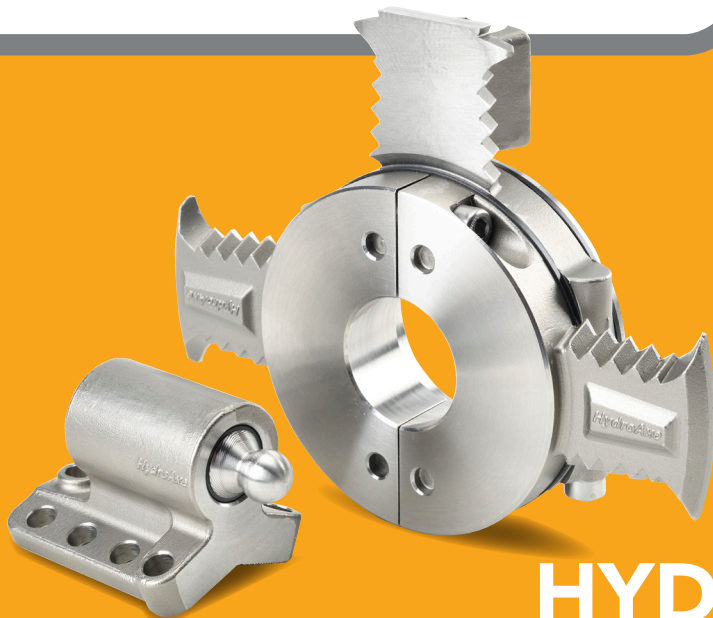


darglow

MARINE ENGINEERS



HydroAxe
Rope cutters

HYDROAXE

HA03 SCISSOR SHAFT DRIVE
ROPE CUTTER

INSTALLATION INSTRUCTIONS

The HydroAxe HA01, HA02 and HA03 Rope Cutter models are shaft drive scissor type cutters.

Your HydroAxe Kit includes:

Shaft Drive Cutter Assembly

- Rotating Blade (2 x Halves)
- Fixed Blade (2 x Halves)
- Bearings (4 x Halves)
- 2 x M6x40 Bolts
- 2 x M6x25 Bolts

Mounting Block

- 3 x M6x20 Bolts
- 6 x M6x15 Bolts

Ball Joint Assembly

- 1 x Ball Joint Shaft
- 1 x Ball Joint Bearing
- 1 x Circlip

Medium strength Thread Locker is also included.

Tools required for fitment:

- Drill
- 7mm Drill Bit
- 5mm Drill Bit
- M6 Tapping kit
- Clamp (G-Clamp)
- Scotch Brite/fine sandpaper
- 5mm Allen Key
- Hammer/mallet

HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

- 1.** Clean Shaft area where cutter is to be fitted ensuring shaft surface is free from marine fouling or antifoul.



- 2.** Remove HydroAxe from the box ensuring all components are present as per the HydroAxe Kit list.



- 3.** Disassemble the Shaft Drive Cutter Assembly noting the bearing positions.

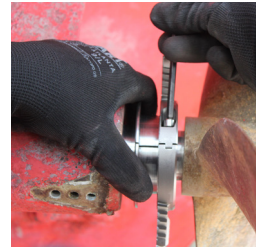


HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

4. // Ensure you have a minimum gap of 40mm to fit the HydroAxe HA03 cutter. This can be from the taper wide end or hub to bearing (whichever is closest to the bearing/housing). Position Cutter to allow a minimum gap of 5mm between aft end of cutlass bearing and cutter to allow shaft to move inboard under motor.

5. // Once you are happy with the longitudinal position, fit the 2 rotating parts of the cutter to the shaft using a 5mm Allen Key. Fit bolts without thread locker.



6. // Fit the remaining bearings to the fixed cutting blade halves and offer into grooves of the fitted cutter blades. Fit bolts without thread locker. N.B – You must orientate the two halves of the fixed cutting blade correctly. See alignment marking as per image.



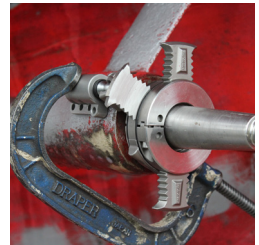
HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

7. // Spin the fixed blades ensuring smooth rotation. Careful the blades are sharp!

8. // Offer the mounting block to P-Bracket/ bearing housing ensuring the ball joint is in the mounting block with the ball in the socket. Make sure there is at least a 5mm gap between the aft face of the mounting block and the socket section of the cutter. Aim to have as much of the pin in the mounting block as possible when positioning.

9. // Determine longitudinal position of mounting block so as to drill and tap into flat surface. Secure into position using Clamp.



HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

10. \\ At this point using your fingers, check the pin is free to rotate in the block and socket.

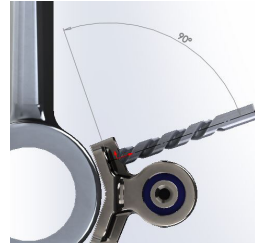
11. \\ Using a 7mm drill bit, make a 7mm diameter dimple in the P-Bracket/bearing housing. Dimple every hole that is to be used, deep enough to centralise the 5mm bit that you will use next.



12. \\ Your tapping hole will need to be a minimum of 12mm deep. Check the depth required against the P-Bracket/bearing housing wall thickness.

HYDROAXE INSTALLATION INSTRUCTIONS HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

- 13.** \\ Keeping the mounting block in place, drill your tapping holes with a 5mm drill bit. Make sure hole is perpendicular with the mounting block plate face.



