

Lower rigging change for The Flash 1 and 2 V1.0

1. Flash 1 and 2 rigging

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.

	Part No.	Flash 1	Flash 2	Qty
Side cables	034-315	2895mm	2880mm	4
Front cables	034-305	1950mm	1950mm	2
Rear Cables	034-310	2225mm	2225mm	2

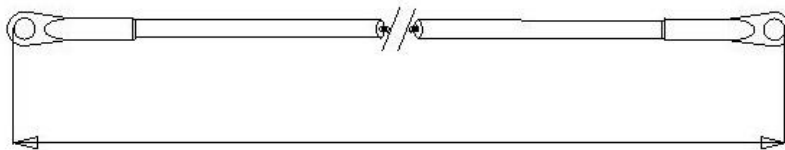
Confusingly, the Mainair part numbering system uses the same part numbers for all aircraft, so 034-315 cables could be for any Mainair aircraft even though they are all different lengths and not interchangeable.

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.

It should be noted that the F1/F2 and F2A wires are **NOT** interchangeable.

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 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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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.

4. 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.

Also in drawing FGA-25 the top rigging is on the FRONT side of the cross boom (The Flash 2 Alpha and Blade are configured differently).

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 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.

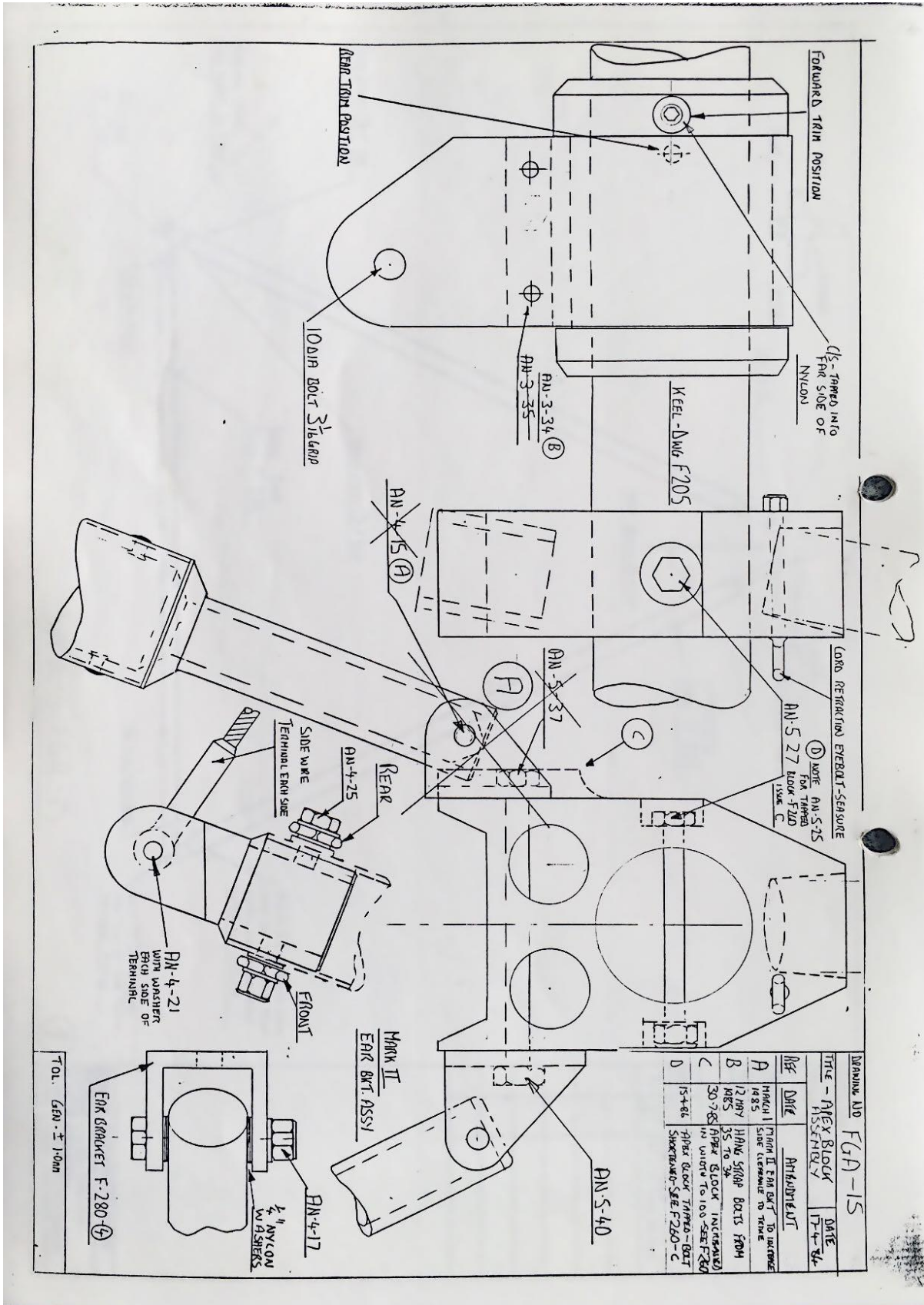
The original drawings are also included at the end of this document, read the notes on the drawings carefully as much of the information is in the notes.

