TIMKEN



Timken® 454-Series™ wheel bearing improves load-carrying capacity, elevates safety

Challenge

An industrial gas company with a fleet of 1,200 trucks experienced several dangerous wheel-off situations and roadside events. One primary cause? Higher forces generated by wide single wheel design. Like many in the industry, the company elected to use wide single tires with the goal of saving fuel. The wide single wheel design increased bearing reaction force and reduced durability, leading to early and unexpected damage to the bearing, wheel and vehicle. A single event could result in vehicle damage and significant downtime. The company could not tolerate further risks to safety or rising fleet operating costs. They needed a premium product designed to manage heavy loads that would improve durability and help mitigate early damage – and they needed a solution quickly.

Timken Solution

Timken engineers recommended replacing the existing bearings with Timken® 454-Series™ wheel bearings. They're designed with precision profiles that reduce stress on bearing components by distributing loads evenly across contact surfaces – increasing load-carrying capacity. Manufactured with super-clean alloy steel, these long-lasting bearings help meet severe-duty application requirements.

Results That Matter

On an accelerated timeline, the company equipped its entire fleet with Timken® 454-Series™ wheel bearings, replacing them at normal brake maintenance service schedules. Wheel bearing performance was tracked and improved substantially. After ten years of operation, the customer reported zero incidents and continues to trust Timken to supply 454-Series™ wheel bearings to its fleet.



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