

Title (en)  
MONITORING DEVICE

Publication  
**EP 0419833 B1 19930609 (DE)**

Application  
**EP 90115828 A 19900817**

Priority  
DE 3932665 A 19890929

Abstract (en)  
[origin: EP0419833A1] What is described is a device for the contactless monitoring of a region (14) adjacent to a service robot (12) of a ring spinning machine (10), said device comprising an electroacoustic transducer (18). The transmitted sound signal supplied by the transducer (18) is divided into a measurement sound signal (SSM) and a reference sound signal (SSR). An electronic control unit (16) supplies a fault signal when no sound signal has been received by the expiry of a reference running time. On the other hand, if a sound signal is received before the expiry of the reference running time, the control unit (16) supplies a recognition signal. <IMAGE>

IPC 1-7  
**B65H 54/26; D01H 13/00**

IPC 8 full level  
**B25J 19/02** (2006.01); **B65H 54/26** (2006.01); **D01H 13/00** (2006.01); **D01H 13/16** (2006.01); **F16P 3/14** (2006.01); **G01S 15/04** (2006.01); **G01S 15/88** (2006.01)

CPC (source: EP US)  
**B65H 54/26** (2013.01 - EP US); **D01H 13/005** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by  
US5323513A; CN111876865A

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

DOCDB simple family (publication)  
**EP 0419833 A1 19910403; EP 0419833 B1 19930609**; CS 450290 A2 19910915; DE 3932665 A1 19910411; DE 59001695 D1 19930715; JP H03218487 A 19910926; US 5083298 A 19920121

DOCDB simple family (application)  
**EP 90115828 A 19900817**; CS 450290 A 19900917; DE 3932665 A 19890929; DE 59001695 T 19900817; JP 25762090 A 19900928; US 59031090 A 19900928