NEW PATROLLING METHODS - TELEVISION-ASSISTED TROLLEY PATROLLING

Patrolling is the periodic inspection of railway track to identify work necessary to maintain its integrity and ensure safety. It also includes a general inspection of bridges and other railway structures and lineside fences, and may include rectification of minor problems.

Currently most patrolling is carried out by visual inspection by a patrolman walking the track, but the quality of inspection is variable. Patrolling using a mechanised personnel carrier has been tried, and may improve quality by offering protection from the weather and allowing stocks of spare components to be carried. It is believed that most track defects can be spotted from a motorised carrier, with the exception of cracked fishplates. However, the use of a personnel carrier does not significantly increase productivity so it is difficult to justify it.

This report therefore investigates the scope for television systems to improve further the quality of machine patrolling.

Television appeared to offer a way in which the existing machine patrolling could be enhanced to cover the examination of fishplates as well. However, current technology does not allow this inspection to be undertaken automatically by machine vision, and it would be difficult for the operator to identify defects by observing a television screen. The financial case for this looks marginal.

A simple, and relatively inexpensive, television recording system could provide an annotated video recording of lineside features, which could be used to approve remedial work and filed for reference.

Finally, television systems can be used to improve the viewing angle if it is required to undertake machine patrolling using vehicles with higher cabs than the Permaquip trolley.

BR Research Report Ref: TM-ID-025
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Date of Publication: March 1991

AEAT Abstract Date:
01/07/2002