

PÁNTYA PÉTER

THE BASIC EQUIPMENTS FOR PROTECTION OF HUNGARIAN FIREMEN

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In this article the equipments for protection of firemen are listed. As for one of the most dangerous professions, for firemen who put out fires and do technological salvage jobs there should be provided equipments for protection. With the use of these and with keeping the labour safety rules the injuries can be reduced, minimized. In the article – according to the topic - there is a brief and general description about the present state of rules in Hungary, the prescribed equipments and some of their parameters.

Ebben a cikkben felsorolásra kerülnek a magyarországi tűzoltók alapvető védőeszközei. Mint az egyik legveszélyesebb munkát végzők, a tűzoltók, akik tüzet oltanak és műszaki mentések során látnak el feladatot, különféle védőfelszerelésekkel kell hogy ellátottak legyenek. Ezek használatával és a munkavédelmi szabályok betartásával a sérülések csökkenthetőek. A cikkben ismertető és általános leírás található a vonatkozó magyarországi jogszabályokról, a védőeszközökről és néhány vonatkozó paraméterükről.

Labour safety, namely protecting the life and health of those who do their jobs is an elemental task in all parts of life¹. We should be specially careful with the scope of activities where workers have to do hard and dangerous labour work. Danger and risk is raised if they have to work in unexpected circumstances, unknown contingencies, specially when this task is obligatory. Firemen who are on standby service work in these circumstances irrespectively of doing service in an establish-

¹ 1993. XCIII. act, about labour safety

ment, as a voluntary or as a professional. The risks of fire and damage do not select among the positions. The protection of life and health of interloper fire brigade should be supplied as high as possible by the fire brigade organizations or supporter.

In this article I am writing a general expose' about the equipments for protection of Hungarian firemen and about their system of conformance and usage.

Individual equipments for protection of firemen

Labour safety is a two sided idea at the fire departments. On one hand the fireman is needed who keeps the safety rules, wears and uses the obligatory equipments for protection, on the other hand the employer has to provide the regulation, education and the very equipments for protection in the right quality and quantity.

By the authority of the order of Ministry of Home Affairs the 15/2000 of the arrangement of disaster recovery the 65/2002 contains those individual equipments for protection which are obligatory should be provided to the firemen who are in alarm service and obligated to wear and to use. In the determination of regulation every tool is defined as an equipment for protection which is kept or worn by the fireman to reduce the risks which are resultant from their scope of duties to non dangerous level to their health. It is needed to train the enlisted firemen how to use these equipments and also to refresh this knowledge once a year as a labour safety education. Firemen have to examine their equipments for protection when they take up their duties and also before using them. In the case of detecting failure they have to report it.

The followings are the obligatory equipments for protection for firemen:

- coveralls;
- helmet for protection (with mask and neck cover);
- cowl against heat;
- boots for protection
- gauntlet (labour and chemical);
- belt for climbing;
- mask for breathing;
- ear plug against noise.

The first thing when they are purchased that we have to examine whether they are authorised by the Hungarian Disaster Recovery Directorate General. Before the purchase their conformance has to be proved with a certificate of type number and safety quest sign which was given by the Superintendent Office of the Hungarian Labour Safety and Labour Cases or according to the signs of the European Union (warrant by the EU Compliance list, type certificate). These certificates have to be preserved by the fire brigades because of the possible control in the future.

Equipments for protection, their maximum time of usage and other parameters

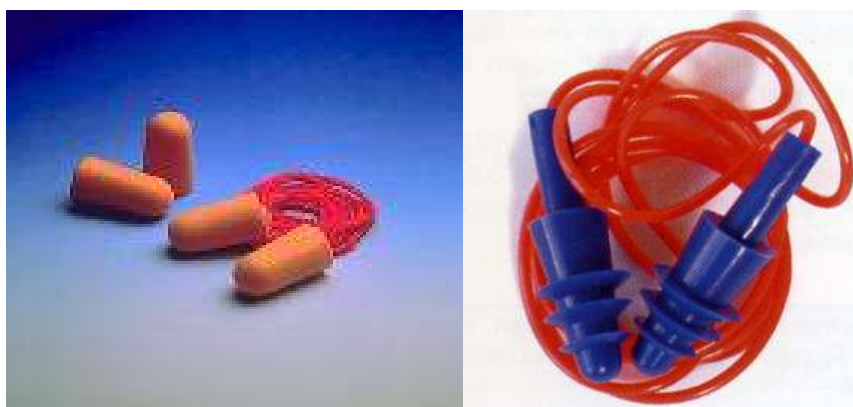
Coveralls:



Picture 1 and 2: Sortie fireman coveralls next to the fire engines in store to get the firemen to get dressed as soon as possible.
(Own pictures, 2009.)

There are available various coveralls produced by several manufacturals in Hungary. The Hungarian made brand Vektor is also available besides the conventional Bristol and Sattler. Their differing parameters can be significant during the every-day use. The inside lining of product of a manufacturer can be taken out for summer while another manufacturer builds in protectors and safety lining to the elbows and the knees and also products coveralls for summer and winter. Flame resistance is the first important basic requirement of course. Proposed period of time to wear: 5 years.

Ear plug against noise:



Picture 3 and 4: Disposable labour safety ear plug against noise.
(Authority: www.trinti.hu, downloaded: 30.12.2010.)

