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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12312-19:2005+A1:2009 sisaldab Euroopa standardi EN 12312-19:2005+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.06.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 29.04.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12312-19:2005+A1:2009 consists of the English text of the European standard EN 12312-19:2005+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.06.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 49.100

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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 monopoles hydrauliques

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

This European Standard was approved by CEN on 28 February 2005 and includes Amendment 1 approved by CEN on 1 March 2009.

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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 CEN Management Centre has the same status as the official versions.

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## Foreword

This document (EN 12312-19:2005+A1:2009) 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 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-03-01.

This document supersedes EN 12312-19:2005.

The start and finish of text introduced or altered by amendment is indicated in the text by tags  $\boxed{A_1}$   $\boxed{A_1}$ .

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 EU Directive(s).

$\boxed{A_1}$  For relationship with EU Directives, see informative Annexes ZA and ZB, which are integral parts of this document.  $\boxed{A_1}$

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, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, 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 .

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.

**[A1]** This part of EN 12312 is intended to be used in conjunction with EN 1915-1, EN 1915-2, EN 1915-3 (for vehicles) and EN 1915-4. **[A1]**

## 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.

**[A1]** *deleted text* **[A1]**

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*

**[A1]** EN 1915-3, *Aircraft ground support equipment — General requirements — Part 3: Vibration measurement methods and reduction* **[A1]**

**[A1]** EN 1915-4, *Aircraft ground support equipment — General requirements — Part 4: Noise measurement methods and reduction* **[A1]**

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)*.

**[A1]** EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)* **[A1]**