

Old Dominion Historical Fire Society

General Safety Rules and Regulations effective April 2016

Part 1 General Rig Safety Checkpoints

1. **Brakes:** visual inspection of all braking components to include: master cylinder, brake linkage, brake lines, cotter keys at connections, drum inspection for leakage, rods, emergency brake operation, brake fluid level check, vacuum booster tank, air pump, air tanks, and pneumatic fittings. When you apply pressure to the brake pedal or pull the emergency brake the rig should stop and stay in a stopped position until the pedal or lever is released.
2. **Fuel System:** proper fitting cap on all fuel tanks, check fuel lines from tank to carburetor, or injectors for leaks or seepage, carburetor seepage, in the fuel line shut off valves. All rigs should carry at least one 10 BC U/L listed fire extinguisher on board.
3. **Electrical:** visual inspection of fuse box, fuses, make certain all running lights, turn signals, horn, brake lights are fully operational. Frayed wires, and loose connections should be repaired properly. (Electrical tape is recommended for temporary repairs only)
4. **Tires/Rims:** maintain recommended proper air pressure in all tires. Tire tread wear should be checked regularly as well as evidence of sidewall dry rot cracking. Spot check front end alignment, and correct as needed. Cast rims should be inspected on both sides especially the spokes for cracks. Split ting rims require special attention and wooden spokes need to be checked for rot and cracking as well. If you have a flat or need to change a tire with split ring rims make sure you use someone who is experienced. Accidents from split ring failures range from fatal to limb dismemberment.
5. **Mounted Rig Equipment:** each time prior to traveling the open road check all mounted equipment (i.e. ladders, hoes, nozzles, fire extinguishers, tool boxes, oil cans, axes, pike poles, ropes, pry bars, etc.) to make sure that all equipment is properly mounted and all mounting brackets are functioning properly.
6. **Open Cab Operation:** members who drive open cab apparatus should be especially careful when operating. Some of the older open cab apparatus have no doors, windshields, or safety seat belts. A pot hole bumpy road or strong head wind could knock a passenger out of the seat. Especially watch out for low hanging limbs or low entrance garage door openings. Driving a rig without a windshield in a rainstorm should be avoided at all times due to poor visibility. Hand signals should be used by all operators of apparatus without turn signals.
7. **Pump / Water System:** know your water system, and plumbing. If you leave your water tank or booster tank full make certain that your piping / hoses/ shut off valves work properly. Nobody wants to dump a couple of hundred gallons on the garage floor at night or while you are out of town. A little drip can be the start of something big. Always drain your pumps before the colder winter temperatures settle in.

8. **Driving Operation: a spotter should always be used to maneuver your apparatus into tight spaces or backing up.** Know the limitation of your apparatus in regards to braking distance and acceleration to pass slower traffic. If you are not going to travel the posted speed limit on a multi-lane highway, stay in the right lane so traffic can safely pass around you. If your apparatus cannot maintain posted speed limits please use a slow moving vehicle triangle on the rear of the vehicle which is clearly visible to the motoring public. Be courteous to the drivers and pedestrians around you. It is not recommended to let people ride on the tail board, or running boards in every day traffic. All apparatus Owners need to check with their respective insurance policies and representatives about passengers not sitting in approved vehicle seats. Passengers in parades riding on tailboards, running boards, or hose beds are doing so at their own risk.
9. **Misc. Operation:** door latches should be checked to make sure that the door stays shut when closed, windshield wipers should be fully functional whether air or electrically operated. Seats should be firmly bolted to the floor and equipped with seat belts if possible. (wooden crates, and pillows do not constitute a regulation seat) side glass, and windshields should be clean for full visibility. External side mirrors should be clean and free of cracks for maximum visibility. Sirens and bells should not be used to pull people over or cut through heavy traffic. Running red lights or stop signs can be very dangerous. Be aware of the roads that you travel and watch for posted weight limits on bridges. Also remember that heavy objects do not travel fast or well on soft ground. All it takes is one front tire off the hard pavement to start trouble. When parading make certain your displays, passengers, and or accessories do not interfere with low hanging overhead wires. (i.e. one of your passengers riding on top of the hose bed decides to stand up with a flag in their hand)
10. **Engine Compartment:** Cleanliness in the engine is of utmost importance. Accumulated oil, and grease buildups are an invitation for a fire and restrict proper engine cooling. Engine compartment fires can be stubborn to extinguish. Annually check your hoses for soft spots, or cracks. Also check the condition of the fan belts, look for cracking, dry rot, and belt tension.
11. **Batteries:** batteries should be removed from the apparatus during long dormant storage periods. It is also a good idea to install a main cutoff switch on the battery. When charging a battery, or jump starting another apparatus please make sure that the jumper cables are substantial enough to carry the electrical current. It is not recommended to jump start a 6 volt system with a 12 volt battery charger. Some of the newer diesel apparatus have multiple batteries which can be even more of a challenge to jump start if you do not know what you are doing. Always refer to the Owners manual (if available) or a qualified mechanic familiar with a multiple battery setup before you start attaching jumper cables. Always remember a battery is like a mini hydrogen bomb and the hydrogen gas could explode when it comes in contact with a spark, match or cigarette.
12. **Towing / Hauling:** towing an apparatus can be more dangerous than driving one. Not only is it important that your rig is adequately tied down, the condition of the tow vehicle, and trailer are equally important. Hitch connections should be double checked, and safety chains are a must for all towing operations. It can be a scary feeling when our trailer breaks loose and

