

6. Rudder Stops

The importance of the rudder stops cannot be over emphasised. They should be designed to operate on the side of the tiller arm, adjacent to the rose joint. They should be sufficiently rigid that at a load of 150% of the maximum rated rudder torque, no significant deflection occurs. It is recommended that a resilient facing is bonded to the rudder stop to absorb some impact loading. A typical example of a rudder stop can be seen in illustration Figure 3.2.

Where it is not practical to fit stops operating on the rudder stock or tiller arm it may be possible to install the Whitlock stop ring — see section 3.2. It is totally forbidden to use the travel arrester in the head of the Cobra pedestals as a steering stop.

Conventionally rudder travel is set at $\pm 36^\circ/72^\circ$ total movement. Should you require greater travel it is possible to adjust the lever lengths to accomplish this, but it must be specified in your order to the Whitlock agent, who will confirm the special features and new rudder travel.

3.2 On some boats there is no boat structure to mount rudder stops as above. An alternative system of steering stops is provided by the Cobra stop ring. This fits directly below the pedestal utilising the pedestal mounting bolts. It provides a neat, quick installation with the additional benefit of adding to the stiffness of the cockpit floor. It does not, however, protect the draglink assembly and in the event of a collision this item could be damaged.

The stop ring is normally supplied predrilled to match the offset angle B° of the levers. (Please see section 5 on Cobra geometry.)

It may be necessary to manufacture a spacer ring to obtain the correct height for the stop ring — see Figure 3.3. Distance 'x' needs to be adjusted to allow the full edge of the output lever to abut the lug on the stop ring.

Please also check that there is clearance between the underside of the lever and the pedestal bolt 'y'.

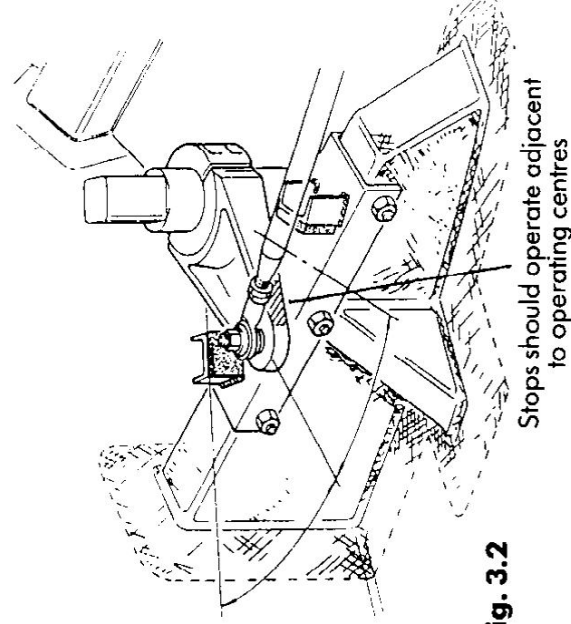


Fig. 3.2

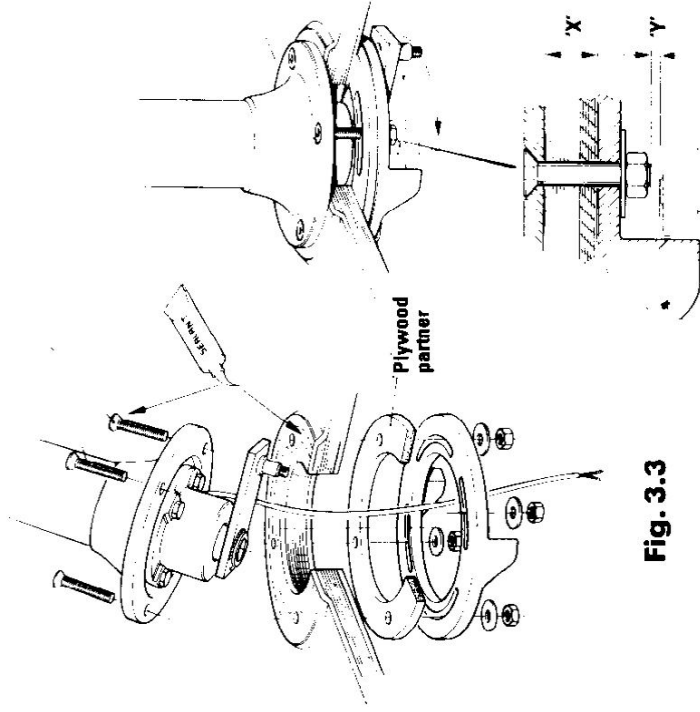


Fig. 3.3

4. Fitting Pedestal

4.1 Having checked carefully the correct sighting of the pedestal and reinforced the cockpit floor (if necessary) it is now time to install the pedestal. Mark the centre point of the pedestal and cut a $6\frac{1}{2}$ 1.53mm diameter hole in the cockpit sole. Offer the pedestal into position, fit the steering wheel and set the unit square to the fore and aft centre line.

4.2 When you have aligned the pedestal mark the 4 off 1.3mm/ $1\frac{1}{2}$ diameter holes to be drilled on the cockpit sole. Remove the pedestal and drill holes. Using a non-setting mastic apply a bead of sealant around the underside edge of the pedestal base. Carefully set the pedestal back in position and insert the four pedestal mounting bolts. Put sealant under the head of the countersunk bolts and tighten using heavy washer and nuts. See Figure 3.3.