

Title (en)  
DEVICE FOR STRETCHING AND TENSING A WEFT YARN

Title (de)  
VORRICHTUNG ZUM STRECKEN UND SPANNEN EINES SCHUSSFADENS UND WEBMASCHINE MIT EINER SOLCHEN VORRICHTUNG

Title (fr)  
DISPOSITIF POUR ETIRER ET TENDRE UN FIL DE TRAME

Publication  
**EP 0993514 B2 20061129 (DE)**

Application  
**EP 98920441 A 19980527**

Priority  
• CH 9800223 W 19980527  
• DE 19728013 A 19970701

Abstract (en)  
[origin: DE19728013A1] The inventive device comprises a nozzle holder (5) with a channel (8) for receiving a weft yarn, and a nozzle (6) with holes (14) for stretching and tensing the weft yarn. The nozzle (6) is mounted on the holder in such a way that the nozzle can be adjusted in relation to the direction of the weft, in particular so that it can be pivoted or displaced. The device is characterized in that it facilitates optimum adjustment of intersecting air jets and guarantees a deflection of the weft yarn (9) independently of the yarn type. Furthermore, it ensures that the weft yarn is held taut.

IPC 8 full level  
**D03D 47/30** (2006.01); **D03J 1/04** (2006.01)

CPC (source: EP KR US)  
**D03D 47/30** (2013.01 - KR); **D03D 47/308** (2013.01 - EP US)

Citation (opposition)  
Opponent :  
• DE 3200637 A1 19820812 - RUETI TE STRAKE BV [NL]  
• JP S63110586 A 19880516 - IZUMI PROD CO, et al  
• JP H0663580 A 19940308 - SHIKOKU CHEM, et al  
• JP H0643188 A 19940218 - YOKOGAWA ELECTRIC CORP  
• US 4838321 A 19890613 - ISHIDO TAKAO [JP], et al  
• Niemann, G: Maschinenelemente. Bd. 1. 2. Aufl. Berlin: Springer 1981 (cited from DUBBEL, Taschenbuch für den Maschinenbau. 20. Aufl. Berlin: Springer 2001, Seite G 28, Bild 34)  
• DUBBEL, Taschenbuch für den Maschinenbau. 16. Aufl. Berlin: Springer 1987, page G 24, Bild 33 and page G 25, Bild 34

Designated contracting state (EPC)  
BE CH DE ES FR GB IT LI SE

DOCDB simple family (publication)  
**DE 19728013 A1 19990107**; AU 7329798 A 19990125; BR 9810505 A 20000905; CA 2294799 A1 19990114; CA 2294799 C 20060221; CN 1092729 C 20021016; CN 1261933 A 20000802; CZ 294692 B6 20050216; CZ 477999 A3 20000712; DE 59803865 D1 20020523; EP 0993514 A1 20000419; EP 0993514 B1 20020417; EP 0993514 B2 20061129; ES 2175705 T3 20021116; ES 2175705 T5 20070616; HK 1030638 A1 20010511; JP 2002507256 A 20020305; KR 100467014 B1 20050124; KR 20010013518 A 20010226; RU 2000102362 A 20040320; RU 2170785 C1 20010720; TR 199903334 T2 20000721; US 6220308 B1 20010424; WO 9901599 A1 19990114

DOCDB simple family (application)  
**DE 19728013 A 19970701**; AU 7329798 A 19980527; BR 9810505 A 19980527; CA 2294799 A 19980527; CH 9800223 W 19980527; CN 98806732 A 19980527; CZ 477999 A 19980527; DE 59803865 T 19980527; EP 98920441 A 19980527; ES 98920441 T 19980527; HK 01100340 A 20010112; JP 50603399 A 19980527; KR 19997011525 A 19991207; RU 2000102362 A 19980527; TR 9903334 T 19980527; US 46212100 A 20000103