passes you on the road. An adequate number of tie downs should always be used and secured properly. Trailer lighting should also be checked thoroughly. Apparatus lights and lenses should be covered to prevent breakage from flying rocks and road debris. Just because your apparatus is sitting on a trailer does not mean it will be immune from road debris. Double check your apparatus accessories, and the mounting brackets. On long distance towing it is a good idea to remove as many accessories as possible, especially ladders.

13. **Warning Devices:** The operation of warning lights, sirens, bells, and air horns shall be permitted in parades and at the muster as long as the operation does not violate local ordinances. Special attention must be paid to the possibility of disturbing church services, hospital patients, or even late sleeping local residents. Particular consideration shall be given to the effect of warning devices on any horses in the parade.

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Part II General Muster Safety Rules

1. General Objectives

The intent of these guidelines is to provide a framework to make a muster as safe as possible for both muster participants and spectators. This is a performance-based program that shall also address local conditions and activities to comply with the objectives of these Muster Safety Guidelines.

2. Safety Committee

The local chapter for each muster or event shall appoint a Safety Officer and Safety Committee. Each Safety Officer will be qualified to perform his duties as a result of training and/or fire service experience. The members of the Safety Committee ***should wear*** identification to make them recognizable at the muster. The number of members shall be adequate to perform the required duties based on the number of participants and spectators expected to attend the muster. **It is recommended that there be a minimum of one safety officer for each 20 pieces of apparatus expected.**

3. Authority of the Safety Committee

The Safety Committee and its Safety Officer shall have the final judgment as to whether or not to permit any activity at the muster and to order a stop to such actions as may reasonably prevent a dangerous situation. Typical emergency actions might include an order to bed all aerial devices upon the appearance of a storm to reduce the danger from wind or lightning. It is the responsibility of the local chapter to appoint qualified persons to the safety committee and then support them and the decisions that they make.

4. Conformance with Accepted Fire Ground Practices

A positive working relationship with local fire departments is of great value to any local chapter and under no circumstance should activity be permitted at a muster that conflicts with accepted local fire department safety practices (if local practices are more restrictive).

5. Responsibilities of Apparatus Owners

The owners and crews of each piece of apparatus have primary responsibility for safety since the Safety Officer and/or safety committee cannot be expected to monitor all apparatus and activities that are going on simultaneously during a muster. Apparatus owners and operators are also expected to have more in-depth knowledge of the operation of their own apparatus and equipment than the Safety Officer since there is a very wide variety of fire apparatus. Operating procedures will vary between apparatus manufacturers and will also depend on the date of manufacture of the apparatus. Some apparatus may have been modified by their Fire Departments while in service resulting in unique operating procedures. Because of these many variables, apparatus owners and operators are expected to use caution and good judgment in operating their rigs in accordance with the manufacturer's recommendations while following muster guidelines.

