Wiesel

Entwurf, Konstruktion und Bauplan: Hilmar Lange

Material-zusammen-stellung ab Seite 19!

Schwerpunktlage:
53 mm hinter der Nasenleiste am Rumpf

Ruderausschläge:
Seite +- 42 mm
Höhe +- 13 mm
Querruder +13 / -8 mm

Technische Daten:
Spannweite: 908 mm
Tragflächeninhalt: 14 dm²
Abfluggewicht: 600 - 650 g
Flächenbelastung: 43 - 46 g/dm²
Profil: MH-43 mod.
V-Form: 2° pro Seite
EWD: 0,5°
Motor-Seitenzug: 2° nach rechts
Motorsturz: 2° nach unten

Zubehörteile und Komponenten:

aero-naut Z-Spinner set / cool nose (CN) 42 mm / Aeronaut #7251-76

Klappluftschraube 9,0x7,0 CAM Z-Carbon, 8mm Hals, Aeronaut #7239-23

BL-Motor aeronaut actro-N-28-3-1300 / 28x30 mm / 3 mm Welle / 53 g / 13-25 A / Aeronaut #7003-03

maximaler Motordurch-messer: 28 mm!

BL-Regler actrocon 30 / Aeronaut #7003-32 / 30-40 A / 20 g

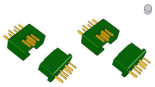
Multiplex Superleichtrad / EPP / 54 mm / #733189

2 **Stellringe** Ø 2 mm

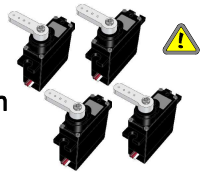
Leichtrad Ø 15 mm

8x **Neodym-Magnet** 5x8
8x **Neodym-Magnet** 3x3

2 Paar **MPX-Stecker**

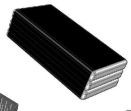


4x Servo z.B. D-Power DS-140BB MG Digital / 23,9x9x29 mm 9,5 g / 48 Ncm / DPDS140



die beiden QR-Servos dürfen nicht dicker sein als 9 mm!

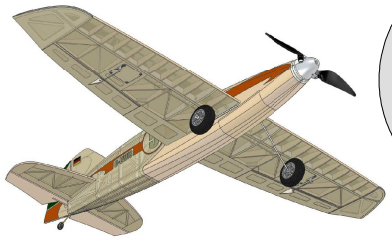
Akku: 3S LiPo 1500 mAh



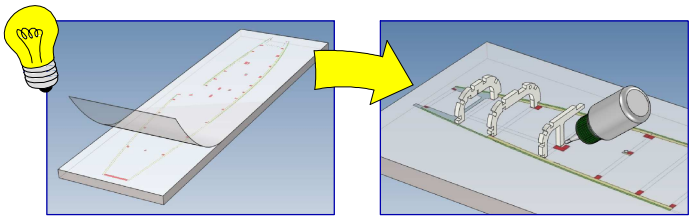
Empfänger: 6-Kanal

13 weiche **Vlies-Scharniere**

Als Pilotenkopf eignet sich
1 **Styroporkugel** Ø 40 mm



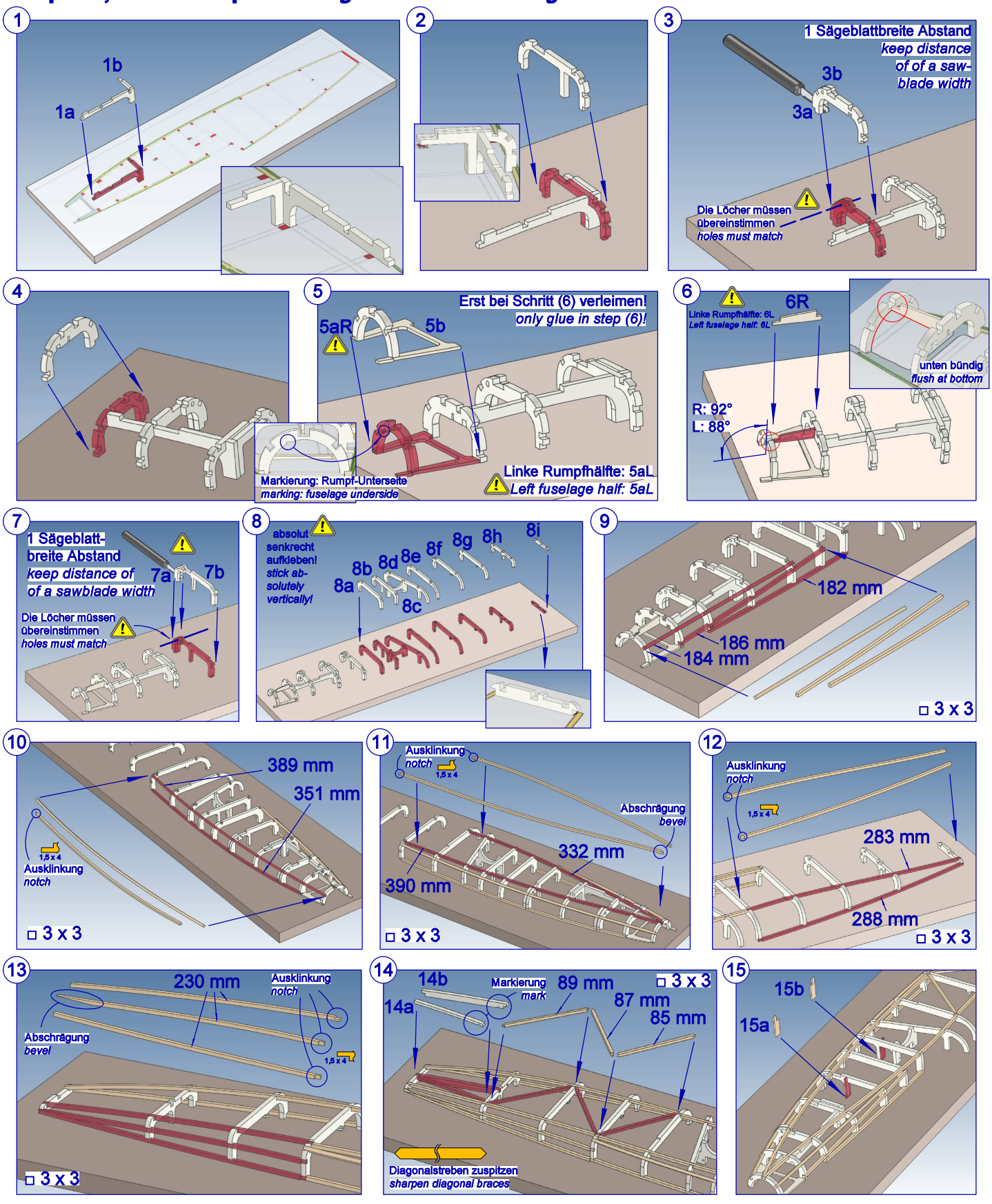
Aufgepasst beim Ausdrucken: stellen Sie im Druckmenü unter "Seiteneinstellungen" die Seitenanpassung auf "keine" bzw. "100%" !



Vorgehensweise:
Bauplan mit Sprühkleber auf ein ebenes Baubrett aufkleben. Danach den Plan mit selbstklebender Transparentfolie (Bücherfolie) beziehen.
Auf dieser Oberfläche können alle stehenden Elemente mit Sekundenkleber fixiert werden.
Nach Fertigstellung lässt sich die Baugruppe durch Unterhebeln vom Baubrett ablösen.

Method: *Glue the blueprint to a flat building board using spray adhesive. Then cover the plan with self-adhesive transparent film (book covering film).*
All standing elements can be fixed to this surface with superglue. After completion, the assembly can be detached from the building board by levering it under.

Rumpfbau, rechte Rumpfhälfte / *right half of the fuselage*



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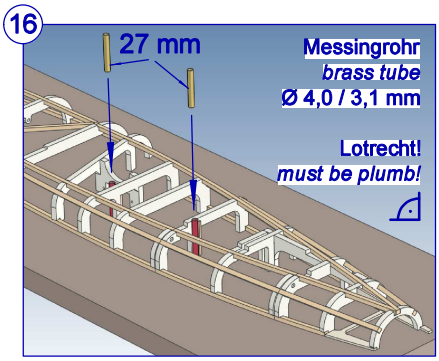

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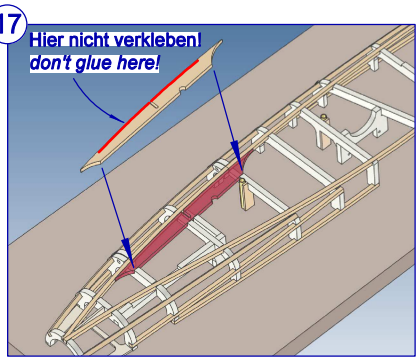

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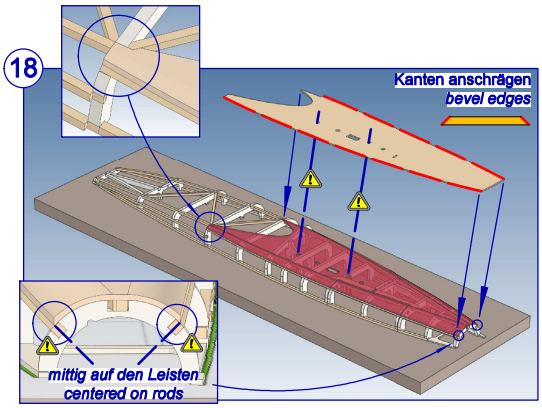

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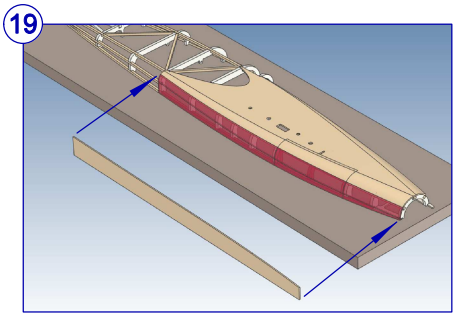

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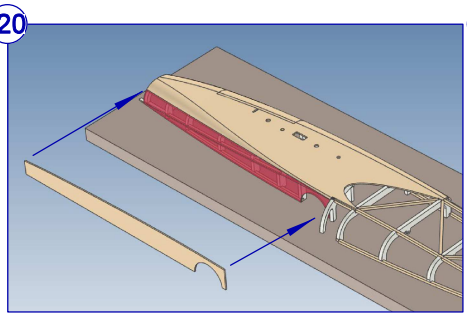

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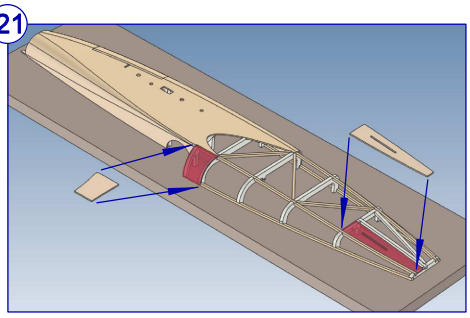

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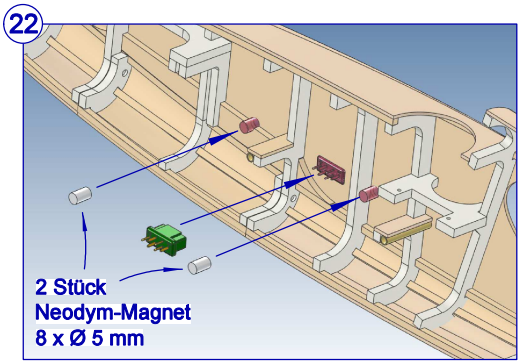

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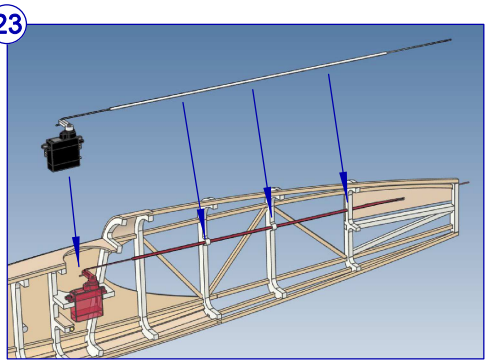

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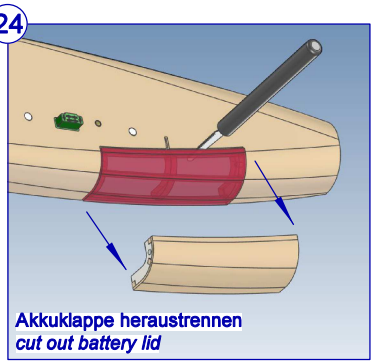

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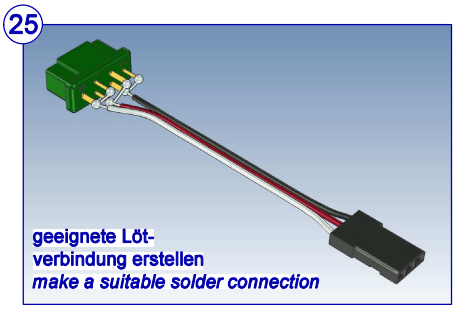

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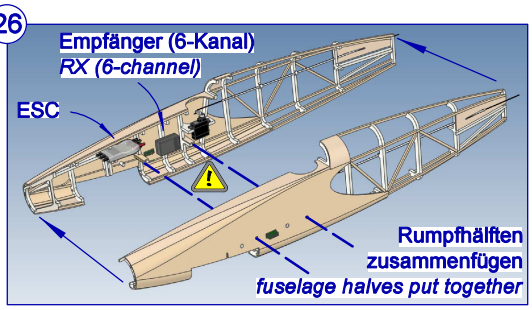

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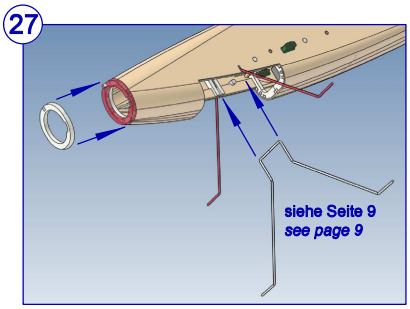

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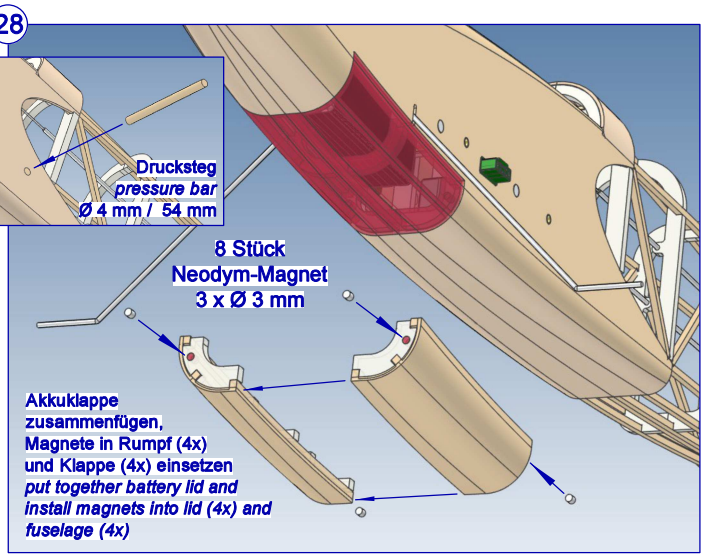

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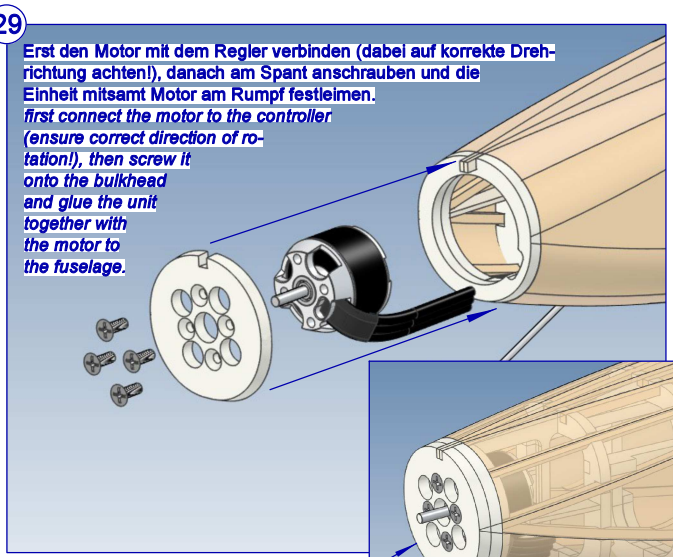
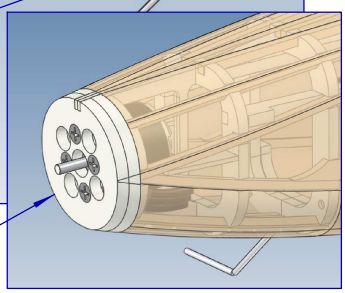
Erst den Motor mit dem Regler verbinden (dabei auf korrekte Drehrichtung achten!), danach am Spant anschrauben und die Einheit mitsamt Motor am Rumpf festleimen.
first connect the motor to the controller (ensure correct direction of rotation!), then screw it onto the bulkhead and glue the unit together with the motor to the fuselage.

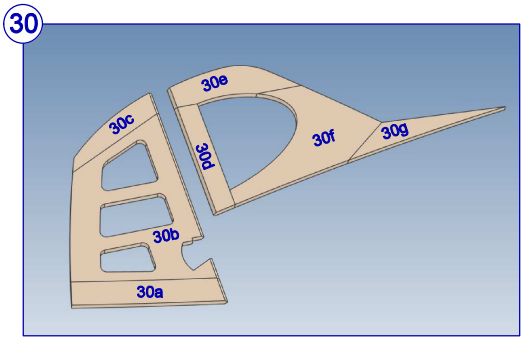


äußere Kante ist kreisrund
(an Spinner anpassen)
*outer edge is circular
(adapt to spinner)*



Leitwerke / *tail stabilizers*

30



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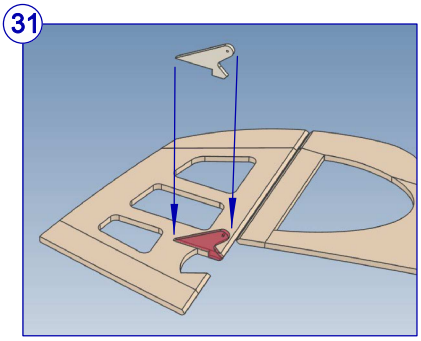

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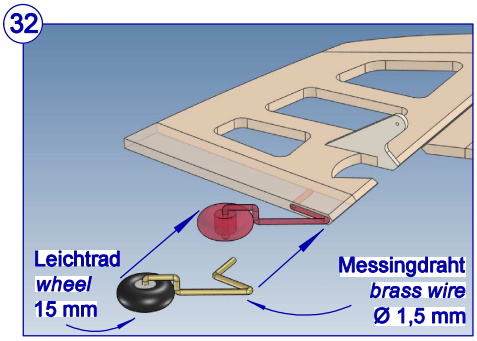

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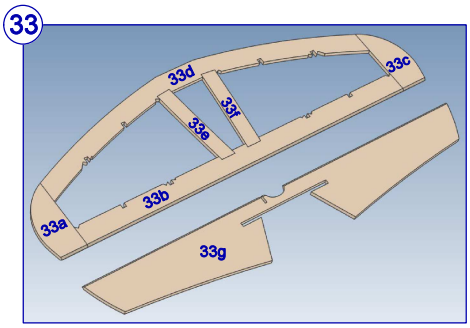

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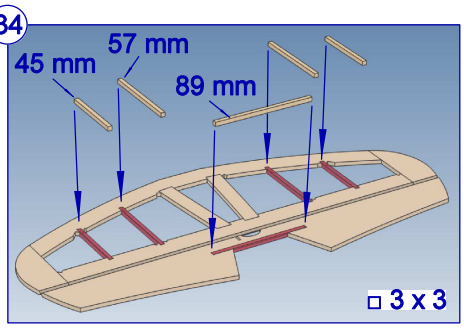

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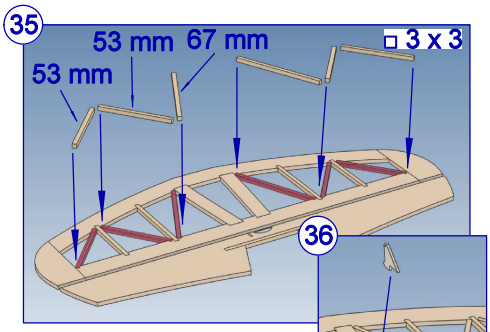

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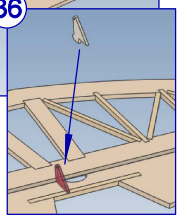
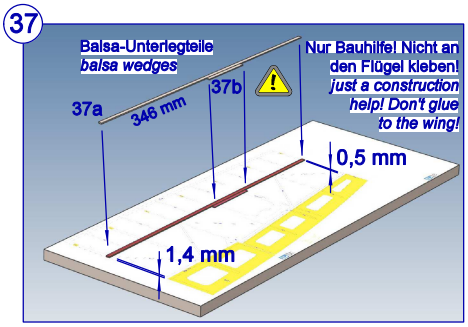


Flügelhälften (gezeigt: rechts) / *wing halves (shown: right wing)*

37



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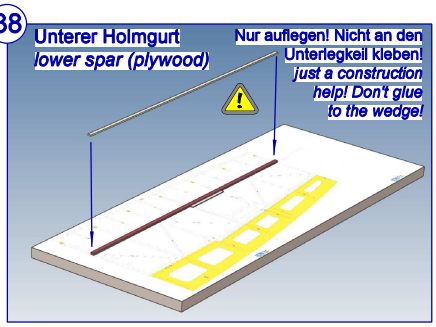

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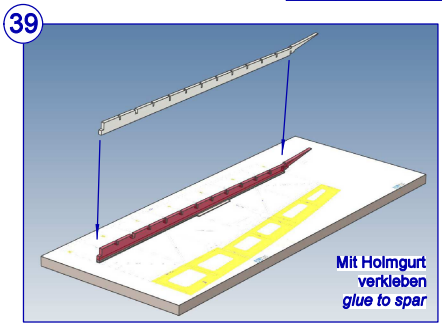

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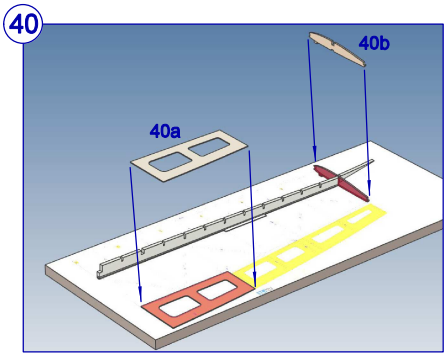

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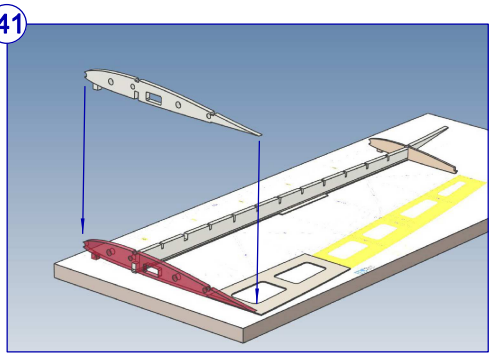

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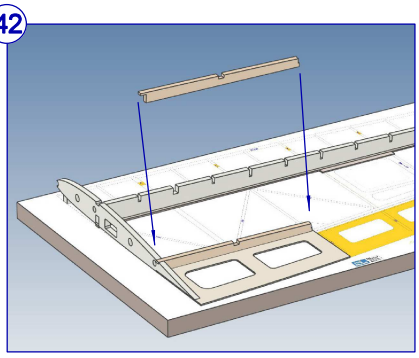

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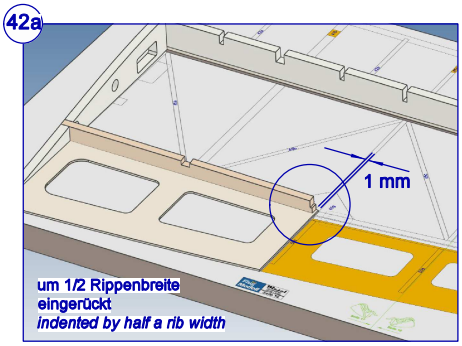

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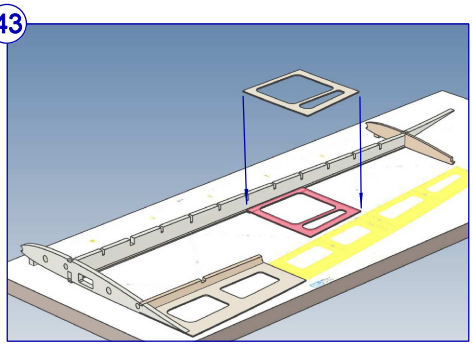

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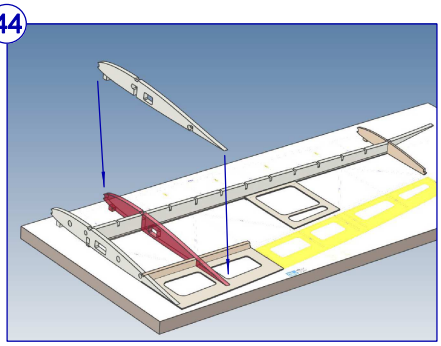

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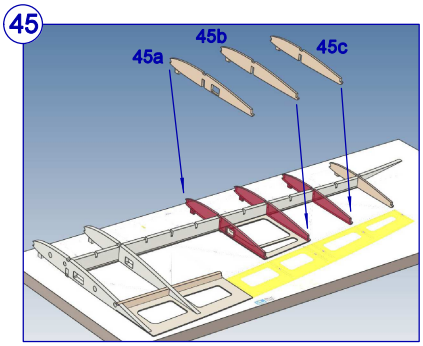

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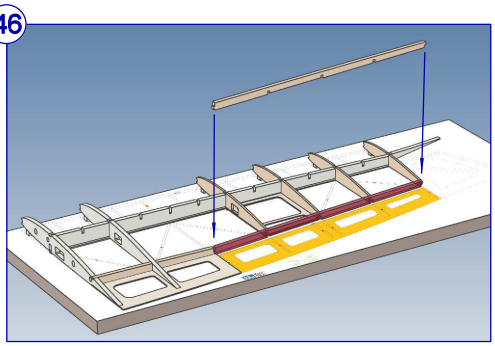

