

Storage and Usage of SCBA's in Crew Compartments

Statistics show that a large percentage of fire fighter deaths each year are due to vehicle accidents while in route to the fire scene. Commonly, deaths result from fire fighters being ejected from the vehicle in a rollover. As a result of this, NFPA and other organizations have strongly recommended the use of seat belts in fire service apparatus. The result has been a reduction in injuries and deaths.

NFPA has determined that in keeping fire fighters safe inside of the vehicle, it is important also to make sure that there are no dangerous objects that may become projectiles in the event of an accident. Many tools and heavy hard objects have been completely removed from the crew compartment for this reason.

SCBA's have been stored in the recessed back of occupant seats. This keeps the SCBA readily accessible where it can be donned quickly. This is important for the safety of the fire fighter and victims that the fire fighter could be trying to help.

These two issues have made the mounting of breathing apparatus in crew compartments a careful balance between having the SCBA well secured and readily accessible. In past years, NFPA has recommended that a collision restraint strap be used to secure the SCBA in the seat. Most fire departments have followed this recommendation of installing the strap to restrain the SCBA. However, it has been found that many fire fighters are simply not using the strap. NFPA now recommends that a bracket be used that will not permit the SCBA to be left unsecured and the strap must be used to restrain the SCBA. This has greatly increased the use of the restraining strap.

In using the restraining strap, many fire fighters have found that it is more difficult to don the SCBA than if the SCBA were not secured prior to donning. Ziamatic provides mechanical brackets that make the donning of SCBA's easier. These mechanical brackets are more expensive than brackets that have the strap and there are currently some SCBA's that can not be held in this manner. Ziamatic is presently designing new mechanical brackets that should be able to retain newer SCBA's that have a smaller gripping area.

Ziamatic recommends the following procedure for securing and donning SCBA's in non-mechanical brackets:

Place the SCBA in the cradle and secure it with the collision restraint strap. Be sure that the adjustment strap is snug. When responding to a fire, seated personnel should slide into the SCBA but keep the SCBA's straps loose and put their safety belts on. When the safety belt is removed, pull the collision restraint release and move slightly forward. The strap buckle should slide between the fire fighter's back and the SCBA. Depending on the SCBA and seating configuration, the strap may not slide out from the SCBA. In this case, the fire fighter may have to reach back and pull it out. Once the strap has been removed, the straps to the SCBA should be tightened. The fire fighter should now stand up and fully tighten the shoulder straps and waist belt.

