

Title (en)  
HIGH PRESSURE FEED PUMP

Title (de)  
HOCHDRUCKFÖRDERPUMPE

Title (fr)  
POMPE D'ALIMENTATION HAUTE PRESSION

Publication  
**EP 1415092 A1 20040506 (DE)**

Application  
**EP 02742623 A 20020709**

Priority  
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Abstract (en)  
[origin: WO03014569A1] The invention relates to a high pressure feed pump which comprises a delivery plunger (14) guided within a high pressure cylinder. Said delivery plunger is driven by a drive shaft (28) by way of an eccentric (36) on which a rounded-off multi-stage ring (40) is rotatably received. A plate-shaped spring element (62) is disposed between the multi-stage ring (40) and the delivery plunger (14) and is, for example, configured by the bottom (48) of a bucket tappet (46). The delivery plunger (14) has a concavely shaped section on its front end (50), thereby allowing the spring element (62) to bend into the recess (64) in accordance with the load on the delivery plunger (14). The contact surface (54) of the spring element (62) with the multi-stage ring (40) and the annular surface (62) with which the spring element (62) rests on the delivery plunger (14) is thereby increased. Surface pressure can thus be restricted to an acceptable degree even at very high working pressures.

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