



Society for the Preservation and Appreciation of Antique Motor Fire Apparatus in America

P.O. Box 450, Eastwood Station

Syracuse, New York 13206

29 March 1982

At the request of the Chapter Presidents' Advisory Council last year, John Gambs appointed a committee to devise a set of standards for judging best-restored hand and horse drawn apparatus. This committee's report was adopted by the Board of Trustees in February as a possible standard for use at musters in a continuing effort to convince chapters to use national standards.

Hand and horse drawn equipment share many things in common, yet there are not that many making it to the muster scene. Until the number grows larger, we felt that combining the two categories, i.e. hand and horse, would help matters on the muster field.

Each group such as "mechanism" or "bright work" has been given a list of specific items to act as reminder to the judges. Points have been assigned to the group and not the specific item as these weights would vary from hand to horse units.

The number of deductible points adds up to 50. This number was chosen rather than 100 so as to speed up the judging process and encourage winners.

This standard could also be used as a guideline for a best-appearing contest where insufficient vehicles and/or judges would be more comfortable for the chapter.

Also please find enclosed a new contest for operating steamers. We think the steamer teams will find this one instructive as well as enjoyable. It was developed by the Delaware Valley Chapter last year.

Feel free to duplicate any of these new contests and if you need a packet with the other national rules, just write to Lee Soderbeck (Mrs Kenneth) Membership Secretary for a set.

P.S. The Fairchester Chapter has developed an extensive booklet of guidelines for hand & horse drawn judging which they may be willing to share if you write to Warren Lyon, Pelham, New York.

Best wishes,

Steve Weaver, Jr

Group 1 Mechanism (maximum deduction 10)

operation: gaskets and valves
chemical tanks
gauges, oilers, cups, oil cans
excessive lubrication
auxiliary steam/water hoses
brakes

☐Group 2 Exterior Finish (max.-7)

color(s) authenticity
luster quality
boiler lagging/sheathing
underside cleanliness
excessive wear/ chipping

☐Group 3 Decoration (Workmanship & Authenticity) (max.-6)

gold leaf
striping and lining
oil painting(s)

☐Group 4 Upholstery (max.-2)

workmanship
authenticity (pleating, tufting, edging)

☐Group 5 Wheels (max.-7)

rims (tightness, alignment)
hubs and spokes (tightness)
authenticity (shape, finish)

☐Group 6 Bright work (max.-8)

brass, nickel &c. (polished)
appropriate parts plated (over-restored)

☐Group 7 Accessories (max.-10)

fire fighting tools (ladders, ceiling hooks, axes, shovels &c.)
hub cap wrenches and mechanic's tools
tool boxes
ornaments (eagles &c.)
lanterns and torches
bells and whistle
flags, bunting and horse blankets
buckets (leather or rubber)

☐

Make:

Type:

Year:

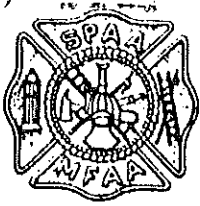
Entrant:

Entrant's No.:

Perfect score 100

Total deductions -

Score



JUDGING ITEMS FOR CONSIDERATION BY CHAPTERS

1. Your Chapter budget, number of entries, and judge availability will determine how you will divide the judging classes. SPAAMFAA is not dictating whether you have formal or no judging, nor whether you have 1 or 20 trophies; our goal is to provide a Judging System for you to use.
2. What are your goals in having a muster? You need to know this. Many owners are in the hobby for fun and relaxation, not to say, "I'm better than you." This means trophies are often secondary to other muster events. your goals will determine the type of judging you need.
3. Are your members interested in a judging meet enough to expend the effort to put it on? If not, perhaps a low-effort Pump-In is for you (no judging, maybe no contests). In between in effort expended could be a meet with fun awards such as longest, shiniest, or rustiest rigs. Or possibly loudest, oldest, or first time out awards. Imagination is your guide.
4. If your meet will include judging, you have a responsibility to let participants know beforehand what level of judging will be used. There might be 3 levels from which you will choose one:
 1. Subjective judging by VIP's or unknowledgeable volunteers.
 2. Point judging by knowledgeable but untrained volunteers.
 3. Point judging by trained judges.
5. Do you want formalized judging? Besides the additional effort required, consider that formal judging standards may play into the hands of speculators whose only interest in collecting antique apparatus is financial. An award means dollars to them.
6. If you determine that a subjective "Best Appearing" type of judging suits your goals, be sure to impress on the judges that best appearing does not mean biggest or most impressive.
7. When determining the vehicle classes your meet will have, consider the possibility that a chief's car (authentic or modern fake) will show up. Also consider speedsters and other vehicles related to fire apparatus, but which are not authentic fire apparatus. Decide whether you want to provide a class for these related vehicles or designate them as display only. They should not be judged in the same class with fire apparatus.
8. Let the participants know that all apparatus, no matter what its condition, is welcome. (But note that some vehicles, such as fakes or those with commercial advertising, may have to be restricted or excluded.)
9. One goal should be to let the judges at your meet enjoy themselves; they cannot while judging. This means your judging system should not take all day--it should be complete in, say, 3 hours. Competent judges are rare; if you have one, protect him and cater to him.
10. Judges may have a problem with blowing forms in wind or with writing on wet forms in spray or rain. Consider protection for the forms: Clipboard that closes or clear plastic sheets to protect them.
11. Any specific rig may not win this award at a particular muster more than once in 3 years. (If you won in 1985 you are not eligible until 1988.)
12. If many rigs are present, that is, the classes are too large; it is suggested that the classes be subdivided using some of the following: by weight, by age (e.g.-prewar, postwar), by type (pumper, aerial), by owner (individual, group), or by restorer (owner, professional).



RULES FOR JUDGING ORIGINAL, RESTORED, AND BEST OF SHOW

1. Each vehicle must have liability and property damage insurance.
2. Each vehicle shall have an operable fire extinguisher of ___BC or ___ABC (not pounds). The value of ___ should be determined by those who know extinguishing capabilities. It shall be easily accessible, but need not be mounted.
3. The judges shall consider 3 primary conditions: authenticity; appearance; and apparent operability. Operation need not be proved except at the judge's request, such as to provide a tie breaker.
4. Added safety features (such as battery disconnects, turn signals, brake lights, seat belts, and reflectors) shall not cause a judging penalty if of appropriate appearance and good workmanship. Items of inappropriate appearance shall be clamp on so removal is possible (do not have to be removed).
5. All apparatus must be 25 years old or older to be judged. Newer rigs will be for display purposes.
6. The competition year is to be determined based on modifications and equipment rebuilds, as documented by the owner. Modifications such as on a 2 piece rig, pneumatic tires, windshields, booster systems, and engines made by the fire department owner will be permitted, but may affect the competition year.
7. A vehicle is considered to be restored if it has had major cosmetic refurbishing within the last 25 years. Once classed as restored, a vehicle shall always be classed as restored. Regular maintenance does not disqualify from being original. It is suggested that if 1/3 of apparatus is repainted it is no longer original.
8. The burden of proof is upon the entrant for any deviation from a factory standard. Tracings, in-service photos, factory records, etc. are acceptable evidence.
9. The tires on each axle should match, but it is not necessary that the front match the rear. All tires on tandem axles should match.
10. Excess lubrication means accumulated oil and grease packed at lubrication points on motor, on chains, or under fenders that has not been removed for months. Normal throw out of grease and oil in the process of bringing the truck to the muster or parade is allowed.
11. It is recommended that the owner or his representative be present at the rig when judging is being done. For the judges use, documentation (pictures of before and after, paint chips for color, and tracings of original scrolls) should be with the apparatus. If the owner or his representative is not present, the judges are not authorized to open hoods and doors.
12. Decisions of the judges are final. Arguments could result in disqualification.

