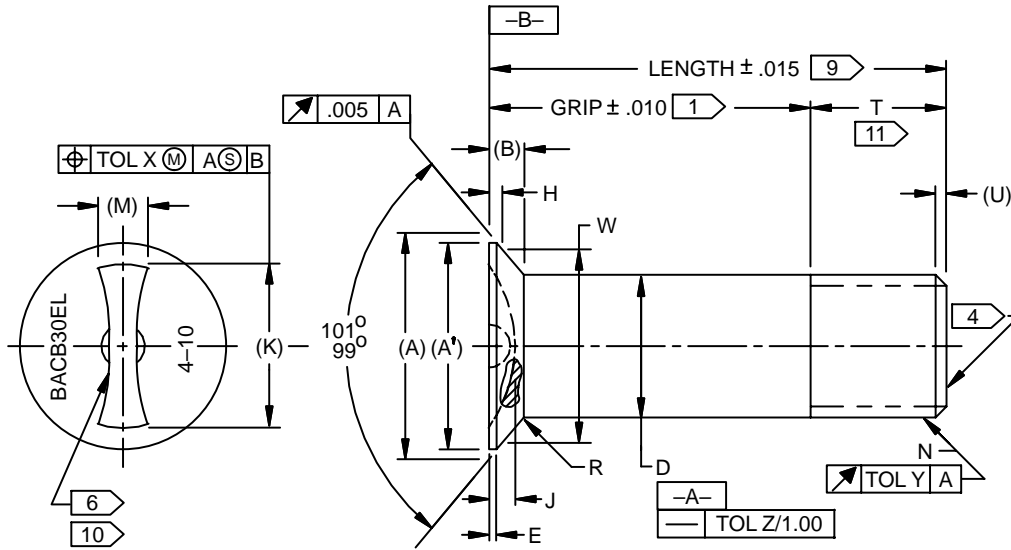


BOOK 23. DO NOT USE FOR NEW DESIGN.

FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK



DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
ALL DIMENSIONS TO BE MET AFTER PLATING, EXCEPT AS NOTED.
DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.

TECHNICAL CHANGES IDENTIFIED BY REVISION BAR.

DATE 17-APR-1959 REV (W) 03-MAY-2002

CAGE CODE 81205

BACB30EL
SH 1 OF 6

**BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD**

BACB30EL
SH 1 OF 6

BOOK 23. DO NOT USE FOR NEW DESIGN.

FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK

TABLE I

BOEING STANDARD NUMBER BACB30EL 8	N THREAD SIZE UNJF-3A PER MIL-S-8879	Ø A TO SHARP CORNER MAX 2 REF	Ø A' MIN 2 REF	B HEAD HEIGHT 2 REF	Ø D				E MAX LAND WIDTH
					BEFORE PLATE		AFTER PLATE		
					MAX 7	MIN	MAX	MIN	
3	.1900-32	.305	.258	.050	.1885	.1879	.1895	.1885	.015
4	.2500-28	.399	.350	.064	.2485	.2479	.2495	.2485	.015
5	.3125-24	.479	.429	.072	.3110	.3104	.3120	.3110	.015
6	.3750-24	.566	.515	.082	.3735	.3729	.3745	.3735	.015
7	.4375-20	.674	.605	.102	.4360	.4354	.4370	.4360	.022
8	.5000-20	.756	.687	.110	.4985	.4979	.4995	.4985	.022
9	.5625-18	.840	.753	.120	.5605	.5599	.5615	.5605	.025
10	.6250-18	.926	.847	.130	.6230	.6224	.6240	.6230	.025
12	.7500-16	1.101	1.008	.151	.7480	.7474	.7490	.7480	.025

TABLE I (CONTINUED)

BOEING STANDARD NUMBER BACB30EL 8	H GAGE PROTRUSION 3		J		K REF	M SHORT CHORD REF	R RAD		T
	NOM	± TOL	MAX	MIN			MAX	MIN	
3	.0230	.0020	.039	.036	.224	.100	.020	.010	.276
4	.0255	.0023	.045	.042	.300	.110	.020	.010	.316
5	.0280	.0025	.049	.046	.394	.134	.025	.010	.375
6	.0305	.0028	.064	.061	.484	.160	.030	.015	.391
7	.0400	.0027	.070	.066	.571	.198	.030	.015	.453
8	.0408	.0028	.086	.082	.660	.224	.030	.015	.453
9	.0463	.0030	.098	.094	.731	.256	.030	.015	.511
10	.0400	.0032	.104	.100	.819	.300	.030	.015	.543
12	.0500	.0037	.130	.126	.978	.344	.030	.015	.572

