DESCRIPTION

It is often a surprise when we claim that Seakeepers can be installed off-center without loss of anti-roll performance. Here is a quick mathematical proof that shows the same anti-roll moment (torque) for both on-and-off center installations on a boat.

1. CENTERLINE INSTALLATION



Moment about $M = M_M = (F * x) + (F * x) = 2Fx$

2. OFF-CENTER INSTALLATION



Moment about $M = M_M = (F * 3x) - (F * x) = 2Fx$

As shown in the figures above, the Seakeeper gyroscope generates the same moment about the roll axis of the vessel whether installed on centerline or off-centerline. Therefore, the stabilization effect of the Seakeeper is the same no matter where the unit is installed, even if there are multiple units. This provides a significant amount of flexibility for both new build and retrofit installations.