JUDGES INSTRUCTIONS



1. The judging form is separated into four categories. Within each category are several items to be judged, each item listing components to be considered during the inspection. Judge each component for authenticity, appearance and workmanship, maintenance, and apparent operability. Items listed are possible but should not be considered as absolute requirements.
2. Judges should keep in mind the following items while determining the point score:
 - Authenticity which includes proper materials, appropriate equipment & finish.
 - Appearance which includes neatness and cleanliness in addition to workmanship.
 - Maintenance which evaluates the concern of the owner for preservation. It includes lubrication, repair of paint chips, corrosion removal, etc.
 - Operability including safety and proper function. (Proper function is to be the judge's opinion not the owner's statement. Function need not be demonstrated unless the judges have cause to request it.)

Since our rigs are historical documents, authenticity should carry more weight than the other considerations.
3. The object of the score sheet is to break the judging process down into smaller (easier) tasks. If the scores do not determine a definite winner, the judges' opinions will have to be utilized so any awards will benefit the hobby.
4. If a winner cannot be determined by the scores or by the judges' opinion, the judges have a right to ask for a demonstration of operability--engine, driving, pumping, and ladder raising as appropriate.
5. In addition to the items listed on the scoresheet, the judges should be aware of the effort the owner put forth in preparation for the meet. If little preparation effort is detected, judges should be less lenient regarding dirt, grease, rust spots, and lack of polish.
6. If a restoration is wrong as a result of the owner's ignorance, an opportunity exists for the judges to pass on information, but this should be done later to save time during judging. If the restoration is wrong due to the owner's decision (perhaps due to expediency, non-availability of parts, or even stubbornness), the judges must permit their own judgement to supplement the scores especially in the case of ties. But remember that a restored rig is a historical document and may be used as a reference; therefore, maximum points should not be awarded even if the rig is neat and well done.
7. Accessibility of modern fire extinguishers means that they should not be hidden under or behind equipment. They do not need to be mounted. The extinguisher must not be a soda-acid type. Any S-A extinguishers or tanks must not be charged or discharged at a meet due to possible liability problems.
8. The items "Finish" are intended to check the paint and plating including cleanliness. Other items will check the function of the components.
9. Paint and plating are judged on workmanship, also on appropriateness; that is, is paint where plating should be and vice versa? Is the plating the wrong metal such as chrome where nickel is appropriate? (Chrome generally is not appropriate prior to 1928.)
10. When judging paint look for runs, orange peel, paint over rust or grease, overspray on tires or brightwork, etc. Check paint for proper color, fading, chipping, peeling, scratches, checking and makeshift touchup. fresh scratches obtained coming to the meet should not cause penalty, but rusty scratches indicate neglect and deserve a penalty.

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11. Lettering and striping must be consistent with the age of the vehicle. Wording should be as original; advertising or non-fire department owner names are not accepted. (Magnetic signs are suggested if local officials will not permit a fire department's name to be used).
12. When checking steering, the amount of free play at the rim of the steering wheel must be checked--3" or over is too much.
13. Under the category "Body", component condition refers to panel straightness, dents, rust, etc. Look at the workmanship of any repairs.
14. When a ladder truck is judged, keep in mind the larger quantity of equipment. Points given should be proportional so that a mediocre ladder rig does not outscore a good pumper. Even if they are in different classes, the point totals may be compared for a Best of Show award.
15. The following are boundary dates for various components.
 - 1920 first use of Alemite pin type grease fittings.
 - 1923 first use of Zerk push type grease fittings.
 - 1928 first use of chrome plating.
 - 1930 first use of rubber valve stems.
 - 1933 first use of ball end grease fittings.
 - 1935 first use of Phillips head screws.
 - 1940 first use of sealed beam headlights.
 - 1946 first use of airplane (ratchet) type hose clamps.
 - 1946 first use of strength marks on bolts. (Earlier years may have had letter or number marks.)
 - 1948 first use of sealed beam bulbs for spotlights.
 - 1951 first use of plastic tire valve caps.
 - 1952 first use of vinyl.
 - 1953 first use of plastic wiring and plastic tape.
16. Added battery shut-off switches and turn signals are accepted as safety items if the installation has good workmanship and uses authentic wiring. Added seat belts and rearview mirrors are also accepted if neatly installed.
17. Appropriate appearance means the added items are typical in appearance for the year of the rig. Exceptions are seat belts and battery shutoffs which cannot be clamped on and retain their function.
18. Short lived materials such as spark plugs, batteries, fan belts, hoses, oil filters, tires, etc will be acceptable if the judges agree that they are in good condition, fit well, and the installation is neat.



JUDGING FORM

Items listed are
"possible" but
should not be
considered absolute
requirements.

Yes or No

Modern fire extinguisher? ☐
Easily accessible? ☐
Charged? ☐

Liability and property damage insurance? ☐
Any "No" means disqualification

This is an additive judging system: The better a component, the more points

JUDGING CATEGORY: _____ APPARATUS: _____ OWNER: _____

ENGINE (maximum points = 25)	Points
Engine (6 points)	
Correct type, head, block, crankcase, exhaust manifold	☐
Cooling System (4 points)	
Radiator, motometer, waterpump, hoses, clamps, fan belt, radiator refill valve and tubing, overflow tubing	☐
Fuel System (3 points)	
Carburetor, intake manifold, fuel pump, priming cups, gas line and shutoff, gas leaks (anyplace from tank to carb)	☐
Ignition System (3 points)	
Distributor, magneto, sparkplugs, high tension wiring, coil	☐
Electrical System (4 points)	
Starter, generator, battery, wiring, fuses (Zero points if wiring is potentially hazardous)	☐
Finish (4 points)	
Paint, plating, excess lubrication	☐
Overall Appearance (1 point)	☐
Engine Total	☐

FIRE EQUIPMENT (maximum points = 28)

NOTE: If rig has both pump & aerial, score both then average the scores. That is, if Pumper=4 and Aerial=6, score is 5

Pumper (6 points)	
Pump, valves, gages, caps, relief valve/governor, auxiliary cooler, control panel & lights, operating levers, suction hose & holder(s), strainer (internal & external), ladders & brackets (extension, roof, and folding)	☐
Aerial (6 points)	
Aerial ladder or boom, ground ladders, stabilizer jacks, raising mechanism (including cable and/or hydraulic lines), panel lights, operating controls & gages, ladder racks	☐
Chemical/Booster Tank (2 points)	
Tank, leaks, valves, hose, nozzle, extra charge containers, hose reel/basket. (If delivered with neither, give 2 points)	☐
Finish (4 points)	
Paint, plating, excess lubrication	☐
Warning Devices (3 points)	
Siren, bell, horn, lights	☐
Other Equipment (Includes mounts or brackets) (6 points)	
Adaptors, tools/tool box, axes, hand lights, pikepoles, crow bar, hand extinguishers, nozzles, hose (do couplings fit pump?), hose box tarp, shovel, pitchfork, bolt cutter, door opener, battering ram, masks, flood lights, hose jacket, first aid kit, chafing block/guard, life net, hose roller, rope, ladder pipe, salvage covers, cellar nozzle, roof cutter, chocks, etc.	☐
Overall Appearance (1 point)	☐
Equipment Total	☐

