

Title (en)
Selvage warp yarn break detection system

Title (de)
Detektionssystem eines Kettfadenbruchs der Dreherkante

Title (fr)
Système pour détecter une rupture de fil de chaîne de lisière

Publication
EP 1357214 A3 20040128 (EN)

Application
EP 03009181 A 20030422

Priority
JP 2002119132 A 20020422

Abstract (en)
[origin: EP1357214A2] The operation of a loom is quickly stopped by automatically detecting a break of each of selvage warp yarns moving up and down for shedding so as to prevent fabric quality from being degraded due to formation of loose selvages, and so forth. <??>A selvage warp yarn break detection system (30) incorporated in a selvage device (1), comprises a selvage warp yarn sensor (16) provided at a predetermined position where the pair of the selvage warp yarns (2) can be detected, respectively, and a selvage warp yarn fault detection circuit (31) with an input terminal thereof, connected to an output terminal of the selvage warp yarn sensor (16), wherein the pair of the selvage warp yarns (2) that are caused to vertically move accompanying a weaving operation are detected by the selvage warp yarn sensor (16), and a detection signal from the selvage warp yarn sensor (16) is delivered to the selvage warp yarn fault detection circuit (31), whereupon the selvage warp yarn fault detection circuit (31) compares a generation pattern of the detection signal from the selvage warp yarn sensor (16) at the time of a normal weaving operation with a generation pattern of the detection signal from the selvage warp yarn sensor (16) at the time of a faulty weaving operation, and the selvage warp yarn fault detection circuit (31) outputs the selvage warp yarn fault signal when those operation patterns differ from each other.

IPC 1-7
D03D 51/28; D03C 7/00; D03C 7/08

IPC 8 full level
D03D 47/44 (2006.01); **D03C 7/00** (2006.01); **D03C 7/04** (2006.01); **D03D 47/40** (2006.01); **D03D 51/28** (2006.01)

CPC (source: EP)
D03C 7/00 (2013.01); **D03C 7/04** (2013.01); **D03D 47/40** (2013.01); **D03D 51/28** (2013.01)

Citation (search report)
• [PX] EP 1270780 A2 20030102 - KLOECKER ENTWICKLUNGS GMBH [DE]
• [XY] US 4412562 A 19831101 - KOBAYASHI TAKESHI [JP], et al
• [Y] US 4166480 A 19790904 - MULLER WALTER [CH]
• [Y] US 6227253 B1 20010508 - MEYNS IGNACE [BE]

Cited by
CN106192168A; CN102146614A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1357214 A2 20031029; **EP 1357214 A3 20040128**; CN 1453412 A 20031105; JP 2003313755 A 20031106

DOCDB simple family (application)
EP 03009181 A 20030422; CN 03122031 A 20030422; JP 2002119132 A 20020422