

Title (en)
OPTICAL POSITION INDICATOR FOR FASTENER ATTACHING MACHINE

Publication
EP 0253292 A3 19880914 (EN)

Application
EP 87109859 A 19870708

Priority
JP 10594686 U 19860710

Abstract (en)
[origin: EP0253292A2] An optical position indicator (5), disposed between punch and die units (I), (3) of a fastener attaching machine and horizontally reciprocable in timed relation to vertical movement of the punch unit (I), includes a light source (6), and a holder (7) supporting thereon the light source (6) in such a posture that a light beam from the light source (6) is projected directly on the garment fabric (C) without any reflection.

IPC 1-7
A41H 37/00

IPC 8 full level
A41H 37/00 (2006.01)

CPC (source: EP KR)
A41H 37/00 (2013.01 - EP KR)

Citation (search report)

- [YD] EP 0147809 A2 19850710 - NIPPON NOTION KOGYO [JP]
- [Y] US 4438567 A 19840327 - RAIHA ANTTI P [US]
- [A] US 3728027 A 19730417 - WATANABE T
- [A] US 3964661 A 19760622 - SCHMIDT ERICH A, et al

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WO02083360A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0253292 A2 19880120; EP 0253292 A3 19880914; EP 0253292 B1 19901205; AU 573479 B2 19880609; AU 7455187 A 19880114; CA 1312363 C 19930105; DE 3766553 D1 19910117; HK 64293 A 19930709; JP S6311522 U 19880126; KR 880001699 U 19880406; KR 900007932 Y1 19900903; MY 101084 A 19910716; SG 40793 G 19930611

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EP 87109859 A 19870708; AU 7455187 A 19870622; CA 539922 A 19870617; DE 3766553 T 19870708; HK 64293 A 19930701; JP 10594686 U 19860710; KR 870011248 U 19870709; MY PI19870882 A 19870624; SG 40793 A 19930408