FIGURE 11.1 A hydraulic hand-operated floor jack.

FIGURE 11.2 Safety stands are being used to support the rear of this vehicle. Notice a creeper also.
FIGURE 11.3 Most newer vehicles have a triangle symbol indicating the recommended hoisting lift points.

FIGURE 11.4 (a) Tall safety stands can be used to provide additional support for a vehicle while on a hoist. (b) A block of wood should be used to avoid the possibility of doing damage to components supported by the stands.

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.
FIGURE 11.6 (a) An assortment of hoist pad adapters that are often necessary to safely lift many pickup trucks, vans, and sport utility vehicles. (b) A view from underneath a Chevrolet pickup truck showing how the pad extensions are used to attach the hoist lifting pads to contact the hoist.

FIGURE 11.7 (a) In this photo, the pad arms are just contacting the rocker panel of the vehicle. (b) This photo shows what can occur if the technician places the pad too far inward underneath the vehicle. The arm of the hoist has dented the rocker panel.

FIGURE 11.8 Drive-on-type ramps. The wheels on the ground level must be blocked (choked) to prevent accidental movement down the ramp.
Chapter 11
Vehicle Lifting and Hoisting

![Image 1](image1.png)

UNFIGURE 11.01 The first step in hoisting a vehicle is to properly align the vehicle in the center of the stall.

![Image 2](image2.png)

UNFIGURE 11.02 Most vehicles will be correctly positioned when the left front tire is centered on the tire pad.

![Image 3](image3.png)

UNFIGURE 11.03 The arms can be moved in and out, and most pads can be adjusted to allow for many different types of vehicle construction.
UNFIGURE 11.04 Most lifts are equipped with short pad extensions that are often necessary in use to allow the pad to contact the frame of a vehicle without causing the arm of the lift to hit and damage parts of the body.

UNFIGURE 11.05 Tall pad extensions can also be used to gain access to the frame of a vehicle. This position is typically used on many pickup trucks, vans, and sport utility vehicles.

UNFIGURE 11.06 An additional extension may be necessary to lift a truck or van equipped with running boards to give the necessary clearance.
UNFIGURE 11.07 Position the pads under the vehicle at the recommended locations.

UNFIGURE 11.08 After being sure all pads are correctly positioned, use the hoist controls to raise the vehicle.

UNFIGURE 11.09 With the vehicle raised one foot (30 cm) off the ground, check again on the vehicle to check to
see if it is stable on the pads. If the vehicle rocks, reset the vehicle, and reset the pads. The vehicle can then be
used to any desired working level. Be sure the safety is engaged before working on or under the vehicle.
If raising a vehicle without a frame, place the flat pads under the pinch weld seam to spread the load. If additional clearance is necessary, the pads can be raised as shown.

When the service work is completed, the hoist should be raised slightly and the safety released before using the lever to lower the vehicle.

After lowering the vehicle, be sure all arms of the lift are moved out of the way before driving the vehicle out of the work stall.