

Title (en)
AIR JET LOOM

Title (de)
LUFTDÜSENWEBMASCHINE

Title (fr)
MÉTIER À TISSER À JET D'AIR

Publication
EP 3412812 A1 20181212 (EN)

Application
EP 18173755 A 20180523

Priority
JP 2017110639 A 20170605

Abstract (en)
An air jet loom (100) includes a reed (7) having a tunnel (7a) and a main nozzle (10) flying a weft yarn (20) into the tunnel (7a) by air jet injection to perform weft insertion. An accelerating tube (1) of the main nozzle (10) has a tapered portion (1a) and a straight portion (1b). Yarn speed ratio (q) of the weft yarn (20) is defined by a speed ratio (U1/U2) of a speed (U1) with respect to a speed (U2). The yarn speed ratio (q) is obtained by relationship among an entire length (L) of the accelerating tube (1), a ratio (A/L) of a length (A) of the straight portion (1b) with respect to the entire length (L) of the accelerating tube (1), and an inclination angle (,) of an inner surface of the tapered portion (1a). The entire length (L), the ratio (A/L), and the inclination angle (,) are determined such that the yarn speed ratio (q) is smaller than a maximum value (qmax) that is obtained by Expression 1, $q_{max} = (c2 / c1) + 1$.

IPC 8 full level
D03D 47/30 (2006.01)

CPC (source: CN EP)
D03D 47/3013 (2013.01 - EP); **D03D 47/306** (2013.01 - CN)

Citation (applicant)
JP 2004156162 A 20040603 - TSUDAKOMA IND CO LTD

Citation (search report)
• [XD] EP 1418262 A1 20040512 - TSUDAKOMA IND CO LTD [JP]
• [X] CN 2789289 Y 20060621 - OUYANG CHENGDE [CN]

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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