



SEASTAR™
BAYSTAR™

RETURN/COMPENSATING LINE – FITTING INSTALL

SeaStar Solutions has recently updated all of our helm pumps from NPT to positionable O-ring fittings (ORB). During the transition period there may be cases where additional steering stations, autopilots and/or SeaStar Power Assist pumps are being added to the steering system. An additional "3rd line" is required for ALL additions to the system. To ensure no damage to the helm threads, we recommend that you first identify the helm pump and port fitting you have, then install as outlined below.

NOTICE

SeaStar Power Assist Pumps are shipped with both NPT and ORB type fittings during this transition period.

Identify and Install Instructions

⚠ WARNING

DO NOT use an NPT fitting into an ORB helm or vice versa, doing so may lead to irreparable damage to the helm pump, or, may result in loss of fluid or separation of components. Failure to adhere to this warning may result in loss of steering control, leading to possible ejection from vessel causing property damage, personal injury and/or death.

1. Identify the helm pump: Consult figures A and B below to confirm which helm pump you have.

1/4" NPT PORTS (4)

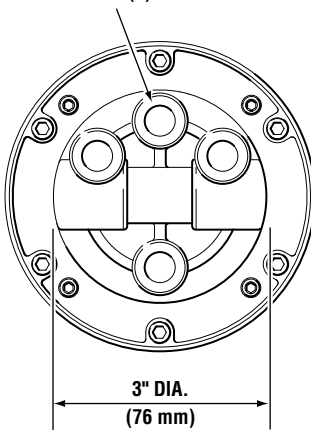


Figure A.

ORB PORTS (4)

NOTE WARNING

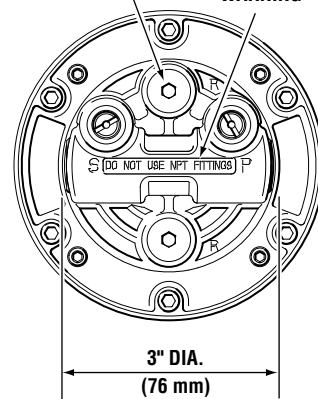
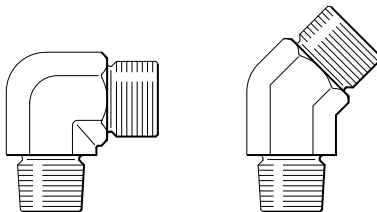


Figure B.

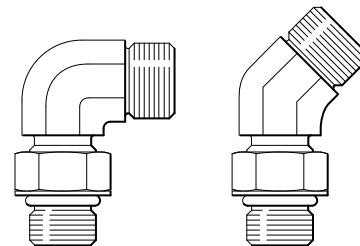
2. Identify the hose fitting: Consult figure C and figure D below.



90° NPT FITTING

45° NPT FITTING

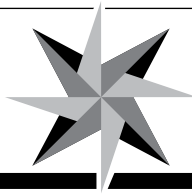
Figure C. NPT fittings.



90° ORB FITTING

45° ORB FITTING

Figure D. ORB fittings.



3. Installation of hose fitting into helm pump, autopilot pump and/or SeaStar Power Assist Pump.

- Locate desired port to install hose fitting.
NOTE: Consult with Installation and Owner's Manual for which port to use.
- Install NPT, or, ORB fitting as per installation notes below.

NPT Fitting Installations

1. Apply a liquid, Teflon based pipe sealant onto threads being installed into the pump.
2. Tighten fitting "HAND-TIGHT".
3. Using a wrench, tighten an additional 1.5 turns.
4. If required, tighten an additional 1 turn to orientate fitting in desired location.
5. Torque hose fitting to 15 ft-lbs.

ORB Fitting Installations

1. Back off lock nut (figure E, item 1), counter-clockwise, until it stops.
NOTE: O-ring must be fully on sealing surface and cannot contact any threads. Do not use Teflon tape or any liquid pipe sealant with ORB fittings.
2. Thread fitting into helm port until fitting washer (figure E, item 2) contacts the face of the helm port. Tighten hand tight.
DO NOT USE A WRENCH.
3. Re-position fitting to desired orientation by turning it counter-clockwise to a MAXIMUM of 1 full turn.
4. While holding the fitting body securely with a wrench, torque the lock nut (figure E, item 1) to **18 ft-lbs.**
5. While holding the fitting body securely with a wrench, torque the hose end nut to **15 ft-lbs.**

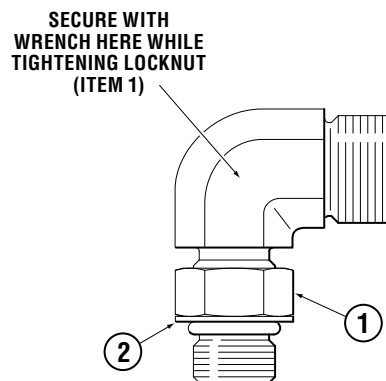


Figure E.