

ROOF RESTING LIFT & INVERTED DASH DISPLACEMENT

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The following article addresses the challenges faced with performing a dash displacement on an overturned or roof-resting passenger vehicle. The method described here combines a few different techniques in both the realm of stabilization/lifting and extrication. The inverted dash displacement illustrates how effective stabilization and lifting can facilitate a rapid extrication of a pinned occupant in an inverted vehicle. Certain situations may eliminate this method as a viable option; however it is an excellent technique to add to the option list.

By now, we are all probably familiar with the various methods available for performing a dash displacement on a typical passenger vehicle when resting upright on its wheels. They include a ram push off the base of the 'B' post, a column pull using chain off the front of the vehicle, and use of spreaders at the 'A' post. There are indeed variations of the above methods as well. Relief cuts made in the 'A' post and the upper front fender frame between the 'A'-post and front wheel aid in isolating the effort and vehicle movement to the target area.

This also decreases the force required to perform the displacement. Less force also means less undesirable tearing or folding of post and floorpan. Typically cribbing is placed between the ground and the push point on the vehicle to prevent the floorpan deflection and tearing in order to maximize dash movement. Vehicle stabilization is usually accomplished with a few step-blocks and wedges.

Now, let's turn the car over on its roof. Let's assume that the roof is moderately crushed. This scenario presents a few problems when the occupant is pinned by the dash and/or steering assembly.

One problem is that there is little room between the vehicle and the ground for the dash to displace without causing unpredictable vehicle movement. Even if the room exists for the dash to drop to the ground after the 'A'-post is cut, one must be concerned about supporting the vehicle to avoid collapse as the roof structure integrity is altered from cutting.

Another problem is that visibility in the passenger compartment may be quite limited due to roof damage and debris. In addition, the push point can't be cribbed to the ground as the vehicle is upside down and the push point is now on the top side and the components we desire to move are on the ground side. Without the correct equipment, stabilization can be a challenge. Cribbing the roof rail may be undesirable if roof removal is required. Box cribs at the rear are labor, time, and material intensive and provide no positive connection with the vehicle. Such cribbing may also hamper patient access and extrication.

The solution to the support issue once the 'A'-post is cut is to have rear end stabilization in place prior to cutting. If space between the dash and ground is needed to allow the dash to displace, a rear lift of the vehicle will typically resolve this. Both of these issues can be resolved with the Res-Q-Jack® equipment where the techniques for roof resting stabilization and rear lift are employed.(Fig.1)

