of claim 11, wherein maintaining the distance between the sensor and the elongated tube-like object comprises asserting a restoring force against the elongated tube-like object.