



BAYSTAR 1.4 STEERING KIT:

With mechanical steering you sacrifice a degree of comfort, and traditional hydraulic systems may be more than is needed on lower horsepower outboard engines. Built in the tradition of SeaStar, BayStar brings the same efficiency and durability you would expect from Teleflex Hydraulic steering to smaller outboards up to 150 HP. Compact form and affordable price make it an ideal upgrade for mechanically steered boats up to 150 total HP.

APPLICATIONS:

BayStar is for single-outboard powered boats rated up to 150 HP, including runabouts and inflatables — and outboard engines with ABYC standard engine tilt tubes up to 150 HP (total). For single station, single engine use only.

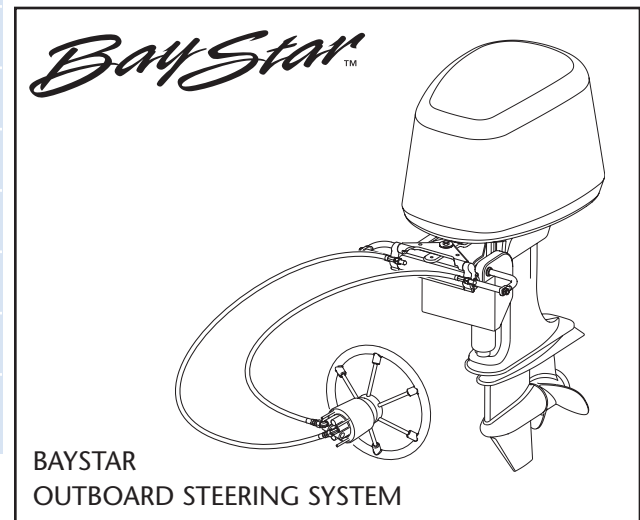
BayStar is not intended for high speed, high performance type boats, such as Bass Boats.

FEATURES:

- Designed just for smaller outboards.
- Low friction hydraulic steering system.
- 5 turns from lock-to-lock.
- Balanced cylinder, featuring a compact design that fits most splashwells and provides full engine movement.
- Optional five position tilt helm available.
- Compact helm has only a 5" footprint; needs only 3" dash hole (standard or Tilt).
- Packaged complete with helm, cylinder, fittings, tubing, oil, fill kit and detailed instructions.
- Standard 3/4" tapered steering shaft.
- Fast, easy installation.
- Meets A.B.Y.C. standards.
- Meets N.M.M.A. certification requirements.

COMPLETE SYSTEMS	
BayStar Steering Kit (20' tubing run)	HK4200A
BayStar Steering Kit (30' tubing run)	HK4230A
COMPONENTS	
BayStar 1.4 Front Mount Helm	HH4314
BayStar Compact Cylinder	HC4645H
BayStar Compact Cylinder	HC4647H
BayStar Compact Cylinder	HC4648H
BayStar Compact Cylinder	HC4658H
HK4200 Tubing (2 x 20' lengths)	HT4420H
HK4230 Tubing (2 x 30' lengths)	HT4430H
SeaStar Oil (1 Quart)	HA5430 (x2)
BayStar Filler Kit	HA5438
OPTIONS	
BayStar 1.1 - Front Mount Helm	HH4311
BayStar 1.4 - Sport Tilt Helm	HH4315
SERVICE ITEMS	
SeaStar Oil (1 Gallon)	HA5440
Helm Service Kit Comes with wheel shaft nut, key, shaft seal & seal plate	HP6032

NOTE: SeaStar Outboard Steering hoses (Part No. HO51_...) can be used to plumb a BayStar Steering Systems



BAYSTAR
OUTBOARD STEERING SYSTEM

BAYSTAR SINGLE ENGINE APPLICATION GUIDE: CYLINDERS (HC4645H/47H/48H/58H)

ENGINE MAKER/ BRAND	YEAR	MODEL	CYLINDER PART NUMBER	NOTES
FORCE	1985 TO DATE	90-150 HP	HC4645H	
HONDA	1992 TO DATE 1998 TO DATE 2001 TO DATE 2003 TO DATE	30-90 HP 115-130 HP 150 HP BF135 HP	HC4645H HC4647H * HC4645H HC4645H	
JOHNSON/EVINRUDE <small>Note: Johnson 115 HP 2-stroke engines require that the cylinder's pivot be flipped. See note #4 below.</small>	1977 TO 1989 1991 TO DATE 1997 TO DATE 1997 TO DATE 1998 TO DATE	65-150 HP 40-150 HP 115 HP Ficht 75-150 HP Ficht 40-140 HP 4-stroke	HC4648H * HC4645H HC4658H HC4645H HC4658H	See Note 4. See Notes 1,4.
MERCURY/MARINER	1984 TO DATE	75-150 HP	HC4645H	
NISSAN	1990 TO DATE	120-140 HP	HC4645H	
SUZUKI	1986 TO DATE 1996 ONLY 1987 TO 2002 1990 TO 2000 1998 TO DATE 2001 TO DATE	150 HP 115-140 HP 115-140 HP 90-100 HP 40-70 HP 4-stroke 115-140 HP 4-stroke	HC4645H N/A HC4645H HC4645H HC4645H HC4658H	See Note 1. See Note 1. See Notes 1,4.
TOHATSU	1990 TO 2007 2007 TO DATE	50-150 HP 50-150 HP	HC4645H HC4648H *	
YAMAHA	1998 TO DATE 1998 TO DATE 1986 TO DATE 1997 TO DATE 2000 TO DATE	40-50 HP 60 HP 70-90 HP 80-150 HP 4-stroke 25 & 60 HP 4-stroke	HC4645H HC4645H HC4645H HC4645H HC4648H *	See Note 2. See Note 3. See Note 1. See Note 1.
YANMAR	1990 TO DATE	27-36 HP	HC4645H	

