SEASTAR™ HC5322-3 & HC5323-3 STEERING CYLINDER

NOTICE

These cylinders replace the Hynautic K-18 (HC5322-3) and K-19 (HC5323-3) steering cylinders.

⚠ CAUTION

These cylinders are not intended for use on any racing and/or aggressive type applications.

Important Notes

1. At ALL times protect cylinder shafts from nicks and scratches. A damaged cylinder shaft cannot be repaired and MUST be replaced.
2. To achieve MAXIMUM performance, cylinder is to be mounted at a right angle (90°) to the rudder arm when in the center position (refer to Figure A below).
3. Ball joint connections allow for no-load pivoting and minor misalignment. Ball joint connections are NOT designed to handle steering loads when significantly misaligned.
4. Mounting area MUST be able to withstand significant forces in excess of **2000 lb**. There must be NO binding or interference of the ball joints at any point in the steering arc.

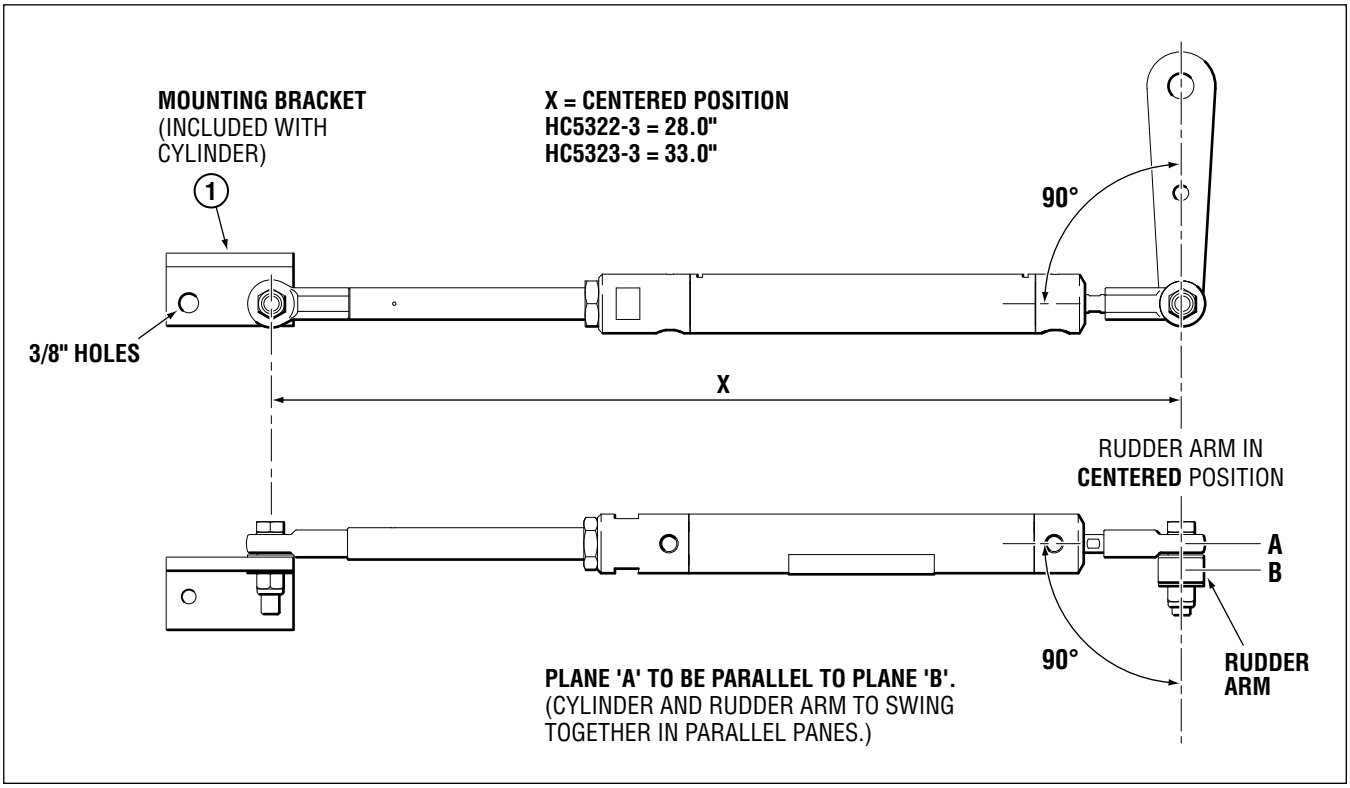

Figure A. Correct Cylinder to Rudder Arm Mounting Orientation.

