Forged aluminum wheels present lifetime advantages over steel wheels. Although steel wheels are less expensive at the time of purchase, they become more high maintenance over time.

Spec'ing lighter weight forged aluminum wheels is a simple solution to increasing the overall fuel efficiency and oftentimes more importantly, improving the freight carrying capacity, of a vehicle. Refuse collection and other similar heavy haul applications demand a tough wheel. Also, as gas and diesel prices remain high and freight efficiency becomes more critical, the urgency for refuse equipment to find solutions that contribute to fuel economy, reduce maintenance costs and increase productivity, becomes greater than ever. Not only lighter in weight than steel, but forged aluminum wheels are also stronger and more durable to increase freight capacity and improve maintenance savings for improved productivity and, ultimately, lower lifetime operating costs.

Sustainability
There are many sustainability benefits when spec’ing lighter weight forged aluminum wheels including supporting The SmartWay Transport Partnership, which helps companies improve fuel efficiency, increase environmental performance and increase supply chain sustainability. The EPA has determined that certain wide base tire models can reduce NOx emissions and fuel use by 3 percent or more, relative to the best selling new tires on long haul Class 8 trucks. Low rolling resistance tires can be used with lower-weight aluminum wheels to further improve fuel savings.

More importantly, these environmental benefits are also cost effective. Since you can’t have a tire without a wheel, pairing any SmartWay certified tire with a lightweight forged aluminum wheel achieves maximum benefits.

Fuel Efficiency and Weight Savings
Refuse equipment managers should consider overall lifetime operating costs when spec’ing wheels on new equipment since forged aluminum wheels can improve quick and continuous “payback” in fuel savings or freight productivity combined with maintenance savings. For added fuel savings to refuse equipment, wheel manufacturers offer innovative technology, which assists in increased weight loss. For example, forged aluminum wheels significantly reduce wheel weight versus a comparable steel. It’s no secret that the lighter the truck, the more cargo it can legally carry. Converting 18 22.5" wheels from steel to forged aluminum wheels can save more than 600 pounds. The upgrade takes advantage of this significant weight reduction to further improve fuel efficiency. Forged aluminum wheels’ strength, durability and low weight deliver environmental advantages to complement their financial benefits. With larger payloads due to the weight savings, trips are reduced, and, since forged aluminum wheels are infinitely recyclable, they’ll never see a landfill.

Enhanced Image
Aluminum wheels do not require the continuous refurbishing for which steel wheels do such as removing rust, re-painting, touch up or other labor intensive steps. In addition, aluminum wheels are not painted like steel wheels, ultimately eliminating the need for spray paint and touch up. In harsh environments, equipment managers are required to dismount tires, paint or touch up and remount tires every year in order to avoid that common rusty appearance found on so
Refuse equipment managers should consider spec'ing aluminum wheels for added lifetime benefits.

many steel wheels. Therefore, additional maintenance can result in higher overall lifetime costs and aluminum wheels can improve the appearance of the truck or fleet over a rusty or paint chipped steel wheel.

By their very nature, wheels spend their entire lives in a hostile environment. Several forged aluminum wheel manufacturers also offer additional options for further lowering operating and maintenance costs. Aluminum wheels clean easily with mild soap and water for an everlasting wheel shine. Proprietary surface treatments from wheel suppliers can be integral to the production process of the forged aluminum wheel so it’s durable from the start and built to last when properly maintained. A comprehensive production process ensures that wheels will not crack, chip or corrode. And since specially treated aluminum wheels don’t need to be polished, they work hard to lower maintenance costs since due to a quick shine up with a simple scrub that keeps the vehicle looking newer for a longer period of time. Combining the advantages of lightweight forged aluminum wheels with these easy to clean benefits helps to lower lifetime operating costs and provide value to equipment managers.

Maintenance Advantages

Maintenance is also a hot topic among equipment managers, especially as it relates to curbing damage. Forged aluminum wheels offer the strength refuse equipment can rely on, both improving maintenance and furthering the life of the equipment. Additional surface treatments offer maintenance advantages, such as those treated to reduce or eliminate rim flange wear, common among refuse equipment. Some types of aluminum wheels feature a specially treated rim flange that reduces wear and extends wheel service life for heavy haul and shifting load applications. This design feature makes these protected wheels most appropriate for applications where loads are heavy and prone to shifting, causing tire walls to rub against the wheel rims. When considering wheel choices, value should always be the goal. Forged aluminum wheels present lifetime advantages over steel wheels. Although steel wheels are less expensive at the time of purchase, they become more high maintenance over time. Decisions come down to short-term versus long-term planning and navigating the available choices to ensure value over the life of the equipment for the fleet or owner operator.

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