Lower rigging change for The Flash 2 Alpha wings. V1.2

1. Flash 2 Alpha - Standard and Race rigging

There are two types of lower front and rear rigging for the Flash 2 Alpha only – Standard and Racing rigging. This was a modification that moved the base bar 2 inches forwards so that slightly higher speeds could be achieved. Listed on TADS as modification 71, it was generally fitted as standard on the later 582 engined aircraft, but was also supplied as a spare part, so there is no real record of which aircraft have them now.

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. When you ordered your cables, you should have been asked to confirm the type of rigging you have on your aircraft but in order to check the cable lengths: -

	Part No. 034-305	**Part No. 034-310**
	Front cables	**Rear cables**
Standard rigging	1960mm	2270mm
Race rigging	1900mm	2330mm

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

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.

It should be noted that the F2 and F2A wires are **NOT** interchangeable.

2. Flash 2 Alpha side cable lengths

The F2A side wires have different lengths for the front side wires as opposed to the rear side wires as there is a 5mm difference. The lengths of the F2A side wires are as follows:

F2A front side wire is 2640mm

F2A rear side wire is 2645mm

3. 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.

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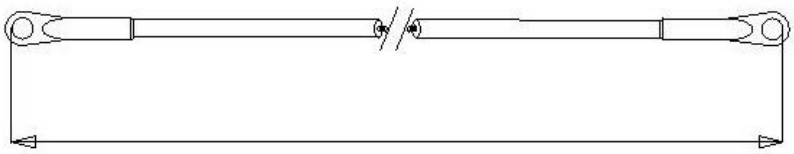

4. Fitting of cables

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 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.

Front and rear rigging.

Lower side rigging.

Photographs of the A frame corner, note that on the front to rear wires one of the washers is thin steel to allow the nut to have at least 1.5 threads showing through it. Note the lower rear rigging cables are fitted on the OUTSIDE of the uprights and the lower front rigging on the inside as shown.

5. Cross-tube end of the side wires.

Note that, 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. There is a washer between the side wires and the tube to stop the wire terminal scratching the tube.

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Unlike the Flash 1 and 2 variants, the top rigging on the Flash 2 Alpha goes to the **REAR** of the cross boom, the same as the Blade.

6. 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 to have sufficient knowledge and experience to inspect work done to a published requirement.

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. Guidance on torque settings are given in Torque settings sheet, which should be part of the package that you have received.

The original MK- (Mercury kit which had a Flash 2A wing) 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.

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

21st August 2017

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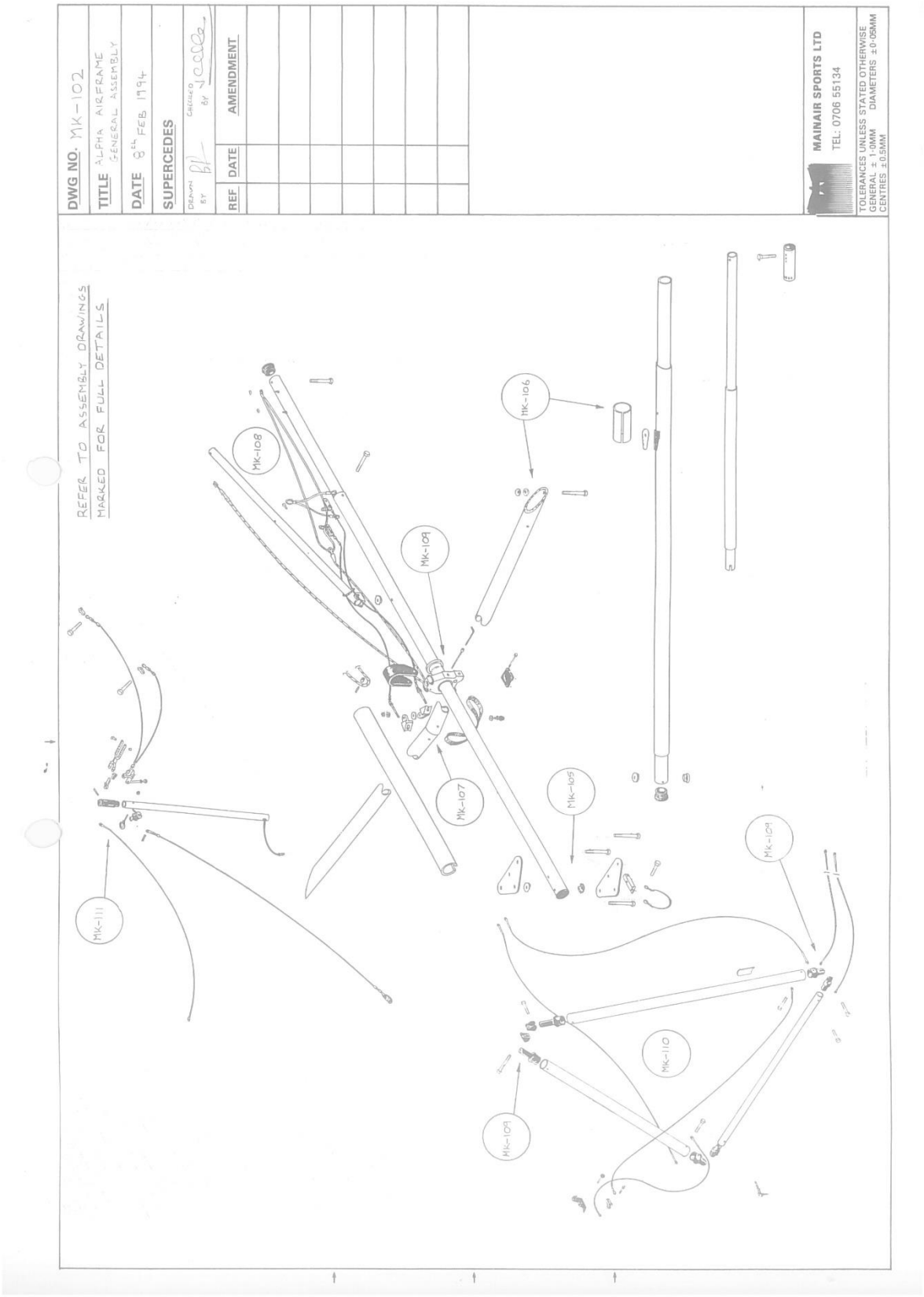

