

Title (en)

METHOD OF CONTROLLING WEFT INSERTION OF AIR JET LOOM

Title (de)

VERFAHREN ZUR STEUERUNG DER SCHUSSFADENEINFÜHRUNG EINER LUFTDÜSENWEBMASCHINE

Title (fr)

PROCÉDÉ DE COMMANDE D'INSERTION DE TRAME D'UN MÉTIER À TISSER À JET D'AIR

Publication

**EP 3567145 A1 20191113 (EN)**

Application

**EP 19171713 A 20190430**

Priority

JP 2018090159 A 20180508

Abstract (en)

A method of controlling weft insertion of an air jet loom that includes a holding pin (17) configured to hold and release a weft yarn (11), and a weft insertion nozzle (6, 7, 8) that injects air is provided. The method includes the steps of: detecting a characteristic of the weft yarn (11) that is yet to be inserted; predicting a weft yarn arrival timing at which the weft yarn (11) inserted in accordance with a specified weft insertion condition arrives at a specified position in a weft insertion direction, on the basis of the detected characteristic of the weft yarn (11); determining a difference between the predicted weft yarn arrival timing (TWp) and a target weft yarn arrival timing (TWr); modifying a lifting timing of the holding pin (17) in accordance with the determined difference; and lifting the holding pin (17) at the modified lifting timing to insert the weft yarn (11).

IPC 8 full level

**D03D 51/00** (2006.01); **D03D 47/30** (2006.01); **D03D 47/36** (2006.01)

CPC (source: CN EP)

**D03D 47/30** (2013.01 - EP); **D03D 47/3066** (2013.01 - CN); **D03D 47/3073** (2013.01 - CN); **D03D 47/363** (2013.01 - EP);  
**D03D 51/007** (2013.01 - EP)

Citation (applicant)

- JP 2014500914 A 20140116
- CH 2011000284 W 20111124

Citation (search report)

- [X] EP 0222410 A2 19870520 - TSUDAKOMA IND CO LTD [JP]
- [XD] WO 2012068697 A2 20120531 - USTER TECHNOLOGIES AG [CH], et al

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 3567145 A1 20191113**; **EP 3567145 B1 20210224**; CN 110453344 A 20191115; CN 110453344 B 20210316; JP 2019196557 A 20191114;  
JP 7368075 B2 20231024

DOCDB simple family (application)

**EP 19171713 A 20190430**; CN 201910370445 A 20190506; JP 2018090159 A 20180508