

Marine Engineering Exam Resource – Review of Non Destructive Testing (NDT)

1. Why are vibration readings taken on bearings and rotating elements?
To make accurate assessment of the cause of a particular vibration and correct before failure occurs. First reading is most important as the other readings are compared against it. Page 433 to 435
2. What is non-destructive testing?
A means of testing parts for cracks or flaws without changing it's shape.
3. What are dye penetrates used for?
To find cracks or defects on surface.
4. What is Magnetic Particle Testing?
A magnetite fluid is set up around the object to be tested and surface cracks can be detected so they set up an independent magnetic field.
5. A magnetic liquid is passed over the object to show up cracks on?
Metal only.
6. What is Ultrasonic Testing?
Sound waves going through an object.
7. What is X ray testing.
Gamma waves passing through the object and exposing flaws on film.
8. What is used to check a crack under the surface of a casting?
Ultrasonic testing, Magnetic testing, X-ray testing.
9. What is used for ultrasonic testing of cracks?
Sound waves pass through the object and any distortion shows defects.
10. What materials can a magnetic particle test be used on?
Ferrous metals only (contains iron)