- 14.** \\ Using tapping fluid you can begin to tap holes. Make sure tap is perpendicular with the mounting block. You can keep mounting block in place as a guide if you prefer. Be sure to check the final depth of hole (min. 12mm).



- 15.** \\ Once the holes are tapped remove mounting block if you have used this as a guide.

HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

16. \\

Clean area and trial fit bolts for good fitment.



17. \\

Fit mounting block using thread locker on the bolts.



18. \\

Remove and refit fixed cutter blade bolts using thread locker.

HYDROAXE INSTALLATION INSTRUCTIONS

HA03 SCISSOR SHAFT DRIVE ROPE CUTTER

19. //

Remove and refit rotating cutter blade bolts using thread locker.



INSTALLATION CHECKS

The ball joint should be able to spin freely. Using your fingers, check the pin is free to rotate in the block and socket. This ensures there is no tension on the fixed blade fitment.

You can also now rotate the propeller shaft.



HYDROAXE

SERVICE INSTRUCTIONS

Your HydroAxe Service Kit includes:

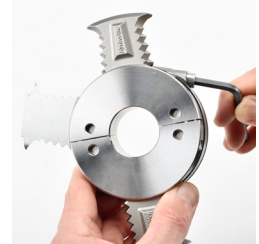
- 4 x Acetyl Bearings/Bushes
- 2 x M6x40 Bolts
- 2 x M6x25 Bolts
- 1 x Mounting Block Pin Bearing
- 1 x Mounting Block Pin Circlip



HydroAxe
Rope cutters

Tools required for fitment – Circlip Pliers, 5mm Allen Key, Thread Locker

- 1.** // Remove the two bolts that fix the fixed blade part of the cutter in place. Bolts are held with medium strength thread locker.



- 2.** // You can now slide the two parts away from the cutter and up off the ball section of the pin.



- 3.** // Slide the mounting block pin out from the mounting block.

HYDROAXE SERVICE INSTRUCTIONS

4. // To remove the pin bearing, undo the circlip and slide off.



5. // Slide new pin bearing onto pin and secure in place with new circlip provided. This can now be inserted back into the mounting block.



6. // Remove the bearings from both halves of the fixed blade part of the cutter.



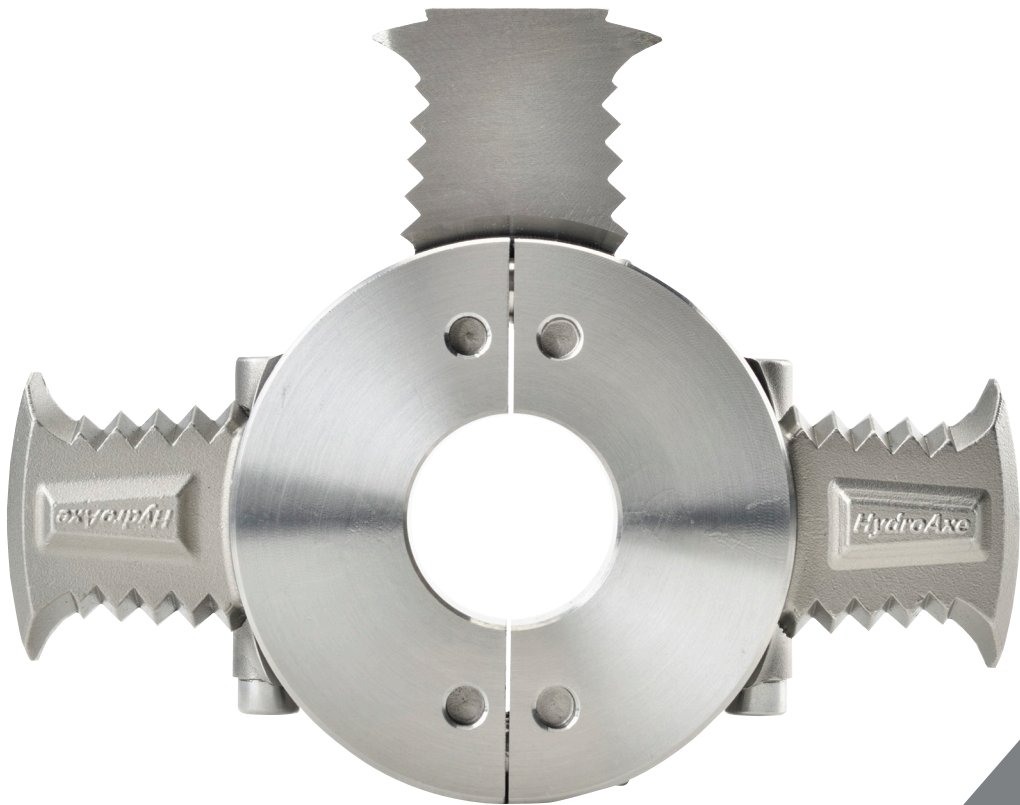
7. \\ Replace the old bearings with the new bearings. Slide the two halves with the bearings in place back onto the cutter.



8. \\ Fit using the new bolts provided along with medium strength thread locker.

9. \\ The ball joint should be able to spin freely. Using your fingers, check the pin is free to rotate in the block and socket. This ensures there is no tension on the fixed blade fitment.

10. \\ You can now rotate the propeller shaft.





HydroAxe
Rope cutters



darglow

MARINE ENGINEERS

Tel: +44 (0) 1929 556512

mail@darglow.co.uk

darglow.com