

Railway Friction

We often associate tribology with the reduction of friction, and its associated wear, but there are many applications where friction is welcomed. Certainly the residents of Lac-Mégantic in Canada would have preferred that the brakes had remained firmly on the crude oil train that rolled down into their town and burst into flames, killing many people.

Labeled as the worst North American rail disaster since 1989, the problems started soon after the train was parked for the night, about 12km out of town. Apparently a small fire, in the first locomotive of five, was extinguished by the local fire brigade, who also turned off the engine, thus releasing the air brakes. Not long afterwards, the train started its descent into the town where it derailed and burst into flames. A parked train should have had all of its hand brakes applied as well, and investigations are looking at whether this is the case or not. These events certainly raise many questions – and I am sure that the answers will provide many recommendations that will be implemented, hopefully, worldwide.

On a related note, our technical presentation for July was given by a long-standing committee member, Johan de Koker, and he spoke about the efforts to reduce friction and wear between rails and train wheels by the use of harder materials and various forms of lubrication. It was a fascinating insight into something we take for granted, the smooth running of the railway system.

I am sure many will see the irony in these two stories...

The SAIT continues to provide a strong technical training programme, with our 5 day Lubrication Engineering courses being fully booked many months before. We continue to add extra courses when possible. We will soon be publishing our 2014 programme, and we are hoping to add new courses such as Fuels, Greases, Metalworking Fluids and Oil Analysis. Please let us know if any of these are of interest to you and we will strive to meet the requirements of our members. Any other suggestions are most welcome. Please contact us at secretary@sait.org.za .

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