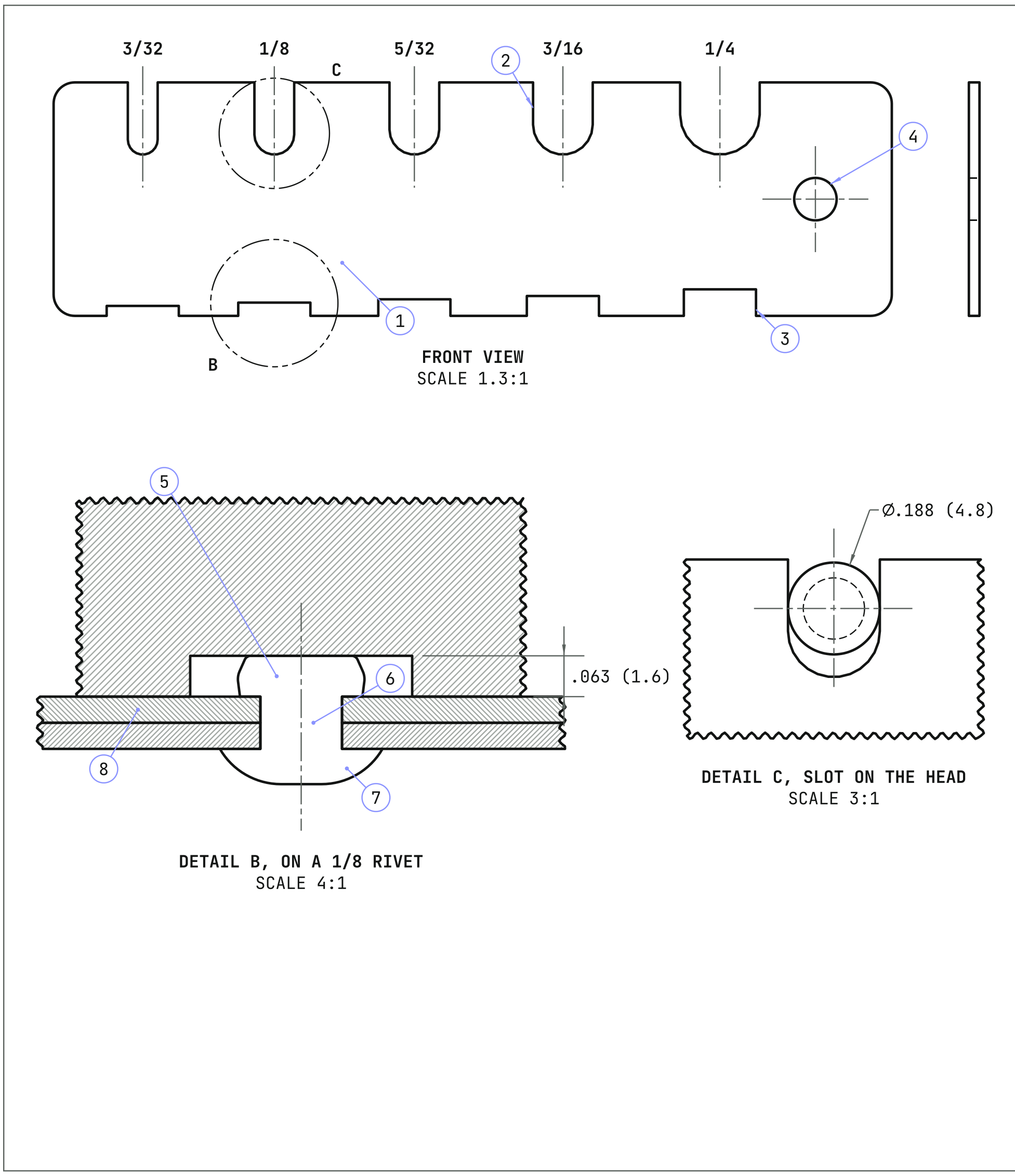
THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

Inspection Gauges: Rivet, Thickness, Drill and Radius Gauges

A gauge answers one question fast: is it the right size?



HEAD DIA, 1.5D	
RIVET	IN (MM)
3/32	.141 (3.6)
1/8	.188 (4.8)
5/32	.234 (5.9)
3/16	.281 (7.1)
1/4	.375 (9.5)

HEAD HEIGHT, 0.5D	
RIVET	IN (MM)
3/32	.047 (1.2)
1/8	.063 (1.6)
5/32	.078 (2.0)
3/16	.094 (2.4)
1/4	.125 (3.2)

NOTES
1. INCHES (MM).
2. HEAD MUST NOT PASS ITS SLOT.
3. HEAD MUST TOUCH ITS STEP.
4. REPAIR DATA GOVERNS.

ITEM	DESCRIPTION
8	SKINS
7	FACTORY HEAD
6	RIVET SHANK
5	SHOP HEAD
4	HANGING HOLE
3	HEIGHT STEP, 0.5D
2	DIAMETER SLOT, 1.5D
1	GAUGE PLATE

GAUGE, RIVET SHOP HEAD	
SHEET 1 OF 1	
DWG TAP-TG-056	REV A
SCALE 1.3:1	

Types and sizes

Type	Size or range, inches (mm)	Where it fits
Rivet shop head gauge	A slot and a step for each rivet, 3/32 to 1/4 (2.4 to 6.4)	Diameter and height of driven heads, after riveting
Sheet thickness gauge	Notches marked in gauge numbers and decimal inches	Sorting sheet stock; confirm with a micrometer
Drill gauge	Holes for number, letter and fraction drills, 1/16 to 1/2 (1.6 to 12.7)	Naming a drill bit before it goes in the motor
Radius gauge	Inside and outside leaves, 1/32 to 1/2 (0.8 to 12.7)	Bend radius of formed parts, flanges and fillets
Thread pitch gauge	Leaves in threads per inch and in metric pitch	Naming bolt, screw and nut threads
Feeler gauge	Leaves from .0015 to .025 (0.04 to 0.64)	Gaps between parts and shims at fit-up
Flushness gauge	Dial indicator on a three-point base, reads .001 (0.025)	Head height of flush rivets and countersink depth
Inspection magnifier	5x to 10x, with or without a light	Suspected cracks at holes, heads and edges

What to check when buying

Check	What to look for
Markings	Size stamped or etched at every slot, hole and leaf, in inches and in mm where the gauge carries both
Material	Hardened or stainless steel; leaves that spring back flat
Gauging edges	Square and sharp, no burrs, no wear at the slots and steps
Rivet gauge range	A slot and a step for each rivet size you drive, 3/32 to 1/4 in
Drill gauge	Number, letter and fraction sizes on one plate, each hole marked with its decimal
Leaf holder	A screw that locks the leaves; leaves sold one by one
Flushness gauge	Three-point base, a dial that reads .001 in, a point that reaches the head
Calibration	Gauges that decide acceptance go in the shop calibration list, with a serial number

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

THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM

Accessories

Item	What it is for
Inspection mirror	The back of a joint and the shop heads you cannot see
Flashlight	Raking light across the skin shows dents, heads and cracks
Marker	Marks a head that fails the gauge for drilling out
Case or pouch	Keeps plates and leaves flat and apart
Light oil	A thin coat against corrosion on steel leaves

SCAN · OPEN THIS GUIDE
theaviationpoint.com/tools/inspection-gauges/

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

THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM · THE AVIATION POINT · THEAVIATIONPOINT.COM