

Alcoa Wheels Service Bulletin: Preparations & fixation of (aluminium) wheels to hub

October 2015



STEP 1

Clean the mating face of the hub / axle, remove dirt, oxidation and paint. Do not apply any rust inhibitor, surface coating, fat, grease, oil or paint. Follow the recommendations of axle / vehicle manufacturer.



STEP 2

Clean the mating face of the wheel (disc), remove dirt, oxidation and paint. Do not apply any rust inhibitor, surface coating, fat, grease, oil or paint. If the mating face(s) of wheel(s) is (are) severely corroded remove wheel(s) from service.



STEP 3

Clean the inner side of the hub bore of the wheel. Remove dirt, oxidation and other foreign residues.

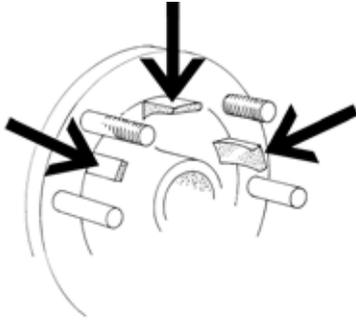
NOTE

The abrasive tools used in this documentation are available at 3M reference Roloc™ Bristle-Discs. For full documentation contact your Alcoa sales representative or contact us at +32 11 458 460.



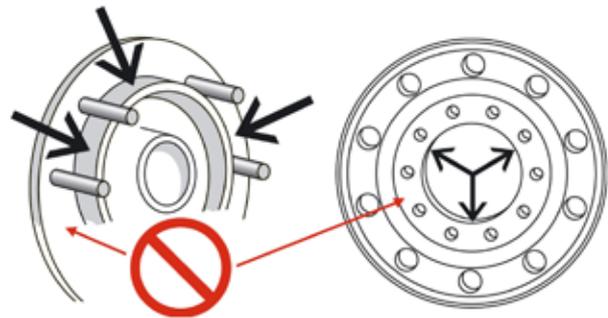
STEP 4

Apply a thin layer of ALgrease or any other equivalent fat (that does not contain metal nor water) 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.



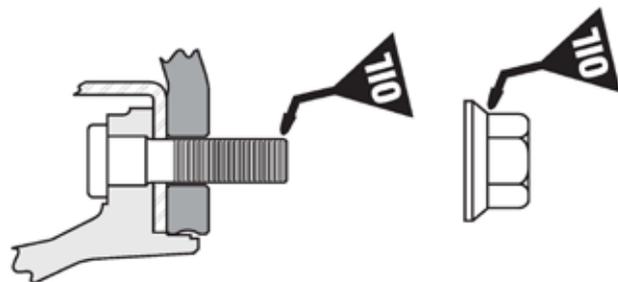
NOTE

Do not apply any rust inhibitor, surface coating, fat, 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.



STEP 5

For nuts used on hub piloted wheels apply two drops to the point between the nut and the integrated washer (right) and two drops of (used) motor oil to the first two threads of the tip of each stud (left). This will minimize corrosion between the mating threading. Lubrication is not necessary with new hardware.



Check (1) if washer freely rotates on nut applying some pressure on the washer towards nut. Fit nut onto the stud and check (2) if the nut can freely rotate by hand turning the nut towards the hub.

STEP 6

A

Refer to the owner's manual of the vehicle or axle for correct torque value: Nm (kgf).

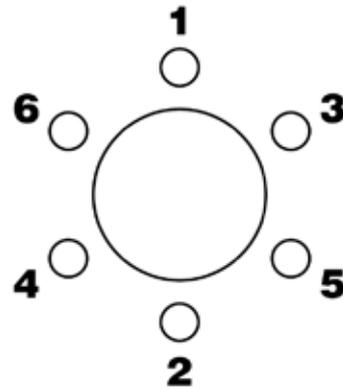


B

Hand tighten all two-piece flange nuts.

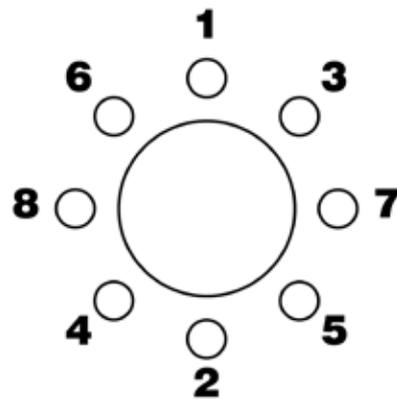
C

Impact wrenches, if used, should be carefully adjusted to apply torques within the limits recommended.



D

Tighten to the recommended torque following the proper sequence.



E

After each wheel mounting, nut torque should be checked with a calibrated torque wrench.

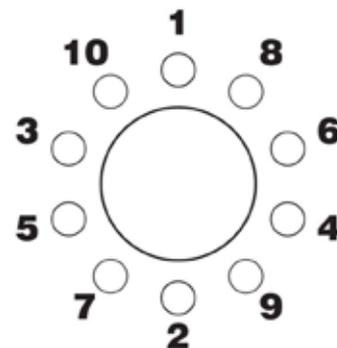
IMPORTANT

After 5-50 miles / 8-80 kilometer of operation torque should be rechecked unless vehicle/axle manufacturer or your documented fleet practices determine otherwise.

Check torque frequently from then on.

NOTICE

If nuts require frequent tightening, studs break frequently, wheel nut washers break or bolt holes are pounding out, hardware and mounting practices should be reviewed.



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