

Title (en)

System and method for feeding fuel to a fine-particle-mixed fuel burning diesel engine.

Title (de)

System und Verfahren zum Zuführen von Brennstoff zu einem eine Mischung aus Kleinpartikeln und Brennstoff verbrennenden Dieselmotor.

Title (fr)

Système et méthode pour alimenter un moteur diesel brûlant une mixture de petits particules et de combustible.

Publication

EP 0528150 A1 19930224 (EN)

Application

EP 92111211 A 19920702

Priority

JP 20563091 A 19910723

Abstract (en)

An improved system and method for feeding fuel, which obviates the shortcomings of the fuel feeding system in the prior art, in which mixed fuel consisting of fine particles of solid fuel such as pulverized coal or the like and fuel oil, is directly sent under a pressure by means of a high-pressure pump but seizure of a pump plunger is caused, and which enables the fuel feeding system in the prior art to achieve good operations, are disclosed. A predetermined amount of fuel oil containing fine particles of solid fuel is fed into an oil reservoir (12) within an injection valve (9) through a control valve (16), and this fuel oil is injected through a nozzle hole (10) of the injection valve (9) with the aid of oil pressurized by means of a high-pressure pump (3). Thereby, only the above-mentioned fuel oil is injected, but the above-described pressurized oil is not injected, and also it never occurs that the aforementioned fuel oil enters the high-pressure pump (3), resulting in seizure of a plunger of the pump. The oil fed to the oil reservoir (12) is returned to an oil tank (1) via a circulation valve (21), and so, deterioration of the oil can be precluded. In addition, since the control valve (16) is regulated by a signal indicating a position of a control rack which controls a delivery amount of the high-pressure pump (3), fuel oil of the amount corresponding to the delivery amount of the high-pressure pump (3) is sent to the aforementioned oil reservoir (12), and so, only the above-mentioned fuel oil can be reliably injected. <IMAGE>

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Citation (search report)

- [Y] EP 0282819 A2 19880921 - MITSUBISHI HEAVY IND LTD [JP]
- [Y] EP 0104368 A1 19840404 - BARANESCU GEORGE STAN
- [A] US 4699103 A 19871013 - TSUKAHARA KENJI [JP], et al
- [A] DE 2924128 A1 19801218 - MOTOREN WERKE MANNHEIM AG
- [A] EP 0418601 B1 19921111
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 163 (M-487)(2219) 11 June 1986 & JP-A-61 014 465 (ISUZU) 22 January 1986

Cited by

DE10330511A1; FR2711735A1

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