EOM Cable Test-Protocol Descriptions

Rev 1.0 10/8/03

- Tensile Characteristic Tests (determines stress/strain curve, tension induced torque, tension induced rotation, and breaking strength)
  - Install polyester sockets on an approximately 15ft test sample
  - Cycle between 0-6000 lbs ten times, measuring tension induced torque and elongation continuously.
  - Free ends to rotate and measure rotation during an additional 10 load cycles between 0-6000lbs
  - Pull to break and measure breaking strength.

- Low-tension-bending flex test (Measure relative susceptibility of cable to damage due to severe low tension bending)

  In this test, one end of the cable is terminated and clamped in a fixture that oscillates in a manner that bends the cable at the edge of the clamp. The other end of the cable is connected to a hydraulic cylinder that provides a prescribed amount of tension. The polyurethane clamp arrangement has no bending strain relief, so the cable bends fairly sharply at this point, depending on the stiffness of the cable and the tension applied.

  - 75,000 flex cycles of +/- 20 degrees at 100-pounds cable tension.
  - 25,000 straight tension cycles between zero and 3,000 pounds with no bending.
  - Pull to break and measure breaking strength.