Cylinder Mounting – Rod End to Tiller Connection

1. Determine rudder arm hole location using Table 1 below.
2. Lightly grease the bolts being installed into the rudder arm and mounting bracket.
3. Assemble 1/2" x 2–1/4" bolt (item 2) and washers (items 3) into rod end assembly and rudder arm, as shown in Figure B.
4. Torque nuts (item 4, Figure B) to 43 ft-lb (58.3Nm).
5. Place rudder in centered position and extend cylinder to mid stroke (see x dimension in Figure A).
6. Temporarily install the other rod end into the mounting bracket (item 1, Figure A). Using the bracket as a template, mark off the positions of the two 3/8" holes on the mounting surface.
7. Once the mounting location is chosen and marked, confirm that there are no obstructions on the opposite side of the backing surface and drill the required mounting holes.
8. Mount the bracket (item 1, Figure A) with through bolts, washers and nuts (not supplied by SeaStar Solutions). DO NOT USE LAG BOLTS.
9. Attach rod end to mounting bracket as described in Steps 3 & 4.
10. BEFORE final hose/tube connection, swing rudder back and forth to ensure free movement of the cylinder and that the ball joint connections are not binding.

⚠ WARNING

Any binding and/or interference MUST be corrected prior to use. Failure to do so may lead to separation of components and/or prevention of steering control. Separation of components and/or prevention of steering control may lead to unpredictable boat behavior resulting in property damage, personal injury and/or death.

INBOARD RUDDER ARM HOLE LOCATION		
Total Rudder Arc	Dimension – Center of Rudder arm to Center of bolt	
	HC5323-3 (9"stroke)	HC5322-3 (7" stroke)
60 degrees	9"	7"
70 degrees	8"	6"

Table 1.

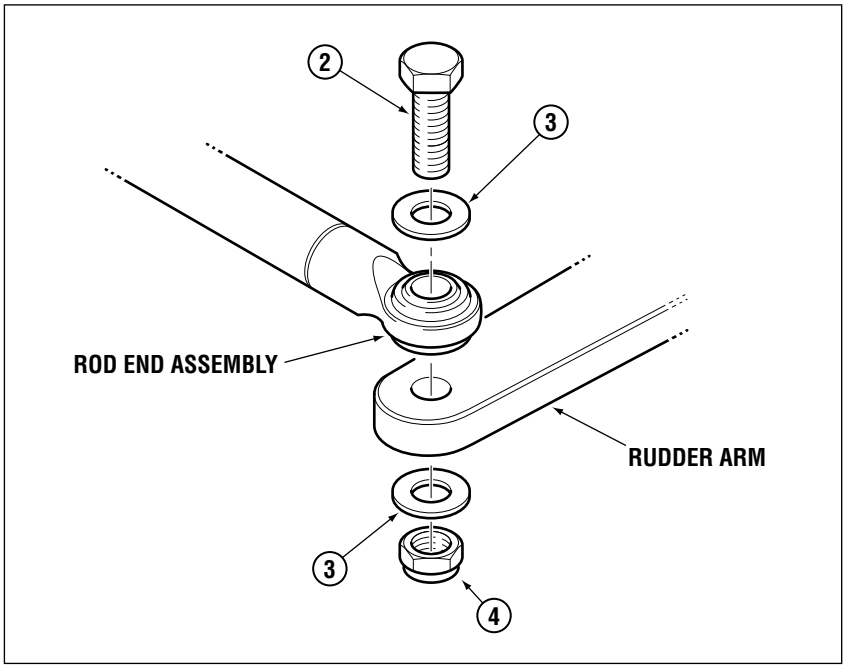

Figure B. Attaching Rod End Assembly to Rudder Arm.