

# Automotive Maintenance and Light Repair, 1<sup>ST</sup> Edition

## Chapter 11 Vehicle Lifting and Hoisting

### Opening Your Class

KEY ELEMENT	EXAMPLES
Introduce Content	This course or class covers <b>Automotive Maintenance and Light Repair</b> . It correlates material to task lists specified by ASE and NATEF.
Motivate Learners	Explain how the knowledge of how something works translates into the ability to use that knowledge to figure why the engine does not work correctly and how this saves diagnosis time, which translates into more money.
State the learning objectives for the chapter or course you are about to cover and explain this is what they should be able to do as a result of attending this session or class.	Explain the chapter learning objectives to the students. <ul style="list-style-type: none"><li>• Identify vehicle hoisting and lifting equipment.</li><li>• Discuss safety procedures related to hoisting or lifting a vehicle.</li><li>• Describe the proper methods to follow to safely hoist a vehicle.</li></ul>
Establish the Mood or Climate	Provide a <i>WELCOME</i> , Avoid put downs and bad jokes.
Complete Essentials	Restrooms, breaks, registration, tests, etc.
Clarify and Establish Knowledge Base	Do a round robin of the class by going around the room and having each student give their backgrounds, years of experience, family, hobbies, career goals, or anything they want to share.

ICONS	Ch11 Vehicle Lifting and Hoisting
                   	<p><b>1. SLIDE 1 CH11 Vehicle Lifting and Hoisting</b></p> <p><b>2. SLIDES 2-3 EXPLAIN OBJECTIVES</b></p> <p><b>Check for ADDITIONAL VIDEOS &amp; ANIMATIONS @ <a href="http://www.jameshalderman.com/">http://www.jameshalderman.com/</a> WEB SITE REGULARLY UPDATED</b></p> <p><b>3. SLIDE 3 EXPLAIN Floor Jack</b></p> <p><b>4. SLIDE 4 EXPLAIN Figure 11-1 hydraulic hand-operated floor jack.</b></p> <p><b>5. SLIDE 5 EXPLAIN Figure 11-2 Safety stands are being used to support rear of this vehicle. Notice a creeper also.</b></p> <p><b>6. SLIDE 6 EXPLAIN Floor Jack</b></p> <p><b><u>DEMONSTRATE USE OF A FLOOR JACK</u></b></p> <p><b>7. SLIDES 7-8 EXPLAIN Creepers</b></p> <p><b>9. SLIDES 9 EXPLAIN Vehicle Hoists</b></p> <p><b>10. SLIDE 10 EXPLAIN Figure 11-3 Most newer vehicles have a triangle symbol indicating the recommended hoisting lift points.</b></p> <p><b>11. SLIDE 11 EXPLAIN Figure 11-4 (a) Tall safety stands can be used to provide additional support for a vehicle while on a hoist. (b) EXPLAIN block of wood should be used to avoid the possibility of doing damage to components supported by the stand.</b></p> <p><b>12. SLIDES 12 EXPLAIN Vehicle Hoists</b></p> <p><b>13. SLIDE 13 EXPLAIN Figure 11-5 This training vehicle fell from the hoist when the pads were not set correctly. No one was hurt, but the vehicle was damaged.</b></p> <p><b>14. SLIDE 14 EXPLAIN Figure 11-6 (a) assortment of hoist pad adapters that are often necessary to safely hoist many pickup trucks, vans, and sport utility vehicles &amp; EXPLAIN (b) view from underneath a Chevrolet pickup truck showing how the pad extensions are used to attach the hoist lifting pad to contact the frame.</b></p> <p><b>15. SLIDE 15 EXPLAIN Figure 11-7 (a) In this photo the</b></p>

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    	<p>pad arm is just contacting the rocker panel of the vehicle &amp; <b>EXPLAIN (b)</b> This photo shows what can occur if the technician places the pad too far inward underneath vehicle. The arm of the hoist has dented in rocket panel</p> <p><b><u>HOLD DISCUSSION ON SETTING UP LIFT</u></b></p> <p><b><u>DEMONSTRATE HOW TO SET THE LIFT PADS</u></b></p> <p>16. SLIDE 16 EXPLAIN Drive-On Ramps</p> <p>16. SLIDE 17 EXPLAIN Figure 11-8 Drive-on-type ramps. Wheels on ground level must be chocked (blocked) to prevent accidental movement down ramp.</p> <p>18. SLIDES 18-29 OPTIONAL HOISTING a VEHICLE</p> <p><b>HAVE STUDENTS COMPLETE LIFTING VEHICLE TASK SHEET ON LIFTING A VEHICLE</b></p>