

This tutorial shows how to replace the Bayonet Upright

Before you start: For this work instruction it is assumed that the XE-1 is upright and supported in a workshop stand. This task can also be performed with the XE-1 inverted and supported on its handlebars and seat. For Safety reasons, make sure that the Propeller and Battery is removed. Also remove the Rear Foil and Front Tiller assembly. The Rear Buoyancy set is not shown in the images of this instruction but there is no need to remove it for this task.

1. Removing the Strut Cowl

TOOLS REQUIRED

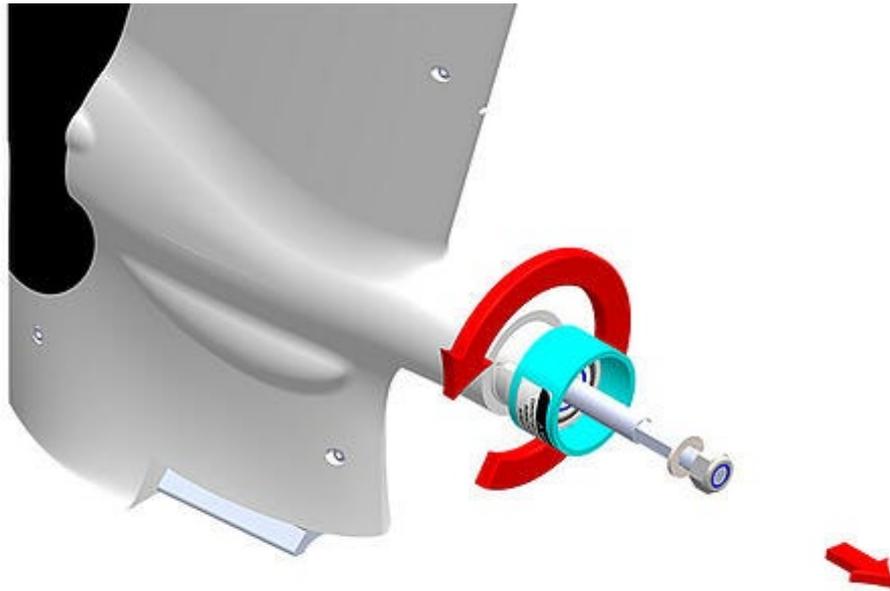
ID	Description	Task
N/A	M3 Hex Key	Loosen M4 Cap Screws

3.1 Remove the seven M4 cap screws from the RH side of the Strut Cowl [Tools: M3 Hex].

INFORMATION : The seven M4 Nylock Nuts positioned in the hex shaped pockets on the LH Strut Cowl can fall out. Secure the nuts or remove and store them safely.
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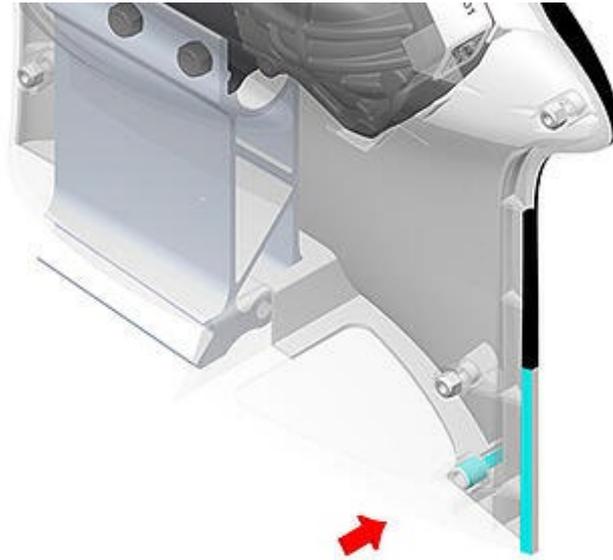
3.2 Unlock the Strut Collar by rotating anti-clockwise through 70 degrees. Remove the Collar by sliding it forward over the Propeller Drive Shaft.



CAUTION: Do not use pliers to remove the Strut Cowl Collar as it may cause damage to the component. The Collar is easily rotated by hand and can be removed with little force.

