



ENG Camera and Live Truck Safety

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Living in an information-driven society has put more importance on the gathering of news and gathering it quickly. To help gather news the industry uses electronic news-gathering (ENG) camera systems. These cameras can be carried to almost any location and vantage point. Unfortunately ENG can be fairly heavy, which may lead to injuries unless the operator understands how to safely transport, carry, and operate the equipment.

“Live” trucks are the usual means of transportation for reporters, camera crew, and equipment to the site of a news event. With their tall antenna masts they can link to the headquarters of the news organization and provide live, on-the-scene coverage of events. However, these masts can also be a source of injury or death if the truck operators are not fully aware of their surroundings when parking and before raising them.

To promote safety, news organizations must train employees on all of the hazards likely to be encountered when going on location in a live truck and using ENG. This training should be given prior to the employees being issued equipment or vehicles.

Camera Risk Factors

When working with ENG there are safety risks employees can encounter when lifting and carrying the cameras, therefore they need to practice safety.

- Practice safe lifting when handling cameras and other equipment. Improper lifting can lead to injury. When picking up a camera, place it in front of you and as close as possible to your body. Keep your head upright and your shoulders back. This will keep your spine in the upright position that spreads the load evenly around your spinal discs so that they will not be damaged. Bend your knees to drop into a squatting position and grasp the camera with both hands. Tighten your abdominal muscles and, keeping the camera close to your body, return to the standing position.
- Never lift a camera held at arm’s length. The weight of the camera at arm’s length applies a force to your upper body that is ten times greater than if you held it close to your body while lifting it. For this reason, storage for the camera in the live truck should be



Photo courtesy of ENGsafty.com

arranged so that the camera operator doesn’t have to reach over any objects to lift it.

- Carry a tripod in your other hand to provide balance when carrying a camera.
- Whenever possible place the camera on a supporting surface or tripod. During filming the camera spends most of its time on the operator’s shoulder. This can place strain on muscles and connective tissues.
- Extra padding for the camera’s shoulder rest can also cut down on physical stress.
- Be aware of your surroundings and practice safety when you reach the site of a news event, especially if reporting a natural disaster or catastrophe.
- Choose structures with care when selecting a good vantage point for the camera, watching for possible slip and trip hazards and ensuring that the structures can safely bear your weight. You may need to stand on the platform on top of the live truck. If so, it should have barriers to prevent falling off of it.
- Never use ladders to film from because the need to carry the camera prevents the operator from keeping the required three points of contact with hands and feet on the ladder when climbing or descending.
- Exercise can help condition a camera operator’s upper body and lower back. Push-ups as well as similar exercises using weights can strengthen the shoulders. Swimming, especially the butterfly stroke, is also an excellent exercise to develop

shoulder muscles. Consult a doctor prior to starting an exercise program. Then seek advice from a trainer, explaining your job's lifting and carrying requirements so that they can set up a course of exercises to strengthen the necessary muscle groups. It is important, with any form of exercise or work that involves lifting weight, to perform some stretches to limber up before picking up and using the camera for the first time each day.

"Live" Truck Safety

Safety measures can be installed in a "Live" Truck to protect passengers from injury, however passengers need to practice safety when traveling and operating the features of the truck.

- Install a system that allows mast control from a distance away from the truck using switches that require constant pressure to operate and allows a direct overhead view during mast raising.
- Illuminate the area above and around the mast prior to raising it.
- Equip the truck with truck-mounted or hand-held high intensity spotlights for locating overhead power lines, telephones wires, and other possible obstructions as well as finding street numbers and signs. Never allow the mast to get closer than 10 feet to any power line.
- Install level indicators to ensure the truck is parked on level ground. In one fatal accident the operator did not notice that the truck was parked on a crowned road, which is one that is paved higher in the center and lower on each side. The angle of the truck caused the mast to contact power lines above the side of the road, killing the operator instantly.
- Install audio and visual indicators to warn against moving the vehicle while the mast is raised.
- Inspect the hydraulic pump that raises the mast monthly.
- Never operate the mast in weather where lightning can be seen or heard.
- Survey the regular news sites [courthouses, police department, etc.] where your news organization may need to park and make a log of the safest parking spots.

If you find yourself involved in a situation where a mast has contacted a power line and you are in the truck, DO NOT GET OUT OF THE TRUCK! Stay inside the vehicle and call for help on a cell phone or radio. Warn bystanders to stay back at least 20 yards in dry weather and 40 yards in wet conditions. When the electric power is flowing into the ground, it forms rings of differing voltage around the truck. Only if the truck begins to burn should you attempt to leave it. The only safe way

to do this is to jump with your feet pressed together. Do not touch the ground with any other part of your body. If you do so, you will bridge the gap between two rings and you can be electrocuted. Once you touch the ground with your feet, do not spread them apart for the same reason. The best way to move away is to shuffle your feet while keeping them together. You can also hop away, keeping the feet together, but it is difficult to keep your balance while doing so. Move at least 100 feet before stopping, 120 feet in wet conditions. You should practice jumping out of the truck with your feet together. It is very difficult to do, but your life will depend on keeping your balance when you land. If you are present when a co-worker is struck down by high voltage, do not approach them. You can become the next victim. Keep out of the danger zone and call for help immediately.

Other Safety Factors

Experience level

Are you a veteran or a beginning ENG professional? Veterans have the advantage of experience but should beware of becoming complacent. Beginners must be well trained and when in doubt, read the manual or consult with a more experienced co-worker.

Impairment

Your physical and mental condition may be such that it will affect your alertness and judgment. Fatigue and hunger can both affect your thinking ability. Try to get enough sleep and eat regularly. Certain prescription drugs such as painkillers and muscle relaxants will also dull your perception and may interfere with your balance. Let your employer know before you are sent out on location if you are taking these sorts of drugs.

Distractions

Distractions come in many forms. Bystanders, faulty equipment, the spectacle of a big fire and many others can cause you to lose attention to the tasks you are performing. Prepare checklists to help you in such situations. Do not be rushed because of a time-frame requirement into skipping crucial safety procedures.

Driving

Live trucks do not have a license to exceed speed limits in order to get to a news scene quickly. Because they are fairly large, tall vehicles and have a lot of weight mounted high in their structures, they do not handle well. The extra weight also means longer braking distances. Be aware of these facts as you drive. Finally, when you work a location where you are exposed to moving traffic, wear a reflective vest in both daylight and nighttime conditions and stay alert.

Safety Resources

The Division of Workers' Compensation (DWC) also offers several other free safety publications online at <http://www.tdi.texas.gov/wc/safety/videoresources/index.html>.

DWC features a free occupational safety and health audiovisual loan library. Call 512-804-4620 for more information or visit the agency website at <http://www.tdi.texas.gov/wc/safety/videoresources/avcatalog.html>.