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

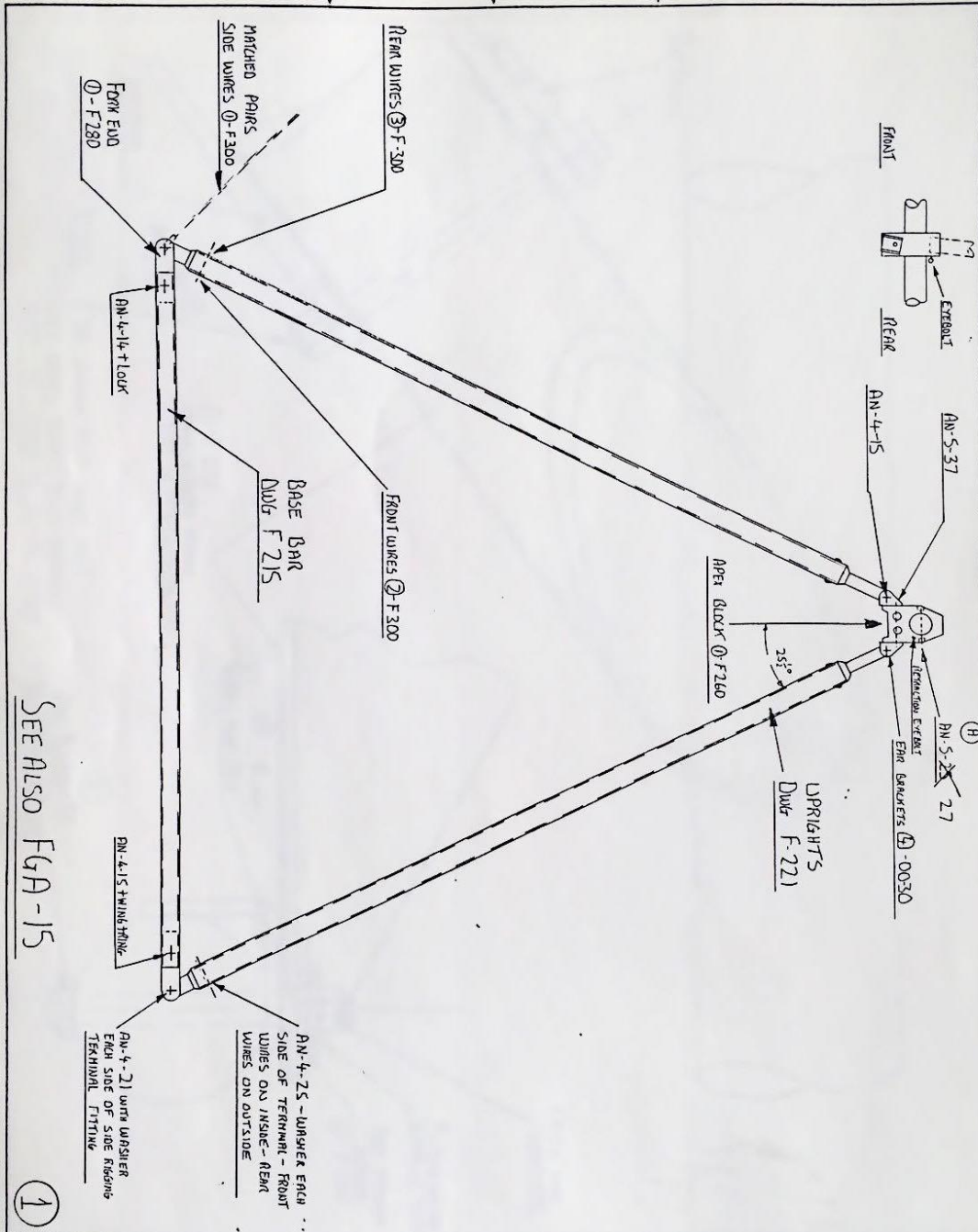
If you have any queries on this, please do contact us at spares@pmaviation.co.uk or 01672 861350