3.3 With the screws and Strut Cowl Collar Removed, the two Strut Cowl halves (LH & RH) is held to each other only by being clipped together at the bottom trailing edge of the Strut Cowl. Unclip the RH Strut Cowl by pushing the Cowling Halves apart at the bottom of the trailing edge.

INFORMATION : The LH Strut Cowl is transparent in the image below to show the mating boss clip feature on the RH Strut Cowl.



3.4 Remove the RH Strut Cowl and support the LH Strut Cowl as it is only held from falling by the Cooling Hose being routed through behind the Lower LH Motor Mount Bracket. Keep LH Strut Cowl in place.



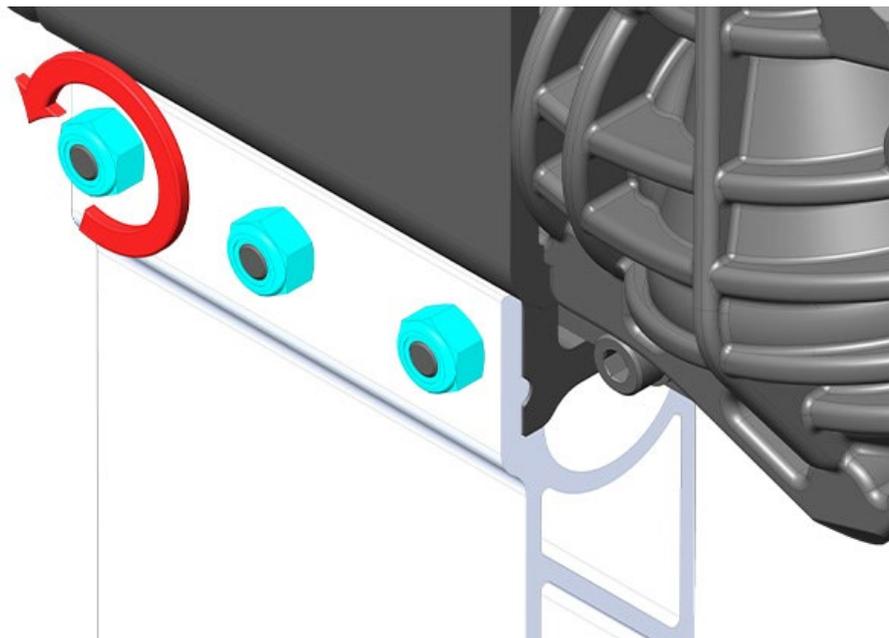
INFORMATION : Removal of the Strut Cowl provides access to the Top and Bottom Gearbox, Vertical Drive Shaft, Bayonet (Frame to Foil attachment) and Propeller Drive Shaft Assembly.

