

Title (en)

Actuating device for an oscillating looper of a sewing machine

Title (de)

Antriebsvorrichtung für einen oszillierenden Greifer einer Nähmaschine

Title (fr)

Dispositif d'actionnement d'un boucleur oscillant d'une machine à coudre

Publication

EP 1052322 A3 20011004 (DE)

Application

EP 00810086 A 20000131

Priority

- CH 85999 A 19990507
- CH 227299 A 19991210

Abstract (en)

[origin: EP1052322A2] The drive mechanism for the looper, at a sewing machine, has a toothed pinion (17) in an eccentric mounting to the rotary ax (A) of the drive shaft (19) for the looper on catching the thread loop. The drive transmission is a toothed rack (15) or toothed belt between the crank drive (13) and the pinion (17). A guide sur ensures that the toothed rack (15) is held in contact with the pinion (17). The guide surface is within an opening at the end of crankrod (13), under the rack (15) and open at the end or a closed slit. The guide surface slides at a guide disk coaxial to the pinion (17) on the drive shaft (19). The guide disk is an axial end extension of the pinion (17) or is a separate component fitt on the drive shaft (19). A spring-loaded sliding shoe (33) is at a guide edge (37) on the crankrod (13), with a longitudinal sli movement. The guide edge (37) is generally parallel to the teeth of the rack (15), and is part of the crankrod (13). The sliding shoe (33) is pressed against the guide edge (37) by a spring-loaded lever (35). Where the transmission is through a toothed belt passes round the pinion (17) and a belt carrier or cogwheel, with an oscillating drive from the crank (13). The toothed belt is tensed by a spring-loaded tensioning lever and a tensioning roller. The drive pinion is on an eccentric mounting on the axis.

IPC 1-7

D05B 57/30; **D05B 3/02**

IPC 8 full level

D05B 57/36 (2006.01); **D05B 57/30** (2006.01); **D05B 69/16** (2006.01); **F16H 7/12** (2006.01)

CPC (source: EP US)

D05B 57/30 (2013.01 - EP US)

Citation (search report)

- [Y] US 3954070 A 19760504 - PAPAJEWSKI REINHOLD
- [Y] US 2325467 A 19430727 - RUDOLF BEYER WERNER KURT
- [A] DE 2938802 A1 19810402 - SINGER CO

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1052322 A2 20001115; **EP 1052322 A3 20011004**; **EP 1052322 B1 20030528**; CN 1096518 C 20021218; CN 1273296 A 20001115; DE 50002325 D1 20030703; JP 2000342875 A 20001212; JP 4381561 B2 20091209; TW 573694 U 20040121; US 6182589 B1 20010206

DOCDB simple family (application)

EP 00810086 A 20000131; CN 00108241 A 20000430; DE 50002325 T 20000131; JP 2000132332 A 20000501; TW 92214580 U 20000315; US 54118100 A 20000403