

SNS COLLEGE OF TECHNOLOGY

Coimbatore-35 An Autonomous Institution



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DEPARTMENT OF CIVIL ENGINEERING &

CIVIL ENGINEERING PLANNING

19CET 205 -HIGHWAY AND RAILWAY ENGINEERING

II YEAR- IV SEM

UNIT- IV - RAILWAY ENGINEERING - BASICS AND COMPONENTS

TOPIC 6: SLEEPERS- FUNCTIONS









SLEEPERS- FUNCTIONS



DOUBLE HEADED RAILS

Sleepers are members generally laid transverse to the rails, on which the rails are supported & fixed, to transfer the loads from the rails to the ballast and the sub grade.



SLEEPERS- FUNCTIONS



- Holding rails to correct gauge and alignment.
- Firm and even support to rails.
- *Transferring the load evenly from rails to wider area of ballast.
- * Elastic medium between rails and ballast.
- Providing longitudinal and lateral stability



SLEEPERS - REQUIREMENTS



- The sleepers to be used should be economical, i.e they should have minimum possible initial & maintenance cost.
- Moderate weight easy to handle.
- Fixing & removing of fastenings should be easy.
- Sufficient bearing area.
- Easy maintenance & gauge adjustment.
- * Track circuiting (electric insulation) must be possible.
- Able to resist shocks & vibrations.







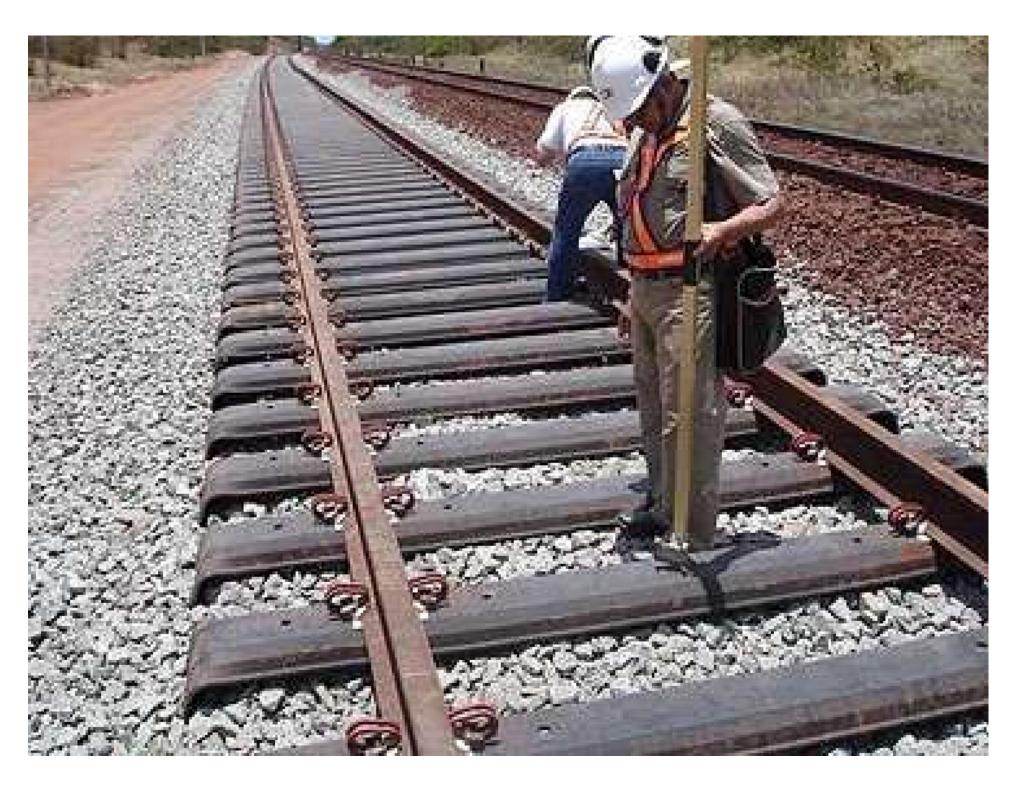














References



- https://nptel.ac.in/courses/105/101/105101006/
- https://nptel.ac.in/courses/105/106/105106151/