2. Remove Bayonet Upright

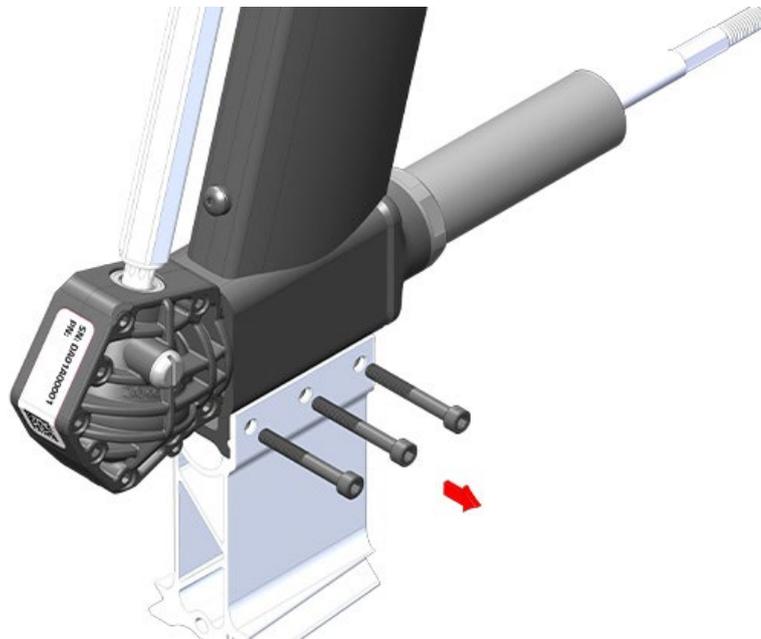
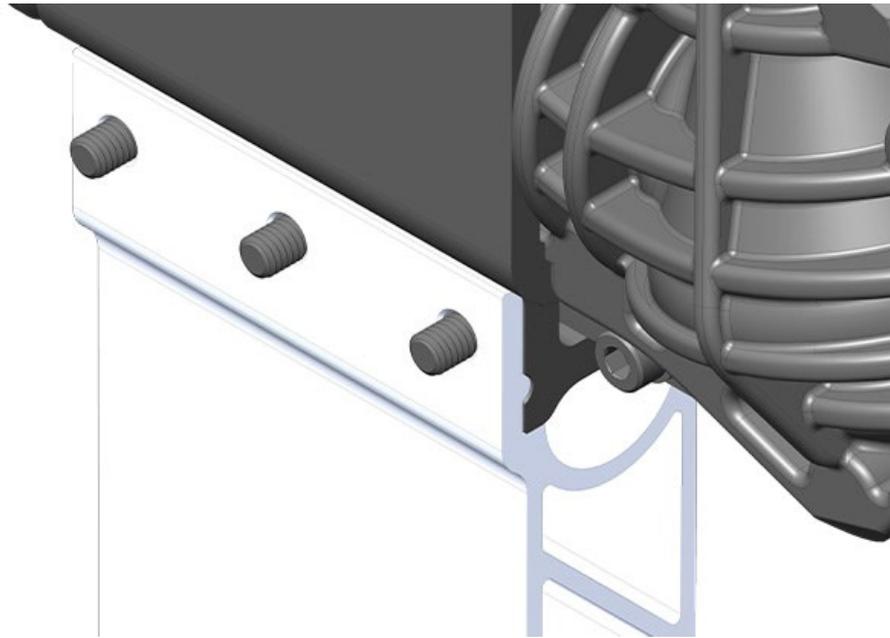
TOOLS REQUIRED

ID	Description	Task
N/A	5 mm Hex Key	Remove M6 ALU Screws
N/A	10 mm Open Wrench	Remove M6 Nylock Nuts

2.1 Remove all three M6 nylock nuts on the left hand side of the Bayonet Upright. [Tools: 5 mm Hex Key, 10 mm Open Wrench]

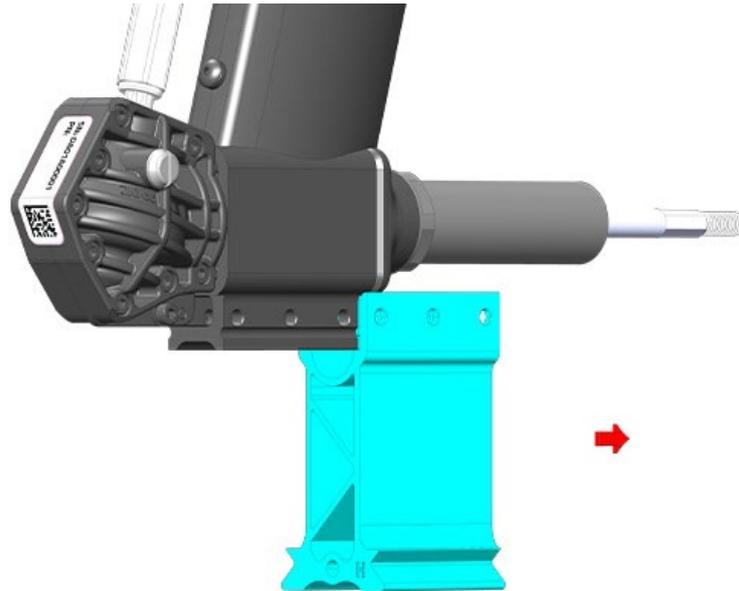


2.2 Remove all three aluminum M6 Machine Screws (45 mm length) [Tools: By hand only]



2.3 Remove the Bayonet Upright (heat treated aluminum extrusion) from the XE-1 Frame by sliding it forward. [Tools: By hand only]

