

Title (en)  
SIX-STAGE ROLLING MILL

Title (de)  
SECHS-WALZEN-WALZWERK

Title (fr)  
LAMINOIR A SIX ETAGES

Publication  
**EP 0543014 B2 20041027 (EN)**

Application  
**EP 92910178 A 19920518**

Priority

- JP 9200639 W 19920518
- JP 94292 A 19920107
- JP 13942891 A 19910516
- JP 13943191 A 19910516
- JP 14415291 A 19910521
- JP 18946791 A 19910704
- JP 18946891 A 19910704
- JP 18946991 A 19910704
- JP 18947091 A 19910704

Abstract (en)  
[origin: EP0543014A1] A six-stage rolling mill provided with a pair of top and bottom work rolls, intermediate rolls and backup rolls, at least the intermediate rolls out of the intermediate rolls and the work rolls capable of being shifted in the axial direction, wherein, barrel lengths larger than those of the backup rolls are provided to the respective intermediate rolls in such a manner that, even in the maximum and minimum shift attitudes, the barrel ends of the intermediate rolls can project outwardly beyond those of the backup rolls, so that the six-stage rolling mill particularly high in longitudinal rigidity can be provided. <IMAGE>

IPC 1-7  
**B21B 13/14**

IPC 8 full level  
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Citation (opposition)  
Opponent :

- DE 3712043 A1 19881027 - SCHLOEMANN SIEMAG AG [DE]
- EP 0049798 A2 19820421 - SCHLOEMANN SIEMAG AG [DE]

Cited by  
CN103118813A; WO2005065853A3; WO2005063417A1; US8210015B2; WO2014191671A1; US10195652B2

Designated contracting state (EPC)  
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**EP 0543014 A1 19930526**; **EP 0543014 A4 19950524**; **EP 0543014 B1 19980819**; **EP 0543014 B2 20041027**; CA 2087156 A1 19921117; CA 2087156 C 20001226; DE 69226690 D1 19980924; DE 69226690 T2 19990107; DE 69226690 T3 20050210; JP 2654313 B2 19970917; JP H05245506 A 19930924; KR 100216299 B1 19990816; KR 930701244 A 19930611; WO 9220471 A1 19921126

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**EP 92910178 A 19920518**; CA 2087156 A 19920518; DE 69226690 T 19920518; JP 12508192 A 19920518; JP 9200639 W 19920518; KR 930700100 A 19930115