aerospatiale
TECHNICAL MANAGEMENT
STANDARDS DEPT.

«HUCK MLSP» BLIND RIVETS - ROUND HEAD - ALUMINIUM ALLOY-

GENERAL DESIGN MANUAL
ASN-A0029

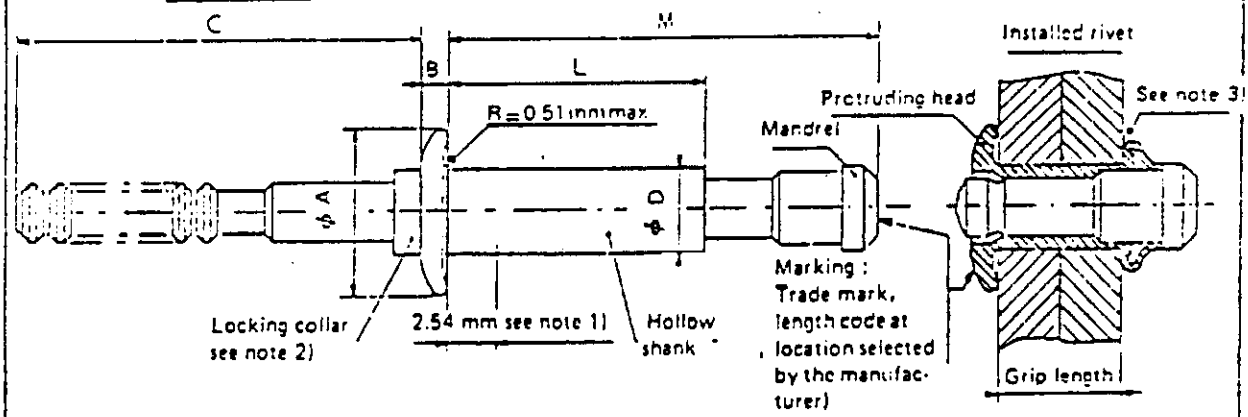
- This document complies with the rules defined in ASN 000.06 and may have been subjected to particular selections.
- Where no particular selection is specified, it is applicable without restriction.

This document is based on HUCK Co. document and Standard ASN 542.17 and supersedes the latter

Dimensions in inches and in millimetres

SUMMARY

1 – DESCRIPTION

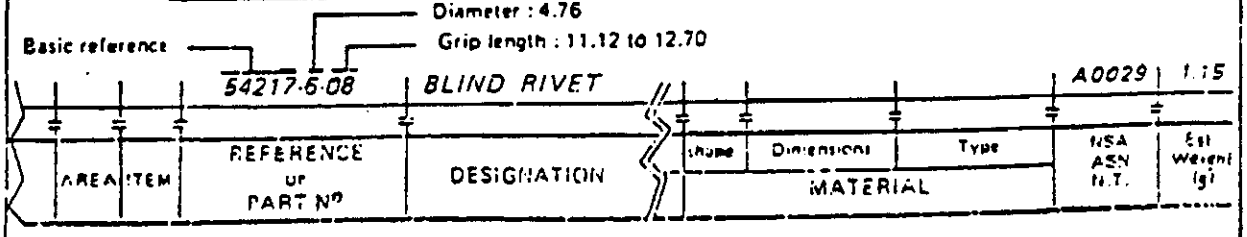


NOTES – 1) *Over this length, the diameter of the hollow shank may exceed the maximum «D» diameter by 0.025 mm.*
2) *Locking collar to be in one piece or split. It may be separated or integral part of the hollow shank, to manufacturer's discretion.*
3) *These rivets may be installed on non-parallel or curved faces. The permissible tolerances are given in ASN-A0025.*

2 – CODED REFERENCE

The coded reference of these rivets consists of the basic reference 54217 *followed by :*
– the diameter code (see table of paragraph 3),
– the length code, depending on the grip length (see table of paragraph 5).

