

OIL AND GAS RISER SPIDER WITH LOW FREQUENCY ANTENNA APPARATUS AND METHOD

ABSTRACT

An apparatus and methods for tracking a plurality of marine riser assets is provided. Part of a riser lifecycle monitoring system, the apparatus can include an oil and gas riser spider to connect a plurality of riser pipe sections during assembly of a riser pipe string. The riser spider forms an annulus around a first section of the plurality of riser pipe sections and supports the first section of the plurality of riser pipe sections during connection to a second section. The apparatus can also include an antenna to read a plurality of radio frequency identification tags, e.g., directional 125 kHz RFID tags, attached to outsides of the plurality of riser pipe sections. The antenna can include an oblong loop attached to and substantially spanning about half of an internal surface of the riser spider so that the antenna follows the contour of the riser spider.

Figure 2