

HS100 & HS200 INSTALLATION INSTRUCTIONS

FRONT MOUNT CYLINDER SEAL KIT

Use Seal Kit #HS100, #HS200 and #HS300 with Front Mount Cylinders Part#'s

HC5340, HC5341, HC5342, HC5343, HC5344, HC5345, HC5346, HC5347, HC5348, HC5358, HC5365, HC5375, HC5394, HC5445, HC6345, HC6750, HC6751, HC6752, HC6753, HC6754, HC6755



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813.925.7127

ITEM	PART#	QTY	DESCRIPTION
1		2	Seal Gland Only
2		1	Seal Gland Assembly Guide Tool
3		1	Pin Wrench (Not Included in HS100/HS200)
4		2	O-Ring, .011, 70 DUR N
Seals (Items 5, 6 and 7) are for use with cylinders HC5340-42 and HC5365.			
5		2	O-Ring, .165, 70 DUR
6		2	O-Ring, .010, 70 DUR
7		2	O-Ring, .109, 70 DUR N

Carefully inspect the piston rod for any sign of scratches, nicks or burrs. If the shaft is damaged in any way please purchase HS300 which comes with a new shaft.

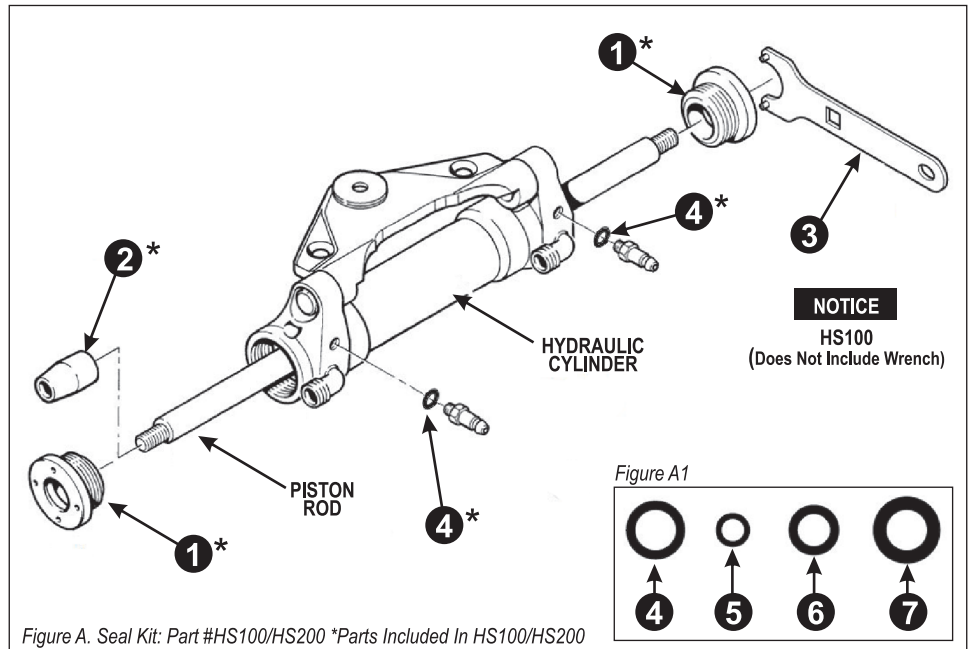


Figure A. Seal Kit: Part #HS100/HS200 *Parts Included In HS100/HS200

To replace a screw-in type end gland, proceed as follows:

CAUTION

The oil will stain your clothing.

WARNING

Do not substitute the self-locking nuts with non-locking nuts or loss of steering may occur, causing property damage and/or personal injury.

1. You may start with replacing either the port or starboard side endcap. Whichever side you choose to start with, turn the steering wheel hard-over to that side. This action will ensure that the least amount of fluid is lost from the system.
2. If you purchased the HS200 kit, place the supplied spanner wrench on the cap. Use a 5/8" box-end wrench to hold the cylinder rod nut on that same side. Loosen the end cap but do not remove it at this time.
3. Using the 5/8" wrench remove the cylinder rod nut. Hold the opposite side nut with another 5/8" wrench to keep the rod from spinning. Use a 3/4" box-end wrench to remove the support rod nut. Use a wrench on the opposite side nut to keep the rod from spinning. Remove the support bracket.
4. Fully unscrew and remove the end cap. Some oil will leak out.
5. Slide the oil seal guide tool onto the shaft. Lubricate the tool with oil or grease.

