

Title (en)

AIR JET LOOM WITH WEFT INSERTION CONTROL DEVICE

Title (de)

LUFTDÜSENWEBMASCHINE MIT EINER SCHUSSFADENEINFÜHRUNGSSTEUERUNGSVORRICHTUNG

Title (fr)

METIER A TISSER A JET D'AIR AVEC DISPOSITIF DE COMMANDE D'INSERTION DE CANNETTE

Publication

EP 3156529 A1 20170419 (EN)

Application

EP 16190583 A 20160926

Priority

JP 2015201667 A 20151012

Abstract (en)

A weft insertion control device in an air jet loom including a weft insertion nozzle (2), a plurality of sub-nozzles (7) and a brake (13) braking a weft yarn (Y) before weft insertion end, wherein the weft insertion control device includes a sensor (18) provided within a width of cloth to be woven by the air jet loom so as to detect the weft yarn (Y) and a correction unit (16) correcting air injection start timing (D1, F1, H1) of the sub-nozzles (7), wherein the sensor (18) is disposed between a leading end position (YE) of the weft yarn (Y) that is located at air injection end timing (ME) of the weft insertion nozzle (2) and a leading end position (YB) of the weft yarn (Y) that is located at brake timing (BT) of the brake (13), and wherein the correction unit (16) estimates a weft traveling curve (A, B, C, E, G) based on weft detection timing (IS) of the sensor (18) and corrects the air injection start timing (D1, F1, H1) of the sub-nozzles (7) in accordance with the estimated weft traveling curve (A, B, C, E, G).

IPC 8 full level

D03D 47/30 (2006.01)

CPC (source: CN EP)

D03D 47/304 (2013.01 - CN EP); **D03D 47/3073** (2013.01 - EP)

Citation (applicant)

JP S62117853 A 19870529 - TSUDAKOMA IND CO LTD

Citation (search report)

- [A] JP H0693534 A 19940405 - TOYODA AUTOMATIC LOOM WORKS
- [A] EP 0164773 A1 19851218 - PICANOL NV [BE]
- [A] EP 0554222 A1 19930804 - TOYODA AUTOMATIC LOOM WORKS [JP]

Cited by

EP3470562A1; CN109652901A; EP3498900A1; JP2019105017A

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 MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3156529 A1 20170419; EP 3156529 B1 20191106; CN 107034576 A 20170811; CN 107034576 B 20181102; JP 2017075409 A 20170420; JP 6319262 B2 20180509

DOCDB simple family (application)

EP 16190583 A 20160926; CN 201610884297 A 20161010; JP 2015201667 A 20151012