



WARRANTY PROVISIONS: TIA ALUMINIUM WHEELS

Limited Warranty on TIA Aluminium wheels for truck, trailer and bus wheels for a period of **60 months** from the passage of risk against defects affecting the structural integrity of the wheel under normal and intended use.

For aluminium wheels with an ES3 Eco-Shield finish, the surface finish is separately warranted for a period of **36 months** from the passage of risk, covering defects that impact the coating and appearance of the wheel.

TIA Wheels warrants to the original purchaser, or its authorized distributor, that a new TIA aluminium truck, trailer and bus wheel is in accordance with the current European standards of design, specification and loading and is free from defects in material and workmanship.

TIA Wheels agrees, without charge, to repair or replace a wheel that fails in normal use and service because of defects in material and workmanship. Truck, trailer, bus wheels are warranted for 60 months from the date the wheel is received by the purchaser or passage of risk.

The purchaser must examine the delivered goods without delay upon receiving them and give written notification of all obvious defects or incomplete delivery at the latest 10 days after receipt of the wheels.

For and on behalf of TIA Wheels Ltd.

A handwritten signature in black ink that reads 'Darryl Thomas'.

Darryl Thomas
Director

A handwritten signature in black ink that reads 'Ray Taylor'.

Ray Taylor
Director



TIA Wheels does not warrant and will not repair or replace or make adjustment with respect to any wheel that has been subjected to misuse or abuse including the following:

- a) Using a tyre that is not according to standards recommended by the European Tyre and Rim Technical Organisation (ETRTO) or others.
- b) Loading the wheel beyond the applicable maximum wheel load as specified for each wheel size (available upon request) or of the load bearing capacities laid down by ETRTO.
- c) Inflating beyond the applicable maximum kPa as specified by the manufacturer.
- d) Running with under inflated tyres according to tyre pressure specification.
- e) Changing the original condition of the wheel by alteration or by subjecting it to any processing such as welding or straightening.
- f) Accidents, abnormal or severe operating conditions including without limitation tyre fires, brake fires, severe brake system drags or seizures or running with a flat tyre.
- g) Failure to follow proper maintenance. Recommended maintenance includes, without limitation, using proper torque, periodic cleaning, polishing, valve replacement, periodic inspection for damage, loose nuts and rim flange wear inspections and procedures.
- h) Nicks, scratches and other surface blemishes resulting from improper maintenance, cleaning, road debris, curbing, accident or operation are not warrantable.
- i) Rim flange wear is not warrantable.
- j) Damage due to cleaning with abrasives, abrasive brushes, steel wool, scouring pads, or strong chemicals (acids or alkaline).
- k) The Vendor shall guarantee that defects in the goods will be rectified either through rework, replacement or credit, initially according to his choice.
- l) If the subsequent performance fails, the purchaser can withdraw from the contract. The withdrawing from the contract shall, however, be excluded if there are only minor defects.

- m) For the credit option, the time the wheel has been in service will be taken into account and the value to be credited will be calculated in proportion to the period of time that the wheel has been in service on the vehicle, on a reducing scale from the initial cost of the wheel.

E.g. if the wheel has provided 4 years of service to the operation, credit will be calculated for 1/5th of the initial purchase price.

If a replacement is requested, the credit value will be deducted from the current pricing structure of the Vendor.

- n) Wheel attachment area - non continuous diameter

In accordance with EUWA and ISO standpoint:

Wheels today for trucks, trailers and buses are designed and fabricated according to international standards concerning e.g. rim profile, wheel fixation or fatigue test procedures.

One important point is the fixation of wheels defined in the standards ISO4107 “Commercial Vehicles Wheel Hub Attachment Dimensions”, DIN 74361-3 “Disc Wheels – Dimensions and Fastening Devices for Hub Centring” and SAE J694 “Disc Wheel/Hub or Drum interface Dimensions”.

In these standards the outer hub shape for both wheel and axle hub is considered as continuous diameter.

Analysis by EUWA members for several vehicles on the market have shown that besides the hubs as described above, various shapes exist which are not continuous, but have dented or star shaped hubs.



FEM analysis shows the effect on the wheel to have higher local stresses and the possibility of increased surface pressure and an undefined attachment of wheel to hub, due to the reduction of the attachment faces caused by the star shaped hubs. **This potentially will reduce the fatigue life of the wheel and encourage the development of initial cracks.**

For these conditions to apply, good maintenance and fitting procedures are required during the life of the wheel and for any claims, a history of the service maintenance may be required.



LIMITATION OF LIABILITY

- 1) The vendor shall, if culpable of a breach of duty, be liable for damage resulting from injury to life, body or health.
- 2) The Limited Warranty
 - a. Consequential contracted or in-house work as a result of a defect shall not come under warranty unless by agreement.
 - b. The product shall not be warranted if such a defect occurs as a consequence of the contractual repair or from the effect of the contractual repair.
 - c. Normal wear and tear shall not come under the warranty.
- 3) The vendor shall be liable for other damage if it results from a breach of fundamental contractual duties and for damage caused by an intentional or grossly negligent breach of duty. No liability shall be assumed for grossly negligent breaches of duty committed by persons employed in performing an obligation. The liability for other damage shall be limited to foreseeable damage typical for the contract and to the amount insured in terms of our business liability insurance.
- 4) Insofar as nothing else is agreed upon in these conditions, all other claims for damages by the purchaser, based on whatever legal grounds, shall be excluded.

CLAIM PROCEDURE:

Customer to complete TIA warranty form with as much information as possible, also to provide:

- Date of purchase.
- Pictures of front and reverse of wheel.
- Picture showing the numbers stamped on the wheel (inside of rim near front flange edge).
- Picture of the damage/fault area.