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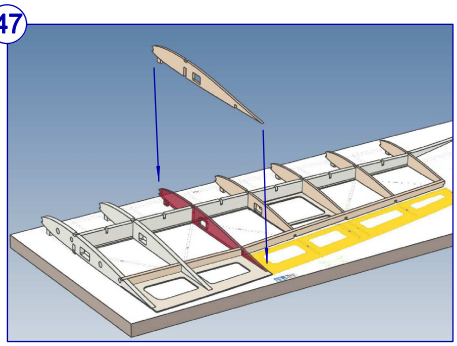

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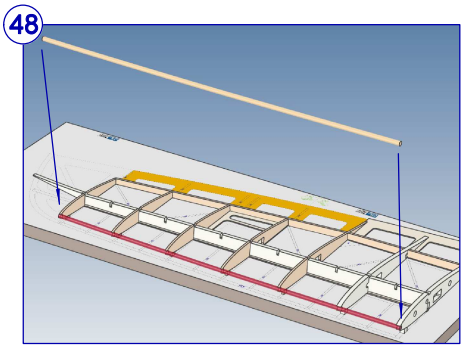

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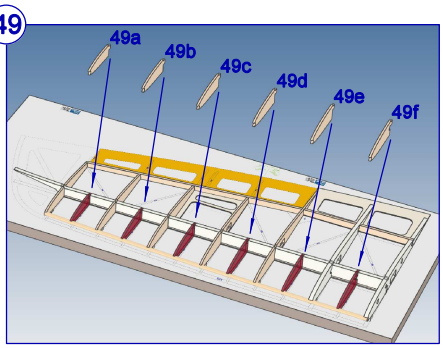

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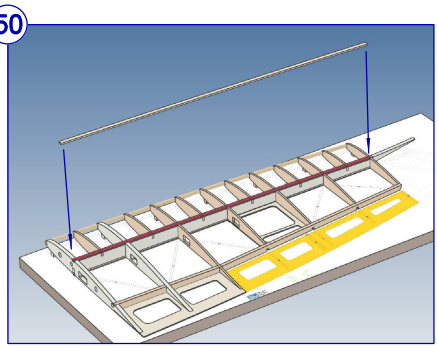

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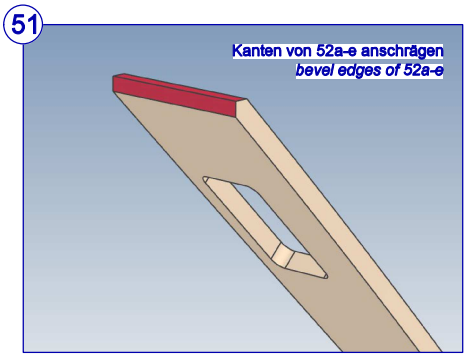

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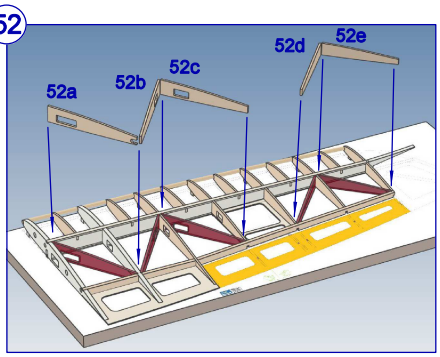

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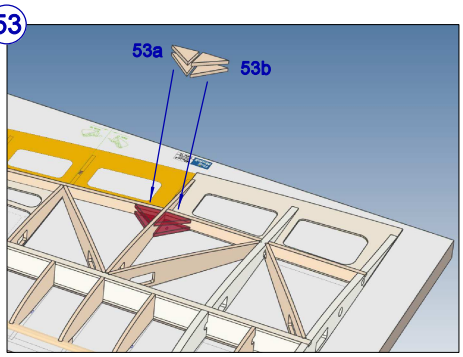

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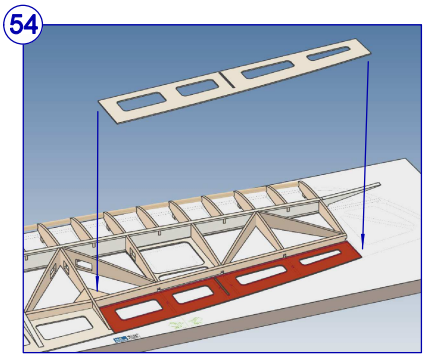

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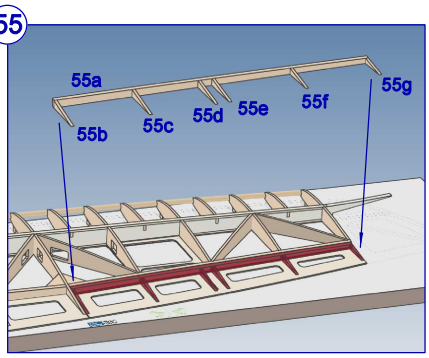

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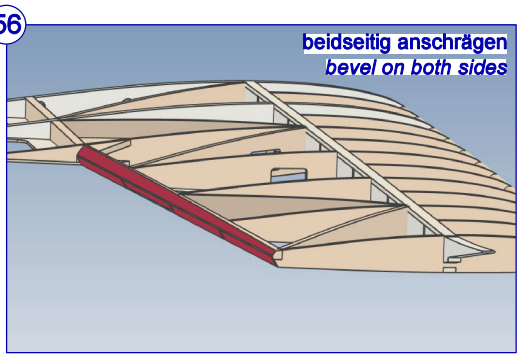

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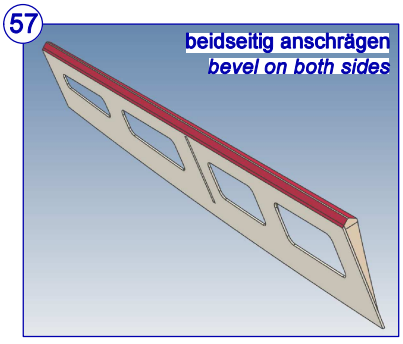

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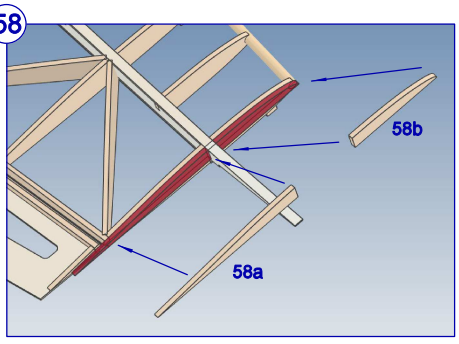

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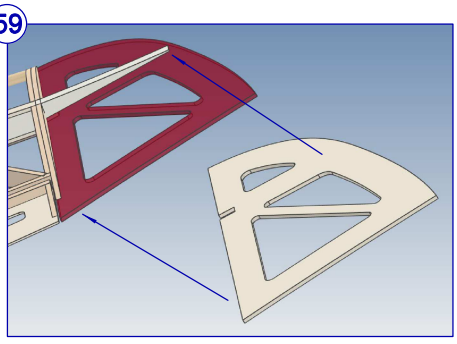

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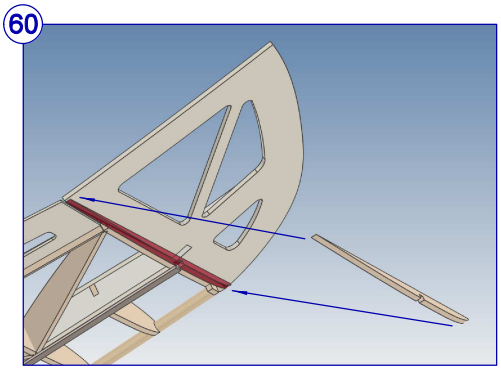

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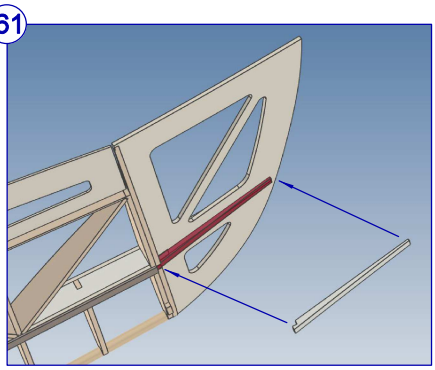

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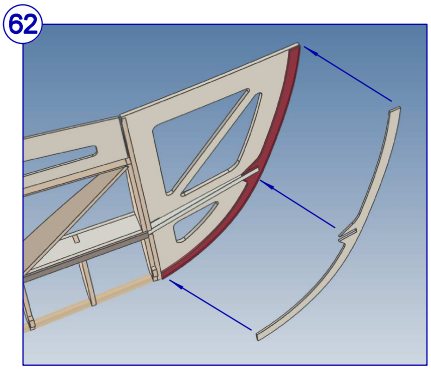

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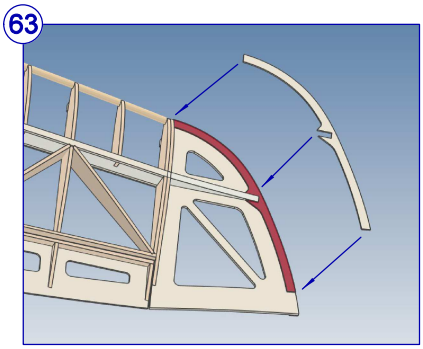
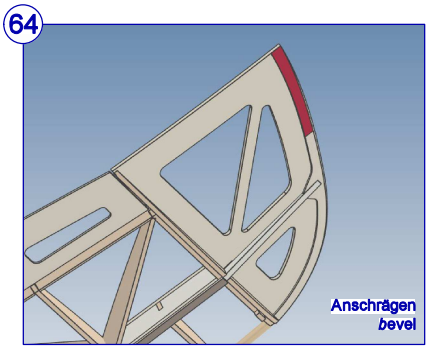
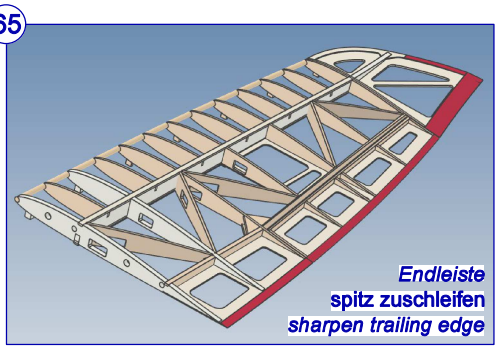


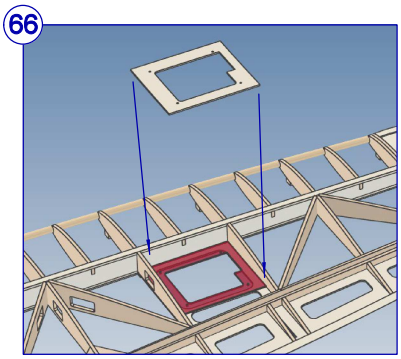
64



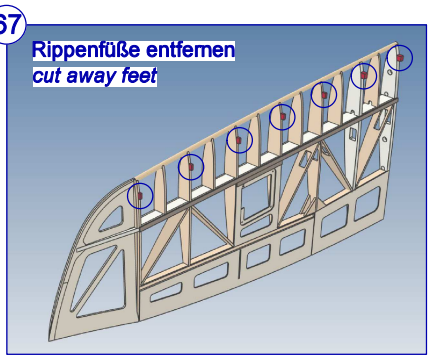
65



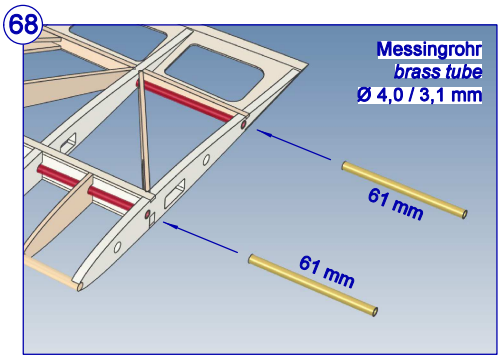
66



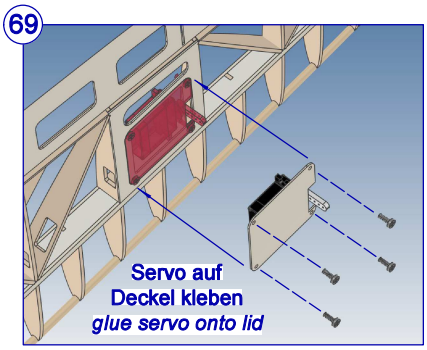
67



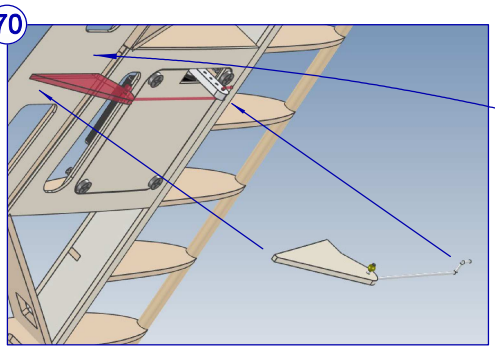
68



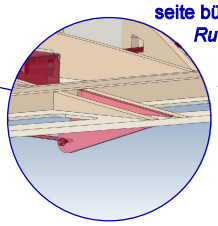
69



70

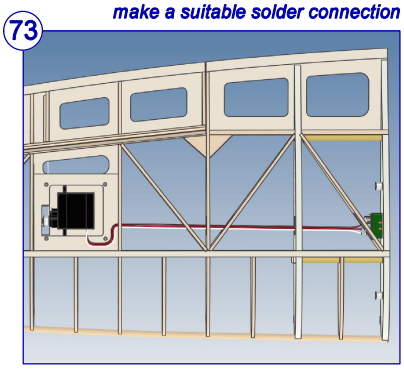


Ruderhorn an Oberseite bündig
Rudder horn flush on top

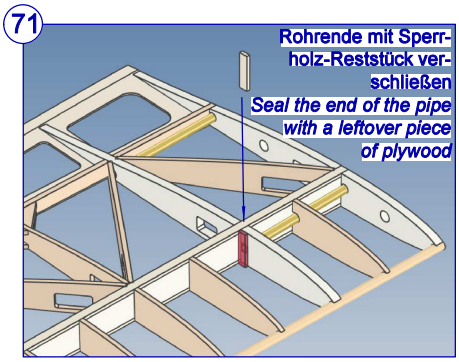


geeignete Lötverbindung erstellen
make a suitable solder connection

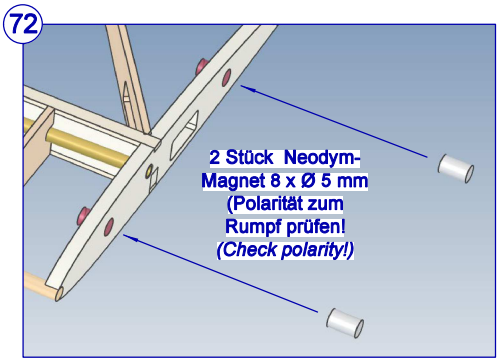
73



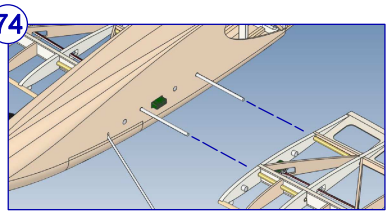
71



72

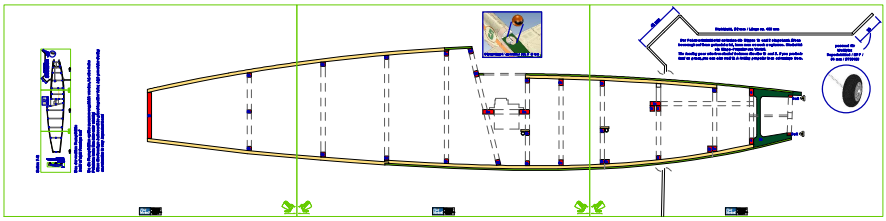


74



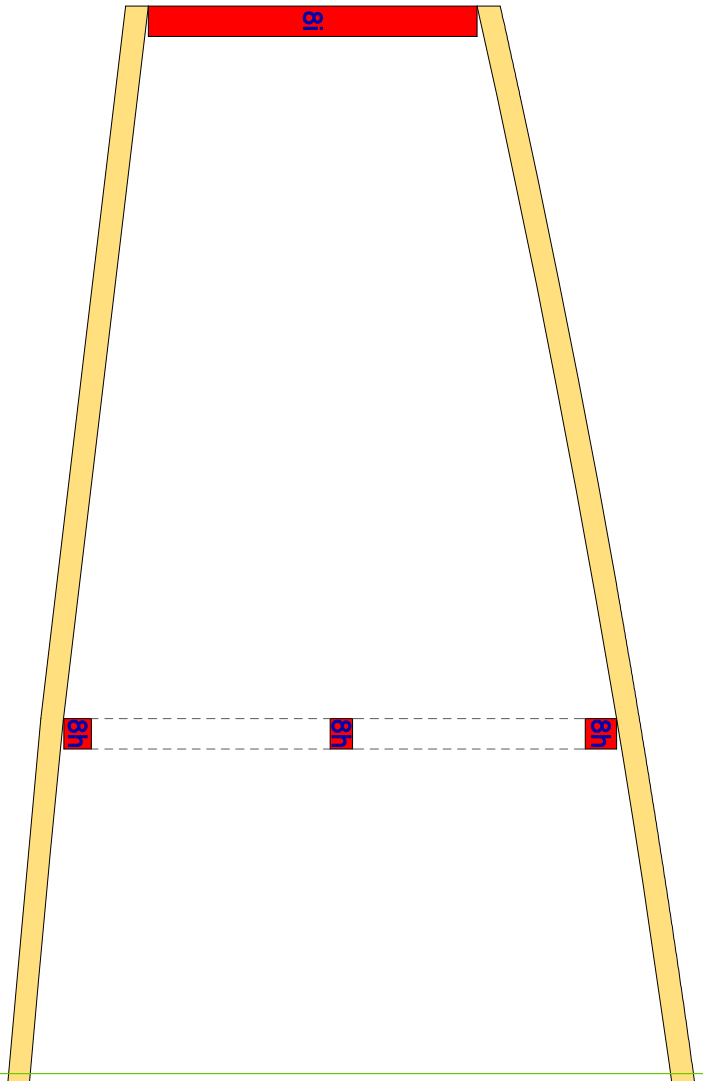
Flügelverbinder:
2x Stahldraht Ø 3 mm / L=174 mm
wing connection:
2x steel wire Ø 3 mm / L=174 mm

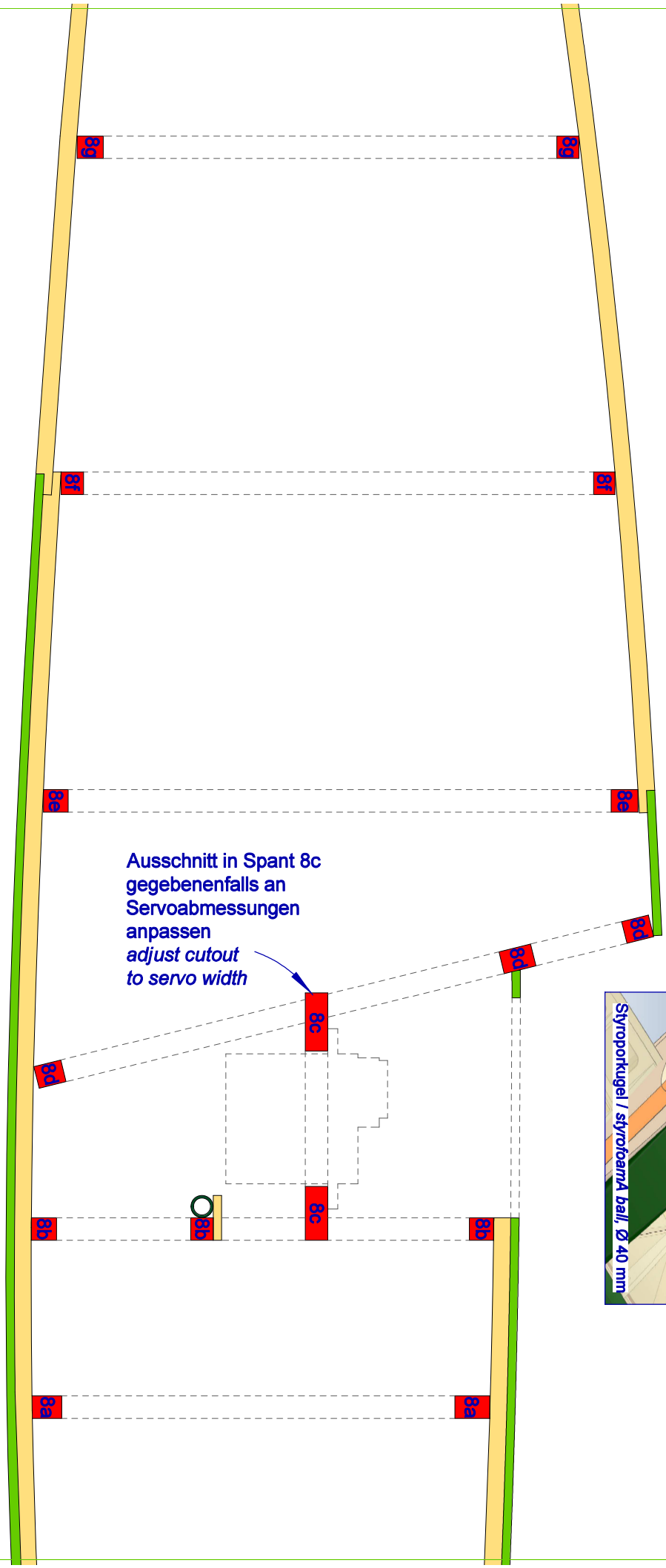
Seiten 7-9:



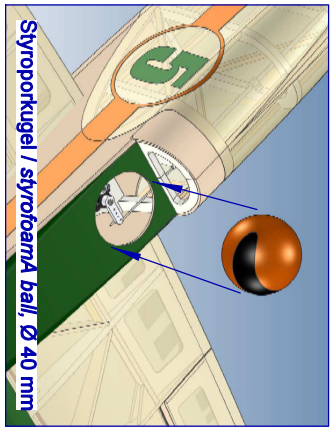
Bau der rechten Rumpfhälfte
build of right fuselage half

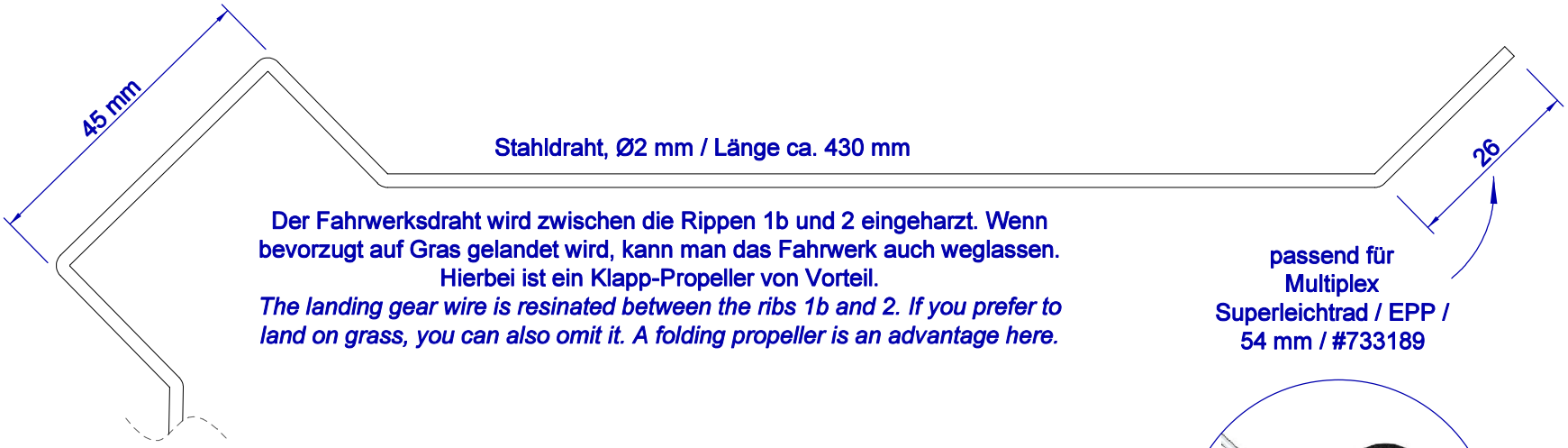
Da die Rumpfhälften später zusammengeklebt werden, ist eine hohe Präzision beim Bau hier sehr wichtig!
Since the fuselage halves will be glued together later, high precision during construction is very important here!





