



Straightforward operator interface allows rapid and repeatable inspections



WheelScan IV finds flaws arising from the stress of repeated take-off and landings



WheelScan Mk IV

Automatic eddy current aircraft wheel inspection

- Cost-effective inspect up to 100 half-hubs a day
- Detect microscopic flaws in critical areas
- Inspect a complete range of half-hubs, painted or stripped
- Produce a permanent record of all half-hub inspection results and set-ups for your service records
- Repeatable inspections made easy with the digital control panel

Specifications

Dimensions

914 x 870 x 800mm
(36 x 34 x 31 1/2 inches)
H x W x D excluding shelf

Weight

200kg (440lbs)

Power consumption

300VA

Rotating speeds

30 or 60rpm
(10rpm for manual inspection)

Measurements

Can be displayed in either metric or imperial

Scan helix

1, 1.5, 3 and 3mm

Eddy current instrument

WheelScan E with bar graph display and integral two channel chart recorder (flaw and lift-off traces)

Control panel displays

Five high intensity displays indicate the inspection settings

Scan type options

Scan through flaw
Stop on flaw
Optimise for magnesium alloy wheels

Controls

Push-button controls are provided for raising, lowering and rotating the half hub; for setting inspection parameters and for recalling or adjusting stored inspection program.

An RS232 interface has been fitted for PC operation.

Construction

WheelScan is housed in a robust enclosure with integral conveyor rollers. The mechanical and electrical systems are built to the highest standards for trouble-free operation.

WheelScan Mk IV is designed to meet the need for fast, automated inspection of aircraft wheels.

Traditionally aircraft wheel inspection has been time-consuming and difficult, with the only opportunity to inspect existing during wheel refurbishment and tyre change. As an inspector you have to be confident that very small flaws will be reliably detected, as failure to do so could be dangerous.

To maintain high safety standards and detect microscopic flaws in a cost-effective manner, inspections have to be automated and take place at speeds the productivity of your wheelshop demands. Manual inspection does not offer the combination of speed and accuracy needed, only automatic equipment gives reliable detection and high speed. Hocking eddy current technology enables the detection of cracks on and just below the wheel surface that may be invisible to the naked eye and other non destructive testing techniques.

Rapid performance and comprehensive coverage

WheelScan Mk IV is a high performance fully automated aircraft wheel inspection machine designed to detect cracks and corrosion in wheel half-hubs. It employs eddy current technology through its field-proven WheelScan E instrument and reduces inspection time to approximately two minutes per half-hub, inspecting over 100 half-hubs per day. WheelScan Mk IV can lift wheels weighing up to 200kg (440lb) with diameters up to 830mm (32.6")

WheelScan Mk IV employs a systematic and rapid approach to wheel inspection:

- Wheel half hub arrives at the machine on the integral conveyor and is raised and rotated on the electrically operated ram.
- The operator can set wheel rotation speed and test helix. The probe entry and exit heights are set according to the inspection standard. The RS232 port will allow these settings to be stored and set by a PC.
- The probe is automatically calibrated and brought to the half hub where it tracks the precise profile of the wheel from the programmed start height to the programmed end height.
- The probe sweeps out a helical scan pattern on the wheel surface over the area set by the operator. The test parameters can be varied. The inspection result is printed out alongside a channel showing the lift-off (paint thickness etc) and calibration records occur before and after the inspection record.

For a high turnaround, with an extensive reduction in preparation before inspection WheelScan MK IV measures and records lift-off, which allows the probe to inspect even if it is not in direct contact with the metal. This enables painted wheels to be inspected without stripping.

Details of each inspection are recorded by WheelScan Mk IV's integral two channel chart recorder, providing a hard copy of the results and settings for your service records.

HOCKING

Hocking NDT Ltd

129-135 Camp Road • St Albans • Herts • AL1 5HL • UK

Tel: +44 (0)1727 795500 • Fax: +44 (0)1727 795400

Email: info@hocking.com • URL: www.hocking.com