

## LESSON PLAN: UKRO 2018 – PSV Lifting

<b>Topic of lesson (link to syllabus/specification):</b>  Incidents involving buses and coaches - in particular persons under.	<b>Materials and equipment required:</b>  Suitable bus or coach, lifting equipment, stabilisation equipment and training dummy.
<b>Lesson Aims</b> (lecturer's intention):  To provide input on the safe approach, stabilisation and lifting of buses and coaches involved in road traffic incidents.	<b>Learning outcomes</b> (what students should learn):  Understanding of large vehicle brake and suspension systems, safe lifting techniques and skills to select correct equipment.
<b>Strategies for differentiation and equal opportunities:</b>  A mix of learning styles including technical input and practical application and instructor demonstration.	<b>Assessment methods</b> (how the learning outcome will be assessed):  This workshop is non assessable.

### Lesson Outline

Duration	Subject matter/content	Teacher Activity	Learner Activity	Resources/notes differentiation
	<b>Safe approach to heavy vehicle incidents.</b> <ul style="list-style-type: none"> <li>Understanding brake systems and suspension.</li> <li>Air brake management</li> <li>Safety cells/stabilisation</li> </ul>	Technical input	Guided practical application	<ul style="list-style-type: none"> <li>Wheel chocks</li> <li>stabilisation equipment</li> </ul>
	<b>Considerations when dealing with persons trapped under a bus or coach.</b> <ul style="list-style-type: none"> <li>Understand the hazards of air suspension and discuss methods of mitigating that hazard</li> <li>Discuss the issues around casualty access in a restricted space</li> <li>Understand the different types of bus and coach construction and the relevance to rescue crews</li> </ul>	Technical input and demonstration	Guided practical application	<ul style="list-style-type: none"> <li>Blocks chocks</li> <li>Stability struts</li> </ul>

Lesson Outline (continued)				
Duration	Subject matter/content	Teacher Activity	Learner Activity	Resources/notes differentiation
	<p><b>Planning lifts</b></p> <p>Input on important factors for consideration when planning lifts, highlight the need for dynamic stabilisation and discuss the difference between direct and indirect lifts and how we can isolate suspension travel to reduce the lift required to release the casualty.</p>	Technical input	Guided practical application	<ul style="list-style-type: none"> <li>• Lifting struts</li> <li>• air mats</li> <li>• Timber for crib stacks</li> <li>• Ba clys</li> <li>• Dynamic stability struts</li> <li>• Chain for axle isolation</li> </ul>
	<p><b>Equipment Selection</b></p> <p>discuss factors to consider when selecting equipment including best practice for hydraulic lifting struts, high pressure air lifting mats and jacks.</p>	Technical input	Guided practical application	<ul style="list-style-type: none"> <li>• Lifting struts</li> <li>• air mats</li> <li>• Timber for cribbing</li> <li>• Ba clys</li> <li>• Dynamic stability struts</li> <li>• Chain for axle isolation</li> <li>• 10t ratchet straps</li> </ul>
	<p><b>Secondary lift plan</b></p> <p>Discuss the importance of a secondary lift plan and factors to consider and where it fits in the extrication plan</p>	Technical input	Guided practical application	<ul style="list-style-type: none"> <li>• Lifting struts</li> <li>• air mats</li> <li>• Timber for crib stacks</li> <li>• Ba Cyls</li> <li>• Dynamic stability struts</li> <li>• Chains</li> </ul>
<p><b>Sources of further study:</b></p> <p>All attendees will be directed to the education material available on the UKRO website</p>			<p><b>Evaluation/Review:</b></p> <p>The workshop will be evaluated by reviewing the workshop feedback</p>	

### **Description of training**

The scenario will comprise of a bus with a training dummy placed underneath to allow delegates to practise safe approach and safe effective extrication.

### **Aims and objectives**

- To give delegates a greater understanding of considerations when working around heavy vehicles,
- To enable delegates to apply the lifting plan system,
- To give delegates an understanding of the different types of heavy vehicle construction and how this can influence the rescue plan,
- To enable delegates to select the correct lifting and dynamic stabilisation equipment,
- Discuss the issue of carrying out extrication under the vehicle versus moving the casualty vehicle to a safe place.