CHASSIS (maximum points = 21)

Drive Train (3 points)

Clutch, transmission, differential, drive chains

Running Gear (4 points)

Wheels, rims, steering gear, axles, springs, tie rods, frame, hubcaps, grease fittings

Safety Components (5 points)

Brakes, steering wheel play, head/tail/stop lights, tires (match & condition), steering box cracks or loose bolts, exhaust system leaks, windshield wipers

Controls (3 points)

Pedals, spark/throttle levers or knobs, shift lever, hand brake, steering wheel, instruments and dash

Finish (4 points)

Paint, plating, excess lubrication

Other (2 points)

Bumpers, tow hooks

Chassis Total

BODY (maximum points = 26)

Component Condition (6 points)

Fenders, hood, cab, hose box, doors, splash apron, fuel tank, windors, tail/running/floor boards (including covering material), cabinets/storage boxes

Finish (paint including underside) (6 points)

Proper color, items painted, workmanship, rusty/chips/scratches

Brightwork (plating) (5 points)

Radiator shell, operator's panel, handrails, levers, handles, bumpers, lights, hubcaps

Decorations (5 points)

Striping, scrolls, material, shading, lettering

Upholstery (3 points)

Seat material and spring condition, interior door panels, kick panels, headliner

Overall Appearance (1 point)

Body Total

Points

☐☐☐☐☐☐☐☐☐☐☐☐☐☐Max.
PointsPoints
Scored

ENGINE

☐

CHASSIS

☐

BODY

☐

FIRE EQUIPMENT

☐

AGE BONUS (1 point for each decade; 30-39 yrs.old rec. 3 points)

☐

ESTHETICS BONUS (At judges' discretion, points can be added for general sharpness of appearance & neatness)

☐

TOTAL

☐

IS RIG DISQUALIFIED DUE TO LACK OF FIRE EXTINGUISHER OR INSURANCE?

☐

JUDGING ASSIGNMENTS FOR MOTORIZED APPARATUS CONTEST WITH MOTORIZED HOOKUP

1. Starting Judge

- A. Observes the placement of apparatus into the engine stall. Assures that the apparatus front bumper abutts the starting line. Motor must be turned off.
- B. Inspects the pump to assure that all discharge gates are capped.
(Note: An adapter reducing the intake threads down to 2½ inches may be installed on the pump. A double male adapter may be used to fit a female threaded cap.)
- C. Inspects the committee nozzle to be sure it is on board and disconnected from hose. Inspects hose straps to assure that they are aboard apparatus for use by nozzle crew.
- D. Seats crew on bench for Le Mans start.
- E. Receives signal from Hook-up Judge that course is clear and sounds starting signal.
- F. Observes apparatus as it departs from starting line.

2. Timekeeper

- A. Starts time clocks when starting signal is sounded.
- B. Place target in position after apparatus passes.
- C. Continues time clock until target has fallen.
- D. Calculates time for the hoop-up including penalties assessed by other judges.
- E. Informs Score Keepers and Master of Ceremonies of each contestant's time.

3. Nozzle Stand Judge

- A. Observes apparatus during run to ascertain that it make a complete stop at the nozzle stand. (10 second penalty)
- B. Observes the hose crew during their performance to assure that the nozzle is not advanced beyond nozzle line. (5 second penalty)
- C. Advises timekeeper of any penalties that are assigned including disqualification if nozzle crew loses control of line.

4. Hook-Up Judge

- A. Sets up hydrant for each contestant by setting valves and caps and backing them off ¼ turn.
- B. Observes lay out and apparatuses during hook-up.
- C. Determines that laid line was continually couple to hose remaining in hose bed. (15 seconds penalty)
- D. Determines that all pump caps were in place when apparatus arrived at hydrant.
- E. Observes pump pressure to assure contestants do not exceed 70 psi limit.

HOSE CART RULES

Team: Six (6) persons per hose cart assigned as follows: 2 on nozzle, 2 on hydrant, and 2 on handles to stop the cart.

Equipment: Any real type hose cart may be used as long as it has general construction theme that fits the following description:

- A. The frame may be wood, metal or both. The tongue or drawbar may be modified to provide better pulling power.
- B. The wheels may be wood, metal or both. There will be NO Pneumatic or rubber tires.
- C. No ball or roller bearings will be allowed.

Hose: 200 feet or 2½ inch hose, double jacket rubber lined. Hose straps are optional. Couplings must be 2½ inch NST, no quick connect couplings.

Hand ropes: No part of apparatus used for pulling cart shall be affixed to body in such a manner that prevents immediate release. No wrapping rope or strap around wrist.

Course: See attached course outline.

Judges: Judges shall be appointed by host Dept. and will include:

- A. Starter and timer
- B. Hydrant and Cart Stoppage

Penalties:

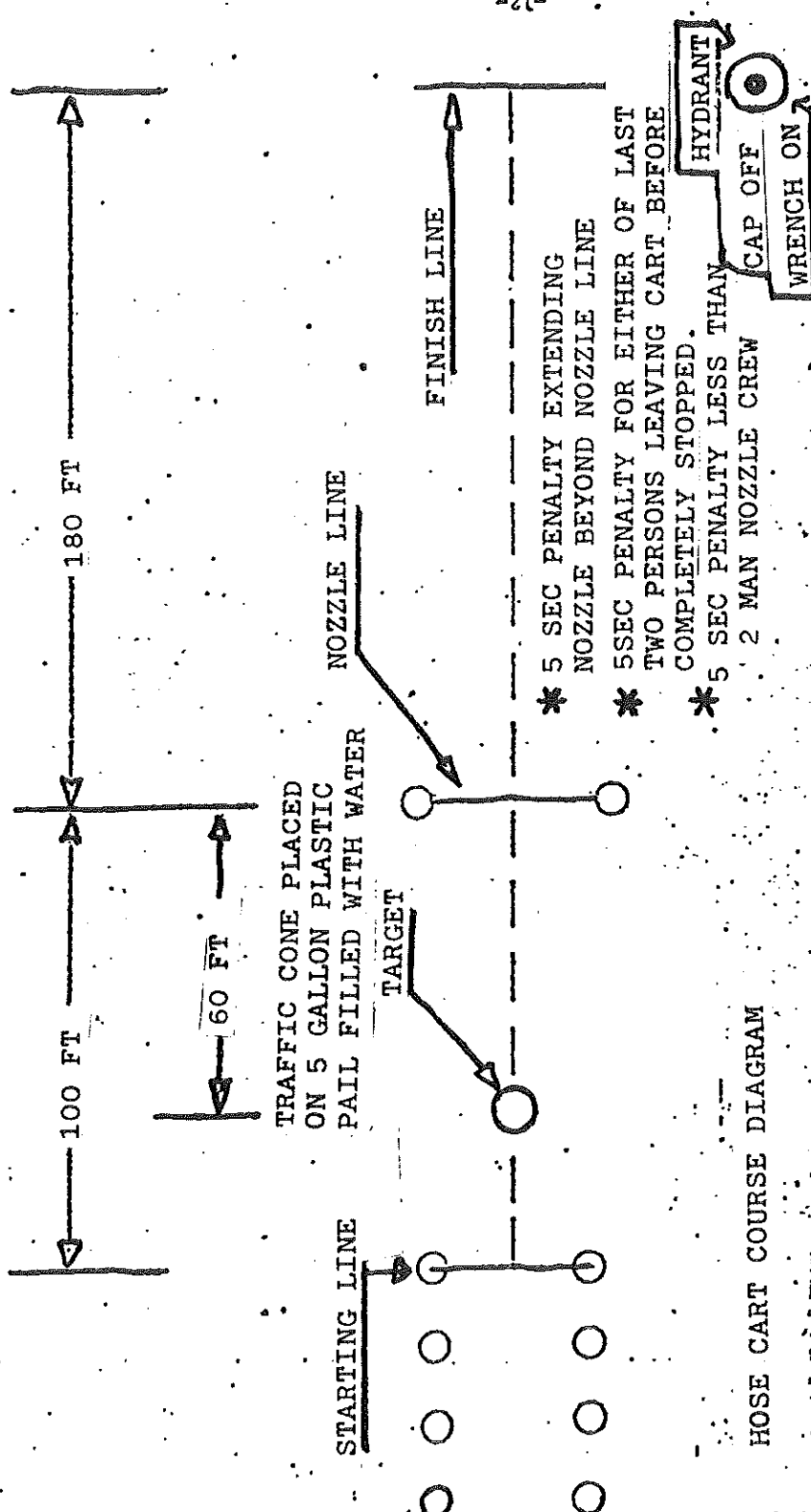
- A. 5 second penalty for extending nozzle beyond line when nozzle has water.
- B. 5 second penalty for either of last two persons leaving cart before completely stopped.
- C. 5 second penalty if two people are not on nozzle when water reaches nozzle.