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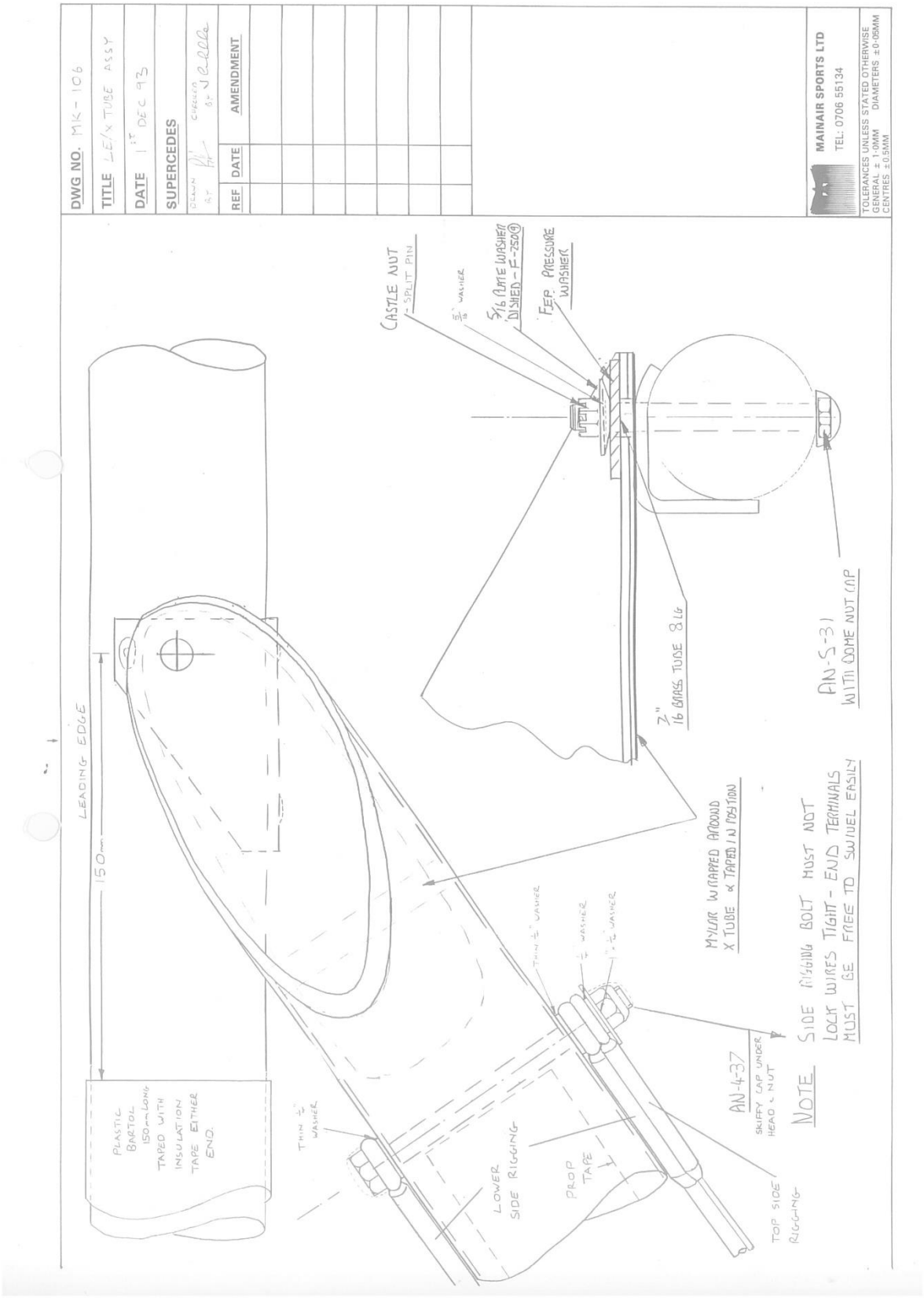