INFORMATION : On a small number on XE-1 Frames it was found that the aluminum welding bead in front of the Bayonet Upright was built up too high and this causes an obstruction that prevents the Bayonet Upright from being removed. If this is the case, use a small flat file and reduce the welding bead height in the area of the obstruction until so that the Bayonet Upright can slide forward freely. No force must be used to remove the Bayonet Upright from the frame.



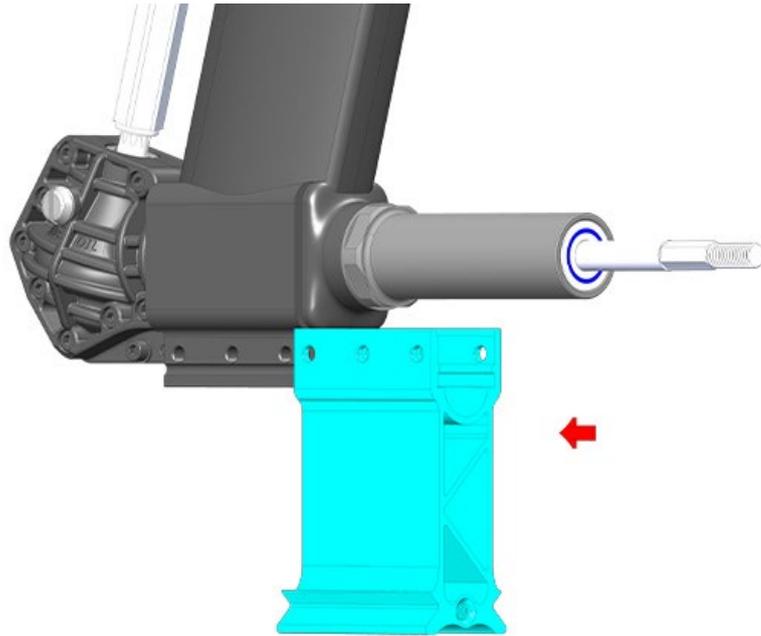
3. Fit Bayonet Upright

TOOLS REQUIRED

ID	Description	Task
N/A	5 mm Hex Key	Remove M6 ALU Screws
N/A	10 mm Open Wrench	Remove M6 Nylock Nuts

3.1 Fit replacement Bayonet Upright by sliding it onto the Frame from the front. Ensure that the narrow end of the taper is at the front. [Tools: By hand only]

INFORMATION : The latest version of the Bayonet upright has an H stamped on the back of the part to indicate that it was heat treated to optimize the mechanical properties to the part.

