

ABSTRACT

The present invention provides a desulfurization agent mixing system for fuel oil used in harbors, the system including: a fuel oil tank for storing fuel oil; a desulfurization agent tank for storing a desulfurization agent; a line mixer receiving and mixing the fuel oil and the desulfurization agent from the fuel oil tank and the desulfurization agent tank; a droplet atomization unit for forming droplets of a mixture of the fuel oil and the desulfurization agent, the mixture being generated by the line mixer; a magnetization unit for magnetizing the mixture in which the droplets are contained; a vortex reaction unit for turning the mixture of the fuel oil and the desulfurization agent, which is magnetized by the magnetization unit; a gas separation unit configured to separate gas contained in the fuel oil and the desulfurization agent mixture in the vortex reaction unit; a collision emulsion unit configured to cause the mixture of the fuel oil and the desulfurization agent from which the gas is separated by the gas separation unit to collide against a collision target; and an emulsion tank for storing the mixture of the fuel oil and the desulfurization agent, which is collided by the collision emulsion unit.

Fig 1 for publication