

9/03/2016
CE435 – Railway Engineering
Tutorial #5

Q1: Define creep of rails?

Answer:

Creep of Rails is defined as the longitudinal movement of rails with respect to sleepers in a track.

Q2: Why Creep Takes Place?

Answer:

- Wave action.
- Percussion action.
- Drag action.
- Starting, accelerating, slowing, or stopping of a train.
- Expansion or contraction of rails due temperature.
- Unbalanced traffic.

Q3: How can we reduce the wave action?

Answer:

- Use ballast with good interlock (angular in shape).
- Larger rail section.
- Closer sleeper stiffness.

Q4: What are the signs or indication for creep?

Answer:

Occurrence of creep can be noticed from the following observations:

- Closing of successive expansion space at rail in the direction of creep and opening out of joint from where the creep starts.
- Marks on flanges and webs of rails made by spike heads, by scraping or scratching as the rails slides.