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BACB30EL

SH 2

**BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD**

BACB30EL

SH 2

**BOEING PART STANDARD
BOOK 23. DO NOT USE FOR NEW DESIGN.**

BOOK 23. DO NOT USE FOR NEW DESIGN.FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK**TABLE I (CONTINUED)**

BOEING STANDARD NUMBER BACB30EL 8	U REF	Ø W GAGE +.0002 -.0000 3	X TOL	Y TOL	Z TOL	MIN ULT TENSILE LBS 5	MIN BOLT TORQUE IN LBS 6	RECESS NUMBER 10
3	.016	.2438	.016	.0045	.0040	1,400	35	2
4	.018	.3312	.016	.0045	.0030	2,550	50	3
5	.021	.4045		.0045	.0030	4,060	125	4
6	.021	.4852		.0060	.0025	6,150	200	5
7	.025	.5696		.0060	.0025	7,300	310	6
8	.025	.6498		.0060	.0025	9,300	560	7
9	.028	.7198		.0060	.0020	11,400	930	8
10	.028	.8212		.0060	.0020	13,800	1,230	9
12	.031	.9700		.0090	.0020	19,000	1,700	10

NOTES

- 1 TO DETERMINE THE GRIP LENGTH NUMBER, DIVIDE THE TOTAL THICKNESS OF PARTS BEING JOINED BY .0625. ROUND OFF DECIMALS TO NEXT LARGER WHOLE NUMBER.
TO DETERMINE THE NOMINAL GRIP LENGTH, MULTIPLY THE GRIP LENGTH NUMBER BY .0625. THE GRIP LENGTH IS MEASURED FROM THE TOP OF THE HEAD TO THE END OF THE FULL CYLINDRICAL PORTION OF THE SHANK.
- 2 DIMENSIONS A, A' AND B ARE INCLUDED FOR REFERENCE ONLY. A, A' AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON D, W, H, E AND HEAD ANGLE.
- 3 INSPECTION OF GAGE PROTRUSION "H" AT GAGE DIAMETER "W" SHALL CONFORM TO BOEING DOCUMENT D-11805.
- 4 END SHALL BE FLAT AND CHAMFERED PER BPS-F-69.
- 5 ULTIMATE TENSILE STRENGTH BASED ON 70,000 PSI AT TENSILE STRESS AREA PER FED-STD-H28 HANDBOOK.
- 6 TORQUE TEST ON A SAMPLE BASIS AS FOLLOWS: SAMPLE PER ANSI/ASQC Z1.4, LEVEL S1, 4 PERCENT AQL. USE APPLICABLE NASM33750 DRIVER; AXIAL FORCE SHALL NOT EXCEED 15 POUNDS. AT MINIMUM TORQUE PER TABLE I, BOLTS SHALL NOT FRACTURE AND DISTORTION SHALL NOT RAISE METAL, ADJACENT TO SLOT, MORE THAN .005 ABOVE THE SURROUNDING AREA.
- 7 MAXIMUM BEFORE PLATE DIMENSION NOT APPLICABLE TO NICKEL-CADMIUM PLATING.
- 8 SEE CODING UNDER USAGE AND APPLICATION FOR COMPLETE BOEING PART NUMBER.
- 9 THE TOLERANCE SHALL BE APPLIED TO A NOMINAL LENGTH DETERMINED BY ADDING THE NOMINAL GRIP LENGTH (GRIP LENGTH NUMBER TIMES .0625) AND "T" FROM TABLE I.

DATE 17-APR-1959 REV (W) 03-MAY-2002

CAGE CODE 81205

BACB30EL**SH 3****BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD****BACB30EL****SH 3****BOEING PART STANDARD
BOOK 23. DO NOT USE FOR NEW DESIGN.**

BOOK 23. DO NOT USE FOR NEW DESIGN.

FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK

NOTES (CONTINUED)

- 10> RECESS STYLE I PER MS33750, EXCEPT DIMPLE IS OPTIONAL.
- 11> THE "T" DIMENSION IS NOMINAL AND DOES NOT HAVE AN APPLIED TOLERANCE. "T" IS NOT TO BE INSPECTED BUT IS USED IN CALCULATION OF NOMINAL BOLT LENGTH. 9>
- 12> NO LONGER IN OPERATION. EXISTING STOCKS MAY BE USED UNTIL DEPLETED.
- 13> HUCK LAKEWOOD IS NO LONGER IN OPERATION. PARTS MANUFACTURED AT HUCK LAKEWOOD OPERATIONS (CAGE CODE 97928) PRIOR TO OCTOBER 1, 1999 MAY BE RECEIVED BY BOEING AND ITS SUBCONTRACTORS UNTIL OCTOBER 1, 2004.

PROCUREMENT SPECIFICATION

NAS498 EXCEPT AS NOTED.

MATERIAL

ALLOY STEEL PER NAS498 OR 4130 PER SAE-AMS-S-6758.

HEAT TREATMENT

160,000 – 180,000 PSI TENSILE STRENGTH.

FINISH

CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.

DIFFUSED NICKEL-CADMIUM PLATING PER AMS 2416.

SURFACE TEXTURE

PER ASME B46.1.

"D" DIAMETER, CONICAL SURFACE OF HEAD, HEAD TO SHANK FILLET, AND THREAD ROOTS: 32 MICROINCHES Ra.

BOTTOM SURFACE OF RECESS: 250 MICROINCHES Ra.

ALL OTHER SURFACES: 125 MICROINCHES Ra.

HEAD MARKING

BASIC PART NUMBER, APPLICABLE DASH NUMBERS AND MANUFACTURER'S TRADEMARK PER MIL-HDBK-57 OR REGISTERED WITH THE U.S. PATENT AND TRADEMARK OFFICE (PTO) OF THE U.S. DEPARTMENT OF COMMERCE, DEPRESSED .010 MAXIMUM, EXCEPT "BAC" MAY BE OMITTED FROM .1900-32 AND .2500-28 SIZES. ARRANGEMENT OPTIONAL.

DATE 17-APR-1959 REV (W) 03-MAY-2002

CAGE CODE 81205

BACB30EL

SH 4

**BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD**

BACB30EL

SH 4

**BOEING PART STANDARD
BOOK 23. DO NOT USE FOR NEW DESIGN.**

BOOK 23. DO NOT USE FOR NEW DESIGN.

FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK

PROCUREMENT

FAIRCHILD FASTENERS, INDUSTRY OPERATIONS,
13001 E TEMPLE AVE, CITY OF INDUSTRY CA 91746-1417 (CAGE CODE 06950)
(SIZES 3 THRU 8)

FAIRCHILD FASTENERS, INDUSTRY OPERATIONS, 135 NORTH UNRUH AVENUE, CITY OF
INDUSTRY CA 91744 (CAGE CODE 1RC86) (SIZES 3 THRU 8)

FAIRCHILD AEROSPACE FASTENER DIVISION, CHATSWORTH OPERATIONS,
9631 DESOTO AVE, CHATSWORTH CA 91311-5013 (CAGE CODE 9N513) 12

HI-SHEAR CORP, 2600 SKYPARK DR, TORRANCE CA 90509 (CAGE CODE 73197)

HUCK INTERNATIONAL INC, LAKEWOOD OPERATIONS, 3969 PARAMOUNT BLVD,
LAKEWOOD CA 90712-4193 (CAGE CODE 97928) 13

SPS TECHNOLOGIES, AEROSPACE PRODUCTS DIV, HIGHLAND AVE,
JENKINTOWN PA 19046 (CAGE CODE 56878)

THE MANUFACTURERS LISTED AND THEIR AUTHORIZED DISTRIBUTORS ARE THE ONLY
APPROVED SOURCES FOR THE ABOVE QUALIFIED PRODUCTS. NO CHANGES IN
PRODUCT DESIGN, BASIC METHODS OF MANUFACTURE, PLANT SITE OR QUALITY
LEVEL SHALL BE MADE WITHOUT PRIOR NOTIFICATION AND PRIOR APPROVAL IN
WRITING FROM THE BOEING COMPANY. MANUFACTURERS OF COMPETITIVE
PRODUCTS MAY APPLY TO A SUPPLIER MANAGEMENT AND PROCUREMENT
DEPARTMENT OF THE BOEING COMPANY FOR QUALIFICATION.

