

Lower rigging change for the Blade wing V1.1

1. Cable part numbers and lengths

Before fitting any new cables please check you have the correct wires – every cable has the part number marked on it along with a batch number.

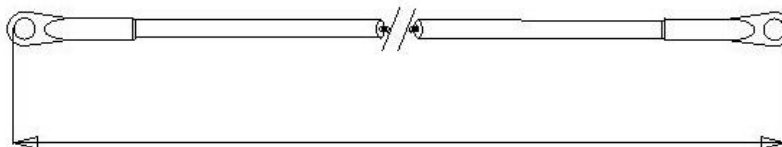
Confusingly, the Mainair part numbering system uses the same part numbers for all aircraft, so 034-315 cables could be for any Mainair aircraft even though they are all different lengths and not interchangeable.

Therefore, it is also advisable to check the lengths of the new wires against the ones being removed to further check that the correct wires are fitted in the correct position.

Part No. 034-305	Part No. 034-310	Part No. 034-315
Front cables	Rear cables	Side cables
1910mm	2165mm	2940mm

2. Measuring cables

If you have any doubts, the correct way to measure cables is as shown below. In other words, the cable is measured where the point loads are taken. Please do bear in mind that there is a manufacturing tolerance of 2mm to be allowed for.



3. Fitting of cables

The rigging is easiest to change with the wing on the ground, wings spread, battens out, control frame rigged, but folded flat with the base bar against the keel and with the nose plates lifted to rest on a chair so that it is easy to get under the wing. The job can be done with the wing upside down and the nose plate lifted onto a chair, this avoids crawling under the wing, but can get dirt onto the top surface of the sail and care must be taken to avoid left to right and front to back confusion whilst the wing is in this unusual position.

It is recommended that you should take photographs of all the joints you are going to disturb, the advice given here shows photographs and drawings, but the routing of the wires is difficult to show in the drawings and your wing will be lying in a different orientation to the photographs shown here.

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The bolts on the rigging should not be over tightened, because the wires should be free to rotate when the aircraft is rigged and with extreme over tightening the tube will be distorted.

The side wires have an additional plastic cover on them at the cross tube end to protect the tubes. The plastic cover is only essential on the front wires of the side wire pair, but is often included on all four side wires.

The original drawings are also included at the end of this document, read the notes on the drawings carefully as much of the information is in the notes.



Front and rear rigging



Lower side rigging

In the photographs of the A frame corner above, note that on the front to rear wires one of the washers is thin steel to allow the nut to have the necessary 1.5 threads to show through.

Note that the lower rear rigging cables are fitted OUTSIDE of the uprights and the lower front rigging on the inside, as shown.

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4. Cross-tube end of the side wires



Cross-tube end of the side wires.

Note that only the front wire that is going between the leading-edge tube and the cross-tube originally had a plastic covering for protection. However the replacement cables will both have plastic covering. Of the two lower side wires, the front wire goes between the leading edge tube and the cross tube, care must be taken with the routing.

Though it is hard to see in the photo there is a washer between the side wires and the tube to prevent the wire terminal scratching the tube. Also, the top rigging goes to the REAR of the cross-boom.

Due to a possible tolerance build up of the swage tangs, the keel retaining bolt has been increased by one size to AN4-32A, so that there is always at least 1.5 threads clearance through the Nyloc. This may make the fitting of the skiffy cap difficult.

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Lower rear rigging.

To overcome this and ensure that the skiffy cap fits correctly, a hole can be punched in the skiffy cap, as shown.

