

Title (en)

Fluid pressure cylinder and rolling mill

Title (de)

Druckmittelzylinder und Walzwerk

Title (fr)

Vérin à fluide sous pression et laminoir

Publication

EP 1281449 A2 20030205 (EN)

Application

EP 02015572 A 20020712

Priority

JP 2001234661 A 20010802

Abstract (en)

Hydraulic cylinders are provided in a housing so as to be opposed to roll chocks. Each of the hydraulic cylinders is constituted by movably fitting a thin plunger via a liner into a cylinder fixed to the housing, movably fitting a concave portion of the thin plunger over a center guide on the cylinder to form guide means, and connecting a liner for thrusting each of the roll chocks to a front end portion of the thin plunger. <IMAGE>

IPC 1-7

B21B 31/32; **B21B 31/02**

IPC 8 full level

B21B 13/14 (2006.01); **B21B 31/02** (2006.01); **B21B 31/32** (2006.01)

CPC (source: EP KR US)

B21B 13/14 (2013.01 - KR); **B21B 31/02** (2013.01 - EP US); **B21B 31/32** (2013.01 - EP US)

Cited by

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Designated contracting state (EPC)

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DOCDB simple family (publication)

EP 1281449 A2 20030205; BR 0202853 A 20030520; CA 2392101 A1 20030202; CN 1401444 A 20030312; JP 2003048006 A 20030218; KR 20030013291 A 20030214; TW 565476 B 20031211; US 2003024292 A1 20030206

DOCDB simple family (application)

EP 02015572 A 20020712; BR 0202853 A 20020719; CA 2392101 A 20020628; CN 02127298 A 20020731; JP 2001234661 A 20010802; KR 20020045484 A 20020801; TW 91114705 A 20020703; US 19263802 A 20020711