Signal Training Bulletin

COMMITTEE G: Education & Training
Communication & Signal Section, AAR

A-2 Insulated Rail Joint

Approved January 1972

Definition: A rail joint in which electrical insulation is provided between adjoining rails.

Symbols:

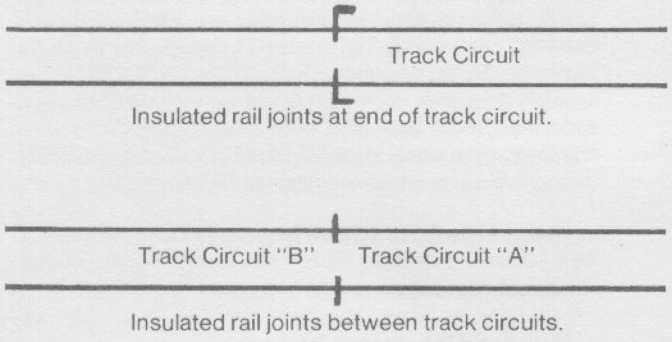

Figure 1

Description: There are many types of insulated joints on the market. They all employ an end post made of insulating material between the ends of adjoining rails. Since rails are joined together by metal bars and bolts, these must be insulated from the rails to prevent electrical current from flowing from one rail to the next exit. Different types of insulating material are used. Figures 2a and 2b show two types of insulated joints using fiber insulation. The major difference between the two types illustrated is that the armored joint includes thin metal head pieces to protect the fiber. Figure 3 is an exploded view of the non-armored type.

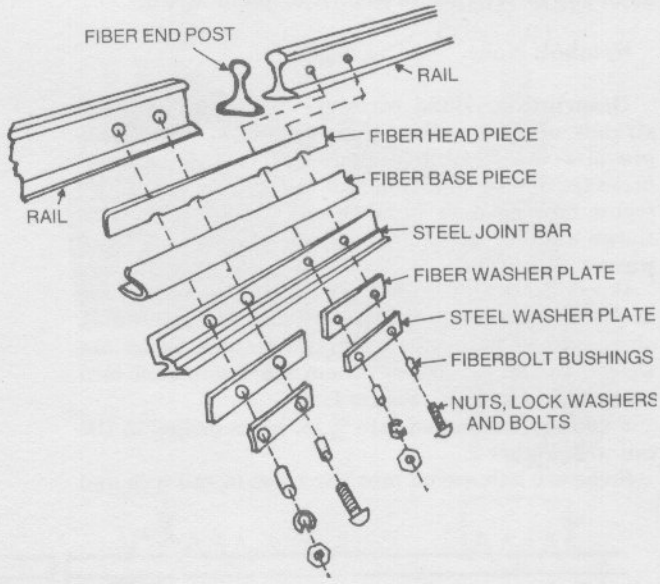

Figure 3

Purpose and Application: Signal systems make use of track circuits which employ the rails as electrical conductors and insulated rail joints are used to prevent the flow of current where such flow is not required or is objectionable.

General Information: It is most important that you become familiar with your company's instructions and requirements.

Detailed Operation: None.

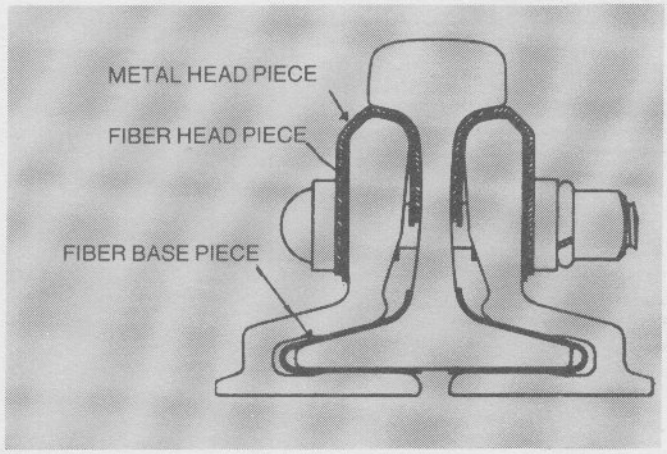

Figure 2a shows the armoured joint.

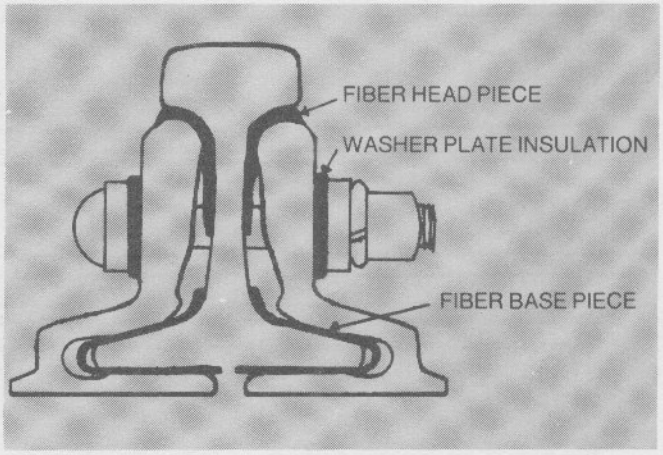

Figure 2b