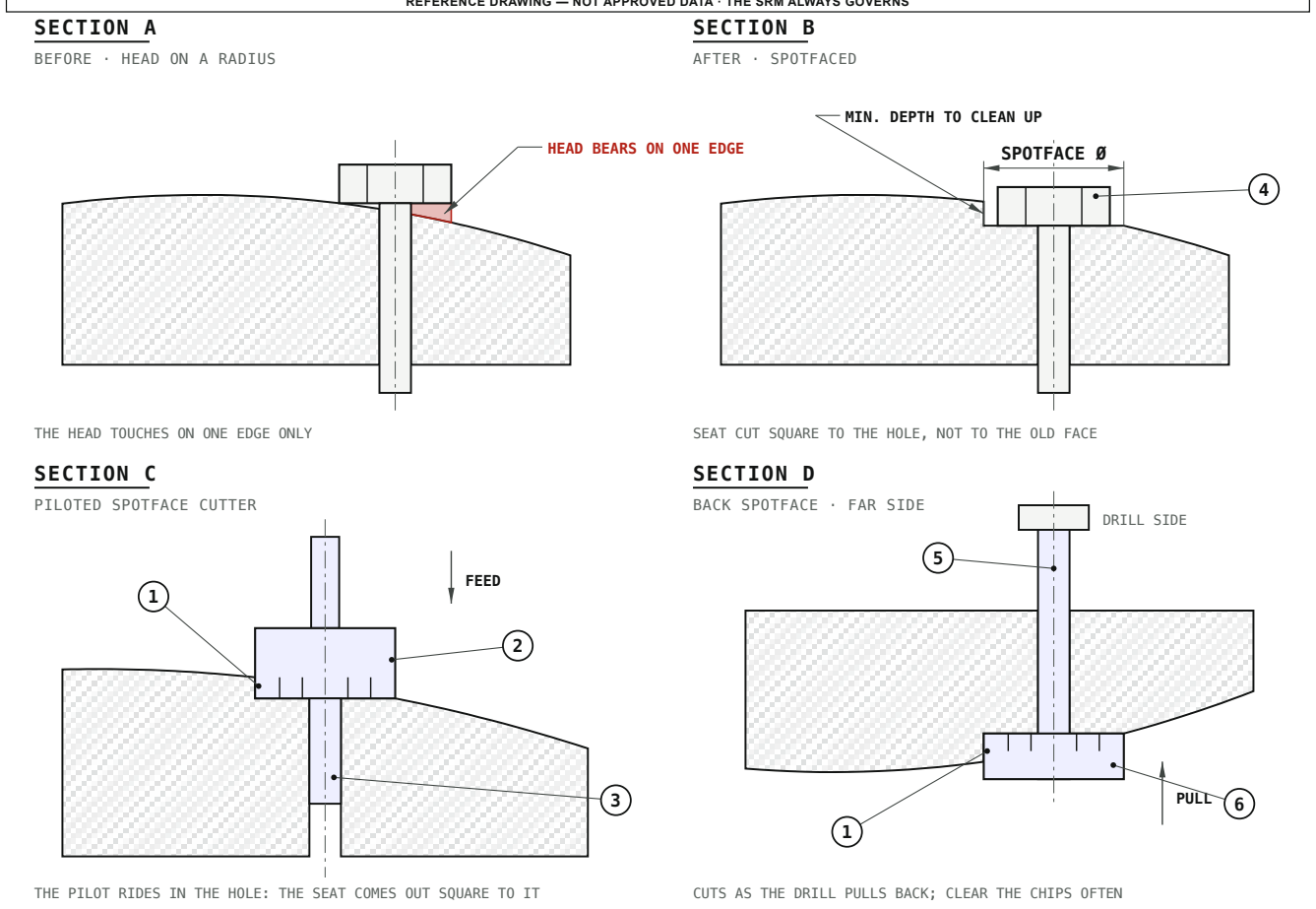
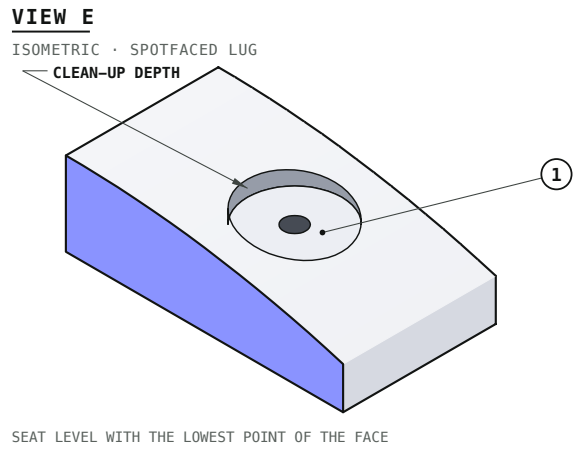
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Spotfacing: Seating Heads and Tails Flat

