

Title (en)
Sewing machine.

Title (de)
Nähmaschine.

Title (fr)
Machine à coudre.

Publication
EP 0219558 A1 19870429 (EN)

Application
EP 85113029 A 19851014

Priority
ES 54363384 A 19840726

Abstract (en)
The zigzag-sewing and feeding system of a sewing machine comprises two step motors (1, 2), one (1) of which is used to effect and control the zigzag sewing motion of a needle bar holder. The other step motor (2) is used to control the stroke of the back-and-forth movement of the feeder (21) of the sewing machine. The drive shaft (3) of the first step motor (1) carries a gear in mesh with a rack (4), which is pivoted at one end to one end of a bell-crank lever (5), which at its other end is pivoted to one end of a cranked lever (6) and is operated by the rack (4) to reciprocate said one end of the cranked lever (6). The latter is pivoted at a bend to the machine frame and is pivoted at its other end to a needle bar holder (8) to impart a zigzag motion thereto. The rack (4) is formed with longitudinal slots, which receive pins (11) for guiding the rack (4) during its reciprocating motion. The drive shaft (12) of the second step motor (2) carries a gear in mesh with a rack (13), which is pivoted to one end of a bell-crank lever (14), which at its other end is pivoted to a connecting rod (15) by a pivot (14') between the upper end lower ends of said rod. A tension spring (16) is connected to the connecting rod (15) above the pivot (14') and urges said rod (15) above the pivot (14') against the eccentric periphery of a cam (17), which is rotated by the main motor (19) of the sewing machine. The lower end of the connecting rod (15) is connected by a transversely extending rod (20) to the feeder of the sewing machine so that said feeder is moved back and forth by said rod (20) when the rotation of the cam (17) causes the lower end of the connecting rod (15) to oscillate about the pivot (14'). The amplitude of said oscillation will be controlled by the step motor (2), which is operable to shift by means of the rack (13) and the bell-crank lever (14) the point of contact between the connecting rod (15) and the cam (17). The rack (13) is also formed with longitudinal slots, which receive pins for guiding the rack (13) during its reciprocating motion.

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• [X] DE 2702488 A1 19770728 - JANOME SEWING MACHINE CO LTD
• [X] EP 0032485 A1 19810722 - HUSQVARNA AB [SE]
• [X] FR 2391303 A1 19781215 - HUSQVARNA AB [SE]

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