21st August 2017

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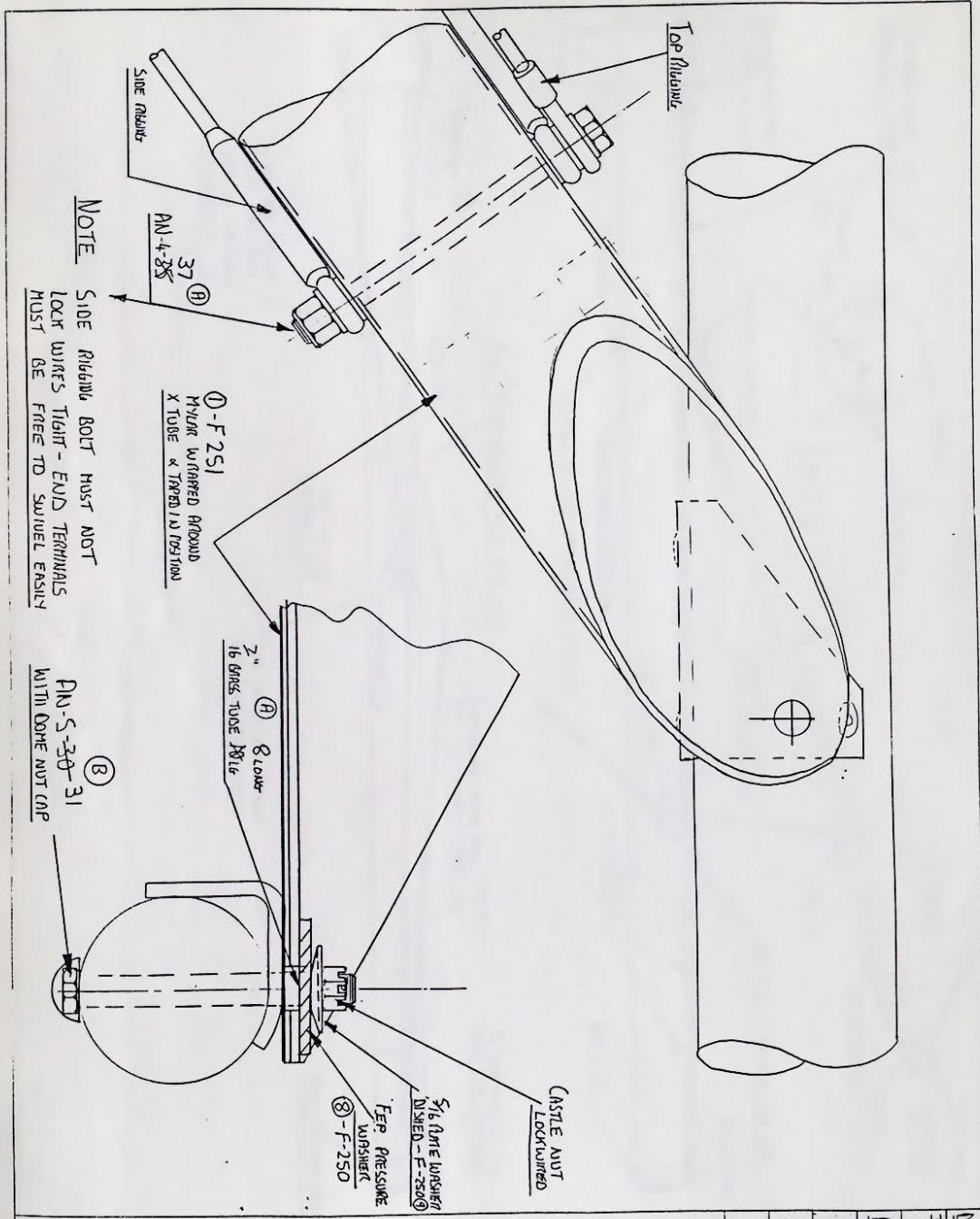
SEE ALSO FGA-15

