

Alcoa Wheel Products Europe **NEWSLETTER**

September 2006

Alcoa WorkHorse™ wheels now available for all European truck brands



In response to customer and market demand, Alcoa Wheel Products has developed a new wheel for European construction vehicles with disc brakes. More specifically, this new wheel was designed with no ventilation holes to help protect the drive/front axle disc brakes from sand and gravel. Alcoa believes this new design will provide its customers with true added value through the reduction of maintenance costs, increased brake life, and improved performance.

WorkHorse™ wheels provide a 5% increase in maximum load as compared to standard wheels in the same sizes. Due to its new and stronger design, the fatigue life for these new wheels has also been increased. Mounting characteristics for the WorkHorse™ wheel remain the same as those for standard wheels. This wheel is already approved and available on DaimlerChrysler construction vehicles.

The WorkHorse™ wheel can be used as the inner dual wheel on a construction vehicle's drive or tag axle, or single on its front axle. Currently, these wheels are available in the following sizes and fitments:

<u>Available sizes</u>	<u>Part numbers</u>	<u>Ø Mounting holes</u>	<u>Inset</u>
22.5 x 8.25	886580 & 886581	26 mm	
22.5 x 8.25	886570 & 886571	32 mm	
22.5 x 9.00	896580 & 896581	26 mm	
22.5 x 9.00	896570 & 896571	32 mm	
22.5 x 11.75	817580 & 817581	26 mm	120 mm
22.5 x 11.75	817570 & 817571	32 mm	120 mm
22.5 x 11.75	816580 & 816581	26 mm	135 mm
22.5 x 11.75	816570 & 816571	32 mm	135 mm

Part numbers ending on 0 are brushed finish.

Part numbers ending on 1 are mirror polished finish.



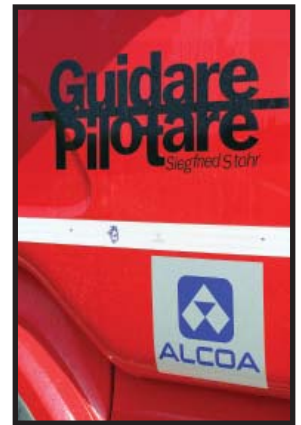
Shows

We will be pleased to welcome you at our stand D21 in Hall 13 at the IAA in Hannover, Germany from September 21 to 28.

Alcoa promotes safe truck driving through GuidarePilotare



Alcoa Wheel Products Europe has been sponsoring GuidarePilotare, an Italian truck driving school, since 2005. The school organizes 10 courses per year and each course is attended by 24 participants. The participants are mainly professional trucks drivers, but also sales force of the Italian Scania dealer network, who is the main sponsor of this school.



We interviewed Siegfried Stohr, who had an exciting career as a race driver (he was Italian champion of Formula 3 in 1978 and drove for Arrows during the Formula 1 championship of 1981), and an even longer career as a teacher of safe driving techniques. In 1982 he founded his "GuidarePilotare" school of safe driving for cars and motorcycles. Since 2005, he organizes driving courses for heavy duty vehicles, in collaboration with Scania.

Siegfried, tell us about the similarities in safe driving between cars and industrial vehicles. To begin with, are there any?

Yes indeed. The person is always the key focus of driving and his mental attitude and tendency to avoid or underrate dangers is fundamental. The laws to which vehicles are subject are the same laws of physics, so it is essential to understand such concepts as speed, mass, inertia and the shifting of the load in a curve. For example, the significant transfer of the load that you have in a car when you swerve to avoid an obstacle (elk test) generates the same problems that you have in a different situation with a tanker on a cloverleaf. Good driving techniques and an understanding of how the mechanics of the vehicle function (whether it is a car or a heavy duty truck), the characteristics of the tires, the principles that help to reduce fuel consumption are all factors that are common to any vehicle.

Obviously the masses, dimensions and structure of the heavy duty truck amplify these aspects in ways that are unknown to the world of cars.

What is the main purpose of the course? Who is it for?

The course is for professional truck drivers. Its goal is to explain the dynamics of such a big vehicle. If certain situations are not experienced directly, people tend to underrate the dangers and, even driving every day, they may forget how easy it is to lose control under certain conditions.

The fact that they can try things on a safe driving track, even at slow speed, enables them to understand the best way to react in an emergency and also to avoid situations that can lead to the danger of loss of grip and other hazards.

Why do your partners, Scania above all, believe and invest in your school of safe driving for industrial vehicles?

Because the safety of heavy duty trucks on the road is one of the fundamental aspects of road safety and has effects that go well beyond the world of transportation alone. Scania and our other partners, are very sensitive to the problems of safety and view our courses as a way to improve road safety.



How are the courses structured?

We have a maximum of 24 participants. We use 4 vehicles, of which 2 with trailers. We do 7 exercises on slippery painted and watered asphalt to cause the vehicle to lose its grip. We also have a truck and trailer with an anti-rollover wheel just for these tests.

How do the drivers react?

