

(54) **RADIAL GUIDE VANE OF MULTI-STAGE SUBMERSIBLE PUMP**

(57) Abstract:

FIELD: engines and pumps.

SUBSTANCE: **radial** guide vane is intended for pumps that extract oil from wells and supply water into payout oil-bearing bed for reservoir pressure maintenance and increase in it. Guide vane consists of cylindrical body 4, upper disk, lower disk 6, inserts 7 with external and internal surfaces 12, 13 and covers arranged in the form of separate parts. Inserts 7 rest with their external cylindrical surface 12 against responsive surface of vertical bulges 9 on internal surface of cylindrical body 4. Transition channels are formed with the help of inclined profiled groove 11, which is arranged at external cylindrical surface 12 of insert 7. Inclined profiled groove 11 has expansion at the outlet. In peripheral area of return channels at the joint with transition channels, there is a transition chamber installed. Chamber has smooth reduction of return channels height when going from periphery to centre due to deepening on upper side of lower disk and/or on lower side of upper disk.

EFFECT: increased discharge due to stabilisation of flow in tetrahedral channels and prevention if working fluid overflows between stages.

10 cl, 7 dwg

