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(57) Abstract :

The present invention relates to a variable diameter e-shaped rail-clip (105) fastened on a rail (101) to achieve uniform stress distribution throughout the length of the clip (105). The rail-clip toe (103) rests on the base (or) foot of the rail (102) where the load is exerted on the rail-clip (105) due to the rail (101) movement. To prevent failure of rail-clip (105) at high stress region, three conditions for producing variable diameter e-shaped rail-clip (105) have been implemented to achieve uniform stress distribution by (i) the removal of material from low stress regions for uniform maximum stress distribution, (ii) addition of extra material at high stress regions for uniform minimum stress distribution and (iii) transfer of material from low to high stress regions for uniform average stress distribution.

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