

Title (en)
Sewing machine

Title (de)
Nähmaschine

Title (fr)
Machine à coudre

Publication
EP 1388601 A3 20060705 (EN)

Application
EP 03017537 A 20030806

Priority

- JP 2002232946 A 20020809
- JP 2002232947 A 20020809
- JP 2002232948 A 20020809
- JP 2002233723 A 20020809
- JP 2002232949 A 20020809
- JP 2003120480 A 20030424

Abstract (en)
[origin: EP1388601A2] A sewing machine includes a supporting plate portion and a needle. The supporting plate portion contacts sewing fabric that is moved in a predetermined direction during a sewing operation. The needle is vertically moved between a top dead center above the supporting plate portion and a bottom dead center below the supporting plate portion. The supporting plate portion has a needle hole through which the needle passes. The lower end opening of the needle hole is larger than the upper end opening.

IPC 8 full level
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D05B 11/00 (2013.01 - EP US); **D05B 29/00** (2013.01 - EP US); **D05B 33/00** (2013.01 - EP US); **D05B 55/06** (2013.01 - EP US); **D05B 55/10** (2013.01 - EP US); **D05B 55/14** (2013.01 - EP US); **D05B 61/00** (2013.01 - EP US); **D05B 63/00** (2013.01 - EP US); **D05B 65/00** (2013.01 - EP US); **D05B 69/32** (2013.01 - EP US); **D05B 69/36** (2013.01 - EP US); **D05B 73/12** (2013.01 - EP US); **D05B 57/02** (2013.01 - EP US); **D05D 2209/12** (2013.01 - EP US)

Citation (search report)

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DOCDB simple family (application)
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