

# Hydraulic rescue – Reaching new depths

With our latest innovation, first responders now have the ability to literally plunge new depths of possibility with hydraulic rescue tools that can operate whilst completely submerged. LUKAS EWXT (eDraulic Watertight Extrication Tool) mean it is now safe to go back into the water, but is this a necessary development in tool technology or simply a feature that will likely never be utilized?



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Ian spent 19 years in the UK Fire and Rescue Service, specialising in technical rescue and trauma care before becoming a technical and medical rescue consultant. He has previously been an assessor for The World Rescue Organisation, delivered training and consultancy in over 100 countries worldwide and authored a best-selling book. Ian has been instrumental in the development of several innovative rescue tools which are used by first responders globally. He is part of the TOCA Safety Team, covering all rounds of the British Touring Car Championship and has worked with the FIA on the introduction of the 'Halo' into Formula 1.

**N**ot being prepared for such incidents means that front line responders are operationally compromised and may be unable to carry out a fairly simple intervention due to lack of equipment at a time where public expectations are great.

The issue of using hydraulic rescue tools in or near water became a relevant topic in 2010 with our introduction of battery operated, self-contained hydraulic rescue tools; eDraulic. Organizations continue to make alternative provision if they think such incidents are foreseeable and routinely use both hoses systems and self-contained battery tools with the latter becoming more popular with every purchasing cycle. For many years hoses systems have been used extensively all over the world for rescue and recovery operations underwater.

▼ The S 788 eWXT is a cutter that allows you to operate submerged in fresh water.



Since 2010, the adoption of battery-operated tools has grown steadily all over the world with most markets now showing a preference for this type of product, with hoses systems now being seen as redundant technology. With this in mind, should the need to use hydraulic tools during incidents where vehicles have entered water be a genuine consideration or is this something we should simply ignore?

Of course, there must be a common-sense approach here and the principal consideration should be the risk profile of the geographical area concerned. I am fairly sure there are regions around the world where the proximity of water to the road network is very limited and the chance of a vehicle ending up in a river, stream or lake is virtually zero. Conversely, there are many countries where roads and water courses coexist; I can testify to this having been a resident in the Netherlands for seven years. That said, remember that the risk profile can change due to weather conditions and research seems to suggest

that climatic events once described as 'freak' are now becoming far more common across the globe. For this reason, we must never be complacent and simply limit ourselves to our knowledge of the existing water courses in our response area and figure in the power of mother nature and how she can change the landscape very quickly. Many rescue organizations around the world have established a flood rescue capability and have trained their crews accordingly. Additionally, they have purchased risk critical equipment which allows personnel to work safely and effectively in or near water, but this has rarely, if ever, extended to hydraulic rescue tools. Since the introduction of battery-operated options, they have never had a choice due to their design.

## The Solution

Now there is a genuine choice with LUKAS EWXT – submergible tools. The innovative design is an industry first meaning that our self-contained battery rescue tools now provide every conceivable option for first responders including the ability to work indoors, underground and in oxygen deficient atmospheres. EDraulic revolutionized the rescue scene in 2010 by making it possible to get to work more quickly, operate more safely (without hoses), reducing the space required on your truck and also saving weight. Where eDraulic has always provided maximum freedom, EWXT provides ultimate freedom thanks to its innovative design and allows battery driven rescue tools to achieve new depths that have not previously been possible. The ability to deliver tools that can be operated underwater has long been seen as the holy grail in the industry and now rescue organizations have a genuine choice; eDraulic or EWXT. The need to cool the battery technology meant that the ingress of water was counterintuitive. With EWXT we actively encourage water into the tool as our unique design assists with cooling.

EWXT now means that there really is no compromise and emergency responders can be safe in the knowledge that the tools in their hands will work in any environment where they may be called upon to save life. EWXT battery technology has been specially developed for LUKAS submergible to deliver exactly the performance you need, so you can always rescue with full power.



## Conclusion

It is easy to predict the many kinds of incidents emergency responders will attend. We have decades of history upon which we can look back and therefore make a reasonable assumption about what we will face in the future. Based on this principle, we have established training regimes and a fixed methodology of how we generally choose our equipment requirements. What is foreseeable is open to debate and will always attract much discussion regarding likelihood and consequence. However, the need for emergency intervention where a vehicle has entered water is a very real issue and something that occurs around the world on a very regular basis. Cars entering water following road traffic collisions or as a result of freak weather will not require the use of hydraulic rescue tools in every case, but the failure to be able to do so when needed will undoubtedly delay the rescue operation and may not result in timely resolution of an operational incident; a challenging experience for any rescue professional.

Just like rescue organizations prepare themselves for other water-based

▲ The SP 555 eDRAULIC Watertight Extrication Tool with 9 Ah Battery.

interventions by procuring a wide range of equipment, the proportion of incidents involving vehicles in water mean this approach should be extended when considering hydraulic rescue equipment. For more than a decade, battery operated hydraulic tools have become the number one choice of rescue professionals. Now, we have the choice to obtain a solution that genuinely provides ultimate freedom. Submergible rescue tools are an operational necessity and the number of incidents of this type will testify to this. It therefore follows that if your choice of hydraulic tools is to opt for a battery-operated solution, they must be usable under water; LUKAS eDraulic Watertight Extrication Tools (EXWT) provide this operational capability. Anything else means that you could be operationally challenged; a difficult position for any individual, organization or victim.

▶ For more information, go to [www.iandunbartrainingandconsultancy.com](http://www.iandunbartrainingandconsultancy.com)