

Title (en)

Process to control the operation of electrically controlled magnetic valves in looms

Title (de)

Verfahren zum Überwachen der Funktionstüchtigkeit elektrisch ansteuerbarer Magnetventile in Webmaschinen

Title (fr)

Procédé pour contrôler le fonctionnement de soupapes magnétiques à contrôle électrique dans les métiers à tisser

Publication

EP 0786546 B1 20000510 (DE)

Application

EP 96118494 A 19961119

Priority

DE 19602513 A 19960125

Abstract (en)

[origin: US5787937A] A method for monitoring the functional reliability of magnetic valves in pneumatically operated systems of an air jet loom, such as the valves for the relay nozzles, allows the failure of such a valve to be quickly detected and corrected. The characteristic progression curve (2) of the valve actuation current (I) as a function of time (t) is monitored for each magnetic valve to detect and evaluate the occurrence, relative timing, and magnitude of a characteristic feature (3), such as a current dip (3), in the increasing portion (2a) of the current progression curve (2). If the characteristic feature (3) is completely missing, or deviates in time or magnitude outside of a tolerance range relative to corresponding nominal values, then a corresponding fault signal is triggered or the weaving process is interrupted. Alternatively, the time of initiating the actuation signal for the respective valve is shifted to bring the actual operation of the valve back into the acceptable tolerance range.

IPC 1-7

D03D 47/30

IPC 8 full level

D03D 47/30 (2006.01); **D03D 51/18** (2006.01); **D03D 51/44** (2006.01)

CPC (source: EP US)

D03D 47/3026 (2013.01 - EP US); **D03D 47/304** (2013.01 - EP US); **D03D 47/306** (2013.01 - EP US); **D03D 51/44** (2013.01 - EP US)

Designated contracting state (EPC)

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

DOCDB simple family (publication)

US 5787937 A 19980804; AT E192786 T1 20000515; DE 19602513 C1 19961002; DE 59605184 D1 20000615; EP 0786546 A1 19970730; EP 0786546 B1 20000510; JP 2857113 B2 19990210; JP H09291441 A 19971111

DOCDB simple family (application)

US 81074097 A 19970124; AT 96118494 T 19961119; DE 19602513 A 19960125; DE 59605184 T 19961119; EP 96118494 A 19961119; JP 877297 A 19970121