

SHADOW D - SERIES



CONSTRUCTION MANUAL

CROSBIE WING FOLD KIT

SERIES D-D

(I)

SHADOW FOLDING WING SYSTEM

Your kit supplied consists of two Telescopic Wing Folding Systems
Adjustable Wing Prop,
Front Stabilizer Bars (two sets)
Mastic Adhesive
Rigging & De rigging procedure
Shadow Folding Wing System Structural Test for Submissions.

Fitting Procedure

Familiarize yourself with the Structural Test look at diagrams
& photos read the rigging & de rigging procedures then go for
it

Fitting & Bonding Procedure

To fit telescopic Tubes to your aircraft first remove the wings
in the conventional way.
Place Port & Starboard Wings in suitable stands trailing edge
uppermost. Unpack the telescopic tubes you will find they
are assembled on thr plywood panels that you will be bonding
to the Sheer Webb of the De Box, the panels are marked (PW)
Port Wing & (PWC) for the centre wing, (SW) Starboard Wing
(SWC) for the centre wing.
The Telescopic Tubes are also marked to correspond with the
plywood panels.

FITTING & BONDING PORT WING

Take the Port Panels & Tubes place them on a clean table or
similar, remove the brackets tubes ect from the plywood panels
taking note of how they are assembled, take the plywood panel
marked (PW) carefully fit it to the Port Wing, the rounded
edge must be flush with the inboard end of the De box Sheer
Webb. See structural tests photo 2 & 3.

You will find Pop Rivets etc will obstruct the panel, file &
cut the panel to fit around them, never ever remove rivets or
any part of the Sheer Webb.
When the panel fits freely to the back of the Sheer Webb the
the panel is ready to be bonded to the Sheer Webb.

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BONDING PREPARATION

Thoroughly sand & abrade the back of the Sheer Webb.
Clean & abrade the aluminium where the plywood panel meets it.
Keep all parts to be bonded clean it is very important, wear
rubber gloves or similar.

Fit liquid nails provided in Mastic Gun not provided.
Run beads of the Mastic Adhesive parallel down the plywood
panel at approx 1 $\frac{1}{4}$ " apart, take the panel & carefully place
in position on the Sheer Webb making sure the panel is in
position fitting snugly to the Sheer Webb . Press down firmly
placing a small weight on the panel if necessary.
Allow to dry overnight the next day fill the edges of the ply-
wood panel where they meet the aluminium with Araldite Rapid
is OK.

FITTING & BONDING STARBOARD WING AS PORT

FITTING & BONDING PORT WING CENTRE (PWC)

Take the plywood panel marked PWC undo the zipps & tape them
back. Fit the panel following the procedure described
Fitting & Bonding Port Wing (PW)

Make sure the plywood panel fits tight to the Centre Wing outside
Ribb, see photo No I. Be clean where gloves when bonding.

FITTING & BONDING STARBOARD WING CENTRE (SWC) as Port

FITTING TELESCOPIC TUBES PORT WING (PW)

Take tube bracket marked Port Wing (PW) carefully measure &
mark where the tube on the bracket will come through the wing
ribb see photo 2, measure twice cut once.

Cut & file a neat hole through the matting & foam ribb, fit
the bracket it will go in if you twist & turn it eventually.
Bolt the bracket on the plywood panel with nuts & washers
provided, dont worry if the hole in the ribb needs to be bigger
this can be filled with care with bodyfiller if necessary.
You may find it difficult to get your hand inside the wing

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if you are a big boy if this is the case I suggest you get

the help from someone with small hands eg: (The Barmaid at the
local pub?).

Fitting Telescopic Tubes Starboard Wing (SW)
as Port

Fitting Telescopic Tube & Brackets Port Wing Centre
(PWC)

Take the Tube Bracket marked PWC carefully measure & mark the
Centre Wing Ribb where the tube will come through.
Cut & file a hole see photos (1) (2) (3), secure the bracket
with nuts & washers provided, slide in the telescopic tube
Fit the retainer - stop ring & secure with split pin provided,
Your Telescopic Wing is ready to be bolted together.

Fitting Telescopic Tubes & Brackets Starboard
Centre Wing (SWC) as Port

Handy Hints

Lightly grease the telescopic tube if it does not run smoothly.
The brackets can be adjusted slightly , read The Structural
Test Manual. You can ring me Danny Crosbie on 01787 375202.
Your Folding Wing System must be checked by a qualified Inspector
and submitted to the BMAA- PFA as a minor mod useing structural
tests provided, & what ever else your Inspector suggests.
Dont be frightened of them they are human & we pay their wages
the BMAA PFA & the Inspectors.

Regards

Danny
