

SAFETY IMPLEMENTATION OF LAND AIRCRAFT SERVICING BY TECHNICAL EQUIPMENTS, PRESSURE AND GAS EQUIPMENTS.

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Summary: The main subject of this thesis is a safety in carrying out ground handling by technical equipment, pressure and gas equipment. There is provided an analysis of the actual aircraft ground handling in this thesis, technical equipment, which are used in this activity and a significant part is devoted to a given topic – Providing Security in carrying out ground handling of aircraft. There are various cutting technical equipment described in this thesis according to the degree of threat.

Keywords: Ground handling of aircraft, technical equipment, gas, pressure

1. INTRODUCTION

Ground handling is an important part of aircraft handling process. It covers a wide range of services provided by the airlines at airports to support air transportation. Efficiency, accuracy and speed belong to the core objective of aircraft ground handling. To meet these aims are necessary essential means of ensuring the readiness of ground handling of aircraft professionalism and relevant professional qualifications of staff performing the ground handling of aircraft. Decision for the processing of the master's thesis, which is focused on the use of technical equipment of ground handling of aircraft which implies a proper follow of specific directives, laws and regulations has been for me a new possibility how to get deeper into this issue, which has also resulted in the formulation and processing comprehensive material for the means of ground handling of aircraft. The first chapter is the definition of ground handling activities as well as activities directly related to the subject of this thesis. The second chapter will be mostly about technical device in each sub-chapter divided according to the degree of threat that is given pursuant to the Act no. 508/2009 Z. z., further appropriate documentation that is needed for activities related to technical equipment, measures for the implementation of these activities, and as a last thing the professional competence of serving dedicated technical equipment. This thesis will be concluded by the third chapter, which deals with safety analysis in carrying out ground handling of aircraft, where I rely on the operating and safety regulations, laws clearly defining responsibilities to ensure health and safety at work as well as safety of technical equipment, including the competence of personnel in the field.

2. GROUND HANDLING OF AIRCRAFT

Ground handling covers a wide range of services provided by the airlines at airports to support air transportation. Terms of specific activities, which include, inter known to passengers loading and unloading luggage, securing their entry and exit as well as other technical activities such as maintenance, de-icing aircraft, refuelling aircraft parts oxygen and nitrogen, cargo handling as well as services essential for safety and comfort of passengers. Ground services can be defined as an important part of the aviation system.[1]

3. TECHNICAL EQUIPMENT

Technical means are hedged under special rules and regulations governing the details on safety at work with technical means. Specify requirements intended for technical resources on which they are based, modify, distribute, or save the classified facts and details about the manner of certification of technical devices. Next, determine the details of the adjustment and processing of security projects on the technical means and the issue of use safety standards. Provisions of the Decree governing technical equipment resulting from lawful directives of the EU Council guidance concerning safety and health at work. General document for customizing care of dedicated technical equipment is Directive. 89/391/EEC on the implementation and measures to encourage improvements and safety at work.[2][4]

3.1. The distribution of technical equipment

Technical equipment are units of pressure, lifting, electrical and gas equipment. According to the degree of threat they are grouped to three groups:

- **A** – with high levels of threat
- **B** – with higher rate of danger
- **C** – with lower levels of threat

As classified technical facilities shall be of group A and group B.

3.2. Activities of technical inspections

An activity of technical equipment is the production of technical equipment, installation, maintenance, renovation, repair, professional inspection and test, conducted by the organization under an authorization issued by the Inspectorate of safety and work on the opinion of Technical Inspection.[3]

Table 1 Inspection activity

Serial number	Name of inspection	Type and extent of inspection
1.	Pressure Equipment	- Assessment of the design documentation of pressure equipment SR MLSA Decree no. 508/2009 - Verification of the competence of the organization - Type, service and repeated tests by MLSAF no 508/2009
2.	Gas Equipment	- Assessment of design documentation for gas equipment - Verification of competence - Type, service and repeated tests MLSAF no. 508/2009

3.3. Health and safety at work

It is necessary to abide the legislation while respecting occupational health and safety, the main rule no. 124/2006 Coll. The act stipulates the obligations and measures that are necessary to ensure the safety and health at work due to the nature of activities. OSH generally contains principles and the precautionary principle and the resulting basic conditions for safety and health at work to eliminate the potential risks and factors relevant to the emergence of occupational diseases and other damage to health. Employees are obliged to comply with the laws and regulations that subject them to ensure the safety and health at work, directives on safety and health at work, safe work standards, protection of health at work and the rules of safe behaviour.**Chyba! Nenašiel sa žiaden zdroj odkazov.**[6]

3.4. Reserved pressure equipment

The pressure device may be characterized as a body constructed and arranged so that it might be placed under fluid pressure. The pressure device may consist of more than one chamber. Under the pressure equipment fall also safety equipment, boiler, pipe or vessel. On the basis of Decree no. 508/2009 Coll., as amended, stipulated by the law NR SR 718/2002 Coll defines all the facilities included in the reserved pressure equipment. For reserved pressure equipment is in place more stringent demands related to the manufacturing process, of course, the professional competence.[3]Chyba! Nenašiel sa žiaden zdroj odkazov.[8]

3.5. Reserved gas equipment

From the operation of special gas equipment gases of different level of the threat. In Decree no. 718/2002 Z. z. stated, dedicated gas facilities are defined as facilities working with dangerous gases. Hazardous gas is considered to be a chemical mixture which is explosive, extremely flammable, toxic and oxidising. The hazardous gases are considered according to Direction: methane, nitrogen, oxygen, carbon dioxide, hydrogen, and others. Gas device is devices that work with hazardous gases such as gas supply (booster) vessels for gas transport (bottles) equipment for the cooling and freezing. Operating of gas appliances is back with a considerable risk of national regulations. 124/2000 Z. z. lays down principles of fire safety in activities with flammable gases and gases supporting combustion.[3]Chyba! Nenašiel sa žiaden zdroj odkazov.[8]

4. THE SAFETY OF THE AIRCRAFT GROUND HANDLING EQUIPMENT PRESSURE AND GAS

Operating of technical equipment or device is always connected with a safety and health at work, to which we are directed by the Decree no.508/2009 Z. z. or the Act no. 124/2006 Coll. Operating rules and laws clearly define the responsibilities to ensure the safety and health at work, also ensuring the safety of technical equipment, including the competence requirements of employees in regard to health and safety at work and safety engineering devices. Safeties of technical equipment are reviewing by the tests and inspections. For the safety of maintenance it is necessary to regularly undergo trainings and testing to work with pressure vessels. To perform this activity is suitable qualified person that shall carry an attestation of competence.[3]Chyba! Nenašiel sa žiaden zdroj odkazov.[6]

5. LITERATURE LIST

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