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Voorbeeld

Aircraft ground equipment — Lower deck loader — Functional requirements

Matériel au sol pour aéronefs — Chargeur de pont inférieur — Exigences fonctionnelles

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Foreword

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ISO 6968 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 9, *Air cargo and ground equipment*.

This third edition cancels and replaces the second edition (ISO 6968:1994), which has been technically revised.

Introduction

This International Standard specifies the functional requirements to be taken into account by manufacturers for the design of aircraft lower deck cargo container and pallet loaders.

Throughout this International Standard, the minimum essential criteria are identified by use of the key word "shall". Recommended criteria are identified by use of the key word "should" and, while not mandatory, are considered to be of primary importance in providing safe, economical and usable aircraft lower deck loaders. Deviation from recommended criteria should only occur after careful consideration and thorough service evaluation have shown alternative methods to provide an equivalent level of safety.

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Aircraft ground equipment — Lower deck loader — Functional requirements

1 Scope

This International Standard specifies the functional requirements for a self-propelled loader capable of raising air cargo unit load devices (ULDs) with base dimensions and maximum mass as follows:

Table 1 — Base dimensions and maximum mass

ULD type	ISO 8097-2001 base size code	Length mm (in)	Width mm (in)	Maximum gross mass kg (lb)
Pallets	A	3 175 (125)	2 235 (88)	6 804 (15 000)
	B	2 743 (108)	2 235 (88)	4 536 (10 000)
	M	3 175 (125)	2 438 (96)	6 804 (15 000)
Containers	K ^{a, c}	1 562 (61,5) to 2 337 (92)	1 534 (60,4)	1 588 (3 500)
	L ^b	3 175 (125) to 4 724 (186)	1 534 (60,4)	3 175 (7 000)

^a Half size container: base size 1 562 mm × 1 534 mm (61,5 in × 60,4 in).
^b Full size container: base size 3 175 mm × 1 534 mm (125 in × 60,4 in). Smaller size containers such as sizes "P", "Q", and "N" can also be loaded.
^c For contoured containers having lengthwise overhangs from the ULD base edges, the value of the overhang may vary from 368 mm (14,5 in) to 775 mm (30,5 in) according to the type of container. Examples of contoured ULD overhang values "X": AKC: 775 mm (30,5 in), AKE: 443 mm (17,5 in). AKC and AKE are IATA ULD codes (refer to IATA ULD Technical Manual 40/1, see Bibliography).

This International Standard does not intend to provide all the design requirements applicable for aircraft lower deck loaders. Other requirements can be found in separate International Standards:

- ISO 4116 specifies the additional requirements applicable for conveying surfaces of those pieces of aircraft ground support equipment intended for handling and loading of baggage and cargo unit load devices;
- ISO 6966-1 and ISO 6966-2 specify, respectively, the general and safety-related requirements applicable to all aircraft ground support equipment.

The requirements of this International Standard were determined based on generally recognized assumptions with regard to

- a) the normally intended use of aircraft ground support equipment, when used on the ramp of international civil airports in order to handle, service or maintain civil transport aircraft;
- b) the environmental (surface, slope, weather, lighting, operating rules, staff qualification, etc.) conditions prevailing on the ramp area of the majority of international civil airports.

It is assumed the manufacturers of aircraft lower deck loaders define in the relevant documentation the specifically intended conditions of use and environment for each item of equipment, and the purchasers systematically review their own specific conditions of use and environment in order to determine whether those stated are adequate, or negotiate with the manufacturer appropriate modifications to ensure they are.

2 Normative references

The following referenced documents are indispensable for the application 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 4116, *Air cargo equipment — Ground equipment requirements for compatibility with aircraft unit load devices*.

ISO 6966-1, *Aircraft ground equipment — Basic requirements — Part 1: General design requirements*

ISO 6966-2, *Aircraft ground equipment — Basic requirements — Part 2: Safety requirements*

ISO 7000, *Graphical symbols for use on equipment — Index and synopsis*

ISO 8097:2001, *Aircraft — Minimum airworthiness requirements and test conditions for certified air cargo unit load devices*

ISO 11995:1996, *Aircraft — Stability requirements for loading and servicing equipment*

3 Requirements

3.1 General

3.1.1 On an adequate chassis, the loader shall provide two platforms:

- a) a front platform capable of operating between 1 880 mm (74 in) and 3 550 mm (140 in), which is positioned at the applicable aircraft door and remains at this position during the loading/unloading operation;
- b) a main platform for up and down movement between 483 mm (19 in) and 3 550 mm (140 in).

3.1.2 The overall dimensions of the loader shall be kept to a minimum.

3.1.3 The overall height of the entire loader should not exceed 3 000 mm (118 in) when being driven. The height of the front platform (top of rollers) shall not exceed 1 880 mm (74 in) in the fully down position.

3.1.4 Both platforms shall be capable of supporting and conveying their maximum capacity simultaneously.

3.1.5 When negotiating two ramps that intersect at 3° (5 %), the loader shall have adequate underneath clearance from any portion of the equipment to the ground.

3.1.6 The loader shall not interfere with the positioning of the aircraft tractor below the fuselage of the aircraft.

3.1.7 The overall dimension of the front platform shall accept one 2 438 mm × 8 125 mm (96 in × 125 in) pallet lengthwise.

3.1.8 The length of the main platform shall be adequate to accept two half-size containers or one full-size ULD lengthwise.

3.1.9 The width of both platforms shall be adequate to accept a ULD with its 2 438 mm (96 in) dimension across the platforms.

3.1.10 At its right hand side, the forward end of the front platform shall have provisions to accommodate 1 780 mm (70 in) wide container hold doors. These provisions may either consist of a retractable extension to the front platform, or be met by a front platform of adjustable width.

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