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Rib Sinkage on Truck Tyres

Definition

Rib sinkage (picture) is a drop of one or more tyre pattern ribs typically on the whole circumference. In some cases, it starts as tramline wear or local spotty wear and develops into rib sinkage.

Typical causes

Rib sinkage occurs on tyres used in less abrasive applications such as motorways or dual carriageways where the tyre is subjected to predominantly straight line driving at constant speed.

Other factors such as incorrect inflation pressure (that influences the stiffness of the tyre pattern), defective vehicle suspension, and vehicle axle misalignment will also increase the likelihood and severity of any rib sinkage.

Variation in the overall truck load has less influence on irregular wear patterns such as rib Sinkage when the tyre inflation pressure is adjusted in accordance with recommendations. But non-uniform load distribution in the truck can lead to increased instances of tyre rib sinkage.

Environment can also have an effect, for example on some highways, inner lanes get 'rutting' due to the weight of heavy trucks, the quality of the road and high seasonal ambient temperature. Frequently driving on such lanes can intensify the rib sinkage.

Tyres designed for regional or on/off road application are typically more sensitive to rib sinkage when they are used frequently on straight roads or highways.

Tyres fitted to vehicles transporting liquids or any instable product are particularly sensitive to rib sinkage when used in less abrasive road applications such as straight roads or highways.

Recommendations

- * Use the right tyre pattern for the application and axle.
- * Make sure that the load distribution in the vehicle is uniform over the whole loading width.
- * Regularly check the inflation pressure and if necessary adjust to the load. Particular care should be taken for tyres on vehicles transporting liquids or instable products.
- * Change the position of the tyre on the vehicle and/or rotate the tyre on the rim.
- * Check and make sure that the wheel alignment is set in accordance with the vehicle manufacturers recommendation.
- * If it is in line with national law, the tyre can stay in service if the wear is not too pronounced (no exposure of belt cords).

