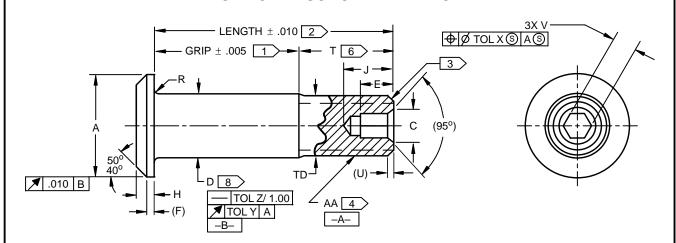
FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY



DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
DIMENSIONS IN INCHES UNLESS OTHERWISE NOTED.
DIMENSIONS APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED.

TABLE I

BOEING STANDARD NUMBER	NOMINAL THREAD SIZE	Ø	A	Ø	С	E MIN	F REF	ŀ	ł	J MAX	R <i>A</i>	-
BACB30FP	4>	MAX	MIN	MAX	MIN			MAX	MIN		MAX	MIN
6	.1900–32	.315	.295	.119	.104	.115	.025	.055	.045	.178	.025	.015
8	.2500–28	.412	.387	.142	.122	.130	.030	.069	.059	.200	.025	.015
10	.3125–24	.505	.475	.180	.160	.150	.035	.078	.068	.240	.030	.020
12	.3750–24	.600	.565	.217	.197	.180	.040	.088	.078	.275	.030	.020
14	.4375–20	.676	.641	.253	.233	.210	.045	.105	.093	.315	.030	.020
16	.5000–20	.770	.735	.289	.269	.240	.050	.115	.103	.360	.030	.020
18	.5625–18	.864	.829	.326	.306	.270	.055	.127	.112	.400	.040	.025
20	.6250–18	.953	.918	.326	.306	.305	.060	.137	.122	.440	.040	.025
24	.7500–16	1.108	1.066	.398	.378	.365	.070	.151	.136	.520	.045	.030
28	.8750–14	1.285	1.241	.471	.451	.425	.090	.187	.172	.610	.050	.035
32	1.0000–12	1.468	1.424	.618	.598	.550	.110	.218	.203	.770	.060	.045

TECHNICAL CHANGES IDENTIFIED BY REVISION BAR.

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CAGE CODE 81205

BACB30FP SH 1 OF 9 BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP SH 1 OF 9

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

TABLE I (CONTINUED)

BOEING	ØD							
STANDARD NUMBER		BEFORE	FINISH	AFTER FINISH				
BACB30FP	CADMIUM PLATE		ALUM COAT ON STEEL	ALUM COAT ON CRES	ALL 10	ALL EXCEPT CODES U AND NU	CODES U AND NU	
	MAX	MIN	MIN	MIN	MAX	MIN	MIN	
6	.2016	.2010	.2008	.2012	.2026	.2016	.2021	
8	.2641	.2635	.2633	.2637	.2651	.2641	.2646	
10	.3266	.3260	.3258	.3262	.3276	.3266	.3271	
12	.3891	.3885	.3883	.3887	.3901	.3891	.3896	
14	.4516	.4510	.4508	.4512	.4526	.4516	.4521	
16	.5141	.5135	.5133	.5137	.5151	.5141	.5146	
18	.5761	.5755	.5753	.5757	.5771	.5761	.5766	
20	.6386	.6380	.6378	.6382	.6396	.6386	.6391	
24	.7636	.7630	.7628	.7632	.7646	.7636	.7641	
28	.8886	.8880	.8878	.8882	.8896	.8886	.8891	
32	1.0136	1.0130	1.0128	1.0132	1.0146	1.0136	1.0141	

TABLE I (CONTINUED)

BOEING STANDARD NUMBER	T 6	Ø TD 4>		U REF	V HEX		TOLERANCE		
BACB30FP 5		MAX	MIN		MAX	MIN	X	Y	Z
6	.325	.1840	.1810	.031	.0806	.0791	.010	.0045	.0040
8	.395	.2440	.2410	.031	.0967	.0947	.010	.0045	.0030
10	.500	.3060	.3020	.047	.1295	.1270	.012	.0045	.0030
12	.545	.3680	.3640	.047	.1617	.1582	.014	.0060	.0025
14	.635	.4310	.4260	.047	.1930	.1895	.017	.0060	.0025
16	.685	.4930	.4880	.047	.2242	.2207	.020	.0060	.0020
18	.770	.5550	.5500	.062	.2555	.2520	.023	.0060	.0020
20	.825	.6180	.6120	.062	.2555	.2520	.025	.0060	.0020
24	1.050	.7430	.7370	.062	.3185	.3150	.030	.0090	.0020
28	1.210	.8680	.8610	.078	.3820	.3780	.035	.0090	.0020
32	1.390	.9930	.9860	.078	.5100	.5040	.040	.0090	.0020