Note: Only four (4) hose cart teams are allowed for each fire dept. Two men's and two women's teams.

Teams short of participants may borrow from another dept. as long as the majority of the competing teams is made up of its own members. In no event may a member compete more than once for his or her organization in each contest.

Distant Run: On signal from starter (time will start) team will pull hose cart a distance of 100 feet to the nozzle platform (area will be marked and nozzle with one inch tip and shut off valve will be located at this point) where two persons of the team will drop off holding onto the male end of the hose, while the hose cart and the rest of the team continue on to the hydrant. At this point, two more persons will drop off, one going to the hydrant, while the other picks up the female coupling at the end of the hose and goes over to the hydrant and makes the connection. After the connection has been made the water is turned on. The cart will be completely stopped before last two persons disengage.

Target: Traffic cone place on five gallon plastic pail filled with water. Water is played at target located 70 feet from nozzle platform until target is knocked down (time will stop).



- * 5 SEC PENALTY EXTENDING NOZZLE BEYOND NOZZLE LINE
- * 5 SEC PENALTY FOR EITHER OF LAST TWO PERSONS LEAVING CART BEFORE COMPLETELY STOPPED.
- * 5 SEC PENALTY LESS THAN 2 MAN NOZZLE CREW

HOSE CART COURSE DIAGRAM

Bucket Brigade House

We chose to place hinges inside of panels however, this is not necessary and should be governed by your carpentry ability.

Remember that two of the panels are so fixed that they will fold, but only if you have properly aligned and set your machine screws and nuts so as not to butt and bind.

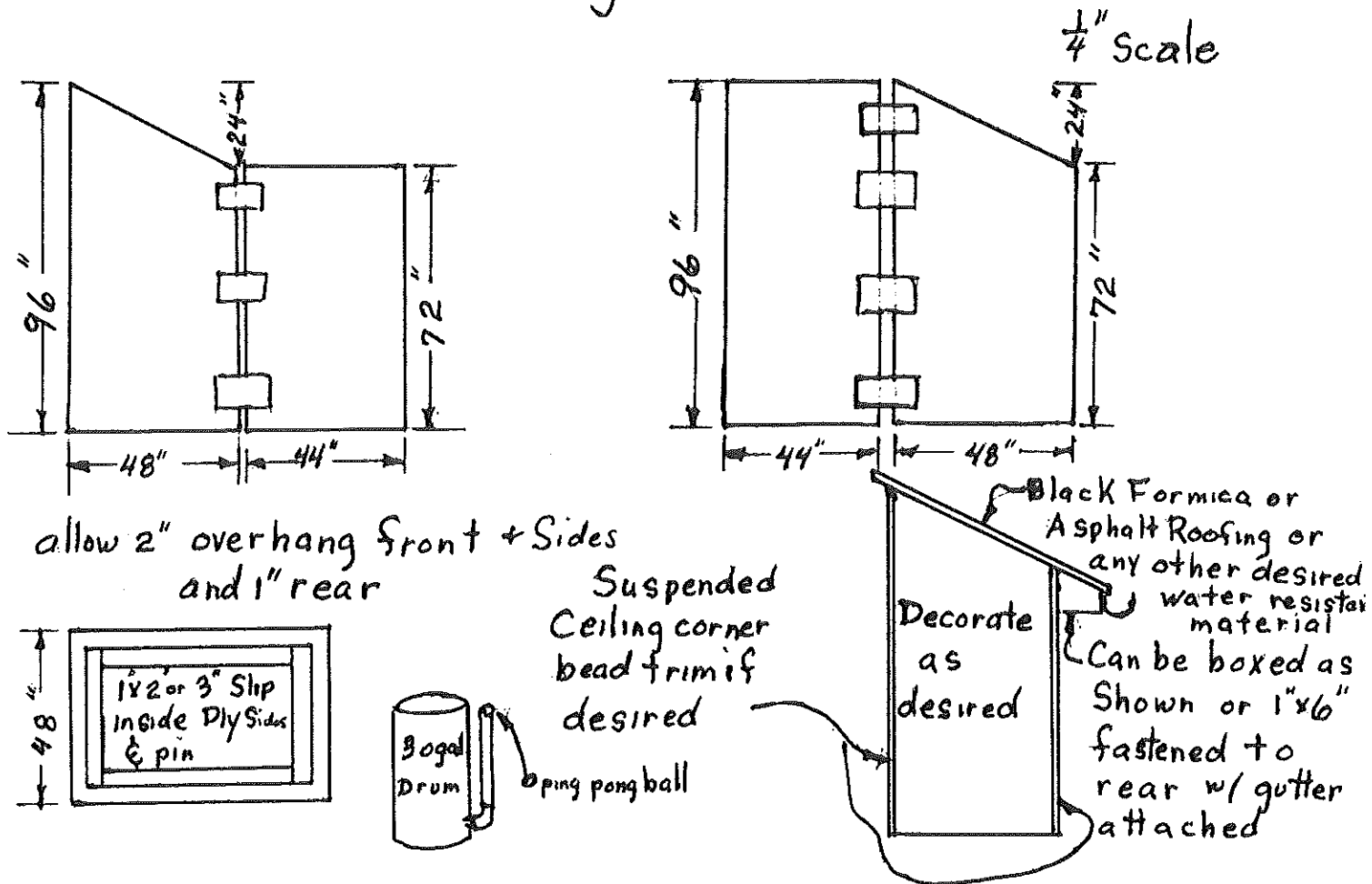
Do not cut roof until walls are properly completed. With someone inside you can properly square the building and scribe your roof to the inside walls. These marks should again be checked for square, then the 1 x 3(or 2) can be fastened to the roof at these lines. After placing on roof you can drill several $\frac{1}{4}$ " holes thru the sidewalls in to the 1 x 3 and pin with steel pins.

