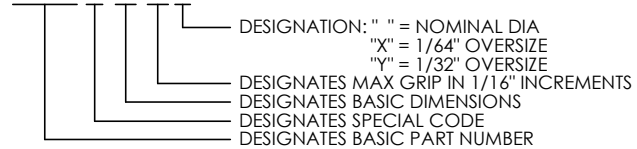


PART NUMBER	NOM DIA	B HEX	C REF	D DIA	E DIA MAX	F FLATS	H HEAD HTS	J DIA MIN	K MAX	L REF	N MIN	R MAX
BG2041(-)06(-)	3/16	.312 .305	5/16	.1895 .1885	.1875	.112 .109	.080 .073	.290	.750	.850	.340	.030
BG2041(-)06(-)X	13/64			.2026 .2016	.1995			.300		.900		
BG2041(-)06(-)Y	7/32	.2182 .2172		.2150	.135 .131	.090 .083	.380	.980	.409			
BG2041(-)08(-)	1/4	.2495 .2485		.2470			.400	1.040				
BG2041(-)08(-)X	17/64	.375 .367		.2651 .2641	.2620	.152 .149	.112 .105	.475	1.100	.479		
BG2041(-)08(-)Y	9/32	.2807 .2797		.2775	.515			1.200				
BG2041(-)10(-)	5/16	.437 .429	3/8	.3120 .3110	.3090	.184 .181	.133 .126	.560	1.100	1.250	.548	.040
BG2041(-)10(-)X	21/64			.3276 .3266	.3245			.580		1.300		
BG2041(-)10(-)Y	11/32	.3432 .3422		.3400	.600	1.320						
BG2041(-)12(-)	3/8	.500 .491	7/16	.3745 .3735	.3715	.184 .181	.133 .126	.560	1.100	1.250	.548	
BG2041(-)12(-)X	25/64			.3901 .3891	.3870			.580		1.300		
BG2041(-)12(-)Y	13/32	.4057 .4047		.4025	.600	1.320						

PART NUMBER	MIN AVAILABLE GRIP DASH NO.	RECOMMENDED HOLE SIZE FOR:		PREVAILING TORQUE (IN-LBS) MIN	DOUBLE SHEAR (LBS) MIN	TENSILE STRENGTH (LBS) MIN	BREAK-OFF LIMITS MAX
		CLEARANCE INSTALLATION	INTERFERENCE INSTALLATION				
BG2041(-)06(-)	-02	.192 .190	.1890 .1875	4	6300	1600	.015
BG2041(-)06(-)X		.205 .203	.2015 .1997				
BG2041(-)06(-)Y		.2205 .2185	.2171 .2152				
BG2041(-)08(-)		.252 .250	.2489 .2472	6	11000	3000	
BG2041(-)08(-)X		.268 .266	.2640 .2622				
BG2041(-)08(-)Y		.2835 .2815	.2796 .2777	8	17130	5000	
BG2041(-)10(-)	.315 .313	.3110 .3092					
BG2041(-)10(-)X	.3305 .3285	.3265 .3247	10	18900	7000		
BG2041(-)10(-)Y	.346 .344	.3421 .3402					
BG2041(-)12(-)	.377 .375	.3735 .3717	10	24700	7000		
BG2041(-)12(-)X	.393 .391	.3891 .3872					
BG2041(-)12(-)Y	.409 .407	.4047 .4027					

EXAMPLE OF PART NUMBER:

BG2041 (-) 08-09 ()



U.S. PATENT NO.: 5,498,110; 5,634,751 AND FOREIGN PATENTS PENDING

<p>MONOGRAM AEROSPACE FASTENERS a TriMas company 3423 SOUTH GARFIELD AVENUE COMMERCE, CALIFORNIA 90040 (323) 722-4760 FAX (323) 727-1029</p>	TITLE: OSI BOLT™ PROTRUDING HEX HEAD CLOSE TOLERANCE SHANK INCONEL 718, 112 KSI SHEAR 1/16" GRIP VARIATION		DRAWING NO: BG2041(-)(-)()
	DRAWN BY: M. DOMINGUEZ	DRAWN DATE: 8/22/13	
	APPROVED BY:	CHECKED DATE:	
	<small>PROPRIETARY AND CONFIDENTIAL: NOTICE: THIS DRAWING IS PART OF THE PROPRIETARY ARTICLE HEREIN DISCLOSED, OWNED BY MONOGRAM AEROSPACE FASTENERS. ANY PARTY BY ACCEPTING THIS DOCUMENT ASSUME CUSTODY THEREOF AND AGREES: A: THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED. B: WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.</small>	<small>MONOGRAM</small> CAGE CODE: 98524	<small>ECN NO:</small> 15-0246 <small>ECN DATE:</small> 06-24-15