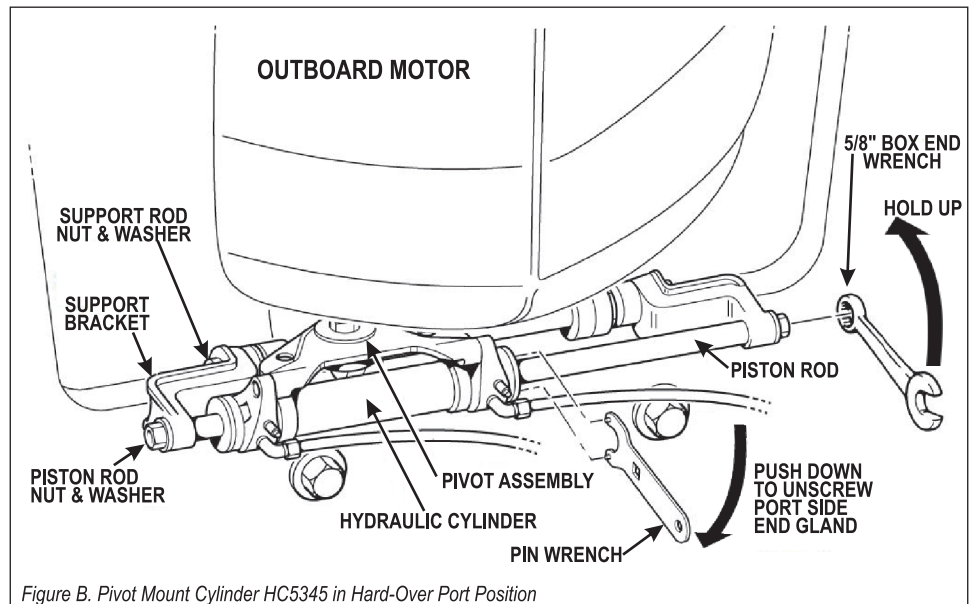


Figure B. Pivot Mount Cylinder HC5345 in Hard-Over Port Position

6. Lubricate the seals and o-ring of a new end cap and slide it over the seal guide tool and onto the shaft. Thread the end cap into the cylinder, but do not tighten it yet.
7. Re-install the support bracket and tighten the nuts.
8. Using a 5/8" wrench, hold the piston rod nut on the opposite side. Tighten the end cap to 50 ft/lbs.
9. Turn the steering wheel in the opposite direction that you started and repeat this procedure for the other side.
10. Following the directions in the Seastar Solutions Installation Instructions and Owner's Manual (Available Online), bleed the system to remove any air in the system.
11. Before returning the boat to service, check the system for leaks and smooth operation.

HS300 INSTALLATION INSTRUCTIONS

FRONT MOUNT CYLINDER SEAL KIT with Shaft

Use Seal Kit #HS100, #HS200 and #HS300 with Front Mount Cylinders Part#'s

HC5345, HC5347, HC5348, HC5358, HC5445, HC6345, HC6750, HC6751, HC6752, HC6753, HC6754, HC6755

May fit other Seastar systems where the cylinder shaft measures 21-3/4 long by 3/4" in diameter.



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3		1	Pin Wrench Only
4		2	O-Ring, .011, 70 DUR N
Seals (Items 5, 6 and 7) are for use with cylinders HC5340-42 and HC5365.			
5		2	O-Ring, .165, 70 DUR
6		2	O-Ring, .010, 70 DUR
7		2	O-Ring, .109, 70 DUR N

