

Cobra 6R Deluxe/King Cobra MK6 Maintenance

Your Cobra steering system has been designed and manufactured to the highest standards to provide many years of trouble free service. To get the best from your system there are some simple maintenance hints.

- 1.1 Once a season unscrew the 4 countersunk stainless screws which retain the top cover. Clean and refit using Whitlock anti-seize.
- 1.2 Carry out the same procedure on the four stainless steel socket screws which retain the input assembly. Note it is necessary to remove the steering wheel and brake spinner to access these screws. Be careful not to lose the steering wheel key!
- 1.3 At least twice a season thoroughly clean the pedestal in fresh water and apply a coat of good quality car wax polish.
- 1.4 If any paint has been accidentally chipped, immediately rub down the area locally using a fine grade of wet and dry abrasive and touch in with yacht enamel designed for aluminium surfaces. International Yacht Paints have suitable products.

1.5 Periodically check that the filler lever, draglink assembly and output lever nut are securely fastened.

1.6 Every two years remove the compass and top cover (see point 1.1 above) to inspect the gears and check the integrity of the quadrant to down tube fixing. Rotate the steering wheel until the system reaches the rudder stop and apply additional moderate turning effort to check there is no relative movement between quadrant and down tube assembly. Inspect for damage or wear to the seal ring which fits between the top cover and the head. Replace the top cover, compass wire grommet and compass fixing bolts on re-assembly.

Reshimming pedestal to adjust gear mesh

It is possible after a period of time for a small amount of play to develop in the gear mesh. This will not exceed 10mm on the rim of a 1000mm diameter wheel and can be easily removed following the procedure set out below.

- 2.1 Remove steering wheel, brake spinner and steering wheel key.
- 2.2 Remove the 4 socket stainless steel screws which retain the input assembly.
- 2.3 Withdraw the input assembly.
- 2.4 Refit the steering wheel without the key and by pulling on the wheel withdraw the input socket assembly. If you are unable to apply sufficient force it is permissible to use a wooden bolster on the *hub* of the steering wheel and strike with a hammer.
- 2.5 Remove 1 plastic shim which is situated between the input socket and the face of the top bowl casting.
- 2.6 Re-assemble in the opposite order using anti-seize on the cap screws.

The Cobra system is an extremely robust unit and is unlikely to develop any major faults. If damage should occur, the equipment can be stripped down as follows:

- 3.1 Remove compass and top cover plate which is secured via 4 stainless steel countersunk screws.
- 3.2 Remove steering wheel and input assembly as described in section 2.1-2.4.

CAUTION

Please note that the most likely cause of damage is incorrectly set or missing rudder stops. It is essential the rudder stops operate before the travel limiter in the head of the pedestal. They must be sufficiently rigid to prevent the quadrant from reaching the travel limiter when moderate load is applied to the wheel rim and the filler is on its stops. Rudder stops must be designed to withstand 150% of the rated load of the steering system. Please refer to the specification page.

3.3 Disconnect draglink from output lever via aeronut.

3.4 Unship pedestal from cockpit floor by unscrewing four countersunk screws, washers and nuts.

3.5 Grind back weld that secures stainless steel output lever to down tube. Mark relative position of output lever to down tube and then tap off output lever.

3.6 Remove 3 off M8 stainless steel bolts and spring washers that secure output socket to pedestal bowl. Withdraw quadrant, downshaft and output socket assembly taking care not to mislay plastic shims fitted between output socket and pedestal bowl.

3.7 Refit in reverse order — *Please note: It is essential to apply Loctite retainer grade 601 to the 3 off M8 bolts/spring washers that secure the output socket to the pedestal bowl. Also apply anti-seize to the input socket and top plate screws. Reseal the compass wire grommet, compass mounting screws and pedestal top plate on re-assembly to prevent ingress of water.*

3.8 If it has been necessary to replace the down tube/quadrant assembly, the output lever will have to be repositioned. Lock the pedestal brake with the quadrant in midship's. If the pedestal is mounted in the normal position, forward of the rudder stock, bias the output lever 15 degrees forward of athwartships on either starboard or portside to match filler arm. Reweld using stainless steel welding rods.

If in any doubt regarding this point contact your boat builder or local Whitlock agent. No warranty is offered where rudder stops are incorrectly fitted.

It is bad seamanship to let go of the wheel whilst manoeuvring the boat astern. In addition, if this maltreatment of the equipment occurs at high speed and the wheel is left to run until the steering reaches its rudder stops, damage can occur to the key, the gearing or the pedestal structure.