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(54) DEEP-WELL MULTIPHASE PUMP

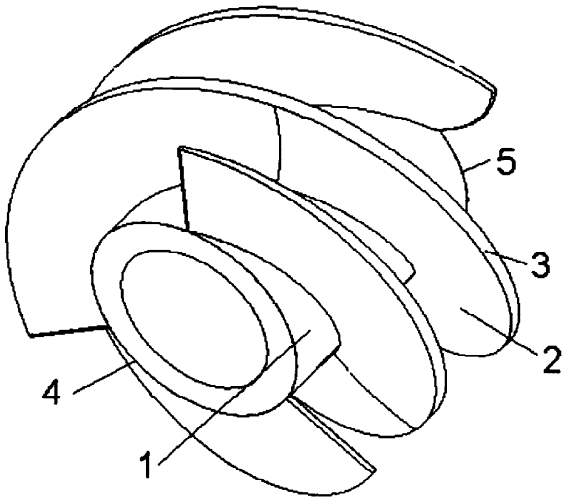
(57) Abstract:

FIELD: engines and pumps.

SUBSTANCE: invention relates to pump production, particularly to multistage axial pumps and can be used to pump mixes with high content of not dissolved gas out from oil wells. Proposed multiphase pump comprises axial stages arranged successively on the shaft, each consisting of an impeller representing a sleeve with vane and guide vanes. Impeller outlet angle between tangential line to vane skeleton line and plane perpendicular to rotational axis exceeds that at impeller inlet by 1.2 to 4.0 times. Length of impeller flow channels, measured along its outer cylindrical surface, makes 1 to 4 impeller diametres. The number of vanes does not exceed 4, while sleeve diametre-to-impeller diametre ratio equals 0.4 to 0.9.

EFFECT: stable operation at whatever delivery and high content of not dissolved gas and abrasive particles.

4 cl, 2 dwg



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