

# ELECTRIC TROLLEY FOR ULTRASONIC RAIL FLAW DETECTION

## VIGILIS 50 (WP)



*A range of vehicles  
for a sustainable railway world*



*Electronic system, ergonomic and efficient*

*Precise detection of rail flaws*

*Compliant with EN16729-1 (non-destructive testing of rails)*



# ELECTRIC TROLLEY FOR ULTRASONIC RAIL FLAW DETECTION

## VIGILIS 50 (WP)

### Your benefits

- High-precision inspection of the rail, able to detect a wide range of defects
- Ergonomic display and audible warning in case of defects detection and continuous recording for later analysis
- Rugged and totally self-contained, the trolley can be easily transported or driven to site then can be set up in a few minutes without tools
- Optional head scanner

### Trolley specifications

Minimum autonomy	> 6 h
Mass	< 500 Kg (1,102 lbs)
Dimensions (L x W x H)	2,130 x 1,620 x 900 mm (84 x 64 x 35 in.)
Number of transducers	22
Ultrasound Frequency	2.5 MHz
Acoustic coupling liquid	Water
Capacity of the liquid tank	64 L (17 gal)
Echo visualization	On display screen
Display and storage of recordings	Internal memory
Screen display modes	A-scan, B-scan, Schematic
Operating temperature	from -40 °C to + 50°C
Humidity	Up to 95 % (non-condensing)

### Battery specifications

Number of batteries	6
Voltage	12 VDC
Type	Sealed Gel traction
Battery capacity	300 A.h

### Technological advantages

- Electric powered trolley, specially designed to check both rails by ultrasonic testing
- Continuous detection of the rail, thanks to its unique arrangements of transducers, for a number of defects including transversal flaws in the head of the rail (kidney-shaped defects), inspection of gauge and field faces for head checks, longitudinal flaws over the whole height of the rail, star cracks around bolt holes, vertical cracks in welds, porosity and inclusions in thermit welds and corrosion defects at the rail foot...
- The on-board electronics and computer, trigger an audible and visual warning should a possible defect be indicated, and the complete inspection is continuously recorded for later analysis
- The display can be inclined and rotated so that the screen will always face the operator with an optimum visibility
- The trolley can be used to inspect a wide range of rails which have a rail head width between 40 and 80 mm, and rail height of 80 to 192 mm
- Precise adjustment of the centring of probes according to the width of the running surface
- Ultrasonic signals will be detected by the sensors in the wheel probe, which causes an audible warning signal
- Verification of defects is possible using hand probes or the optional Head Scanner