PART NUMBER	COMPONENTS							
	BODY		SLEEVE		NUT		COREBOLT	
	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH
BG2041(-)(-)(-)(-)	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758 ALUMINUM COAT PER BMS-10-85 TYPE I, CL A	304 SS PER AMS5639 FULLY ANNEALED	CAD PLATE PER AMS-QQ-P-416 TYPE II, CL 1	A286 CRES PER AMS5732 OR AMS5737 HEAT TREATED TO 160 KSI MIN TENSILE EXCEPT FOR -08 NOMINAL SIZE ONLY: INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	CAD PLATE PER AMS-QQ-P-416 TYPE II, CL 1	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758
BG2041A(-)(-)(-)(-)	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758 ALUMINUM COAT PER BMS-10-85 TYPE I, CL A	304 SS PER AMS5639 FULLY ANNEALED	CAD PLATE PER AMS-QQ-P-416 TYPE II, CL 1		PASSIVATE PER AMS2700 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758
BG2041B(-)(-)(-)(-)	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758 ALUMINUM COAT PER BMS-10-85 TYPE I, CL A	304 SS PER AMS5639 FULLY ANNEALED	PASSIVATE PER AMS2700 OR BAC5758		PASSIVATE PER AMS2700 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758
BG2041C(-)(-)(-)(-)	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758	304 SS PER AMS5639 FULLY ANNEALED	PASSIVATE PER AMS2700 OR BAC5758		PASSIVATE PER AMS2700 OR BAC5758	INCO 718 PER AMS5662 HEAT TREATED TO 125 KSI FSU MINIMUM	PASSIVATE PER AMS2700 OR BAC5758

INSTALLATION SPECIFICATION: BG2003
 PROCUREMENT SPECIFICATION: BG2000

GENERAL NOTES:

- LUBRICANT: DRY FILM LUBRICANT PER THE CHEMICAL REQUIREMENTS OF MIL-L-PRF-46010, TYPE I AND/OR PARAFFIN WAX OR CETYL ALCOHOL AS REQUIRED FOR PERFORMANCE.
- LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT.
- SEE BG2003 FOR INSTALLATION AND REMOVAL INFORMATION.
- GRIP LENGTHS NOT LISTED MAY BE AVAILABLE UPON REQUEST.
- INSTALLATION HOLE SHALL BE RADIUS TO CLEAR HEAD TO SHANK RADIUS.
- ALL DIMENSIONS TO BE MET AFTER FINISH AND BEFORE LUBRICATION.
- BEARING SURFACE OF HEAD SHALL BE PERPENDICULAR TO SHANK DIAMETER WITHIN .002 T.I.R.
- INSERT FABRICATED FROM ACETAL PLASTIC PER ASTM-D4181.

4 2ND DASH NO.	GRIP RANGE (INCHES)		4 2ND DASH NO.	GRIP RANGE (INCHES)	
	MIN GRIP	MAX GRIP		MIN GRIP	MAX GRIP
-02	.063	.125	-18	1.063	1.125
-03	.126	.187	-19	1.126	1.187
-04	.188	.250	-20	1.188	1.250
-05	.251	.312	-21	1.251	1.312
-06	.313	.375	-22	1.313	1.375
-07	.376	.437	-23	1.376	1.437
-08	.438	.500	-24	1.438	1.500
-09	.501	.562	-25	1.501	1.562
-10	.563	.625	-26	1.563	1.625
-11	.626	.687	-27	1.626	1.687
-12	.688	.750	-28	1.688	1.750
-13	.751	.812	-29	1.751	1.812
-14	.813	.875	-30	1.813	1.875
-15	.876	.937	-31	1.876	1.937
-16	.938	1.000	-32	1.938	2.000
-17	1.001	1.062			

U.S. PATENT NO.: 5,498,110; 5,634,751 AND FOREIGN PATENTS PENDING



TITLE: OSI BOLT™
 PROTRUDING HEX HEAD
 CLOSE TOLERANCE SHANK
 INCONEL 718, 112 KSI SHEAR
 1/16" GRIP VARIATION

DRAWING NO: BG2041(-)(-)(-)(-)
 DRAWN BY: M. DOMINGUEZ
 DRAWN DATE: 8/22/13
 APPROVED BY: _____
 CHECKED DATE: _____

PROPRIETARY AND CONFIDENTIAL: NOTICE: THIS DRAWING IS PART OF THE PROPRIETARY ARTICLE HEREIN DISCLOSED, OWNED BY MONOGRAM AEROSPACE FASTENERS, ANY PARTY BY ACCEPTING THIS DOCUMENT ASSUME CUSTODY THEREOF AND AGREES: A: THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED. B: WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.

MONOGRAM CAGE CODE: 98524
 ECN NO: 15-0246
 ECN DATE: 06-24-15
 REV: D
 SHEET 2 OF 2