The use of these is principally needed in case of technological saving, because of the noise of the different boisterous machines. It is a cheap, little, simple equipment but without it the hearing of the interlopers can be damaged easily. It worsens talking communication significantly but it can be hard to eliminate with that price rate.

Helmet:

The face mask is designed anatomically, collapsible and its copy is flame resistant and commutable, collapsible goggles can be built in and other devices can be clipped. Several types are available by various

manufacturers. They basically differ in the design and cippable devices, equipments. Suggested period of time to wear: 5-15 years



Picture 5: Draeger Gallet sortie helmet for firemen.
(Own picture, 2009.)

Cowl against heat:



Picture 6: Several types of cowls against heat which are very good to use when the weather is really chilling.
(Authority: www.agriamento.hu 2010.)

Besides flame resistance is a very important aspect that it can not cause irritation. Suggested period of time to wear: 5 years

Boots for protection:



Pictures 7 and 8: Boots made by various manufacturers.
(Own photo, 2009.)

Comfort of wearing, providing natural ventilation, possibility of quick dressing up, taking down, protection against sting and cut, non-skidding and protection against several chemicals have to be among the first viewpoints of conformance. Suggested period of time to wear: 5 years

Gauntlet (labour and chemical):



Picture 9: Flame resistant, labour and chemical safety gauntlet for firemen. (Own photo, 2010.)

It can be said that firemen do not like to use those various gauntlets during their duties because they are cumbersome. In course of fire and damage cases quick work is elemental and doing part activities accurately, responsibly and carefully is at the expense of time but keeping the labour safety rules is obligatory. Gauntlets protect (besides their attribution of defining movements) against injuries of burn and mechanical. Fortunately gauntlets against chemicals are rarely needed in acute situations.

Suggested period of time to wear: 1 year for labour safety gauntlets, 3 years for gauntlets against chemicals.

Belt for climbing:



Picture 10 and 11: belt for climbing for firemen, with screw carabiner-swivel against unexpected unbrace, Own photos 2009.

It protects the high working firemen against falling down by tie but various equipments can be fixed onto it. They can be used very well going into places full of smoke in depth or in closed rooms but it has a huge role when firemen save people from high or save themselves. Big carrying capacity and easy tractability is very important. Similarly to everyday belts this belt can also be bought in several sizes according to the peretension of the firemen. Suggested period of time to wear: 5 years.

Mask for breathing:



Picture 12 and 13: mask for breathing from front and inside.
(Own photos, 2010.)

The very mask can be hard to separate from the very whole respirator because it forms a unit with the bracer, compressed air bottle, decompressor and other accessories (for example: „bodyguard” system). The mask provides the smooth floating of air which is pressurized and was taken by the fireman to the mask, so it provides the right pressure for the protected parts of face and eyes independently of the environment outside. In the case of mask providing eyesight without distortion, ability to close and to suit properly, convenient vapor-proof property, possibility to communicate, easy and safe fixing are obligatory important.

The pressurized air in the mask provides that in case it does not suit perfectly the air floats outside and it does not let polluted air to get in the mask. Suggested period of time to wear: 5 years

The period of time to wear can be extended according to the order of 31/2001 of Ministry of Home Affairs by a review and in case of determining the concrete time of production after doing a proper examination in a laboratory. The individual equipments for protection are obligated to be reviewed periodically according to the regulation of

the manufacturer by the above order.

The above mentioned equipments for protection have to be changed and the circumstances have to be examined in case of damage, loss of protecting ability.

Summary

Equipments for protection which are distinct by fire departments are a problem in the organization of the Hungarian Fire Department. There are several fire departments where some equipments for protection are made by different manufacturer and they are used at the same time so sometimes it can be that two fire-engines are used which have different types of equipments for protection that are not compatible with each other. It makes exchangeability a lot hard and makes a great expense on the fire departments during purchases, maintenance and storage.

In my opinion it is very important to broaden the form of the system of brigade trial at the fire department. This should be done by the following way: every territorially purchased equipment has to comply even it is a labour safety tool, fire engine, hose pipes, hand lamps or communicational tools. I think it can be very useful during the brigade trials from the viewpoint of the future users either voluntary, establishment, professional fire departments, or disaster recovery organizations can make a trial at the same time by providing the consultancy forum. „Edifying accidents” is issued every year by the Hungarian Disaster Recovery Directorate General with the summary of accidents at the workplace of firemen during the past years. In my opinion it is very useful and I suggest its distribution widely among the similar defence organizations and also among other organizations even to international forums.

Authorities

1. Zsolt Rajnai fireman colonel: Individual protection of fireman at the Professional Autonomous Fire Departments, PowerPoint slideshow presented at Pécel in 24. May 2007, http://www.bm.hu/kok/kiadvanyok/pecel_2007/tuoszemved2007.pps

Referring Hungarian law

1. 1993. XCIII. act, about labour safety
2. 15/2000 order of the Ministry of Home Affairs, about the rules of safe work without risk of health at the order defence organizations controlled by the Home Secretary
3. 31/2001 order of Home Secretary about the detailed rules of adaptability of fire service, technical assistance and other fire service techniques
4. 65/2002 disposition of the director-general of the Hungarian Disaster Recovery about supplying the enlisted firemen with individual protecting equipments
5. 6/2005 disposition of the director-general of the Hungarian Disaster Recovery about the modification of 65/2002. about supplying the enlisted firemen with individual protecting equipments
6. 11/2005. disposition of the director-general of the Hungarian Disaster Recovery, about the tasks applying to labour safety