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WheelScan LT

Compact Wheel Inspection Unit

- Wheel sizes up to 450mm in diameter and 400mm high
- Provides a complete inspection solution when coupled with Hocking's QuickCheck, WheelScan E and others
- Compact yet robust, capable of supporting wheels of up to 75kg (165 lbs)
- Auto-scanning option allows full coverage of bead seat area and barrel
- Low operator fatigue and reduced risk of missed flaws
- Self-centering clamping device for securing wheels
- Small footprint for easy location in workshops
- Selectable wheel rotation from 6 to 60 RPM
- Selectable scan speeds to allow any desired inspection helix
- Adjustable limit switches for start and end of scan
- Mounting points for users accessories
- A low-cost partner for WheelScan Mk IV

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Specifications

Power Supply
AC power supply autoranging between 85 and 264 VAC, 47-63Hz DC power 14-28 volts, 4A nominal

Scan length
360mm (14.2") maximum. High and low stop points can be set by limit switches.

Scan speed
5 to 60mm (0.2"-2.3") per minute

Wheel Rotation
5 to 60 RPM user selectable

Wheel Dimensions
Wheels up to 450mm (almost 18") in diameter can be mounted on the unit.

Maximum wheel weight of 75kg (165 lbs)

Encoder Outputs
Separate encoder outputs are available for both the rotate and scan motors. The rotate encoder provides a pulse every rotation. The scan encoder provides a pulse for every mm of travel.

Unit Dimensions
560mm x 630mm x 220mm (24.8" x 24.8 x 8.7") w x d x h

Unit Weight
30kg (66 lbs) including clamping device.

Unit leveling facilities
Three adjustable feet allow the unit to be set level for working on eneven surfaces. The rotating table is fitted with an integral spirit level to show when the table is perfectly level..

"It's part of the operator's toolkit"

The philosophy behind the WheelScan LT is simple. It is simply the most straightforward and reliable wa to automate repetitive and detailed inspection tasks on objects such as aircraft and motorsport wheels. The wide range of accessory mounting points means the unit can be used with other of sensors and measuring instruments.

The WheelScan LT is an ideal partner for Hocking's range of eddy current instruments and probes. Its rapid wheel clamping and repeatable probe scanning enable a variety of tests for crack, corrosion or heat damage to be simply and reliably performed. Easy-to-use controls speed up training.

Increase your Probability Of Detection!
In operations such as the inspection of wheels it is essential that surface coverage is uniform and systematic. However, to perform this manually requires high levels of concentration and skill from an operator. The WheelScan LT allows an operator to rapidly set up the equipment to give a repeatable helix pattern, as fine or coarse as required. This guaranteed coverage significantly increases the Probability of Detection (POD) of cracks and other flaws in the wheel under inspection.

Versatile platform
Once the the part to be inspected has been clamped on the turntable and a suitable probe selected, the operator can perform an inspection to his precise requirements using the scan tower option. Because the scan motor and rotate motor are totally independent, helix patterns can be fine-tuned to individual requirements. Encoder outputs are available for recording rotation and scan speeds.

To assist users to employ alternative fixtures for other measurement, three pairs of M5 fixing points, 25mm apart, have been provided on three corners of the unit's top plate.

Flexibility through options
WheelScan LT options simplify routine tasks:

Option 1: This comprises of the base unit with turntable and clamping mechanism. Manual inspections can be carried out on the rotating test-piece, cutting down on time and possible missed defects.

Option 2: The addition of the scan tower allows for automatic inspections of the wheel. Speed, guaranteed coverage and simplicity are key benefits of this method.

Option 3: A QuickCheck HF instrument is added to the above, together with a standard WheelScan probe and the appropriate cables.

Scan Tower
The scan tower has a unique lead screw and nut mechanism that allows the user to move the probe to the required position rapidly. Alternatively the probe can be moved up and down using the scan motor drive.

Once the required scan length is known, the operator can set integral upper and lower limit switches to stop the probe automatically at each end of the scan.

WheelScan LT can test a variety of wheel types

The scan can be upwards or downwards according to user preference. The probe contact pressure can be set to be perpendicular to the wheel surface or, by using the supplied angle bracket, may be directed inward at an angle of 45 degrees for increased coverage of flange areas.

Designed for Portability and convenience.
The WheelScan LT is low cost and lightweight with a small footprint and physical presence. This allows easy placement of the unit in a workshop, and easy relocation. As part of thi design the optional scanning tower can be removed and stowed with the other accessories in the protective storage lid.

Product Reference Numbers

Options:

1. WheelScan LT Basic System:	WLT-001
2. WheelScan LT Basic System + Scanning:	WLT-001 KIT
3. WheelScan LT Basic System + Scanning + QuickCheck:	HF WLT-002 K
Spare Probe:	50PA024/50
Spare Probe Lead:	50A007

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