

# ALCOA WHEELS MAINTENANCE

## Proper maintenance prevents corrosion

Corrosion can weaken all metals and therefore it can cause damage and cracks. Improper maintenance may shorten the lifetime of your wheels, hubs and other hardware. However with a few important but simple things you can improve the lifetime:

1. Clean hub / axle mating face
2. Clean the mating face of the wheel
3. Clean the inner side of the hub bore
4. Clean bead seat area. Check sharp edges
5. Lubricate hub bore
6. Lubricate wheel nuts
7. Clean and lubricate valve and valve hole area
8. Inflate tyre and seat wheel
9. Torque nuts and recheck

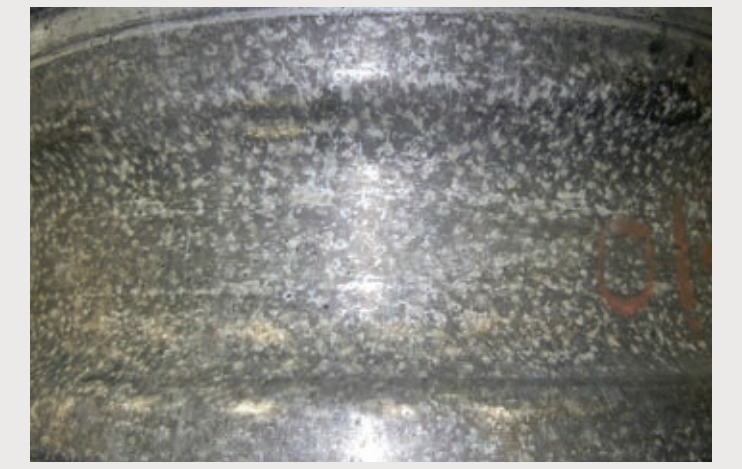
## Examples of poor maintenance



Corrosion mating faces of wheel



Severely corroded valves



Corrosion drop center



Corrosion wheel nut area and inside bore



Corrosion wheel nut area



Corrosion caused by liquid tyre balancers or sealants

## Improve the lifetime of your Alcoa Wheels

### 1 Clean hub / axle mating face



Clean the mating face of the hub / axle with Bristle Discs.

Remove dirt, oxidation and paint.

### 2 Clean the mating face of the wheel



Clean the mating face of the wheel (disc) with Bristle Discs.



Before



After

### 3 Clean the inner side of the hub bore



Clean the inner side of the hub bore of the wheel with Bristle Discs.

### 4 Clean bead seat area. Check sharp edges

- Clean bead seat area when necessary (even drop center) to avoid pitting corrosion.
- Check and remove sharp edges with rim horn wear gauge.



Acceptable rim flange wear



NOT acceptable rim flange wear



A file can be used very effectively to remove the sharp edge.



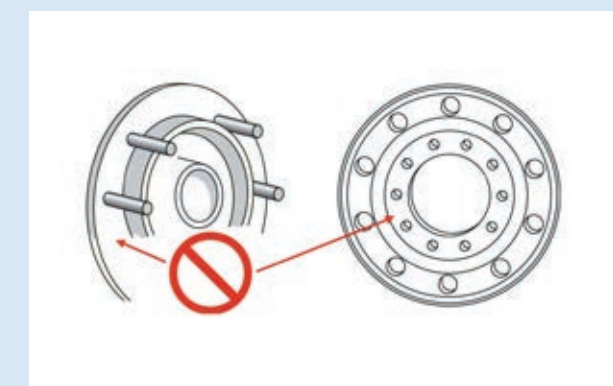
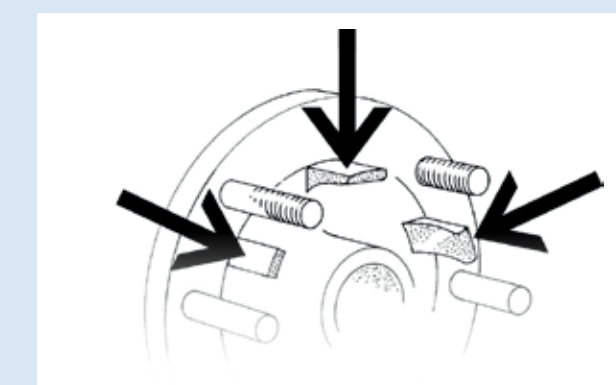
Use die grinder to remove metal. Do not gouge the wheel.