We constructed a box eave on the lower end of our building, but you could just screw a piece of 1 x 6 to the low side and fasten your gutter to this. Be Sure to lay your roof out to the proper gutter arrangement and an even overhang for high side and each side with the back so as to fall into gutter.

We used a 30 gal. drum for our timing measurement which was filed thru the gutter, into a down spout, angled away from the building so as not to catch any off fall. Our time indicator is a 2" piece of PVC with 90° elbow thru side of drum near bottom of it. This gave us an upright tube in which we dropped a pingpong ball which floated to the top with the level of the water inside. The tube was cut approximately 1" from the top of the drum and shaped to allow the ball to fall out when filled. When ball falls out time is stopped.

Use your imagination in decorating. Our CAFAA House is bright red with white trim- painted on door with half moon, windows with flames shooting out, and colored flowers around the bottom.

Bucket Brigade Shed



Material List:

5pc. 3/8" plywood 4'x 8'
 hinges- 7 fixed pin and 7 removable pin
 3 1/2 x 3 1/2 hinges (machine screws and bolts as needed)
 20' of 1 x 2 or 1 x 3 furring
 5' x 7' formica or other appropriate material as desired
 good grade exterior primer and paint
 approx. 5' of K gutter, two end caps, one drop piece, 2 reg. elbows
 1 flat elbow, one piece of down spout
 30 gal. drum, 2' PVC line, (2"), and one elbow with necessary fittings
 ceiling corner bead trim 4 pc. 8' if desired
 4- 1/4" steel pins 3-4" long
 ping pong balls

How to Arrange a Multiple Alarm Demonstration

Leonard W. Williams

- I. History of multiple alarm demonstrations.
- II. Equipment required.
 - A. At least two people with vivid imaginations and knowledge of fire department procedures and fireground tactics.
 1. One or both can lay out the demonstration.
 2. One will have to be the announcer, to fill the audience in on what's happening, broadcast the 2nd alarm, etc.
 3. One will have to be 'chief' on the fireground to keep the crews from driving over each other, etc.
 4. Additional personnel will include at least one 'starter' to release the rigs from the staging area. More 'starters' will be required if there are two staging areas or more.
 - B. At least 3 two-way walkie talkies so that the three people mentioned above can communicate with each other.
 - C. Paper to lay out the demonstration.
 - D. A water source.
 - E. Operable pumpers with hose, playpipes, etc.
- III. Procedure for setting it up.
 - A. Plan ahead.
 1. Envision the site of the 'fire'. Where will the rigs be coming from, where will they get water, where will they aim the water, will there be damage to surrounding property, will the audience get wet?
 2. Based on your knowledge of participating teams and rigs, tentatively plan where you would like to see which rig doing what.
 3. If you have a good idea of who is likely to participate, contact in advance the teams or owners, verify their desire to participate, and request that they sufficient 2½ hose, 1½ hose, playpipes, multiversals, etc. , You will tell them what is sufficient.
 - B. Using the above data, sketch up what you wish to do.
 1. Hopefully you will have enough rigs, owners, teams, etc. whom you can count on so that you can have the 1st & 2nd alarms pretty well sketched up by participants.

How to Arrange a Multiple Alarm Demonstration (Cont'd)

III. (Cont'd)

B. (Cont'd)

2. The rigs, teams, owners, etc. who comprise the 3rd and subsequent alarms (if any) can be gleaned from these at the muster whom you have not previously contacted.
 - a. Rigs without hose or equipment can be run as manpower squadrons.
3. Have a meeting of those participating to explain what is to be done.
 - a. The first time is the hardest. After that, everyone, or almost everyone, will have seen one at least once and then it's simply a matter of getting the thing laid out and telling the parties who is to respond on which alarm.
 - 1) This planning includes who is to respond to which water source, who is to take supply line from which pumper, etc.
 - b. Be sure that there is thread compatability. Not every rig, nor is all hose, National Standard. Verify thread types first. This has proven to be a problem area at more than one greater alarm demo.
 - 1) One complication is that some rig owners don't know themselves what threads they have.

IV. It is uncouth (and bad P.R. for the fire service) to end the demonstration with a water fight. If one starts, that should be the signal to immediately give an 'all out' signal and start shutting down the pumpers.

A. Make this clear to all participants. See II.B3 above.

V. Typical narrative by the announcer and sketch of the action.

Announcer: Ladies & Gentlemen, we are now going to simulate the operations of a fire department in the 1920's, 1930's, and '40's, to show that these antique and classic rigs that you see before you can still perform as they did in their days of glory.

We have a smoke investigation at Alexandrine and Brush. Engine 5 respond to a smoke investigation in a commercial building at Alexandrine & Brush.

Action: Engine company responds to the simulated site. (For the best effect, a small facade, with smoke emanating from behind, adds to the reality.) This is a red light & siren response.

At the scene, the men get off the rig, take an extinguisher and axes, and investigate the building. After about 30 seconds they run back to the rig screaming 'working Fire', and the rig lays out to the hydrant, changes its line, etc.

How to Arrange a Multiple Alarm Demonstration (Cont'd)

V. (Cont'd)

Announcer: The captain from E5 reports a working fire and requests a full response. Engine 6, Engine 17, Truck 20, Squad 2, and Batt. 4, respond to a working fire at Alexandrine and Brush.

Action: Rigs respond, laying lines, setting up multiversals, raising the aerial for a water tower, etc.

Note: It helps if the walkie talkie can be placed against the microphone for the loud speaker. That way the transmissions from the 'chief' can go out directly over the loudspeaker.

Chief: We have a fully involved commercial building here, flames out the windows and threatening adjacent structures. Doubtful will hold. (after giving the 1st alarm companies time to set up) Give me a 2nd alarm on this box, another building is now involved.

Announcer: Check, Chief 4, a 2nd alarm on box 4135, Alexandrine & Brush.

Engine 6, Engine 8, Engine 1, Truck 3, Squad 1, Chief 1, Chief 201, respond to a 2nd alarm at box 4135, Alexandrine & Brush.

Chief: Tell the 2nd alarm truck to set up a water tower, all second alarm engines are to lay lines.

Contact the utilities.

Announcer: Do you want both gas and electric.

Chief: Yes, I want both gas and electric.

Alternate announcer: (A different voice, to simulate other talk from the field)
Shop unit one is responding to the multiple alarm.

This can escalate to as many alarms as there is apparatus to field. The whole show usually runs about 10 minutes before the 'chief' puts the fire under control and they start to pick up. That takes another 10 minutes for a total of about 20 minutes. However, it can be strug out to serve as a time filler for a muster that is moving a bit too fast.

In fact, that's the way these demonstrations got started, as a time filler at a small muster in Benicia, California 'way back in about 1971.....