Ausschnitt in Spant 8c
gegebenenfalls an
Servoabmessungen
anpassen
adjust cutout
to servo width

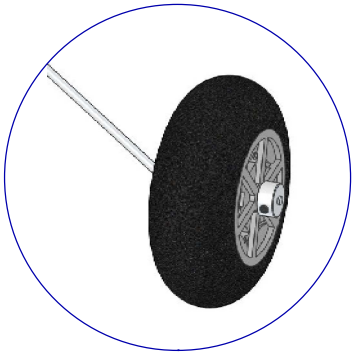


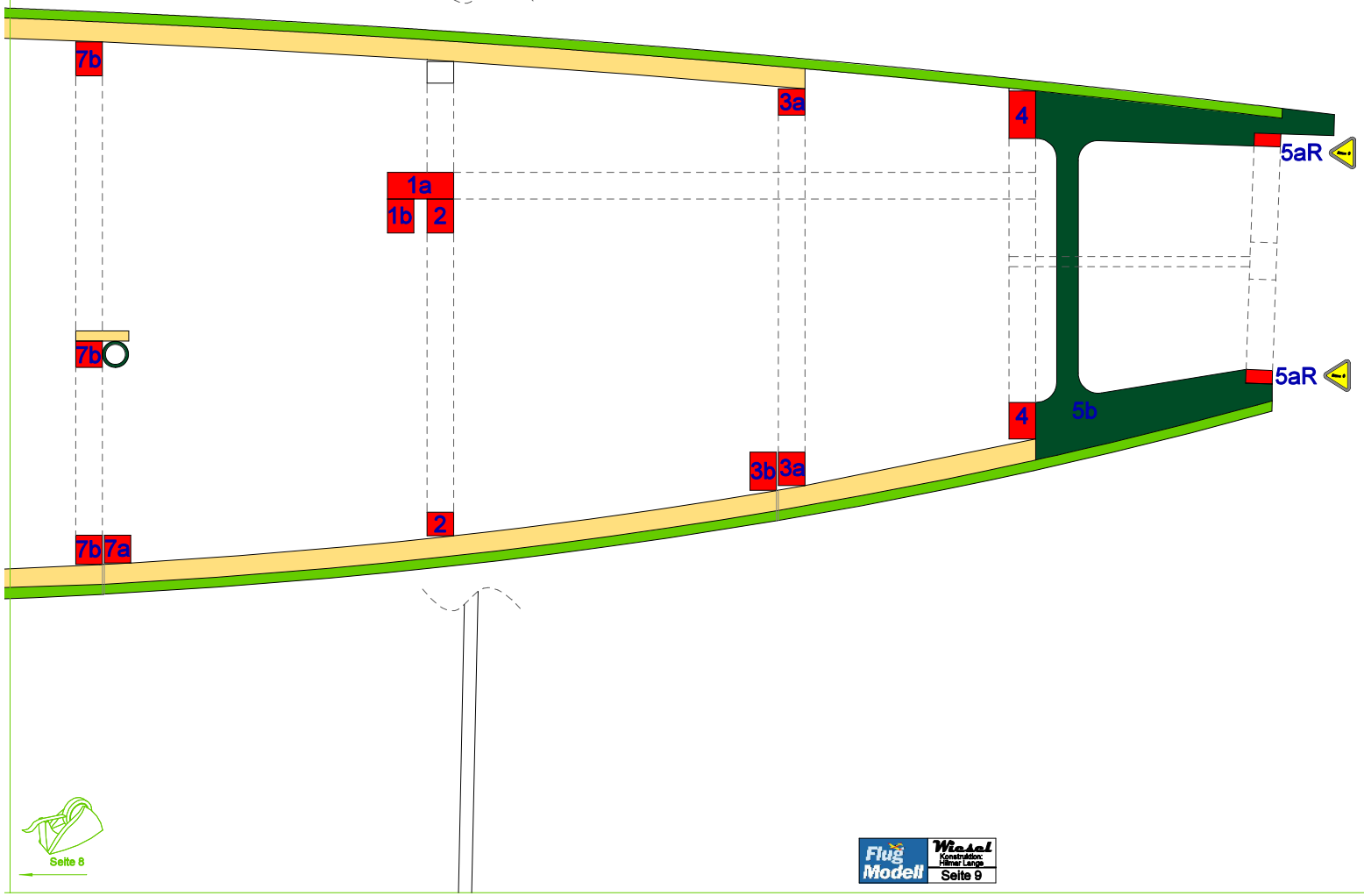


Der Fahrwerksdraht wird zwischen die Rippen 1b und 2 eingeharzt. Wenn bevorzugt auf Gras gelandet wird, kann man das Fahrwerk auch weglassen. Hierbei ist ein Klapp-Propeller von Vorteil.

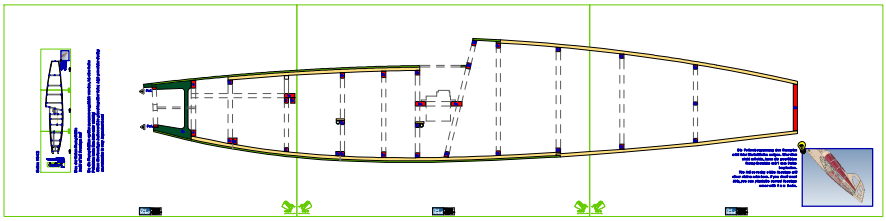
The landing gear wire is resinated between the ribs 1b and 2. If you prefer to land on grass, you can also omit it. A folding propeller is an advantage here.

passend für
Multiplex
Superleichtrad / EPP /
54 mm / #733189



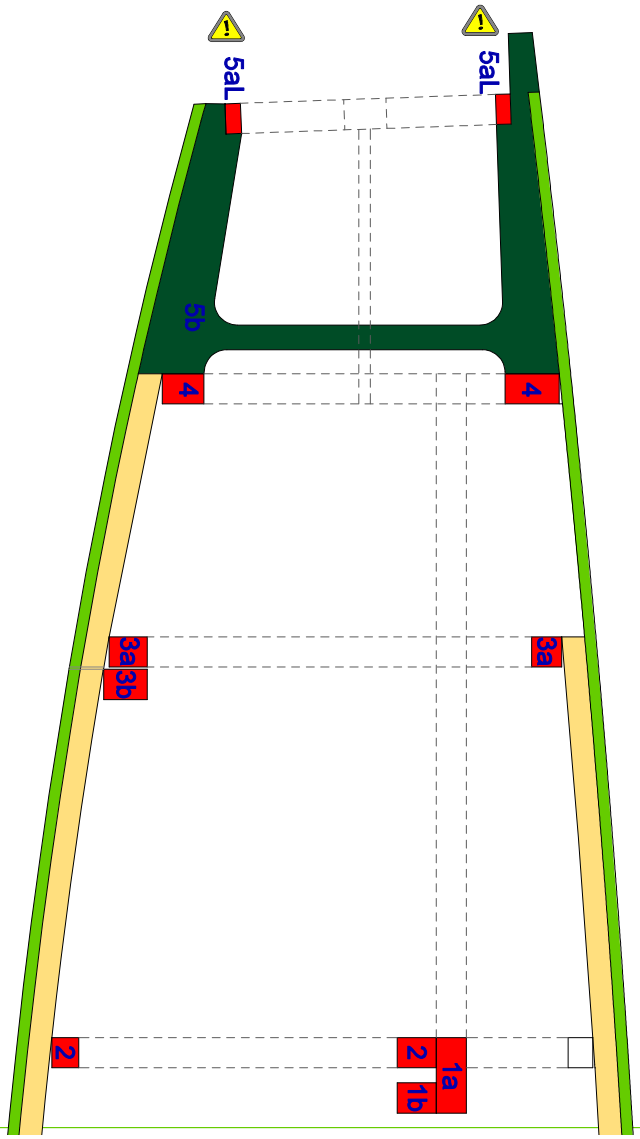


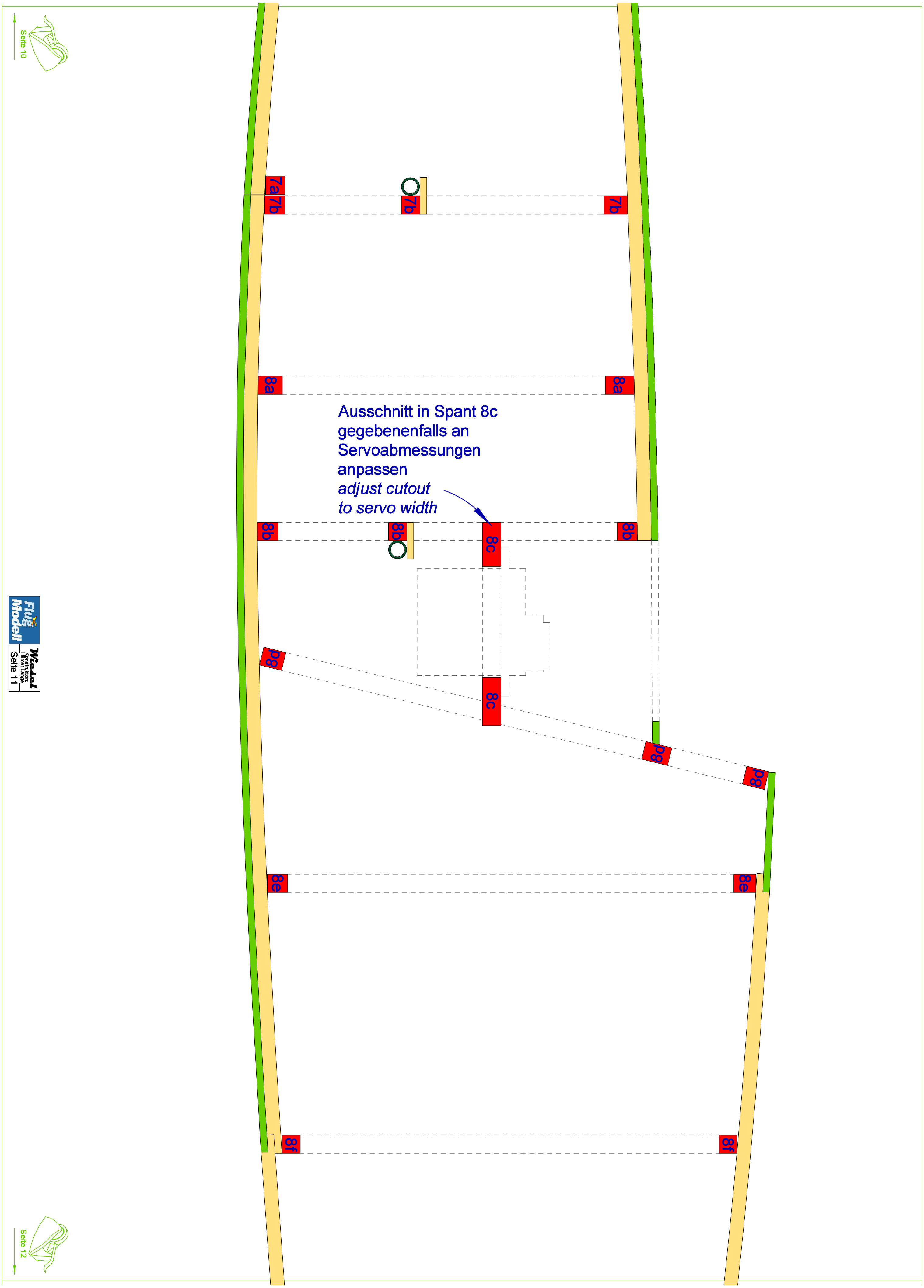
Seiten 10-12:

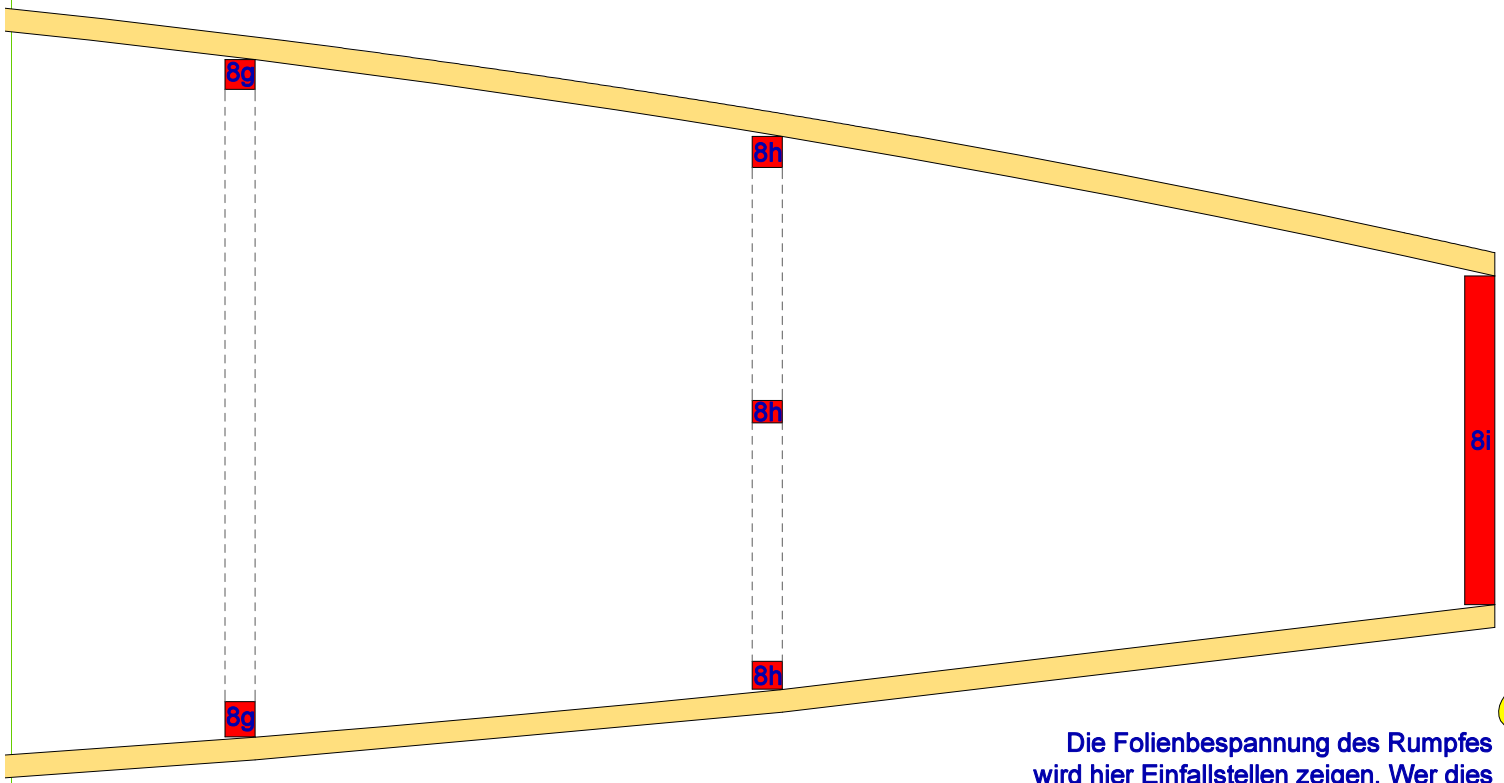


Bau der linken Rumpfhälfte
build of left fuselage half

Da die Rumpfhälften später zusammengeklebt werden, ist eine hohe Präzision beim Bau hier sehr wichtig!
Since the fuselage halves will be glued together later, high precision during construction is very important here!

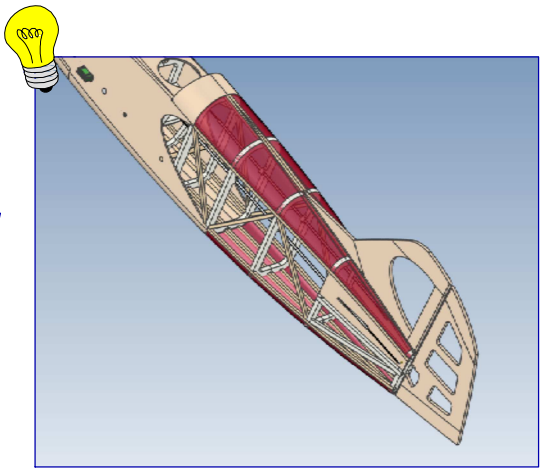



Seite 10
7a
7b
7b
7b
8a
8a
Ausschnitt in Spant 8c
gegebenenfalls an
Servoabmessungen
anpassen
adjust cutout
to servo width
8b
8b
8b
8c
8c
8d
8d
8d
8e
8e
8f
8f
Flug Modell
Wiesel
Seite 11
Seite 12

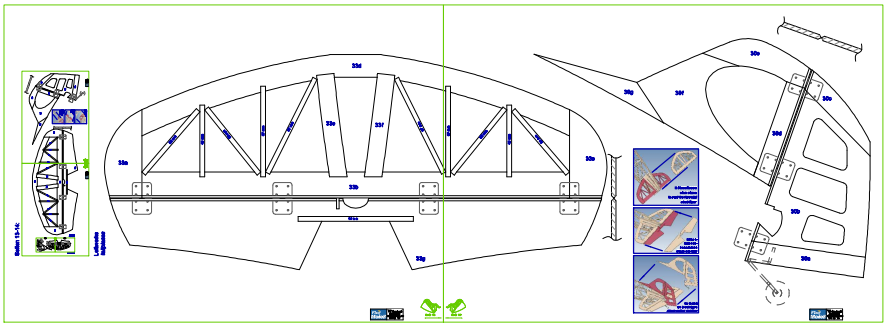


Die Folienbespannung des Rumpfes wird hier Einfallstellen zeigen. Wer dies nicht möchte, kann die gewölbten Rumpfbereiche mit 1 mm Balsa beplanken.

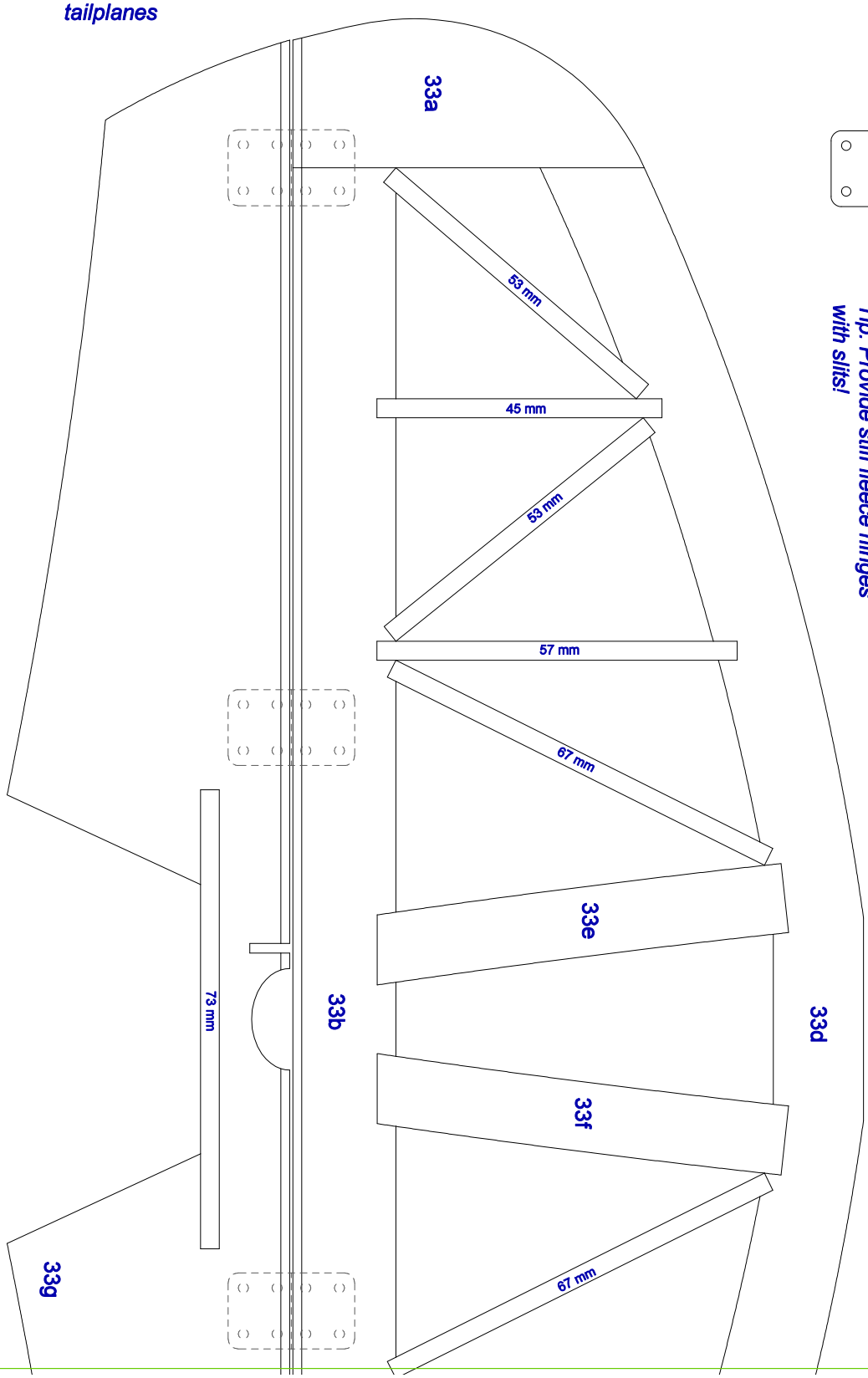
The foil covering of the fuselage will show sink marks here. If you don't want this, you can plank the curved fuselage areas with 1 mm balsa.

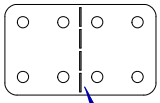


Seiten 13-14:

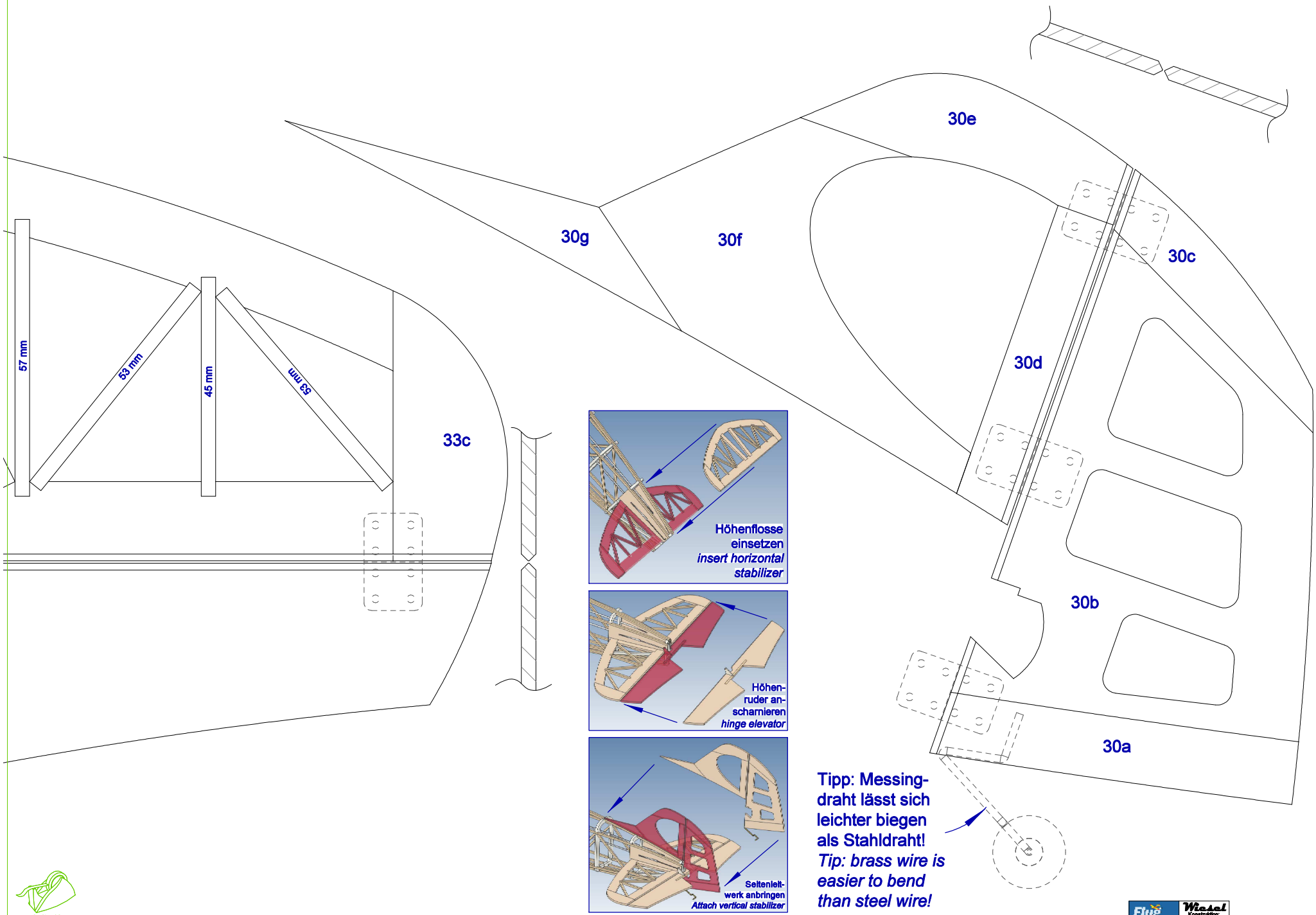


Leitwerke
tailplanes



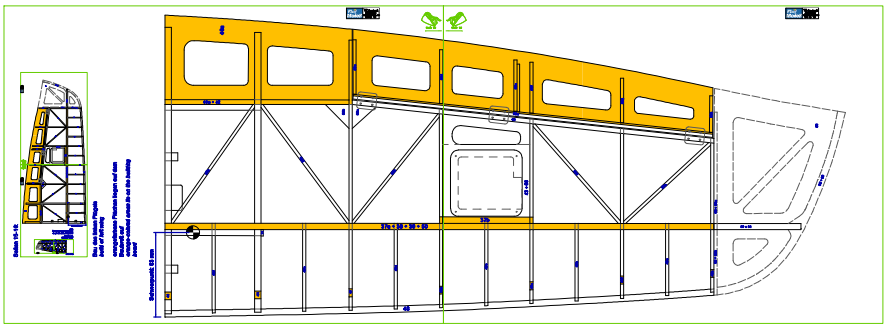


Tipp: Schwergängige Vlies-Scharniere mit Schlitzen versehen!
Tip: Provide stiff fleece hinges with slits!



Tipp: Messing-draht lässt sich leichter biegen als Stahldraht!
Tip: brass wire is easier to bend than steel wire!