They are very enthusiastic when they see that actual practice is the real focus rather than theory. These things have to be learned in practice, the participants should be allowed to find out what it feels like. Sometimes experienced drivers think they have nothing to learn, but at the end of the course they realize that their driving skills have improved. The comment that pleased me the most was: "I've driven trucks for over 20 years, but today I learned something that will be useful for me tomorrow".

Your school uses vehicles with Alcoa forged aluminium wheels. How important is it to have aluminium wheels on a heavy duty truck?

First of all, all Alcoa wheels are made of forged aluminum and the forging technology provides tangible benefits: sturdiness and lightness, perfect roundness of the disc, faster dissipation of heat and driving comfort. These features improve dynamic behavior, particularly braking, and also the steering response, as well as optimizing fuel and tire consumption thanks to the perfect roll and rapid dissipation of heat.

Alcoa wheels on players' buses of World Football Championship

Most of us have enjoyed watching the recent World Football Championship in Germany, which was won by the Italian team after an exciting final against France. For the comfort of the players, the majority of the players' buses were equipped with Alcoa forged aluminium wheels, also the bus of the Italian team.

The reason why Alcoa wheels offer more comfort to the passengers and the driver is because Alcoa wheels are perfectly round and hence the rolling resistance is lower.



Alcoa 2006-2007 After Sales & Accessory catalogue

In September the new Alcoa A&A catalogue will be available. For copies, please contact info.wheels@alcoa.com.

New Alcoa Specification sheet

The new Specification Sheet is ready for distribution.

It includes Dura-Bright® and Dura-Flange®, as well as WorkHorse™ wheel part numbers. If you wish to receive a copy, please send a mail to info.wheels@alcoa.com.

Specification Sheet ALCOA Forged Aluminium Wheels		English															
August 2006																	
Wheel size	Part number	Part number - Material Packaged	Part number - Dura-Bright®	Part number - Dura-Flange®	Weight (kg)	Max load (kg)	Max (mm)	Half load (max) (mm)	Disc thickness (mm)	Mounting holes diameter (mm)	Number of mounting holes (on both sides)	Diameter mounting flange (on both sides)	Diameter wheel nut (mm)	Disc mounting	Hub	Minimum wheel weight	For air brakes
17.5" wheels																	
17.5 x 6.00	-	663202	-	-	12.7	2500	114	133	19	26	10	225	176.1	yes	TR543D	555 & 556	no
17.5 x 6.75	-	663473	-	-	13.4	2500	120	141	21	24	8	275	221.1	yes	TR543C	555 & 556	no
17.5 x 6.75	-	660823	-	-	14.5	2500	120	141	21	26	6	245	202.0	yes	TR543C	555 & 556	no
19.5" wheels																	
19.5 x 7.50	773470	773473	-	773470DF	17.5	3000	134	155	21	24	8	275	221.1	yes	60 MS 27N	551	yes
19.5 x 7.50	773460	773463	-	-	17.5	3000	134	155	21	30	8	275	221.1	yes	60 MS 27N	551	yes
19.5 x 7.50	773450	773453	-	773450DF	17.5	3000	134	155	21	32	8	275	221.1	yes	60 MS 27N	551	yes
19.5 x 8.25	783470	783473	-	783470DF	18.5	3150	146	167	21	24	8	275	221.1	yes	60 MS 27N	551	yes
19.5 x 8.25	783460	783463	-	-	18.5	3150	146	167	21	30	8	275	221.1	yes	60 MS 27N	551	yes
19.5 x 8.25	783450	783453	-	783450DF	18.5	3150	146	167	21	32	8	275	221.1	yes	60 MS 27N	551	yes
22.5" wheels																	
22.5 x 7.50	874520	874523	-	-	24.5	3550	138	160	22	26	10	335	281.2	yes	70 MS 07N	551	yes
22.5 x 7.50	874510	874513	-	-	24.5	3550	138	160	22	32	10	335	281.2	yes	70 MS 07N	551	yes
22.5 x 8.25	886520	886523	886523DB	886520DF	23.6	3650	145	167	22	26	10	335	281.2	yes	70 MS 07N	551	yes
22.5 x 8.25	886510	886513	886513DB	886510DF	23.6	3650	145	167	22	32	10	335	281.2	yes	70 MS 07N	551	yes
22.5 x 9.00	896520	896523	896523DB	896520DF	24.6	4125	153	175	22	26	10	335	281.2	yes	70 MS 07N	551	yes
22.5 x 9.00	896510	896513	896513DB	896510DF	24.6	4125	153	175	22	32	10	335	281.2	yes	70 MS 07N	551	yes
WorkHorse™																	
wheels without vent holes for construction vehicles on disc brakes																	
22.5 x 8.25	886580	886581	-	-	26.3	3835	145	167	22	26	10	335	281.2	yes	TR544Sp	551	yes
22.5 x 8.25	886570	886571	-	-	26.3	3835	145	167	22	32	10	335	281.2	yes	TR544Sp	551	yes
22.5 x 9.00	896580	896581	-	-	26.8	4335	153	175	22	26	10	335	281.2	yes	TR544Sp	551	yes
22.5 x 9.00	896570	896571	-	-	26.8	4335	153	175	22	32	10	335	281.2	yes	TR544Sp	551	yes
22.5 x 11.75	817580	817581	-	-	25.7	4725	120	-	26	26	10	335	281.2	no	TR542	551	yes
22.5 x 11.75	817570	817571	-	-	25.7	4725	120	-	26	32	10	335	281.2	no	TR542	551	yes
22.5 x 11.75	816580	816581	-	-	27.3	4725	135	-	28	26	10	335	281.2	no	TR542	551	yes
22.5 x 11.75	816570	816571	-	-	27.3	4725	135	-	28	32	10	335	281.2	no	TR542	551	yes

