

BRUCE ANCHOR

BRUCE® CHASER STOPPER (PATENTED)

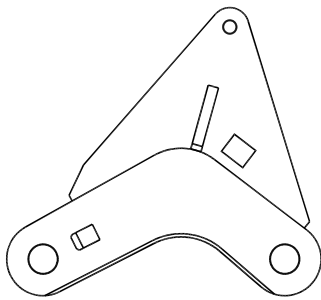


Fig.1 Bruce Chaser Stopper

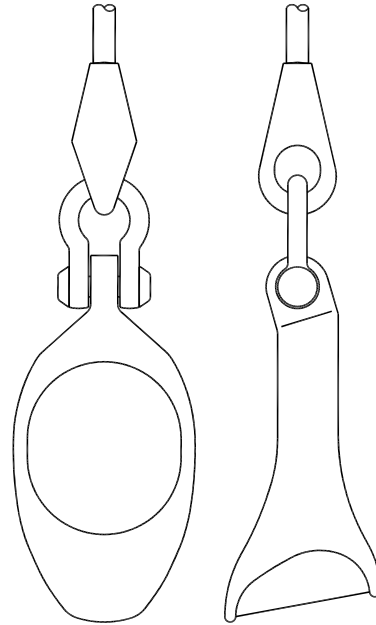
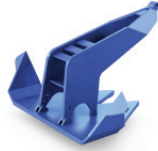


Fig.2 Bruce Chaser

The Bruce Chaser Stopper (**Fig.1**) is essentially a triangular plate with a leading edge, a trailing edge, and a lower edge. The lower edge is curved to form with the leading edge a nose having a shackle hole for attaching the plate to the end of a mooring cable. At the trailing edge a shackle hole is provided for attaching the stopper via a connecting link to the anchor shackle.

The nose has section depths less than the width of the aperture of a Bruce ring chaser (**Fig.2**) and the maximum depth of section through the top of the plate exceeds the height of the aperture of the chaser so that the top of the leading edge blocks passage of the chaser. These features allow the stopper initially to pivot freely within the chaser when supported by the chaser making contact with the lower edge at the nose but stop the chaser from moving beyond the top of the leading edge and onto the shank of an attached anchor.

When the mooring cable is hauled out, the inclination of the cable and the weight of the anchor act together to keep the chaser initially on the nose of the chaser stopper but clear of its blocking top. If the plane of the stopper is other than vertical, moments generated by the weight of the anchor and the mooring cable acting through the respective attachment shackles cause the stopper to pivot about its contact point with the chaser until it is in a vertical plane. The now vertical orientation of the chaser stopper forces the anchor to hang pointing towards the MODU (**Fig. 3** overleaf).



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The weight of the mooring cable being hauled out eventually forms a bight between the chaser stopper and the fairleader of the MODU. When the weight in the bight exceeds the weight of the anchor, the tension in the cable pulls the stopper further into the aperture of the chaser until it is blocked (**Fig. 4**).

The anchor is therefore held pointing towards the MODU throughout the process of hauling it out and lowering it to the seabed.

The Bruce Chaser Stopper avoids chaser damage to the shank of an anchor and ensures that the anchor has the azimuthal orientation necessary to avoid reruns due to adverse set down. As it is always edge on to the direction of embedment, the chaser stopper offers minimal penetration resistance to embedment.

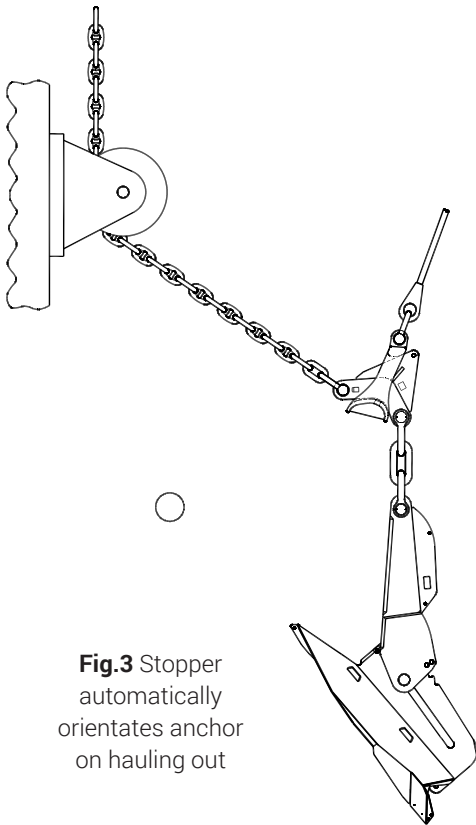


Fig.3 Stopper automatically orientates anchor on hauling out

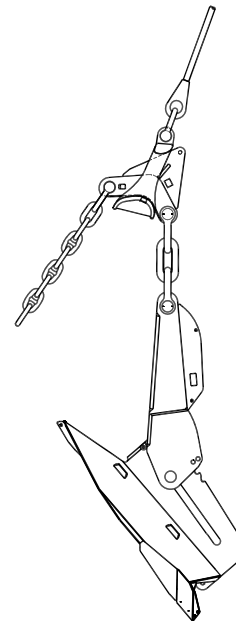


Fig.4 Stopped chaser holds anchor in correct orientation for set down

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