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Aircraft ground handling — Checked baggage —

Part 3: Workstation ergonomics

Traitement au sol des aéronefs — Bagages enregistrés —

Partie 3: Ergonomie des postes de travail

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

A list of all parts in the ISO 12604 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

According to ISO 11228-1:

"Disorders of the musculoskeletal system are common worldwide and one of the most frequent disorders in occupational health. Factors such as the size and mass of the object being handled, working posture, and the frequency and duration of manual handling can, alone or in combination, lead to a hazardous handling activity and generate the risk of musculoskeletal disorders."

This document specifies the workstation ergonomic design requirements of handling personnel for baggage checked-in by airline passengers to be carried into aircraft cargo holds, in order to:

— contribute to improving work conditions for baggage handling agents and reducing the incidence of musculo-skeletal disorders (MSD) in this population;

— facilitate enhancing the overall efficiency of baggage handling.

Throughout this document, the minimum essential requirements are identified by use of the keyword "shall". Recommendations are identified by use of the keyword "should" and, while not mandatory, are considered to be of primary importance in providing safe and efficient baggage handling. Any deviation from the recommendations should only occur after careful consideration and thorough service assessment have shown alternate methods provide an equivalent level of work safety.

ISO 12604-1 specifies standard mass and dimensions requirements for baggage checked-in by airline passengers to be carried into aircraft cargo holds. ISO 12604-2[1)] provides requirements and guidelines for baggage handling.

The carrier and handling services provider are responsible for identifying and complying with legal requirements that are locally applicable, such as Health and Safety government legislations and regulations applicable to machinery or manual handling of loads.

1) Under preparation.

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Aircraft ground handling — Checked baggage —

Part 3:
Workstation ergonomics

1 Scope

This document specifies the requirements for workstation ergonomic design of baggage handling agents for individual pieces of baggage checked-in by airline passengers at airports to be carried into aircraft cargo holds.

This document applies to all manual handling workplaces in the processing chain for sorting, safe handling and routing of the baggage (containers and bulk baggage, departure and arrival circuits, at terminal and at aircraft, excluding passenger check-in process and loading into aircraft cargo holds). This document doesn't apply to manual handling of odd-sized baggage.

This document does not specify the baggage handling systems in and out of airport terminals, except the baggage weights and dimensions to be handled and the critical characteristics of manual workstations.

This document does not specify the baggage handling systems in the aircraft.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 12604-1, *Aircraft ground handling — Checked baggage — Part 1: Mass and dimensions*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
individual piece of baggage
bag, suitcase, trunk or similar article travelling with a passenger and containing those items necessary for the passenger's journey, such as clothing and personal articles within certain limitations in accordance with the applicable carrier conditions of carriage, that is accepted and checked-in for loading and carriage aboard the same aircraft

Note 1 to entry: An individual piece of baggage does not include freight, express cargo, courier mail, or unaccompanied baggage travelling as freight.

3.2
baggage handling agent
operator in charge of *individual piece of baggage* (3.1) handling

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3.3
spout down
inclined plane receptacle intended for *individual piece of baggage* (3.1) retrieval

3.4
carousel
flat and circular crescent chain

Note 1 to entry: *Individual pieces of baggage* (3.1) circulates in a closed circuit.

3.5
pier
linear conveying system (belt or rollers) for accumulating *individual pieces of baggage* (3.1) for purposes of retrieval

3.6
cart/container
bulk load trolley or container (unit load device) mounted on a container trailer

Note 1 to entry: Both devices are used for *individual piece of baggage* (3.1) conveyance.

3.7
security inspection
check of *individual pieces of baggage* (3.1) using X-ray, manual or other equipment, in order to move away any item or individual piece of baggage which is prohibited for transport

3.8
manual indexing station
barcode reading through handheld scanner or manual keyboard entry

3.9
temporary storage area
drop area
storage area for *individual pieces of baggage* (3.1) waiting to be processed

4 Requirements and recommendations

4.1 General considerations for airport baggage areas

4.1.1 Physical surroundings in workspaces

As temperatures that are too low or too high can have an impact on physical consequences of baggage handling agents, thermal environment should be considered. Depending on the local climatic conditions, a temperature and hygrometry control system should be provided to ensure safe conditions. In case of cold conditions, draughtiness shall be limited as far as possible.

Particular attention shall be paid to noises in the working environment (equipment, coatings, impact noises, etc.). Noise should be reduced to the lowest levels feasible, taking into account technical progress, production processes, tasks and noise control measures. Commonly considered A-weighted values that should not be exceeded for noise emission and/or noise exposure in industrial workplaces are 75 dB to 80 dB. Recommended background noise levels in industrial workplaces are 65 dB to 70 dB. Background noise is noise arising from indoor technical equipment (e.g. ventilation systems) or noise coming from the outside, with production machines off in the case of a workplace in industry.

NOTE Details are given in EN ISO 11690-1.

Illuminance shall be sufficient. Incoming natural light should be favoured.

To avoid fumes, only electric vehicles and equipment should be used to work in closed areas, where baggage sorting is frequent.

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