1

DWG NO. FGA-20	
TITLE CONTROL FRAME	
DATE 23-7-84	
SUPERCEDES	
REF	AMENDMENT
A	FROM 25 TO 27-Dwg EXTRACT
DATE	1975

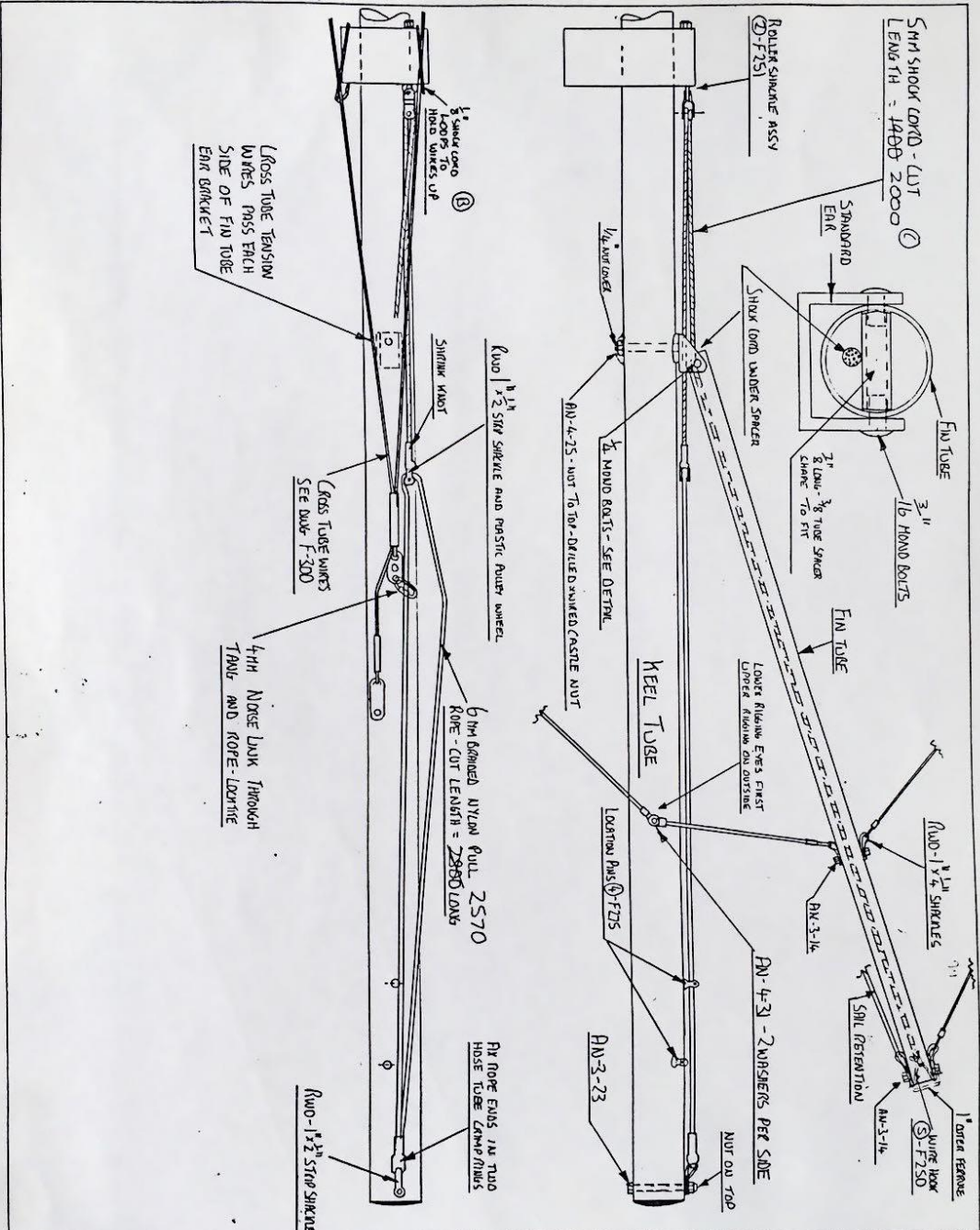
MANAIR SPORTS LTD
 SHAWCLOUGH ROCHDALE
 LANCs - ENGLAND
 WYOM (57171)
 TOLERANCES UNLESS STATED OTHERWISE
 GENERAL ± 1.0MM DIMETERS ± 0.05MM
 CENTRES ± 0.25MM

