

Mobile laser device for technical rescue operations



Auf einen Blick

- Mobile laser device for rescue in complex accident Scenarios
- Quickly cutting vehicle parts to release passengers in a timely and safe manner
- Laser cutting of multi-layer Composites
- Comprehensive safety concept protects persons at the accident site from laser Radiation
- Practical application in sight: testing in realistic scenarios is underway

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LZH |Modern materials give passenger cabins a high safety standard. The only drawback: With conventional life-saving equipment, car body parts often cannot be cut quickly enough in case of an emergency. The solution: an innovative mobile laser device for complex accident scenarios.

Fewer deaths and less seriously injured persons: traffic statistics see a positive development that is, among others, due to modern materials that give passenger cells a high standard of safety.

However, materials with strengths >1,000 MPa more and more often challenge the rescue teams. Conventional equipment, such as hydraulic rescue shears, sometimes cannot cut the car body parts at all or not quickly enough. Therefore, new laser-based rescue systems are needed that can cut even millimeter-thick high-strength steels and carbon fiber composite materials at a comparatively high process speed.

The main target groups are fire brigades and the Technisches Hilfswerk (THW). Rescue teams are currently testing the laser system under realistic conditions. The results will be used to further develop the laser processing head. After the completion of the joint research project of the LZH and their partners, the mobile laser rescue system shall be available to rescue teams for real-life operations.

by Dr. Michael Hustedt, Christian Hennigs, Alexander Brodeßer, Silke Kramprich

E-Mail: m.hustedt@lzh.de
Tel.: +49 (0)511 2788 321

Webseite: www.lzh.de/de/laserrettung