USAGE AND APPLICATION INFORMATION

USE BACB30KP FOR .0156 OVERSIZE SHANK, AND BACB30KR FOR .0132 OVERSIZE SHANK.

NOTE: BECAUSE OF INACTIVATION, AVAILABILITY OF BOLTS MAY BE AFFECTED.
THEREFORE, ENGINEERING MIGHT CONSIDER USE OF REPAIR BOLTS, NAS1581
FOR BD&SG AND BH, OR BACB30LL FOR BCAG.

FOR USE IN APPLICATIONS REQUIRING REDUCED HEAD HEIGHT FOR INSTALLATION IN THIN
SHEET. IT IS RECOMMENDED THAT BACB30EL BOLTS BE INSTALLED WITH LOW HEIGHT
NAS679 NUTS.

DATE 17-APR-1959 REV (W) 03-MAY-2002

CAGE CODE 81205

BACB30EL

SH 5

**BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD**

BACB30EL

SH 5

BOOK 23. DO NOT USE FOR NEW DESIGN.

FOR STATUS OF INACTIVATION
SEE APPLICABILITY BLOCK

CODING

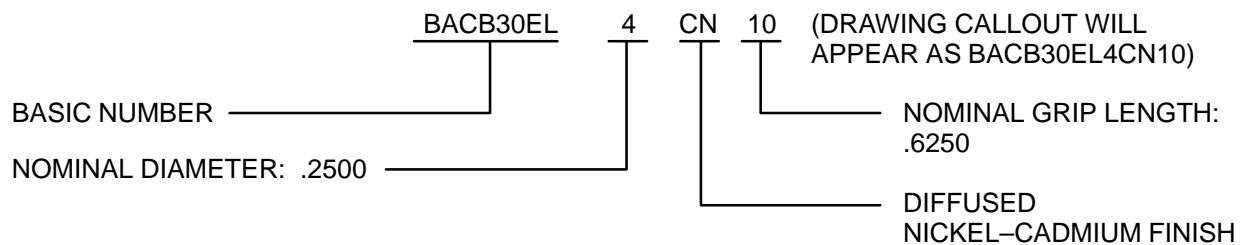
FIRST DASH NUMBER DESIGNATES THE NOMINAL THREAD SIZE.

DASH FOLLOWING FIRST DASH NUMBER DESIGNATES CLASS 3 CADMIUM PLATE
(INACTIVE FOR PROCUREMENT).

LETTER "C" FOLLOWING FIRST DASH NUMBER DESIGNATES CLASS 2 CADMIUM PLATE.

LETTERS "CN" FOLLOWING FIRST DASH NUMBER DESIGNATE DIFFUSED
NICKEL-CADMIUM PLATE.

SECOND DASH NUMBER DESIGNATES GRIP LENGTH IN .0625 INCREMENTS.

EXAMPLE OF PART NUMBER

SEE D-590 PREFACE (INDEX) FOR INACTIVATION DEFINITIONS. SEE
D-590-SUPERSESSION-LIST FOR SUPERSESSION CLASS DEFINITIONS AND SUPERSESSION
LIST.

INACTIVATION APPLICABILITY

BCAG, BD&SG AND BH – BACB30EL()-() IS INACTIVE FOR DESIGN AND PROCUREMENT.
BACB30EL()C() IS A CLASS II SUPERSESSION.

BCAG – BACB30EL IS INACTIVE FOR NEW DESIGN. SEE BACB30LL.

BD&SG & BH – BACB30EL IS INACTIVE FOR NEW DESIGN. SEE NAS1581.

DATE 17-APR-1959 REV (W) 03-MAY-2002

CAGE CODE 81205

BACB30EL

SH 6

**BOLT,
100 DEG REDUCED HEAD,
DOVETAIL SLOT, SHORT THREAD**

BACB30EL

SH 6

**BOEING PART STANDARD
BOOK 23. DO NOT USE FOR NEW DESIGN.**