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# Pallets for materials handling — Quality of fasteners for assembly of new and repair of used, flat, wooden pallets

Palettes pour la manutention et le transport de marchandises — Qualité des éléments de fixation pour l'assemblage et la réparation des palettes en bois



Reference number ISO 15629:2002(E)

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 15629 was prepared by Technical Committee ISO/TC 51, *Pallets for unit load method of materials handling*.

Annexes A, B and C of this International Standard are for information only.

# Introduction

Efficient international transportation of products depends on both pallet strength and functionality, or fit, to the materials handling systems. Existing ISO standards address issues of strength and some issues regarding functionality of pallets. However, major issues related to the minimum material quality and manufacturing and repair workmanship are not addressed in current ISO standards. These factors may significantly impact the efficiency of international unit-load material handling.

In November, 1996, ISO TC 51 approved a new work item "Timber Pallets for Materials Handling — Quality of Component Assembly and Repair" and established WG 7 to prepare a document.

This International Standard contains recommended minimum acceptable quality levels for mechanical fasteners used in the assembly of wooden pallets. Mechanical fasteners commonly used for the assembly of wooden pallets are classified as nails, staples, bolts and screws. The type and properties of fasteners affect pallet performance.

This International Standard does not address safety problems, if any, associated with the use of these fasteners. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

This document addresses the current commercial difficulty in pallet manufacture, that there is no recognized means of defining pallet nails with regard to their quality and strength. Table 2 gives a guide as to strength qualities for nails which are typically used in construction of very strong pallets as opposed to pallets designed for light loads.

Actual nail diameter, profiles and strengths are the responsibility of the specifier and user who may find the full-scale pallet tests described in ISO 8611-1 of value.

In September 1999 it was decided to publish four related International Standards:

- ISO 15629:2002, Pallets for materials handling Quality of fasteners for assembly of new and repair of used, flat, wooden pallets
- ISO 18333, Pallets for materials handling Quality of new wooden components for flat pallets
- ISO 18334, Pallets for materials handling Quality of assembly of new, wooden, flat pallets
- ISO 18613, Repair of flat wooden pallets