

## INSTALLATION INSTRUCTIONS

Copy Part# 501003, Rev. B, 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.

## **M** 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**

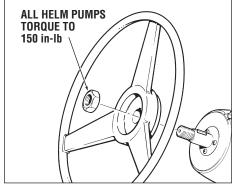
Refer to your Owner's Manual for any related notices, warnings and/or cautions.

### **A** 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.



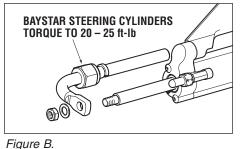
Values are stated in: in-lbs (N.m)

Bolt Size		18-8SS	Brass
	8-32	20.0 (2.25)	16.0 (1.81)
	8-36	22.0 (2.48)	18.0 (2.03)
	10-24	23.0 (2.59)	19.0 (2.14)
	10-32	32.0 (3.61)	26.0 (2.94)
	1/4"-20	75.0 (8.47)	62.0 (7.01)
	1/4"-28	94.0 (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 (N.m)



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

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) 1"-8 287.0 (389.12) 235.0 (318.62) 1"-14 259.0 (351.16) 212.0 (287.43)

18-8SS

Brass

iguie 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.

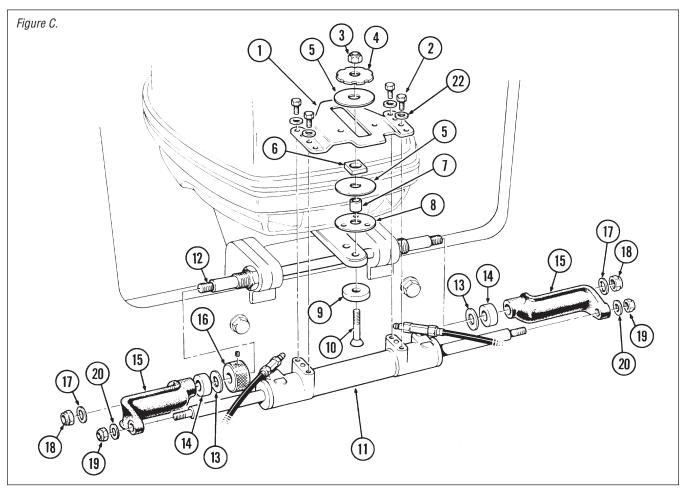
**Bolt Size** 

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# HYDRAULIC STEERING SPARE PARTS KITS: HP6031 & HP6035



NOTICE

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

PART #	QTY	DESCRIPTION
722222	1	Slide Plate
742724	4	Screw 5/16" x 3/4" Hex Head
113529	1	Nut 3/8" NF Nylok®
721220	1	Notched Washer
727724	2	Slide Washer
729221	1	Slide Follower
721126	1	Follower Bush
736028	1	Bottom Washer (3 Hole)
721427	1	Countersunk Washer
185921	1	Screw 3/8" x 1 5/8" Flat Head
HC5344	1	Cylinder c/w Bleed Tee's
	722222 742724 113529 721220 727724 729221 721126 736028 721427 185921	722222 1 742724 4 113529 1 721220 1 727724 2 729221 1 721126 1 736028 1 721427 1 185921 1

ITEM	PART #	QTY	DESCRIPTION
12	730229	1	Support Rod
13	202121	2	Washer 5/8" dia.
14	985876	2	Spacer
15	809900	2	Support Brackets
16	436627	1	Adjusting Nut c/w Set Screw
17	202027	2	Washer 1/2" dia.
18	192126	2	Nut 1/2" NF Nylok®
19	731720	2	Nut 7/16" dia.
20	731625	2	Washer 7/16" dia.
22	010924	4	Washer 5/16" dia.