



Alcoa Wheel Products Europe **NEWSLETTER**

September 2005

New Balancing Weight leaflet

We have reviewed our balancing weight instruction leaflet. The new brochure gives a detailed overview of which Hofmann balancing weights should be used on our complete range of wheels and how they should be applied to the Alcoa wheels. If you wish to receive a copy, please contact us at info.wheels@alcoa.com or by telephone at +32 11 458460.



Revision of sleeved cap nuts for 32 mm bolt hole wheels

Our supplier of sleeved cap nuts changed the design of these nuts

- to improve the safety margin for stud and nut assemblies on which a too high torque has been exercised
- to optimize the friction between the nut and the washer.

The current Alcoa part numbers remain unchanged.
Current and new sleeved cap nuts are interchangeable.

Shows

We will be present at following events during the coming months:

COACH & BUS LIVE 2005, Birmingham, U.K. – October 5-6

TRUCK FESTIVAL, Athens, Greece - October 7-9

EUROPEAN ROAD TRANSPORT SHOW, Amsterdam, Netherlands - October 14-22

TRAILER, Kortrijk, Belgium - November 25-29

ALprotect - Protective coating for aluminium wheels during winter

Winter is approaching. Do not forget to order ALprotect to protect your ALCOA wheels!

- ALprotect is a temporary protective coating to protect aluminium wheels during winter from dirt, salt and oxidation.
- ALprotect can be applied and removed easily.
- After winter time, cleaning and polishing requires less effort and time when using ALprotect.
- ALprotect is economical in use.
- It is available in ½ liter bottles and can be ordered at the Alcoa distributors throughout Europe.



ALCOA FRONTRUNNERS CELEBRATE THEIR 10TH ANNIVERSARY



Since their introduction in 1996, the 22.5 x 11.75 wheels with 120 mm inset, known as the Alcoa Frontrunners, have proven to be a valuable asset for both large fleets and owner operators.

History

Alcoa Frontrunners owe their popularity primarily to the sturdy appearance of these extra wide front wheels. At first, mainly the owner operators mounted these wheels to improve the robust look of their trucks. Later the truck manufacturers responded to the increasing demand by offering Alcoa Frontrunners as an option on new trucks.

Unsprung mass

Fleet managers changed from steel 22.5 x 11.75, 120 mm inset, wheels to Alcoa Frontrunners, as they were looking for compensation of the unsprung mass. Retrofitting from steel 22.5 x 9.00 wheels with 315/80 tires to steel 22.5 x 11.75 wheels with 385/65 tires can easily increase the weight of one assembly with 10 kg. To compensate this increase, or better to reduce the unsprung mass, every wide base wheel equipped truck should have Alcoa's in front. The Alcoa Frontrunners reduce the weight of an assembly by up to 25 kilo!

Footprint and tire life

Due to the width of the 385 tire, the surface of the footprint increases, which improves the contact with the road. Fleets that changed from 315 and 295 to 385 tires reported a longer tire life of up to 30%.

The 135 mm inset version

Early 1999, Alcoa responded to the need of the market and expanded the 22.5 x 11.75 range with a 135 mm inset wheel for DAF, Scania and Iveco front axles.



Use on trailers

With the development of trailer axles with disc brakes, trailer manufacturers started to look for aluminium wheels to replace the steel wheels with 120 mm inset. Due to their availability, the Alcoa Frontrunners found their way to the trailer industry. Within a few years, more than 50% of the trailer market swapped from 0 mm inset to 120 mm inset wheels.



The evolution

The Alcoa Wheel Products Europe plant in Hungary achieved to reduce the weight of the 120 mm inset Frontrunner by 2 kilo's since its first appearance 10 years ago.

From front axle to trailer axle

Today the tire industry offers a variety of tires that are specially designed to run on wide base front axle wheels. Once the tread is almost gone, a lot of operators fit the 385 tire on a trailer axle, to extend the mileage of the tire, which is an advantage over 295 or 315 tires.

More tire sizes that fit

Besides the common tire size 385/65, two other sizes can be fitted on Alcoa Frontrunners today. The Frontrunners fit the 385/55 tire, which is important to cargo carriers that also need more volume. A more recent development is tire size 355/50 for front axles on 22.5 x 11.75 wheels, with insets depending on the truck make, and 295/60 on the drive axle. These low section tires are very sensitive to axial and radial run out. Alcoa wheels, which are entirely machined and known for their tight tolerances, secure a smooth “ride and roll” for driver and cargo.

Approval

Alcoa Frontrunners are still the only aluminium wheels that are homologated on front axles and are available from all European truck OEM as an option. All Frontrunners passed important tests like the German TÜV and LBF and also meet the requirements of all truck & trailer manufacturers.

Today & future

After nearly 10 years, there are no signs of a decreasing demand, on the contrary. Today and in the future, Alcoa Frontrunners are and will be available on the front axles of all European truck makes, and on trailer axles with disc brakes.

For more information on AlcoaFrontrunners, please contact us at +32 11 458460 or on info.wheels@alcoa.com.

News from other Alcoa business units

Alcoa forecasts aluminium to be Greenhouse Gas Neutral by 2017

On June 15 Alcoa announced that its researchers have developed a global sustainability model that forecasts the use of additional recycled metal and the use of aluminium in the transportation market will make aluminium greenhouse gas (GHG) neutral by 2017 – making the aluminium industry the first in the world that can establish the claim.

“Alcoa is helping to lead the global aluminium industry in making aluminium climate neutral,” said Randall M. Overbey, President Alcoa Primary Metals Development. “Given the great attributes of aluminium – it is easy to recycle, strong and yet lightweight – the industry will be able to reach a climate neutral state by 2017. There’s no other industry that can make this claim, which will help solve global warming.”

Reaching a climate neutral state means that the global warming impacts of aluminium production will be fully offset by the amount of carbon dioxide emissions saved by its use in the transportation industry.

Alcoa fuels space shuttle launch

As the sole provider of aluminium powder to the NASA Space Shuttle Program, Alcoa’s Powder Business in Rockdale, Texas, USA, helped ensure the recent successful launch of Space Shuttle Discovery.

Alcoa provides the aluminium powder for ATK Thiokol’s RSRM (reusable solid rocket motor), the largest solid rocket motor ever flown and the first designed for reuse. Alcoa aluminium powder is the fuel in RSRM propellants, used in matching pairs, giving them enough energy to generate 5.2 million pounds of thrust in just two minutes, burning approximately 375,000 pounds of Alcoa aluminium powder.

Alcoa ships 188 tons of 38-micron aluminium powder for each flight set. The Space Shuttle team relies on Alcoa’s high-quality aluminium powder to ensure the safe ascent of their astronauts into space.

In Addition to the aluminium powder, Alcoa provides airfoils to the main engine of the space shuttle.

Alcoa also has a seat on NASA’s Aerospace Safety Advisory Panel. Rick Williams, Alcoa’s worldwide director of safety, sits on the panel and has assisted NASA in its ongoing review of safety systems and operations.



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