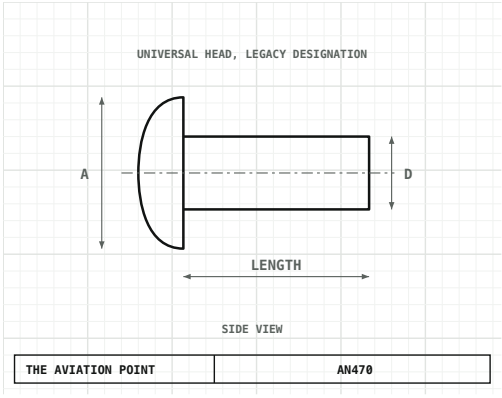
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AN470 rivet — universal head, legacy designation (now MS20470)

Solid rivet, universal head, with the dimensions and dash numbers of its replacement MS20470 Rev. H.



AN470



Engineering drawing · dimensions in inches

Specification

Item	Value
Current standard	MS20470 (part numbers unchanged)
Type	Solid rivet, universal head
Material	As MS20470 for the alloy code
Status	Legacy AN designation. Use MS20470 (like dash numbers are interchangeable); confirm the current issue (NASM20470) before design use.

Dimensions by size

Dimension, in	1/16	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8
D — Shank diameter (+.003 / -.001; applies to rivets manufactured after 2 July 1990)	.062	.094	.125	.156	.187	.219	.250	.312	.375
A — Head diameter	.125	.187	.250	.312	.375	.437	.500	.625	.750
A tolerance	± .006	± .009	± .012	± .016	± .019	± .022	± .025	± .031	± .037
B — Approx. material for full shop head	.094	.141	.188	.234	.281	.328	.375	.469	.562
C — Head height (+.010 / -.000)	.027	.040	.054	.067	.080	.093	.107	.133	.161
E — E (see drawing)	.031	.046	.062	.078	.093	.109	.125	.156	.187
F — Flat F (see drawing)	.015	.023	.031	.039	.046	.054	.062	.078	.093
R — Head radius	.054	.082	.108	.135	.164	.193	.217	.272	.328
S — End chamfer	.016	.023	.031	.039	.047	.054	.062	.078	.094
T — End radius	.019	.029	.039	.049	.059	.069	.078	.098	.117

Dimensions of MS20470 Rev. H, which states that rivets of like dash numbers are universally, functionally and dimensionally interchangeable with AN470.

Part numbers

1/16 13 part numbers

Part no.	MS20470 number	Length, in
AN470AD2-3	MS20470AD2-3	.188
AN470AD2-4	MS20470AD2-4	.250
AN470AD2-5	MS20470AD2-5	.312
AN470AD2-6	MS20470AD2-6	.375
AN470AD2-7	MS20470AD2-7	.438
AN470AD2-8	MS20470AD2-8	.500
AN470AD2-9	MS20470AD2-9	.562
AN470AD2-10	MS20470AD2-10	.625
AN470AD2-12	MS20470AD2-12	.750
AN470AD2-14	MS20470AD2-14	.875
AN470AD2-16	MS20470AD2-16	1.000
AN470AD2-18	MS20470AD2-18	1.125
AN470AD2-20	MS20470AD2-20	1.250

3/32 14 part numbers

Part no.	MS20470 number	Length, in
AN470AD3-3	MS20470AD3-3	.188
AN470AD3-4	MS20470AD3-4	.250
AN470AD3-5	MS20470AD3-5	.312
AN470AD3-6	MS20470AD3-6	.375
AN470AD3-7	MS20470AD3-7	.438
AN470AD3-8	MS20470AD3-8	.500
AN470AD3-9	MS20470AD3-9	.562
AN470AD3-10	MS20470AD3-10	.625
AN470AD3-12	MS20470AD3-12	.750
AN470AD3-14	MS20470AD3-14	.875
AN470AD3-16	MS20470AD3-16	1.000
AN470AD3-18	MS20470AD3-18	1.125
AN470AD3-20	MS20470AD3-20	1.250
AN470AD3-22	MS20470AD3-22	1.375

