

Title (en)
RING ROLLING MILL WITH CONFORMATION ROLLS AND PROCESS FOR CONTROLLING THE POSITION OF A ROLL OF SUCH A ROLLING MILL

Title (de)
WALZWERK MIT FORMROLLEN, UND STEUERUNGSVERFAHREN FÜR DIE POSITION EINER ROLLE EINES SOLCHEN WALZWERKS

Title (fr)
LAMINOIR CIRCULAIRE AVEC ROULEAUX DE CONFORMATION ET PROCÉDÉ DE CONTRÔLE DE LA POSITION D'UN ROULEAU D'UN TEL LAMINOIR

Publication
EP 3519122 B1 20210407 (FR)

Application
EP 17777254 A 20170929

Priority
• EP 16306289 A 20160930
• EP 2017074736 W 20170929

Abstract (en)
[origin: WO2018060399A1] This circular rolling mill (2) comprises a fixed main frame (4), a pair of cylindrical rollers (62), respectively internal and external, intended to shape internal and external radial faces of an annular part (P) and supported by a first secondary frame (46) mounted on the main frame, as well as a pair of conical rollers (82, 84), respectively upper and lower, intended to shape opposite front faces of the part (P) and supported by a second secondary frame (48) mounted on the main frame. At least one rack and pinion assembly (272-273, 274-275) is provided to move a roller in translation relative to one of the secondary frames (44, 48). At least one electric geared motor (172, 176, 178) is provided to drive the pinion (273, 275) of the rack and pinion assembly. The electric geared motor (172-178) is fixedly mounted relative to one of the auxiliary frames (46, 48). A fluid discharge mechanism (M72, M74) is interposed in a kinematic chain for transmitting force between the rack (272, 274) and the roller moved by this rack. The fluid discharge mechanism (M72, M74) comprises at least one variable volume chamber (C72, C74), which is supplied with pressurised fluid (73) and the volume of which varies as a function of the relative position of the roller and of the rack (272, 274).

IPC 8 full level
B21H 1/06 (2006.01)

CPC (source: EP KR RU US)
B21B 13/10 (2013.01 - US); **B21B 31/32** (2013.01 - US); **B21B 37/52** (2013.01 - US); **B21H 1/06** (2013.01 - EP KR RU US)

Cited by
CN111940650A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3300814 A1 20180404; BR 112019006291 A2 20190702; BR 112019006291 B1 20230418; CN 109843467 A 20190604; CN 109843467 B 20200821; EP 3519122 A1 20190807; EP 3519122 B1 20210407; ES 2876162 T3 20211112; JP 2019531198 A 20191031; JP 6722359 B2 20200715; KR 102460419 B1 20221031; KR 20190055110 A 20190522; PL 3519122 T3 20211025; RU 2019108707 A 20200928; RU 2019108707 A3 20201124; RU 2742986 C2 20210212; US 11110499 B2 20210907; US 2019232348 A1 20190801; WO 2018060399 A1 20180405

DOCDB simple family (application)
EP 16306289 A 20160930; BR 112019006291 A 20170929; CN 201780060476 A 20170929; EP 17777254 A 20170929; EP 2017074736 W 20170929; ES 17777254 T 20170929; JP 2019528672 A 20170929; KR 20197009274 A 20170929; PL 17777254 T 20170929; RU 2019108707 A 20170929; US 201716338268 A 20170929