S.A.POLICE DEPARTMENT
EMERGENCY FIRE SERVICES
Police Barracks
THEBARTON 5031

TESTING and RECHARGING FIRE EXTINGUISHERS

Members of the Emergency Fire Services can assist the proprietors of Places of Public Entertainment; business houses and residents in the district, by periodical inspection and recharging of fire extinguishers.

Given as a voluntary service, with the owners meeting the cost of recharges and any replacements, E.F.S. members should point out to those who receive the service, that no responsibility is accepted for any subsequent failure of the equipment.

Instances have been known of the unauthorized interference with fire equipment after it has been tested and of fire extinguishers which have failed through some latent defect undetected in the manufacture or during testing.

STANDARD IDENTIFICATION COLOURS: (AS A129-1962 : Table 1)

Type	Class of Fire	Colour
Water - Chemical (Soda-acid)	"A"	Red
Water - Gas container	"A"	Red
Water - Stored pressure	"A"	Red
Foam - Chemical	"B"	Blue
Foam - Gas Container	"B"	Blue
Bromochlorodifluromethane (BCF) *	"C"	Yellow } see note
Chlorobromomethane (CBM) *	"C"	Yellow } see note
* Halengonated Hydrocarbon types		
Dry Powder Chemical	"B" & "C"	Red with White band
Carbon Dioxide (CO_2)	"B" & "C"	Red with Black band

Note: BCF and CBM extinguishers may be finished in polished brass as an alternative to painting yellow.

I. SODA-ACID (Reversible type) - 2 gallons.

INSPECTION:

1. Remove Cap - Preferably use special large tongs, or made-up spanner. If lugs are "tapped" to loosen cap, then use a block of wood between the hammer and lugs to prevent damage. Before screwing fully off, ensure that small breather holes in side of cap, when they come above the extinguisher body thread, are clear to release any gas, should the extinguisher have been accidentally actuated and the outlets blocked.

2. Remove Acid Bottle - Carefully remove lead stopper and acid bottle cage. The acid is Sulphuric and highly corrosive - dangerous to eyes, skin and clothing. (In case of accident - wash immediately with plenty of water - use the soda solution from the extinguisher, which will neutralise the acid).

I. SODA-ACID - cont'd.

INSPECTION - continued:

3. To test acid and soda solution - Pour about 1 inch of the soda solution from the extinguisher into a clear glass jar - drop in a few drops of sulphuric acid - if the action is vigorous, then both acid and soda solution are satisfactory. Top-up acid bottle and soda solution to correct marks, if required. The acid bottle is never completely filled and should contain three (3) to three and a half (3½) .. 3 to 3½ fluid ounces.

4. Hose and Nozzle - Inspect hose and nozzle (some extinguishers have a nozzle only). Ensure that hose is secure, not perished and neither hose nor nozzle blocked - blow air through to check.

5. Inspect body of Extinguisher - Inspect for any signs of corrosion, rust or damage. If there are any doubts as to condition, extinguisher should be forwarded to S.A. Fire Brigade or to the manufacturer for pressure testing.

6. Clean and grease cap threads - Brush out clean and lightly grease cap threads and check breather holes in cap to see that they are clear.

7. Re-assemble - Carefully replace cage, acid bottle and lead stopper. Replace cap (ensure that washer is O.K. and in place) screw down firm, hand tight, and do NOT hammer in to position. The cap should screw down sufficiently to engage above the breather holes so as to close them.

8. Clean body - Wipe the extinguisher body clean, especially the "directions to operate."

9. Label - Attach label to handle showing date of inspection and signature.

10. Replace - Re-hang extinguisher in correct position.

11. Next Inspection - It is recommended that Soda-Acid Fire Extinguishers be inspected as laid down above, every three (3) months. Hydraulic pressure testing (see 5 above), should be carried out every four (4) years, if not tested before, due to damage, etc. Soda-Acid Extinguishers should be tested by discharge, every twelve (12) months.

