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SUBJECT

Cordless Circular Saws

INTRODUCTION

During the 2004 Australasian Road Rescue Challenge in Melbourne a cordless circular saw with metal cutting blade was tested in the workshop pit.

Not all brands of battery operated circular saws were evaluated, only the concept of using this type of tool in motor vehicle extrication.

OBSERVATIONS

Following the challenge the Workshop Coordinators made the following observations:

- The saw was used to cut roof flaps, car pillars and windscreens. It was successful at all these tasks on the new vehicles provided to the workshop pit.
- Use of hearing protection for everyone in the vicinity, including medics and casualties, is essential as the saw produces a very loud, very high-pitched noise whilst cutting metal.
- The manufacturer's specifications stipulate that forcing the saw can cause the blade to stall. Workshop participants agreed with this observation and found that the best way to avoid the saw jamming was not to force the cut, but allow the tool to operate at its own speed of progression.
- As with all circular saws, it is designed to cut in a straight line through metal, which created some challenges for users in the workshop. Operators should note the strong potential for kick back, especially when the battery is fully charged. The manufacturer recommends that the cutting job be well secured to avoid vibration.
- The saw produced minimal sparks therefore normal casualty protection is adequate. The saw should not be used in a potentially explosive atmosphere.
- Only one battery was used during the course of the workshop. With heavy use, a second battery would be essential.
- The circular saw cut laminated glass easily, although four separate cuts were required to remove a windscreen (given no turns can be completed with the saw in operation). This is much slower than cutting a windscreen out with a reciprocating or handsaw. As with other saws, this one produced very fine dust particles and appropriate protective measures should be undertaken.

- Only one blade was used throughout the whole challenge by 20 teams, therefore blade life is considered good.

RECOMMENDATION

That before selecting this tool for a road rescue extrication application, consideration be given to the fact that while there are some limited applications of this tool. Generally most extrication related tasks can be completed with other tools.

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