Magnetic defectoscope

PK-21

Redka M.O.

During graduate design were calculated thicknessmeter channel, temperature calculation, measurement error and defectoscope channel calculation, which included calculations magnetic field scattering defect analysis the relative position of sensor plane and cracks.

As a result, the device was designed with the following features: The operating frequency of 50 Hz, the measured coating thickness of 10 - 1000 microns., Width of overburden crack in a controlled sample - 50 - 500 microns.

There was also experimented, conducted on transformer of magnetstatic thickness meter, the essence of which is using - type with two coils:exciting and reciever. During the experiment was received values of output voltage depend on thickess of tested coating, “voltage to thickness” dependence graph was built.