### 5 Lubricate hub bore

Apply a thin layer of Alcoa Wheels HUBgrease on the inner side of the hub bore of the wheel.



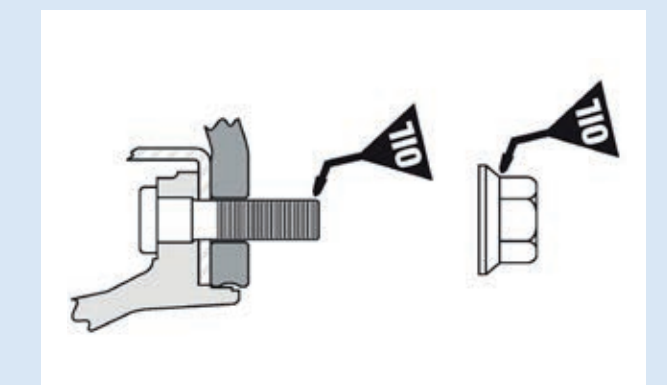
Alternatively apply the same product at the pilot tabs, spigots or centering edge of the hub / axle.



**NOTE:** Do not apply any rust inhibitor, surface coating, grease, oil or paint on either mating face of hub nor mating face of wheel (disc). In case of an inner dual fitted wheel it applies to both sides of the wheel disc.

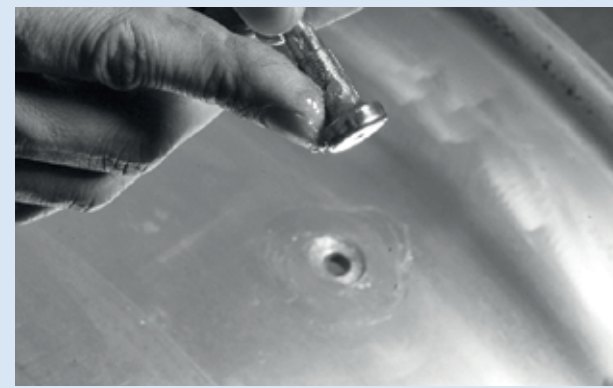
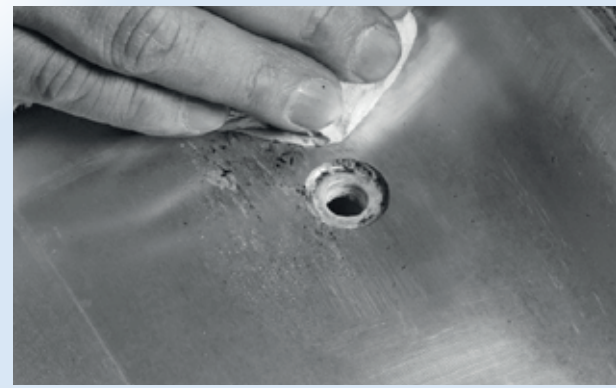
### 6 Lubricate wheel nuts

To minimize corrosion between the mating threading for nuts used on hub piloted wheels it is highly recommended to apply two drops of (used) motor oil:

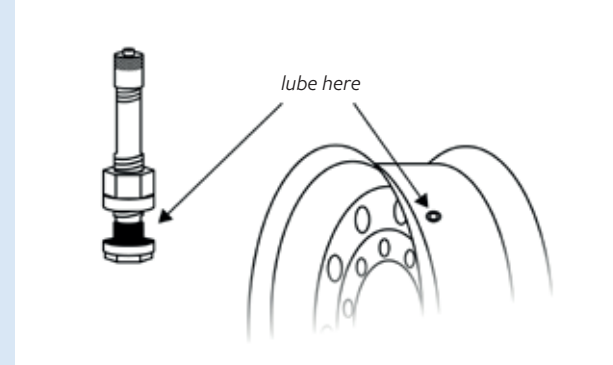


- To the point between the nut and the integrated washer (right).
- To the first two threads of the tip of each stud (left).
- **Note: not necessary with new hardware.**
- Check if washer freely rotates on nut applying some pressure on the washer towards nut.
- Fit nut onto the stud.
- Check if the nut can freely rotate by hand turning the nut towards the hub.