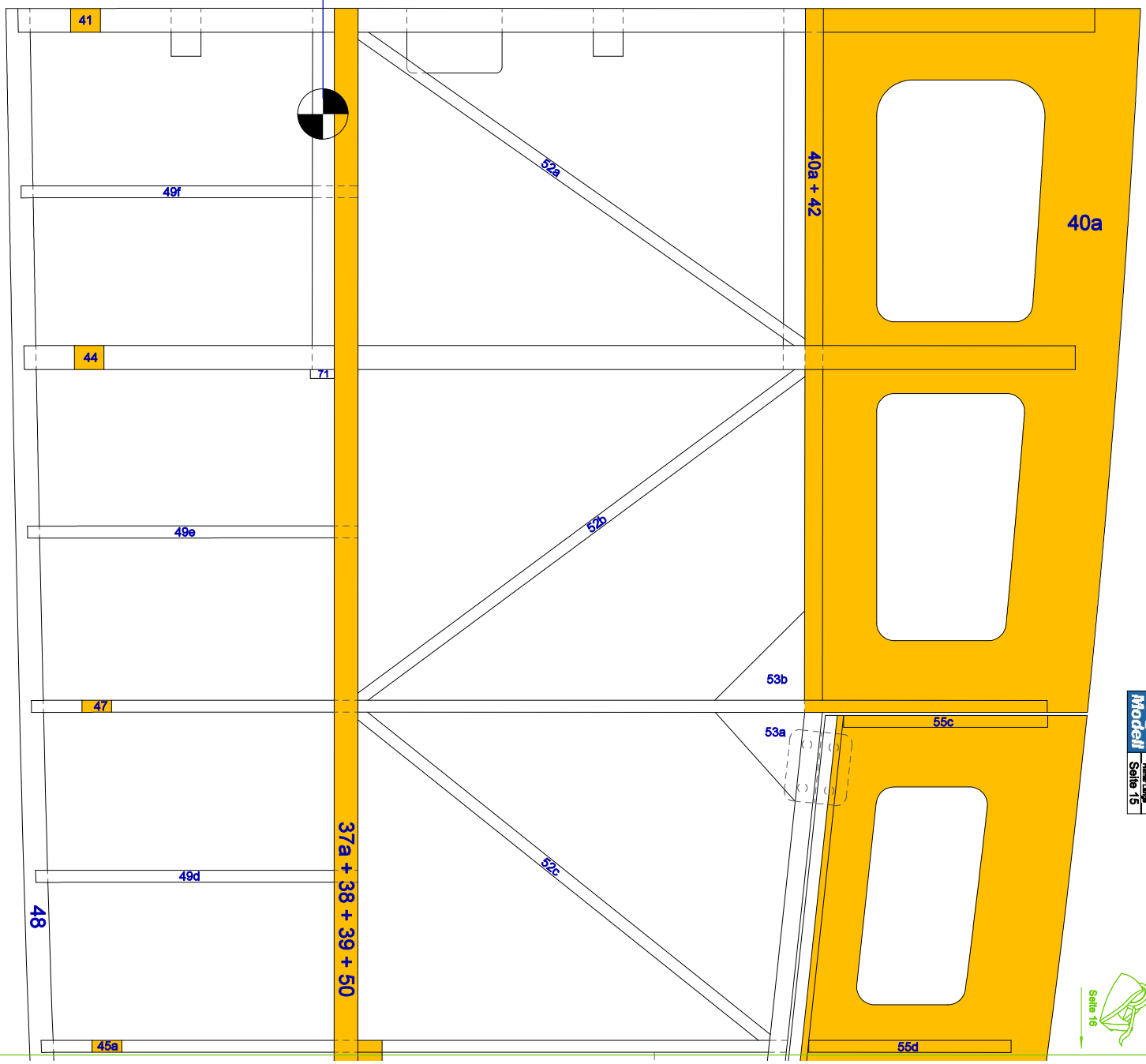
Seiten 15-16:

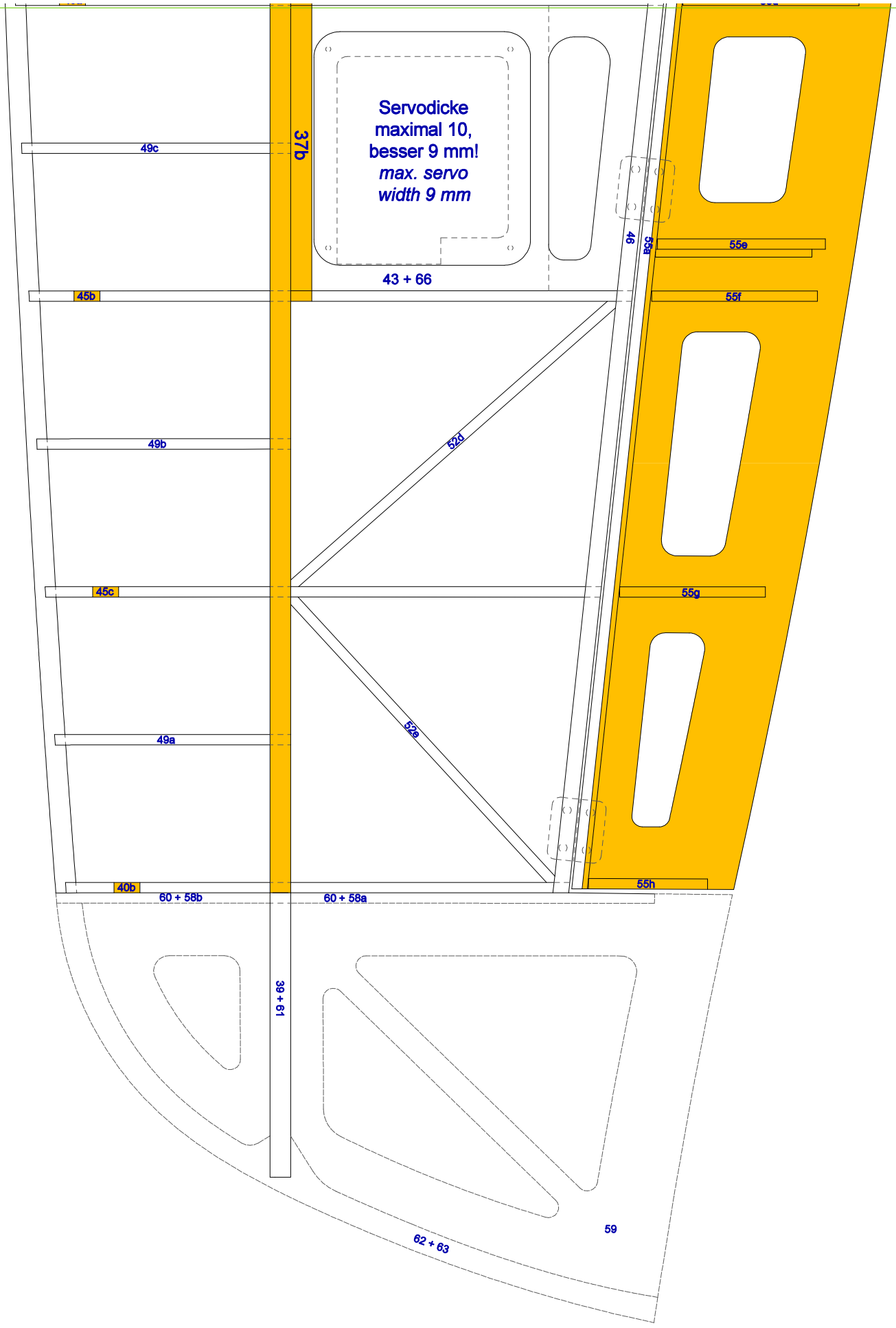


Bau des linken Flügels
build of left wing

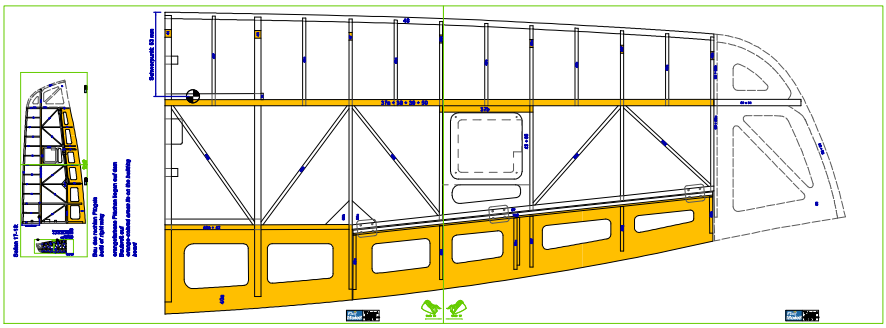
orangefarbene Flächen liegen auf dem Baubrett auf
orange-colored areas lie on the building board

Schwerpunkt: 53 mm



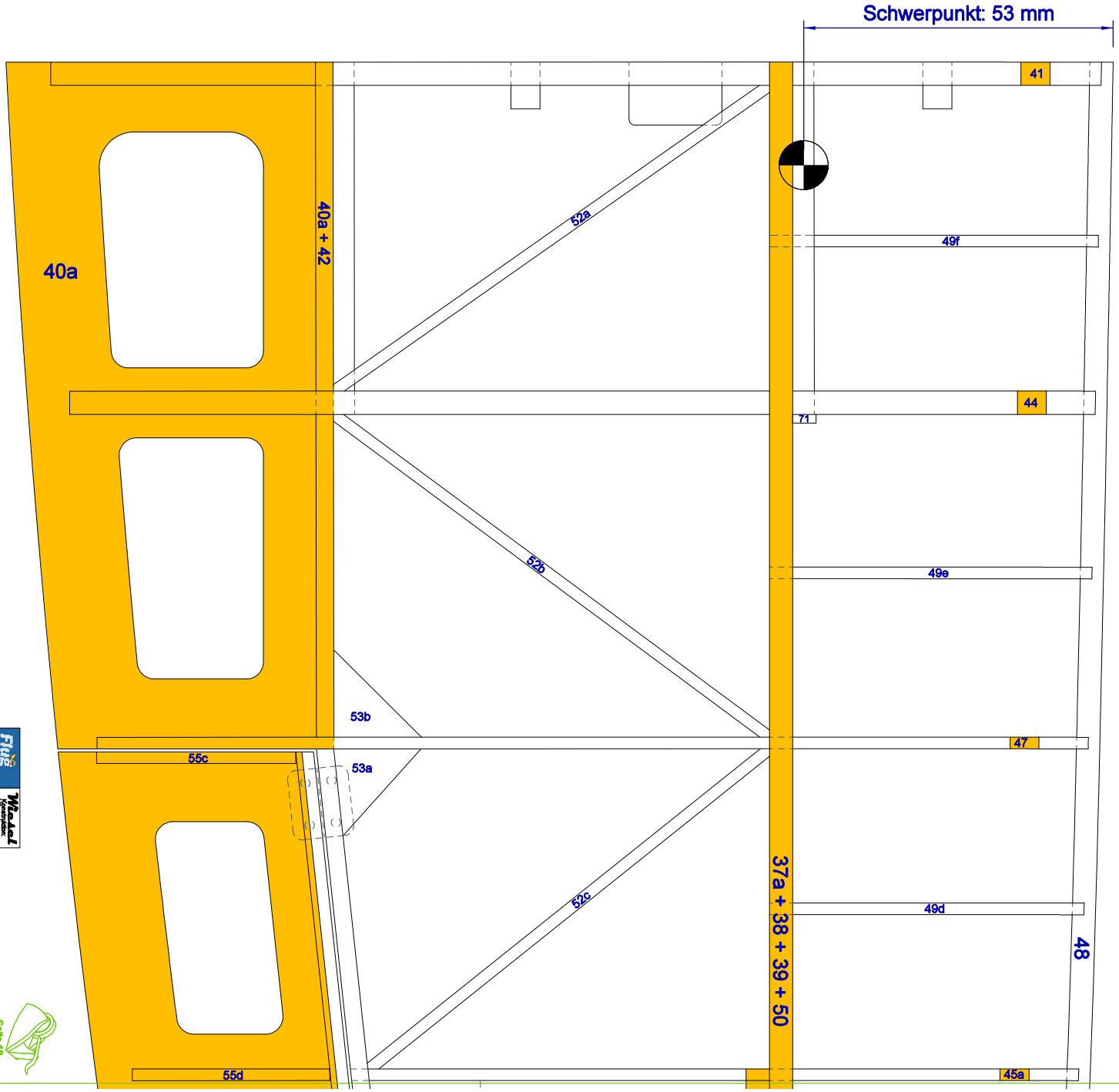

Servodicke
maximal 10,
besser 9 mm!
max. servo
width 9 mm
37b
49c
45b
49b
45c
49a
40b
60 + 58b
60 + 58a
43 + 66
46
BC3
55e
55f
55g
55h
52d
52e
39 + 61
59
62 + 63

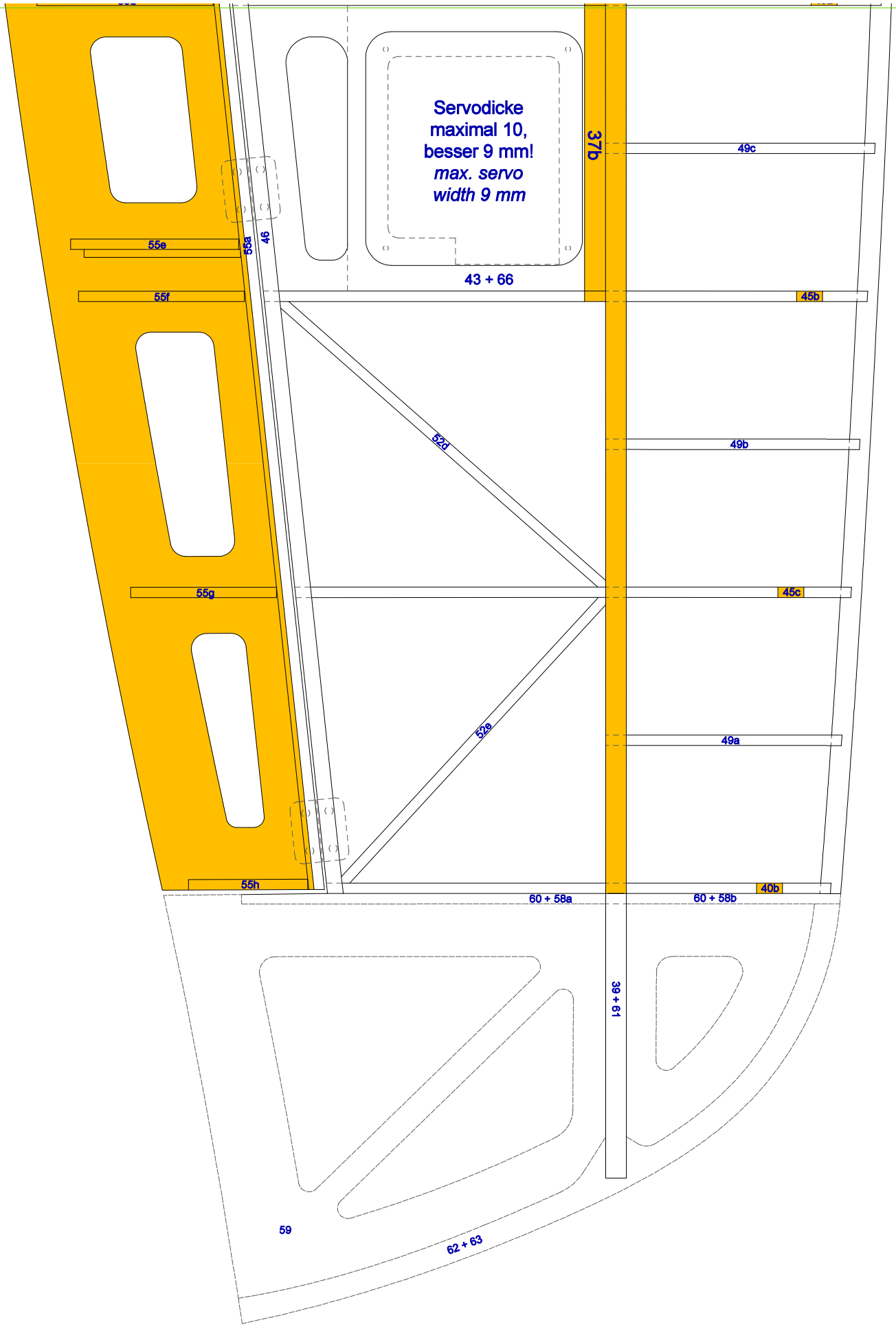
Seiten 17-18:



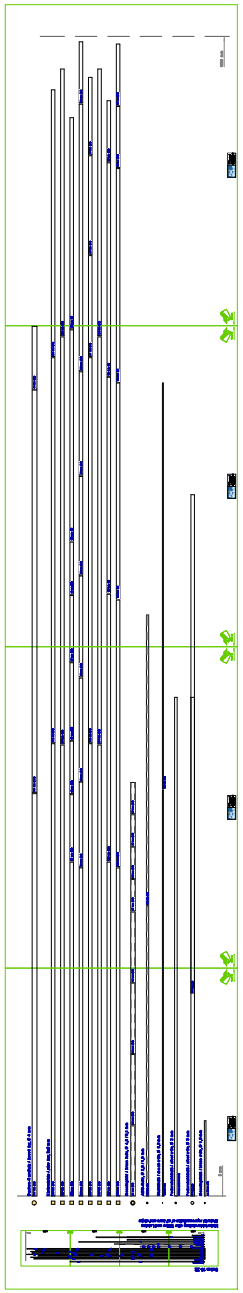
Bau des rechten Flügels
build of right wing

orangefarbene Flächen liegen auf dem Baubrett auf
orange-colored areas lie on the building board




Servodicke
maximal 10,
besser 9 mm!
max. servo
width 9 mm
37b
49c
55e
55a
46
43 + 66
55f
45b
52d
49b
55g
45c
52a
49a
55h
40b
60 + 58a
60 + 58b
39 + 61
59
62 + 63

Seiten 19-22:



Materialdarstellung aller Stäbe und Leisten
Material representation of all bars and strips

Buchen-Rundholz / *beech log*, Ø 4 mm

347 mm (48)

Kiefernleiste / *pine bar*, 3x3 mm

390 mm (11)

389 mm (10)

288 mm (12)

283 mm (12)

390 mm (11)

389 mm (10)

288 mm (12)

283 mm (12)

Messingrohr / *brass tube*, Ø 4,0 / 3,1 mm

61 mm (68) | 61 mm (68) | 61 mm (68) | 61 mm (68)

ABS-Rohr, Ø 2,0 / 1,0 mm

250 mm (23)

Stahldraht / *music wire*, Ø 0,8 mm

350 mm (23)

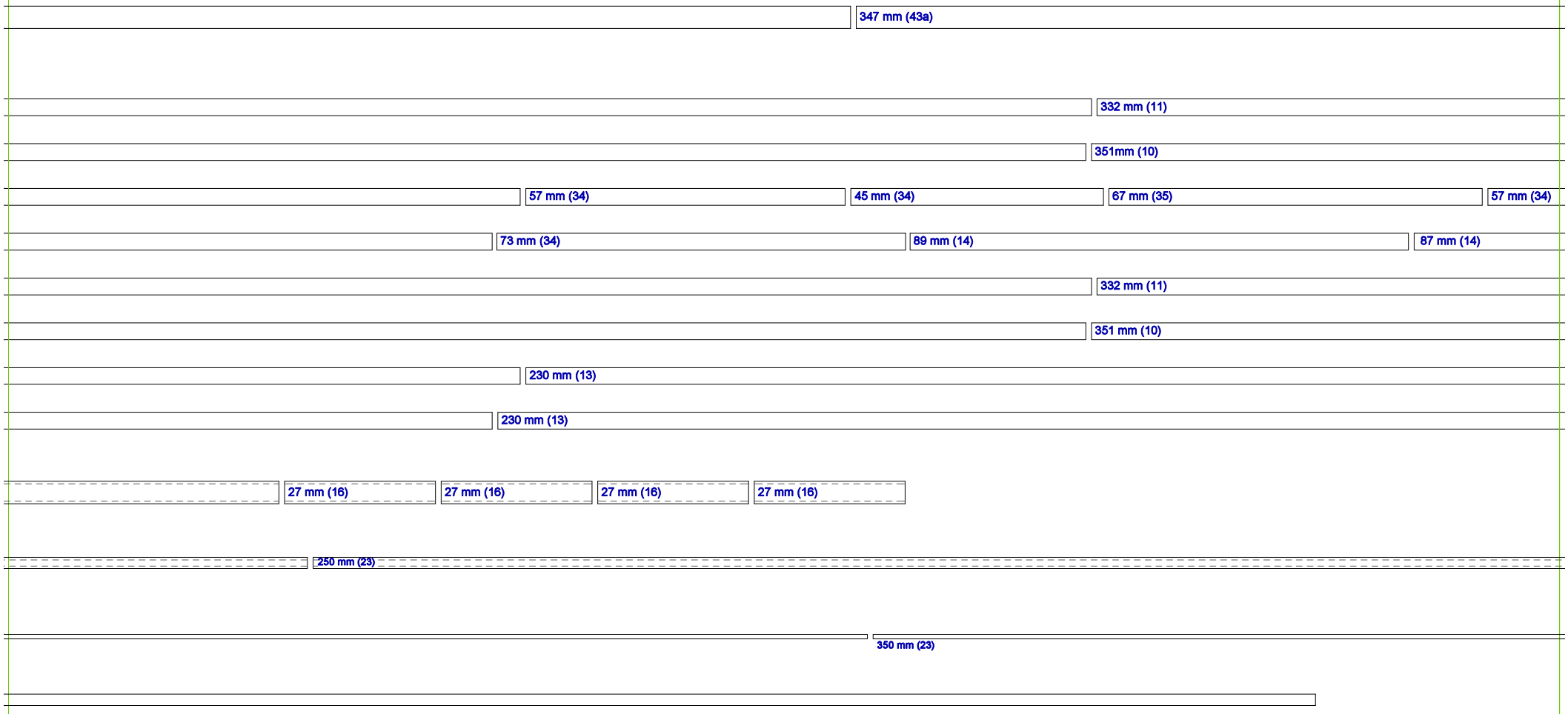
Federstahldraht / *steel wire*, Ø 2 mm

430 mm (siehe Seite 9)

Messingdraht / brass *wire*, Ø 1,5 mm

ca. 65 mm (32)

0 mm


347 mm (43a)
332 mm (11)
351mm (10)
57 mm (34)
45 mm (34)
67 mm (35)
57 mm (34)
73 mm (34)
89 mm (14)
87 mm (14)
332 mm (11)
351 mm (10)
230 mm (13)
230 mm (13)
27 mm (16)
27 mm (16)
27 mm (16)
27 mm (16)
250 mm (23)
350 mm (23)

54 mm (28)

230 mm (13)

230 mm (

45 mm (34)

182 mm (9)

182

85 mm (14)

89 mm (14)

230 mm (13)

87 mm (14)

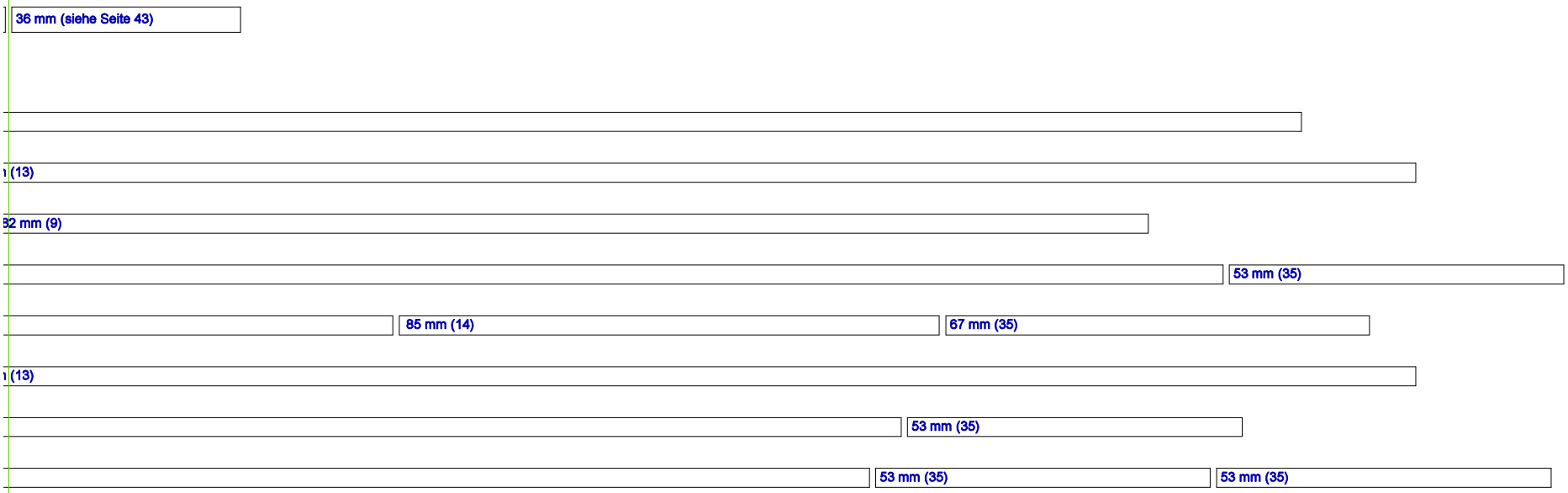
230 mm (

186 mm (9)

184 mm (9)

186 mm (9)

184 mm (9)

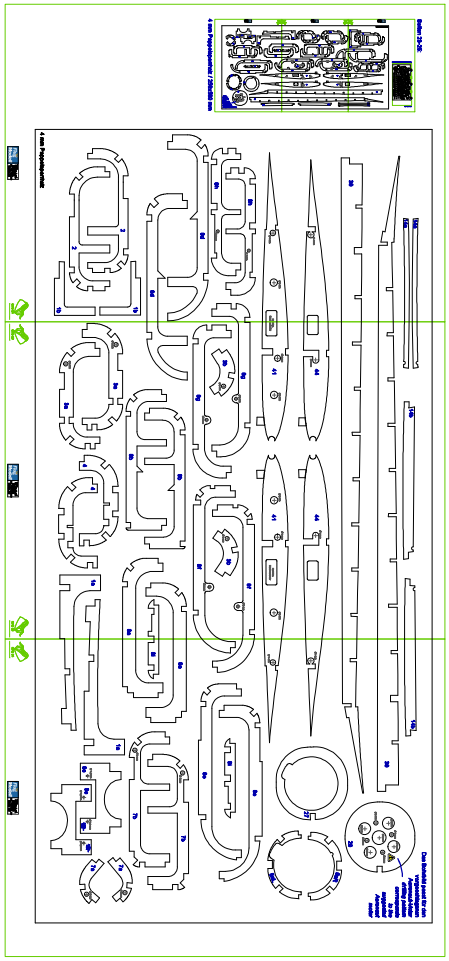


Eine Anordnung der Vierkantstäbe für 500 mm langes Ausgangsmaterial findet sich im Anhang auf den Seiten 44/45!