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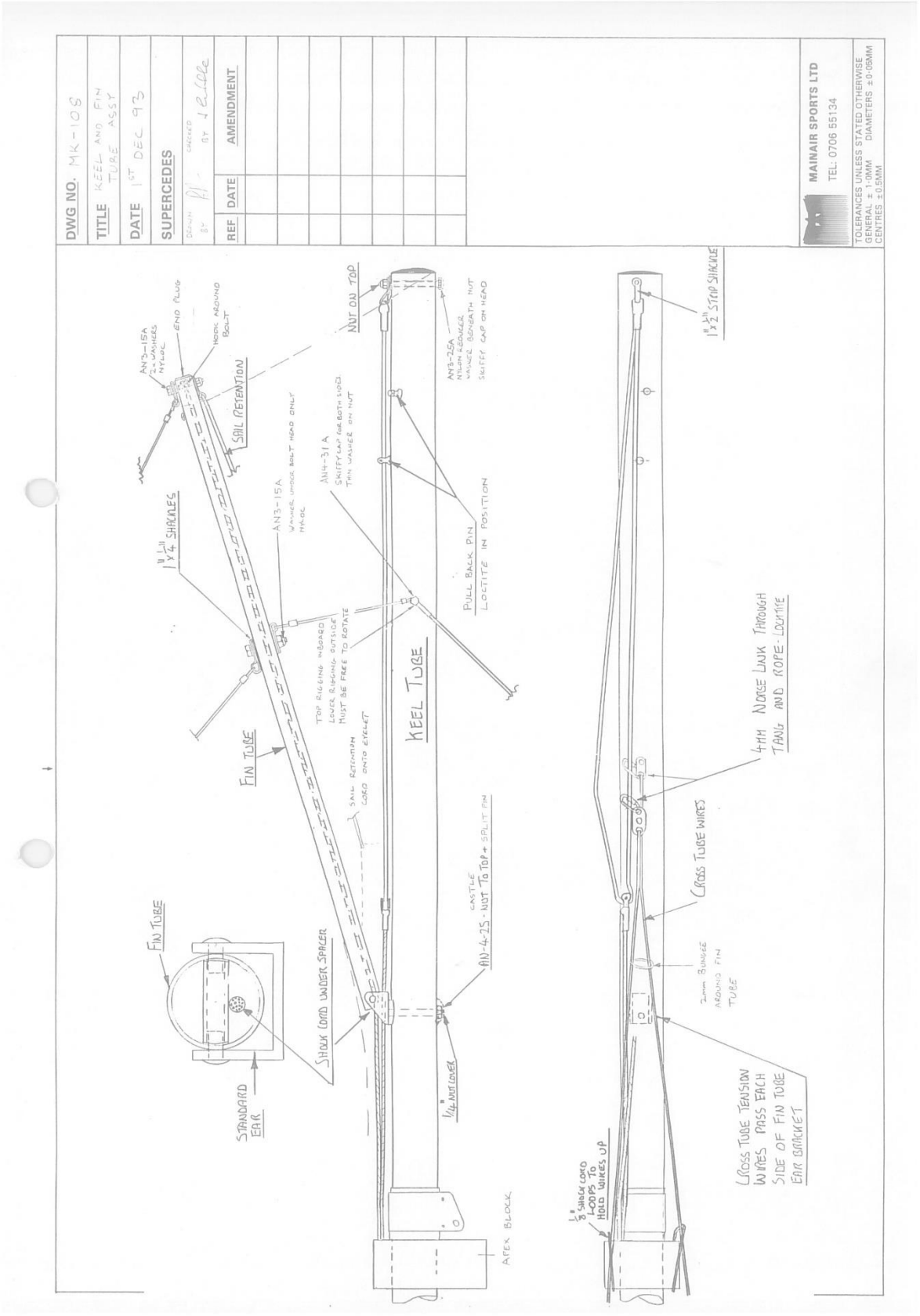

