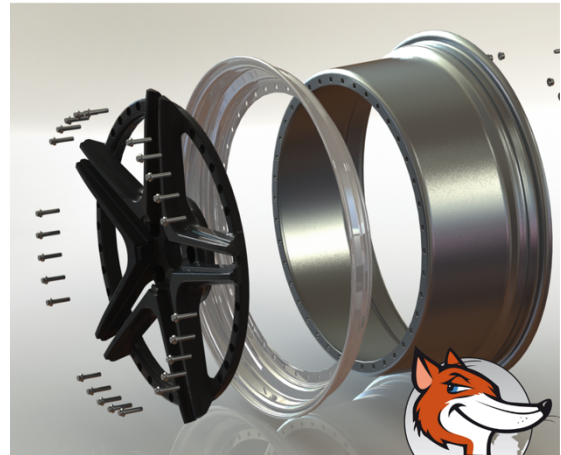


The Pitfalls of the M7 Screw

Three-piece wheels are becoming increasingly rare and are now considered exotic. Only a few manufacturers still produce such wheels, resulting in limited exposure for tire retailers. This has led to a loss of knowledge and experience in handling these products. There is a growing demand for wheel refurbishment, where wheels are disassembled and rebuilt.

Tips and Tricks

for modular wheels



The M7 thread of a wheel screw does not correspond to any DIN standard and is therefore not commercially available. Although specially made for the application of composite wheels, screw breakage still occurs from time to time. Could there be a serious defect in the screw? M7 screws are manufactured in batches of 50,000 pieces, and nuts are produced in even larger quantities. It would be an incredible coincidence if the 20 defective screws were used in just one wheel set from such a batch.

Based on my experience, I would like to draw attention to two noticeable causes of broken wheel screws:

- One cause is that the screw is subjected to excessive shear stress when the three components of the wheel are not aligned. To avoid this, each screw should be able to fall loosely through all three wheel components during installation, and the wheel may need to be drilled to a diameter of 7.7 mm if necessary.
- Another cause is when the nut or screw head is placed on a thick layer of paint, causing one-sided pressure and negatively affecting the screw connection. After a short distance of driving, the nut or screw works its way into the material, causing the connection to loosen and break.

The final assembly of modular wheels, whether three-piece or two-piece, is critical. If a screw breaks, a flat tire is not far behind... Fortunately, the air usually escapes slowly, and major damage is avoided. Take a day and pay attention to the details when installing your composite wheels.