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(54) Title: THREE-DIMENSIONAL OPTICAL MEASURING MOBILE APPARATUS FOR ROPES WITH ROPE ATTACHMENT DEVICE

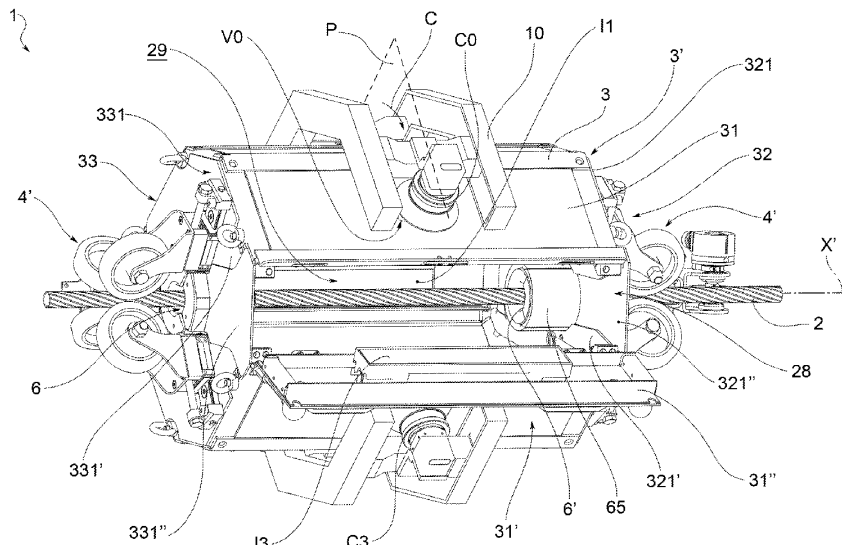


FIG.1

(57) Abstract: A calibrated three-dimensional optical measuring apparatus (1), for the three-dimensional measurement of geometric parameters of a rope (2), comprises a frame (3') which defines and is arranged around a rope receiving cavity (29). A plurality of image acquisition devices (C0, C1, C2, C3) is adapted to acquire a plurality of digital images of at least one region of an outer surface (21) of the rope (2). The image acquisition devices (C0, C1, C2, C3) are fixed to the frame (3') and are arranged around the rope (2) when the three-dimensional optical measuring apparatus (1) receives the rope (2) in the rope receiving cavity (29). An attachment device (4') is adapted to constrain the three-dimensional optical measuring apparatus (1) to the rope in a relatively translatable manner with respect to the rope (2). An electronic digital image processing device is configured to process the multiplicity of digital images and obtain a three-dimensional photogrammetric reconstruction of the points of the digital images of the rope acquired by the image acquisition devices.

[Continued on next page]

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