

CSCView®

CAR (WAGON) STRUCTURAL COMPONENTS (UNDERCARRIAGE) IMAGING & INSPECTION

The CSCView system uses high-speed and high-definition digital imaging together with specially designed illumination sources to produce multiple high resolution images of every car (wagon) undercarriage area. For increased reliability and visibility of components the system includes multiple cameras with different angles of view.

Acquired images are processed by a set of image processing algorithms to assess the structural components of cars (wagons) and locomotives condition and to report defects.



CSCVIEW SYSTEMS

The CSCView system automates the inspection of components such as floor supports, brake beams, center sills, coupler and draft gear components, and more. Processed data and images from the system are integrated into the CMMS™ (Condition Monitoring Management System) software to provide web-based access for data visualization, alarm management, and data analytics. Automated alarms on the identified defects can be used to facilitate condition based maintenance workflows. TrainWatch™ software can also be utilized for the virtual train inspection by using the generated images.

The system's scanner boxes are installed on a supplied steel tie (sleeper), one scanner box between the rails and two optional scanner boxes on the field sides of the track.

The inspection of car (wagon) components which are only visible from the bottom has always been a challenge for railway operators. CSCView overcomes these challenges and automates inspection of undercarriage components to pre-empt

MEASUREMENTS

Couplers

Brake hose

Brake rigging components including brake beam

Coupler securement

Draft gear carrier

Axle surface

Locomotive gear case

R-clips

Hopper doors

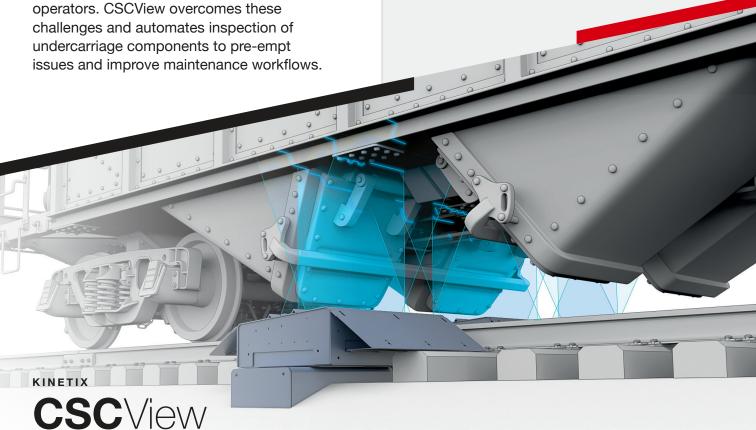
Center sill

Side sill

Cross bearers

Body bolster

Depending on the rolling stock types and requirements, the system's measurement outputs may require optimization or customization.



SYSTEM FEATURES

Bi-directional system

Inspection and measurement at mainline operational speeds

Operates in extreme environments

Installed in track using a steel sleeper (tie)

Easy maintenance

Air purge unit for system cleaning

Automatic defect reporting



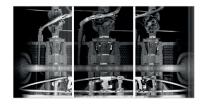
Digital image acquisition/processing

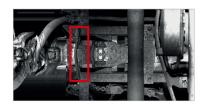
AEI (RFID) integration

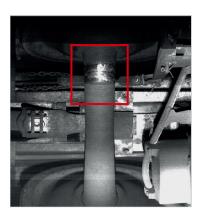
Automatic reporting

Web-based database/visualization (with CMMS[™] (Condition Monitoring Management System) or TrainWatch[™] software)

Remote monitoring/control











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