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CAGE CODE 81205

BACB30FP SH 2

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP SH 2

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY								
NOTE	S							
1	APPLY TOLERANCE TO A NOMINAL GRIP LENGTH DETERMINED BY MULTIPLYING THE GRIP LENGTH NUMBER (SECOND DASH NUMBER) BY .0625. GRIP LENGTH IS MEASURED FROM THE UNDERSIDE OF THE HEAD TO THE END OF THE FULL CYLINDRICAL PORTION OF THE SHANK.							
2	THE TOLERANCE SHALL BE APPLIED TO A NOMINAL LENGTH DETERMINED BY ADDING THE NOMINAL GRIP LENGTH AND "T" FROM TABLE I.							
3	END SHALL BE FLAT AND CHAMFERED. CHAMFER "U" PLUS INCOMPLETE THREADS NOT TO EXCEED TWO THREAD PITCHES.							
4	THREADS PER AS8879, CLASS UNJF-3A, EXCEPT REDUCED MAJOR DIAMETER PER "TD".							
5	SEE CODING UNDER USAGE AND APPLICATION FOR COMPLETE BOEING PART NUMBER.							
6	THE "T" DIMENSION IS NOMINAL AND DOES NOT HAVE AN APPLIED TOLERANCE. DIMENSION "T" IS NOT TO BE INSPECTED, BUT IS USED IN CALCULATION OF NOMINAL BOLT LENGTH. 2							
7>	SEE QPL TO BMS10-85 FOR APPROVED APPLICATORS. THE INSPECTION REPORT SHALL INCLUDE THE NAME OF THE COATING APPLICATOR, IF OTHER THAN THE FASTENER MANUFACTURER.							
8	RUNOUT OF "D" DIAMETER TO THE THREAD PITCH DIAMETER SHALL BE WITHIN "Y" FIM WHEN HELD ON THE PITCH DIAMETER OF THE COMPLETE THREADS NEAREST THE SHANK AND CHECKED ON THE SHANK WITHIN ONE DIAMETER OF THE THREAD RUNOUT.							
9	TO DETERMINE THE GRIP LENGTH NUMBER, DIVIDE THE TOTAL THICKNESS OF PARTS BEING JOINED BY .0625. ROUND OFF FRACTIONS TO NEXT LARGER WHOLE NUMBER.							
10>	MAXIMUM "D" DIAMETER MAY BE EXCEEDED BY .0002 FOR SOLID FILM LUBRICATED BOLTS.							
11>	BACB30FP6A()(NO CODE, N, U, NU, SU) AND BACB30FP6AK() BOLTS PRODUCED BEFORE APRIL 1, 1997 MAY BE PROCURED FROM THE MANUFACTURERS OR DISTRIBUTORS UNTIL STOCKS ARE DEPLETED.							
12>	HUCK LAKEWOOD (FORMERLY DEUTSCH FASTENER CORP) IS NO LONGER IN OPERATION. PARTS MANUFACTURED AT THAT FACILITY (CAGE CODE 97928) UNDER EITHER NAME PRIOR TO OCTOBER 1, 1999 MAY BE PROCURED AND USED BY BOEING AND ITS SUBCONTRACTORS UNTIL STOCKS ARE DEPLETED.							
13>	FORMERLY DEUTSCH FASTENER CORP. ALL LOTS PRODUCED AFTER JUNE 30, 1995 SHALL HAVE THE HUCK HEAD MARKING SYMBOL "> — ". PARTS IN THE SYSTEM WITH THE OLD DEUTSCH HEAD MARKING SYMBOLS "DA" OR "DF" ARE ACCEPTABLE.							

