

# INSTALLATION INSTRUCTIONS

Copy Part# 501002, Rev. C, 01/2014

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# HYDRAULIC STEERING SPARE PARTS KIT

#### **NOTICE**

Manuals can be downloaded from: www.seastarsolutions.com

This kit is designed for use in a SeaStar, BayStar, Capilano or Hynautic Hydraulic Steering System. SeaStar Solutions recommends that ALL work is completed by a Qualified Marine Technician to ensure safe operation of the vessel. Please read and adhere to ALL warnings, cautions and notices that are outlined on this page as well as in your Owner's Manual.

### **A** WARNING

Failure to adhere to the torque specifications outlined below may lead to separation of components resulting in loss of steering control causing ejection from vessel, or collision with objects leading to property damage, personal injury and/or death.

#### **NOTICE**

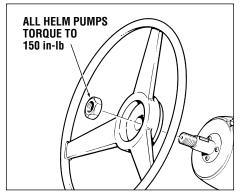
Refer to your Owner's Manual for any related notices, warnings and/or cautions.

#### **WARNING**

It is good practice to check ALL fasteners after initial use and regularly thereafter to ensure proper torque setting is maintained.

## **Bolt Torque Specifications**

These are the recommended maximum torque values for reusable dry bolts. Bolts should be torqued to this value +0% -20%. For lubricated bolts, multiply the dry bolt torque values by .75.



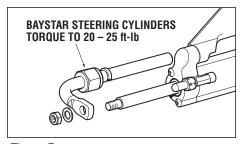
### Values are stated in: in-lbs (Nm)

Bolt Siz	:e	18-8SS	Brass
8-3	2 20	0.0 (2.25)	16.0 (1.81)
8-3	6 2	2.0 (2.48)	18.0 (2.03)
10-2	4 23	3.0 (2.59)	19.0 (2.14)
10-3	2 32	2.0 (3.61)	26.0 (2.94)
1/4"-2		5.0 (8.47)	62.0 (7.01)
1/4"-2	8 94	1.0 (10.6)	77.0 (8.70)

Bolt Size	18-8SS	Brass
5/16"-18	132.0 (14.91)	107.0 (12.10)
5/16"-24	142.0 (16.04)	116.0 (13.11)
3/8"-16	236.0 (26.66)	192.0 (21.71)
3/8"-24	259.0 (29.20)	212.0 (23.97)

Figure A.

## Values are stated in: ft-lbs (Nm)



Bolt Size	18-8SS	Brass
7/16"-14	31.0 (42.00)	26.0 (35.25)
7/16"-20	33.0 (44.74)	27.0 (36.61)
1/2"-13	43.0 (58.30)	35.0 (47.45)
1/2"-20	45.0 (61.01)	37.0 (50.17)
9/16"-12	57.0 (77.28)	47.0 (63.72)
9/16"-18	63.0 (85.42)	51.0 (69.15)
5/8"-11	93.0 (126.09)	76.0 (103.04)
5/8"-18	104.0 (141.00)	85.0 (115.24)

**Bolt Size** 18-8SS Brass 3/4"-10 128.0 (173.55) 104.0 (141.00) 3/4"-16 124.0 (168.12) 102.0 (138.29) 7/8"-9 194.0 (236.03) 159.0 (215.58) 7/8"-14 193.0 (261.67) 158.0 (214.22) 287.0 (389.12) 235.0 (318.62) 259.0 (351.16) 212.0 (287.43)

Figure B.

#### **NOTICE**

Torque values for 18-8 stainless steel and brass bolts are taken from a torque guide by ITT Harper. All results correspond well with basic bolt equations, using a bolt factor of 0.2 and a factor of 3/4 for a reusable connection.



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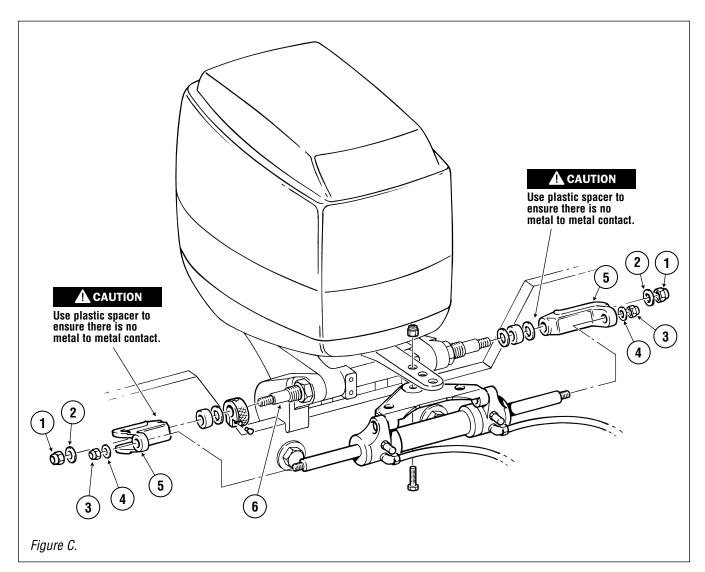
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# **SEASTAR**

# **CYLINDER SERVICE KITS:**

HP6016, HP6018, HP6036 & HP6111



NOTICE SeaStar Solutions no longer sells individual PID's. Any part number shown below is ONLY available in kit form.

ITEM	PART #	QTY	DESCRIPTION
1	N/A	2	Nut, 1/2" NF Nylok® SS
2	N/A	2	Washer, Flat 1/2" SS
3	N/A	2	Nut, 7/16" NF Nylok® SS
4	N/A	2	Washer, Flat, 7/16" SS

ITEM	PART #	QTY	DESCRIPTION
5	N/A	2	Support Bracket, Front Mount Cylinder
6	N/A	1	Support Rod