

Title (en)  
SPRAY UNIT FOR ROLLING MILL

Publication  
**EP 0041863 A3 19820331 (EN)**

Application  
**EP 81302550 A 19810609**

Priority  
GB 8019061 A 19800611

Abstract (en)  
[origin: EP0041863A2] A rolling mill for rolling metal has at least one spray unit (12,14) mounted adjacent the roll assemblies (4,8; 6,10;) for delivering liquid to one or both of the roll assemblies and/or the work (W). The spray unit (12, 14) comprising a manifold (28) having a chamber (30) extending parallel to the axes of the rolls; means (32) for supplying liquid to the chamber (30); a nozzle bar (34) carried by manifold (28); and a series of spray nozzles or sets of spray nozzles (22,24,26) carried in passages in the nozzle bar (34) and spaced along the manifold in the axial direction of the rolls. Each spray nozzle or set of spray a nozzles has a pipe (38) in communication with the passage or passages and passing across the manifold chamber (30) a transversely to the axes of the rolls, a diaphragm (58) closing an opening in the manifold wall opposite the ends of the pipe (38), and means externally of the chamber (30) for varying the separation of the diaphragm (58) from the end of the pipe (38) to control flow of liquid from the manifold chamber (30) into the pipe (38) and thence to the spray nozzle or nozzles.

IPC 1-7  
**B21B 27/10**; **B21B 45/02**; **B05B 1/14**; **F16K 7/17**

IPC 8 full level  
**B05B 1/14** (2006.01); **B05B 1/30** (2006.01); **B21B 27/10** (2006.01); **B21B 45/02** (2006.01); **F16K 7/17** (2006.01)

CPC (source: EP)  
**B21B 27/10** (2013.01); **B21B 45/0233** (2013.01)

Citation (search report)  
• GB 1434477 A 19760505 - SCHAMING E J  
• GB 1591407 A 19810624 - SCHLOEMANN SIEMAG AG  
• DE 2652845 A1 19780524 - SCHLOEMANN SIEMAG AG  
• DE 2432012 A1 19750306 - SCHAMING EDWARD J  
• US 4081141 A 19780328 - COURSON RICHARD B, et al  
• US 3863841 A 19750204 - BERTHOUD FERNAND  
• US 4167247 A 19790911 - SONS MACK D, et al  
• DE 2628238 A1 19780105 - KUNZ GERHARD DR ING

Cited by  
EP0136921A3; EP0205296A3; EP0153532A3; EP0205295A3; DE19503544A1; US7997413B2; CN111790531A; US8978436B2

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)  
**EP 0041863 A2 19811216**; **EP 0041863 A3 19820331**; **EP 0041863 B1 19850116**; AT E11236 T1 19850215; CA 1155650 A 19831025; DE 3168285 D1 19850228; JP H0248322 B2 19901024; JP S5728605 A 19820216

DOCDB simple family (application)  
**EP 81302550 A 19810609**; AT 81302550 T 19810609; CA 379508 A 19810610; DE 3168285 T 19810609; JP 8874681 A 19810609