5. Sign off

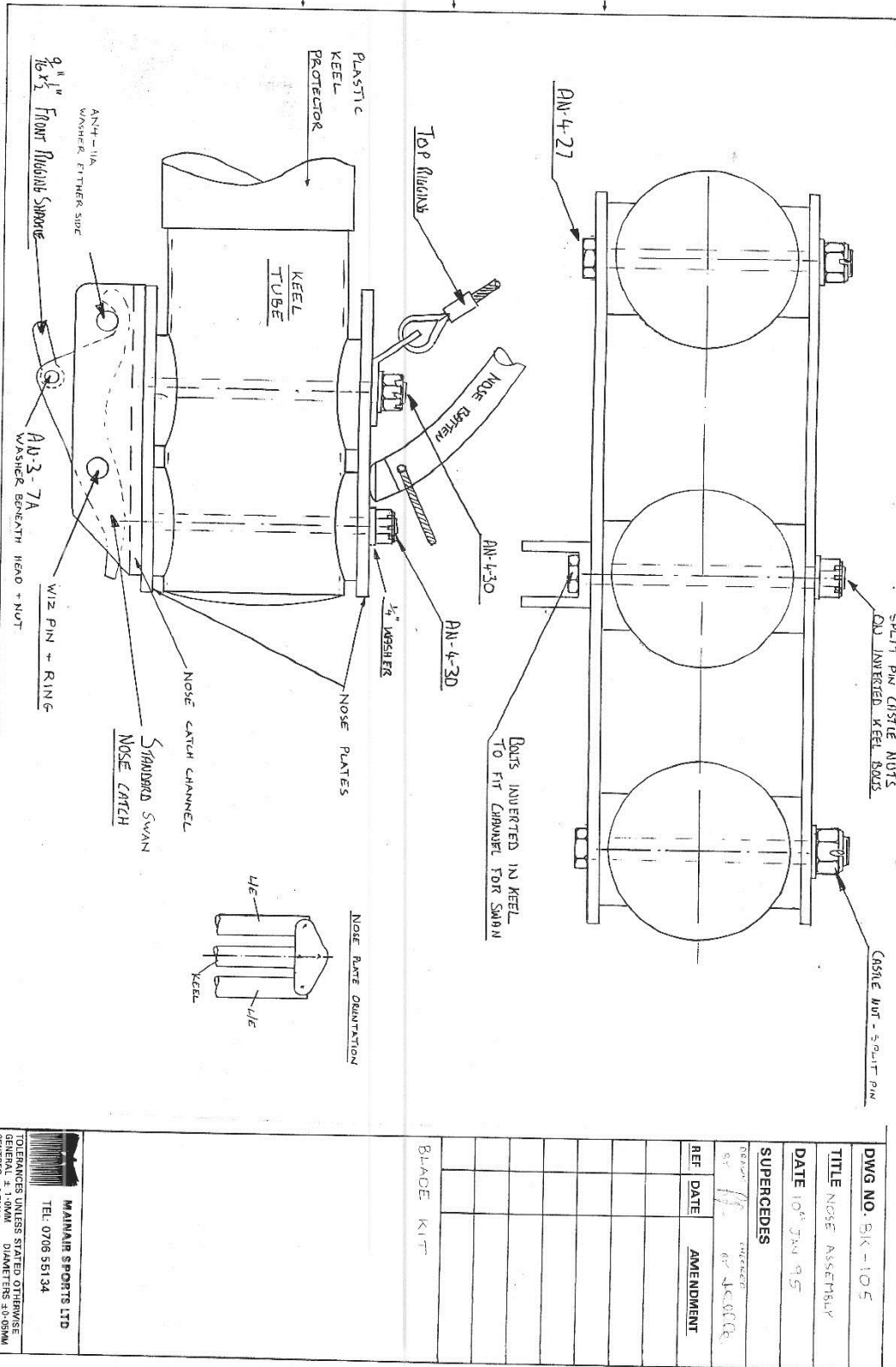
On completion of the work the aircraft must be inspected by a second person who is considered qualified. The BMAA defines a 'Qualified Person' as someone the Owner considers having sufficient knowledge and experience to inspect work done to a published requirement.


