# Õhusõidukite maapealsed teenindusseadmed. Erinõuded. Osa 19: Lennukite tungrauad, telje kinnitusrakised/tõstukid ja hüdraulilised tagapukid

Aircraft ground support equipment - Specific requirements - Part 19: Aircraft jacks, axle jacks and hydraulic tail stanchions 



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

| Käesolev Eesti standard EVS-EN 12312-<br>19:2005 sisaldab Euroopa standardi EN<br>12312-19:2005 ingliskeelset teksti.                     | This Estonian standard EVS-EN 12312-<br>19:2005 consists of the English text of the<br>European standard EN 12312-19:2005.                                       |
|---|--|
| Käesolev dokument on jõustatud<br>22.06.2005 ja selle kohta on avaldatud<br>teade Eesti standardiorganisatsiooni<br>ametlikus väljaandes. | This document is endorsed on 22.06.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. |
| Standard on kättesaadav Eesti standardiorganisatsioonist.   | The standard is available from Estonian standardisation organisation.  |
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| Käsitlusala:                               | Scope:                                     |
|--|--|
| This document specifies the technical      | This document specifies the technical      |
| requirements to minimise the hazards       | requirements to minimise the hazards       |
| listed in Clause 4 which can arise during  | listed in Clause 4 which can arise during  |
| the commissioning, operation and           | the commissioning, operation and           |
| maintenance of aircraft jacks, axle jacks  | maintenance of aircraft jacks, axle jacks  |
| and hydraulic tail stanchions when carried | and hydraulic tail stanchions when carried |
| out in accordance with the specifications  | out in accordance with the specifications  |
| given by the manufacturer or his           | given by the manufacturer or his           |
| authorised representative.                 | authorised representative.                 |
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## **EUROPEAN STANDARD** NORME EUROPÉENNE **EUROPÄISCHE NORM**

## EN 12312-19

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English version

## Aircraft ground support equipment - Specific requirements - Part 19: Aircraft jacks, axle jacks and hydraulic tail stanchions

Matériel au sol pour aéronefs - Exigences particulières -Partie 19: Vérins de levage pour aéronefs, vérins de changement de roues et monopodes hydraulique

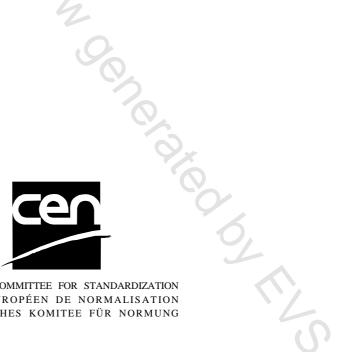
Luftfahrt-Bodengeräte - Besondere Anforderungen - Teil 19: Flugzeugheber, Radwechselheber und hydraulische Heckstützen

This European Standard was approved by CEN on 28 February 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 12312-19:2005) has been prepared by Technical Committee CEN/TC 274 "Aircraft ground support equipment" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2005, and conflicting national standards shall be withdrawn at the latest by October 2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EC Directive(s).

For relationship with EC Directives, see informative Annex ZA, which is an integral part of this document.

The Parts of EN 12312 — Aircraft ground support equipment — Specific requirements — are:

- Part 1: Passenger stairs
- Part 2: Catering vehicles
- Part 3: Conveyor belt vehicles
- Part 4: Passenger boarding bridges
- Part 5: Aircraft fuelling equipment
- Part 6: Deicers and deicing/antiicing equipment
- Part 7: Aircraft movement equipment
- Part 8: Maintenance stairs and platforms
- Part 9: Container/Pallet loaders
- Part 10: Container/Pallet transfer transporters
- Part 11: Container/Pallet dollies and loose load trailers
- Part 12: Potable water service equipment
- Part 13: Lavatory service equipment
- Part 14: Disabled/Incapacitated passenger boarding equipment
- Part 15: Baggage and equipment tractors
- Part 16: Air start equipment
- Part 17: Air conditioning equipment
- Part 18: Nitrogen or Oxygen units
- Part 19: Aircraft jacks, axle jacks and hydraulic tail stanchions
- Part 20: Ground power equipment

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

This document specifies health and safety requirements, as well as some functional and performance requirements for aircraft jacks, axle jacks and hydraulic tail stanchions intended to be used for servicing and handling of all aircraft types commonly in service in civil air transport.

The minimum essential criteria are considered to be of primary importance in providing safe, serviceable, economical, and practical aircraft jacks, axle jacks and tail stanchions. Deviations from the recommended criteria should occur only after careful consideration, extensive testing, risk assessment and in service evaluation have shown alternative methods or conditions to be satisfactory.

This document is a Type C standard as stated in EN ISO 12100:2003.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this Type C standard are different from those which are stated in Type A or B standards, the provisions of this Type C standard take precedence over the provisions of the other standards, for machines that have been designed and built according to the provisions of this Type C standard.

#### 1 Scope

This document specifies the technical requirements to minimise the hazards listed in Clause 4 which can arise during the commissioning, operation and maintenance of aircraft jacks, axle jacks and hydraulic tail stanchions when carried out in accordance with the specifications given by the manufacturer or his authorised representative. It also takes into account some performance requirements recognised as essential by authorities, aircraft and ground support equipment (GSE) manufacturers as well as airlines and handling agencies.

This document applies to:

- all types of aircraft jacks;
- axle jacks and hydraulic tail stanchions designed to be used at specific jacking points on the aircraft (examples see Annex A).

NOTE A tail stanchion type is intended to be used with one type of aircraft.

This document does not apply to aircraft recovery equipment.

This document does not establish requirements for noise and vibration.

Noise and vibration are dealt with respectively in EN 1915-4 and EN 1915-3.

This Part of EN 12312 is not applicable to aircraft jacks, axle jacks and hydraulic tail stanchions which are manufactured before the date of publication of this document by CEN.

#### 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.

EN 418:1992, Safety of machinery — Emergency stop equipment, functional aspects — Principles for design

EN 1050:1996, Safety of machinery — Principles for risk assessment

EN 1915-1:2001, Aircraft ground support equipment — General requirements — Part 1: Basic safety requirements

EN 1915-2, Aircraft ground support equipment — General requirements — Part 2: Stability and strength requirements, calculations and test methods

EN ISO 12100-1:2003, Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)

EN ISO 12100-2:2003, Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003).

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2003 and EN 1915-1:2001 and the following apply.

#### 3.1

#### aircraft jack

lifting device to support and/or raise an aircraft via its fuselage and wings