UKRO Advancing Professional Rescue - Lesson Guide

SUBJECT	Extrication – Space Creation – Tailgate – Removal

Aim	Essential understanding	Resources
To remove the Tailgate of a vehicle.	• Application of technique • Tools required and safe operation • Influence the vehicle has on the method • Tool positioning and the sequence of actions	• Scrap vehicle • Casualty (dummy) • Equipment: Stabilisation equipment, Hydraulic Cutter, Combination tool or Spreader, Hand tools, Socket set, Glass management kit, prybar

Instructor Input

Theory	Information Gathering	Concept	Demonstration
Where can the techniques be applied and what influences the outcome?	How does the vehicle structure impact on the removal of the hatchback?	What are the rescue tool requirements/consideration?	Describe/demonstrate the sequence of tool operations and actions
Application	**Vehicle Knowledge**	**Tool Selection**	**Technique**

• To provide additional access to the rear of the vehicle or to reduce the weight when removing the roof
• Difference between a Hatchback and Tailgate
• Tailgate configurations
• Methods of release. Key, button, lever or remote
• Offers options for full and emergency plans
• May be required to create an extrication pathway
• Generally achievable on a vehicle on its wheels, side or roof
• Will support the process of creating maximum space
• Beneficial for all emergency service responders
• The opening of shut-lines – the impact of light clusters and plastic component
• Latch or hinge side – Benefits and disadvantage
	• Vehicle Impact Kinematics
	• Try before you pry – check the handles, unlock, use the key. If easily accessible, gain access to the latch mechanism and release (internally or externally)
	• Tailgate configuration – Split unit or single unit, hinged location (top, bottom, left or right)
	• Location of the latch mechanism
	• Impact of surrounding components – Plastic bumpers, light clusters
	• Size and weight of the tailgate – manual handling
	• Does the glass need to be managed?
	• Vehicle safety devices – location/type
		Rescue tools:
		• Dedicated cutter
		• Combination tool or spreader
		• Glass management kit
		• Stabilisation equipment
		• Socket set
		• Prybar
		
		Tool consideration:
		• Position/type of operation
		• The angle of the tools
		• Opening of shut-lines
		• Relative structural strengths – Impact of plastics
		• Avoidance of hazards and obstruction
		• Hydraulic struts – Removal of knuckle joint connector, cutting damper inserts (the chrome part)
			• Vehicle preparation - Glass, Stability, Shut-lines
			• Try before you pry
			• Consider the best approach based on accident damage and the needs of the casualty
			• Separation, split units only
			  ○ Open the shut line between the two components, close to the latch
			  ○ Spread apart - Combination tool or spreader
			  ○ Gain access and separate hinges if required
			• Latch or hinge side - Consider access options
			• Latch side
			  ○ Point of tool access, Combination tool or spreader
			  ○ Open shut line and inset tool
			  ○ Observe metal – try to prevent failure
			  ○ Work the tool – Open, close, relocate to move toward the latch

• The structural strength of the posts. Weak points – Door skin and roof header rails • The direction of forces applied • Impact of the door frame • Impact of hydraulic struts • Safety – PPE/Casualty protection • Maintaining a safe working area • Use of equipment and debris dump • Time considerations • Effect on the casualty – Noise, time, exposure to the environment			○ Once in close proximity to the latch, open the tool until latch failure. Relocate if metal fails ○ On failure open the tailgate fully ○ Cut the looms that supply the ancillary devices ○ Remove struts (If applicable) ○ Support the weight of the tailgate and remove hinges; Cut, spread or unbolt • Hinge side ○ Spread hinges ○ Cut the looms ○ Allow struts to force open the hatch (if applicable) ○ Disconnect/remove struts (If applicable) ○ Pull the tailgate away from the vehicle ○ From the inside release the latch: Manual, cut or spread • Ensure casualty protection • Protect sharp edges
Delegate understanding			
• Application and sequence of actions • Key considerations – including Split tailgates and hydraulic struts • Points of safety • Impact on the casualty • Equipment requirements	• Be able to analyse vehicle structural factors and respond accordingly • Plan location of tool operation and purchase points • Identify safety devices and mitigate the risk	• Formulate a sequence of tool operation • Apply effective, safe use of tools • Recognise limitations • Demonstrate a successful outcome	• Appropriate vehicle preparation • Identify and select appropriate tools • Demonstrate the safe and correct use of tools • Recognise the limitation of tools • The proper sequence of tool operation • Successful completion of the technique