SeaStar

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DC POWER STEERING SYSTEM

TECHNICAL DATA

SeaStar Power Steering provides super responsive automotive style steering performance for todays' large motor yachts. The SeaStar DC Power Steering Unit is the heart of the system providing reliable and economical hydraulic flow to the steering cylinder whenever the wheel is turned. Whether docking or cruising at high speed, the system will deliver 100% power regardless of engine speed.

SeaStar's superior design and selection of materials, precision manufacturing and rigid quality control all add up to an outstanding robust and versatile system for all large boat applications.

DC POWER STEERING UNIT - KEY FEATURES

Easy to Spec and Install

Covers most power steering requirements. No need to determine required flow rate, engine pump spec, engine connectivity. The system is economically powered from the boats 24v supply.

Semi-Auto Purge

During service and/or installation a semi-auto purge feature is engaged dramatically reducing installation time and air in the system.

Few Components

Totally self-contained, there is no longer any need to install separate filters, coolers, engine pumps, flow control valves. The DC power unit covers all requirements within one easy to install module.

100% Performance, 100% of the time

Provides the maximum required hydraulic oil flow, at all engine speeds.

On Demand Power

The DC Power Unit only draws power when a turn is initiated (typical duty time 5-10%). This ensures minimal power consumption, no wasted energy and longer filter and motor life.

Integrated Autopilot Pump

The system includes a secondary pump with adjustable flow that can be controlled by most autoplilot controllers.

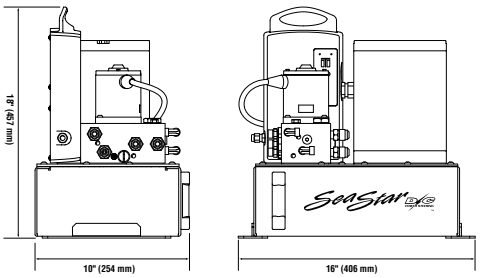
AT A GLANCE

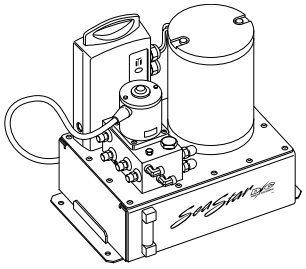
FEATURES

- Highly responsive, effortless steering performance at all speeds
- Low number of turns lock to lock (based on helm selection)
- Few components to spec and install
- Semi-Auto purge feature
- Suitable for multi-station applications
- Integrated autopilot pump
- Suitable for use with most SeaStar helms (including tilt versions)
- Automatic manual back up system

DC POWER UNIT SPECIFICATIONS

DC1000	DC2000
Main Motor: 24 Volts	Main Motor: 24 Volts
Autopilot Motor: 12 Volts	Autopilot Motor: 24 Volts
Peak Current Draw @ 1250 psi: 72 amps	Peak Current Draw @ 1250 psi: 72 amps
Idle Current Draw: 0.2 amps max	Idle Current Draw: 0.2 amps max
Average Current Draw: 10-12 amps (Depending on application)	Average Current Draw: 10-12 amps (Depending on application)
Weight: 55lbs 25kg (Dry weight)	Weight: 55lbs 25kg (Dry weight)
Tank Capacity 7 Liters	Tank Capacity 7 Liters
Adjustable Flow Autopilot: 0 – 60 in³/min (984cc)	Adjustable Flow Autopilot: 0 – 60 in³/min (984cc)





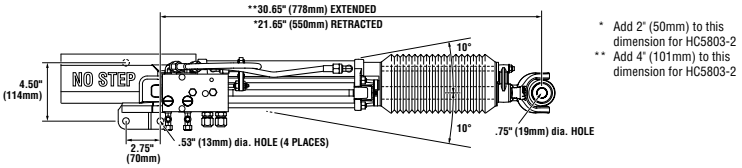
CYLINDER SELECTION GUIDE LINE

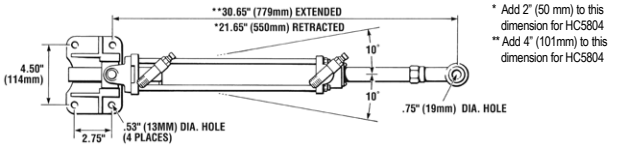
*All boats over 70' should have steering loads reviewed by factory