6. Requirements to Participate

Each participant **shall** be required to sign a registration form in which among other things, establishes vehicle liability insurance, an acknowledgement that the Safety Rules have been received and are understood, and agrees to follow the requests made by the Safety Committee. Each piece of apparatus should be provided with a registration placard identifying the owner/operator. The placard should be conspicuously posted or attached to the apparatus at all times so the owner/operator can be readily be contacted if needed (for example, the vehicle is leaking gas). Placards are available and can be printed from the ODHFS website.

7. Apparatus on Static Display or Pumping

Any parked apparatus shall have the wheels chocked fore and aft to prevent accidental movement in any direction. The vehicle shall be closely supervised to protect the vehicle from its admirers and its admirers from the vehicle. Remember children stick their fingers in the most unusual places including mechanical siren ports. Consideration should be given to disconnection of the battery to prevent the accidental operation of sirens or the starting of the engine while on Static Display. If the vehicle is key equipped, keys shall be removed. Suitable wheel chocks are defined as two, commercially made, truck wheel chocks or wood blocks that are at least 5 inches tall by 5 inches wide. Vehicles with 16 inch or smaller tires may use 4 x 4 blocks of wood at least 6 inches wide. The wood blocks may be beveled. Any apparatus that is on display, pumping, being supplied by a pumper, or has its aerial raised, shall have its brakes set, at least one wheel chocked with two suitable wheel chocks, and shall be continuously attended by an adult capable of operating the apparatus while the aerial is raised and or the pump is in operation. "Exception" Aerials that are properly locked in place with the engine shut down may be left unattended as long as the operator remains on the muster grounds. This pertains to aerials displaying the Flag.

Supplement / Optional: Operating Apparatus

See Form SP-04 (Handout) SPAAMFAA'S Minimum Safety Rules for Apparatus Operation

8. Backing and Moving Apparatus on Muster Site

An adequate number of guides shall be used to clear the right of way, alert the driver of obstacles, and guide him to park. **No vehicle will be backed without the assistance of a "lookout" person watching the area behind the vehicle.**

9. Parades

In parades containing a mix of marching units, horse drawn units and motorized units, attention shall be paid to the arrangement of the parade to protect the non-motorized units from the motorized units. For the safety of those riding the vehicles in the parade, everyone shall be inside the body of the vehicle (cab, hose body). **Only adults may ride on the tail and running boards.** For the safety of those watching the parade, vehicle speeds shall not exceed 20 MPH and no stunt driving of fire apparatus shall be permitted. The throwing of candy or trinkets that encourage children to run into the street should not be permitted. **"Candy and trinkets" are permitted, but must be distributed by walkers on each side of the rig - not thrown from the rig.**

10. Warning Devices

The operation of warning lights, sirens, bells, and air horns shall be permitted in parades and at the muster so long as the operation does not violate local ordinances. Special attention must be paid to the possibility of disturbing church services, hospital patients, or even late sleeping local residents. Particular consideration shall be given to the effect of warning device on any horses in the parade.

11. Games and Competitions

All games and competitions shall be conducted under written rules that are understood and agreed to by the participants. These rules shall include specific provisions to protect the safety of both the participants and the spectators. All personnel competing in events must be competent and in good physical condition.

12. Emergency Vehicles

At many musters there will be a mix of privately and publicly owned “out-of-service” rigs and “in-service” emergency vehicles. The muster site should be arranged to permit emergency vehicles to respond from the site if necessary and for emergency vehicles to move about the site should there be a fire or medical emergency at the muster.

13. Fire Protection

Every fire apparatus shall have *available* an operable fire extinguisher having a minimum rating of **10BC**. This should be verified as part of the registration process. Consideration should be given to ways to prevent the leakage of gasoline from the carburetors of apparatus with gravity feed fuel systems. No refueling of apparatus on muster site should be permitted without Safety Officer’s approval.

14. Emergency Medical Service

A means of providing EMS, should it be needed, shall be prearranged.

15. Communication Link

A cellular telephone, two-way radio or other link shall be available to the Safety Committee to call for outside assistance. The Safety Committee should take full advantage of radio communications to function as a Safety team. ***The Safety team should have emergency phone numbers.***

16. Unusual Apparatus, Events and Demonstrations

Operating aerial devices, pumpers, steam pumpers and the like add greatly to the appeal of musters, but may require special attention by the Safety Committee. Such issues as aerial limits, operator certification, backup water supply, and compliance with boiler codes must be addressed. The Safety Committee shall be alert to situations having unusual risk factors and shall take actions that may be reasonably required to protect spectators and participants. Examples of such actions might include requiring evidence of recent hydrostatic testing of high-pressure tanks or boilers.

