

4.86 tons! The four major upgrades behind the lightest weight of the 13 meter warehouse grille semi-trailer

On July 20th, the China Commercial Vehicle Performance Extreme Challenge Organizing Committee announced on site that Shouda Motors' 13 meter grille semi-trailer successfully challenged itself in the "13 meter grille semi-trailer self weight extreme challenge" project!



On site, the China Commercial Vehicle Performance Extreme Challenge Organizing Committee awarded the "China Commercial Vehicle Performance Extreme Challenge Certificate" to Shouda Automobile Chairman Gao Feng. This means that the **performance of Shouda Automobile is currently the best design category in the CCVC database, with a 13 meter warehouse grille semi-trailer and the lightest weight! The "Ultra Light Coal King" 13 meter warehouse grille semi-trailer** of Shouda Automobile, which participated in this competition, instantly attracted everyone's attention. **01 Lightness does not mean sacrificing safety and durability.**

This time, the challenge project that Shouda Automobile participated in was the "13 meter Warehouse Fence Semi trailer Weight Limit Challenge", and the selected product is one of the commonly used truck models for truck enthusiasts - the 13 meter Warehouse Fence Semi trailer. **In the 13 meter warehouse semi-trailer market, the industry's common self weight range is about 5.8 to 6.2 tons.** After strict review by the China Commercial Vehicle Performance Extreme Challenge Organizing Committee, **Shouda Motors' 13 meter grille semi-trailer**

ultimately achieved a challenging result of 4.86 tons.



In today's era of low freight rates and high costs, choosing a lightweight semi-trailer has become the trend. A lightweight body means that each trip can carry more goods, thereby increasing revenue. For every ton of weight reduction in the vehicle, cardholders can carry an extra ton of goods. However, some people also question whether lightweighting means sacrificing the safety and durability of



vehicles?

Shouda Motors has proven to its cardholders through practical actions that the "Ultra Light Coal King" not only achieves lightweighting, but also balances excellent safety and durability!



In the past month, the "Ultra Light Coal King" has simulated the actual working scenario of coal transportation under the condition of a total load of 40 tons, crossing typical road conditions such as highways and national highways, and experiencing various extreme performance road surfaces such as neat stone roads, Belgian stone roads, washboard roads, twisted roads, pebble roads, fish scale pit roads, and gravel roads, including 900 kilometers of reinforced roads, 900 kilometers of highways, and 1200 kilometers of national highways. In the end, the "Ultra Light Coal King" successfully passed the road test to verify the reliability of the vehicle! We have launched the China Commercial Vehicle Performance Extreme Challenge, using a challenge method drafted by standard experts. Under on-site testing by a national authoritative third-party laboratory for automotive products, we have comprehensively verified the safety and reliability of the Shouda 'Ultra Light Pulling Coal King' for a long time. So, where is the "bull" of Shouda Automobile, which has teamed up with well-known research institutions and top suppliers in China to create the "Ultra Light Coal King" after two years of technological breakthroughs? It is



reported that compared to the third generation product launched by Shouda Automobile in 2021, its fourth generation "Ultra Light Coal King" is specifically designed for coal transportation, and has undergone comprehensive upgrades to the four core components of the main beam, bottom plate, suspension, and axle: a Beam upgrade: The beam material has been strengthened from 700MPa to 1100MPa, significantly improving the yield strength.

b. **Bottom plate upgrade:** The bottom plate material has also been upgraded from 700MPa to 980MPa, greatly enhancing its ability to withstand alternating loads.



c. **Suspension upgrade:** The guide arm screws have been thickened from 28mm to 32mm, and the eccentric wheelbase structure has been optimized to effectively prevent axle displacement.

d. **Axle upgrade:** The 150 # square axle dedicated to coal pulling has been upgraded to a 146 reinforced lightweight circular axle, with a wall thickness increased to 12mm, significantly improving its anti bounce performance and durability. In addition, the **vehicle is the first to adopt the third-generation TG lightweight steel with high strength and high plasticity**, which has a strength plasticity ratio more than twice that of traditional high-strength steel, significantly reducing the weight of the vehicle. The challenge of 4.86 tons achieved a significant weight reduction compared to the weight of commonly used car models in the industry. In terms of detailed design, Shouda Automobile exclusively adopts a **suspension rib bracket structure** for the "Ultra Light Pulling Coal King", effectively preventing tire deviation. Considering the coal positioning of this car, Shouda Automobile has also specially **treated the bottom plate to resist corrosion**, demonstrating its meticulous design concept! **The more difficult the time, the more responsibility it shows.**

In the current logistics industry, there is overcapacity, severe internal competition, and continuous low freight rates, making it difficult for cardholders to survive. At the same time, with the increasing trend of trucks shifting from oil to gas and oil to electricity, the weight of the front of the truck has generally increased, and the goods transported on a single trip are greatly discounted. Therefore, the difficulty for cardholders to make money is growing day by

day. How to obtain higher profits within limited carrying capacity has become a new challenge.



At the press conference, Gao Feng said, "Shouda Motors hopes to bring a more profitable product to cardholders through this 'ultra light coal king'. After in-depth market research and technological breakthroughs, Shouda Motors has launched this 'ultra light coal king'. It is not just a new product, but also a commitment and response from Shouda Automobile to its cardholders. I hope that through the innovative design of this product, we can help cardholders overcome their current difficulties, maximize profits, and gain more advantages and initiative in future market competition.



Shouda Automobile stated that they will continue to explore and practice in the future, bringing more innovation and change to cardholders and the logistics industry. **The more difficult the times are, the more it can demonstrate the responsibility and dedication of a company.** Shouda Automobile is adding bricks and tiles to the happy life of cardholders with practical actions!