

DELAWARE STATE FIRE SCHOOL
For Your Instruction: In-Service Drill

VEHICLE EXTRICATION

PURPOSE

The purpose of this drill is to conduct refresher training in basic vehicle extrication skills. The drill leader will explain the steps of each skill on and the students will then perform the skill.

OBJECTIVE

At the conclusion of the drill each student will have participated by doing the following vehicle rescue skills:

1. Opening a door
2. Removing the door from the outside
3. Removing a roof
4. Displacing the dashboard

EQUIPMENT NEEDED

The following list of equipment is needed to conduct this lesson:

1. Hydraulic rescue tool and accessories
2. Pry bar or haligan bar
3. Short section 3/8" or 1/2" rope
4. Center punch
5. Four to eight junk automobiles
6. Fire extinguisher
7. Assorted cribbing

SAFETY PRECAUTIONS

Students must wear:

1. Full personal protective equipment to include helmet, coat, boots or bunker pants, gloves, and eye protection while doing or observing evolutions.
2. All vehicles should have batteries removed and gasoline tanks emptied.
3. WARNING – Be aware of all frontal air bags, side-impact air bags, head protection systems, and seat belt pretensioners, as they can be unintentionally deployed when

- performing vehicle extrication evolutions. Make sure that rescuers, and patients are out of the deployment zones. Any undeployed air bag should be considered live at all times.
4. Work area must be adequately lighted. Proper ventilation must be provided if evolutions are done inside.
 5. All tools and equipment must be inspected prior to class for any visible damage or unsafe conditions.
 6. The drill leader will be responsible for being familiar with and following usage and procedures.

REFERENCES

IFSTA Principles of Vehicle Extrication, Vehicle Rescue by Brady, Vehicle Rescue and Extrication by Moore

SETUP

1. Vehicle should be properly cribbed and stabilized depending on it's positioning.
2. Place tools in staging area and assign crews for evolutions

SKILLS

1. Opening the door
 - a. Remove side window. Done if window is up or down by using punch.
 - i. Tell students to protect victim from glass using a blanket, coat, etc.
 - b. Place tips of tool vertically between roof and window edge
 - i. Keep tool as close as possible to lock edge of door
 - c. Open tool slowly, pushing window edge down and roof up
 - i. This will create an opening/purchase point for tips of tool near lock
 - d. Place tips of tool as close as possible to Nader bolt and door edge. Door should be pushed in an outward and down direction rolling the door off bolt. Open tool until bolt gives
 - i. Tool may have to be repositioned
 - ii. If sheet metal starts to rip reposition tool

2. Removing door from the outside
 - a. Open door as in skill 1
 - b. Place tip of tool between door and "B" post at bottom hinge
 - i. Open tool break hinge
 - ii. Reposition tool if necessary
 - c. Place tip of tool between door and "B" post at top hinge
 - i. Open tool - break hinge
 - ii. Reposition tool if necessary
 - iii. Keep feet clear of door bottom
 - d. An alternative method is to cut hinge if the hydraulic tool you are using is rated for that purpose. Consult the tool manufacturer for the operating procedures of your tool.
3. Removing a roof
 - a. Doors should be removed first if possible
 - i. Roof can be removed by cutting all the posts
 - ii. Always remove interior trim to expose SIPS, seatbelt pretensioners, hardened seatbelt supports and avoid cutting through those hazards
 - b. Have adequate manpower available to support and remove roof once all cuts are made
 - i. Don't forget to cut seatbelt straps
 - c. Historically the roof was "flapped" by cutting A and B posts, making relief cuts in front of the C posts, and folding the roof backwards. This practice takes as long as removal and is not recommended.
4. Displacing the dashboard
 - a. Make a relief cut in the A post just above the rocker panel or midway between the hinges
 - i. May be done with cutter or saw

- b. Place a ram support at the bottom of the B-post and position ram in door opening from base of B-post to A-post at dash level
 - i. Crib under A-post to support the push upward
- c. Extend the ram to push the dashboard up and away from the front seat area
 - i. An alternative method is to place the spreader jaws in a widened relief cut and simply spread it open

CONCLUSION

At the conclusion of the skills the drill leader will do the following:

1. Re-inspect the equipment for any damage or excessive wear
2. Secure all equipment as per department policy
3. Secure the training area

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