

Title (en)  
FLUID INJECTION ASSEMBLY AND COMBINATION OF A SPRING AND A FIXING ELEMENT

Title (de)  
FLUIDEINSPRITZANORDNUNG UND KOMBINATION AUS EINER FEDER UND EINEM BEFESTIGUNGSELEMENT

Title (fr)  
ENSEMBLE D'INJECTION DE FLUIDE ET COMBINAISON D'UN RESSORT ET D'UN ÉLÉMENT DE FIXATION

Publication  
**EP 3640470 A1 20200422 (EN)**

Application  
**EP 18200493 A 20181015**

Priority  
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Abstract (en)  
The present invention relates to a fluid injection assembly (1), comprising an injector (2), a fuel cup (3) and a spring (4), wherein the spring (4) is arranged between a supporting surface (5) of the injector (2) and a supporting surface (6) of the fuel cup (3). In order to improve such a fluid injection assembly, the invention suggests that the spring (4) extends along a longitudinal axis (7) of the spring (4) and that the spring (4) comprises a wire (8) wound around the longitudinal axis (7) of the spring (4) between a first longitudinal end (9) of the spring (4) and a second longitudinal end (10) of the spring (4). According to a second aspect the invention refers to a combination, in particular for a fluid injection assembly (1) of an internal combustion engine, wherein the combination (35) includes a spring (4) and a fixing element (24). In order to provide an improved combination (35) the invention suggests that the spring (4) extends along a longitudinal axis (7) of the spring, wherein the spring (4) comprises a wire (8) wound around the longitudinal axis (7) of the spring (4) between a first longitudinal end (9) of the spring (4) and a second longitudinal end (10) of the spring (4), and that the fixing element (24) has a ring section (25) and a sleeve section (26) extending along a longitudinal axis (27) of the fixing element (24), wherein the ring section (25) is formed at or fixed to the sleeve section (26) between a first longitudinal section (28) of the sleeve section and a second longitudinal section (29) of the sleeve section (26) and wherein the ring section (25) extends from an outside of the sleeve section (26) in a radially outward direction.

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Citation (applicant)  
EP 1892408 B1 20091021 - CONTINENTAL AUTOMOTIVE GMBH [DE]

Citation (search report)  

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- [X] US 6148797 A 20001121 - GMELIN KARL [DE]
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- [X] US 2010154746 A1 20100624 - FISCHER MICHAEL [DE], et al
- [X] FR 2776025 A1 19990917 - PEUGEOT [FR]

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