aerospatiale TECHNICAL MANAGEMENT STANDARDS DEPt.	CHERRYLOCK BLIND RIVETS a) - BULB TYPE - MUSHROOM HEAD (Non-Standard diameters)	GENERAL DESIGN MANUAL ASN-A 0064

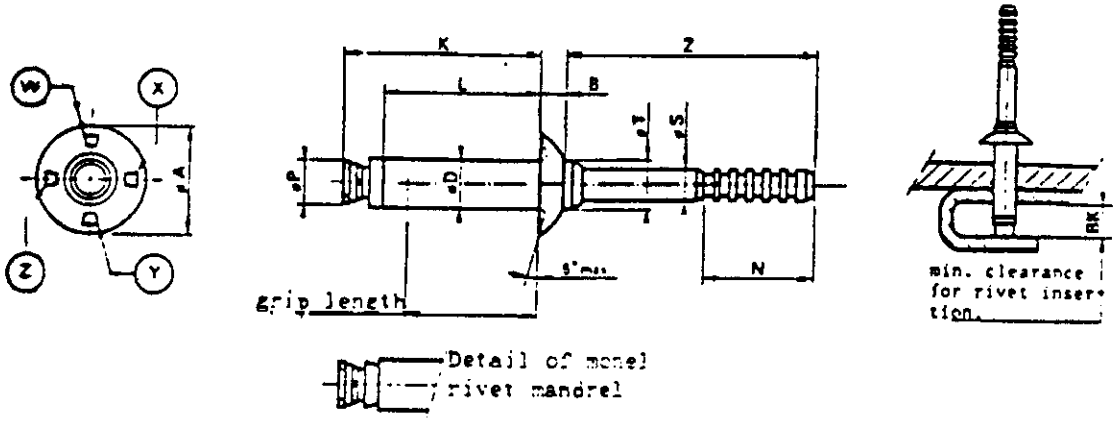
CONTENTS

1 - DESCRIPTION

Depending on the manufacturer, these blind rivets are made of 3 parts (sleeve, shank and ring) or 2 parts (integral sleeve & ring + shank).

Engagement and installation proceed on the same face of components to be fitted.

2 - CHARACTERISTICS



2.1 - Markings - The markings on the rivet head are as follows :

- at W, a letter specifying the nature of the material :
  letter M : for monel ;
  no marking : for aluminium alloy.
- at X, manufacturer's identification mark see I.C.C. 04.81.104.
- at Y, grip length symbol (see paragraph 2.3)
- at Z sign "+" if necessary, for inconel 600 stems.

2.2 - Dimensions

Diameter code	Nominal diameter in	Nominal diameter mm	D +.003 -.001 in	D +0.076 -0.025 mm	A ±.010 in	A ±0.25 mm	B REF. +.010 0 in	B REF. +0,25 0 mm	BK min. Aluminium alloy in	BK min. Aluminium alloy mm	BK min. Monel	
4	1/8	3.2	.140	3.556	.250	6.35	.054	1,37	.30	7.62	.33	8.38
5	5/32	4.0	.173	4.394	.312	7.92	.067	1,70	.33	8.38	.37	9.40
6	3/16	4.8	.2015	5.118	.375	9.52	.080	2,03	.37	9.40	.41	10.41

Diameter code	N min. in	N min. mm	P max. in	P max. mm	S +.006 -.003 in	S +0,15 -0,07 mm	T REF. in	T REF. mm	Z REF. in	Z REF. mm	Drilling Hole dia. in max.	Drilling Hole dia. in min.	Drilling Hole dia. mm max.	Drilling Hole dia. mm min.	Bit No (gauge)
4	.375	9.52	.143	3.63	.090	2.29	.119	3.02	1.65	41.91	.146	.143	3.71	3.63	ø 27
5			.176	4.47	.112	2.84	.148	3.76	1.63	41.40	.180	.176	4.57	4.47	ø 16
6			.205	5.21	.132	3.35	.174	4.42	1.65	41.91	.209	.206	5.31	5.23	ø 5

2.3 - GRIP LENGTHS AND DIMENSIONS

- Only rivets whose dimensions are in the framed area are covered by document NAS 1738.

