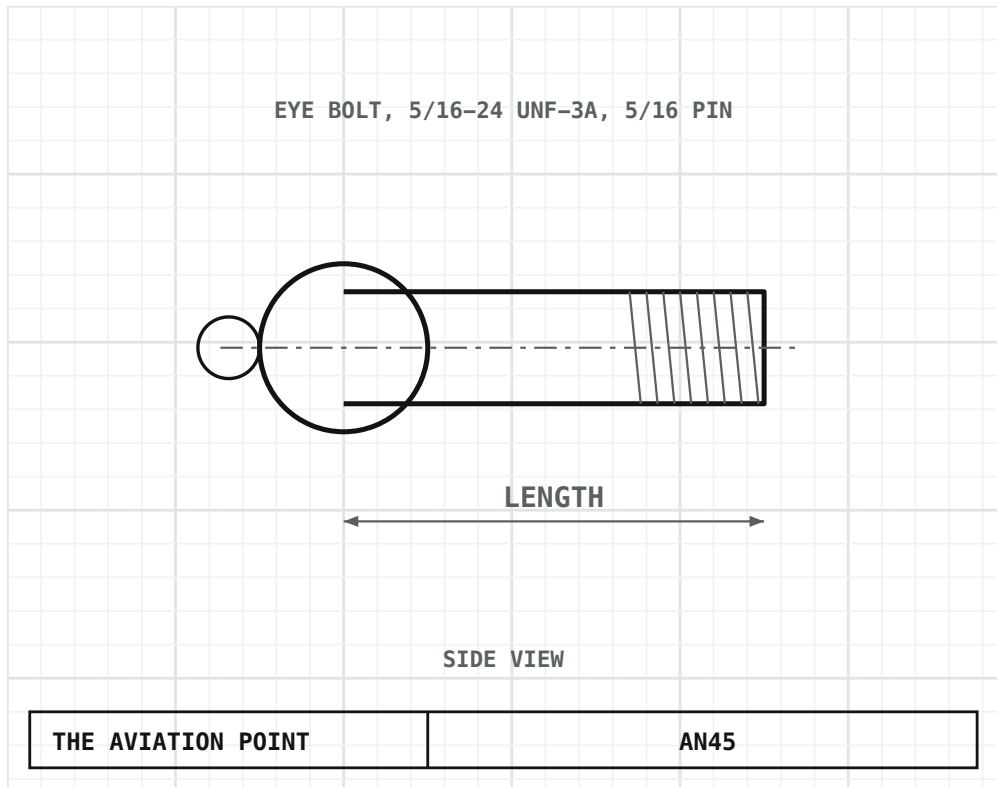
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AN45 — eye bolt, 5/16-24 UNF-3A, 5/16 pin

AN45: 5/16 eye bolt with a 5/16-24 UNF-3A thread and a 5/16 pin hole.



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Eye bolt
Material	Non-corrosion-resistant steel, or corrosion-resistant steel (C before the dash number); see the procurement specification
Finish	Per the procurement specification
Procurement	MIL-B-6812
Status	Check the current issue before design use. Cancelled by Notice 1 (19 Apr 1999) and superseded by NASM42 thru NASM49; the notice states the part numbers are identical.

Dimensions by size

Dimension, in	5/16-24 UNF-3A
Thread T	5/16-24 UNF-3A
A max — A dia (shank), max	.312
A min — A dia (shank), min	.309
B — B rad	11/32
C — C, ±.005	.188
D — D dia	11/16
E max — E dia (eye hole), max	.316
E min — E dia (eye hole), min	.313
F — F drill (cotter pin hole), ±.010	.076
H — H, ref	23/64
J — J	3/64
K — K	19/32
L — L	3/32
M — M × 45° ±5° (end chamfer)	3/64
Pin dia, ref	5/16

Dimensions in inches, as tabulated in the standard (letters as on its drawing).

