

Accessory Product Information

Europe - November 2018

RIM HORN WEAR: HOW TO REMOVE SHARP EDGES?



Moderate and even severe rim horn wear is a normal occurrence on both steel and aluminium wheels and on all types of wheels. In many instances, it is non-existent even after several years of service. However, the inspection for wear and sharp edges should be part of ongoing preventative maintenance.

CAUSE OF RIM HORN WEAR

Irregular wear on the surface of the rim flange is caused by bulging and flexing of the tyre side wall which in turn creates sharp edges on the wheel and therefore might damage the tyre.

SOME CONDITIONS ACCELERATE THIS EROSION - LIKE WEAR ON THE RIM EDGE:

- Heavy or shifting loads
- Axle overloading
- Road conditions (gravel roads, mining pits)
- Friction of material (stone) caught between tyre and wheel
- High centre of gravity
- Moving loads (liquids)
- Incorrect tyre pressure

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HOW TO REMOVE THIS WEAR AND TEAR ON ALCOA® WHEELS?

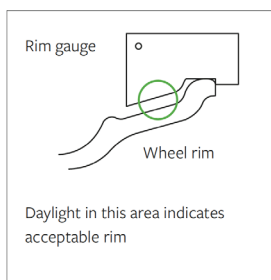
Simply remove the sharp edges by means of a metal file, sanding machine or grinding machine.

Use our manual rim horn wear gauge (P/N GAXGAUGE001) to determine if the rim edge is still serviceable or not.

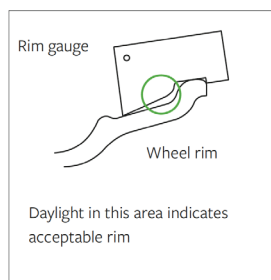
INSTRUCTIONS:

1. Determine rim horn wear:

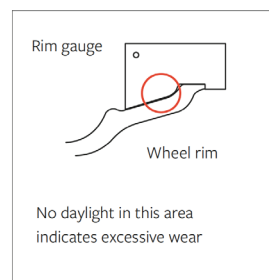
Graphic 13-25
Rim acceptable



Graphic 13-26
Rim acceptable



Graphic 13-27
Rim NOT acceptable



2. Remove the sharp edges with grinder, sander or file



Notes:

- **Do not remove more material than necessary to get a smooth edge again.**
- **Avoid gouging the wheel.**
- **Always wear appropriate safety equipment**

3. Results before and after



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4. Check the rim horn height again with the rim horn wear gauge to make sure there is adequate height remaining to safely support the tyre. If the entire wheel flange is within the limits of the gauge, the wheel may be returned to service. See graphic 13-25 and 13-26.

Permanently remove any wheel from service that has inadequate rim flange height - **if you are unable to see any daylight under the gauge area** - (see graphic 13-27) as this can lead to an explosive separation of tyres and wheels!



5. Always inspect the wheel for any other conditions that would warrant removal from service.
6. Consult our Service Manual for Alcoa wheels for more information
https://www.arconic.com/alcoawheels/europe/en/pdf/Service_manual_for_Alcoa_Wheels_UK.pdf

If you do not have this handy rim horn wear gauge, contact your local Alcoa Wheels Distributor and order article nr. **GAXGAUGE001**

<https://www.arconic.com/alcoawheels/europe/en/where-to-buy.asp>

If excessive rim flange wear is frequently observed, consider using **Dura-Flange® Alcoa Wheels**. These wheels are specially treated to significantly reduce rim flange wear.



More information is available on our website: <https://www.arconic.com/alcoawheels/europe/en/surface-treatments.asp#dura-flange>