

Truck rims: Aluminium or Steel?

Are you fitting aluminium or steel rims to your new trailers?

Aluminium rims are seen as a fairly new development, but acceptance is growing worldwide. Steel rims have been around so long that they are the accepted bench mark.

The biggest fear TÜV approved aluminium rim suppliers face is sub-standard products and have proven to be inferior in quality and lifespan. Generalizing based on a bad experience with one of these lesser quality products threatens to damage the aluminium rims reputation as a whole.



Comparing aluminium to steel rims, what are the main differences?

1. Each and every TÜV approved Aluminium rim is X-Ray tested, steel rims if X-Ray applies would be per batch of rims produced.
2. Each and every TÜV approved Aluminium rim is tested for leaks, again steel relies more on sample testing.
3. **Tuna Aluminium Rims** are cast and machined, this ensures that the rim is 100% perfect and round, whereas formed and welded steel rims are not perfectly round.
4. **Tuna Aluminium Rims** contain >7% silicone, this increases its wear resistance, especially in dusty conditions this will increase the life of the rim horn increasing the lifespan and payback period of the aluminium rim.
5. The high silicone content also increases the sealing properties of the rim horn on the rubber surface of the tyre, thus ensuring minimal pressure loss and increased tyre life.
6. TÜV approved **Tuna Aluminium Rims** carry a 5 Year unlimited mileage warranty, whereas steel rims normally carry a 1 Year Warranty
7. **Tuna Aluminium Rims** don't need or require any maintenance aside from cleaning and inspection. Steel rims on average last about 3 years before needing some form of maintenance to curb rust, normally this will involve sandblasting and painting the rim.
8. Weight, this is the biggest feature of aluminium rims. Aluminium rims are on average about 40% lighter than steel rims, and if you go to super singles this figure will be higher. This is the payback difference, increasing payload to maximise trips, or just to save fuel. Having a lighter unsprung weight also decreases wear and improves the lifespan of the tyre.
9. **Tuna Aluminium Rims** have specially designed run flat humps built in to protect the tyre and the rim in case of a blowout.

10. By using steel rims as a benchmark and taking the increased initial cost of the aluminium rim into account, the payback period of aluminium is +/- 1 year.
11. TÜV approved aluminium rims are tested to be twice as strong as steel rims. Max safe working load on TÜV approved aluminium rims are 4500kg whereas steel rims are rated to carry a max load of 3750kg.
12. Aluminium rims also have better temperature dissipation properties, thus making the tyre run cooler and improving the lifespan of the tyre.
13. Aluminium rims have a better aesthetic appearance than steel, since your vehicles are your best advertisers on the road, having an appealing vehicle on the road reflects positively on the owning company and could lead to future business. They can also increase the selling price of the vehicle to ensure a better return on investment at the end of the contract.

When fitting Aluminium rims please keep in mind that the disk thickness of the steel rim being 8 to 10mm will increase to 22 or 28mm when fitting aluminium rims. In other words longer studs are required to fit aluminium rims. Once a vehicle has been fitted with aluminium rims, either steel or aluminium rims can be fitted to the same studs. Steel rim studs are limited to steel only in emergencies.

New developments in the **Tuna Aluminium Rim** range.

Tuna has just released the latest fully reversible super single rim. The rim can be fitted either way on the hub. The tyre never has to be removed from the rim to turn it. Less downtime and no damage done to the tyre's beading. Although Tuna has always had a fully reversible rim, the improvement on the new unit is the centred dish. This ensures that no matter how the rim is fitted all the wheels will line up on the same line. Feedback received from reversible rim technology applied in South Africa has reported that the lifespan of the tyre could as much as double. This was achieved on tri-axle trailers by turning the rim every 25 000 to 30 000km on the hub.



The Tuna Aluminium fully reversible rim is available at all Jost Distributors.

Part number: 1175 22 585A

Suggested tyre sizes: 385/65R22.5
385/55R22.5



Please contact Jannes Venter, Jost Tuna Aluminium Rim Product Manager for any information on Tuna Aluminium Rims and Suppliers.

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