17. All discharge lines used during the day's events shall be tied down or attached to fixed deluge guns. **NO HAND HELD LINES** except during events, as specified such as water ball or demonstrations which have been approved by the Safety Officers. When approved for use they shall be manned by an adequate number of personnel to safely control the line. Booster lines are not covered by this rule and may be hand held.

MAXIMUM PUMP PRESSURE SHALL BE NO GREATER THAN 70 PSI! Each participant should be required to sign a registration form in which among other things, establishes vehicle liability insurance, and agreement to follow the requests made by the Safety Committee.

18. **Pumping:** With at least one wheel chocked front and back. All gate valves shall be opened and closed slowly to minimize water hammer. In rare instances where higher pressures are required and have been approved by the Safety Committee such as raising Water Towers, the Owner shall certify that the hoses have been subjected to a pressure test of 125% of the required operating pressure within the previous 12 months. All hoses must be in good condition without leaks and couplings must be used with proper thread. Master stream devices will be staked down or chained / tied to a substantial object in front of the master stream. When this is not possible the hose shall be looped in front and the gun tied/chained to the hose. Deluge guns must not be operated past any safety stops. **NO PERSON SHALL BE ALLOWED TO RUN THEIR HANDS THROUGH THE STREAM.** All streams shall be directed so as not to wet other apparatus, personal property or spectators.

19. You must use a drip pan to catch your priming oil when drafting. **THIS WILL BE STRICTLY ENFORCED!**

20. Please do not litter. Deposit refuse in the cans provided around the facility for this purpose.

21. Every apparatus must have proof of insurance and be roadworthy as required by its home state Department of Motor Vehicles.

22. Aerial ladders and or water towers may only be raised on approval of the safety committee and in assigned locations. If the Owner / Operator of an aerial or water tower is found in violation of the Muster Safety Rules and they are asked to cease operations they will do so immediately without any hesitation.

23. Aerial devices are defined to include all Aerial ladders, Aerial Scopes, Ladder Trucks, Tower Ladders, Snorkels, Squirts, and Water Towers.

24. Aerial devices shall not be raised within 30 feet of power lines and may not be extended more than 60% of the total height of the aerial.

25. Aerial apparatus must have ALL stabilizers on stable ground, have suitable ground pads under them, be properly set and locked in accordance with the manufacturer's specifications. If it is a Tractor Trailer unit it should be jack knifed in accordance with the manufacturer's specifications.

- 26.** No Aerial device may be raised without a Safety Officer overseeing the raising of said device and should not be raised if the wind is over 20 mph. If wind speed increases to more than 20 mph aerial devices shall be lowered. Aerials may not be raised and or should be lowered immediately if there is potential for lightning storms.
- 27.** If an elevated stream is used it may not be above the bed section, only one hose line may run up the ladder, it may not flow more than 50% of its rated capacity and a shut off valve must be available at the base of the ladder.
- 28.** No person shall climb any aerial device on the event site except the Owner or the Official event photographer with a safety belt.
- 29.** Hand drawn non-motorized apparatus are exempt from the fire extinguisher, and wheel chock rules. However, the Owner can elect to utilize wheel chocks and fire extinguishers at their own discretion.
- 30.** No aerial device may be operated until the Safety Officer looks at the condition of the ladder, general conditions of the vehicle, hydraulic lines, cables, etc. Aerial device may be operated off the side and may not be operated at any elevation lower than 75 degrees to the turntable. Except for approved aerial arches. Recommend the perimeter area of the extension be kept clear of people, vehicles, and equipment. **NO ONE SHALL STAND UNDER THE AERIAL DEVICE.**
- 31.** If an apparatus needs to be jump started please exercise caution and follow proper procedures for doing so. Make certain that jumper cables are put on the correct terminals and respective voltage.
- 32.** Do not move apparatus while engaged in pumping operation. Cease pumping operations completely if the apparatus must be moved. Check wheel chock and position of all hoses before moving the apparatus. Reinstall wheel chock before restating pumping operations.