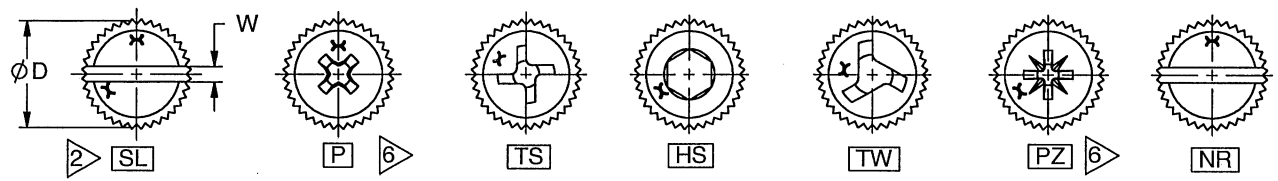
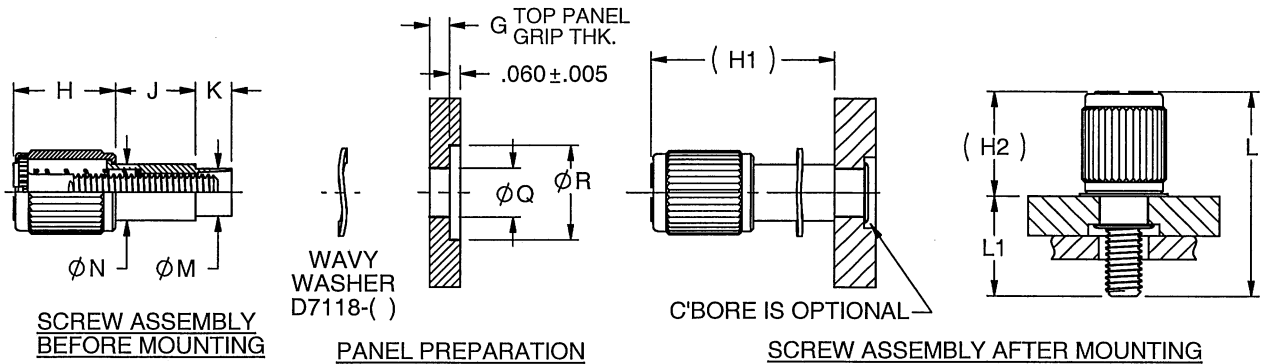


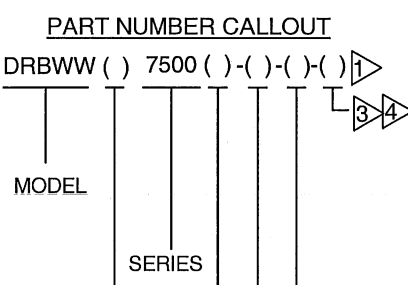
REV E

S-0666

DRAWING NO.



THREAD SIZE CODE	Ø D	H		(H1)		(H2)		J	Ø M ±.005	Ø N ±.005	Ø Q +.004 - .001	Ø R	W	RECESS SIZE				
		HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR							P, PZ	TW	TS	HS	
4, 4F, M3	.325	.444	.374	.721	.651	.468	.398	.265	.177	.206	.187	.281	.040	4	2	2	3/32	
6, 6F, M3.5	.356	.449	.379	.739	.669	.484	.414	.280	.202	.241	.209	.312	.044	4	3	4	7/64	
8, 8F, M4	.420	.559	.489	.961	.891	.593	.523	.385	.215	.258	.221	.343	.049	6	4	6	9/64	
10, 10C, 10F, M5	.451	.599	.529	1.036	.966	.631	.561	.427	.250	.297	.257	.375	.055	8	5	8	5/32	
12, 12C, 12F, M6	.531	.604	.534	1.041	.971	.626	.556	.428	.313	.371	.323	.437	.062	10	6	10	3/16	



LENGTH CODE	4, 4F, M3		6, 6F, M3.5		8, 8F, M4		10, 10C, 10F, M5		12, 12C, 12F, M6	
	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1
1	.639	.241	.650	.236	.685	.162	.832	.271	.745	.189
2	.764	.366	.775	.361	.810	.287	.957	.396	.870	.314
3	.889	.491	.900	.486	.935	.412	1.082	.521	.995	.439
4	1.014	.616	1.025	.611	1.060	.537	1.207	.646	1.120	.564
5	1.139	.741	1.150	.736	1.185	.662	1.332	.771	1.245	.689
6	1.264	.866	1.275	.861	1.310	.787	1.457	.896	1.370	.814
7	1.389	.991	1.400	.986	1.435	.912	1.582	1.021	1.495	.939

