

Title (en)
Sewing machine

Title (de)
Nähmaschine

Title (fr)
Machine à coudre

Publication
EP 2312033 A3 20150506 (EN)

Application
EP 10187338 A 20101012

Priority
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Abstract (en)
[origin: EP2312033A2] The invention relates to a sewing machine (10). The sewing machine (10) includes a main shaft which is rotated by a motor (1) to move a sewing needle, a position detecting means (14, 15) for detecting a rotation angle of the main shaft as a main shaft angle, a thread cutting mechanism (30) having a movable knife (31), a thread cutting cam (51) having a cam groove (51a) formed along a circumferential direction and rotating in synchronization with the rotation of the main shaft, a cam follower (52) configured to engage with the cam groove (51a) to move the movable knife (31) in accordance with the cam groove (51a), a thread cutting actuator (56) which switches the cam follower (52) between an engaging position and a disengaging position with respect to the thread cutting cam (51), and a control means for controlling the thread cutting actuator (56) and the motor (1). The control means includes an operation timing determining means for determining an operation start timing of the thread cutting actuator (56) or the motor (1), based on at least one of a rotation speed (v1, v2) of the motor (1) for a thread cutting operation and a main shaft stopped angle (, 1) at which the main shaft has stopped immediately before the thread cutting operation.

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Citation (search report)
• [IA] EP 2000570 A1 20081210 - JUKI KK [JP]
• [A] JP 2003326058 A 20031118 - JUKI KK
• [A] US 5967069 A 19991019 - RODRIGUEZ FELIPE [US], et al
• [A] US 5372079 A 19941213 - KITAI KOJI [JP], et al
• [A] US 4421046 A 19831220 - MORITA MINORU [JP]

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