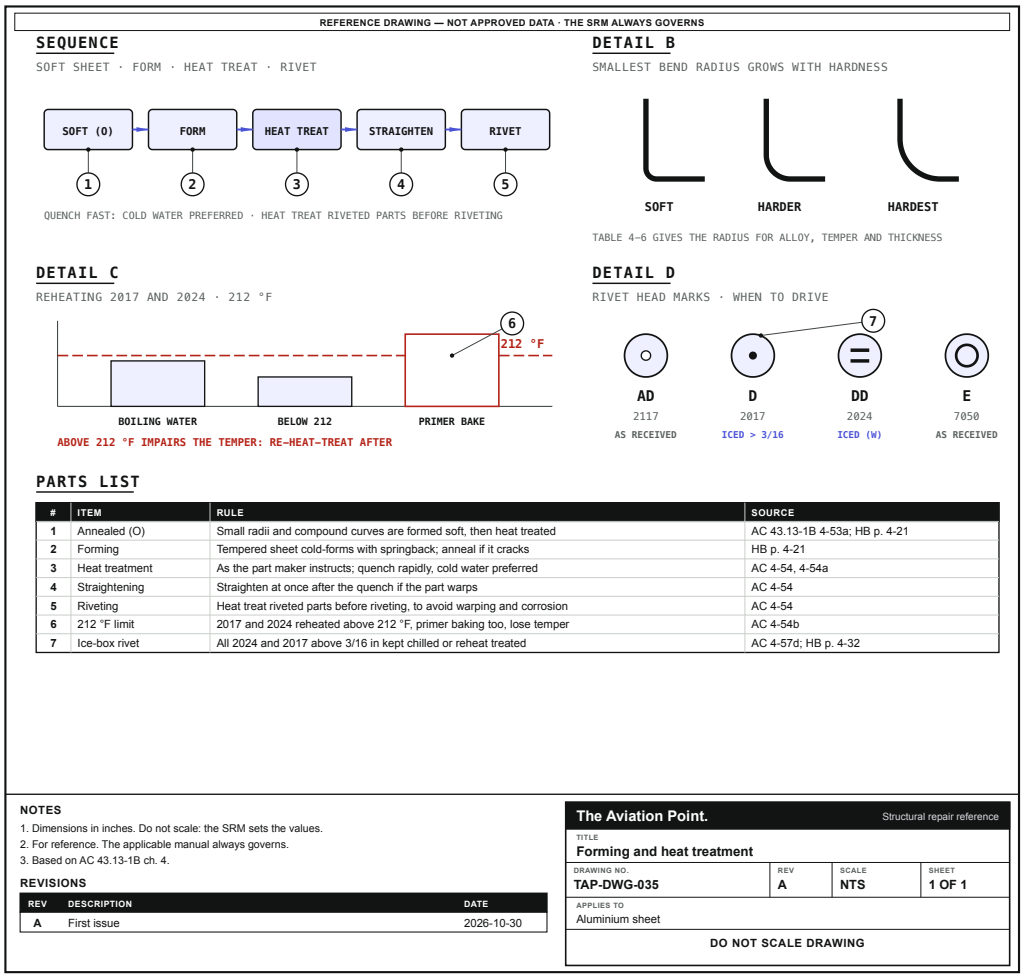
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Forming and Heat Treatment: Which Temper, and Ice-Box Rivets

Soft to form · heat treat · quench · ice-box rivets



After AC 43.13-1B pars. 4-53 to 4-55 and 4-57d, and FAA-H-8083-31A pp. 4-21, 4-32 and 4-33. Typical only: the part drawing and the heat-treatment specification govern.

Key points

- **Match the original** alloy and temper; annealed structure weighs more.
- **Form soft** for small radii and compound curves; heat treat after.
- **Quench fast**; straighten at once; heat treat before riveting.
- **Never above 212 °F** for 2017 and 2024, primer bakes included, without re-heat-treating.
- **Ice-box:** all 2024 and 2017 above 3/16 in; AD and E as received.

Step by step

1. Read alloy and temper from the drawing.
2. Choose soft or tempered stock for the forming.
3. Form, heat treat to the specification, quench, straighten.
4. Rivet after heat treatment.
5. Keep ice-box rivets chilled until driven.

SOURCES · FAA AC 43.13-1B CHG 1, Chapter 4 · FAA-H-8083-31A, AMT Handbook — Airframe, Volume 1, Chapter 4 · MS20470 Rev. H and MS20426 Rev. L, 14 Sep 1993

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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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