Allianz Engineering Inspection Services Ltd

Non Destructive Testing
Lift & Crane Plant

The least intrusive solution to plant inspections
Non Destructive Testing
Lift and Crane Plant

A basic visual inspection can be perceived as the entry level to our service in providing NDT (Non Destructive Testing), whilst at the other end of the scale we employ Eddy Current techniques in order to test for defects within Lifting and Craneage equipment and associated structures.

Using our panel of skilled and experienced NDT technicians and assisted by our Special Services Engineers we are able to support our clients by providing a range of NDT solutions to meet their needs. This may be in support of the findings of a Thorough Examination or Inspection in accordance with the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) and the Provision and Use of Work Equipment Regulations 1998 (PUWER), or to assist with their maintenance and condition monitoring programs.

When do we consider NDT is necessary?
Our Engineer Surveyors, over the course of their duties, may request that NDT be undertaken in order to support their inspection or examination.

For example:
- They may be aware of common failure specific to the item or style of plant, or there may be breakdown and repair history that requires monitoring.
- They require some form of benchmarking for future reference.
- They have located issues on similar structures and are taking a pro-active approach in identifying defects prior to any potential failure.
- Manufacturers of equipment may provide technical bulletins advising of any requirements to carry out NDT in certain areas at set periods.
- Many of our clients have their own maintenance procedures in place which call for NDT at set periods.

Types of NDT
NDT can be delivered in various forms, each bespoke to the nature of the request and the equipment being tested.

Simple visual inspection
This is the most basic form of NDT and is carried out by non-approved personnel. A simple visual inspection will always form part of our Engineer Surveyors’ normal inspection routine.

Ultrasonic inspection
This is a non-intrusive inspection technique that can detect sub-surface planar or volumetric defects. It could be used, for example, to detect variations in thickness of a given material which may indicate corrosion; in forged products (such as retaining pins) looking for cracking at changes of section; or root type defects in welds including various types of in-service cracking (fatigue etc).

Magnetic Particle Inspection
Commonly referred to as MPI this technique is employed on ferromagnetic material in order to detect surface breaking defects that may not be visible to the naked eye. Typically this will include inspection on cast components, plate steel, welds and forgeries. Any surface coating will normally have to be removed to guarantee the best results.

Dye Penetrant Inspection
Also known as Dye Pen (DPI) we can implement this method when inspecting on non-ferrous materials such as stainless steel, glass reinforced plastics and aluminium. Dye Pen is used to detect surface breaking defects, again not visible to the naked eye.

Eddy Current Inspection
A frequently used technique, Eddy Current requires minimal preparation to the equipment being tested. The test material must be conductive and while paint does not need to be removed, it will need to be clean and free of any grease and debris. Surface breaking defects can be detected using this method.

Contacting Us
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