

TRAIN ACCIDENTS IN INDIA, Part II

SPATE OF FATAL TRAIN DERAILMENT-DISASTERS IN INDIA



Utkal Express Derailment-Disaster at Khatauli/Muzaffarnagar, Uttar Pradesh, 19th August 2017

By Dr. Frank Wingler, Germany, September 2017

Message: When Wheels, Rails and Rail-Tracks are kept in a sound and healthy condition, then there will be no fatal Derailment Disaster.

The 19th August 2017 Utkal Express Derailment, in which 23 people have been killed, is the country's fourth major fatal Derailment-Disaster over the past 10 month. In the aftermath the Indian Government reacted with a reshuffle in the Ministry of Railways and Engineering Railway Board.

Since decades **UNDERFUNDING** and backlog in **LONG-TERM CAPITAL INVESTMENT SCHEMES** of long-term certainty for Safety related infrastructure and rail-track works and **ORGANIZATIONAL SHORTCOMINGS and CONSTRAINTS** in achieving on all rail-tracks the laid down quality standards ail Indian Railways.

On many routes of India's vast rail-network the Track Quality does not match the increased traffic load, the tracks have to carry. This is the underlying factor of frequent Train Derailment-Disasters.

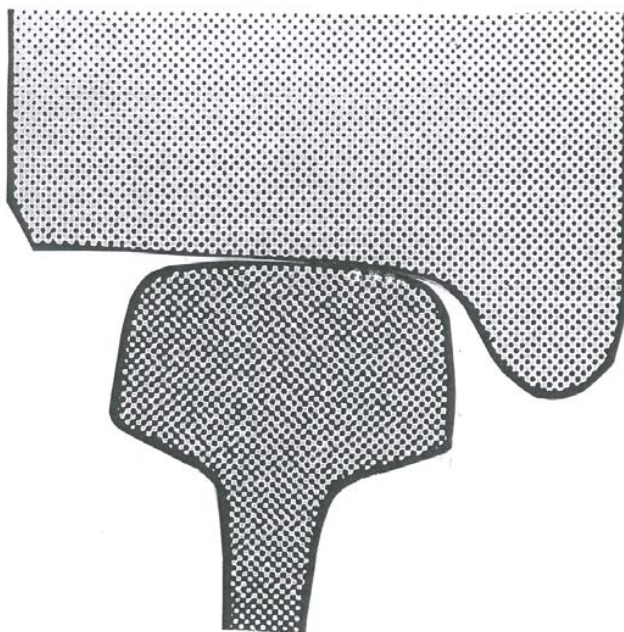
It is unrealistic to hope, that the reshuffle in the Ministry of Railways and Engineering Railway Board will reduce in short time the likelihood of Derailment-Disasters, killing and injuring train-passengers. To make all routes fit, matching the increased traffic load, is a long-term process. Over the next years India will have to face more fatal Derailment-Disasters on the way to come. It is sad that this is still needed to be pointed out.

The responsibility has to be fixed at the Indian Government for not allocating sufficient funds with long-term certainty to bring the quality of the tracks in line with the stress and strain exerted by the increased traffic load, as well at the Organisation of Indian Railways for failing in eliminating the organisational shortcomings and constraints to bring the prescribed Quality Standards on all tracks of the network.

The Indian Government is ready to spend billions of Rupees for a dedicated High-Speed Service to reduce the journey-time between Mumbai and Ahmadabad from presently 6 h and 20 min. to 2 h and 7 min..

But will the Indian Government also be ready to spend enough Rupees in order to reduce the Risk of Train-Passengers to get killed or injured in Derailment-Disasters by deploying High-Track-Quality on all of its routes, daily used by over 20 Million passengers?

When a Train derails something has gone terribly wrong at the interface of rail and wheel, on a contact area of less than 3 cm². In a derailment the wheel-tread leaves the rail-table:



Contact between Wheel-Tread and **Rail Table**

To keep the interactive forces on the interface of rail and wheel in a safe range, is primarily a technical matter. Wheels, rails and rail-tracks have to be kept in a healthy, sound and good condition. There are organisational, operational and recourses related needs to achieve the technical status of health. But all this requires massive Capital Investment Schemes of long-term certainty.

Around the globe, countries with modern healthy and sound rail-tracks do not face such nasty Derailment-Disasters in short frequencies, where so many train-passengers are killed or injured, as India.

The ability to make long-term plans for Safety related infrastructure maintenance works has suffered in the past from lack of available funds and recourses and from uncertainty about budget provisions.

The new appointed Minister of Railways, Mr. Piyush Goyal faces the big challenge to organize, that enough financial funds will be provided in order to keep the wheel-rail interactive forces of all running trains and on all routes within safe limits, and to achieve that the laid down quality standards will be reached on all rail-tracks of the network. And he has to bear the responsibility to organize that wheels and rails are kept in a healthy and sound condition to prevent that wheel-treats might leave the rail-table ending in a fatal Derailment-Disaster, killing and injuring Train-Passengers.



Something went terribly wrong on the Interface of Wheel and Rail on an unhealthy Rail-Track

The new Minister has to come to a **CAPACITY AND FUNDING AGREEMENT** with the Government, that will give certainty over the next 15 years period, guaranteeing healthy and sound rail-tracks of required quality.

The costs of improving **SAFETY** all arise immediately, but the benefits emerge only in long-term. And "long-term" is really a long time and will cover the next 15 years.



**Massive Capital-Investment in Track Quality
is no Luxury. It not only cuts overall Life-
Cycle Costs but also prevents that Train-
Passengers are killed or injured in
Derailment-Disasters!**