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SH₃

CAGE CODE 81205

BAC_{B30FP}

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BAC_{B30FP}

SH 3

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

NOTES	(CONTINUED)
110160	ICCIVITION

- BOLTS USED IN LIQUID OXYGEN (LOX) SYSTEMS. BOLTS SHALL NOT HAVE LUBRICANT, PAINT OR DYE.
- FAIRCHILD FASTENERS (TEMPLE) IS NOW ALCOA FASTENING SYSTEMS INDUSTRY (TEMPLE). THIS CHANGE WAS A NAME CHANGE ONLY. STOCK MANUFACTURED UNDER THE FAIRCHILD NAME MAY BE PROCURED AND USED UNTIL DEPLETED.
- FAIRCHILD FASTENERS (UNRUH) IS NOW ALCOA FASTENING SYSTEMS INDUSTRY (UNRUH). THIS CHANGE WAS A NAME CHANGE ONLY. STOCK MANUFACTURED UNDER THE FAIRCHILD NAME MAY BE PROCURED AND USED UNTIL DEPLETED.
- HUCK INTERNATIONAL INC (CARSON) IS NOW ALCOA FASTENING SYSTEMS CARSON. THIS CHANGE WAS A NAME CHANGE ONLY. STOCK MANUFACTURED UNDER THE HUCK NAME MAY BE PROCURED AND USED UNTIL DEPLETED.
- HI-SHEAR CORP IS NOW LISI AEROSPACE HI-SHEAR PRODUCTS. THIS CHANGE WAS A NAME CHANGE ONLY. STOCK MANUFACTURED UNDER THE "HI-SHEAR CORP" NAME MAY BE PROCURED AND USED UNTIL DEPLETED.

PROCUREMENT SPECIFICATION

BPS-F-67.

MATERIAL

ALLOY STEEL - 4130 PER AMS-S-6758 OR MIL-S-6758, 4140 PER AMS 6382,

AMS 6349, OR MIL-S-5626, 8740 PER AMS 6322, AMS 6325, AMS 6327, OR MILS-S-6049, E4340 PER AMS-S-5000, AMS 6415,

AMS 6484, OR MIL-S-5000 OR 4340 PER AMS 6415 OR AMS 6484.

CRES – A286 PER AMS 5731 OR AMS 5737.

HEAT TREATMENT

TO MEET SHEAR AND TENSILE STRENGTH PER BPS-F-67.

FINISH

ALUMINUM PIGMENTED COATING PER BMS10–85, TYPE I, CLASS A. IDENTIFY WITH BLACK DYE OR PAINT ON THREAD END BEFORE LUBRICATION. COVERAGE OF DYE OR PAINT MAY INCLUDE THE CHAMFER PLUS ONE PITCH. 7

CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 EXCEPT EMBRITTLEMENT TESTING SHALL BE PER BPS-F-67. IDENTIFY CADMIUM PLATED CRES WITH GREEN DYE OR PAINT ON THREAD END BEFORE LUBRICATION. COVERAGE OF DYE OR PAINT MAY INCLUDE CHAMFER PLUS ONE PITCH.

PASSIVATE PER AMS 2700, TYPE 2 OR TYPE 8.

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CAGE CODE 81205

BAC_{B30}FP

SH 4

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BAC_{B30FP}

SH 4

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

SURFACE TEXTURE

PER ASME B46.1. HEAD TO SHANK FILLET, THREAD ROOT, THREAD FLANKS AND SHANK, 32 MICROINCHES Ra; BEARING SURFACE OF HEAD, 63 MICROINCHES Ra; OTHER SURFACES, 125 MICROINCHES Ra.

BROACH TEARS ON HEXAGON WALLS OF ALLOY STEEL FASTENERS ARE PERMITTED TO THE DEPTHS LISTED IN TABLE II, MEASURED NORMAL TO THE FLATS. CRACKS EMANATING FROM THE CORNERS OF THE HEXAGON SOCKET ARE UNACCEPTABLE.

TABLE II

NOMINAL DIAMETER	MAXIMUM DEPTH
.1900 AND SMALLER	.002
.2500 THROUGH .3750	.003
.4375 AND LARGER	.005

LUBRICATION

CETYL ALCOHOL LUBE PER MIL-L-87132, TYPE I OR TYPE III, GRADE OPTIONAL.

SOLID FILM PER MIL-L-46010, TYPE I (INACTIVE FOR DESIGN AND PROCUREMENT, SEE MIL-L-46010SUP) OR AS5272, TYPE I. AS5272 SHALL BE IN ACCORDANCE WITH THE QPL IN AS5272SUP.

MARKING

BOLT HEADS SHALL BE MARKED WITH MANUFACTURER'S BASIC NUMBER AND SYMBOL/INSIGNIA PER TABLE IV OR REGISTERED WITH THE U.S. PATENT AND TRADEMARK OFFICE (PTO) OF THE U.S. DEPARTMENT OF COMMERCE. MARKING WITH THE FIRST DASH NUMBER IS OPTIONAL. MARKING SHALL BE INDENTED .010 MAXIMUM, ARRANGEMENT OPTIONAL.