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Draw No. FG-A-25		DATE
TITLE	CROSS TUBE -	10-12-83
LEADING EDGE JOINT		
REF	DATE	AMENDMENT
A	20 MAY 1985	POUT TUBE TO 8 LOW RIGGING BOLT TO 37 DRAWING ERRORS
B	1-3-86	ISSUING BOLT BMT TO 31 FROM 30

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CROSS TUBE TENSION WIRES PASS EACH SIDE OF FIN TUBE END BRACKET

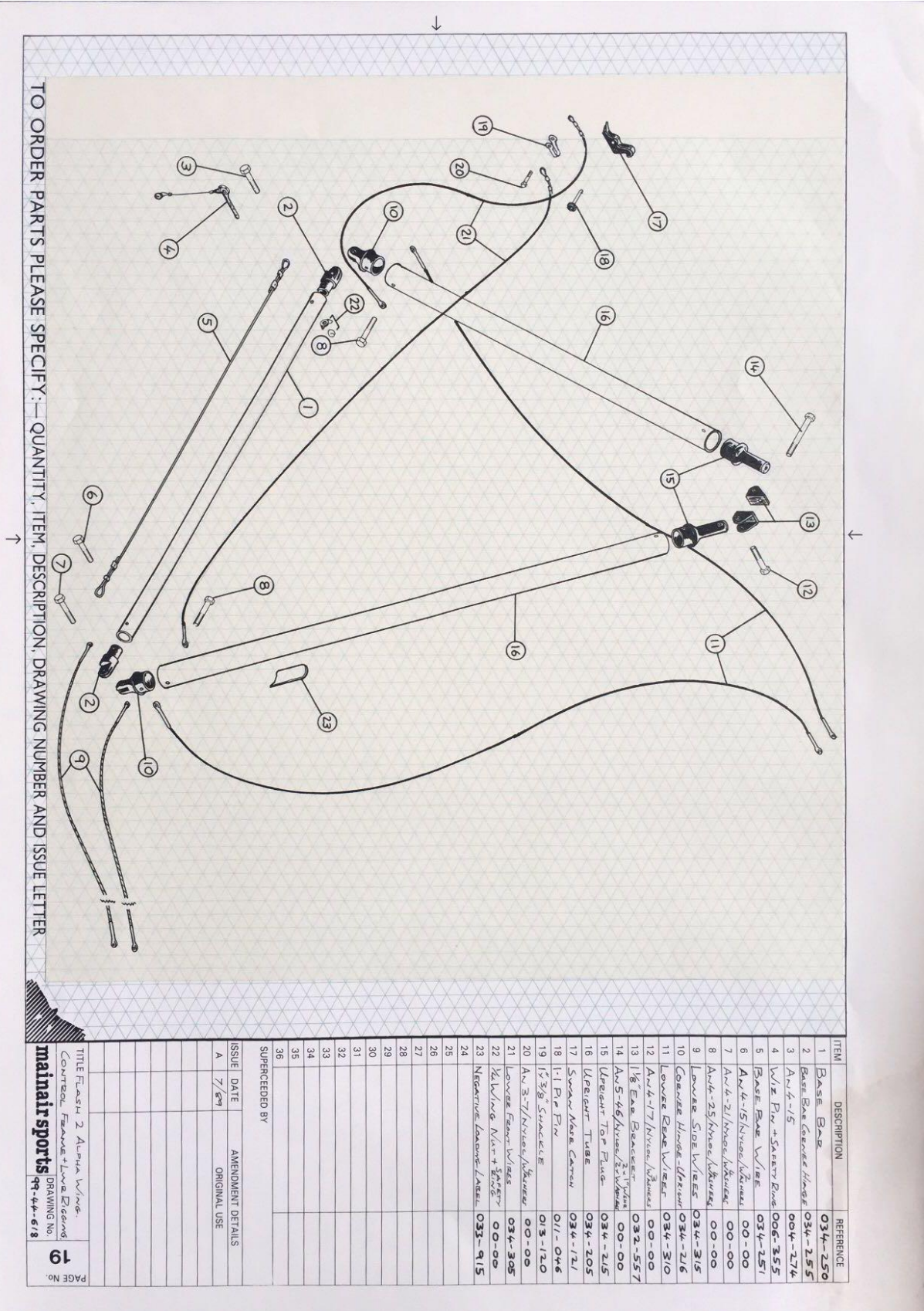
CROSS TUBE WIRES SEE DRAW F-300

4TH NOSE LINK THROUGH TANK AND ROPE LOCKING

RWD-1 1/2 STRAP SHOCKER

DWG NO	FLA-35	DATE	10-4-88
TITLE	CROSS TUBE TENSION AND RESTRAINT SYSTEM		
REV	DATE	DESCRIPTION	
A	1/23/88	4TH RESTRAINT CONO LENGTH REDUCED	
B	1/26/88	1/2 SHOCK CONO LOOPS REMOVED TO PREVENT OVER STRETCHING RESTRAINT SHOCK CONO EXTENDED	
C	3/20/88		

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ITEM	DESCRIPTION	REFERENCE