NOTES:

- Requires Spacer Kit Part No. HO5090.
- Engine clamp brackets must be cut or ground, and the engine through bolted onto the transom, or interference will occur, restricting engine trim and tilt.
- Steering hook Yamaha Part No. 63D-48511-00-4D must be installed.
- Cylinder HC4645H may be used in these applications. The pivot plate will need to be flipped before installation. Instructions provided with Owner's Manual.

***BAYSTAR CYLINDER PIVOT PLATES:**

HC4645H compact cylinder is included in the BayStar steering kits. This cylinder can be converted to HC4658H by following instructions included with the product. If your engine requires use of a cylinder other than HC4645H or HC4658H, please refer to the figure below for the appropriate replacement pivot plate, which must be purchased separately. NOTE: read and understand all related product instructions before performing any work on a hydraulic steering system.



HA4641
(Install onto HC4645H to make HC4647H)



HA4642
(Install onto HC4645H to make HC4648H)

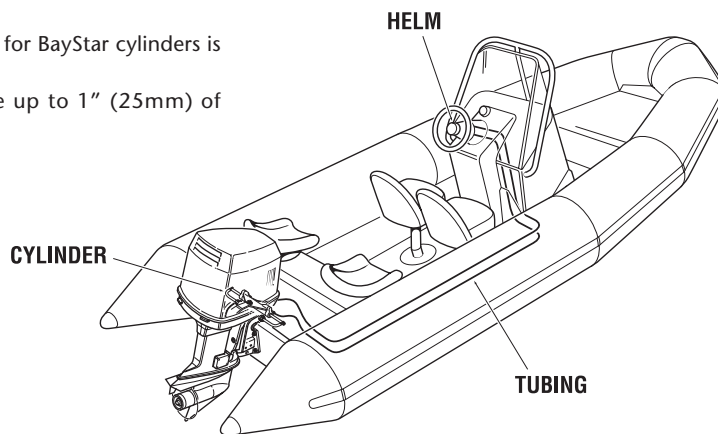
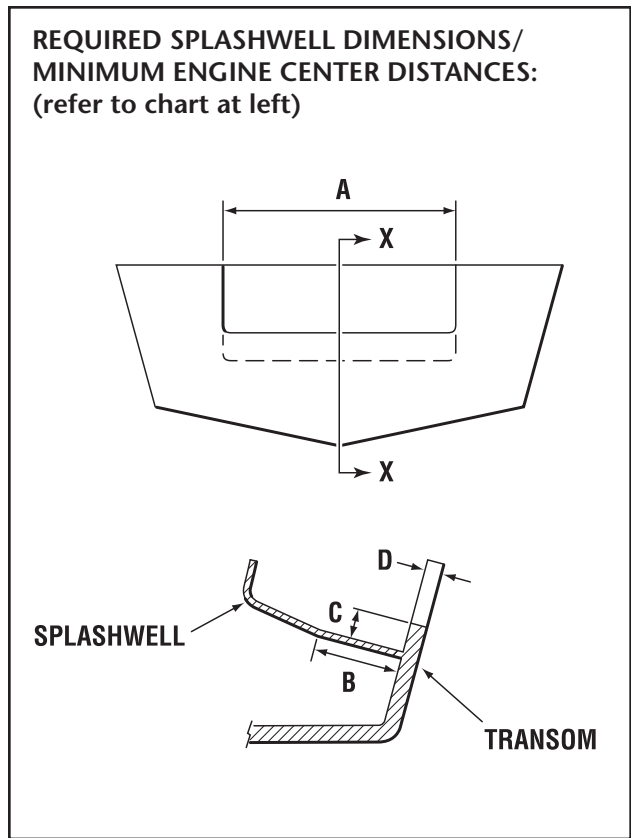
SPLASHWELL SIZE REQUIREMENTS:

CYL MODEL NO.	NO. OF ENG.	SPLASHWELL DIAG. DIM.			MINIMUM ENGINE CENTER DISTANCE
		A	B	C	
HC4645H	1	21" (534 mm)	6" (153 mm)	5" (127 mm)	N/A (N/A)
HC4647H	1	21" (534 mm)	6" (153 mm)	5" (127 mm)	N/A (N/A)
HC4648H	1	21" (534 mm)	6" (153 mm)	5" (127 mm)	N/A (N/A)
HC4658H	1	21" (534 mm)	6" (153 mm)	5" (127 mm)	N/A (N/A)

(Twin engine applications not available at this time.)

NOTES:

1. Ensure there is no interference between the BayStar cylinder rod and the splashwell boot or engine controls & cables.
2. Dimensional restrictions also apply to external motor mount brackets.
3. Ensure dimension "A" can be maintained at 32" (813mm) throughout the full trim/tilt range.
4. Maximum allowable transom thickness for BayStar cylinders is 3" (76mm).
5. Engines less than 70 HP may require up to 1" (25mm) of additional splashwell clearance.



BAYSTAR CYLINDER DIMENSIONS:

HC4645H/HC4647H/HC4648H/HC4658H