1/8 16 part numbers

Part no.	MS20470 number	Length, in
AN470AD4-3	MS20470AD4-3	.188
AN470AD4-4	MS20470AD4-4	.250
AN470AD4-5	MS20470AD4-5	.312
AN470AD4-6	MS20470AD4-6	.375
AN470AD4-7	MS20470AD4-7	.438
AN470AD4-8	MS20470AD4-8	.500
AN470AD4-9	MS20470AD4-9	.562
AN470AD4-10	MS20470AD4-10	.625
AN470AD4-11	MS20470AD4-11	.687
AN470AD4-12	MS20470AD4-12	.750
AN470AD4-14	MS20470AD4-14	.875
AN470AD4-16	MS20470AD4-16	1.000
AN470AD4-18	MS20470AD4-18	1.125
AN470AD4-20	MS20470AD4-20	1.250
AN470AD4-22	MS20470AD4-22	1.375
AN470AD4-24	MS20470AD4-24	1.500

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

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5/32 18 part numbers

Part no.	MS20470 number	Length, in
AN470AD5-4	MS20470AD5-4	.250
AN470AD5-5	MS20470AD5-5	.312
AN470AD5-6	MS20470AD5-6	.375
AN470AD5-7	MS20470AD5-7	.438
AN470AD5-8	MS20470AD5-8	.500
AN470AD5-9	MS20470AD5-9	.562
AN470AD5-10	MS20470AD5-10	.625
AN470AD5-11	MS20470AD5-11	.687
AN470AD5-12	MS20470AD5-12	.750
AN470AD5-14	MS20470AD5-14	.875
AN470AD5-16	MS20470AD5-16	1.000
AN470AD5-17	MS20470AD5-17	1.062
AN470AD5-18	MS20470AD5-18	1.125
AN470AD5-19	MS20470AD5-19	1.187
AN470AD5-20	MS20470AD5-20	1.250
AN470AD5-22	MS20470AD5-22	1.375
AN470AD5-24	MS20470AD5-24	1.500
AN470AD5-28	MS20470AD5-28	1.750

3/16 22 part numbers

Part no.	MS20470 number	Length, in
AN470AD6-3	MS20470AD6-3	.187
AN470AD6-4	MS20470AD6-4	.250
AN470AD6-5	MS20470AD6-5	.312
AN470AD6-6	MS20470AD6-6	.375
AN470AD6-7	MS20470AD6-7	.438
AN470AD6-8	MS20470AD6-8	.500
AN470AD6-9	MS20470AD6-9	.562
AN470AD6-10	MS20470AD6-10	.625
AN470AD6-11	MS20470AD6-11	.687
AN470AD6-12	MS20470AD6-12	.750
AN470AD6-13	MS20470AD6-13	.812
AN470AD6-14	MS20470AD6-14	.875
AN470AD6-16	MS20470AD6-16	1.000
AN470AD6-18	MS20470AD6-18	1.125
AN470AD6-20	MS20470AD6-20	1.250
AN470AD6-22	MS20470AD6-22	1.375
AN470AD6-24	MS20470AD6-24	1.500
AN470AD6-28	MS20470AD6-28	1.750
AN470AD6-32	MS20470AD6-32	2.000
AN470AD6-36	MS20470AD6-36	2.250
AN470AD6-40	MS20470AD6-40	2.500
AN470AD6-48	MS20470AD6-48	3.000

7/32 17 part numbers

Part no.	MS20470 number	Length, in
AN470AD7-6	MS20470AD7-6	.375
AN470AD7-7	MS20470AD7-7	.438
AN470AD7-8	MS20470AD7-8	.500
AN470AD7-9	MS20470AD7-9	.562
AN470AD7-10	MS20470AD7-10	.625
AN470AD7-12	MS20470AD7-12	.750
AN470AD7-14	MS20470AD7-14	.875
AN470AD7-16	MS20470AD7-16	1.000
AN470AD7-18	MS20470AD7-18	1.125
AN470AD7-20	MS20470AD7-20	1.250
AN470AD7-22	MS20470AD7-22	1.375
AN470AD7-24	MS20470AD7-24	1.500
AN470AD7-28	MS20470AD7-28	1.750
AN470AD7-32	MS20470AD7-32	2.000
AN470AD7-40	MS20470AD7-40	2.500
AN470AD7-48	MS20470AD7-48	3.000
AN470AD7-56	MS20470AD7-56	3.500