### 7 Clean and lubricate valve and valve hole area



- Clean valve seat and valve area thoroughly.
- Apply a thin layer of VALVEgrease:
  - To the base of the valve.
  - To the valve hole area.
- Torque the valve. **Recommended valve torque level between 12-15Nm (9-11 Ft-Lb).**
- It is highly recommended to fit new nickel plated valve each time a new tyre is mounted.
- **Note: do not over torque.**



### 8 Inflate tyre and seat wheel

- Clean bead seat and drop center.
- Remove dirt, oxidation and other foreign residues like sealers.
- Generously lubricate wheel rim flanges, drop well and both tyre beads using approved lubricant.
- Carefully mount the tyre.
- Inflate the tyre only with dry air to avoid corrosion.
- Mount the combination.

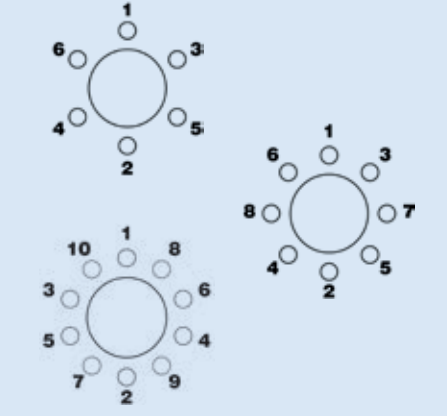


### 9 Torque nuts and recheck

Refer first to the owner's manual of the vehicle or axle for correct torque value, prior to using the chart below.

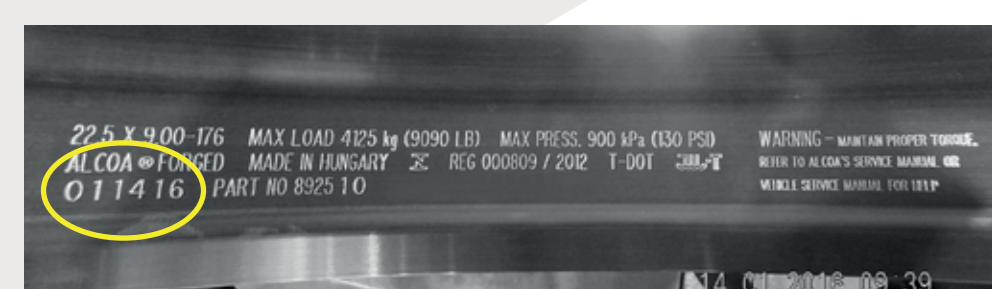
Hub piloted wheels using two-piece flange nuts:	Mount type	Nut Thread	Torque Level Nm
Metric	M18 x 1.5		340 - 400
Metric	M20 x 1.5		380 - 450
Metric	M22 x 1.5		610 - 675
Scania	7/8 - 11 BSF		540 - 660
Volvo	7/8 - 14 UNF		640 - 700

- Hand tighten all nuts.
- Tighten to the recommended torque following the proper sequence.
- Recheck torque after 5-50 miles / 8-80 kilometer of operation unless vehicle / axle manufacturer or your documented fleet practices determine otherwise.
- Check torque frequently from then on.



## Warranty

A 60 months limited\* warranty applies to new Alcoa Wheels and the surface (except for rim flange treatments which is 24 months). This starts from the production date which you can find in the roll stamp of the wheel, which is located at 180 degrees from the valve. Read as Month/day/year (MM/DD/YY).



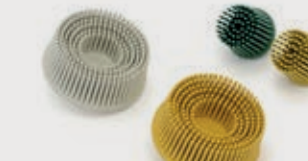
\*For more information read our "Service Manual for Alcoa Wheels" on our website: [www.arconic.com/alcoawheels/europe/pdf/en/Service\\_manual\\_for\\_Alcoa\\_Wheels\\_2017\\_UK.pdf](http://www.arconic.com/alcoawheels/europe/pdf/en/Service_manual_for_Alcoa_Wheels_2017_UK.pdf) or contact our Fleet Service Center: [www.alcoafleet.eu](http://www.alcoafleet.eu)



## Maintenance products

### Bristle disc

Bristle discs are ideal for cleaning mating faces, bead seats, spigots and centering edges of the hub or for removing sharp edges caused by rim flange wear.



### Discmates

This nylon gasket helps to prevent corrosion build up and reduces maintenance issues.



### HUBgrease

Grease for use when mounting Alcoa Wheels. It helps to prevent galvanic corrosion and stuck or sticky wheels on the hub.

**Note: not for tyre fitting use or on valves.**



### VALVEgrease

Grease for replacing valves.

**Note: not to be used for mounting tyres.** See the Valve Application Chart on our website for more information.

