

DRAGHEAD DREDGE SHIP WITH THE JET DISINTEGRANT

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ASSIGNMENT

Intensification of underwater ground intake process by application of innovative technical solutions on the base of inkjet technology.

ESSENCE OF TECHNOLOGY

The basis of innovative technical solutions set task to improving the dredge, in which by introducing new constructive elements achieved the possibility of extracting mineral in counter streams, control their intensity, increasing of sucked pulp concentration during decreasing of scour water consumption.

Draghead works as follows: water for minerals washing from the water pump supplied under pressure in the pipeline 2 and further to the collector 3, from where through scour injection head 4 expires in the array of soil eroding and saturating it. This arrangement of injection head allows you to create directed counter current, adjusting their intensity depending on the physical and mechanical properties of extracted soil, and thus to control the process of erosion, soil absorption, concentration of the pulp in the available ranges. Patents № 27981, 91523 Ukraine.

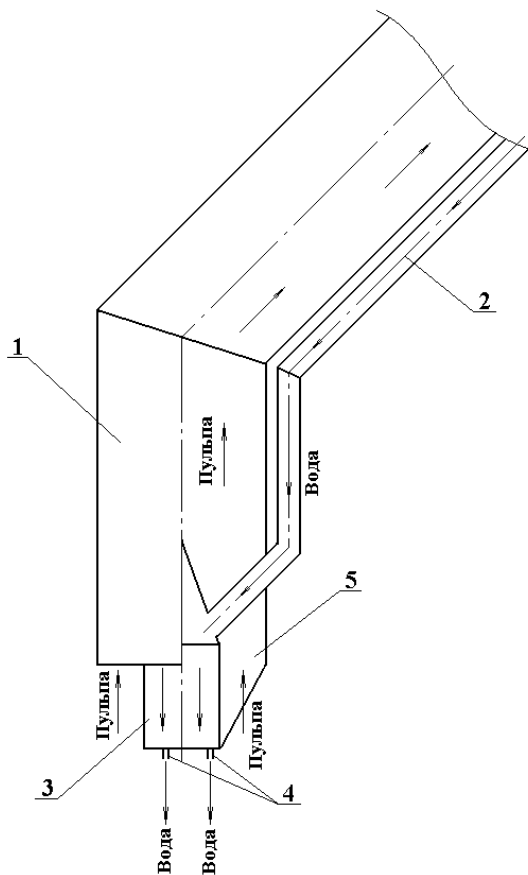


Fig. Scheme of draghead

INDUSTRIAL USE

Draghead with a jet disintegrant introduced when upgrading pump dredge MZ-8. Dredger M3-8 exploited in the development of East-Bugskiy deposits of construction sand.

ADVANTAGES AND DISADVANTAGES

Implementation of draghead with jet disintegrant has allowed upgrading dredge MZ-8 with minimal costs. Exploitation dredger MZ-8 in development of the East-Bugskiy deposit of building sand deposits has shown its high efficiency. Application of draghead (when developing of building sand at a depth of 5 m at a distance

transportation 350 m allowed to increase productivity of the dredger on 23% and reduce energy consumption per unit of mined product at 0.22 kW (12%).

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