

Title (en)

Weft detecting optical device, and weft feeder including said device

Title (de)

Vorrichtung zur optischen Detektion eines Schussfadens und diese Vorrichtung umfassender Schussfadenspeicher

Title (fr)

Dispositif de détection optique de fil de trame et fournisseur de trame pourvu d'un tel dispositif

Publication

**EP 0624674 B1 19970806 (EN)**

Application

**EP 94107218 A 19940509**

Priority

IT TO930323 A 19930510

Abstract (en)

[origin: EP0624674A1] The device comprises an emitter diode (17) and a receiver phototransistor (18) which are arranged at the same face of a transparent plate (19) associated with the drum (11) of the weft feeder (10) and suitable to receive the turns of the weft reserve (RF). The emitter (17) directs onto the transparent plate (19) a beam of rays (R1) which is tilted at a preset angle of incidence (  $\alpha$  ), and the receiver (18) receives a beam of rays (R2) that emerge from the transparent plate (19) and form an angle of reflection (  $\beta$  ), with respect to the plate, which is different from the angle of incidence (  $\alpha$  ) produced by multiple-reflection means (20) located at the other face of the transparent plate (19). The incident rays (R1) and/or the emerging rays (R2) are interrupted by a turn (SP) of the reserve of thread (RF) when the turn reaches the plate (19), so as to screen the receiver (18) from the light; the receiver emits a corresponding turn presence signal (s). <IMAGE>

IPC 1-7

**D03D 47/34**; **B65H 63/032**

IPC 8 full level

**B65H 51/22** (2006.01); **B65H 63/032** (2006.01); **D03D 47/36** (2006.01)

CPC (source: EP)

**B65H 63/0324** (2013.01); **D03D 47/367** (2013.01); **B65H 2701/31** (2013.01)

Cited by

CN1088680C; EP0873961A3; WO9846511A1

Designated contracting state (EPC)

BE CH DE LI SE

DOCDB simple family (publication)

**EP 0624674 A1 19941117**; **EP 0624674 B1 19970806**; DE 69404742 D1 19970911; DE 69404742 T2 19980108; IT 1270929 B 19970516; IT TO930323 A0 19930510; IT TO930323 A1 19941110

DOCDB simple family (application)

**EP 94107218 A 19940509**; DE 69404742 T 19940509; IT TO930323 A 19930510