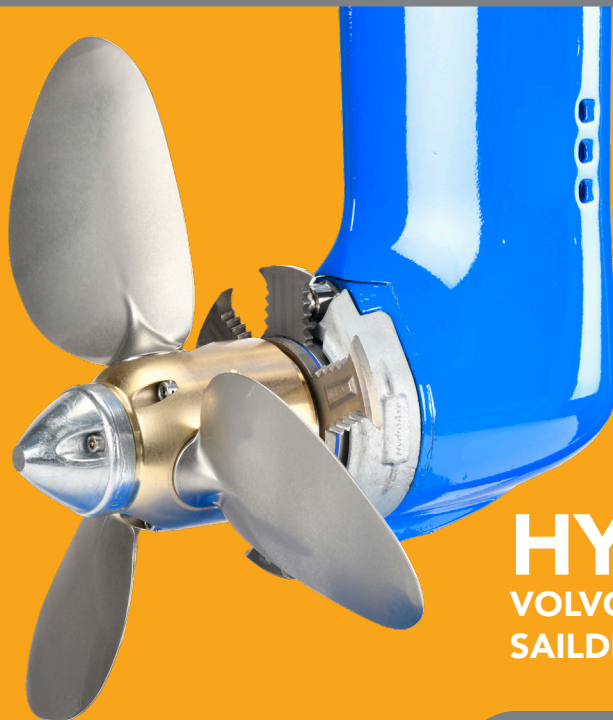


**darglow**

MARINE ENGINEERS



**HydroAxe**

*Rope cutters*

# HYDROAXE

VOLVO PENTA 130S/150S  
SAILDRIVES

INSTALLATION INSTRUCTIONS

The HydroAxe and new Spacers provided replace the existing standard spacer between propeller and leg. No destructive modifications are needed to install this rope cutter.

**Your HydroAxe Kit includes:**

Part #1 - HydroAxe Cutter

Part #2 - HydroAxe SD Anode and bolts

Part #3 - Special M8 or M10 bolt

Part #4 - Special Volvo Penta Forward Spacer

Part #5 - Aft HydroAxe Spacer

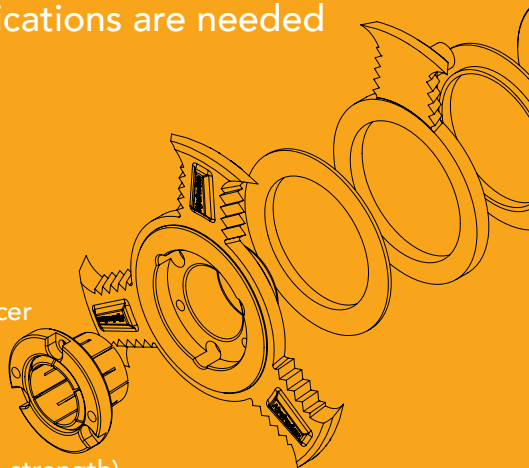
Part #6 - Collett Plate and Bolts (M5x10)

Part #7 - 2 x Jacking Bolts (M6x20)

Part #8 - ZAP Z-42 Thread Locker (medium strength)

Part #9 - New Extended Nut and fixing parts.

For 150S Saildrive only, a plastic sleeve is also supplied (see step 5)



# HYDROAXE INSTALLATION INSTRUCTIONS

## VOLVO PENTA 130S/150S

1. //

Remove existing propeller.



2. //

Remove the existing spacer from splined shaft and clean shaft removing grit/fouling.



3. //

The Volvo 130S/150S Saildrive Anode is a split ring Anode. Anode is removed by undoing the two securing bolts on one side using a 5mm Allen Key.



## HYDROAXE INSTALLATION INSTRUCTIONS

### VOLVO PENTA 130S/150S

- 4.** Remove top M8 or M10 bolt from saildrive leg and replace with special M8 or M10 bolt provided using a 19mm Spanner. This bolt is to be fitted with the thread locker provided.



- 5.** Slide the new spacer (Part #4) onto the shaft up to shaft end. \*Additionally for 150S Saildrives only, fit plastic sleeve supplied over the shoulder recess forward of the splined part of shaft.



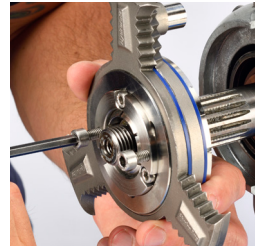
- 6.** On the HydroAxe cutter, remove the three Collett (Part #6) bolts and re-fit by two turns only.



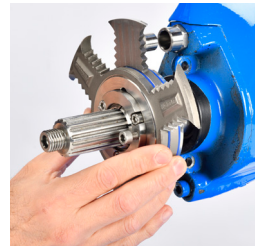
## HYDROAXE INSTALLATION INSTRUCTIONS

### VOLVO PENTA 130S/150S

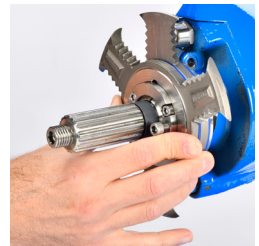
**7.** // Insert jacking bolts (Part #7) and tighten lightly until they bottom out thus lifting the Collett plate.



**8.** // Slide your HydroAxe on to the shaft. Push home ensuring the cutter pin locates into the Special M8 or M10 Bolt (Part #3).



**9.** // Remove jacking bolts using 5mm Allen Key. Push Collett Plate (Part #6) forward hard until it is stopped by the forward spacer. This can be a tight fit to push by hand and so it may be necessary to use a mallet to tap home. This is due to minor variations in Saildrive shaft diameters.