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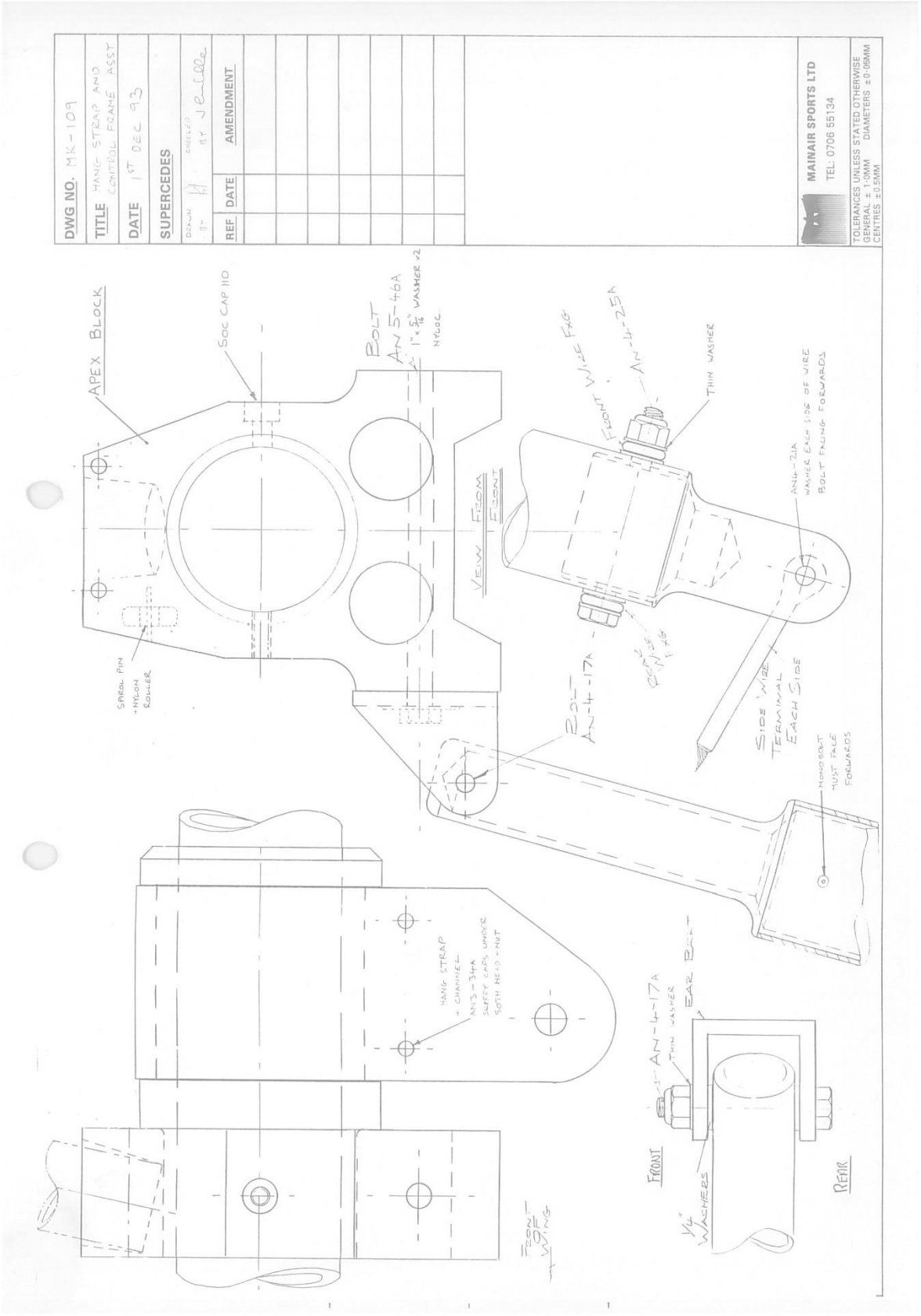

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