

Title (en)
WEFT DETECTING DEVICE FOR AIR-JET LOOM

Title (de)
SCHUSSFADENERFASSUNGSVORRICHTUNG FÜR EINE LUFTDÜSENWEBMASCHINE

Title (fr)
DISPOSITIF DE DÉTECTION DE TRAME POUR MÉTIER À TISSER À JET D'AIR

Publication
EP 3404132 A1 20181121 (EN)

Application
EP 18171780 A 20180511

Priority
JP 2017096388 A 20170515

Abstract (en)
A weft detecting device for an air-jet loom includes a main nozzle, an auxiliary nozzle, a reed including a plurality of dents, a reflective photoelectric sensor, and a determination unit. The dents each include a guide recess, and the guide recesses define a reed passage. The main nozzle and the auxiliary nozzle eject air to insert a weft through the reed passage. The reflective photoelectric sensor is located at a position that allows for detection of the weft. The reflective photoelectric sensor includes a light projector and a light receiver. The light projector emits light. The light receiver receives reflected light that has been reflected by the weft. The determination unit is configured to determine a position of the weft relative to the reed passage in a depthwise direction based on a light amount level of the reflected light.

IPC 8 full level
D03D 47/30 (2006.01); **D03D 51/34** (2006.01)

CPC (source: CN EP)
D03D 47/3073 (2013.01 - CN EP); **D03D 51/34** (2013.01 - EP)

Citation (applicant)
JP 2001504902 A 20010410

Citation (search report)

- [A] JP 2016186144 A 20161027 - TOYOTA IND CORP, et al
- [A] US 6170536 B1 20010109 - VERHULST JOSEPH [BE], et al
- [A] JP 2011032592 A 20110217 - TOYOTA IND CORP
- [AD] JP H0571046 A 19930323 - TOYODA AUTOMATIC LOOM WORKS

Cited by
CN114606627A; CN111411440A; BE1026923B1

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 3404132 A1 20181121; **EP 3404132 B1 20191016**; CN 108866761 A 20181123; CN 108866761 B 20191203; JP 2018193628 A 20181206; JP 6921621 B2 20210818

DOCDB simple family (application)
EP 18171780 A 20180511; CN 201810442110 A 20180510; JP 2017096388 A 20170515