We are posting instructions and information on our website in the manuals section of the downloads section part, which can be found here http://www.pmaviation.co.uk/manuals_new.php

If you have any queries on this, please do contact us at spares@pmaviation.co.uk or 01672 861350

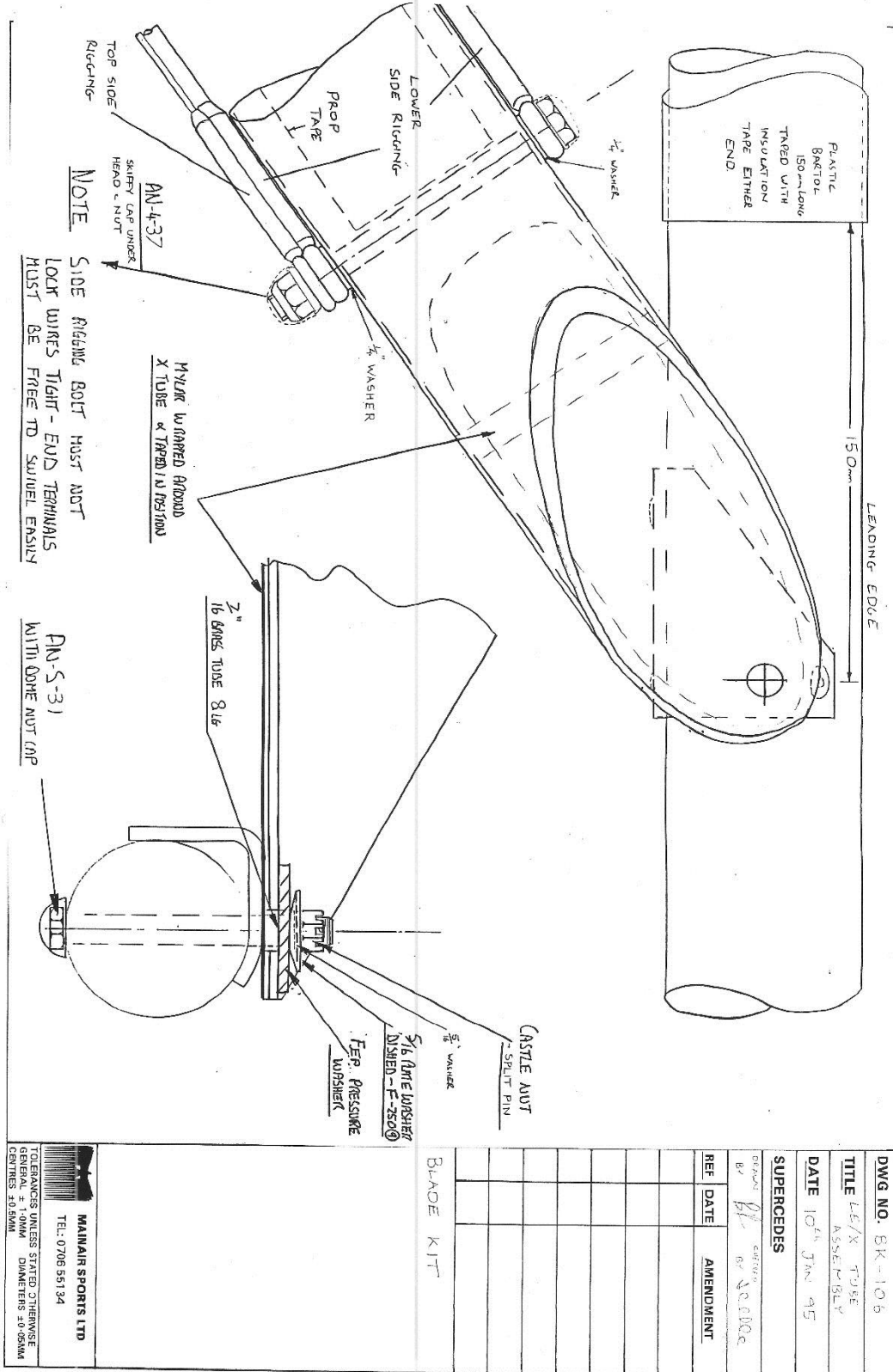
23rd August 2017

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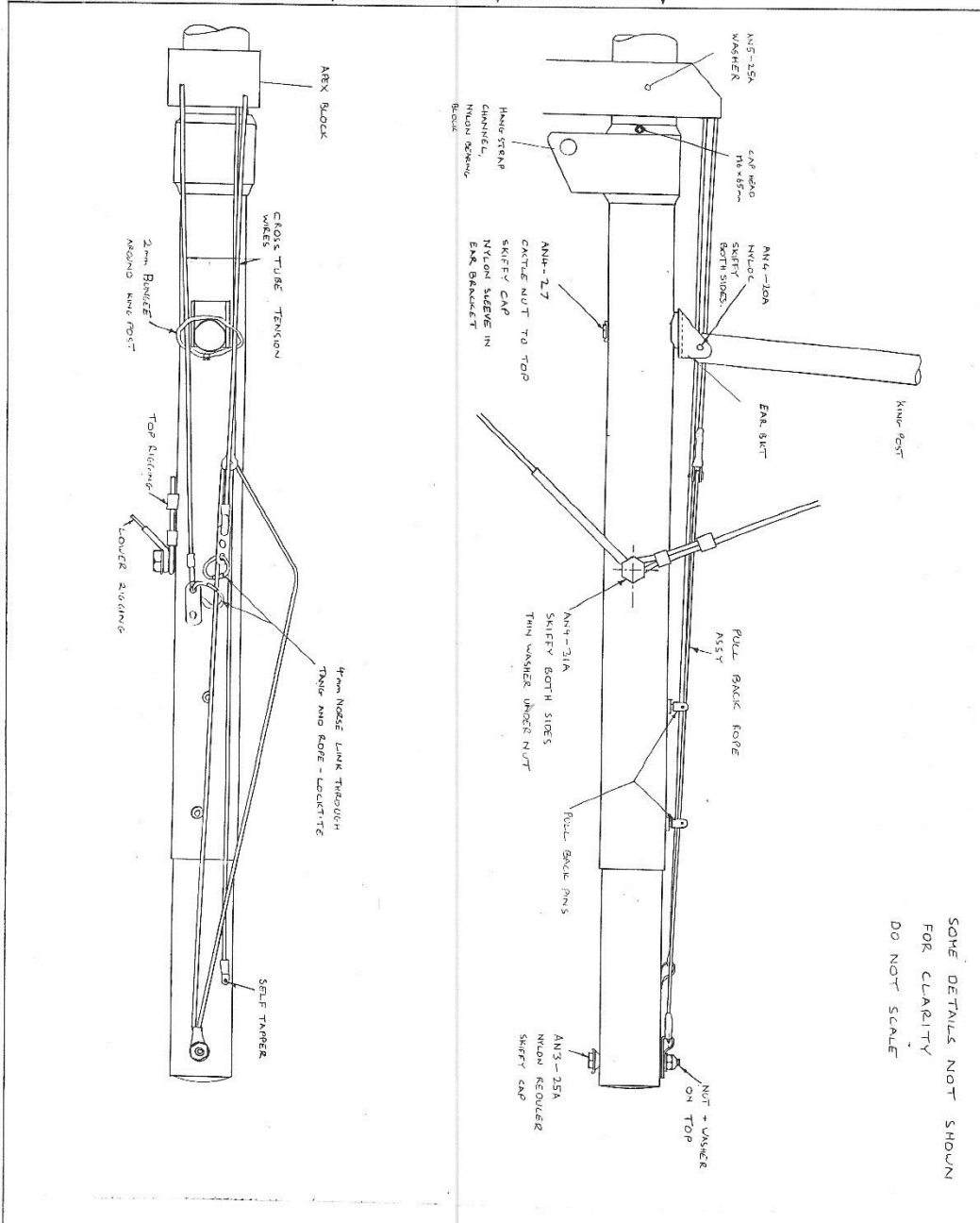