Example of drawing call-out :



3 – DIMENSIONS AND CHARACTERISTICS

Nominal diameter		Diameter code	A		B		C min		D		Installation hole diameter b)		Min. breaking load (N)		HUCK Reference N° *
in	mm		in	mm	in	mm	in	mm	in	mm	in	mm	Shearing	a) Tensile	
1/8	3,18	4	.262 .238	6.65 6.05	.004 .054	1.02 1.37			.128 .124	3,25 3,15	.132 .129	3.35 3.28	2202	1446	MLSP-34
5/32	3,97	5	.320 .296	8.33 7.52	.077 .067	1.96 1.70	.788	20.02	.159 .155	4.04 3.94	.164 .160	4.16 4.06	3359	2180	MLSP-35
3/16	4,76	6	.394 .356	10.00 9.04	.090 .080	2.29 2.03			.190 .186	4.82 4.73	.196 .192	4.98 4.87	4848	3180	MLSP-
1/4	6,35	8	.525 .475	13.33 12.70	.117 .107	2.97 2.72	1.000	25.40	.253 .249	6.42 6.33	.261 .256	6.63 6.50	8763	5338	MLSP-38

Diameter code	Length code	Weight of installed rivets (g)	
		Related to length code	Supplement per length increment
4	01	0,19	–
	02	0,23	0,04
5	01	0,36	–
	02	0,41	0,05
6	01	0,59	–
	02	0,67	0,08
8	02	1,45	0,15

NOTES : a) *The strength values are equal to or greater than those specified in documents AFS 40911 or NAS 1400. They correspond to installed rivets.*

b) *The dimensions of the installation hole are in compliance with those given in documents MS 33522 (type II) and NAS 1900*

Recommended limit temperature : *+ 120° C, to be justified by tests carried out under operating conditions.*

4 – MATERIALS - PROTECTIVE TREATMENT

Component	MATERIAL	PROTECTIVE TREATMENT
Hollow shank and locking collar	*Aluminium alloy 5056, stabilized*	*None*
Mandrel	*Aluminium alloy 2024, naturally aged*	*Chemical surface treatment (MIL-C-5541) or anodizing (MIL-A-8625)*

To be followed by the length code.

5 – RIVET LENGTH CODES VERSUS DIAMETERS AND GRIP LENGTH

Length code	Grip length		Diameter code and nominal diameter in in.													
			4				5				6				8	
			L max		M max		L max		M max		L max		M max		L max	M max
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in mm	in mm
01	d) .062	d) 1,57	.198	5,03	.338	8,58	.227	5,76	.378	9,60	.251	6,37	.431	10,94		
02	.063 .125	1,58 3,17	.260	6,60	.443	11,25	.263	6,68	.478	12,14	.287	7,29	.526	13,36	.335	8,51 .600 15,39
03	.126 .187	3,20 4,75	.323	8,20	.568	14,42	.326	8,28	.602	15,29	.350	8,89	.651	16,53	.397	10,08 .701 17,56
04	.188 .250	4,78 6,35	.385	9,76	.693	17,60	.388	9,85	.727	18,46	.412	10,46	.776	19,71	.460	11,68 .856 21,74
05	.251 .312	6,38 7,92	.448	11,38	.818	20,77	.451	11,45	.852	21,64	.475	12,06	.901	22,88	.522	13,26 .981 24,91
06	.313 .375	7,95 9,52	.510	12,95	.943	23,95	.513	13,03	.977	24,81	.537	13,64	1.026	26,06	.585	14,85 1.106 28,09
07	.376 .437	9,55 11,10					.576	14,63	1.102	27,99	.600	15,24	1.151	29,23	.647	16,43 1.231 31,26
08	.438 .500	11,12 12,70					.638	16,20	1.227	31,16	.662	16,81	1.275	32,41	.710	18,03 1.356 34,44
09	.501 .562	12,73 14,27					.701	17,80	1.352	34,34	.725	18,41	1.401	35,59	.772	19,61 1.481 37,61
10	.563 .625	14,30 15,87									.787	19,99	1.526	38,76	.835	21,21 1.606 40,79
11	.626 .687	15,90 17,45									.850	21,59	1.651	41,93	.897	22,78 1.731 43,96
12	.688 .750	17,48 19,05									.912	23,16	1.776	45,11	.960	24,38 1.856 47,14
13	.751 .812	19,09 20,62													1.022	25,96 1.981 50,31
14	.813 .875	20,65 22,22													1.085	27,56 2.106 53,49

NOTES : c) *For code 4-01 rivets the minimum grip length will be 0.25 inch, 0.64 mm*
For code 5-01 rivets the minimum grip length will be 0.31 inch, 0.79 mm
For code 6-01 rivets, the minimum grip length will be 0.37 inch, 0.94 mm

e) *The rivets with L and M references shown between thick lines are immediately available.*

f) *Longer rivets can be manufactured on request.*

6 – PROVISIONING SPECIFICATION : *NAS 1900.*

- NOT USED FOR NEW DESIGNS - SEE NAS 1919 -

APPLICABLE INFORMATION

Company reference number (CMS)

The radix of CMS for these rivets is : 5 5 2 1 4 1 7 . . .

