Cherry BX-2 Supplement # 6

Modification of the aileron-controls - drawing D 078

Few cases were reported, where the ailerons could reach a dead-lock in the upper movement. This could result in a blocked stick when fully moved to the end. The reason for this is in-accurate building and deviation from the measures of the drawing.

The push-rod will normally be limited by the hole in the rear spar, if this is build to the necessary size, before this dead-lock could occur.
A dead-lock can only occur if the positions, as well as the ankle-values of drawing D 078 are not met and the limiting-stopper at drawing D 075 (left lower part) is wrong.

The following procedure introduces additional safety see D 078

A mechanical stop “Anschlag” made of phenol-sheet or hardwood will be fitted and glued on the lower part of the rear wing spar (see attached drawing), limiting the upper Aileron movement to 21° (+/- 2°). The stop limits the bearing of the push-rod. Additionally, the stops of the controls underneath the seat get beefed up in order to limit and synchronize both stops on each side (Z 075, “Ausschnitt”).
The control mechanism itself will not be changed but the movement (ankle) will be slightly reduced. The new ankle-values for the aileron movement are given in the attached part-drawing D 078 mod. There are no changes to the flight characteristics.

The new aileron movement-values are to be entered into the AFM!

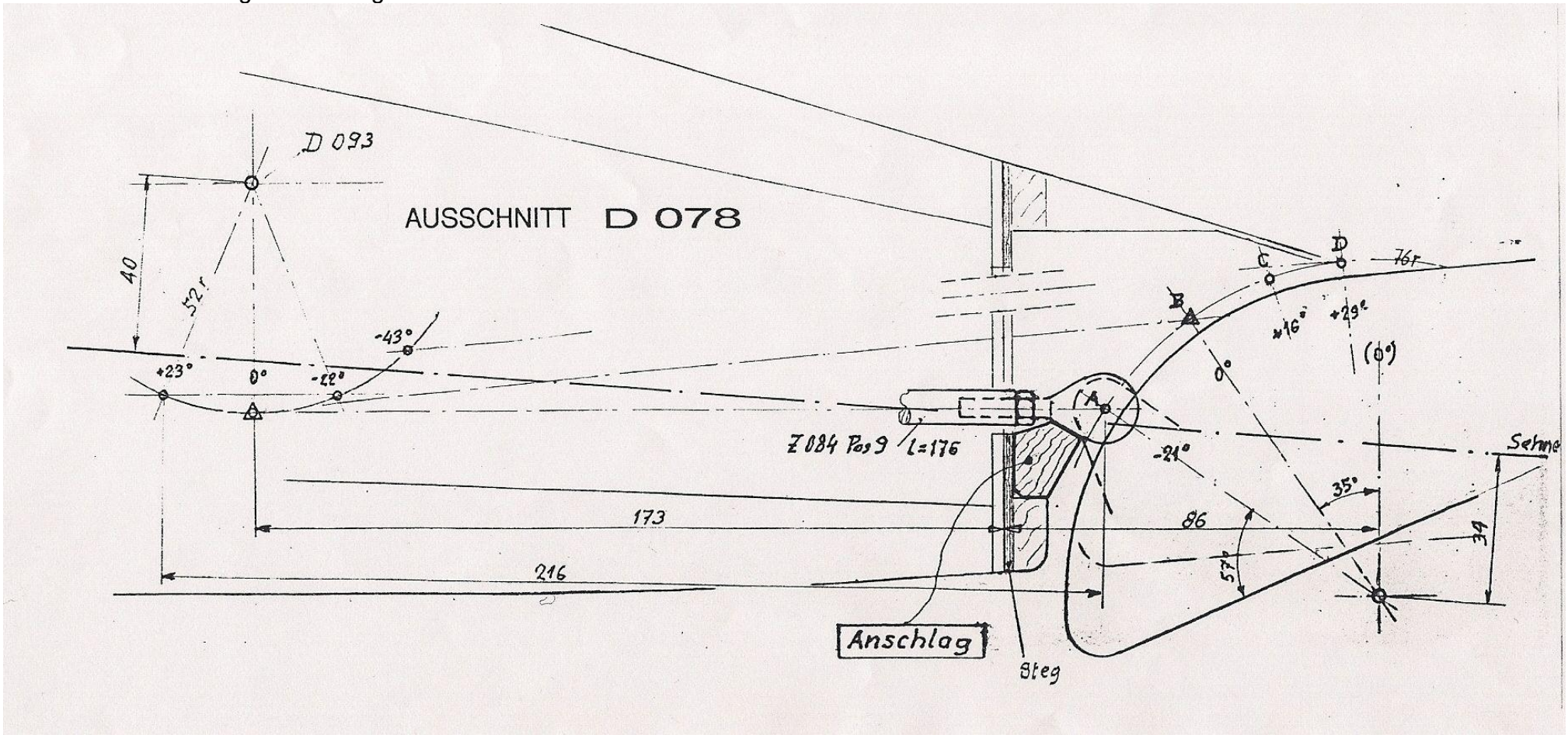
-- Be reminded that the aileron-movements need to be measured and reported by the inspector at the final inspection.