Grip length code	Grip length min.	Grip length max.	4 Aluminium alloy L ±.010 ±0.25	4 Aluminium alloy K max.	4 Monel L ±.010 ±0.25	4 Monel K max.	5 Aluminium alloy L ±.010 ±0.25	5 Aluminium alloy K max.	5 Monel L ±.010 ±0.25	5 Monel K max.	6 Aluminium alloy L ±.010 ±0.25	6 Aluminium alloy K max	6 Monel L ±.010 ±0.25	6 Monel K max
01	.020 0.51	.062 1.57	.183 4.65	.32 8.13	.203 5.16	.34 8.64	.205 5.21	.35 8.89	.236 5.99	.39 9.91	.233 5.92	.39 0.91	.264 6.70	.43 10.52
02	.063 1.60	.125 3.17	.242 6.15	.38 9.65	.265 6.73	.40 10.16	.265 6.73	.41 10.16	.298 7.57	.45 11.43	.293 7.44	.45 11.43	.326 8.28	.49 12.45
03	.126 3.20	.187 4.75	.306 7.77	.45 11.43	.328 8.33	.47 11.94	.329 8.36	.47 11.94	.360 9.14	.51 12.95	.357 9.07	.52 13.21	.389 9.88	.55 13.97
04	.188 4.78	.250 6.35	.370 9.40	.51 12.95	.390 9.91	.53 13.46	.393 9.98	.54 13.72	.423 10.74	.58 14.73	.421 10.69	.58 14.73	.452 11.48	.61 15.49
05	.251 6.38	.312 7.92	.434 11.02	.58 14.73	.453 11.51	.59 14.99	.457 11.61	.60 15.24	.485 12.32	.64 16.26	.485 12.32	.65 16.51	.514 13.06	.69 17.27
06	.313 7.95	.375 9.52	.498 12.65	.64 16.26	.515 13.08	.65 16.51	.521 13.23	.67 17.02	.548 13.92	.70 17.78	.549 13.94	.71 18.03	.577 14.66	.74 18.80
07	.376 9.55	.437 11.10	.562 14.27	.71 18.03	.578 14.68	.72 18.29	.585 14.86	.73 18.54	.610 15.49	.76 19.30	.613 15.57	.78 19.81	.639 16.23	.80 20.32
08	.438 11.12	.500 12.70	.626 15.90	.77 19.56	.640 16.26	.78 19.81	.649 16.48	.80 20.32	.673 17.09	.83 21.08	.677 17.20	.84 21.34	.702 17.83	.86 21.84
09	.501 12.73	.562 14.27	.690 17.53	.84 21.34	.703 17.86	.84 21.34	.713 18.11	.86 21.84	.735 18.67	.89 22.61	.741 18.82	.91 23.11	.764 19.40	.93 23.62
10	.563 14.30	.625 15.88					.777 19.74	.93 23.62	.798 20.27	.95 24.13	.805 20.45	.97 24.64	.827 21.0	.99 25.15
11	.626 15.90	.687 17.45					.841 21.36	.99 25.15	.860 21.84	1.01 25.65	.869 22.07	1.04 26.42	.889 22.58	1.05 26.67
12	.688 17.48	.750 19.05									.933 23.70	1.10 27.94	.952 24.18	1.11 28.19

2.4 - TENSILE AND SHEAR STRENGTHS

Material surface treatment code	4 Tensile (N)	4 Shear (N)	5 Tensile (N)	5 Shear (N)	6 Tensile (N)	6 Shear (N)
11 12	1530	2750	2360	4160	3160	5600
20 21	2180	3980	3290	6020	4450	8110

3 - MATERIALS AND SURFACE TREATMENT

CODE	MATERIAL			PROTECTIVE TREATMENT			Maximum working temperature
	Sleeve	Shank	Ring	Sleeve	Shank	Ring	
11	Aluminium alloy 5056 F 2017 T4 QQ A-430	Inconel 600 QQ-W-390	Monel QQ-N-281 or Aluminium alloy 2017-T4 QQ-A-430	Alumilite anodizing MIL-A-8625 or MIL-A-8541	None	None	120°C
12		Alloyed steel 8740AM56322			Cadmium QQ-P-416 Type II		
20	Monel QQ-N-281	Inconel 600 QQ-W-390 Monel QQ-N 281	Monel QQ N 281	None	None	None	480 C
21				Cadmium plating QQ-P-416 Type II			

1) Sleeve and ring can, depending on the manufacturer, be made integral ; the shank will, in this case, be made of aluminium alloy 7075-T6 for codes 11 and 12.

4 - DESCRIPTION

Each blind rivet is to be designated solely by its name and identification block as in the example below :

a) NEW REFERENCE

Name	Identification block	
	Manufacturer code	Reference
BLIND RIVET	F5442 1)	ASNA0064 - 4 03 21

Basic reference
Diameter code (see § 2.2)
Grip length code (see § 2.3)
Material & surface treatment code (see § 3)

b) FORMER REFERENCE

Name	Identification block	
	Manufacturer code	Reference
BLIND RIVET	F5442 1)	54224 - 4 03 21

Basic reference
Diameter code (see § 2.2)
Grip length code (see § 2.3)
Material & surface treatment code (see § 3)

5 - SPECIFICATIONS

Supply specification : NAS 1740

6 - MANUFACTURERS

See PQ 0001.05.

1) F5442 : Manufacturer code attributed to Aerospatiale General Standardization for standard parts fully defined by their reference in the General Design Manual.

AMENDMENT LIST

Issue	Paragraph amended	Synthesis of amendment	Reason
A: 03.76		New standard	Supersedes NSA 542.
B 02.83		Update	New manufacturer added
C: 12.83		Update	New manufacturer added
D: 05.86		- New designation added - Equivalences between ASN and manufacturer references deleted - Photocomposition	Basic reference matched with Standard No