

## Title (en)

Vertical winding apparatus for packaging of pallet loads with films of plastic material of different heights

## Title (de)

Vertikale Wickelvorrichtung zum Verpacken von Palettenladungen unterschiedlicher Höhe mit Folien aus Kunststoffmaterial

## Title (fr)

Appareil d'enroulement vertical pour conditionner des charges de palettes avec des films de matériau plastique de différentes hauteurs

## Publication

**EP 2452881 A1 20120516 (EN)**

## Application

**EP 11188317 A 20111108**

## Priority

IT MI20102086 A 20101110

## Abstract (en)

It is disclosed a vertical winding apparatus for the packaging of pallet loads progressing sequentially along a transport path (Y-Y), to a packaging station (X-X) arranged transversally to said transport path (Y-Y). The apparatus comprises two carts (TR, TR') for supporting a respective group of vertical-axis reels (B1 .. Bn; B1' .. Bn') of plastic film (5) of different quality/heights, said carts (TR, TR') being arranged at the two sides of the transport path (Y-Y) and being apt to carry a pair of reels of equal quality/height (B1, B1' ; ... ; Bn, Bn'), according to choice, in correspondence of said packaging station (X-X), as well as a pair of carrying means (P) arranged in said packaging station (X-X) and each one moving from a position next to one of said support carts (TR, TR') to a central welding position and vice versa, each one of said carrying means (P) being apt to accompany in said movement one edge of the film (5) of said pair of reels (B1, B1' ; ... ; Bn, Bn'), and it furthermore comprises, associated with each reel: - a gripper (S) for the drawing of said edge of the film (5) carried by the reel (B1, B1' ; ... ; Bn, Bn'), said gripper (S) being capable of being connected to and released from said carrying means (P), - guiding and detecting means (3, 3a, 4, 6) of said film (5), comprising at least one dancer roll means (3) moving under the action of the tension in said film (5) against the action of elastic means, and - a tensioning assembly (6, 7, 8, 9) comprising a roll driven in rotation acting on the periphery of said reel (B1, B1' ; ... ; Bn, Bn'), the action of which can be modulated and controlled according to the position taken up by said dancer roll (3).

## IPC 8 full level

**B65B 9/02** (2006.01)

## CPC (source: EP US)

**B65B 9/026** (2013.01 - EP US); **B65B 59/001** (2019.04 - EP US); **B65B 59/003** (2019.04 - EP US); **B65B 2210/02** (2013.01 - EP)

## Citation (applicant)

- FR 2212263 A1 19740726 - THIMON HUBERT [FR]
- EP 1174343 A1 20020123 - MSK VERPACKUNG SYST GMBH [DE]
- US 6474051 B1 20021105 - HANNEN REINER [DE], et al
- IT 1356529 B1 20051225 - SESTESE OFF MEC
- US 1356529 A 19201026 - FRANK JONES

## Citation (search report)

- [A] WO 03086866 A1 20031023 - OPTIMA FILLING & PACKAGING [DE], et al
- [A] US 3546850 A 19701215 - HATANAKA YOSHIHIRO, et al

## Cited by

CN116575100A; CN110053812A; EP2572999A1

## Designated contracting state (EPC)

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## Designated extension state (EPC)

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