# Truck Tyre Injury Guidance Tread Separation - Penetration







## AREA: CONDITION:

#### TREAD

Tread shoulder/rib is torn along the base of groove or from the shoulder due to pieces of metal such as nails, bolts and stones.



## CAUSES:

- Deteriorated adhesion by compressed air entering the casing structure, moisture, mud and sand penetrating through cuts due to obstacles.
- Developed rust in steel cords by moisture penetrating through cuts due to obstacles.
- Tyres easily tend to be cut under over inflation and/or overload.
- Running a tyre under-inflated due to a puncture, cut, leaking valve/stem/rim etc
- Sudden steering at a high speed and forced steering when the vehicle is not running.
- Heavy lateral forces against the foot print of the tyre.
- Sharp objects such as nails, sharp stones, glass and metal.
- Effects of overloading / under-inflation causes heat stress and fatigue in the shoulders which also results in failure of the casing components.

## **RECOMMENDATIONS:**

- Check tyres and remove foreign materials in tread frequently, if cuts in tread are found out, repair them immediately.
- Use tyres under the recommended air pressure and load.
- Avoid rough/heavy steering at a high/low speeds and do not force steering when the vehicle is not running.

#### **HOW TO CHECK:**

In order to distinguish cut separation from tread penetration separation, inspect the tread area near the separated portion. Normally moisture penetrates along steel cords of the belt.

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