It is up to the user to apply this caution-measure.

The Designer Max Braendli, June 2004

Cherry BX-2 Supplement # 6 (page 2)

Modification of the aileron-controls (drawing):
As an additional safety measure, the aileron-stop can be limited at the bearing of the push-rod. The stopper “Anschlag” is build of a shaped hardwood piece with an approximate length of 30 mm which will be glued in place according to the drawing. Doing this the aileron movements will be reduced by 10%. The new ankle-values need to be set with an accuracy of +/- 2° and entered into the AFM - page 10 (see page 5 - Mai 2004).
Additionally new stoppers underneath the seat are to be fitted for synchronic movement and glued according to Z 075 (Ausschnitt).
No mentionable changes in the flight characteristics were noticed.



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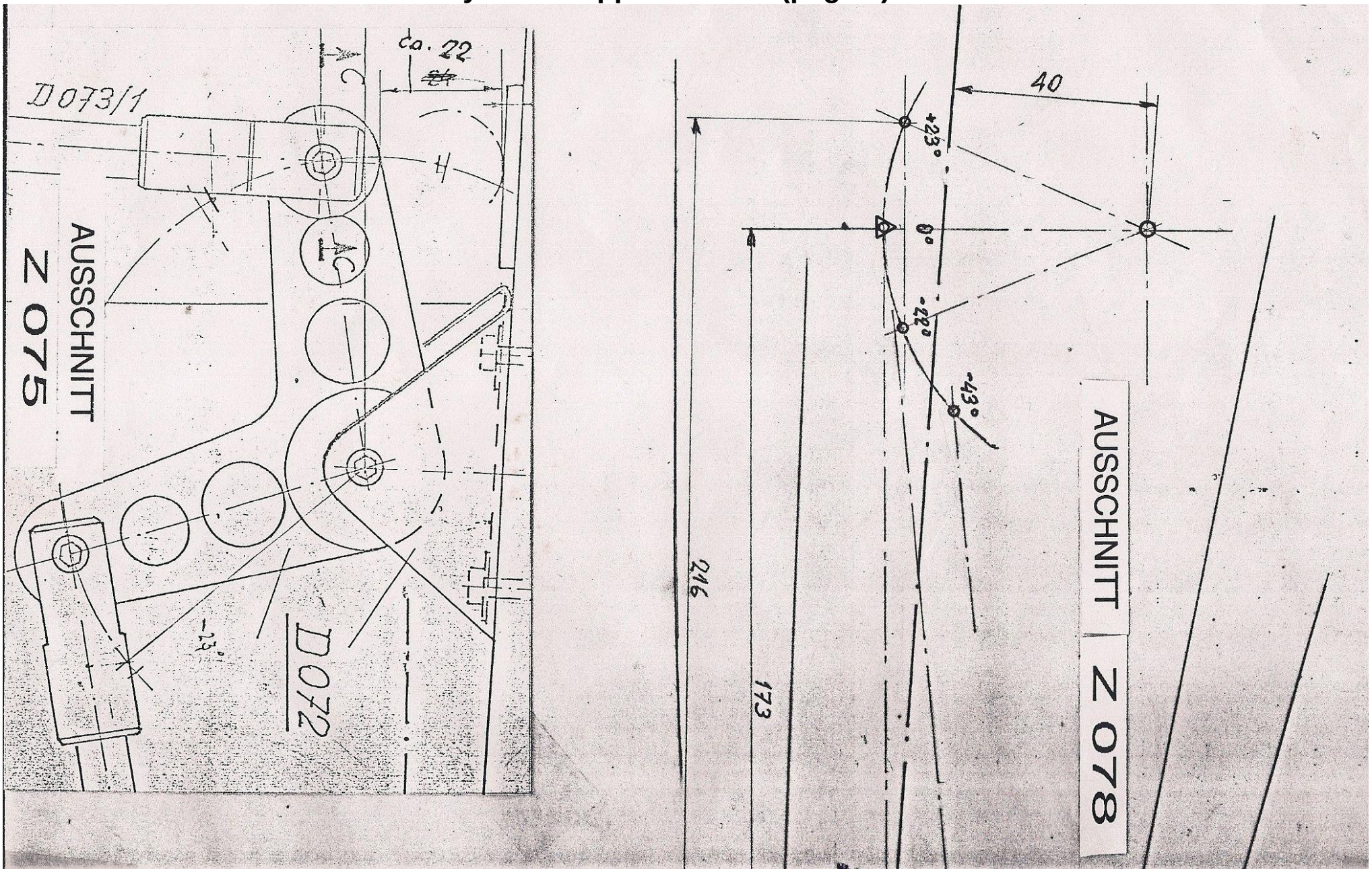
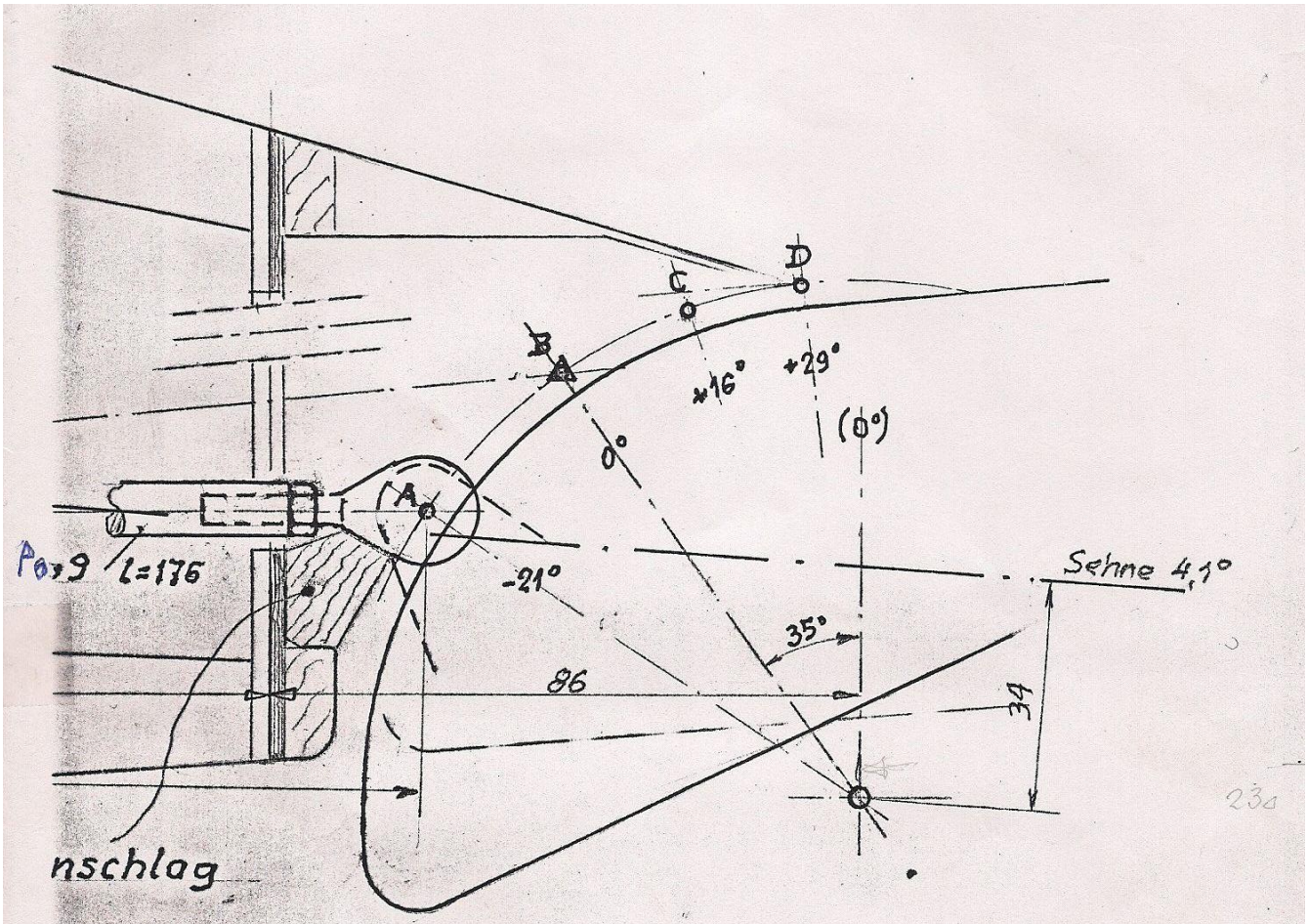




