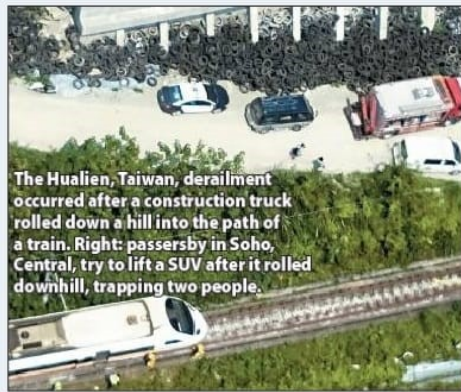


City Talk



The Hualien, Taiwan, derailment occurred after a construction truck rolled down a hill into the path of a train. Right: passersby in Soho, Central, try to lift a SUV after it rolled downhill, trapping two people.



JUST REALLY PARK IT TO STOP RUNAWAY DISASTERS

There have been too many cases of road accidents resulting from motor vehicles rolling down hills when they are supposed to be parked.

In April, a lorry rolled downhill from a construction site adjacent to a railway tunnel portal in Hualien, Taiwan, causing a serious fatal accident as it blocked a passing train and caused it to derail.

A fortnight ago, a private car in Soho rolled down Staunton Street, again resulted in a fatal accident.

The UK Highway Code, internationally regarded as the "Bible" for drivers, has very clear and detailed instructions on how to park a vehicle on hills: apply the handbrake firmly, put the vehicle in gear (or in Park if it has automatic transmission), and turn the steering wheel so that the vehicle will be restrained by the roadside kerb if it rolls downhill.

But how many drivers actually follow this golden rule? If they did, such accidents would not have happened.

As motor vehicles becomes sophisticated, drivers begin to ignore these rules.

The availability of air-conditioning has encouraged drivers to keep the engine running when parked for comfort in the summer, thus negating the habit of putting the vehicle in gear when parked.

In the case of the lorry in Taiwan, it probably had a lifting crane that required the lorry engine to run, and again the habit here was to stick with leaving the engine running while parked.

Such ill-conceived habits are the main causes of such unnecessary accidents.

Drivers must understand that, firstly, when they park their vehicles on a slope, the handbrake must be applied *firmly*, and that means with *full force*.

Also, with automatic transmission, drivers must not rely on the transmission brake as the sole means of halting the vehicle, be it on level or hilly roads.

If they are mechanically minded, they will know that the Park position in the auto-transmission system actuates a pawl



Nuts and bolts

Edmund Leung

acting against a gear wheel, and the contact point is about the size of a thumbnail.

Although usually made from steel, the amount of resistant force it can offer to a rolling vehicle is limited, and repeated reliance on it as the sole means of halting a vehicle can cause an inordinately high load that eventually causes sudden failure.

With modern vehicles using electronic or hydraulic controls for the transmission lever, such control systems could also be susceptible to unreliable operation.

I am aware that many drivers, especially those trained in American countries, do not use the parking handbrake when their vehicles are at rest.

I personally experienced this when I hired a car in San Francisco years ago and was given a full-sized vehicle with the parking brake lever missing.

I tried returning the car as I felt unsafe driving it but was laughed off in ridicule by the receptionist who mocked me as an uninformed Asian with the old habit of using handbrakes, which reputedly went out of fashion long ago in America.

In the end, I had to drive gingerly throughout my three-day visit, avoiding parking on hills and turning the steering to the kerb for extra safety even on very gentle slopes, strictly following the Highway Code.

All machines are designed for defined modes of operations. But operational safety can easily be compromised by people ignoring these designed modes when trying to be clever and cutting corners.

Such bad habits will significantly reduce the inherent safety features and may cause fatal accidents to the user and others.

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