

Title (en)
PRESS

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Application
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Abstract (en)
[origin: EP0393649A2] A press performs first-stage press working on a long plate member (9) with a first upper die (83) and a first lower die (183) which are provided in a first working station (81), and then performs second-stage press working on the long plate member (9) with a second upper die (94) and a second lower die (194) which are provided in a second working station (82). The first upper die (83) and the first lower die (183) circularly move in opposite directions, to press-work the long plate member (9). The second upper die (94) and the second lower die (194) circularly move in opposite directions, to press-work the long plate member (9). The circular motions of the first upper die (83) and the first lower die (183) and the circular motions of the second upper die (94) and the second lower die (194) are 180 DEG out of phase. Inertial forces caused in the respective dies (83, 183, 94, 194) are mutually cancelled, whereby the press can be entirely kept in good mass balance.

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CPC (source: EP KR)
B21D 43/028 (2013.01 - EP); **B30B 3/00** (2013.01 - KR); **B30B 15/146** (2013.01 - EP)

Citation (search report)
• [X] US 2394534 A 19460212 - CONNER GUY O
• [A] FR 2496816 A1 19820625 - KODAK PATHE [FR]
• [A] US 3264920 A 19660809 - HALLDEN KARL W
• [A] US 2406808 A 19460903 - CONNER GUY O
• [A] US 4165666 A 19790828 - HUDON PAUL A [US], et al

Cited by
EP2283944A3; US8783082B2; WO0108875A1

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DOCDB simple family (publication)
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