RECHARGING:

Procedure generally as "Inspection" except that the soda solution should he emptied out fully and the extinguisher washed out with water from a hose. Place the soda in the extinguisher and fill with clean water to the correct level, about three-quarters (¾) full - there is usually a marker inside or a level mark on the outside body. Stir with a clean wooden stick until all soda dissolved. (Another method is to mix the soda in a measured amount of warm water in a clean bucket. Do not use hot water as this breaks down the soda. Stir well. Pour into extinguisher to correct level - never overfill). Carefully renew the acid. Follow any instructions printed on the recharge containers. (Do not forget to replenish your stock of recharges straight away).

It is a sound idea, when extinguishers are due for recharge, to permit some person who may have to use the extinguishers to discharge them on small test fires, for practice.

II. FOAM EXTINGUISHER (Reversible type) - 2 gallons.

INSPECTION:

Procedure same as for Soda-Acid, EXCEPT for 2. and 3., also the first sentence of 7.

Carefully remove inner container, keep upright, place in a position where it will not be accidentally knocked over. Pour about 1 inch of liquid from outer container (main extinguisher body) into a clear glass jar. Pour in about dessertspoonful of inner container liquid. A thick foam should be produced approximately eight times original volume. Carefully replace lead stopper in top of inner container. Wipe down inner container, especially near top. Replace slowly into outer container. Carry out remainder of Soda-Acid inspection procedure.

Inspections and testing, including hydraulic pressure testing periods are the same as soda-acid extinguishers. (see I. 11 above).

RECHARGING:

1. Remove Cap - Follow instructions as for Soda-Acid extinguisher, (see I. 1 above). If of the 'seal' or marine valve type, disengage seal or valve first before attempting to unscrew.

2. Inner Container - Remove and place to one side.

3. Wash - Thoroughly wash all parts, removing any solid matter which may be found. Water from hose very useful. Drain both the inner and outer containers by inverting. Do not forget to flush out hose and nozzle.

4. Recharge tins - Read instructions on No. 1 charge first. Thoroughly dissolve contents in a clean bucket, as directed. Read instructions on No. 2 charge. Thoroughly dissolve contents in a separate clean bucket.

5. Filling Containers - Pour dissolved contents of No. 1 charge into the outer container to level mark. Do NOT overfill. Pour the dissolved contents of No. 2 charge into the inner container, - again, do NOT overfill.

6. Wipe - Wipe off any spilled liquid from inner container. Replace lead stopper (if fitted).

7. Reassemble - Carefully insert inner container into outer container. Replace cap (ensure washer O.K. and in place), screw down firmly - hand tight - do not hammer into position. Clean body, label and replace. (See I. 8; I. 9; I.10).
(Where 'seal' or marine valve type, ensure that these are in the 'closed' position before re-hanging or stowing on vehicle, etc.)

III. BROMOCHLORODIFLUROMETHANE (BCF); CHLOROBROMOMETHANE (CBM).

INSPECTION: TEST: RECHARGE:

Halogenated hydrocarbon Extinguishers. - Are vaporizing liquid type extinguishers which depend upon smothering and to some extent disruption of the chain reaction of combustion for their effectiveness.

Both gases are toxic but much less so than the superseded CTC.

Inspect at no longer intervals than six (6) months. Check weight and pressure indicator (if fitted), outlet, (not blocked), signs of corrosion or damage.
At no longer than twelve (12) monthly intervals, have checked by suppliers, or S.A.Fire Brigade.
Extinguishers should be maintained to suppliers recommended capacities and pressures.

IV. CARBON DIOXIDE (CO2) EXTINGUISHERS.

INSPECTION:

These extinguishers are checked by weight. Each extinguisher should have a label showing the weight of the cylinder and weight of contents. Check with tested scales - if weight of contents drop below 10% of listed weight - return to supplier or S.A. Fire Brigade for recharging. Check for blocked or damaged hose and delivery horn - check whether wire seal is in tact. Ensure that CO2 extinguishers are not installed in sun or where temperature exceeds 130°F.

VII. DRY POWDER (Gas Expelled) EXTINGUISHERS.

Some types have the gas expellant, usually CO2 or Dry Nitrogen, contained in a separate cylinder which should be checked by weight, - others have the gas and powder in suspension in the cylinder - again check by weight.

As there is now a wide variety of Dry Powder Gas Expelled Extinguishers on the market, the advice of the suppliers should be followed for servicing.

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