THREAD SIZE CODE	THREAD SIZE	5	LEAD	THREAD SIZE CODE	THREAD SIZE	5	LEAD
4	.112-40 UNC-3A	SINGLE		8F	.164-32 UNC-3A	QUAD	
6	.138-32 UNC-3A			10F	.190-32 UNF-3A		
8	.164-32 UNC-3A			12F	.250-28 UNF-3A		
10	.190-32 UNF-3A			M3	M3 x 0.5-4h6h		
12	.250-28 UNF-3A			M3.5	M3.5 x 0.6-4h6h		
10C	.190-24 UNC-3A	SINGLE (COARSE)		M4	M4 x 0.7-4h6h	METRIC	
12C	.250-20 UNC-3A			M5	M5 x 0.8-4h6h		
4F	.112-40 UNC-3A	DOUBLE		M6	M6 x 1.0-4h6h		
6F	.138-32 UNC-3A			M6	M6 x 1.0-4h6h		

GRIP CODE	G (TOP PANEL GRIP THICKNESS)	K ±.005
A	.031-.062	.125
B	.063-.125	.187
C	.126-.187	.250
D	.188-.250	.312
E	.251-.312	.375
F	.313-.375	.437

MATERIAL CODE	WAVY WASHER MATERIAL	RECESS CODE	DRIVING RECESS AND SPECIFICATION	RECESS CODE	DRIVING RECESS AND SPECIFICATION
2	SPRING STEEL		SLOT RECESS PER ANSI B18.6.3	PZ	RECESS PER TYPE 1A ANSI B18.6.3
3	17-7 PH		HS	TS	RECESS PER NASM 33781
4	SPRING STEEL		NR	TW	RECESS PER NAS 4000
		6	P		CROSS RECESS PER NASM 9006

E	DCN 3197	04-22-05	<p><b>Alcoa Fastening Systems</b></p> <p>AEROSPACE FASTENER DIVISION 3724 EAST COLUMBIA STREET TUCSON, ARIZONA 85714 PHONE 520 519-7400 FAX 520 519-7427 www.alcoafasteners.com</p>	<p>TITLE</p> <p><b>TURN-LOC, HIGH PROFILE, OPTIONAL RECESS, ALL SIZES, SELF-LOCKING</b></p>	
REV	DESCRIPTION/EC NO.	DATE		<p>DATE 04/22/2005</p> <p>DRAWN JLS</p> <p>CHECK <i>[Signature]</i></p> <p>APPROVE</p>	<p>PART NO. <b>DRBWW( )7500</b></p> <p>DRAWING NO. <b>S-0666</b></p> <p>CAGE CODE <b>OHDW7</b></p> <p>SCALE: 1:1</p>

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES

TOLERANCE UNLESS OTHERWISE NOTED:

.X = ±.05 ANGLES ±0.5°

.XX = ±.02

.XXX = ±.015

ORIGINAL Red Ink Indicates Original Copy

THIS DRAWING, THE STRUCTURAL DESIGN DISCLOSED THEREIN, THE TECHNICAL DATA AND ENGINEERING SERVICE REPRESENTED THEREBY ARE THE EXCLUSIVE PROPERTY OF HUCK INTERNATIONAL, INC.

ORIGINAL  
Red Ink Indicates  
Original Copy

REV E  
DRAWING NO. S-0666

THIS DRAWING, THE STRUCTURAL DESIGN DISCLOSED THEREIN, THE TECHNICAL DATA AND ENGINEERING SERVICE REPRESENTED THEREBY ARE THE EXCLUSIVE PROPERTY OF HUCK INTERNATIONAL, INC.