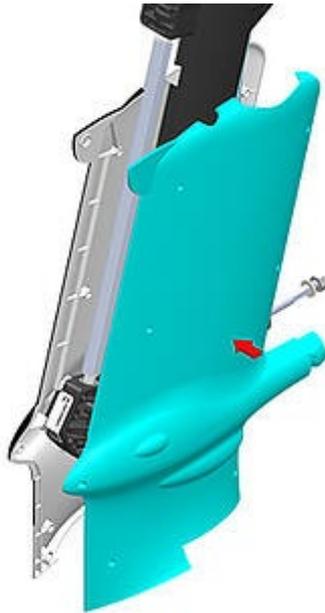


4. Fit Strut Cowl

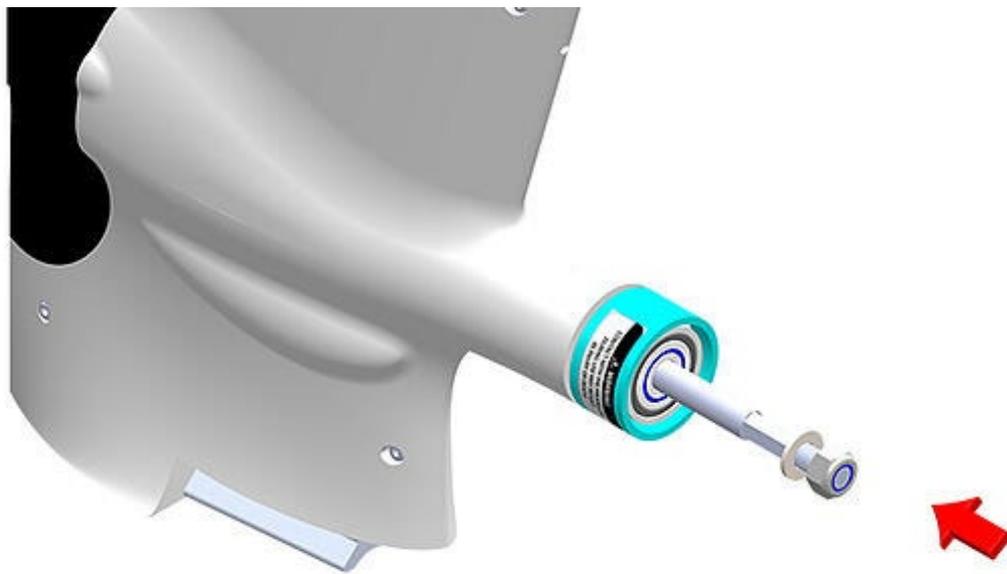
TOOLS REQUIRED

ID	Description	Task
N/A	Hex Key 3 mm	M4 Cap Screws

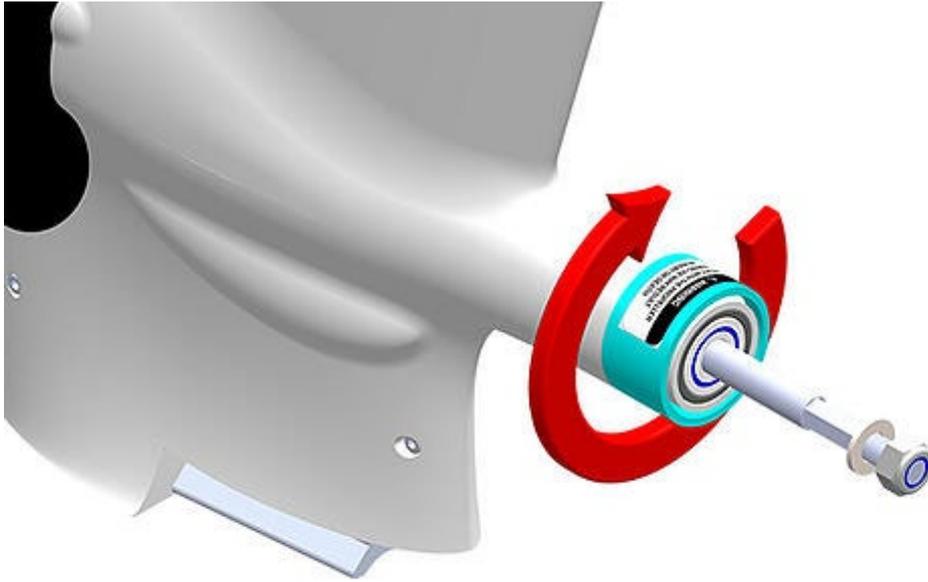
4.1 Position the RH Strut Cowl to align with the LH Strut Cowl. Gently push the bottom of the trailing edges of the two cowl halves together until you hear a clicking sound as the trailing edges interlock.



4.2 With the two internal molded locking boss features of the Prop Collar facing the Strut Cowl and aligned in the 11 & 5 o'clock position, push the Prop Collar into place while holding the two Strut Cowl halves together.



4.3 Rotate the Prop Collar clockwise (by hand only) through approximately 70 degrees until the lock stop is reached.



4.4 With the M4 Nylock Nuts held in the nut pockets of the LH Strut Cowl, fix the two Strut Cowl halves in place by fitting and fastening the seven M4X20 stainless steel cap screws to a torque value of 2.5 to 3 Nm. [Tools: M3 Hex Drive].