Part numbers

5/16-24 UNF-3A 61 part numbers

Part no.	Grip, in	Length, in
AN45-4	1/16	19/32
AN45-5	3/16	23/32
AN45-6	5/16	27/32
AN45-7	7/16	31/32
AN45-10	9/16	1-3/32
AN45-11	11/16	1-7/32
AN45-12	13/16	1-11/32
AN45-13	15/16	1-15/32
AN45-14	1-1/16	1-19/32
AN45-15	1-3/16	1-23/32
AN45-16	1-5/16	1-27/32
AN45-17	1-7/16	1-31/32
AN45-20	1-9/16	2-3/32
AN45-21	1-11/16	2-7/32
AN45-22	1-13/16	2-11/32

Part no.	Grip, in	Length, in
AN45-23	1-15/16	2-15/32
AN45-24	2-1/16	2-19/32
AN45-25	2-3/16	2-23/32
AN45-26	2-5/16	2-27/32
AN45-27	2-7/16	2-31/32
AN45-30	2-9/16	3-3/32
AN45-31	2-11/16	3-7/32
AN45-32	2-13/16	3-11/32
AN45-33	2-15/16	3-15/32
AN45-34	3-1/16	3-19/32
AN45-35	3-3/16	3-23/32
AN45-36	3-5/16	3-27/32
AN45-37	3-7/16	3-31/32
AN45-40	3-9/16	4-3/32
AN45-41	3-11/16	4-7/32
AN45-42	3-13/16	4-11/32

Part no.	Grip, in	Length, in
AN45-43	3-15/16	4-15/32
AN45-44	4-1/16	4-19/32
AN45-45	4-3/16	4-23/32
AN45-46	4-5/16	4-27/32
AN45-47	4-7/16	4-31/32
AN45-50	4-9/16	5-3/32
AN45-51	4-11/16	5-7/32
AN45-52	4-13/16	5-11/32
AN45-53	4-15/16	5-15/32
AN45-54	5-1/16	5-19/32
AN45-55	5-3/16	5-23/32
AN45-56	5-5/16	5-27/32
AN45-57	5-7/16	5-31/32
AN45-60	5-9/16	6-3/32
AN45-61	5-11/16	6-7/32
AN45-62	5-13/16	6-11/32

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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Part no.	Grip, in	Length, in
AN45-63	5-15/16	6-15/32
AN45-64	6-1/16	6-19/32
AN45-65	6-3/16	6-23/32
AN45-66	6-5/16	6-27/32
AN45-67	6-7/16	6-31/32

Part no.	Grip, in	Length, in
AN45-70	6-9/16	7-3/32
AN45-71	6-11/16	7-7/32
AN45-72	6-13/16	7-11/32
AN45-73	6-15/16	7-15/32
AN45-74	7-1/16	7-19/32

Part no.	Grip, in	Length, in
AN45-75	7-3/16	7-23/32
AN45-76	7-5/16	7-27/32
AN45-77	7-7/16	7-31/32
AN45-80	7-9/16	8-3/32

How to read the part number

Part	Meaning
Format	AN45-<dash>
Example	AN45-4 — Eye bolt, 5/16-24 UNF-3A, grip 1/16, length 19/32, drilled hole in shank

Notes

- Dash number sets the grip and length. Add A after the dash number for a bolt without the drilled hole in the shank; add C before the dash number for a corrosion-resistant steel bolt.
- Examples in the standard: AN46-10 is the 3/8-24 non-corrosion-resistant steel eye bolt, 1-5/64 long, with 7/16 grip and the drilled hole in the shank; AN46-10A has no hole; AN46-C10 is corrosion-resistant steel with the hole; AN46-C10A is corrosion-resistant steel without the hole.
- Grip is measured from the underside of the head to the end of the full cylindrical portion of the shank. Complete threads begin within two thread pitches maximum, which may consist of incomplete thread or extrusion angle.
- Length tolerance +1/32 –1/64. Unless otherwise specified, fractions ±1/64.
- Cotter pin hole centerline within .010 of the bolt centerline for 5/16 dia bolts and smaller, and within .015 for 3/8 dia bolts and larger; hole normal to the bolt centerline within 2°.
- Reference dimensions (H and pin dia) are for design purposes only and are not an inspection requirement.
- The basic AN part number is marked on the head, depressed, .025 in deep max. Countersinking of the drilled hole in the shank is optional; the pin hole E is not countersunk.
- Thread T per MIL-S-7742. Bolts are free from hanging burrs and slivers.
- Approved data governs. Use the bolt the SRM, drawing or IPC calls for.

SOURCES · AN42 thru AN49 Rev. 6, 4 Aug 1982 — Bolt, Eye

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/structural-bolts/an45/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.