

Title (en)
HORIZONTAL-MULTI-NEEDLE QUILTING MACHINE AND METHOD

Title (de)
HORIZONTALE STEPMASCHINE MIT MEHREREN NADELN SOWIE VERFAHREN

Title (fr)
PROCEDE ET MACHINE A PIQUER A MULTIPLES AIGUILLES HORIZONTALES

Publication
EP 1943382 B1 20180404 (EN)

Application
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Abstract (en)
[origin: WO2007030809A2] A multi-needle quilting machine (10) and method uses two separately moveable bridges (21, 22) having selectively operable chain-stitching element pairs. Either the material (12) or the bridges (21, 22) or both may be moved relative to the frame (11). Control schemes are provided to quilt continuous patterns, discrete patterns, linked multiple patterns, 360 degree patterns, or closely spaced patterns, preferably using a single drive servo motor (35, 36, 45, 46) for each bridge (21, 22) with the needle and looper drives phased relative to each other through a differential transmission. The needles and loopers can be driven out of phase, which is particularly useful in starting stitching sequences reliably. The parameters that define different products are used by a machine controller as a basis for deriving different quilting process steps, such as tack stitch sequences, thread wipe cycles and paths, thread pull-off distances and tension, and the need to sew additional lines to stabilize the material layers. Operator selection between quality and speed modes is provided. Simultaneous sewing of continuous and discontinuous patterns is provided

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EP4130369A1; FR3126008A1; US12012683B2; US11952692B2; WO2021122086A1

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