Responding apparatus
Greenfield Village Muster
Sunday, July 22, 1979

Smoke Investigation	E27 - Noland's Highland Park ALF
Box	E30 - McCall's Ann Arbor ALF E31 - Leininger & Judge's Chevy Darley E86 - Towaco ALF T14 - Soderbeck's aerial (formerly Horstmann's)
2nd alarm	E58 - Stu Trock's Ford E29 - Jonesville's Ford E5 - Avondale's Ahrens-Fox T6 - Plain Hookers
3rd alarm	E42 - Kochanowshi's Seagrave Surbanite E85 - Sterling Heights Mack
4th alarm	E47 - Gotfriedson Bickle, Kingsville Ontario E57 - Pidlin's Studebaker E50 - Toledo Mack

The numbers came from simply using their parade identifying numbers.

These contests have been compiled to provide competitive events for both pumping and non-pumping antique motorized fire apparatus. Each event as described below contains information relative to the apparatus, equipment, and procedure. The general rules for both events are as follows:

1. Apparatus Entries:

Each piece of apparatus is limited to one entry per crew. Multiple entries will be accepted; however, each must be manned by a different crew. Apparatus entries that duplicate crew members will not be accepted.

Apparatus will be categorized into two classes: pre 1930 and post 1930 up through 25 years old.

2. Crews:

The crew size is limited to a maximum of six men. Apparatus entries that are short of manpower may be manned by a composite crew of volunteers from muster attendees. Contests require a Le Mans start. All crew members must be aboard apparatus before it leaves starting line. Entrants that leave starting line without full crew will be penalized 10 seconds.

3. Hose Pack:

All methods of packing hose into hose beds are acceptable. However, the hose bed must be packed with a minimum of 250 feet of 2½" hose. All hose in the bed must be continuously coupled. Entrants whose hose uncouples during layout will be penalized 15 seconds.

4. Layout:

The distance is 150 feet. The layed line must be uncoupled from the hose remaining in the hose bed and hooked to the hydrant as specified for the event.

Note: A 150' lay requires four lengths of hose due to the shrinkage that folded hose accrues when layed out.

5. Nozzle:

Nozzle must be carried on apparatus disconnected from hose. Nozzle must be connected at nozzle stand after layout commences. Nozzle may not be extended beyond nozzle line. A five second penalty will be assessed for extending the nozzle beyond nozzle line.

6. Pump Hook-up:

Any pre-connected soft suction hose or properly mounted hard suction sleeve is permitted. A length of 2½" or 3" line may be rolled and carried on the running board for soft suction hook-up. It is the responsibility of each apparatus entrant to inspect the contest hydrant and provide their own adapters if a thread incompatibility exists.

7. Safety:

After hook-up has been completed, the engineer's assistant takes a position where he can observe the hose crew. In the event the hose crew loses control of the line, the assistant engineer orders the engineer to shut down the line or decrease pressure as circumstances dictate.

EVENT 1. Combination Pumper/Hose Wagon

Crew: Up to six men including driver.

Apparatus: Combination Pumper/Hose Wagon including Quads and Quints manufactured 25 years ago.

Equipment: A minimum of 250 feet of 2½" hose packed into hose bed. Nozzle and tip will be furnished by the committee. Hard or soft suction hose as desired.

Procedure: Apparatus is parked on the starting line, engine idling, with the crew seated 20 feet from apparatus. When signaled to start, the crew mans the apparatus, drives 150 feet to the nozzle stand, comes to a complete stop, and drops off hose crew and proceeds to lay 2½" hose to hydrant. Engineer and assistant hook up pump to hydrant utilizing either soft or hard suction and pump through the layed line with sufficient pressure to enable the hose crew to knock down a target located 90 feet from nozzle line. Time is called when target falls.

Note: A ten second penalty will be assessed if apparatus does not make a complete stop (wheels must stop turning) to drop off hose crew.

Awards: First, second and third place trophy for best time for each class.

NOTE: Apparatus that has pumping capability only may team up with hose wagon and run as a two piece company. Two piece companies are allowed a six man crew, the sixth man being the wagon driver. The three man hose crew must ride on the pumper. The hose wagon must proceed in front of the pumper for the full length of the course and must arrive at the hydrant in advance of the pumper. The hose wagon driver may not leave the driver seat of his rig until time is called.

EVENT 2. Combination Chemical/Hose Wagon or Hose Wagon Only

Crew: Six men including driver.

Apparatus: Any hose carrying motorized apparatus manufactured 25 years ago.

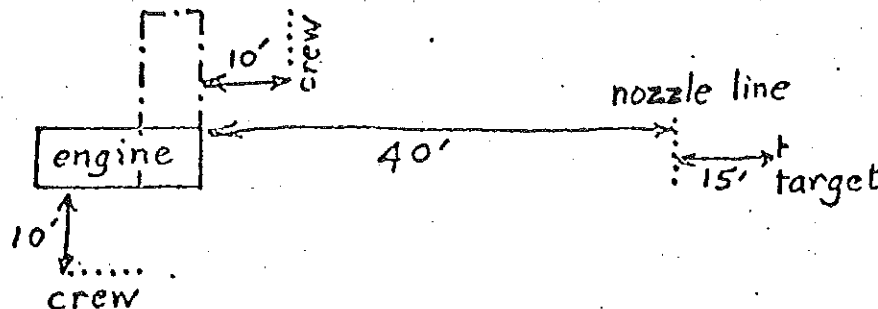
Equipment: A minimum of 250 feet of 2½" hose packed into hose bed. Nozzle and tip will be furnished by the committee.

Procedure: Apparatus is parked on the starting line, engine idling, with the crew seated 20 feet from apparatus. When signaled to start, the crew mans the apparatus, drives 150 feet to the nozzle stand, comes to a complete stop, and drops off hose crew and proceeds to lay 2½" hose to hydrant. The line is uncoupled from hose remaining in hose bed and connected to hydrant. Hydrant valve is opened and stream is directed at target 70 feet from nozzle stand. Time is called when target falls.

BOOSTER CONTEST RULES

1. Objective is to knock over target in the fastest time.
2. Team: to consist of two or three people: 1 or 2 pump operators and 1 nozzle man.
3. Course: the starting line shall be 10 feet from side of pumping engine, the nozzle line 40 feet from the engine to the side or rear depending upon location of reel or basket on side or rear respectively, and the target another 15 feet away from the nozzle line.
4. Equipment: a minimum of 50 feet of booster hose; a $\frac{1}{4}$ " plywood target with supporting rear triangular leg.
5. Preparation: Judges will inspect pump and hose to see that no pressure is trapped in same. Pump can be filled with water but line from tank to pump must be closed before strating time. Hand brake must be set and rear wheels checked front and rear. Engine will be idling with pump lever in road position and road transmission in neutral. Team to be positioned on line 10 feet from side of engine.
6. Timing: Timer will signal contest to begin, booster line will be advanced to line 15 feet from target, operator will open throttle and increase pressure not to exceed 70 p.s.i. Time stops when target is knocked over by stream of water.

This contest was designed to utilize the simplest "tools" so as to encourage apparatus owners, new or otherwise, to participate.