1/4 17 part numbers

Part no.	MS20470 number	Length, in
AN470AD8-6	MS20470AD8-6	.375
AN470AD8-7	MS20470AD8-7	.438
AN470AD8-8	MS20470AD8-8	.500
AN470AD8-9	MS20470AD8-9	.562
AN470AD8-10	MS20470AD8-10	.625
AN470AD8-12	MS20470AD8-12	.750
AN470AD8-14	MS20470AD8-14	.875
AN470AD8-16	MS20470AD8-16	1.000
AN470AD8-18	MS20470AD8-18	1.125
AN470AD8-20	MS20470AD8-20	1.250
AN470AD8-22	MS20470AD8-22	1.375
AN470AD8-24	MS20470AD8-24	1.500
AN470AD8-28	MS20470AD8-28	1.750
AN470AD8-32	MS20470AD8-32	2.000
AN470AD8-40	MS20470AD8-40	2.500
AN470AD8-48	MS20470AD8-48	3.000
AN470AD8-56	MS20470AD8-56	3.500

5/16 16 part numbers

Part no.	MS20470 number	Length, in
AN470AD10-8	MS20470AD10-8	.500
AN470AD10-9	MS20470AD10-9	.562
AN470AD10-10	MS20470AD10-10	.625
AN470AD10-12	MS20470AD10-12	.750
AN470AD10-14	MS20470AD10-14	.875
AN470AD10-16	MS20470AD10-16	1.000
AN470AD10-18	MS20470AD10-18	1.125
AN470AD10-20	MS20470AD10-20	1.250
AN470AD10-22	MS20470AD10-22	1.375
AN470AD10-24	MS20470AD10-24	1.500
AN470AD10-28	MS20470AD10-28	1.750
AN470AD10-32	MS20470AD10-32	2.000
AN470AD10-40	MS20470AD10-40	2.500
AN470AD10-48	MS20470AD10-48	3.000
AN470AD10-56	MS20470AD10-56	3.500
AN470AD10-64	MS20470AD10-64	4.000

3/8 14 part numbers

Part no.	MS20470 number	Length, in
AN470AD12-10	MS20470AD12-10	.625
AN470AD12-12	MS20470AD12-12	.750
AN470AD12-14	MS20470AD12-14	.875
AN470AD12-16	MS20470AD12-16	1.000
AN470AD12-18	MS20470AD12-18	1.125
AN470AD12-20	MS20470AD12-20	1.250
AN470AD12-22	MS20470AD12-22	1.375
AN470AD12-24	MS20470AD12-24	1.500
AN470AD12-28	MS20470AD12-28	1.750
AN470AD12-32	MS20470AD12-32	2.000
AN470AD12-40	MS20470AD12-40	2.500
AN470AD12-48	MS20470AD12-48	3.000
AN470AD12-56	MS20470AD12-56	3.500
AN470AD12-64	MS20470AD12-64	4.000

How to read the part number

Part	Meaning
Format	AN470<material><dash>
A	Material: 1100-F aluminum (head plain)
AD	Material: 2117-T4 aluminum alloy (dimpled head)
B	Material: 5056-H32 aluminum alloy (raised cross)
D	Material: 2017-T4 aluminum alloy, inactive for new design (raised teat)
DD	Material: 2024-T4 aluminum alloy, inactive for new design (raised double dash)
Example	AN470AD4-5 — Same as MS20470AD4-5

Notes

- **Current standard: MS20470.** AN470 is now controlled by **MS20470** (MS20470 Rev. H, note 2). The part numbers do not change: **AN470AD2-3** is still the number on drawings, IPCs and bags, and it is the same part. Order it by that number; the current document is MS20470.
- Use MS20470 for new orders. Older drawings and IPCs keep the AN470 number.

SOURCES · MS20470 Rev. H, 14 Sep 1993 — Rivet, Solid, Universal Head, Aluminum Alloy and Titanium Columbium Alloy

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/solid-rivets/an470/

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