

INSTALLATION INSTRUCTIONS

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HYDRAULIC SPARE PARTS KITS

Part # HP6161 & HP6162

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.

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)

ı	Bolt Size	18-8SS	Brass	Bolt Size	18-8SS	Brass
_	8-32	20.0 (2.25)	16.0 (1.81)	5/16"-18	132.0 (14.91)	107.0 (12.10)
	8-36	22.0 (2.48)	18.0 (2.03)	5/16"-24	142.0 (16.04)	116.0 (13.11)
_	10-24	23.0 (2.59)	19.0 (2.14)	3/8"-16	236.0 (26.66)	192.0 (21.71)
	10-32	32.0 (3.61)	26.0 (2.94)	3/8"-24	259.0 (29.20)	212.0 (23.97)
_	1/4"-20	75.0 (8.47)	62.0 (7.01)			
	1/4"-28	94.0 (10.6)	77.0 (8.70)			

Values are stated in: ft-lbs (Nm)

Bolt Size	18-8SS	Brass	Bolt	Size	18-8SS	Brass
7/16"-14 7/16"-20	31.0 (42.00) 33.0 (44.74)	26.0 (35.25) 27.0 (36.61)		4"-10 4"-16	,	104.0 (141.00) 102.0 (138.29)
1/2"-13 1/2"-20	43.0 (58.30) 45.0 (61.01)	35.0 (47.45) 37.0 (50.17)		/8"-9 3"-14	194.0 (236.03) 193.0 (261.67)	159.0 (215.58) 158.0 (214.22)
9/16"-12 9/16"-18	57.0 (77.28) 63.0 (85.42)	47.0 (63.72) 51.0 (69.15)		1"-8 1"-14	287.0 (389.12) 259.0 (351.16)	235.0 (318.62) 212.0 (287.43)
5/8"-11 5/8"-18	93.0 (126.09) 104.0 (141.00)	76.0 (103.04) 85.0 (115.24)				

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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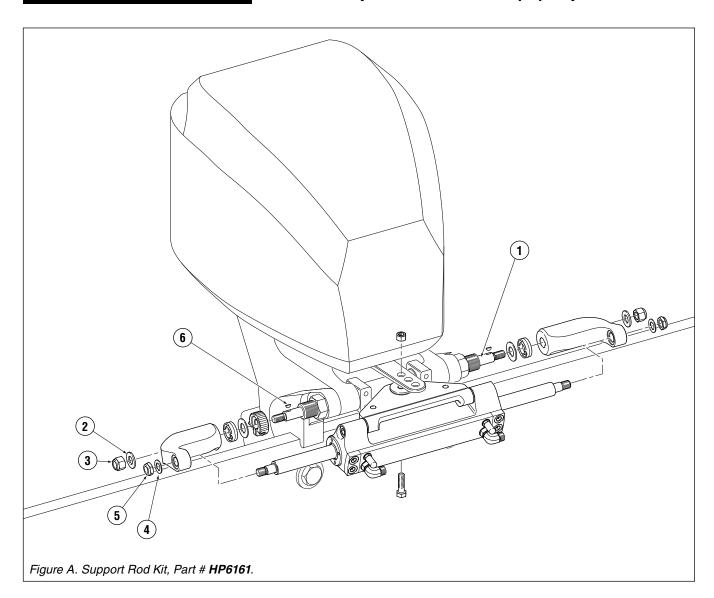
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Support Rod Kit, Part # HP6161

CAUTION

Consult with your owner's manual for proper cylinder installation.



ITEM	QTY	DESCRIPTION
1	1	Support Rod
2	2	Washer (Thick)
3	2	Nut (Thick)
4	2	Washer (Thin)
5	2	Nut (Thin)
6	2	Key

ITEM	QTY	DESCRIPTION	



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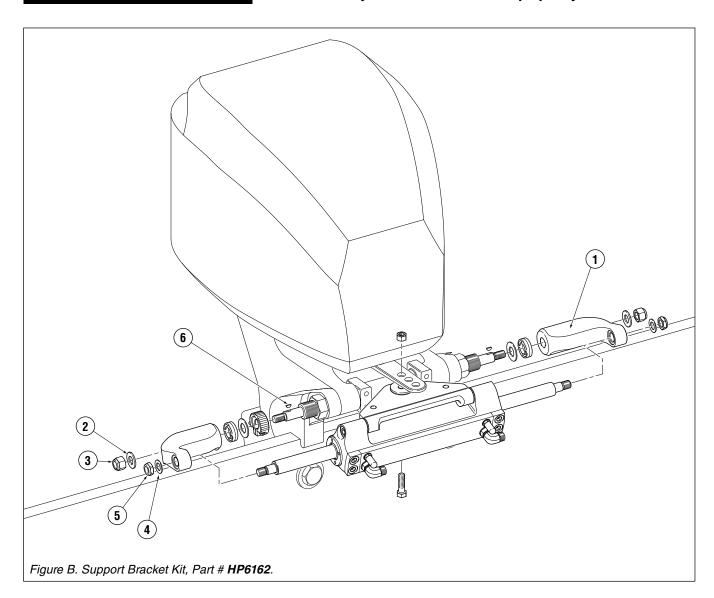
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Support Bracket Kit, Part # HP6162

CAUTION

Consult with your owner's manual for proper cylinder installation.



ITEM	QTY	DESCRIPTION
1	2	Support Bracket
2	2	Washer (Thick)
3	2	Nut (Thick)
4	2	Washer (Thin)
5	2	Nut (Thin)
6	2	Key

ITEM	QTY	DESCRIPTION