RESPONSE CONTEST RULES MOTORIZED APPARATUS

I. Assemble at starting point.

A. 6 person crew maximum - 4 persons minimum.

1. All coats, boots and helmets (all crew members, including driver MUST have) will be off and put in designated location.
2. Driver need not wear coat, helmet, or boots but must be on rig.
3. No pre-connected or squirrel tail suction hoses allowed.
4. All caps must be hand tight on outlets and inlets and pumps dry.
5. All straps must be buckled or clamps in place on hard suction.
(2 1/2" or larger acceptable).

NOTE: All above items will be checked by an official.

II. At the sound of the alarm.

A. Put on coats (at least 2 buckles snapped), boots, and helmets and proceed to rig.

1. Driver may go directly to engine and start it, but cannot proceed until Official gives signal that all persons are safely on rig and dressed.
2. Caution! Do not use excessive speed when responding. If the Officials consider your speed unsafe you can be penalized from 30 to 60 seconds which will be added to your response time.

III. Responding to "Fire".

A. Respond to "fire". Make a complete stop while crew members pull off part of the 2 1/2", or smaller if so equipped, line with nozzle connected. (Stretch 3 lengths). This line need not be connected to other hose in bed.

1. Continue on to portable tank and proceed to hook up for drafting.
 - a. 2" or larger suction may be used. No Pre-connected or Squirrel Tails.
2. 3 persons must be in control of nozzle when pumping begins.
3. Pump pressures not to exceed 70 psi
4. At least 3 lengths of 2 1/2 line must be carried on rig.

NOTE: Timing for this event begins when the alarm is sounded and ends when the target is hit.

FAIRCHESTER HOSE HAULERS ASSOC.
FAIRFIELD-WESTCHESTER REGION
S P A A M F A A

ARENA PUMPING MOTORIZED RULES - FHHA MUSTER

1. Team shall consist of no less than five (5) men and no more than eight (8).
2. Standard fire apparatus shall be used with booster tanks and pumps drained and motor off.
NO HOT RODS.
3. Trucks will be inspected by judges before run. If the judges feel that a rule is being broken during inspection, they will point it out and team must correct it or they will be disqualified.
4. Pony suction will not be allowed.
5. Only drivers will operate pump.
6. Men will be in turn-out gear. (Boots which must be pulled up; coats which must have three (3) snaps closed and helmets. Driver will be excluded from turn-out gear rule-except helmet).
7. All 2½ inch and 1½ inch nozzles and wye may be preconnected, except 2½ inch to truck. Strainer will not be used.
8. 2½ inch hose must be connected to one or more lengths of hose remaining in hose bed.
9. Lines may not be removed from truck until engine is started. ABSOLUTELY NO PREPARATION OF EQUIPMENT BEFORE ENGINE IS STARTED.
10. Each 1½ inch hose line will have its own target. Each hose will trip its own target.
11. There must be two (2) men on each nozzle when water is received.
12. Maximum time allowed from start to completion (tripping of target) is 3 minutes. Any team exceeding 3 minutes will be given "no time".
13. Timing judge will signify completion of contest.
14. At the completion of run, each company will have three (3) minutes to pick up its hose and move truck off line. Every second after the three minutes will be added to the contest time.
15. Any abusive protest during the contest with judges, spectators or other officials will mean automatic disqualification. Also, any act deemed unfair to competing teams will result in disqualification.
16. Decision of the judges will be final.
17. There will be five (5) seconds penalty added to a team's time for any of the following violations:
 - a. Each man crossing gear line not fully clothed (see rule 6)
 - b. Boots not pulled all the way up - 5 seconds per man
 - c. Less than 3 snaps secured on coat - 5 seconds per man
 - d. Less than 2 men on nozzle when water is received
 - e. Preparation of equipment before engine is started
 - f. Each man over nozzle line when target is tripped
 - g. Each man who dismounts truck before engine starts

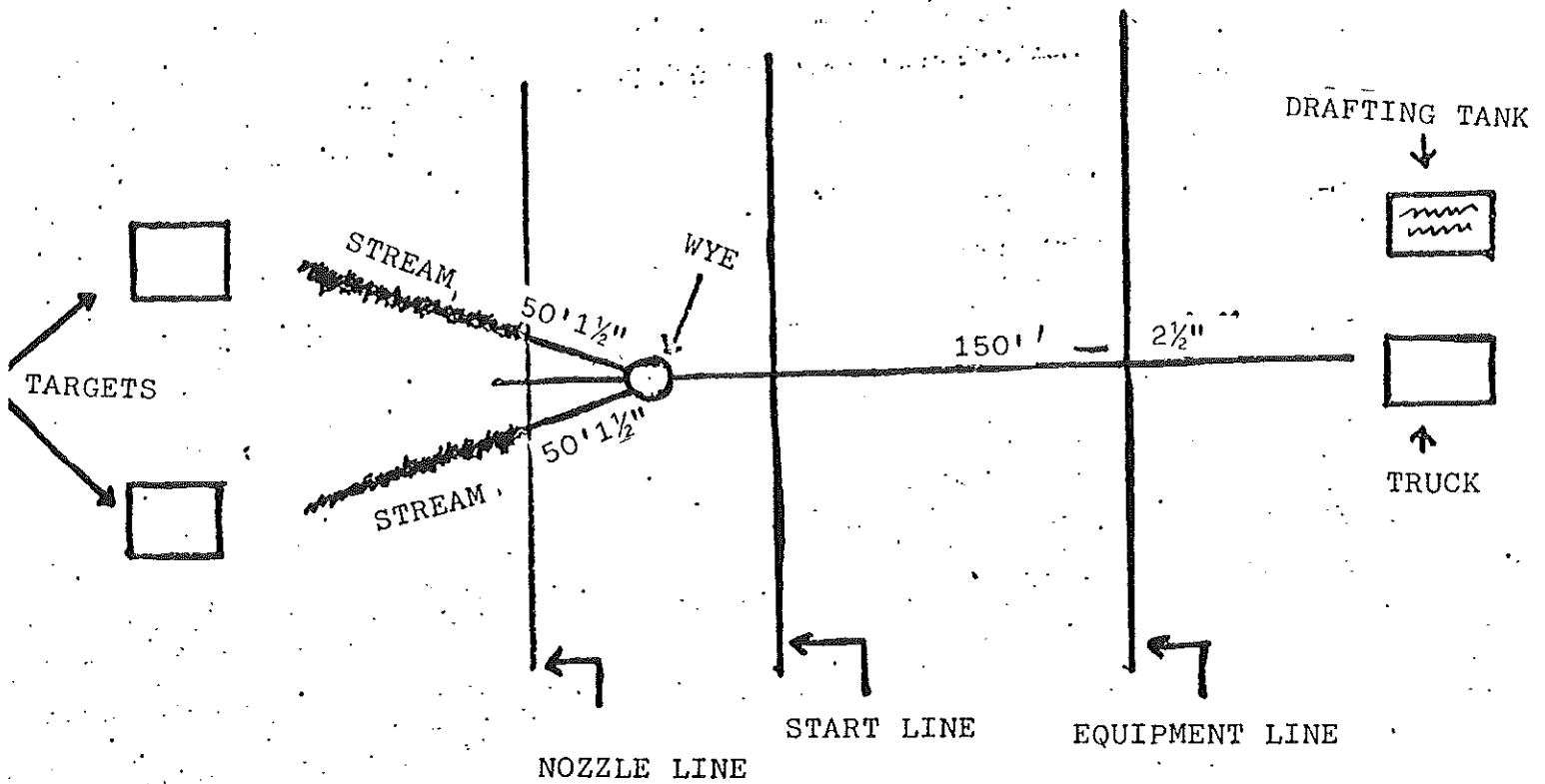
Driver shall spot truck at drafting tank, shut off engine and return to starting line (driver shall have only one chance to spot truck). While driver spots truck, team members will arrange turn-out gear at equipment line and return to start line. No time taken.

