Title (en)

AUTOMATIC SOCKS TURNING DEVICE FOR A LOOPING MACHINE

Title (de)

AUTOMATISCHES STRUMPFWENDEGERÄT FÜR EINE KETTELMASCHINE

Title (fr)

APPAREIL POUR RETOURNER LES BAS AUTOMATIQUEMENT POUR UNE MACHINE A REMAILLER

Publication

EP 0453543 B1 19960508 (DE)

Application

EP 90916734 A 19901114

Priority

- EP 9001941 W 19901114
- IT 6799389 A 19891114

Abstract (en)

[origin: WO9107540A1] A working cycle of the stocking turning device begins when a stocking (44), the toe of which has been sewn on a looping machine (41), is taken to its discharge region (40) and is fed there in a centred position into a gripping device (26). Here there is a photocell (43) which delivers a pulse for the start of the cycle once the stocking has reached the exact position. The stocking is thereby taken by the gripping device (26) which is pushed by a carriage (33) travelling on longitudinal guides (34, 35) between two separable belts (7) while the stocking (44) suspended on the gripping device (26) projects between two also separable, endless belts (8) arranged beneath the upper pair of belts (7). The lower end of the stocking hangs beneath the two lower belts (8) in a space between two spread-apart combs (46). When the carriage (33) has reached the end position just described it actuates a magnetic sensor (38) via which the two lower belts (8) and the combs (46) are closed, while the gripping device (26) opens and is taken back via the carriage (33) into its initial position in the discharge region (40) of the looping machine (41). The stocking is held by the closed belts (8). The return of the gripping device (26) actuates another magnetic sensor (39) which causes the upper belts (7) to close and sets both belts (7, 8) rotating in such a direction that their immediately opposite strips go upwards. In addition, a guide rod (3) is abruptly moved downwards and a second photocell (58) fitted between the combs (46) and the lower belts (8) is activated. The guide rod (3) stops shortly above the height at which the second photocell (58) is located. As soon as the free edge of the leg of the turned stocking (44) no longer darkens the photocell (58), the latter spreads the two combs (46) apart and with a slight delay the upper belts (7) are opened, while the guide rod (3) is again retracted upwards and the direction of rotation of the lower belts (8) is reversed. After the turned stocking has been removed from the guide rod (3), the photocell (58) is free once again and causes the lower belts (8) to stop, whereby at the same time the belts of both pairs are opened so that a new turning cycle for the next stocking can begin.

IPC 1-7

D06G 3/02; D05B 33/00

IPC 8 full level

D06G 3/02 (2006.01)

CPC (source: EP KR)

D06G 3/02 (2013.01 - EP KR)

Designated contracting state (EPC)

DE ES FR GB

DOCDB simple family (publication)

 $\textbf{WO 9107540 A1 19910530}; \ \textbf{DE 59010319 D1 19960613}; \ \textbf{EP 0453543 A1 19911030}; \ \textbf{EP 0453543 B1 19960508}; \ \textbf{EP 0453543 B2 20020424}; \\ \textbf{ES 2090145 T3 19961016}; \ \textbf{IT 1238533 B 19930818}; \ \textbf{IT 8967993 A0 19891114}; \ \textbf{IT 8967993 A1 19910514}; \ \textbf{KR 920701560 A 19920812}$

DOCDB simple family (application)

EP 9001941 W 19901114; DE 59010319 T 19901114; EP 90916734 A 19901114; ES 90916734 T 19901114; IT 6799389 A 19891114; KR 910700735 A 19910712