

Title (en)

No-twist slit-rolling approach ("NTA") apparatus and method for manufacturing steel reinforcing rod.

Title (de)

Vorrichtung zum Walzen und Längsteilen ohne Verwindung und Verfahren zur Herstellung von Bewehrungsstäben.

Title (fr)

Dispositif pour laminage en fendage sans torsion et méthode pour manufacture de barres d'armature.

Publication

**EP 0439666 A1 19910807 (EN)**

Application

**EP 90108378 A 19900503**

Priority

- SG 67994 A 19940520
- US 47428590 A 19900202

Abstract (en)

The invention is a no-twist approach ("NTA") apparatus and method for manufacturing steel reinforcing bar. The utilization of the method allows steel reinforcing bar to be manufactured with greater speed and precision than by conventional methods. The NTA method employs numerous stands (13-18), with the first two stands (13,14) aligned with the shafts of the rolls comprising the rolls offset 45 DEG from a predetermined plane and 90 DEG from each other. The third and fourth stands (15,16) are aligned with the shafts of their rollers perpendicular or parallel to the predetermined plane and they split the single bar into a plurality of bars. The remaining stands (17,18,17',18') are arranged into at least two lines of stands, either with the first of each stand in the lines aligned with the sides of their rolls offset 45 DEG in a first direction from the predetermined plane and with the second of each stand in the two lines aligned with the sides of their rolls offset 45 DEG in a second direction opposite to said first direction to the predetermined plane, or with the first and second of each stand in the parallel lines aligned with the sides of their rolls offset either by 90 DEG and 0 DEG or 0 DEG and 90 DEG .

IPC 1-7

**B21B 1/18**

IPC 8 full level

**B21B 1/18** (2006.01); **B21B 1/08** (2006.01)

CPC (source: EP)

**B21B 1/18** (2013.01); **B21B 1/0815** (2013.01)

Citation (search report)

- DE 3602522 A1 19870730 - MANNESMANN AG [DE]
- DE 1809260 A1 19690724 - BRITISH IRON STEEL RESEARCH
- DE 2446905 A1 19760408 - MOELLER & NEUMANN GMBH

Cited by

CN111330973A; CN102179403A; EP0634231A1; US5544516A; CN102626712A; CN113828634A

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0439666 A1 19910807**; **EP 0439666 B1 19931110**; DE 69004558 D1 19931216; DE 69004558 T2 19940519; ES 2047745 T3 19940301; HK 63194 A 19940701; SG 67994 G 19950317

DOCDB simple family (application)

**EP 90108378 A 19900503**; DE 69004558 T 19900503; ES 90108378 T 19900503; HK 63194 A 19940630; SG 67994 A 19940520