Piloted cutter · clean up only · square to the hole · back spotface

REFERENCE DRAWING — NOT APPROVED DATA · THE SRM ALWAYS GOVERNS





RULES

PUBLIC SOURCES

PIN RIVET HEAD: SPOTFACE 1/16 IN OVER THE HEAD Ø
BOLT HEAD AND NUT: FULL BEARING ALL ROUND
HOLE SQUARE TO THE SEAT WITHIN ±3°
DEPTH: ONLY TO CLEAN UP; THE SRM SETS ANY LIMIT
ANGLED BOLT: AN950 AND AN955 WASHERS, AS A PAIR
BARE METAL: TREAT AND PRIME BEFORE ASSEMBLY
HEAT DISCOLORATION: ENGINEERING EVALUATION

FAA-H-8083-31B PP. 4-49, 4-50 · AC 43.13-1B 7-39, 7-88
TO 1-1A-1 C.8.1, TABLE C-4 · AC 43.13-1B 6-132

PARTS LIST

#	ITEM	RULE	SOURCE
1	Spotface	Flat seat square to the hole, cut only deep enough to clean up	Wikipedia, Spotface
2	Spotface cutter	Flat-bottom cutter; its flat must cover the full bearing diameter	AC 43.13-1B 7-39
3	Pilot	Rides in the fastener hole and keeps the cut square to it	Maker's data
4	Head, nut, collar	Seated tight all round; inspect both sides	H-8083-31B p. 4-50
5	Reverse pilot	Passes through the hole and carries the back cutter	Maker's data
6	Back spotfacer	Cuts the far-side seat as the drill pulls back	Maker's data
—	Squareness	Hole perpendicular to the seat within ±3°, unless the drawing says otherwise	TO 1-1A-1 C.8.1

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	YEAR
A	First issue	2026

The Aviation Point. Structural repair reference

TITLE			
Spotfacing			
DRAWING NO. TAP-DWG-130	REV A · 2026	SCALE NTS	SHEET 1 OF 1
APPLIES TO Fittings, castings, forgings			
DO NOT SCALE DRAWING			

After FAA-H-8083-31B pp. 4-49, 4-50; AC 43.13-1B par. 7-39; TO 1-1A-1 par. C.8.1. Generic fitting, not to scale: the drawing or the SRM governs.

Key points

- **Full bearing** for head and nut.
- **Only to clean up.**
- **Hole ⊥ seat within ±3°.**

Step by step

1. Allowed by the drawing?
2. Hole first, then pilot to it.
3. Cutter covers the bearing Ø.
4. Slow, square, to clean up.
5. Deburr, treat, prime, inspect.

SOURCES · FAA-H-8083-31B, Aviation Maintenance Technician Handbook: Airframe · FAA AC 43.13-1B CHG 1 · TO 1-1A-1 / NAVAIR 01-1A-1, General Manual for Structural Repair · Wikipedia, Spotface · Makers' pages · 29 CFR 1910.133 and 1910.242

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

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

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