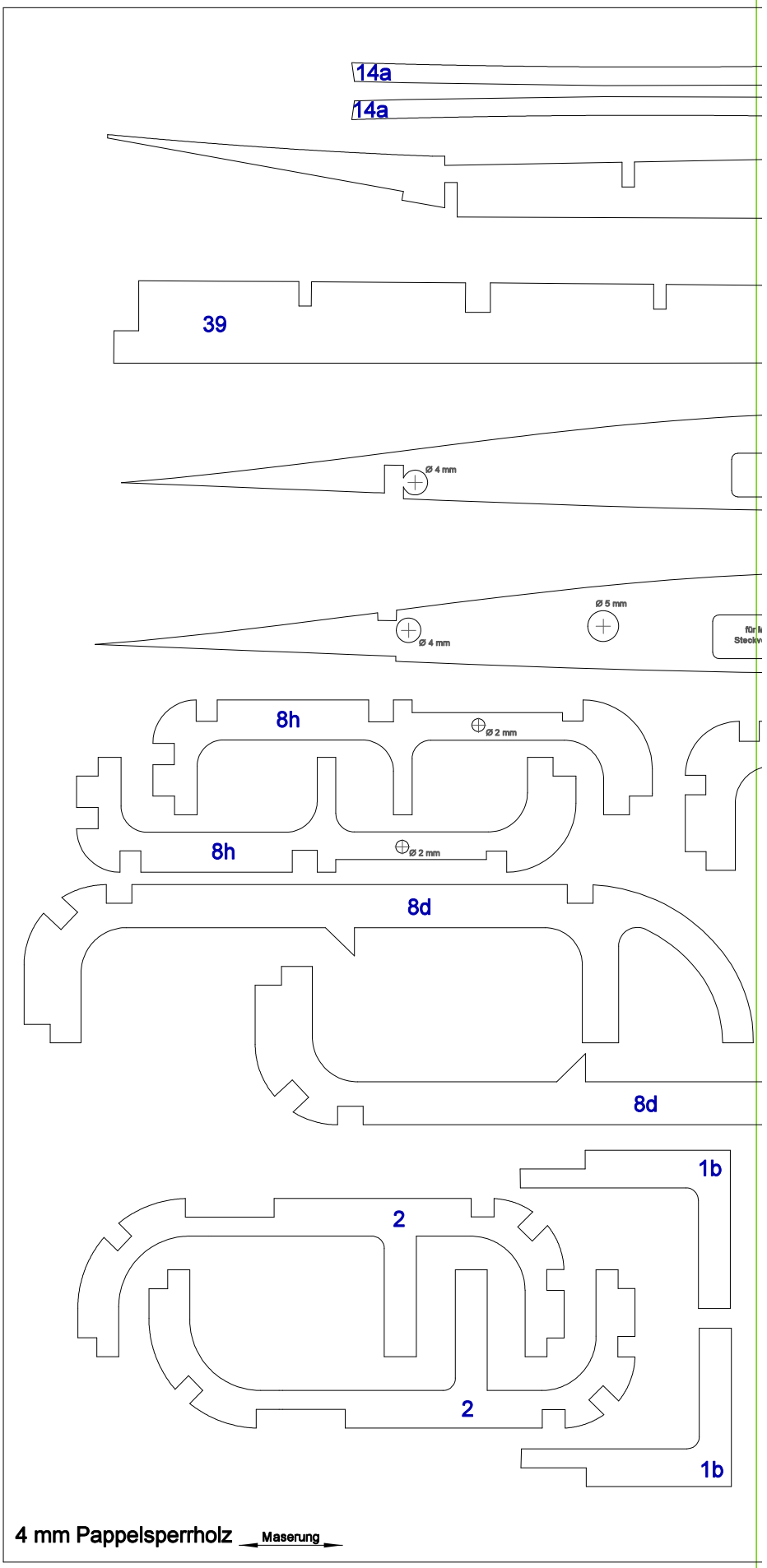
An arrangement of the square bars for 500 mm long starting material can be found in the appendix on pages 44/45!

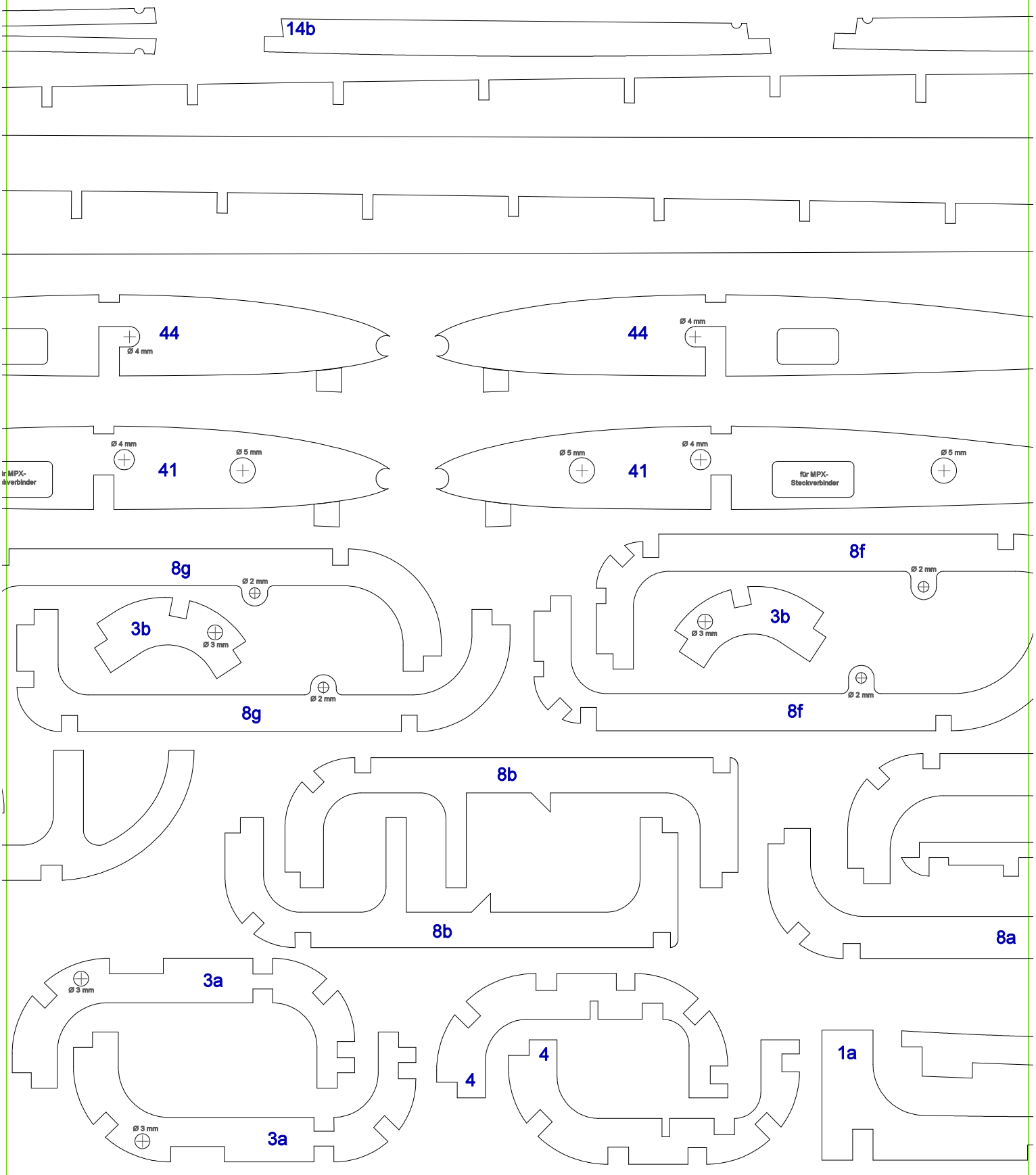
1000 mm

Seiten 23-25:



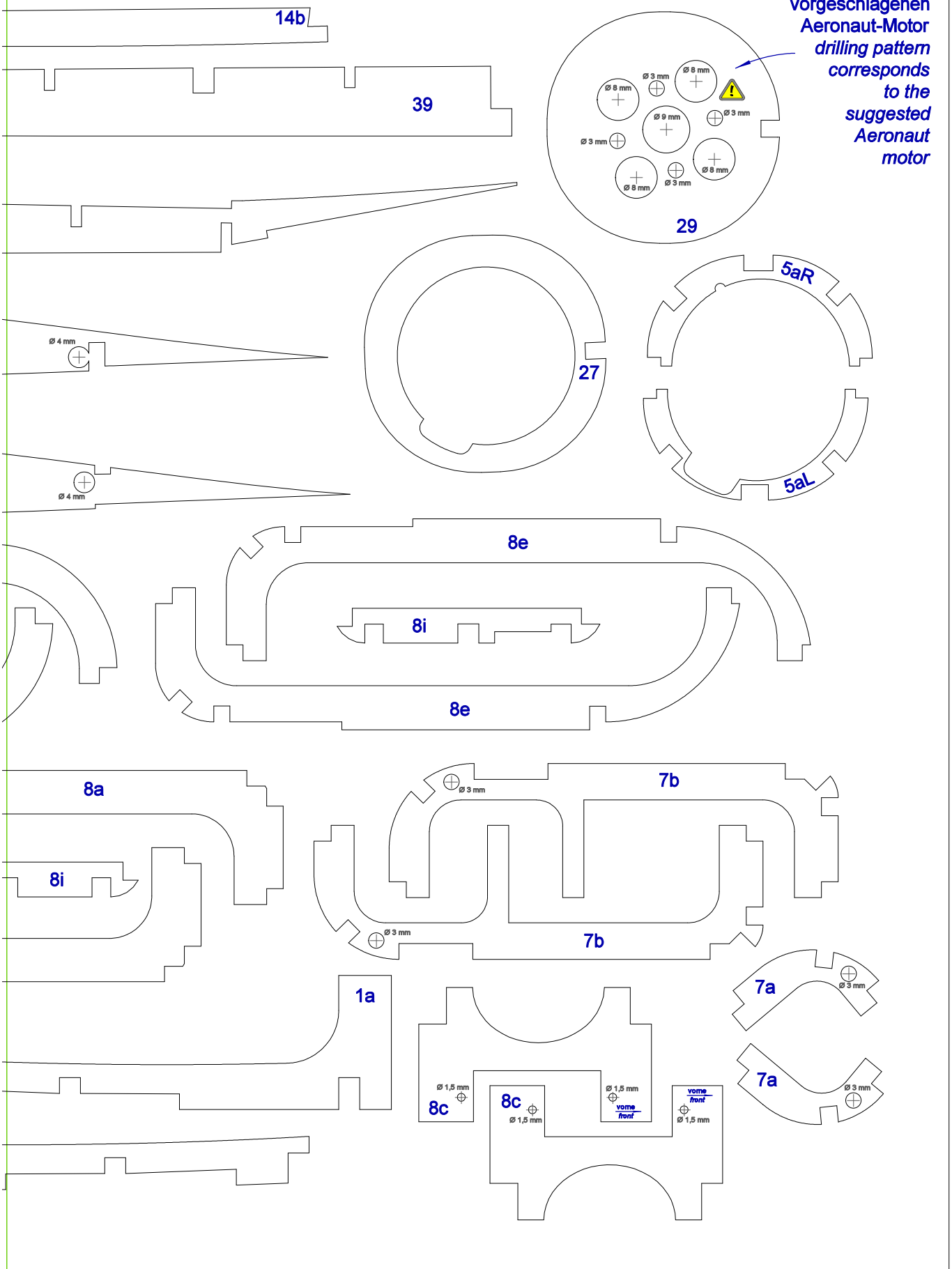
4 mm Pappelsperrholz / 250x500 mm



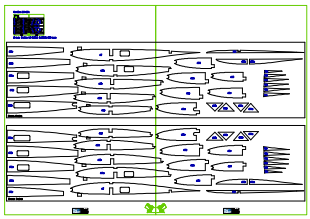

14b
44
Ø 4 mm
44
Ø 4 mm
41
Ø 4 mm
Ø 5 mm
41
Ø 5 mm
Ø 4 mm
für MPX-
Steckverbinder
Ø 5 mm
8g
Ø 2 mm
3b
Ø 3 mm
Ø 2 mm
8g
8f
Ø 2 mm
3b
Ø 3 mm
Ø 2 mm
8f
8b
8b
8a
3a
Ø 3 mm
Ø 3 mm
3a
4
4
1a

Das Bohrbild passt für den vorgeschlagenen Aeronaut-Motor

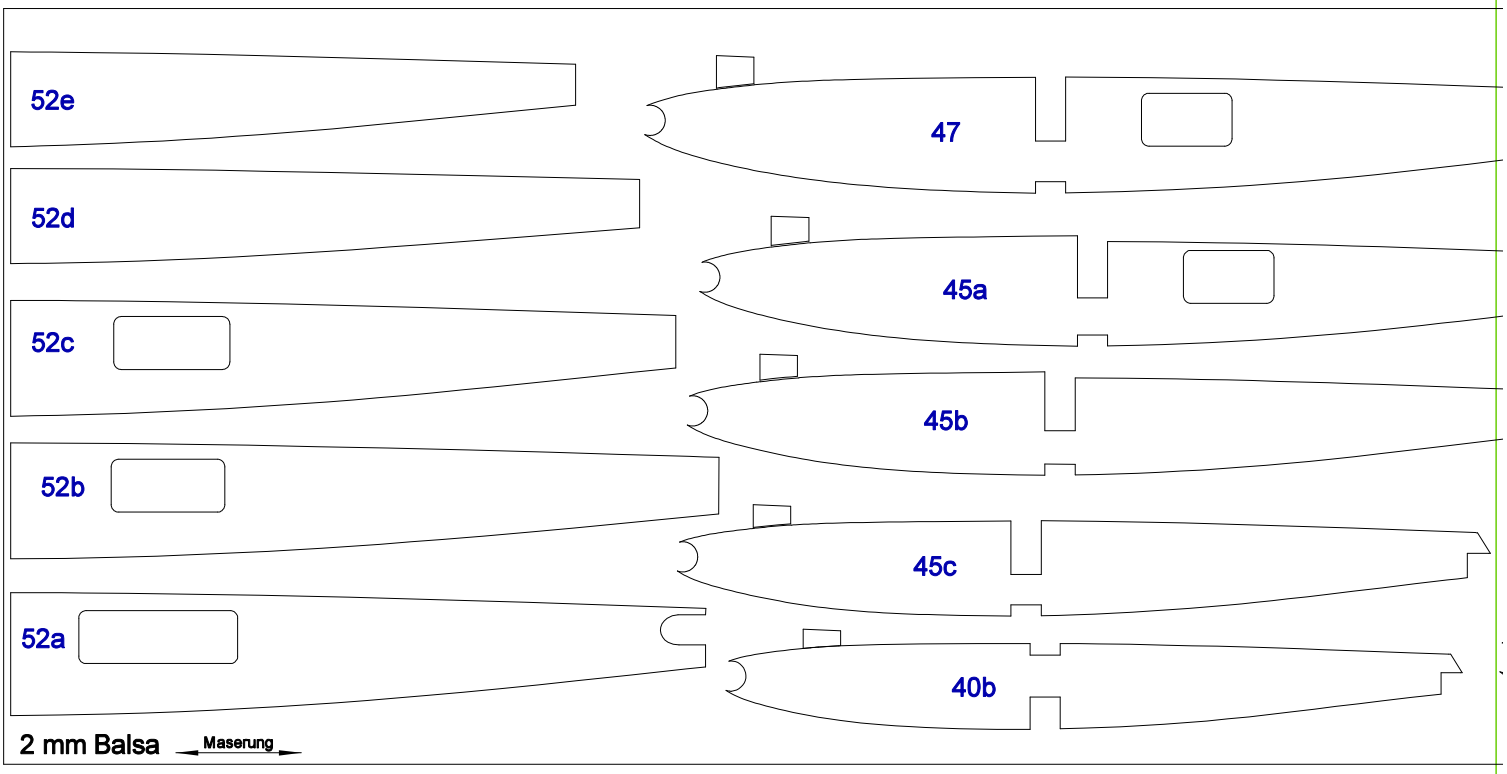
drilling pattern corresponds to the suggested Aeronaut motor

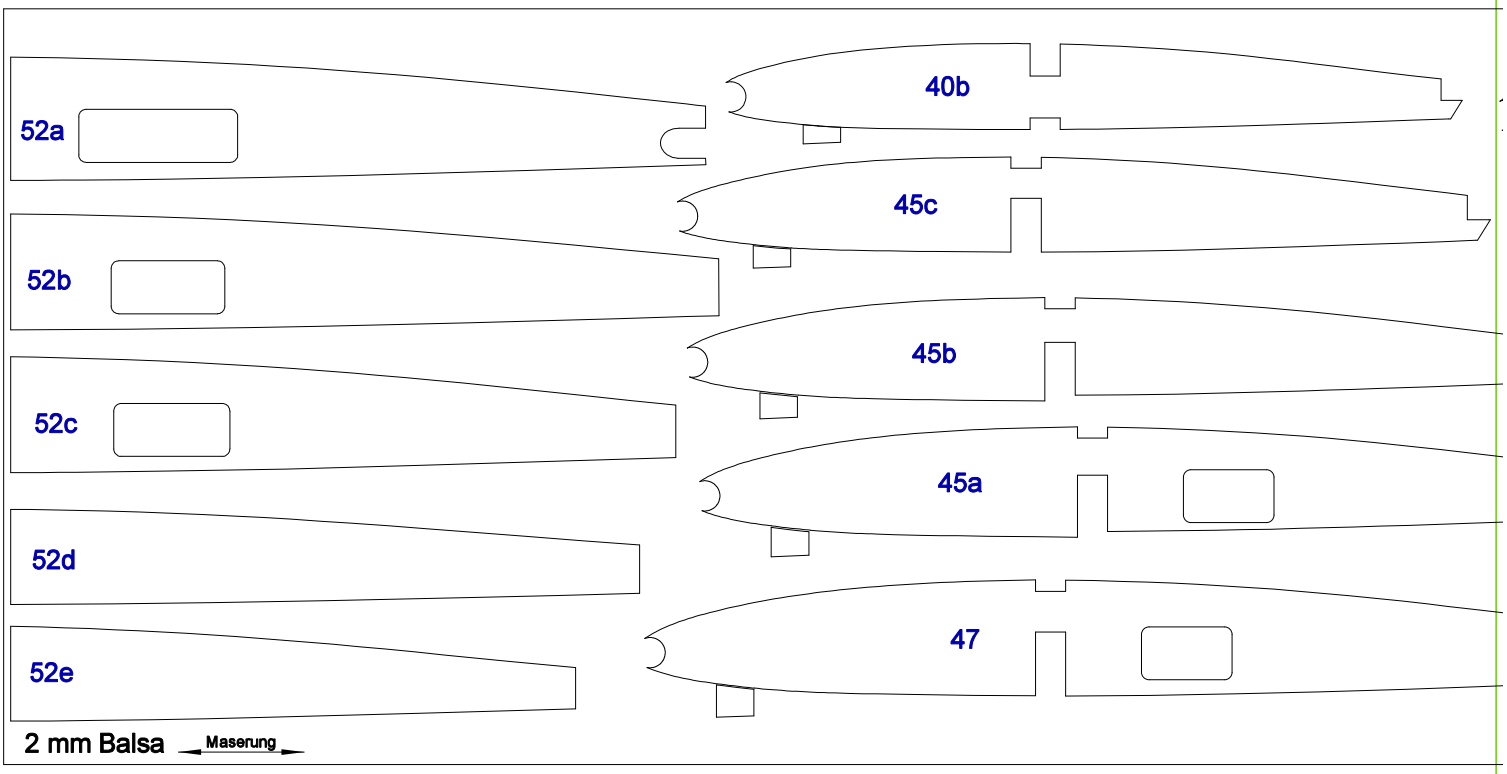


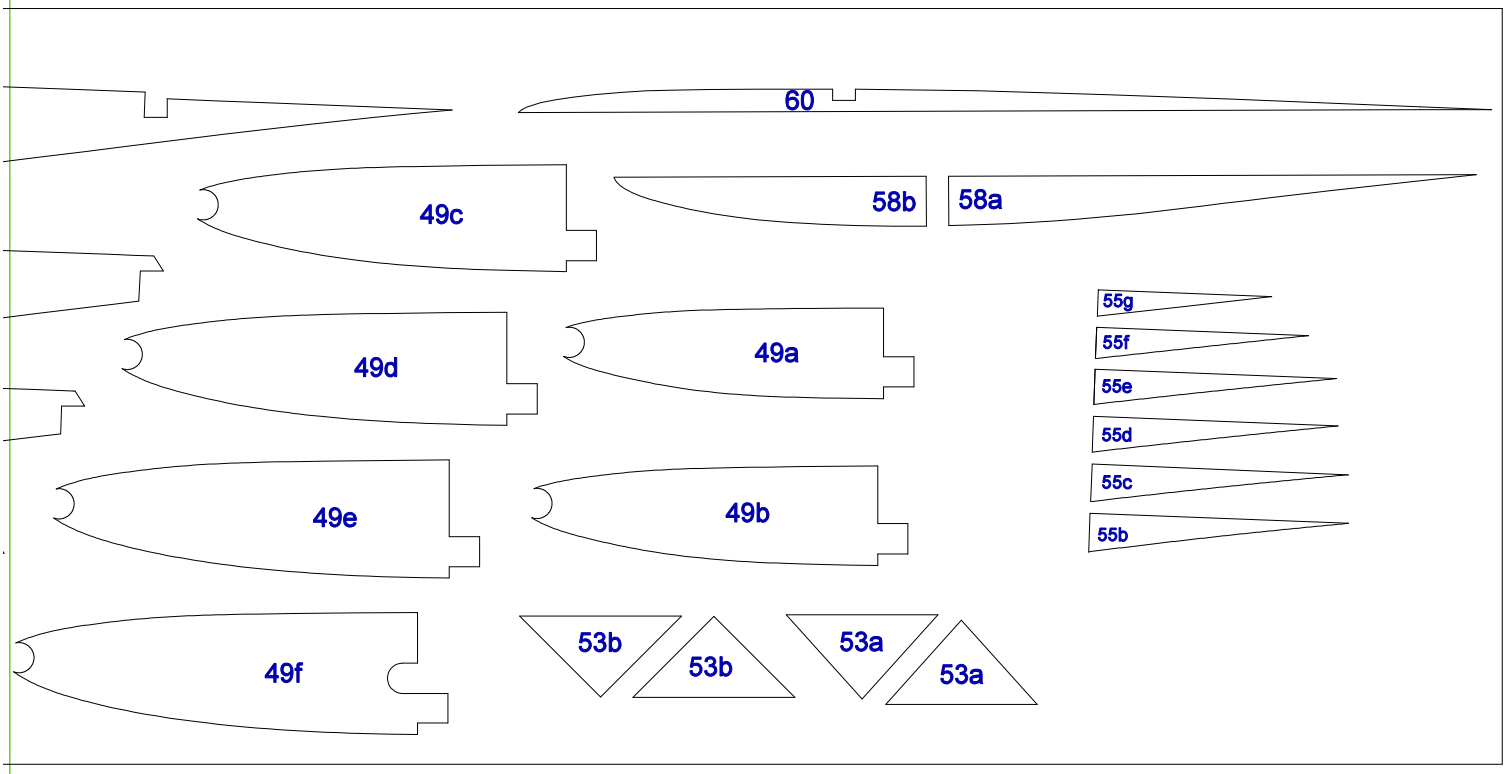
Seiten 26-27:

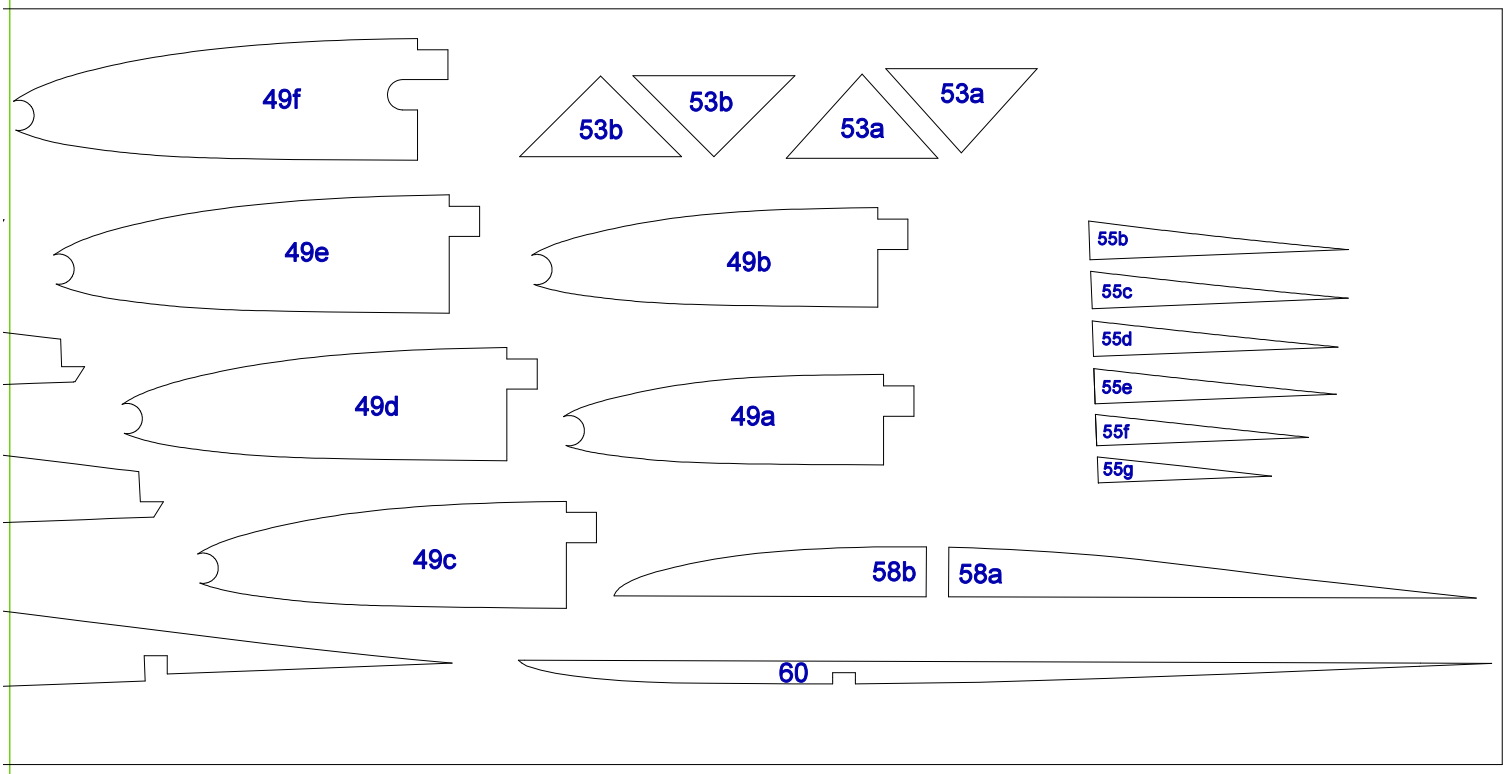


2 mm Balsa / 2 Stück à 395x100 mm

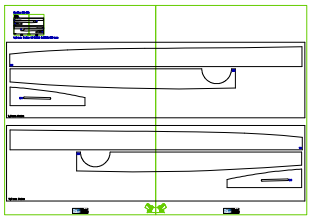




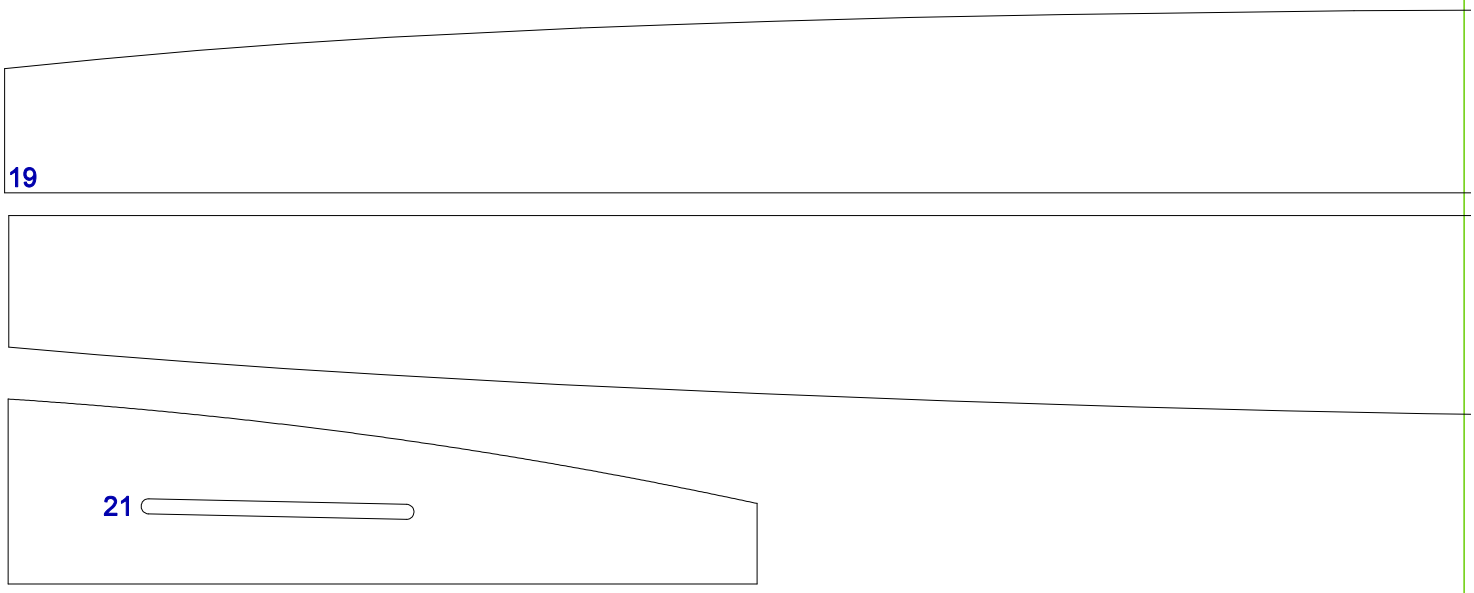

60
49c
58b
58a
49d
49a
55g
55f
55e
55d
55c
55b
49e
49b
49f
53b
53b
53a
53a


49f
53b
53b
53a
53a
49e
49b
55b
55c
55d
55e
55f
55g
49d
49a
49c
58b
58a
60

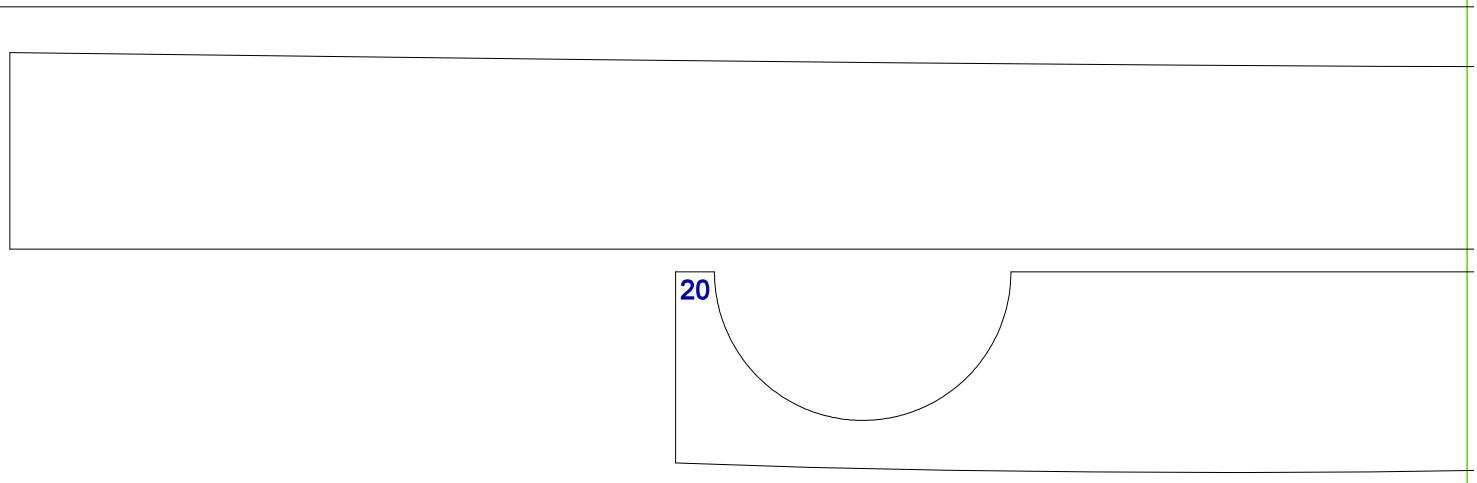
Seiten 28-29:



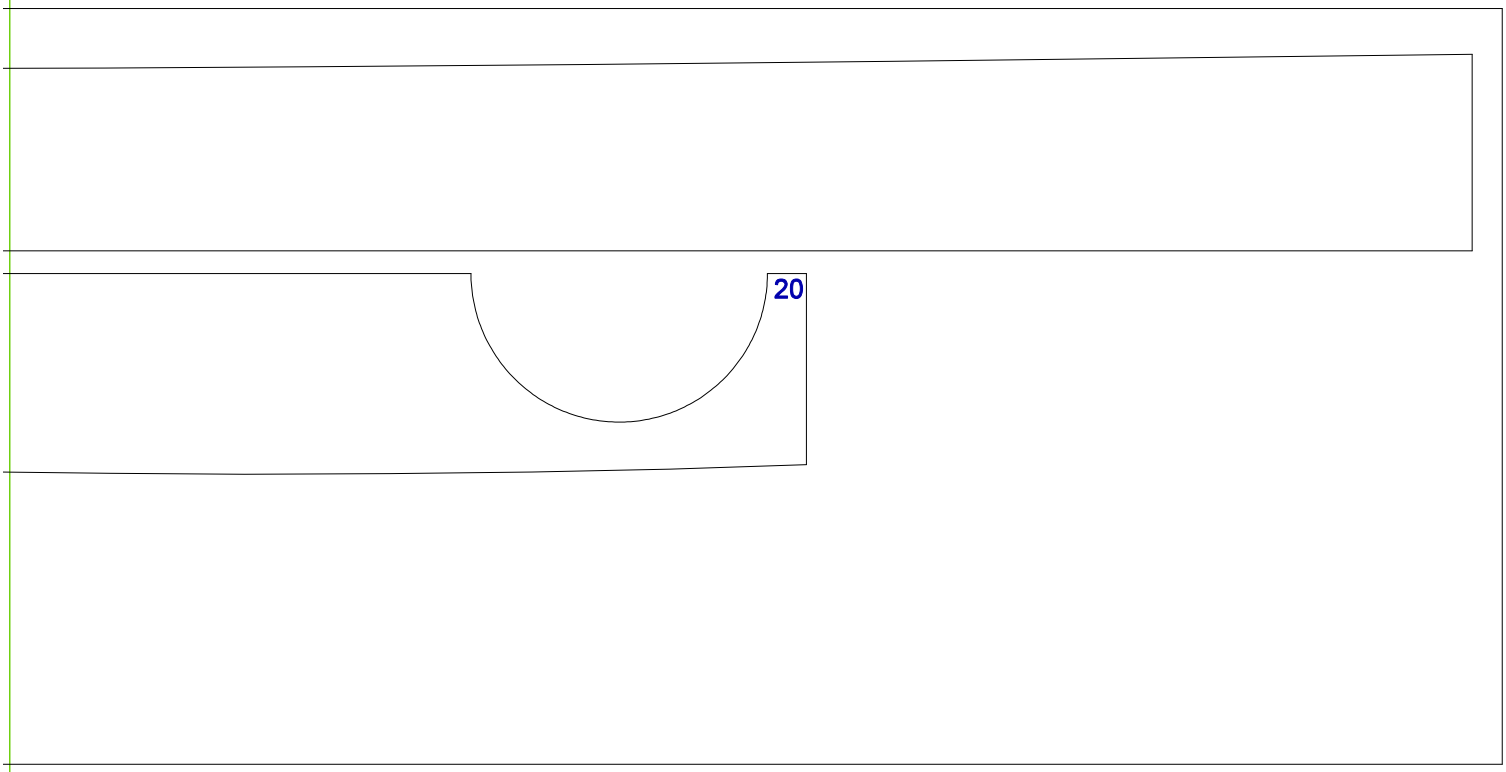
1,5 mm Balsa / 2 Stück à 395x100 mm



1,5 mm Balsa ◄ Maserung ►



1,5 mm Balsa ◄ Maserung ►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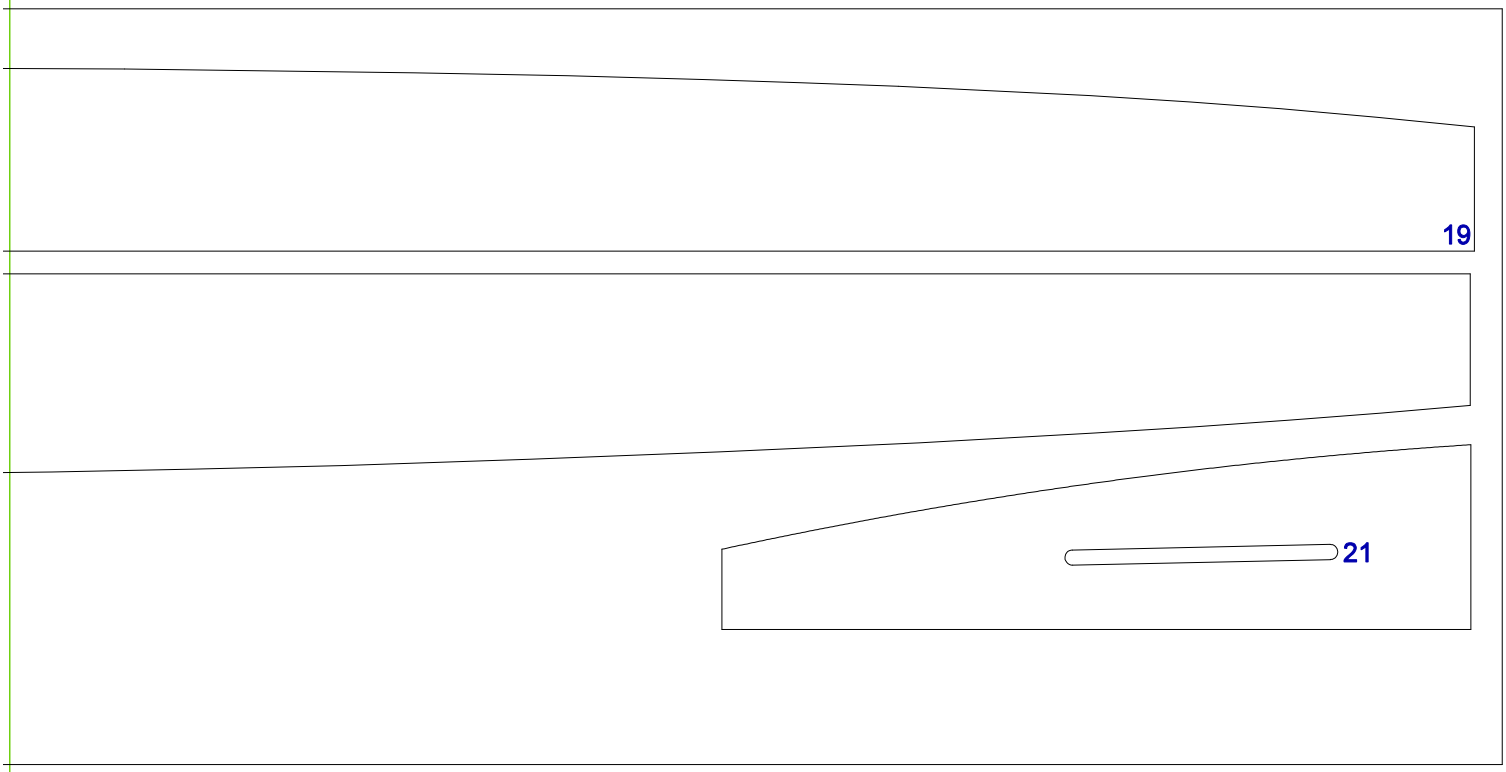
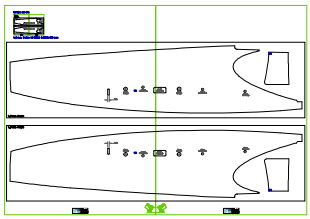
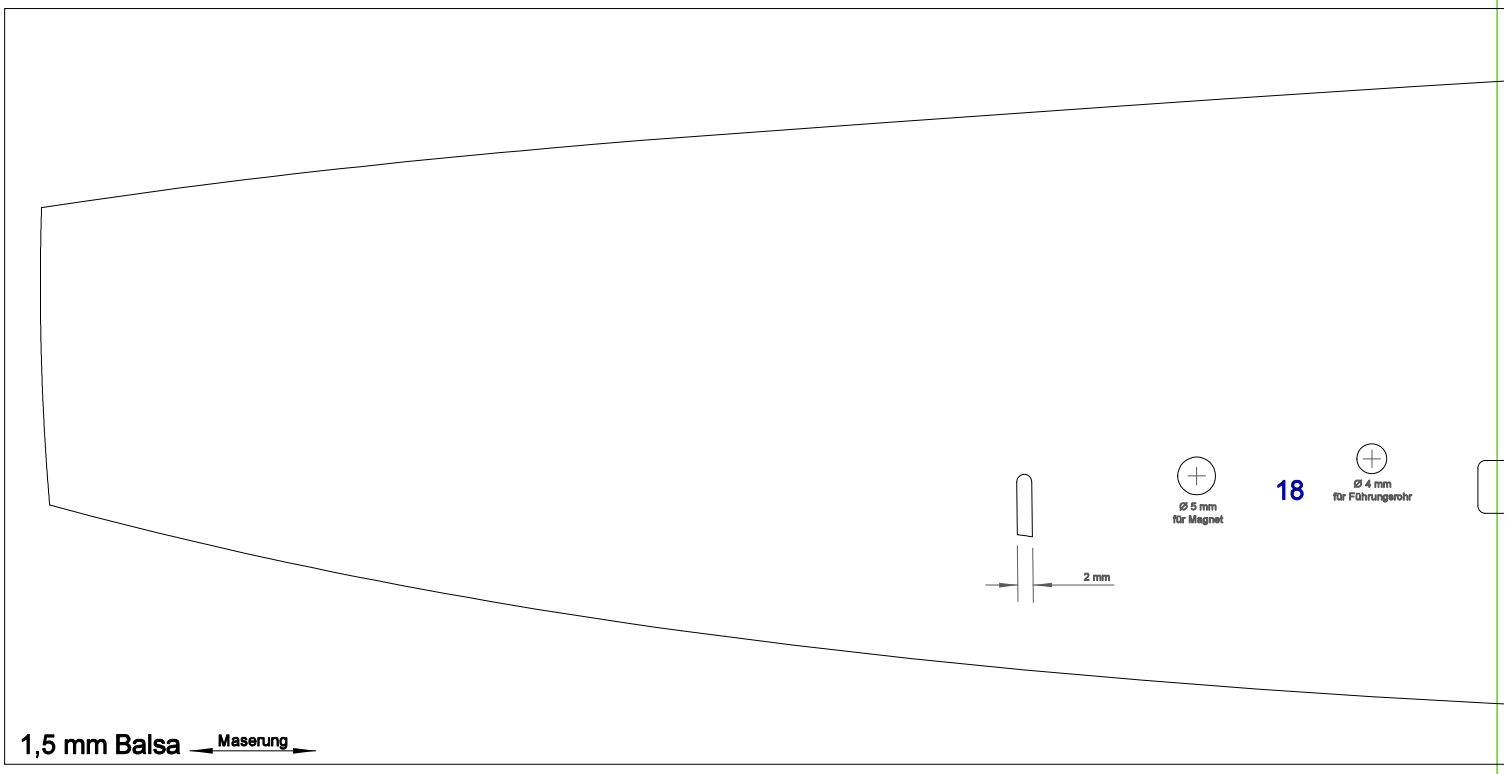

19
21

Seiten 30-31:

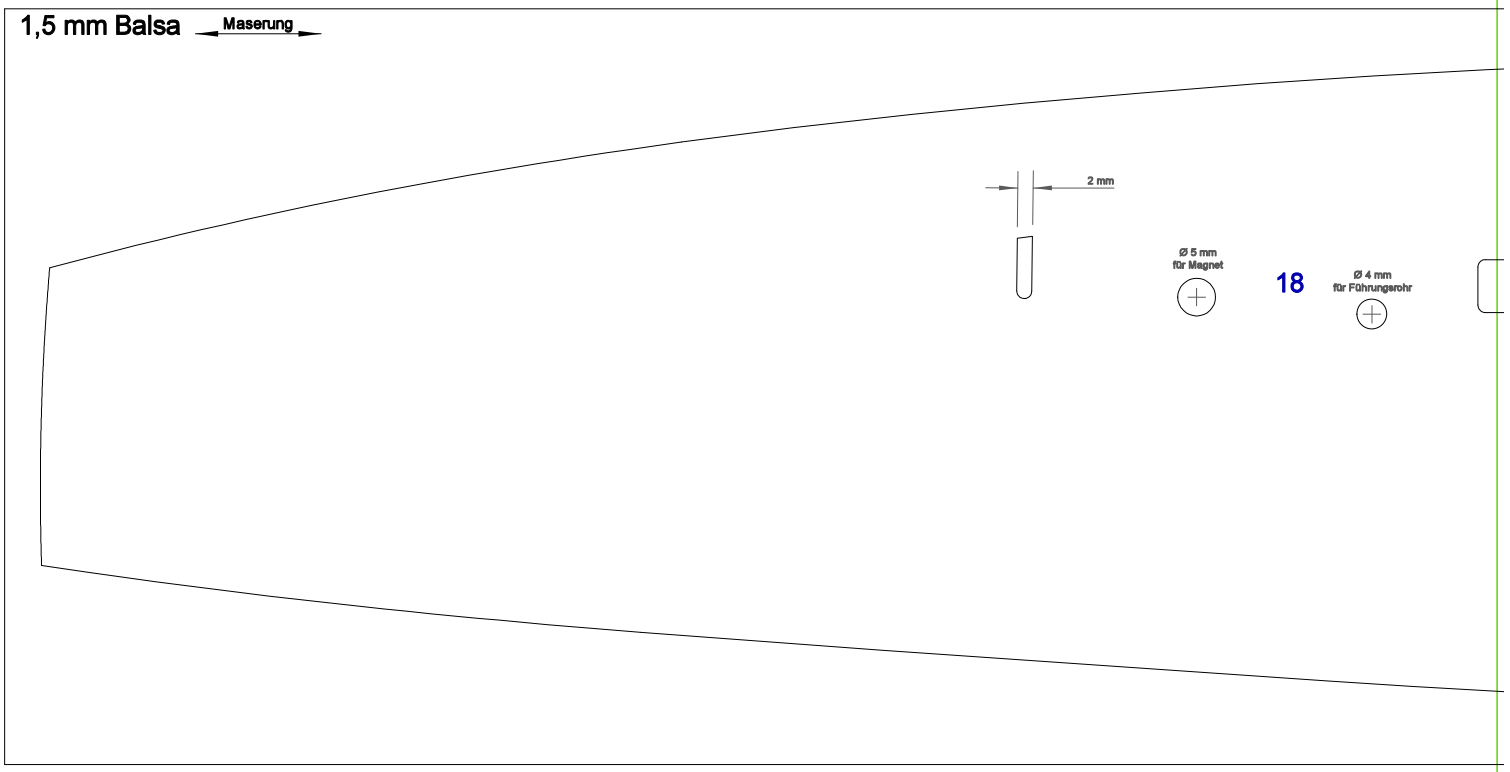


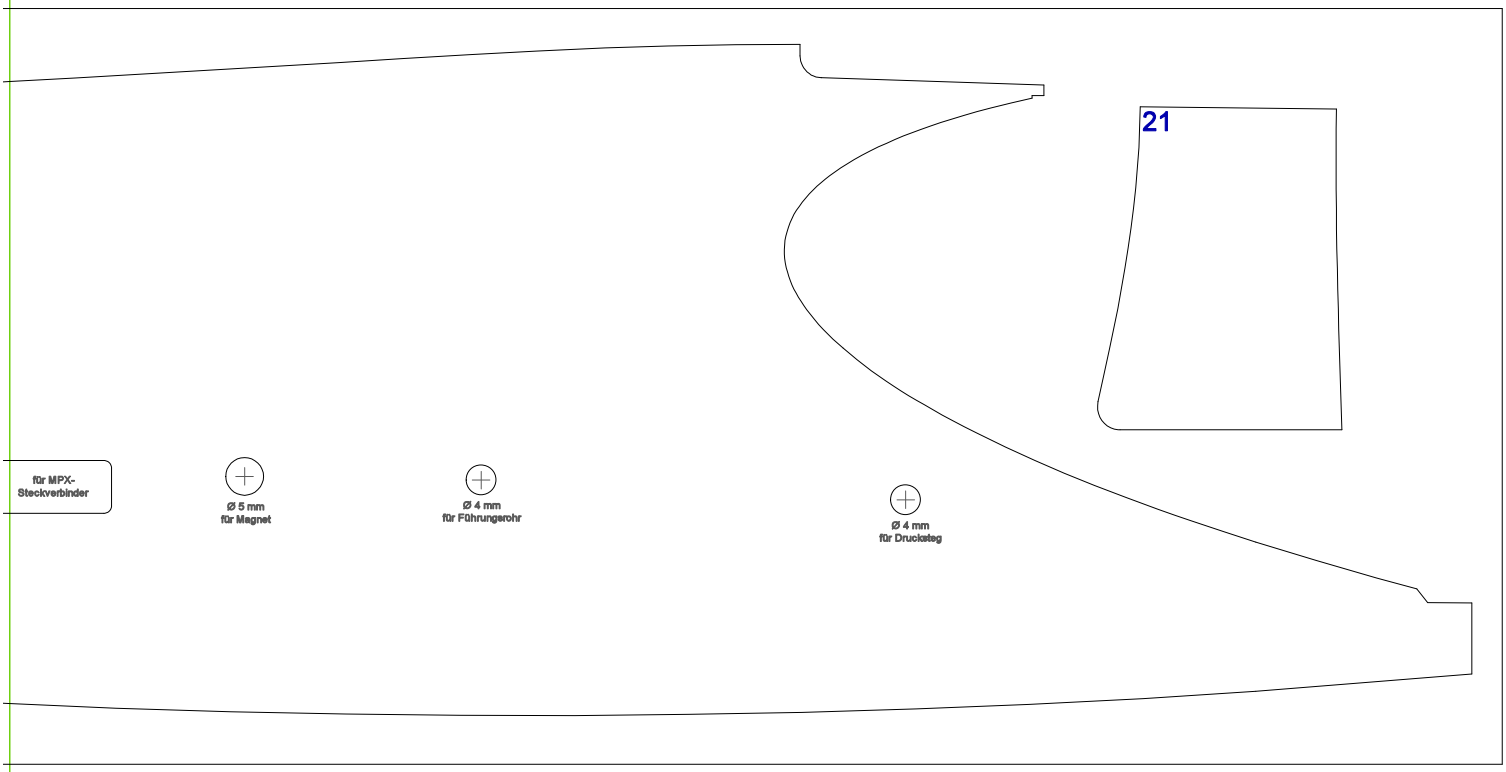
1,5 mm Balsa / 2 Stück à 395x100 mm

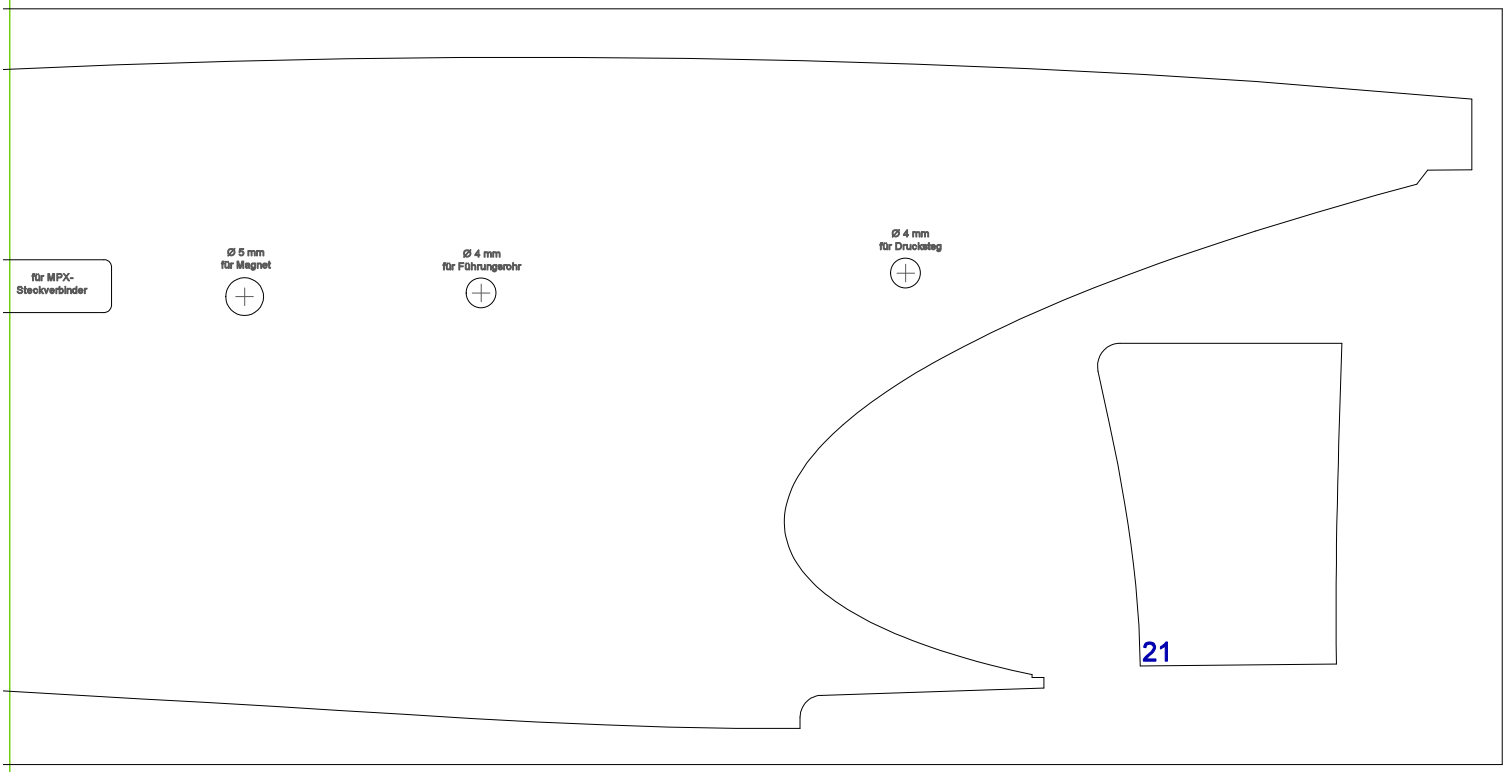


1,5 mm Balsa Maserung

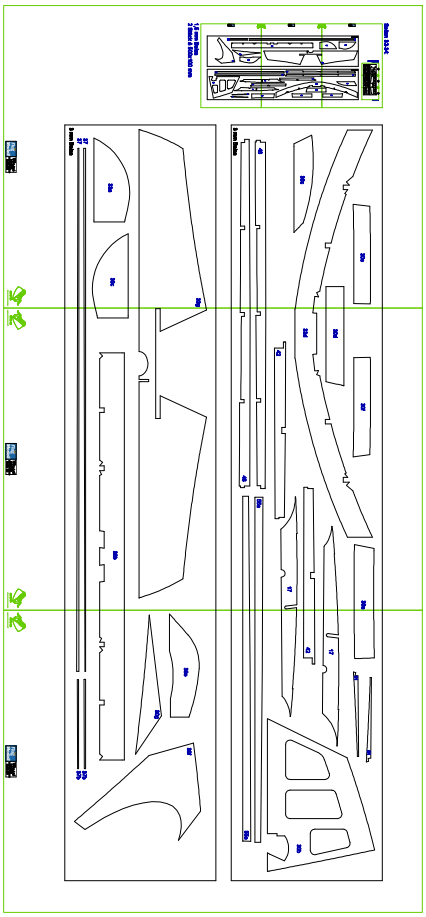
1,5 mm Balsa Maserung



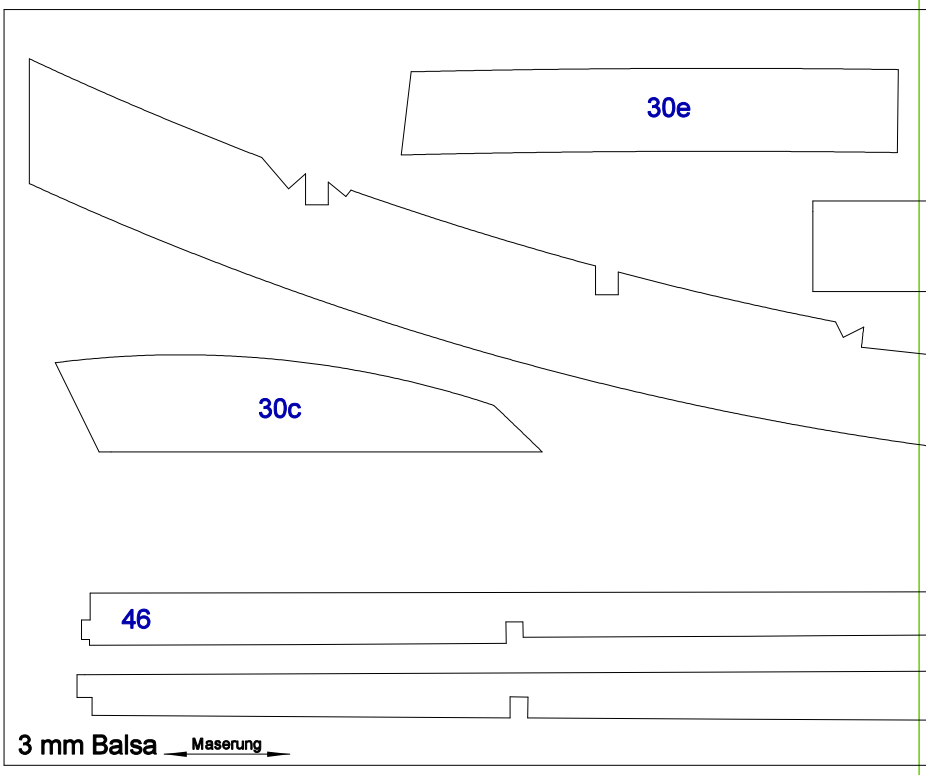

21
für MPX-
Steckverbinder
Ø 5 mm
für Magnet
Ø 4 mm
für Führungsrohr
Ø 4 mm
für Druckstag

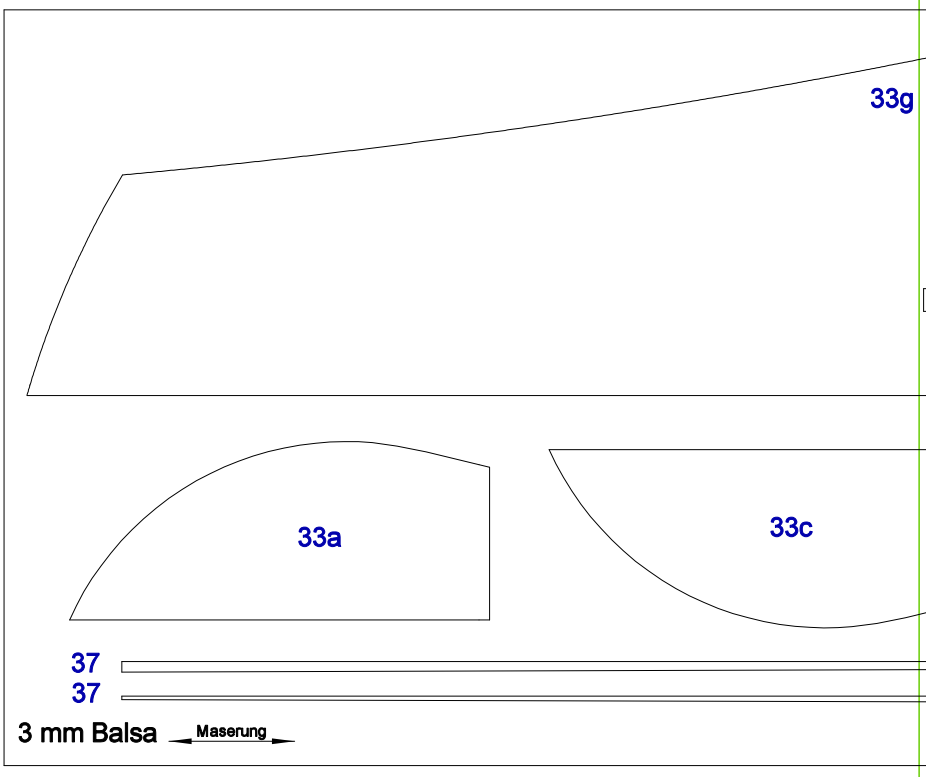

für MPX-
Steckverbinder
Ø 5 mm
für Magnet
Ø 4 mm
für Führungsrohr
Ø 4 mm
für Druckstag
21

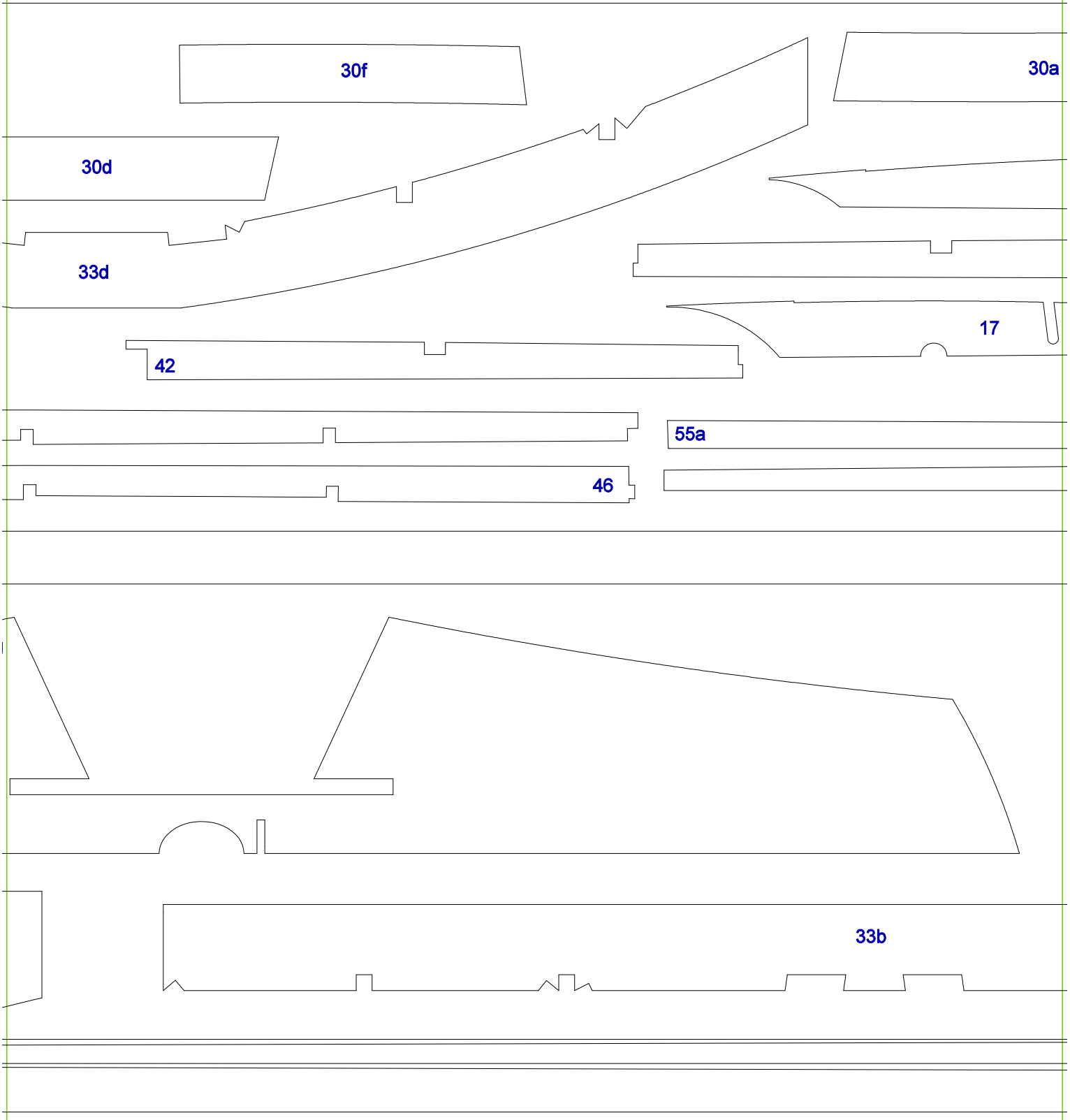
Seiten 32-34:

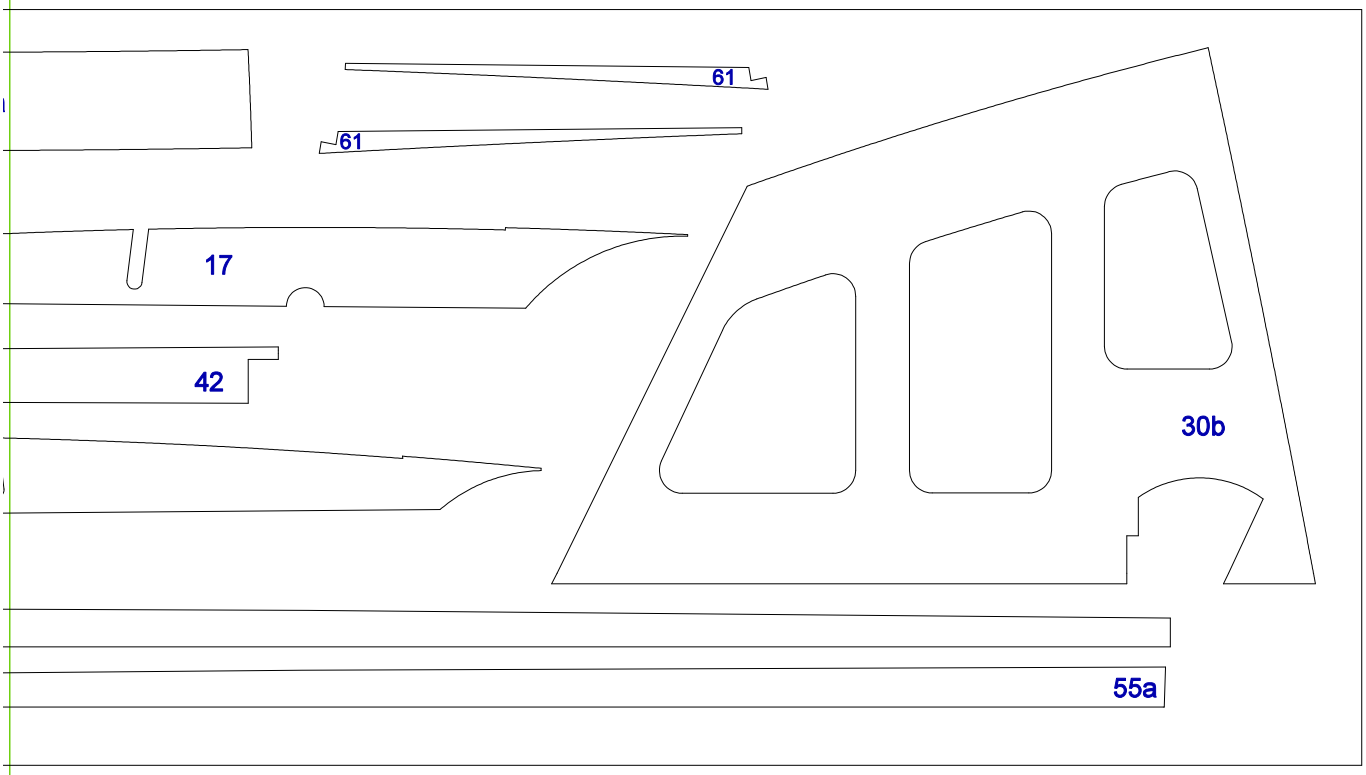


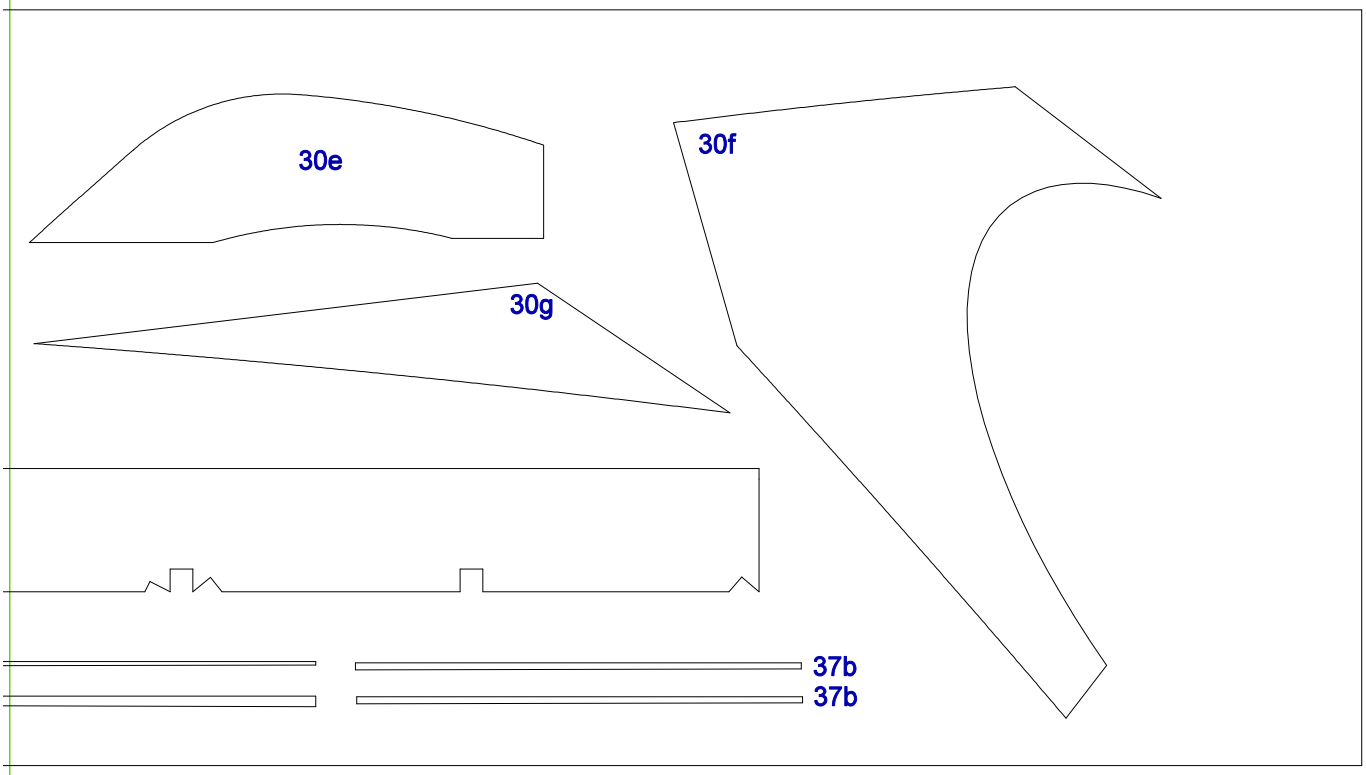
3 mm Balsa
2 Stück à 500x100 mm



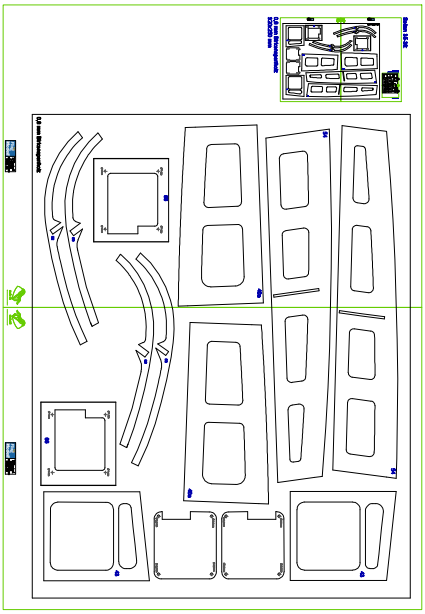



30f
30a
30d
33d
17
42
55a
46
33b

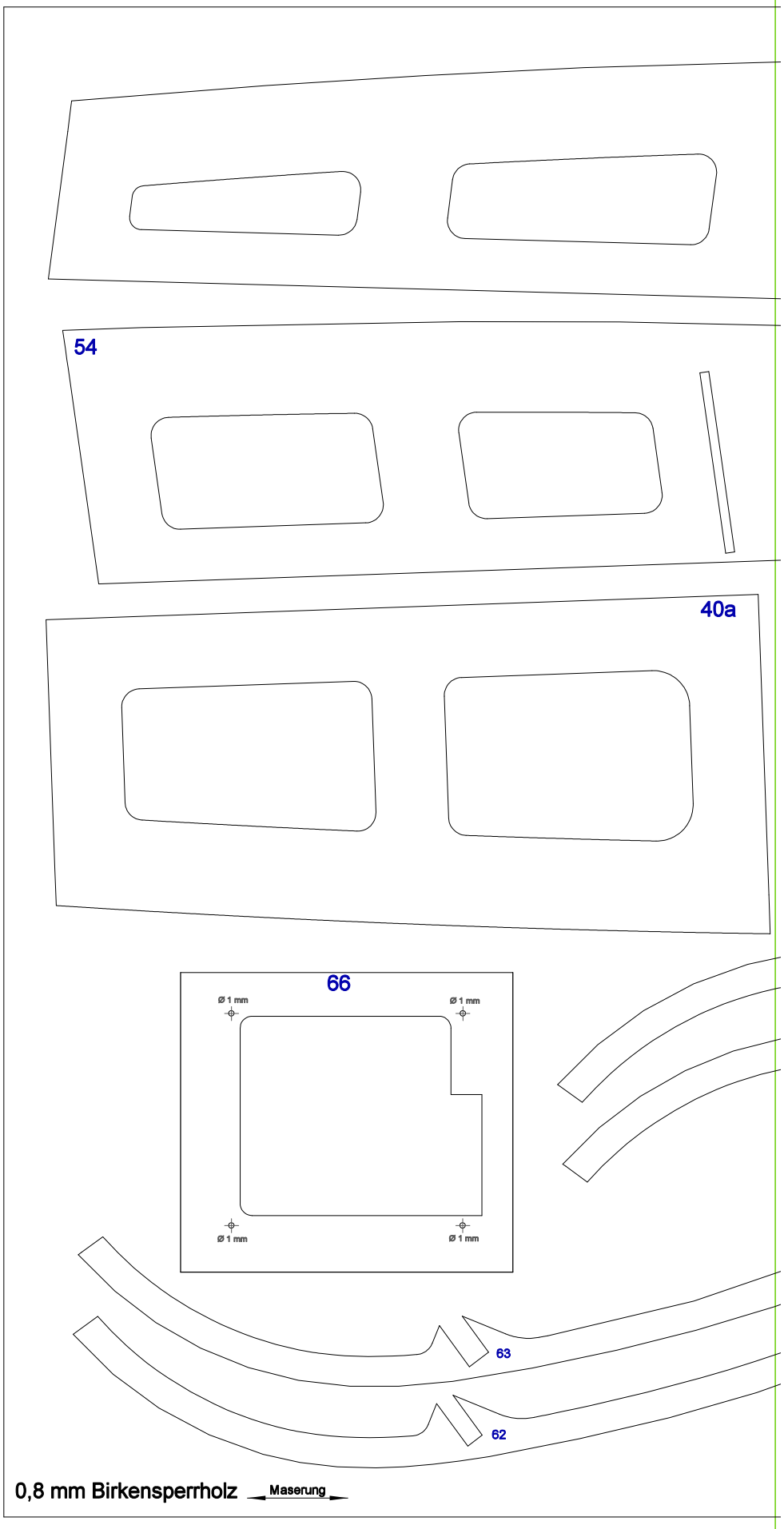

61
61
17
42
30b
55a


30e
30f
30g
37b
37b

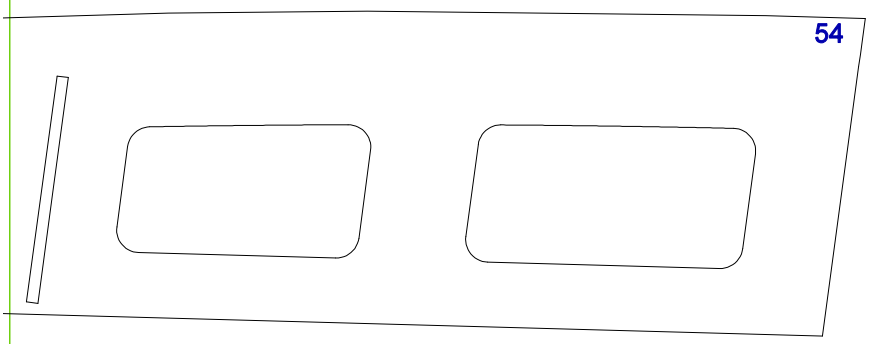
Seiten 35-36:

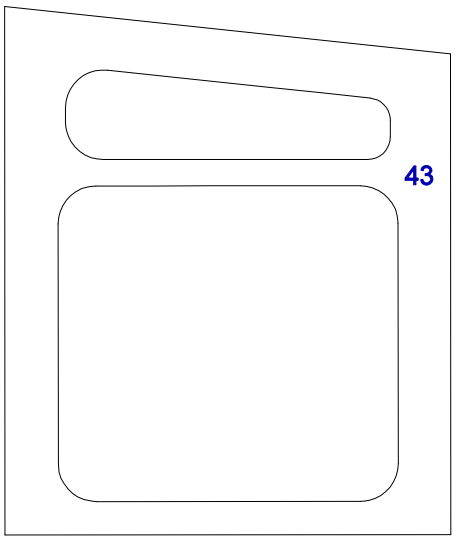


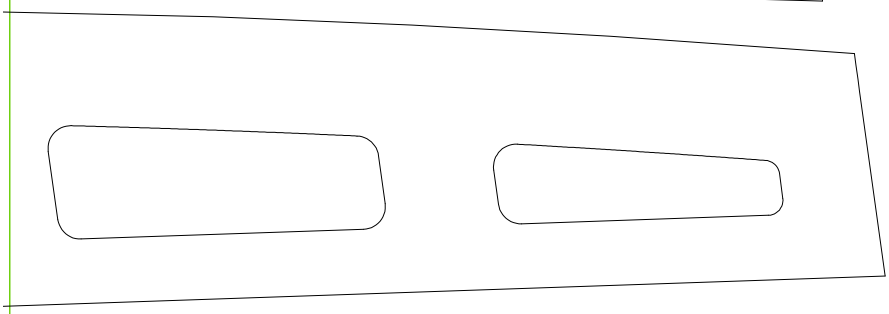
0,8 mm Birkensperrholz
320x250 mm

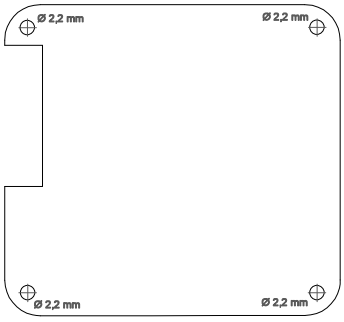


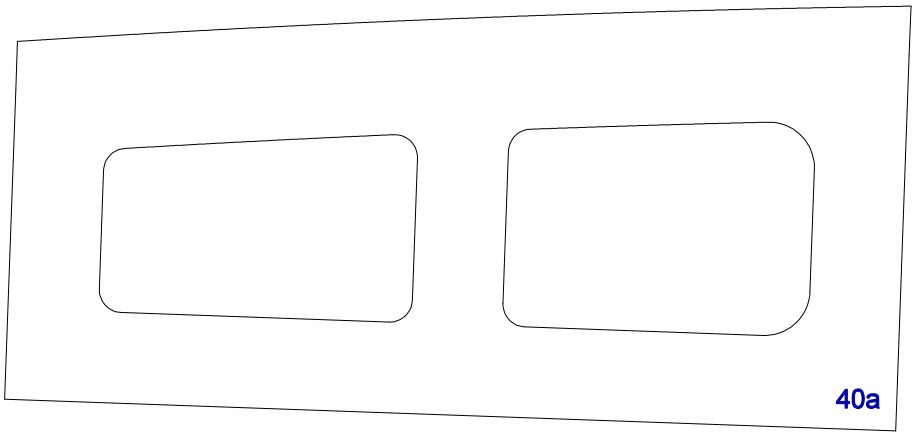
0,8 mm Birkensperrholz Maserung

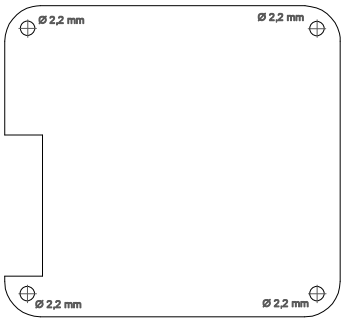

54

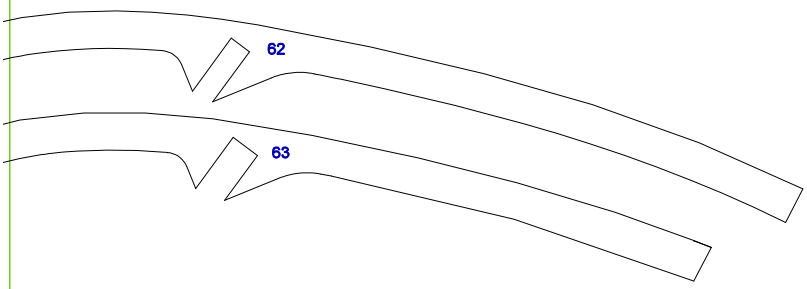

43

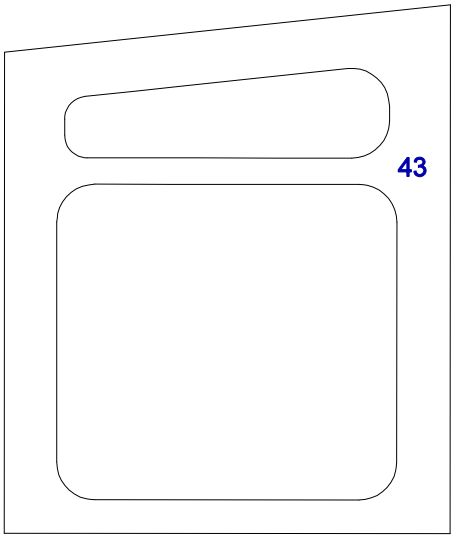


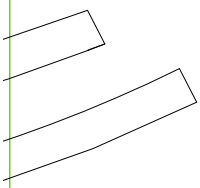

Ø 2,2 mm
Ø 2,2 mm
Ø 2,2 mm
Ø 2,2 mm

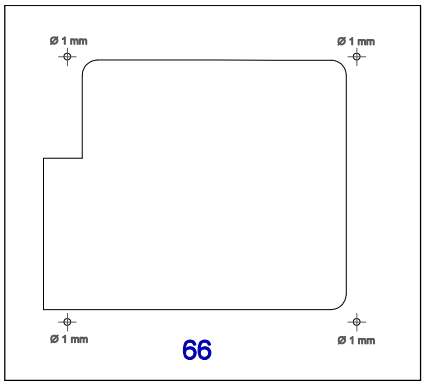

40a


Ø 2,2 mm
Ø 2,2 mm
Ø 2,2 mm
Ø 2,2 mm

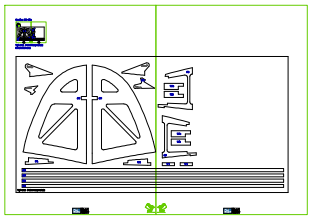

62
63


43

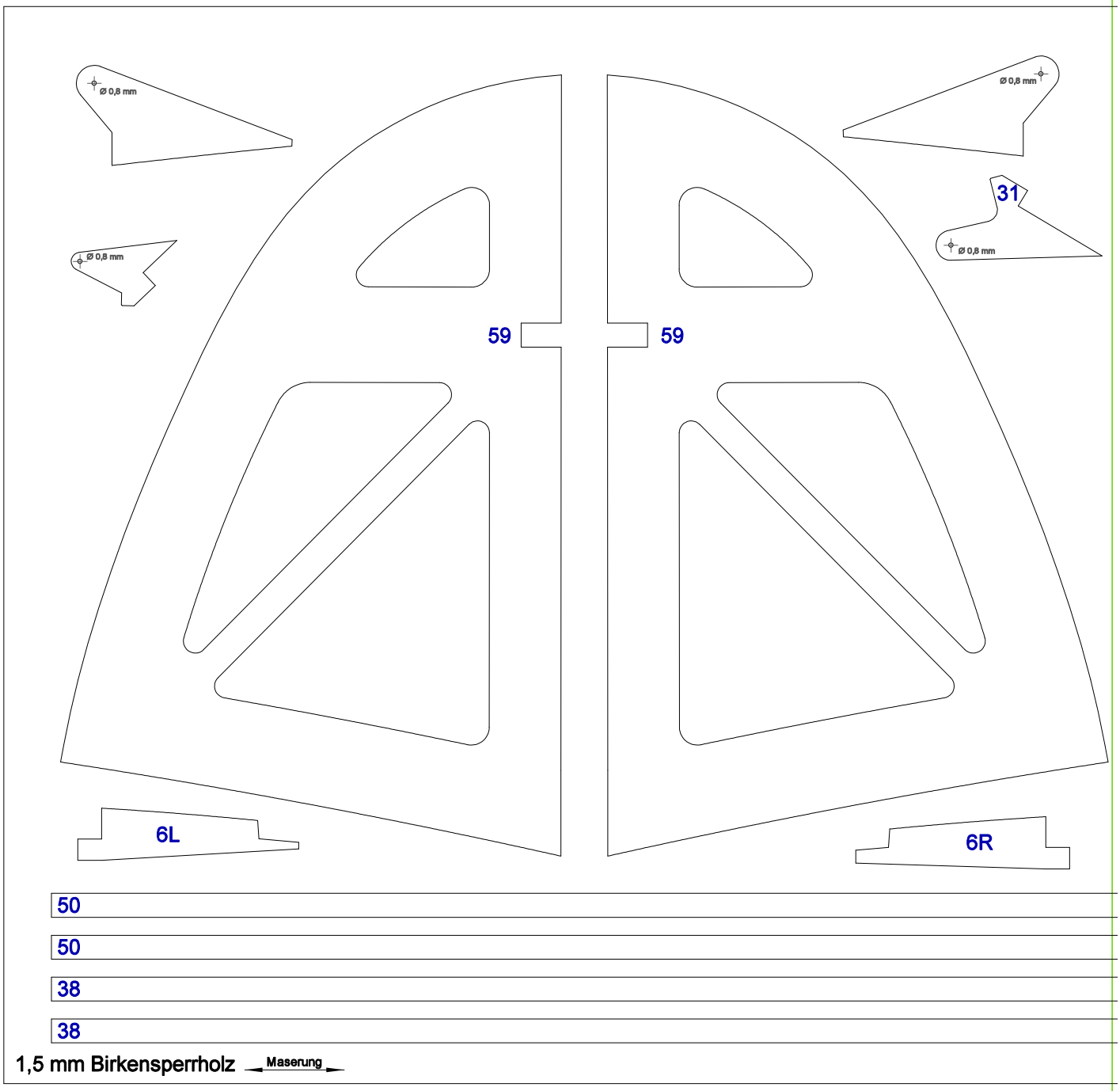


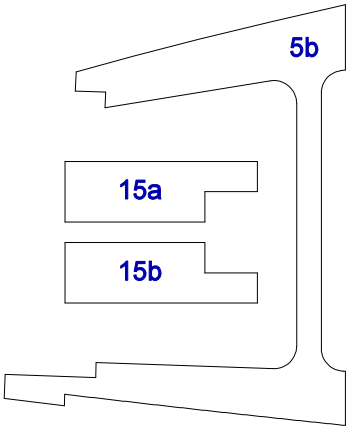

Ø 1 mm
Ø 1 mm
Ø 1 mm
Ø 1 mm
66

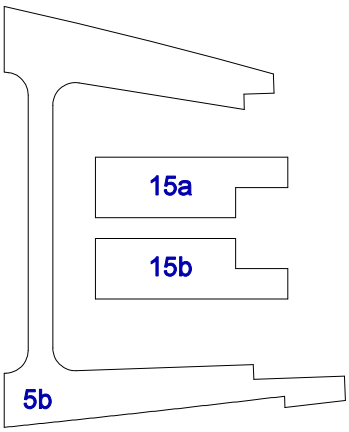
Seiten 37-38:



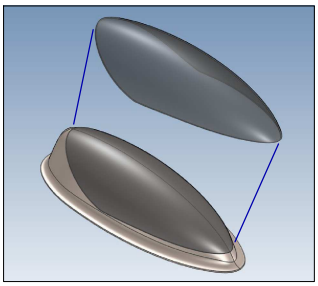
1,5 mm Birkensperrholz
360x180 mm

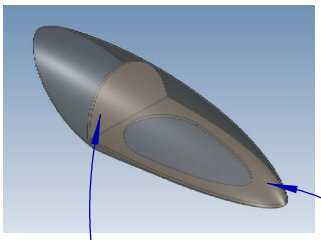






71 71



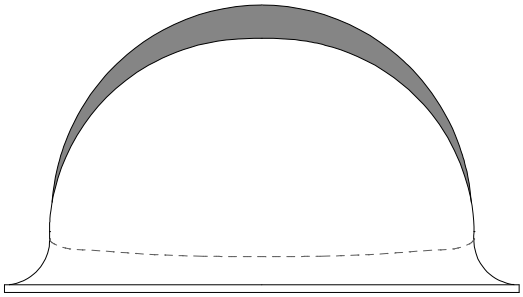


Wer möchte, kann sich eine Kabinenhaube im Tiefziehverfahren herstellen. Das dazugehörige Urmodell ist hier im Maßstab 1:1 dargestellt. Geeignete Materialstärke: 0,25 bis 0,7 mm

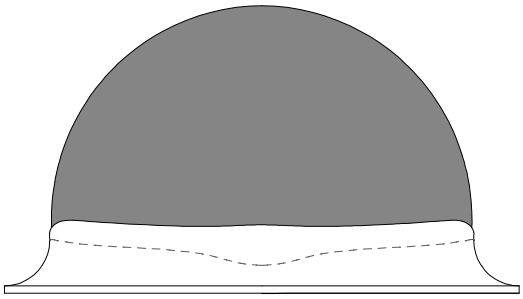
If you want, you can make a canopy using the vacuum forming process. The corresponding mold is shown here on a scale of 1:1. Suitable material thickness: 0.25 to 0.7 mm

1,5 mm Birken-sperrholz

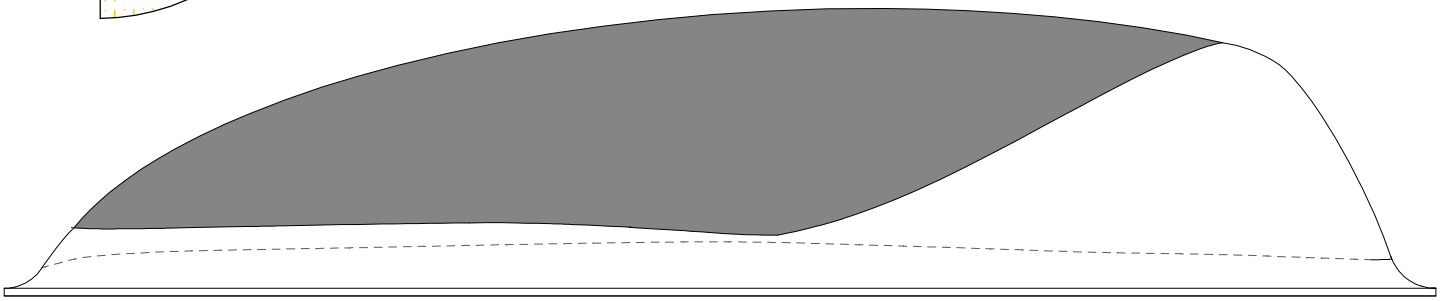
1,5 mm Birken-sperrholz



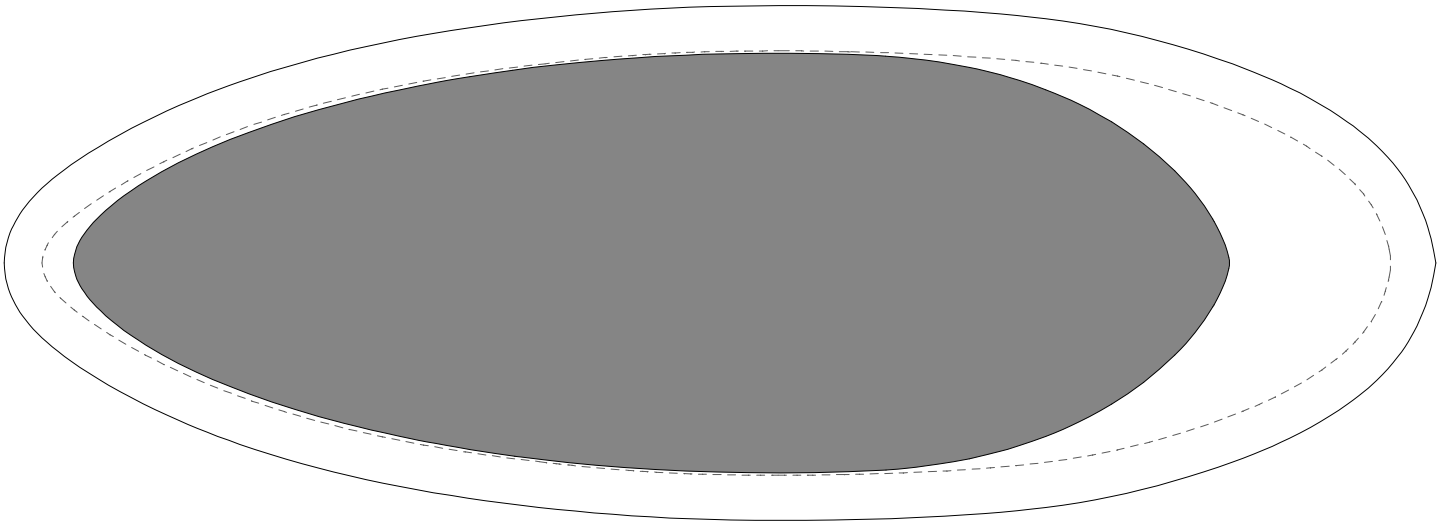
Ansicht von hinten
back view

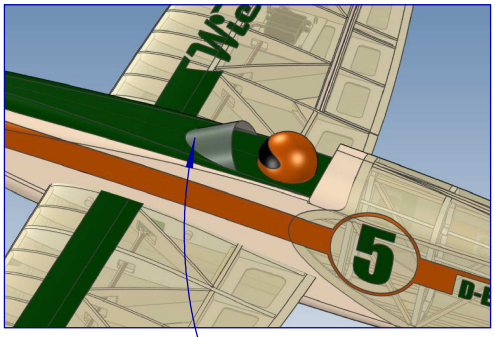


Ansicht von vorn
front view



189,5





Alternative: eine einfache Windschutzscheibe aus Overheadfolie. Die dazugehörige Kontur ist unter dem Bild dargestellt.

Alternative: a simple clear film windscreen. The corresponding contour is shown below the picture.

5

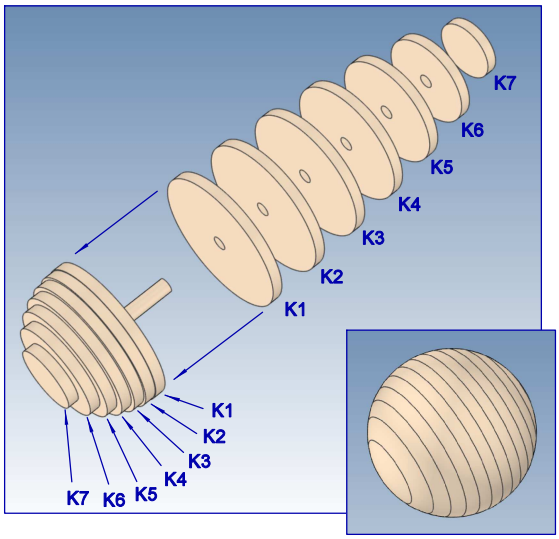
5

Wi

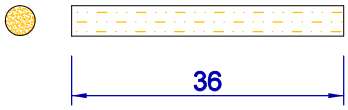

D-EWIS

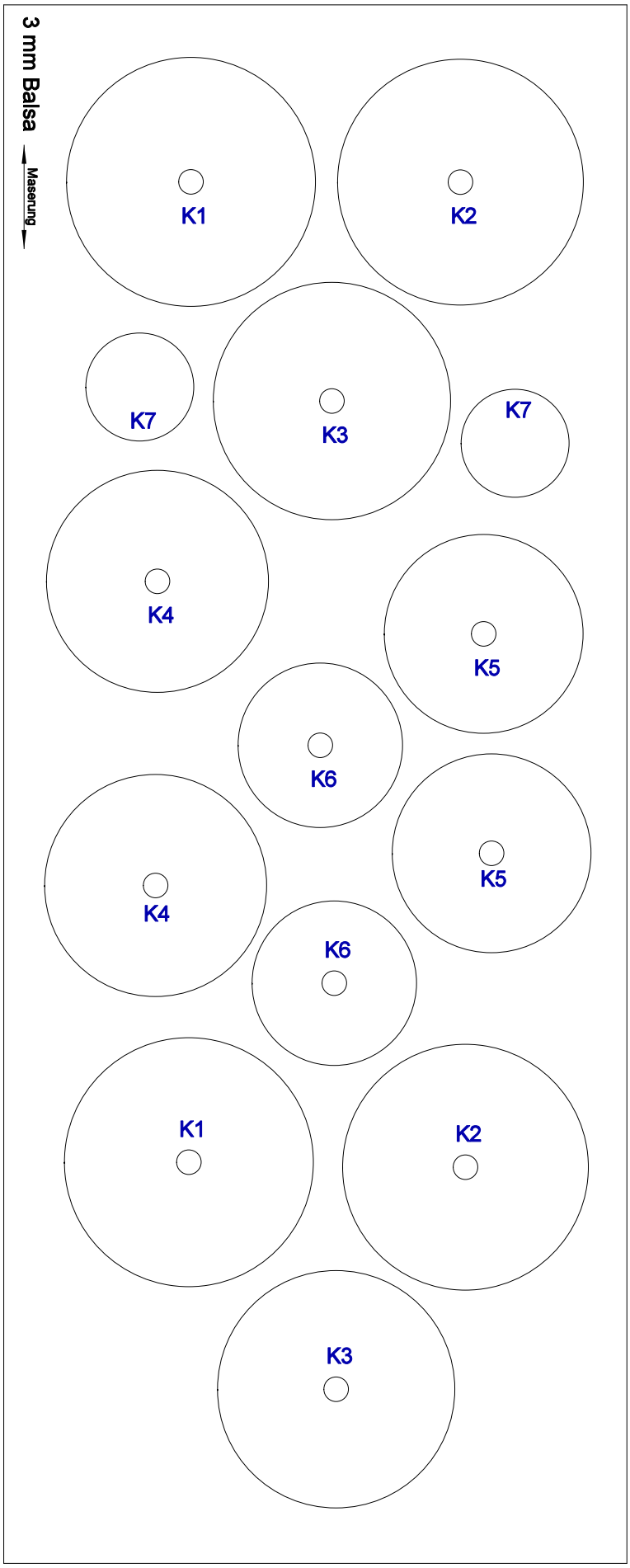
Alternative zur Styroporkugel: eine Kugel aus Balsascheiben. Diese werden auf einen Rest des Buchenholzstabes konzentrisch aufgefädelt und zur Kugelform verschliffen.

alternative to the styrofoam ball: a ball made of balsa discs. These are concentrically threaded onto a remainder of the beech wood stick and sanded to a spherical shape.



Buchenrundstab Ø 4 mm



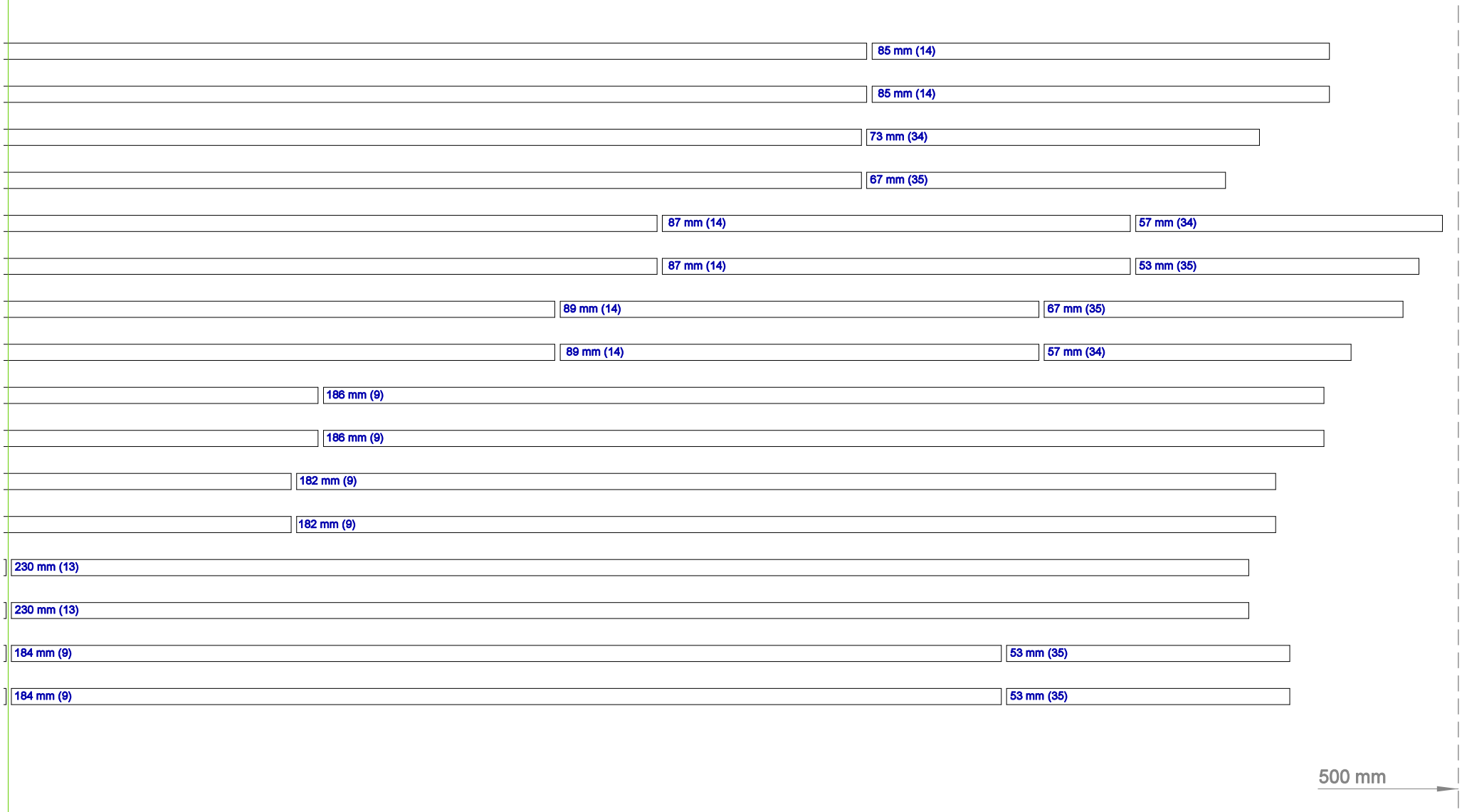


Anhang: Anordnung der Vierkantstäbe
für 500 mm langes Ausgangsmaterial

appendix: arrangement of the square
bars for 500 mm long starting material

Kiefernleiste / *pine bar*, 3x3 mm

- 390 mm (11)
- 390 mm (11)
- 389 mm (10)
- 389 mm (10)
- 351mm (10)
- 351 mm (10)
- 332 mm (11)
- 332 mm (11)
- 288 mm (12)
- 288 mm (12)
- 283 mm (12)
- 283 mm (12)
- 230 mm (13)
- 230 mm (13)
- 230 mm (13)
- 230 mm (13)
- 53 mm (35) | 45 mm (34) | 45 mm (34)


85 mm (14)
85 mm (14)
73 mm (34)
67 mm (35)
87 mm (14)
57 mm (34)
87 mm (14)
53 mm (35)
89 mm (14)
67 mm (35)
89 mm (14)
57 mm (34)
186 mm (9)
186 mm (9)
182 mm (9)
182 mm (9)
230 mm (13)
230 mm (13)
184 mm (9)
53 mm (35)
184 mm (9)
53 mm (35)
500 mm