

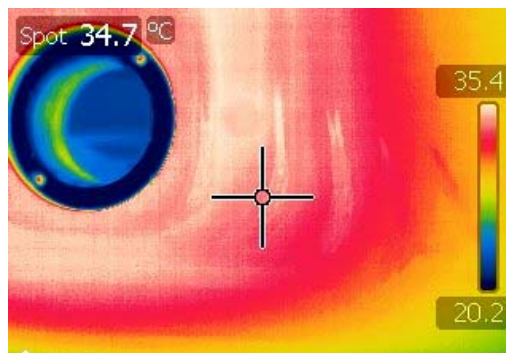
DE-LAMINATIONS IN A MONOLITHIC CARBON MAST

Problem:

In a number of places hairline cracks were noted in a mast constructed of monolithic carbon fibre of approximately 110ft in length. Suspicious of de-laminations, the owner requested a full inspection of all the spars. All the hairline cracks were noted in reinforced areas around vang, gooseneck and spreader root fittings.

NDE Limitations:

Infrared Thermography did not produce reliable results on the mast due to difficulties in achieving an even temperature through the reinforced areas.



NDE Solutions:

Ultrasonic Flaw Detection is the preferred technique for this type of problem.

All areas of de-lamination were clearly indicated, size and depth of the flaws were marked for the repair. Shearography confirmed all delaminations found by Ultrasonic Flaw Detection.

