

SEASTAR™

⚠ CAUTION

DO NOT attempt to install NPT pipe fittings into -3 cylinder hose fitting ports. Doing so will lead to irreparable damage to the cylinder. ONLY use ORB hose fittings provided by SeaStar Solutions.

RE-POSITIONABLE ELBOW FITTING INSTALLATION/ REALIGNMENT KIT #HF6004

Due to fitting and casting viabilities, fitting installations differ between a **helm pump**, **EPS power steering pumps** or a **steering cylinder**. You **MUST** refer to the proper installation to avoid irreparable damages to the pump/cylinder when installing an ORB fitting. **Steering cylinder** installations refer to page 1. **Helm pump** installations refer to page 2. **EPS Power Steering pumps** refer to Book 50.

Re-Positionable Cylinder Fitting Installation (If required.)

⚠ WARNING

Failure to properly tighten the locknut (item 1) may lead to loss of steering control. Loss of steering control may result in unpredictable boat behavior, collision with an obstacle and/or ejection from vessel, leading to property damage, personal injury and/or death.

1. Back off lock nut (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 cylinder port until fitting washer (item 2) contacts the face of the cylinder 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 (item 1) to **40–43 ft-lbs.**
5. While holding the fitting body securely with a wrench, torque the hose end nut to **15 ft-lbs.**
6. Purge system per applicable instruction manual.

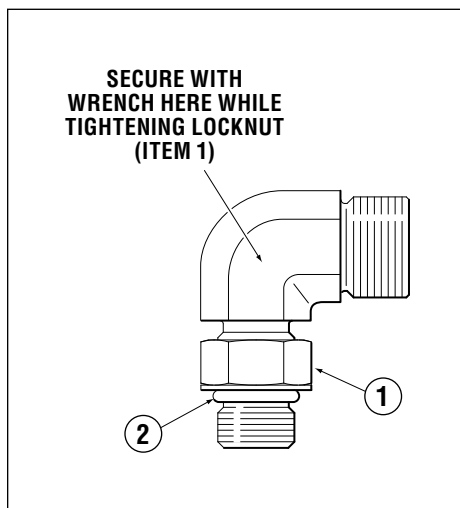


Figure A.

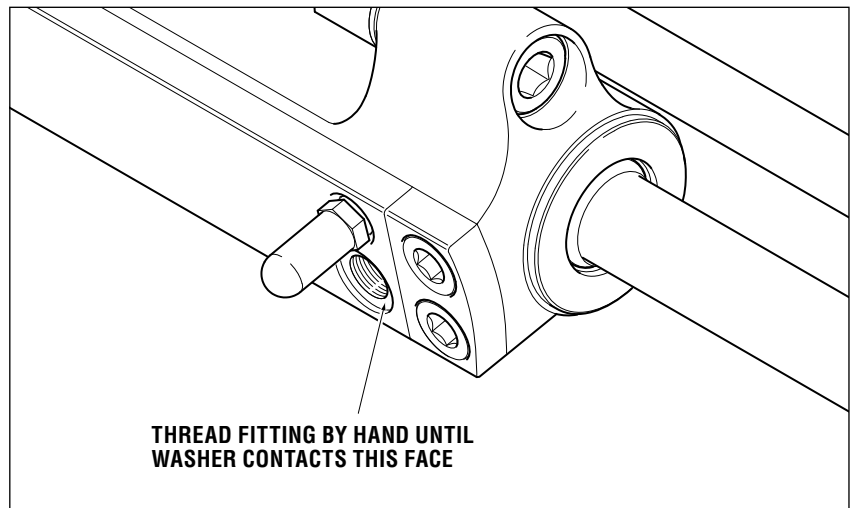
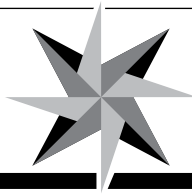


Figure B.

⚠ WARNING

SeaStar Solutions recommends that the hose and hose fittings are checked on a regular basis to ensure the safe operation of the steering system.



Due to fitting and casting viabilities, fitting installations differ between a **helm pump**, **EPS power steering pumps** or a **steering cylinder**. You **MUST** refer to the proper installation to avoid irreparable damages to the pump/cylinder when installing an ORB fitting. **Steering cylinder** installations refer to page 1. **Helm pump** installations refer to page 2. **EPS Power Steering pumps** refer to Book 50.

-3 Helm Pump Fitting Installation

⚠ CAUTION

Kit to be used with -3 ORB helm pumps **ONLY**. -3 Helm pumps are fitted with positionable O-ring style hose fitting ports. **DO NOT** attempt to install an NPT pipe fitting into a -3 helm hose fitting port. Doing so will lead to irreparable damage to the helm. **ONLY** use SeaStar Solutions O-ring style hose fittings (ORB).

NOTE: for straight ORB fittings simply torque fitting to 18 ft-lbs. Fitting re-orientation not required.

1. Back off lock nut (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 (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 (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.**
6. Purge system per applicable instruction manual.

⚠ WARNING

Failure to properly tighten the lock-nut (item 1) may lead to loss of steering control. Loss of steering control may result in unpredictable boat behavior, collision with an obstacle and/or ejection from vessel, leading to property damage, personal injury and/or death.

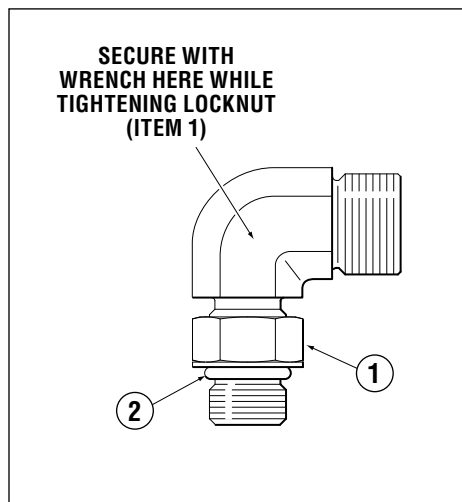


Figure C.

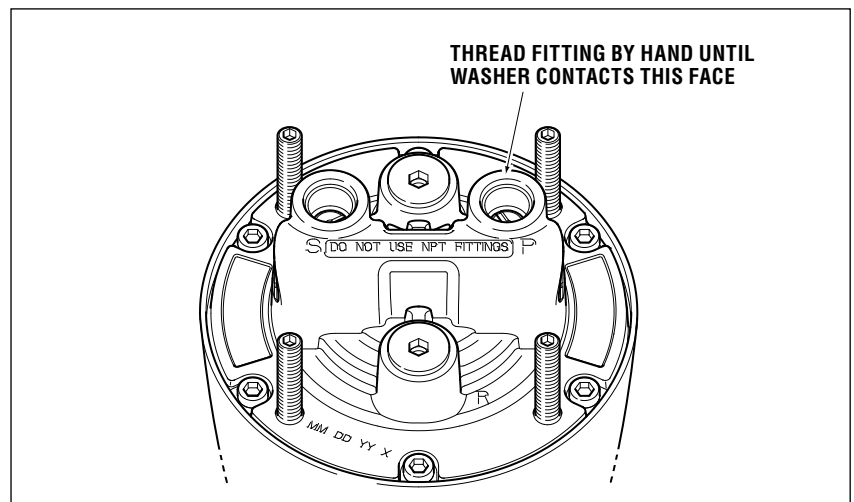


Figure D.

⚠ WARNING

SeaStar Solutions recommends that the hose and hose fittings are checked on a regular basis to ensure the safe operation of the steering system.