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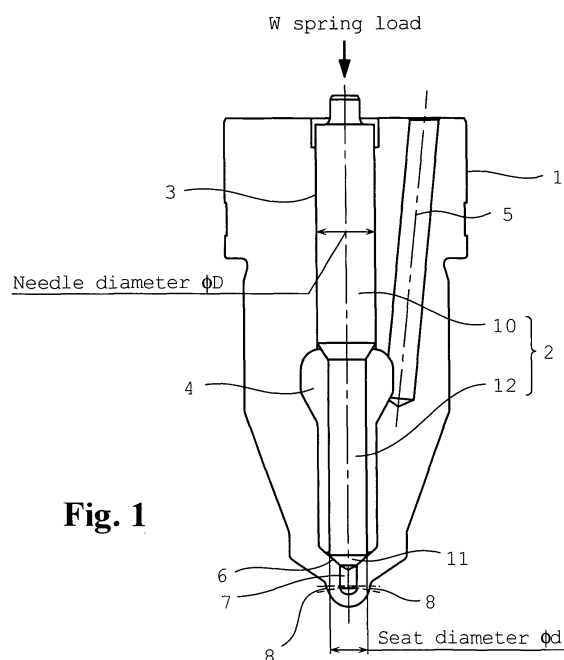
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(54) **Fuel injection device for diesel engine, method for manufacturing the same, and valve unit**

(57) Wear and spalling are to be prevented at seat portions of a fuel injection device for a diesel engine. In a fuel injection device for a diesel engine wherein a needle valve is moved in the inside of a nozzle body to which fuel is supplied, to open or close seat faces through which the nozzle body and the needle valve come into contact with each other, thereby controlling injection of fuel from nozzle holes opening to the nozzle body, the portion serving as the seat portion of the nozzle body and the portion serving as the seat portion of the needle valve are formed of a nitrided alloy steel, and a compound layer and a first layer in a diffusion layer are removed from a surface of each of the seat portions. Since a second layer having high toughness serves as a seat face, both wear resistance and fatigue resistance are improved and particularly it is possible to prevent spalling of the seat portion of the nozzle body.



**Fig. 1**



## EUROPEAN SEARCH REPORT

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EP 09 00 8133

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Place of search Munich		Date of completion of the search 21 September 2010	Examiner Landriscina, V
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