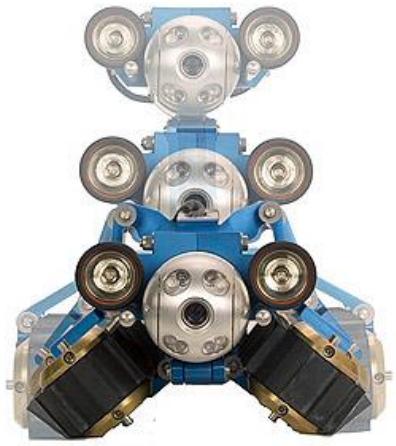
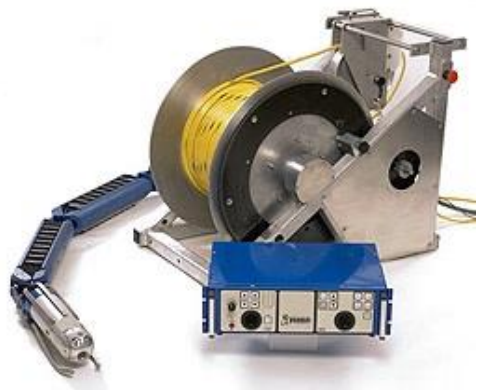
Application Spotlight

Long-Range Inspection in Remote Locations

Key Words: camera, inspection, crawler, underwater, long-range, pipe casing





In autumn of 2015, a provincial energy corporation was planning to pull high voltage electrical cables capable of producing 900 MW through six carbon steel casings. These casings crossed the Strait of Belle Isle underneath a section of ocean between Newfoundland and Labrador. Maverick was chosen to inspect these casings to confirm that there would not be any objects, rough edges, or other defects which could damage the high voltage cables or casing coatings as they travelled through. The condition of the cables themselves is of high importance as they will be supplementing the growing needs of electricity in remote parts of Labrador.

One concern was that the internals of the casings contained a preservation fluid which had been dye tested green. This could have severely limited the effectiveness of the camera inspection. At Maverick's Edmonton location, the Research & Development Team created a short section of the correct diameter and type of pipe to test the robotic crawler against a sample of the fluid. This ensured the inspection would yield the best possible results.

The test determined that the pan, tilt, and zoom camera head could indeed see clearly through the liquid. A recording of this test was provided to the client prior to dispatching the crew and equipment. Maverick coordinated the logistics and shipping of the equipment to Atlantic Canada, and the inspection of the casings was a success. The video inspection revealed that sandy debris was in fact present within several of the casings, even after the pigging process. This could have created a problematic situation where the friction from the cable pull could have worn the internal coating of the casing.

The client was very happy with the service and technology Maverick provided. Due to Maverick's capabilities, the information provided allowed them to create a plan of action to remove the debris. They were able to pull the cables through the conduits without excessive risk of compromising the cables or the casings. The robotic crawler unit used for this application was equipped to travel 500m, with a liquid depth rating of 100m; a great addition to Maverick's arsenal which includes CSA approved Class I Div I Explosion-proof Remote Visual systems.

Updates:

Maverick currently has a system available capable of travelling in excess of 2000m.

For more information contact: 780.467.1606