

Abstract

The present application relates to the technical field of storage tanks, and discloses a sealing structure, a storage tank breather valve and a storage tank. The sealing structure comprises: a valve seat and a valve disc, which are arranged opposite to each other and used for fitted sealing against each other, wherein a fitted sealing surface of one of the valve disc and the valve seat is provided with an inner annular groove and an outer annular groove surrounding the inner annular groove, and a fitted sealing side of the other of the valve disc and the valve seat is provided with an inner annular sealing protrusion arranged in alignment to the inner annular groove and an outer annular sealing protrusion arranged in alignment to the outer annular groove; a flexible sealing diaphragm covers the inner annular groove and the outer annular groove; when the valve seat and the valve disc are in a fitted sealing state, the inner annular sealing protrusion at least partially extends into the inner annular groove, the outer annular sealing protrusion at least partially extends into the outer annular groove, and the flexible sealing diaphragm, which is pushed by respective protrusion tips of the inner annular sealing protrusion and the outer annular sealing protrusion, elastically extends towards the inner annular groove and the outer annular groove. The sealing structure can improve the sealing performance and safety performance of a storage tank breather valve and a storage tank.

[Fig. 9]