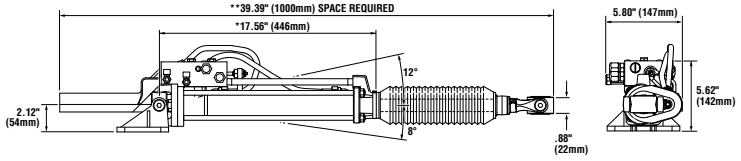
CYLINDER GUIDE	DISPLACEMENT HULLS (STD)	DISPLACEMENT HULLS (HEAVYDUTY)	PLANING HULLS
SINGLE - 9" X 2" CYL (HC5801-2)	UP TO.....50' (15m)	UP TO.....40' (12m)	UP TO.....65' (20m)
TWIN - 9" X 2" CYL (HC5802 & HC5801-2)	UP TO.....75' (22m)	UP TO.....55' (17m)	UP TO.....85' (26m)
SINGLE - 11" X 2" CYL (HC5803-2)	UP TO.....60' (18m)	UP TO.....50' (15m)	UP TO.....75' (23m)
TWIN - 11" x 2" CYL (HC5804 & HC5803-2)	UP TO.....100' (31m)	UP TO.....70' (22m)	UP TO.....110' (34m)
*SINGLE - 9" X 2.5" CYL (HC5805)	UP TO.....85' (26m)	UP TO.....60' (18m)	UP TO.....100' (31m)

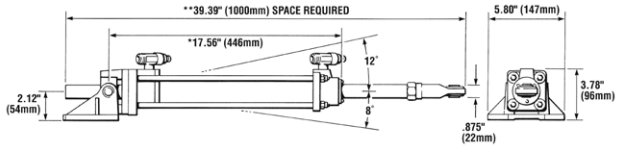
* 2.5" cylinder bore (Twin applications require conventional engine driven pump power steering.)

CYLINDER SPECIFICATION	DISPLACEMENT	BORE	STROKE	OUTPUT FORCE	MAX. TORQUE (35° from Ctr)
SINGLE - 9" X 2" CYL (HC5801-2)	21.25 in³ (348cc)	2.0" (51mm)	9" (229mm)	2946 lbsf (13,090 N)	18,900 in-lbs (217kg/m)
TWIN - 9" X 2" CYL (HC5802 & HC5801-2)	42.50 in³ (697cc)	2.0" (51mm)	9" (229mm)	5892 lbsf (26,190 N)	37,800 in-lbs (435kg/m)
SINGLE - 11" X 2" CYL (HC5803-2)	26.00 in³ (426cc)	2.0" (51mm)	11" (280mm)	2946 lbsf (13,090 N)	23,140 in-lbs (266kg/m)
TWIN - 11" X 2" CYL (HC5804 & HC5803-2)	52.00 in³ (853cc)	2.0" (51mm)	11" (280mm)	5892 lbsf (26,190 N)	46,280 in-lbs (533kg/m)
SINGLE - 9" X 2.5" CYL (HC5805)	37.11 in³ (608cc)	2.5" (64mm)	9" (229mm)	5154 lbsf (22,926 N)	33,065 in-lbs (380kg/m)









SEASTAR HELMS

HELM DESCRIPTION	PART NUMBER
SEASTAR 1.4 FRONT MOUNT	HH5269
SEASTAR 1.7 FRONT MOUNT	HH5271

(Other Helm configurations also available - inc Rear Mount, Tilts, etc)

SYSTEM	HC5801-2	HC5803-2	HC5805
SEASTAR 1.4 in³	4.3 turns	5.3 turns	4.3 turns
SEASTAR 1.7 in³	3.6 turns	4.4 turns	3.6 turns

Number of turns lock to lock (for a given helm/cyl combination)

HOSES
Helm to DC Power Unit 4 hoses required. 1x port, 1x starboard, 1x reservoir supply, 1x reservoir return. Port/Starboard lines: Use standard Seastar or Seastar Pro hoses, part numbers HO51xx or HO71xx **. Reservoir supply and return lines: Use standard Seastar, Seastar Pro, or Seastar nylon tubing.
DC Power Unit to Cylinder 4 hoses required. 1x port, 1x starboard, 1x high pressure supply, 1x low pressure return. Port/Starboard lines: Use standard Seastar or Seastar pro hoses Part number HO51xx or HO71xx ** *High pressure supply line: Min 2000psi SAE 100R1 1/2" hose with SAE 45deg -8 ends *Low pressure return line: Min 300psi SAE 100R1 1/2" hose with SAE 45deg -8 ends * (Not available from Teleflex)
**The use of Pro hose will improve steering response on all applications and is highly recommended on high performance applications or those using runs of 40' or more. Do not use nylon tubing for helm port and starboard lines. 3/8" (max) copper tubing may be used for all helm lines.

OIL
System designed for use with Seastar oil (MIL spec H-5606)
HA5430 Seastar Oil, 1 Litre
HA5440 Seastar Oil, 4 Litre