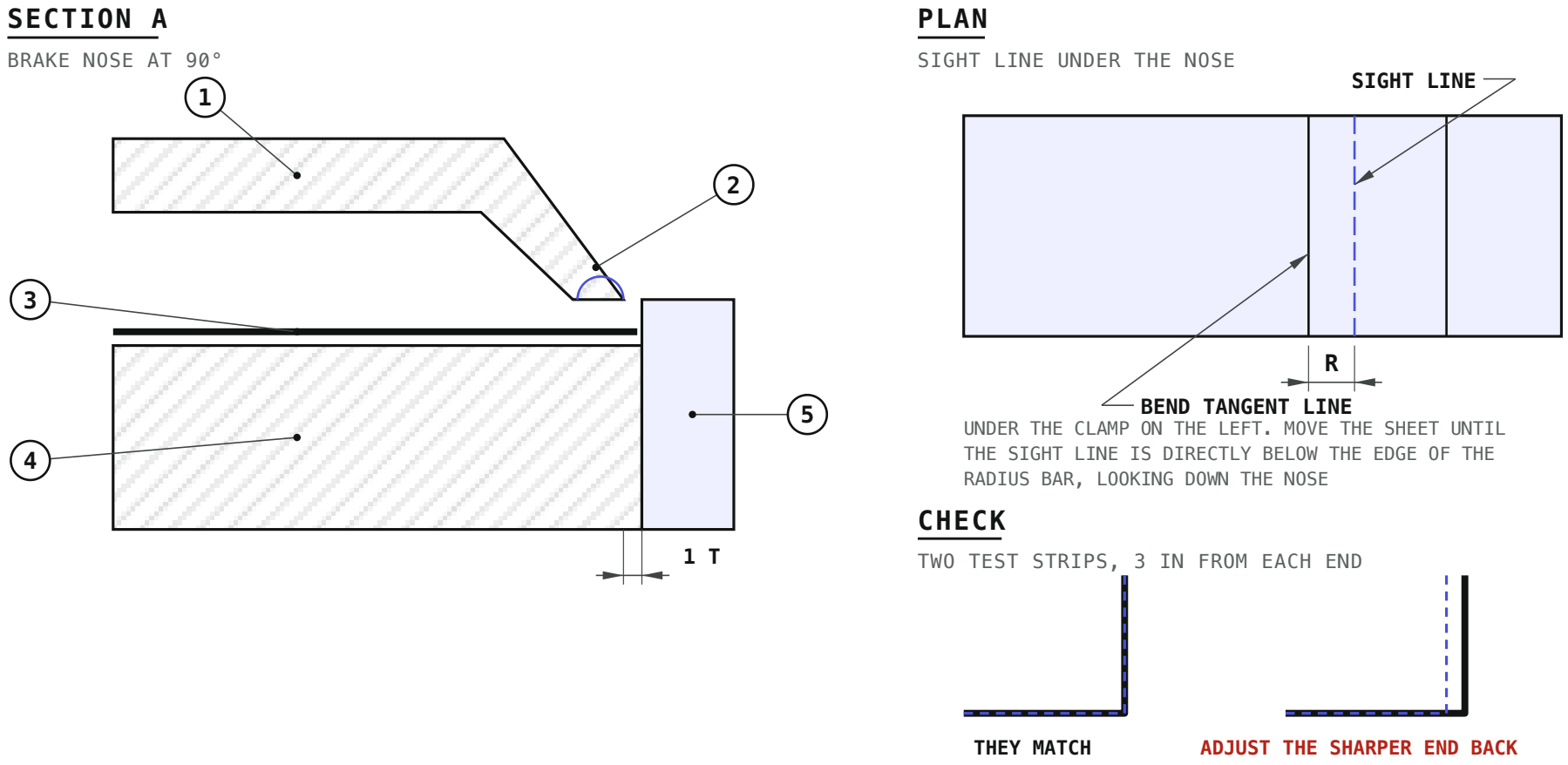
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Bending a Sheet on the Brake, Step by Step

Radius bar · clamp · nose gap · sight line

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS



PARTS LIST

#	PART	RULE	SOURCE
1	Upper jaw and clamp	Over-centre: firm pull to the stops, not springy, no slipping	H-8083-31B p. 4-69
2	Radius bar	Radius from the drawing, else the SRM chart; shims build it up	pp. 4-68, 4-69
3	Sheet	Deburred, grain across the bend if possible, sight line drawn	pp. 4-58, 4-66
4	Bed	Test strips at both ends and the centre to set the pressure	p. 4-69
5	Bending leaf	At the finished angle, gap = one sheet thickness, even along the length	pp. 4-70, 4-71
—	Radius first	Too tight a radius can fail in service even if it does not crack on the brake	p. 4-69

NOTES

1. Dimensions in inches. Do not scale: the SRM sets the values.
2. For reference. The applicable manual always governs.
3. Based on FAA-H-8083-31B ch. 4.

REVISIONS

REV	DESCRIPTION	DATE
A	First issue	2026-10-30

The Aviation Point.			Structural repair reference
TITLE: Bending a sheet			
DRAWING NO.: TAP-DWG-060	REV: A	SCALE: NTS	SHEET: 1 OF 1
APPLIES TO: Cornice and box brake			
DO NOT SCALE DRAWING			

After FAA-H-8083-31B pp. 4-66, 4-68 to 4-71 (Figs. 4-131, 4-135 to 4-144). Typical only: radius from the drawing or SRM.

The three settings

Setting	Right when	Adjust with
Radius bar	Equals the required radius	Interchangeable bars or shims
Clamp pressure	Firm pull to the stops, no sponginess, no slipping	Clamping pressure nut, both sides
Nose gap	One thickness, even along the part, at the finished angle	Nose gap knobs at the rear of the upper jaw

Key points

- **Reset for any change of thickness or radius.**
- **Sight line: one radius inside the tangent line.**

Step by step

1. Radius bar.
2. Clamp.
3. Nose gap.
4. Two test strips.
5. Sight line under the bar, bend.

SOURCES · FAA-H-8083-31B, Aviation Maintenance Technician Handbook: Airframe, Chapter 4 · FAA AC 43.13-1B CHG 1, Acceptable Methods, Techniques and Practices

SCAN · OPEN THIS GUIDE
theaviationpoint.com/standard-practices/bending/

Educational reference only, not approved data. Always consult the applicable SRM, AMM, or AC 43.13-1B and your certifying authority.