



A train fire in Punjab province, Pakistan, that started with a breakfast fire.

REUTERS/ASGHAR BHAYALPURI

HOW OUR TRAINS KEEP THE FIRE RISK SO LOW

One characteristic of public transport is the large gathering of people in a confined space. This is a dangerous factor for fire incidents.

Fortunately, there have been very few cases of fires in trains here. In the history of the MTR, we have experienced two known arson cases on MTR trains, but the actual injuries to passengers have been small.

This is mainly because the Fire Services Department imposes very strict control on the use of combustible materials in trains.

We use metal instead of cloth or plastic upholstery for seats, there are no wooden floors and very few painted surfaces. The result is a low fire load, which keeps the trains generally fire proof.

The many doors of our trains also allow quick disembarkation at stations in case of fire.

I have explained in previous articles that in the case of fire or other incidents, the safest move is to take the train to the next station and let passengers alight on its platform, rather than opening emergency doors to detrain on tracks that are remote from stations.

This helps minimize casualties due to burning, falling or tripping.

A recent train fire in Pakistan, causing the deaths of dozens of unfortunate passengers, was later revealed to result from some inconsiderate passengers cooking with naked fire on board.

When the fire started, it caused panic and passengers jumped out of the running train, resulting in a lot of casualties.

It never pays to panic or rush when faced with an accident in public transport.

An orderly evacuation is always the best way to minimize injuries.

We sometimes see fires in cars and buses, as unfortunately there are lots more combustible materials in such road vehicles.

Tires, upholstery, painted surfaces on metal, fiberglass bodywork (for aesthetics and for weight saving), together with the fuel in the tanks, are all inflammable materials.



Nuts and bolts

Edmund Leung

When a fire occurs, they support combustion. But please don't be unduly alarmed: these fires very seldom cause actual casualties.

In all cases of fire, smoke suffocation is the first cause of casualties, as burning takes longer to kill.

Secondly, unlike what we see in movies, where car fires have been dramatized for our viewing excitement, it takes more than a few minutes for a vehicle to catch fire and burn furiously.

In most cases, including bus fires, there should be enough time for orderly evacuations.

For fires in marine vessels, again, the burning process will take time, so the life-saving boats should be able to facilitate passengers leaving the burning vessels in time – the remaining risk being drowning afterward.

Aircraft fires, however, are different as they can be much more dangerous simply because the plane's high speed will quickly fan the fire.

The thin construction of the plane fuselage, for weight-saving purposes, does not provide a stiff structure to protect its "contents," and may disintegrate quickly.

This reminds me of an Irish joke about aircraft accidents.

An Irish farmer was trying to board a plane but was caught with a homemade bomb. His explanation was a classic:

"I read that the chance of an airplane accident with a bomb on board is one in a million, but that with two bombs on board it becomes one trillion. That is why I carry a bomb to decrease the probability of a plane accident," the farmer pleaded.

The motto is: it never pays to be too clever. If one blindly follows research results, one can be easily misled by statistics.

Veteran engineer Edmund Leung Kwong-ho casts an expert eye over Hong Kong's iconic infrastructure