DATE 12-DEC-1960 REV (BB) 13-APR-2006

CAGE CODE 81205

BACB30FP SH 5 BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP SH 5

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

PROCUREMENT

AIR INDUSTRIES CORP (CAGE CODE 06725)

ALCOA FASTENING SYSTEMS – CARSON (CAGE CODE 17446) 17 (FOR SIZES 6 AND 8, ALLOY STEEL ONLY)

ALCOA FASTENING SYSTEMS – INDUSTRY (TEMPLE) (CAGE CODE 06950) 15 (FOR SIZES 6 THRU 16 ONLY)

ALCOA FASTENING SYSTEMS – INDUSTRY (UNRUH) (CAGE CODE 1RC86) (FOR SIZES 6 THRU 16 ONLY)

LISI AEROSPACE - HI-SHEAR PRODUCTS (CAGE CODE 73197) 18

HUCK INTERNATIONAL INC, LAKEWOOD OPERATIONS (CAGE CODE 97928) 12

SPS TECHNOLOGIES INC, AEROSPACE PRODUCTS DIV (CAGE CODE 56878)

WEST COAST AEROSPACE INC, (CAGE CODE 60516) (FOR SIZES 6 THRU 24 ONLY)

THE MANUFACTURERS LISTED IN BPS-F-67SUP AND THEIR AUTHORIZED DISTRIBUTORS ARE THE ONLY APPROVED SOURCES FOR THE ABOVE QUALIFIED PRODUCTS. SEE BPS-F-67SUP FOR PLANT ADDRESSES. 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. IF A MANUFACTURER IS SHOWN ON THIS STANDARD, BUT NOT LISTED IN THE SUPPLEMENT, CONTACT THE DIVISIONAL ENGINEERING STANDARDS FOCAL POINT OR ENGINEERING STANDARDS FOR VERIFICATION.

THIS IS A MANUFACTURER-DESIGNED PRODUCT. BOEING MAKES NO REPRESENTATION WHATEVER REGARDING PATENT OR OTHER RIGHTS AFFECTING THE PRODUCT. THE LISTING OF ANY SUPPLIER DOES NOT IMPLY ANY DETERMINATION BY THE BOEING COMPANY OR BY ANY OTHER LISTED MANUFACTURER AS TO THE RIGHTS OF SUCH MANUFACTURER.

LISI AEROSPACE - HI-SHEAR PRODUCTS STATES THAT PATENT NUMBERS: 2,940,495; 3,138,987; 3,390,906 AND DESIGN 191,883 ARE PERTINENT TO ITS PRODUCT.

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CAGE CODE 81205

BAC_{B30}FP

SH 6

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP SH 6

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

USAGE AND APPLICATION INFORMATION

THESE OVERSIZE BOLTS ARE INTENDED FOR USE IN PLACE OF BACB30FM STANDARD SIZE BOLTS OF THE SAME MATERIAL AND FINISH WHEN THE HOLE FOR THE STANDARD SIZE BOLT IS OVERSIZE OR MUST BE MADE OVERSIZE TO CORRECT DAMAGE OR MISALIGNMENT.

THESE BOLTS WITH BACC30M COLLARS MAY BE USED TO REPLACE SHEAR LOCKBOLTS AND COLLARS OR HI-SHEAR RIVETS AND COLLARS AS AUTHORIZED IN BAC5004-2.

FOR FIRST OVERSIZE REPLACEMENT OF BACB30FM5() USE BACB30FM6().

FOR .0312 AND .0468 OVERSIZE BOLTS, SEE BACB30KK AND BACB30MA, RESPECTIVELY EXCEPT, FOR .0312 OVERSIZE BOLTS FOR -6 SIZE ONLY, SEE BACB30MD.

THESE BOLTS AND MATING COLLARS WITH COUNTERBORE, ARE DESIGNED SO THAT NOMINAL GRIP DIMENSION EQUALS MAXIMUM MATERIAL THICKNESS. ALLOWABLE MINIMUM MATERIAL THICKNESS IS NOMINAL GRIP DIMENSION LESS .062. WHEN MATERIAL THICKNESS IS MINIMUM, .062 OF UNTHREADED SHANK ENTERS COUNTERBORE OF COLLAR. THIS DESIGN AVOIDS THREADS IN BEARING.

USE BACC30M COLLARS.

■ INSTALL PER BAC5004-2 OR BAC5063-2, AS APPLICABLE.

FASTENER CODE

SEE BACD2074 FOR APPLICABLE FASTENER CODES.

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CAGE CODE 81205

BAC_{B30}FP

SH 7

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP

SH 7

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY

CODING

FIRST DASH NUMBER DESIGNATES NOMINAL THREAD SIZE PER TABLE I.