Team shall line up at starting line. At start signal, team will proceed to equipment line and put on gear (boots, coat and helmet). As soon as individual is fully geared (see rule 6) he may leave line and mount truck. Driver may not start engine until last man has mounted truck. Once driver has started the engine, the men will dismount.

(over)

(Arena Pumping Motorized Rules - continued)

Two (2) 10 foot lengths of hard section will be used to draft. One hundred (100) feet of $2\frac{1}{2}$ inch hose, wyeed to two (2) fifty (50) foot lengths of $1\frac{1}{2}$ inch hose will be stretched to target line. Driver will supply water at sufficient pressure to trip targets. Timing judge will signify end of contest when both targets are tripped.



GREAT LAKES CHAPTER

INTERNATIONAL WATER BALL RULES FOR MEN AND WOMEN REVISED ON MARCH 9, 1974

Equipment

Standard 15" ball of 16 gauge steel, fig. No. 1 Ball to be painted yellow, hanger to be painted black. Cable to be 3/8", 6 strand hemp center regular lay 12,000 lb. breaking strength or better, no greasing of cable. Cable 10' above court. Cable to be made as tight as possible.

Playing Field

Waterball equipment shall be erected on level street or other playing surface of suitable type for secure footing when wet. The "A" frames shall be 110 feet apart. The court shall be 30' wide, 110' in length. The team, their captin and contest officials are the only personnel allowed on the court during the contest.

The playing court shall be marked as follows, fig. No. 2. The center point of the cable shall be marked an equal distance from each end of the playing field. The cable shall be painted 3' each way from center point, a total of 6'. This area is to be called "Dead Time."

The 7 1/2' mark each way from center shall be marked 5" each way or a total of 10" of solid marking.

Starting line shall be marked 15' each direction from the center point.

Guard lines shall be marked 40' each direction from the center point. Cable clamps shall be secured to the cable 45' each direction from the center point.

The cable markings and the court markings shall be painted with yellow DaGlow paint or similar.

The court shall have 1 strips under each cable mark, as shown in fig. No. 2.

There shall be an on deck circle provided close to the court, convenient to each particular contest.

Playing Rules

A man's ball team shall consist of (1) guard and (3) fieldmen, (No. 1 nozzle man, No. 2 back up man, and No. 3 hoseman), 1 coach.

A ladies' water ball team shall consist of (1) guard and (4) fieldmen, (No. 1 nozzle-man, No. 2 back up man, No. 3 hose man, No. 4 hose man). There may be 2 coaches per team.

On the ladies team, the nozzle coach shall be 4 feet across from players. The assistant coach 3 feet across from back-guard to relay messages from coach. The assistant coach may relay messages from the coach and assist the back-guard by holding hose, but not to make contact with nozzle.

The fieldmen must cross streams over the ball before signal to start contest.

The fieldmen are permitted to stand any distance back of the 15' starting line at the beginning of the contest. After contest is started, they are free to maneuver any place on the playing field. The 3 fieldmen may change position during any 3 minute heat. Between any heat, any of the 5 team members may change places. Teams change ends for second heat of contest.

The nozzle pressure shall be 90 lbs. with both lead nozzles open, plus 1 guard nozzle.

The 2 nozzle men must cross streams over the ball before signal to start contest.

The guard must stay back of guard line 40' from center at all times, while the contest is under way.

The guard may turn on nozzle when ball is on 7 1/2' mark and must shut it off at 3' mark from center point. All timing and judging shall be done from center of ball.

Ladies official game shall consist of 2 heats, 2 minutes each. A man's official game shall consist of 2 heats, 3 minutes each. After first heat has been played, second heat is delayed until all teams have played first heat.

The two teams in the final playoff shall have a ten minute rest period before the game starts, with a 3 minute rest between heats.

Protective Gear

Men's team and coach shall wear the following:

1. Standard firemen's helmet or safety helmet of their choice.
2. Standard firemen's boots.
3. Standard firemen's coats.

Women's team and coaches shall wear the following:

1. Standard firemen's helmet or safety helmet of their choice.
2. Standard firemen's coats or raingear of their choice.
3. Boots or sneakers of their choice.

Method of Timing

There shall be one starter and two timekeepers, all of whom are classed as judges with all judges decisions final.

If contest is stopped because of trouble with equipment or lack of water, the ball shall be started from where it was when the failure took place.

Fifteen seconds will be credited to team scoring goal. A goal is scored by driving the ball into the opponent's territory and against cable stops 45' from center.

The fifteen seconds credit for scoring goal shall not be counted as playing time.

On completion of goal, the ball is to be started at center, using balance of the three minute time of heat. Balance of two minute heat for ladies.

There is no 'scoring' time kept while ball is in "dead time" area.

Hose Layout

The fieldmen of one team shall have 100 feet of 1 1/2" hose.

Both hoses for fieldmen shall be supplied off the same 2 1/2" lines.

The guards shall have 100' of 1 1/2" hose each, with both guard hoses being supplied off the same 2 1/2" line.

Shut-off nozzles shall have 1/2" tips - no gates or valves shall be used on Y's.

MANUAL PUMPING CONTEST RULES - FHHA MUSTER

1. Hand pump apparatus will be judged in three catagories (depending on size of apparatus, etc.) for fastest water.
2. All pumping will be from drafts with one 10-foot length of hard suction.
3. Pumps shall be primed and ready to go.
4. One length of hose -- 50 feet in length, with a straight playpipe attached, shall be used. Both shall be drained of water and disconnected from pump prior to judging.
5. The judges will inspect the hose and nozzle and direct entrant to connect hose to pump.
6. The nozzle shall be attached to a fixed object, securely - - or, held by 3 men.
7. The team captain shall signal the judge when his team is ready to start. The judge will then give the signal to start and commence his timing until in his opinion, a solid stream of water is discharging from the nozzle. Judge's decision will be final.
8. All entrants will have two timed chances--best time will be used.
9. Judges shall determine the size nozzle tip acceptable for contest according to the size diameter of the hose and pump to be used.

Classes: 1. Specially Made (odd manufacturer)
2. 1½" discharge (without holding tank)
3. 2½" discharge (without holding tank)
4. 1½" discharge (with holding tank)
5. 2½" discharge (with holding tank)

POTATO RACE

1. Winner - Fastest time with all potatoes in sack (10) and cross finish line.
2. All potatoes must be picked up, and in numerical order, in order to score.
3. If driver makes vehicle pass up the next potato in line, he must back up to position and spiker must pick up potato, before proceeding to next one.
4. All contestants must remain in the front seat of their vehicle during course of contest, spike each potato in order and place same in sack provided for this purpose, then proceed to the next potato in order.
5. Only the driver and spiker will be allowed on the apparatus during this event.
6. This event is for apparatus not able to or not participating in pumping contests.
7. The decision of the Judges will be final.