1	BASE BAR	034-250
2	BASE BAR GROUND HOOK	034-255
3	AN-4-1/5	004-274
4	WIZ PIN + SAFETY RING	006-355
5	BASE BAR WIRE	034-251
6	AN-4-15/NYLOC/NYLOC	00-00
7	AN-4-21/NYLOC/NYLOC	00-00
8	AN-4-25/NYLOC/NYLOC	00-00
9	LOWER SIDE WIRE	034-315
10	CABLE HOOK (FRONT)	034-216
11	LOWER REAR WIRE	034-310
12	AN-4-17/NYLOC/NYLOC	00-00
13	1/8" EYE BRACKET	032-557
14	AN-5-46/NYLOC/2XWIRE	00-00
15	UPRIGHT TOP FLANG	034-205
16	UPRIGHT TUBE	034-205
17	SWAYBAR MATE CARROW	034-121
18	1" PIPE PIN	011-046
19	1 3/8" STRUTCLE	013-120
20	AN-3-7/NYLOC/NYLOC	00-00
21	LOWER FRONT WIRE	034-305
22	2X WING WIRE + SAFETY	00-00
23	NEGATIVE LOADMT LABEL	033-915
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TITLE FLASH 2 Alpha Wing
 CONTROL FRAME + Lower Rigging
mainair sports DRAWING NO. 99-44-618
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