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de HAVILLAND

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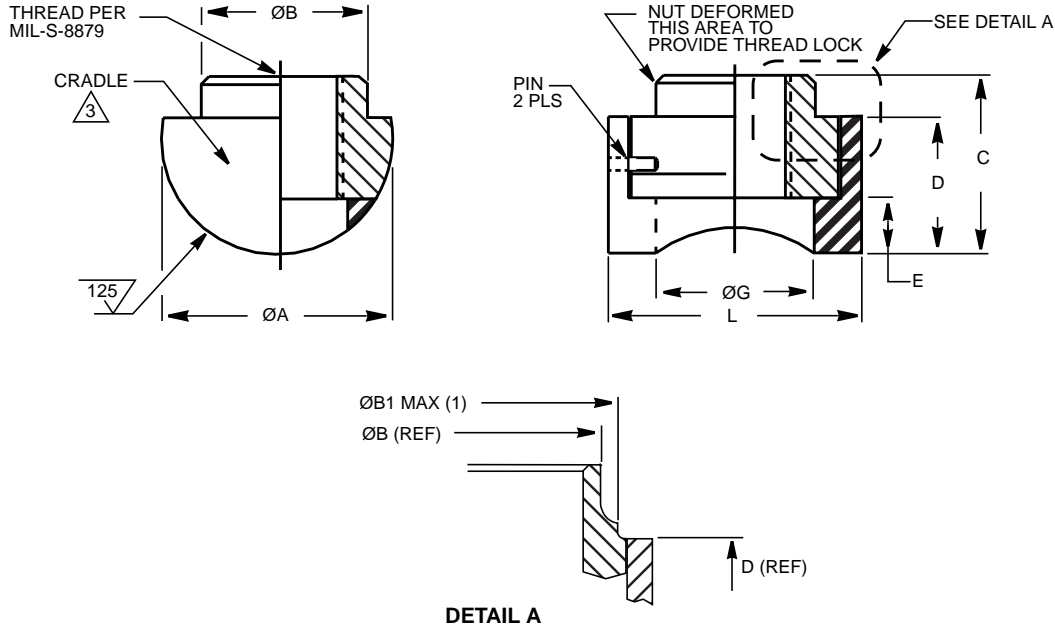
SOURCE CONTROL DRAWING

ONLY THE ITEM(S) LISTED ON THIS DRAWING AND IDENTIFIED BY VENDOR'S NAME(S), ADDRESS(ES) AND PART NUMBER(S) HAVE BEEN APPROVED FOR USE IN DE HAVILLAND AIRCRAFT. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR APPROVAL BY DE HAVILLAND ENGINEERING STANDARDS

SOURCE CONTROL DRAWING

THIS STANDARD IS INACTIVE FOR NEW PARTS - EFFECTIVE AS OF DECEMBER 31, 2012.

- Ⓟ NEW PARTS SHALL BE PROCURED PER "B0203072" AND "B0203073" AS APPLICABLE.
IN-HOUSE AND SUB-CONTRACT PARTS MANUFACTURED TO DSC228 UP TO REVISION "N" ARE ACCEPTABLE.



PART No.	THREAD (UNJF-3B)	Ø A +.000 -.003	Ø B (REF)	Ø B ₁ MAX (1)	C MAX	D +.000 -.010	E ±.005	Ø G +.011 -.000	L ±.010	AXIAL TENSILE STRENGTH	APPROX WEIGHT LB/100
DSC228-4	.2500-28	.528	.375	.423	.406	.320	.125	.281	.625	8530	1.70
DSC228-5	.3125-24	.590	.406	.470	.468	.360	.125	.344	.688	13500	2.25
DSC228-6	.3750-24	.684	.500	.564	.531	.420	.156	.406	.750	20400	3.30
DSC228-7	.4375-20	.778	.563	.642	.625	.470	.188	.469	.875	27600	5.19
DSC228-8	.5000-20	.872	.625	.720	.703	.540	.219	.531	1.000	36840	7.57
DSC228-9	.5625-18	.965	.688	.813	.765	.590	.250	.594	1.094	46680	10.80
DSC228-10	.6250-18	1.060	.750	.908	.844	.650	.281	.656	1.125	58400	11.95
DSC228-12	.7500-16	1.278	.875	1.111	1.062	.750	.344	.781	1.500	84900	21.33
DSC228-14 (2)	.8750-14	1.433	1.000	1.204	1.156	.850	.375	.906	1.531	115920	28.02
DSC228-16 (2)	1.0000-12	1.559	1.125	1.423	1.281	.880	.375	1.032	1.728	143000	34.26
DSC228-18	1.1250-12	1.872	1.250	1.720	1.562	1.230	.438	1.156	2.063	193200	78.00

- (1) MAX DIAMETER OF NUT ABOVE SHOULDER OF CRADLE
(2) DSC228-14 & DSC228-16 SHALL NOT BE MADE TO DSC 228 - USE B0203072 STANDARD FOR SIZE 16 ONLY

