

Title (en)
AUTONOMOUS DEVICE FOR WINDING CABLE WIRES

Title (de)
SELBSTTÄTIGE VORRICHTUNG ZUM WICKELN VON KABELDRÄHTEN

Title (fr)
DISPOSITIF AUTONOME POUR ENROULER DES FILS DE CÂBLE

Publication
EP 4375223 A1 20240529 (EN)

Application
EP 22461632 A 20221124

Priority
EP 22461632 A 20221124

Abstract (en)
Autonomous device for winding cable cables that cooperates with various cutting-stripping machines and which does not require to exchange control signals between the device and cutting-stripping machine according to the invention comprises a steel profile frame (1), legs (4) equipped with leveling feet (2) and aluminum countertop (3), is characterized in that on the countertop (3) there is arranged a detecting-buffering module (6), which at the cable input (A) comprises a curtain sensor (11) set on a plate (10), said sensor comprising a transmitter (11a) and a receiver (11b) placed on both sides of the cable and connected via electrical cable (12) to a signal amplifier and PLC controller which are located in the control cabinet (5), and cable guides: an input guide (13) attached to a block (14) under which the input roller (15) is located, a main guide (16) attached to the aluminum sheet (9) that is attached to the movable trolley (8) of the linear drive (7), wherein the main guide cooperates with the buffering roller attached to aluminum sheet that is attached to movable trolley of the linear drive, and an output guide (18) attached to the block, under which the output roller is located, wherein each roller is fastened with bearings, is low-speed and is not driven by an external drive and its peripheral working section is U-shaped to enable holding the transported cable within plane of symmetry of the roller, wherein the input guide, the main guide and the output guide comprise U-shaped channel for the cable (A), which is open on the side facing the rollers, and wherein encoder module comprising a measuring roller (26) mounted on bearings (27) is secured to the block (14) of the input guide (13) via trolley (23) of the linear guide (24), said encoder module is connected to the PLC controller via electrical cable (25), wherein an optical curtain sensor (20) that comprises transmitter (20a) and receiver (20b) located on both sides of the cable and connected to signal amplifier and PLC controller that are located in the control cabinet, is mounted at the output of the output guide, wherein a cable guiding module that controls guiding the cable during winding on the winding plate (29) is located downstream the detecting-buffering module.

IPC 8 full level
B65H 51/20 (2006.01)

CPC (source: EP)
B65H 51/20 (2013.01); **B65H 2701/36** (2013.01)

Citation (applicant)

- US 3951355 A 19760420 - MORIOKA JOJI, et al
- WO 2015113763 A1 20150806 - GABO SYSTEMTECH GMBH [DE]
- US 5535579 A 19960716 - BERRY III WILLIAM M [US], et al
- CN 103662967 A 20140326 - FUTONG GROUP CO LTD
- US 4022391 A 19770510 - STEIN RUDOLF, et al

Citation (search report)

- [A] EP 1604932 A1 20051214 - KABELMAT GMBH [DE]
- [A] EP 0059833 A1 19820915 - GROTE & HARTMANN [DE]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4375223 A1 20240529

DOCDB simple family (application)
EP 22461632 A 20221124