GRIP CODE	AVAILABILITY TABLE																																						
	4, 4F, M3							6, 6F, M3.5							8, 8F, M4							10, 10C, 10F, M5							12, 12C, 12F, M6										
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7				
A	O						O							O	O					O	O													O	O				
B								O							O						O													O	O				
C		O						O							O	O					O	O												O	O				
D									O						O					O													O	O					
E			O						O						O	O				O	O												O	O					
F									O						O					O													O	O					

ASSEMBLIES NOT AVAILABLE  
 FULLY RETRACTABLE ASSEMBLIES- SEE NOTE 8  
 FULLY RETRACTABLE ASSEMBLIES  
 ASSEMBLIES FULLY RETRACTABLE (STUD WILL PROTRUDE BELOW TOP PANEL)

**MATERIAL**

**STUD: HS, NR, P, PZ, & SLOT RECESSES**  
 ALL SIZES - 302 CRES PER ASTM-A-493 OR AMS 5636  
  
**STUD: TS AND TW RECESSES**  
 ALL SIZES - A-286 CRES PER AMS 5737, HEAT TREAT TO 160 KSI MIN. ULTIMATE TENSILE STRENGTH  
  
**KNOB & SLEEVE :** 6061 ALUMINUM ALLOY PER AMS-QQ-A-225/8, OR AMS 4117, OR EQUIVALENT  
  
**SPRING:** 302 CRES PER ASTM-A-313 OR AMS 5688 OR EQUIVALENT  
  
**WAVY WASHER:**  
**CODE:**  
 2 & 4: SPRING STEEL PER AMS-QQ-S-700 OR EQUIVALENT  
 3: CRES PER AMS 5528, AMS 5529 OR EQUIVALENT

**FINISH**

**STUD & SPRING:** PASSIVATE PER AMS QQ-P-35  
  
**KNOB & SLEEVE:** ANODIZE PER MIL-A-8625, TYPE II, CLASS I  
  
**WAVY WASHER:**  
**CODE:**  
 2: CAD PLATE PER AMS QQ-P-416, TYPE I, CLASS 2  
 3: PASSIVATE PER AMS QQ-P-35  
 4: CAD PLATE PER AMS QQ-P-416, TYPE II, CLASS 2

**NOTES:**

- 1 LETTERS AT THE END OF PART NUMBER DESIGNATE SPECIAL ASSEMBLIES:  
DL - ASSEMBLIES WITH DRI LUBE THREADS PER MIL-PRF-46010  
PL - ASSEMBLIES WITH PATCH LOCK PER MIL-DTL-18240
- 2 NO CODE REQUIRED FOR SLOTTED HEADS.
- 3 WHEN USING THE HEX SOCKET CONFIGURATION, ADD .070 TO "L" LENGTH.
- 4 FOR LONGER LENGTHS, ADD .125 INCREMENTS PER LENGTH CODE.
- 5 -3A THREADS PER ASME B1.1. "M" THREADS PER ASME B1.13M.
- 6 RECESS IS ONE SIZE SMALLER THAN NOMINAL SIZE REQUIRED FOR 100° FLAT HEAD.
- 7 COMPONENTS ARE FINISHED PRIOR TO THE ASSEMBLY PROCESS. DISCOLORATION OF THE BLACK ANODIZE MAY OCCUR ON THE CRIMPED PORTION OF THE KNOB DURING ASSEMBLY. A HIGH-ADHESION BLACK PAINT IS PERMITTED FOR TOUCH-UP AFTER ASSEMBLY.
- 8 ONLY USE ARBOR PRESS TOOL FOR INSTALLATION.

**INSTALLATION TOOLS:** ( ) INDICATES THREAD SIZE CODE  
 ARBOR PRESS TOOL HW7600-( ), REMOVAL ADAPTER TOOL FNR7505-( ), NOSE PIECE HN7513-( ),  
 PULLER HP7523-( ), HANDLE ASSEMBLY TA7533  
 COMPLETE HAND TOOL ASSEMBLY: H8603-( ) INCLUDES NOSE PIECE, PULLER & HANDLE

E DCN 3197 04-22-05		<b>Alcoa Fastening Systems</b>  <b>AEROSPACE FASTENER DIVISION</b> 3724 EAST COLUMBIA STREET TUCSON, ARIZONA 85714 PHONE 520 519-7400 FAX 520 519-7427 www.alcoafasteners.com	<b>TITLE</b> <b>TURN-LOC, HIGH PROFILE, OPTIONAL RECESS, ALL SIZES, SELF-LOCKING</b>	
REV	DESCRIPTION/EC NO. DATE		DATE 04/22/2005 DRAWN JLS CHECK APPROVE	PART NO. <b>DRBWW( )7500</b> DRAWING NO. <b>S-0666</b> CAGE CODE <b>0HDW7</b> REV <b>E</b>
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES  TOLERANCE UNLESS OTHERWISE NOTED: .X = ±.05 ANGLES ±0.5° .XX = ±.02 .XXX = ±.015		SCALE: 1:1 SHEET 2 OF 2		