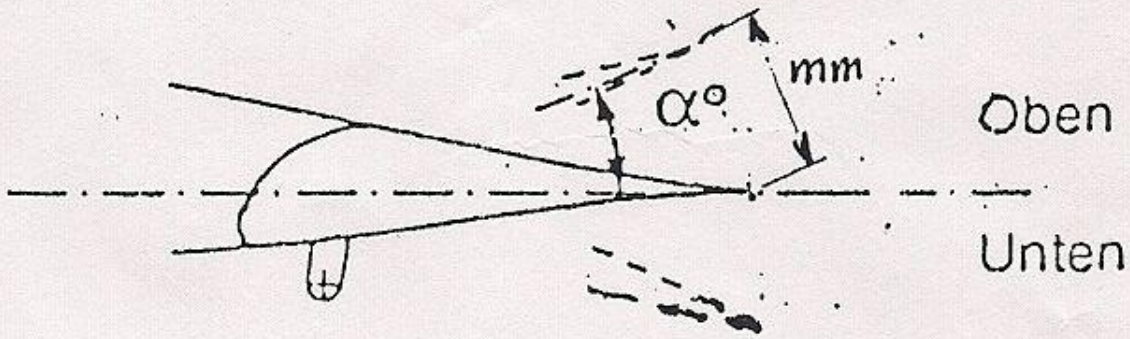
Die Ausschlagwinkel sind leicht reduziert wie folgt:

Pos. A	**Flap 0°**	**QR nach oben**	**- 21°**
Pos. B	**Flap 0°**	**QR neutral**	**0°**
Pos. C	**Flap 0°**	**QR nach unten**	**+ 16°**
Pos. D	**Flap 60°**	**QR nach unten**	**+ 29°**

ZWECK : Begrenzung des Querruder- Ausschlages

D 078 mod. Querruder - Anschläge

Querruder nach Modifikation D 078 mod. (Mai 2004)
(bei Antrieb gemessen, Höhenruder neutral)



QR	Flap 0°		20°		40°		60°	
	α°	mm	α°	mm	α°	mm	α°	mm
noch oben	- 21	80			- 8	30	-3	12
nach unten	+ 16	60			+ 24	125	+29	142