

ABSTRACT

SUCTION DREDGER FOR USE ON UNDERWATER HARD SOIL LAYER

The present application relates to a suction dredger for use on an underwater hard soil layer and relates to the technical field of bridge construction equipment. The present suction dredger comprises a mud suctioning mechanism, a mud-breaking mechanism, and a blockage-prevention assembly. The mud suctioning mechanism comprises a pressurizing assembly and a suction dredging pipe. The suction dredging pipe passes through the pressurizing assembly and the two ends thereof at least partially extend past the pressurizing assembly. The side wall of the section of the suction dredging pipe located in the pressurizing assembly is provided with multiple pressurization holes that are inclined upward in the direction from the outer wall to the inner wall. The pressurizing assembly is used for, via the pressurization holes, forming low pressure in the suction dredging pipe. The mud-breaking mechanism comprises at least two mud-breaking assemblies. The mud-breaking assemblies are provided on the bottom of the mud suctioning mechanism and are used for crushing the underwater hard soil layer to assist the suction dredging pipe in suctioning mud. The blockage-prevention assembly is provided on the bottom of the suction dredging pipe. The blockage-prevention assembly is used for preventing the suction dredging pipe from experiencing blockages during the suction process. The suction dredger for use on an underwater soil layer provided in the present application solves the problem in the prior art that when a suction dredger works on an underwater hard soil layer, suction results are poor and blockages are common.

Fig. 1