

Title (en)
AUTOMATIC WINDING MACHINE OF WIRE OF ADDED MATERIAL

Title (de)
AUTOMATISCHE WICKELMASCHINE FÜR DRAHTZUSATZMATERIAL

Title (fr)
MACHINE AUTOMATIQUE D'ENROULEMENT DE FIL DE MATÉRIAU AJOUTÉ

Publication
EP 4234468 A1 20230830 (EN)

Application
EP 23153958 A 20230130

Priority
IT 202200003452 A 20220224

Abstract (en)
An automatic winding machine (1) of wire of added material (F) comprising a support structure (2) which insists on a support surface (S), a loading station (3), contained in the support structure (2) and receiving flanged reels (R) one after the other coming from a loader arranged upstream of the automatic winding machine (1) and provided with a plurality of flanged reels (R), a tools group (4) fixed inside the support structure (2) and comprising a main gripping and translation gripper cooperating with first actuator means, which actuate it to at least pick up one by one the flanged reels (R) from the loading station (3) and apply them to a winding body (6) coupled to the support structure (2); the tools group (4) further includes an insertion gripper (7) cooperating with second actuation means (8) which actuate it in vertical (Y) and horizontal (X) directions and manipulating an initial end of the wire of added material (F) unwound from a skein and direct it towards the flanged reels (R) supported by the winding body (6) at which the wire of added material (F), due to the rotation of the body winding (6), is wound in a stratified manner about a central drum (T) of each of said flanged reels (R) forming a plurality of coils (B) of wire of added material (F); a cutting gripper (9) arranged downstream said insertion gripper (7), which obtains a final end of the wire of added material (F) of each of the coils (B) and cooperating with third actuation means (10), which actuate it in vertical (Y') and horizontal (X) directions. In detail, the second actuation means (8) and/or the third actuation means (10) are distinct from each other and each one includes an electric linear actuator (12, 13, 14) electrically connected to a central processing and control unit which manages its actuation so as to vary, by means of an automatic, progressive and continuous adjustment, the distance between the second actuation means (8), the third actuation means (10) and the winding body (6) when the format of the flanged reels (R) to be subjected to the winding of said wire of added material (F) varies.

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CPC (source: EP)
B65H 54/12 (2013.01); **B65H 67/04** (2013.01); **B65H 67/048** (2013.01)

Citation (search report)

- [A] CN 110482316 A 20191122 - SHANDONG FANGDA NEW MATERIAL TECH CO LTD
- [A] WO 2006114129 A1 20061102 - NIEHOFF KG MASCHF [DE], et al

Designated contracting state (EPC)
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