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## Aircraft ground handling — Checked-in baggage —

### Part 2: Handling guidelines

*Traitement au sol des aéronefs — Bagages enregistrés —*

*Partie 2: Directives de traitement*

ICS: 49.100

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 12604-2 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This is the first edition.

ISO 12604 consists of the following parts, under the general title *Aircraft ground handling — Checked-in baggage*:

- *Part 1: Mass and dimensions;*
- *Part 2: Handling guidelines;*
- *Part 3: Workstation ergonomics.*

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## Introduction

This international Standard specifies the handling conditions for baggage checked-in by airline passengers to be carried into aircraft cargo holds, in order to:

- contribute to improve work conditions for baggage handling agents and reduce the incidence of musculo-skeletal disorders (MSD) in this population;
- facilitate enhancing the overall efficiency of baggage handling;
- provide instructions for the design of automatic baggage handling systems increasingly used at airports.

Throughout this international Standard, the minimum essential requirements are identified by use of the keyword “shall”. Recommended requirements 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 recommended requirements should only occur after careful consideration and thorough service assessment have shown alternate methods provide an equivalent level of work safety.

Part 1 of this international Standard specifies standard mass and dimensions requirements for baggage checked-in by airline passengers to be carried into aircraft cargo holds. Part 3 covers ergonomic design requirements for baggage handling workstations.

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# Aircraft ground handling — Checked-in baggage —

## Part 2: Handling guidelines

### 1 Scope

This international Standard specifies the requirements of baggage handling for individual pieces of baggage checked-in by airline passengers at airports to be carried into aircraft cargo holds.

This international Standard applies to all manual handling workplaces in the processing chain for sorting, safety handling and baggage routing (containers and bulk baggage, departure and arrival circuits, at terminal and at aircraft, excluding passenger check-in process).

This international Standard is not intended to specify the baggage handling systems in and out of airport terminals, except the baggage masses and dimensions they shall be able to handle, and the critical characteristics of manual workstations.

This international Standard is not intended to specify the baggage handling systems in the aircraft.

This international Standard does not aim to be a substitute for any more stringent law or regulation that can be locally applicable, such as Health and Safety government legislations and regulations applicable to machinery or manual handling of loads. The carrier and handling services provider are responsible for identifying and complying with such legal requirements.

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### 2 Normative references

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The following referenced documents are essential for this international Standard application. For dated references, only the indicated edition applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11228-1, *Ergonomics — Manual handling — Part 1: Lifting and carrying*

ISO 11228-3, *Ergonomics — Manual handling — Part 3: Handling of low loads at high frequency*

ISO/DIS 12604-1:2017, *Aircraft ground handling — Checked-in baggage — Part 1: Mass and dimensions*

ISO/DIS 12604-3, *Aircraft ground handling — Checked-in baggage — Part 3: Workstation ergonomics [In preparation]*

### 3 Terms and definitions

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

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

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

— IEC Electropedia: available at <http://www.electropedia.org/>

#### 3.1

##### handling company

carrier, contracted service provider or airport authority that performs all or part of baggage handling, including loading/unloading it into/from aircraft, at an airport

### 3.2

#### **baggage gripping ideal criteria**

the piece of baggage can be grasped with both hands, with a firm grip, neutral wrist position less than 0,25 m between the centre of mass of the piece of baggage to be handled and the centre of mass of the handling agent (see ISO 11228-1:2003)

### 3.3

#### **baggage or individual piece of baggage**

bag, suitcase, trunk or similar article travelling with a checked 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: Does not include freight, express cargo, courier mail, or unaccompanied baggage travelling as freight.

### 3.4

#### **cart/container**

generic term applied to a bulk load trolley or a container (ULD) mounted on a container trailer; both devices are used for baggage conveyance

### 3.5

#### **container/ULD**

load or loading unit, more commonly referred to as the acronym ULD (Unit Load Device), which is mounted on a container trailer dedicated to baggage conveyance

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### 3.6

#### **contingencies**

dysfunction or unexpected events that disturb an intended process or organization

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### 3.7

#### **handling agent**

personnel responsible for baggage handling

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### 3.8

#### **operator**

company or people using airport facilities and equipment

### 3.9

#### **trolley or trailer for bulk loads**

open trolley or trailer used for bulk baggage conveyance

## 4 Recommendations

### 4.1 General

#### 4.1.1 The different characteristics of baggage encouraging specific processing

The standard baggage characteristics have been defined in ISO/DIS 12604-1:2017 standard, [subclause 4.1](#).

##### 4.1.1.1 Standard baggage with specific characteristics

Piece of baggage that meets mass and dimensions requirements of standard baggage, but with some characteristics that involve stress for conveying and/or handling (e.g. spherical baggage, fragile, light, very small baggage, etc.).



This baggage configuration often proves difficult to handle by an airport mechanized system. Everything should be implemented to ensure their conveyability. If no solution is found, they shall be handled through a specific circuit.

#### 4.1.1.2 Baggage with stressful handling

Handling is considered stressful when:

- the piece of baggage exceeds the mass limits defined in ISO/DIS 12604 Part 1, the piece of baggage considered "heavy" is identified by a specific label;
- the piece of baggage characteristics do not satisfy baggage gripping ideal criteria (cannot be grasped with both hands, etc.).

#### 4.1.2 The different workstations concerned

The handling recommendations in this standard are applicable to the different workstations occupied by handling agents, described hereafter.

##### 4.1.2.1 Departure workstations

###### Spout down

Inclined plane receptacle intended for baggage retrieval

###### Pier

Linear conveying system (belt or rollers) for accumulating baggage for purposes of retrieval

##### 4.1.2.2 Arrival workstation

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###### Carousel

Flat and circular crescent chain (baggage circulates in a closed circuit)

##### 4.1.2.3 Out of circuit/auxiliary workstations

###### Security inspection

Check of pieces of baggage using x-ray, manual or other equipment, in order to move away any item or piece of baggage which is prohibited for transport

###### Manual indexing station

Barcode reading through handheld scanner or manual keyboard entry

###### Drop area (temporary storage)

Storage area for baggage waiting to be processed

###### Passenger baggage reconciliation security procedure

Baggage removal from the circuit for additional security inspection