MATERIAL, FINISH, AND LUBRICATION CODES FOLLOW FIRST AND SECOND DASH NUMBER PER TABLE III.

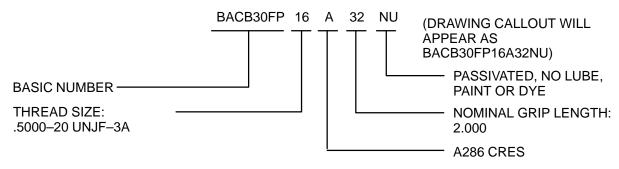
SECOND DASH NUMBER DESIGNATES NOMINAL GRIP LENGTH IN .0625 INCREMENTS

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TABLE III

BOEING STANDARD NUMBER BACB30FP	MATERIAL	FINISH	LUBRICATION
()-()	ALLOY STEEL	CADMIUM PLATED	CETYL ALCOHOL
()K()	ALLOY STEEL	ALUMINUM COATED	CETYL ALCOHOL
()A()	A286 CRES	CADMIUM PLATED	CETYL ALCOHOL
()A()N 14>	A286 CRES	CADMIUM PLATED	NO LUBE, PAINT, OR DYE
()A()U	A286 CRES	PASSIVATED	CETYL ALCOHOL
()AK()	A286 CRES	ALUMINUM COATED	CETYL ALCOHOL
()A()NU <u>14</u> >	A286 CRES	PASSIVATED	NO LUBE, PAINT, OR DYE
()A()SU	A286 CRES	PASSIVATED	SOLID FILM

EXAMPLE OF PART NUMBER



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BACB30FP SH 8

BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BACB30FP SH 8

FOR STATUS OF INACTIVATION SEE APPLICABILITY BLOCK

RESTRICTED USAGE: REPAIR ONLY TABLE IV

MANUFACTURER	MANUFACTURER'S BASIC NUMBER					SYMBOL/
	ALLOY STEEL			INSIGNIA		
	CADMIUM PLATED	ALUMINUM COATED	CADMIUM PLATED	PASSIVATED	ALUMINUM COATED	
AIC	HL62 OR L-805X	HL62 OR L805X	HL442 OR L-805X	HL140 OR L-805X	HL442 OR L-805X	A
HUCK	HL62	HL62	HL442	HL140	HL442	× 13>
FAIRCHILD	HL62	HL62	HL442	HL140	HL442	VS OR O
LISI AEROSPACE – HI-SHEAR PRODUCTS 18	HL62	HL62	HL442	HL140	HL442	H, HS OR NONE
SPS	HL62	HL62	HL442	HL140	HL442	SPS OR S
WEST COAST	HL62	HL62	HL442	HL140	HL442	WC

THE MANUFACTURER PART NUMBERS LISTED ARE FOR INTERCHANGEABILITY PURPOSES ONLY AND ARE NOT TO BE USED FOR DRAWING CALLOUT, PROCUREMENT OR RECEIVING INSPECTION PURPOSES, EXCEPT FOR HEAD MARKING.

SEE D-590-PREFACE (INDEX) FOR INACTIVATION DEFINITIONS. SEE D-590-SUPERSESSION-LIST FOR SUPERSESSION CLASS DEFINITIONS AND SUPERSESSION LIST. SEE D-590-BOEING-TO-VENDOR FOR VENDOR PART NUMBERS.

INACTIVATION APPLICABILITY

BCA, BH, IDS - BACB30FP()A()LU (LUBECO 2123) IS INACTIVE FOR DESIGN AND

PROCUREMENT.

NO SUPERSEDING PARTS.

BCA – BACB30FP()–() IS INACTIVE FOR DESIGN AND PROCUREMENT.

BACB30FP()A() IS A CLASS II SUPERSESSION.

BACB30FP()K() IS INACTIVE FOR DESIGN AND PROCUREMENT.

BACB30FP()A() IS A CLASS II SUPERSESSION.

BACB30FP6A()(NO CODE, N, U, NU, SU) AND BACB30FP6AK() ARE INACTIVE FOR

DESIGN AND PROCUREMENT. 11>

BACB30MC6A()(NO CODE, N, U, NU, SU) AND BACB30MC6AK() ARE CLASS II

SUPERSESSIONS, RESPECTIVELY.

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CAGE CODE 81205

BACB30FP SH 9 BOLT, PROTRUDING HEAD, HEX DRIVE, 95 KSI SHEAR, .0156 OVERSIZE SHANK

BAC_{B30}FP