Title (en)

Procedure and arrangement for piecing two yarn ends from which a twisted yarn is produced in an integrated Openend-spinning and "two for one" twisting process

Title (de)

Verfahren und Einrichtung zum Anspinnen der freien Enden von zwei Spinnfäden aus welchen ein Zwirnfaden gebildet wird im Rahmen eines integrierten OE-Spinn- und Doppeldrahtzwirn-Prozesses

Title (fr)

Procédé et dispositif pour rattacher deux bouts de fils duquels on fabriques un retors dans un processus filature à bout ouvert, torsion d'après le principle à double torsion

Publication

EP 1149938 A3 20020731 (DE)

Application

EP 01109842 A 20010423

Priority

DE 10021160 A 20000429

Abstract (en)

[origin: DE10021160C1] To splice the free ends of a broken yarn, at an integrated open-end spinner and two-for-one twister, the two broken yarn ends are fed through the hollow spindle axis until they reach the end of the intact twisted yarn and are held in place. The twisted yarn is withdrawn from the hollow spindle axis, and the twist is reversed until the yarn is returned to the original threads and the parallel threads are formed into loops. The loops are clamped over a given length bonded to the spun yarn from the open-end spinner, to form a splice for a resumption of the twisting process. The thread loops are clamped with a gap between them. Each loop is clamped directly on arrival at the clamp, to be laid in a pair of feed rollers. The first loop is fed to the spinning rotor, and the second loop is passed to the hollow spindle axis. An Independent claim is included for an assembly with two open-end spinning rotors (13,14) open upwards, symmetrically to the hollow spindle axis (21) within the zone defined by the yarn balloon. Each of the two yarn stores has a static clamping surface and a moving clamping surface, where the two branches of the yarn loop are held for a part of their length as far as the connecting curve between them, clamped parallel to each other. The yarn loops are progressively released mechanically from the paired feed rollers. The deflection roller is placed so that the roller gap is directly at the clamping surfaces. The moving clamp is a floating clamping plate, which is moved magnetically from a rest position to bear against the fixed clamping plate. A permanent magnet is at the fixed clamping surface, and the moving clamping plate is of a magnetic material. The stationary clamping surfaces for both splicing yarns are formed by the facing angled surfaces of a roof-shaped block. The first roller of the paired rollers can swing against the other roller, to be held under spring tension against the second roller. One of the two yarn feeds is on a floating mounting, so that its position can be modified on only one plane through the axes of both rollers, so that one roller is against the other to form the feed unit. The floating roller is hollow, with a cambered support body within it on its axis, as a ball. Limit stops are against the floating roller, parallel to the plane through the roller axes, and at right angles to the gap between the feed rollers.

IPC 1-7

D01H 4/50; D01H 15/007; D01H 7/86; D01H 7/90

IPC 8 full level

D02J 11/00 (2006.01); **D01H 4/48** (2006.01); **D01H 4/50** (2006.01); **D01H 7/86** (2006.01); **D01H 15/007** (2006.01)

CPC (source: EP US)

D01H 4/50 (2013.01 - EP US); **D01H 7/86** (2013.01 - EP US)

Citation (search report)

- [DA] EP 0701014 A2 19960313 - PALITEX PROJECT CO GMBH [DE]
- [A] US 3962855 A 19760615 - STAHLECKER FRITZ

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

DE 10021160 C1 20010517; CN 1346906 A 20020501; CZ 20011459 A3 20011212; EP 1149938 A2 20011031; EP 1149938 A3 20020731; JP 2002004136 A 20020109; US 2001049929 A1 20011213; US 6363705 B2 20020402

DOCDB simple family (application)

DE 10021160 A 20000429; CN 01132857 A 20010428; CZ 20011459 A 20010424; EP 01109842 A 20010423; JP 2001133205 A 20010427; US 84616601 A 20010430