BEFORE MOUNTING ALCOA WHEELS, CONSULT THE ALCOA TECHNICAL DATA BROCHURE.
 Dura-Bright® is a patented surface treatment which penetrates the aluminium, allowing easy cleaning with soap and water.
 Dura-Flange® is a patented treatment on the wheel rim that provides a protective shield to prevent rim horn wear.
 For technical information on part numbers that are not mentioned in the list, contact Alcoa. Errors and omissions excluded.

Mounting holes diameter 24 mm: for studs M20 x 1.5 & M22 x 1.5 with standard nuts
 Mounting holes diameter 30 mm: for studs M20 x 1.5 with sleeved caps nuts
 Mounting holes diameter 26 mm: for studs M22 x 1.5 with standard nuts
 Mounting holes diameter 32 mm: for studs M22 x 1.5 with sleeved caps nuts

AdBlue & Alcoa forged aluminium wheels

At present the transition from Euro III to Euro IV is happening and shortly Euro V will be available. Lately the trade journals have published a lot of articles on the differences between Euro IV en V and the different solutions, namely SCR and EGR.

What is the relationship with Alcoa forged aluminium wheels?

SCR (Selective Catalic Reduction)

The addition of AdBlue means an extra tank for the AdBlue fluid and technical changes to the motor. This results in a weight increase of the vehicle with approximately 150 kg, but leads to a decrease of fuel consumption that can be up to 4-6%.

What if Alcoa aluminium wheels are mounted?

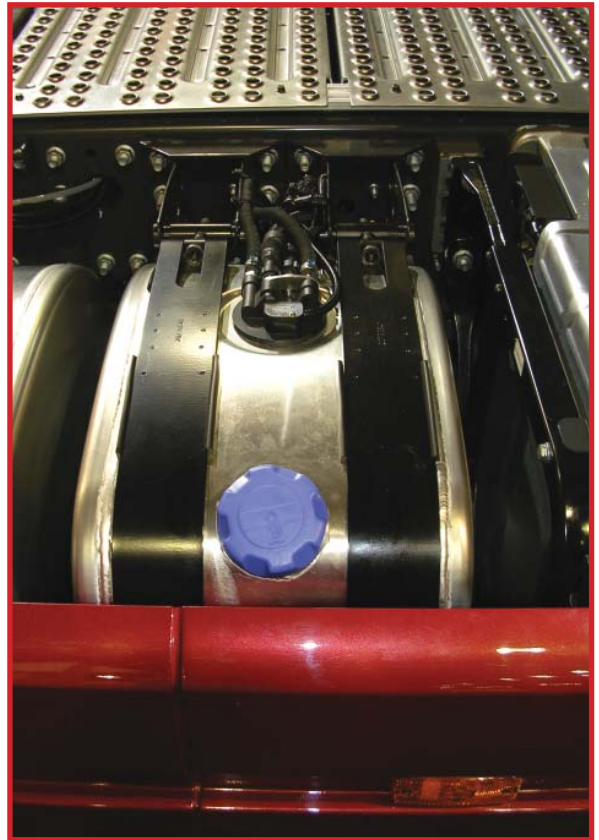
- The weight increase of the vehicle is practically entirely compensated, as an Alcoa forged aluminium wheel is up to 25 kg lighter than a steel wheel.
- The fuel consumption further decreases by the use of Alcoa wheels, thanks to their perfect roundness and hence the lower rolling resistance.

EGR (Exhaust Gas Recirculation)

No AdBlue is needed and there is no significant weight increase of the vehicle.

What if Alcoa aluminium wheels are mounted?

- The weight of the vehicle decreases with up to 150 kg, depending of the number of wheels and the wheel size.
- Decrease of fuel consumption of approximately 2,5%.



Alcoa cleaning products and Dura-Bright® wheels

Now that more and more Dura-Bright® wheels are being sold, Alcoa would like to inform the fleets and owner operators who have vehicles on Dura-Bright® wheels, **not to use the Alcoa cleaning products ALclean and ALpolish**. This is also mentioned in the Alcoa Dura-Bright® brochure and on the website page http://www.alcoa.com/alcoawheels/europe/en/dura_maintenance.asp. Furthermore, the ALclean and ALpolish products now carry a label "Not for Alcoa Dura-Bright®". Alcoa Dura-Bright® wheels do not need polishing. Washing with soap and water is sufficient to keep them shining, even after thousands of miles.

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