Manufacturers *(non exhaustive list)*

NAME	REFERENCE N°
HUCK (AEROTECHNIC)	* *See table of paragraph 3*

* *This reference N° is similar to that used by AEROSPATIALE, except that :*
- *The basic reference N° 54217 is replaced by serial number MLSP-B*

Example : AEROSPATIALE *54217-6-08*
HUCK *MLSP-B6-08*

Applicable documents
- *These rivets are in compliance with Standard NAS 1919 for corresponding length and diameter codes.*
- *Precautions to be taken for correct installation and proper use of «HUCK» blind rivets : IFM N° 291.*
- *«HUCK» blind rivets, general and installation : ASN-A0025.*

Equivalent documents
Standard ASN-A0029 supersedes Standard ASN 542 17, issue D.
The rivets defined in these two documents as well as their coded references are identical.

CROSS REFERENCE CHART FOR OLD AND NEW REFERENCE N°

(values given in millimetres)

Old reference N°				New reference N°			
Aérospatiale (NSA) (issue : 8-69)	HUCK	Grip length min	Grip length max	Grip length min	Grip length max	Aérospatiale ASN-A0029	HUCK
-54217-040 010	XP4A	0,51	0,91	0,64	1,57	54217-4-01	MLSP-B4-1
——— 020	—B	0,94	1,55				
-54217-040-030	XP4C	1,58	2,18	1,58	3,17	54217-4-02	MLSP-B4-2
——— 040	—D	2,21	2,82				
——— 050	—E	2,84	3,45				
-54217-040-060	XP4F	3,48	4,00	3,20	4,75	54217-4-03	MLSP-B4-3
——— 070	—G	4,11	4,77				
-54217-040-080	XP4H	4,75	5,35	4,78	6,35	54217-4-04	MLSP-B4-4
——— 090	—J	5,38	5,99				
-54217-050-010	XP5A	0,63	1,14	0,79	1,57	54217-5-01	MLSP-B5-1
——— 020	—B	1,17	1,93				
-54217-050-030	XP5C	1,96	2,72	1,58	3,17	54217-5-02	MLSP-B5-2
——— 040	—D	2,74	3,50				
-54217-050-050	XP5E	3,53	4,29	3,20	4,75	54217-5-03	MLSP-B5-3
——— 060	—F	4,32	5,08				
-54217-050-070	XP5G	5,10	5,87	4,78	6,35	54217-5-04	MLSP-B5-4
——— 080	—H	5,89	6,65				
-54217-050-090	XP5J	6,69	7,44	6,38	7,92	54217-5-05	MLSP-B5-5
——— 100	—K	7,47	8,23				
-54217-050-110	XP5L	8,25	9,02	7,95	9,52	54217-5-06	MLSP-B5-6
——— 120	—M	9,04	9,80				
-54217-050-130	XP5N	9,83	10,59	9,55	11,10	54217-5-07	MLSP-B5-7
-54217-060-010	XF6A	0,76	1,37	0,94	1,57	54217-6-01	MLSP-B6-1
-54217-060-020	XP6B	1,40	2,31	1,58	3,17	54217-6-02	MLSP-B6-2
——— 030	—C	2,34	3,25				
-54217-060-040	XP6D	3,29	4,19	3,20	4,75	54217-6-03	MLSP-B6-3
——— 050	—E	4,22	5,13				
-54217-060-060	XP6F	5,16	6,07	4,78	6,35	54217-6-04	MLSP-B6-4
-54217-060-070	XP6G	6,10	7,01	6,38	7,92	54217-6-05	MLSP-B6-5
——— 080	—H	7,01	7,94				
-54217-060-090	XP6J	7,98	8,89	7,95	9,52	54217-6-06	MLSP-B6-6
——— 100	—K	8,91	9,85				
-54217-060-110	XP6L	9,86	10,77	9,55	11,10	54217-6-07	MLSP-B6-7
——— 120	—M	10,79	11,71				
-54217-060-130	XP6N	11,73	12,65	11,12	12,70	54217-6-08	MLSP-B6-8
-54217-060-140	XP6P	12,67	13,59	12,73	14,27	54217-6-09	MLSP-B6-9

- NOT USED FOR NEW DESIGNS - SEE NAS 1921 -