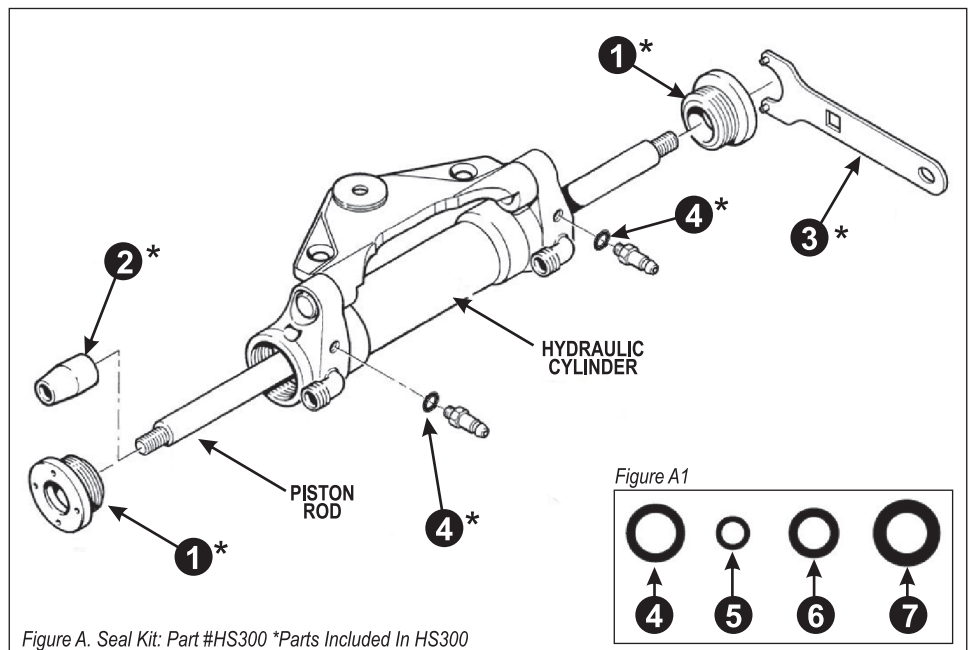


Figure A. Seal Kit: Part #HS300 *Parts Included In HS300

To replace a screw-in type end gland, proceed as follows:

CAUTION

The oil will stain your clothing.

WARNING

Do not substitute the self-locking nuts with non-locking nuts or loss of steering may occur, causing property damage and/or personal injury.

1. Turn the steering wheel until the engine is near the center position.
2. Remove both piston rod nuts with a 5/8" wrench or socket.
3. Remove both support rod nuts with a 3/4" wrench or socket.
4. Remove the support brackets.
5. Using the supplied spanner wrench, remove both end caps. Have a drain pan ready as fluid will come out of the cylinder when the caps are removed.
6. Pull the piston rod out of the cylinder.
7. Lube the new piston rod with steering fluid or grease and slide it into the cylinder.
8. Slide the supplied seal guide tool onto one end of the piston rod. Slide a new end cap over the seal guide tool and onto the piston rod.
9. Thread the end cap into the cylinder, but do not tighten it at this time.
10. Remove the seal guide tool and slide it onto the opposite side of the piston rod.

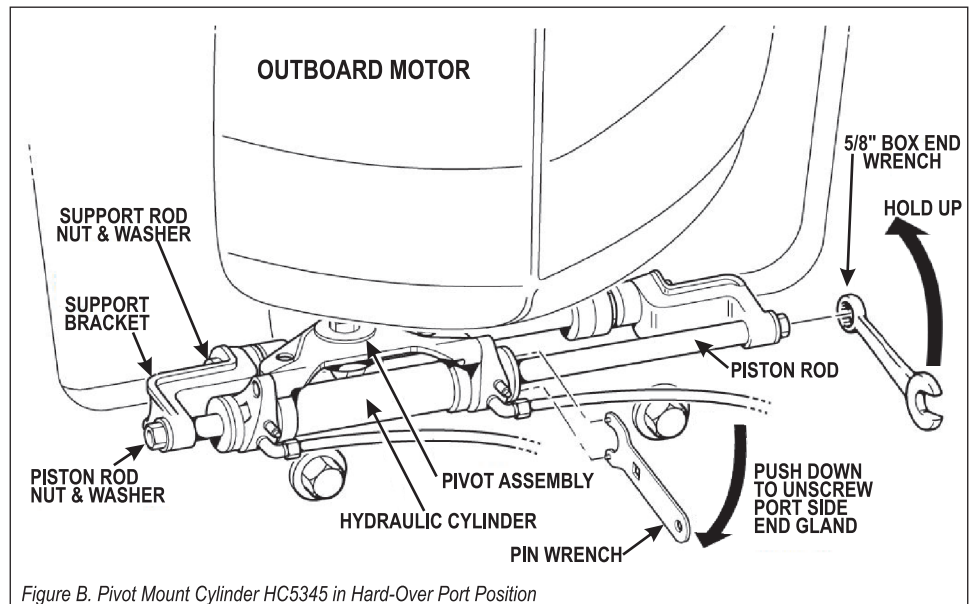


Figure B. Pivot Mount Cylinder HC5345 in Hard-Over Port Position

11. Slide a new end cap over the seal guide tool and onto the piston rod.
12. Thread the end cap into the cylinder, but do not tighten it at this time.
13. Place the support brackets back on the support rod and piston rod. Re-install the four nuts. Tighten them to the correct torque reading which can be found in the "Seastar Solutions Installation and Owner's Manual". When tightening the nuts, use a wrench on the opposite side to prevent the rod from turning.
14. Using a 5/8" wrench, hold the piston rod nut on the opposite side. Tighten the end cap to 50ft/lbs.
15. The cylinder is now assembled but will need to be refilled with hydraulic oil and have all air purged from the system. Following the directions in the Seastar Solutions Installation Instructions and Owner's Manual (Available Online), bleed the system to remove any air in the system.
16. Before returning the boat to service, check the system for leaks and smooth operation.