



**ORIGINAL**  
 Red Ink Indicates  
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REV **G**  
 DRAWING NO. **S-1910**

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

- ASSEMBLIES NOT AVAILABLE
- FULLY RETRACTABLE ASSEMBLIES
- ASSEMBLIES NOT FULLY RETRACTABLE (STUD WILL PROTRUDE BELOW MINIMUM TOP PANEL THICKNESS)

**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 : 303Se CRES PER AMS QQ-S-764, OR AMS 5641, OR EQUIVALENT**  
**SLEEVE: 304 CRES PER AMS QQ-S-763 OR AMS 5639**  
**SPRING: 302 CRES PER ASTM-A-313 OR AMS 5688**  
**WASHERS: 301 CRES PER ASTM A 666 OR AMS 5519 OR EQUIVALENT**

**FINISH**

**NONE: ALL COMPONENTS: PASSIVATE PER AMS-QQ-P-35**  
  
**B: STUD, KNOB & WASHERS:**  
 BLACK OXIDE PER MIL-C-13924, CLASS 4 (300 SERIES)  
 BLACK OXIDE PER MIL-C-13924, CLASS 3 (A-286)

**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 ANSI/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 OXIDE MAY OCCUR ON THE CRIMPED PORTION OF THE KNOB DURING ASSEMBLY. A HIGH-ADHESION BLACK PAINT IS PERMITTED FOR TOUCH-UP AFTER ASSEMBLY.

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 ASS'Y: H8603-( ) (INCLUDES NOSE PIECE, PULLER & HANDLE)

G	DCN 3973	01-24-06
REV	DESCRIPTION/EC NO.	DATE

UNLESS OTHERWISE SPECIFIED  
 ALL DIMENSIONS IN INCHES  
  
 TOLERANCE UNLESS OTHERWISE  
 NOTED:  
 .X = ±.05      ANGLES ±0.5°  
 .XX = ±.02  
 .XXX = ±.015



**Alcoa Fastening Systems**

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TITLE  
**TURN-LOC, HIGH PROFILE,  
 OPTIONAL RECESS, CRES,  
 .031 RADIAL FLOAT**

DATE	10/19/2005	PART NUMBER	FRS( )7500
DRAWN	JLS	DRAWING NO.	S-1910
CHECK		CAGE CODE	0HDW7
APPROVE		REV	G
SCALE: 1:1		SHEET 2 OF 2	