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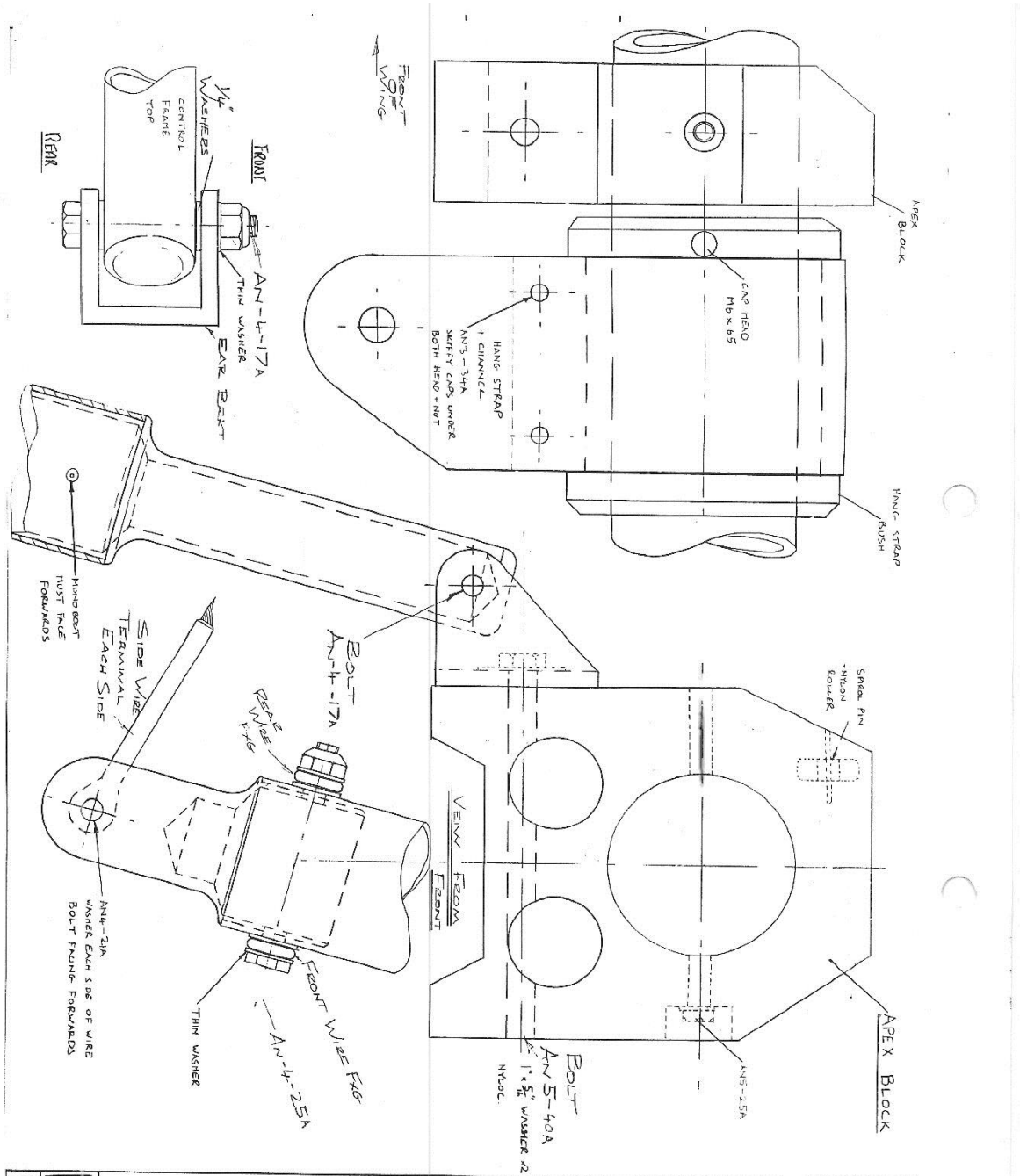
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DWG NO.	BK-108
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