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(71) Applicant: AKER SUBSEA AS [NO/NO]; P.O.Box 94,
N-1325 Lysaker (NO).

(72) Inventors: HALDORSEN, Henrik Dishington; Elmholt
Allé 18, N-0275 Oslo (NO). TWIST, Dag; Sparavollen 15,
N-3021 Drammen (NO).

(74) Agent: PROTECTOR IP CONSULTANTS AS;
Oscarsgate 20, NO-0352 Oslo (NO).

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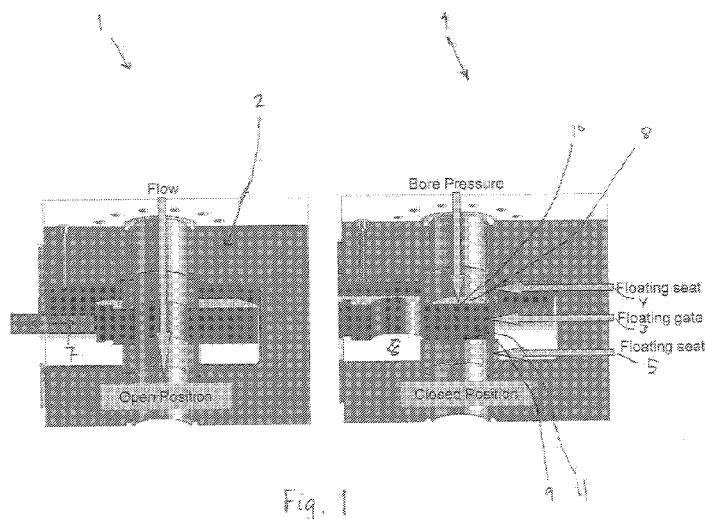
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(54) Title: DLC-COATED GATE VALVE IN PETROLEUM PRODUCTION OR WATER INJECTION



(57) Abstract: The invention provides a gate valve (1) for control of petroleum production or water injection, distinctive in that at least one surface subject to sliding in operation of the valve comprises a top layer coating of diamond like carbon (DLC). The DLC contains hydrogen, preferably more than 16 atom-% and more preferred more than 17 atom-%. It is further directed to a method of commissioning or operating a gate valve according to the invention, and use of a diamond like carbon (DLC) top layer coating on at least one surface subject to sliding in operation of the gate valve. Valve parts have a tendency of sticking, adhering or cold welding together, which result in high friction. The aim of the invention is to reduce or eliminate friction problems occurring with time or operation cycles, when using a full scale gate valve.