## HYDROAXE INSTALLATION INSTRUCTIONS

### VOLVO PENTA 130S/150S

# 10.\\

Using the 4mm Allen Key tighten Collett bolts half a turn at a time. This will start to pull cutter aft over collette causing it to grip shaft. Collett bolts to be fitted with thread locker supplied and tightened to 6Nm (or tighten firmly with Allen Key if no torque wrench available). Check Collett is hard up against spacer. Now refer to installation checks on page 8 before continuing.



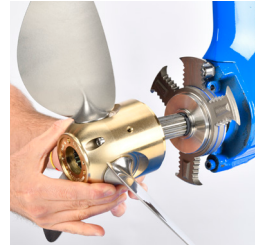
# 11.\\

Slide on aft Spacer (Part #5).



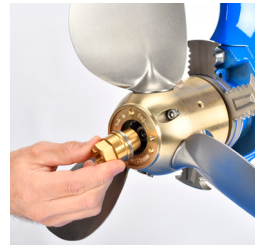
**12.**\\

Now Shaft is ready to accept propeller. Be sure to align propeller blades with cutter blades, we can guide you on positioning depending on what type of propeller you are fitting.



**13.**\\

Fit new replacement extended Nut with central locking bolt and fixing system specific to propeller type.



**14.**\\

Fit HydroAxe split ring Anode applying thread locker to bolts.



## HYDROAXE INSTALLATION INSTRUCTIONS

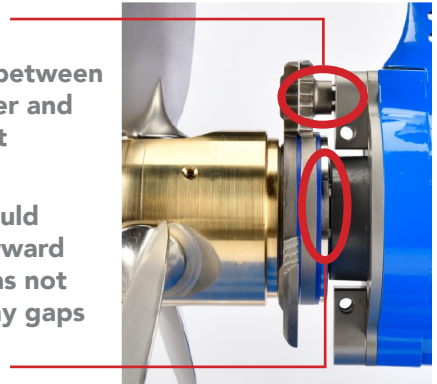
### VOLVO PENTA 130S/150S

## INSTALLATION CHECKS

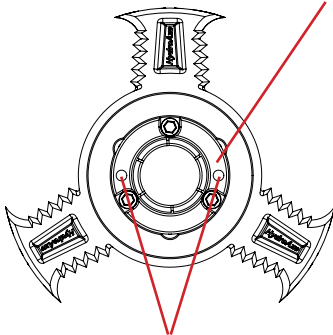
The pin found on the forward cutter blade should mate nicely with the recess in the special M8/M10 bolt as per image (right). There should be a clear gap between pin shoulder and bolt. Forward most part of cutter (Collett) should contact forward spacer so as not to leave any gaps.

**Clear gap between pin shoulder and special bolt**

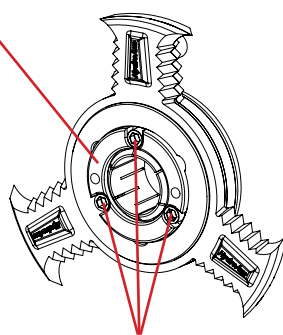
**Collett should contact forward spacer so as not to leave any gaps**



### COLLETT PLATE



**2X JACKING HOLES**



**3X COLLETT BOLTS**



# HYDROAXE

## SERVICE INSTRUCTIONS

Your HydroAxe Rope Cutter requires little maintenance and bearings will function for several years, but it is advised that bearing tolerances are checked annually. A service kit can be purchased separately.

### **Your HydroAxe Service Kit includes:**

- 2 x Acetyl Bearings/bushes
- 6 x M5x10 Bolts
- 2 x M6x20 Jacking Bolts
- ZAP Z-42 Thread Locker (medium strength)

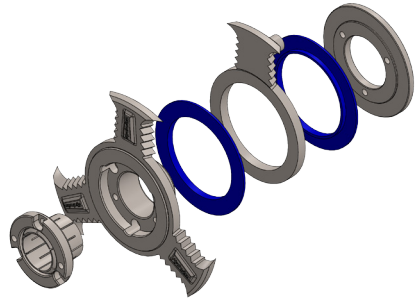
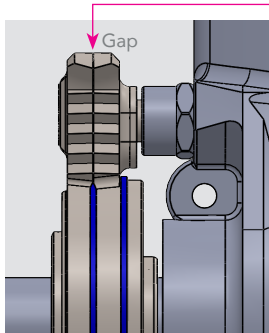
**HydroAxe**

*Rope cutters*



## HYDROAXE

### SERVICE INSTRUCTIONS



Gap between blades must be no less than 0.004 inches (0.1mm) - check with feeler guage.

## REMOVING YOUR HYDROAXE

1. Remove Propeller, Nut and Spacer.
2. On the HydroAxe cutter, remove the three M5 Collett Bolts and re-fit by two turns only.
3. Insert M6 Jacking Bolts and tighten until they bottom out. Then using half a turn at a time tighten thus lifting the Collett plate and separating from the shaft. This should loosen cutter for removal.
4. Slide HydroAxe off shaft. Leave Sail Drive specific Spacer in place (between cutter and Sail Drive)
5. Remove M6 Jacking and M5 Collett Bolts. Now push Collett Plate/Collett out of the cutter to reveal Cutter Blade bolts and remove bolts as per image.





6. Separate the HydroAxe and lay parts flat in the way it was separated as per image above.
7. Dispose of old bearings and replace with new bearings.
8. Clean cutter components and reassemble.

**Refer to your Saildrive model HydroAxe fitting instructions.**

**IF YOU REQUIRE ANY ASSISTANCE, PLEASE DO NOT  
HESITATE TO CONTACT THE DARGLOW TEAM**



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