

Emergency shoring

Brendon Morris updates us on the PowerShore system from Holmatro, a new system which allows for quick and easy shoring in many different rescue environments



CONSISTING OF MANY lightweight, universally compatible components; the PowerShore system has been designed to be assembled in a minimum amount of time, allowing for the creation of rapid safe areas for rescuers to work in. Using the PowerShore system, we will now have a closer look at some of the different shoring disciplines that are commonly encountered.

Extrication

Shoring is very important in vehicle extrication. In the case of a collision, vehicles often come to rest in unusual positions. With the understanding that movement of the vehicle during rescue efforts may lead to further injury of those trapped inside, it becomes very important to be able to stabilise a vehicle rapidly in the position it is found in, so that extrication rescue efforts can begin on the vehicle.

It is important that we first develop a clear understanding of the difference between securing a vehicle and stabilising a vehicle. Let us, for instance, take the example of a car on its side. If we simply tied this vehicle off to something with rope this may secure the vehicle (in that it would not fall over) but it would not be stable. To truly stabilise the vehicle we have to create ground-up stabilisation, ensuring that the vehicle will not move owing to any extrication efforts. Stabilising with hydraulic struts provides greater flexibility and numerous application possibilities, for they can be used for shoring as well as heavy lifting.

Specialised discipline

Urban Search and Rescue (USAR) is the specialised rescue discipline of location and extrication of victims trapped in collapsed structures. A significant portion of USAR work is the process of emergency shoring. The main aim of any emergency shoring is to rapidly create a safe area for emergency operations. Bearing in mind that operations may already be on the go when the emergency team arrives, the two main goals of emergency shoring are: to protect a route in and out for rescuers and trapped patients; and to create safe working areas around emergency operations which, if necessary, can be replaced by secondary shoring later.

It is important that we understand why and where emergency shoring is required on the rescue scene. Shoring by industrial standards is defined as: "The temporary support of structures during construction, demolition and so on in order to provide stability that will protect property as well as workers and the public." Emergency rescue type shoring on the other hand is only a temporary support of those parts of the structure required to perform search and rescue operations at a reduced risk to patients and rescuers. Emergency shoring is generally built using systems that allow it to be assembled efficiently, considering the needs of those to be rescued.

Just because this is emergency shoring, it does not mean it can be assembled in an inferior or unsafe manner. All emergency shoring should be built using the same engineering principles as more extensive secondary shoring. The only difference is that emergency shoring should be able to be assembled much more efficiently than other shoring systems, considering the needs of those to be rescued.

Trench rescue

Trench rescue is another example of where good shoring is essential. Around the world trenches are dug for various reasons such as laying pipes and cables or for creating foundations. The occurrence of trench collapse varies significantly from country to country. The main cause, however, is almost always inadequate shoring by those digging the trench. In order to be able to work in a trench safely to extricate the injured or entrapped persons it is necessary for the rescue services to be able to create a rapid safe area around the patient.

While it may not happen very often in some areas of the world, having a basic working knowledge of trench rescue is essential. If rescuers are not aware of the risks and how to work safely in and around a trench incident, this can easily lead to injury or even the death of rescuers. It is essential that rescuers do not move into a trench that is not properly shored. Moving into an unsafe trench will only put the rescuers at risk of becoming injured, entrapped or worse in the very likely event of a secondary collapse. **CRJ**

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Shoring can provide initial stabilisation where fully braced systems are to be constructed later



In a trench rescue, rescuers must create a safe working area around the victim from where rescue and emergency medical care can be performed

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