LIST OF CURRENT SHEETS			
SHEET	1	2	3
REVISION	P	E	F

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	B. McDONALD	NUT, SELF-LOCKING, BARREL, FLOATING, 220 KSI	DSC 228
CHECKED	P. LAM		
STRESS	S. CHENG		PAGE 1 OF 3
APPROVED	S. HAMID		

REVISION TABLE UPDATED, SHEETS "1", "2" & "3" HAVE BEEN RAISED AT ISSUES "P", "E" & "F" RESPECTIVELY
Ⓟ INACTIVATION NOTIFICATION ADDED
TABLE REVISED, DSC228-14 & -16 CANCELLED - NOTE (2) ADDED TO REPRESENT "B0203072 IN LIEU OF "DSC228-16"

APPROVED: 27 JAN 1982 REV: P - 09 NOV 2012 REV: J - 21 FEB 2007 REV: K - 15 AUG 2008 REV: L - 22 JUL 2011 REV: M - 03 AUG 2011 REV: N - 10 AUG 2011

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SOURCE CONTROL DRAWING

- (E) MATERIAL:** **NUT & CRADLE** - ALLOY STEEL PER AMS 6304 OR AMS 6322 OR AMS 6414, NO ALTERNATIVE ALLOWED.
PIN - 300 SERIES CRES OR CARBON STEEL
- (E) FINISH:** **NUT** - CADMIUM PLATE PER AMS2401 OR NAS672 WITH A 23 HOUR BAKE PLUS MOLYBDENUM DISULPHIDE DRY FILM LUBRICANT
-- OR --
VACUUM DEPOSITED CADMIUM PLATE PER AMS-C-8837, TYPE II, CLASS 2 PLUS MOLYBDENUM DISULPHIDE DRY FILM LUBRICANT
--OR--
~~ION VAPOUR DEPOSITED ALUMINUM COATING PER MIL-C-83488-CL3, TY II PLUS MOLYBDENUM DISULPHIDE DRY FILM LUBRICANT~~
CRADLE - CADMIUM PLATE PER AMS2401 OR NAS672, WITH A 23 HOUR BAKE. POST PLATE CHROMATE TREATMENT OPTIONAL.
-- OR --
VACUUM DEPOSITED CADMIUM PLATE PER AMS-C-8837, TYPE II, CLASS 2
PIN - CRES - PASSIVATE PER QQ-P-35
CARBON STEEL - CADMIUM PLATE PER QQ-P-416, TYPE I, CLASS 2
- (E) HARDNESS:** **NUT & CRADLE** - 38 TO 44 Rc
- FLOAT:** .028 MINIMUM ACROSS BARREL
- PERFORMANCE:** TO MIL-DTL-25027 EXCEPT THAT THE MINIMUM AXIAL TENSILE STRENGTH IS BASED ON MIL-B-7838 WITH VALUES INCREASED TO 220,000 PSI

NOTES:

1. MAGNETIC PARTICLE INSPECT EACH NUT INDIVIDUALLY TO MIL-I-6868 OR ASTM E 1444. EACH NUT TO BE MARKED WITH A DOT OF CONTRASTING COLOUR UPON INSPECTION.
2. PROCUREMENT SHALL SPECIFY THE DSC AND THE VENDOR PART NUMBER ON THE PURCHASE ORDER.
- (E) 3. PERMANENT MARK MANUFACTURER'S I.D., PART NUMBER AND ASSEMBLY LOT NUMBER IN THIS AREA. A CLEAR COATING MUST BE APPLIED OVER THE PART MARKING IF IT IS PERFORMED AFTER CADMIUM PLATING.**
CLEAR COAT USING EITHER DEFT CLEAR GLOSS 03-X-85 PER MIL-PRF-85285 OR AKZONOBLE CLEAR POLYURETHANE TOPCOAT PER MIL-C-83286.
4. CERTIFICATE OF COMPLIANCE MUST ACCOMPANY EACH LOT AT RECEIVING, TO ENSURE COMPLETE COMPLIANCE WITH THIS STANDARD.
5. USE NAS578 TYPE A - INDEXING TYPE RETAINERS WITH BARREL NUTS TO THIS STANDARD.
- (E) 6. DEVIATION FROM ANY ITEMS LISTED IN THIS STANDARD SHOULD BE RAISED FOR APPROVAL BY ENGINEERING.**

STRESS DURABILITY:

1. EACH LOT OF NUTS SUPPLIED TO THIS STANDARD SHALL BE TESTED IN ACCORDANCE WITH MIL-STD-1312-14, USING THE EXTENSION METHOD, TO INDUCE A STRESS IN THE NUT EQUAL TO 80% OF THE AXIAL TENSILE STRENGTH
2. THE NUT SHALL BE HELD UNDER STRESS IN THE TEST FIXTURE FOR A MINIMUM OF 96 HOURS AT ROOM TEMPERATURE.
3. SUBSEQUENT TO STRESS LOADING, THE TEST FASTENER SHALL BE DISASSEMBLED AND EXAMINED FOR THE PRESENCE OF CRACKS USING 10X MAGNIFICATION, MAGNETIC PARTICLE, OR FLOURESCENT PENETRANT INSPECTION. THE DEVELOPMENT OF CRACKS OR THE FAILURE OF THE TEST FASTENER BY FRACTURE CONSTITUTES FAILURE.
4. THE SAMPLING SIZE FOR EACH LOT SHALL BE 5 ITEMS, AND THE ACCEPTANCE NUMBER SHALL BE ZERO (0) FAILURES.

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	B. McDONALD	NUT, SELF-LOCKING, BARREL, FLOATING, 220 KSI	DSC 228
CHECKED	P. LAM		
STRESS	S. CHENG		
APPROVED	S. HAMID		PAGE 2

DSC228 REQUIREMENTS REVISED: MAT SPECS "AMS6304" & "AMS 6322" & FINISH SPEC "NAS672" REMOVED
(E) HARDNESS CONDITION REVISED: "38 TO 44 RC" INCLUDED FOR NUT & CRADLE
DELTA NOTE 3 REVISED TO REPRESENT COATING REQUIREMENTS FOR PART MARKING
NOTE 6 ADDED

APPROVED: 02 OCT 1998 REV: A - 25 OCT 99 REV: B - 22 FEB 2007 REV: C - 03 AUG 2011 REV: D - 10 AUG 2011 REV: E - 09 NOV 2012 REV:

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SOURCE CONTROL DRAWING

APPROVED VENDORS					
PART No.	SHUR-LOK [Ⓡ]	VOI-SHAN	ESNA	SPS	KAYNAR [Ⓡ]
DSC228-4	SL4171-4	VN1617A048	113LH7940-048	95931M-428	K50642-4F
DSC228-5	SL4171-5	VN1617A054	113LH7940-054	95931M-524	K50642-5F
DSC228-6	SL4171-6	VN1617A064	113LH7940-064	95931M-624	K50642-6F
DSC228-7	SL4171-7	VN1617A070	113LH7940-070	95931M-720	K50642-7F
DSC228-8	SL4171-8	VN1617A080	113LH7940-080	95931M-820	K50642-8F
DSC228-9	SL4171-9	VN1617A098	113LH7940-098	95931M-918	K50642-9F
DSC228-10	SL4171-10	VN1617A108	113LH7940-108	95931M-1018	K50642-10F
DSC228-12	SL4171-12	VN1617A126	113LH7940-126	95931M-1216	K50642-12F
[Ⓡ] DSC228-14	SL4171-14	VN1617A144	113LH7940-144	95931M-1414	K50642-14F
[Ⓡ] DSC228-16	SL4171-16	VN1617A162	113LH7940-162	95931M-1612	K50642-1612F
DSC228-18	SL4171-18	VN1617A182	113LH7940-182	95931M-1812	K50642-18F
INACTIVE FOR NEW PROCUREMENT					

PROCUREMENT REQUIREMENTS:

SPS TECHNOLOGIES BARREL NUTS MANUFACTURED PRIOR TO JANUARY 1, 2000 ARE NOT ACCEPTABLE FOR PROCUREMENT OR USAGE.

[Ⓡ] APPROVED VENDORS ADDRESSES AND CAGE CODES:

SHUR-LOK COMPANY
SPS FASTENER DIV.

2541 WHITE RD.
IRVIN CA 92614
USA CAGE CODE: 97393

SPS TECHNOLOGIES

301 HIGHLAND AVE.
JENKINTOWN PA 19046
USA CAGE CODE: 56878

ALCOA GLOBAL FASTENERS INC.
DBA KAYNAR
800 STATE COLLEGE BLVD. SOUTH
FULLERTON CA 92831
USA CAGE CODE: 15653

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	B. McDONALD	NUT, SELF-LOCKING, BARREL, FLOATING, 220 KSI	DSC 228
CHECKED	P. LAM		PAGE 3
STRESS	S. CHENG		
APPROVED	S. HAMID		

VENDORS TABLE UPDATED: SHUR-LOK PART NUMBERS REVISED TO COMPLY WITH DSC228 REQUIREMENTS, "SL4171-(*)" WAS "SL405-(*)"
DSC228-14 & DSC-16 REMOVED
KAYNAR PART NUMBERS REMOVED FROM TABLE
VENDORS ADDRESSES & CAGE CODES UPDATED - KAYNAR REMOVED

APPROVED: 25 OCT 1999 REV: A - 12 MAY 2000 REV: B - 06 FEB 2007 REV: C - 21 FEB 2007 REV: D - 03 AUG 2011 REV: E - 10 AUG 2011 REV: F - 09 NOV 2012